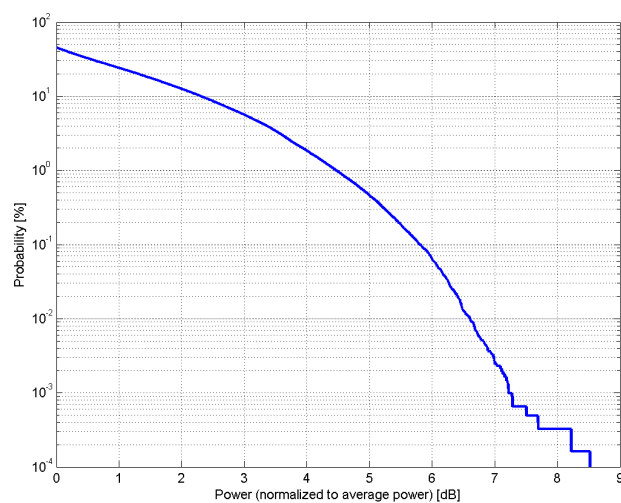


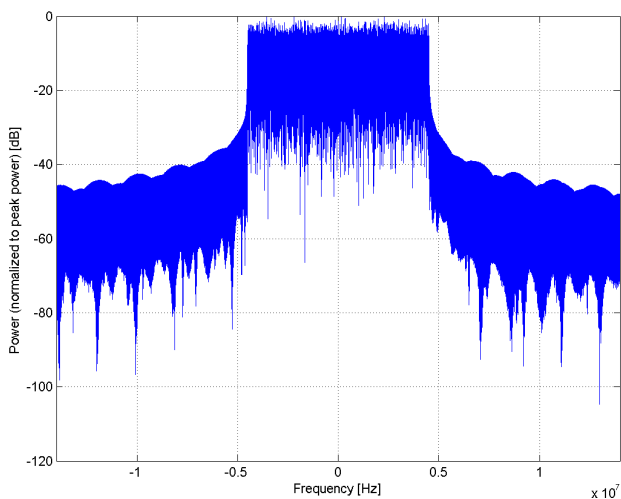
**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| UID:                    | 10297-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| PAR: <sup>1</sup>       | <b>5.81 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| MIF: <sup>2</sup>       | <b>-21.56 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Category:               | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Modulation:             | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Frequency Band:         | Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz)<br>Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)<br>Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz)<br>Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)<br>Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz)<br>Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz)<br>Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz)<br>Band 20, E-UTRA/FDD (832.0 - 862.0 MHz)<br>Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz)<br>Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz)<br>Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)<br>Band 28 E-UTRA/FDD (703.0 - 748.0 MHz)<br>Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz)<br>Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)<br>Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz)<br>Band 71, E-UTRA/FDD (663.0 - 698.0 MHz)<br>Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: QPSK<br>Data Type: UL-SCH<br>Number RB: 50<br>Transport Block Size: 4392<br>TBS Index: 5<br>MCS Index: 5<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

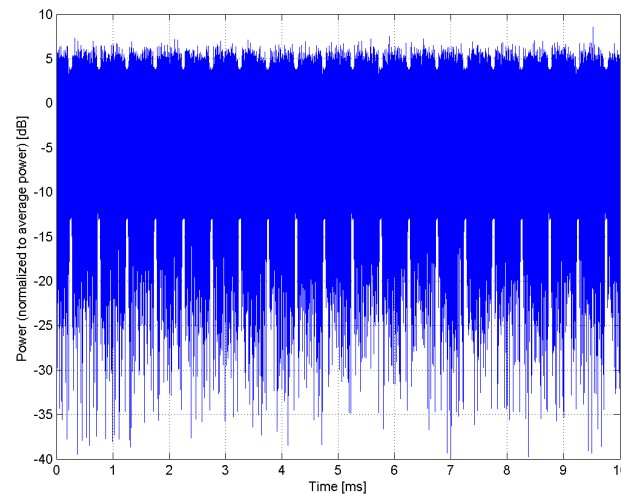
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



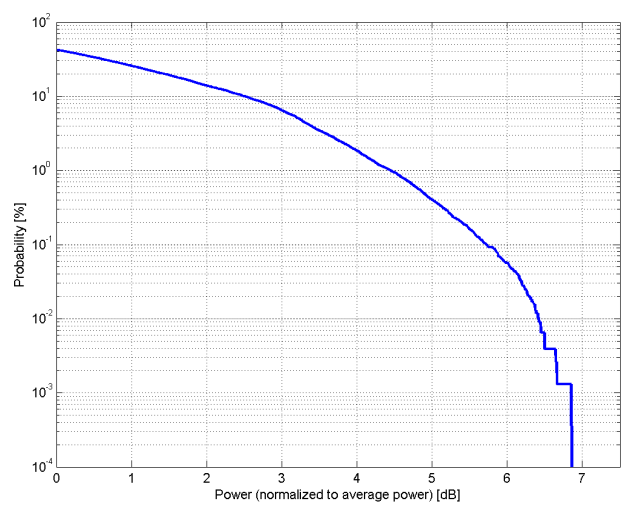
Time Domain

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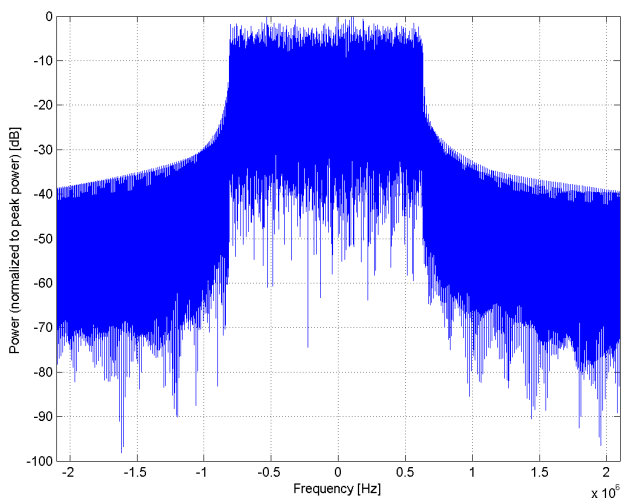
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UID:                    | 10298-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>5.72 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-20.24 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Category:               | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Modulation:             | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Frequency Band:         | Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)<br>Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz)<br>Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)<br>Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)<br>Band 8, E-UTRA/FDD (880.0 - 915.0 MHz)<br>Band 12, E-UTRA/FDD (699.0 - 716.0 MHz)<br>Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz)<br>Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)<br>Band 26 E-UTRA/FDD (814.0 - 849.0 MHz)<br>Band 27 E-UTRA/FDD (807.0 - 824.0 MHz)<br>Band 28 E-UTRA/FDD (703.0 - 748.0 MHz)<br>Band 31, E-UTRA/FDD (452.5 - 457.5 MHz)<br>Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)<br>Band 72, E-UTRA/FDD (451.0 - 456.0 MHz)<br>Band 73, E-UTRA/FDD (450.0 - 455.0 MHz)<br>Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: QPSK<br>Data Type: UL-SCH<br>Number RB: 8<br>Transport Block Size: 680<br>TBS Index: 5<br>MCS Index: 5<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Bandwidth:              | 3.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

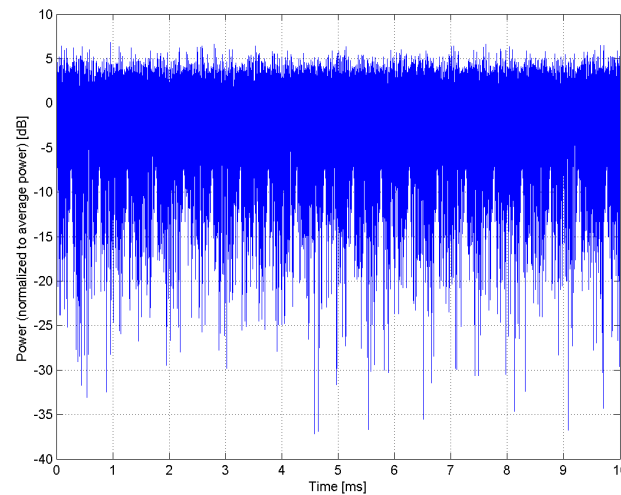
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

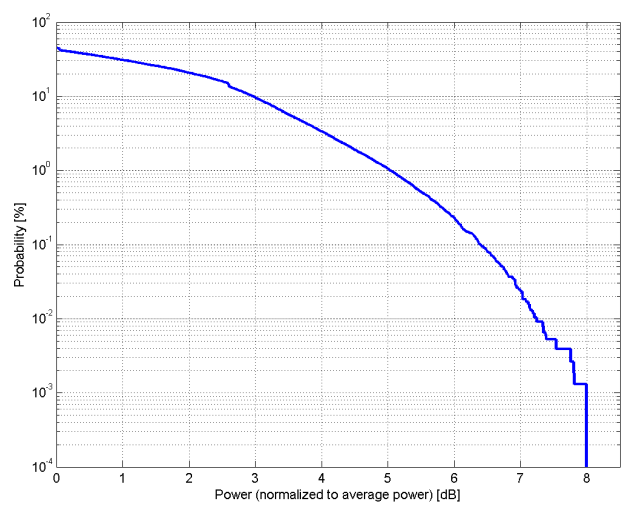


Time Domain

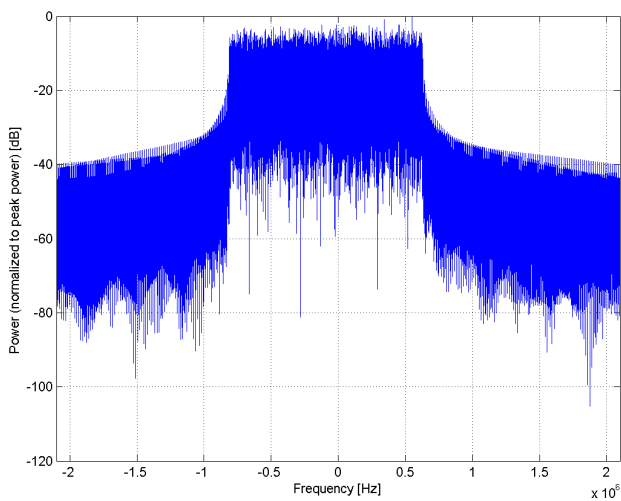
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UID:                    | 10299-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>6.39 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-14.38 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Category:               | 16-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Modulation:             | Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)<br>Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz)<br>Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)<br>Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)<br>Band 8, E-UTRA/FDD (880.0 - 915.0 MHz)<br>Band 12, E-UTRA/FDD (699.0 - 716.0 MHz)<br>Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz)<br>Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)<br>Band 26 E-UTRA/FDD (814.0 - 849.0 MHz)<br>Band 27 E-UTRA/FDD (807.0 - 824.0 MHz)<br>Band 28 E-UTRA/FDD (703.0 - 748.0 MHz)<br>Band 31, E-UTRA/FDD (452.5 - 457.5 MHz)<br>Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)<br>Band 72, E-UTRA/FDD (451.0 - 456.0 MHz)<br>Band 73, E-UTRA/FDD (450.0 - 455.0 MHz)<br>Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: 16QAM<br>Data Type: UL-SCH<br>Number RB: 8<br>Transport Block Size: 2280<br>TBS Index: 14<br>MCS Index: 15<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Bandwidth:              | 3.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

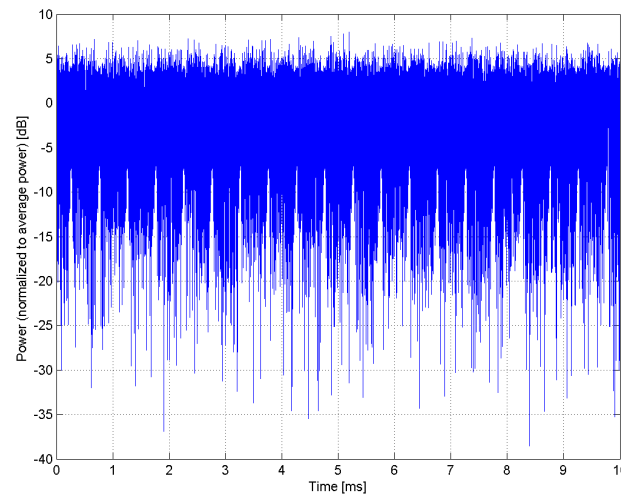
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

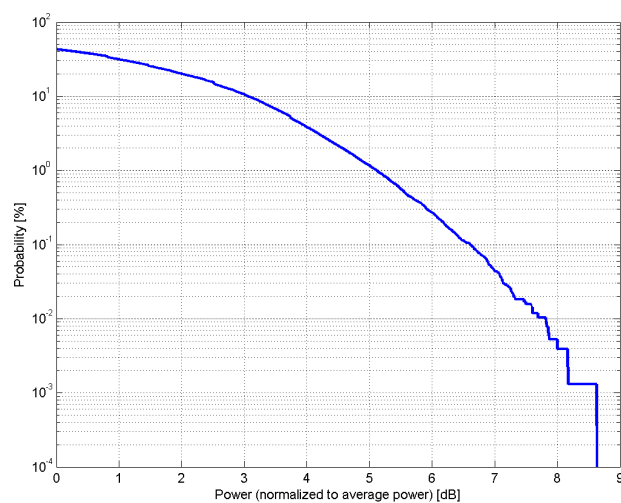


Time Domain

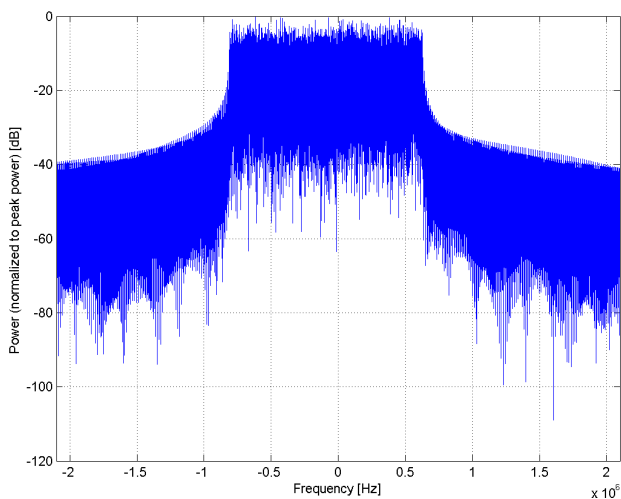
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UID:                    | 10300-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>6.60 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-13.14 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Category:               | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Modulation:             | Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)<br>Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz)<br>Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)<br>Band 5, E-UTRA/FDD (824.0 - 849.0 MHz)<br>Band 8, E-UTRA/FDD (880.0 - 915.0 MHz)<br>Band 12, E-UTRA/FDD (699.0 - 716.0 MHz)<br>Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz)<br>Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)<br>Band 26 E-UTRA/FDD (814.0 - 849.0 MHz)<br>Band 27 E-UTRA/FDD (807.0 - 824.0 MHz)<br>Band 28 E-UTRA/FDD (703.0 - 748.0 MHz)<br>Band 31, E-UTRA/FDD (452.5 - 457.5 MHz)<br>Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)<br>Band 72, E-UTRA/FDD (451.0 - 456.0 MHz)<br>Band 73, E-UTRA/FDD (450.0 - 455.0 MHz)<br>Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Frequency Band:         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: 64QAM<br>Data Type: UL-SCH<br>Number RB: 8<br>Transport Block Size: 4584<br>TBS Index: 23<br>MCS Index: 25<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Bandwidth:              | 3.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

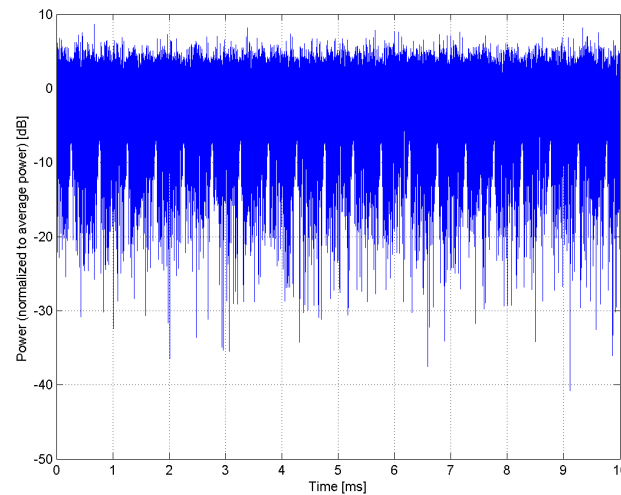
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

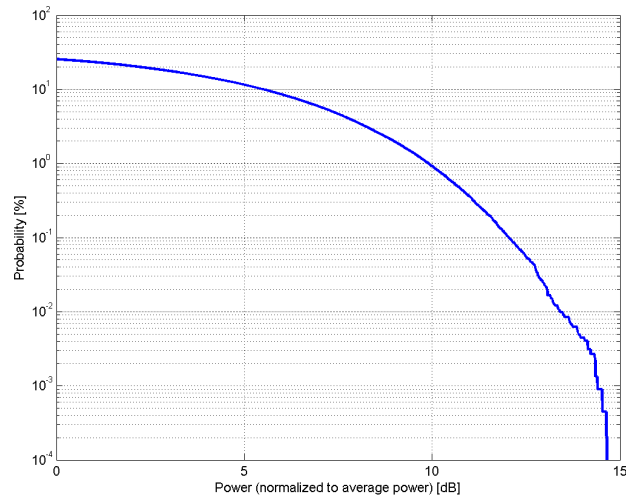


Time Domain

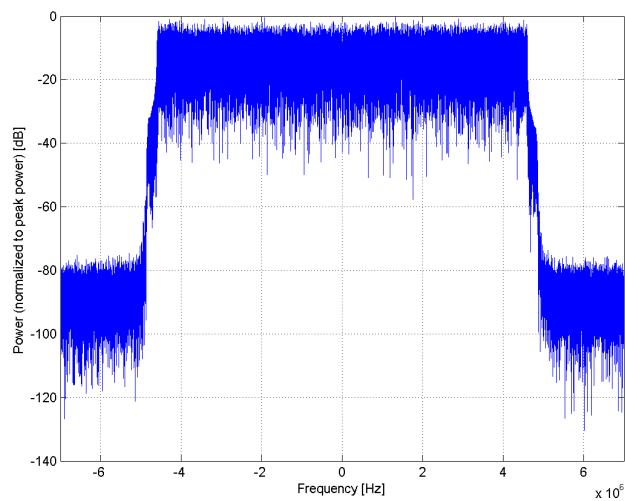
|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)</b> |
| Group:                  | WiMAX                                                     |
| UID:                    | 10301-AAA                                                 |
| PAR: <sup>1</sup>       | <b>12.03 dB</b>                                           |
| MIF: <sup>2</sup>       | <b>-1.38 dB</b>                                           |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )           |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA         |
| Modulation:             | Random amplitude modulation                               |
| Modulation:             | QPSK                                                      |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                   |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                   |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                   |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)              |
| Detailed Specification: | Transmission: OFDMA                                       |
|                         | DL:UL Symbols Ratio: 29:18                                |
|                         | Frame Size: 5ms                                           |
|                         | Bandwidth: 10MHz                                          |
|                         | Modulation Scheme: QPSK(CTC)1/2                           |
|                         | FFT Size: 1024                                            |
|                         | Sampling Factor: 28/25                                    |
|                         | Sampling Frequency: 44.8 MHz                              |
|                         | Oversampling Ratio: 4                                     |
|                         | Subcarrier Spacing: 10.9375 kHz                           |
|                         | TTG, RTG: 105 us, 60 us                                   |
|                         | Numbers of DL Symbols active: 0                           |
|                         | Numbers of UL Symbols active: 18 traffic symbols          |
|                         | UL Zone Types: PUSC                                       |
| Bandwidth:              | 10.0 MHz                                                  |
| Integration Time:       | 5.0 ms                                                    |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

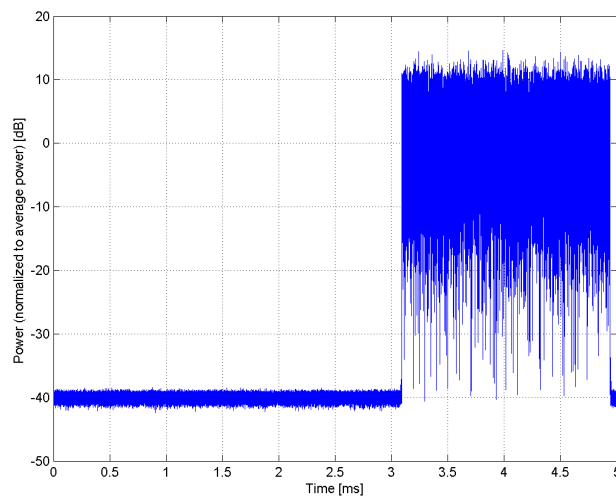
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

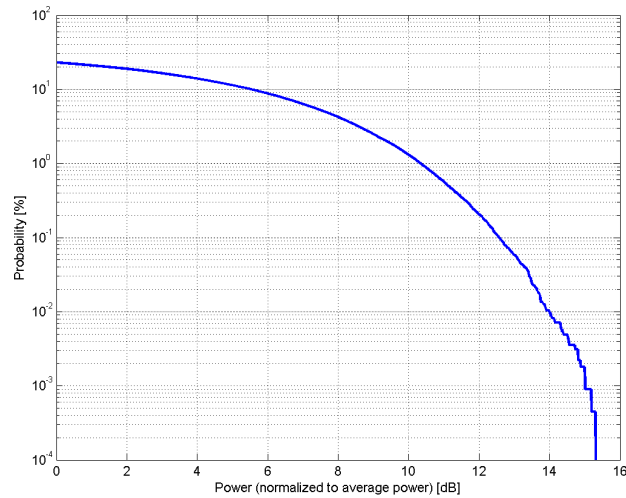


### Time Domain

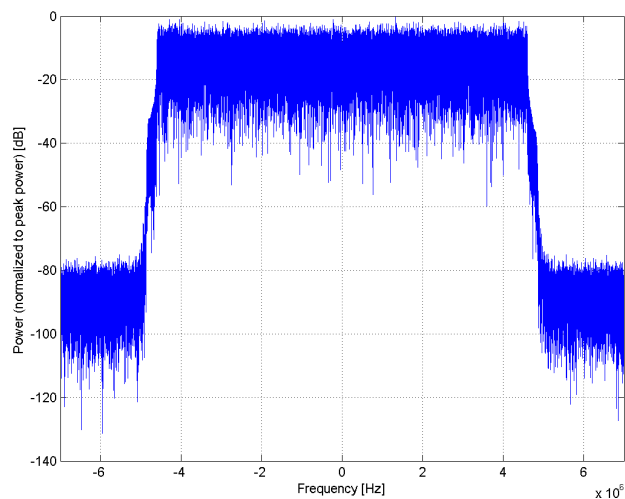
|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)</b> |
| Group:                  | WiMAX                                                                     |
| UID:                    | 10302-AAA                                                                 |
| PAR: <sup>1</sup>       | <b>12.57 dB</b>                                                           |
| MIF: <sup>2</sup>       | <b>-0.84 dB</b>                                                           |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                           |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                         |
| Modulation:             | Random amplitude modulation                                               |
| Modulation:             | QPSK                                                                      |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                   |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                   |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                   |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                              |
| Detailed Specification: | Transmission: OFDMA                                                       |
|                         | DL:UL Symbols Ratio: 29:18                                                |
|                         | Frame Size: 5ms                                                           |
|                         | Bandwidth: 10MHz                                                          |
|                         | Modulation Scheme: QPSK(CTC)1/2                                           |
|                         | FFT Size: 1024                                                            |
|                         | Sampling Factor: 28/25                                                    |
|                         | Sampling Frequency: 44.8 MHz                                              |
|                         | Oversampling Ratio: 4                                                     |
|                         | Subcarrier Spacing: 10.9375 kHz                                           |
|                         | TTG, RTG: 105 us, 60 us                                                   |
|                         | Numbers of DL Symbols active: 0                                           |
|                         | Numbers of UL Symbols active: 18 (15 traffic symbols + 3 control symbols) |
|                         | UL Zone Types: PUSC                                                       |
| Bandwidth:              | 10.0 MHz                                                                  |
| Integration Time:       | 5.0 ms                                                                    |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

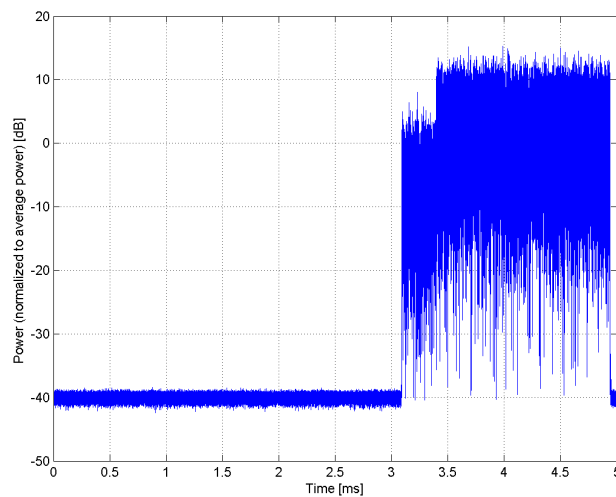
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

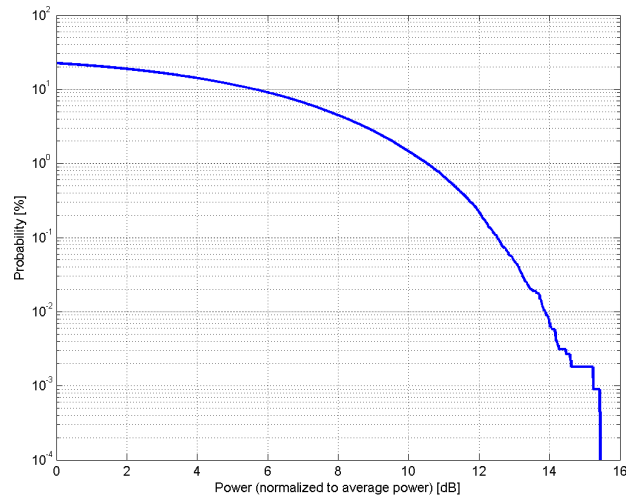


### Time Domain

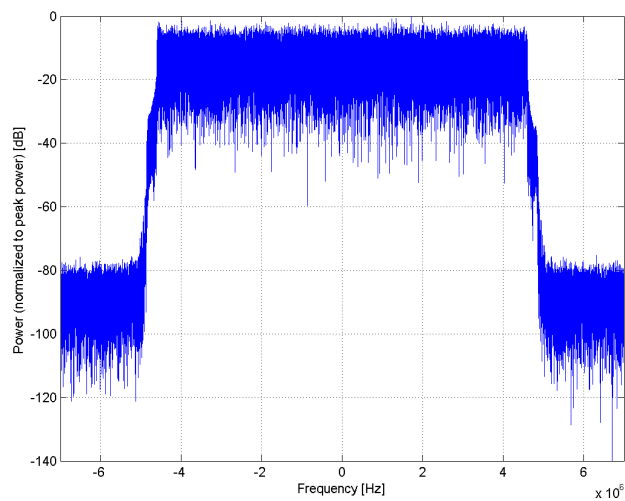
|                         |                                                            |
|-------------------------|------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)</b> |
| Group:                  | WiMAX                                                      |
| UID:                    | 10303-AAA                                                  |
| PAR: <sup>1</sup>       | <b>12.52 dB</b>                                            |
| MIF: <sup>2</sup>       | <b>-0.53 dB</b>                                            |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )            |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA          |
| Modulation:             | Random amplitude modulation                                |
| Modulation:             | 64-QAM                                                     |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                    |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                    |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                    |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)               |
| Detailed Specification: | Transmission: OFDMA                                        |
|                         | DL:UL Symbols Ratio: 31:15                                 |
|                         | Frame Size: 5ms                                            |
|                         | Bandwidth: 10MHz                                           |
|                         | Modulation Scheme: 64QAM(CTC) 5/6                          |
|                         | FFT Size: 1024                                             |
|                         | Sampling Factor: 28/25                                     |
|                         | Sampling Frequency: 44.8 MHz                               |
|                         | Oversampling Ratio: 4                                      |
|                         | Subcarrier Spacing: 10.9375 kHz                            |
|                         | TTG, RTG: 2 us, 60 us                                      |
|                         | Numbers of DL Symbols active: 0                            |
|                         | Numbers of UL Symbols active: 15 traffic symbols           |
|                         | UL Zone Types: PUSC                                        |
| Bandwidth:              | 10.0 MHz                                                   |
| Integration Time:       | 5.0 ms                                                     |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

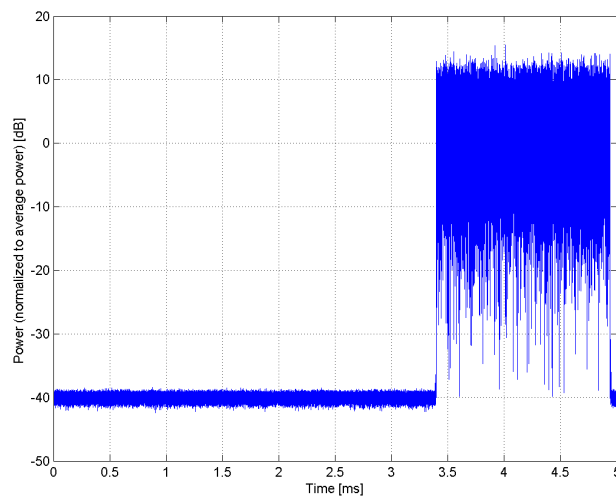
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

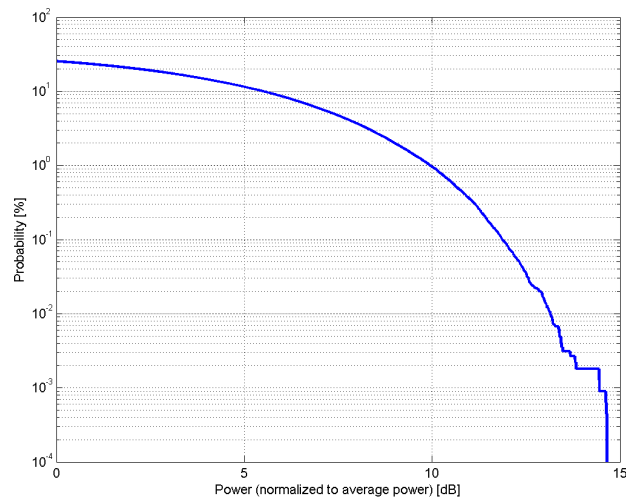


### Time Domain

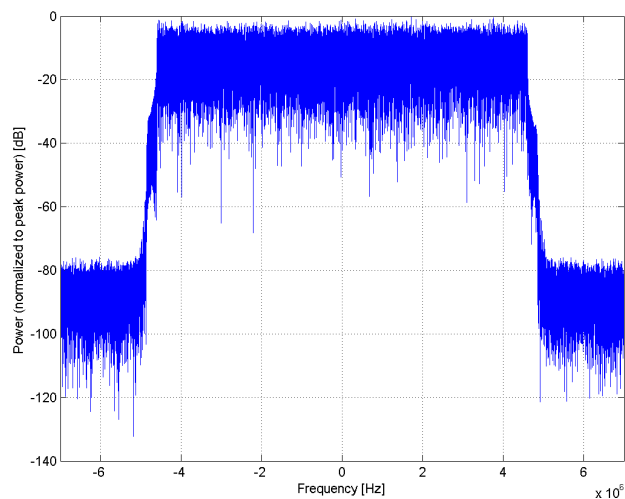
|                         |                                                            |
|-------------------------|------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)</b> |
| Group:                  | WiMAX                                                      |
| UID:                    | 10304-AAA                                                  |
| PAR: <sup>1</sup>       | <b>11.86 dB</b>                                            |
| MIF: <sup>2</sup>       | <b>-1.39 dB</b>                                            |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )            |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA          |
| Modulation:             | Random amplitude modulation                                |
| Modulation:             | 64-QAM                                                     |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                    |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                    |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                    |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)               |
| Detailed Specification: | Transmission: OFDMA                                        |
|                         | DL:UL Symbols Ratio: 29:18                                 |
|                         | Frame Size: 5ms                                            |
|                         | Bandwidth: 10MHz                                           |
|                         | Modulation Scheme: 64QAM(CTC)5/6                           |
|                         | FFT Size: 1024                                             |
|                         | Sampling Factor: 28/25                                     |
|                         | Sampling Frequency: 44.8 MHz                               |
|                         | Oversampling Ratio: 4                                      |
|                         | Subcarrier Spacing: 10.9375 kHz                            |
|                         | TTG, RTG: 105 us, 60 us                                    |
|                         | Numbers of DL Symbols active: 0                            |
|                         | Numbers of UL Symbols active: 18 traffic symbols           |
|                         | UL Zone Types: PUSC                                        |
| Bandwidth:              | 10.0 MHz                                                   |
| Integration Time:       | 5.0 ms                                                     |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

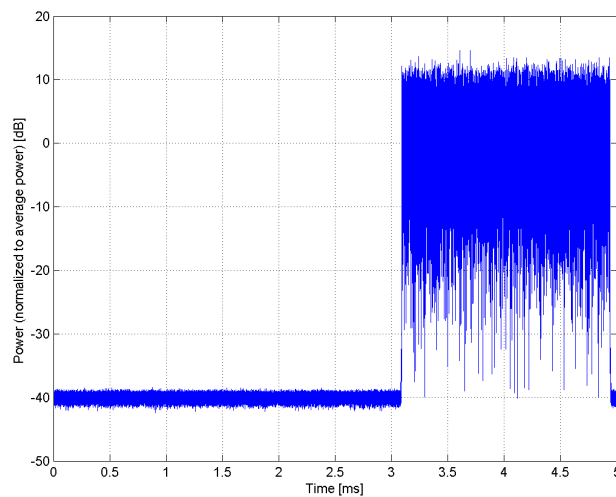
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

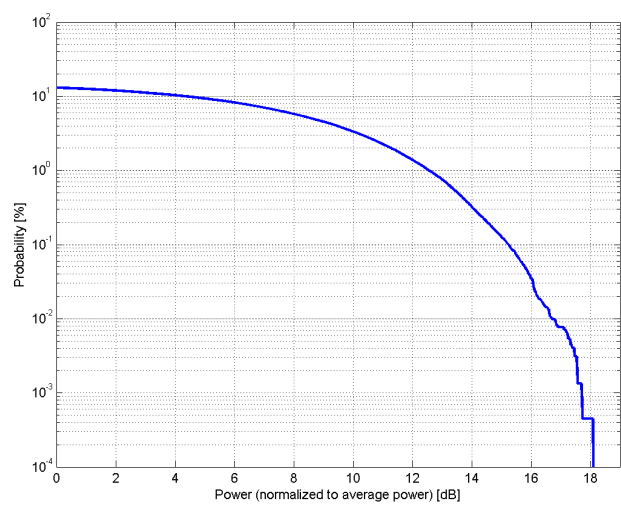


### Time Domain

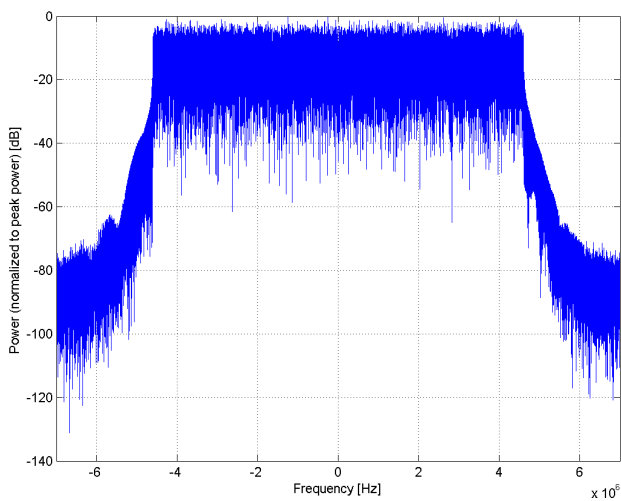
|                         |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)</b> |
| Group:                  | WiMAX                                                                   |
| UID:                    | 10305-AAA                                                               |
| PAR: <sup>1</sup>       | <b>15.24 dB</b>                                                         |
| MIF: <sup>2</sup>       | <b>1.74 dB</b>                                                          |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                         |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                       |
| Modulation:             | Random amplitude modulation                                             |
| Modulation:             | 64-QAM                                                                  |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                 |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                 |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                 |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                            |
| Detailed Specification: | Transmission: OFDMA                                                     |
|                         | DL:UL Symbols Ratio: 31:15                                              |
|                         | Frame Size: 10ms                                                        |
|                         | Bandwidth: 10MHz                                                        |
|                         | Modulation Scheme: 64QAM(CTC) 5/6                                       |
|                         | FFT Size: 1024                                                          |
|                         | Sampling Factor: 28/25                                                  |
|                         | Sampling Frequency: 22.4 MHz                                            |
|                         | Oversampling Ratio: 2                                                   |
|                         | Subcarrier Spacing: 10.9375 kHz                                         |
|                         | Numbers of DL Symbols active: 0                                         |
|                         | Numbers of UL Symbols active: 15 traffic symbols                        |
|                         | UL Zone Types: PUSC                                                     |
| Bandwidth:              | 10.0 MHz                                                                |
| Integration Time:       | 10.0 ms                                                                 |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

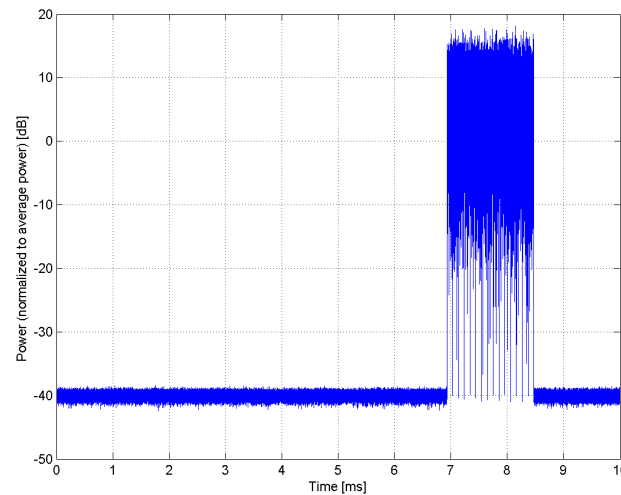
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



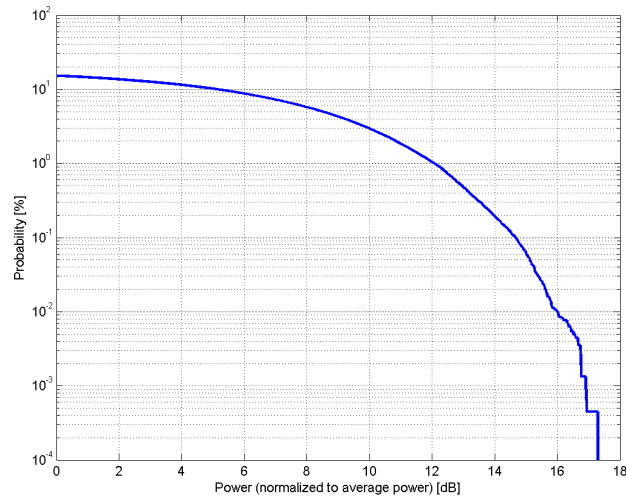
Frequency Domain



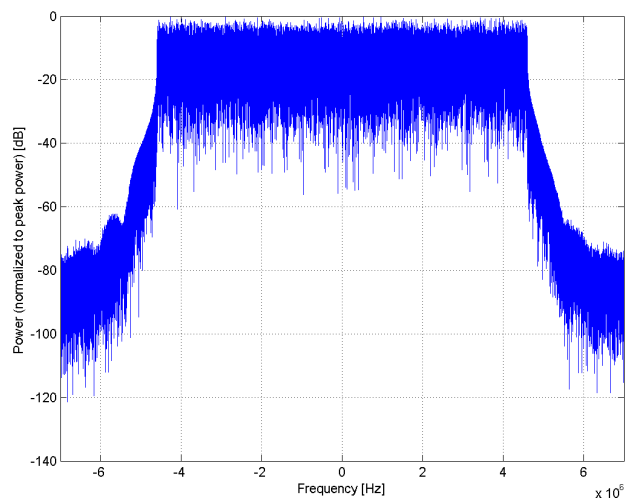
Time Domain

|                         |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)</b> |
| Group:                  | WiMAX                                                                   |
| UID:                    | 10306-AAA                                                               |
| PAR: <sup>1</sup>       | <b>14.67 dB</b>                                                         |
| MIF: <sup>2</sup>       | <b>0.91 dB</b>                                                          |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                         |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                       |
| Modulation:             | Random amplitude modulation                                             |
| Modulation:             | 64-QAM                                                                  |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                 |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                 |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                 |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                            |
| Detailed Specification: | Transmission: OFDMA                                                     |
|                         | DL:UL Symbols Ratio: 29:18                                              |
|                         | Frame Size: 10ms                                                        |
|                         | Bandwidth: 10MHz                                                        |
|                         | Modulation Scheme: 64QAM(CTC) 5/6                                       |
|                         | FFT Size: 1024                                                          |
|                         | Sampling Factor: 28/25                                                  |
|                         | Sampling Frequency: 22.4 MHz                                            |
|                         | Oversampling Ratio: 2                                                   |
|                         | Subcarrier Spacing: 10.9375 kHz                                         |
|                         | Numbers of DL Symbols active: 0                                         |
|                         | Numbers of UL Symbols active: 18 traffic symbols                        |
|                         | UL Zone Types: PUSC                                                     |
| Bandwidth:              | 10.0 MHz                                                                |
| Integration Time:       | 10.0 ms                                                                 |

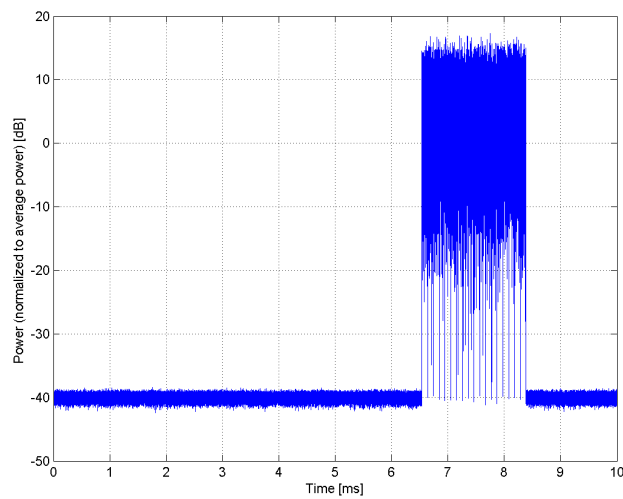
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

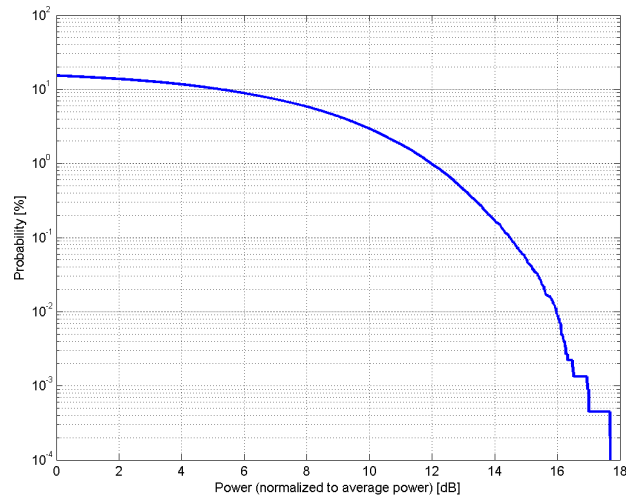


### Time Domain

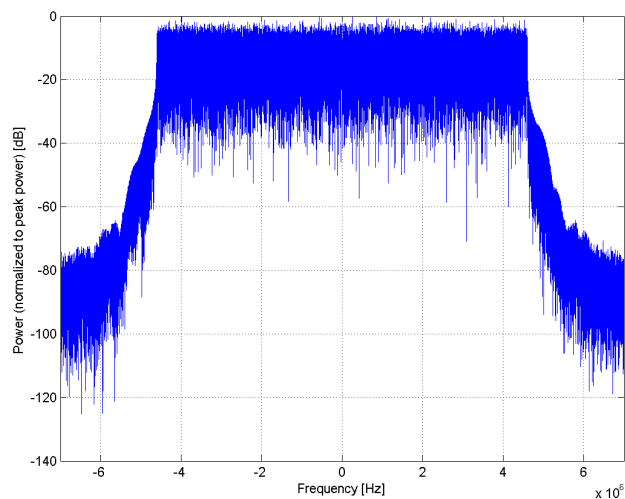
|                         |                                                                        |
|-------------------------|------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)</b> |
| Group:                  | WiMAX                                                                  |
| UID:                    | 10307-AAA                                                              |
| PAR: <sup>1</sup>       | <b>14.49 dB</b>                                                        |
| MIF: <sup>2</sup>       | <b>0.89 dB</b>                                                         |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                        |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                      |
| Modulation:             | Random amplitude modulation                                            |
| Modulation:             | QPSK                                                                   |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                           |
| Detailed Specification: | Transmission: OFDMA                                                    |
|                         | DL:UL Symbols Ratio: 29:18                                             |
|                         | Frame Size: 10ms                                                       |
|                         | Bandwidth: 10 MHz                                                      |
|                         | Modulation Scheme: QPSK(CTC)3/4                                        |
|                         | FFT Size: 1024                                                         |
|                         | Sampling Factor: 28/25                                                 |
|                         | Sampling Frequency: 22.4 MHz                                           |
|                         | Oversampling Ratio: 2                                                  |
|                         | Subcarrier Spacing: 10.9375 kHz                                        |
|                         | Numbers of DL Symbols active: 0                                        |
|                         | Numbers of UL Symbols active: 18 traffic symbols                       |
|                         | UL Zone Types: PUSC                                                    |
| Bandwidth:              | 10.0 MHz                                                               |
| Integration Time:       | 10.0 ms                                                                |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

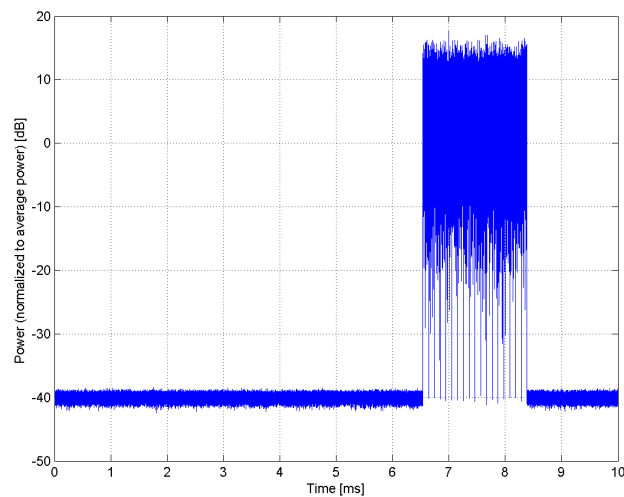
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

Name: **IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)**

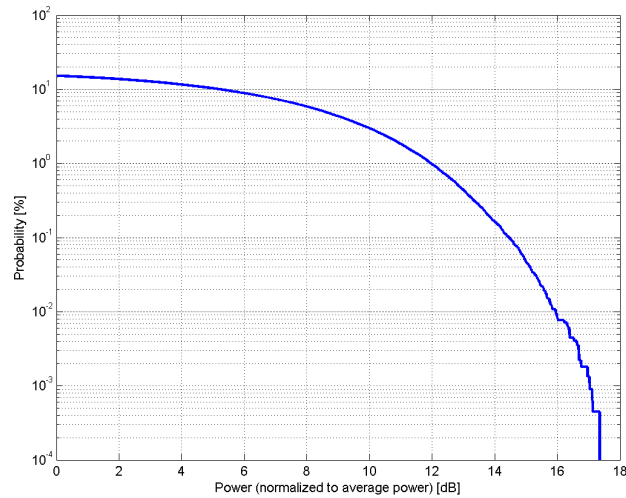
Group: WiMAX  
 UID: 10308-AAA

PAR: <sup>1</sup> **14.46 dB**  
 MIF: <sup>2</sup> **0.91 dB**

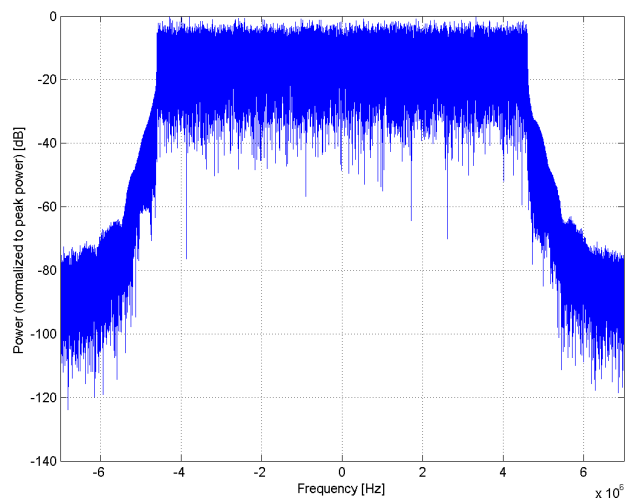
Standard Reference: FCC 802.16e WiMax SARGuidance v01 (615223 D01 )  
 Category: IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA  
 Modulation: Random amplitude modulation  
 Modulation: 16-QAM  
 Frequency Band: Band Class 1 (2300.0-2400.0 MHz, 20075)

Band Class 3 (2496.0-2690.0 MHz, 20076)  
 Band Class 5 (3400.0-3800.0 MHz, 20077)  
 Band Class 6, AWS (1710.0-1755.0 MHz, 20078)  
 Detailed Specification: Transmission: OFDMA  
 DL:UL Symbols Ratio: 29:18  
 Frame Size: 10ms  
 Bandwidth: 10 MHz  
 Modulation Scheme: 16QAM(CTC)3/4  
 FFT Size: 1024  
 Sampling Factor: 28/25  
 Sampling Frequency: 22.4 MHz  
 Oversampling Ratio: 2  
 Subcarrier Spacing: 10.9375 kHz  
 Numbers of DL Symbols active: 0  
 Numbers of UL Symbols active: 18 traffic symbols  
 UL Zone Types: PUSC  
 Bandwidth: 10.0 MHz  
 Integration Time: 10.0 ms

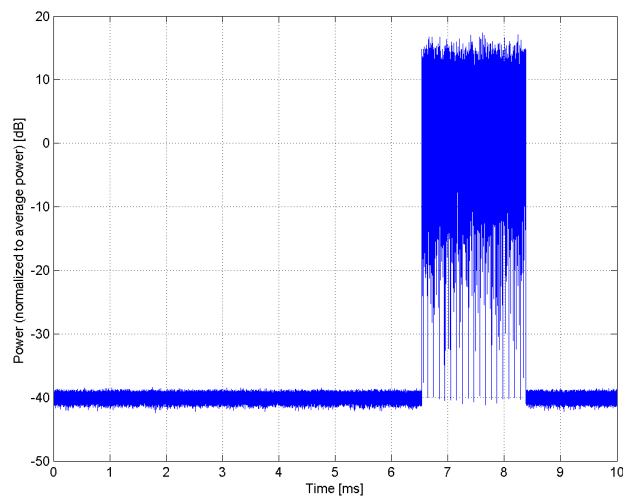
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

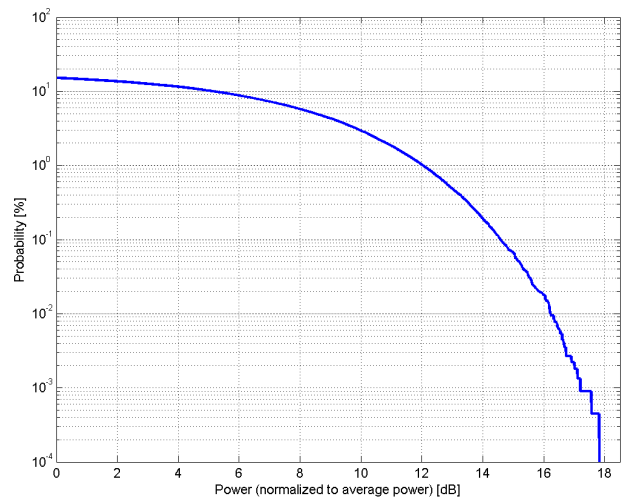


### Time Domain

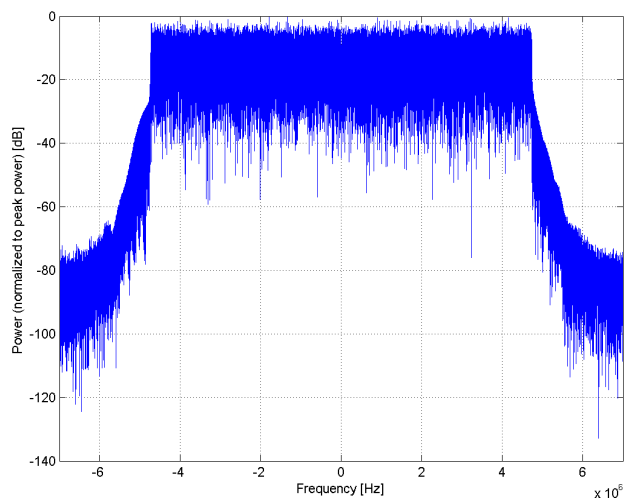
|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)</b> |
| Group:                  | WiMAX                                                                      |
| UID:                    | 10309-AAA                                                                  |
| PAR: <sup>1</sup>       | <b>14.58 dB</b>                                                            |
| MIF: <sup>2</sup>       | <b>0.90 dB</b>                                                             |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                            |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                          |
| Modulation:             | Random amplitude modulation                                                |
| Modulation:             | 16-QAM                                                                     |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                    |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                    |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                    |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                               |
| Detailed Specification: | Transmission: OFDMA                                                        |
|                         | DL:UL Symbols Ratio: 29:18                                                 |
|                         | Frame Size: 10ms                                                           |
|                         | Bandwidth: 10 MHz                                                          |
|                         | Modulation Scheme: 16QAM(CTC)3/4                                           |
|                         | FFT Size: 1024                                                             |
|                         | Sampling Factor: 28/25                                                     |
|                         | Sampling Frequency: 22.4 MHz                                               |
|                         | Oversampling Ratio: 2                                                      |
|                         | Subcarrier Spacing: 10.9375 kHz                                            |
|                         | Numbers of DL Symbols active: 0                                            |
|                         | Numbers of UL Symbols active: 18 traffic symbols                           |
|                         | UL Zone Types: AMC 2x3                                                     |
| Bandwidth:              | 10.0 MHz                                                                   |
| Integration Time:       | 10.0 ms                                                                    |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

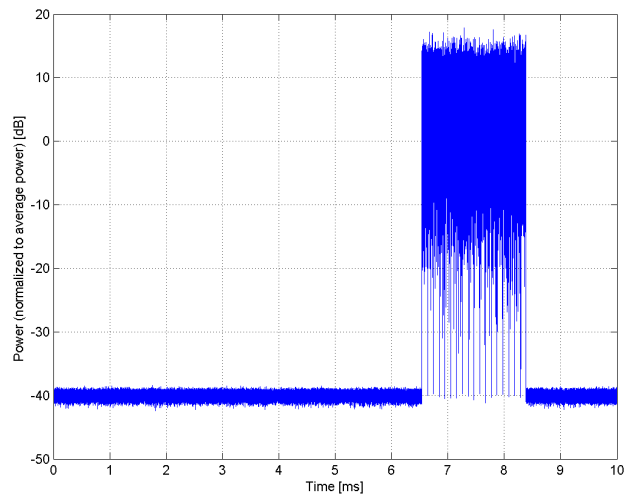
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



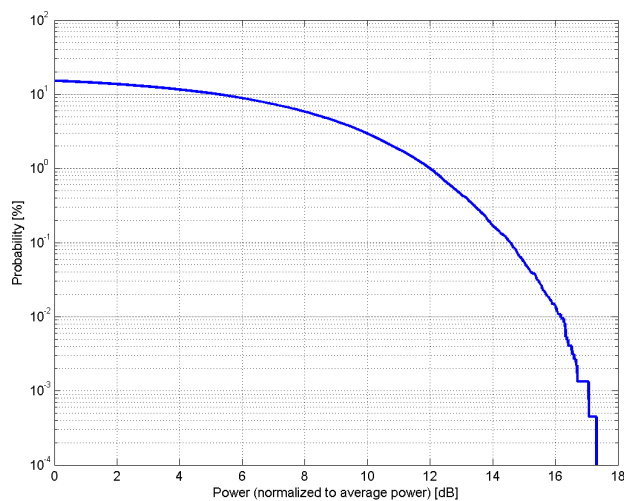
Frequency Domain



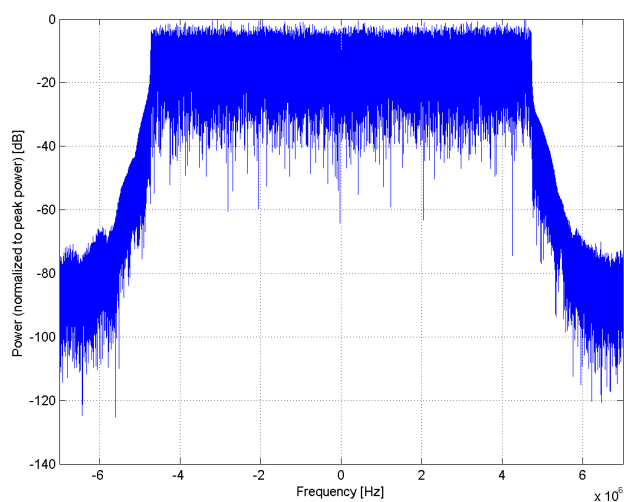
Time Domain

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)</b> |
| Group:                  | WiMAX                                                                     |
| UID:                    | 10310-AAA                                                                 |
| PAR: <sup>1</sup>       | <b>14.57 dB</b>                                                           |
| MIF: <sup>2</sup>       | <b>0.89 dB</b>                                                            |
| Standard Reference:     | FCC 802.16e WiMax SARGuidance v01 (615223 D01 )                           |
| Category:               | IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA                         |
| Modulation:             | Random amplitude modulation                                               |
| Modulation:             | QPSK                                                                      |
| Frequency Band:         | Band Class 1 (2300.0-2400.0 MHz, 20075)                                   |
|                         | Band Class 3 (2496.0-2690.0 MHz, 20076)                                   |
|                         | Band Class 5 (3400.0-3800.0 MHz, 20077)                                   |
|                         | Band Class 6, AWS (1710.0-1755.0 MHz, 20078)                              |
| Detailed Specification: | Transmission: OFDMA                                                       |
|                         | DL:UL Symbols Ratio: 29:18                                                |
|                         | Frame Size: 10ms                                                          |
|                         | Bandwidth: 10 MHz                                                         |
|                         | Modulation Scheme: QPSK(CTC)3/4                                           |
|                         | FFT Size: 1024                                                            |
|                         | Sampling Factor: 28/25                                                    |
|                         | Sampling Frequency: 22.4 MHz                                              |
|                         | Oversampling Ratio: 2                                                     |
|                         | Subcarrier Spacing: 10.9375 kHz                                           |
|                         | Numbers of DL Symbols active: 0                                           |
|                         | Numbers of UL Symbols active: 18 traffic symbols                          |
|                         | UL Zone Types: AMC 2x3                                                    |
| Bandwidth:              | 10.0 MHz                                                                  |
| Integration Time:       | 10.0 ms                                                                   |

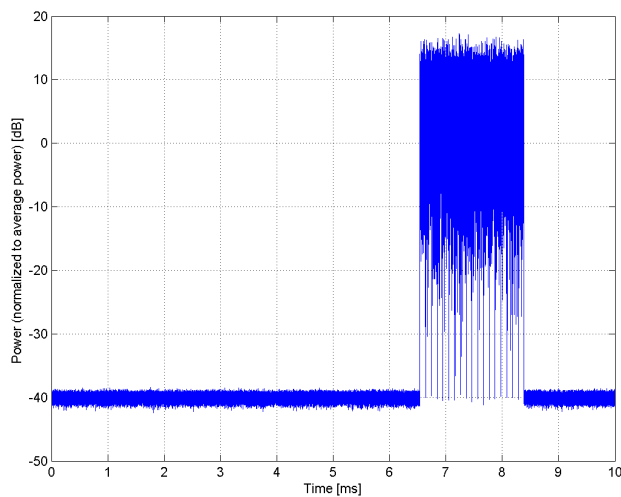
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

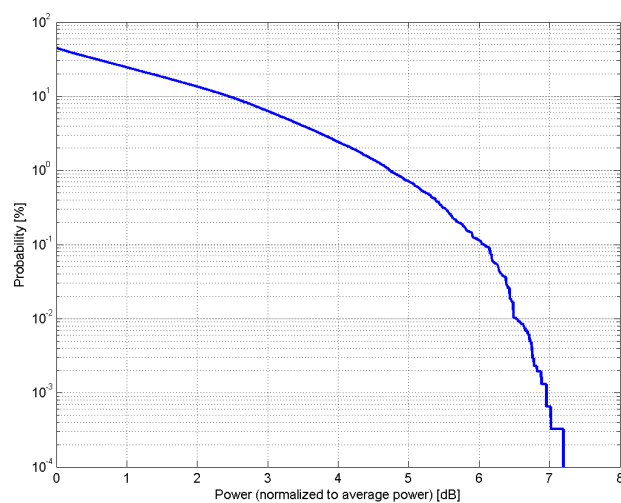


### Time Domain

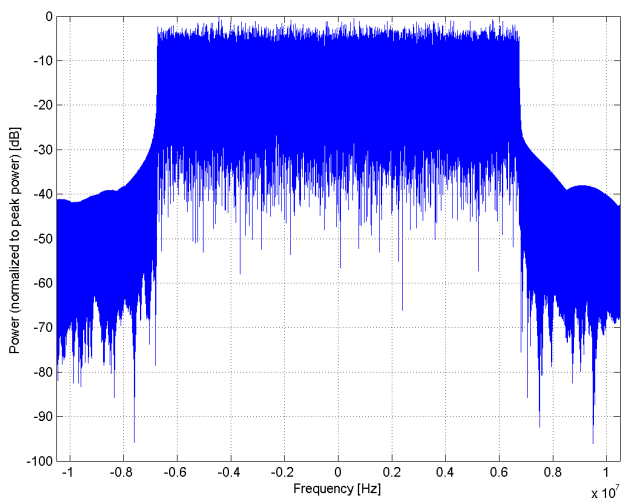
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| UID:                    | 10311-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PAR: <sup>1</sup>       | <b>6.06 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MIF: <sup>2</sup>       | <b>-20.11 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Category:               | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Modulation:             | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Frequency Band:         | Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz)<br>Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz)<br>Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz)<br>Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz)<br>Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz)<br>Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz)<br>Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz)<br>Band 18, E-UTRA/FDD (815.0 - 830.0 MHz)<br>Band 19, E-UTRA/FDD (830.0 - 845.0 MHz)<br>Band 20, E-UTRA/FDD (832.0 - 862.0 MHz)<br>Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz)<br>Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz)<br>Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz)<br>Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz)<br>Band 26 E-UTRA/FDD (814.0 - 849.0 MHz)<br>Band 28 E-UTRA/FDD (703.0 - 748.0 MHz)<br>Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz)<br>Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz)<br>Band 68, E-UTRA/FDD (698.0 - 728.0 MHz)<br>Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz)<br>Band 71, E-UTRA/FDD (663.0 - 698.0 MHz)<br>Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: QPSK<br>Data Type: UL-SCH<br>Number RB: 75<br>Transport Block Size: 6712<br>TBS Index: 5<br>MCS Index: 5<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Bandwidth:              | 15.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

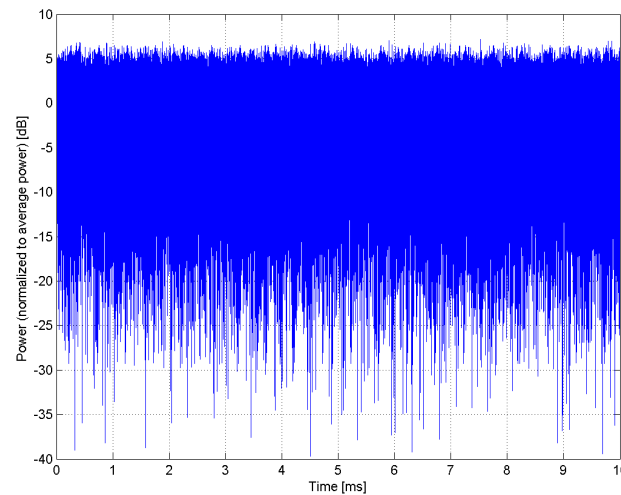
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name: **iDEN 1:3**

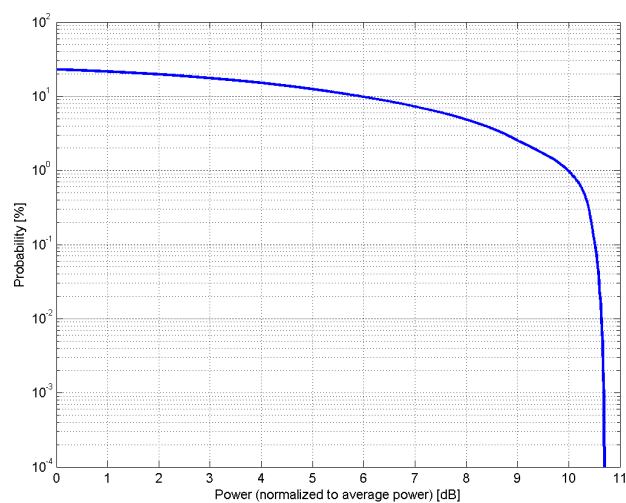
Group: iDEN  
UID: 10313-AAA

PAR: <sup>1</sup> **10.51 dB**  
MIF: <sup>2</sup> **1.15 dB**

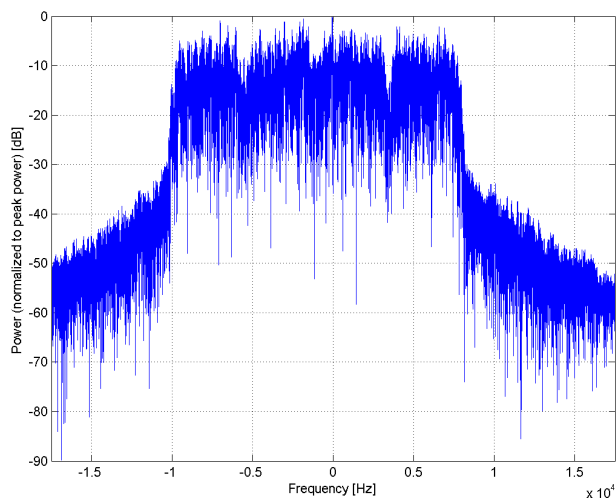
Standard Reference: -  
Category: Periodic pulsed modulation  
Modulation: -  
Frequency Band: PMR 800 (806.0-825.0 MHz, 20071)  
PMR 900 (896.0-901.0 MHz, 20072)  
PMR 1450 (1453.0-1465.0 MHz, 20073)  
Detailed Specification: Train setting off  
Bandwidth: 0.0 MHz  
Integration Time: 540.0 ms

---

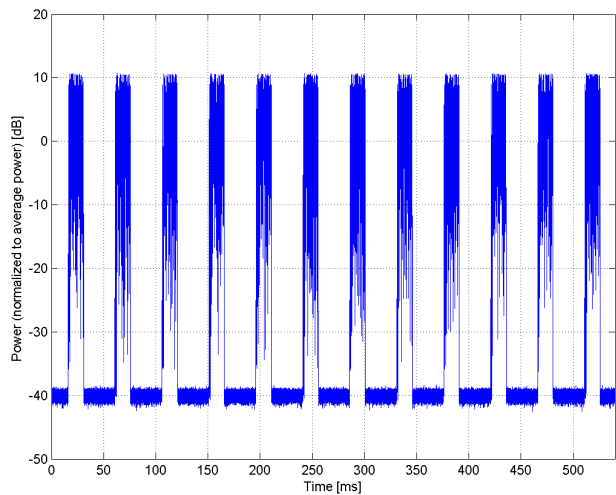
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name: **iDEN 1:6**

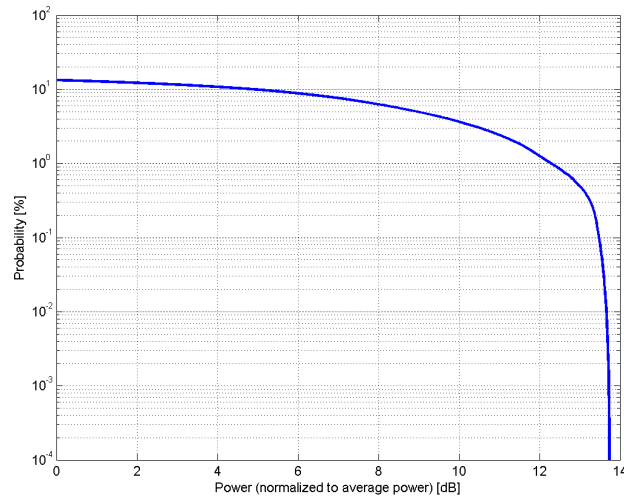
Group: iDEN  
UID: 10314-AAA

PAR: <sup>1</sup> **13.48 dB**  
MIF: <sup>2</sup> **4.03 dB**

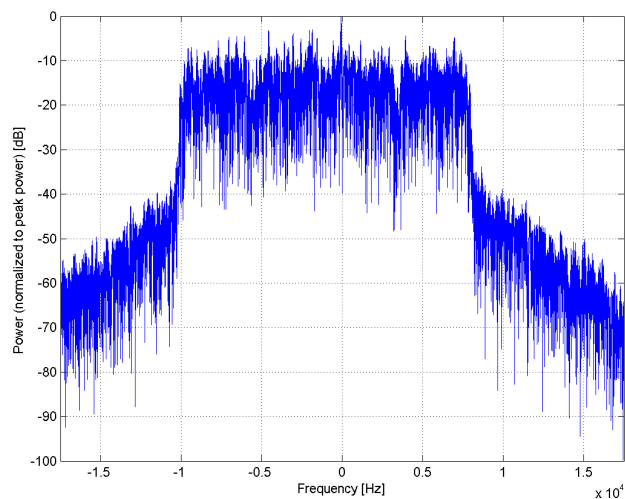
Standard Reference: -  
Category: Periodic pulsed modulation  
Modulation: -  
Frequency Band: PMR 800 (806.0-825.0 MHz, 20071)  
PMR 900 (896.0-901.0 MHz, 20072)  
PMR 1450 (1453.0-1465.0 MHz, 20073)  
Detailed Specification: Train setting off  
Bandwidth: 0.0 MHz  
Integration Time: 540.0 ms

---

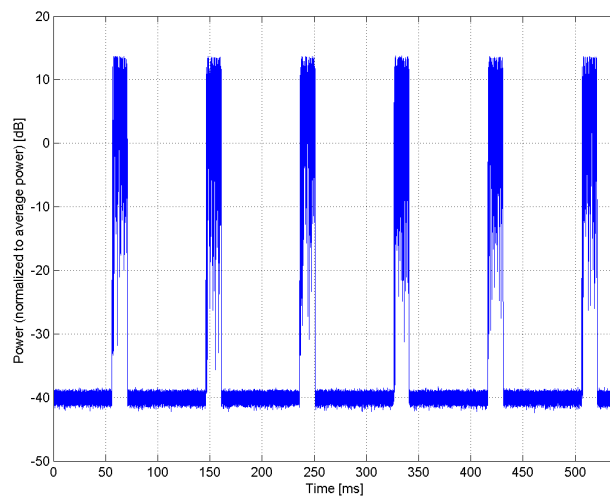
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

Name: **IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)**

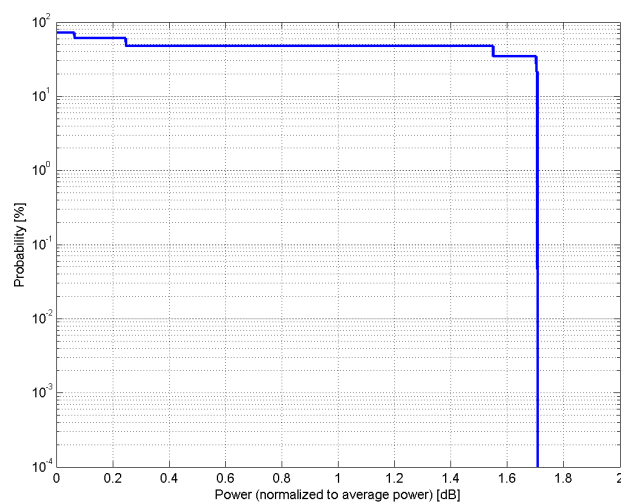
Group: WLAN  
UID: 10315-AAB

PAR: <sup>1</sup> **1.71 dB**  
MIF: <sup>2</sup> **-6.80 dB**

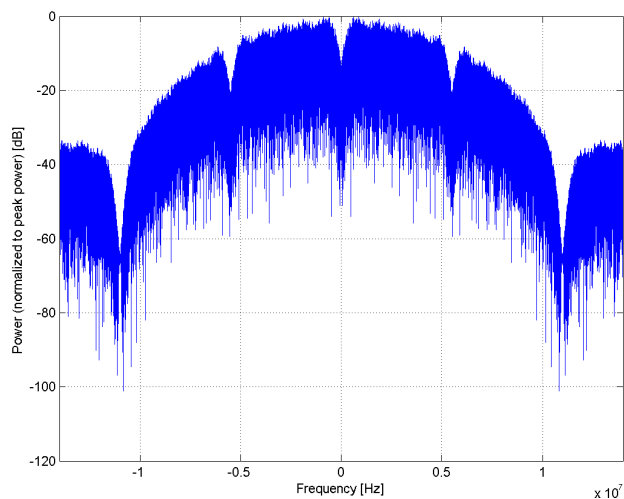
Standard Reference: IEEE 802.11b-1999 , Part 11  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: DBPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 96 %  
PSDU length: 1024 bytes  
Preamble type: long  
Data Rate: 1Mbps  
Burst on time: 8384us  
Bandwidth: 20.0 MHz  
Integration Time: 8.7 ms

---

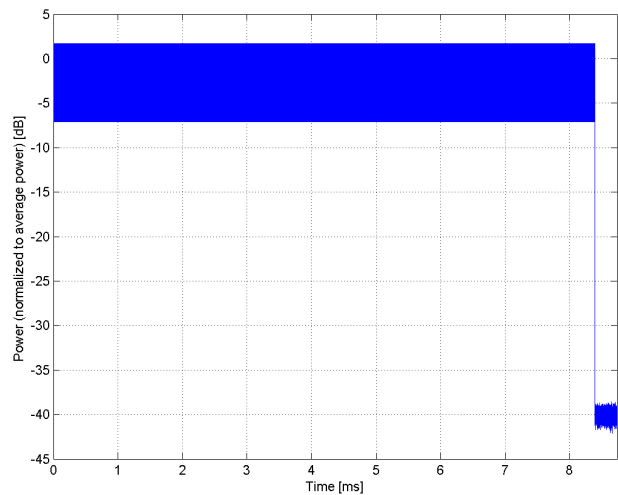
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

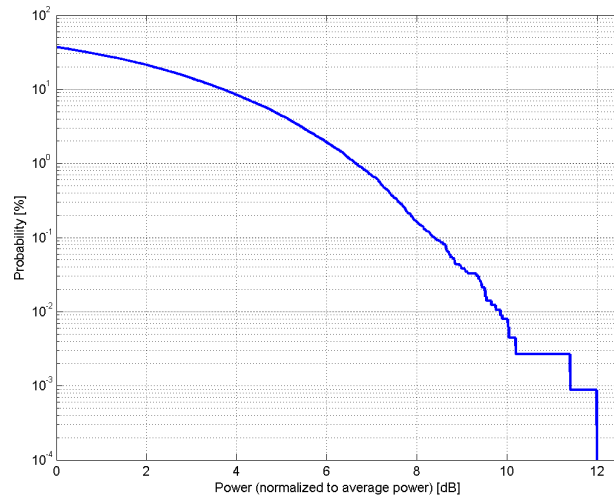
Name: **IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)**

Group: WLAN  
UID: 10316-AAB

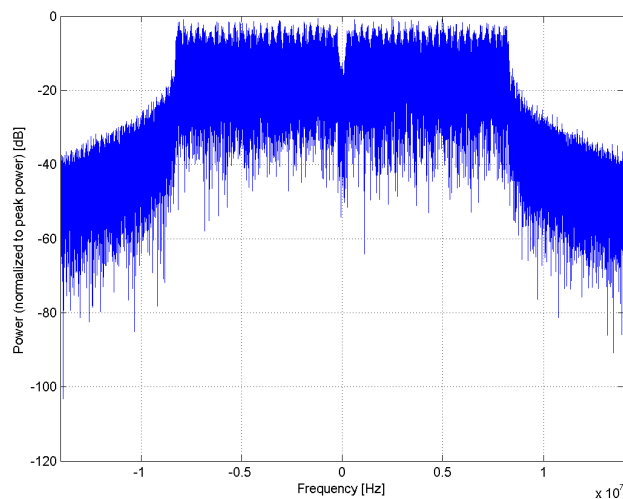
PAR: <sup>1</sup> **8.36 dB**  
MIF: <sup>2</sup> **-9.82 dB**

Standard Reference: IEEE 802.11g-2003 , Part 11  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: BPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 96 %  
PSDU length: 1000 bytes  
Frame format: ERP-OFDM  
Data Rate: 6Mbps  
Burst on time: 1360us  
Bandwidth: 20.0 MHz  
Integration Time: 1.4 ms

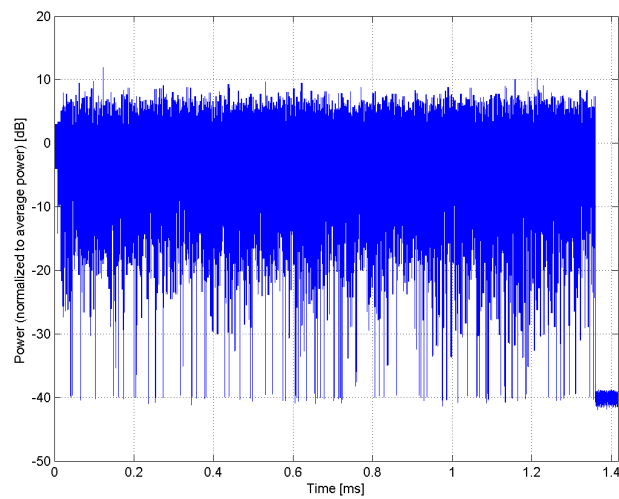
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

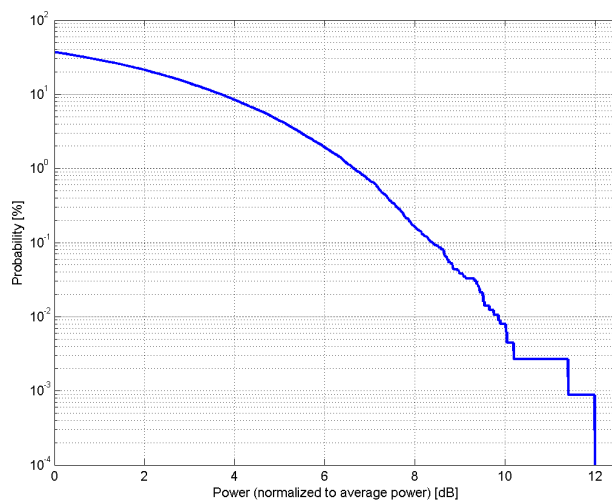


### Time Domain

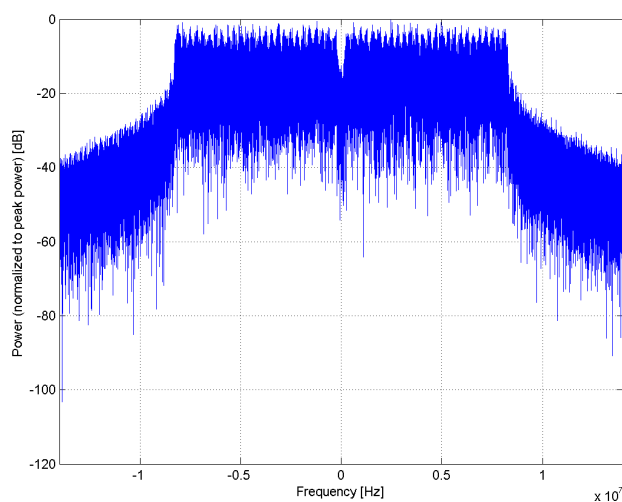
**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                                                                                                                                                                                                                      |
| Group:                  | WLAN                                                                                                                                                                                                                                                                         |
| UID:                    | 10317-AAC                                                                                                                                                                                                                                                                    |
| PAR: <sup>1</sup>       | 8.36 dB                                                                                                                                                                                                                                                                      |
| MIF: <sup>2</sup>       | -9.82 dB                                                                                                                                                                                                                                                                     |
| Standard Reference:     | IEEE 802.11a-1999 (R2003) , Part 11<br>FCC SAR meas for 802 11 a b g v01r02 (248227 D01)                                                                                                                                                                                     |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                  |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                         |
| Frequency Band:         | WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Duty cycle: 96%<br>PSDU length: 1000 bytes<br>Data Rate: 6Mbps<br>Burst on time: 1360us                                                                                                                                                                                      |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                     |
| Integration Time:       | 1.4 ms                                                                                                                                                                                                                                                                       |

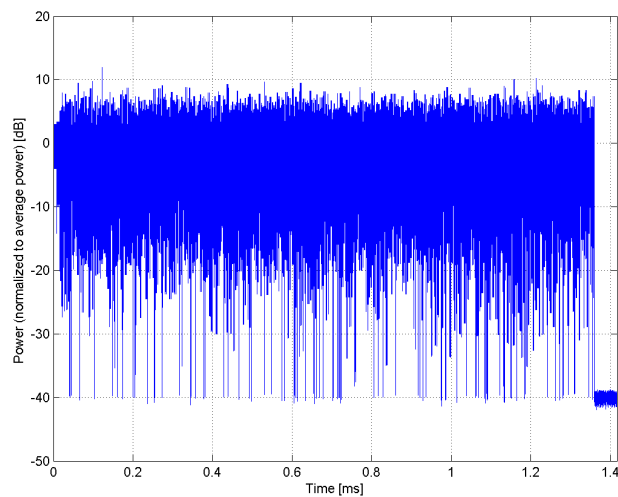
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



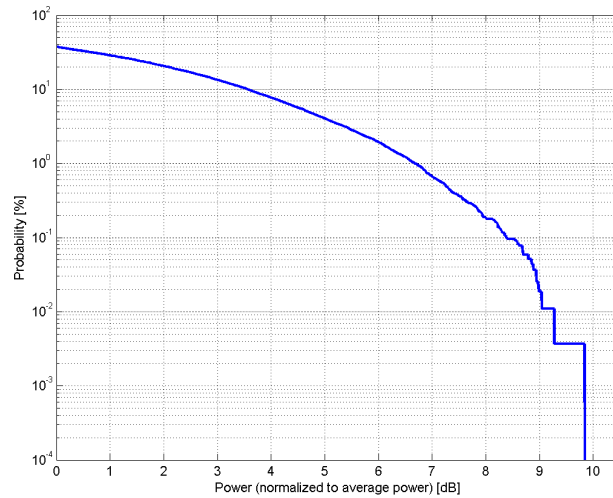
### Time Domain

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Engineering AG**  
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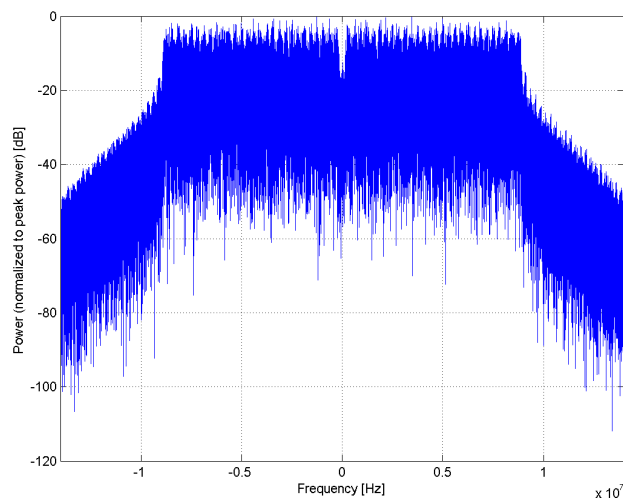
|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                                                                                                                                                                                                                                                               |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10400-AAD                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | 8.37 dB                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | -17.01 dB                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | -                                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                            |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Bandwidth: 20MHz<br>Duty cycle: 99%<br>MCS: 5<br>Number of spatial streams: 1<br>MPDU length: 4096                                                                                                                                                                                                                |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 6.8 ms                                                                                                                                                                                                                                                                                                            |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

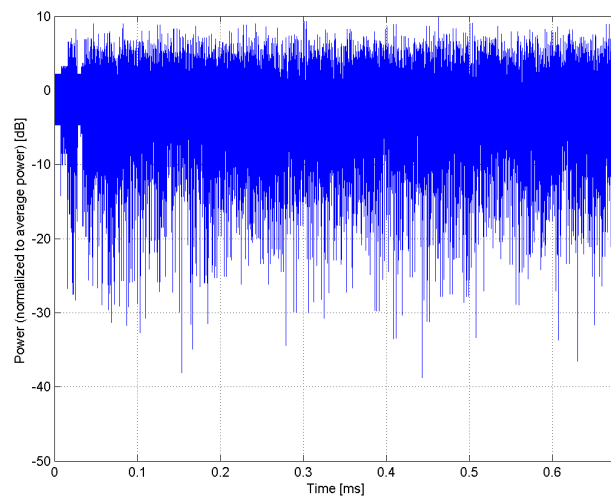
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

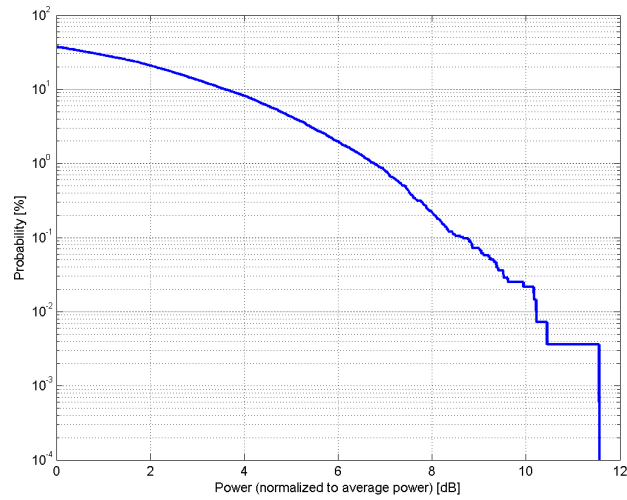


### Time Domain

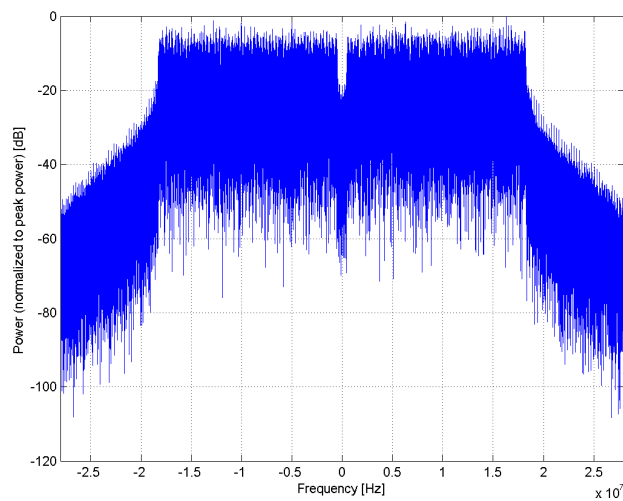
**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)</b>                                                                                                                                                                                                                                                        |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10401-AAD                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.60 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-15.53 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | -                                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                            |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Bandwidth: 40MHz<br>Duty cycle: 99%<br>MCS: 5<br>Number of spatial streams: 1<br>MPDU length: 4096                                                                                                                                                                                                                |
| Bandwidth:              | 40.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 3.5 ms                                                                                                                                                                                                                                                                                                            |

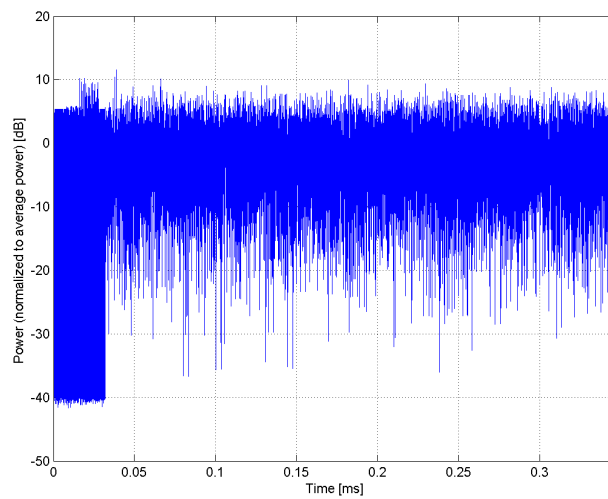
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name: **IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)**

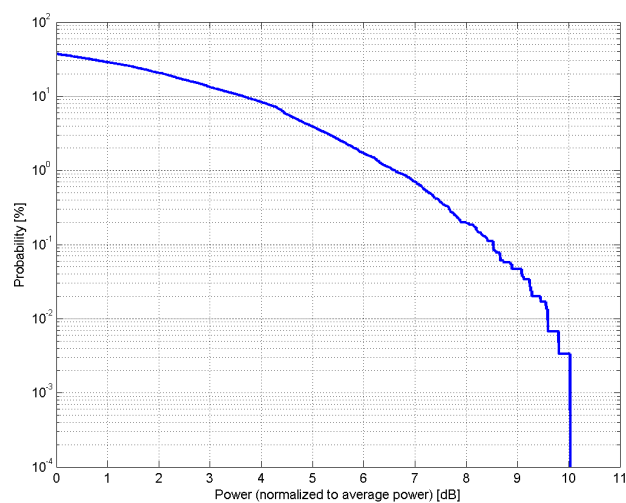
Group: WLAN  
UID: 10402-AAD

PAR: <sup>1</sup> **8.53 dB**  
MIF: <sup>2</sup> **-28.95 dB**

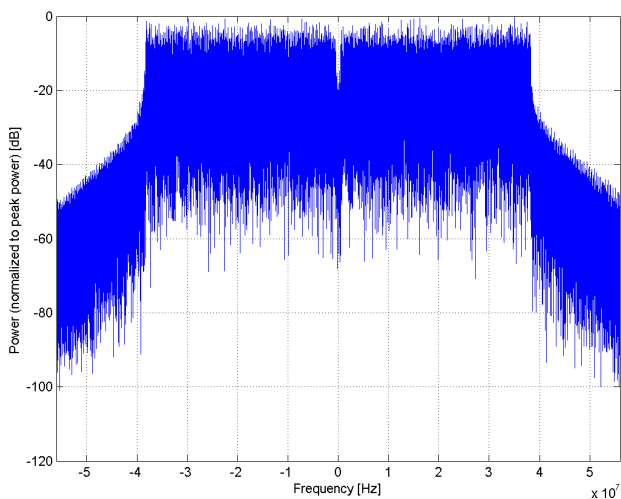
Standard Reference: -  
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz)  
WLAN 5GHz (4915.0 - 5825.0 MHz)  
U-NII-1, U-NII-2A (5170 - 5330 MHz)  
U-NII-2C Standalone (5490 - 5710 MHz)  
U-NII-2C <5.65 GHz (5490 - 5650 MHz)  
U-NII-3 Standalone (5735 - 5835 MHz)  
U-NII-2C, U-NII-3 (5650 - 5835 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Bandwidth: 80MHz  
Duty cycle: 99%  
MCS: 5  
Number of spatial streams: 1  
MPDU length: 4096  
Bandwidth: 80.0 MHz  
Integration Time: 1.9 ms

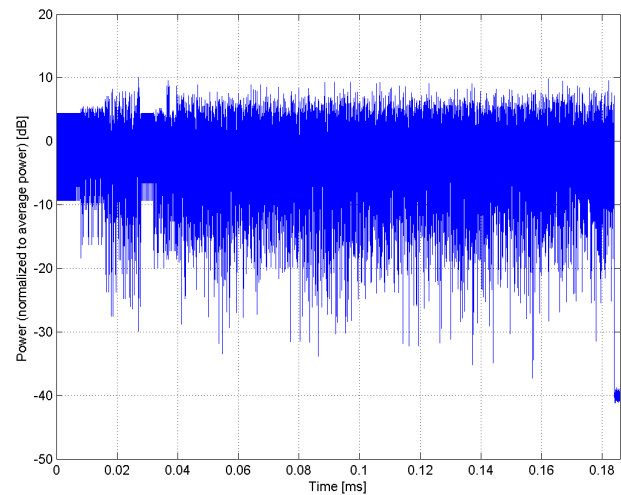
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



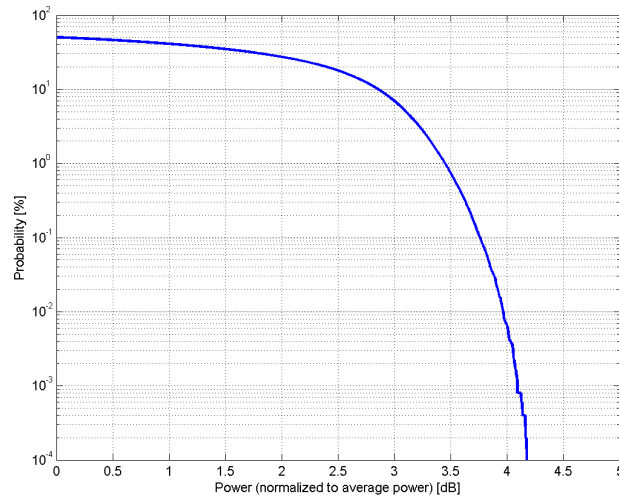
Frequency Domain



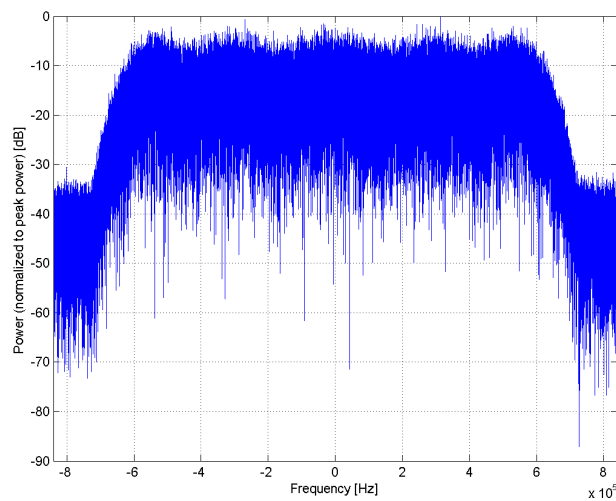
Time Domain

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>CDMA2000 (1xEV-DO, Rev. 0)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Group:                  | CDMA2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10403-AAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>3.76 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-17.67 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 941225 D01 SAR test for 3G devices v02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Frequency Band:         | Band Class 0 (815.0-849.0 MHz, 20220)<br>Band Class 1 (1850.0-1910.0 MHz, 20040)<br>Band Class 2 (872.0-915.0 MHz, 20041)<br>Band Class 3 (887.0-925.0 MHz, 20042)<br>Band Class 4 (1750.0-1780.0 MHz, 20043)<br>Band Class 5 (411.7-483.5 MHz, 20044)<br>Band Class 6 (1920.0-1980.0 MHz, 20045)<br>Band Class 7 (776.0-794.0 MHz, 20046)<br>Band Class 8 (1710.0-1785.0 MHz, 20047)<br>Band Class 9 (880.0-915.0 MHz, 20048)<br>Band Class 10 (806.0-901.0 MHz, 20049)<br>Band Class 11 (410.0-462.5 MHz, 20050)<br>Band Class 12 (870.0-876.0 MHz, 20051)<br>Band Class 13 (2500.0-2570.0 MHz, 20179)<br>Band Class 14 (1850.0-1915.0 MHz, 20180)<br>Band Class 15 (1710.0-1755.0 MHz, 20181)<br>Band Class 16 (2502.0-2568.0 MHz, 20182)<br>Band Class 18 (787.0-799.0 MHz, 20184)<br>Band Class 19 (698.0-716.0 MHz, 20185)<br>Band Class 20 (1626.5-1660.5 MHz, 20186)<br>Band Class 21 (2000.0-2020.0 MHz, 20187) |
| Detailed Specification: | Physical Layer Configuration: Subtype 0<br>Reverse Data Channel: 153.6kbps<br>Forward Traffic Channel: 2-slot version of 307.2kbps, ACK channel transmitting in all slots<br>Access Terminal Power Control: "All bits up"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Bandwidth:              | 1.2 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 100.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

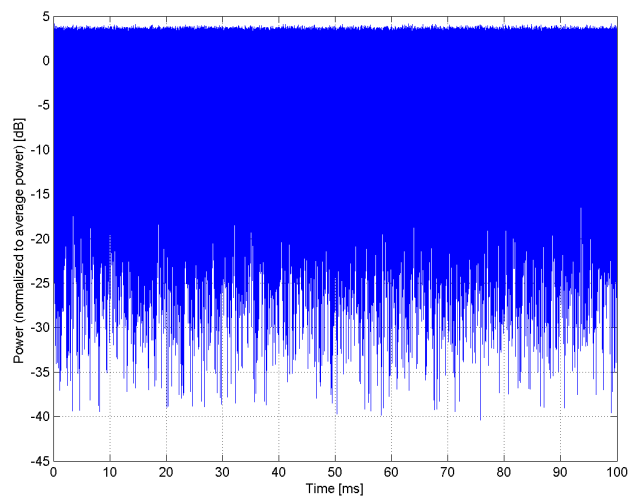
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

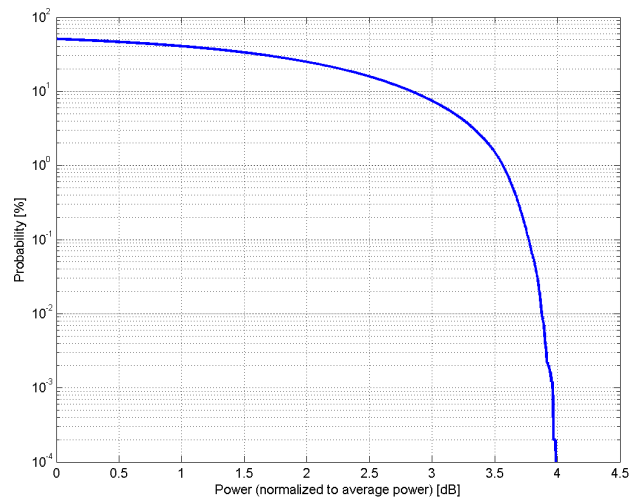


### Time Domain

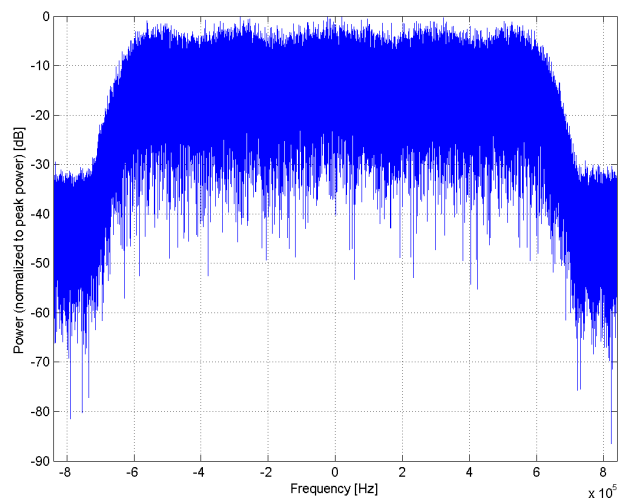
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>CDMA2000 (1xEV-DO, Rev. A)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Group:                  | CDMA2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10404-AAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>3.77 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-18.50 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 941225 D01 SAR test for 3G devices v02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | Q2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Frequency Band:         | Band Class 0 (815.0-849.0 MHz, 20220)<br>Band Class 1 (1850.0-1910.0 MHz, 20040)<br>Band Class 2 (872.0-915.0 MHz, 20041)<br>Band Class 3 (887.0-925.0 MHz, 20042)<br>Band Class 4 (1750.0-1780.0 MHz, 20043)<br>Band Class 5 (411.7-483.5 MHz, 20044)<br>Band Class 6 (1920.0-1980.0 MHz, 20045)<br>Band Class 7 (776.0-794.0 MHz, 20046)<br>Band Class 8 (1710.0-1785.0 MHz, 20047)<br>Band Class 9 (880.0-915.0 MHz, 20048)<br>Band Class 10 (806.0-901.0 MHz, 20049)<br>Band Class 11 (410.0-462.5 MHz, 20050)<br>Band Class 12 (870.0-876.0 MHz, 20051)<br>Band Class 13 (2500.0-2570.0 MHz, 20179)<br>Band Class 14 (1850.0-1915.0 MHz, 20180)<br>Band Class 15 (1710.0-1755.0 MHz, 20181)<br>Band Class 16 (2502.0-2568.0 MHz, 20182)<br>Band Class 18 (787.0-799.0 MHz, 20184)<br>Band Class 19 (698.0-716.0 MHz, 20185)<br>Band Class 20 (1626.5-1660.5 MHz, 20186)<br>Band Class 21 (2000.0-2020.0 MHz, 20187) |
| Detailed Specification: | Physical Layer Configuration: Subtype 2<br>Reverse Data Channel Payload Size: 4096 bits, termination target of 16 slots<br>Forward Traffic Channel: 2-slot version of 307.2kbps, ACK channel transmitting in all slots<br>Access Terminal Power Control: "All bits up"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Bandwidth:              | 1.2 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 100.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

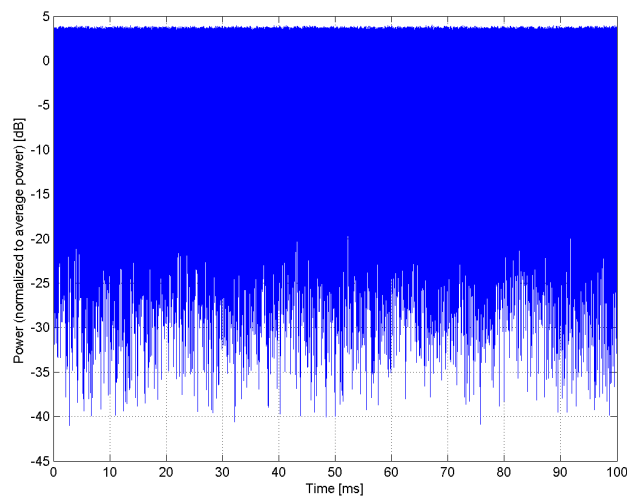
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



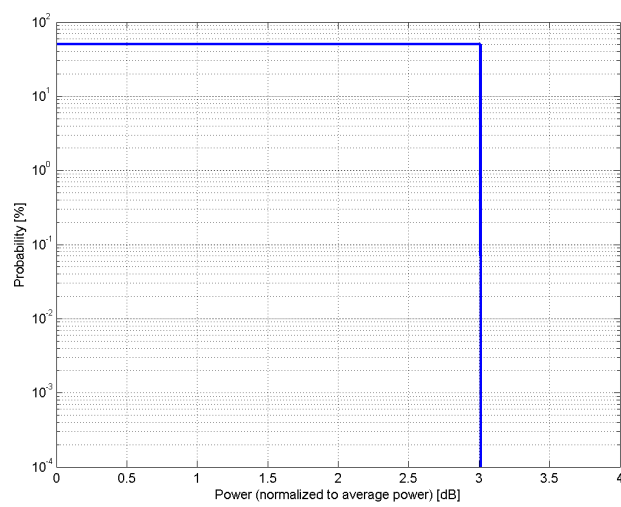
### Time Domain

**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

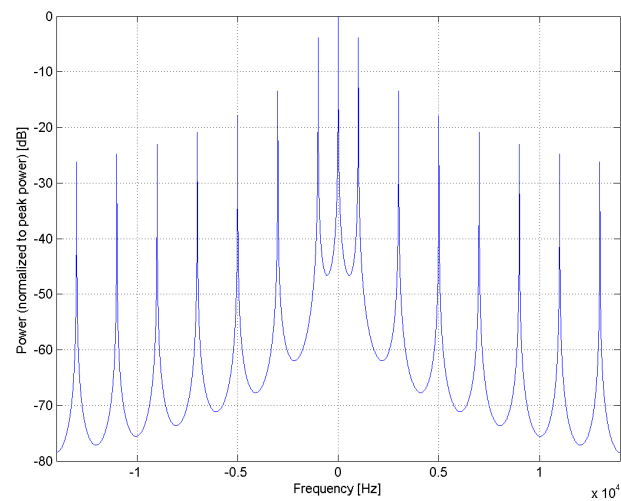
|                         |                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------|
| Name:                   | <b>MRI (Square, 1ms, 0.5ms)</b>                                                                      |
| Group:                  | MRI                                                                                                  |
| UID:                    | 10405-AAC                                                                                            |
| PAR: <sup>1</sup>       | <b>3.01 dB</b>                                                                                       |
| MIF: <sup>2</sup>       | <b>-0.87 dB</b>                                                                                      |
| Standard Reference:     | -                                                                                                    |
| Category:               | Periodic pulsed modulation                                                                           |
| Modulation:             | AM                                                                                                   |
| Frequency Band:         | MRI 1.5T (59.0 - 69.0 MHz)<br>MRI 3T (123.0 - 133.0 MHz)<br>Validation band (0.0 - 6000.0 MHz)       |
| Detailed Specification: | Custom Calibration Sequence<br>Pulse Shape: rectangular<br>Repetition Rate: 1 kHz<br>Duty Cycle: 50% |
| Bandwidth:              | 0.0 MHz                                                                                              |
| Integration Time:       | 1.0 ms                                                                                               |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

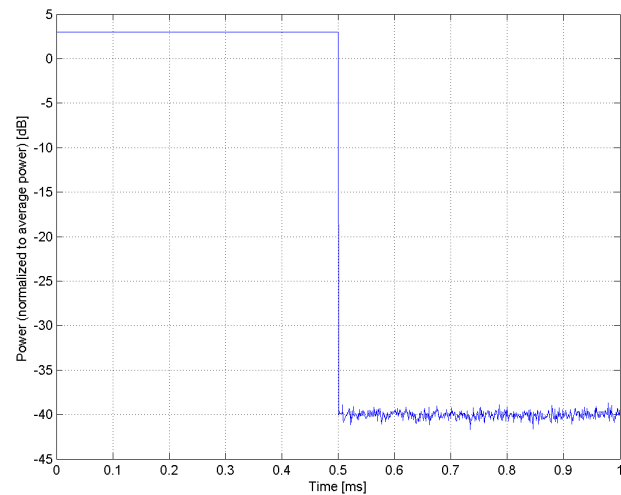
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



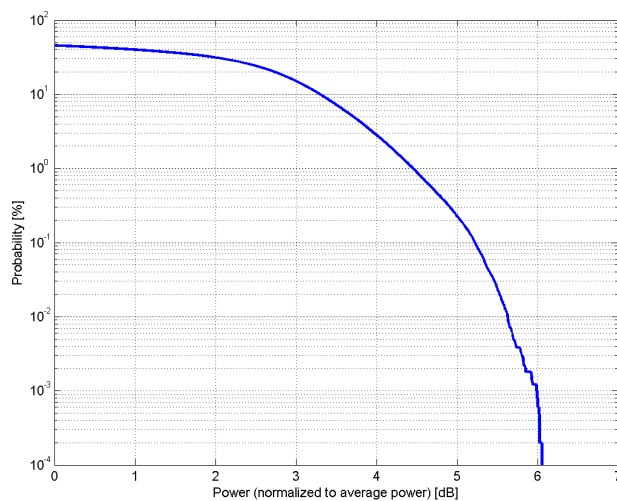
Frequency Domain



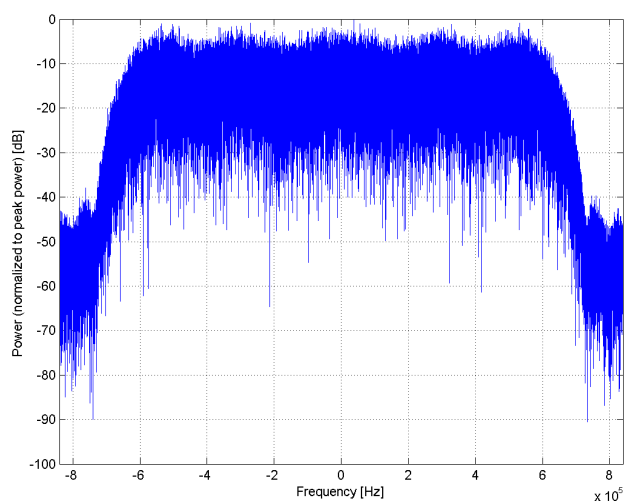
Time Domain

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>CDMA2000, RC3, SO32, SCH0, Full Rate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Group:                  | CDMA2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10406-AAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>5.22 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-16.62 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | 3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3<br>FCC OET KDB 941225 D01 SAR test for 3G devices (v02)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Frequency Band:         | Band Class 0 (815.0-849.0 MHz, 20220)<br>Band Class 1 (1850.0-1910.0 MHz, 20040)<br>Band Class 2 (872.0-915.0 MHz, 20041)<br>Band Class 3 (887.0-925.0 MHz, 20042)<br>Band Class 4 (1750.0-1780.0 MHz, 20043)<br>Band Class 5 (411.7-483.5 MHz, 20044)<br>Band Class 6 (1920.0-1980.0 MHz, 20045)<br>Band Class 7 (776.0-794.0 MHz, 20046)<br>Band Class 8 (1710.0-1785.0 MHz, 20047)<br>Band Class 9 (880.0-915.0 MHz, 20048)<br>Band Class 10 (806.0-901.0 MHz, 20049)<br>Band Class 11 (410.0-462.5 MHz, 20050)<br>Band Class 12 (870.0-876.0 MHz, 20051)<br>Band Class 13 (2500.0-2570.0 MHz, 20179)<br>Band Class 14 (1850.0-1915.0 MHz, 20180)<br>Band Class 15 (1710.0-1755.0 MHz, 20181)<br>Band Class 16 (2502.0-2568.0 MHz, 20182)<br>Band Class 18 (787.0-799.0 MHz, 20184)<br>Band Class 19 (698.0-716.0 MHz, 20185)<br>Band Class 20 (1626.5-1660.5 MHz, 20186)<br>Band Class 21 (2000.0-2020.0 MHz, 20187) |
| Detailed Specification: | Radio Configuration 3 (RC3)<br>Service Option 32 (SO32)<br>SCH0 enabled<br>Full frame rate<br>FCH level: -7.4dB<br>Power control bits: All bits up<br>SCH0 level: -7dB<br>PCH level: -12dB<br>QPCH off<br>Protocol revision: 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Bandwidth:              | 1.2 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 100.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

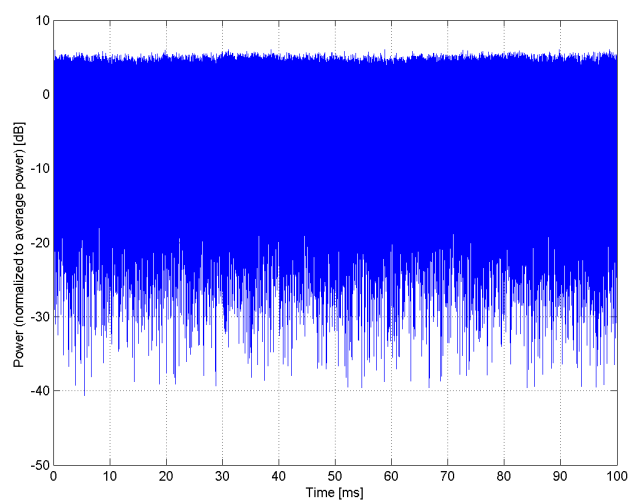
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



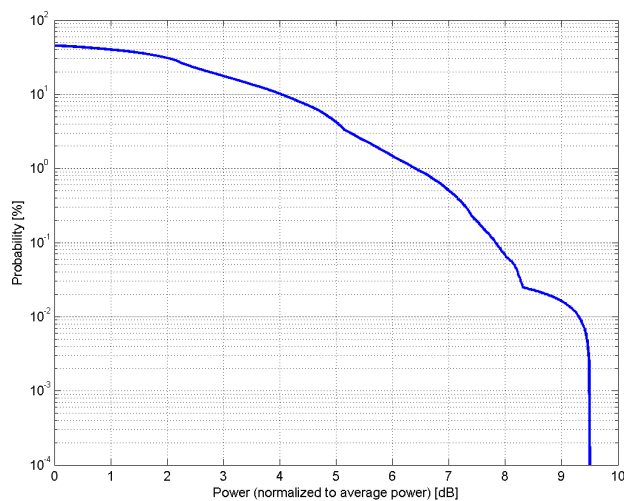
### Time Domain

# Calibration Laboratory of Schmid & Partner Engineering AG

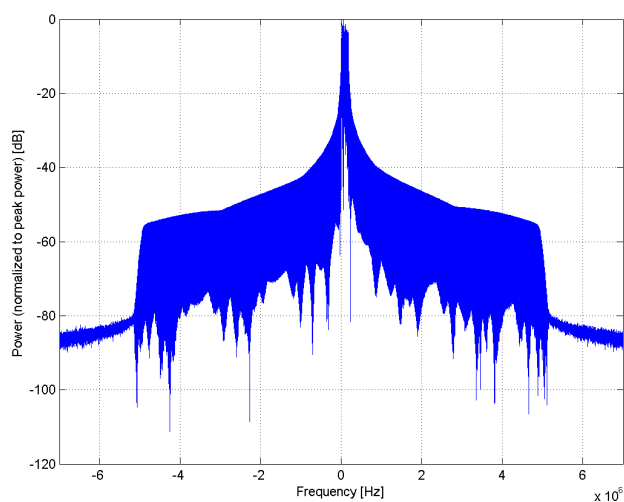
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Group:                  | LTE-TDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10410-AAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PAR: <sup>1</sup>       | <b>7.82 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| MIF: <sup>2</sup>       | <b>-3.41 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Modulation:             | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Frequency Band:         | Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)<br>Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz)<br>Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)<br>Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)<br>Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)<br>Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)<br>Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)<br>Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)<br>Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)<br>Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)<br>Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)<br>Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)<br>Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)<br>Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz)<br>Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz)<br>Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)<br>Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz)<br>Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)<br>Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz)<br>Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Uplink-downlink configuration: 0<br>Special Subframe configuration: 4<br>Number of Frames: 1<br>Settings for UL Subframe: 2,3,4,7,8,9<br>Number of PUSCHs: 1<br>Modulation Scheme: QPSK<br>Allocated RB: 1<br>Start Number of RB: 25<br>Data Type: PN9fix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Bandwidth:              | 10.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

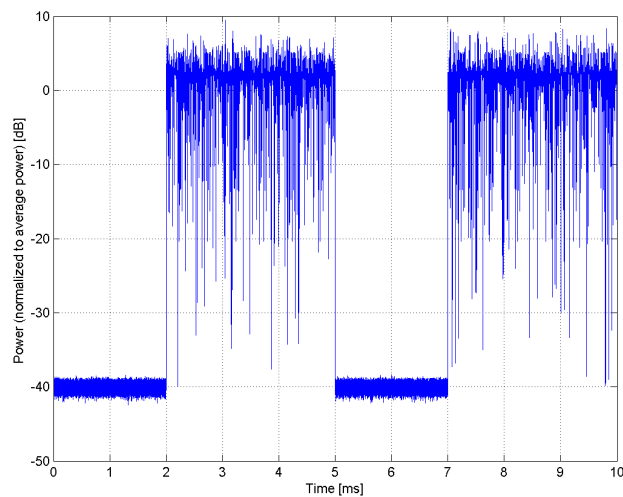
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

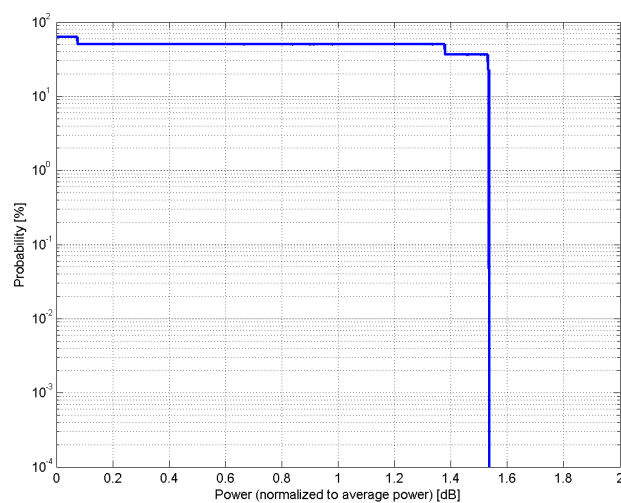
Name: **IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)**

Group: WLAN  
UID: 10415-AAA

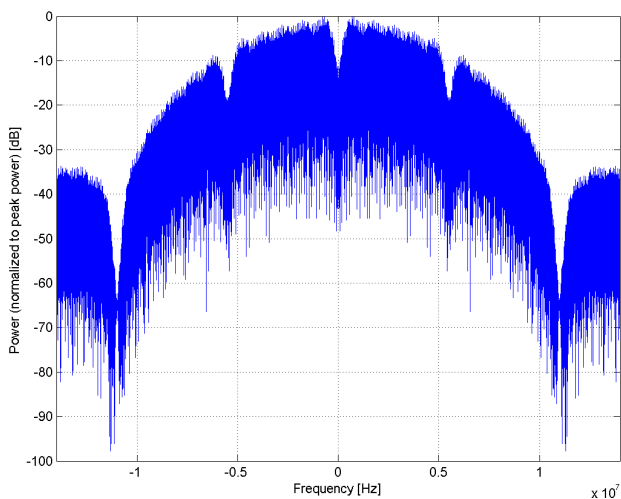
PAR: <sup>1</sup> **1.54 dB**  
MIF: <sup>2</sup> **-17.55 dB**

Standard Reference: IEEE 802.11-2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: DBPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1024 bytes  
Preamble type: long  
Data Rate: 1Mbps  
Burst on time: 8384us  
Bandwidth: 20.0 MHz  
Integration Time: 8.5 ms

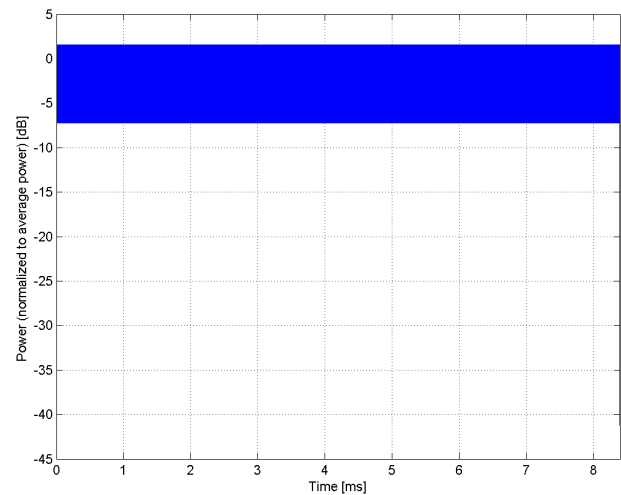
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

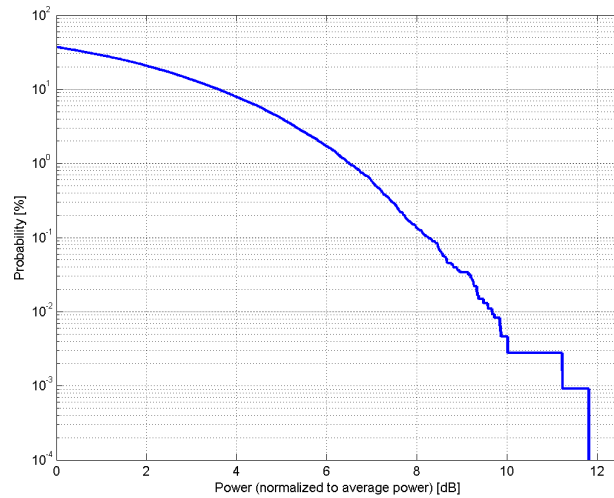
Name: **IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)**

Group: WLAN  
UID: 10416-AAA

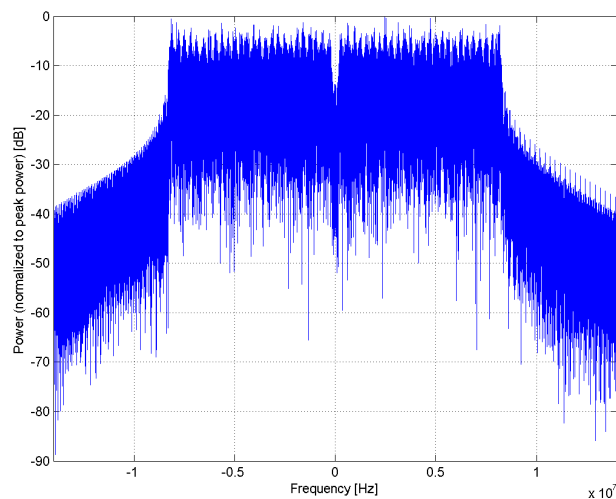
PAR: <sup>1</sup> **8.23 dB**  
MIF: <sup>2</sup> **-18.74 dB**

Standard Reference: IEEE 802.11 2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: BPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1000 bytes  
Frame format: ERP-OFDM  
Data Rate: 6Mbps  
Burst on time: 1360us  
Preamble type: long  
Bandwidth: 20.0 MHz  
Integration Time: 1.4 ms

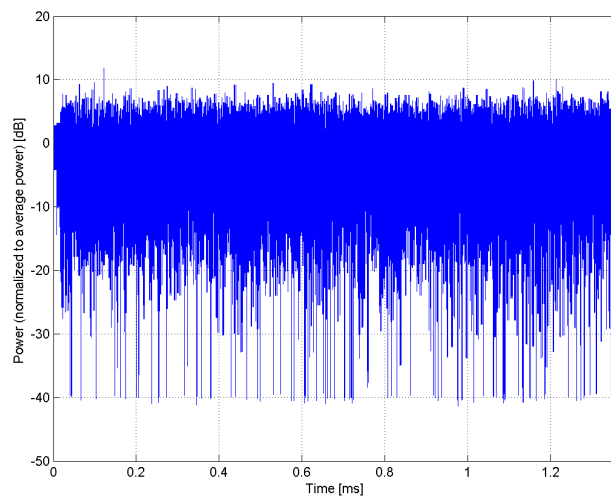
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

**Calibration Laboratory of  
Schmid & Partner  
Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name: IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)

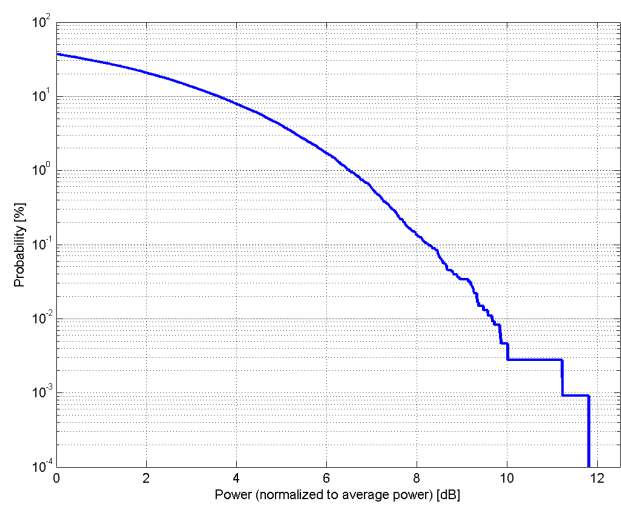
Group: WLAN  
UID: 10417-AAB

PAR: <sup>1</sup> 8.23 dB  
MIF: <sup>2</sup> -18.74 dB

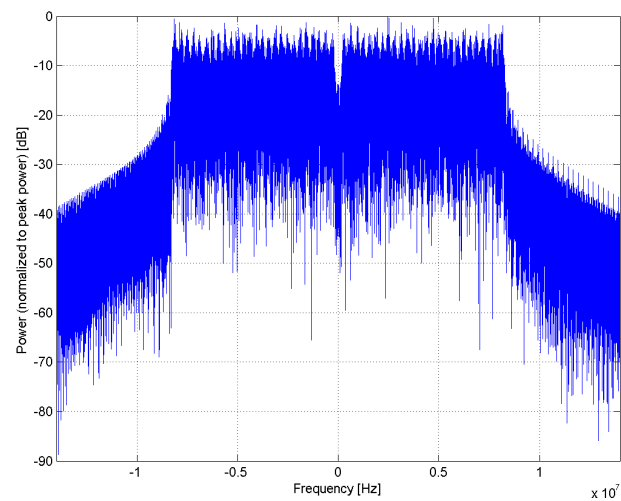
Standard Reference: IEEE 802.11-2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: BPSK  
Frequency Band: WLAN 5GHz (4915.0 - 5825.0 MHz)  
U-NII-1, U-NII-2A (5170 - 5330 MHz)  
U-NII-2C Standalone (5490 - 5710 MHz)  
U-NII-2C <5.65 GHz (5490 - 5650 MHz)  
U-NII-3 Standalone (5735 - 5835 MHz)  
U-NII-2C, U-NII-3 (5650 - 5835 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Duty cycle: 99%  
PSDU length: 1000 bytes  
Data Rate: 6Mbps  
Burst on time: 1360us  
Bandwidth: 20.0 MHz  
Integration Time: 1.4 ms

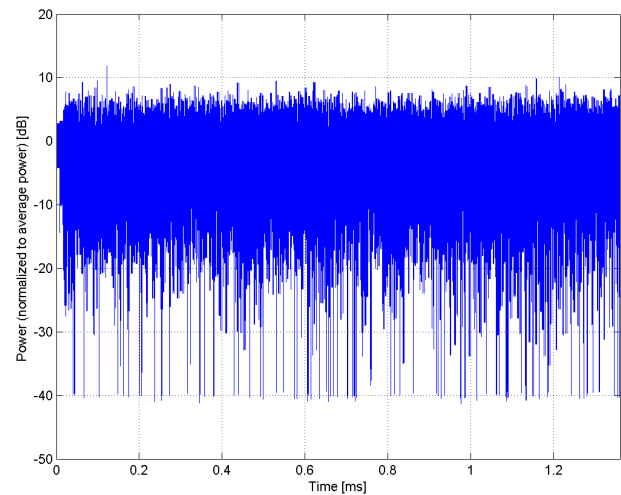
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

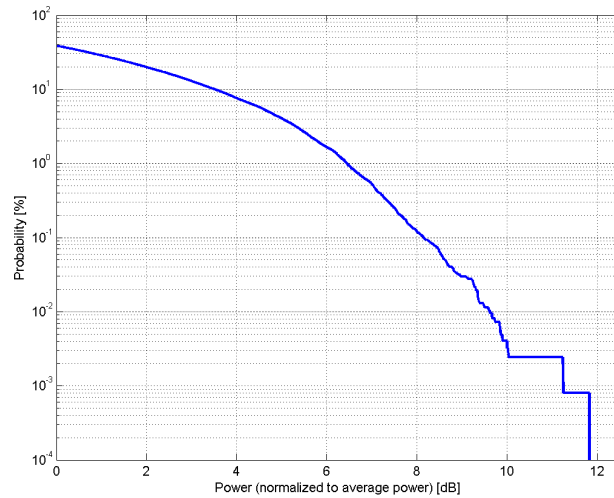


Time Domain

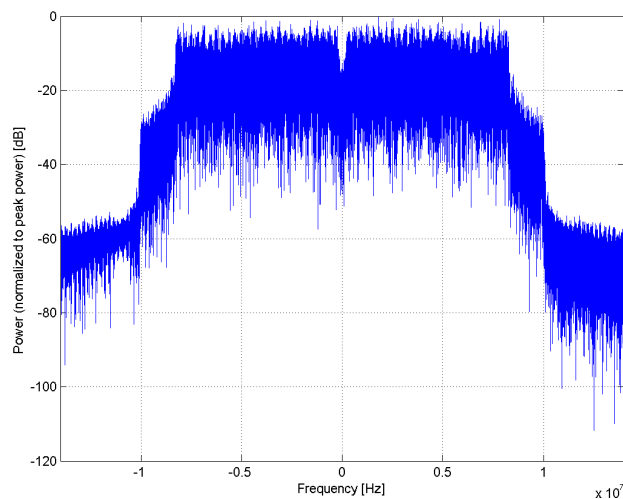
|                         |                                                                                      |
|-------------------------|--------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)</b> |
| Group:                  | WLAN                                                                                 |
| UID:                    | 10418-AAA                                                                            |
| PAR: <sup>1</sup>       | <b>8.14 dB</b>                                                                       |
| MIF: <sup>2</sup>       | <b>-17.11 dB</b>                                                                     |
| Standard Reference:     | IEEE 802.11-2012                                                                     |
| Category:               | FCC SAR meas for 802.11 a b g v01r02 (248227 D01)                                    |
| Modulation:             | Random amplitude modulation                                                          |
| Modulation:             | BPSK                                                                                 |
| Frequency Band:         | WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)                                               |
| Detailed Specification: | Duty cycle: 99 %                                                                     |
|                         | PSDU length: 1000 bytes                                                              |
|                         | Frame format: DSSS-OFDM                                                              |
|                         | Data Rate: 6Mbps                                                                     |
|                         | Burst on time: 1496us                                                                |
|                         | Preamble type: long                                                                  |
| Bandwidth:              | 20.0 MHz                                                                             |
| Integration Time:       | 1.5 ms                                                                               |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

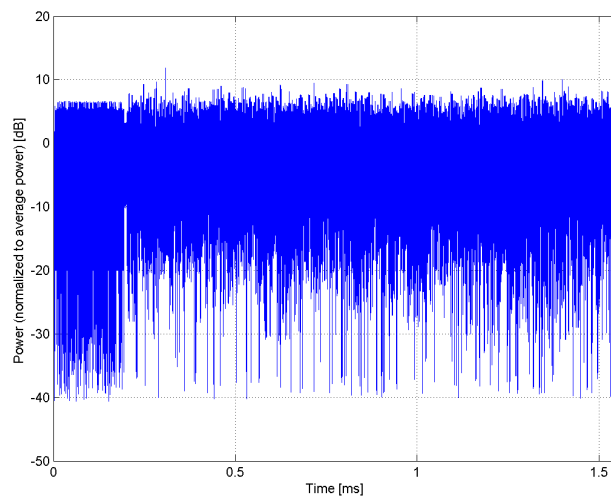
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

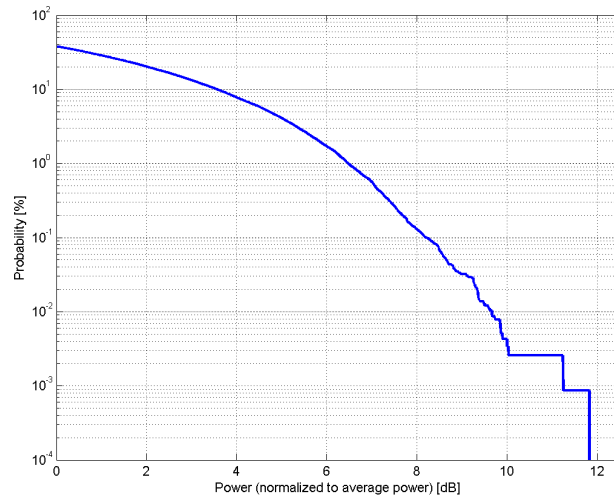


### Time Domain

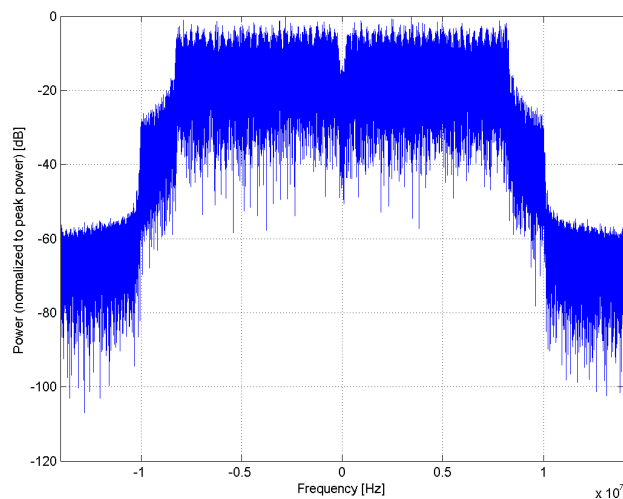
|                         |                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)</b> |
| Group:                  | WLAN                                                                                  |
| UID:                    | 10419-AAA                                                                             |
| PAR: <sup>1</sup>       | <b>8.19 dB</b>                                                                        |
| MIF: <sup>2</sup>       | <b>-18.31 dB</b>                                                                      |
| Standard Reference:     | IEEE 802.11-2012                                                                      |
| Category:               | FCC SAR meas for 802.11 a b g v01r02 (248227 D01)                                     |
| Modulation:             | Random amplitude modulation                                                           |
| Modulation:             | BPSK                                                                                  |
| Frequency Band:         | WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)                                                |
| Detailed Specification: | Duty cycle: 99 %                                                                      |
|                         | PSDU length: 1000 bytes                                                               |
|                         | Frame format: DSSS-OFDM                                                               |
|                         | Data Rate: 6Mbps                                                                      |
|                         | Burst on time: 1496us                                                                 |
|                         | Preamble type: short                                                                  |
| Bandwidth:              | 20.0 MHz                                                                              |
| Integration Time:       | 1.5 ms                                                                                |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

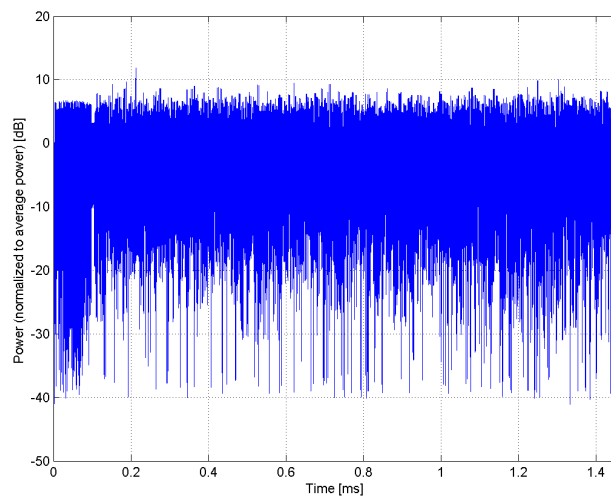
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



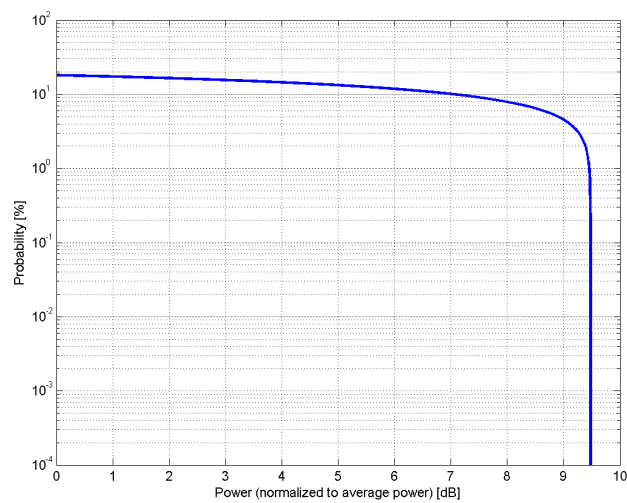
### Time Domain

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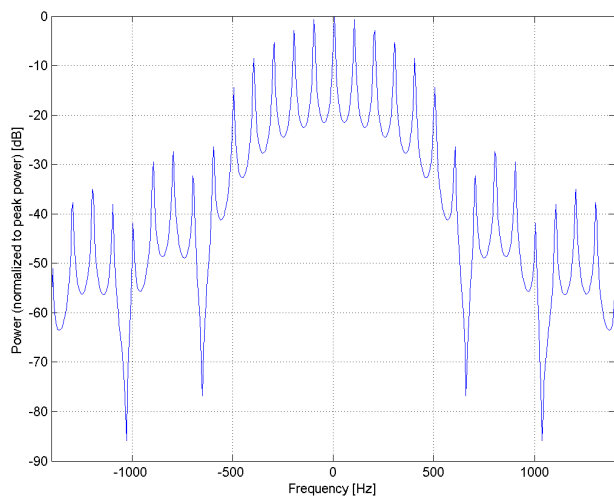
|                         |                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>FSE MRI sequence (pi Sinc, 10ms, 2.5 ms)</b>                                                                   |
| Group:                  | MRI                                                                                                               |
| UID:                    | 10421-AAC                                                                                                         |
| PAR: <sup>1</sup>       | <b>9.48 dB</b>                                                                                                    |
| MIF: <sup>2</sup>       | <b>1.87 dB</b>                                                                                                    |
| Standard Reference:     | SPEAG                                                                                                             |
| Category:               | Periodic pulsed modulation                                                                                        |
| Modulation:             | AM                                                                                                                |
| Frequency Band:         | MRI 1.5T (59.0 - 69.0 MHz)<br>MRI 3T (123.0 - 133.0 MHz)<br>Validation band (0.0 - 6000.0 MHz)                    |
| Detailed Specification: | Calibration Sequence for Fast Spin Echo<br>Pulse Shape: Sinc +/- Pi<br>Repetition Rate: 100 Hz<br>Duty Cycle: 25% |
| Bandwidth:              | 0.0 MHz                                                                                                           |
| Integration Time:       | 10.0 ms                                                                                                           |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

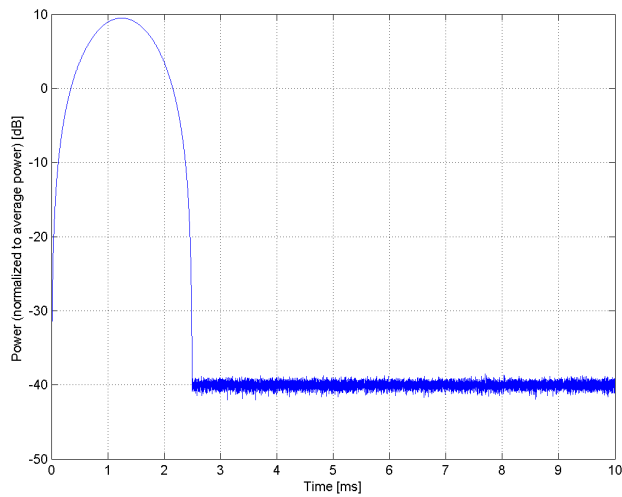
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

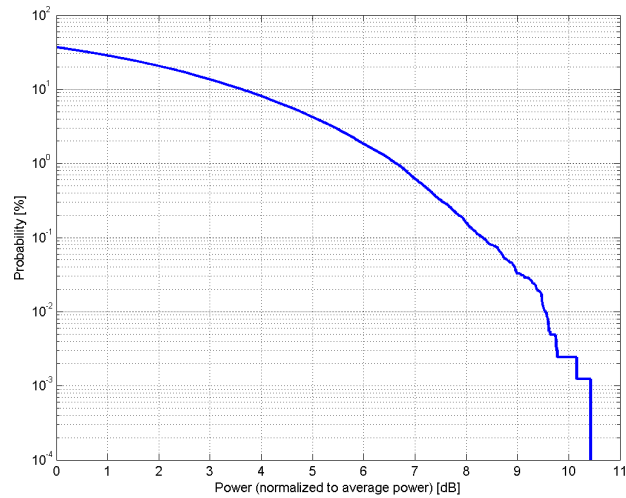


Time Domain

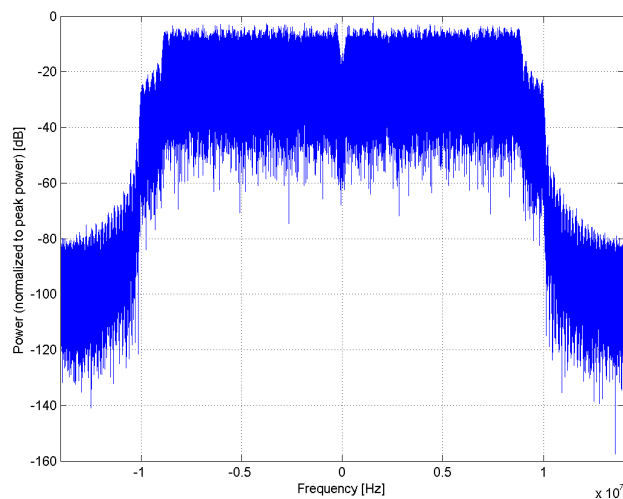
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                                                                                                                                                                                                                                                      |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10422-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | 8.32 dB                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | -14.20 dB                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: BPSK<br>Data Rate: 7.2 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 20 MHz<br>MCS Index: 0<br>Guard Interval: Short<br>Duty Cycle: 99%                                                                                                                                                            |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

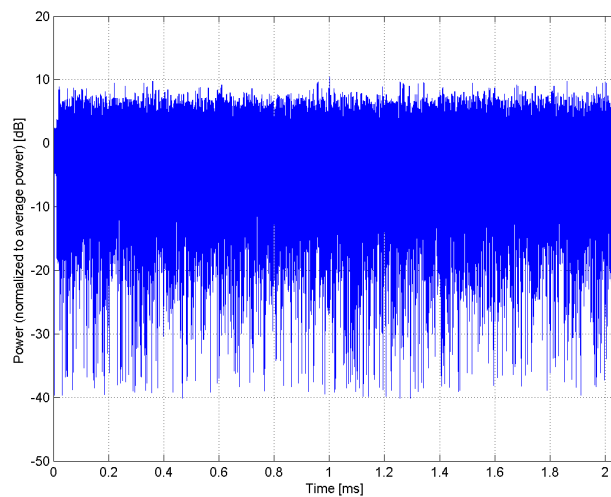
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

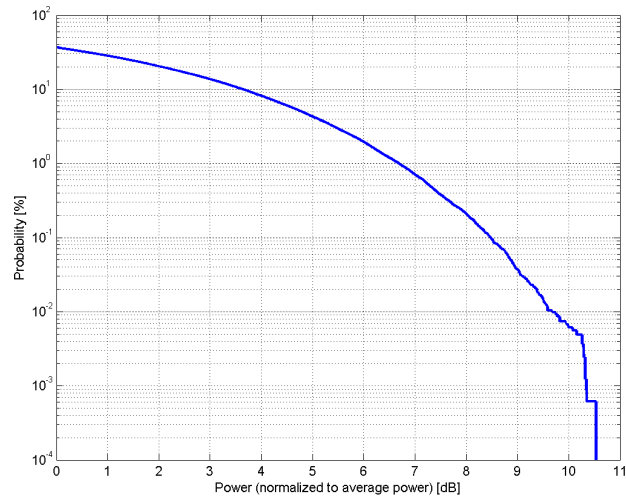


### Time Domain

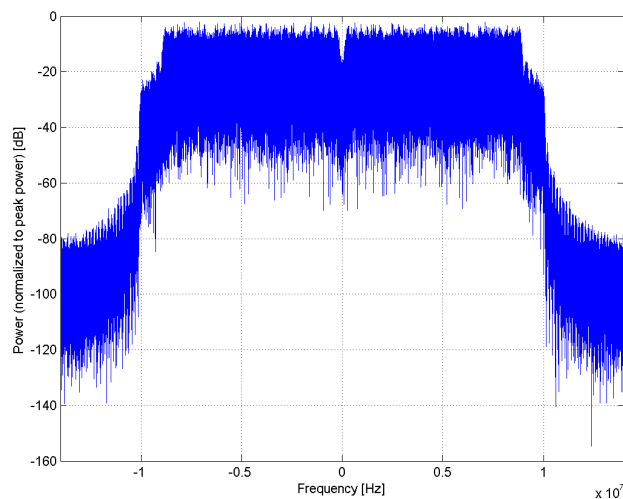
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)</b>                                                                                                                                                                                                                                                            |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10423-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.47 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-13.60 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: 16-QAM<br>Data Rate: 43.3 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 20 MHz<br>MCS Index: 4<br>Guard Interval: Short<br>Duty Cycle: 99%                                                                                                                                                         |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

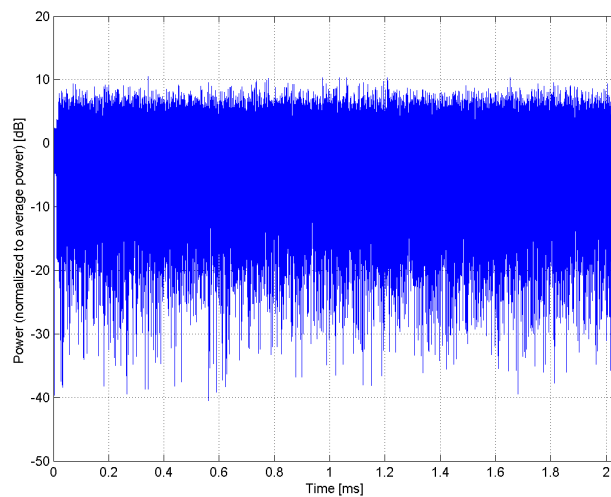
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

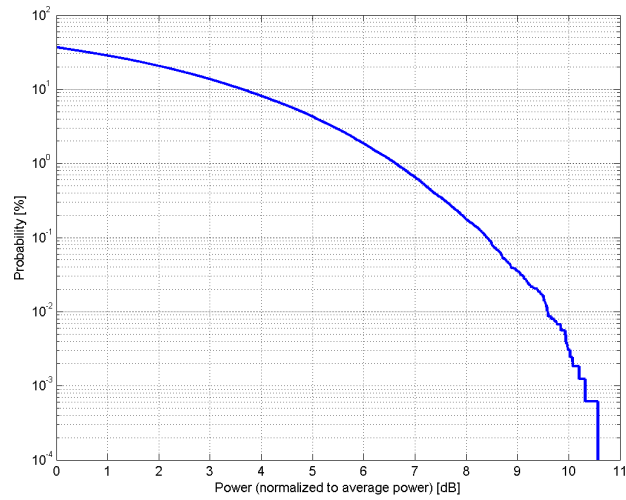


### Time Domain

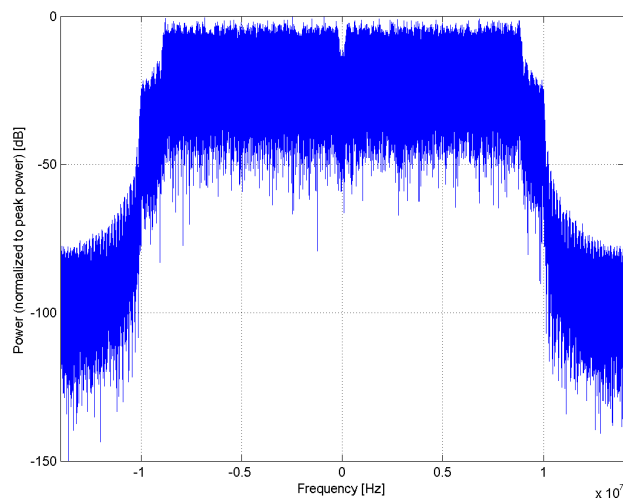
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**Engineering AG**  
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)</b>                                                                                                                                                                                                                                                            |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10424-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.40 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-13.84 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: 64-QAM<br>Data Rate: 72.2 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 20 MHz<br>MCS Index: 7<br>Guard Interval: Short<br>Payload Length: 1767                                                                                                                                                    |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

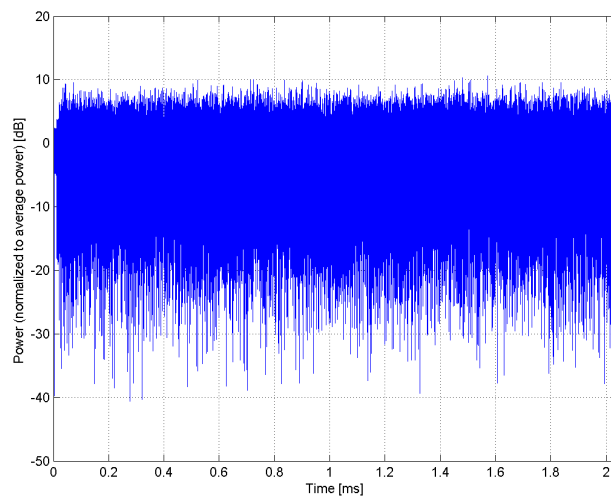
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

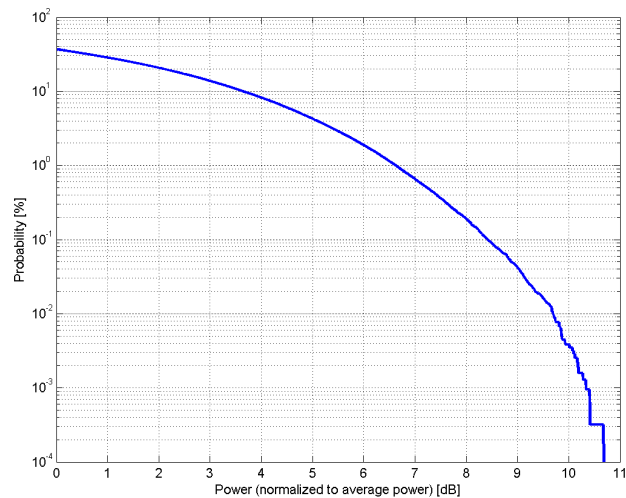


### Time Domain

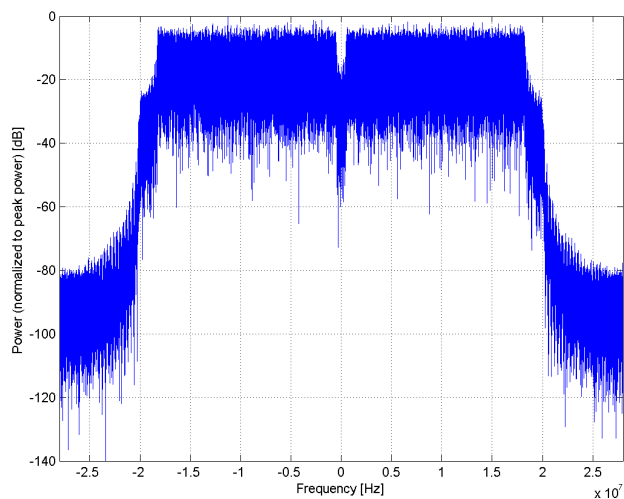
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)</b>                                                                                                                                                                                                                                                                |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10425-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.41 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-13.52 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: BPSK<br>Data Rate: 15 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 40 MHz<br>MCS Index: 0<br>Guard Interval: Short<br>Payload Length: 1767                                                                                                                                                        |
| Bandwidth:              | 40.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

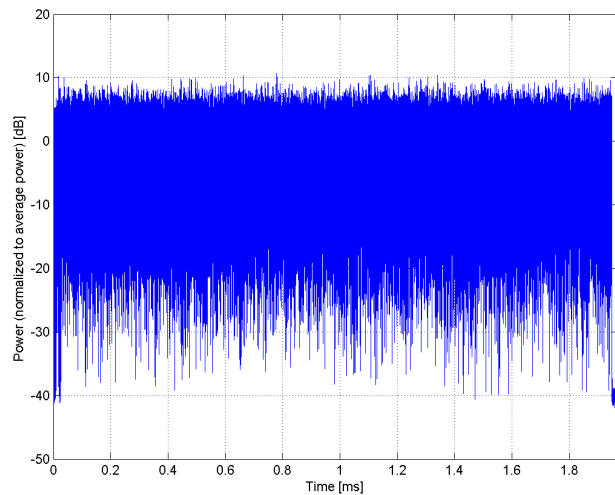
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

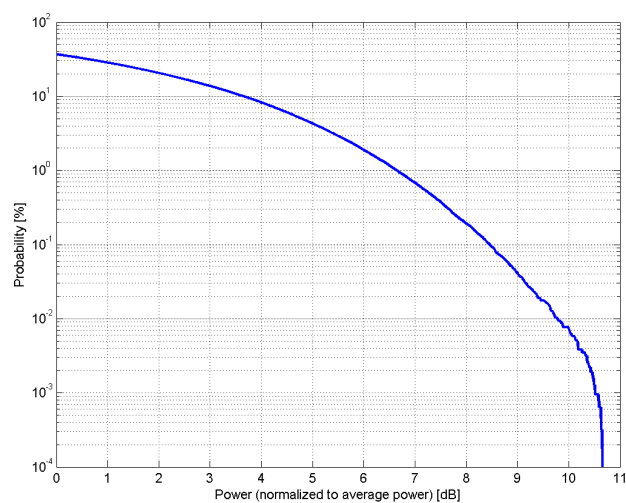


Time Domain

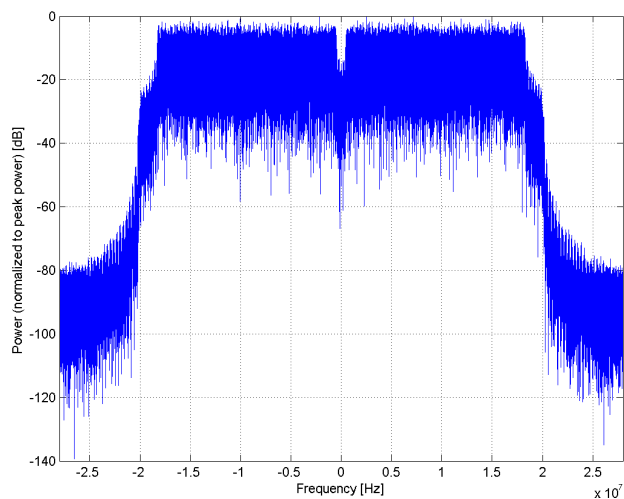
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)</b>                                                                                                                                                                                                                                                              |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10426-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.45 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-13.71 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: 16-QAM<br>Data Rate: 90 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 40 MHz<br>MCS Index: 4<br>Guard Interval: Short<br>Payload Length: 1767                                                                                                                                                      |
| Bandwidth:              | 40.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

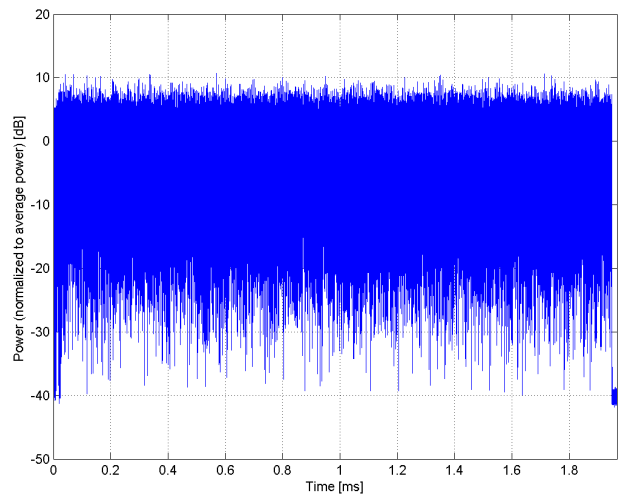
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

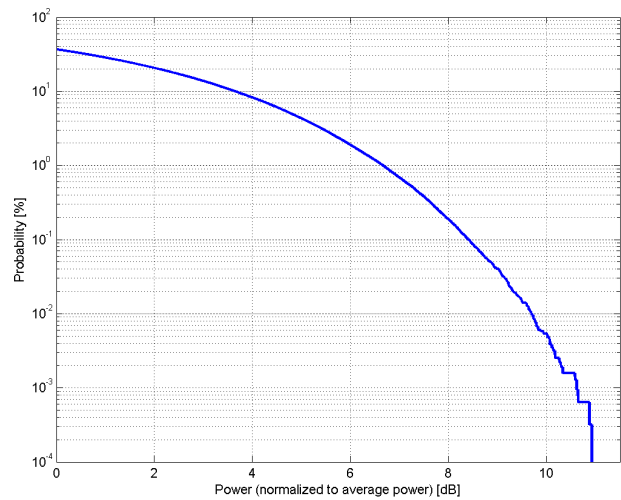


Time Domain

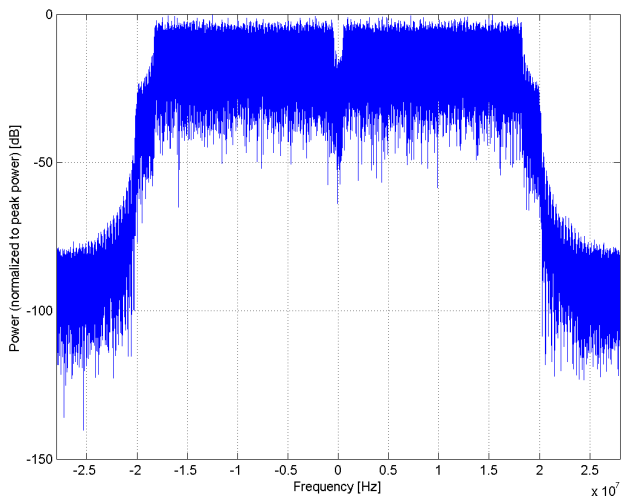
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|                         |                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)</b>                                                                                                                                                                                                                                                             |
| Group:                  | WLAN                                                                                                                                                                                                                                                                                                              |
| UID:                    | 10427-AAB                                                                                                                                                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>8.41 dB</b>                                                                                                                                                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-13.44 dB</b>                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | IEEE 802.11n-2009                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                       |
| Modulation:             | BPSK                                                                                                                                                                                                                                                                                                              |
| Frequency Band:         | WLAN 2.4GHz (2412.0 - 2484.0 MHz)<br>WLAN 5GHz (4915.0 - 5825.0 MHz)<br>U-NII-1, U-NII-2A (5170 - 5330 MHz)<br>U-NII-2C Standalone (5490 - 5710 MHz)<br>U-NII-2C <5.65 GHz (5490 - 5650 MHz)<br>U-NII-3 Standalone (5735 - 5835 MHz)<br>U-NII-2C, U-NII-3 (5650 - 5835 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation: 64-QAM<br>Data Rate: 150 Mbps<br>PPDU Format: HT Greenfield<br>PPDU Type: 40 MHz<br>MCS Index: 7<br>Guard Interval: Short<br>Duty Cycle: 99%                                                                                                                                                          |
| Bandwidth:              | 40.0 MHz                                                                                                                                                                                                                                                                                                          |
| Integration Time:       | 2.0 ms                                                                                                                                                                                                                                                                                                            |

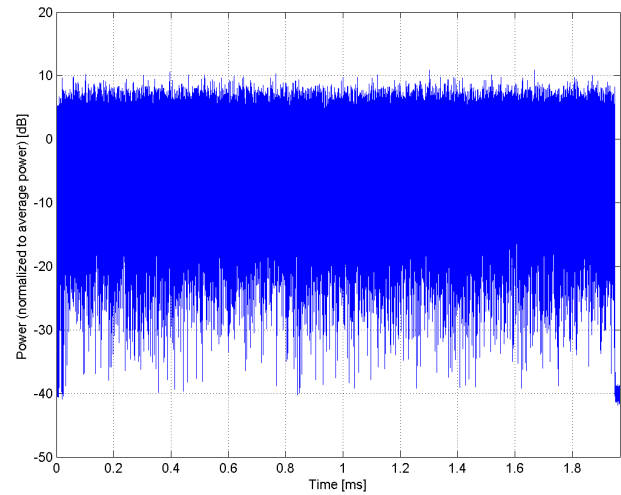
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



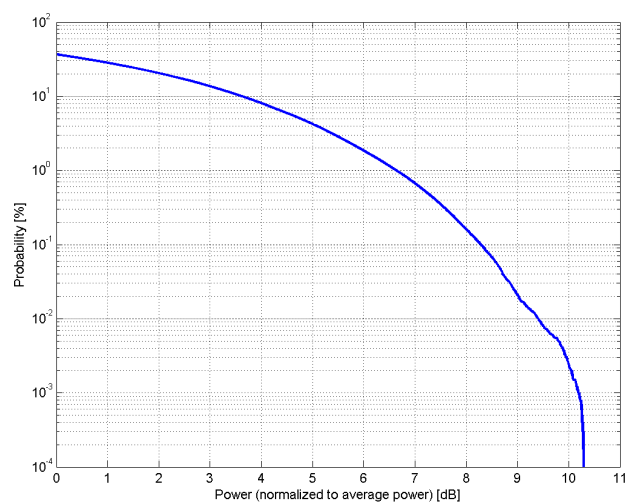
Time Domain

# Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

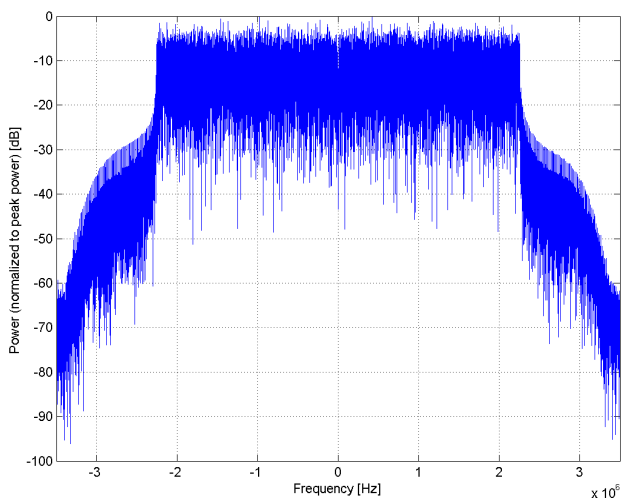
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10430-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PAR: <sup>1</sup>       | <b>8.28 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>-16.24 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz)<br>Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz)<br>Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz)<br>Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz)<br>Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz)<br>Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz)<br>Band 30, E-UTRA/FDD, Downlink (2350.0 - 2360.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 69, E-UTRA/FDD, Downlink (2570.0 - 2620.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 72, E-UTRA/FDD, Downlink (461.0 - 466.0 MHz)<br>Band 73, E-UTRA/FDD, Downlink (460.0 - 465.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Band 76, E-UTRA/FDD, Downlink (1427.0 - 1432.0 MHz)<br>Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Bandwidth:              | Bandwidth: 5MHz<br>5.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

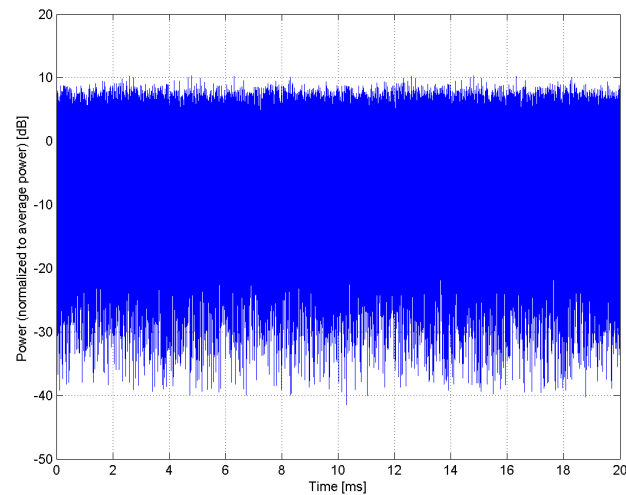
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

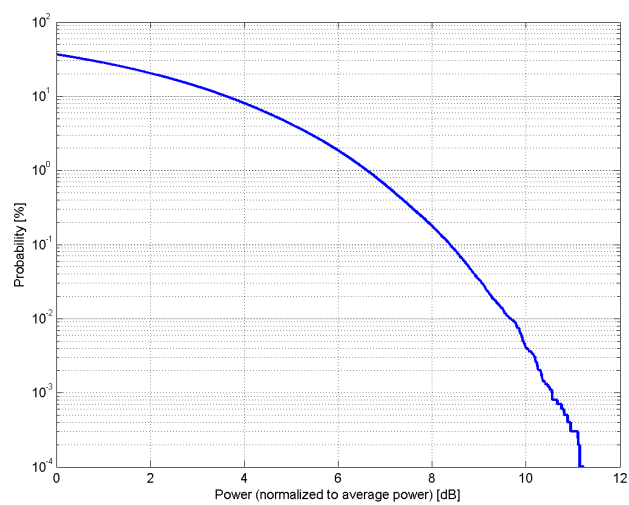


Time Domain

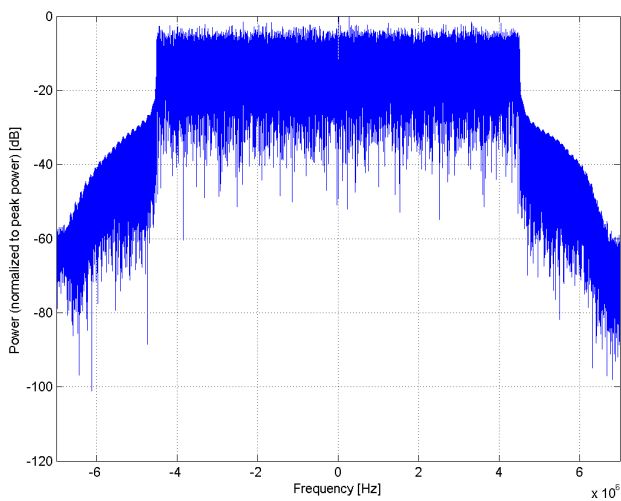
# Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UID:                    | 10431-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>8.38 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-17.66 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz)<br>Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz)<br>Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz)<br>Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz)<br>Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz)<br>Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Bandwidth:              | Bandwidth: 10MHz<br>10.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

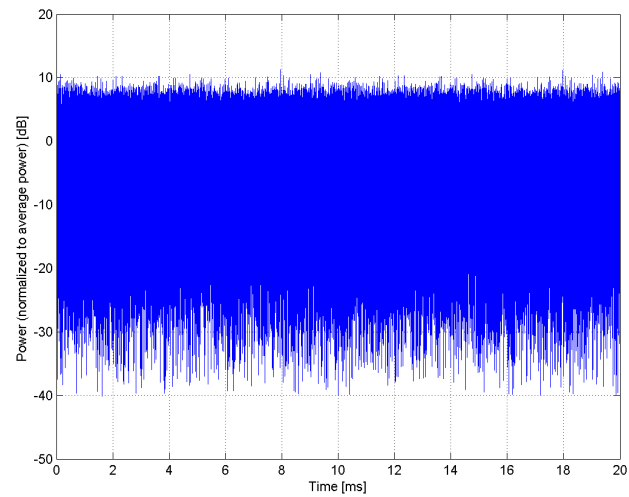
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



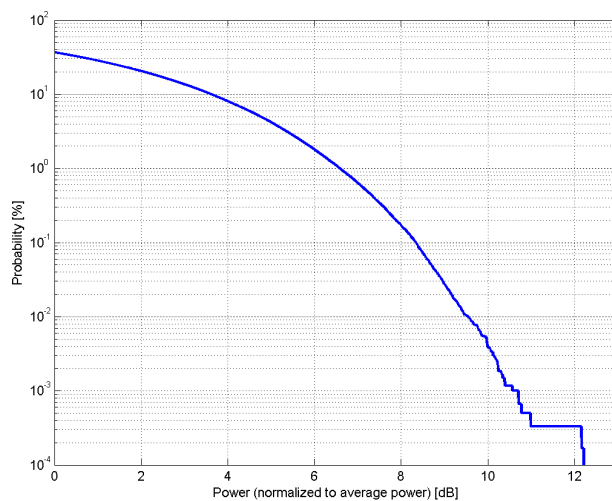
Time Domain

# Calibration Laboratory of Schmid & Partner Engineering AG

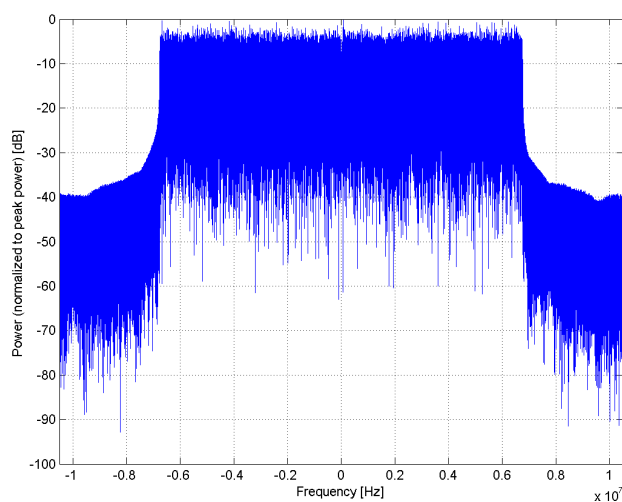
Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UID:                    | 10432-AAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| PAR: <sup>1</sup>       | <b>8.34 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MIF: <sup>2</sup>       | <b>-19.05 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Bandwidth:              | Bandwidth: 15MHz<br>15.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

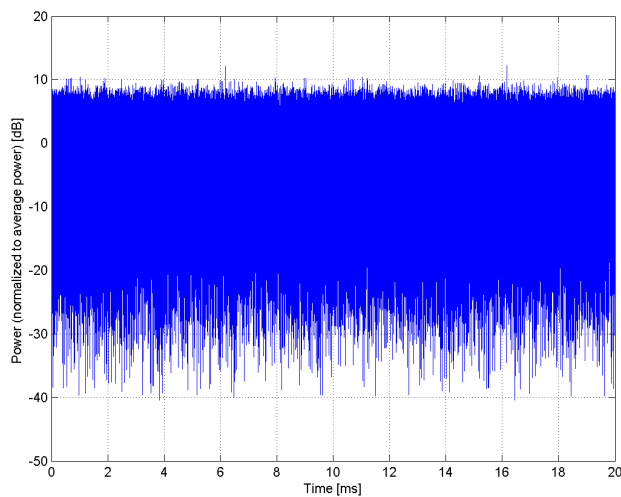
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

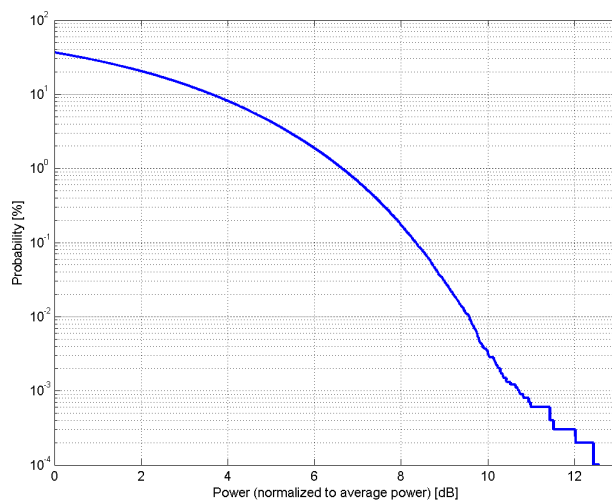


### Time Domain

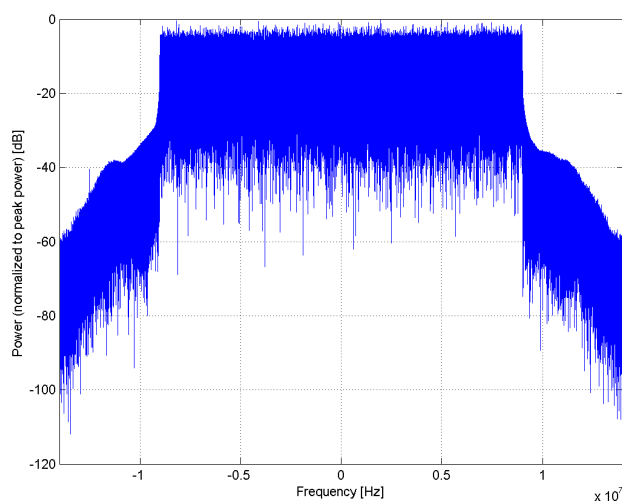
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

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|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| UID:                    | 10433-AAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| PAR: <sup>1</sup>       | <b>8.34 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| MIF: <sup>2</sup>       | <b>-19.83 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Bandwidth:              | Bandwidth: 20MHz<br>20.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

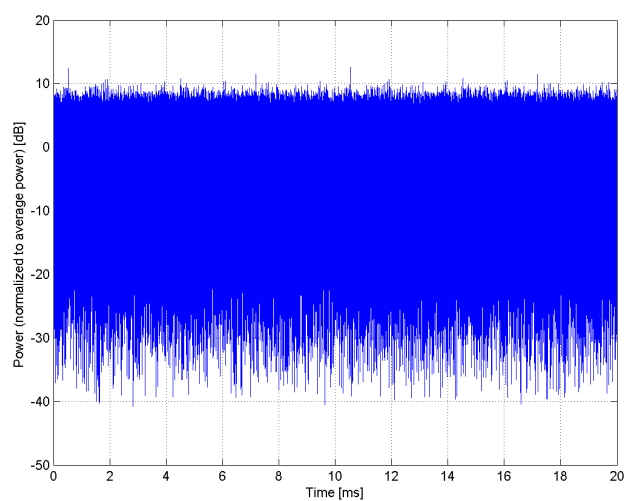
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



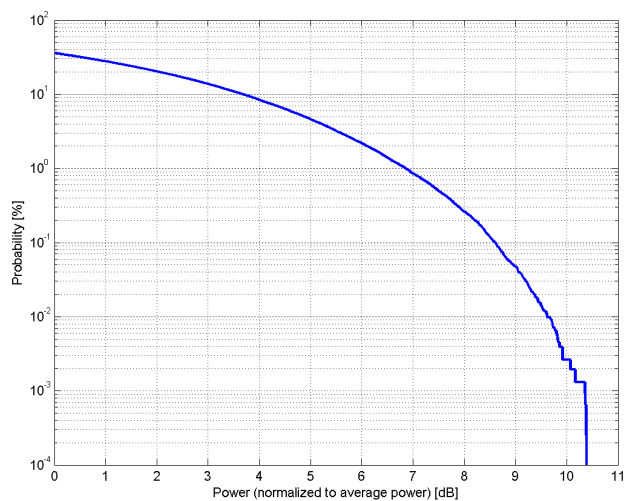
### Frequency Domain



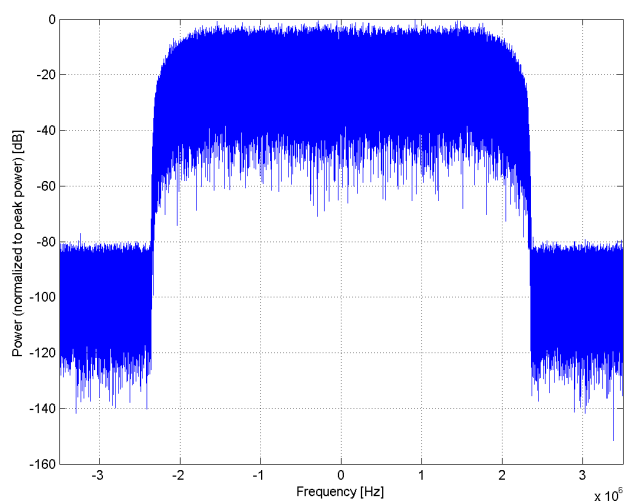
### Time Domain

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>W-CDMA (BS Test Model 1, 64 DPCH)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Group:                  | WCDMA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UID:                    | 10434-AAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| PAR: <sup>1</sup>       | <b>8.60 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| MIF: <sup>2</sup>       | <b>-16.44 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Standard Reference:     | TS 25.141                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Frequency Band:         | Band 1, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20264)<br>Band 2, UTRA/FDD, Downlink (1930.0-1990.0 MHz, 20265)<br>Band 3, UTRA/FDD, Downlink (1805.0-1880.0 MHz, 20266)<br>Band 4, UTRA/FDD, Downlink (2110.0-2155.0 MHz, 20267)<br>Band 5, UTRA/FDD, Downlink (869.0-894.0 MHz, 20268)<br>Band 6, UTRA/FDD, Downlink (875.0-885.0 MHz, 20269)<br>Band 7, UTRA/FDD, Downlink (2620.0-2690.0 MHz, 20270)<br>Band 8, UTRA/FDD, Downlink (925.0-960.0 MHz, 20271)<br>Band 9, UTRA/FDD, Downlink (1844.9-1879.9 MHz, 20272)<br>Band 10, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20273)<br>Band 11, UTRA/FDD, Downlink (1475.9-1495.9 MHz, 20274)<br>Band 12, UTRA/FDD, Downlink (729.0-749.0 MHz, 20275)<br>Band 13, UTRA/FDD, Downlink (746.0-756.0 MHz, 20276)<br>Band 14, UTRA/FDD, Downlink (758.0-768.0 MHz, 20277)<br>Band 19, UTRA/FDD, Downlink (875.0-890.0 MHz, 20278)<br>Band 20, UTRA/FDD, Downlink (791.0-821.0 MHz, 20279)<br>Band 21, UTRA/FDD, Downlink (1495.9-1510.9 MHz, 20280)<br>Band 22, UTRA/FDD, Downlink (3510.0-3590.0 MHz, 20281)<br>Band 25, UTRA/FDD, Downlink (1930.0-1995.0 MHz, 20282)<br>Band 26, UTRA/FDD, Downlink (859.0-894.0 MHz, 20283) |
| Detailed Specification: | WCDMA BS Test Model 1 DPCHx64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Bandwidth:              | Single Carrier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Integration Time:       | 5.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                         | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

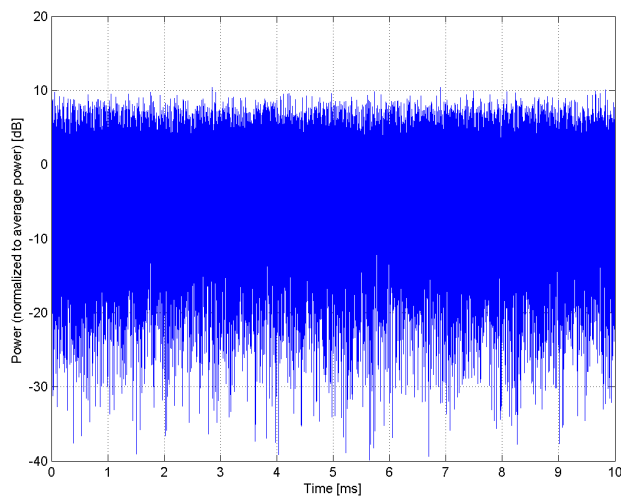
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

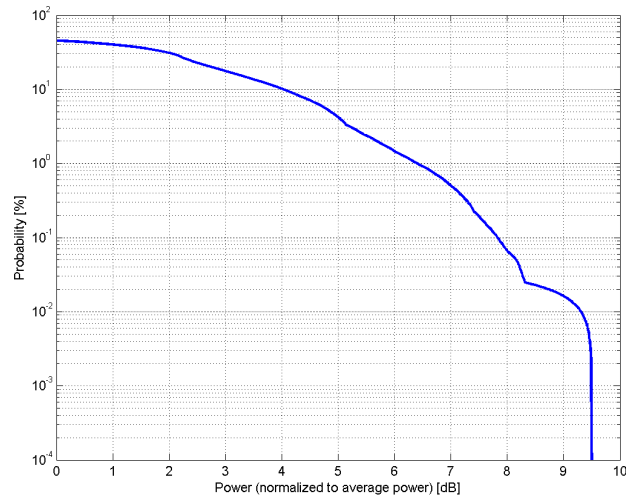


### Time Domain

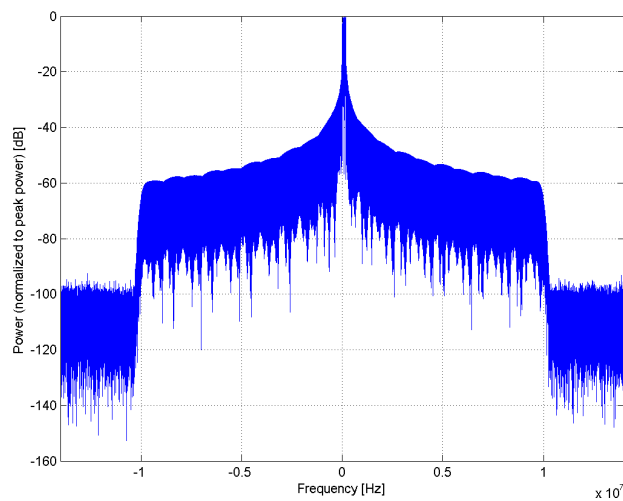
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Group:                  | LTE-TDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| UID:                    | 10435-AAF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PAR: <sup>1</sup>       | <b>7.82 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MIF: <sup>2</sup>       | <b>-3.41 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Category:               | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Modulation:             | QPSK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Frequency Band:         | Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)<br>Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)<br>Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)<br>Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)<br>Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)<br>Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)<br>Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)<br>Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)<br>Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)<br>Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)<br>Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)<br>Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)<br>Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz)<br>Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz)<br>Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)<br>Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz)<br>Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)<br>Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Uplink-downlink configuration: 0<br>Special Subframe configuration: 7<br>Number of Frames: 1<br>Settings for UL Subframe: 2,3,4,7,8,9<br>Number of PUSCHs: 1<br>Modulation Scheme: QPSK<br>Allocated RB: 1<br>Start Number of RB: 50<br>Data Type: PN9fix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

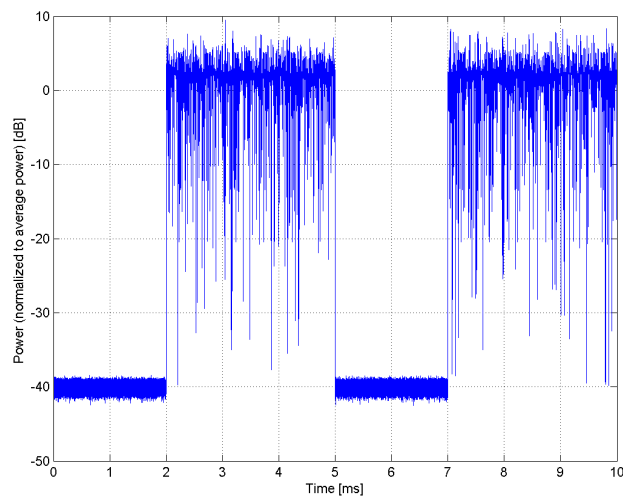
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



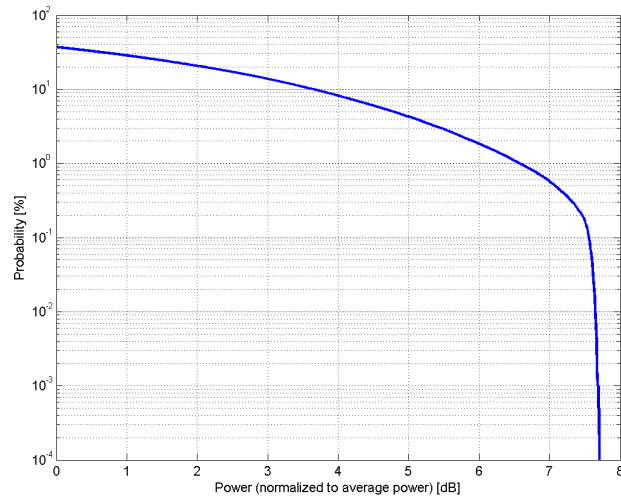
### Time Domain

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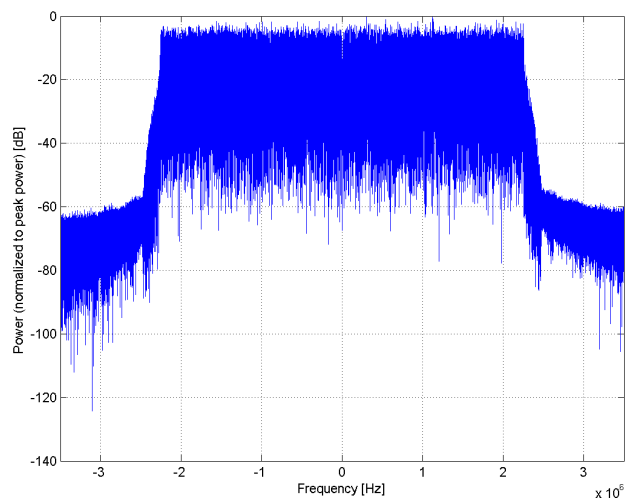
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|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10447-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PAR: <sup>1</sup>       | <b>7.56 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>-13.47 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz)<br>Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz)<br>Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz)<br>Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz)<br>Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz)<br>Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz)<br>Band 30, E-UTRA/FDD, Downlink (2350.0 - 2360.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 69, E-UTRA/FDD, Downlink (2570.0 - 2620.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 72, E-UTRA/FDD, Downlink (461.0 - 466.0 MHz)<br>Band 73, E-UTRA/FDD, Downlink (460.0 - 465.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Band 76, E-UTRA/FDD, Downlink (1427.0 - 1432.0 MHz)<br>Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)<br>Bandwidth: 5MHz<br>Clipping 44%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Bandwidth:              | 5.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

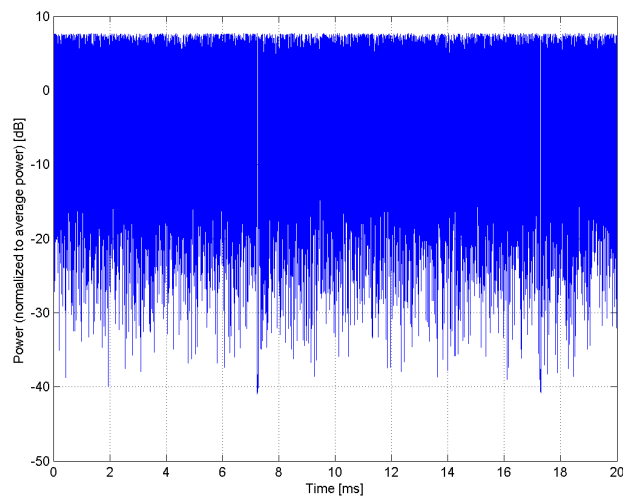
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

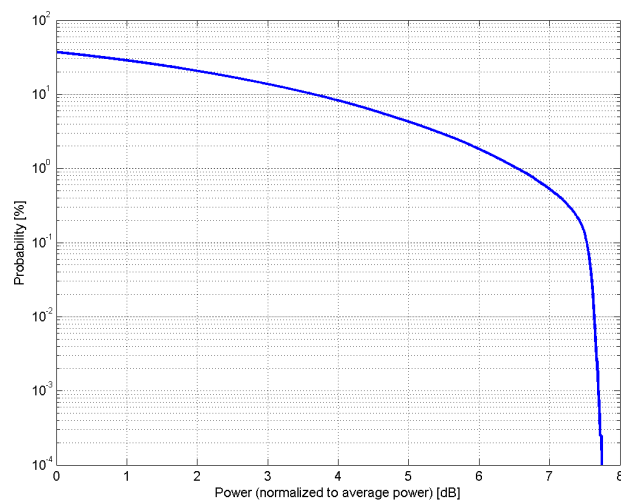
# Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

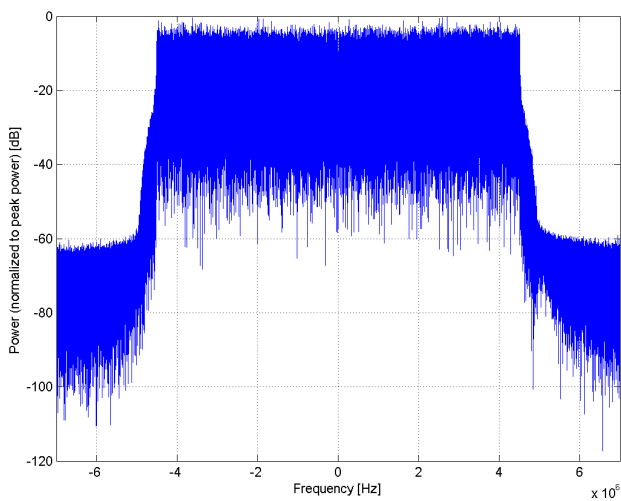
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|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UID:                    | 10448-AAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>7.53 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| MIF: <sup>2</sup>       | <b>-14.92 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz)<br>Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz)<br>Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz)<br>Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz)<br>Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz)<br>Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                         | Bandwidth: 10MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                         | Clipping 44%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Bandwidth:              | 10.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

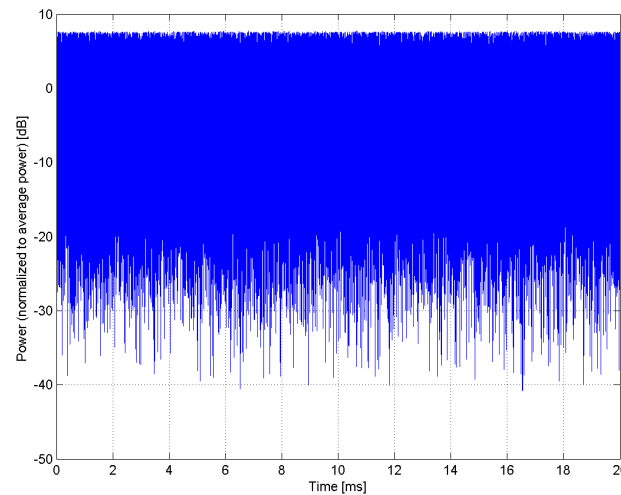
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

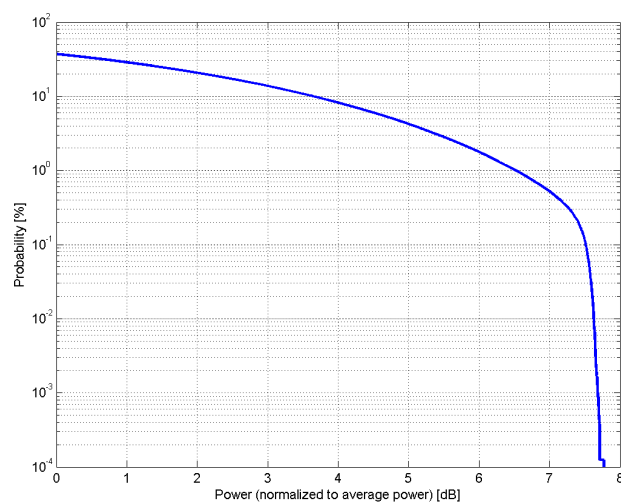


Time Domain

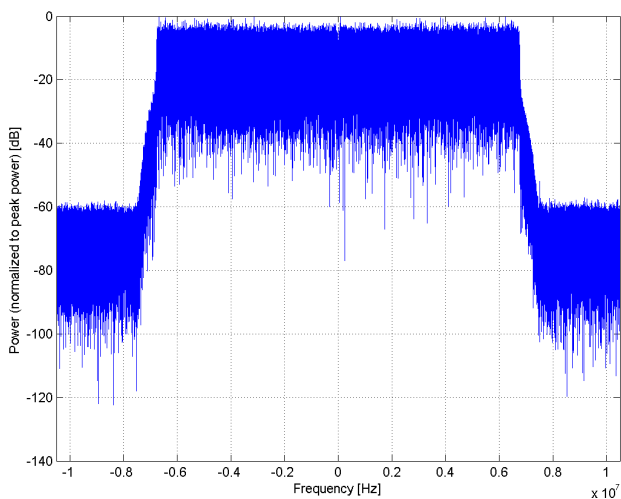
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
**Zeughausstrasse 43, 8004 Zurich, Switzerland**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UID:                    | 10449-AAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| PAR: <sup>1</sup>       | <b>7.51 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| MIF: <sup>2</sup>       | <b>-16.22 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Standard Reference:     | TS 36.141 V11.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Modulation:             | 64-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Frequency Band:         | Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz)<br>Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz)<br>Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz)<br>Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz)<br>Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz)<br>Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz)<br>Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz)<br>Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz)<br>Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz)<br>Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz)<br>Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz)<br>Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz)<br>Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz)<br>Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz)<br>Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz)<br>Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz)<br>Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz)<br>Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz)<br>Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz)<br>Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz)<br>Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz)<br>Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz)<br>Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz)<br>Validation band (0.0 - 6000.0 MHz) |
| Detailed Specification: | E-UTRA Test Model 3.1 (E-TM3.1)<br>Bandwidth: 15MHz<br>Clipping 44%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Bandwidth:              | 15.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Integration Time:       | 20.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

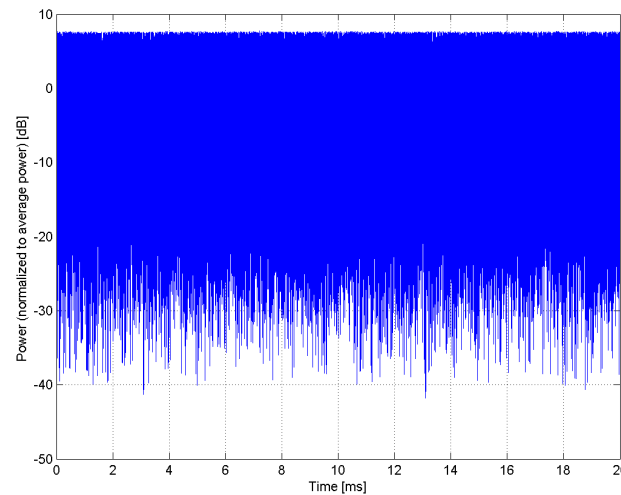
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain