

Annex 4: Measurement diagrams
to TEST REPORT
No.: 6-0196-12-1-2a-C1

According to:
FCC Regulations
Part 15.107, Part 15.207,
Part 15.209 & Part 15.247

IC Regulations
RSS-Gen Issue 3
RSS-210 Issue 8

for

Miele & Cie. KG

Communication unit for household appliances EI 8800 /-A
(ZigBee™)

FCC-ID: 2ACUWEI8800
IC: 5669C-EI8800







Laboratory Accreditation and Listings			
 D-PL-12047-01-01	 Reg. No.: 736496 MRA US-EU 0003	 Reg. No.: 3462D-1 3462D-2	 Reg. No.: R-2665, R-2666 C-2914, T-1967 G-301
 LAB CODE 20011130-00		 AUTHORIZED RF LABORATORY	
accredited according to DIN EN ISO/IEC 17025			
<p>CETECOM GmbH Laboratory Radio Communications & Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com</p>			

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1. Measurement diagrams

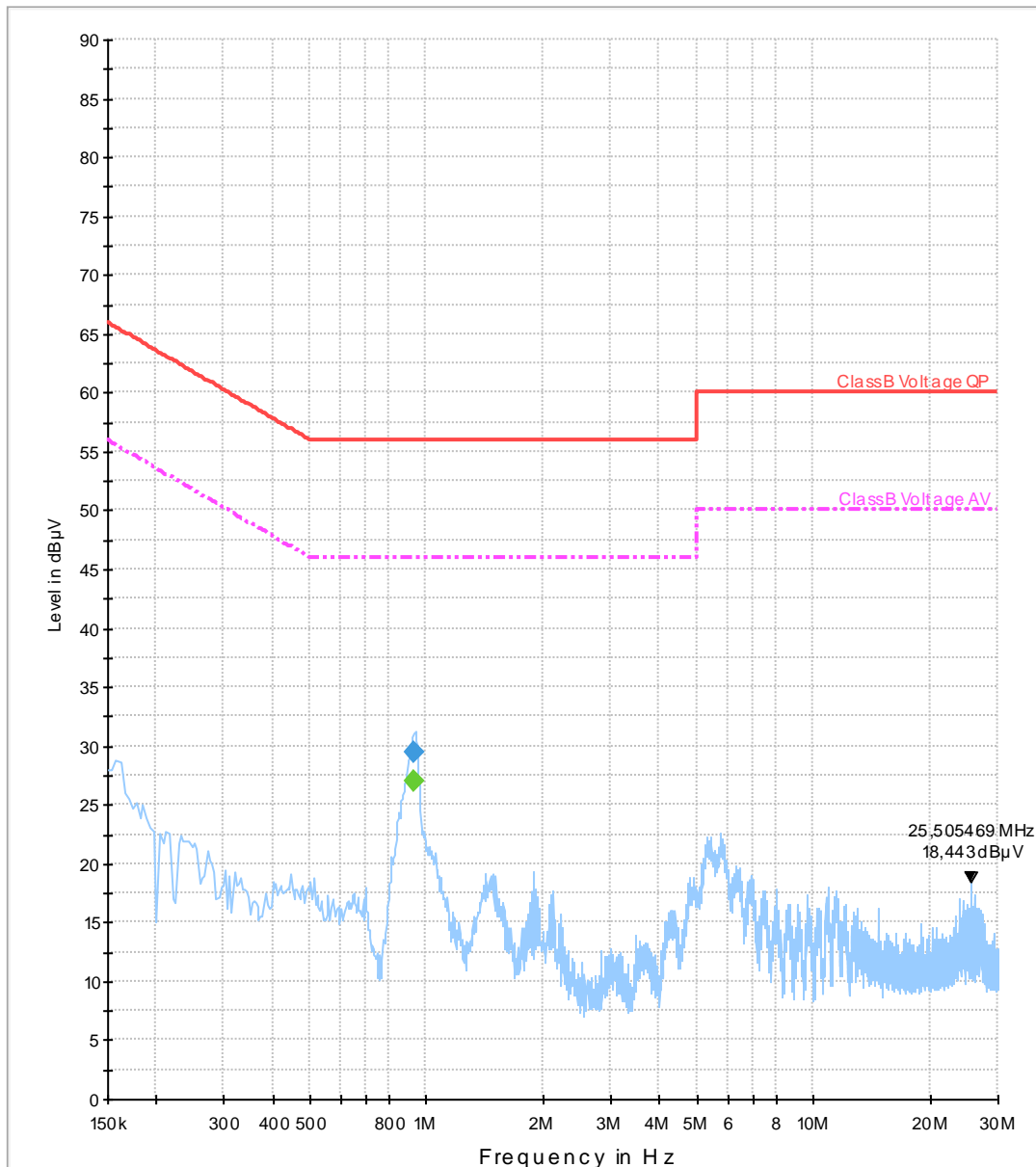
1.1. AC power-line conducted emission measurements

Diagram No. 1.01

Test Description: Conducted Voltage Measurement
 Testspecification: FCC §15.207, RSS-Gen Issue 3
 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: YZH
 Report.- Nr. 6-0196-12-1-2-a

EUT: EI8800-A shielded SN20, Ch15
 Manufacturer: Miele
 Operating mode: TX
 Power during test: 110 V AC 60 Hz

01b_FCC_107_207_Class B_Voltage_PK_QPAV_N_L1



Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.933750	29.5	1000.0	9.000	GND	N	0.0	26.5	56.0

Final Result 2

Frequency (MHz)	CAverage (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.933750	27.0	1000.0	9.000	GND	N	0.0	19.0	46.0

Diagram No. 1.02

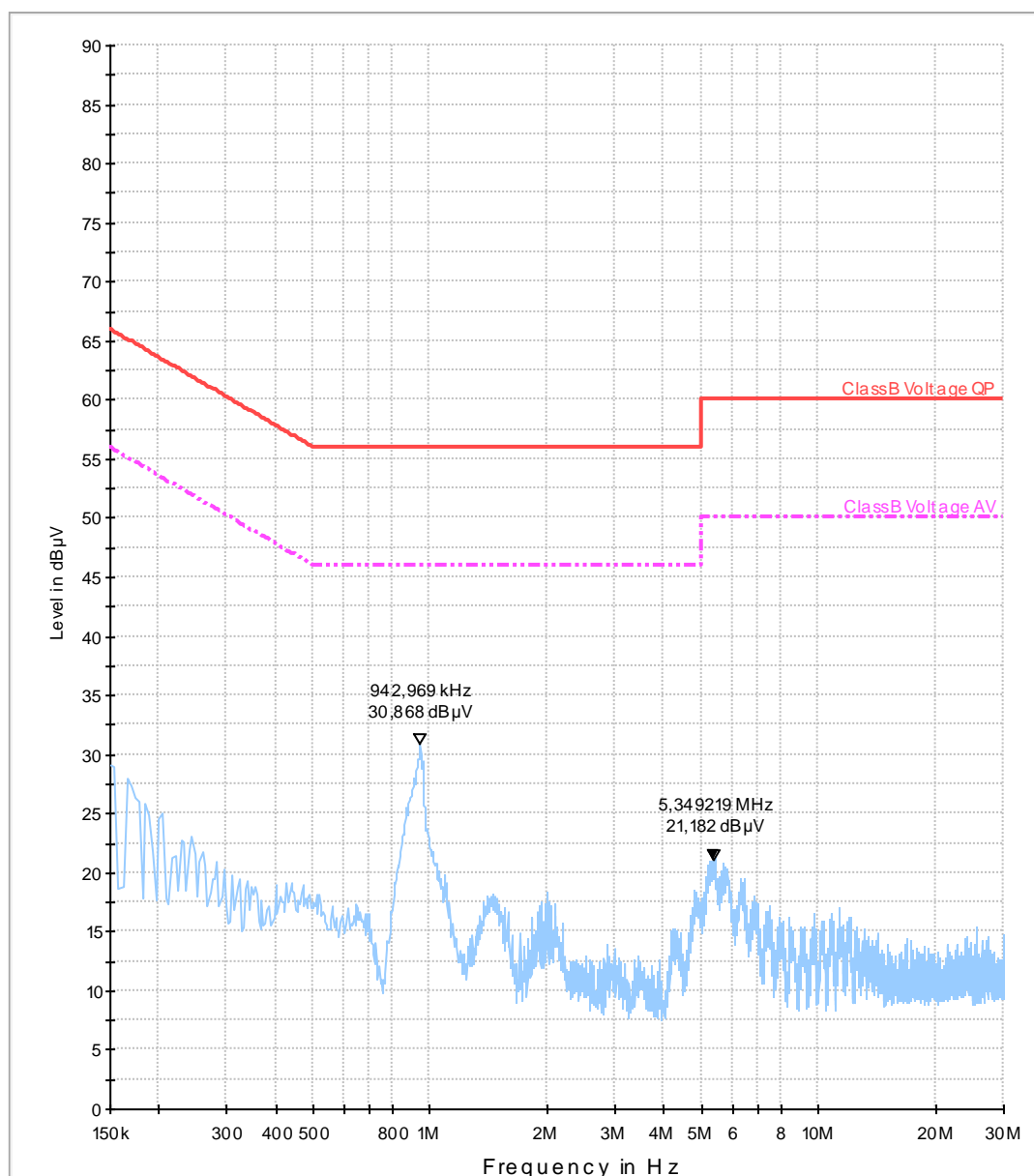
Test Description:
Testspecification:
Technical Data:
Diagram:
Operator name:
Report.- Nr.

Date: 30.08.2012 Page 1 of 1
Conducted Voltage Measurement Class B
FCC §15.107, RSS-Gen Issue 3
--
Shows the peak values as a sum of measured ports (N+L1) in maxhold mode
YZH
6-0196-12-1-2-a

EUT:
Manufacturer:
Operating mode:
Power during test:
Comment 1:

EI8800-A shielded SN12, Ch15
Miele
RX
110 V AC 60 Hz

01b_FCC_107_207_Class B_Voltage_PK_QPAV_N_L1



1.2. Radiated field strength (§15.209)

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

Diagram No. 2.01

Test description:	Magnetic Fieldstrength Measurement related to 300 m/ 30 m distance
Test site and distance:	Semi Anechoic Room with mobile absorbers on the floor (SAR) with 3 m measurement distance used
Distance correction:	
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX (CW mode), low CH 11 = 2405 MHz
Power during tests:	110V/60Hz
Comment 1:	S/N 15 6-0196-12-1-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	070512
Comment:	Adpater Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

FCC15.209_magn hor+vert

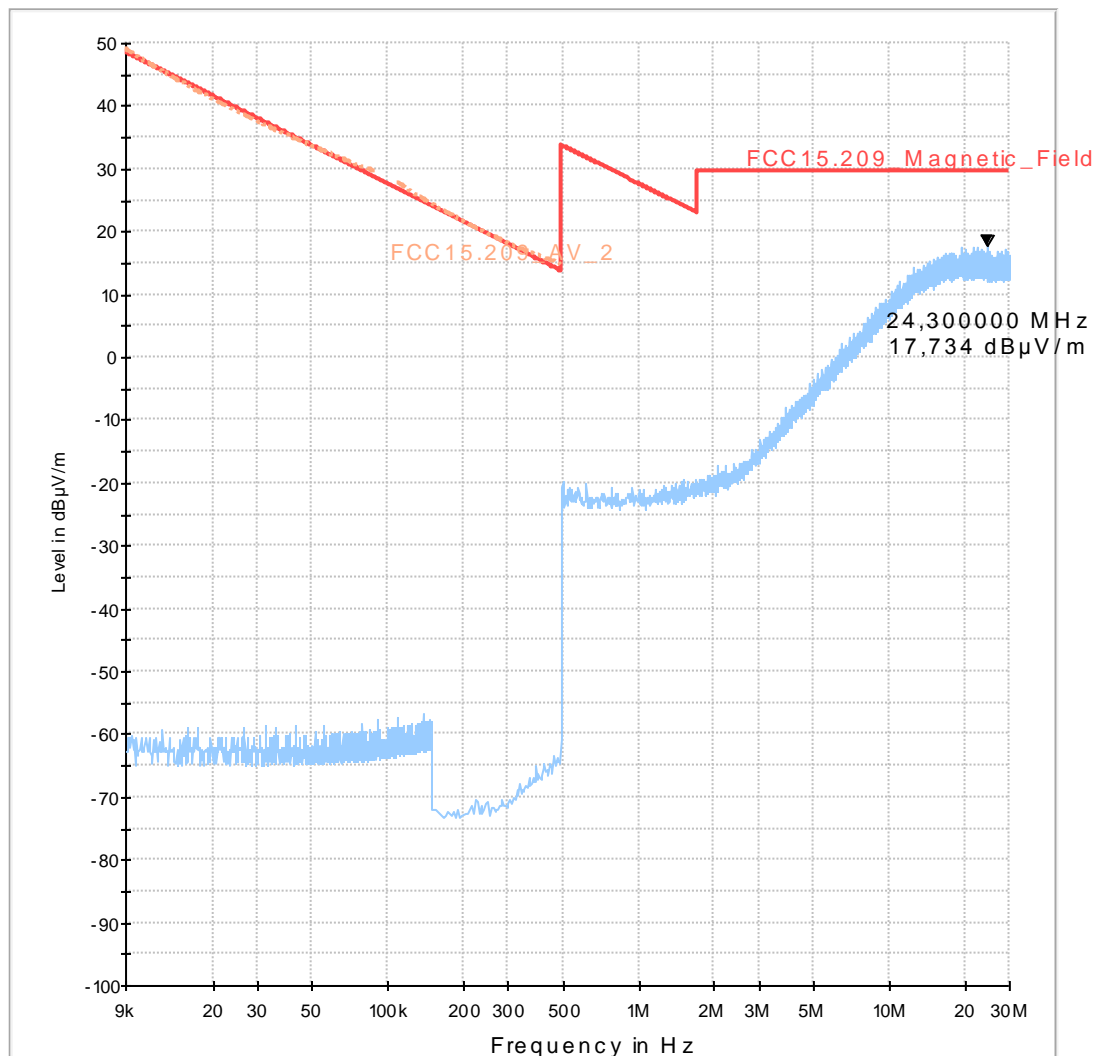


Diagram No.2.02

Date: 10.08.2012	Page 1 of 1
Test description:	Magnetic Fieldstrength Measurement related to 300 m/ 30 m distance
Test site and distance:	Semi Anechoic Room with mobile absorbers on the floor (SAR) with 3 m measurement distance
Distance correction:	used
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX (CW mode), mid CH 18 = 2440 MHz
Power during tests:	110V/60Hz
Comment 1:	S/N 8
	6-0196-12-1-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	070512
Comment:	Adpater Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

FCC15.209_magn hor+vert

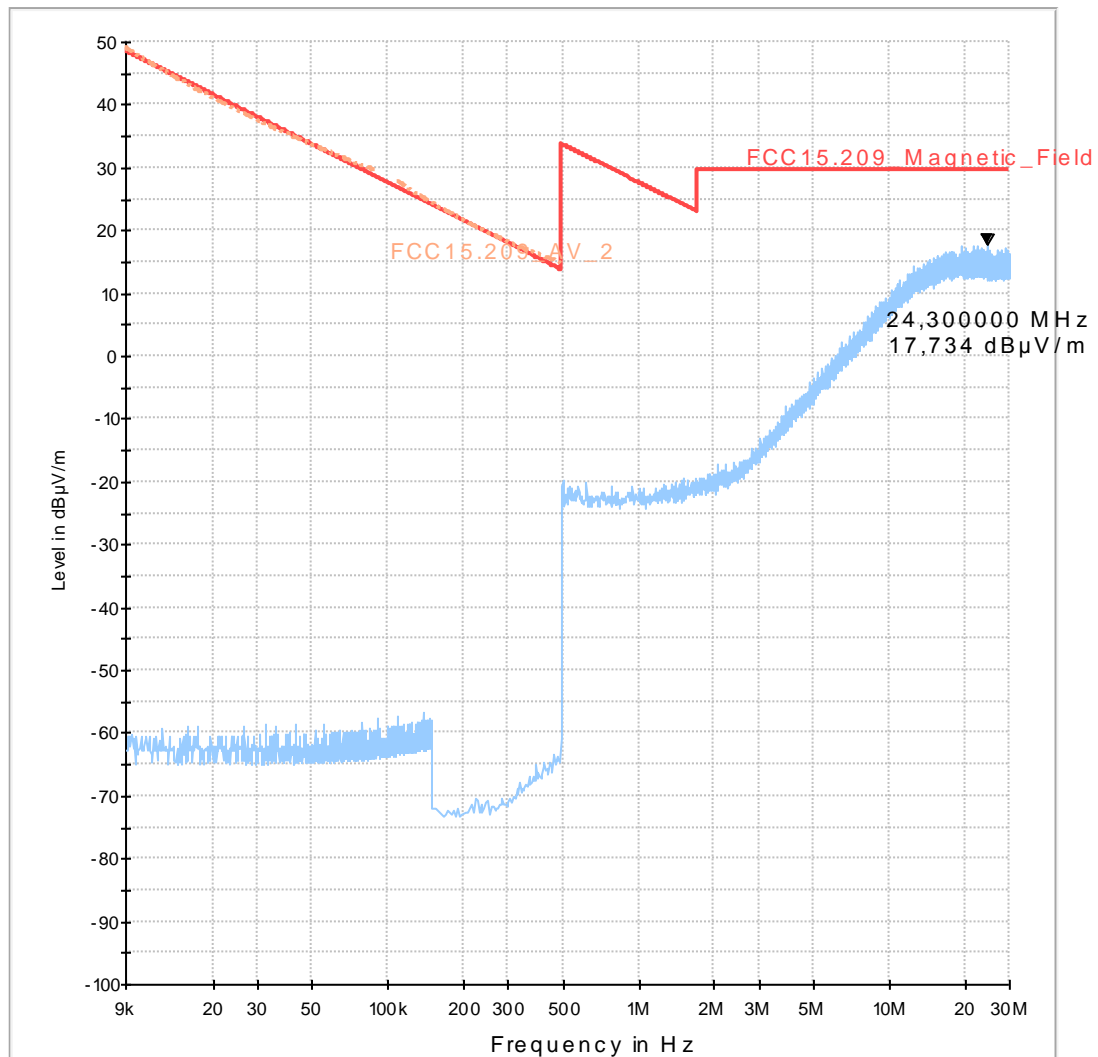


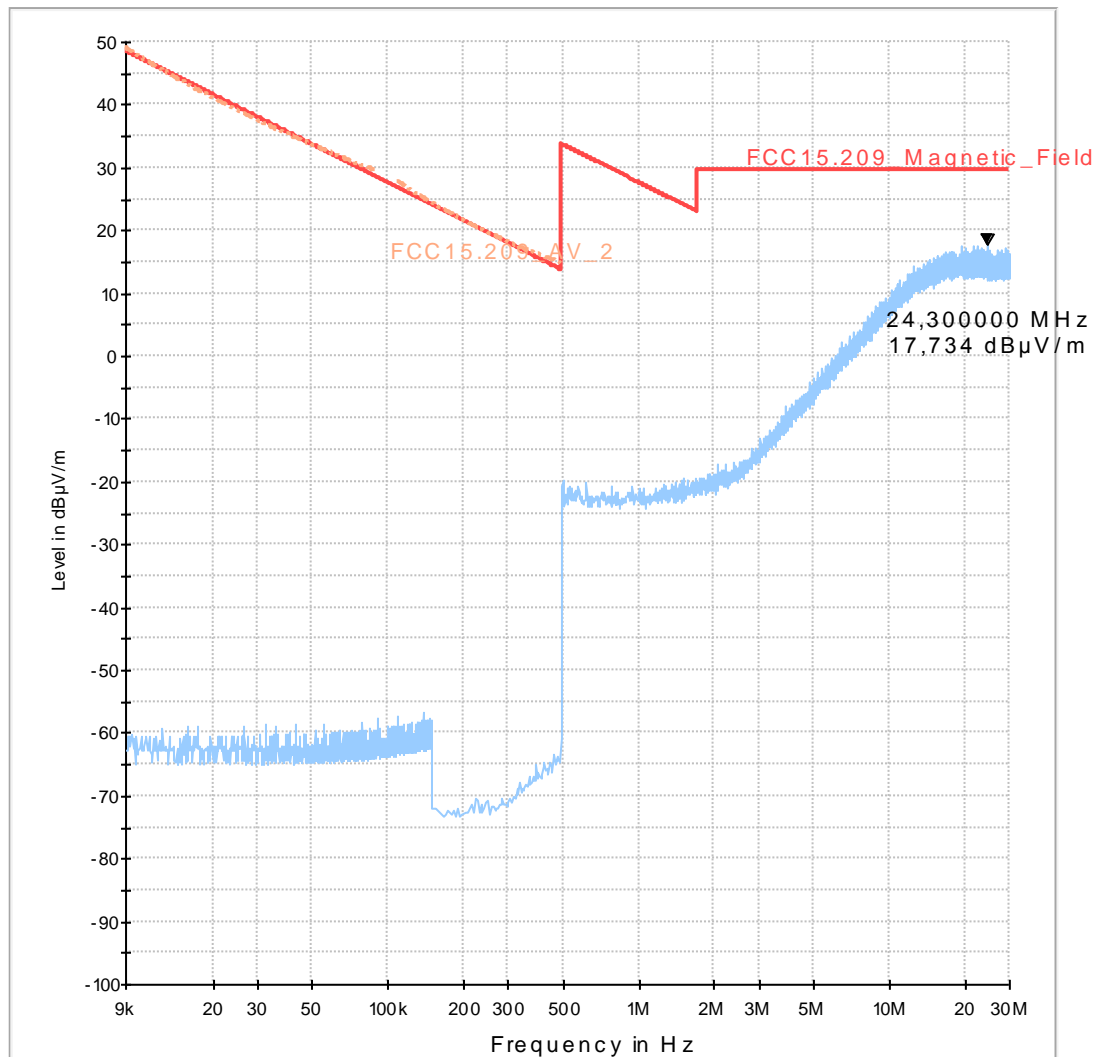
Diagram No.2.03

Date: 10.08.2012	Page 1 of 1
Test description:	Magnetic Fieldstrength Measurement related to 300 / 30 m distance
Test site and distance:	Semi Anechoic Room with mobile absorbers on the floor (SAR) with 3 m measurement distance
Distance correction:	used
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 3
Operator:	Tas
Operating conditions:	TX (CW mode), high CH 26 = 2480 MHz
Power during tests:	110V/60Hz
Comment 1:	S/N 9
	6-0196-12-1-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	070512
Comment:	Adpater Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

FCC15.209_magn hor+vert



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

Diagram No. 3.01

Test description: Electric Fieldstrength Measurement
 Test site and distance: Semi Anechoic Room (SAR) with 3 m measurement distance
 Distance correction: not used
 Used filter: TP1200

Test specification.: FCC15.209; RSS-Gen.: Issue 3

Operator: Tas
 Operating conditions: TX , low CH 11 = 2405 MHz
 Power during tests: 110V 60Hz,
 Comment 1: S/N 15
 6-0196-12-1-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: 070512
 Comment: Adapter Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

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)
97.390000	36.8	1000.0	120.000	100.0	V	13.0	90.0	8.2	6.70	43.50
109.830000	40.4	1000.0	120.000	267.0	H	177.0	90.0	8.4	3.10	43.50
115.950000	42.5	1000.0	120.000	285.0	H	5.0	0.0	8.2	1.00	43.50
188.630000	23.7	1000.0	120.000	171.0	H	0.0	0.0	11.5	19.80	43.50

01_FCC15.209_hor+vert_kipp

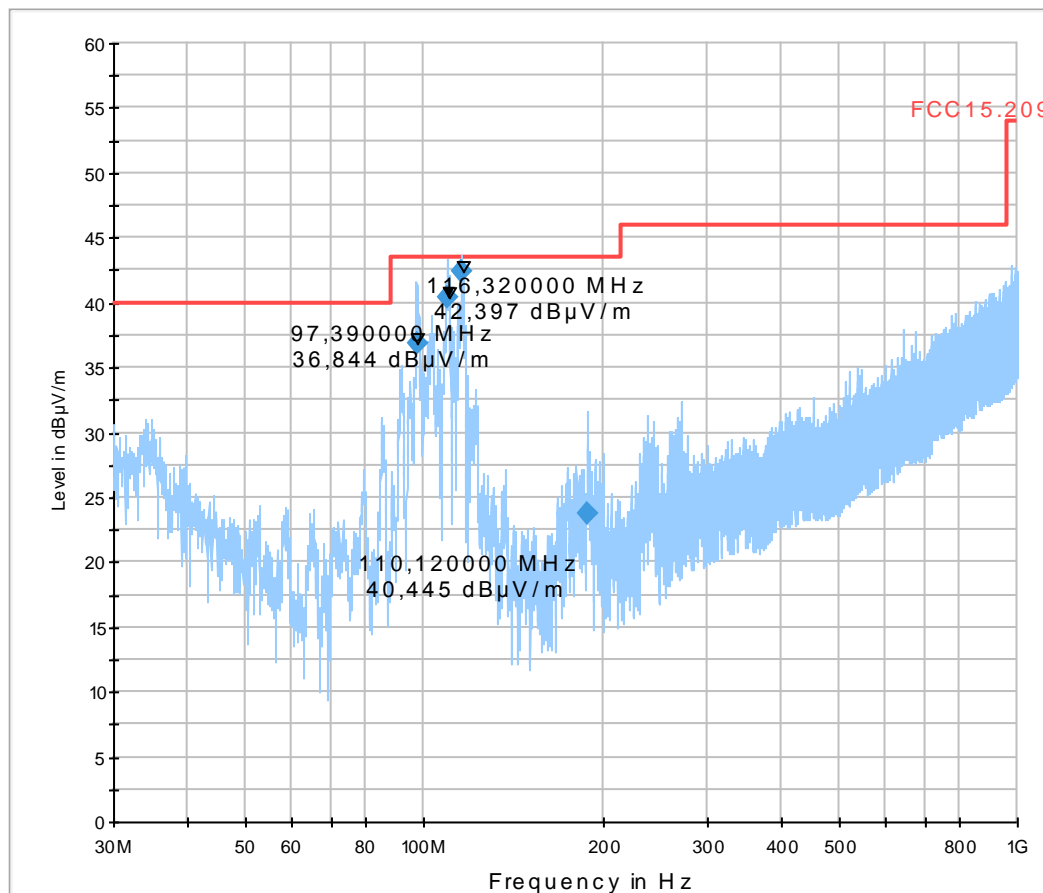


Diagram No. 3.02

14.08.2012 Page 1 of 1
 Test description: Electric Fieldstrength Measurement
 Test site and distance: Semi Anechoic Room (SAR) with 3 m measurement distance
 Distance correction: not used
 Used filter: TP1200
 Test specification.: FCC 15.209 ; RSS-Gen: Issue 3
 Operator: Tas
 Operating conditions: TX (CW mode), middle CH 18 = 2440 MHz
 Power during tests: 110V 60Hz
 Comment 1: S/N 20
 6-0196-12-1-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: 070512
 Comment: Adapter Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

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)
96.260000	37.8	1000.0	120.000	360.0	H	0.0	0.0	8.2	5.70	43.50
121.170000	35.4	1000.0	120.000	112.0	V	81.0	90.0	8.1	8.10	43.50

01_FCC15.209_hor+vert_kipp

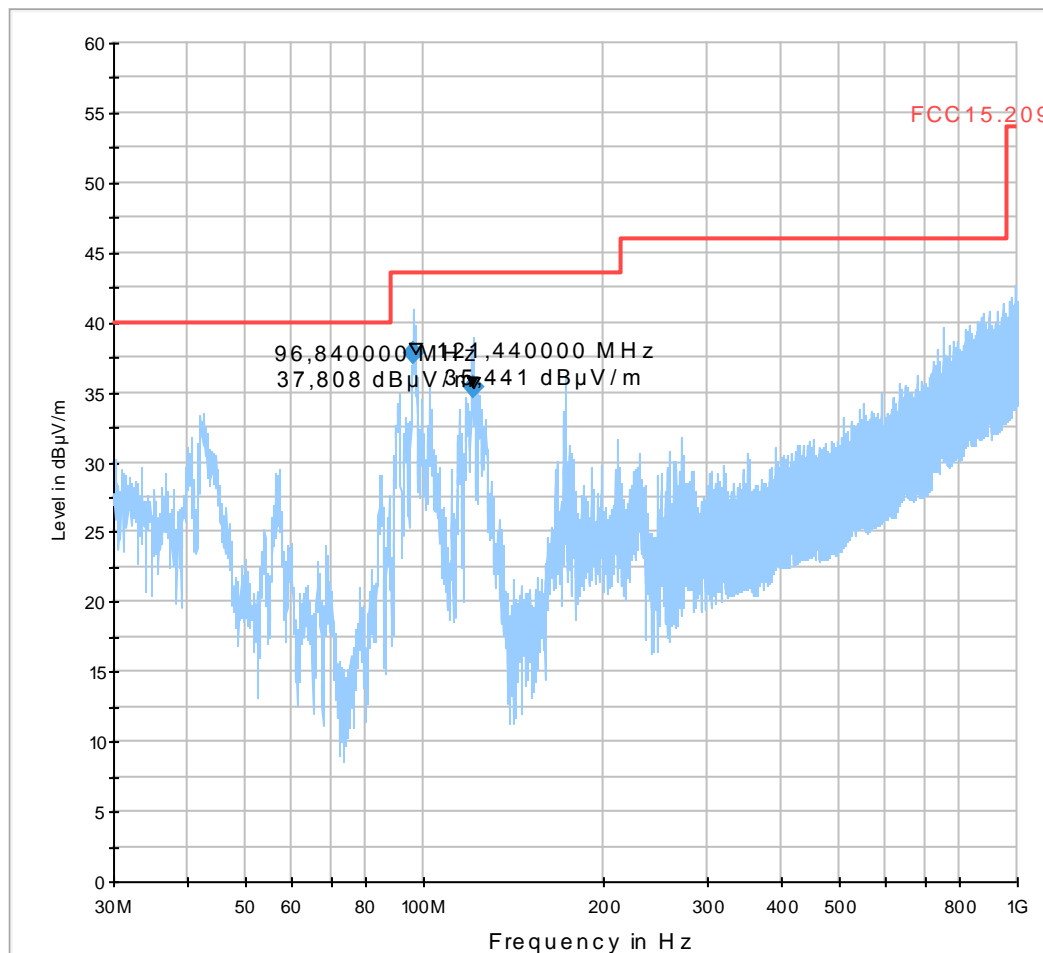


Diagram No. 3.03

Test description: 14.08.2012 Page 1 of 1
 Test site and distance: Electric Fieldstrength Measurement
 Distance correction: Semi Anechoic Room (SAR) with 3 m measurement distance
 Used filter: not used
 Test specification.: TP1200
 FCC 15.209; RSS-Gen: Issue 3

Operator: Tas
 Operating conditions: TX (CW mode), high CH 26 = 2480 MHz
 Power during tests: 110V 60Hz
 Comment 1: S/N 9
 6-0196-12-1-2a

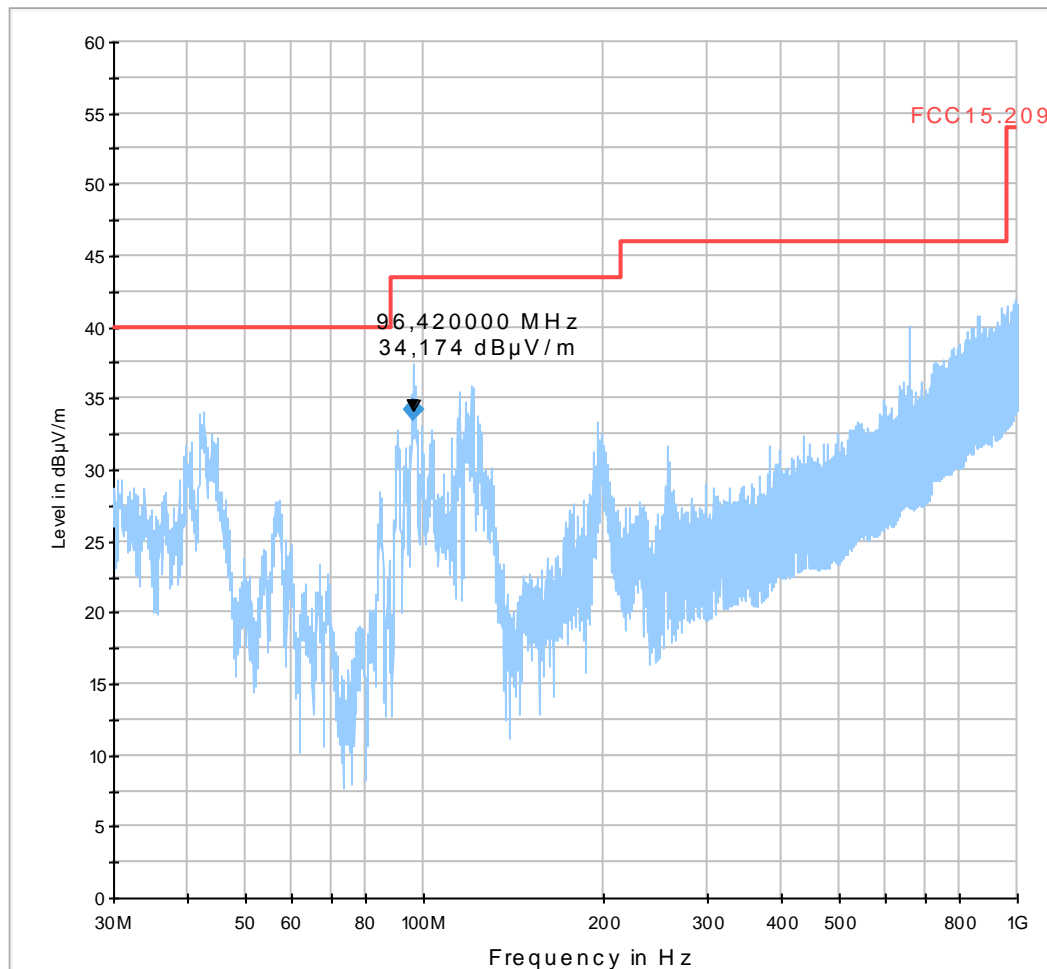
EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: 070512
 Comment: Adapter Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
96.420000	34.2	1000.0	120.000	368.0	H	186.0	90.0	8.2	9.30	43.50

01_FCC15.209_hor+vert_kipp



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

Diagram No.: 4.01_RSE

Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 & 15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operator Name:	HLa
Comment:	S/N 15, AC 110V/60 Hz
Op. Mode:	TX, low channel11 = 2405 MHz 6-0196-12-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	--
Software Rev:	--
Comment:	DA Motorantrieb EPL8800 (HW update: 090512)

00431_SM1_KP1_W LAN_500us

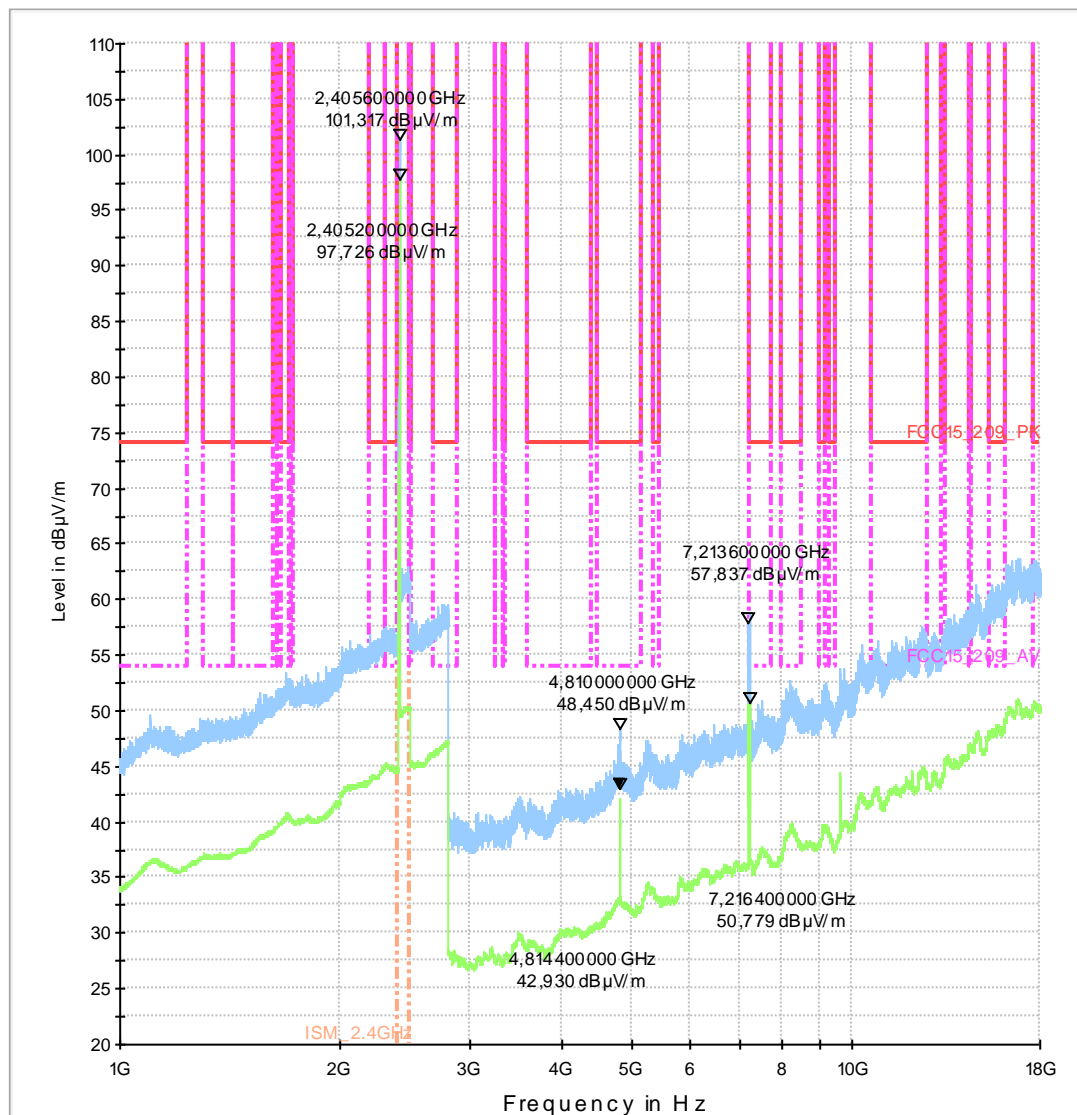


Diagram No.: 4.02_RSE

Common Information

Test Description: Radiated field strength emission in 3 m distance
 Test Site: CETECOM GmbH Essen
 Test Standard: §15.205 & 15.209 Intentional Radiator
 Antenna polarisation: horizontal/vertical

Operator Name: Tas/YZH
 Comment: S/N 20, 110 V/ 60Hz
 Op. Mode: TX, Middle channel 18 = 2440 MHz
 6-0196-12-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: --
 Software Rev: --
 Comment: DA Motorantrieb EPL8800 (HW update: 090512)

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
7321.300000	50.1	100.0	1000.000	155.0	H	50.0	90.0	10.2	3.9

Frequency (MHz)	Limit (dBµV/m)	Comment
7321.300000	54.0	

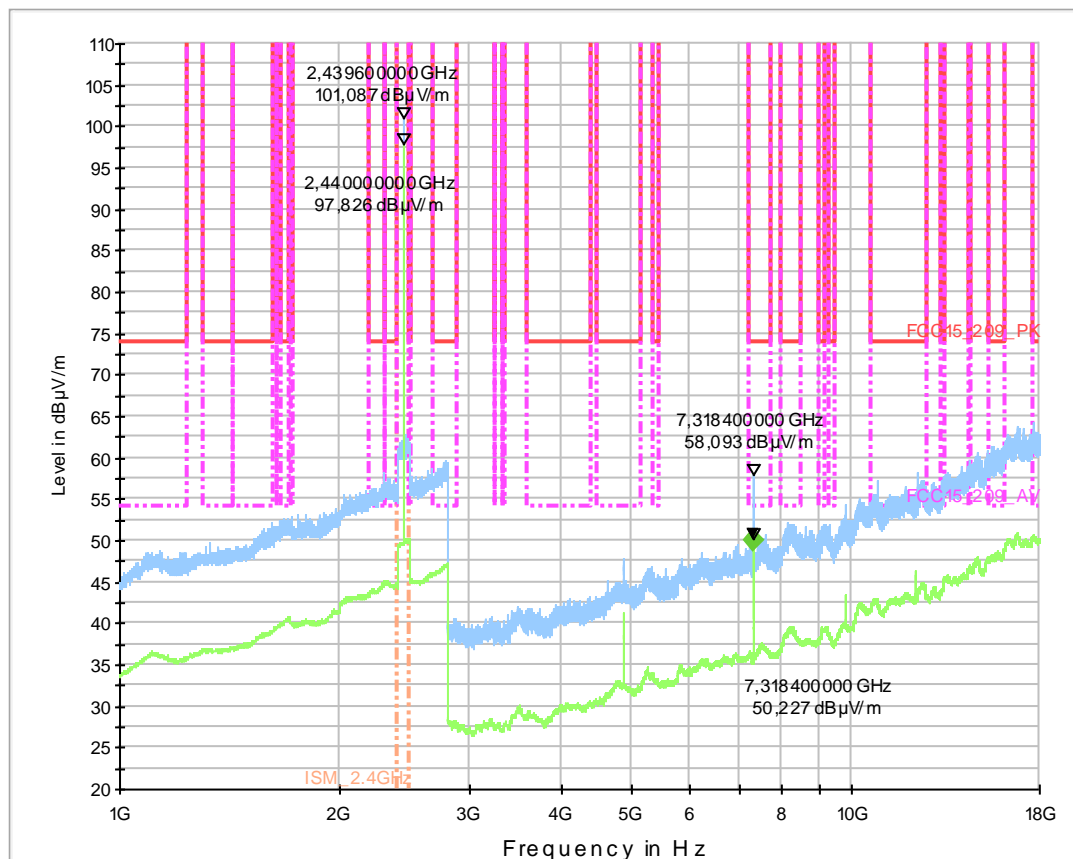


Diagram No.: 4.03_RSE

Common Information

Test Description: Radiated field strength emission in 3m distance
 Test Site: CETECOM GmbH Essen
 Test Standard: §15.205 & 15.209 Intentional Radiator
 Antenna polarisation: horizontal/vertical

Operator Name: HLa
 Comment: S/N 9, AC 110V/60 Hz
 Op. Mode: TX, high channel 26 = 2480 MHz
 6-0196-12-2a

EUT Information

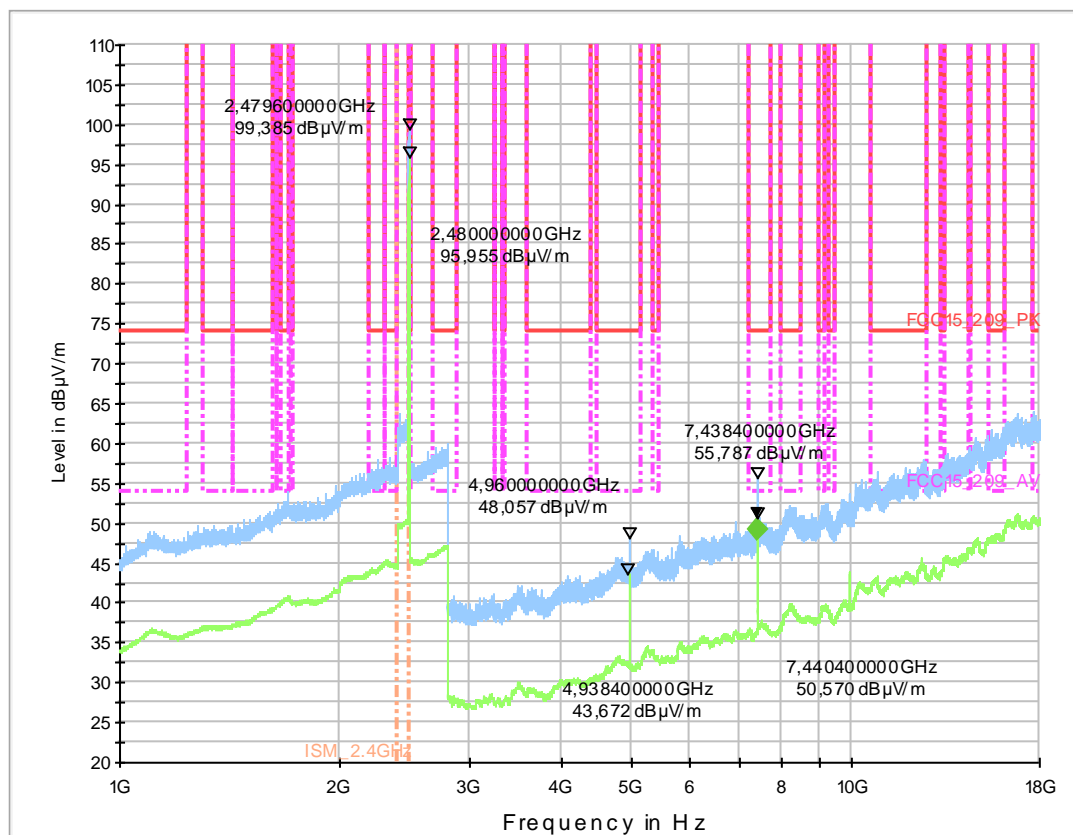
EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: --
 Software Rev: --
 Comment: DA Motorantrieb EPL8800 (HW update: 090512)

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Correction (dB)	Margin (dB)
7438.500000	49.2	100.0	1000.000	155.0	H	46.0	90.0	11.3	4.8

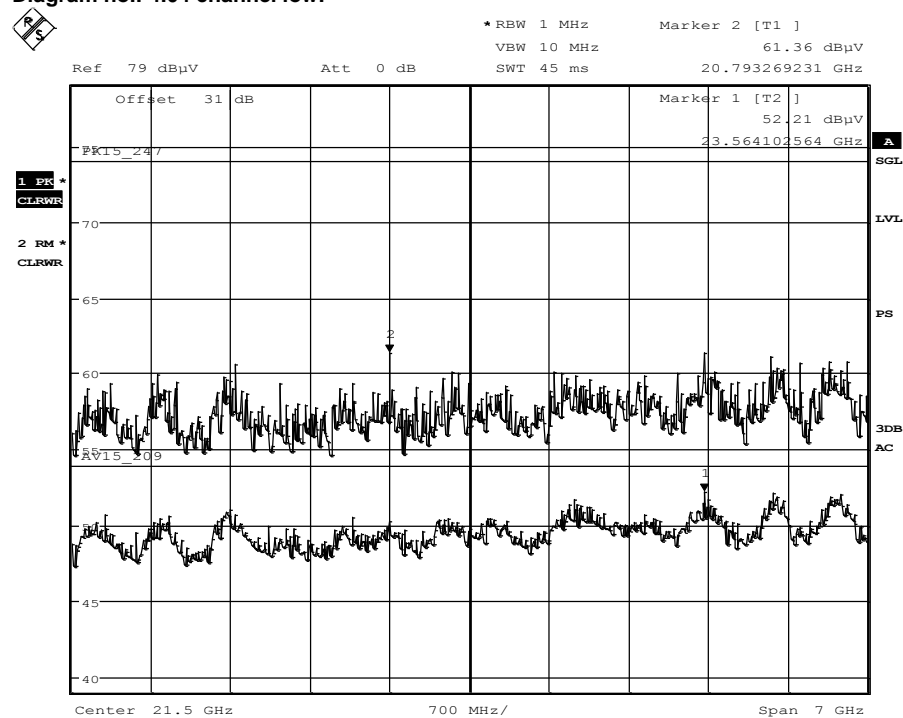
Frequency (MHz)	Limit (dBµV/m)	Comment
7438.500000	54.0	

00431_SM1_KP1_W LAN_500us



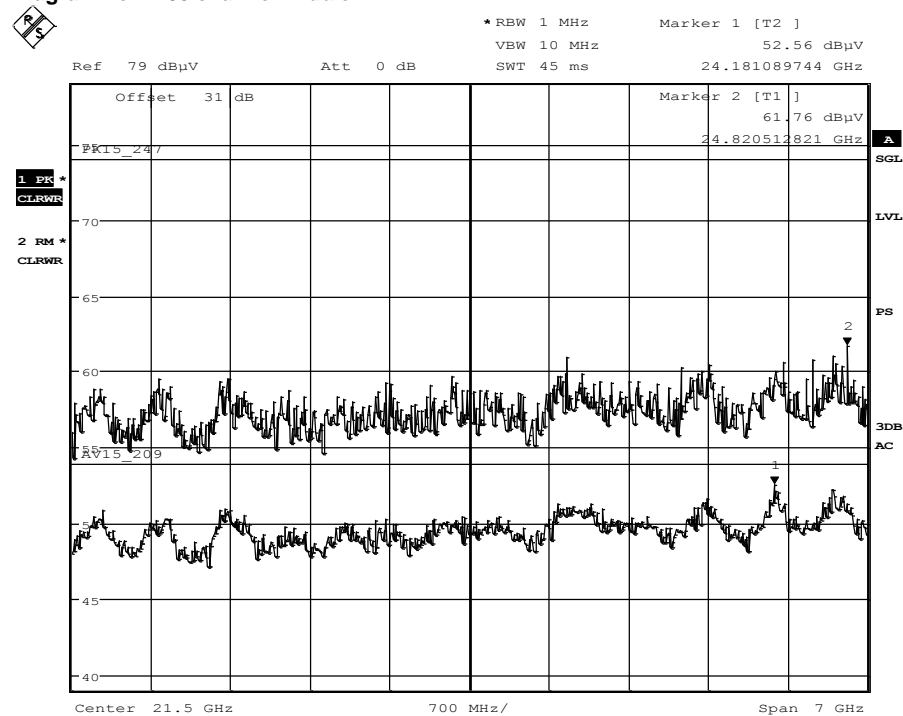
1.2.4. Radiated emissions in the frequency range above 18 GHz

Diagram no.: 4.04 channel low:



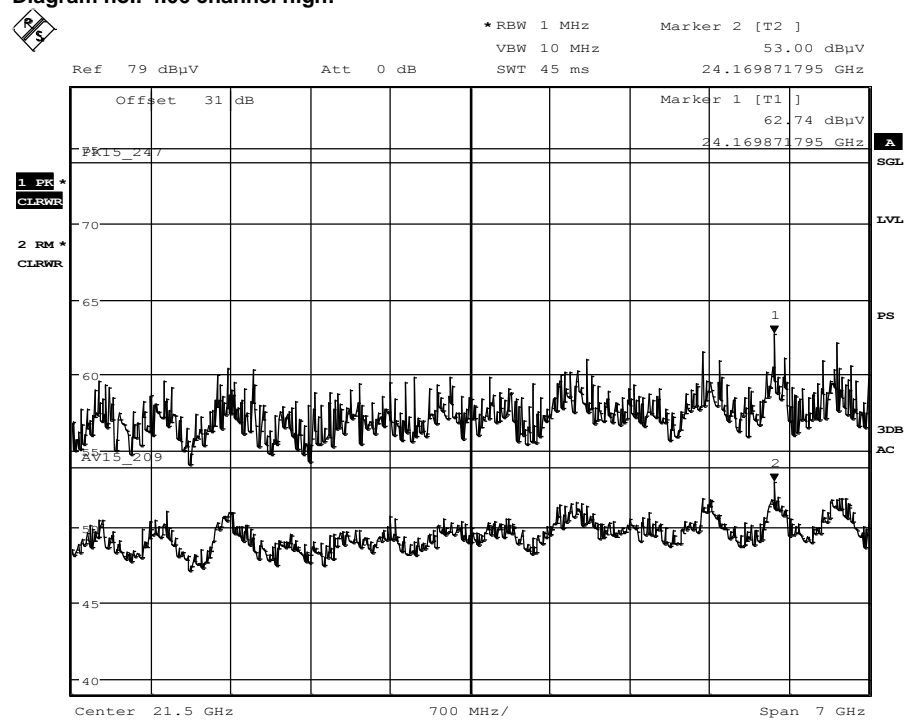
Date: 21.SEP.2012 11:40:50

Diagram no.: 4.05 channel middle:



Date: 21.SEP.2012 11:42:46

Diagram no.: 4.06 channel high:



Date: 21.SEP.2012 11:44:40

1.2.5. Carrier radiated field strength in 3 m and band-edge compliance acc. FCC 15.247 & 15.209

Diagram No.: 4.01

Common Information

Test Description: RF Power Radiated field strength in 3 m distance
 Test Site: CETECOM GmbH Essen
 Test Standard: FCC §15.247
 Antenna polarisation: horizontal/vertical

Operator Name: Tas
 Comment: S/N 15, AC 110V/60 Hz
 Op. Mode: TX, low channel 11 = 2405 MHz
 6-019 -12-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Mielee
 Hardware Rev: --
 Software Rev: --
 Comment: DA Motorantrieb EPL8800 (HW update: 0905202)

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas Tim (ms)	Bandwidth (kHz)	Heigh (cm)	Polarization	Azimut (deg)	Elevatio (deg)	Corr (dB)	Comment
2405.500000	101.	100.0	1000.000	155.	H	83.	0.0	35.	

Final Result 2

Frequency (MHz)	Averag (dBµV/m)	Meas Tim (ms)	Bandwidth (kHz)	Heigh (cm)	Polarization	Azimut (deg)	Elevation (deg)	Corr (dB)	Comment
2405.000000	97.	100.0	1000.000	155.	H	84.	0.0	35.	

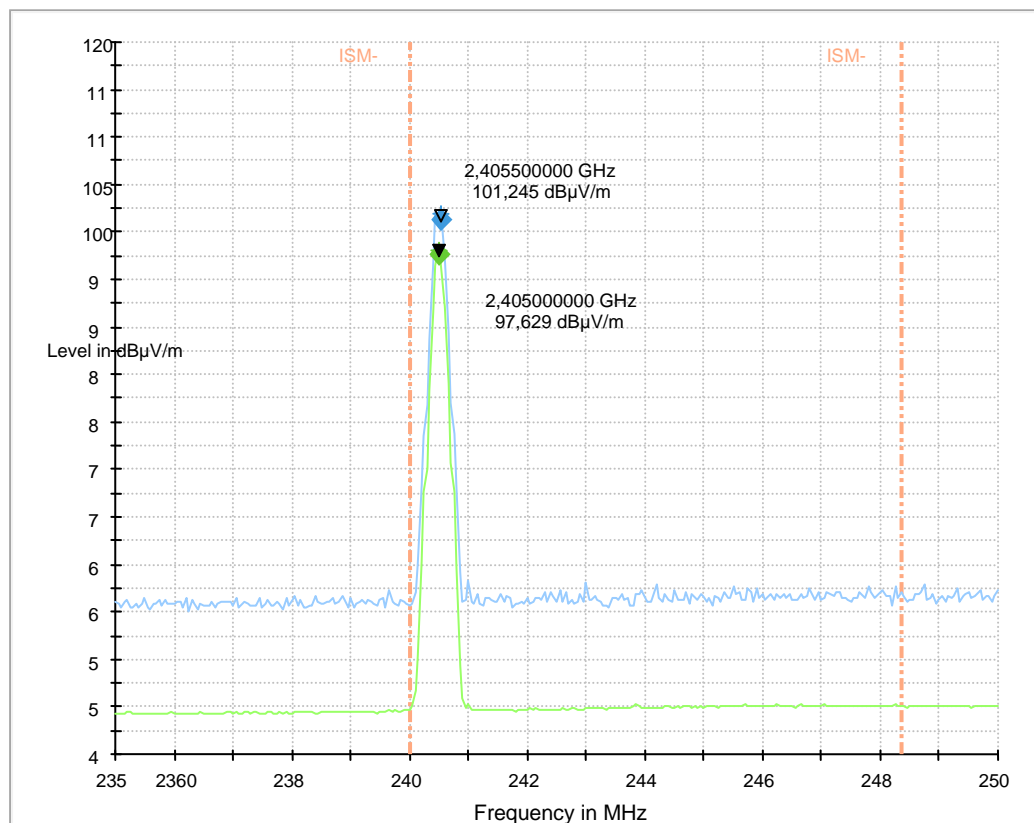


Diagram No.: 4.01_BE

Common Information

Test Description:	Band Edge Radiated - ZigBee 2.4GHz ISM band
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.205 & 15.209
Antenna polarisation:	horizontal/vertical
Operator Name:	Tas
Comment:	S/N 15, AC 110V/60 Hz
Op. Mode:	TX, low channel 11 = 2405 MHz
	6-0196-12-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	--
Software Rev:	--
Comment:	DA Motorantrieb EPL8800 (HW update: 090512)

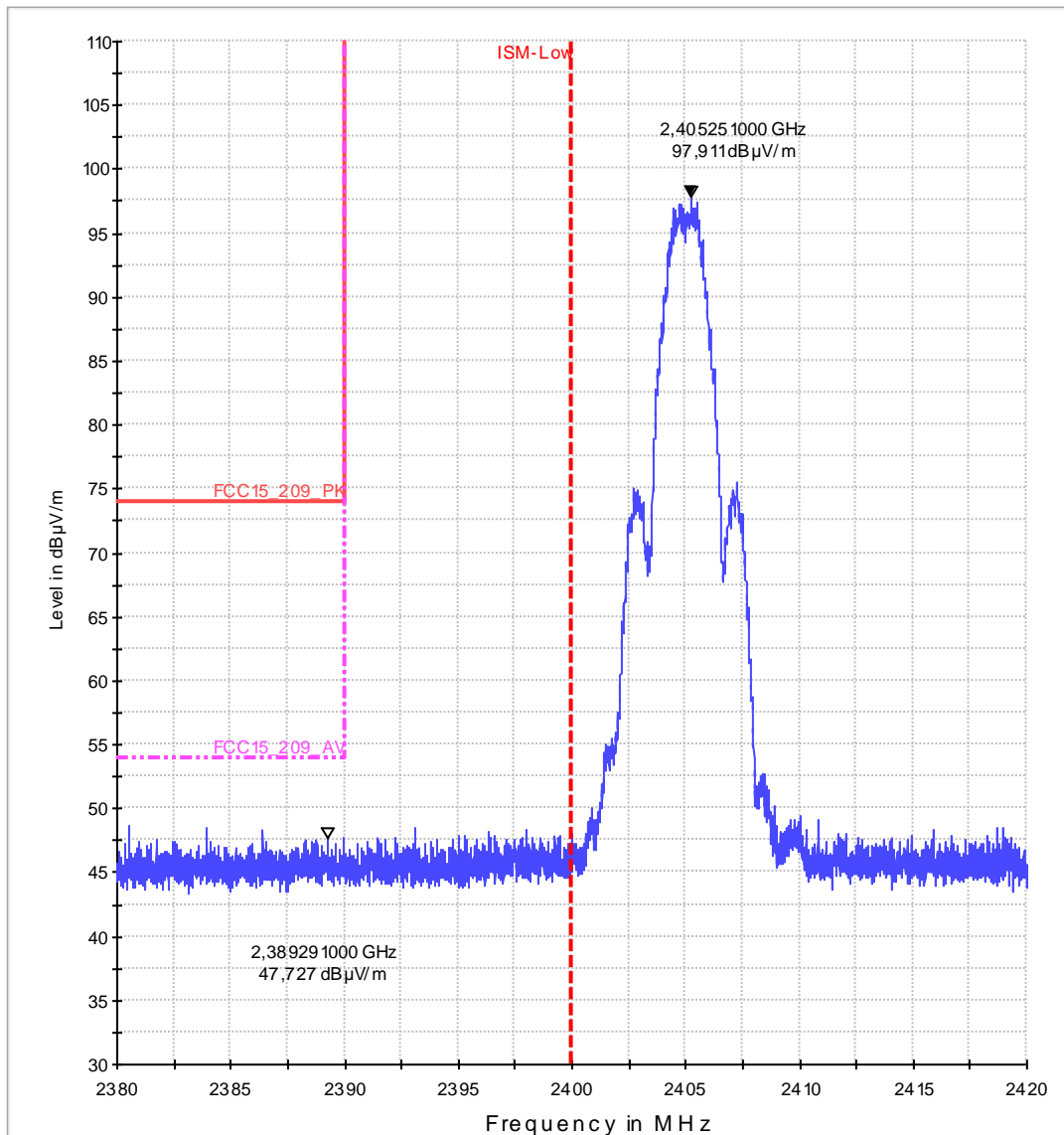


Diagram No.: 4.02

Common Information

Test Description: RF Power - Radiated field strength in 3 m distance
 Test Site: CETECOM GmbH Essen
 Test Standard: FCC §15.247
 Antenna polarisation: horizontal/vertical

Operator Name: Tas
 Comment: S/N 8, AC 110V/60 Hz
 Op. Mode: TX, middle channel 18 = 2440 MHz
 6-0196-12-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: --
 Software Rev: --

Comment: DA Motorantrieb EPL8800 (HW update: 090512)

Final Result 1

Frequency (MHz)	MaxPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Comment
2440.500000	101.7	100.0	1000.000	155.0	H	86.0	0.0	35.6	

Final Result 2

Frequency (MHz)	Average (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Comment
2440.000000	98.1	100.0	1000.000	155.0	H	86.0	0.0	35.6	

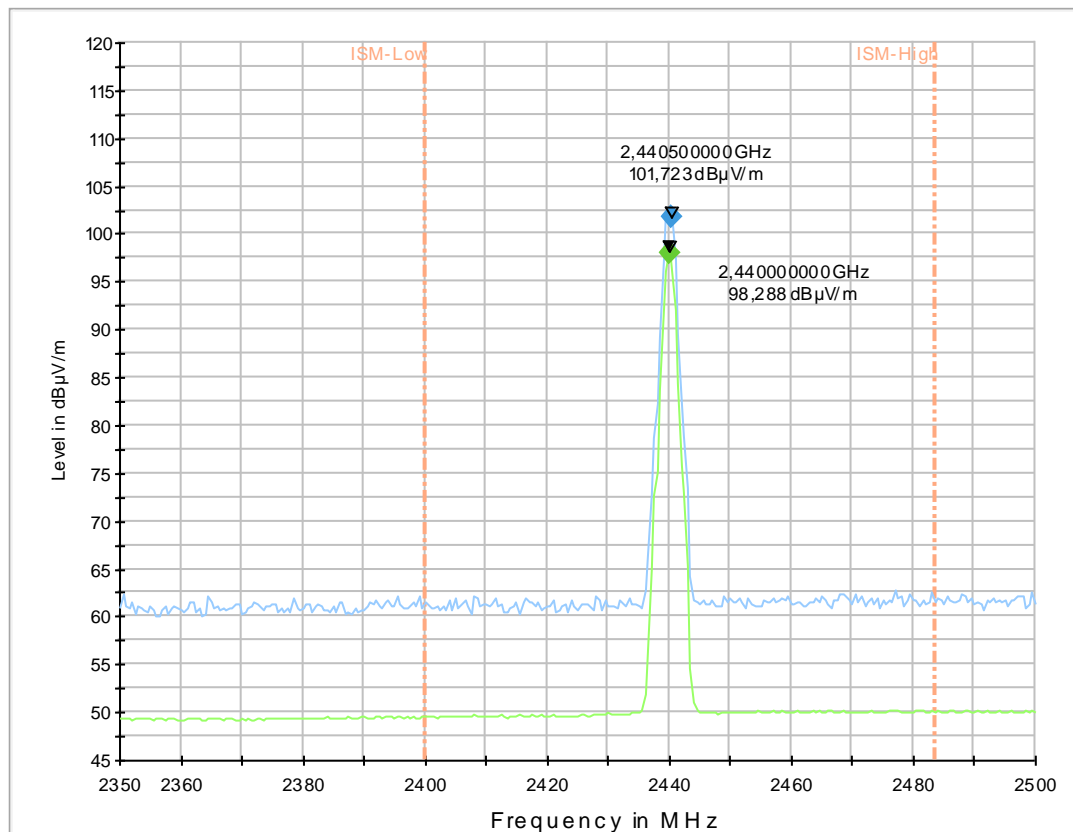


Diagram No.: 4.03

Common Information

Test Description: RF Power -Radiated field strength emission in 3m distance
 Test Site: CETECOM GmbH Essen
 Test Standard: FCC §15.247
 Antenna polarisation: horizontal/vertical

Operator Name: HLa
 Comment: S/N 9, AC 110V/60 Hz
 Op. Mode: TX, high channel 26 = 2480 MHz
 6-0196-12-2a

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: --
 Software Rev: --
 Comment: DA Motorantrieb EPL8800 (HW update: 090512)

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Comment
2479.500000	100.1	100.0	1000.000	155.0	H	82.0	0.0	35.7	

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Comment
2480.000000	96.5	100.0	1000.000	155.0	H	82.0	0.0	35.7	

Carrier_measurement_SM1_PA0_KP1_WLAN

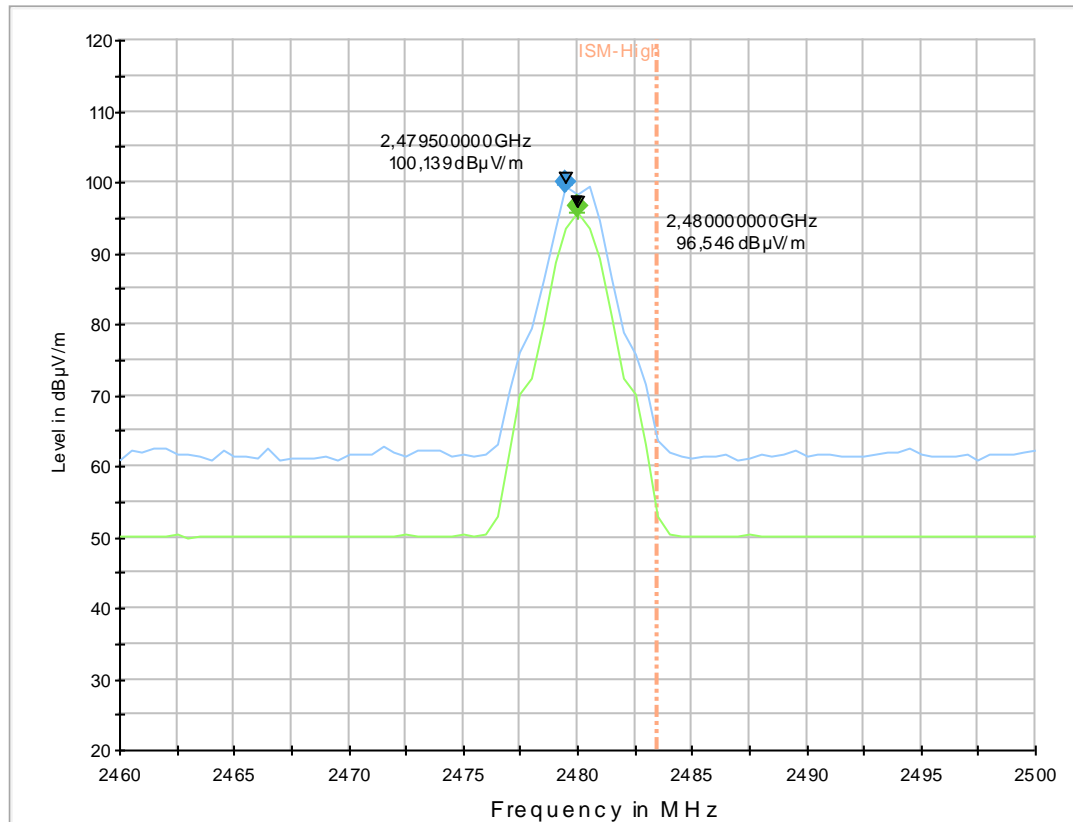


Diagram No.: 4.03_BE

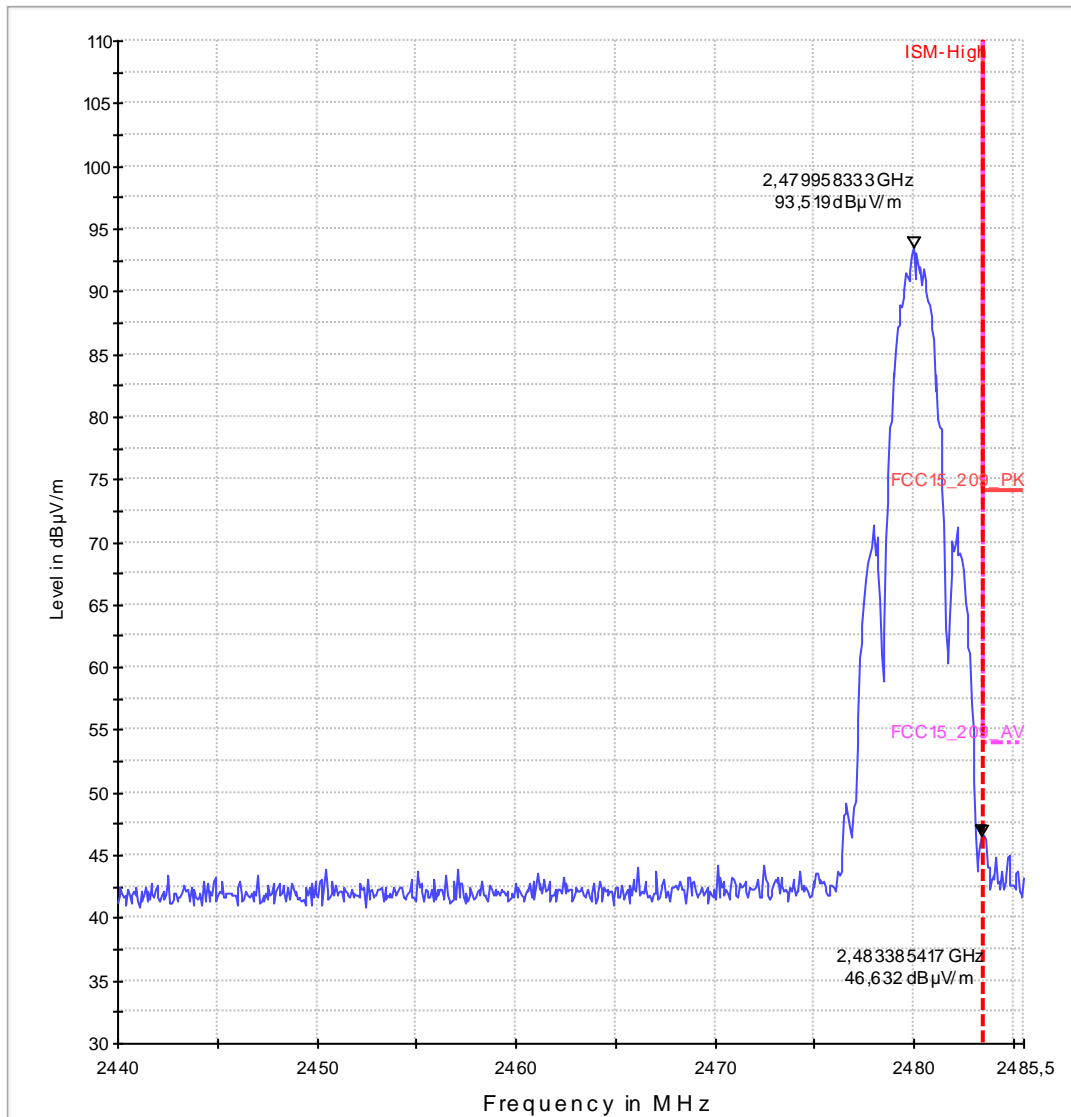
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC §15.205 &15.209
Antenna polarisation:	horizontal/vertical
Operator Name:	HLa
Comment:	S/N 9, AC 110V/60 Hz
Op. Mode:	TX, high channel 26 = 2480 MHz 6-0196-12-2a

EUT Information

EUT Name:	EI 8800-A with shielding
Manufacturer:	Miele
Hardware Rev:	--
Software Rev:	--
Comment	DA Motorantrieb EPL8800 (HW update: 090512)

09_ESU_2.4GHz_High_Band_Edge_PA0



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

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

Diagram No. 3.04

Test description: Electric Fieldstrength Measurement
 Test site and distance: Semi Anechoic Room (SAR) with 3m measurement distance
 Distance correction: not used
 Used filter: used
 Test specification: FCC15.109; RSS-Gen.: Issue 3

Operator: Tas
 Operating conditions: RX, Ch 15= 2425 MHz
 Measured sides of EUT: front, right, rear, left
 Power during tests: 110V 60Hz
 Comment 1: 6-0196-12-1-2a, SN 12

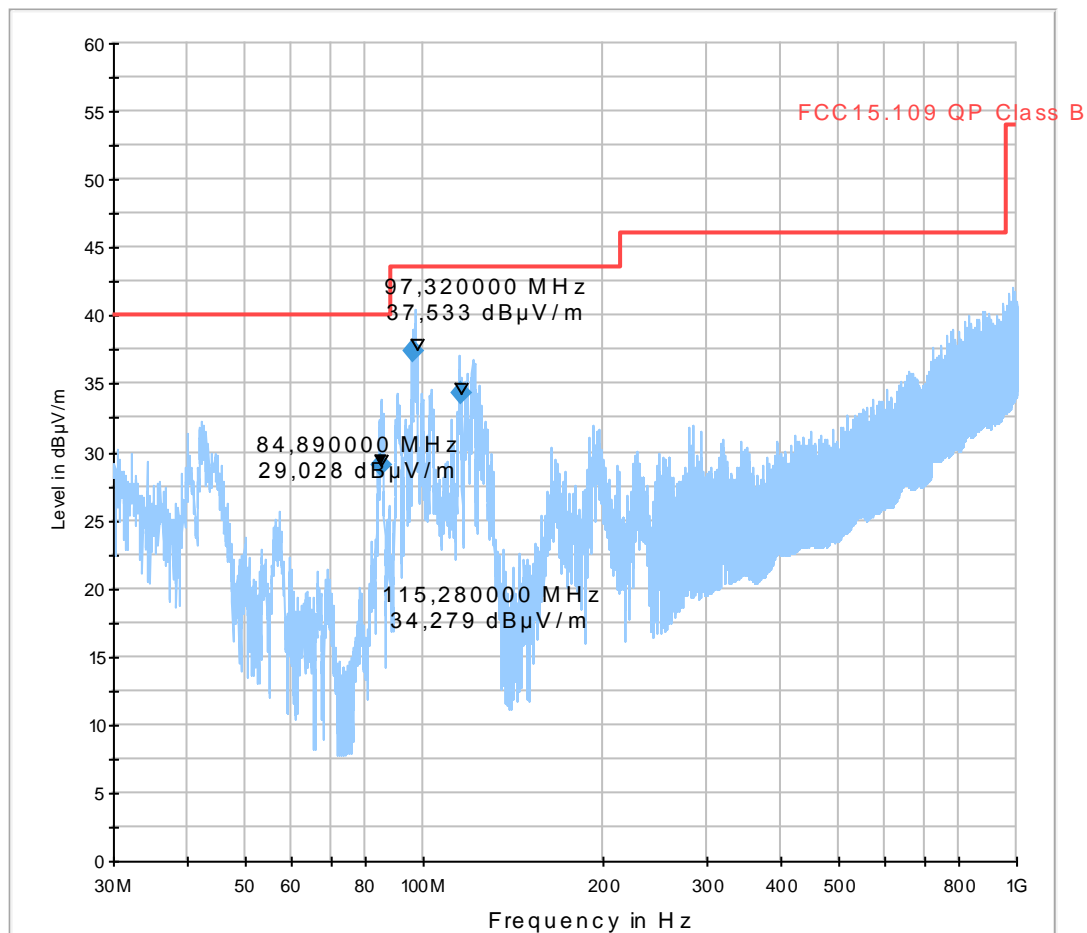
EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: 070512
 Comment: Adapter Motherboard EPL 8800 DA Motorantrieb, part no. 09374100

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)
84.890000	29.0	1000.	120.000	100.0	V	59.0	0.0	7.8	11.0	40.0
96.380000	37.4	1000.	120.000	230.0	H	20.0	90.0	8.2	6.1	43.5
115.340000	34.3	1000.	120.000	262.0	H	0.0	90.0	8.2	9.2	43.5

05_FCC15.109_hor+vert_kipp



1.3.2. Radiated field strength (1 GHz < f < 10 GHz)

Diagram no.: 4.07

Common Information

Test Description: Receiver Spurious Emissions - ZigBee mode
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Room (FAR)
 Test Standard: FCC Part 15.109
 Operating Mode: RX Mode, CH15 (2425 MHz)
 Equipment Class: Class B
 Environmental Conditions: Humidity: 49%rH; Temperature: 23°C
 Operator: Tas
 6-0196-12-1-2a, SN 12

EUT Information

EUT Name: EI 8800-A with shielding
 Manufacturer: Miele
 Hardware Rev: --
 Software Rev: --
 Comment: DA Motorantrieb EPL8800 (HW update: 090512)

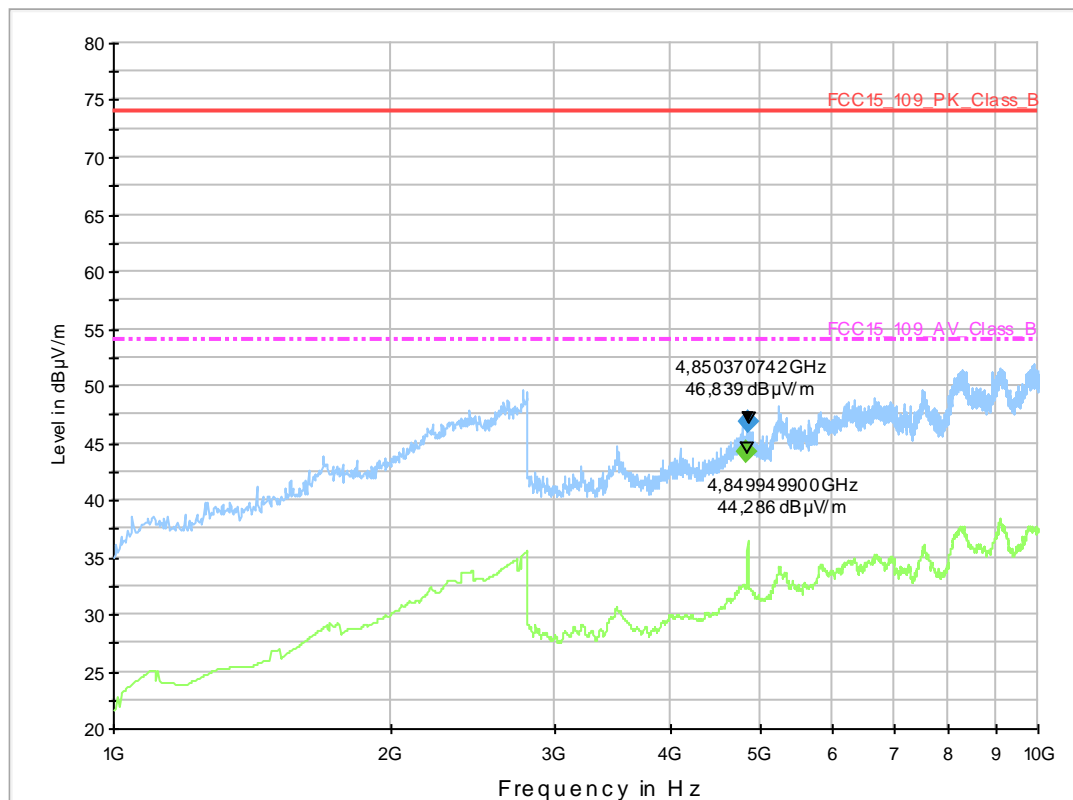
Final Result 1

Frequency (MHz)	MaxPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4850.370742	46.8	100.0	1000.000	H	82.0	90.0	4.7	27.2	74.0

Final Result 2

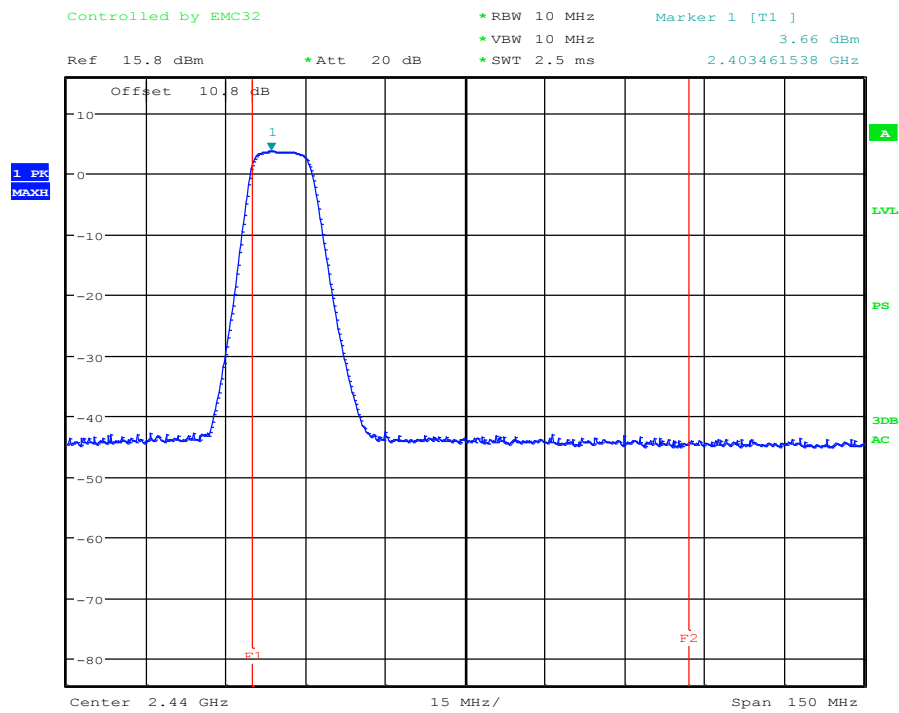
Frequency (MHz)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4849.949900	44.3	100.0	1000.000	V	143.0	90.0	4.7	9.7	54.0

030445_FCC_Part15.109_Unint_Rad_Class_B_1G-20G_FSEK



1.4. Maximum peak conducted power

Diagram no.: 10.01 low channel:



Date: 30.AUG.2012 10:13:55

Channel 11, SN 18-> absolute maximum value of three channels

Diagram no.: 10.02 middle channel:

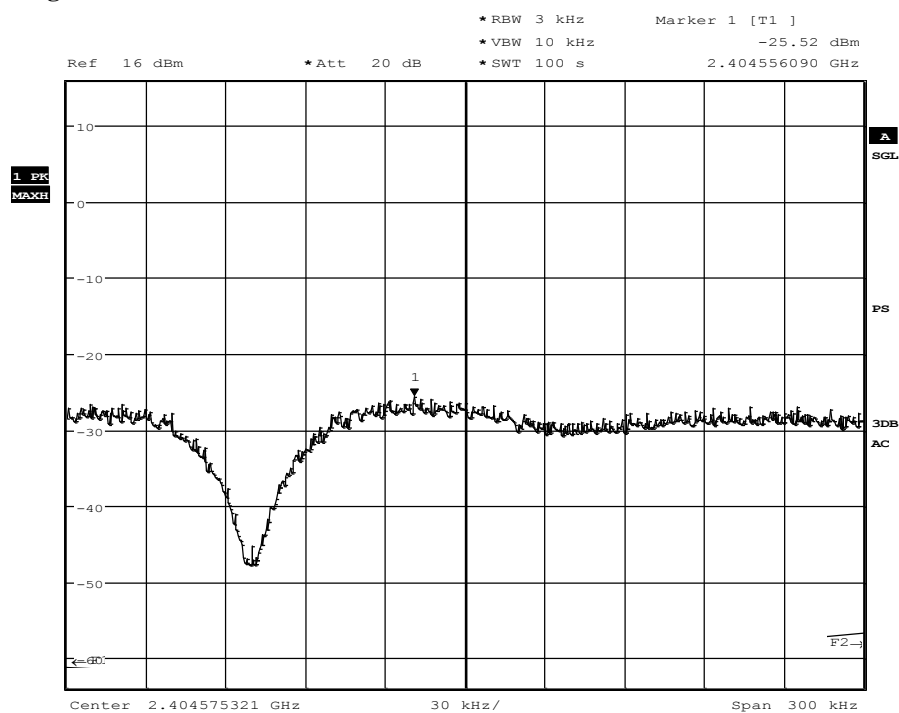
**Channel 18, SN 20**

Controlled by EMC32

**Channel 26, SN 22**

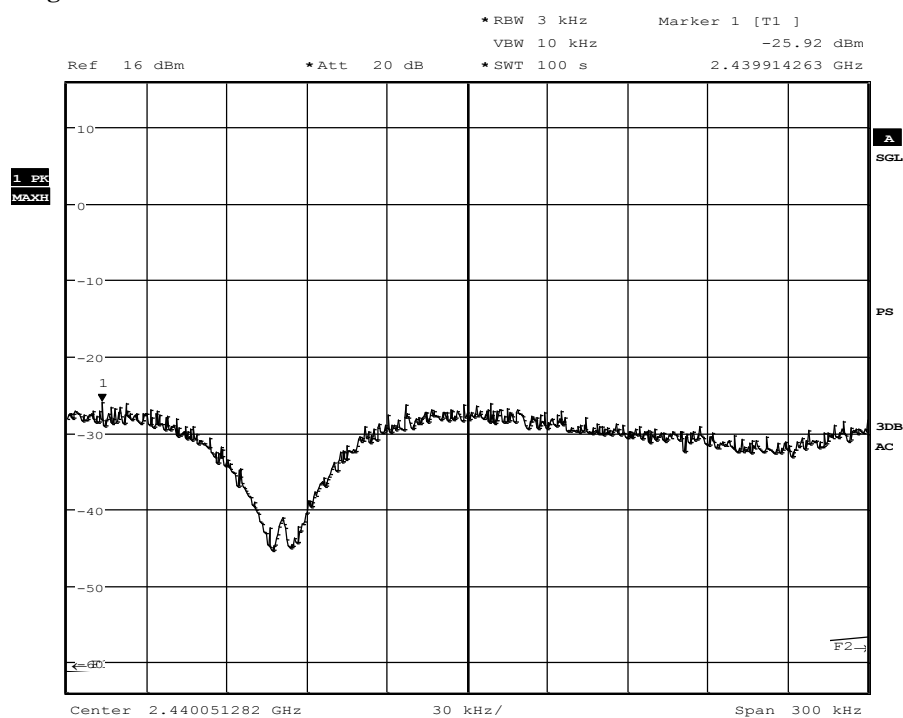
1.5. Power spectral density

Diagram no.: 11.01 low channel:

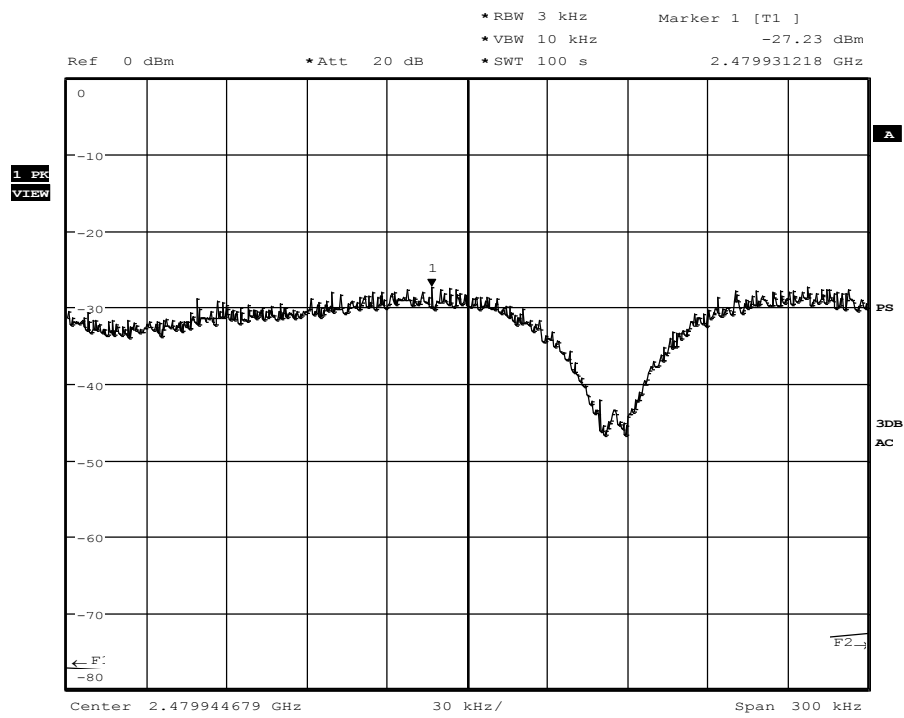


Date: 27.APR.2012 14:36:03

Diagram no.: 11.02 channel middle:



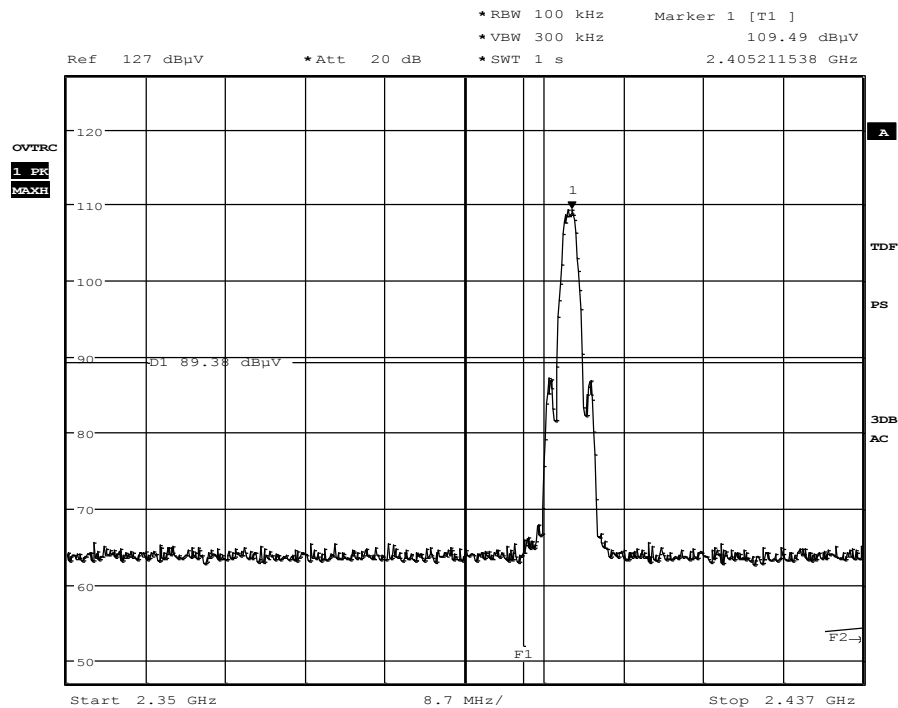
Date: 3.MAY.2012 09:18:47

Diagram no.: 11.03 channel high:

Date: 27.APR.2012 12:44:08

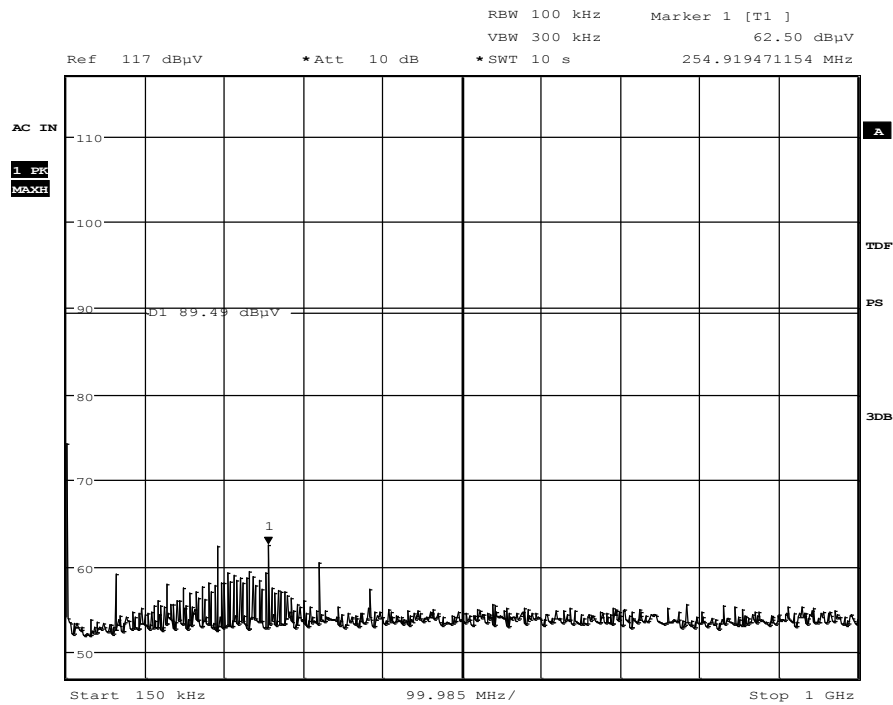
1.6. 20 dBc conducted emissions

12.01 low channel:



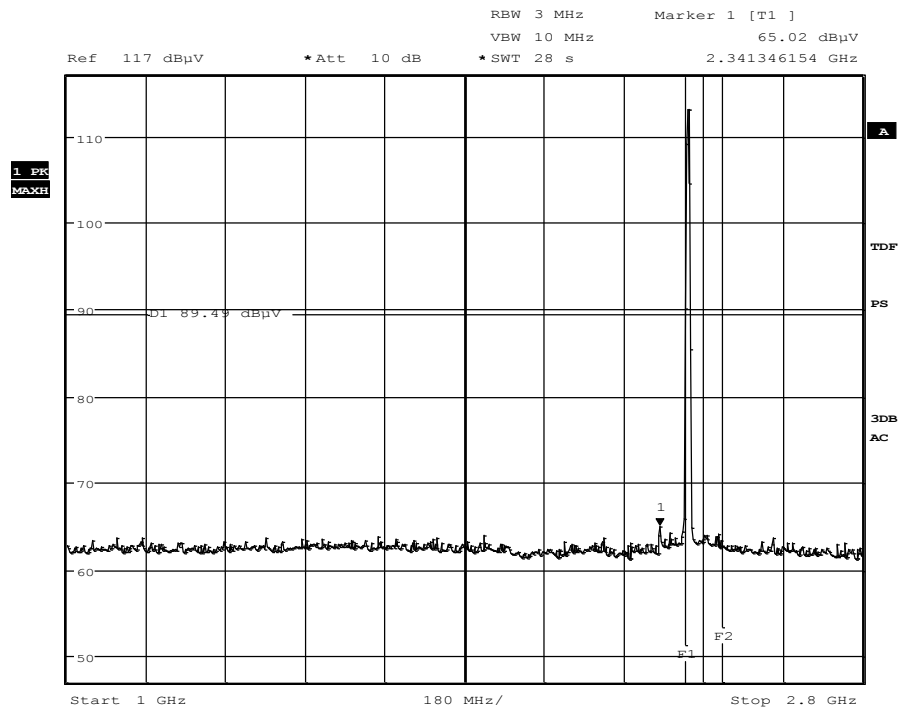
Date: 27.APR.2012 14:40:53

Reference value for low channel

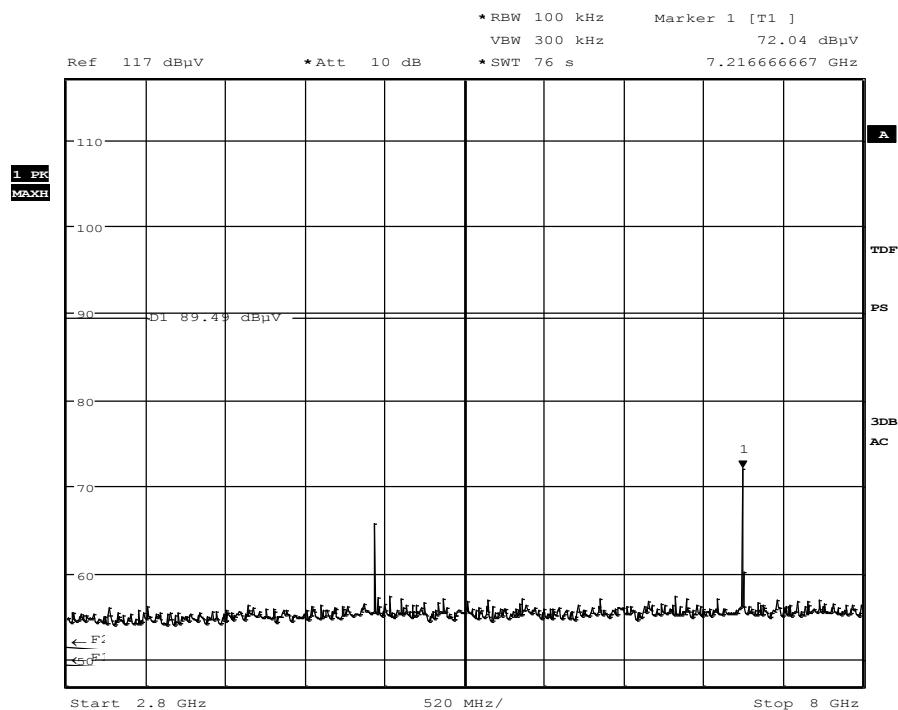


Date: 27.APR.2012 14:45:59

Sweep 1

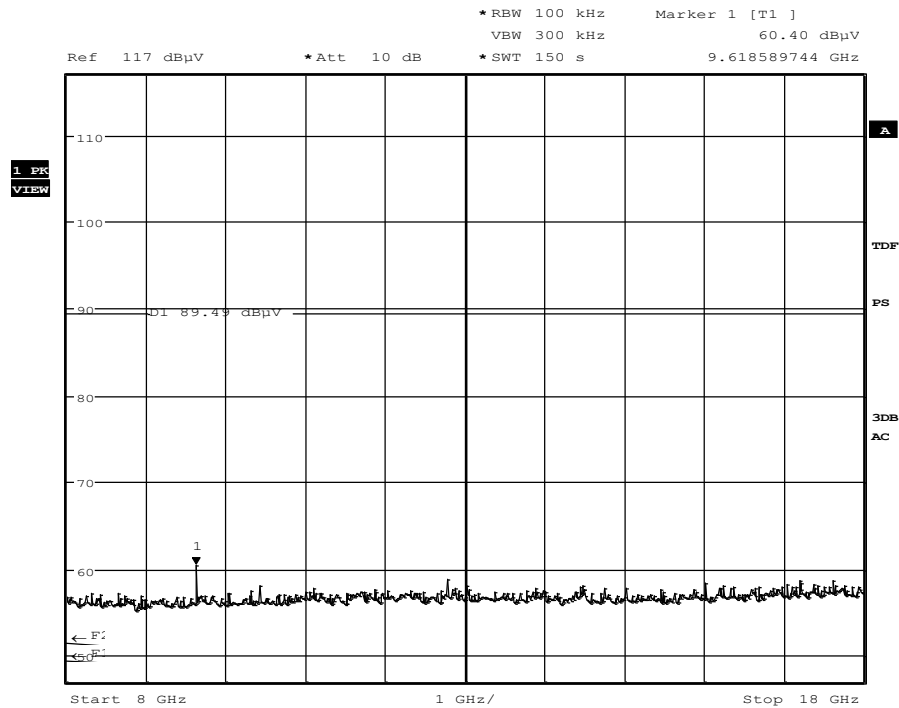


Date: 27.APR.2012 14:48:26

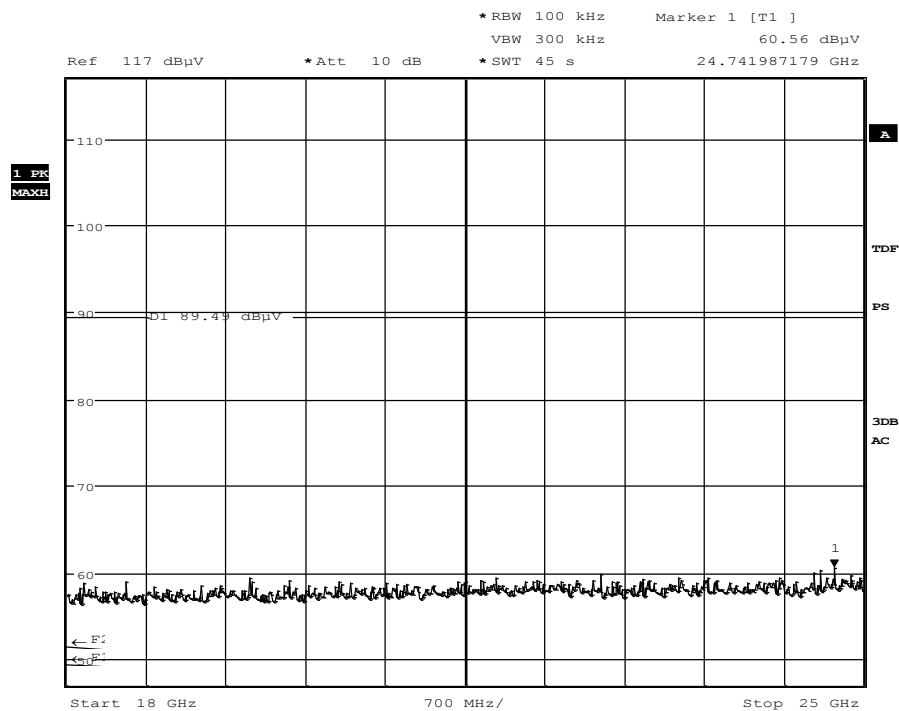
Sweep 2

Date: 27.APR.2012 14:50:51

Sweep 3

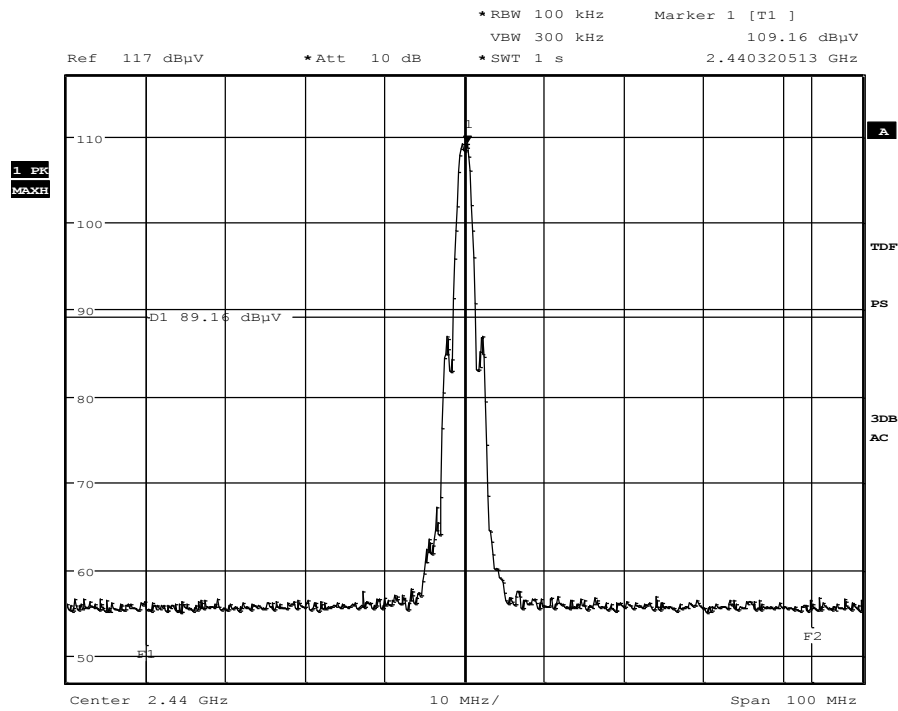


Date: 27.APR.2012 14:54:47

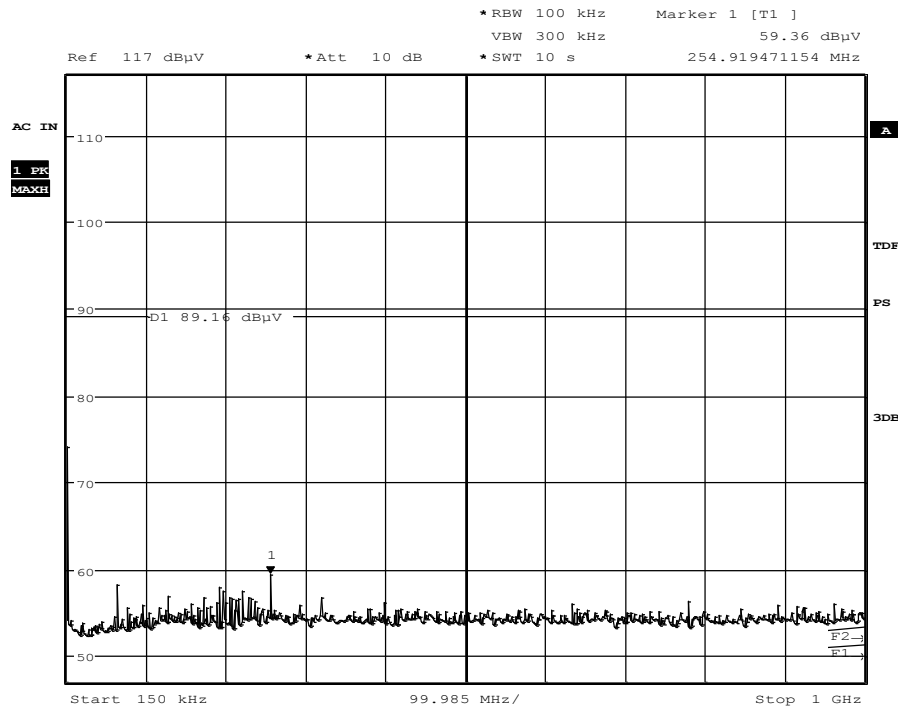
Sweep 4

Date: 27.APR.2012 14:56:26

Sweep 5

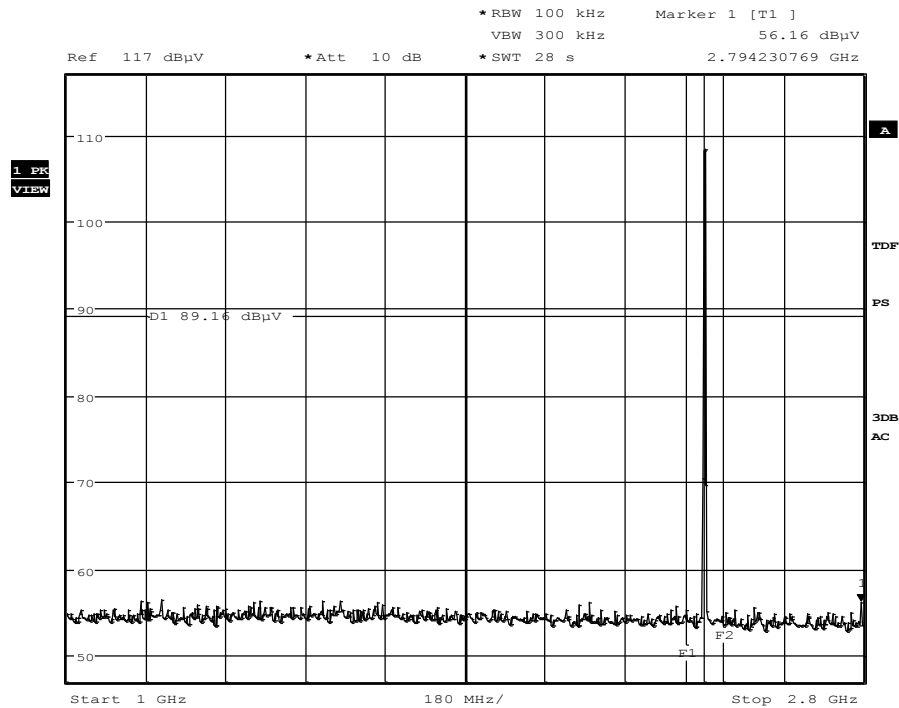
12.02 middle channel:

Date: 3.MAY.2012 08:23:33

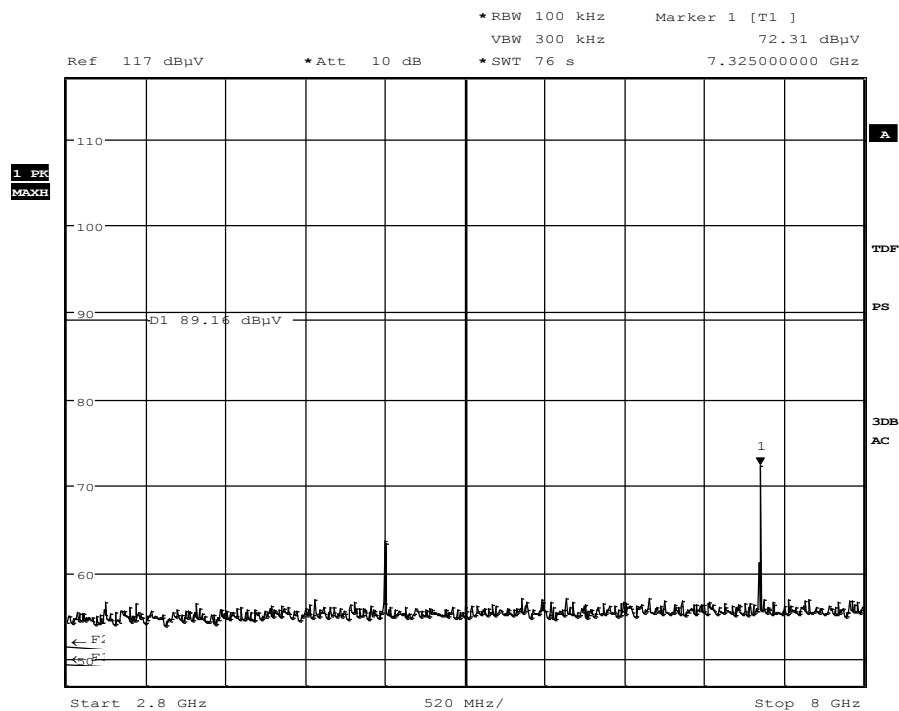
Reference value for middle channel

Date: 3.MAY.2012 08:26:33

Sweep 1

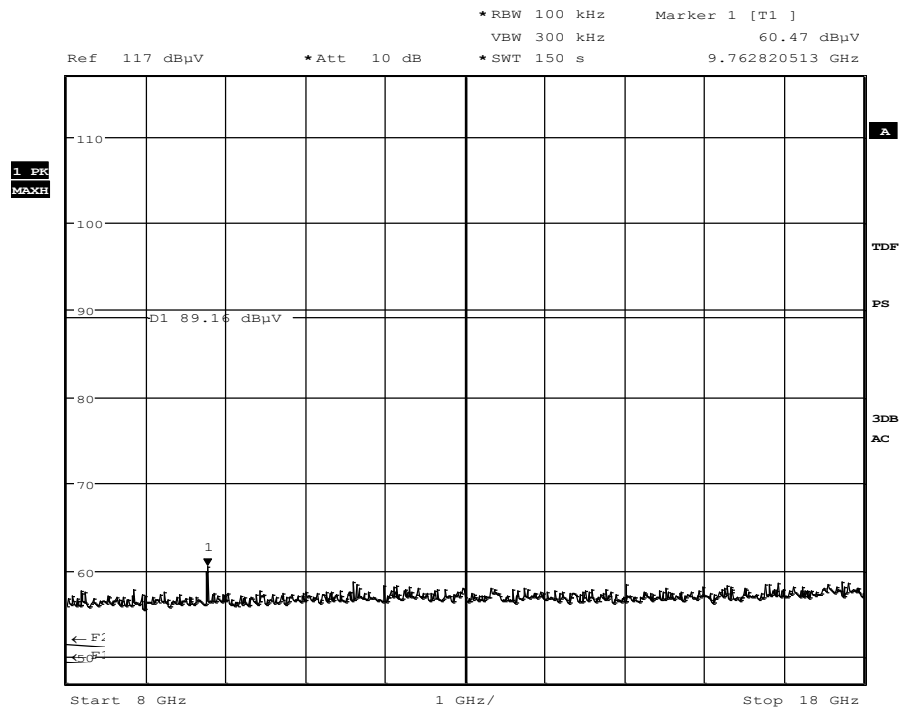


Date: 3.MAY.2012 08:37:40

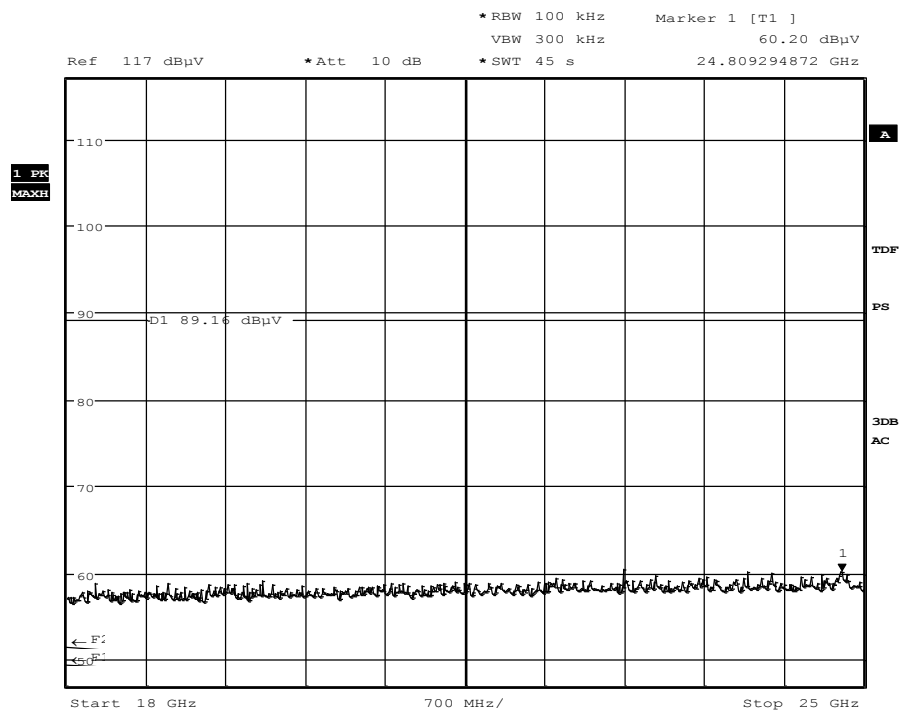
Sweep 2

Date: 3.MAY.2012 08:40:38

Sweep 3



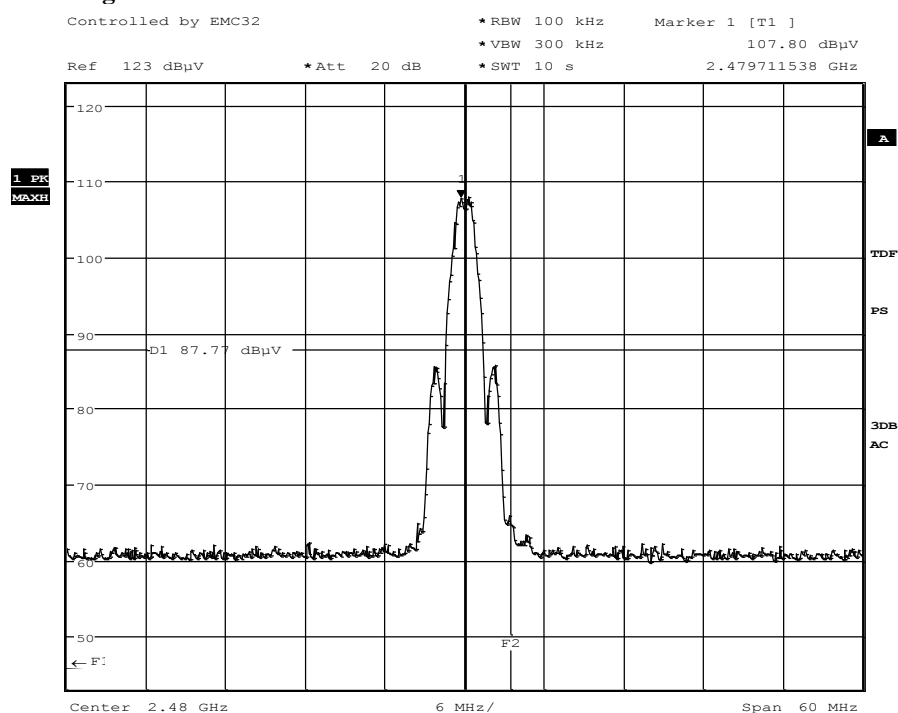
Date: 3.MAY.2012 08:47:18

Sweep 4

Date: 3.MAY.2012 08:50:43

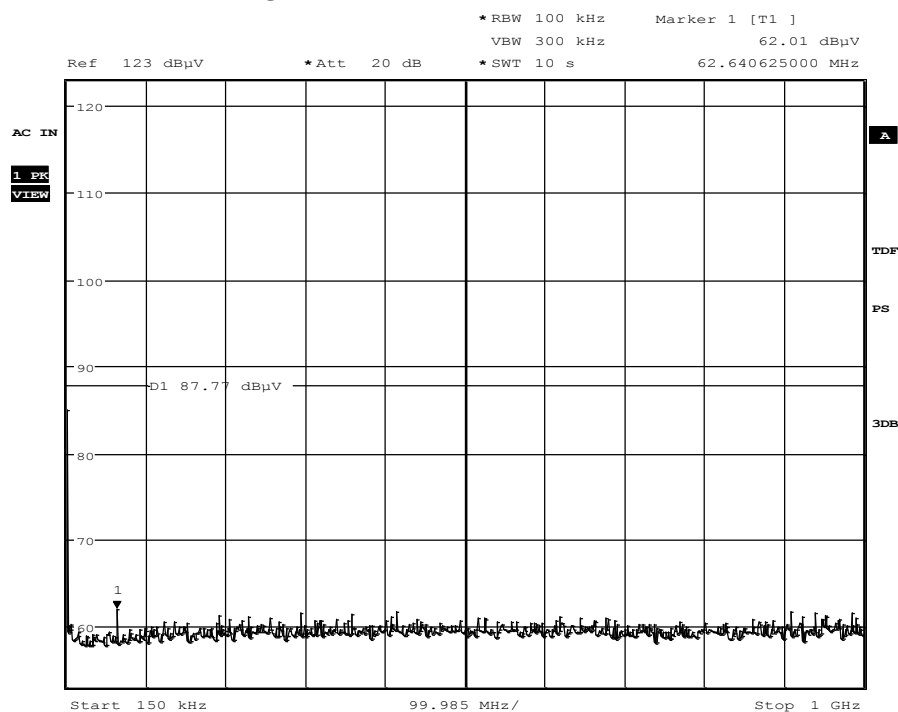
Sweep 5

12.03 High channel:



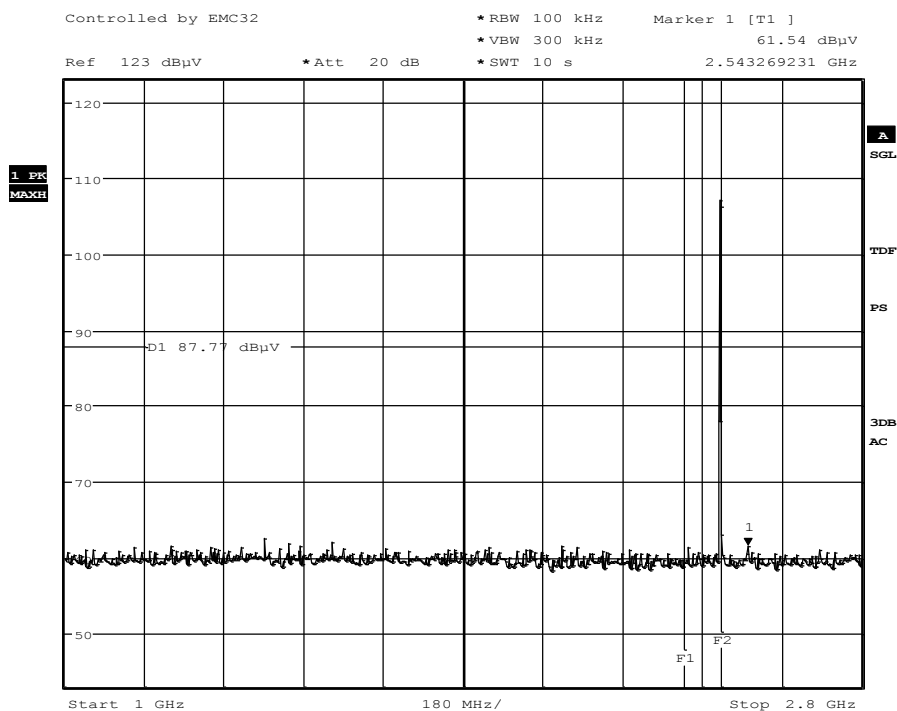
Date: 24.APR.2012 14:26:20

Reference value for High channel



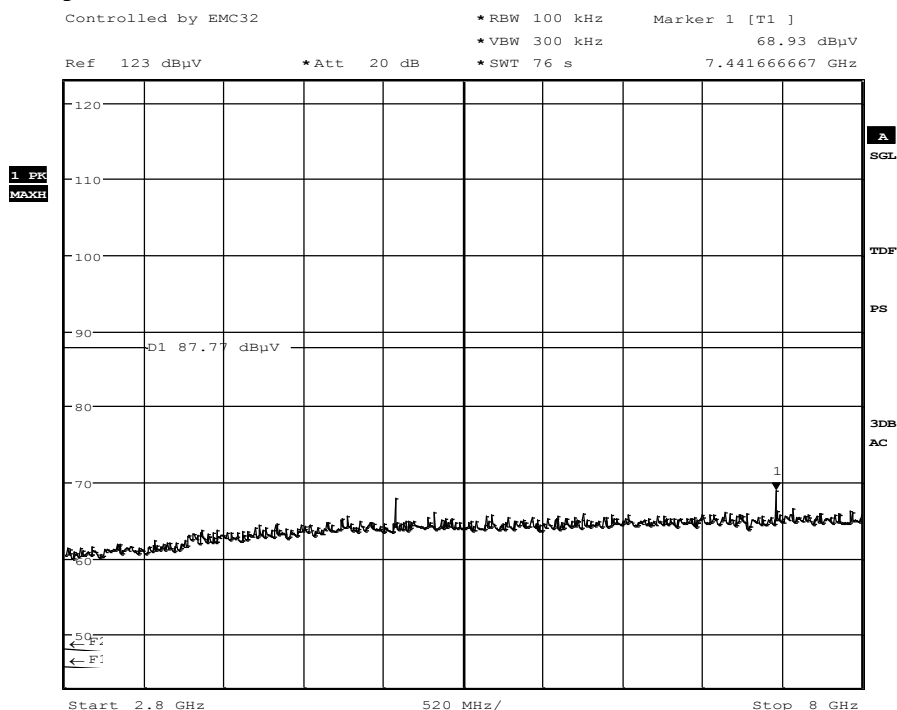
Date: 27.APR.2012 12:00:12

Sweep 1



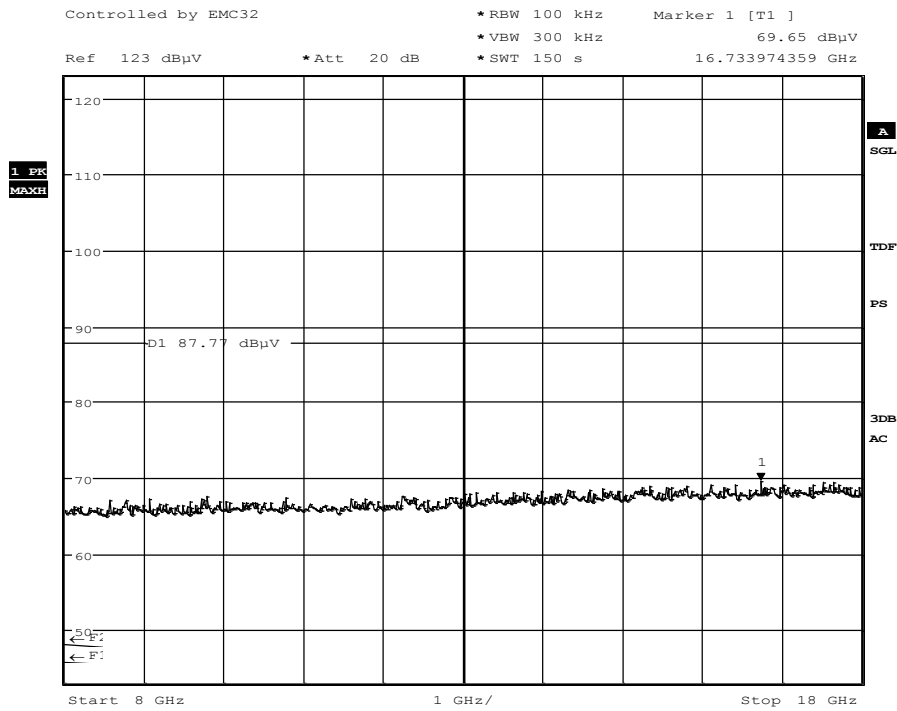
Date: 24.APR.2012 14:40:21

Sweep 2

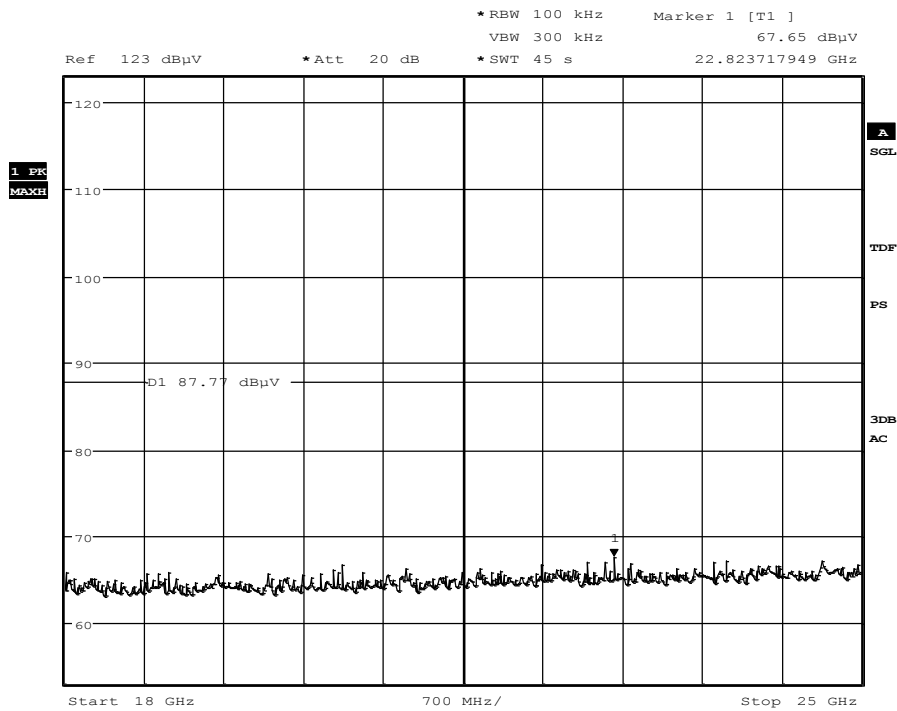


Date: 24.APR.2012 14:43:41

Sweep 3



Date: 24.APR.2012 14:48:05

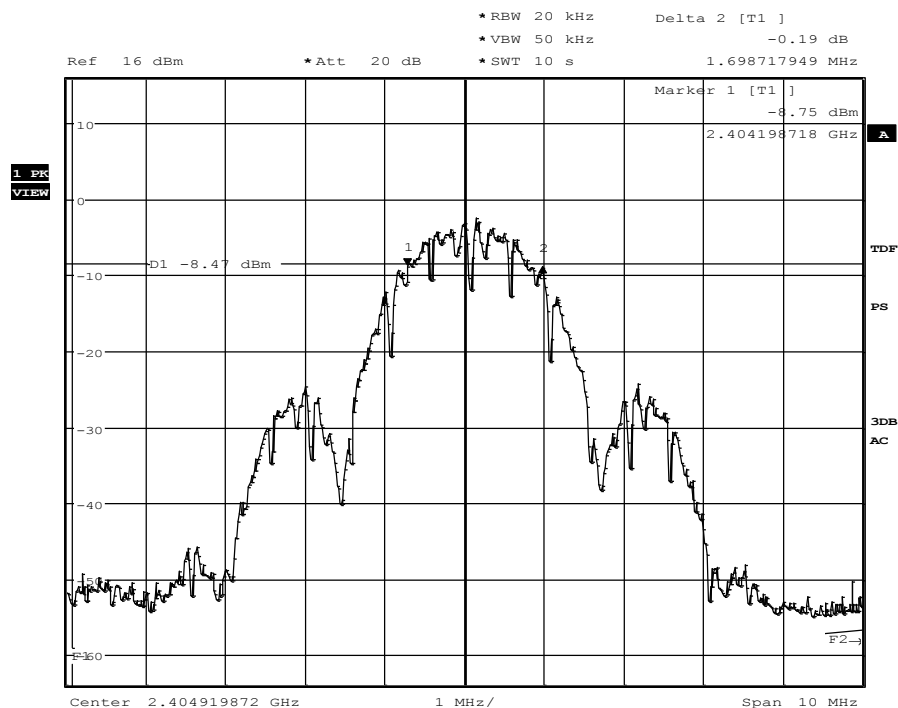
Sweep 4

Date: 27.APR.2012 12:06:31

Sweep 5

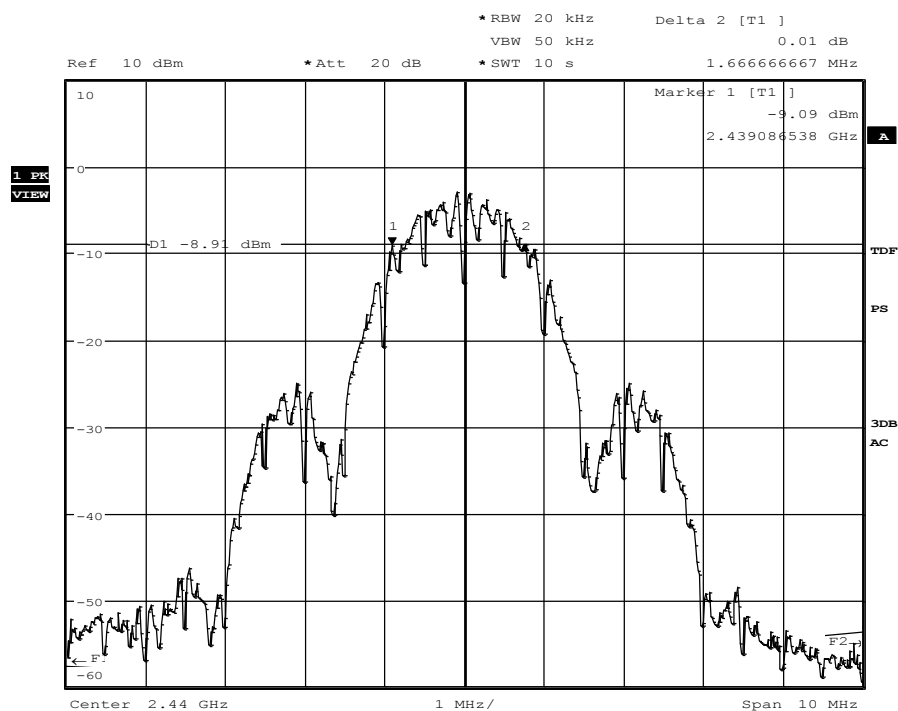
1.7. 6 dB bandwidth

13.01 low channel:

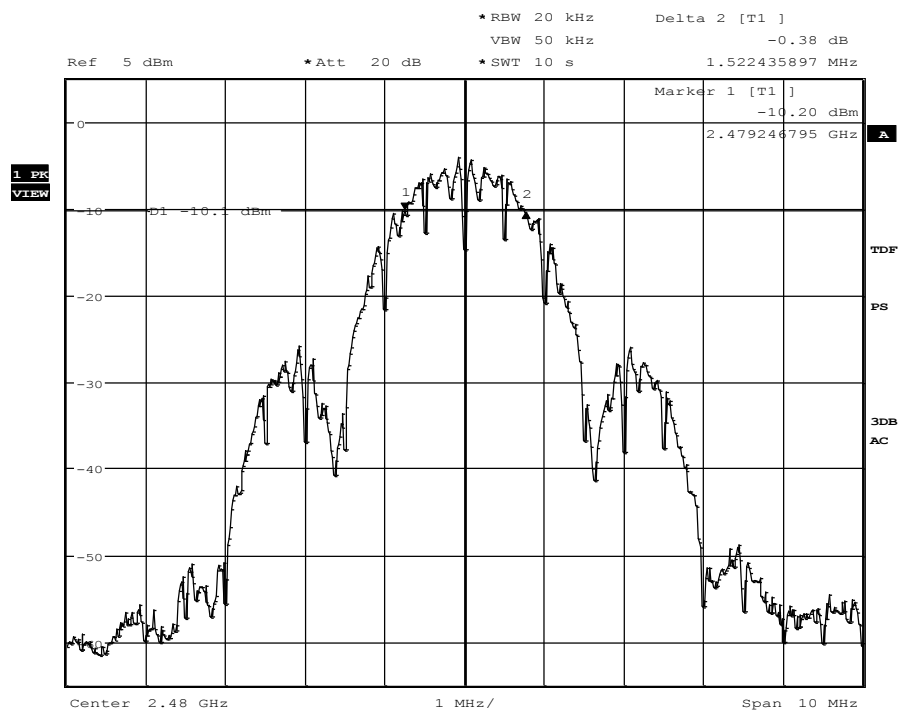


Date: 27.APR.2012 14:23:35

13.02 middle channel:



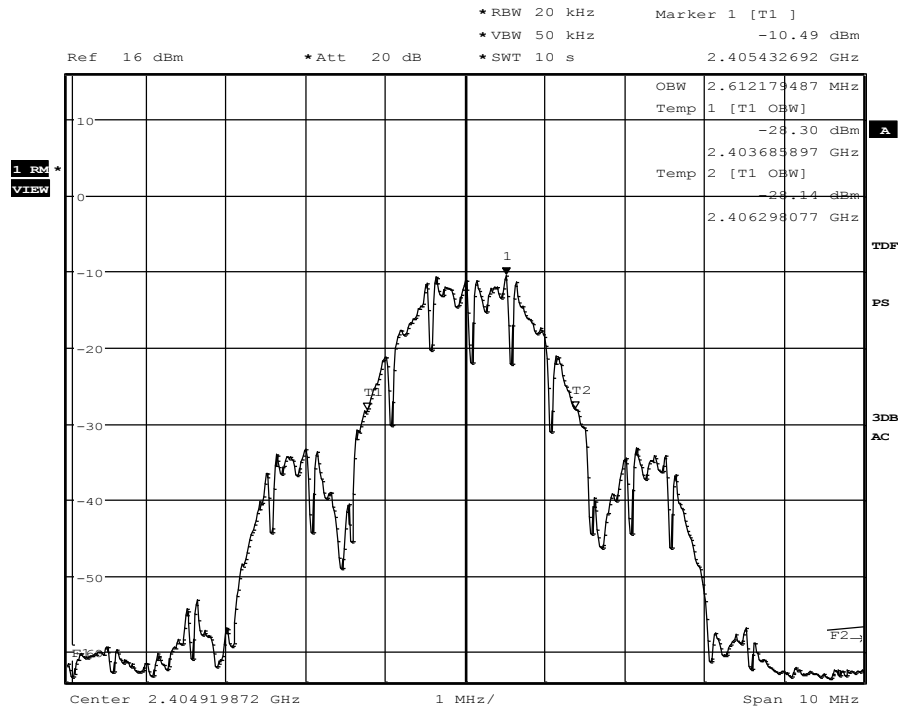
Date: 3.MAY.2012 08:56:59

13.03 high channel:

Date: 27.APR.2012 12:23:32

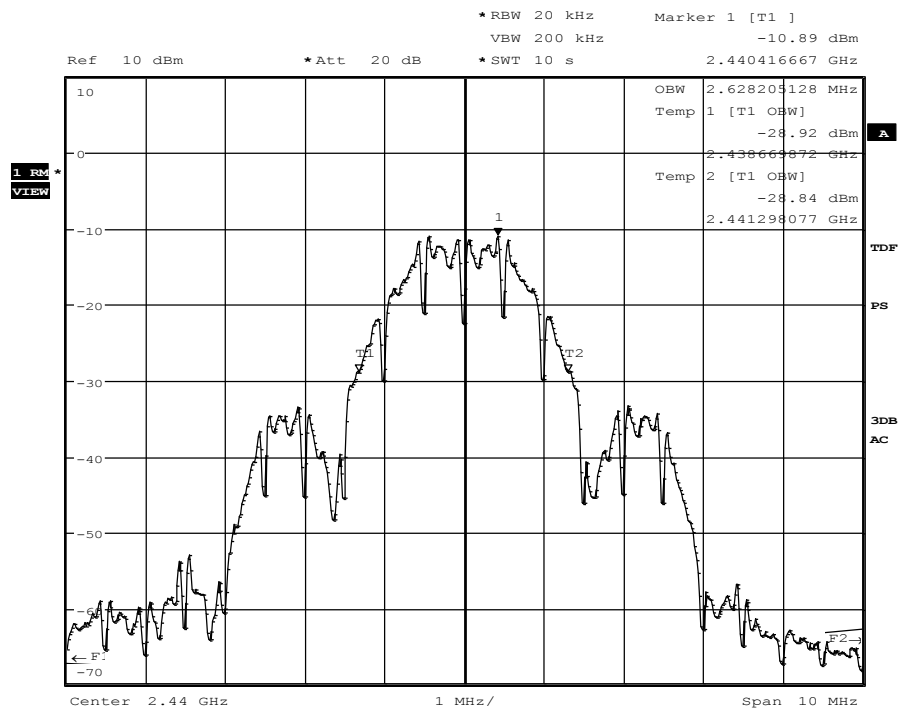
1.8. 99% Occupied bandwidth

14.01 low channel:

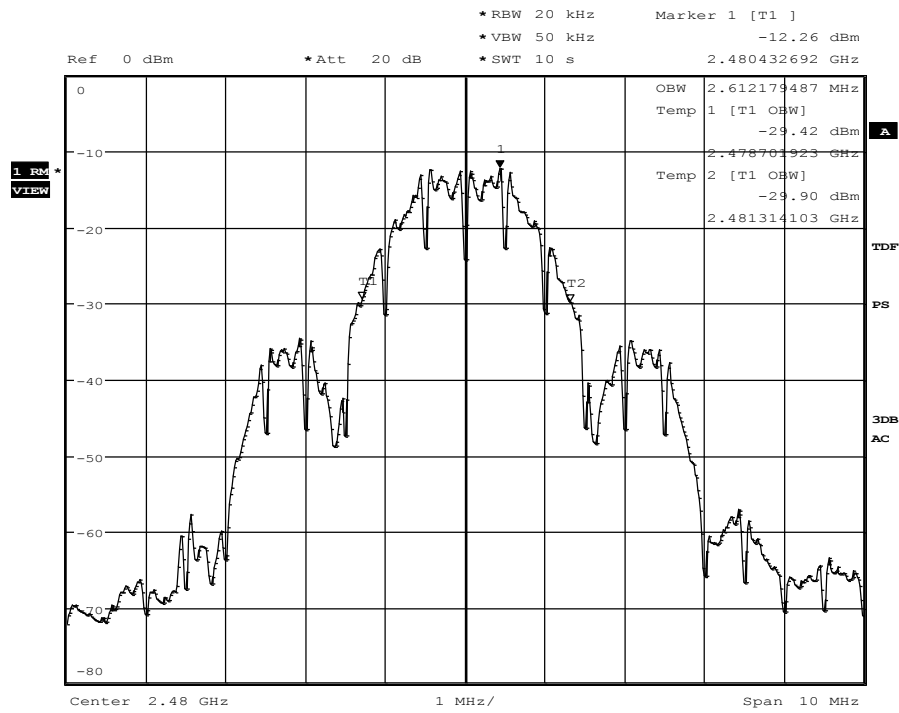


Date: 27.APR.2012 14:26:07

14.02 middle channel:



Date: 3.MAY.2012 09:01:35

14.03 high channel:

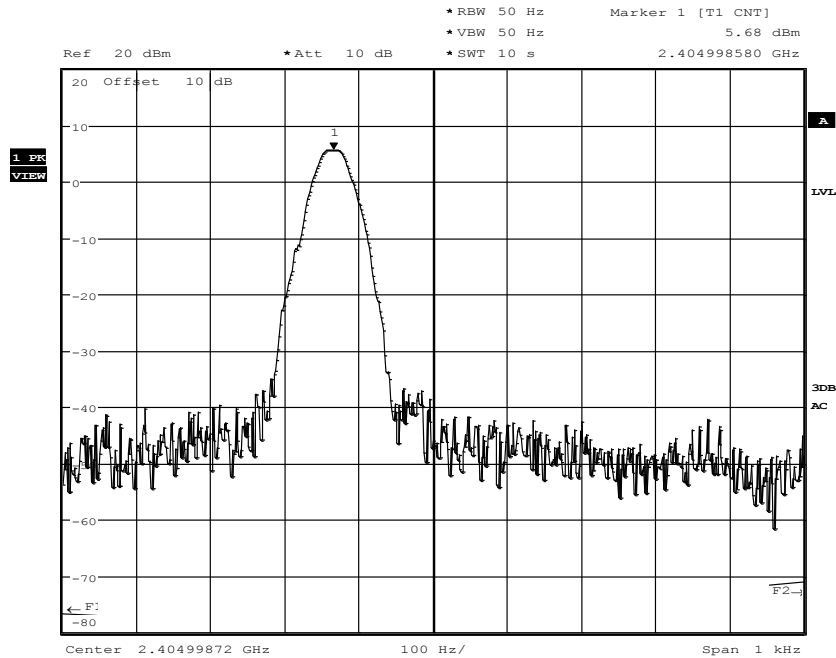
Date: 27.APR.2012 12:26:43

1.9. Frequency stability

CHANNEL LOW (Diagram no's 15.01 -07)

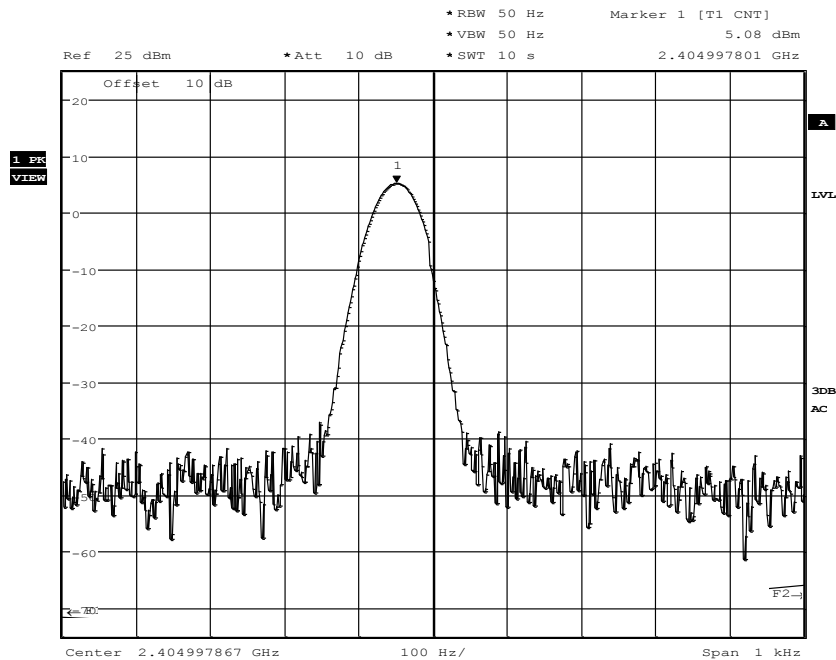
Low voltage:

15.01 (Low Temp.)

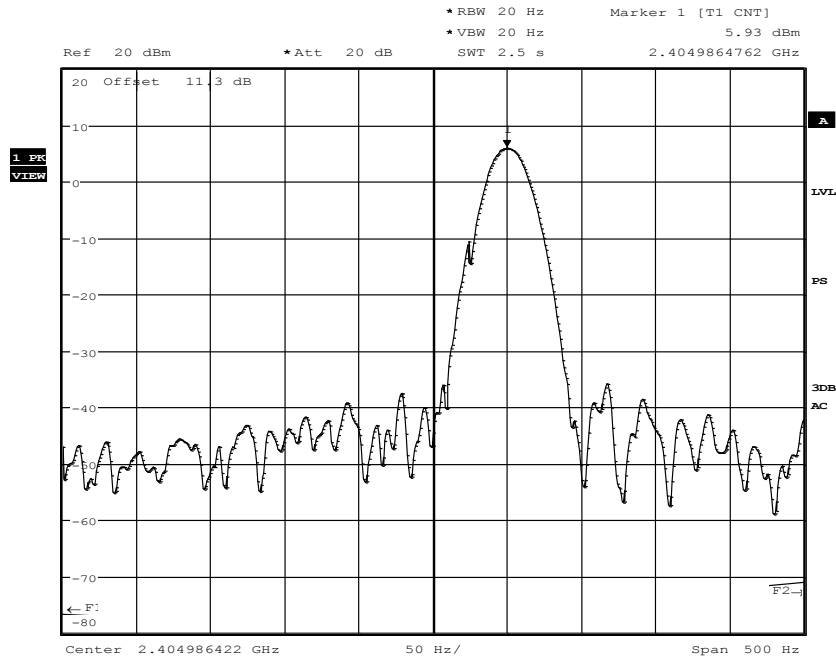


Date: 15.MAY.2012 12:17:51

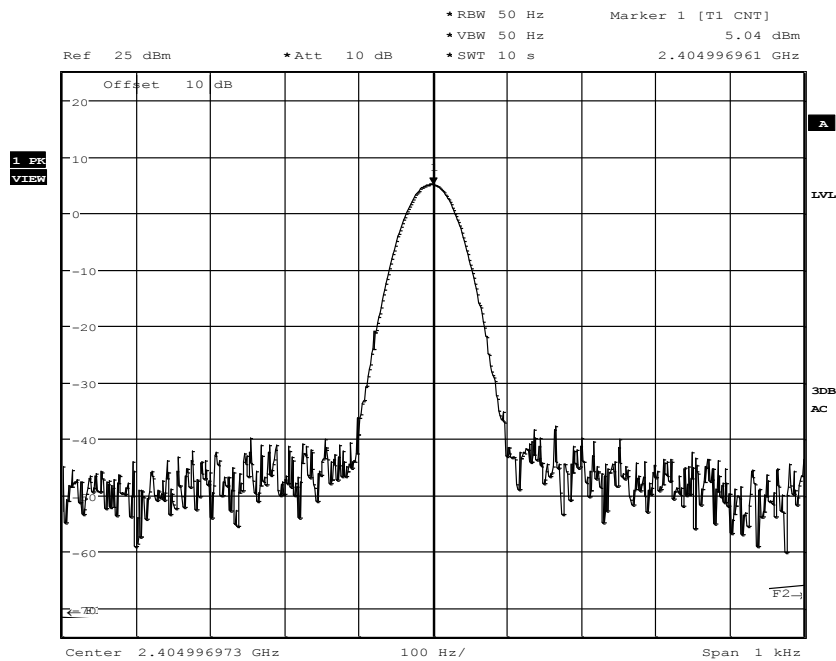
15.02 (Normal Temp.)



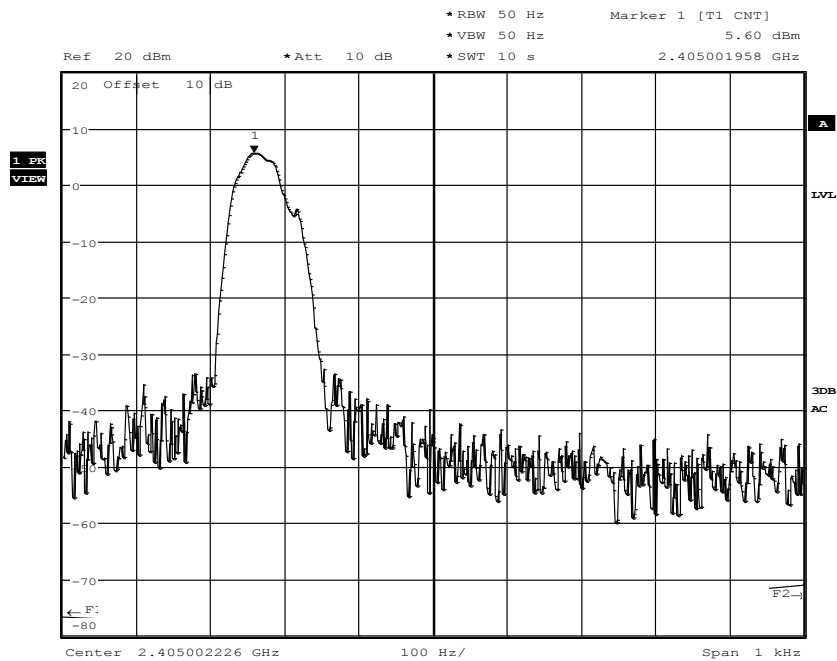
Date: 15.MAY.2012 09:16:37

15.03 (High Temp.)

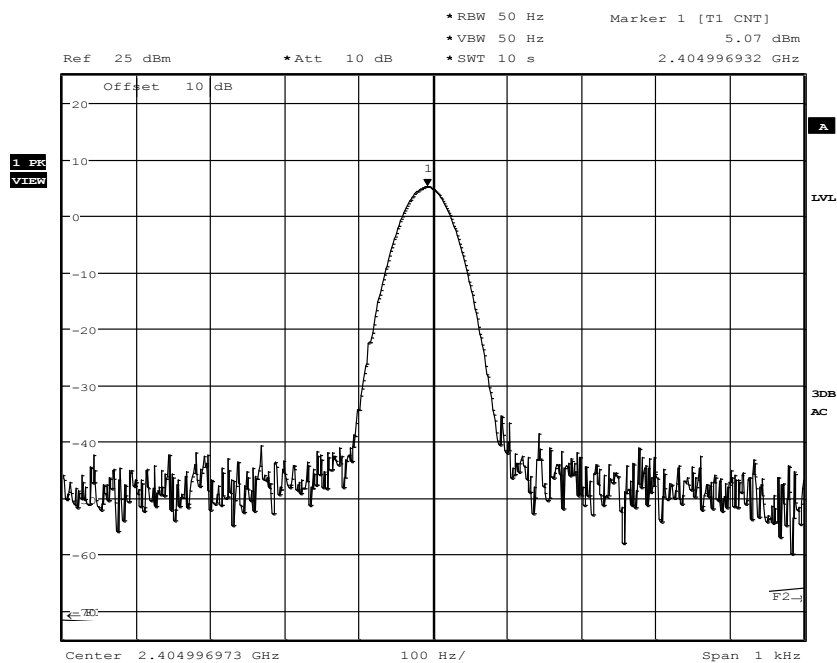
Date: 3.MAY.2012 16:57:04

Nominal voltage:**15.04 (Normal Temp.)**

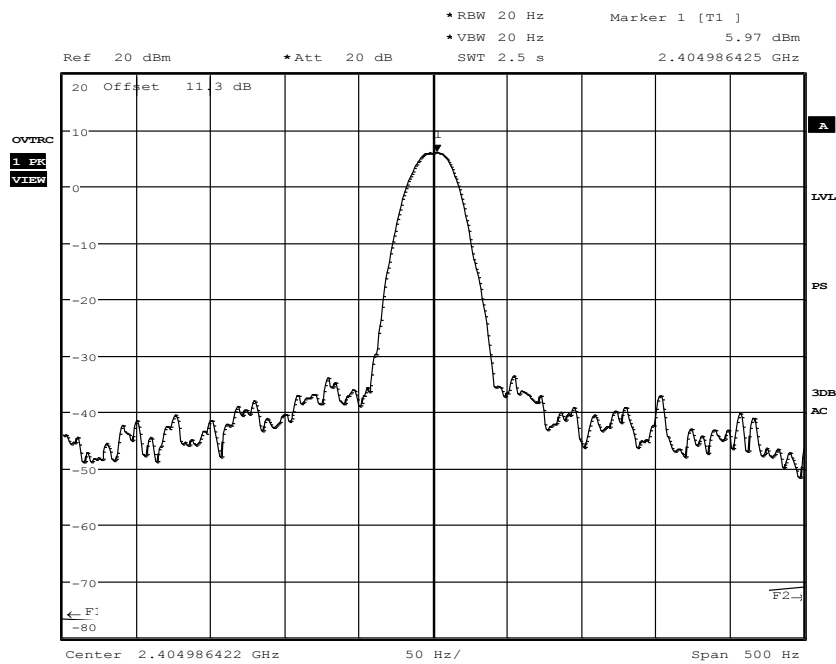
Date: 15.MAY.2012 09:33:41

High Voltage**15.05 (Low Temp.)**

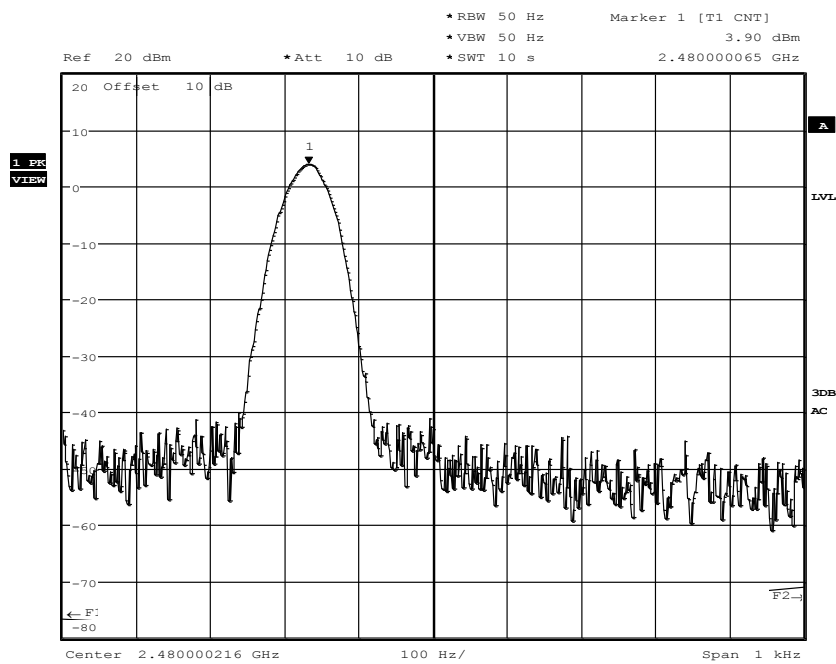
Date: 15.MAY.2012 12:15:54

15.06 (Normal Temp.)

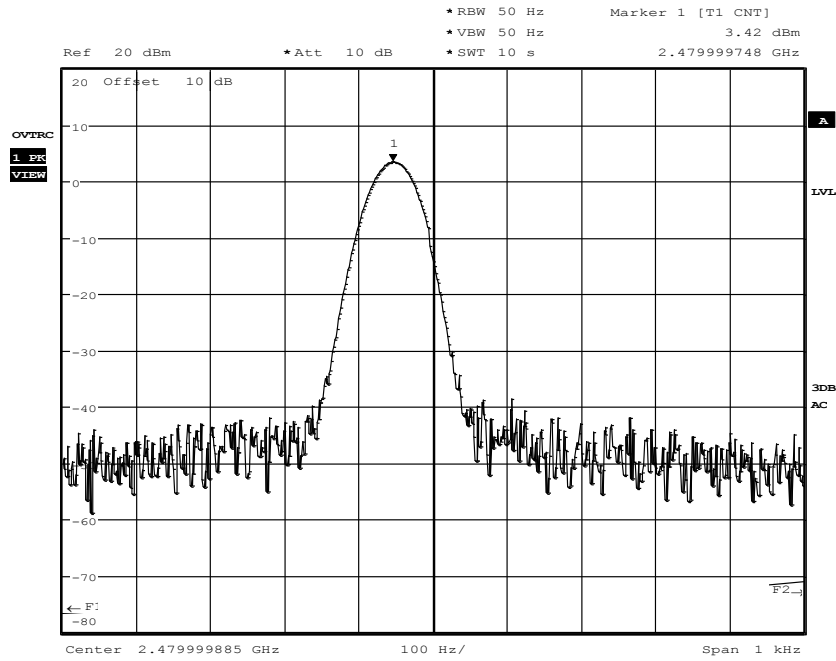
Date: 15.MAY.2012 09:38:00

15.07 (High Temp.)

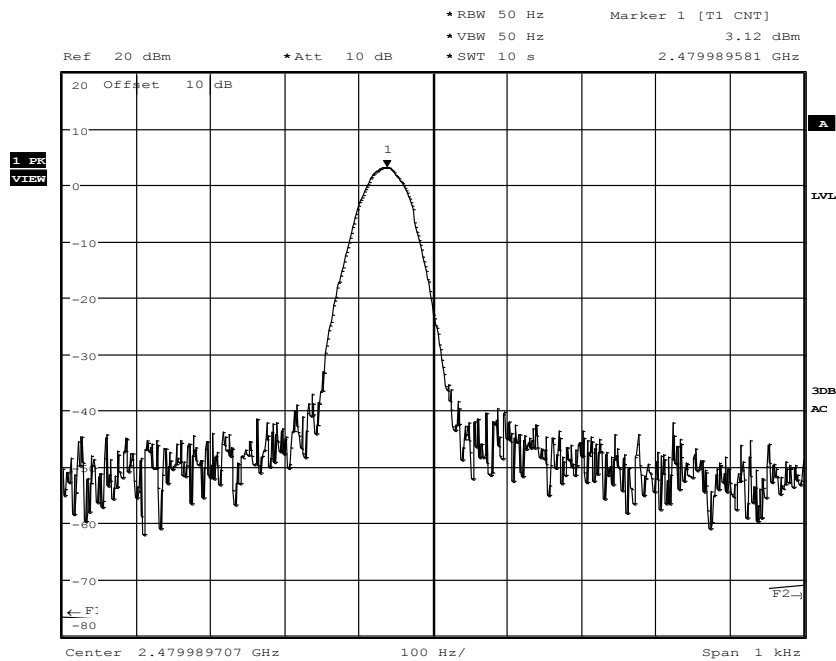
Date: 3.MAY.2012 16:51:54

CHANNEL HIGH (Diagram no's 15.08 -14)**Low voltage****15.08 (Low Temp.)**

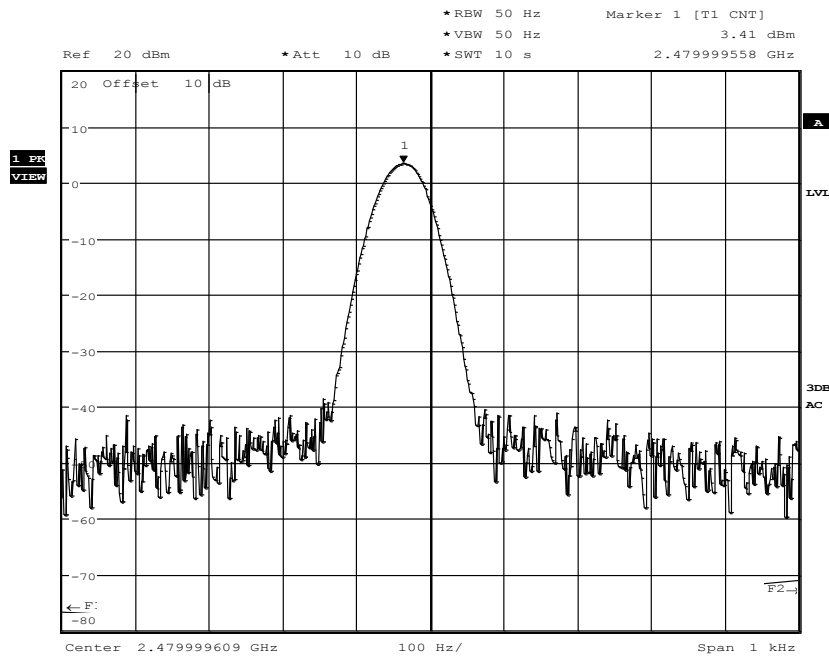
Date: 15.MAY.2012 12:06:42

15.09 (Normal Temp.)

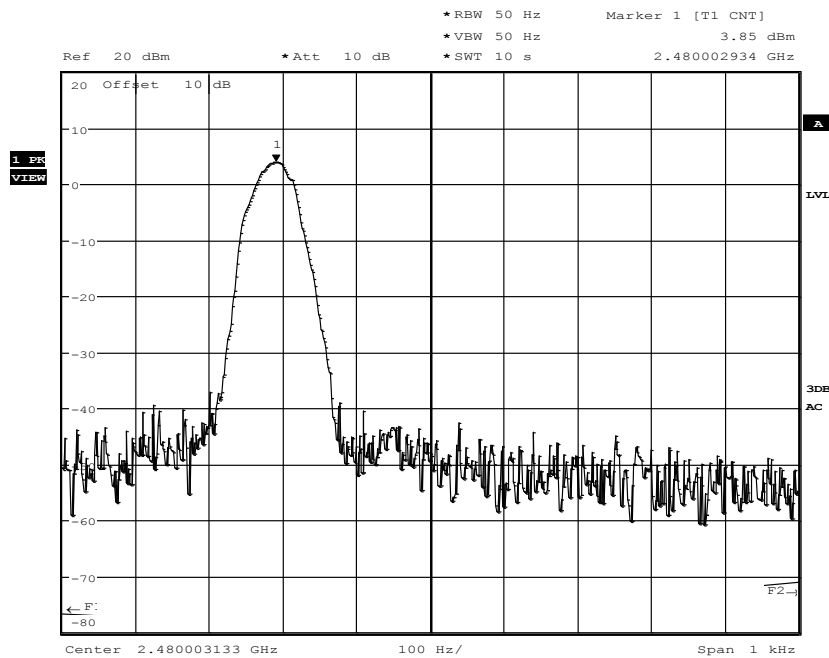
Date: 15.MAY.2012 10:24:55

15.10 (High Temp.)

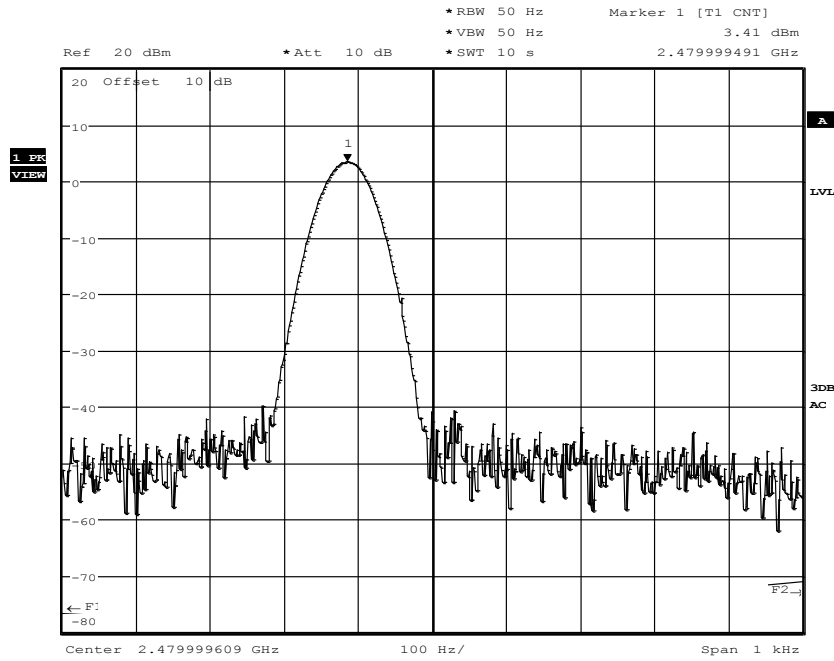
Date: 15.MAY.2012 10:45:38

Nominal voltage
15.11 (Normal Temp.)

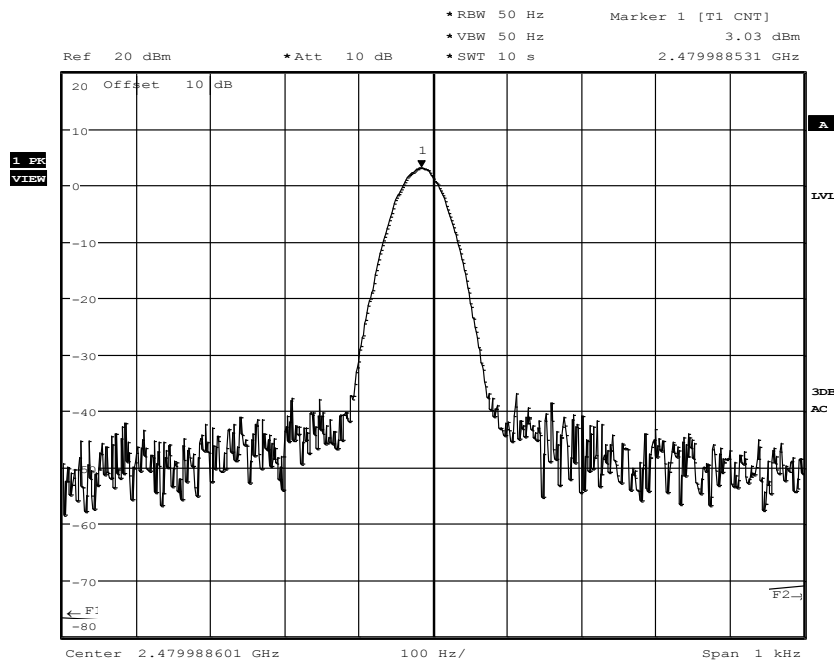
Date: 15.MAY.2012 10:26:18

High voltage
15.12 (Low Temp.)

Date: 15.MAY.2012 12:04:54

15.13 (Normal Temp.)

Date: 15.MAY.2012 10:27:23

15.14 (High Temp.)

Date: 15.MAY.2012 10:51:33