Annex 1: Measurement diagrams
to TEST REPORT
No.: 2-20798191a/11

According to:
FCC Regulations
Part 15.107 & 15.109
Part 15.207 & 15.209 & Part 15.247
IC Regulations
RSS-Gen, Issue 3
RSS-210: Issue 7

for

Sony Ericsson Mobile Communications AB

Mobile phone AAD-38800112-BV
+
FCC-ID: PY7A3880112-BV
IC: 4170B-A3880112

Laboratory Accreditation and Listings			
D-PL-12047-01-01	Reg. No.: 736496 MRA US-EU 0003	Industry Canada Reg. No.: 3462D-1 3462D-2	Reg. No.: R-2665, R-2666 C-2914, T-1967 G-301
CTIA Authorized Test Lab LAB CODE 20011130-00		WiFi ALLIANCE AUTHORIZED RF LABORATORY	
accredited according to DIN EN ISO/IEC 17025			

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Table of contents

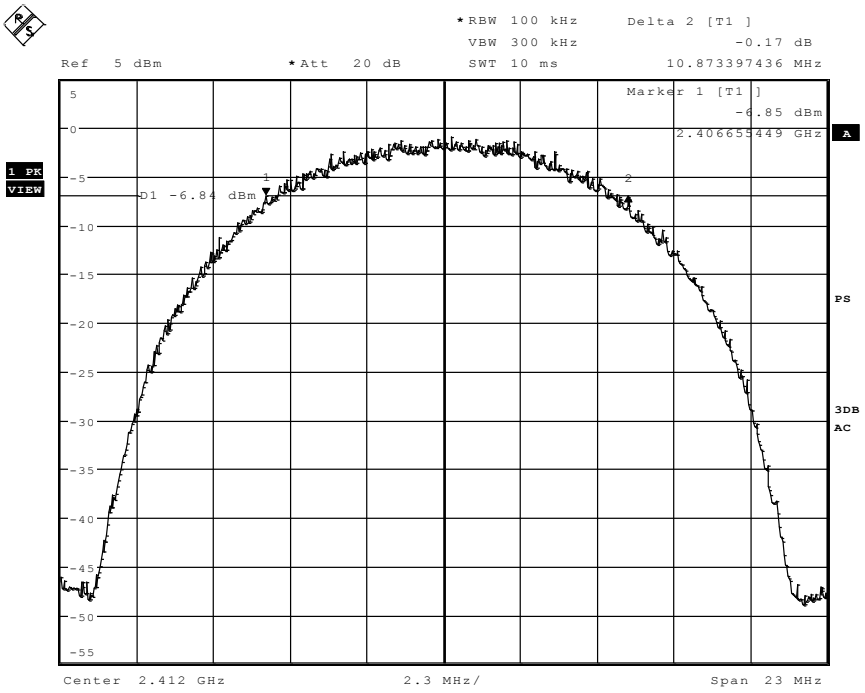
1. Measurement diagrams

1.1. 6dB bandwidth

Following table show measured values for the 6dB bandwidth for different modulation types and channels.

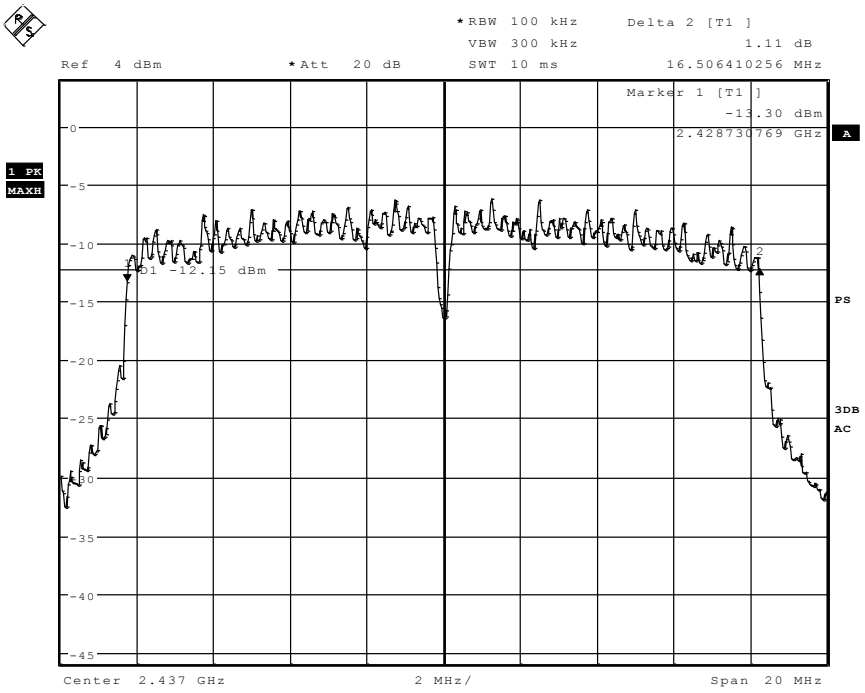
		Bandwidth [MHz]			
Modulation	Data Rate	Ch 1=2412MHz	Ch 6=2437MHz	Ch 11=2462MHz	Max. Value
DBPSK	1MBit	10,0000	10,0000	10,0000	10,8733
DQPSK	2MBit	9,7115	9,6634	9,8558	
CCK/PBCC	5.5MBit	9,9519	10,0256	10,1362	
CCK/PBCC	11MBit	**10,8733**	10,1362	10,5785	
BPSK	6	15,7371	15,8333	15,8012	16,5064
	9	15,7692	15,7692	15,8333	
QPSK	12	15,7371	16,0256	16,2820	
	18	16,2820	16,0256	16,0256	
16QAM	24	16,4102	16,4423	16,4102	
	36	16,3782	16,4102	16,3782	
64QAM	48	16,4423	16,3782	16,4102	
	54	16,4423	**16,5064**	16,4743	
Long Guard					
MCS0		16,282	16,5384	16,7628	17,6602
MCS4		17,5961	17,5961	17,5961	
MCS7		**17,6602**	17,6282	17,5961	
Short guard					
MCS0		16,3141	16,282	16,6346	17,6282
MCS4		**17,6282**	17,5641	17,5641	
MCS7					

Below also some diagrams showing the maximum value for 3 channels and different modulation types.



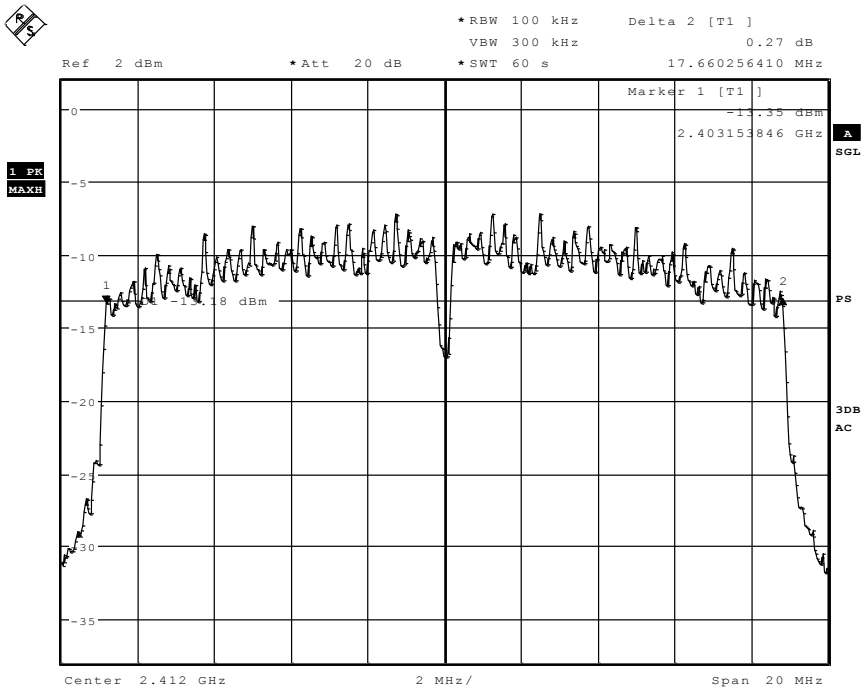
Date: 12.APR.2011 15:16:15

CCK/PBCC Modulation, 11MBit, Channel 1



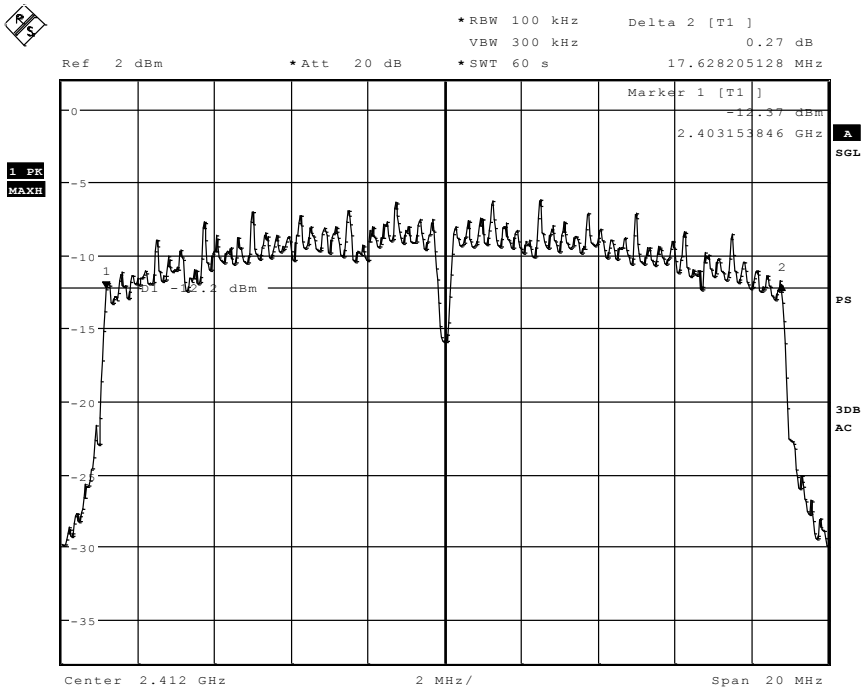
Date: 12.APR.2011 16:01:54

64QAM Modulation (OFDM), 54MBit, Channel 6



Date: 12.APR.2011 17:13:24

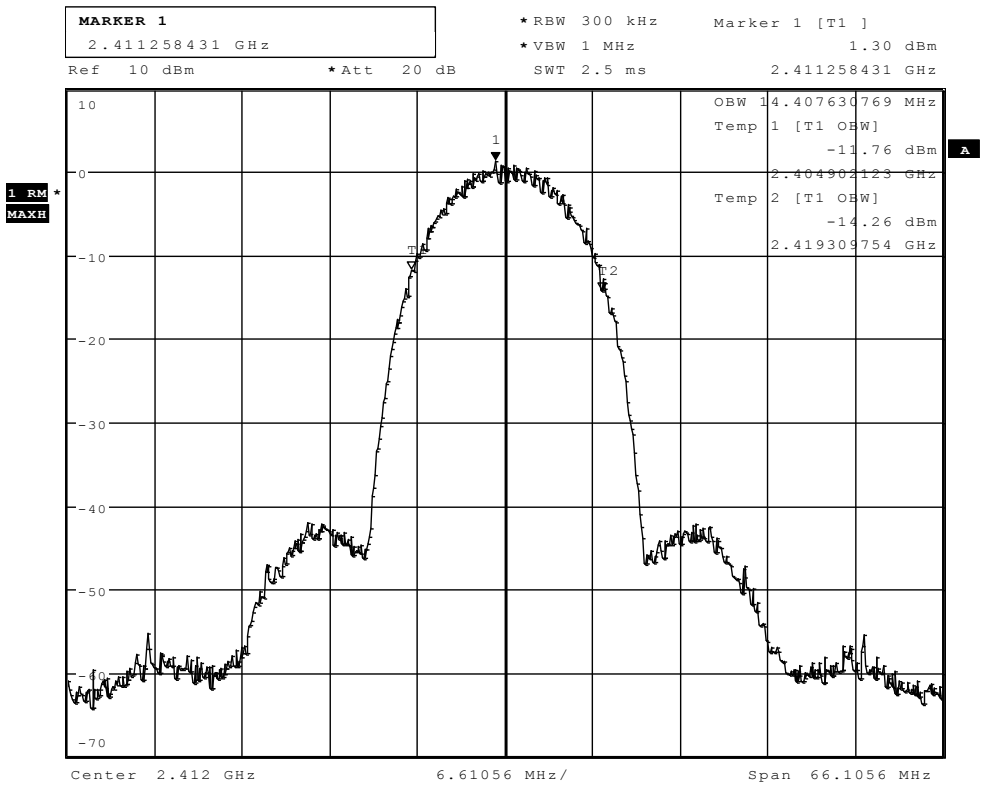
MCS7, long-guard Modulation (OFDM), Channel 1



Date: 12.APR.2011 17:09:16

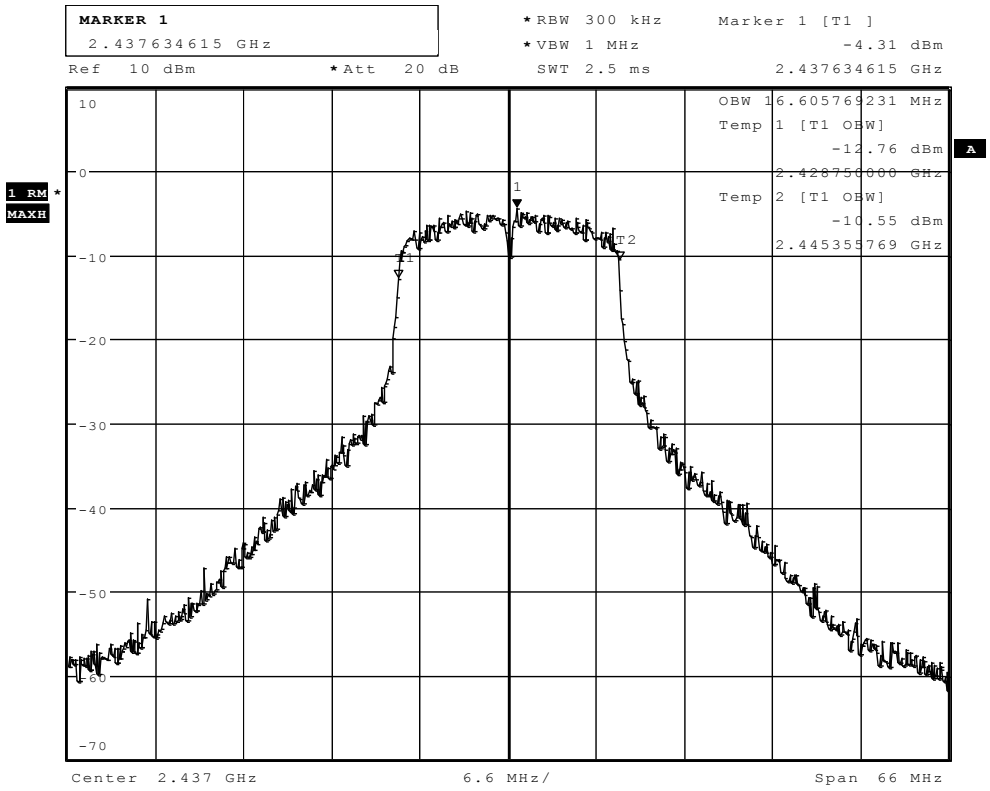
MCS4, short-guard Modulation (OFDM), Channel 1

1.2. 99% Occupied bandwidth



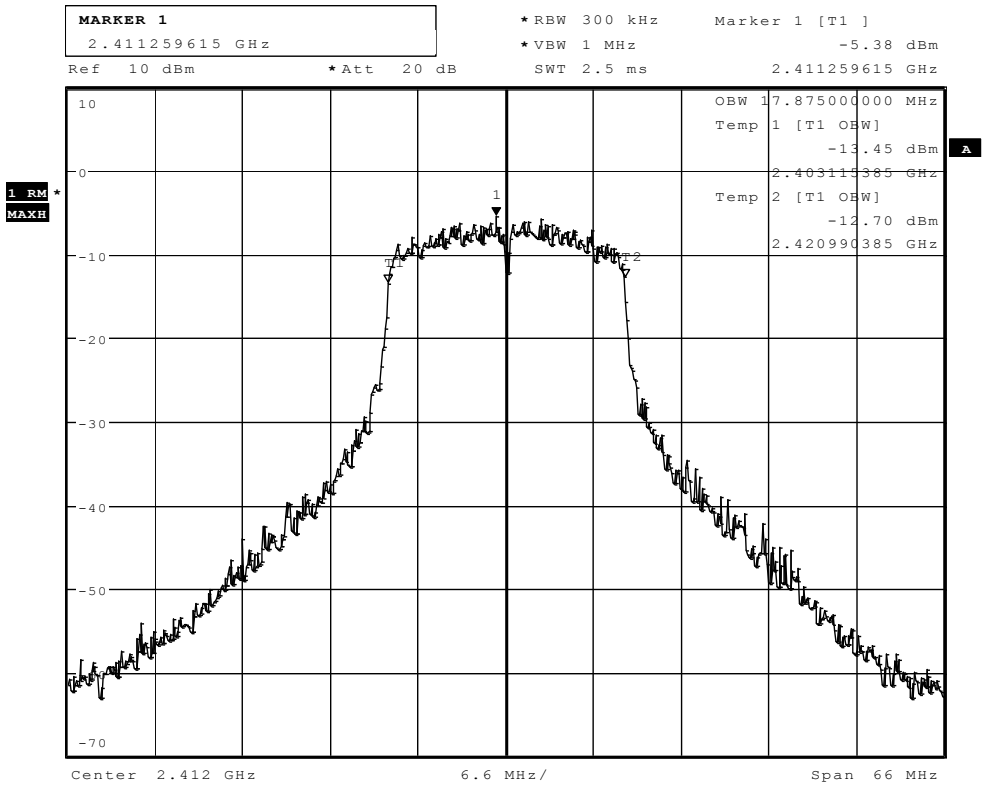
Date: 13.APR.2011 15:18:14

CCK/PBCC Modulation, 11Mbit, Channel 1



Date: 13.APR.2011 15:29:33

64QAM Modulation (OFDM), 54MBit, Channel 6



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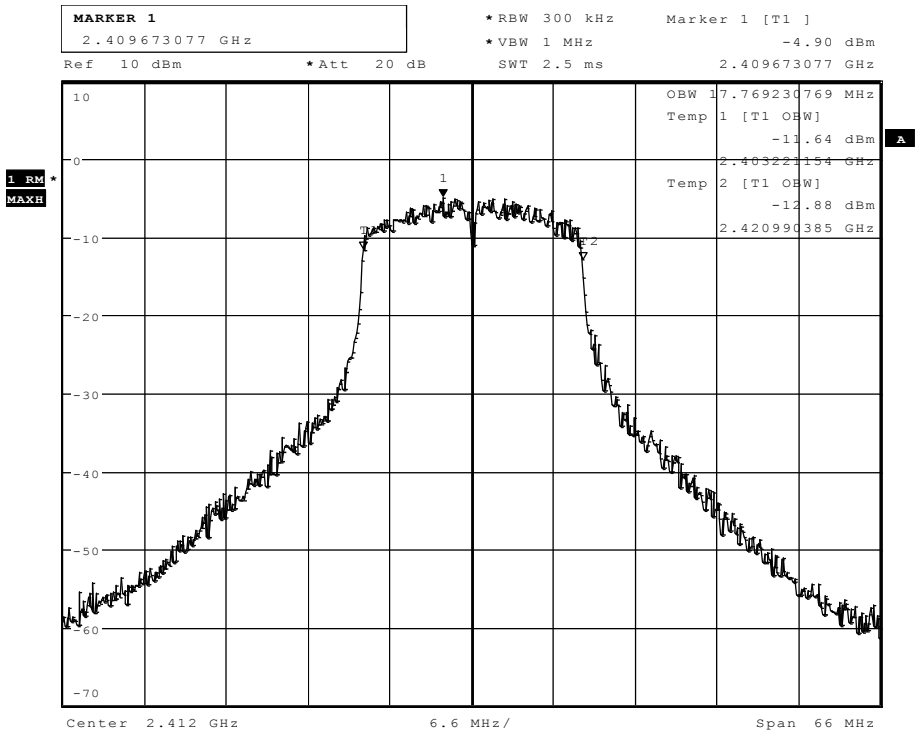
MCS7, long-guard Modulation (OFDM), Channel 1

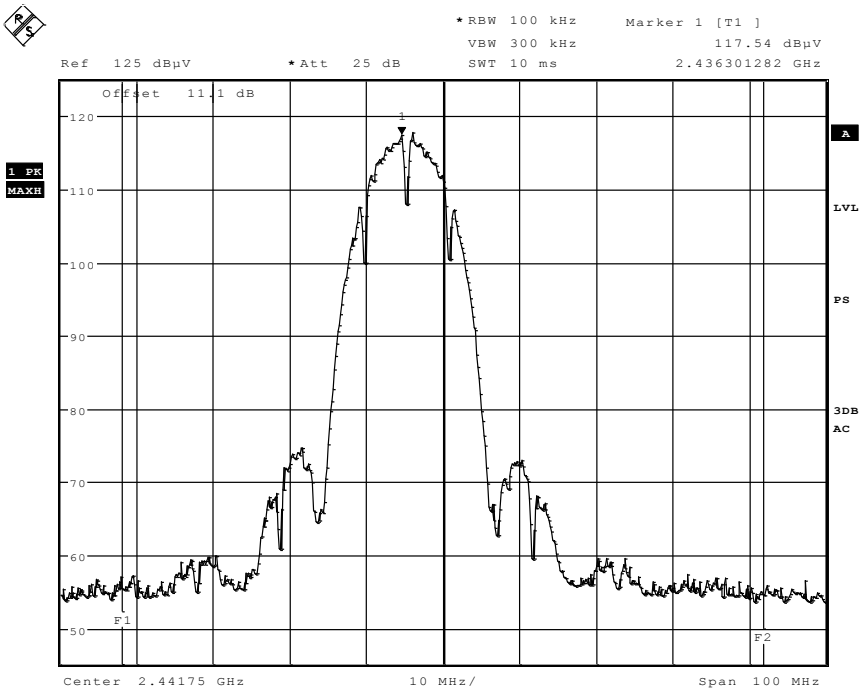


Date: 13.APR.2011 15:38:21

MCS4, long-guard Modulation (OFDM), Channel 1

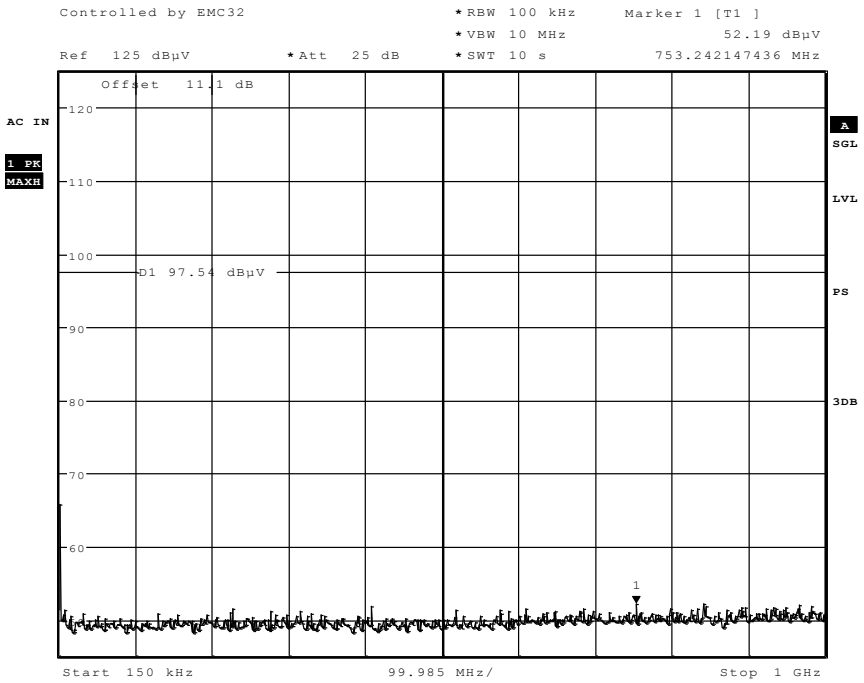
1.3. 20dBc conducted emissions

1.3.1. IEEE 802.11 b-Mode, channel 6



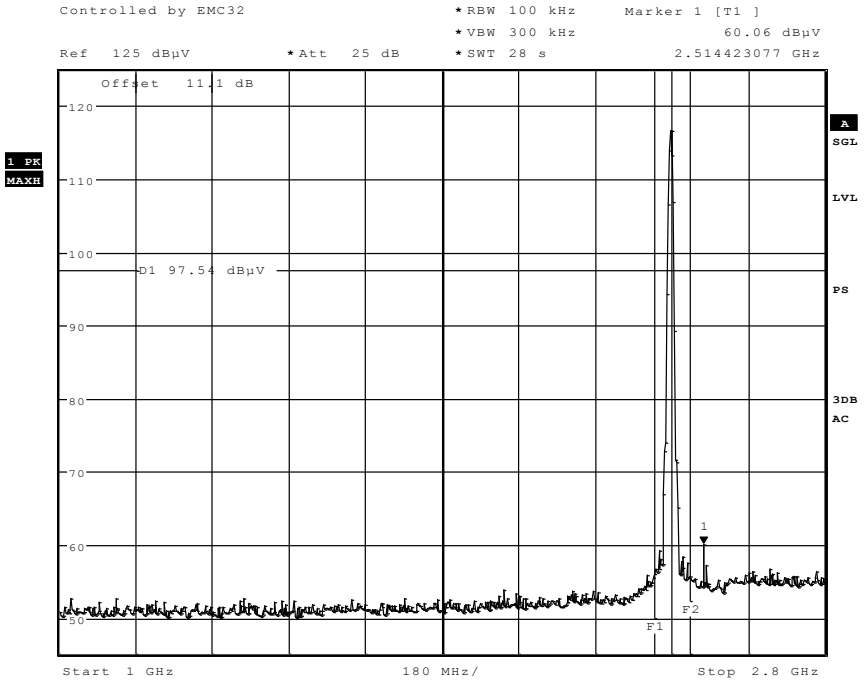
Date: 14.APR.2011 09:57:43

Reference Value for channel 6, 2 MBit, b-Mode



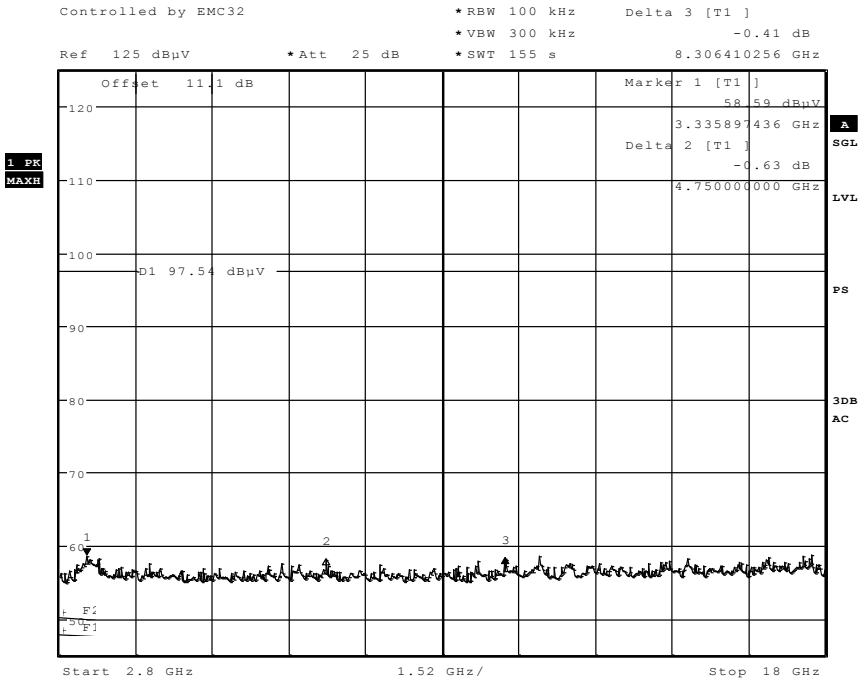
Date: 14.APR.2011 10:10:58

Sweep 1: channel 6, 2 MBit, b-Mode



Date: 14.APR.2011 10:16:03

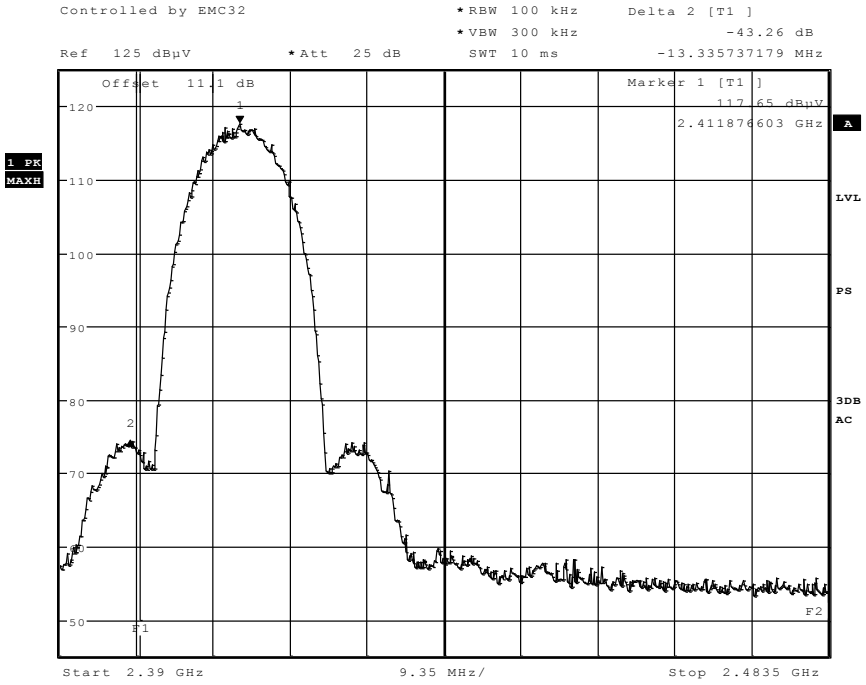
Sweep 2: channel 6, 2 MBit, b-Mode



Date: 14.APR.2011 10:23:18

Sweep 3: channel 6, 2 MBit, b-Mode

1.3.2. IEEE802.11 b-Mode, channel 1&11, Band-Edge 20dBc



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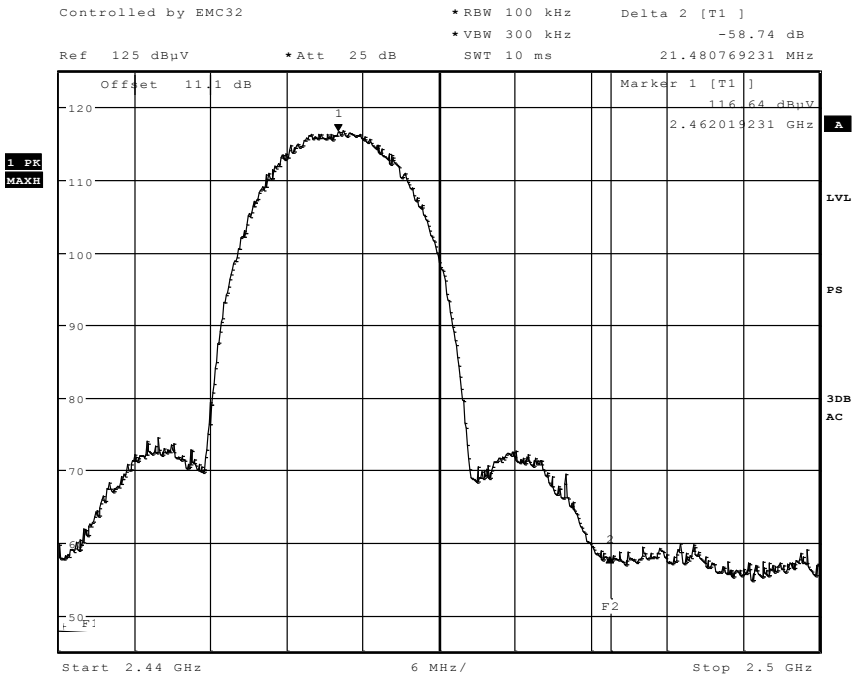
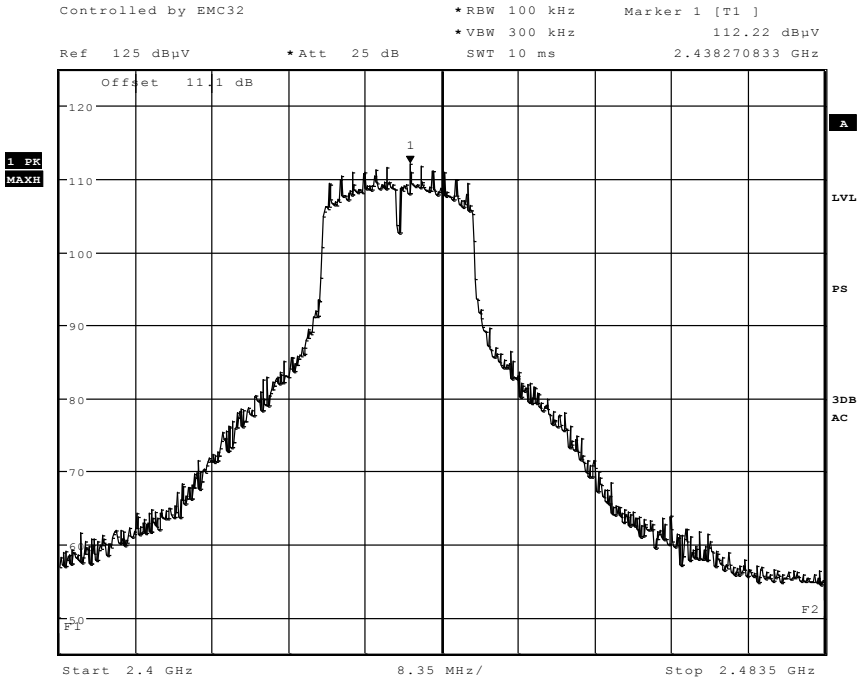
Band-Edge left, channel 1, b-Mode, 11Mbit



Date: 14.APR.2011 10:29:34

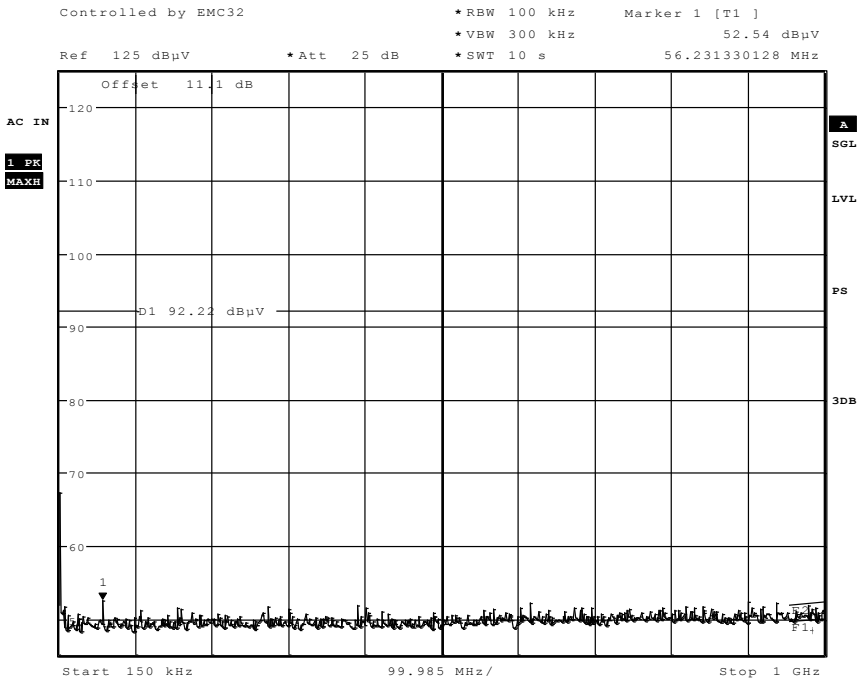
Band-Edge right, channel 11, b-Mode, 11Mbit

1.3.3. IEEE802.11 g-Mode, channel 6



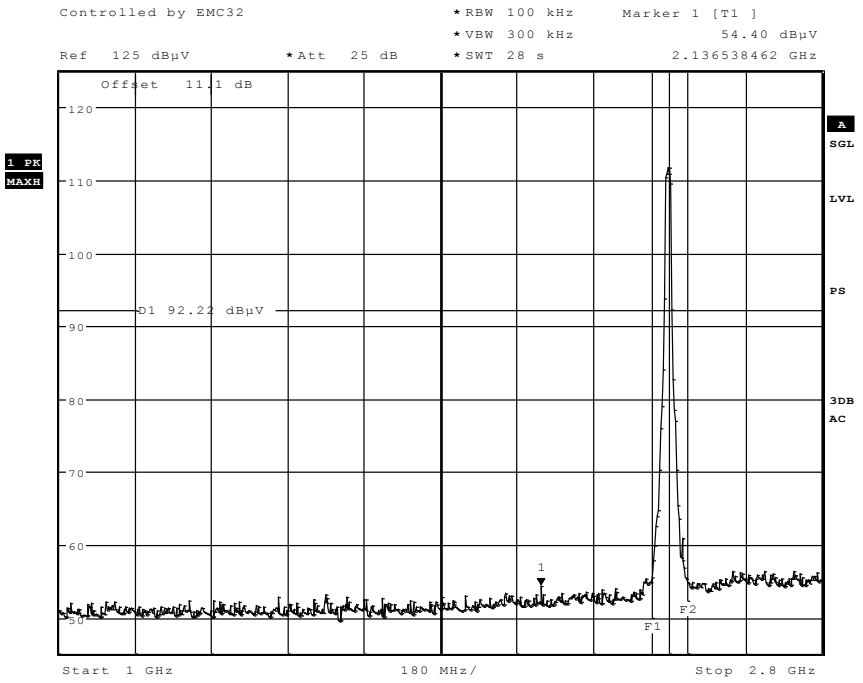
Date: 14.APR.2011 10:33:44

Reference Value for channel 6, 9 MBit, b-Mode



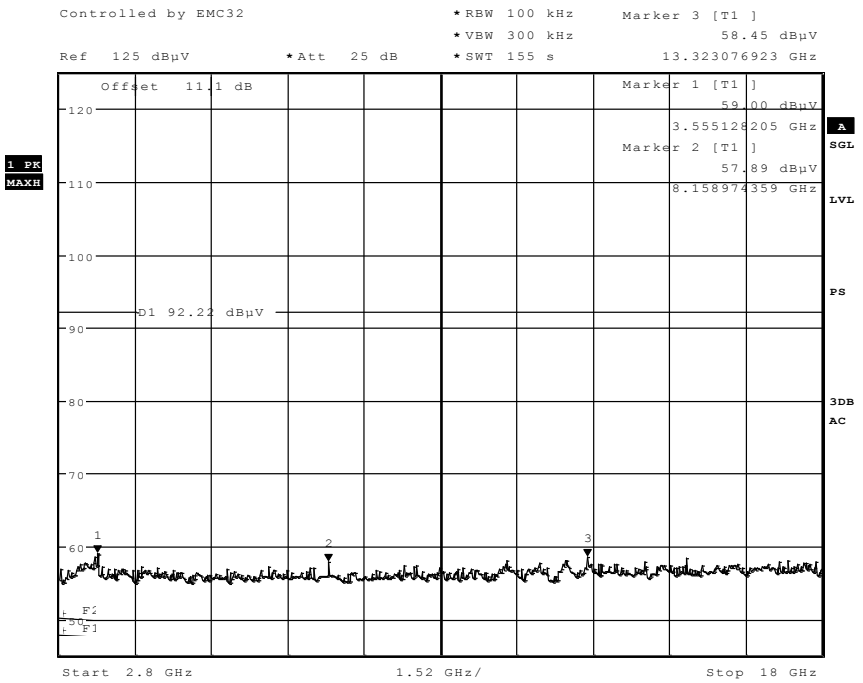
Date: 14.APR.2011 10:40:31

Sweep 1: channel 6, 9 MBit, g-Mode



Date: 14.APR.2011 10:42:56

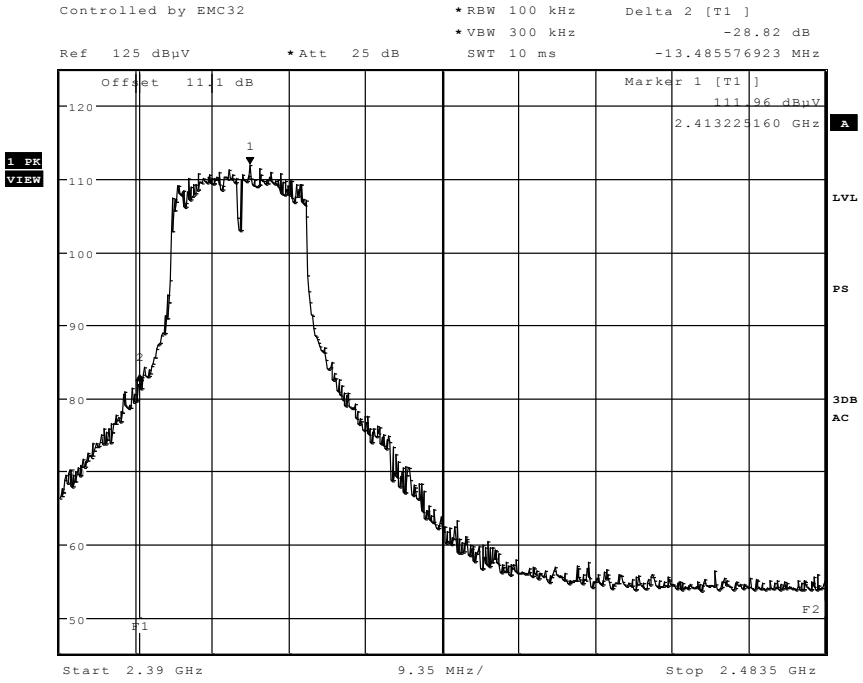
Sweep 2: channel 6, 9 MBit, g-Mode



Date: 14.APR.2011 11:03:49

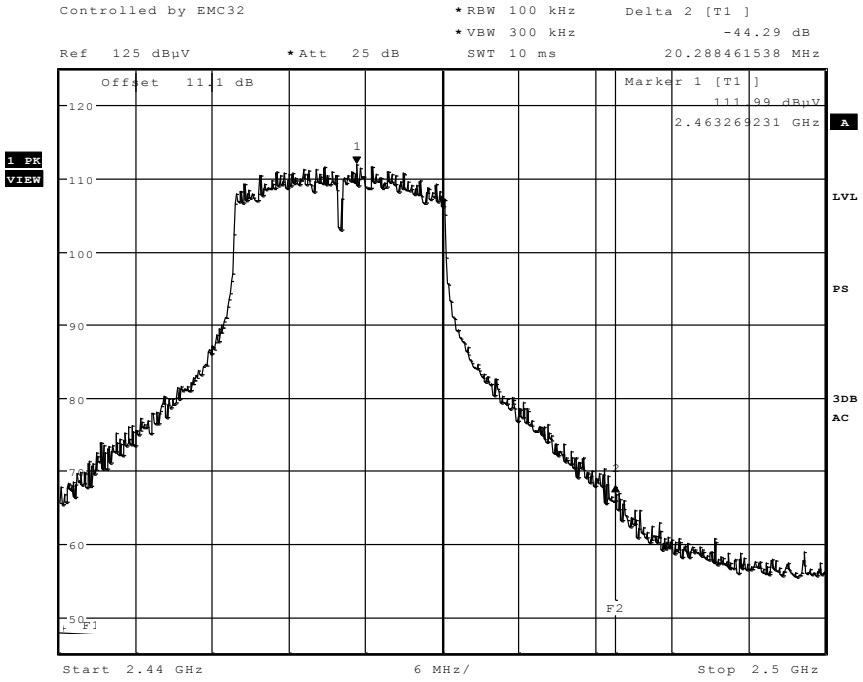
Sweep 3: channel 6, 9 MBit, g-Mode

1.3.4. IEEE802.11 g-Mode, channel 1&11, Band-Edge 20dBc



Date: 14.APR.2011 10:55:10

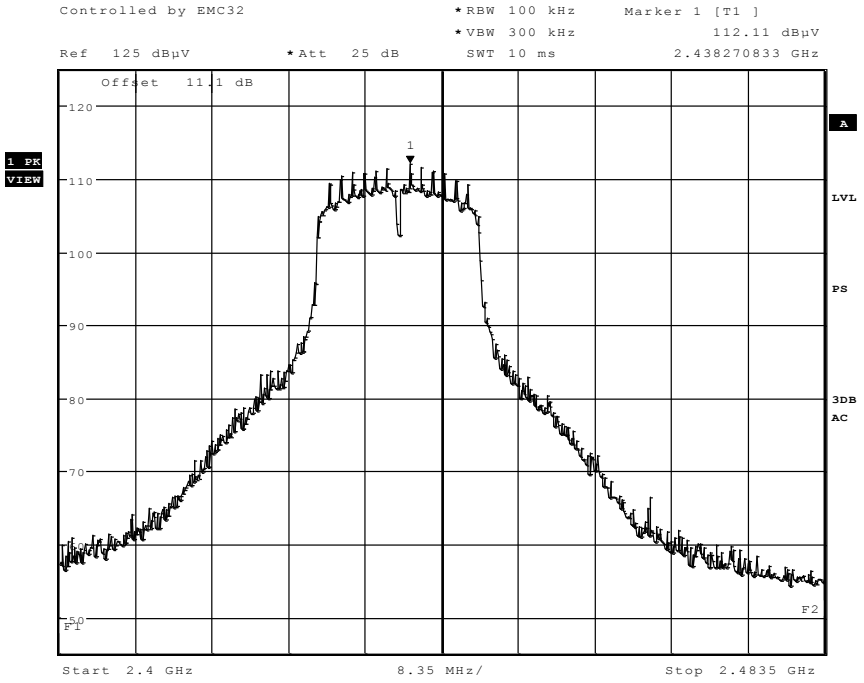
Band-Edge left, channel 1, g-Mode, 54Mbit



Date: 14.APR.2011 10:59:41

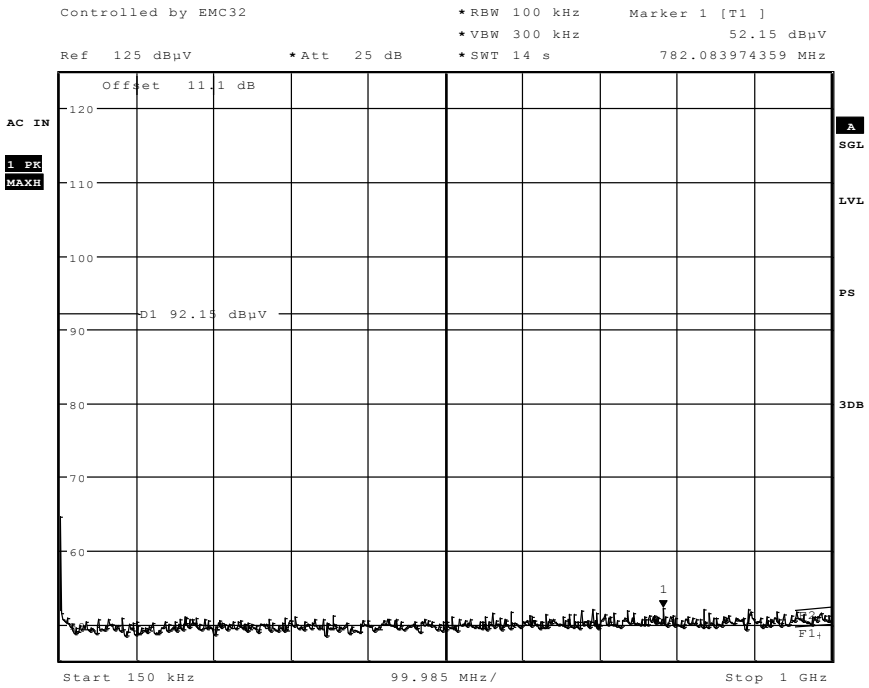
Band-Edge right, channel 11, g-Mode, 54Mbit

1.3.5. IEEE802.11 n-Mode, MCS0 long-guard Mode, channel 6



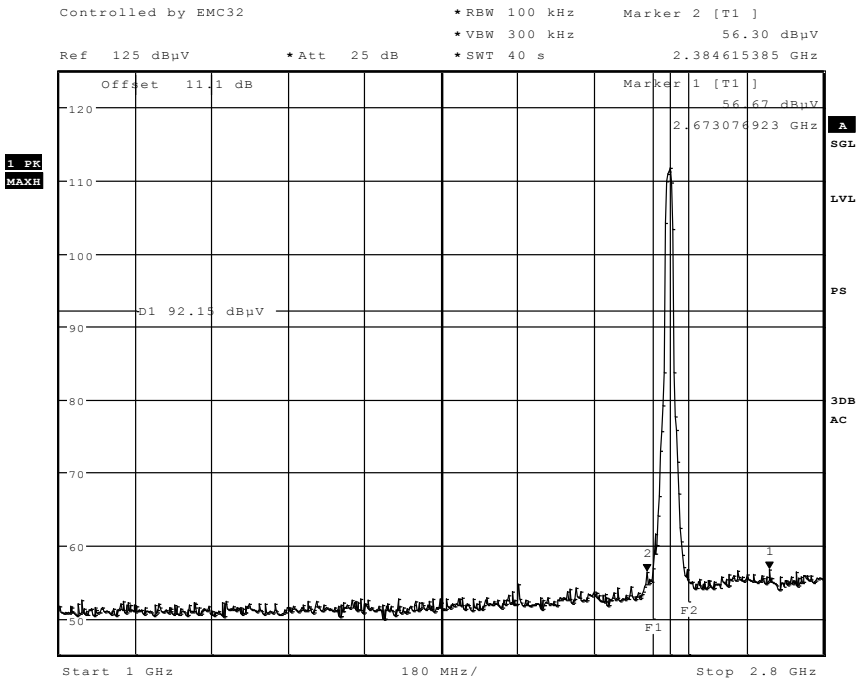
Date: 14.APR.2011 11:57:02

Reference Value for channel 6, MCS0-long, n-Mode



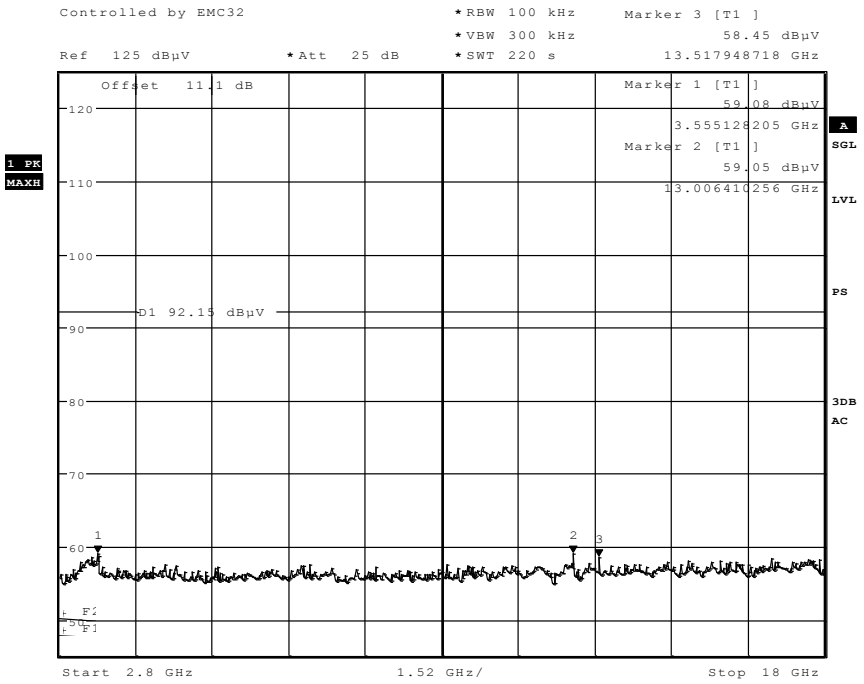
Date: 14.APR.2011 11:11:57

Sweep 1: channel 6, MCS0, n-Mode



Date: 14.APR.2011 11:13:28

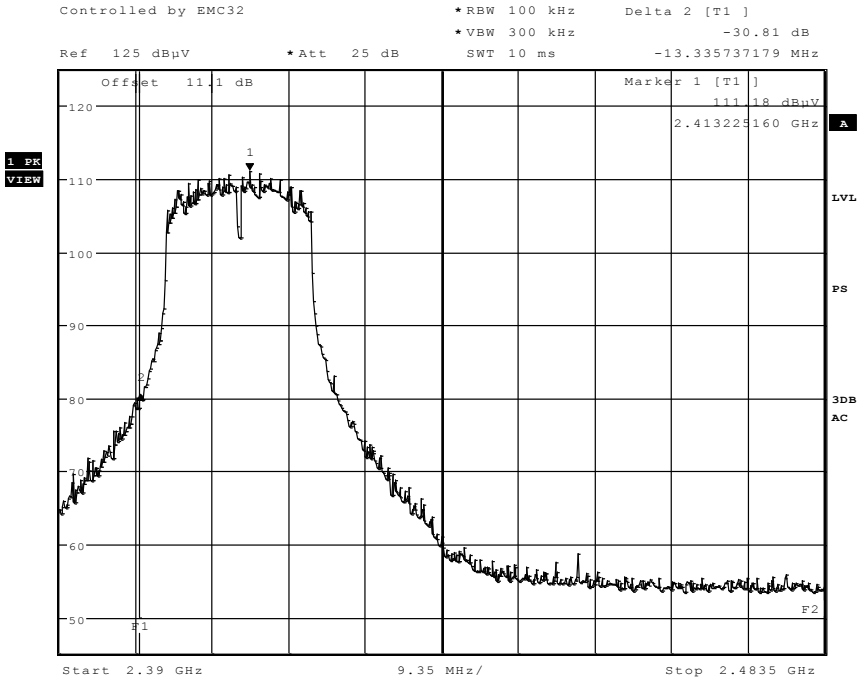
Sweep 2: channel 6, MCS0, n-Mode



Date: 14.APR.2011 11:17:51

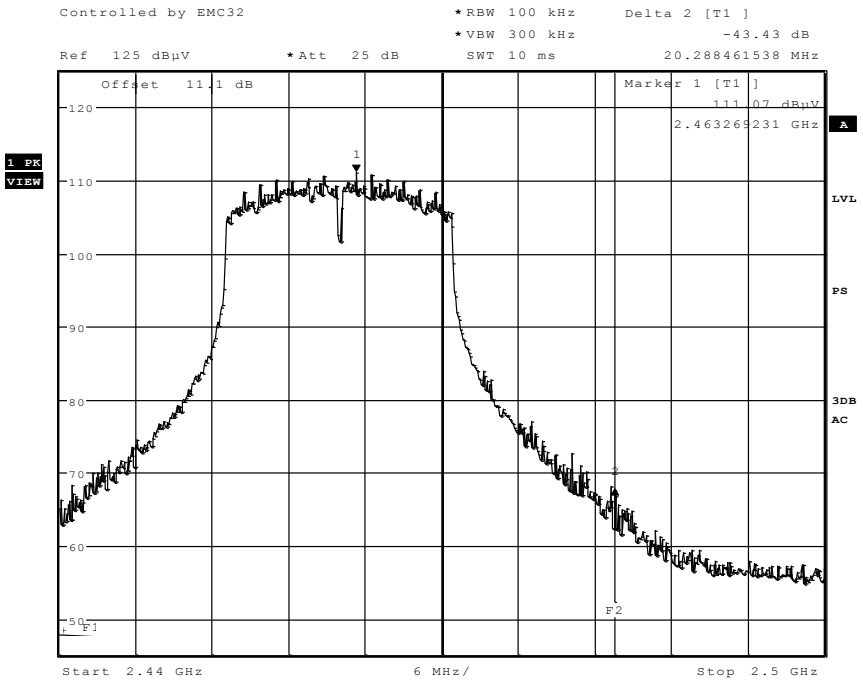
Sweep 3: channel 6, MCS0, n-Mode

1.3.6. IEEE802.11 g-Mode, MCS7 long-guard mode, channel 1&11, Band-Edge 20dBc



Date: 14.APR.2011 11:21:12

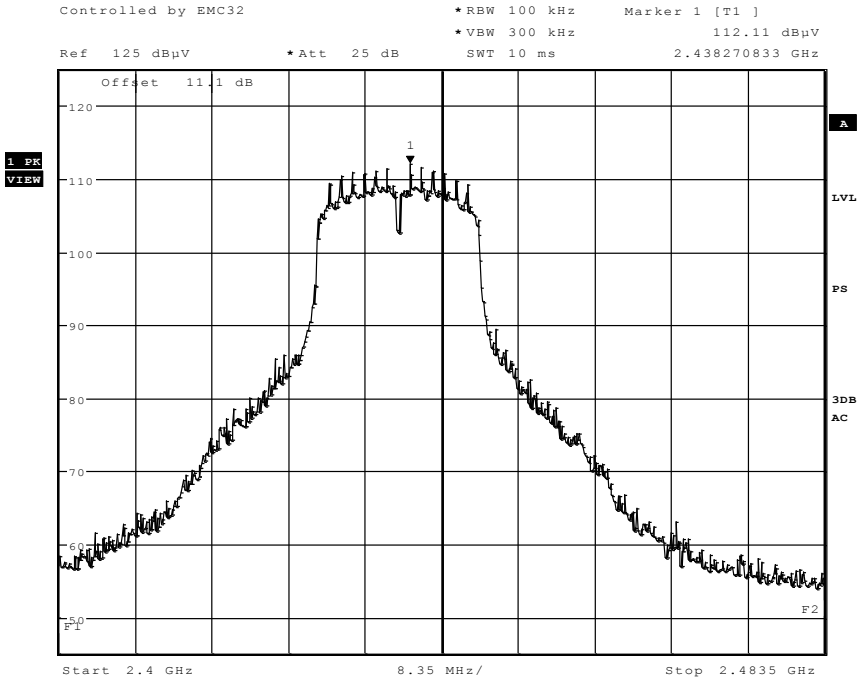
Band-Edge left, channel 6, MCS7-long, n-Mode



Date: 14.APR.2011 11:30:48

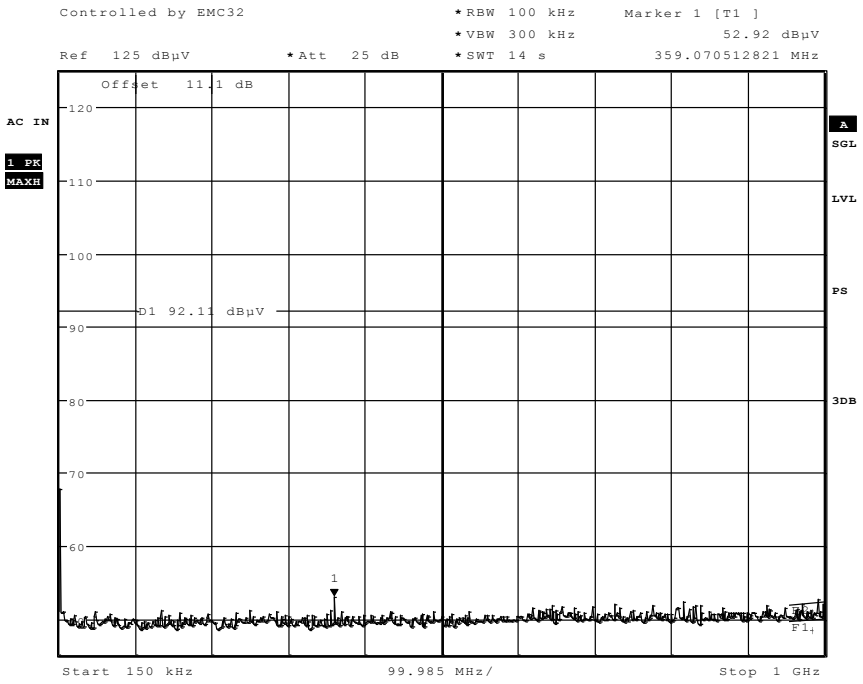
Band-Edge right, channel 6, MCS7-long, n-Mode

1.3.7. IEEE802.11 n-Mode, MCS0 short-guard mode, channel 6



Date: 14.APR.2011 11:39:52

Reference Value for channel 6, MCS0-short, n-Mode



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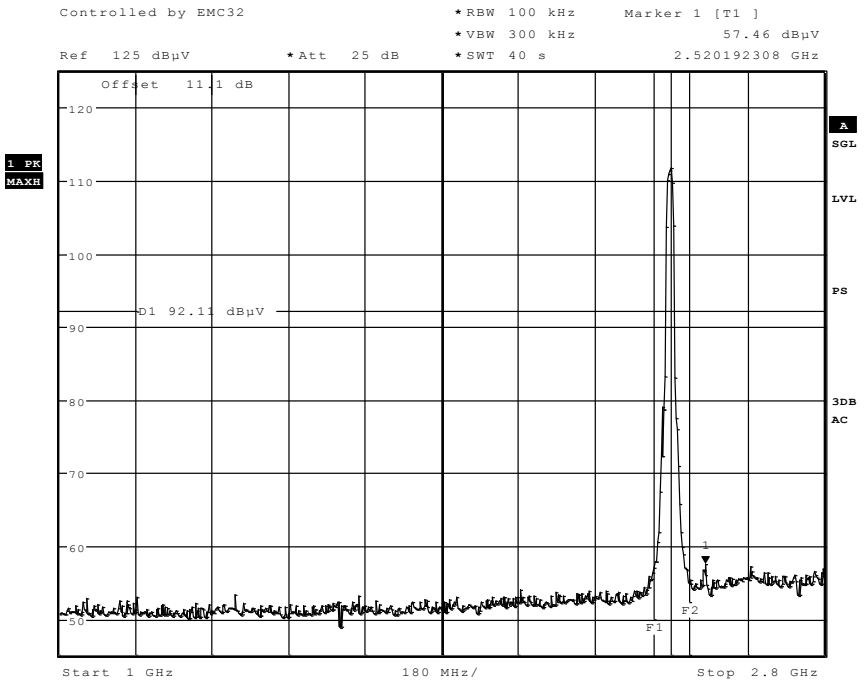
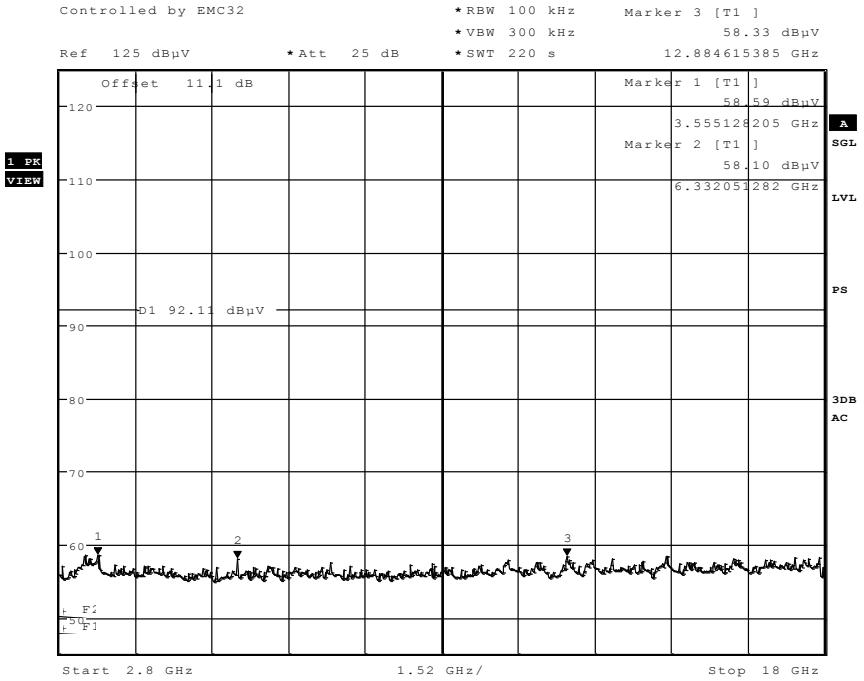
Sweep 1: channel 6, MCS0-short, n-Mode



Date: 14.APR.2011 11:46:52

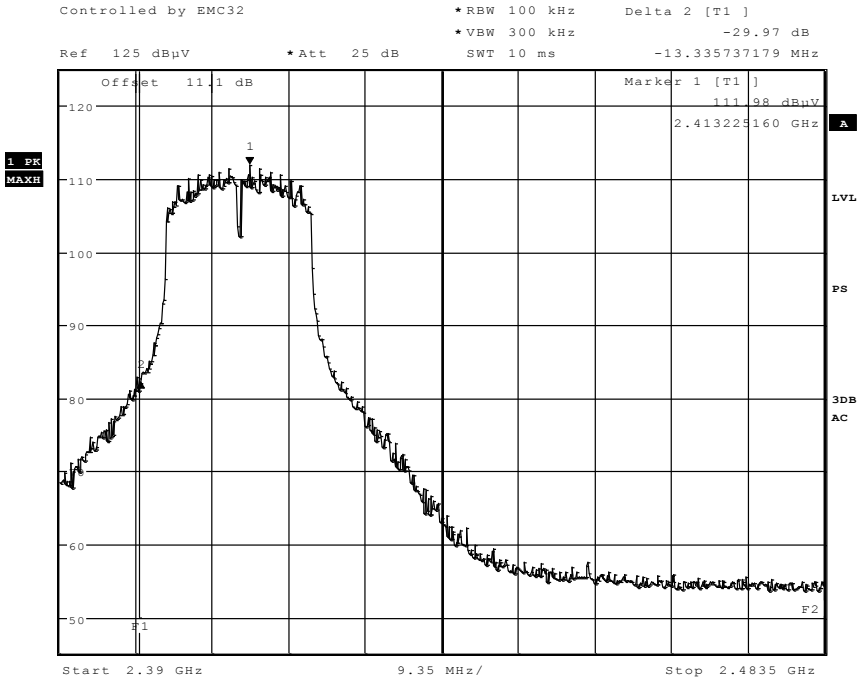
Sweep 2: channel 6, MCS0-short, n-Mode



Date: 14.APR.2011 11:51:59

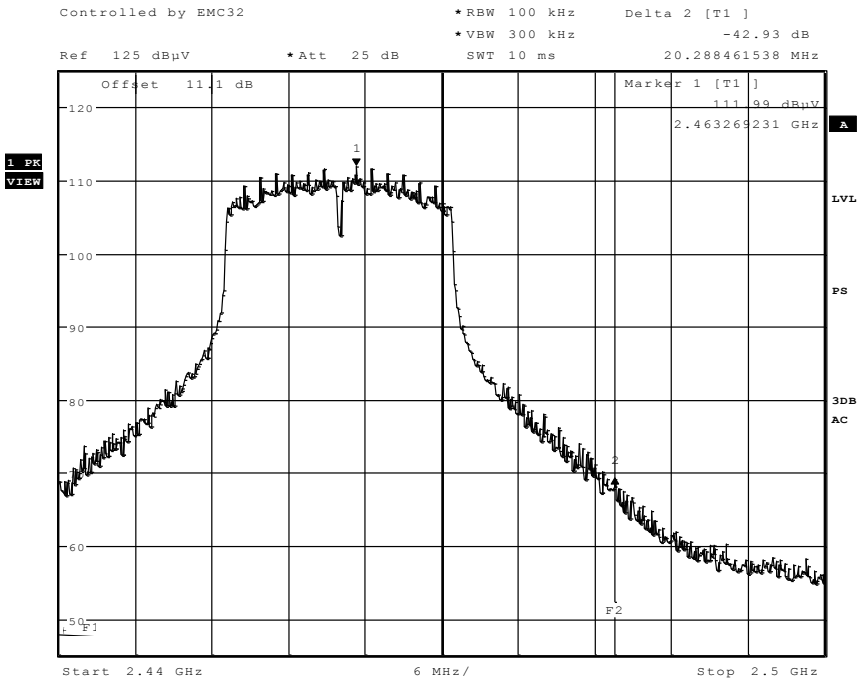
Sweep 3: channel 6, MCS0-short, n-Mode

1.3.8. IEEE802.11 g-Mode, MCS4 short-guard mode, channel 1&11, Band-Edge 20dBc



Date: 14.APR.2011 11:37:01

Band-Edge left, channel 6, MCS4-short, n-Mode



Date: 14.APR.2011 11:34:07

Band-Edge right, channel 6, MCS4-short, n-Mode

1.4. Maximum peak conducted power

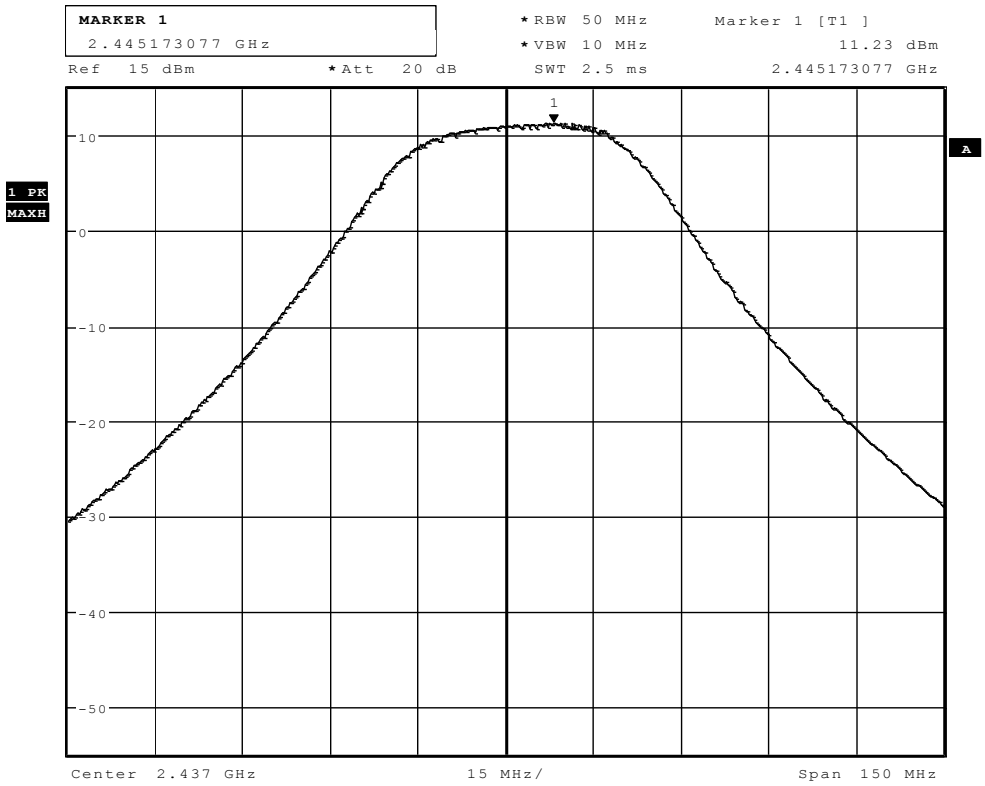
Following table show measured values for the maximum peak conducted power for different modulation types and channels. To all values 10.3dB external Path loss must be added.

Modulation	Data Rate	Nominal Ch 1=2412MHz	Nominal Ch 6=2437MHz	Nominal Ch 11=2462MHz	Maximum value
DBPSK	1MBit	10.97	**11,23**	11,11	**11,23**
DQPSK	2MBit	10,98	**11,23**	11,19	
CCK/PBCC	5.5MBit	10,58	10,94	10,8	
CCK/PBCC	11MBit	10,61	10,98	10,7	
BPSK	6	11,85	12,22	12,16	**12,25**
	9	11,8	**12,25**	12,14	
QPSK	12	11.77	12,08	11,97	
	18	11,73	12,14	12,02	
16QAM	24	11,75	12,18	12,06	
	36	11,65	12,23	11,89	
64QAM	48	11,72	12,08	12,13	
	54	11,98	12,08	12,09	
Long Guard					
MCS0		11,69	**12,19**	12,1	**12,19**
MCS4		11,68	12,03	11,98	
MCS7		11,49	11,77	11,67	
Short guard					
MCS0		11,74	**12,16**	12,03	**12,16**
MCS4		11,69	12,12	11,94	

To all values shown above 10.3dB external path loss must be added.

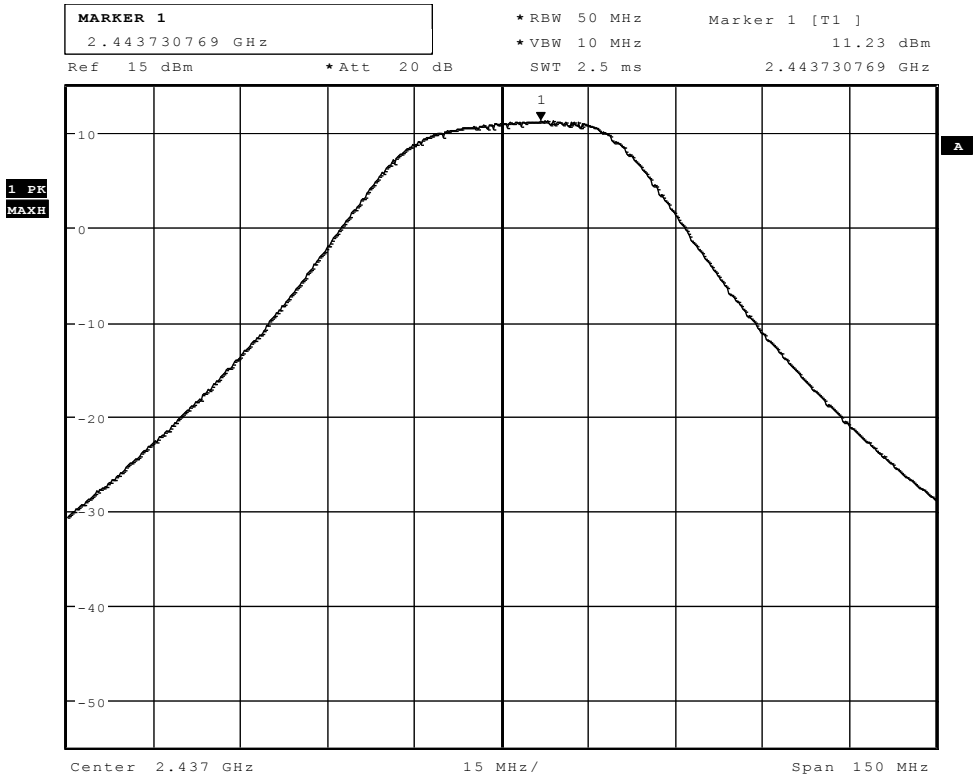
Maximum Value: 22.55 dBm = 179.88mW

Below also some diagrams showing the maximum value for 3 channels and different modulation types.



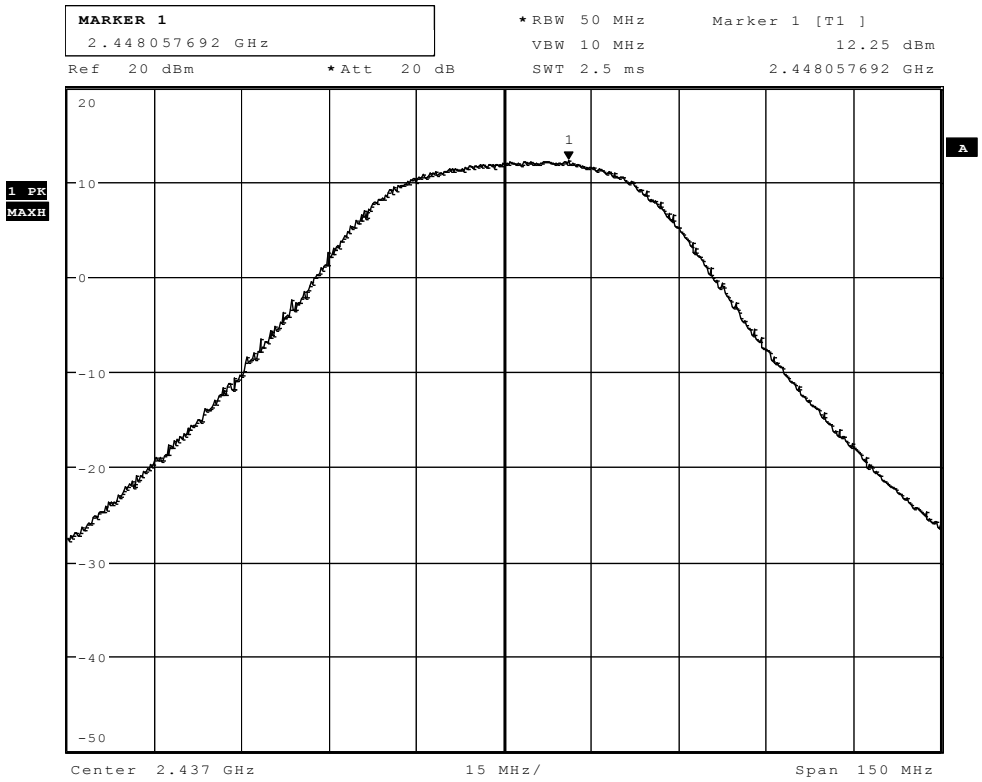
Date: 13.APR.2011 08:35:49

DQPSK Modulation, 1MBit, Channel 6



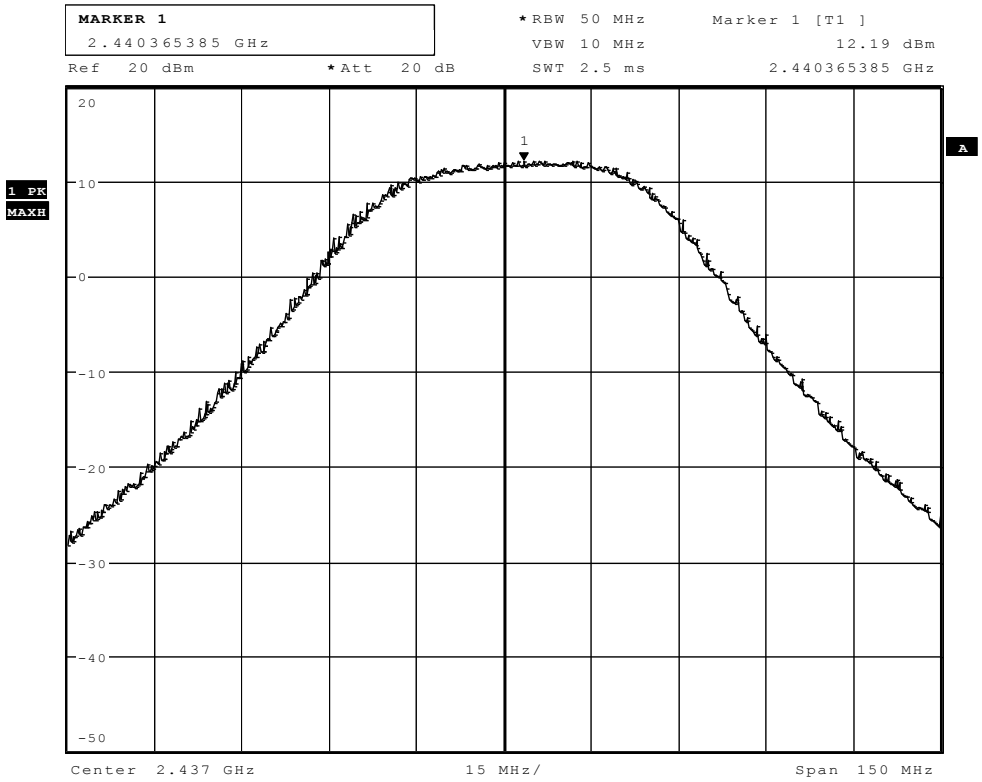
Date: 13.APR.2011 08:25:49

DQPSK Modulation, 2MBit, Channel 6



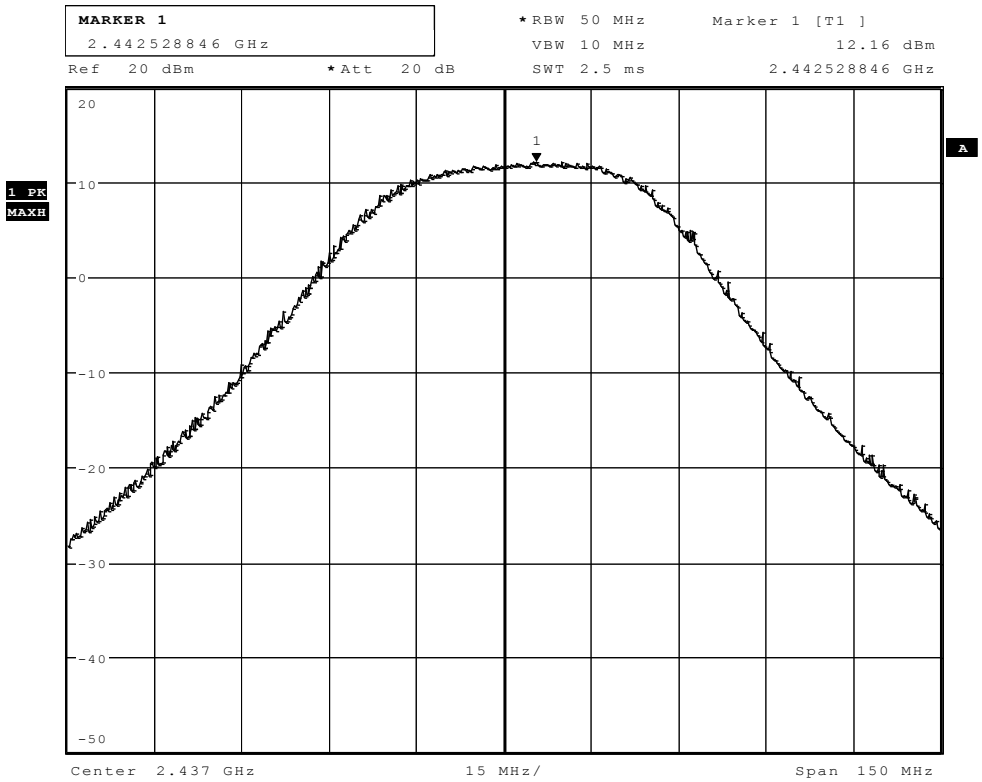
Date: 13.APR.2011 09:52:15

BPSK Modulation, 9MBit, Channel 6-> absolute maximum value between modulation/data rates



Date: 13.APR.2011 10:43:00

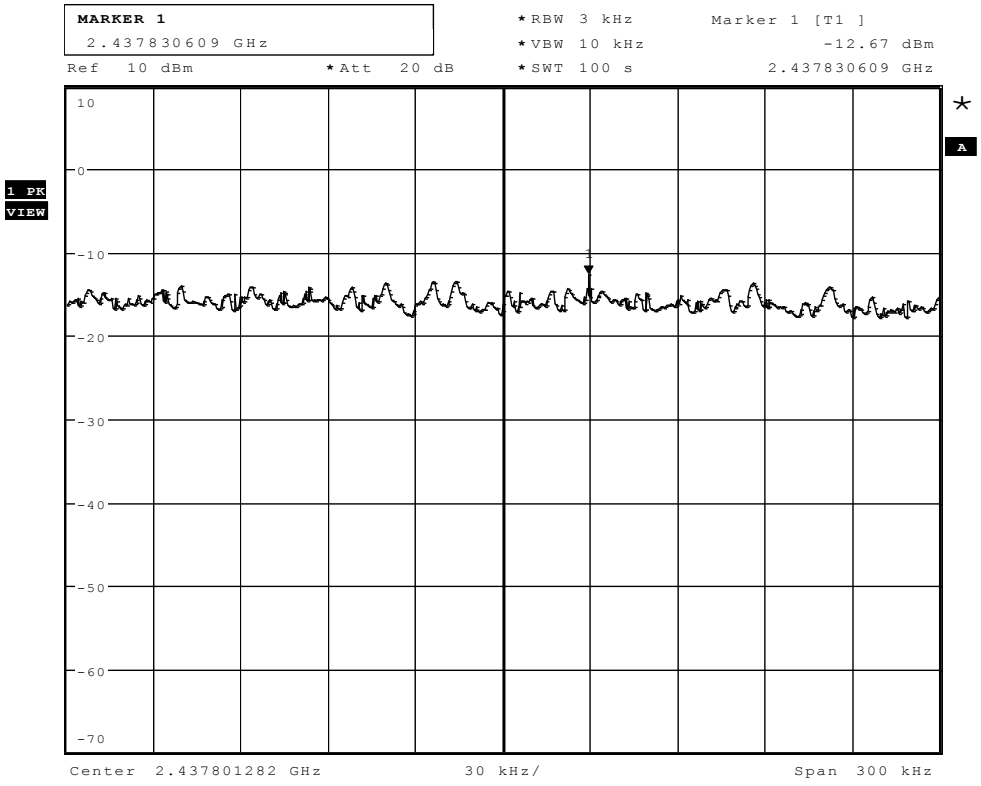
MCS0, long-guard (OFDM), Channel 6



Date: 13.APR.2011 10:57:18

MCS0, short-guard (OFDM), Channel 6

1.5. Power spectral density



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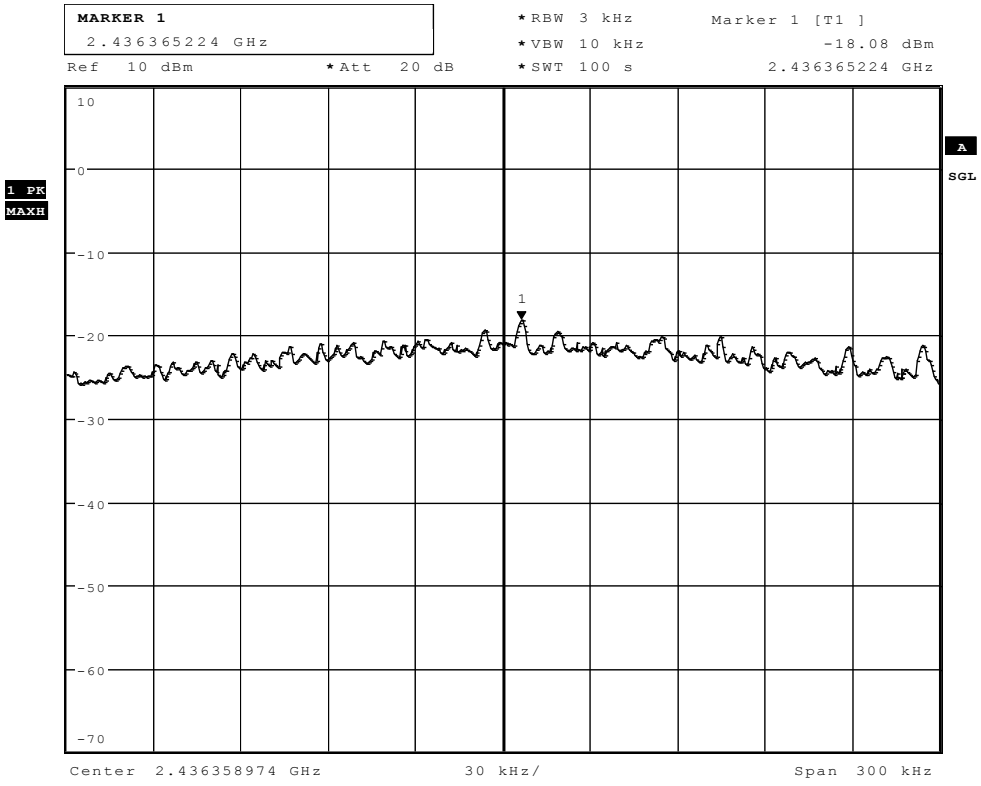
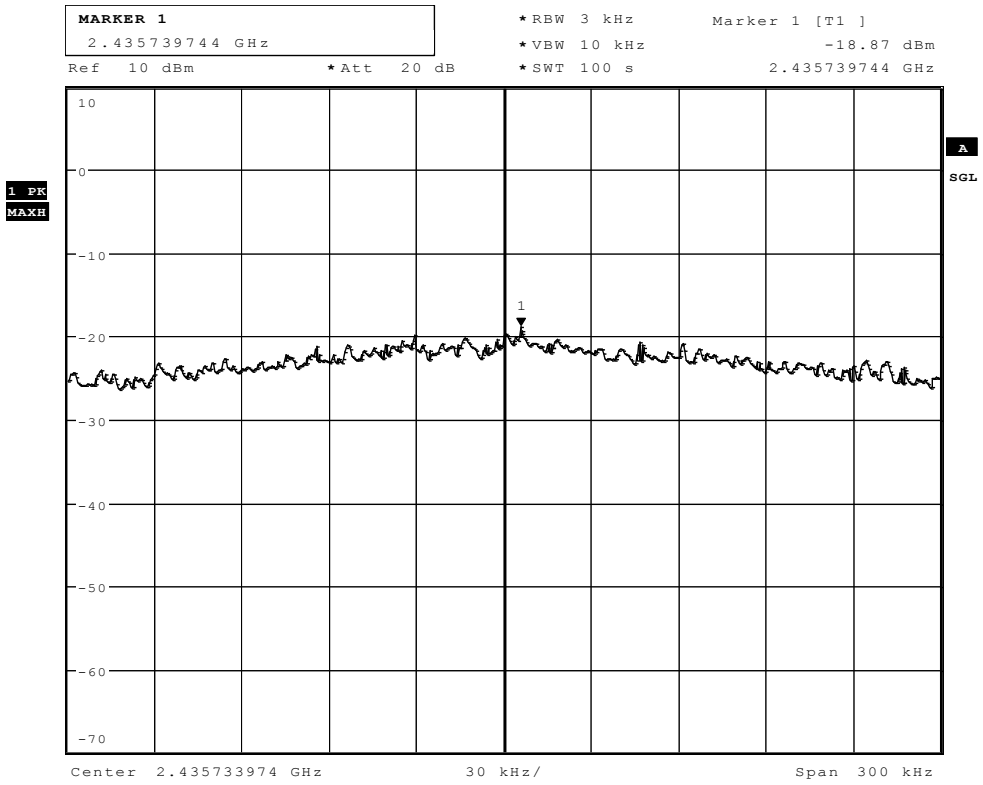
DQPSK Modulation, 2MBit, Channel 6



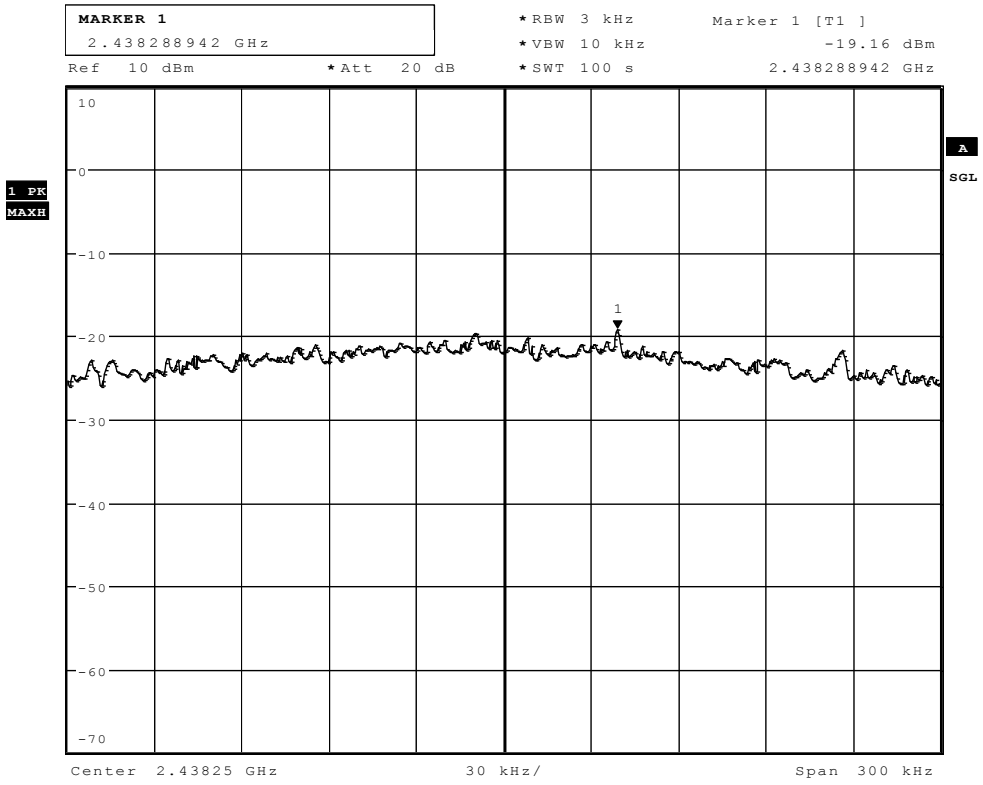
Date: 13.APR.2011 14:34:16

BPSK Modulation, 9MBit, Channel 6



Date: 13.APR.2011 14:42:20

MCS0, long-guard (OFDM), Channel 6



Date: 13.APR.2011 14:56:34

MCS0, short-guard (OFDM), Channel 6

1.6. Radiated field strength (15.209)

1.6.1. Radiated magnetic field strength measurements (f<30MHz)

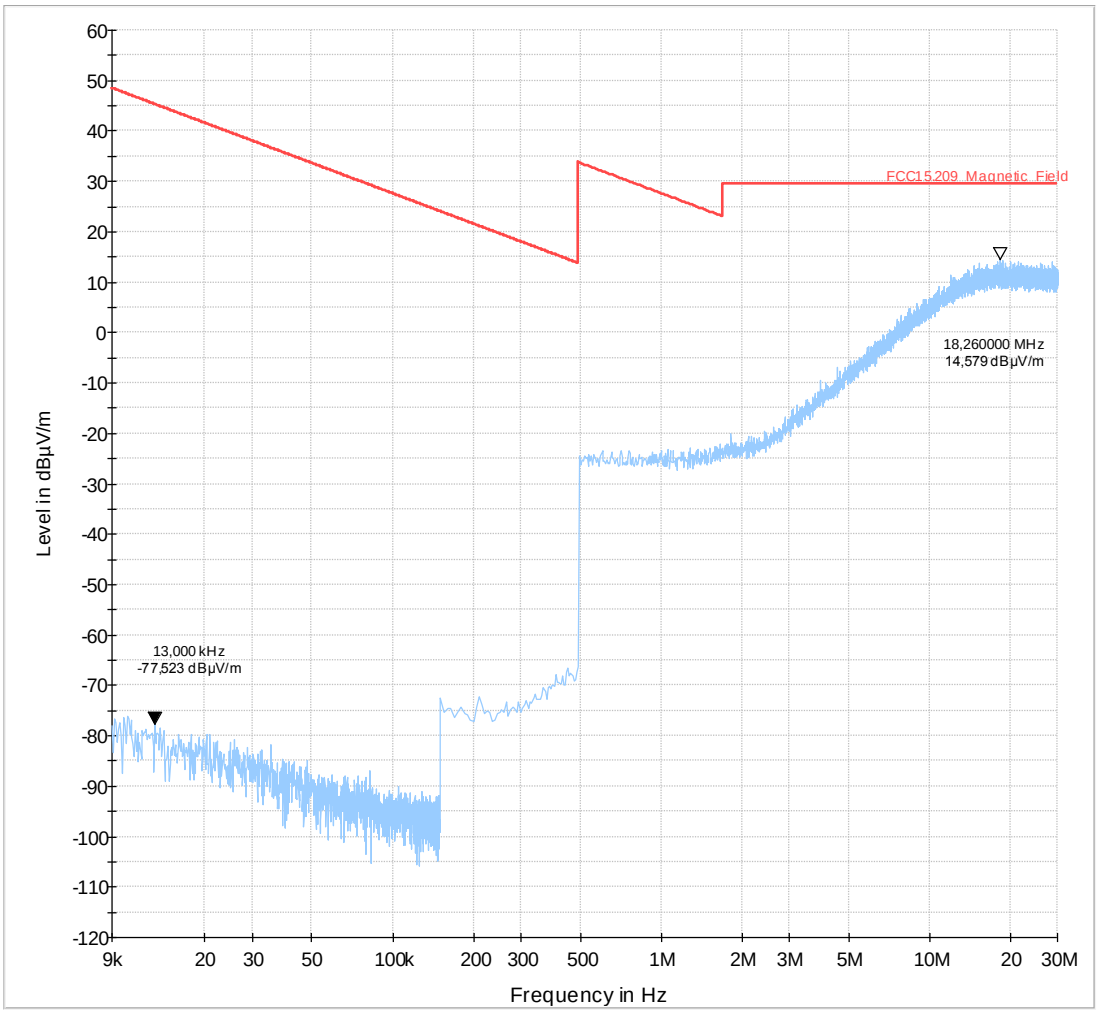
Diagram No. a_3.02x

Common Information

Test description	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Turntable step:	90° during pre-scan
Used filter:	bypass
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	TAS
Operating conditions:	TX-on (WLAN b, 2Mbps)
Power during tests:	full loaded batteries
Comment 1:	Channel low: 1

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#1)



EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
Measurement Type: Open-Area-Test-Site
Frequency Range: 9 kHz - 30 MHz
Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
Polarization: H + V
Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
Scan Test Template: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Data Reduction:
Limit Line #1: FCC15.209_Magnetic_Field
Peak Search: 20 dB , Maximum Results: 10
Subrange Maxima: 10 Subranges , Maxima per Subrange: 1
Acceptance Offset: -10 dB
Maximum Number of Results: 10
After Data Reduction: Interactive data reduction

Adjustment:
Antenna height: Adjustment with full Range , Measuring Speed = 1
Turntable position: Adjustment with full Range , Measuring Speed = 3
Template for Single Meas.: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
Template for Single Meas.: 02_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
Report Template: FCC15_209_magn_vert_hor
Create Electronic Report: PDF
Document Name: EMI Report

Actions:
Data Reduction: Before
Notify: Sound (WAV file) 'tada.wav'
Final Measurements: After
Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_3.03x

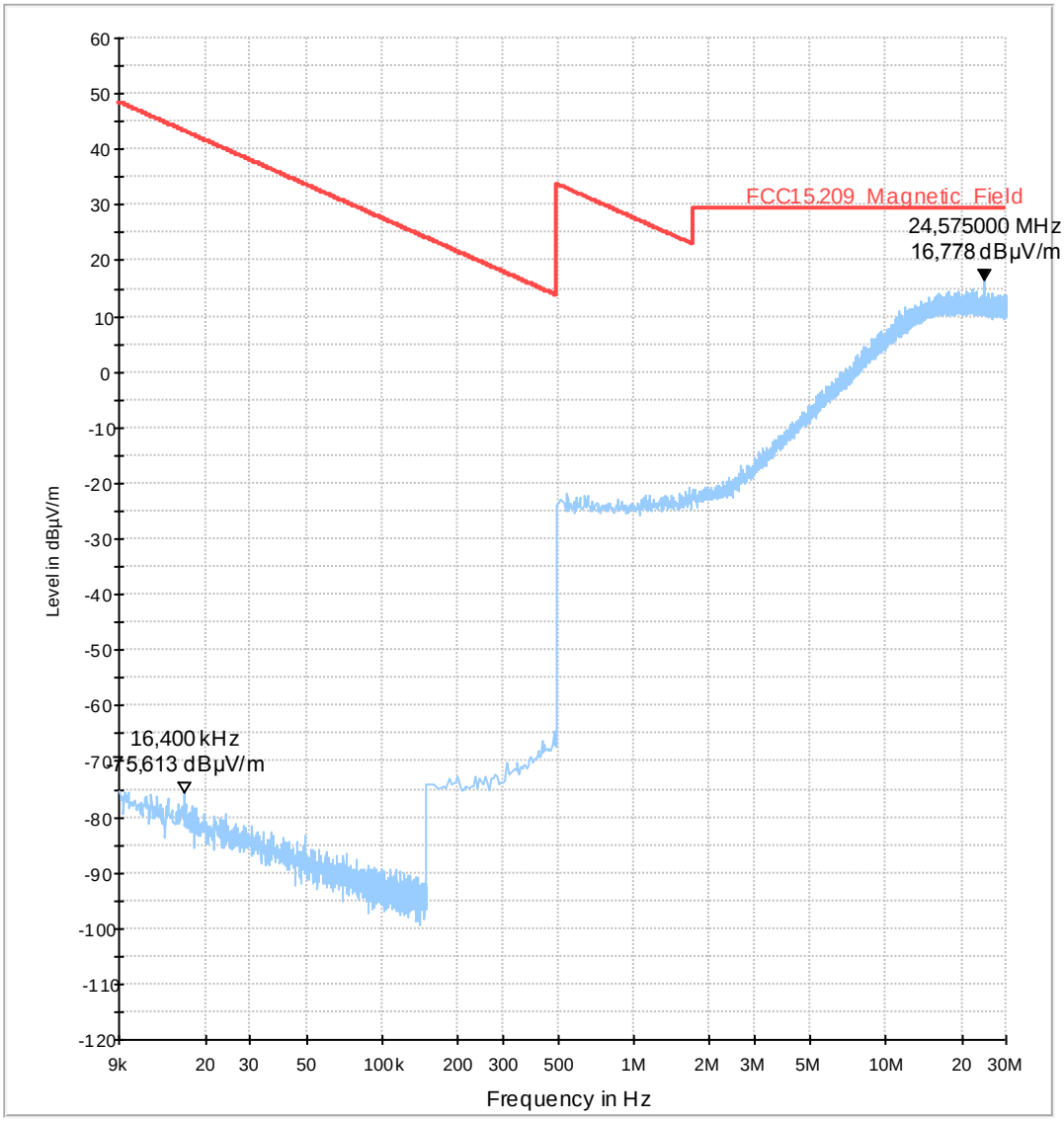
Common Information

Test description	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Turntable step:	90° during pre-scan
Used filter:	bypass
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	TAS
Operating conditions:	TX-on (WLAN b, 2Mbps)
Power during tests:	full loaded batteries
Comment 1:	Channel middle: 6
Camment 2:	ext. interferrer at 24,5 MHz

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#1)

FCC15.209_magn hor+vert



EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
Measurement Type: Open-Area-Test-Site
Frequency Range: 9 kHz - 30 MHz
Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
Polarization: H + V
Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
Scan Test Template: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Data Reduction:
Limit Line #1: FCC15.209_Magnetic_Field
Peak Search: 20 dB , Maximum Results: 10
Subrange Maxima: 10 Subranges , Maxima per Subrange: 1
Acceptance Offset: -10 dB
Maximum Number of Results: 10
After Data Reduction: Interactive data reduction

Adjustment:
Antenna height: Adjustment with full Range , Measuring Speed = 1
Turntable position: Adjustment with full Range , Measuring Speed = 3
Template for Single Meas.: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
Template for Single Meas.: 02_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
Report Template: FCC15_209_magn_vert_hor
Create Electronic Report: PDF
Document Name: EMI Report

Actions:
Data Reduction: Before
Notify: Sound (WAV file) 'tada.wav'
Final Measurements: After
Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_3.04x

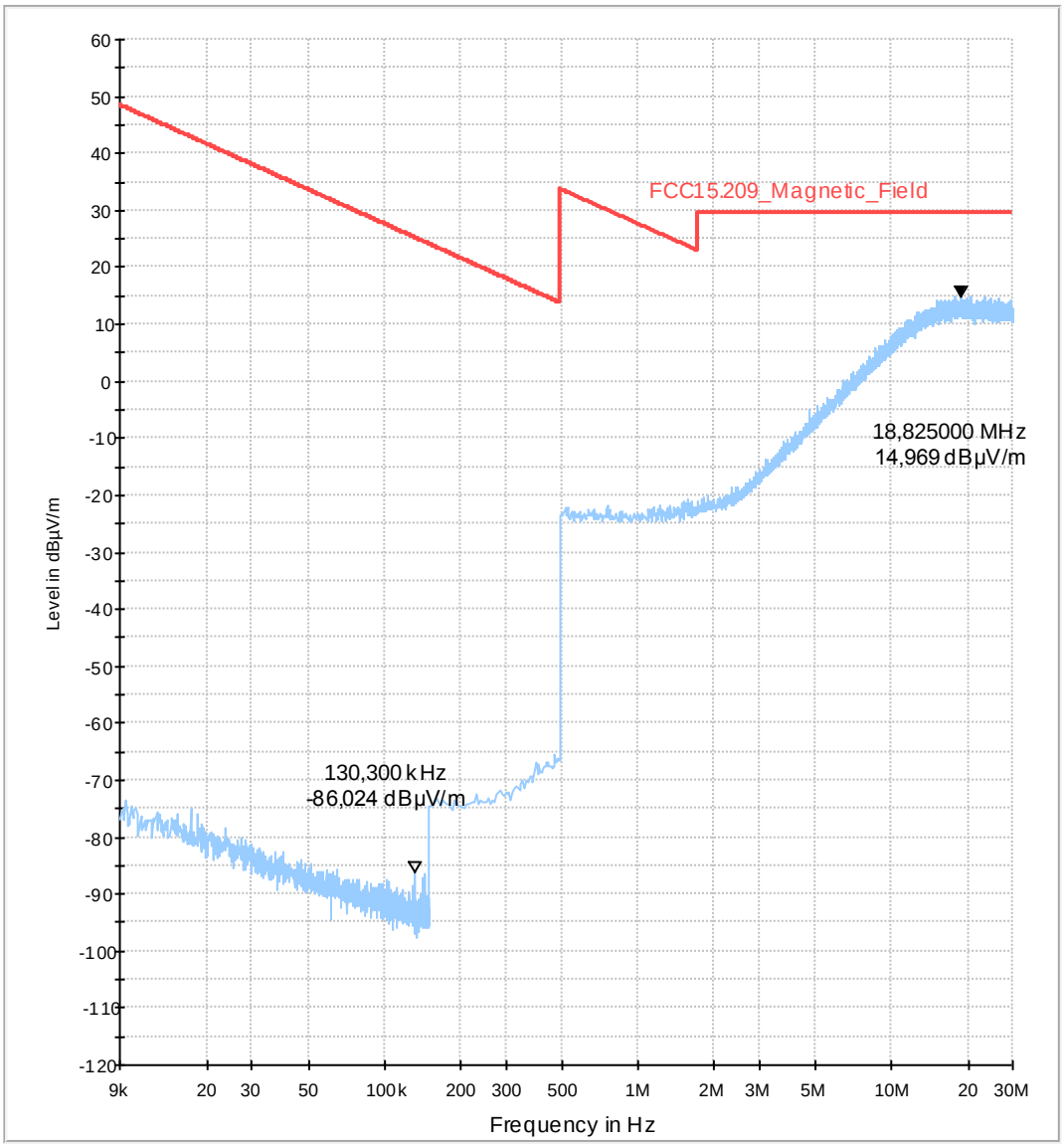
Common Information

Test description	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Turntable step:	90° during pre-scan
Used filter:	bypass
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	TAS
Operating conditions:	TX-on (WLAN b, 2Mbps)
Power during tests:	full loaded batteries
Comment 1:	Channel high: 11

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#1)

FCC15.209_magn hor+vert



EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup: HW25_FCC15109_ESCS_MgFeld_ohne_SAR_MATRIX
Measurement Type: Open-Area-Test-Site
Frequency Range: 9 kHz - 30 MHz
Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
Antenna height: 1000 - 1000 cm , Step Size = 0 cm , Positioning Speed = 1
Polarization: H + V
Turntable position: 35 - 305 deg , Step Size = 90 deg , Positioning Speed = 8
Scan Test Template: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Data Reduction:
Limit Line #1: FCC15.209_Magnetic_Field
Peak Search: 20 dB , Maximum Results: 10
Subrange Maxima: 10 Subranges , Maxima per Subrange: 1
Acceptance Offset: -10 dB
Maximum Number of Results: 10
After Data Reduction: Interactive data reduction

Adjustment:
Antenna height: Adjustment with full Range , Measuring Speed = 1
Turntable position: Adjustment with full Range , Measuring Speed = 3
Template for Single Meas.: 01_FCC_MG_FELD_PK_FAST_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0,01 s	0 dB
150 kHz - 30 MHz	5 kHz	PK+	10 kHz	0,01 s	0 dB

Receiver: [ESS]

Final Measurements:
Template for Single Meas.: 02_FCC_MG_FELD_QP_final_H&V_EUT

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	5 kHz	QPK	10 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
Report Template: FCC15_209_magn_vert_hor
Create Electronic Report: PDF
Document Name: EMI Report

Actions:
Data Reduction: Before
Notify: Sound (WAV file) 'tada.wav'
Final Measurements: After
Notify: Sound (WAV file) 'tada.wav'

1.6.2. Radiated field strength (30MHz < f < 1GHz)

1.6.2.1. Radiated field strength (30MHz < f < 1GHz), b-Mode 2MBit

Diagram No. a_2.14x

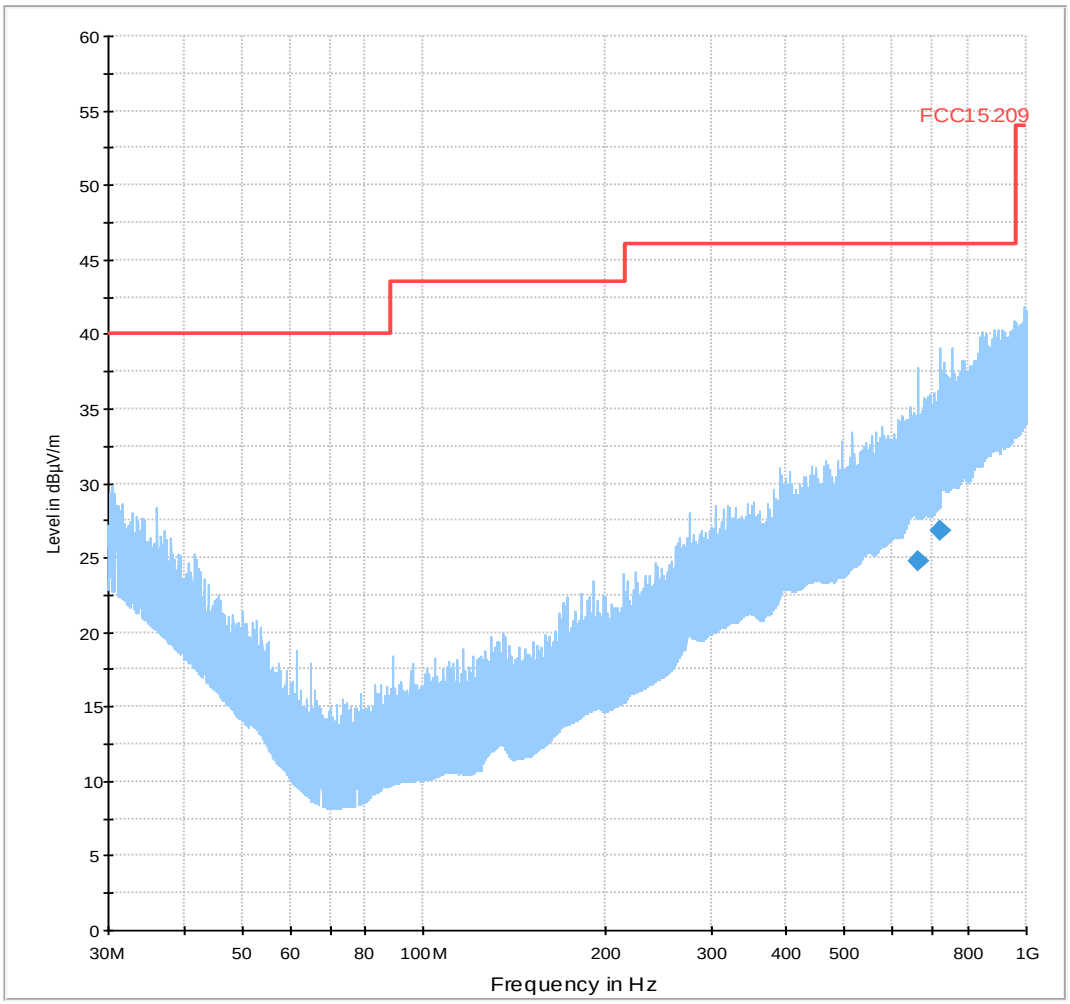
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen
Operator:	Lor/Oou
Operating conditions:	TX-on 2MBit (b-Mode)
Power during tests:	full loaded batteries
Comment 1:	Channel middle=6

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857

01_FCC15.209_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
663.670000	24.7	1000.0	120.000	100.0	H	12.0	0.0	23.1	21.30	46.00
719.130000	26.8	1000.0	120.000	273.0	V	11.0	90.0	24.0	19.20	46.00

(continuation of the "Final Result 1" table from column 11 ...)

Frequency (MHz)	Comment
663.670000	
719.130000	

EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Positioning Speed = 5
- Polarization: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Elevation: Adjustment with full Range , Measuring Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.17x

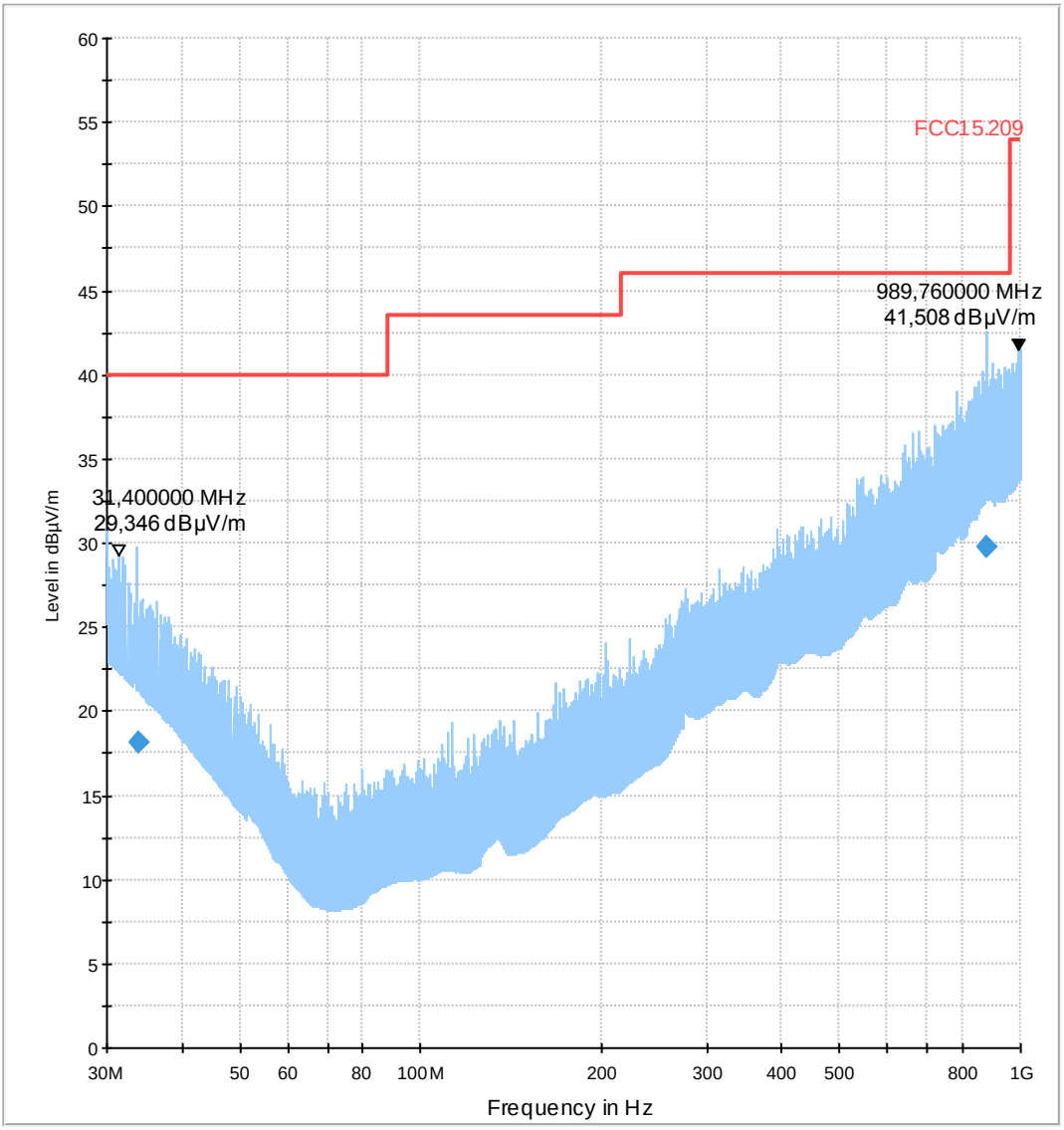
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on 2MBit (b-Mode)
Power during tests:	full loaded batteries
Comment 1:	Channel low=1

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#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)	Comment
33.870000	**18.1**	**1000.0**	**120.000**	**182.0**	**V**	**300.0**	**20.1**	**21.90**	**40.00**	
876.540000	**29.8**	**1000.0**	**120.000**	**335.0**	**V**	**55.0**	**26.2**	**16.20**	**46.00**	

EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.18x

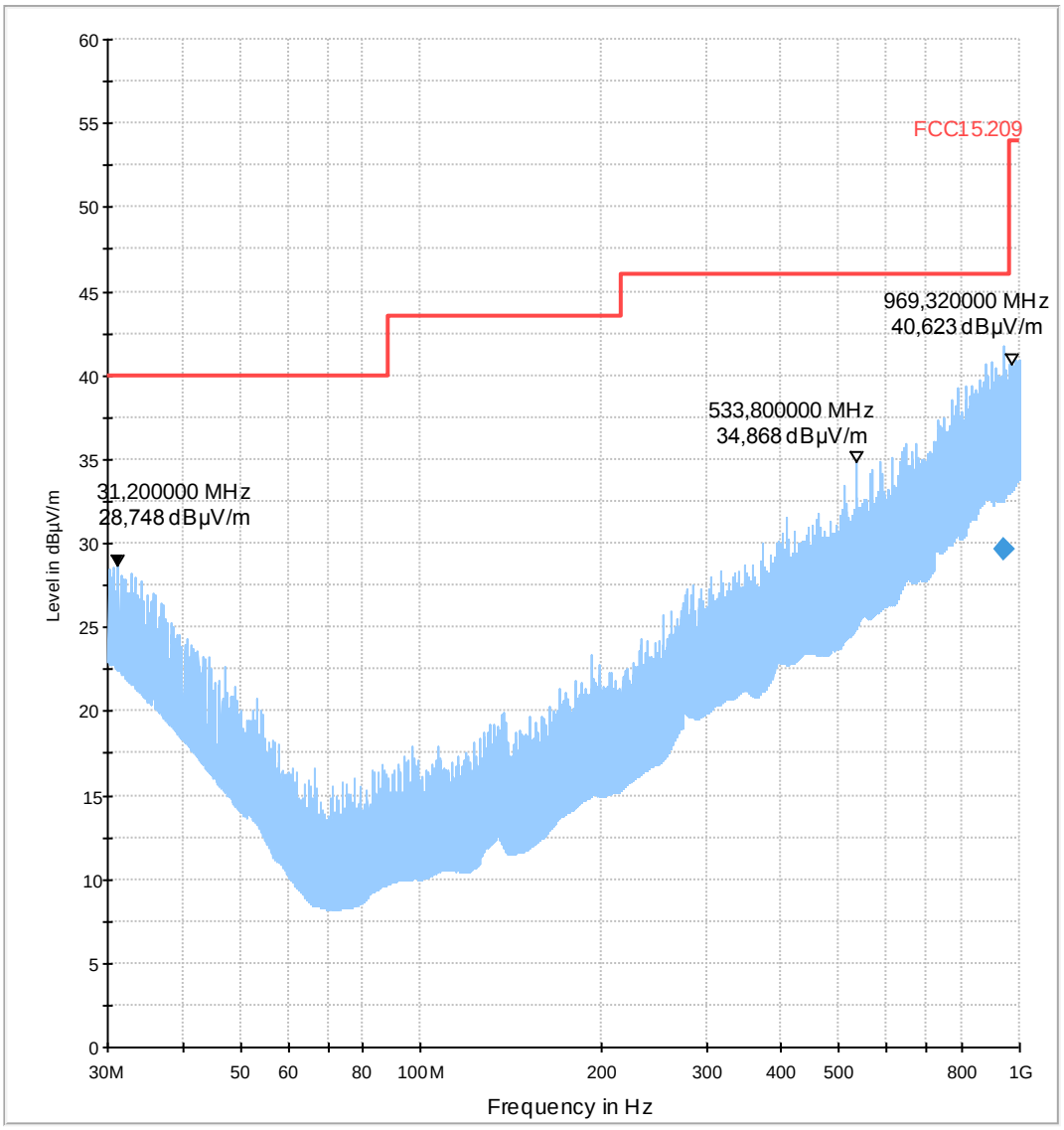
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on 2MBit (b-Mode)
Power during tests:	full loaded batteries
Comment 1:	Channel high=11

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#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)	Comment
941.080000	**29.6**	**1000.0**	**120.000**	**355.0**	**V**	**62.0**	**26.6**	**16.40**	**46.00**	

EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

1.6.2.2. Radiated field strength (30MHz < f < 1GHz), g-Mode 9MBit

Diagram No. a_2.15x

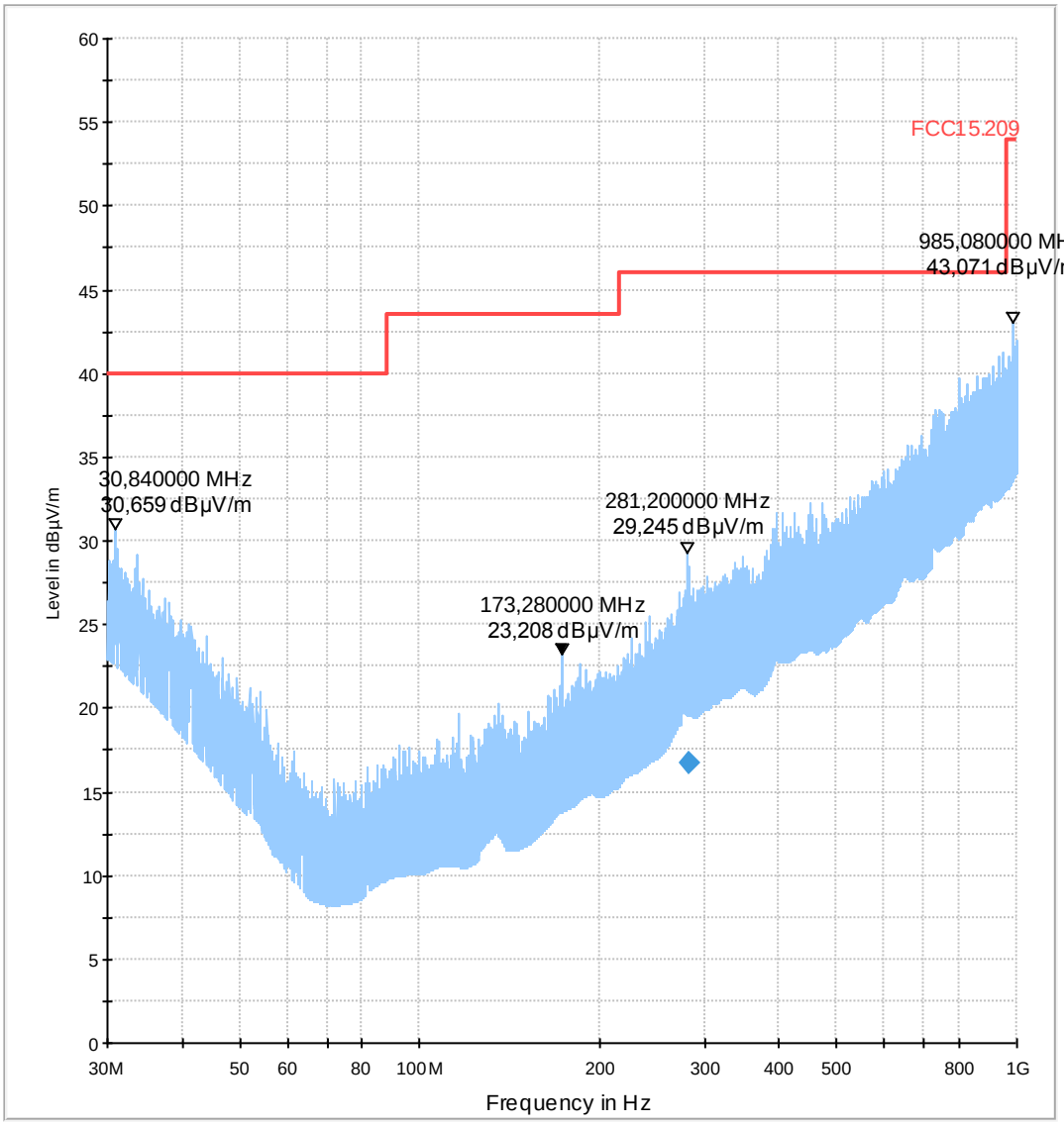
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Lor/Oou
Operating conditions:	TX-on 9MBit (g-Mode)
Power during tests:	full battery
Comment 1:	Channel high=11

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19771

01_FCC15.209_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
281.880000	16.7	1000.0	120.000	368.0	H	247.0	90.0	14.7	29.30

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
281.880000	46.00	

EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Positioning Speed = 5
- Polarization: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Elevation: Adjustment with full Range , Measuring Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.19x

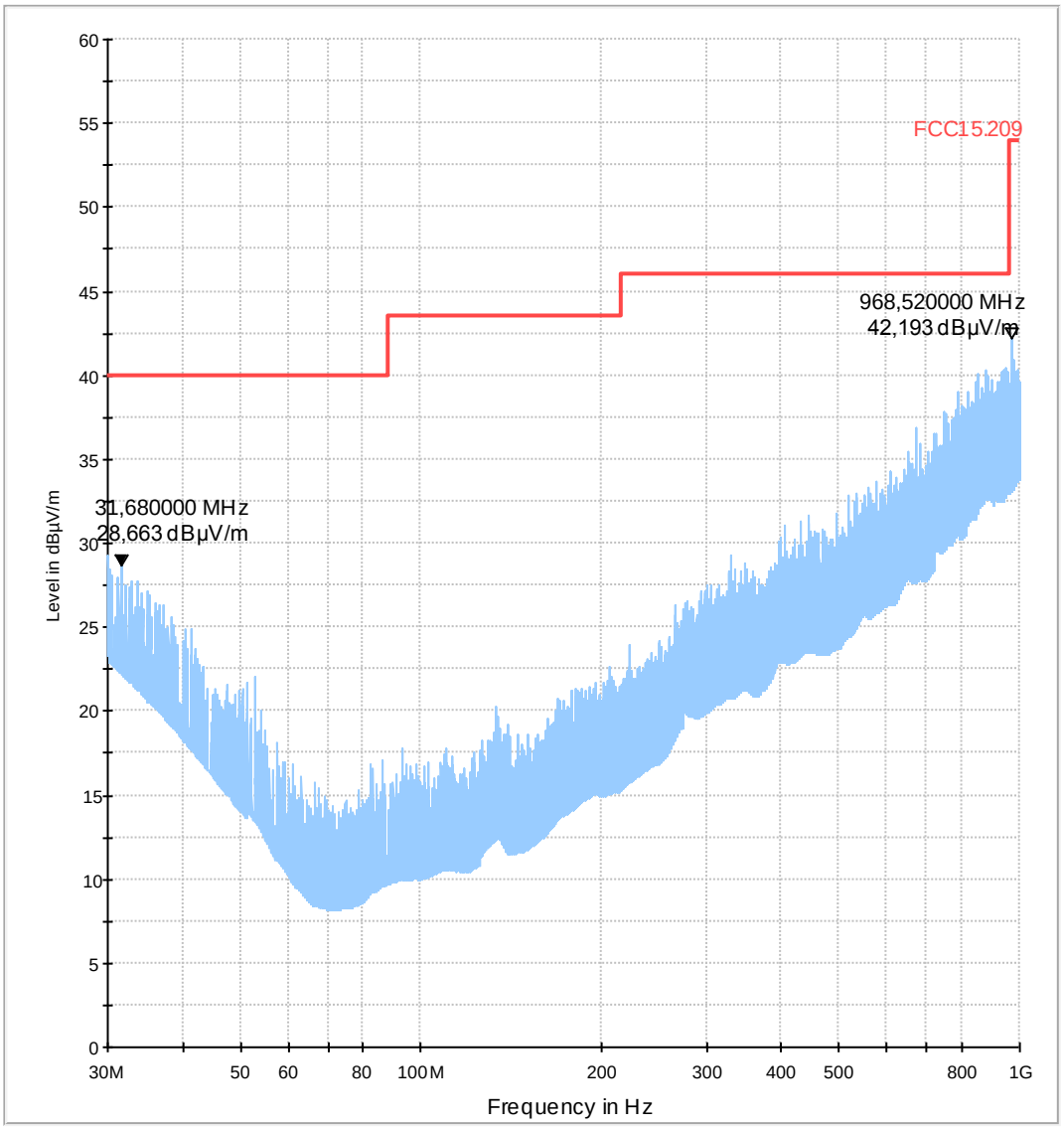
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on 9MBit (g-Mode)
Power during tests:	full battery
Comment 1:	Channel low=1

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#1)

01_FCC15.209_hor+vert_KP0



EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.20x

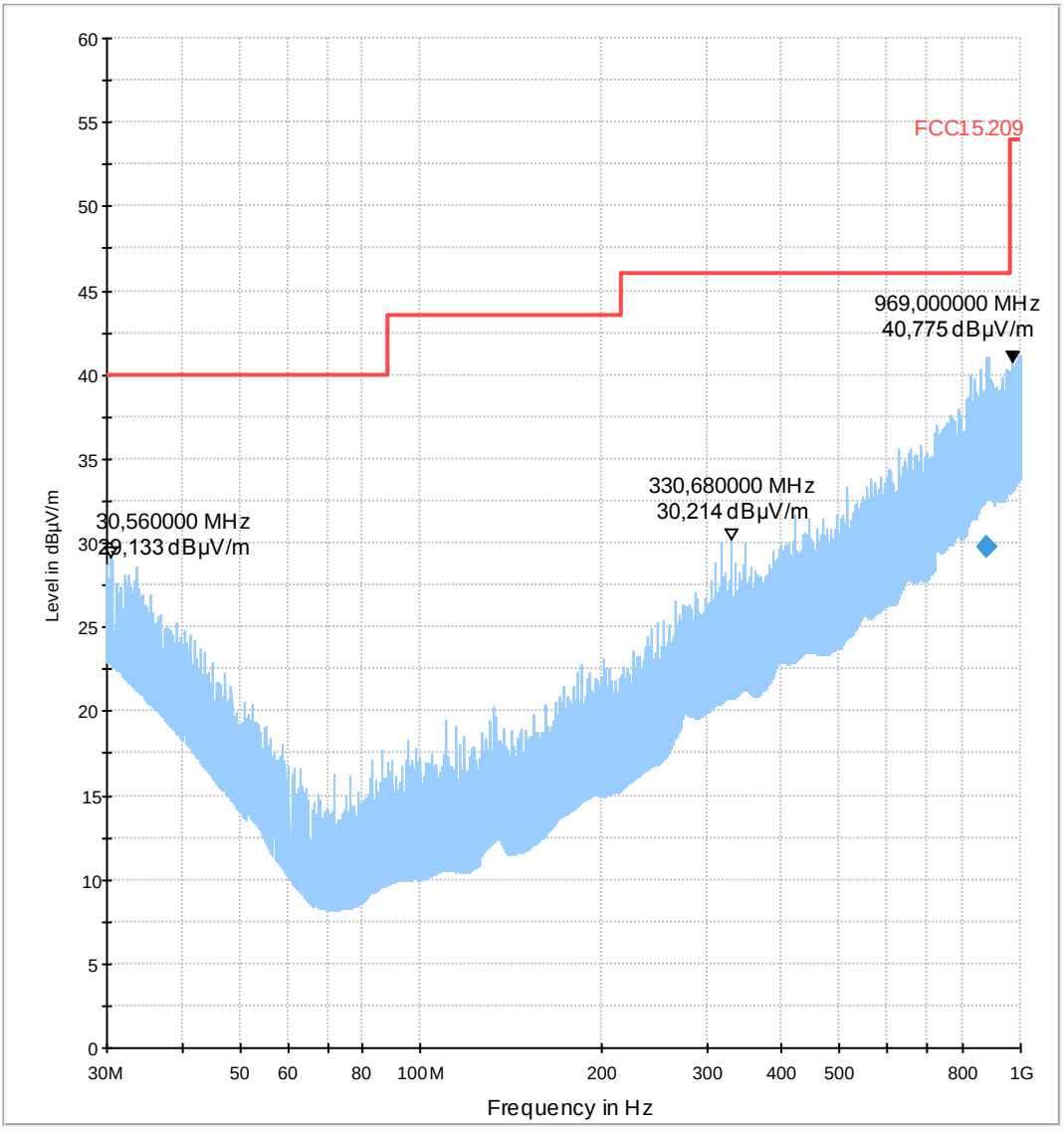
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on 9MBit (g-Mode)
Power during tests:	full battery
Comment 1:	Channel middle=6

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#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)	Comment
876.160000	**29.8**	**1000.0**	**120.000**	**293.0**	**H**	**253.0**	**26.2**	**16.20**	**46.00**	

EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

1.6.2.3. Radiated field strength (30MHz < f < 1GHz), n-Mode MCS0 short guard mode

Diagram No. a_2.16x

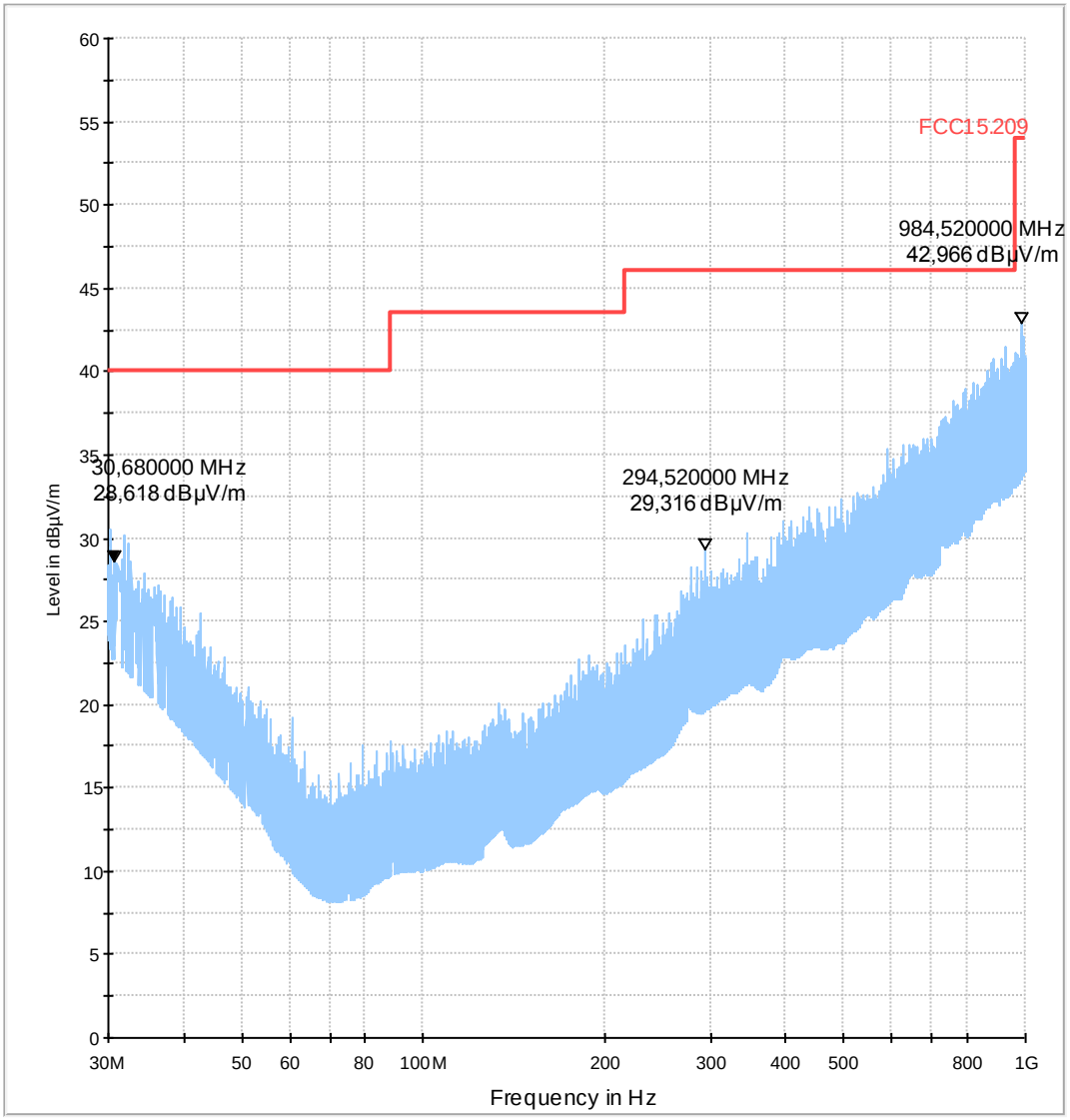
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Lor/Oou
Operating conditions:	TX-on MCS0_S (n-Mode)
Power during tests:	full battery
Comment 1:	Channel low=1

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857

01_FCC15.209_hor+vert_kipp



EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Positioning Speed = 5
- Polarization: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Elevation: Adjustment with full Range , Measuring Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.21x

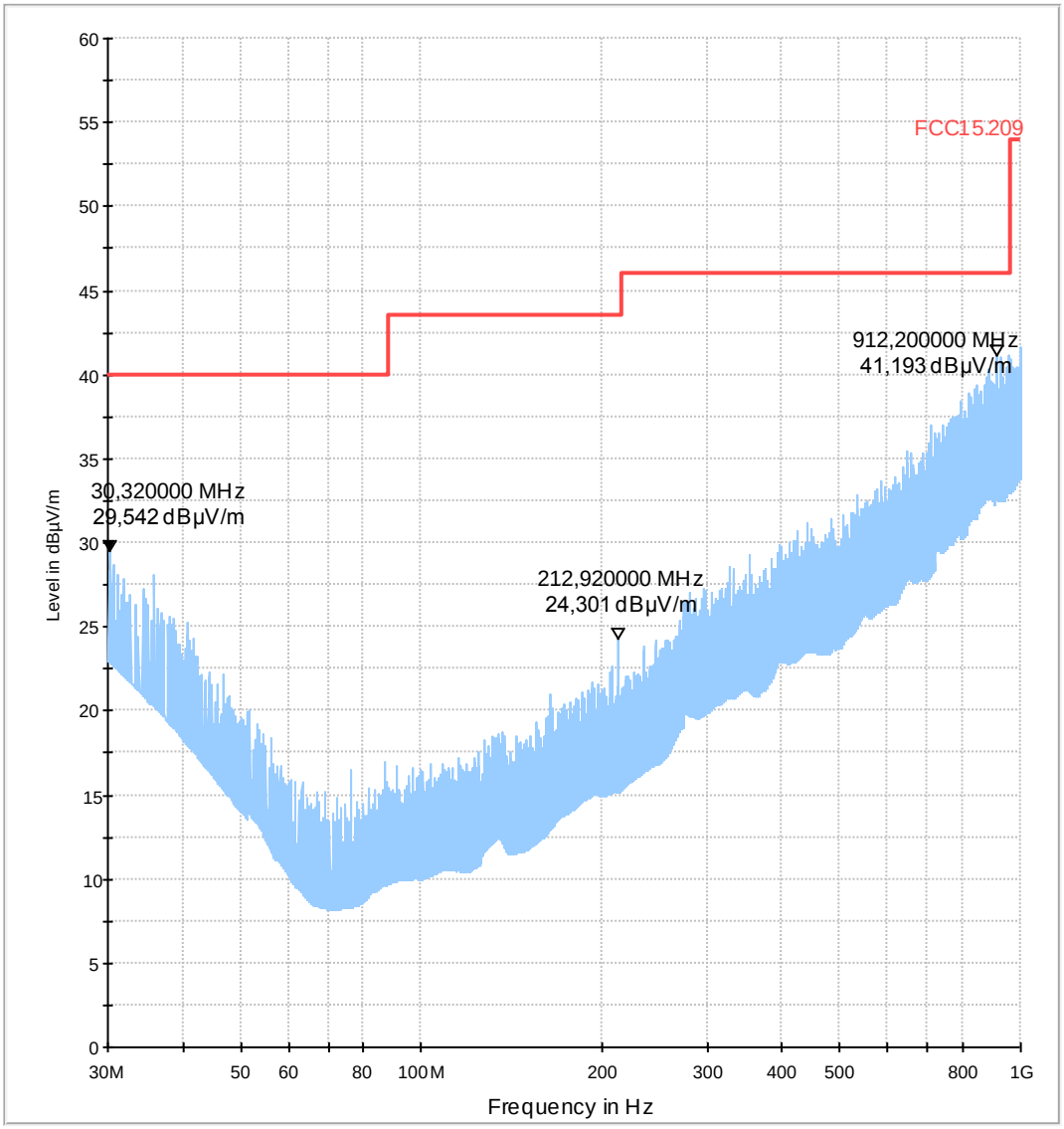
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on MCS0_S (n-Mode)
Power during tests:	full battery
Comment 1:	Channel high=11

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#1)

01_FCC15.209_hor+vert_KP0



EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

Diagram No. a_2.22x

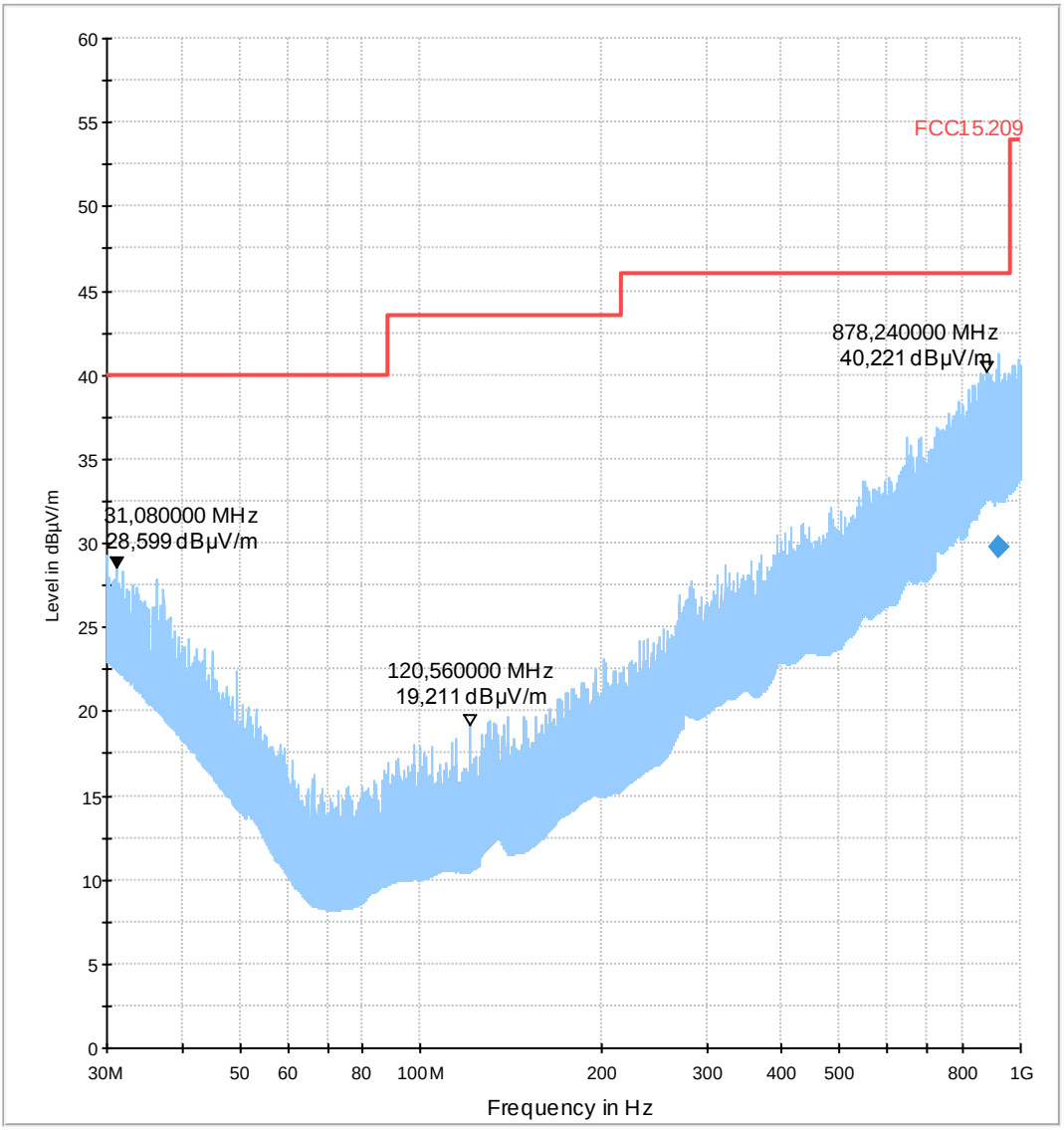
Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX-on MCS0_S (n-Mode)
Power during tests:	full battery
Comment 1:	Channel middle=6

EUT Information

EUT Name:	ADD-3880112-BV
Manufacturer:	SEM
Comment:	#19857 (WLAN rad#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)	Comment
917.170000	**29.7**	**1000.0**	**120.000**	**283.0**	**H**	**227.0**	**26.5**	**16.30**	**46.00**	

EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: Open-Area-Test-Site
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Antenna height: 100 - 182 cm , Step Size = 82 cm , Positioning Speed = 8
- Polarization: H + V
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Antenna height: Adjustment with full Range , Measuring Speed = 8
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

1.6.3. Radiated field strength (1GHz < f < 18GHz)

1.6.3.1. Radiated field strength (f > 1GHz), b-Mode 2MBit

Diagram No.: a_2.01x

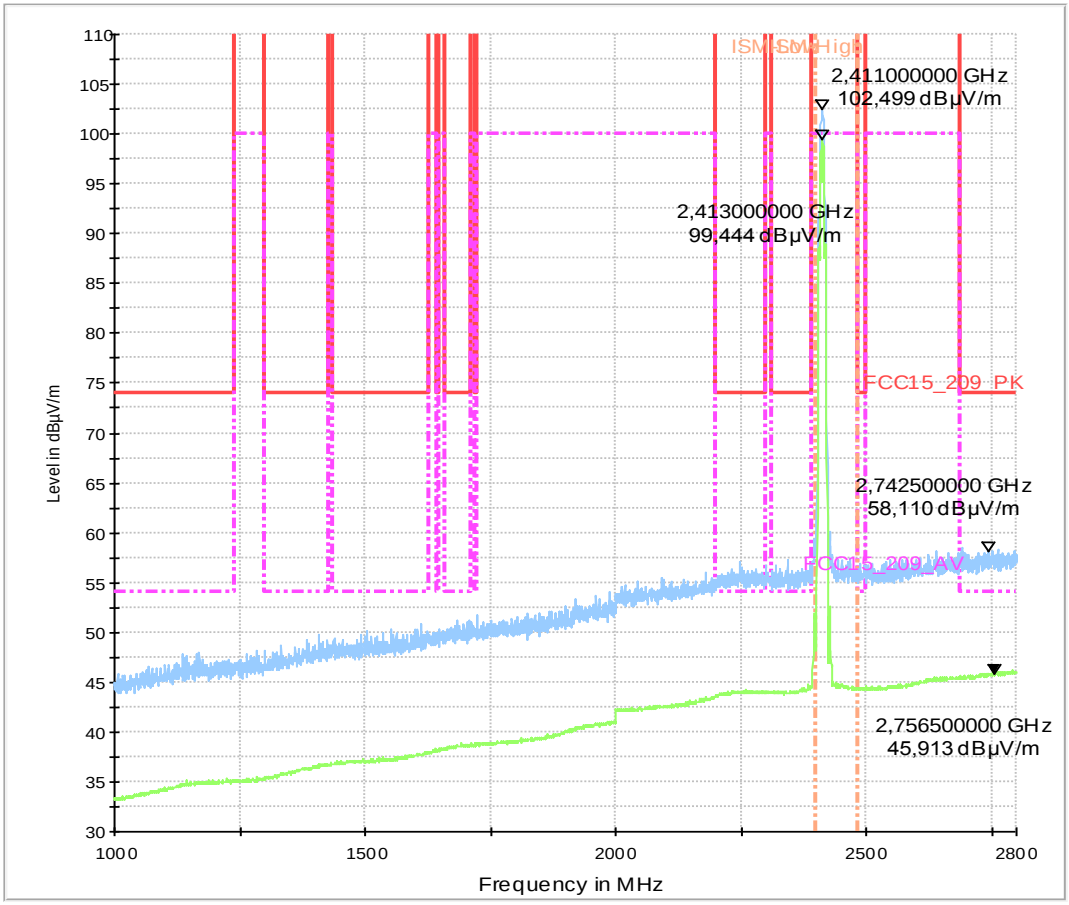
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
EUT pos.:	Horizontal (worst-case)
Operator Name:	Tas
Comment:	Channel no. low= 1
Op. Mode:	WLAN, b-Mode, 2 MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep1_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep1_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA0_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	30 dBµV/m - 110 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Limit Line #3:	ISM-Low
Limit Line #4:	ISM-High
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_zoom
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ??"

Diagram No.: a_2.02x

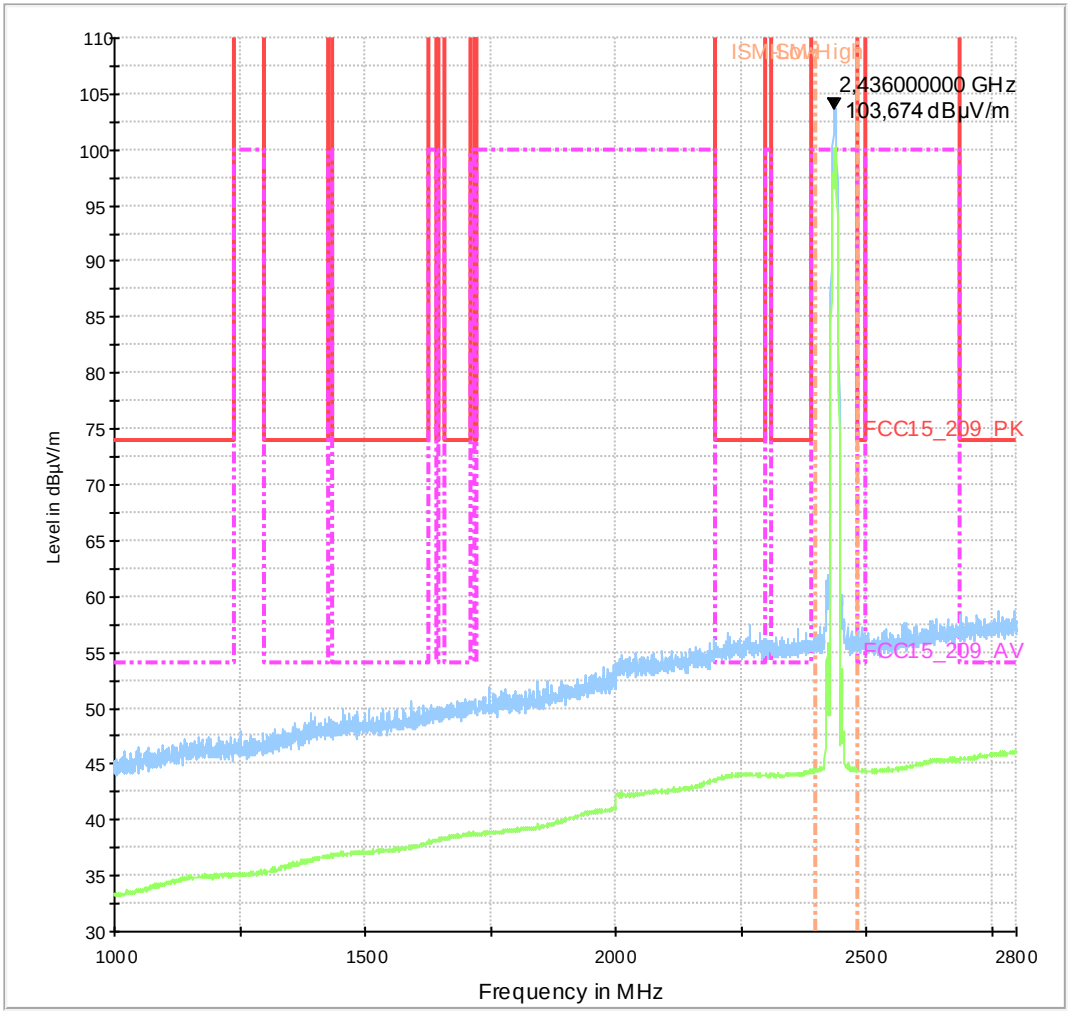
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Tas
Comment:	Channel no. middle= 6
Op. Mode:	WLAN, b-Mode, 2 MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep1_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep1_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA0_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	30 dBµV/m - 110 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Limit Line #3:	ISM-Low
Limit Line #4:	ISM-High
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_zoom
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ??"

Diagram No.: a_2.03x

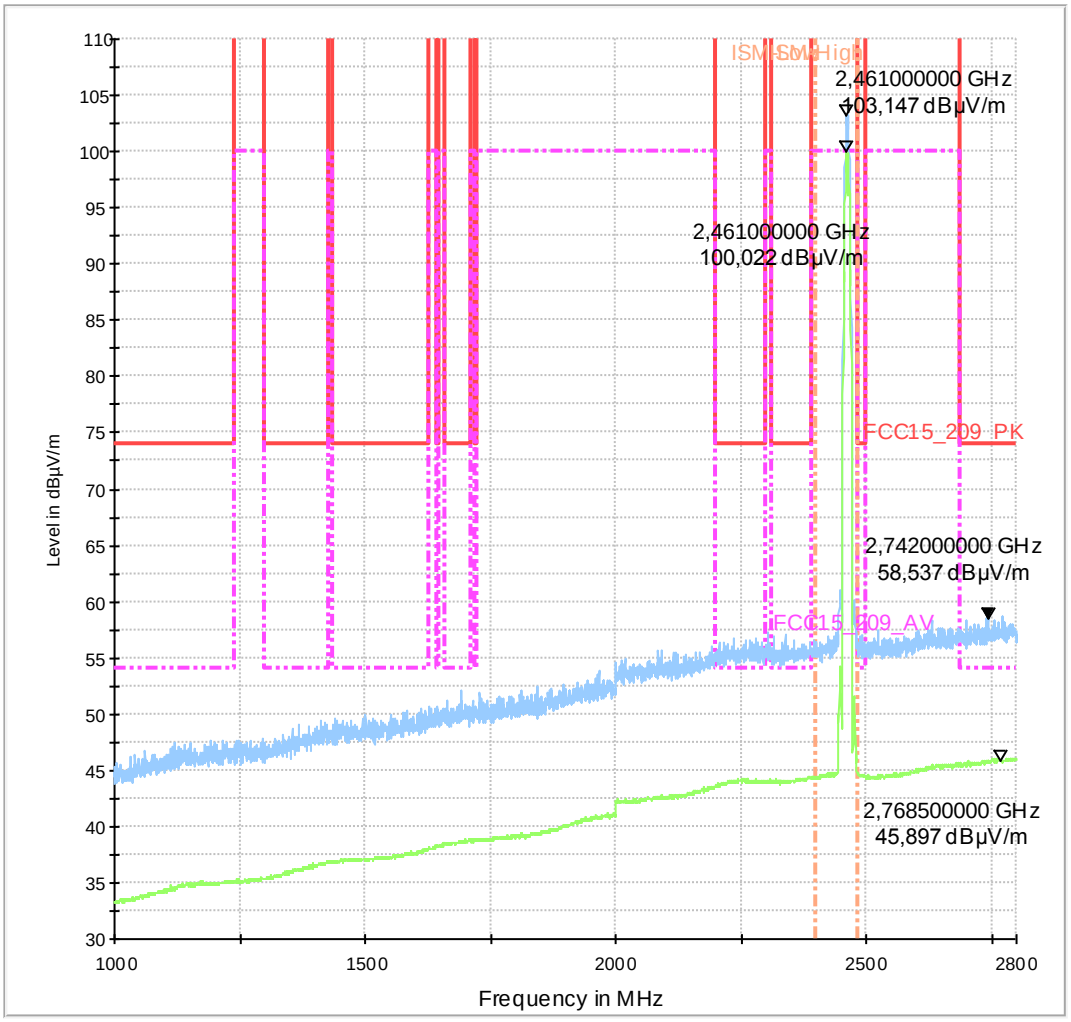
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
EUT Pos:	Horizontal (worst-case)
Operator Name:	Tas
Comment:	Channel no. high=11
Op. Mode:	WLAN, b-Mode, 2 MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep1_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep1_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA0_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	30 dBµV/m - 110 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Limit Line #3:	ISM-Low
Limit Line #4:	ISM-High
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_zoom
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ??"

Diagram No.: a_2.04x

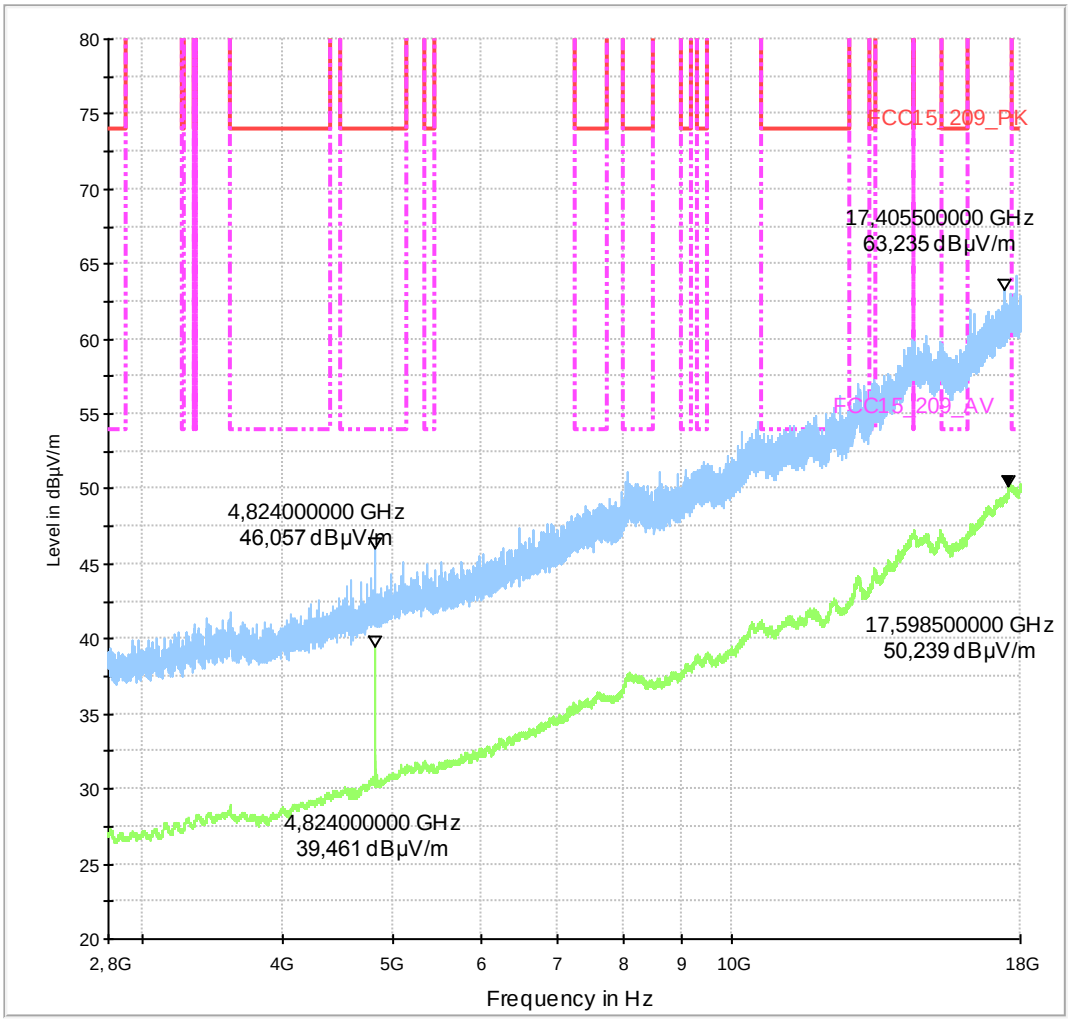
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
EUt pos.:	Horizontal (worst-case)
Operator Name:	Tas
Comment:	Channel no. low= 1
Op. Mode:	WLAN, b-Mode, 2 MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep2_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep2_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2,8 GHz - 18 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep2_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-20 dB
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep2_zoom
Adjustment:	
Template for Single Meas.:	Sweep2_zoom
Final Measurements:	
Template for Single Meas.:	Sweep2_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Create Electronic Report:	RTF PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: a_2.05x

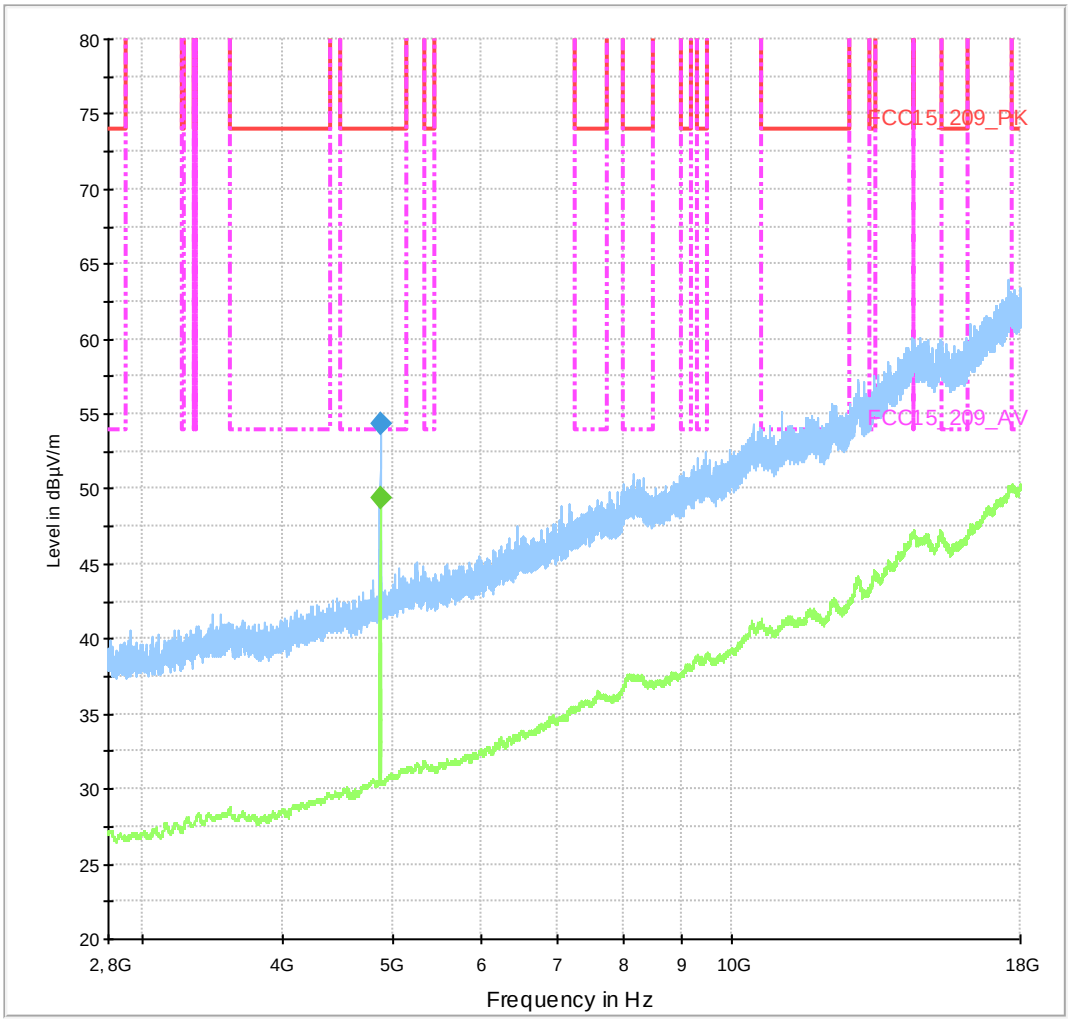
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Tas
Comment:	Channel no. middle= 6
Op. Mode:	WLAN, b-Mode, 2 MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep2_SM1_KP1_WLAN_1_5ms



Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
4874.000000	54.4	100.0	1000.000	155.0	H	136.0	90.0	2.9	19.6

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m	Comment
4874.000000	74.0	

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
4874.000000	49.5	100.0	1000.000	155.0	H	133.0	90.0	2.9	4.5

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m	Comment
4874.000000	54.0	

EMI Auto Test Template: Sweep2_SM1_KP1_WLAN_1_5ms

Hardware Setup: 549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type: E(I)RP
Frequency Range: 2,8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: Sweep2_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 50 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 10
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: Sweep2_zoom

Adjustment:
- Template for Single Meas.: Sweep2_zoom

Final Measurements:
- Template for Single Meas.: Sweep2_fin

Report Settings:
- Report Template: Report Setup FCC 15_247
- Create Electronic Report: RTF PDF
- Document Name: dummy EMI Report

Actions:
- Test start
  - Notify: "Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: a_2.06x

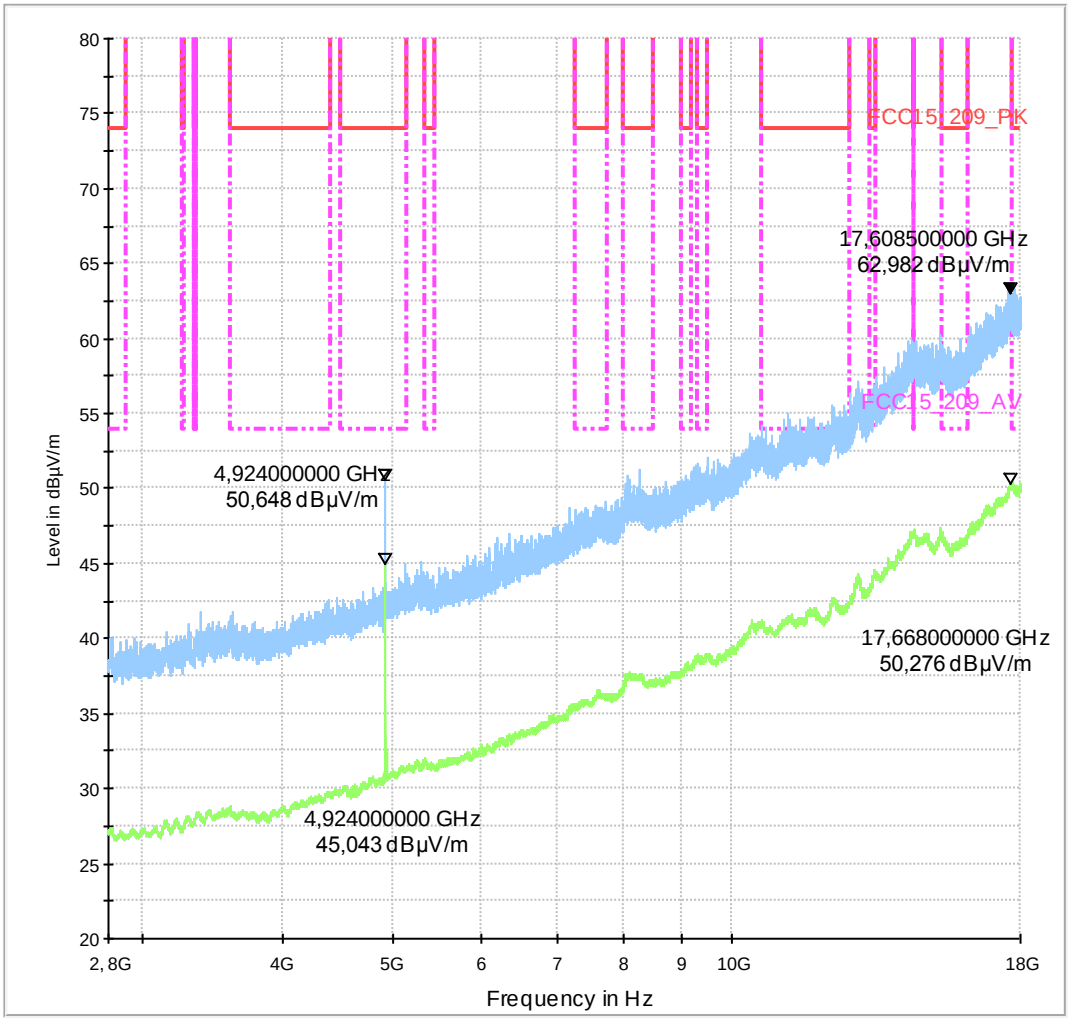
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Tas
Comment:	Channel no. high=11
Op. Mode:	WLAN, b-Mode, 2 MBit
IMEI:	00440214-249956-9

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology

Sweep2_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep2_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2,8 GHz - 18 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep2_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-20 dB
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep2_zoom
Adjustment:	
Template for Single Meas.:	Sweep2_zoom
Final Measurements:	
Template for Single Meas.:	Sweep2_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Create Electronic Report:	RTF PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

1.6.3.2. Radiated field strength (f > 1GHz), g-Mode, 9MBit

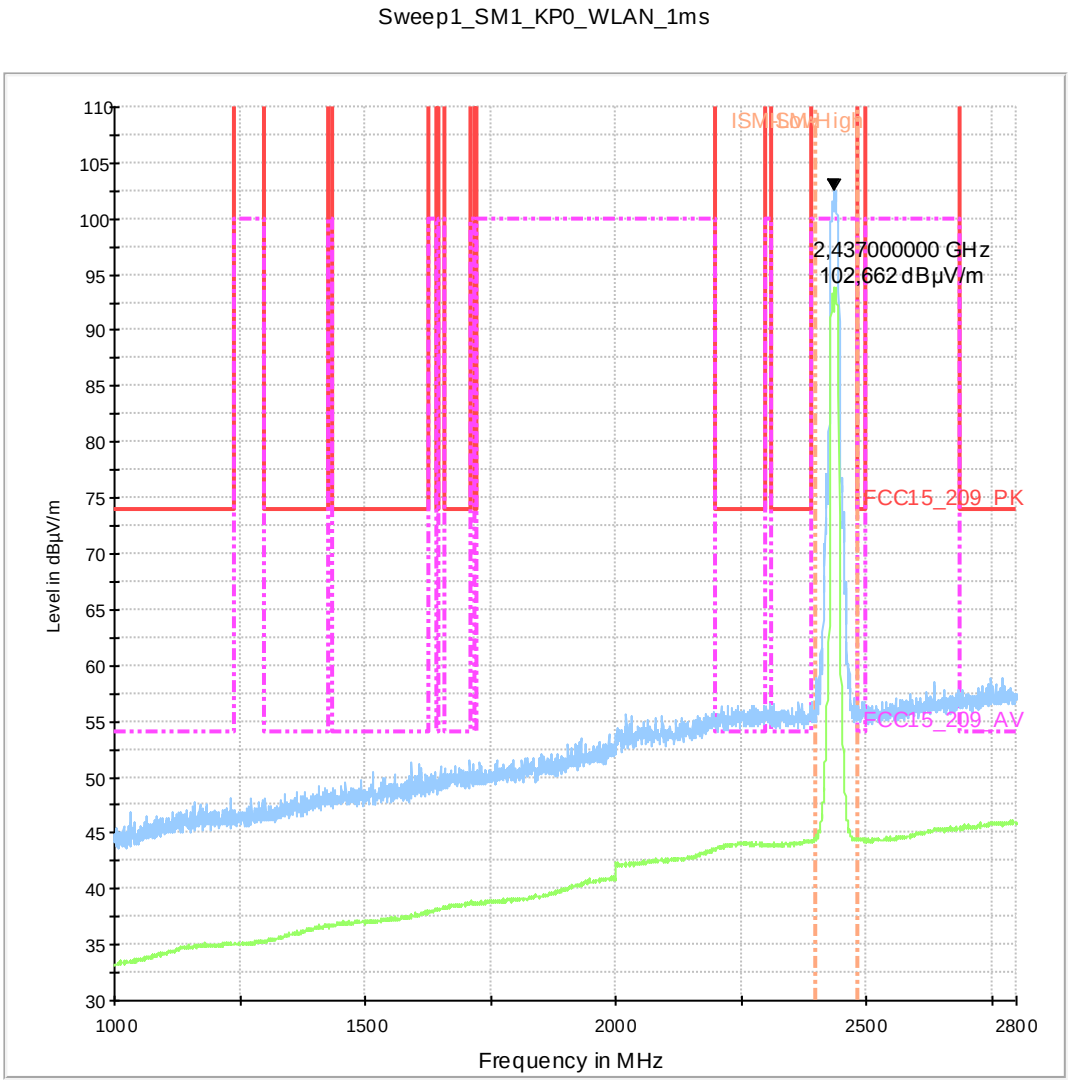
Diagram No.: a_2.07x

Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Lor
Comment:	Channel no. middle= 6
Op. Mode:	WLAN, g-Mode, 9MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9



EMI Auto Test Template: Sweep1_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA0_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	30 dBµV/m - 110 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Limit Line #3:	ISM-Low
Limit Line #4:	ISM-High
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_zoom
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ??"

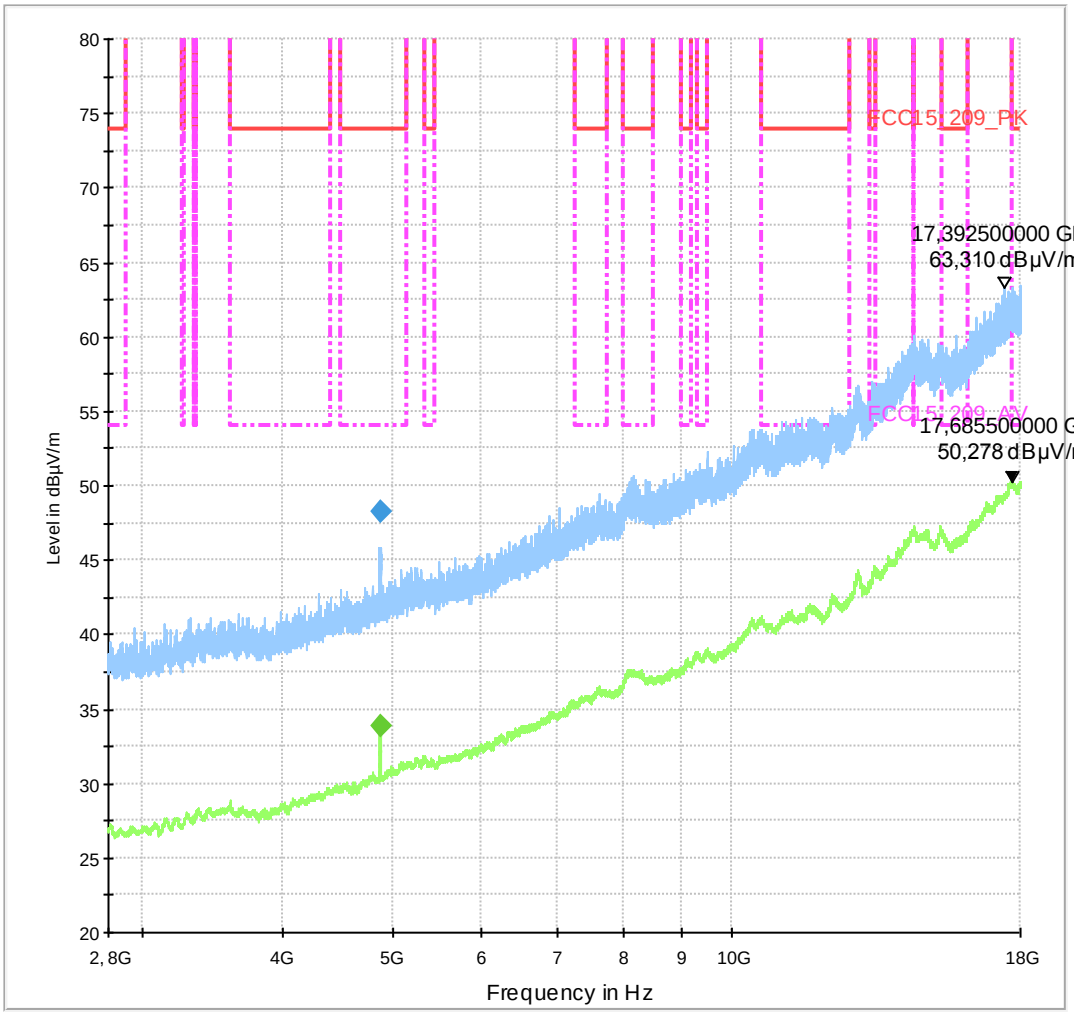
Diagram No.: a_2.08x

Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Lor
Comment:	Channel no. middle= 6
Op. Mode:	WLAN, g-Mode, 9MBit

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9



Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4873.600000	48.3	100.0	1000.000	155.0	V	111.0	2.9	25.7	74.0

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Comment
4873.600000	

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4875.200000	33.8	100.0	1000.000	155.0	V	92.0	2.9	20.2	54.0

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
4875.200000	

EMI Auto Test Template: Sweep2_SM1_KP0_WLAN_1ms

Hardware Setup: 549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type: Open-Area-Test-Site
Frequency Range: 2,8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: Sweep2_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 50 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 10
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: Sweep2_zoom

Adjustment:
- Template for Single Meas.: Sweep2_zoom

Final Measurements:
- Template for Single Meas.: Sweep2_fin

Report Settings:
- Report Template: Report Setup FCC 15_247
- Create Electronic Report: RTF PDF
- Document Name: dummy EMI Report

Actions:
- Test start
  - Notify: "Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

1.6.3.3. Radiated field strength (f > 1GHz), n-Mode MCS0 long guard mode

Diagram No.: a_2.09x

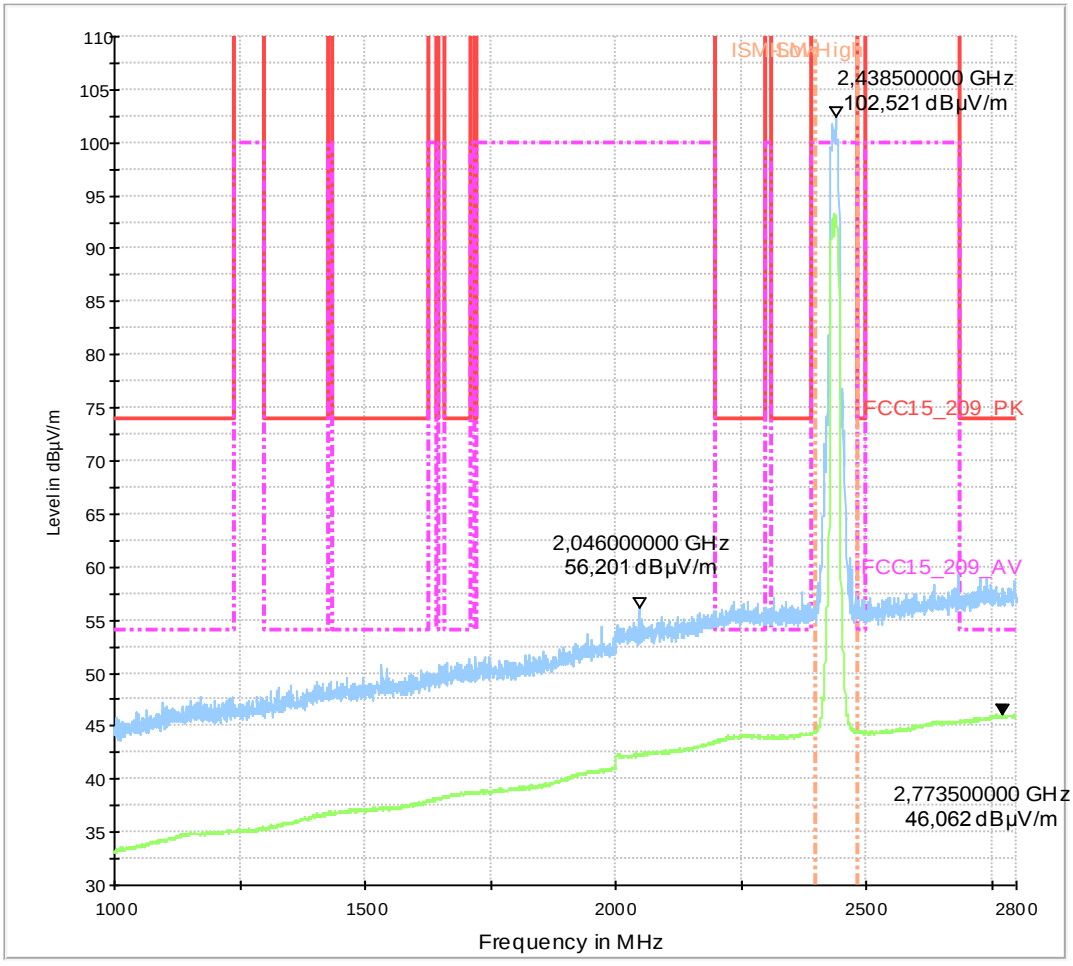
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Lor
Comment:	Channel no. middle= 6
Op. Mode:	WLAN, n-Mode, MCS0-Long

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep1_SM1_KP0_WLAN_1ms



EMI Auto Test Template: Sweep1_SM1_KP0_WLAN_1ms

Hardware Setup:	549_dBuVm_PA0_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	30 dBµV/m - 110 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Limit Line #3:	ISM-Low
Limit Line #4:	ISM-High
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Maximum Number of Results:	10
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_zoom
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_247
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ??"

Diagram No.: a_2.10x

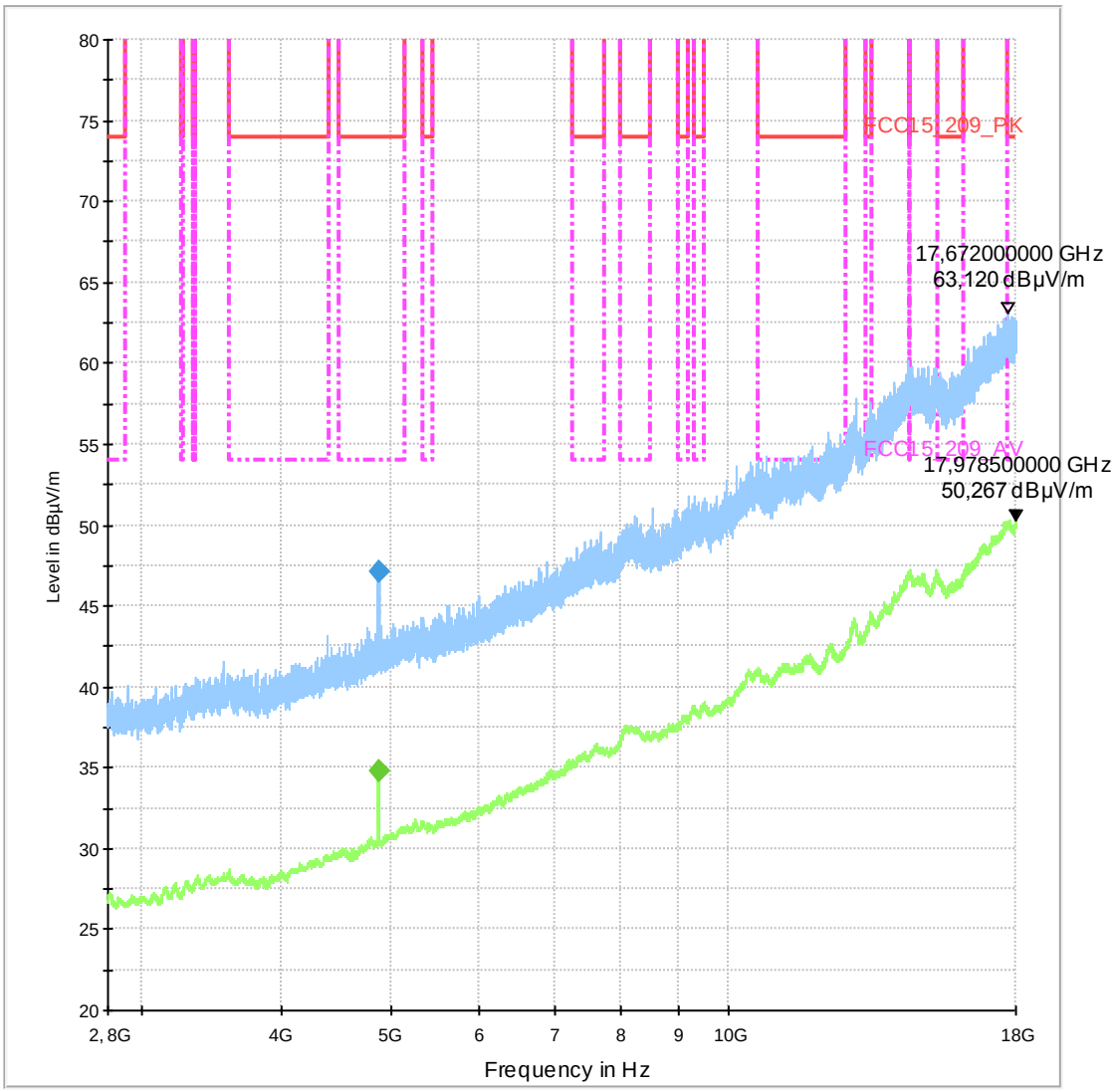
Common Information

Test Description:	Radiated field strength emission accord. §15.247 in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 &15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	Lor
Comment:	Channel no. middle=6
Op. Mode:	WLAN n, MCS0_long

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9

Sweep2_SM1_KP0_WLAN_1ms



Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4877.600000	47.2	100.0	1000.000	155.0	V	206.0	2.9	26.8	74.0

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Comment
4877.600000	

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4875.400000	34.8	100.0	1000.000	155.0	V	95.0	2.9	19.2	54.0

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
4875.400000	

EMI Auto Test Template: Sweep2_SM1_KP0_WLAN_1ms

Hardware Setup: 549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type: Open-Area-Test-Site
Frequency Range: 2,8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: Sweep2_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 50 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 10
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: Sweep2_zoom

Adjustment:
- Template for Single Meas.: Sweep2_zoom

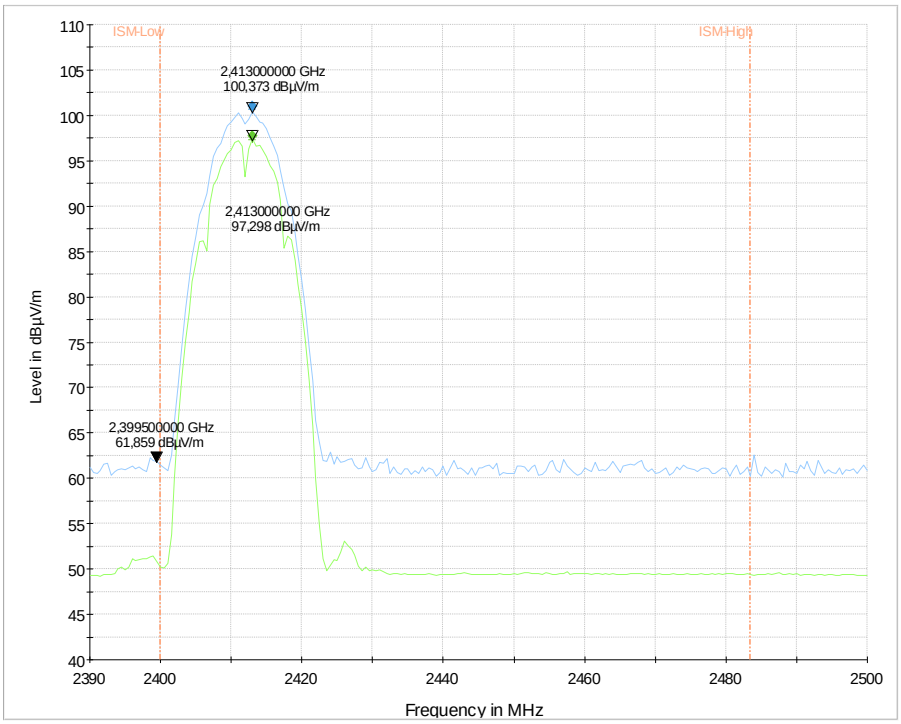
Final Measurements:
- Template for Single Meas.: Sweep2_fin

Report Settings:
- Report Template: Report Setup FCC 15_247
- Create Electronic Report: RTF PDF
- Document Name: dummy EMI Report

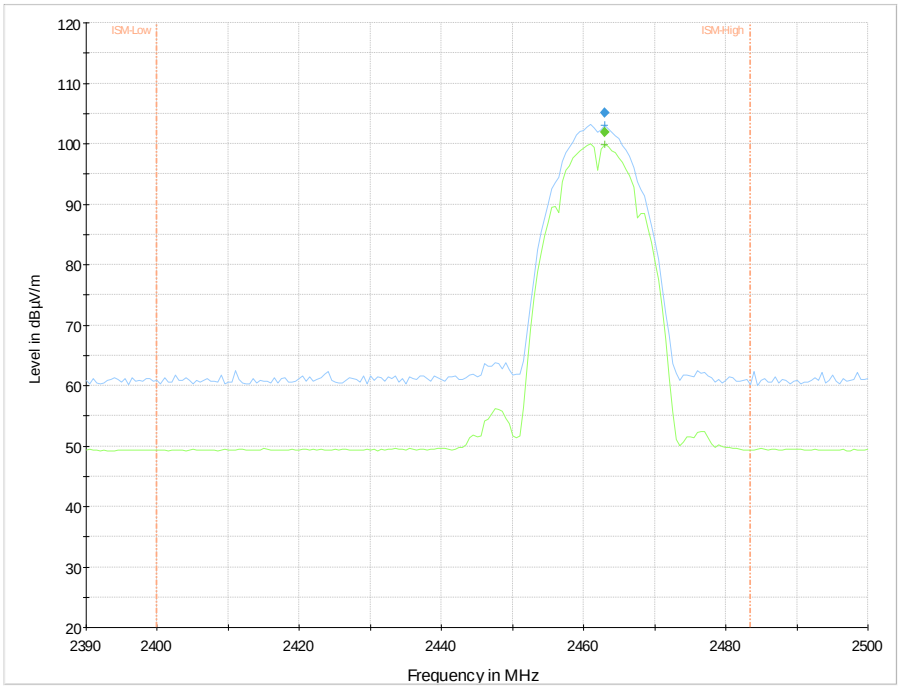
Actions:
- Test start
  - Notify: "Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

1.6.4. Carrier radiated field strength in 3m distance and band-edge compliance radiated according FCC §15.205& §15.209

1.6.4.1. b-Mode, 2Mbit

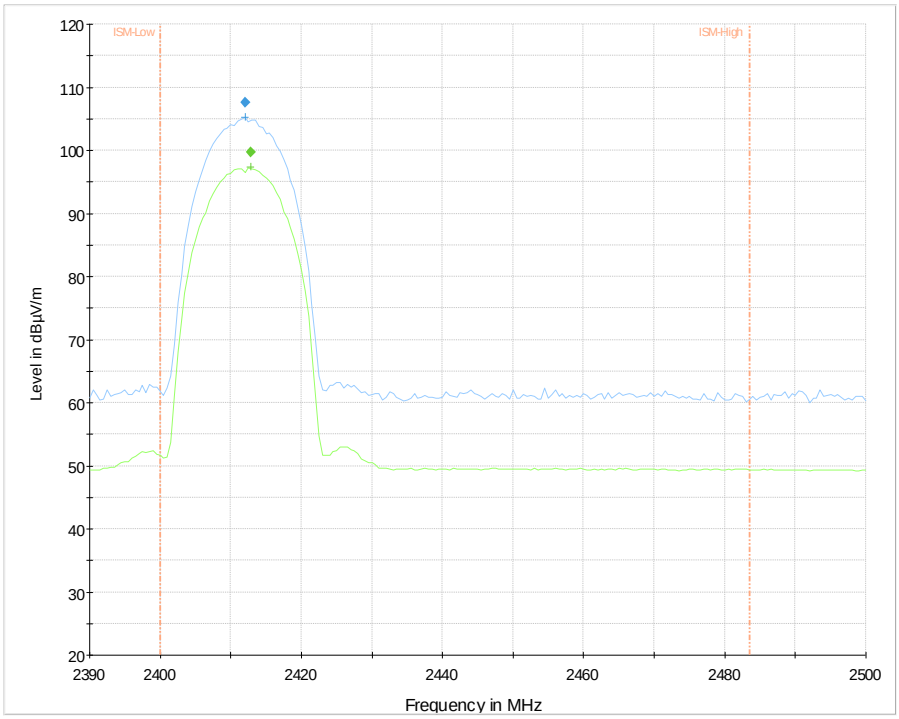


Band-Edge left & Carrier field strength

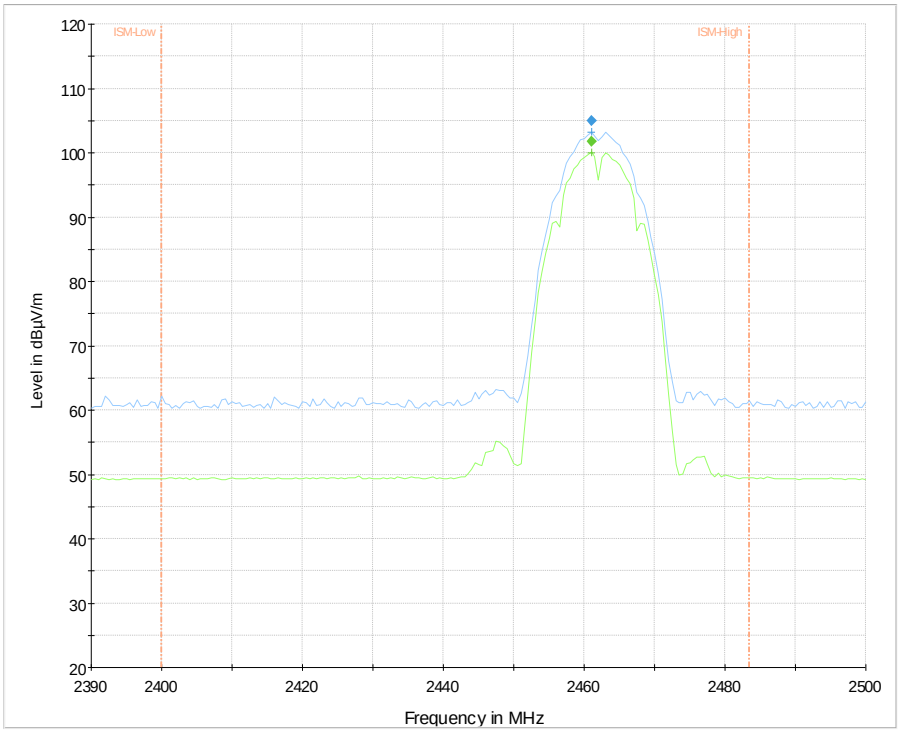


Band-Edge right & Carrier field strength

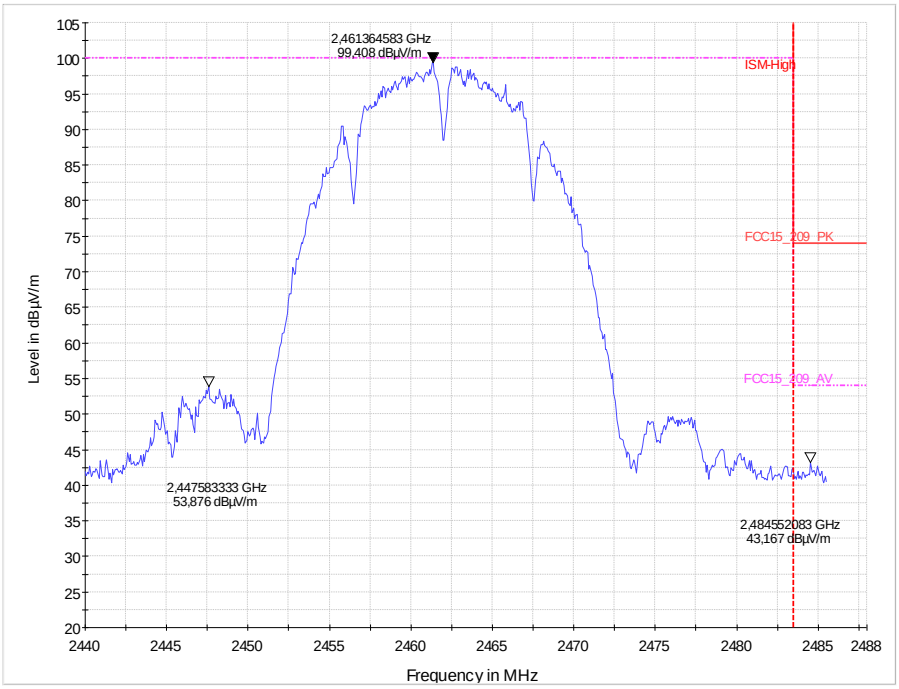
1.6.4.2. b-Mode, 11Mbit



Band-Edge left & carrier field strength, channel 1

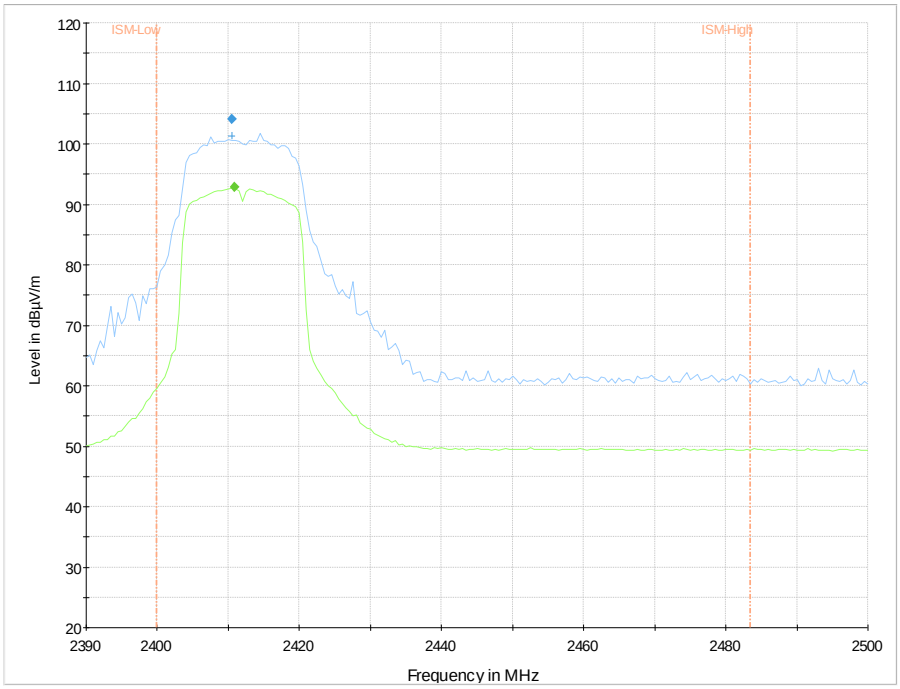


Band-Edge right, Step 1 & carrier field strength, channel 11

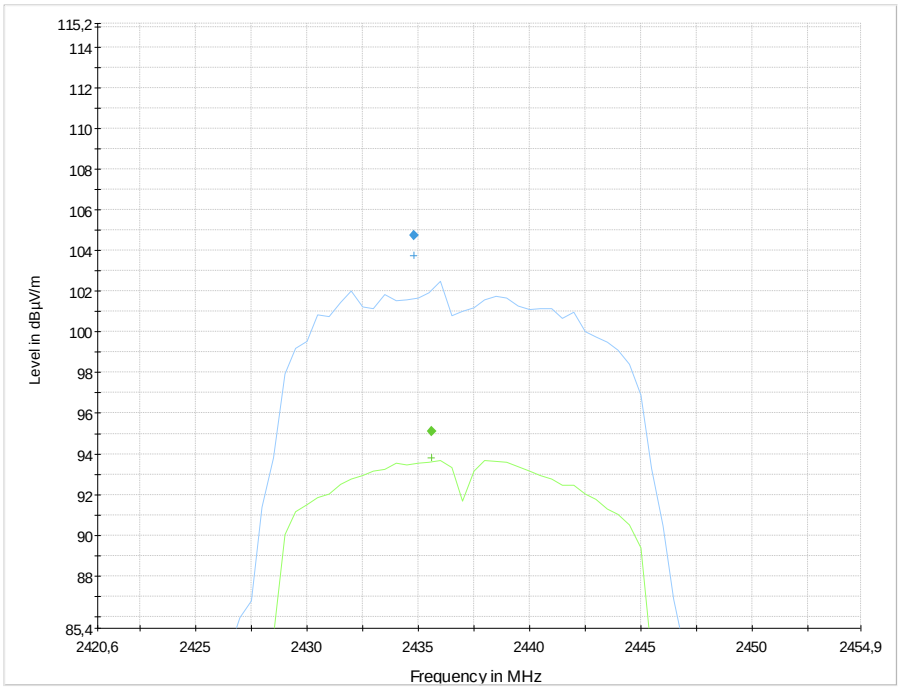


Band-Edge right, Step 2, channel 11

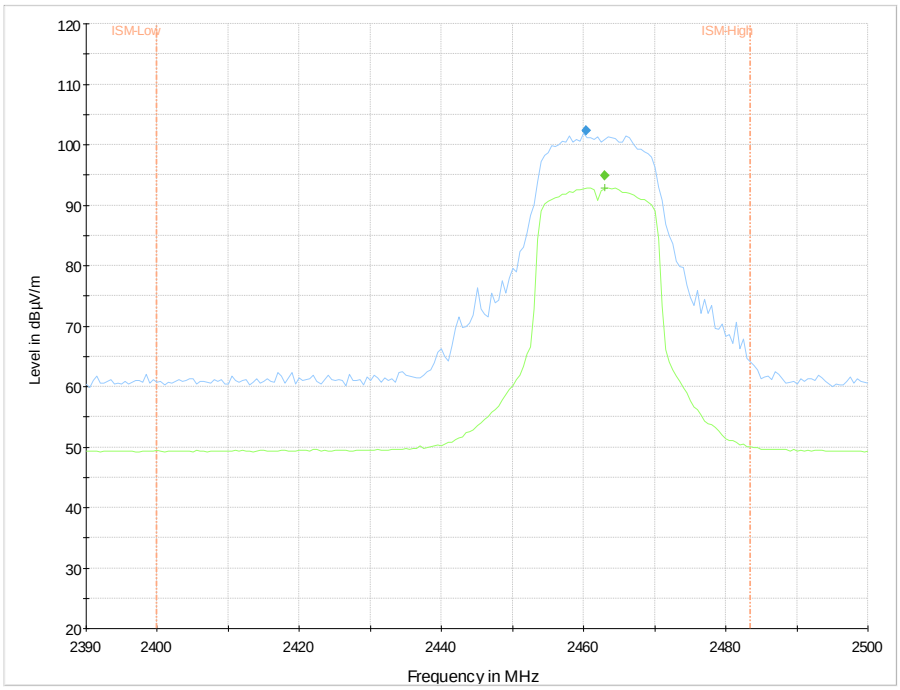
1.6.4.3. Carrier radiated field strength (f > 1GHz), g-Mode, 9MBit



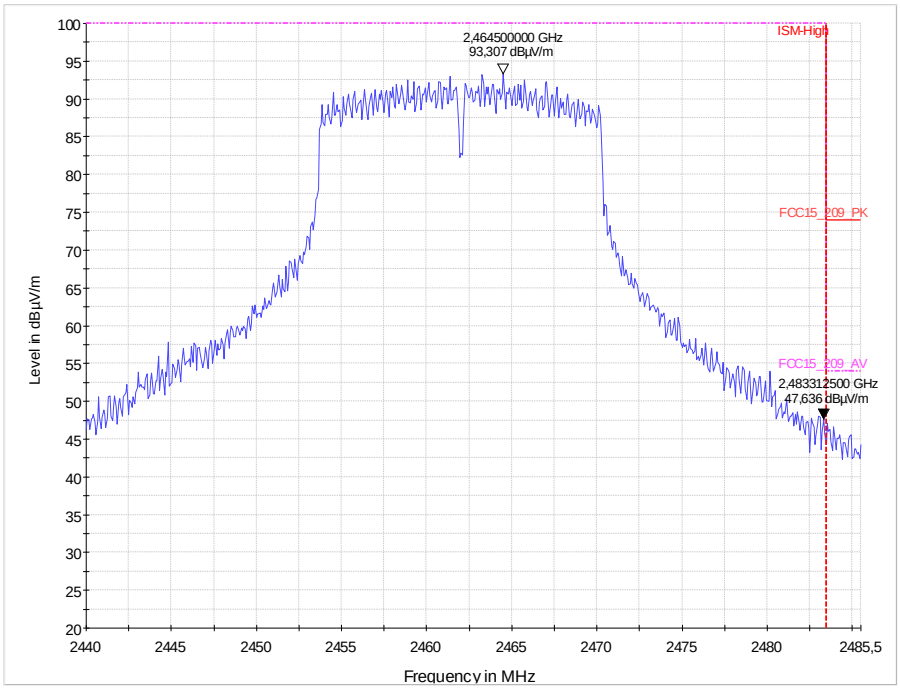
Band-Edge left & carrier field strength, channel 1



Carrier field strength, channel 6

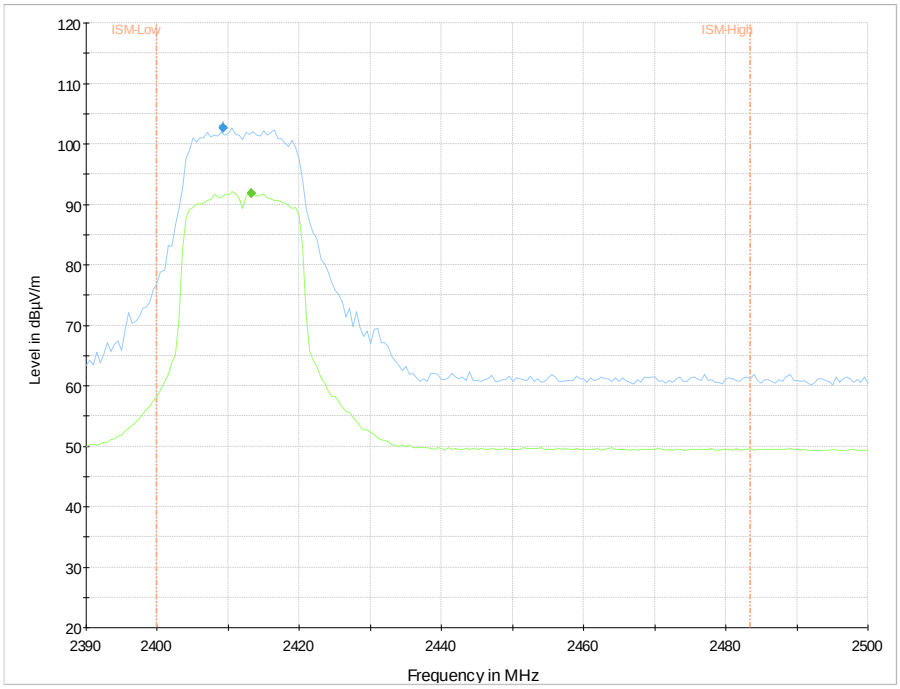


Band-Edge right & carrier field strength, step 1, channel 11

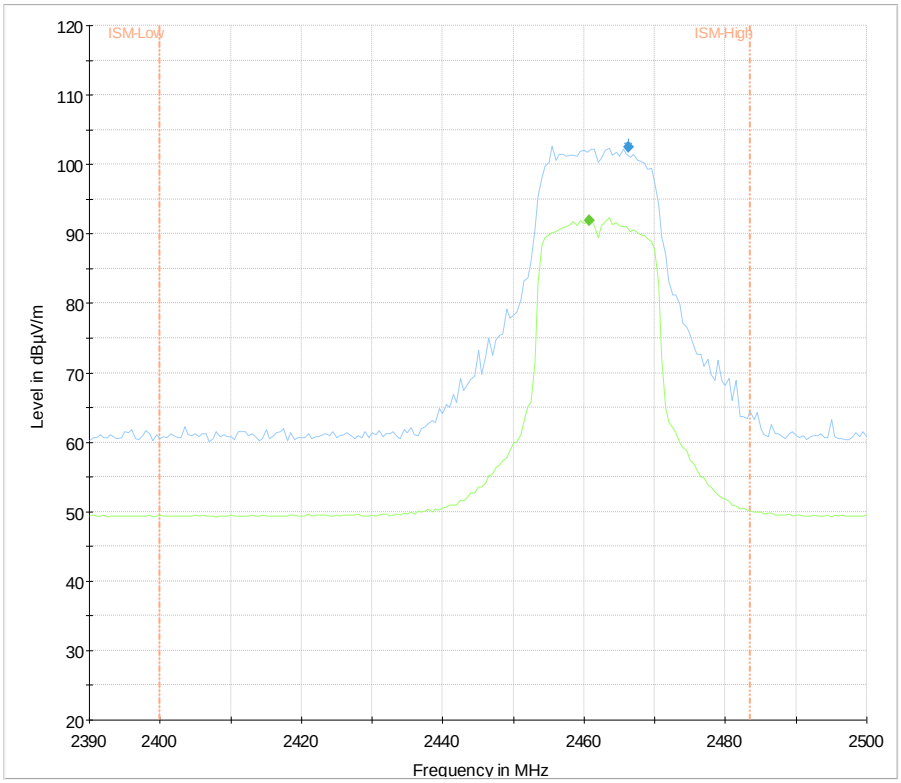


Band-Edge right, Step 2, channel 11

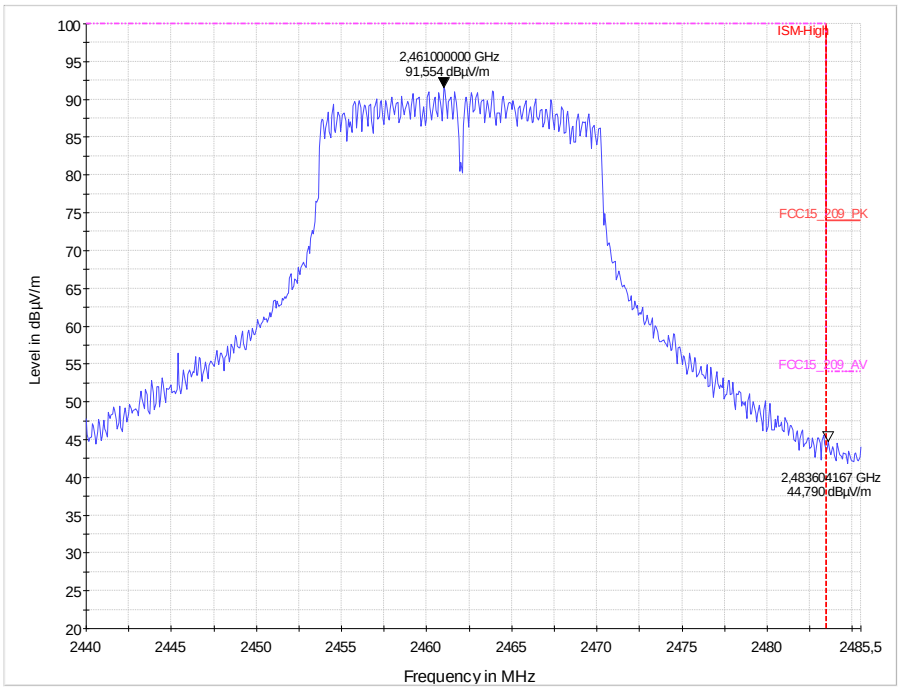
1.6.4.4. Carrier radiated field strength (f > 1GHz), g-Mode, 54MBit



Band-Edge left & carrier field strength, channel 1

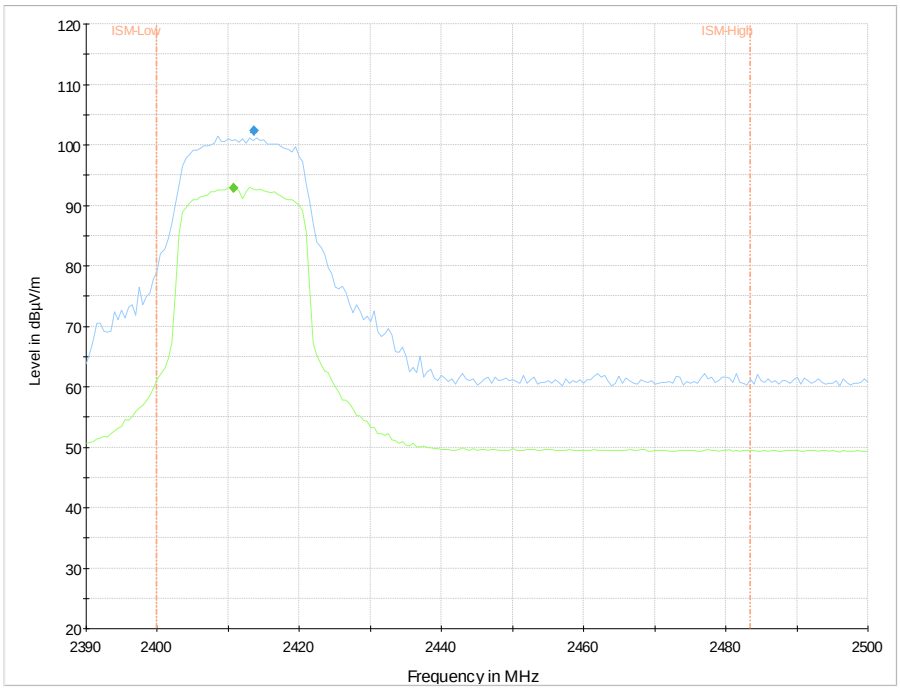


Band-Edge right & carrier field strength, step 1, channel 11

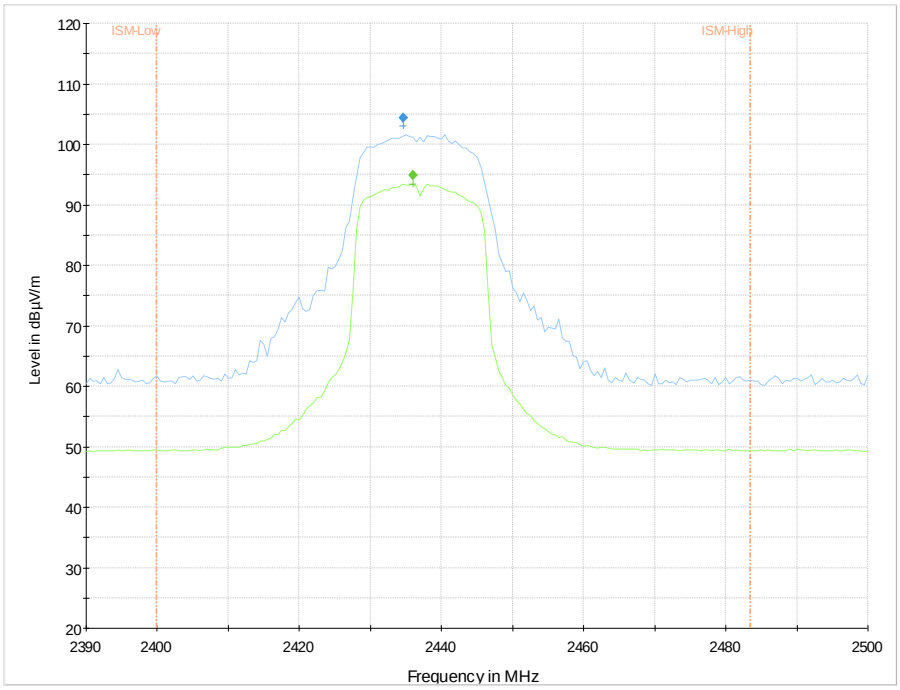


Band-Edge right step 2, channel 11

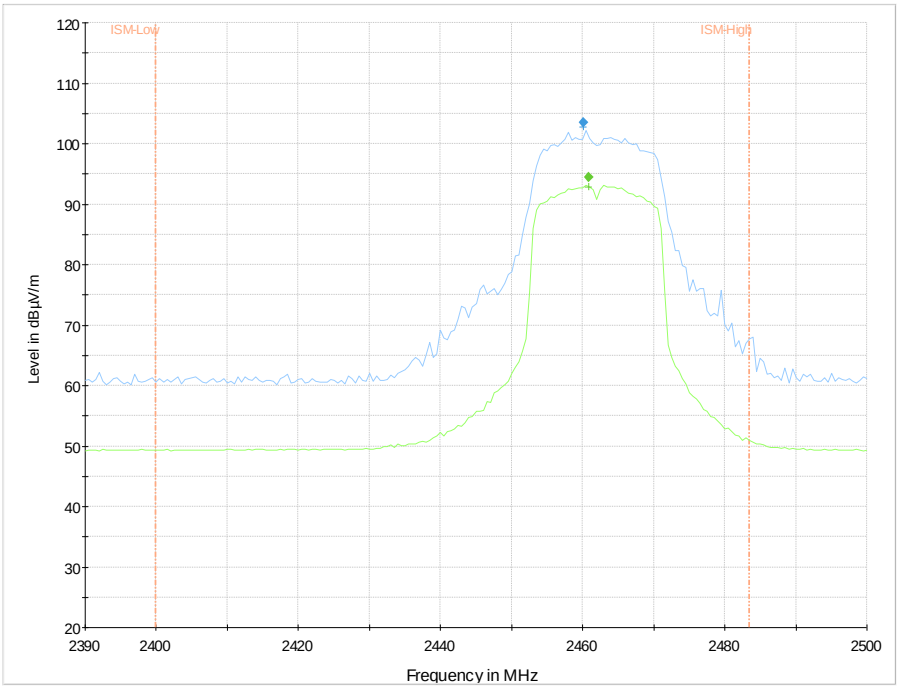
1.6.4.5. n-Mode MCS0 long guard mode



Carrier field strength & Band-Edge left, Channel 1

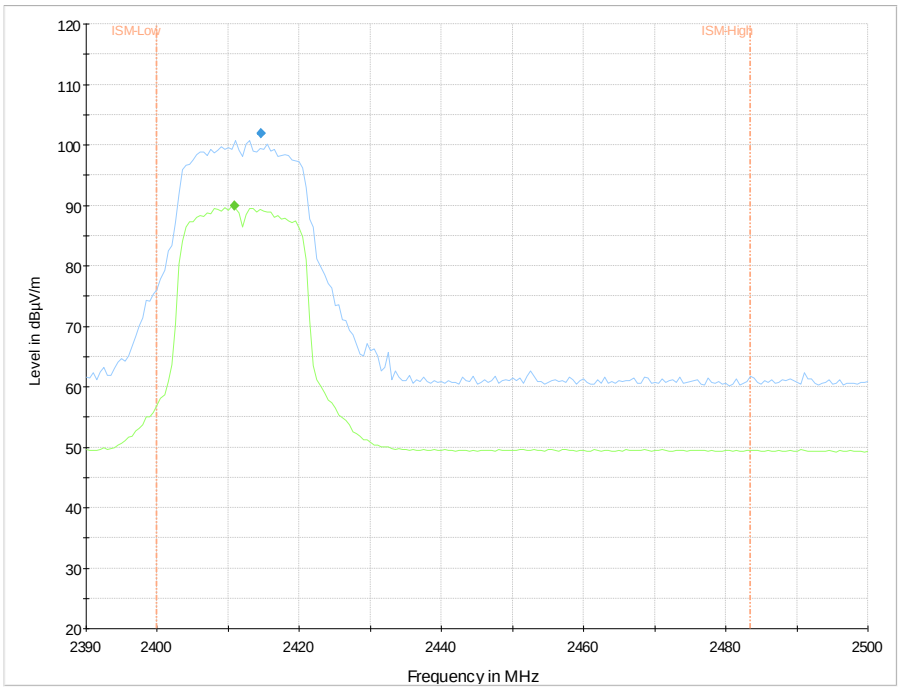


Carrier field strength Channel 6

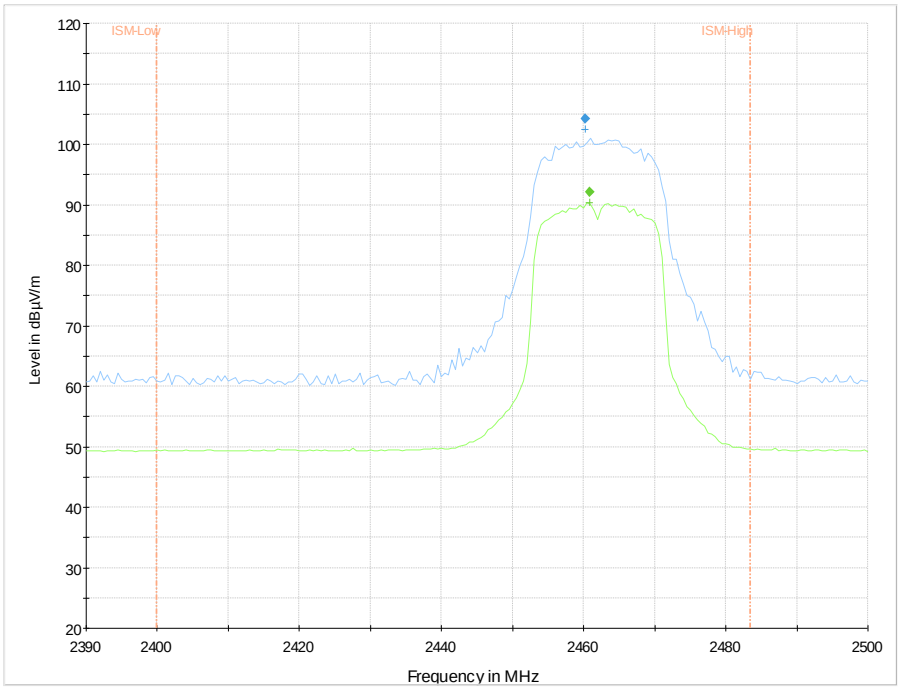


Carrier field strength Channel 11

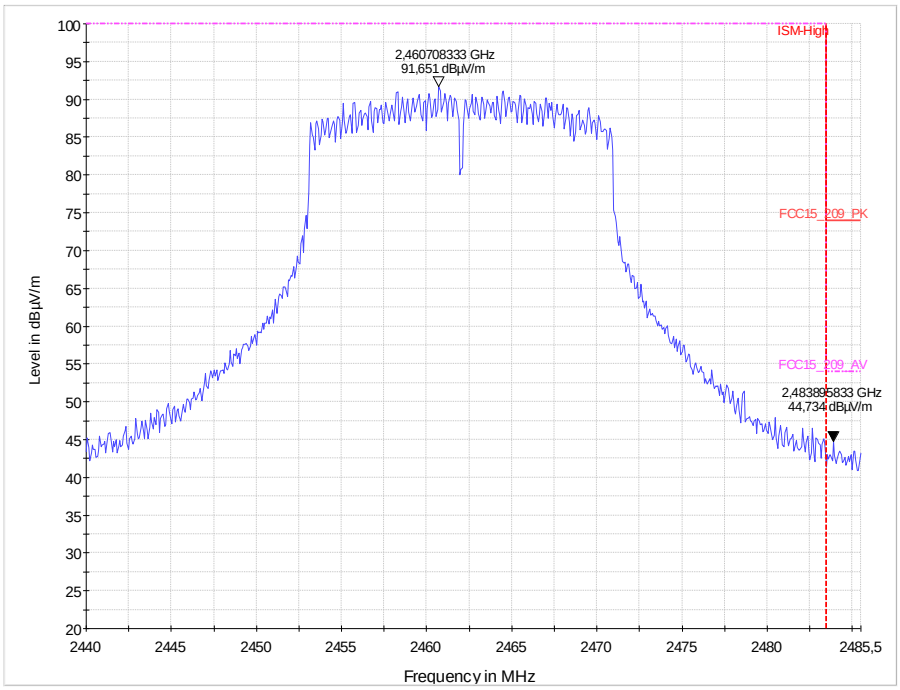
1.6.4.6. n-Mode MCS7 long guard mode



Carrier field strength & Band-Edge left

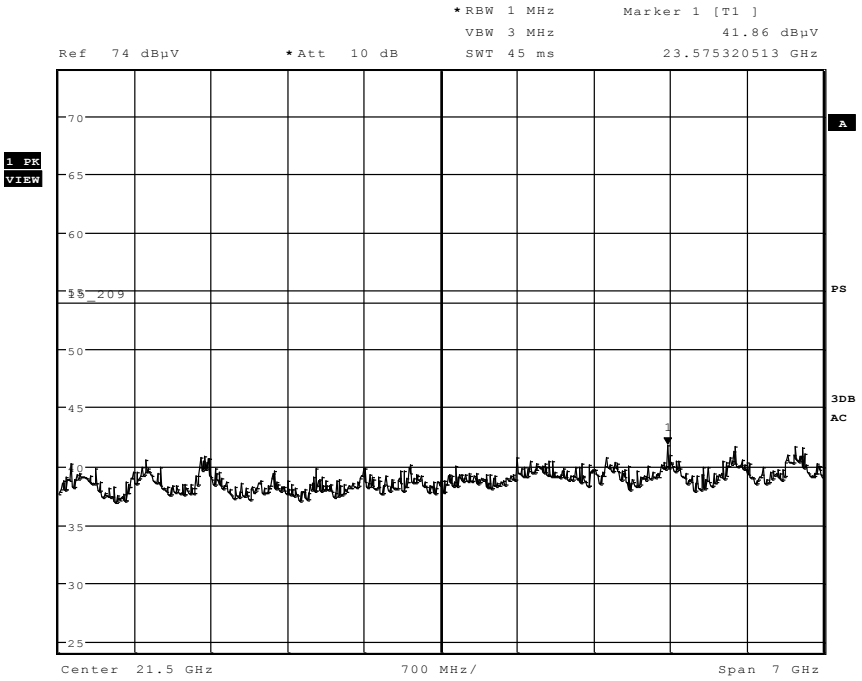


Carrier field strength & Band-Edge right, step 1



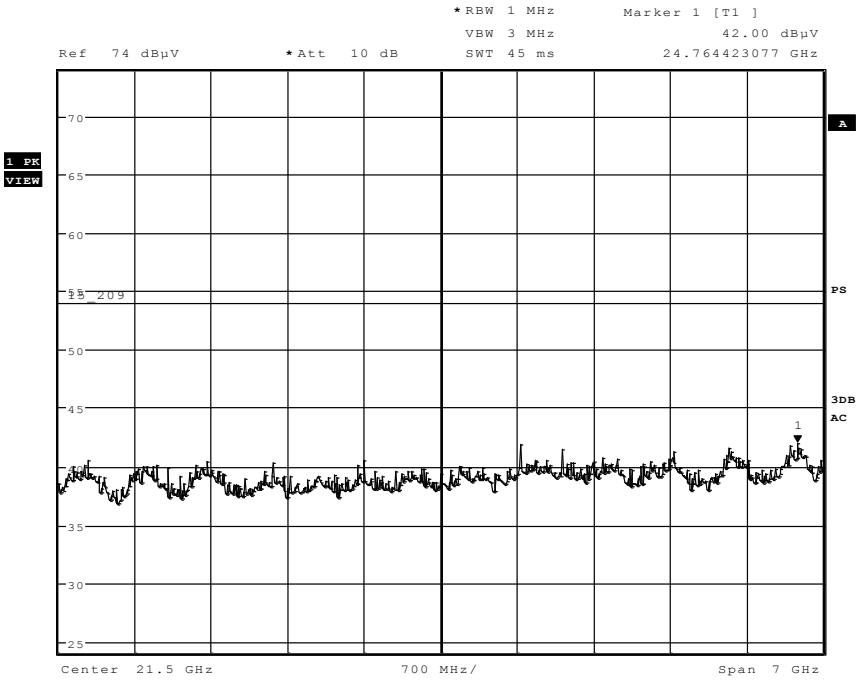
Band-Edge right, Step 2

1.6.5. Radiated emissions in the frequency range above 18GHz



Date: 27.APR.2011 17:32:33

Diagram a_2.24x – Channel 1, b-Mode, 2MBit (overview measurement only)



Date: 27.APR.2011 17:38:14

Diagram a_2. 25x– Channel 6, b-mode, 2Mbit (overview measurement only)

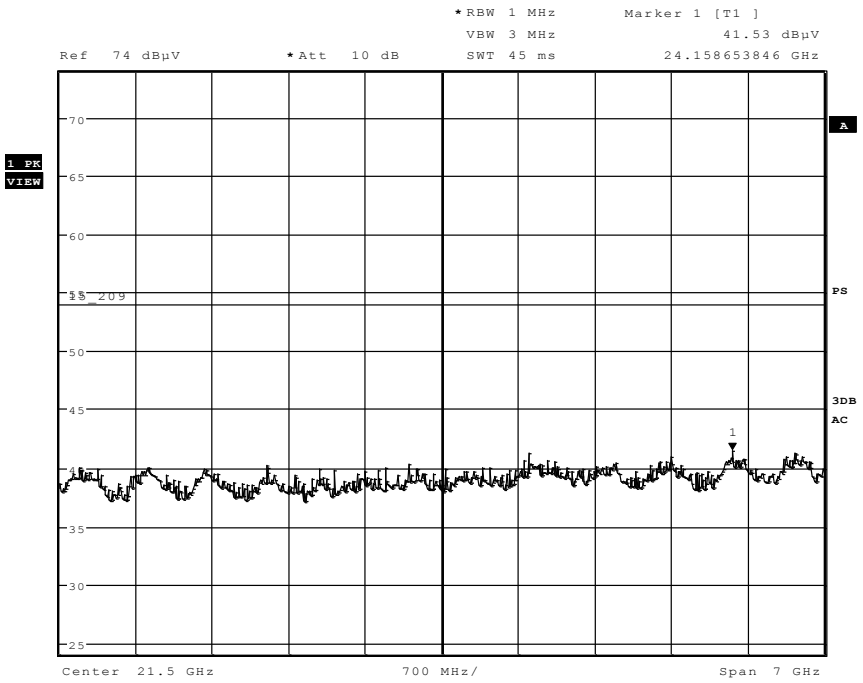


Diagram a_2.26x – Channel 11, b-mode, 2MBit (overview measurement only)

1.7. Radiated field strength (§15.109, Class B)

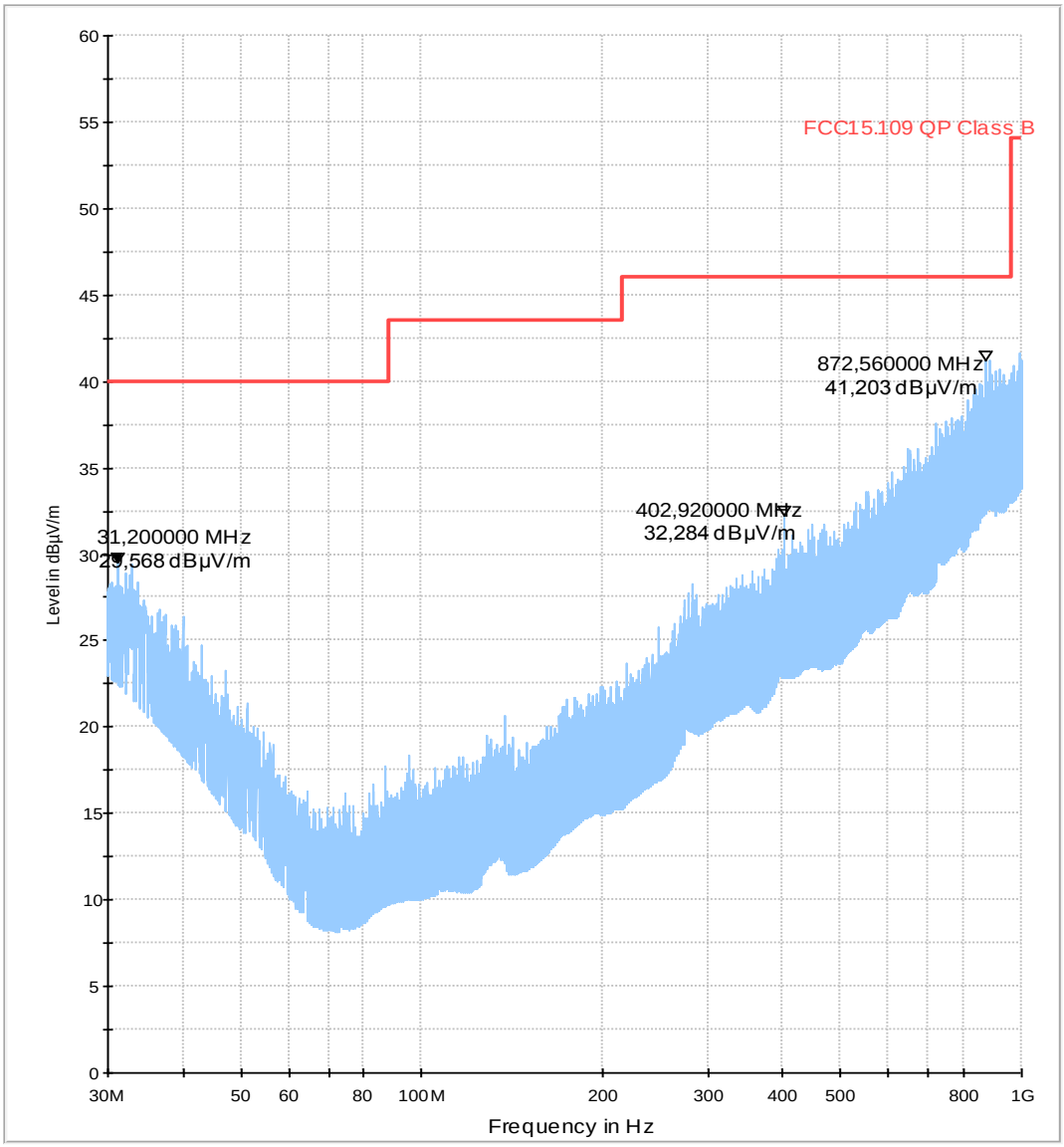
1.7.1. Radiated field strength (30MHz < f < 1GHz)

Diagram No. a_2.23x

Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room covered with absorbers (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	RX (idle) - WLAN
Power during tests:	full battery

05_FCC15.109_hor+vert_kipp



EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Positioning Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Positioning Speed = 4
- Polarization: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	PK+	120 kHz	0,00005 s	0 dB

Receiver: [ESS]

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	10 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Adjustment:
- Turntable position: Adjustment with full Range , Measuring Speed = 3
- Elevation: Adjustment with full Range , Measuring Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	PK+	120 kHz	0,02 s	0 dB

Receiver: [ESS]

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	100 kHz	QPK	120 kHz	1 s	0 dB

Receiver: [ESS]

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Actions:
- Data Reduction: Before
  - Notify: Sound (WAV file) 'tada.wav'
- Final Measurements: After
  - Notify: Sound (WAV file) 'tada.wav'

1.7.2. Radiated field strength (1GHz < f < 12.75GHz)

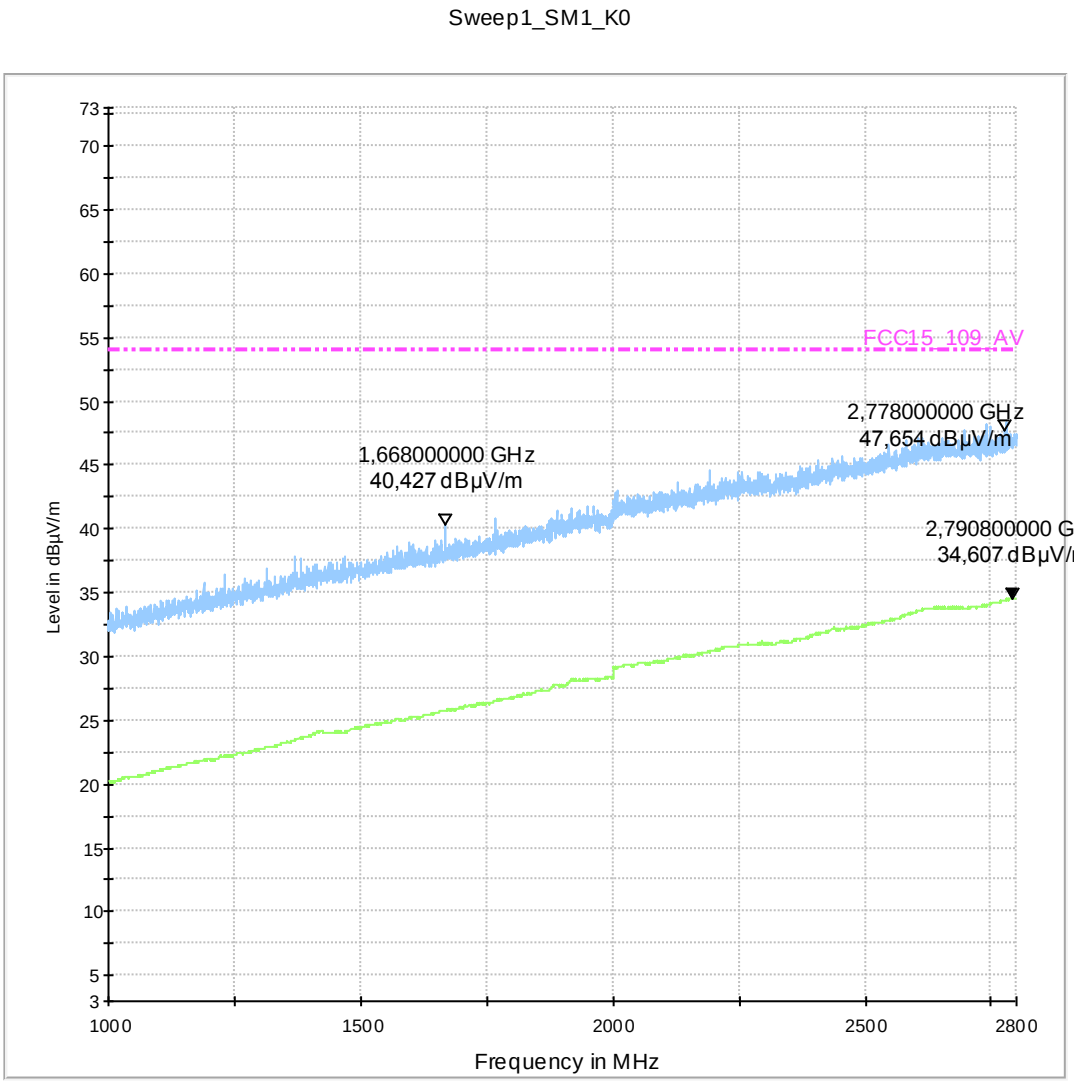
Diagram No.: a_2.12x

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 class B, Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN RX-Mode; g-Mode, 9MBit, Channel 6
Operator Name:	Lor
Comment:	--

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9



EMI Auto Test Template: Sweep1_SM1_K0

Hardware Setup:	549_dBuVm_PA287_TH1_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	10 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep1_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Peak Search:	20 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep1_zoom
Adjustment:	
Template for Single Meas.:	Sweep1_pre
Final Measurements:	
Template for Single Meas.:	Sweep1_fin
Template for Single Meas.:(>1GHz)	Sweep1_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Create Electronic Report:	RTF PDF
Document Name:	dummy FCC Report
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ?"

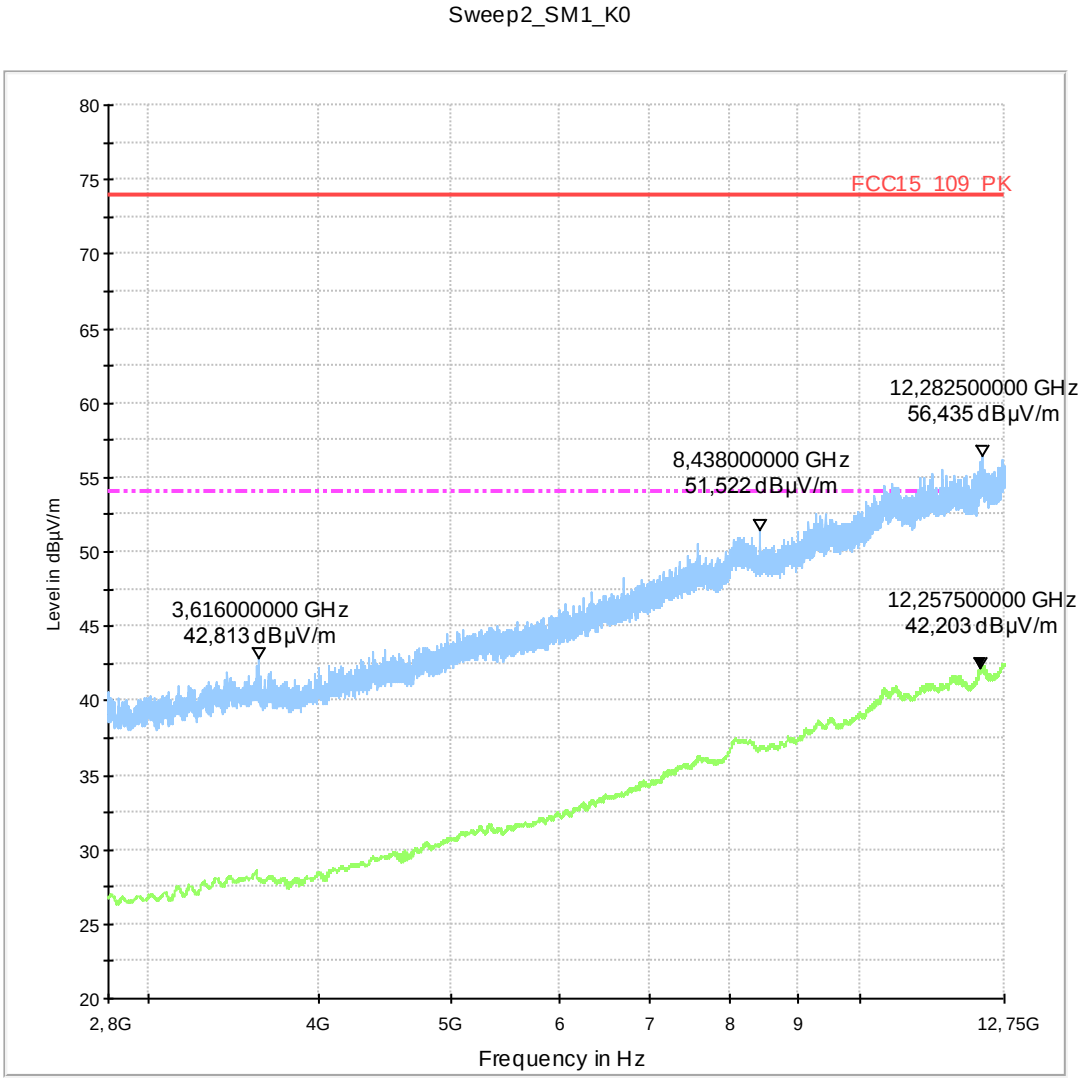
Diagram No.: a_2.13x

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Class B Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN RX-Mode; g-Mode, 9MBit, Channel 6
Operator Name:	Lor
Comment:	--

EUT Information

EUT Name:	AAD-3880112-BV
Manufacturer:	SEM
Serial Number:	CB5A1CH5N1 (Sample WLAN rad#1)
Comment:	WLAN technology
IMEI:	00440214-249956-9



EMI Auto Test Template: Sweep2_SM1_K0

Hardware Setup:	549_dBuVm_PA484_TH3_KP1_ESU
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2,8 GHz - 12,75 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	Sweep2_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Peak Search:	6 dB , Maximum Results: 10
Subrange Maxima:	50 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
After Data Reduction:	Interactive data reduction
Frequency Zoom:	
Zoom Scan Template:	Sweep2_zoom
Adjustment:	
Template for Single Meas.:	Sweep2_zoom
Final Measurements:	
Template for Single Meas.:	Sweep2_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Create Electronic Report:	RTF PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

1.8. Conducted emissions on AC-mains

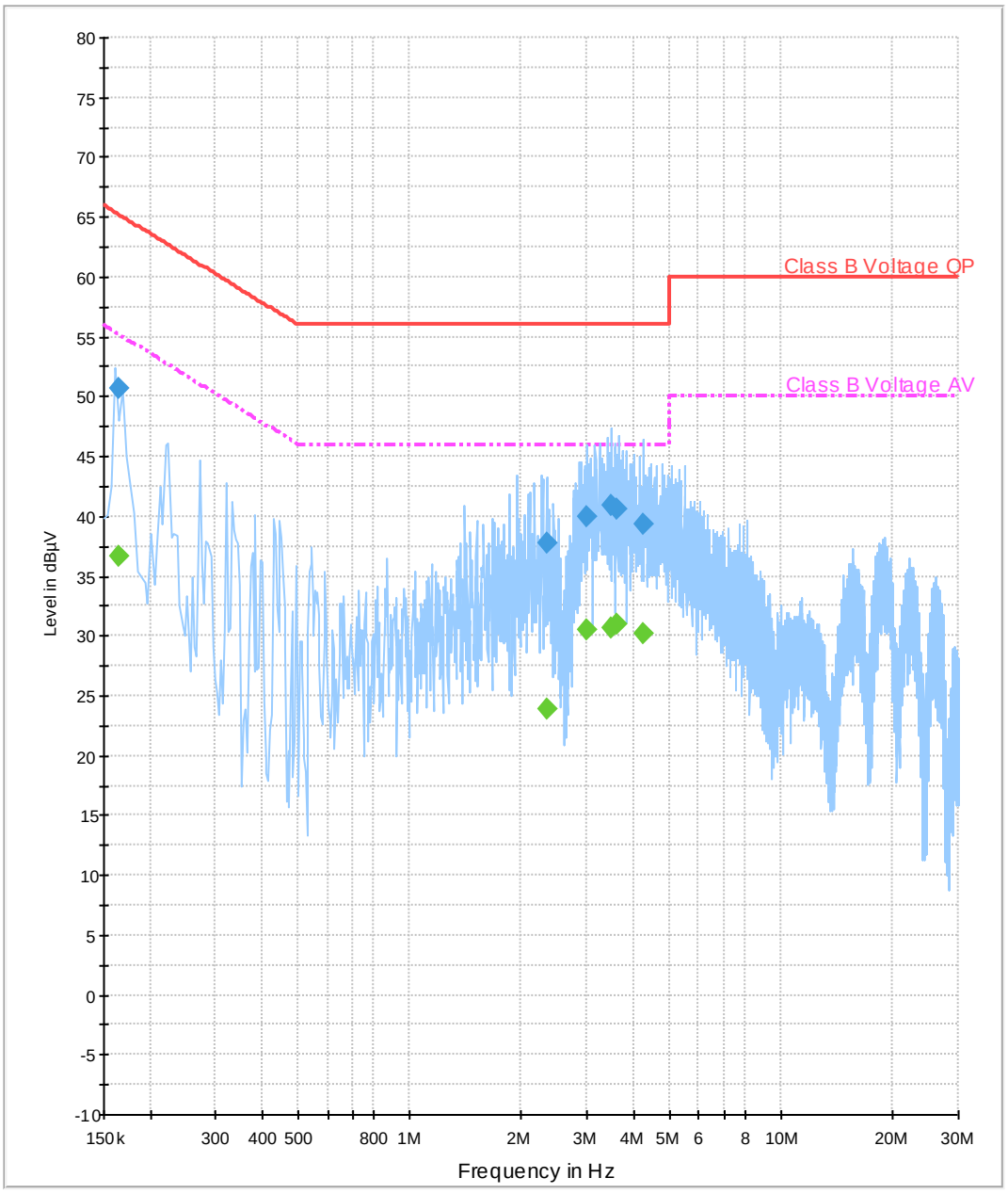
1.8.1. TX-Mode (§15.207)

Diagram No. a_1.01x

Date: 18.04.2011 Page 1 of 2

Test Description:	Conducted Voltage Measurement Class B
Testspezification:	FCC 15.207
Technical Data:	Please see next page for detailed information
Diagram:	Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
Operator name:	Lor
Report.- Nr.	2-20798191a/11
Operating mode:	TX WLAN b-Mode/Ch6/2MBit
Measured on line:	Mains AC L1 and N
Power during test:	110 V AC 60 Hz
Comment 1:	--

01_Class B_Voltage_PK_QPAV_N_L1



Date: 18.04.2011 Page 2 of 2

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	36.6	15000.0	9.000	GND	L1	0.0	18.6	55.2
2.332188	23.9	15000.0	9.000	GND	N	0.0	22.1	46.0
3.003438	30.5	15000.0	9.000	GND	N	0.1	15.5	46.0
3.475625	30.6	15000.0	9.000	GND	N	0.1	15.4	46.0
3.615781	31.0	15000.0	9.000	GND	N	0.0	15.0	46.0
4.243438	30.2	15000.0	9.000	GND	N	0.1	15.8	46.0

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	50.6	15000.0	9.000	GND	L1	0.0	14.6	65.2
2.332188	37.8	15000.0	9.000	GND	N	0.0	18.2	56.0
3.003438	40.0	15000.0	9.000	GND	N	0.1	16.0	56.0
3.475625	40.9	15000.0	9.000	GND	N	0.1	15.1	56.0
3.615781	40.6	15000.0	9.000	GND	N	0.0	15.4	56.0
4.243438	39.4	15000.0	9.000	GND	N	0.1	16.6	56.0

Technical Data of Measurements with R&S EMC32 V8.50.0

EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1

Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµV

Preview Measurements:
Scan Test Template: 02_Class B pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reduction

Frequency Zoom:
Zoom Scan Template: 08_Class B maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B fin AV QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]

Report Settings:
Report Template: Ctc_Standard_class_B
Create Electronic Report: RTF PDF
Document Name: EMI Report

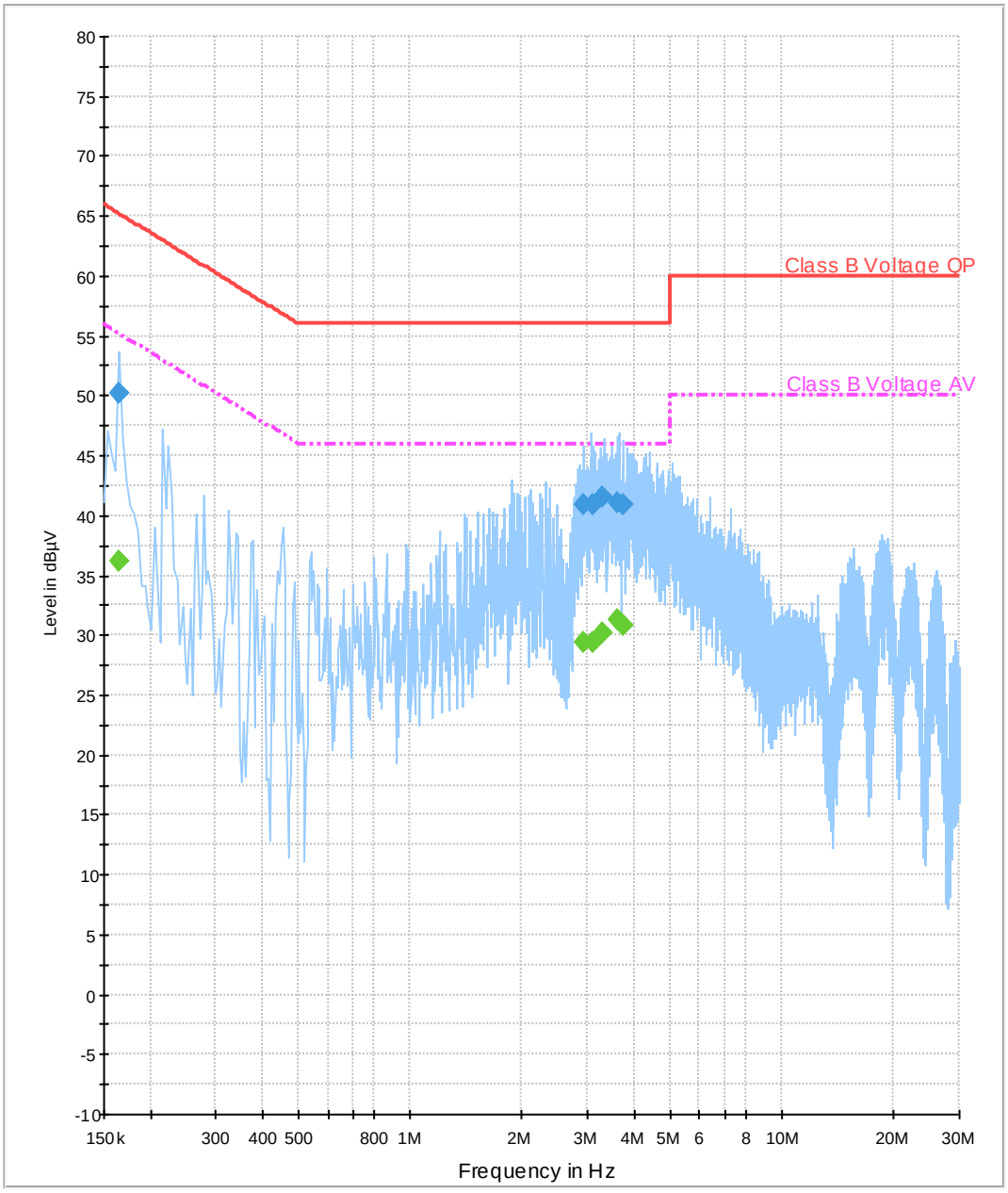
Actions:
Test stop
Notify: "End of Test"

Diagram No. a_1.02x

Date: 18.04.2011 Page 1 of 2

Test Description:	Conducted Voltage Measurement Class B
Testspezification:	FCC 15.207
Technical Data:	Please see next page for detailed information
Diagram:	Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
Operator name:	Lor
Report.- Nr.	2-20798191a/11
Operating mode:	TX WLAN g-Mode/Ch11/6MBit
Measured on line:	Mains AC L1 and N
Power during test:	110 V AC 60 Hz
Comment 1:	--

01_Class B_Voltage_PK_QPAV_N_L1



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	50.2	15000.0	9.000	GND	N	0.0	15.0	65.2
2.930938	41.0	15000.0	9.000	GND	N	0.1	15.0	56.0
3.091094	40.9	15000.0	9.000	GND	N	0.1	15.1	56.0
3.307656	41.5	15000.0	9.000	GND	N	0.1	14.5	56.0
3.616250	41.0	15000.0	9.000	GND	N	0.0	15.0	56.0
3.746719	40.8	15000.0	9.000	GND	N	0.1	15.2	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	36.1	15000.0	9.000	GND	N	0.0	19.1	55.2
2.930938	29.4	15000.0	9.000	GND	N	0.1	16.6	46.0
3.091094	29.4	15000.0	9.000	GND	N	0.1	16.6	46.0
3.307656	30.2	15000.0	9.000	GND	N	0.1	15.8	46.0
3.616250	31.3	15000.0	9.000	GND	N	0.0	14.7	46.0
3.746719	30.9	15000.0	9.000	GND	N	0.1	15.1	46.0

Date: 18.04.2011 Page 2 of 2

Technical Data of Measurements with R&S EMC32 V8.50.0

EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1

Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµV

Preview Measurements:
Scan Test Template: 02_Class B pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reduction

Frequency Zoom:
Zoom Scan Template: 08_Class B maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B fin AV QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]

Report Settings:
Report Template: Ctc_Standard_class_B
Create Electronic Report: RTF PDF
Document Name: EMI Report

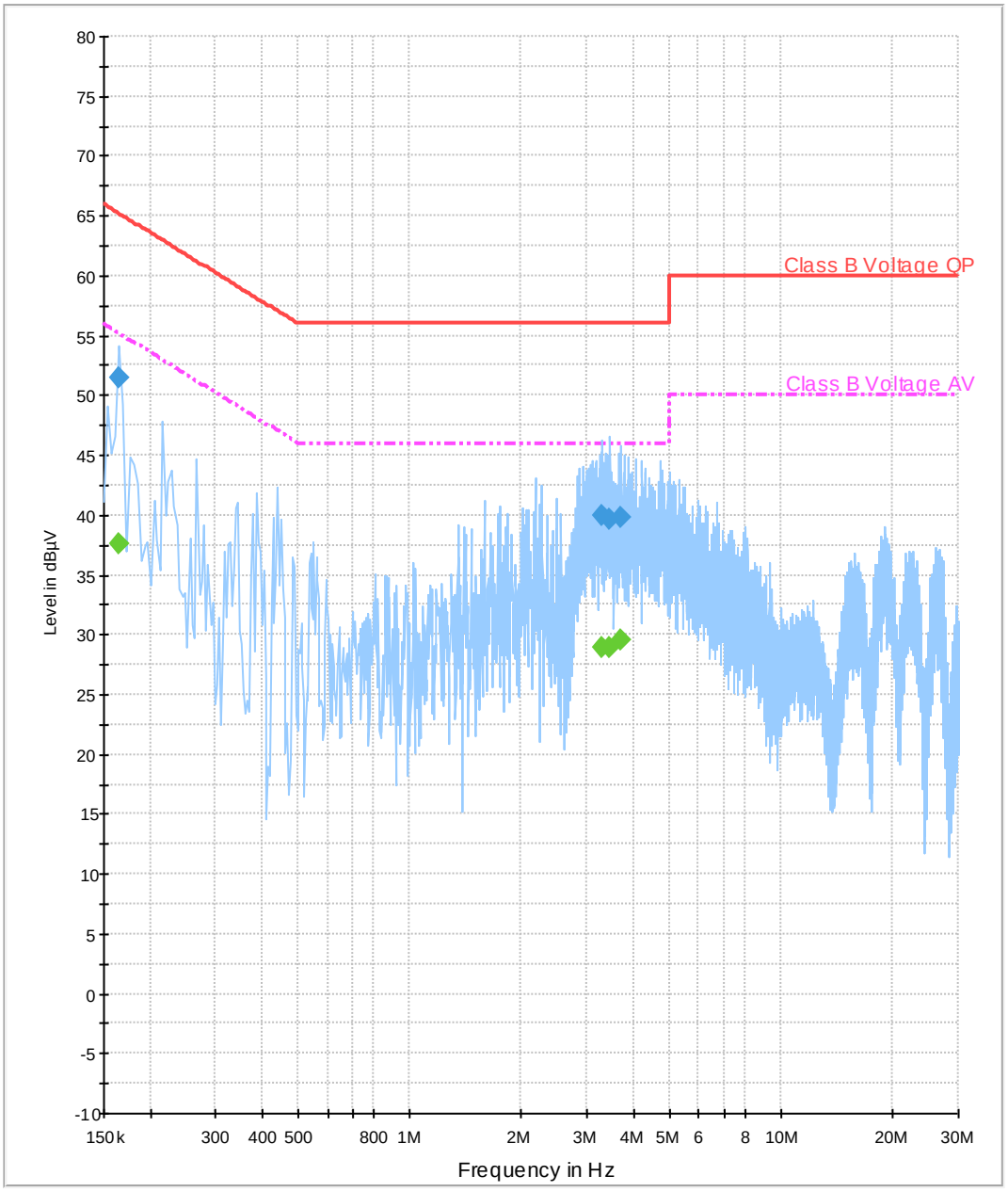
Actions:
Test stop
Notify: "End of Test"

Diagram No. a_1.03x

Date: 18.04.2011 Page 1 of 2

Test Description:	Conducted Voltage Measurement Class B
Testspezification:	FCC 15.207
Technical Data:	Please see next page for detailed information
Diagram:	Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
Operator name:	Lor
Report.- Nr.	2-20798191a/11
Operating mode:	TX WLAN n-Mode/Ch1/MCS0_s
Measured on line:	Mains AC L1 and N
Power during test:	110 V AC 60 Hz
Comment 1:	--

01_Class B_Voltage_PK_QPAV_N_L1



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	51.5	15000.0	9.000	GND	N	0.0	13.7	65.2
3.298750	40.0	15000.0	9.000	GND	N	0.1	16.0	56.0
3.453906	39.7	15000.0	9.000	GND	N	0.1	16.3	56.0
3.688281	39.8	15000.0	9.000	GND	N	0.0	16.2	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	37.6	15000.0	9.000	GND	N	0.0	17.6	55.2
3.298750	29.0	15000.0	9.000	GND	N	0.1	17.0	46.0
3.453906	29.0	15000.0	9.000	GND	N	0.1	17.0	46.0
3.688281	29.5	15000.0	9.000	GND	N	0.0	16.5	46.0

Date: 18.04.2011 Page 2 of 2

Technical Data of Measurements with R&S EMC32 V8.50.0

EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1

Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµV

Preview Measurements:
Scan Test Template: 02_Class B pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reduction

Frequency Zoom:
Zoom Scan Template: 08_Class B maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B fin AV QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]

Report Settings:
Report Template: Ctc_Standard_class_B
Create Electronic Report: RTF PDF
Document Name: EMI Report

Actions:
Test stop
Notify: "End of Test"

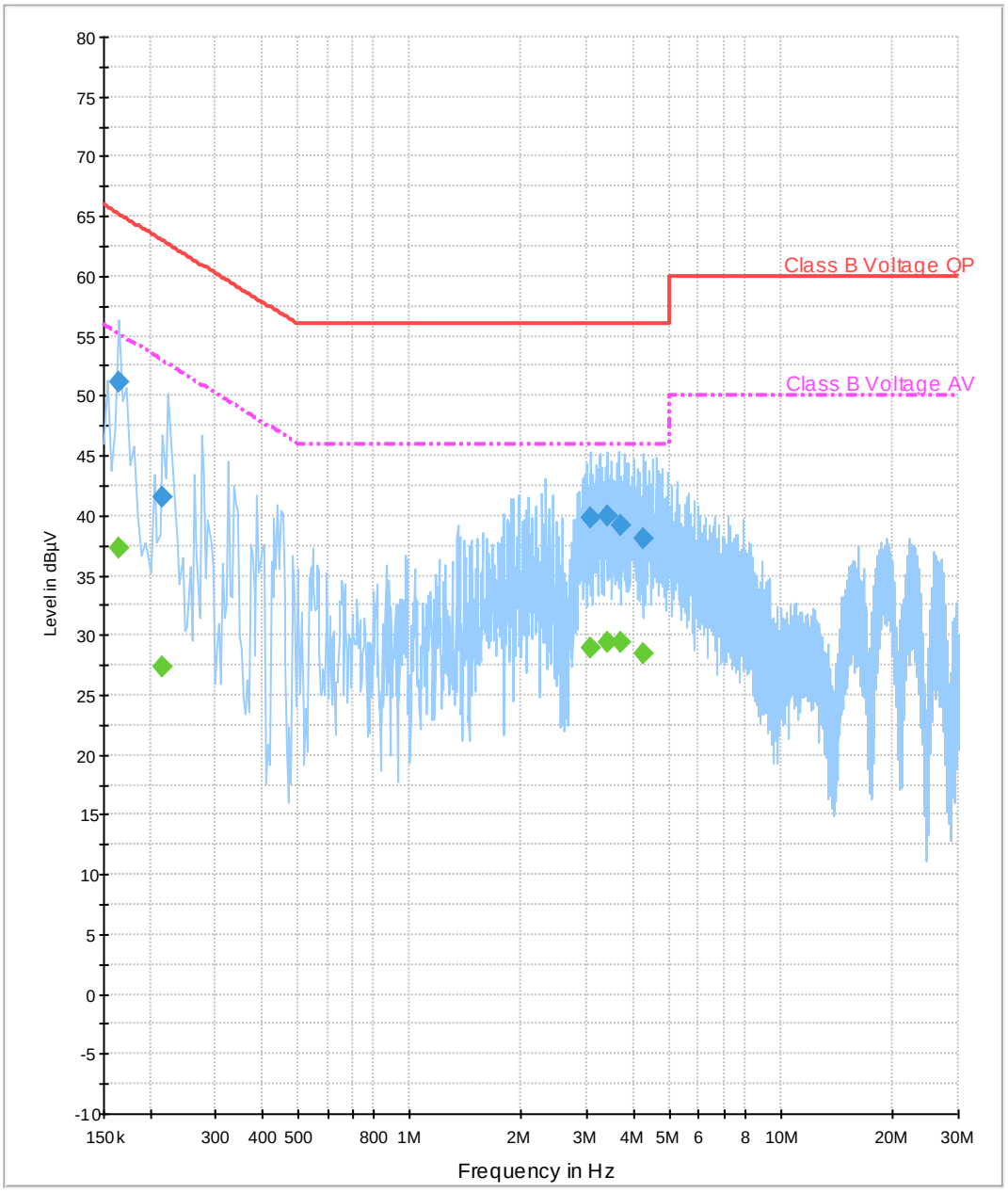
1.8.2. RX-Mode (§15.107 Class B)

Diagram No. a_1.04x

Date: 18.04.2011 Page 1 of 2

Test Description:	Conducted Voltage Measurement Class B
Testspezification:	FCC 15.107 Class B
Technical Data:	Please see next page for detailed information
Diagram:	Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
Operator name:	Lor
Report.- Nr.	2-20798191a/11
Operating mode:	RX WLAN g-Mode/Ch6/9Mbit
Measured on line:	Mains AC L1 and N
Power during test:	110 V AC 60 Hz
Comment 1:	--

01_Class B_Voltage_PK_QPAV_N_L1



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	51.1	15000.0	9.000	GND	L1	0.0	14.1	65.2
0.216719	41.6	15000.0	9.000	GND	L1	0.0	21.4	62.9
3.081094	39.8	15000.0	9.000	GND	N	0.1	16.2	56.0
3.400781	39.9	15000.0	9.000	GND	N	0.1	16.1	56.0
3.680312	39.2	15000.0	9.000	GND	N	0.0	16.8	56.0
4.254688	38.1	15000.0	9.000	GND	N	0.1	17.9	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.165000	37.3	15000.0	9.000	GND	L1	0.0	17.9	55.2
0.216719	27.4	15000.0	9.000	GND	L1	0.0	25.6	52.9
3.081094	28.9	15000.0	9.000	GND	N	0.1	17.1	46.0
3.400781	29.4	15000.0	9.000	GND	N	0.1	16.6	46.0
3.680312	29.3	15000.0	9.000	GND	N	0.0	16.7	46.0
4.254688	28.4	15000.0	9.000	GND	N	0.1	17.6	46.0

Date: 18.04.2011 Page 2 of 2

Technical Data of Measurements with R&S EMC32 V8.50.0

EMI Auto Test Template: 01_Class B_Voltage_PK_QPAV_N_L1

Hardware Setup: ESH2-Z5
Measurement Type: 4 Line LISN
Frequency Range: 150 kHz - 30 MHz
Graphics Level Range: -10 dBµV - 80 dBµV

Preview Measurements:
Scan Test Template: 02_Class B pre_PK_fast

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	3.906 kHz	PK+	9 kHz	0,00005 s	0 dB

Receiver: [ESCS 30]

Data Reduction:
Limit Line #1: Class B Voltage QP
Limit Line #2: Class B Voltage AV
Peak Search: 6 dB , Maximum Results: 10
Subrange Maxima: 50 Subranges , Maxima per Subrange: 2
Acceptance Offset: -13 dB
Maximum Number of Results: 30
After Data Reduction: Interactive data reduction

Frequency Zoom:
Zoom Scan Template: 08_Class B maxZoom_PK100mS

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+	9 kHz	0,1 s	0 dB

Receiver: [ESCS 30]

Final Measurements:
Template for Single Meas.: 07_Class B fin AV QP

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	4.5 kHz	QPK; CAV	9 kHz	15 s	0 dB

Receiver: [ESCS 30]

Report Settings:
Report Template: Ctc_Standard_class_B
Create Electronic Report: RTF PDF
Document Name: EMI Report

Actions:
Test stop
Notify: "End of Test"