

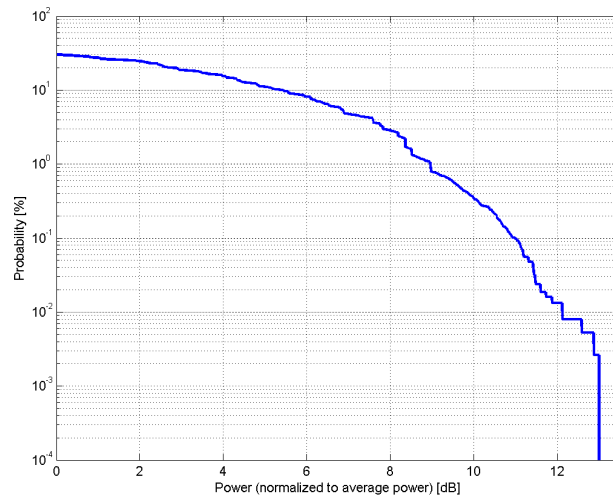
Name: **IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)**

Group: WLAN
UID: 10076-CAB

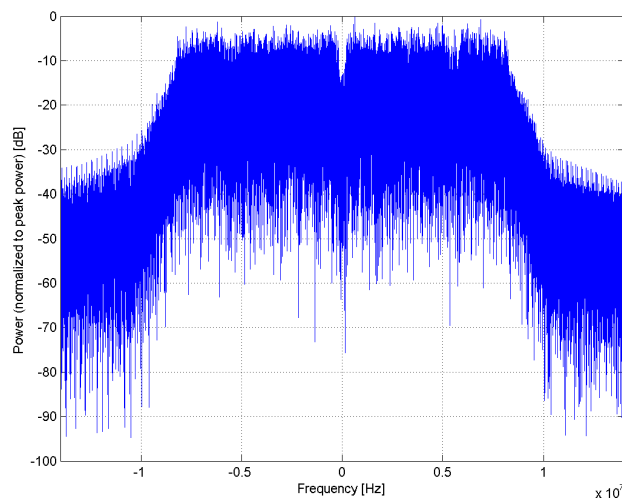
PAR: ¹ **10.94 dB**
MIF: ² **0.02 dB**

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: 64-QAM
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification: Data Rate: 48 Mbps
Coding Rate: 2/3
Coded bits per subcarrier: 6
Coded bits per OFDM symbol: 288
Data bits per OFDM symbol: 192
PSDU Length: 1000 Bytes
PSDU Data: PN9
Bandwidth: 20.0 MHz
Integration Time: 0.9 ms

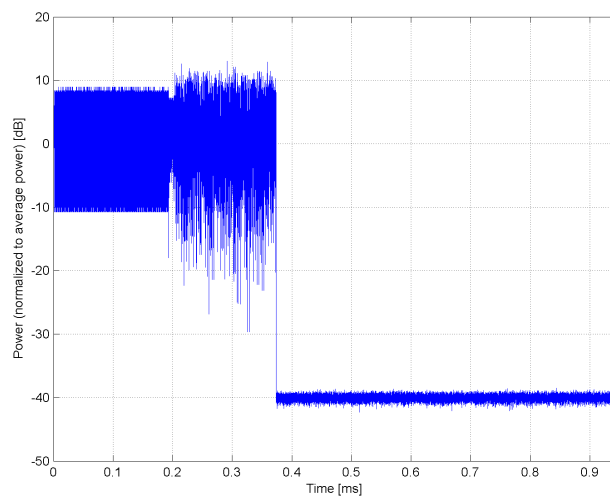
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

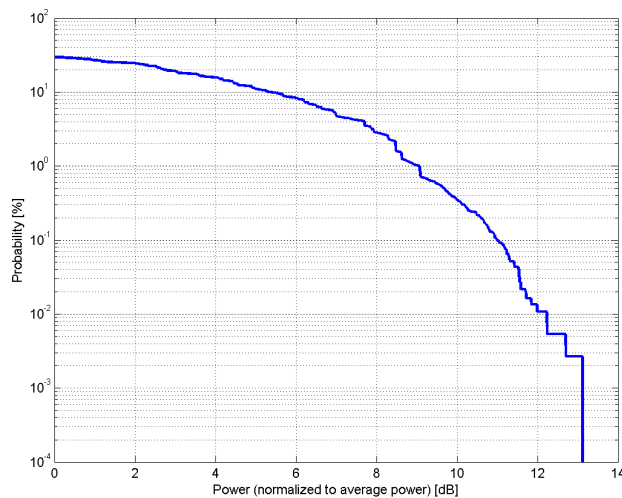
Name: **IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)**

Group: WLAN
UID: 10077-CAB

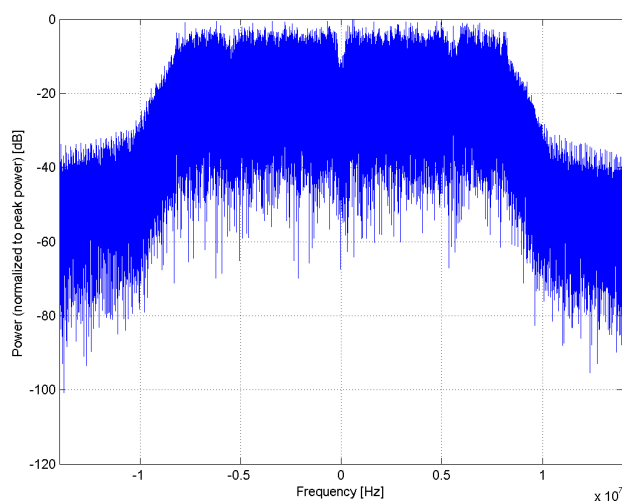
PAR: ¹ **11.00 dB**
MIF: ² **0.12 dB**

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: 64-QAM
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification: Data Rate: 54 Mbps
Coding Rate: 3/4
Coded bits per subcarrier: 6
Coded bits per OFDM symbol: 288
Data bits per OFDM symbol: 216
PSDU Length: 1000 Bytes
PSDU Data: PN9
Bandwidth: 20.0 MHz
Integration Time: 0.9 ms

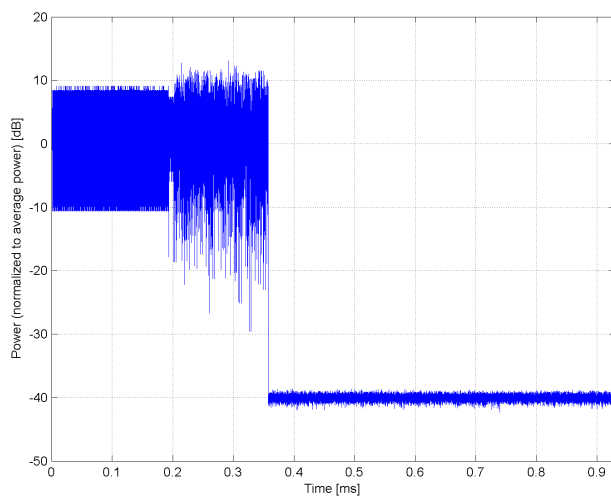
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



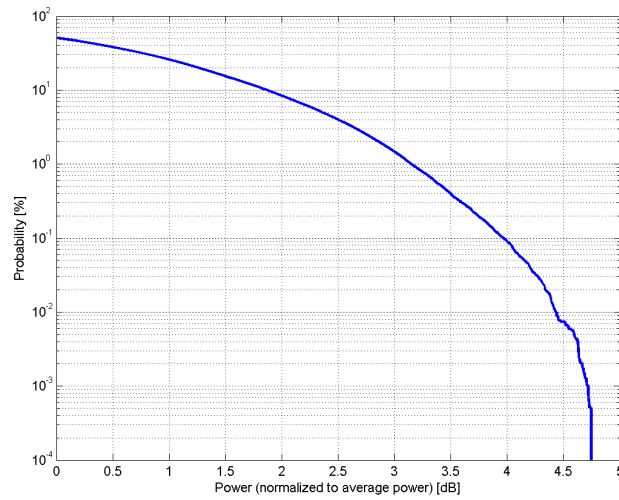
Frequency Domain



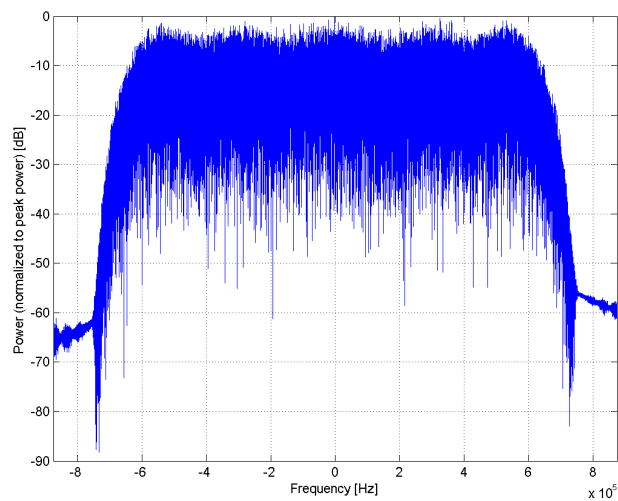
Time Domain

Name:	CDMA2000 (1xRTT, RC3)
Group:	CDMA2000
UID:	10081-CAB
PAR: ¹	3.97 dB
MIF: ²	-19.71 dB
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 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) Band Class 1 (1850.0-1910.0 MHz, 20040) Band Class 2 (872.0-915.0 MHz, 20041) Band Class 3 (887.0-925.0 MHz, 20042) Band Class 4 (1750.0-1780.0 MHz, 20043) Band Class 5 (411.7-483.5 MHz, 20044) Band Class 6 (1920.0-1980.0 MHz, 20045) Band Class 7 (776.0-794.0 MHz, 20046) Band Class 8 (1710.0-1785.0 MHz, 20047) Band Class 9 (880.0-915.0 MHz, 20048) Band Class 10 (806.0-901.0 MHz, 20049) Band Class 11 (410.0-462.5 MHz, 20050) Band Class 12 (870.0-876.0 MHz, 20051) Band Class 13 (2500.0-2570.0 MHz, 20179) Band Class 14 (1850.0-1915.0 MHz, 20180) Band Class 15 (1710.0-1755.0 MHz, 20181) Band Class 16 (2502.0-2568.0 MHz, 20182) Band Class 18 (787.0-799.0 MHz, 20184) Band Class 19 (698.0-716.0 MHz, 20185) Band Class 20 (1626.5-1660.5 MHz, 20186) Band Class 21 (2000.0-2020.0 MHz, 20187)
Detailed Specification:	Radio Configurations 3 (RC3) Output Slot: PICH, FCH 9.6 kpbs R-PITCH: Walsh Code 0, Code Power: -5.278 dB, Data Rate: N/A, Data: All "0" R-FCH: Walsh Code 4, Code Power -1.528 dB, Data Rate 9.6kbps, Data: PN9fix
Bandwidth:	1.2 MHz
Integration Time:	80.0 ms

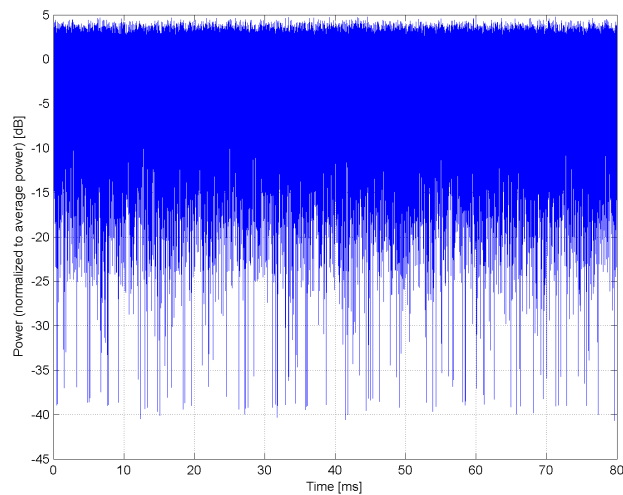
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Name: **IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)**

Group: AMPS
 UID: 10082-CAB

PAR: ¹ **4.77 dB**
 MIF: ² **-2.91 dB**

Standard Reference: TIA/EIA-136-110-B

Category:

Modulation: Pi/4-DQPSK

Frequency Band: IS-136, 800MHz, 30kHz (824.0-849.0 MHz, 20222)
 IS-136, 800MHz, 200kHz (824.0-849.0 MHz, 20223)
 IS-136, 1900MHz, 30kHz (1850.0-1910.0 MHz, 20224)
 IS-136, 1900MHz, 200kHz (1850.0-1910.0 MHz, 20225)
 IS-136, 1900MHz, 30kHz (1920.0-1980.0 MHz, 20226)
 IS-136, 1900MHz, 200kHz (1920.0-1980.0 MHz, 20227)
 IS-136, 700MHz, 30kHz (747.0-762.0 MHz, 20228)
 IS-136, 700MHz, 200kHz (747.0-762.0 MHz, 20229)

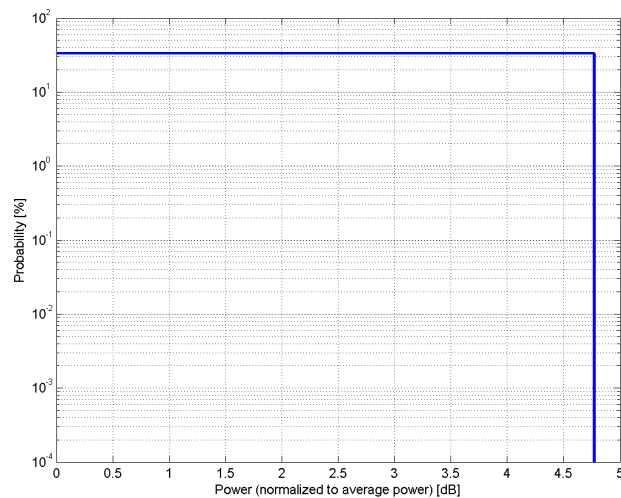
Detailed Specification: D-AMPS
 Multiple Access Method: TDMA/FDM
 Channel Spacing/Bandwidth: 30 kHz / 200 kHz
 Channel Bit Rate: 48.6 kbit/s
 Spectrum Efficiency: 1.62 bit/s/Hz
 Active Channels: 1 of 3 (Fullrate Channels)

Bandwidth: 0.0 MHz

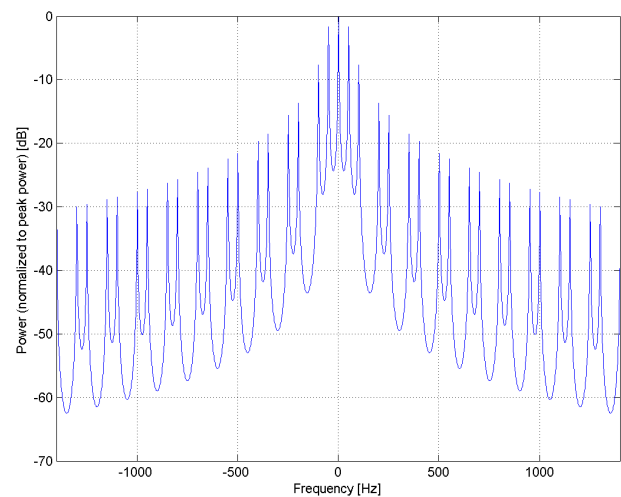
Integration Time: 20.0 ms

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

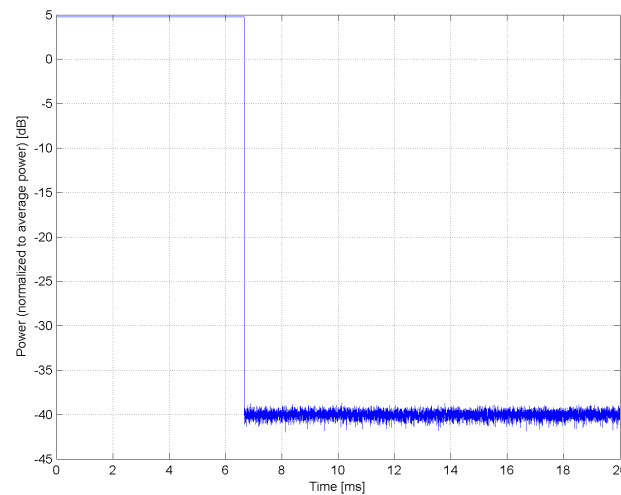
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



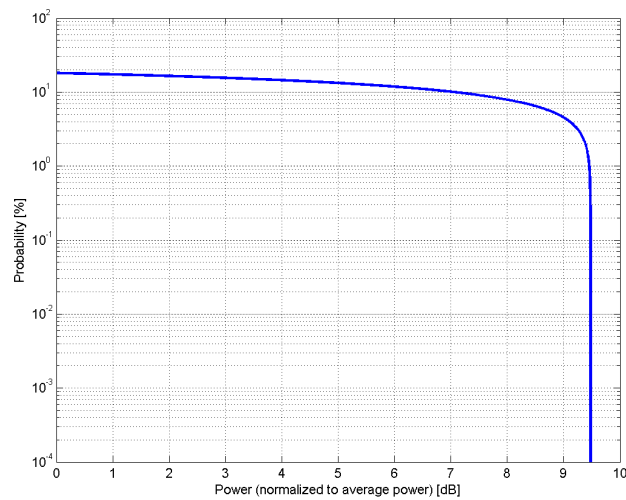
Time Domain

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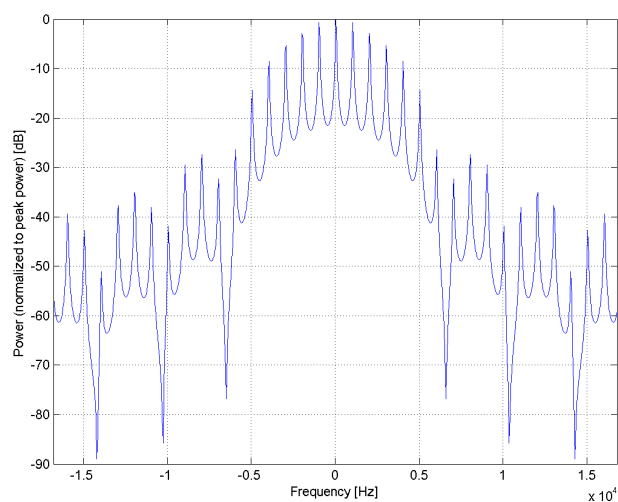
Name:	FSE MRI sequence (pi Sinc, 1ms, 0.25 ms)
Group:	MRI
UID:	10084-DAC
PAR: ¹	9.48 dB
MIF: ²	-99.00 dB
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Fast Spin Echo Pulse Shape: Sinc +/- Pi Repetition Rate: 1 kHz Duty Cycle: 25%
Bandwidth:	0.0 MHz
Integration Time:	1.0 ms

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

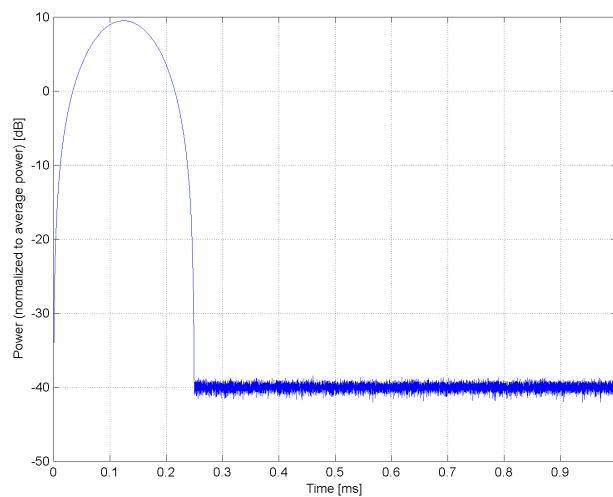
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

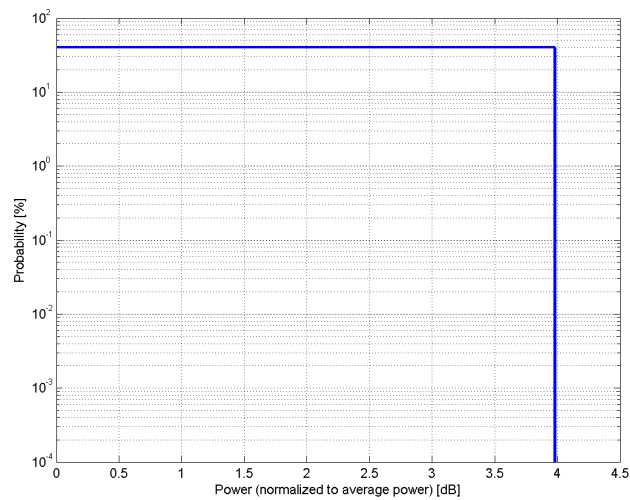


Time Domain

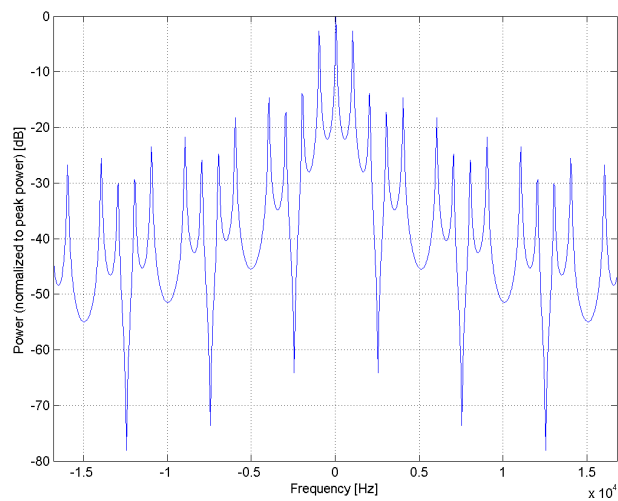
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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	MRI (Square, 1ms, 0.4ms)
Group:	MRI
UID:	10089-CAC
PAR: ¹	3.98 dB
MIF: ²	-99.00 dB
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Custom Calibration Sequence Pulse Shape: rectangular Repetition Rate: 1 kHz Duty Cycle: 40%
Bandwidth:	0.0 MHz
Integration Time:	1.0 ms

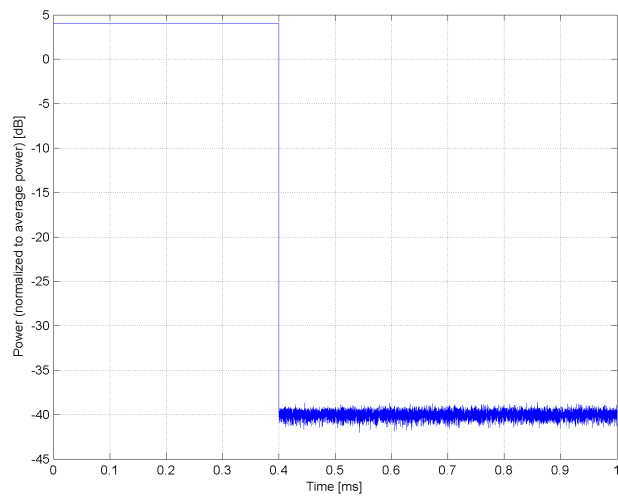
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



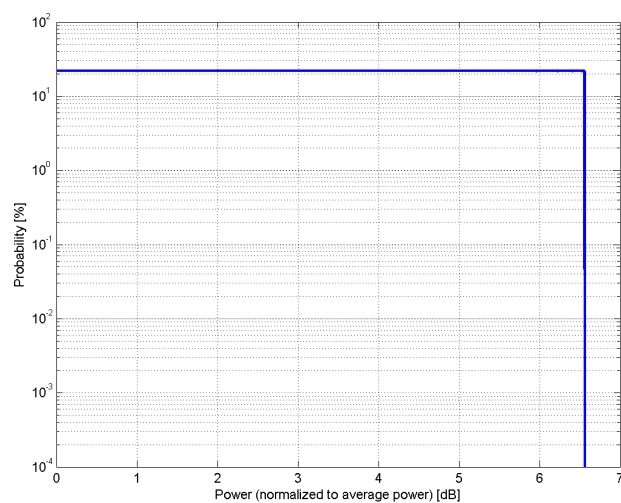
Time Domain

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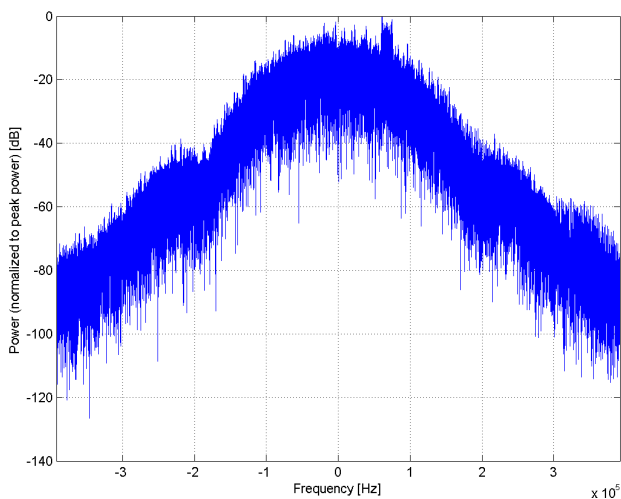
Name:	GPRS-FDD (TDMA, GMSK, TN 0-4)
Group:	GSM
UID:	10090-DAC
PAR: ¹	6.56 dB
MIF: ²	1.81 dB
Standard Reference:	ETSI TS 100 909 V8.9.0 (2005-01)
Category:	FCC OET KDB 941225, D03 and D04
Modulation:	Periodic pulsed modulation
Frequency Band:	GMSK
	GSM 450 (450.4 - 457.6 MHz)
	GSM 480 (478.8 - 486.0 MHz)
	GSM 710 (698.0 - 716.0 MHz)
	GSM 750 (747.0 - 763.0 MHz)
	GSM 850 (824.0 - 849.0 MHz)
	P-GSM 900 (890.0 - 915.0 MHz)
	E-GSM 900 (880.0 - 915.0 MHz)
	R-GSM 900 (876.0 - 915.0 MHz)
	DCS 1800 (1710.0 - 1785.0 MHz)
	PCS 1900 (1850.0 - 1910.0 MHz)
	ER-GSM 900 (873.0 - 915.0 MHz)
	Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Active Slots: TN0, TN4
	Data: PN9 continuous
	Frame: composed out of 8 Slots
	Multiframe: 13th (PTCCH) and 26th (IDLE) Frame set blank
	Slottype & -timing: Normal burst for GMSK
Bandwidth:	0.2 MHz
Integration Time:	60.0 ms

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

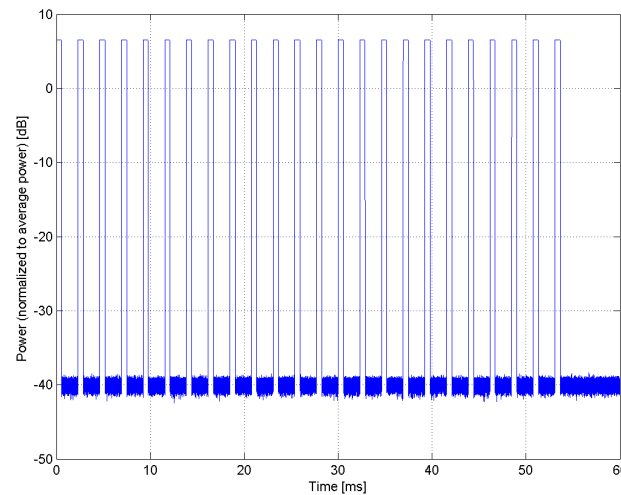
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

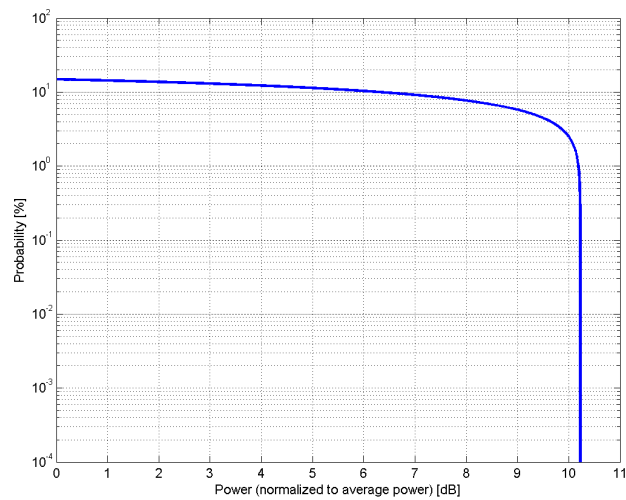


Time Domain

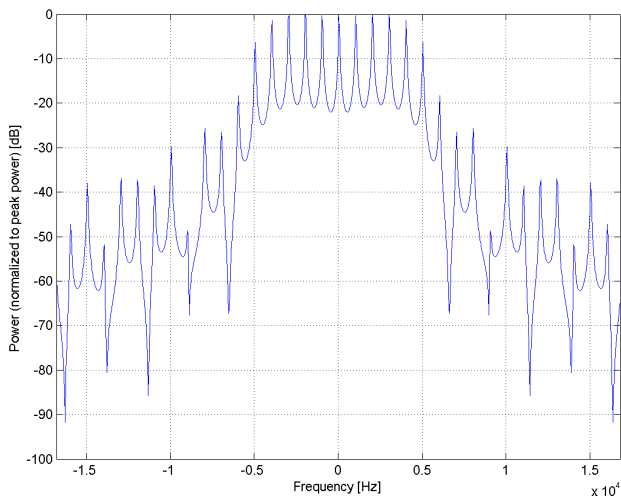
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Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	MIT5 (2pi Sinc, 1ms, 0.4ms)
Group:	MRI
UID:	10091-CAC
PAR: ¹	10.22 dB
MIF: ²	-99.00 dB
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: Sinc +/- 2 Pi Repetition Rate: 1 kHz Duty Cycle: 40%
Bandwidth:	0.0 MHz
Integration Time:	1.0 ms

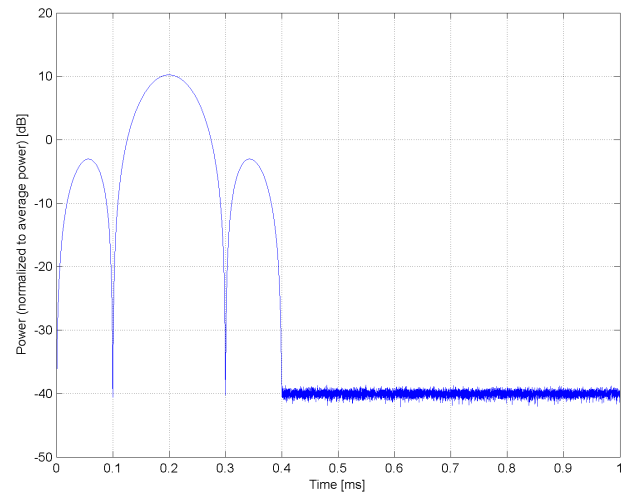
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



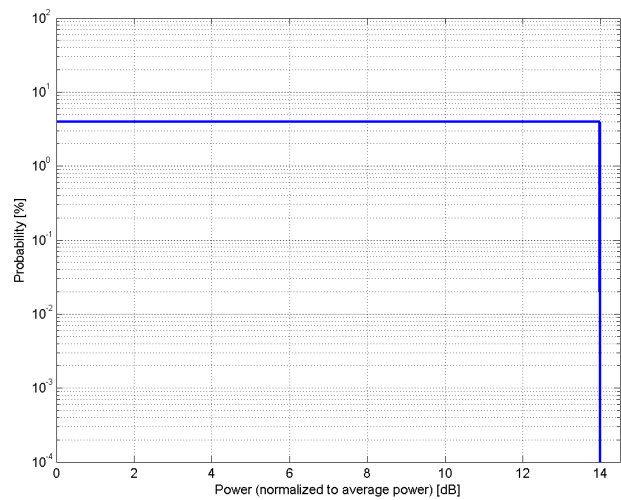
Time Domain

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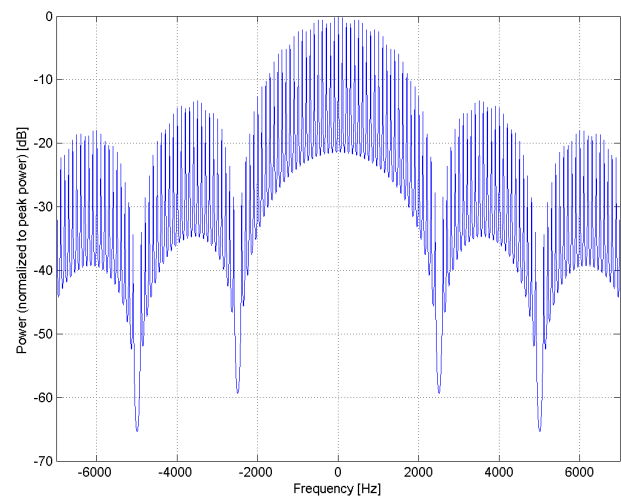
Name:	MRI (Square, 10ms, 0.4ms)
Group:	MRI
UID:	10093-CAC
PAR: ¹	13.98 dB
MIF: ²	-99.00 dB
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: rectangular Repetition Rate: 100 Hz Duty Cycle: 4%
Bandwidth:	0.0 MHz
Integration Time:	10.0 ms

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

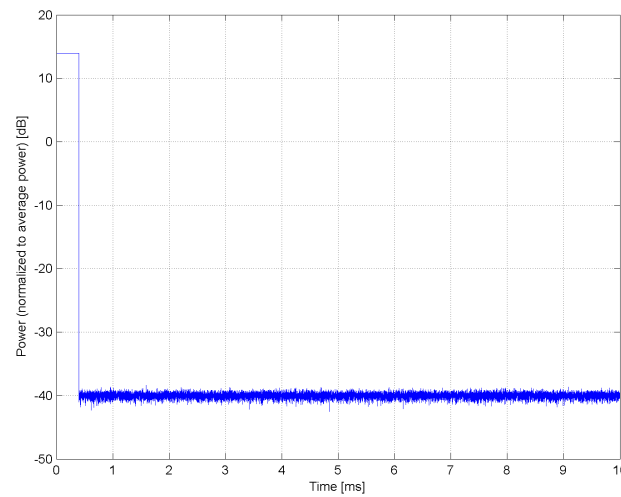
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



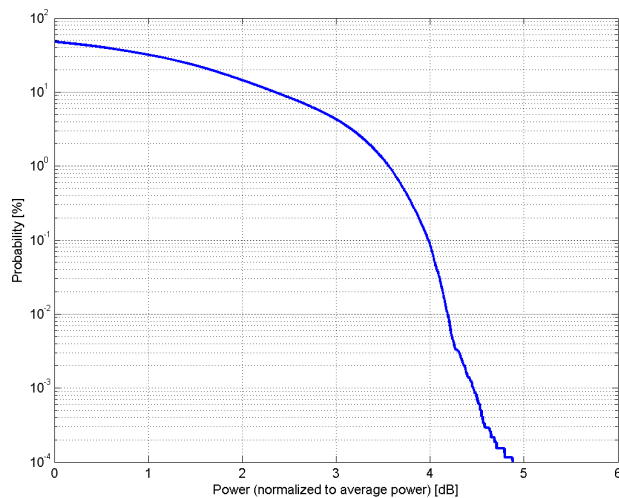
Frequency Domain



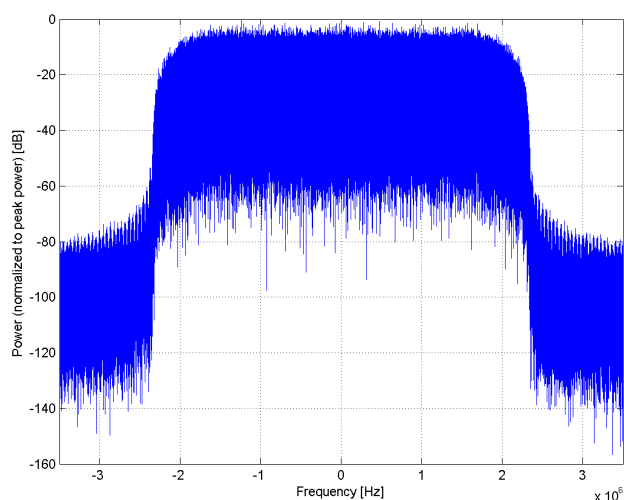
Time Domain

Name:	UMTS-FDD (HSDPA)
Group:	WCDMA
UID:	10097-CAB
PAR: ¹	3.98 dB
MIF: ²	-20.75 dB
Standard Reference:	ETSI-3GPP TS 134.121 Rel. 5
Category:	FCC OET KDB 941225 D01 SAR test for 3G devices v02
Modulation:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 MHz, 20000) Band 2, UTRA/FDD (1850.0-1910.0 MHz, 20001) Band 3, UTRA/FDD (1710.0-1785.0 MHz, 20002) Band 4, UTRA/FDD (1710.0-1755.0 MHz, 20003) Band 5, UTRA/FDD (824.0-849.0 MHz, 20004) Band 6, UTRA/FDD (830.0-840.0 MHz, 20005) Band 7, UTRA/FDD (2500.0-2570.0 MHz, 20006) Band 8, UTRA/FDD (880.0-915.0 MHz, 20007) Band 9, UTRA/FDD (1749.9-1784.9 MHz, 20008) Band 10, UTRA/FDD (1710.0-1770.0 MHz, 20009) Band 11, UTRA/FDD (1427.9-1452.9 MHz, 20010) Band 12, UTRA/FDD (698.0-716.0 MHz, 20011) Band 13, UTRA/FDD (777.0-787.0 MHz, 20012) Band 14, UTRA/FDD (788.0-798.0 MHz, 20013) Band 19, UTRA/FDD (830.0-845.0 MHz, 20130) Band 20, UTRA/FDD (832.0-862.0 MHz, 20131) Band 21, UTRA/FDD (1447.9-1462.9 MHz, 20132) Band 22, UTRA/FDD (3410.0-3490.0 MHz, 20217) Band 25, UTRA/FDD (1850.0-1915.0 MHz, 20218) Band 26, UTRA/FDD (814.0-849.0 MHz, 20219)
Detailed Specification:	CQI value: 2 Sub-test 2 Conditions: DPCCH gain factor (Beta _c) = 12/15 DPDCH gain factor (Beta _d): 15/15
Bandwidth:	5.0 MHz
Integration Time:	100.0 ms

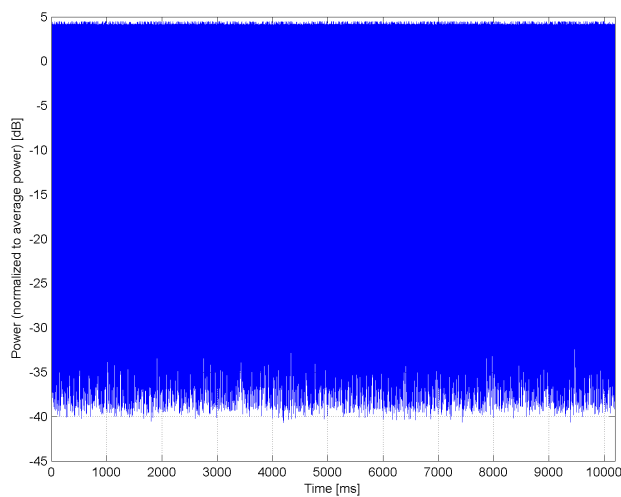
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



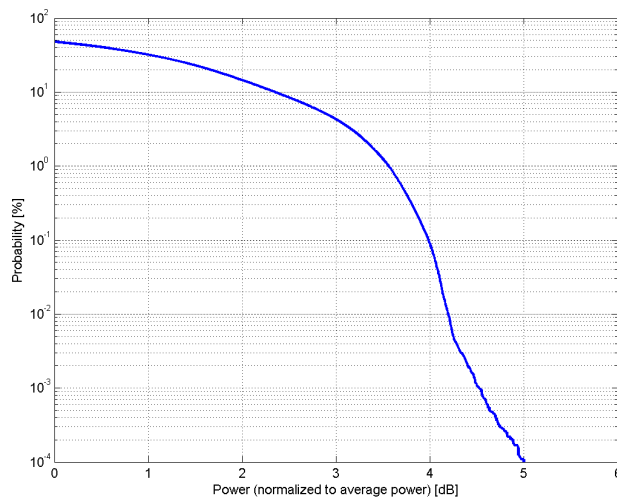
Frequency Domain



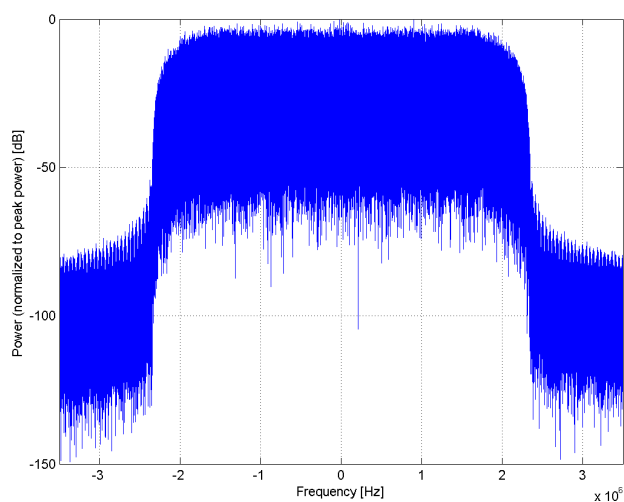
Time Domain

Name:	UMTS-FDD (HSUPA, Subtest 2)
Group:	WCDMA
UID:	10098-CAB
PAR: ¹	3.98 dB
MIF: ²	-20.75 dB
Standard Reference:	3GPP Rel 5 TS34.121
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 MHz, 20000) Band 2, UTRA/FDD (1850.0-1910.0 MHz, 20001) Band 3, UTRA/FDD (1710.0-1785.0 MHz, 20002) Band 4, UTRA/FDD (1710.0-1755.0 MHz, 20003) Band 5, UTRA/FDD (824.0-849.0 MHz, 20004) Band 6, UTRA/FDD (830.0-840.0 MHz, 20005) Band 7, UTRA/FDD (2500.0-2570.0 MHz, 20006) Band 8, UTRA/FDD (880.0-915.0 MHz, 20007) Band 9, UTRA/FDD (1749.9-1784.9 MHz, 20008) Band 10, UTRA/FDD (1710.0-1770.0 MHz, 20009) Band 11, UTRA/FDD (1427.9-1452.9 MHz, 20010) Band 12, UTRA/FDD (698.0-716.0 MHz, 20011) Band 13, UTRA/FDD (777.0-787.0 MHz, 20012) Band 14, UTRA/FDD (788.0-798.0 MHz, 20013) Band 19, UTRA/FDD (830.0-845.0 MHz, 20130) Band 20, UTRA/FDD (832.0-862.0 MHz, 20131) Band 21, UTRA/FDD (1447.9-1462.9 MHz, 20132) Band 22, UTRA/FDD (3410.0-3490.0 MHz, 20217) Band 25, UTRA/FDD (1850.0-1915.0 MHz, 20218) Band 26, UTRA/FDD (814.0-849.0 MHz, 20219)
Detailed Specification:	12.2 kbps RMC, FRC H-Set 1 CQI value: 2 Sub-test 2 Conditions: DPCCH gain factor (Beta _c) = 12/15 DPDCH gain factor (Beta _d): 15/15
Bandwidth:	5.0 MHz
Integration Time:	100.0 ms

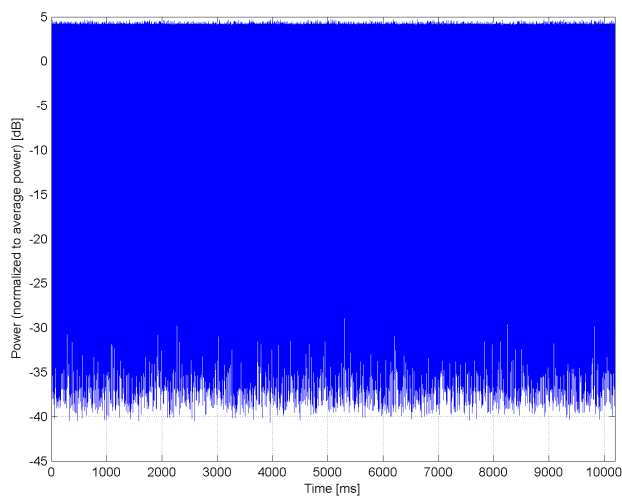
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



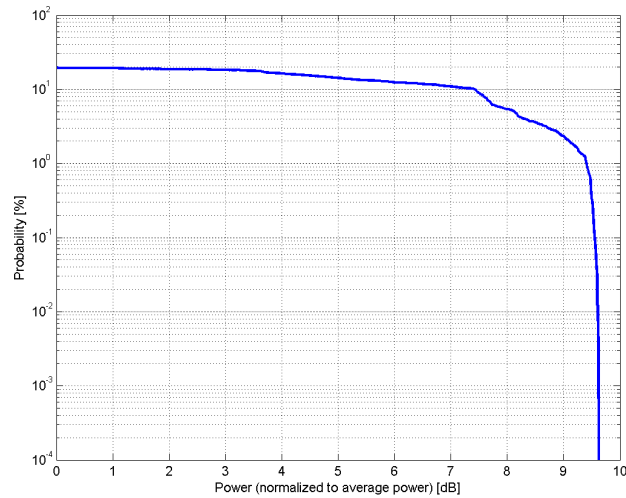
Time Domain

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Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

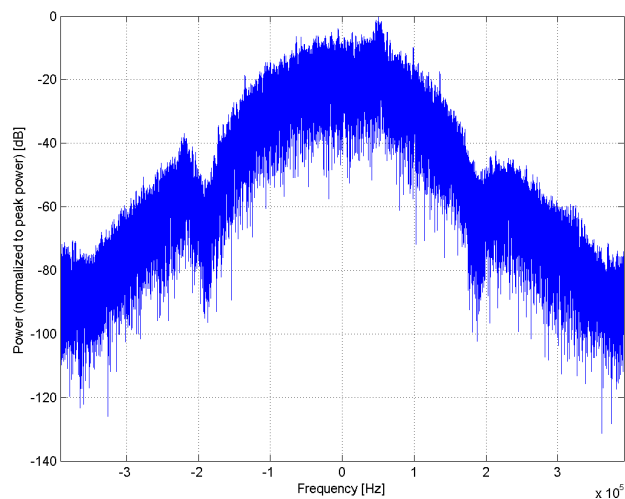
Name:	EDGE-FDD (TDMA, 8PSK, TN 0-4)
Group:	GSM
UID:	10099-DAC
PAR: ¹	9.55 dB
MIF: ²	1.88 dB
Standard Reference:	ETSI TS 100 909 V8.9.0 (2005-01)
Category:	FCC OET KDB 941225, D03 and D04
Modulation:	Periodic pulsed modulation
Frequency Band:	8PSK
	GSM 450 (450.4 - 457.6 MHz)
	GSM 480 (478.8 - 486.0 MHz)
	GSM 710 (698.0 - 716.0 MHz)
	GSM 750 (747.0 - 763.0 MHz)
	GSM 850 (824.0 - 849.0 MHz)
	P-GSM 900 (890.0 - 915.0 MHz)
	E-GSM 900 (880.0 - 915.0 MHz)
	R-GSM 900 (876.0 - 915.0 MHz)
	DCS 1800 (1710.0 - 1785.0 MHz)
	PCS 1900 (1850.0 - 1910.0 MHz)
	ER-GSM 900 (873.0 - 915.0 MHz)
	Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Active Slots: TN0, TN4
	Data: PN9 continuous
	Frame: composed out of 8 Slots
	Multiframe: 13th (PTCCH) and 26th (IDLE) Frame set blank
	Slottype & -timing: Normal burst for 8PSK
Bandwidth:	0.2 MHz
Integration Time:	60.0 ms

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

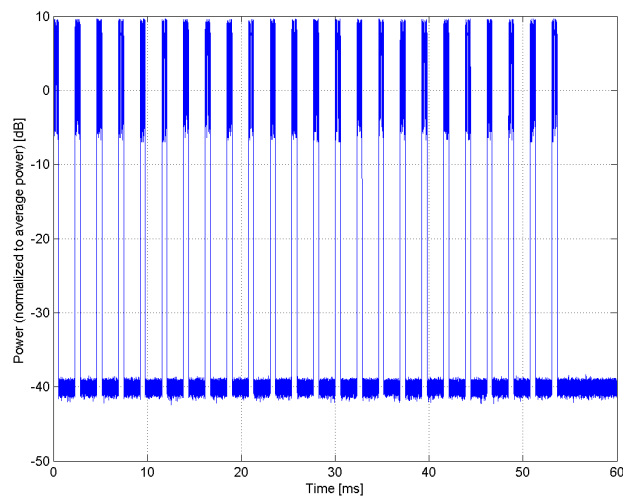
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

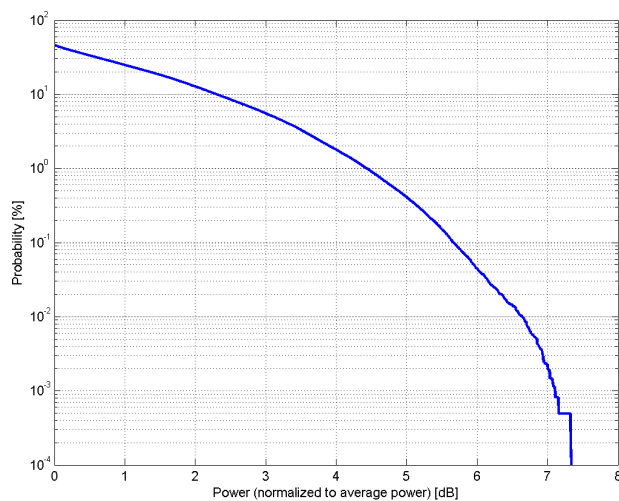


Time Domain

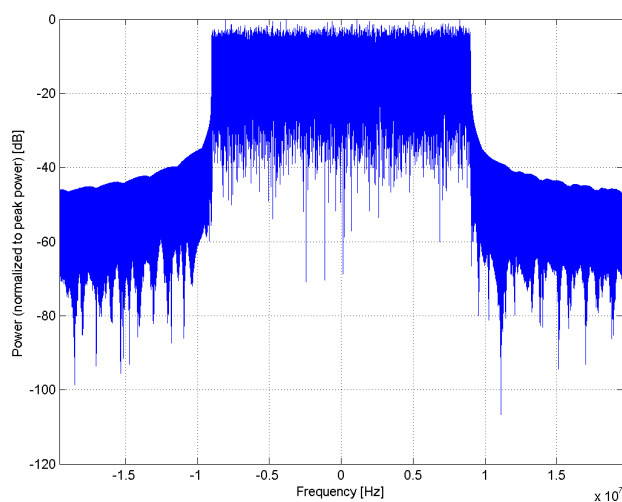
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)
Group:	LTE-FDD
UID:	10100-CAE
PAR: ¹	5.67 dB
MIF: ²	-23.48 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 100 Transport Block Size: 8760 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

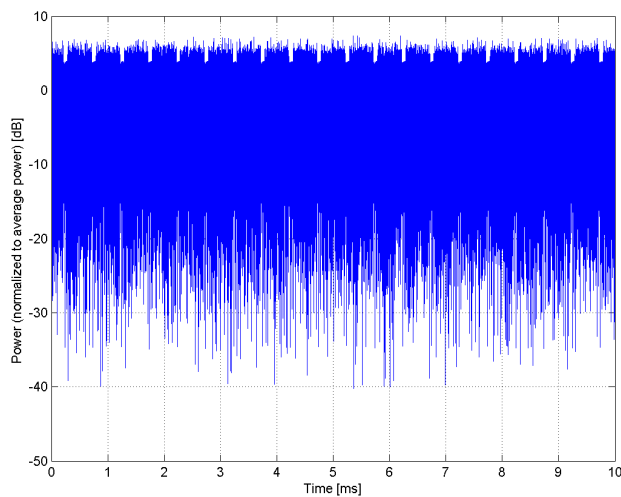
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

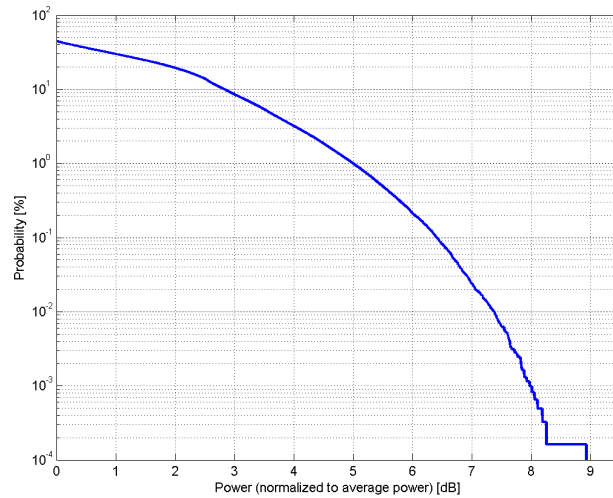


Time Domain

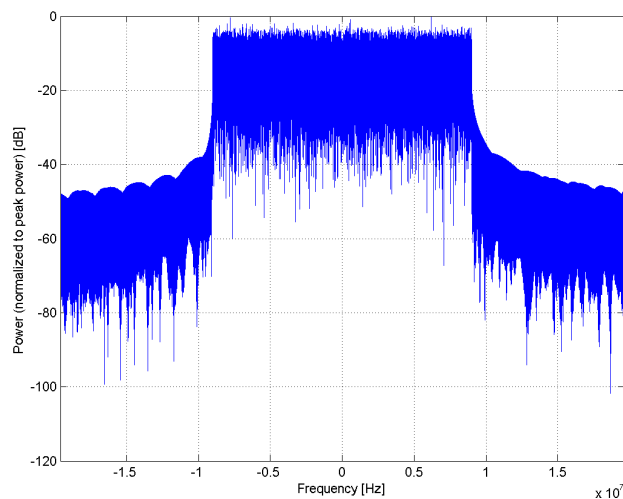
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10101-CAE
PAR: ¹	6.42 dB
MIF: ²	-17.86 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16-QAM Data Type: UL-SCH Number RB: 100 Transport Block Size: 28336 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

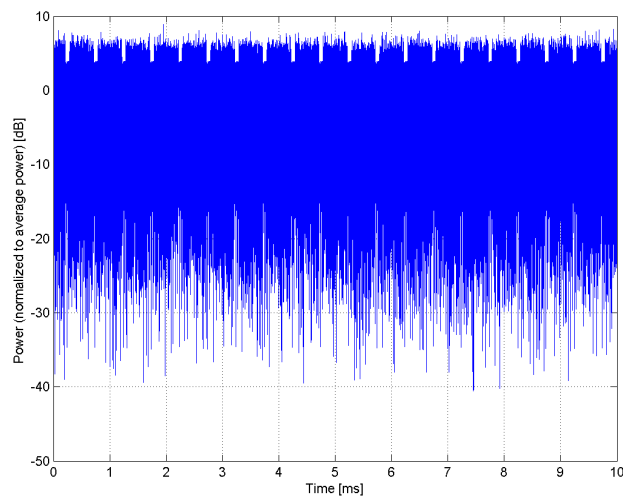
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



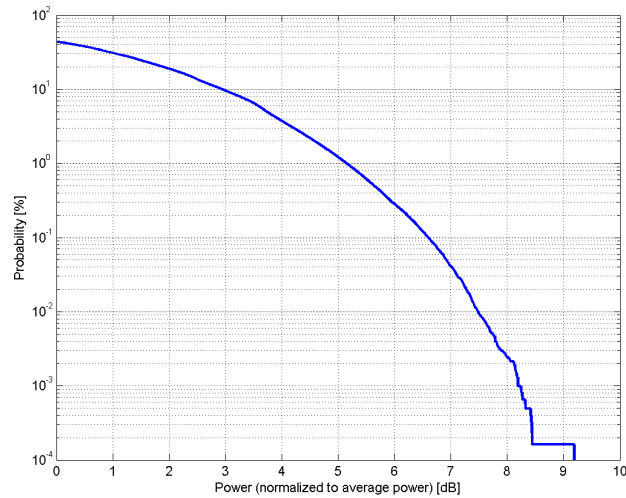
Time Domain

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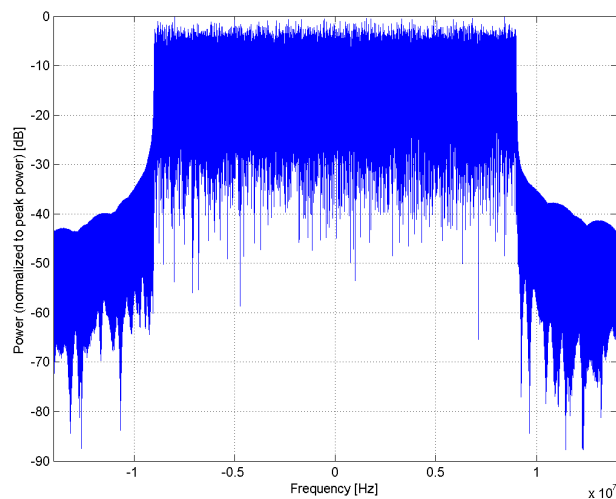
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10102-CAE
PAR: ¹	6.60 dB
MIF: ²	-17.05 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64-QAM Data Type: UL-SCH Number RB: 100 Transport Block Size: 57336 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

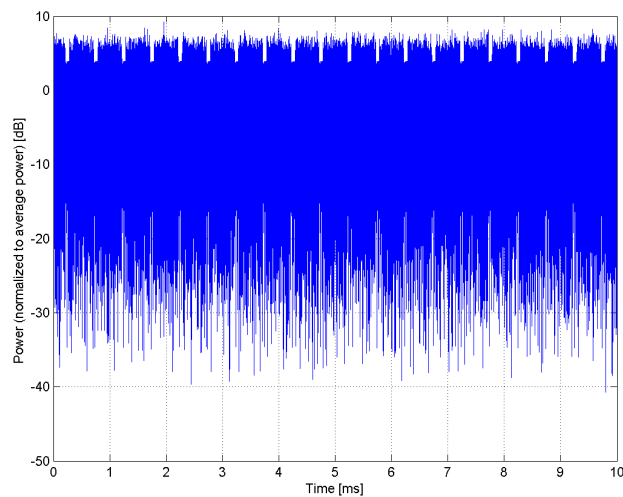
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

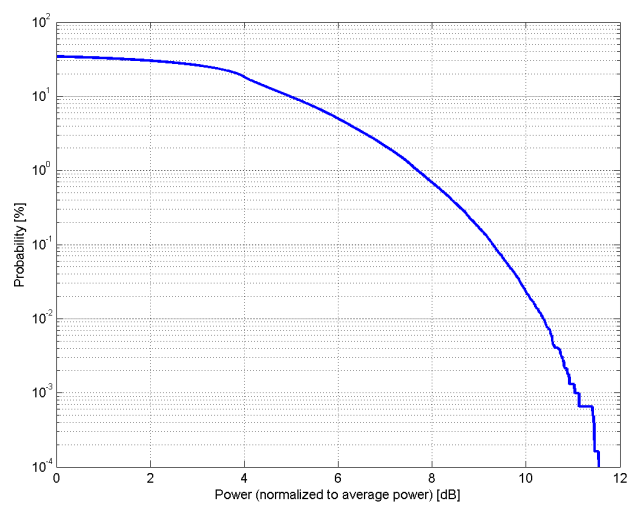


Time Domain

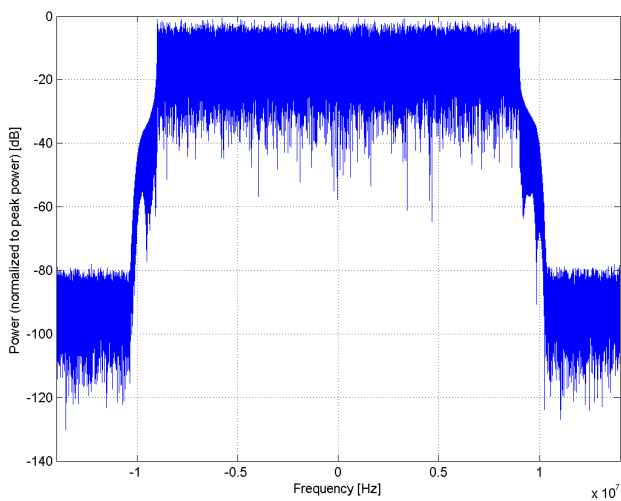
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)
Group:	LTE-TDD
UID:	10103-CAG
PAR: ¹	9.29 dB
MIF: ²	-1.64 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 100 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

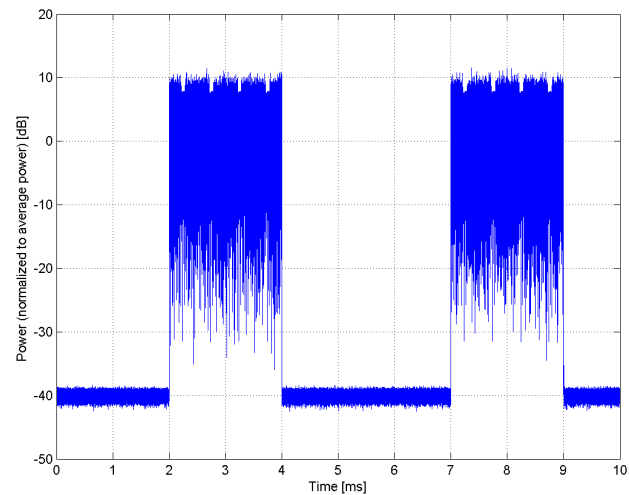
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



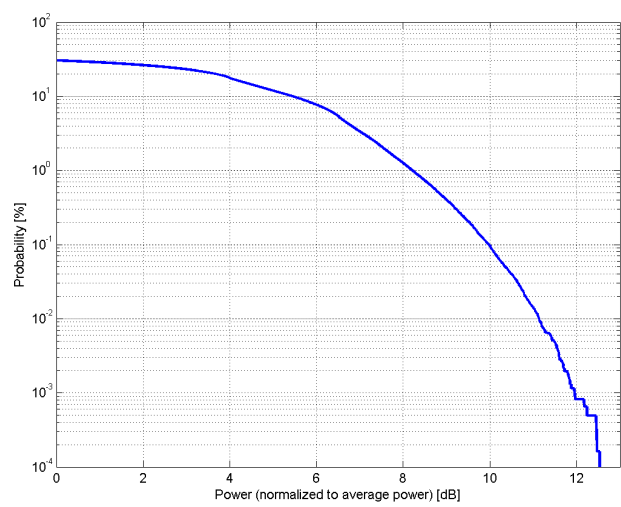
Time Domain

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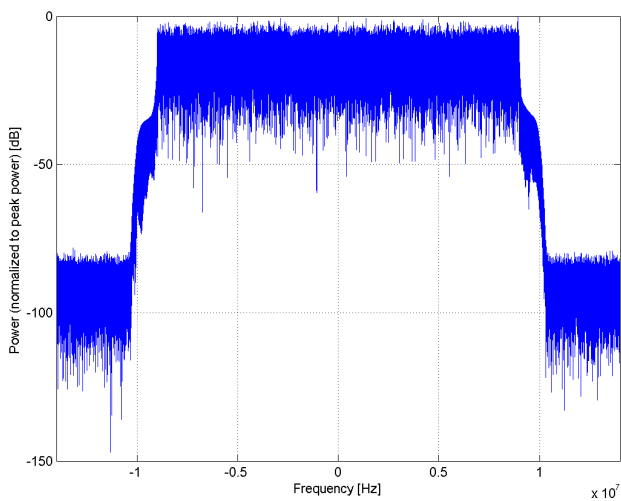
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)
Group:	LTE-TDD
UID:	10104-CAG
PAR: ¹	9.97 dB
MIF: ²	-1.66 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 100 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

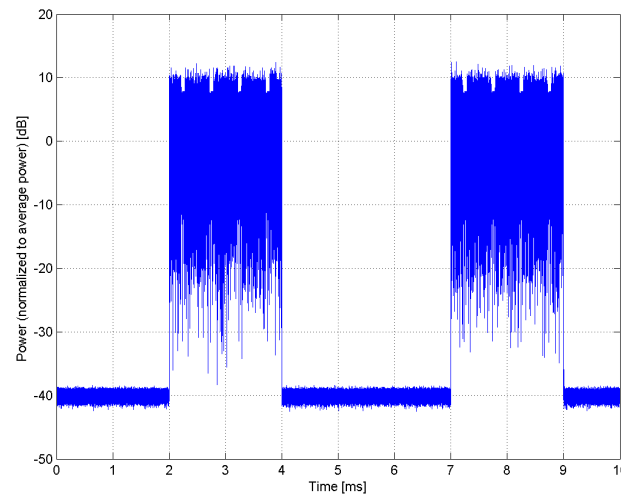
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

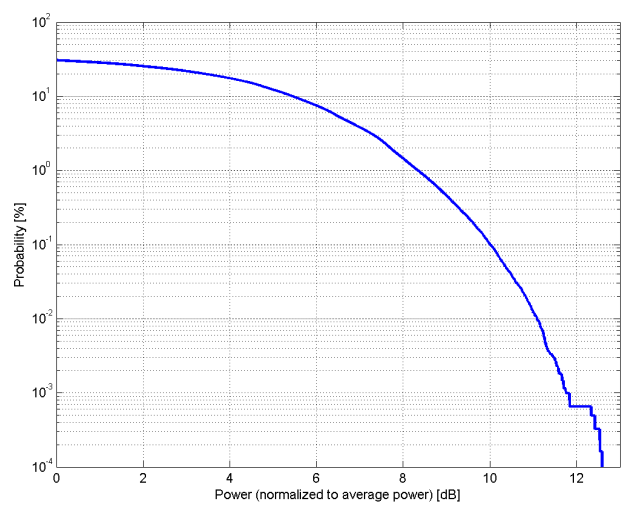


Time Domain

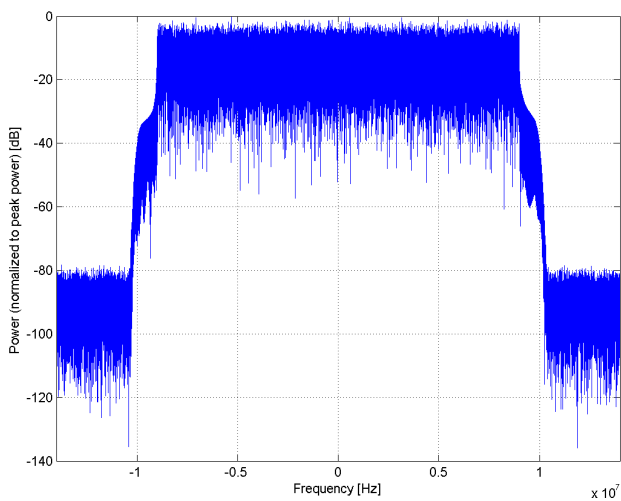
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)
Group:	LTE-TDD
UID:	10105-CAG
PAR: ¹	10.01 dB
MIF: ²	-1.67 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 100 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

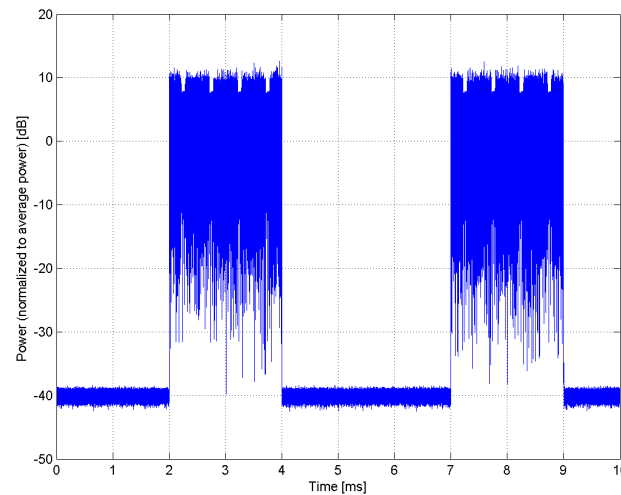
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



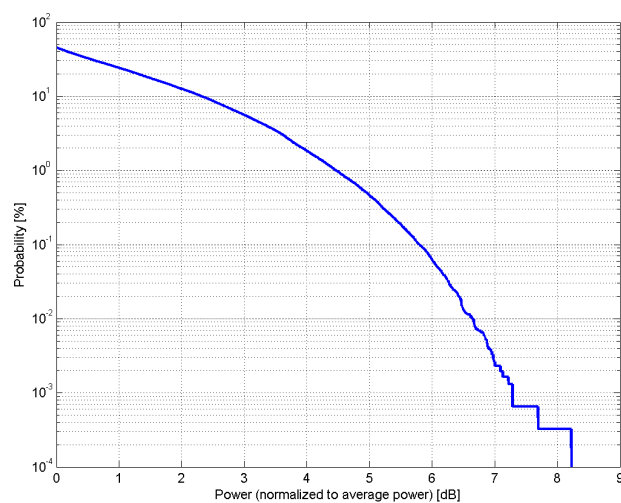
Time Domain

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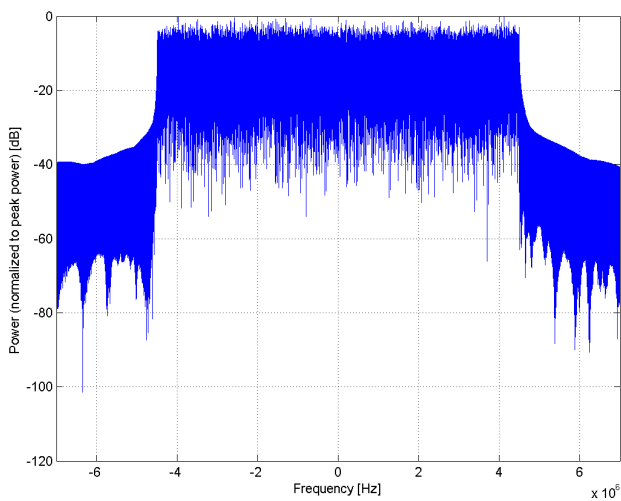
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)
Group:	LTE-FDD
UID:	10108-CAG
PAR: ¹	5.80 dB
MIF: ²	-21.57 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 50 Transport Block Size: 4392 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

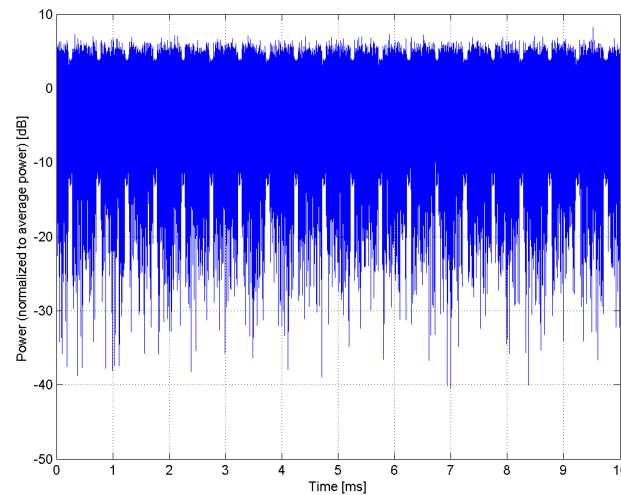
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

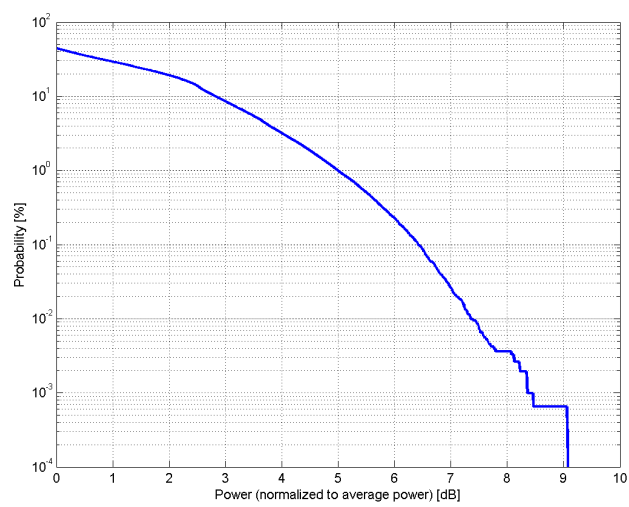


Time Domain

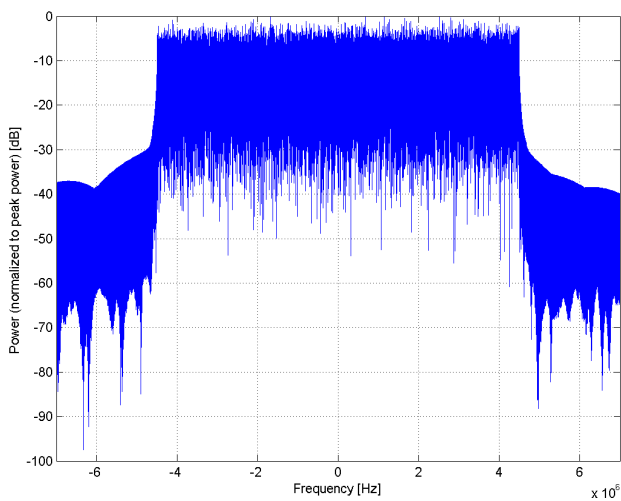
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10109-CAG
PAR: ¹	6.43 dB
MIF: ²	-16.87 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16-QAM Data Type: UL-SCH Number RB: 50 Transport Block Size: 14112 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

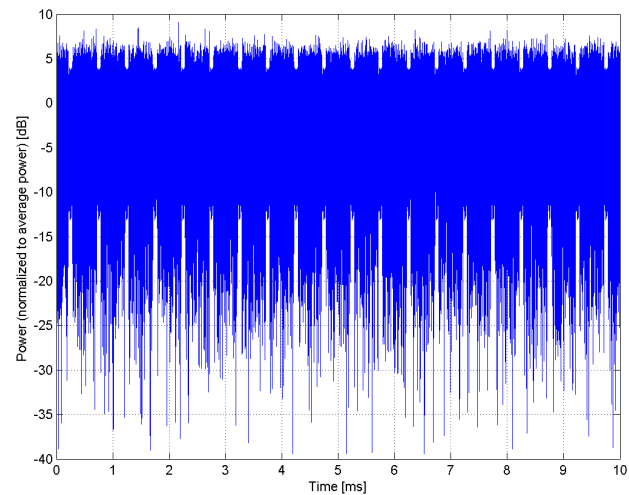
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

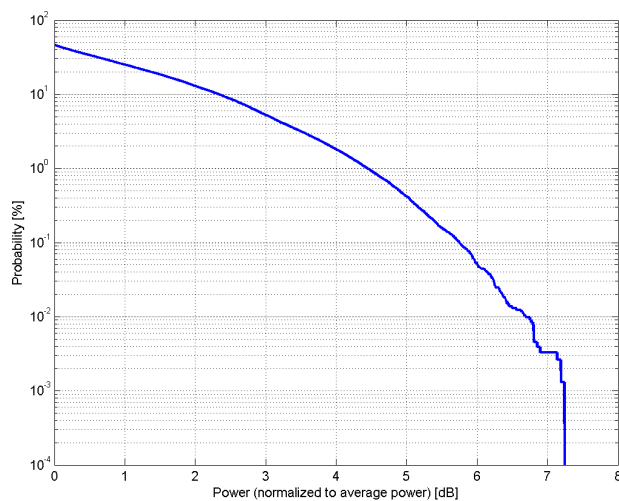
Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

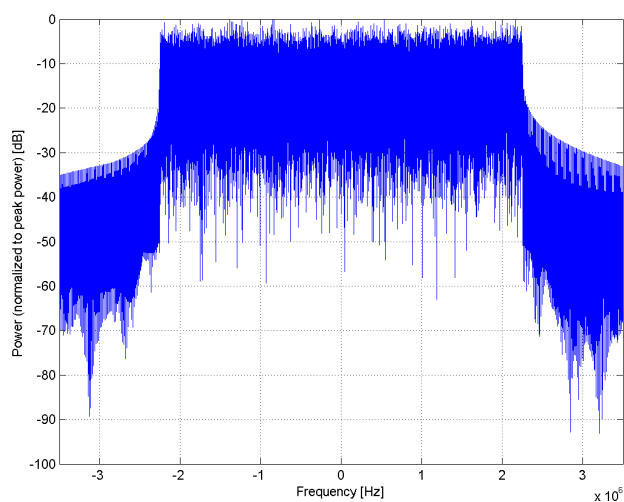
Name:	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)
Group:	LTE-FDD
UID:	10110-CAG
PAR: ¹	5.75 dB
MIF: ²	-23.39 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 25 Transport Block Size: 2216 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

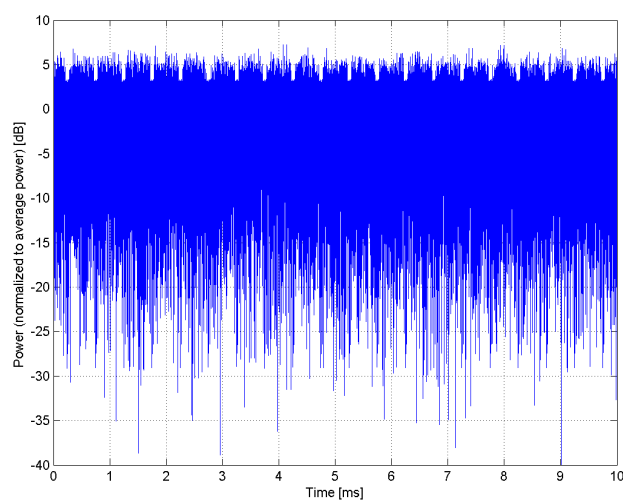
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

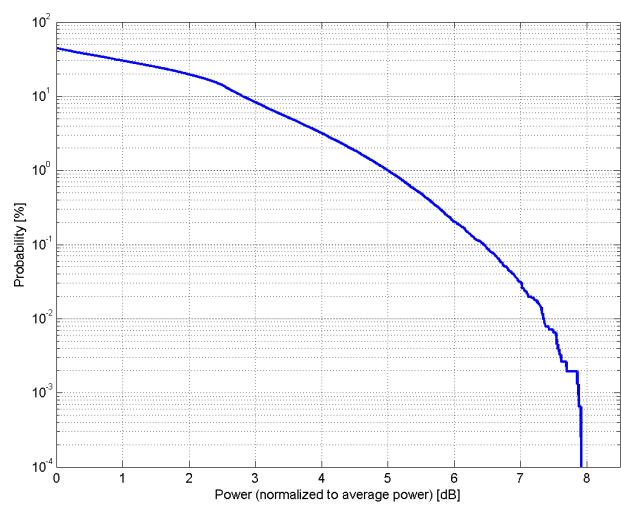
Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

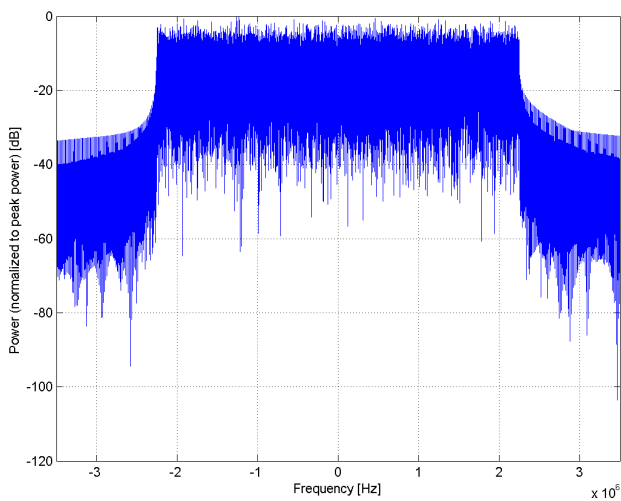
Name:	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10111-CAG
PAR: ¹	6.44 dB
MIF: ²	-16.35 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16-QAM Data Type: UL-SCH Number RB: 25 Transport Block Size: 7224 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

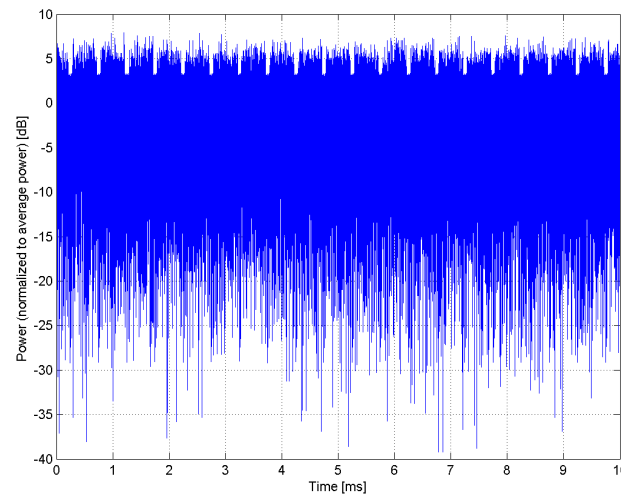
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



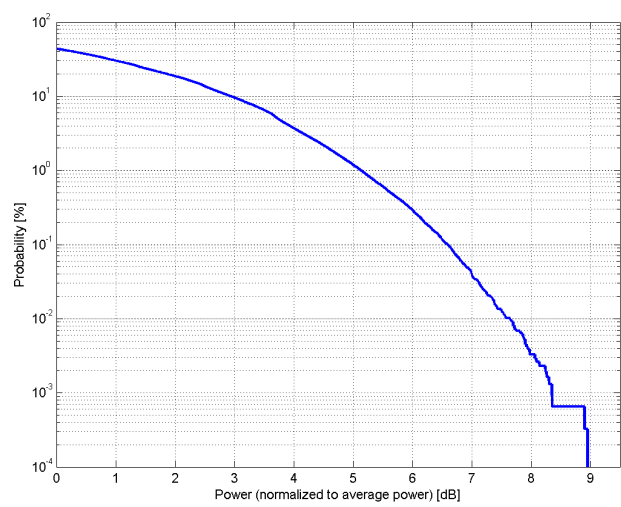
Time Domain

Calibration Laboratory of Schmid & Partner Engineering AG

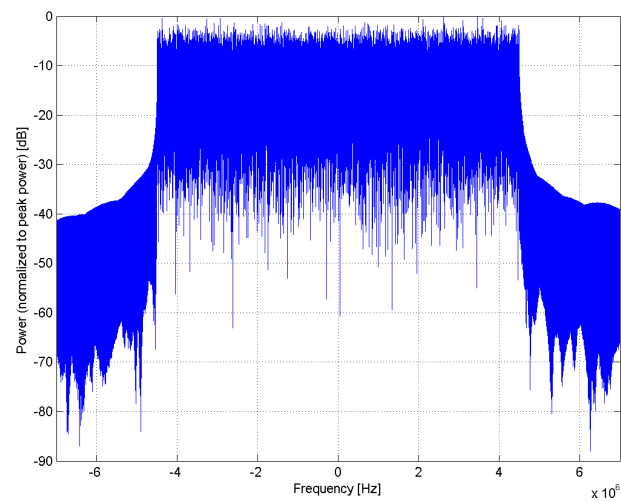
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10112-CAG
PAR: ¹	6.59 dB
MIF: ²	-16.34 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64-QAM Data Type: UL-SCH Number RB: 50 Transport Block Size: 28336 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

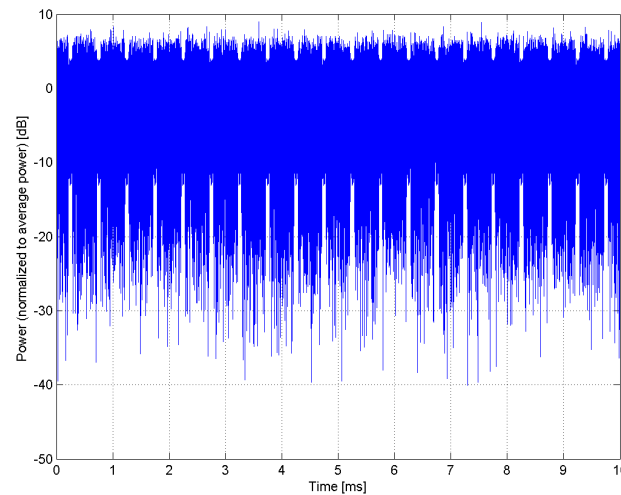
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



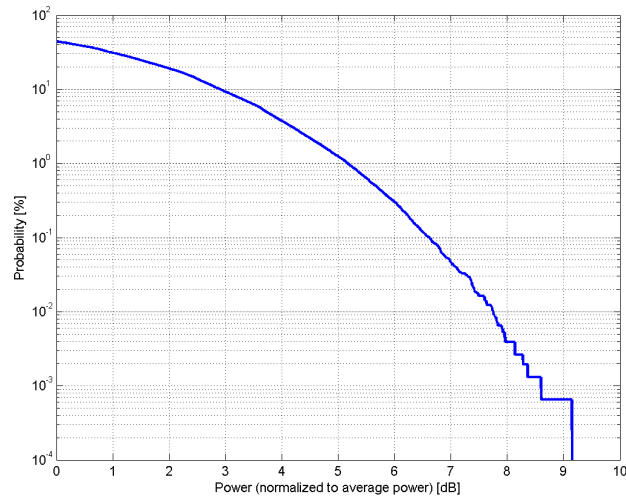
Time Domain

Calibration Laboratory of Schmid & Partner Engineering AG

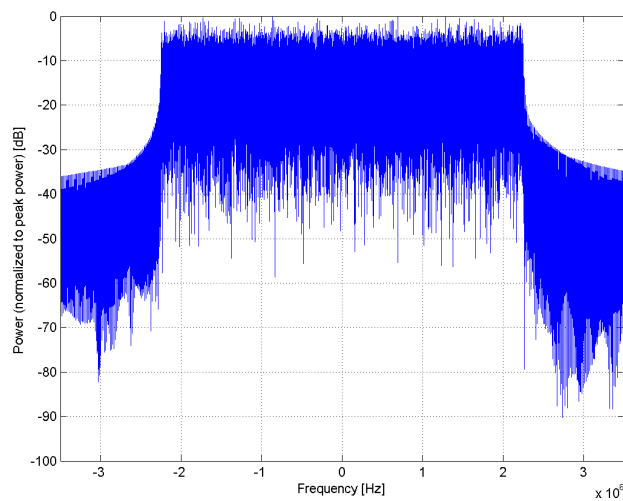
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10113-CAG
PAR: ¹	6.62 dB
MIF: ²	-15.98 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64-QAM Data Type: UL-SCH Number RB: 25 Transport Block Size: 14112 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

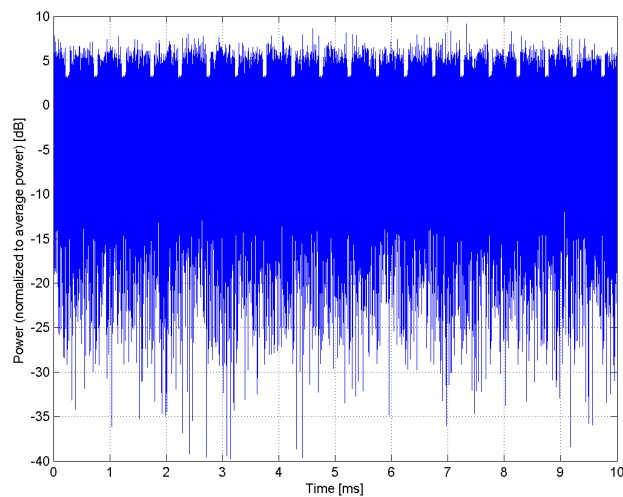
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

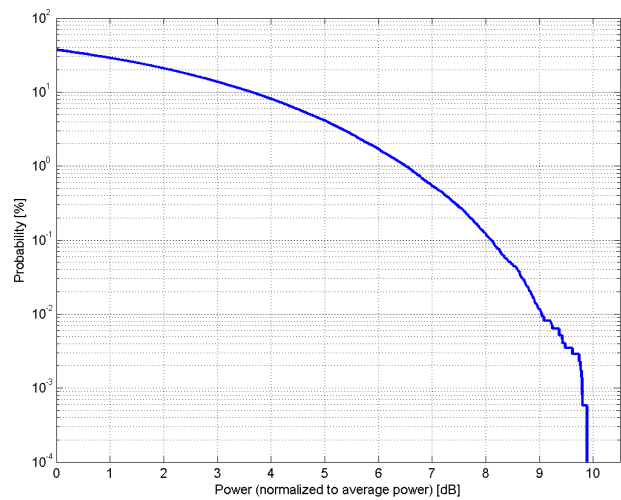


Time Domain

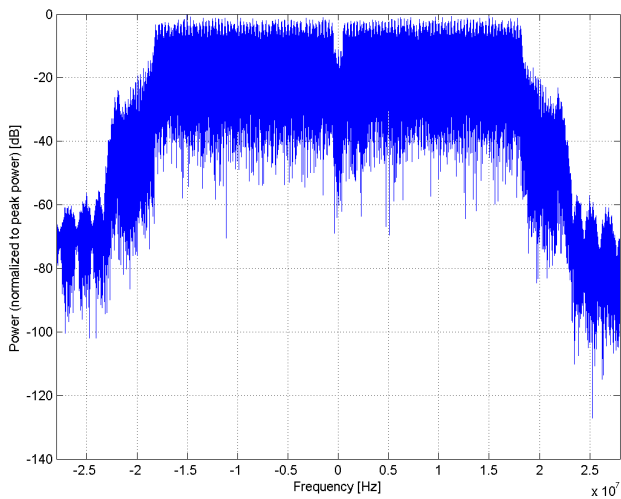
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)
Group:	WLAN
UID:	10114-CAC
PAR: ¹	8.10 dB
MIF: ²	-17.24 dB
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
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:	Modulation: BPSK Data Rate: 13.5 Mbps PPDU Format: HT Greenfield PPDU Type: 40 MHz MCS Index: 0 Guard Interval: Long Payload Length: 3567
Bandwidth:	40.0 MHz
Integration Time:	2.2 ms

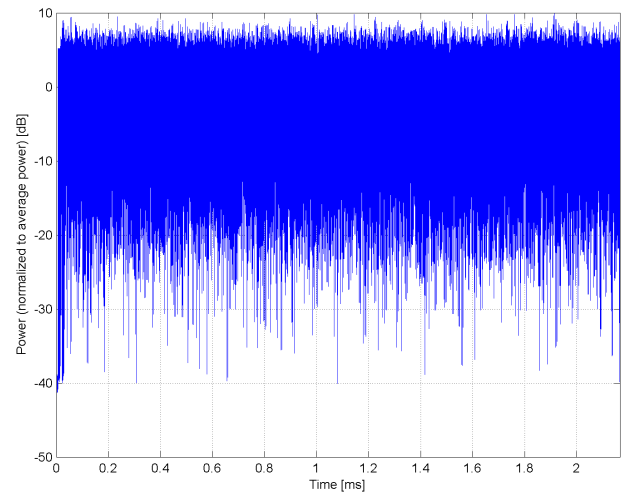
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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

Name: **IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)**

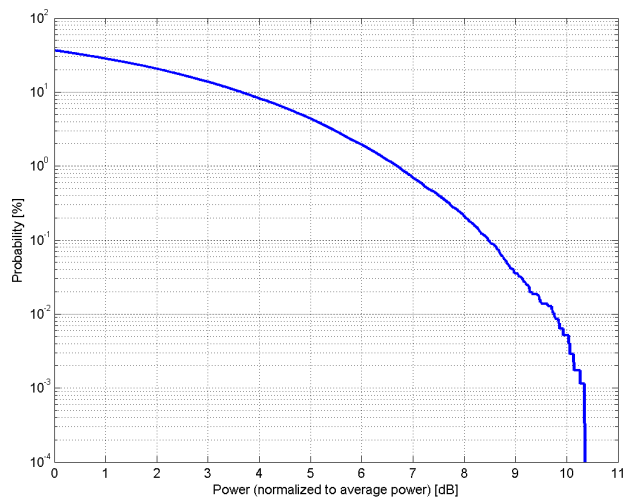
Group: WLAN
UID: 10115-CAC

PAR: ¹ **8.46 dB**
MIF: ² **-17.11 dB**

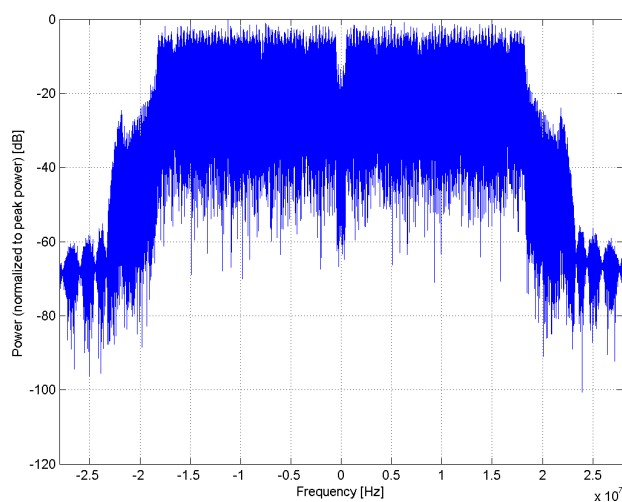
Standard Reference: IEEE 802.11n-2009
Category: Random amplitude modulation
Modulation: 16-QAM
Frequency Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz)
WLAN 5GHz (4915.0 - 5825.0 MHz)
U-NII-1, U-NII-2A (5170 - 5330 MHz)
U-NII-2C Standalone (5490 - 5710 MHz)
U-NII-2C <5.65 GHz (5490 - 5650 MHz)
U-NII-3 Standalone (5735 - 5835 MHz)
U-NII-2C, U-NII-3 (5650 - 5835 MHz)
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation: 16-QAM
Data Rate: 81 Mbps
PPDU Format: HT Greenfield
PPDU Type: 40 MHz
MCS Index: 4
Guard Interval: Long
Payload Length: 21590
Bandwidth: 40.0 MHz
Integration Time: 2.2 ms

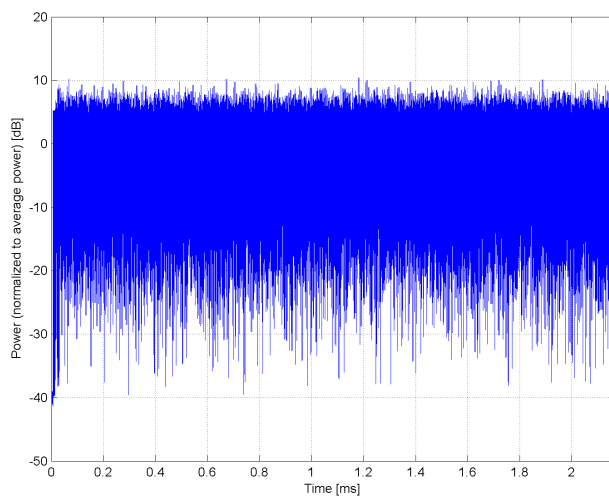
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



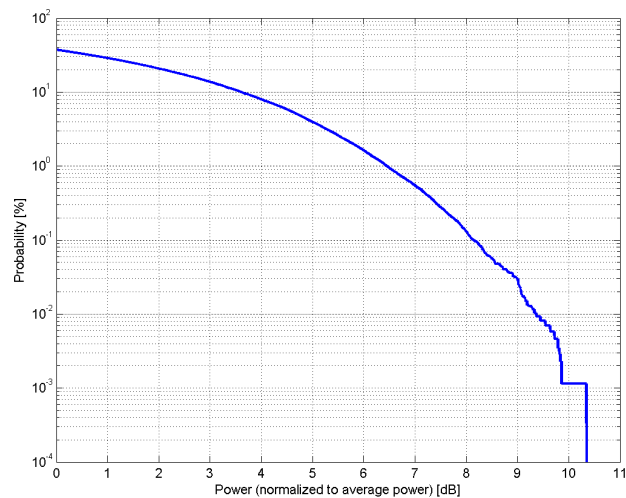
Time Domain

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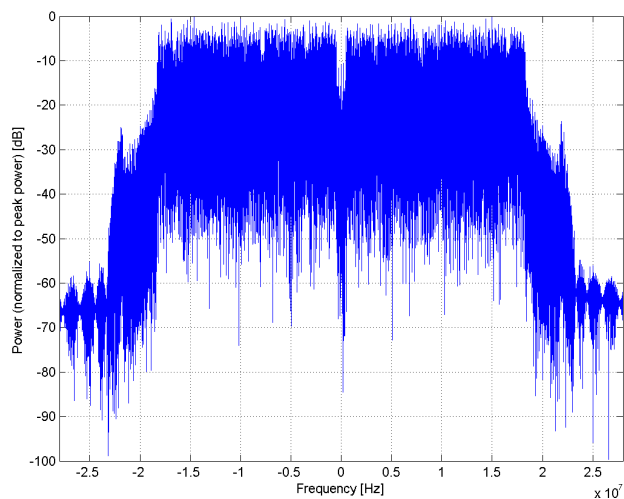
Name:	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)
Group:	WLAN
UID:	10116-CAC
PAR: ¹	8.15 dB
MIF: ²	-17.09 dB
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, U-NII-2A (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:	Modulation: 64-QAM Data Rate: 135 Mbps PPDU Format: HT Greenfield PPDU Type: 40 MHz MCS Index: 7 Guard Interval: Long Payload Length: 36008
Bandwidth:	40.0 MHz
Integration Time:	2.2 ms

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

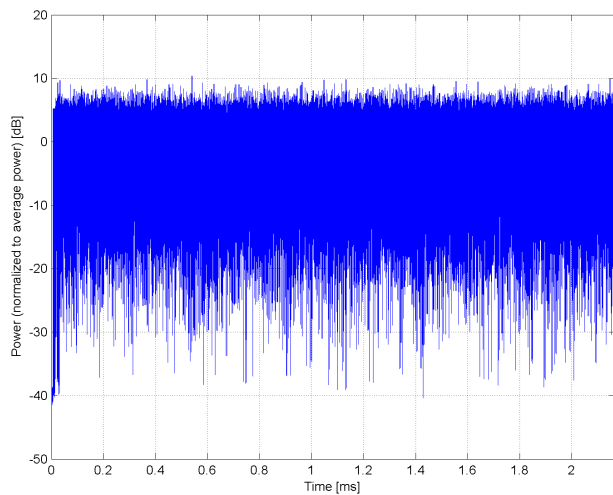
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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Name: **IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)**

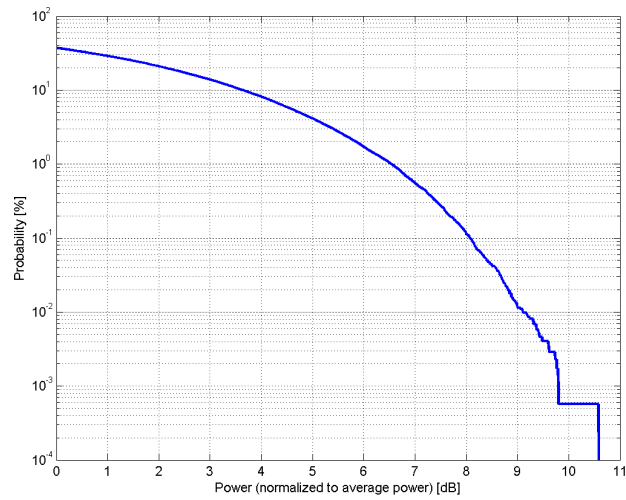
Group: WLAN
UID: 10117-CAC

PAR: ¹ **8.07 dB**
MIF: ² **-17.16 dB**

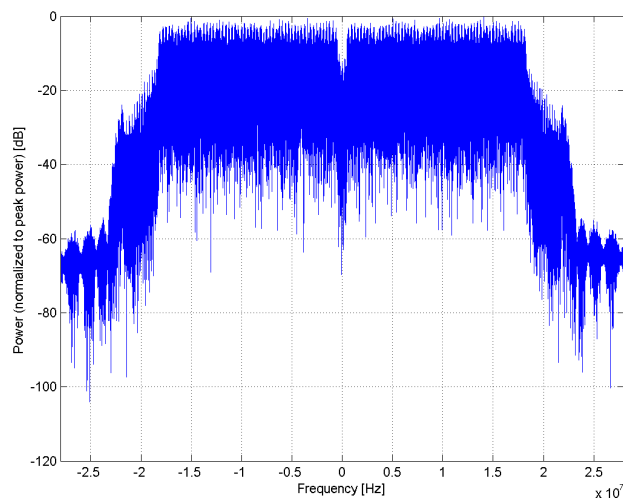
Standard Reference: IEEE 802.11n-2009
Category: Random amplitude modulation
Modulation: BPSK
Frequency Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz)
WLAN 5GHz (4915.0 - 5825.0 MHz)
U-NII-1, U-NII-2A (5170 - 5330 MHz)
U-NII-2C Standalone (5490 - 5710 MHz)
U-NII-2C <5.65 GHz (5490 - 5650 MHz)
U-NII-3 Standalone (5735 - 5835 MHz)
U-NII-2C, U-NII-3 (5650 - 5835 MHz)
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation: BPSK
Data Rate: 13.5 Mbps
PPDU Format: HT Mixed
PPDU Type: 40 MHz
MCS Index: 0
Guard Interval: Long
Payload Length: 3567
Bandwidth: 40.0 MHz
Integration Time: 2.2 ms

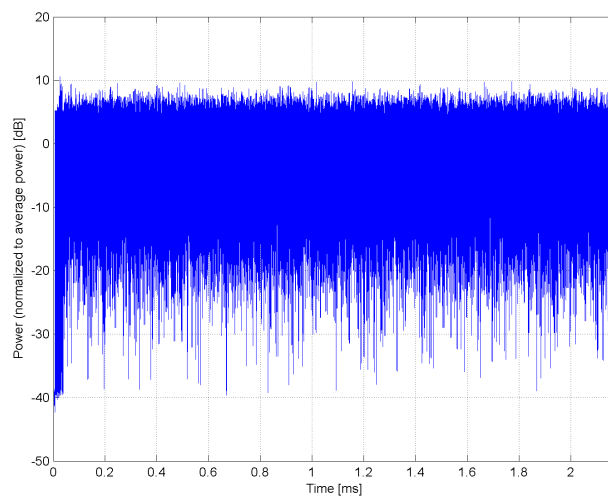
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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Name: **IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)**

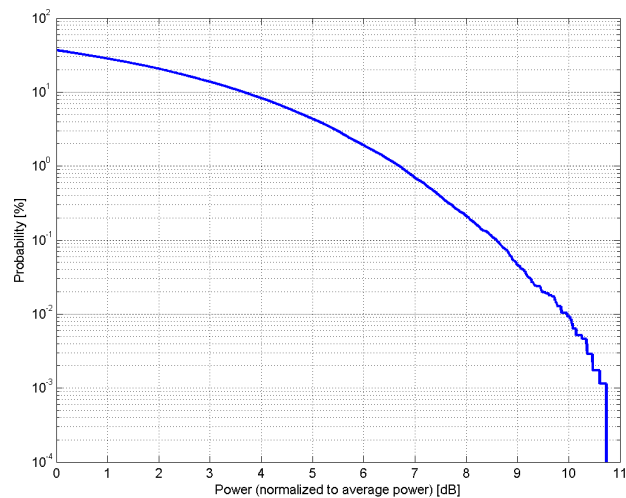
Group: WLAN
UID: 10118-CAC

PAR: ¹ **8.59 dB**
MIF: ² **-17.09 dB**

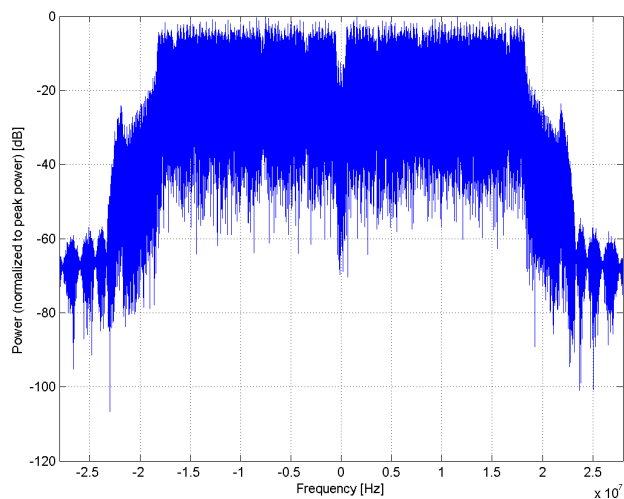
Standard Reference: IEEE 802.11n-2009
Category: Random amplitude modulation
Modulation: 16-QAM
Frequency Band: WLAN 2.4GHz (2412.0 - 2484.0 MHz)
WLAN 5GHz (4915.0 - 5825.0 MHz)
U-NII-1, U-NII-2A (5170 - 5330 MHz)
U-NII-2C Standalone (5490 - 5710 MHz)
U-NII-2C <5.65 GHz (5490 - 5650 MHz)
U-NII-3 Standalone (5735 - 5835 MHz)
U-NII-2C, U-NII-3 (5650 - 5835 MHz)
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation: 16-QAM
Data Rate: 81 Mbps
PPDU Format: HT Mixed
PPDU Type: 40 MHz
MCS Index: 4
Guard Interval: Long
Payload Length: 21590
Bandwidth: 40.0 MHz
Integration Time: 2.2 ms

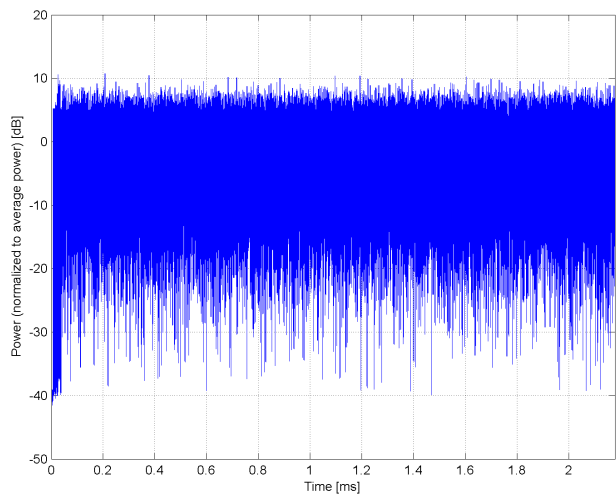
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

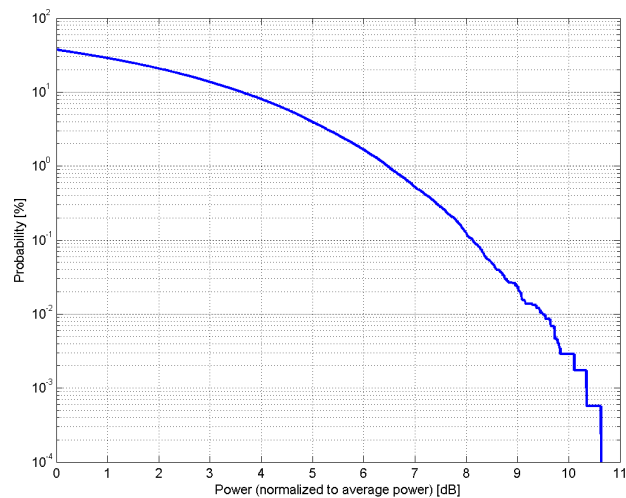


Time Domain

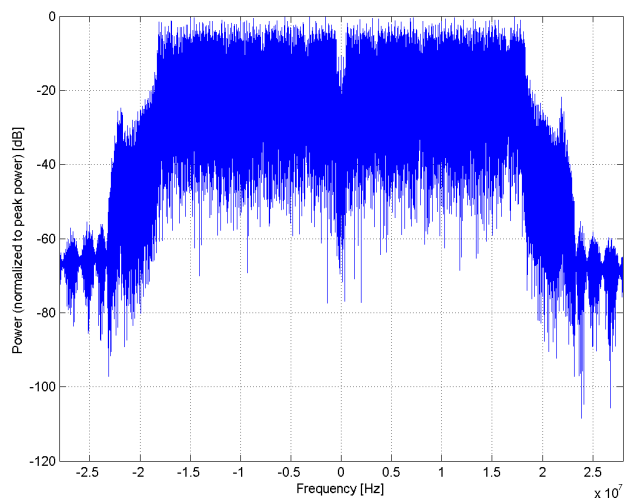
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Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)
Group:	WLAN
UID:	10119-CAC
PAR: ¹	8.13 dB
MIF: ²	-17.00 dB
Standard Reference:	IEEE 802.11n-2009
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:	Modulation: 64-QAM Data Rate: 135 Mbps PPDU Format: HT Mixed PPDU Type: 40 MHz MCS Index: 7 Guard Interval: Long Payload Length: 36008
Bandwidth:	40.0 MHz
Integration Time:	2.2 ms

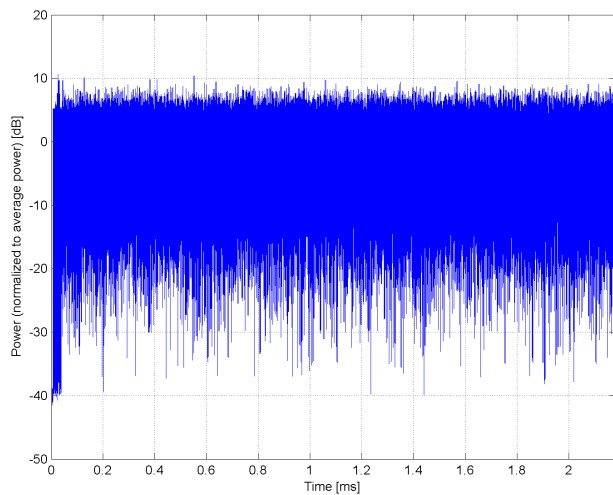
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

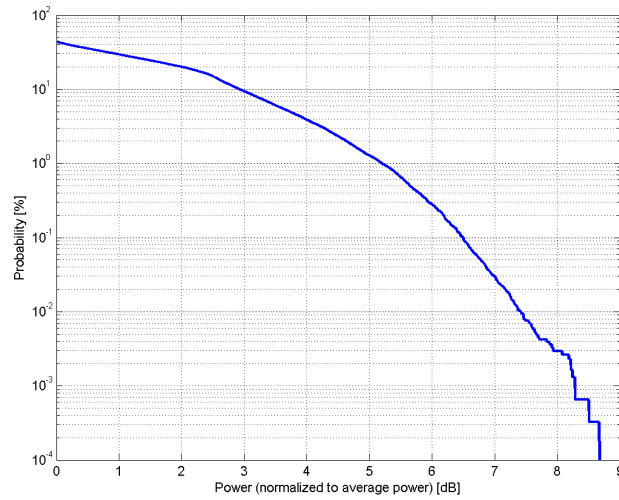


Time Domain

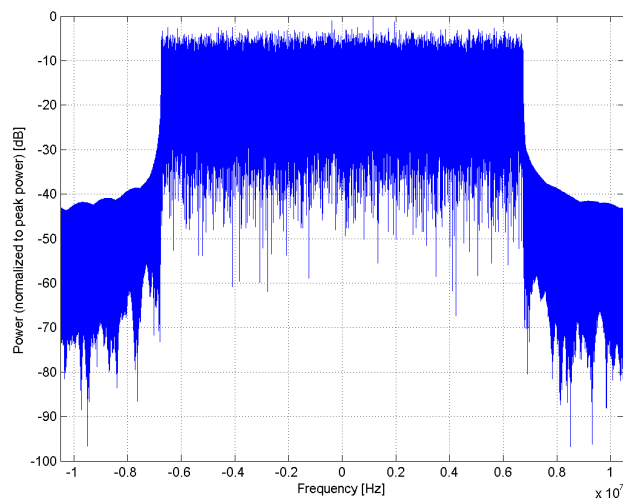
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Name:	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10140-CAE
PAR: ¹	6.49 dB
MIF: ²	-19.37 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 75 Transport Block Size: 21384 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

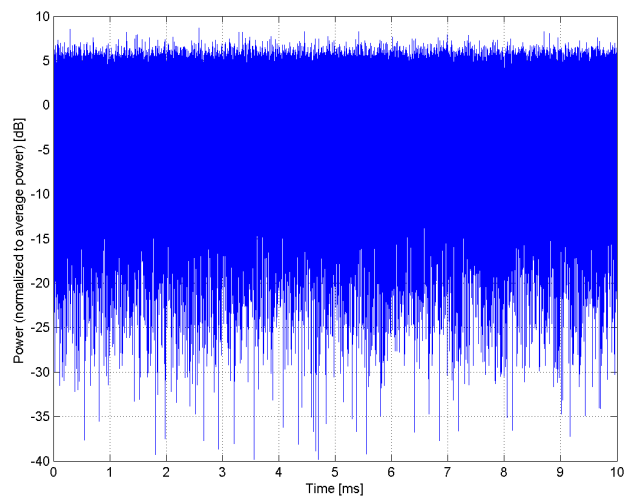
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



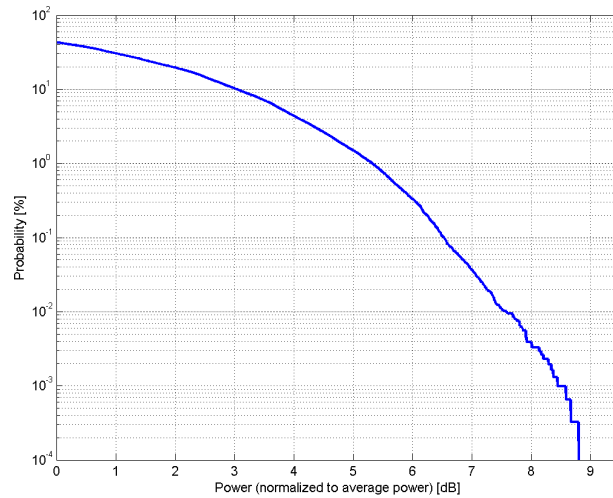
Time Domain

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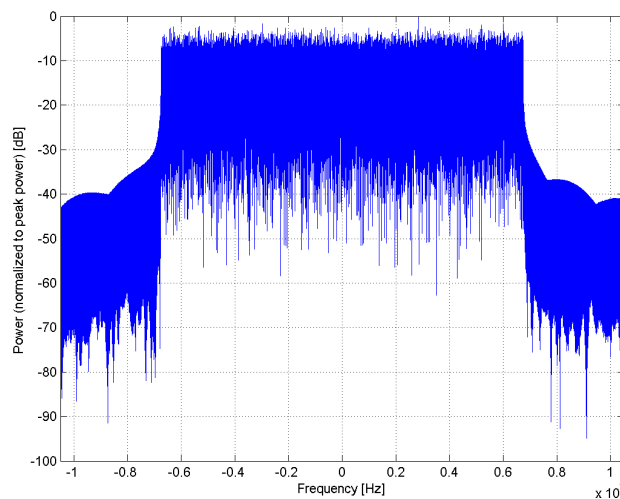
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10141-CAE
PAR: ¹	6.53 dB
MIF: ²	-19.44 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 75 Transport Block Size: 43816 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

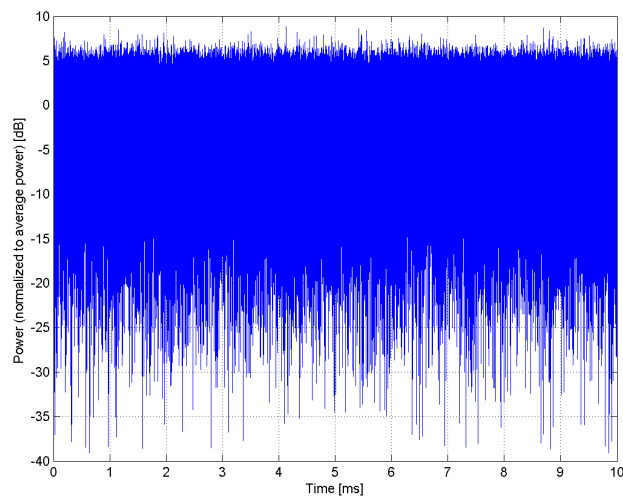
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

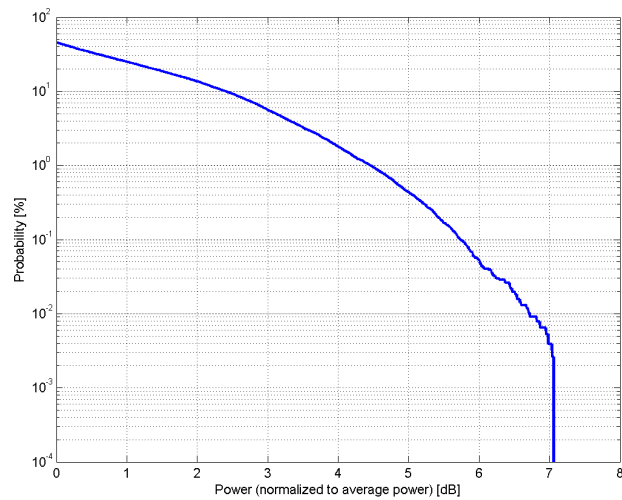


Time Domain

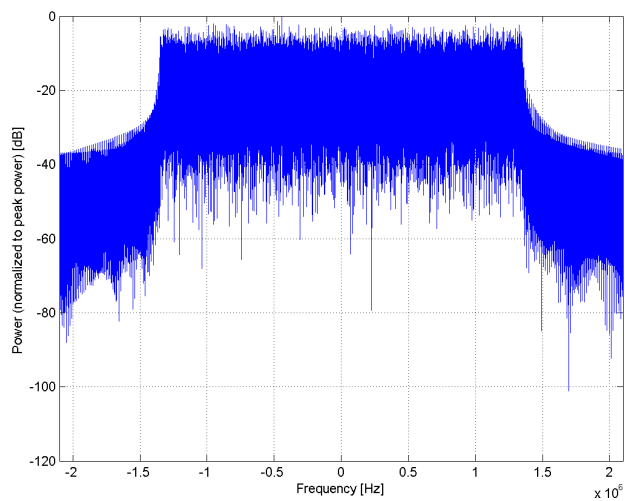
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Name:	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)
Group:	LTE-FDD
UID:	10142-CAE
PAR: ¹	5.73 dB
MIF: ²	-22.36 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 15 Transport Block Size: 1320 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

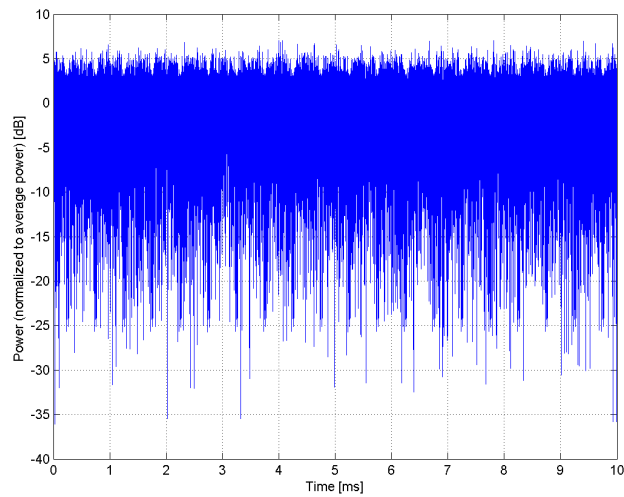
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

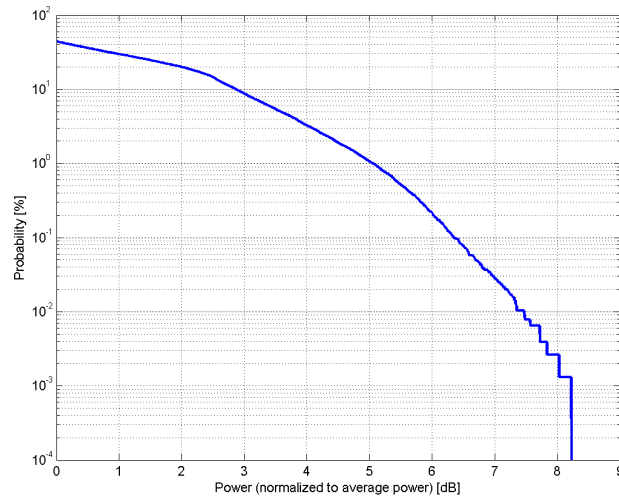


Time Domain

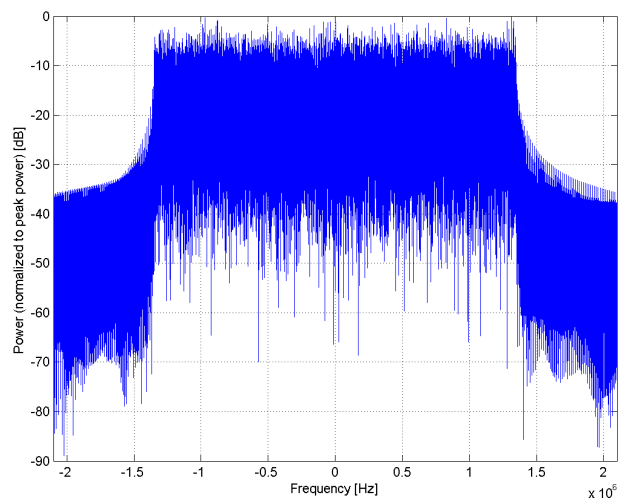
Calibration Laboratory of
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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10143-CAE
PAR: ¹	6.35 dB
MIF: ²	-14.75 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 15 Transport Block Size: 4264 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

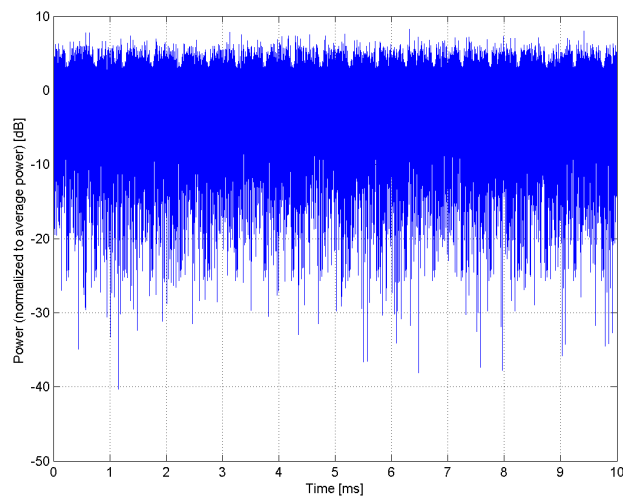
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

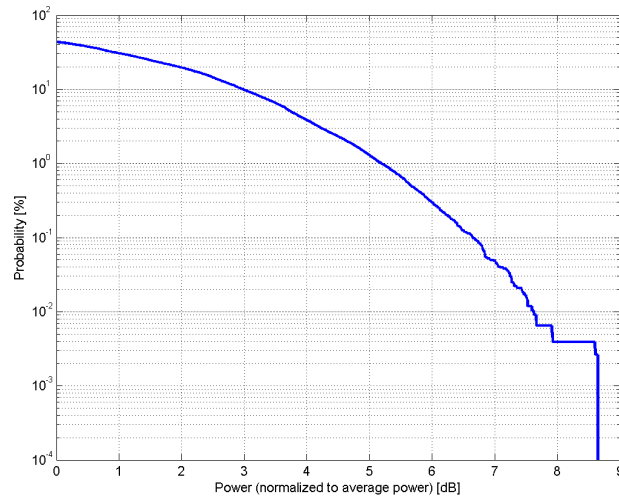


Time Domain

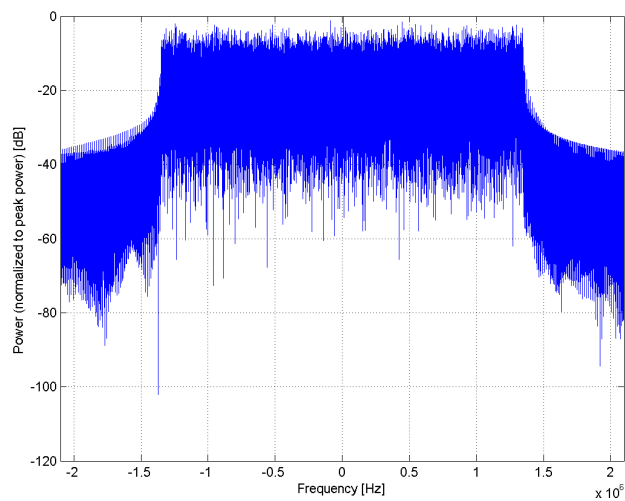
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10144-CAE
PAR: ¹	6.65 dB
MIF: ²	-15.02 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 15 Transport Block Size: 8504 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

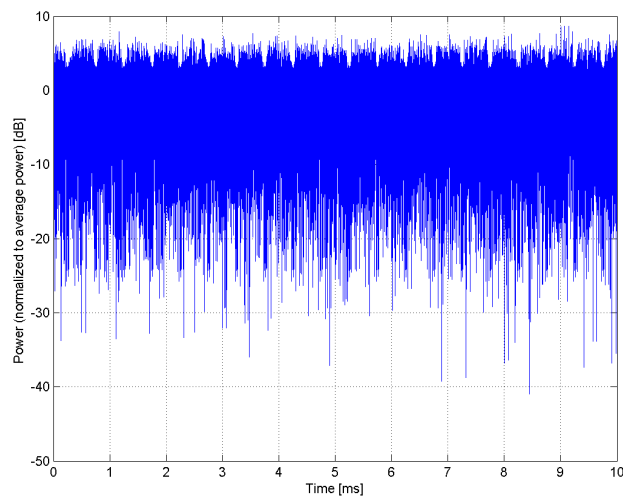
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

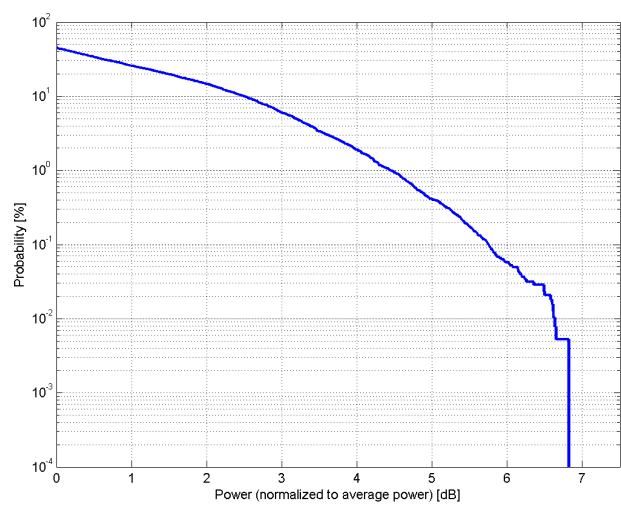


Time Domain

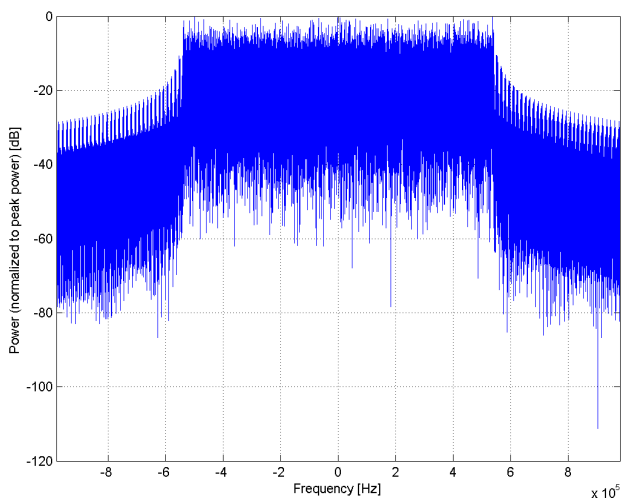
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)
Group:	LTE-FDD
UID:	10145-CAF
PAR: ¹	5.76 dB
MIF: ²	-17.39 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 6 Transport Block Size: 504 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

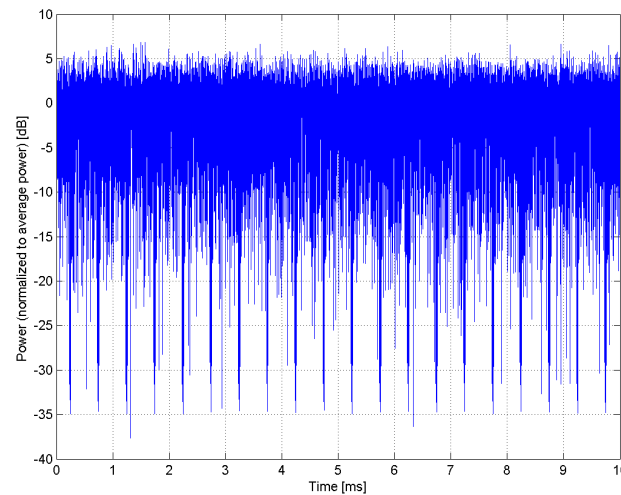
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

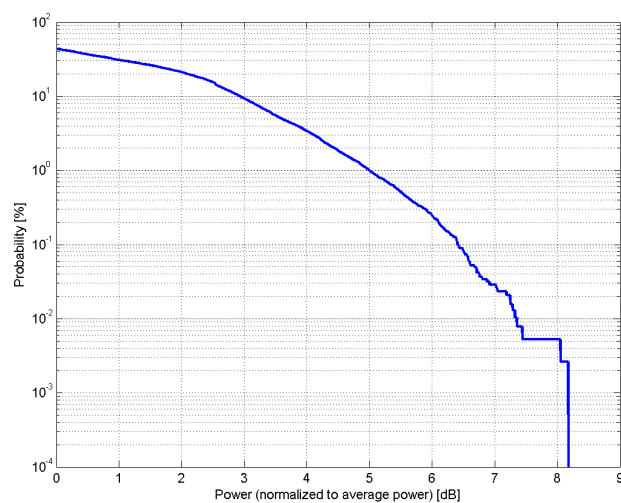


Time Domain

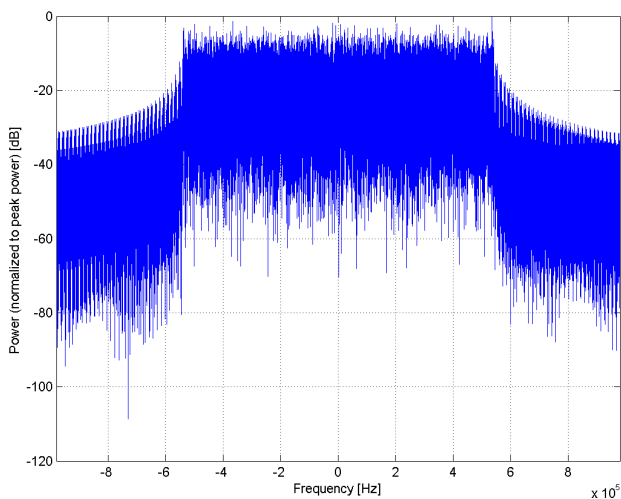
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10146-CAF
PAR: ¹	6.41 dB
MIF: ²	-13.60 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 15 Transport Block Size: 1736 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

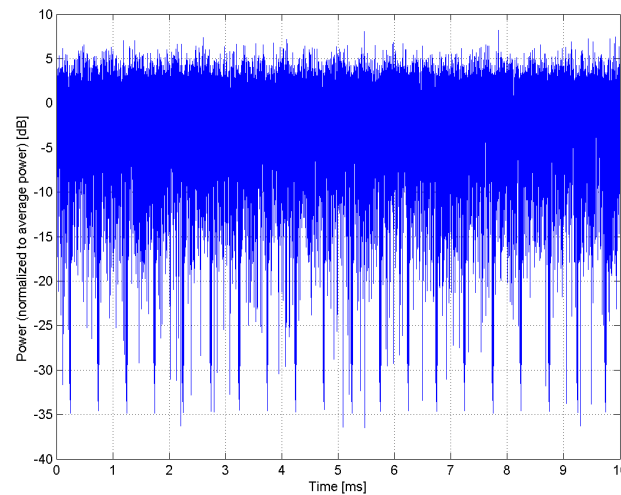
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

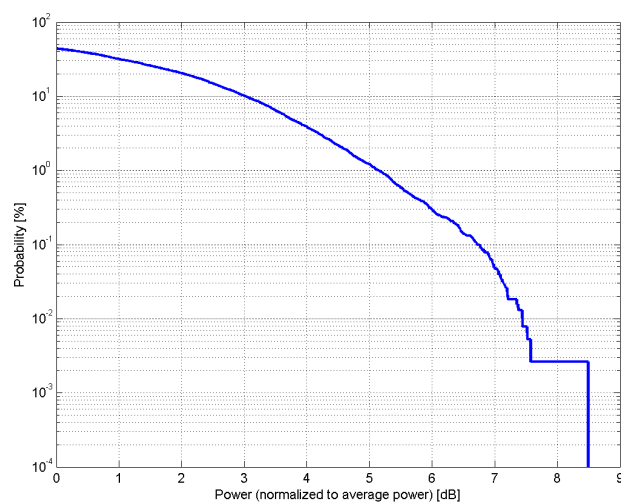


Time Domain

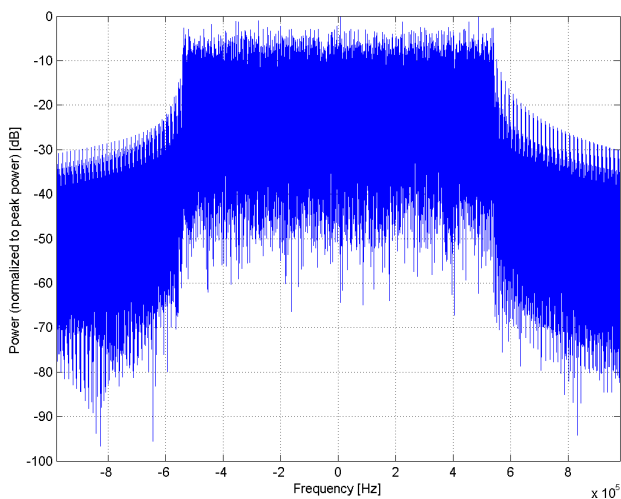
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10147-CAF
PAR: ¹	6.72 dB
MIF: ²	-13.90 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 6 Transport Block Size: 3496 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

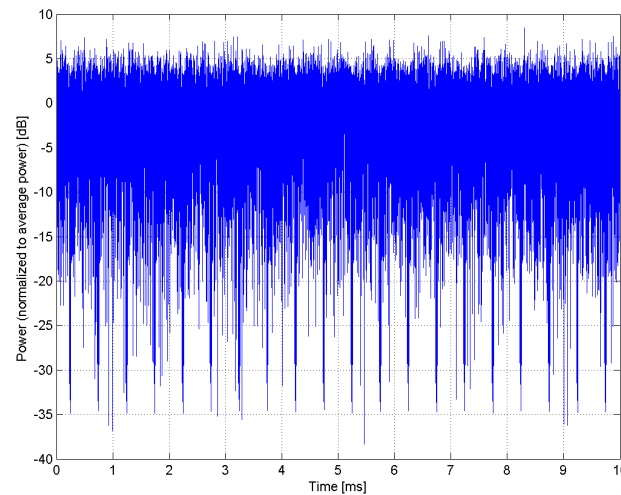
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

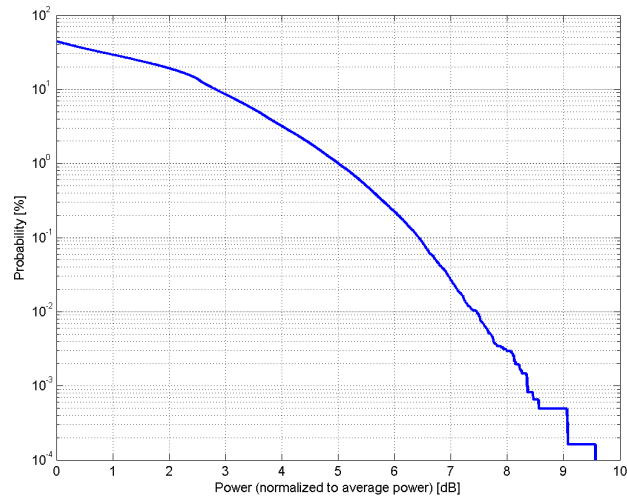


Time Domain

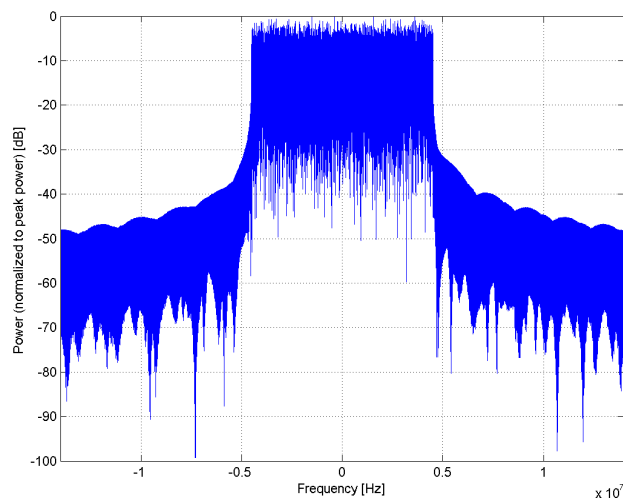
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10149-CAE
PAR: ¹	6.42 dB
MIF: ²	-16.87 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 50 Transport Block Size: 14112 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

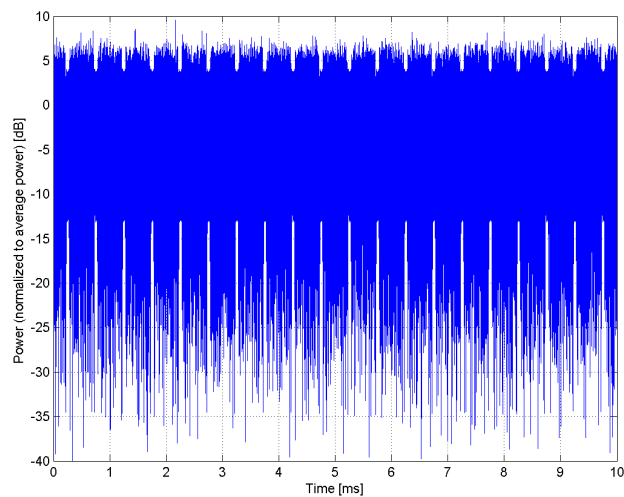
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

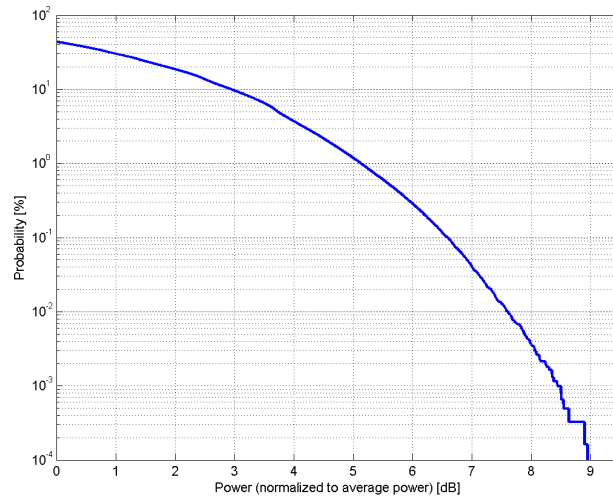


Time Domain

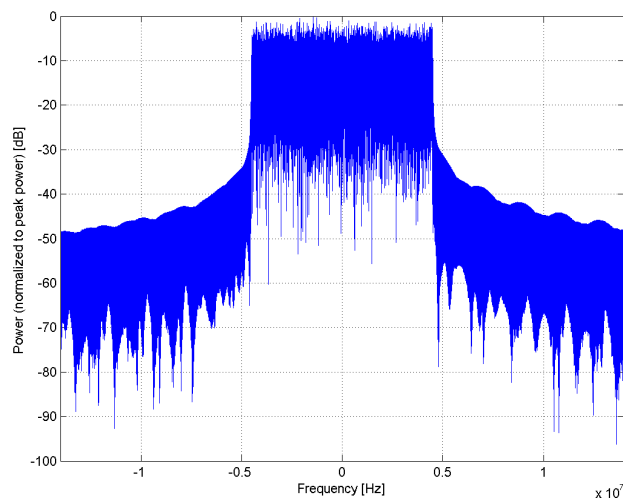
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10150-CAE
PAR: ¹	6.60 dB
MIF: ²	-16.33 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 50 Transport Block Size: 28336 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

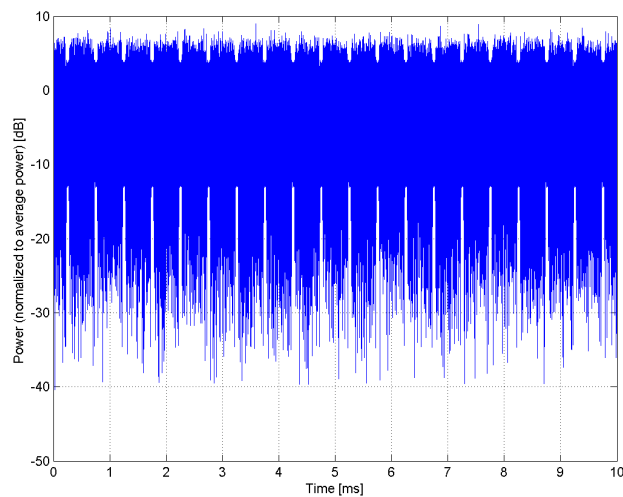
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



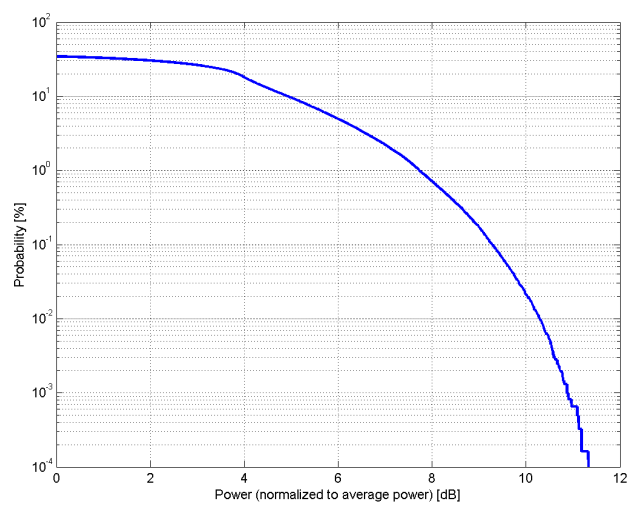
Time Domain

Calibration Laboratory of Schmid & Partner Engineering AG

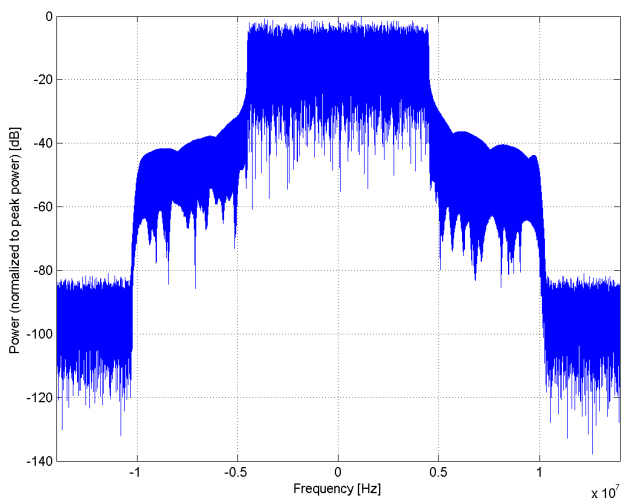
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)
Group:	LTE-TDD
UID:	10151-CAG
PAR: ¹	9.28 dB
MIF: ²	-1.64 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 50 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

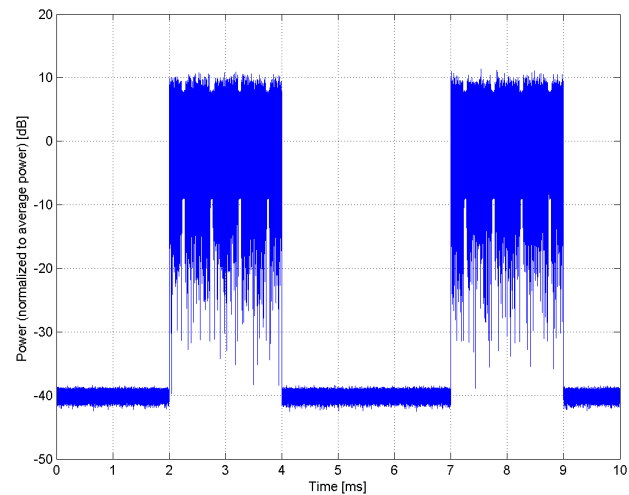
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



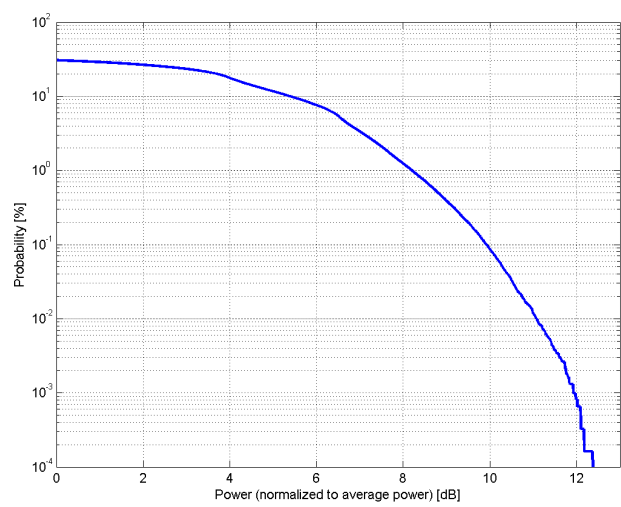
Time Domain

Calibration Laboratory of Schmid & Partner Engineering AG

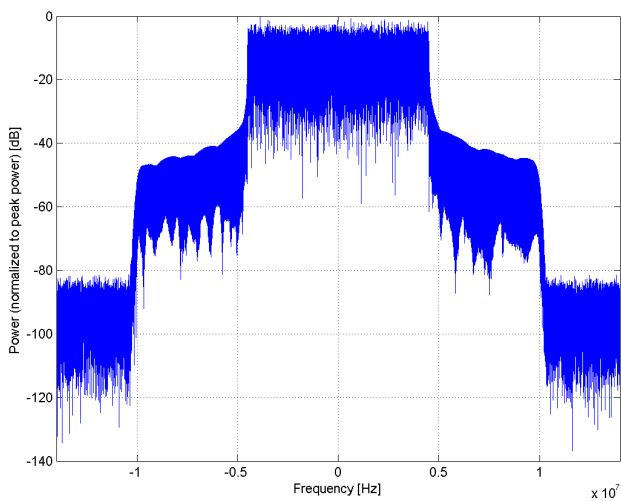
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)
Group:	LTE-TDD
UID:	10152-CAG
PAR: ¹	9.92 dB
MIF: ²	-1.66 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 50 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

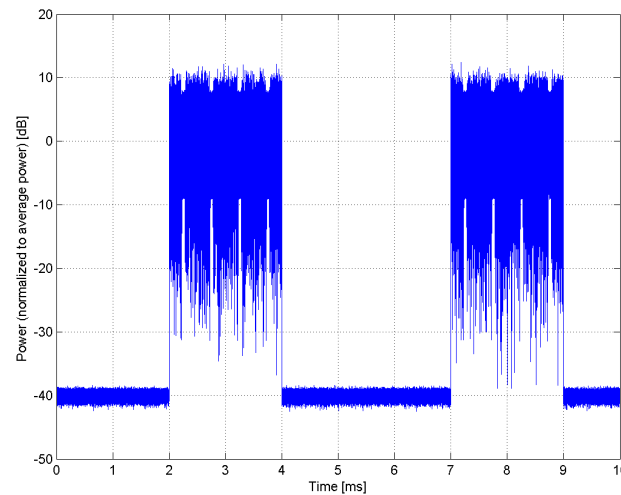
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

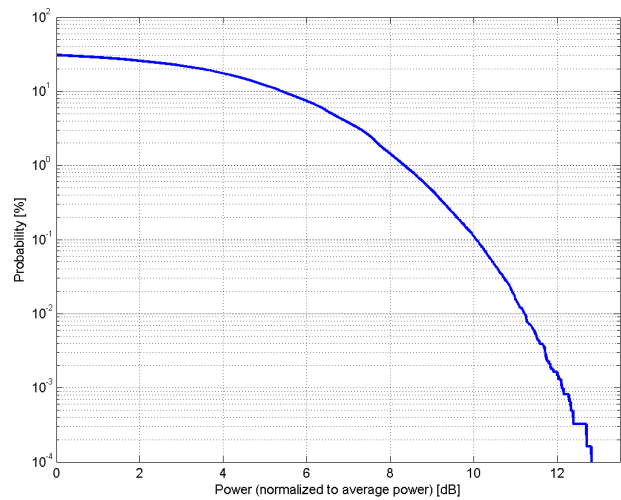


Time Domain

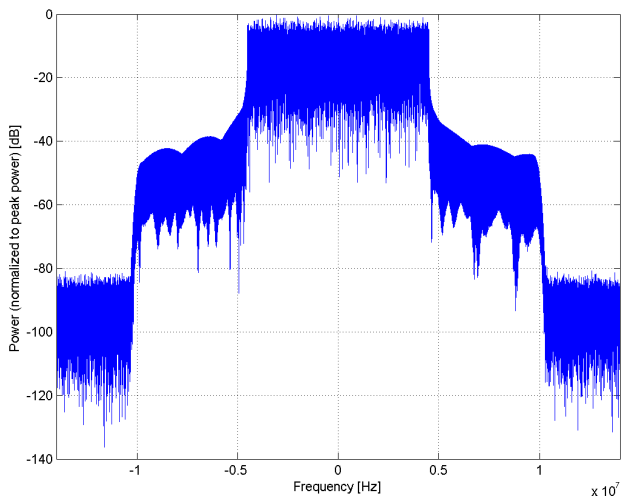
**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)
Group:	LTE-TDD
UID:	10153-CAG
PAR: ¹	10.05 dB
MIF: ²	-1.66 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 50 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

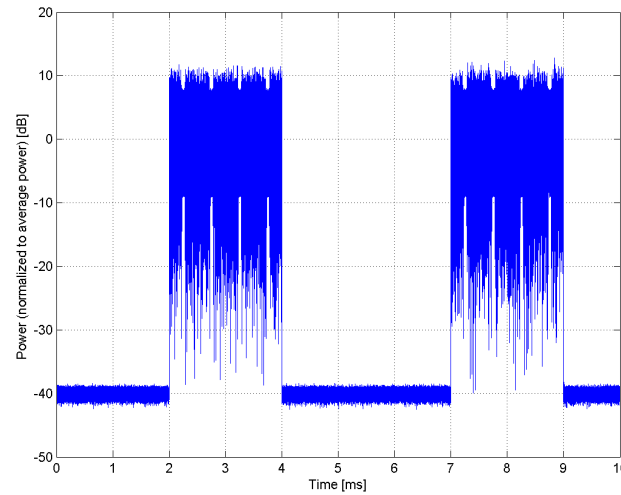
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

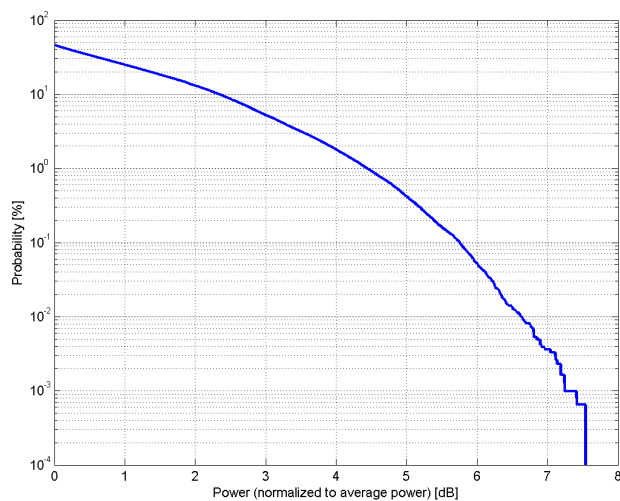
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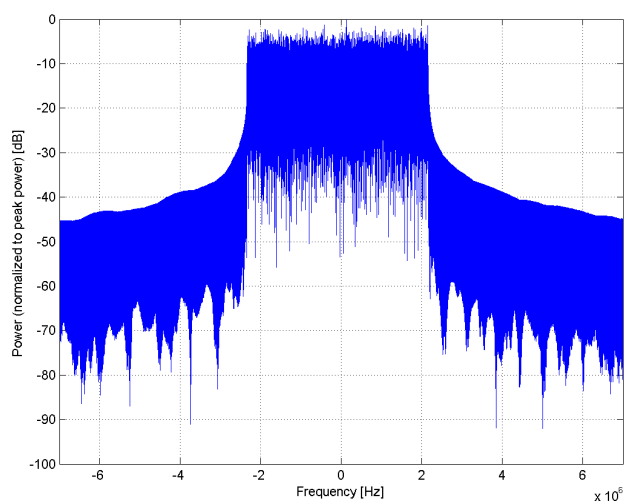
Name:	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)
Group:	LTE-FDD
UID:	10154-CAG
PAR: ¹	5.75 dB
MIF: ²	-23.42 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 25 Transport Block Size: 2216 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

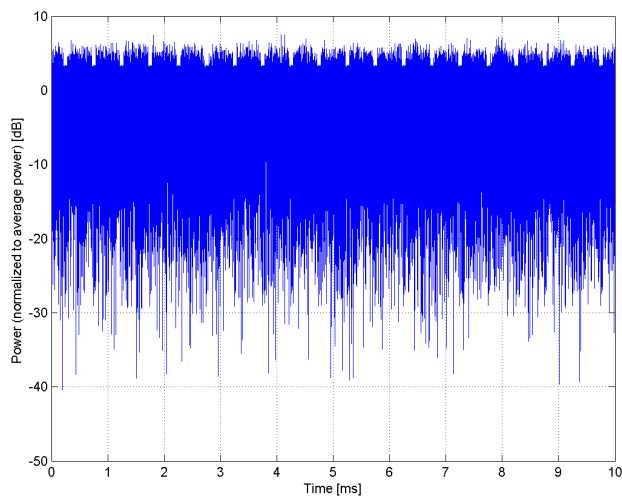
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



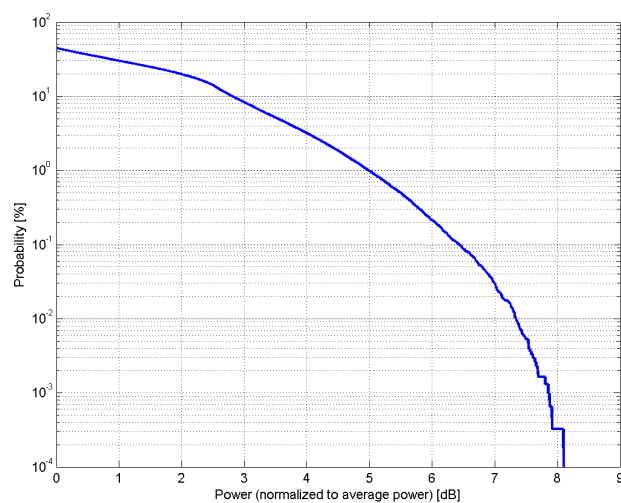
Time Domain

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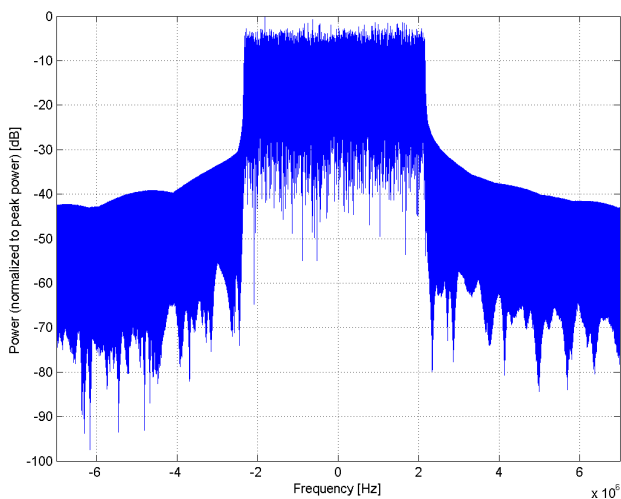
Name:	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10155-CAG
PAR: ¹	6.43 dB
MIF: ²	-16.36 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 25 Transport Block Size: 7224 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

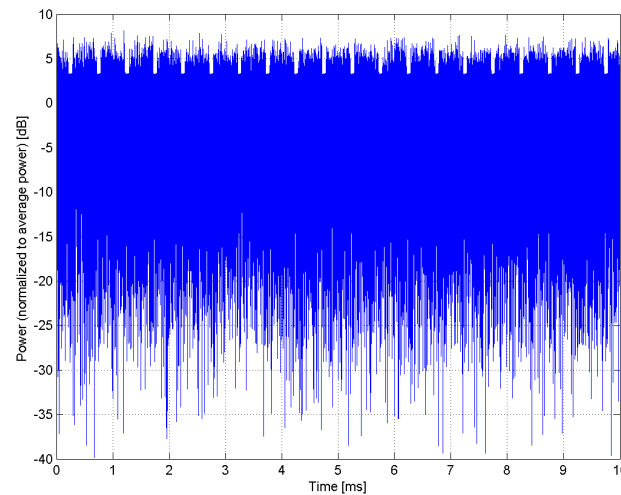
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

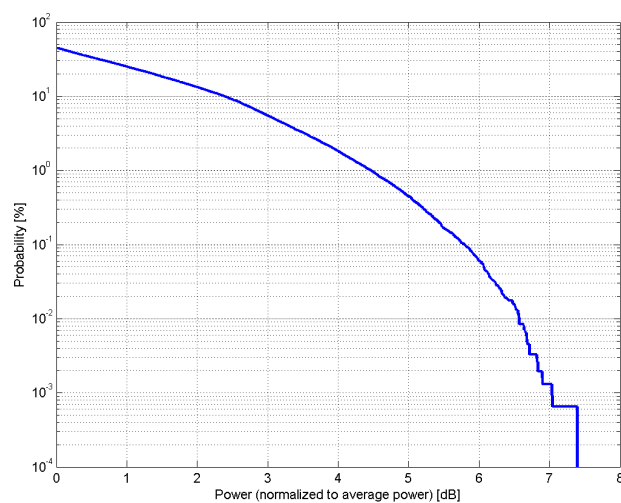
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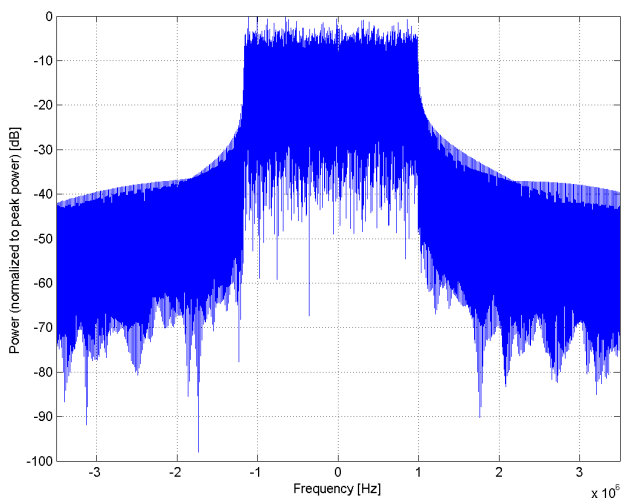
Name:	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)
Group:	LTE-FDD
UID:	10156-CAG
PAR: ¹	5.79 dB
MIF: ²	-21.71 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 12 Transport Block Size: 1032 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

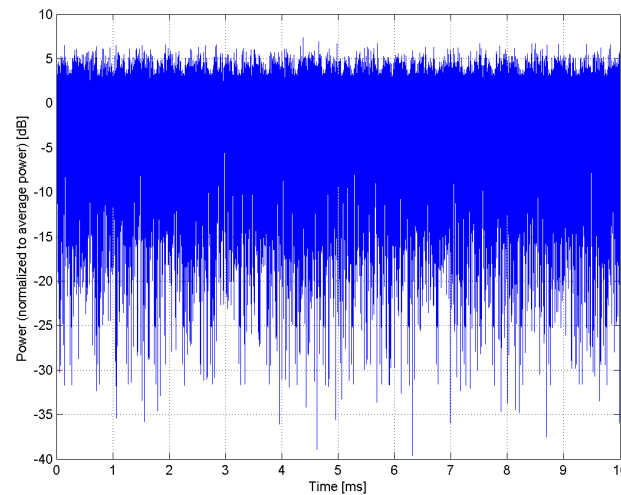
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

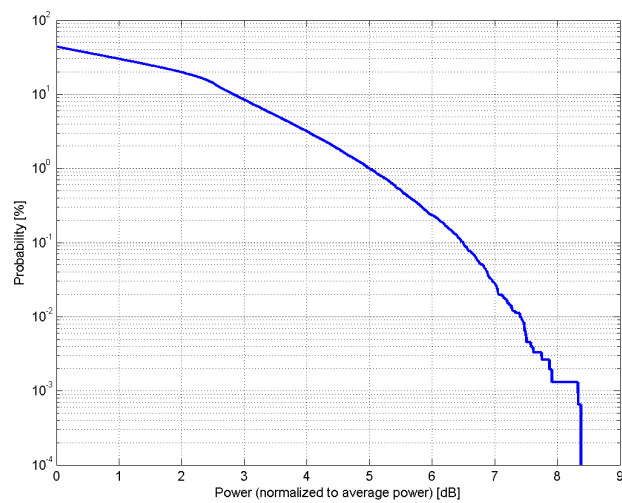
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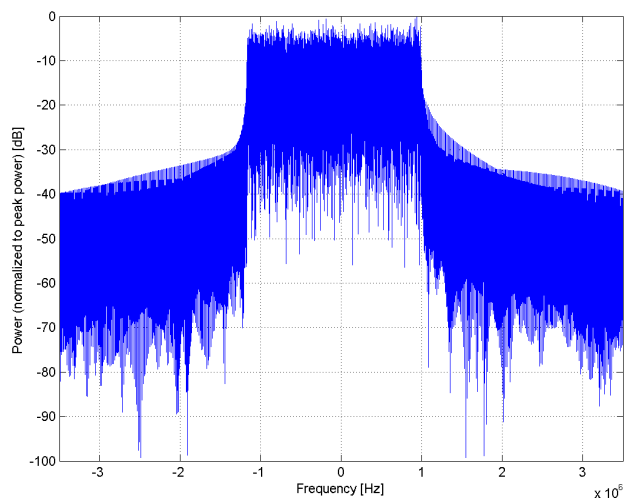
Name:	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10157-CAG
PAR: ¹	6.49 dB
MIF: ²	-15.78 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 12 Transport Block Size: 3496 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

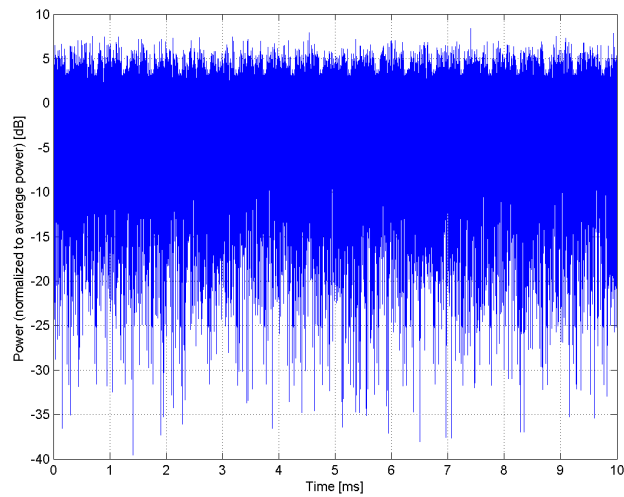
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

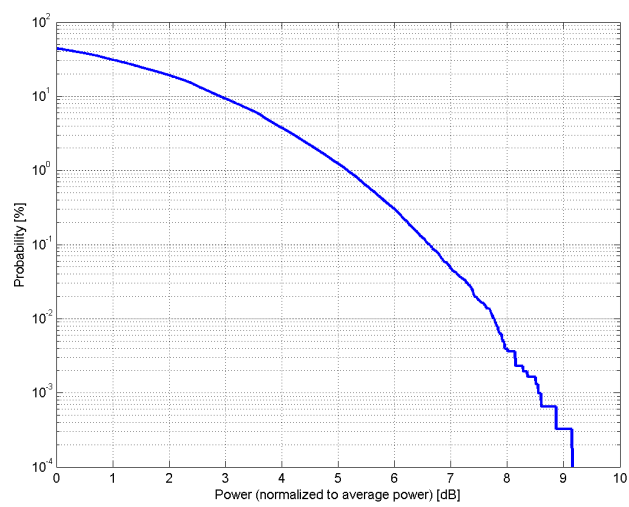


Time Domain

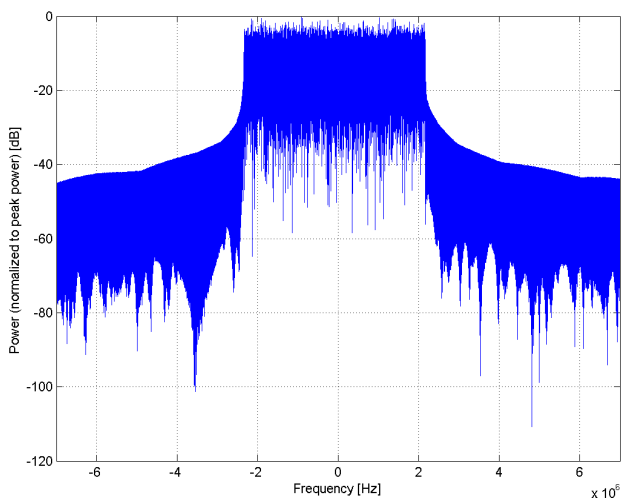
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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10158-CAG
PAR: ¹	6.62 dB
MIF: ²	-15.99 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 25 Transport Block Size: 14112 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

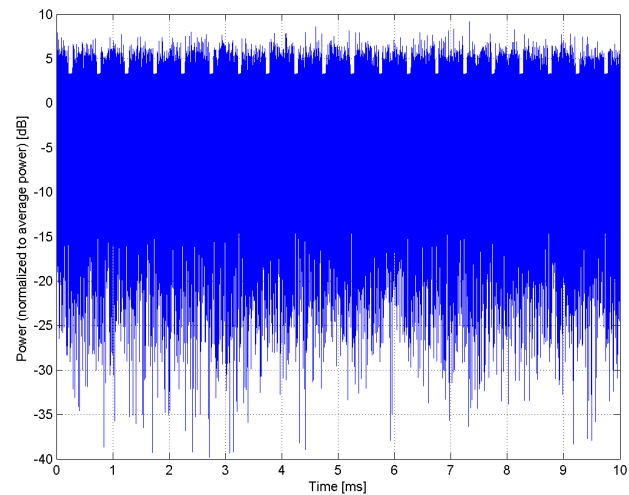
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

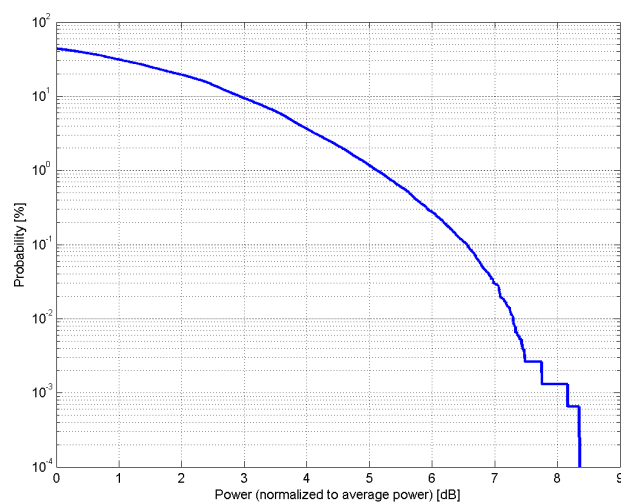
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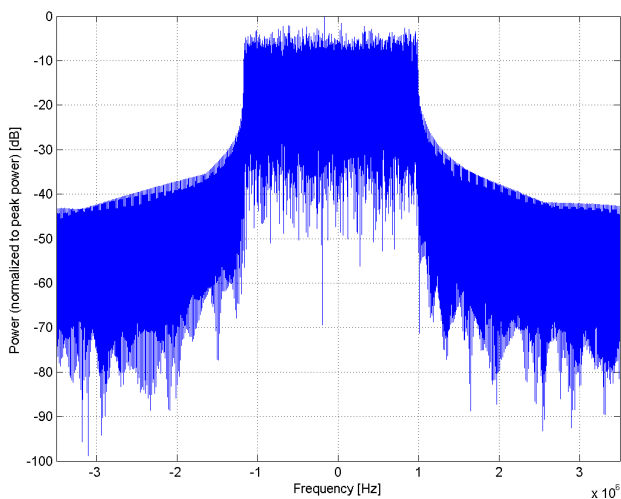
Name:	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)
Group:	LTE-FDD
UID:	10159-CAG
PAR: ¹	6.56 dB
MIF: ²	-14.49 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 72, E-UTRA/FDD (451.0 - 456.0 MHz) Band 73, E-UTRA/FDD (450.0 - 455.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Band 85, E-UTRA/FDD (698.0 - 716.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 12 Transport Block Size: 6968 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

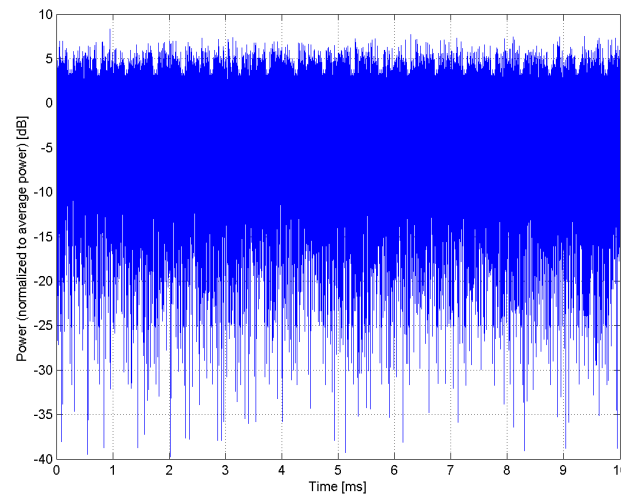
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain