

TEST REPORT
of the accredited test laboratory

TÜV Nr.:INE-AT/FG-18/156

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Technik

Applicant: StreamUnlimited Engineering GmbH
High Tech Campus Vienna
Gutheil-Schoder-Gasse 10
A-1100 Vienna

Tested Product: STREAM1832 Bluetooth / BLE / WIFI streaming module
Test report for 5 GHz WIFI part only

FCC-ID: 2AJYB-S1832

IC-ID: 20504-S1832

Manufacturer: See applicant

Output power / field strength: 28,84 mW cond. **power supply:** 12 VDC

Frequency range: 5180 - 5825 MHz with gaps **Channel separation:** 20 MHz

Standard: FCC: 47 CFR Part 15 (October 1, 2017 edition)
RSS-247 Issue 2, February 2017
905462 D03 - Client Without DFS New Rules v01r02

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Inspection Body,
Certification Body,
Calibration Laboratory,
VerifizierungsstelleNotified Body 0408
IC 2932K-1Non-executive
Board of Directors:
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Deutschstrasse 10
1230 Vienna/Austria**Branch Offices:**
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Court / - Number:**
Vienna / FN 288476 f**Bank Details:**
IBAN
AT13120005294900106
BIC BKAUATWWIBAN
AT15310000010409328
BIC RZBAATWWVAT ATU63240488
DVR 3002476**TUV Austria Services GmbH**
Test laboratory for EMC

Supervisor of EMC-laboratory:

Ing. Wilhelm Seier



06.11.2018

Copy Nbr.: 07

checked by:

Ing. Michael Emminger

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

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1. Applicant

Company: StreamUnlimited Engineering GmbH

Department: Director Systems

Address: High Tech Campus Vienna
Gutheil-Schoder-Gasse 10
A-1100 Vienna

Contact person: Mr. DI Christoph Apel

EUT received on: 05.09.2018

Tests were performed on: 05.09. till 05.11.2018

2. Description of EUT

EUT: Bluetooth / BLE / WIFI module "STREAM1832"

Serial Number: Prototype mounted on evaluation board

Manufacturer: StreamUnlimited Engineering GmbH
High Tech Campus Vienna
Gutheil-Schoder-Gasse 10
A-1100 Vienna

Description: StreamUnlimited Engineering GmbH provided the following configuration for the measurements:

Prototype mounted on evaluation board with direct connection for conducted measurements and with antenna type of highest gain for radiated measurements

Operating mode: The measurements were carried out at the following running states:

test-firmware running, transmitting continuously

Technical data EUT: Rated voltage: 12VDC
Rated current: 150mA
Rated frequency: DC

Mains voltage during the tests: 12VDC

Climatic conditions in the emc laboratory: Relative humidity: 54%
Temperature: 23°C

3. Standards / Final result

Name	Title	Deviation	Result
Title 47 CFR Part 15 October 1 st 2017 edition	RADIO FREQUENCY DEVICES	none	OK
RSS-247 Issue 2, February 2017	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	none	OK
<p>Result: Opinions and interpretation of testing laboratory OK: EUT passed NOK: EUT failed</p>			

4. TEST RESULT

4.1. TEST OBJECT DATA

General EUT Description

This Bluetooth / BLE / WIFI module is using either 2.4 GHz frequencies or 5 GHz (WIFI only). This test report is only for the 5 GHz WIFI part. See additional test reports:

INE-AT/FG-18/153 for Bluetooth

INE-AT/FG-18/154 for BLE and

INE-AT/FG-18/155 for 2,4 GHz WIFI measurement results.

2.1033 (c) Technical description

2.1033 (4) Type of emission:

802.11 standards – Channel bandwidths 20 MHz, 40 MHz (aggregation of 2 non-overlapping 20 MHz OFDM channels) or 80 MHz (aggregation of 4 non-overlapping 20 MHz OFDM channels) – Channel spacing 20 / 40 / 80 MHz respectively.

2.1033 (5) Frequency range:

5180 till 5240 MHz; 5260 till 5320 MHz; 5500 till 5700 MHz and 5745 till 5825 MHz (channel center frequencies) in 20 MHz steps resulting in 24 Channels of 20 MHz bandwidth

5190 till 5230 MHz; 5270 till 5310 MHz; 5510 till 5670 MHz and 5755 till 5795 MHz (channel center frequencies) in 40 MHz steps resulting in 11 Channels of 40 MHz bandwidth

5210 / 5290 / 5530 / 5690 / 5775 MHz (channel center frequencies with 80 MHz channel bandwidth) giving a total number of five 80MHz-Channels

2.1033 (6) Power range and Controls: The maximum peak output power is 28,84 mW and there is no power regulation.

2.1033 (7) Maximum output power rating: 28,84 mW.

2.1033 (8) DC Voltage and Current: 12V DC

maximum current consumption: 150 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

Antennas used for all radiated measurements: MOLEX '1461531100'

Worst case Spurious Emissions: 38,8 dBµV/m Quasipeak.

Tests were performed September 5th till November 5th 2018.

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

Relative humidity: 54%

4.2. Number of channels and channel spacing

§ 2.1033

Conducted Measurement

Rated output power: 28,84 mW

There are 24 Channels used starting at 5170 till 5825 MHz (with gaps) each separated by 20 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 11 different channels with 40 MHz bandwidth and center frequencies of 5180 till 5795 MHz each separated by 40 MHz channel spacing.

4 channels spaced by 20 MHz can be used simultaneously to give a RF-Bandwidth of 80 MHz, resulting in 5 different channels with 80 MHz bandwidth and center frequencies of 5210 till 5775 MHz each separated by 80 MHz channel spacing.

Test Equipment used: N/A

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

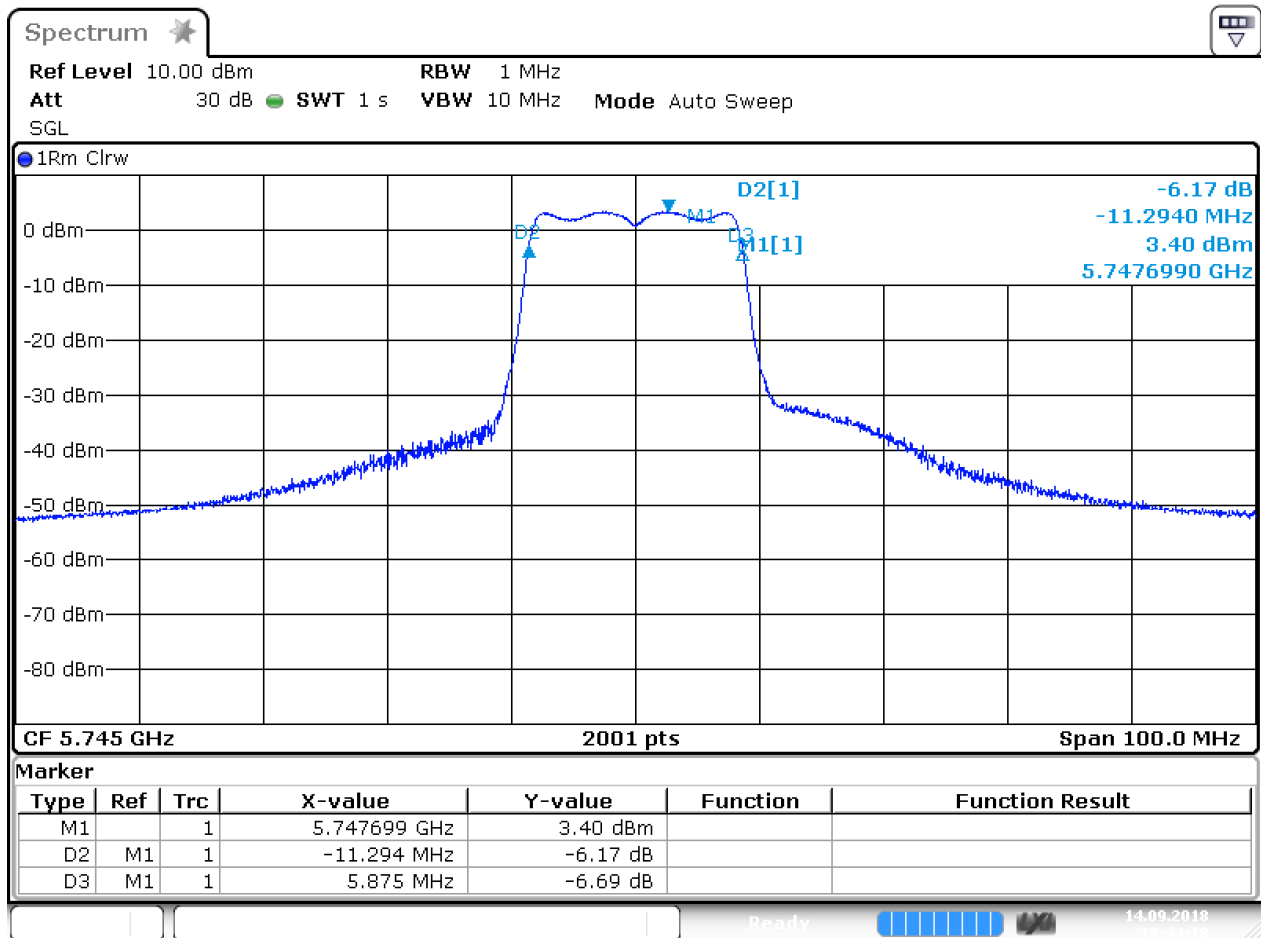
Relative humidity: 54%

4.3. 6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 149 (5745 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:44:19

6dB Bandwidth: 17,169 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
---------------------------------	---------------------------------

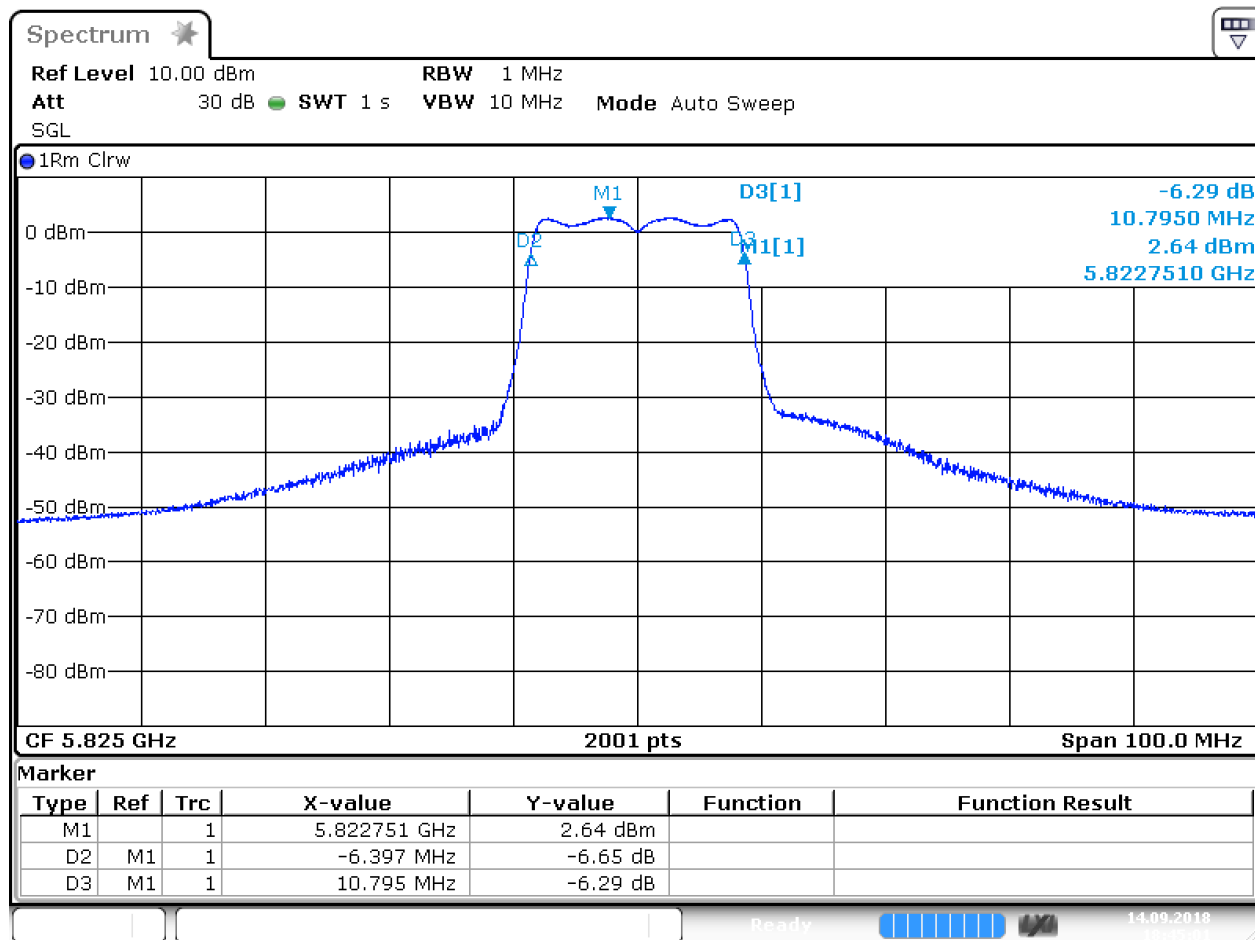
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 165 (5825 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:45:01

6dB Bandwidth: 17,192 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
---------------------------------	---------------------------------

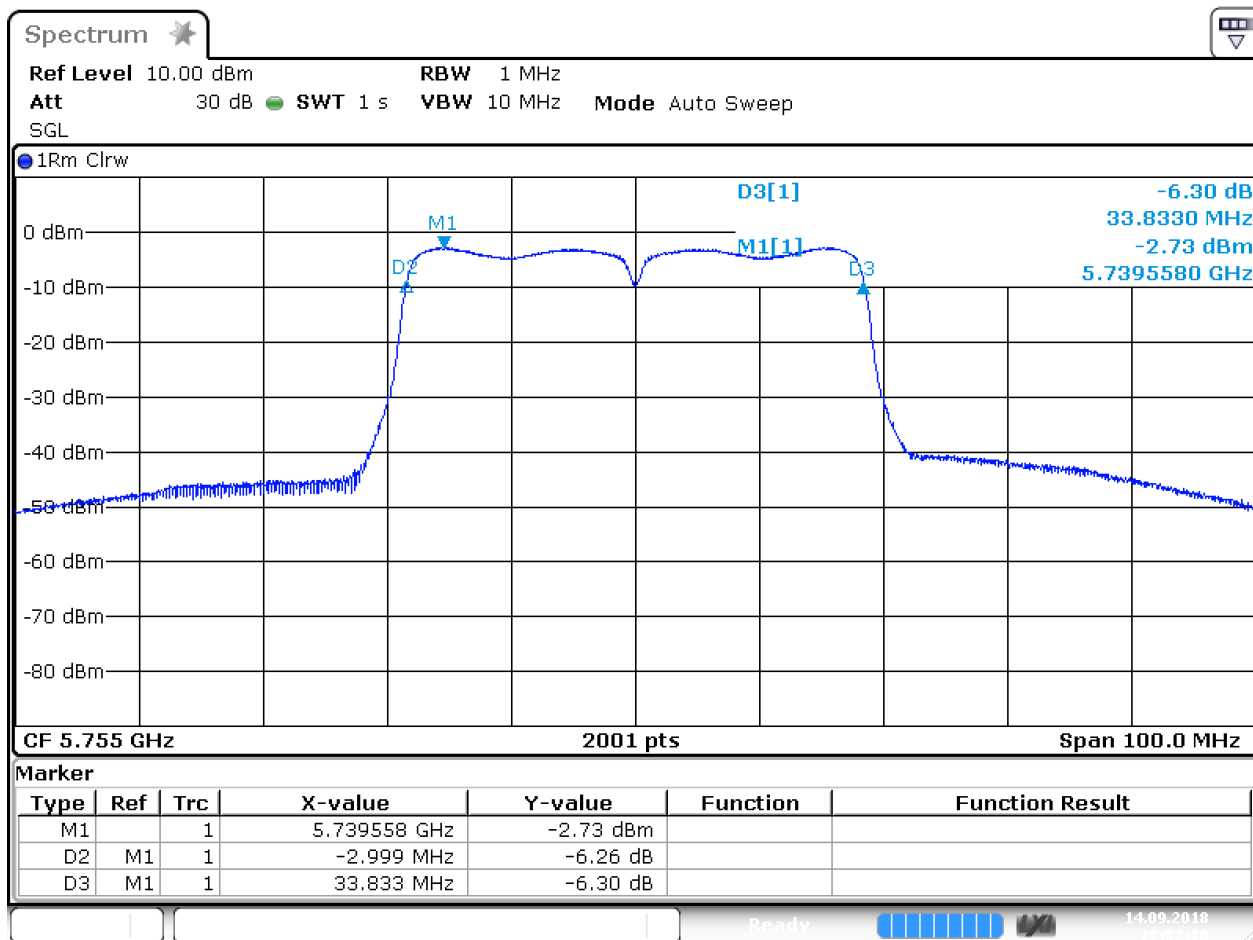
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 149-153 (5755 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:52:10

6dB Bandwidth: 36,832 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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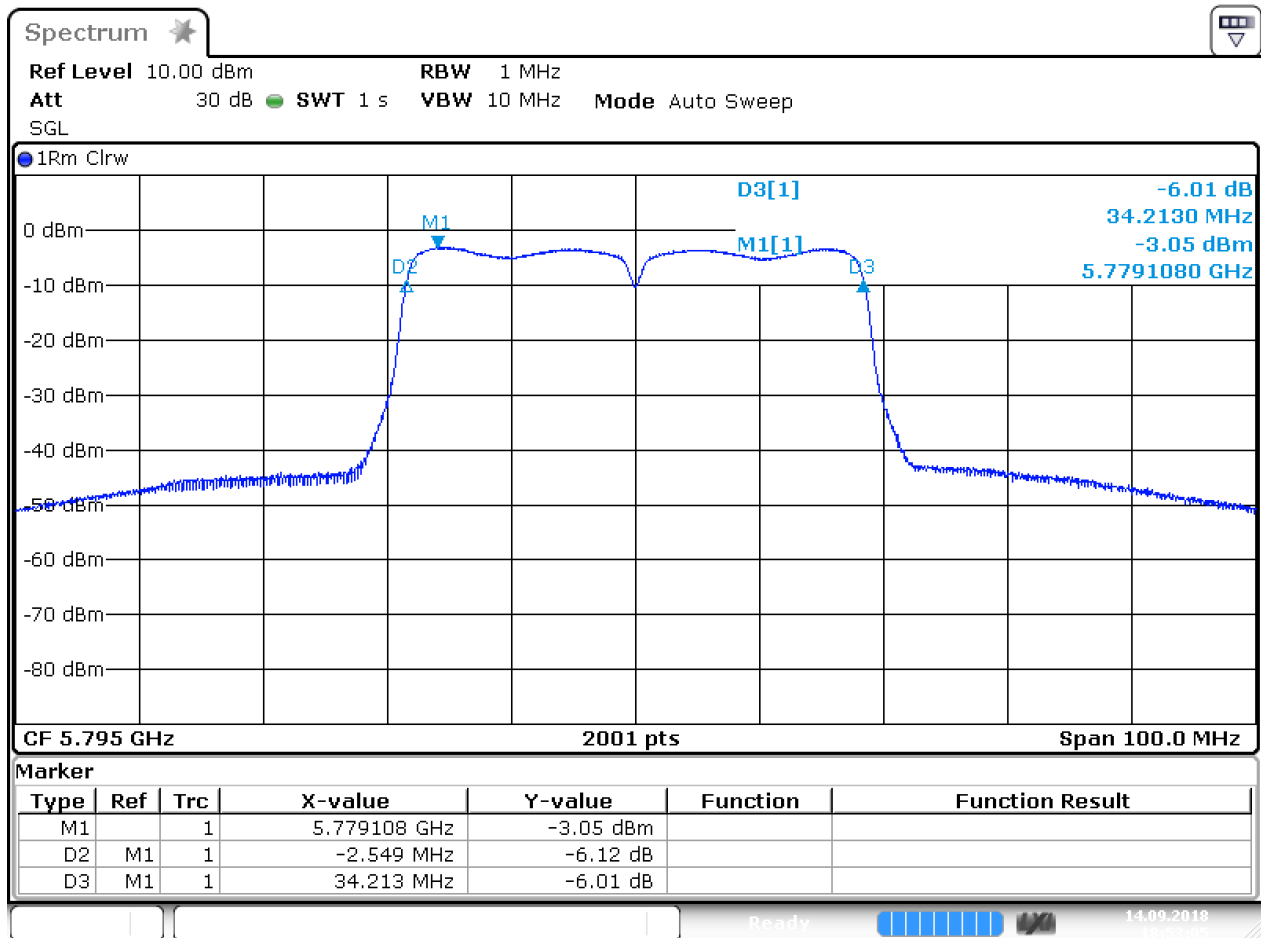
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 157-161 (5795 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:53:05

6dB Bandwidth: 36,762 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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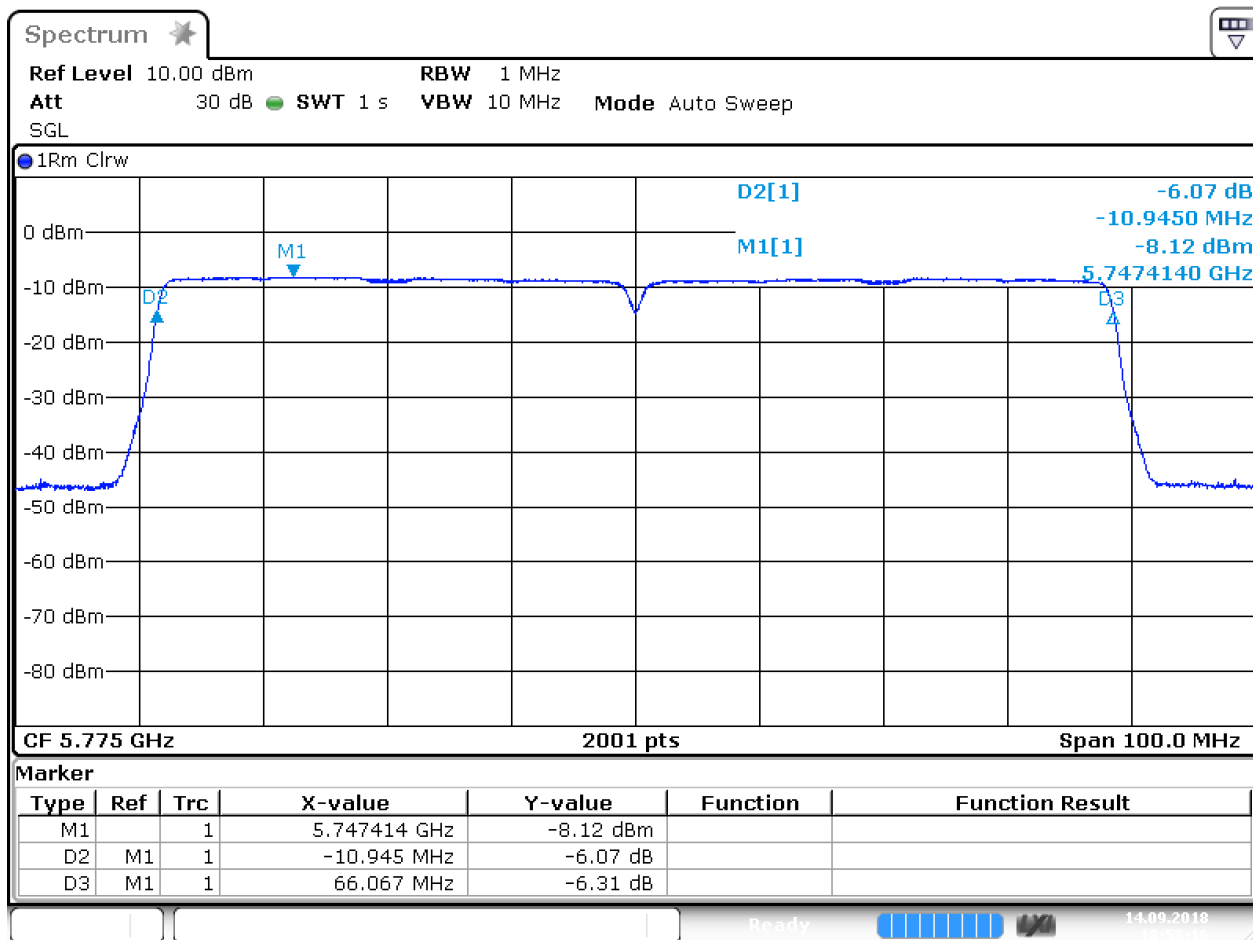
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 149-161 (5775 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:58:17

6dB Bandwidth: 77,012 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

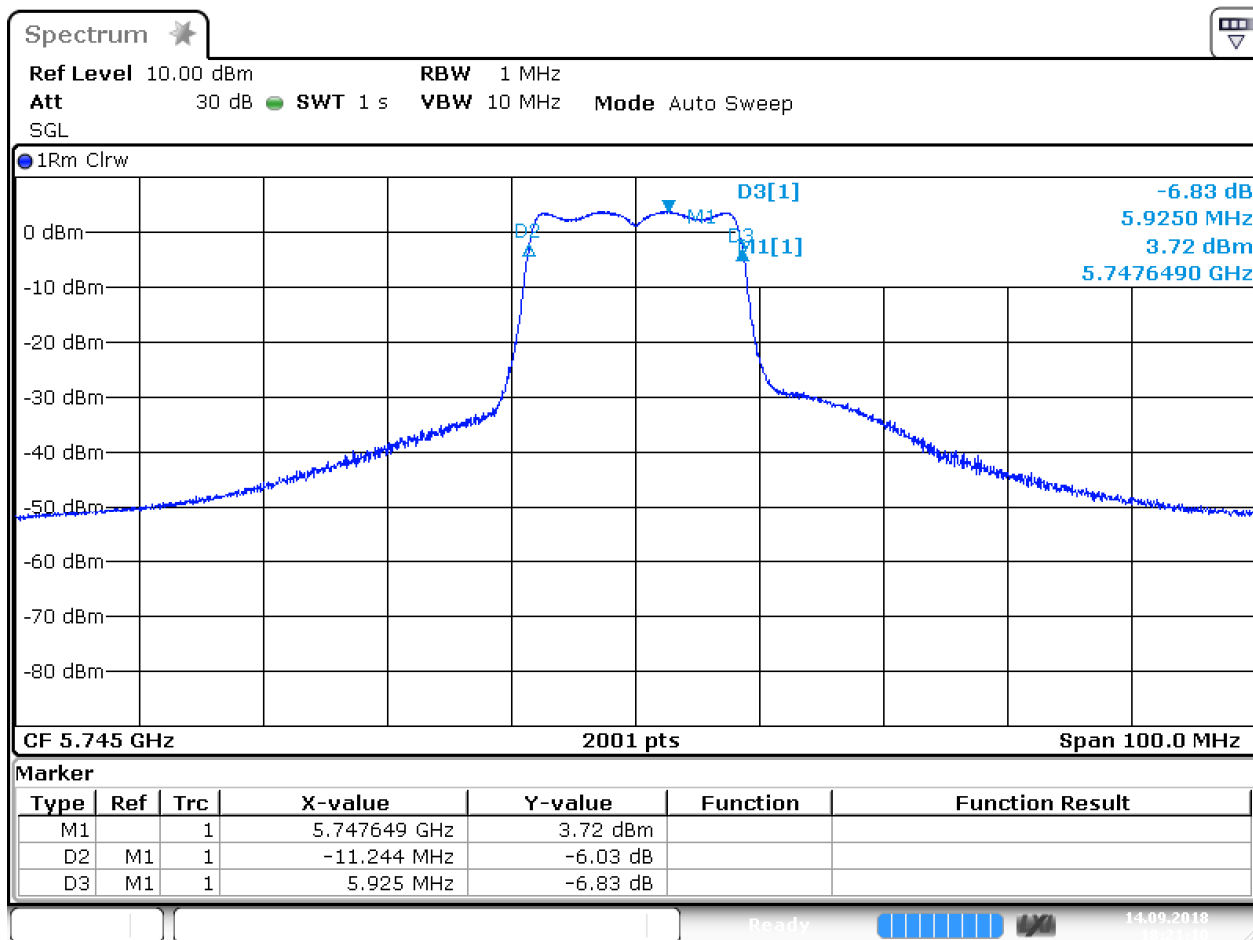
Relative humidity: 54%

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 149 (5745 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:21:10

6dB Bandwidth: 17,169 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
---------------------------------	---------------------------------

Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

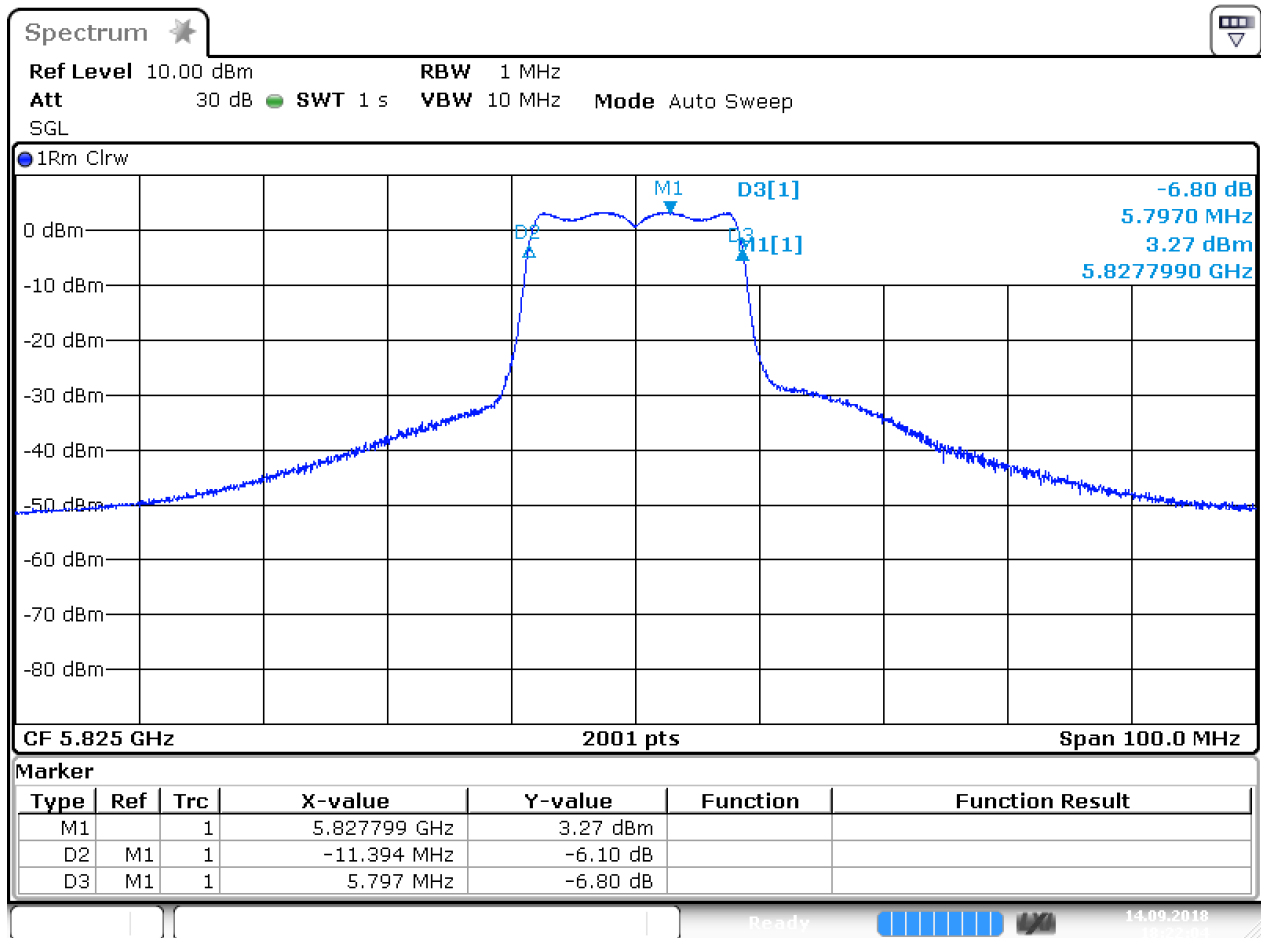
Relative humidity: 54%

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 165 (5825 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:22:04

6dB Bandwidth: 17,191 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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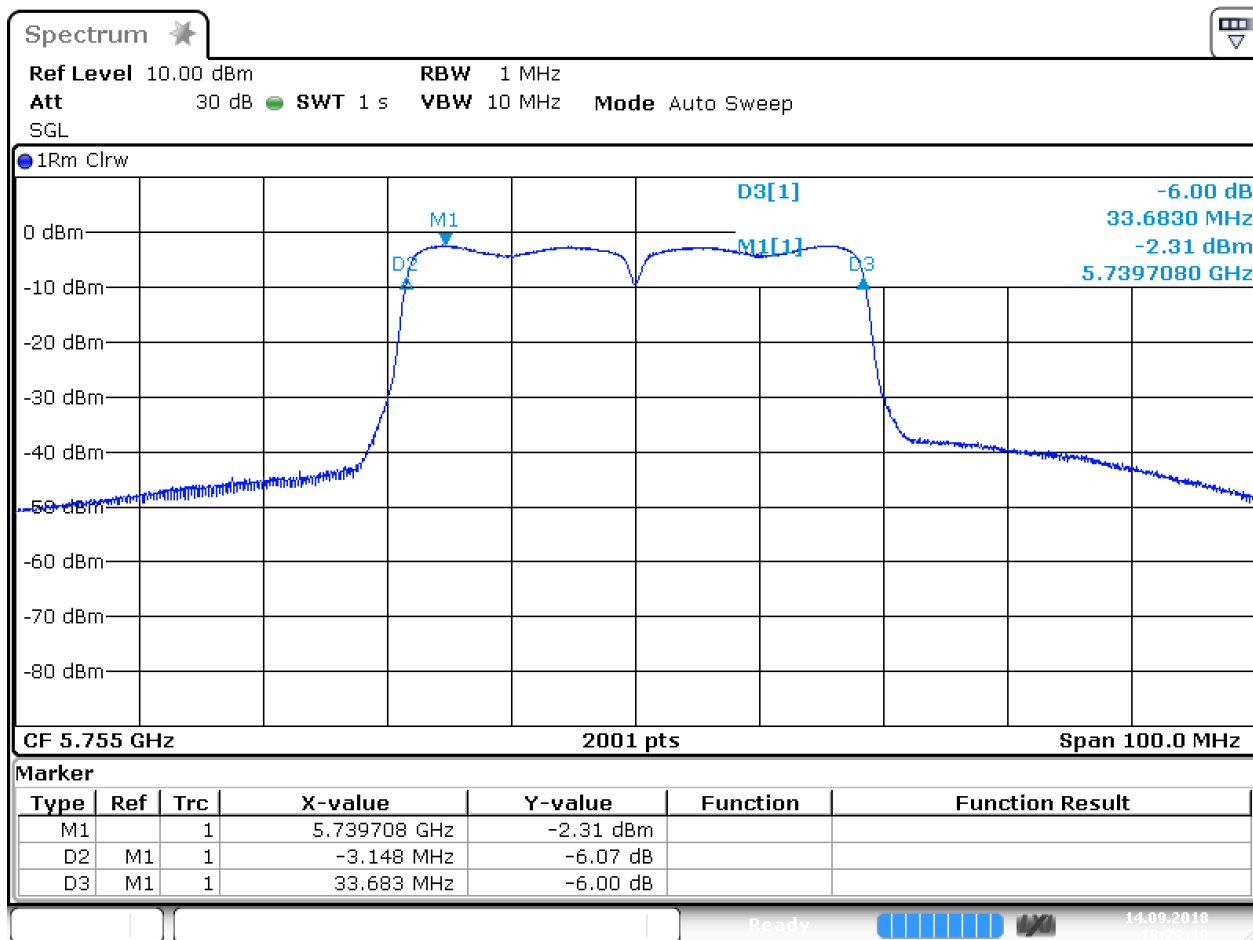
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 149-153 (5755 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:29:10

6dB Bandwidth: 36,831 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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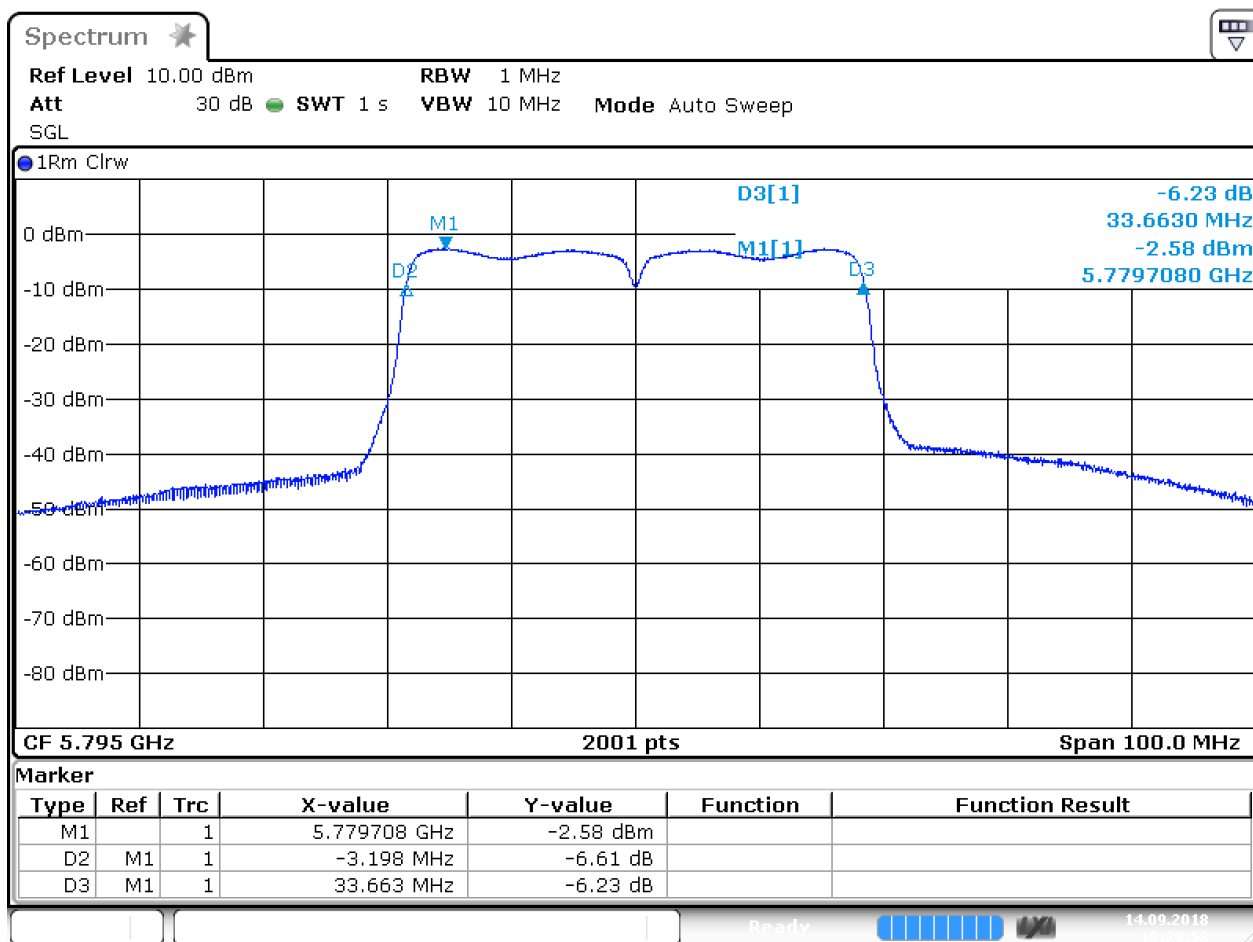
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 157-161 (5795 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:29:59

6dB Bandwidth: 36,861 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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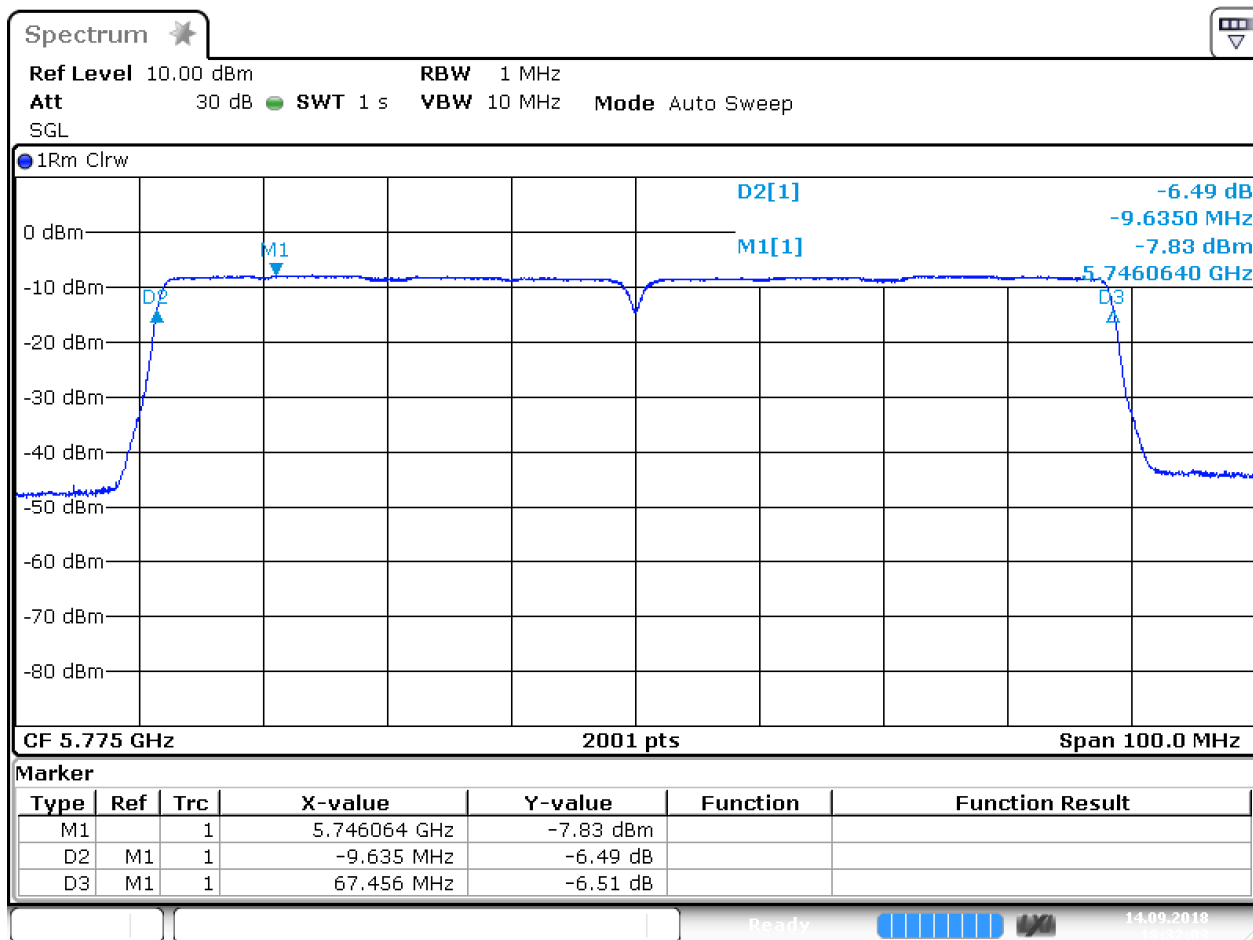
Test Equipment used: EMV-205

6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 28,84 mW Channel 149-161 (5775 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:32:04

6dB Bandwidth: 77,091 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

Frequency range 5725 – 5850 MHz	6 dB Bandwidth at least 500 kHz
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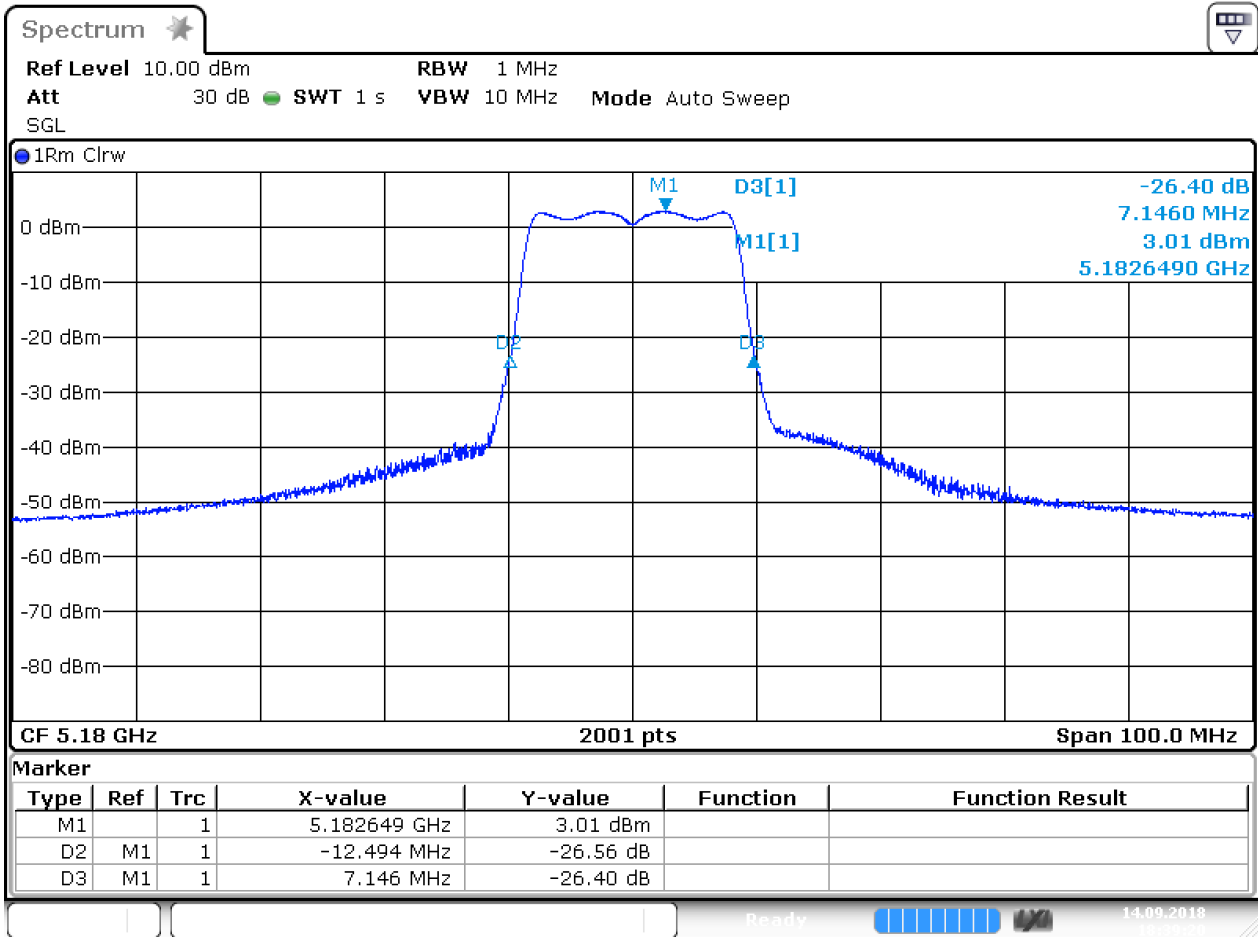
Test Equipment used: EMV-205

4.4. 26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36 (5180 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:39:20

26dB Bandwidth: 19,640 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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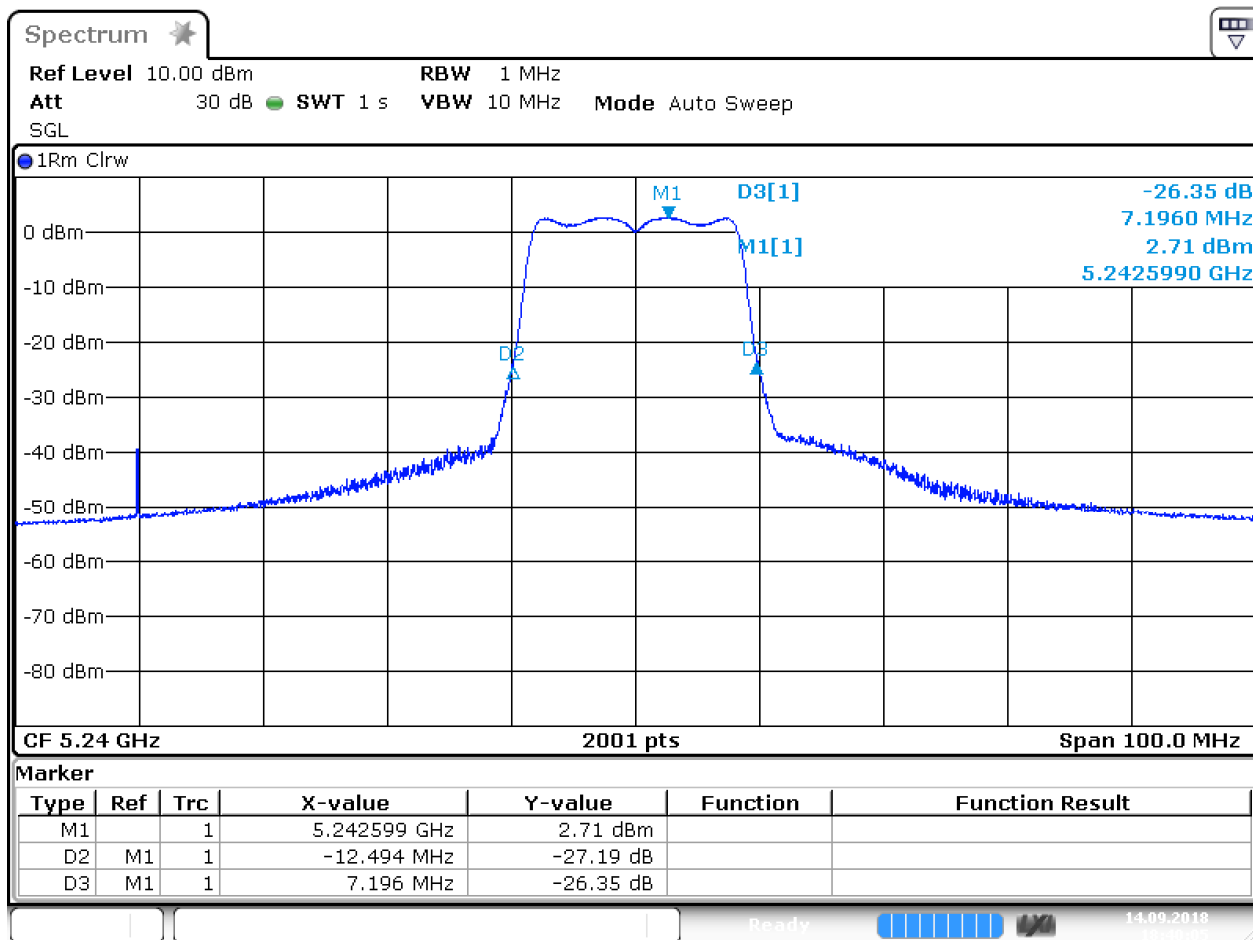
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 48 (5240 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:40:05

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

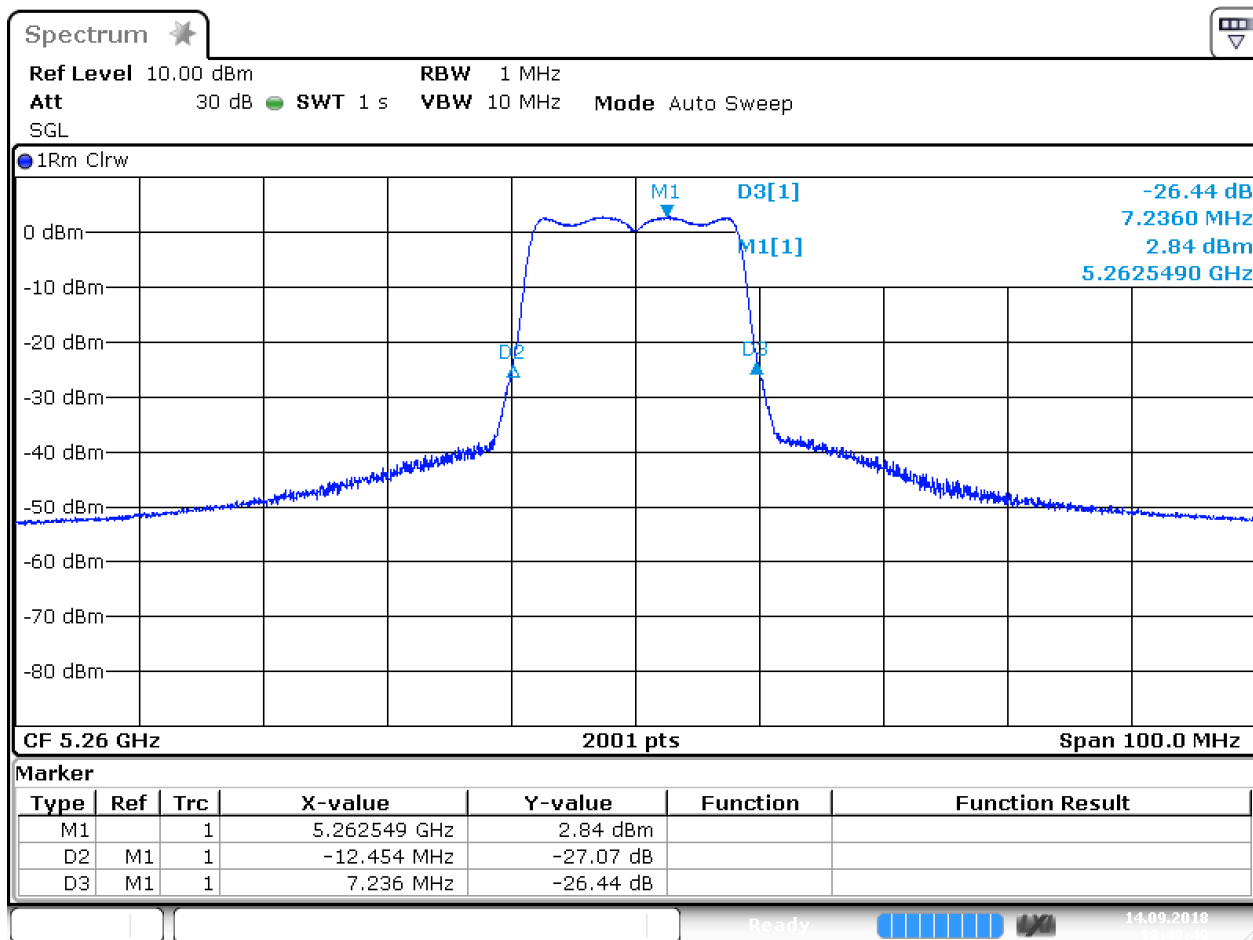
Relative humidity: 54%

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52 (5260 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:40:49

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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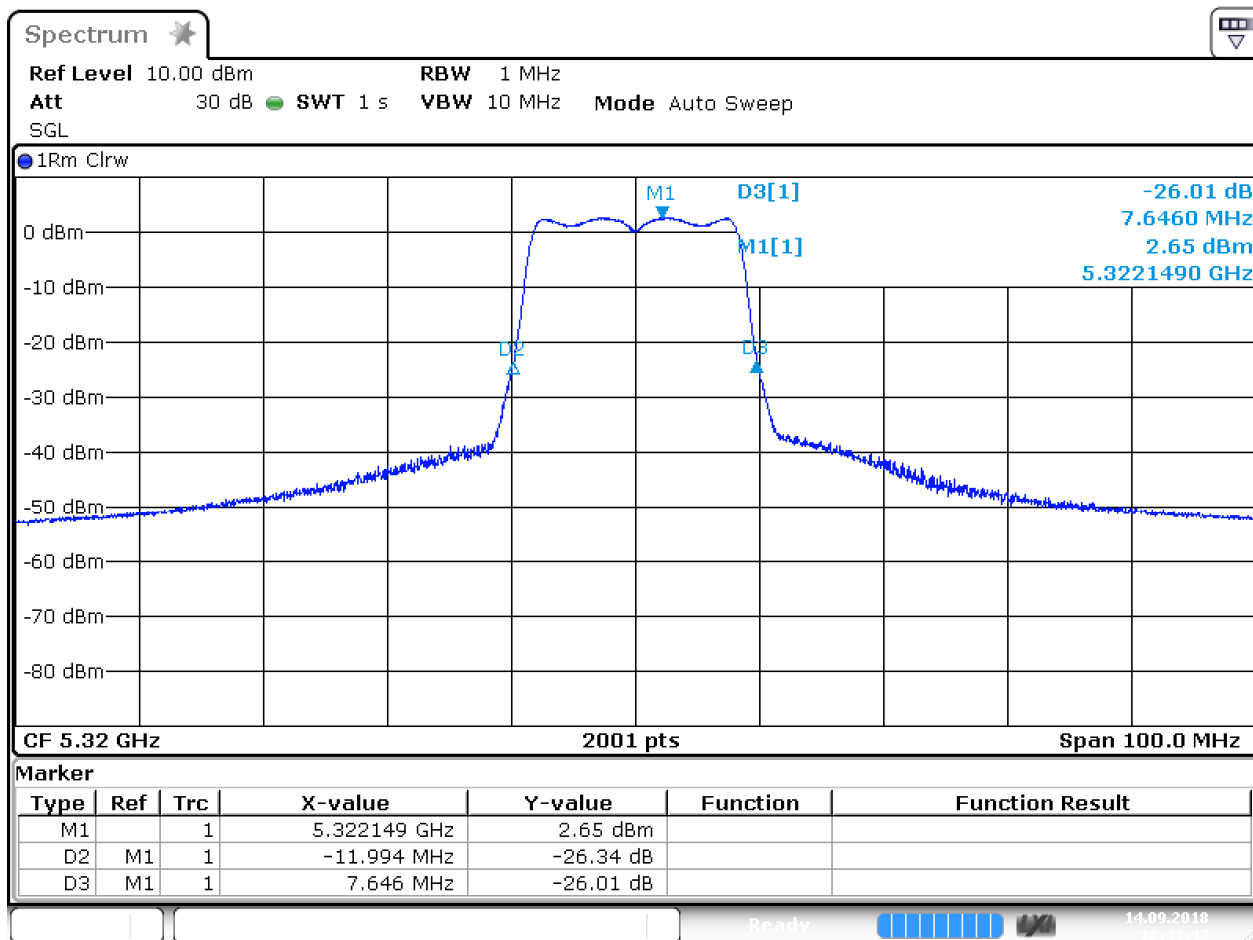
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 64 (5320 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:41:43

26dB Bandwidth: 19,640 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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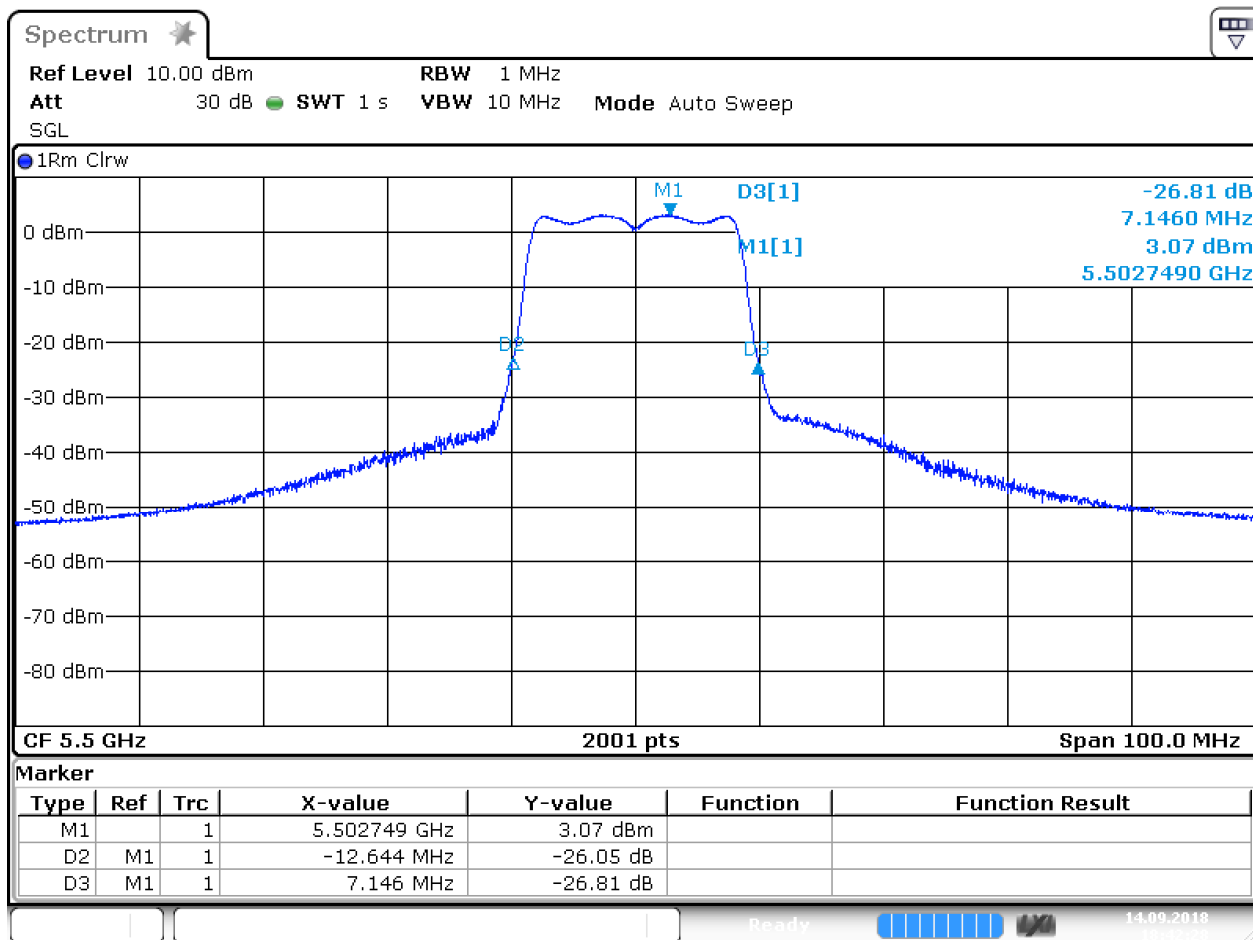
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100 (5500 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:42:28

26dB Bandwidth: 19,790 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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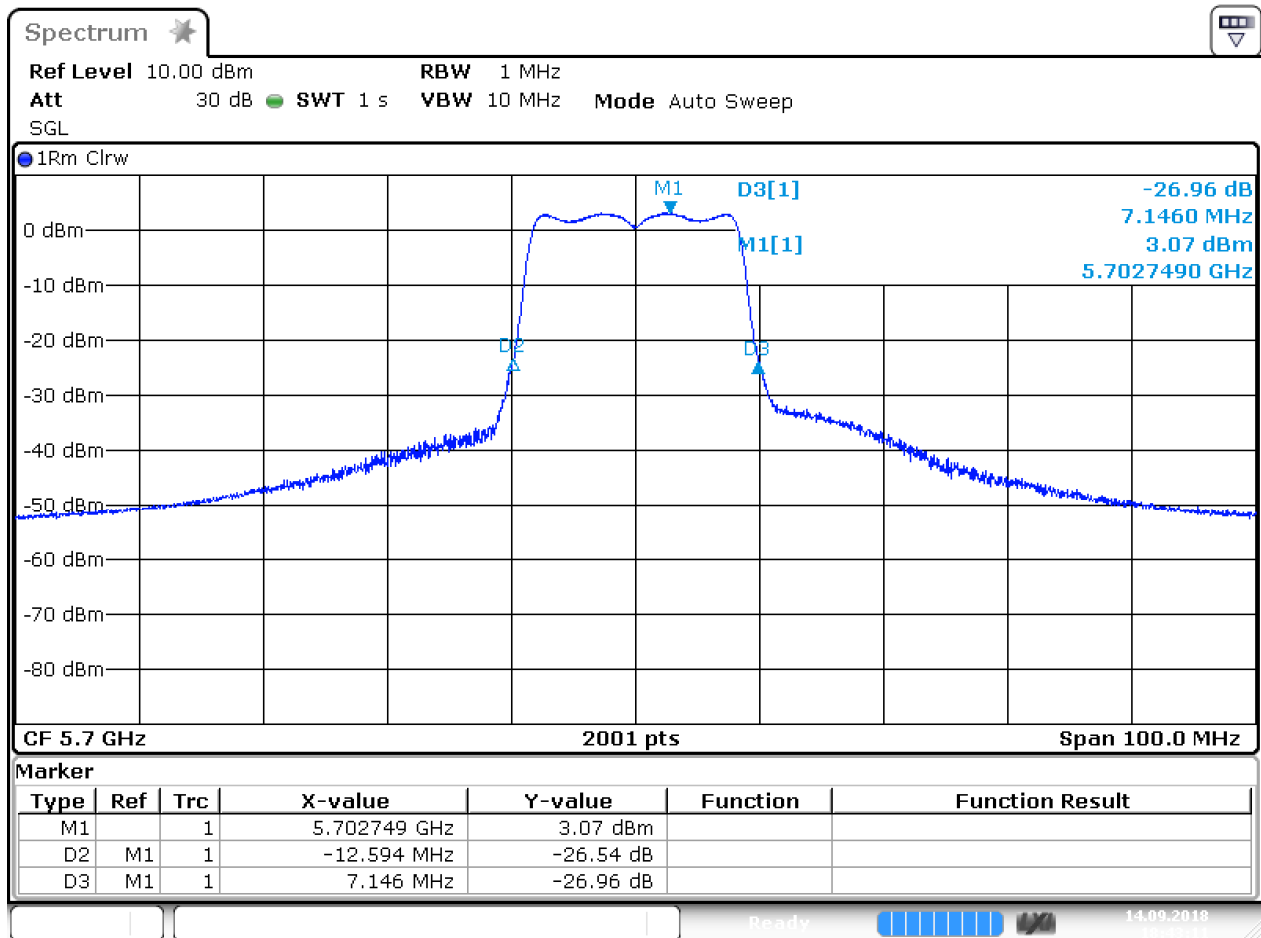
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 140 (5700 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:43:12

26dB Bandwidth: 19,740 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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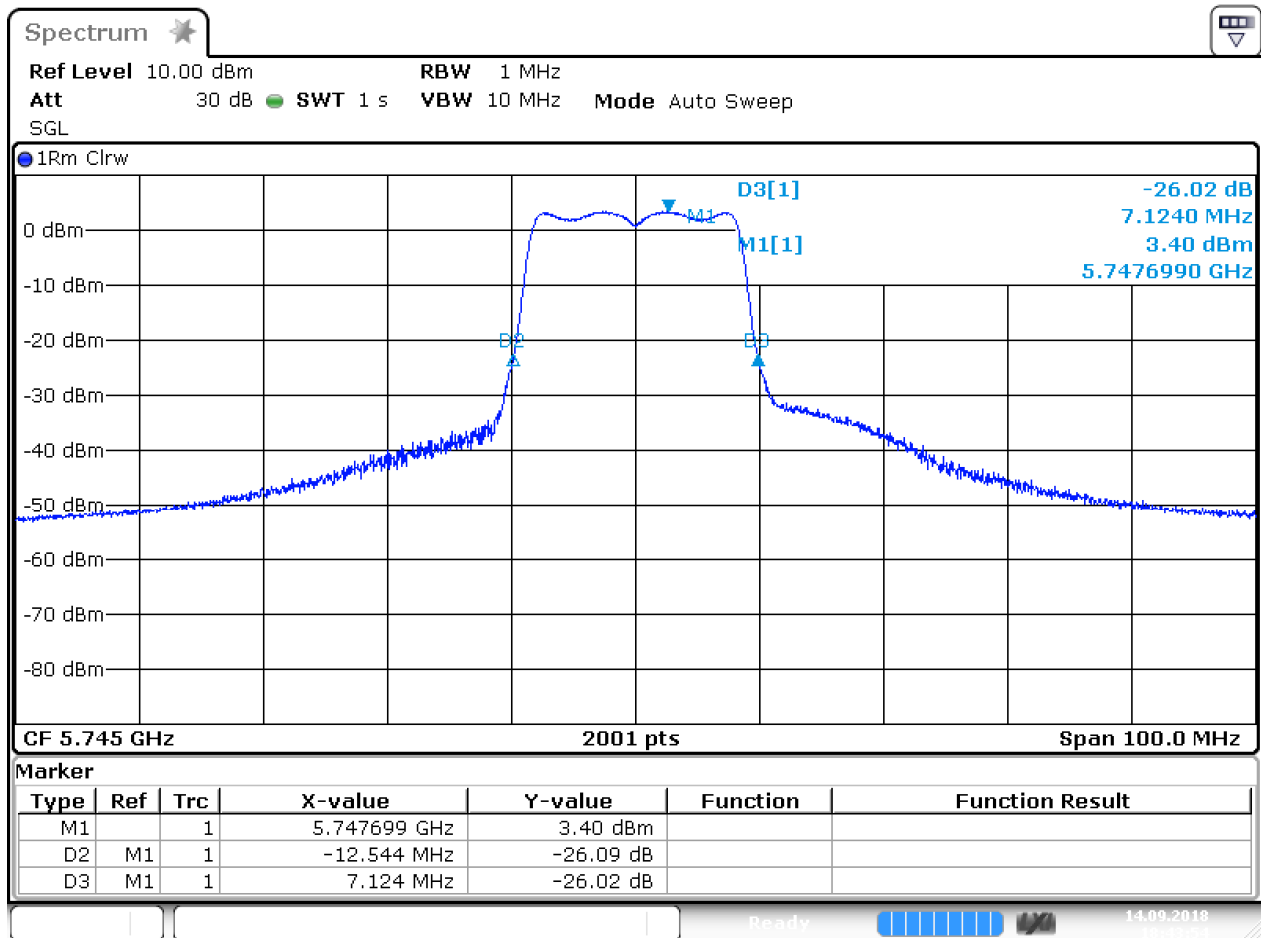
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149 (5745 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:43:54

26dB Bandwidth: 19,668 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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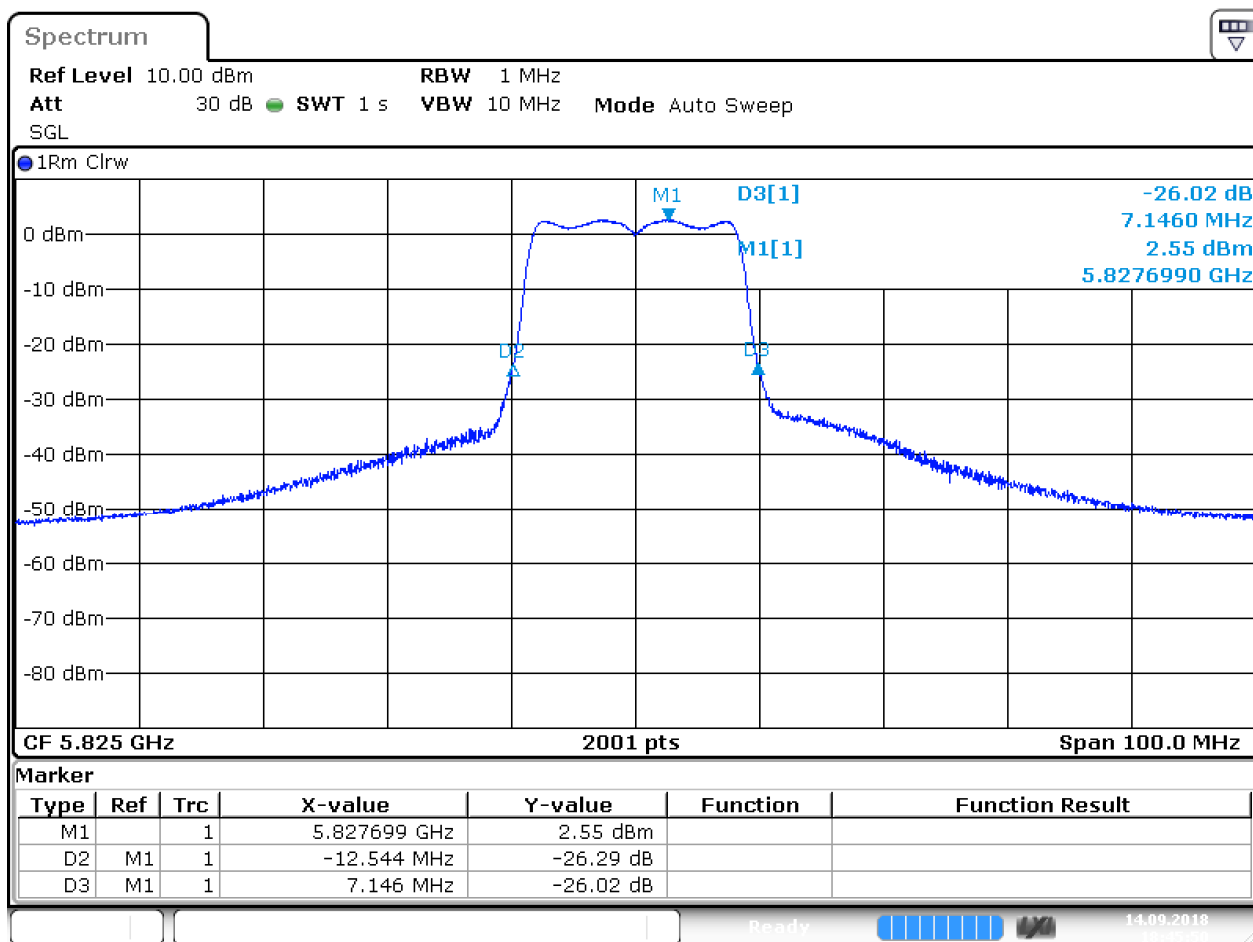
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 165 (5825 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:45:50

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

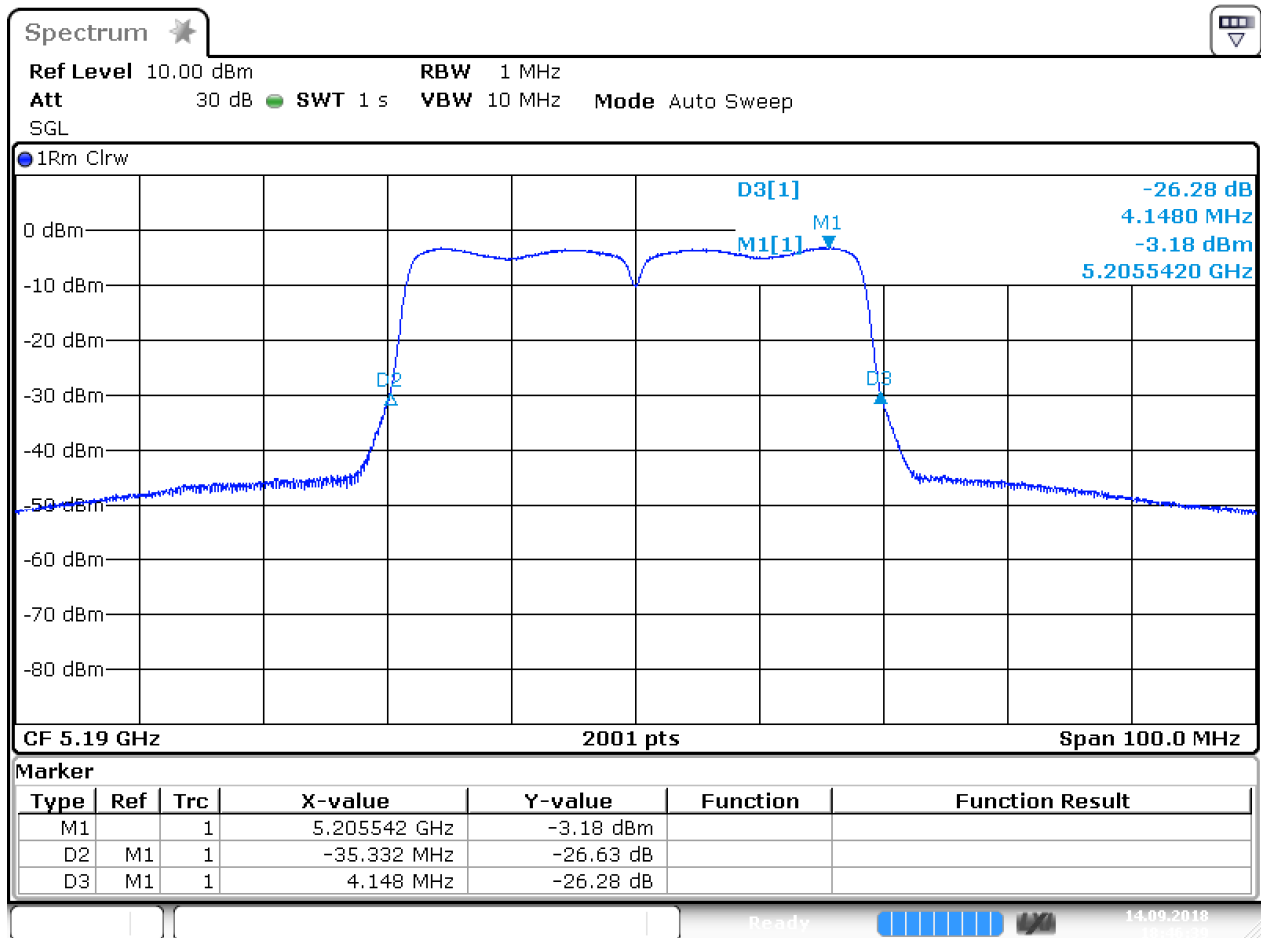
Relative humidity: 54%

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36-40 (5190 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:46:40

26dB Bandwidth: 39,480 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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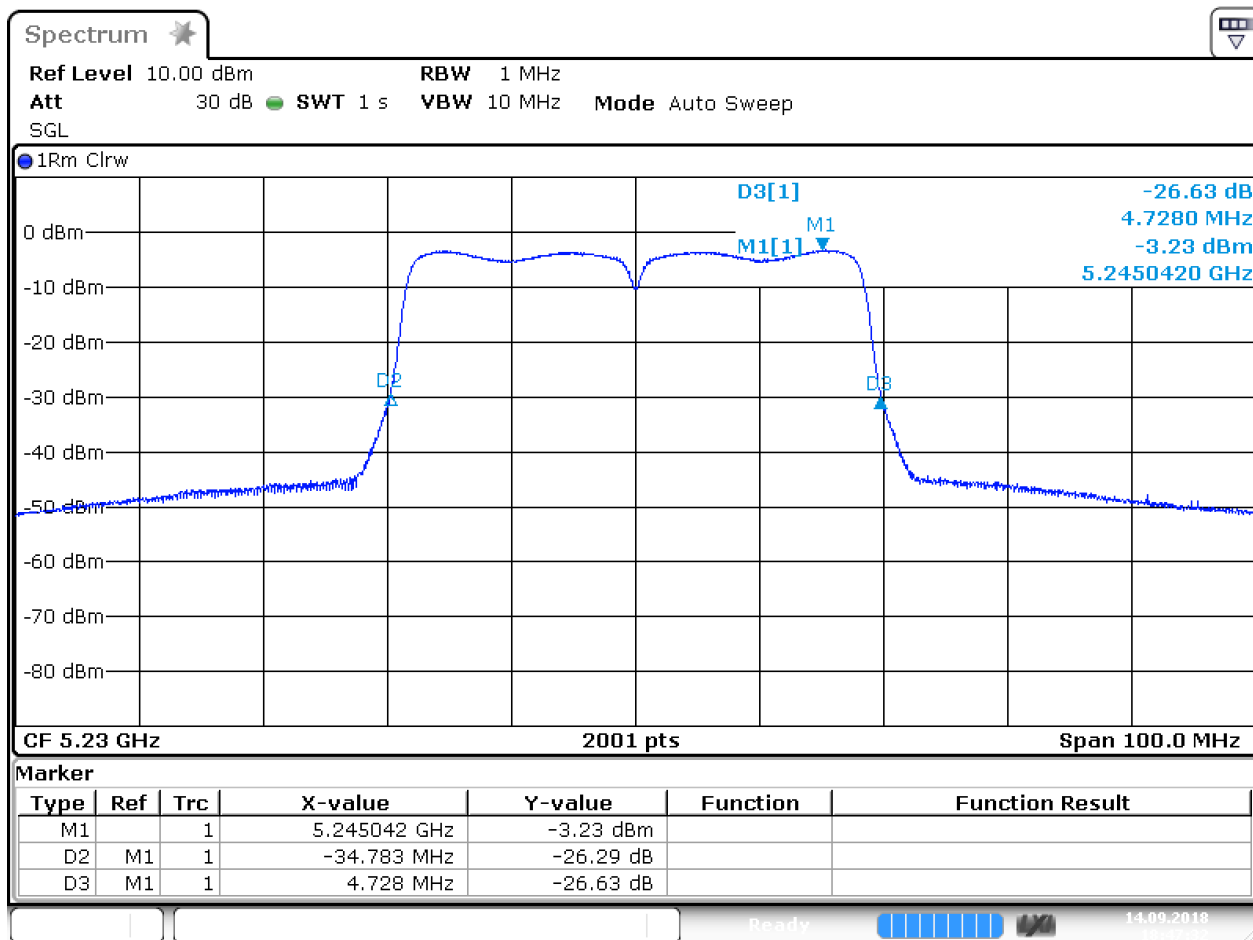
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 44-48 (5230 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:47:32

26dB Bandwidth: 39,511 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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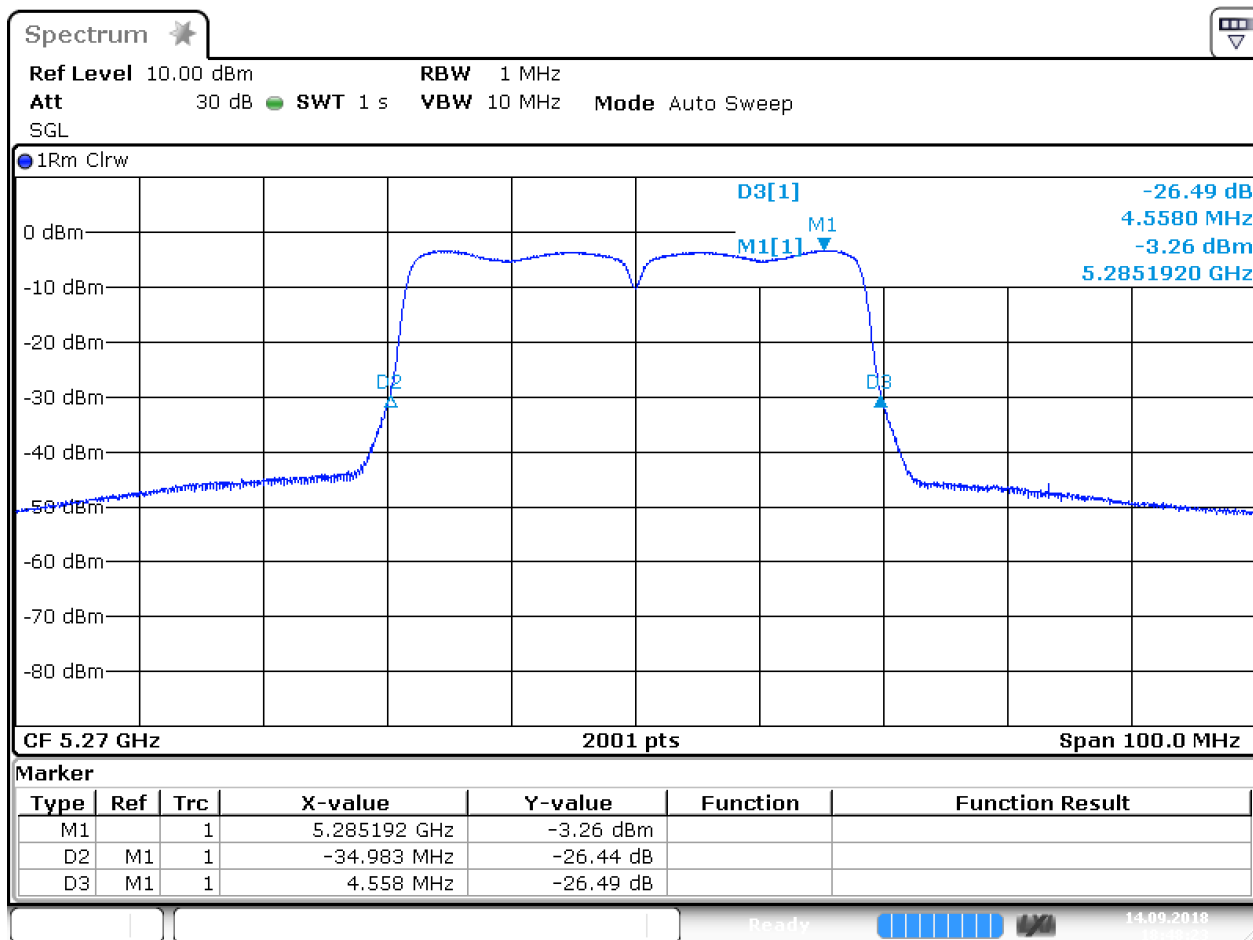
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52-56 (5270 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:48:23

26dB Bandwidth: 39,541 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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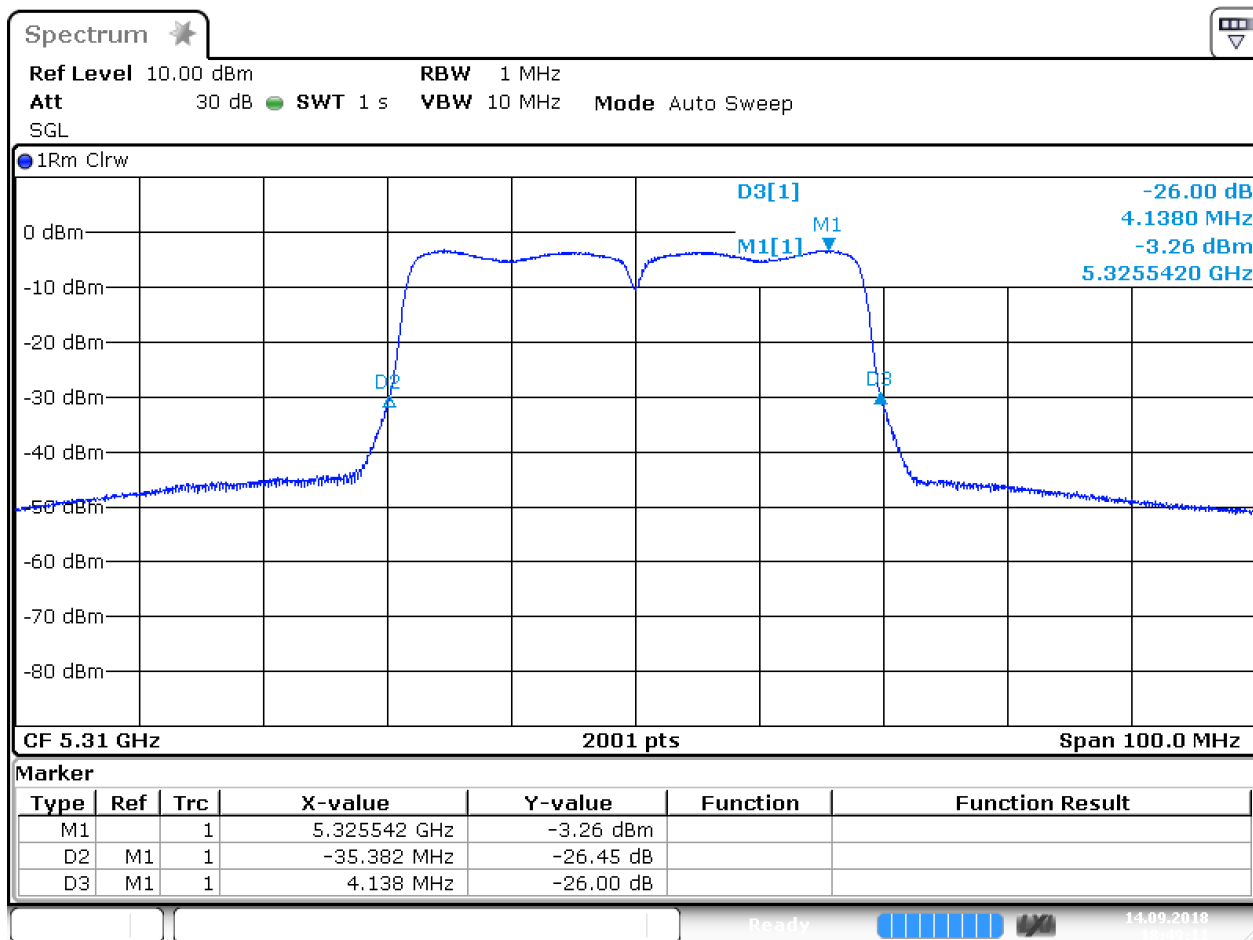
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 60-64 (5310 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:49:11

26dB Bandwidth: 39,520 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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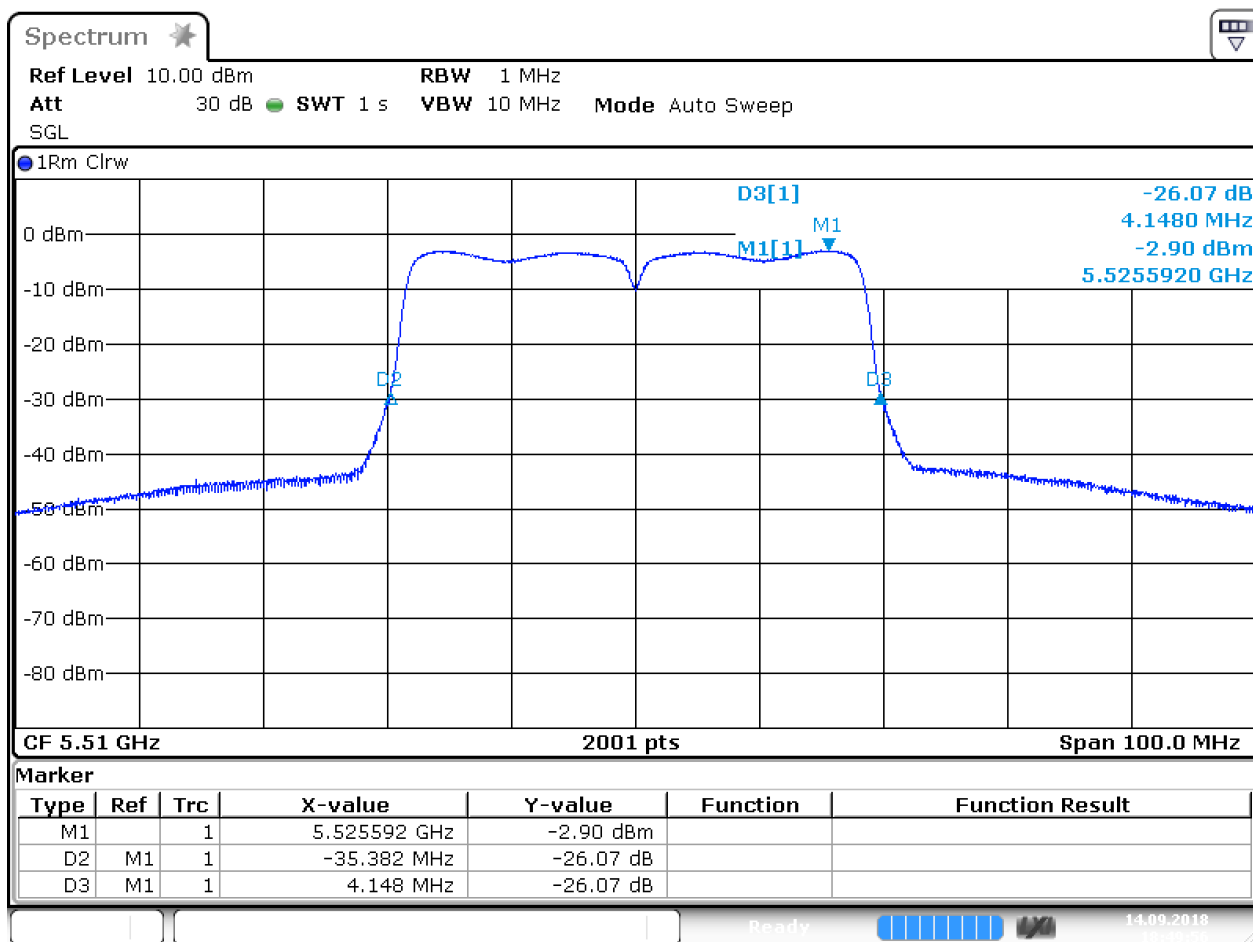
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100-104 (5510 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:49:57

26dB Bandwidth: 39,530 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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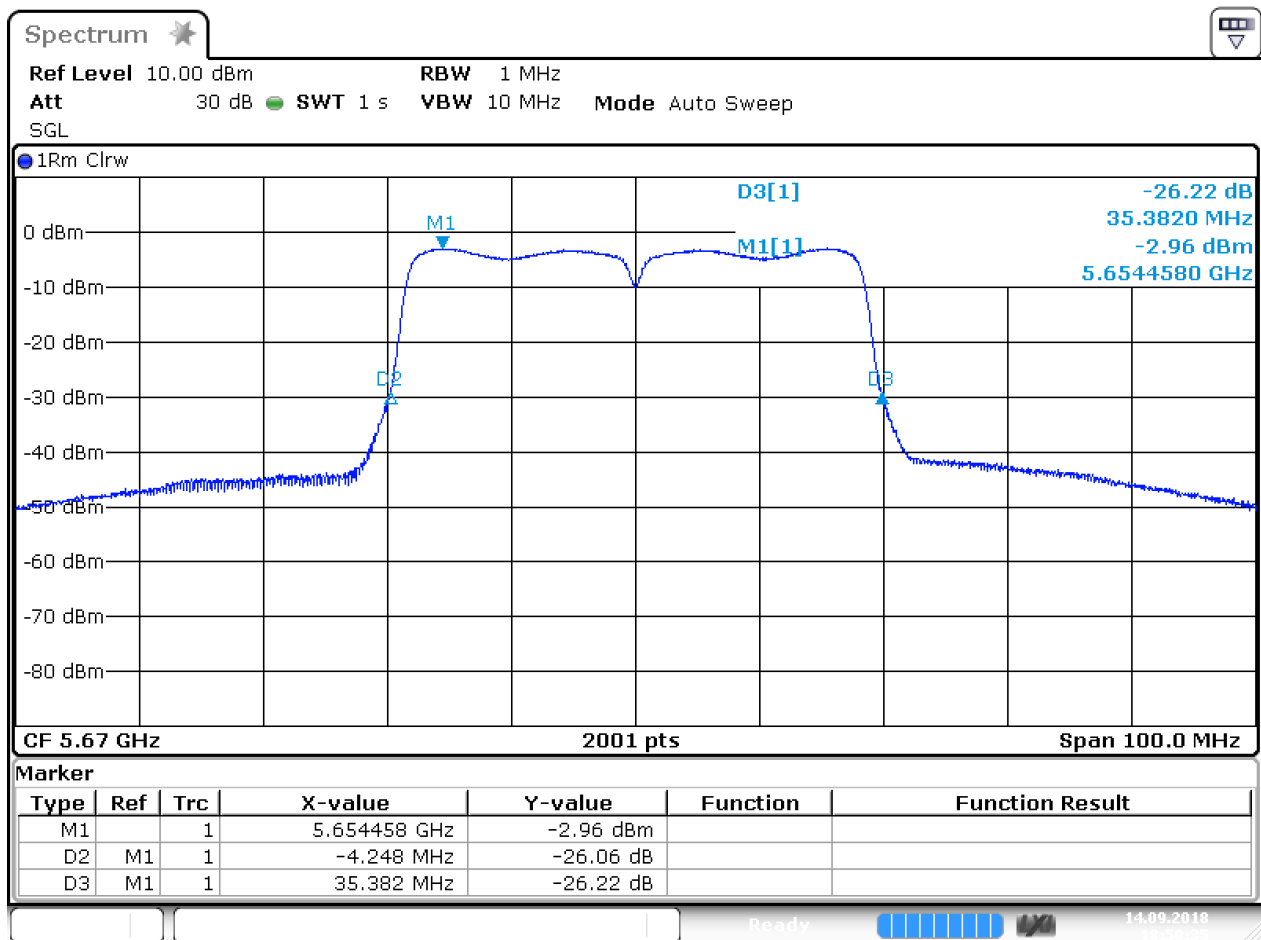
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 132-136 (5670 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:50:35

26dB Bandwidth: 39,630 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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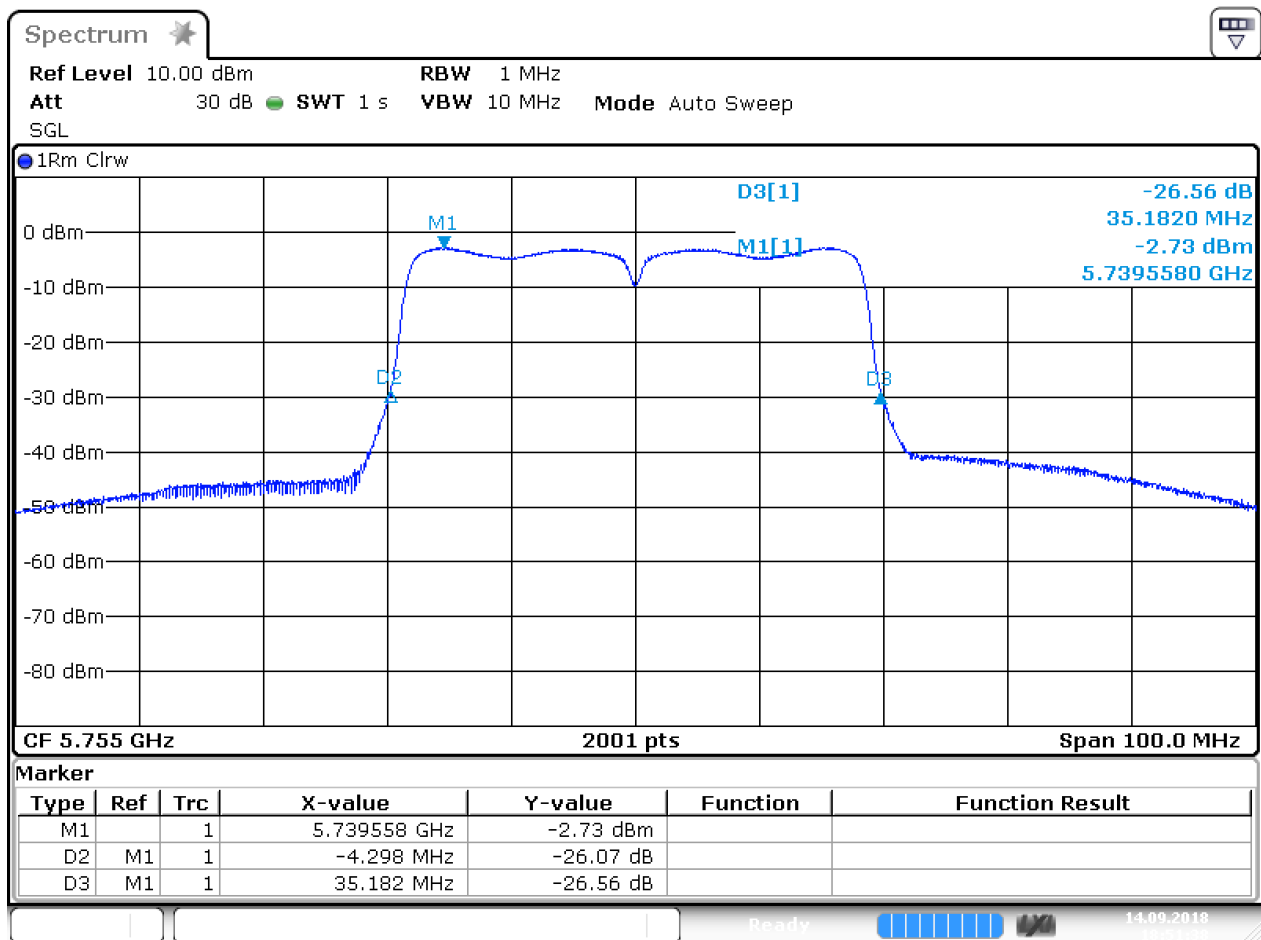
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149-153 (5755 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:51:39

26dB Bandwidth: 39,480 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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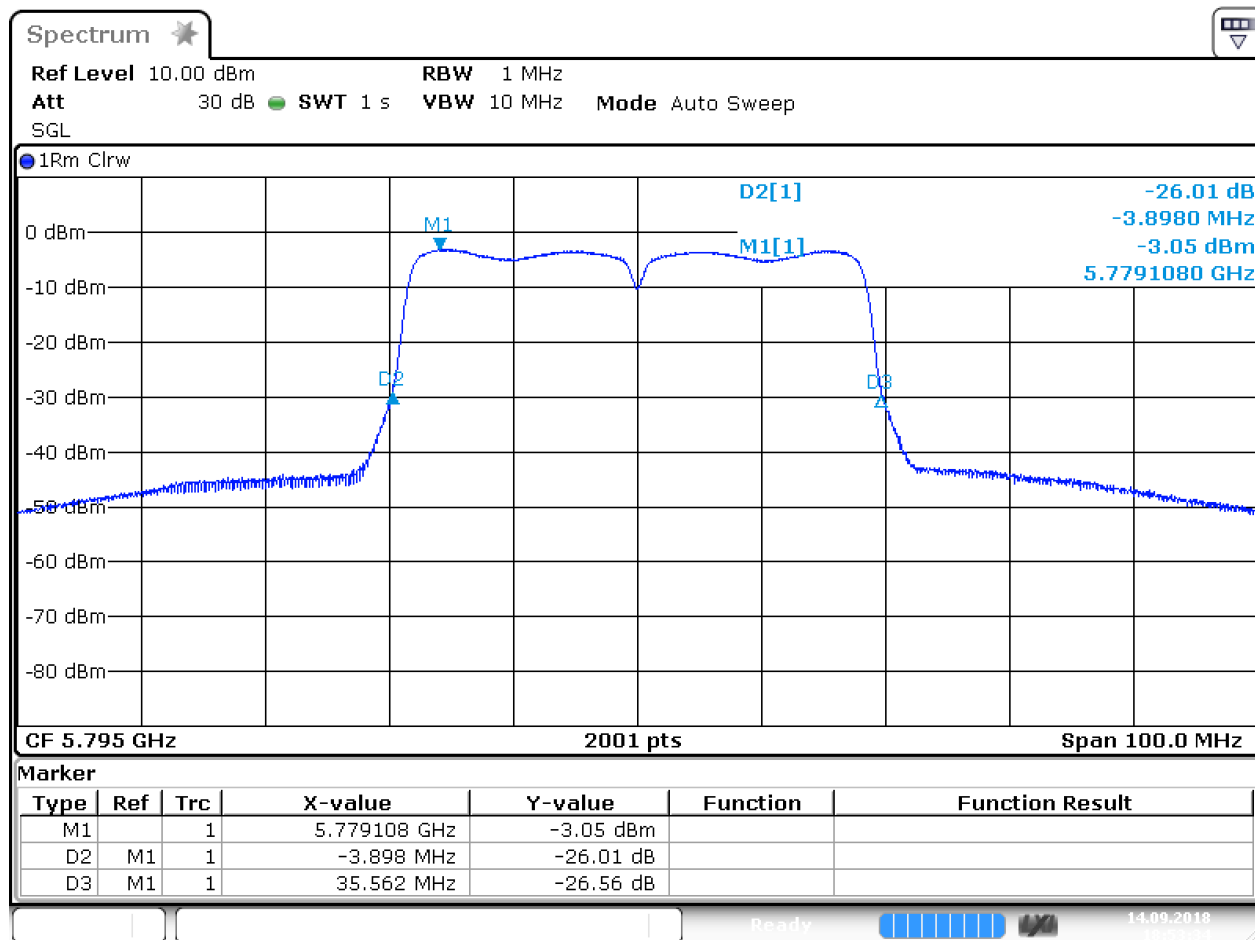
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 157-161 (5795 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:53:34

26dB Bandwidth: 39,460 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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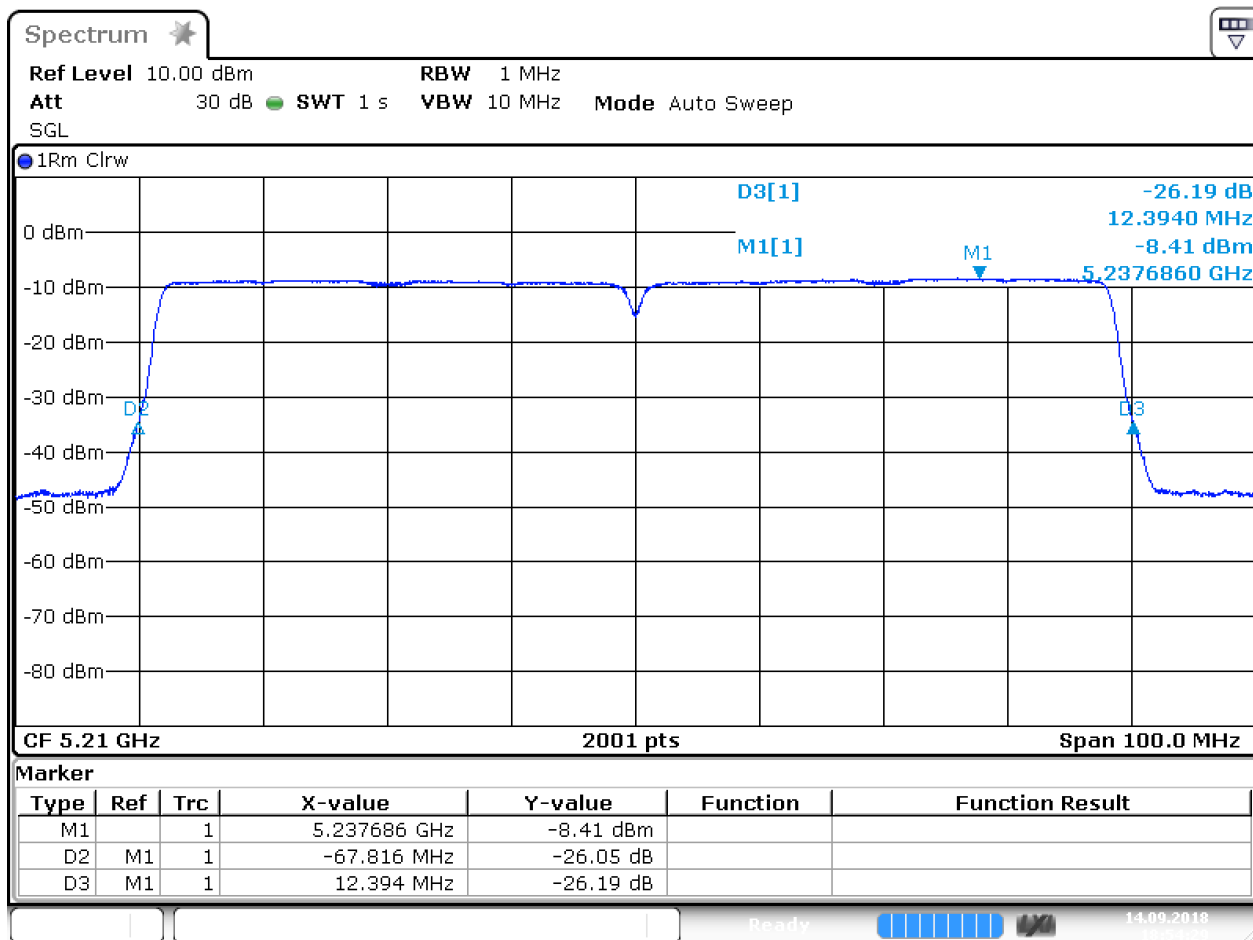
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36-48 (5210 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:54:29

26dB Bandwidth: 80,210 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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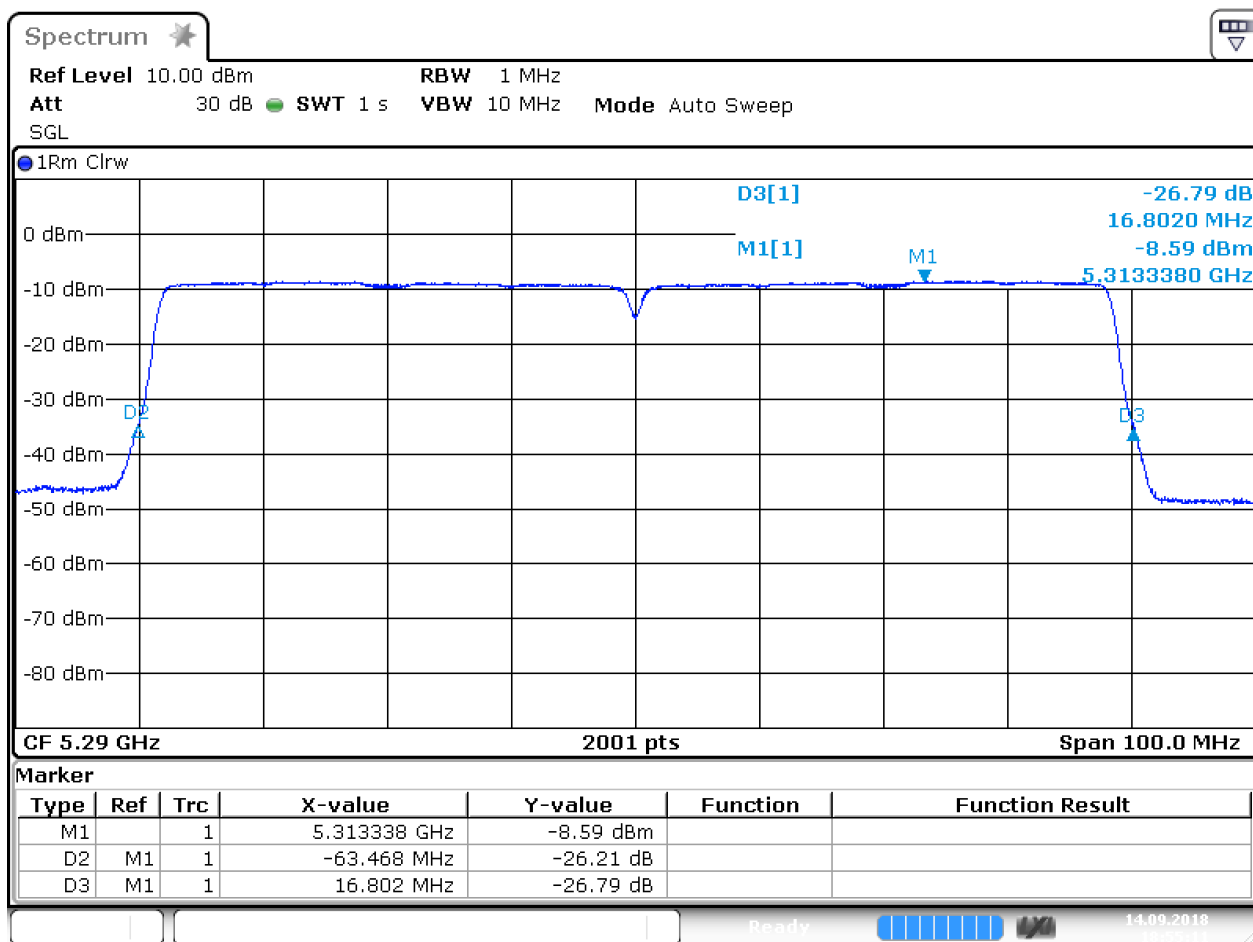
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52-64 (5290 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:55:12

26dB Bandwidth: 80,270 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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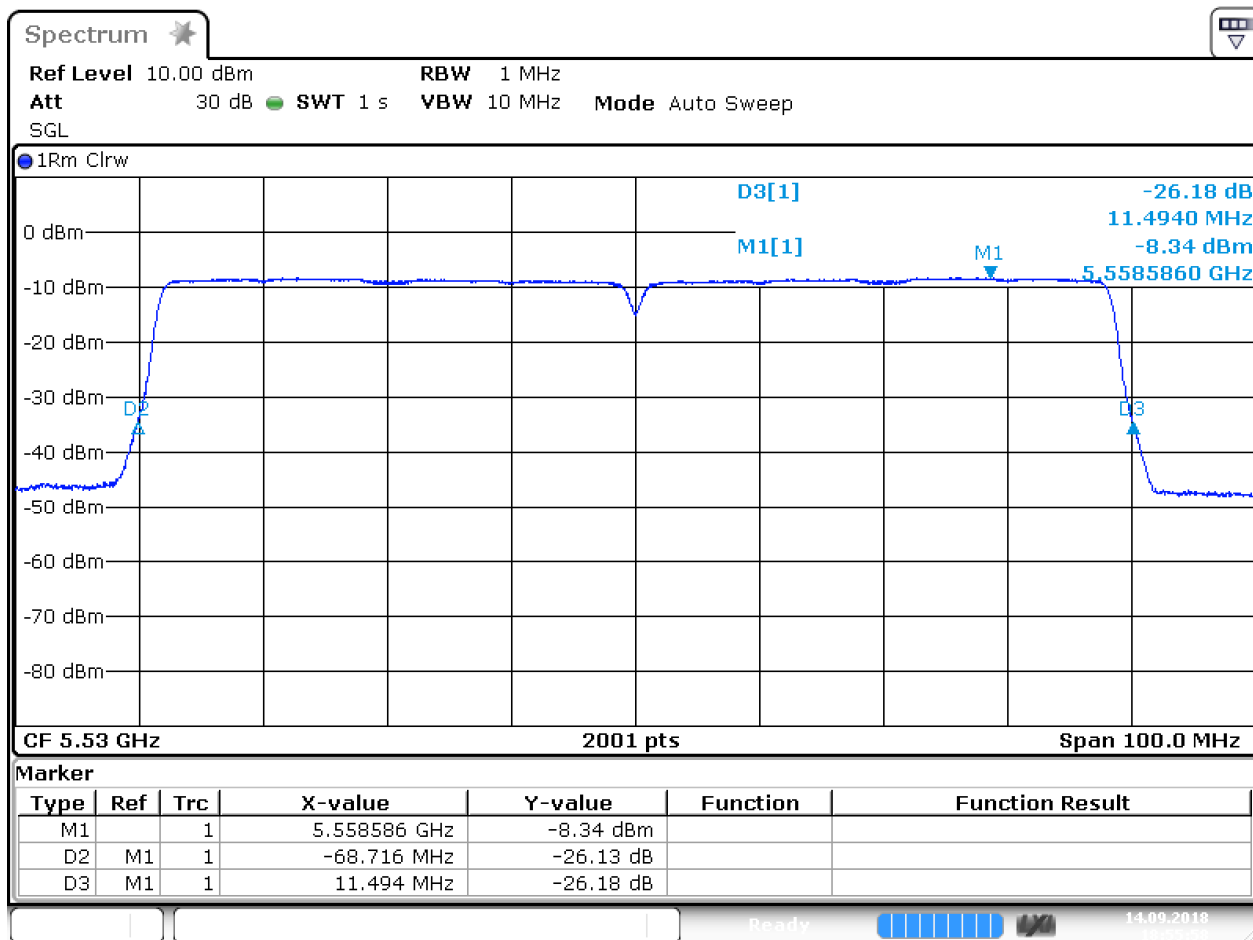
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100-112 (5530 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:55:58

26dB Bandwidth: 80,210 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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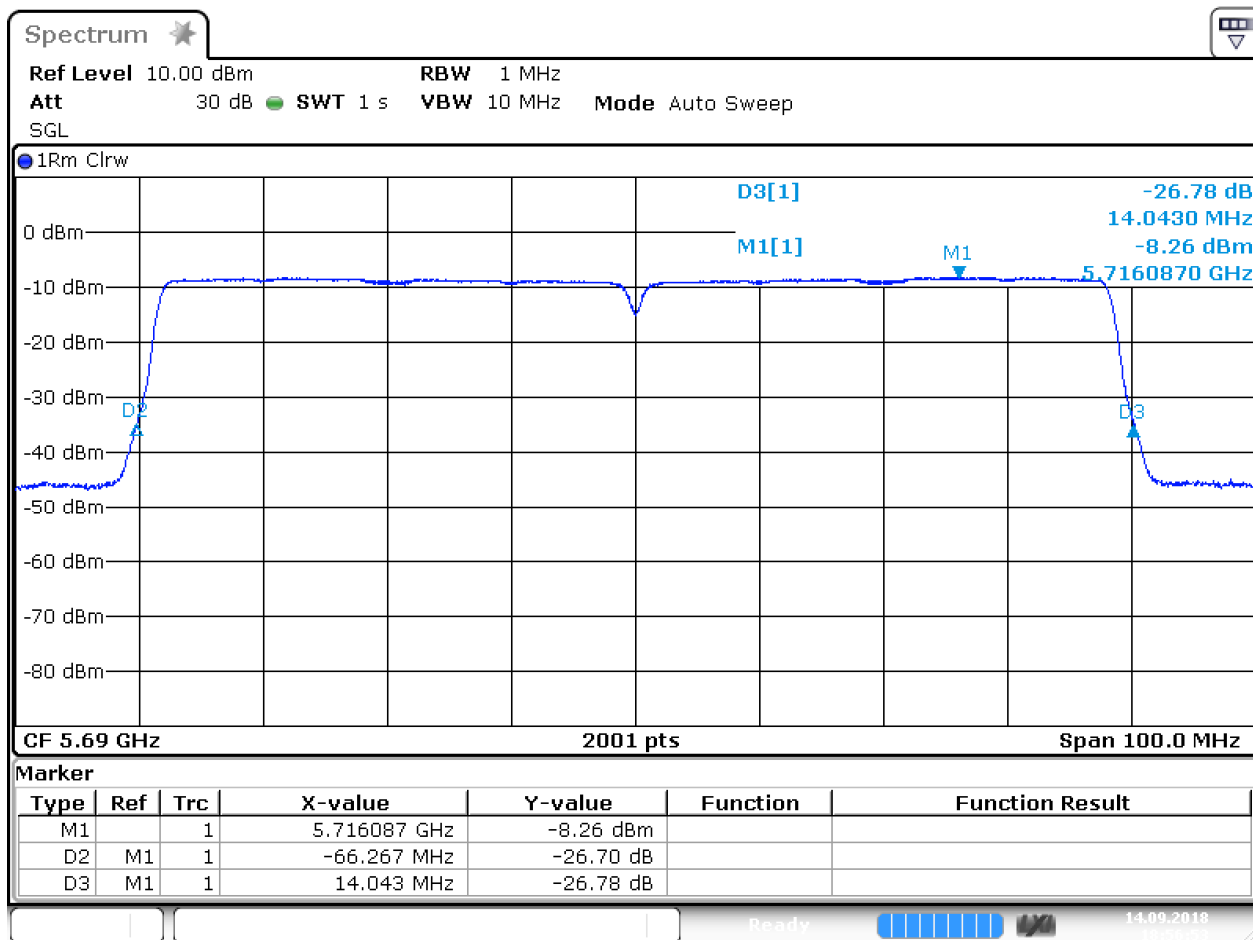
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 132-144 (5690 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:56:53

26dB Bandwidth: 80,310 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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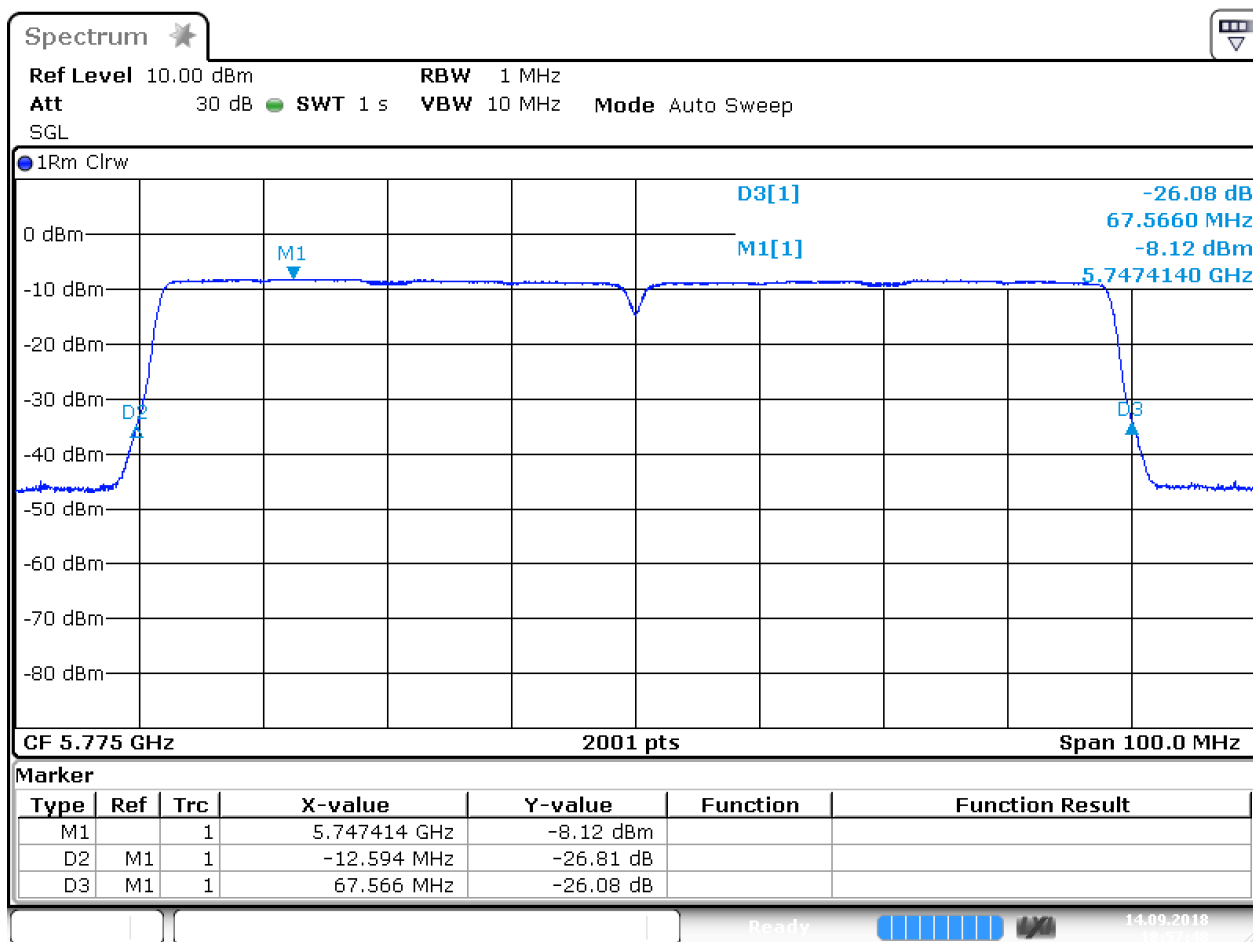
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149-161 (5725 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 18:57:49

26dB Bandwidth: 80,160 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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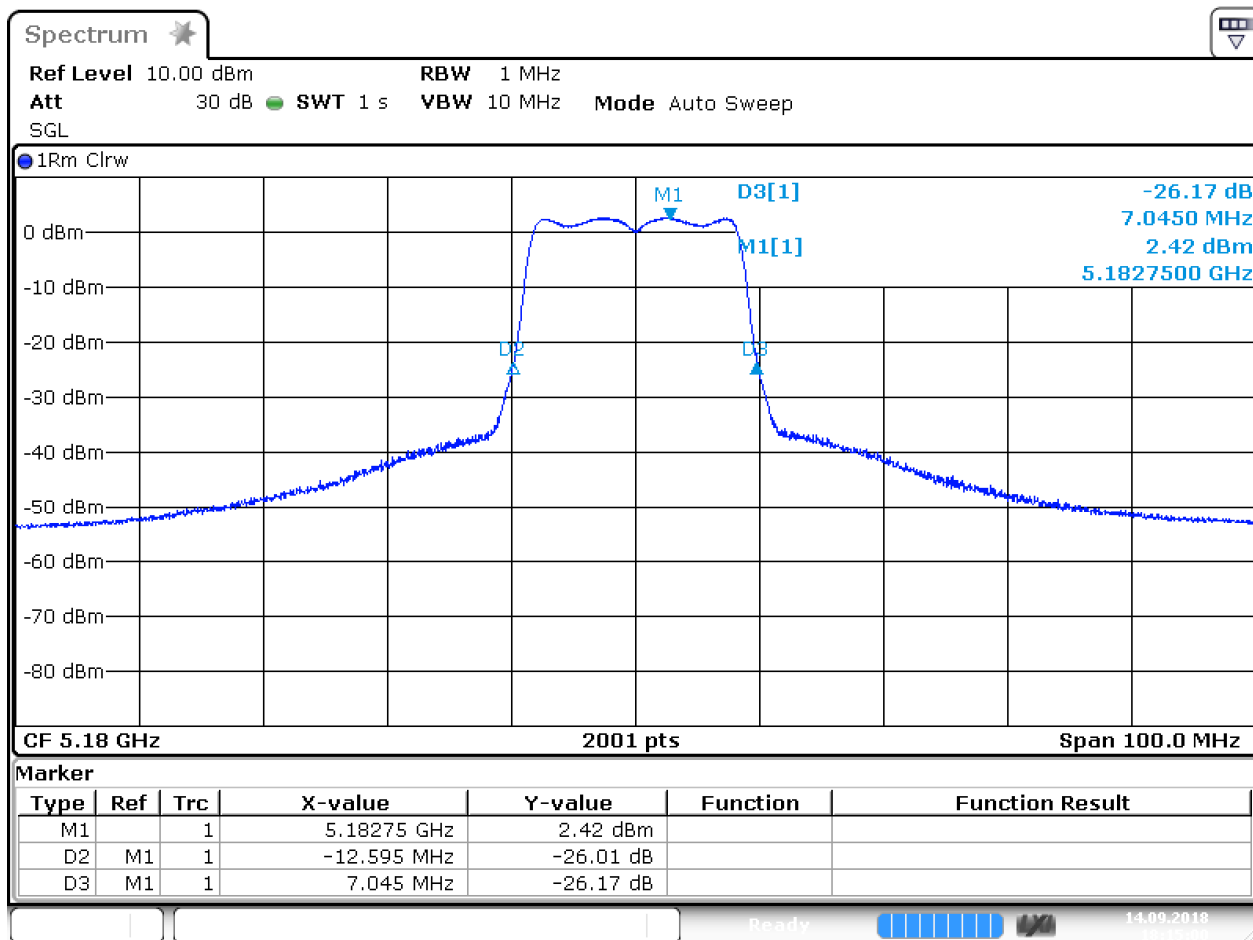
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36 (5180 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:15:01

26dB Bandwidth: 19,640 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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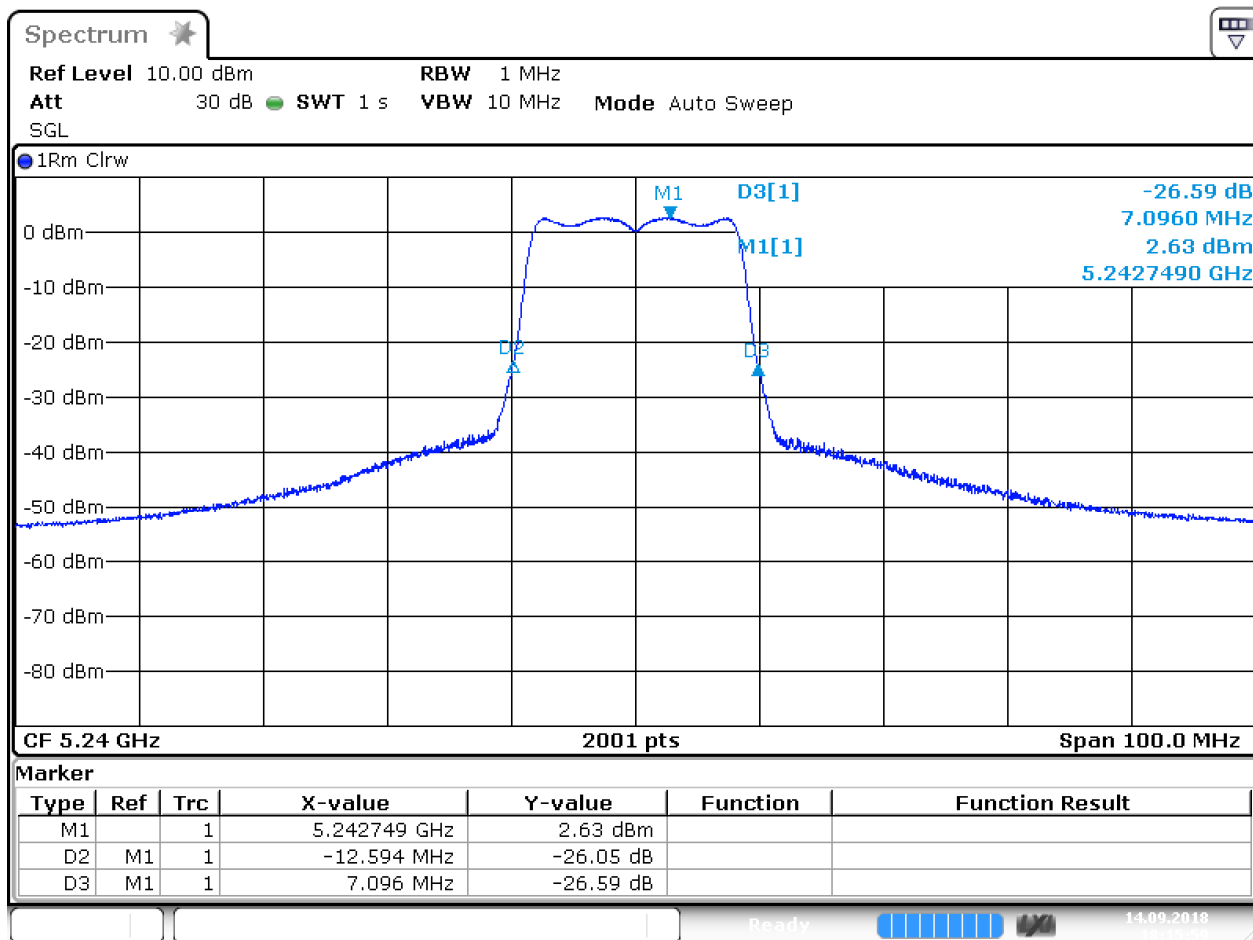
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 48 (5240 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:15:59

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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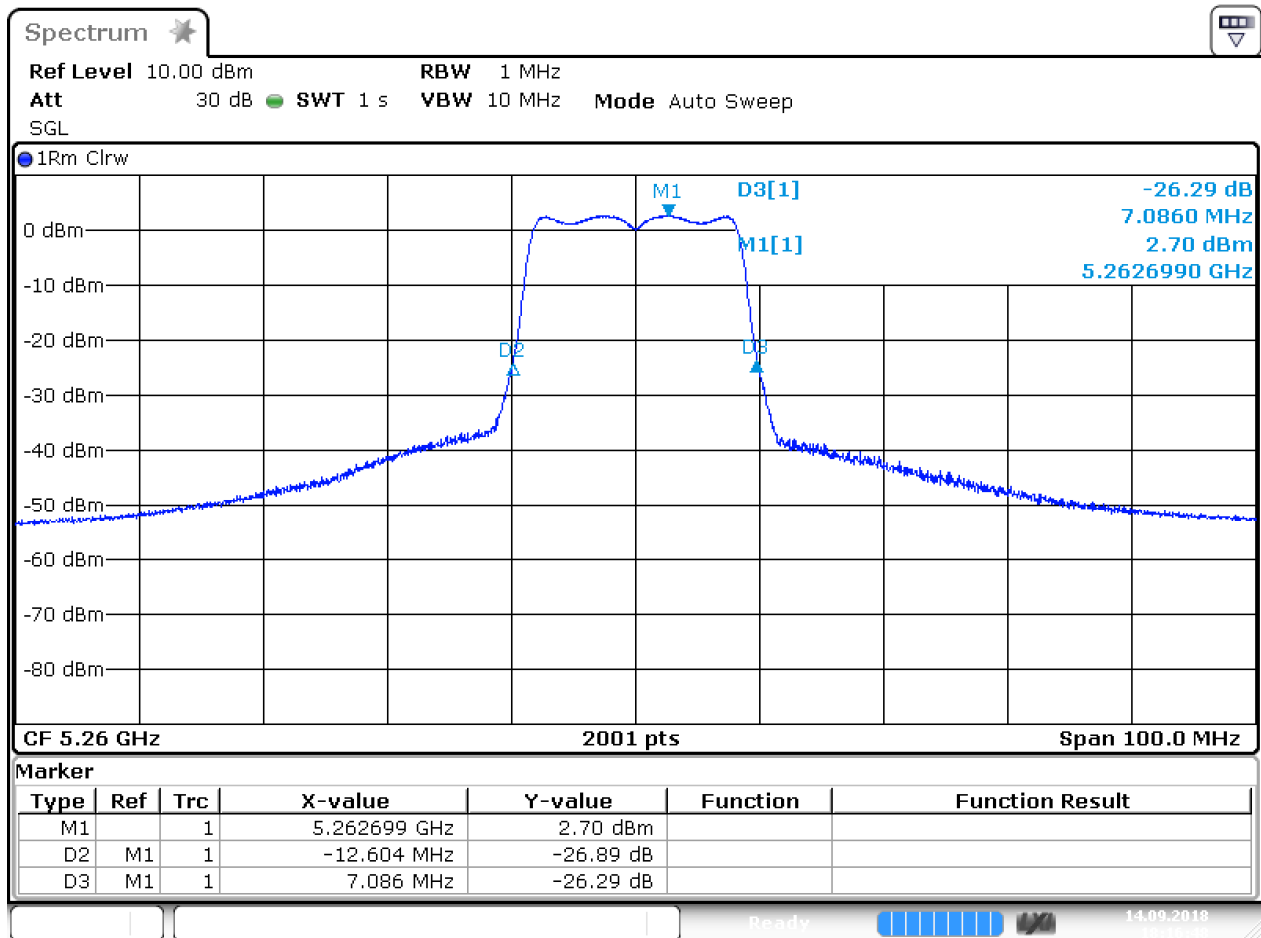
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52 (5260 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:16:48

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
---	---

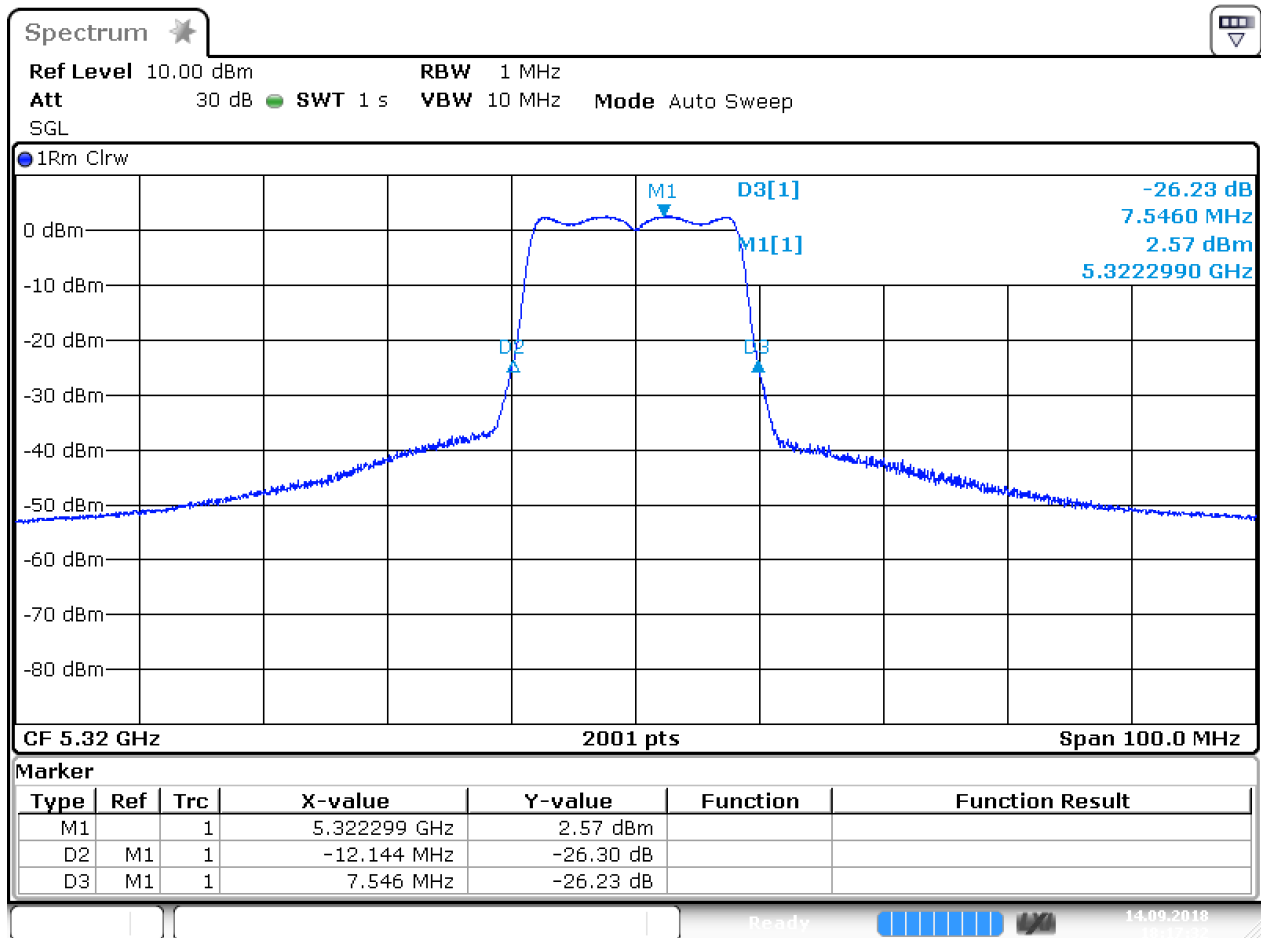
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 64 (5320 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:17:32

26dB Bandwidth: 19,690 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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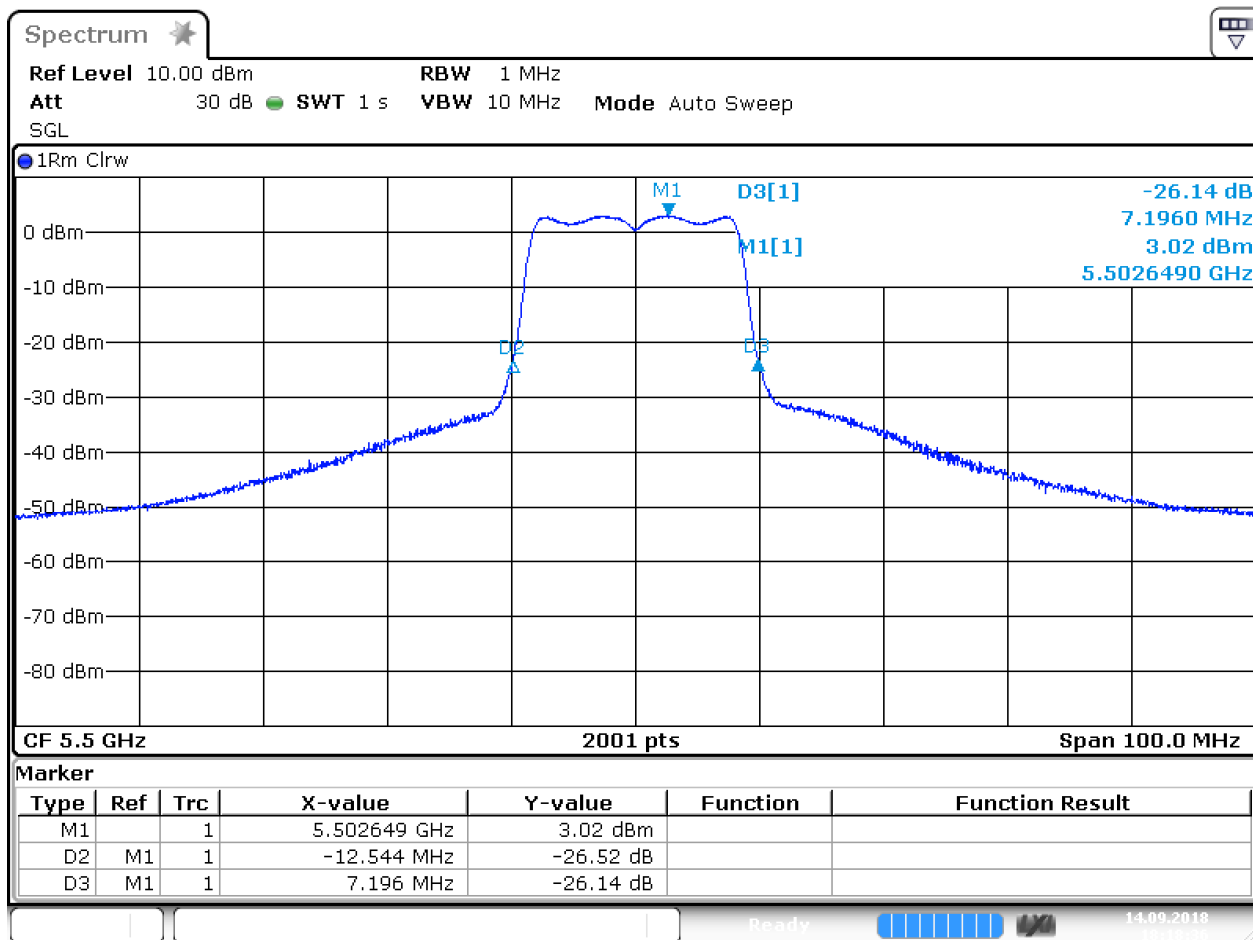
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100 (5500 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:18:36

26dB Bandwidth: 19,740 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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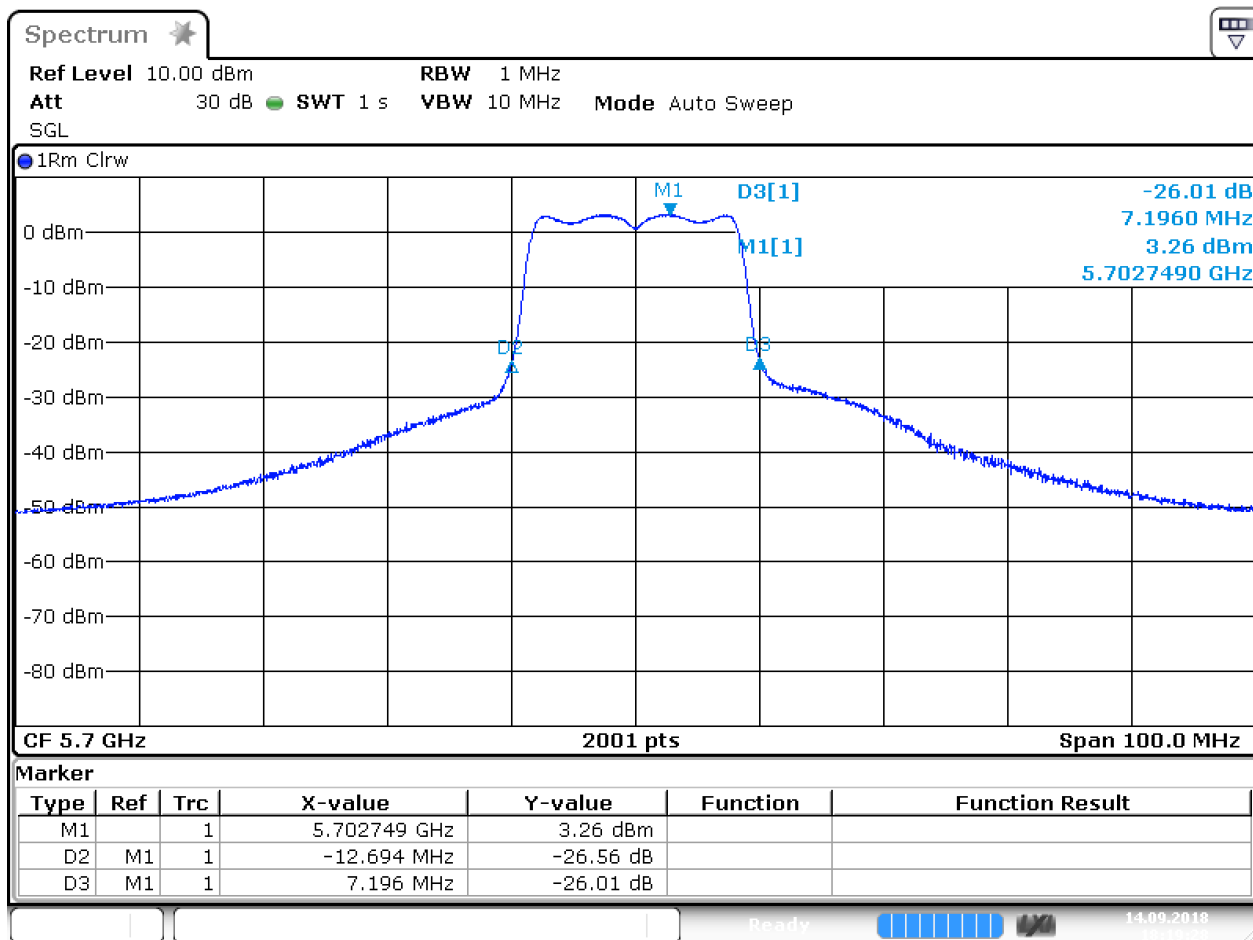
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 140 (5700 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:19:28

26dB Bandwidth: 19,890 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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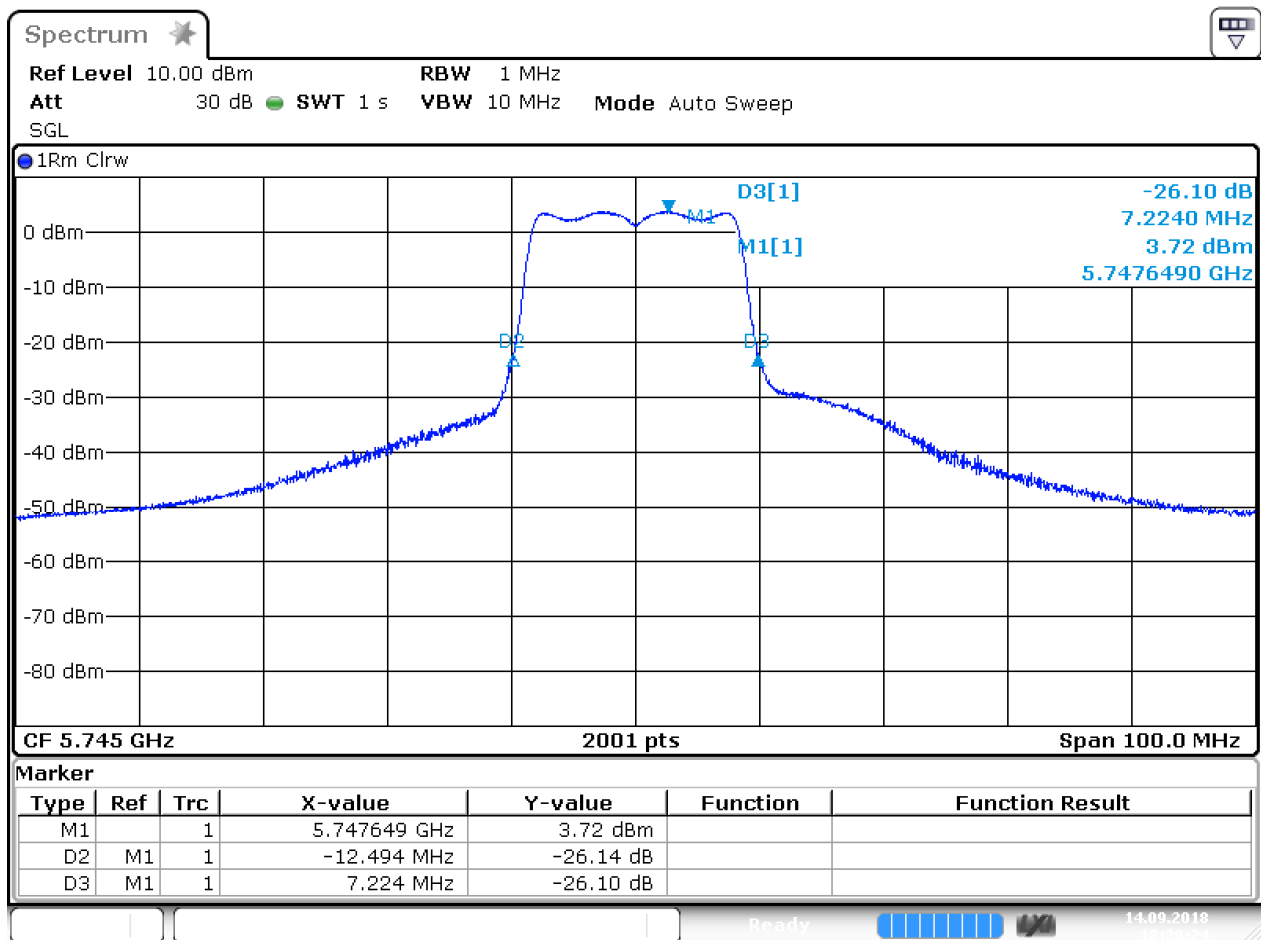
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149 (5745 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:20:24

26dB Bandwidth: 19,718 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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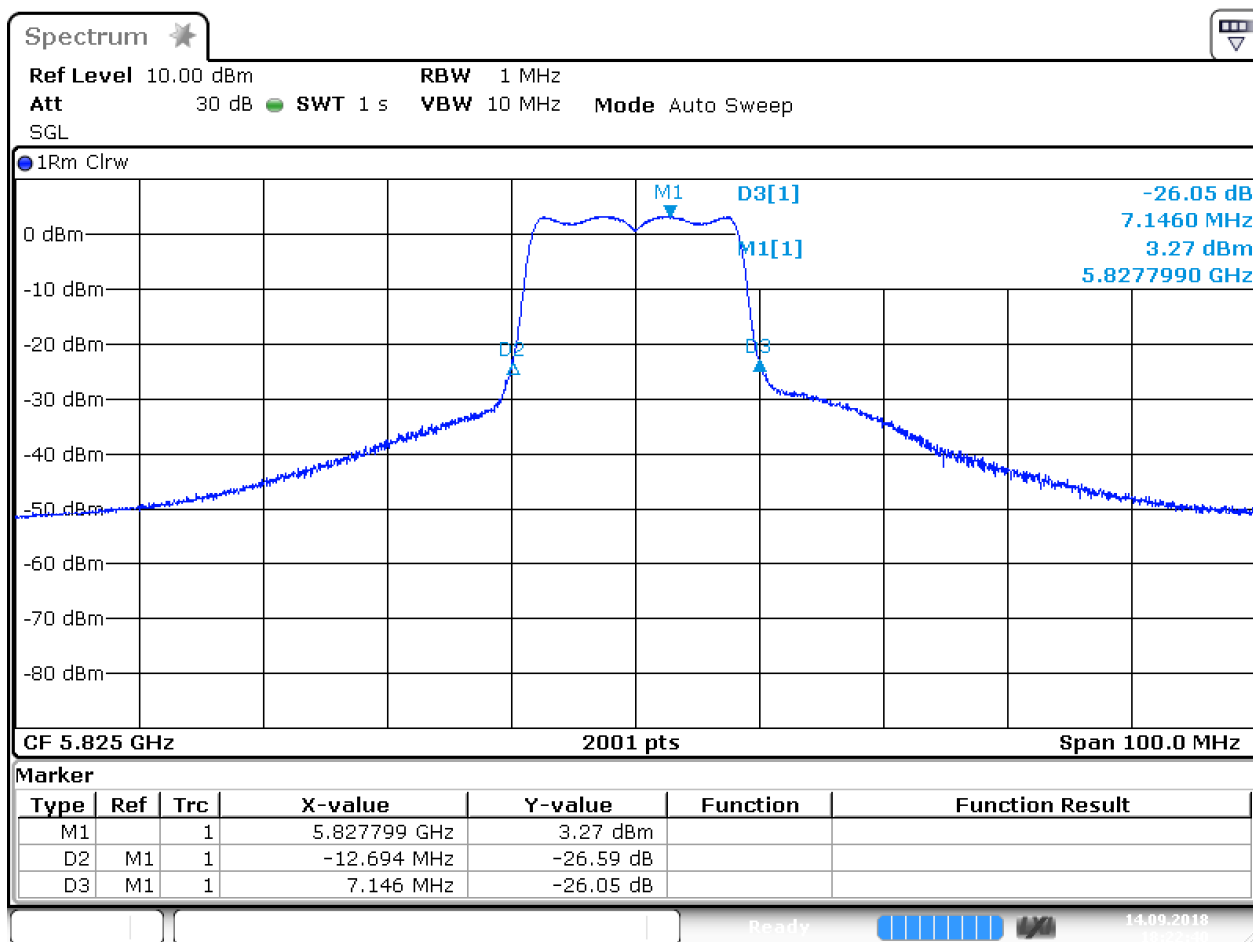
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 165 (5825 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:22:41

26dB Bandwidth: 19,840 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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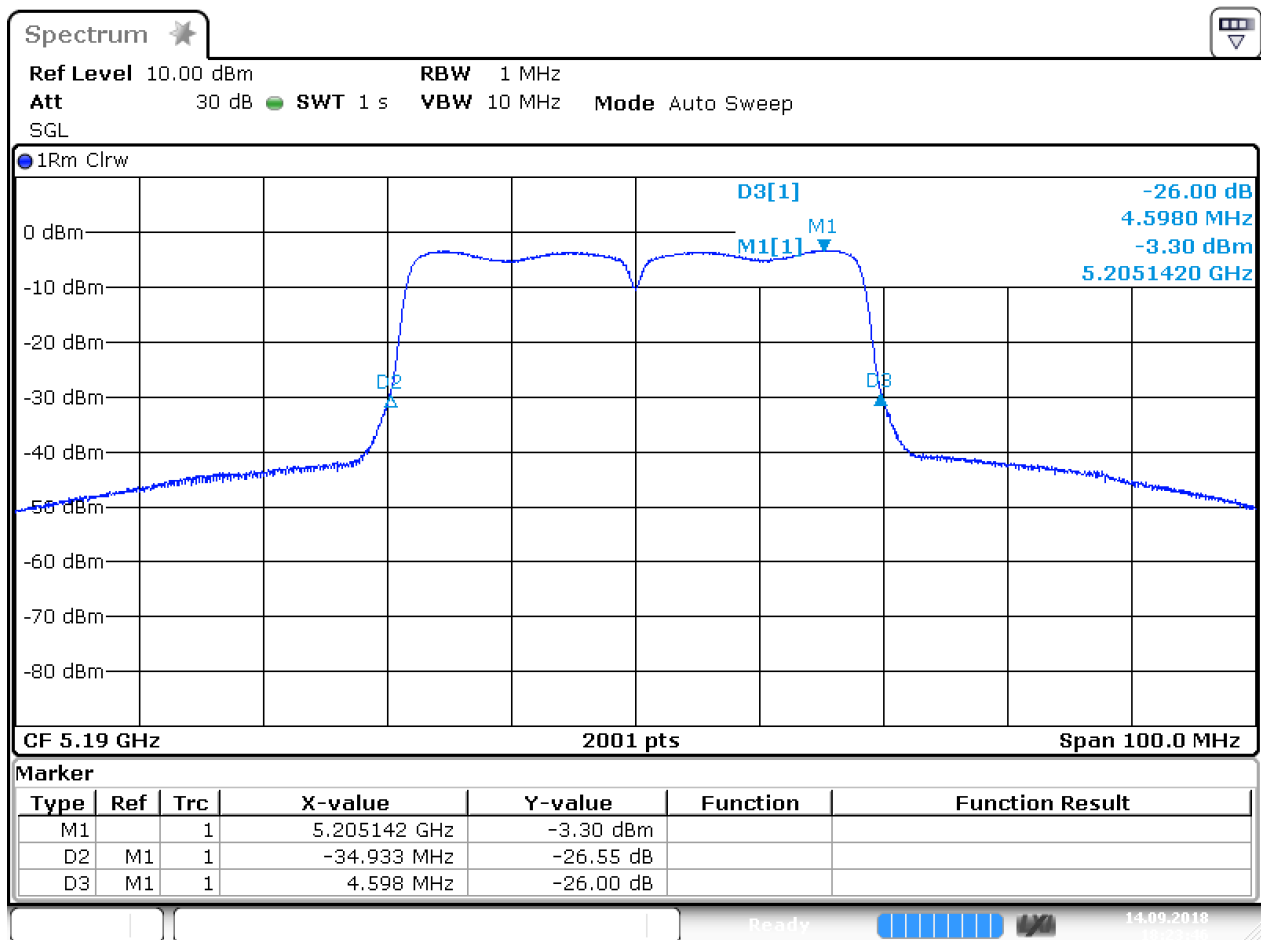
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36-40 (5190 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:23:47

26dB Bandwidth: 39,531 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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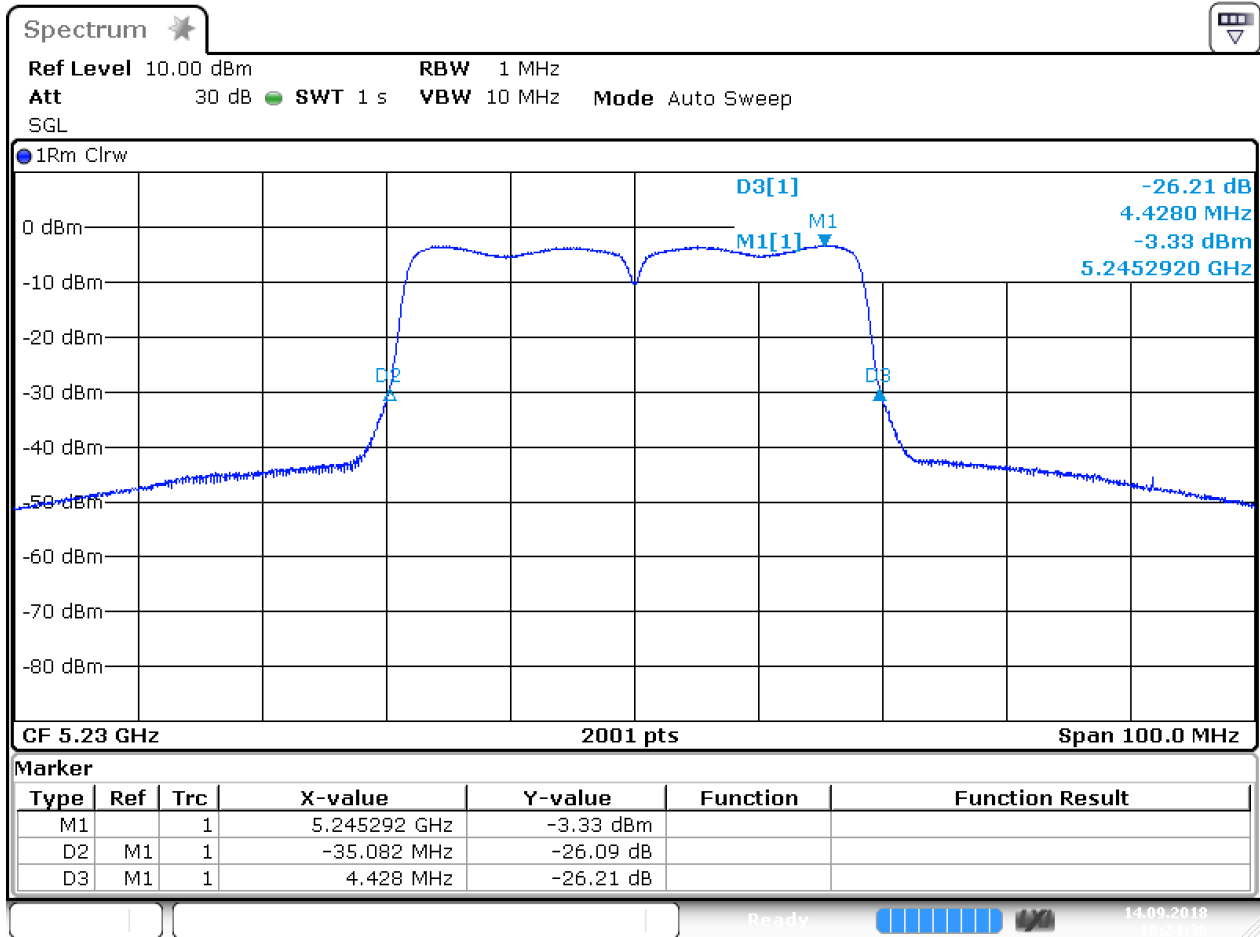
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 44-48 (5230 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:24:36

26dB Bandwidth: 39,510 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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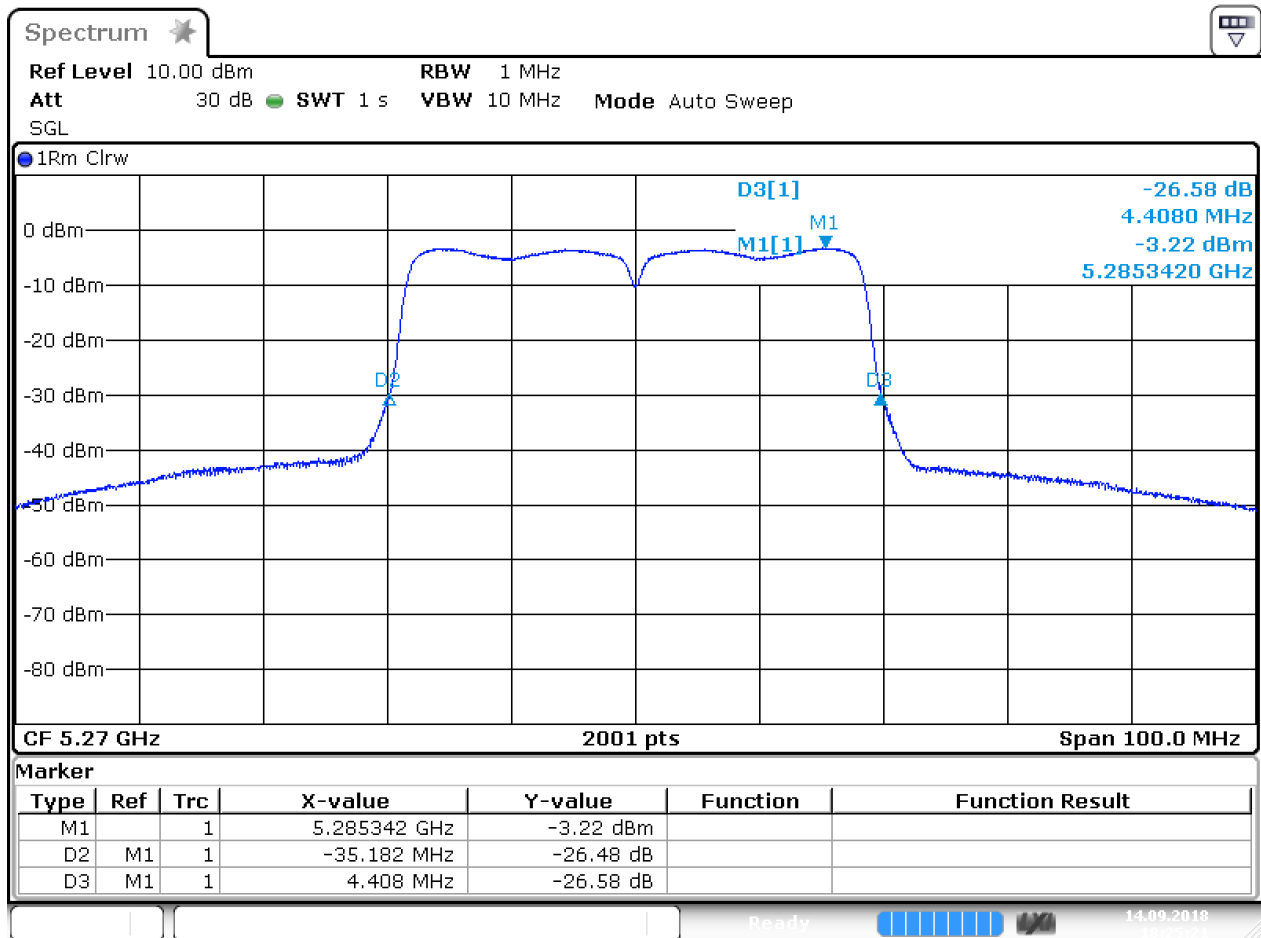
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52-56 (5270 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:25:21

26dB Bandwidth: 39,590 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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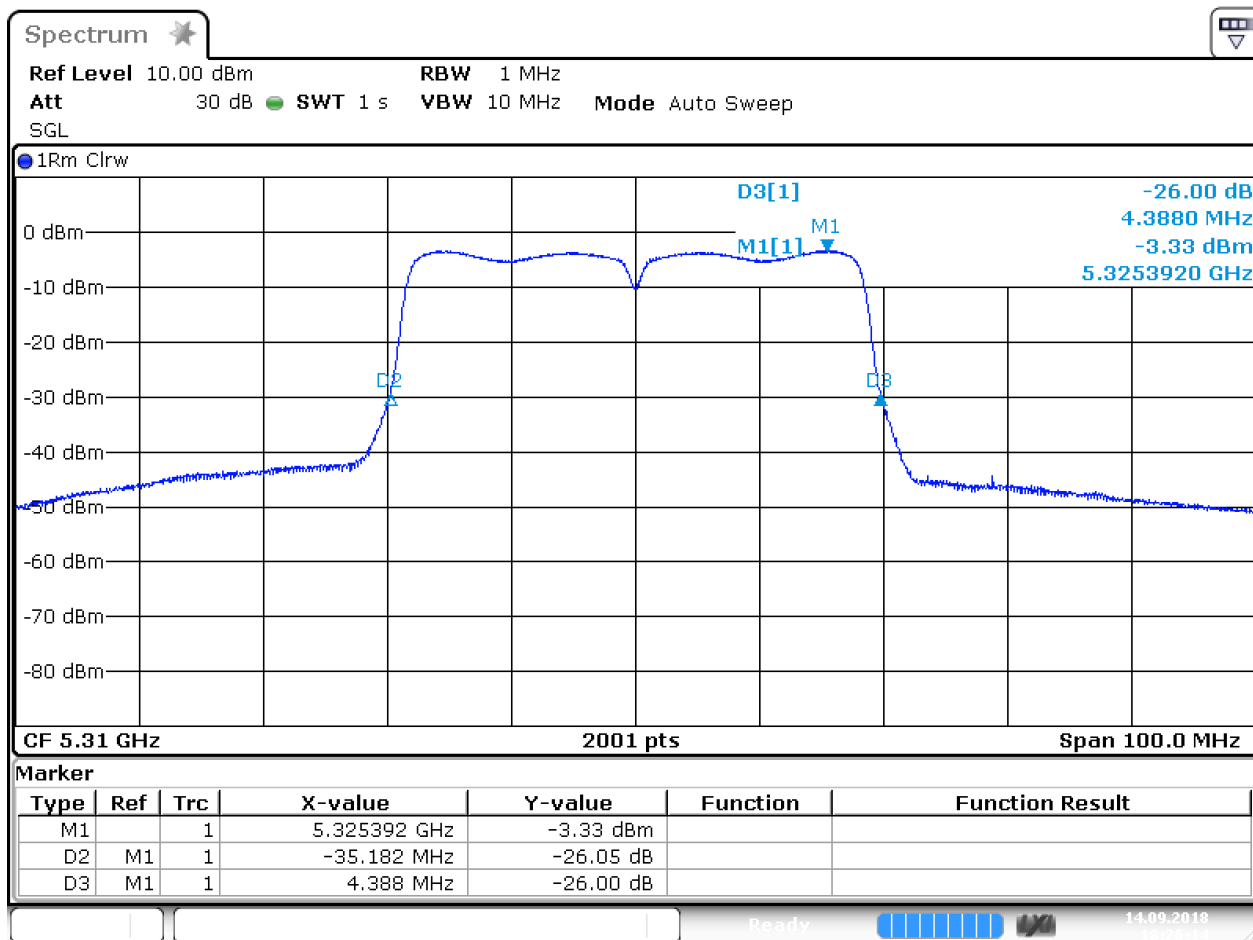
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 60-64 (5310 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:26:15

26dB Bandwidth: 39,570 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
---	---

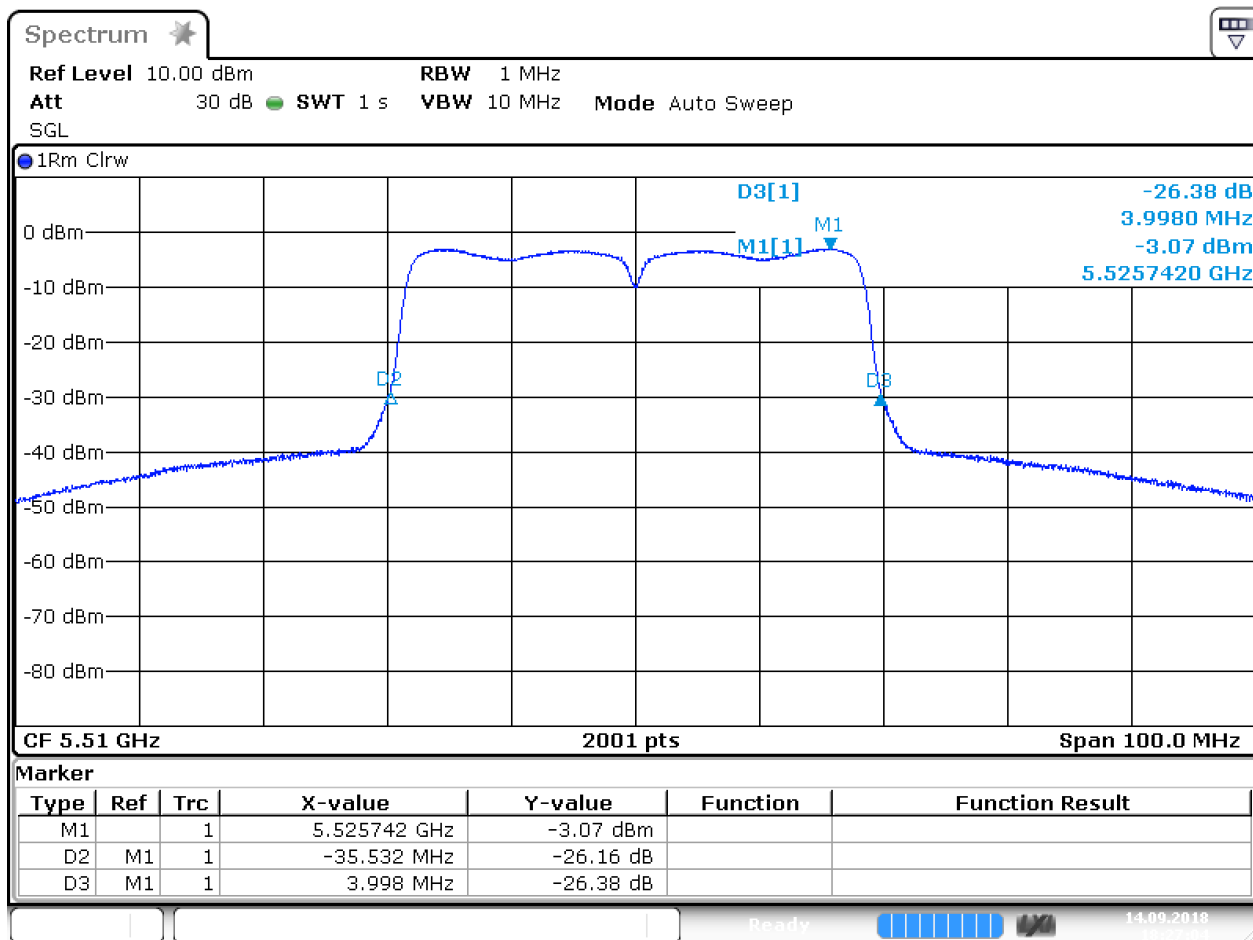
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100-104 (5510 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:27:04

26dB Bandwidth: 39,530 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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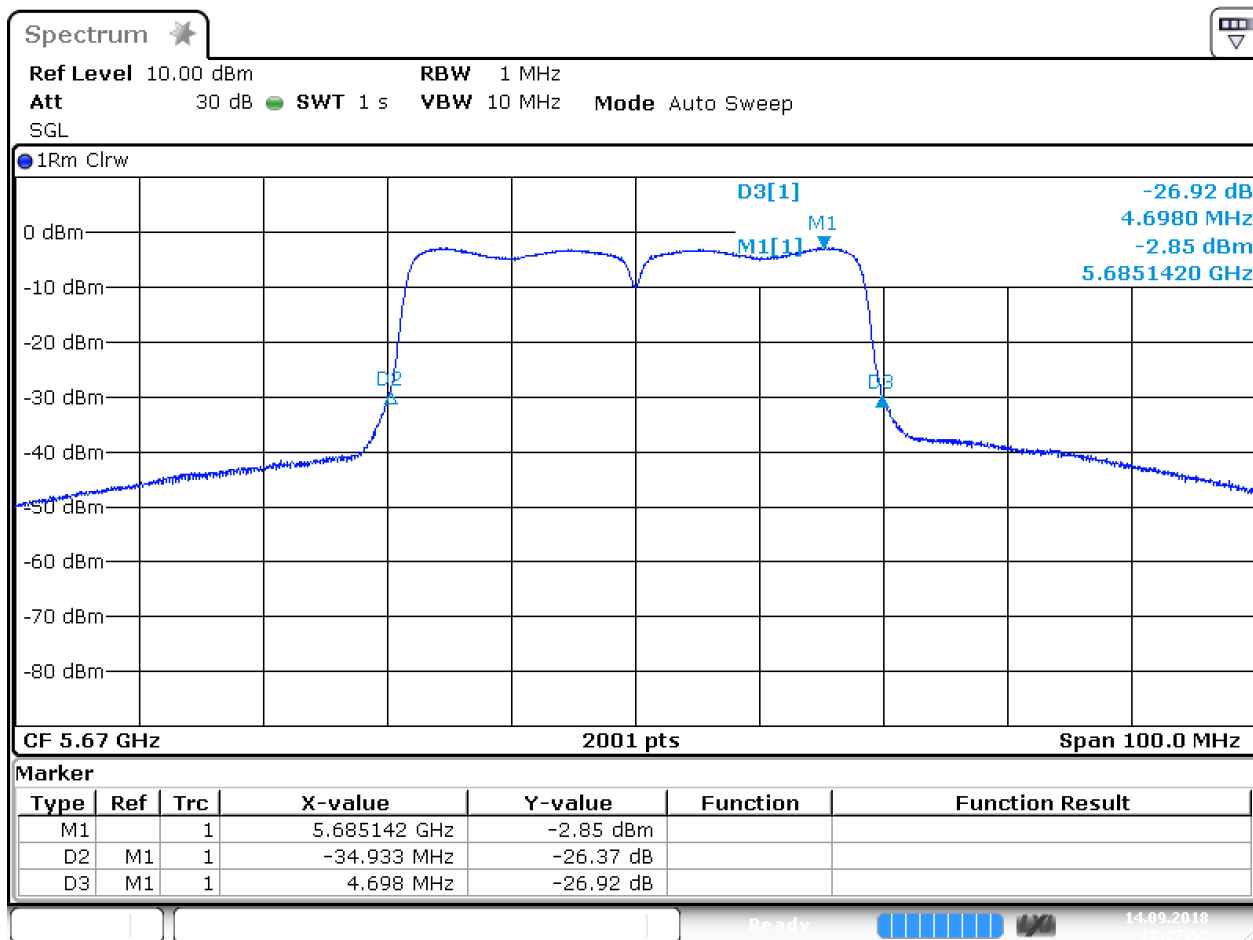
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 132-136 (5670 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:27:52

26dB Bandwidth: 39,631 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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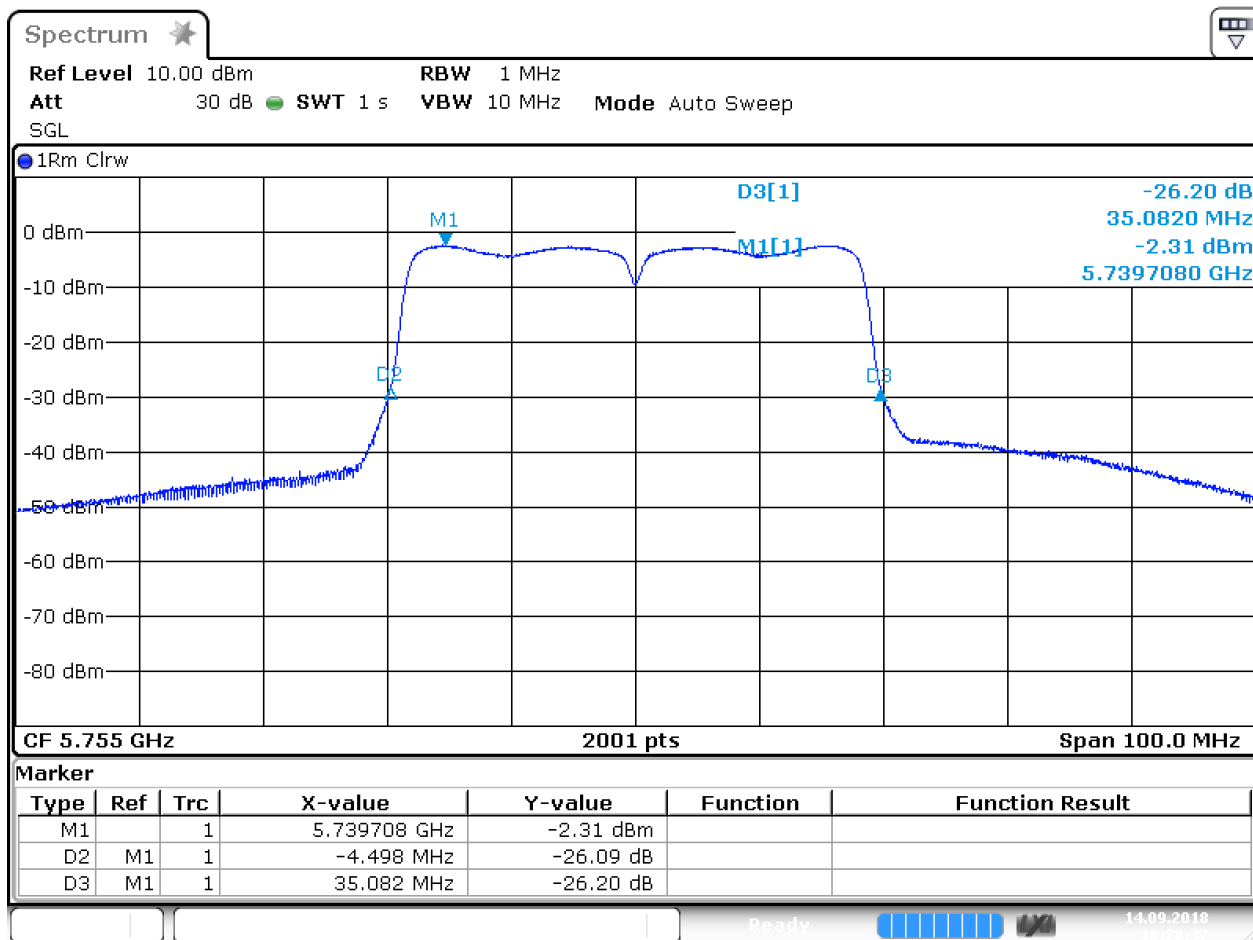
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149-153 (5755 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:28:37

26dB Bandwidth: 39,580 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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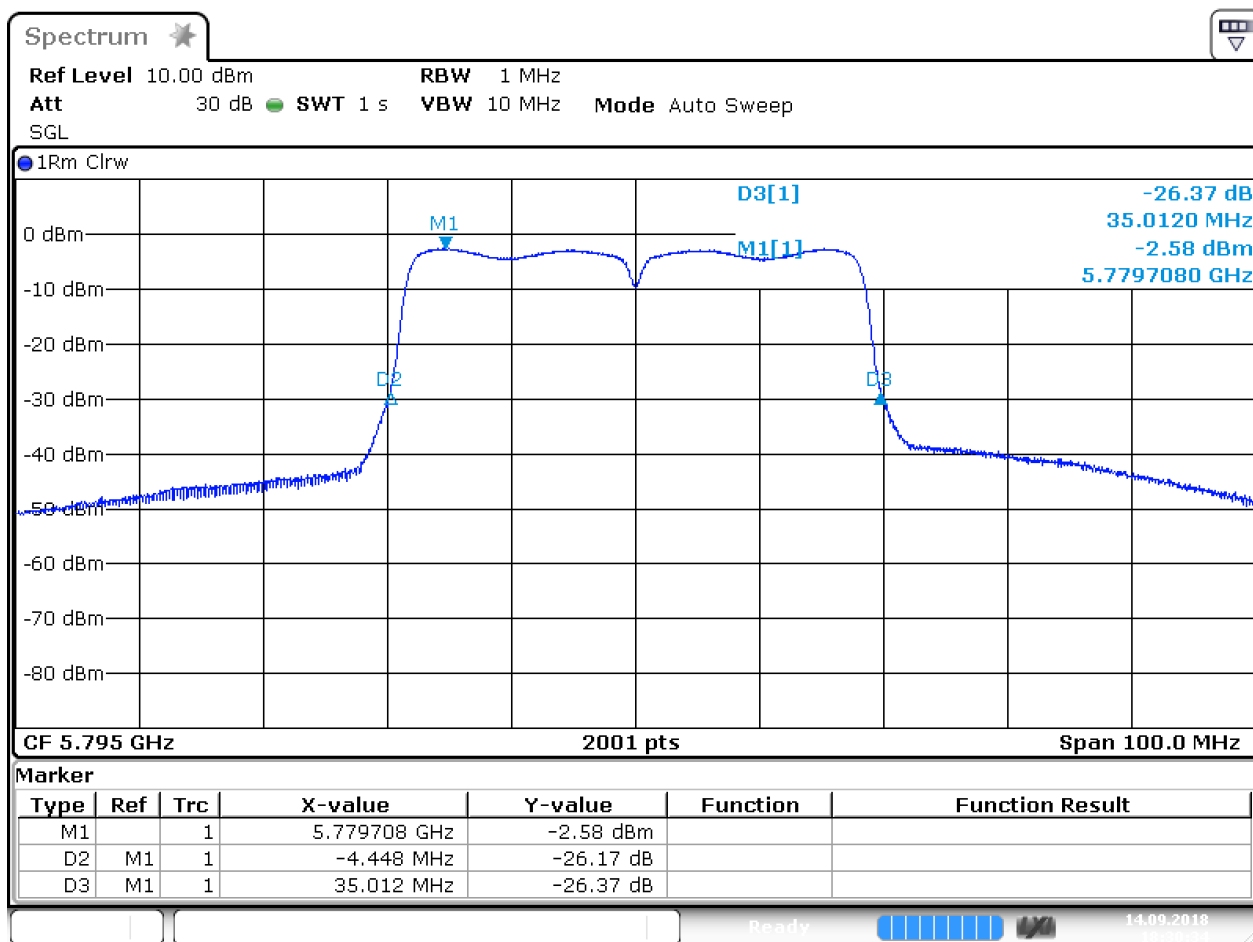
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 157-161 (5795 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:30:34

26dB Bandwidth: 39,460 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
---	---

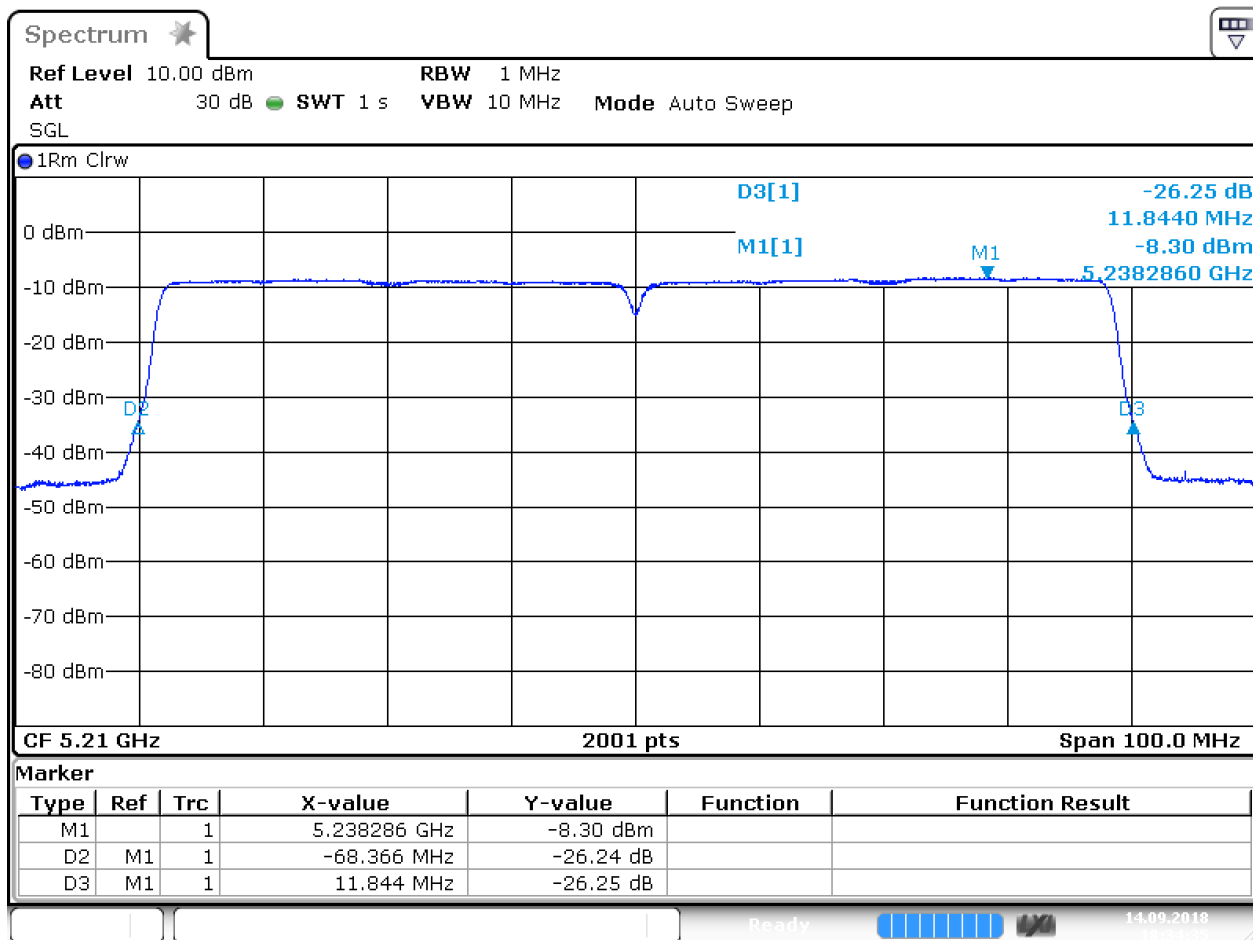
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 36-48 (5210 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:34:36

26dB Bandwidth: 80,210 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
---	---

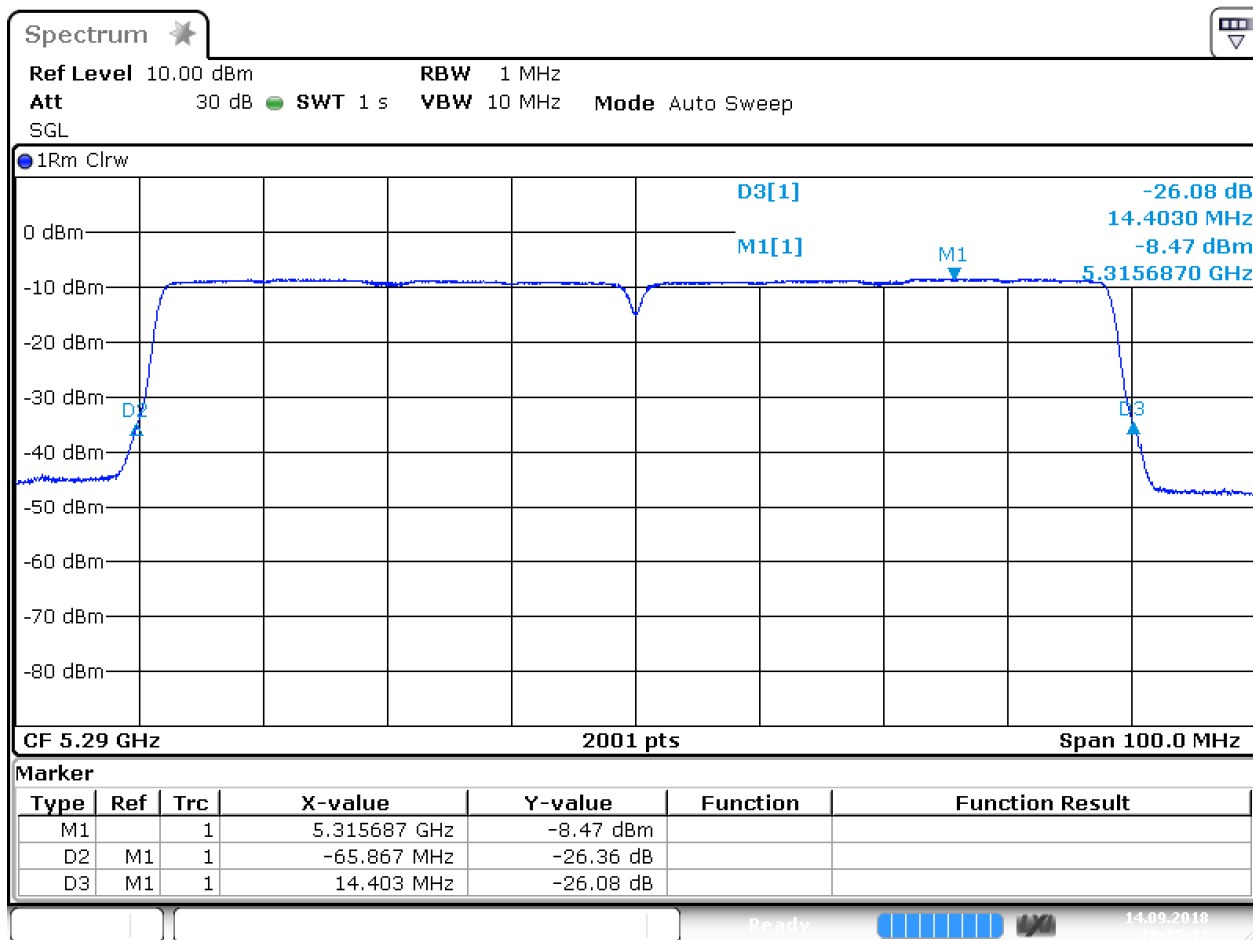
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 52-64 (5290 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:35:32

26dB Bandwidth: 80,270 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
---	---

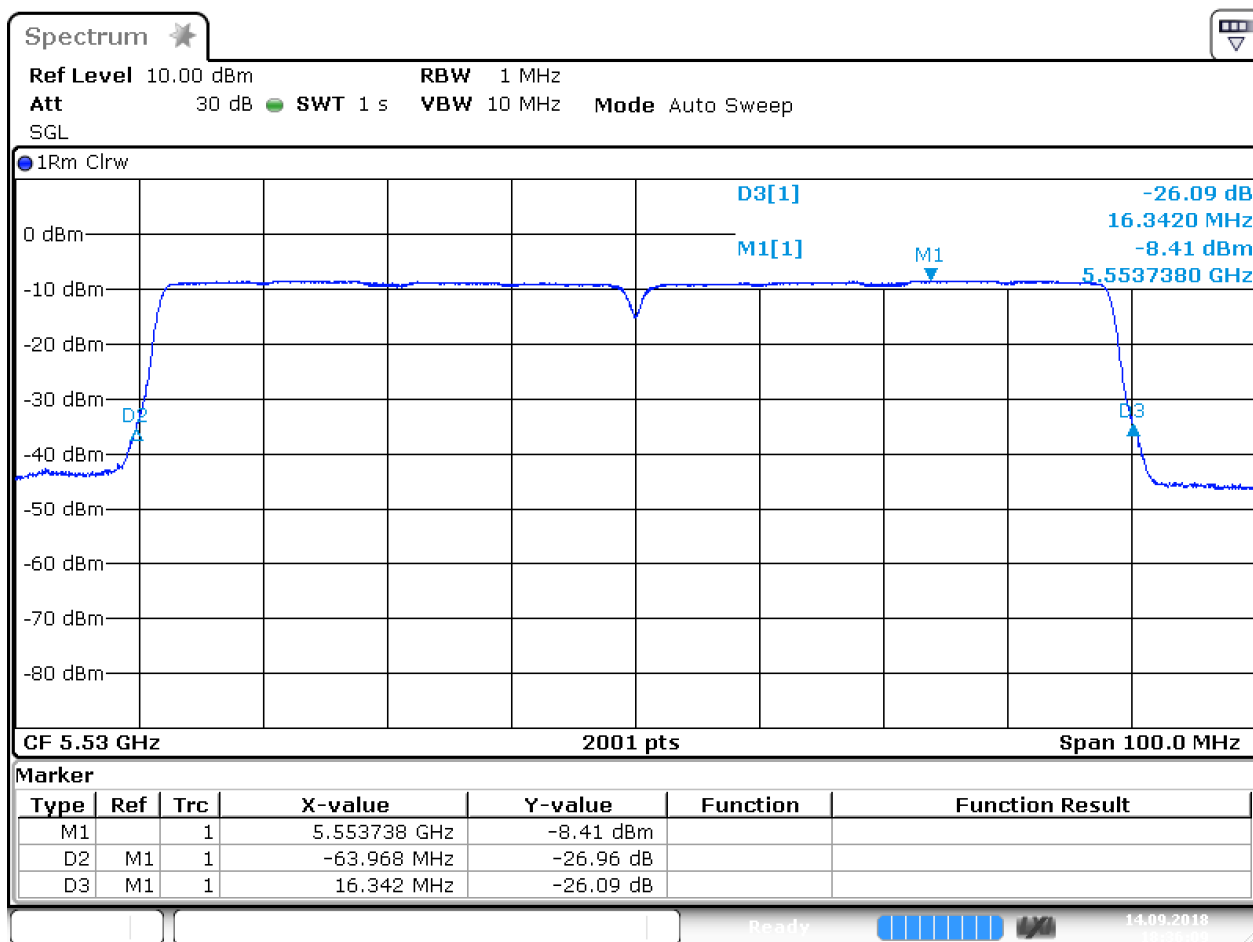
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 100-112 (5530 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:36:10

26dB Bandwidth: 80,310 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
--	---

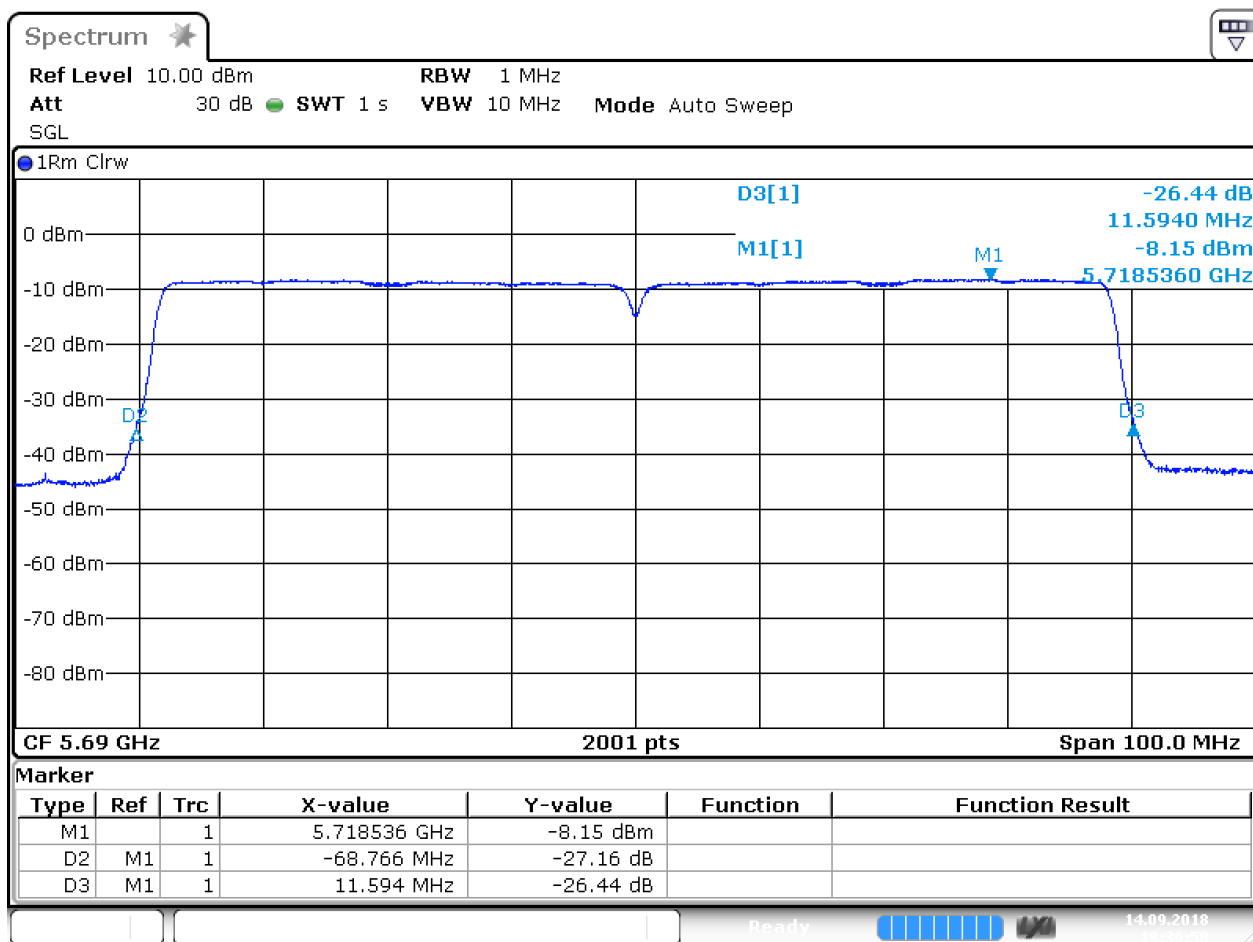
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 132-144 (5690 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:36:59

26dB Bandwidth: 80,360 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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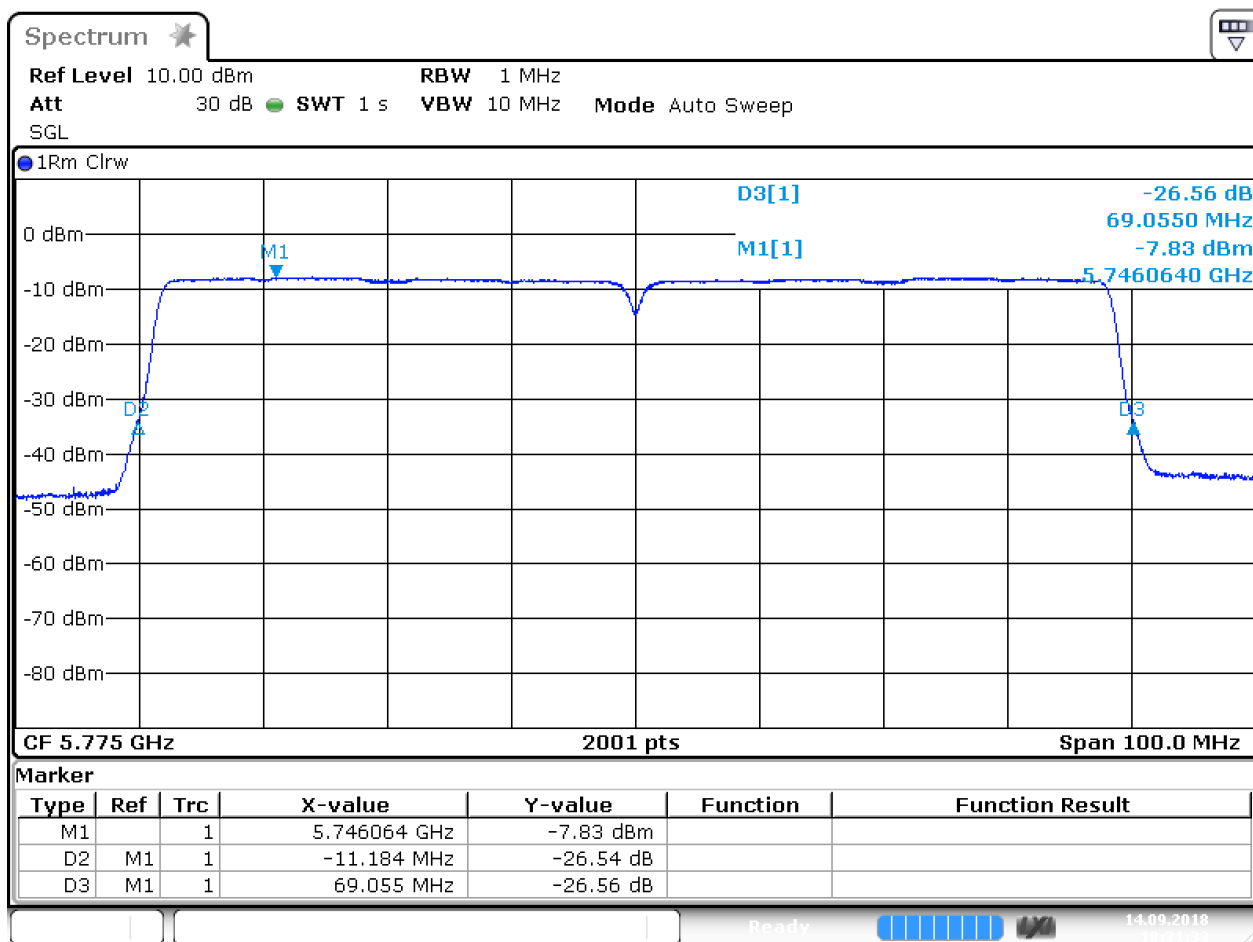
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 28,84 mW Channel 149-161 (5725 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 18:31:33

26dB Bandwidth: 80,239 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	26 dB Bandwidth fully inside permitted frequency ranges
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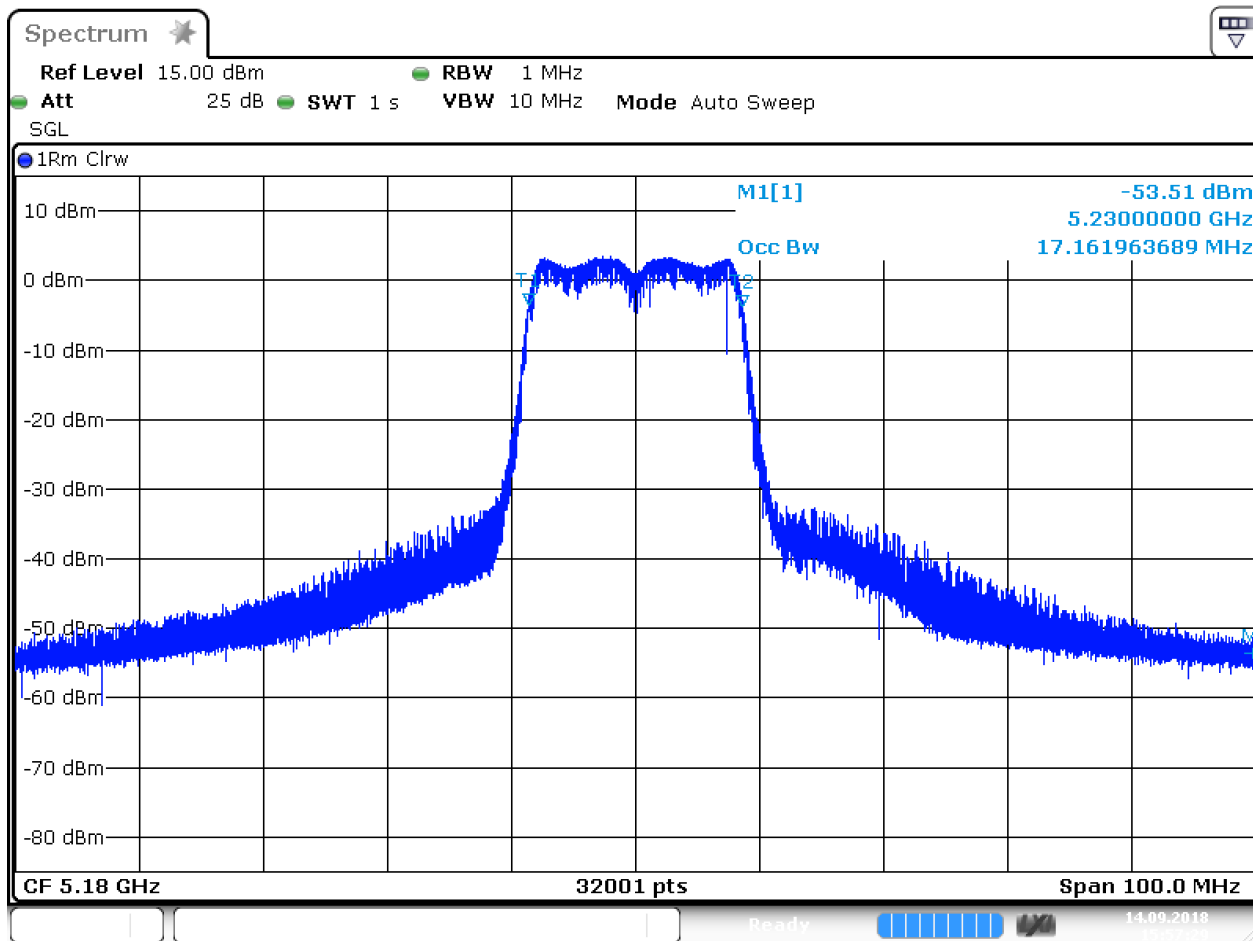
Test Equipment used: EMV-205

4.5. 99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36 (5180 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 15:57:29

99% Bandwidth: 17,162 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

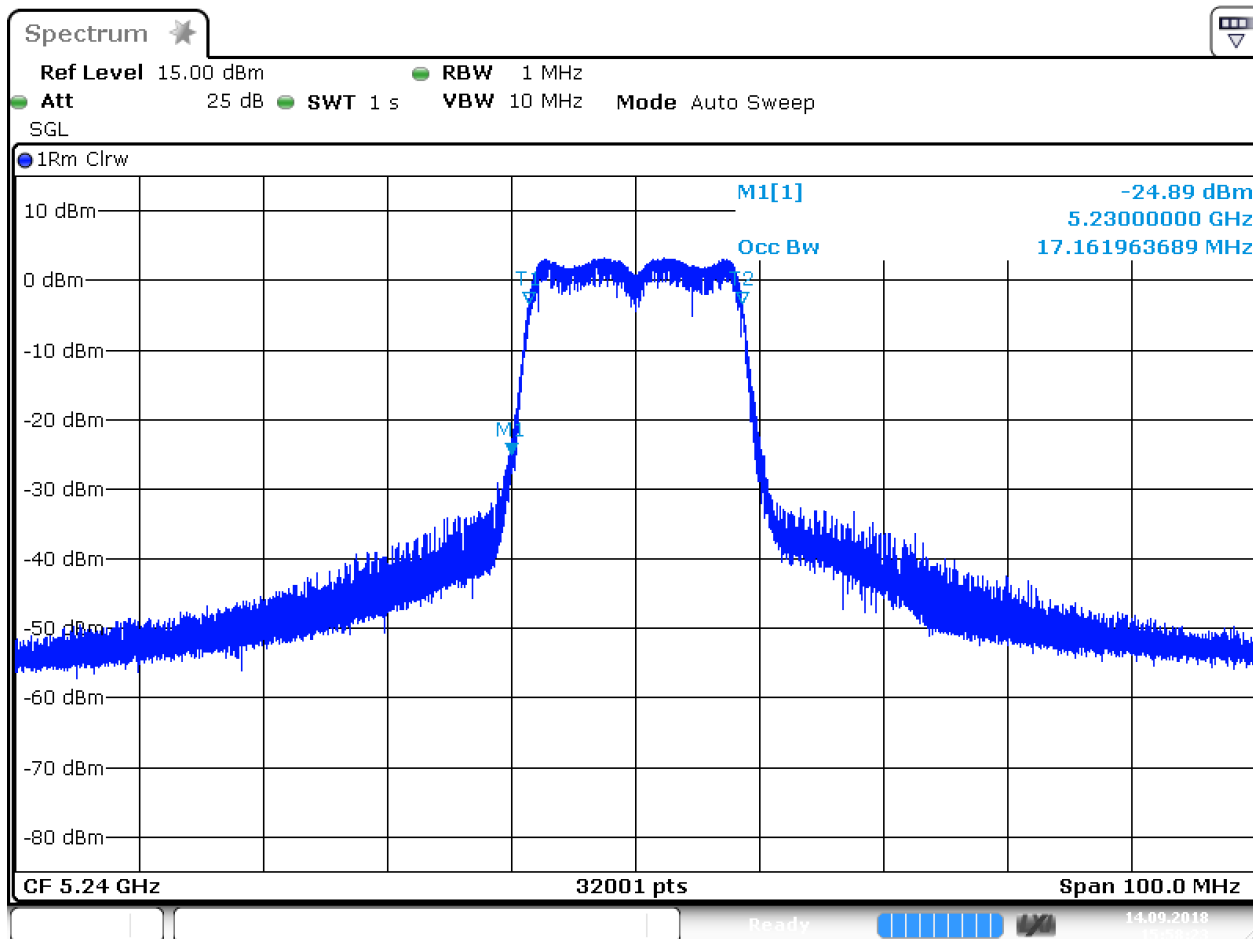
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 48 (5240 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 15:58:24

99% Bandwidth: 17,162 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

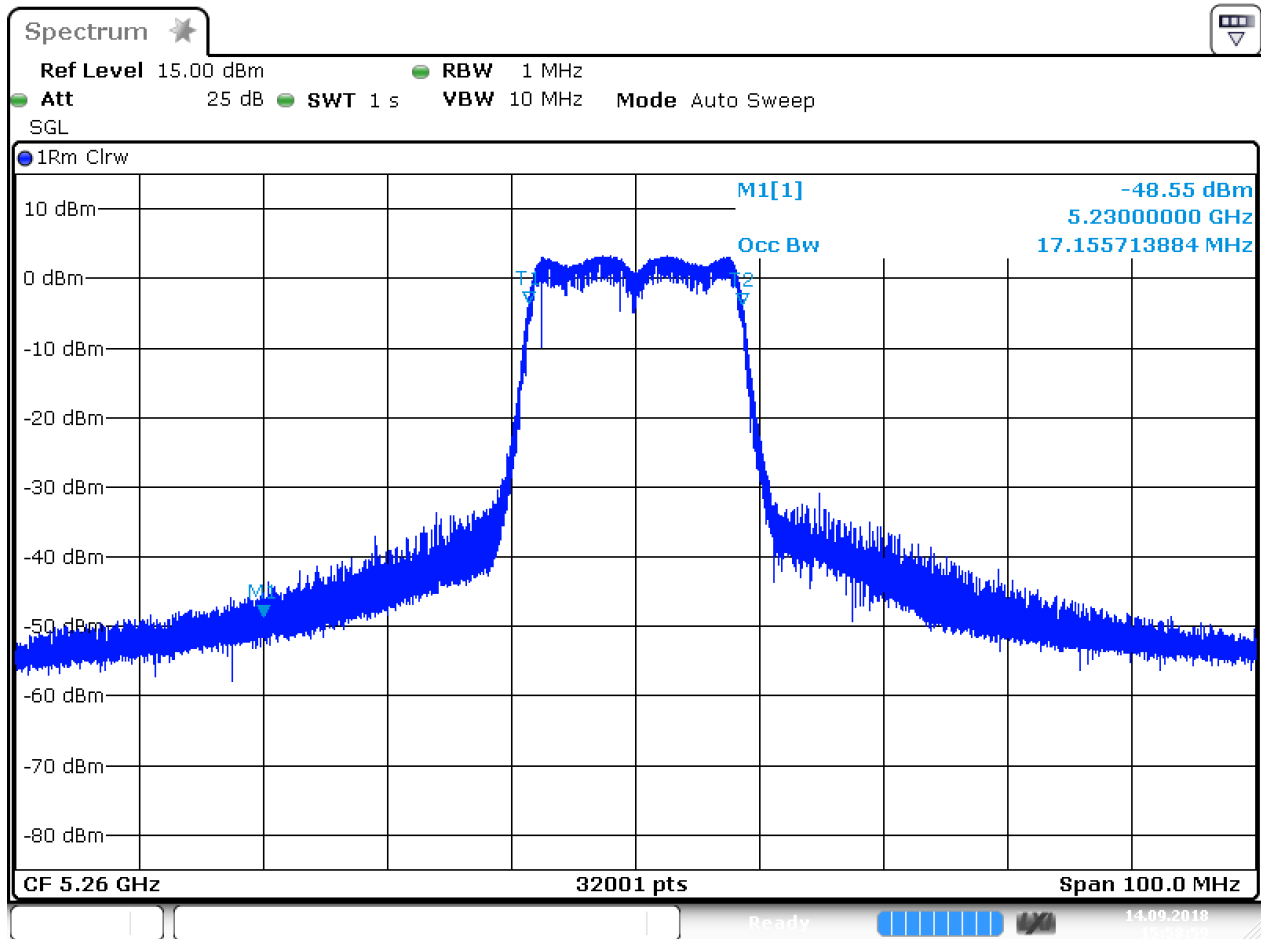
Relative humidity: 54%

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52 (5260 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 15:58:59

99% Bandwidth: 17,156 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

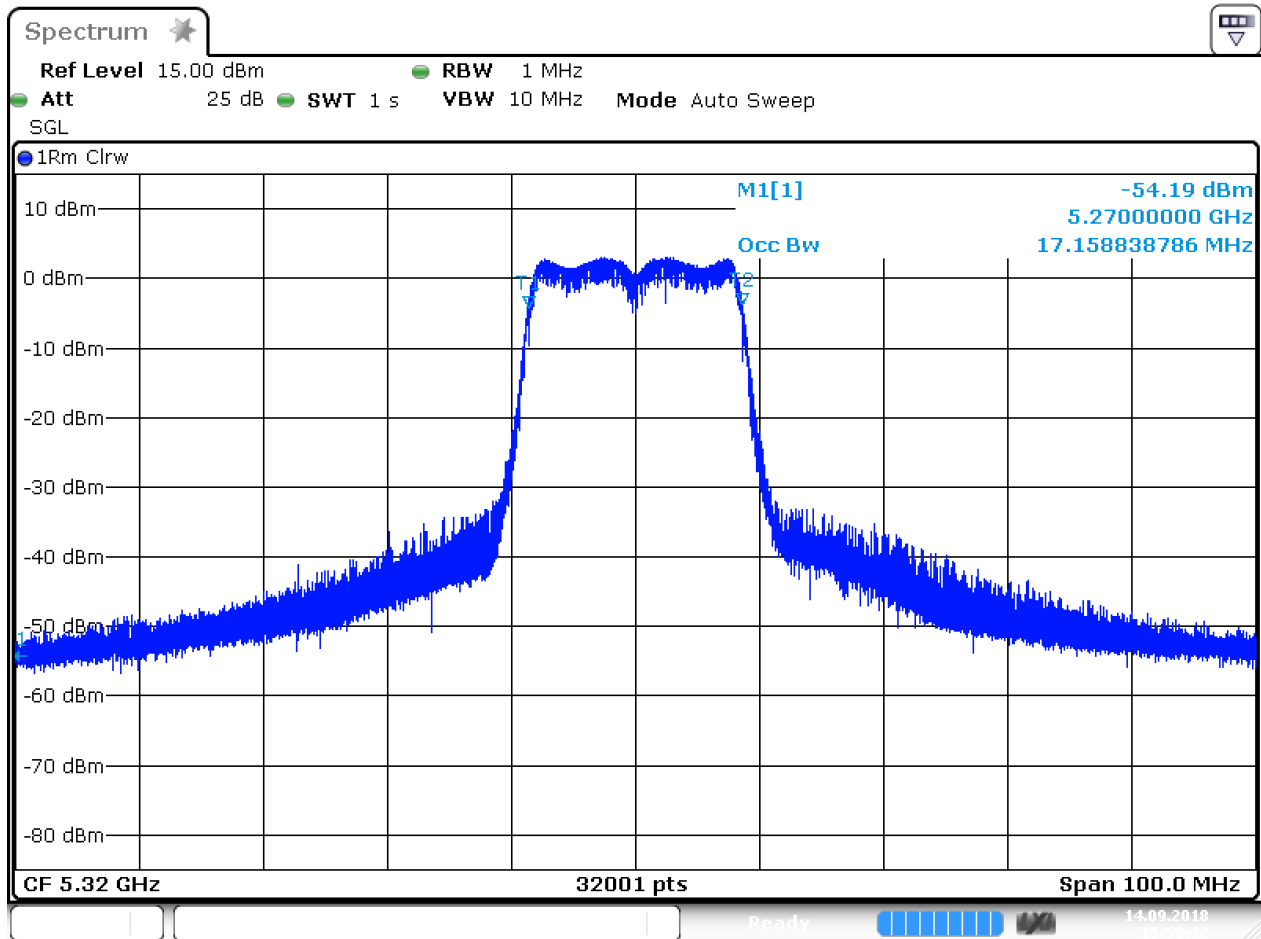
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 64 (5320 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 15:59:32

99% Bandwidth: 17,159 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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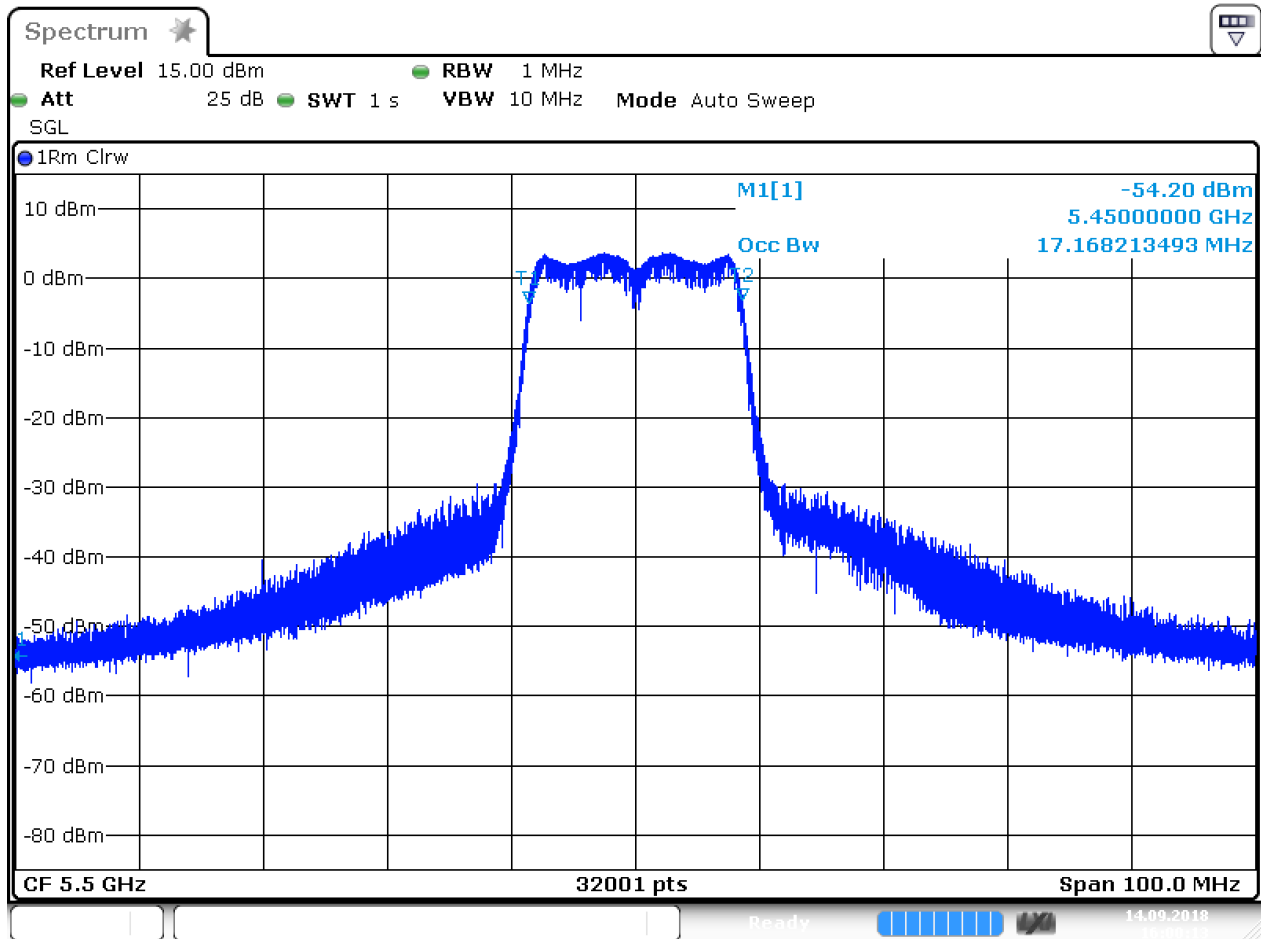
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100 (5500 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:00:13

99% Bandwidth: 17,168 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

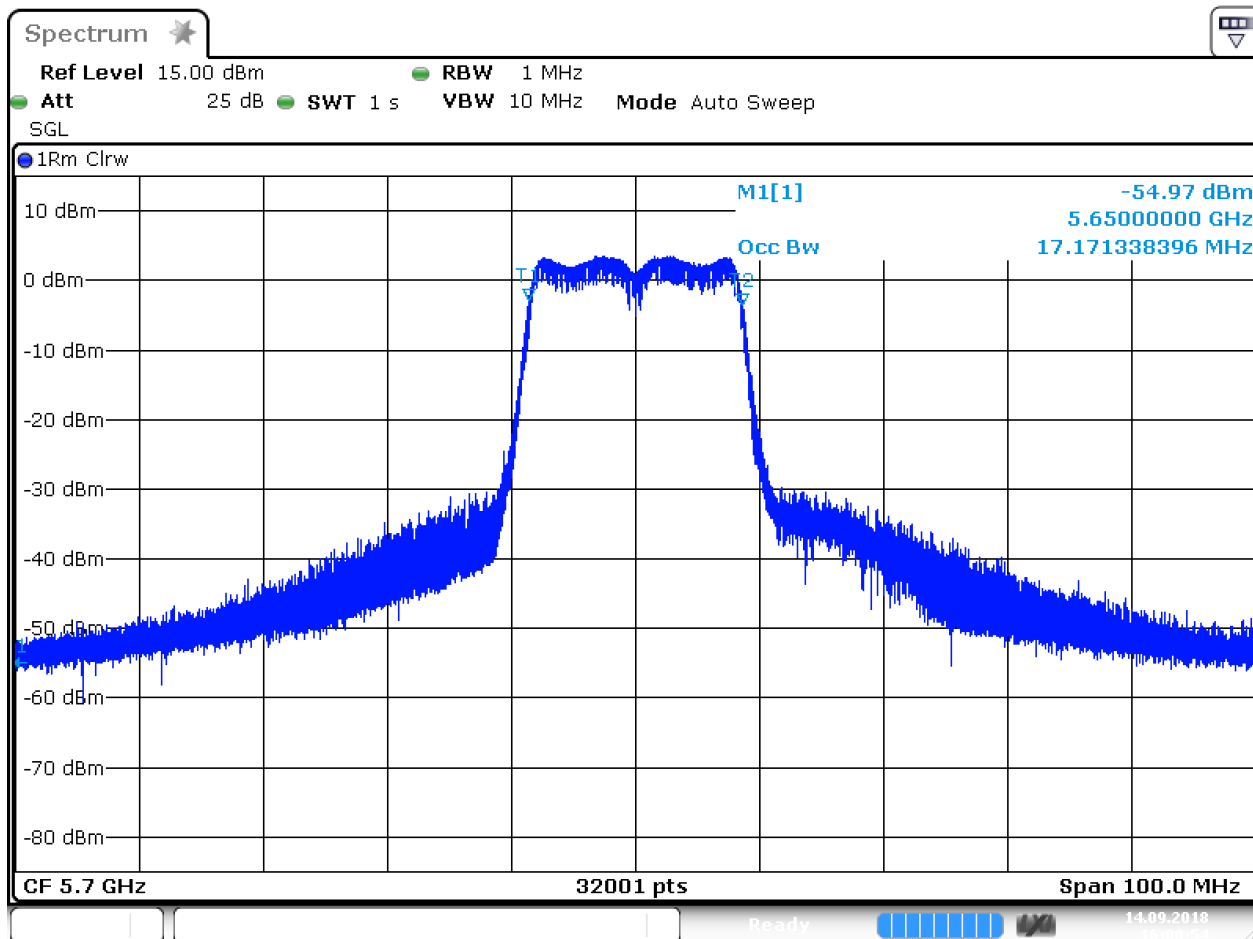
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 140 (5700 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:00:55

99% Bandwidth: 17,171 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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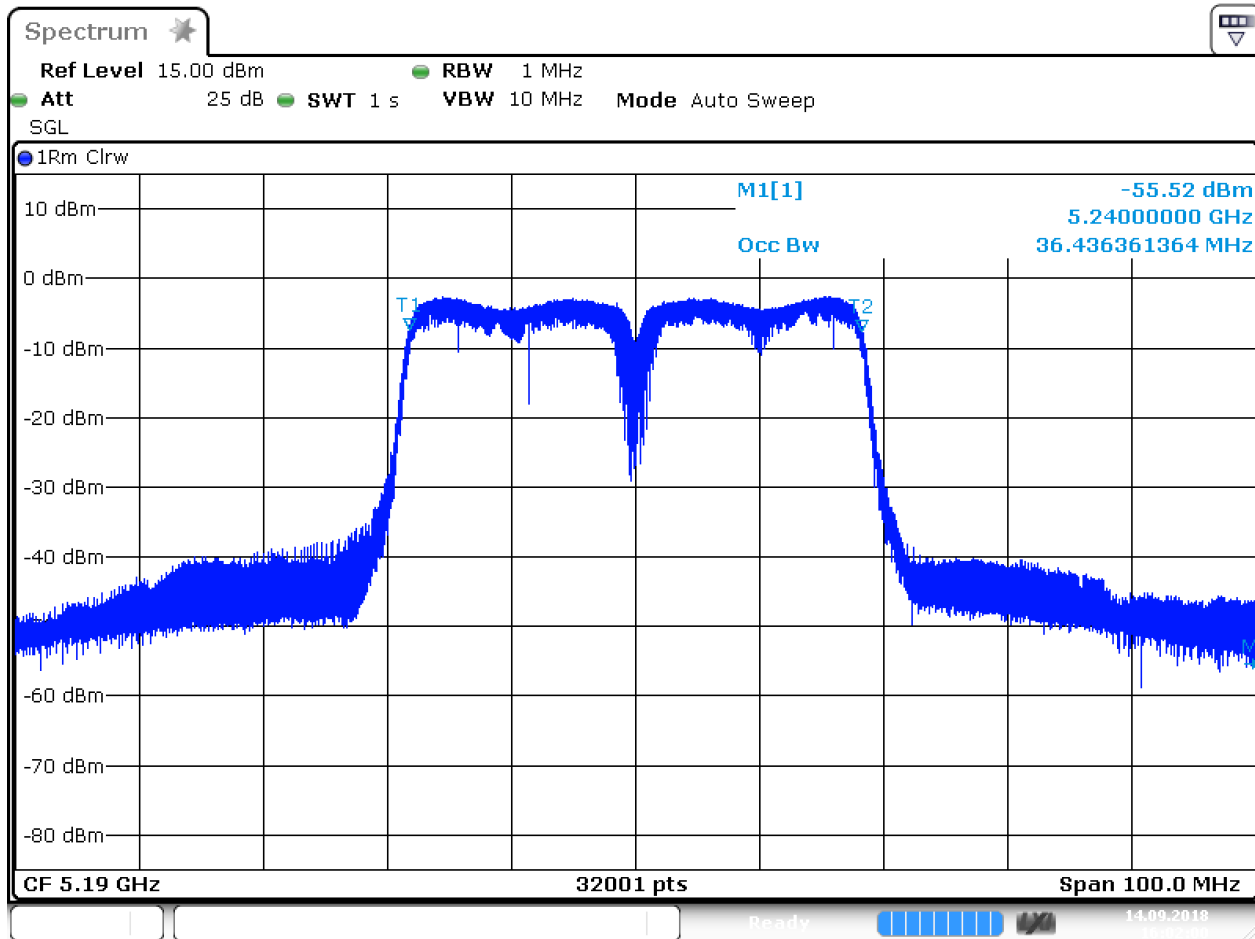
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36-40 (5190 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:02:00

99% Bandwidth: 36,436 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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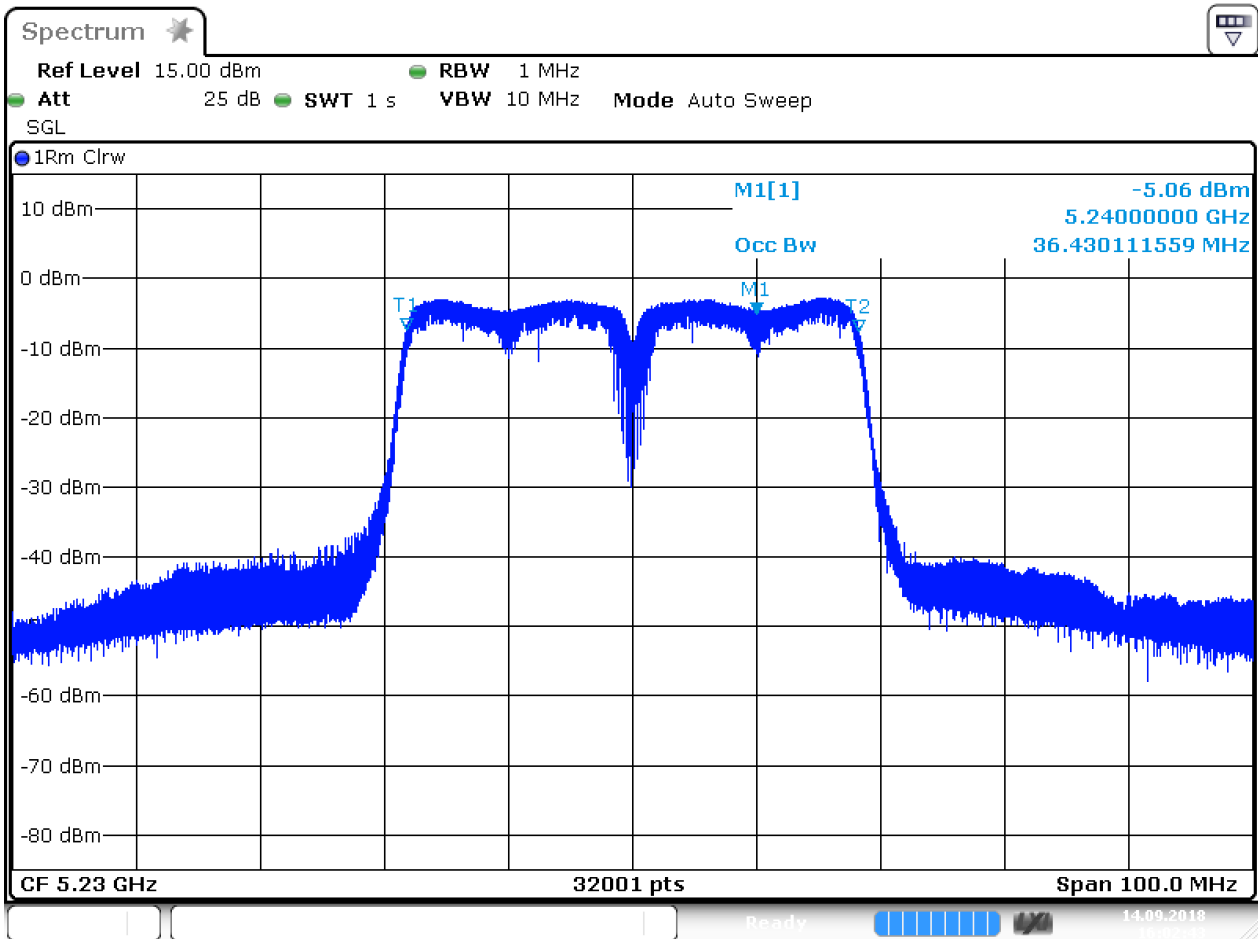
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 44-48 (5230 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:02:43

99% Bandwidth: 36,430 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

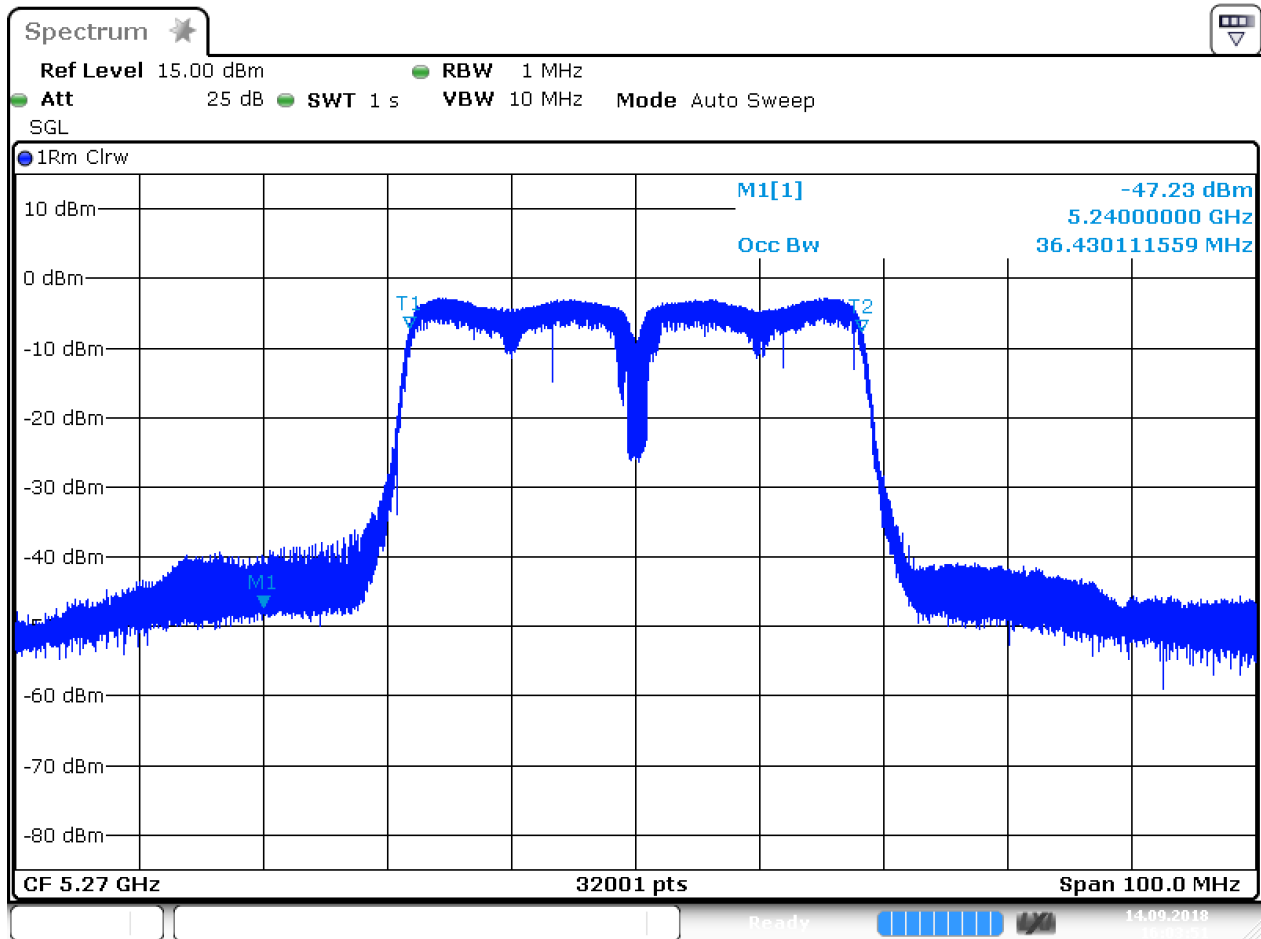
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52-56 (5270 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:03:52

99% Bandwidth: 36,430 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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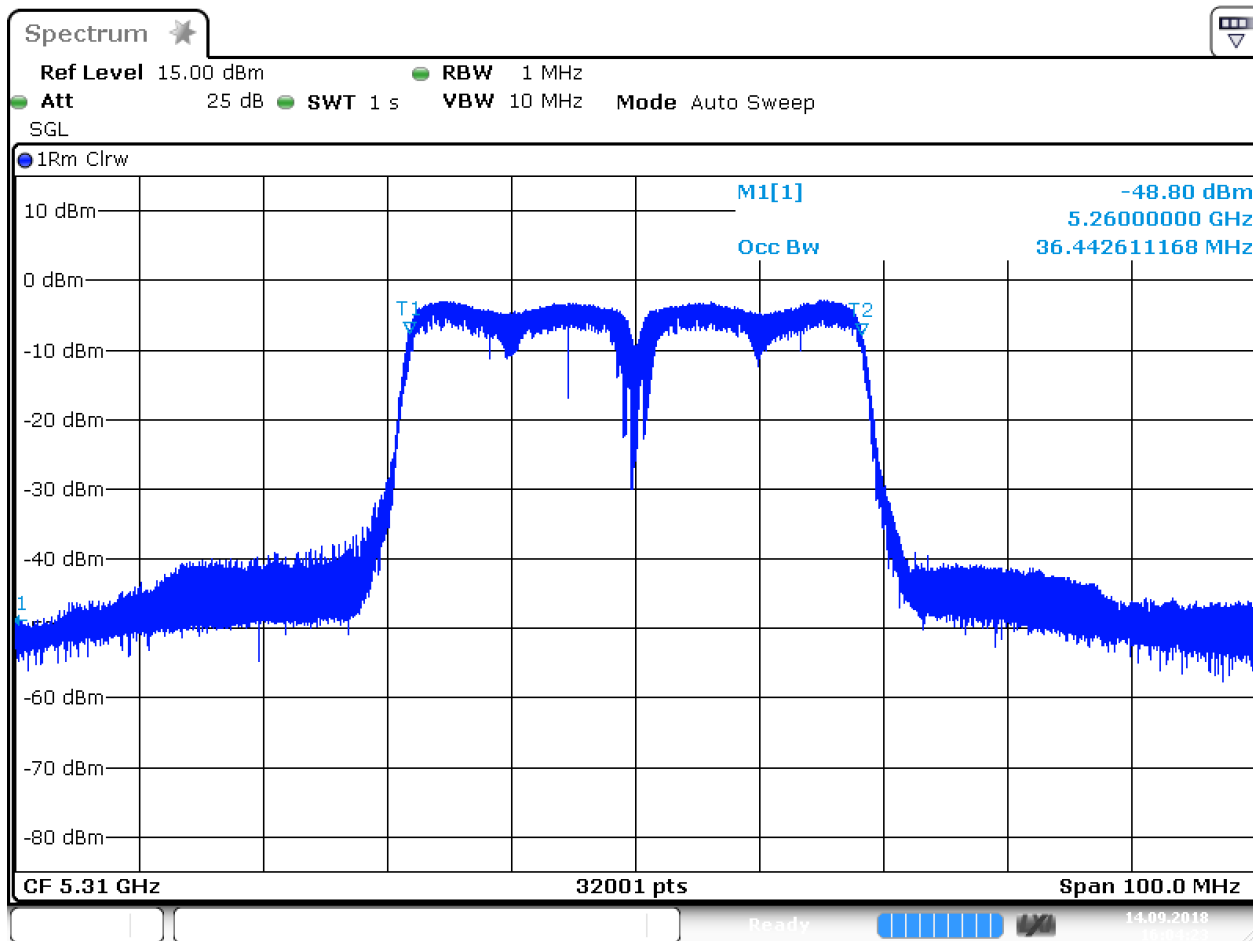
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 60-64 (5310 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:04:23

99% Bandwidth: 36,443 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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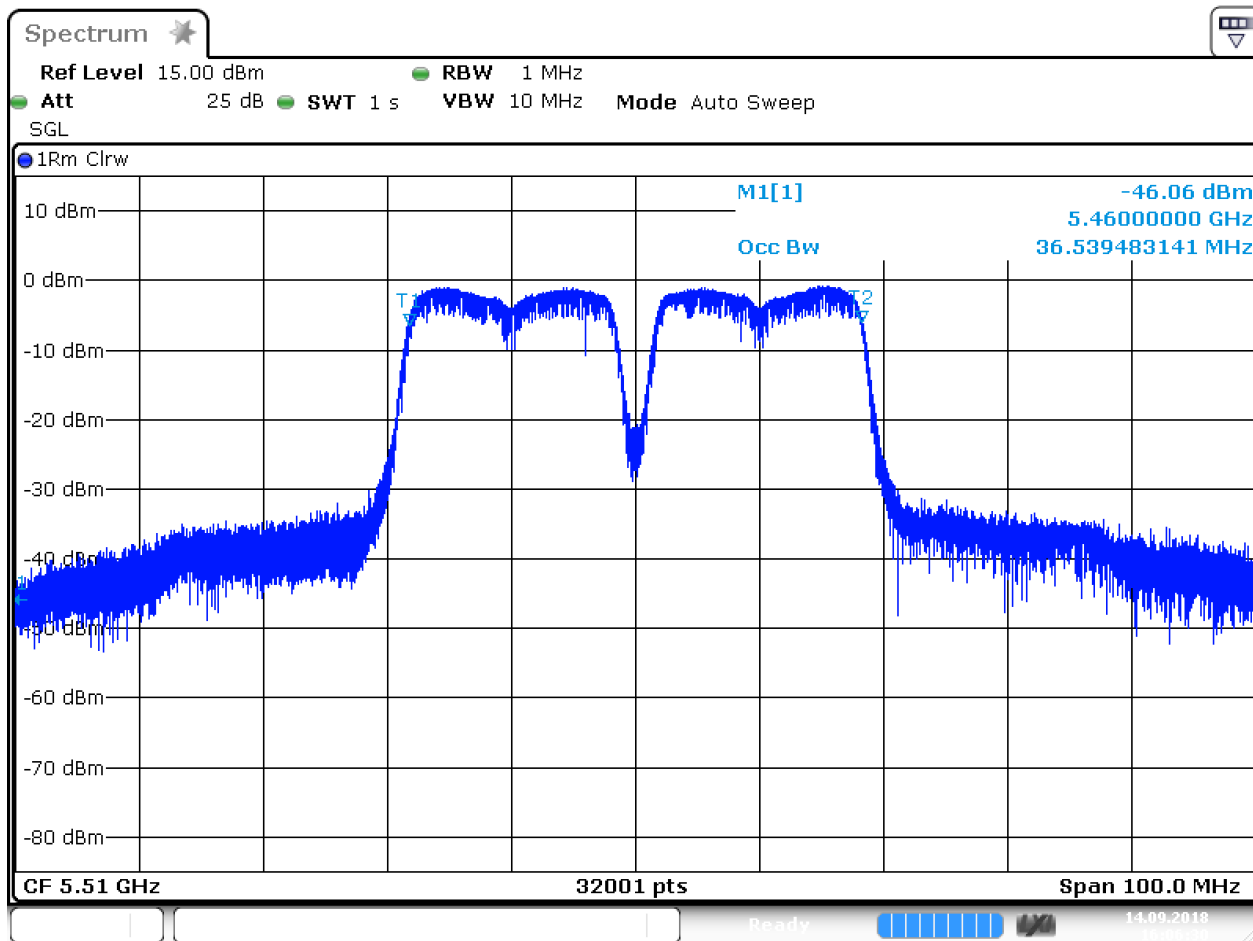
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100-104 (5510 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:06:31

99% Bandwidth: 36,539 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

Test Equipment used: EMV-205

Test Report Reference:
INE-AT/FG-18/156

Ambient temperature: 23°C

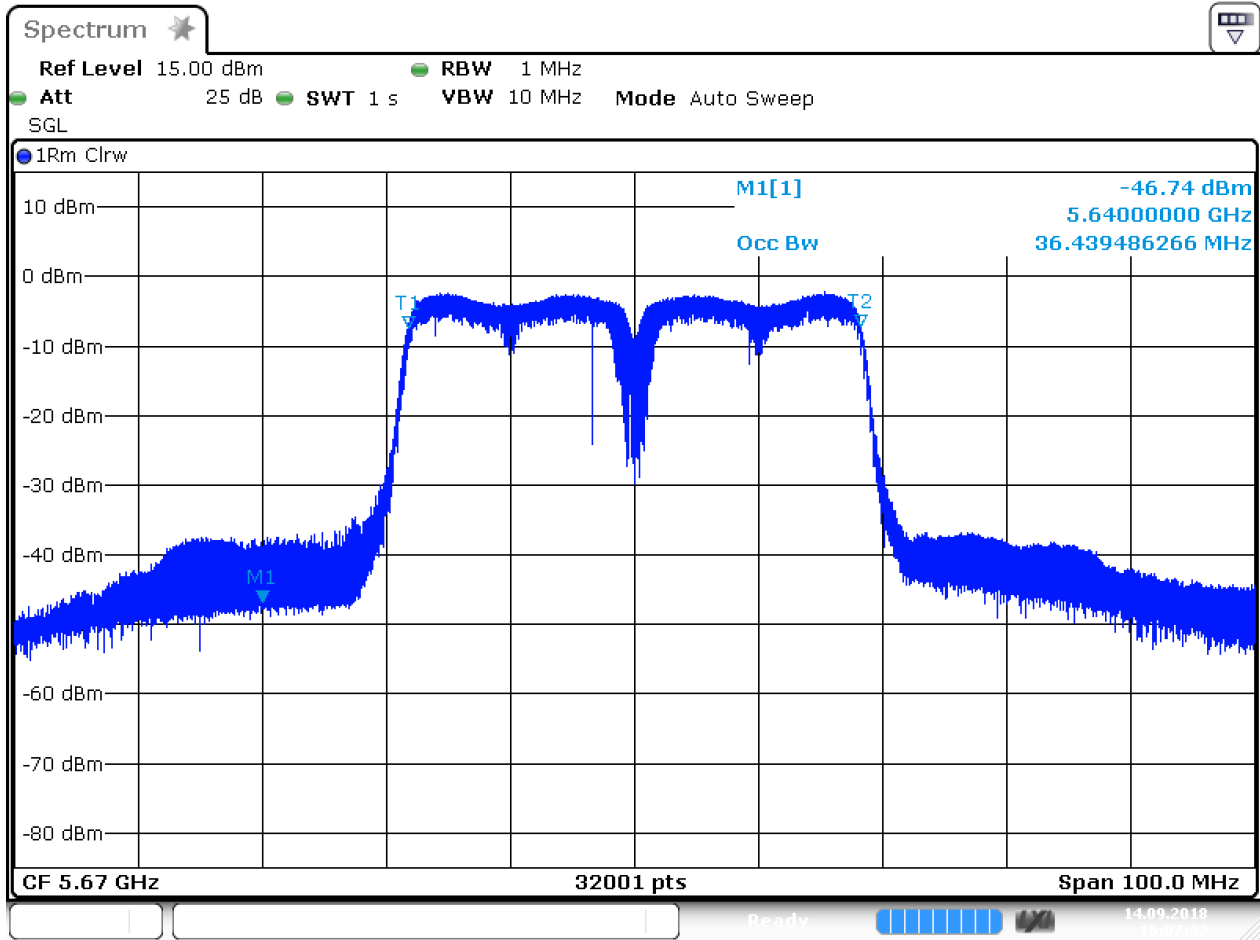
Relative humidity: 54%

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 132-136 (5670 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:07:32

99% Bandwidth: 36,439 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

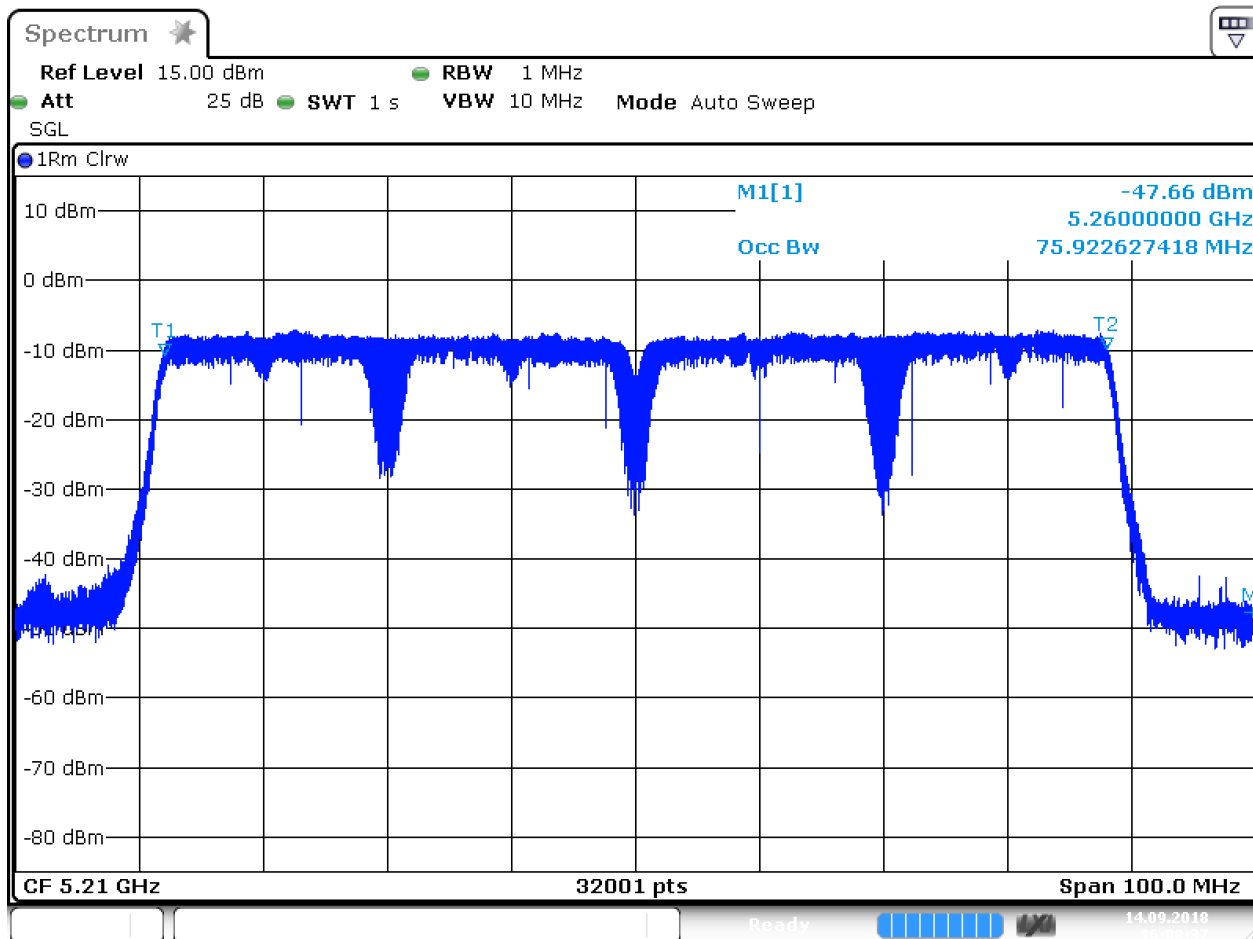
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36-48 (5210 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:08:38

99% Bandwidth: 75,923 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

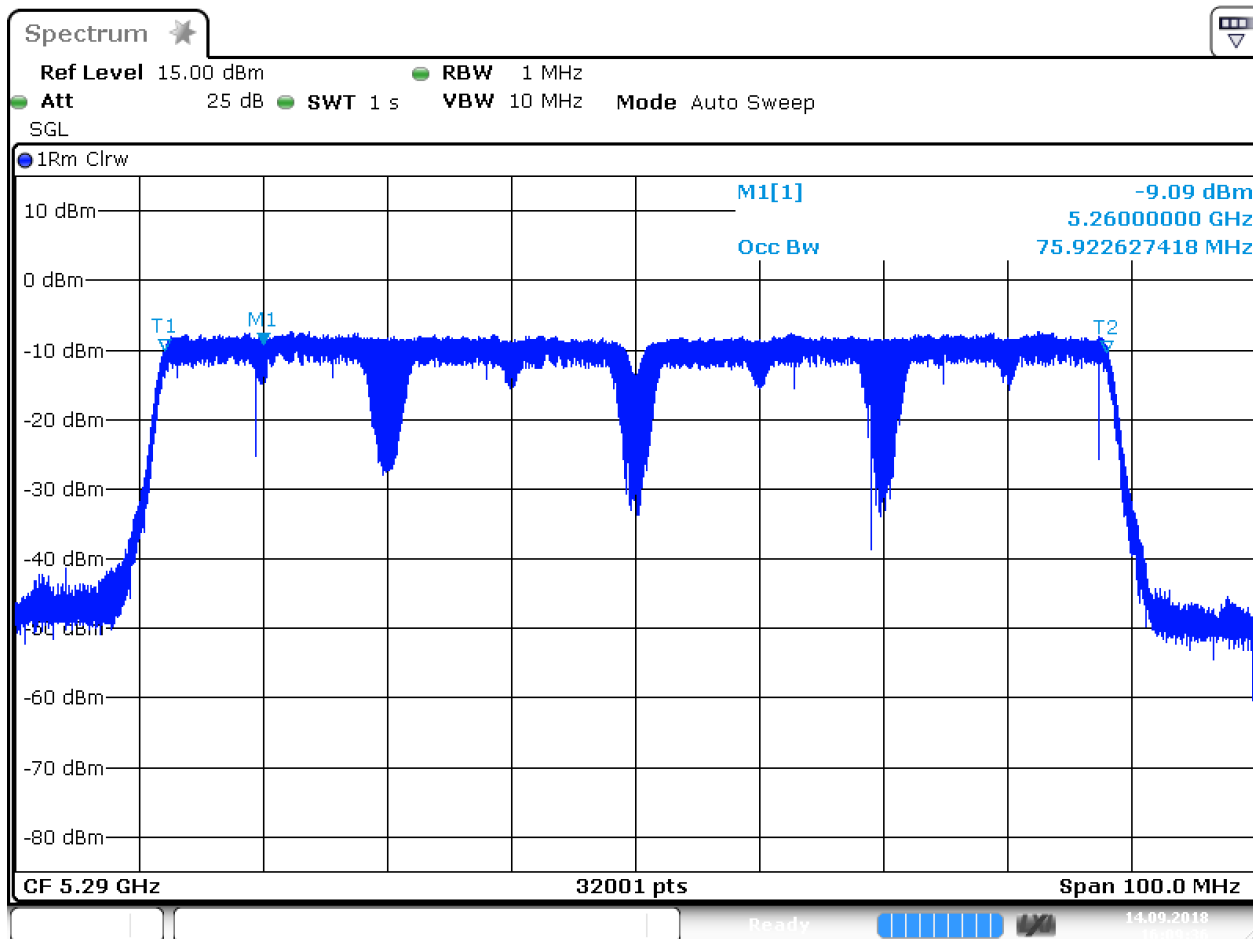
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52-64 (5290 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:09:37

99% Bandwidth: 75,923 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

<p>Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz</p>	<p>99% Bandwidth fully inside permitted frequency ranges</p>
---	--

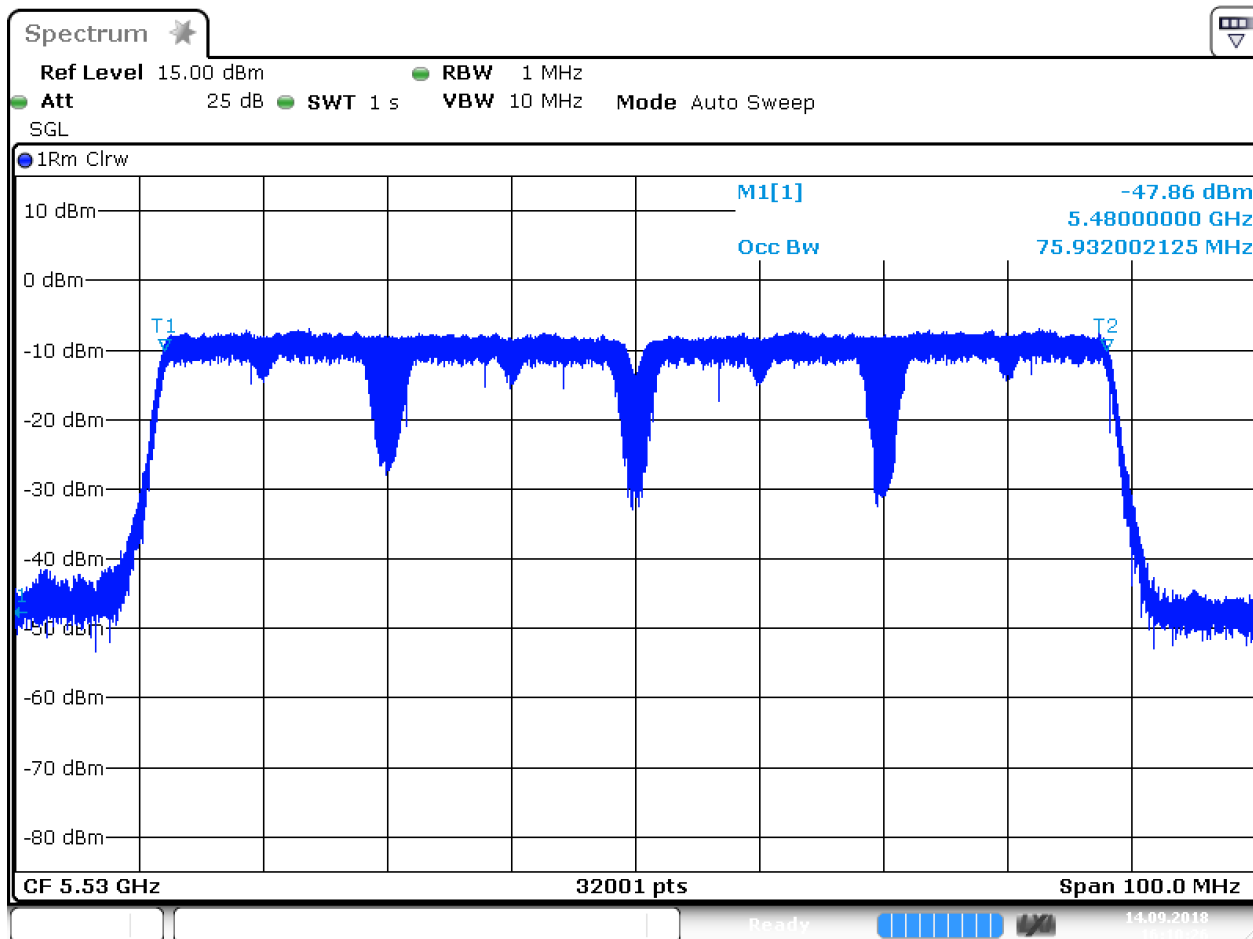
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100-112 (5530 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:10:26

99% Bandwidth: 75,932 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

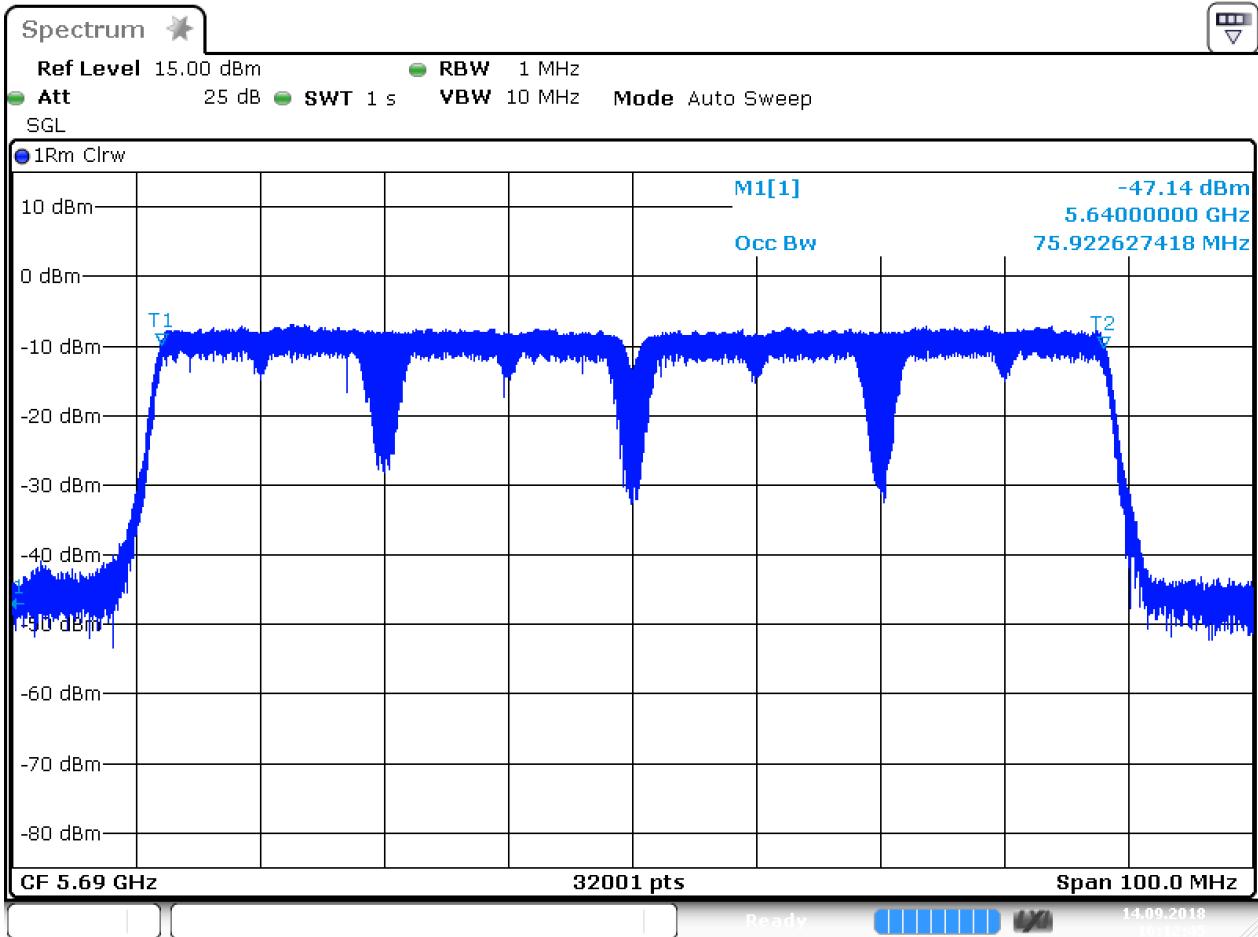
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 132-144 (5690 MHz center frequency) – Antenna 1



Date: 14.SEP.2018 16:12:45

99% Bandwidth: 75,923 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

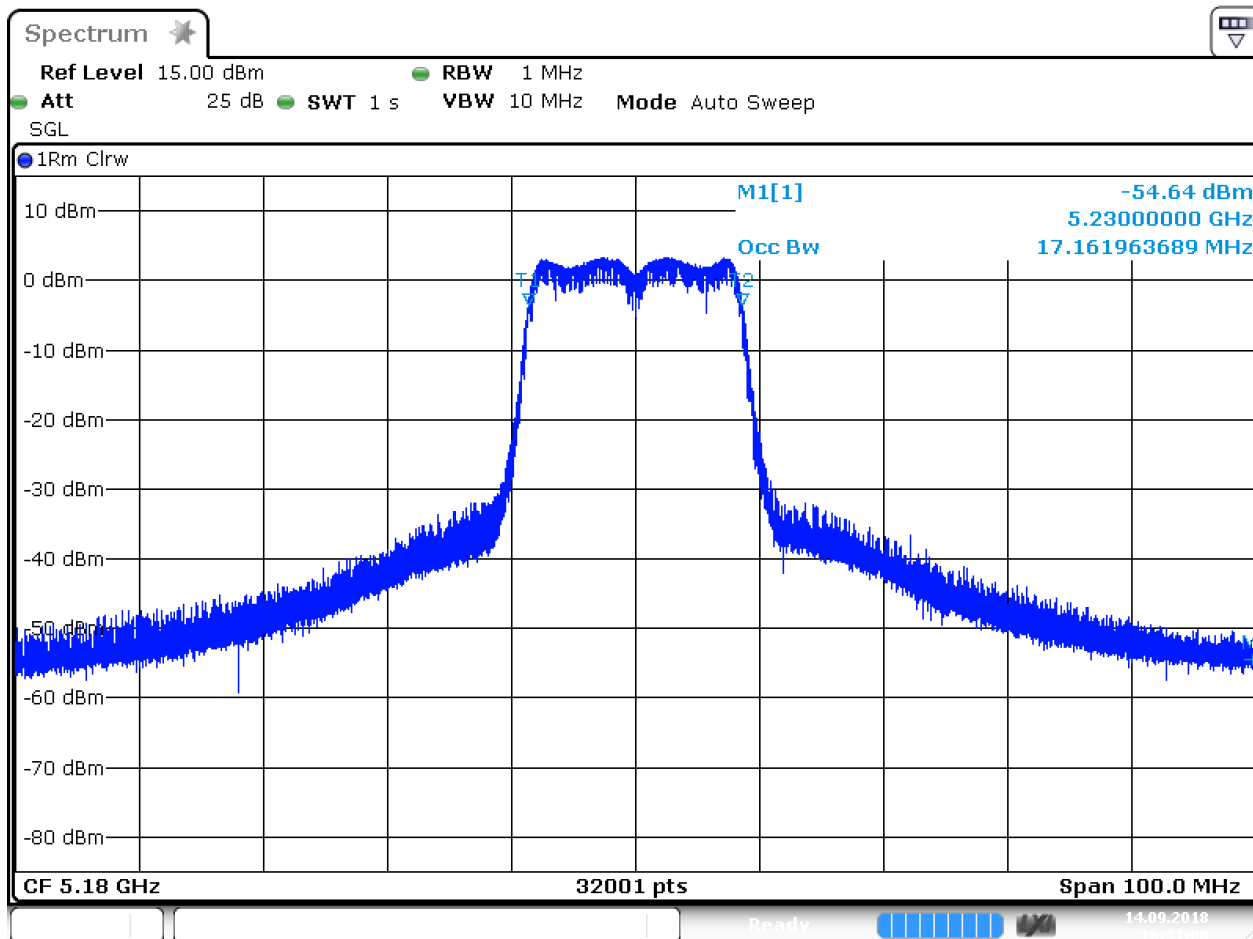
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36 (5180 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:31:08

99% Bandwidth: 17,162 MHz

LIMIT SUBCLAUSE 15.407

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

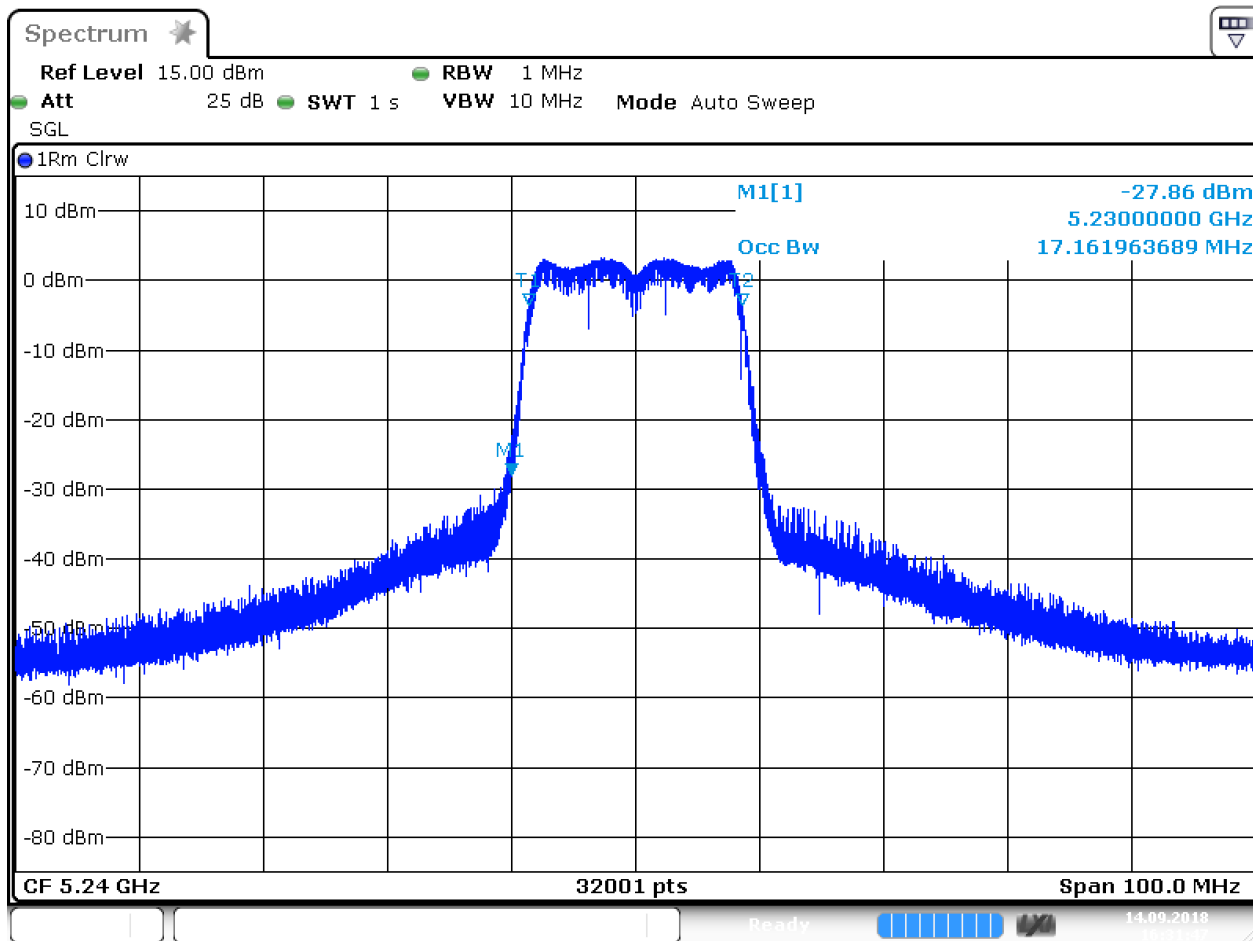
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 48 (5240 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:31:47

99% Bandwidth: 17,162 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

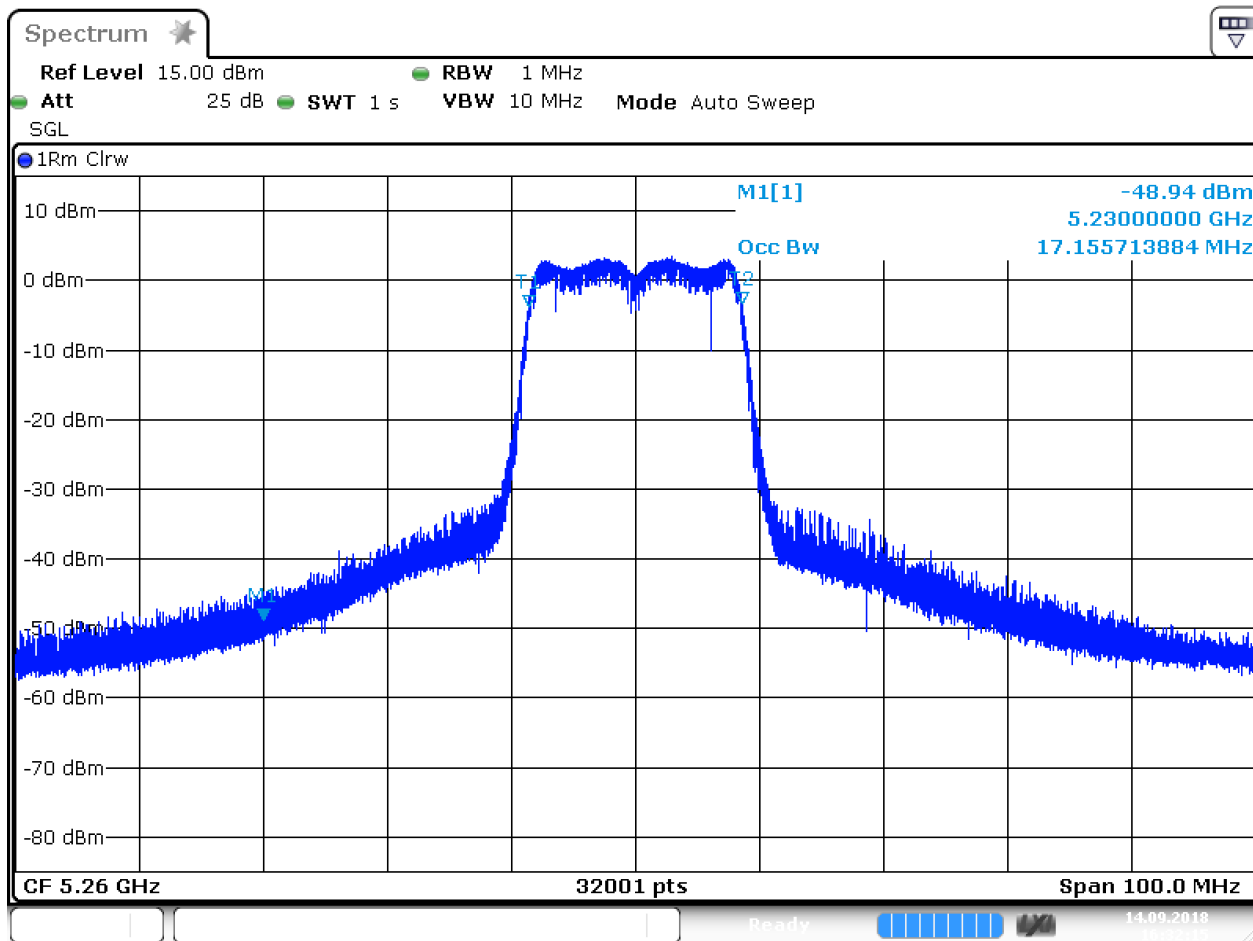
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52 (5260 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:32:15

99% Bandwidth: 17,156 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

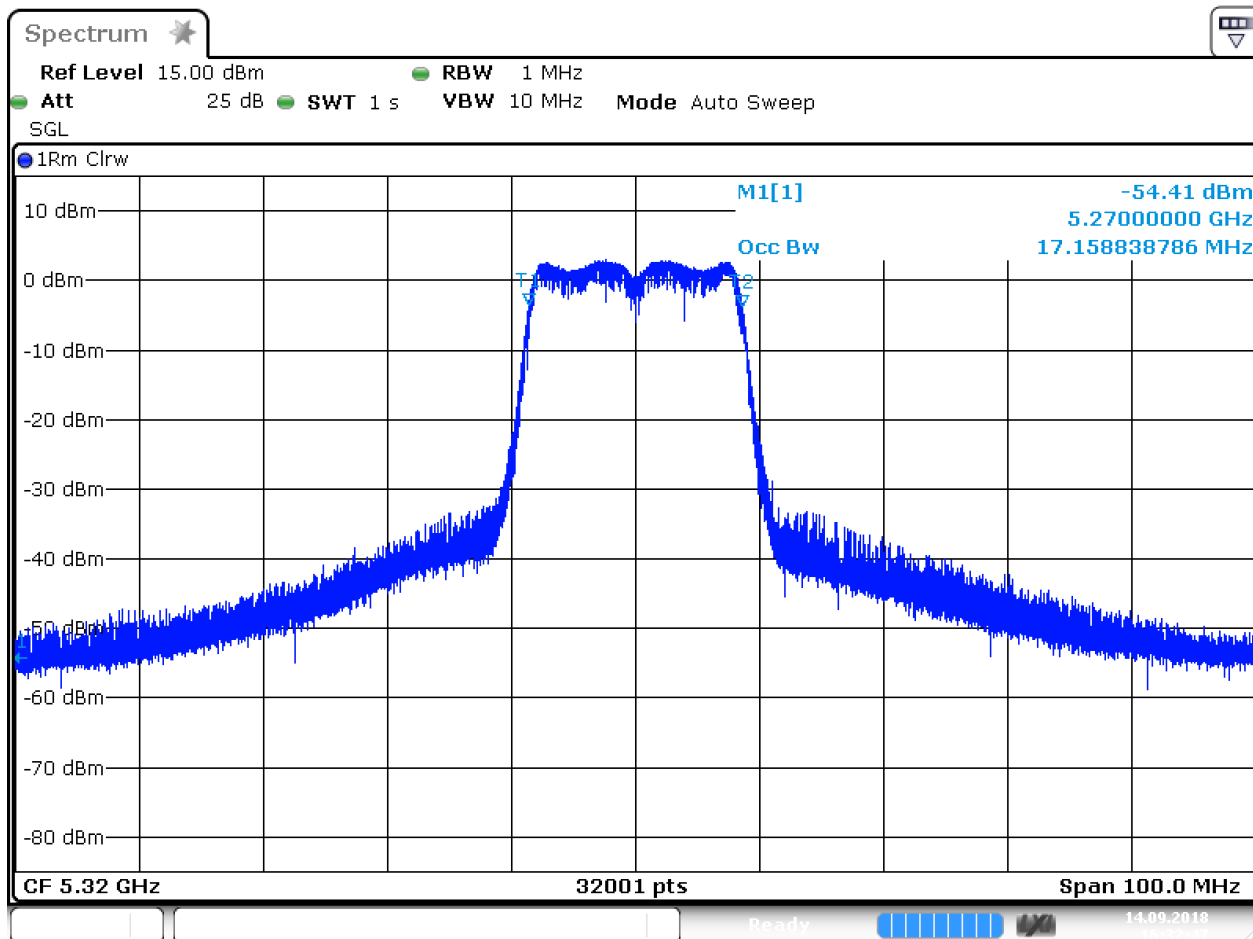
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 64 (5320 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:32:48

99% Bandwidth: 17,159 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

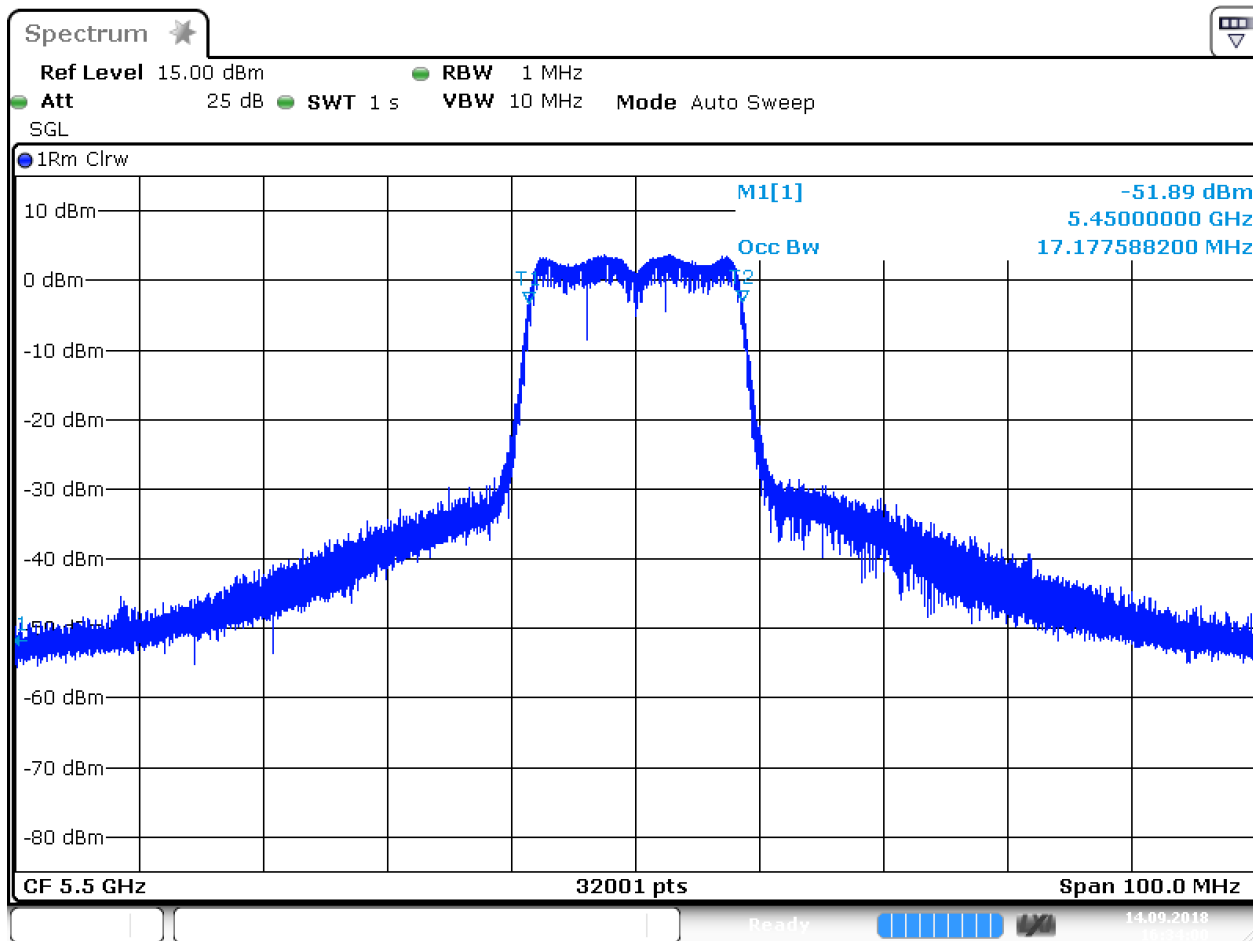
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100 (5500 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:34:00

99% Bandwidth: 17,178 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

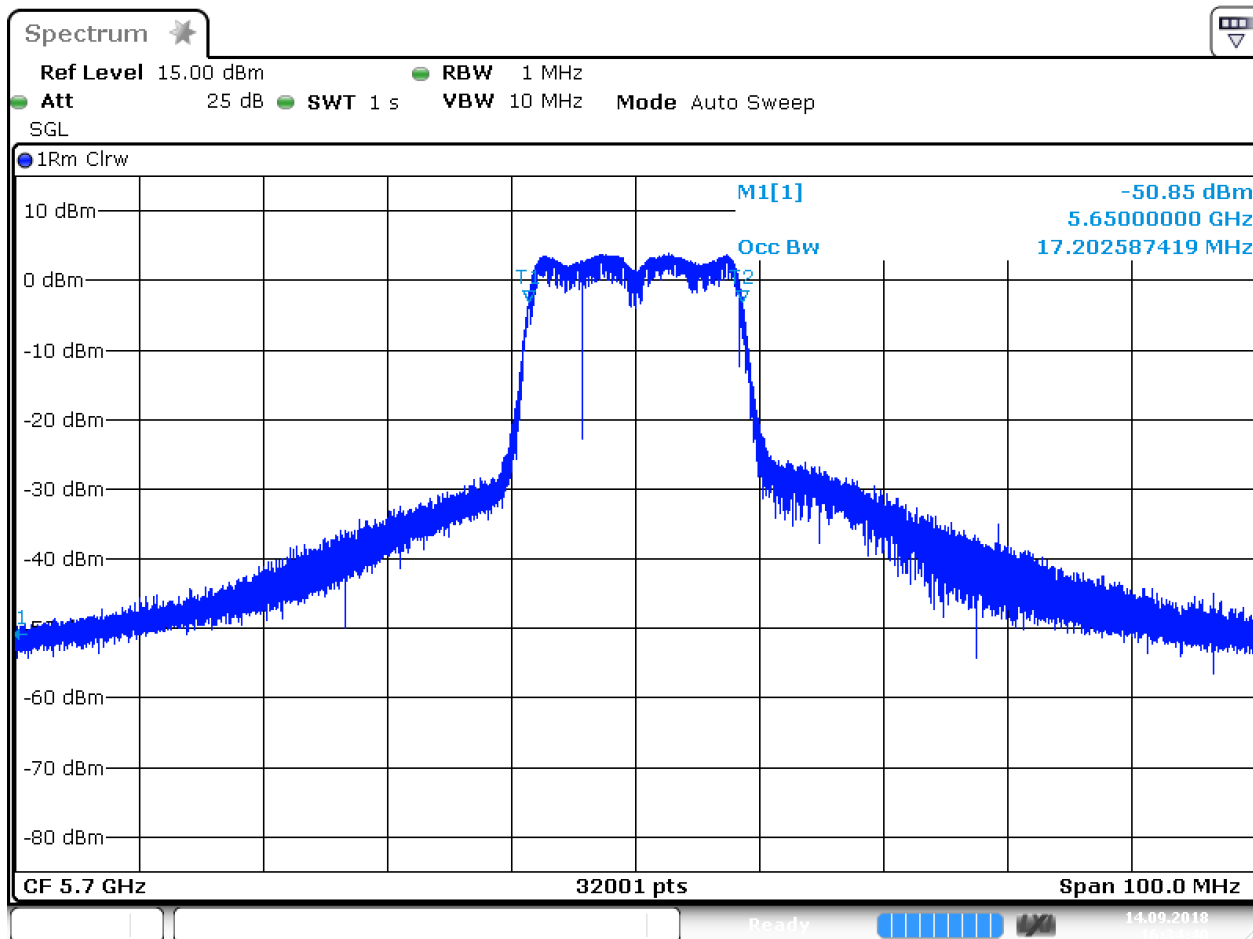
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 140 (5700 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:34:40

99% Bandwidth: 17,203 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

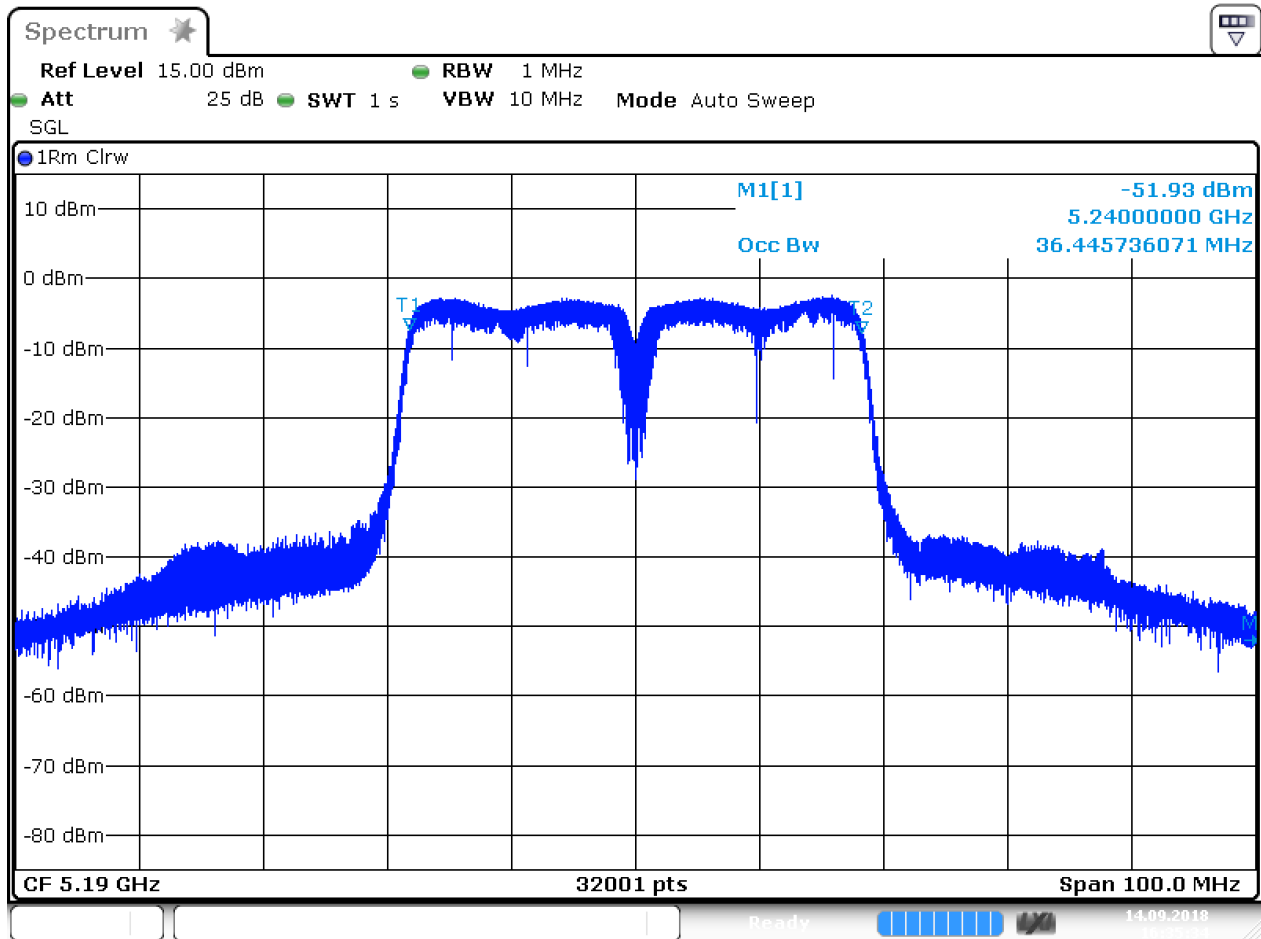
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36-40 (5190 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:35:34

99% Bandwidth: 36,446 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

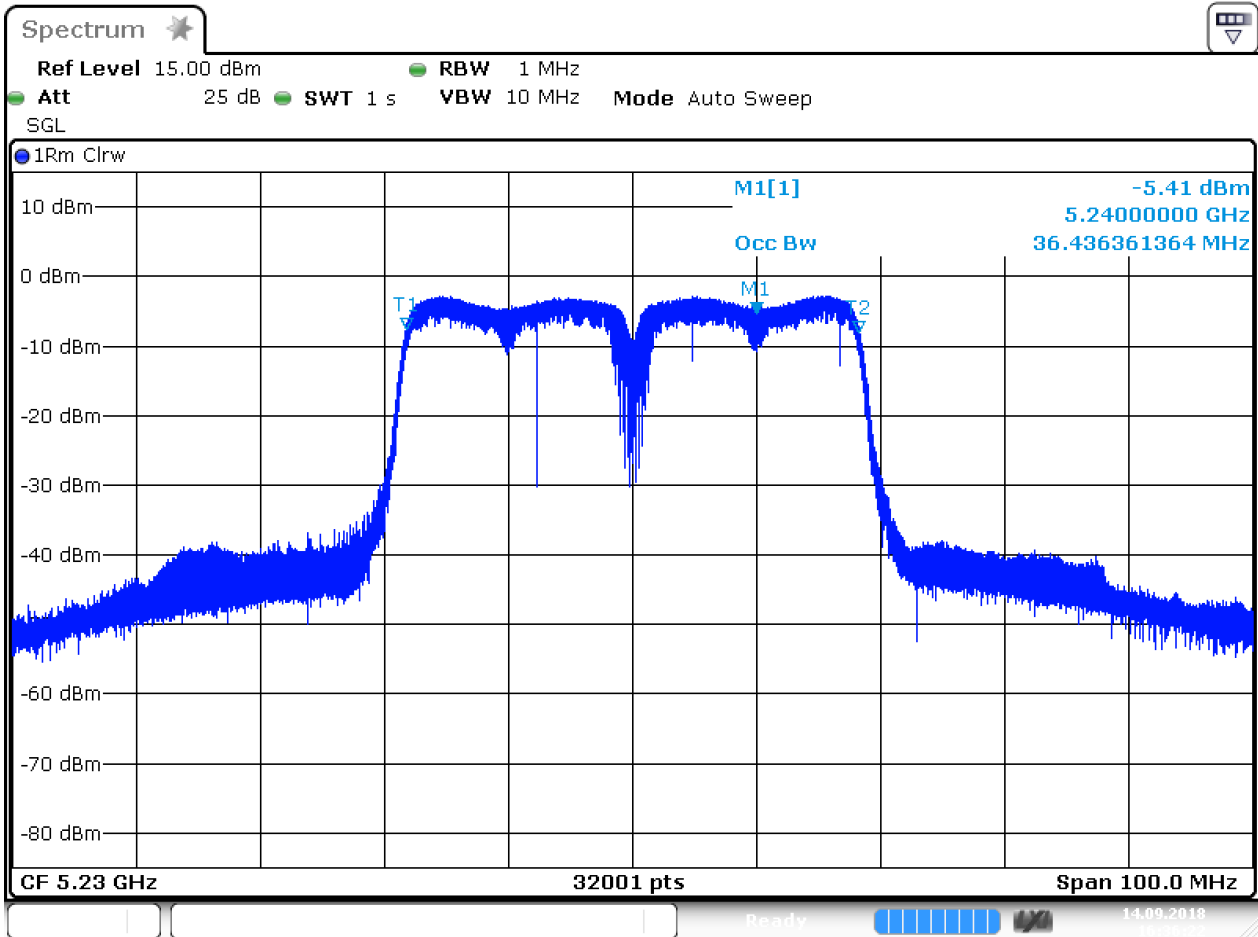
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 44-48 (5230 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:36:23

99% Bandwidth: 36,436 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

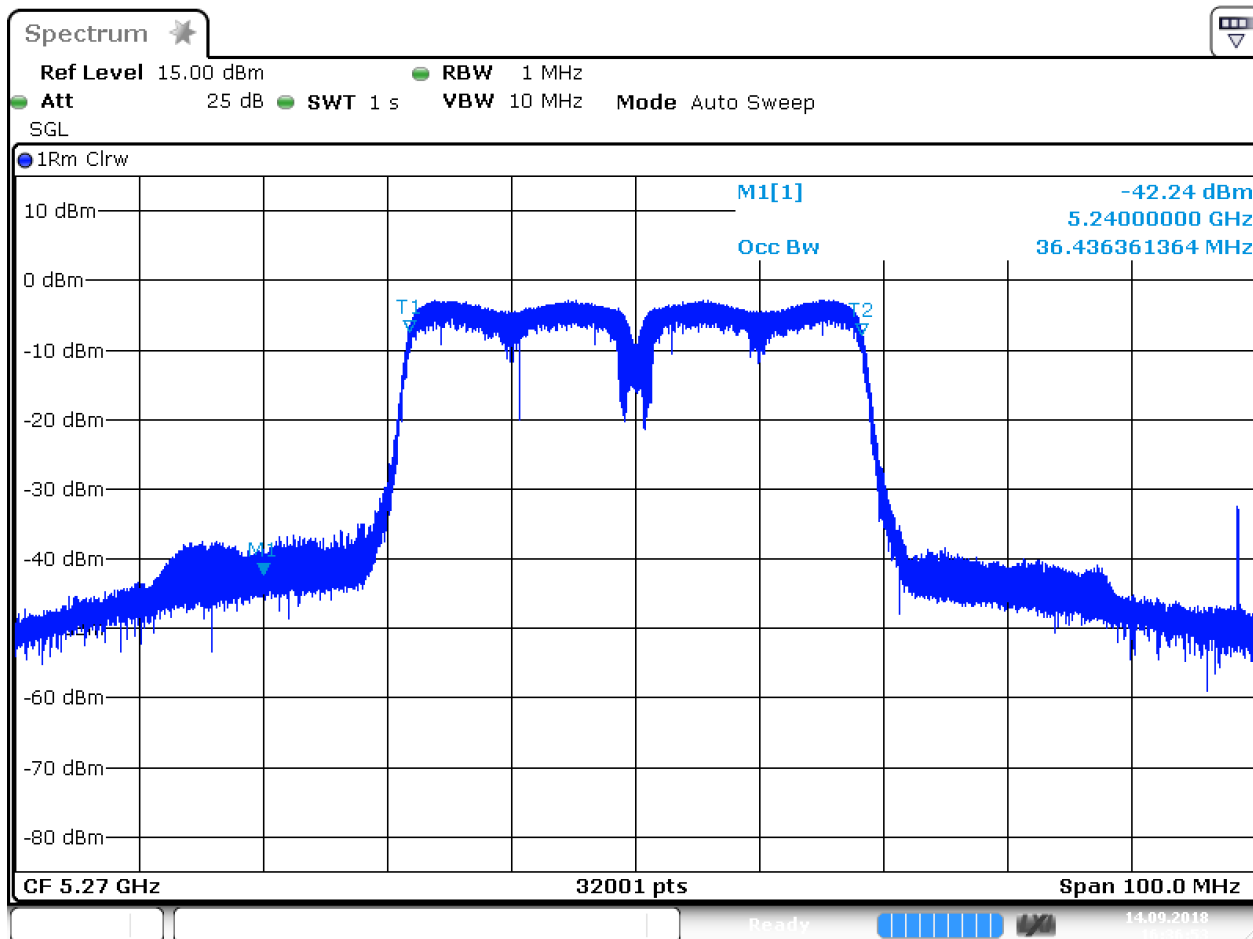
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52-56 (5270 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:36:53

99% Bandwidth: 36,436 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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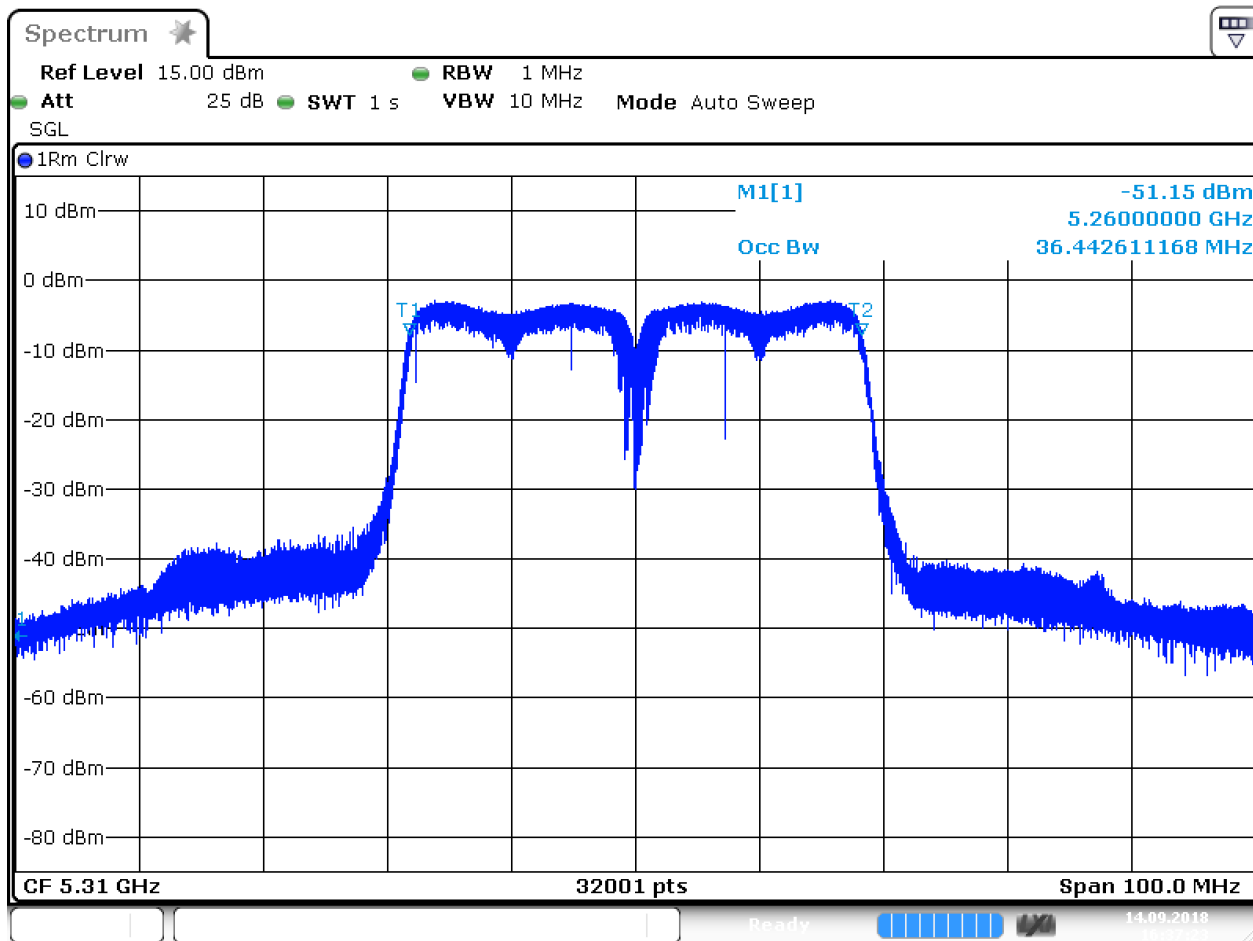
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 60-64 (5310 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:37:23

99% Bandwidth: 36,443 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

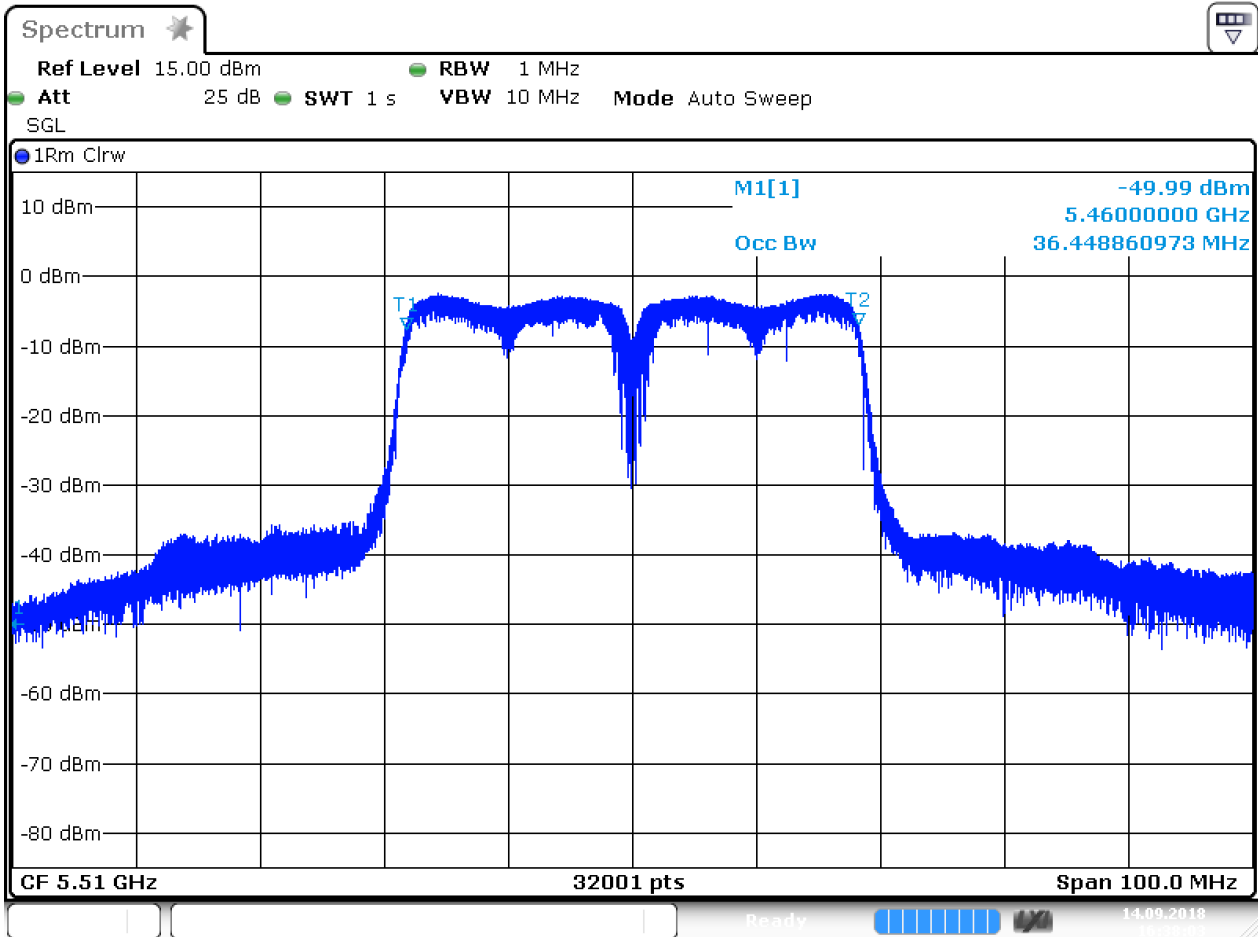
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100-104 (5510 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:38:03

99% Bandwidth: 36,449 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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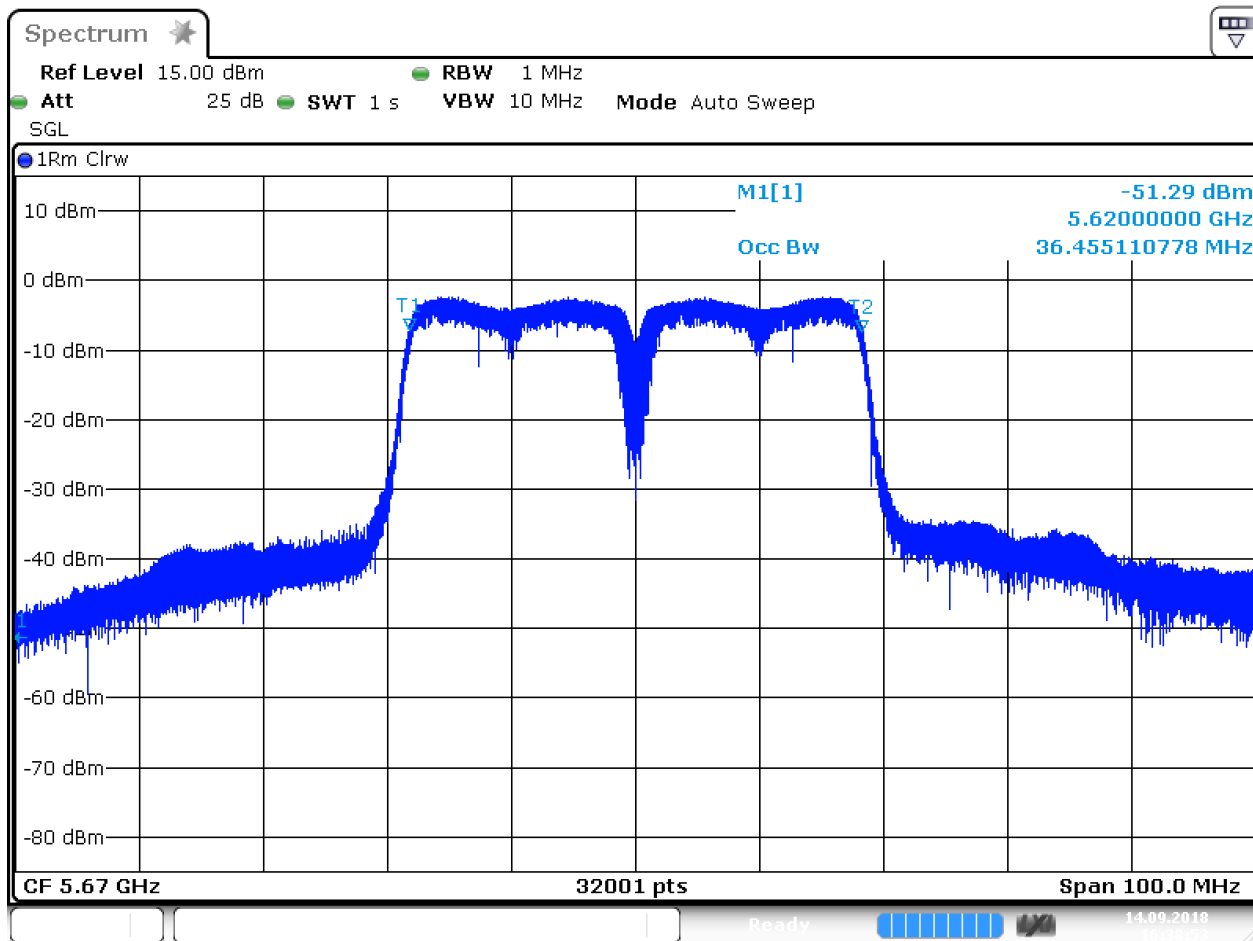
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 132-136 (5670 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:38:54

99% Bandwidth: 36,455 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

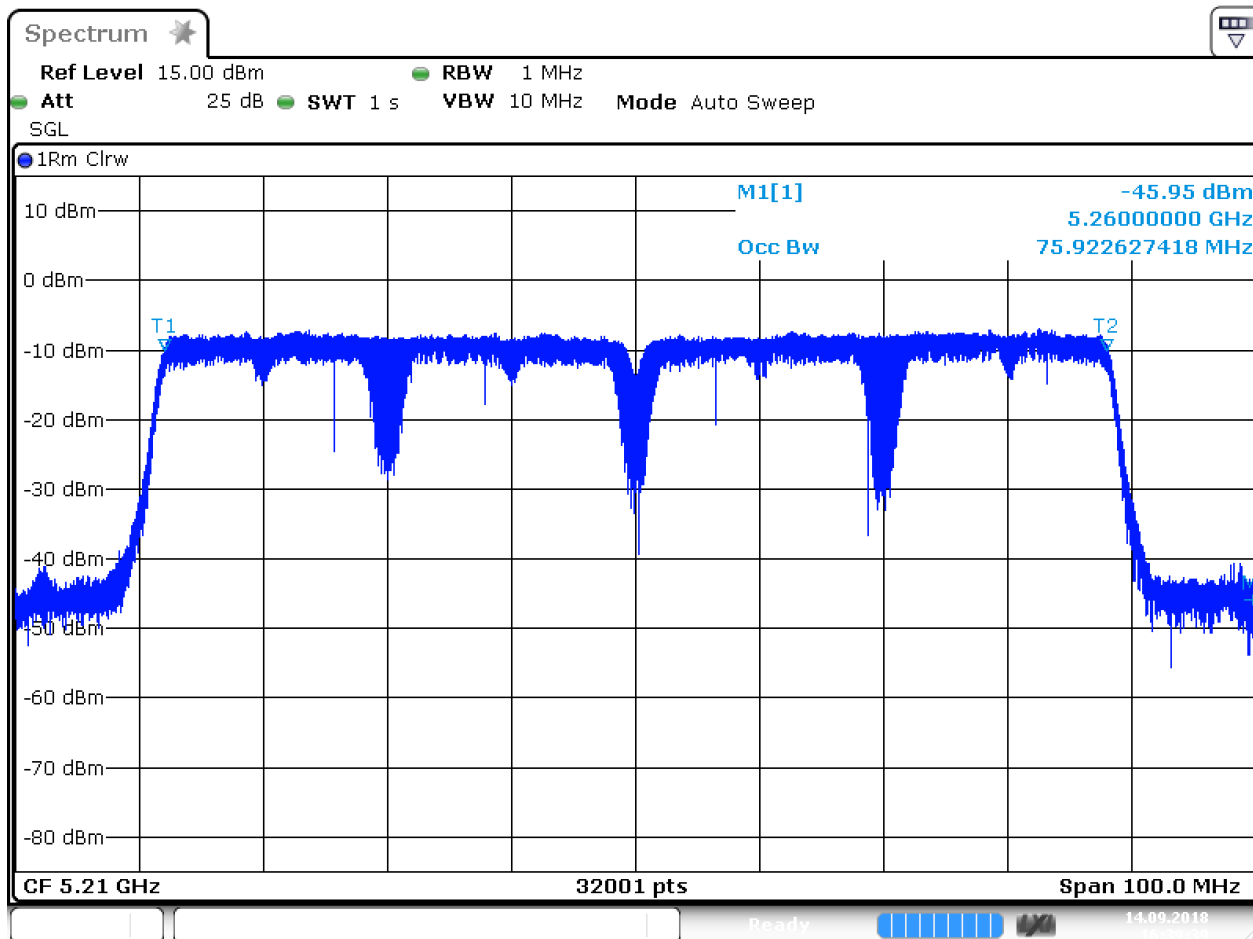
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 36-48 (5210 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:39:39

99% Bandwidth: 75,923 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

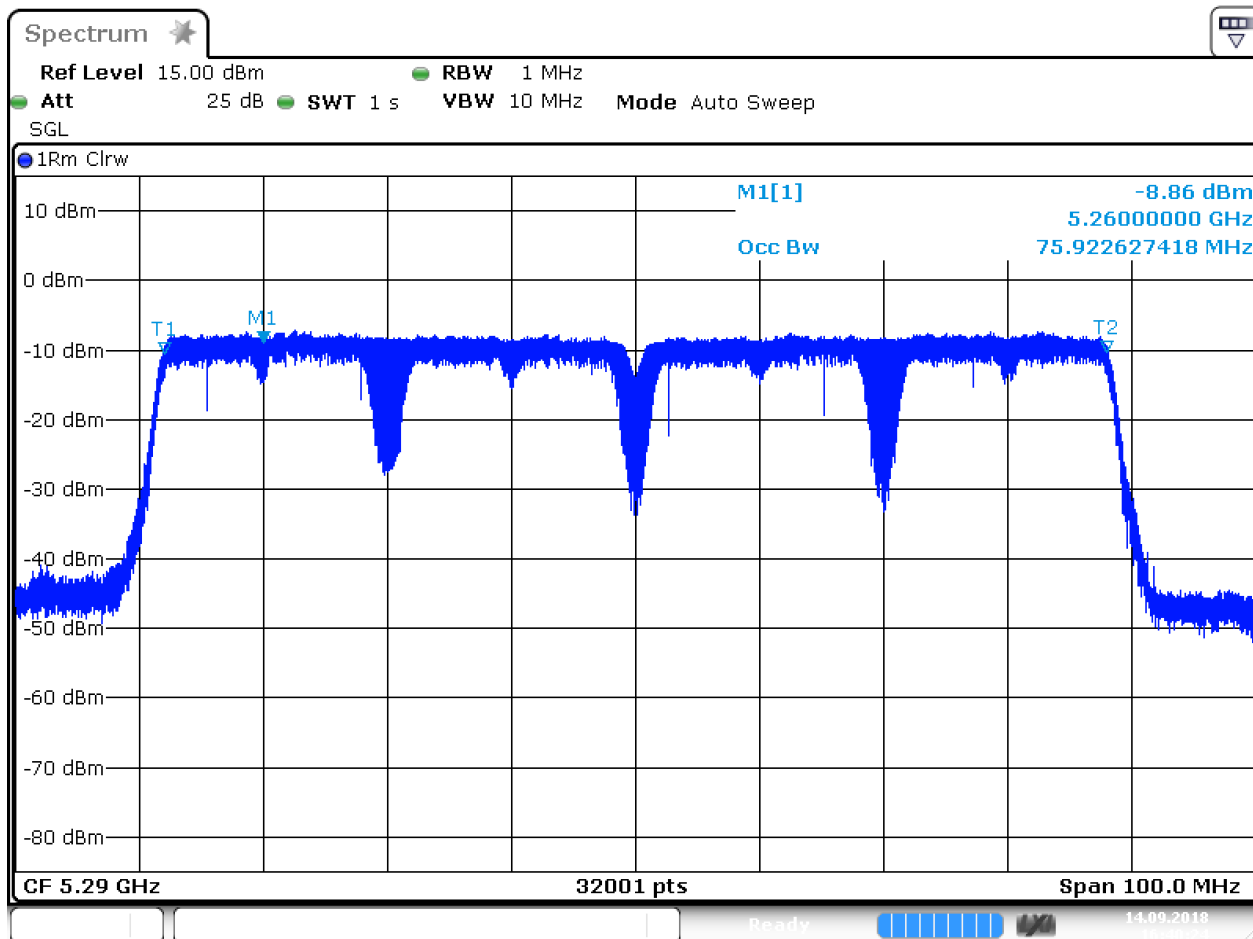
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 52-64 (5290 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:40:24

99% Bandwidth: 75,923 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

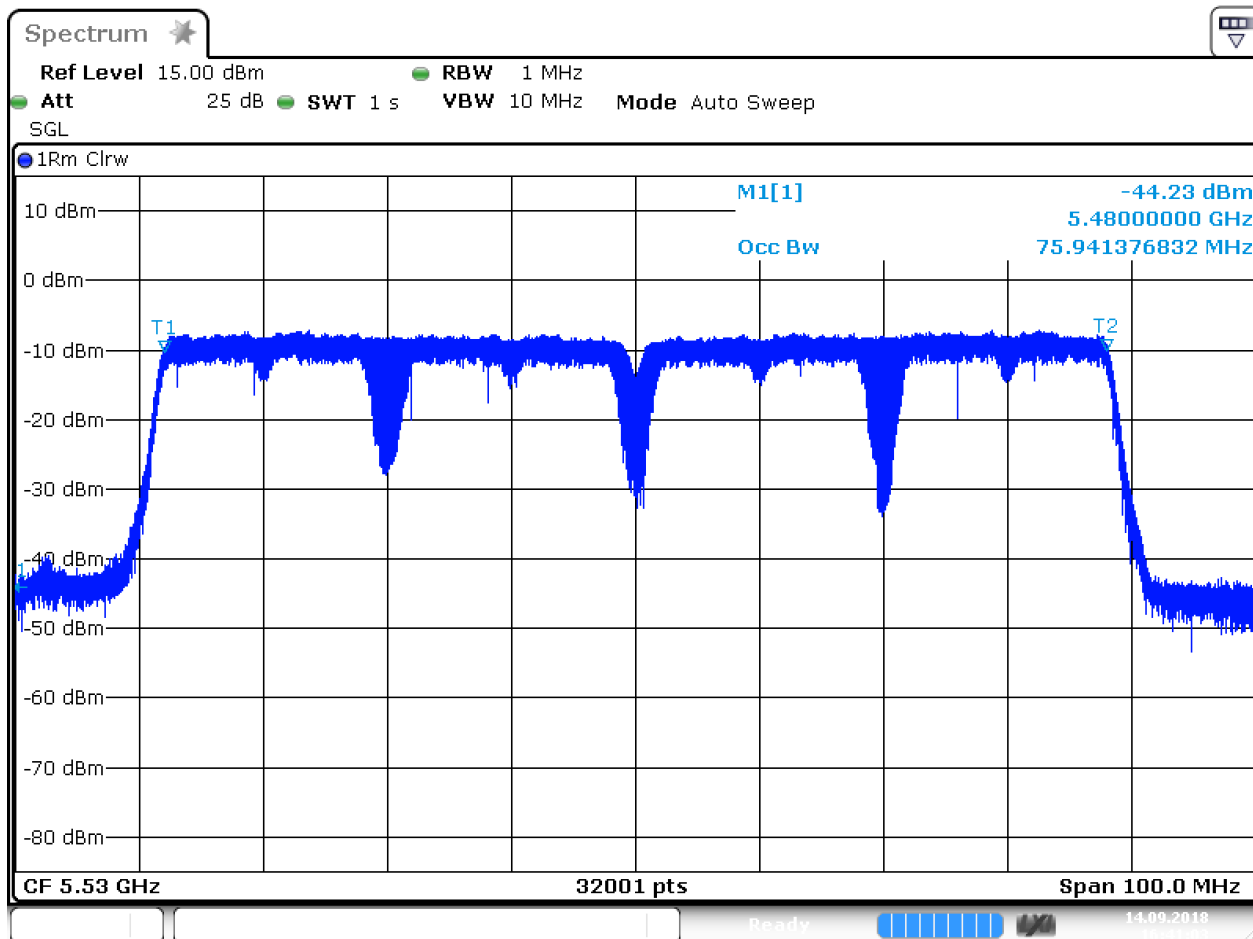
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 100-112 (5530 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:41:04

99% Bandwidth: 75,941 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
---	---

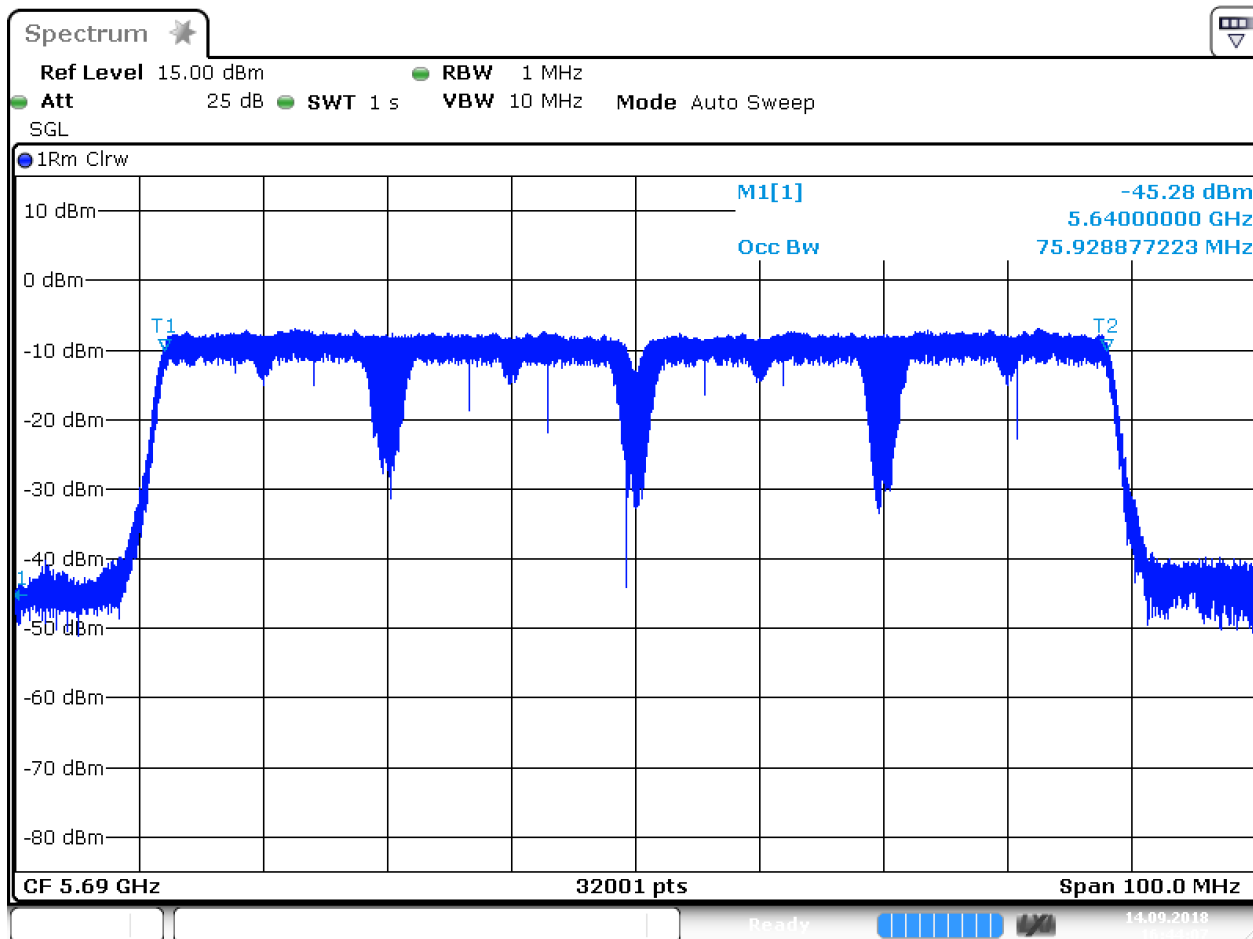
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 28,84 mW Channel 132-144 (5690 MHz center frequency) – Antenna 2



Date: 14.SEP.2018 16:44:07

99% Bandwidth: 75,929 MHz

LIMIT SUBCLAUSE 15.407 – 6.2.1 (2)

Frequency ranges: 5150 – 5250; 5250 – 5350; 5470 – 5650; 5725 – 5850 MHz	99% Bandwidth fully inside permitted frequency ranges
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Test Equipment used: EMV-205

4.6. Maximum Conducted Output Power

**§ 15.407(a)(1)(iv)
6.2.1 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	28,84 (5180)	27,54 (5240)
	OFDM – 40 MHz	14,79 (5190)	14,13 (5230)
	OFDM – 80 MHz	10,23 (5210)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(1)(iv)

For mobile and portable client devices in the 5.15-5.25 GHz band	250 mW provided the maximum antenna gain does not exceed 6 dBi
--	--

LIMIT SUBCLAUSE 6.2.1 (1)

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 MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(2)
6.2.2 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	27,54 (5260)	25,70 (5320)
	OFDM – 40 MHz	14,13 (5270)	13,49 (5310)
	OFDM – 80 MHz	10,00 (5290)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands	the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
--	---

LIMIT SUBCLAUSE 6.2.2 (1)

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 MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(2)
6.2.3 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	26,30 (5500)	25,70 (5700)
	OFDM – 40 MHz	13,49 (5510)	13,18 (5670)
	OFDM – 80 MHz	9,33 (5530)	9,12 (5690)
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands	the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
--	---

LIMIT SUBCLAUSE 6.2.3 (1)

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 MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(3)
6.2.4 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	25,12 (5745)	24,55 (5825)
	OFDM – 40 MHz	13,18 (5755)	12,59 (5795)
	OFDM – 80 MHz	9,55 (5775)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(3)

For the band 5.725-5.85 GHz	1 W provided the maximum antenna gain does not exceed 6 dBi
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LIMIT SUBCLAUSE 6.2.4 (1)

The maximum conducted output power shall not exceed 1 W.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(1)(iv)
6.2.1 (1)**

Conducted Measurement – Antenna 2

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	28,18 (5180)	27,54 (5240)
	OFDM – 40 MHz	14,79 (5190)	14,45 (5230)
	OFDM – 80 MHz	10,96 (5210)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(1)(iv)

For mobile and portable client devices in the 5.15-5.25 GHz band	250 mW provided the maximum antenna gain does not exceed 6 dBi
--	--

LIMIT SUBCLAUSE 6.2.1 (1)

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99 % emission bandwidth in MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(2)
6.2.2 (1)**

Conducted Measurement – Antenna 2

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	27,54 (5260)	26,30 (5320)
	OFDM – 40 MHz	14,45 (5270)	13,80 (5310)
	OFDM – 80 MHz	10,72 (5290)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands	the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
--	---

LIMIT SUBCLAUSE 6.2.2 (1)

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 MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(2)
6.2.3 (1)**

Conducted Measurement – Antenna 2

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	26,92 (5500)	26,92 (5700)
	OFDM – 40 MHz	13,80 (5510)	13,49 (5670)
	OFDM – 80 MHz	10,00 (5530)	9,77 (5690)
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands	the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
--	---

LIMIT SUBCLAUSE 6.2.3 (1)

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 MHz.

Test Equipment used: NT-204; NT-229; NT233/1a

Maximum Conducted Output Power

**§ 15.407(a)(3)
6.2.4 (1)**

Conducted Measurement – Antenna 2

Rated output power: 28,84 mW

Test conditions		Transmitter power (mW)	
		Channel center frequency (MHz)	
T _{nom} (23)°C	OFDM – 20 MHz	28,84 (5745)	28,18 (5825)
	OFDM – 40 MHz	14,13 (5755)	13,80 (5795)
	OFDM – 80 MHz	10,23 (5775)	
Measurement uncertainty		± 0,75 dB	

LIMIT SUBCLAUSE 15.407(a)(3)

For the band 5.725-5.85 GHz	1 W provided the maximum antenna gain does not exceed 6 dBi
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LIMIT SUBCLAUSE 6.2.4 (1)

The maximum conducted output power shall not exceed 1 W.

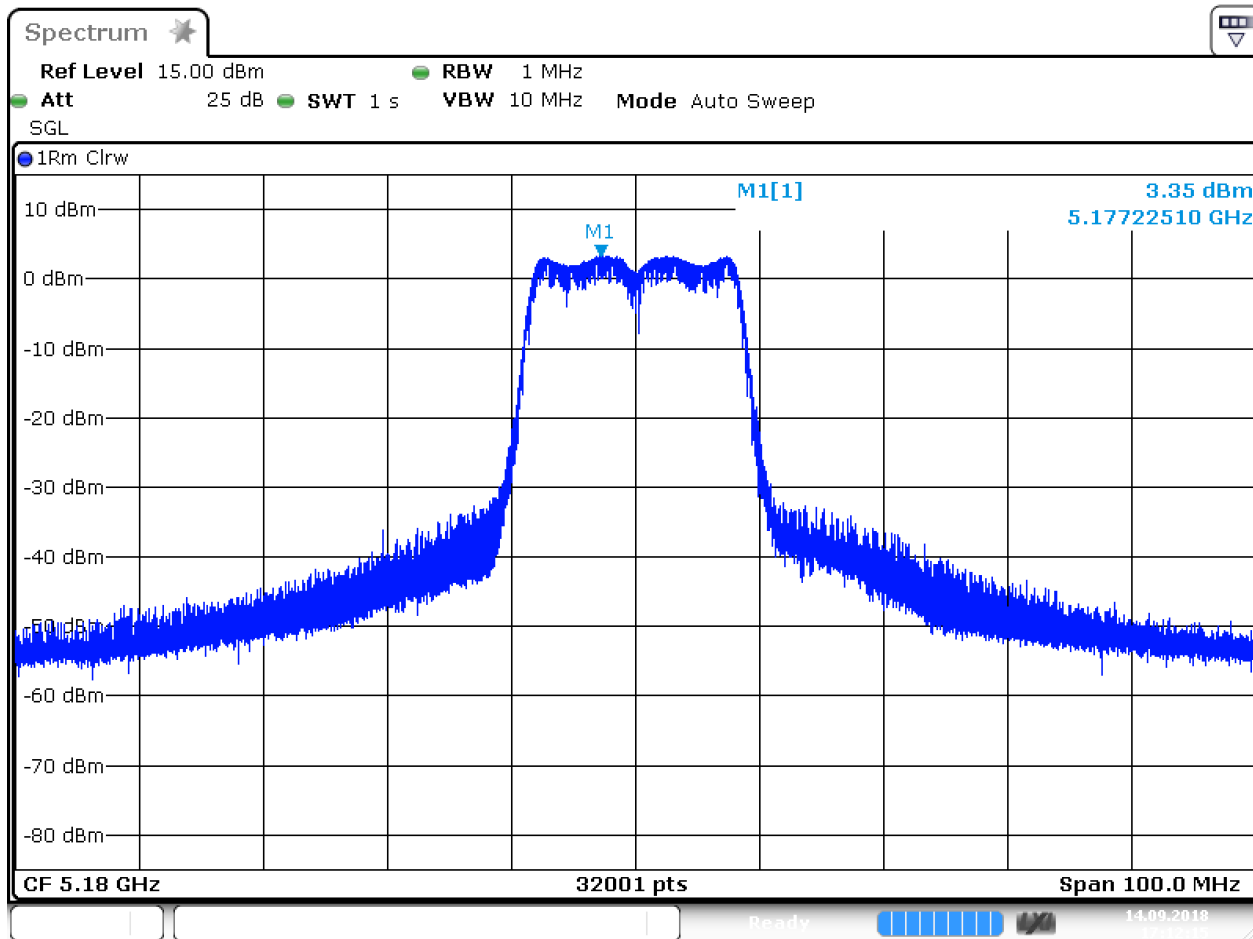
Test Equipment used: NT-204; NT-229; NT233/1a

4.7. Maximum Power spectral density (conducted)

**§ 15.407(a)(1)(iv)
6.2.1 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW Channel 36 (5180 MHz center frequency)



Date: 14.SEP.2018 17:12:16

Power Spectral density: 3,35dBm @ 5177,225 MHz

LIMIT SUBCLAUSE 15.407(a)(1)(iv) – 6.2.1 (1)

For mobile and portable client devices in the 5.15-5.25 GHz band	the maximum power spectral density shall not exceed 11 dBm (RSS-247: 10dBm) in any 1 megahertz band
--	---

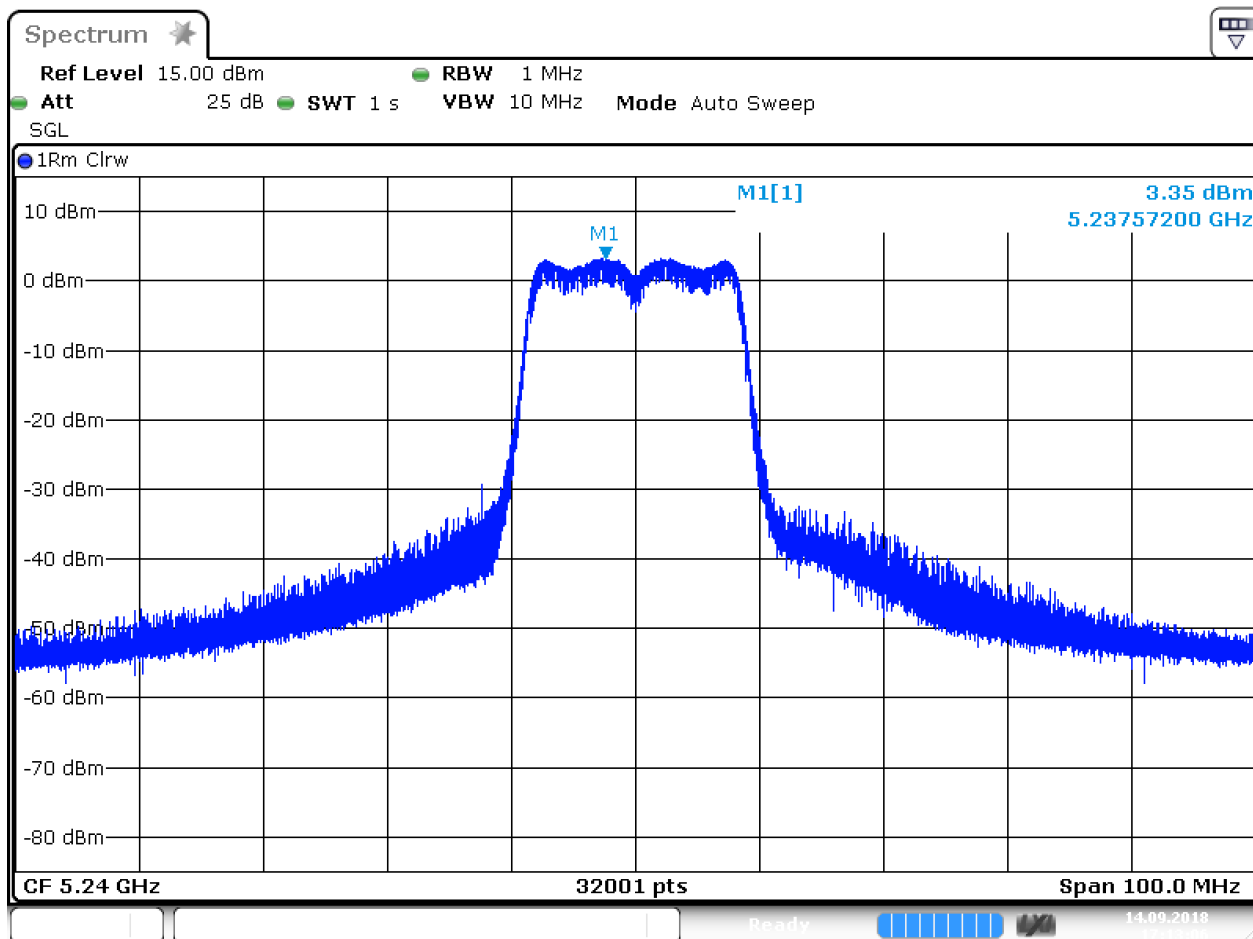
Test Equipment used: EMV-205

Maximum Power spectral density (conducted)

**§ 15.407(a)(1)(iv)
6.2.1 (1)**

Conducted Measurement – Antenna 1

Rated output power: 28,84 mW Channel 48 (5240 MHz center frequency)



Date: 14.SEP.2018 17:13:06

Power Spectral density: 3,35 dBm @ 5237,572 MHz

LIMIT SUBCLAUSE 15.407(a)(1)(iv) – 6.2.1 (1)

For mobile and portable client devices in the 5.15-5.25 GHz band	the maximum power spectral density shall not exceed 11 dBm (RSS-247: 10dBm) in any 1 megahertz band
--	---

Test Equipment used: EMV-205