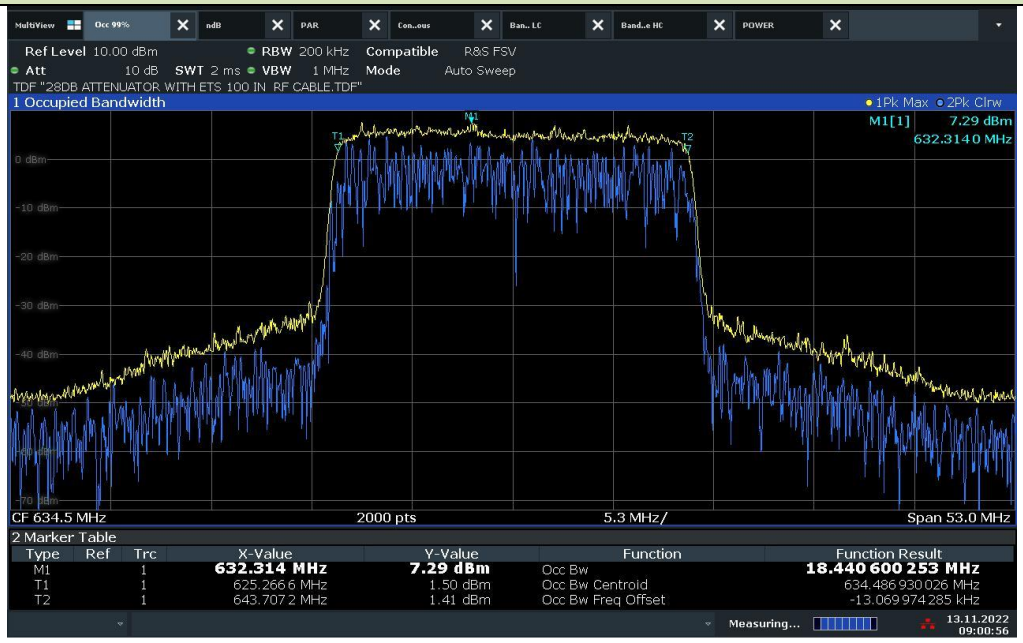
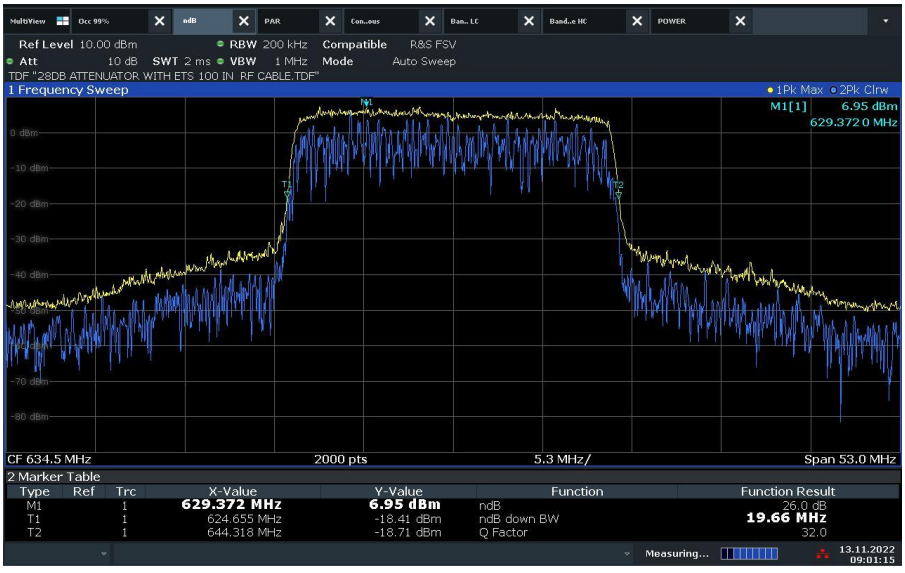
LTE Band 71 Downlink (20 MHz BW) / Mid Channel 634.5 MHz / 99%OBW



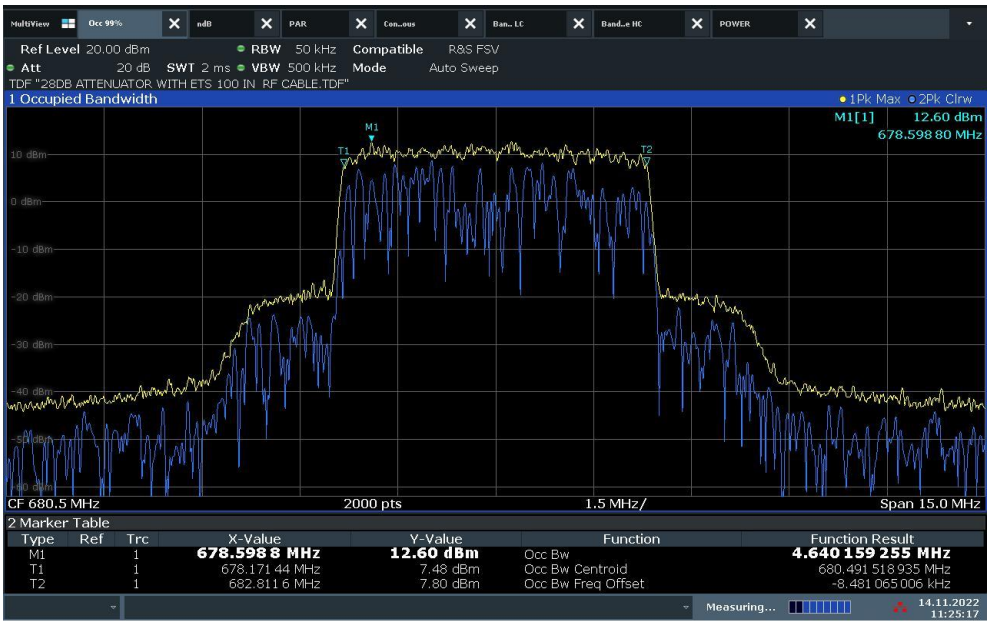
09:00:57 13.11.2022

LTE Band 71 Downlink (20 MHz BW) / Mid Channel 634.5 MHz / 26dB BW



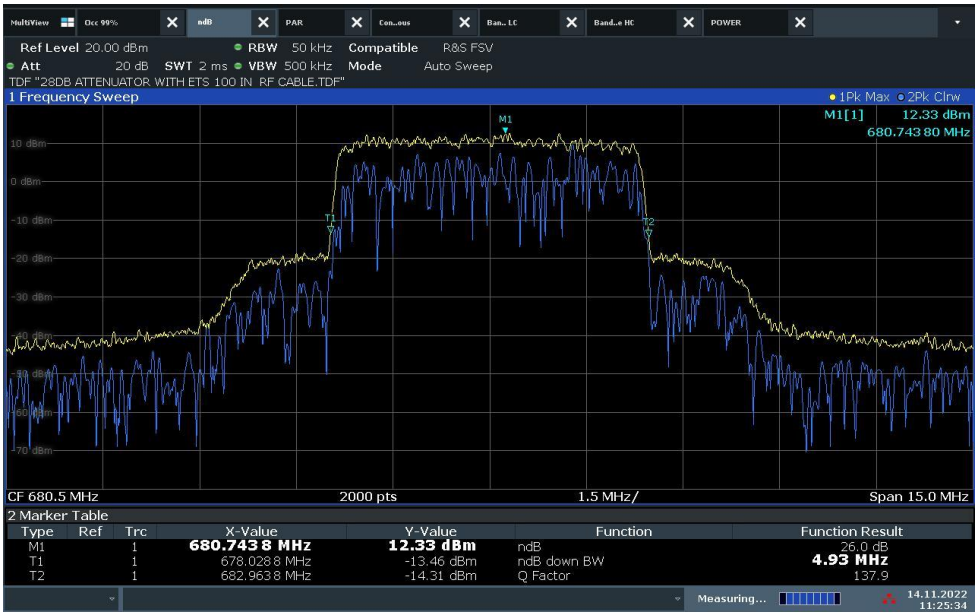
09:01:16 13.11.2022

LTE Band 71 Uplink (5 MHz BW) / Mid Channel 680.5 MHz / 99%OBW



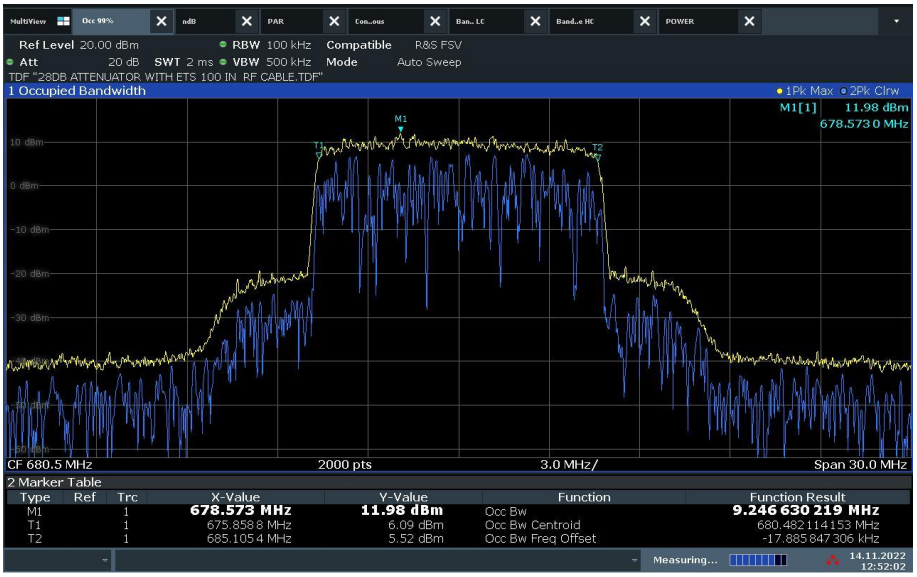
11:25:18 14.11.2022

LTE Band 71 Uplink (5 MHz BW) / Mid Channel 680.5 MHz / 26dB BW



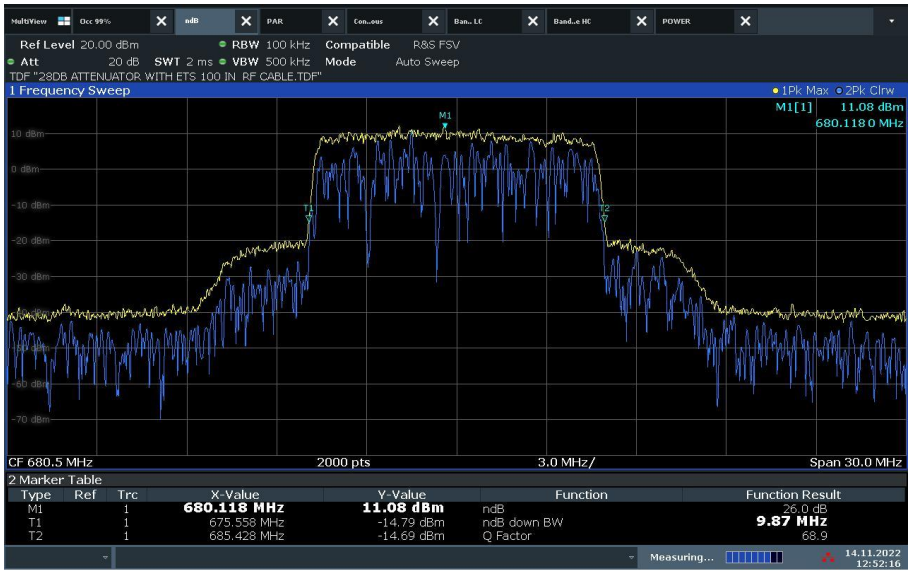
11:25:35 14.11.2022

LTE Band 71 Uplink (10 MHz BW) / Mid Channel 680.5 MHz / 99%OBW



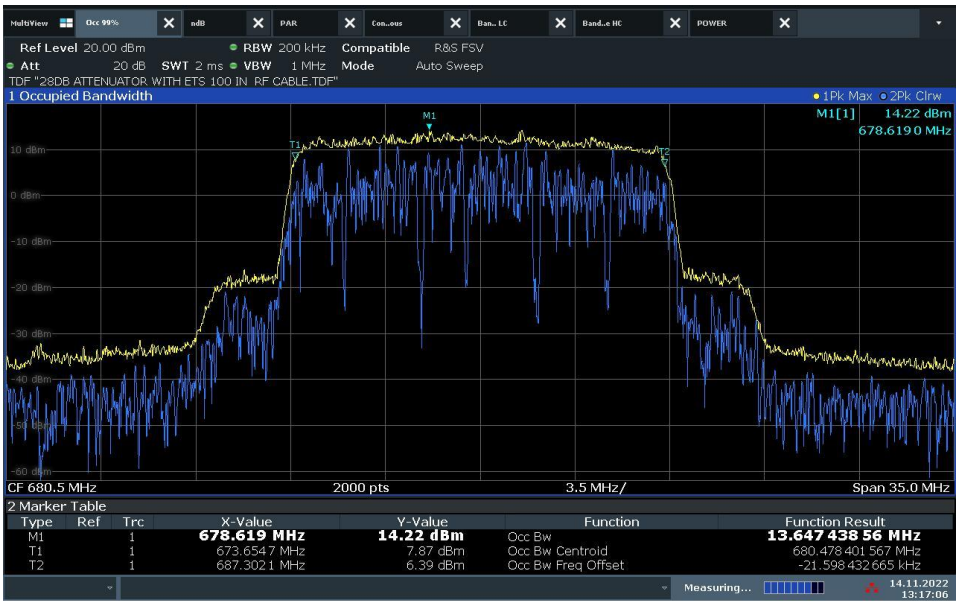
12:52:02 14.11.2022

LTE Band 71 Uplink (10 MHz BW) / Mid Channel 680.5 MHz / 26dB BW



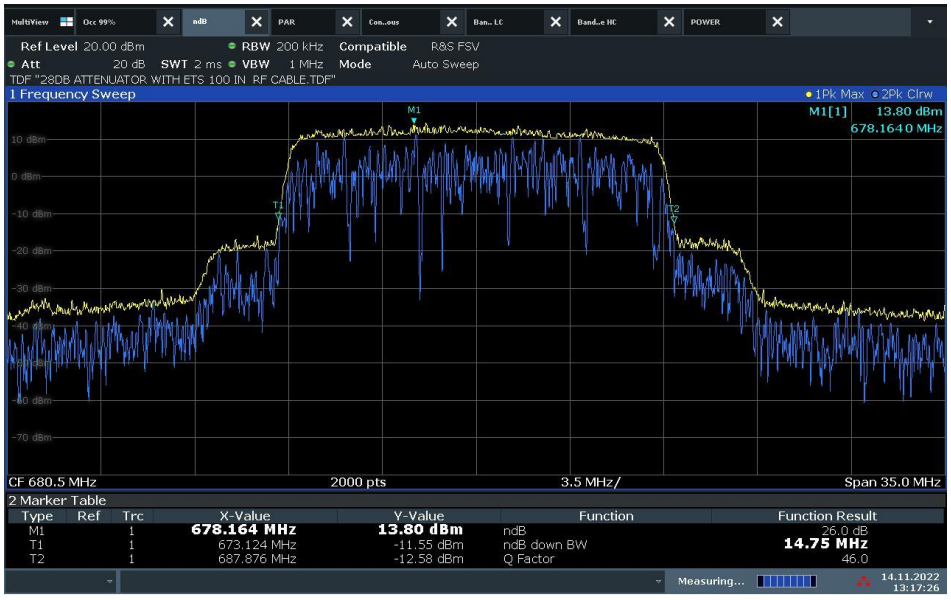
12:52:16 14.11.2022

LTE Band 71 Uplink (15 MHz BW) / Mid Channel 680.5 MHz / 99%OBW



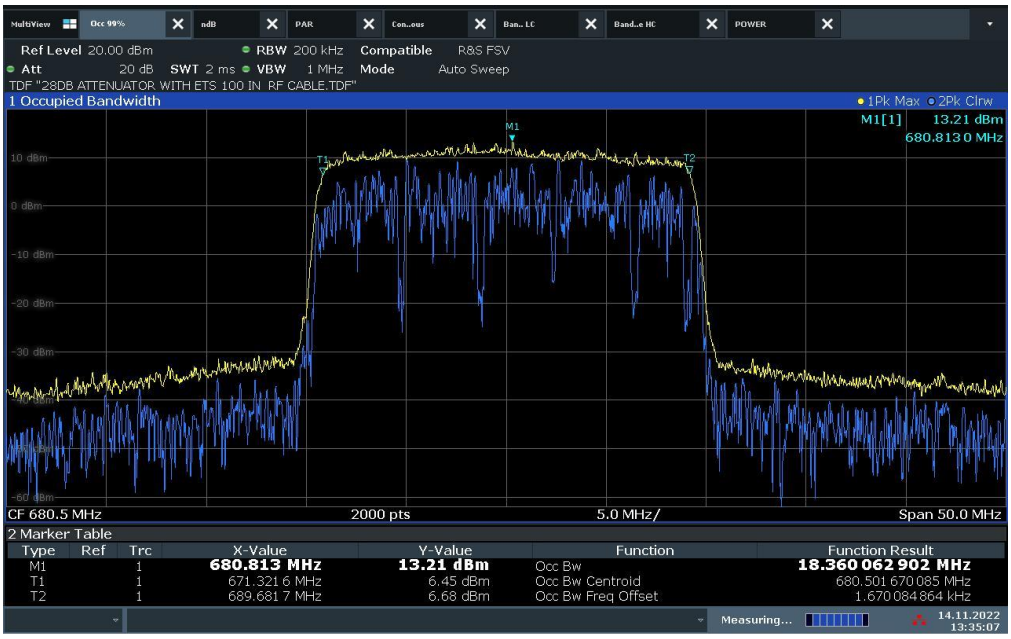
13:17:06 14.11.2022

LTE Band 71 Uplink (15 MHz BW) / Mid Channel 680.5 MHz / 26dB BW



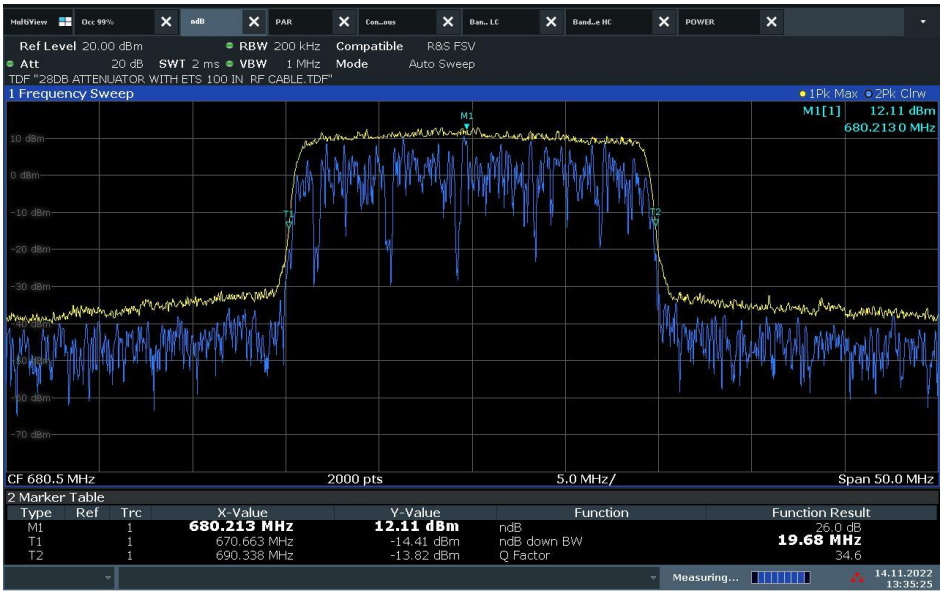
13:17:26 14.11.2022

LTE Band 71 Uplink (20 MHz BW) / Mid Channel 680.5 MHz / 99%OBW



13:35:08 14.11.2022

LTE Band 71 Uplink (20 MHz BW) / Mid Channel 680.5 MHz / 26dB BW



13:35:26 14.11.2022

2.11 Oscillation Detection

2.11.1 Specification Reference

FCC 47 CFR Part 20. Clause 20.21(e)(9)(ii)(A)
KDB935210 D04, Clause 7.11

2.11.2 Standard Applicable

FCC 47 CFR Part 20. Clause 20.21(e)(9)(ii)(A) Anti-Oscillation:

Consumer boosters must be able to detect and mitigate (i.e., by automatic gain reduction or shut down), any oscillations in uplink and downlink bands. Oscillation detection and mitigation must occur automatically within 0.3 seconds in the uplink band and within 1 second in the downlink band. In cases where oscillation is detected, the booster must continue mitigation for at least one minute before restarting. After five such restarts, the booster must not resume operation until manually reset.

2.11.3 Equipment Under Test and Modification State

Serial No: 370920000139 (NU)and 371929000156 (CU) / Test Configuration A and B

2.11.4 Date of Test/Initial of test personnel who performed the test

August 08, 13 and October 15, 16, 2019/XYZ

2.11.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.11.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature	24.5 - 25.8°C
Relative Humidity	45.0 - 53.3%
ATM Pressure	98.9 - 99.0kPa

2.11.7 Additional Observations

- This is conducted Test.
- Test procedure is per Section 7.11 of KDB935210 (D04 Provider Specific Booster Measurements v02r03). Appropriate offset (line losses) applied.
- The EUT operated in Normal Mode when testing Oscillation Mitigation Time. Setup the EUT according to Figure 10 and 11 of Section 7.11 of KDB935210 for Normal Mode.
- The EUT operated in Test Mode when testing Re-Try event. Setup the EUT according to Figure 12 of Section 7.11 of KDB935210 for Test Mode.
- Evaluations are conducted at CU and NU antenna ports.
- Signal: 5MHz WCDMA or LTE.

2.11.8 Test Results Summary

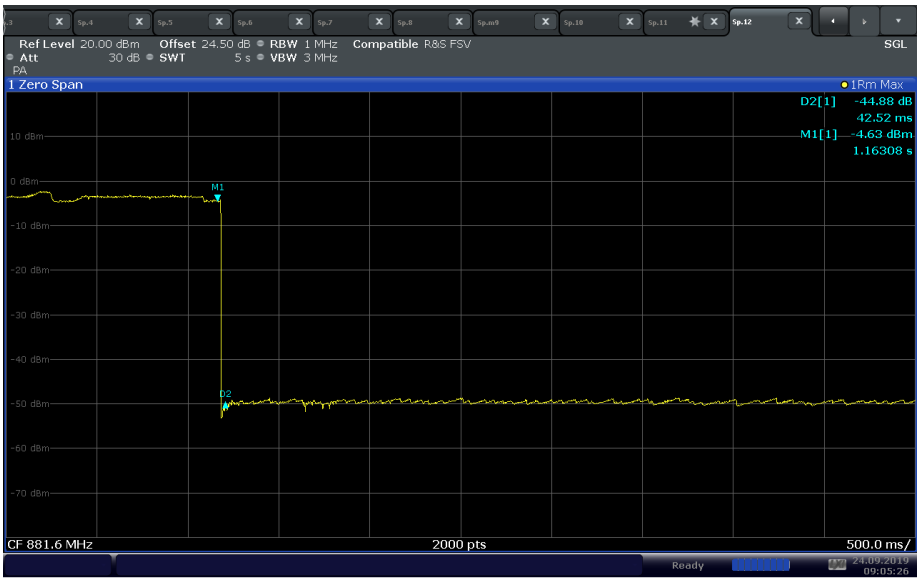
Band	Signal Path	Frequency (MHz)	Mitigation Time (Sec)	Limit (Sec)	Margin (Sec)
WCDMA Band 5 Downlink	CU with NU Port A	881.6	0.043	1	0.957
WCDMA Band 5 Uplink	NU Port A	836.6	0.033	0.3	0.267
LTE Band 4 Downlink	CU with NU Port A	2132.5	0.040	1	0.960
LTE Band 4 Uplink	NU Port A	1732.5	0.035	0.3	0.265
LTE Band 4 Downlink	CU with NU Port B	2132.5	0.035	1	0.965
LTE Band 4 Uplink	NU Port B	1732.5	0.028	0.3	0.272
LTE Band 4 Downlink	CU with NU Port C	2132.5	0.023	1	0.977
LTE Band 4 Uplink	NU Port C	1732.5	0.025	0.3	0.275
LTE Band 12 Downlink	CU with NU Port A	737.5	0.025	1	0.975
LTE Band 12 Uplink	NU Port A	707.5	0.025	0.3	0.275
LTE Band 12 Downlink	CU with NU Port B	737.5	0.040	1	0.960
LTE Band 12 Uplink	NU Port B	707.5	0.023	0.3	0.277
LTE Band 13 Downlink	CU with NU Port C	751.0	0.028	1	0.972
LTE Band 13 Uplink	NU Port C	782.0	0.028	0.3	0.272
LTE Band 25 Downlink	CU with NU Port A	1962.5	0.038	1	0.962
LTE Band 25 Uplink	NU Port A	1882.5	0.033	0.3	0.267
LTE Band 25 Downlink	CU with NU Port B	1962.5	0.028	1	0.972
LTE Band 25 Uplink	NU Port B	1882.5	0.040	0.3	0.260
LTE Band 25 Downlink	CU with NU Port C	1962.5	0.030	1	0.970
LTE Band 25 Uplink	NU Port C	1882.5	0.020	0.3	0.280
LTE Band 30 Downlink	CU with NU Port A	2355.0	0.038	1	0.962
LTE Band 30 Uplink	NU Port A	2310.0	0.033	0.3	0.267
LTE Band 71 Downlink	CU with NU Port B	634.5	0.028	1	0.972
LTE Band 71 Uplink	NU Port B	680.5	0.023	0.3	0.277

Band	Signal Path	Frequency (MHz)	Re-try Event	Limit Event	Margin (Sec)
WCDMA Band 5 Downlink	CU with NU Port A	881.6	0	5	5
WCDMA Band 5 Uplink	NU Port A	836.6	0	5	5
LTE Band 4 Downlink	CU with NU Port A	2132.5	0	5	5
LTE Band 4 Uplink	NU Port A	1732.5	0	5	5
LTE Band 4 Downlink	CU with NU Port B	2132.5	0	5	5
LTE Band 4 Uplink	NU Port B	1732.5	0	5	5
LTE Band 4 Downlink	CU with NU Port C	2132.5	0	5	5
LTE Band 4 Uplink	NU Port C	1732.5	0	5	5
LTE Band 12 Downlink	CU with NU Port A	737.5	0	5	5
LTE Band 12 Uplink	NU Port A	707.5	0	5	5
LTE Band 12 Downlink	CU with NU Port B	737.5	0	5	5
LTE Band 12 Uplink	NU Port B	707.5	0	5	5
LTE Band 13 Downlink	CU with NU Port B	751.0	0	5	5
LTE Band 13 Uplink	NU Port B	782.0	0	5	5
LTE Band 25 Downlink	CU with NU Port A	1962.5	0	5	5
LTE Band 25 Uplink	NU Port A	1882.5	0	5	5
LTE Band 25 Downlink	CU with NU Port B	1962.5	0	5	5
LTE Band 25 Uplink	NU Port B	1882.5	0	5	5
LTE Band 25 Downlink	CU with NU Port C	1962.5	0	5	5
LTE Band 25 Uplink	NU Port C	1882.5	0	5	5
LTE Band 25 Downlink	CU with NU Port D	1962.5	0	5	5
LTE Band 25 Uplink	NU Port D	1882.5	0	5	5
LTE Band 30 Downlink	CU with NU Port A	2355.0	0	5	5
LTE Band 30 Uplink	NU Port A	2310.0	0	5	5
LTE Band 71 Downlink	CU with NU Port B	634.5	0	5	5
LTE Band 71 Uplink	NU Port B	680.5	0	5	5

Band	Signal Path	Frequency (MHz)	Level	Peak Oscillation Level	Level
WCDMA Band 5 Downlink	CU with NU Port A	869.27	-71.75	< 2dB	12
WCDMA Band 5 Uplink	NU Port A	826.45	-72.75	< 2dB	12
LTE Band 4 Downlink	CU with NU Port A	2117.02	-70.70	< 2dB	12
LTE Band 4 Uplink	NU Port A	1757.66	-71.54	< 2dB	12
LTE Band 4 Downlink	CU with NU Port B	2112.91	-70.49	< 2dB	12
LTE Band 4 Uplink	NU Port B	1742.56	-71.21	< 2dB	12
LTE Band 4 Downlink	CU with NU Port C	2145.05	-70.52	< 2dB	12
LTE Band 4 Uplink	NU Port C	1711.84	-71.28	< 2dB	12
LTE Band 12 Downlink	CU with NU Port A	746.38	-72.05	< 2dB	12
LTE Band 12 Uplink	NU Port A	715.91	-71.59	< 2dB	12
LTE Band 12 Downlink	CU with NU Port B	745.08	-72.21	< 2dB	12
LTE Band 12 Uplink	NU Port B	702.42	-72.05	< 2dB	12
LTE Band 13 Downlink	CU with NU Port B	746.02	-71.98	< 2dB	12
LTE Band 13 Uplink	NU Port B	776.17	-72.56	< 2dB	12
LTE Band 25 Downlink	CU with NU Port A	1994.85	-70.20	< 2dB	12
LTE Band 25 Uplink	NU Port A	1917.57	-71.06	< 2dB	12
LTE Band 25 Downlink	CU with NU Port B	1928.89	-70.78	< 2dB	12
LTE Band 25 Uplink	NU Port B	1898.27	-71.41	< 2dB	12
LTE Band 25 Downlink	CU with NU Port C	1932.11	-71.05	< 2dB	12
LTE Band 25 Uplink	NU Port C	1914.80	-71.24	< 2dB	12
LTE Band 25 Downlink	CU with NU Port D	1932.11	-71.05	< 2dB	12
LTE Band 25 Uplink	NU Port D	1914.80	-71.24	< 2dB	12
LTE Band 30 Downlink	CU with NU Port A	2349.17	-78.14	< 2dB	12
LTE Band 30 Uplink	NU Port A	2316.0	-67.01	< 2dB	12
LTE Band 71 Downlink	CU with NU Port B	648.09	-72.50	< 2dB	12
LTE Band 71 Uplink	NU Port B	696.53	-82.53	< 2dB	12

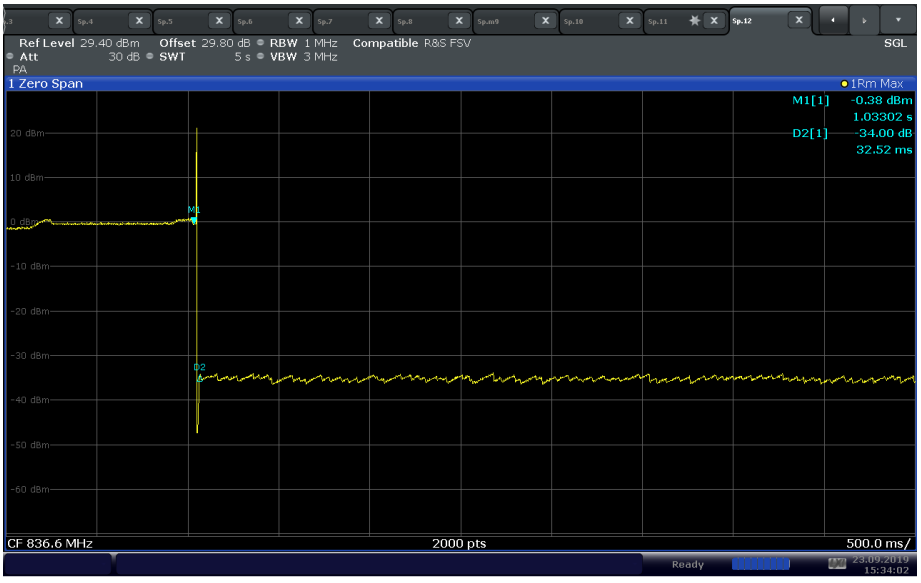
2.11.9 Test Results Plots

Mitigation Time - WCDMA Band 5 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A



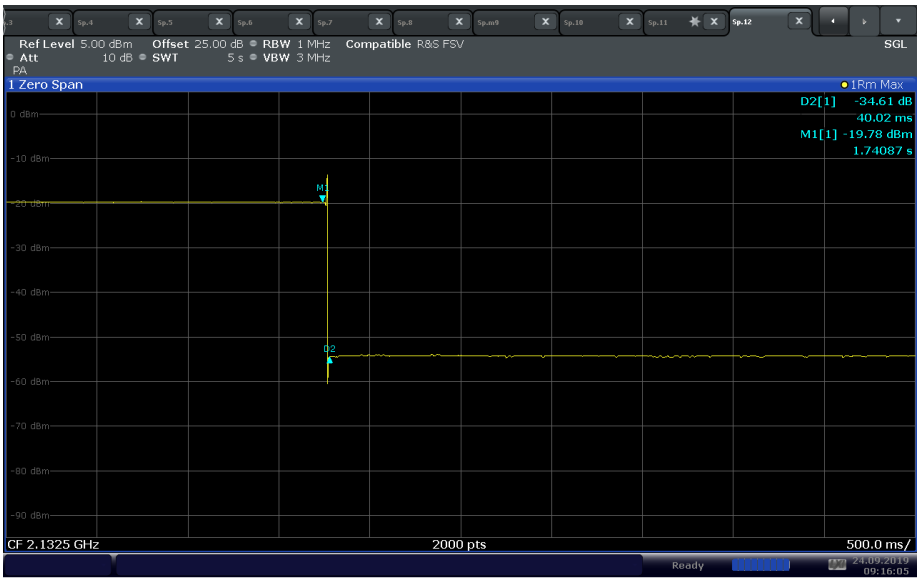
09:05:26 24.09.2019

Mitigation Time - WCDMA Band 5 Uplink 5MHz Bandwidth Mid Channel - NU Port A



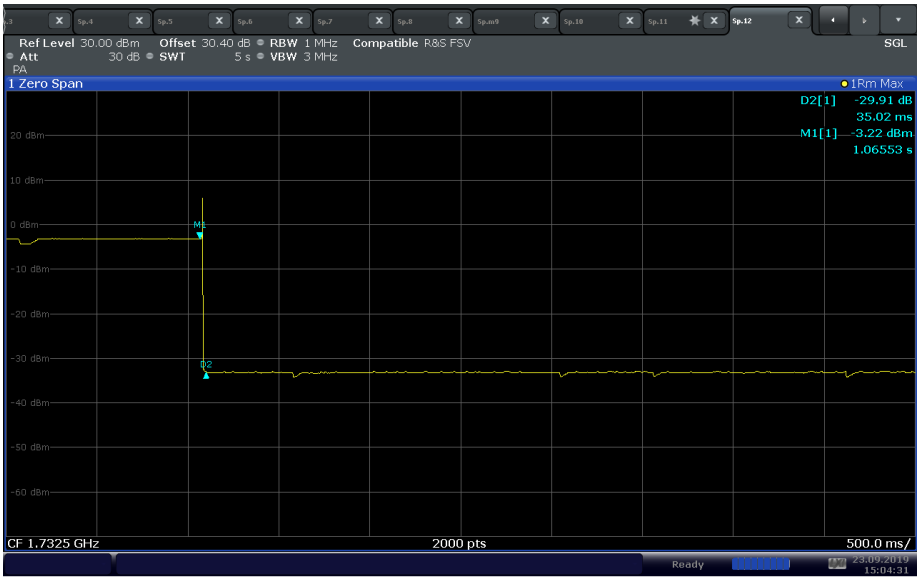
15:34:03 23.09.2019

Mitigation Time - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A



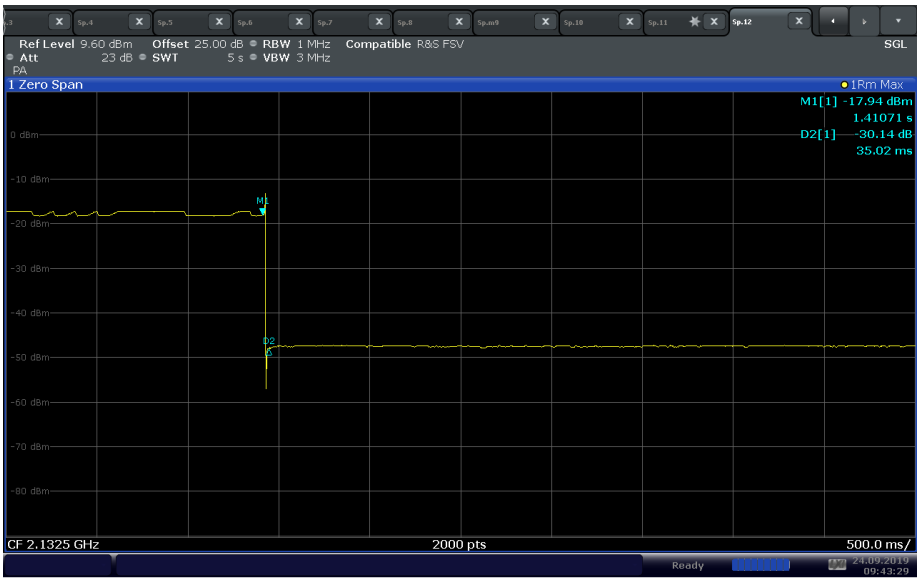
09:16:06 24.09.2019

Mitigation Time - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port A



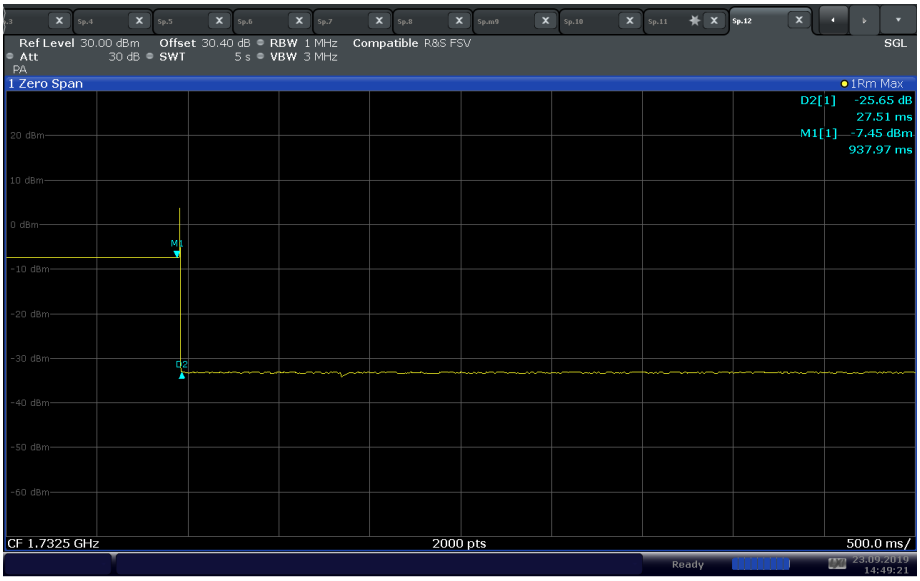
15:04:31 23.09.2019

Mitigation Time - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B



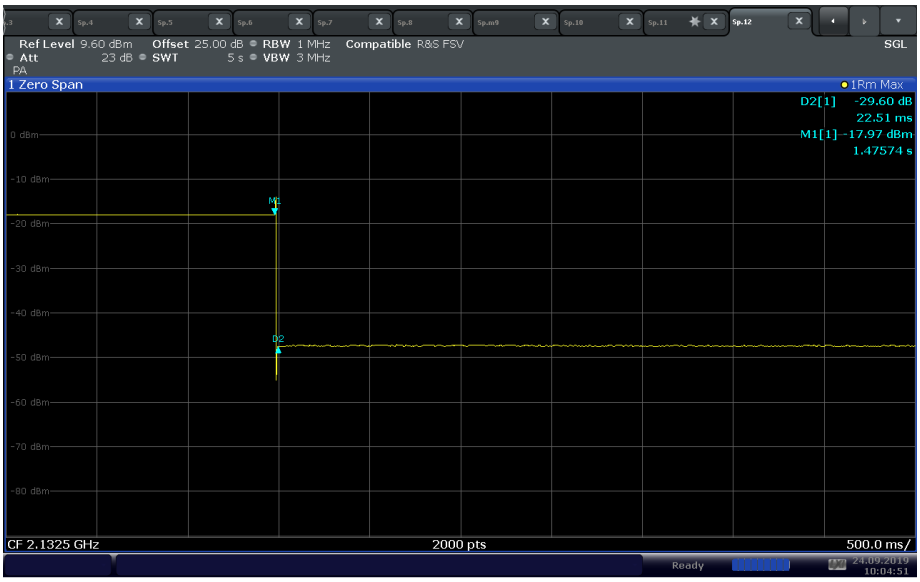
09:43:29 24.09.2019

Mitigation Time - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port B



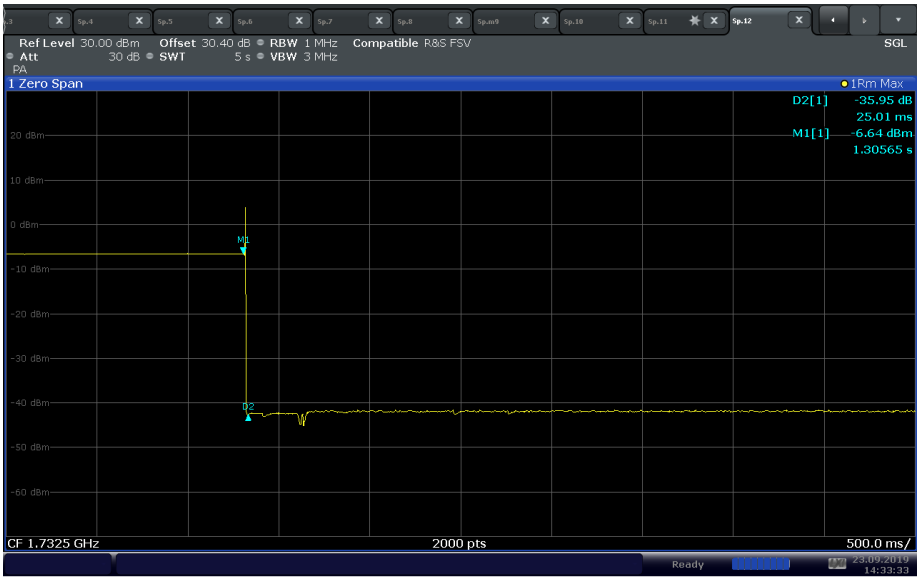
14:49:22 23.09.2019

Mitigation Time - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C



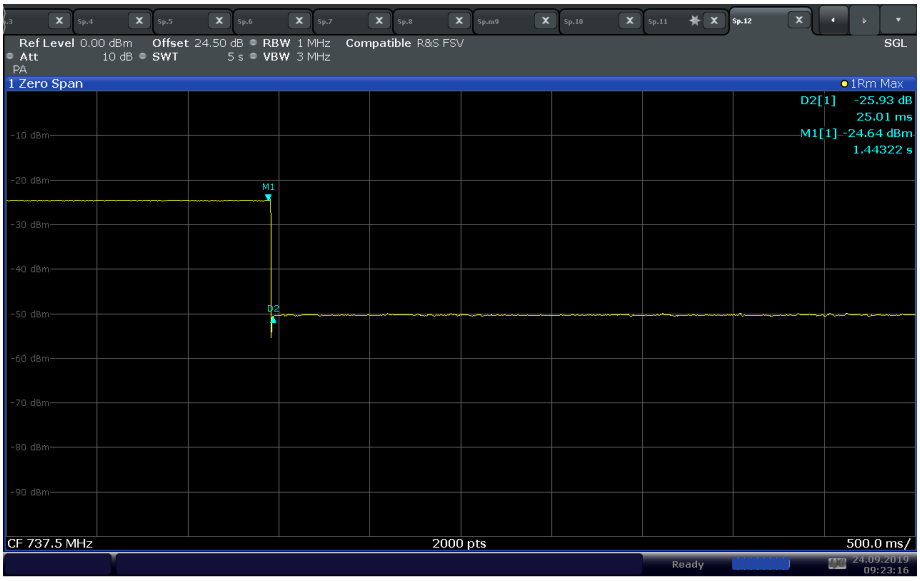
10:04:51 24.09.2019

Mitigation Time - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port C



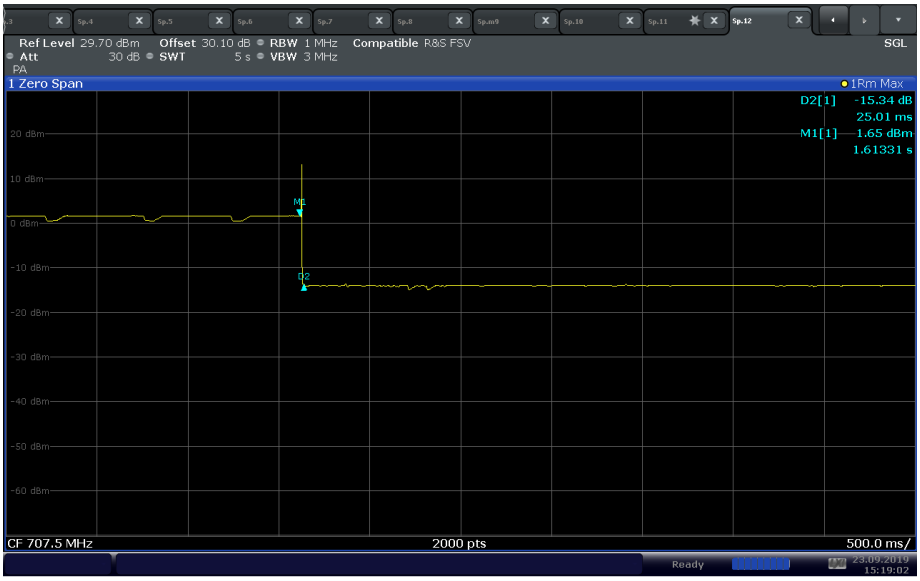
14:33:33 23.09.2019

Mitigation Time - LTE Band 12 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A



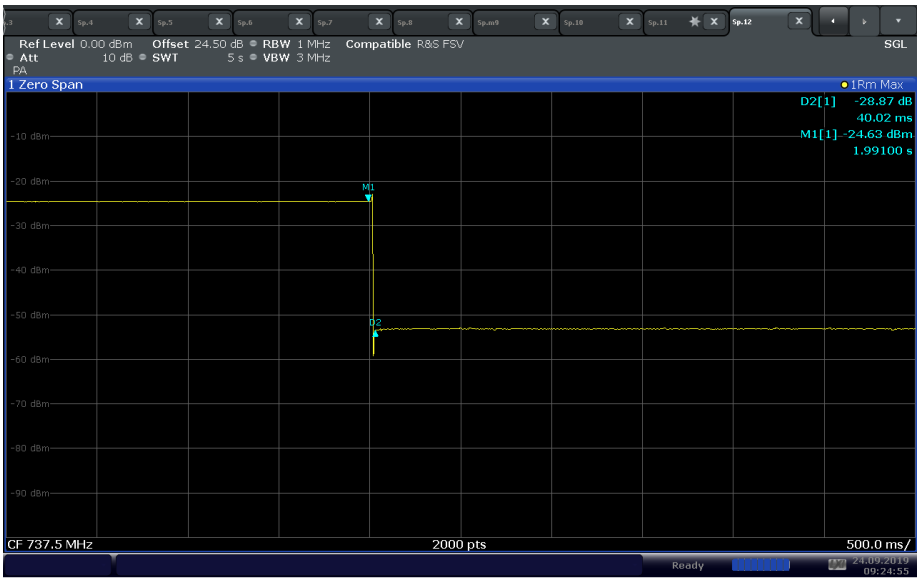
09:23:17 24.09.2019

Mitigation Time - LTE Band 12 Uplink 5MHz Bandwidth Mid Channel - NU Port A



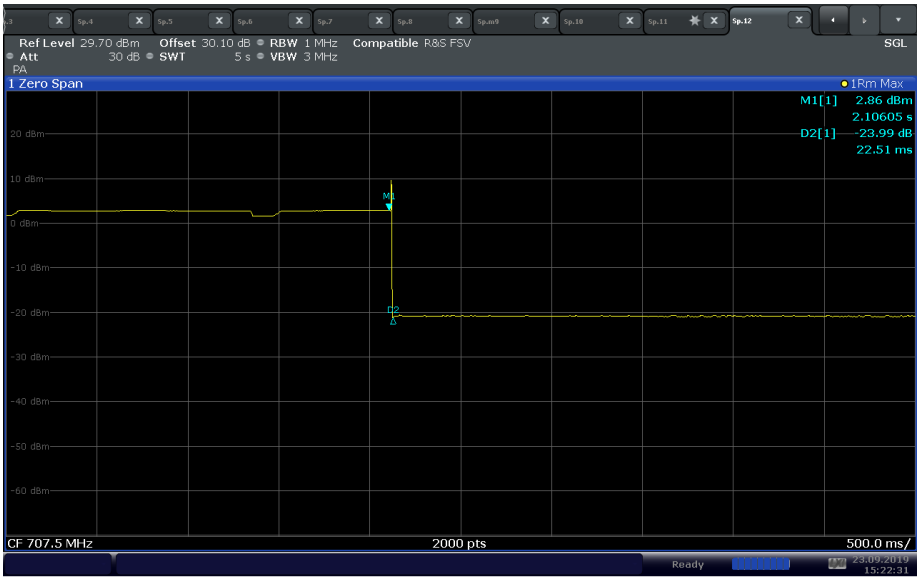
15:19:03 23.09.2019

Mitigation Time - LTE Band 12 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B

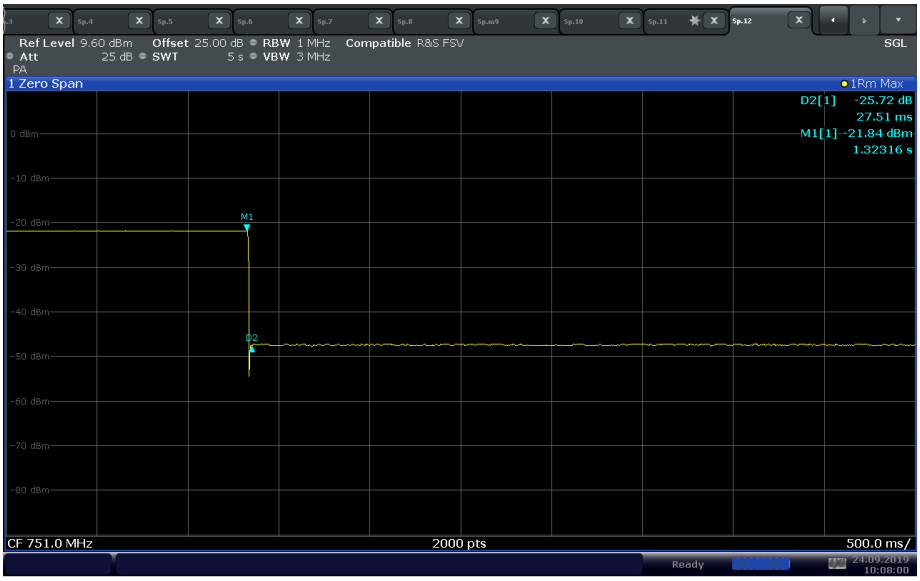
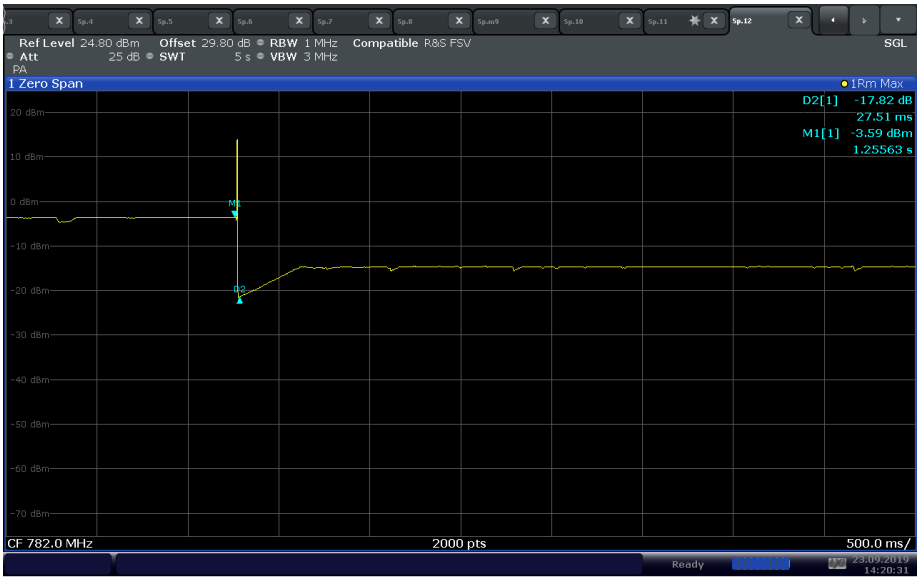


09:24:56 24.09.2019

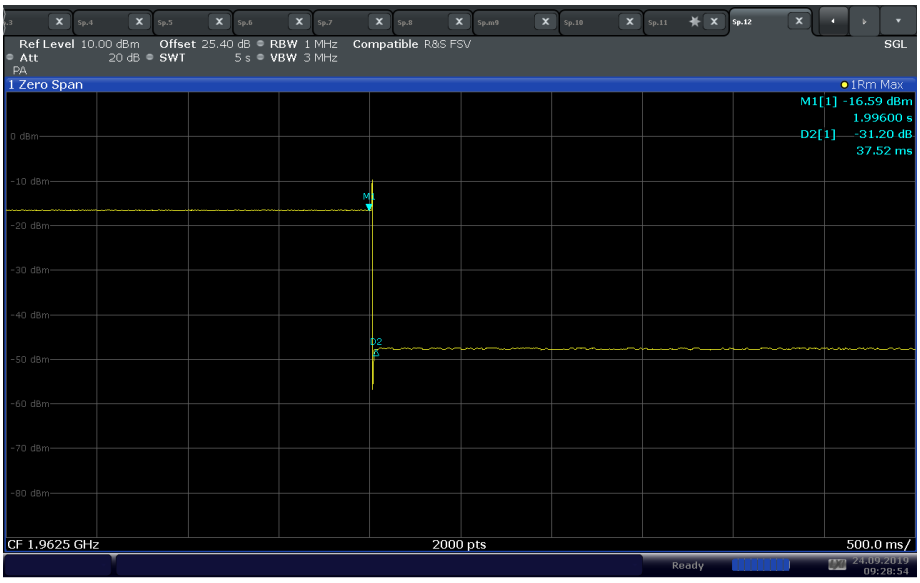
Mitigation Time - LTE Band 12 Uplink 5MHz Bandwidth Mid Channel - NU Port B



15:22:31 23.09.2019

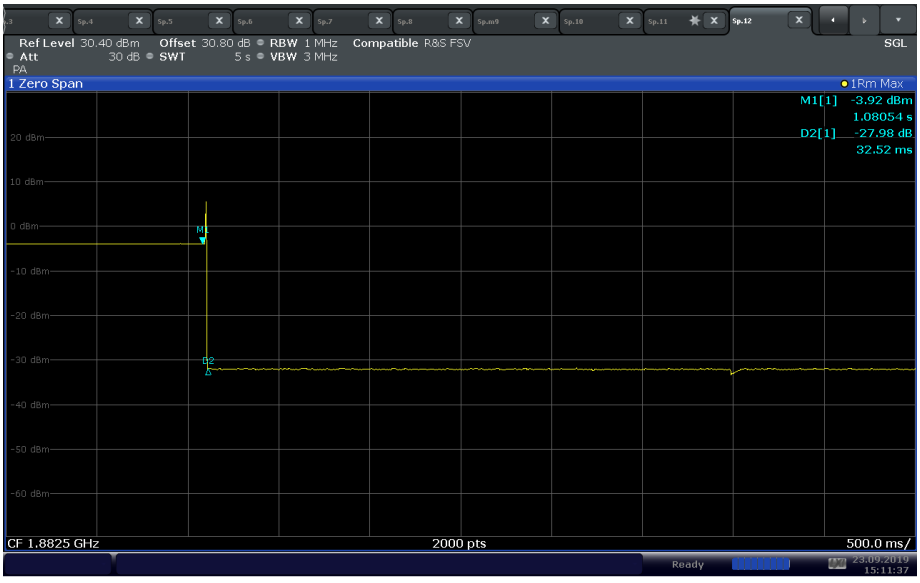
Mitigation Time - LTE Band 13 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C
 10:08:01 24.09.2019
Mitigation Time - LTE Band 13 Uplink 5MHz Bandwidth Mid Channel - NU Port C
 14:20:32 23.09.2019

Mitigation Time - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A

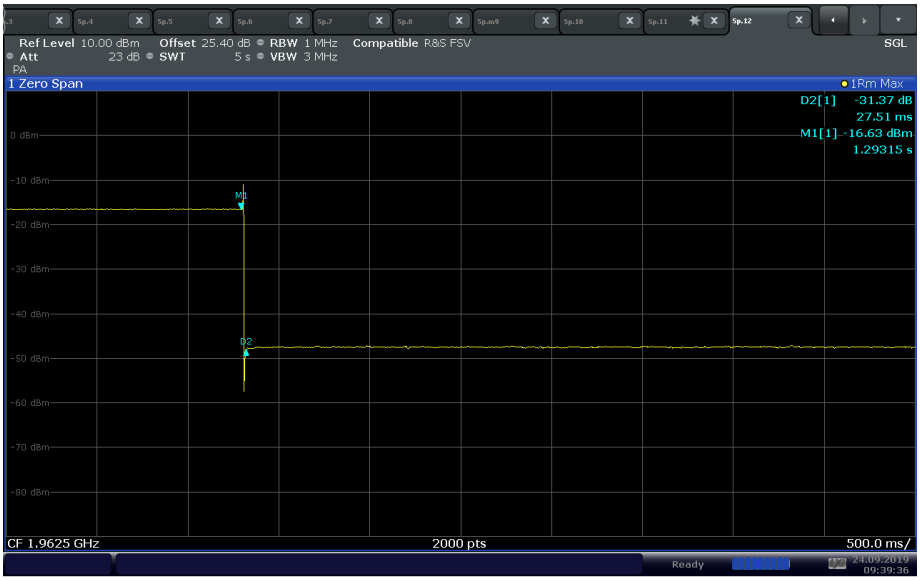
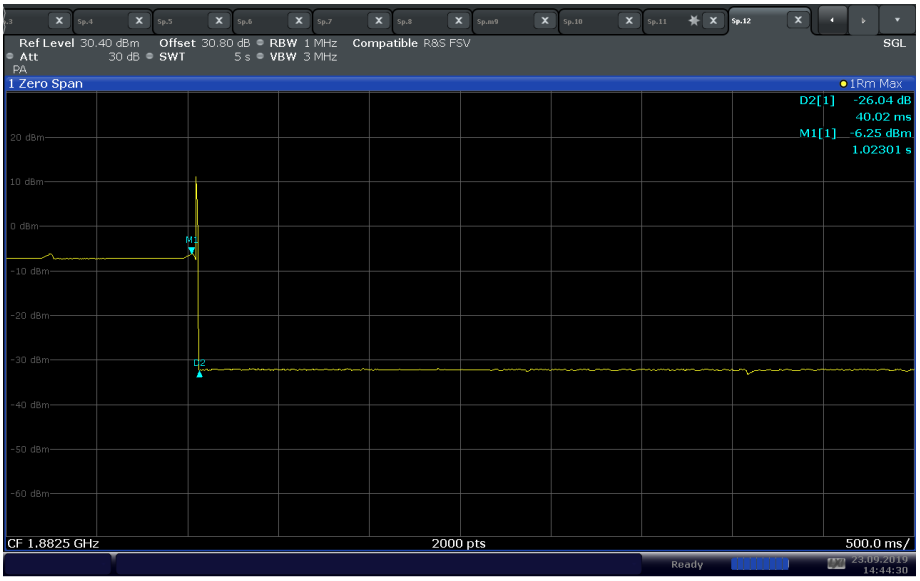


09:28:55 24.09.2019

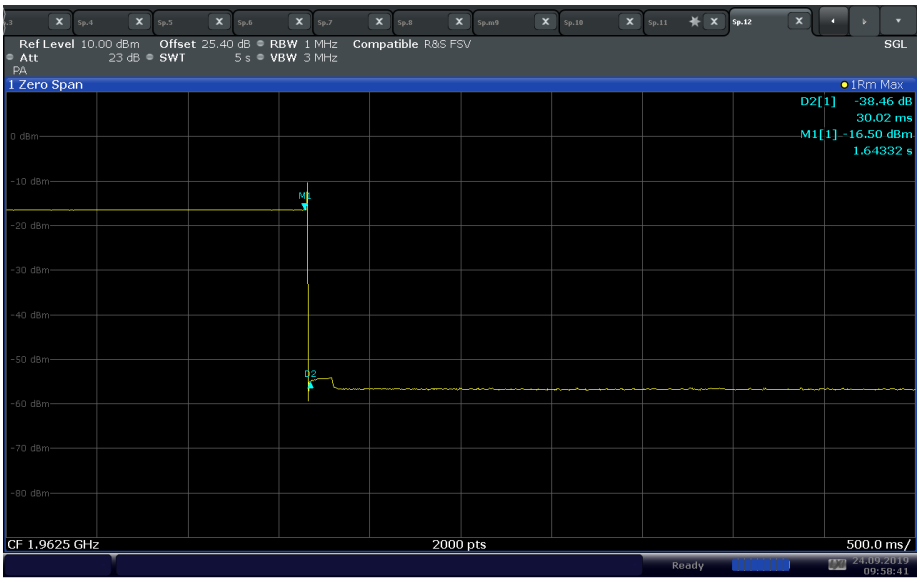
Mitigation Time - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port A



15:11:37 23.09.2019

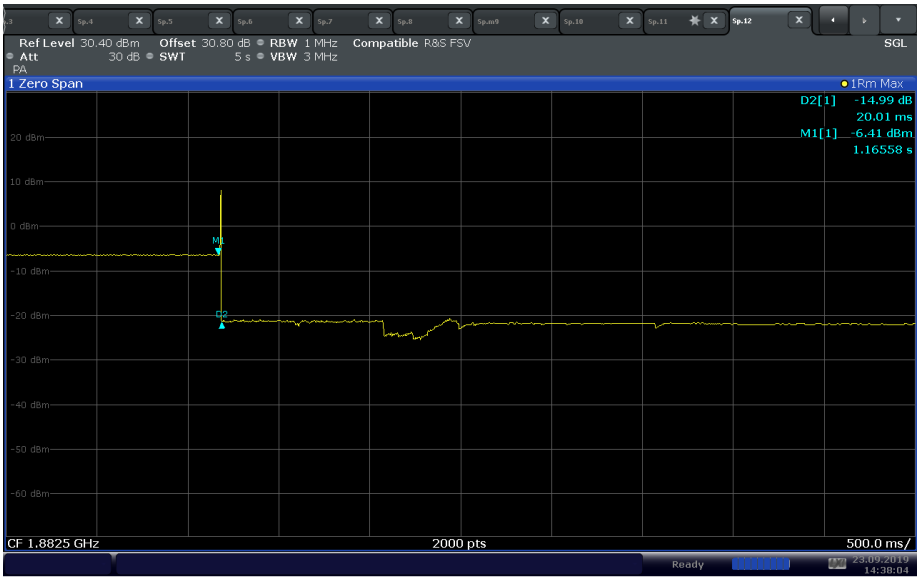
Mitigation Time - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B
 09:39:36 24.09.2019
Mitigation Time - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port B
 14:44:31 23.09.2019

Mitigation Time - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C



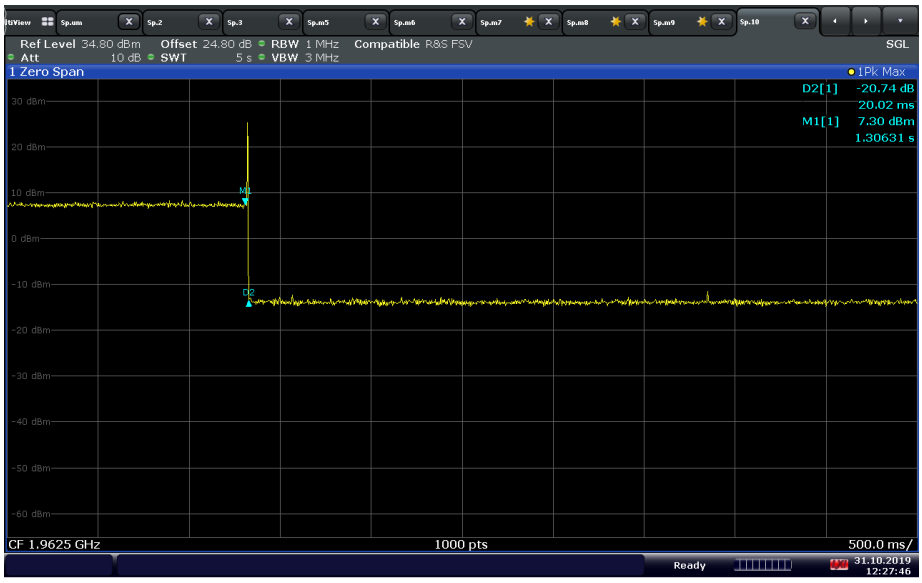
09:58:41 24.09.2019

Mitigation Time - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port C



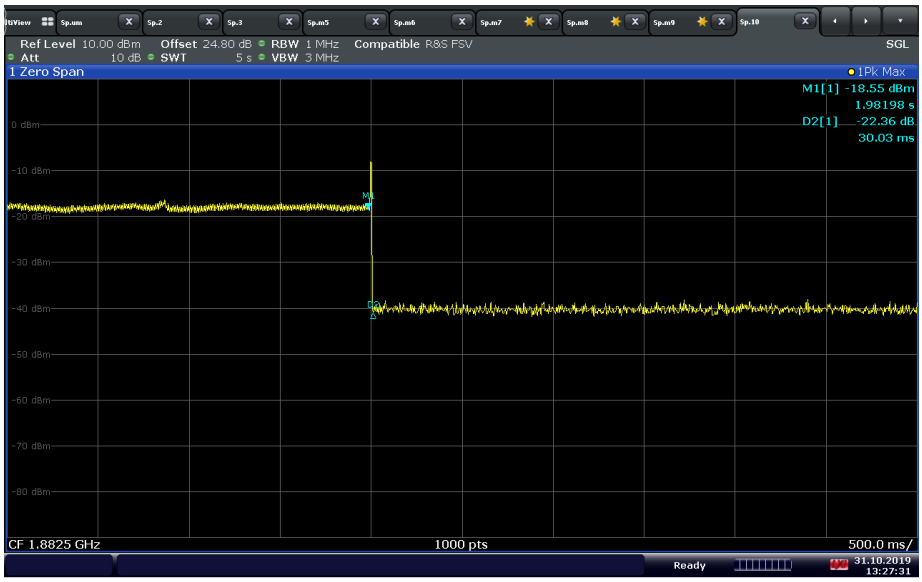
14:38:05 23.09.2019

Mitigation Time - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port D



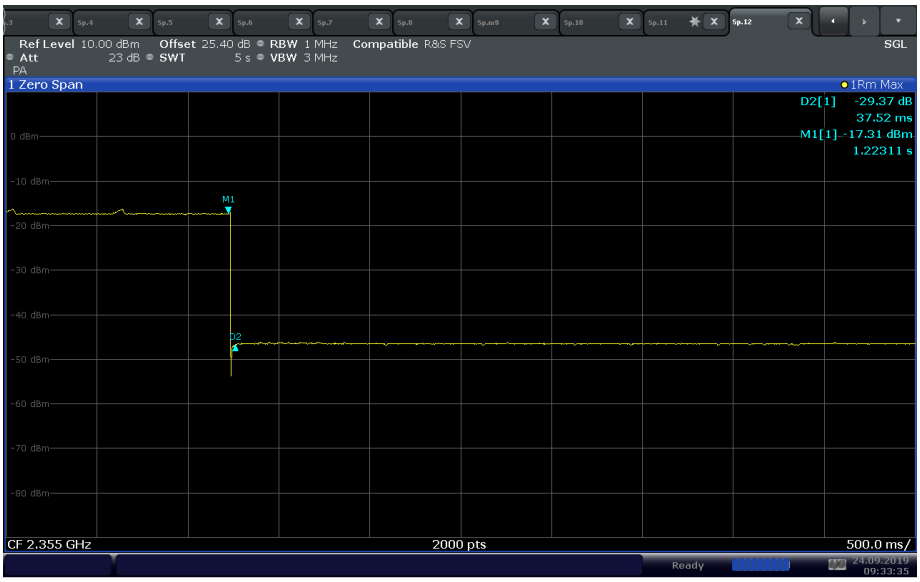
12:27:46 31.10.2019

Mitigation Time - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port D



13:27:32 31.10.2019

Mitigation Time - LTE Band 30 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A

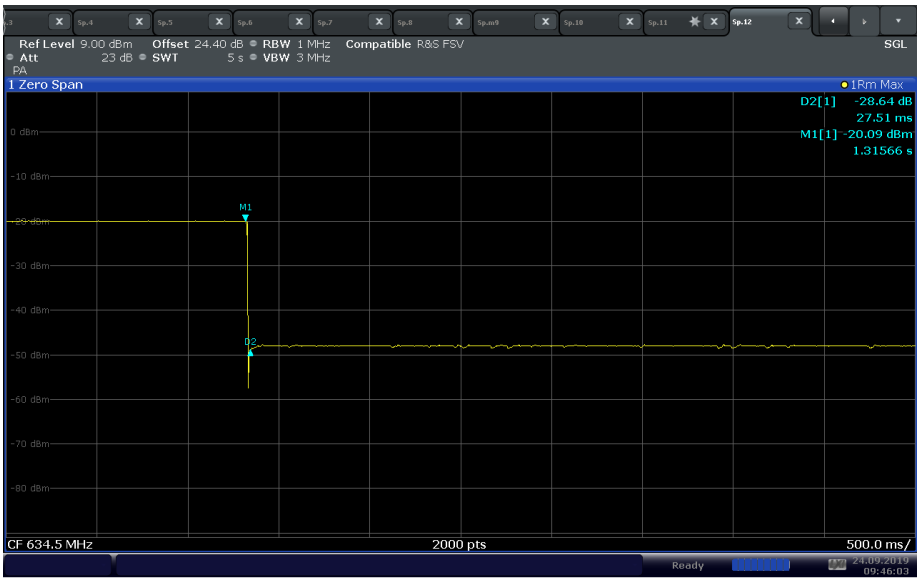


09:33:36 24.09.2019

Mitigation Time - LTE Band 30 Uplink 5MHz Bandwidth Mid Channel - NU Port A

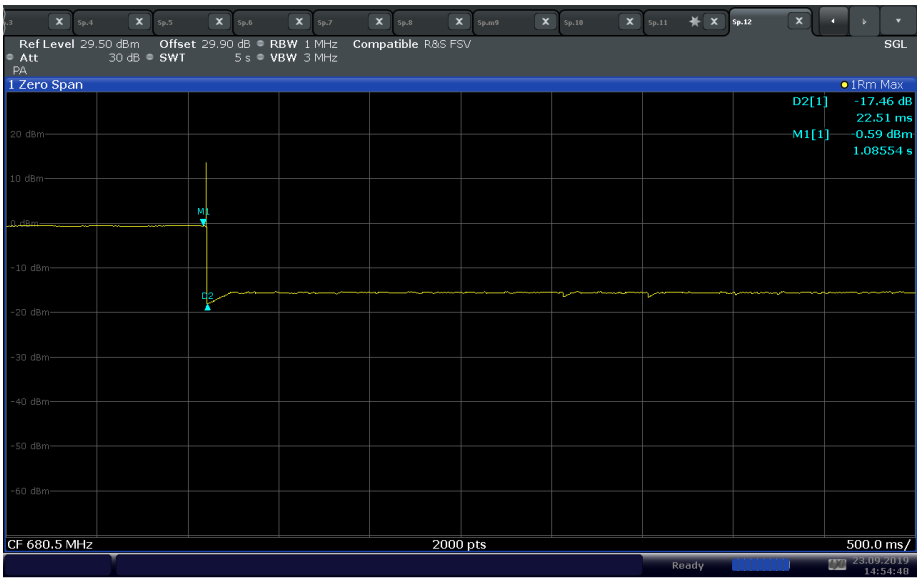
15:30:15 23.09.2019

Mitigation Time - LTE Band 71 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B

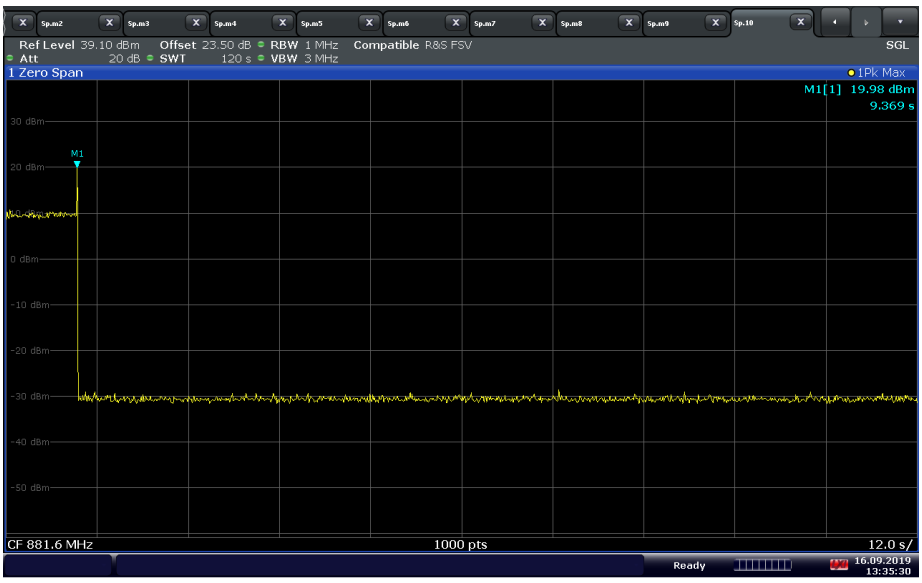
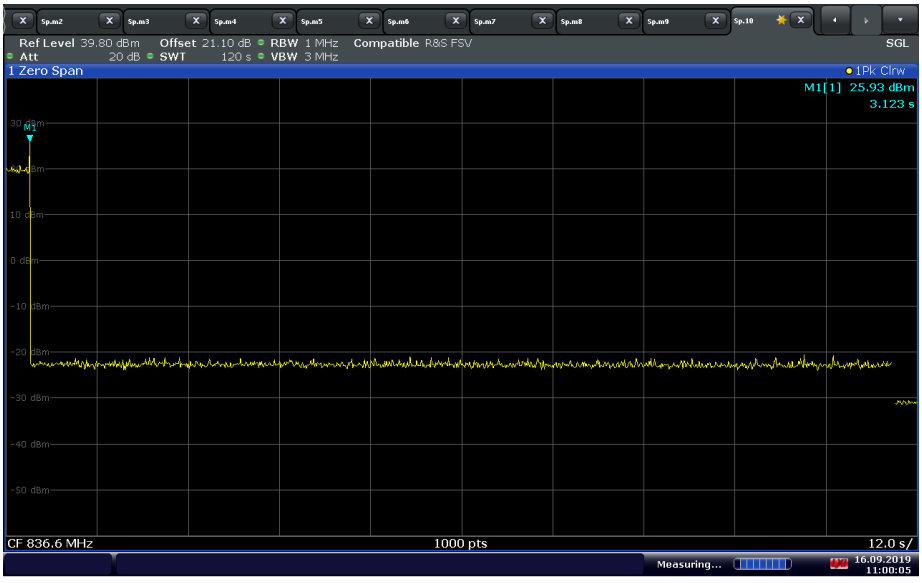


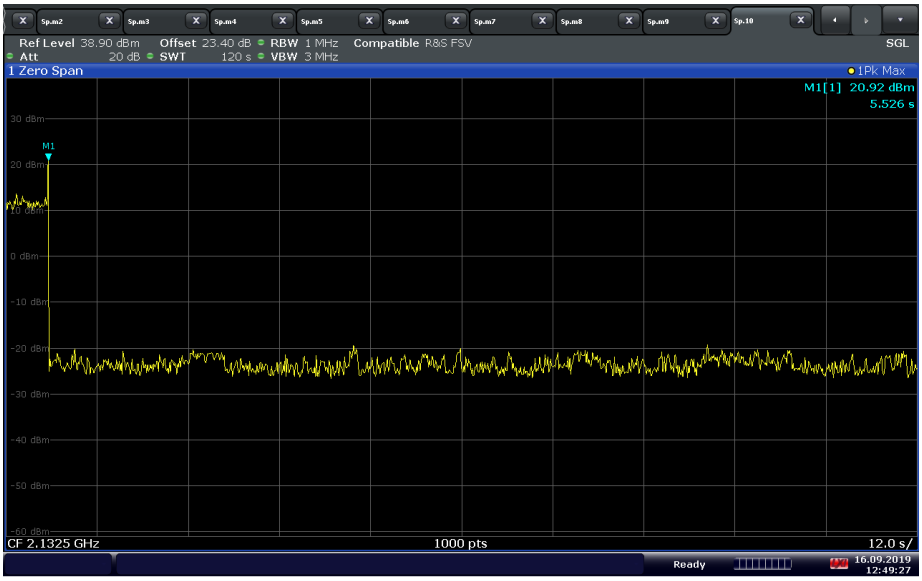
09:46:03 24.09.2019

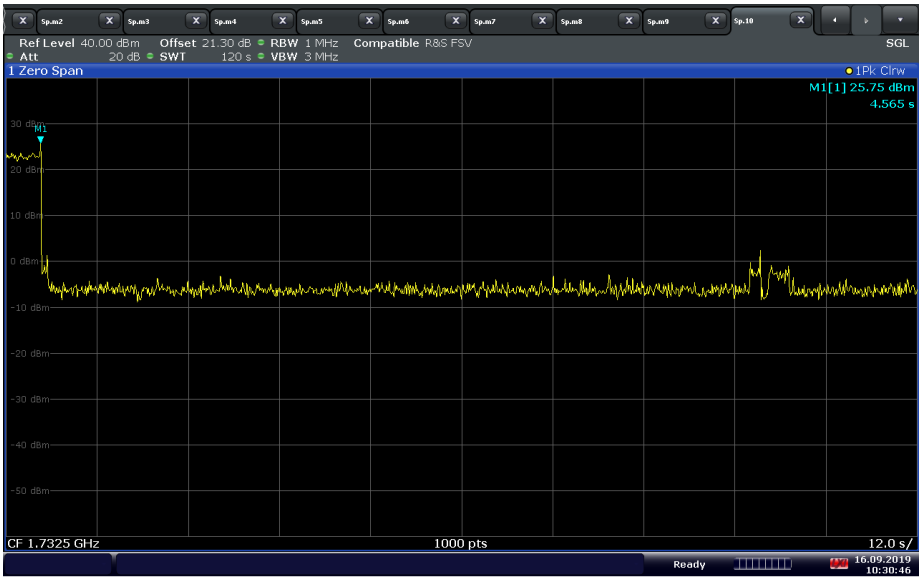
Mitigation Time - LTE Band 71 Uplink 5MHz Bandwidth Mid Channel - NU Port B



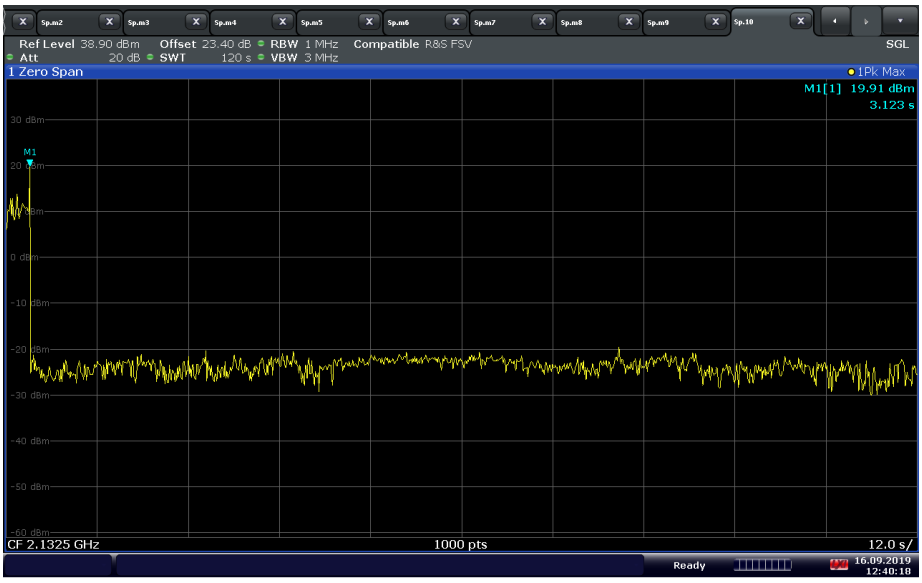
14:54:48 23.09.2019

Retry Event - WCDMA LTE Band 5 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A
 13:35:30 16.09.2019
Retry Event - WCDMA LTE Band 5 Uplink 5MHz Bandwidth Mid Channel - NU Port A
 11:00:06 16.09.2019

Retry Event - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A
 12:49:28 16.09.2019

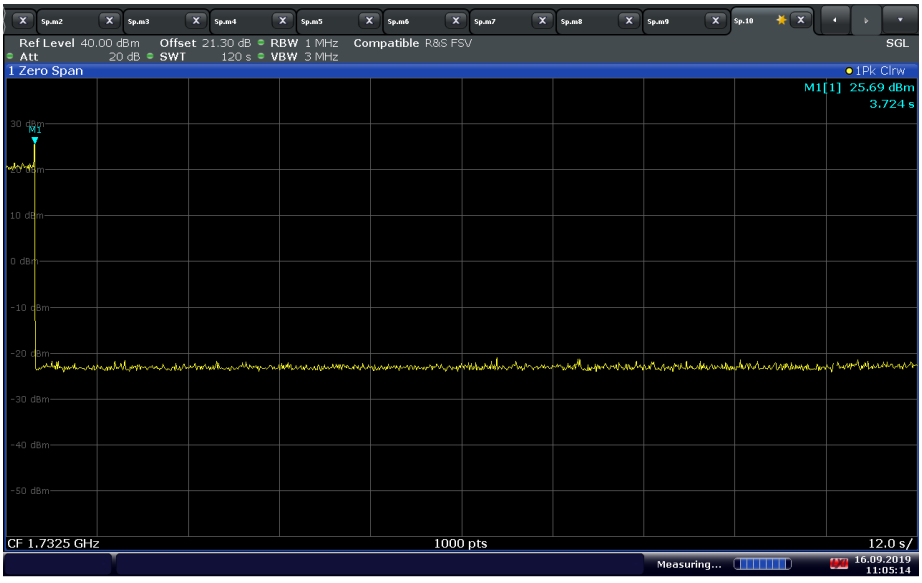
Retry Event - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port A
 10:30:47 16.09.2019

Retry Event - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B



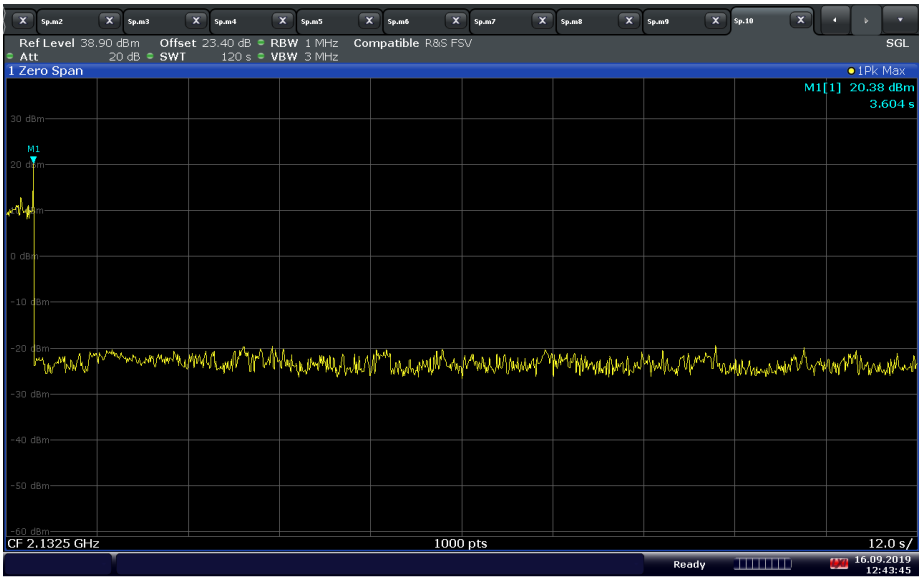
12:40:18 16.09.2019

Retry Event - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port B



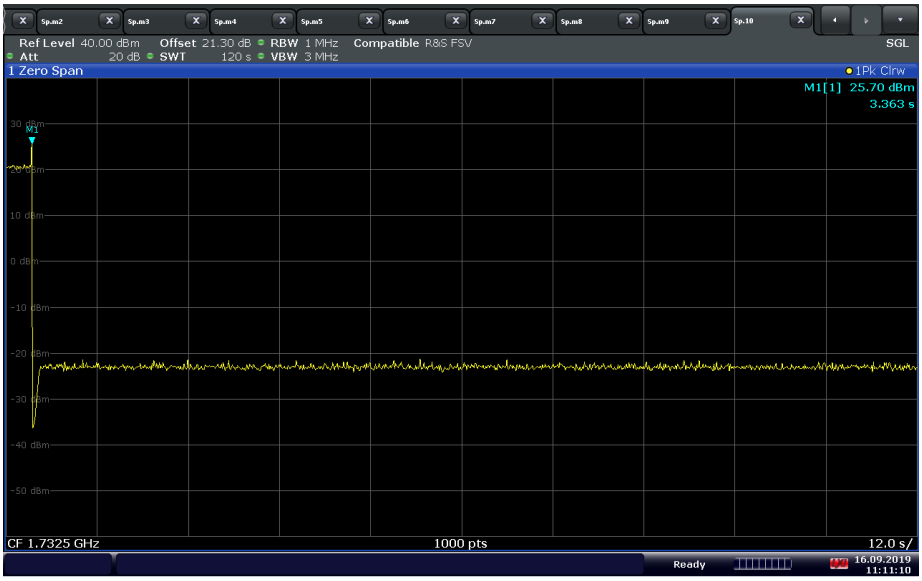
11:05:14 16.09.2019

Retry Event - LTE Band 4 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C

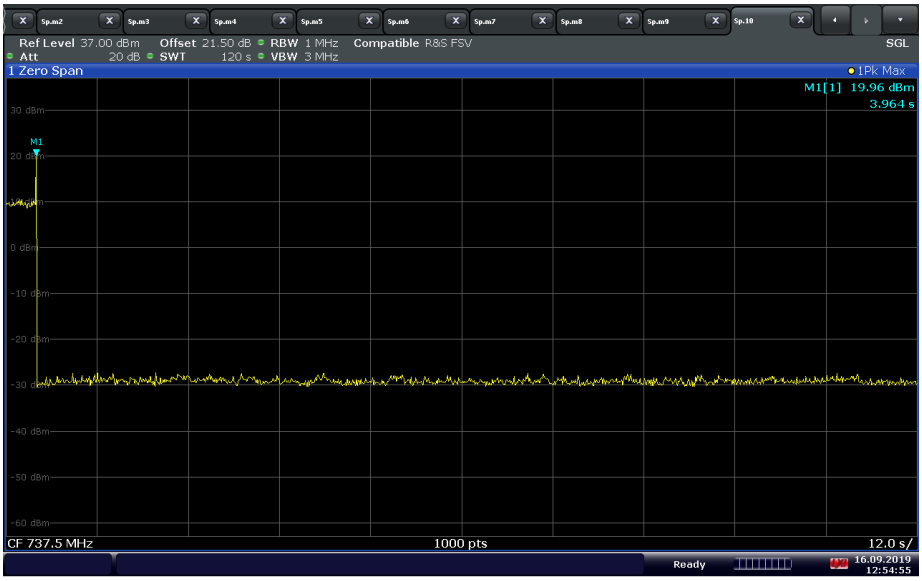


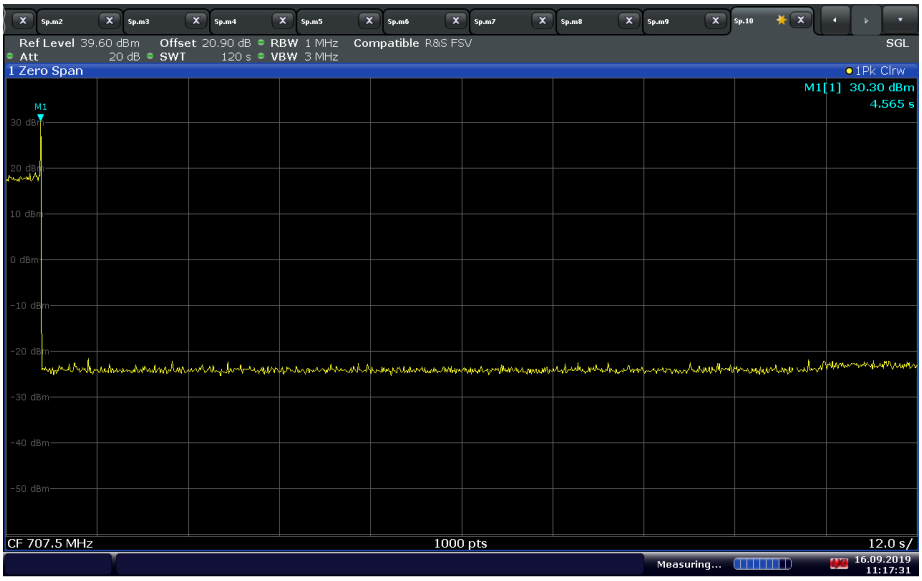
12:43:46 16.09.2019

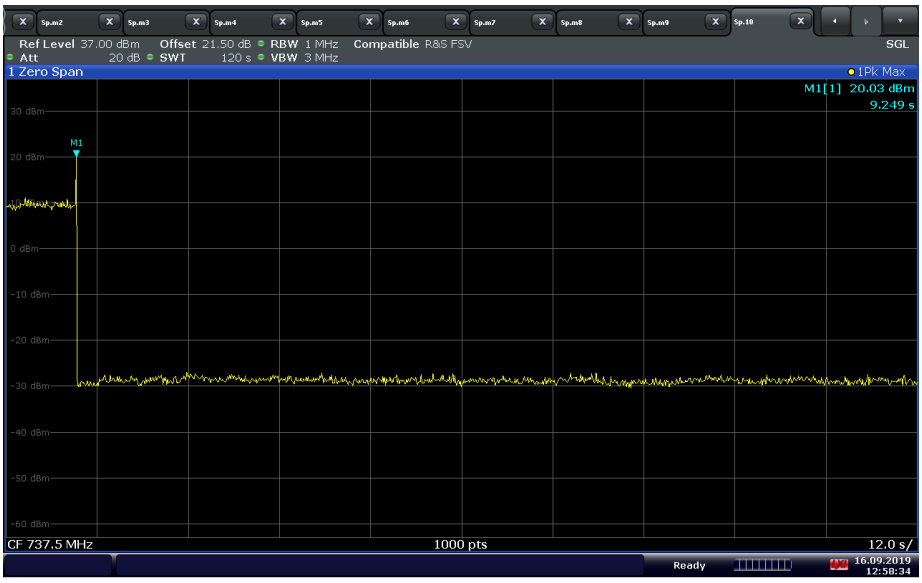
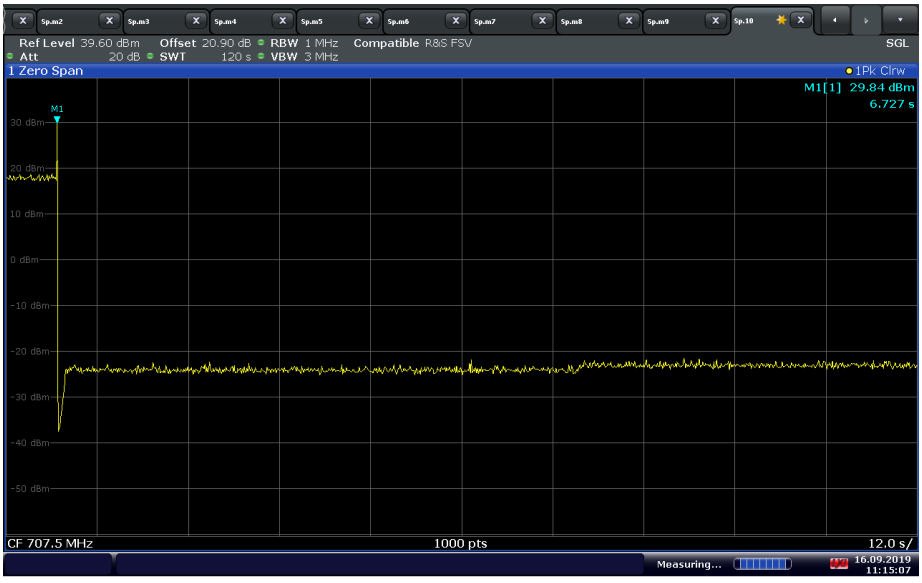
Retry Event - LTE Band 4 Uplink 5MHz Bandwidth Mid Channel - NU Port C

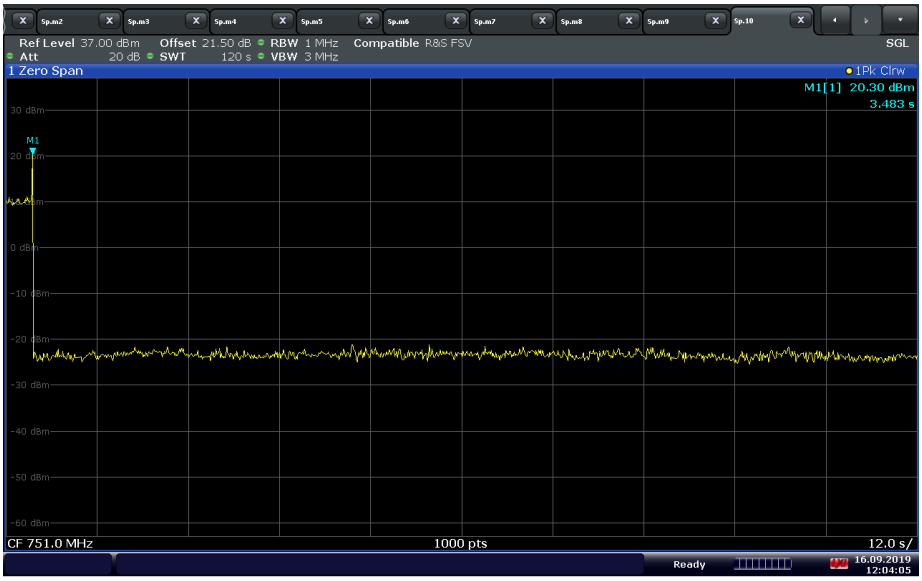


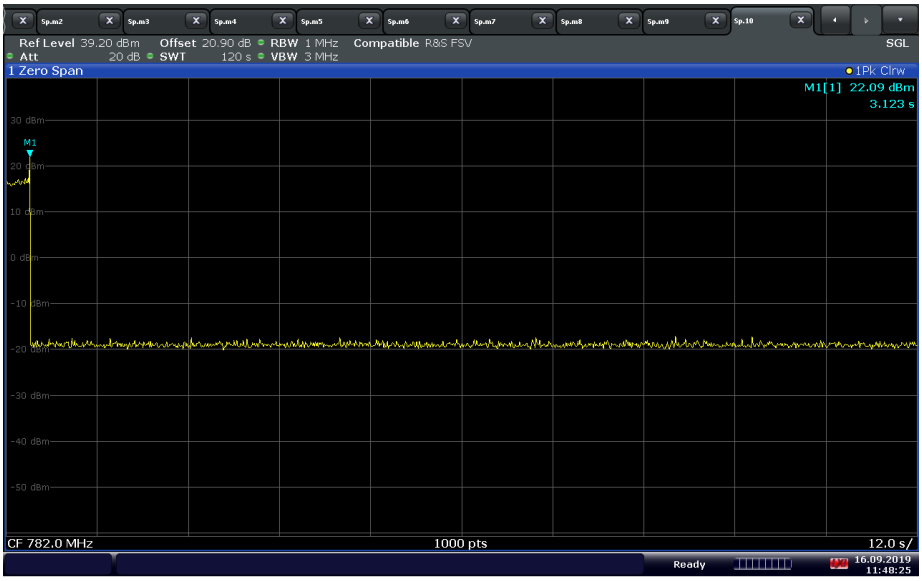
11:11:11 16.09.2019

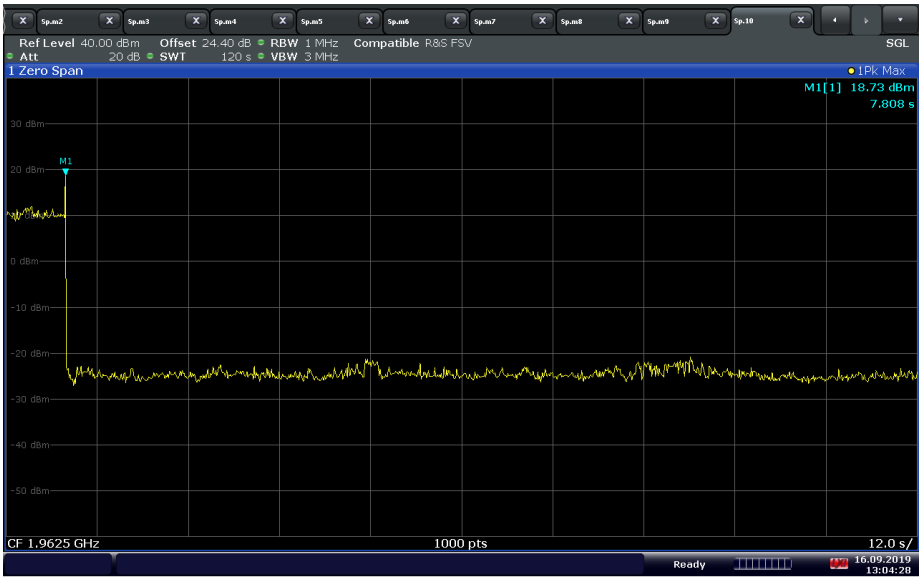
Retry Event - LTE Band 12 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A
 12:54:56 16.09.2019

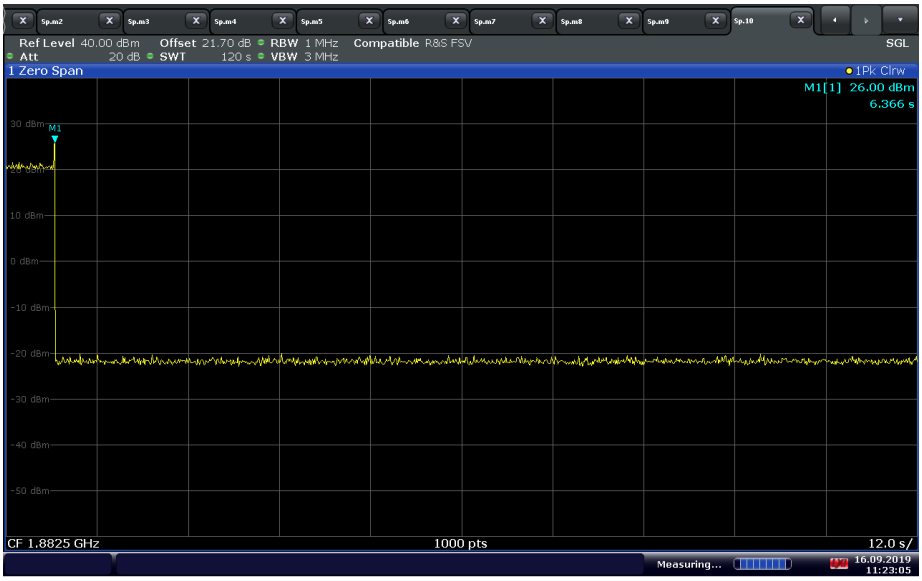
Retry Event - LTE Band 12 Uplink 5MHz Bandwidth Mid Channel - NU Port A
 11:17:31 16.09.2019

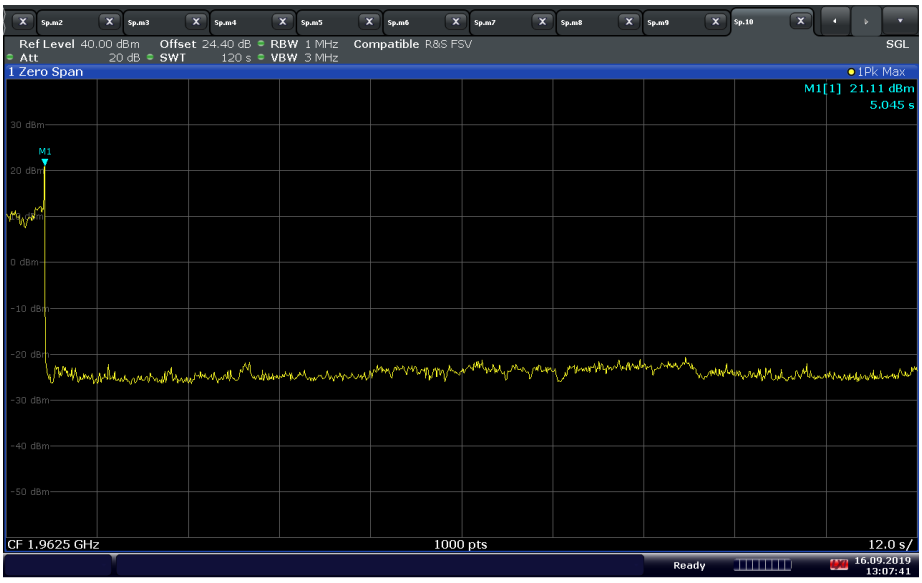
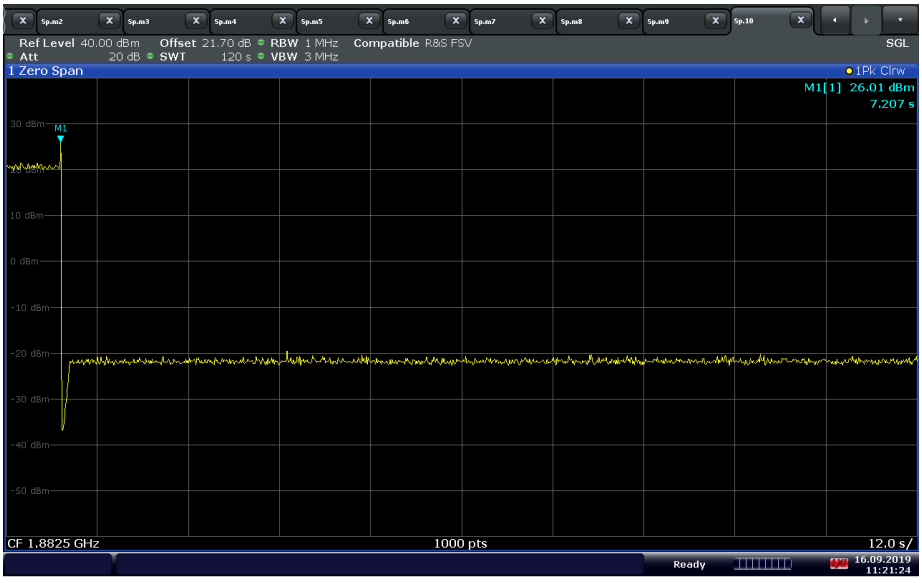
Retry Event - LTE Band 12 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B
 12:58:35 16.09.2019
Retry Event - LTE Band 12 Uplink 5MHz Bandwidth Mid Channel - NU Port B
 11:15:07 16.09.2019

Retry Event - LTE Band 13 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C
 12:04:06 16.09.2019

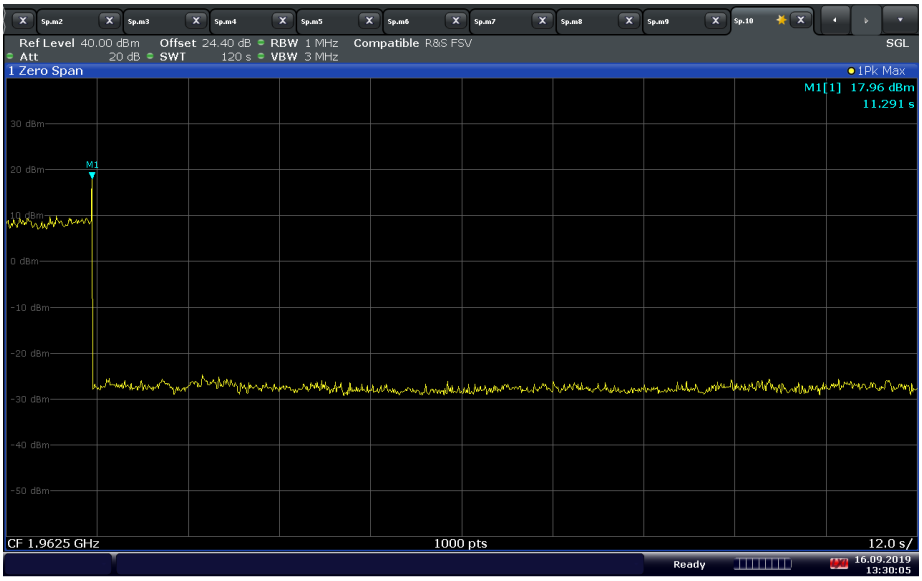
Retry Event - LTE Band 13 Uplink 5MHz Bandwidth Mid Channel - NU Port C
 11:48:26 16.09.2019

Retry Event - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A
 13:04:29 16.09.2019

Retry Event - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port A
 11:23:06 16.09.2019

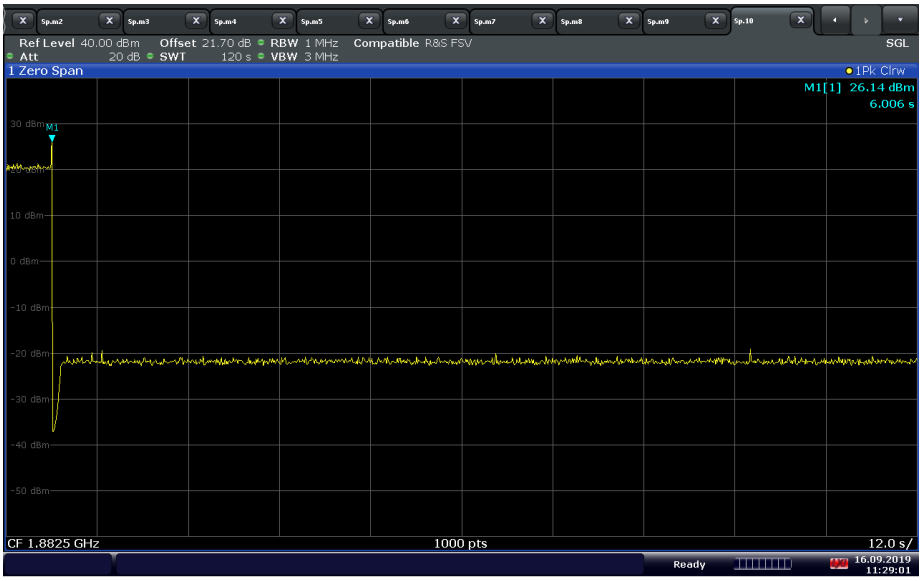
Retry Event - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B
 13:07:42 16.09.2019
Retry Event - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port B
 11:21:24 16.09.2019

Retry Event - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port C

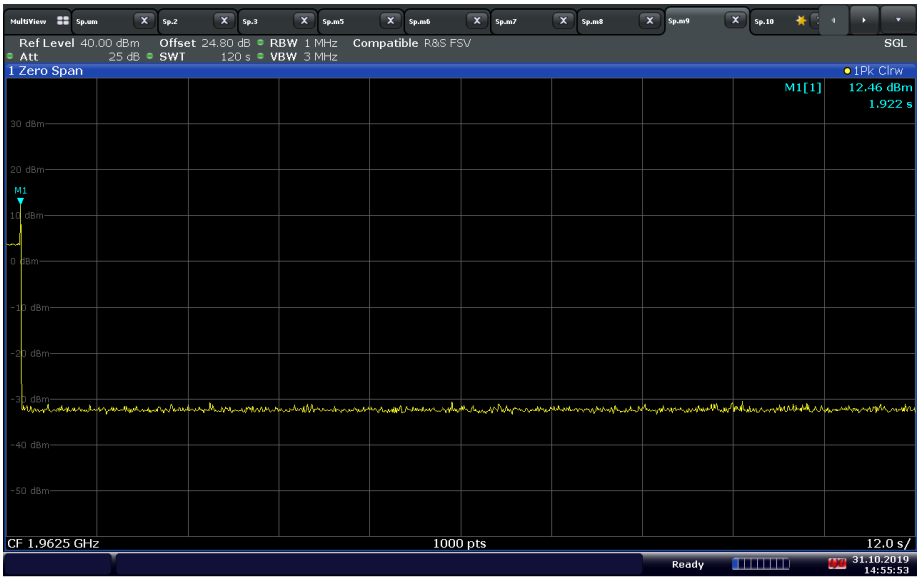


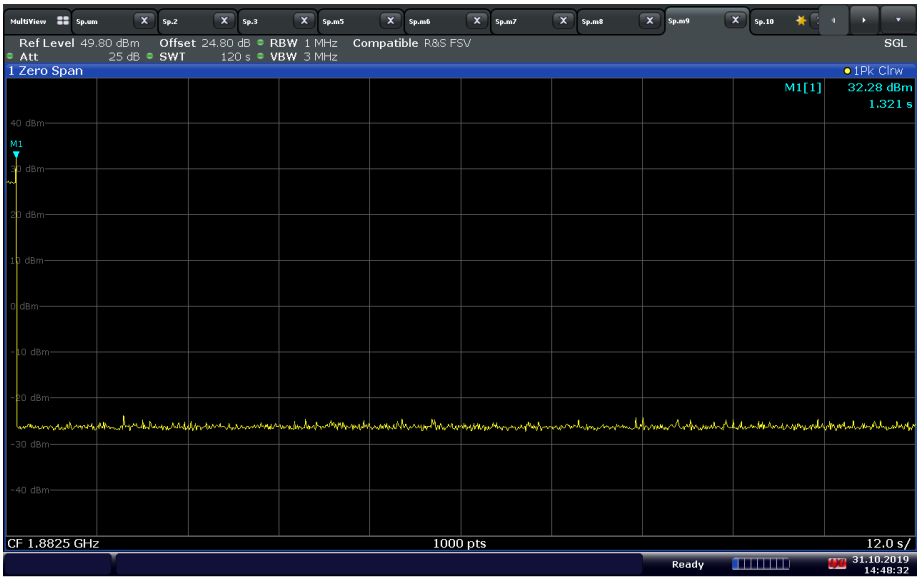
13:30:05 16.09.2019

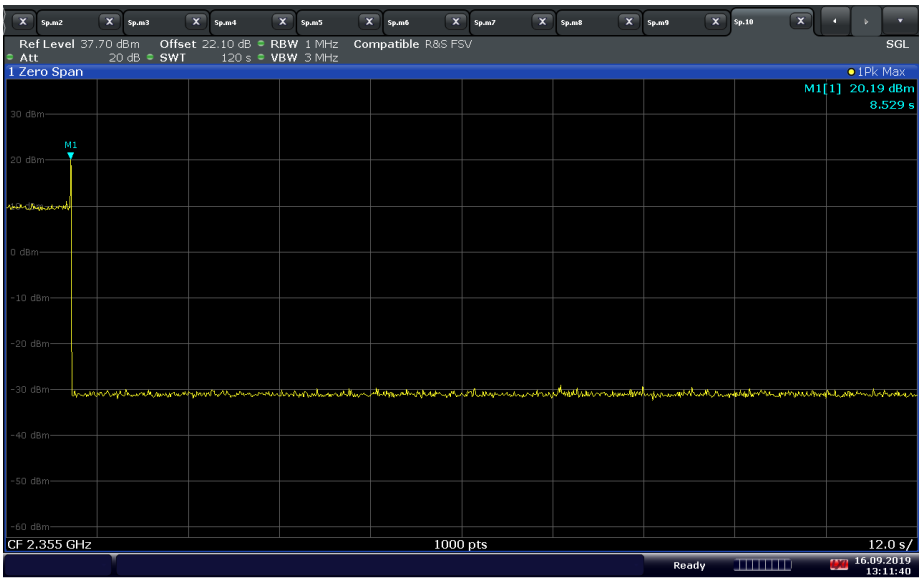
Retry Event - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port C

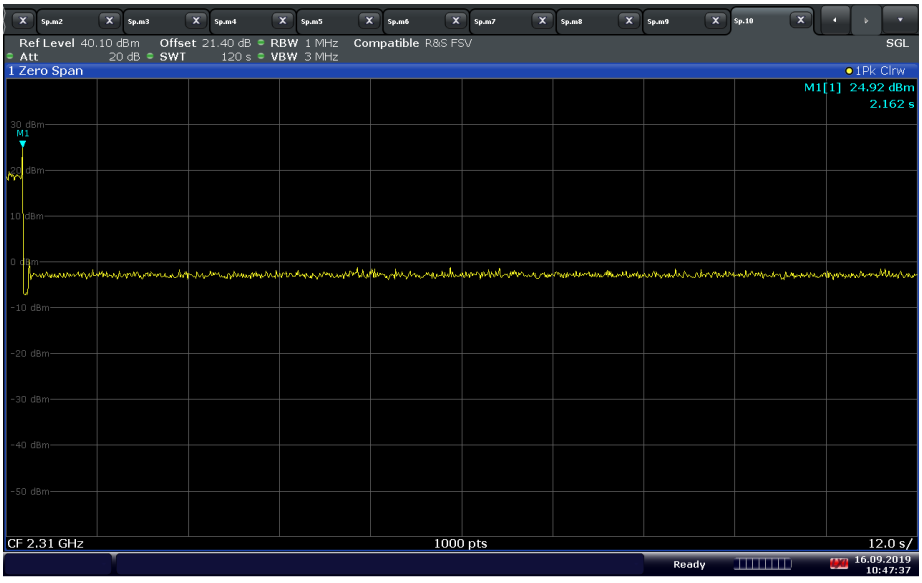


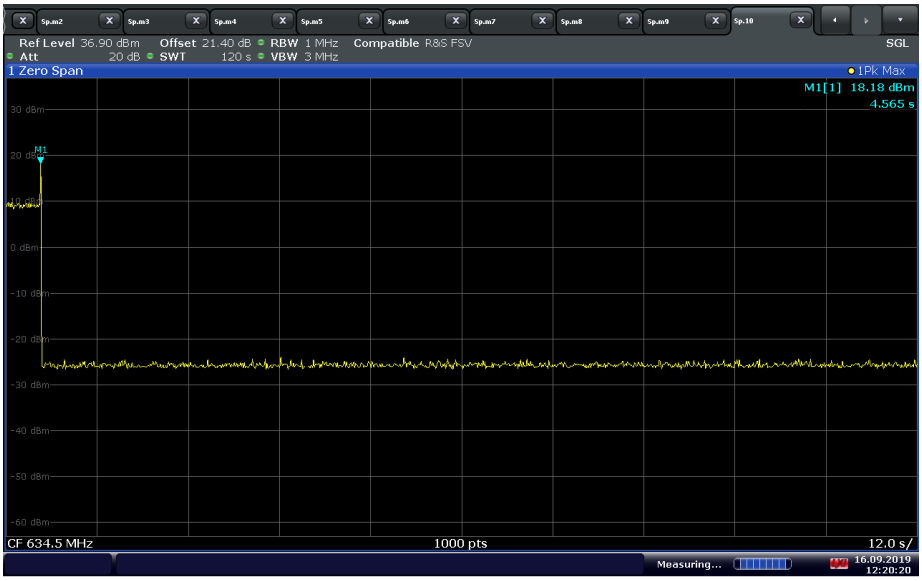
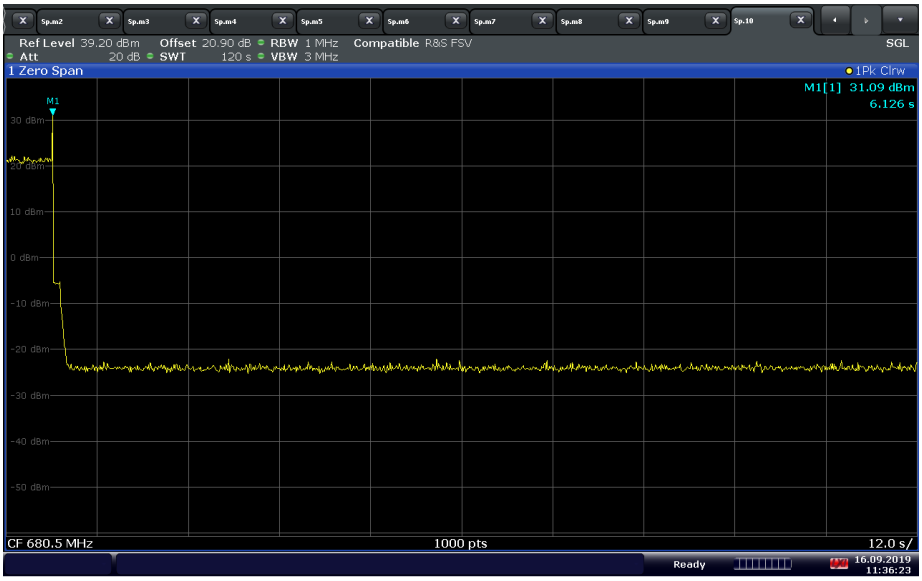
11:29:02 16.09.2019

Retry Event - LTE Band 25 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port D
 14:55:53 31.10.2019

Retry Event - LTE Band 25 Uplink 5MHz Bandwidth Mid Channel - NU Port D
 14:48:33 31.10.2019

Retry Event - LTE Band 30 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port A
 13:11:41 16.09.2019

Retry Event - LTE Band 30 Uplink 5MHz Bandwidth Mid Channel - NU Port A
 10:47:37 16.09.2019

Retry Event - LTE Band 71 Downlink 5MHz Bandwidth Mid Channel - CU with NU Port B
 12:20:20 16.09.2019
Retry Event - LTE Band 71 Uplink 5MHz Bandwidth Mid Channel - NU Port B
 11:36:24 16.09.2019

2.12 Field Strength Of Spurious Radiation

2.12.1 Specification Reference

FCC 47 CFR Part 2, Clause 2.1053
FCC 47 CFR Part 22, Clause 22.917(a)
FCC 47 CFR Part 24, Clause 24.238(a)

2.12.2 Standard Applicable

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FCC 47 CFR Part 27, Clause 27.53:
(h) AWS emission limits – (1) General protection levels. Except as otherwise specified below, for operatios in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

(g) For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth
of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
(1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

(a) For operations in the 2305–2320 MHz band and the 2345–2360 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power P (with averaging performed only during periods of transmission) within the licensed band(s) of operation, in watts, by the following amounts:
(1) For base and fixed stations' operations in the 2305–2320 MHz band and the 2345–2360 MHz band:
(i) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, and not less than 75 + 10 log (P) dB on all frequencies between 2320 and 2345 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 70 + 10 log (P) dB on all frequencies between 2287.5 and 2300 MHz, 72 + 10 log (P) dB on all frequencies between 2285 and 2287.5 MHz, and 75 + 10 log (P) dB below 2285 MHz;

(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2362.5 MHz, 55 + 10 log (P) dB on all frequencies between 2362.5 and 2365 MHz, 70 + 10 log (P) dB on all frequencies between 2365 and 2367.5 MHz, 72 + 10 log (P) dB on all frequencies between 2367.5 and 2370 MHz, and 75 + 10 log (P) dB above 2370 MHz.

2.12.3 Equipment Under Test and Modification State

Serial No: 110222000051 and 481222000175 / Test Configuration C and D

2.12.4 Date of Test/Initial of test personnel who performed the test

November 30 to December 16, 2022 / FSC

2.12.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.12.6 Environmental Conditions

Test performed at TÜV SÜD America Inc. Mira Mesa facility.

Ambient Temperature	25.8 - 26.4°C
Relative Humidity	31.1 - 53.7%
ATM Pressure	98.5 - 99.1kPa

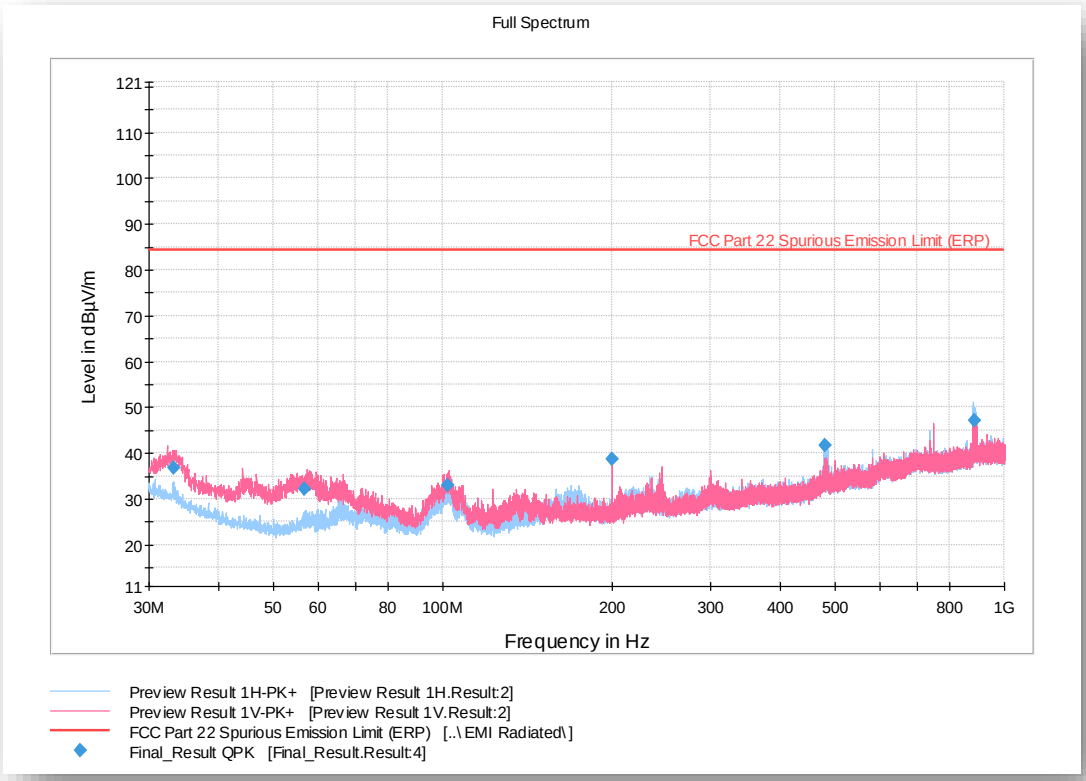
2.12.7 Additional Observations

- This is a radiated test using substitution method as per Unwanted Emissions: Radiated Spurious method of measurement of C63.26 2015.
- Only the worst case configuration presented in this test report.
- This is cabinet spurious emissions testing. Main antenna port was terminated during the test. Fundamental frequency measurement will be ignored for this test.
- There are no significant differences observed between channels and bandwidth configurations (cabinet spurious with TX antenna terminated). Only the worst-case configuration observed during verification presented in this test report.
- Measurement was done using EMC32 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only.

2.12.8 Test Results

Compliant. See attached plots.

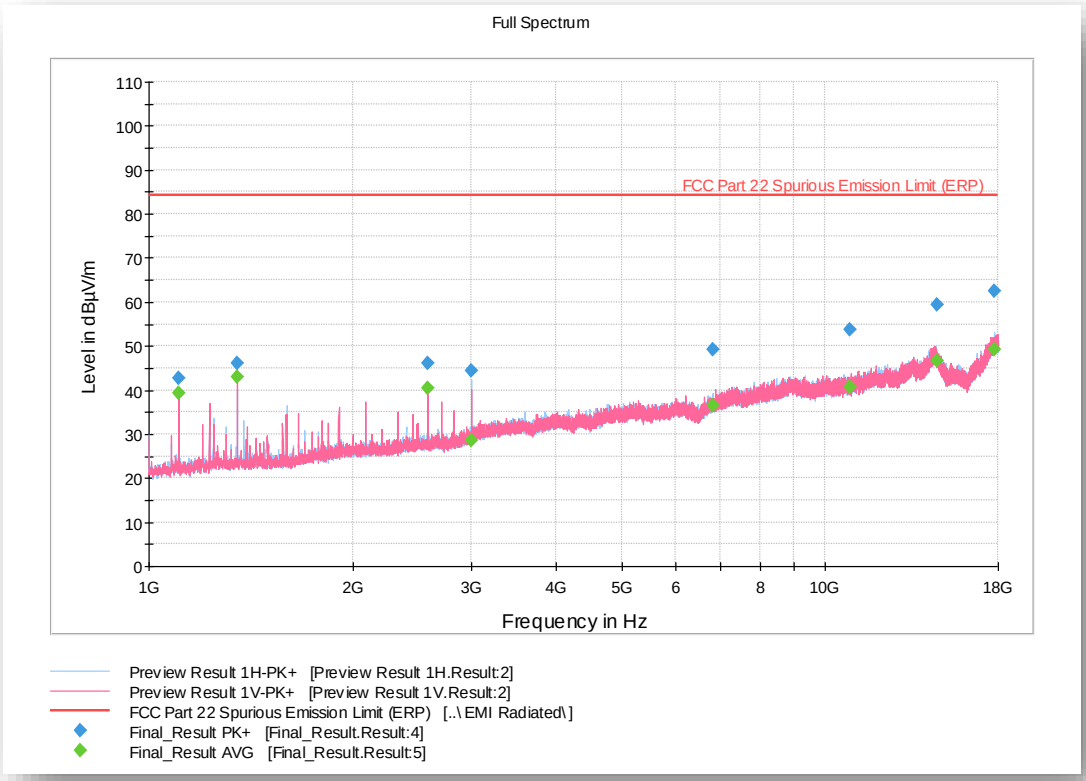
2.12.9 Test Results Below 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth High Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
33.248000	36.67	84.38	47.71	1000.0	120.000	100.0	V	119.0	20
56.731000	32.25	84.38	52.13	1000.0	120.000	106.0	V	11.0	14
102.196000	33.06	84.38	51.32	1000.0	120.000	125.0	V	171.0	16
200.008667	38.66	84.38	45.72	1000.0	120.000	100.0	V	60.0	17
479.990333	41.61	84.38	42.77	1000.0	120.000	176.0	H	247.0	25
882.955333	47.01	84.38	37.37	1000.0	120.000	125.0	H	245.0	30

2.12.10 Test Results Above 1GHz (WCDMA Band 5 Downlink Worst Case Configuration) - 15MHz Bandwidth High Channel



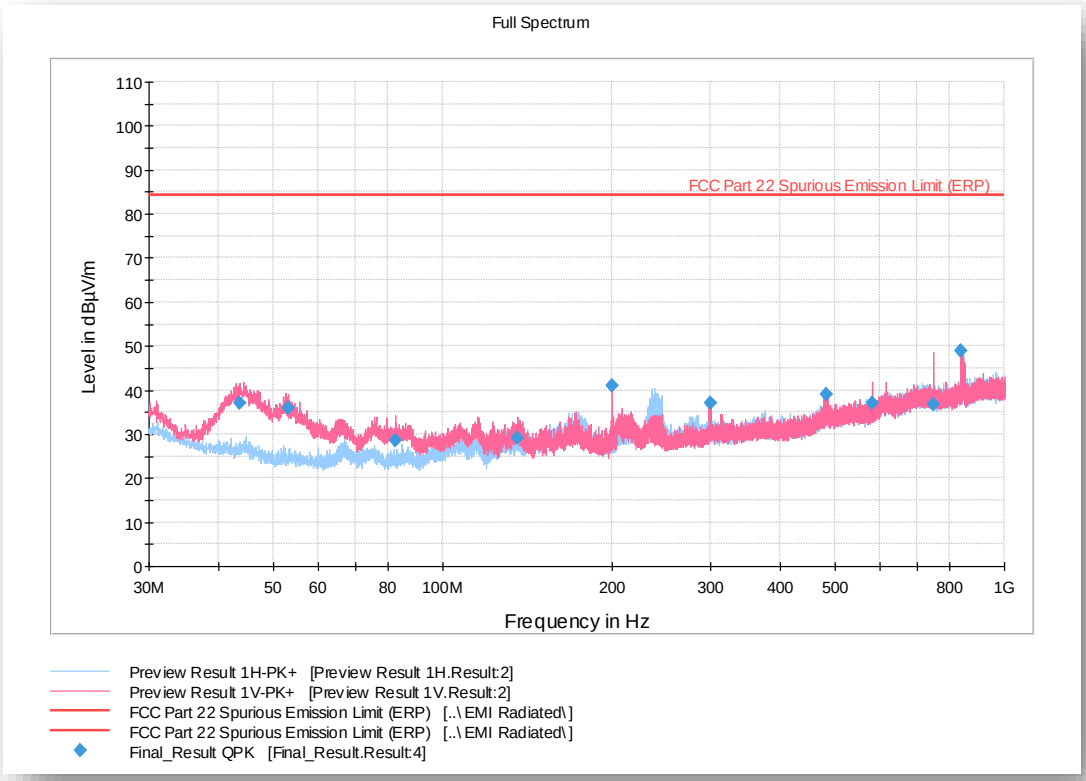
Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1106.000000	42.84	84.38	41.54	1000.0	1000.000	145.0	V	220.0	-9
1351.533333	46.18	84.38	38.20	1000.0	1000.000	142.0	V	216.0	-7
2580.633333	45.98	84.38	38.40	1000.0	1000.000	125.0	V	209.0	-2
2999.566667	44.53	84.38	39.85	1000.0	1000.000	358.0	H	21.0	-1
6825.533333	49.33	84.38	35.05	1000.0	1000.000	356.0	H	160.0	5
10893.233333	53.86	84.38	30.52	1000.0	1000.000	365.0	V	150.0	13
14594.466667	59.28	84.38	25.10	1000.0	1000.000	205.0	H	292.0	16
17790.500000	62.62	84.38	21.76	1000.0	1000.000	335.0	H	234.0	23

Average Data

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1106.000000	39.29	84.38	45.09	1000.0	1000.000	145.0	V	220.0	-9
1351.533333	42.84	84.38	41.54	1000.0	1000.000	142.0	V	216.0	-7
2580.633333	40.57	84.38	43.81	1000.0	1000.000	125.0	V	209.0	-2
2999.566667	28.58	84.38	55.80	1000.0	1000.000	358.0	H	21.0	-1
6825.533333	36.39	84.38	47.99	1000.0	1000.000	356.0	H	160.0	5
10893.233333	40.66	84.38	43.72	1000.0	1000.000	365.0	V	150.0	13
14594.466667	46.78	84.38	37.60	1000.0	1000.000	205.0	H	292.0	16
17790.500000	49.21	84.38	35.17	1000.0	1000.000	335.0	H	234.0	23

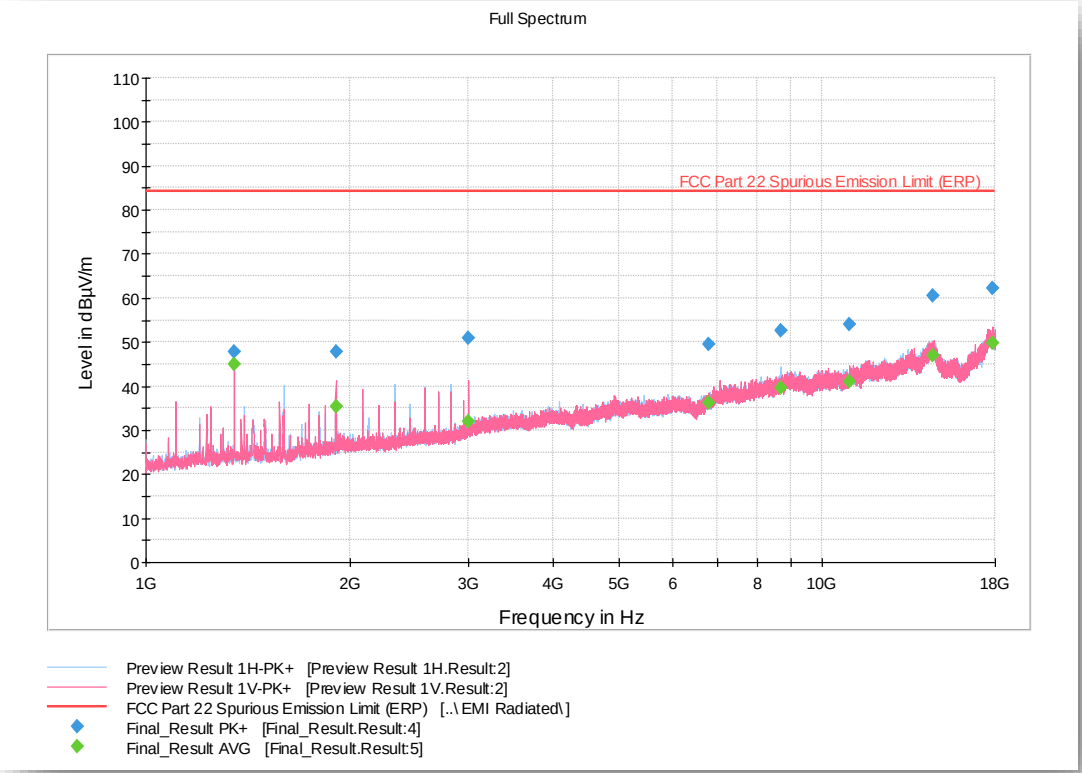
2.12.11 Test Results Below 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 15MHz Bandwidth High Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.634333	37.14	84.38	47.24	1000.0	120.000	107.0	V	181.0	16
53.105667	35.91	84.38	48.47	1000.0	120.000	125.0	V	320.0	14
82.580000	28.64	84.38	55.74	1000.0	120.000	109.0	V	211.0	13
136.207333	29.24	84.38	55.14	1000.0	120.000	125.0	V	187.0	15
200.016333	40.90	84.38	43.48	1000.0	120.000	100.0	V	175.0	17
299.802333	36.96	84.38	47.42	1000.0	120.000	107.0	V	147.0	21
481.793667	39.15	84.38	45.23	1000.0	120.000	174.0	H	304.0	25
581.064667	37.08	84.38	47.30	1000.0	120.000	125.0	V	237.0	26
747.864000	36.67	84.38	47.71	1000.0	120.000	119.0	V	170.0	28
836.754000	48.95	84.38	35.43	1000.0	120.000	100.0	H	270.0	29

2.12.12 Test Results Above 1GHz (WCDMA Band 5 Uplink Worst Case Configuration) - 15MHz Bandwidth High Channel



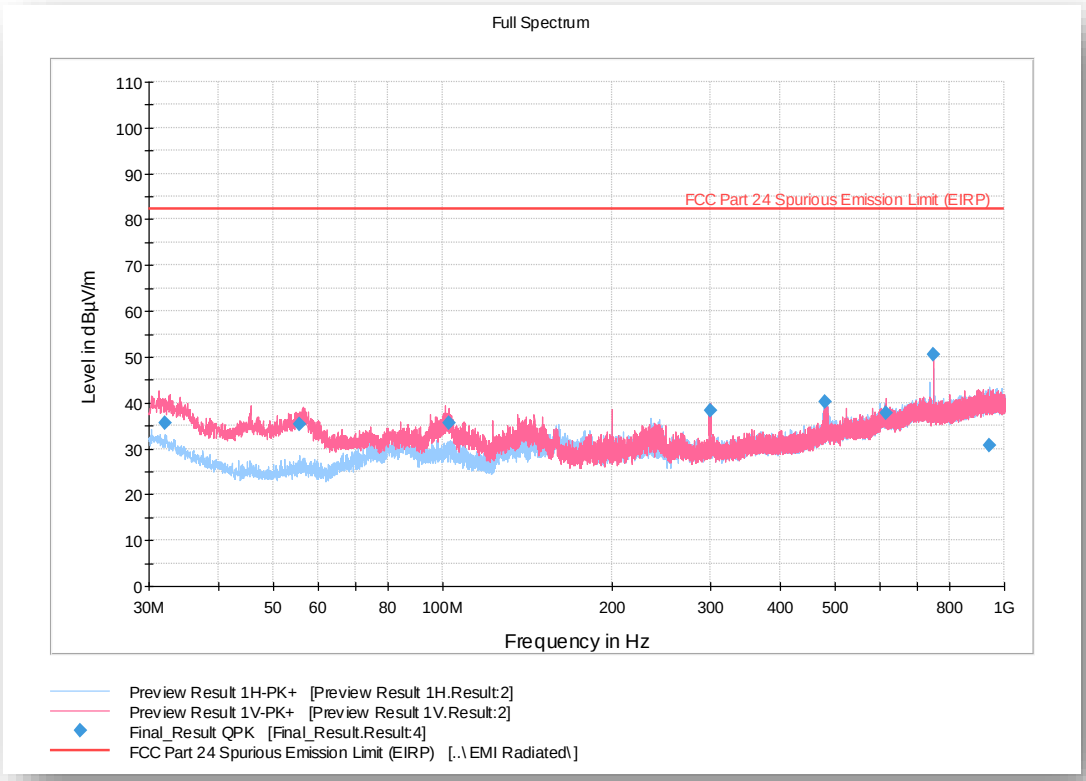
Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1351.533333	47.91	84.38	36.47	1000.0	1000.000	355.0	H	91.0	-7
1909.533333	47.65	84.38	36.73	1000.0	1000.000	239.0	V	357.0	-4
2999.966667	51.02	84.38	33.36	1000.0	1000.000	125.0	V	29.0	-1
6802.666667	49.50	84.38	34.88	1000.0	1000.000	175.0	H	24.0	6
8684.900000	52.54	84.38	31.84	1000.0	1000.000	311.0	H	52.0	12
10974.133333	54.09	84.38	30.29	1000.0	1000.000	330.0	V	37.0	14
14548.400000	60.49	84.38	23.89	1000.0	1000.000	163.0	H	190.0	15
17829.900000	62.31	84.38	22.07	1000.0	1000.000	208.0	V	266.0	23

Average Data

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1351.533333	45.08	84.38	39.30	1000.0	1000.000	355.0	H	91.0	-7
1909.533333	35.38	84.38	49.00	1000.0	1000.000	239.0	V	357.0	-4
2999.966667	32.05	84.38	52.33	1000.0	1000.000	125.0	V	29.0	-1
6802.666667	36.31	84.38	48.07	1000.0	1000.000	175.0	H	24.0	6
8684.900000	39.69	84.38	44.69	1000.0	1000.000	311.0	H	52.0	12
10974.133333	41.10	84.38	43.28	1000.0	1000.000	330.0	V	37.0	14
14548.400000	46.83	84.38	37.55	1000.0	1000.000	163.0	H	190.0	15
17829.900000	49.69	84.38	34.69	1000.0	1000.000	208.0	V	266.0	23

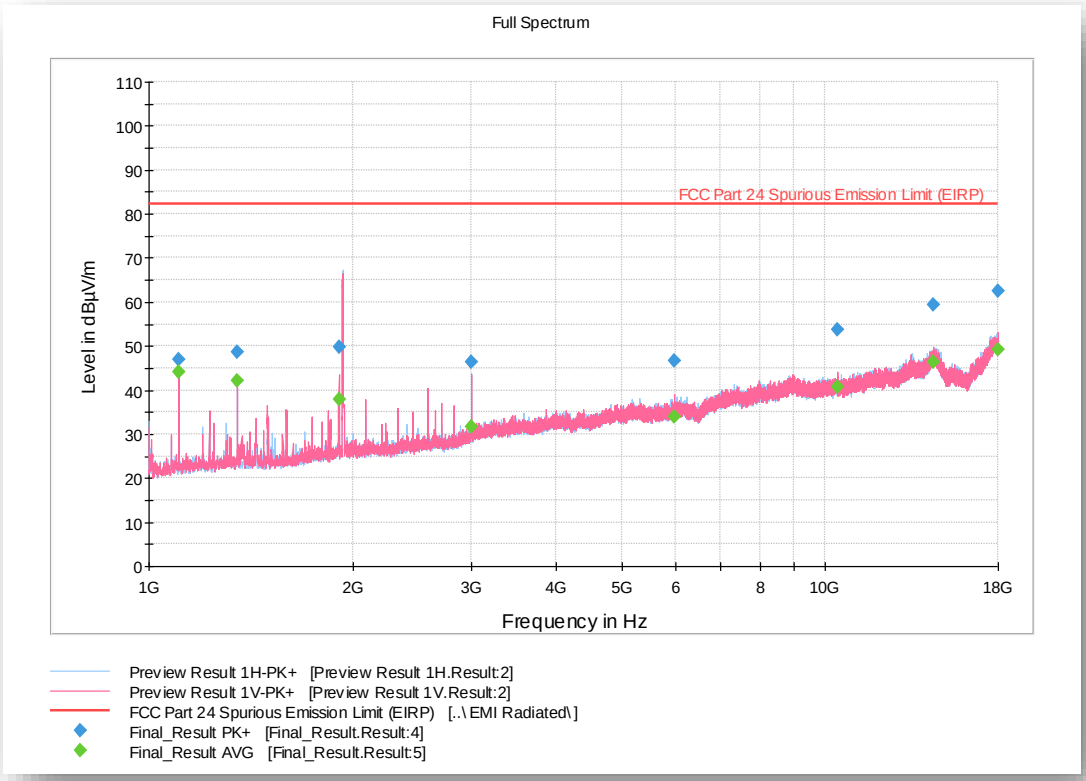
2.12.13 Test Results Below 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 10MHz Bandwidth Lo Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
32.028667	35.55	82.23	46.68	1000.0	120.000	125.0	V	11.0	21
55.631667	35.31	82.23	46.92	1000.0	120.000	100.0	V	-15.0	14
102.655000	35.45	82.23	46.78	1000.0	120.000	120.0	V	111.0	16
299.829333	38.41	82.23	43.82	1000.0	120.000	107.0	V	175.0	21
480.015333	40.12	82.23	42.11	1000.0	120.000	174.0	H	244.0	25
614.385000	37.84	82.23	44.39	1000.0	120.000	100.0	V	341.0	27
747.024000	50.51	82.23	31.72	1000.0	120.000	114.0	V	201.0	28
941.721000	30.72	82.23	51.51	1000.0	120.000	285.0	H	102.0	31

2.12.14 Test Results Above 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 10MHz Bandwidth Low Channel



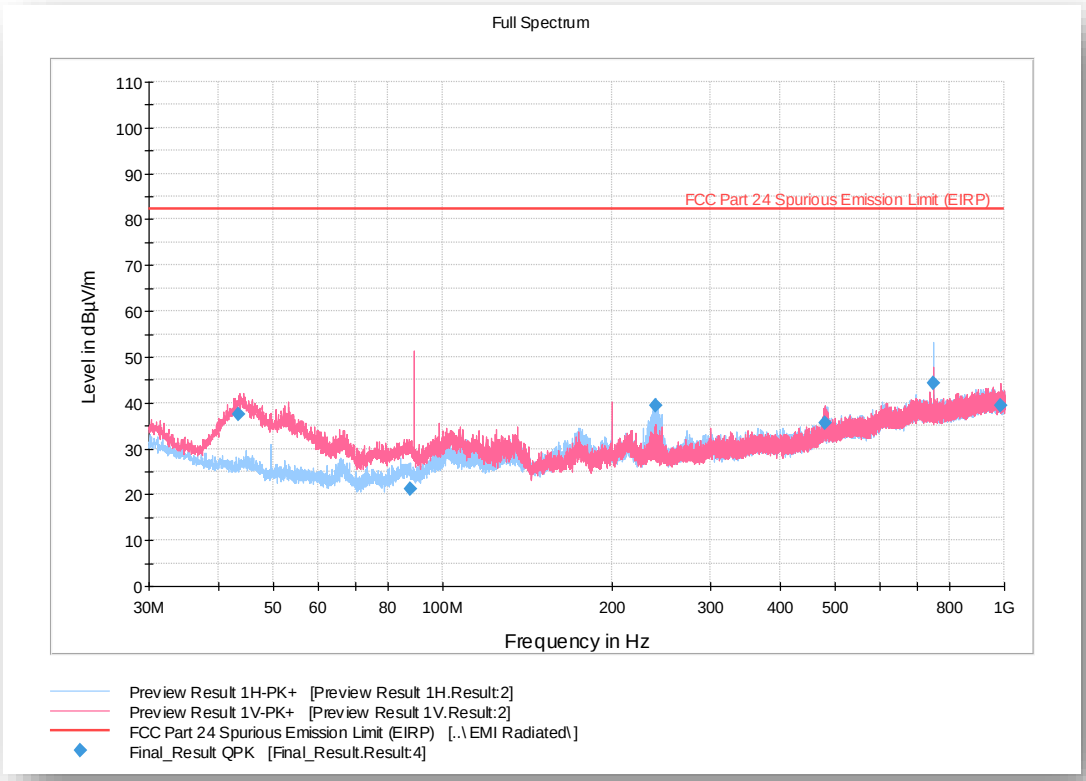
Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1106.000000	47.03	82.23	35.20	1000.0	1000.000	255.0	V	199.0	-9
1351.533333	48.68	82.23	33.55	1000.0	1000.000	227.0	V	197.0	-7
1909.533333	49.73	82.23	32.50	1000.0	1000.000	175.0	V	347.0	-4
2999.566667	46.51	82.23	35.72	1000.0	1000.000	289.0	H	33.0	-1
5988.233333	46.59	82.23	35.64	1000.0	1000.000	332.0	V	98.0	4
10436.600000	53.67	82.23	28.56	1000.0	1000.000	145.0	V	133.0	12
14426.133333	59.42	82.23	22.81	1000.0	1000.000	125.0	V	19.0	16
17979.200000	62.58	82.23	19.65	1000.0	1000.000	222.0	V	256.0	23

Average Data

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1106.000000	44.13	82.23	38.10	1000.0	1000.000	255.0	V	199.0	-9
1351.533333	42.22	82.23	40.01	1000.0	1000.000	227.0	V	197.0	-7
1909.533333	37.85	82.23	44.38	1000.0	1000.000	175.0	V	347.0	-4
2999.566667	31.66	82.23	50.57	1000.0	1000.000	289.0	H	33.0	-1
5988.233333	34.01	82.23	48.22	1000.0	1000.000	332.0	V	98.0	4
10436.600000	40.60	82.23	41.63	1000.0	1000.000	145.0	V	133.0	12
14426.133333	46.50	82.23	35.73	1000.0	1000.000	125.0	V	19.0	16
17979.200000	49.28	82.23	32.95	1000.0	1000.000	222.0	V	256.0	23

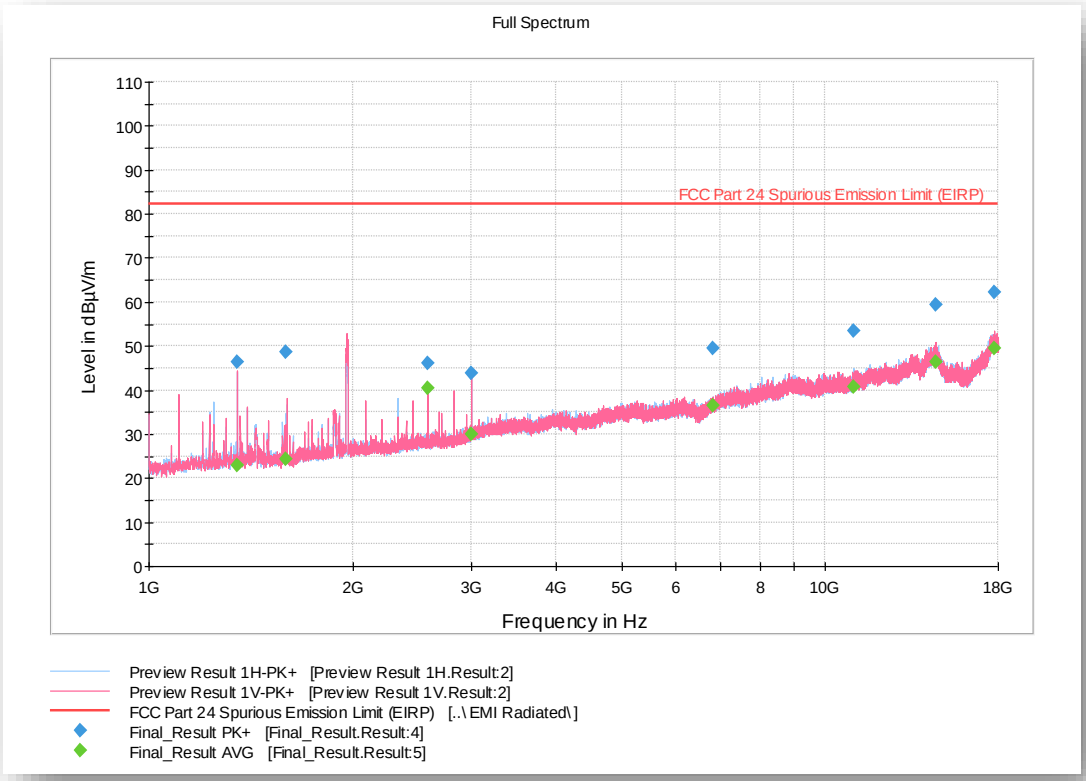
2.12.15 Test Results Below 1GHz (LTE Band 25 Uplink Worst Case Configuration) - 20MHz Bandwidth Middle Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.346667	37.48	82.23	44.75	1000.0	120.000	106.0	V	267.0	16
87.536000	21.17	82.23	61.06	1000.0	120.000	285.0	V	285.0	14
239.645000	39.28	82.23	42.95	1000.0	120.000	117.0	H	314.0	19
479.938667	35.62	82.23	46.61	1000.0	120.000	100.0	V	355.0	25
746.944000	44.15	82.23	38.08	1000.0	120.000	125.0	H	42.0	28
983.057333	39.46	82.23	42.77	1000.0	120.000	155.0	V	-1.0	30

2.12.16 Test Results Above 1GHz (LTE Band 25 Downlink Worst Case Configuration) - 20MHz Bandwidth Middle Channel



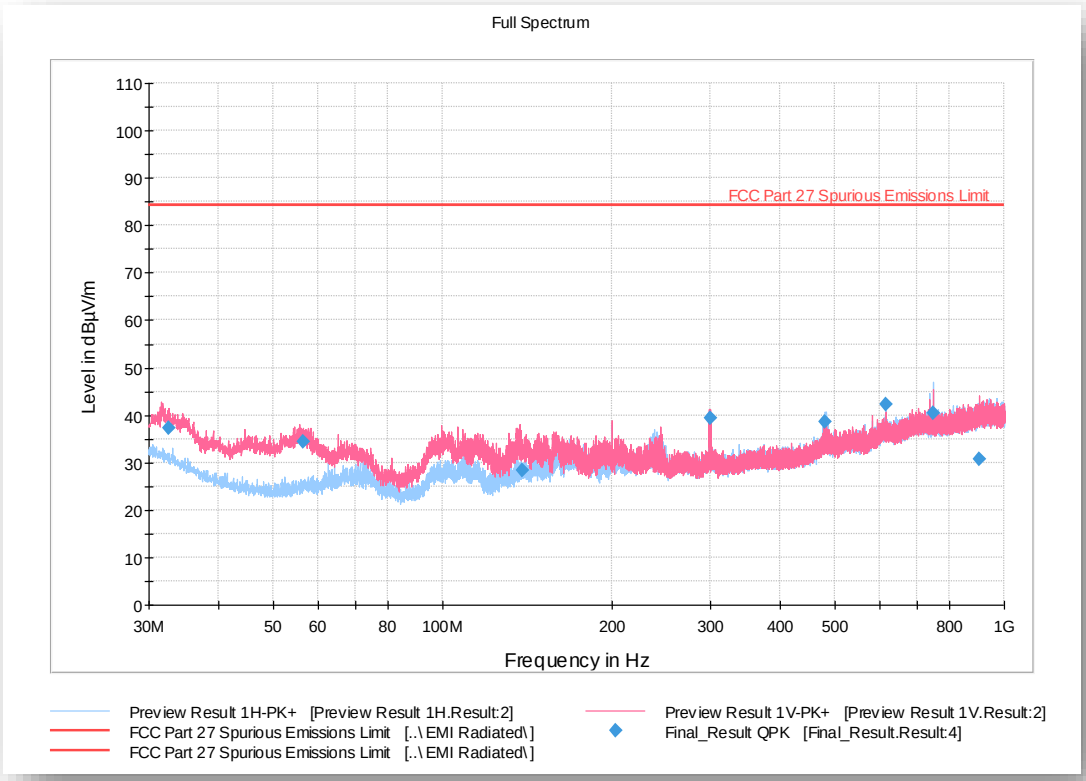
Peak Data

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1349.133333	46.38	82.23	35.85	1000.0	1000.000	227.0	V	80.0	-7
1595.733333	48.60	82.23	33.63	1000.0	1000.000	175.0	V	10.0	-7
2580.633333	46.13	82.23	36.10	1000.0	1000.000	144.0	V	60.0	-2
2996.366667	43.93	82.23	38.30	1000.0	1000.000	237.0	V	330.0	-1
6811.733333	49.60	82.23	32.63	1000.0	1000.000	143.0	V	68.0	5
10991.133333	53.50	82.23	28.73	1000.0	1000.000	175.0	H	2.0	14
14584.266667	59.45	82.23	22.78	1000.0	1000.000	224.0	V	215.0	16
17768.500000	62.24	82.23	19.99	1000.0	1000.000	365.0	V	156.0	22

Average Data

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1349.133333	22.94	82.23	59.29	1000.0	1000.000	227.0	V	80.0	-7
1595.733333	24.18	82.23	58.05	1000.0	1000.000	175.0	V	10.0	-7
2580.633333	40.45	82.23	41.78	1000.0	1000.000	144.0	V	60.0	-2
2996.366667	30.06	82.23	52.17	1000.0	1000.000	237.0	V	330.0	-1
6811.733333	36.46	82.23	45.77	1000.0	1000.000	143.0	V	68.0	5
10991.133333	40.61	82.23	41.62	1000.0	1000.000	175.0	H	2.0	14
14584.266667	46.35	82.23	35.88	1000.0	1000.000	224.0	V	215.0	16
17768.500000	49.46	82.23	32.77	1000.0	1000.000	365.0	V	156.0	22

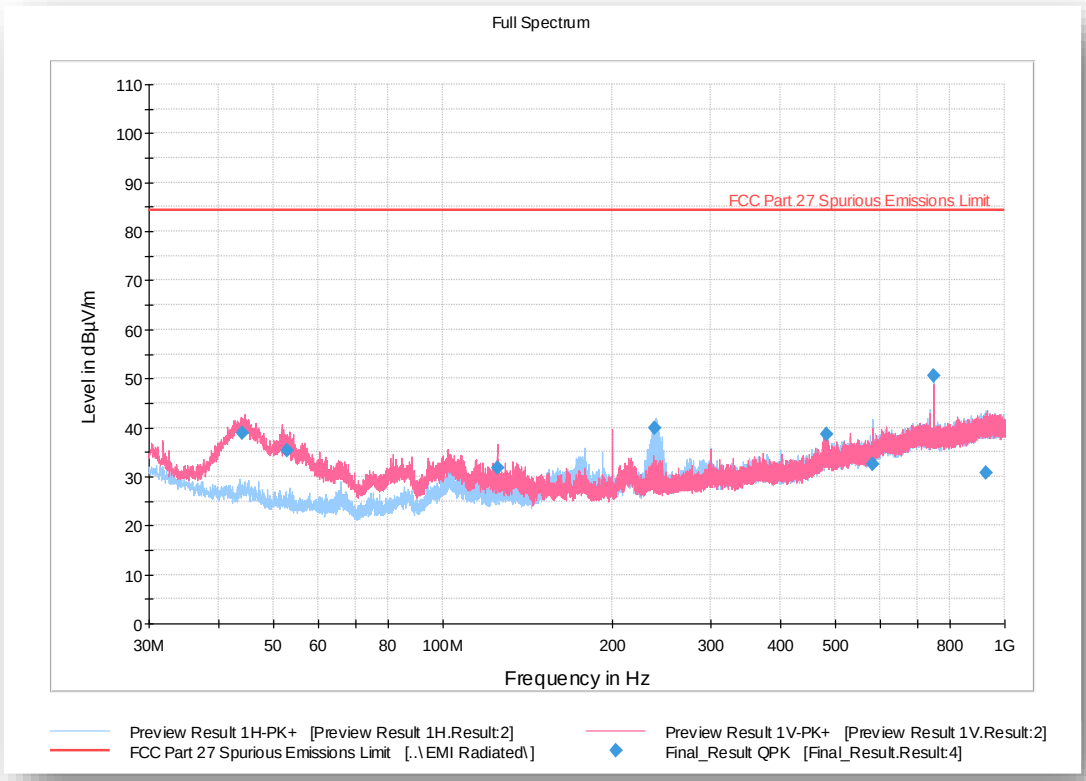
2.12.17 Test Results Below 1GHz (LTE Band 4 Downlink Worst Case Configuration) - 10MHz Bandwidth Low Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
32.536667	37.30	84.40	47.10	1000.0	120.000	125.0	V	267.0	21
56.400333	34.39	84.40	50.01	1000.0	120.000	100.0	V	318.0	14
138.666667	28.24	84.40	56.16	1000.0	120.000	107.0	V	207.0	15
299.814000	39.49	84.40	44.91	1000.0	120.000	100.0	V	158.0	21
479.974333	38.52	84.40	45.88	1000.0	120.000	171.0	H	266.0	25
614.385000	42.38	84.40	42.02	1000.0	120.000	100.0	H	155.0	27
746.984000	40.35	84.40	44.05	1000.0	120.000	125.0	H	197.0	28
903.667000	30.60	84.40	53.80	1000.0	120.000	109.0	V	20.0	31

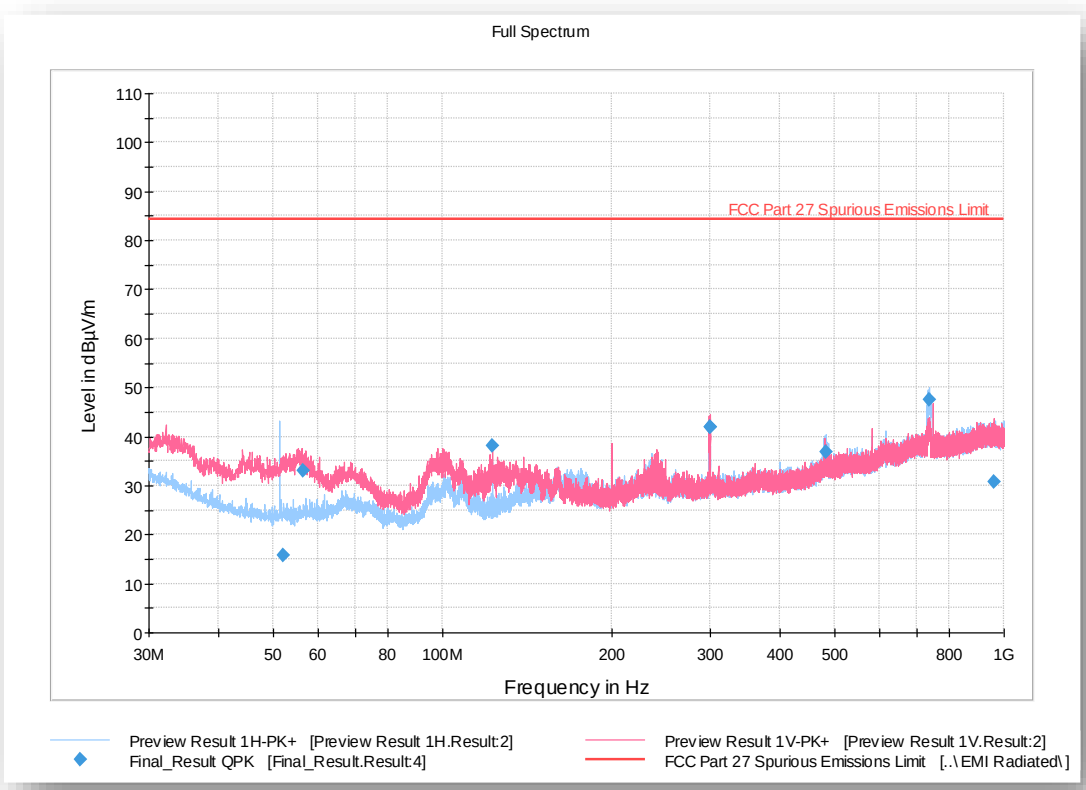
2.12.18 Test Results Below 1GHz (LTE Band 4 Uplink Worst Case Configuration) - 10MHz Bandwidth Middle Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
44.093000	38.82	84.40	45.58	1000.0	120.000	107.0	V	339.0	16
52.785333	35.42	84.40	48.98	1000.0	120.000	125.0	V	272.0	14
125.035333	31.86	84.40	52.54	1000.0	120.000	125.0	V	180.0	14
238.177000	39.81	84.40	44.59	1000.0	120.000	100.0	H	322.0	19
481.793667	38.52	84.40	45.88	1000.0	120.000	172.0	H	287.0	25
580.944667	32.50	84.40	51.90	1000.0	120.000	186.0	H	37.0	26
747.024000	50.66	84.40	33.74	1000.0	120.000	113.0	H	20.0	28
925.363333	30.85	84.40	53.55	1000.0	120.000	355.0	H	35.0	31

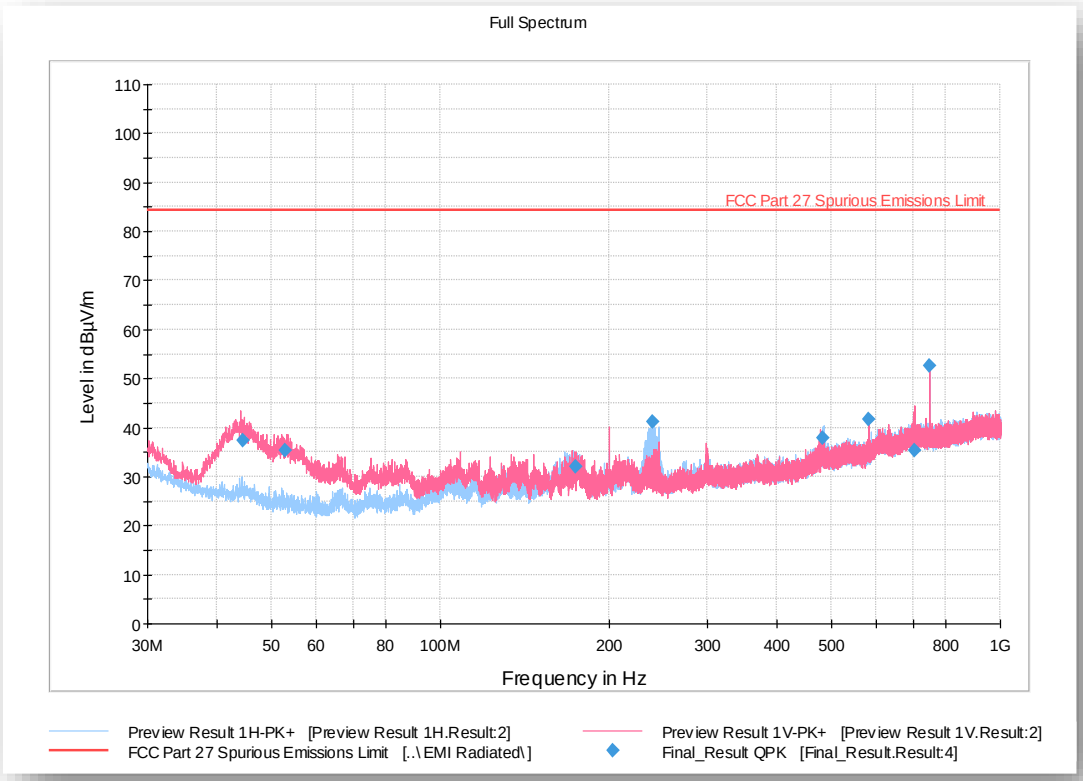
2.12.19 Test Results Below 1GHz (LTE Band 12 Downlink Worst Case Configuration) - 5MHz Bandwidth High Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
52.178333	15.76	84.40	68.64	1000.0	120.000	400.0	H	330.0	14
56.382333	32.95	84.40	51.45	1000.0	120.000	107.0	V	6.0	14
122.861333	38.20	84.40	46.20	1000.0	120.000	109.0	V	142.0	14
299.797000	41.90	84.40	42.50	1000.0	120.000	100.0	V	166.0	21
299.802333	41.91	84.40	42.49	1000.0	120.000	100.0	V	164.0	21
481.854000	36.79	84.40	47.61	1000.0	120.000	162.0	H	260.0	25
735.017333	47.46	84.40	36.94	1000.0	120.000	106.0	H	310.0	29
958.325667	30.82	84.40	53.58	1000.0	120.000	346.0	V	1.0	31

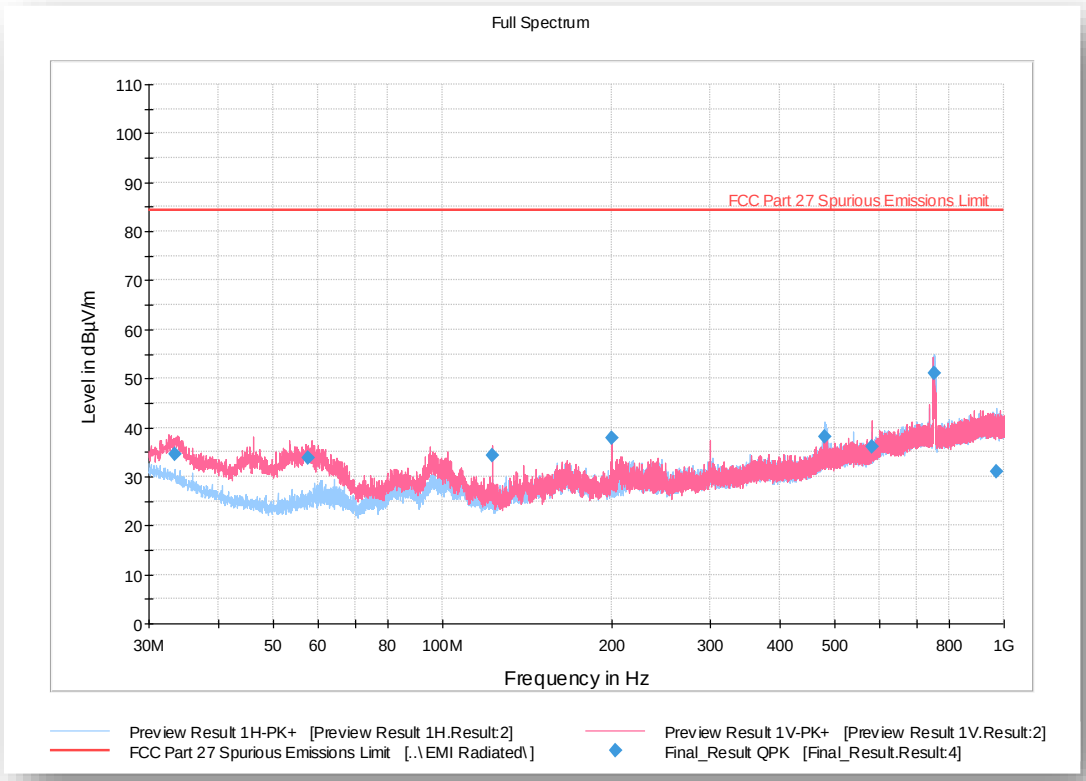
2.12.1 Test Results Below 1GHz (LTE Band 12 Uplink Worst Case Configuration) - 5MHz Bandwidth Middle Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
44.368000	37.28	84.38	47.10	1000.0	120.000	119.0	V	271.0	16
52.774333	35.34	84.38	49.04	1000.0	120.000	125.0	V	286.0	14
174.252000	32.01	84.38	52.37	1000.0	120.000	186.0	H	135.0	17
238.905667	41.04	84.38	43.34	1000.0	120.000	112.0	H	317.0	19
482.168667	37.96	84.38	46.42	1000.0	120.000	180.0	H	308.0	25
581.024667	41.64	84.38	42.74	1000.0	120.000	108.0	V	181.0	26
702.837333	35.29	84.38	49.09	1000.0	120.000	393.0	V	136.0	29
747.024000	52.49	84.38	31.89	1000.0	120.000	108.0	H	20.0	28

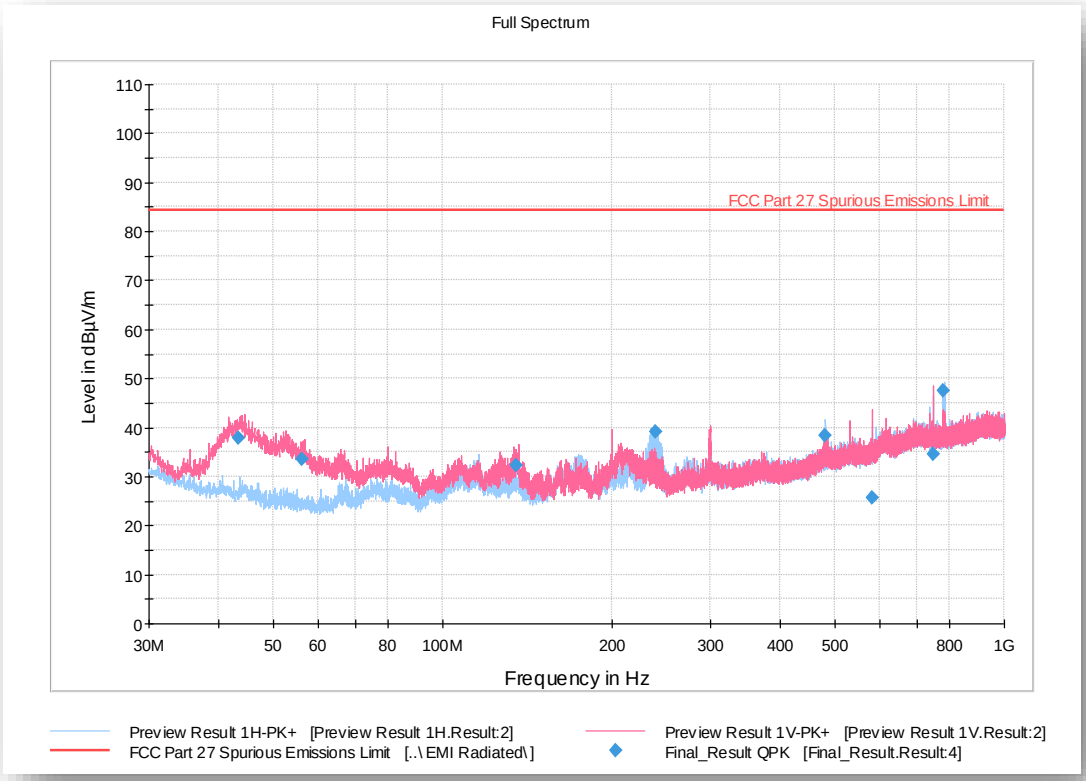
2.12.1 Test Results Below 1GHz (LTE Band 13 Downlink Worst Case Configuration) - 5MHz Bandwidth Mid Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.449667	34.60	84.40	49.80	1000.0	120.000	107.0	V	291.0	20
57.798000	33.69	84.40	50.71	1000.0	120.000	111.0	V	352.0	14
122.901333	34.26	84.40	50.14	1000.0	120.000	100.0	V	196.0	14
200.008667	37.93	84.40	46.47	1000.0	120.000	107.0	V	48.0	17
480.000333	38.17	84.40	46.23	1000.0	120.000	165.0	H	259.0	25
580.984667	36.13	84.40	48.27	1000.0	120.000	116.0	V	-10.0	26
750.564333	51.02	84.40	33.38	1000.0	120.000	107.0	H	90.0	28
967.581333	30.97	84.40	53.43	1000.0	120.000	253.0	H	257.0	31

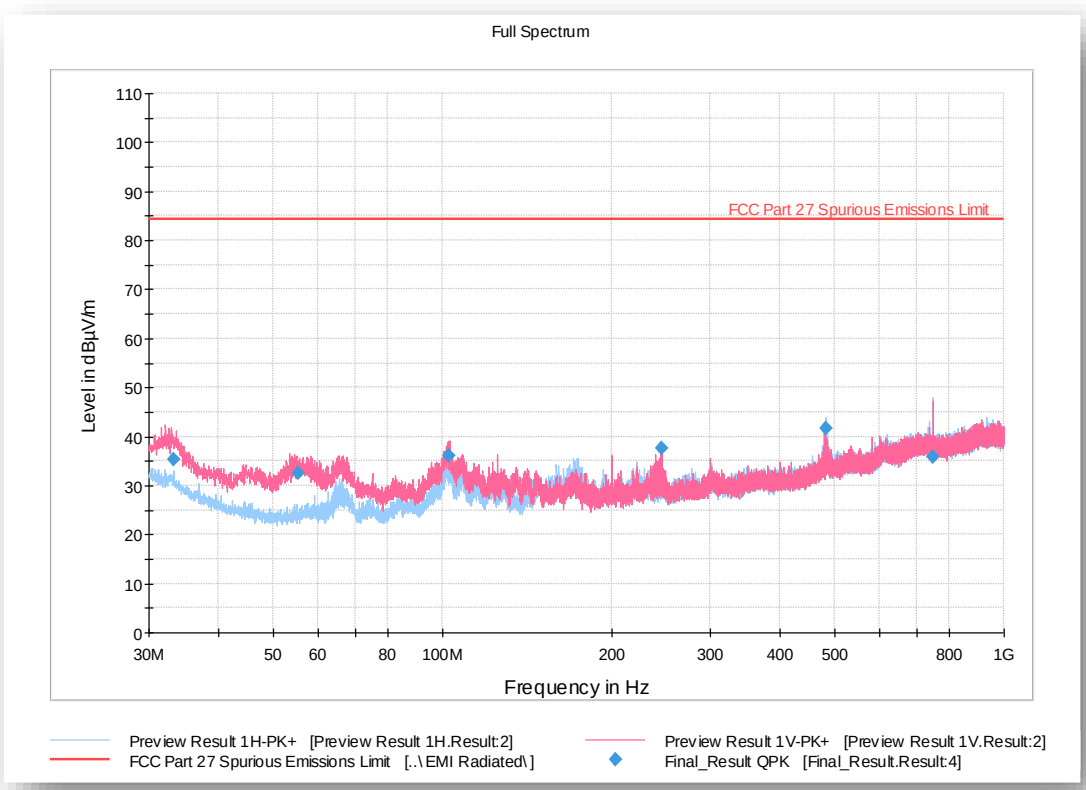
2.12.1 Test Results Below 1GHz (LTE Band 13 Uplink Worst Case Configuration) - 5MHz Bandwidth Middle Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
43.380667	37.85	84.40	46.55	1000.0	120.000	111.0	V	1.0	16
56.309000	33.43	84.40	50.97	1000.0	120.000	107.0	V	303.0	14
135.170667	32.30	84.40	52.10	1000.0	120.000	111.0	V	201.0	14
239.270000	39.19	84.40	45.21	1000.0	120.000	100.0	H	337.0	19
480.014333	38.37	84.40	46.03	1000.0	120.000	190.0	H	298.0	25
581.584667	25.62	84.40	58.78	1000.0	120.000	109.0	V	236.0	26
746.624000	34.60	84.40	49.80	1000.0	120.000	125.0	V	59.0	28
780.612333	47.41	84.40	36.99	1000.0	120.000	100.0	H	280.0	29

2.12.1 Test Results Below 1GHz (LTE Band 30 Downlink Worst Case Configuration) - 5MHz Bandwidth Mid Channel



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
33.294000	35.34	84.40	49.06	1000.0	120.000	114.0	V	11.0	20
55.284000	32.47	84.40	51.93	1000.0	120.000	115.0	V	344.0	14
102.631667	35.96	84.40	48.44	1000.0	120.000	120.0	V	156.0	16
245.752667	37.57	84.40	46.83	1000.0	120.000	125.0	H	99.0	19
481.786000	41.71	84.40	42.69	1000.0	120.000	183.0	H	243.0	25
746.936333	35.78	84.40	48.62	1000.0	120.000	235.0	H	278.0	28