

Annex 1: Measurement diagrams to
TEST REPORT
No.: 19-1-0062601T01a-C2

According to:
47 CFR Part 95
RSS-Gen Issue 5
RSS-251 Issue 2

for
s.m.s smart microwave sensors GmbH

Radar Sensor
UMRR-96 Type 153

FCC ID: W34UMRR9699
IC: 10652A-UMRR9699

Laboratory Accreditation	
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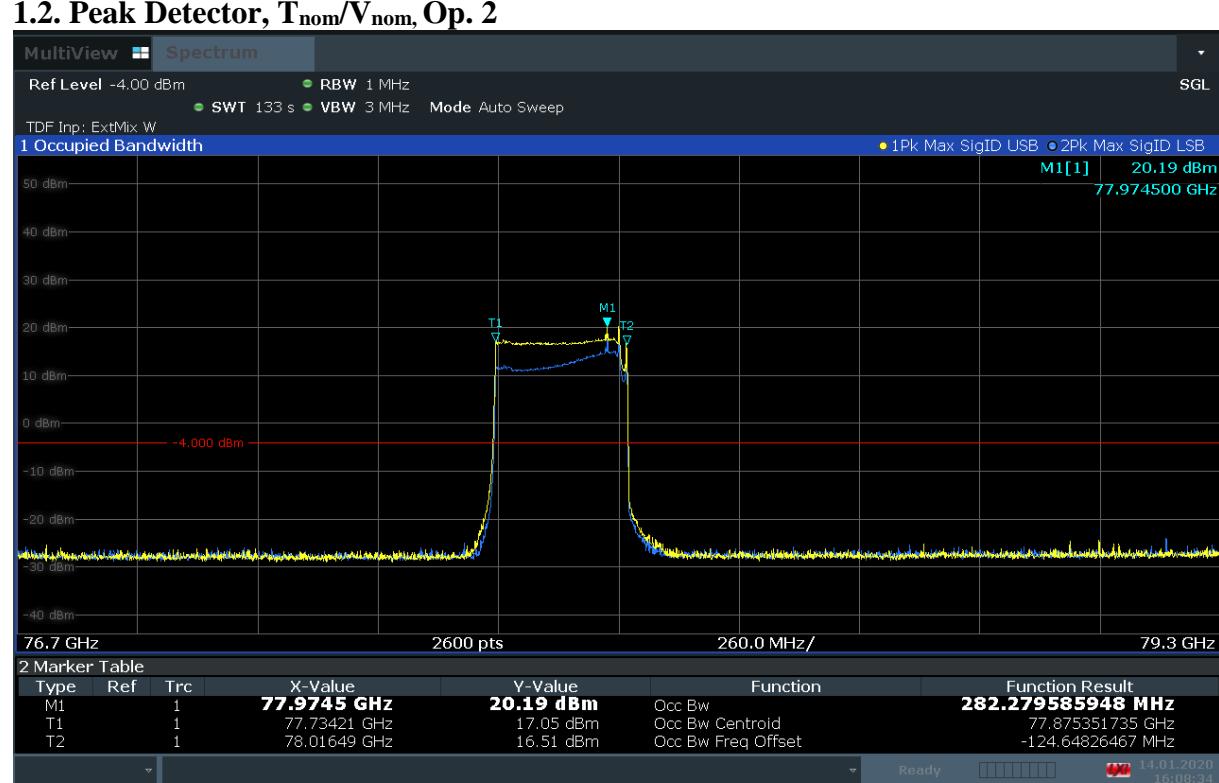
1. The maximum peak power EIRP / peak EIRP spectral density. The maximum power EIRP/ average EIRP.

1.1. Peak Detector, T_{nom}/V_{nom} , Op. 1



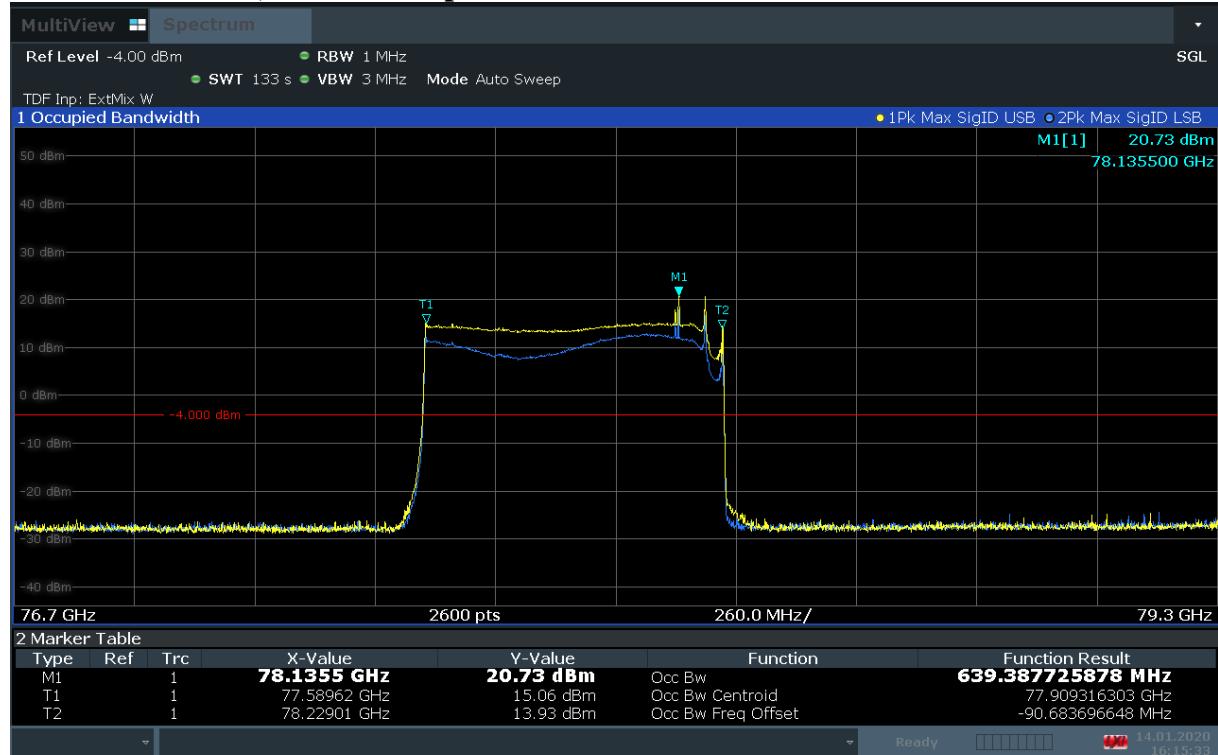
* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.2. Peak Detector, T_{nom}/V_{nom} , Op. 2



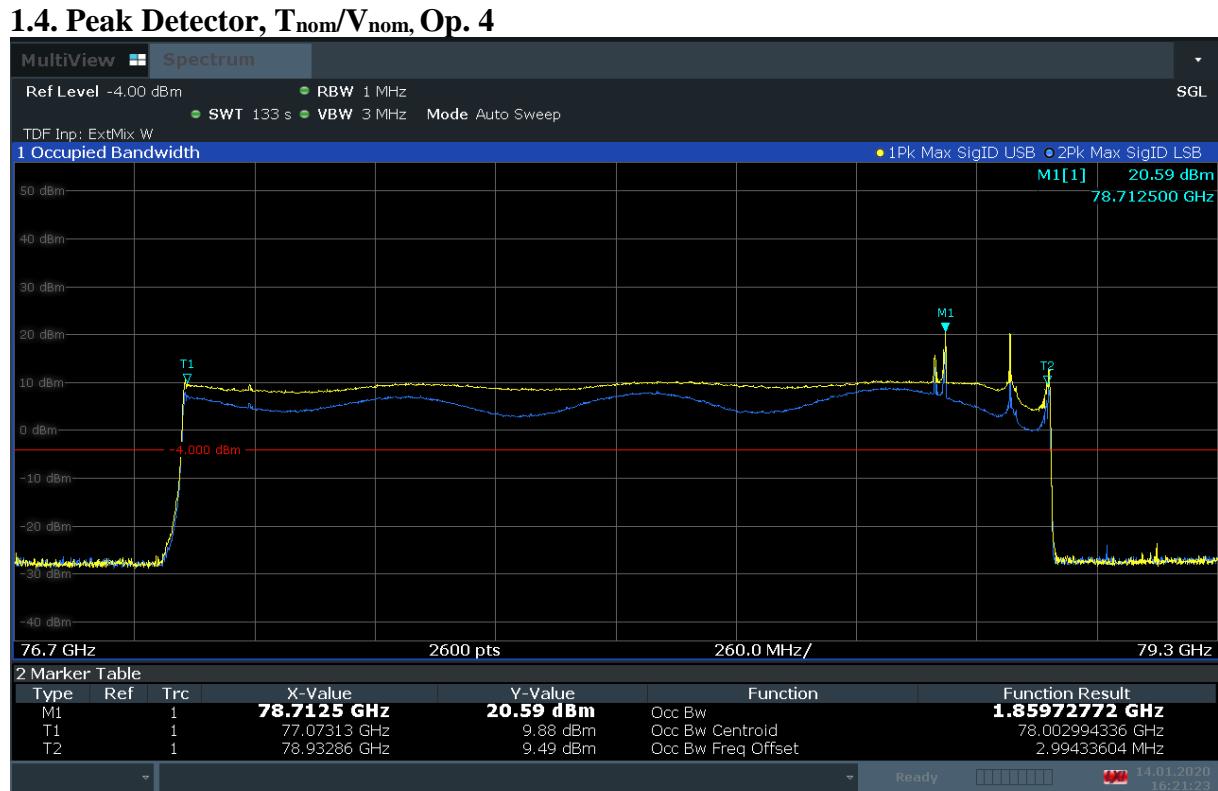
* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.3. Peak Detector, T_{nom}/V_{nom} , Op. 3



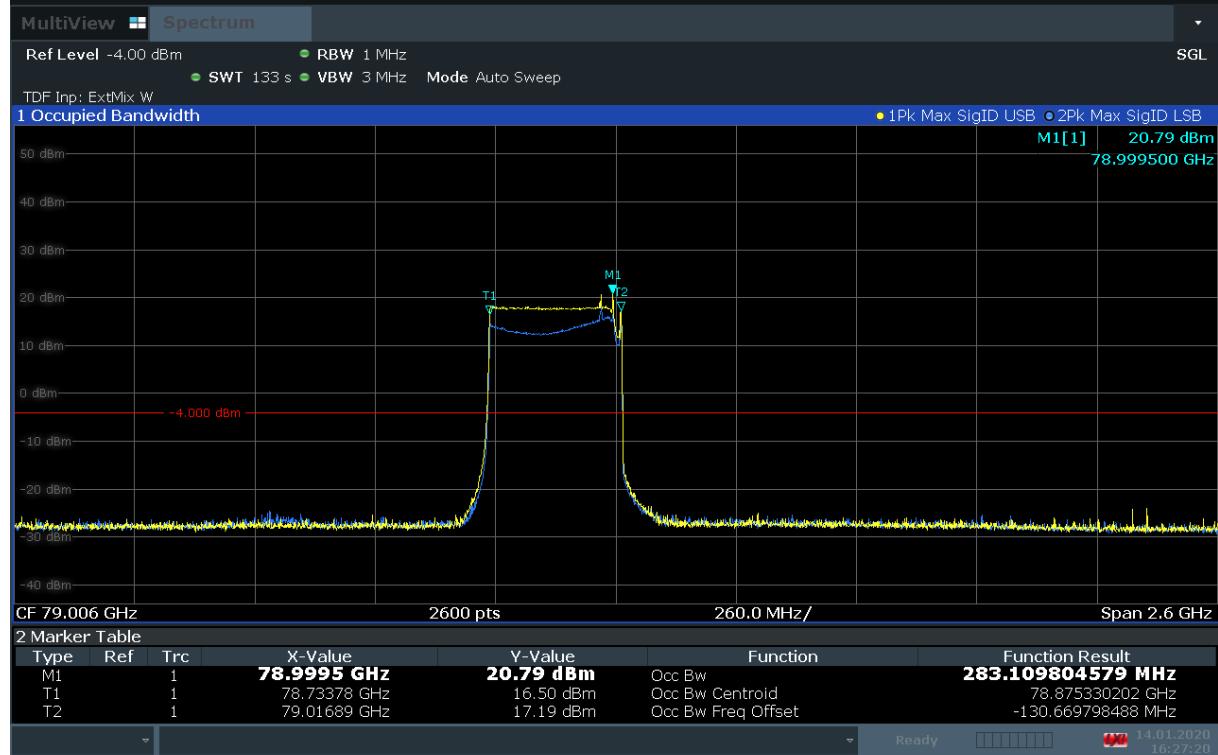
* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.4. Peak Detector, T_{nom}/V_{nom} , Op. 4



* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.5. Peak Detector, T_{nom}/V_{nom} , Op. 5



16:27:20 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.6. Peak Detector, T_{nom}/V_{nom} , Op. 6



16:33:14 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

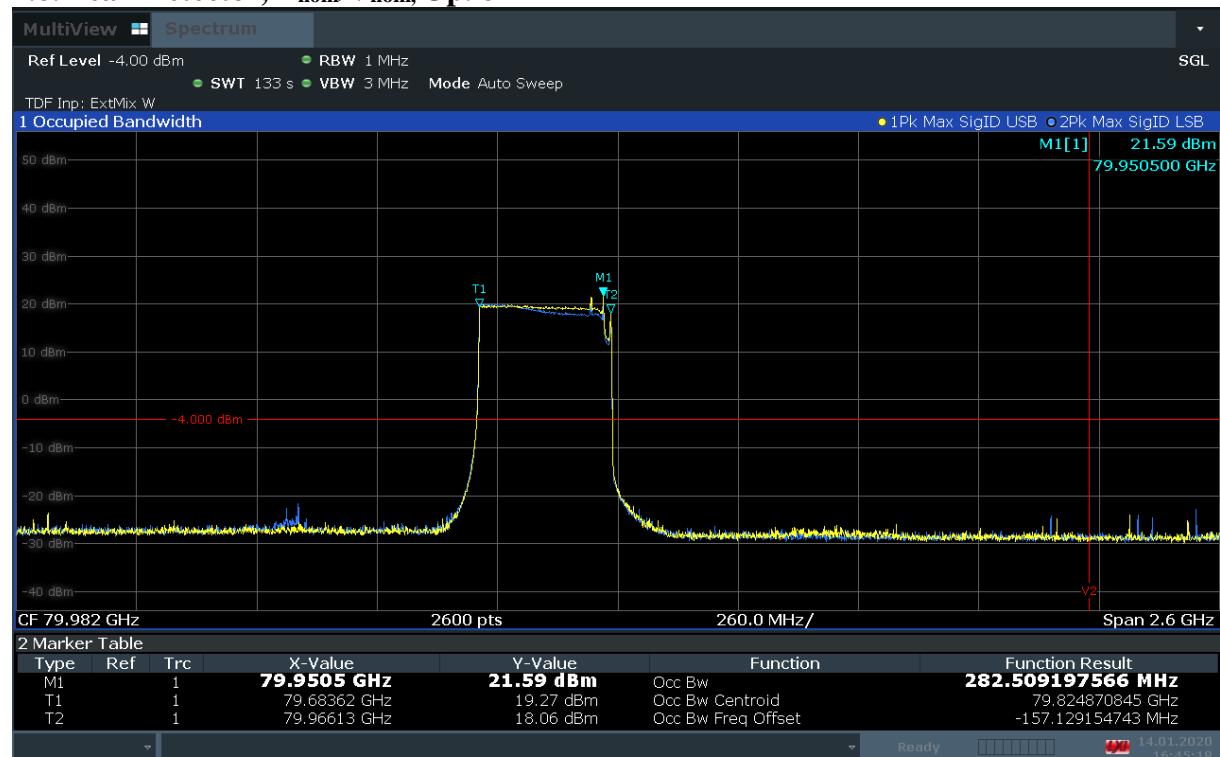
1.7. Peak Detector, T_{nom}/V_{nom} , Op. 7



16:39:02 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

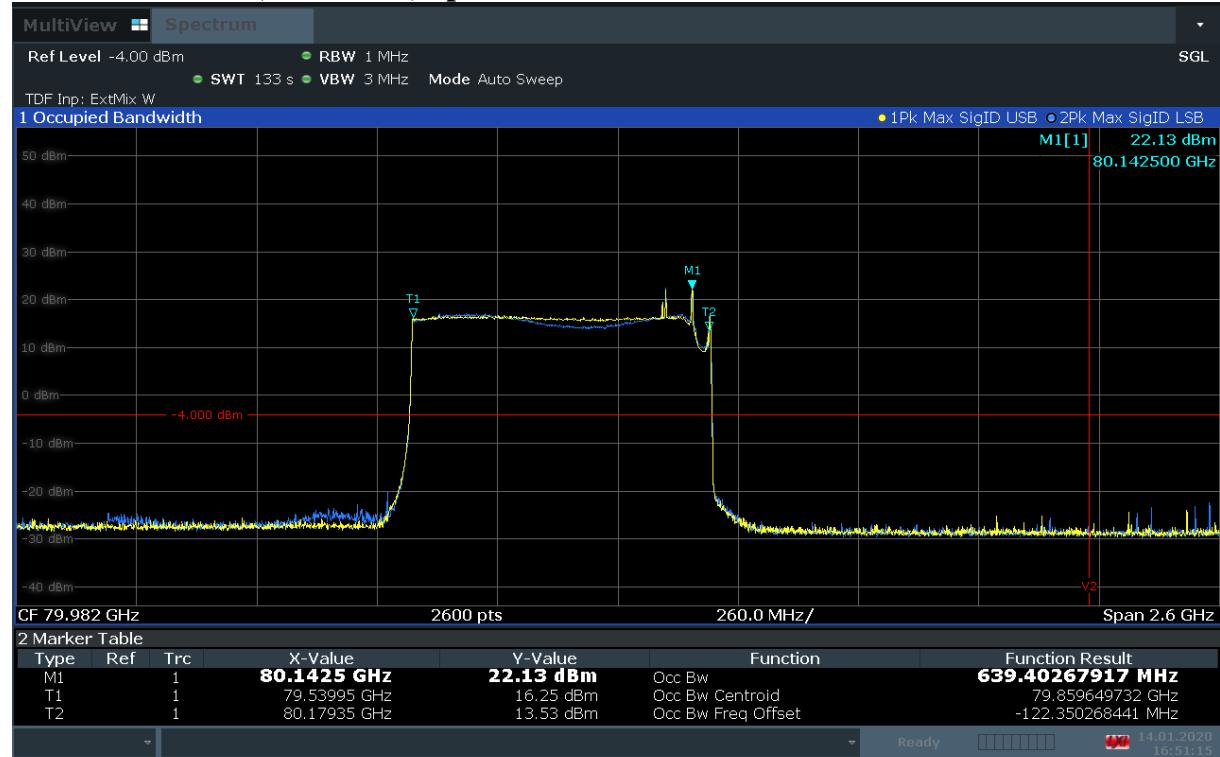
1.8. Peak Detector, T_{nom}/V_{nom} , Op. 8



16:45:19 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.9. Peak Detector, T_{nom}/V_{nom} , Op. 9



16:51:16 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

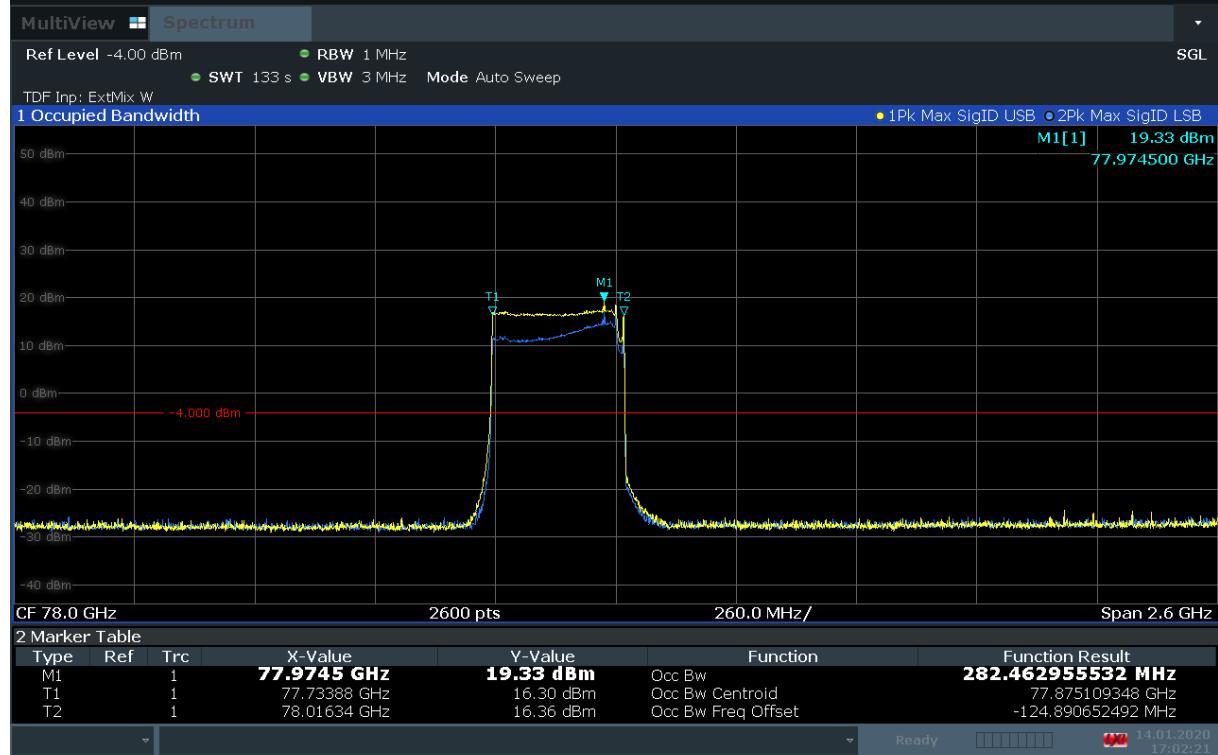
1.10. Peak Detector, T_{nom}/V_{nom} , Op. 10



16:56:24 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

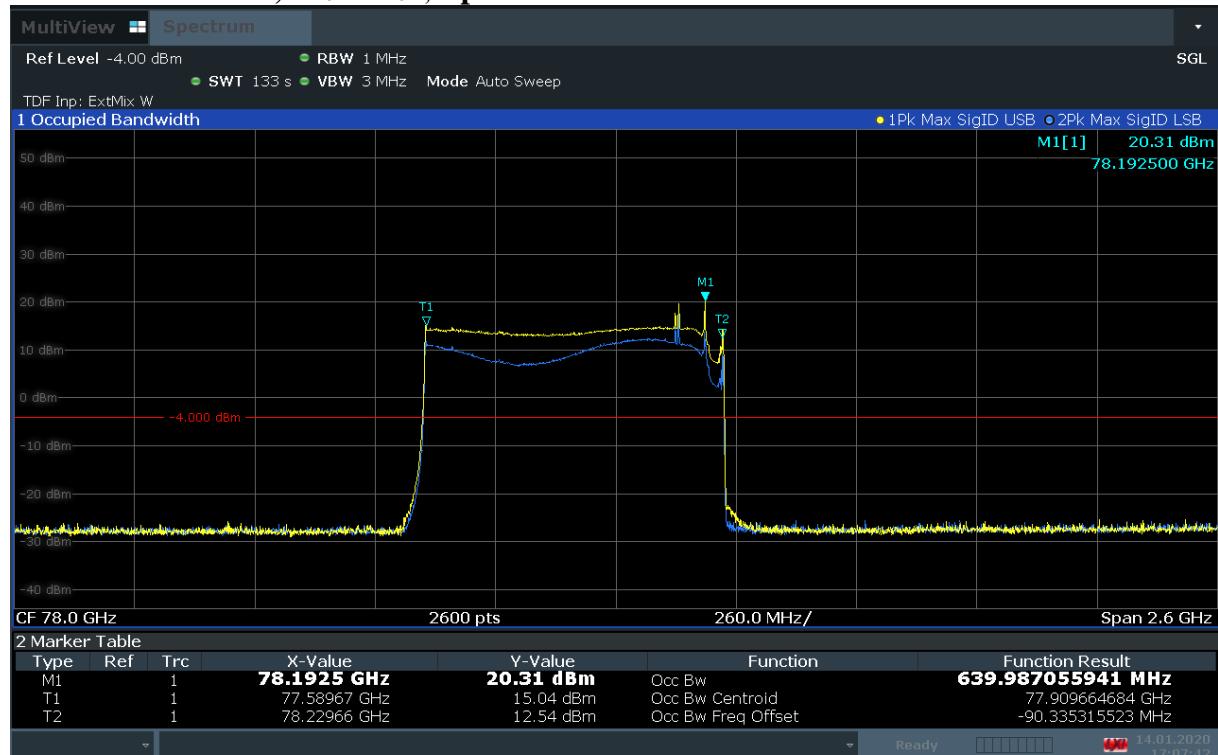
1.11. Peak Detector, T_{nom}/V_{nom} , Op. 11



17:02:21 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.12. Peak Detector, T_{nom}/V_{nom} , Op. 12



17:07:43 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

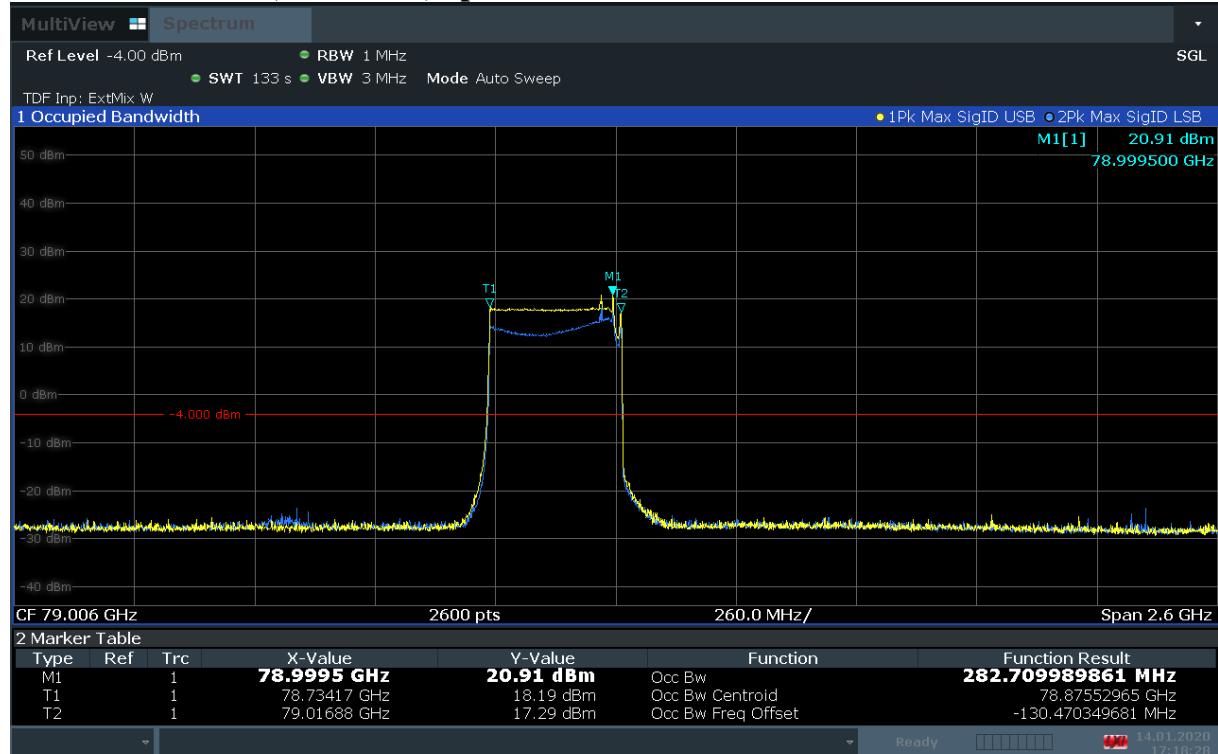
1.13. Peak Detector, T_{nom}/V_{nom} , Op. 13



17:12:52 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

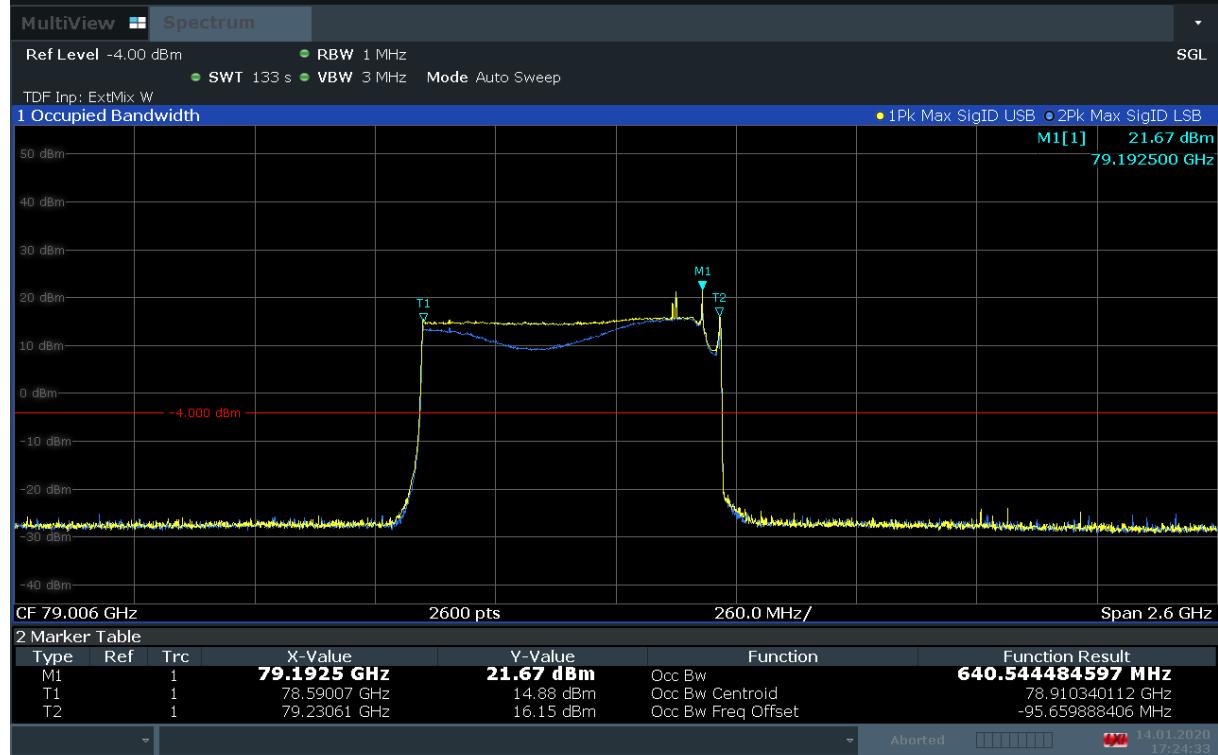
1.14. Peak Detector, T_{nom}/V_{nom} , Op. 14



17:18:29 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.15. Peak Detector, T_{nom}/V_{nom} , Op. 15



17:24:33 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

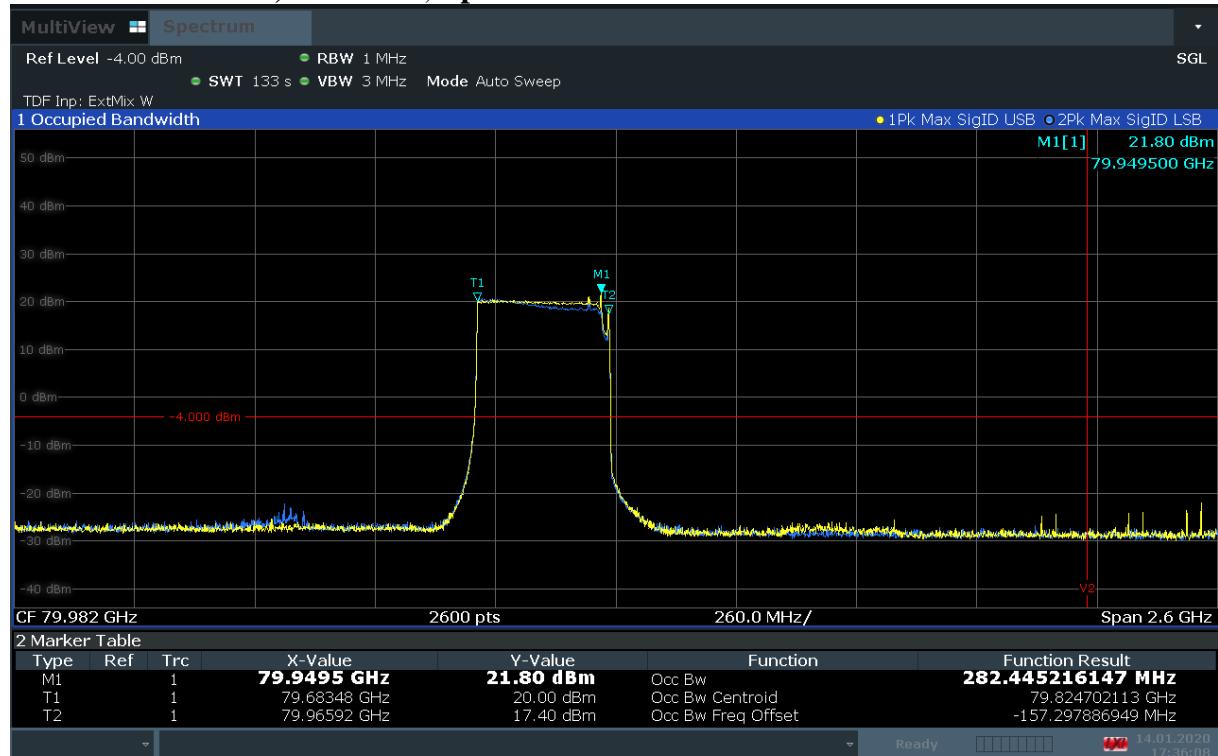
1.16. Peak Detector, T_{nom}/V_{nom} , Op. 16



17:29:46 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

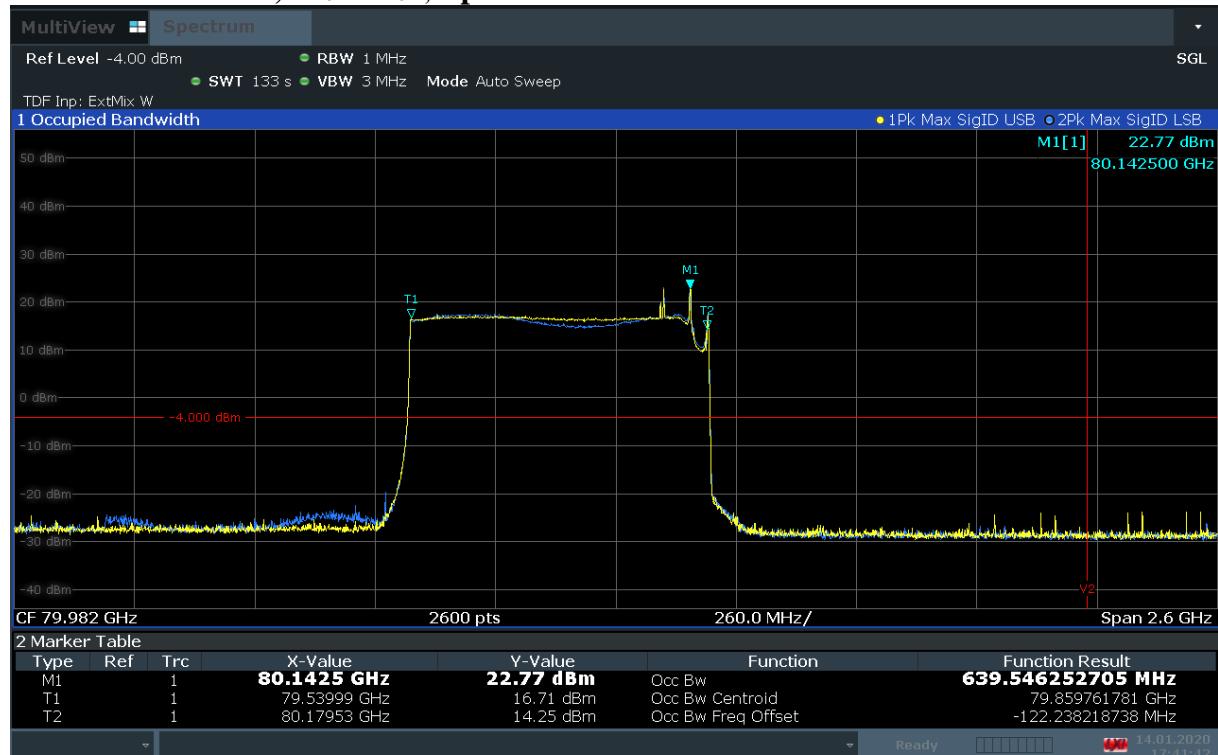
1.17. Peak Detector, T_{nom}/V_{nom} , Op. 17



17:36:09 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.18. Peak Detector, T_{nom}/V_{nom} , Op. 18



17:41:43 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

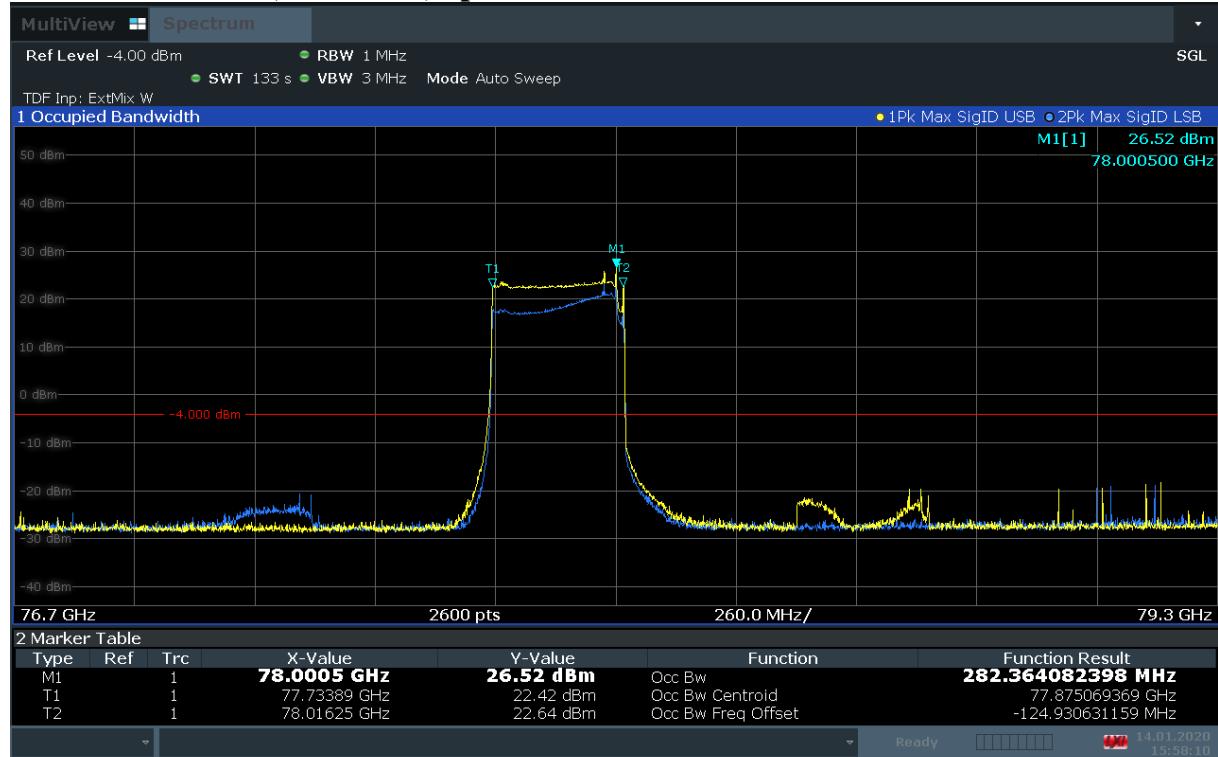
1.19. Peak Detector, T_{nom}/V_{nom} , Op. 19



17:46:53 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

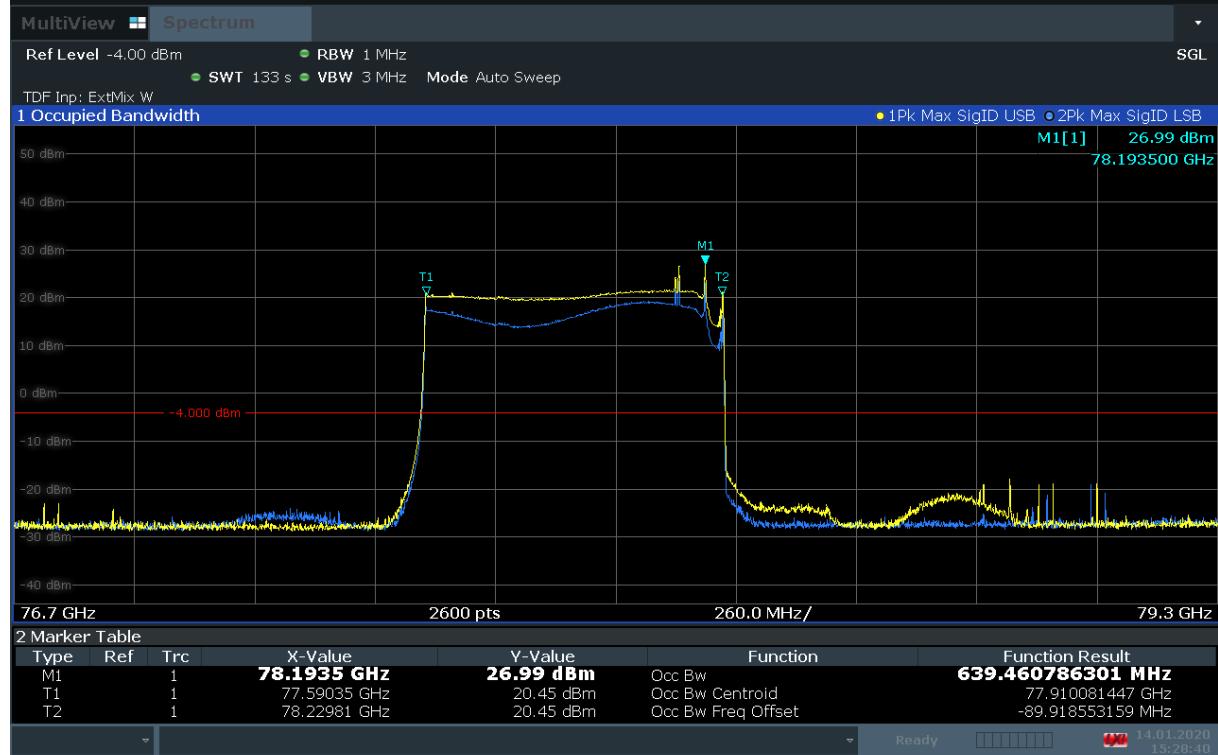
1.20. Peak Detector, T_{nom}/V_{nom} , Op. 20



15:58:11 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.21. Peak Detector, T_{nom}/V_{nom} , Op. 21



15:28:40 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

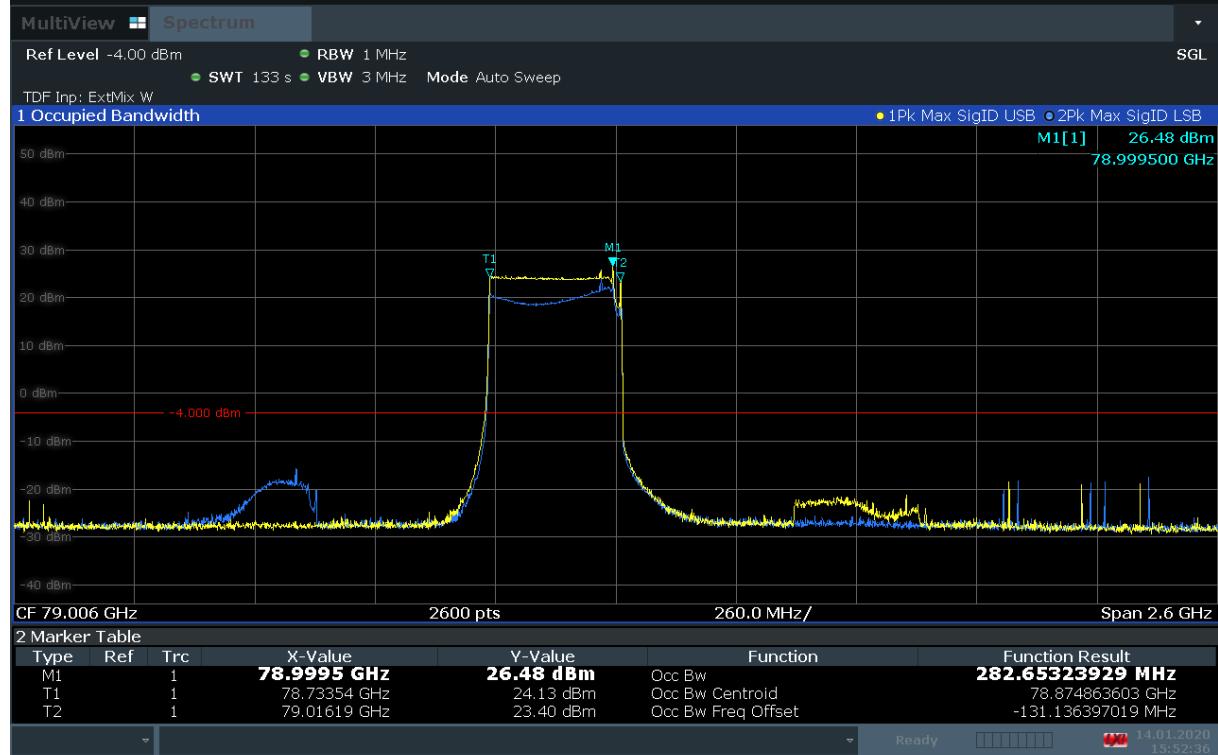
1.22. Peak Detector, T_{nom}/V_{nom} , Op. 22



15:22:22 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.23. Peak Detector, T_{nom}/V_{nom}, Op. 23



15:52:37 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.24. Peak Detector, T_{nom}/V_{nom}, Op. 24



15:34:18 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

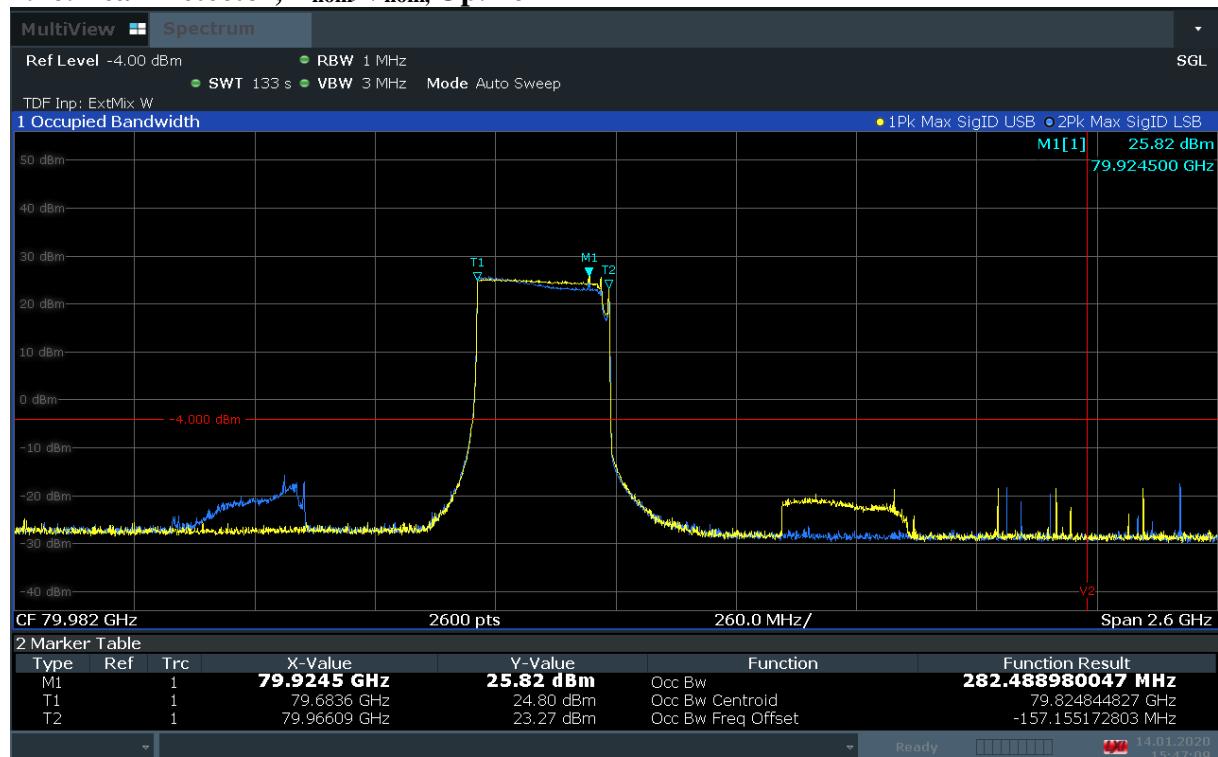
1.25. Peak Detector, T_{nom}/V_{nom} , Op. 25



17:55:16 14.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

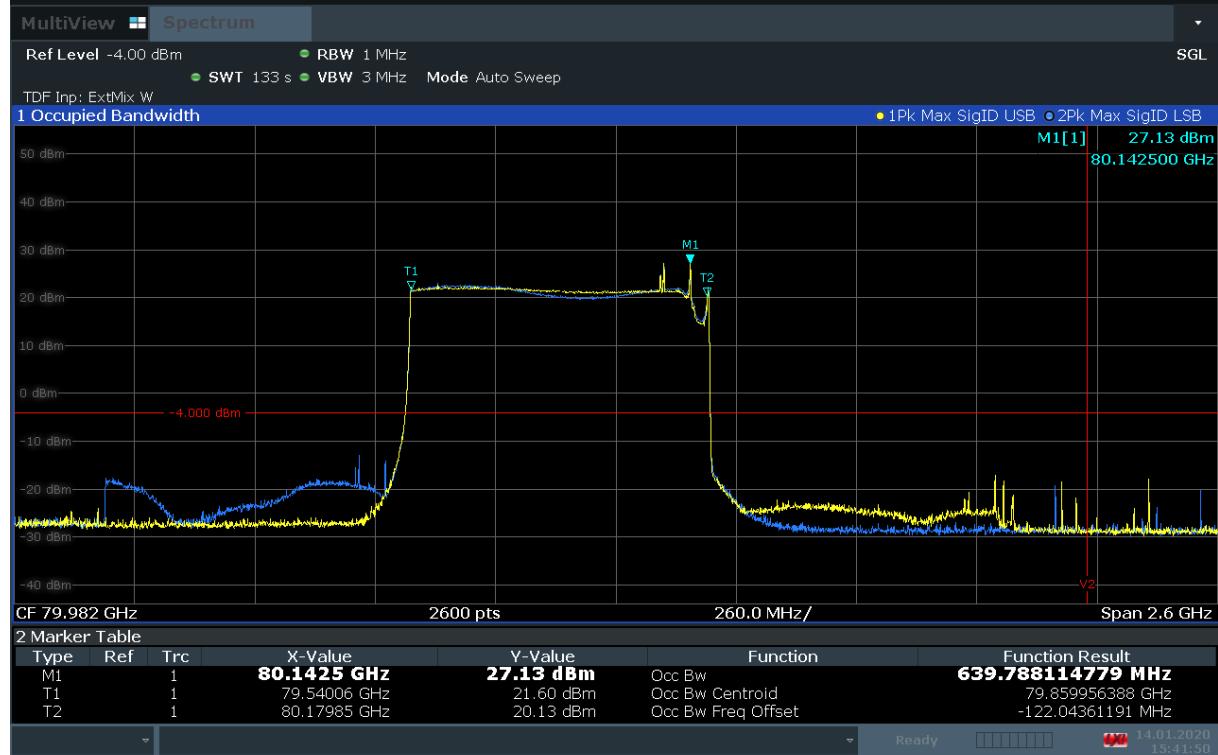
1.26. Peak Detector, T_{nom}/V_{nom} , Op. 26



15:47:10 14.01.2020

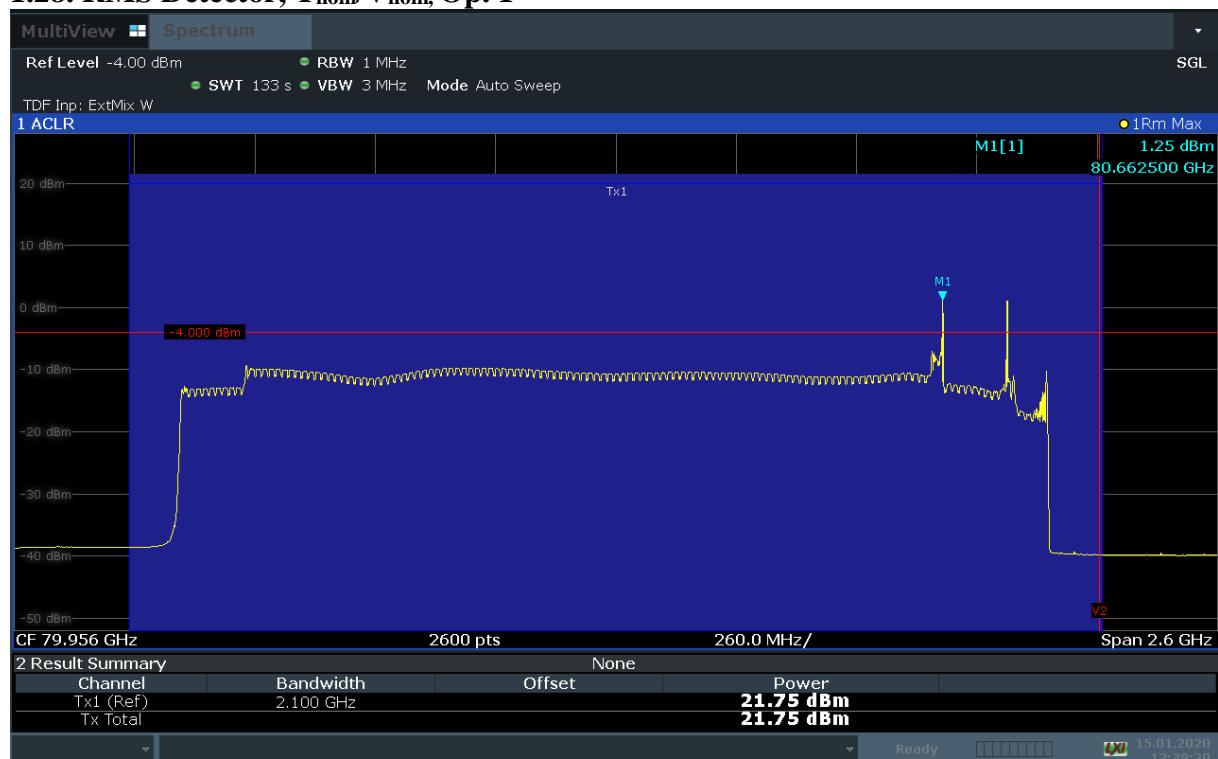
* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.27. Peak Detector, T_{nom}/V_{nom} , Op. 27



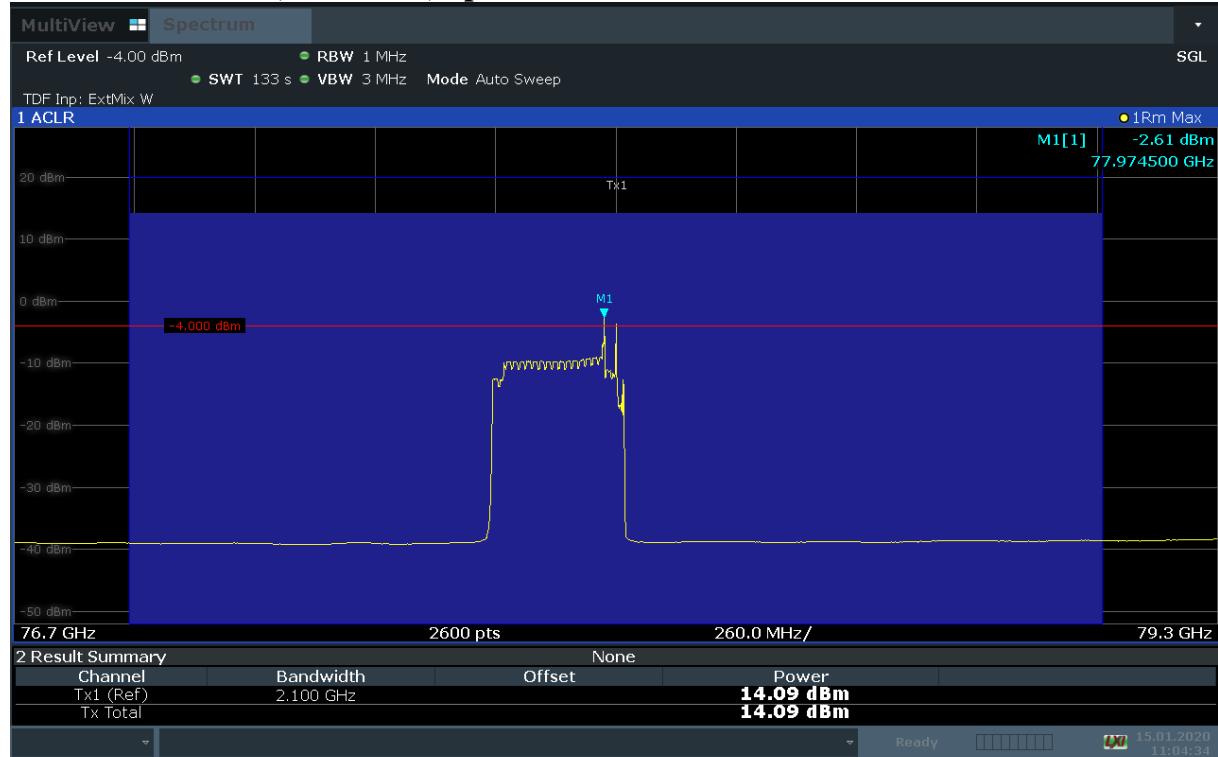
* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.28. RMS Detector, T_{nom}/V_{nom} , Op. 1



* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

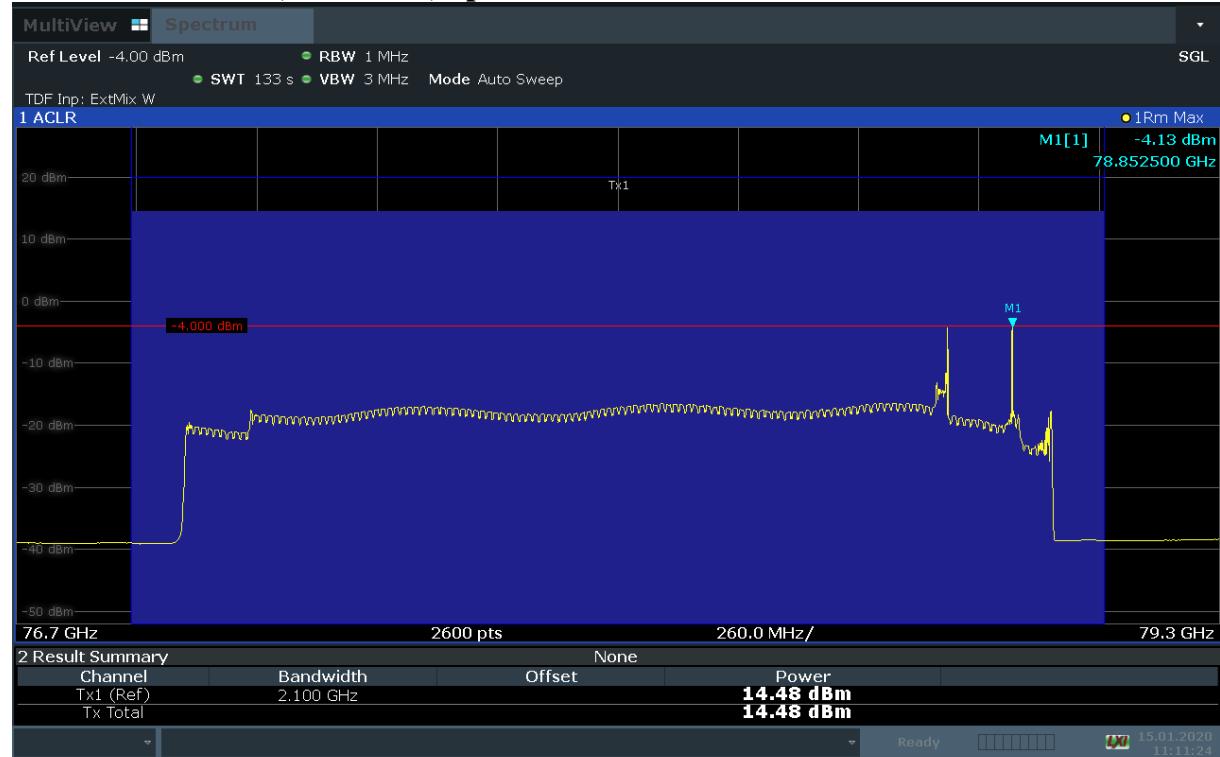
1.29. RMS Detector, T_{nom}/V_{nom} , Op. 2



1.30. RMS Detector, T_{nom}/V_{nom} , Op. 3



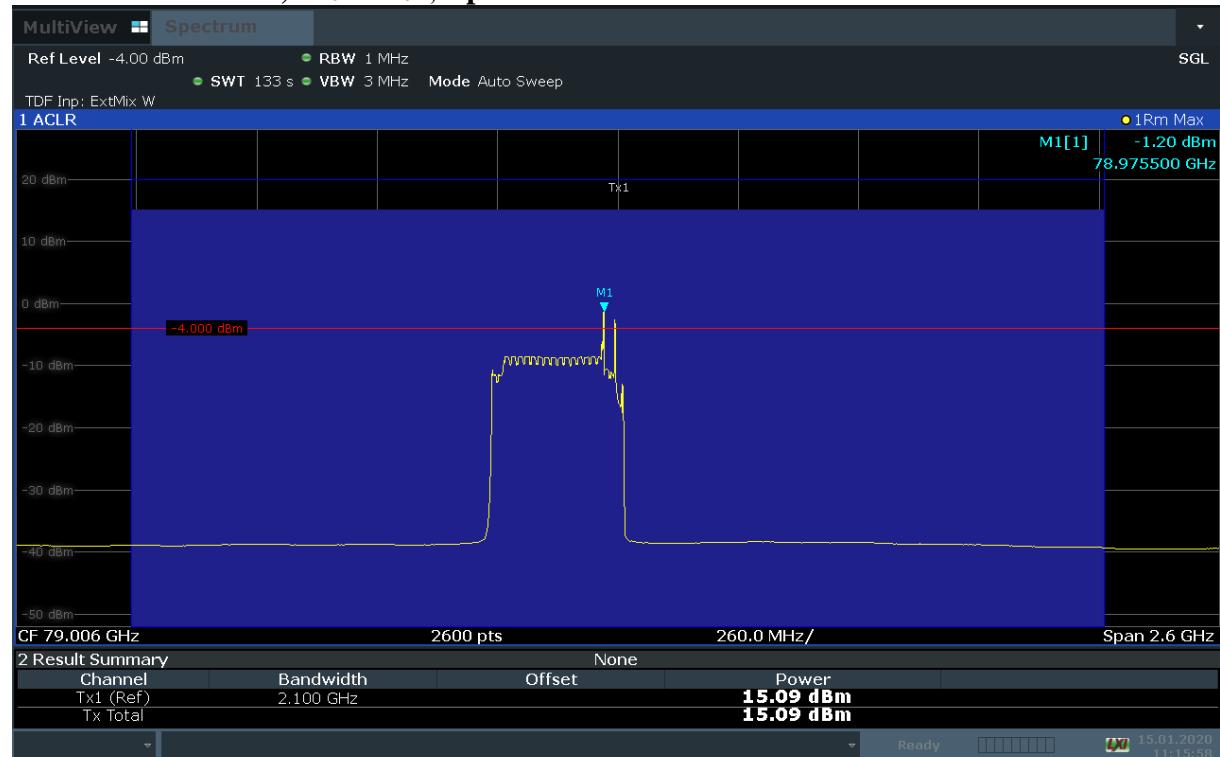
1.31. RMS Detector, T_{nom}/V_{nom} , Op. 4



11:11:24 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

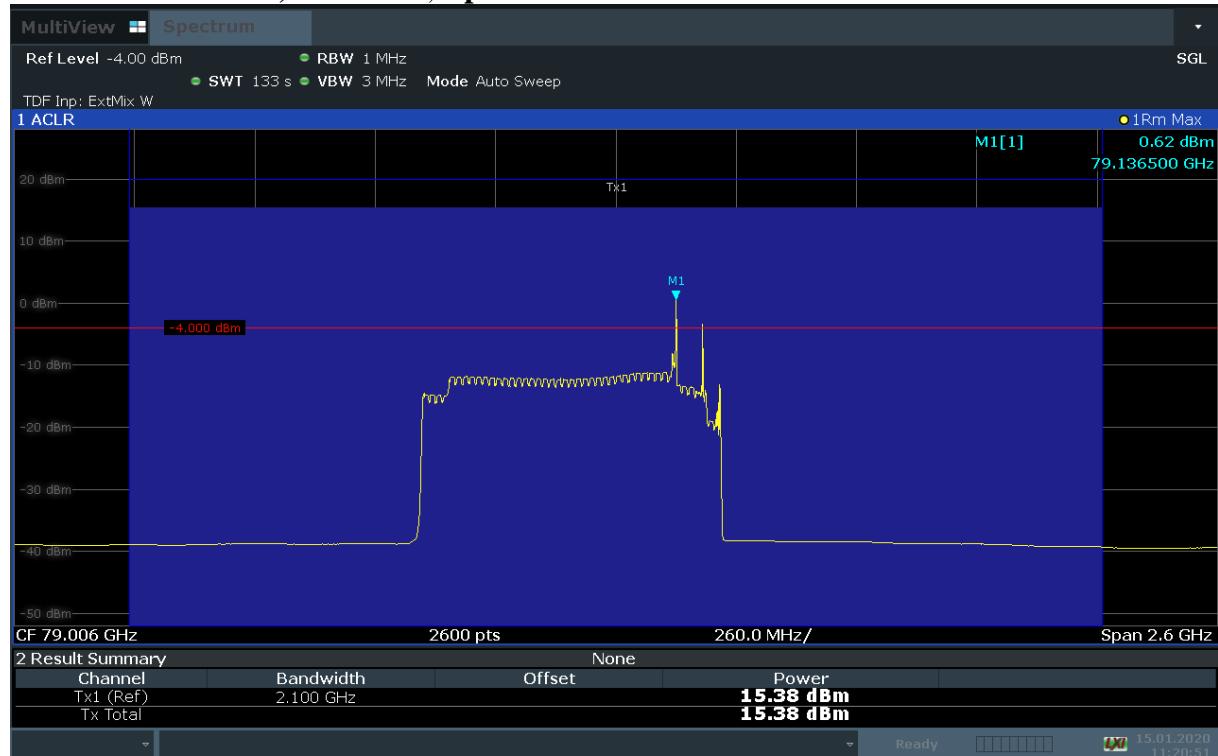
1.32. RMS Detector, T_{nom}/V_{nom} , Op. 5



11:15:59 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

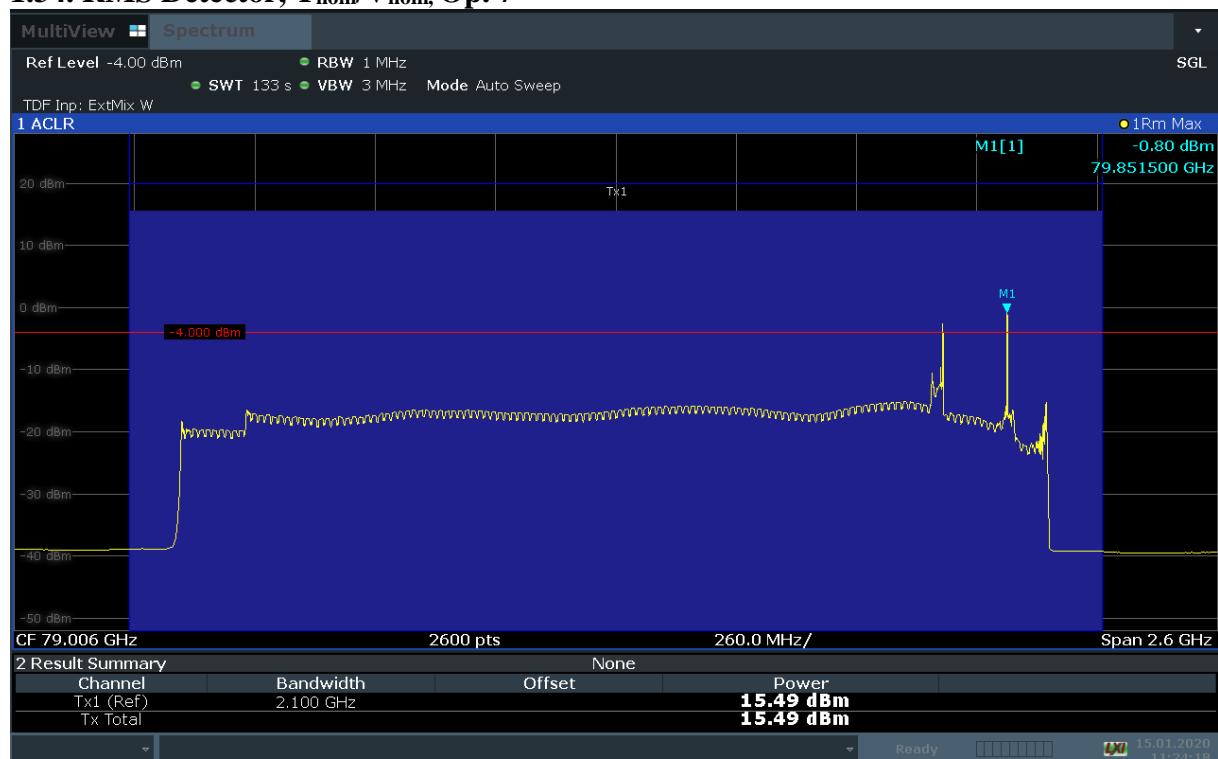
1.33. RMS Detector, T_{nom}/V_{nom}, Op. 6



11:20:52 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.34. RMS Detector, T_{nom}/V_{nom}, Op. 7



11:24:18 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.35. RMS Detector, T_{nom}/V_{nom} , Op. 8



11:27:23 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

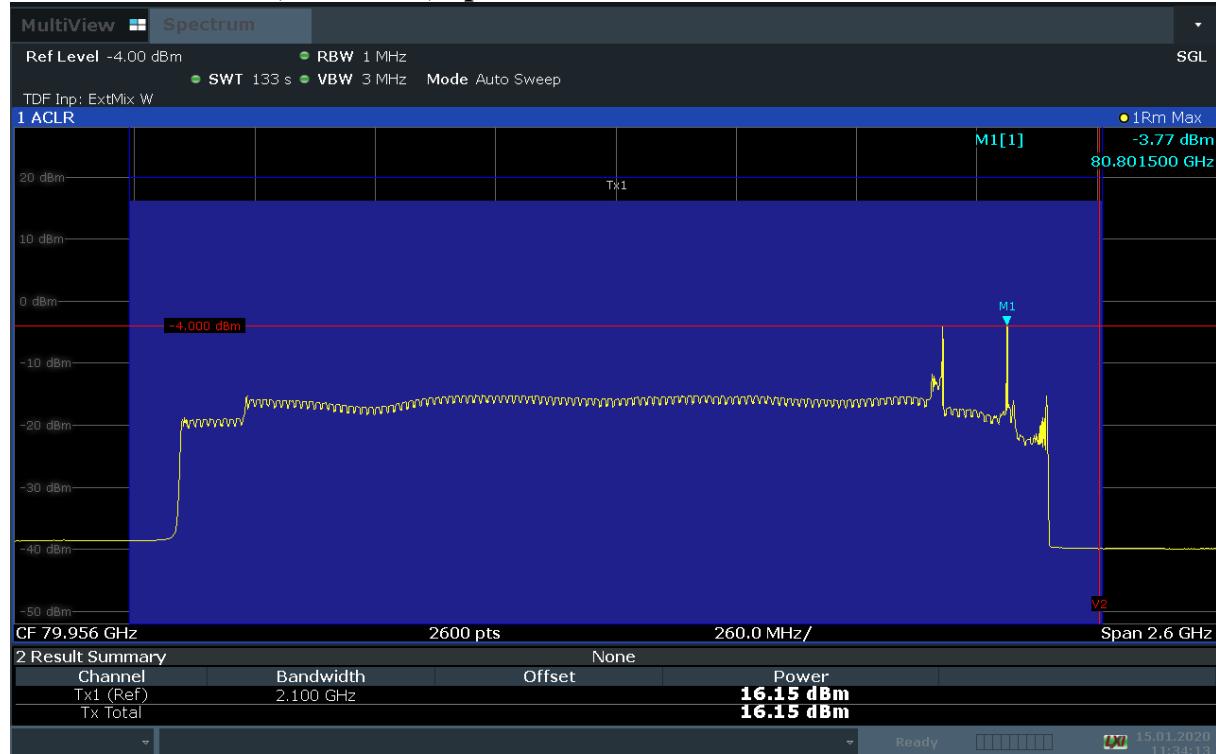
1.36. RMS Detector, T_{nom}/V_{nom} , Op. 9



11:30:40 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.37. RMS Detector, T_{nom}/V_{nom} , Op. 10



11:34:13 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

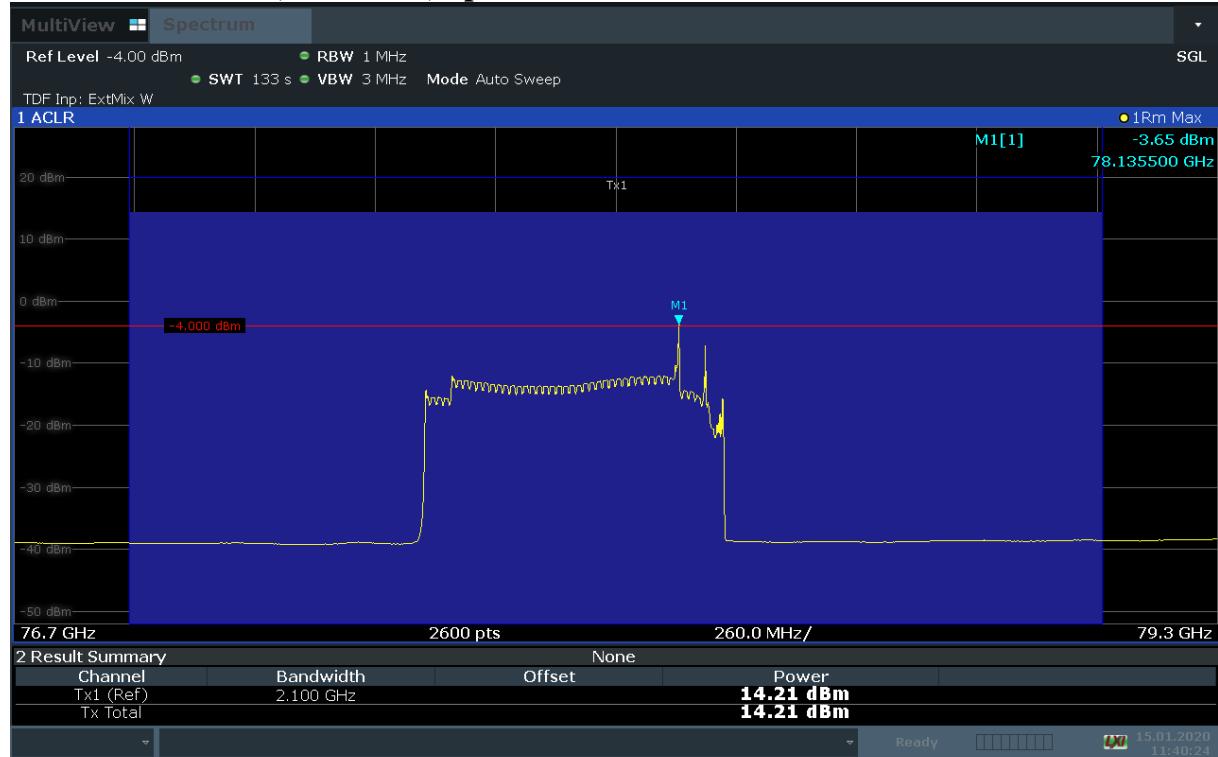
1.38. RMS Detector, T_{nom}/V_{nom} , Op. 11



11:37:34 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

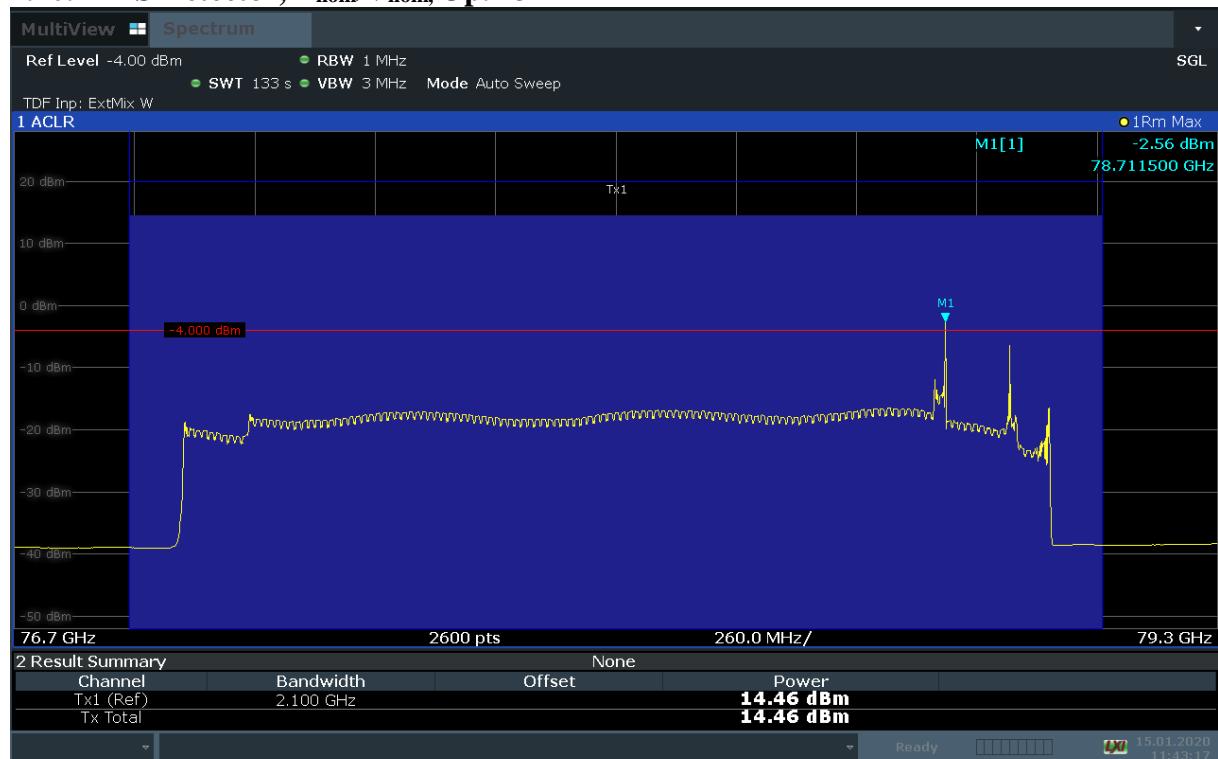
1.39. RMS Detector, T_{nom}/V_{nom} , Op. 12



11:40:24 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.40. RMS Detector, T_{nom}/V_{nom} , Op. 13



11:43:18 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

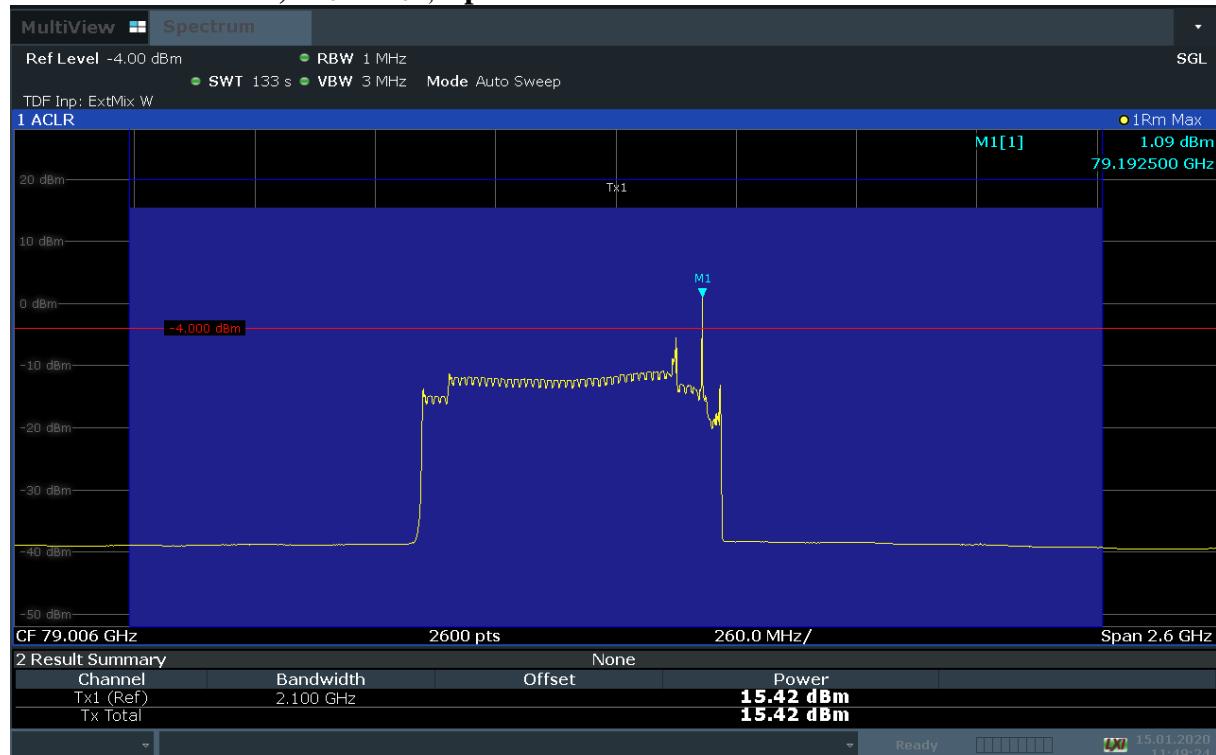
1.41. RMS Detector, T_{nom}/V_{nom}, Op. 14



11:46:38 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

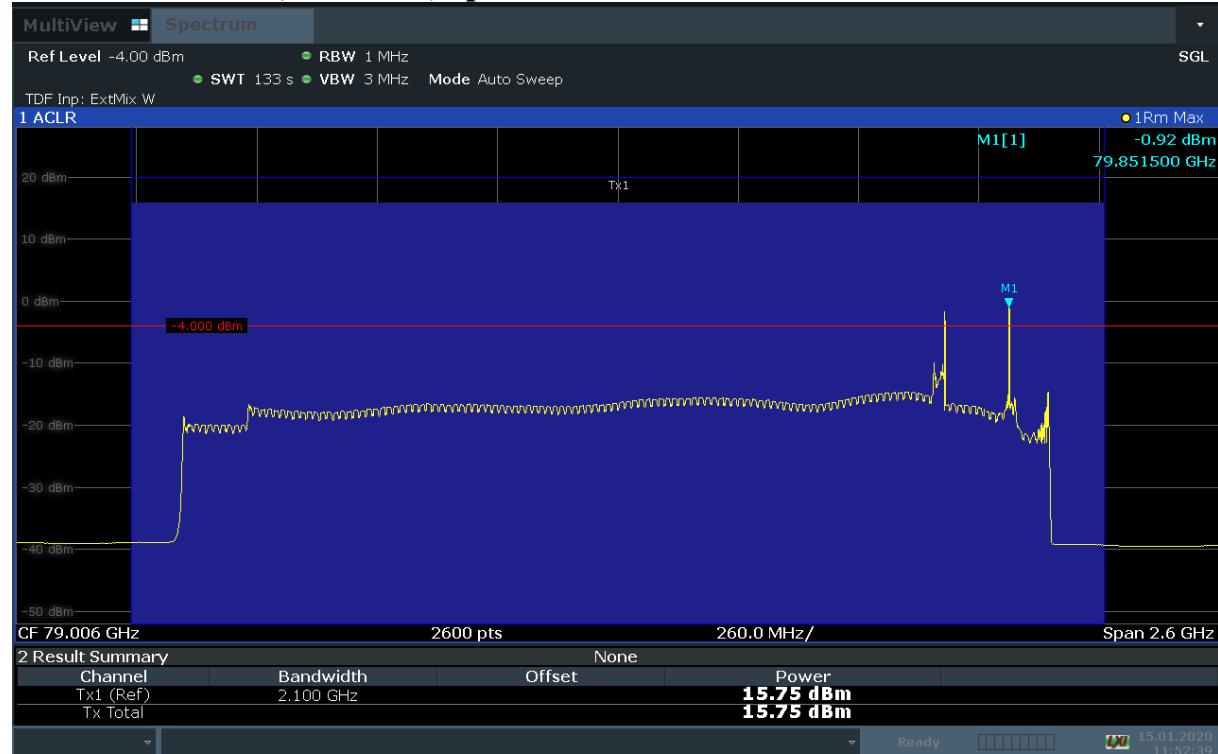
1.42. RMS Detector, T_{nom}/V_{nom}, Op. 15



11:49:25 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

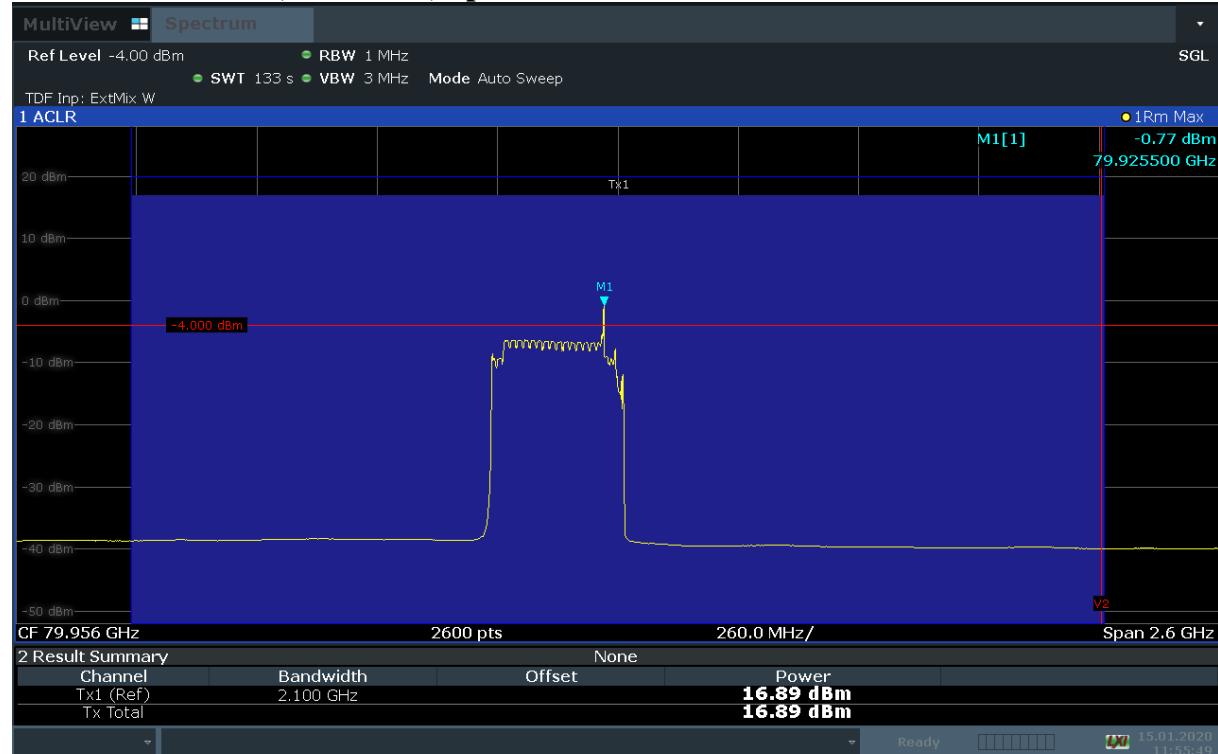
1.43. RMS Detector, T_{nom}/V_{nom}, Op. 16



11:52:40 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.44. RMS Detector, T_{nom}/V_{nom}, Op. 17



11:55:49 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

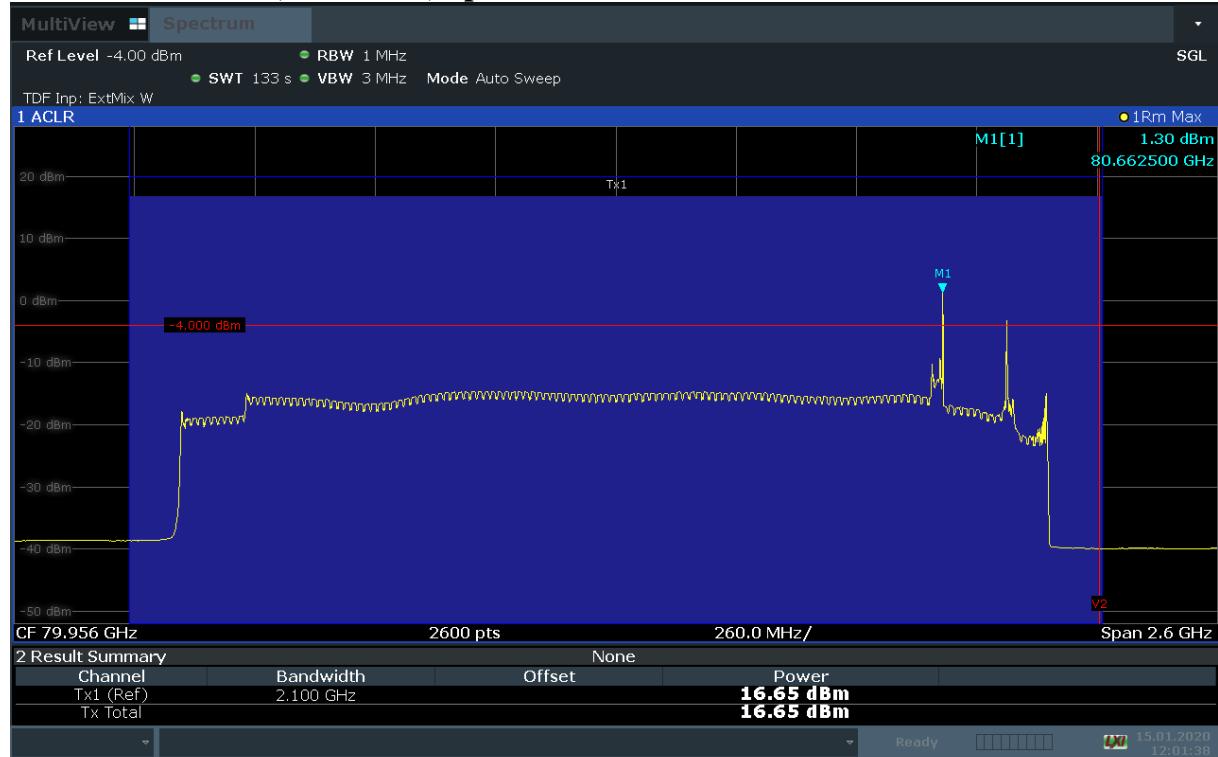
1.45. RMS Detector, T_{nom}/V_{nom}, Op. 18



11:58:42 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.46. RMS Detector, T_{nom}/V_{nom}, Op. 19



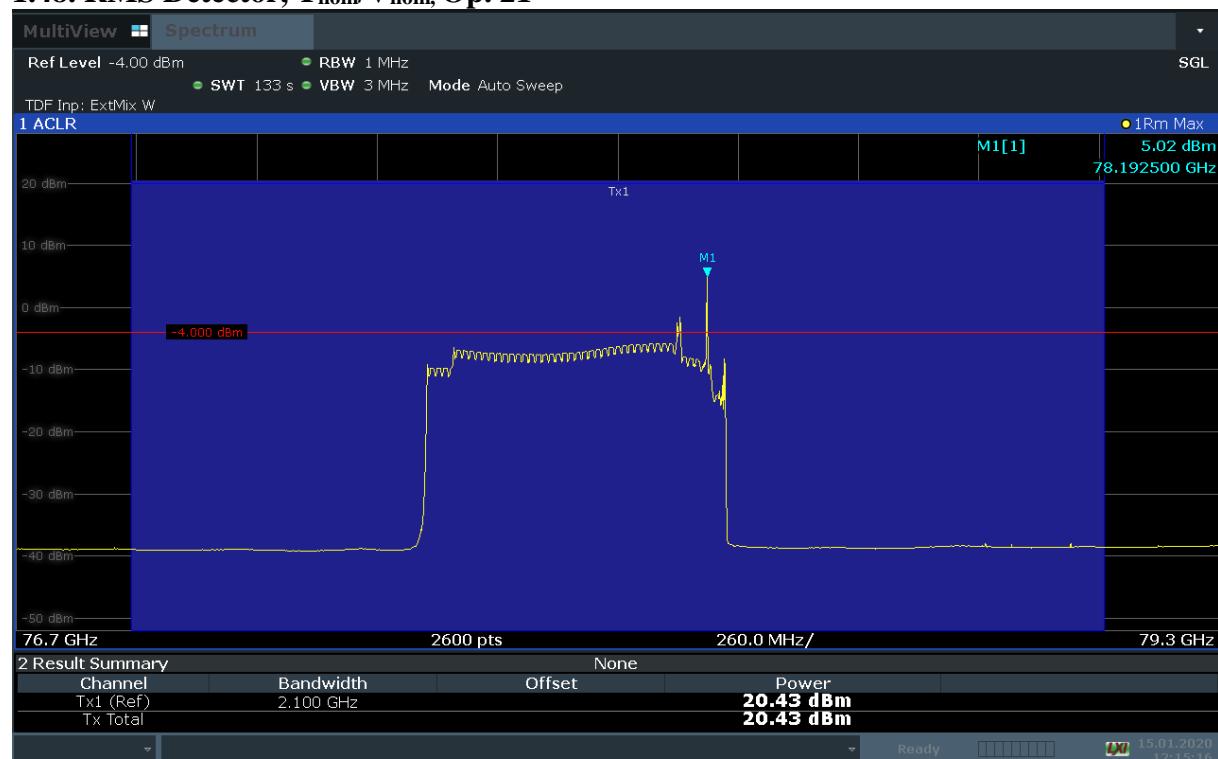
12:01:38 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.47. RMS Detector, T_{nom}/V_{nom} , Op. 20



1.48. RMS Detector, T_{nom}/V_{nom} , Op. 21



1.49. RMS Detector, T_{nom}/V_{nom} , Op. 22



12:18:39 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.50. RMS Detector, T_{nom}/V_{nom} , Op. 23



12:22:30 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

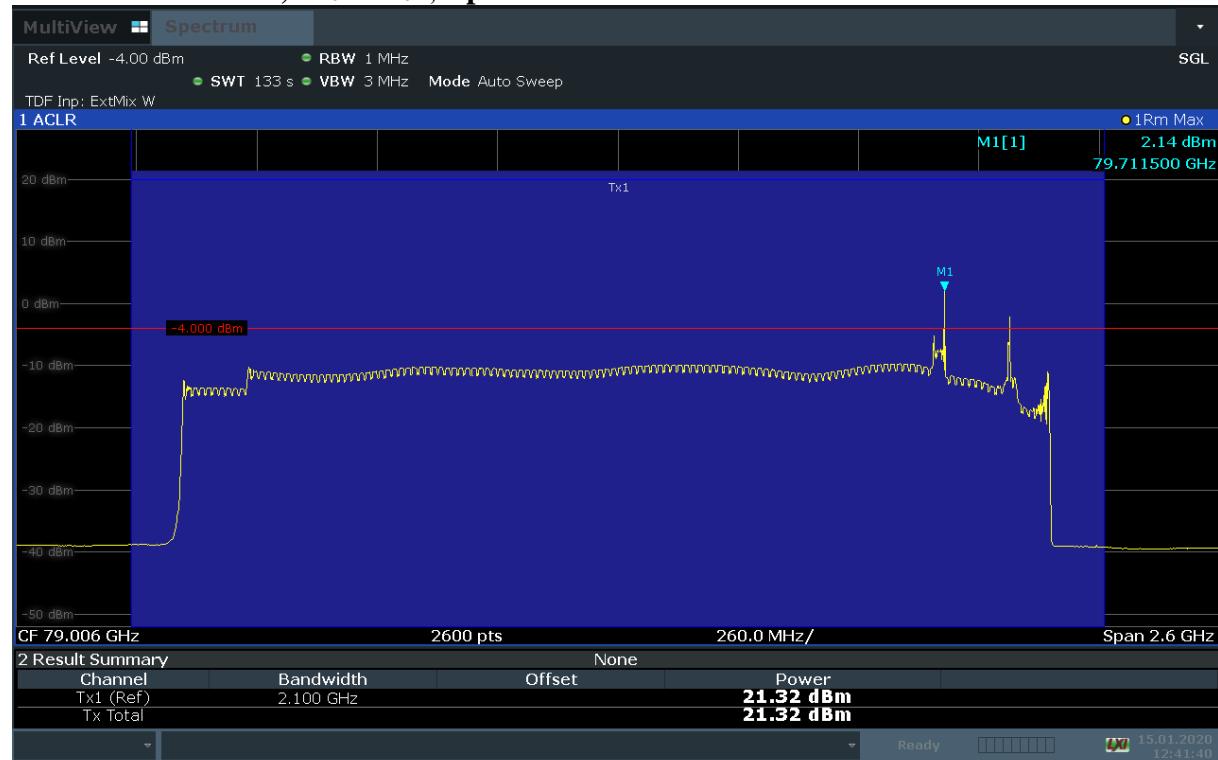
1.51. RMS Detector, T_{nom}/V_{nom} , Op. 24



12:25:24 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

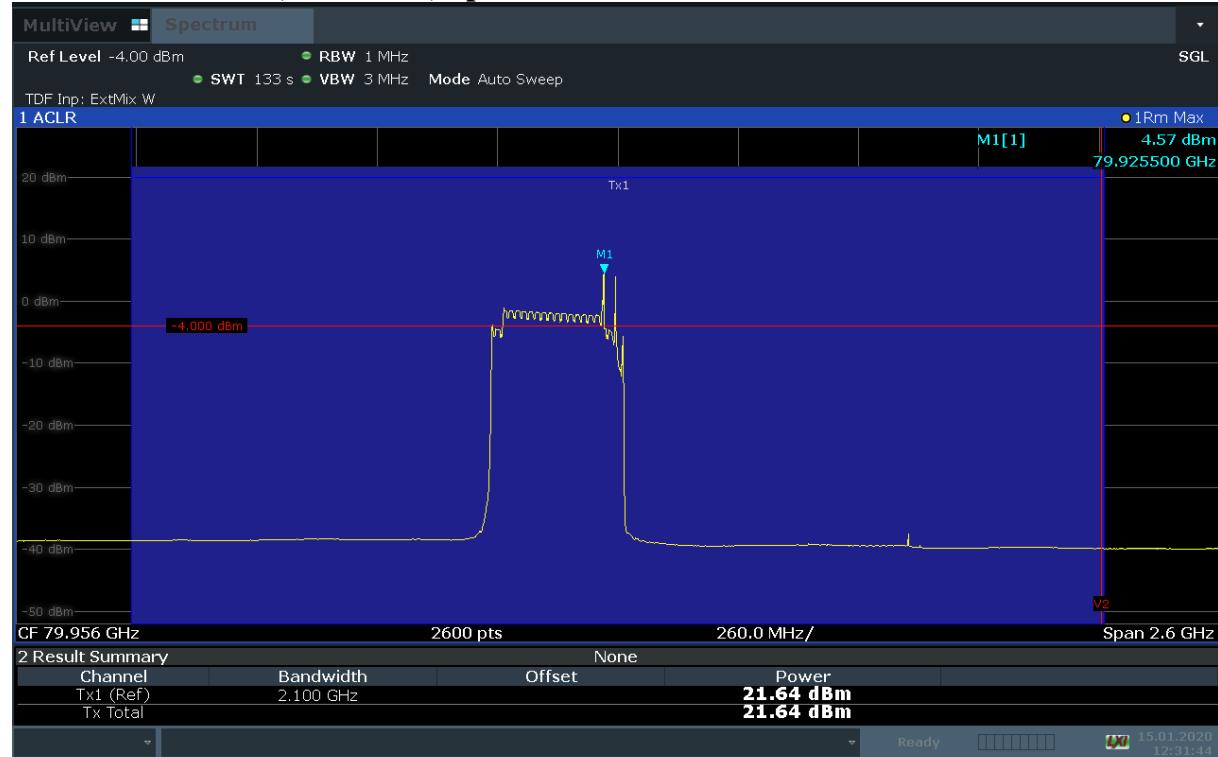
1.52. RMS Detector, T_{nom}/V_{nom} , Op. 25



12:41:40 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.53. RMS Detector, T_{nom}/V_{nom} , Op. 26



12:31:45 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

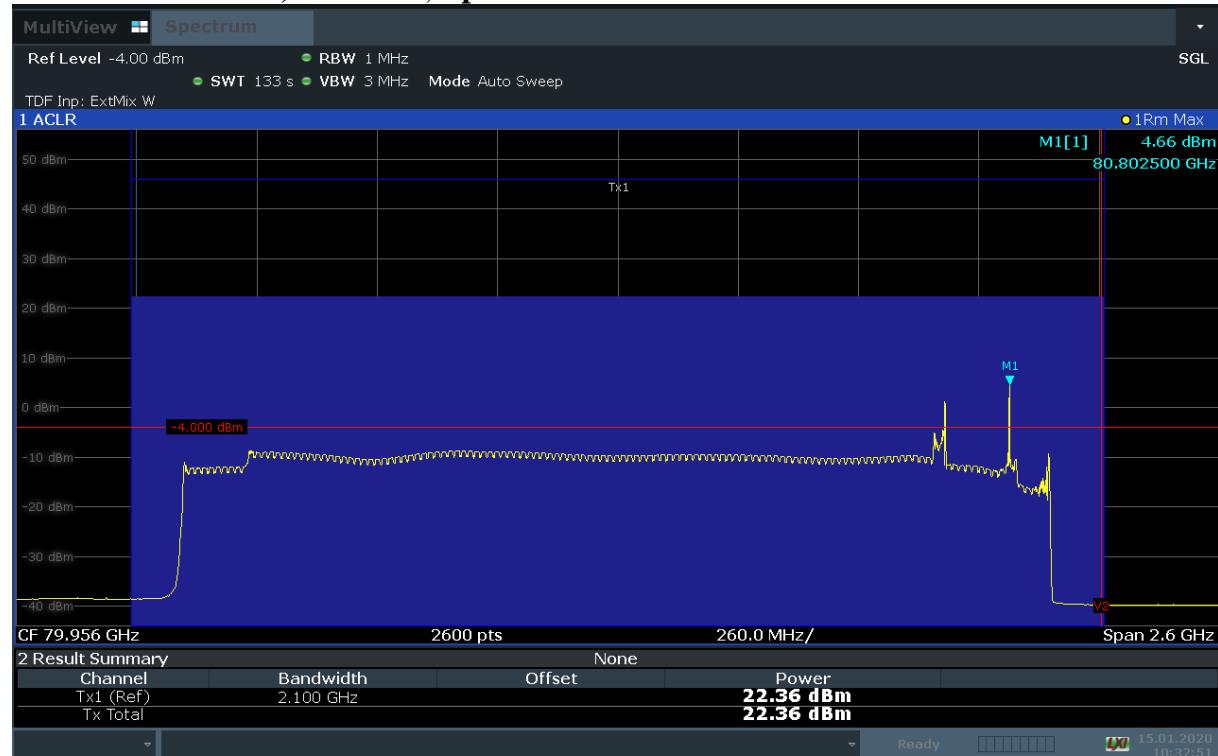
1.54. RMS Detector, T_{nom}/V_{nom} , Op. 27



12:35:22 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

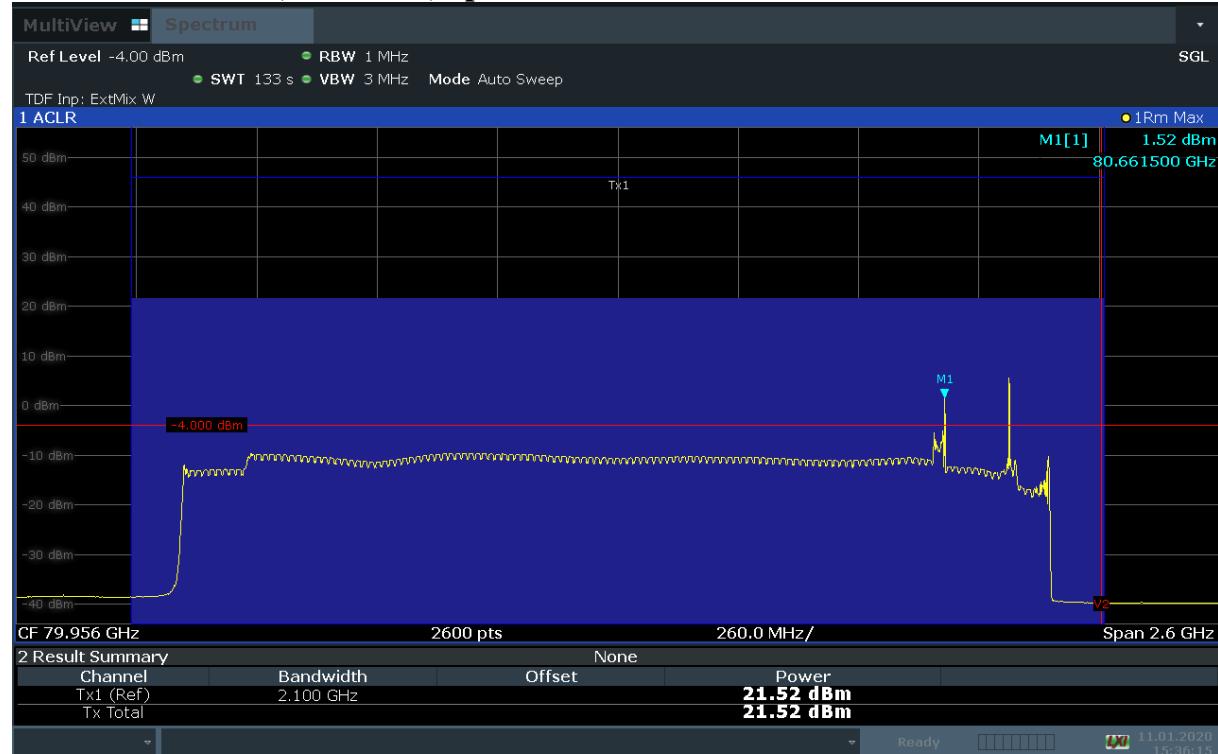
1.55. RMS Detector, T_{min}/V_{nom} , Op. 1



1.56. Peak Detector, T_{min}/V_{nom} , Op. 1



1.57. RMS Detector, T_{max}/V_{nom} , Op. 1



15:36:15 11.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

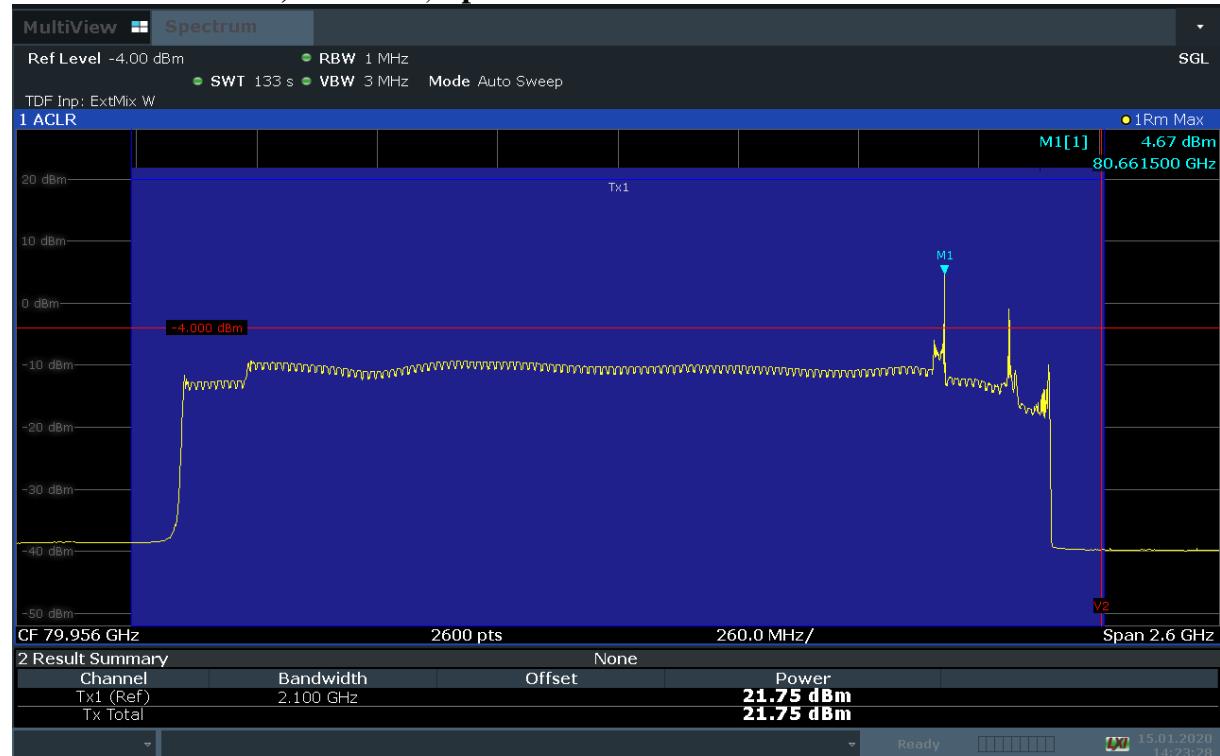
1.58. Peak Detector, T_{max}/V_{nom} , Op. 1



15:24:57 11.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.59. RMS Detector, T_{nom}/V_{min} , Op. 1



14:23:29 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

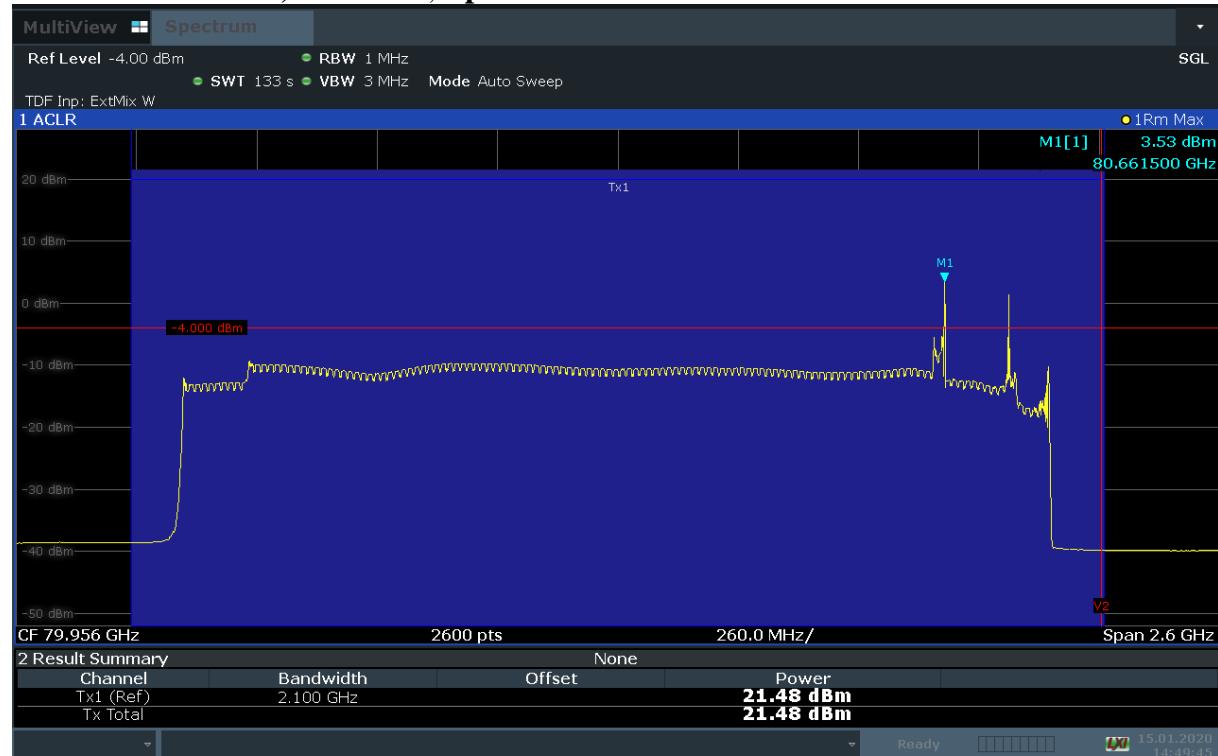
1.60. Peak Detector, T_{nom}/V_{min} , Op. 1



14:19:39 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.61. RMS Detector, T_{nom}/V_{max} , Op. 1



14:49:46 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

1.62. Peak Detector, T_{nom}/V_{max} , Op. 1



14:46:41 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

2. Modulation characteristics**2.1. Peak Detector, T_{nom}/V_{nom} , Op. 1**

See diagram 1.1

2.2. Peak Detector, T_{min}/V_{nom} , Op. 1

See diagram 1.30

2.3. Peak Detector, T_{max}/V_{nom} , Op. 1

See diagram 1.32

2.4. Peak Detector, T_{nom}/V_{min} , Op. 1

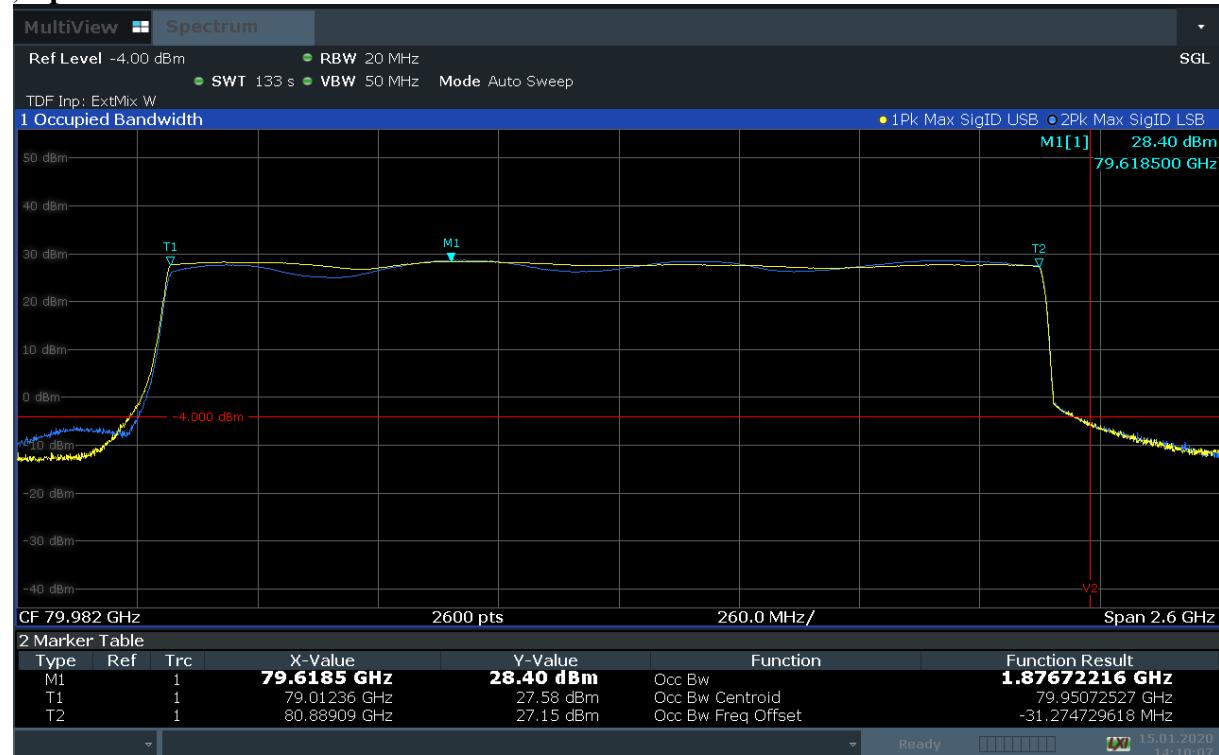
See diagram 1.34

2.5. Peak Detector, T_{nom}/V_{max} , Op. 1

See diagram 1.36

3. Occupied bandwidth

3.1. Peak Detector, T_{nom}/V_{nom} , RBW 10 MHz (only required for 99% RSS Gen Occupied BW), Op. 1



14:10:07 15.01.2020

* -4 dBm is a reference line from the FSW67. Limit: 50 dBm (Average), 55 dBm (Peak).

3.2. Peak Detector, T_{nom}/V_{nom} , Op. 1

See diagram 1.1

3.3. Peak Detector, T_{min}/V_{nom} , Op. 1

See diagram 1.30

3.4. Peak Detector, T_{max}/V_{nom} , Op. 1

See diagram 1.32

3.5. Peak Detector, T_{nom}/V_{min} , Op. 1

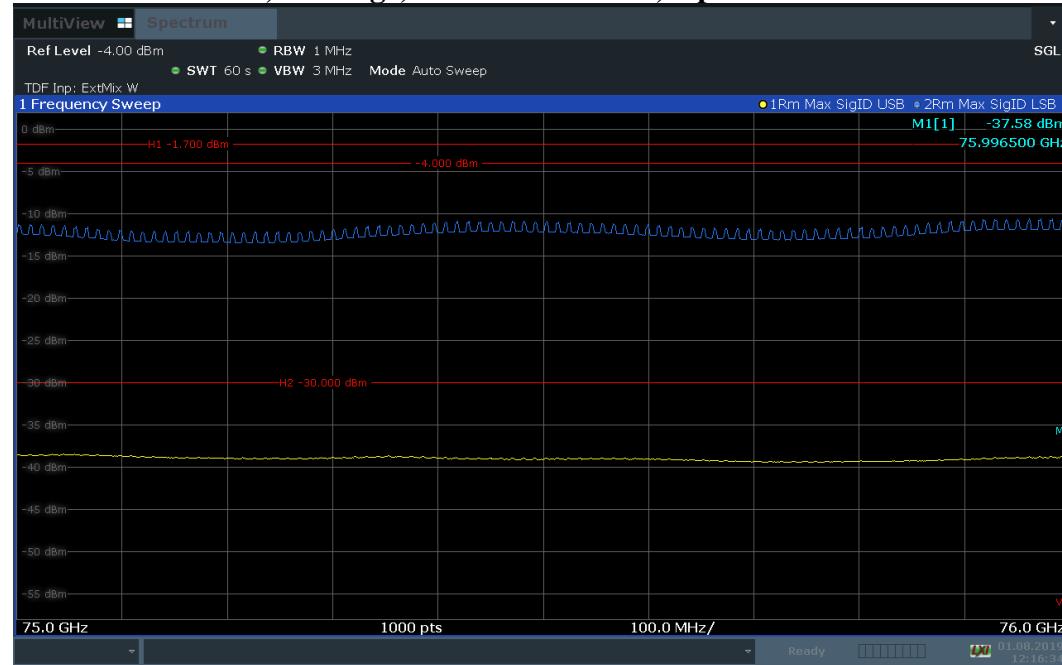
See diagram 1.34

3.6. Peak Detector, T_{nom}/V_{max} , Op. 1

See diagram 1.36

4. Field strength of emissions (band edge)

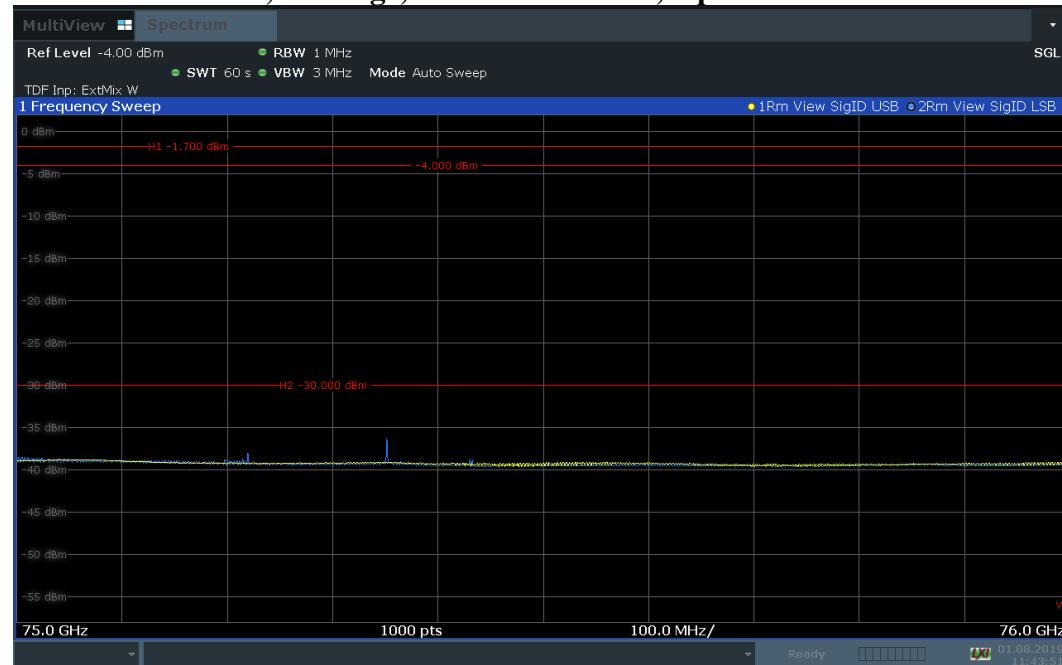
4.1. RMS Detector, low edge, 75 GHz – 76 GHz, Op. 22



12:16:35 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

4.2. RMS Detector, low edge, 75 GHz – 76 GHz, Op. 1



11:43:52 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

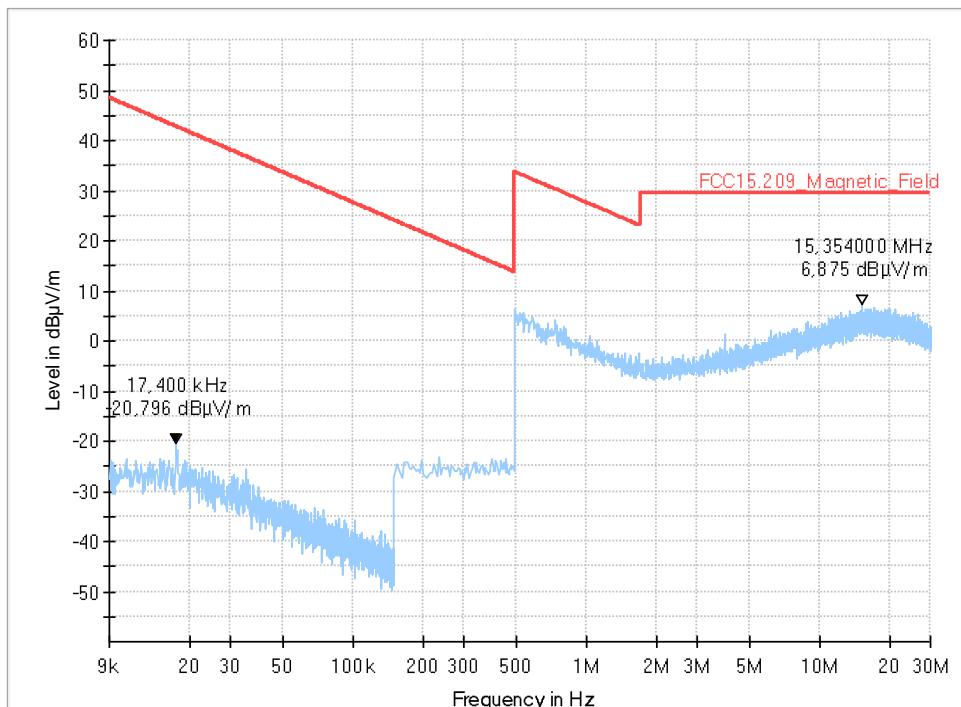
4.3. RMS Detector, high edge, SigID USB + LSB

No emissions above 81 GHz. See diagrams 5.19 – 5.21 and 5.23 – 5.25.

5. Field strength of emissions (radiated spurious)

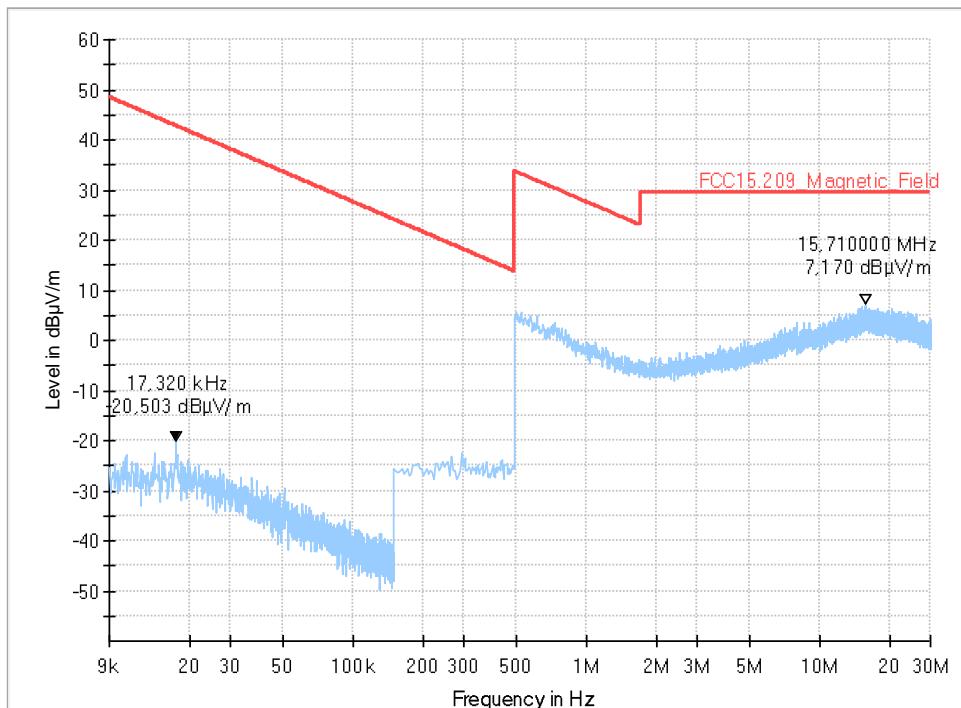
5.1. 9 kHz – 30 MHz, laying, Op.1

Full Spectrum



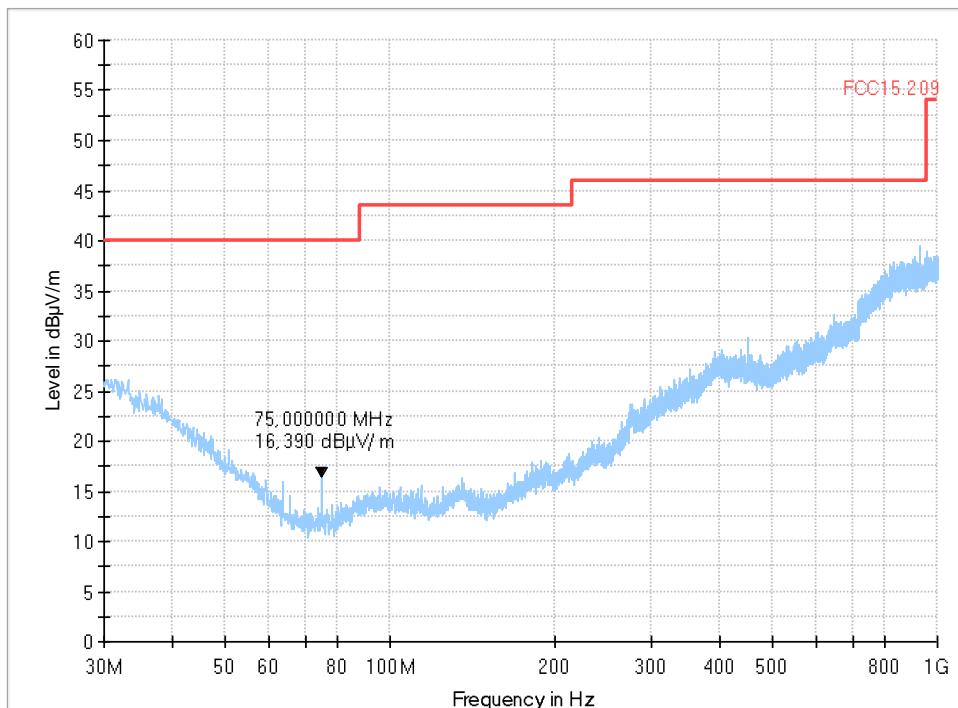
5.2. 9 kHz – 30 MHz, standing, Op.1

Full Spectrum

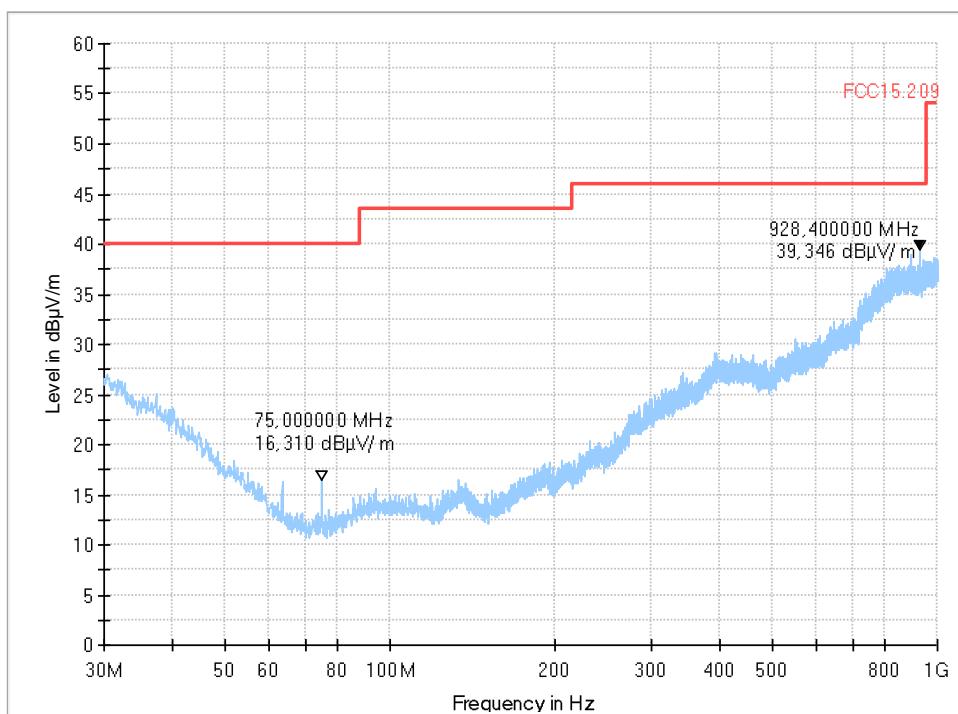


5.3. 30 MHz – 1 GHz, laying, Op.1

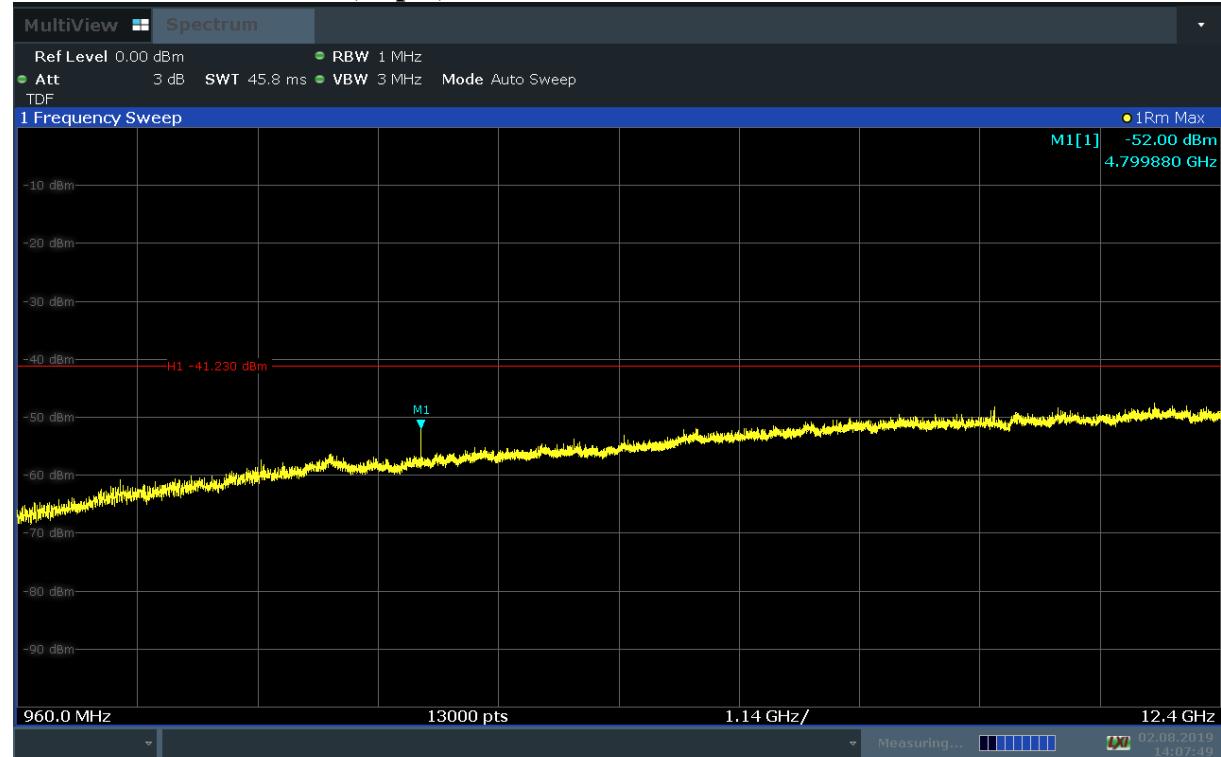
Full Spectrum

**5.4. 30 MHz – 1 GHz, standing, Op.1**

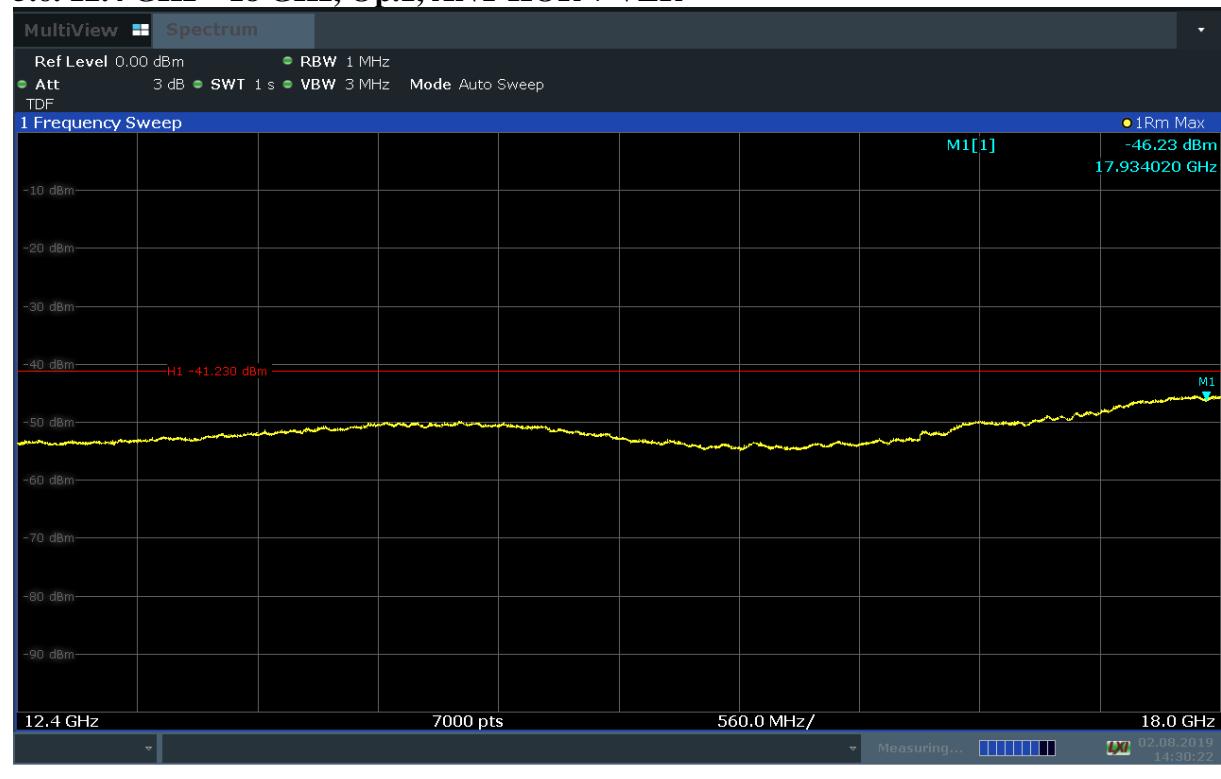
Full Spectrum



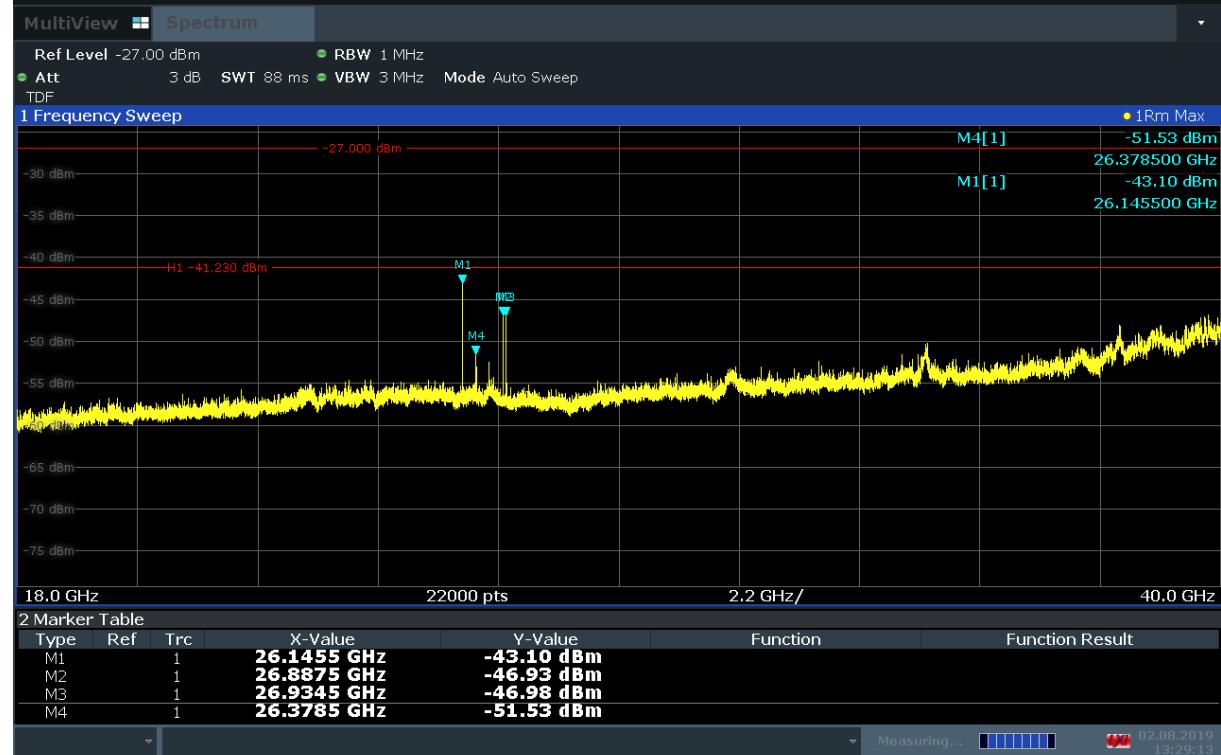
5.5. 960 MHz – 12.4 GHz, Op.1, ANT HOR + VER



5.6. 12.4 GHz – 18 GHz, Op.1, ANT HOR + VER



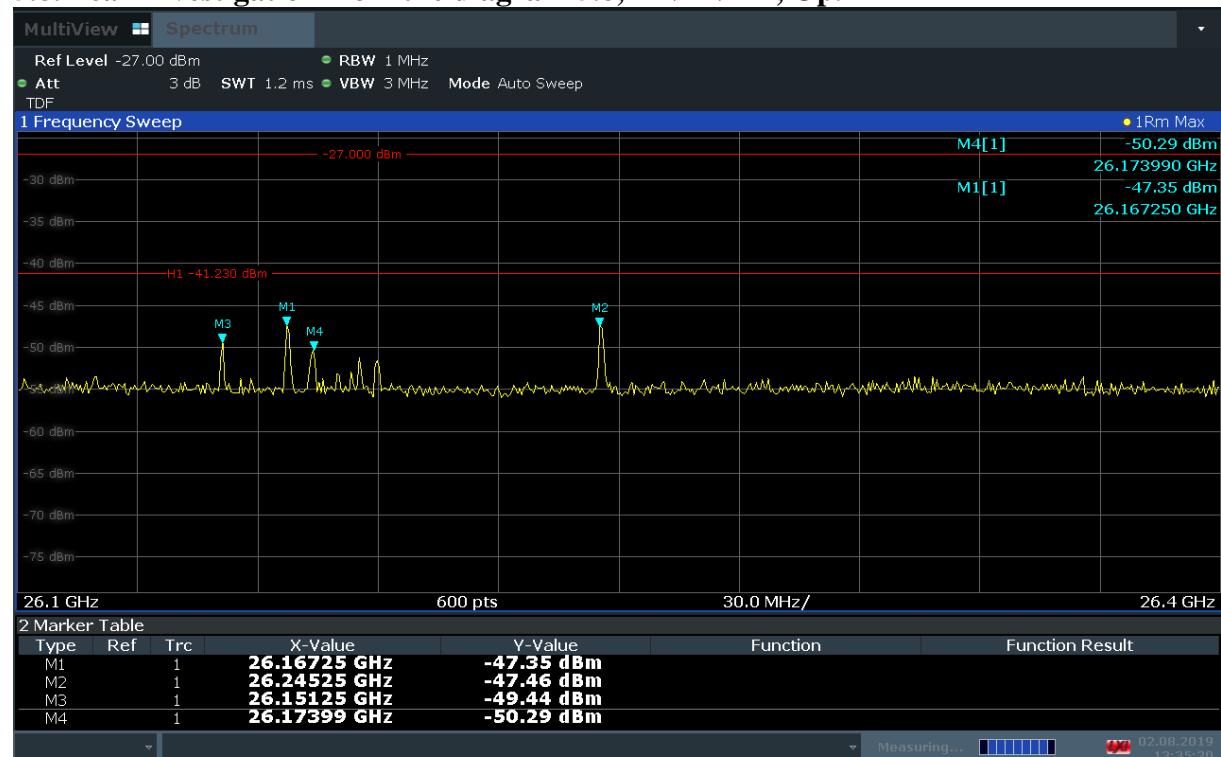
5.7. 18 GHz – 40 GHz, ANT VER, Op.1



13:29:14 02.08.2019

* -27 dBm is a reference line from the FSW67. Limit is -41.23 dBm.

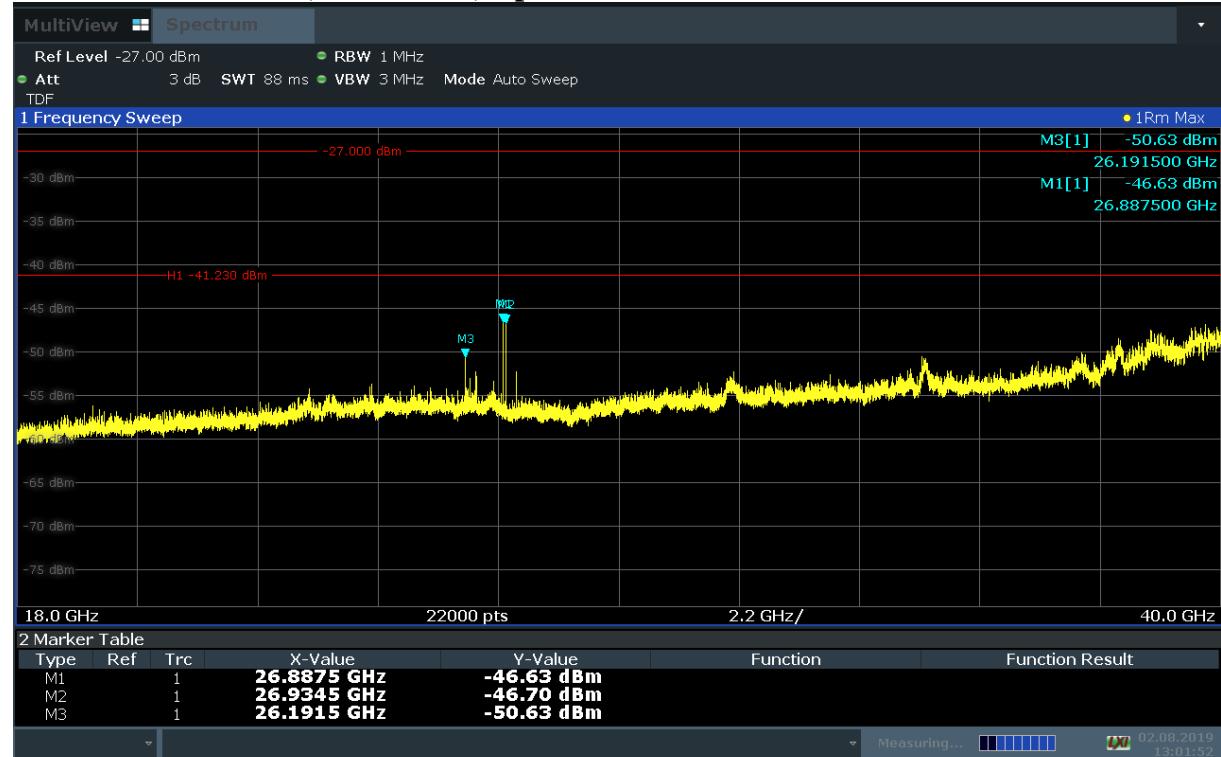
5.8. Peak investigation from the diagram 5.8, ANT VER, Op.1



13:35:20 02.08.2019

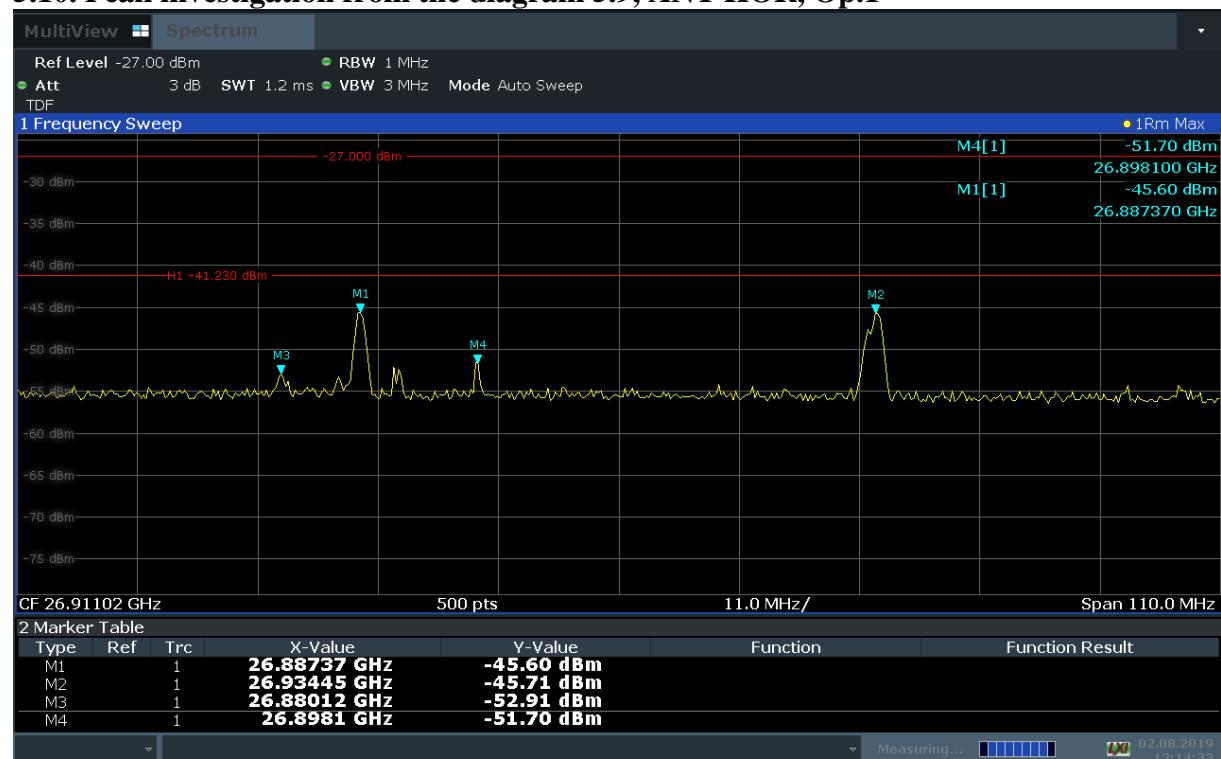
* -27 dBm is a reference line from the FSW67. Limit is -41.23 dBm.

5.9. 18 GHz – 40 GHz, ANT HOR, Op.1



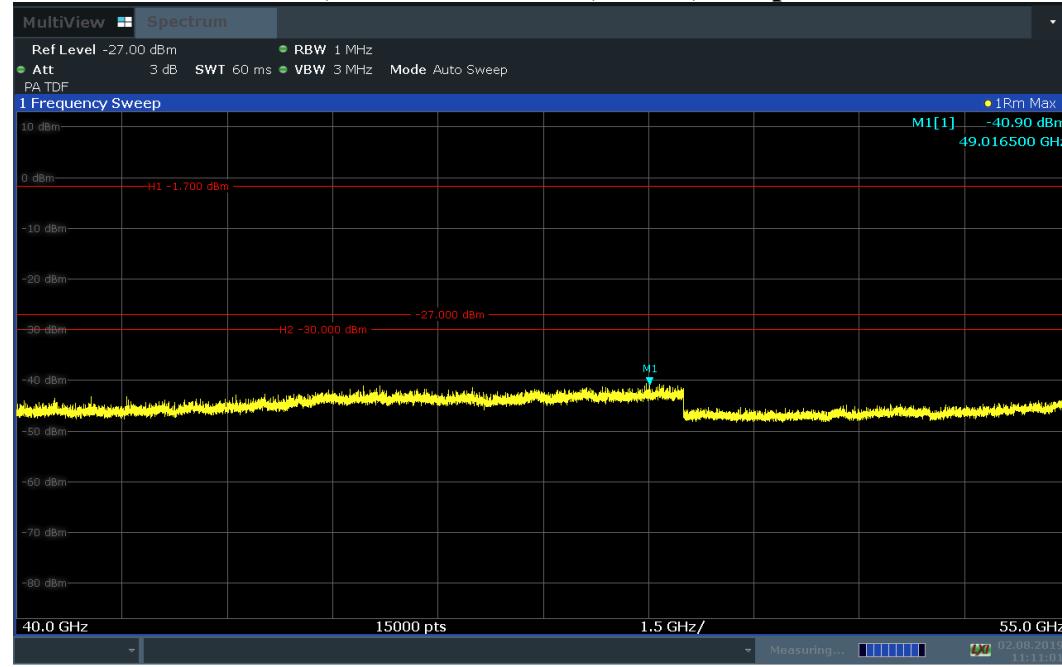
* -27 dBm is a reference line from the FSW67. Limit is -41.23 dBm.

5.10. Peak investigation from the diagram 5.9, ANT HOR, Op.1



* -27 dBm is a reference line from the FSW67. Limit is -41.23 dBm.

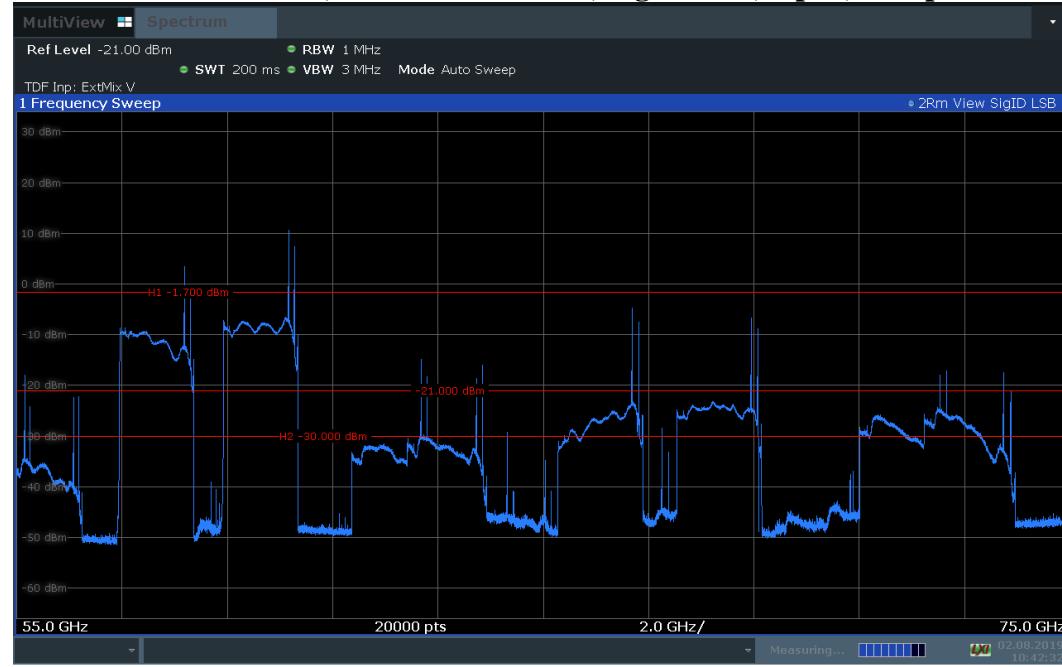
5.11. 40 GHz – 55 GHz, ANT HOR + VER, OP. 1, sweep time: auto



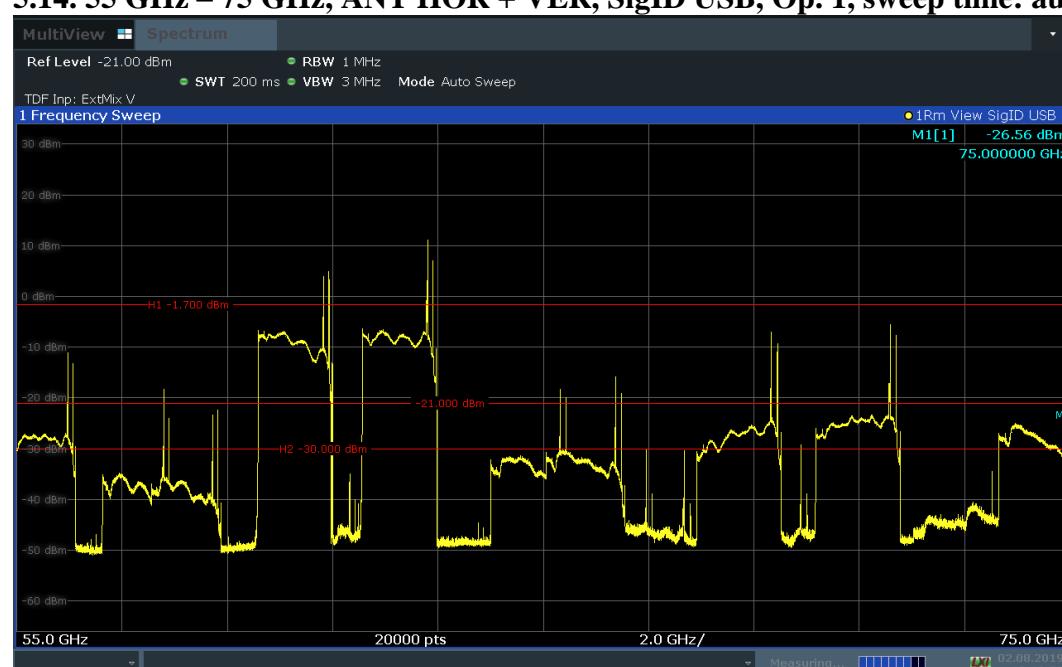
5.12. 55 GHz – 75 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto



5.13. 55 GHz – 75 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: auto



5.14. 55 GHz – 75 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: auto



5.15. 55 GHz – 73.5 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



17:58:16 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

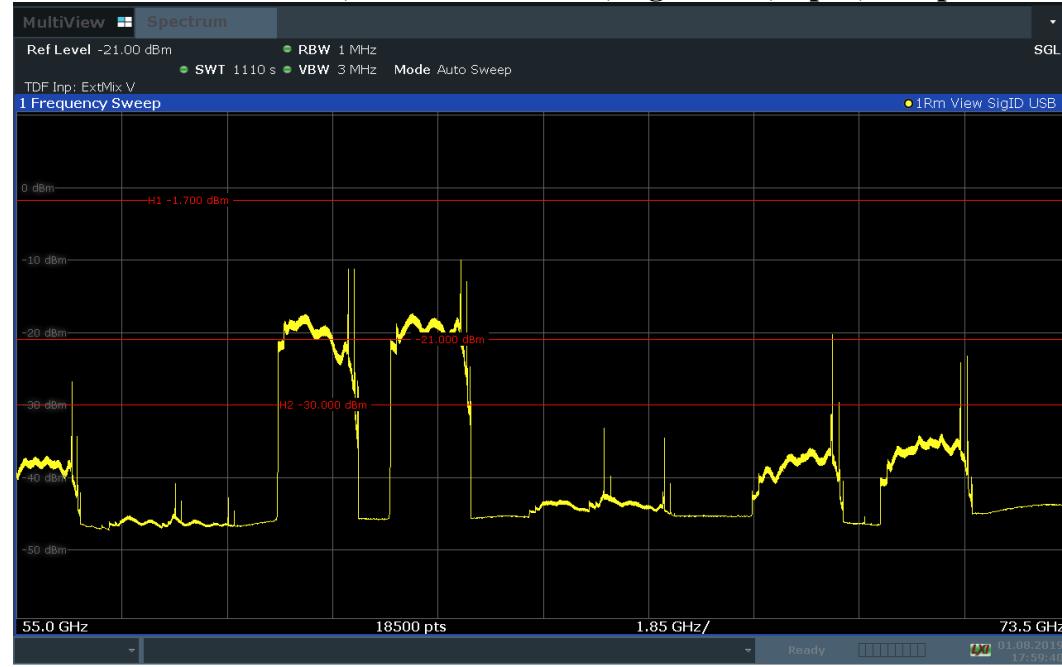
5.16. 55 GHz – 73.5 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



17:59:18 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

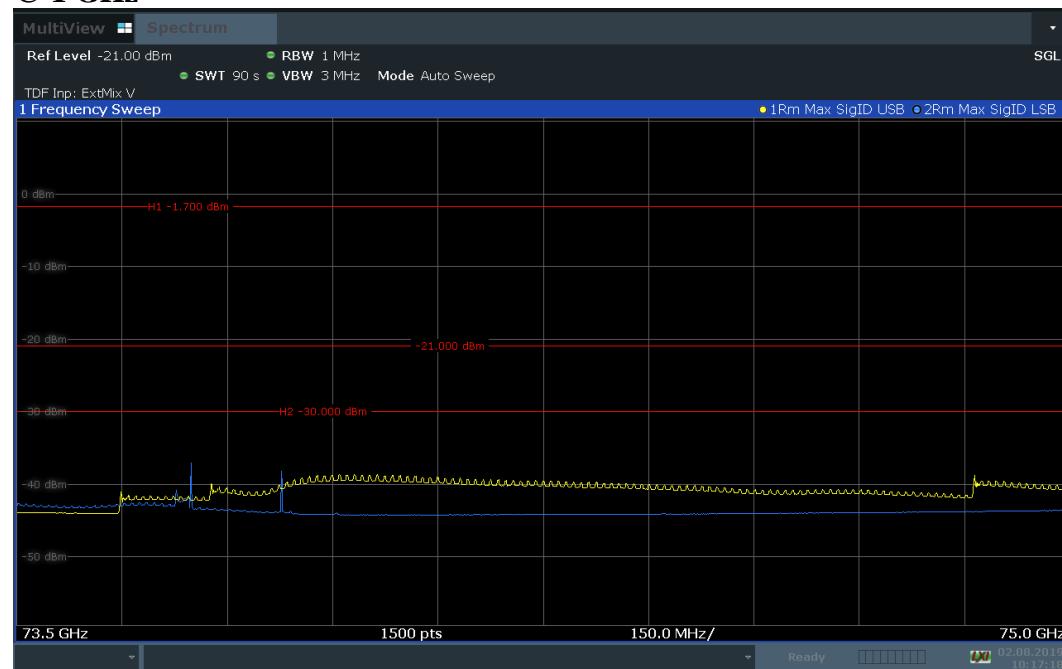
5.17. 55 GHz – 73.5 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



17:59:41 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.18. 73.5 GHz – 75 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



10:17:19 02.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.19. 75 GHz – 97 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto



10:20:46 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.20. 75 GHz – 97 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: auto



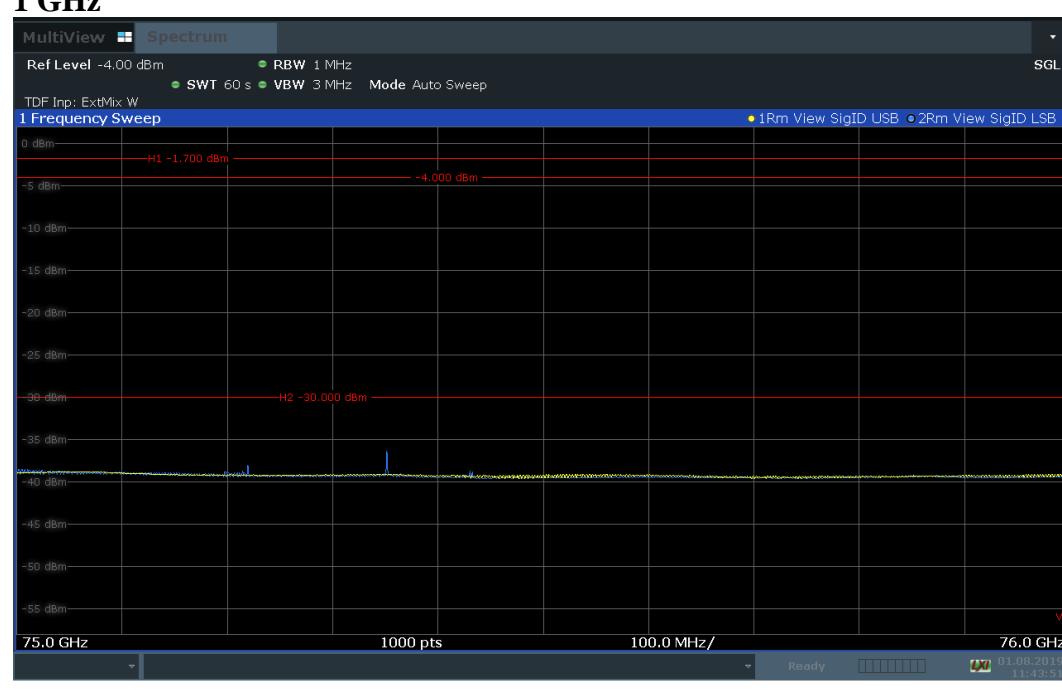
10:21:05 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

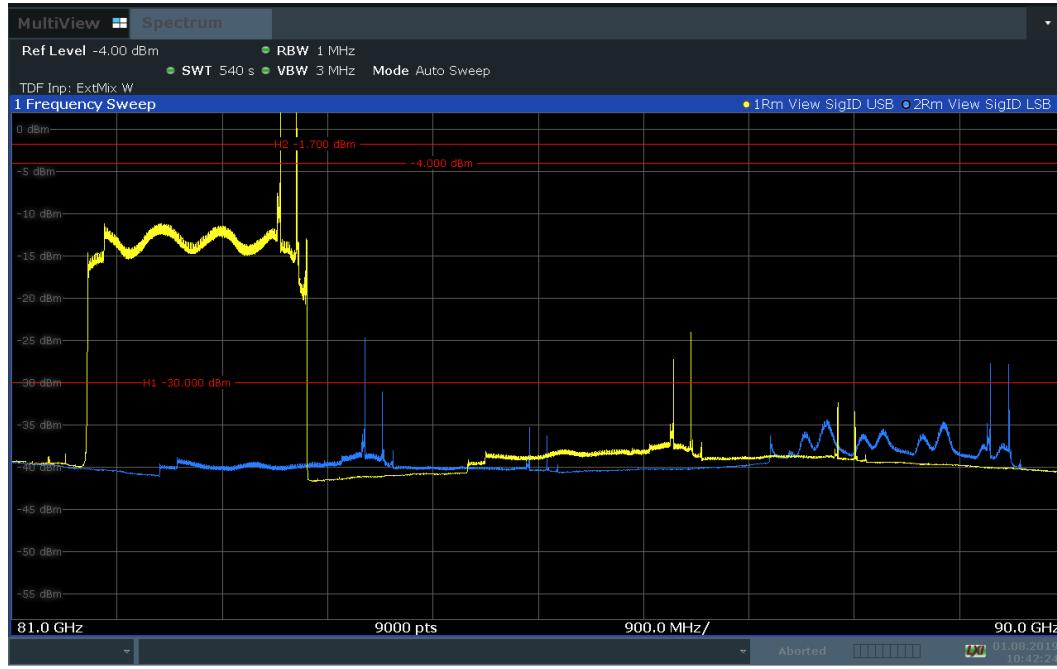
5.21. 75 GHz – 97 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: auto



5.22. 75 GHz – 76 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



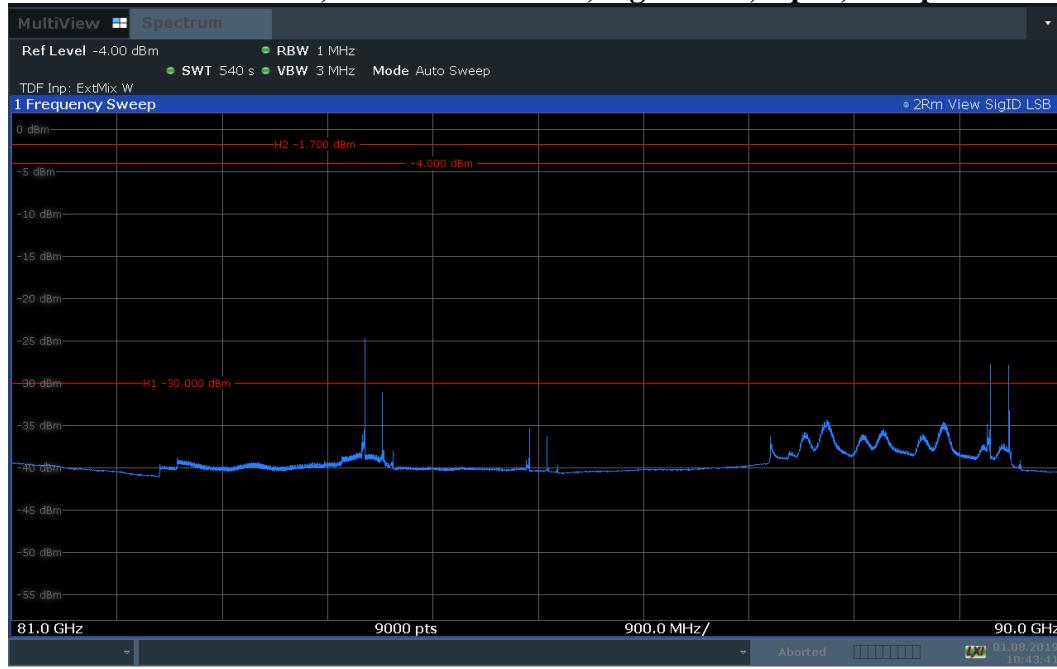
5.23. 81 GHz – 90 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



10:42:25 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.24. 81 GHz – 90 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



10:43:42 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

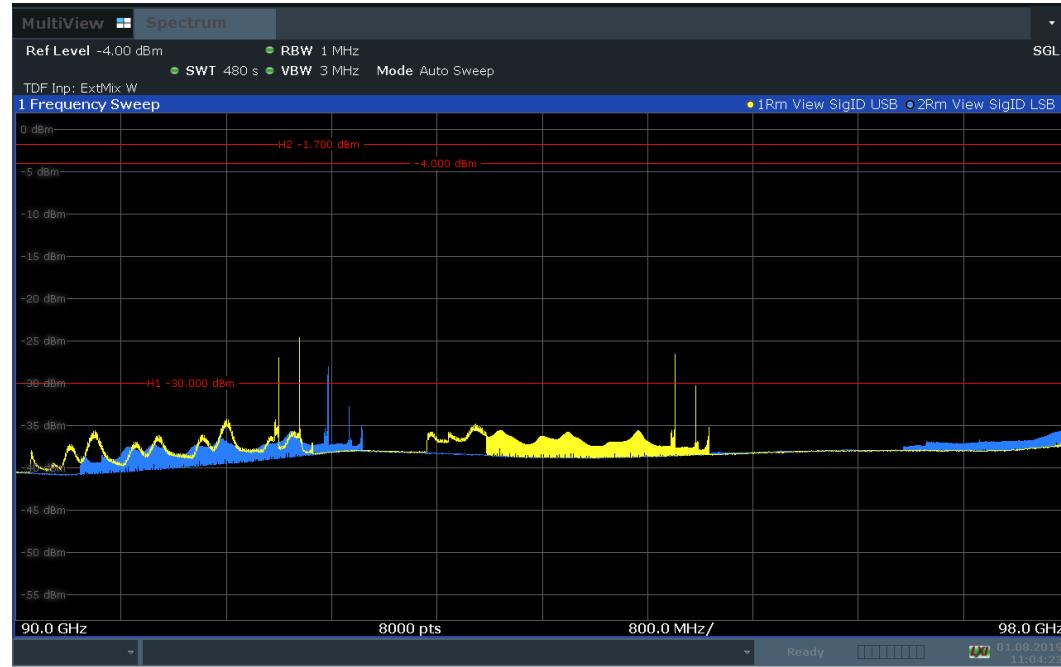
5.25. 81 GHz – 90 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



10:44:03 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

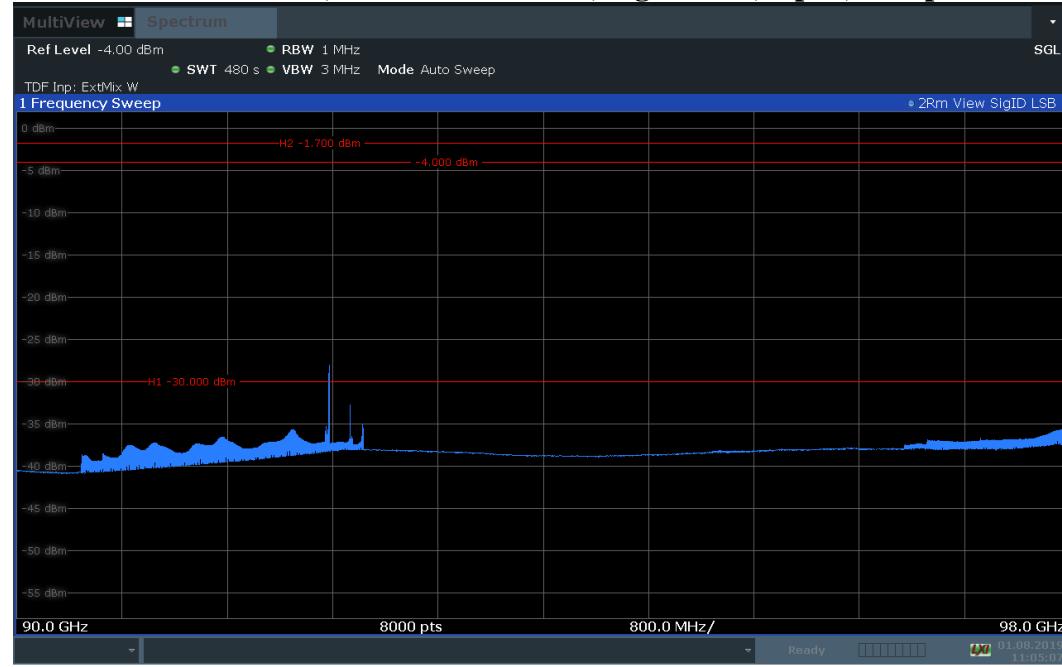
5.26. 90 GHz – 98 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



11:04:23 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.27. 90 GHz – 98 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



11:05:07 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

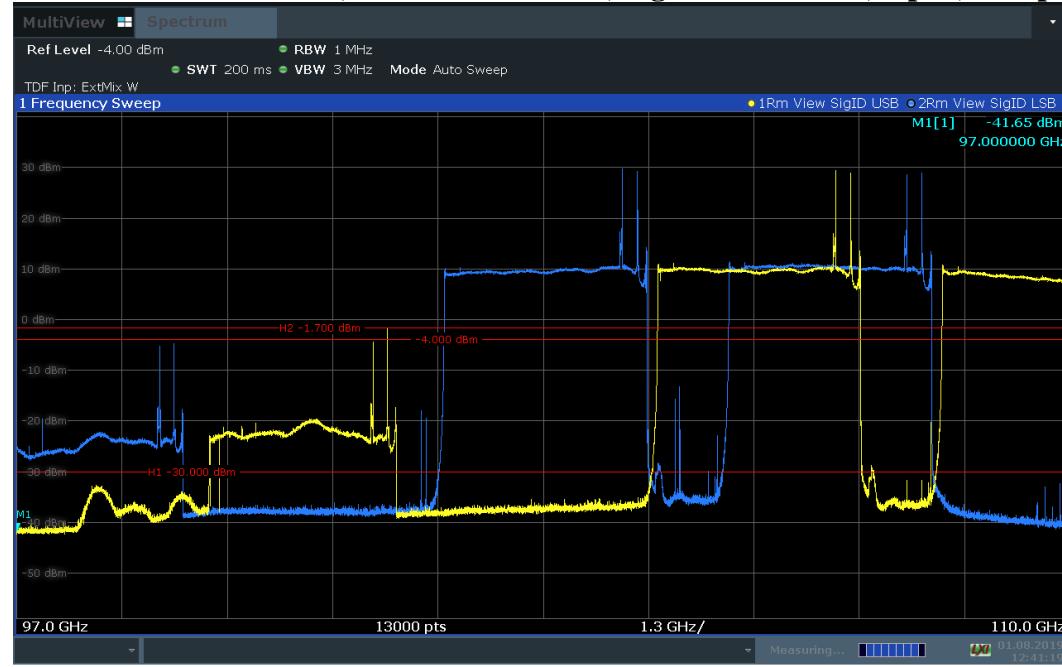
5.28. 90 GHz – 98 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



11:05:36 01.08.2019

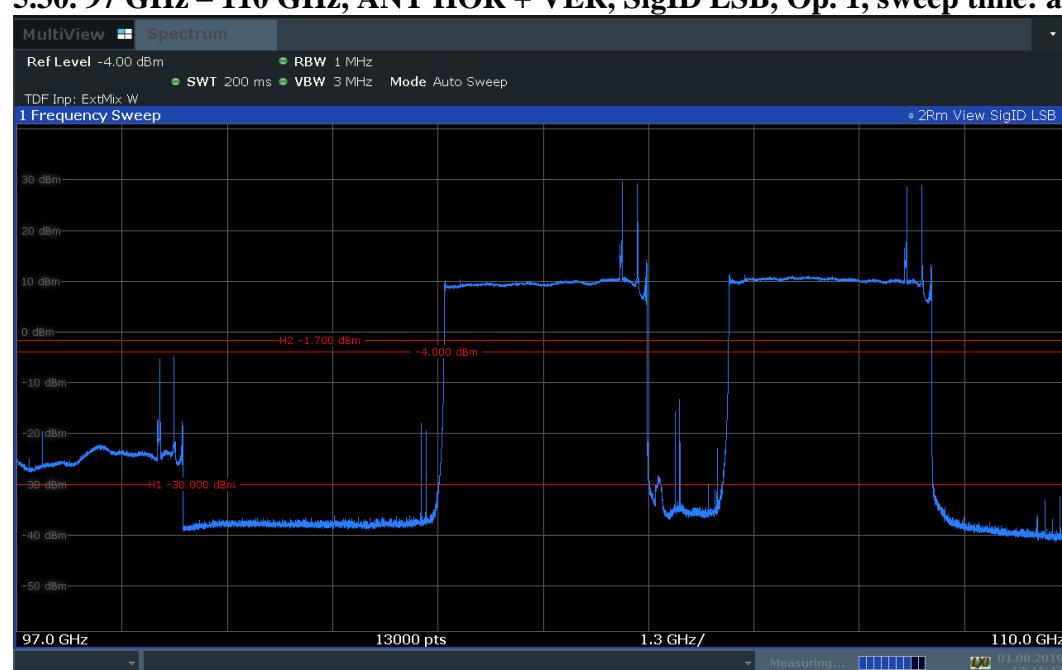
* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.29. 97 GHz – 110 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto



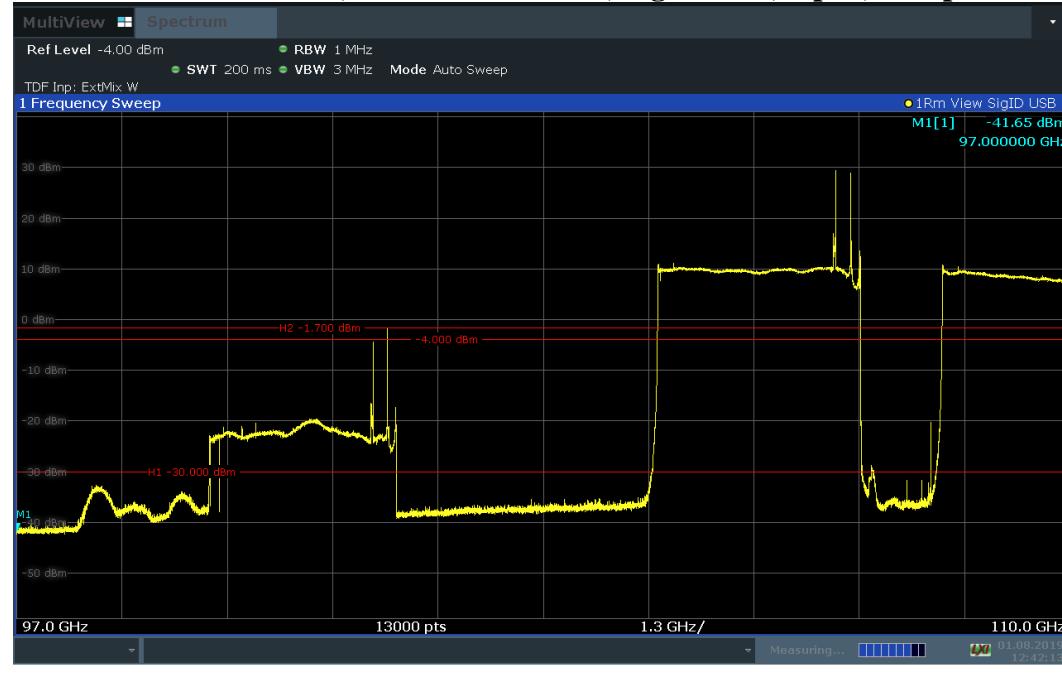
* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.30. 97 GHz – 110 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: auto



* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

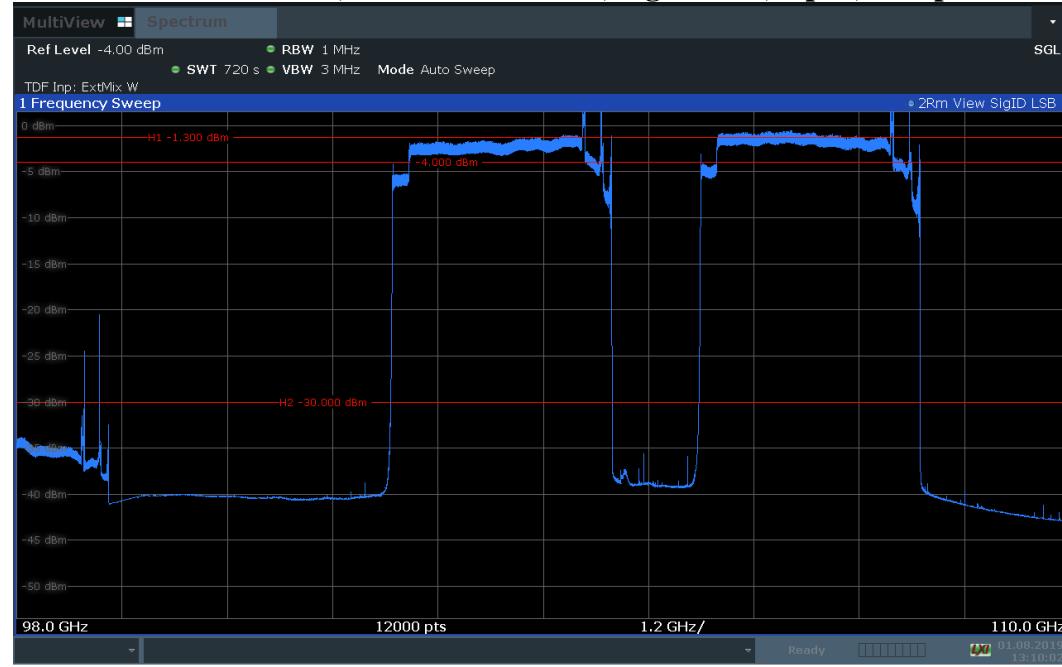
5.31. 97 GHz – 110 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: auto



5.32. 98 GHz – 110 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



5.33. 98 GHz – 110 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



13:10:02 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.34. 98 GHz – 110 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



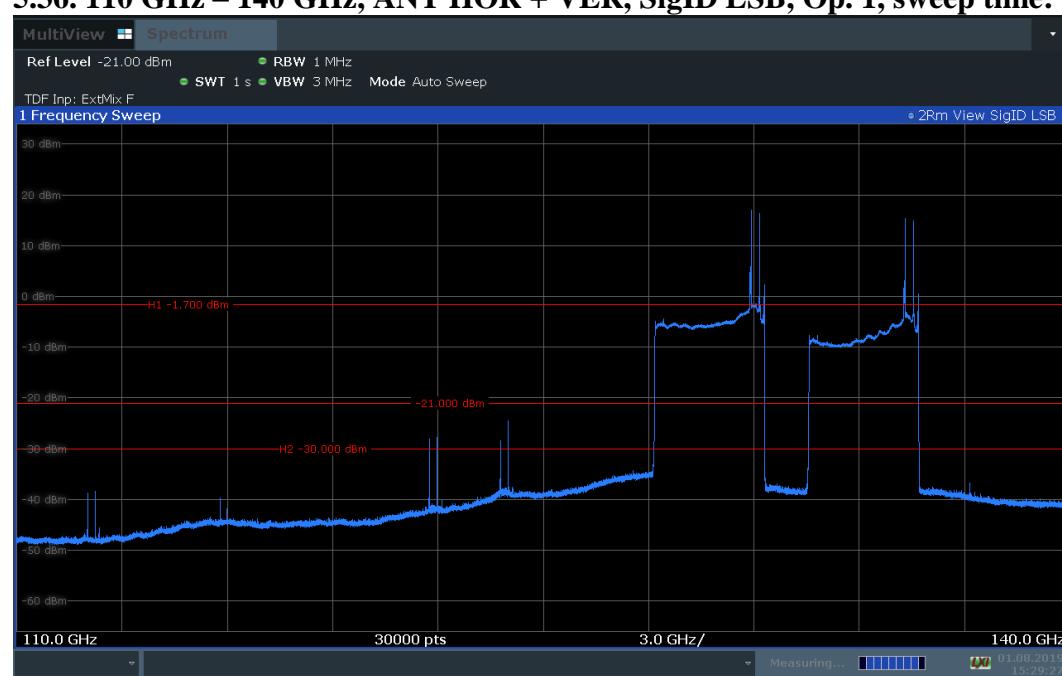
13:10:37 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -4 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

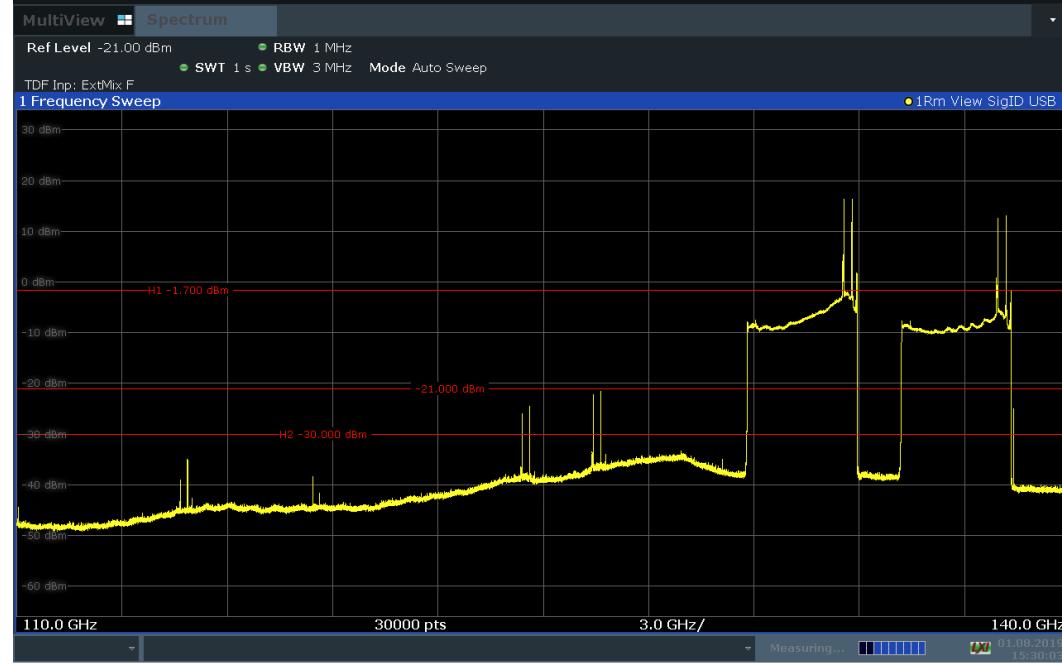
5.35. 110 GHz – 140 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 1 s



5.36. 110 GHz – 140 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 1 s



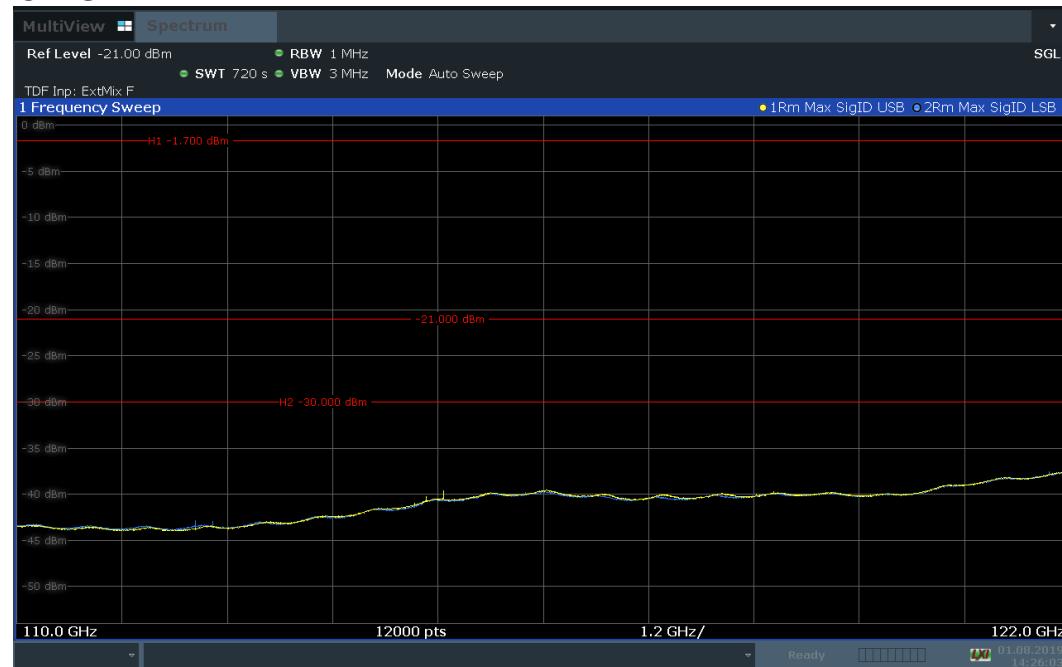
5.37. 110 GHz – 140 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 1 s



15:30:03 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

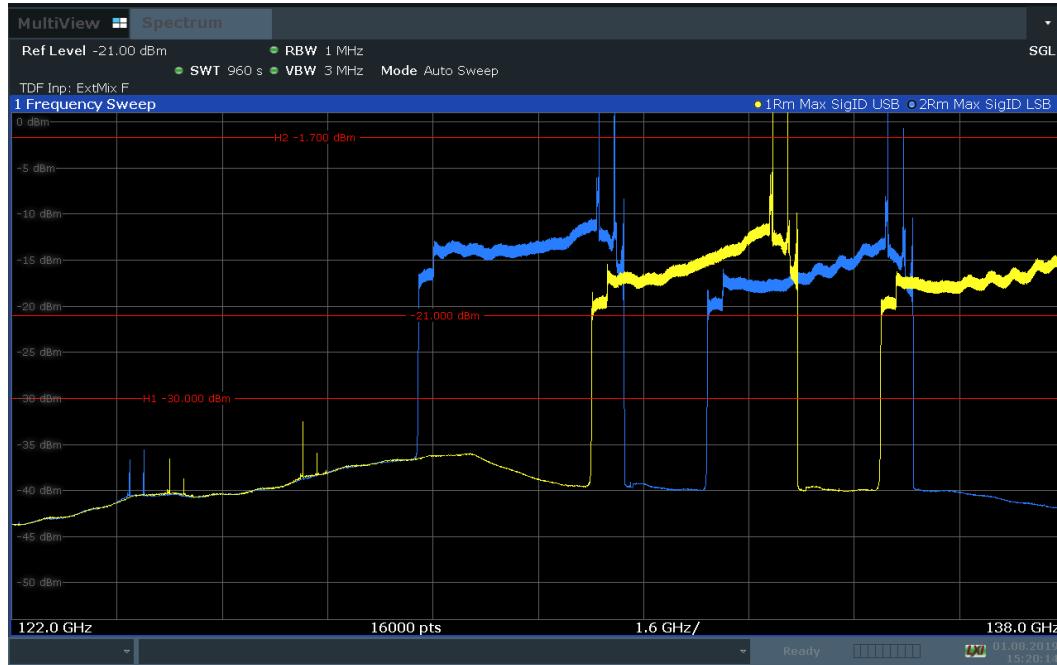
5.38. 110 GHz – 122 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



14:26:03 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

5.39. 122 GHz – 138 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



15:20:14 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

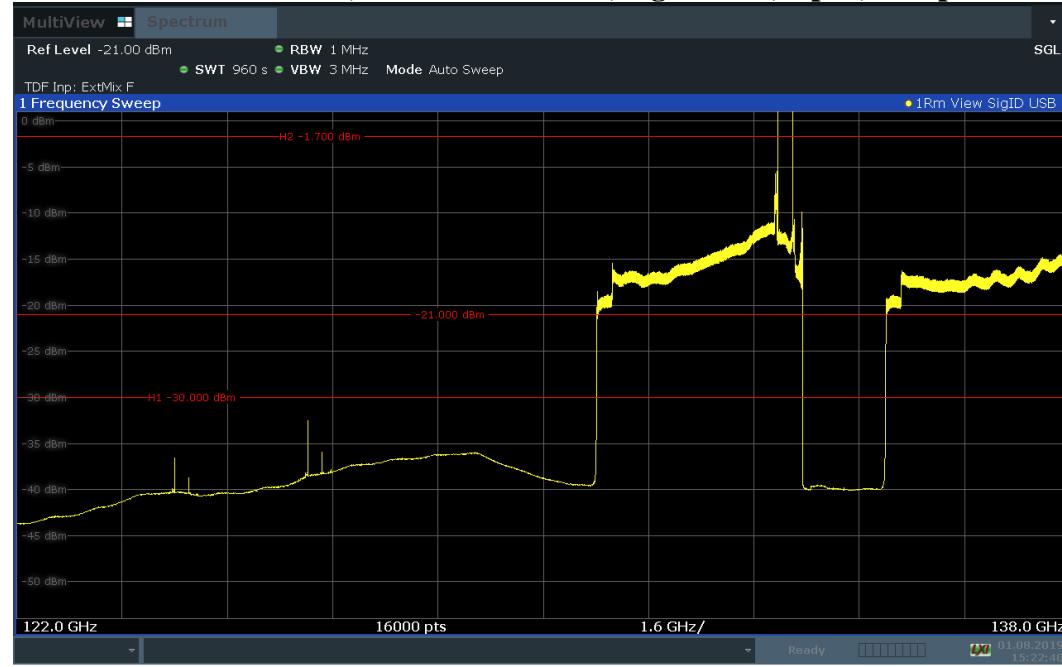
5.40. 122 GHz – 138 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



15:23:05 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

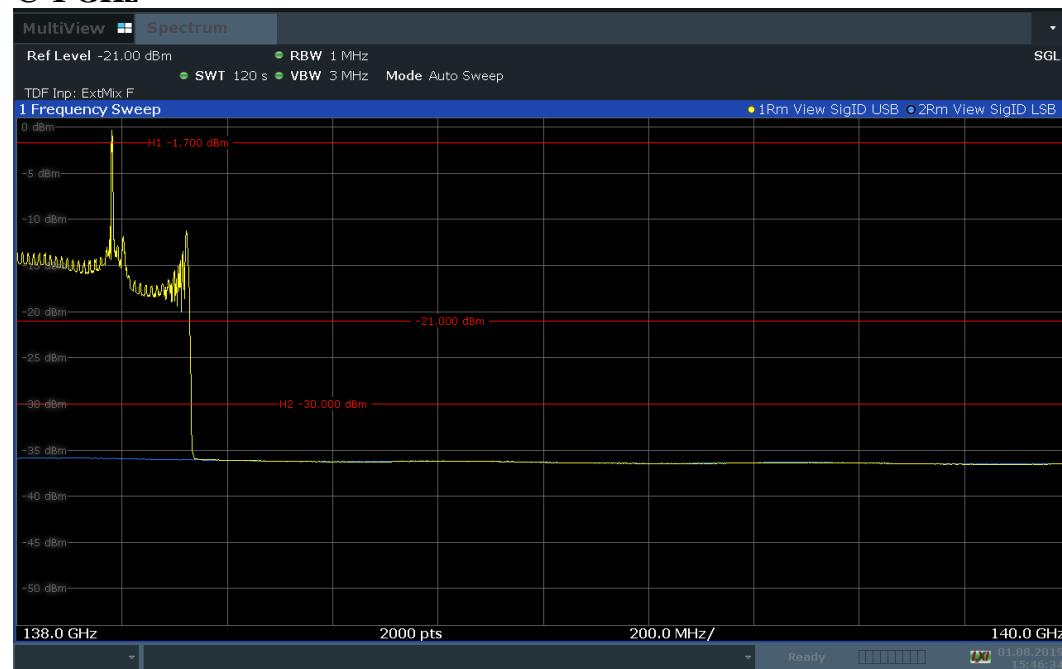
5.41. 122 GHz – 138 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



15:22:40 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

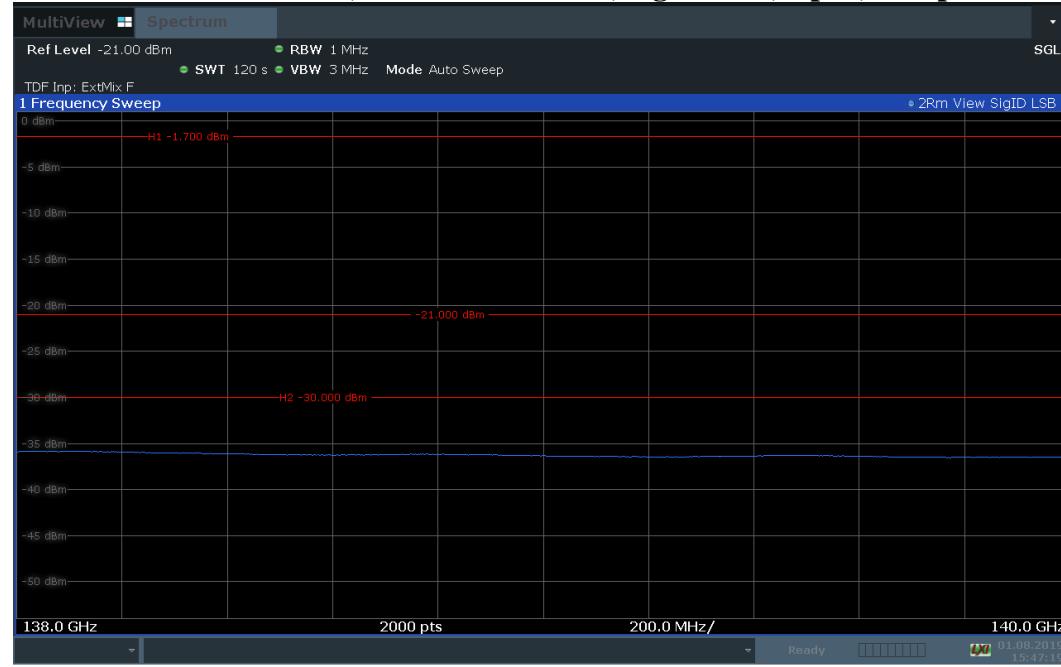
5.42. 138 GHz – 140 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 60 s @ 1 GHz



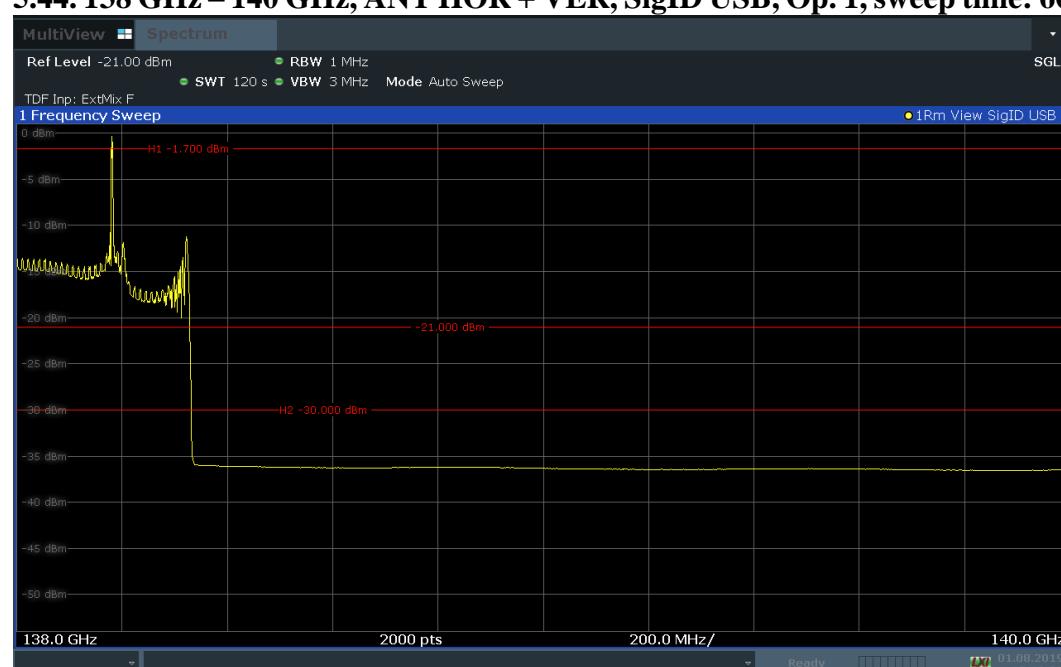
15:46:35 01.08.2019

* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is -1.7 dBm (FCC) and -30 dBm (ISED).

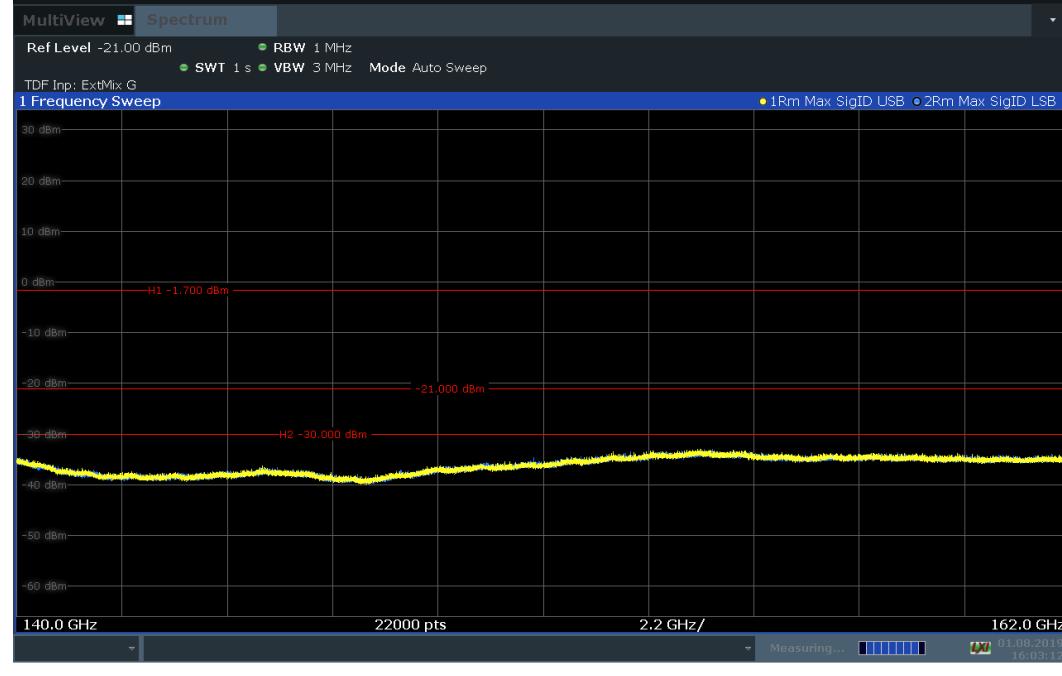
5.43. 138 GHz – 140 GHz, ANT HOR + VER, SigID LSB, Op. 1, sweep time: 60 s @ 1 GHz



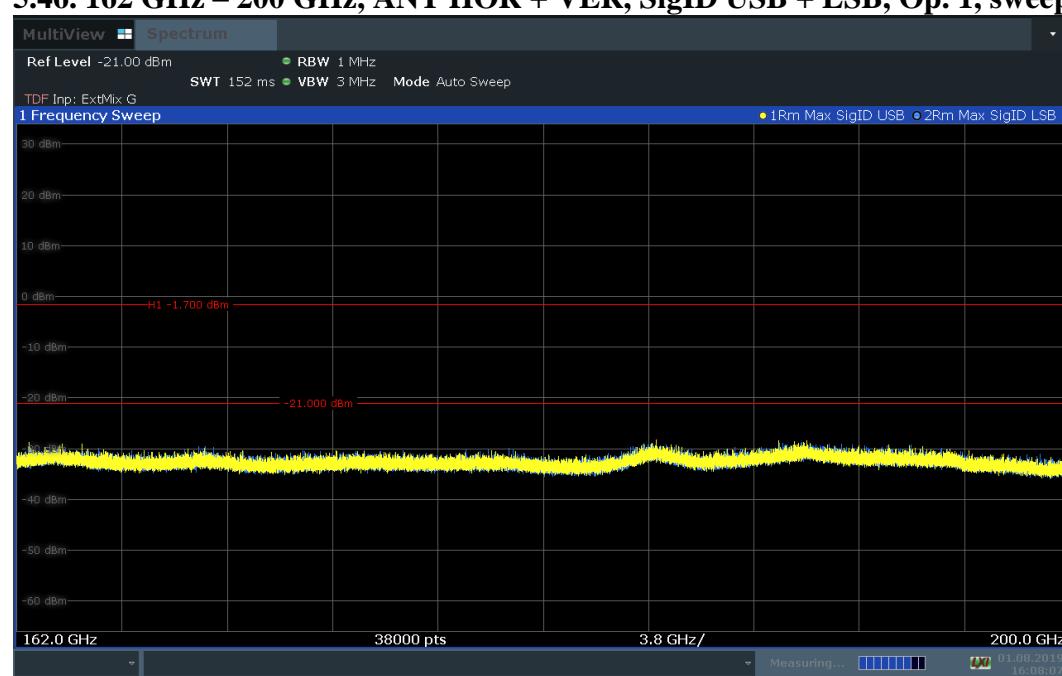
5.44. 138 GHz – 140 GHz, ANT HOR + VER, SigID USB, Op. 1, sweep time: 60 s @ 1 GHz



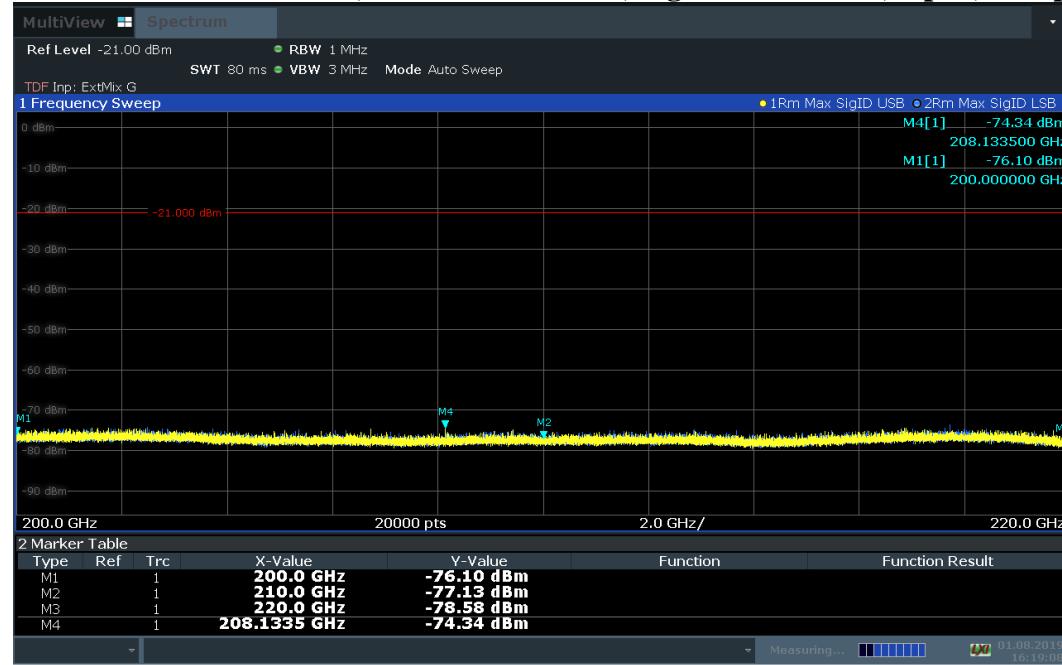
5.45. 140 GHz – 162 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: 1 s



5.46. 162 GHz – 200 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto

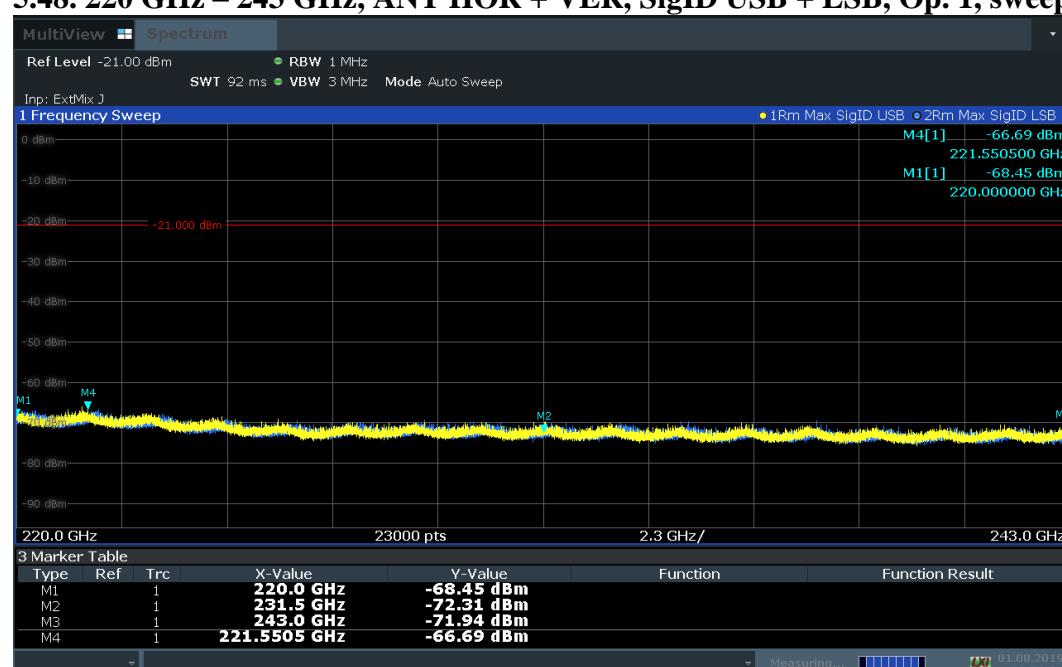


5.47. 200 GHz – 220 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto



* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is 0.5 dBm (see calculations in subsection 5.8.6).

5.48. 220 GHz – 243 GHz, ANT HOR + VER, SigID USB + LSB, Op. 1, sweep time: auto



* Signal ID function is used. The diagram shows image signals and mixer products. The real input signal is shown, only when USB and LSD traces have the same position on the frequency axis => Apart from the noise floor no real input signal was observed. See subsection 5.8.6. in the main report. -21 dBm is a reference line from the FSW67. Limit is 0.5 dBm (see calculations in subsection 5.8.6).

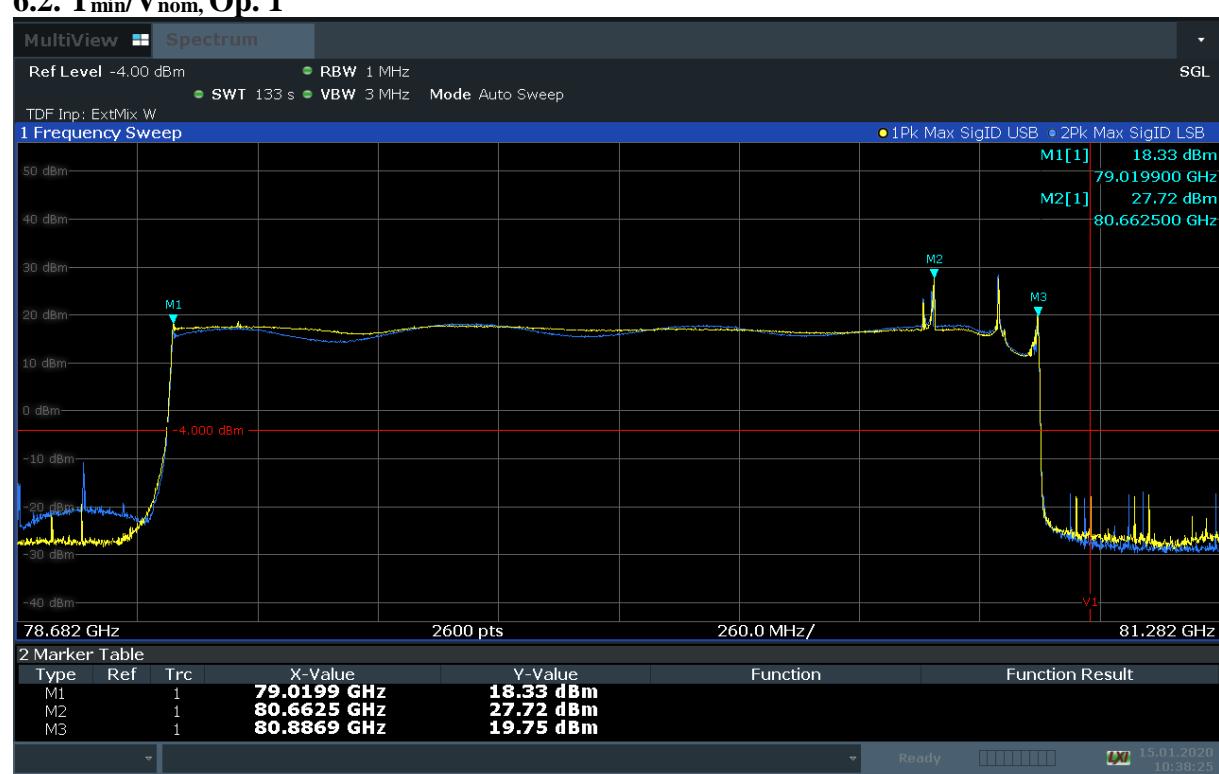
6. Frequency stability

6.1. T_{nom}/V_{nom}, Op. 1



* -4 dBm is a reference line from the FSW67.

6.2. T_{min}/V_{nom}, Op. 1



* -4 dBm is a reference line from the FSW67.

6.3. T_{max}/V_{nom}, Op. 1



6.4. T_{nom}/V_{min}, Op. 1



6.5. T_{nom}/V_{max} , Op. 1



* -4 dBm is a reference line from the FSW67.