

TEST REPORT

of the accredited test laboratory

TÜV Nr.:INE-AT/FG-19/198**TÜV AUSTRIA
SERVICES GMBH****Office:**
Deutschstrasse 10
1230 Vienna/Austria
T: +43 5 0454-0
F: +43 5 0454-6505
E: pzw@tuv.at
W: www.tuv.atBusiness Area
Industry & Energy
Austria

Technik

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

Tested Product: STREAM1955 Bluetooth / BLE / WIFI streaming module
Test report for 5 GHz WIFI part only

FCC-ID: 2AJYB-S1955

IC-ID: 20504-S1955

Manufacturer: See applicant

Output power / field strength: 63,10 mW cond. **power supply:** 5 VDC

Frequency range: 5180 - 5825 MHz with gaps **Channel separation:** 20/40/80 MHz

Standard: FCC: 47 CFR Part 15 (October 1, 2018 edition)
RSS-247 Issue 2, February 2017
905462 D03 - Client Without DFS New Rules v01r02

Testing Laboratory,
Inspection Body,
Certification Body,
Calibration Laboratory,
Verifizierungsstelle**Notified Body 0408
IC 2932K-1****Non-executive
Board of Directors:**
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Marihart**Management:**
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Deutschstrasse 10
1230 Vienna/Austria**Branch Offices:**
www.tuv.at/standorte**Company Register
Court / - Number:**
Vienna / FN 288476 f**Bank Details:**
IBAN
AT131200052949001066
BIC BKAUATWWIBAN
AT153100000104093282
BIC RZBAATWWVAT ATU63240488
DVR 3002476**TUV Austria Services GmbH**
Test laboratory for EMC

Supervisor of EMC-laboratory:

Ing. Wilhelm Seier



02.12.2019

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: 20.05.2019

Tests were performed on: 27.05. till 17.09.2019

2. Description of EUT

EUT: Bluetooth / BLE / WIFI module "STREAM1955"

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: 5VDC
Rated current: 450mA
Rated frequency: DC

Mains voltage during the tests: 5VDC

Climatic conditions in the emc laboratory: Relative humidity: 39%
Temperature: 23°C

3. Standards / Final result

Name	Title	Deviation	Result
Title 47 CFR Part 15 October 1 st 2018 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-19/195 for Bluetooth

INE-AT/FG-19/196 for BLE and

INE-AT/FG-19/197 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 5720 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 5710 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 63,10 mW and there is no power regulation.

2.1033 (7) Maximum output power rating: 63,10 mW.

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

maximum current consumption: 450 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: 51,6 dBµV/m Average at the 2nd harmonic.

Tests were performed May 27th till September 17th 2019.

4.2. Number of channels and channel spacing

§ 2.1033

Conducted Measurement

Rated output power: 63,10 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.

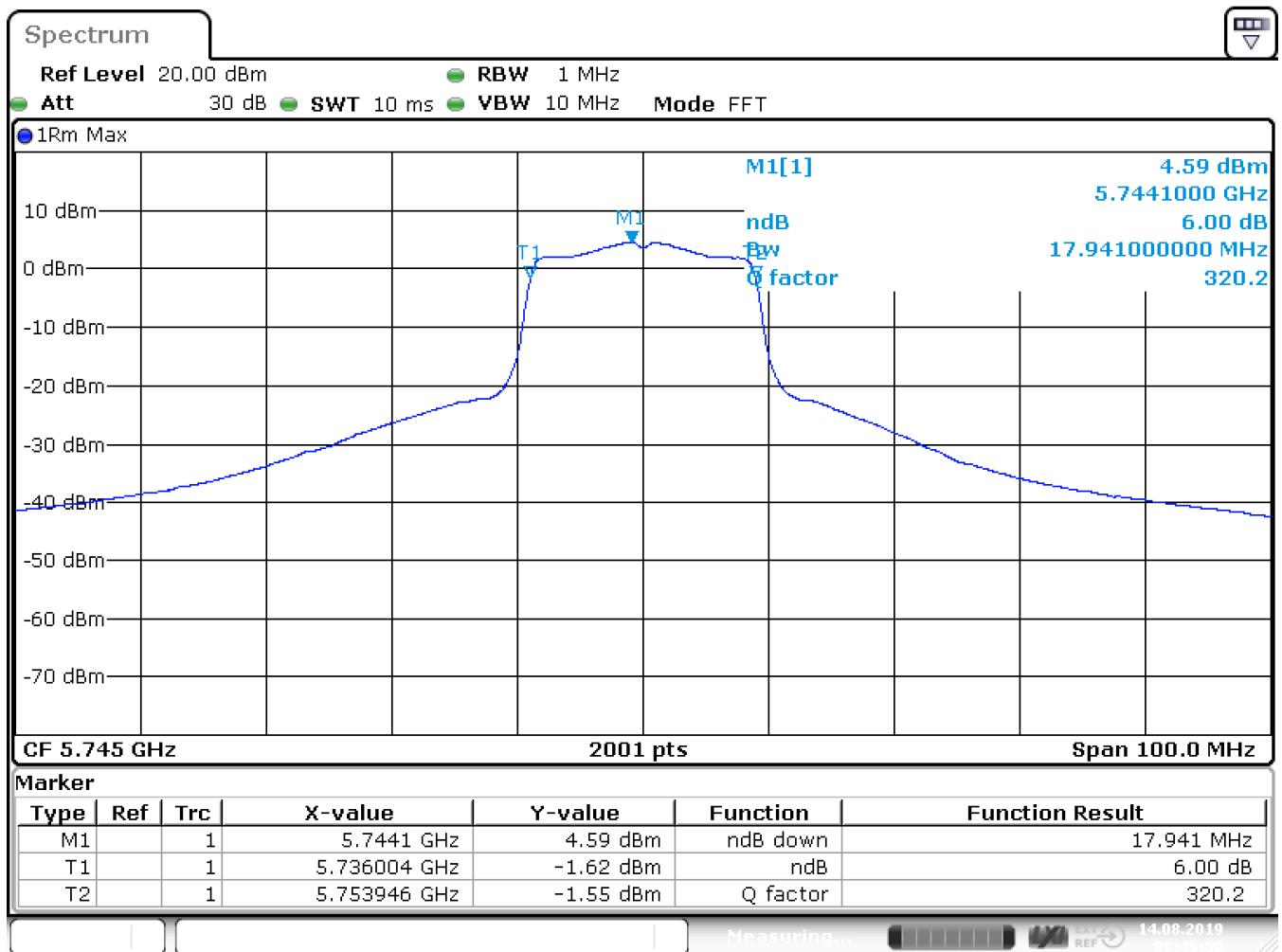
Test Equipment used: N/A

4.3. 6dB Bandwidth

**§ 15.407(e)
6.2.4 (1)**

Conducted Measurement

Rated output power: 63,10 mW Channel 149 (5745 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 09:45:50

6dB Bandwidth: 17,941 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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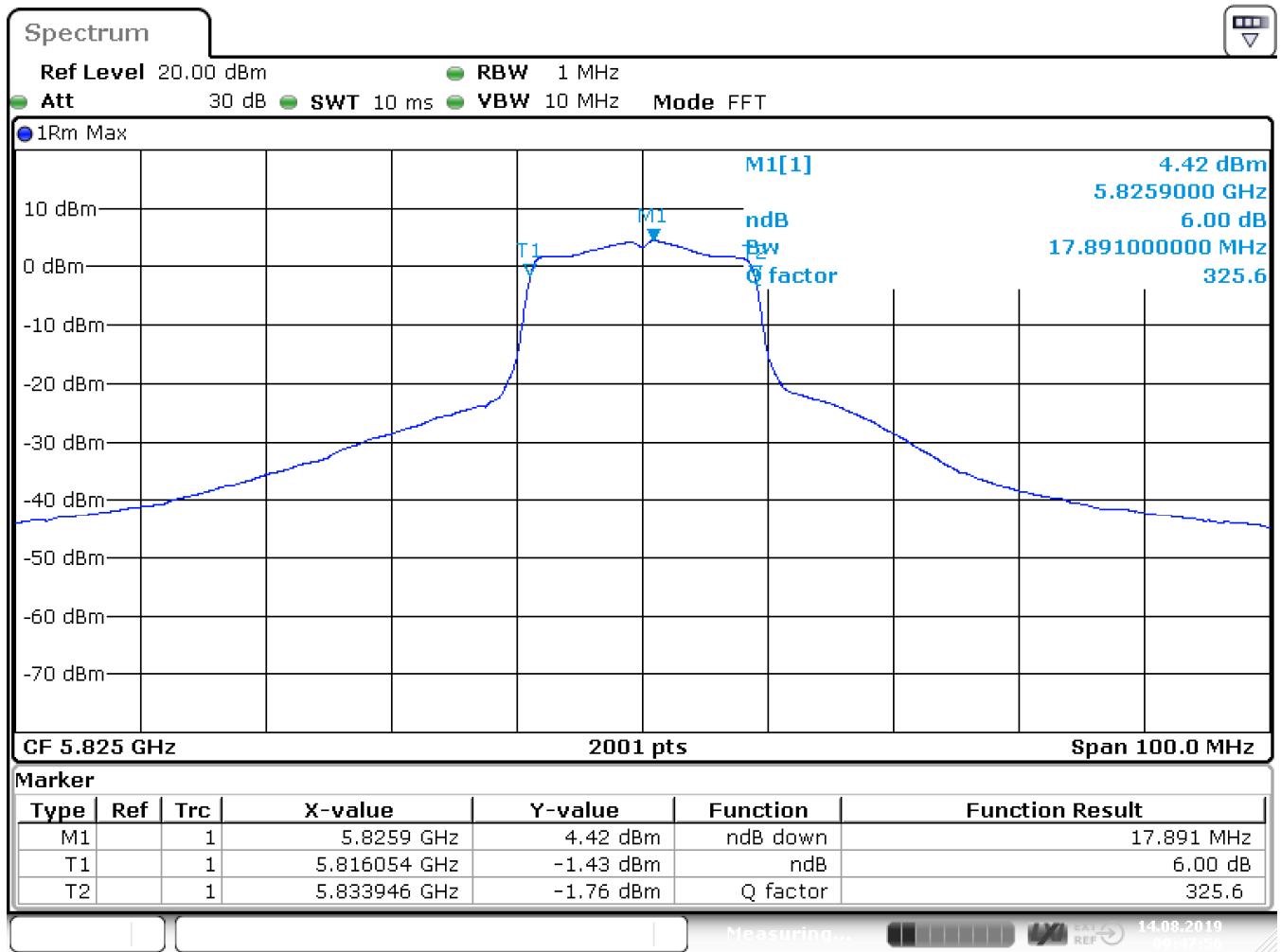
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 165 (5825 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 09:47:56

6dB Bandwidth: 17,891 MHz

LIMIT SUBCLAUSE 15.407(e) – 6.2.4 (1)

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

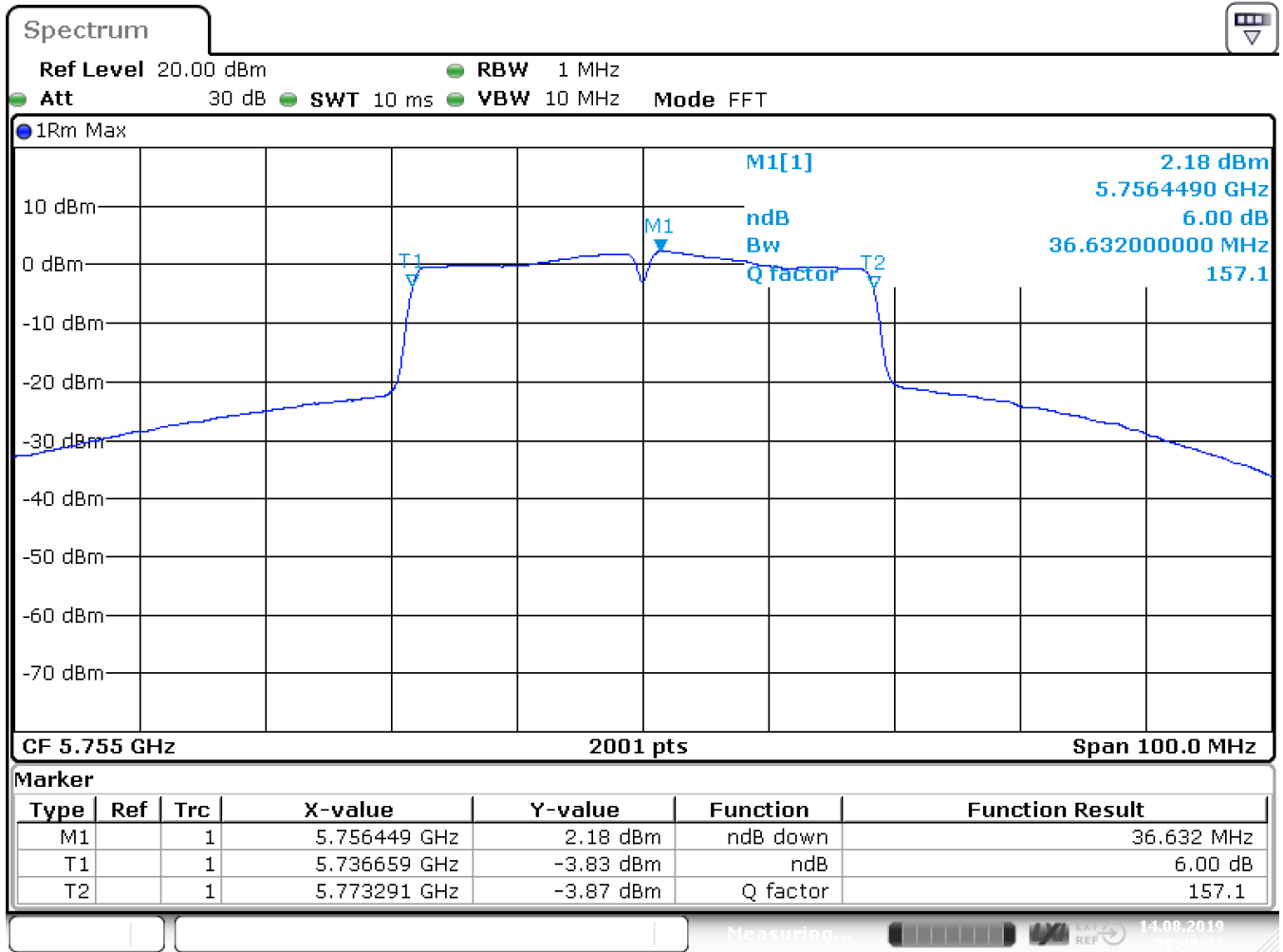
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 151 (5755 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 09:49:33

6dB Bandwidth: 36,632 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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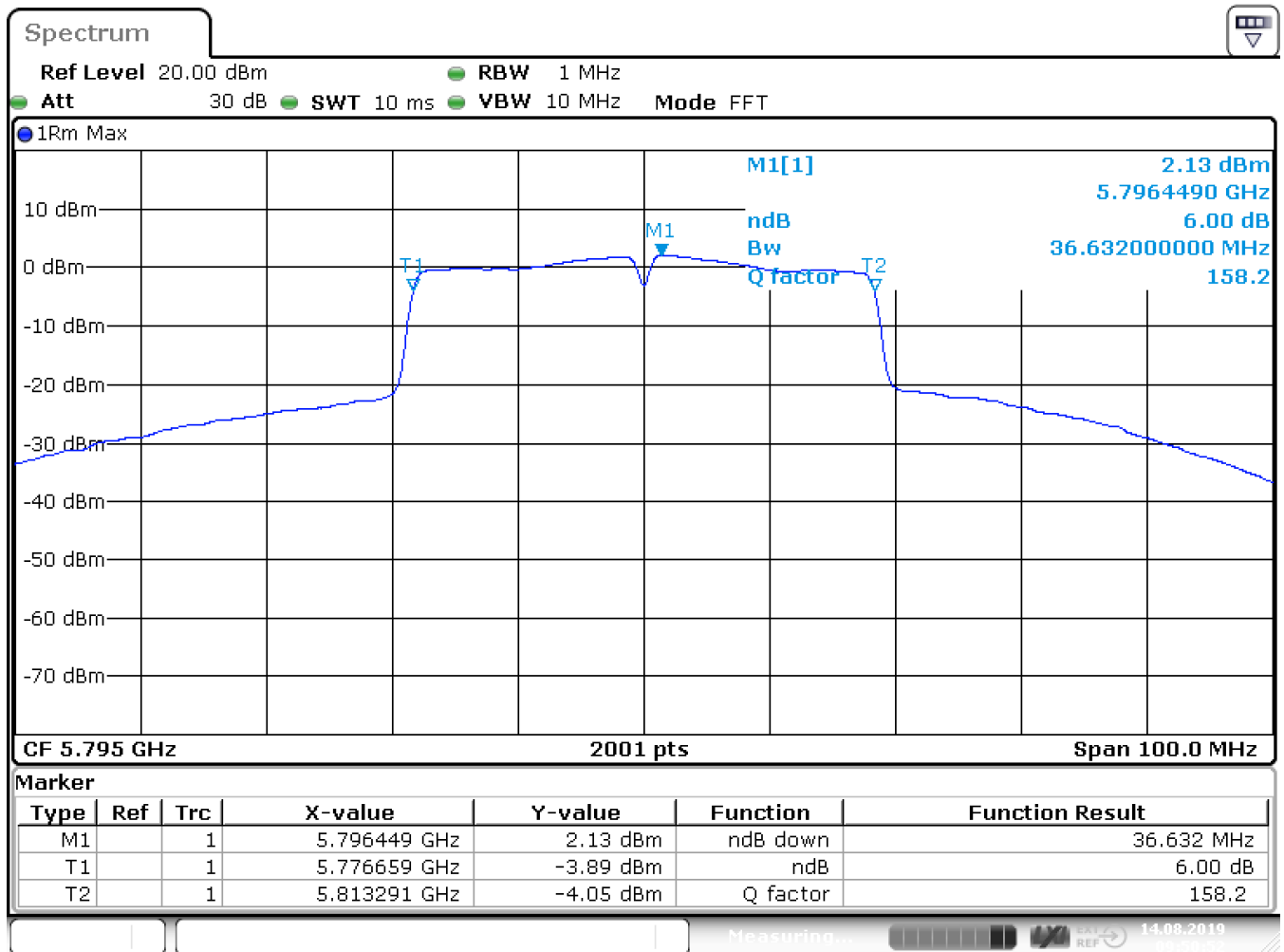
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 159 (5795 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 09:50:52

6dB Bandwidth: 36,632 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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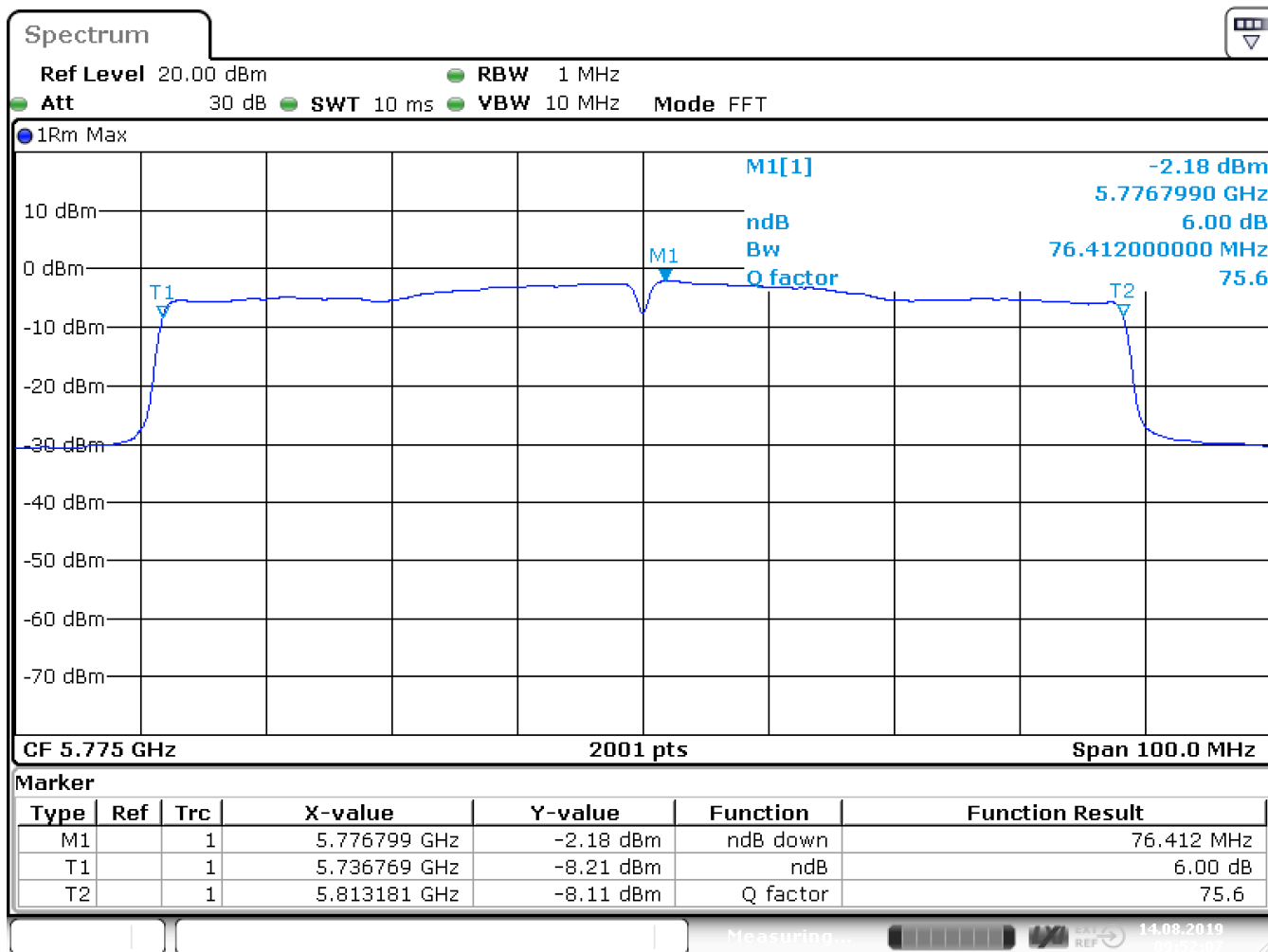
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 155 (5775 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 09:52:07

6dB Bandwidth: 76,412 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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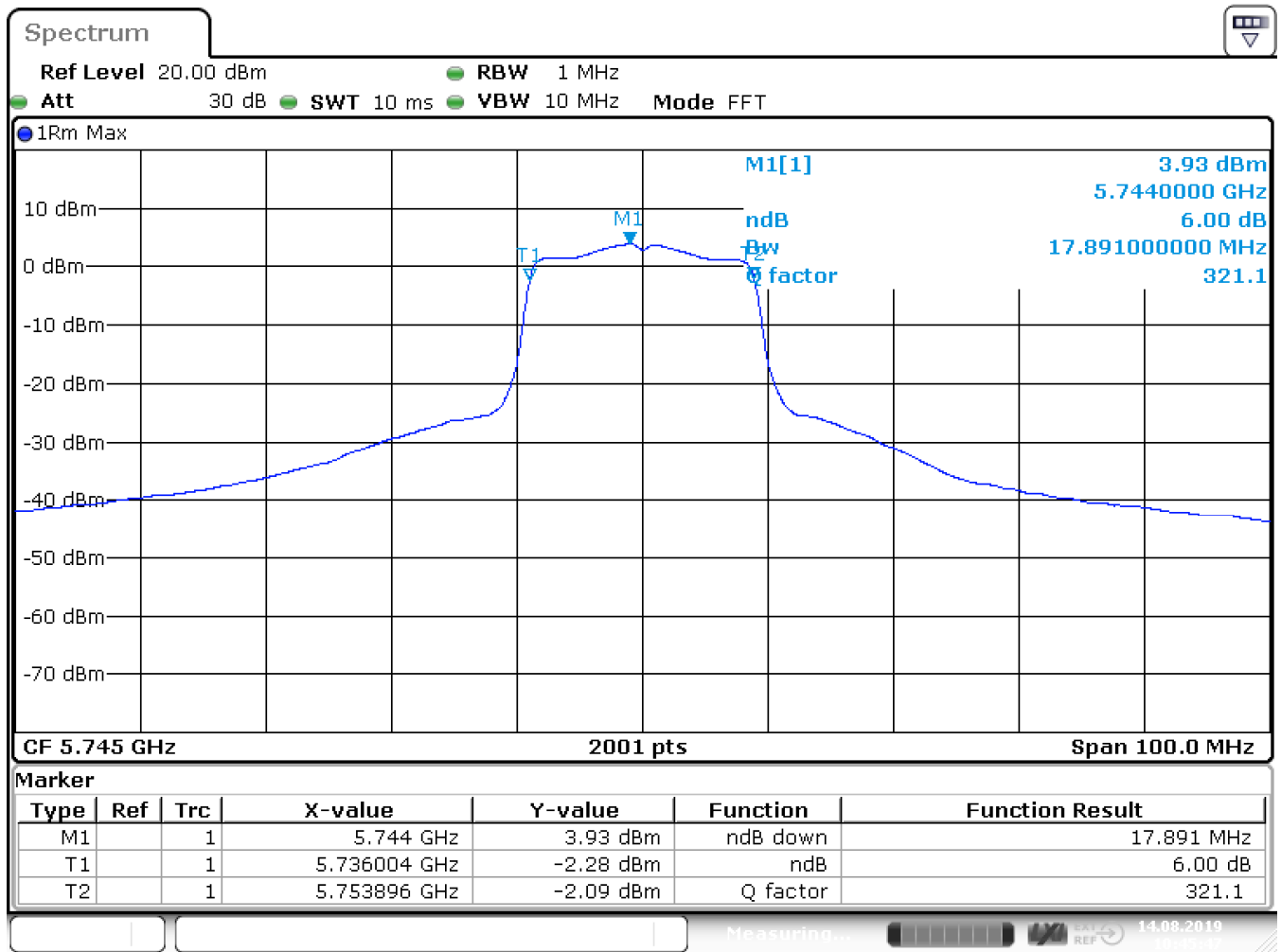
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 149 (5745 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 10:45:48

6dB Bandwidth: 17,891 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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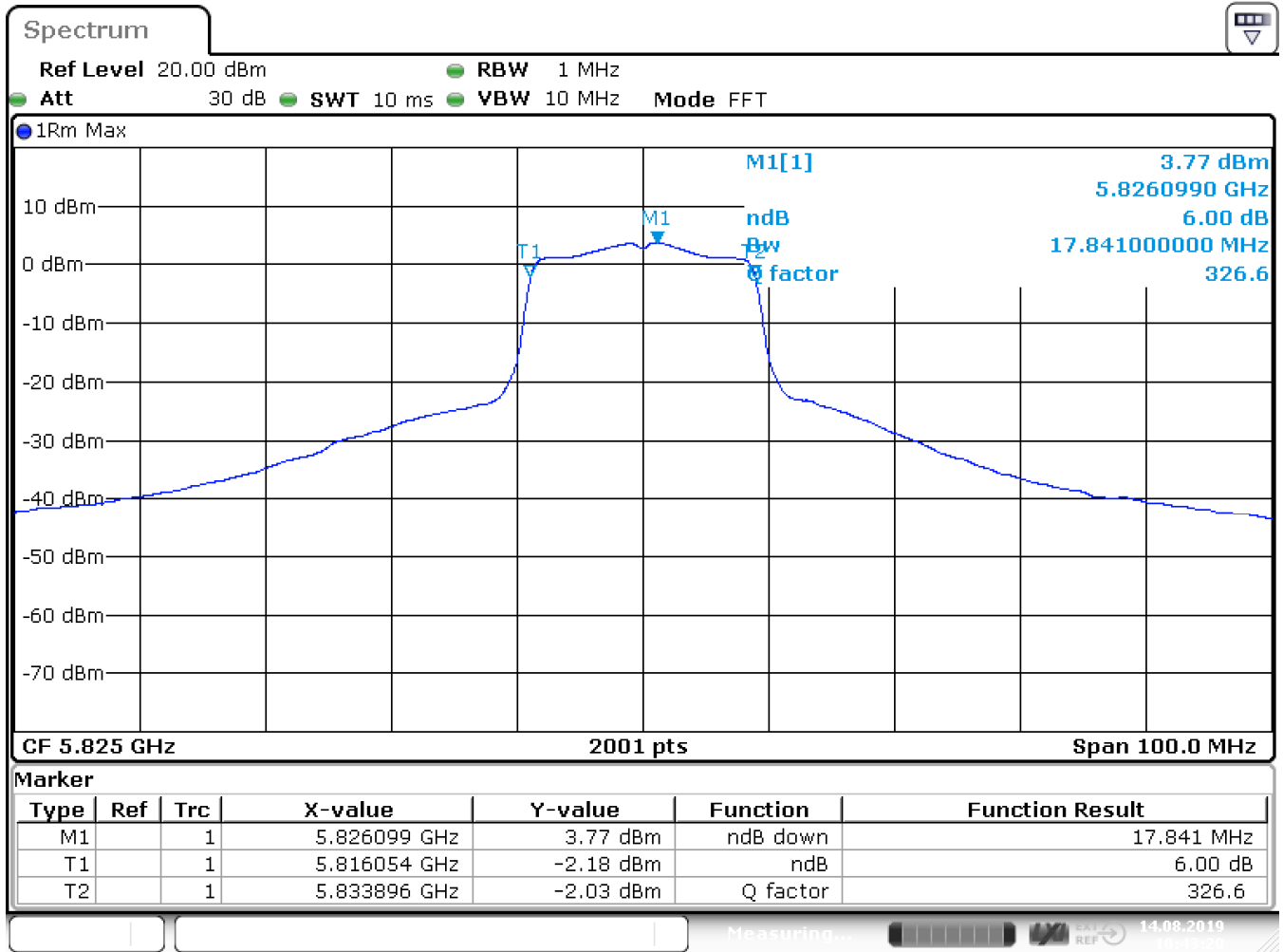
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 165 (5825 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 10:43:20

6dB Bandwidth: 17,841 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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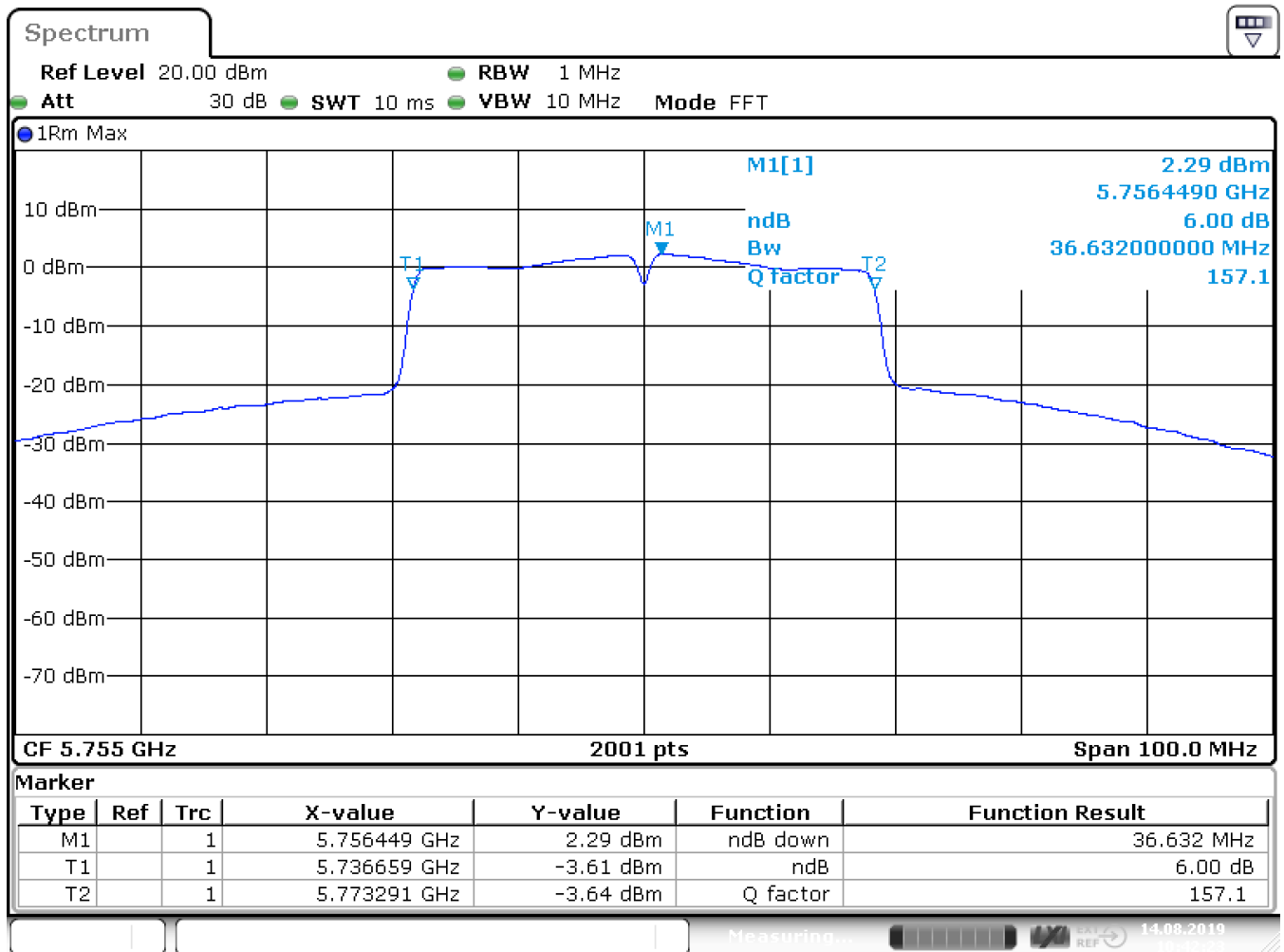
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 151 (5755 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 10:42:24

6dB Bandwidth: 36,632 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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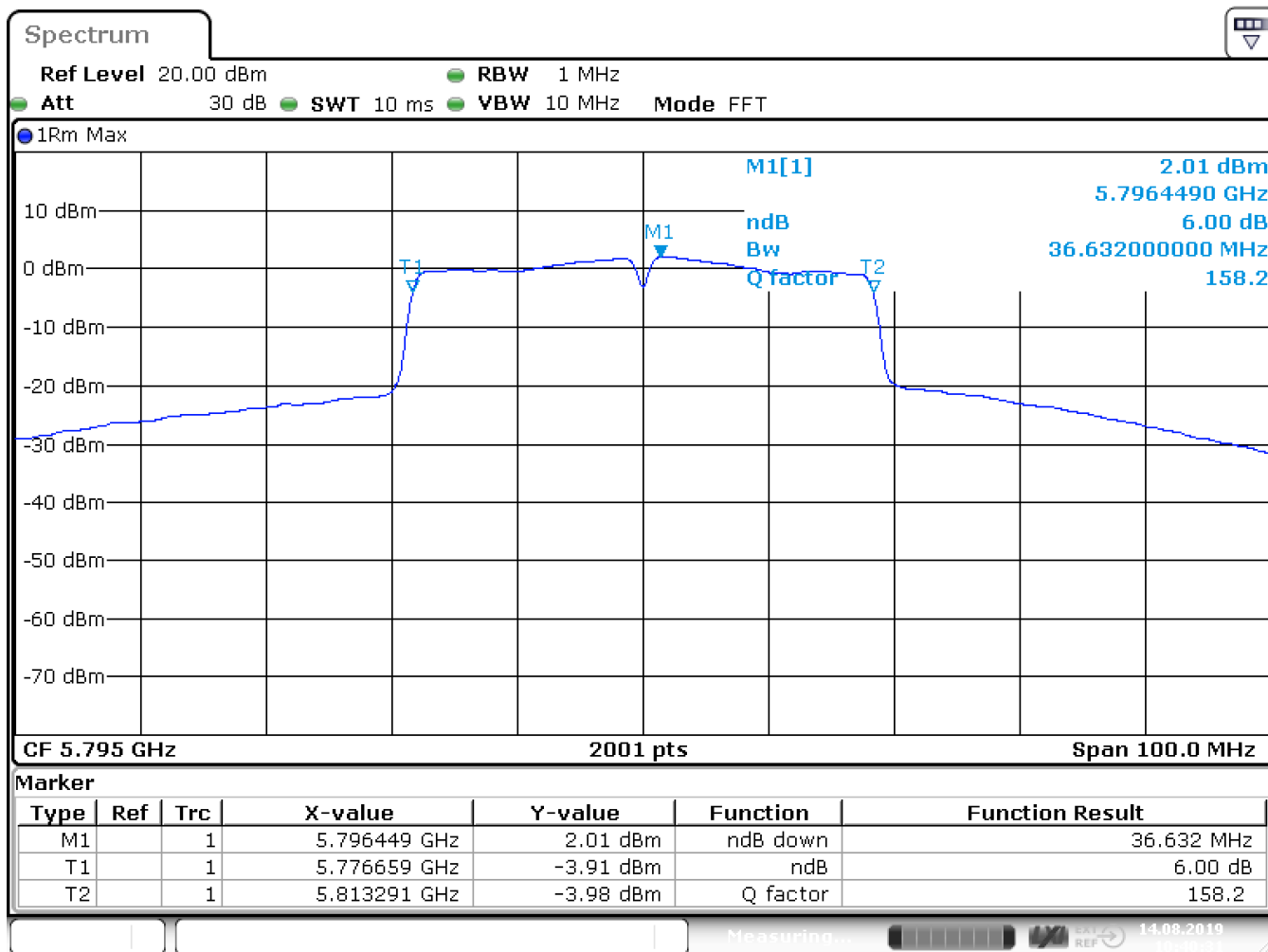
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 159 (5795 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 10:40:31

6dB Bandwidth: 36,632 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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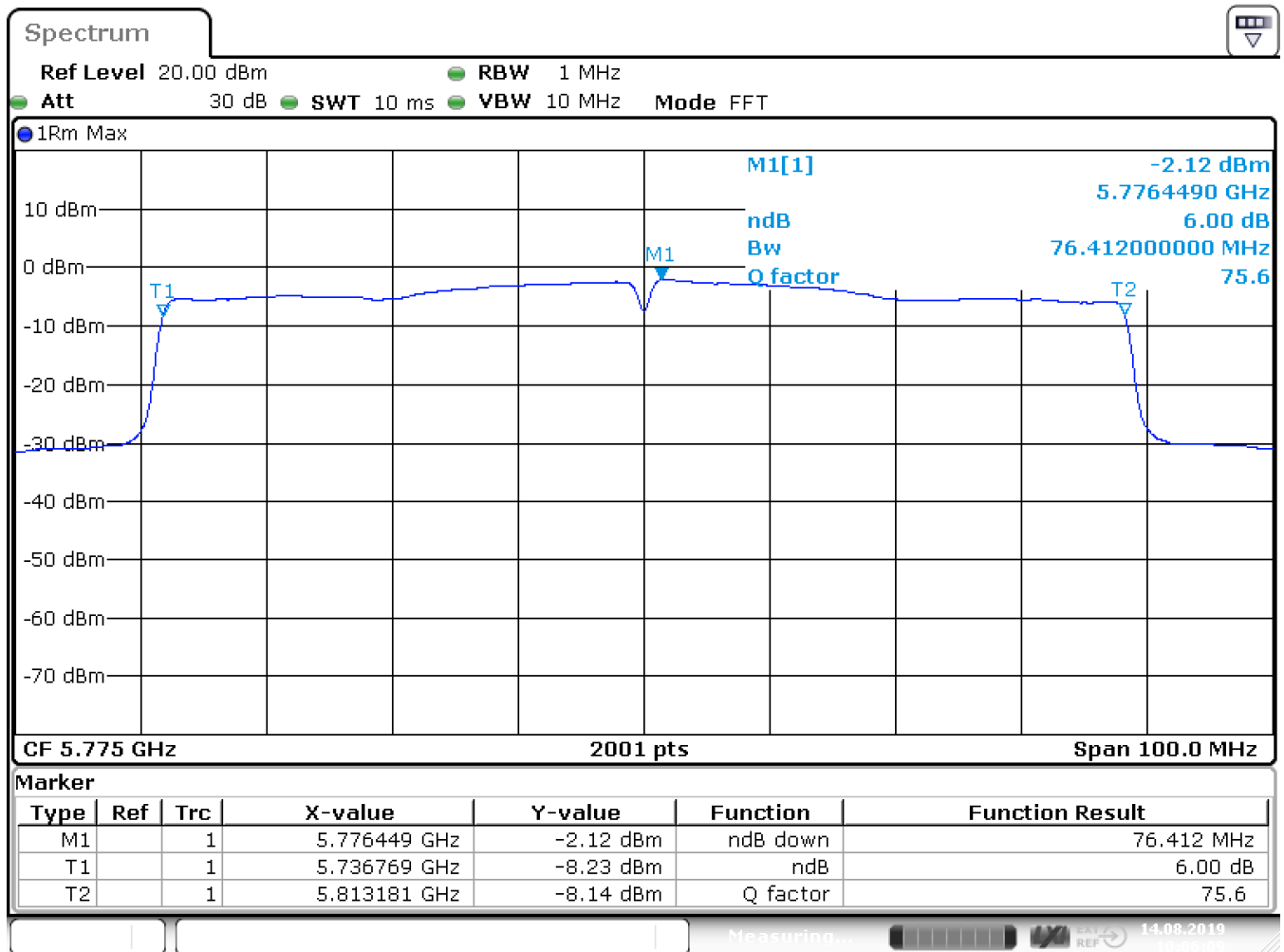
Test Equipment used: EMV-205

6dB Bandwidth

§ 15.407(e)
6.2.4 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 155 (5775 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 10:06:10

6dB Bandwidth: 76,412 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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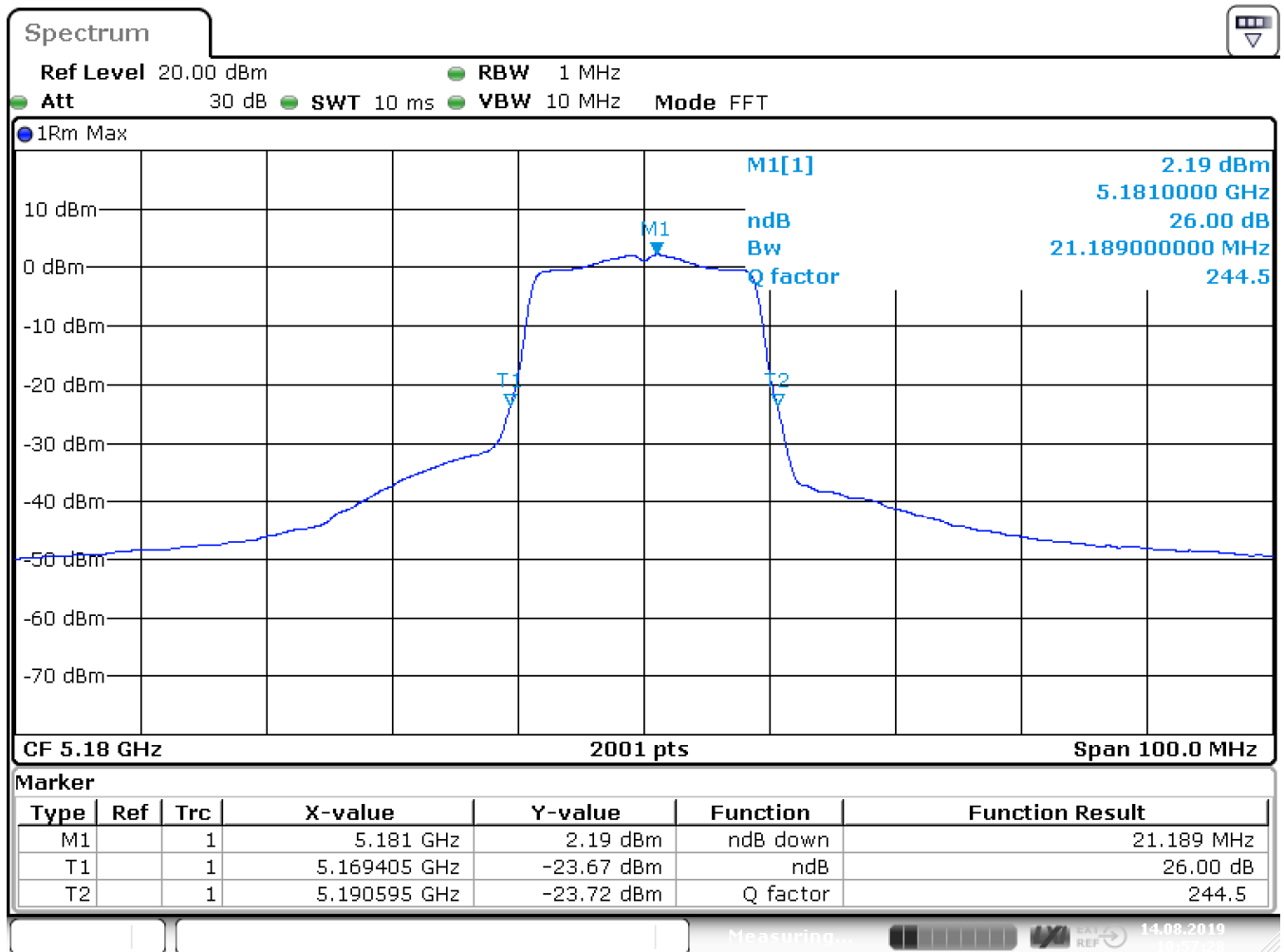
Test Equipment used: EMV-205

4.4. 26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 36 (5180 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 10:57:28

26dB Bandwidth: 21,189 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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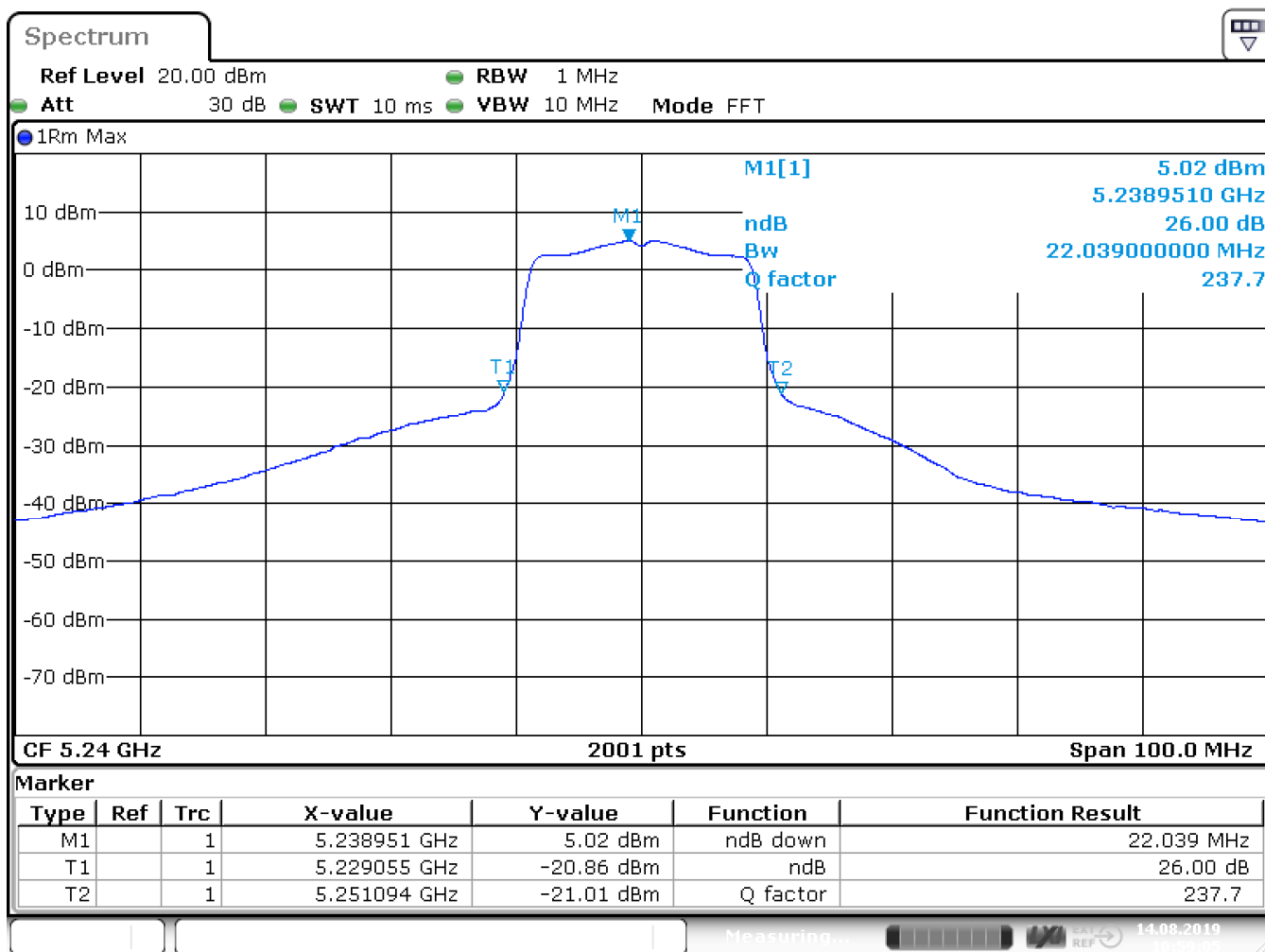
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 48 (5240 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 10:59:05

26dB Bandwidth: 22,039 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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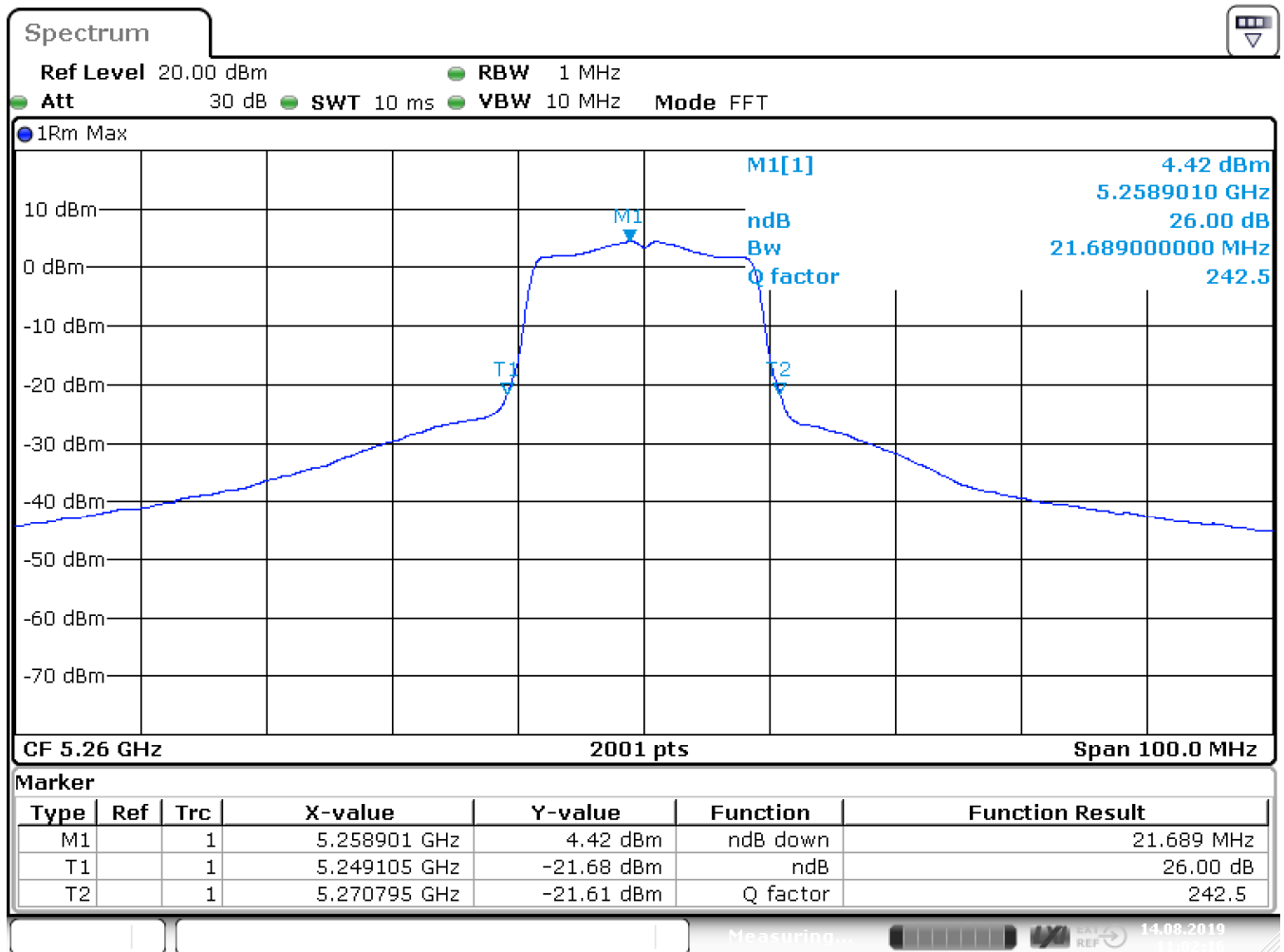
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 52 (5260 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:02:16

26dB Bandwidth: 21,689 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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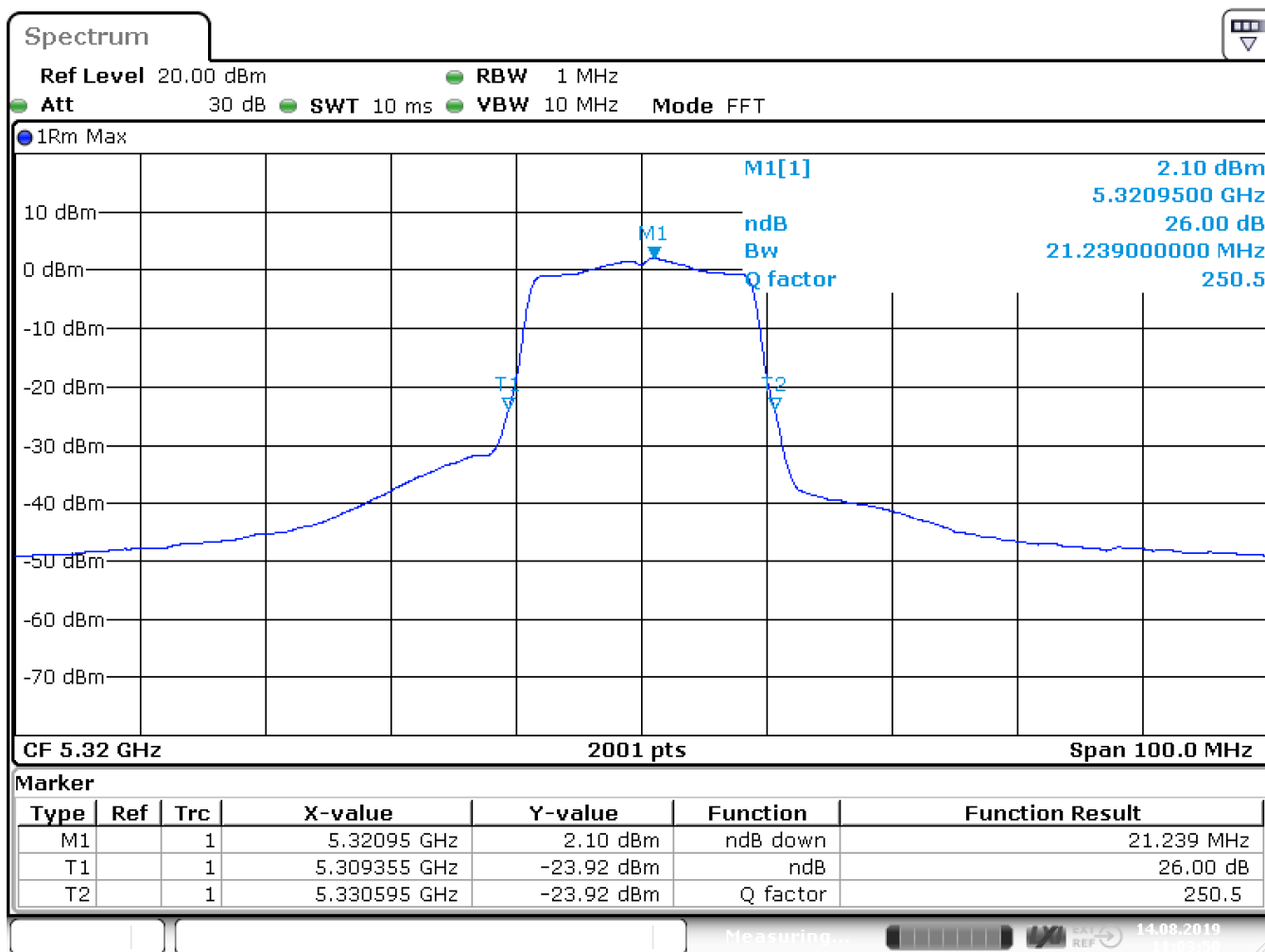
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 64 (5320 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:03:50

26dB Bandwidth: 21,239 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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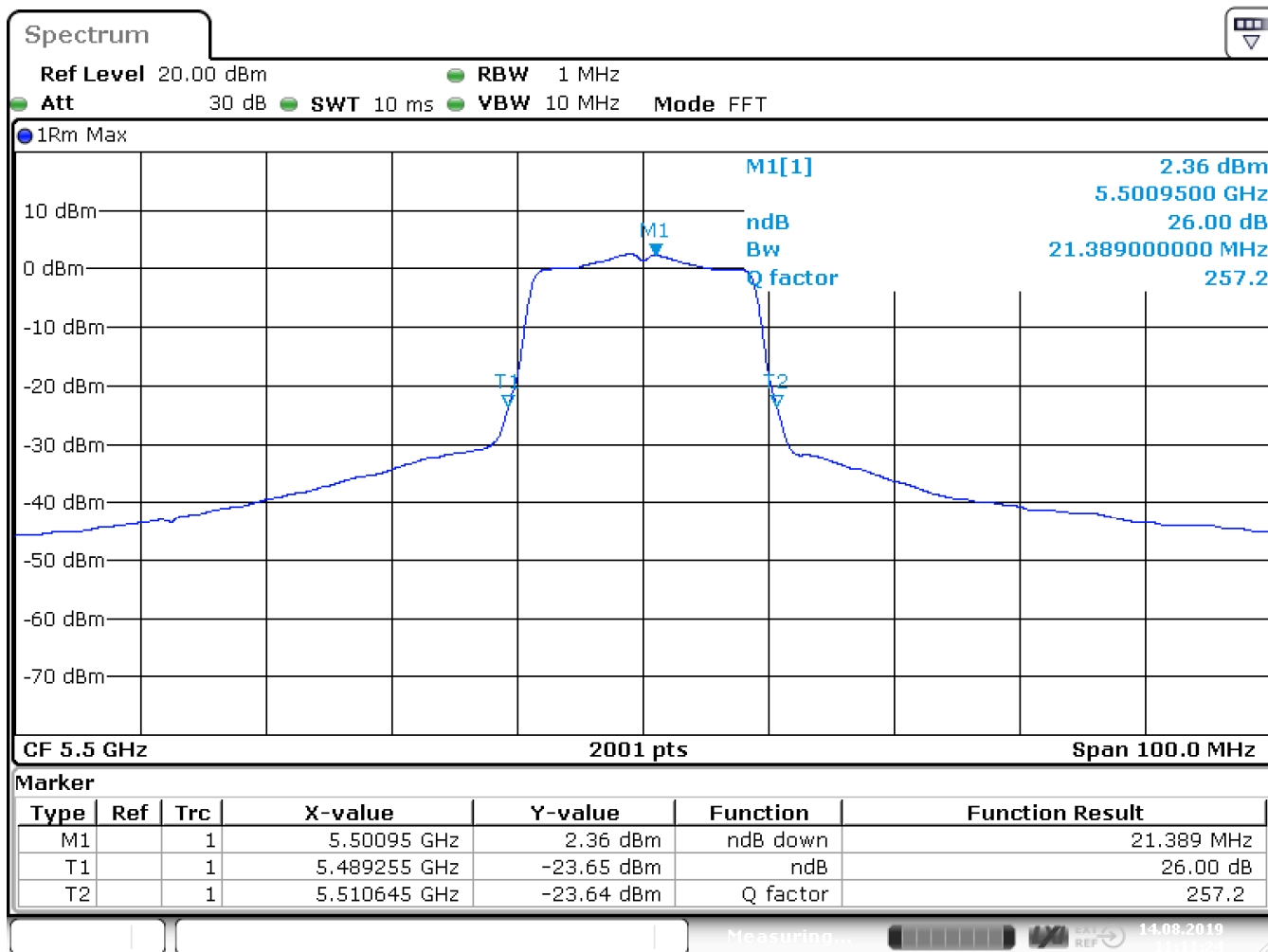
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 100 (5500 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:11:24

26dB Bandwidth: 21,389 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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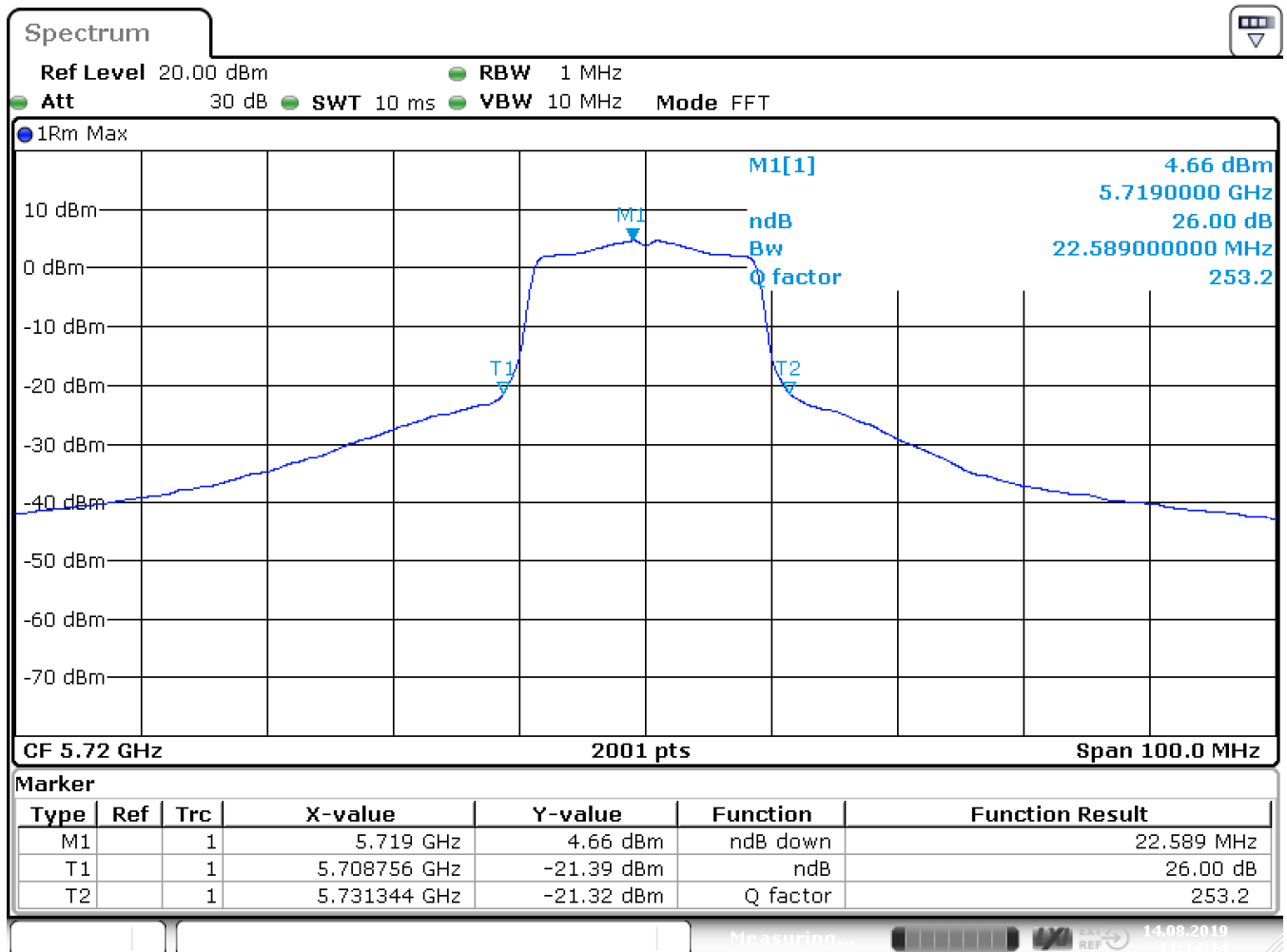
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 144 (5720 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:14:14

26dB Bandwidth: 22,589 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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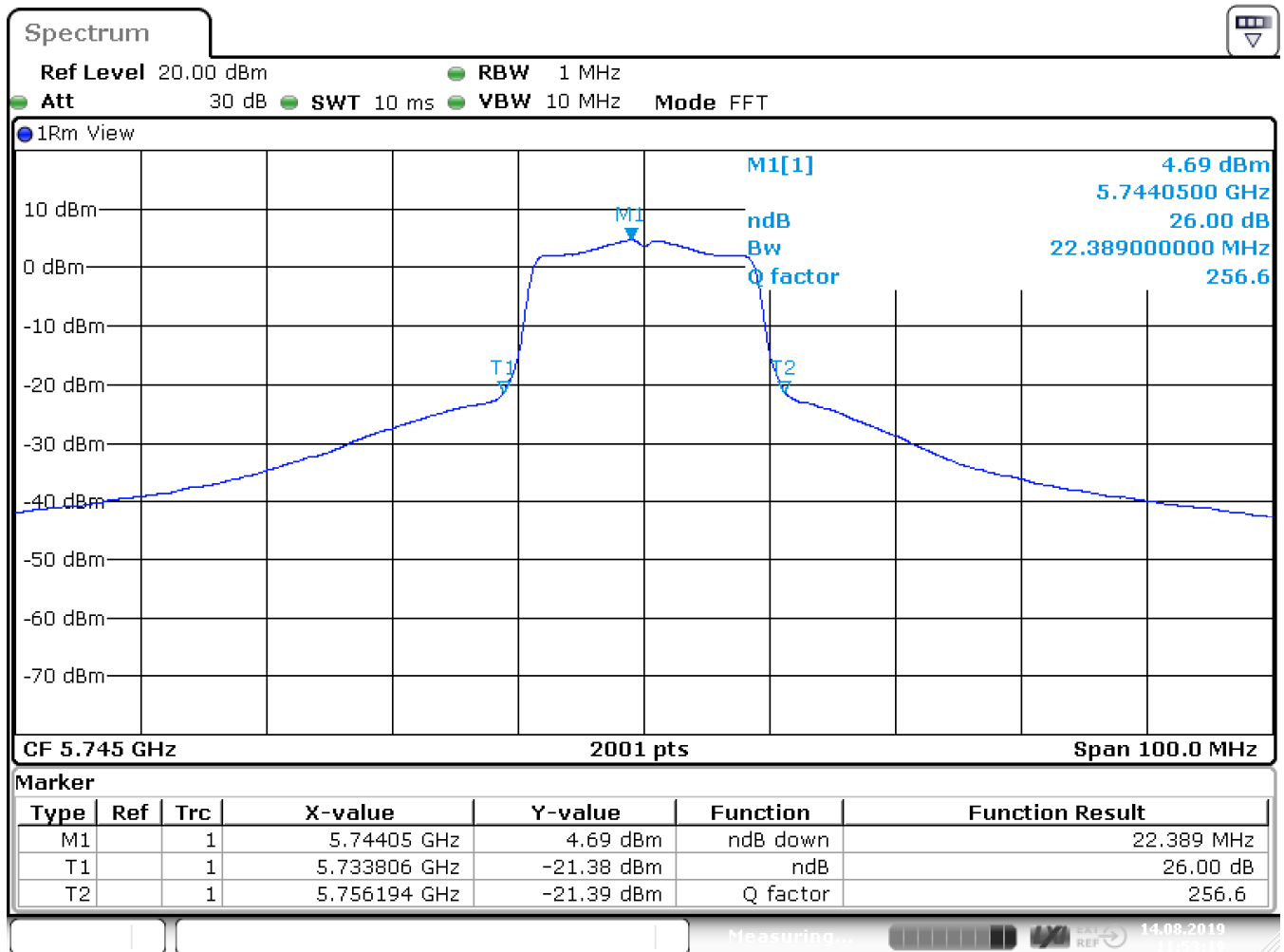
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 149 (5745 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:53:20

26dB Bandwidth: 22,389 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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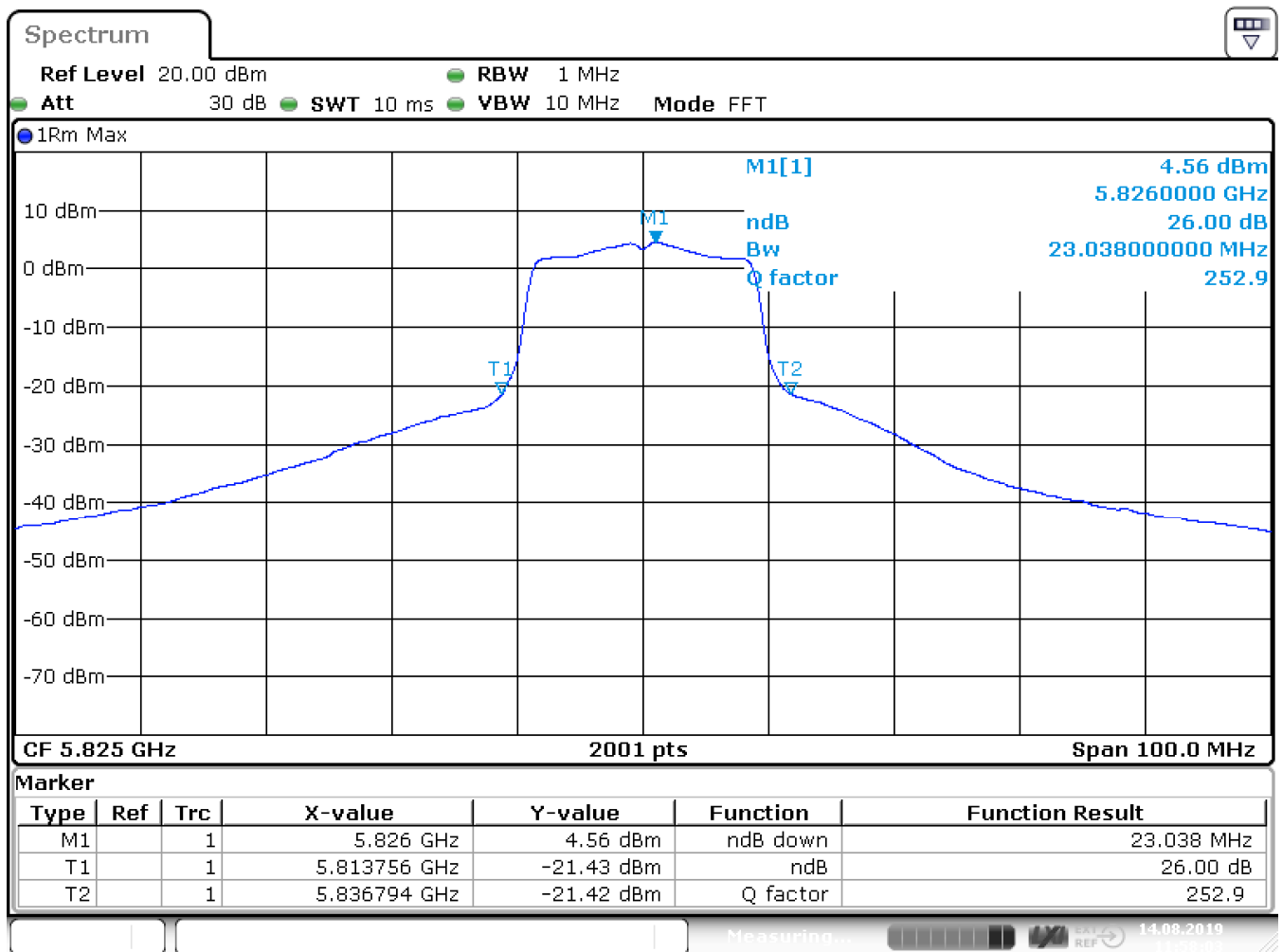
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 165 (5825 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:58:03

26dB Bandwidth: 23,038 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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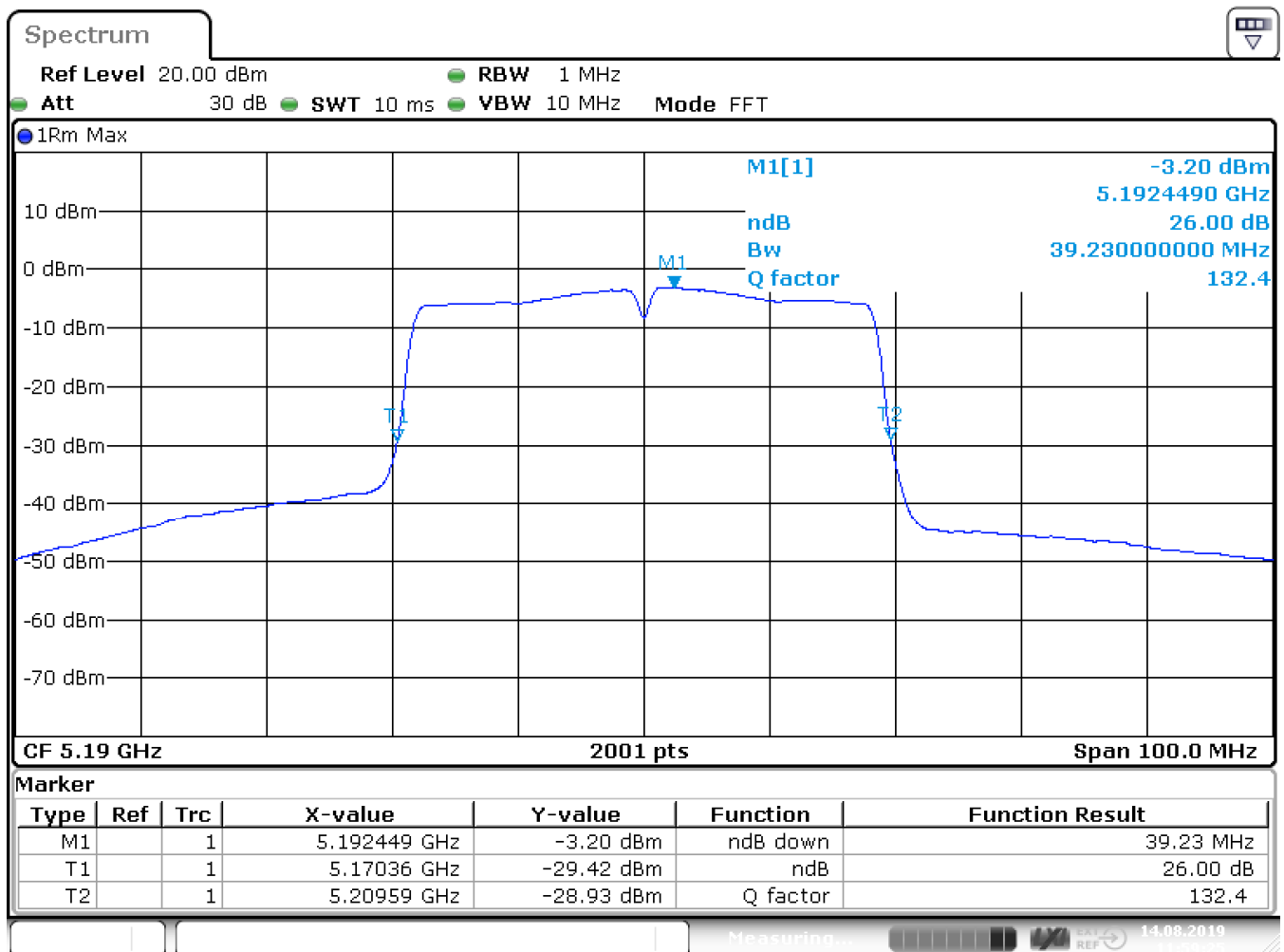
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 38 (5190 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 11:59:25

26dB Bandwidth: 39,23 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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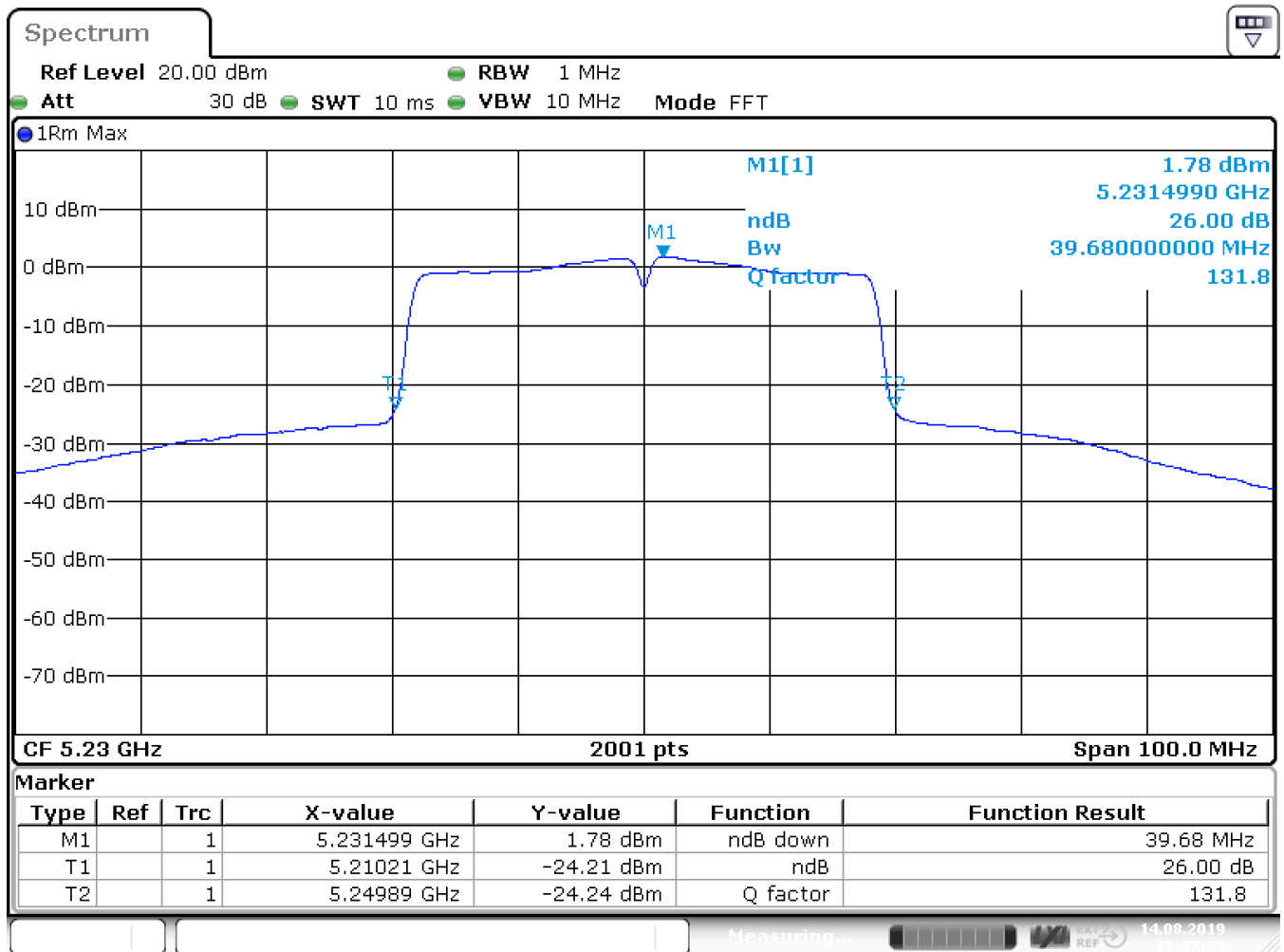
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 46 (5230 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:07:25

26dB Bandwidth: 39,68 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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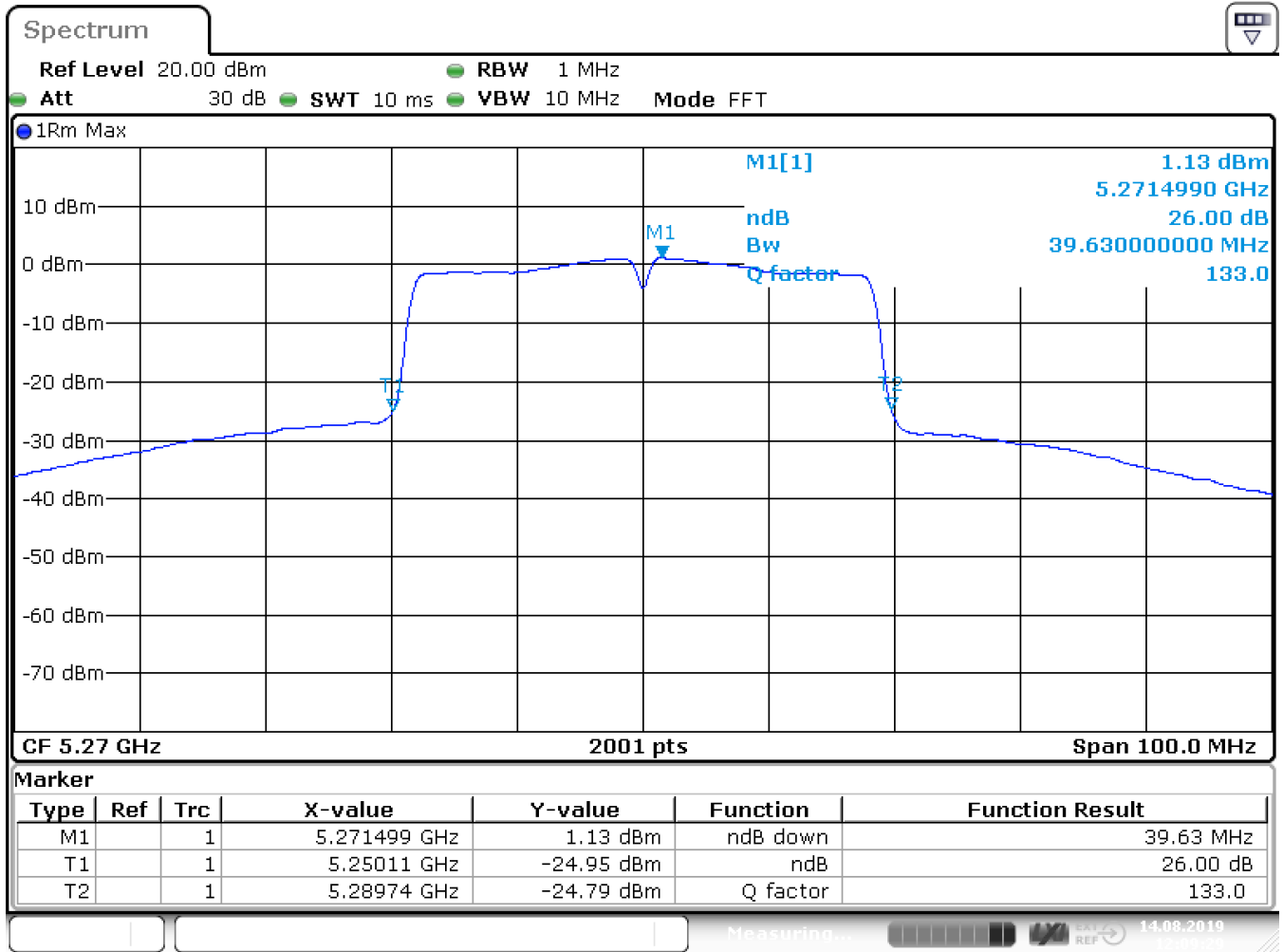
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 54 (5270 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:09:30

26dB Bandwidth: 39,63 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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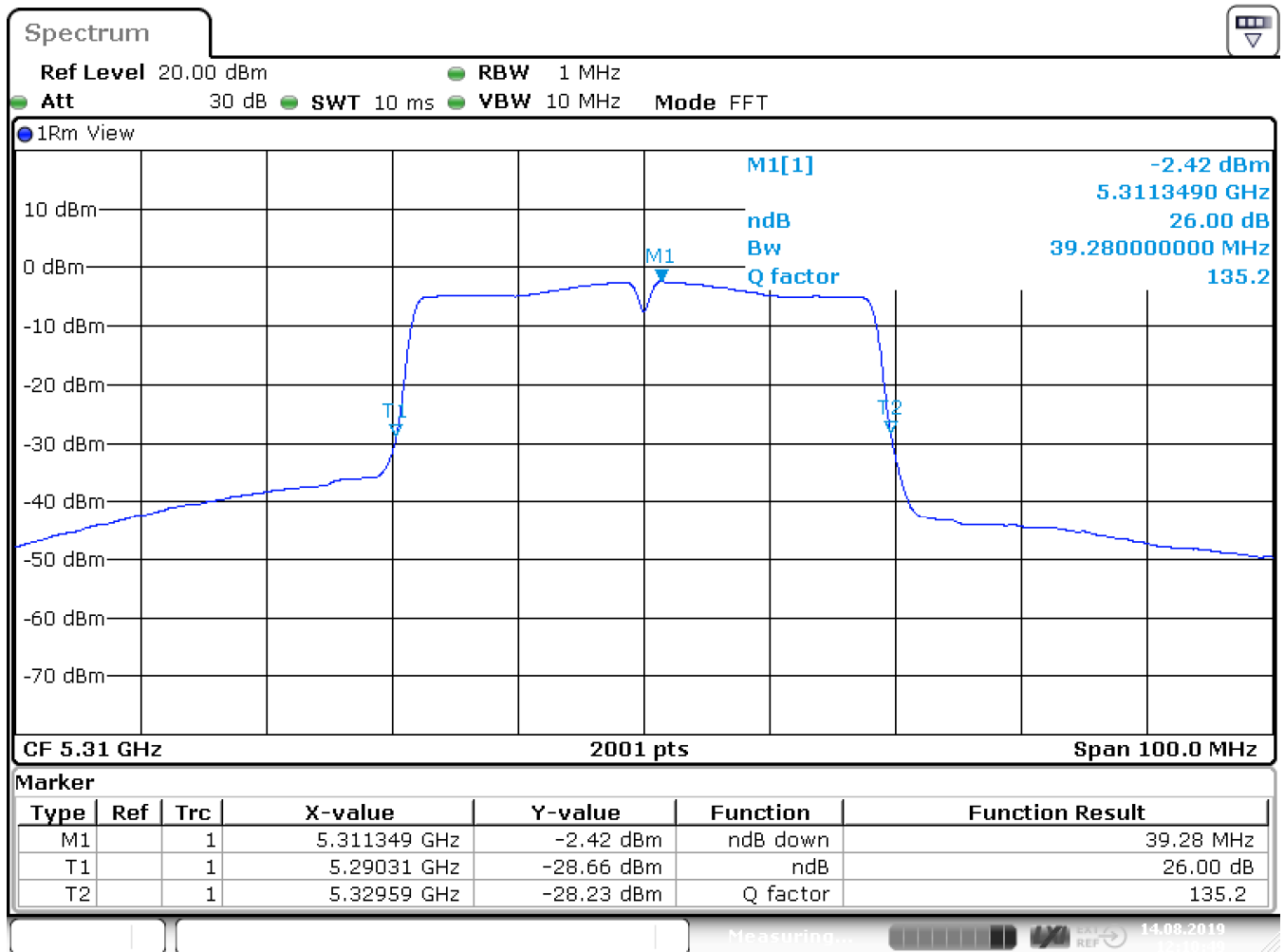
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 62 (5310 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:10:49

26dB Bandwidth: 39,28 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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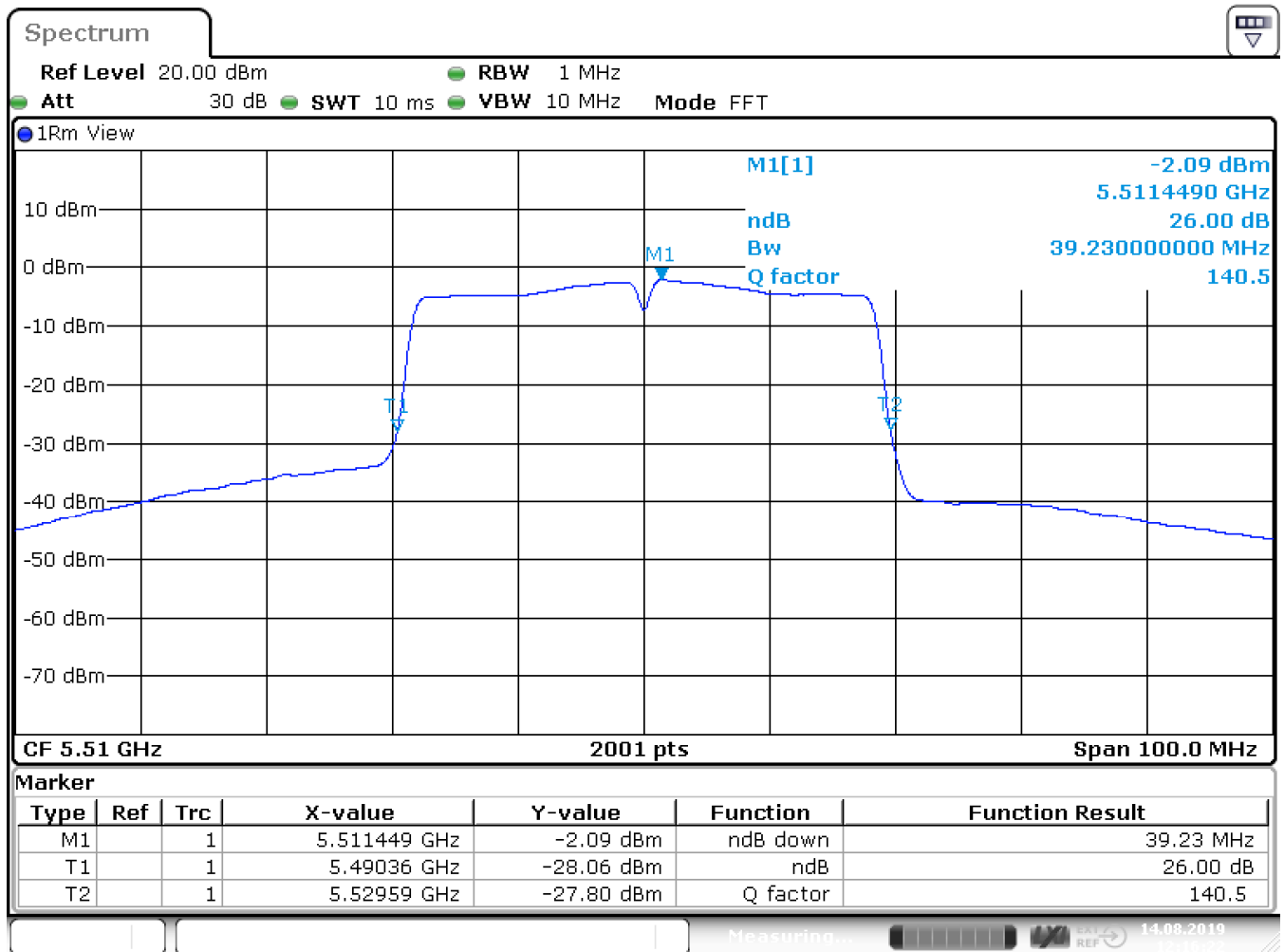
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 102 (5510 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:16:23

26dB Bandwidth: 39,23 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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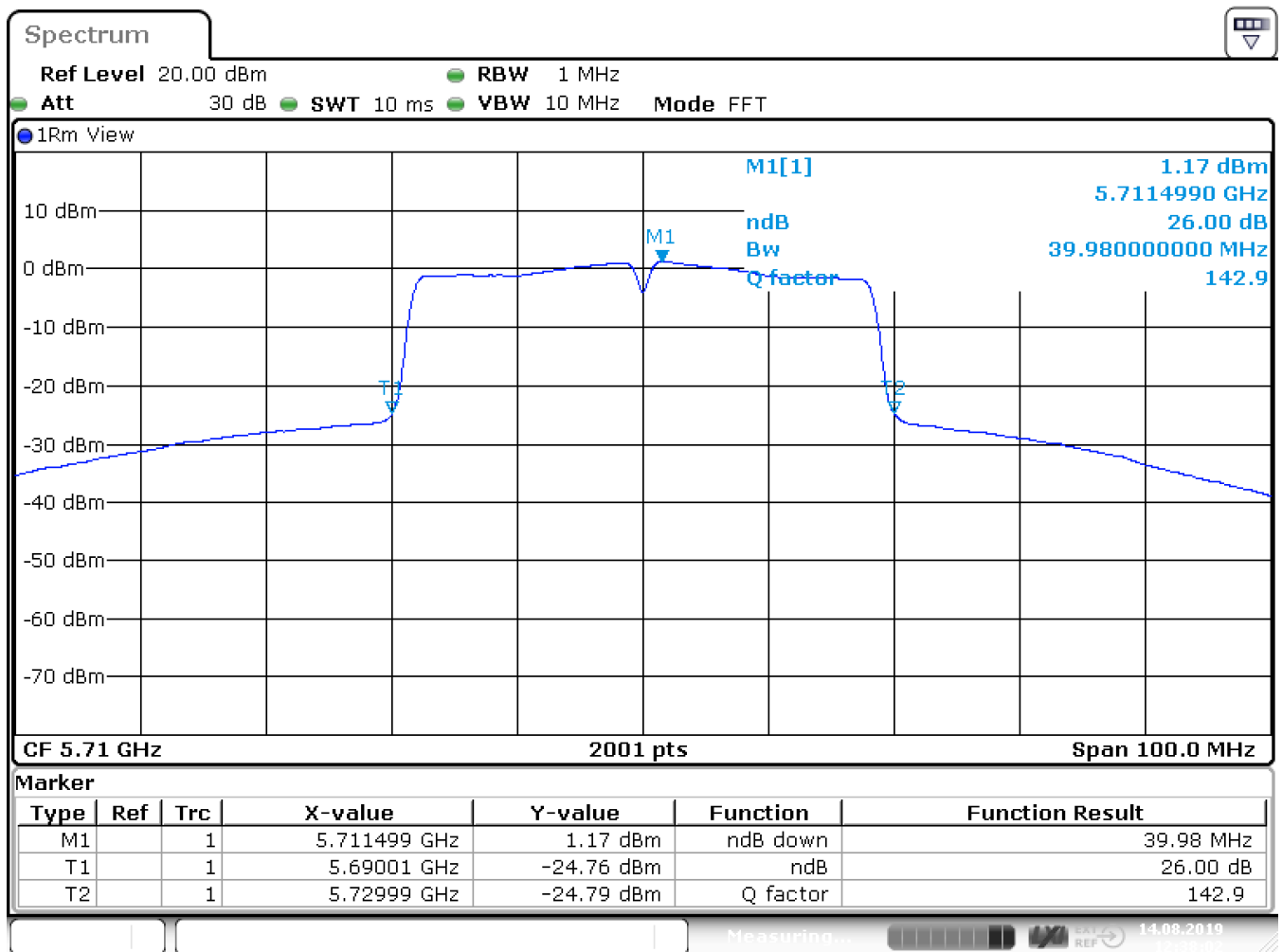
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 142 (5710 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:38:03

26dB Bandwidth: 39,98 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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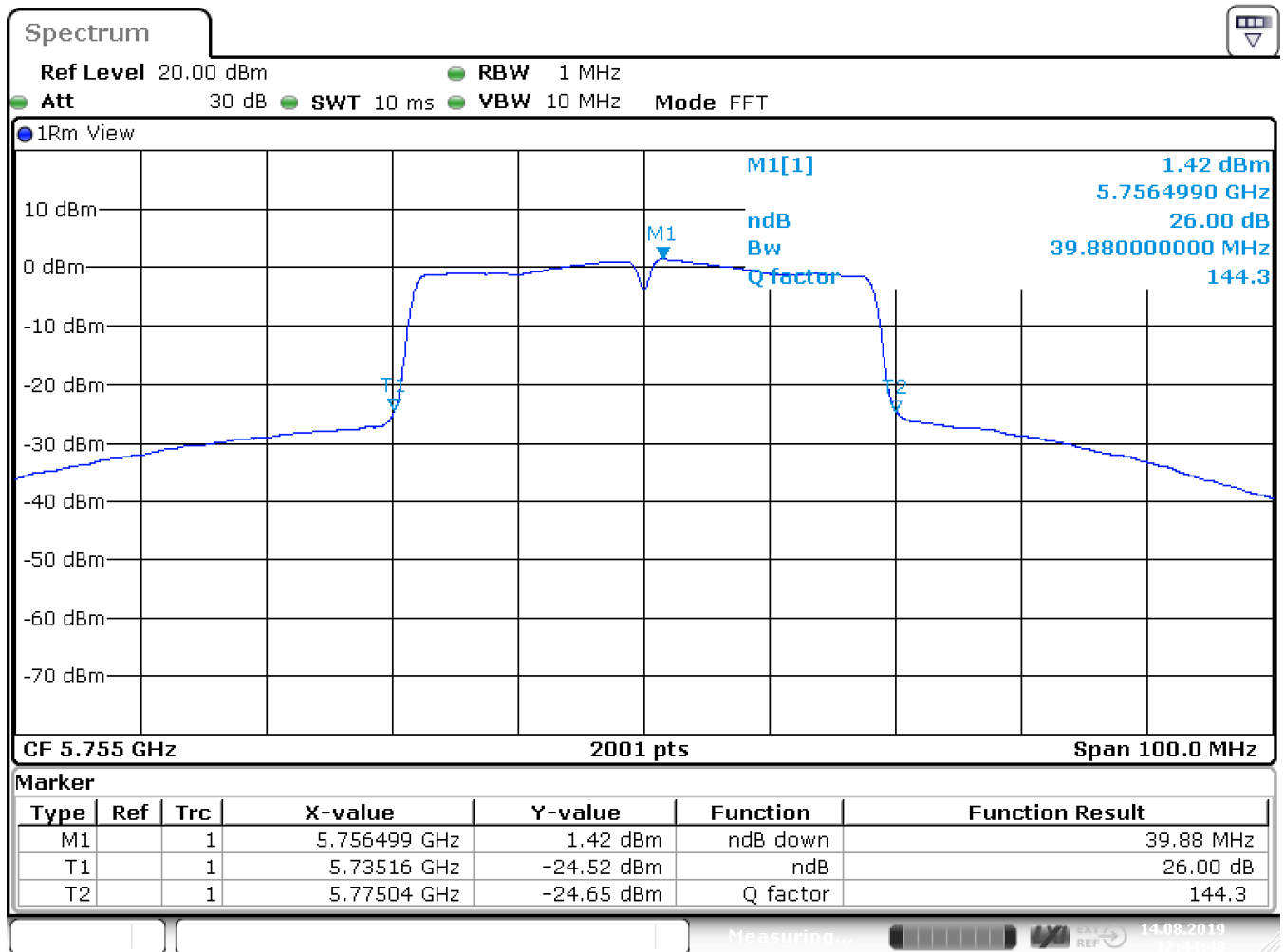
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 151 (5755 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:44:48

26dB Bandwidth: 39,88 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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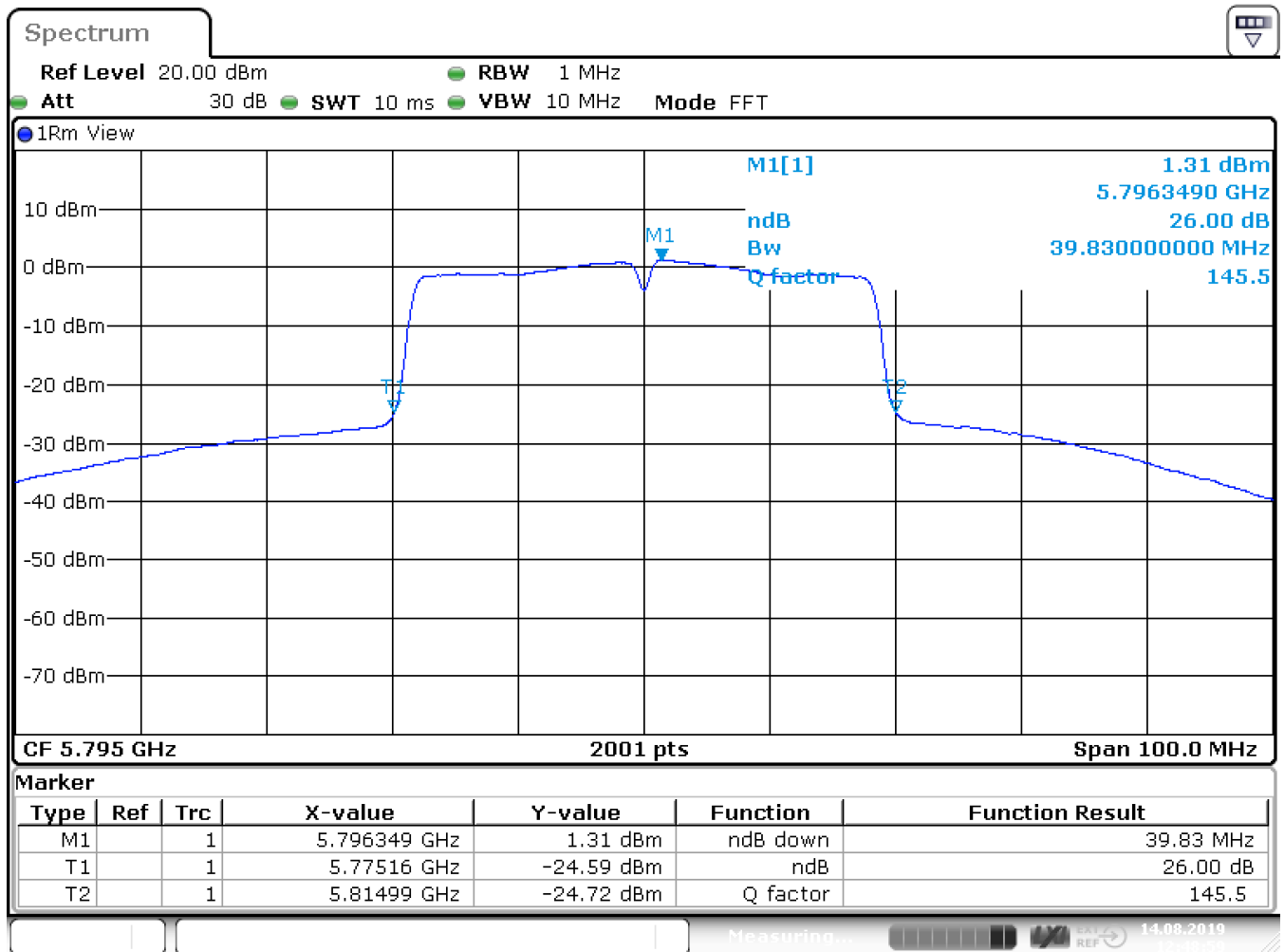
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 159 (5795 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:49:00

26dB Bandwidth: 39,83 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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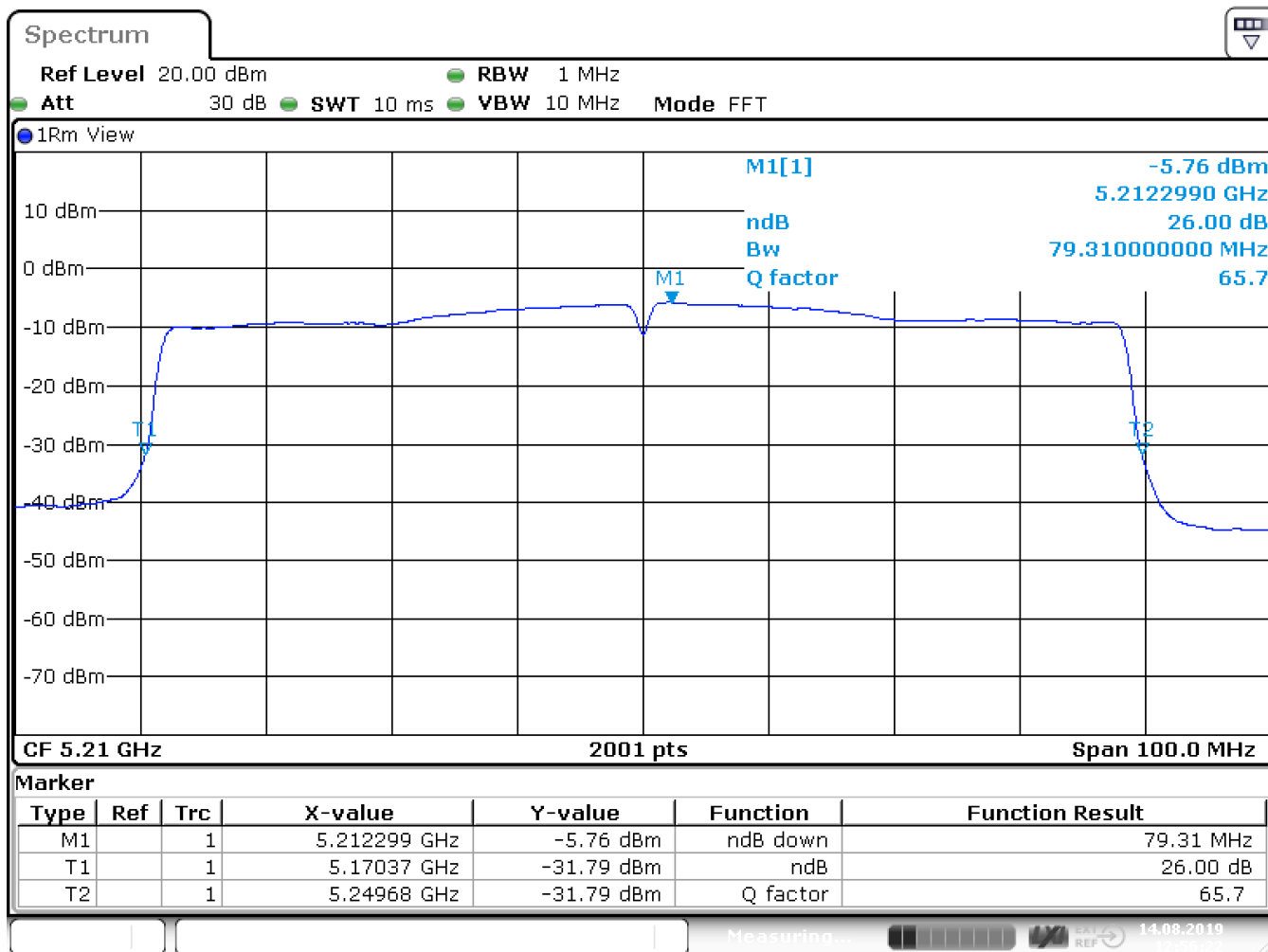
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 42 (5210 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:56:23

26dB Bandwidth: 79,31 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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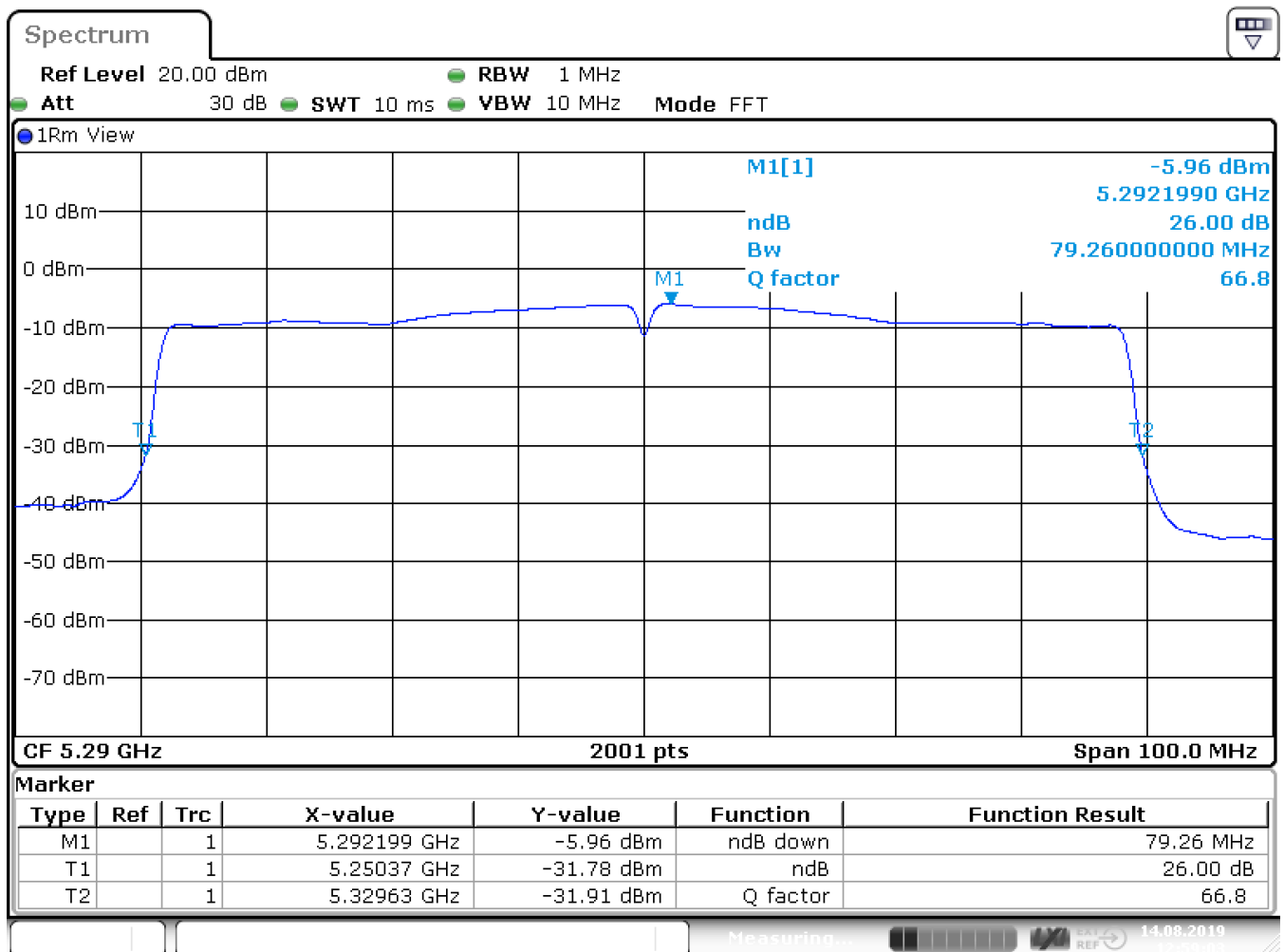
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 58 (5290 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 12:59:03

26dB Bandwidth: 79,26 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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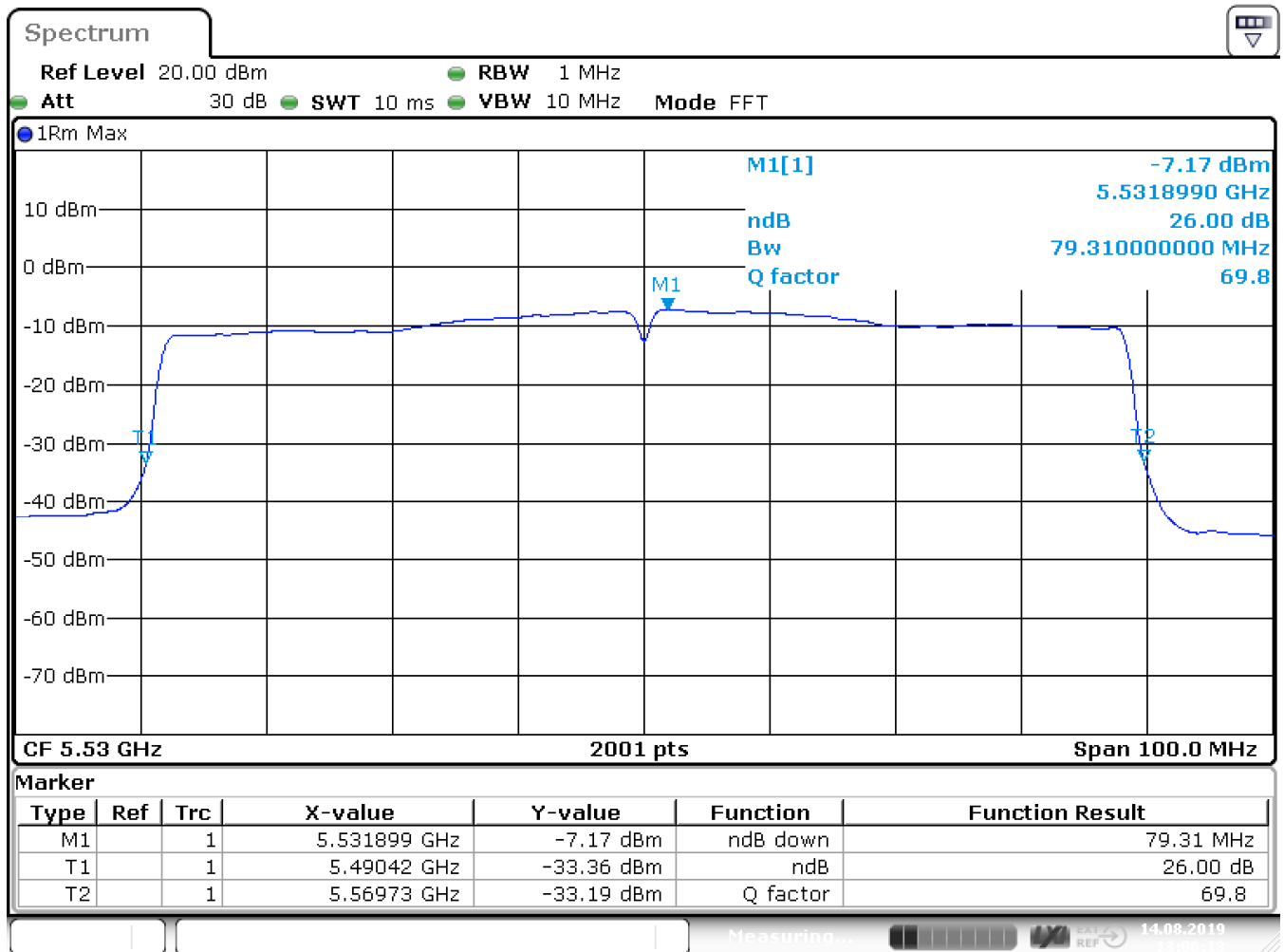
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 106 (5530 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 13:06:12

26dB Bandwidth: 79,31 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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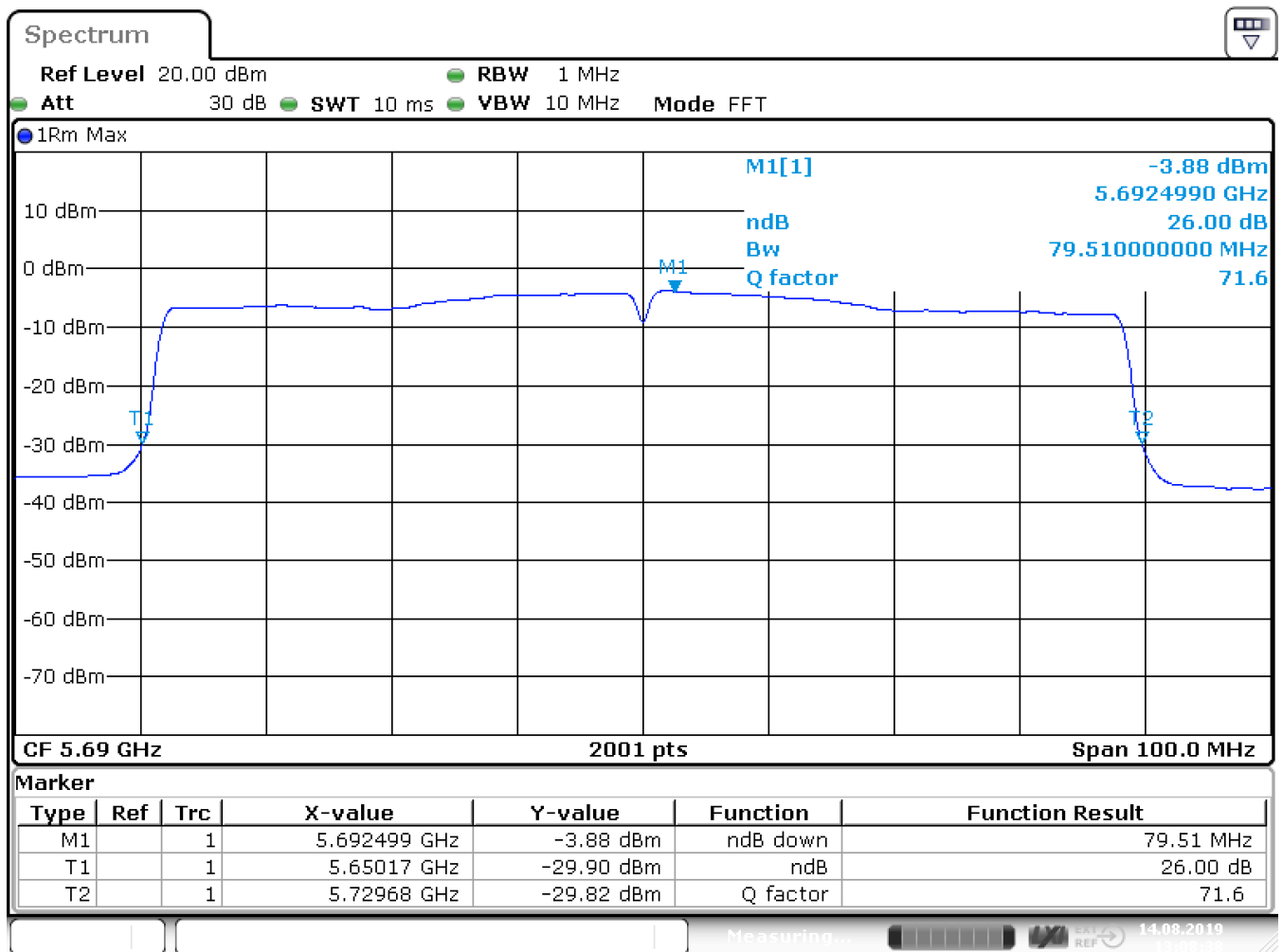
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 138 (5690 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 13:08:39

26dB Bandwidth: 79,51 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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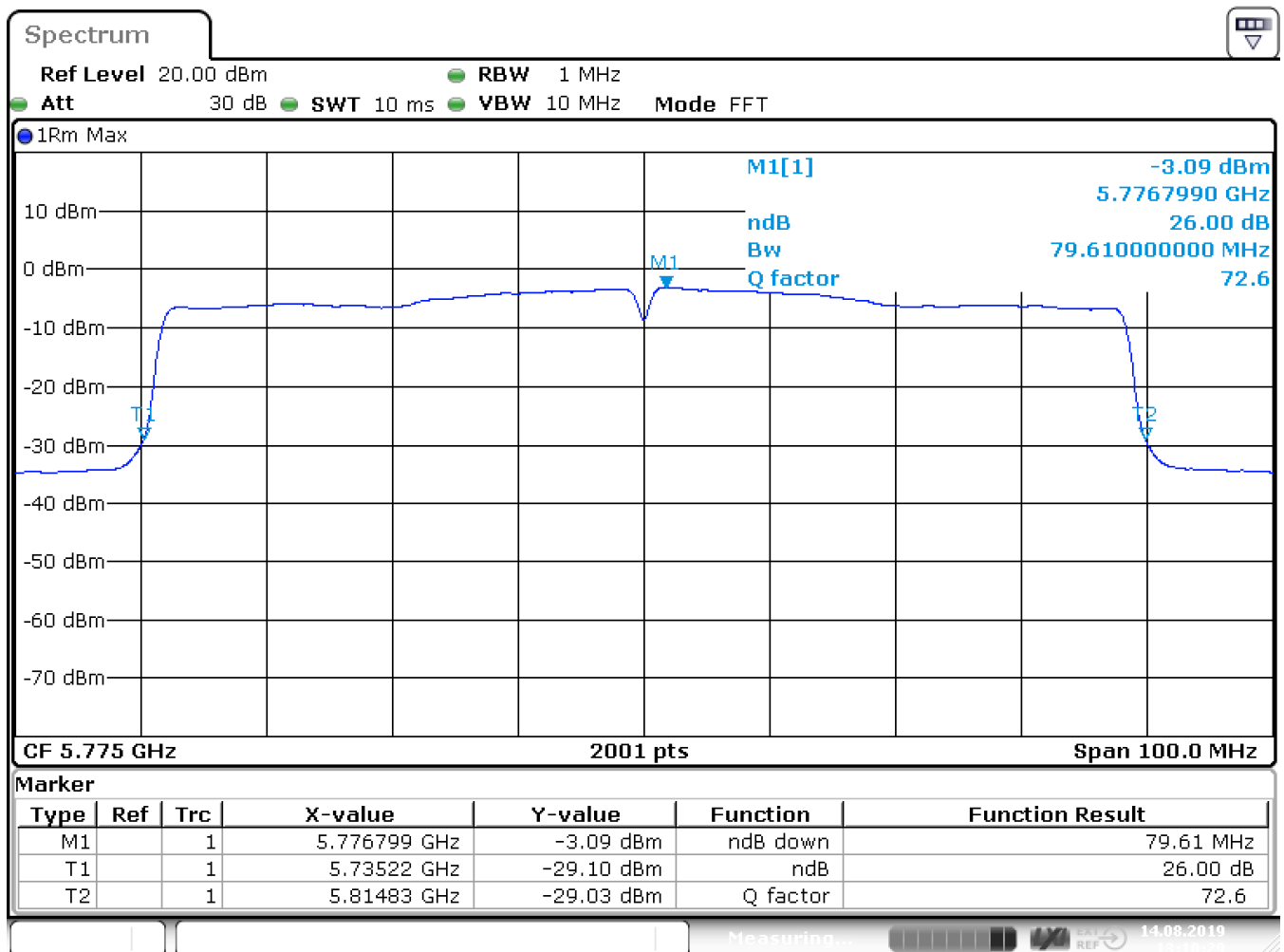
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 155 (5775 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 13:10:29

26dB Bandwidth: 79,61 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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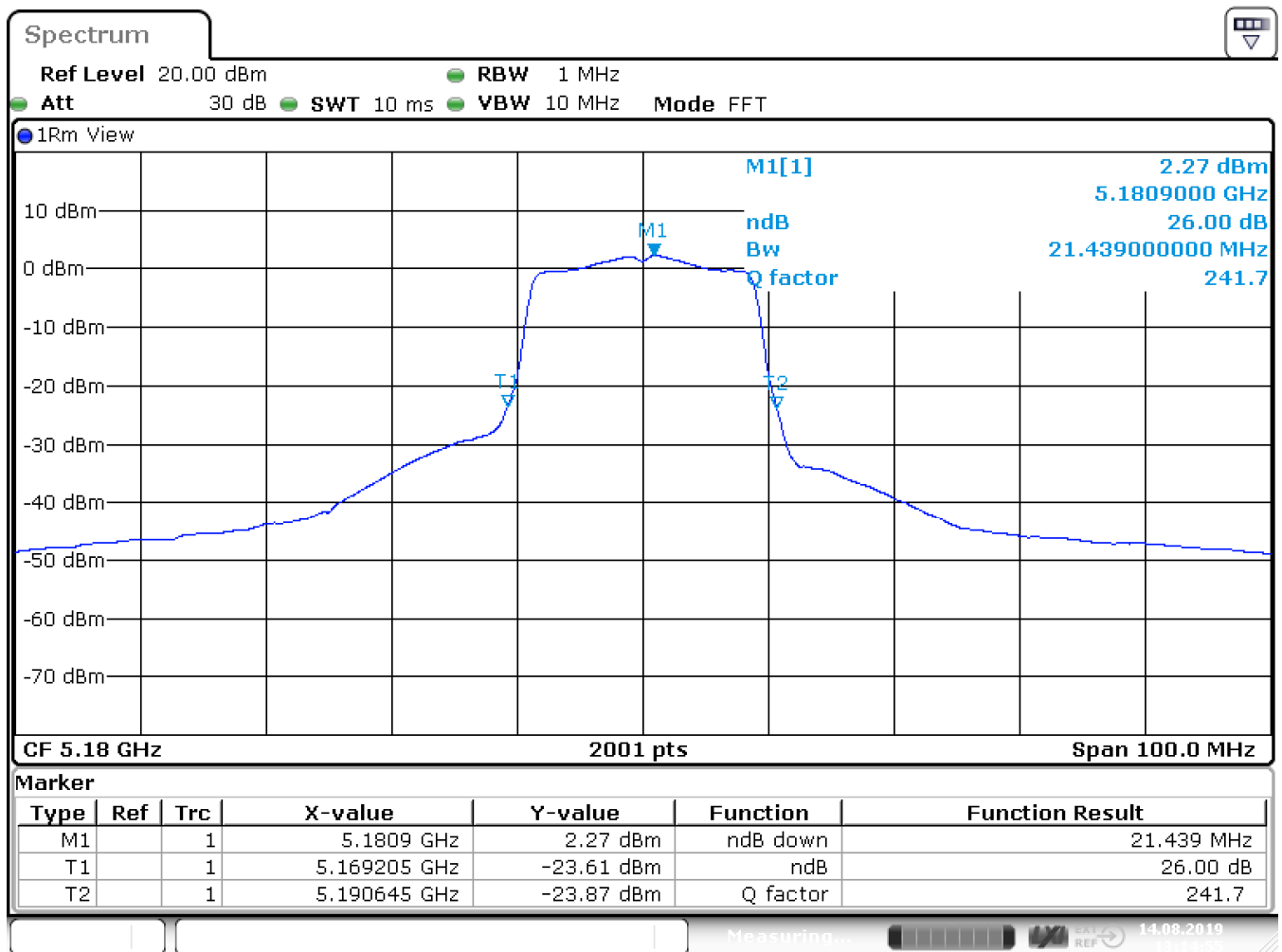
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 36 (5180 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:14:55

26dB Bandwidth: 21,439 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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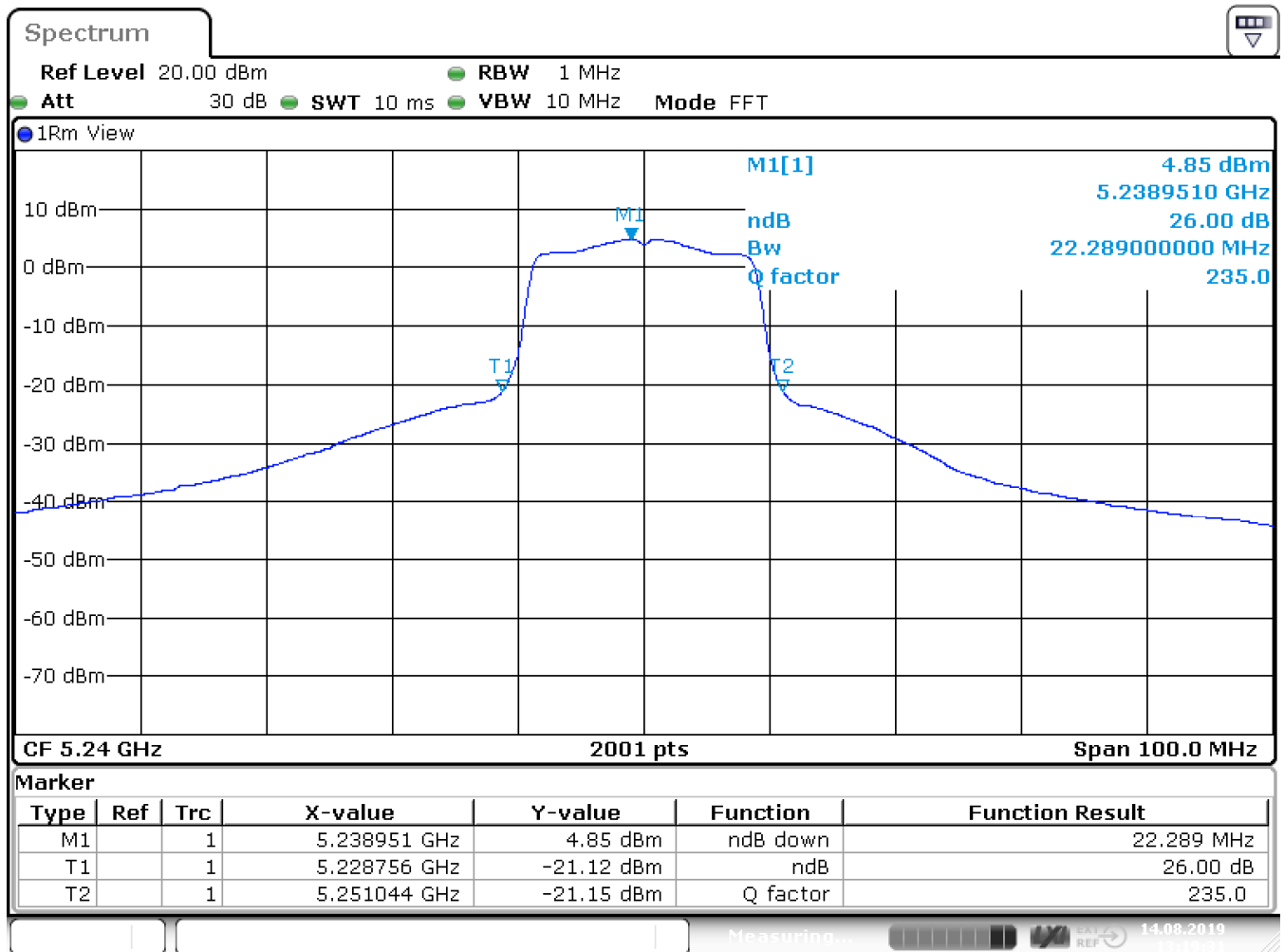
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 48 (5240 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:19:30

26dB Bandwidth: 22,289 MHz

LIMIT SUBCLAUSE 15.407

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

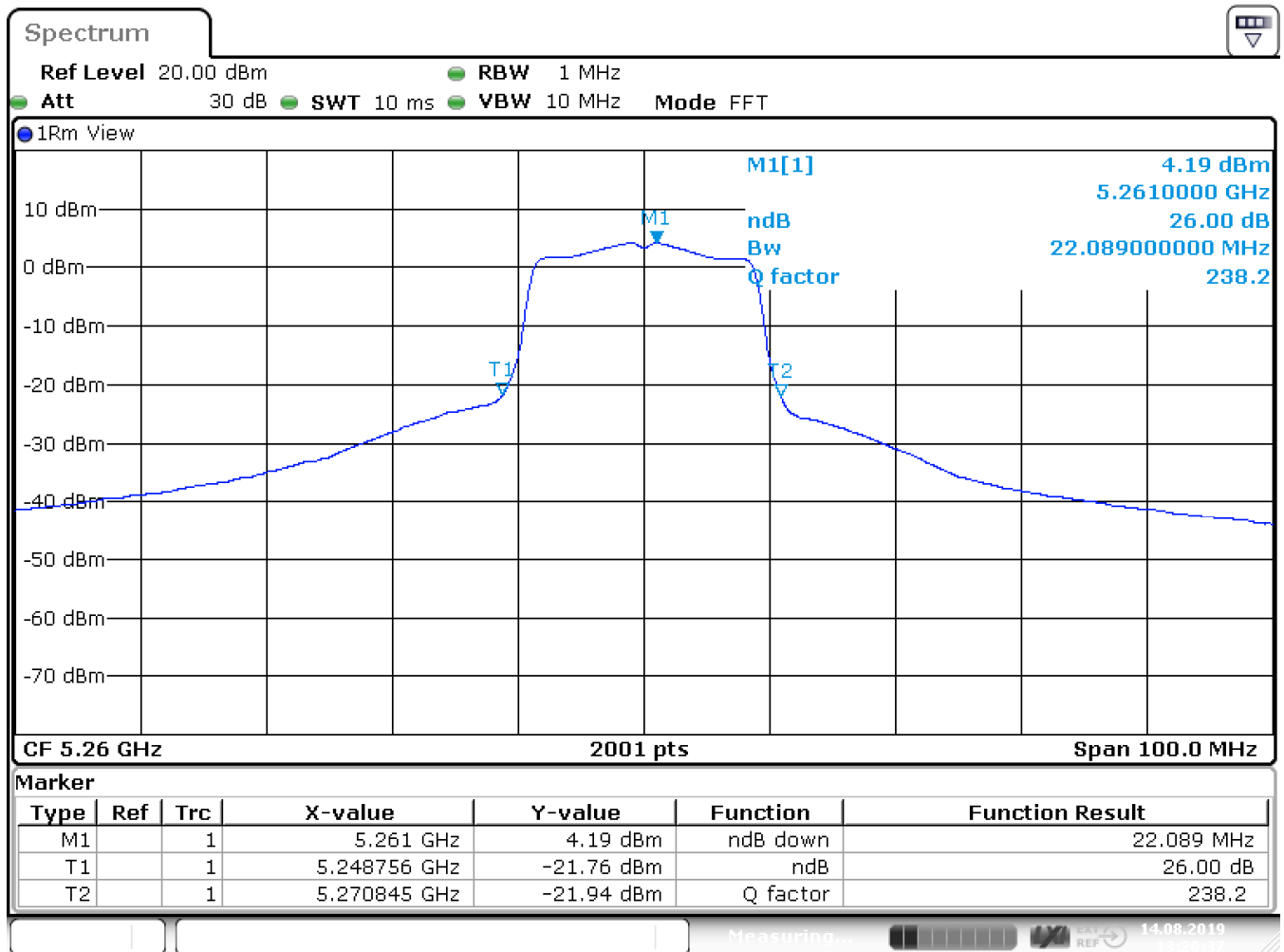
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 52 (5260 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:20:38

26dB Bandwidth: 22,089 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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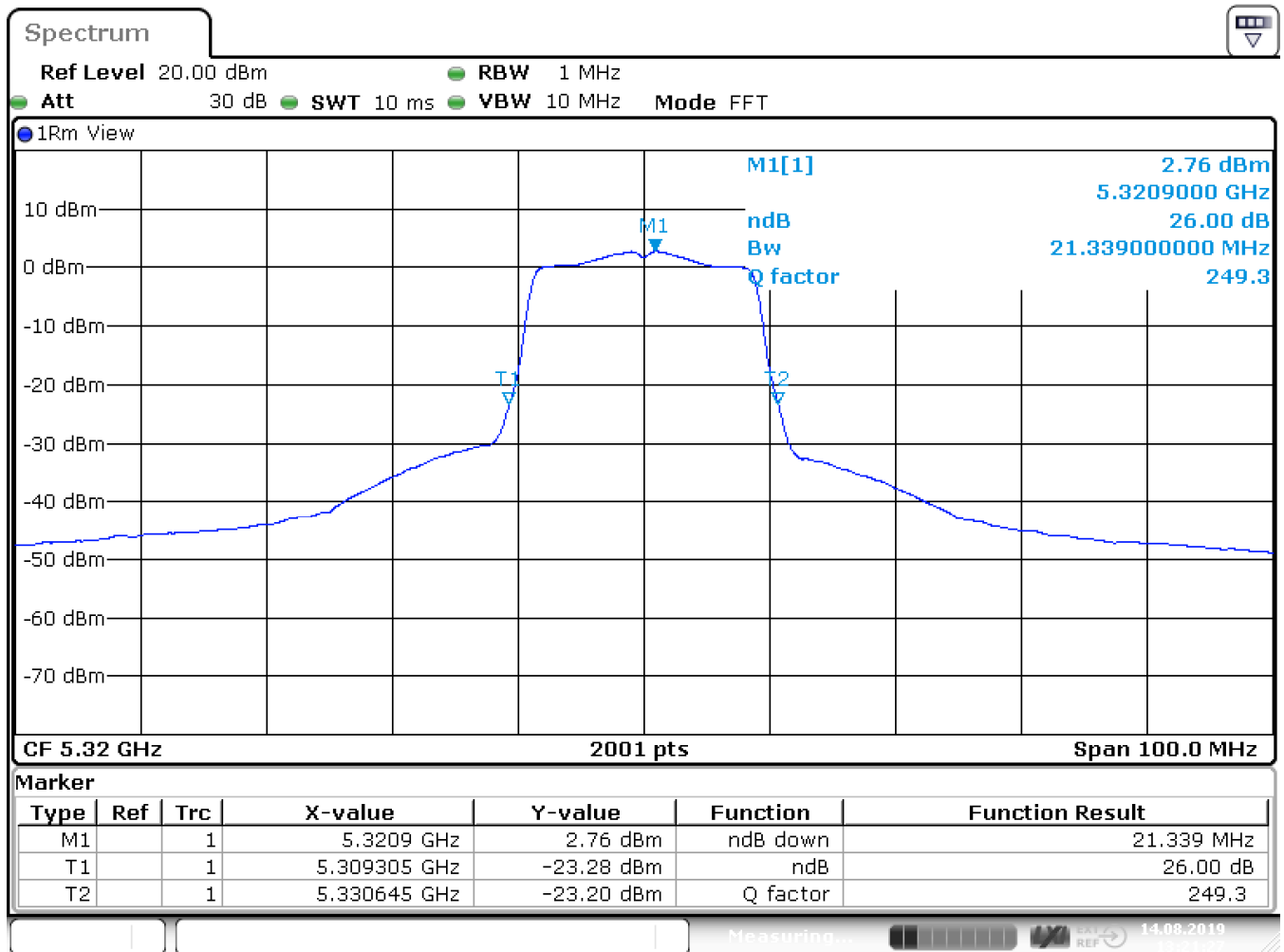
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 64 (5320 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:21:28

26dB Bandwidth: 21,339 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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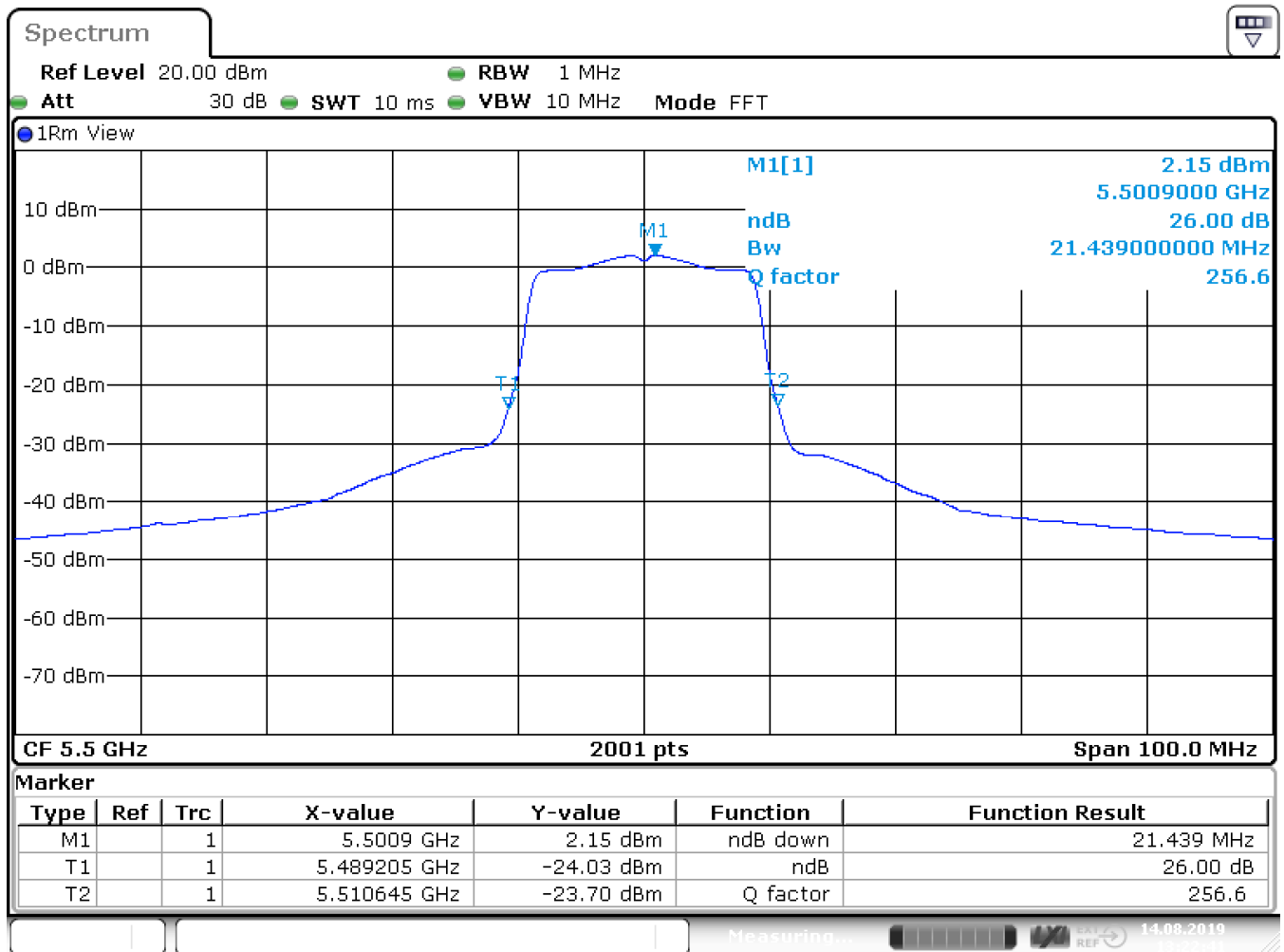
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 100 (5500 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:22:41

26dB Bandwidth: 21,439 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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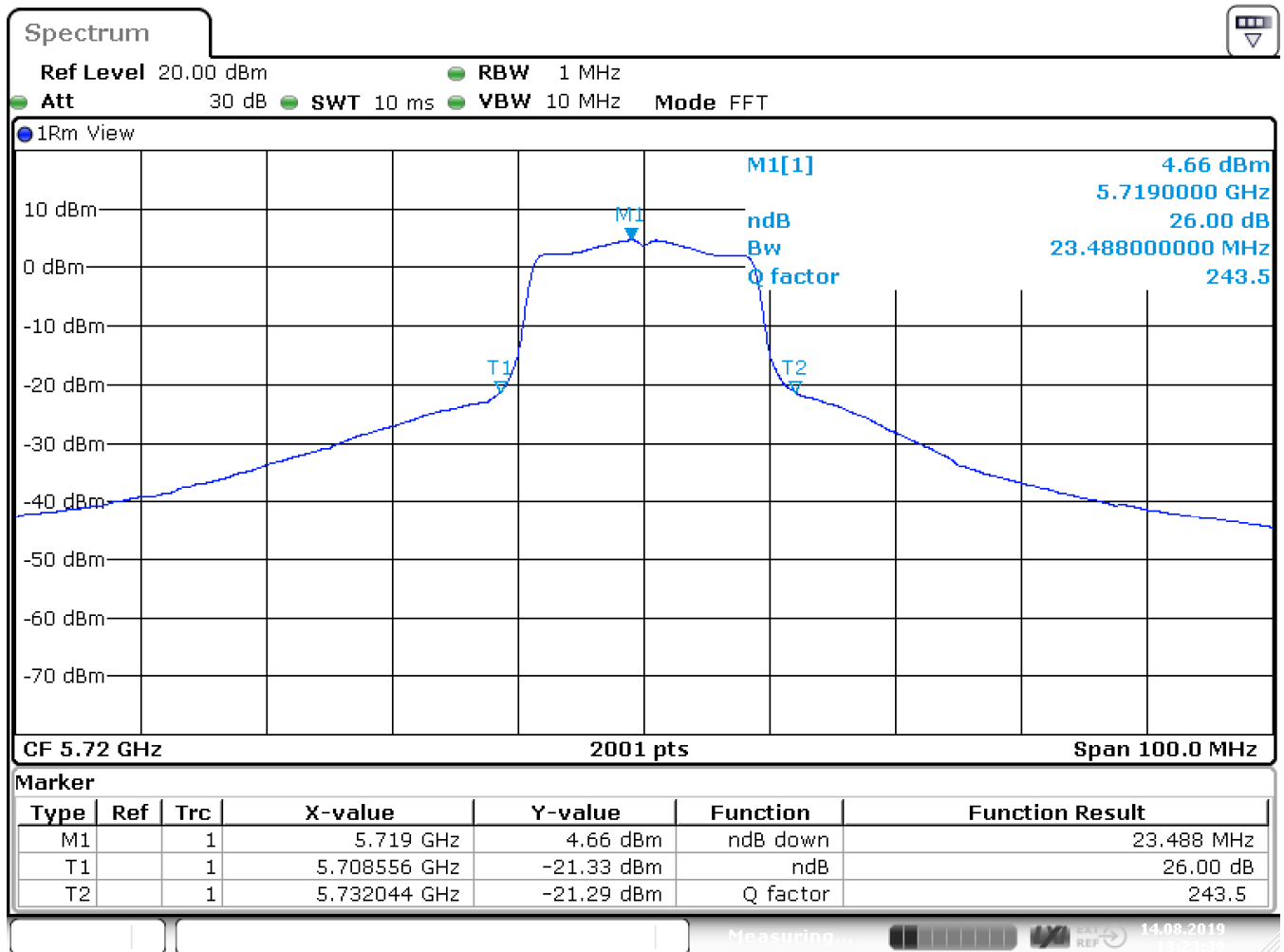
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 144 (5720 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:23:40

26dB Bandwidth: 23,488 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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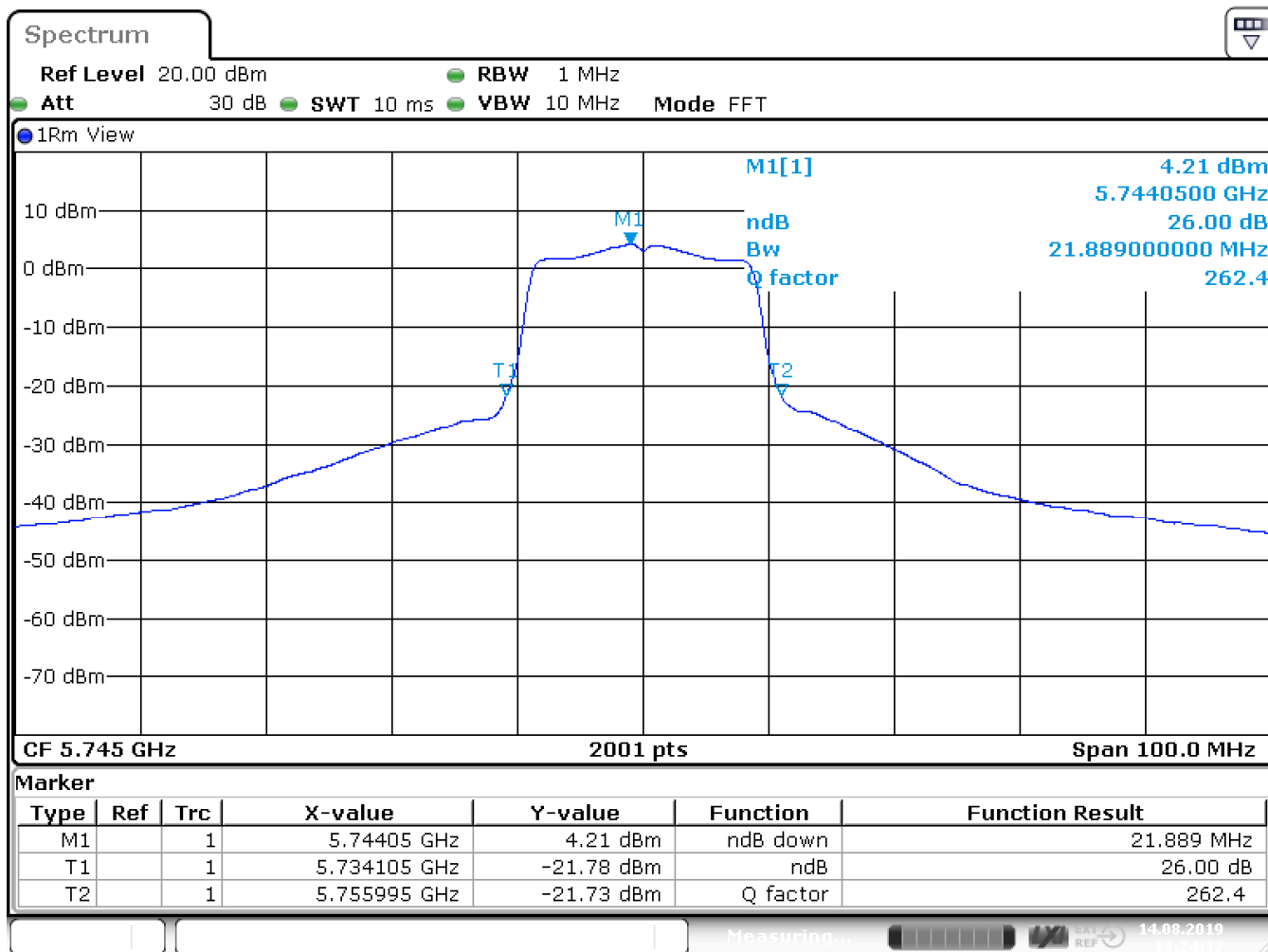
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 149 (5745 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:24:32

26dB Bandwidth: 21,889 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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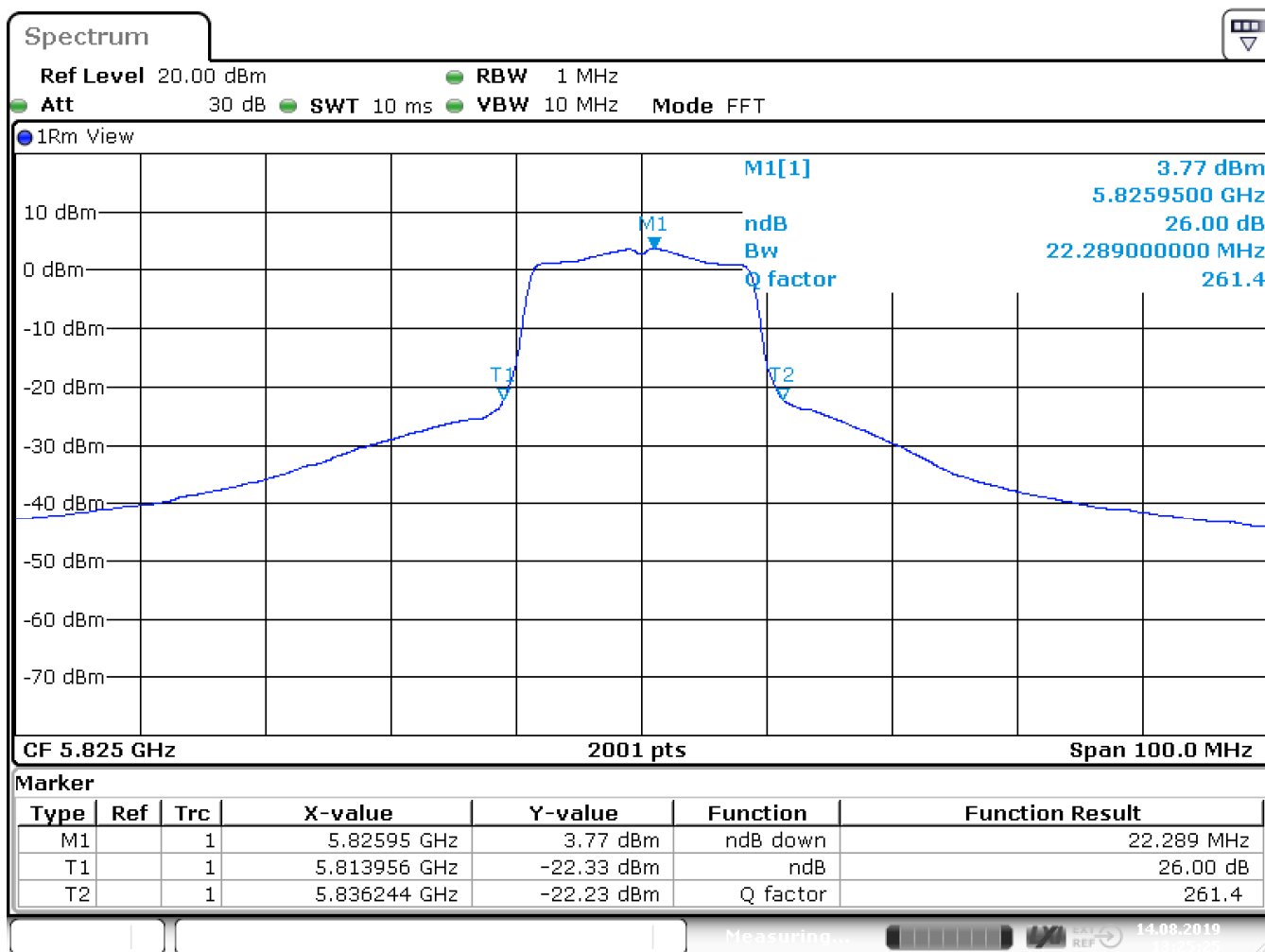
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 165 (5825 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:25:26

26dB Bandwidth: 22,289 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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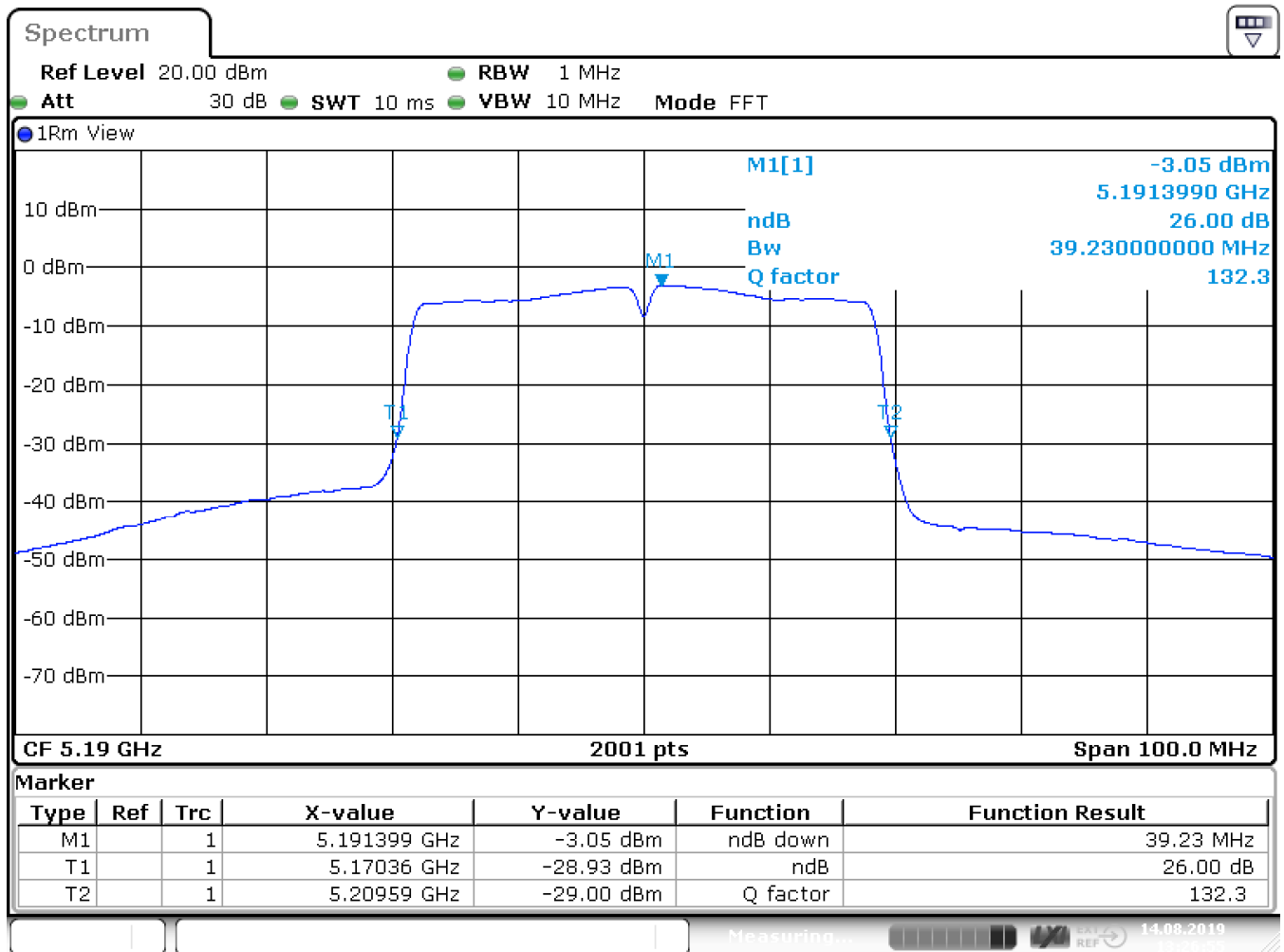
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 38 (5190 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:26:55

26dB Bandwidth: 39,23 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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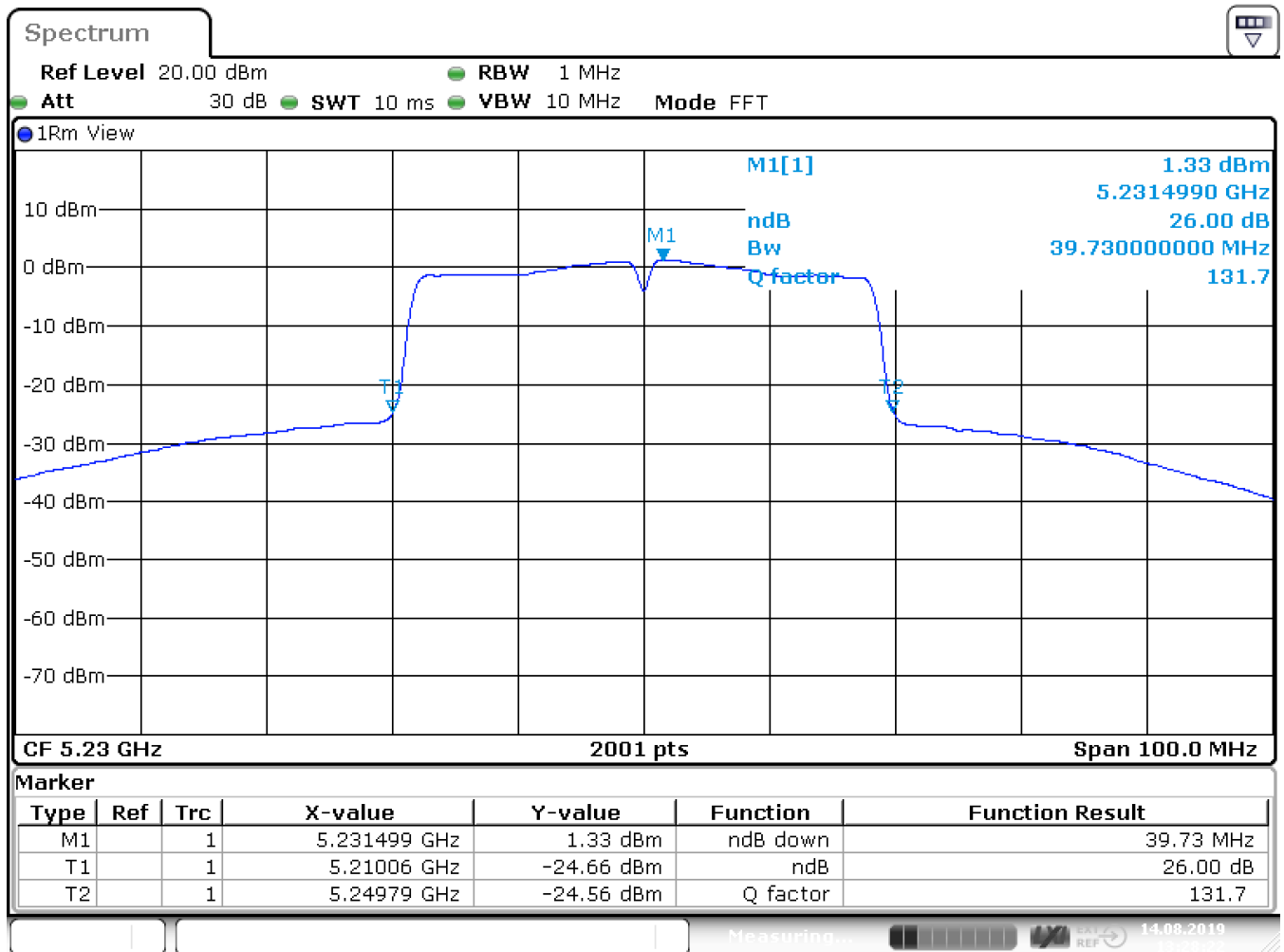
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 46 (5230 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:28:22

26dB Bandwidth: 39,73 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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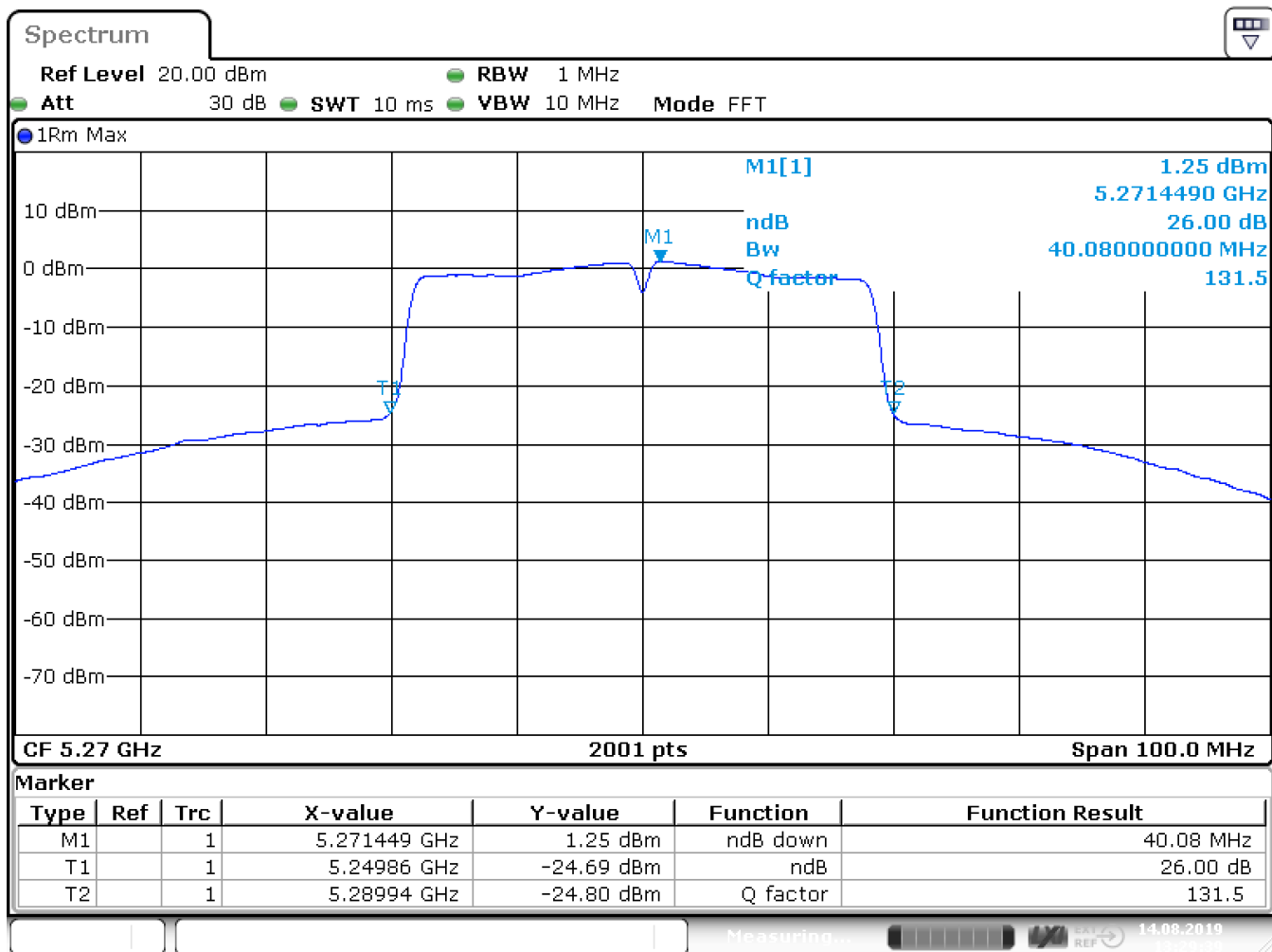
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 54 (5270 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:29:39

26dB Bandwidth: 40,08 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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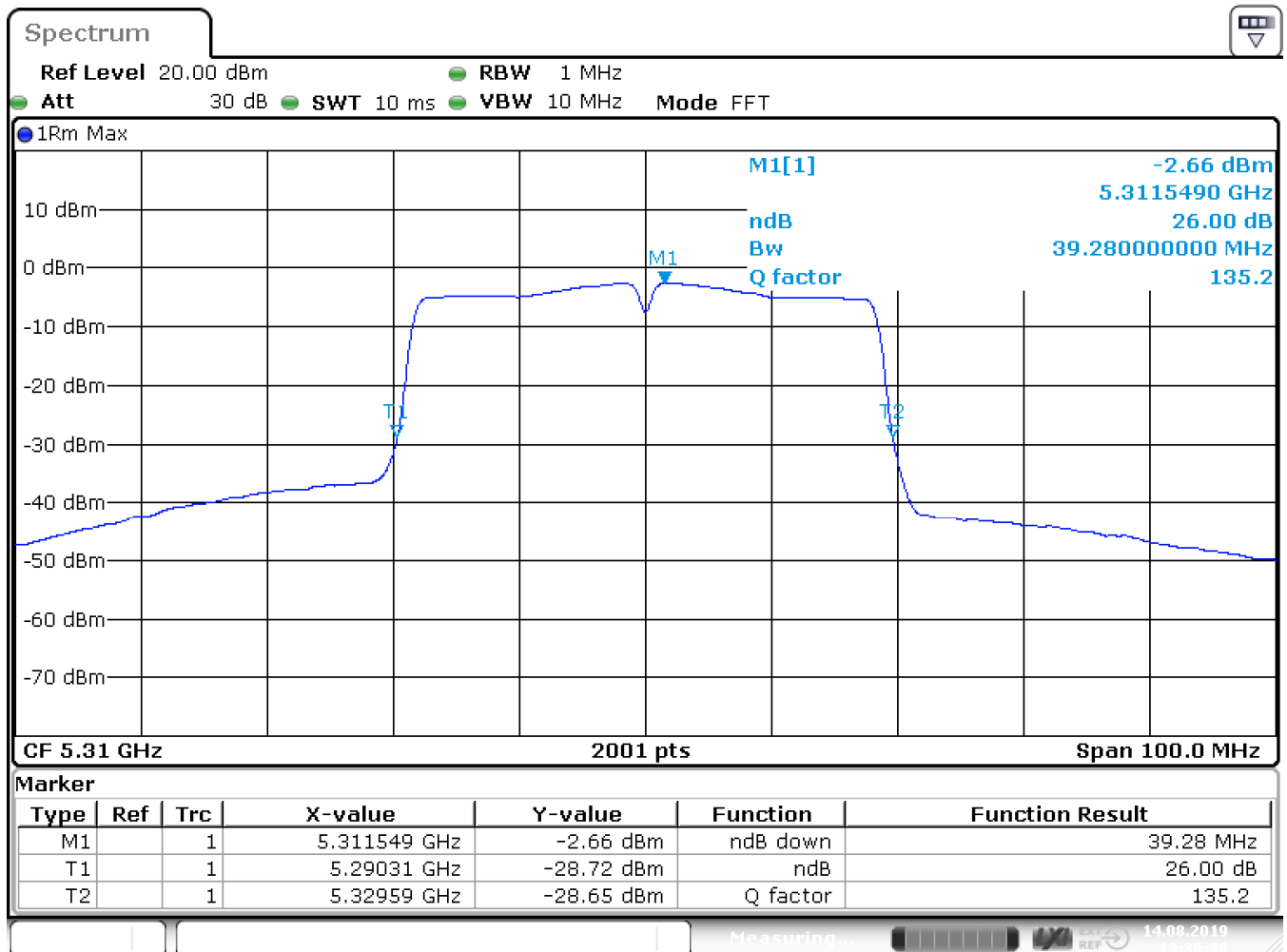
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 62 (5310 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:30:40

26dB Bandwidth: 39,28 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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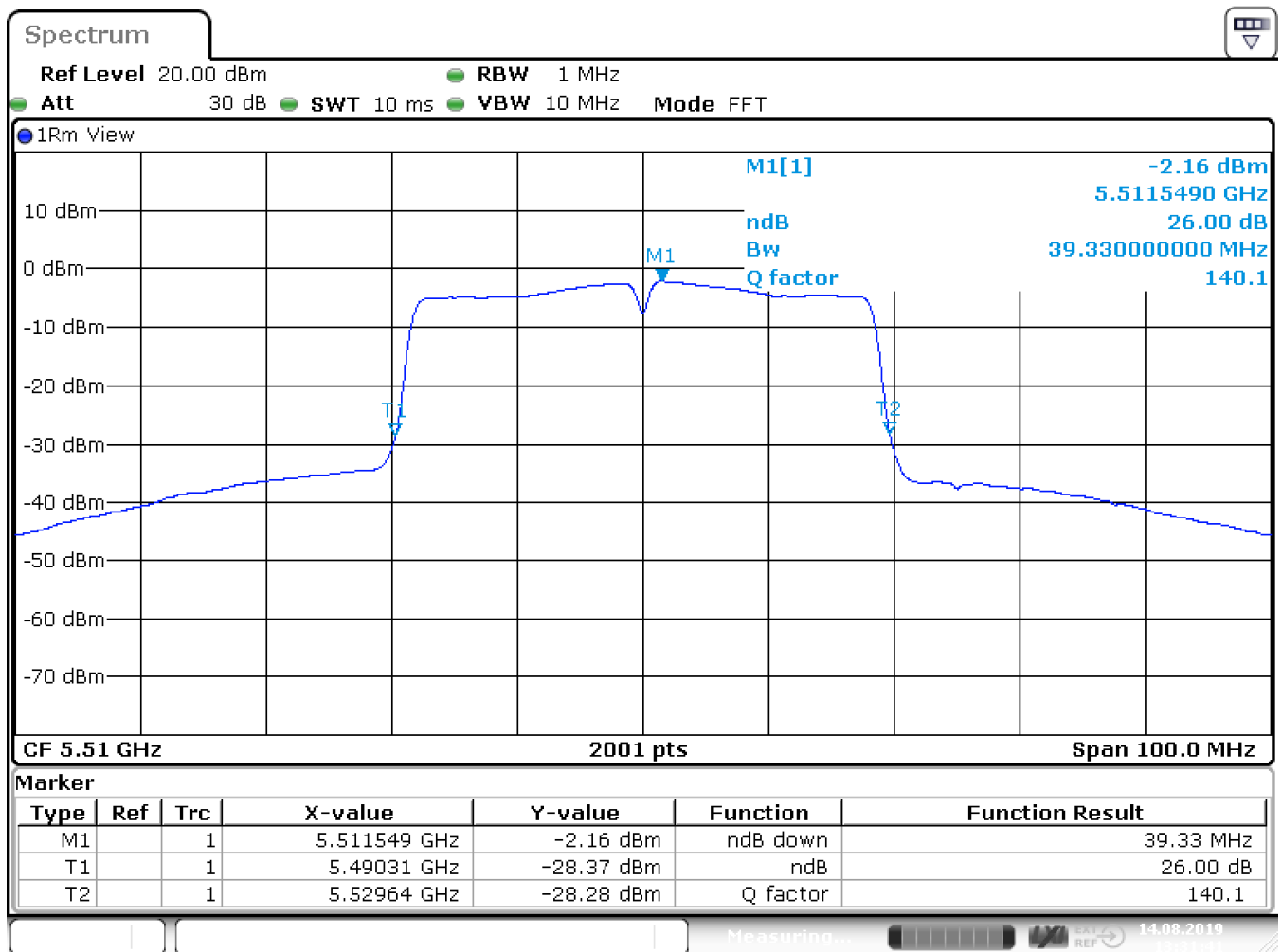
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 102 (5510 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:31:41

26dB Bandwidth: 39,330 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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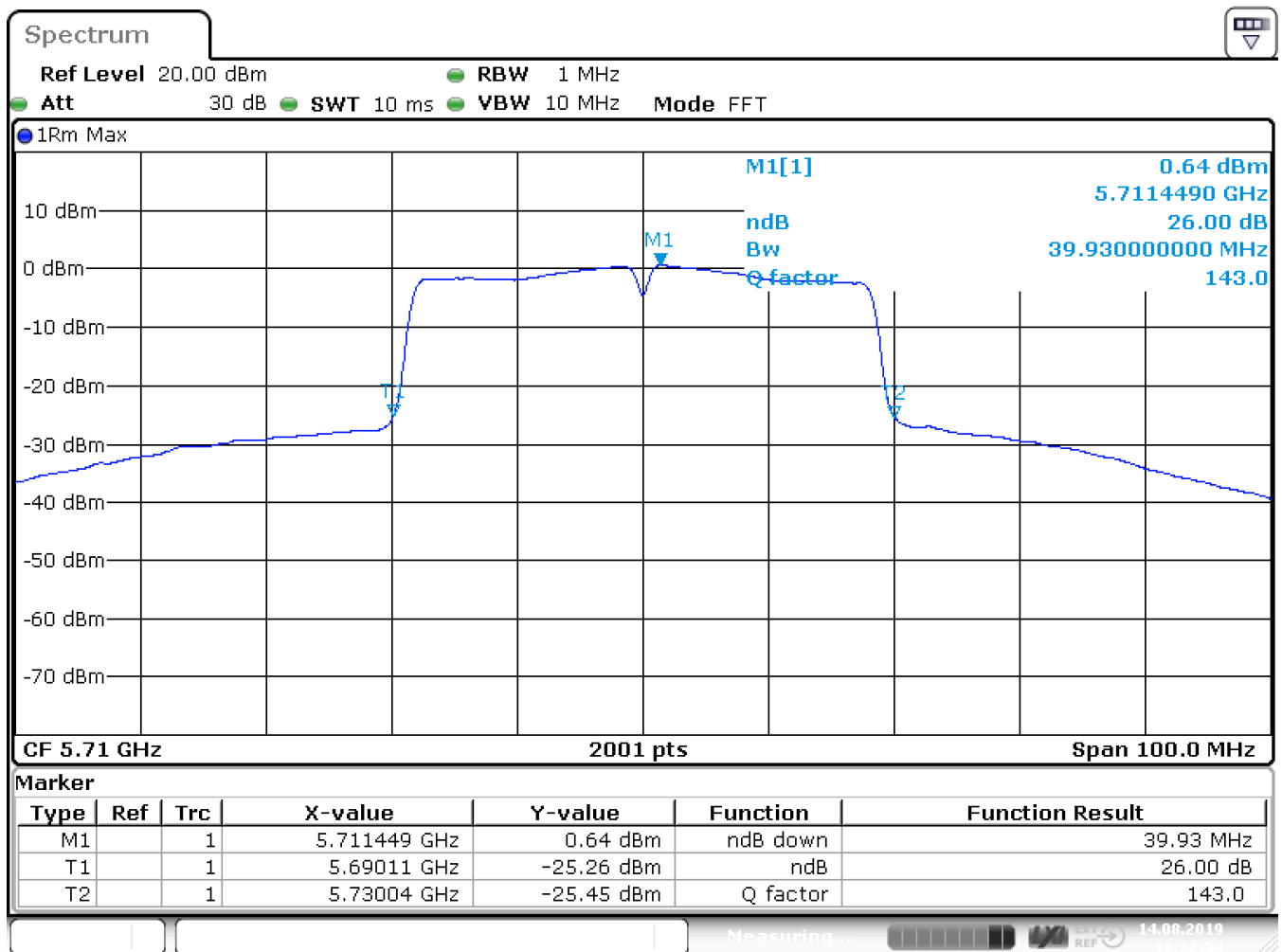
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 142 (5710 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:32:53

26dB Bandwidth: 39,93 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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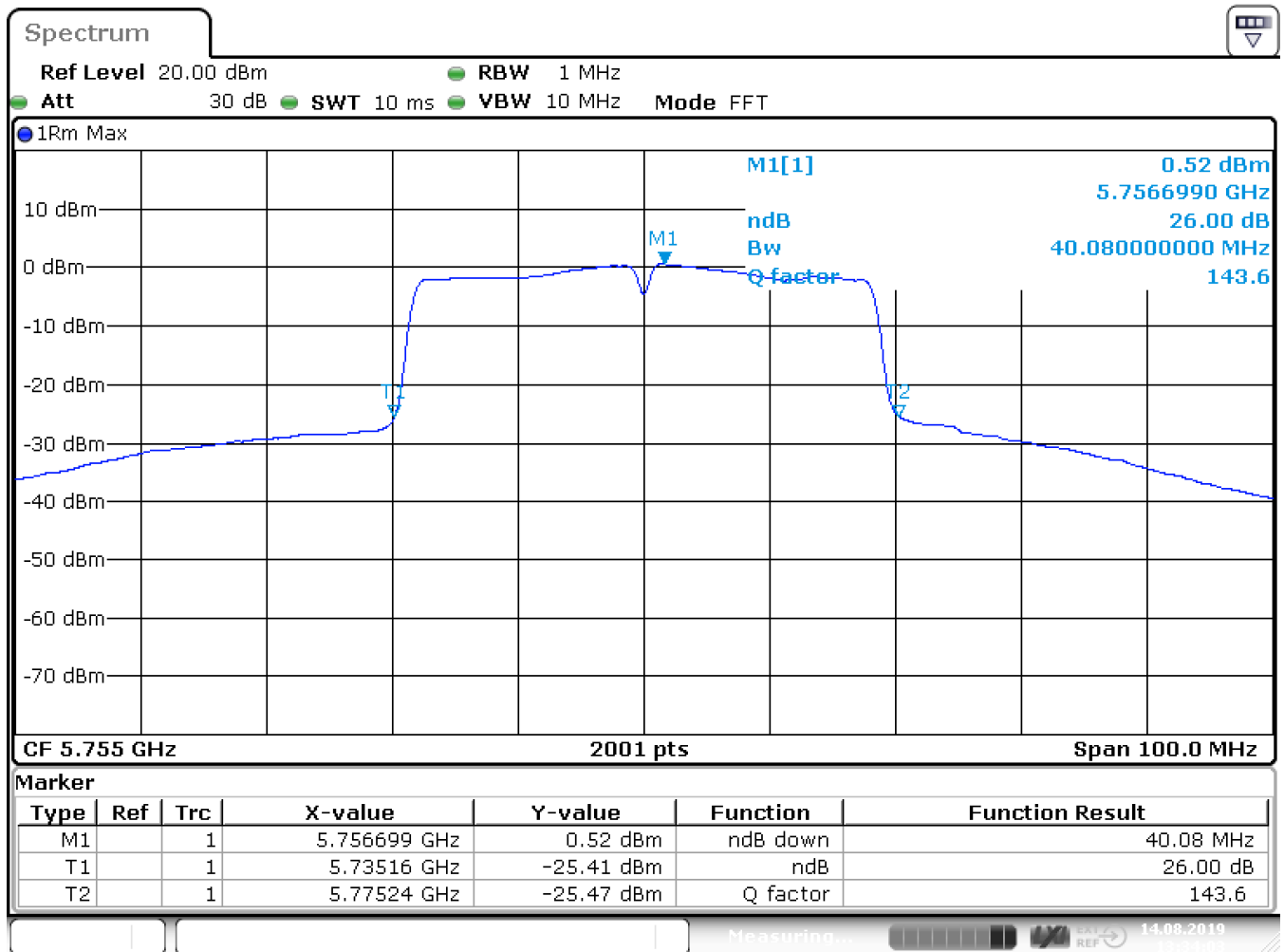
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 151 (5755 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:34:03

26dB Bandwidth: 40,08 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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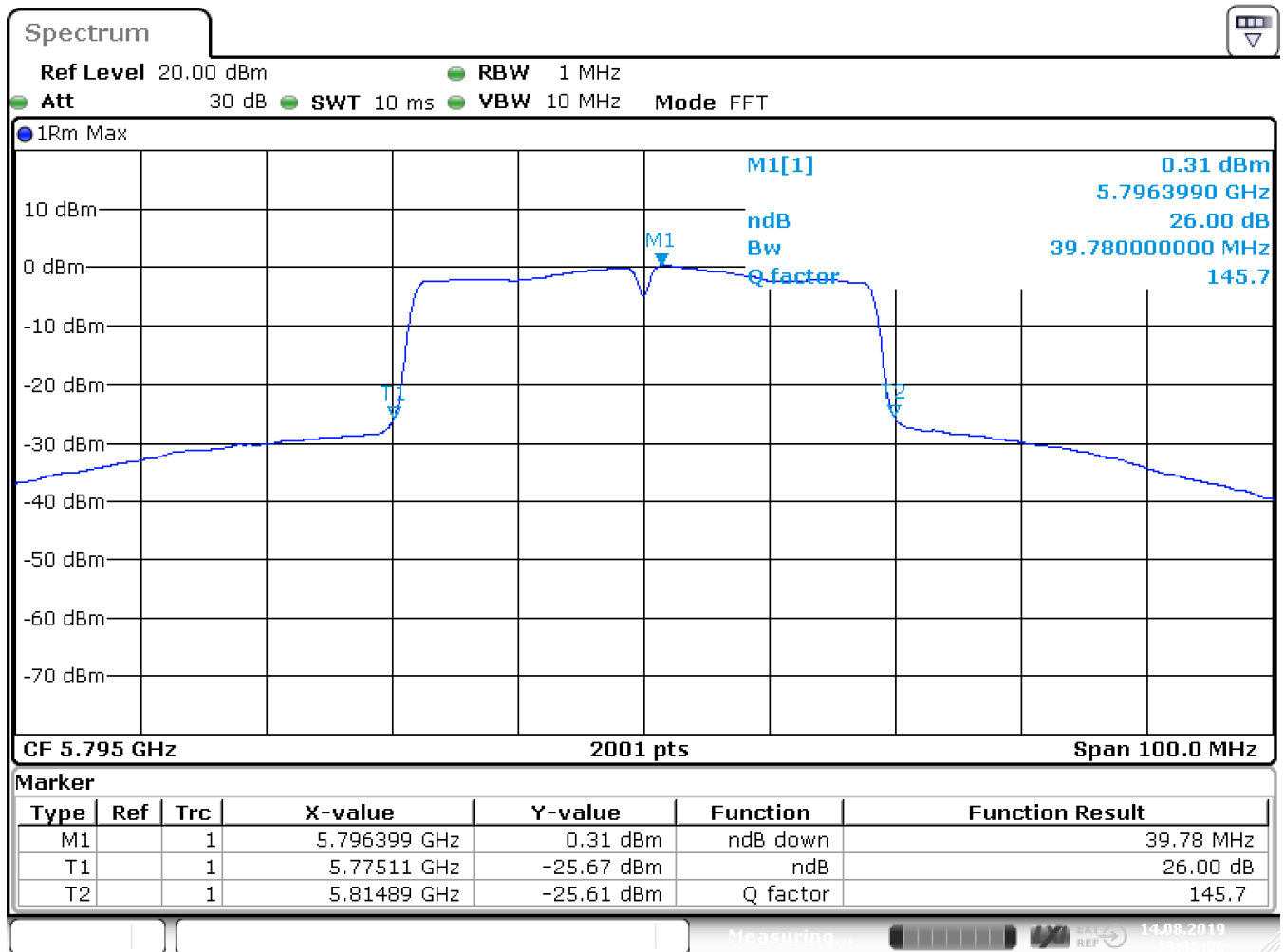
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 159 (5795 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:36:06

26dB Bandwidth: 39,78 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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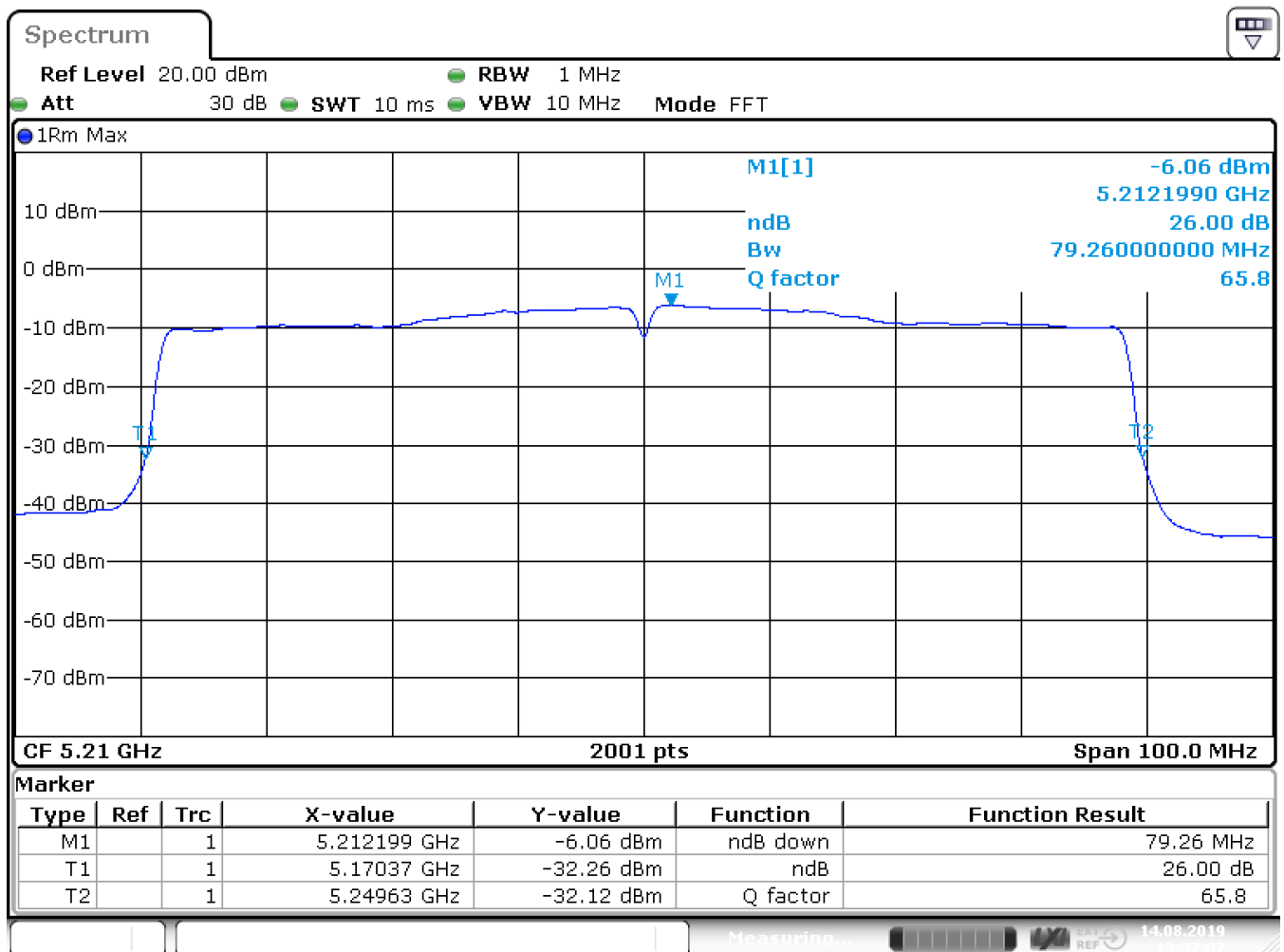
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 42 (5210 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:37:08

26dB Bandwidth: 79,26 MHz

LIMIT SUBCLAUSE 15.407

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

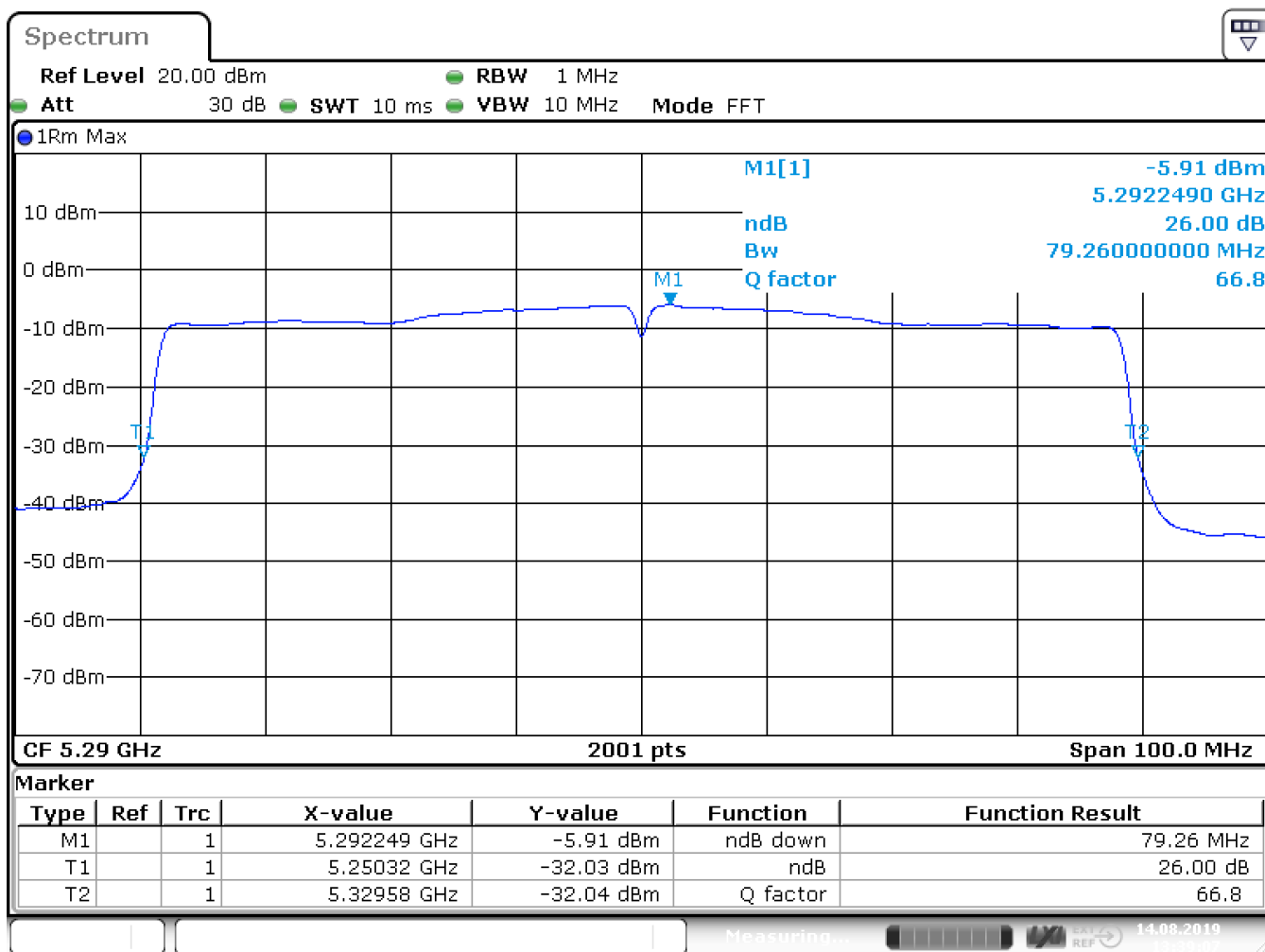
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 58 (5290 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:39:07

26dB Bandwidth: 79,26 MHz

LIMIT SUBCLAUSE 15.407

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

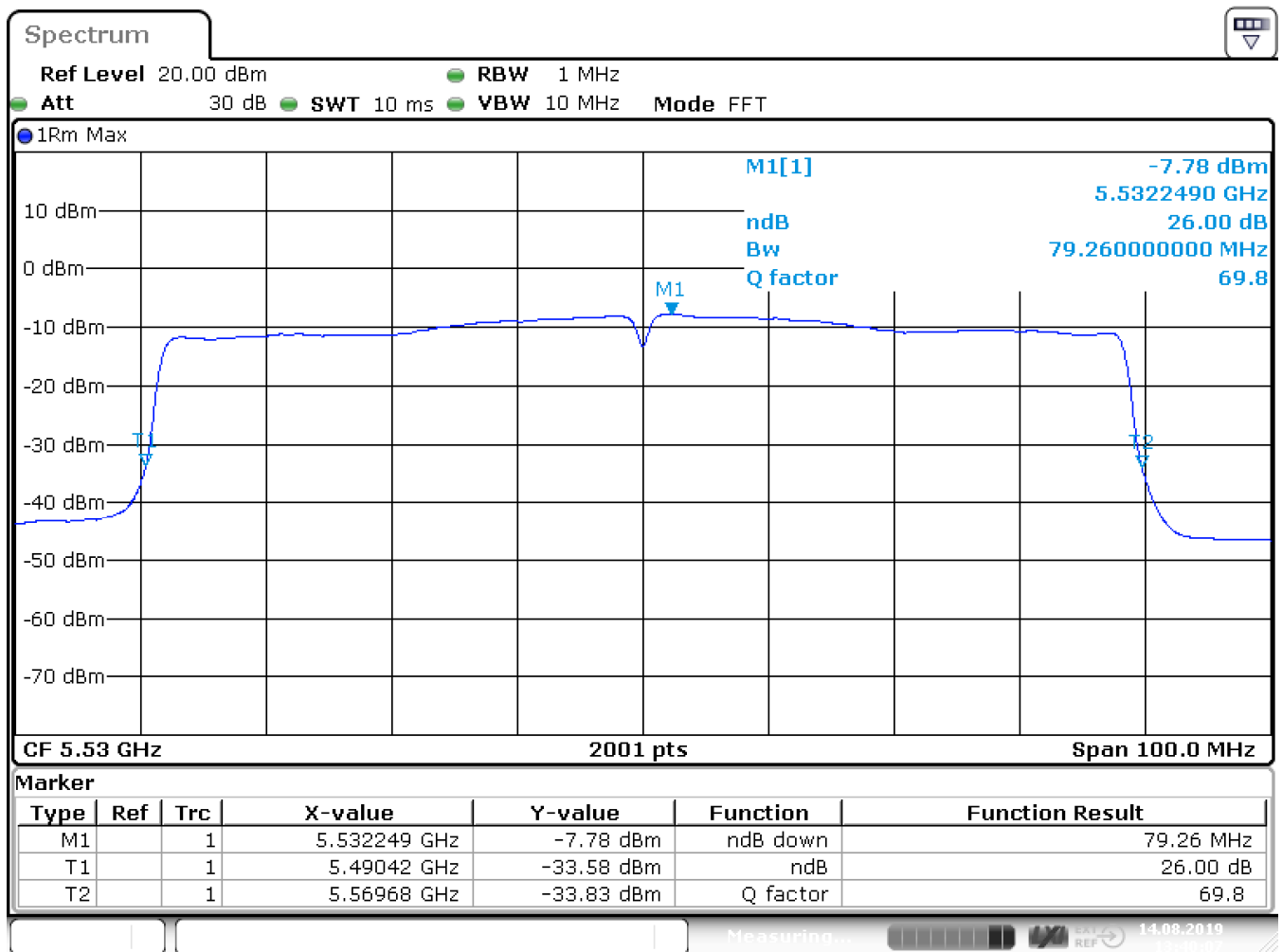
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 106 (5530 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:40:07

26dB Bandwidth: 79,26 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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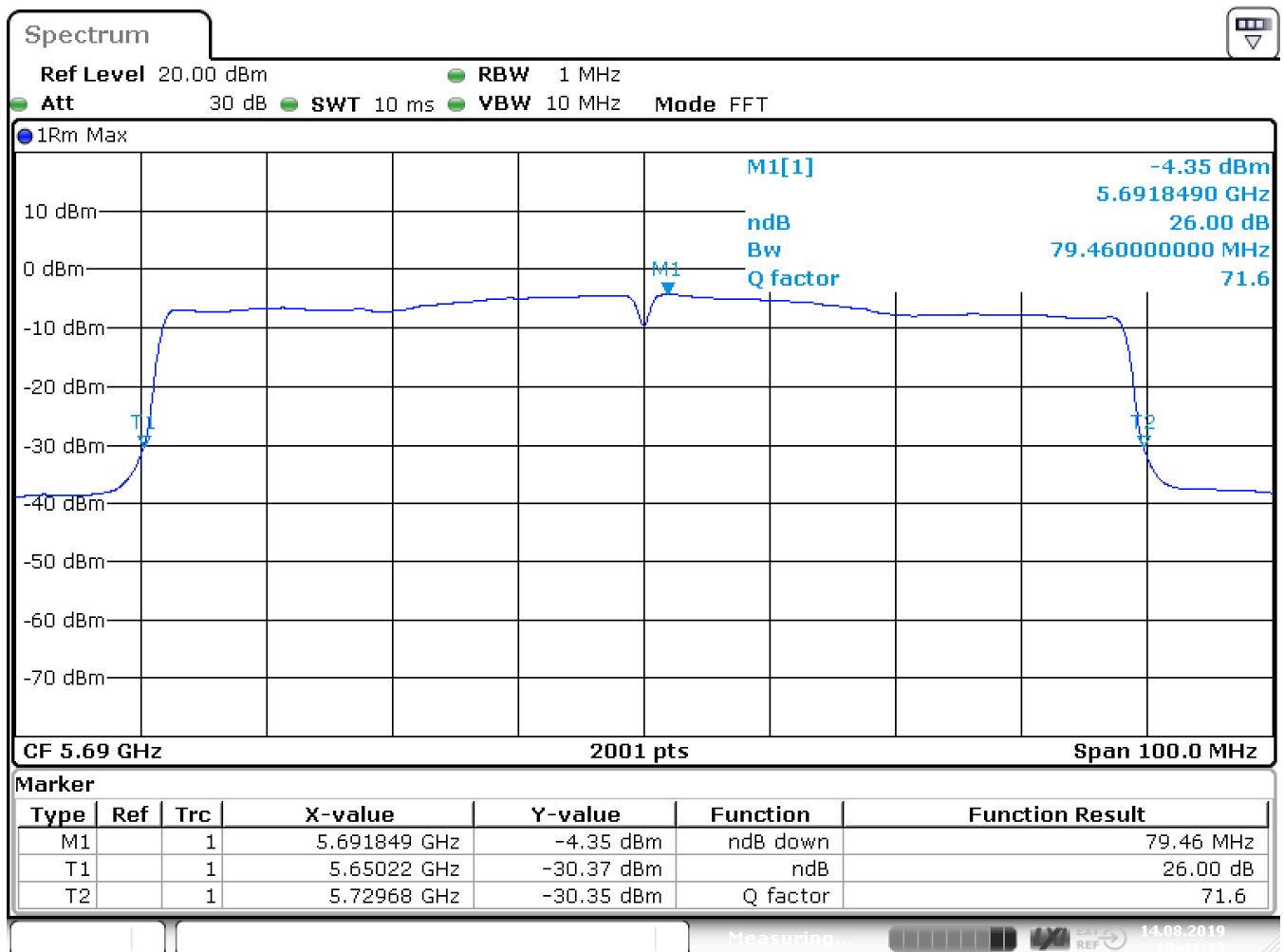
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 138 (5690 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:41:33

26dB Bandwidth: 79,46 MHz

LIMIT SUBCLAUSE 15.407

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

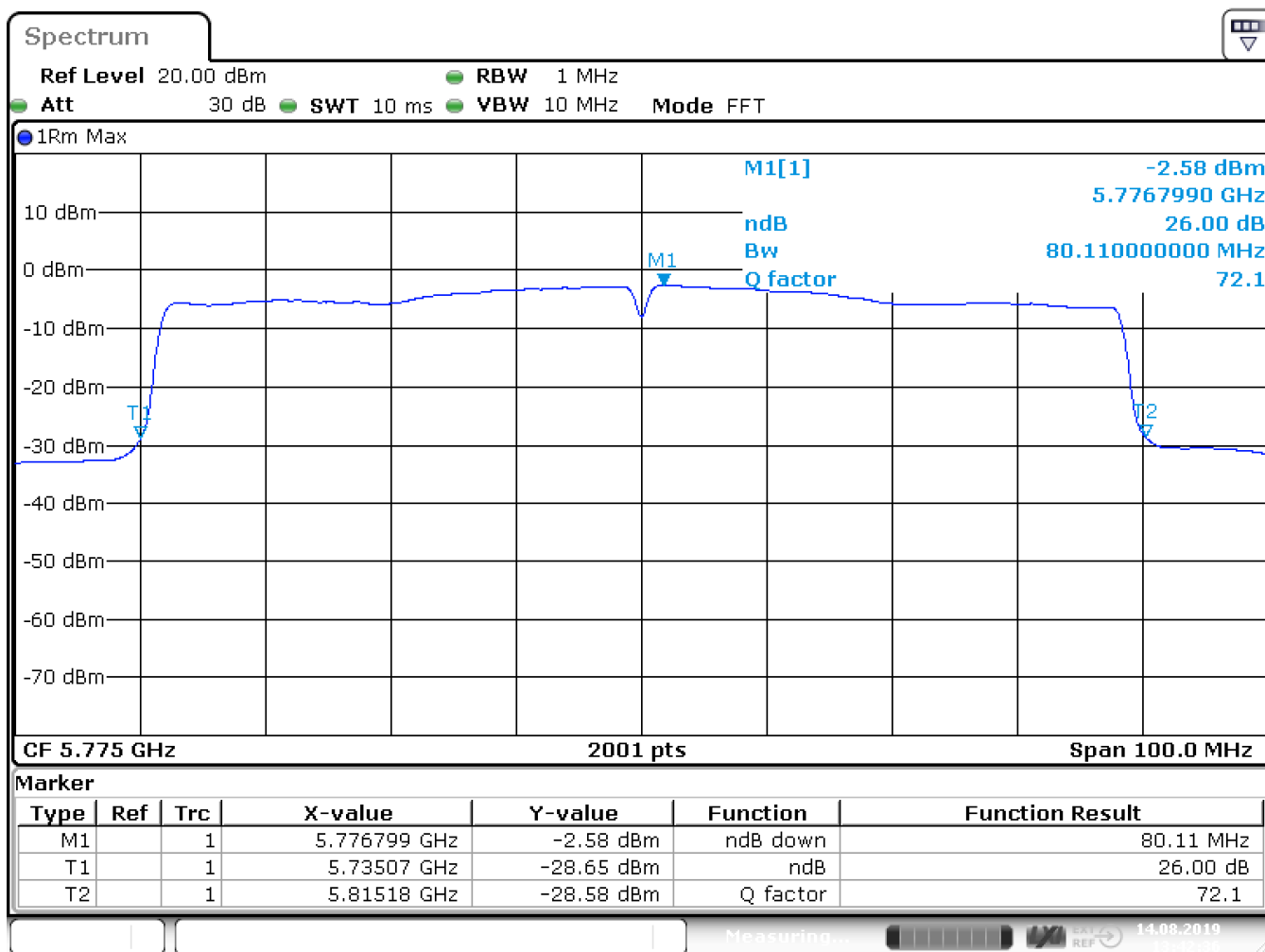
Test Equipment used: EMV-205

26dB Bandwidth

§ 15.407

Conducted Measurement

Rated output power: 63,10 mW Channel 155 (5775 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:42:36

26dB Bandwidth: 80,11 MHz

LIMIT SUBCLAUSE 15.407

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

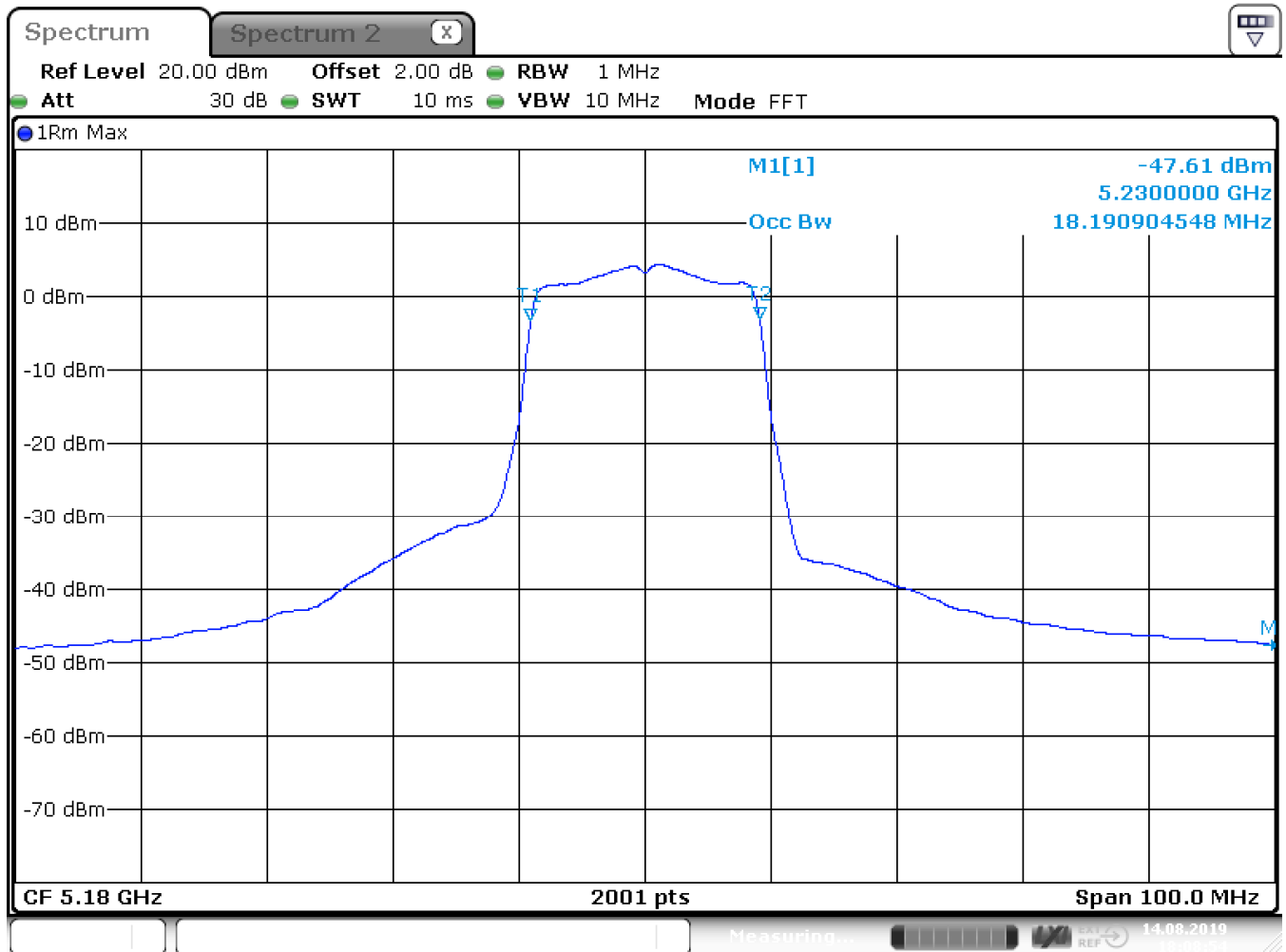
Test Equipment used: EMV-205

4.5. 99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 36 (5180 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:08:55

99% Bandwidth: 18,191 MHz

LIMIT SUBCLAUSE 15.407

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

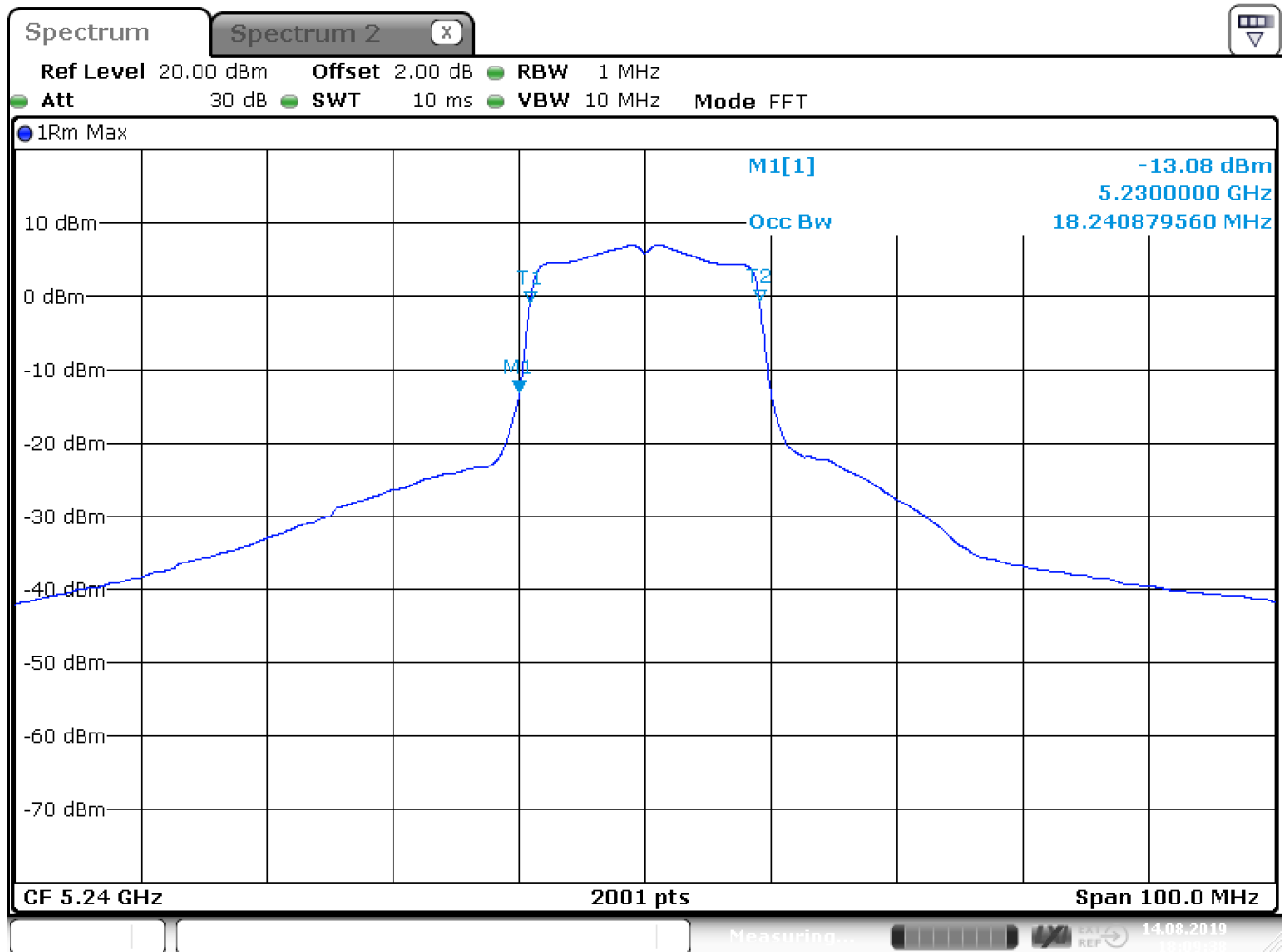
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 48 (5240 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:09:38

99% Bandwidth: 18,241 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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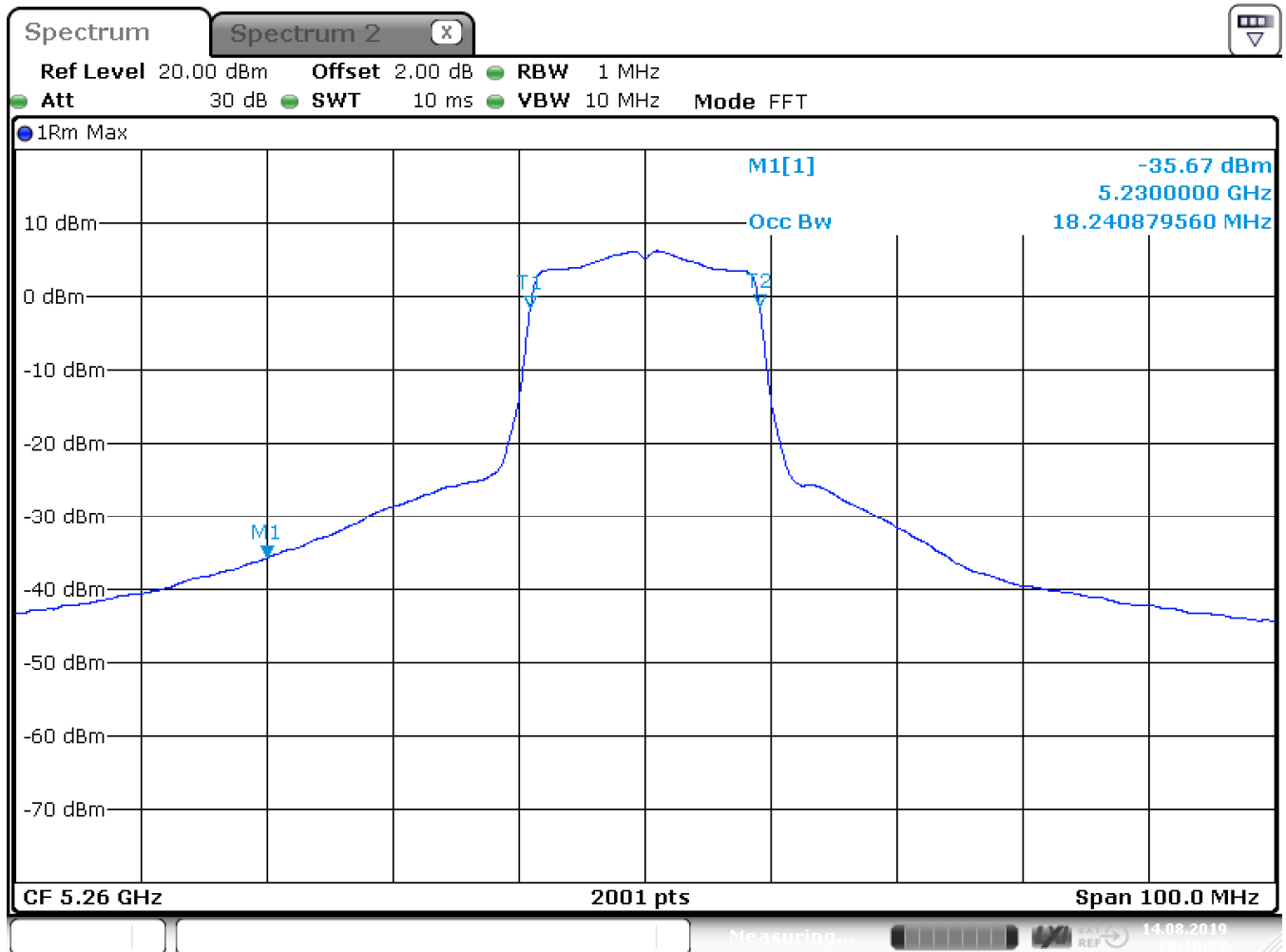
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 52 (5260 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:10:27

99% Bandwidth: 18,241 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
---	---

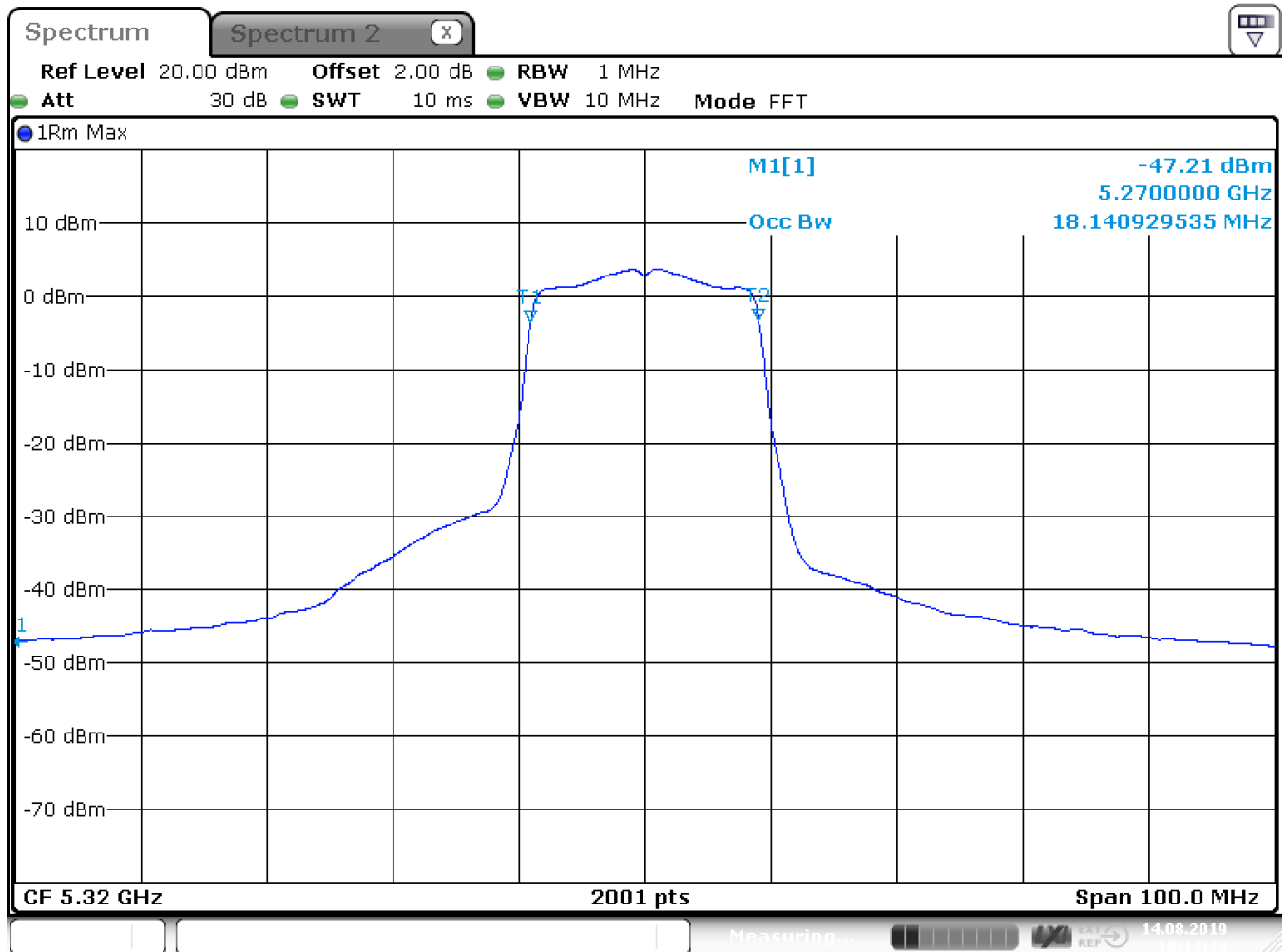
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 64 (5320 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:11:14

99% Bandwidth: 18,141 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
---	---

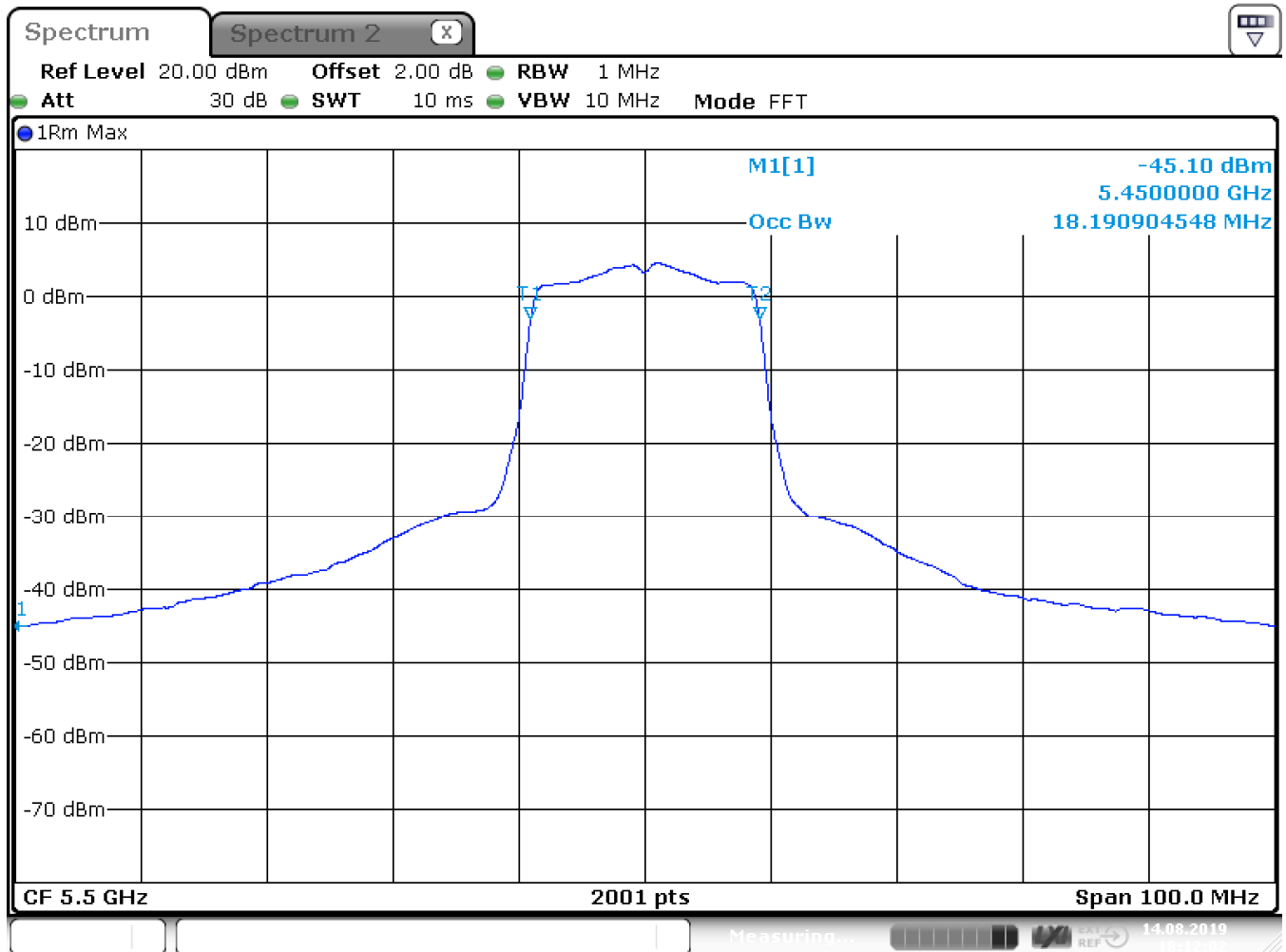
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 100 (5500 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:12:02

99% Bandwidth: 18,191 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
---	---

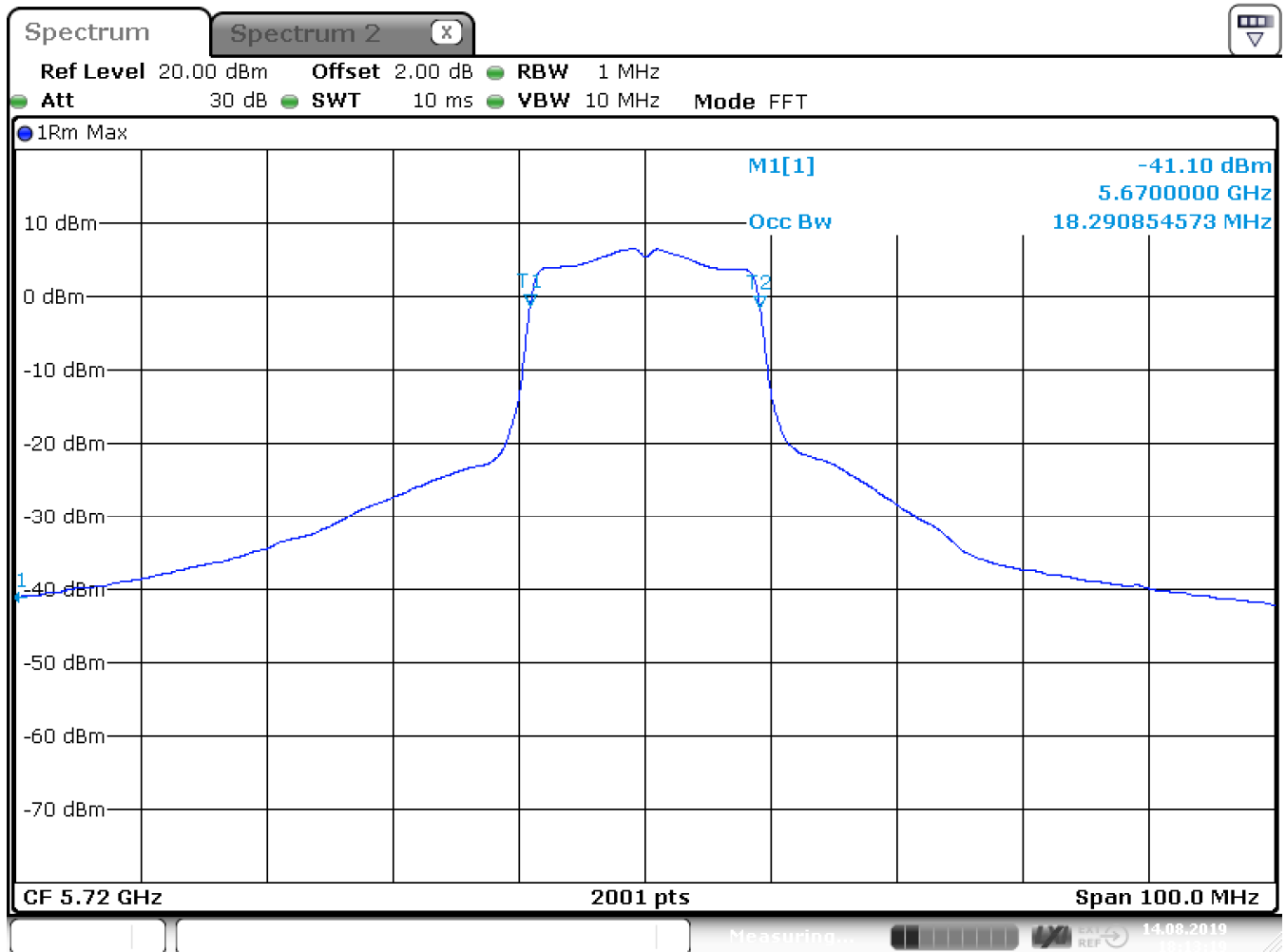
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 144 (5720 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:13:19

99% Bandwidth: 18,291 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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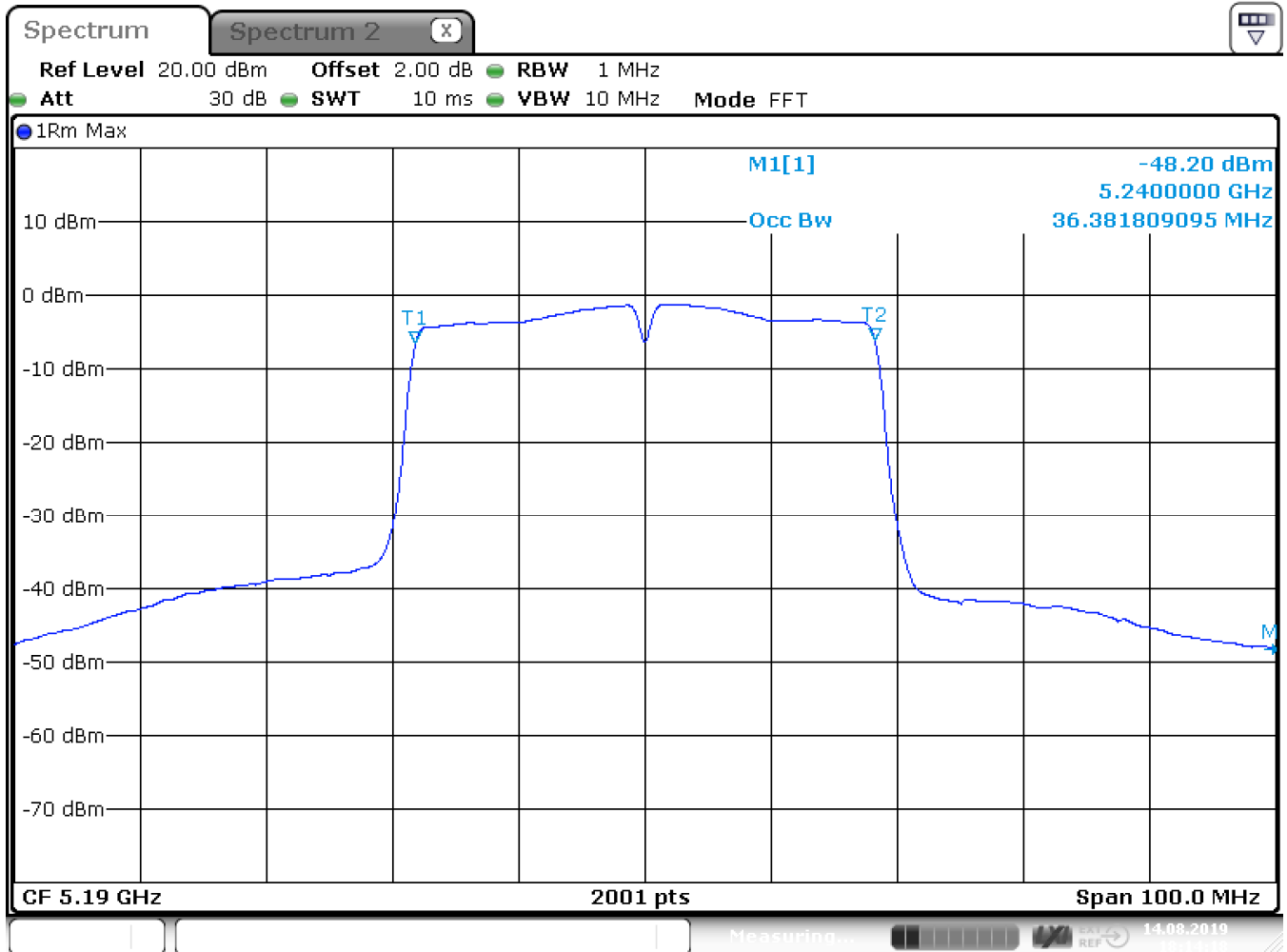
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 38 (5190 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:14:18

99% Bandwidth: 36,382 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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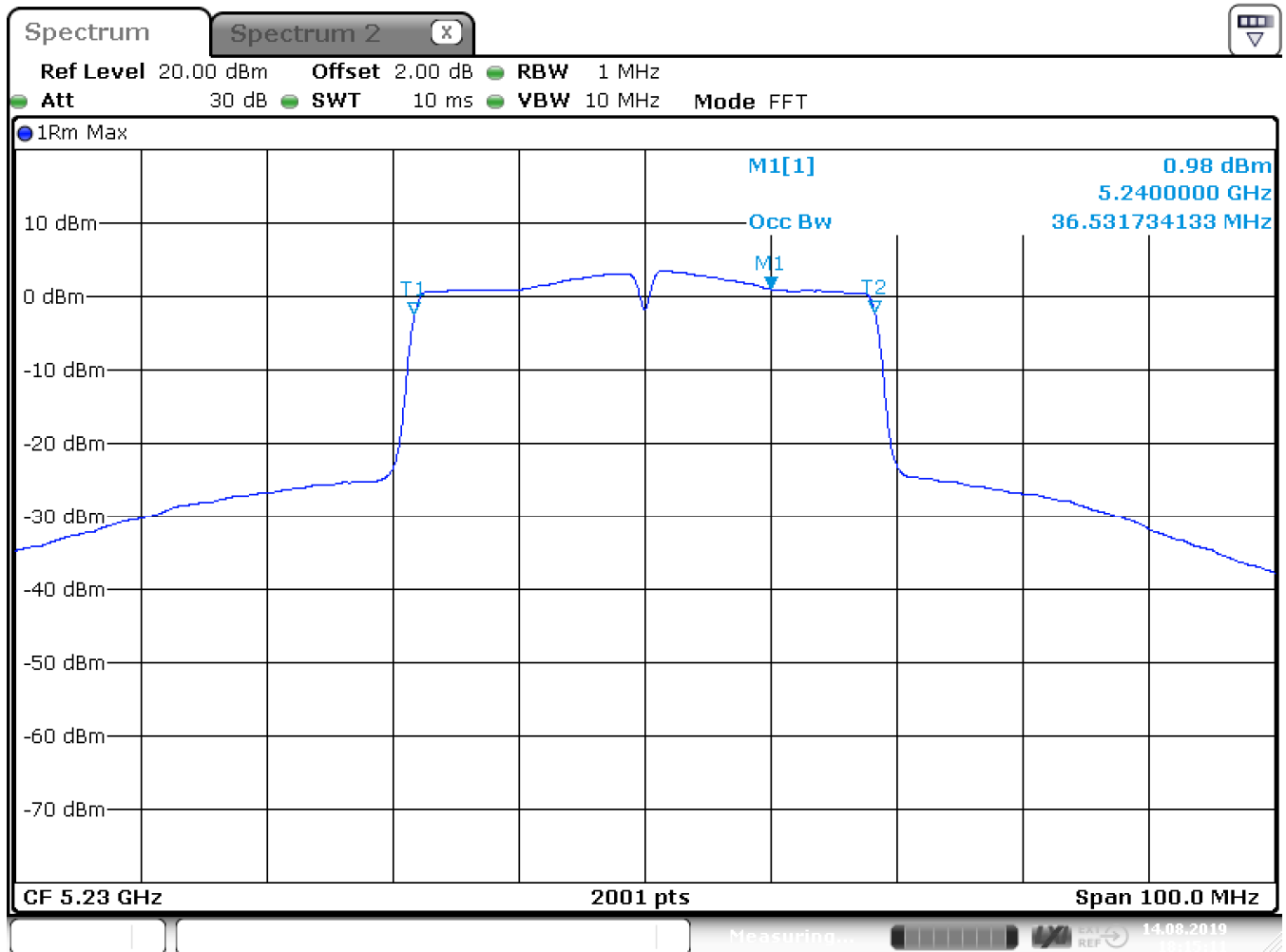
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 46 (5230 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:15:10

99% Bandwidth: 36,532 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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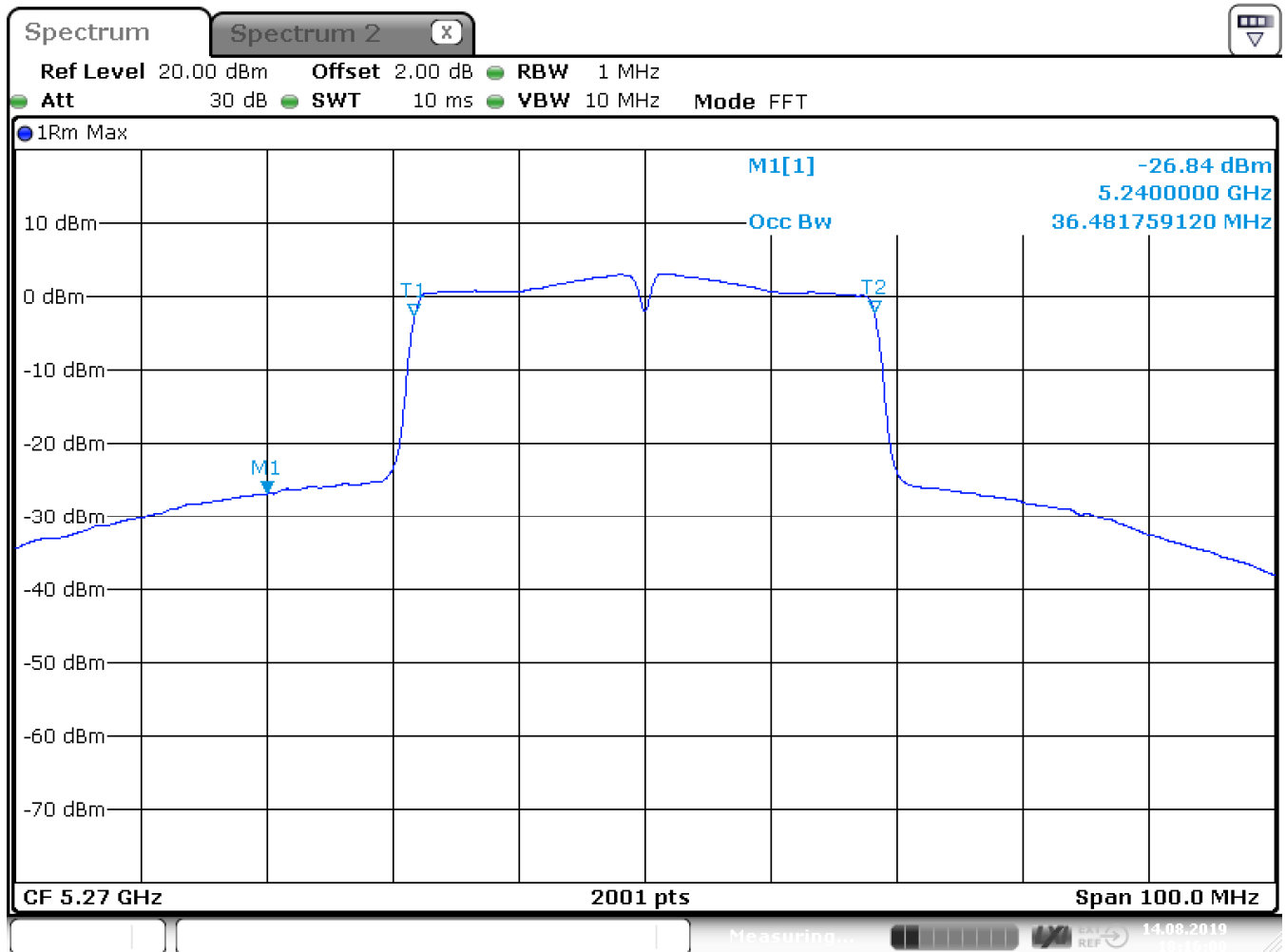
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 54 (5270 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:16:01

99% Bandwidth: 36,482 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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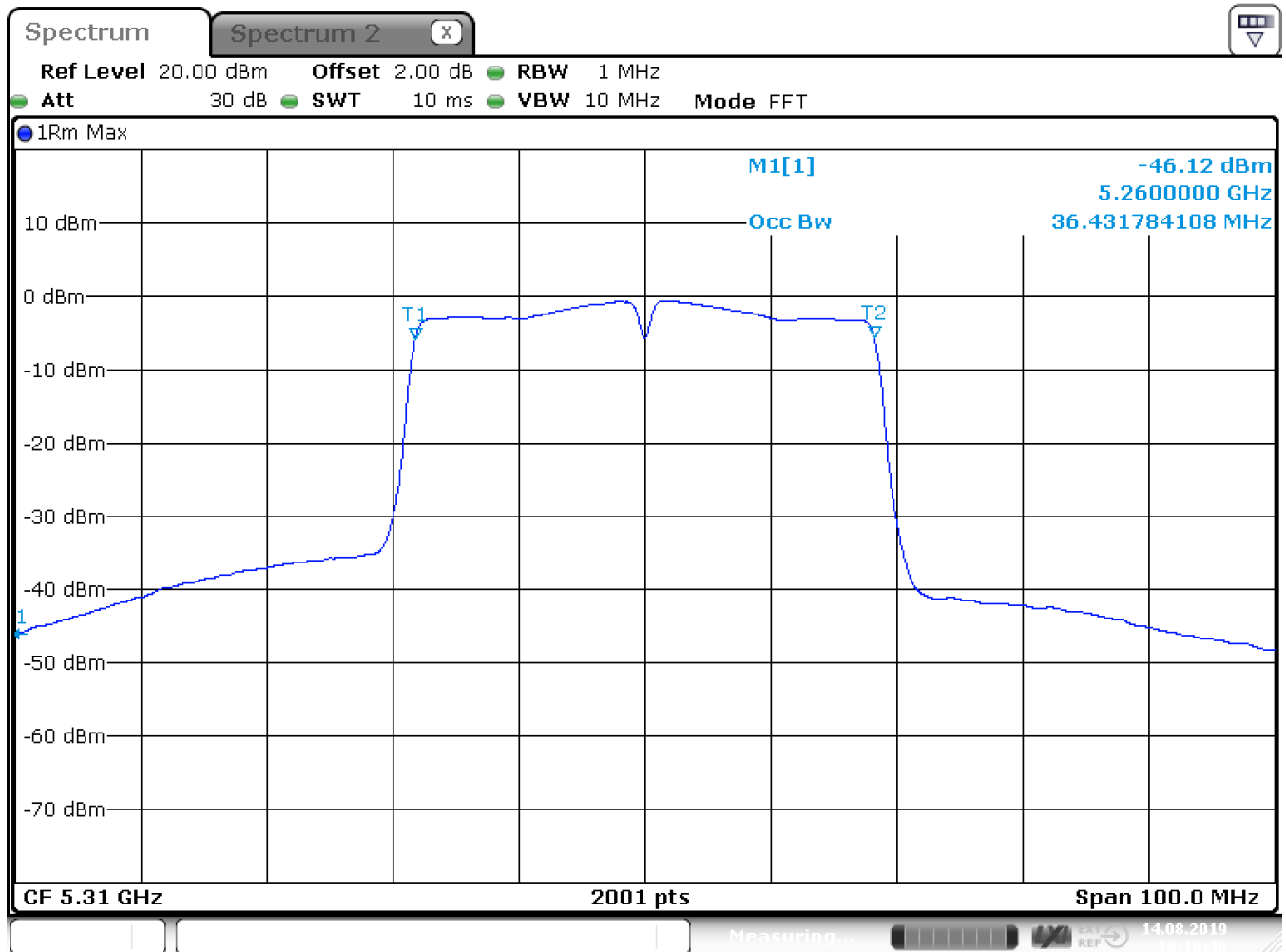
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 62 (5310 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:16:47

99% Bandwidth: 36,432 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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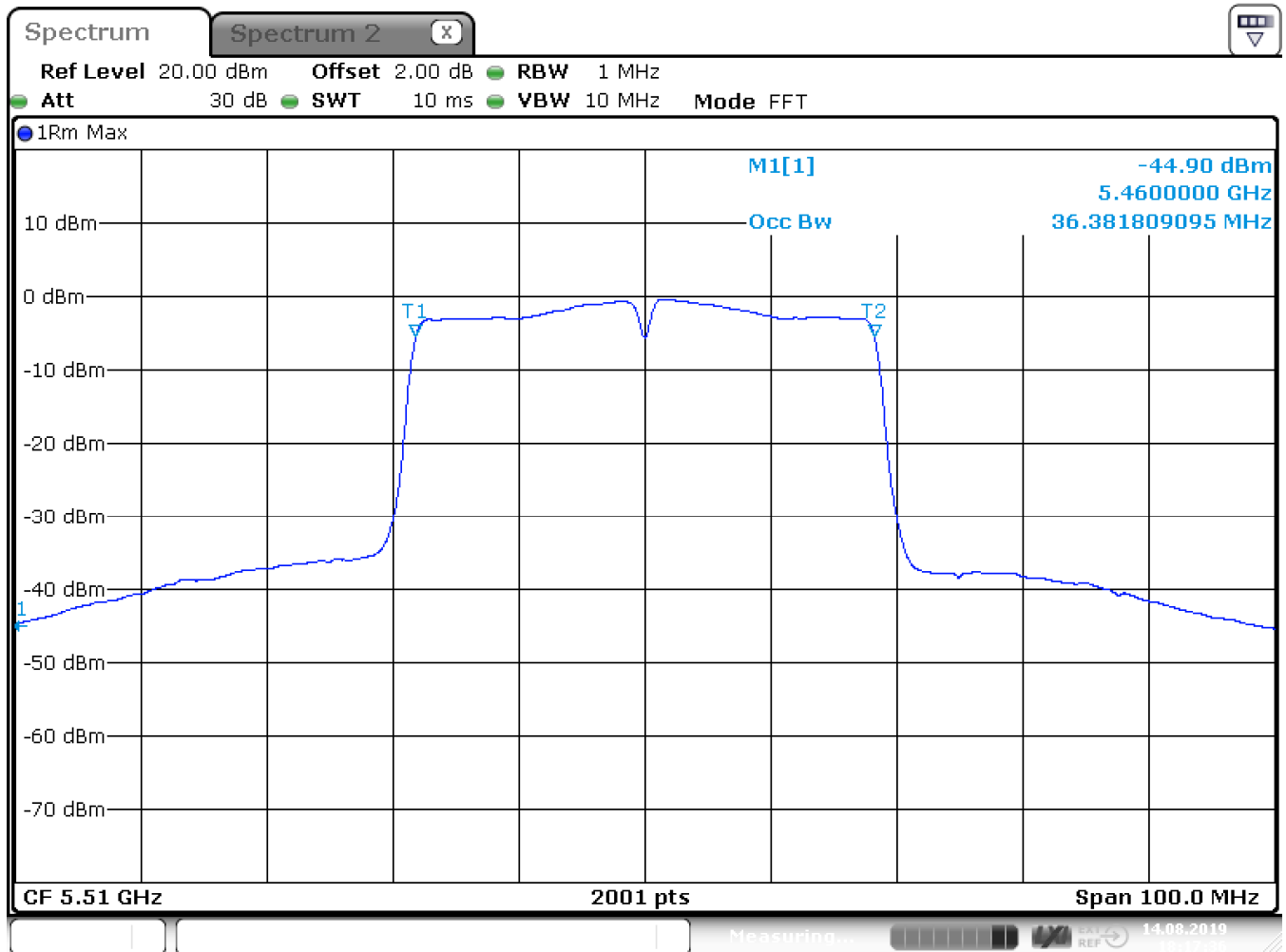
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 102 (5510 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:17:36

99% Bandwidth: 36,382 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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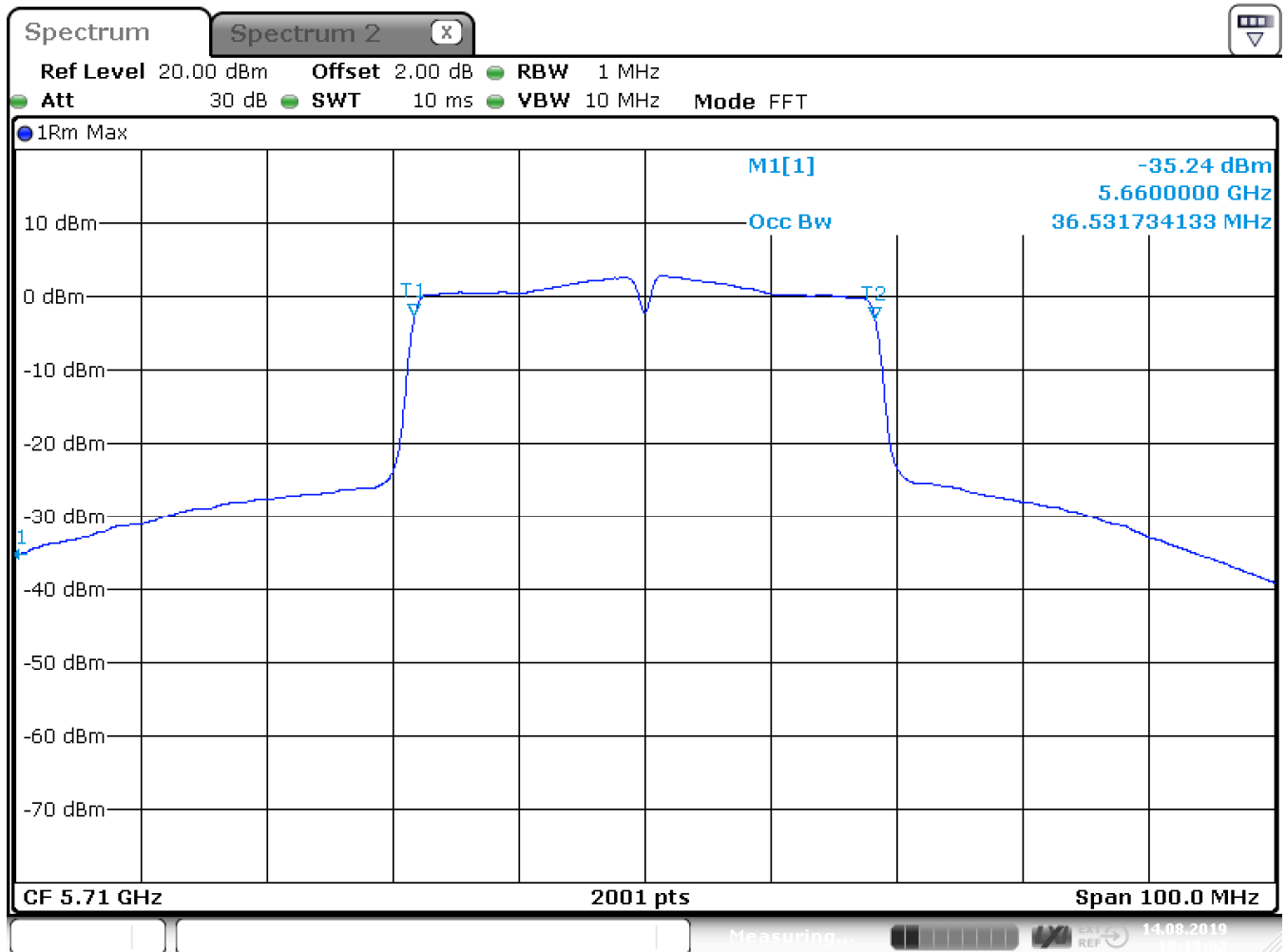
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 142 (5710 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:19:02

99% Bandwidth: 36,532MHz

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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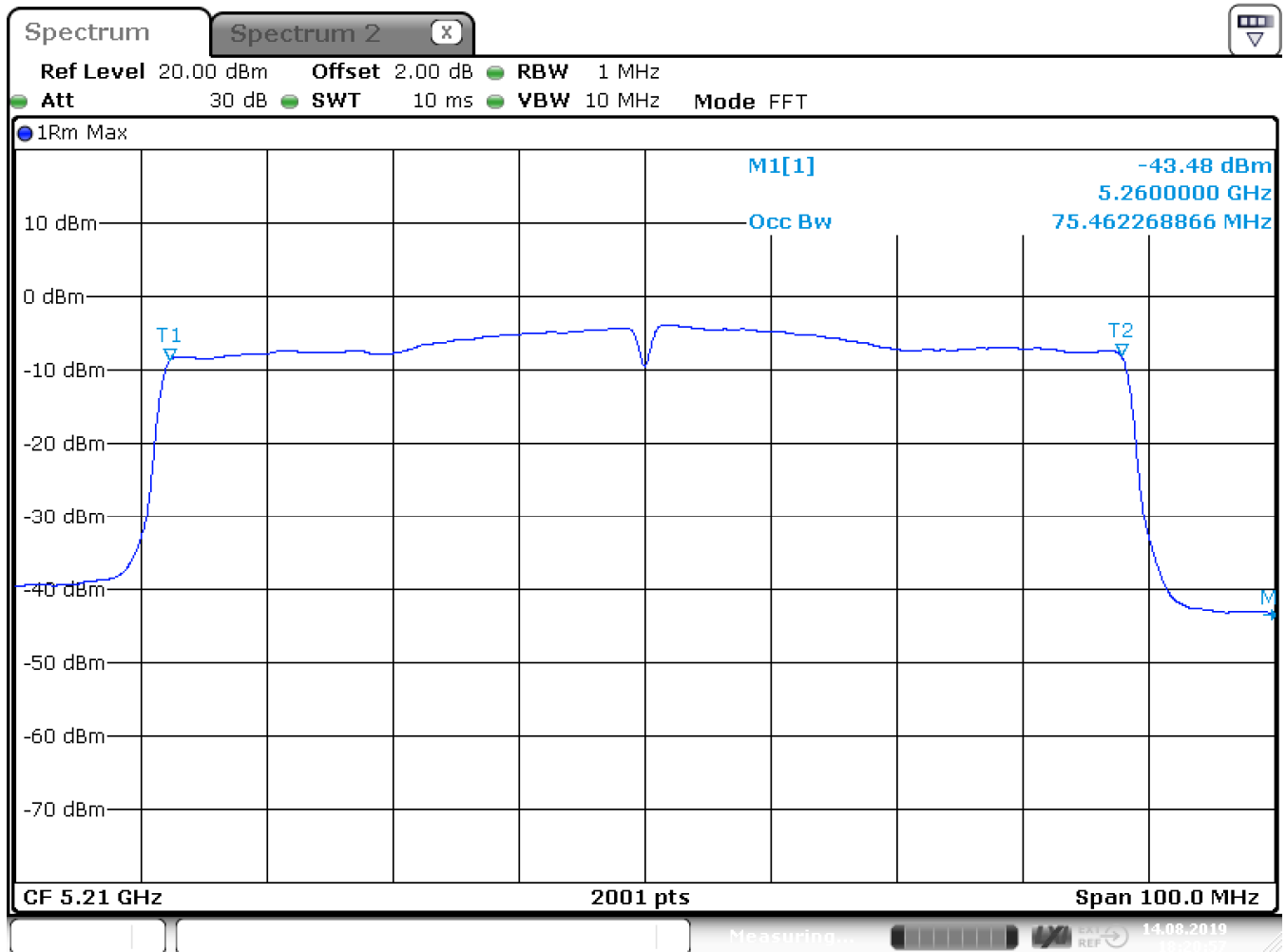
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 42 (5210 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:20:57

99% Bandwidth: 75,462 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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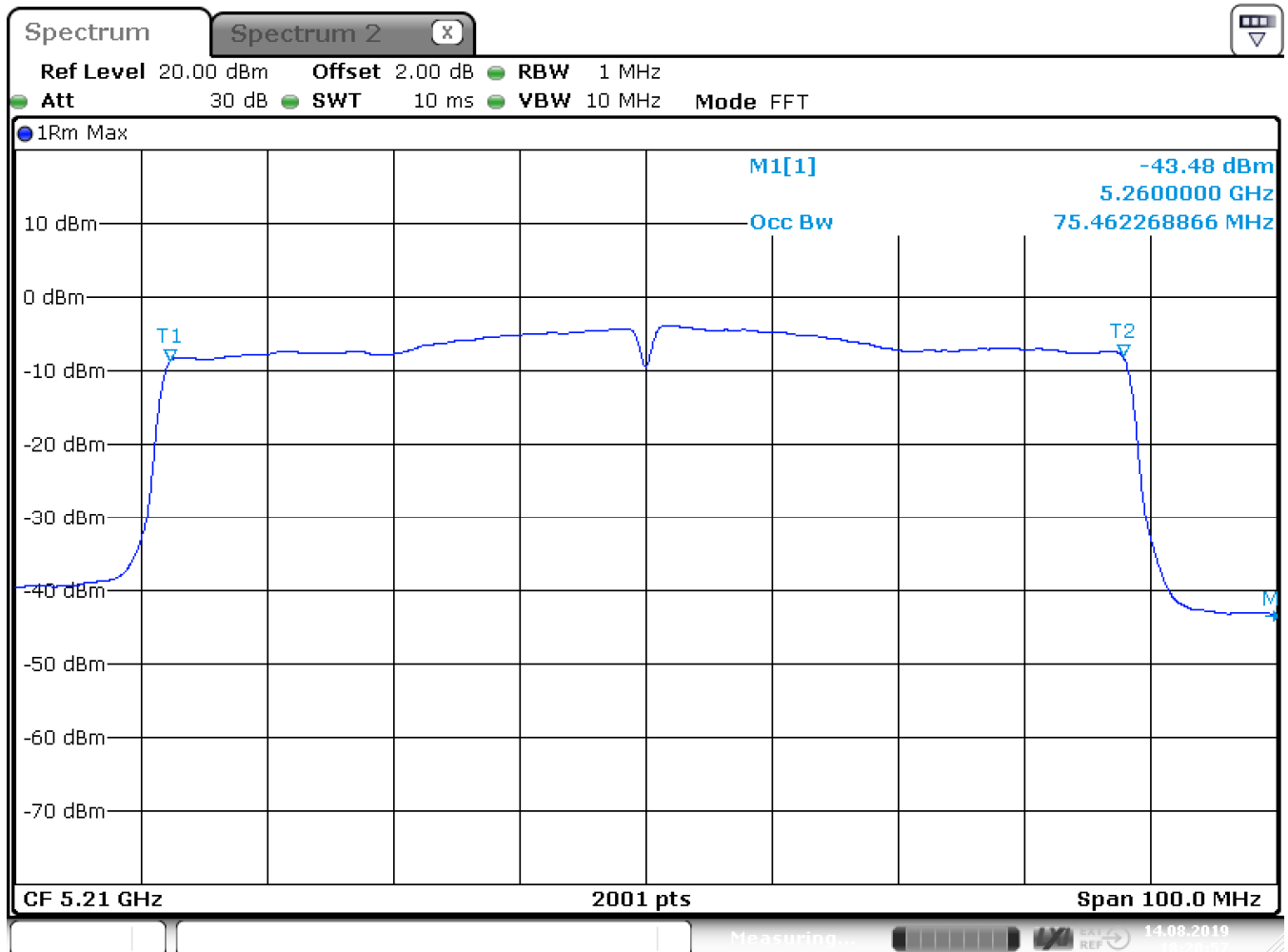
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 58 (5290 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:20:57

99% Bandwidth: 75,462 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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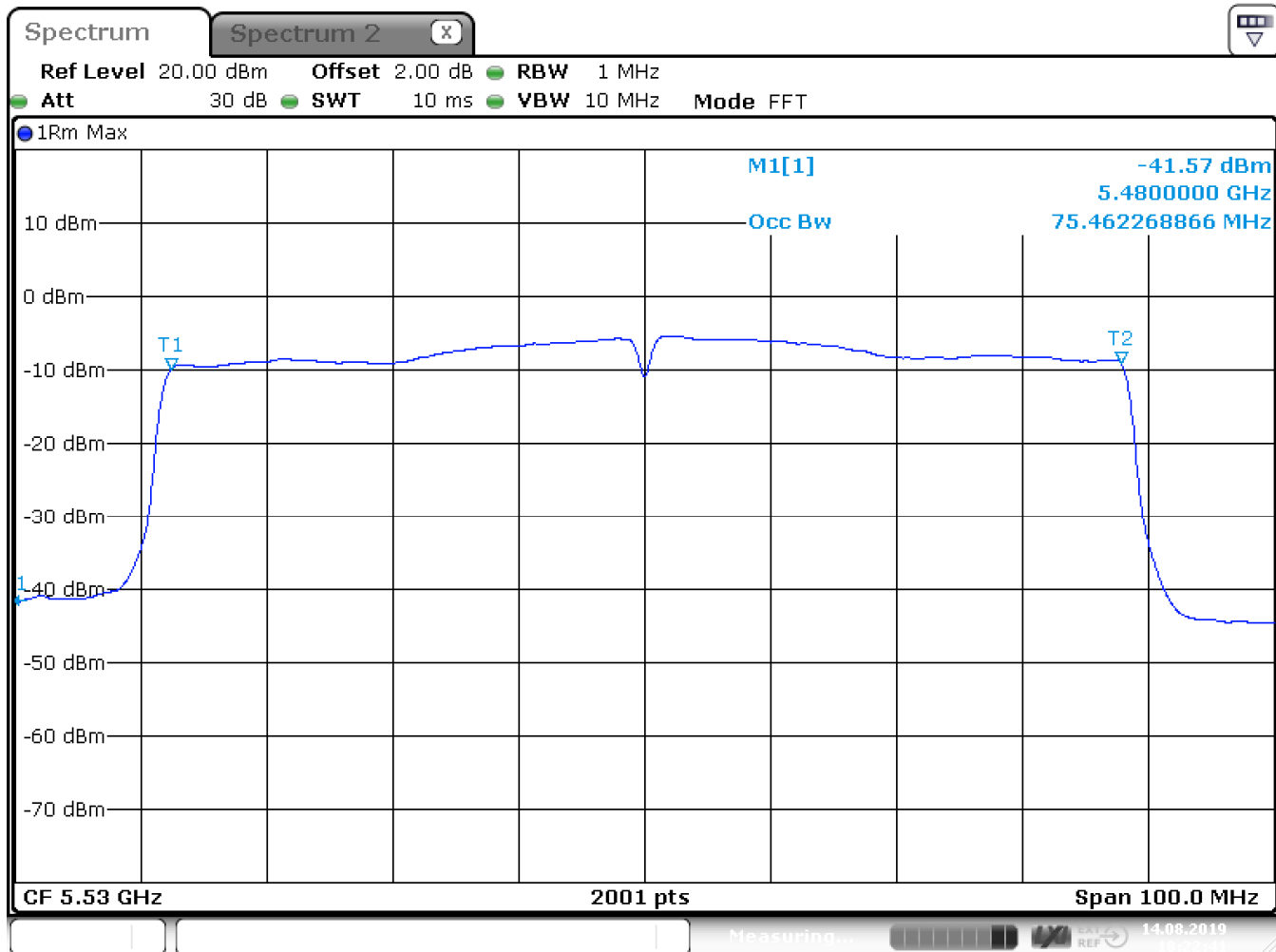
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 106 (5530 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:22:41

99% Bandwidth: 75,462 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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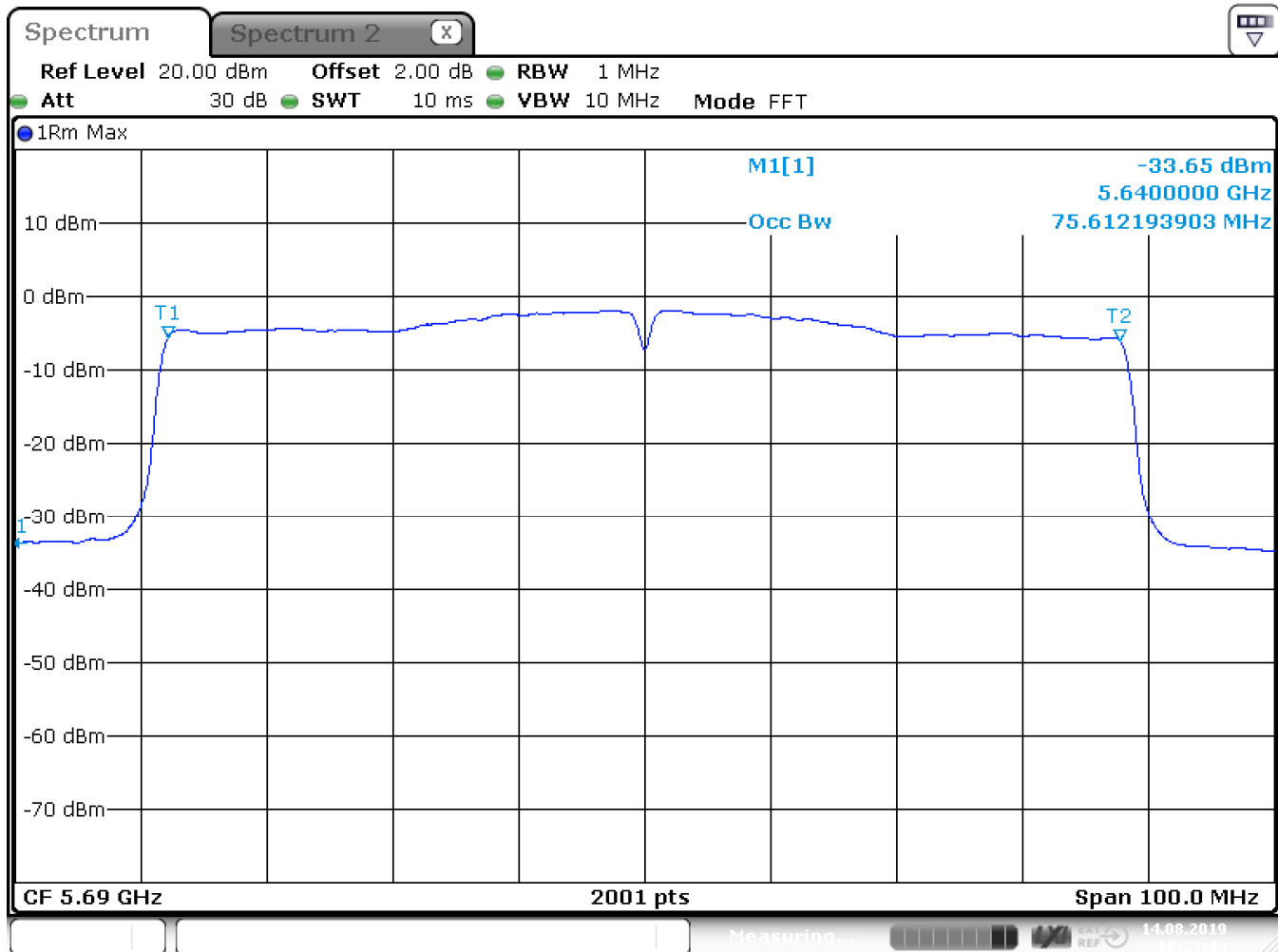
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 138 (5690 MHz center frequency) – Antenna 1



Date: 14.AUG.2019 18:23:43

99% Bandwidth: 75,612 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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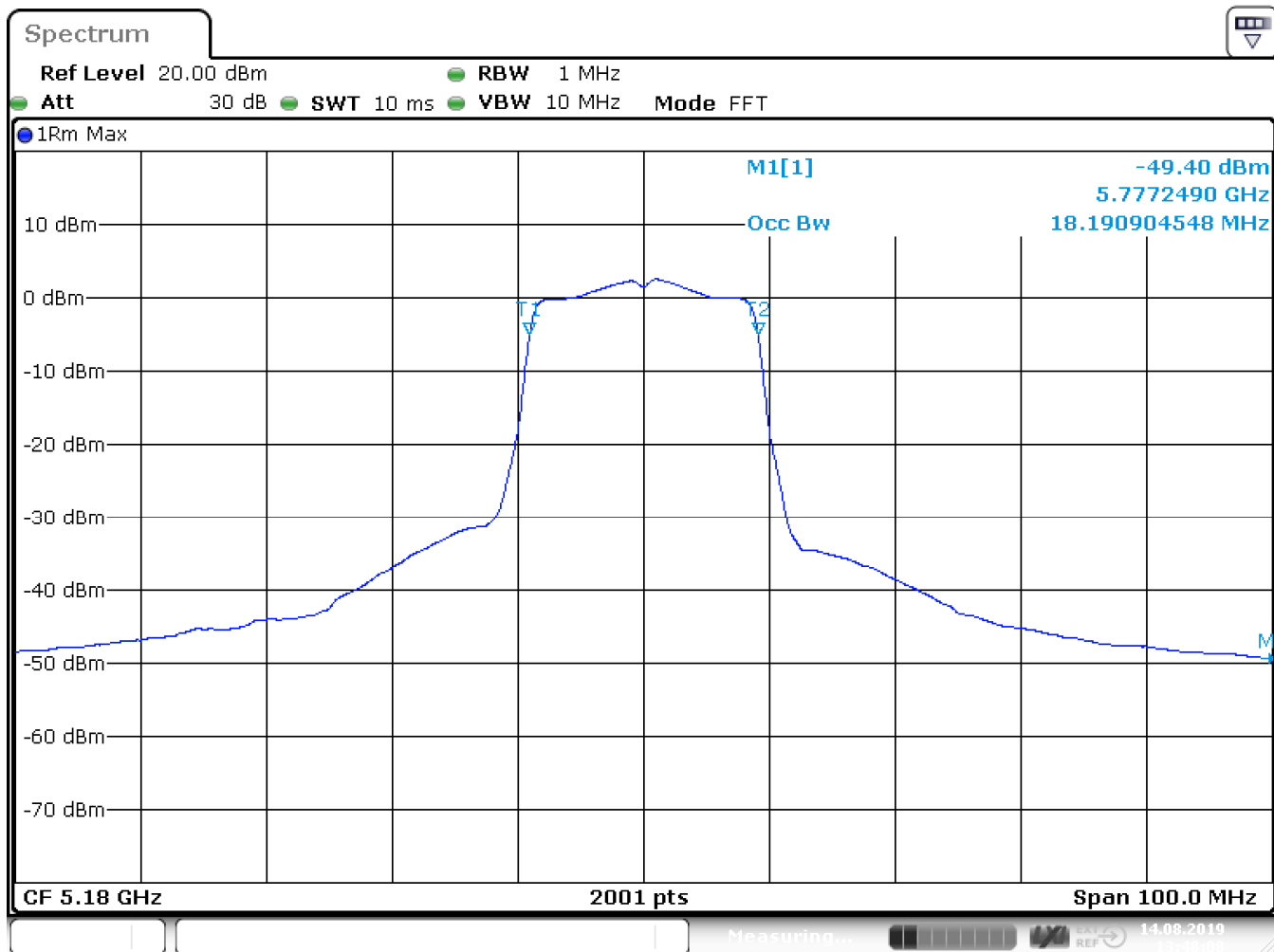
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 36 (5180 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:48:09

99% Bandwidth: 18,191 MHz

LIMIT SUBCLAUSE 15.407

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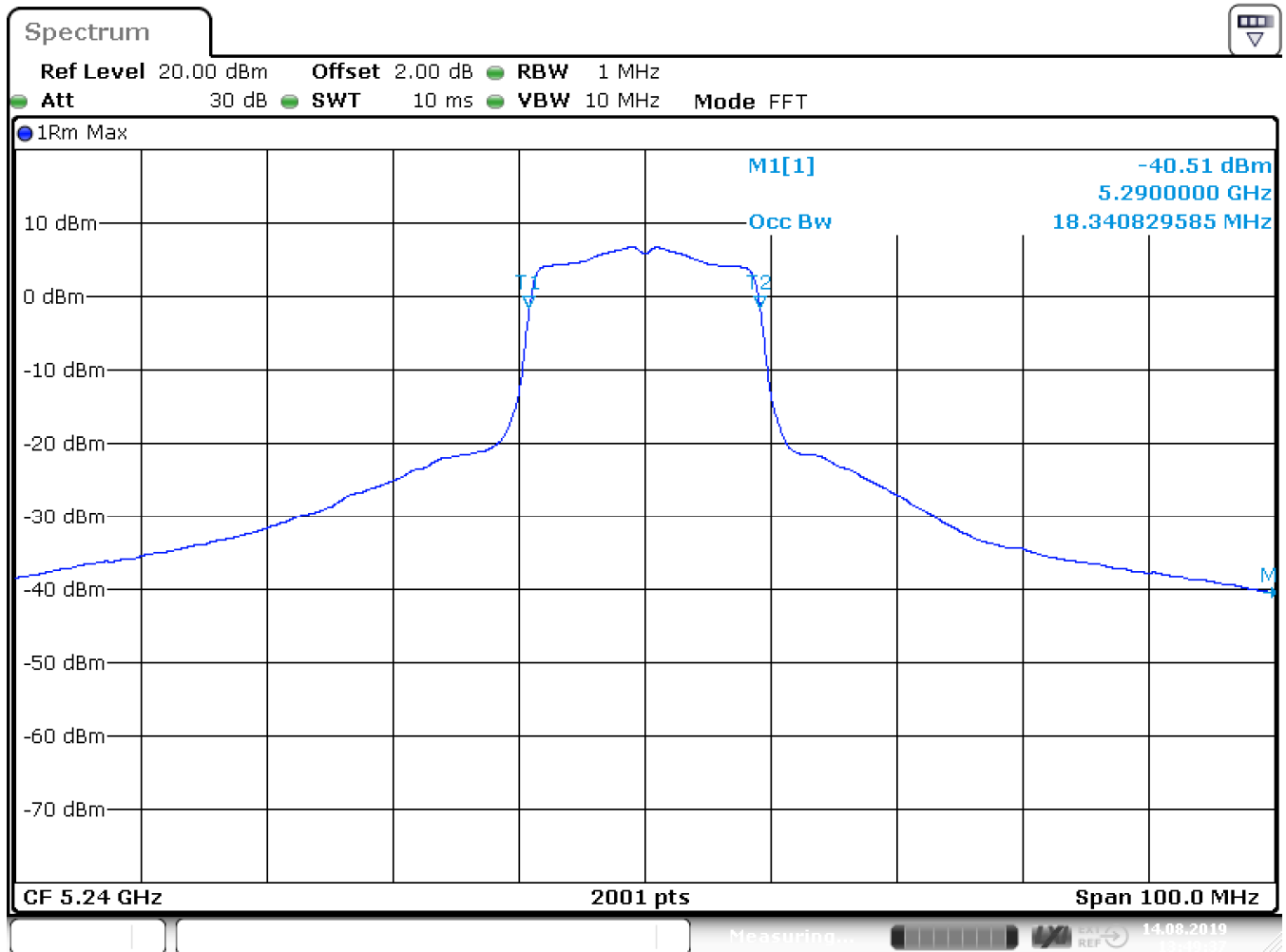
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.1 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 48 (5240 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:49:38

99% Bandwidth: 18,341 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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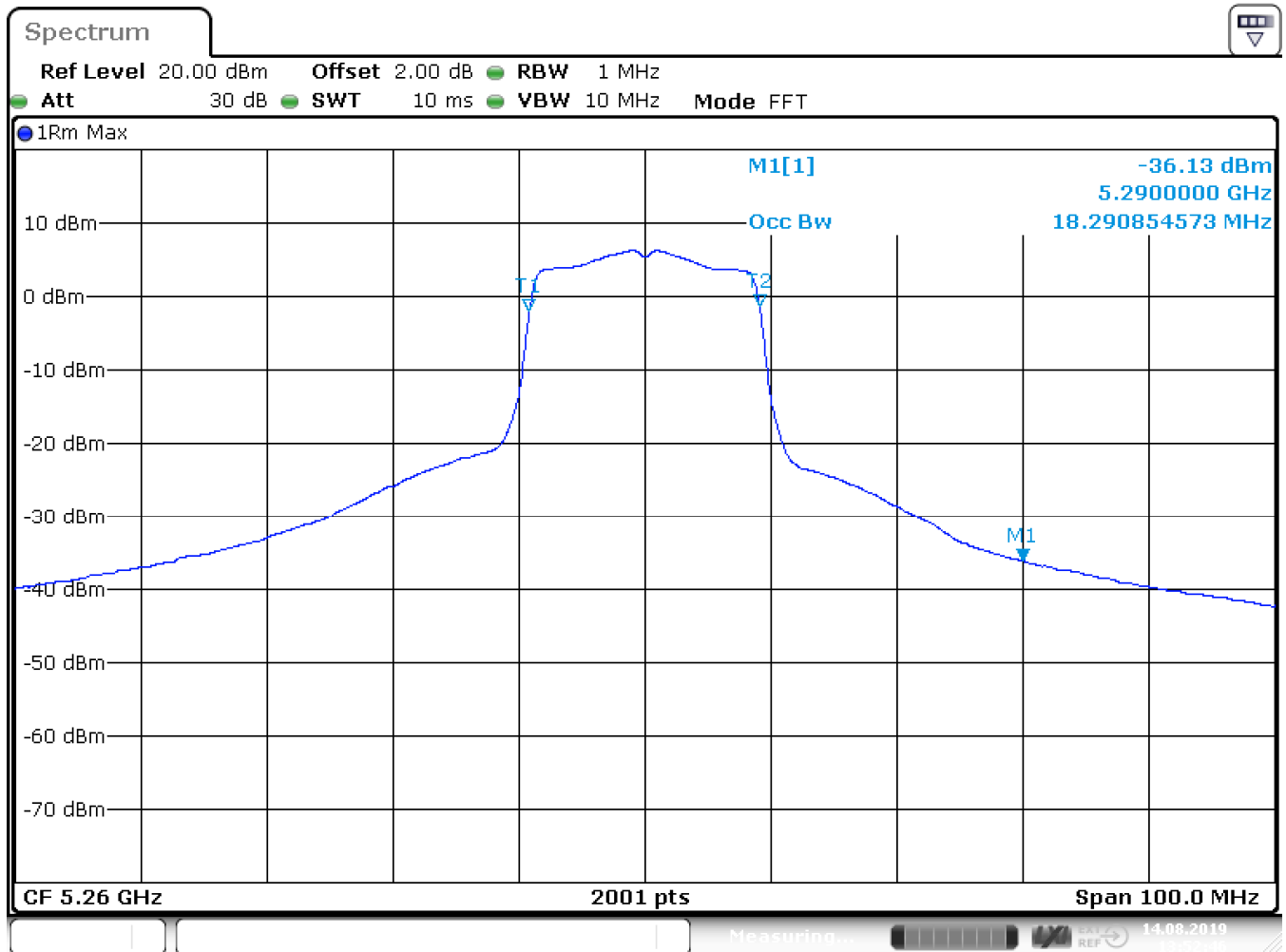
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 52 (5260 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:52:47

99% Bandwidth: 18,291 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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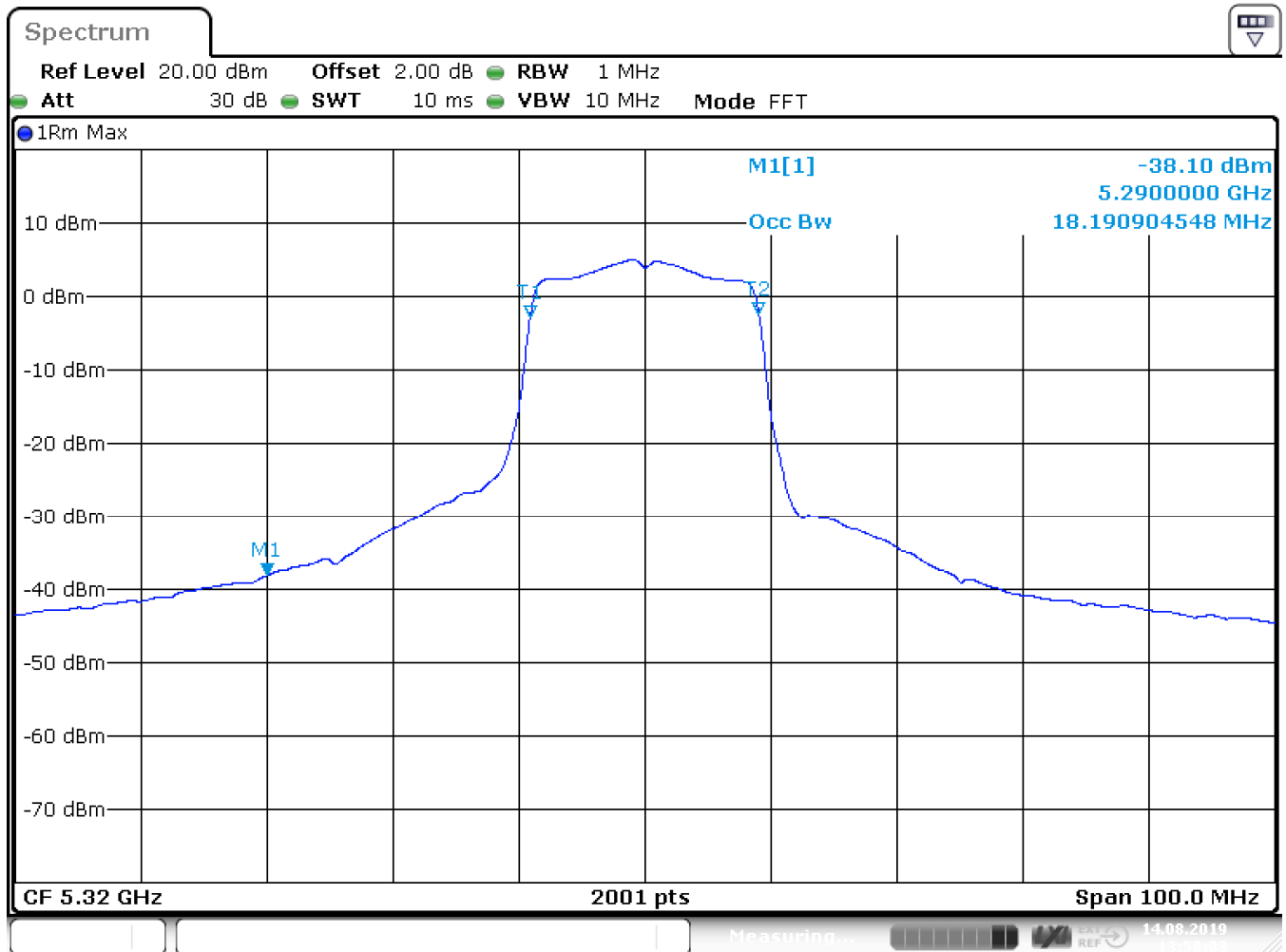
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.2 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 64 (5320 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 13:58:03

99% Bandwidth: 18,191 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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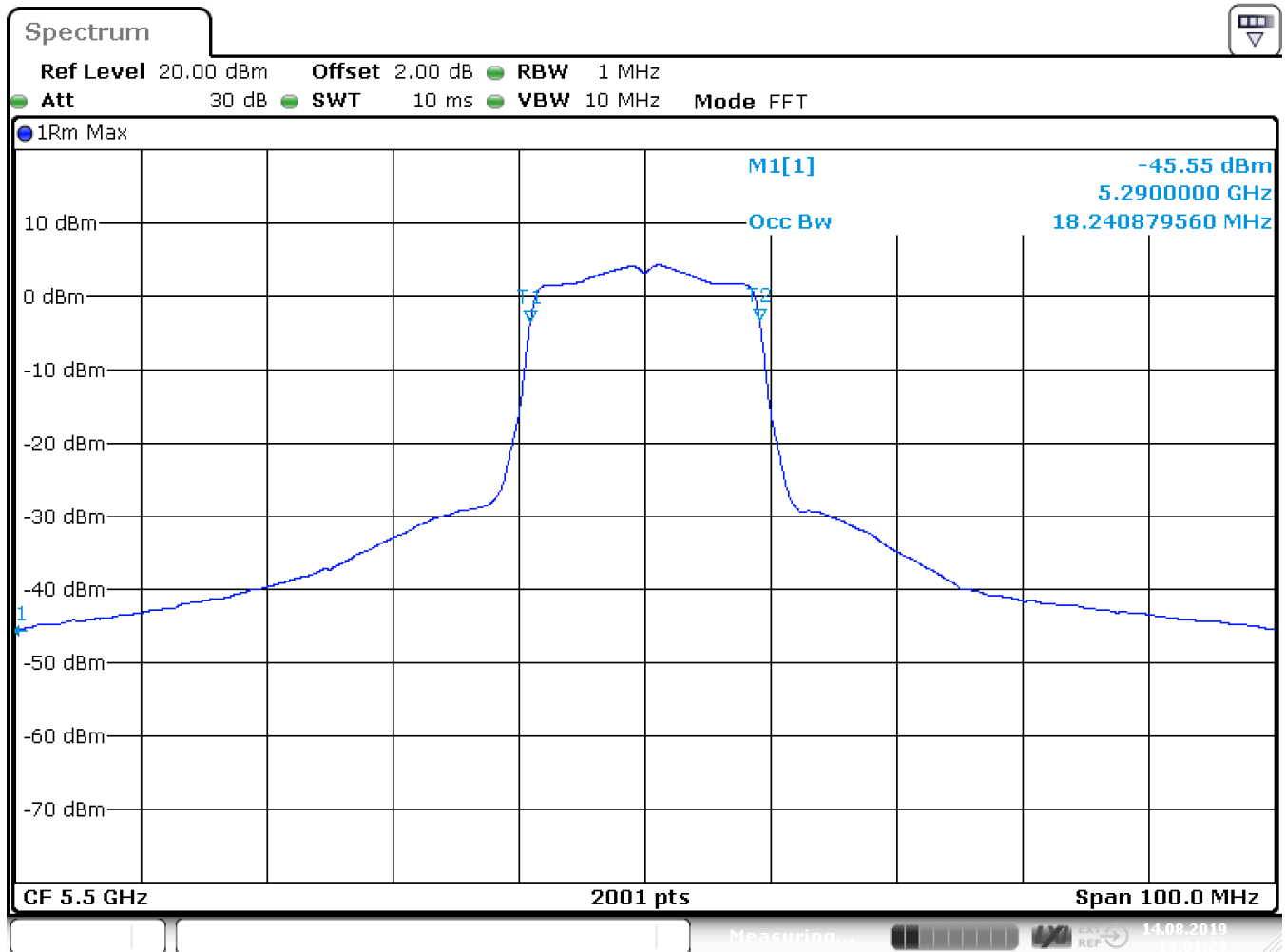
Test Equipment used: EMV-205

99% Bandwidth

§ 6.2.3 (1)

Conducted Measurement

Rated output power: 63,10 mW Channel 100 (5500 MHz center frequency) – Antenna 2



Date: 14.AUG.2019 14:01:24

99% Bandwidth: 18,241 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