



TEST REPORT

of the accredited test laboratory

TÜV Nr.:M/FG-15/137

Applicant: Lautsprecher Teufel GmbH
Budapester Strasse 44
10787 Berlin – Germany

Tested Product: WIFI Module

FCC-ID: 2ADQS-STREAM800

IC-ID: N/A

Manufacturer: StreamUnlimited Engineering GmbH
High Tech Campus Vienna
Gutheil-Schoder-Gasse 10
1102 Wien – Austria

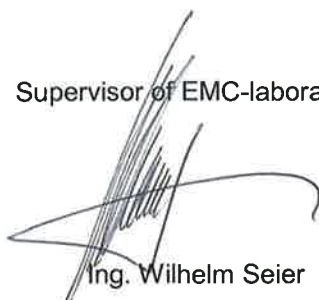
Output power / 64,6 mW cond. **power supply:** 5 VDC
field strength:

Frequency range: 2412 - 2462 MHz **Channel separation:** 5 MHz

Standard: FCC: 47 CFR Part 15 (October 1, 2014 edition)
RSS-210 Issue 8, December 2010

TUV Austria Services GmbH
Test laboratory for EMC

Supervisor of EMC-laboratory:


Ing. Wilhelm Seier

27.03.2015

Copy Nbr.: 

checked by:


Ing. Michael Emminger

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The results of this test report only refer to the provided equipment.

LIST OF MEASUREMENTS

The complete list of measurements called for in 47 CFR 15 and RSS-210 is given below.

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TEST OBJECT DATA

General EUT Description

This WIFI module is using either 2.4 GHz Frequencies or 5 GHz. This test report is only for the 2.4 GHz part. See additional test report for 5 GHz measurement results.

2.1033 (c) Technical description

2.1033 (4) Type of emission:

802.11 standards – Channel bandwidths 10,4 MHz (DSSS), 20 MHz (OFDM) and 40 MHz (aggregation of 2 non-overlapping OFDM channels) – Channel spacing 5 MHz.

2.1033 (5) Frequency range:

2412 till 2462 MHz (channel center frequencies) in 5 MHz steps resulting in 11 Channels (DSSS and 20 MHz channels)
2422 till 2452 MHz (channel center frequencies) in 5 MHz steps resulting in 7 Channels of 40 MHz bandwidth

2.1033 (6) Power range and Controls: The maximum peak output power is 64,6 mW and there is no power regulation.

2.1033 (7) Maximum output power rating: 64,6 mW.

2.1033 (8) DC Voltage and Current: 5 V DC

maximum current consumption: 200 mA)

RSS-135 This standard does not apply to:

- 1.1.(a) a receiver that scans radio frequencies for the purpose of enabling its associated transmitter to avoid transmitting in an occupied frequency but which does not have the capability of decoding the message (e.g. converting it to audio voice) contained in the radio signal

Tests were performed on 11th, 12th and 27th February 2015.

Number of channels and channel spacing

§ 2.1033

Conducted Measurement

Rated output power: 64,6 mW

There are 11 Channels used starting at 2412 till 2462 MHz each separated by 5 MHz channel spacing with a maximum bandwidth of 20 MHz.

Two channels spaced by 20 MHz can be used simultaneously to give a RF-Bandwidth of 40 MHz, resulting in 7 different channels with 40 MHz bandwidth and center frequencies of 2422 till 2452 MHz each separated by 5 MHz channel spacing.

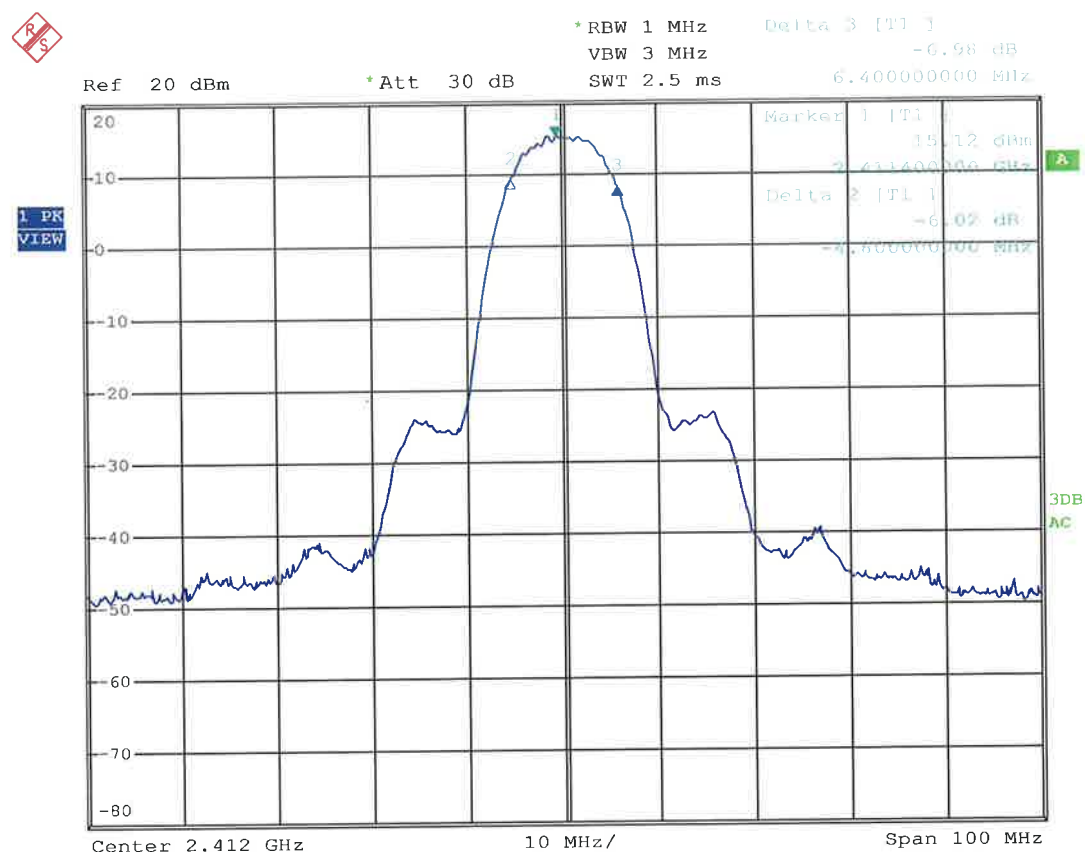
Test Equipment used: N/A

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 1 (2412 MHz center frequency) – DSSS



Date: 12.FEB.2015 12:49:03

6dB Bandwidth: 10,4 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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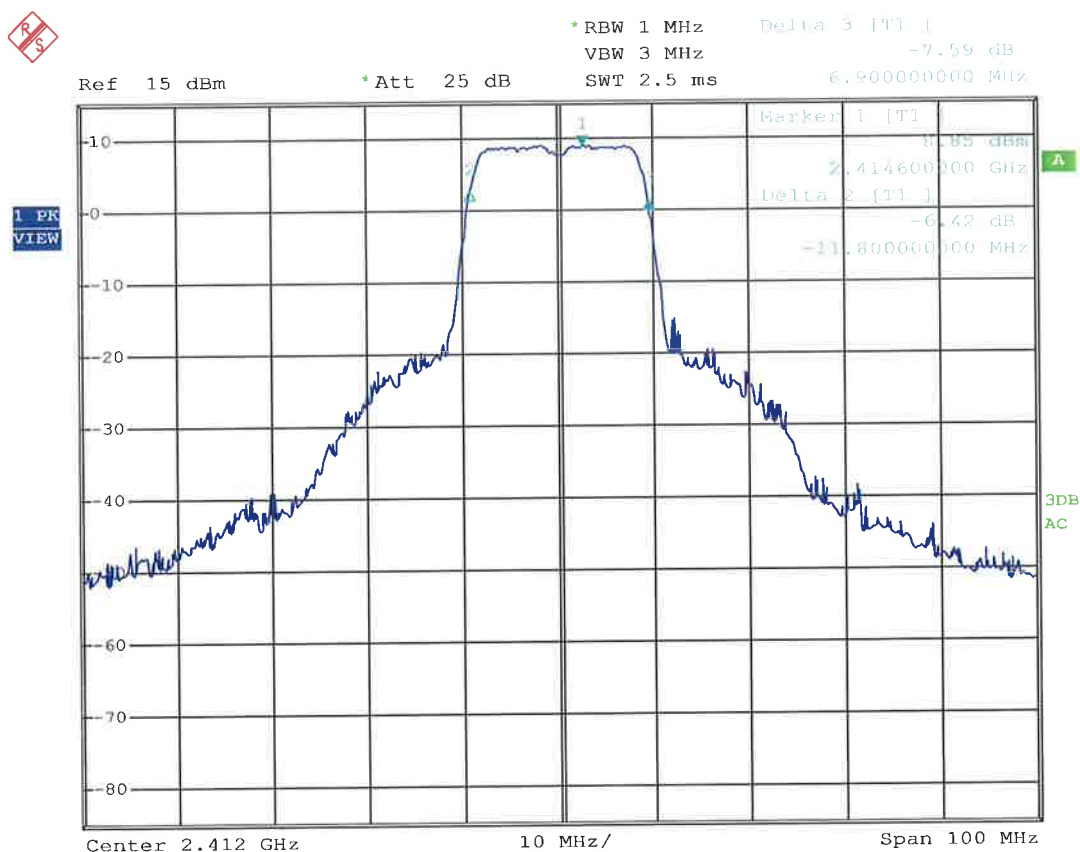
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 1 (2412 MHz center frequency) – OFDM



Date: 12.FEB.2015 12:46:26

6dB Bandwidth: 18,7 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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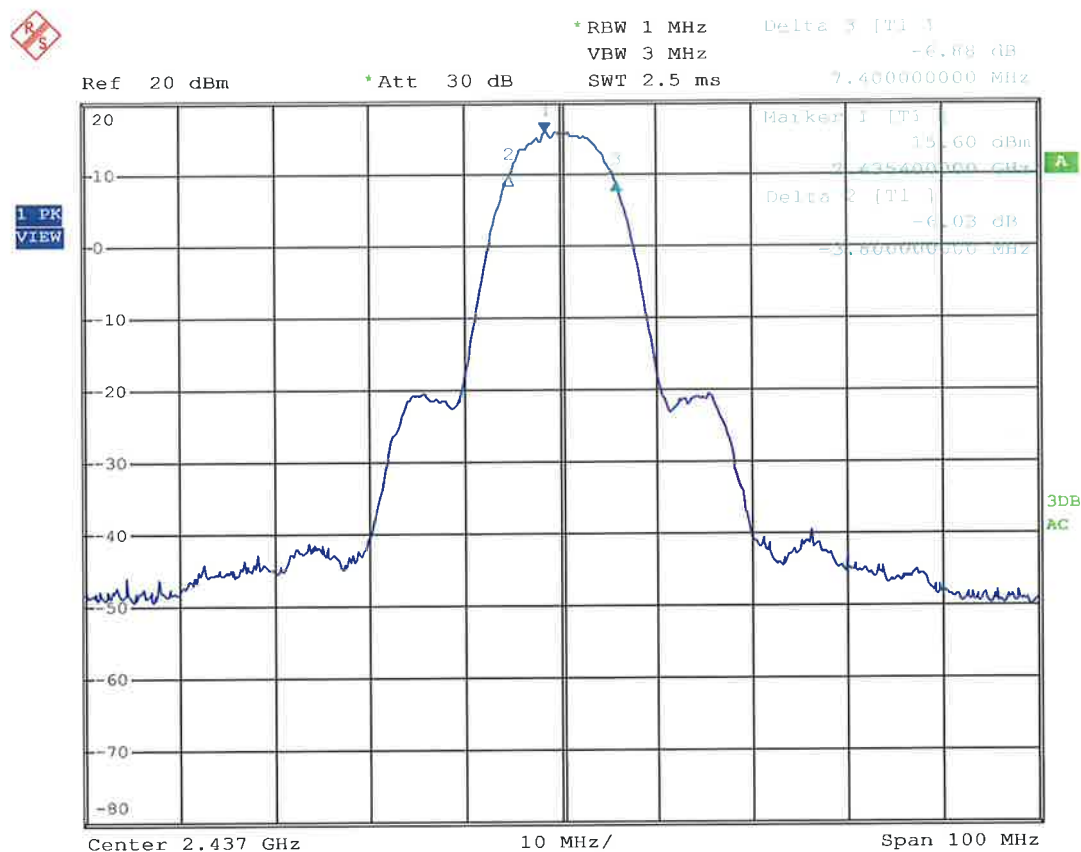
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 6 (2437 MHz center frequency) – DSSS



Date: 12.FEB.2015 12:52:02

6dB Bandwidth: 10,4 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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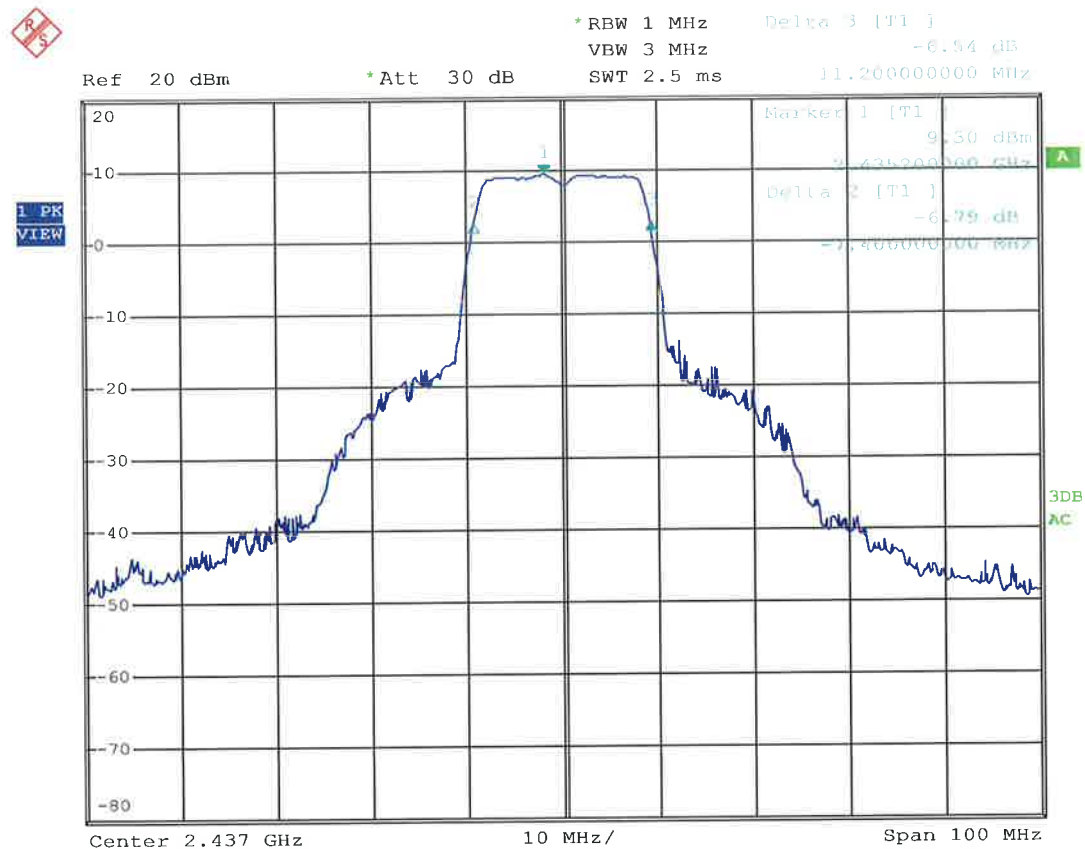
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 6 (2437 MHz center frequency) – OFDM



Date: 12.FEB.2015 12:51:04

6dB Bandwidth: 18,6 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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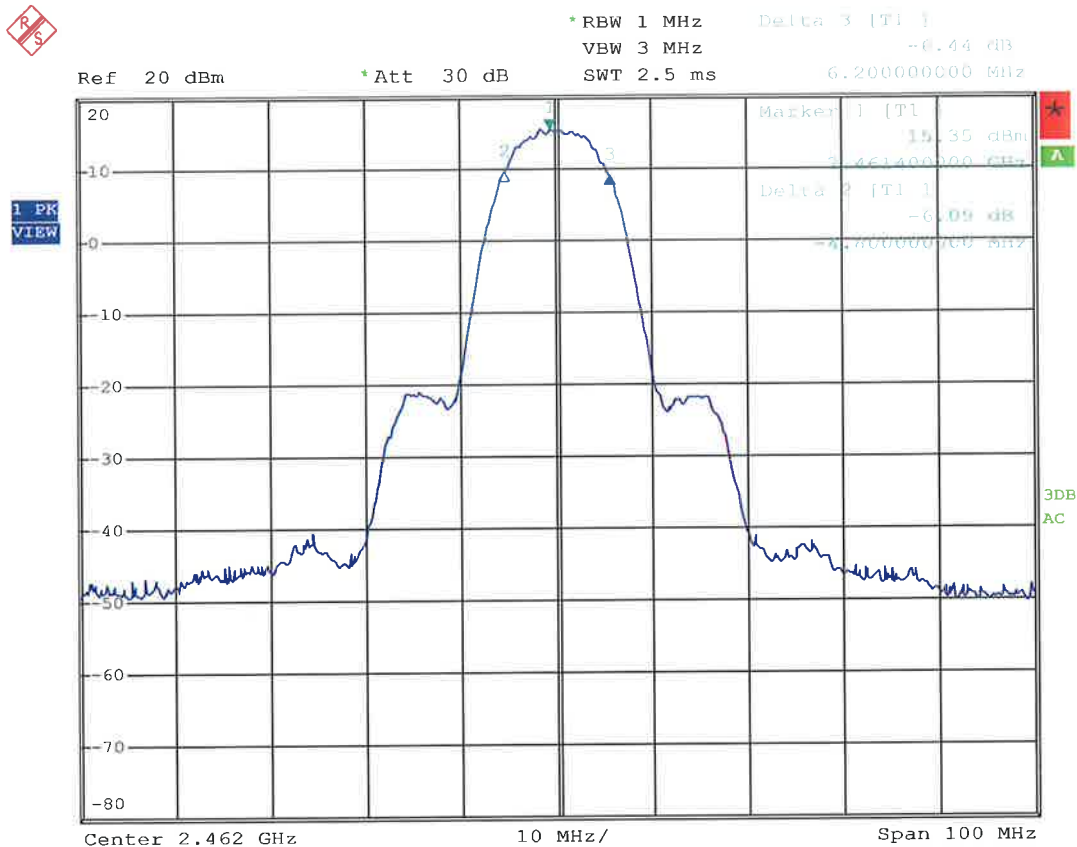
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 11 (2462 MHz center frequency) – DSSS



Date: 12.FEB.2015 12:53:55

6dB Bandwidth: 10,2 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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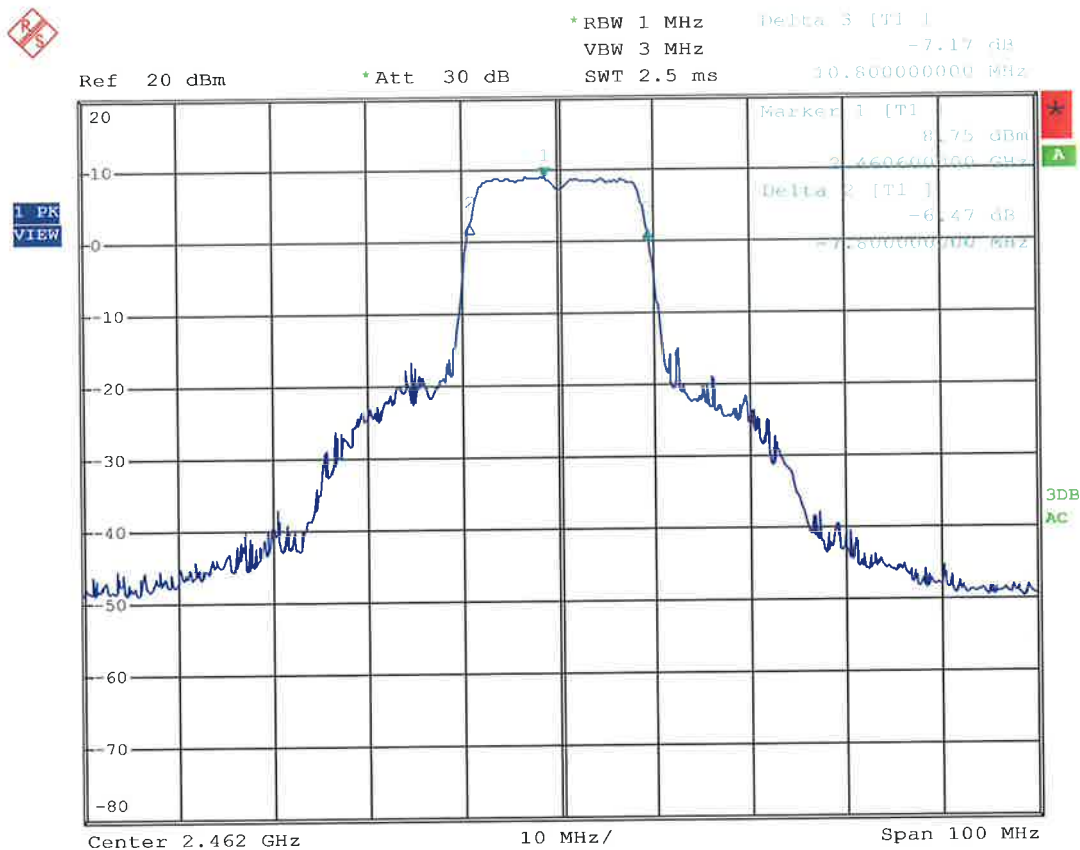
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 11 (2462 MHz center frequency) – OFDM



Date: 12.FEB.2015 12:57:05

6dB Bandwidth: 18,6 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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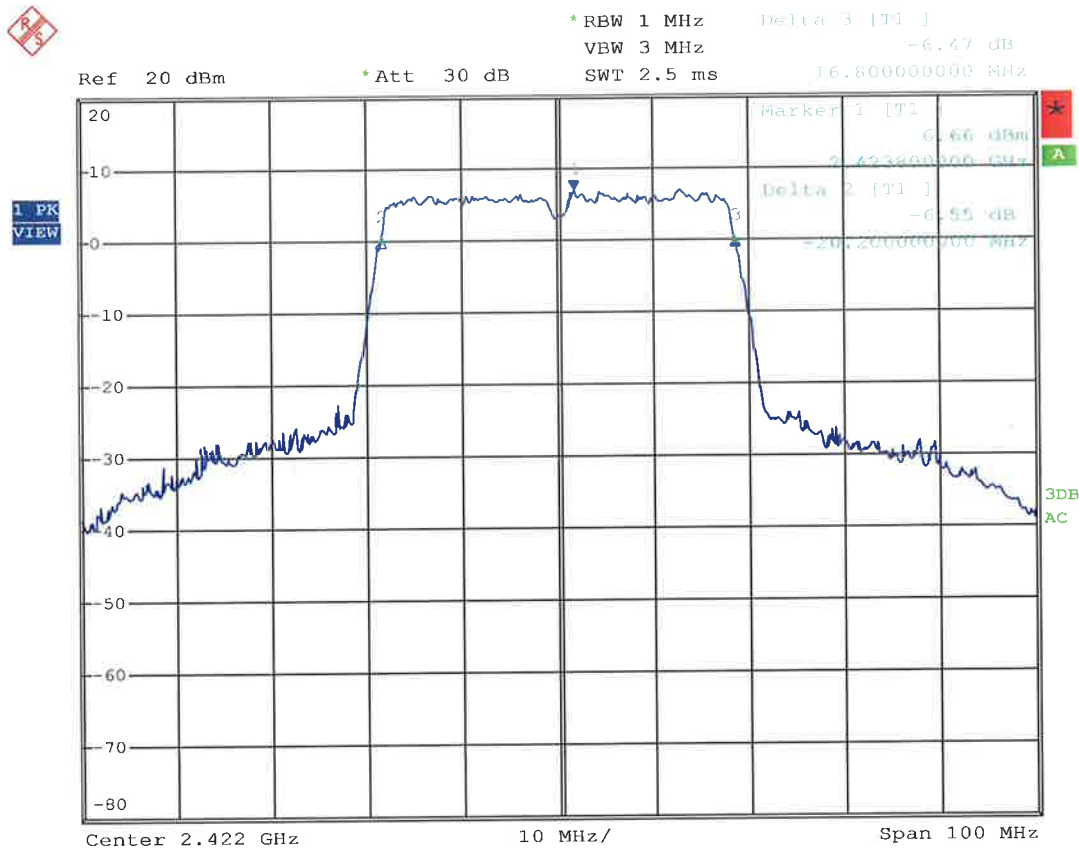
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channels 1+5 (2422 MHz center frequency)



Date: 12.FEB.2015 12:58:37

6dB Bandwidth: 37,0 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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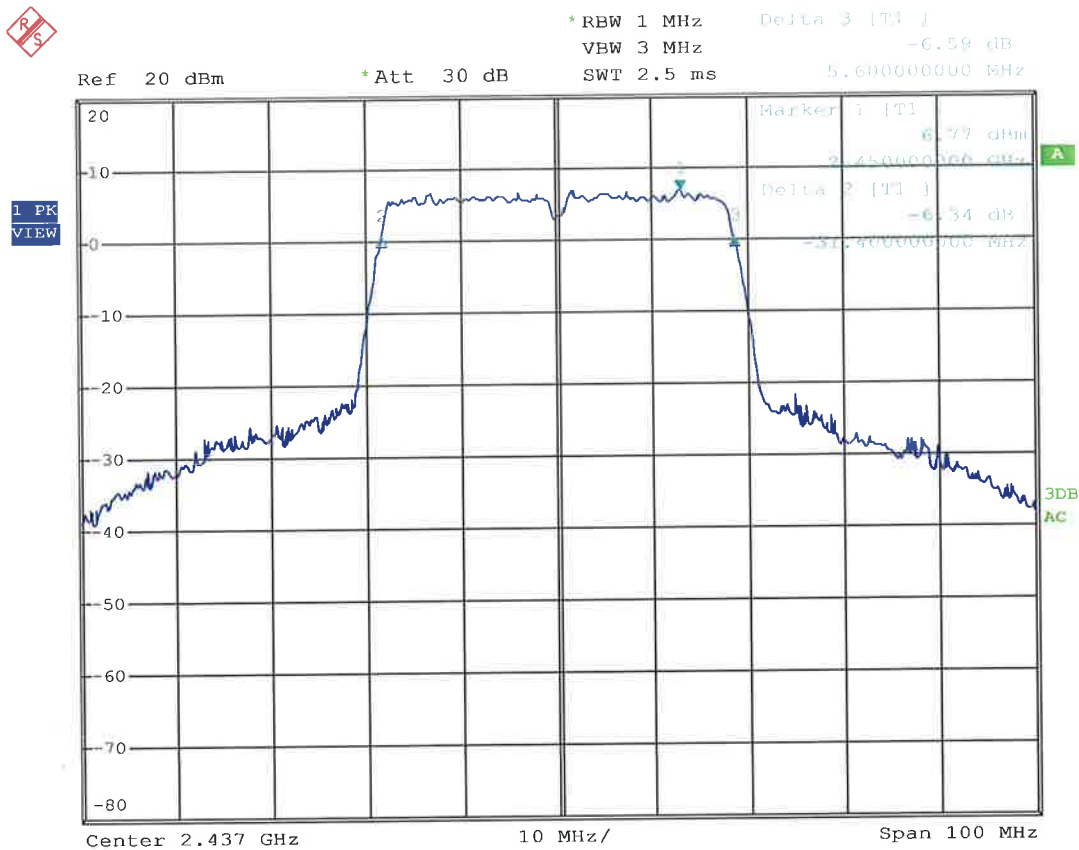
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channels 4 + 8 (2437 MHz center frequency)



Date: 12.FEB.2015 13:00:15

6dB Bandwidth: 37,0 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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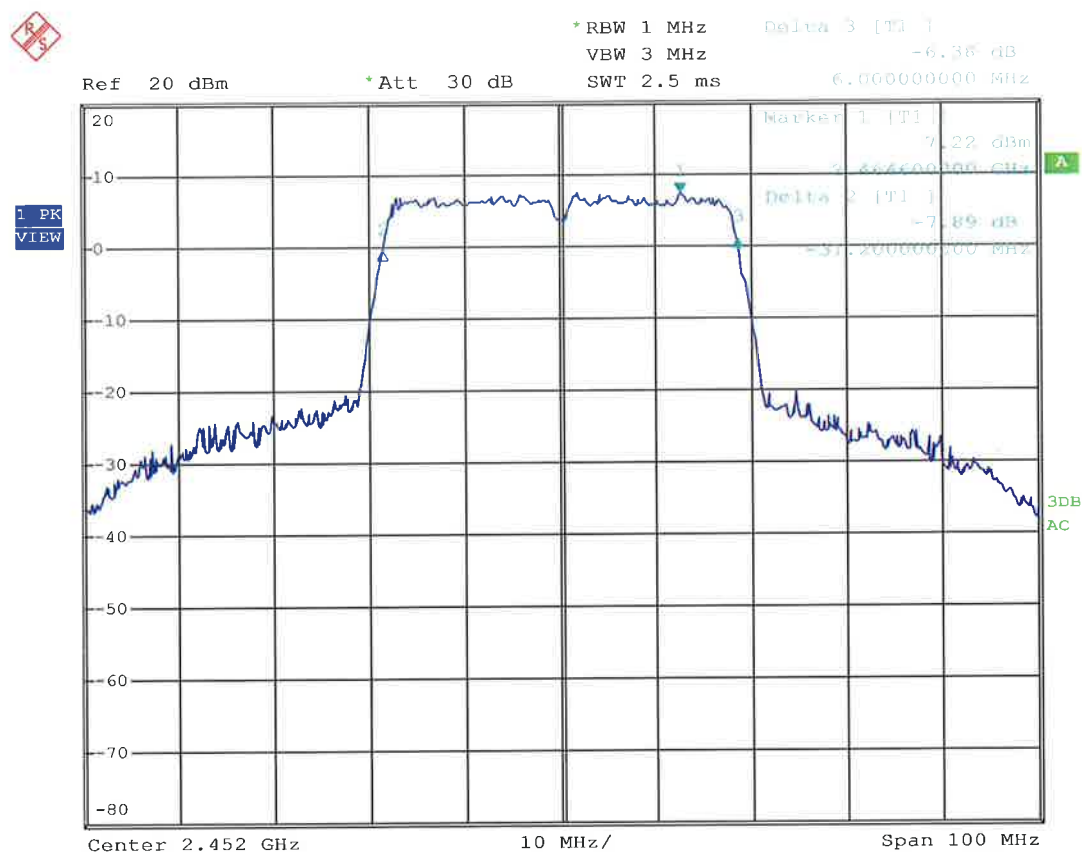
Test Equipment used: NT-203/1

6dB Bandwidth

§ 15.247(a)(2)
A8.2(a)

Conducted Measurement

Rated output power: 64,6 mW Channel 7 + 11 (2452 MHz center frequency)



Date: 12.FEB.2015 13:01:33

6dB Bandwidth: 37,2 MHz

LIMIT **SUBCLAUSE 15.247(e) – A8.2(b)**

Under normal test conditons	6 dB Bandwidth at least 500 kHz
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Test Equipment used: NT-203/1

Maximum Peak RF Power Output (conducted)

**§ 15.247(b)(3)
A8.4(4)**

Conducted Measurement

Rated output power: 64,6 mW

Test conditions		Transmitter power (mW)		
		2412 (2422) MHz	2437 MHz	2462 (2452) MHz
T _{nom} (24)°C	DSSS	58,9	64,6	61,7
	OFDM – 20 MHz	15,8	16,6	16,2
	OFDM – 40 MHz	15,8	16,2	16,2
Measurement uncertainty		± 0,75 dB		

LIMIT

SUBCLAUSE 15.247(b)(3) – A8.4(4)

Under normal test conditons	1W conducted (4W eirp)
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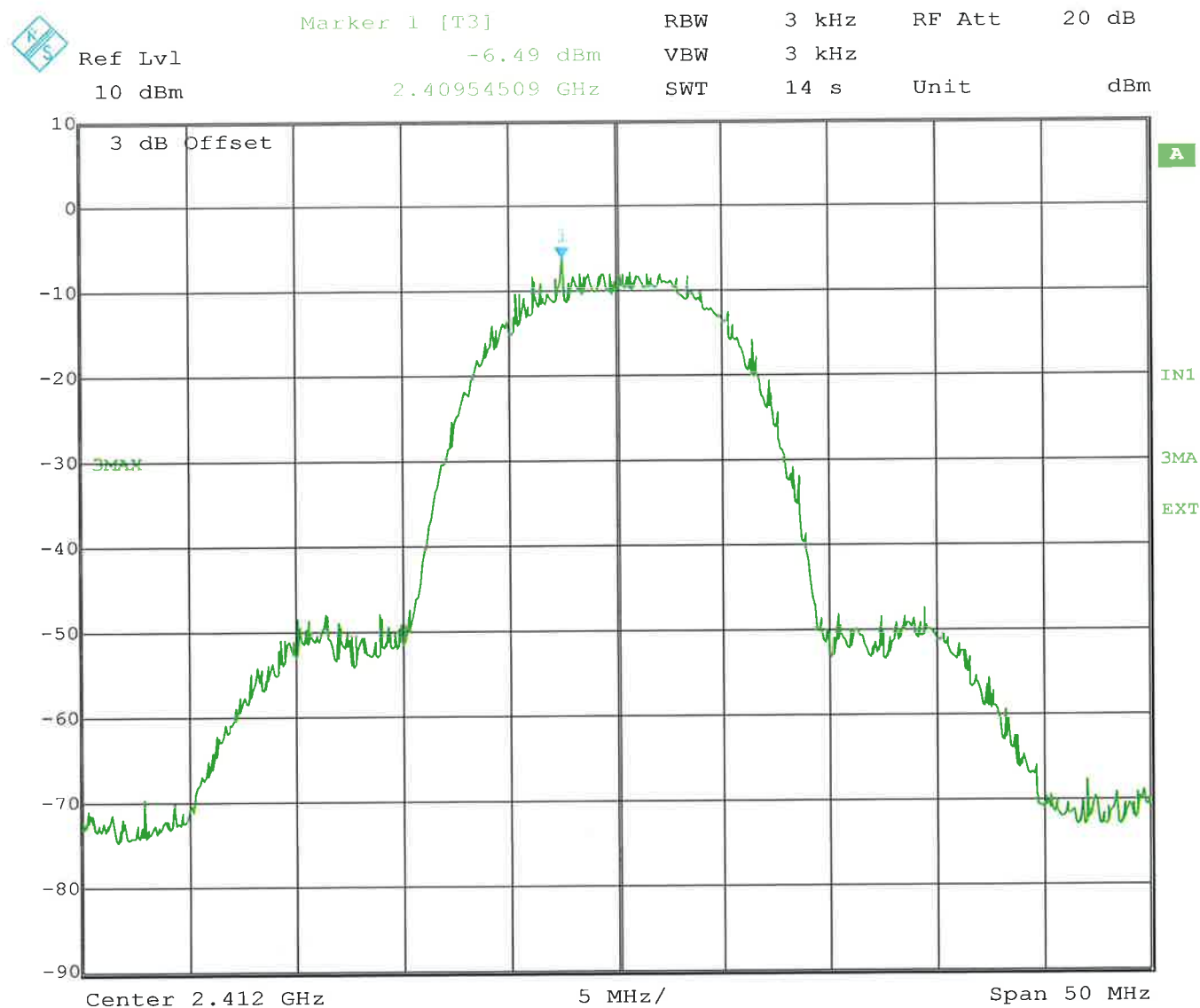
Test Equipment used: NT-204; NT-229; NT233/1a

Power spectral density (conducted)

§ 15.247(e)
A8.2(b)

Conducted Measurement

Rated output power: 64,6 mW Channel 1 (2412 MHz center frequency) – DSSS



Date: 27.FEB.2015 13:44:51

Power Spectral density: -6,49 dBm @ 2409,545 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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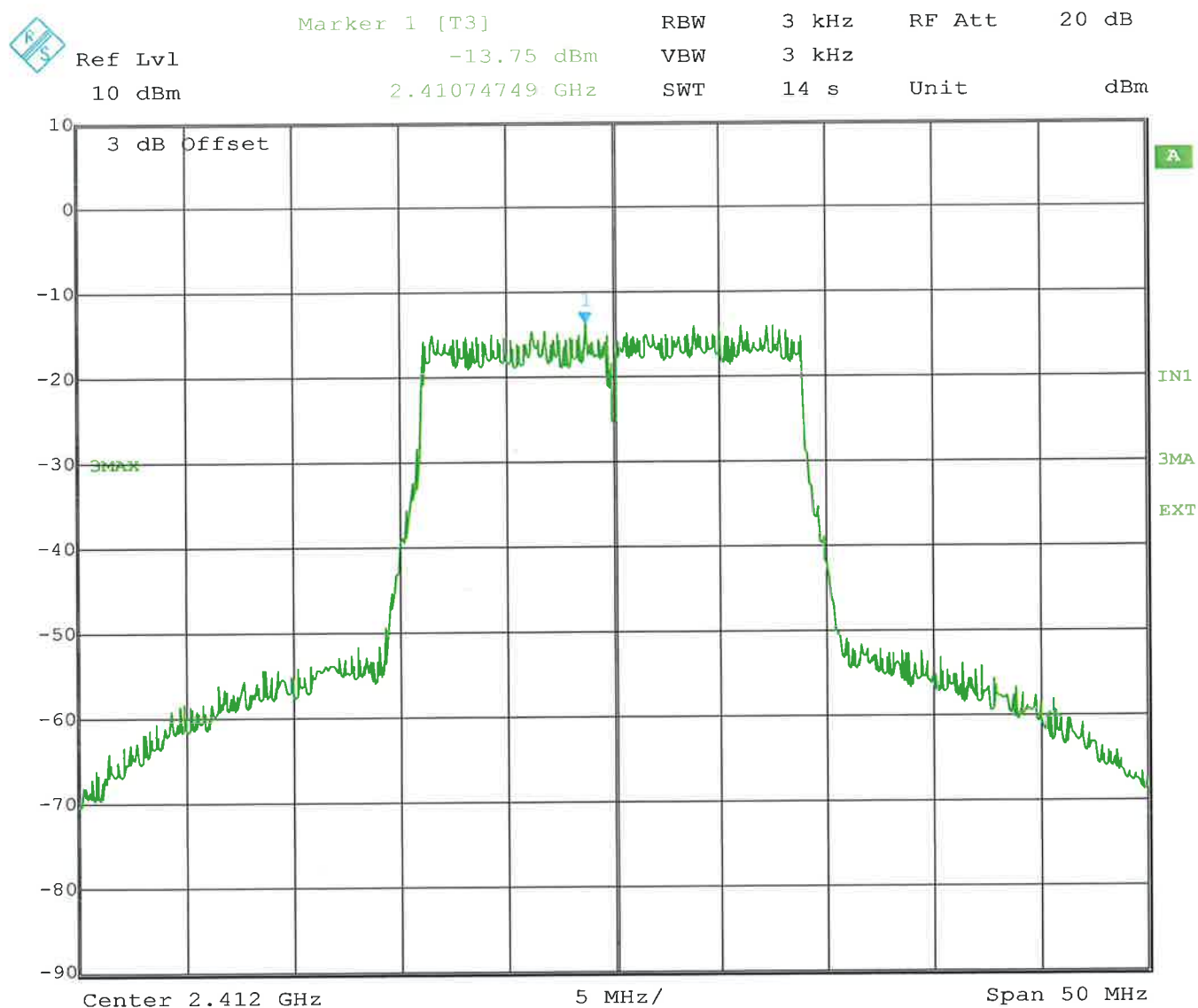
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 1 (2412 MHz center frequency) – OFDM



Date: 27.FEB.2015 13:47:11

Power Spectral density: -13,75 dBm @ 2410,747 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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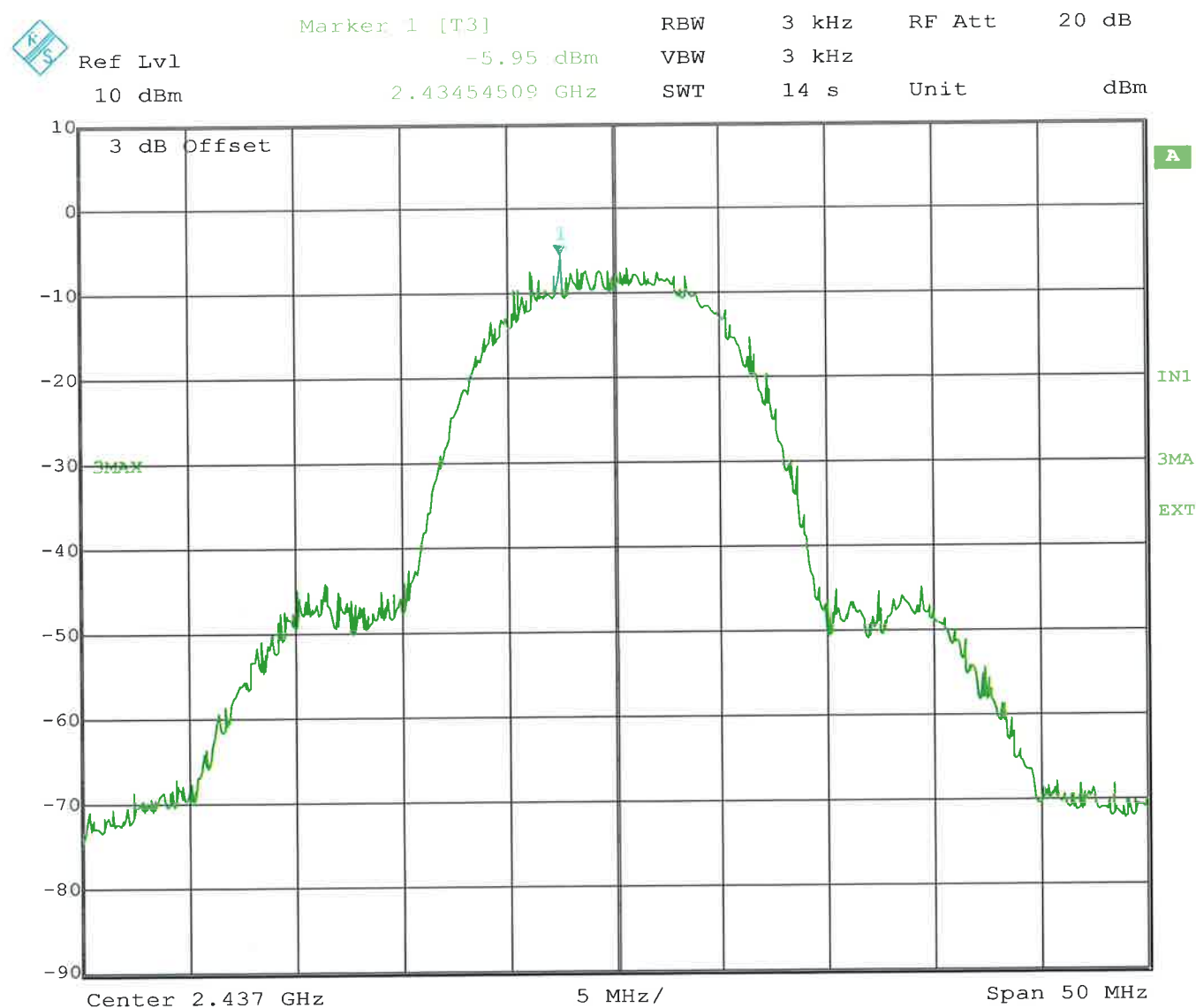
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 6 (2437 MHz center frequency) – DSSS



Date: 27.FEB.2015 13:52:09

Power Spectral density: -5,95 dBm @ 2434,545 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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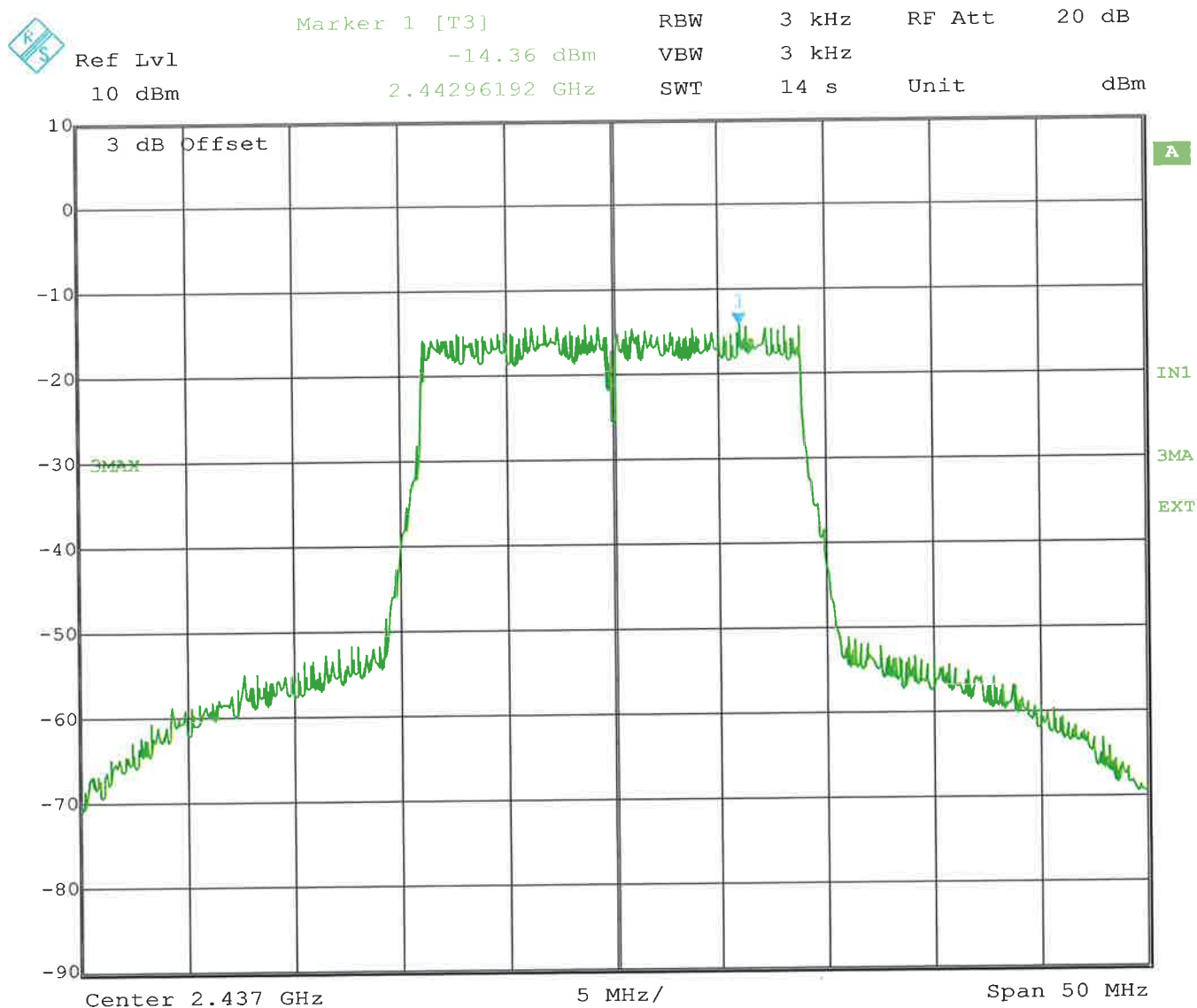
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 6 (2437 MHz center frequency) – OFDM



Date: 27.FEB.2015 13:49:57

Power Spectral density: -14,36 dBm @ 2442,962 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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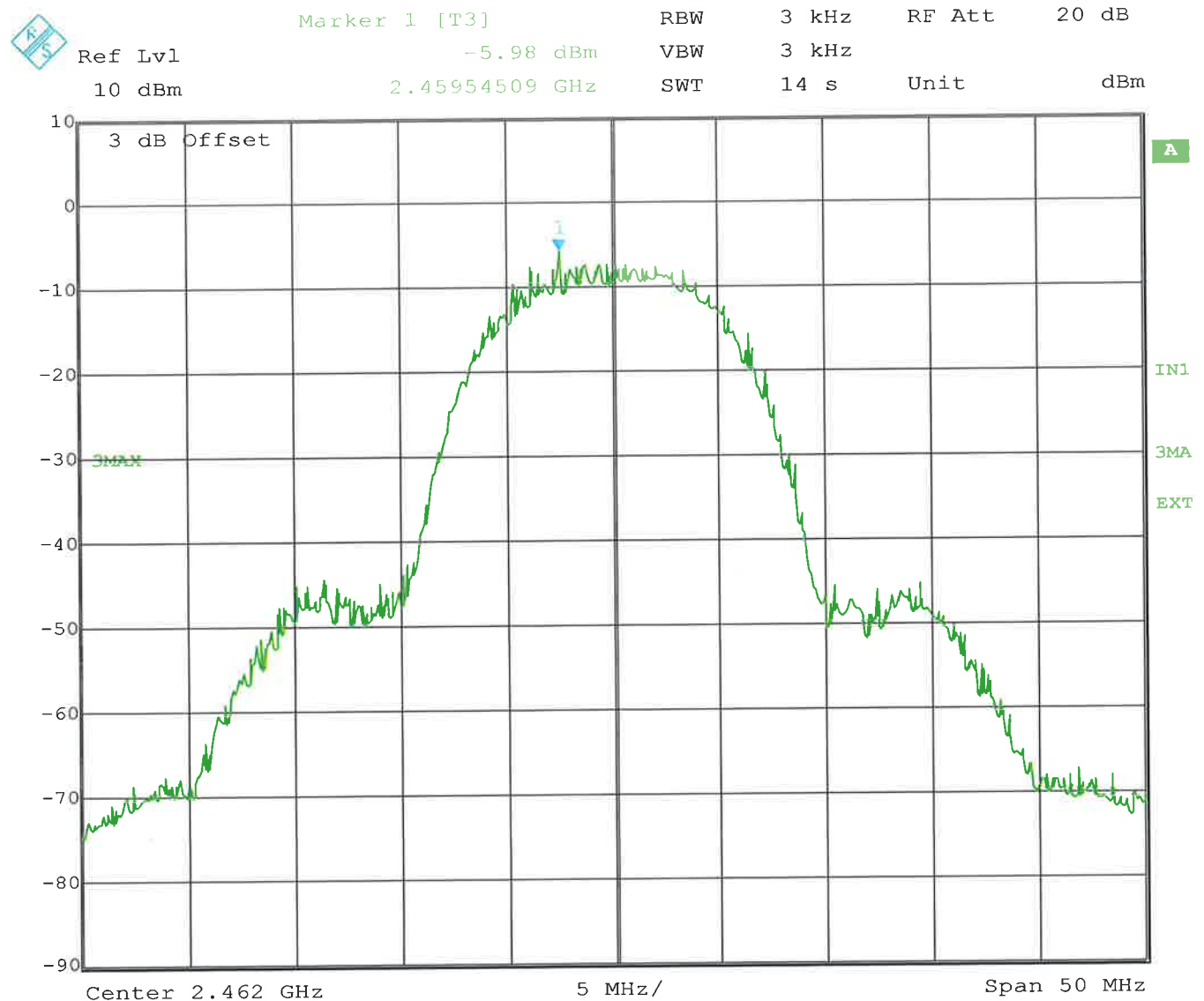
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 11 (2462 MHz center frequency) – DSSS



Date: 27.FEB.2015 13:56:54

Power Spectral density: -5,98 dBm @ 2459,545 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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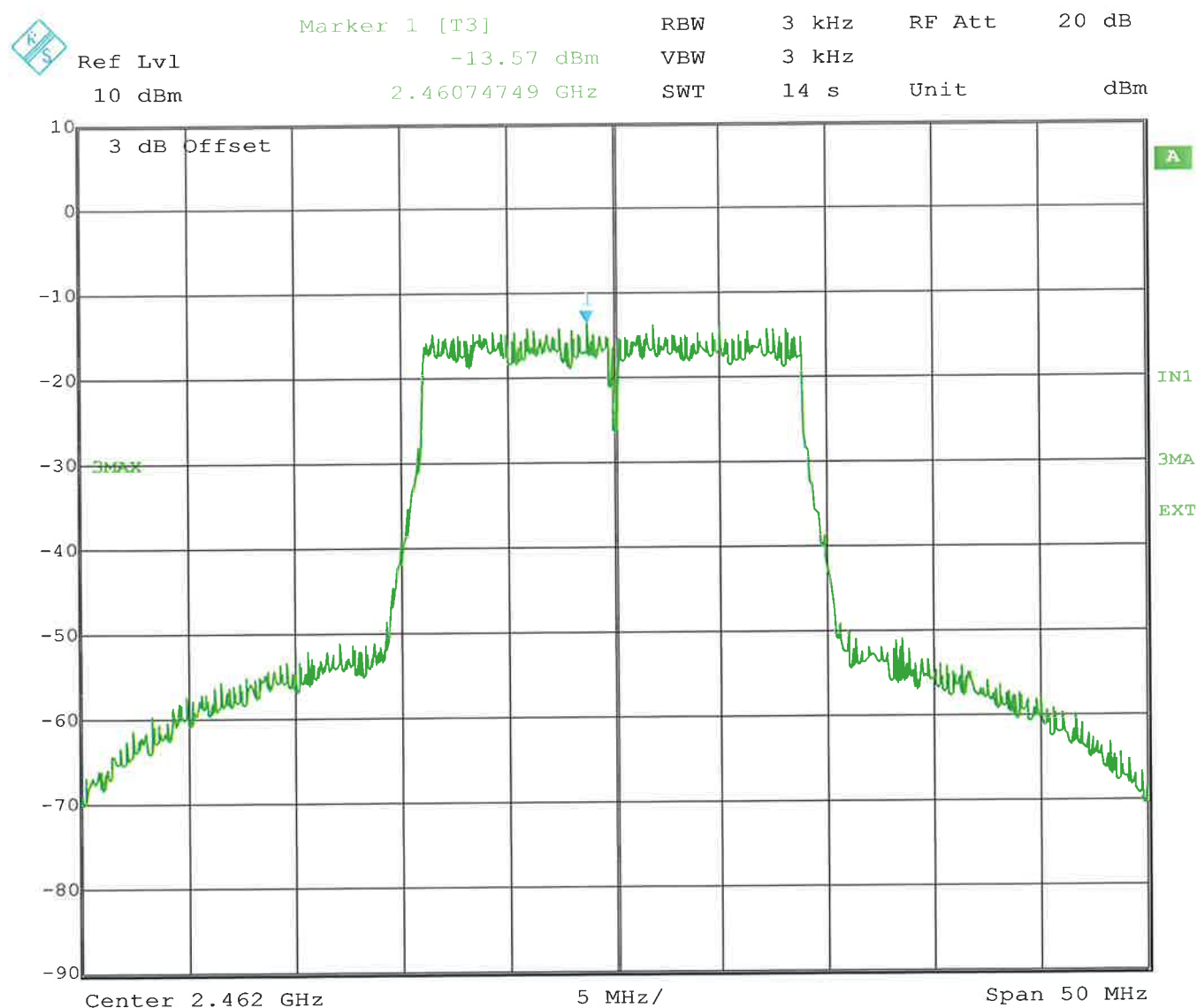
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 11 (2462 MHz center frequency) – OFDM



Date: 27.FEB.2015 13:54:09

Power Spectral density: -13,57 dBm @ 2460,747 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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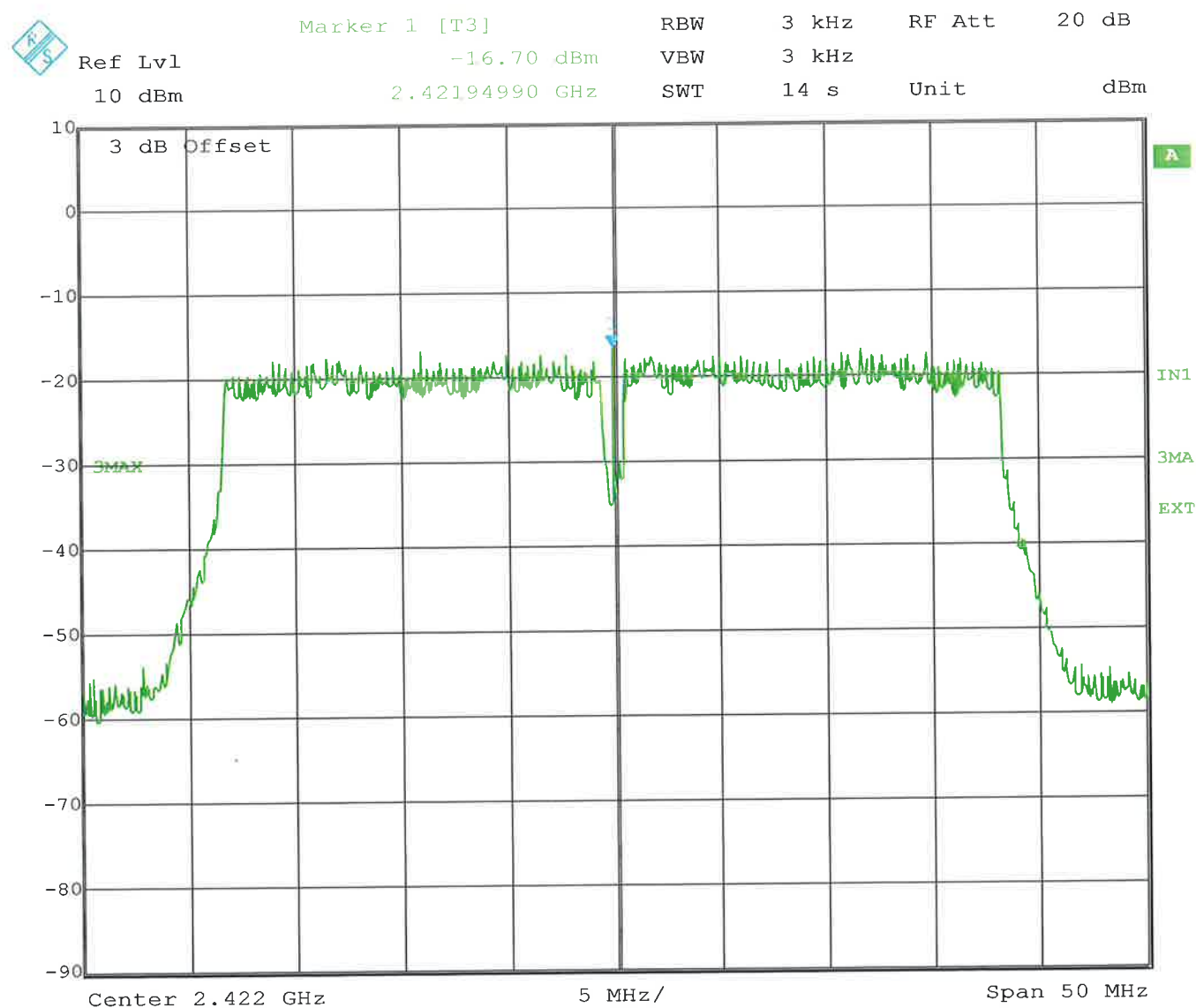
Test Equipment used: NT-207

Power spectral density (conducted)

**§ 15.247(e)
A8.2(b)**

Conducted Measurement

Rated output power: 64,6 mW Channel 1 + 5 (2422 MHz center frequency)



Date: 27.FEB.2015 13:59:04

Power Spectral density: -16,70 dBm @ 2421,949 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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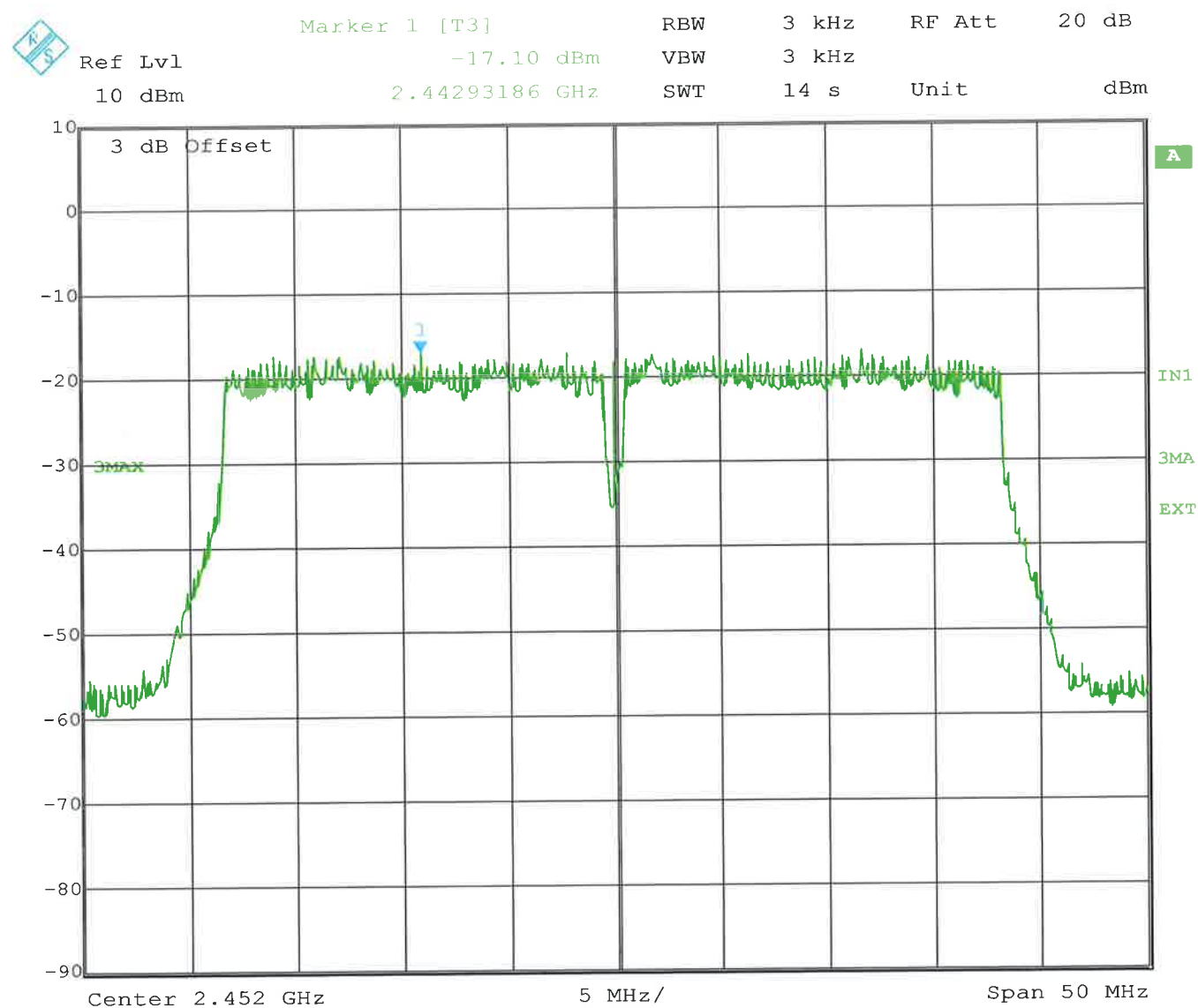
Test Equipment used: NT-207

Power spectral density (conducted)

§ 15.247(e)
A8.2(b)

Conducted Measurement

Rated output power: 64,6 mW Channel 7 + 11 (2452 MHz center frequency)



Date: 27.FEB.2015 14:08:25

Power Spectral density: -17,10 dBm @ 2442,932 MHz

LIMIT SUBCLAUSE 15.247(e) – A8.2(b)

Under normal test conditons	+8dBm in any 3 kHz band
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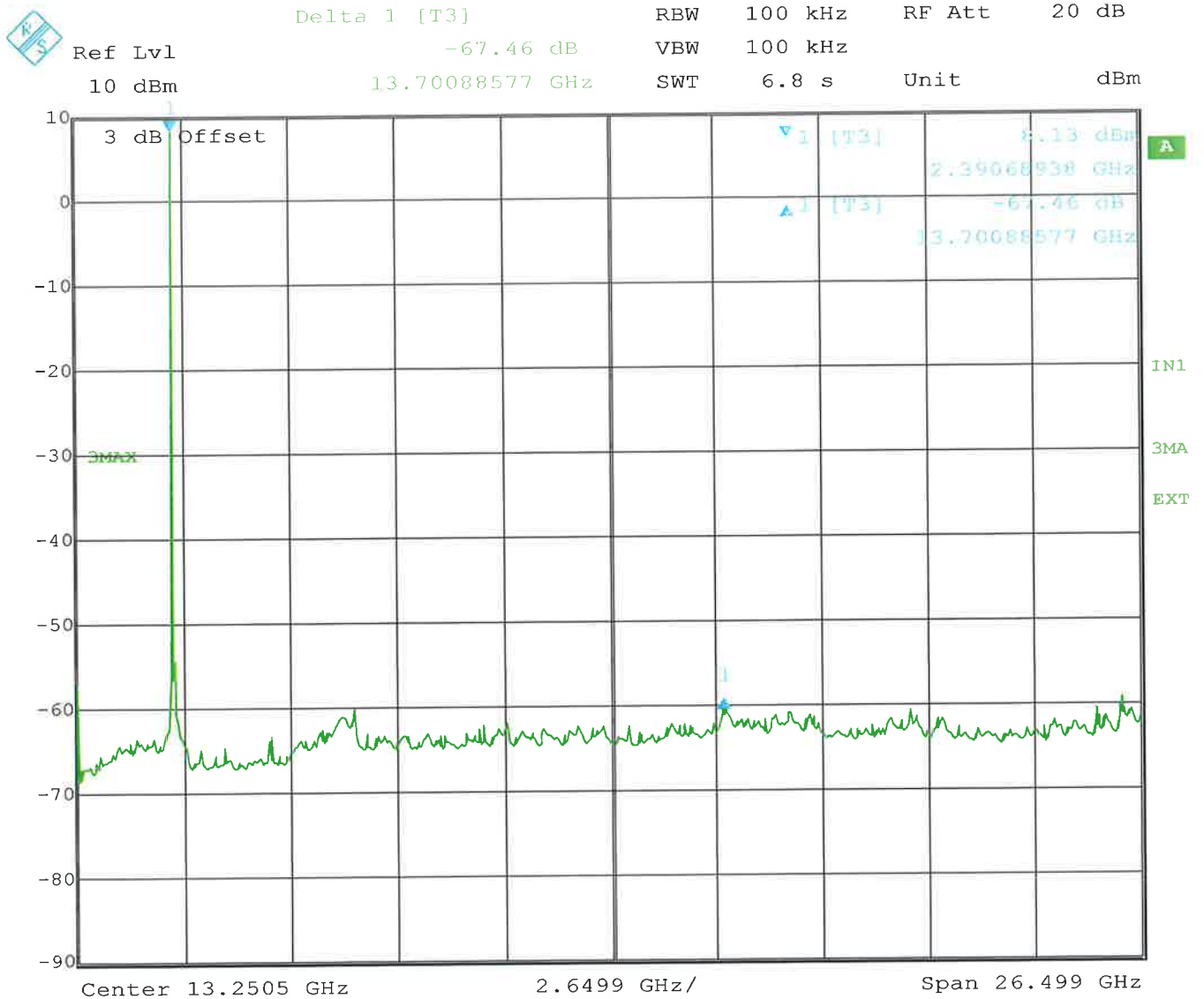
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 1: 2412 MHz – DSSS



Date: 27.FEB.2015 13:30:51

LIMIT SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.	At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.
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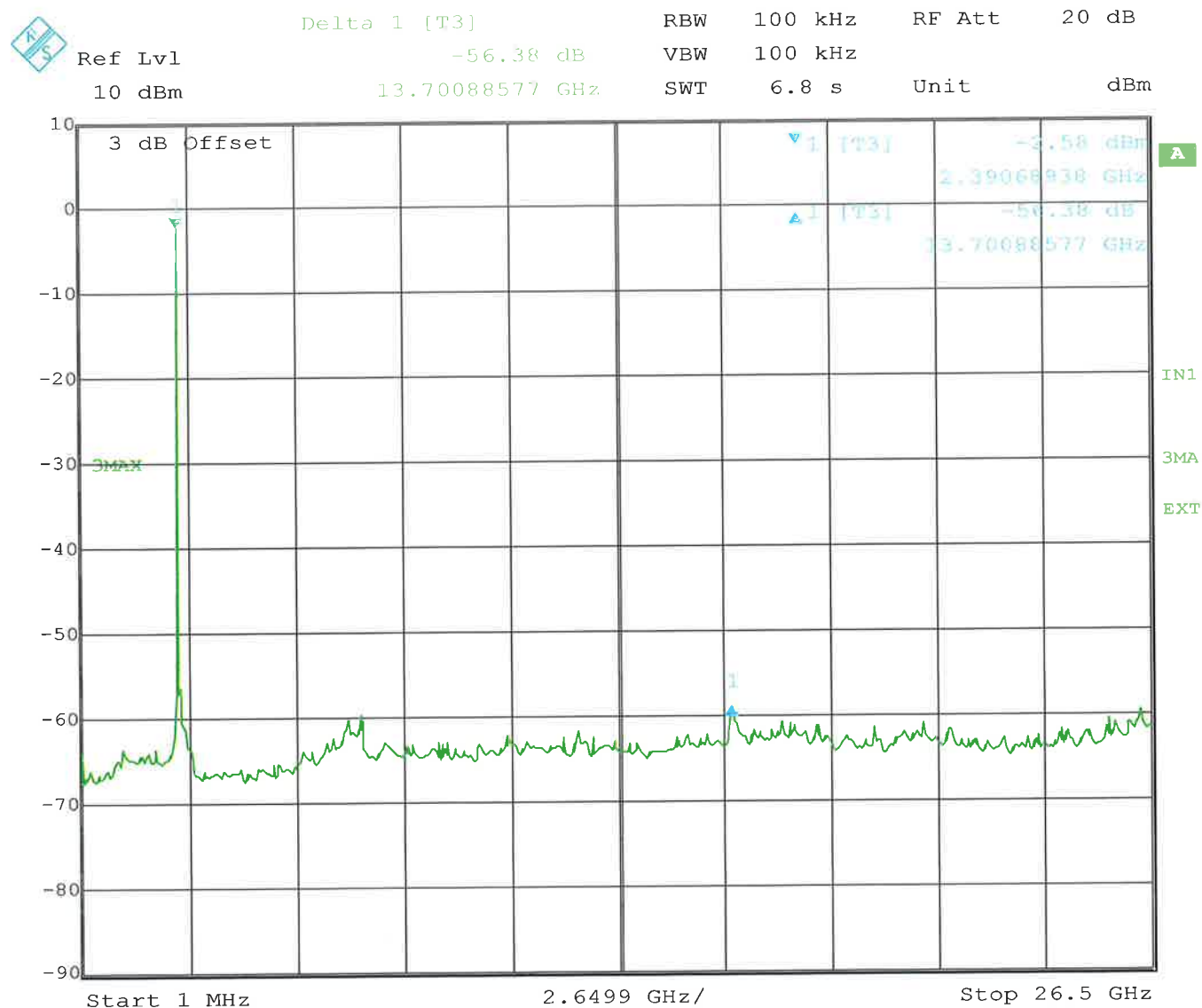
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 1: 2412 MHz – OFDM



Date: 27.FEB.2015 13:26:39

LIMIT

SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.

At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

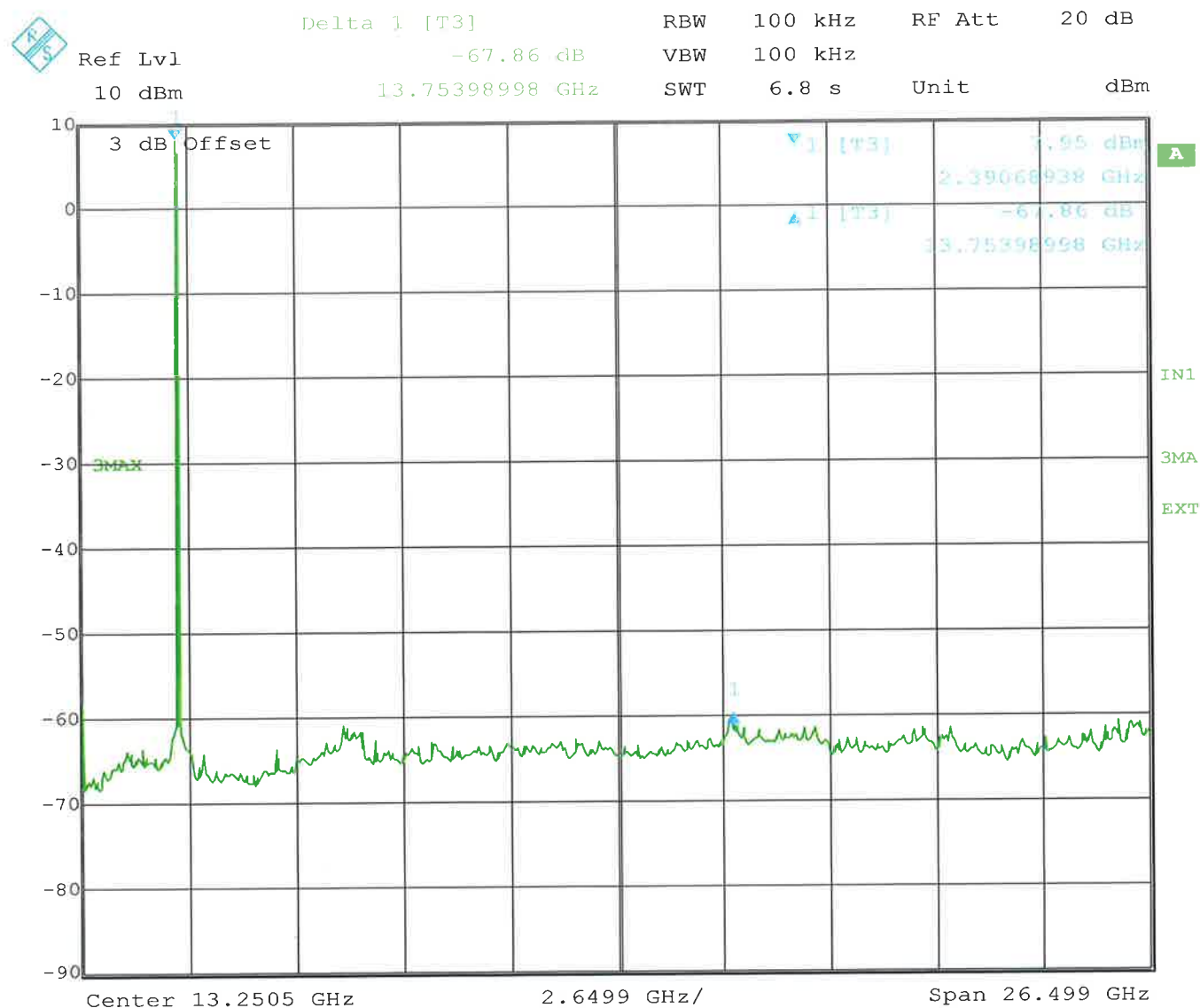
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 6: 2437 MHz – DSSS



Date: 27.FEB.2015 13:32:28

LIMIT

SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.

At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

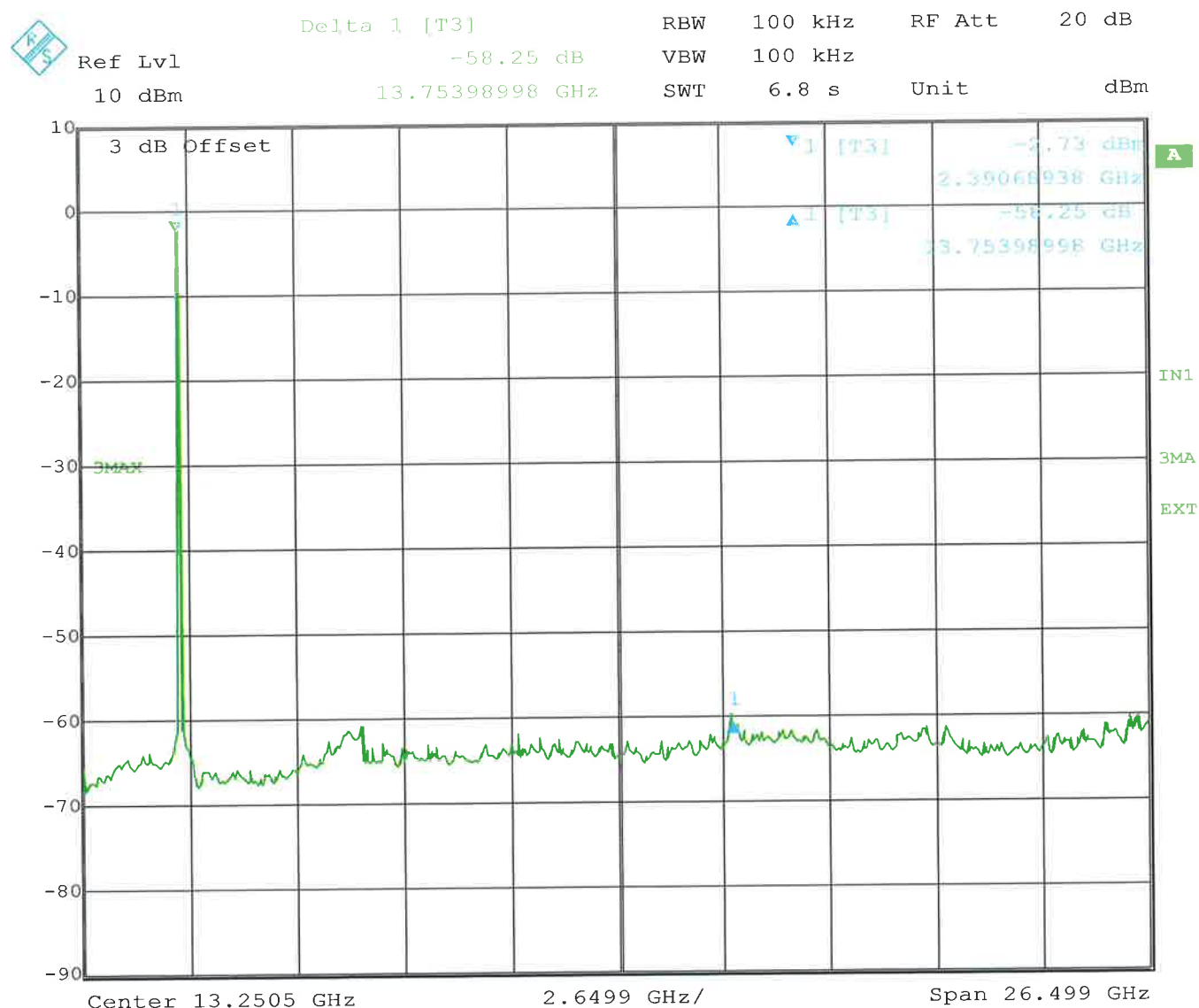
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 6: 2437 MHz – OFDM



Date: 27.FEB.2015 13:33:40

LIMIT

SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.

At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

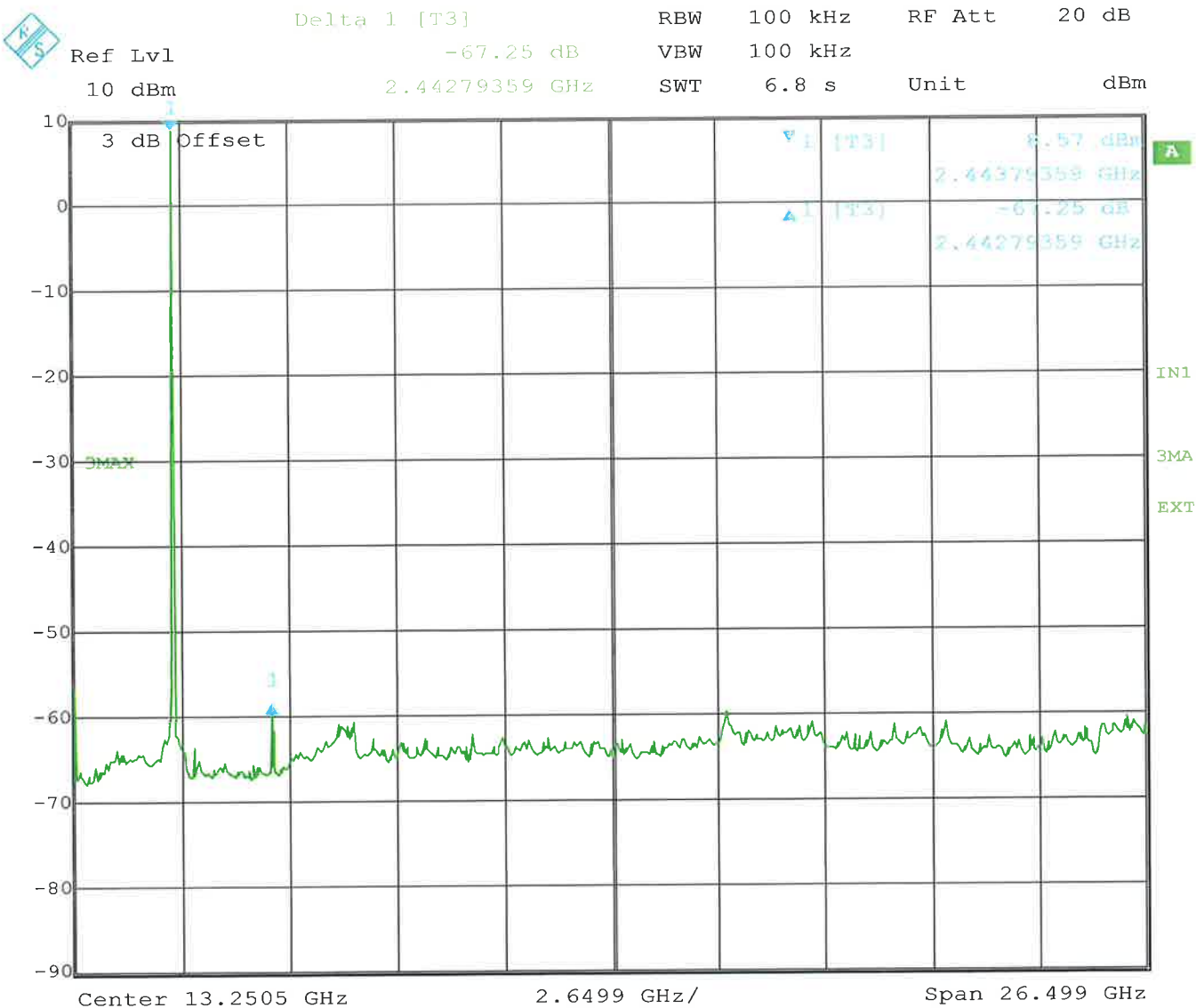
Test Equipment used: NT-207

Out-of-band Emission

**§ 15.247(d)
A8.5**

Conducted measurement

Setup: CH 11: 2462 MHz – DSSS



Date: 27.FEB.2015 13:37:09

LIMIT SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.

At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

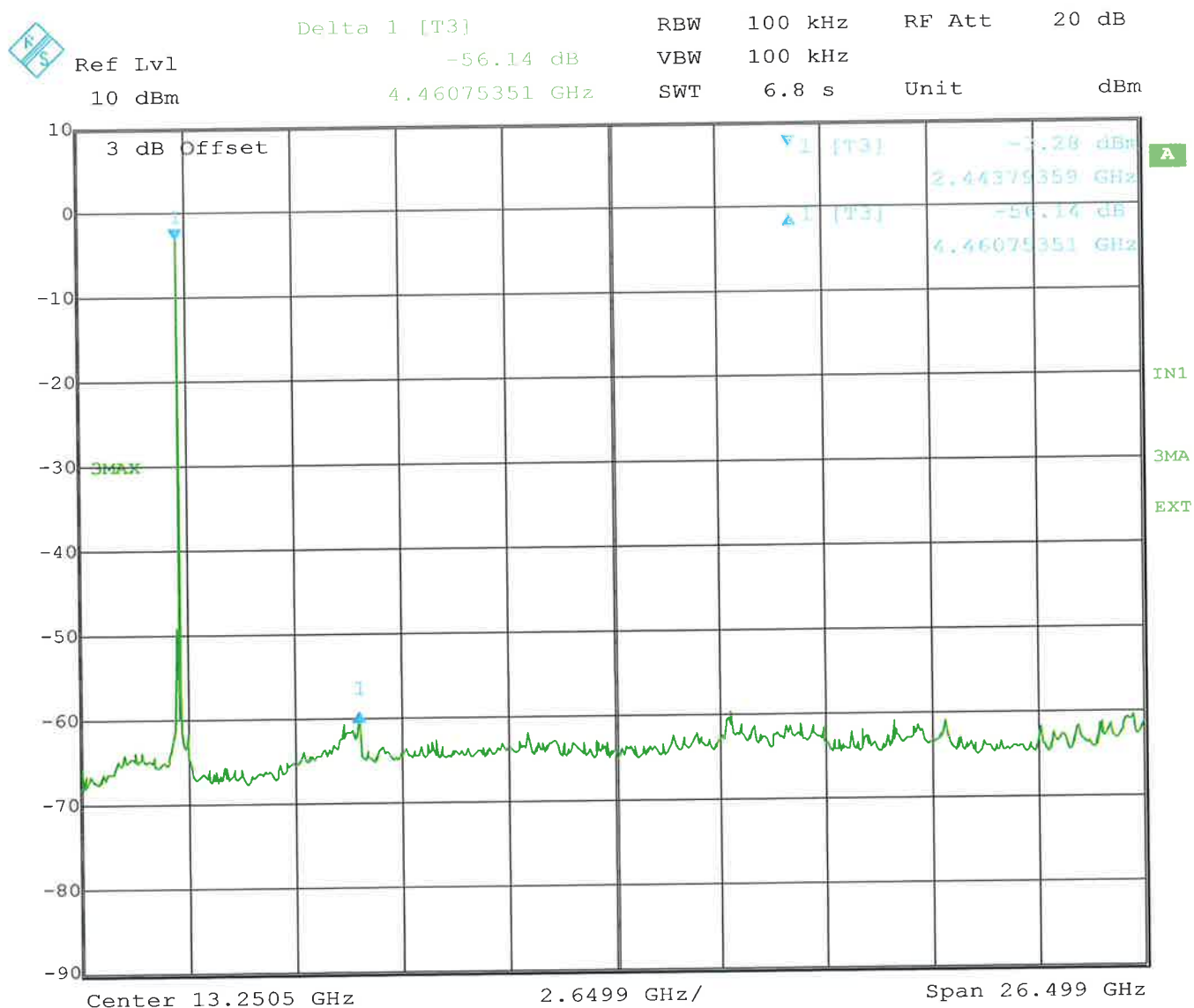
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 11: 2462 MHz – OFDM



Date: 27.FEB.2015 13:35:28

LIMIT

SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.	At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.
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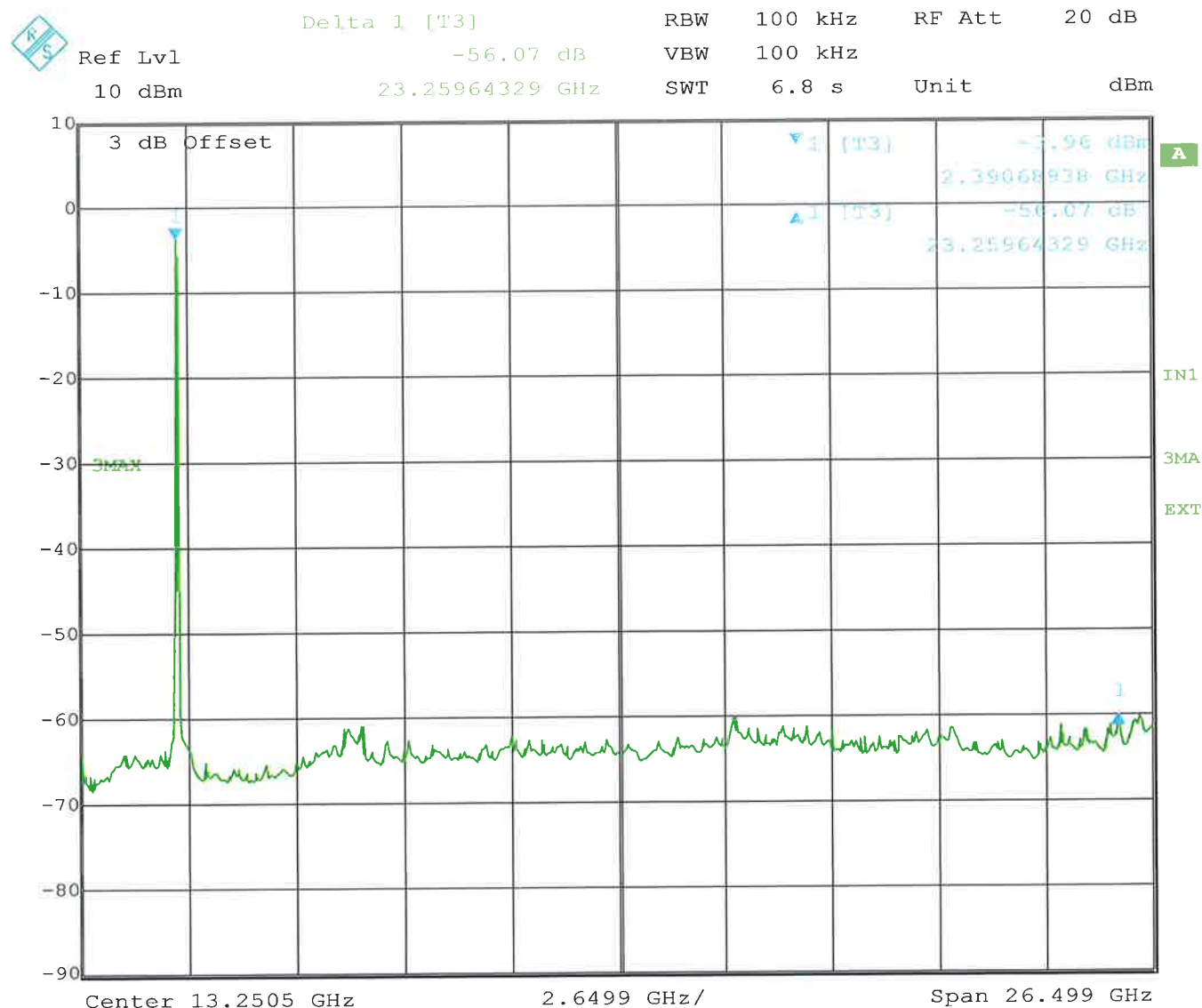
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 1 + 5: 2422 MHz



Date: 27.FEB.2015 13:38:47

LIMIT SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.	At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.
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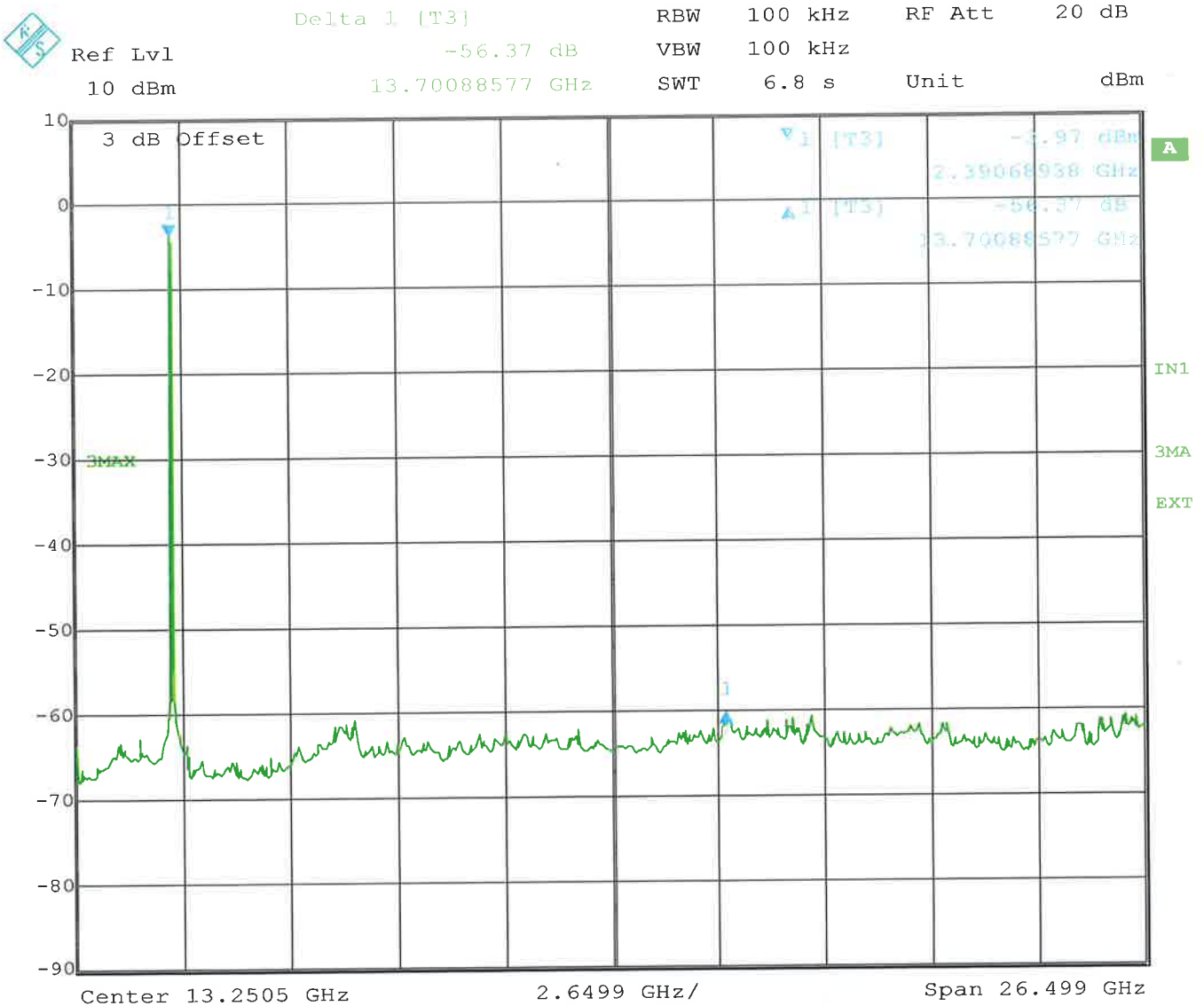
Test Equipment used: NT-207

Out-of-band Emission

**§ 15.247(d)
A8.5**

Conducted measurement

Setup: CH 4 + 8: 2437 MHz



Date: 27.FEB.2015 13:40:49

LIMIT SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.

At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

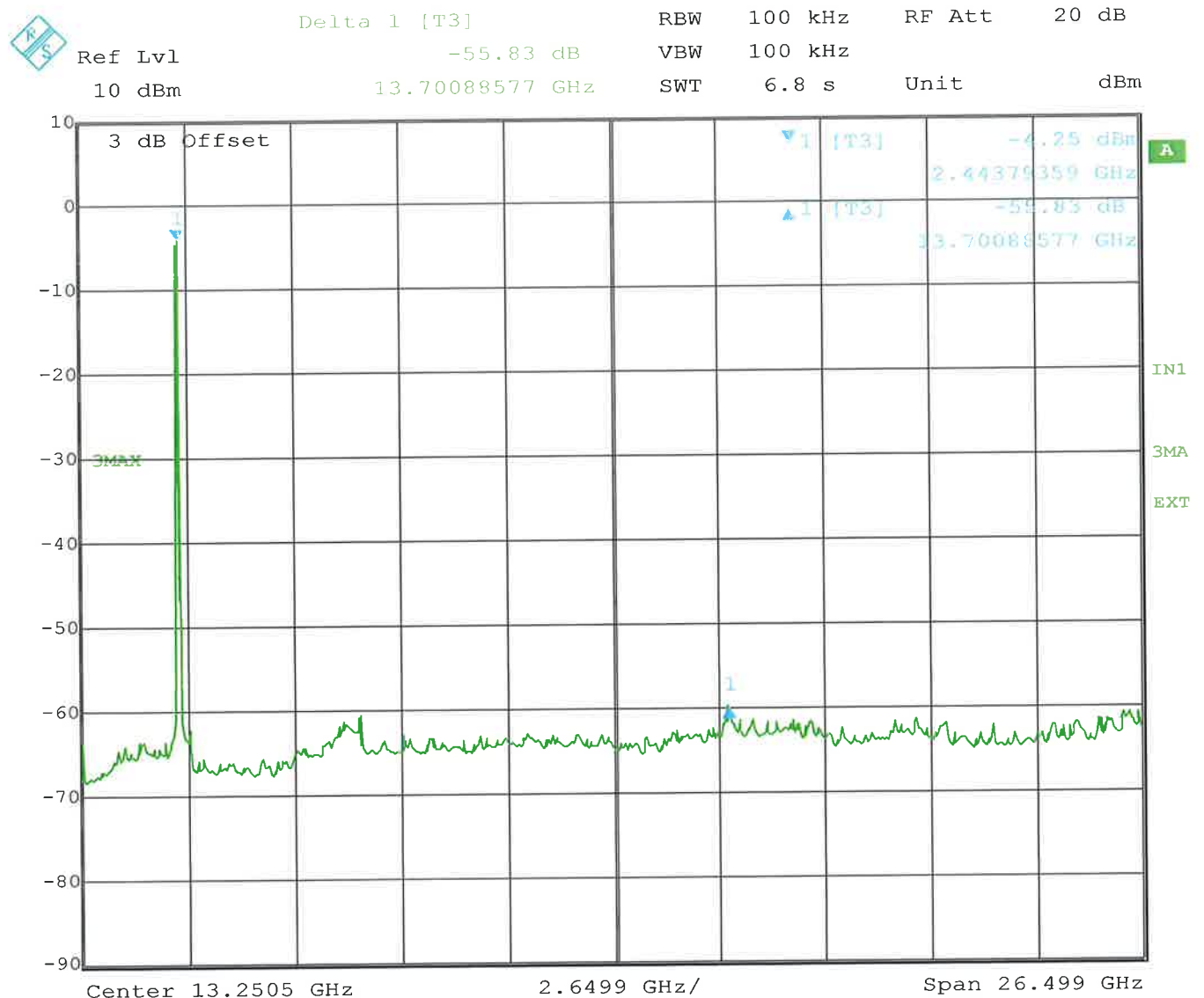
Test Equipment used: NT-207

Out-of-band Emission

§ 15.247(d)
A8.5

Conducted measurement

Setup: CH 7 + 11: 2452 MHz



Date: 27.FEB.2015 13:42:20

LIMIT

SUBCLAUSE 15.247(d) – A8.5

In any 100 kHz bandwidth outside the frequency band in which the radio device is operating.	At least 20dB below the power in the 100 kHz bandwidth within the band that contains the highest level of the desired power.
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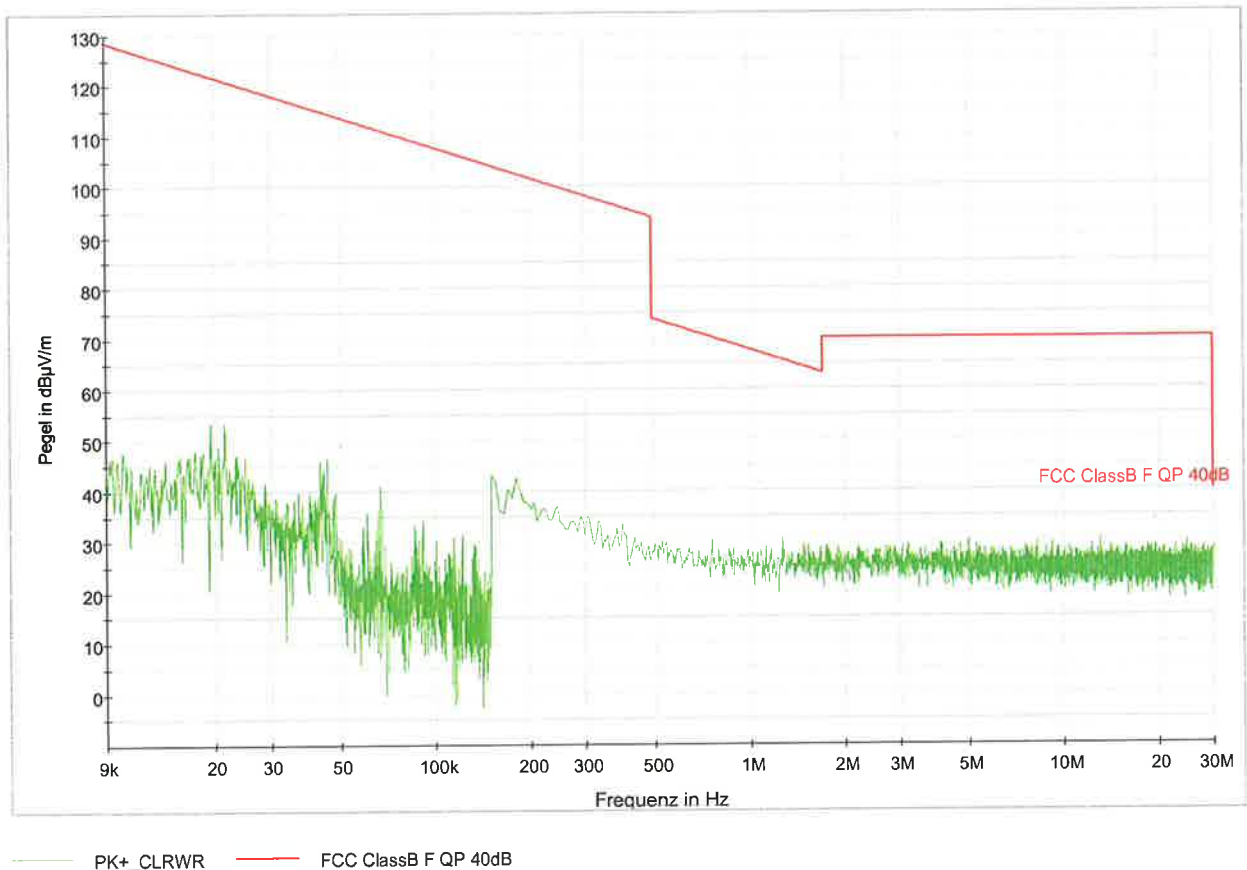
Test Equipment used: NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 1: 2412 MHz – DSSS



Worst case emission: 53,6 dBµV/m @ 19,3 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

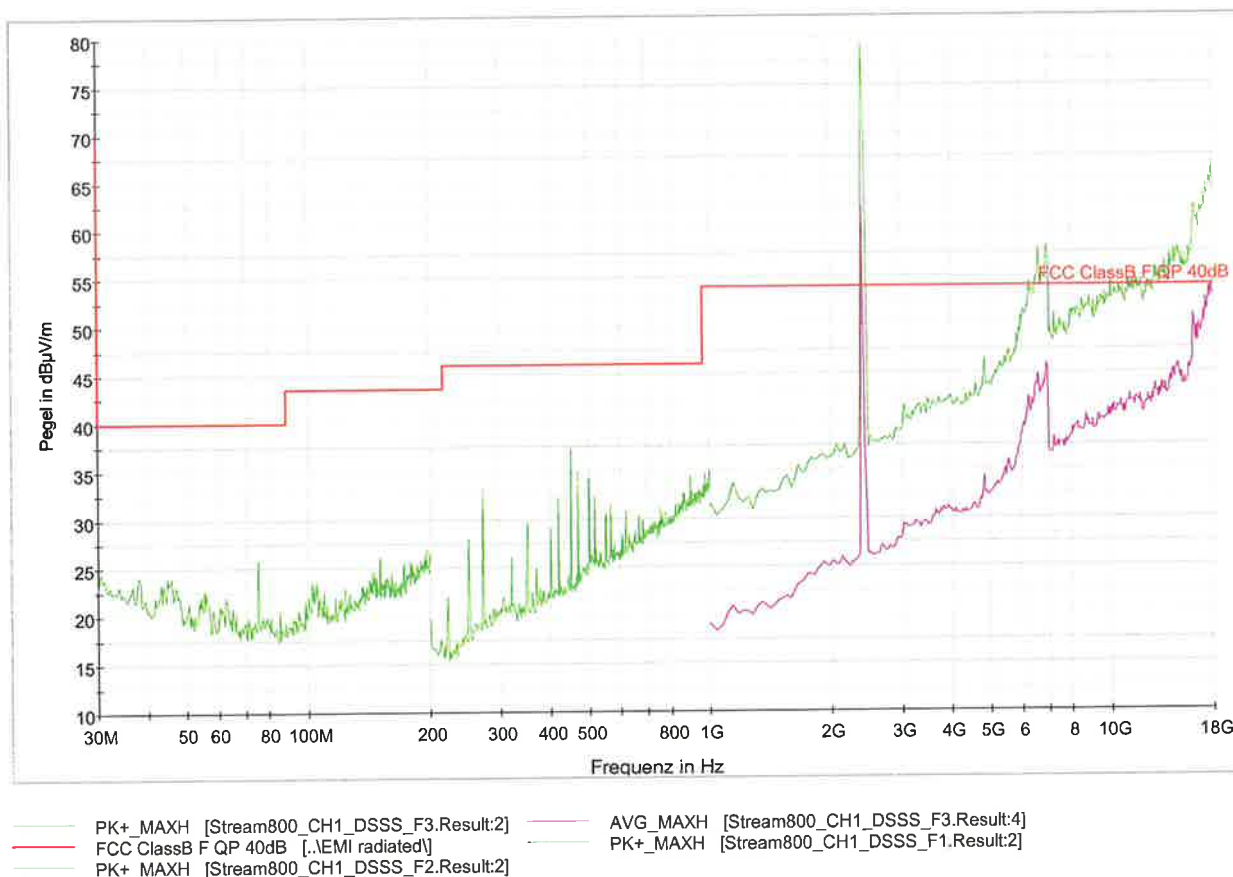
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 1: 2412 MHz – DSSS



Worst case emission: 37,2 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

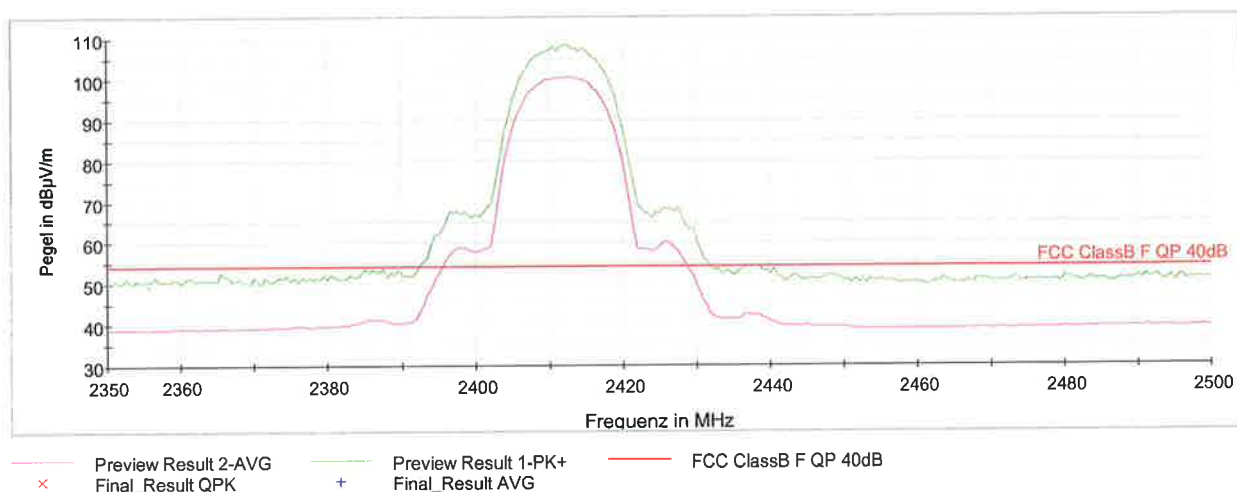
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 1: 2412 MHz – DSSS



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

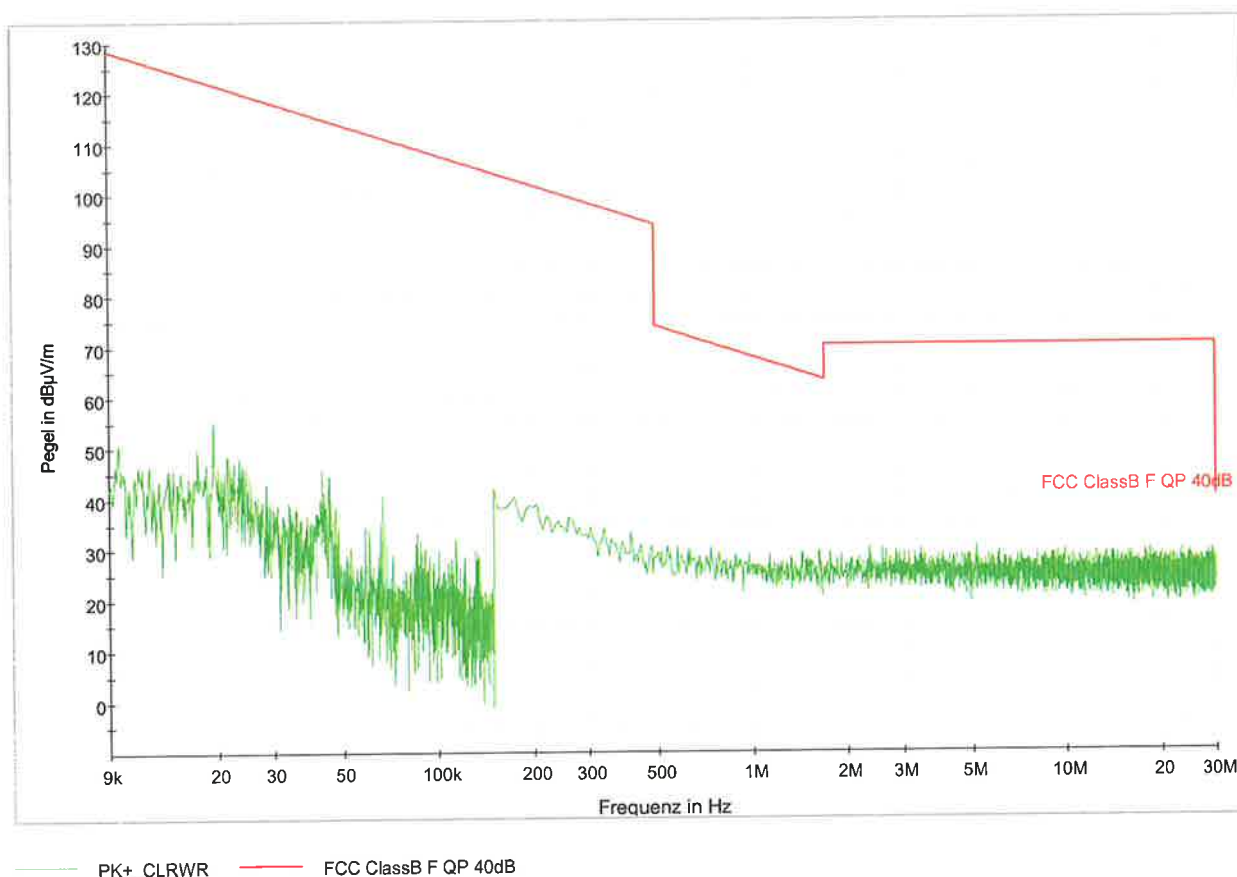
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 1: 2412 MHz – OFDM



Worst case emission: 55,3 dBµV/m @ 19,3 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

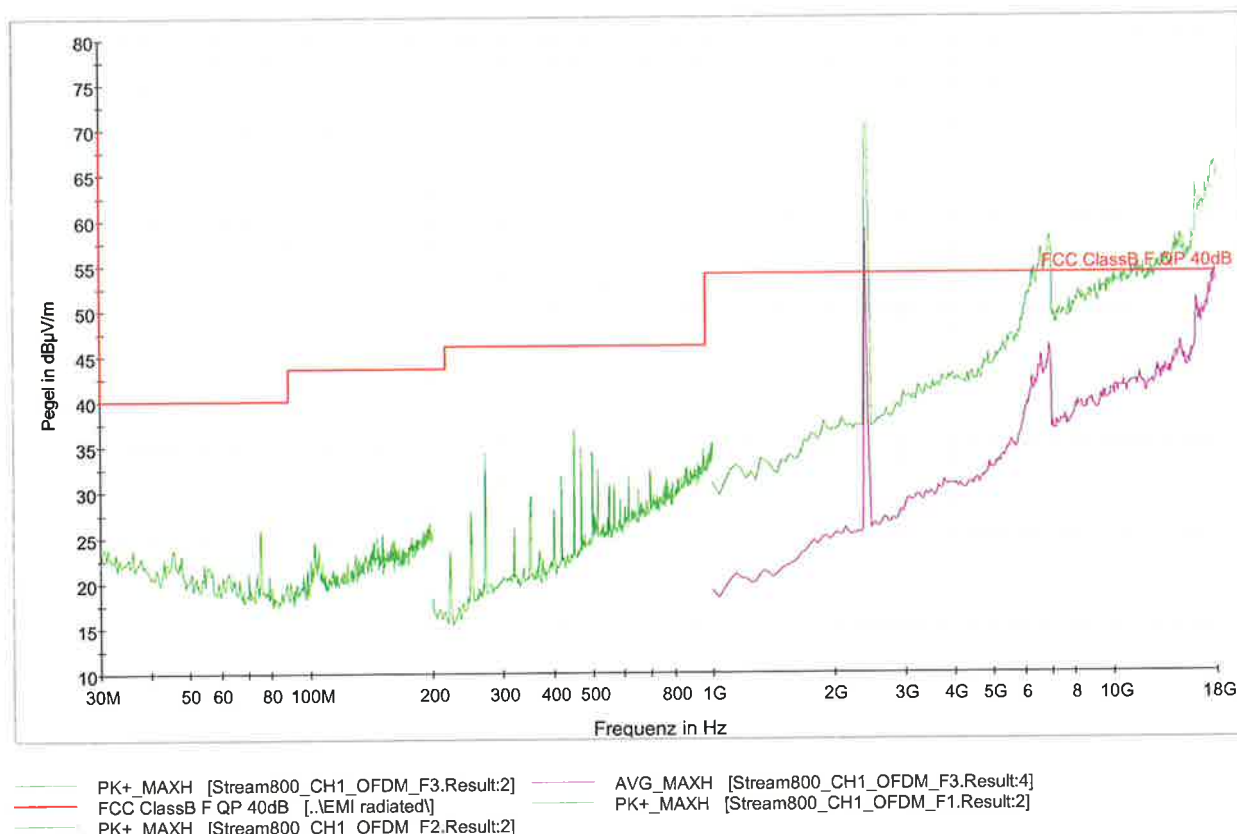
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 1: 2412 MHz – OFDM



Worst case emission: 36,7 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

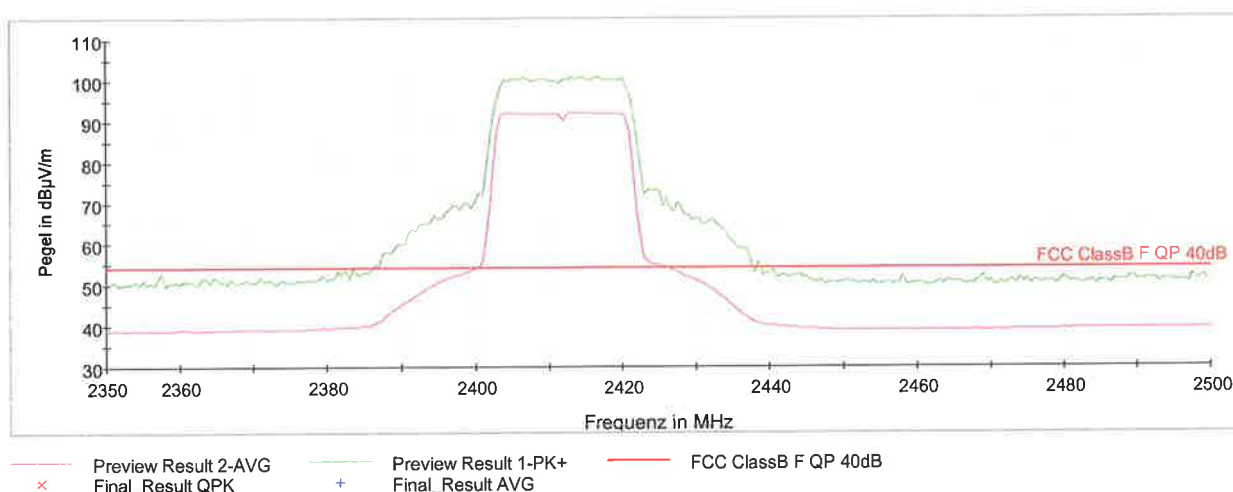
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 1: 2412 MHz – OFDM



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

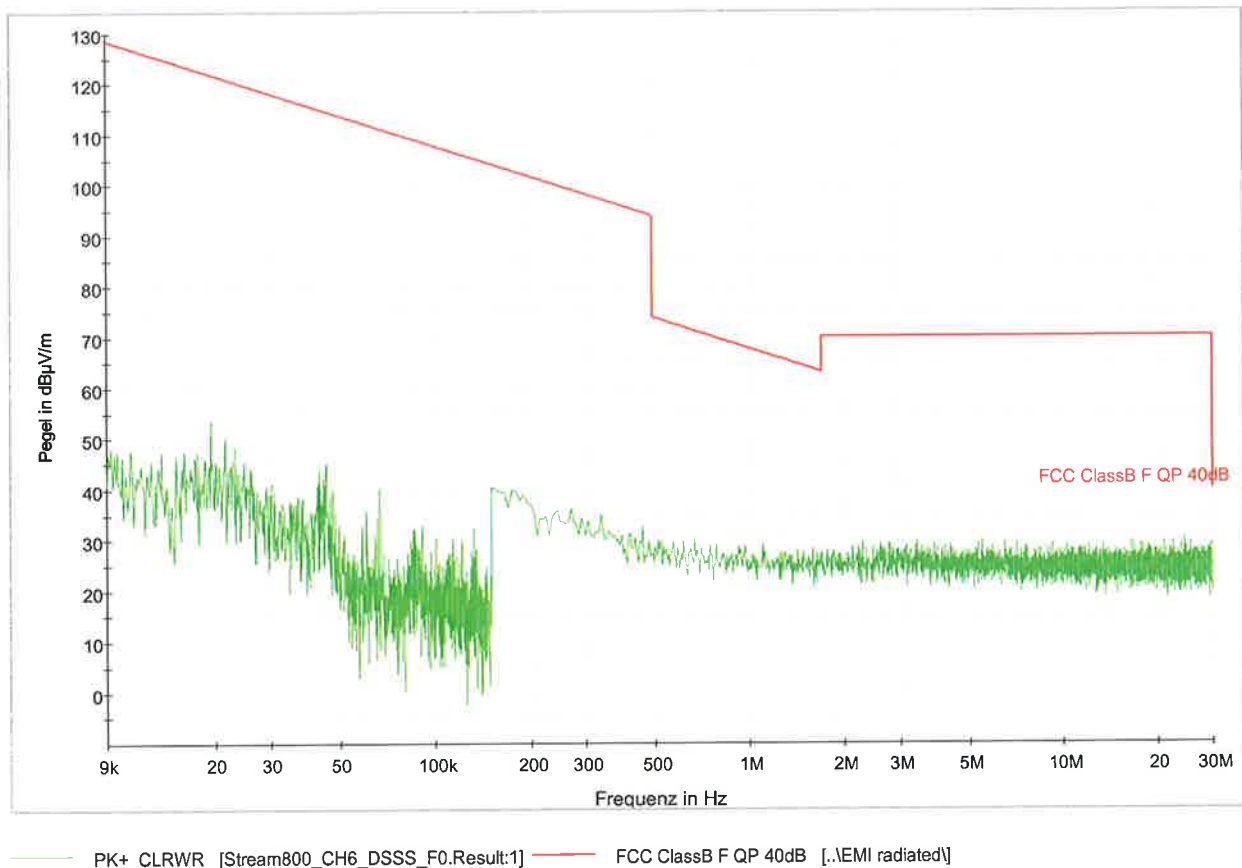
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 6: 2437 MHz – DSSS



Worst case emission: 53,5 dBµV/m @ 19,3 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

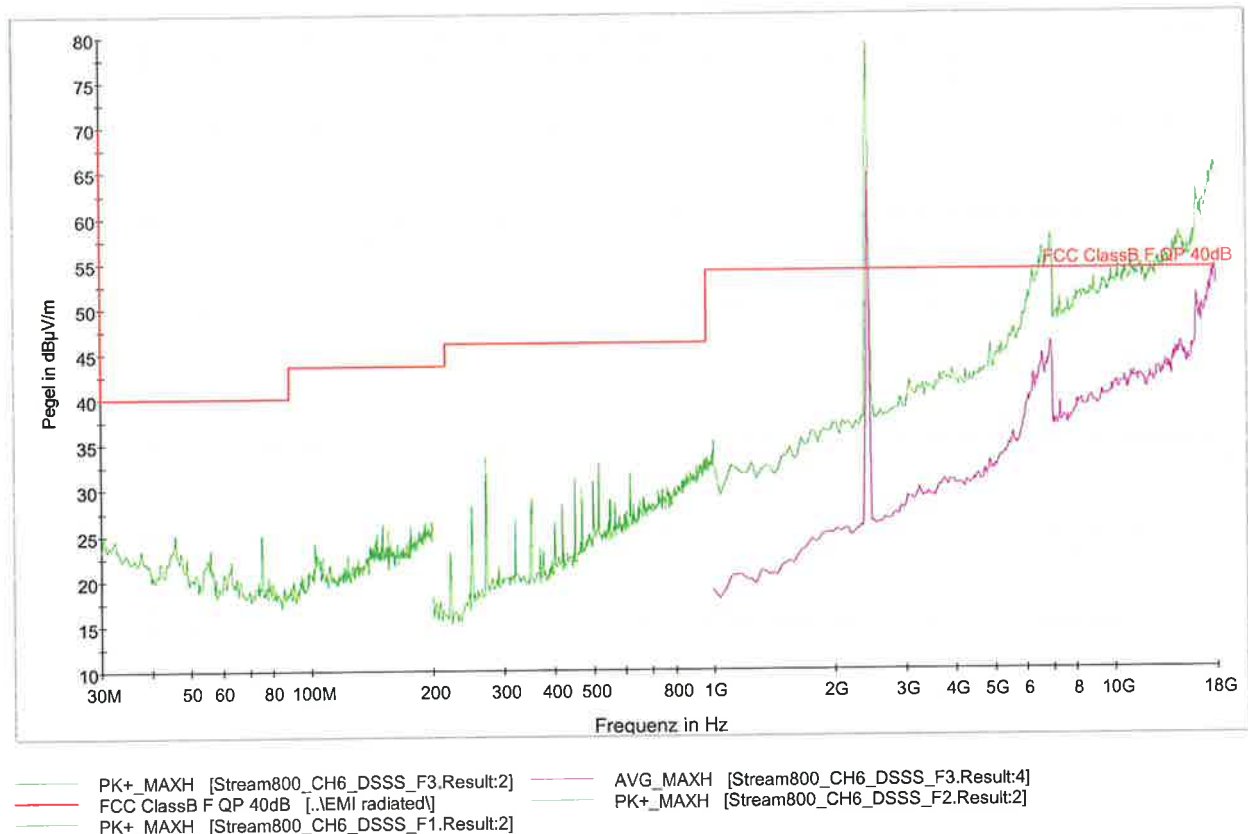
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 6: 2437 MHz – DSSS



Worst case emission: 33,3 dBµV/m @ 270,5 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

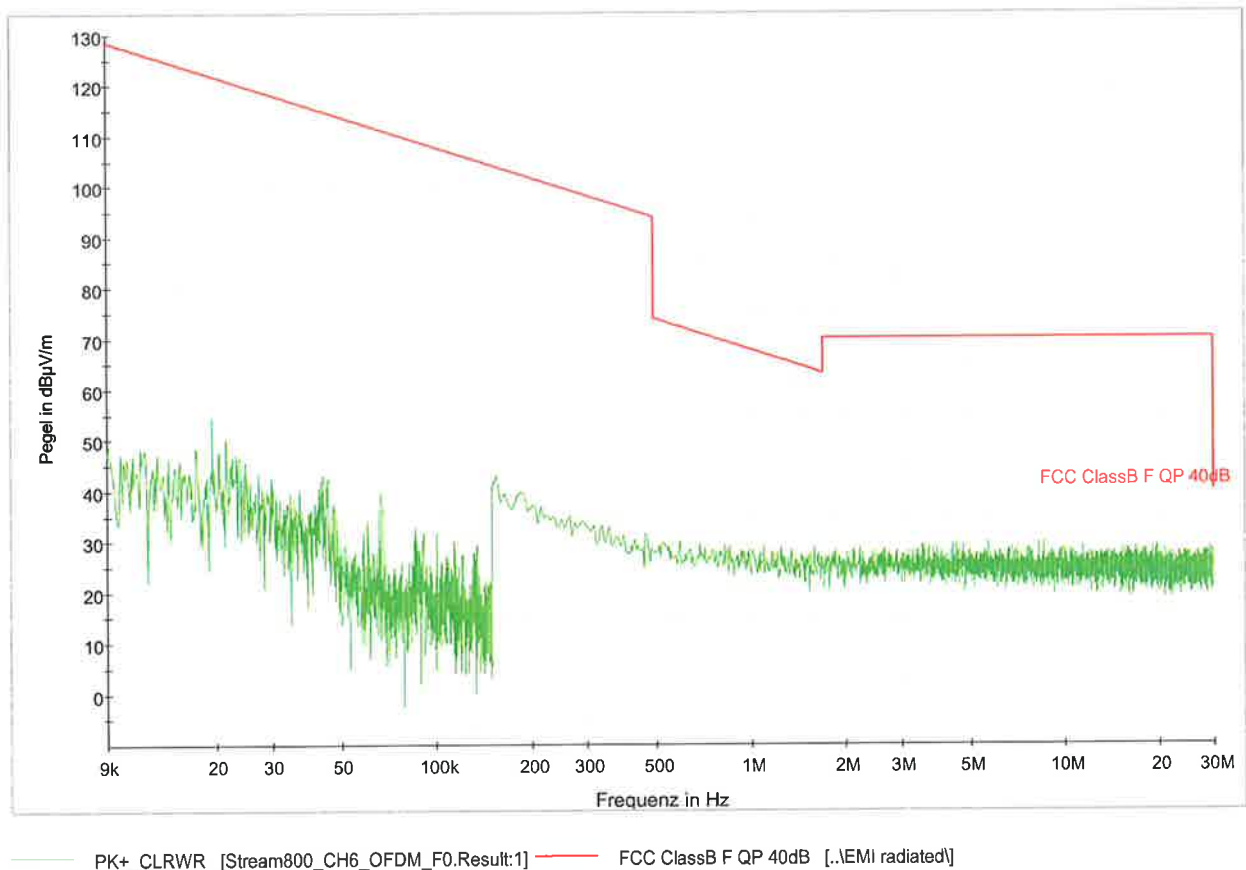
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 6: 2437 MHz – OFDM



Worst case emission: 54,8 dBµV/m @ 19,4 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

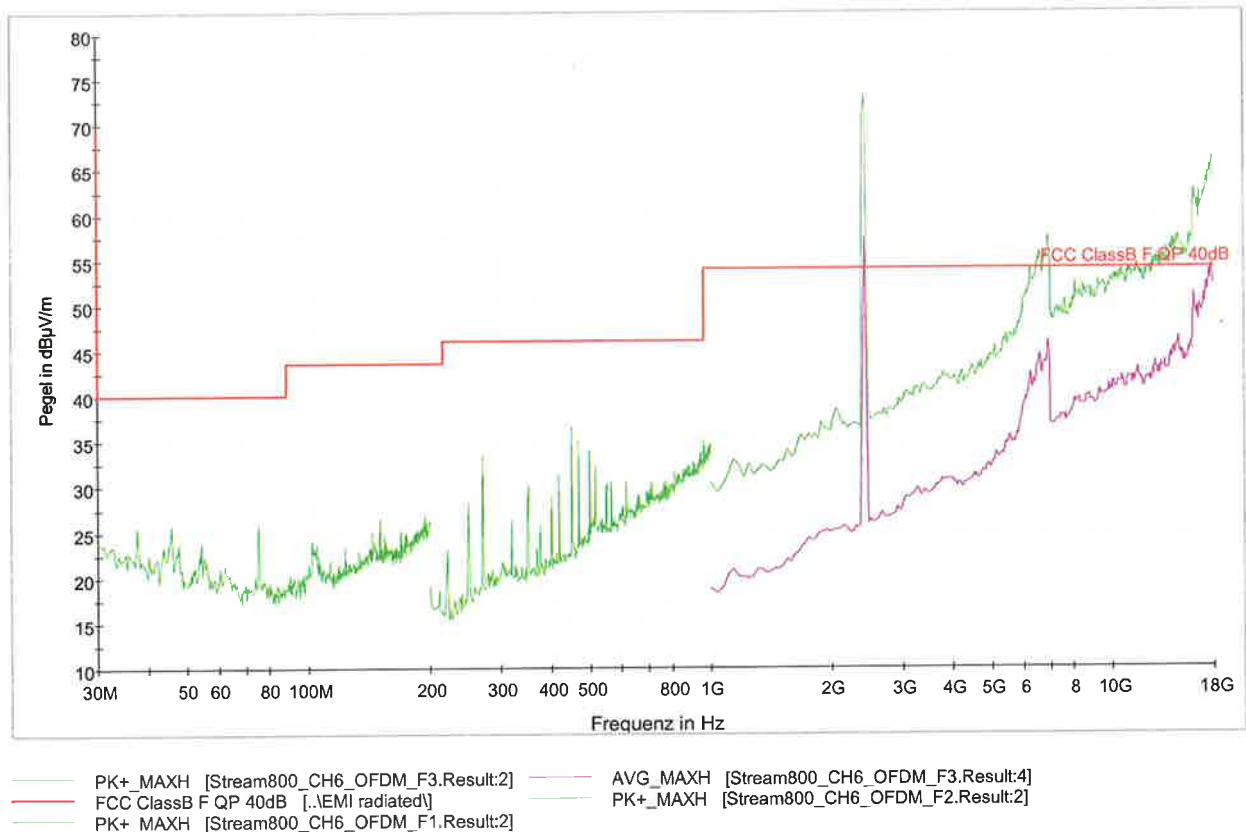
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 6: 2437 MHz – OFDM



Worst case emission: 36,6 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

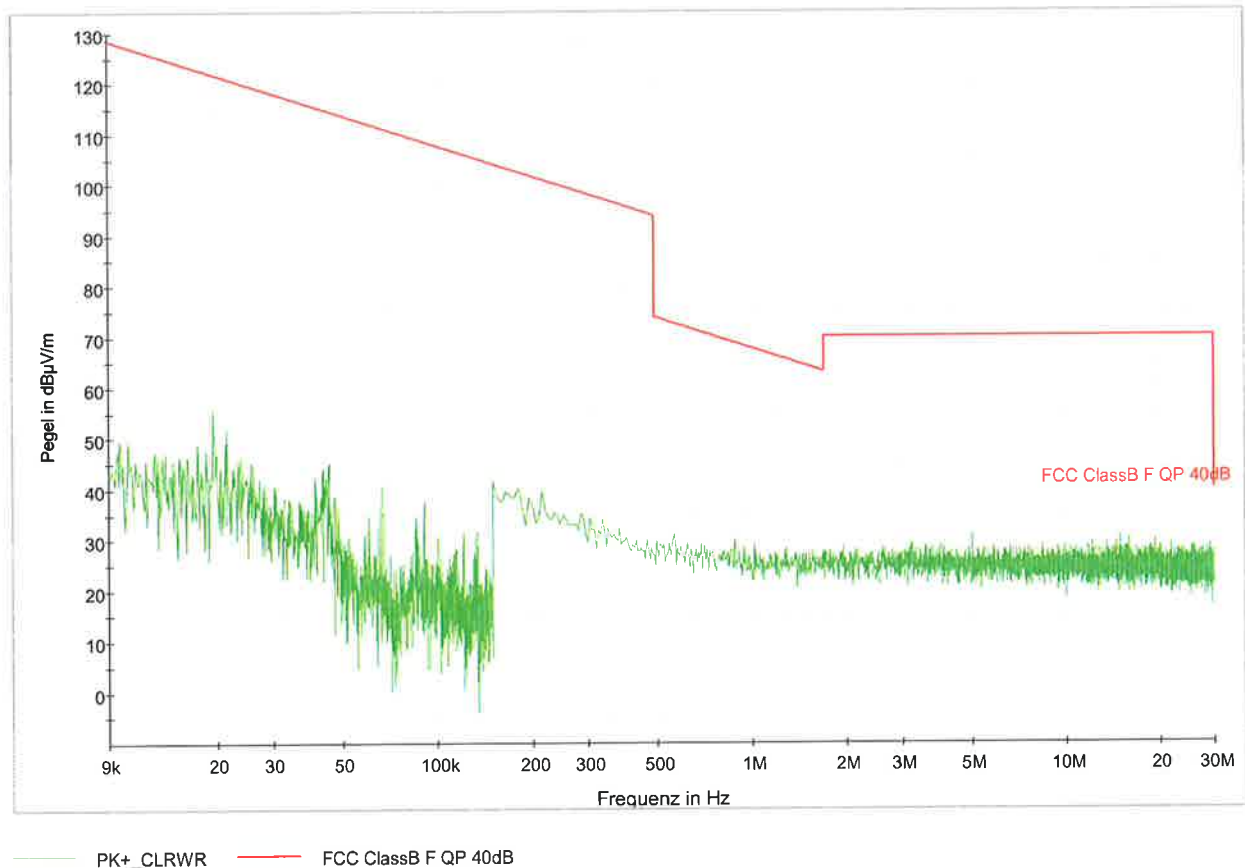
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 11: 2462 MHz – DSSS



Worst case emission: 55,6 dBµV/m @ 19,4 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

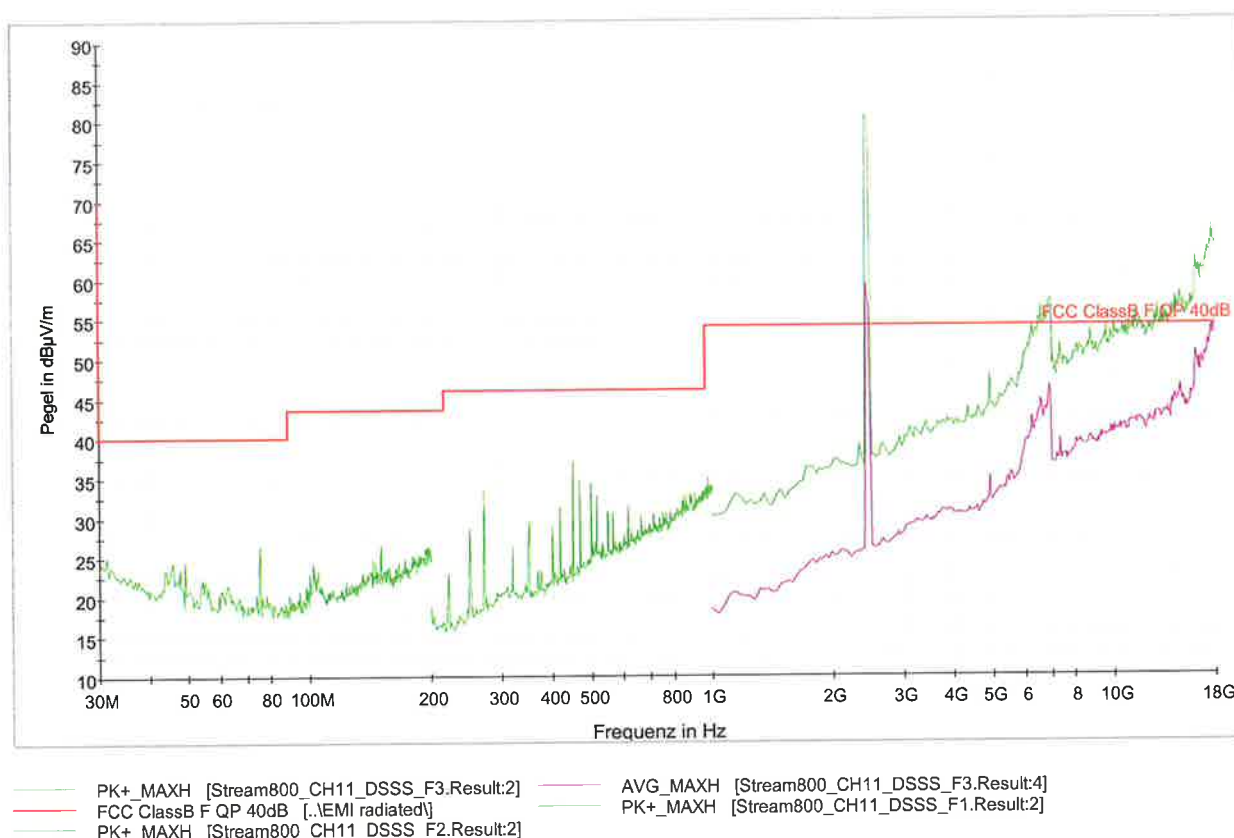
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 11: 2462 MHz – DSSS



Worst case emission: 37,1 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

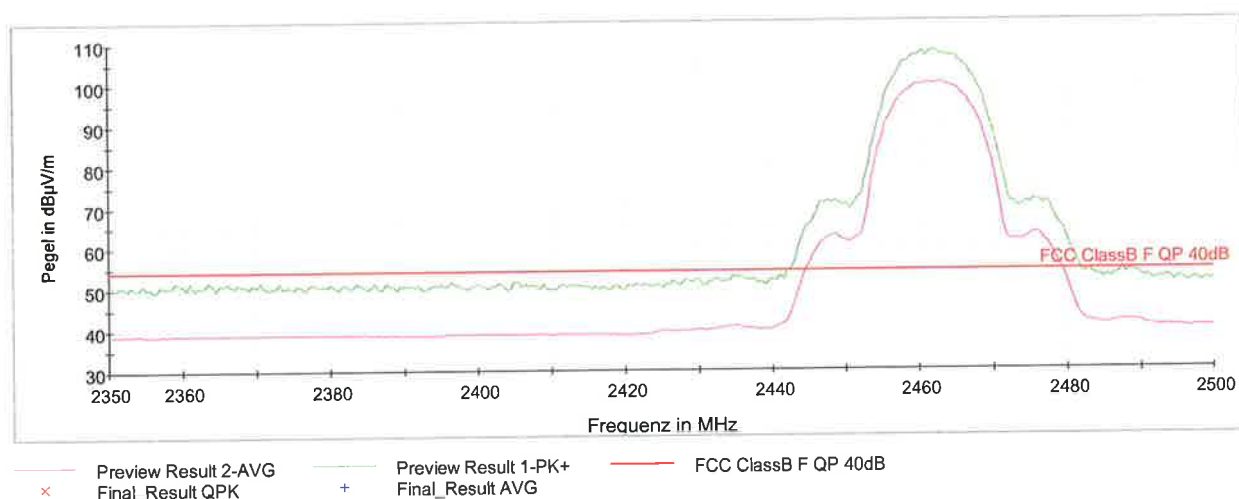
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 11: 2462 MHz – DSSS



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

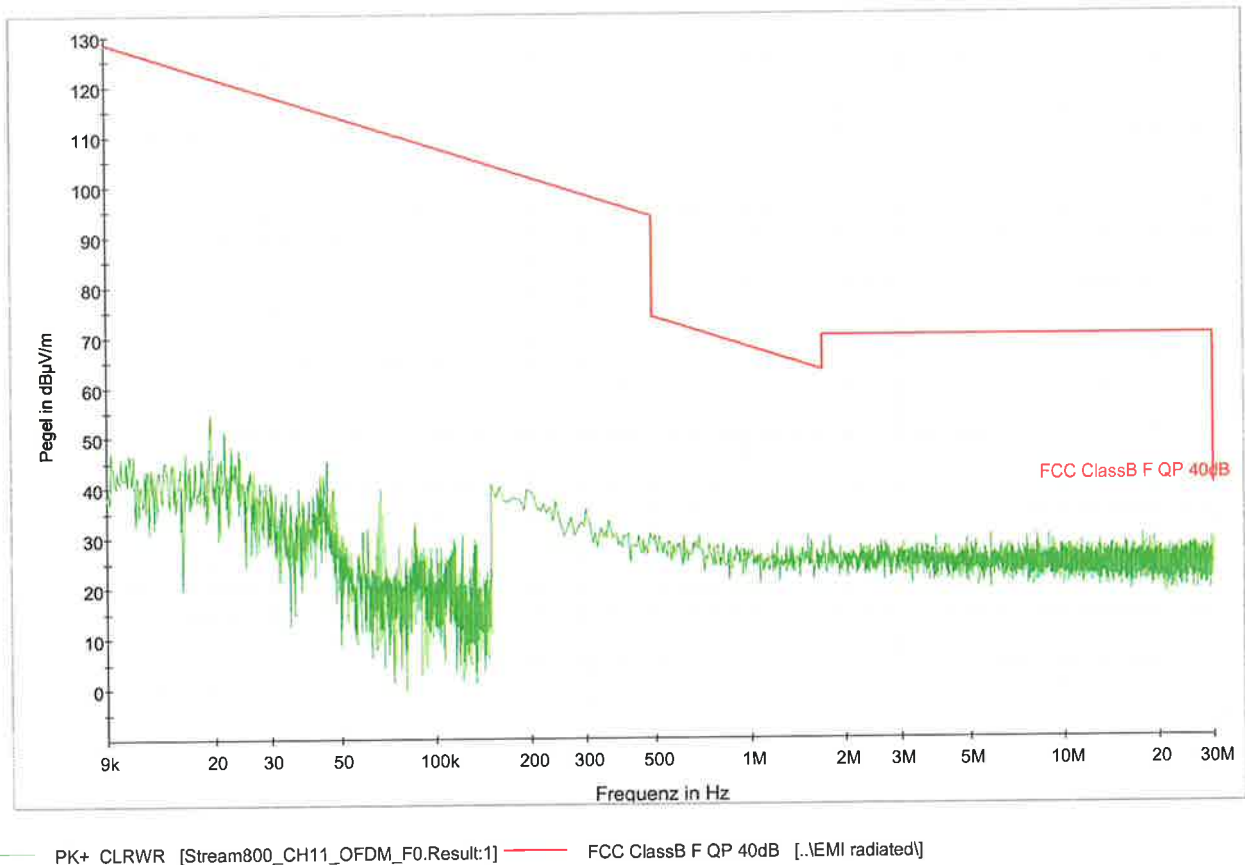
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 11: 2462 MHz – OFDM



Worst case emission: 54,5 dBµV/m @ 19,3 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

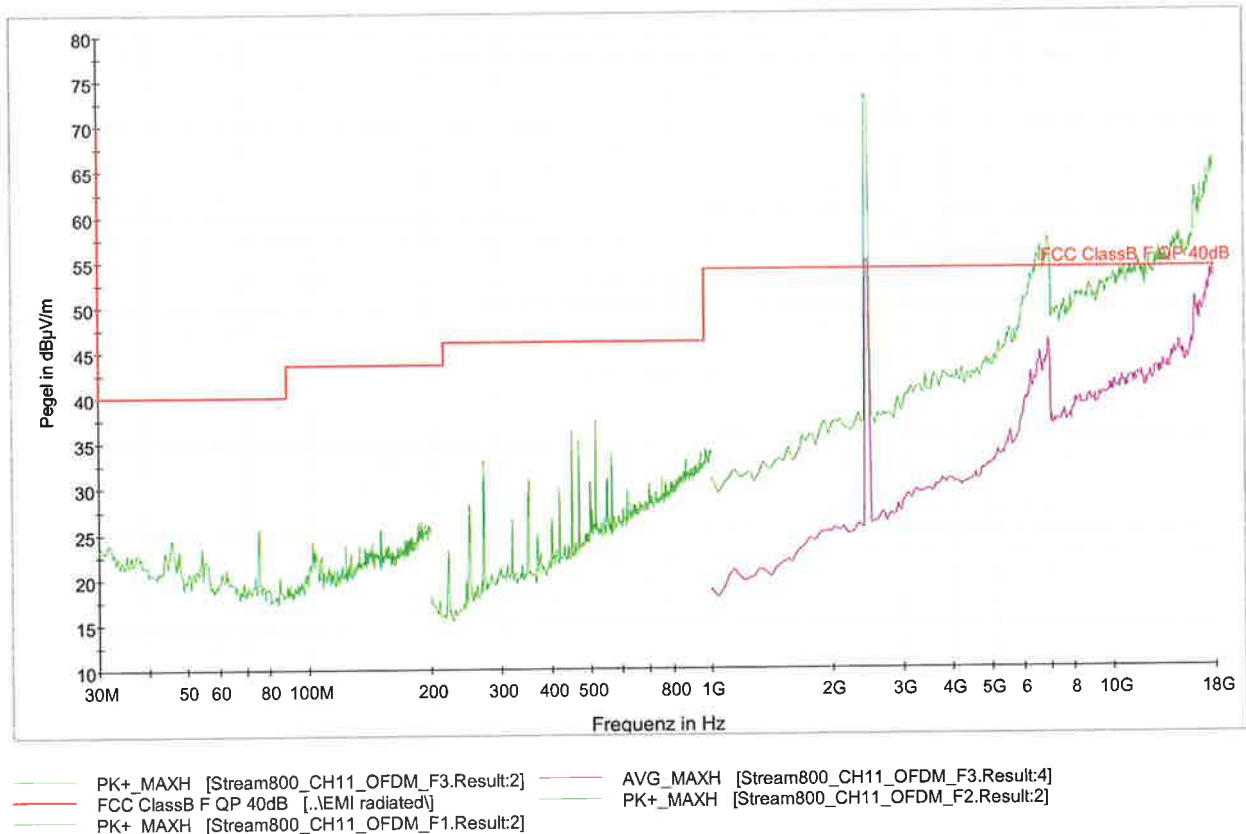
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 11: 2462 MHz – OFDM



Worst case emission: 37,4 dBµV/m @ 515,8 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

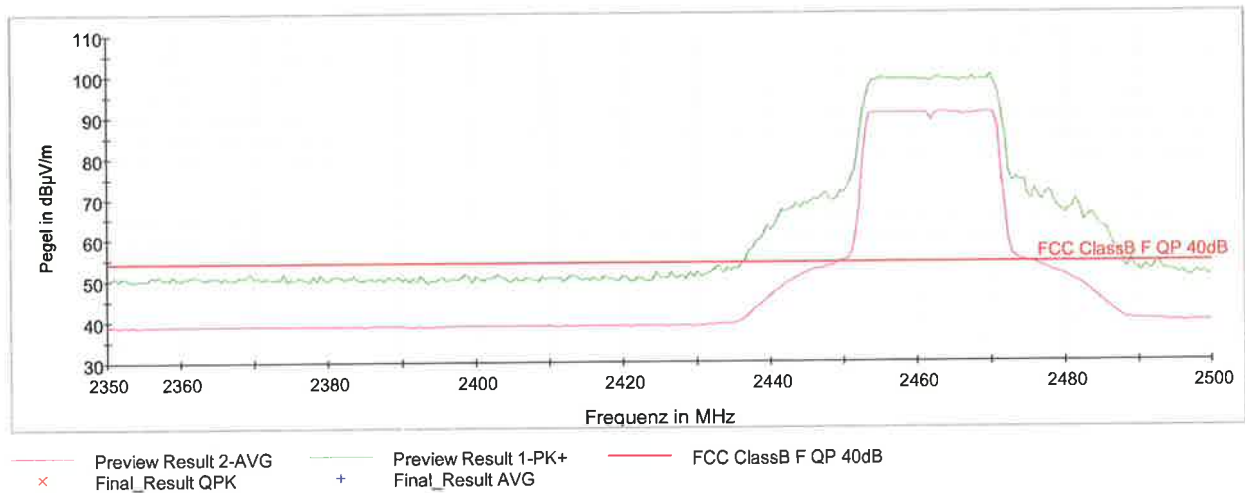
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 11: 2462 MHz – OFDM



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

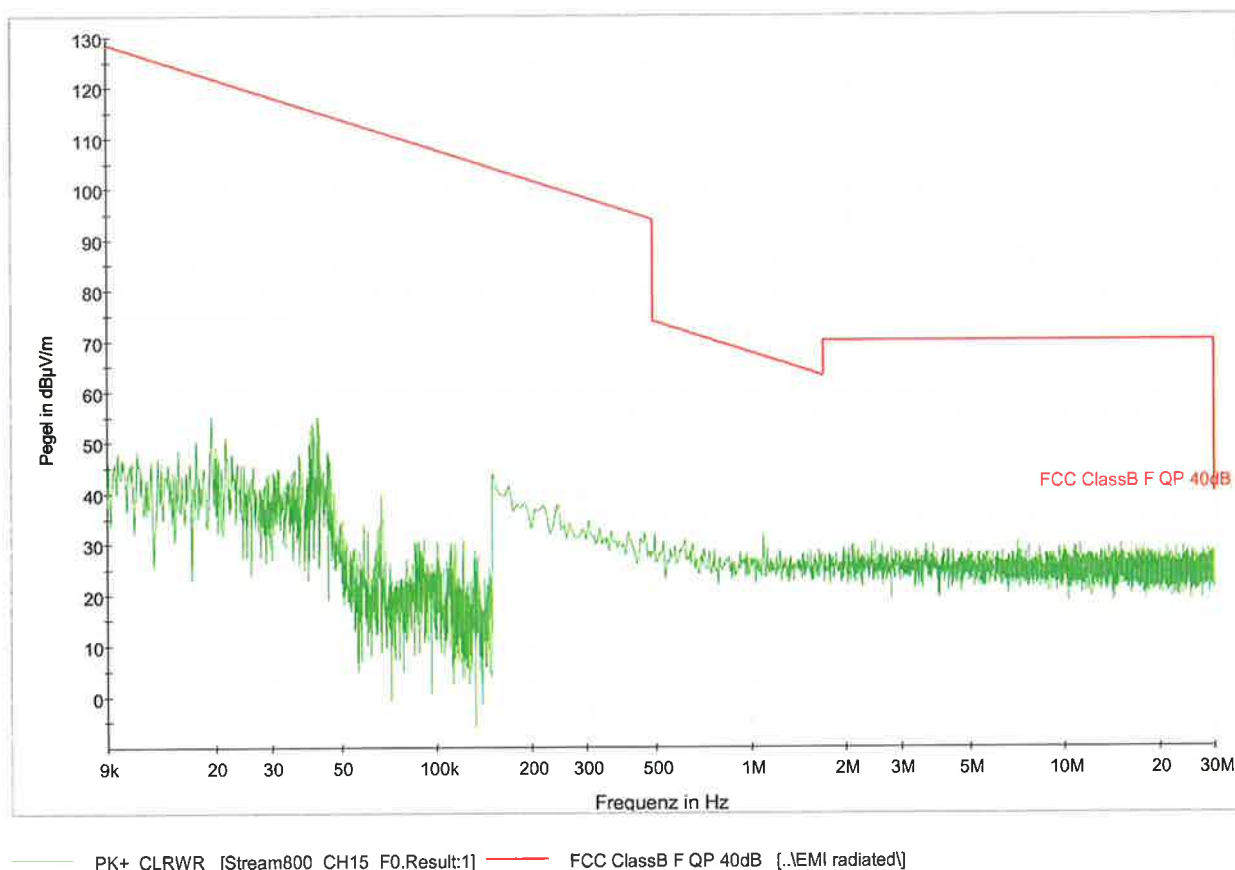
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 1 + 5: 2422 MHz



Worst case emission: 54,9 dBµV/m @ 19,4 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

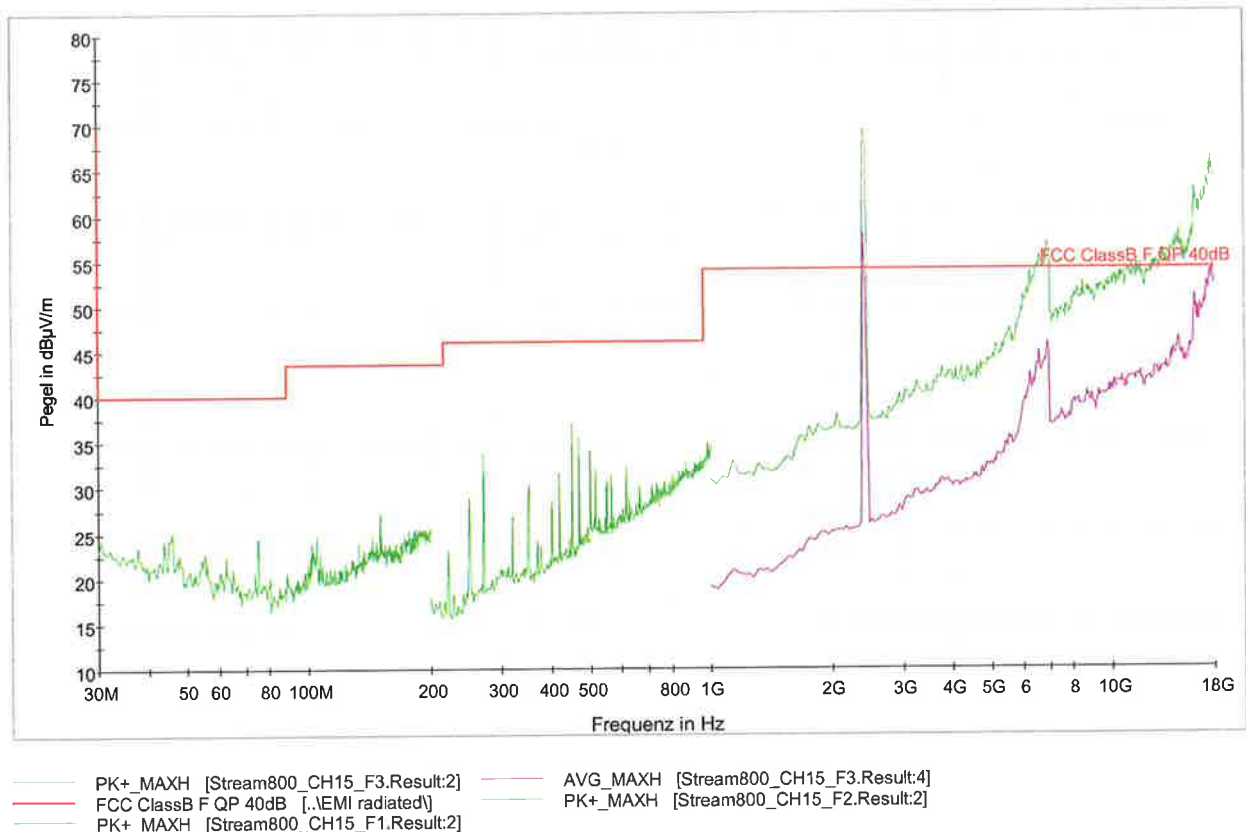
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 1 + 5: 2422 MHz



Worst case emission: 36,9 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

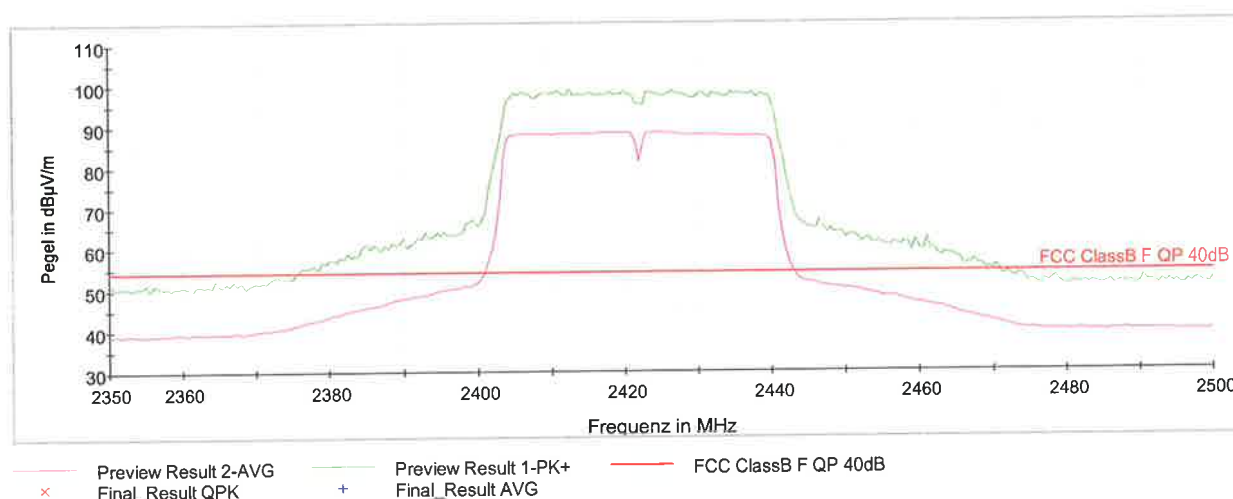
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 1 + 5: 2422 MHz



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

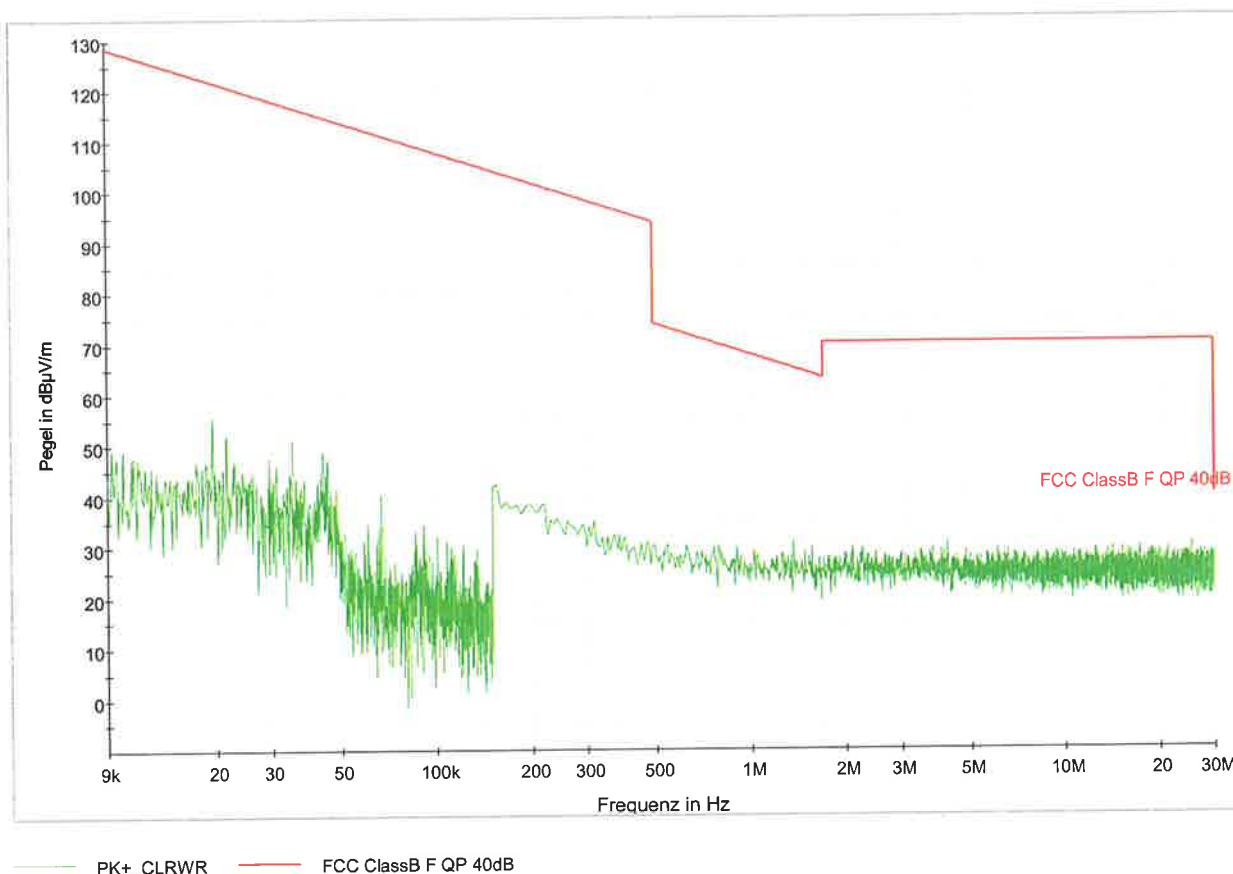
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 4 + 8: 2437 MHz



Worst case emission: 55,6 dBµV/m @ 19,4 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

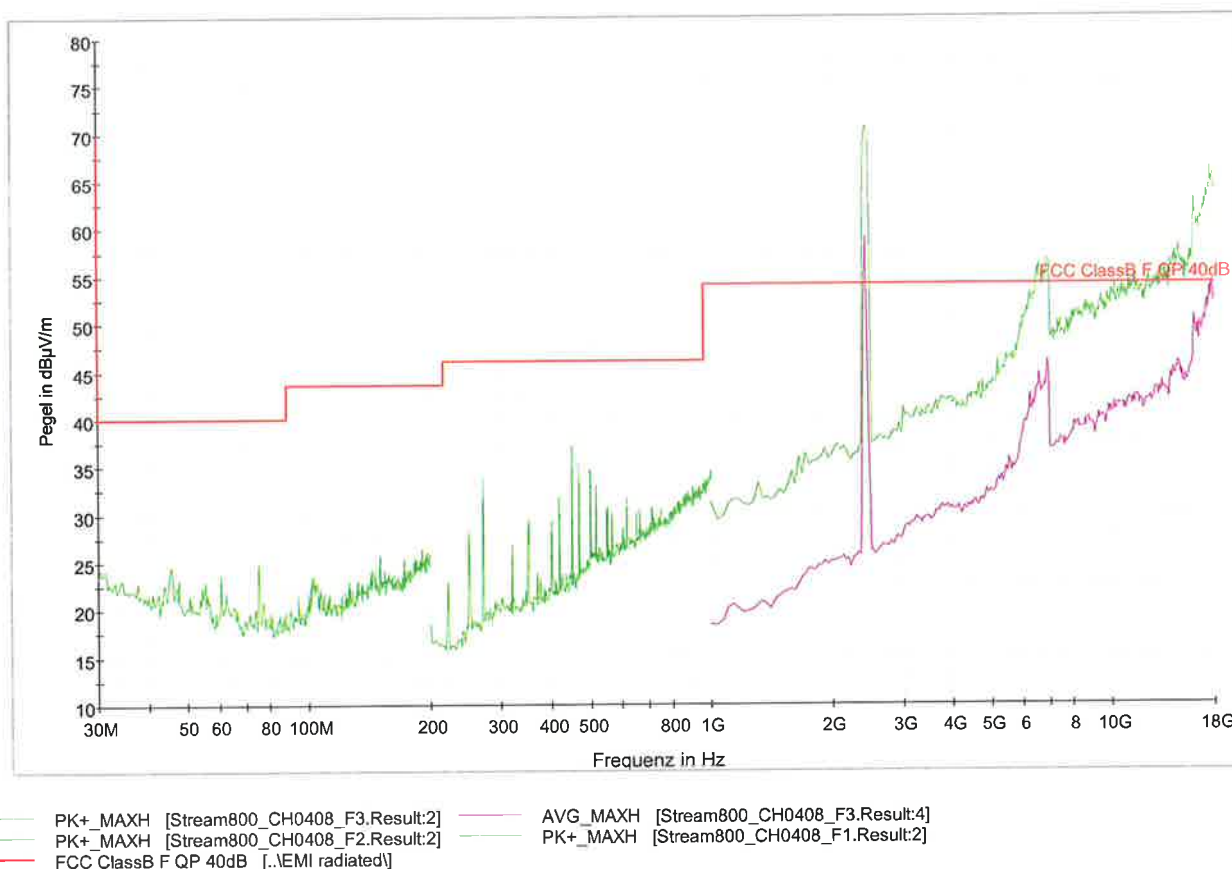
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 4 + 8: 2437 MHz



Worst case emission: 37,1 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurements above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F (kHz)	300
0.490-1.705	24000/F (kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

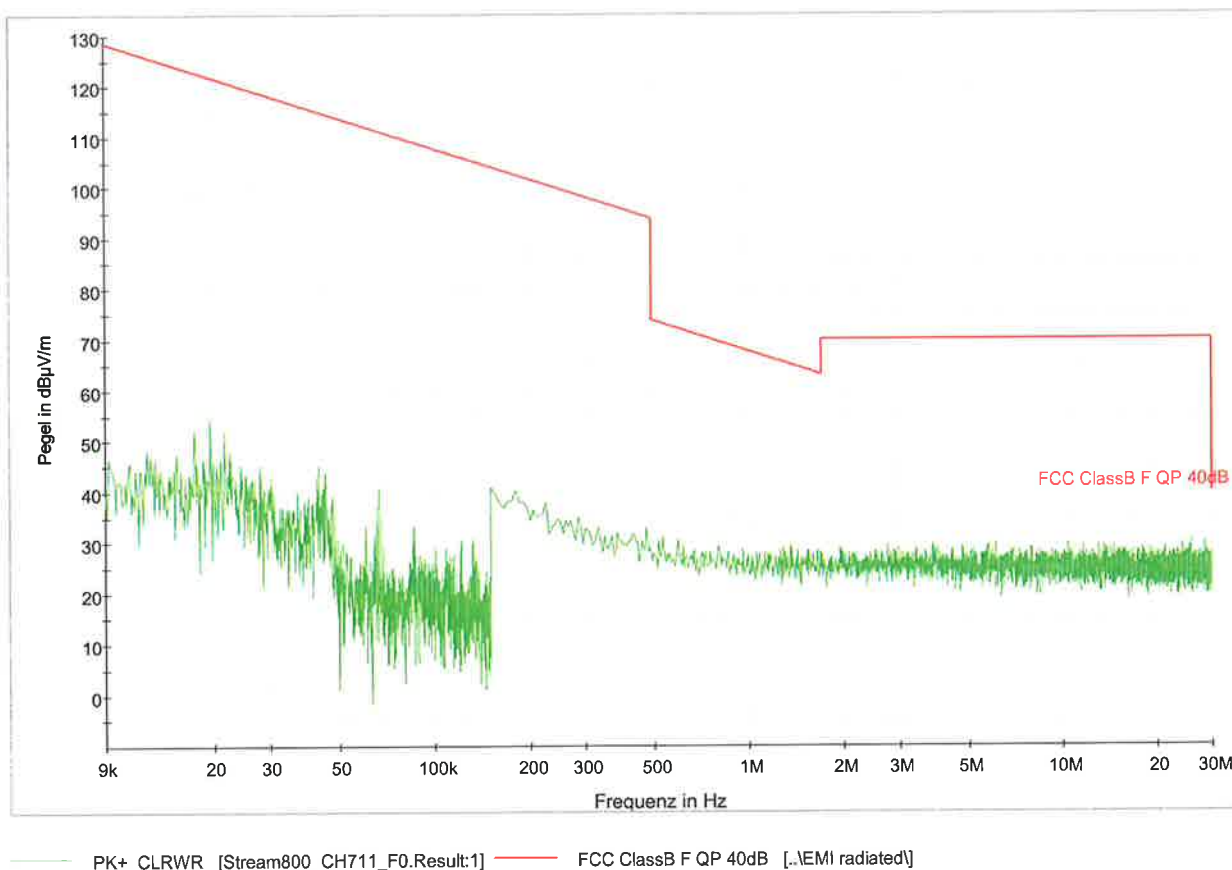
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector:

Setup: CH 7 + 11: 2452 MHz



Worst case emission: 54,4 dBµV/m @ 19,4 kHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

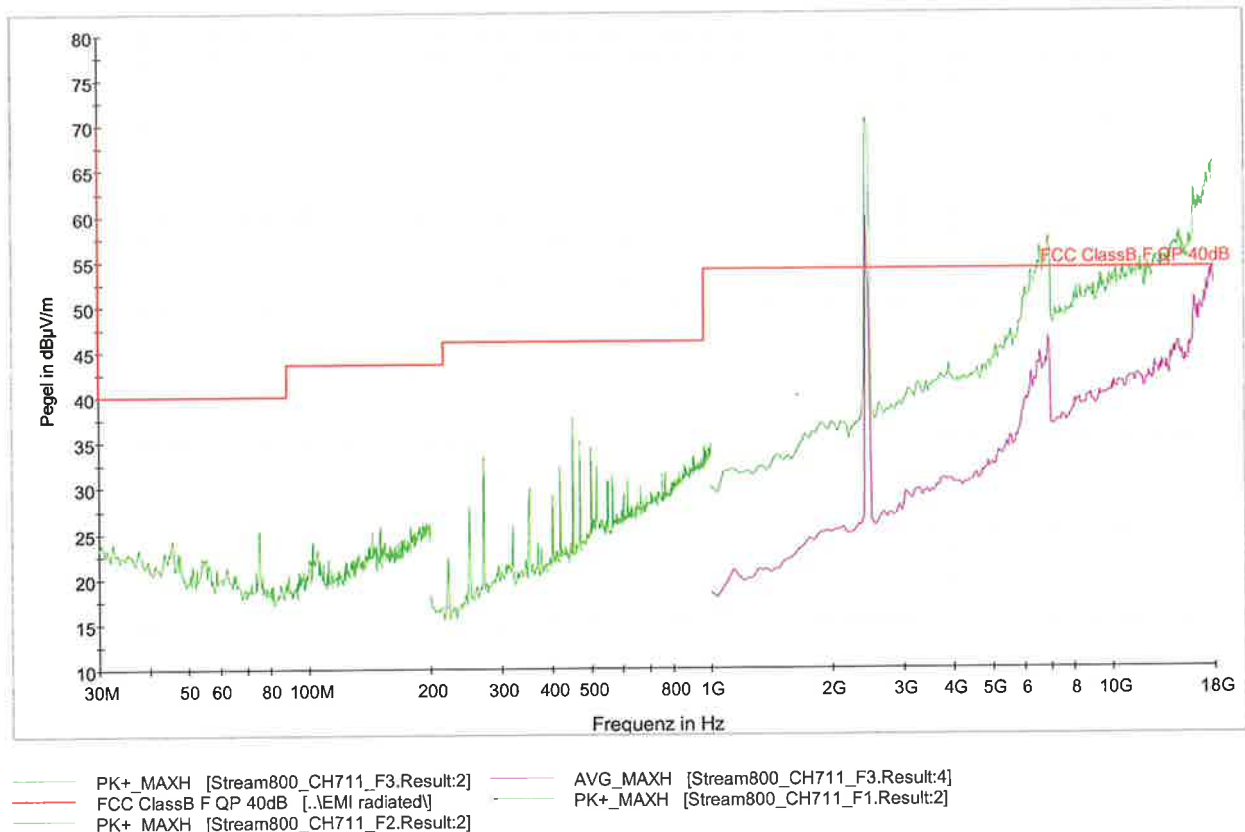
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-122; NT-207

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 7 + 11: 2452 MHz



Worst case emission: 37,7 dBµV/m @ 450,1 MHz

Remark: As the highest spurious conducted emission was measured as to be -55 dB below the fundamental, all radiated measurements (except Band edges) were made with RF connector terminated with 50 ohm load. Although the measurement above ends at 18 GHz, all measurements were performed up to the tenth harmonics of the transmitter frequency.

LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

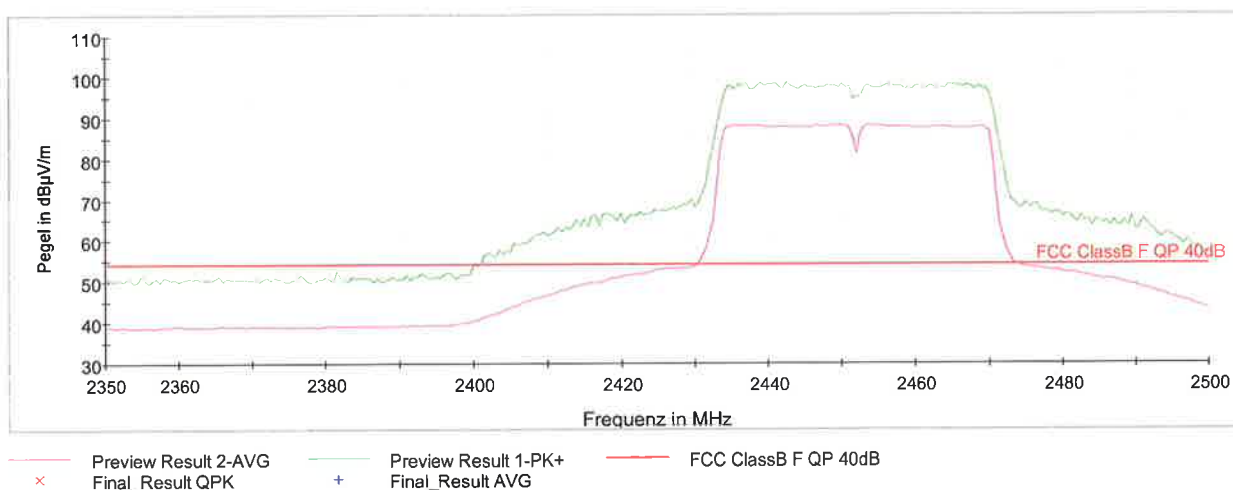
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-126; NT-129; NT-131; NT-139; NT-207; NT-211; NT-337

Emissions in restricted bands

§ 15.209(a)

Measurement with Peak-Detector (green line) and Average detector (magenta line): Band Edge requirement

Setup: CH 7 + 11: 2452 MHz



LIMIT

SUBCLAUSE 15.209(a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

Band edges of the nearest restricted bands: 2390 MHz and 2483,5 MHz.

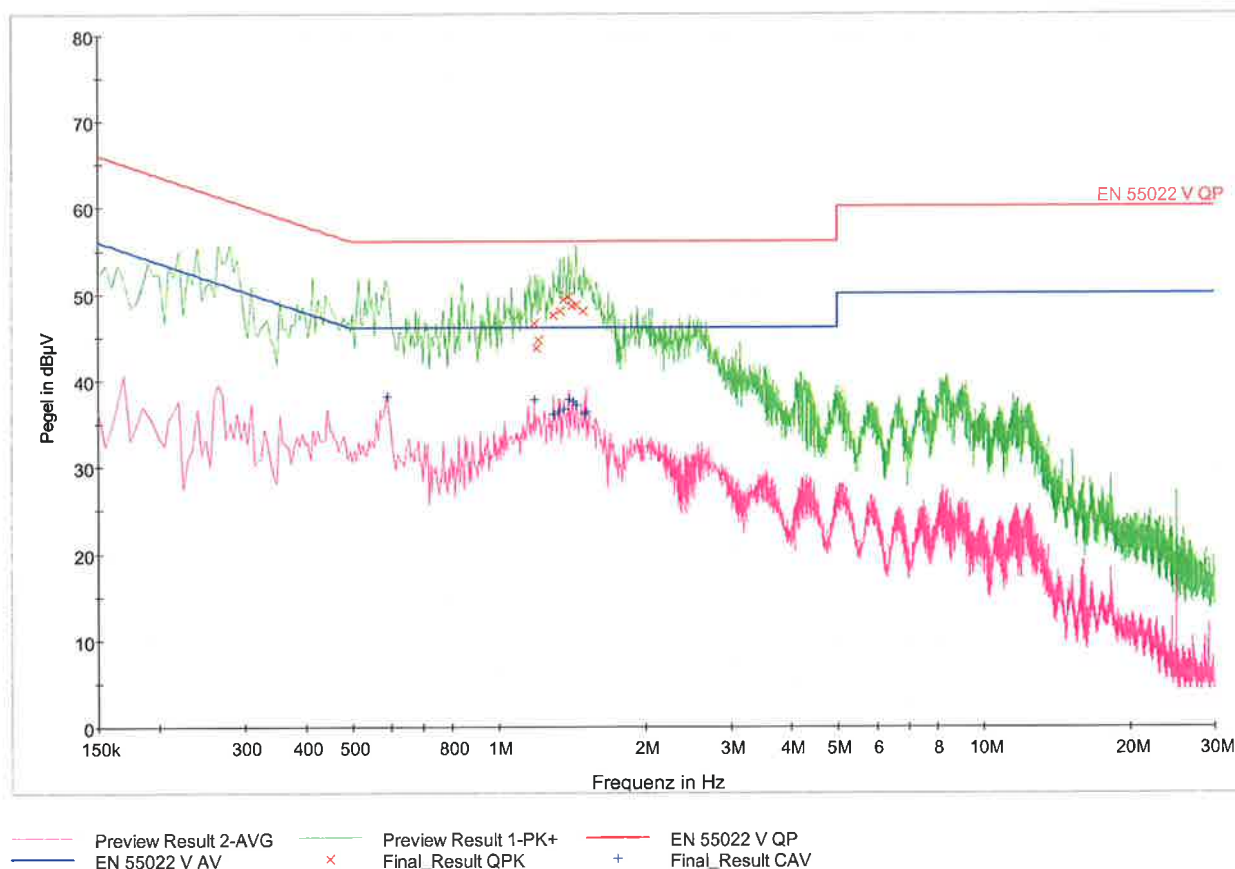
Test Equipment used: NT-100; NT-110; NT-111; NT-112; NT-139; NT-207

Conducted Limits

§ 15.207

Measurement with Peak-Detector (green line) and Average detector (magenta line):

Setup: CH 6: 2437 MHz



LIMIT

SUBCLAUSE 15.207(a)

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

Test Equipment used: NT-300; NT-554; NT-441; NT-207

Maximum permissible Exposure

§ 15.247(i)

This kind of radio equipment is categorically excluded from routine environmental evaluation.

Appendix 1

Test equipment used

☐	Anechoic Chamber with 3m measurement distance	NT-100	☐	Spectrumanalyzer – FSP7 9 kHz – 7 GHz	NT-200
☐	Stripline according to ISO 11452-5	NT-108	☐	ESCI - Test receiver 9 kHz - 7 GHz	NT-203/1
☐	MA4000 - Antenna mast 1 - 4 m height	NT-110/1	☐	ESI26 – Test receiver 20 Hz – 26,5 GHz	NT-207
☐	DS - Turntable 0 - 400 ° Azimuth	NT-111/1	☐	Digital Radio Tester CTS55	NT-208
☐	CO3000 Controller Mast+Turntable	NT-112/1	☐	Noise-gen., ITU-R 559-2 20 Hz – 20 kHz	NT-209
☐	HUF-Z3 - Log. Per. Antenna 200 - 1000 MHz	NT-121	☐	CMTA - Radiocommunication analyzer ; 0,1 - 1000 MHz	NT-210
☐	HFH-Z2 - Loop Antenna 9 kHz - 30 MHz	NT-122	☐	3271 - Spectrum analyzer 100 Hz - 26,5 GHz	NT-211
☐	HFH-Z6 - Rod Antenna 9 kHz - 30 MHz	NT-123	☐	Digital Radio Tester Aeroflex 3920	NT-212/1
☐	3121C - Dipole Antenna 28 - 1000 MHz	NT-124	☐	Mixer M28HW 26,5 GHz - 40 GHz	NT-214
☐	3115 - Horn Antenna 1 - 18 GHz (immunity)	NT-125	☐	RubiSource T&M Timing reference	NT-216
☐	3116 - Horn Antenna 18 - 40 GHz	NT-126	☐	Radiocommunicationanalyzer SWR 1180 MD	NT-217
☐	SAS-200/543 - Bicon. Antenna 20 MHz - 300 MHz	NT-127	☐	Mixer M19HWD 40 GHz – 60 GHz	NT-218
☐	AT-1080 - Log. Per. Antenna 80 - 1000 MHz	NT-128	☐	Mixer M12HWD 60 GHz – 90 GHz	NT-219
☐	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-129	☐	DSO9104 Digital scope	NT-220/1
☐	HK-116 - bicon. Antenna 20 MHz - 300 MHz	NT-130	☐	TPS 2014 Digital scope	NT-222
☐	3146 - Log. Per. Antenna 200 – 1000 MHz	NT-131	☐	Artificial Ear according to IEC 60318	NT-224
☐	Loop Antenna H-Field	NT-132	☐	1 kHz Sound calibrator	NT-225
☐	Horn Antenna 500 MHz - 2900 MHz	NT-133	☐	B10 - Harmonics and flicker analyzer	NT-232
☐	Horn Antenna 500 MHz - 6000 MHz	NT-133/1	☐	ARS 16/3 – Harmonics- flicker analyzer	NT-232/1
☐	Log. per. Antenna 800 MHz - 2500 MHz	NT-134	☐	SRM-3000 Spectrumanalyzer	NT-233
☐	Log. per. Antenna 800 MHz - 2500 MHz	NT-135	☐	SRM-3006 Spectrumanalyzer	NT-233/1a
☐	BiConiLog Antenna 26 MHz – 2000 MHz	NT-137	☐	E-field probe SRM 75 MHz – 3 GHz	NT-234
☐	Conical Dipol Antenna PCD8250	NT-138	☐	Field Meter NBM-500 incl. E- and H-Field probes	NT-240a-d
☐	HF 906 - Horn Antenna 1 - 18 GHz (emission)	NT-139	☐	Hall-Teslameter ETM-1	NT-241
☐	HZ-1 Antenna tripod	NT-150	☐	EFA-3 H-field- / E-field probe	NT-243
☐	BN 1500 Antenna tripod	NT-151	☐	Field Meter EMR-200 100 kHz – 3 GHz	NT-244
☐	Ant. tripod for EN61000-4-3 Model TP1000A	NT-156	☐	E-field probe 100 kHz – 3 GHz	NT-245
☐	Power quality analyzer Fluke 1760 (complete set)	NT-160 - NT-173	☐	H-field probe 300 kHz – 30 MHz	NT-246

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Test equipment used

☐	E-field probe 3 MHz – 18 GHz	NT-247	☐	VCS 500-M6 Surge-Generator	NT-326
☐	H-field probe 27 MHz – 1 GHz	NT-248	☐	Oscillatory Wave Simulator incl. Coupling networks	NT-328a+b+c
☐	ELT-400 1 Hz – 400 kHz	NT-249	☐	BTA-250 - RF-Amplifier 9 kHz - 220 MHz / 250 W	NT-330
☐	MDS 21 - Absorbing clamp 30 - 1000 MHz	NT-250	☐	T82-50 RF-Amplifier 2 GHz – 8 GHz	NT-331
☐	FCC-203I EM Injection clamp	NT-251	☐	500W1000M7 - RF-Amplifier 80 - 1000 MHz / 500 W	NT-332
☐	FCC-203I-DCN Ferrite decoupling network	NT-252	☐	AS0102-65R - RF-Amplifier 1 GHz - 2 GHz	NT-333
☐	PR50 Current Probe	NT-253	☐	APA01 – RF-Amplifier 0,5 GHz – 2,5 GHz	NT-334
☐	i310s Current Probe	NT-254/1	☐	Preamplifier 1 GHz - 4 GHz	NT-335
☐	Fluke 87 V True RMS Multimeter	NT-260	☐	Preamplifier for GPS MKU 152 A	NT-336
☐	Model 2000 Digital Multimeter	NT-261	☐	Preamplifier 100 MHz – 23 GHz	NT-337
☐	Fluke 87 V Digital Multimeter	NT-262/1	☐	DC Block 10 MHz – 18 GHz Model 8048	NT-338
☐	ESH2-Z5-U1 Artificial mains network 4x25A	NT-300	☐	2-97201 Electronic load	NT-341
☐	ESH3-Z5-U1 Artificial mains network 2x10A	NT-301	☐	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-344
☐	ESH3-Z6-U1 Artificial mains network 1x100A	NT-302	☐	TSX3510P - Power supply 0-30 V / 0 - 10 A	NT-345
☐	ESH3-Z6-U1 Artificial mains network 1x100A	NT-302a	☐	VDS 200 Mobil-impuls-generator	NT-350
☐	PHE 4500/B Power amplifier	NT-304	☐	LD 200 Mobil-impuls-generator	NT-351
☐	PAS 5000 Power amplifier	NT-304/1a	☐	MPG 200 Mobil-Impuls-Generators	NT-352
☐	EZ10 T-Artificial Network	NT-305	☐	EFT 200 Mobil-impuls-generator	NT-353
☐	SMG - Signal generator 0,1 - 1000 MHz	NT-310	☐	AN 200 S1 Artificial Network	NT-354
☐	SMA100A - Signal generator 9 kHz - 6 GHz	NT-310/1	☐	FP-EFT 32M 3 ph. Coupling filter (Burst)	NT-400/1
☐	RefRad Reference generator	NT-312	☐	PHE 4500 - Mains impedance network	NT-401
☐	SMP 02 - Signal generator 10 MHz - 20 GHz	NT-313	☐	IP 6.2 Coupling filter for data lines (Surge)	NT-403
☐	40 MHz Arbitrary Generator TGA1241	NT-315	☐	TK 9421 High Power Volt. Probe 150 kHz - 30 MHz	NT-409
☐	Artificial mains network NSLK 8127-PLC	NT-316	☐	ESH2-Z3 - Probe 9 kHz - 30 MHz	NT-410
☐	Inrush Current Source for PAS 5000	NT-317a	☐	IP 4 - Capacitive clamp (Burst)	NT-411
☐	Control and measurement device Sycore	NT-318	☐	Highpass-Filter 100 MHz – 3 GHz	NT-412
☐	PEFT - Burst generator up to 4 kV	NT-320	☐	Highpass-Filter 600 MHz – 4 GHz	NT-413
☐	ESD 30 System up to 25 kV	NT-321	☐	Highpass-Filter 1250 MHz – 4 GHz	NT-414
☐	PSURGE 4.1 Surge generator	NT-324	☐	Highpass-Filter 1800 MHz – 16 GHz	NT-415
☐	IMU4000 Immunity test system	NT-325/1			

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Test equipment used

☐	Highpass-Filter 3500 MHz – 18 GHz	NT-416	☐	FCC-801-S25 Coupling decoupling network	NT-462
☐	RF-Attenuator 10 dB DC – 18 GHz / 50 W	NT-417	☐	FCC-801-T4 Coupling decoupling network	NT-463
☐	RF-Attenuator 6 dB DC – 18 GHz / 50 W	NT-418	☐	FCC-801-C1 Coupling decoupling network	NT-464
☐	RF-Attenuator 3 dB DC – 18 GHz / 50 W	NT-419	☐	F-16A - Current probe 1kHz - 70MHz	NT-465
☐	RF-Attenuator 20 dB DC - 1000 MHz / 25 W	NT-421	☐	95242-1 – Current probe 1 MHz – 400 MHz	NT-468
☐	RF-Attenuator 30 dB DC - 1000 MHz / 1 W	NT-423	☐	94106-1L-1 – Current probe 100 kHz – 450 MHz	NT-471
☐	RF-Attenuator 30 dB	NT-424	☐	GA 1240 Power amplifier according to EN 61000-4-16	NT-480
☐	RF-Attenuator 6 dB DC - 1000 MHz / 1 W	NT-425	☐	Coupling networks according to EN 61000-4-16	NT-481 - NT-483
☐	RF-Attenuator 6 dB DC - 1000 MHz / 1 W	NT-426	☐	Van der Hoofden Test Head	NT-484
☐	RF-Attenuator 6 dB	NT-428	☐	PC P4 3 GHz Test computer	NT-500
☐	RF-Attenuator 0 dB - 81 dB	NT-429	☐	PC P4 1700 MHz Notebook	NT-505
☐	WRU 27 - Band blocking 27 MHz	NT-430	☐	Monitoring camera with Monitor	NT-511
☐	WHJ450C9 AA - High pass 450 MHz	NT-431	☐	ES-K1 Version 1.71 SP2 Test software	NT-520
☐	WHJ250C9 AA - High pass 250 MHz	NT-432	☐	EMC32 Version 9.15 Test software	NT-520/1
☐	RF-Load 150 W	NT-433	☐	SRM-TS Version 1.3 software for SRM-3000	NT-522
☐	Impedance transducer 1:4 ; 1:9 ; 1:16	NT-435	☐	SRM-TS Version 1.3.1 software for SRM-3006	NT-522/1
☐	RF-Attenuator DC – 18 GHz 6 dB	NT-436	☐	Spitzenberger und Spies Test software V3.4	NT-525
☐	RF-Attenuator DC – 18 GHz 6 dB	NT-437	☐	Noise power test apparatus according to EN 55014	NT-530
☐	RF-Attenuator DC – 18 GHz 10 dB	NT-438	☐	Vertical coupling plane (ESD)	NT-531
☐	RF-Attenuator DC – 18 GHz 20 dB	NT-439	☐	Test cable #4 for EN 61000-4-6	NT-553
☐	I+P 7780 Directional coupler 100 - 2000 MHz	NT-440	☐	Test cable #3 for conducted emission	NT-554
☐	ESH3-Z2 - Pulse limiter 9 kHz - 30 MHz	NT-441	☐	Test cable #5+#6 ESD-cable (2x470k)	NT-555 + NT-556
☐	Power Divider 6 dB/1 W/50 Ohm	NT-443	☐	Test cable #8 Sucoflex 104EA	NT-559
☐	Directional coupler 0,1 MHz – 70 MHz	NT-444	☐	Test cable #9 (for outdoor measurements)	NT-580
☐	Directional coupler 0,1 MHz – 70 MHz	NT-445	☐	Test cable #10 (for outdoor measurements)	NT-581
☐	Tube imitations according to EN 55015	NT-450	☐	Test cable #13 Sucoflex 104PE	NT-584
☐	FCC-801-M3-16A Coupling decoupling network	NT-458	☐	Test cable #21 for SRM-3000	NT-592
☐	FCC-801-M2-50A Coupling decoupling network	NT-459	☐	Shield chamber	NT-600
☐	FCC-801-M5-25 Coupling decoupling network	NT-460	☐	Climatic chamber	M-1200
☐	FCC-801-AF10 Coupling decoupling network	NT-461			

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Appendix 2 Photodocumentation

Description: Module on evaluation board view #1

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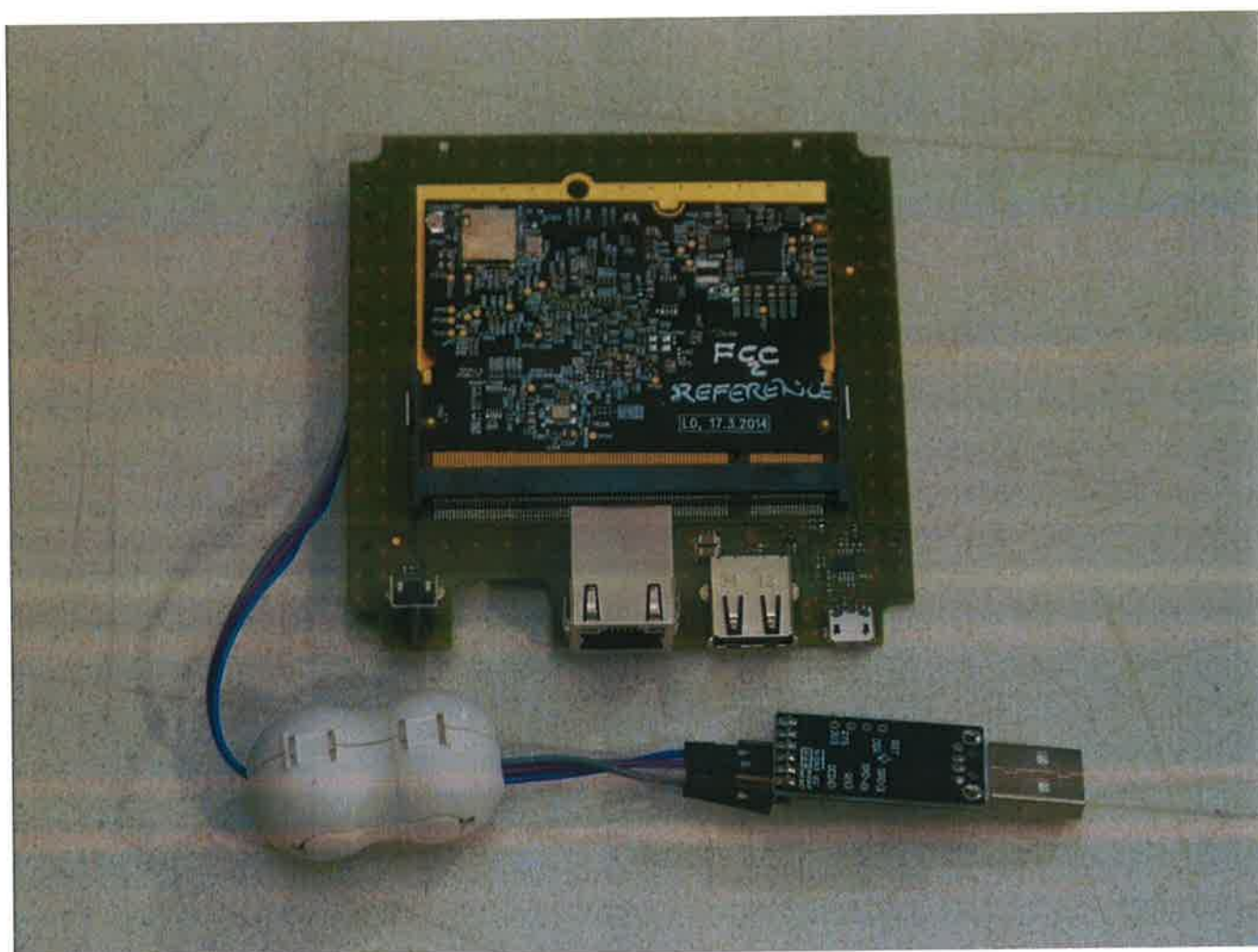
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Appendix 2 Photodocumentation

Description: Module on evaluation board view #2

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Appendix 2 Photodocumentation

Description: Antenna – variant #1

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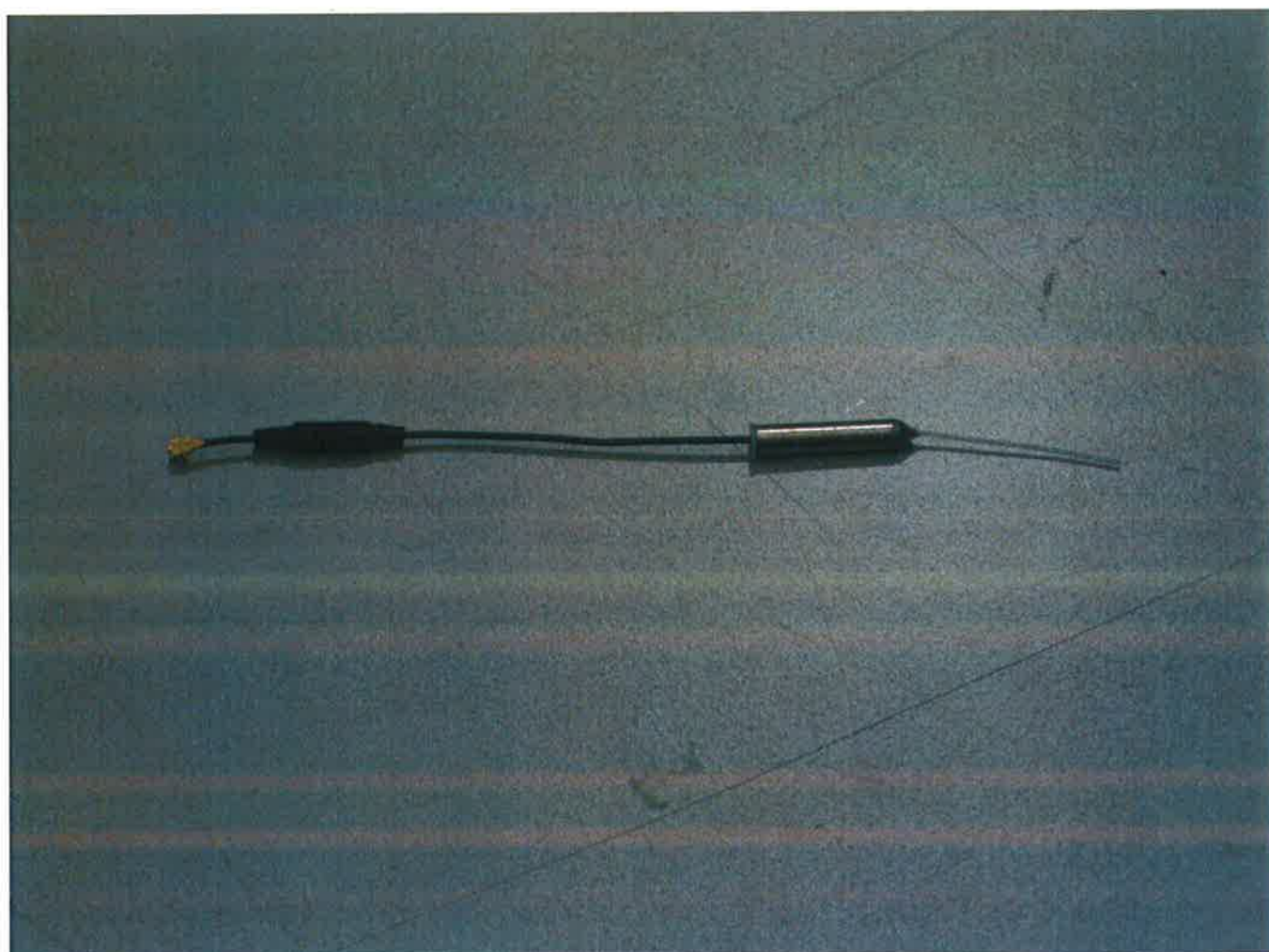
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Appendix 2 Photodocumentation

Description: Antenna – variant #2

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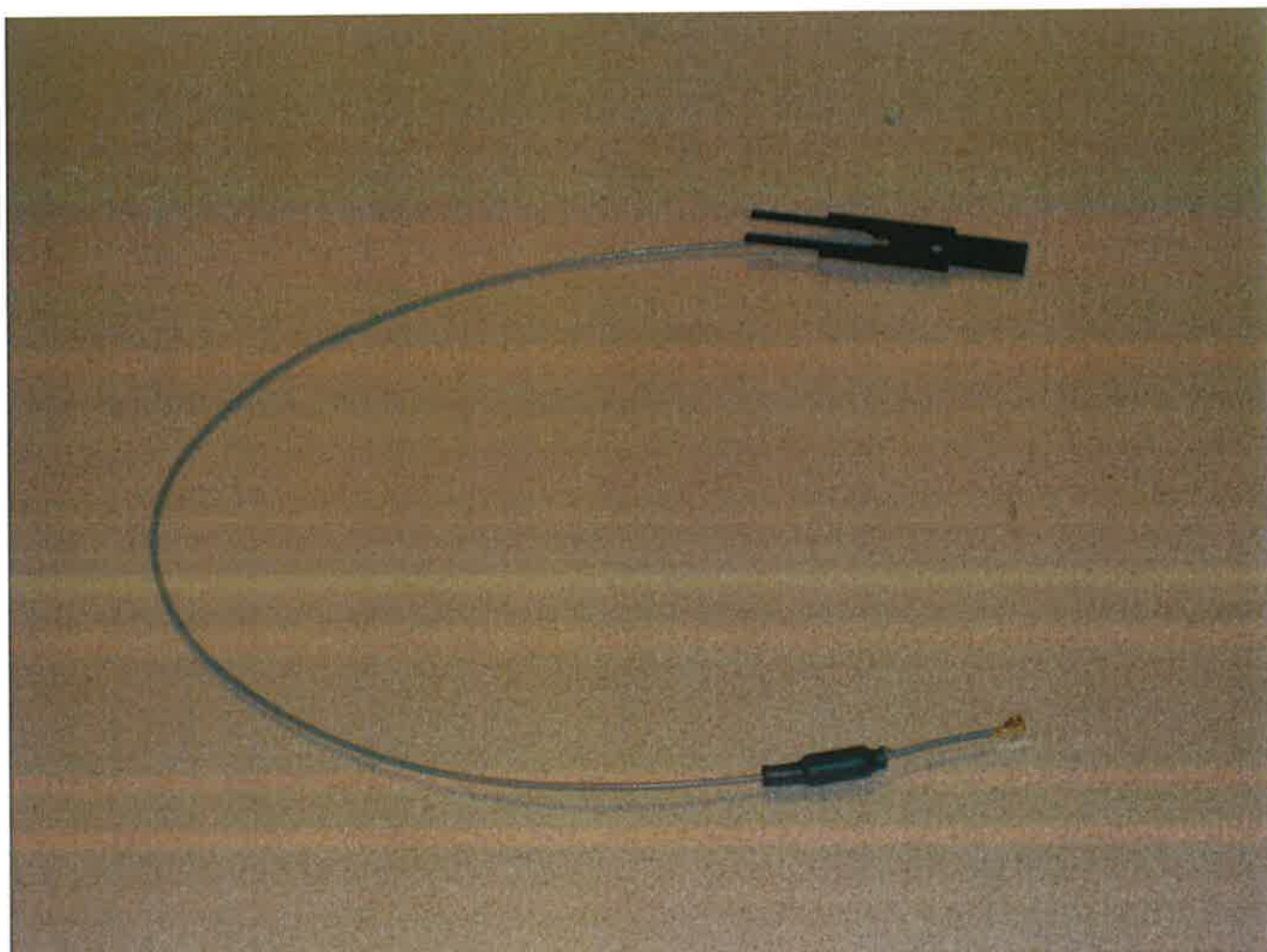
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Appendix 2 Photodocumentation

Description: Module view #1

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Appendix 2 Photodocumentation

Description: RF section without shielding

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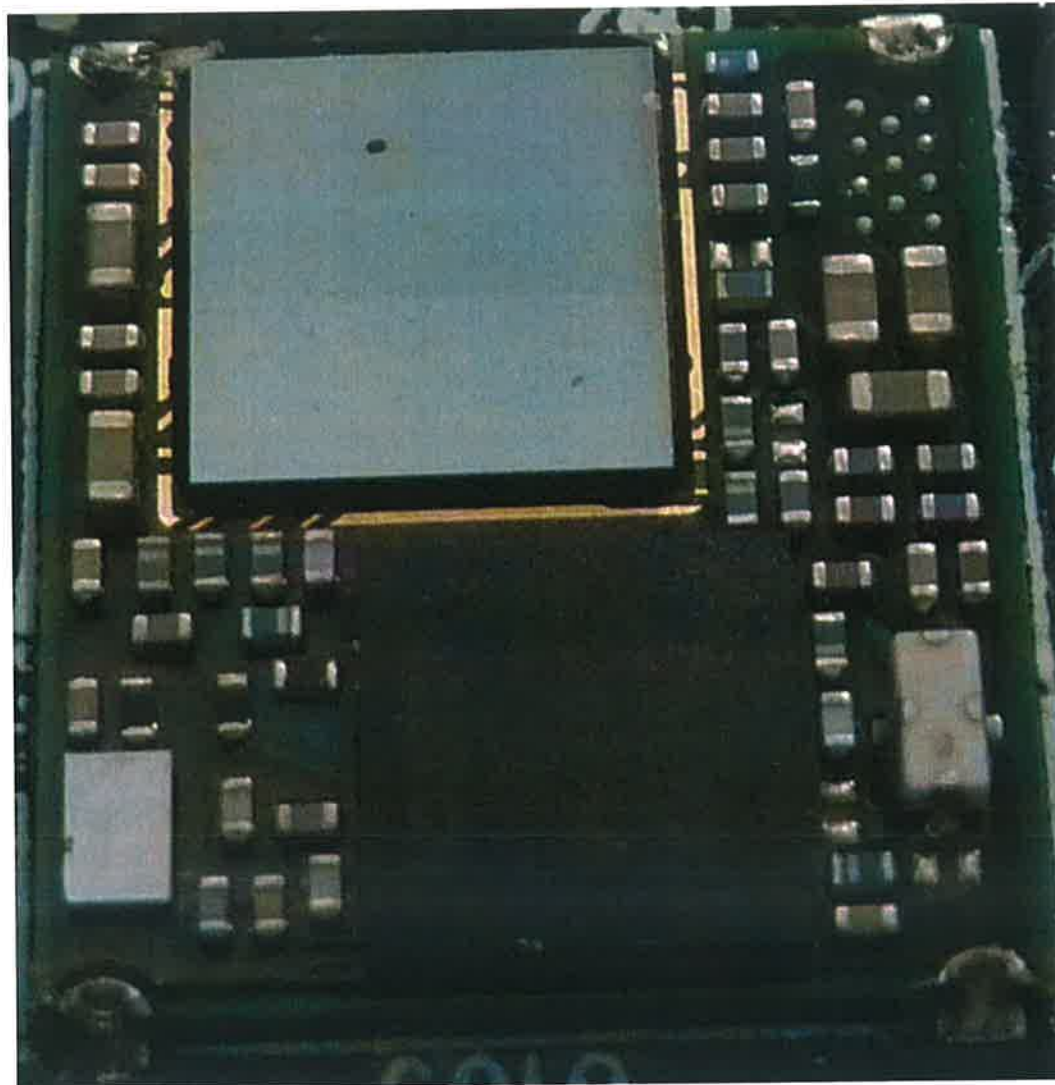
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Appendix 2 Photodocumentation

Description: Test setup for measurements up to 30 MHz

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Appendix 2 Photodocumentation

Description: Test setup for measurements up to 1 GHz

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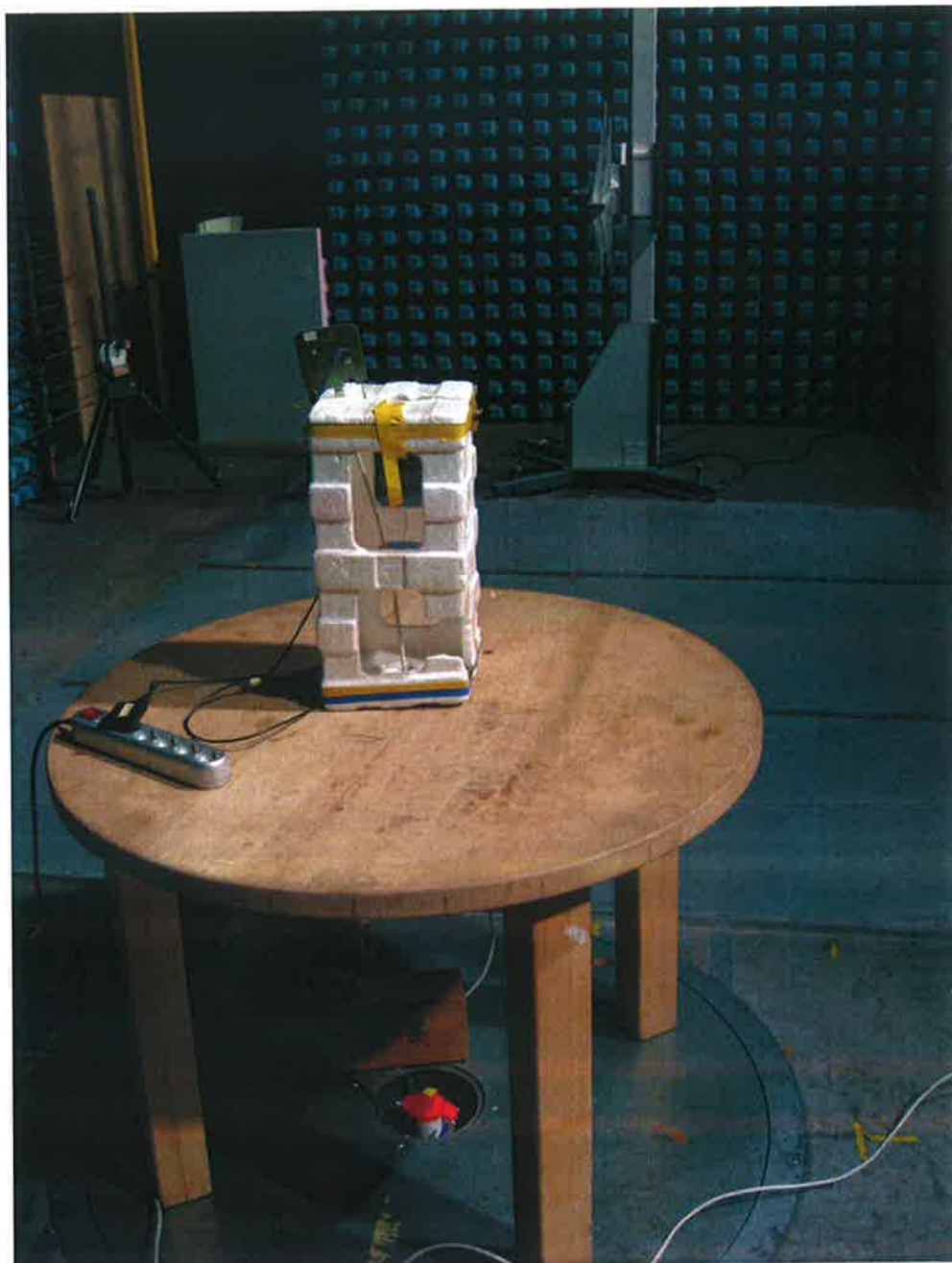
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Appendix 2 Photodocumentation

Description: Test setup for measurements above 1
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Appendix 2 Photodocumentation

Description: Test setup for measurements above 1
GHz - view #1

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