

RADIO TEST REPORT

No. 1515453STO-004, Ed. 2

RF Performance

EQUIPMENT UNDER TEST

Equipment: Mobile reader
Type/Model: 6GT2803-1BA00
Additional model*: 6GT2803-1BA10
Manufacturer: Nordic ID Oy
Tested by request of: Nordic ID Oy

*See opinions and interpretations clause 2.4

SUMMARY

Referring to the emission limits, and the operating mode during the tests specified in this report, the equipment complies with the requirements according to the following standards:

47 CFR Part 15 (2015): Subpart E: Unlicensed National Information Infrastructure Devices

RSS-GEN Issue 4 (2014): General requirements of compliance of radio apparatus

RSS-247 Issue 1 (2015): Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices

*For details, see clause 2.4.

Date of issue: 2016-09-02

Tested by:


Matti Virkki

Approved by:


Stefan Andersson

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Revision History

Edition	Date	Description	Changes
1	2015-12-08 2016-09-02	First release update	Added test results for 802.11 n mode

Version 1.00

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1 CLIENT INFORMATION

The EUT has been tested by request of

Company Nordic ID Oy
Myllyojankatu 2a
FI-24 100 Salo
Finland

Name of contact Hannu Heino
Phone +358 40 7444 604

2 EQUIPMENT UNDER TEST (EUT)

2.1 Identification of the EUT

Equipment: Mobile reader

Type/Model: 6GT2803-1BA00

Additional model: 6GT2803-1BA10

Brand name: Simatic RF350M

Serial number: L152739019, L152739020

Manufacturer: Nordic ID Oy

Transmitter frequency range: 5180 – 5320, 5500 – 5725, 5745 – 5825 MHz

Receiver frequency range: 5180 – 5320, 5500 – 5725, 5745 – 5825 MHz

Frequency agile or hopping: ☐ Yes ☒ No

Antenna: ☒ Internal antenna ☐ External antenna

Antenna connector: ☒ None, internal antenna ☐ Yes,

Antenna gain: 0 dBi

Rating RF output power: 21.2 dBm peak, 16.4 average (measured conducted)

Type of modulation: DSSS, OFDM

Transmitter standby mode supported: ☒ Yes ☐ No

2.2 Additional information about the EUT

The EUT consists of the following units:

Unit	Type	Serial number
Mobile reader	6GT2803-1BA00	L152739019
Mobile reader	6GT2803-1BA00	L152739020*

* equipped with sma-connectors for testing purposes

2.3 Test signals and operation modes

Continuous signal in IEEE 802.11 a mode.

Continuous signal in IEEE 802.11.n HT-20 mode

2.4 Opinions and interpretations

The following type is also included as additional type in this test report:

6GT2803-1BA10

The difference as compared to the tested type according to the manufacturer is: Model uses an external RFID antenna: Otherwise it is identical to 6GT2803-1BA00.

The difference is considered not to imply different EMC-characteristics when compared to the tested type. Therefore, this type is/these types are not tested, but considered to have the same EMC-characteristics as the tested type.

3 TEST SPECIFICATIONS

3.1 Standards

Requirements:

47 CFR Part 15 (2015): Subpart C: Intentional radiators. Section 15.247

RSS-GEN Issue 4 (2014): General requirements of compliance of radio apparatus (2014).

RSS-247 Issue 1 (2015): Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

Test methods:

ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

KDB 789033 D02 General UNII Test Procedures New Rulesv01

3.2 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standards.

3.3 Test site

Measurements were performed at:

Intertek Semko AB.
Torshamnsgatan 43,
P.O. Box 1103
SE-164 22 Kista

Intertek Semko AB is a FCC listed test site with site registration number 90913

Intertek Semko AB is a FCC accredited conformity assessment body with designation number SE0002

Intertek Semko AB is an Industry Canada listed test facility with IC assigned code 2042G

Measurement chambers

Measurement Chamber	Type of chamber	IC Site filing #
STORA HALLEN	Semi-anechoic 10 m and 3 m	2042G-2

4 TEST SUMMARY

The results in this report apply only to sample tested:

Requirement	Description	Result
FCC §15.203 RSS-GEN 8.3	Antenna requirement The EUT has integrated non detachable antenna which can't be remove without breaking the EUT.	PASS
FCC §15.407(a) RSS-247 6.2.1(1), 6.2.2(1), 6.2.3(1), 6.2.4(1)	Conducted output power and power spectral density The EUT complies with the limits. The margin to the limit was at least 8.8 dB at MHz. See clause 7.4.	PASS
FCC §15.407(b) 15.209(a) RSS-GEN 8.9 RSS-247 6.2.1(2), 6.2.2(2), 6.2.3(2), 6.2.4(2)	Radiated emission of electromagnetic fields in the frequency range above 1 GHz The EUT complies with the limits. The margin to the limit was at least 0.1 dB at 5470 MHz. See clause 5.4.	PASS
FCC §15.407(b) RSS-247 5.5	Band edge The EUT complies with the limits. The margin to the limit was at least 0.3 dB at 5725 MHz. See clause 6.4.	PASS
FCC §15.407(e) RSS-GEN 6.6 RSS-247 5.2(1)	Occupied bandwidth The EUT complies with the limits. The margin to the limit is at least 14.6 MHz See clause 9.4.	PASS
FCC §15.407(g)	Frequency stability The EUT complies with the requirement.	PASS
FCC §15.407(h)	Transmitter power control and dynamic frequency selection	NT

5 RADIATED RF EMISSION IN THE FREQUENCY-RANGE 30 MHZ – 40 GHZ

Date of test:	2015-10-13/14/15	Test location:	Stora Hallen
EUT Serial:	L152739019	Ambient temp:	21°C
Tested by:	MTV	Relative humidity:	37%
Test result:	Pass	Margin:	0.1 dB

5.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10-2013.

The EUT was placed on an insulating support 1.5 m above the turntable which is part of the reference ground plane. Pre scan was made in three orthogonal EUT orientations.

Overview sweeps were performed with the measurement receiver in max-hold mode

5.2 Test conditions

Test set-up: 30 MHz – 1 GHz

Test receiver set-up:

Preview test: Peak, RBW 120 kHz VBW 300 kHz

Final test: quasi peak, RBW 120 kHz
Average

EUT height above ground plane: 0.8 m

Measuring distance: 3 m

Measuring angle: 0 – 359°

Antenna

Height above ground plane: 1 – 4 m

Polarisation: Vertical and Horizontal

Type: BiLog

Test set-up: 1 GHz – 40 GHz

Test receiver set-up:

Preview test: Peak, RBW 1 MHz VBW 3 MHz

Average, RBW 1 MHz VBW 3 MHz

Final test: Peak, RBW 1 MHz VBW 3 MHz

Average, RBW 1 MHz VBW 3 MHz

EUT height above ground plane: 1.5 m

Measuring distance: 3 m

Measuring angle: 0 – 359°

Antenna

Height above ground plane: 1 – 4 m

Polarisation: Vertical and Horizontal

Type: Horn

Antenna tilt: Activated

5.3 Requirements

Within restricted bands and receive mode:

Reference: CFR 47 §15.209, §15.109, RSS-Gen section 8.9

Field strength of emissions must comply with limits shown in table below

Frequency range [MHz]	Field strength at 3 m (dB μ V/m)	Field strength at 10 m (dB μ V/m)	Detector (dB μ V/m)
30 – 88	40.0	29.5	Quasi Peak
88 – 216	43.5	33.0	Quasi Peak
216 – 960	46.0	35.5	Quasi Peak
960 – 1000	54.0	43.5	Quasi Peak
Above 1000	54.0 / 74.0	43.5 / 63.5	Average / Peak

The values for 10 m measuring distance are calculated by subtracting 10.5 dB from the 3 m limit. (i.e. an extrapolation factor of 20 dB/decade according to CFR 47 §15.31(f)(1))

Outside the restricted bands:

Reference: CFR 47 §15.407 (b), KDB 789033 D02 General UNII Test Procedures New Rulesv01 RSS-247 6.2.2.2, 6.2.3.2, 6.2.4.2

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

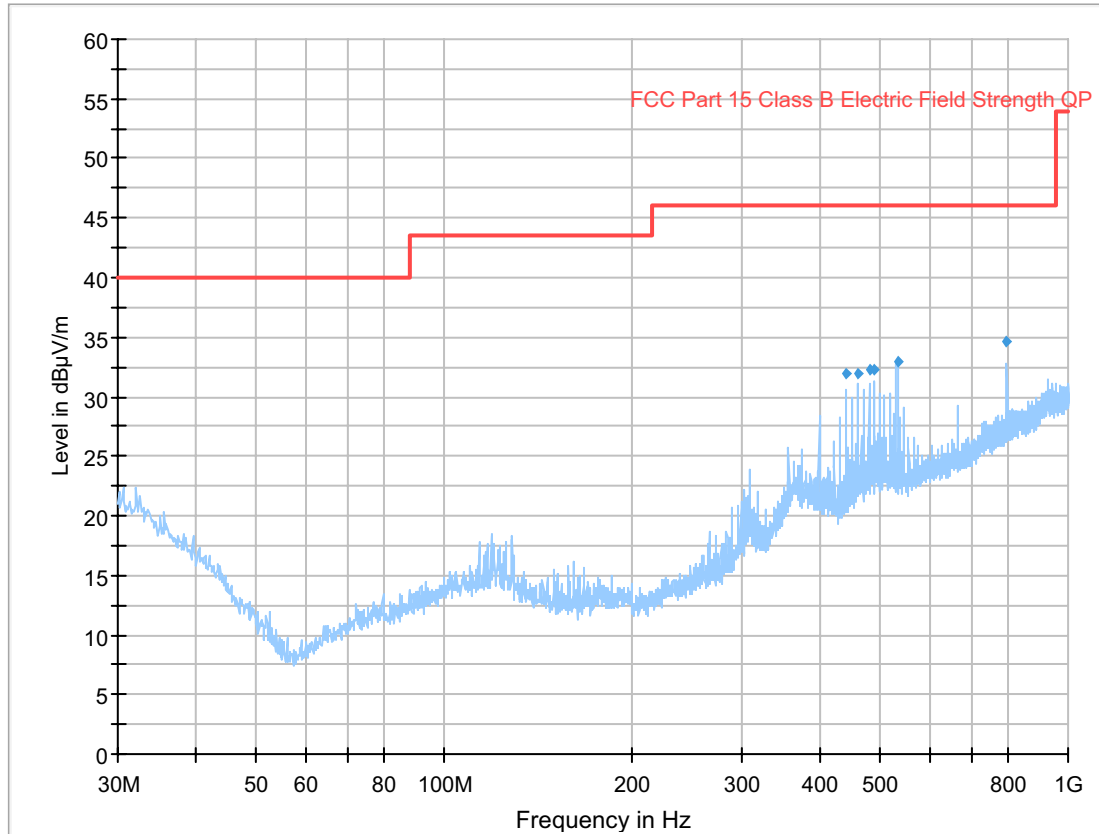
For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

If the device complies with 15.209 peak and average limits, then peak e.i.r.p level attenuation below -27 dBm/MHz is not required.

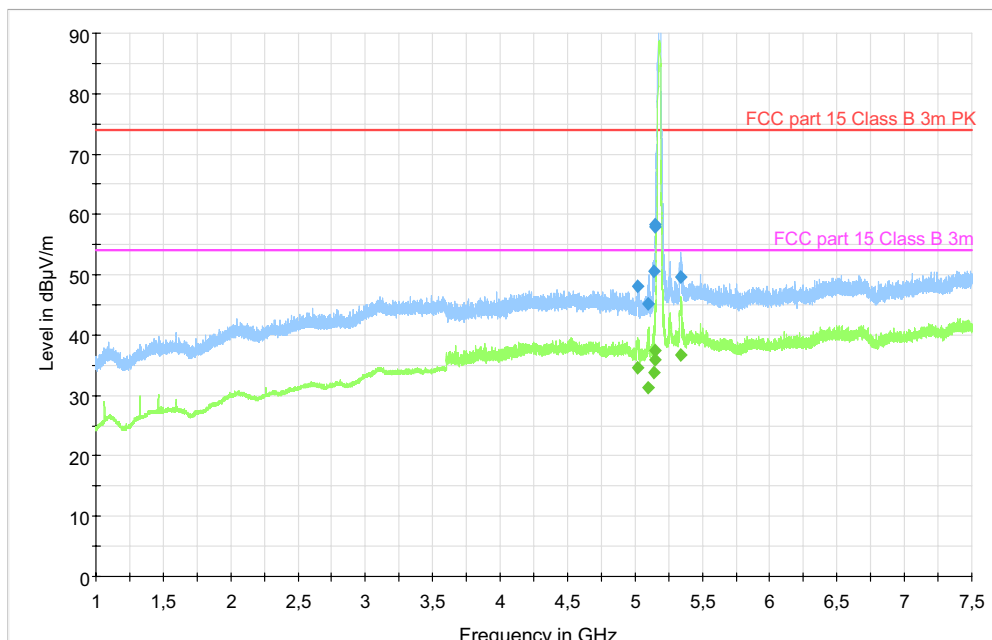
5.4 Test results 30 MHz –1GHz, TX

Full Spectrum



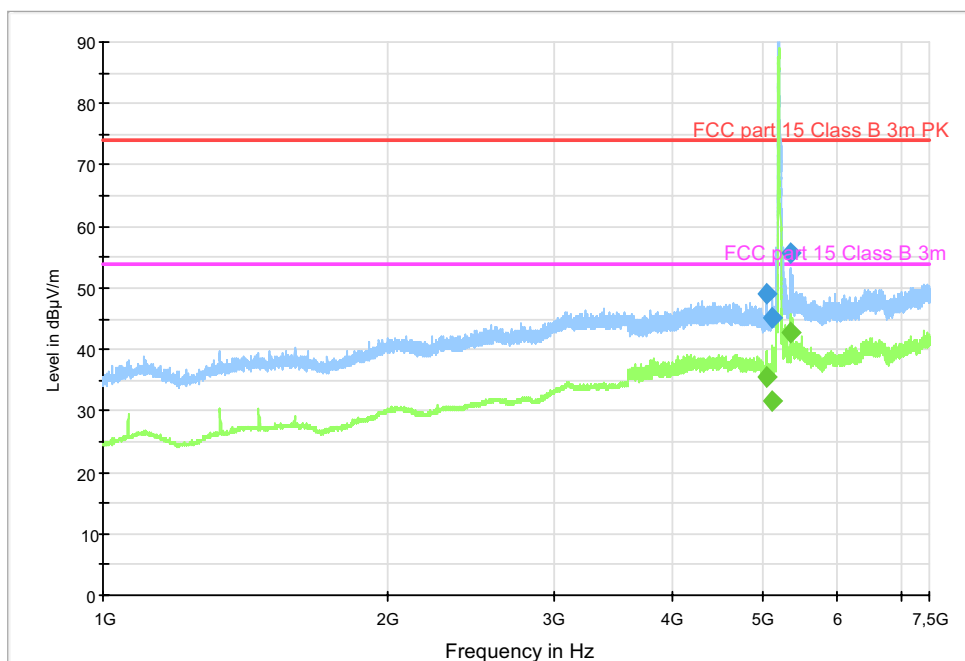
Frequency [MHz]	Level [dBμV/m]	Limit [dBμV/m]	EUT orientation	Polarization H/V	Margin [dB]
441.743	32.0	46.0	2	H	14.0
460.721	31.9	46.0	2	H	14.1
479.739	32.3	46.0	2	H	13.7
489.239	32.2	46.0	2	H	13.8
531.964	32.9	46.0	2	H	13.1
797.996	34.6	46.0	2	H	11.4

5.5 Test results 1 GHz – 40GHz, TX



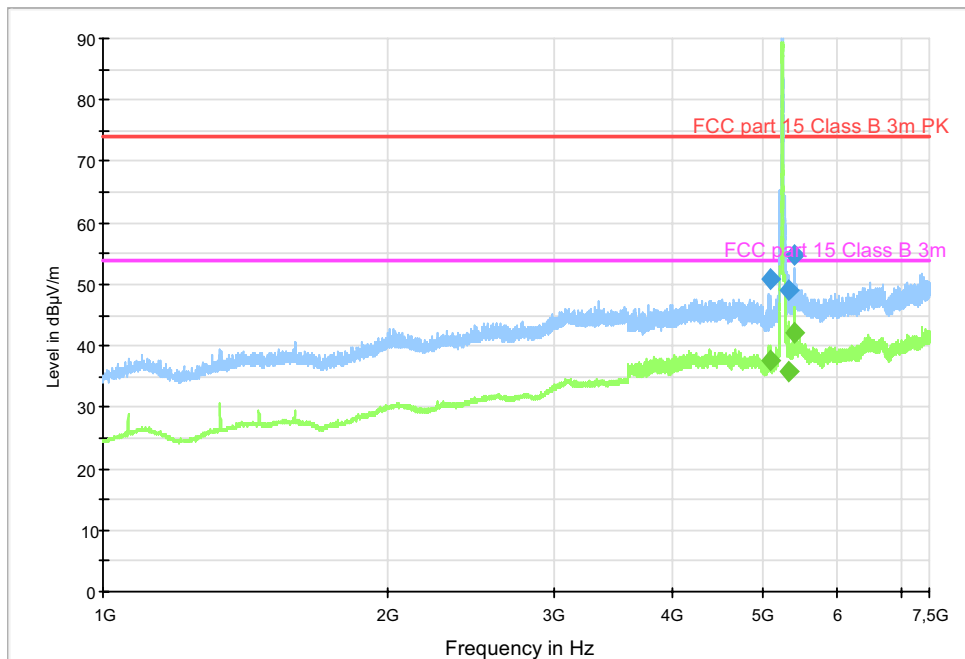
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 36, EUT orientation 2.

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



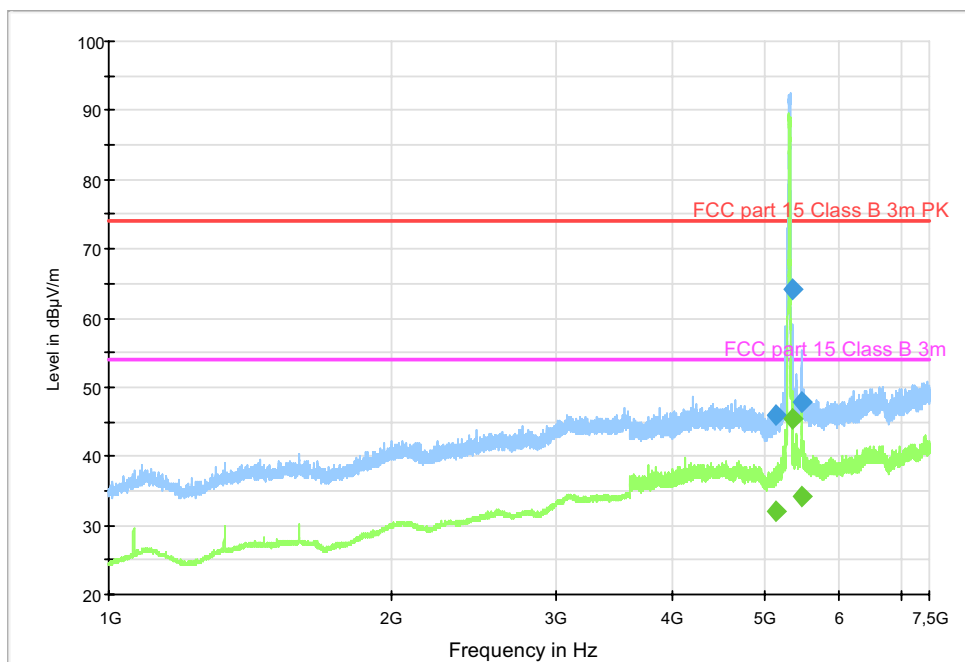
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 40, EUT orientation 1.

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



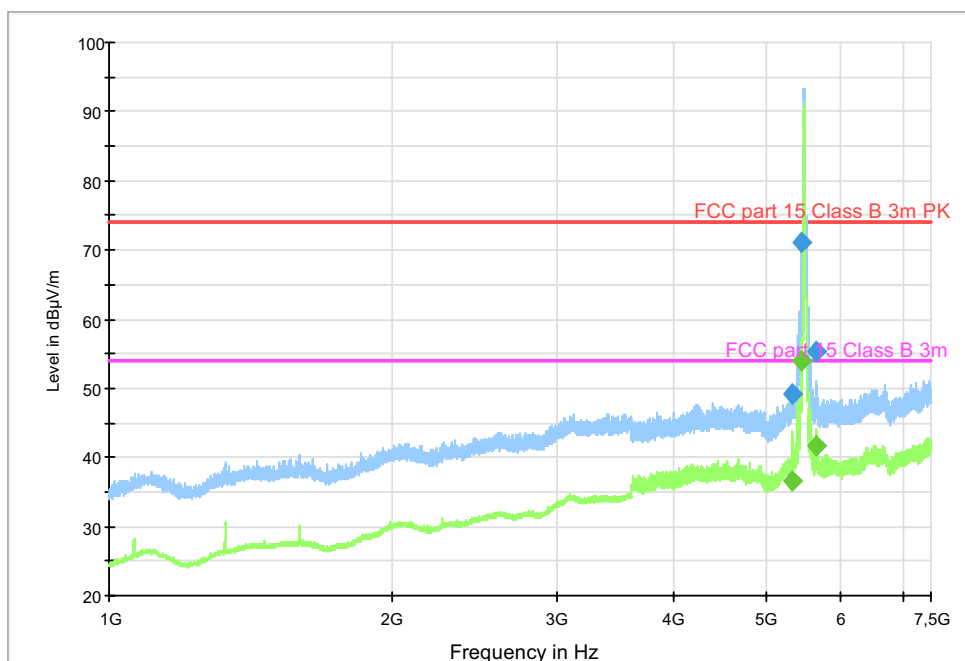
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 48, EUT orientation 2

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



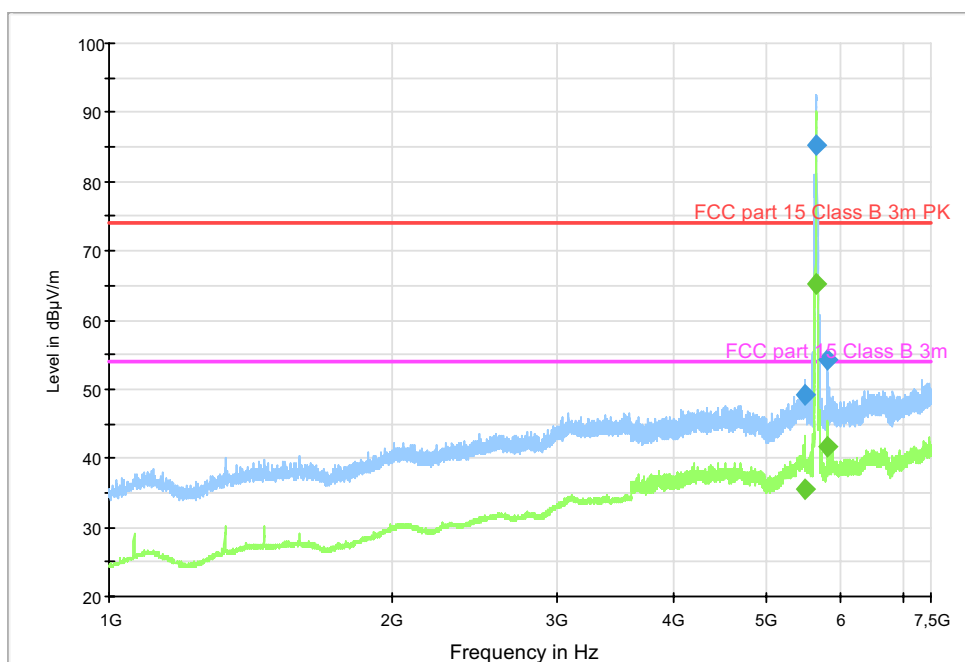
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 64 , EUT orientation 2.

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



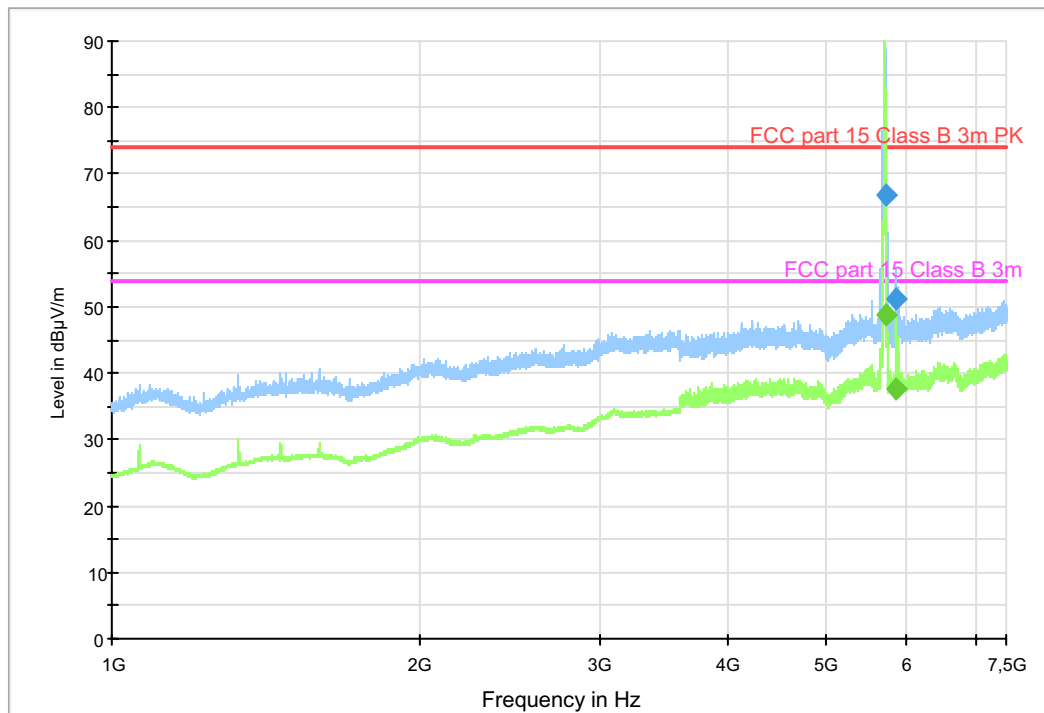
Diagram, Peak overview sweep, 1– 7 GHz at 3 m distance. TX channel 100, EUT orientation 2

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



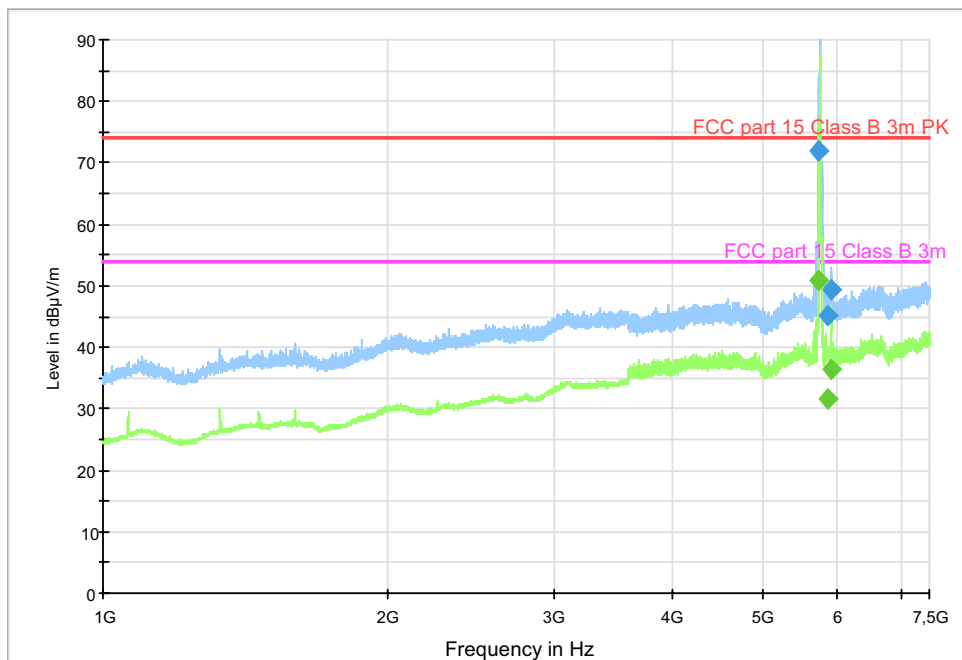
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 120, EUT orientation 2

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



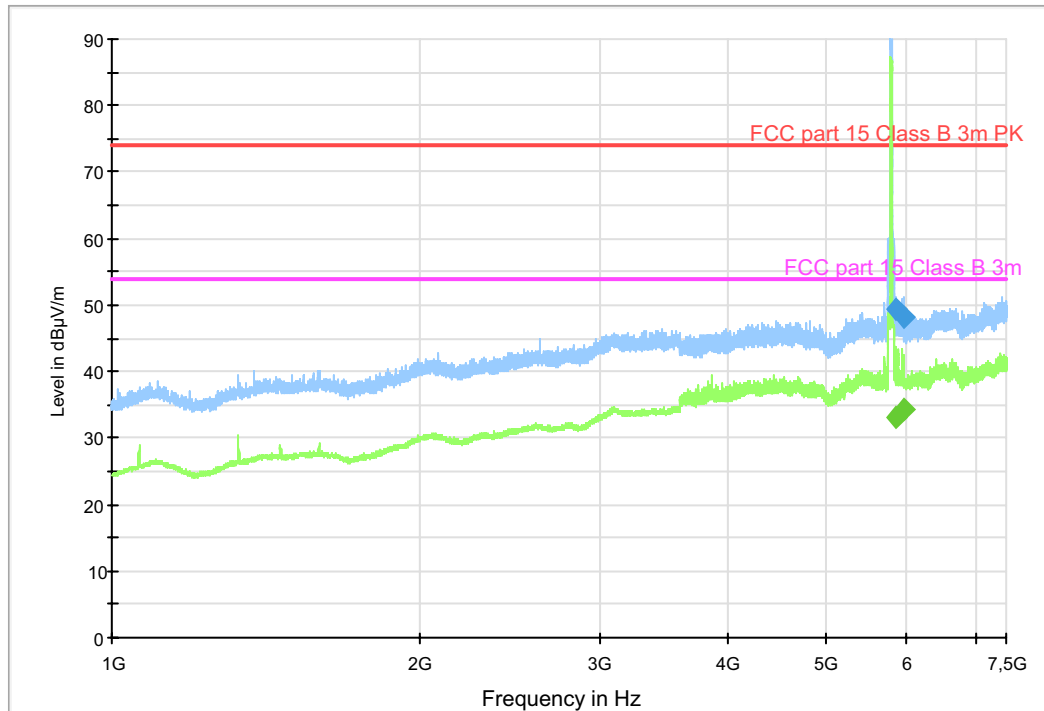
Diagram, Peak overview sweep, 1– 7 GHz at 3 m distance. TX channel 140, EUT orientation 2

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



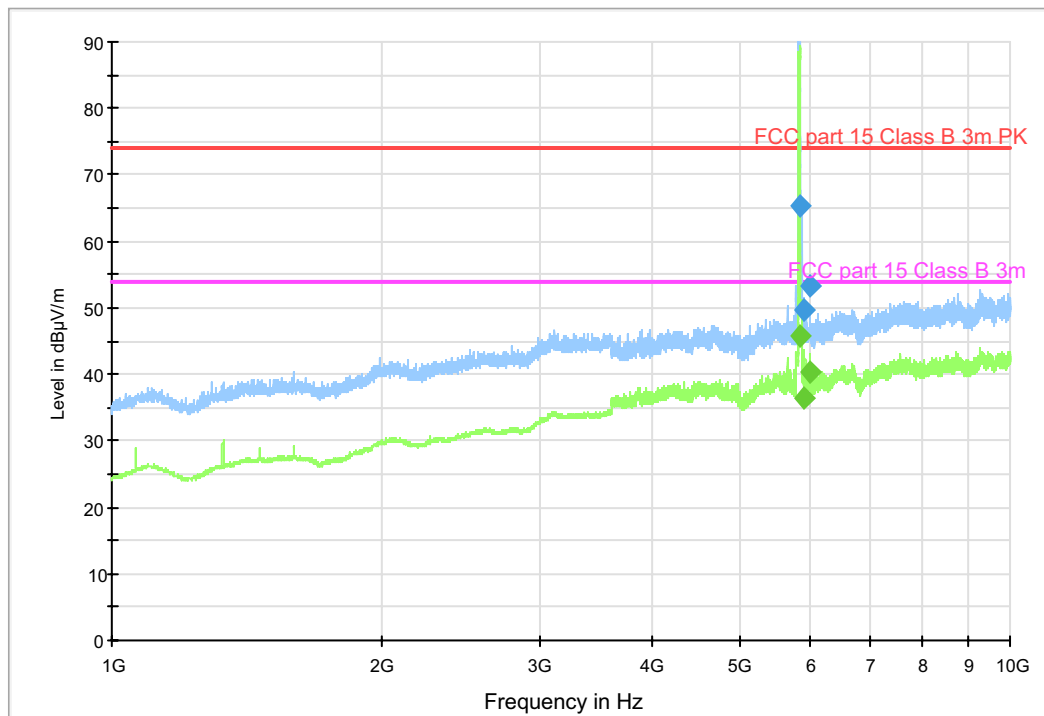
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 149, EUT orientation 1

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



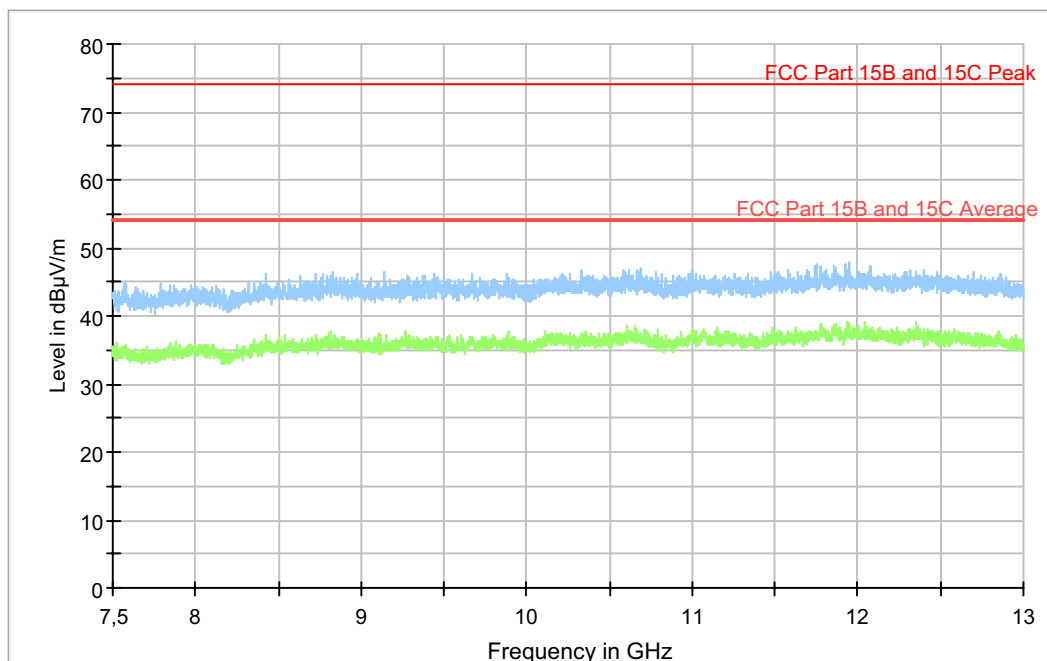
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 157, EUT orientation 1

Copy of FCC 1 G - 10 G class B 3m ESU40 Continuous TT rotation



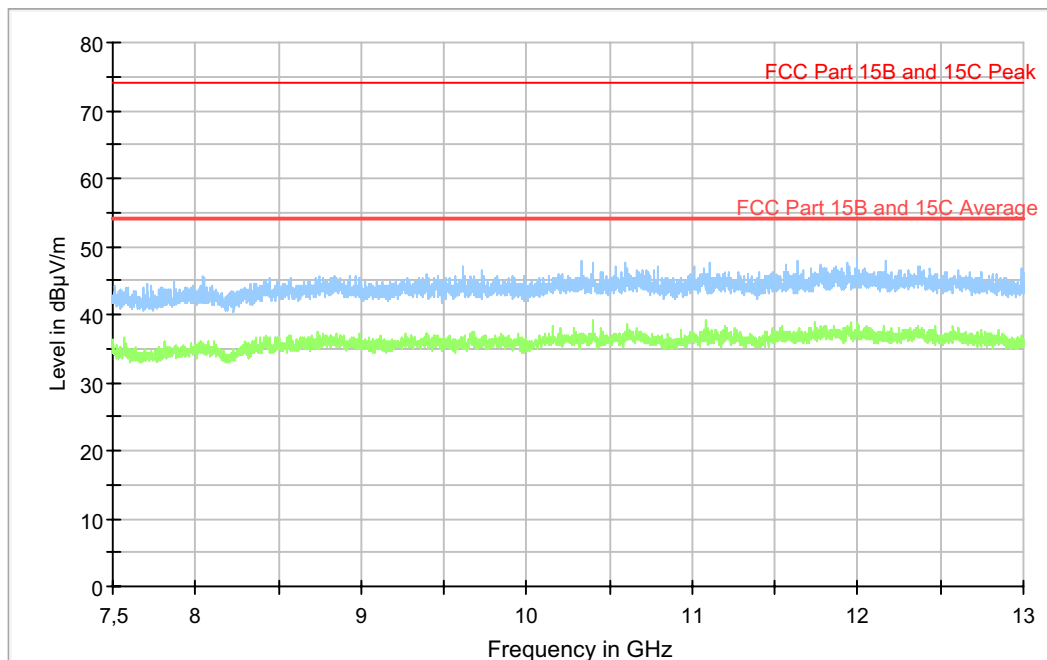
Diagram, Peak overview sweep, 1– 7,5 GHz at 3 m distance. TX channel 165, EUT orientation 1

Full Spectrum



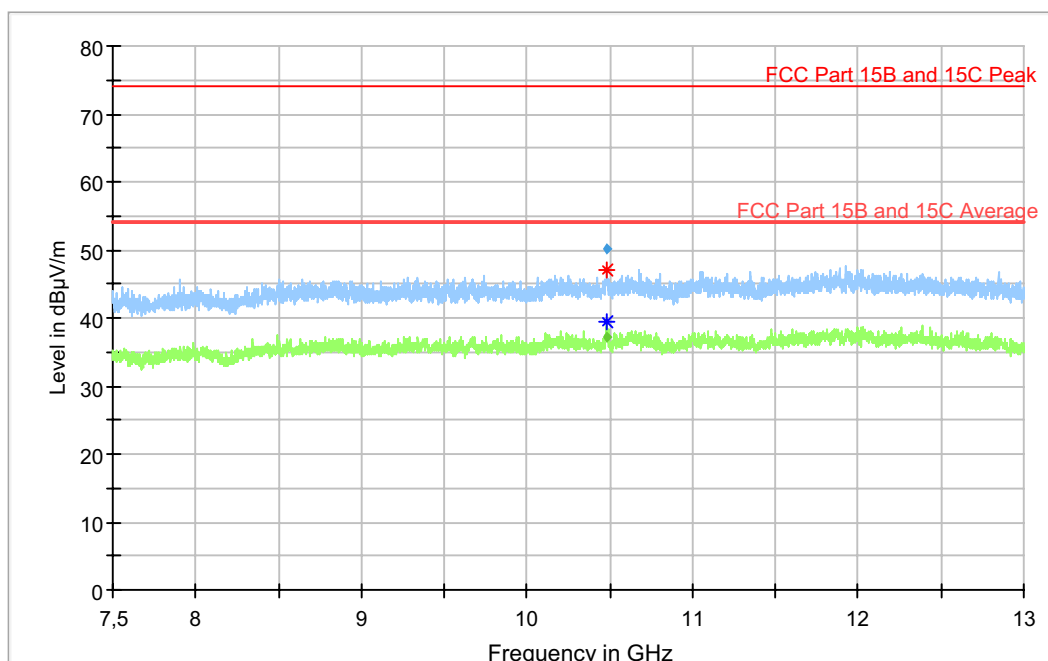
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 36, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



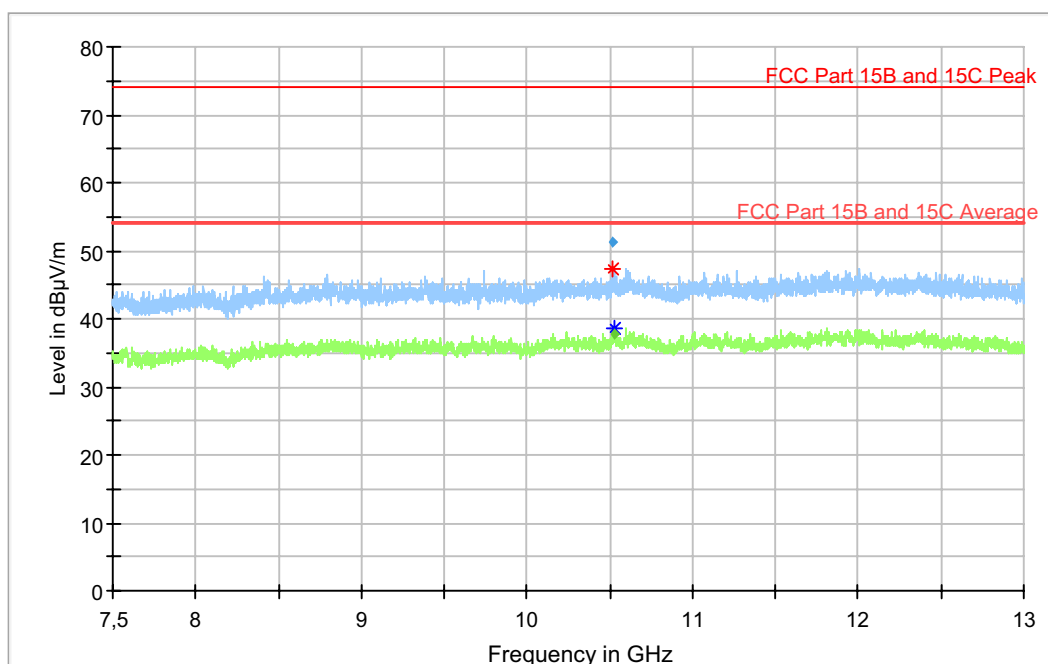
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 40, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



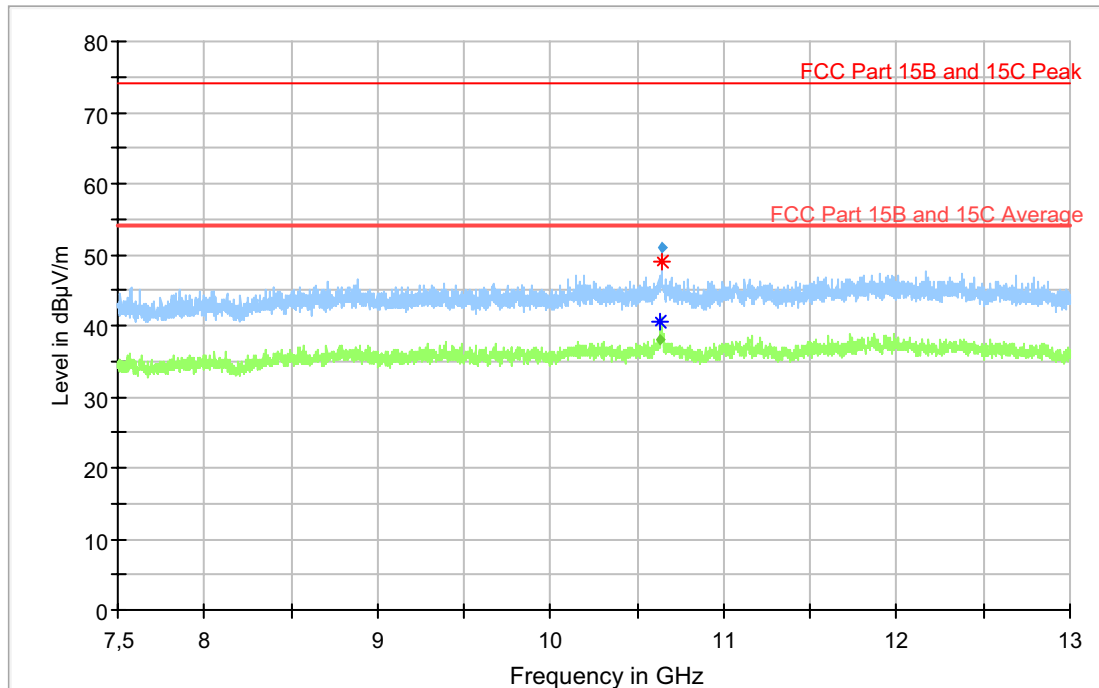
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 48, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



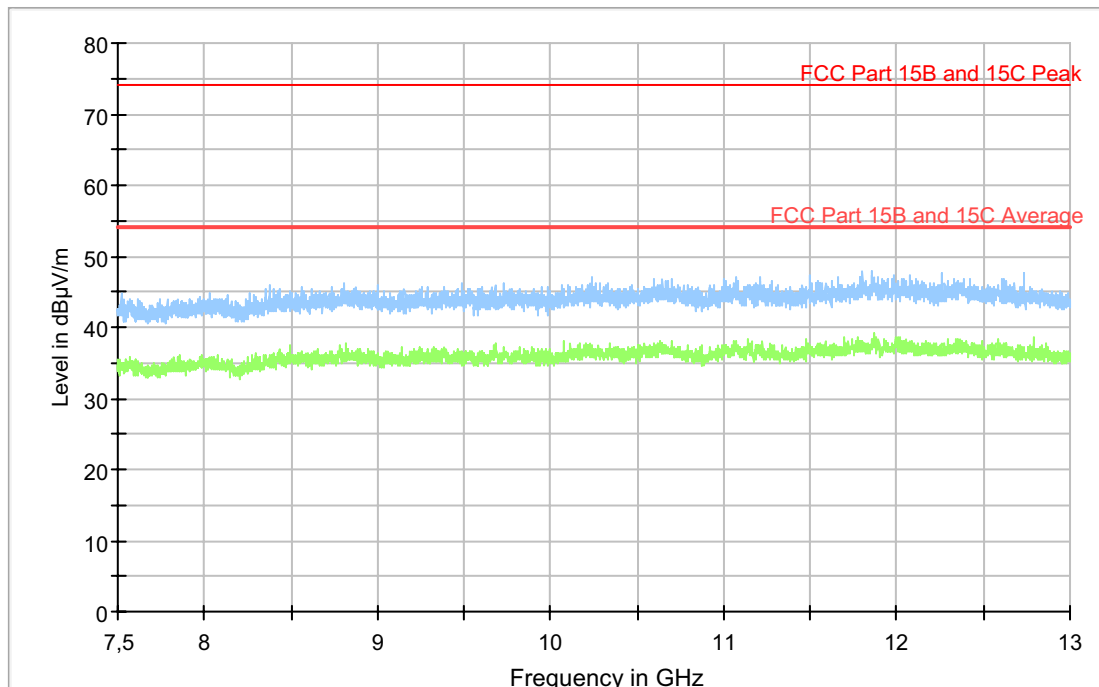
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 52, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



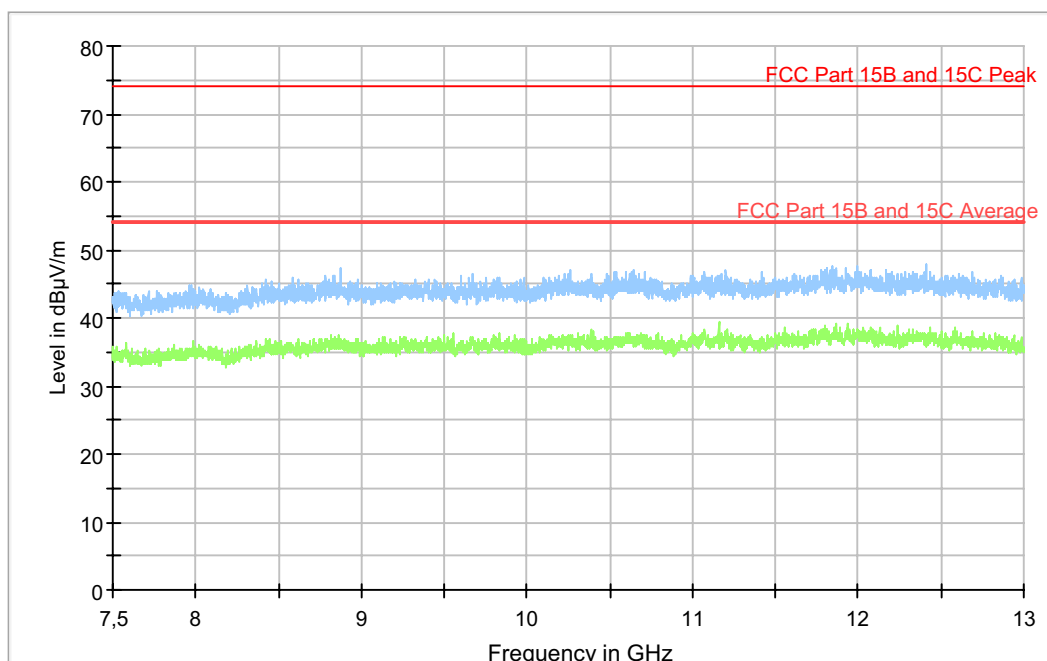
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 64, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



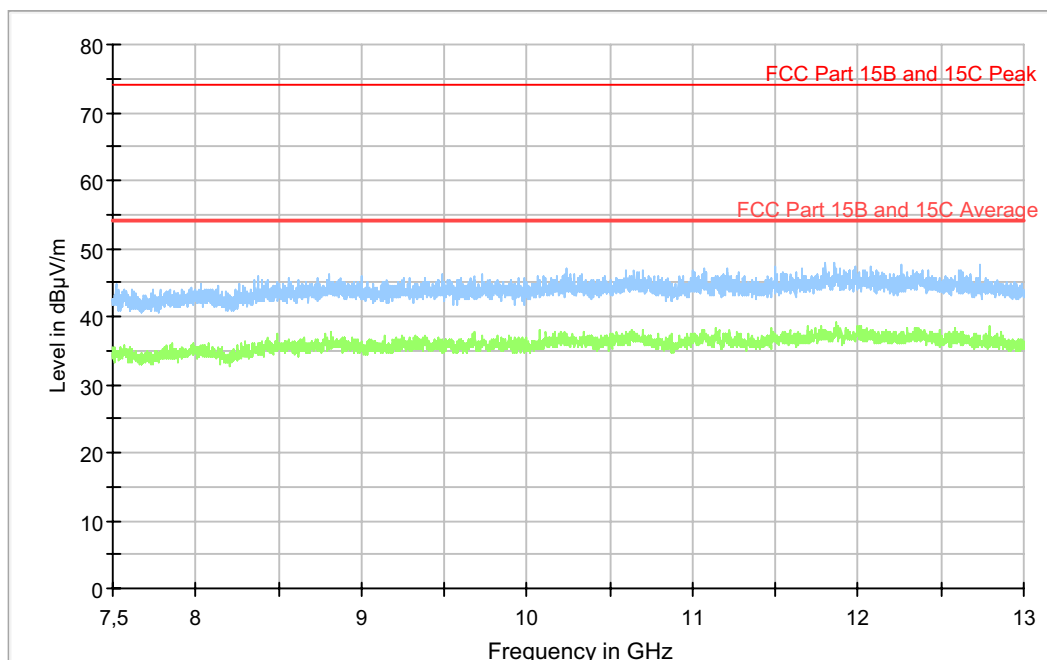
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 100, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



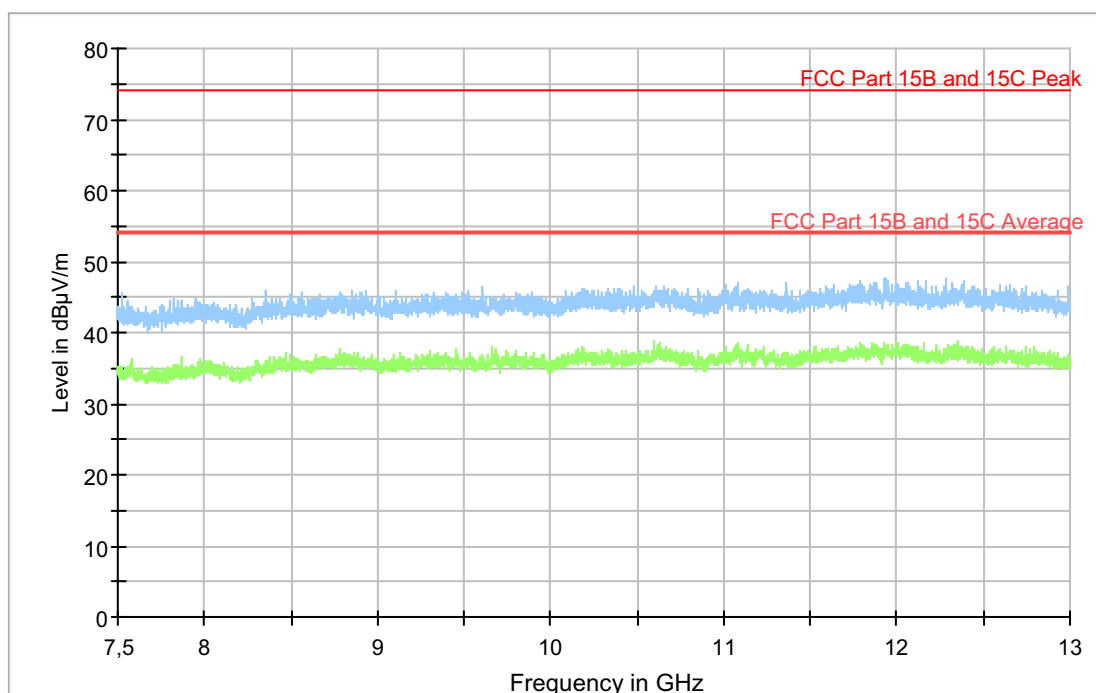
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 120, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



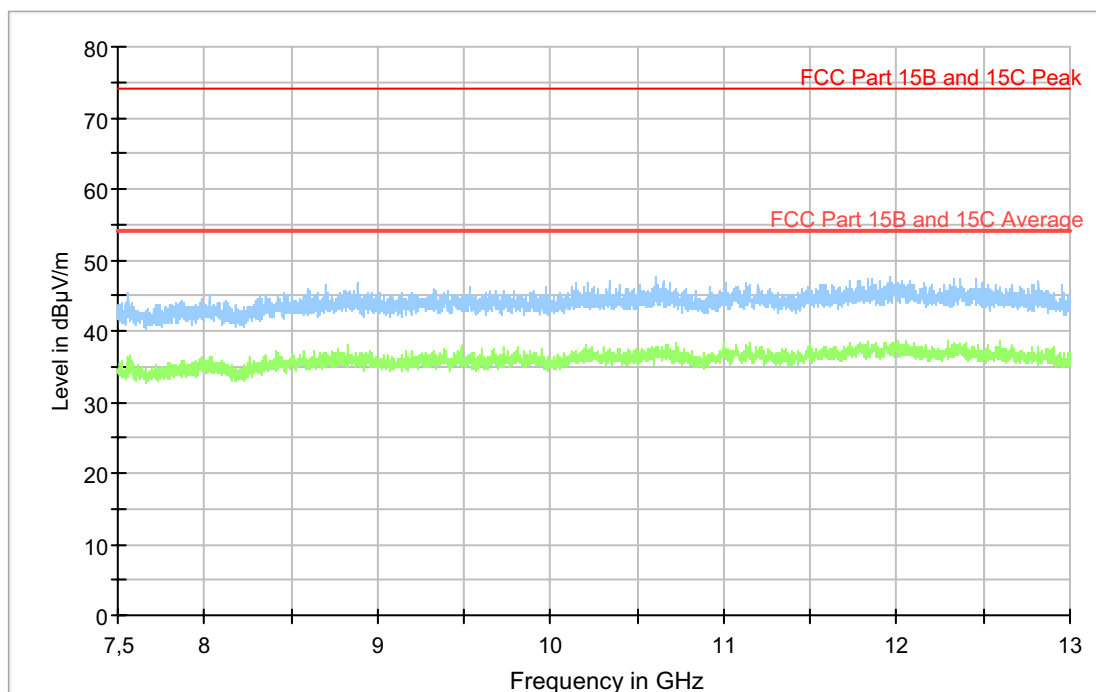
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 140, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum



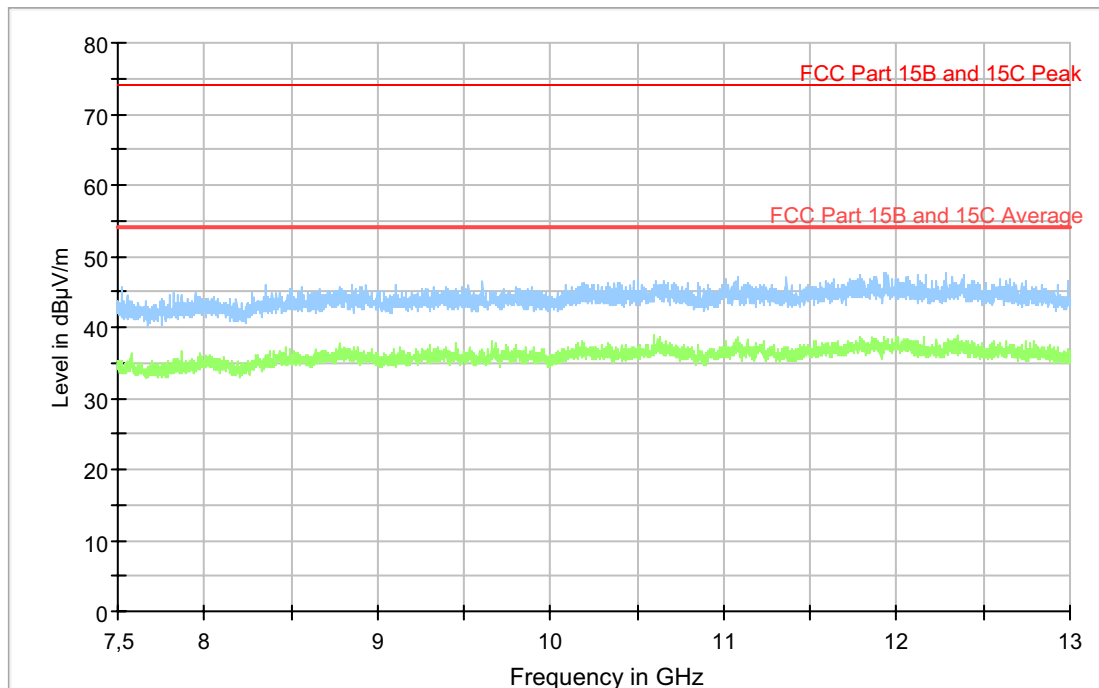
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 149, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

Full Spectrum

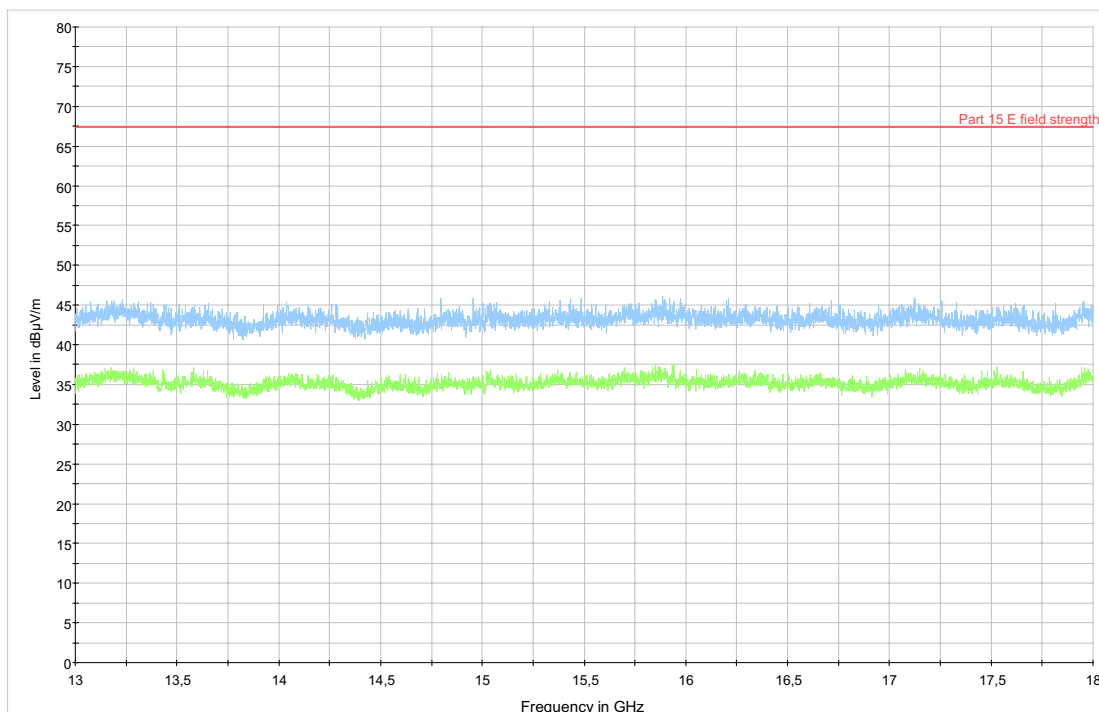


Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 157, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0

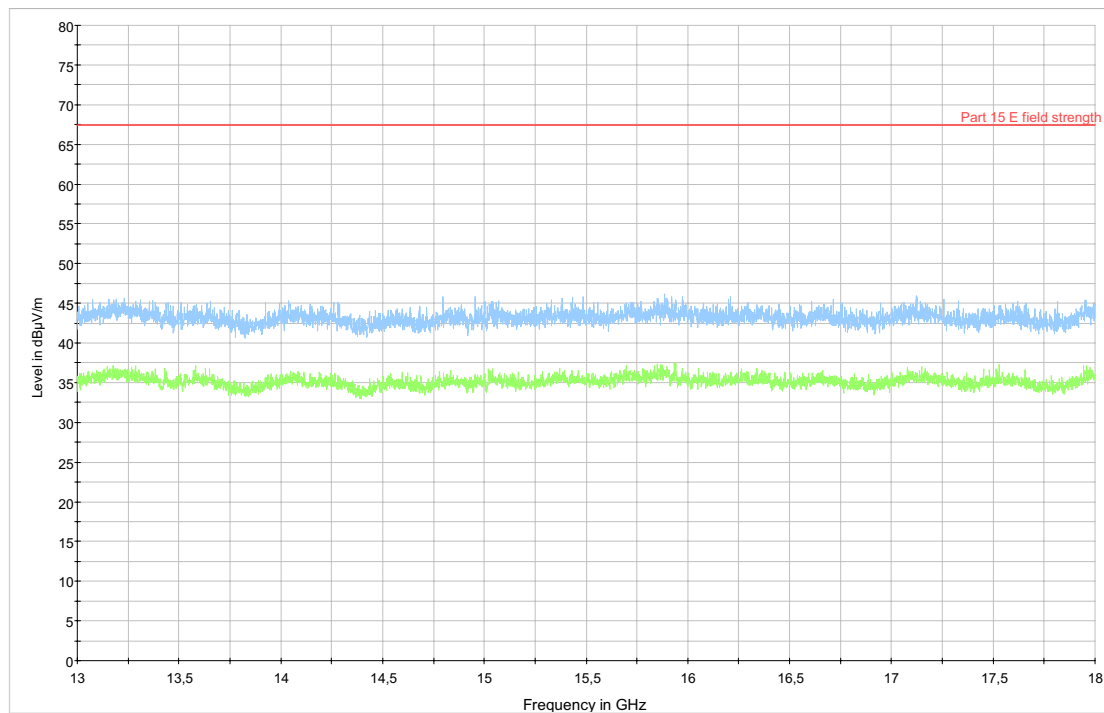
Full Spectrum



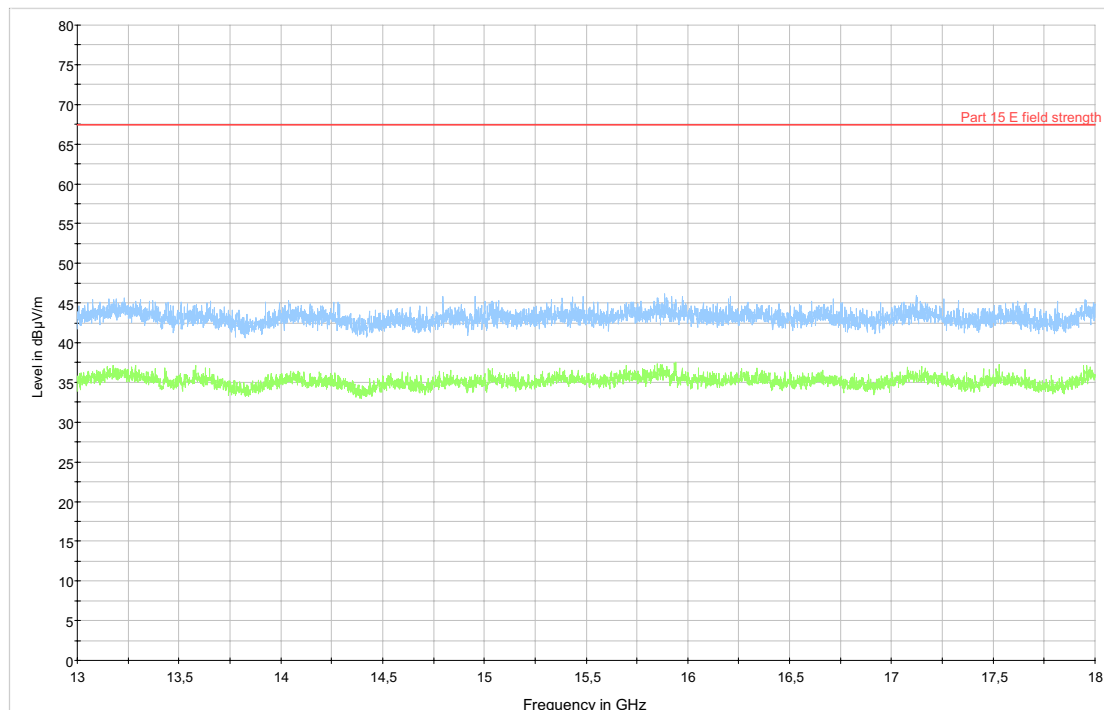
Diagram, Peak overview sweep, 7– 13 GHz at 3 m distance. TX channel 165, EUT orientation 2. Emissions below 7500 MHz are attenuated by high-pass filter K&L 11SH10-7500/U18000-0/0



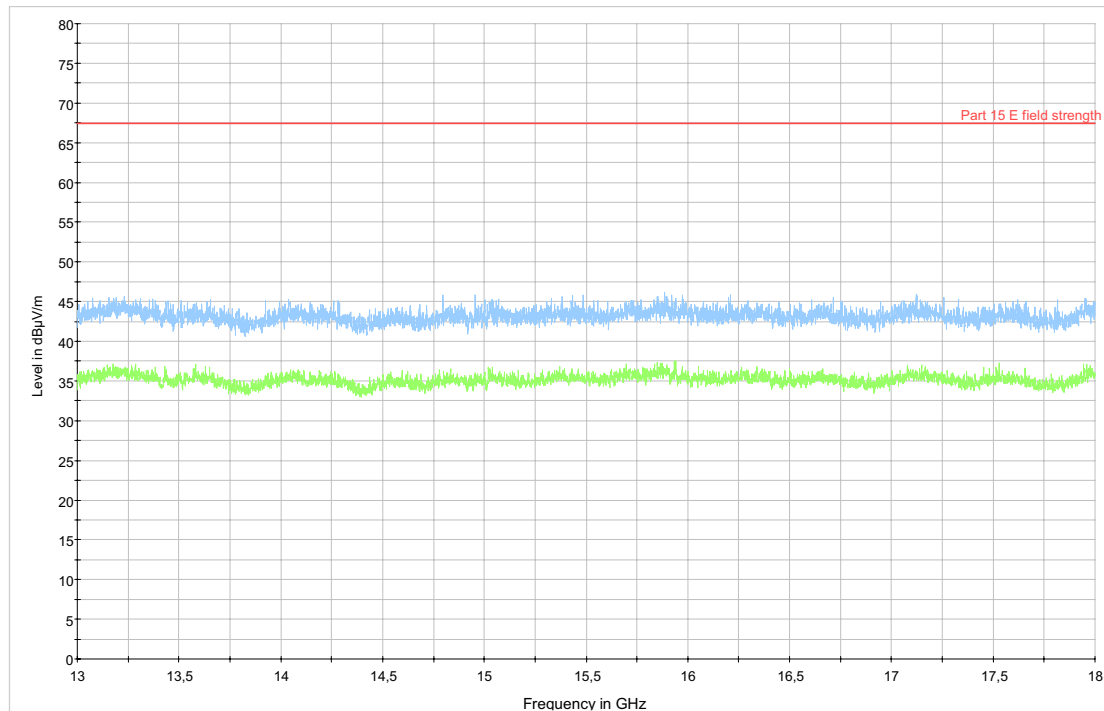
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 36, EUT orientation 2.



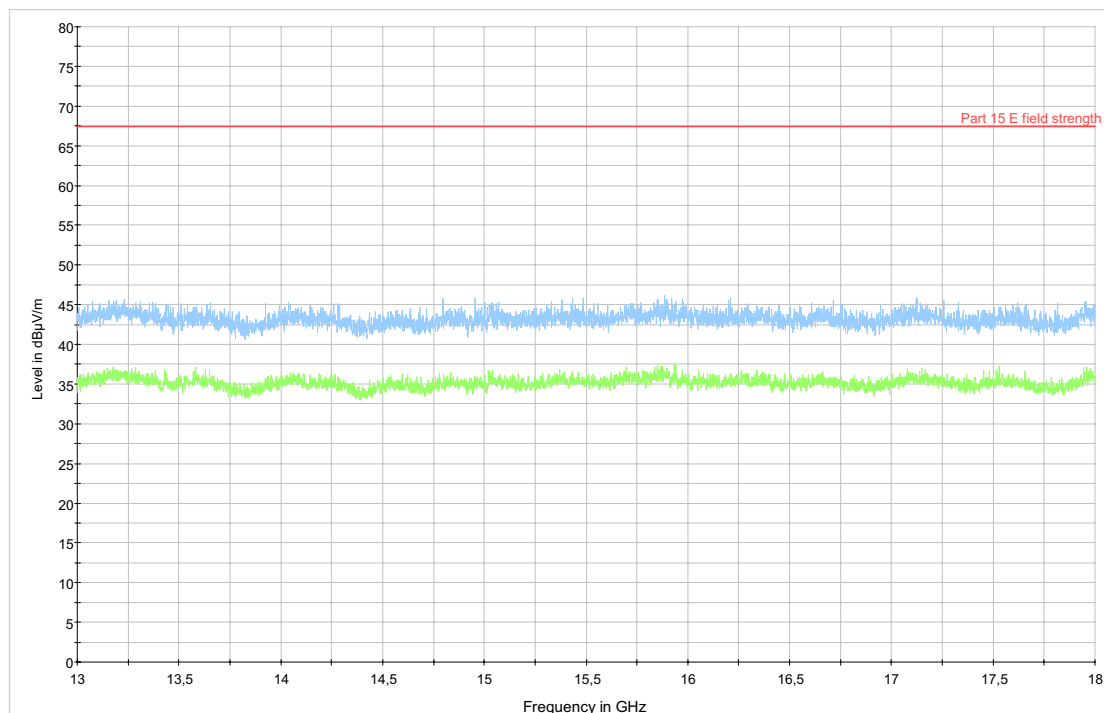
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 40, EUT orientation 2.



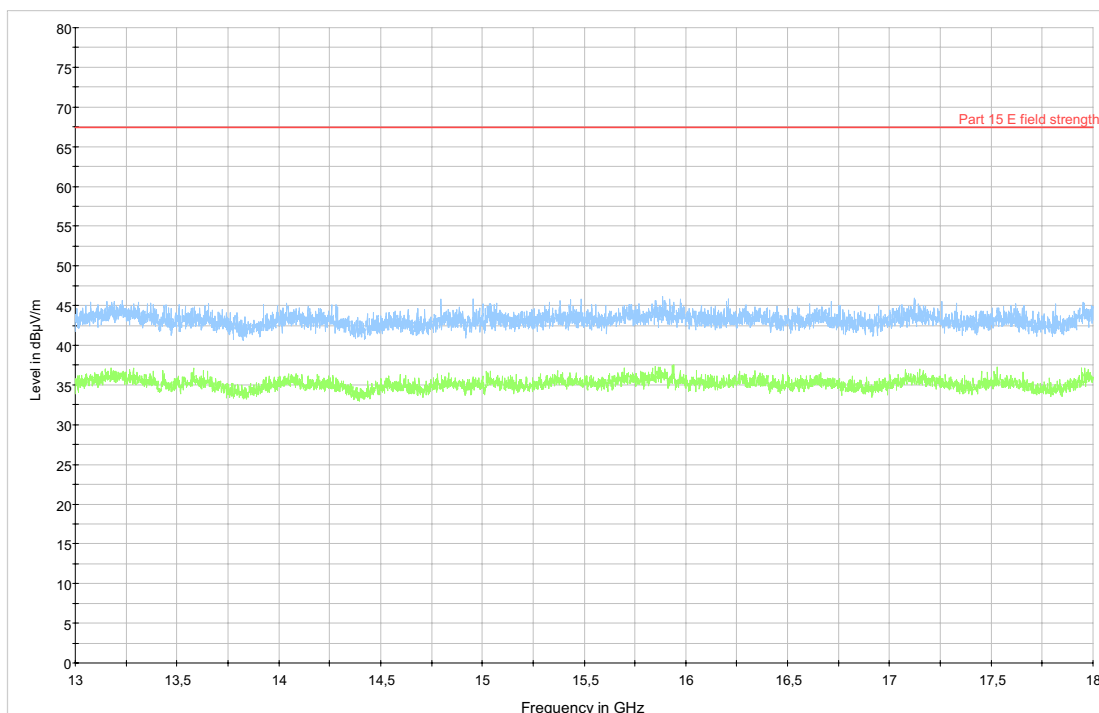
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 48, EUT orientation 2.



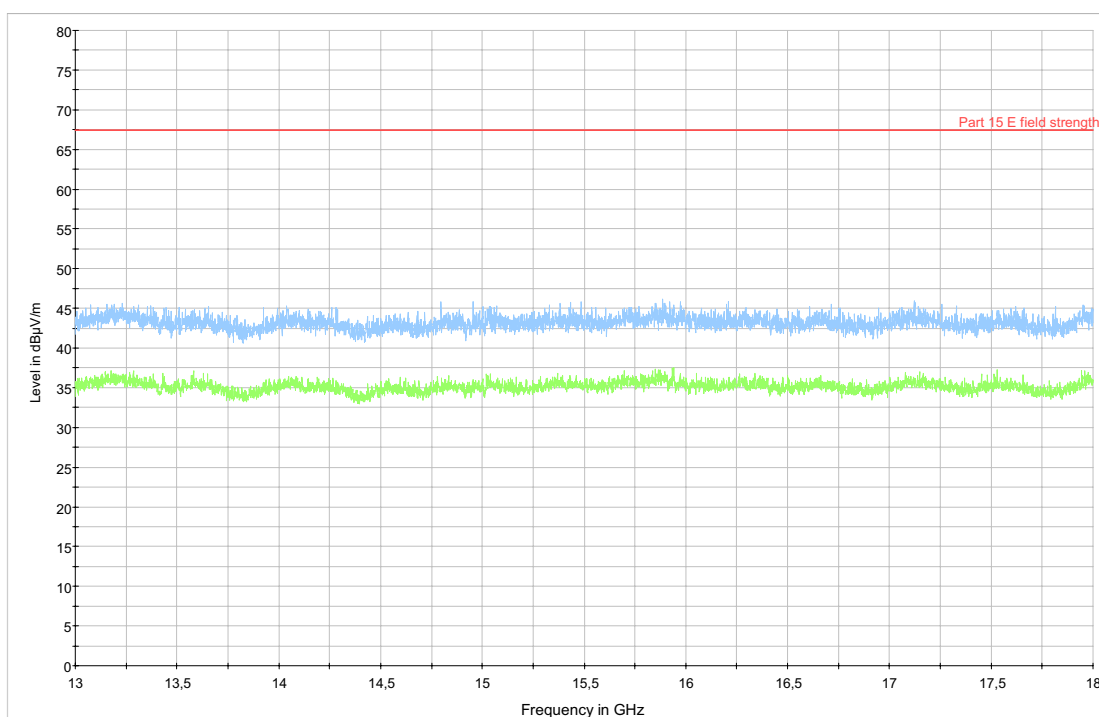
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 52, EUT orientation 2.



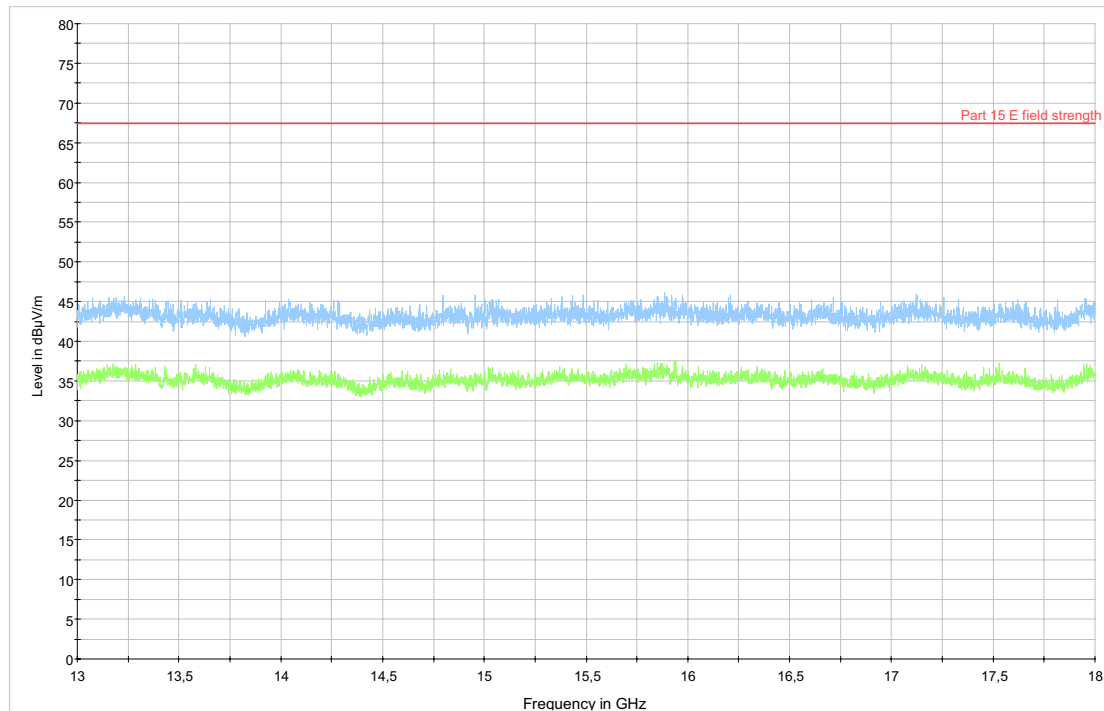
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 56, EUT orientation 2.



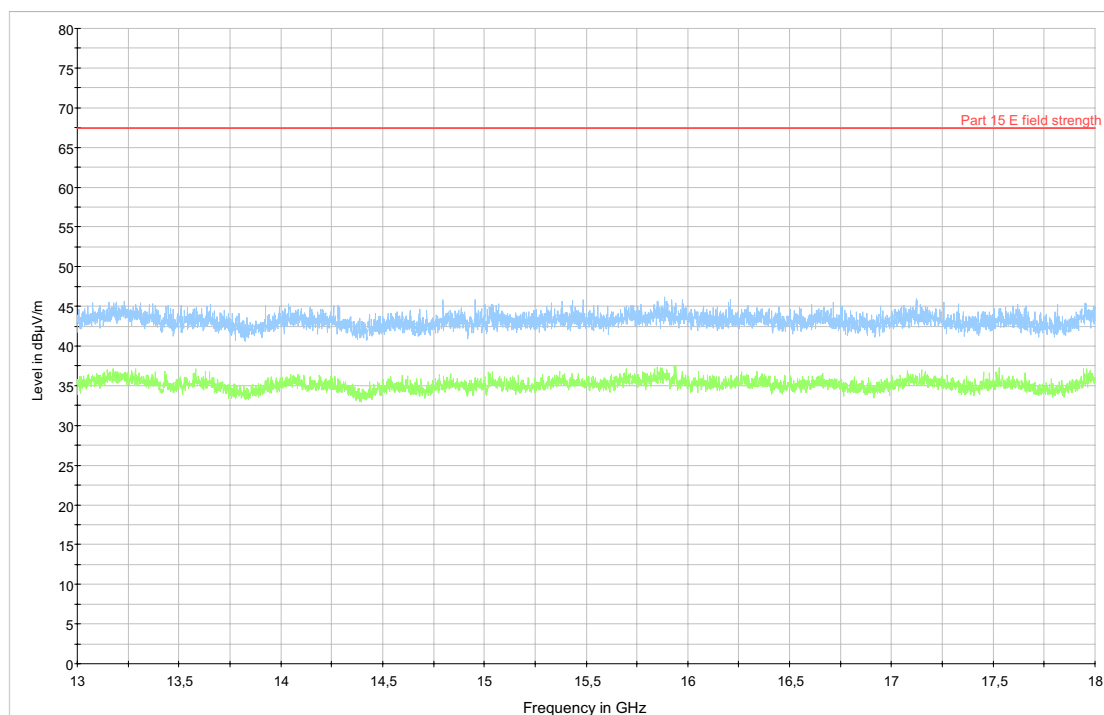
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 64, EUT orientation 2.



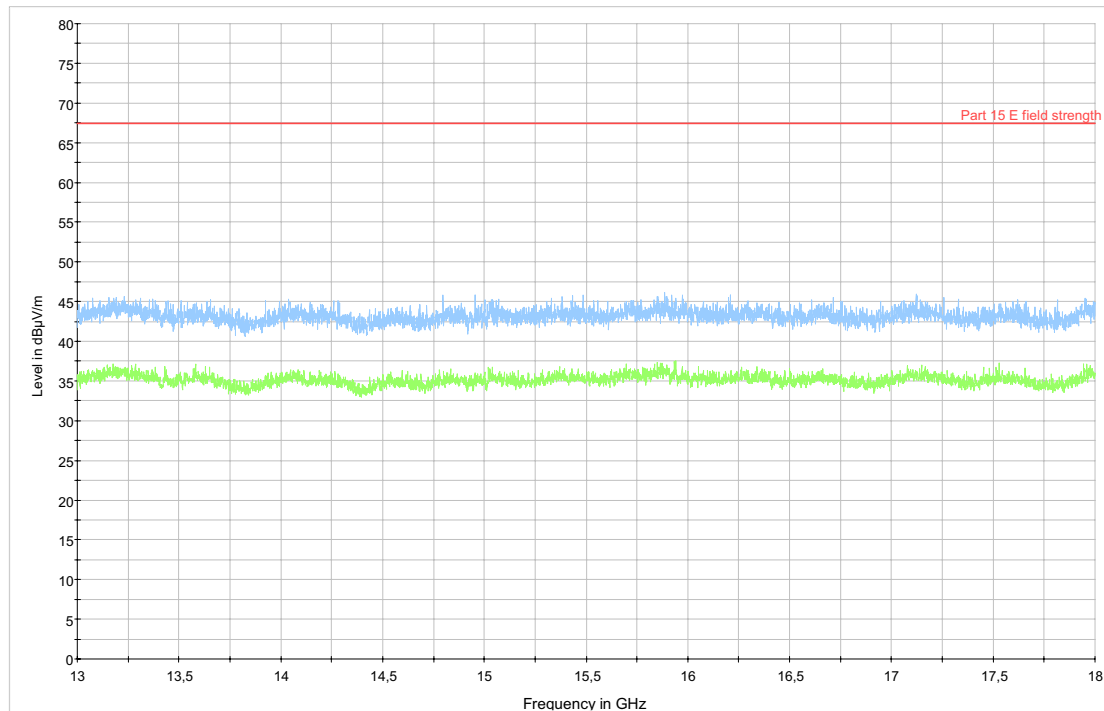
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 64, EUT orientation 2.



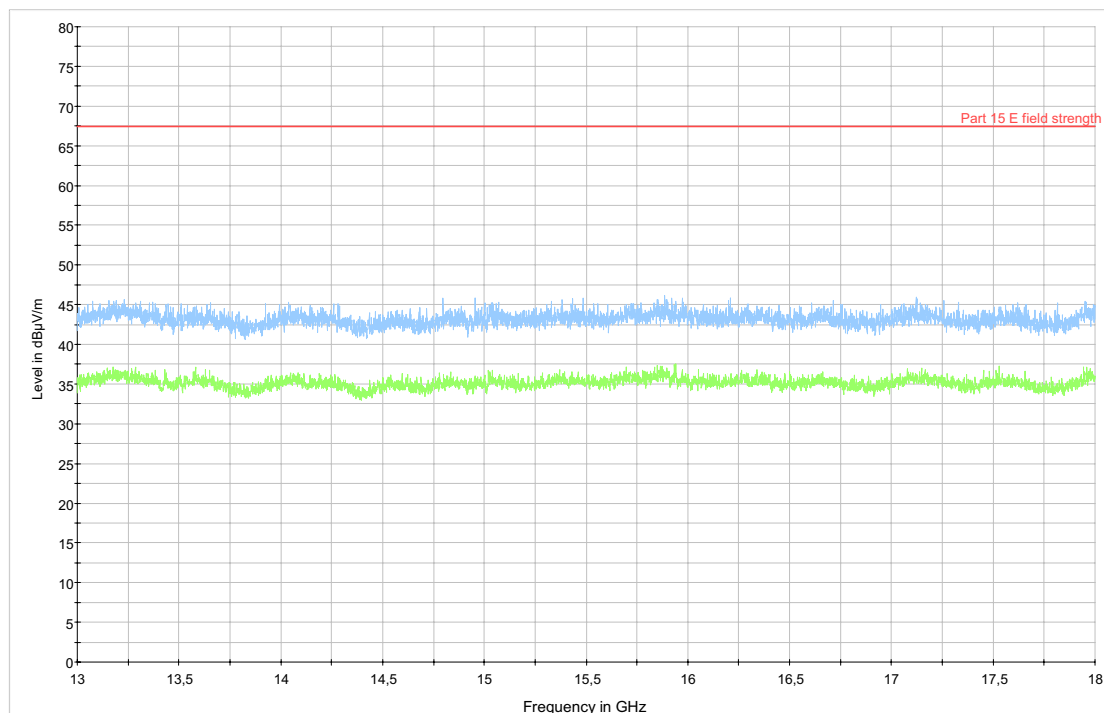
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 100, EUT orientation 2.



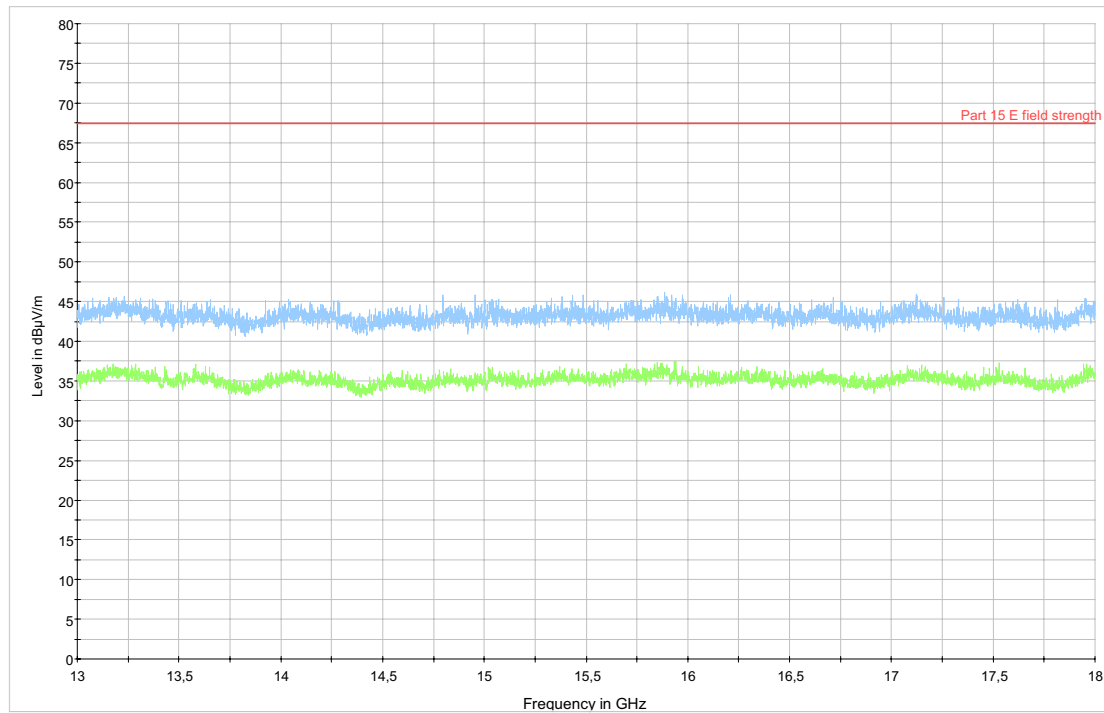
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 120, EUT orientation 2.



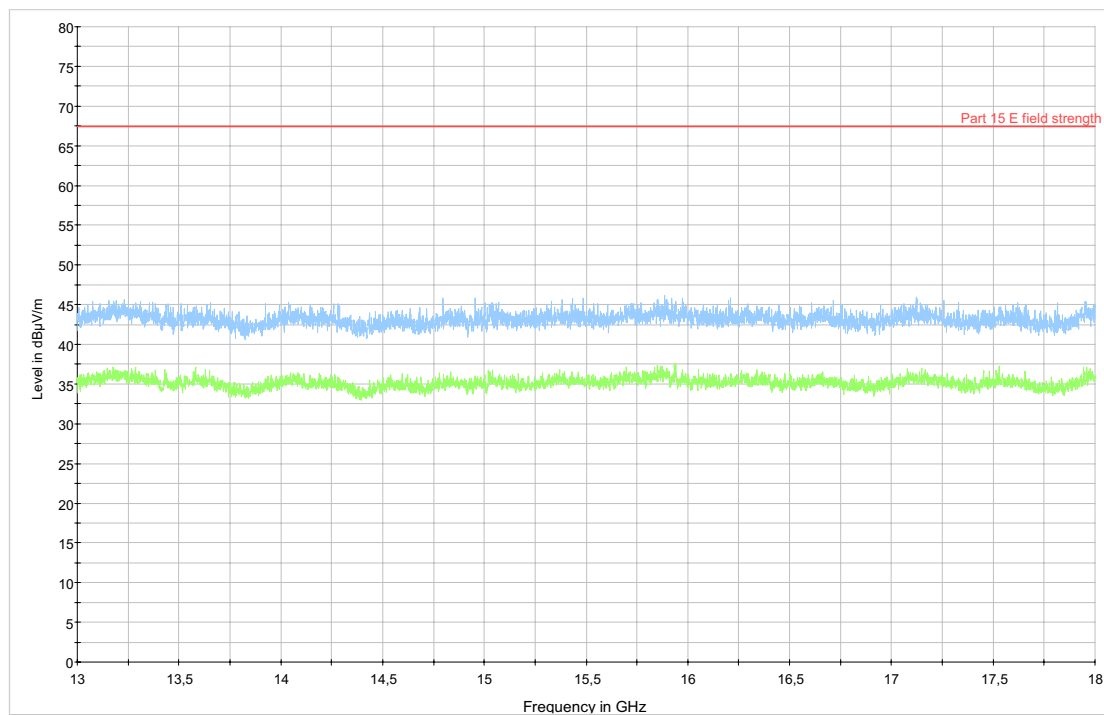
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 140, EUT orientation 2.



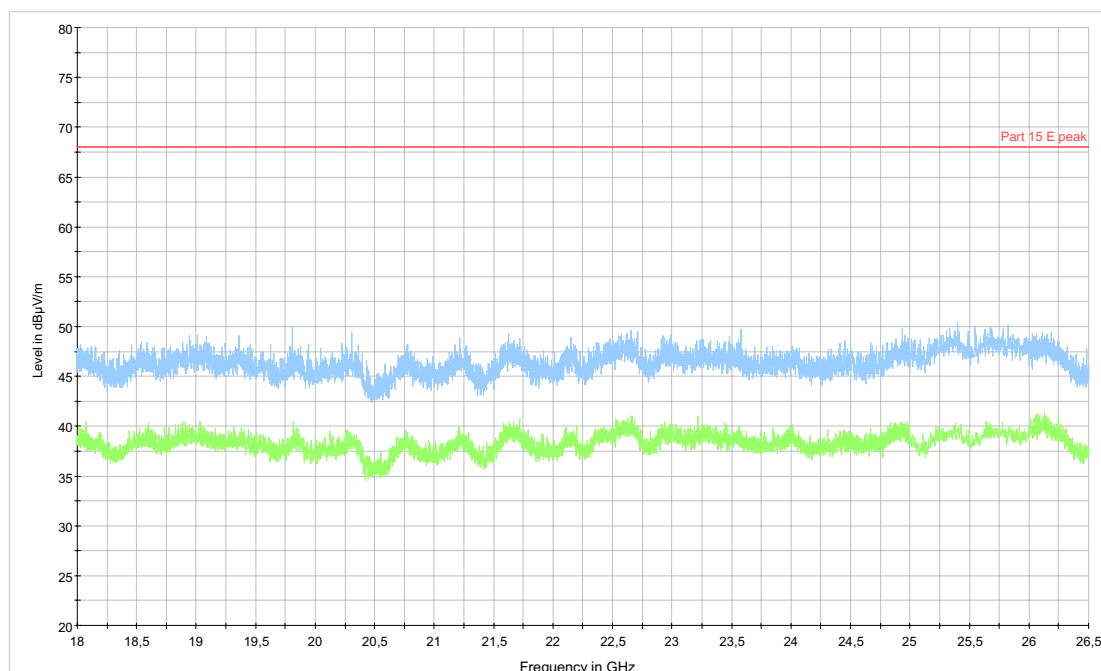
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 149, EUT orientation 2.



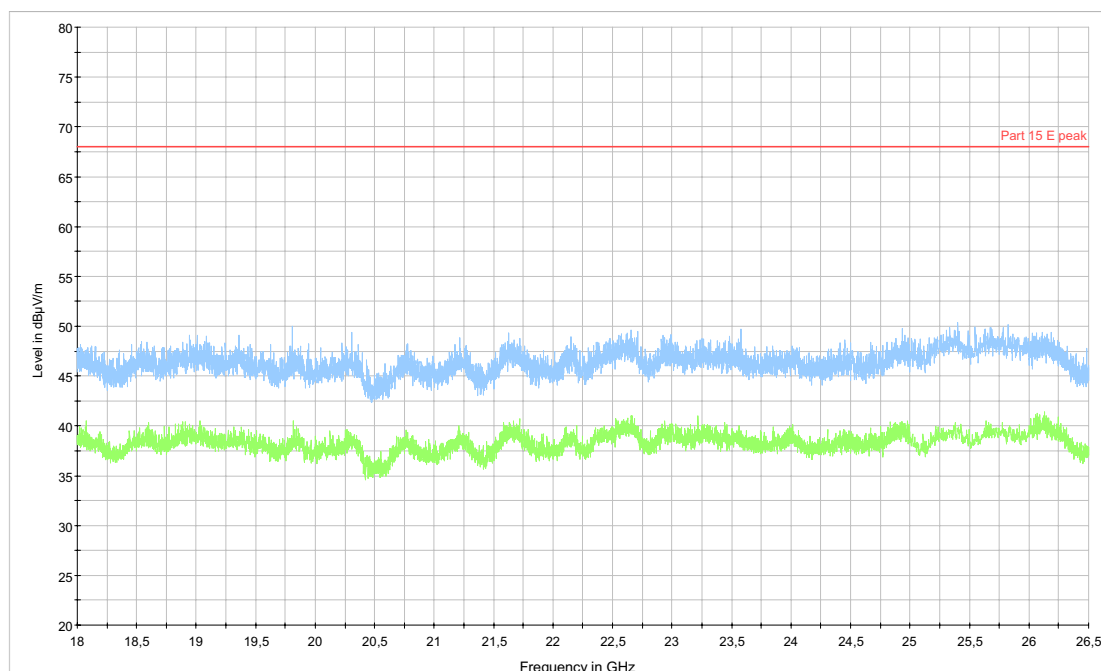
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 157, EUT orientation 2.



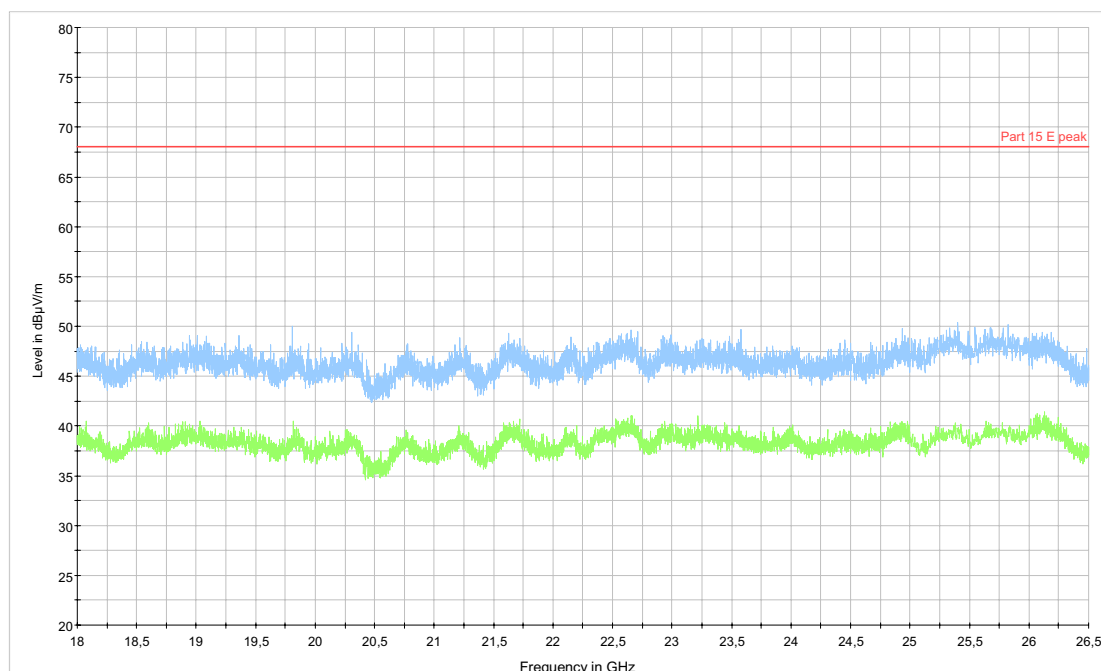
Diagram, Peak overview sweep, 13 – 18 GHz at 3 m distance. TX channel 165, EUT orientation 2.



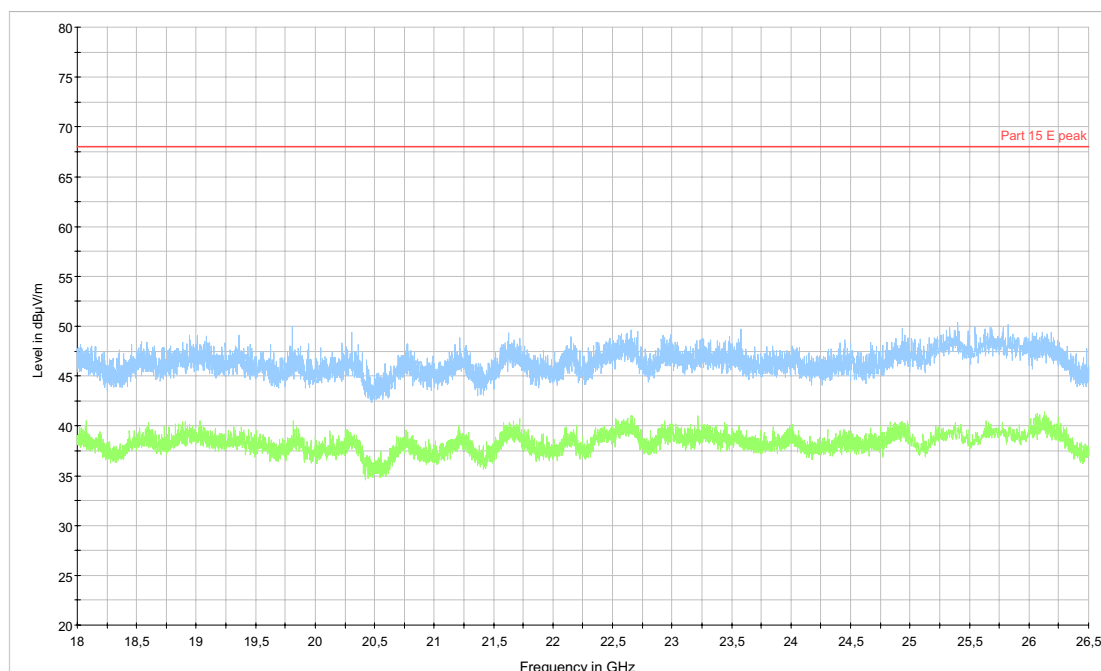
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 36



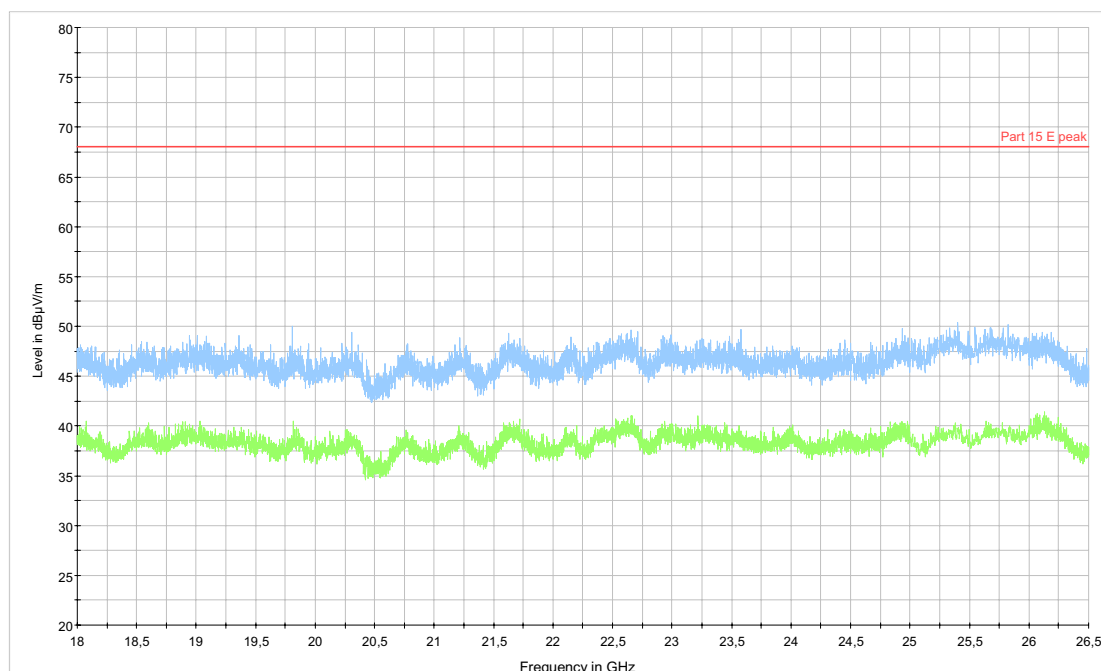
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 40



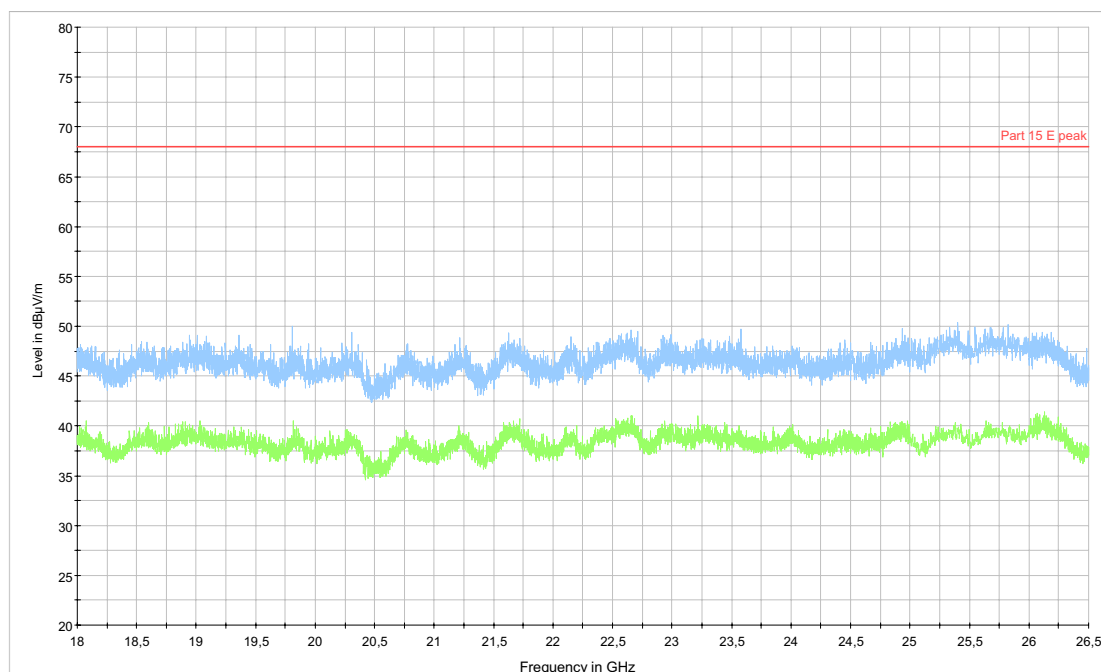
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 48



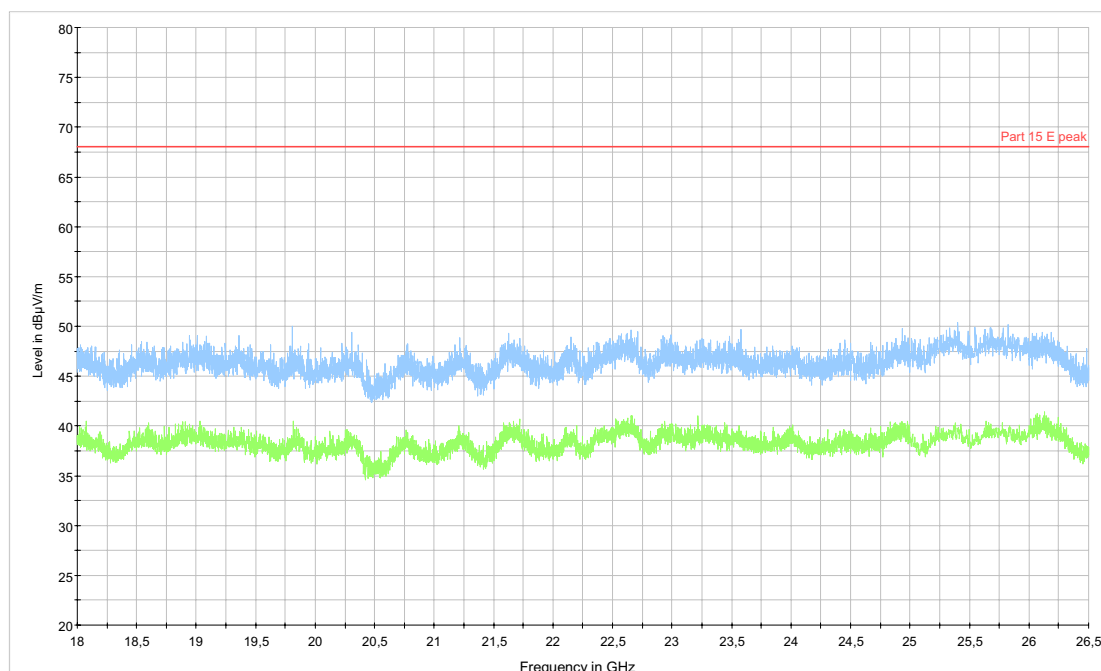
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 52



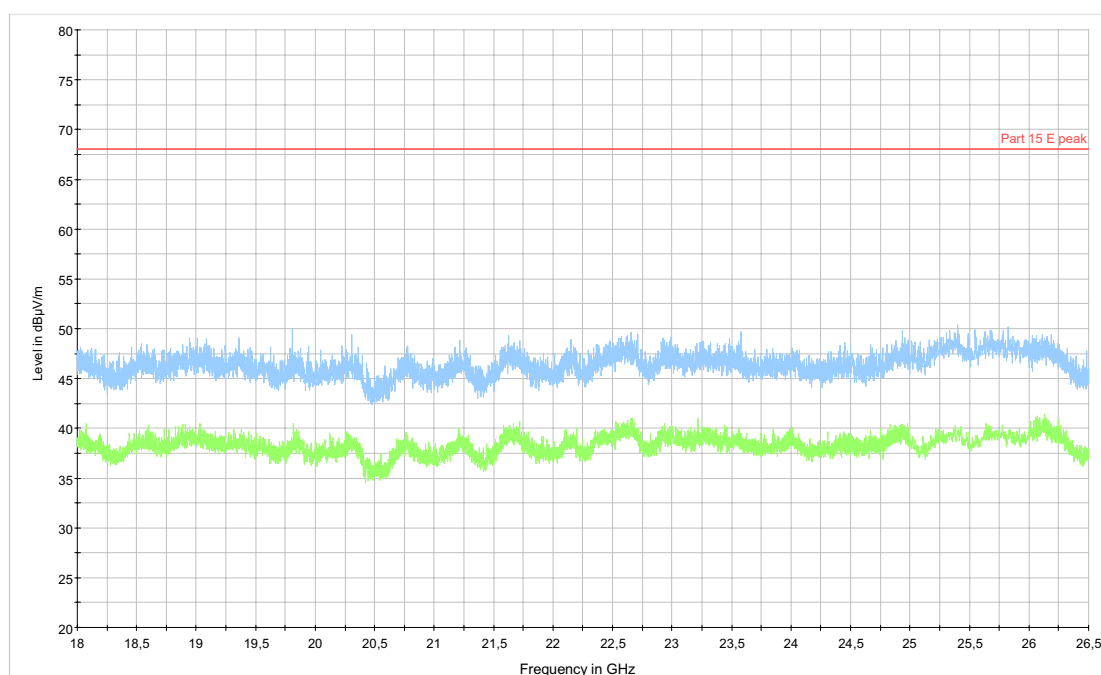
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 56



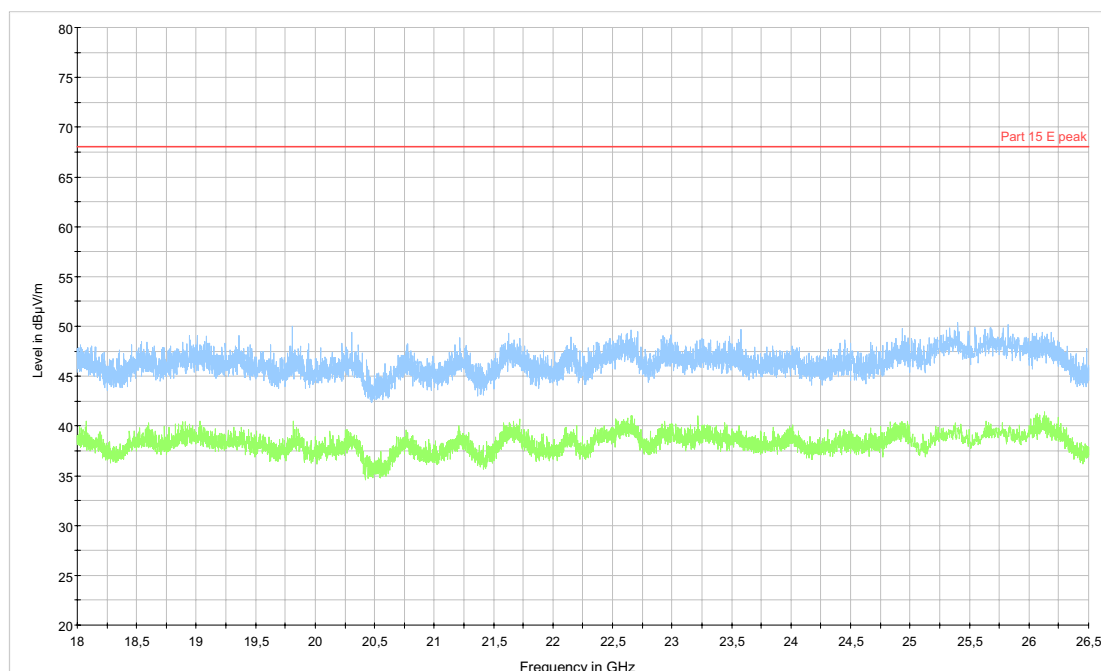
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 64



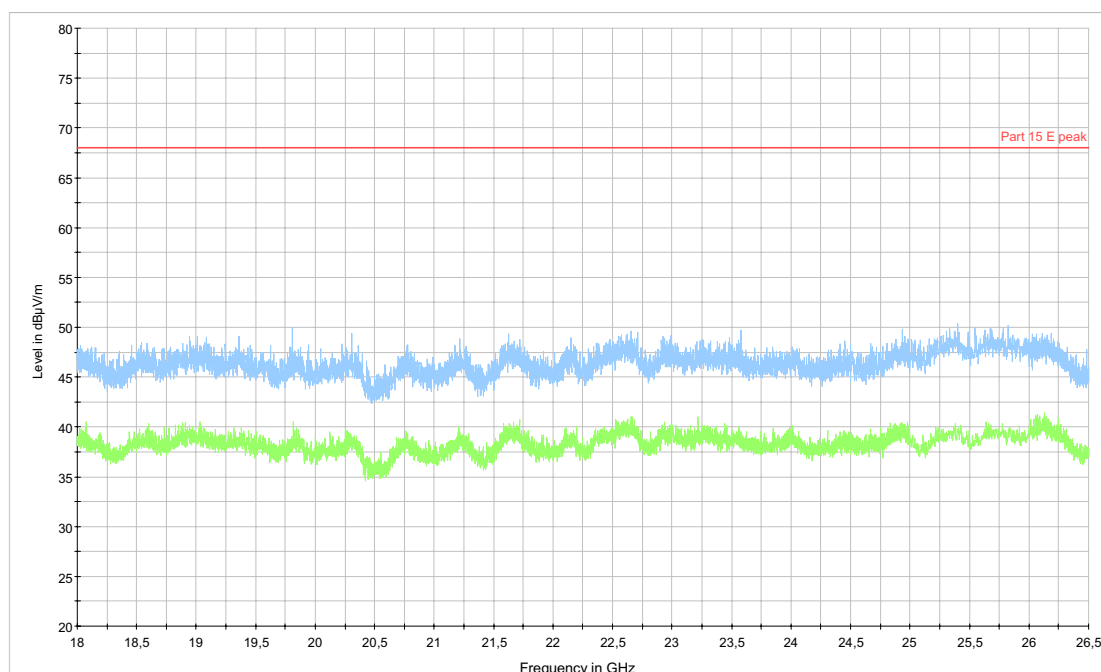
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 100



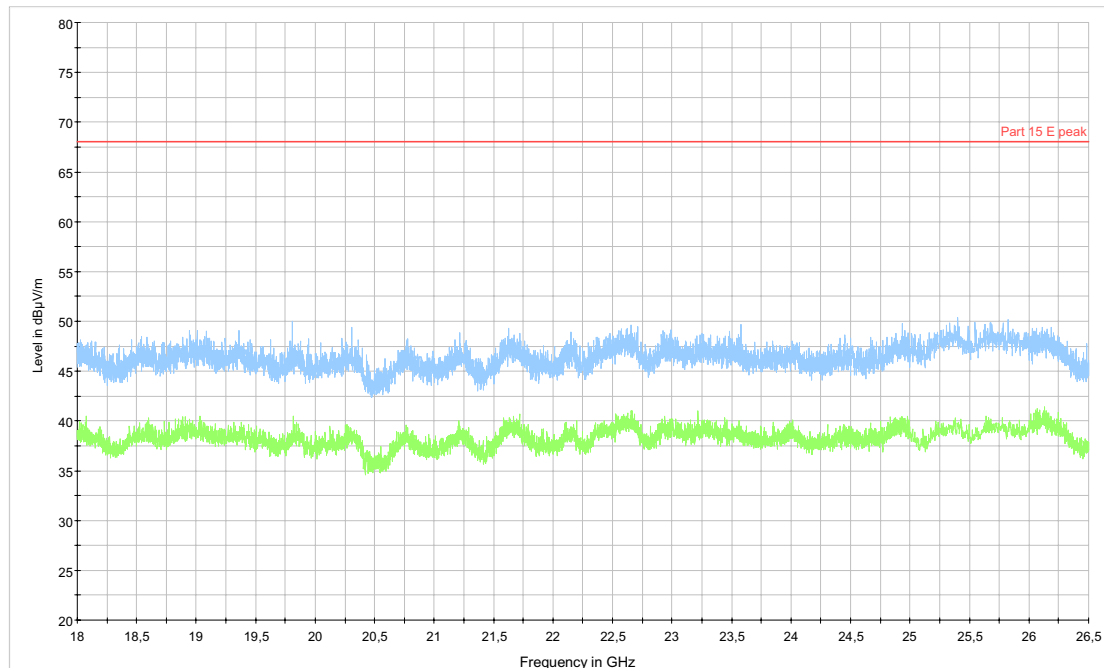
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 120



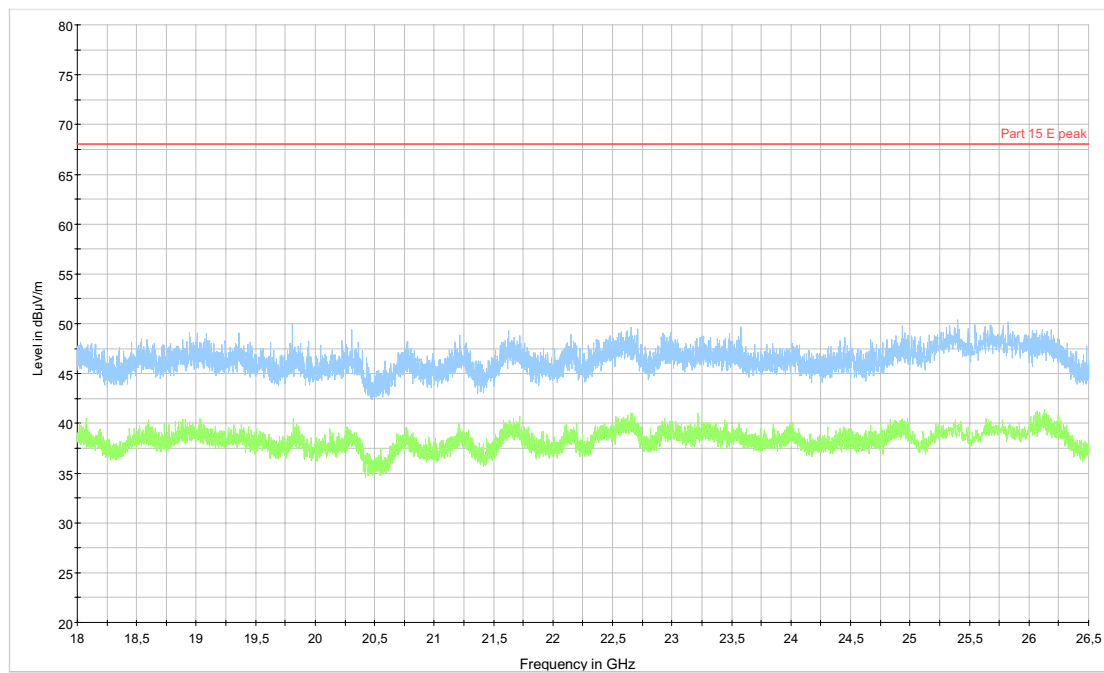
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 140



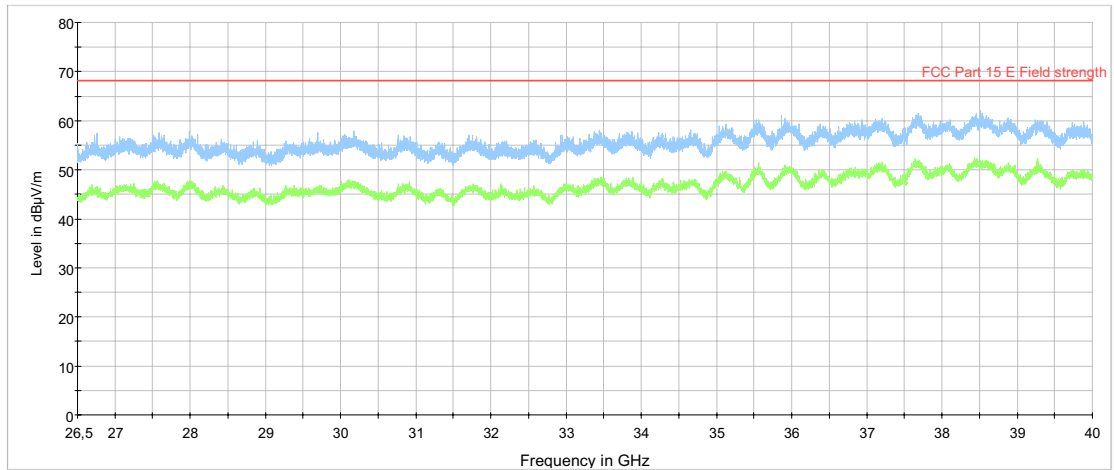
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 149



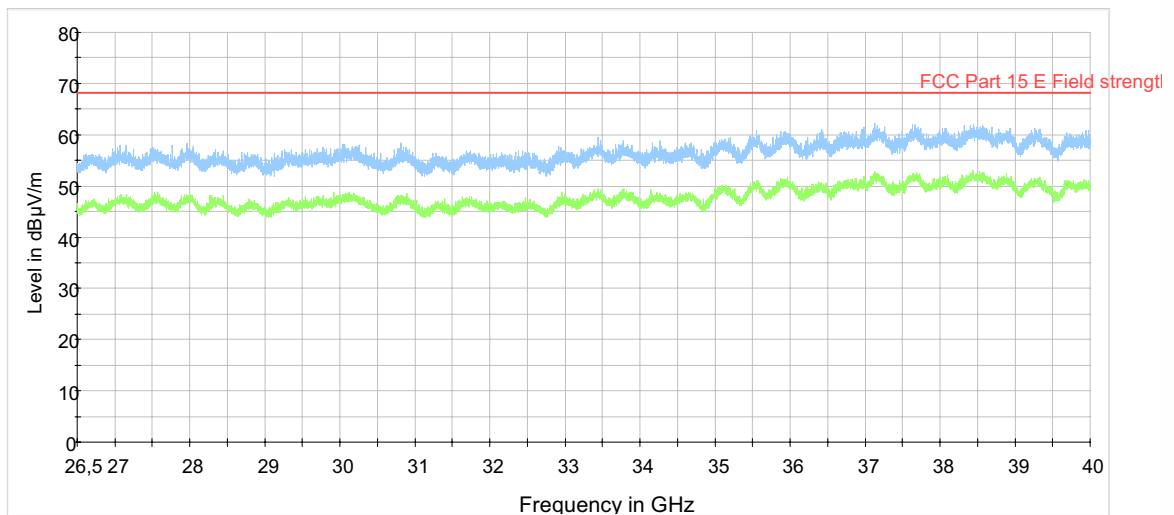
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 157



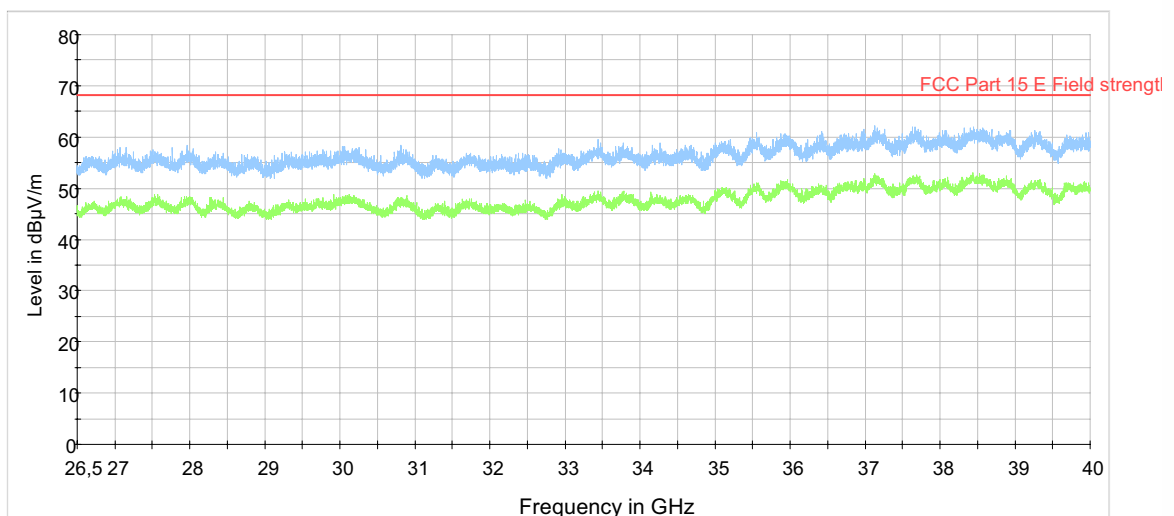
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 165



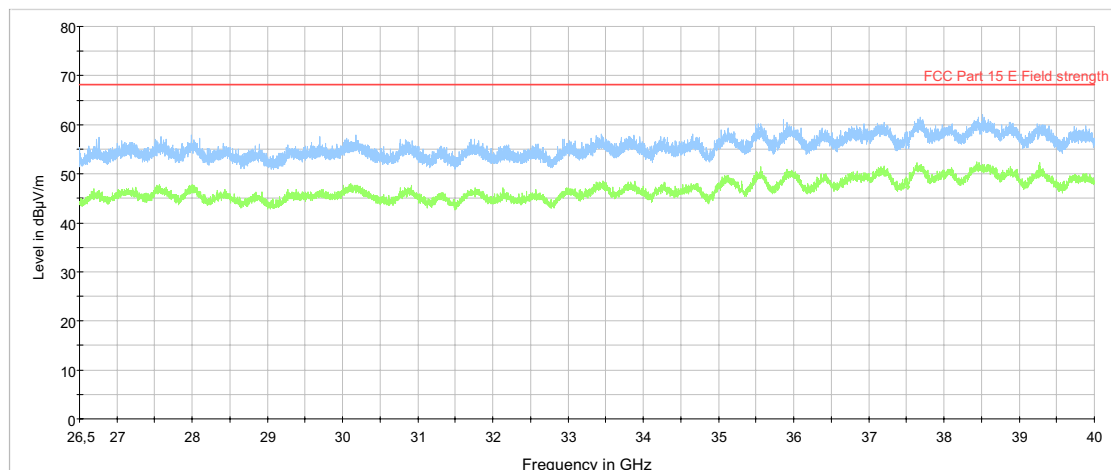
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 36



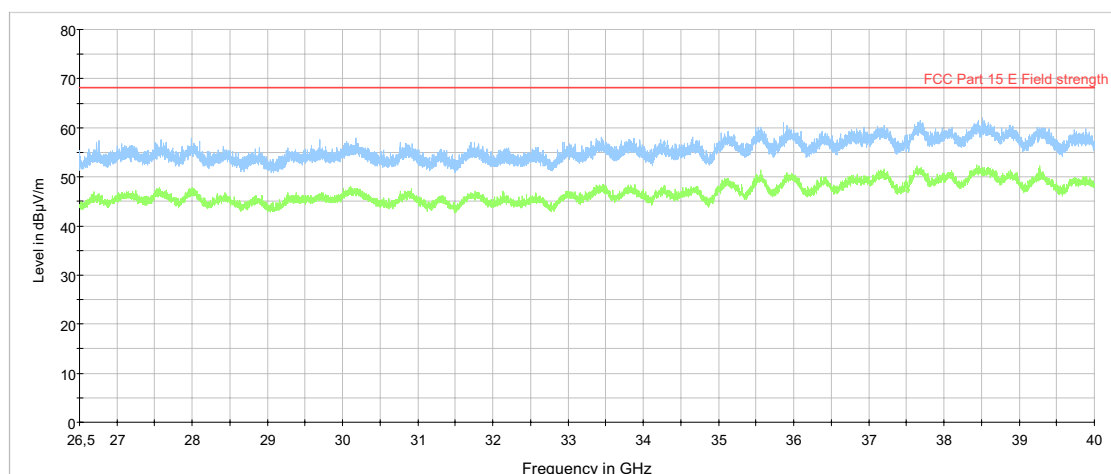
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 40



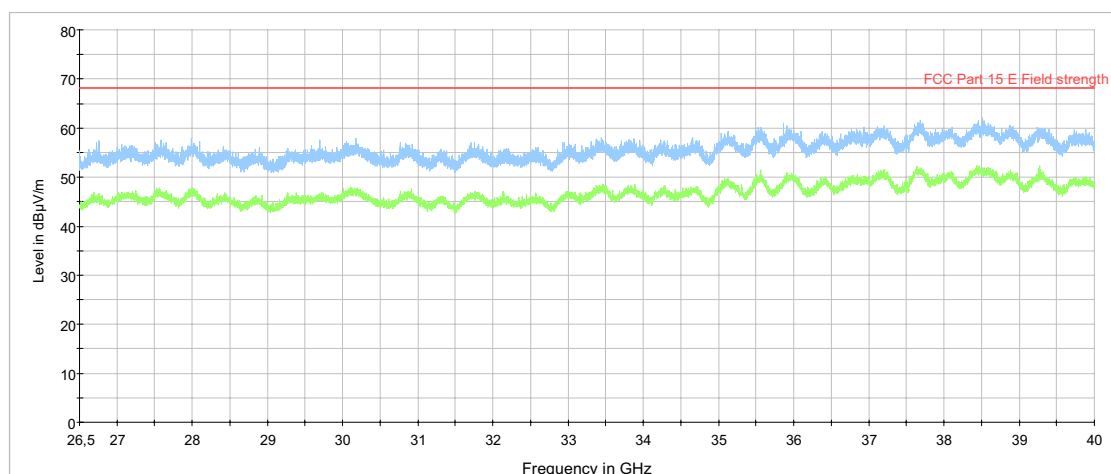
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 48



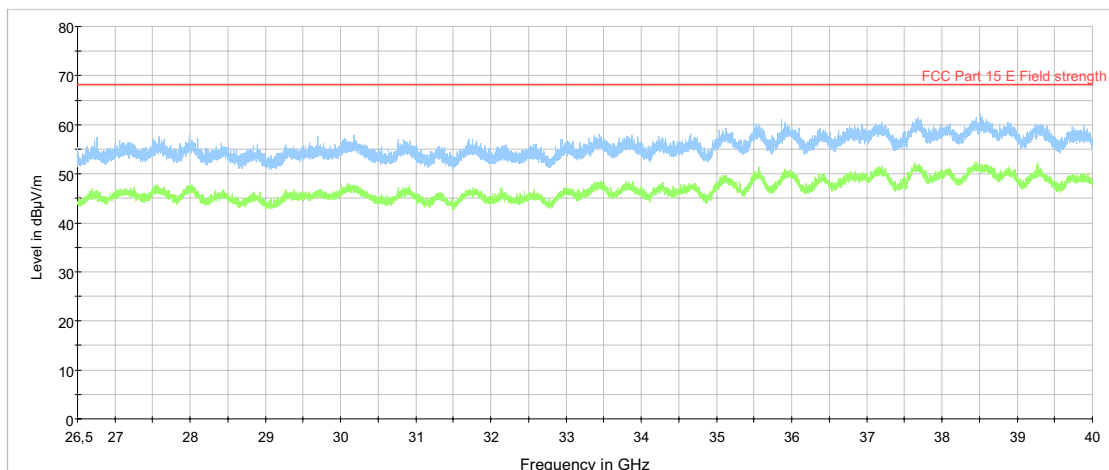
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 52



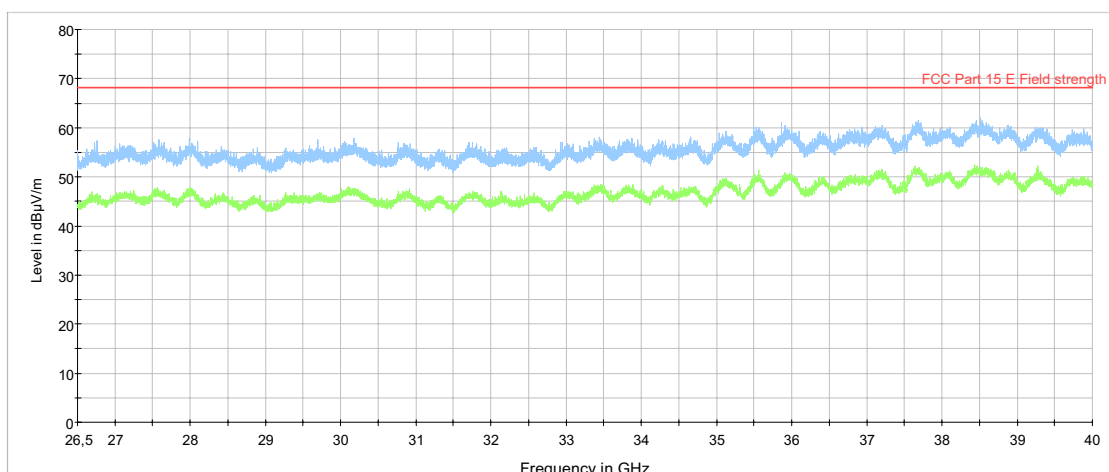
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 64



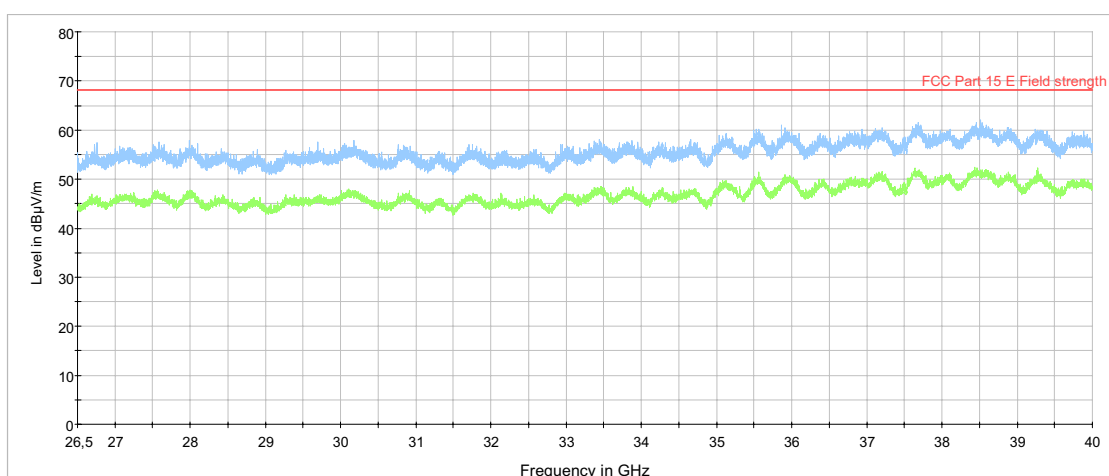
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 100



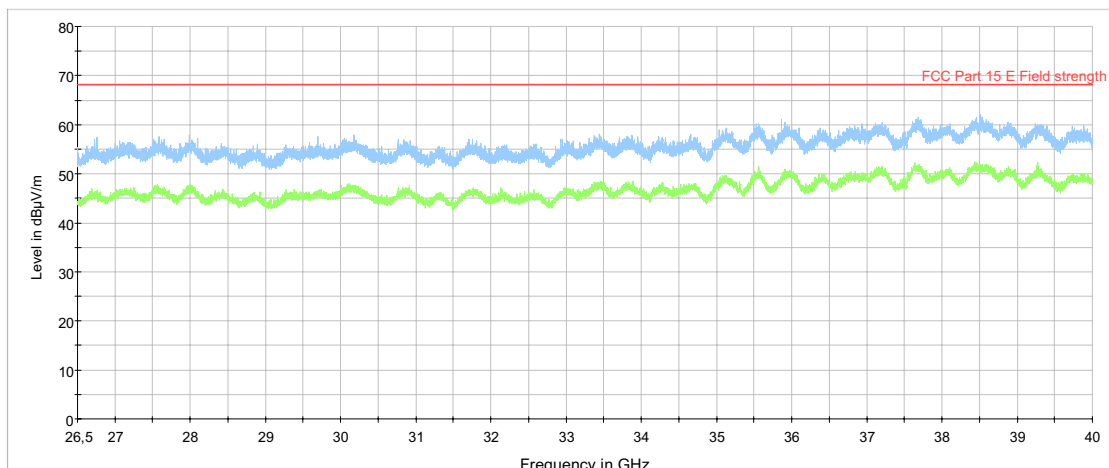
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 120



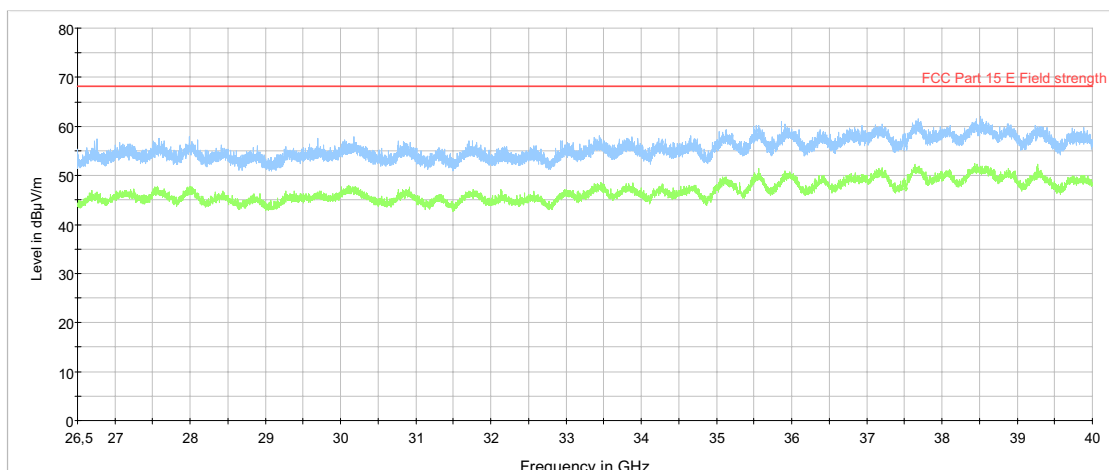
Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 140



Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 149



Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 157



Diagram, Peak overview sweep, 18 – 26.5 GHz at 3 m distance. TX channel 165

Measurement results, Peak, TX channel 36

Frequency [MHz]	Level [dBµV/m]	Limit [dBµV/m]	EUT orientation	Polarization H/V	Margin [dB]
5019.9	54.1	74.0	2	H	19.9
5097.9	51.1	74.0	2	V	22.9
5137.6	56.5	74.0	2	V	17.5
5146.4	63.9	74.0	2	V	10.1
5149.6	64.3	74.0	2	V	9.7
5342.7	55.6	74.0	2	V	18.4

Measurement results, Average, TX channel 36

Frequency [MHz]	Level [dBµV/m]	Limit [dBµV/m]	EUT orientation	Polarization H/V	Margin [dB]
5019.9	40.5	54.0	1	H	13.5
5097.9	37.4	54.0	1	V	16.6
5137.6	39.8	54.0	1	V	14.2
5146.4	43.4	54.0	1	V	10.6
5149.6	41.9	54.0	1	V	12.1
5342.7	42.6	54.0	1	V	11.4

Measurement results, Peak, TX channel 40

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5038.8	55.0	74.0	1	V	19.0
5118.4	51.1	74.0	1	V	22.9
5359.9	61.6	74.0	1	H	12.4

Measurement results, Average, TX channel 40

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5038.8	51.7	54.0	1	V	2.3
5118.4	37.6	54.0	1	V	16.4
5359.9	48.9	54.0	1	H	5.1

Measurement results, Peak, TX channel 48

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5082.0	56.8	74.0	1	V	17.2
5319.3	55.2	74.0	1	V	18.8
5399.9	60.8	74.0	1	H	13.2
10481.8	56.0	74.0	2	V	18.0

Measurement results, Average, TX channel 48

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5082.0	43.6	54.0	1	V	10.4
5319.3	41.9	54.0	1	V	12.1
5399.9	48.0	54.0	1	H	6.0

Measurement results, Peak, TX channel 64

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5149.6	51.9	74.0	2	H	28.1
5350.5	70.2	74.0	2	H	9.8
5479.5	53.7	74.0	2	V	26.3
10638.8	56.9	74.0	2	V	17.1

Measurement results, Average, TX channel 64

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5149.6	38.0	54.0	1	H	22.0
5350.5	51.4	54.0	1	H	8.6
5479.5	40.1	54.0	1	V	19.9
10635.4	41.9	54.0	2	V	12.1

Measurement results, Peak, TX channel 100

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5339.1	55.3	74.0	1	V	24.7
5470.1	71.1	74.0	1	H	2.9

Measurement results, Average, TX channel 100

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5339.1	42.5	54.0	1	V	17.5
5470.1	53.9	54.0	1	H	0.1*

* The result doesn't exceed the limit but is within measurement uncertainty. Therefore it is not possible to say with 95% confidence that

Measurement results, Peak, TX channel 120

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5498.0	49.2	74.0	1	V	24.8
5822.0	54.4	74.0	1	V	19.6

Measurement results, Average, TX channel 120

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5498.0	35.5	54.0	1	V	18.5
5822.0	41.7	54.0	1	V	12.3

Measurement results, Peak, TX channel 140

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5498.0	49.2	74.0	1	V	24.8
5822.0	54.4	74.0	1	V	19.6

Measurement results, Average, TX channel 140

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5498.0	35.5	54.0	1	V	18.5
5822.0	41.7	54.0	1	V	12.3

Measurement results, Peak, TX channel 149

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5725.5	66.8	54.0	1	V	24.7
5866.0	51.1	54.0	1	V	2.9

Measurement results, Average, TX channel 149

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5725.5	48.7	54.0	1	V	17.5
5863.0	37.6	54.0	1	V	16.4

Measurement results, Peak, TX channel 157

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5850.3	49.3	54.0	1	V	24.7
5949.1	48.2	54.0	1	V	2.9

Measurement results, Average, TX channel 157

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5850.3	33.0	54.0	1	V	21.0
5949.1	34.2	54.0	1	V	19.8

Measurement results, Peak, TX channel 165

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5850.6	65.4	74.0	1	H	8.6
5904.1	49.7	74.0	1	V	24.3
5984.7	53.3	74.0	1	H	20.7

Measurement results, Average, TX channel 165

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	EUT orientation	Polarization H/V	Margin [dB]
5850.6	45.6	54.0	1	V	9.4
5904.1	36.5	54.0	1	V	17.5
5984.7	40.0	54.0	2	V	14.0

No emissions above 11 GHz were found on any channel.

Result [dB μ V/m] = Analyser reading [dB μ V] + Antenna factor [1/m] - Amplifier gain [dB] + Cable loss [dB] + filter loss [dB]

6 CONDUCTED BAND EDGE MEASUREMENT

Date of test:	2105-11-6/25	Test location:	Wireless center
EUT Serial:	L152739020	Ambient temp:	23°C
Tested by:	MTV	Relative humidity:	52%
Test result:	Pass	Margin:	0.3 dB

6.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10-2013 section 6.10.4.

The EUT was connected to spectrum analyser via rf-cable and attenuator.

6.2 Test conditions

Detector: Peak,
RBW: 100 kHz
VBW: 300 kHz
Span: 2 MHz

Spectrum analyser's band power function was used to measure the power over 1MHz band at band edge

6.3 Requirement

Reference: CFR 47 §15.407 (b), RSS-247 6.2.2.2, 6.2.3.2, 6.2.4.2

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

6.4 Test results

Test results U-NII 1 and U-NII 2A

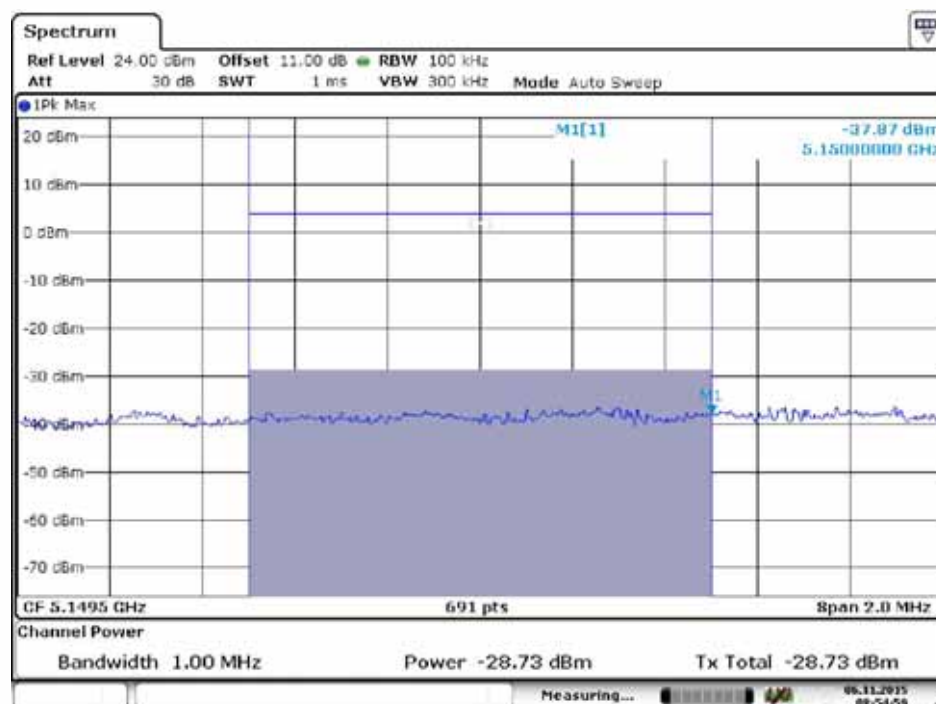
Band edge	PSD [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
Lower	-28.7	-27	1.7
Upper	-32.8	-27	5.8

Test results U-NII 2B

Band edge	PSD [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
Lower	-33.1	-27	5.1
Upper	-27.3	-27	0.3

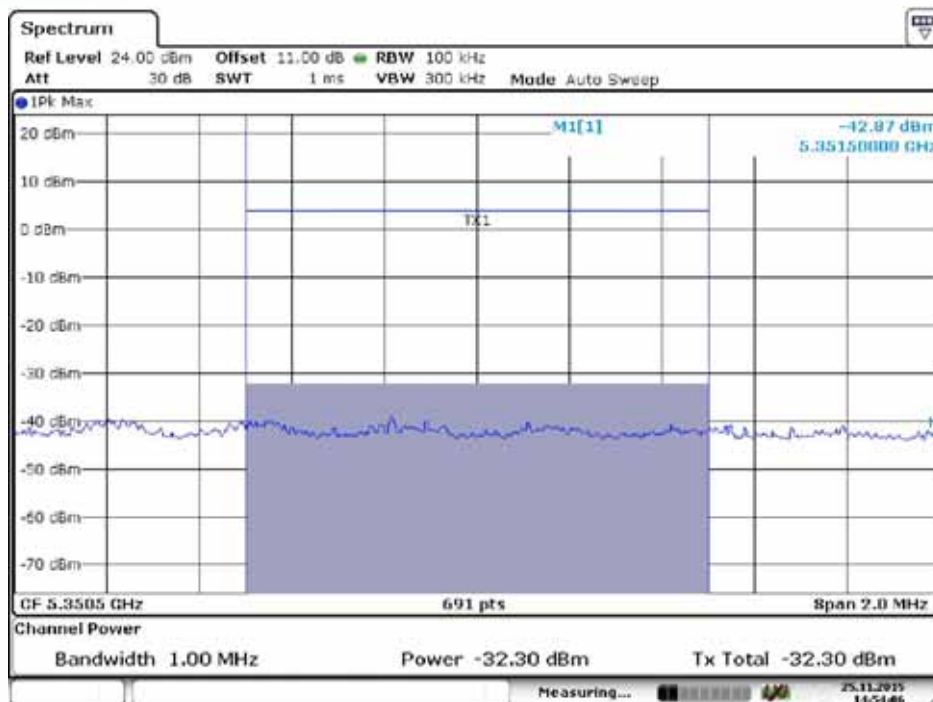
Test results U-NII 3

Band edge	PSD [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
Lower	-29.5	-27	2.5
Upper	-31.3	-27	4.3
Lower	-21.6	-17	4.6
Upper	-26.0	-17	9.0



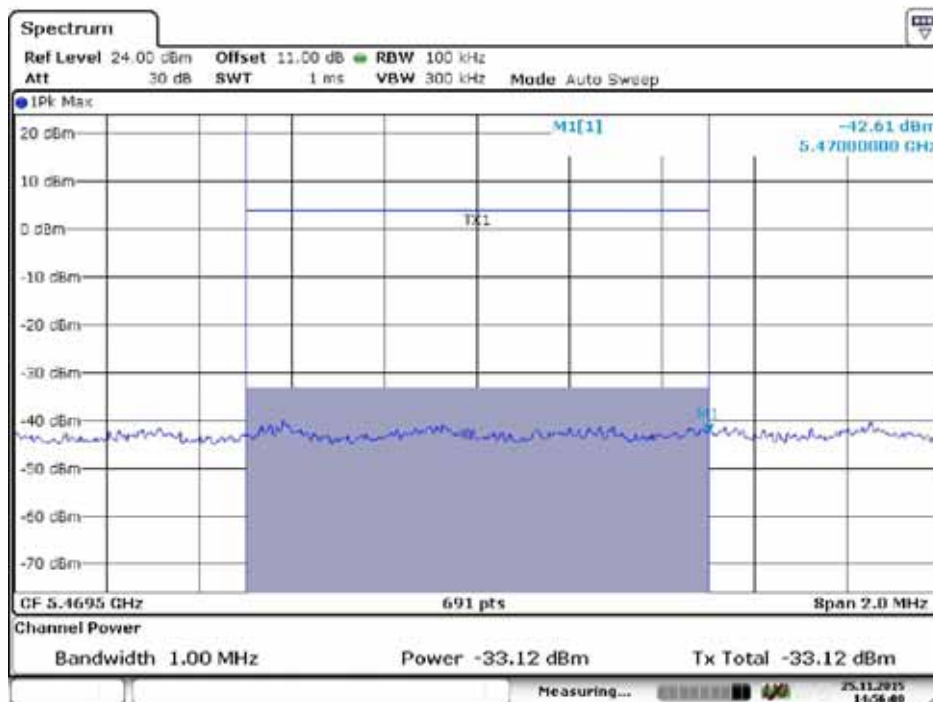
Date: 6 NOV 2015 08:54:58

Screenshot: Lower band edge sweep, 5150 MHz



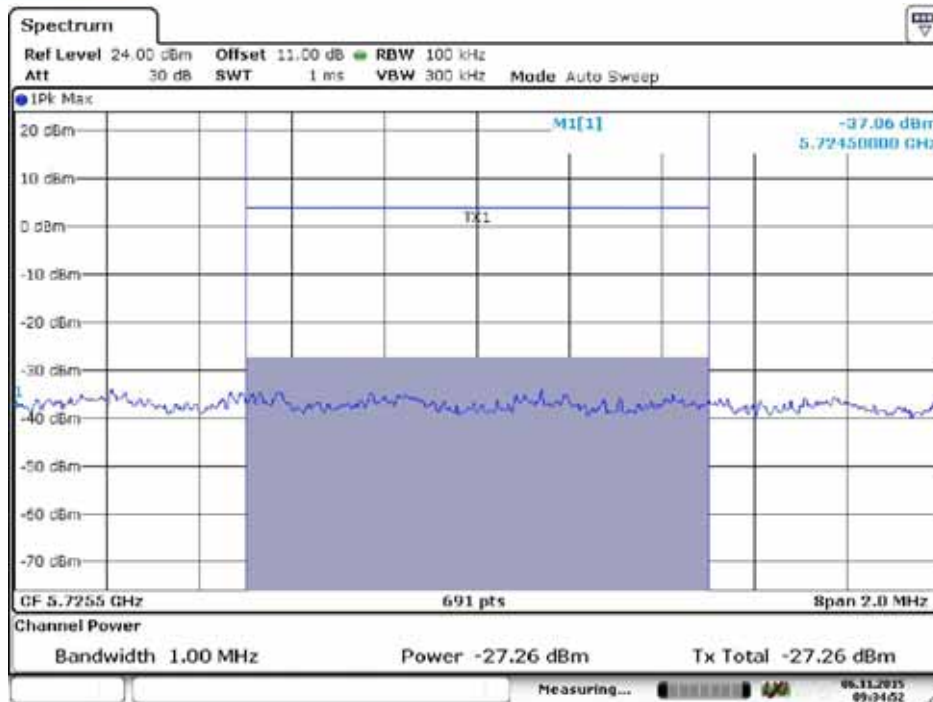
Date: 25 NOV 2015 14:54:07

Screenshot: upper band edge sweep, 5350 MHz



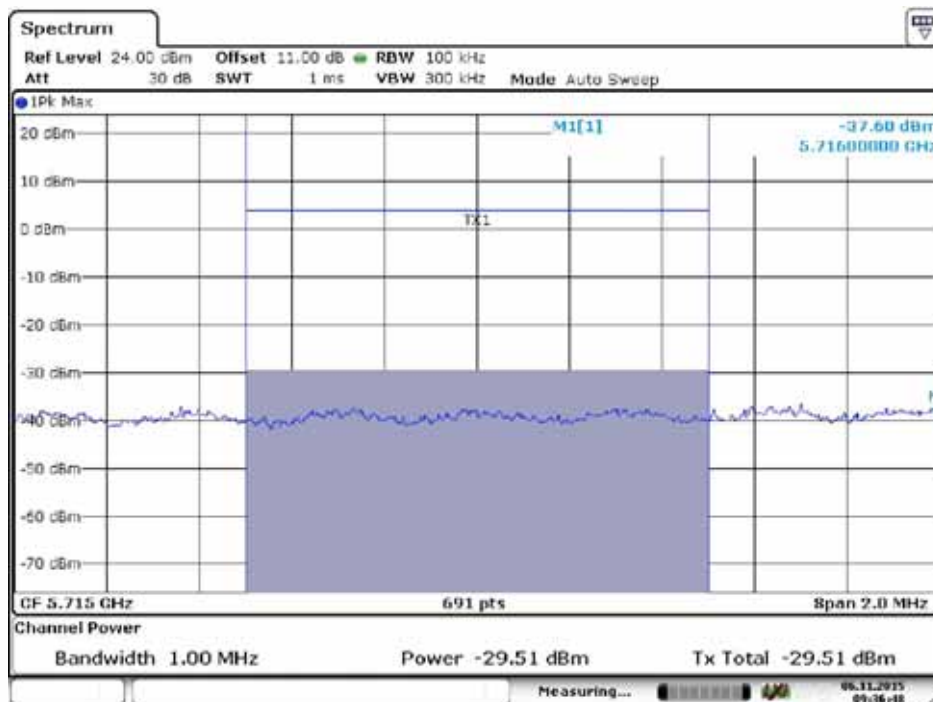
Date: 25 NOV 2015 14:56:00

Screenshot: Lower band edge sweep, 5470 MHz



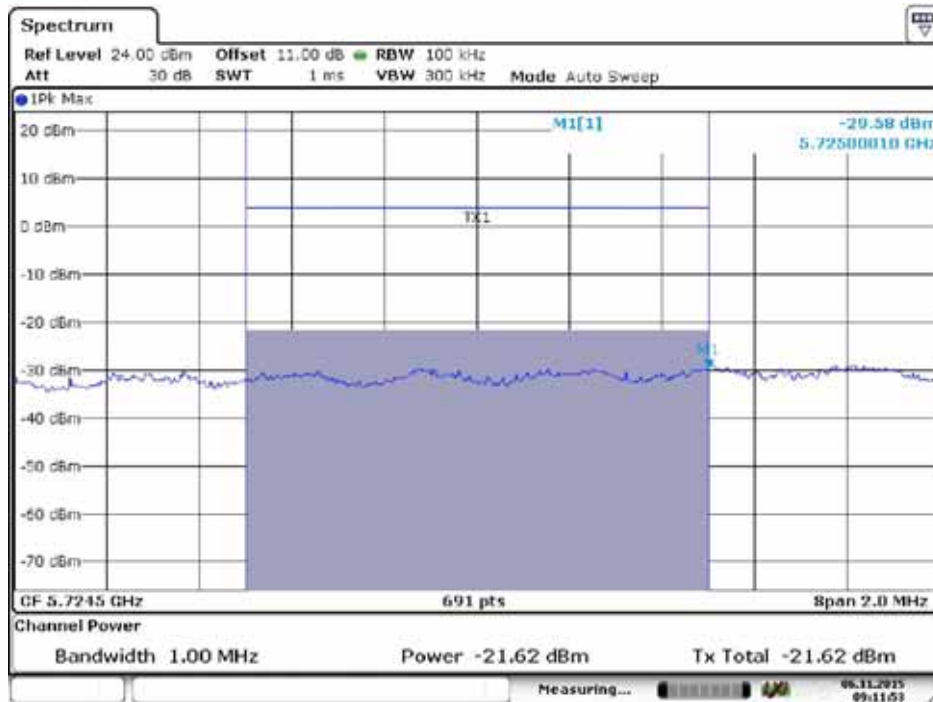
Date: 6 NOV 2015 09:34:51

Screenshot: upper band edge sweep, 5725 MHz



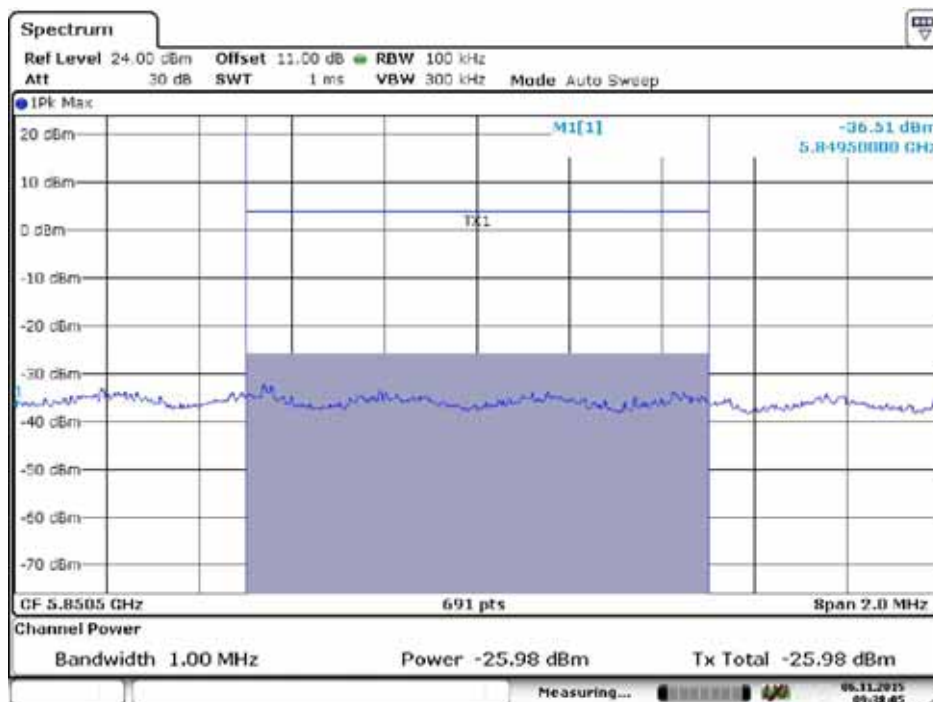
Date: 6 NOV 2015 09:36:48

Screenshot: lower band edge sweep, 5715 MHz



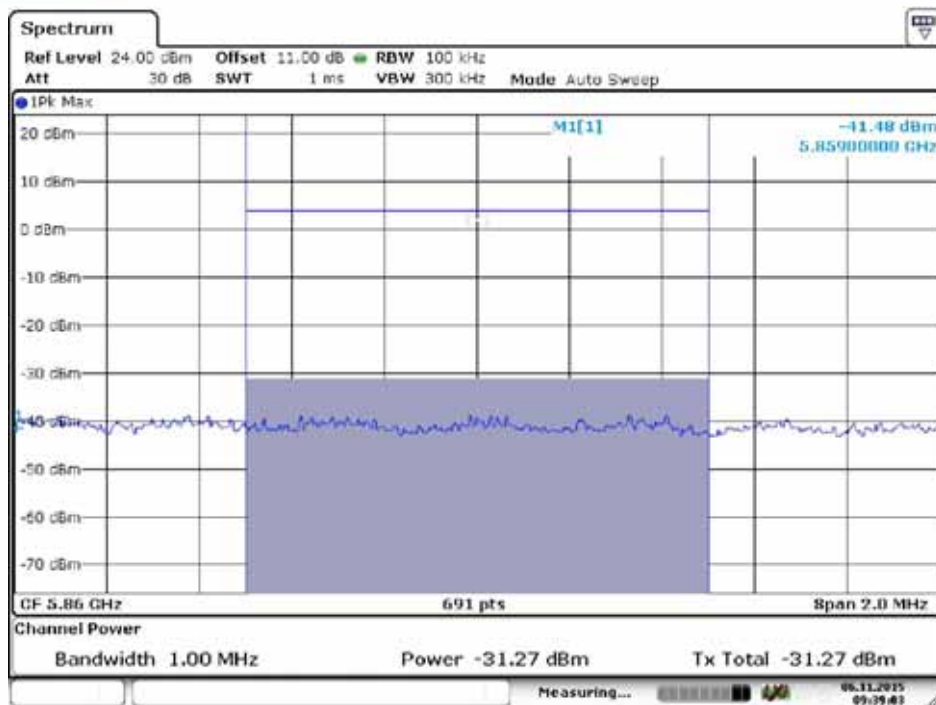
Date: 6 NOV 2015 09:11:53

Screenshot: lower band edge sweep, 5725 MHz



Date: 6 NOV 2015 09:38:06

Screenshot: upper band edge sweep, 5850 MHz



Date: 6 NOV 2015 09:39:03

Screenshot: upper band edge sweep, 5860 MHz

7 CONDUCTED OUTPUT POWER AND PEAK POWER SPECTRAL DENSITY

Date of test:	2015-11-13	Test location:	Wireless Center
EUT Serial:	L152739020	Ambient temp:	22 °C
Tested by:	MTV	Relative humidity:	48 %
Test result:	Pass	Margin:	3.1 dB

7.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10-2013 section 11.9.1.2 and 11.9.2.2.2.
The EUT was connected to spectrum analyser via rf-cable and attenuator.

7.2 Test conditions

Average power

Detector: RMS
RBW: 1 MHz
VBW: 3 x RBW
Span: >3 x OBW
Trace: avg 1000 sweeps

The spectrum analyser's band power measurement function was used to integrate the power over the whole transmitter band.

7.3 Requirements

Reference: CFR 47§15.407(a)

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

Reference: RSS-247 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Frequency Band 5150-5250 MHz: The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log₁₀B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

Frequency Band 5250-5350 MHz: The maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less.

Frequency Bands 5470-5600 MHz and 5650-5725 MHz: The maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less.

Frequency Band 5725-5850 MHz: The maximum conducted output power shall not exceed 1 W

7.4 Test results

a mode

Test result U-NII 1 band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5180	16.2	23	7.8
5200	16.5	23	7.5
5240	17.1	23	6.9

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5180	5.9	10	4.1
5200	6.5	10	3.5
5240	6.9	10	3.1

Test result U-NII 2A band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5260	17.1	24	7.8
5300	17.3	24	7.5
5320	17.2	24	6.9

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5260	7.1	11	3.9
5300	7.2	11	3.8
5320	7.0	11	4.0

Test result U-NII 2b band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5500	16.2	24	7.8
5600	14.7	24	9.3
5700	13.7	24	10.3

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5500	6.1	11	4.9
5600	4.6	11	6.4
5700	3.6	11	7.4

Test result U-NII 3 band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5745	13.6	30	16.4
5785	13.8	30	16.2
5825	13.5	30	16.5

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/500kHz]	Margin [dB]
5745	3.4	30	17.8
5785	3.7	30	17.7
5825	3.3	30	17.2

PSD is measured with 1 MHz RBW and has at least 17 dB margin to dBm/500kHz limit.
PSD can't exceed the limit when measured with narrow RBW.

Channel [MHz]	Power spectral density [dBm/3kHz]	Limit [dBm/3kHz]	Margin [dB]
5745	-9.8	8	17.8
5785	-9.7	8	17.7
5825	-9.2	8	17.2

n mode

Test result U-NII 1 band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5180	15.1	23	
5200	15.1	23	
5240	15.7	23	

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5180	4.8	10	
5200	4.8	10	
5240	5.4	10	

Test result U-NII 2A band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5260	15.0	24	
5300	15.8	24	
5320	15.2	24	

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5260	5.5	11	
5300	5.2	11	
5320	5.8	11	

Test result U-NII 2b band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5500	14.7	24	
5600	13.4	24	
5700	12.9	24	

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
5500	4.3	11	
5600	3.2	11	
5700	2.5	11	

Test result U-NII 3 band

Channel [MHz]	Average Output power [dBm]	Limit [dBm]	Margin [dB]
5745	12.33	30	16.4
5785	12.44	30	16.2
5825	12.57	30	16.5

Channel [MHz]	Power spectral density [dBm/MHz]	Limit [dBm500kHz]	Margin [dB]
5745	1.97	30	17.8
5785	1.92	30	17.7
5825	2.35	30	17.2

PSD is measured with 1 MHz RBW and has at least 17 dB margin to +30 dBm/500kHz limit and 5.6 dB margin to b +8 dBm / 3 kHz limit.

PSD can't exceed the limits when measured with narrow RBW.



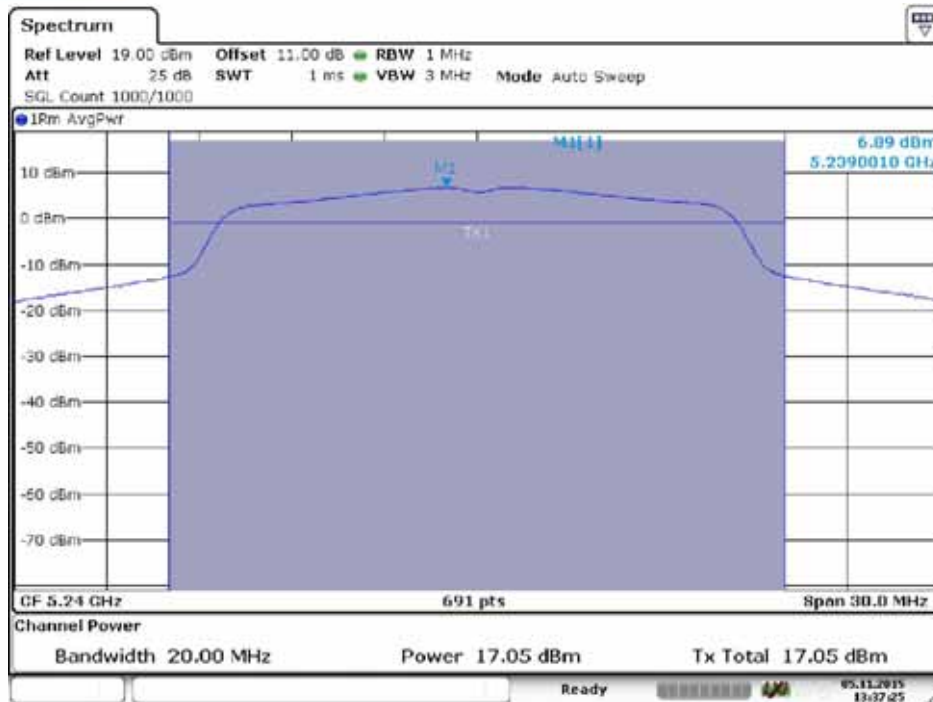
Date: 5 NOV 2015 13:31:57

Screenshot: Average Output power, channel 36



Date: 5 NOV 2015 13:34:46

Screenshot: Average Output power, channel 40



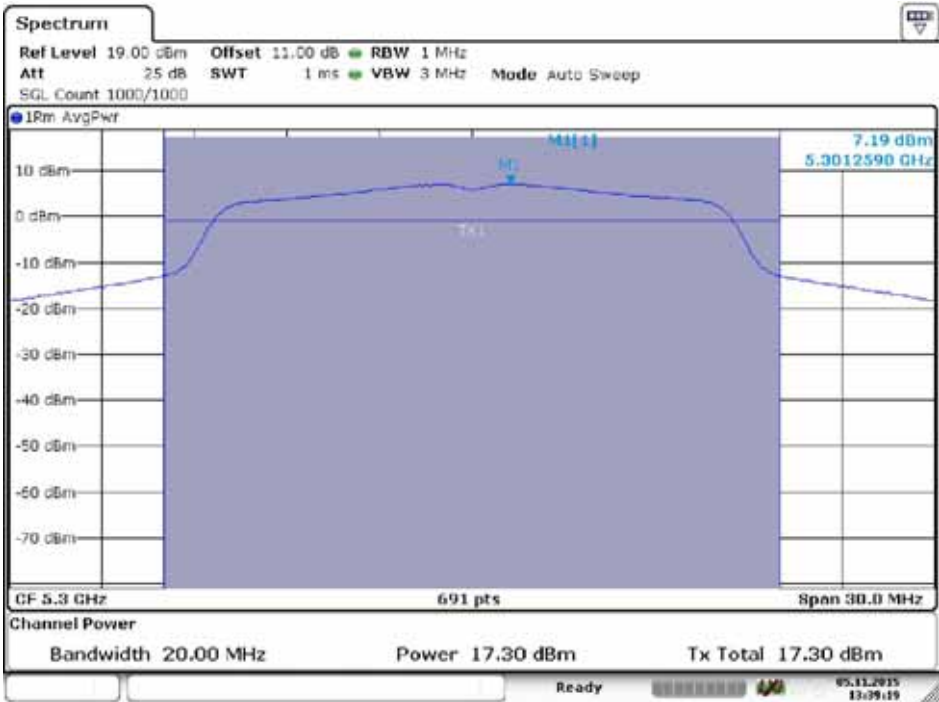
Date: 5 NOV 2015 13:37:25

Screenshot: Average Output power, channel 48



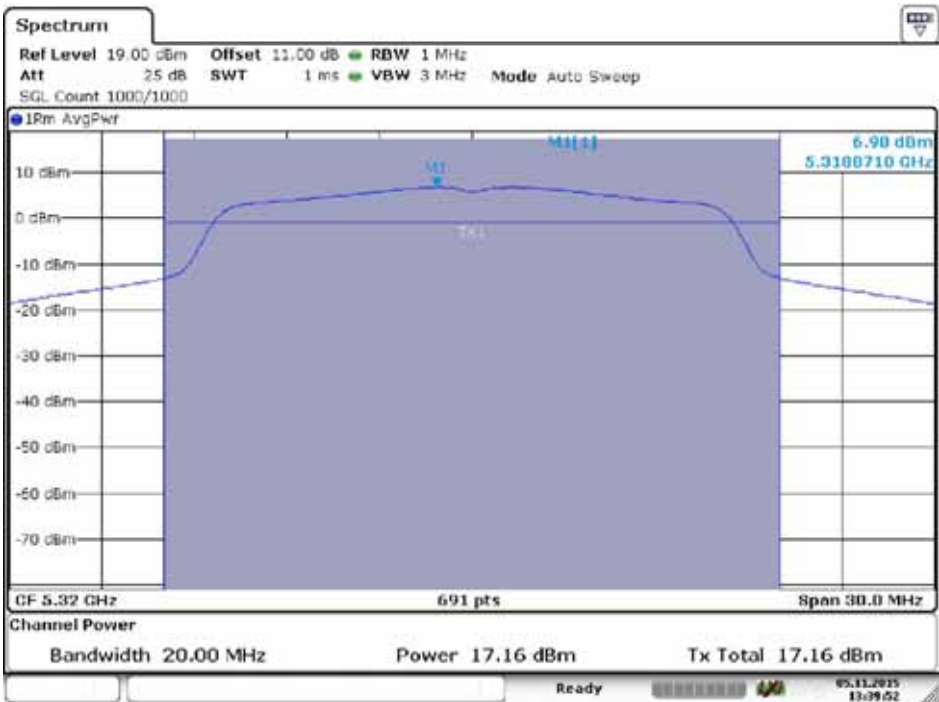
Date: 5 NOV 2015 13:38:06

Screenshot: Average Output power, channel 52



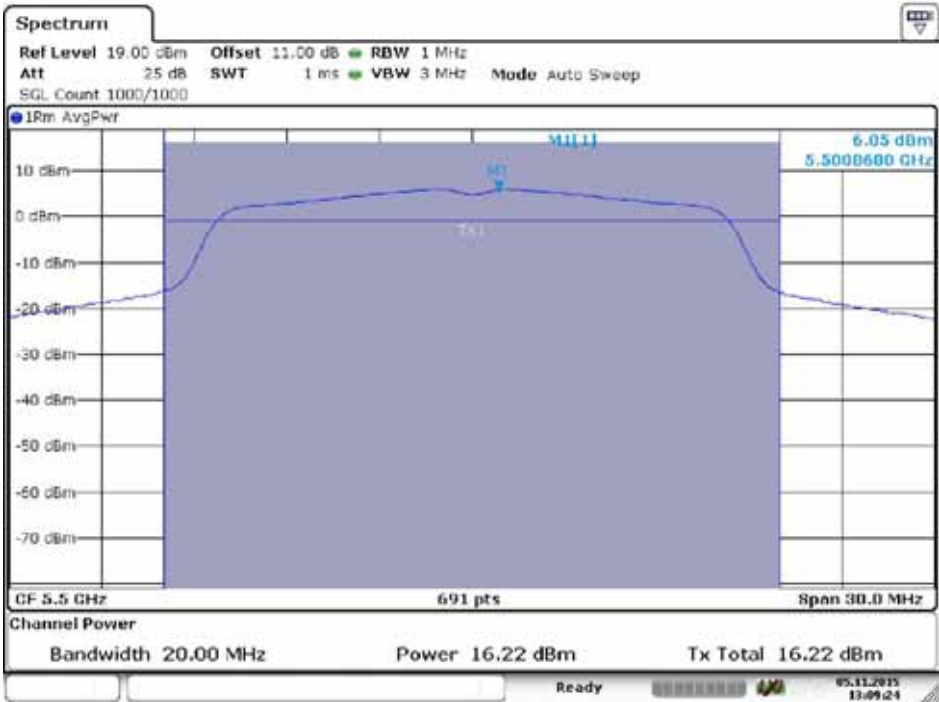
Date: 5 NOV 2015 13:39:18

Screenshot: Average Output power, channel 60



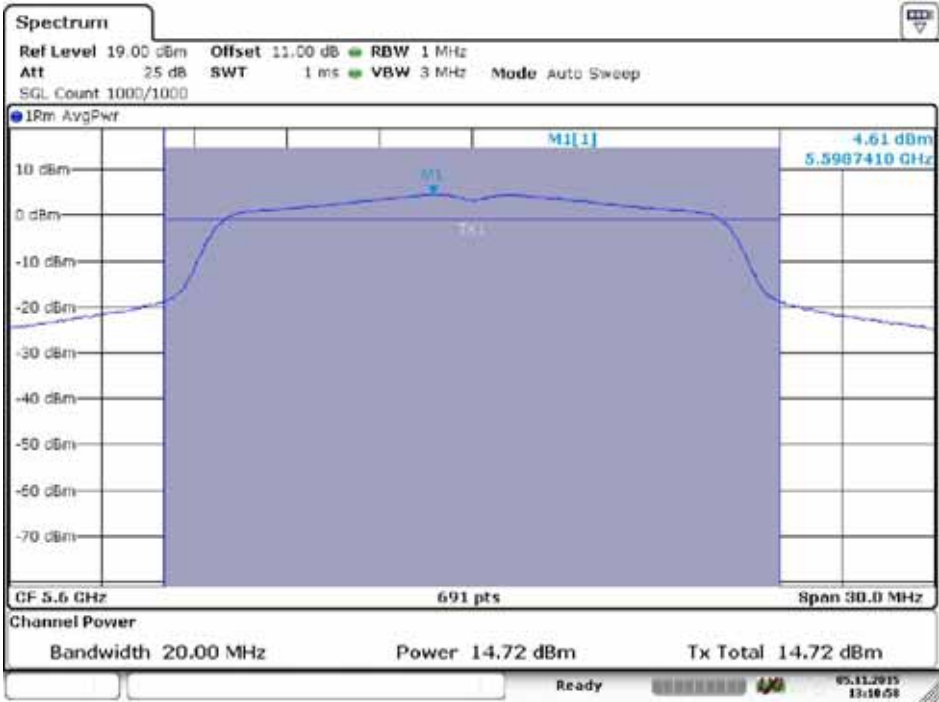
Date: 5 NOV 2015 13:39:52

Screenshot: Average Output power, channel 64



Date: 5 NOV 2015 13:09:24

Screenshot: Average Output power, channel 100



Date: 5 NOV 2015 13:10:58

Screenshot: Average Output power, channel 120



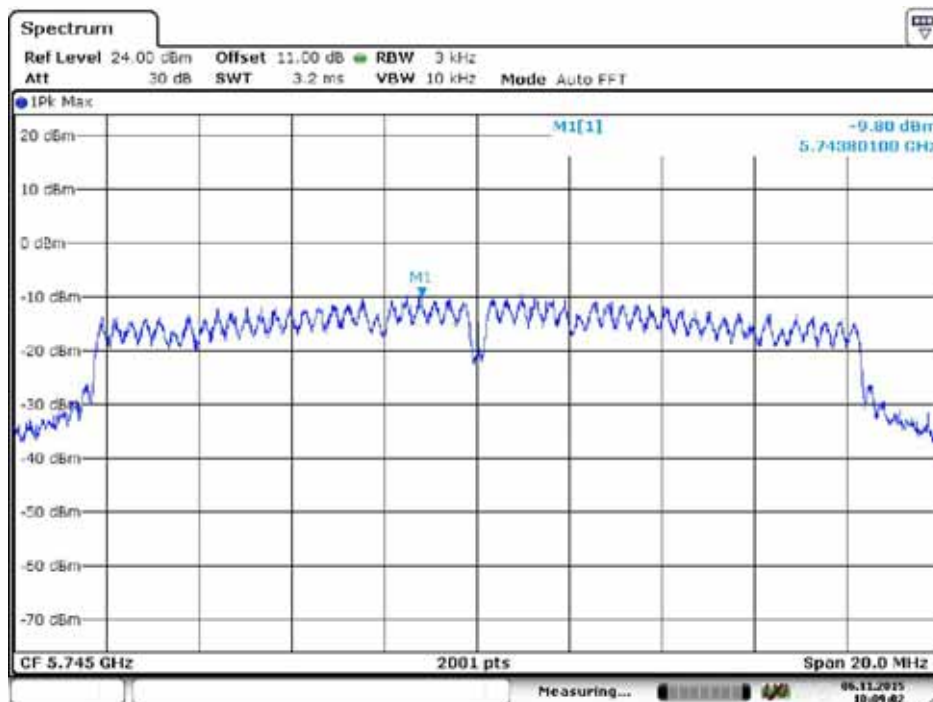
Date: 5 NOV 2015 13:17:13

Screenshot: Average Output power, channel 140



Date: 5 NOV 2015 13:25:20

Screenshot: Average Output power, channel 149



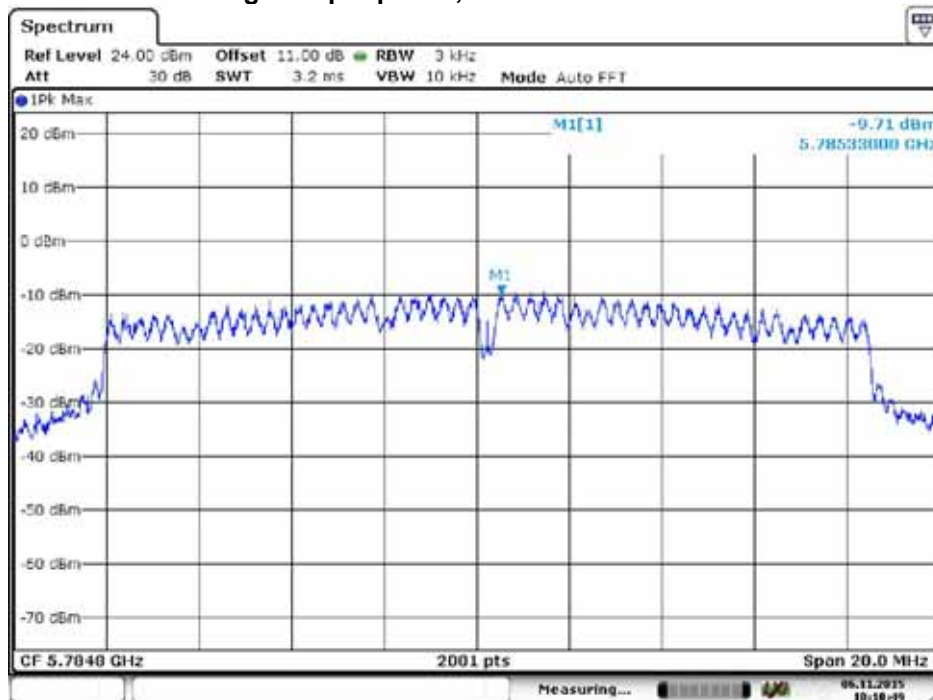
Date: 6 NOV 2015 10:09:02

Screenshot: Power spectral density, channel 149



Date: 5 NOV 2015 13:27:05

Screenshot: Average Output power, channel 157



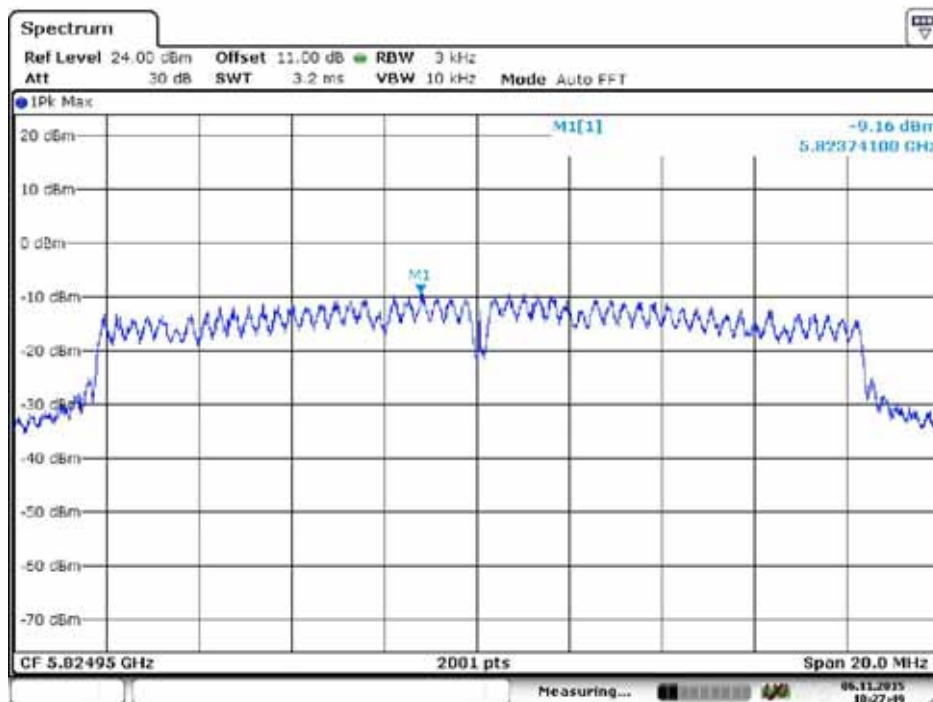
Date: 6 NOV 2015 10:10:49

Screenshot: Power spectral density, channel 157



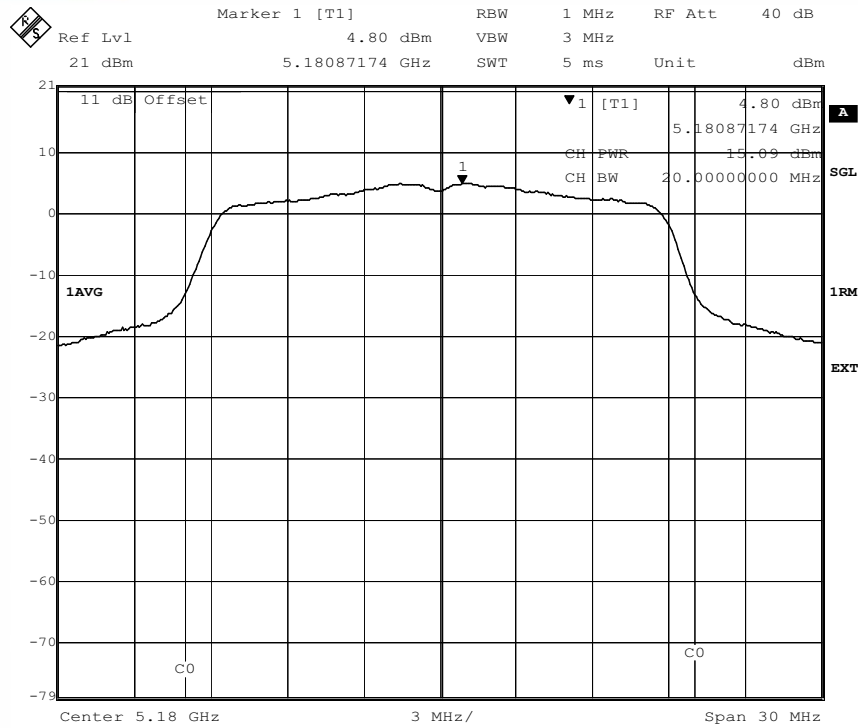
Date: 5 NOV 2015 13:27:57

Screenshot: Average Output power, channel 165



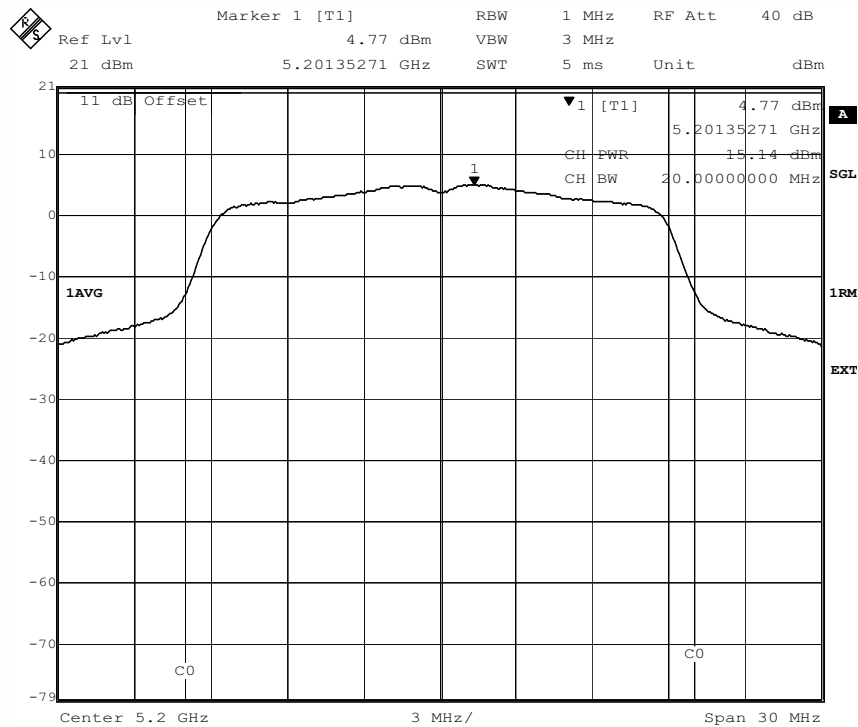
Date: 6 NOV 2015 10:27:49

Screenshot: Power spectral density, channel 165



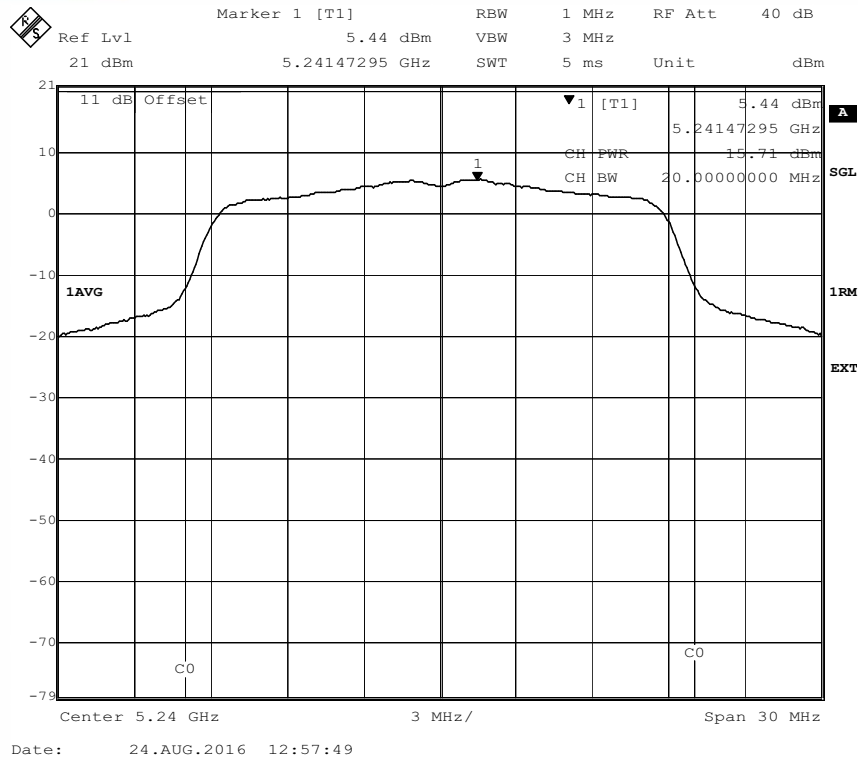
Date: 24.AUG.2016 13:04:50

Screenshot: Average Output power, channel 36

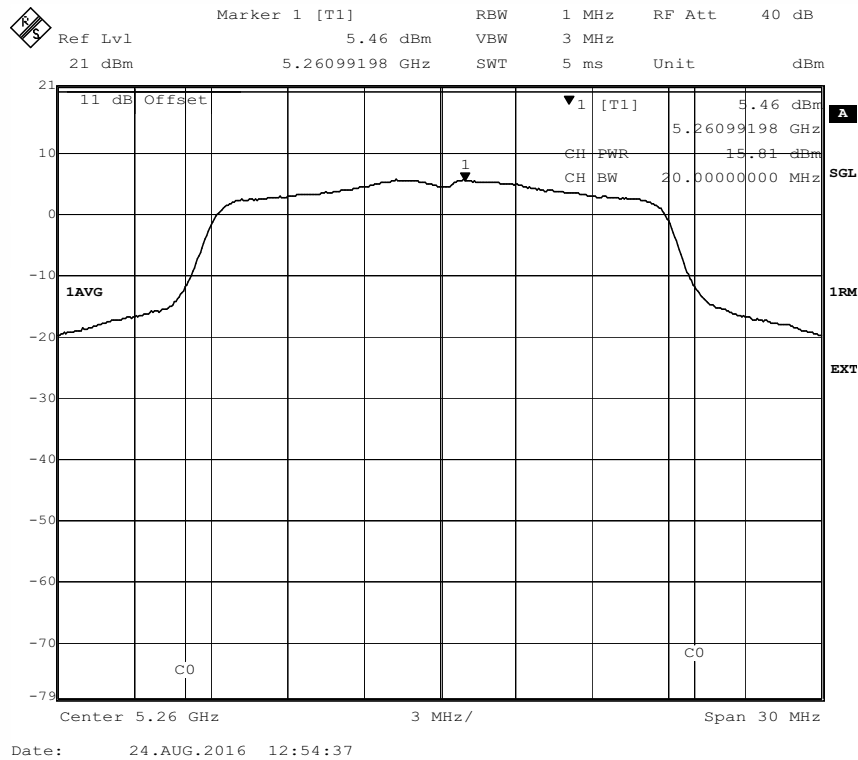


Date: 24.AUG.2016 13:02:39

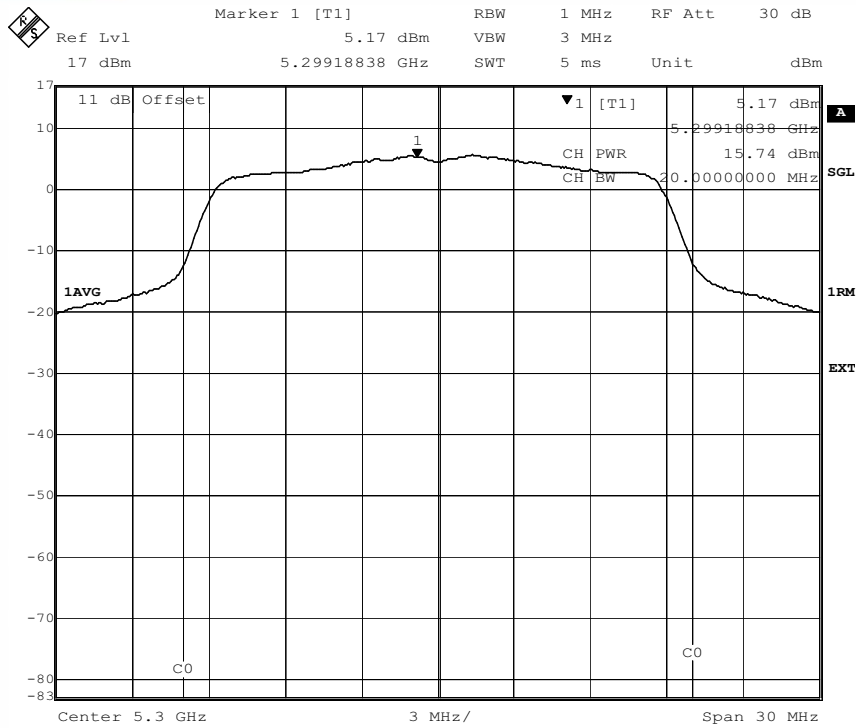
Screenshot: Average Output power, channel 40



Screenshot: Average Output power, channel 48

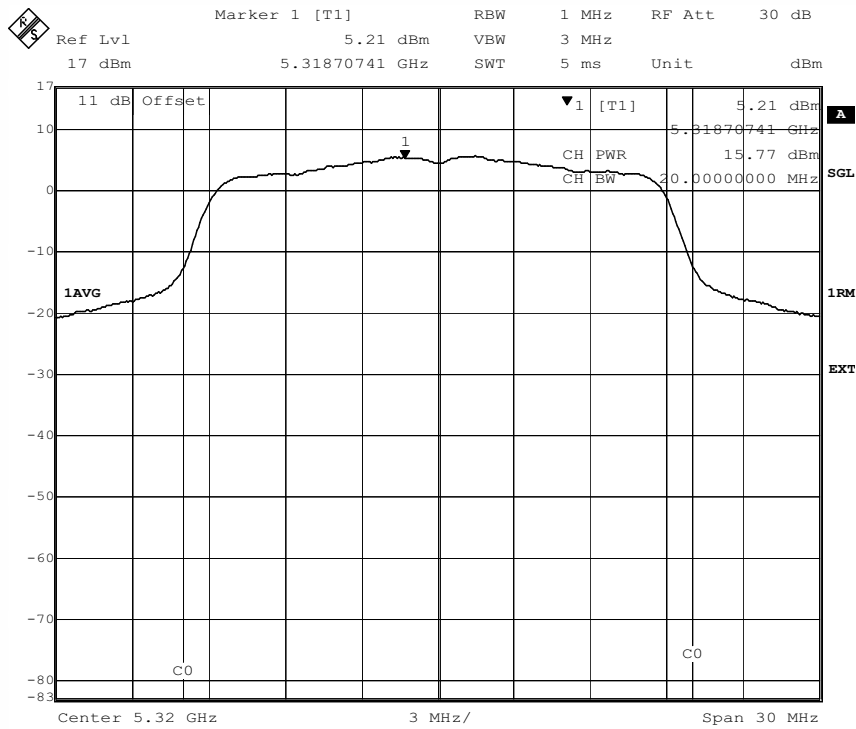


Screenshot: Average Output power, channel 52



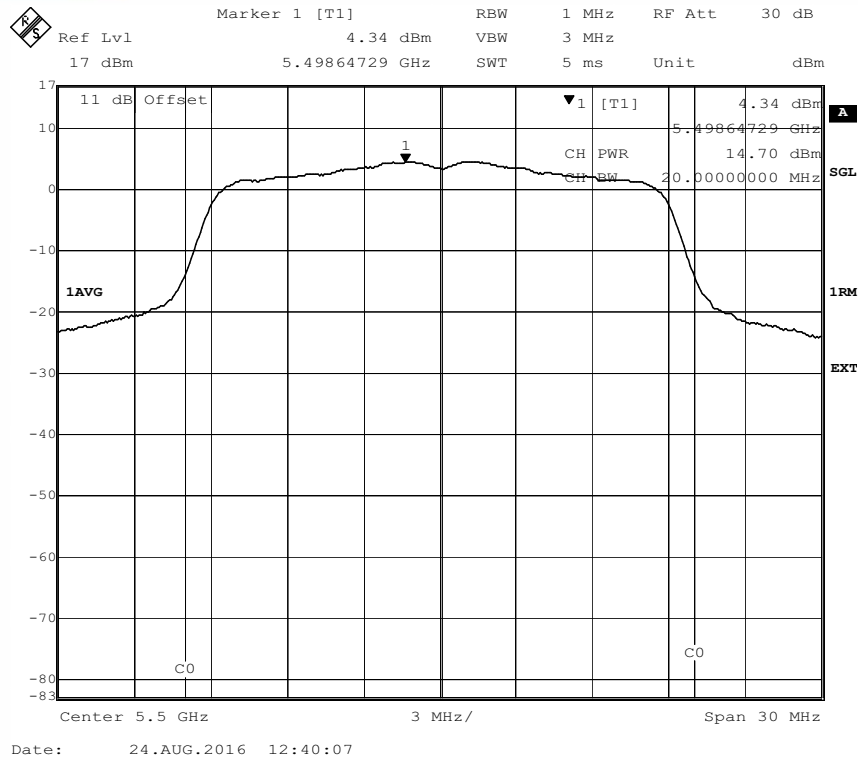
Date: 24.AUG.2016 12:47:12

Screenshot: Average Output power, channel 60

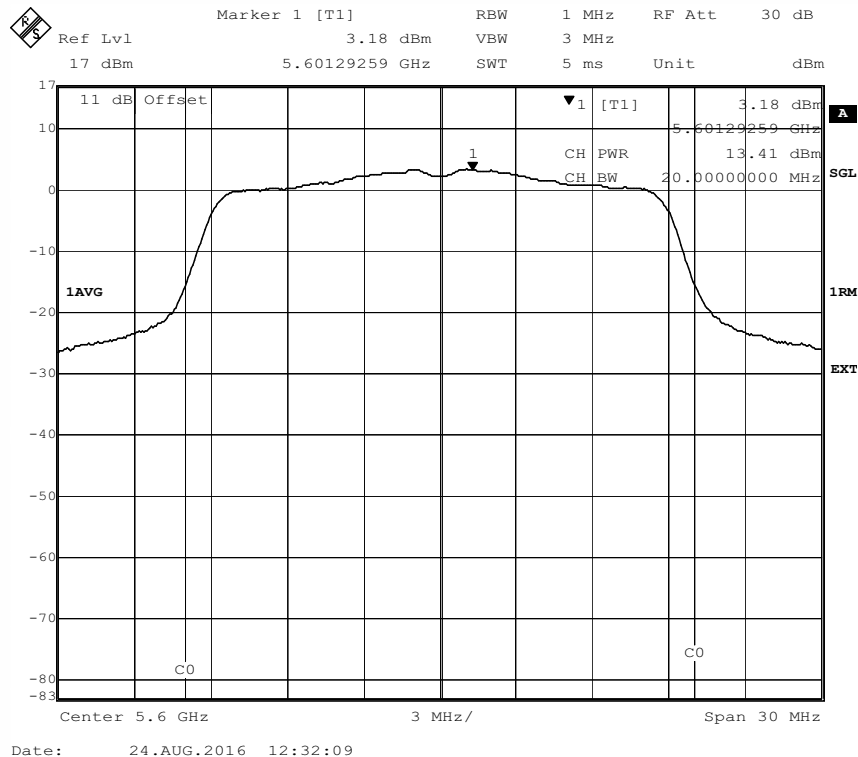


Date: 24.AUG.2016 12:43:43

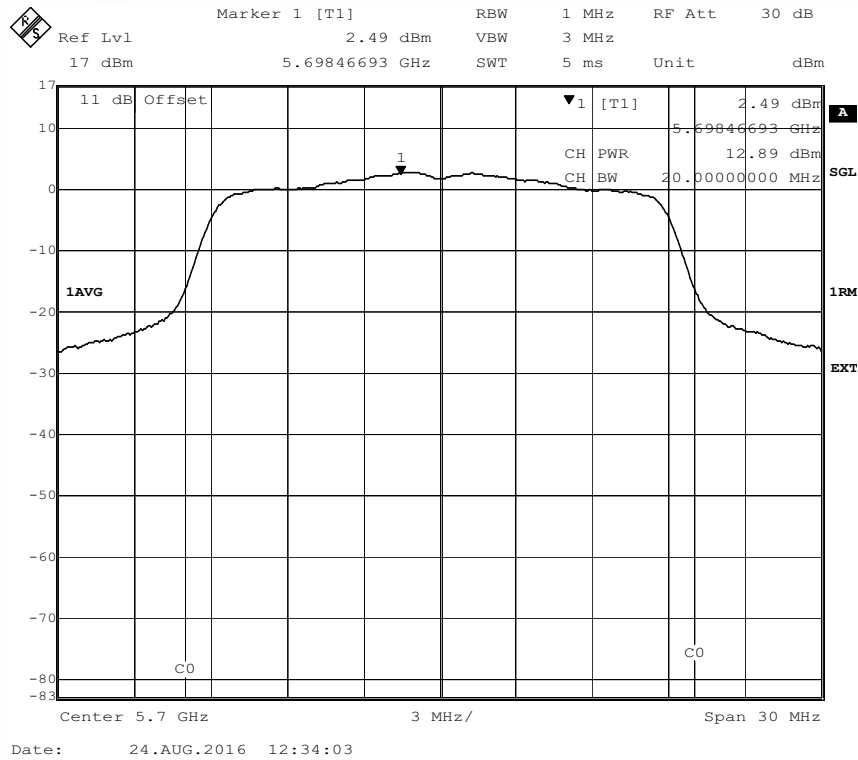
Screenshot: Average Output power, channel 60



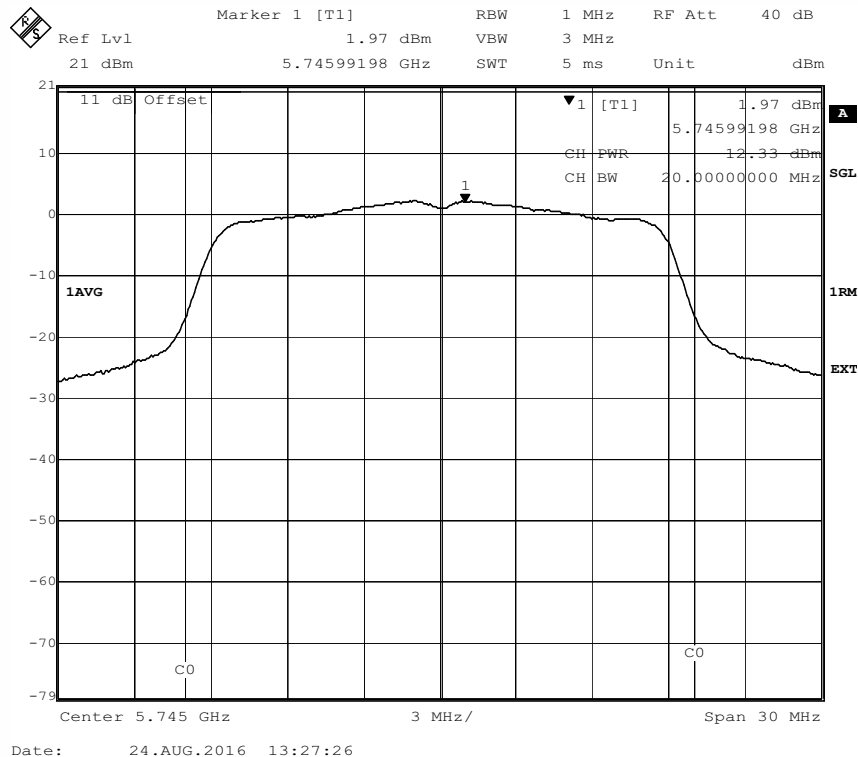
Screenshot: Average Output power, channel 100



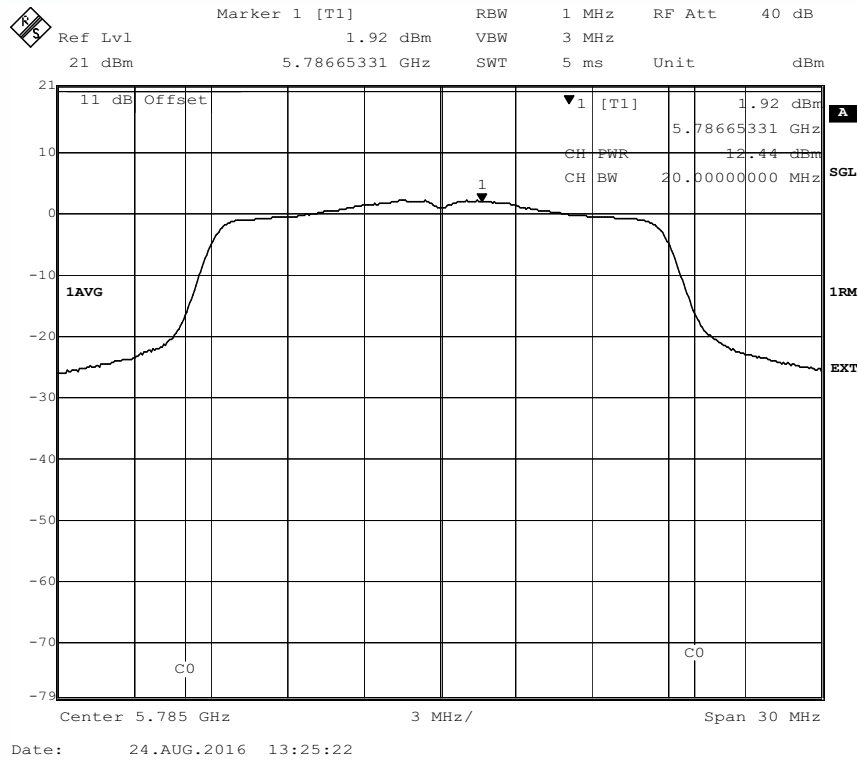
Screenshot: Average Output power, channel 120



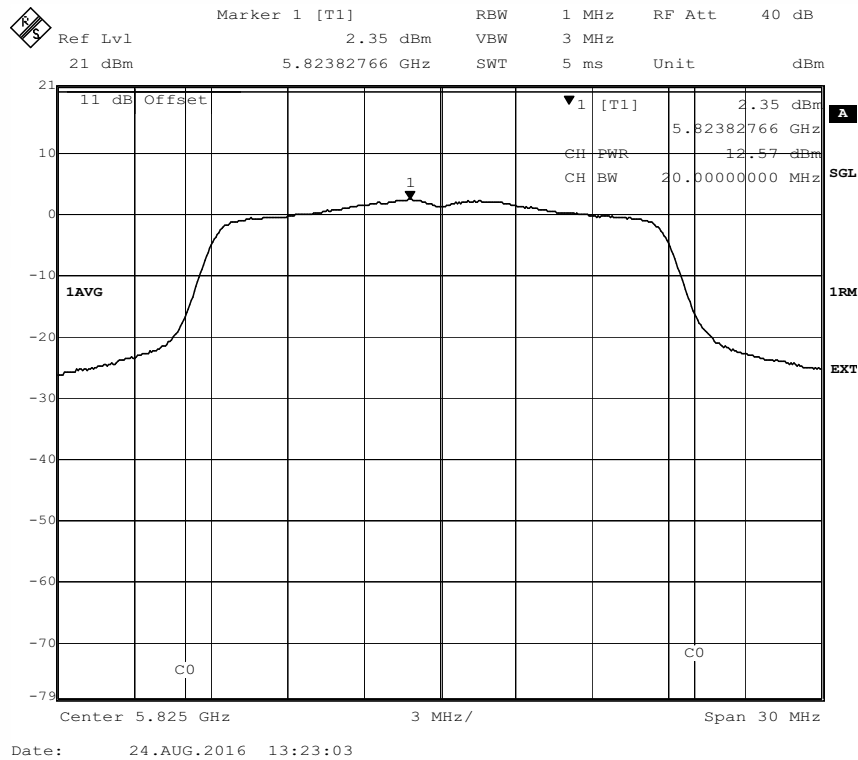
Screenshot: Average Output power, channel 140



Screenshot: Average Output power, channel 149



Screenshot: Average Output power, channel 157



Screenshot: Average Output power, channel 165

8 OCCUPIED BANDWIDTH

Date of test:	2015-11-13	Test location:	Wireless Center
EUT Serial:	L152739020	Ambient temp:	23 °C
Tested by:	MTV	Relative humidity:	52 %
Test result:	Pass	Margin:	

8.1 Test set-up and test procedure.

The test method is in accordance with ANSI C63.10-2013 section 11.8.1.
The EUT was connected to spectrum analyser via rf-cable and attenuator.

8.2 Test conditions

Detector: Peak,
RBW: 1 – 5 % of OBW
VBW: 3 x RBW
Span: >1.5 x OBW

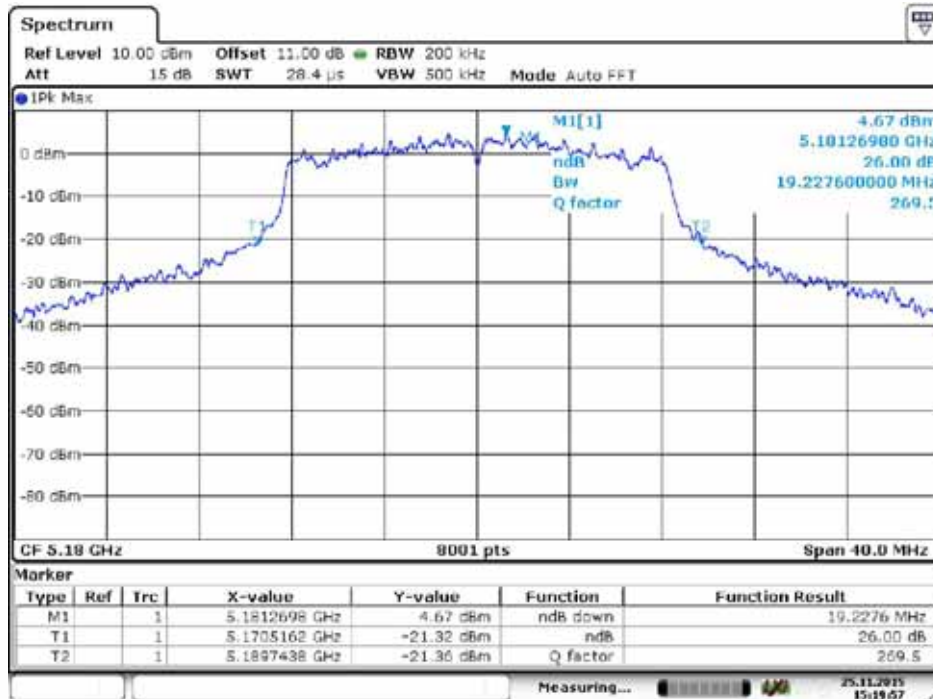
The EUT was set up in order to emit maximum disturbances.

8.3 Requirements

Reference: §15.407(e) RSS-247 6.2.4(1)

The minimum 6 dB bandwidth shall be 500 kHz.

8.4 Test results



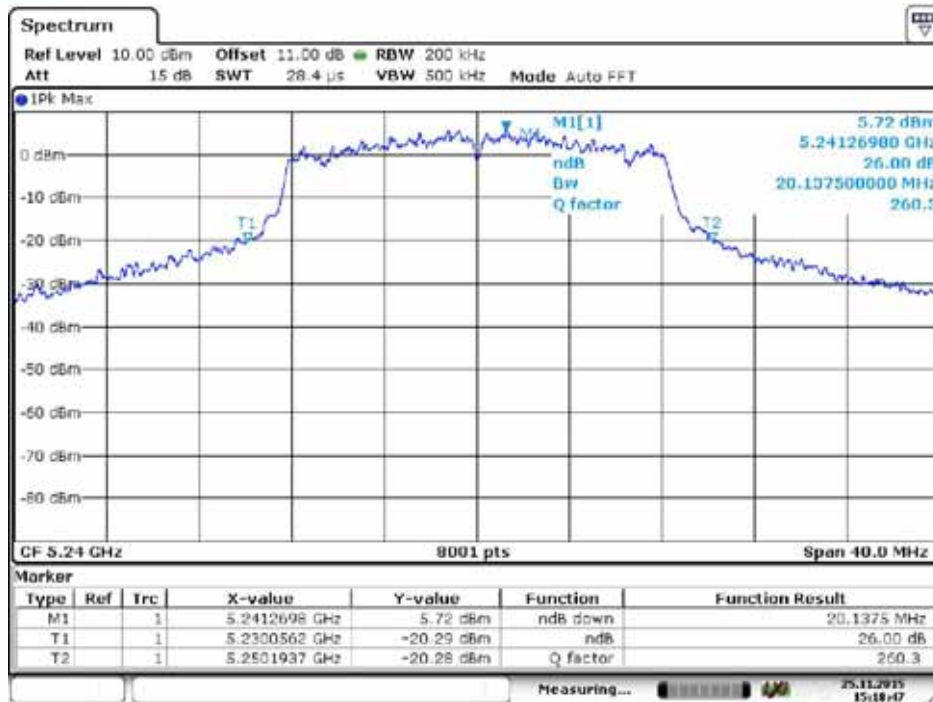
Date: 25 NOV 2015 15:19:57

Screenshot: Occupied 26 dB bandwidth Measurement, channel 36



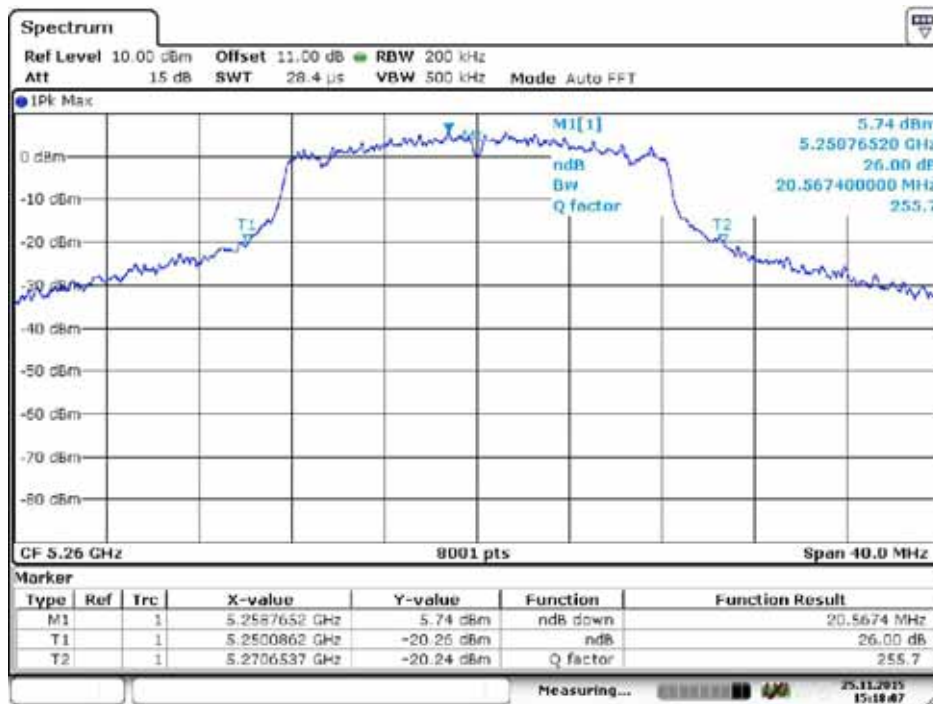
Date: 25 NOV 2015 15:19:28

Screenshot: Occupied 26 dB bandwidth Measurement, channel 40



Date: 25 NOV 2015 15:18:06

Screenshot: Occupied 26 dB bandwidth Measurement, channel 48



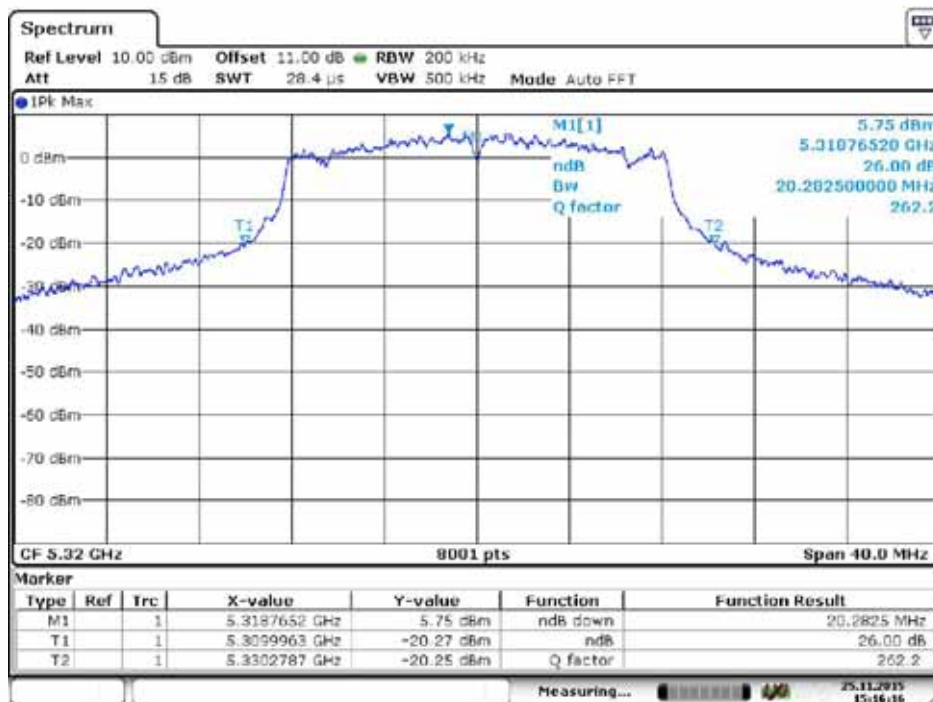
Date: 25 NOV 2015 15:18:07

Screenshot: Occupied 26 dB bandwidth Measurement, channel 52



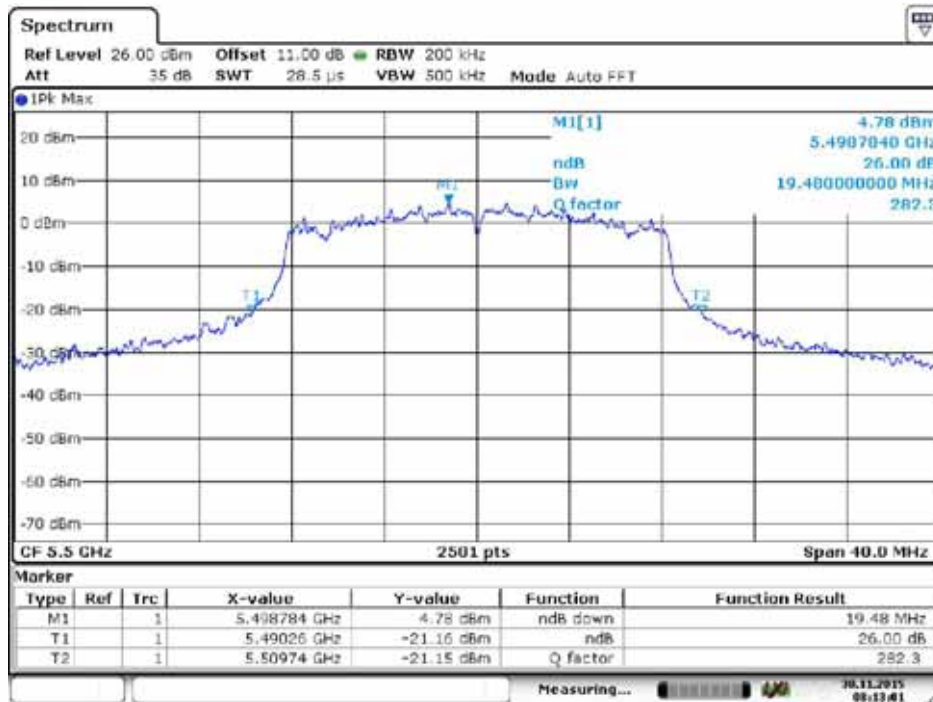
Date: 25 NOV 2015 15:17:00

Screenshot: Occupied 26 dB bandwidth Measurement, channel 56



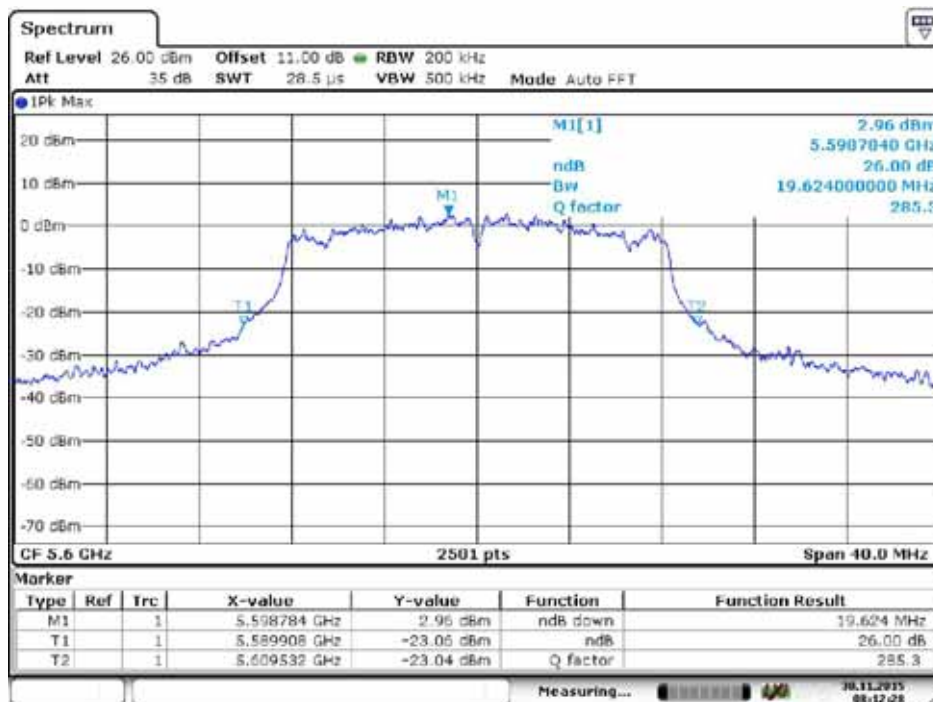
Date: 25 NOV 2015 15:16:16

Screenshot: Occupied 26 dB bandwidth Measurement, channel 64



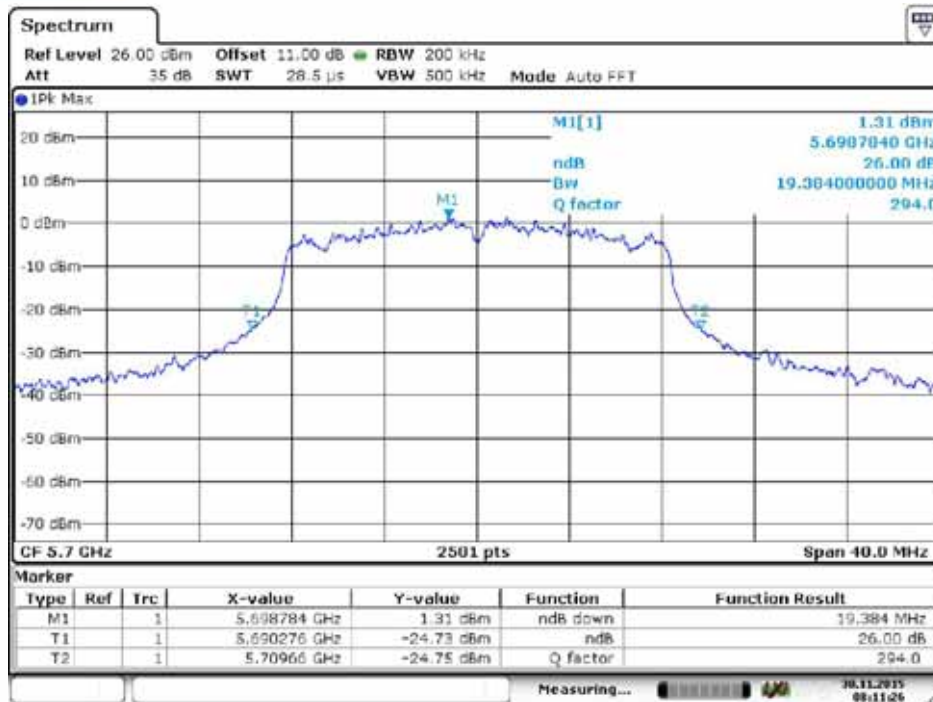
Date: 30 NOV 2015 08:13:02

Screenshot: Occupied 26 dB bandwidth Measurement, channel 100



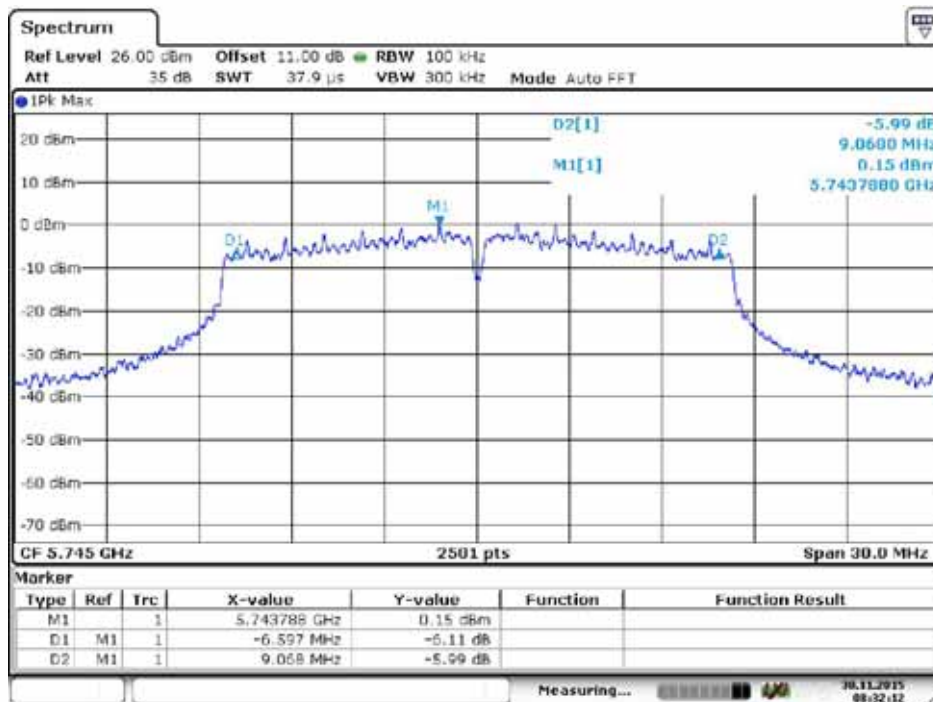
Date: 30 NOV 2015 08:12:28

Screenshot: Occupied 26 dB bandwidth Measurement, channel 120



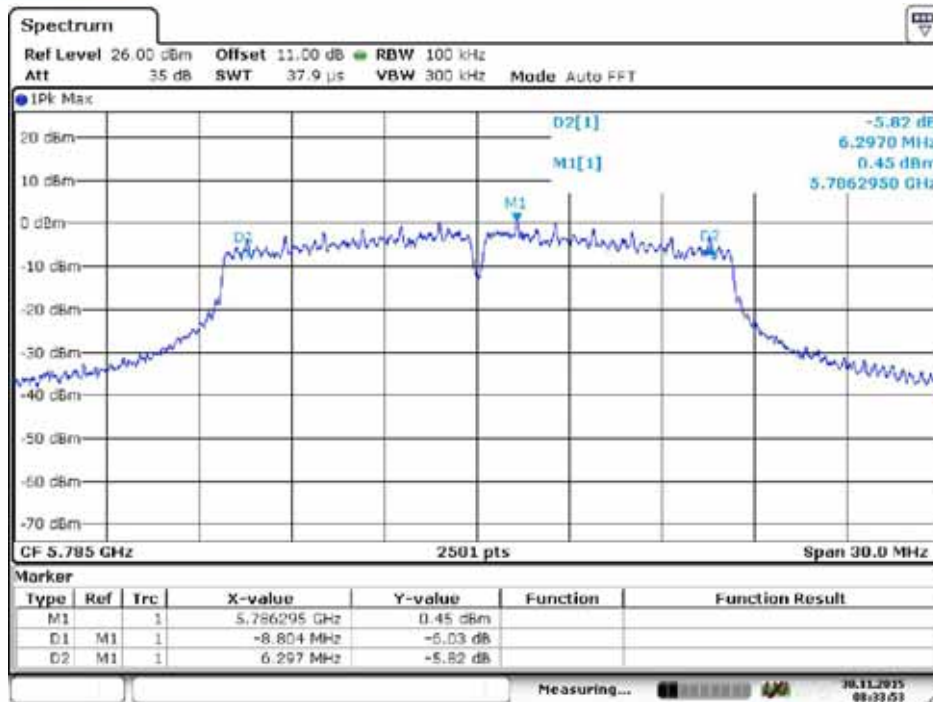
Date: 30 NOV 2015 08:11:26

Screenshot: Occupied 26 dB bandwidth Measurement, channel 140



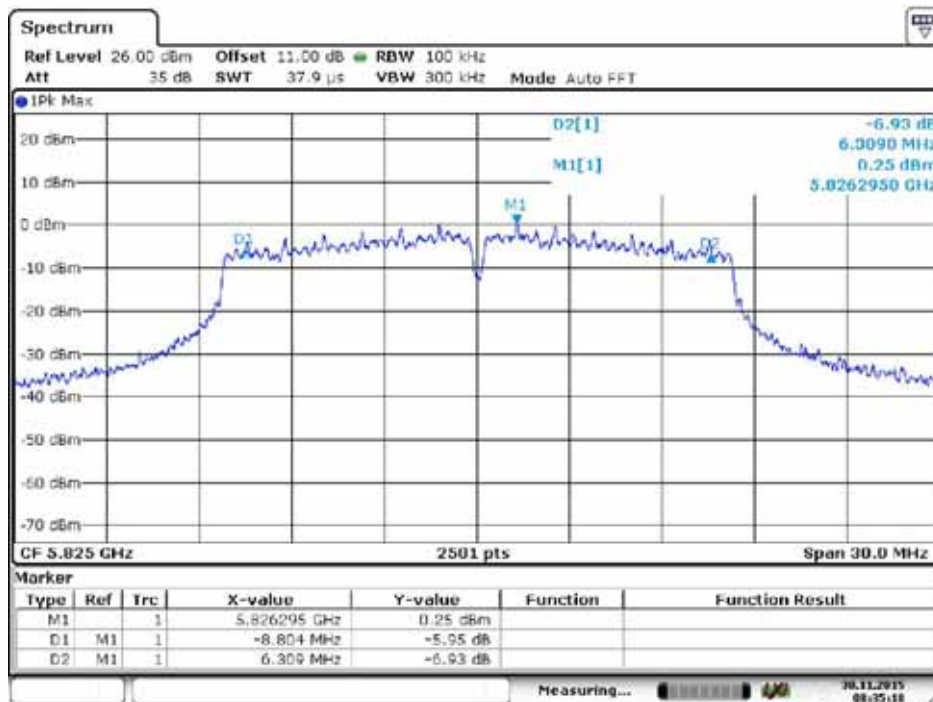
Date: 30 NOV 2015 08:32:12

Screenshot: Occupied 6 dB bandwidth Measurement, channel 149



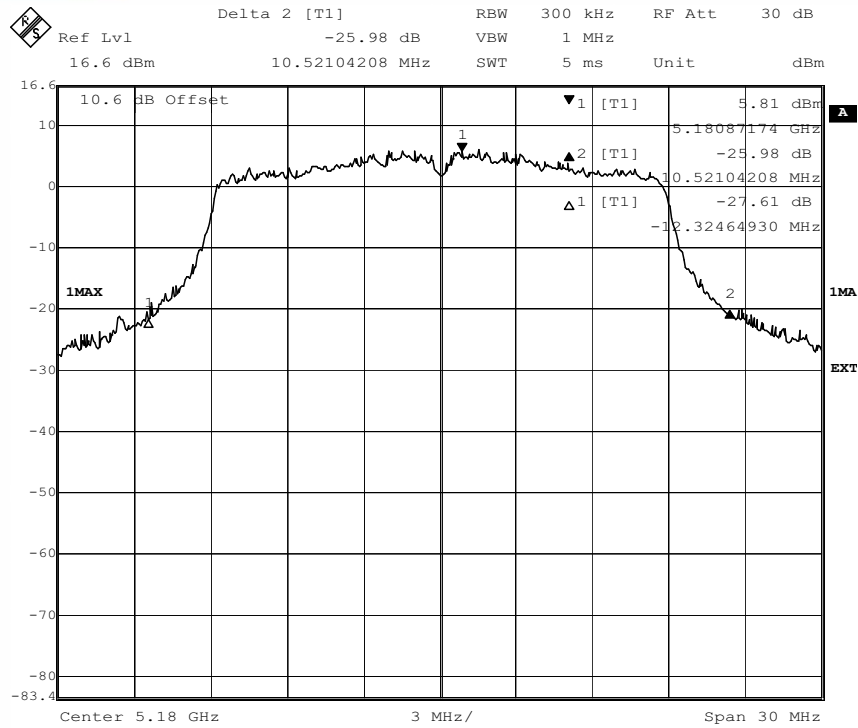
Date: 30 NOV 2015 08:33:53

Screenshot: Occupied 6 dB bandwidth Measurement, channel 157



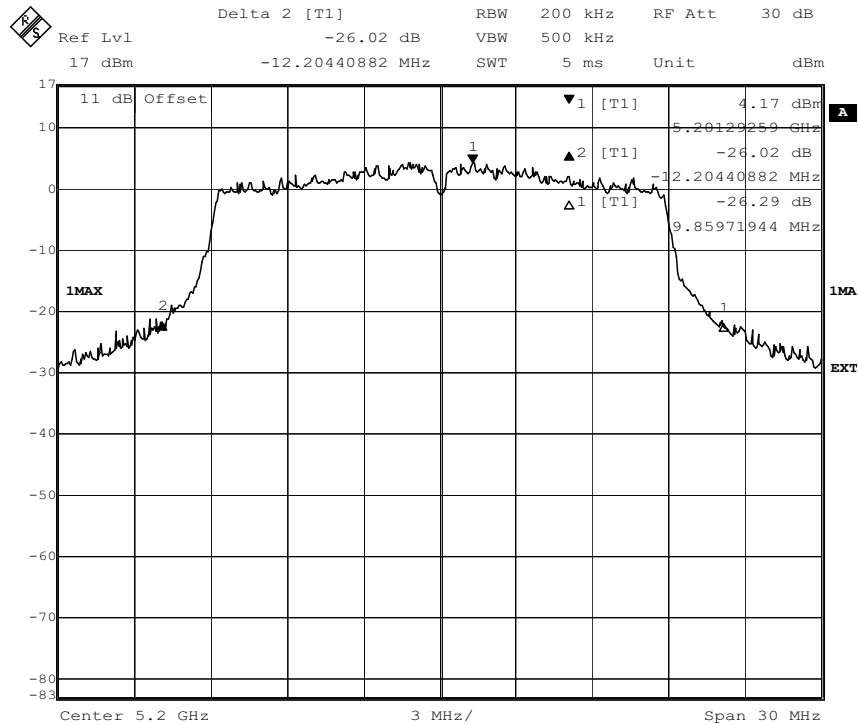
Date: 30 NOV 2015 08:35:18

Screenshot: Occupied 6 dB bandwidth Measurement, channel 165



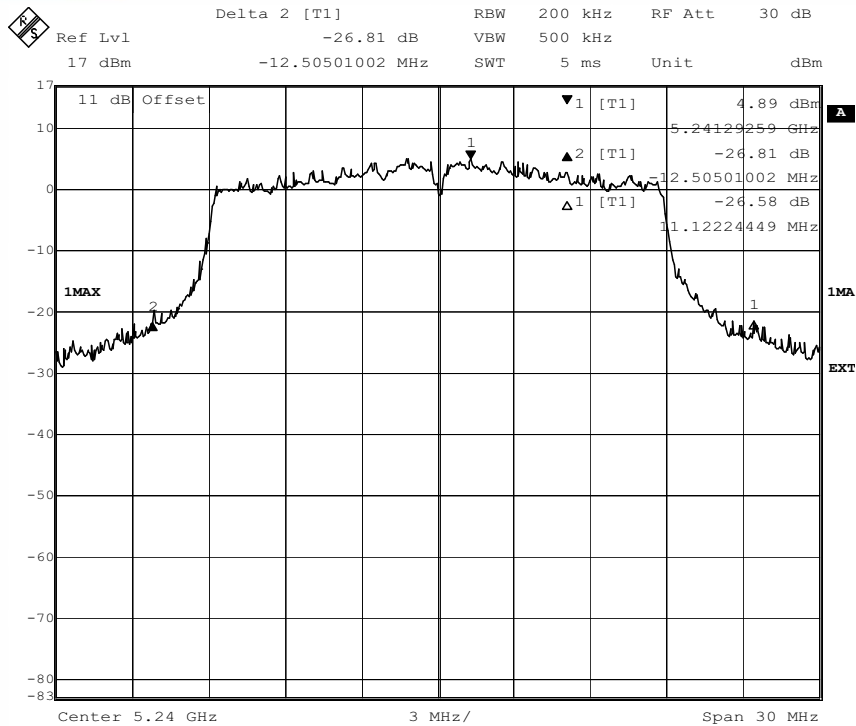
Date: 24.AUG.2016 09:25:18

Screenshot: Occupied 26 dB bandwidth Measurement, channel 36

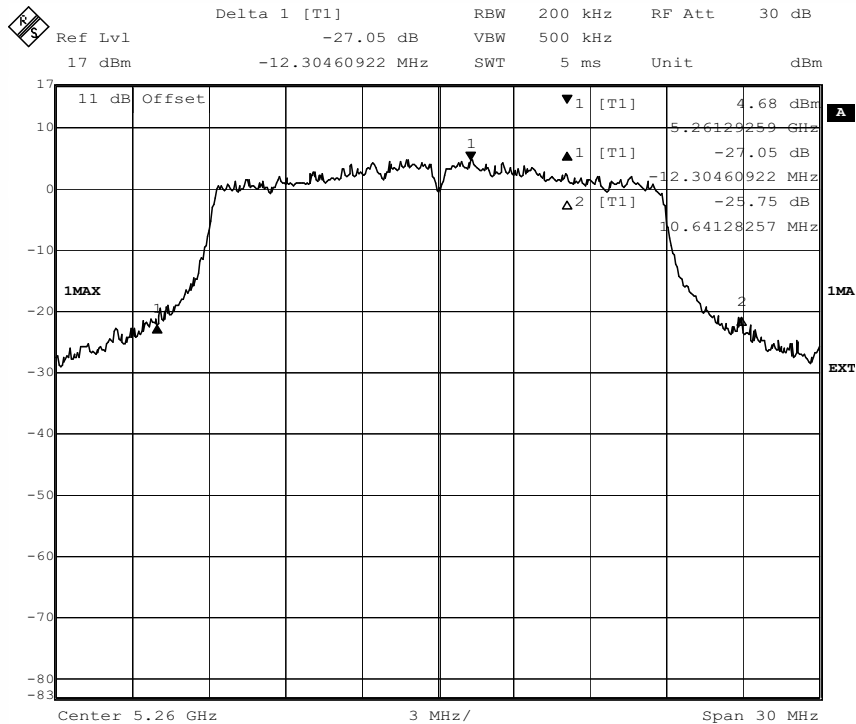


Date: 24.AUG.2016 10:13:47

Screenshot: Occupied 26 dB bandwidth Measurement, channel 40

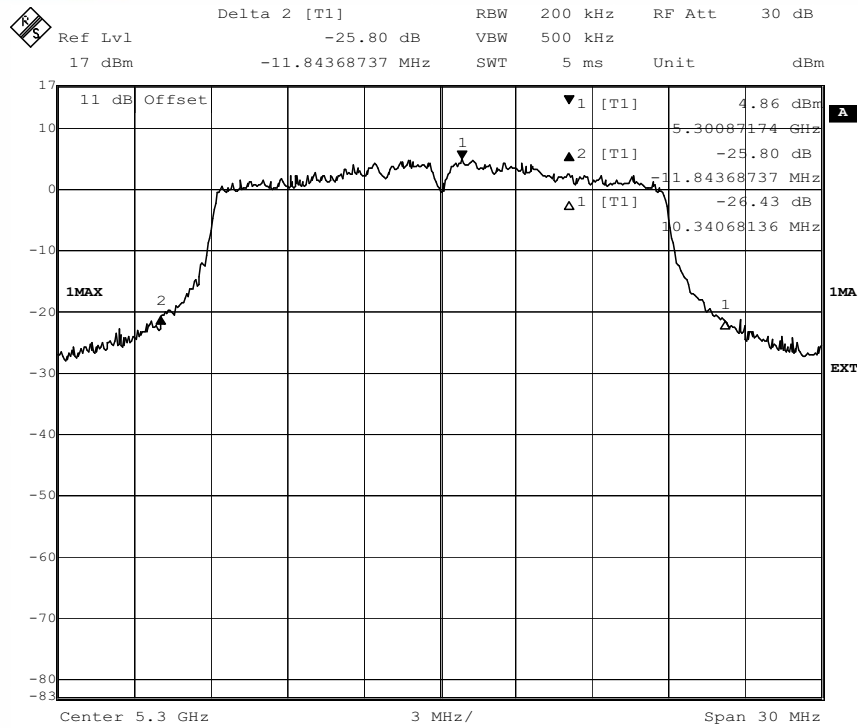


Date: 24.AUG.2016 10:16:01

Screenshot: Occupied 26 dB bandwidth Measurement, channel 48


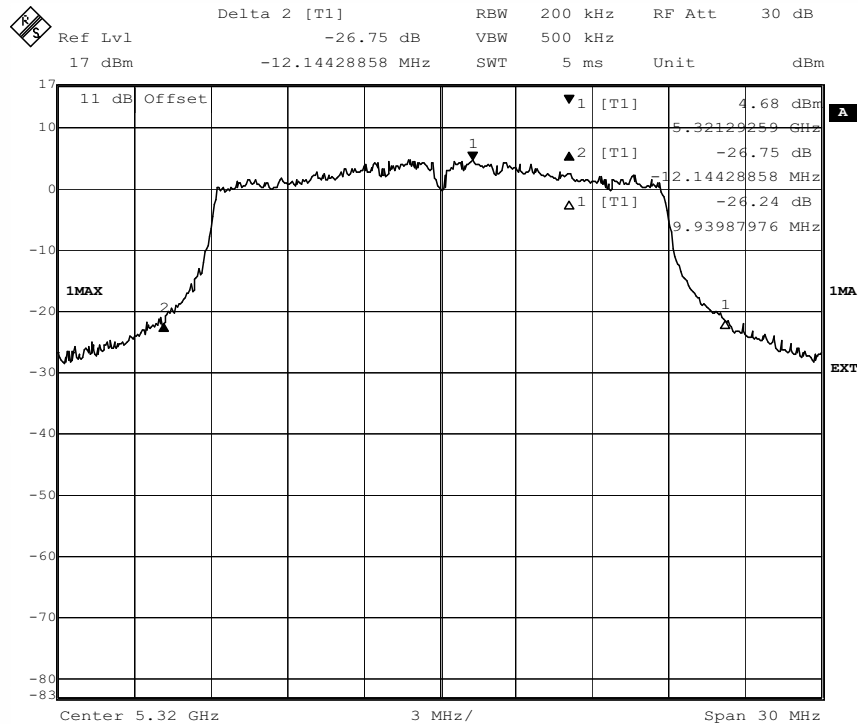
Date: 24.AUG.2016 10:19:58

Screenshot: Occupied 26 dB bandwidth Measurement, channel 52



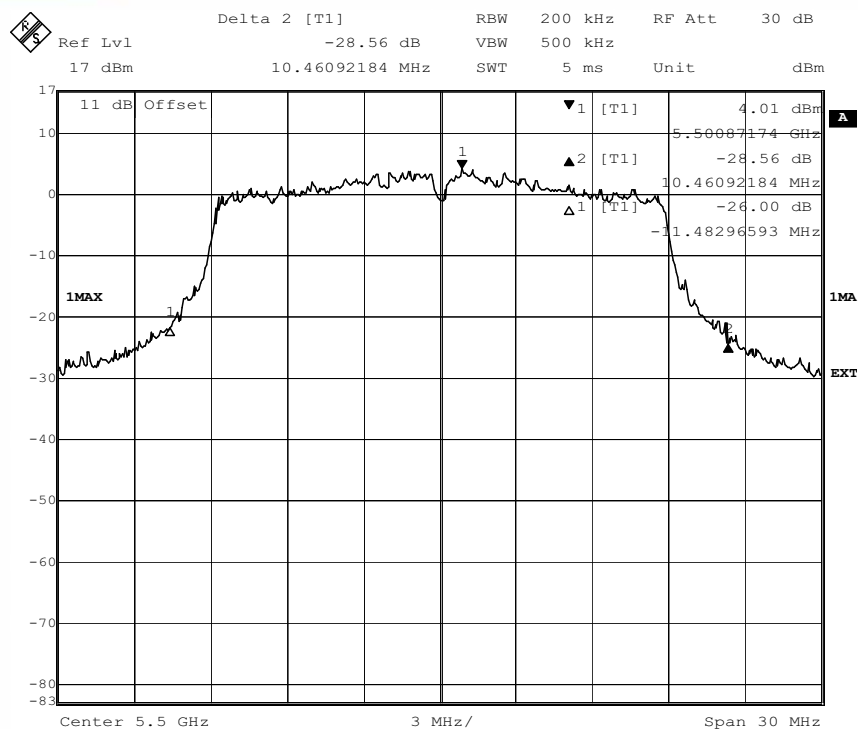
Date: 24.AUG.2016 10:47:34

Screenshot: Occupied 26 dB bandwidth Measurement, channel 60



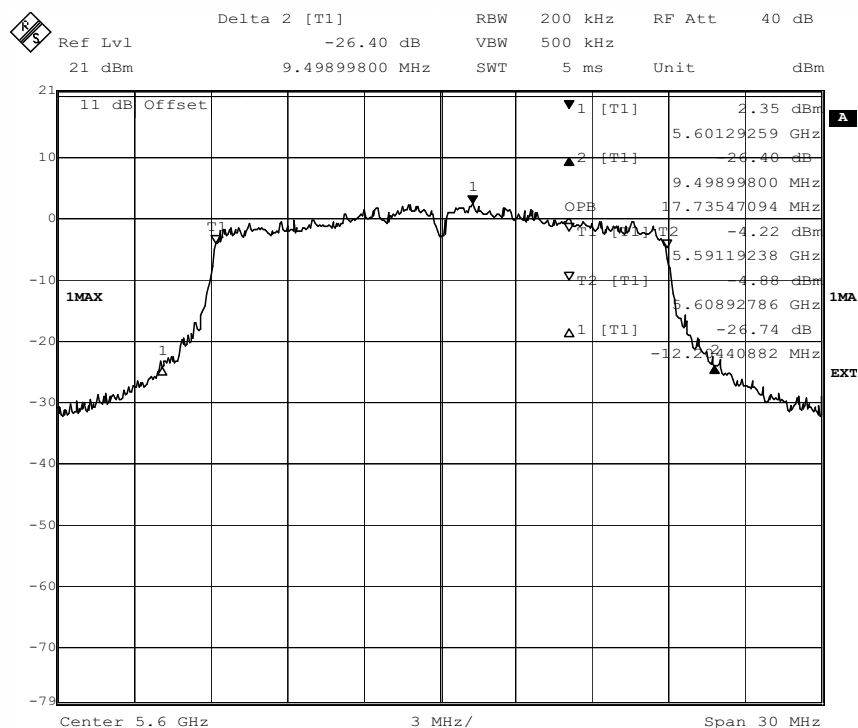
Date: 24.AUG.2016 10:50:05

Screenshot: Occupied 26 dB bandwidth Measurement, channel 64



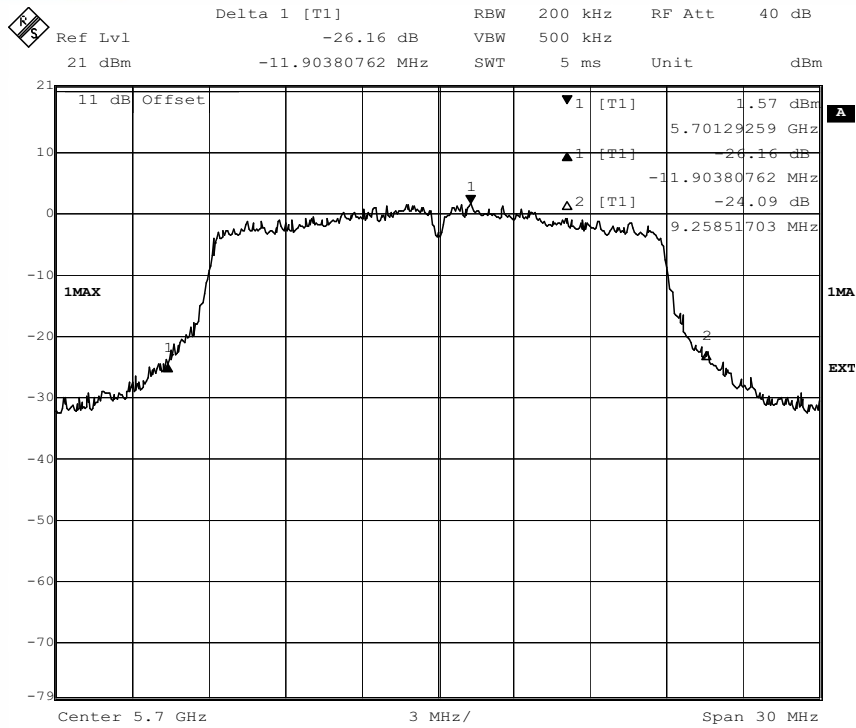
Date: 24.AUG.2016 12:01:29

Screenshot: Occupied 26 dB bandwidth Measurement, channel 100



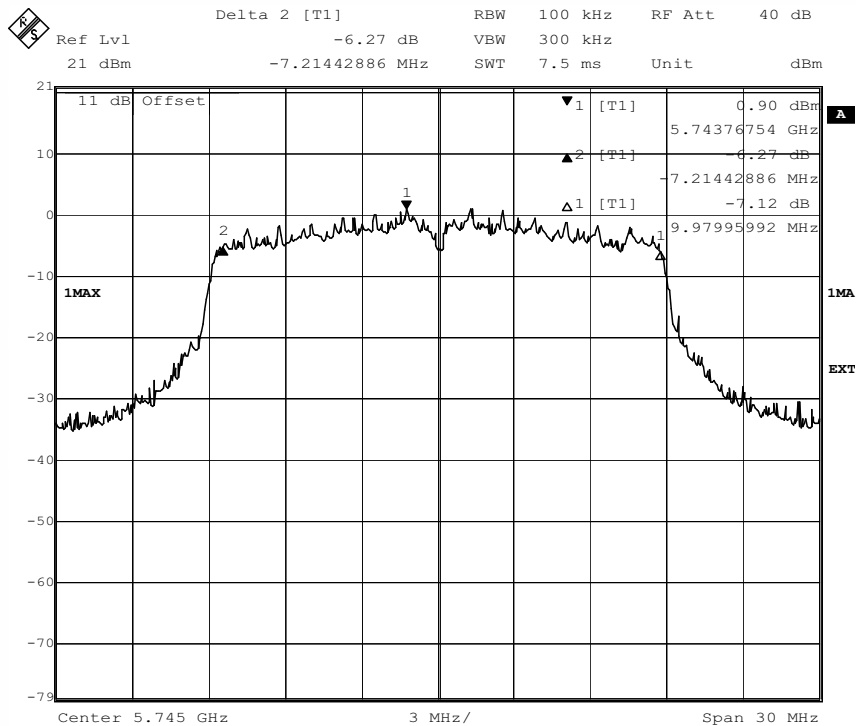
Date: 24.AUG.2016 13:11:09

Screenshot: Occupied 26 dB bandwidth Measurement, channel 120



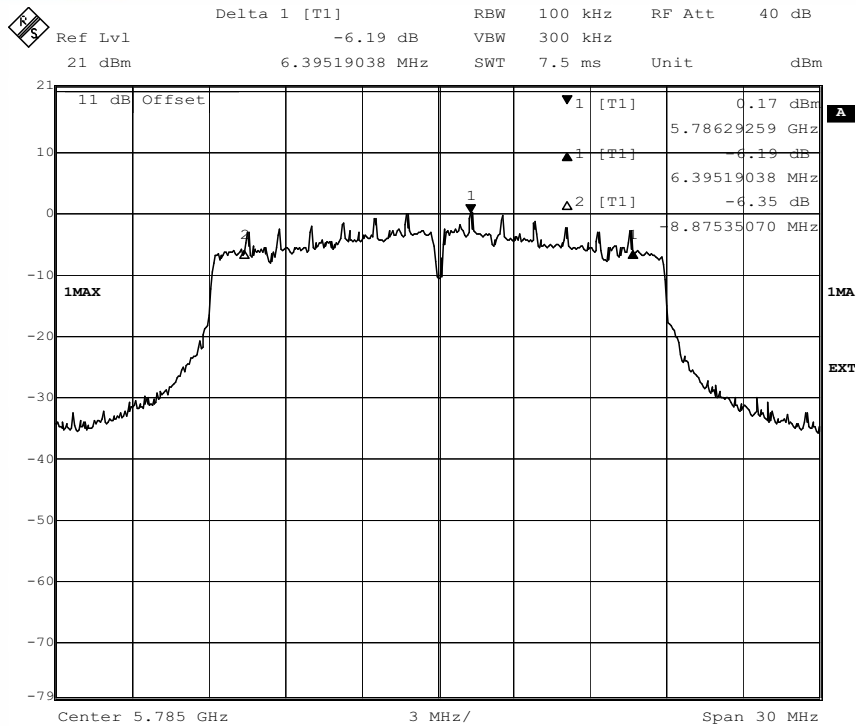
Date: 24.AUG.2016 13:08:46

Screenshot: Occupied 26 dB bandwidth Measurement, channel 140



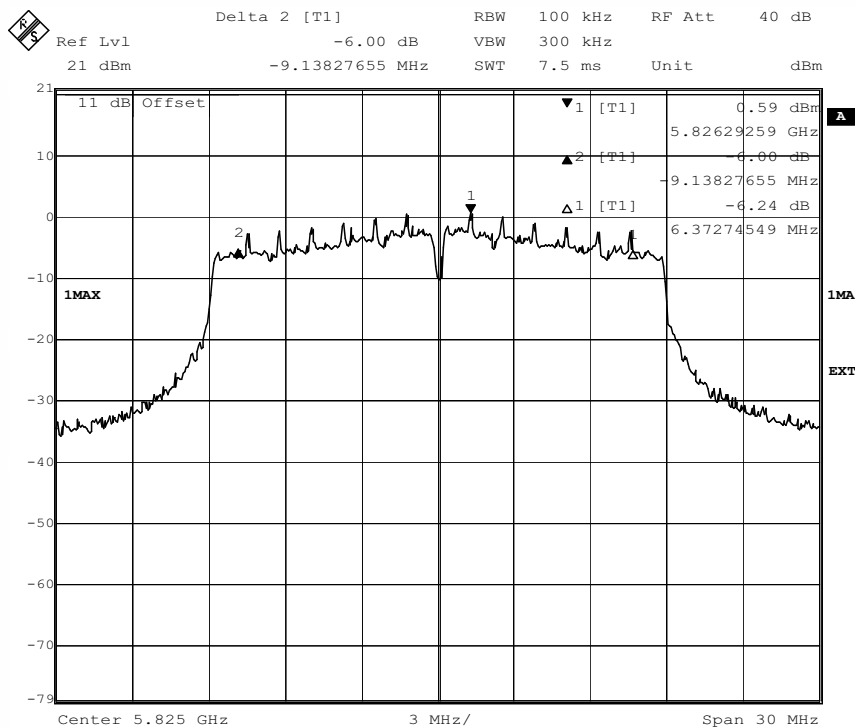
Date: 24.AUG.2016 13:13:36

Screenshot: Occupied 6 dB bandwidth Measurement, channel 149



Date: 24.AUG.2016 13:16:10

Screenshot: Occupied 6 dB bandwidth Measurement, channel 157



Date: 24.AUG.2016 13:17:41

Screenshot: Occupied 6 dB bandwidth Measurement, channel 165

Test result a mode

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5180	19.23	--	--
5200	20.15	--	--
5240	20.13	--	--

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5260	20.57	--	--
5280	19.96	--	--
5320	20.28	--	--

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5500	19.48	--	--
5600	19.64	--	--
5700	19.38	--	--

Channel [MHz]	6 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5745	15.67	>500	15.17
5785	15.10	>500	14.60
5825	15.11	>500	14.61

Test result n mode

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5180	21.845	--	--
5200	22.063	--	--
5240	23.627	--	--

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5260	22.946	--	--
5300	22.185	--	--
5320	22.083	--	--

Channel [MHz]	26 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5500	21.943	--	--
5600	21.773	--	--
5700	21.162	--	--

Channel [MHz]	6 dB BW [MHz]	Limit [kHz]	Margin [MHz]
5745	17.19	>500	16.81
5785	15.27	>500	14.73
5825	15.51	>500	15.01

9 FREQUENCY STABILITY

Date of test:	2015-10-20	Test location:	EMC Center
EUT Serial:	L152739020	Ambient temp.	22°C
Tested by:	Matti Virkki	Relative humidity	39%
Test result:	Pass	Margin:	EUT stays within band

9.1 Requirement

Reference: FCC §15.407(g)

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user manual.

9.2 Test set-up

EUT antenna port was connected to spectrum analyser via rf-cable and 10 dB attenuator placed inside the temperature chamber

9.3 Test data

Extreme temperatures

Temperature [°C]	Center freq [MHz] 0 min	Center freq [MHz] 2 min	Center freq [MHz] 5 min	Center freq [MHz] 10 min	Largest Error [kHz]
50	5199.9746	5199.9703	5199.9693	5199.9563	59
40	5199.8660	5199.8854	5199.8892	5199.9132	-50
30	5199.9194	5199.9194	5199.9194	5199.9194	-3
20	5199.9155	5199.9156	5199.9154	5199.9154	
10	5199.9194	5199.9196	5199.9199	5199.9203	4
-10	5199.9446	5199.9445	5199.9431	5199.9428	29
-20	5199.9601	5199.9599	5199.9597	5199.9591	45
-30	5199.9700	5199.9697	5199.9696	5199.9693	55

10 TEST EQUIPMENT

Stora Hallen

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Cal. interval
Measurement software	Rohde & Schwarz	EMC32 - 8.51	--	--	--
Receiver	Rohde & Schwarz	ESU 8	12866	7-2015	1 year
Receiver	Rohde & Schwarz	ESU 40	13178	7-2015	1 year
BiLog antenna	Chase	CBL6110A	971	7-2015	3-years
Preamplifier	Semko	AM1331	30366	7-2015	1 year
Preamplifier	Rohde & Schwarz	BLMA 0118-M	31246	7-2015	1 year
Horn antenna	Rohde & Schwarz	HF-907	31245	11-2013	3-years
7,5 GHz high pass filter	K&L MICROWAVE INC	11SH10-7500/U18000-O/O	32847	7-2015	1 year

Wireless Center and 3m FAC

Equipment type	Manufacturer	Model	Inv. No.	Last Cal. date	Cal. interval
Measurement software	Rohde & Schwarz	EMC32 - 9.15	--	--	--
Signal analyzer	Rohde & Schwarz	FSIQ 40	12793	7-2015	1 year
Measurement cable	Huber + Suhner	Sucoflex 104 PE	39070	7-2015	1 year
Measurement cable	Huber + Suhner	Sucoflex 104 PE	39079	7-2015	1 year
Measurement cable	Huber + Suhner	Sucoflex 104	5191	7-2015	1 year
Horn antenna	EMCO	3115	4936	4-2014	3 years
Pre amplifier	Sangus	00101400-23-10P -6-S ; AFS44-12002400-32-10P -44	12335	7-2015	1 year
Horn antenna	EMCO	3160-08	30099	month-year	3 years
Horn antenna	EMCO	3160-09	30101	month-year	3 years
Signal analyzer:	Rohde & Schwarz	FSV	32594	month-year	1 year
Signal generator:	Rohde & Schwarz	SMB100A	32592	7-2015	1 year
Signal analyzer	Rohde & Schwarz	FSIQ 40	12793	7-2015	1 year
7,5 GHz high pass filter	K&L MICROWAVE INC	11SH10-7500/U18000-O/O	32847	7-2015	1 year
10 dB Attenuator:	Huber+Suhner	5910_N-50-010	32696	7-2015	1 year
Climatic chamber	Wötsch	VC4018	1282	9-2015	1 year

11 MEASUREMENT UNCERTAINTY

Continuous conducted disturbances with AMN in the frequency range 9 kHz to 30 MHz ± 3.7 dB

Measurement uncertainty for radiated disturbance

Uncertainty for the frequency range 30 to 1000 MHz at 3 m	± 5.1 dB
Uncertainty for the frequency range 30 to 1000 MHz at 10 m	± 5.0 dB
Uncertainty for the frequency range 1.0 to 18 GHz at 3 m	± 4.7 dB
Uncertainty for the frequency range 18 to 26 GHz at 3 m	± 4.8 dB
Uncertainty for the frequency range 26 to 40 GHz at 3 m	± 5.7 dB

Measurement uncertainty is calculated in accordance with CISPR 16-4-2:2011.

The measurement uncertainty is given with a confidence of 95 %.

12 TEST SET UP AND EUT PHOTOS

EUT photos are in separate document 1515453STO-001 Annex 1.

Test set up photos are in separate document 151543STO-001 Annex 2.