

Annex 1: Measurement diagrams to TEST REPORT No.: 6-0668-15-3-13c

According to:
FCC Regulations
Part 15.209
Part 15.247

IC-Regulations
RSS-Gen, Issue 4
RSS-247, Issue 1

for

ACTIA Nordic AB

Telematic Unit for automotive use

ACUII-06
FCC-ID: 2AGKKACUII-06
IC: 20839-ACUII06
PMN: ACUII-06
HVIN: ACUII-06

Laboratory Accreditation and Listings			
 Deutsche Akkreditierungsstelle D-PL-12047-01-01	 MRA US-EU 0003	 Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3	 Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2666 C-2914, T-1967, G-301
 AUTHORIZED RF LABORATORY	 AuthorizedTM Test Lab Lab Code: 20011130-00		
accredited according to DIN EN ISO/IEC 17025			
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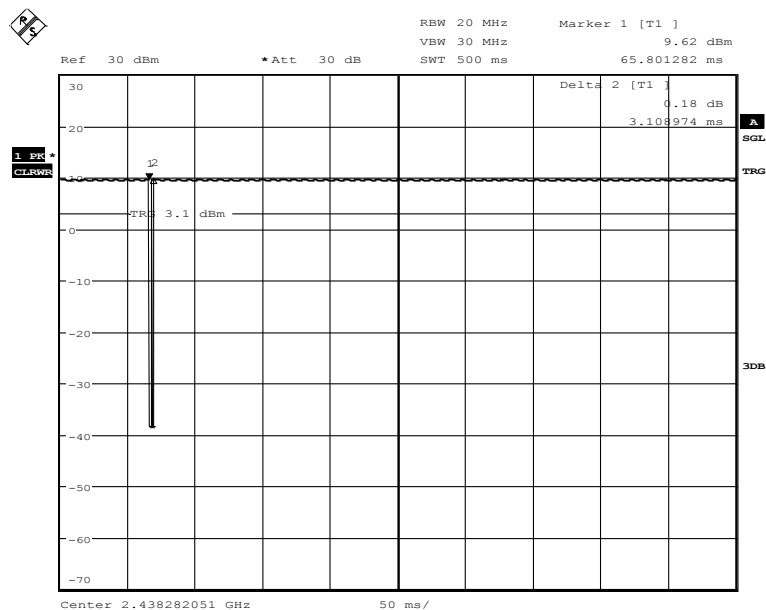
1. Measurement Diagrams

1.1. Conducted EMI measurements on AC-mains port according 15.207, class B

Not applicable since EUT powered from car equipment battery

1.2. Duty Cycle of Transmitter

The characteristics of the implemented test mode was checked on middle channel no. 6 only.

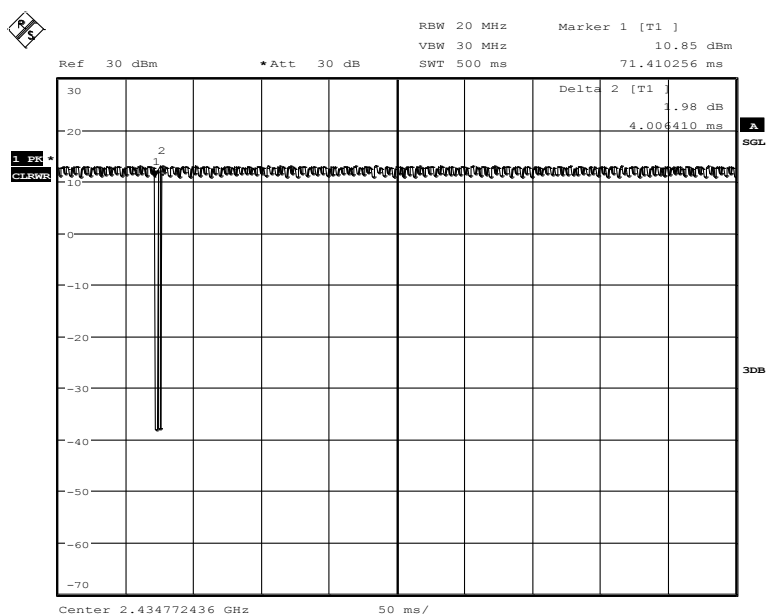


Date: 26.FEB.2016 10:03:45

Diagram b-Mode 1Mbit: Duty_Cycle=TXon/(TXon+Txoff)=497ms/500ms=99,4%.

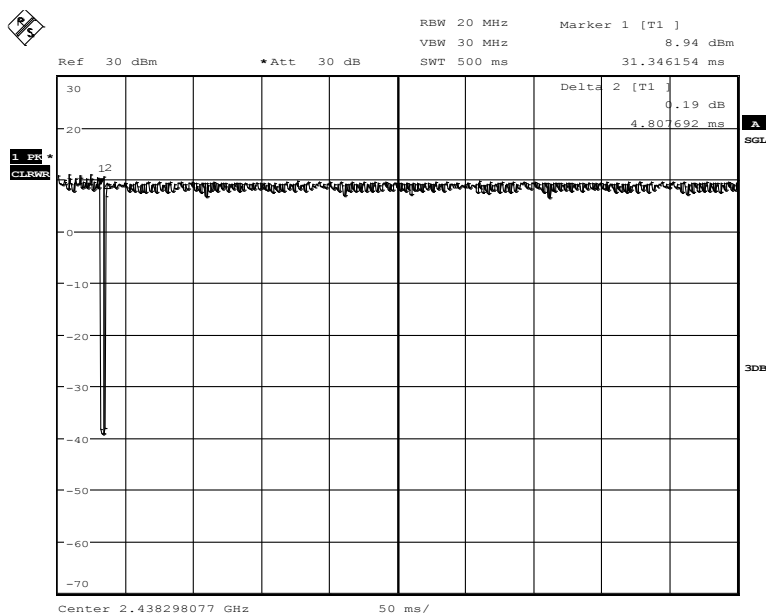
No correction necessary due high constant duty-cycle

SSS



Date: 26.FEB.2016 10:07:28

Diagram g-Mode 6Mbit: Duty_Cycle=TXon/(Txon+Txoff)=496ms/500ms=99.2%. No correction necessary due high constant duty-cycle



Date: 26.FEB.2016 10:09:59

**Diagram n-Mode MCS0: Duty_Cycle=TXon/(Txon+Txoff)=495.2ms/500ms=99.04%
No correction necessary due high constant duty-cycle**

1.3. Magnetic field strength measurements in the range 9 kHz to 30 MHz

1.3.1. b-Mode Modulation

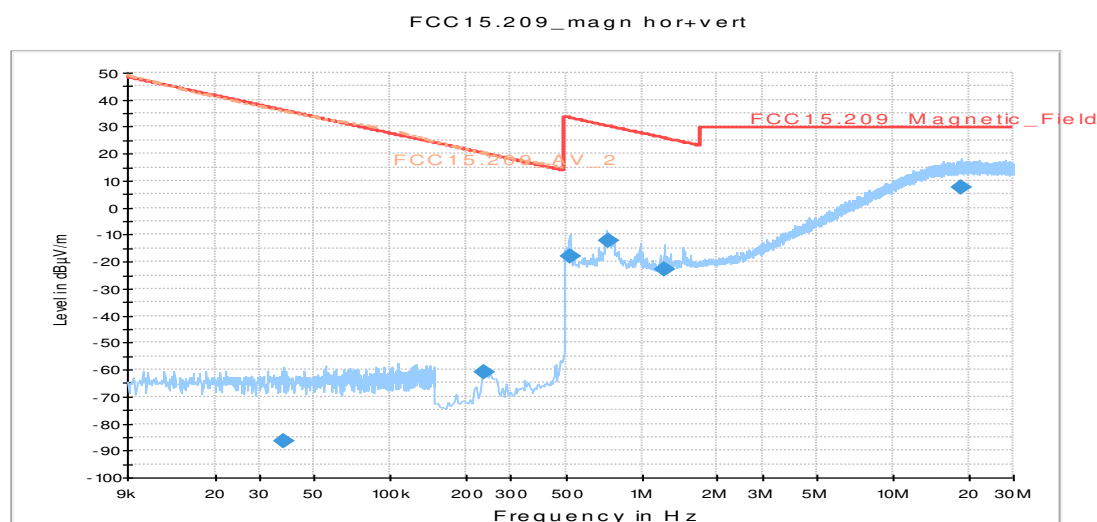
Diagram No. 2.01_Dwn_Ant_WLan_TX_BW20MHz_Ch6_b-Mode_1MBit_17dBm

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V8.51.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.209/15.205; RSS-Gen., Issue 4
Operator:	RI
Operating conditions:	TX-on WLAN 802.11b-mode, BW20 MHz channel 6; Data rate 1Mbit; Power: 17 dBm
Power during tests:	13.8 VDC
Comment 1:	channel 6(2437 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
0.037500	-86.5	1000.0	0.200	V	301.0	-95.9	122.60	36.12
0.234000	-61.2	1000.0	10.000	H	292.0	-90.4	81.40	20.22
0.516000	-18.2	1000.0	10.000	H	291.0	-35.7	51.50	33.35
0.736000	-12.3	1000.0	10.000	H	305.0	-35.2	42.50	30.28
1.228000	-22.6	1000.0	10.000	H	339.0	-33.9	48.40	25.84
18.760000	7.5	1000.0	10.000	V	171.0	3.2	22.10	29.54

Diagram No. 2.01_Up_Ant_WLan_TX_BW20MHz_Ch6_b-Mode_1MBit_17dBm

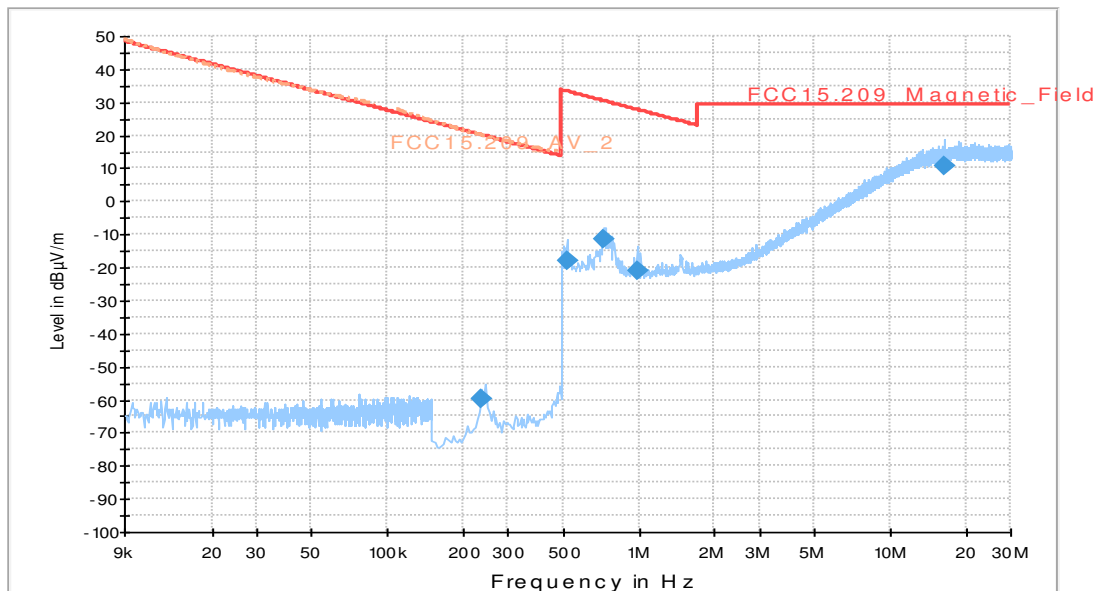
Common Information

Test description: Magnetic Field Strength Measurement related to 30/300 m distance
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Testsoftware: EMC32 V8.51.0
 Distance correction: used accord. table, pls. see test report
 Technical Data: Please see page 2 for detailed data of measurement setup
 Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation
 Used filter: bypass
 Test specification: FCC 15.209/15.205; RSS-Gen., Issue 4
 Operator: RIs
 Operating conditions: TX-on WLAN 802.11b-mode, B:W: 20 MHz_channel 6; Data rate 1Mbit; Power: 17 dBm
 Power during tests: 13,8 VDC
 Comment 1: channel 6(2437 MHz) | Upward directed WLAN Antenna

EUT Information

Manufacturer: ACTIA Nordic AB
 EuT: ACUII-06
 HW Version: C
 SW Version: 13
 Serial Number: 21790250902642
 Connected Interfaces: MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
 Power Supply: 13.8 VDC
 Antenna Type: LTE Antenna with SDAR
 434-WLAN-GNSS-SDARS-LTE
 50751424 | 15W421 | Portugal AD801
 SDARS Modified #1

FCC15.209_magn hor+vert



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
0.238000	-59.8	1000.0	10.000	H	286.0	-90.2	79.90	20.07
0.516000	-17.7	1000.0	10.000	H	295.0	-35.7	51.10	33.35
0.728000	-11.4	1000.0	10.000	H	288.0	-35.2	41.80	30.37
0.980000	-20.8	1000.0	10.000	H	282.0	-34.7	48.60	27.80
16.228000	10.5	1000.0	10.000	V	21.0	2.6	19.00	29.54

1.4. Field strength measurements 30MHz <f <1GHz

1.4.1. b-Mode Modulation

Diagram No. 3.01_Dwn_Ant_WLan_TX_BW20MHz_Ch6_b-Mode_1MBit_17dBm

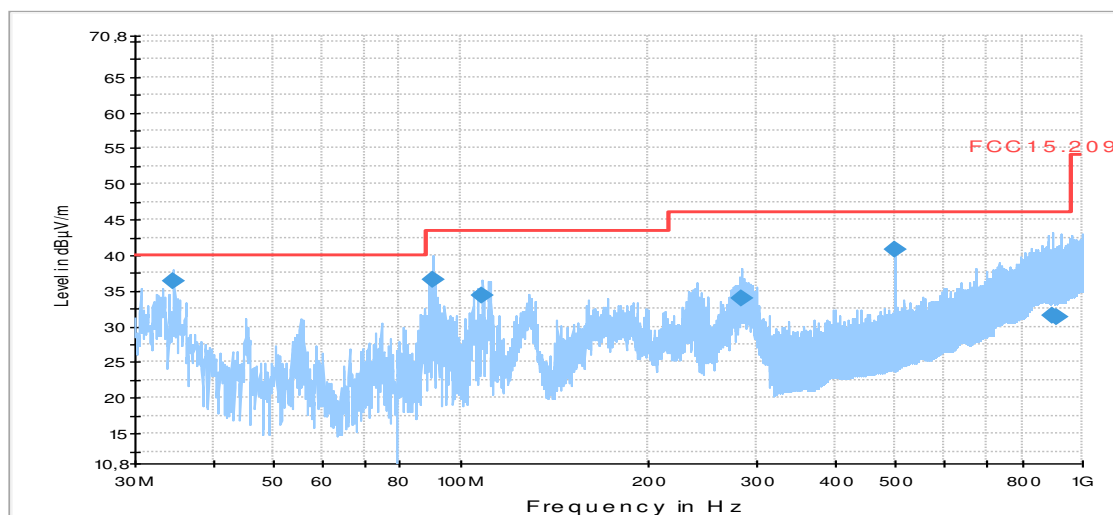
Common Information

Test description:	Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V8.51.0
Distance correction:	not used
Used filter:	not used
Technical Data:	please see page 2 for detailed data of measurement setup
Test specification.:	FCC 15.209; RSS-Gen: Issue 3
Operator:	AHo
Operating conditions:	TX-on WLAN 802.11 b-mode, BW 20 MHz channel 6; Data rate 1 MBit; Power: 17 dBm
Power during tests:	13.8V DC
Comment 1:	Channel 6 (2437 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

01_FCC15.209_hor+vert_KP0



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
34.610000	36.4	1000.0	120.000	182.0	H	111.0	19.8	3.60	40.00
90.400000	36.6	1000.0	120.000	105.0	V	165.0	8.7	6.90	43.50
108.790000	34.4	1000.0	120.000	105.0	V	8.0	8.5	9.10	43.50
284.080000	33.9	1000.0	120.000	105.0	H	98.0	14.9	12.10	46.00
499.960000	40.8	1000.0	120.000	175.0	H	191.0	19.9	5.20	46.00
895.500000	31.5	1000.0	120.000	330.0	V	312.0	27.1	14.50	46.00
910.540000	31.4	1000.0	120.000	105.0	V	344.0	27.5	14.60	46.00

Diagram No. 3.01_Up_Ant_WLan_TX_BW20MHz_Ch6_b-Mode_1MBit_17dBm

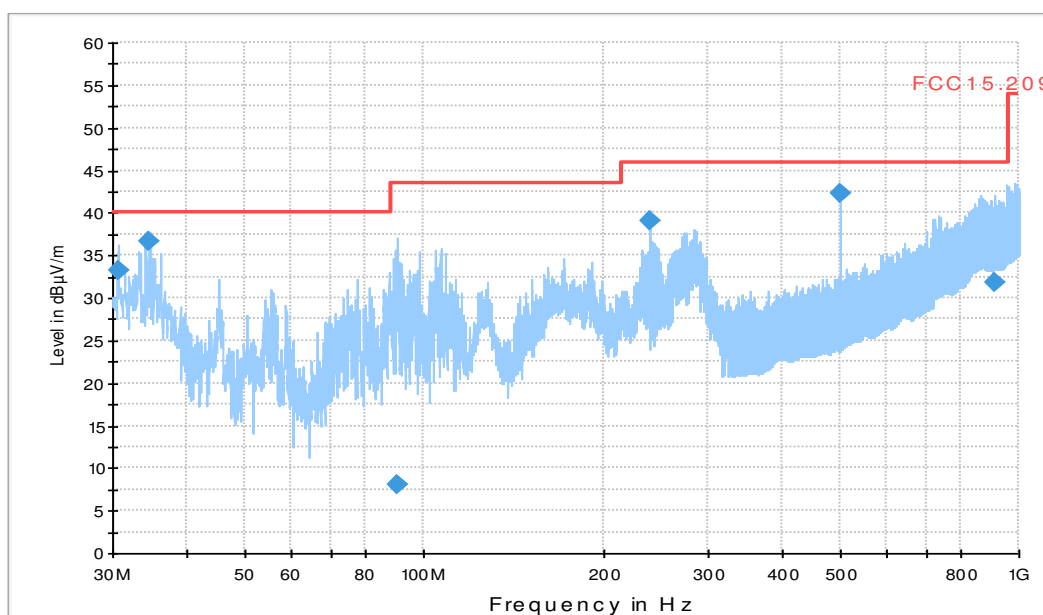
Common Information

Test description: Electric Field Strength Measurement
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Testsoftware: EMC32 V8.51.0
 Distance correction: not used
 Used filter: not used
 Technical Data: please see page 2 for detailed data of measurement setup
 Test specification.: FCC 15.209; RSS-Gen: Issue 3
 Operator: AHo
 Operating conditions: TX-on WLAN 802.11 b-mode, BW 20 MHz channel 6; Data rate 1 MBit; Power: 17 dBm
 Power during tests: 13.8V DC
 Comment 1: Channel 6 (2437 MHz) | Upward directed WLAN Antenna

EUT Information

Manufacturer: ACTIA Nordic AB
 EuT: ACUII-06
 HW Version: C
 SW Version: 13
 Serial Number: 21790250902642
 Connected Interfaces: MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
 Power Supply: 13.8 VDC
 Antenna Type: LTE Antenna with SDAR
 434-WLAN-GNSS-SDARS-LTE
 50751424 | 15W421 | Portugal AD801
 SDARS Modified #1

01_FCC15.209_hor+vert_KP0



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.630000	33.3	1000.0	120.000	123.0	H	109.0	21.8	6.70	40.00
34.610000	36.6	1000.0	120.000	210.0	H	83.0	19.8	3.40	40.00
90.340000	8.0	1000.0	120.000	105.0	V	145.0	8.7	35.50	43.50
239.990000	39.1	1000.0	120.000	117.0	H	86.0	13.1	6.90	46.00
499.950000	42.3	1000.0	120.000	183.0	H	190.0	19.9	3.70	46.00
908.860000	31.7	1000.0	120.000	306.0	V	141.0	27.4	14.30	46.00

1.5. Field strength measurements 1GHz < f < 18GHz

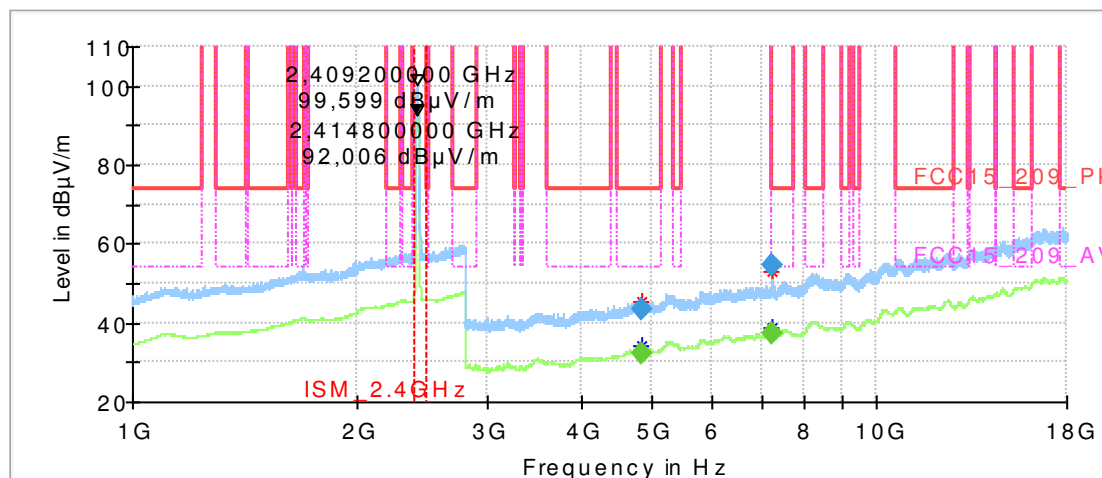
Diagram 4.01_Dwn_An_TX_WLAN_BW20MHz_Ch1_g-Mode_6MBit_13dBm

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
SW-Version:	EMC32 V8.53.0
Operation mode:	WLAN 802.11g-mode,BW 20 MHz channel 1; Data rate 6Mbit Power 13 dBm
Operator Name:	APh
Comment:	Channel no.1 (2412 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4821.330000	43.64	---	74.00	30.36	100.0	1000.000	155.0	V	86.0	90.0
4823.970000	---	32.45	54.00	21.55	100.0	1000.000	155.0	V	317.0	0.0
7232.570000	54.47	---	150.00	95.53	100.0	1000.000	155.0	H	228.0	90.0
7233.490000	---	37.14	150.00	112.86	100.0	1000.000	155.0	H	231.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr .
4821.330000	4.8
4823.970000	4.8
7232.570000	10.8
7233.490000	10.8

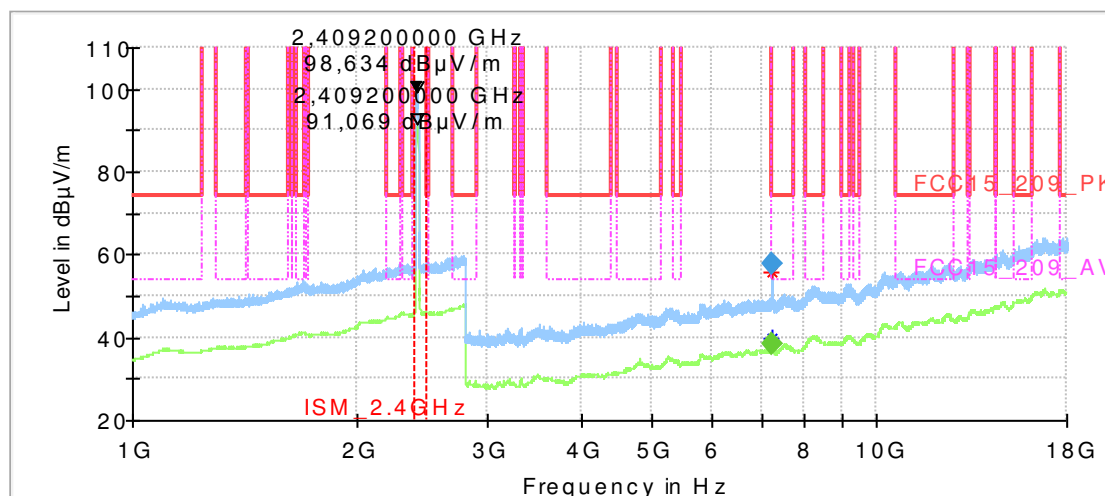
Diagram 4.01_Up_Ant_TX_WLAN_BW20MHz_Ch1_g-Mode_6MBit_13dBm

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode,BW 20 MHz channel 1; Data rate 6Mbit Power 13 dBm
Operator Name:	KMo
Comment:	Channel no.1 (2412 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
7232.530000	57.52	---	150.00	92.48	100.0	1000.000	155.0	H	230.0	90.0
7236.610000	---	38.22	150.00	111.78	100.0	1000.000	155.0	H	233.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr.
7232.530000	10.8
7236.610000	10.8

Diagram No.: 4.03_Dwn_Ant_TX_ WLAN_ Ch6 _b-Mode_1MBit

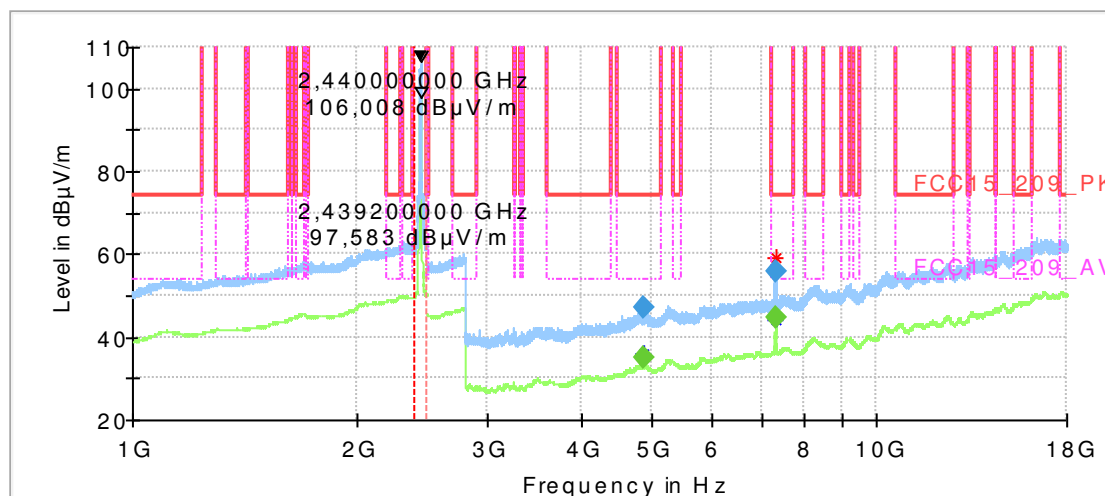
Common Information

Test Description: Radiated Spurious Emissions WLAN 2.4GHz
Test Site: CETECOM GmbH Essen
Test Standard: FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation: horizontal/vertical
Operation mode: WLAN 802.11b-mode,BW 20 MHz channel 6; Data rate 1Mbit Power 17 dBm
Operator: AHO
Comment: Channel no.6,(2437 MHz)| Downward directed WLAN Antenna

EUT Information

Manufacturer: ACTIA Nordic AB
EuT: ACUII-06

HW Version: C
SW Version: 13
Serial Number: 21790250902642
Connected Interfaces: MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply: 13.8 VDC
Antenna Type: LTE Antenna with SDAR
434-WLAN-GNSS-SDARS-LTE
50751424 | 15W421 | Portugal AD801
SDARS Modified #1



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4872.720000	46.91	---	74.00	27.09	100.0	1000.000	155.0	V	78.0	0.0
4873.960000	---	35.21	54.00	18.79	100.0	1000.000	155.0	V	78.0	0.0
7312.200000	---	44.82	54.00	9.18	100.0	1000.000	155.0	H	222.0	90.0
7315.000000	55.65	---	74.00	18.35	100.0	1000.000	155.0	H	140.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr .
4872.720000	4.7
4873.960000	4.7
7312.200000	10.2
7315.000000	10.2

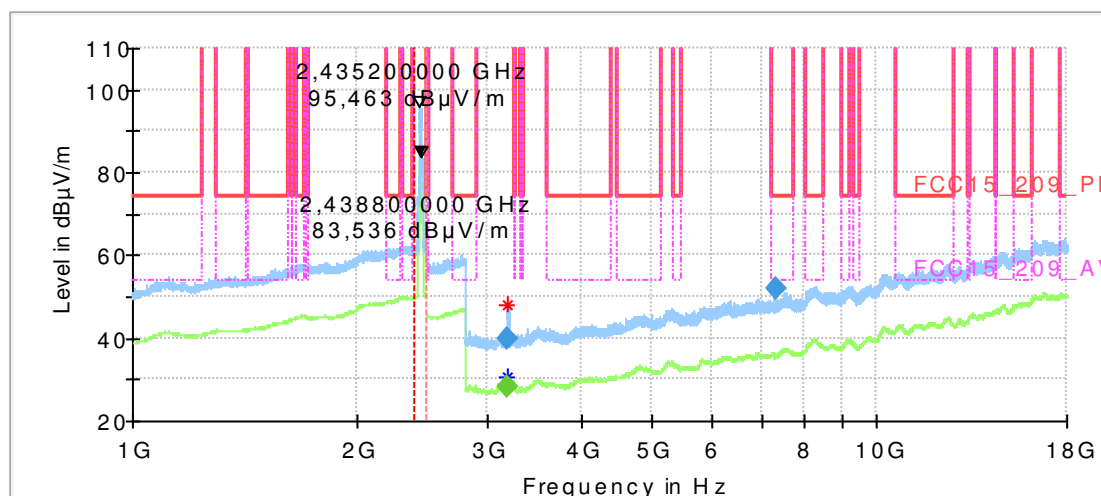
Diagram No.: 4.03_Up_Ant_TX_WLAN_Ch6_b-Mode_1MBit

Common Information

Test Description:	Radiated Spurious Emissions WLAN 2.4GHz
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous
Operation mode:	WLAN 802.11b-mode,BW 20 MHz channel 6; Data rate 1Mbit Power 17 dBm
Operator	AHo
Comment:	Channel no.6(2437 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
3191.600000	39.97	---	150.00	110.03	100.0	1000.000	155.0	V	300.0	90.0
3193.000000	---	28.03	150.00	121.97	100.0	1000.000	155.0	V	280.0	90.0
7308.560000	52.11	---	74.00	21.89	100.0	1000.000	155.0	H	231.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr .
3191.600000	-0.1
3193.000000	-0.1
7308.560000	10.1

Diagram No.: 4.05_Dwn_Ant_TX_WLAN_Ch11_b-Mode_1MBit

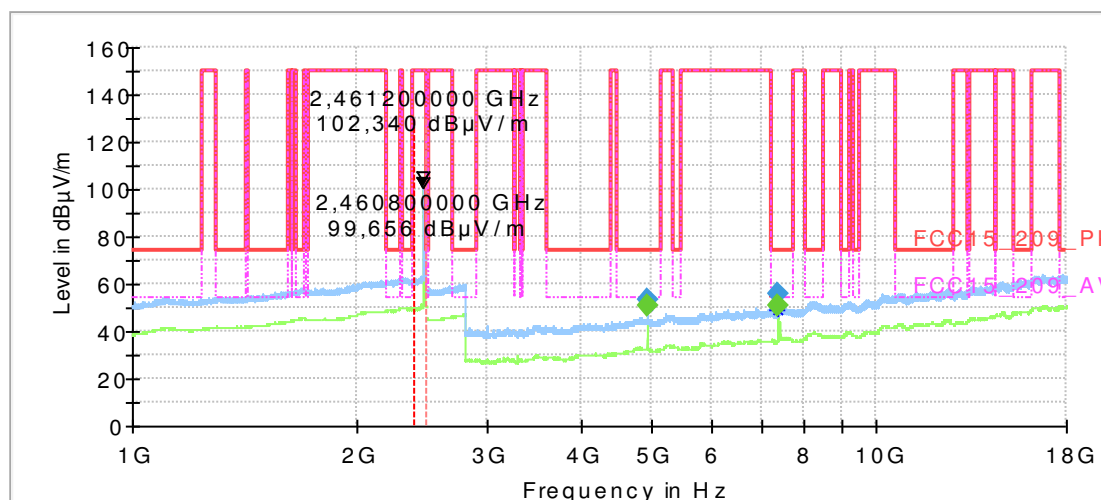
Common Information

Test Description: Radiated Spurious Emissions WLAN 2.4GHz
Test Site: CETECOM GmbH Essen
Test Standard: FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation: horizontal/vertical
Operation mode: WLAN 802.11b-mode,BW 20 MHz channel 11; Data rate 1Mbit Power 17 dBm
Operator: AHO
Comment: Channel no.11,(2462 MHz)| Downward directed WLAN Antenna

EUT Information

Manufacturer: ACTIA Nordic AB
EuT: ACUII-06

HW Version: C
SW Version: 13
Serial Number: 21790250902642
Connected Interfaces: MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply: 13.8 VDC
Antenna Type: LTE Antenna with SDAR
434-WLAN-GNSS-SDARS-LTE
50751424 | 15W421 | Portugal AD801
SDARS Modified #1



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4923.960000	---	50.54	54.00	3.46	100.0	1000.000	155.0	V	74.0	0.0
4923.960000	53.72	---	74.00	20.28	100.0	1000.000	155.0	V	75.0	0.0
7385.440000	55.85	---	74.00	18.15	100.0	1000.000	155.0	H	235.0	90.0
7386.920000	---	50.62	54.00	3.38	100.0	1000.000	155.0	H	242.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr .
4923.960000	4.4
4923.960000	4.4
7385.440000	10.8
7386.920000	10.8

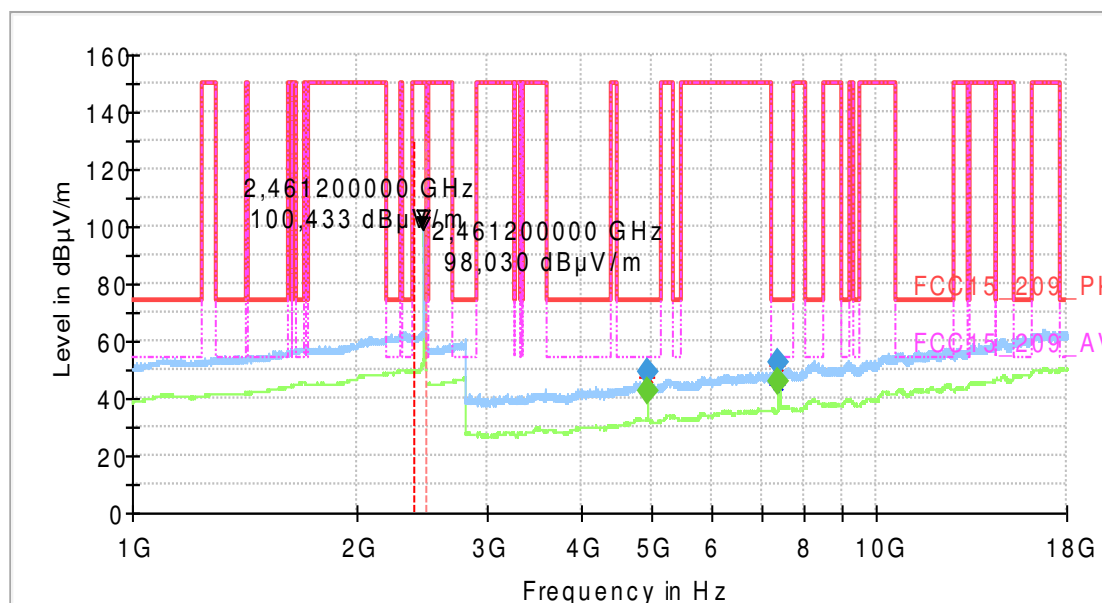
Diagram No.: 4.05_Up_Ant_TX_ WLAN_ Ch11 _b-Mode_1MBit

Common Information

Test Description:	Radiated Spurious Emissions WLAN 2.4GHz
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11b-mode,BW 20 MHz channel 11; Data rate 1Mbit Power 17 dBm
Operator	AHo
Comment:	Channel no.11,(2462 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4923.960000	---	42.90	54.00	11.10	100.0	1000.000	155.0	H	15.0	90.0
4923.960000	49.15	---	74.00	24.85	100.0	1000.000	155.0	H	14.0	90.0
7381.480000	52.90	---	74.00	21.10	100.0	1000.000	155.0	H	229.0	90.0
7388.920000	---	45.77	54.00	8.23	100.0	1000.000	155.0	H	242.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr .
4923.960000	4.4
4923.960000	4.4
7381.480000	10.8
7388.920000	10.8

1.6. Field strength measurements 18GHz < f < 25GHz

Diagram No.: 4.06_Down_Ch1_6MBit_13dBm

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. low=1, g-Mode,6Mbit, 13dBm, Downward antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre

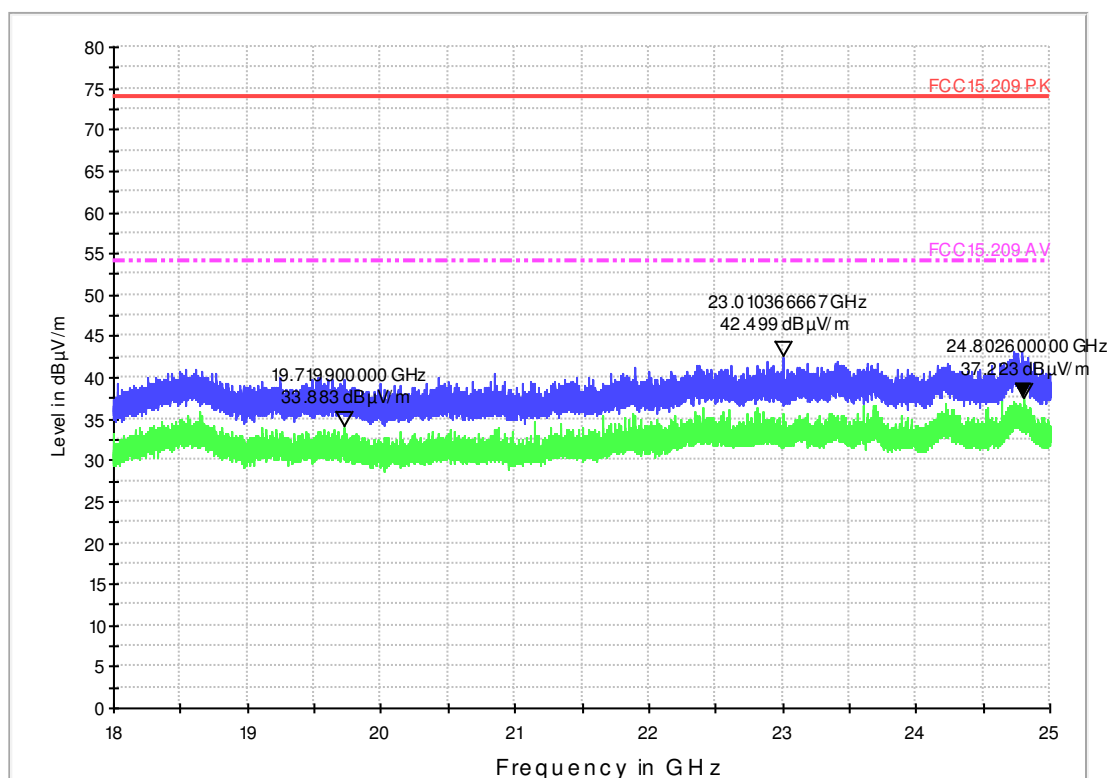


Diagram No.: 4.06_Up_Ch1_6MBit_13dBm

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. low=1, g-Mode,6Mbit, 13dBm, Upward Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre

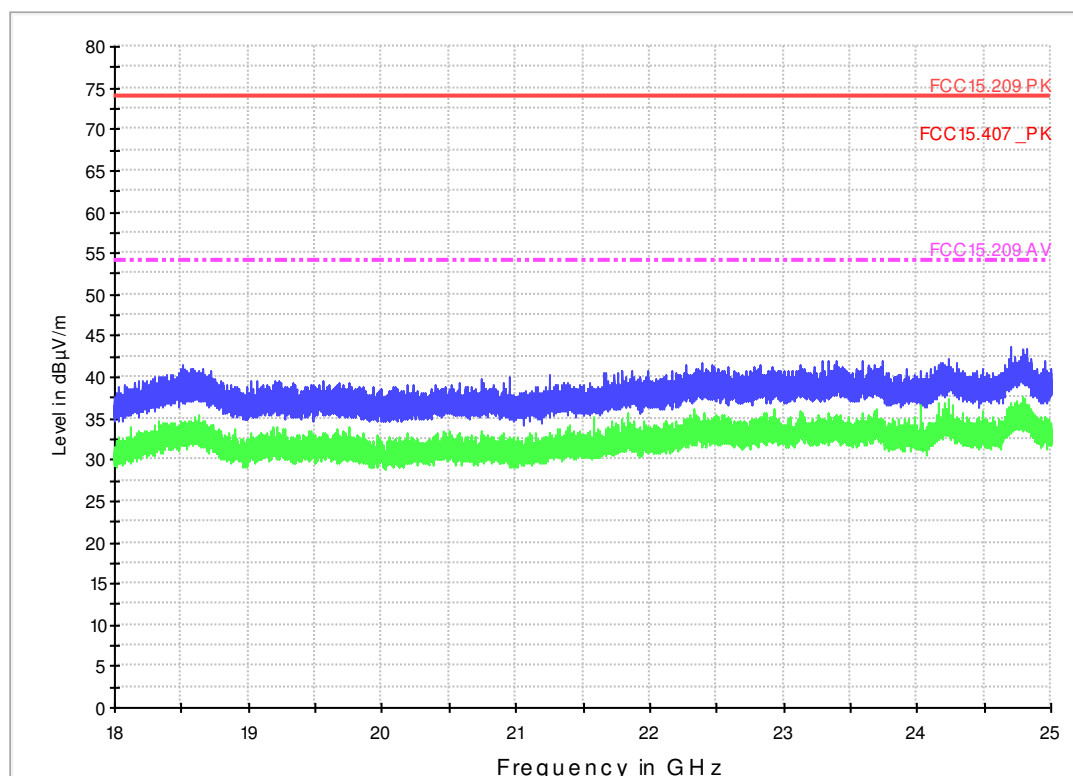


Diagram No.: 4.07_Down_Ch6_1MBit_17dBm

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. middle=6, b-Mode, 1MBit, 17dBm power, Downward antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre

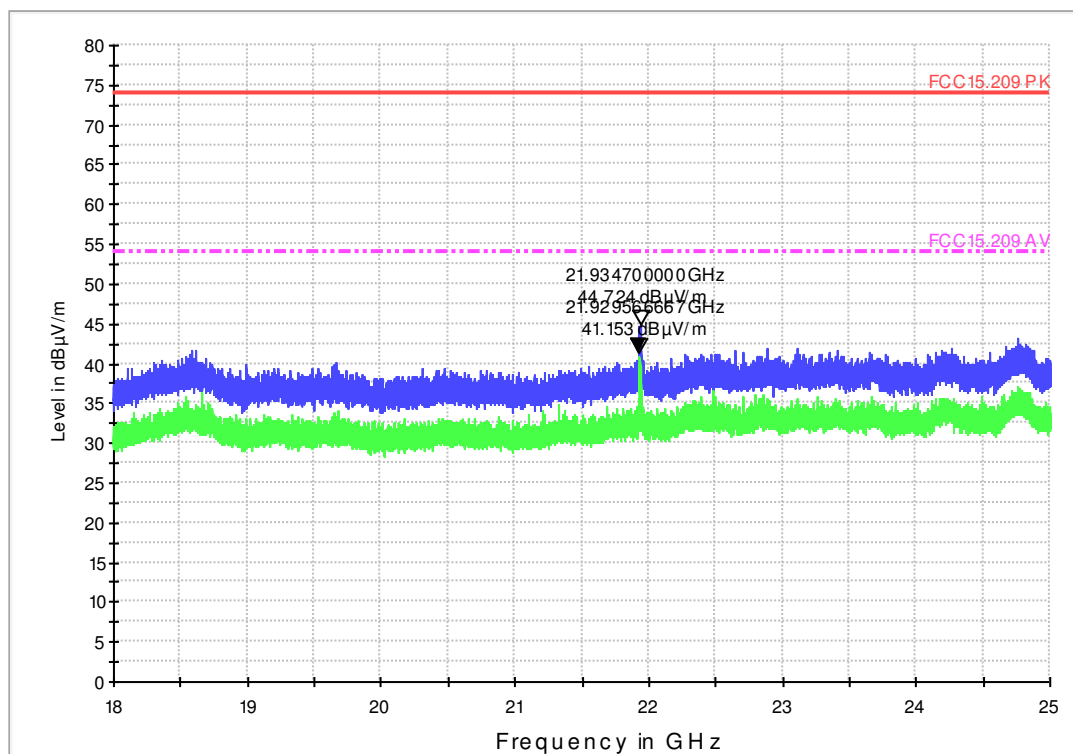


Diagram No.: 4.07_Up_Ch6_1MBit_17dBm

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. middle=6, b-Mode, 1MBit, 17dBm power, Upward antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre

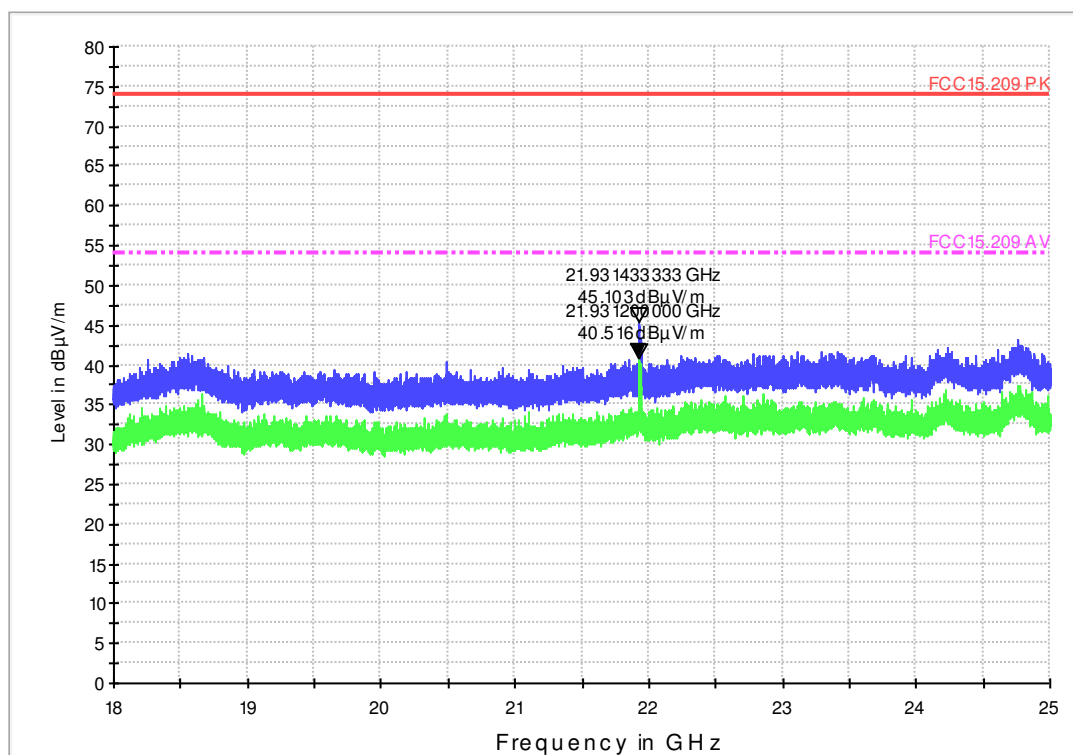


Diagram No.: 4.08_Down_Ch11_1MBit_17dBm

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. high=11, b-Mode, 1MBit, 17dBm power, Downward antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06

HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre

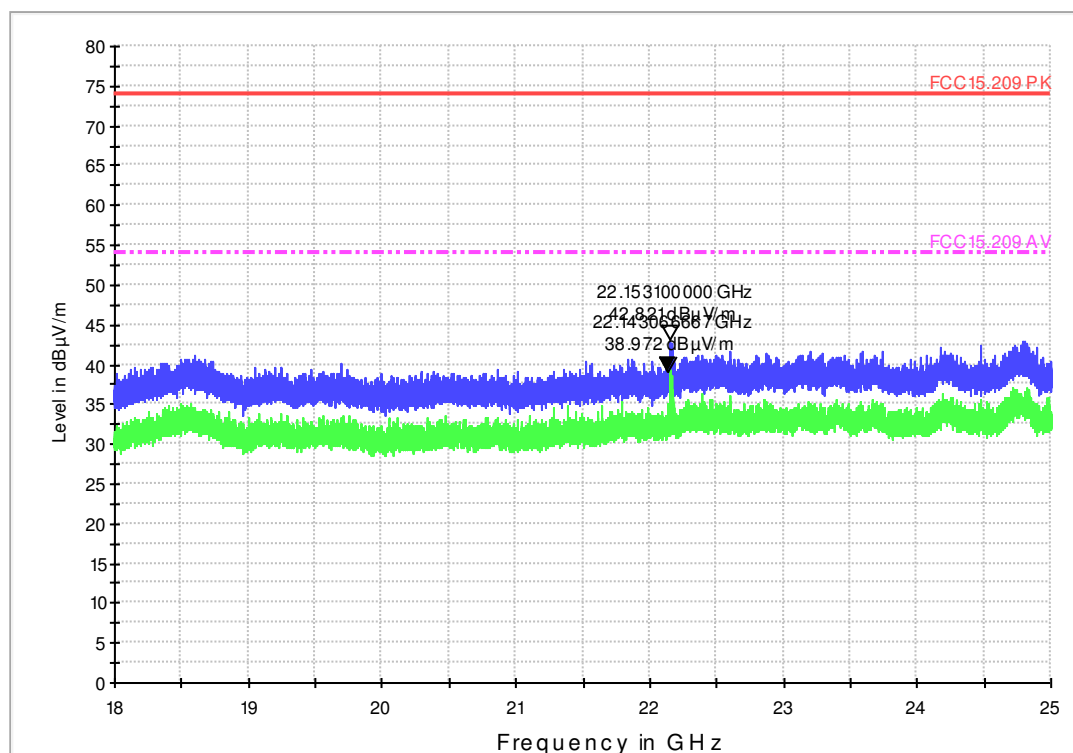


Diagram No.: 4.08_Up_Ch11_1MBit_17dBm

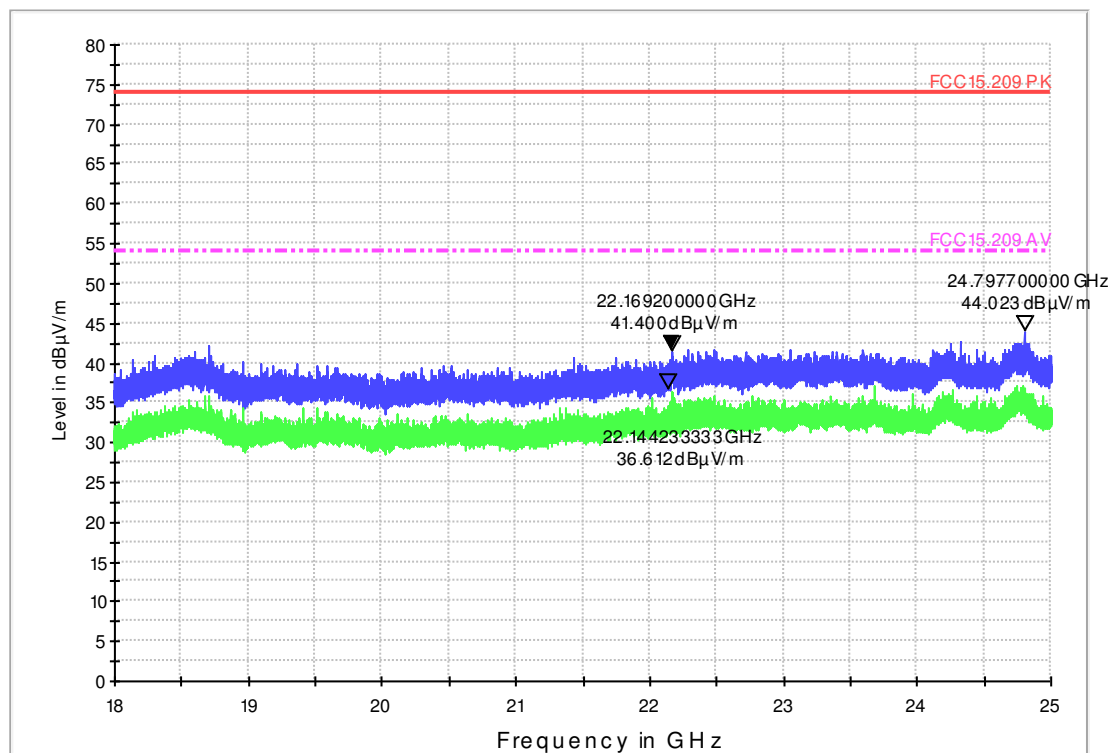
Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 &RSS-247, Issue 1
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Lor
Comment:	Channel no. high=11, b-Mode, 1MBit, 17dBm power, Upward antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

FCC_Sweep_15.247_18_25GHz_Pre



1.7. Radiated band-edge measurements accord. §15.209 & §15.205 (§15.247)

1.7.1. Channel 1 (left band edge)

Diagram No.: 9.01_Dwn_1Mbit_17dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11b-mode, BW 20 MHz channel 1; Data rate 1Mbit Power 17 dBm
Operator Name:	Lor/KMo
Comment:	Channel no.1 High (2412 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum

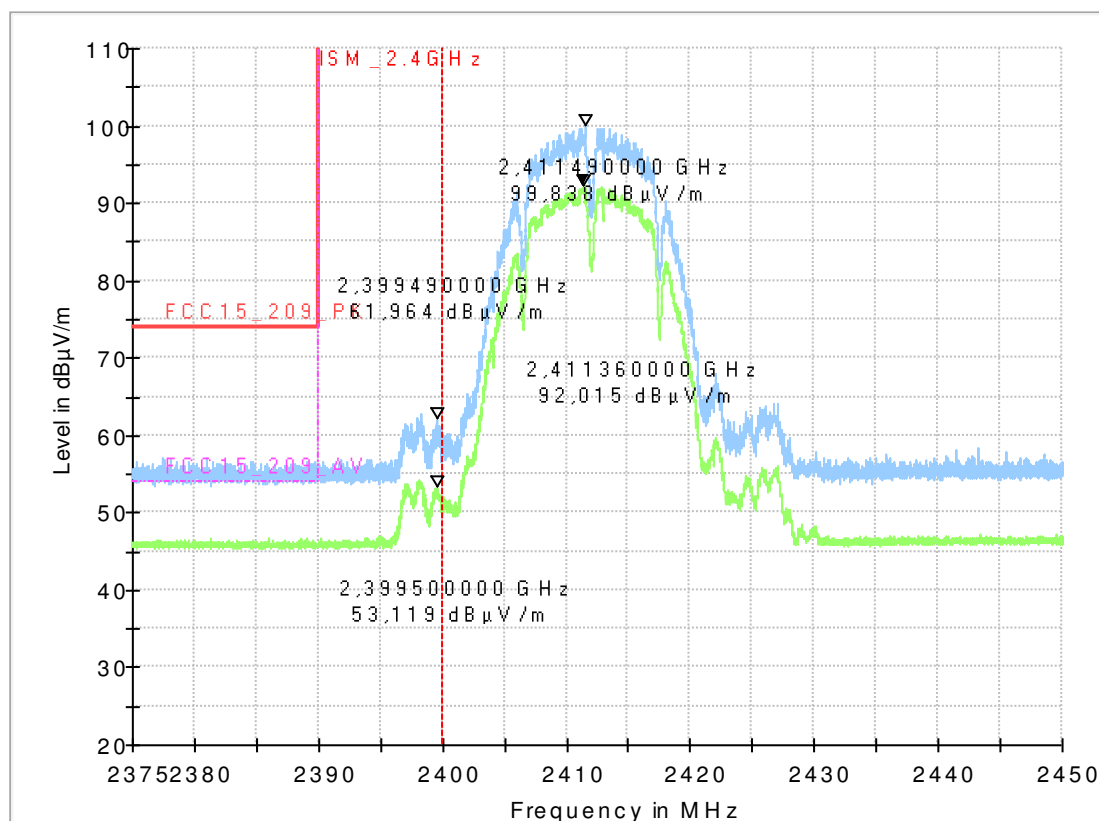


Diagram No.: 9.01_Up_1Mbit_17dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11b-mode, BW 20 MHz channel 1; Data rate 1Mbit Power 17 dBm
Operator Name:	Lor
Comment:	Channel no.1 High (2412 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum

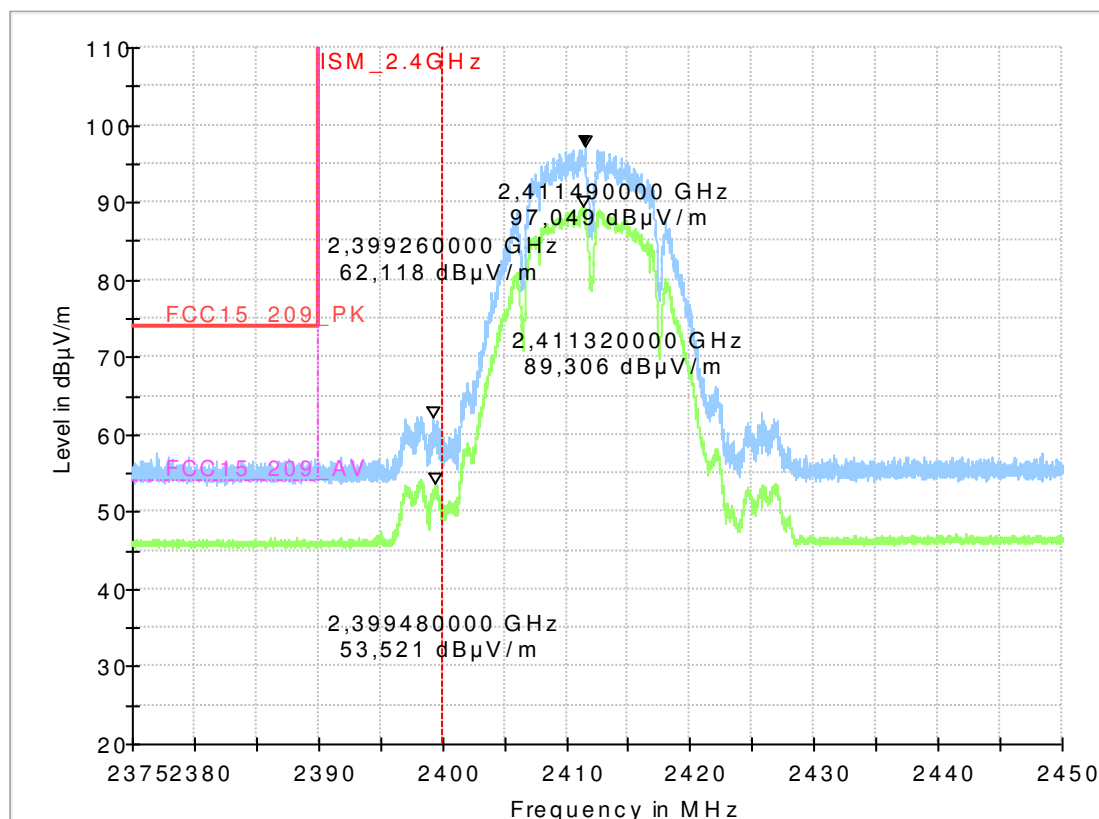


Diagram No.: 9.02_Dwn_6MB_13dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous, 6MBit/13dBm power nominal/Downward antenna
Operator Name:	Lor/KMo
Comment:	Channel no.1 Low (2412 MHz)

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum

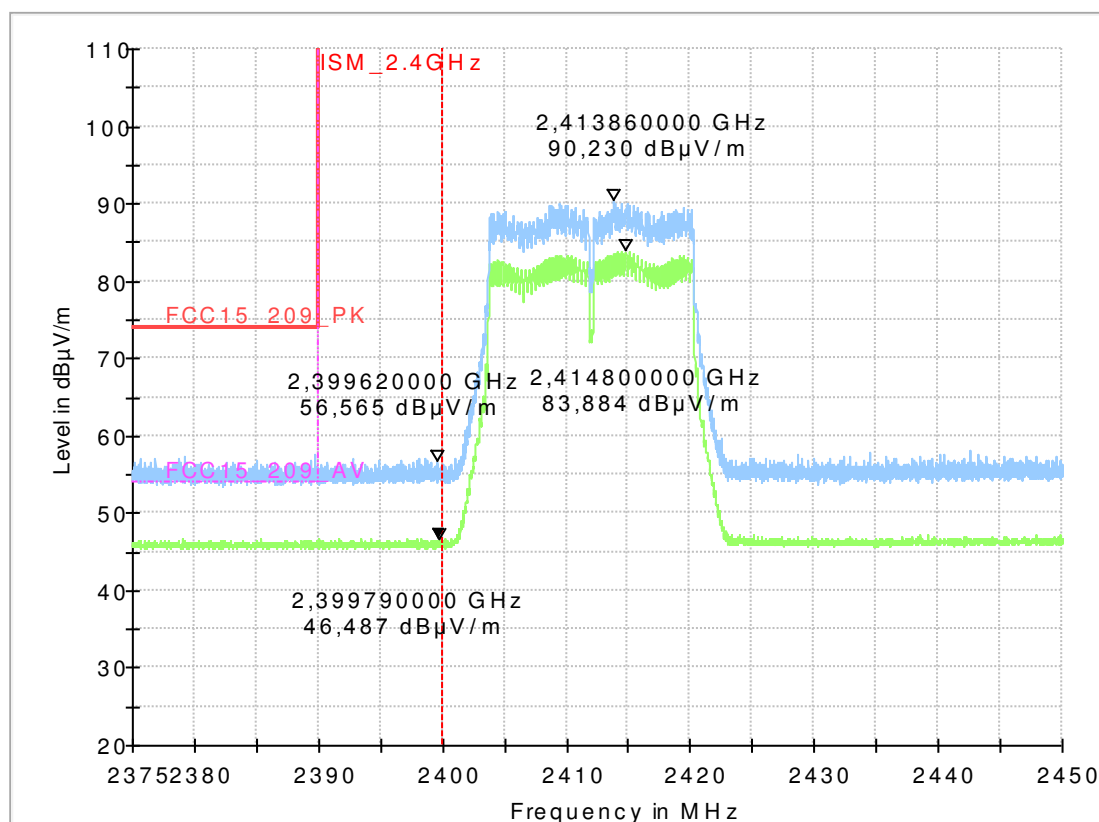


Diagram No.: 9.02_Up_6MB_13dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode, BW 20 MHz channel 1; Data rate 6Mbit Power 13 dBm
Operator Name:	Lor/KMo
Comment:	Channel no.1 High (2412 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum

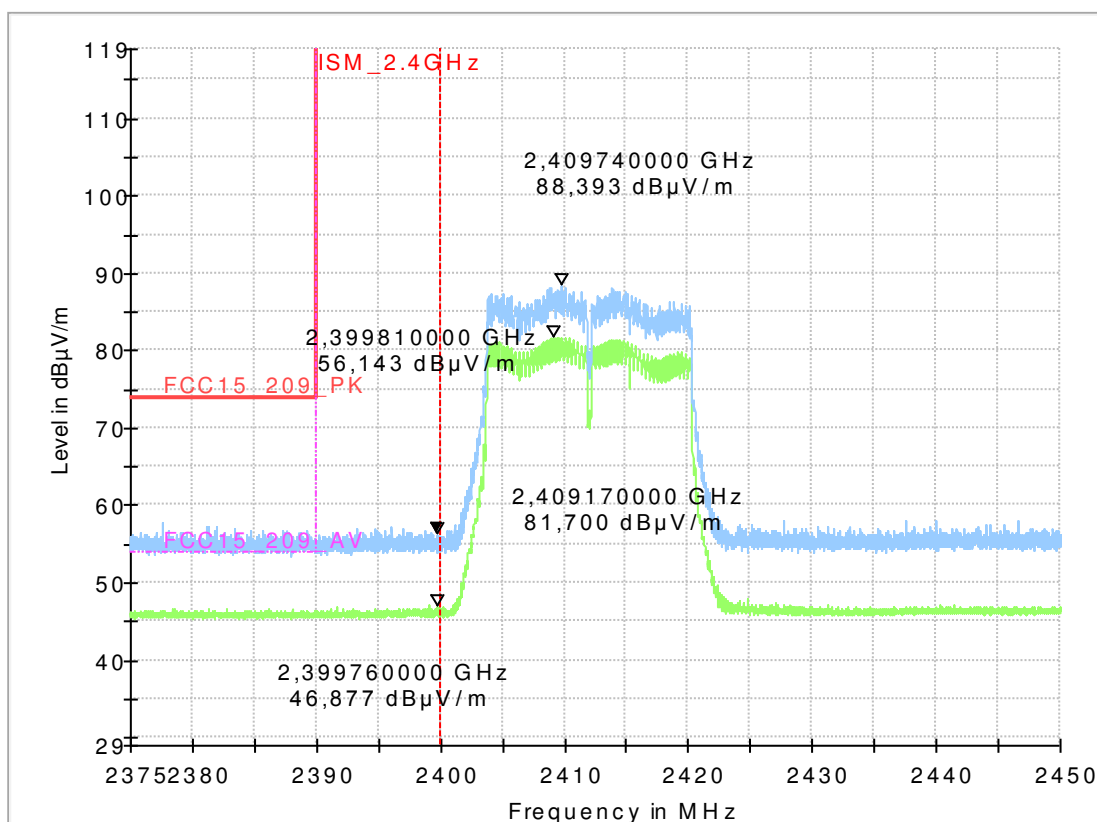


Diagram No.: 9.03_Dwn_MCS0_13dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode, BW 20 MHz channel 1; Data rate MCS0, Power 13 dBm
Operator Name:	Lor/KMo
Comment:	Channel no.1 High (2412 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

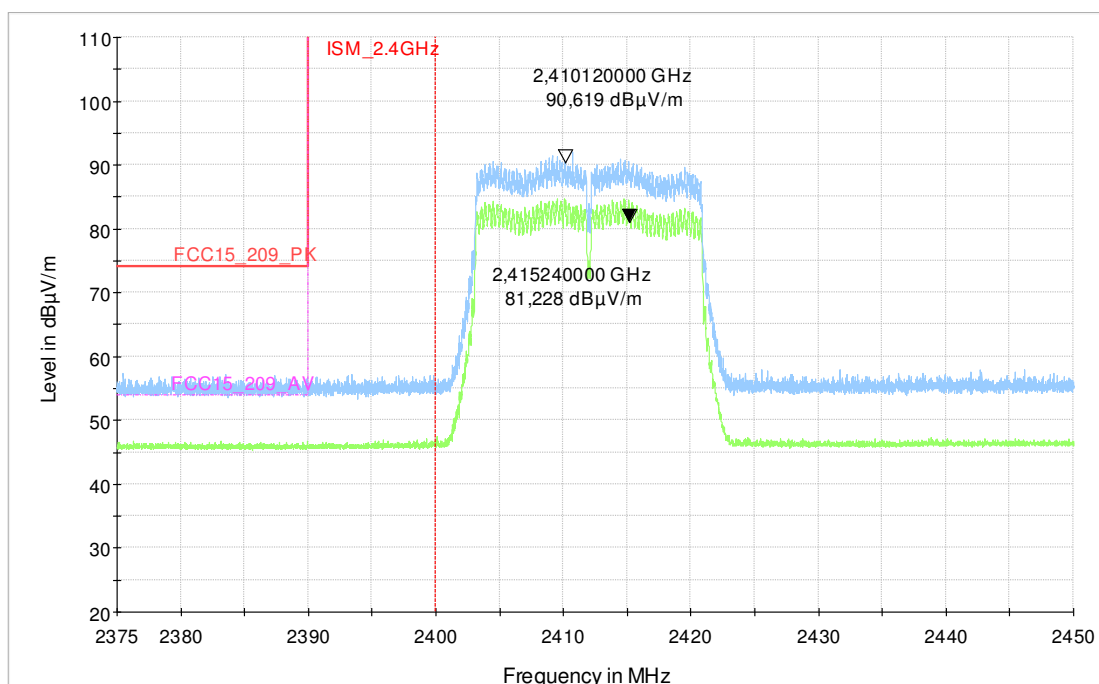


Diagram No.: 9.03_Up_MCS0_13dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode, BW 20 MHz channel 1; Data rate MCS0, Power 13 dBm
Operator Name:	Lor/KMo
Comment:	Channel no.1 High (2412 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

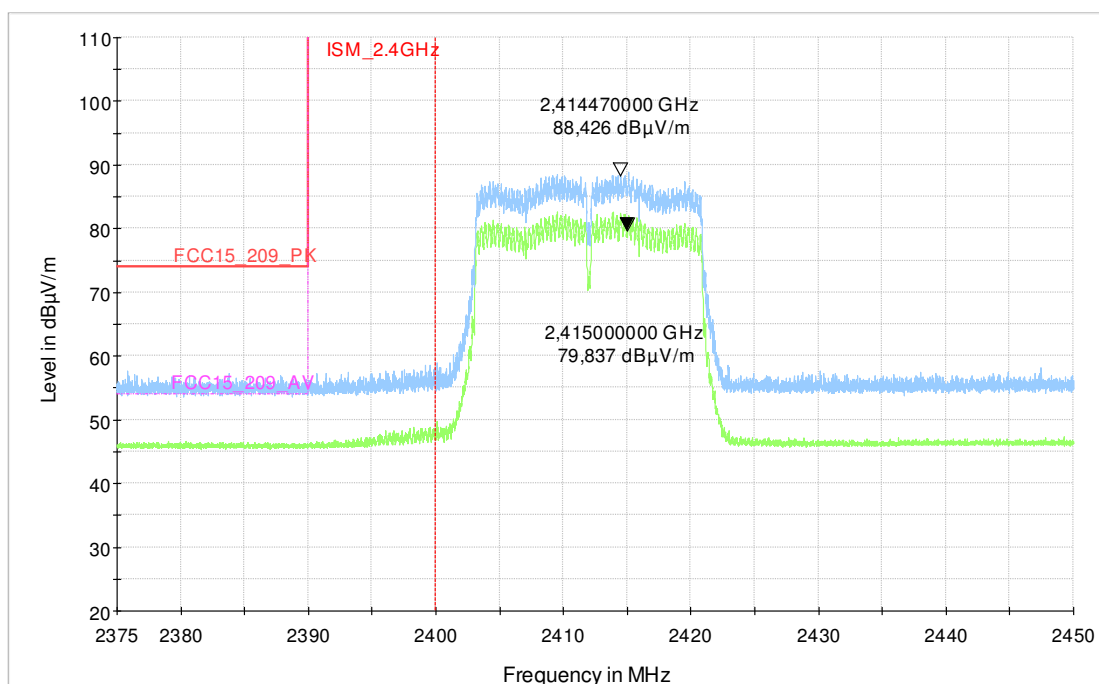


Diagram No.: 9.13_Dwn_9MB_13dBm_Ch1

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode, 20 MHz channel 1; Data rate 9Mbit Power 13 dBm
Operator Name:	KMo
Comment:	Channel no.1 High (2412 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum

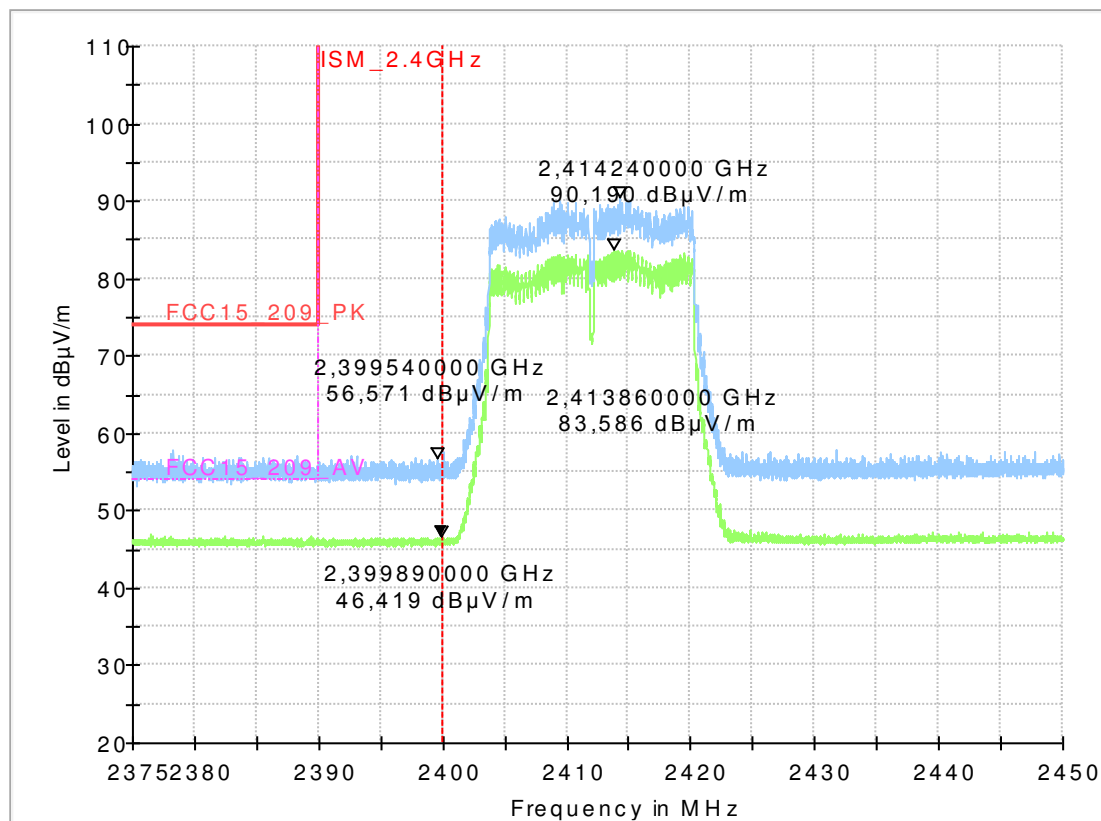


Diagram No.: 9.13_Up_9MB_13dBm_Ch1

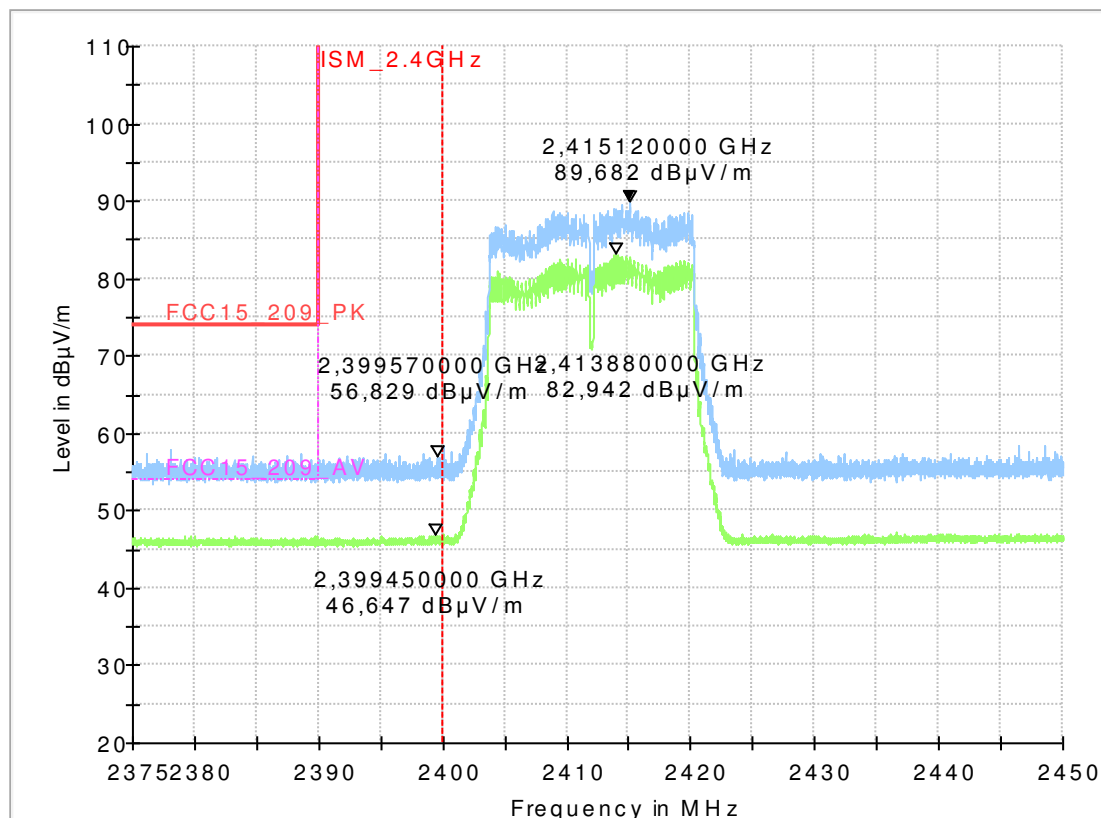
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11g-mode, 20 MHz channel 1; Data rate 9Mbit Power 13 dBm
Operator Name:	KMo
Comment:	Channel no.1 High (2412 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	1.1.0.17
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum



1.7.2. Channel 11 (right band edge)

Diagram No.: 9.04Dwn_Ant_BE_TX_Ch11_bMode_1MBit_17dBm

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11b-mode, BW 20 MHz channel 11; Data rate 1Mbit Power 17 dBm
Operator Name:	Kmo
Comment:	Channel no.11 High (2462 MHz) Downward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

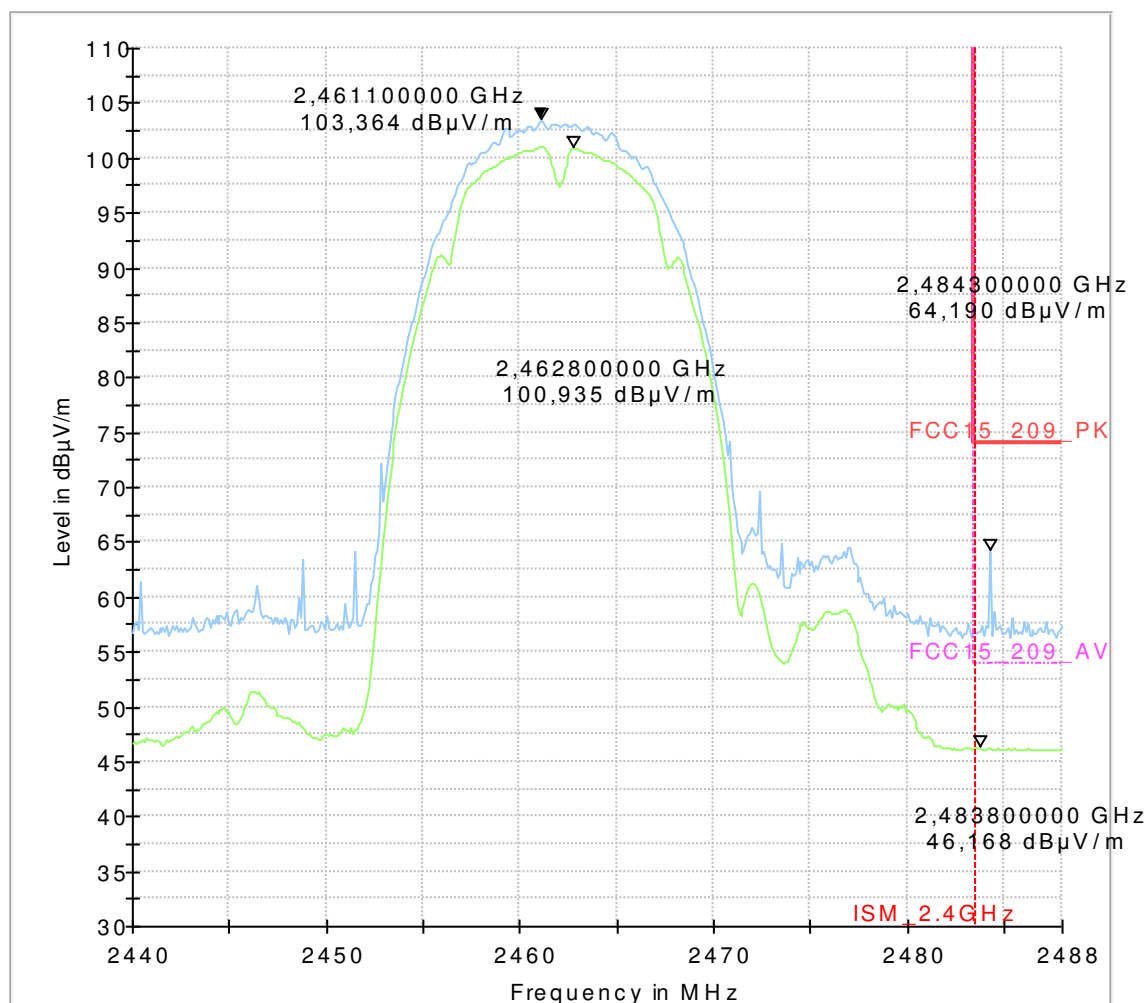


Diagram No.: 9.04Up_Ant_BE_TX_Ch11_bMode_1MBit_17dBm

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN 802.11b-mode,BW 20 MHz channel 11; Data rate 1Mbit Power 17 dBm
Operator Name:	Kmo
Comment:	Channel no.11 High (2462 MHz) Upward directed WLAN Antenna

EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902642
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

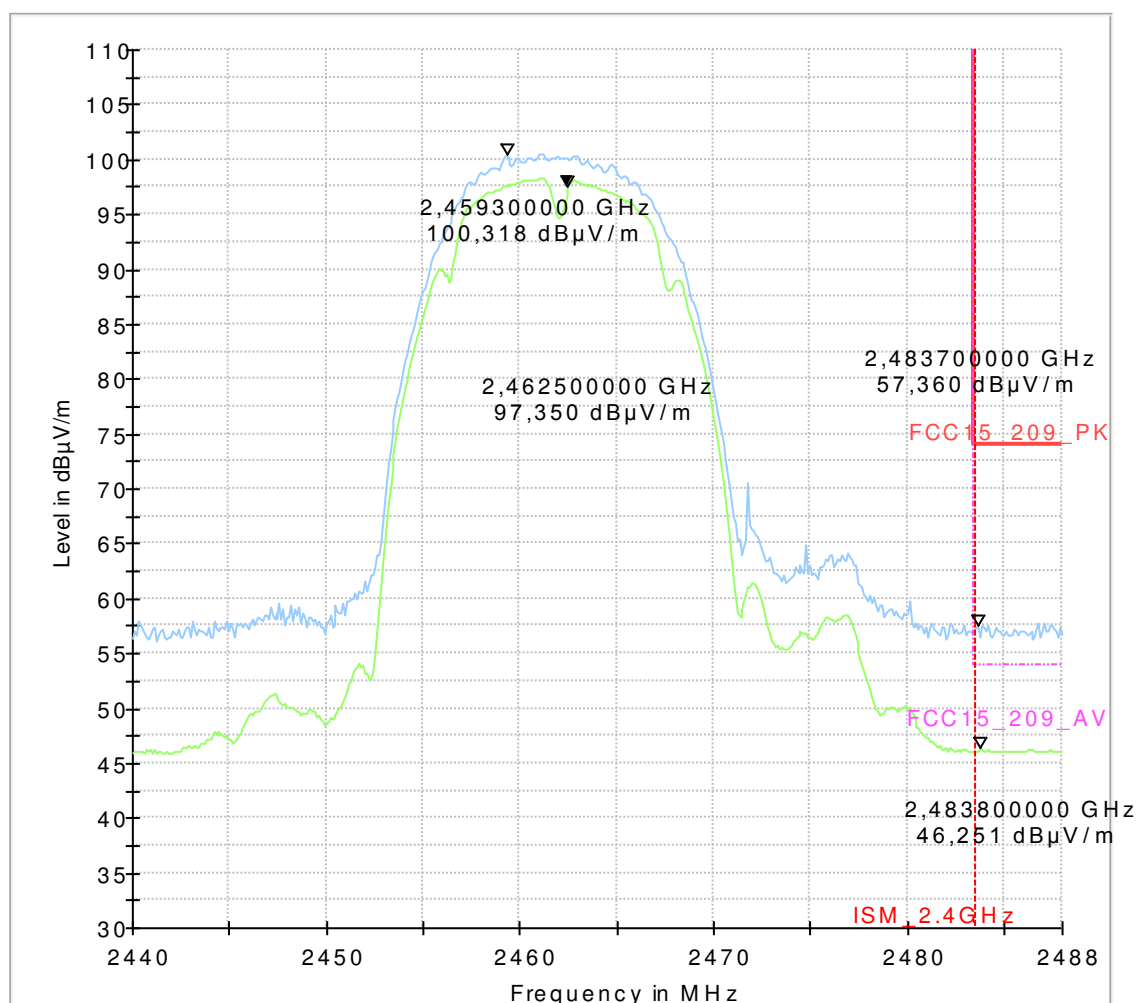


Diagram No.: 9.07_Step1_Dwn_Ch11_6MBit_13dBm

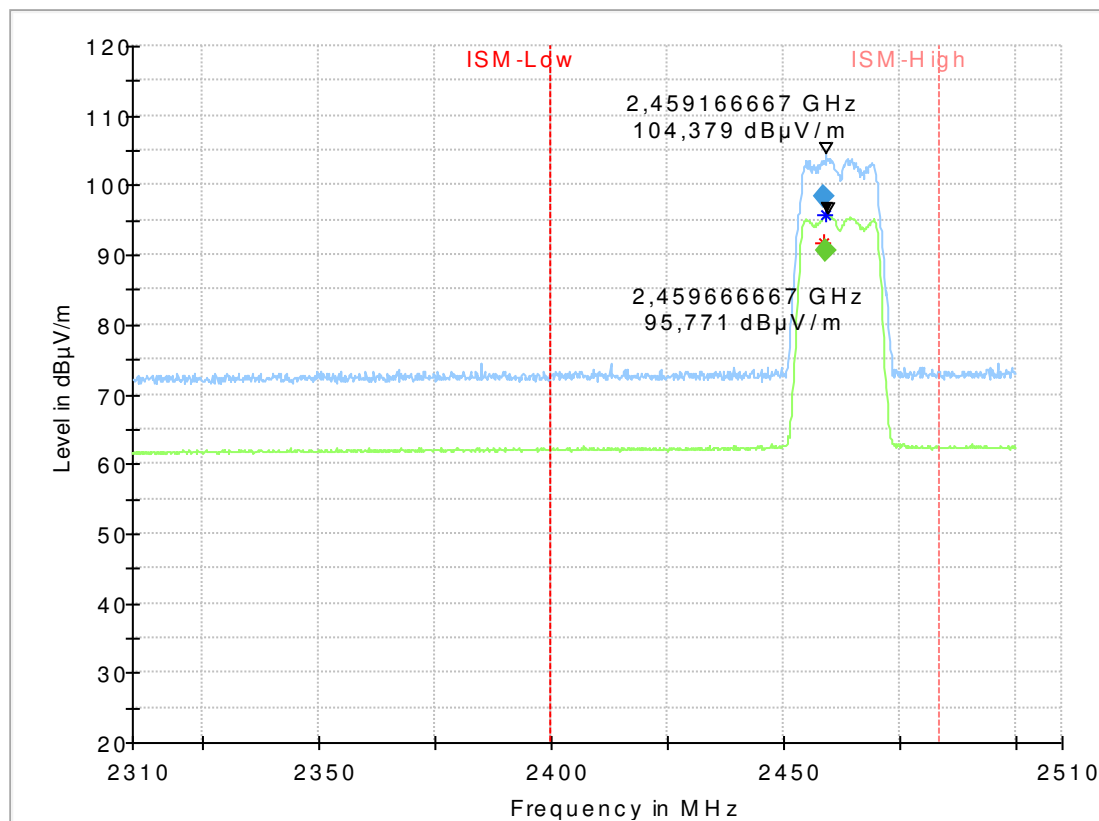
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous, 6MBit/13dBm power nominal/Downward antenna
Operator Name:	Lor
Comment:	Channel no.high=11
Remark:	Step1 Delta Marker Method

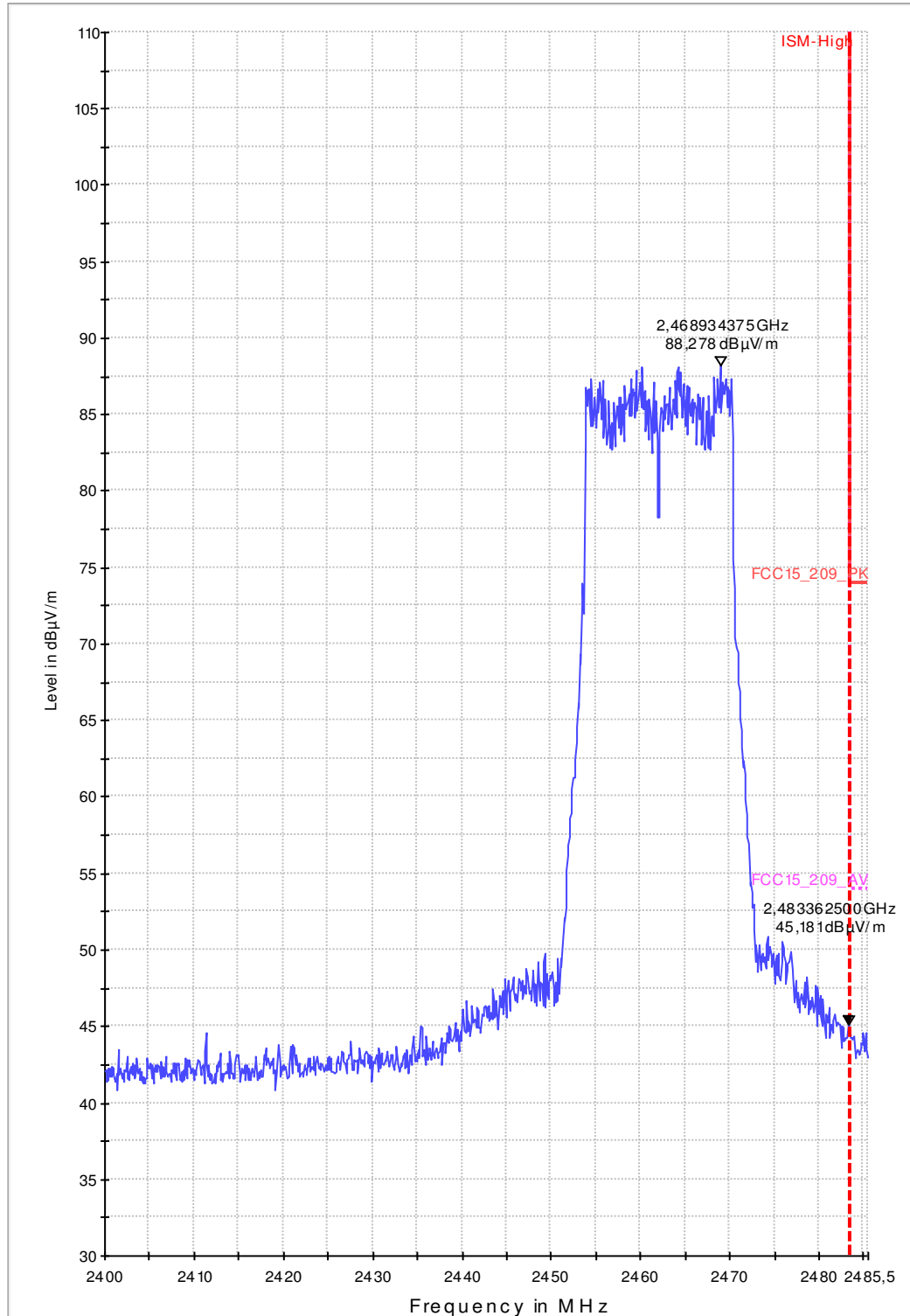
EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum



Step 2 of Delta-Marker-Method:



Delta = 43.09dB

Diagram No.: 9.11_Step1_Up_Ch11_6MBit_13dBm

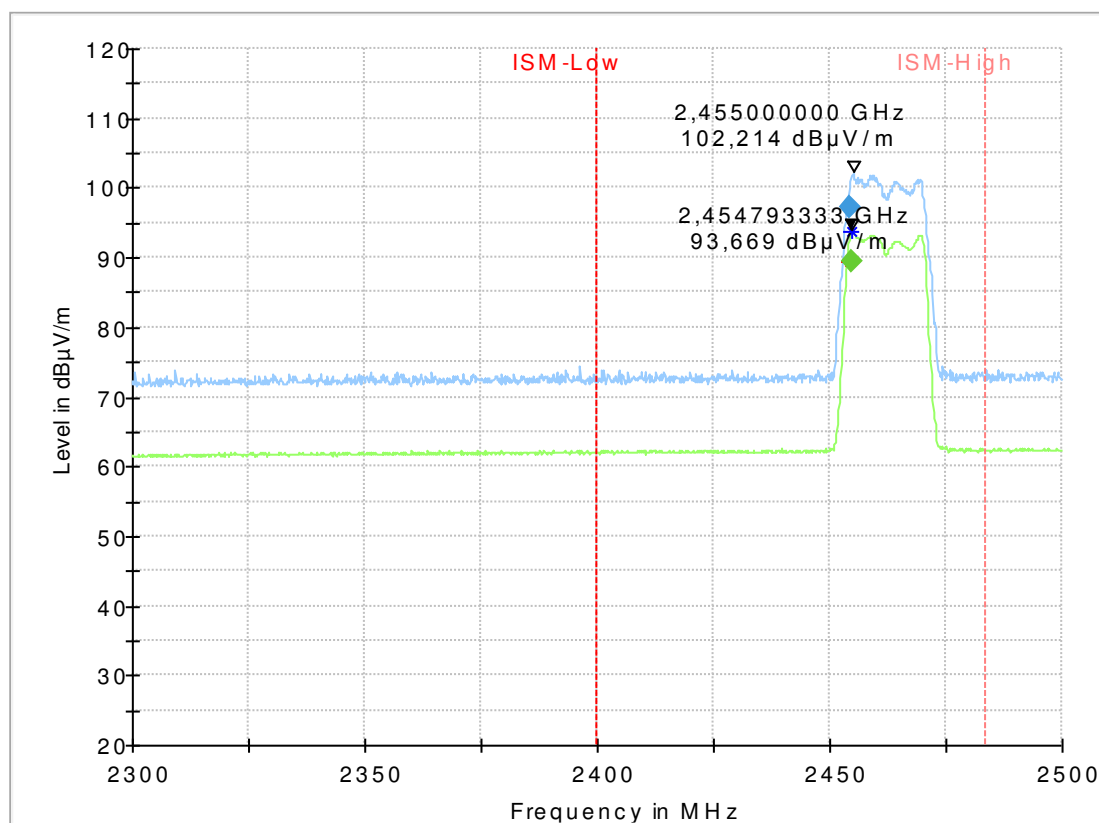
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous, 6MBit/13dBm power nominal/Upward antenna
Operator Name:	Lor/KMo
Comment:	Channel no.high=11
Remark:	Step1-Delta Marker Method

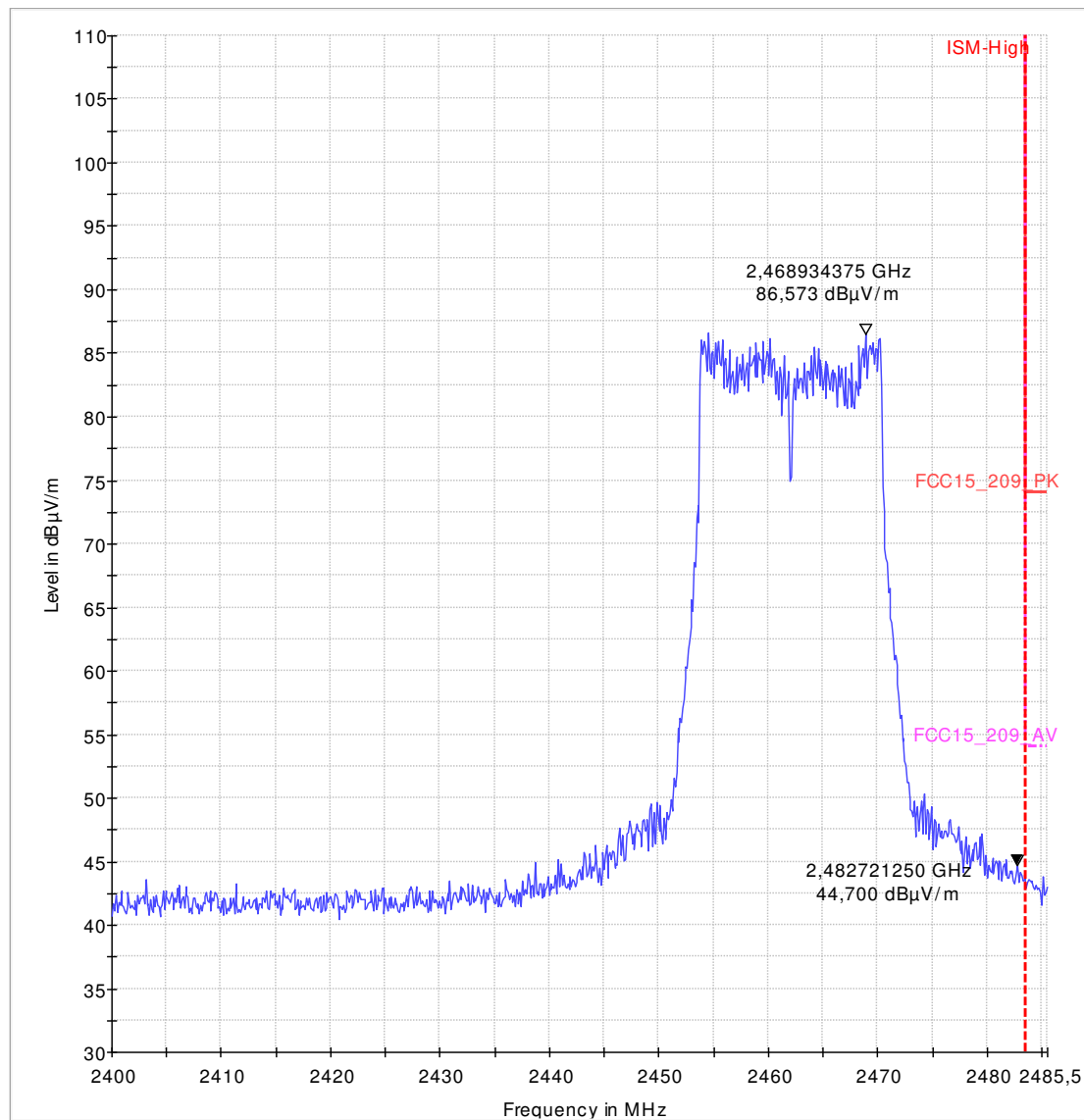
EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum



Step 2 of Delta-Marker-Method:



Delta = 41.87 dB

Diagram No.: 9.09_Step1_Up_Ch11_MCS0_13dBm

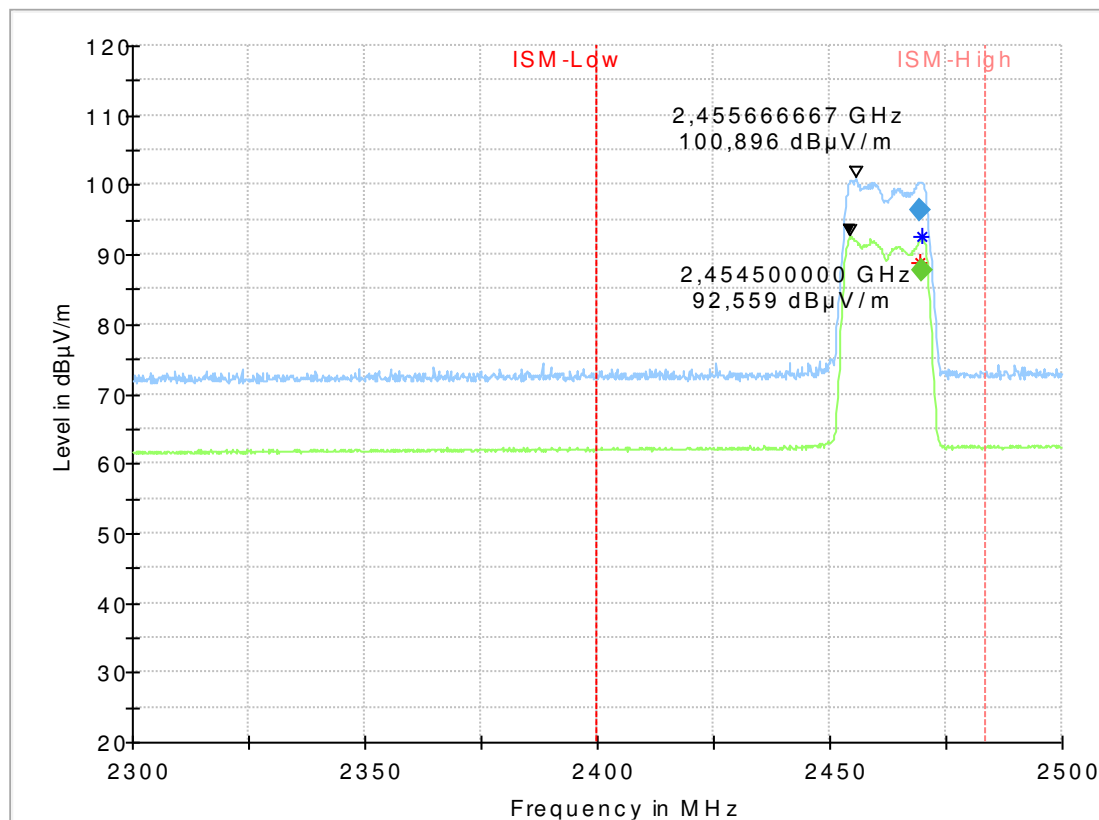
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous, MCS0/13dBm power nominal/Upward antenna
Operator Name:	Lor/KMo
Comment:	Channel no.high=11
Remark:	Step1 Delta-Marker Method

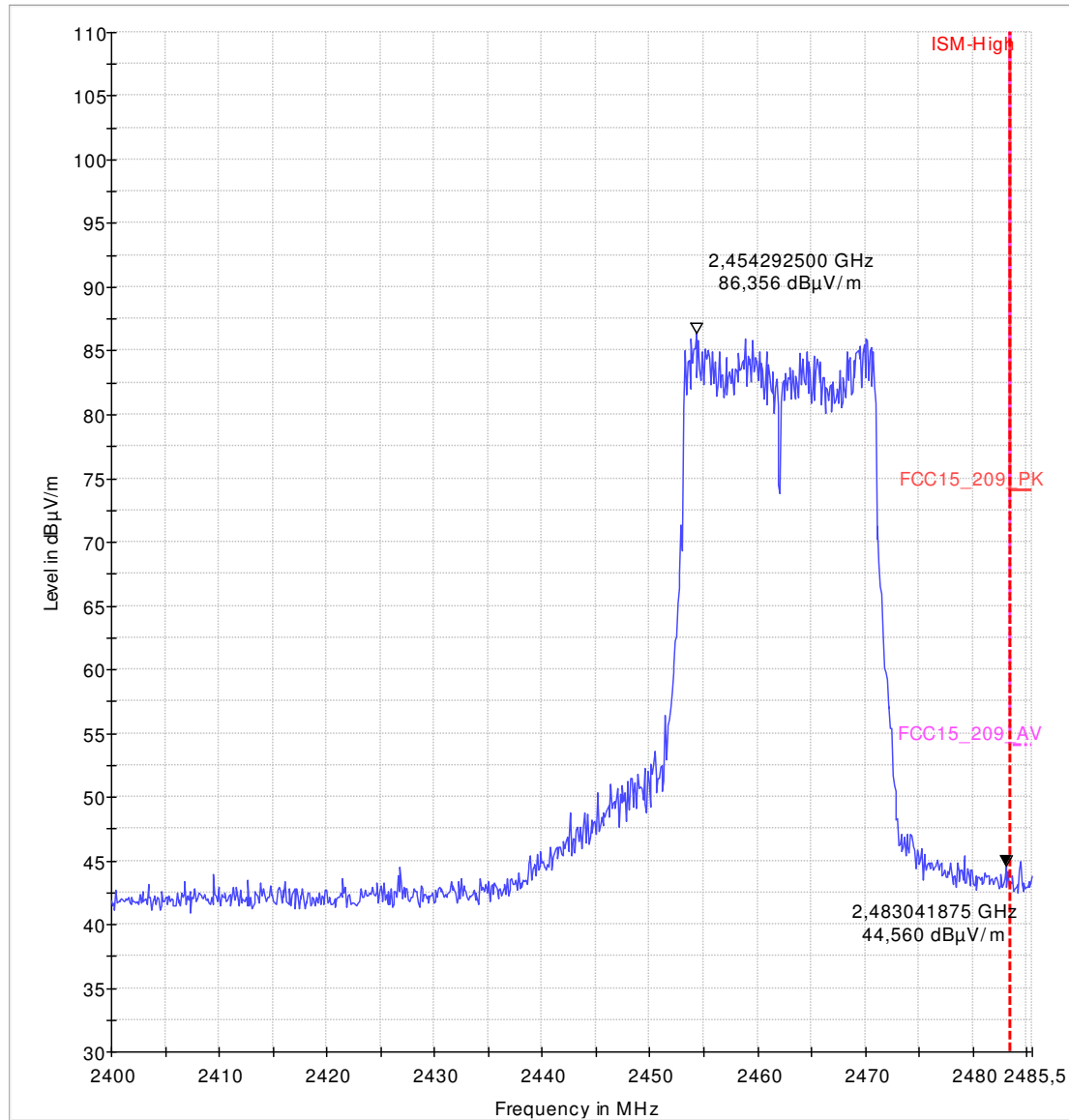
EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06
HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1

Full Spectrum



Step 2 of Delta-Marker-Method:



Delta = 41.79 dB

Diagram No.: 9.10_Step1_Down_Ch11_MCS0_13dBm

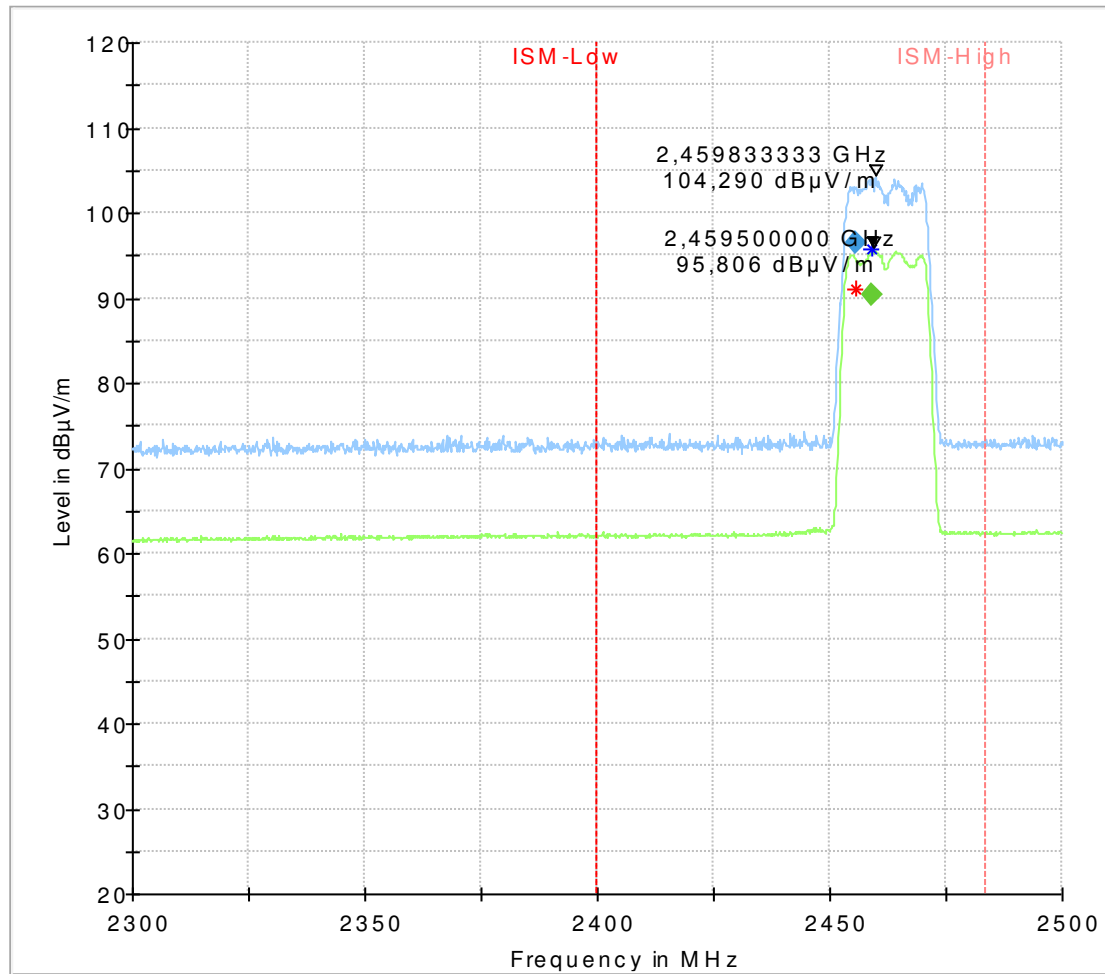
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous, MCS0/13dBm power nominal/Downward antenna
Operator Name:	Lor
Comment:	Channel no.high=11
Remark:	Step1-Delta Marker Method

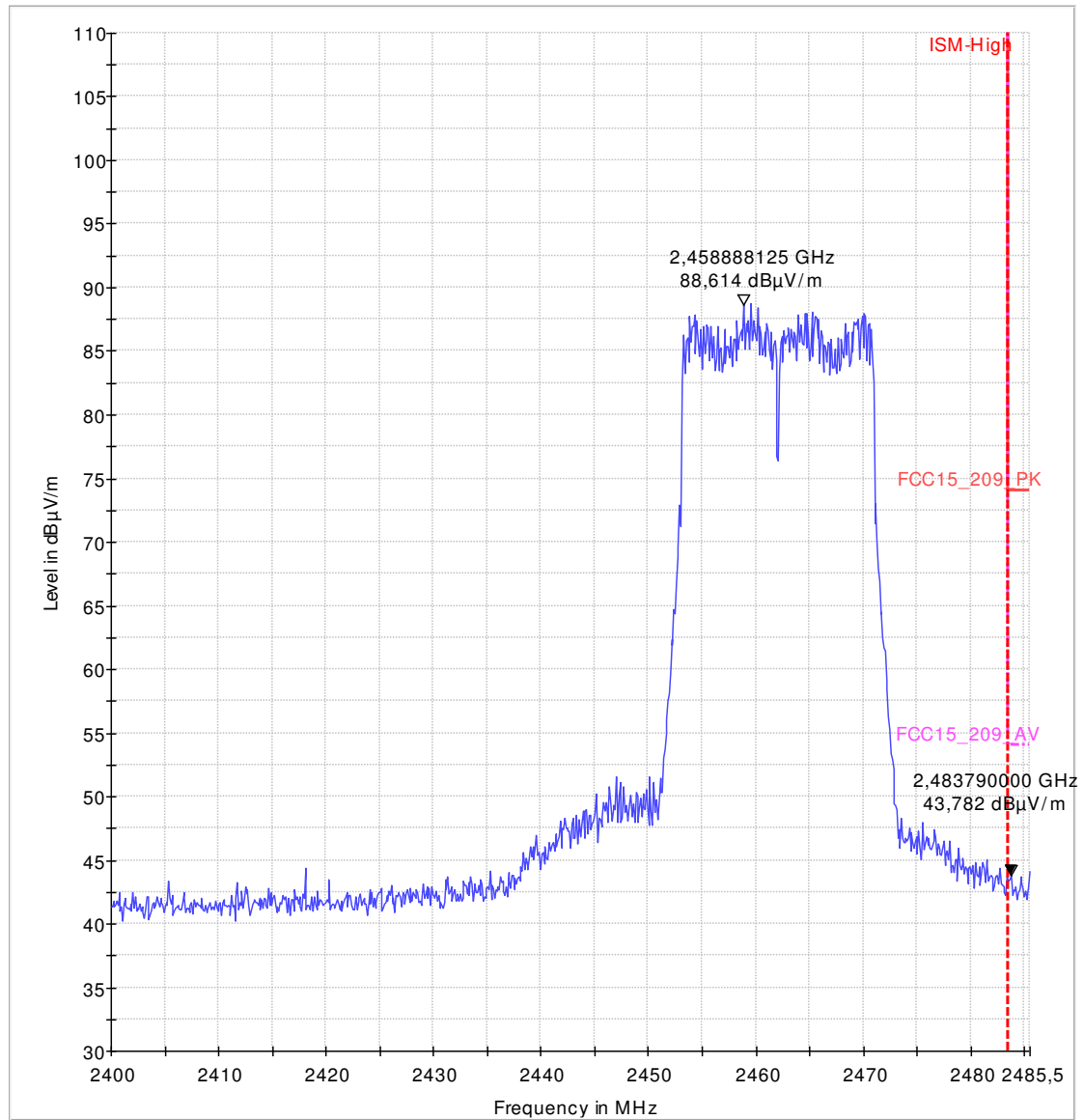
EUT Information

Manufacturer:	ACTIA Nordic AB
EuT:	ACUII-06

HW Version:	C
SW Version:	13
Serial Number:	21790250902643
Connected Interfaces:	MAIN harness, DCL Ethernet cable, Antenna with power supply cable, WLAN antenna cable, GNSS antenna cable, 2G/3G/4G antenna cable, 3G/4G Diversity antenna cable, Termination for IHU Ethernet connector
Power Supply:	13.8 VDC
Antenna Type:	LTE Antenna with SDAR 434-WLAN-GNSS-SDARS-LTE 50751424 15W421 Portugal AD801 SDARS Modified #1



Step 2 of Delta-Marker-Method:



Delta = 44.83dB

1.8. Conducted RF-measurements on antenna port

1.8.1. Conducted RF-power

b-mode	Channel no. / [dBm]			Max-Value / [dBm]
Data rate	1	6	11	
1MBit	20,20	20,89	19,36	20,89
2Mbit	20,13	20,81	19,33	
5.5Mbit	19,46	20,06	18,46	
11MBit	19,79	20,36	18,92	

g-Mode	Channel no. / [dBm]			Max-Value / [dBm]
Data rate	1	6	11	
6Mbit	16,75	17,22	15,32	17,41
9Mbit	16,85	17,41	15,46	
12Mbit	16,58	17,21	15,31	
18Mbit	16,71	17,29	15,25	
24Mbit	16,49	17,25	15,05	
36Mbit	16,34	16,99	15,16	
48Mbit	16,58	17,19	15,24	
54MBit	16,65	17,22	15,2	

n-Mode HT20 (1 spatial stream: 1SS)	Channel no. / [dBm]			Max-Value / [dBm]
Data rate	1	6	11	
MCS0 - 6.5Mbps	16,98	17,65	15,57	17,70
MCS1 - 13Mbps	16,91	17,60	15,48	
MCS2 - 19.5Mbps	17,05	17,65	17,7	
MCS3 - 26Mbps	16,93	17,41	15,41	
MCS4 - 39Mbps	17,55	17,57	15,56	
MCS5 - 52Mbps	16,88	17,38	15,38	
MCS6 - 58.5Mbps	17,08	17,41	15,25	
MCS7 - 65Mbps	17,18	17,59	15,48	