

Annex 1: Measurement diagrams to
TEST REPORT
No.: 18-1-0002701T03-C1

According to:
FCC Regulations
Part 15.519

for
Siemens AG

WIRELESS TAG EPAPER 3 PULSE | PHASE

FCC ID: SCF6032704



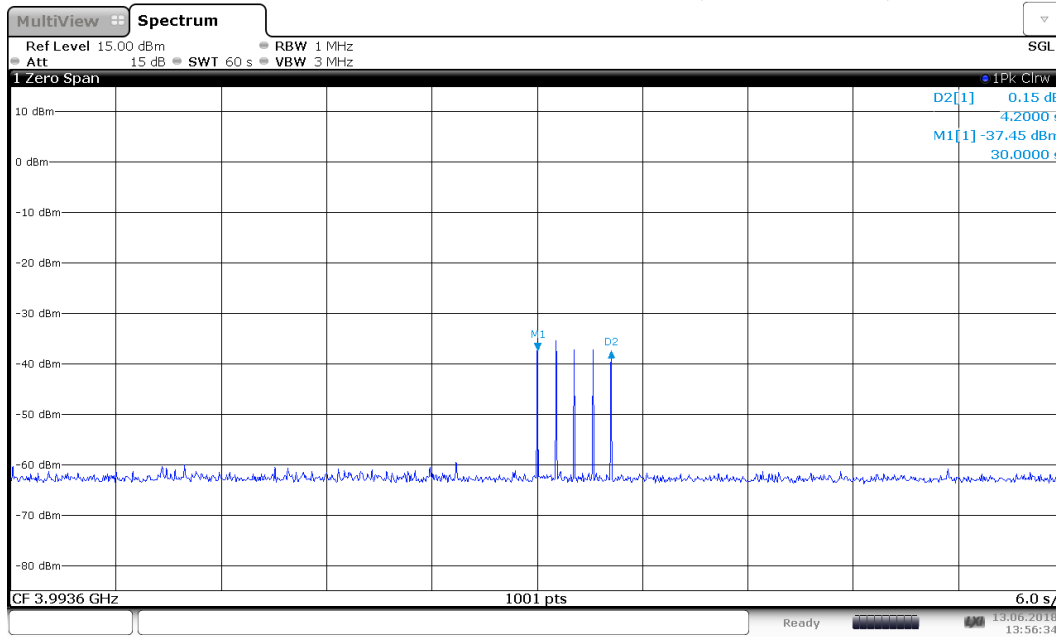
Laboratory Accreditation
  Deutsche Akkreditierungsstelle D-PL-12047-01-01 D-PL-12047-01-03 D-PL-12047-01-04
accredited according to DIN EN ISO/IEC 17025
<p>CETECOM GmbH Laboratory Radio Communications & Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com</p>

TABLE OF CONTENTS:

1. TRANSMISSION TIME MEASUREMENT	3
1.1. AE3 is switched ON and after 30 s the EUT B (see 3.2. in TR) is moved.	3
1.2. AE3 is switched OFF and after 30 s the EUT B (see 3.2. in TR) is moved.	3
2. 10 DB BANDWIDTH MEASUREMENT	4
2.1. Op. Mode 1 (DW2_PRF16MHz_DR110k_PCCh2).....	4
2.2. Op. Mode 2 (DW2_PRF16MHz_DR6800k_PCCh2).....	4
2.3. Op. Mode 3 (DW2_PRF64MHz_DR110k_PCCh2).....	5
2.4. Op. Mode 4 (DW2_PRF64MHz_DR6800k_PCCh2).....	5
2.5. Op. Mode 6 (DW2_PRF16MHz_DR110k_PCCh2_Pow3).....	6
3. GENERAL LIMIT - RADIATED FIELD STRENGTH EMISSIONS BELOW 30 MHZ.....	7
3.1. Op. Mode 1, laying	7
3.2. Op. Mode 1, standing.....	7
4. GENERAL LIMIT - RADIATED FIELD STRENGTH EMISSIONS, 30 MHZ - 1 GHZ	8
4.1. Op. Mode 1, laying	8
4.2. Op. Mode 1, standing.....	8
5. GENERAL LIMIT – RADIATED FIELD STRENGTH EMISSIONS, ABOVE 960 MHZ.....	9
5.1. Frequency range 960 MHz – 1610 MHz, op. mode 1.....	9
5.2. Frequency range 1610 MHz – 3100 MHz, op. mode 6.....	9
5.3. Frequency range 1610 MHz – 3100 MHz, op. mode 6, peak measurement	10
5.4. Frequency range 3100 MHz – 5000 MHz, op. Mode 1	10
5.5. UWB Ch. 2 cen. frequency with span 600 MHz, 600 pts, SWT 600ms, op. Mode 1	11
5.6. UWB Ch. 2 cen. frequency with span 600 MHz, 600 pts, SWT 600ms, op. Mode 6	11
5.7. Frequency range 5000 MHz – 10600 MHz, op. Mode 1	12
5.8. Frequency range 10600 MHz – 12400 MHz, op. Mode 6, ANT HOR.....	12
5.9. Frequency range 10600 MHz – 12400 MHz, op. Mode 6, ANT VER	13
5.10. Frequency range 12400 MHz – 18000 MHz, op. Mode 6	13
5.11. Frequency range 18000 MHz – 40000 MHz	14
5.11.1. Op. Mode 6.....	14
6. RADIATED EMISSIONS IN THE GPS BANDS	15
6.1. Frequency range 1164 MHz – 1240 MHz, op. Mode 1	15
6.2. Frequency range 1559 MHz – 1610 MHz, op. Mode 1	15
7. FUNDAMENTAL EMISSION PEAK POWER	16
7.1. Op. Mode 1	16
7.2. Op. Mode 6.....	16

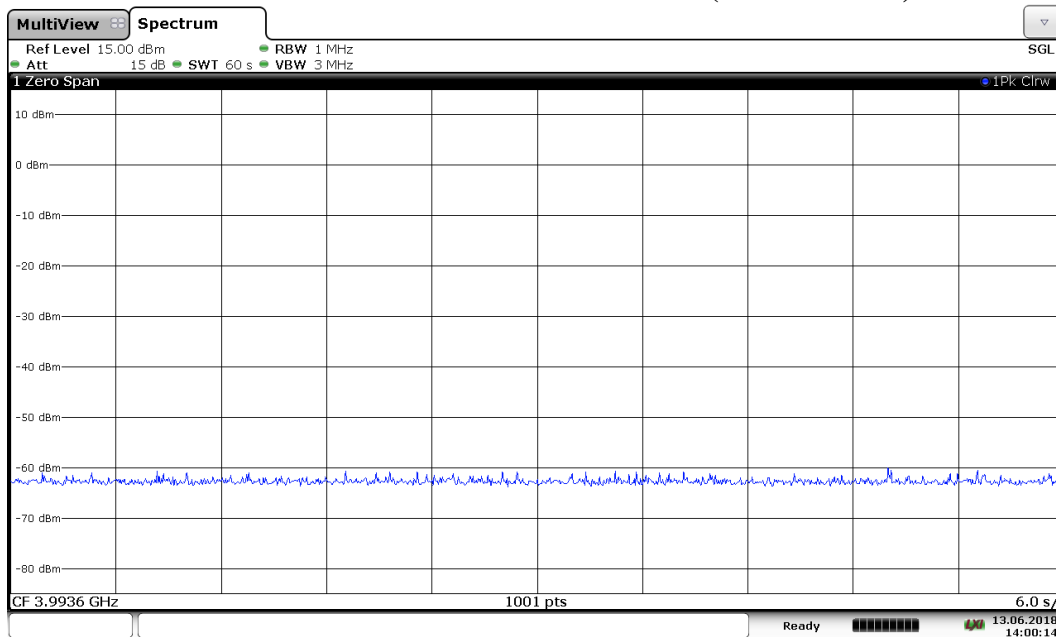
1. Transmission time measurement

1.1. AE3 is switched ON and after 30 s the EUT B (see 3.2. in TR) is moved.



13:56:35 13.06.2018

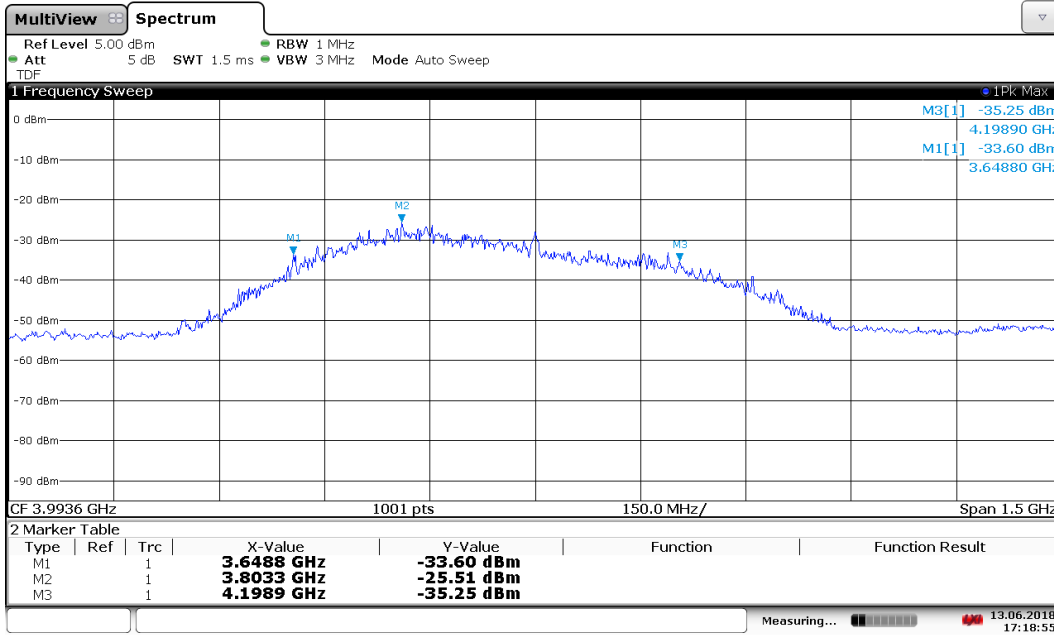
1.2. AE3 is switched OFF and after 30 s the EUT B (see 3.2. in TR) is moved.



14:00:15 13.06.2018

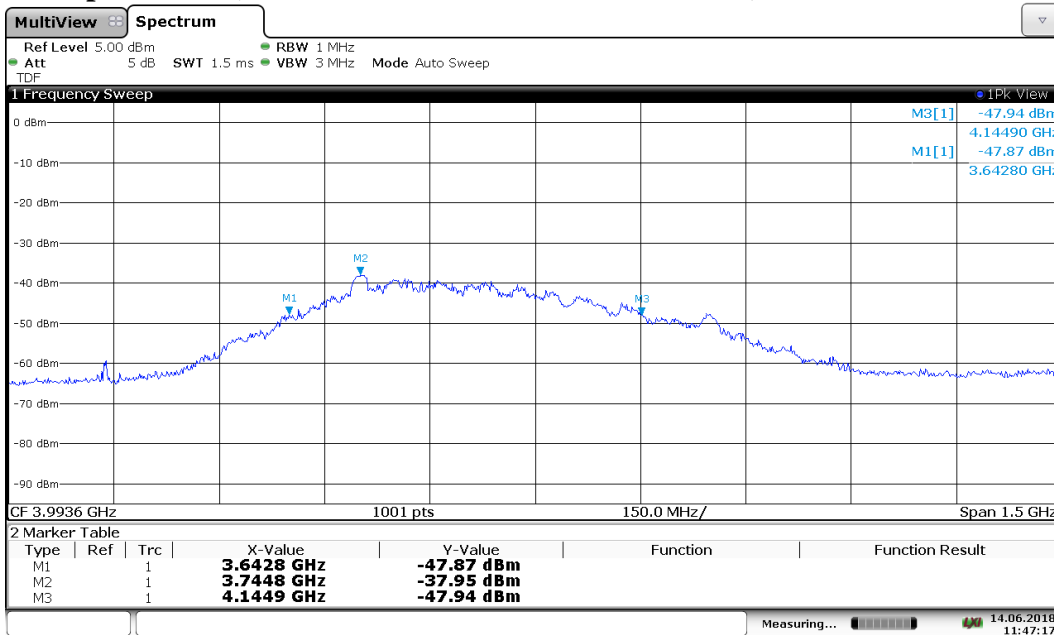
2. 10 dB bandwidth measurement

2.1. Op. Mode 1 (DW2_PRF16MHz_DR110k_PCCh2)



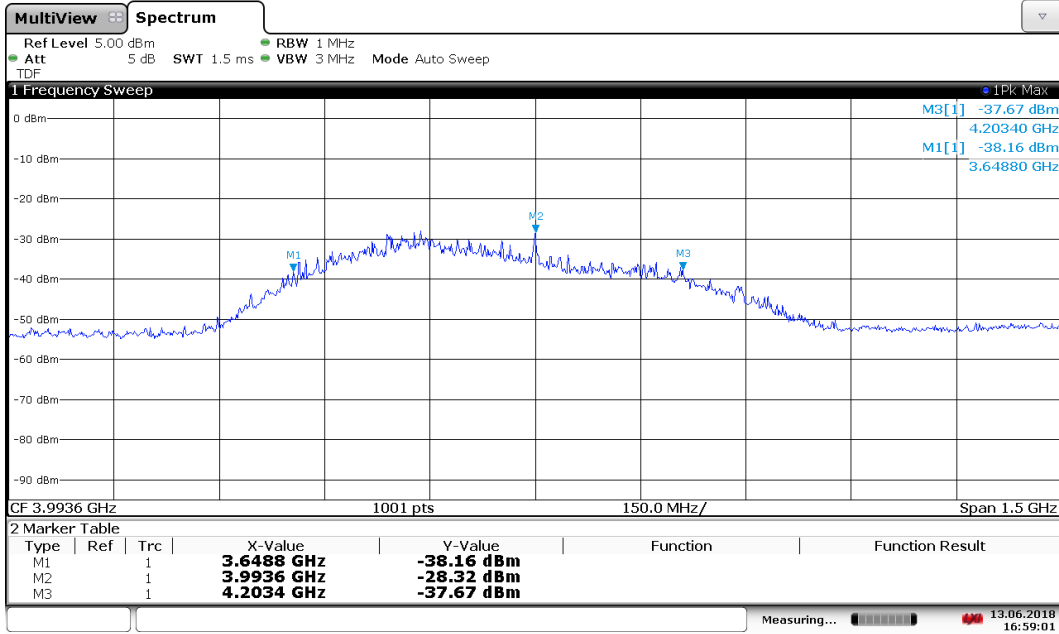
17:18:55 13.06.2018

2.2. Op. Mode 2 (DW2_PRF16MHz_DR6800k_PCCh2)



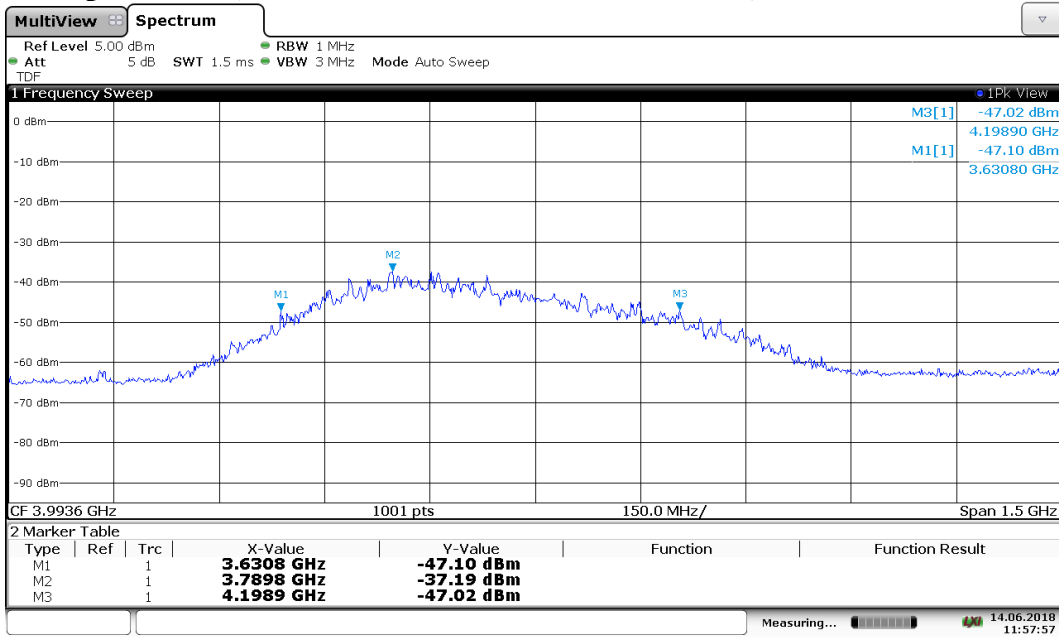
11:47:18 14.06.2018

2.3. Op. Mode 3 (DW2_PRF64MHz_DR110k_PCCh2)



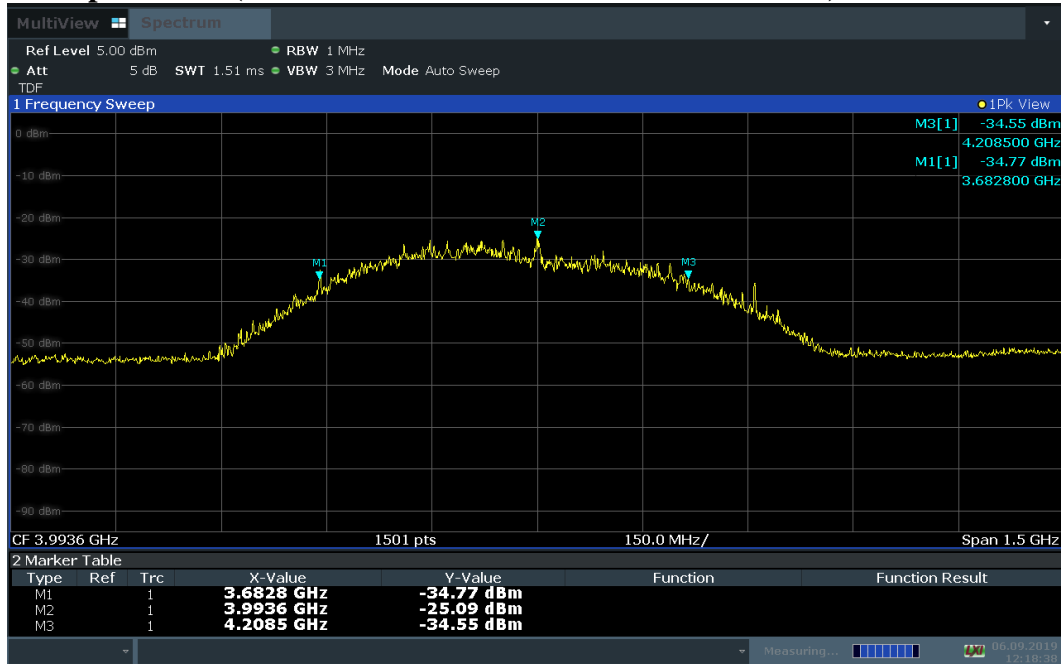
16:59:01 13.06.2018

2.4. Op. Mode 4 (DW2_PRF64MHz_DR6800k_PCCh2)



11:57:58 14.06.2018

2.5. Op. Mode 6 (DW2_PRF16MHz_DR110k_PCCh2_Pow3)

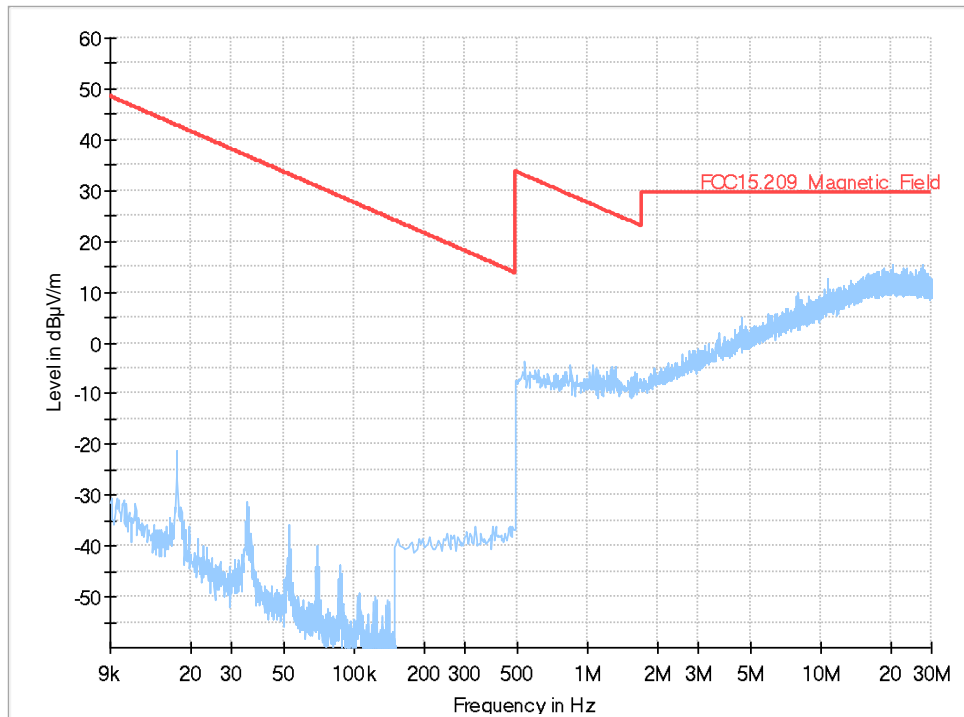


12:18:38 06.09.2019

3. General Limit - Radiated field strength emissions below 30 MHz

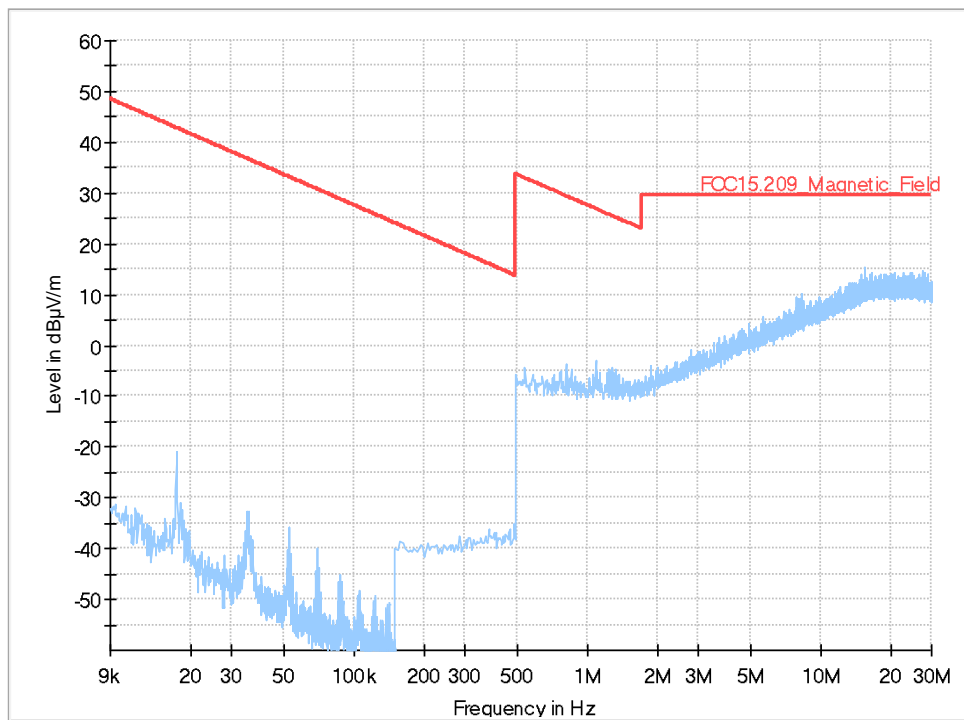
3.1. Op. Mode 1, laying

Full Spectrum



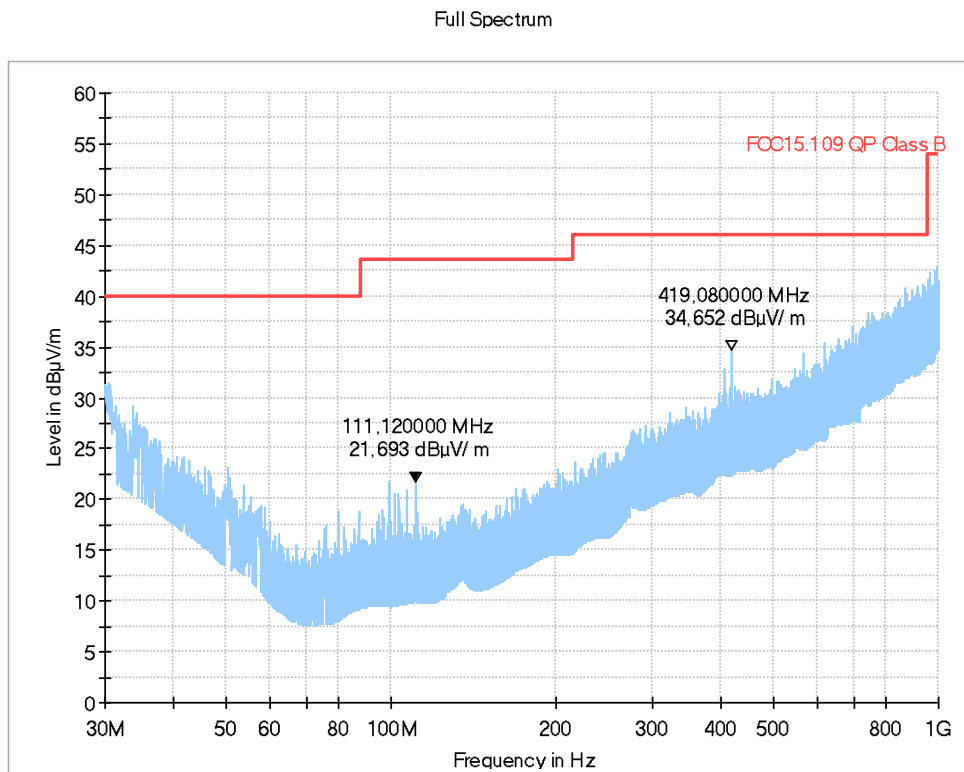
3.2. Op. Mode 1, standing

Full Spectrum

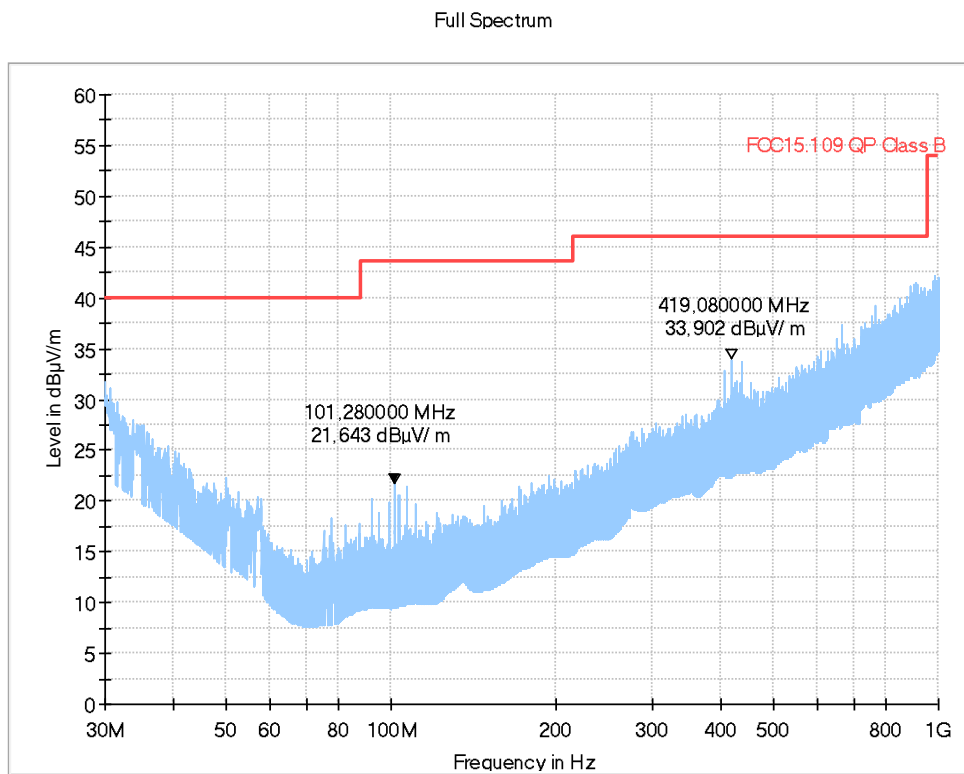


4. General Limit - Radiated field strength emissions, 30 MHz - 1 GHz

4.1. Op. Mode 1, laying

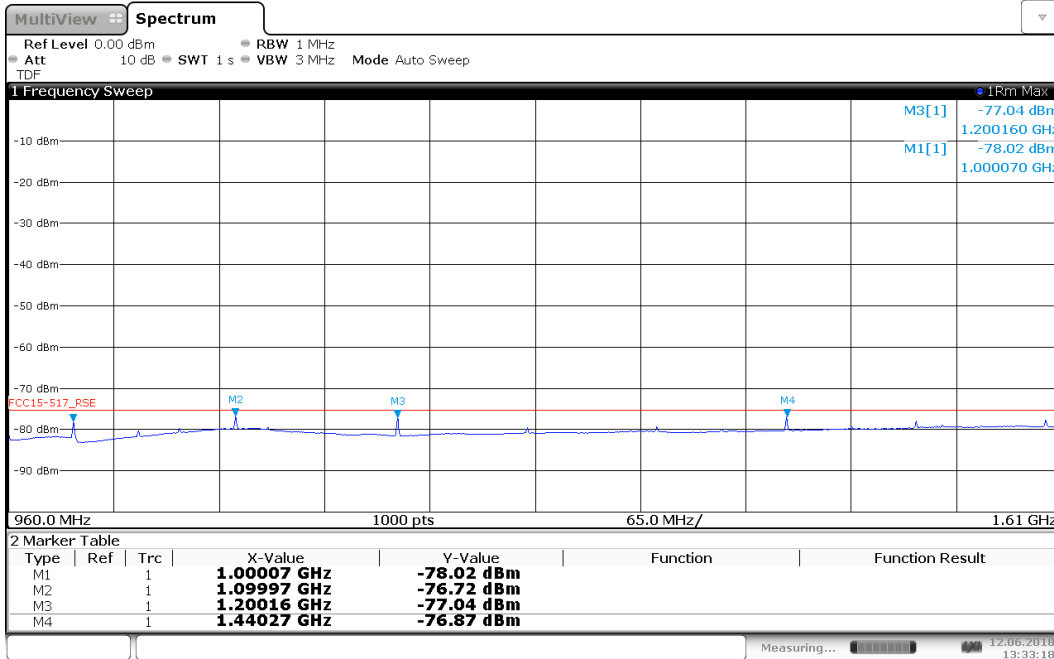


4.2. Op. Mode 1, standing



5. General Limit – Radiated field strength emissions, above 960 MHz

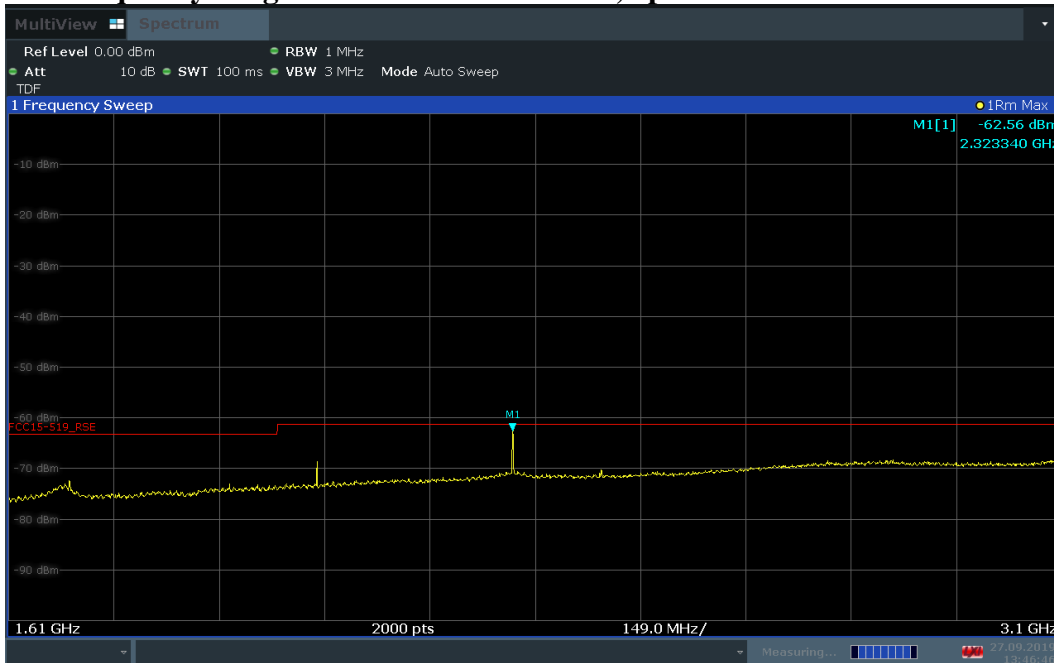
5.1. Frequency range 960 MHz – 1610 MHz, op. mode 1



13:33:18 12.06.2018

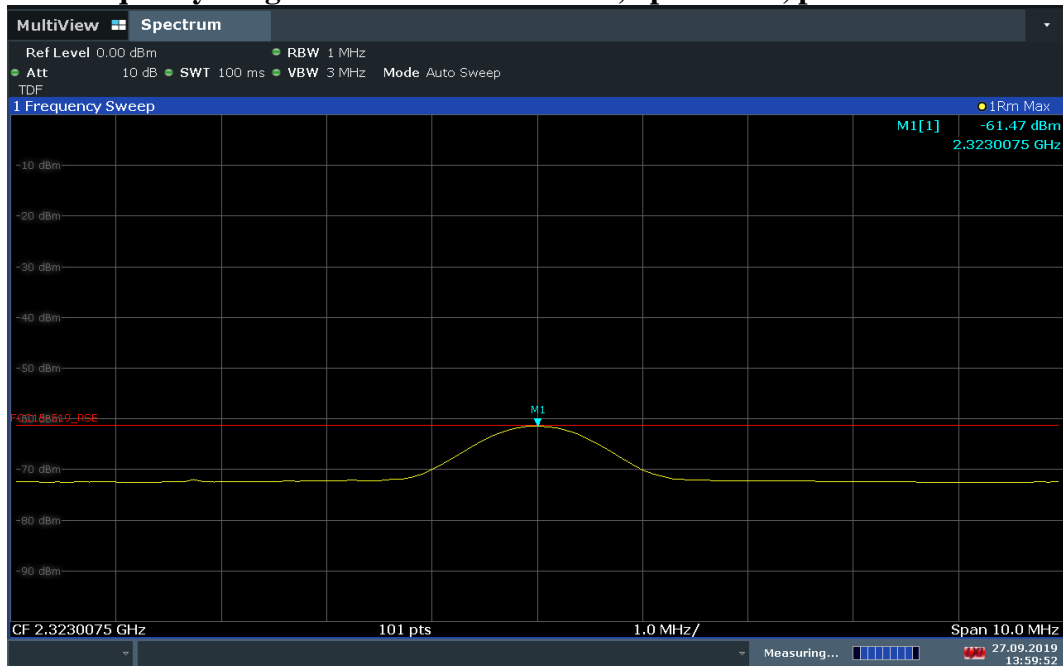
* The limit line on the diagram has a value -75.3 dBm. This limit is the same for §15.517 and for §15.519.

5.2. Frequency range 1610 MHz – 3100 MHz, op. mode 6



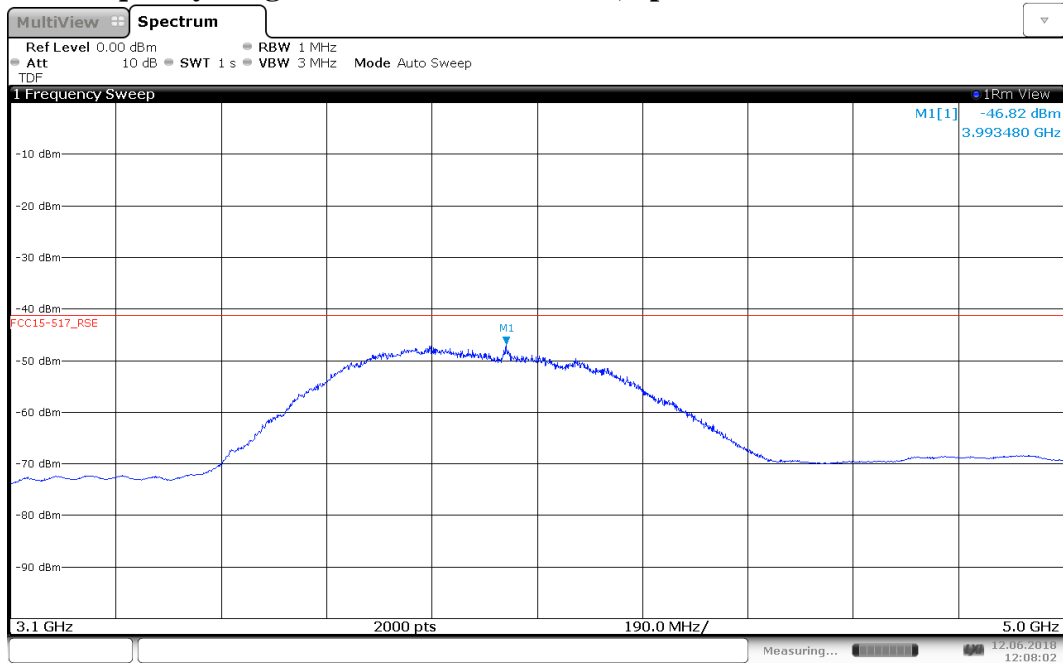
13:46:47 27.09.2019

5.3. Frequency range 1610 MHz – 3100 MHz, op. mode 6, peak measurement



13:59:52 27.09.2019

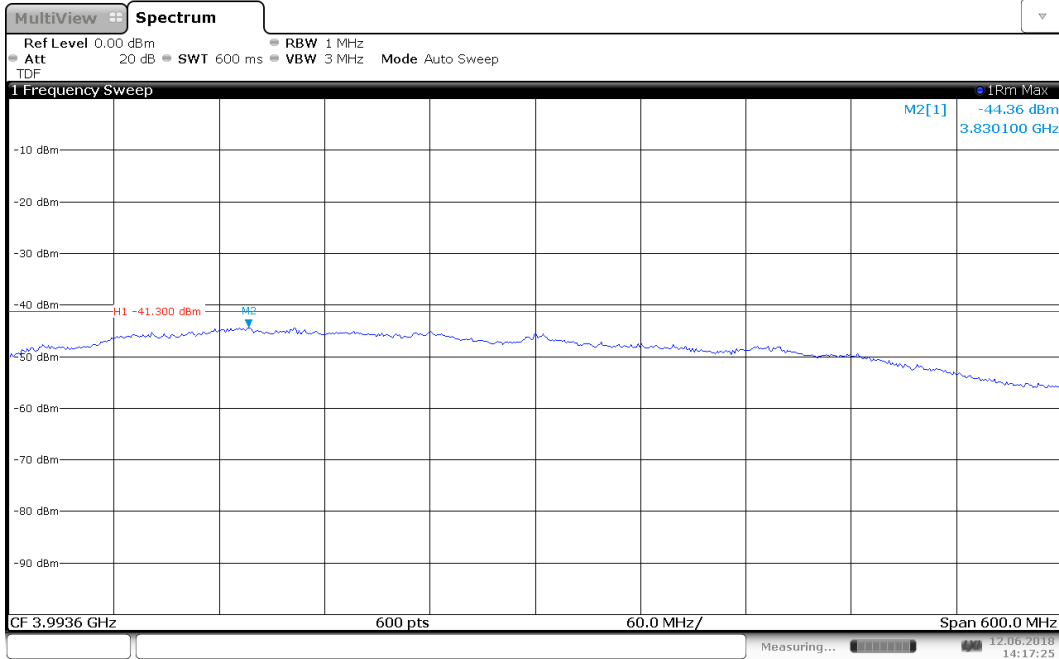
5.4. Frequency range 3100 MHz – 5000 MHz, op. Mode 1



12:08:02 12.06.2018

* The limit line on the diagram has a value -41.3 dBm. This limit is the same for §15.517 and for §15.519.

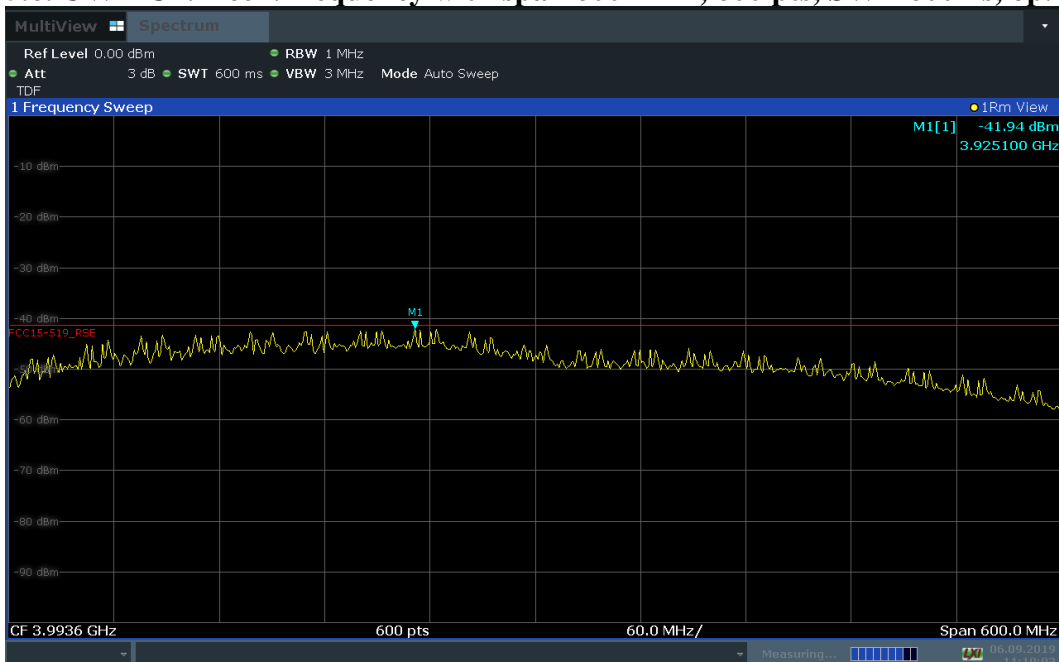
5.5. UWB Ch. 2 cen. frequency with span 600 MHz, 600 pts, SWT 600ms, op. Mode 1



14:17:25 12.06.2018

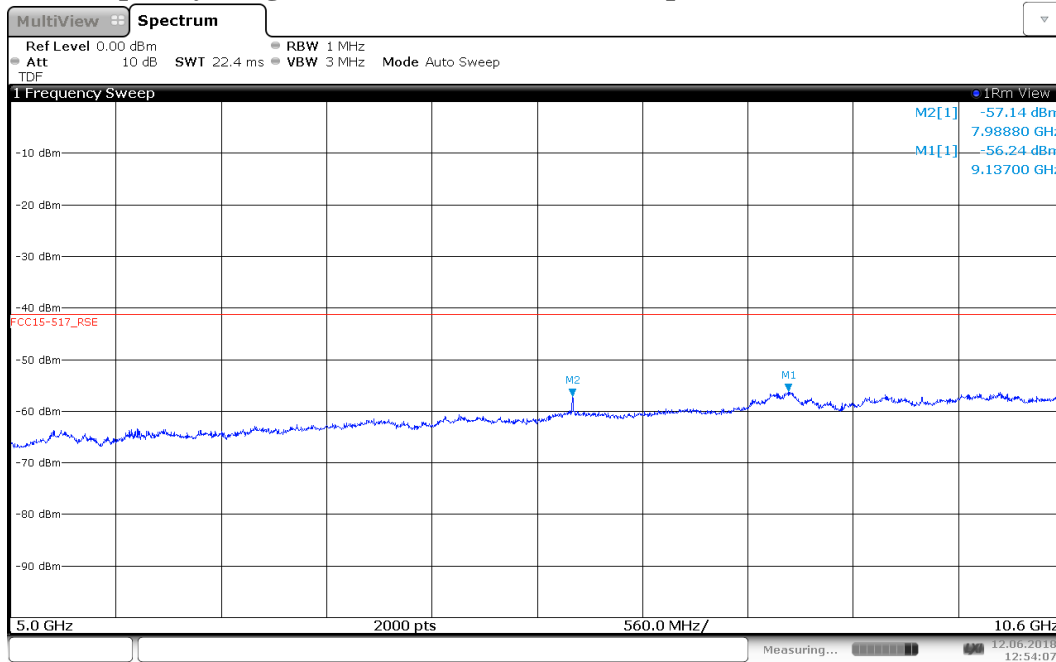
* The limit line on the diagram has a value -41.3 dBm. This limit is the same for §15.517 and for §15.519.

5.6. UWB Ch. 2 cen. frequency with span 600 MHz, 600 pts, SWT 600ms, op. Mode 6



11:19:03 06.09.2019

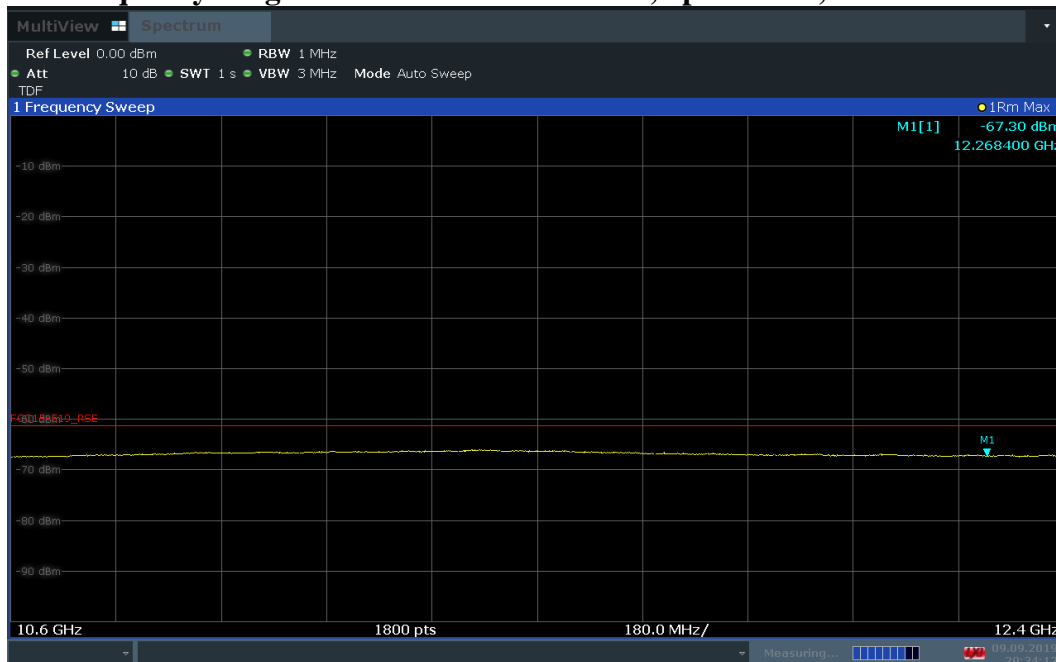
5.7. Frequency range 5000 MHz – 10600 MHz, op. Mode 1



12:54:08 12.06.2018

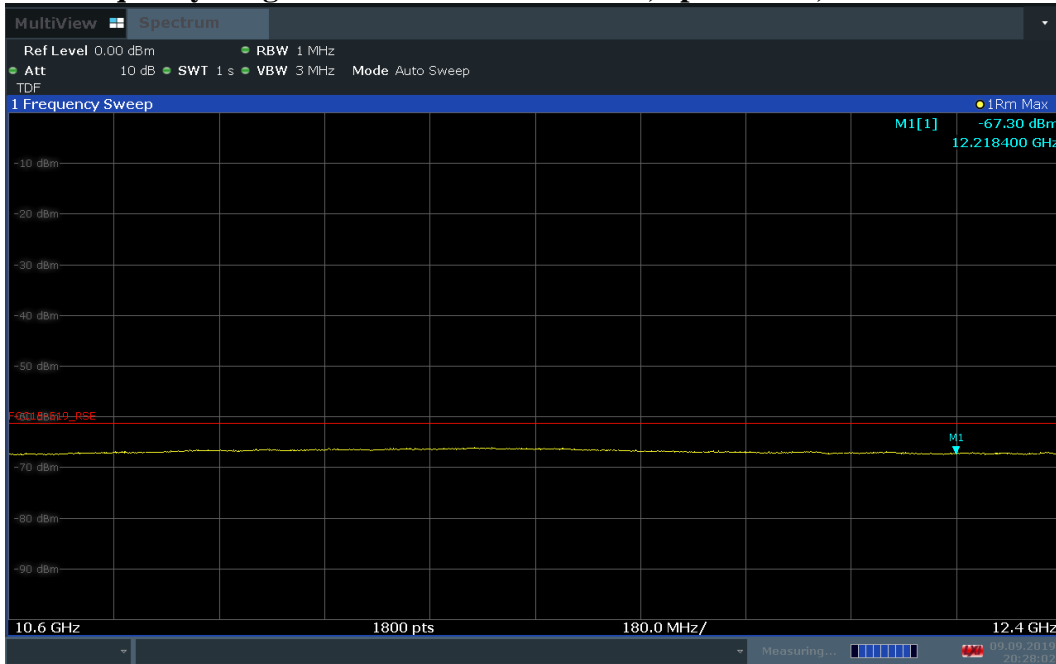
* The limit line on the diagram has a value -41.3 dBm. This limit is the same for §15.517 and for §15.519.

5.8. Frequency range 10600 MHz – 12400 MHz, op. Mode 6, ANT HOR



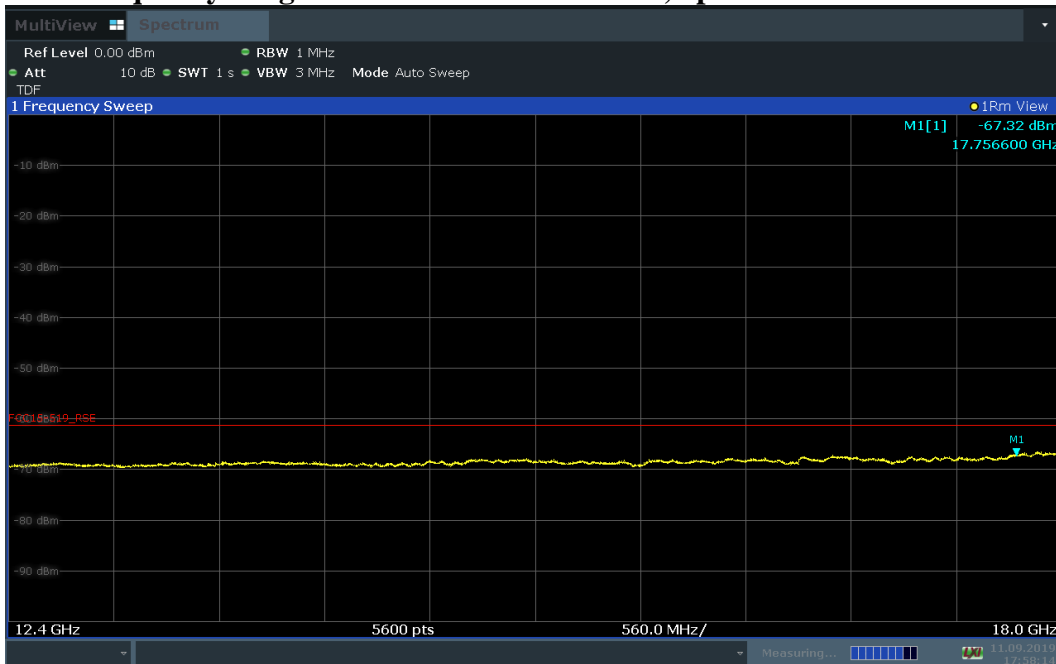
20:34:13 09.09.2019

5.9. Frequency range 10600 MHz – 12400 MHz, op. Mode 6, ANT VER



20:28:03 09.09.2019

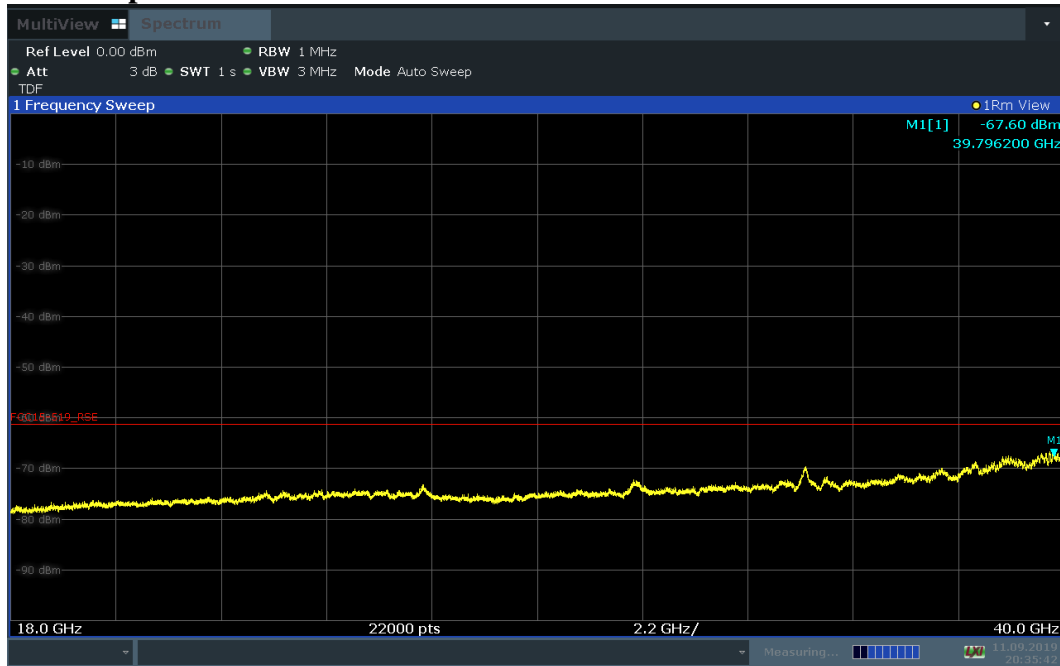
5.10. Frequency range 12400 MHz – 18000 MHz, op. Mode 6



17:58:15 11.09.2019

5.11. Frequency range 18000 MHz – 40000 MHz

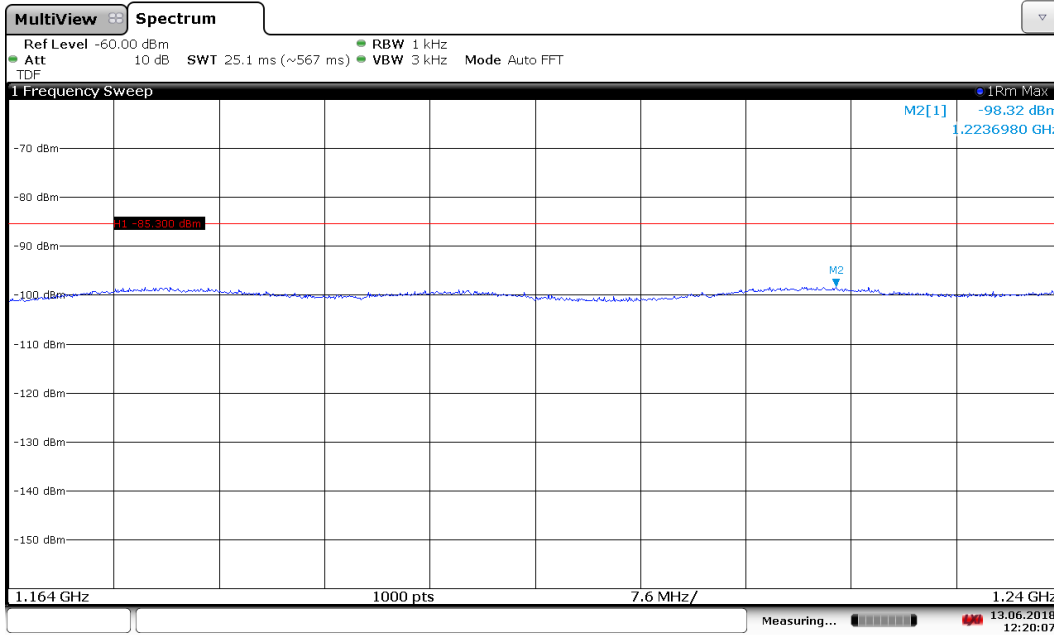
5.11.1. Op. Mode 6



20:35:42 11.09.2019

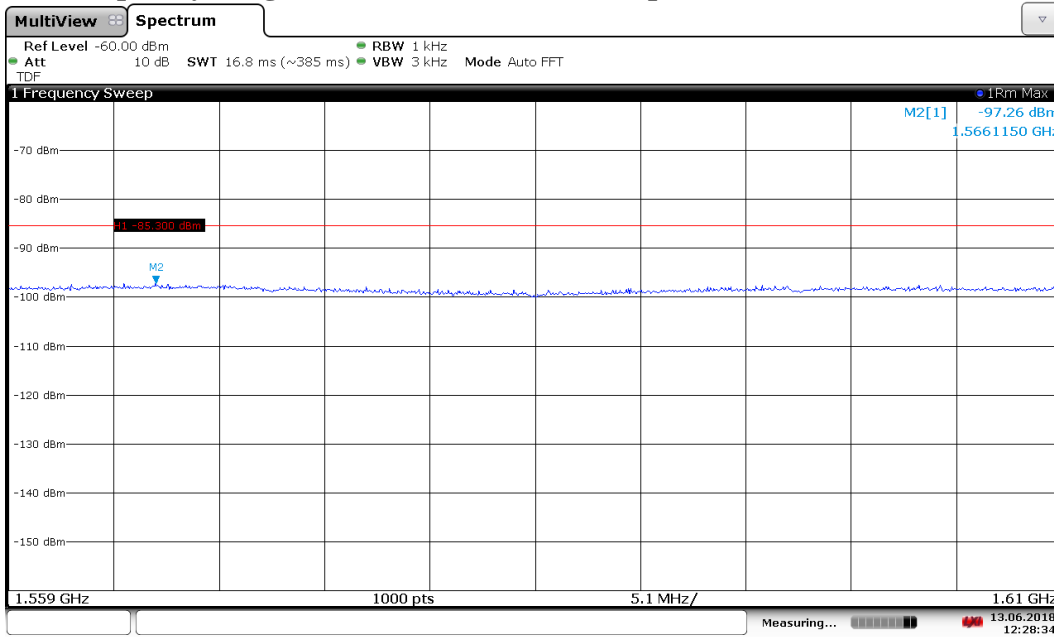
6. Radiated emissions in the GPS bands

6.1. Frequency range 1164 MHz – 1240 MHz, op. Mode 1



12:20:08 13.06.2018

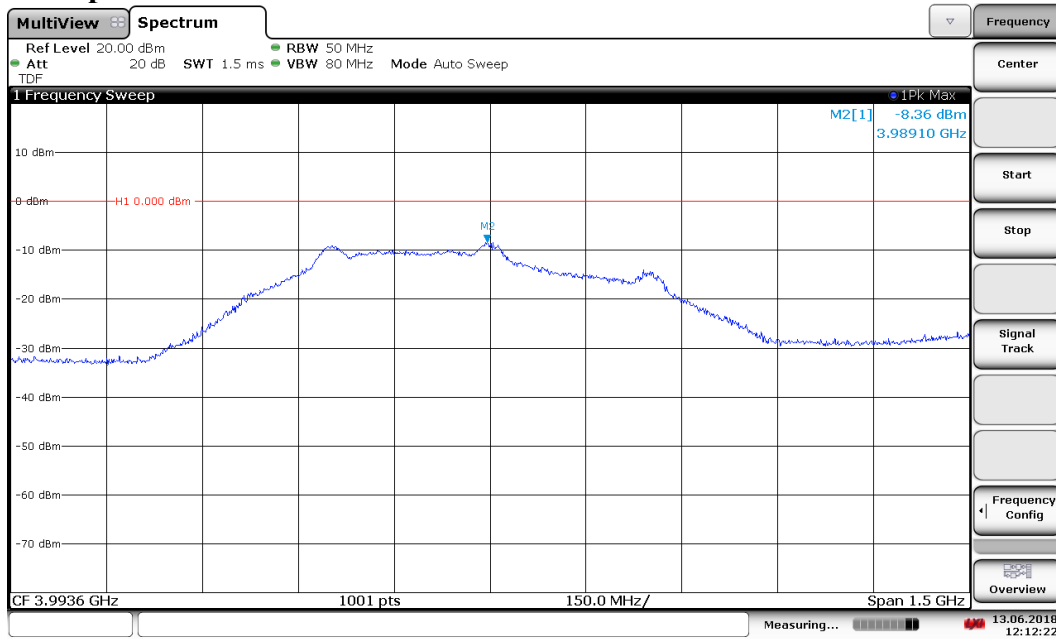
6.2. Frequency range 1559 MHz – 1610 MHz, op. Mode 1



12:28:34 13.06.2018

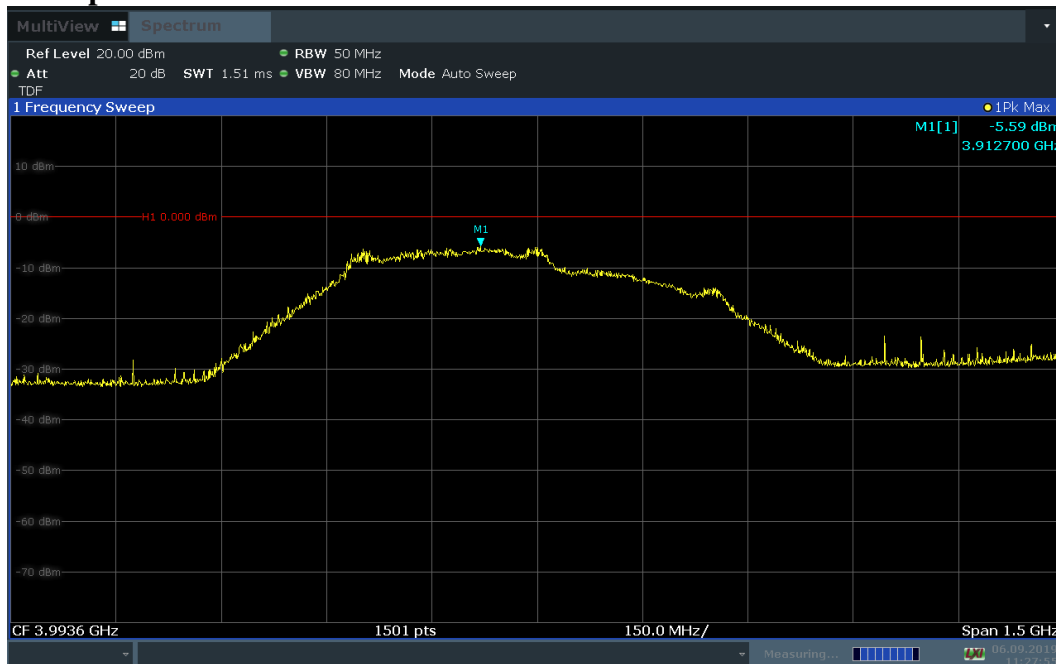
7. Fundamental emission peak power

7.1. Op. Mode 1



12:12:22 13.06.2018

7.2. Op. Mode 6



11:27:55 06.09.2019