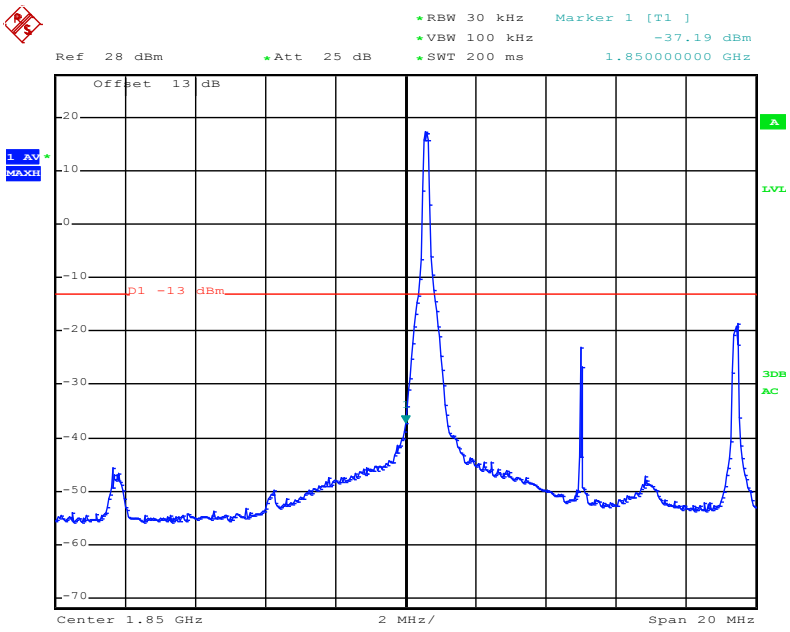
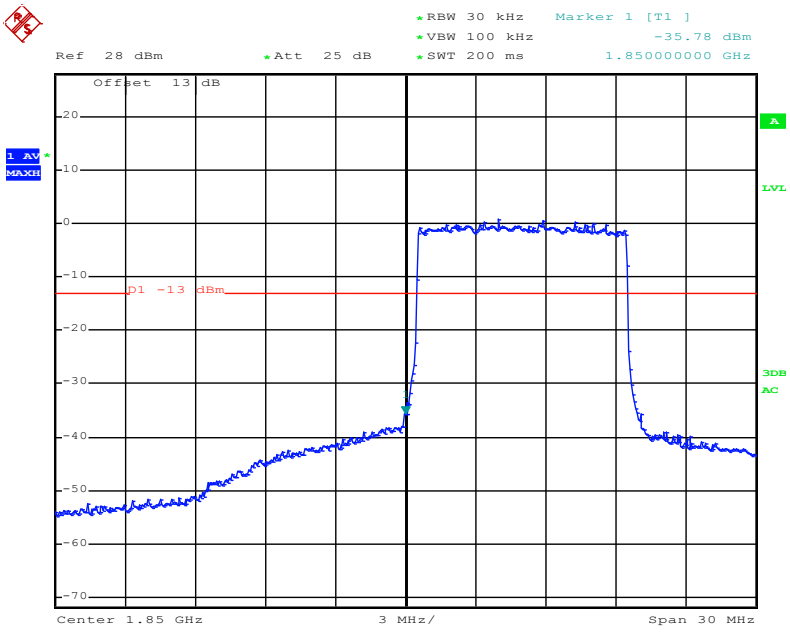


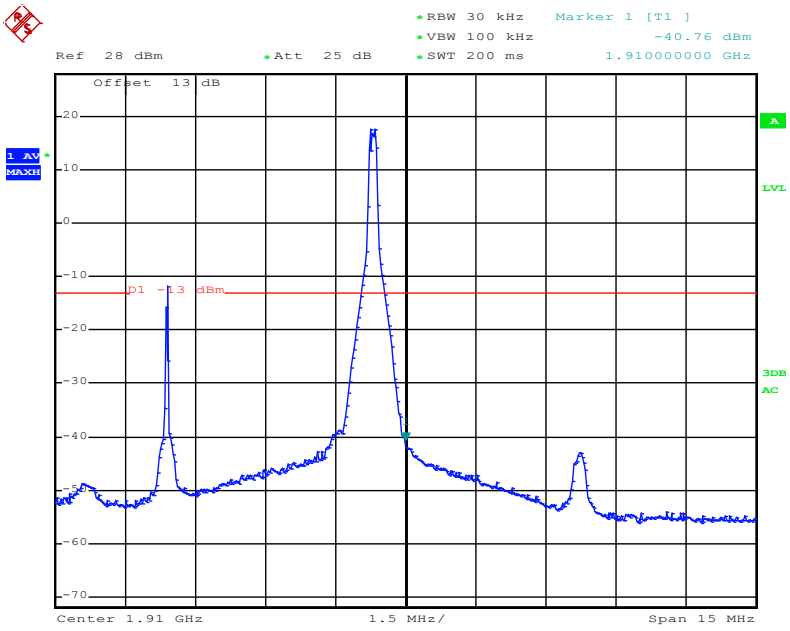
Date: 12.MAR.2019 07:33:13

LTE Band2, 10MHz bandwidth, QPSK,(1,0) Mode , Below 1850MHz



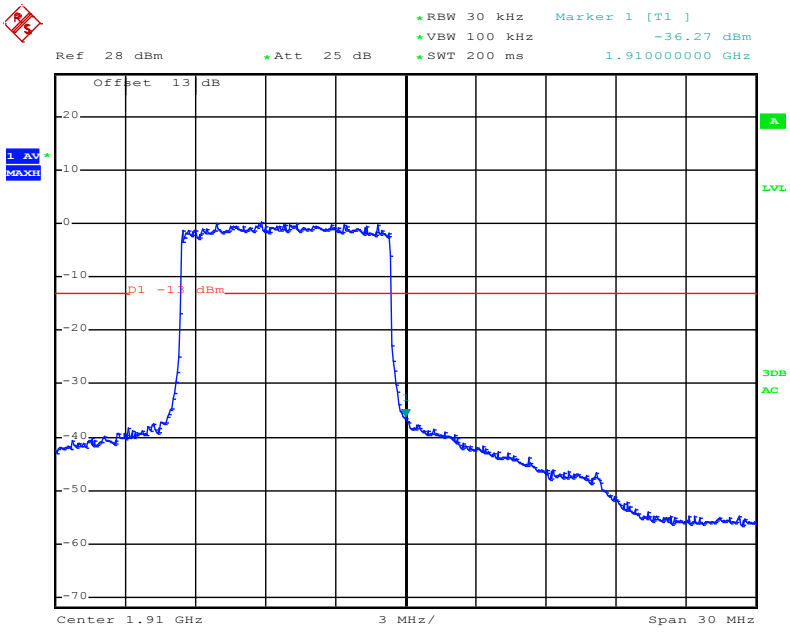
Date: 12.MAR.2019 07:33:51

LTE Band2, 10MHz bandwidth, QPSK,(50,0) Mode , Below 1850MHz



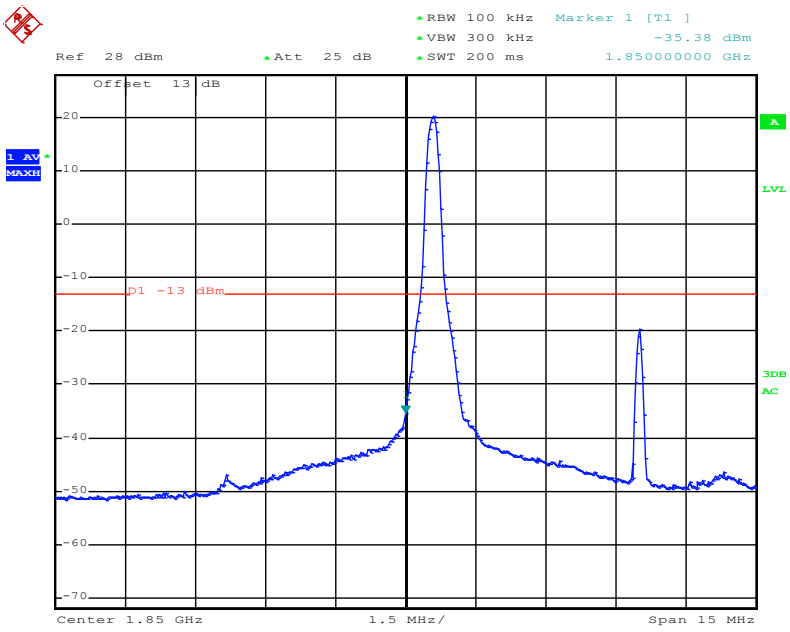
Date: 12.MAR.2019 07:34:49

LTE Band2, 10MHz bandwidth, QPSK,(1,50) Mode, Above 1910MHz



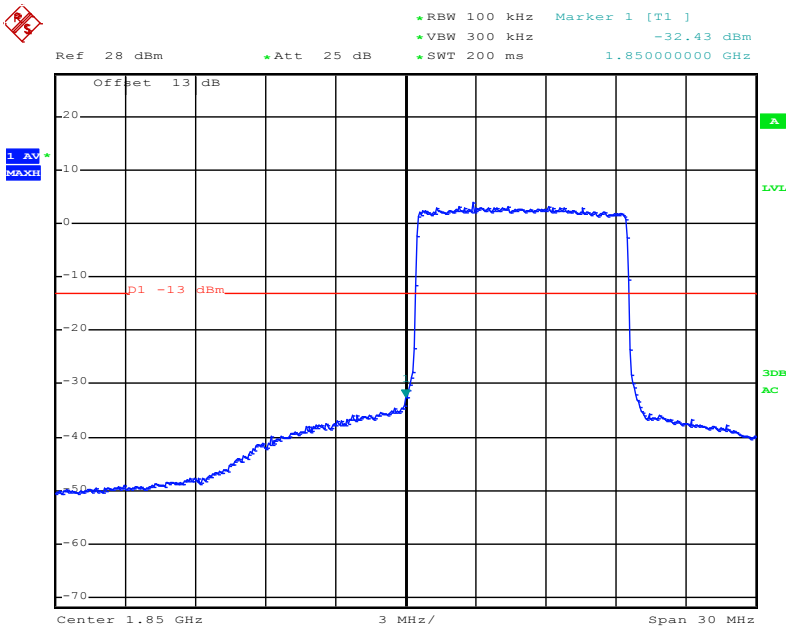
Date: 12.MAR.2019 07:35:30

LTE Band2, 10MHz bandwidth, QPSK,(50,0) Mode, Above 1910MHz



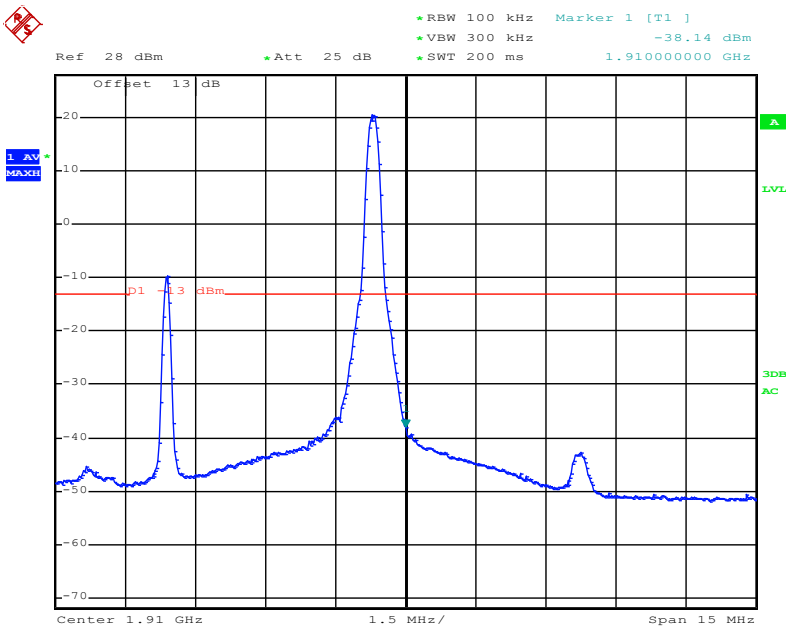
Date: 12.MAR.2019 07:36:47

LTE Band2, 10MHz bandwidth, 16QAM,(1,0) Mode , Below 1850MHz



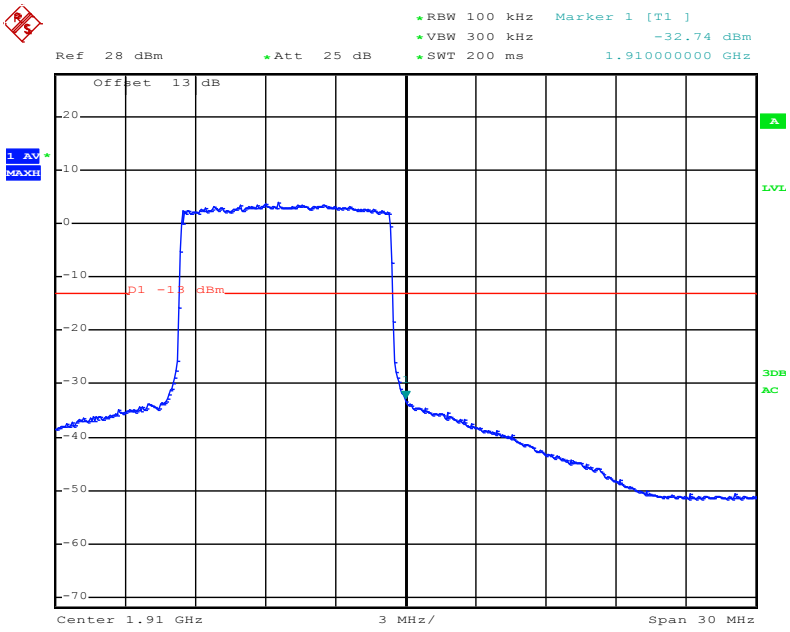
Date: 12.MAR.2019 07:37:16

LTE Band2, 10MHz bandwidth, 16QAM,(50,0) Mode , Below 1850MHz



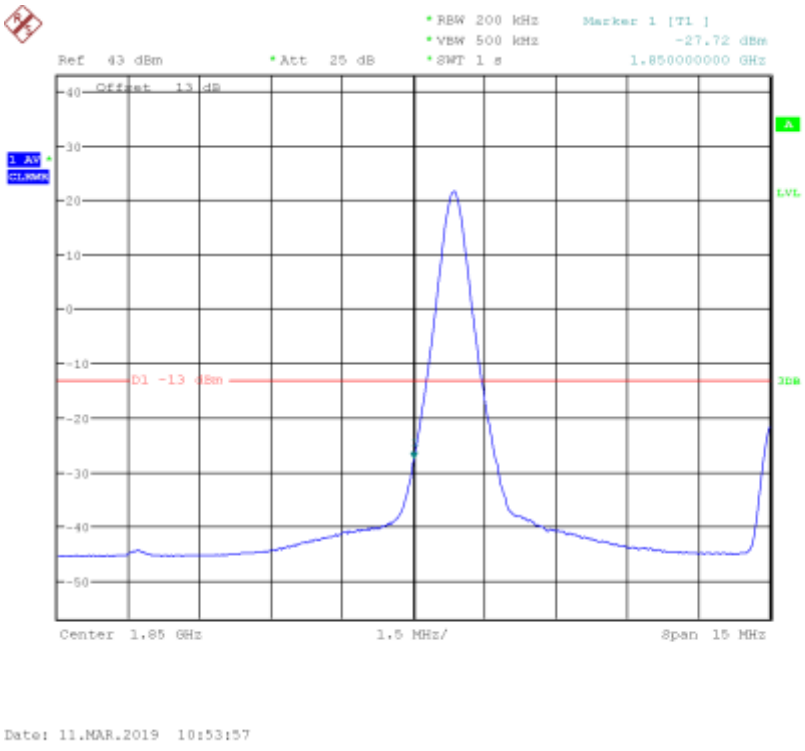
Date: 12.MAR.2019 07:38:11

LTE Band2, 10MHz bandwidth, 16QAM,(1,50) Mode, Above 1910MHz

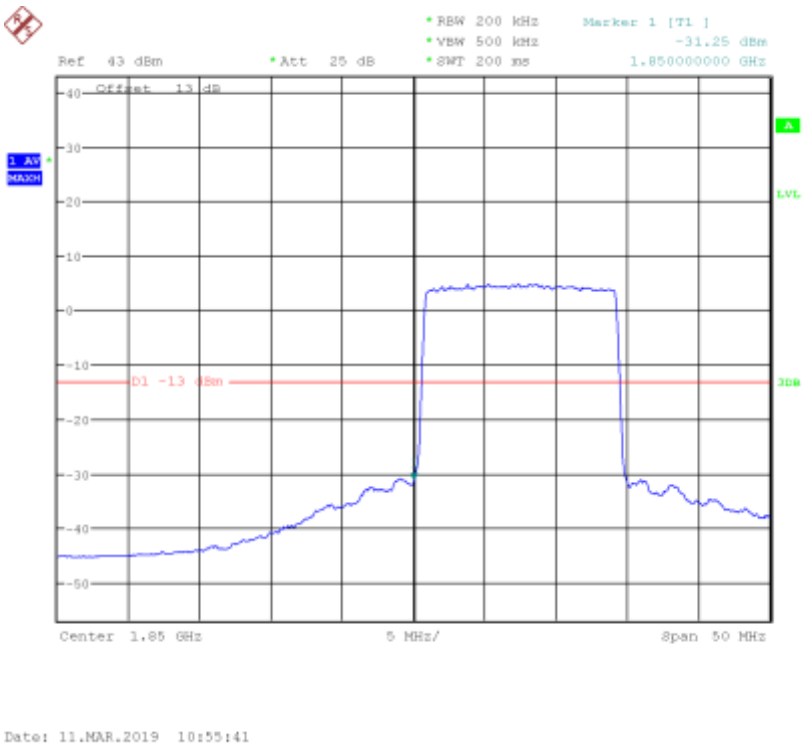


Date: 12.MAR.2019 07:39:04

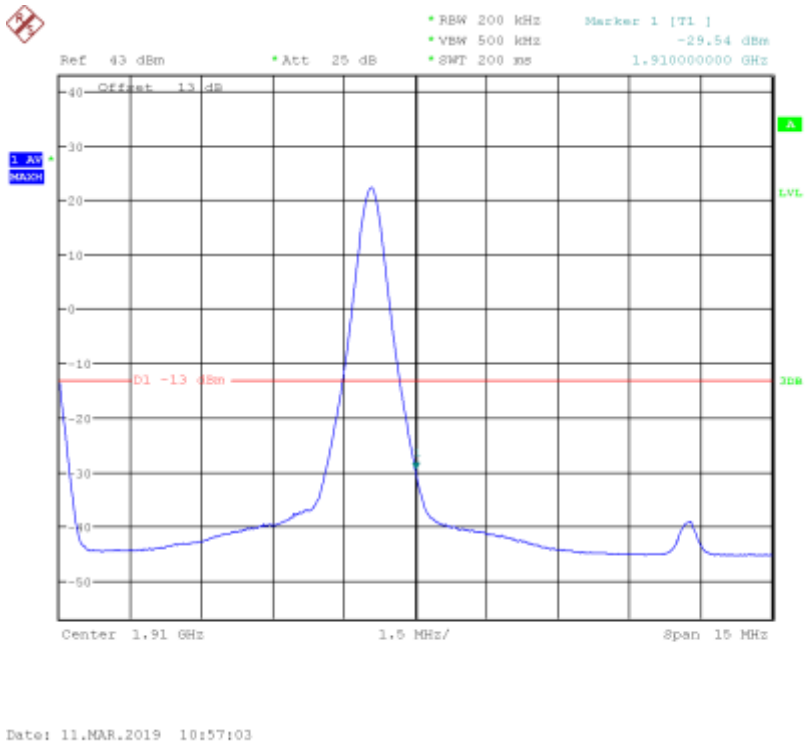
LTE Band2, 10MHz bandwidth, 16QAM,(50,0) Mode, Above 1910MHz



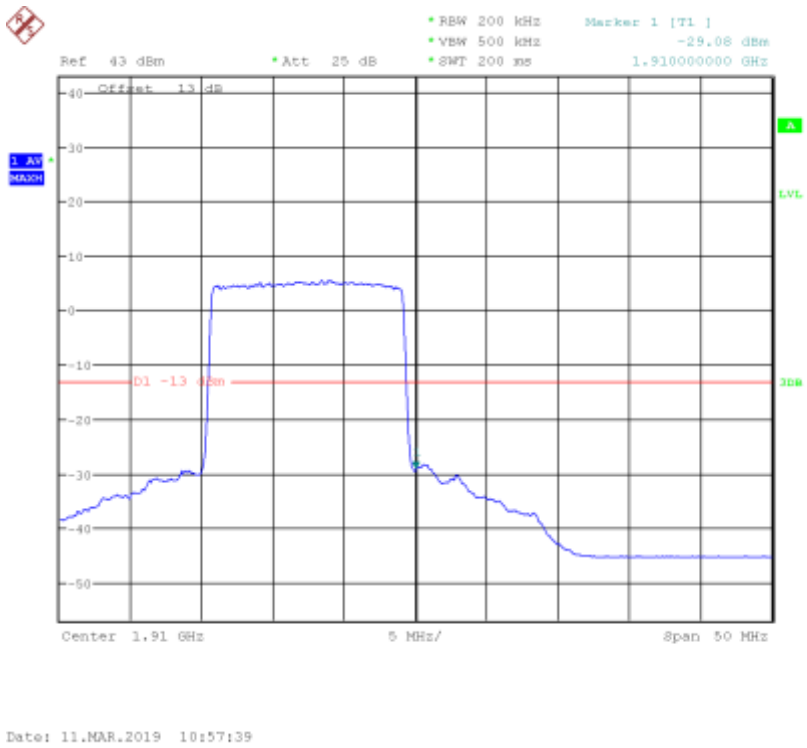
LTE Band2, 15MHz bandwidth, QPSK,(1,0) Mode , Below 1850MHz



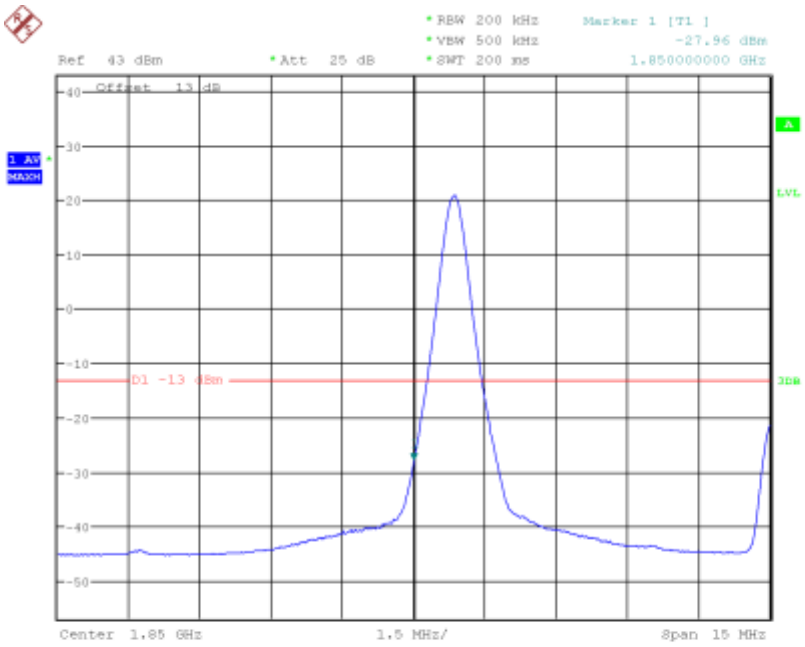
LTE Band2, 15MHz bandwidth, QPSK,(75,0) Mode , Below 1850MHz



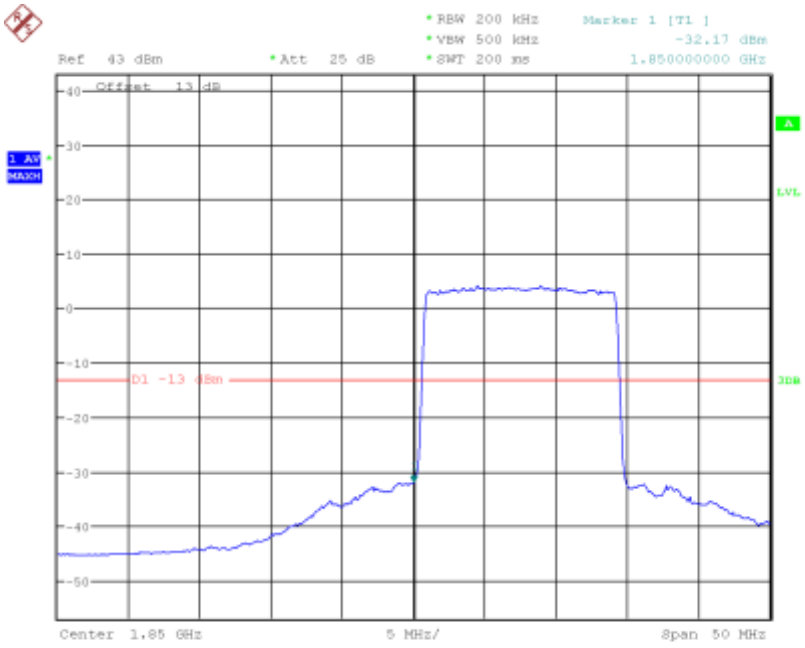
LTE Band2, 15MHz bandwidth, QPSK,(1,75) Mode, Above 1910MHz



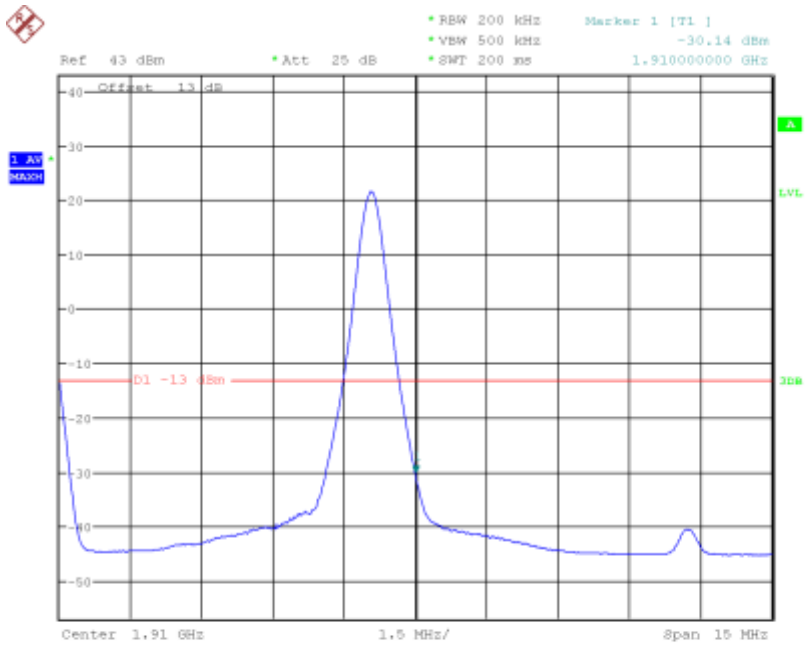
LTE Band2, 15MHz bandwidth, QPSK,(75,0) Mode, Above 1910MHz



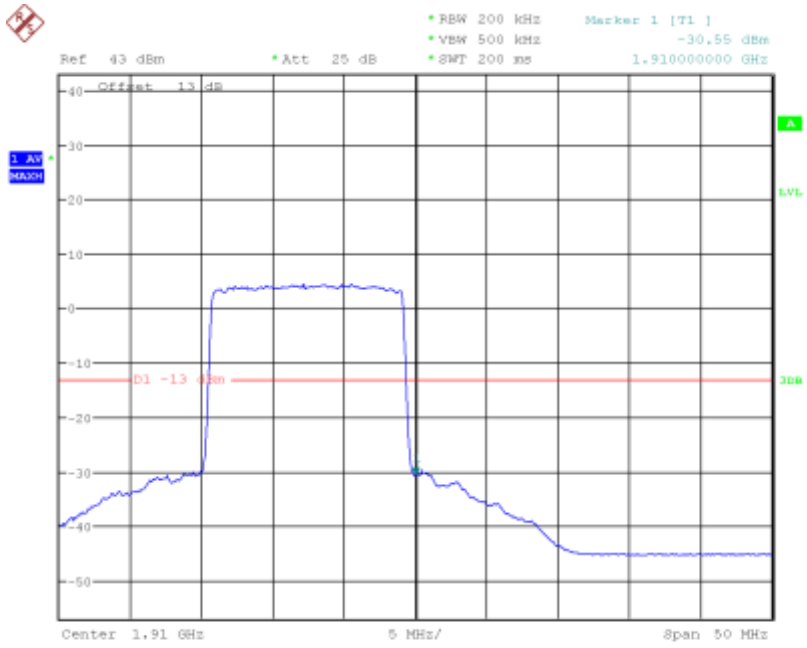
LTE Band2, 15MHz bandwidth, 16QAM,(1,0) Mode , Below 1850MHz



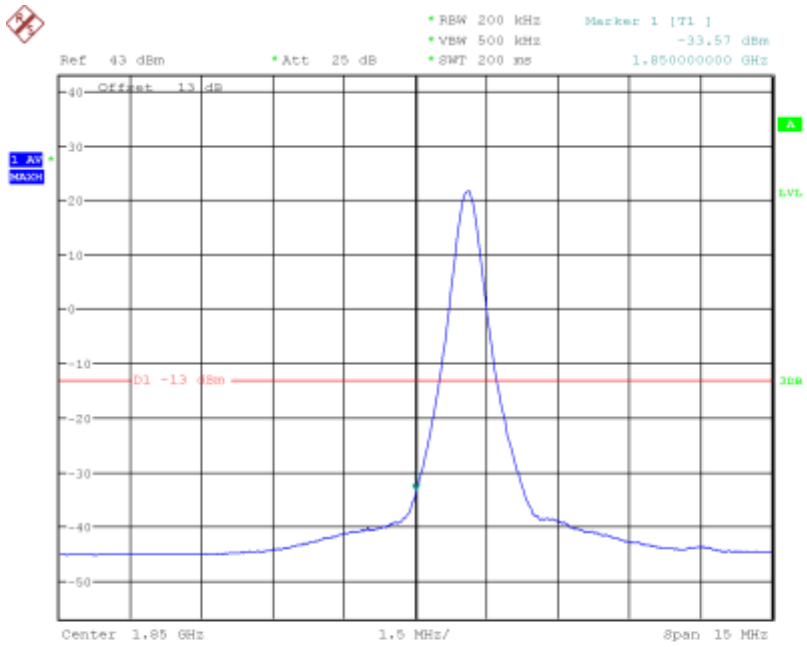
LTE Band2, 15MHz bandwidth, 16QAM,(75,0) Mode , Below 1850MHz



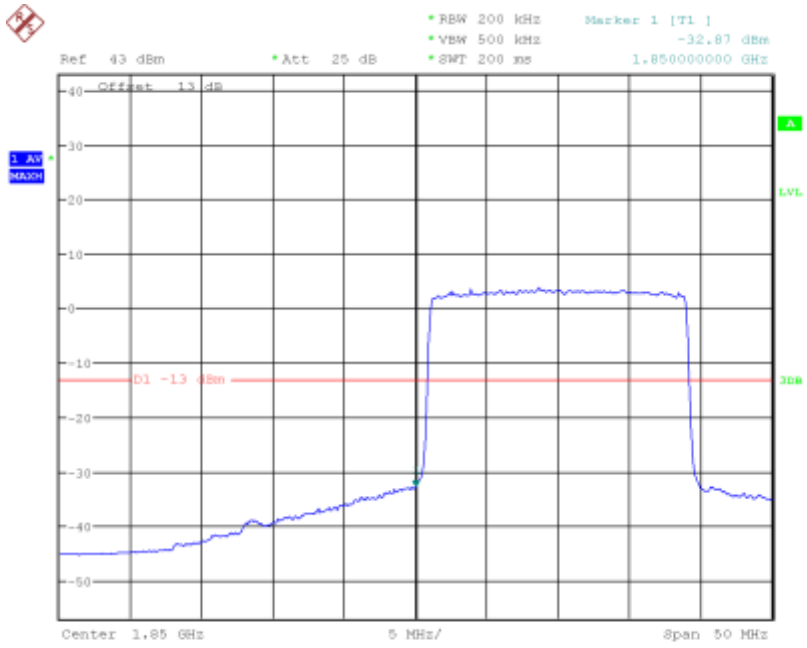
LTE Band2, 15MHz bandwidth, 16QAM,(1,75) Mode, Above 1910MHz



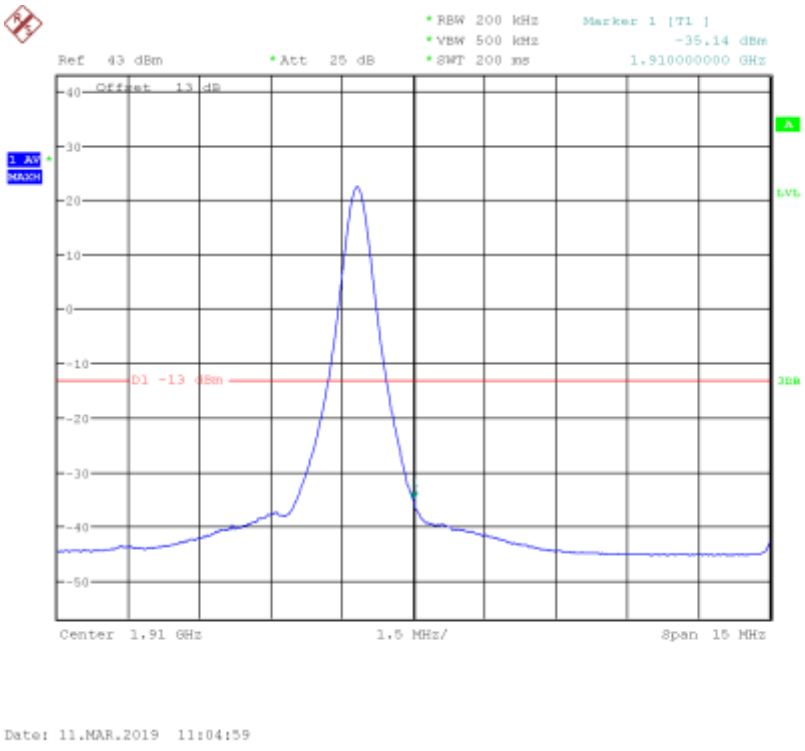
LTE Band2, 15MHz bandwidth, 16QAM,(75,0) Mode, Above 1910MHz



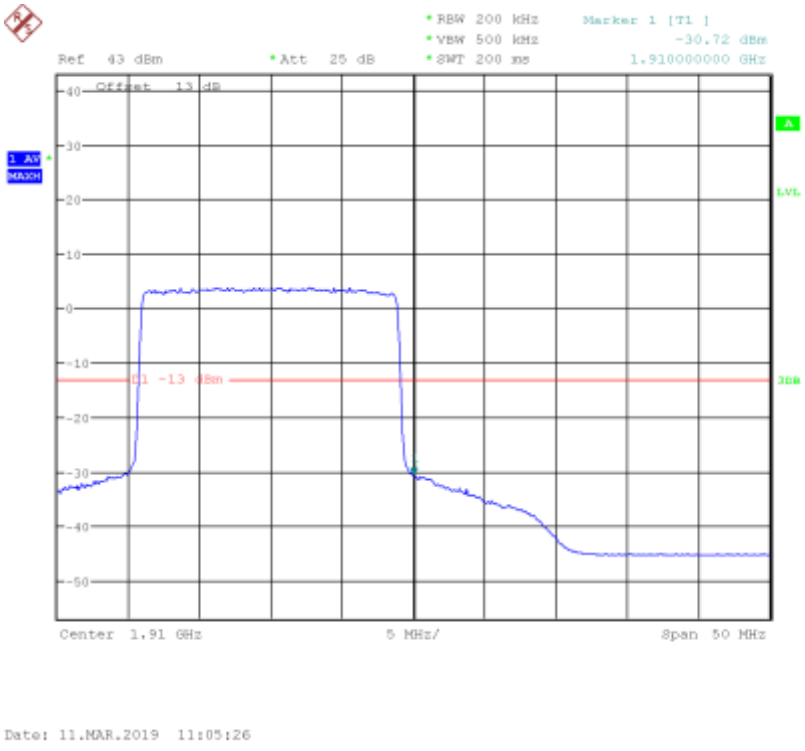
LTE Band2, 20MHz bandwidth, QPSK,(1,0) Mode , Below 1850MHz



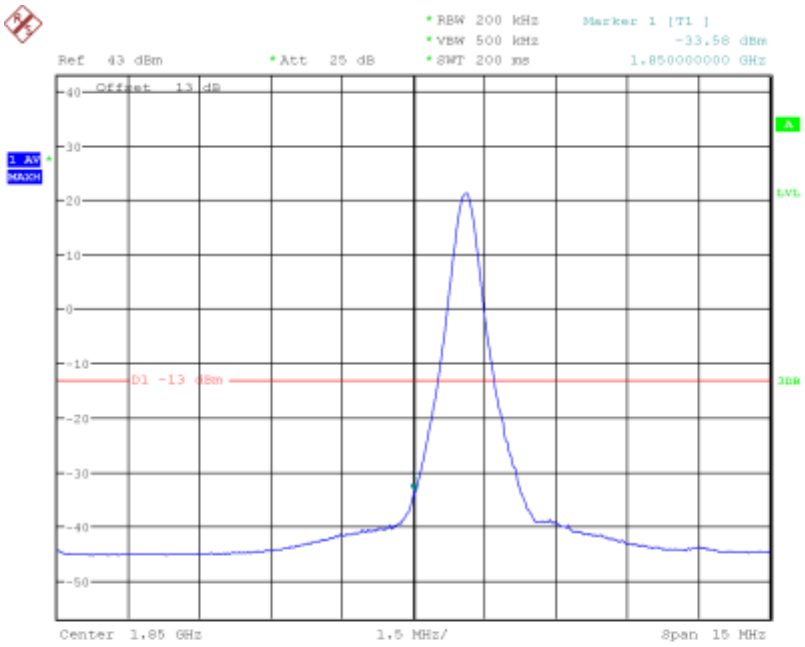
LTE Band2, 20MHz bandwidth, QPSK,(100,0) Mode , Below 1850MHz



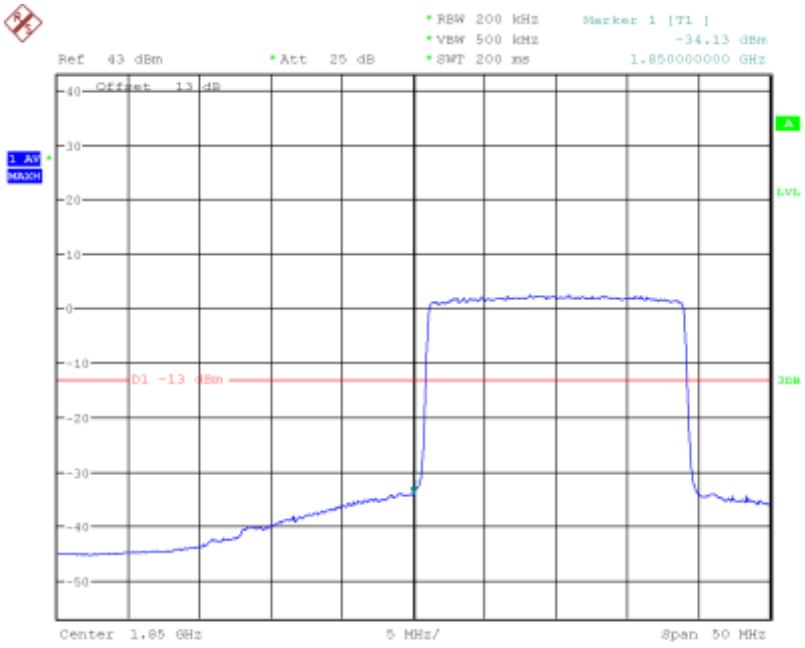
LTE Band2, 20MHz bandwidth, QPSK,(1,100) Mode, Above 1910MHz



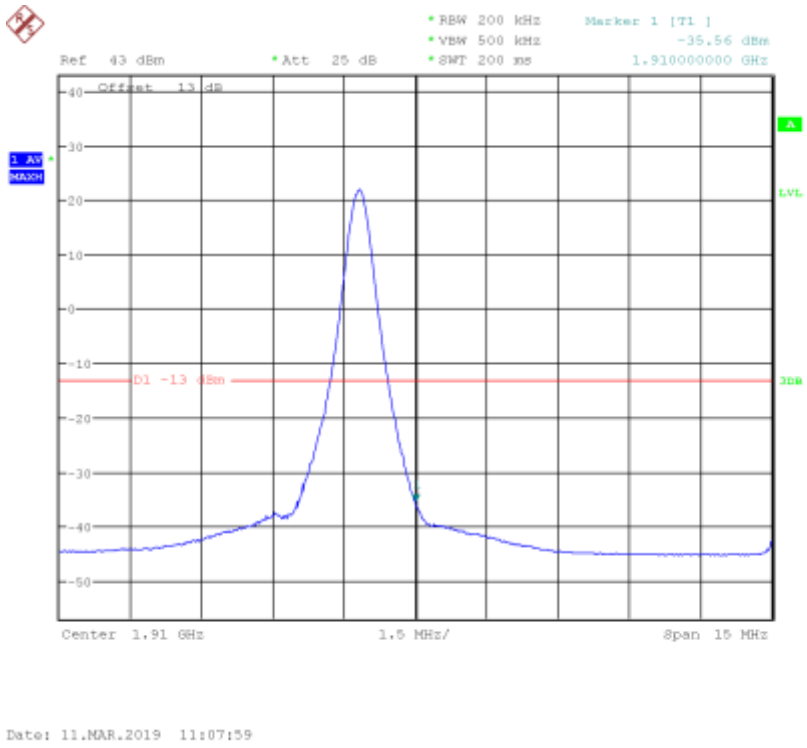
LTE Band2, 20MHz bandwidth, QPSK,(100,0) Mode, Above 1910MHz



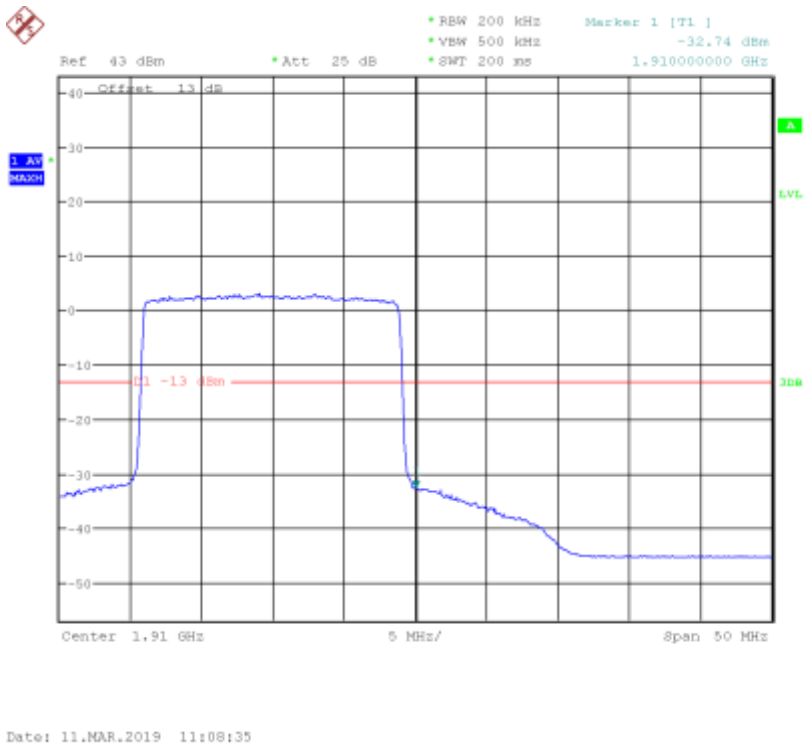
LTE Band2, 20MHz bandwidth, 16QAM,(1,0) Mode , Below 1850MHz



LTE Band2, 20MHz bandwidth, 16QAM,(100,0) Mode , Below 1850MHz

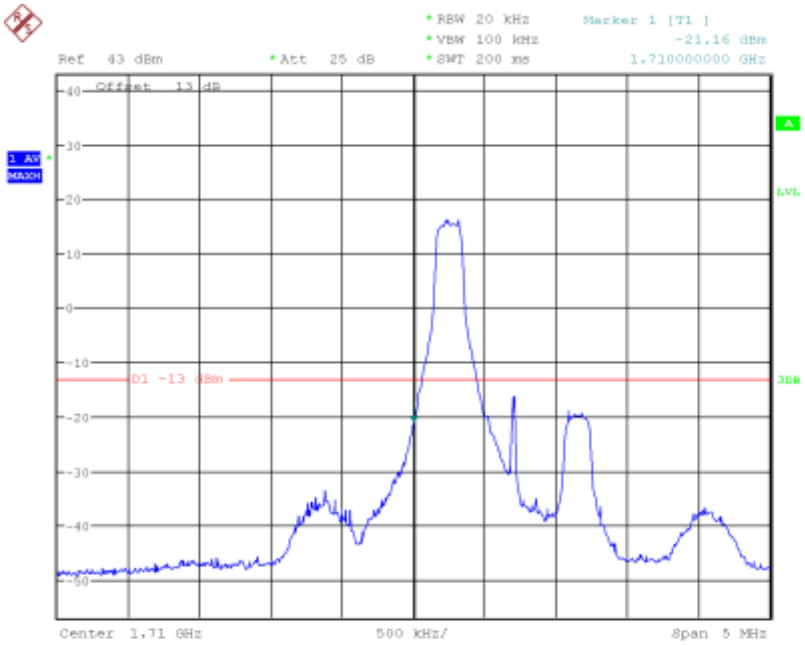


LTE Band2, 20MHz bandwidth, 16QAM,(1,100) Mode, Above 1910MHz

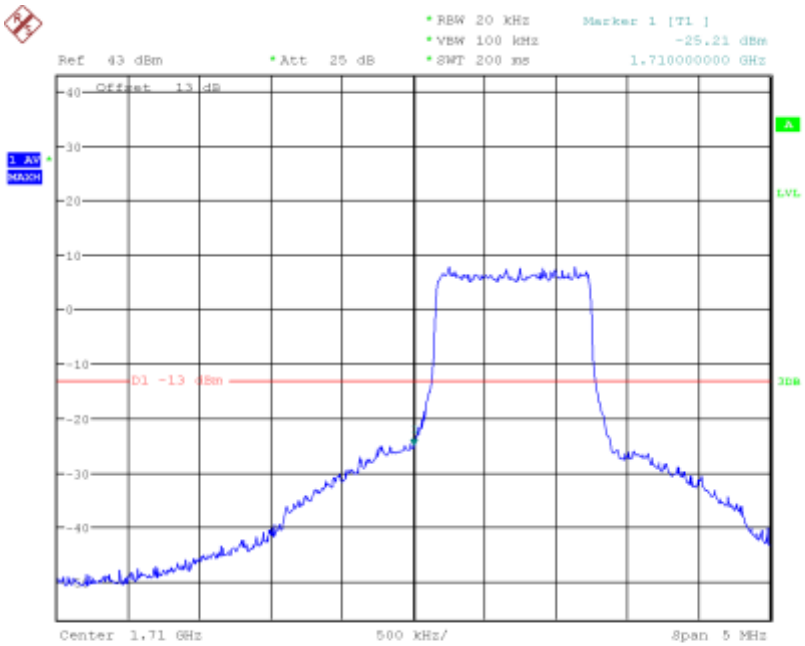


LTE Band2, 20MHz bandwidth, 16QAM,100,0) Mode, Above 1910MHz

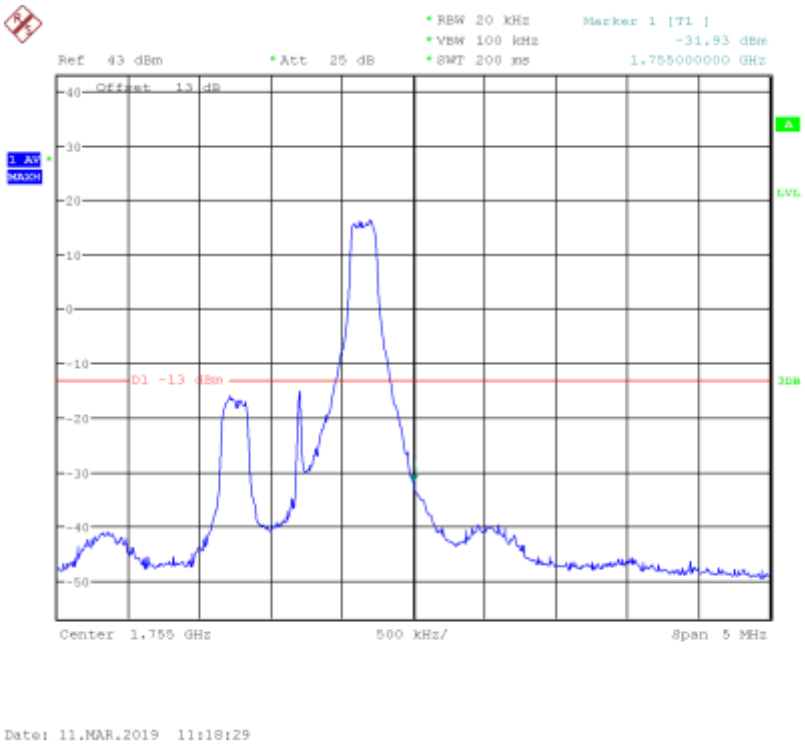
5.5.6 LTE B4 Band Edge Results



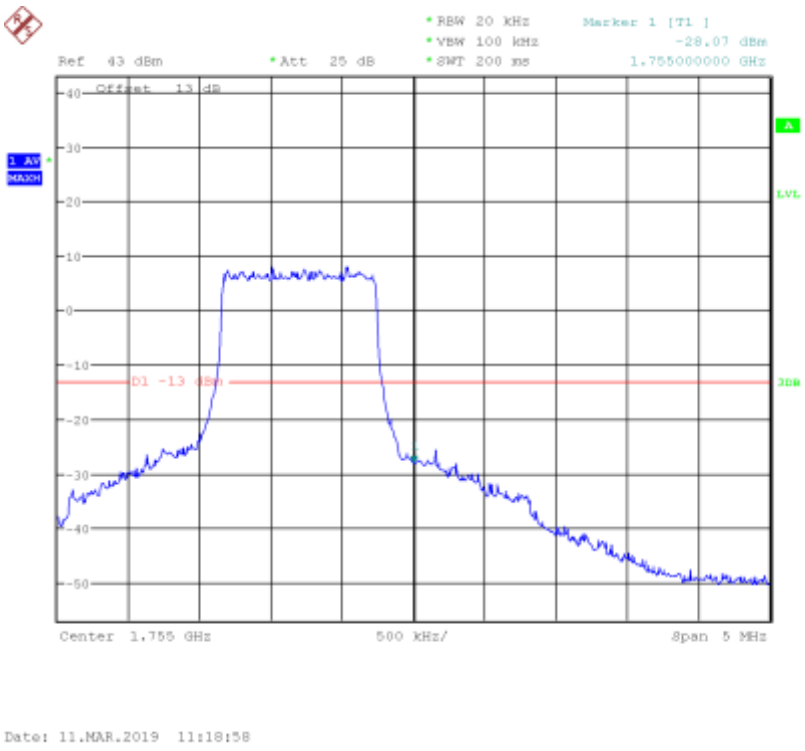
LTE Band4, 1.4MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



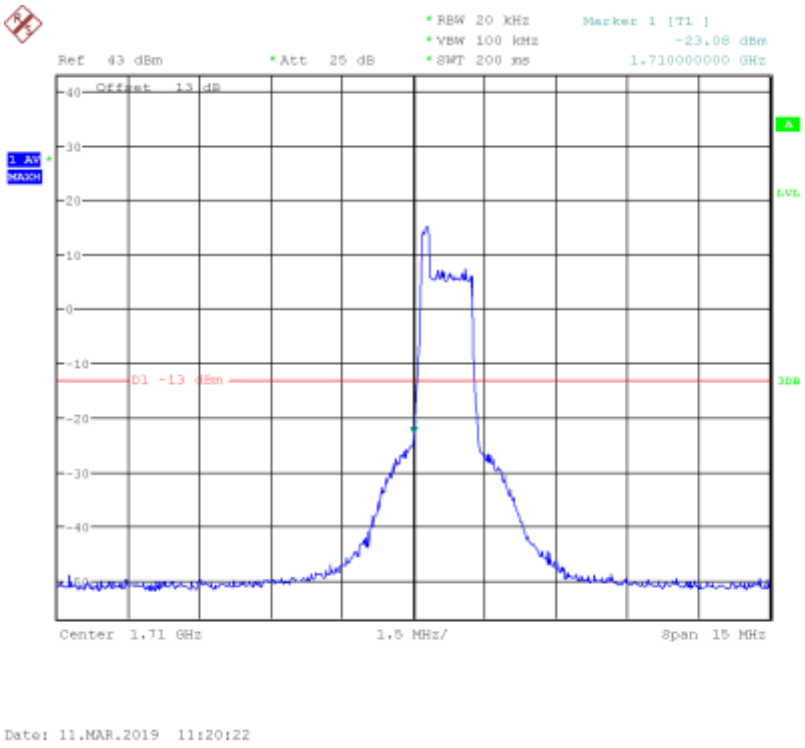
LTE Band4, 1.4MHz bandwidth, QPSK,(6,0) Mode , Below 1710MHz



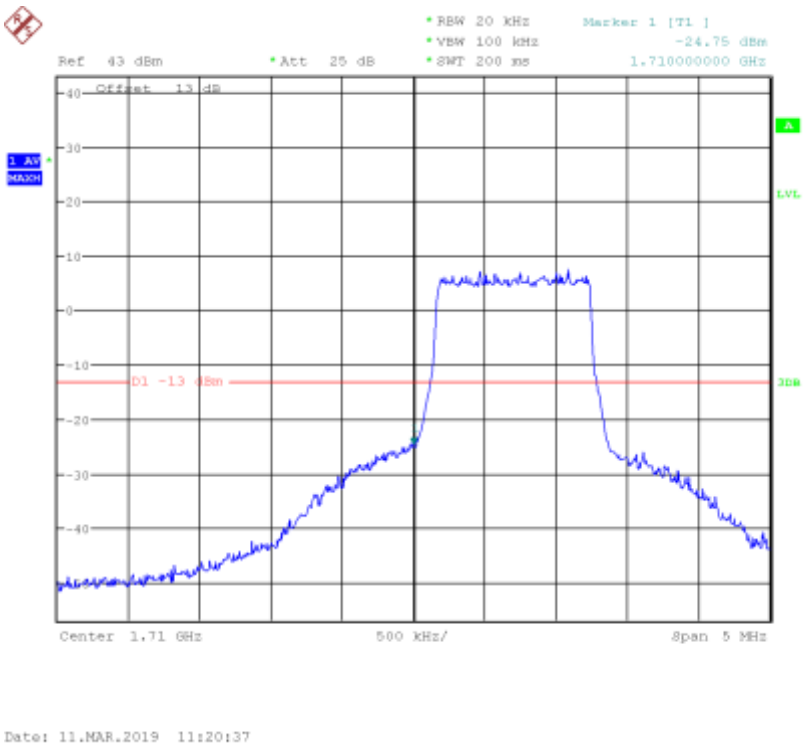
LTE Band4, 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 1755MHz



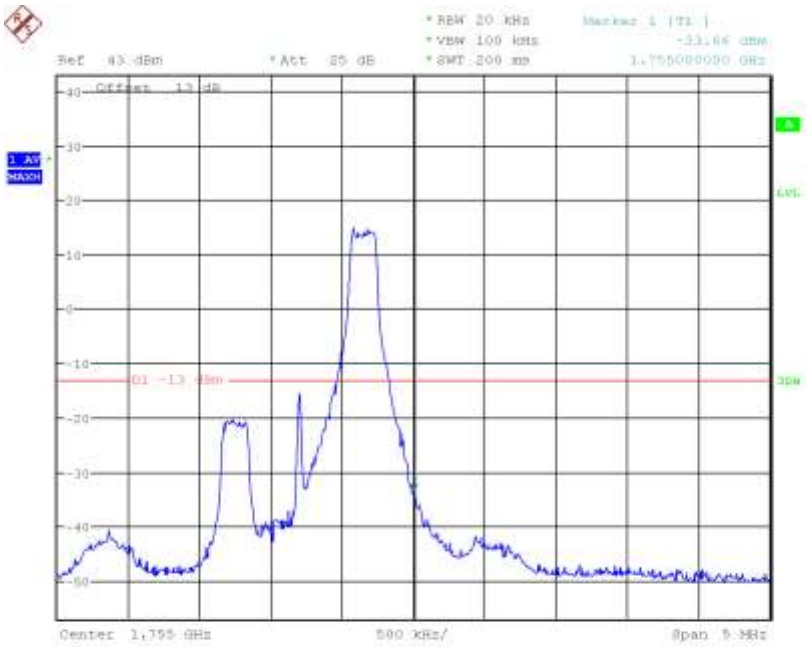
LTE Band4, 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 1755MHz



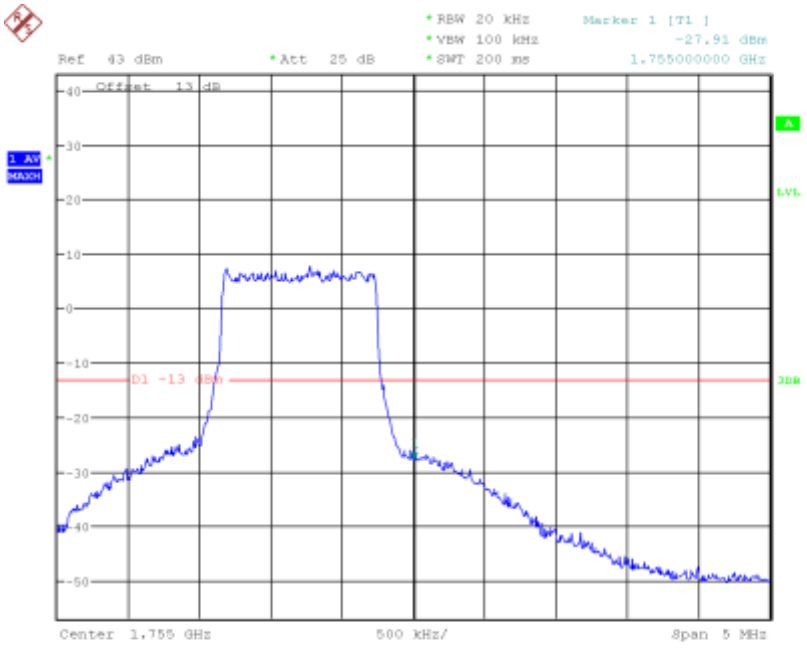
LTE Band4, 1.4MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



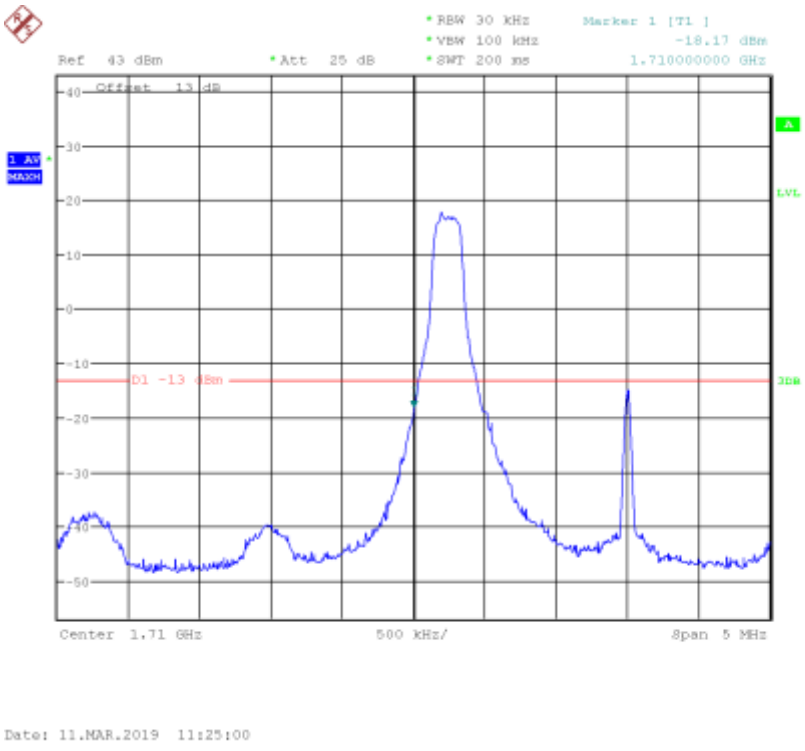
LTE Band4, 1.4MHz bandwidth, 16QAM,(6,0) Mode , Below 1710MHz



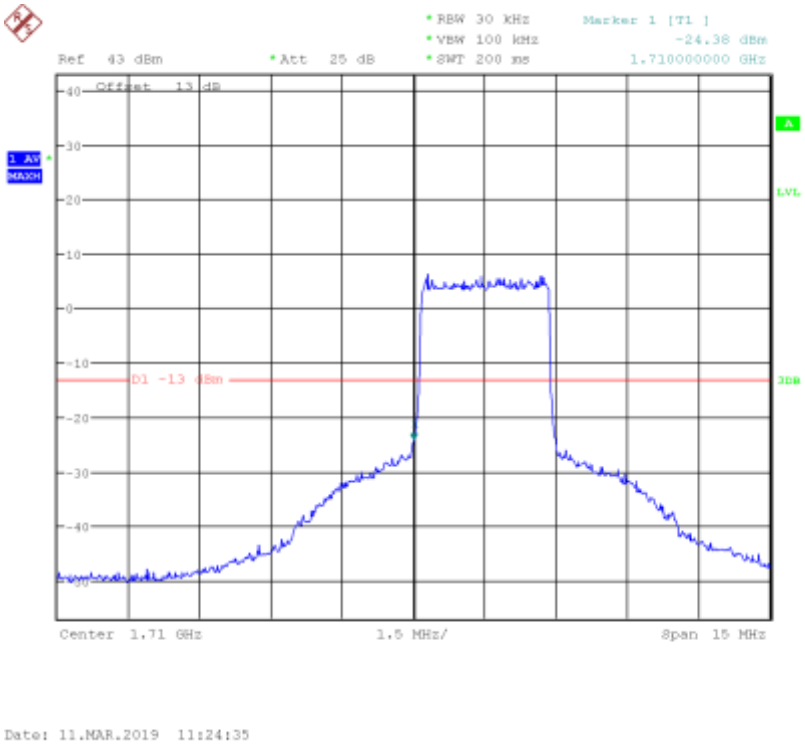
LTE Band4, 1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 1755MHz



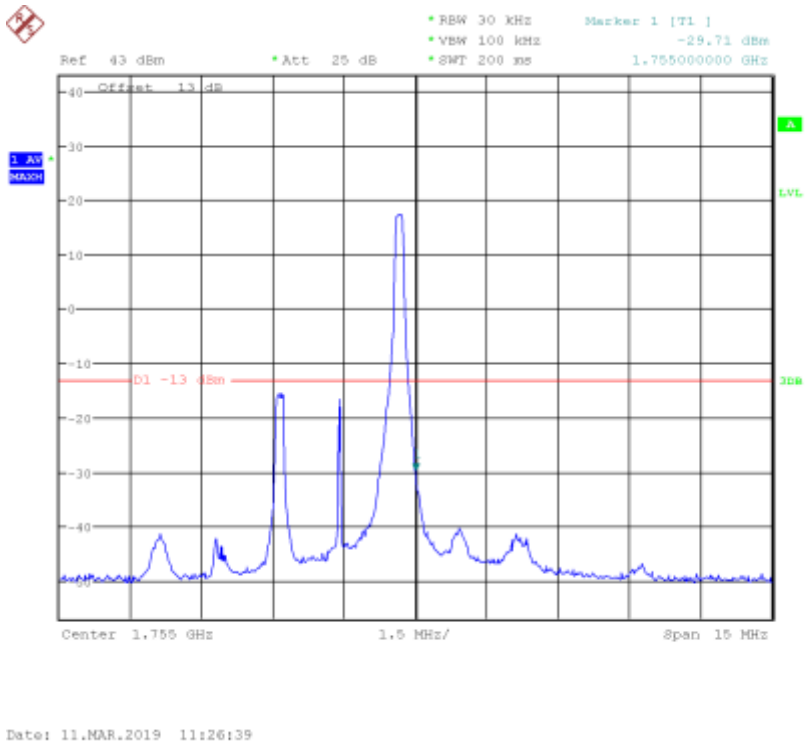
LTE Band4, 1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 1755MHz



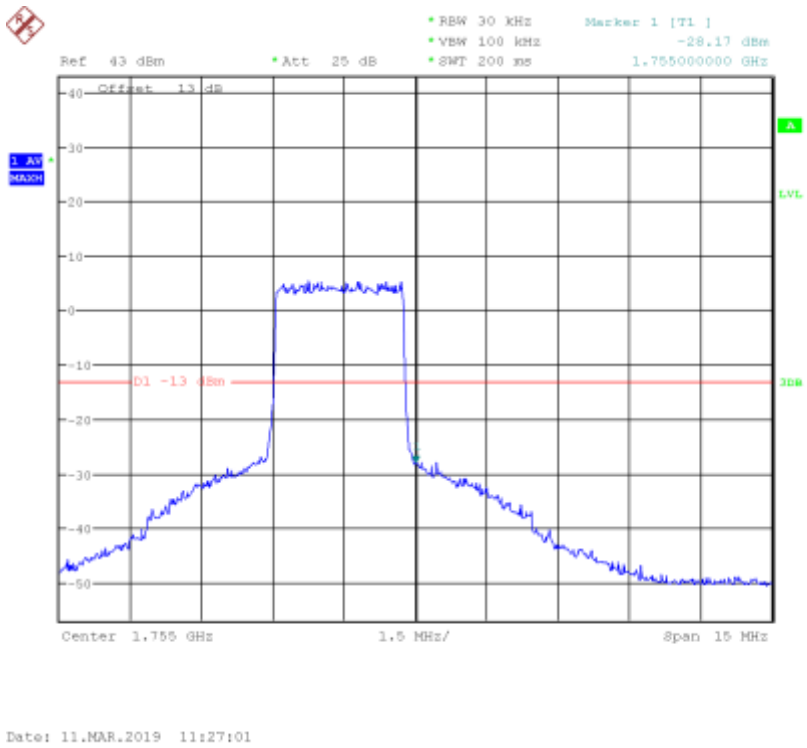
LTE Band4, 3MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



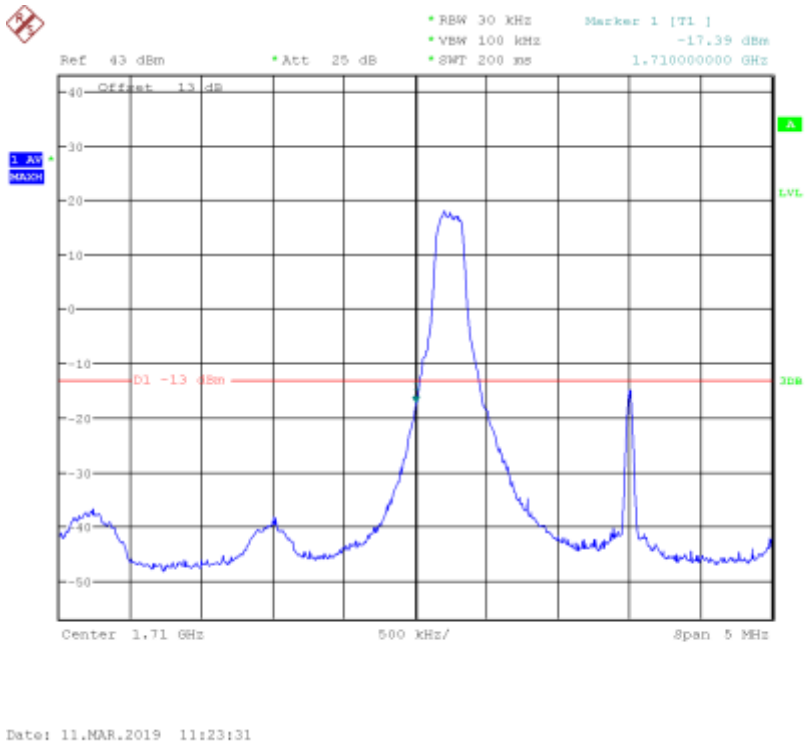
LTE Band4, 3MHz bandwidth, QPSK,(15,0) Mode , Below 1710MHz



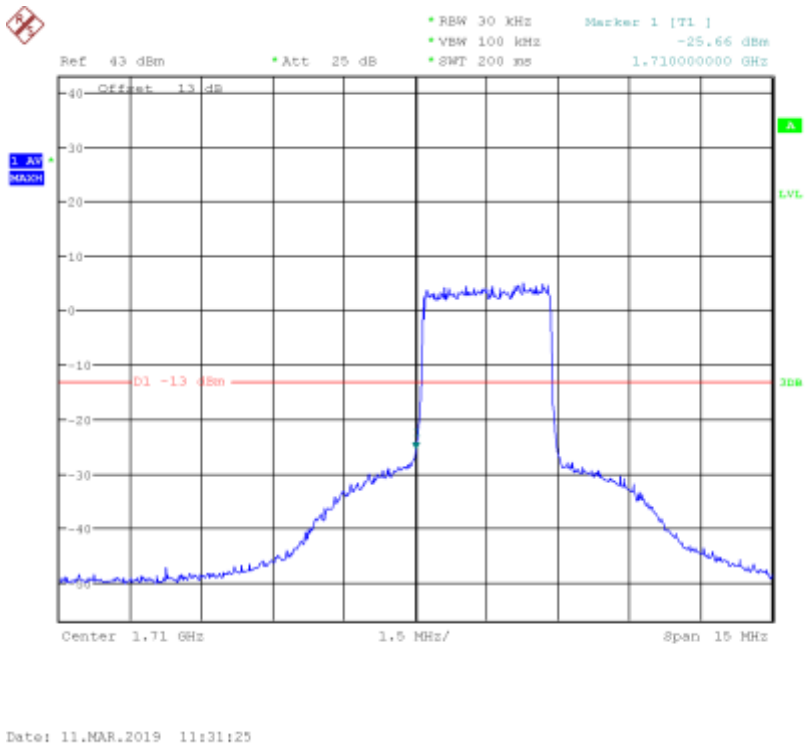
LTE Band4, 3MHz bandwidth, QPSK,(1,15) Mode, Above 1755MHz



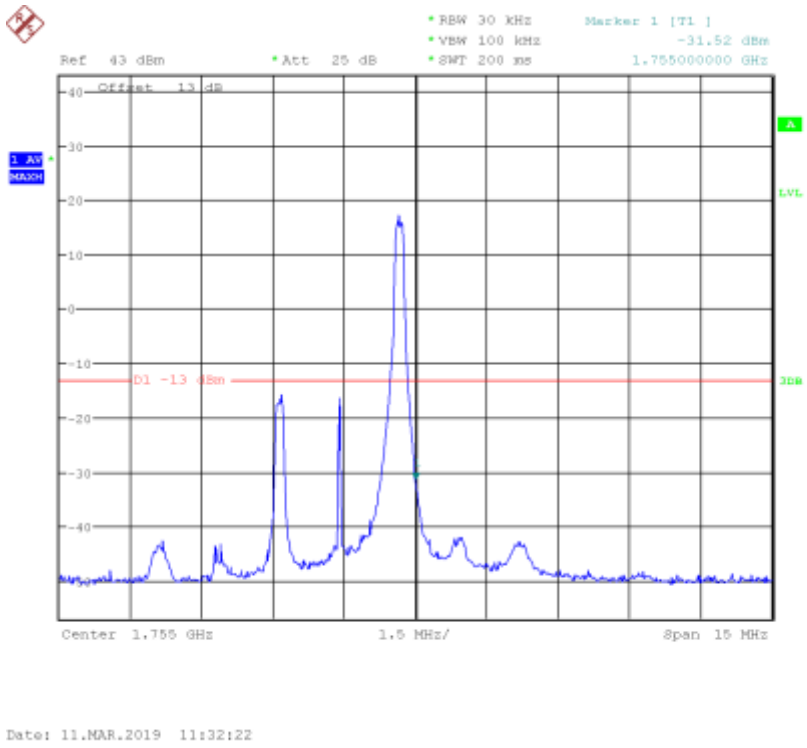
LTE Band4, 3MHz bandwidth, QPSK,(15,0) Mode, Above 1755MHz



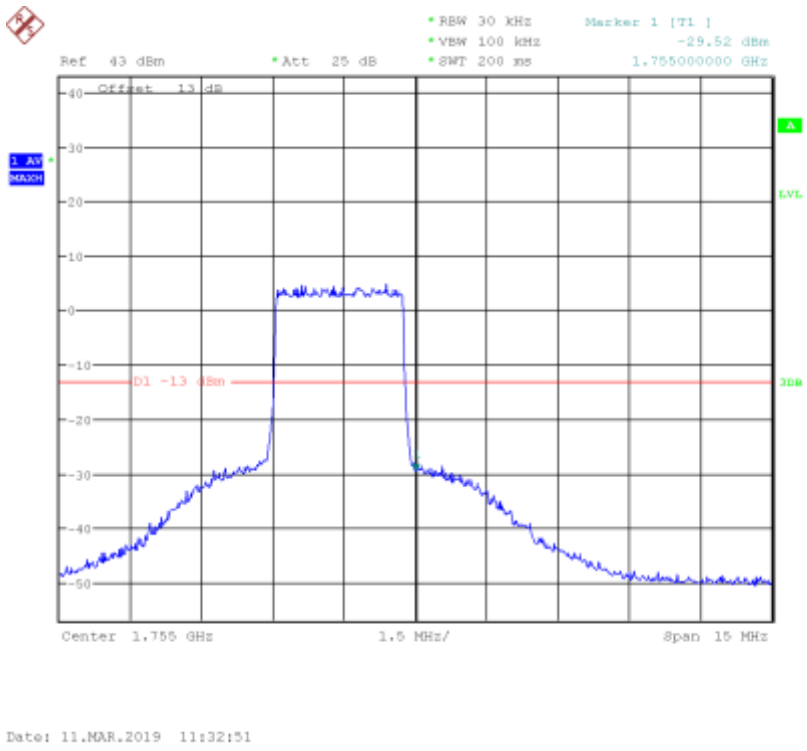
LTE Band4, 3MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



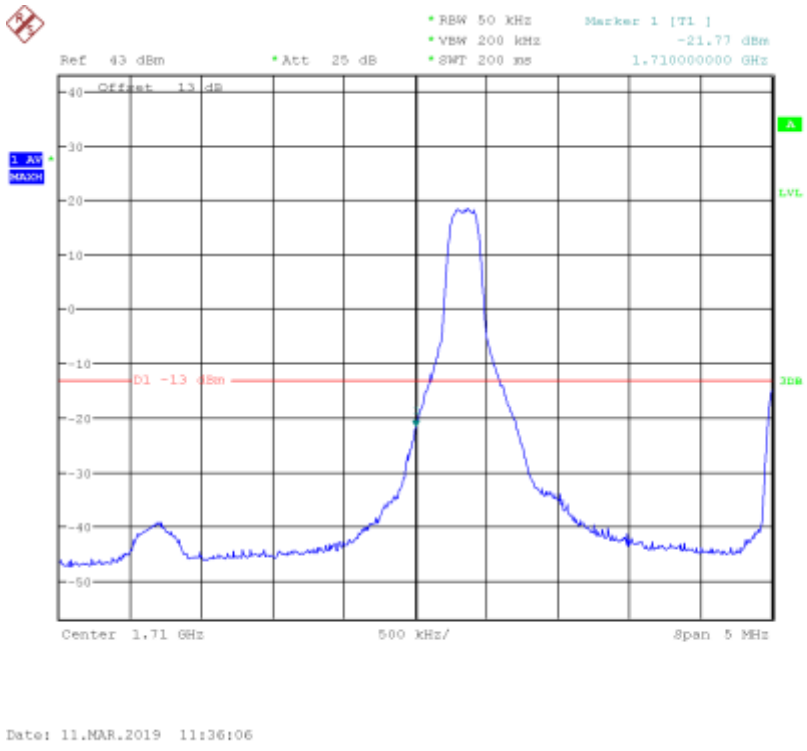
LTE Band4, 3MHz bandwidth, 16QAM,(15,0) Mode , Below 1710MHz



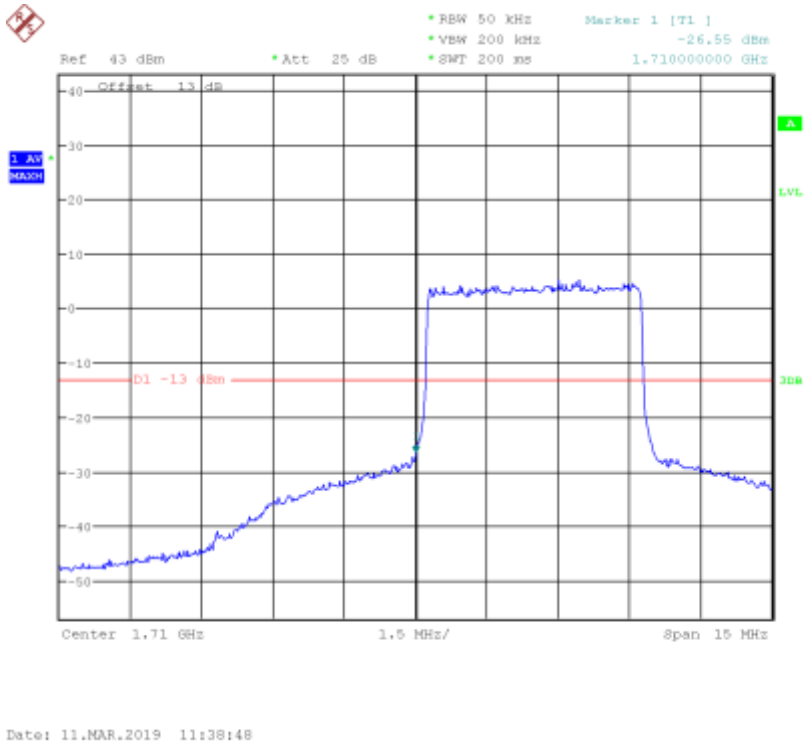
LTE Band4, 3MHz bandwidth, 16QAM,(1,15) Mode, Above 1755MHz



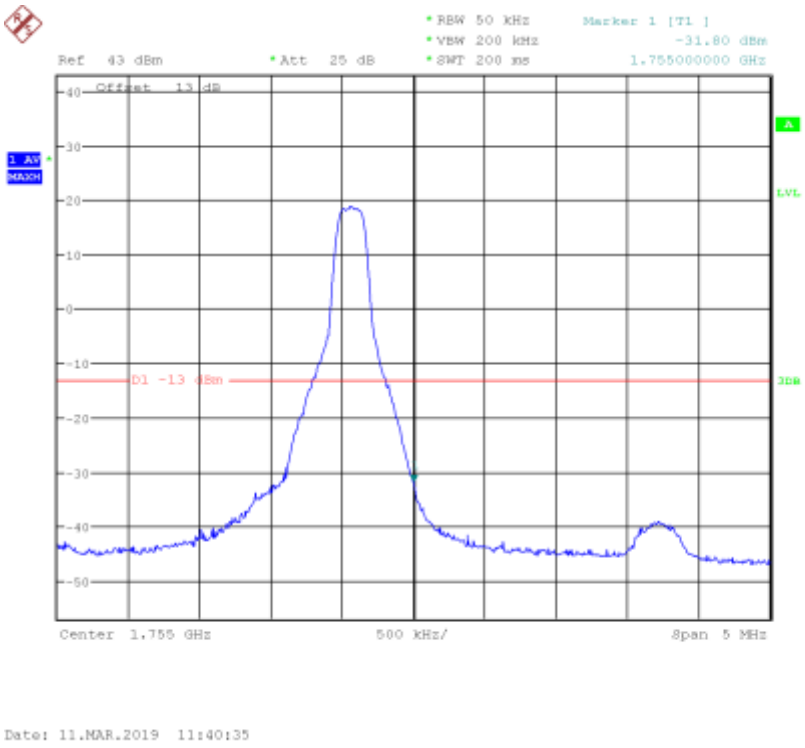
LTE Band4, 3MHz bandwidth, 16QAM,(15,0) Mode, Above 1755MHz



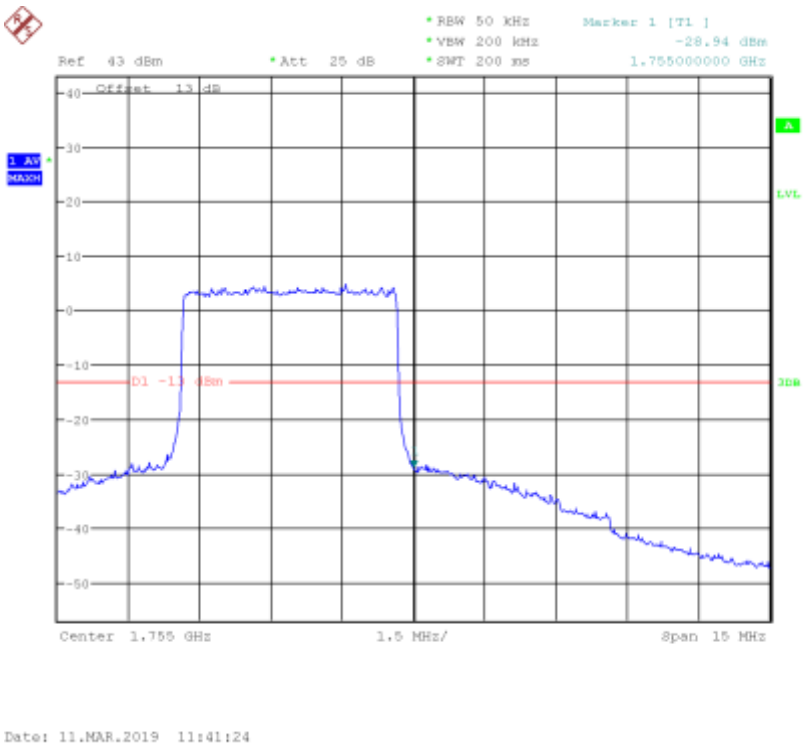
LTE Band4, 5MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



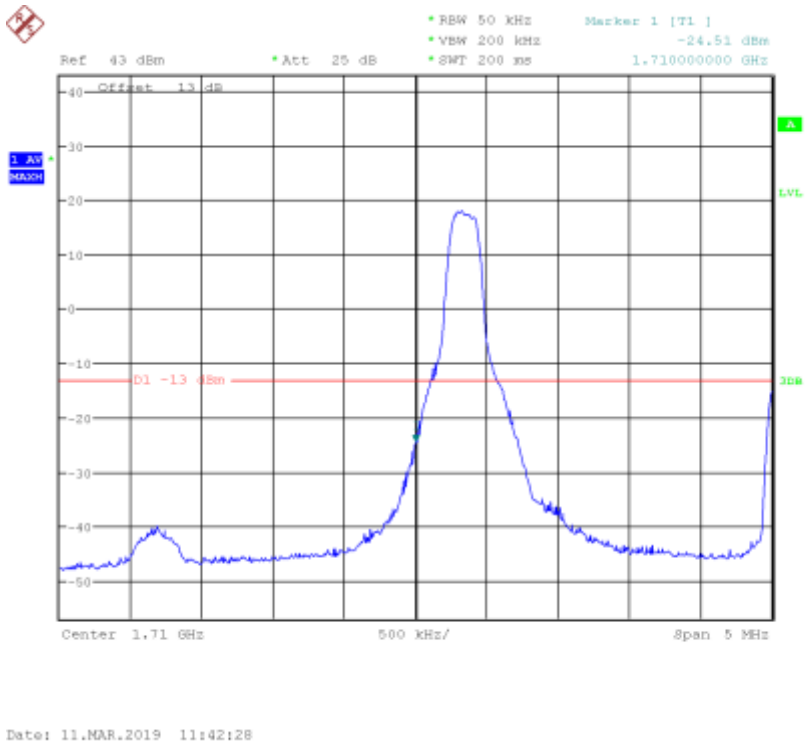
LTE Band4, 5MHz bandwidth, QPSK,(25,0) Mode , Below 1710MHz



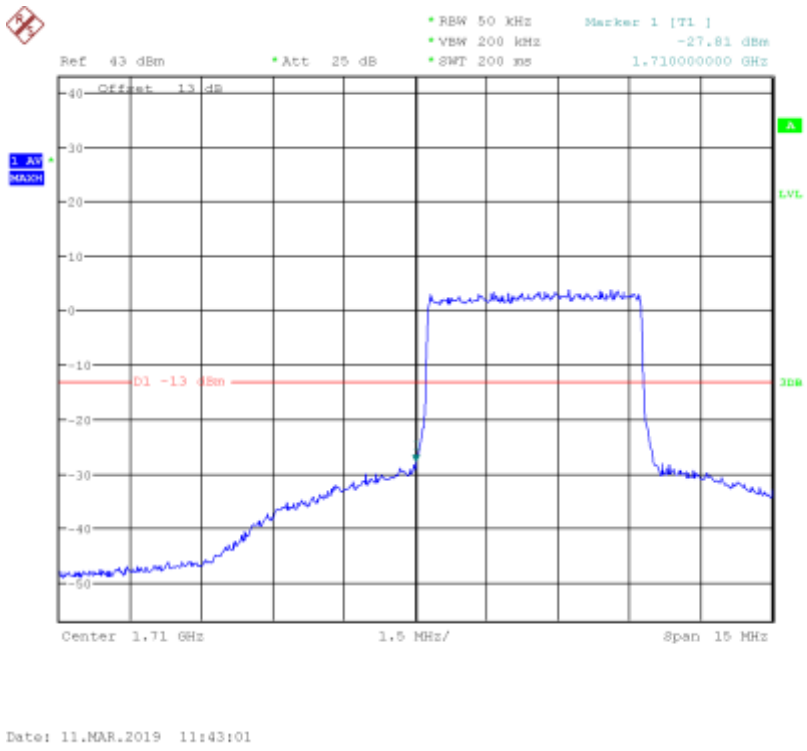
LTE Band4, 5MHz bandwidth, QPSK,(1,25) Mode, Above 1755MHz



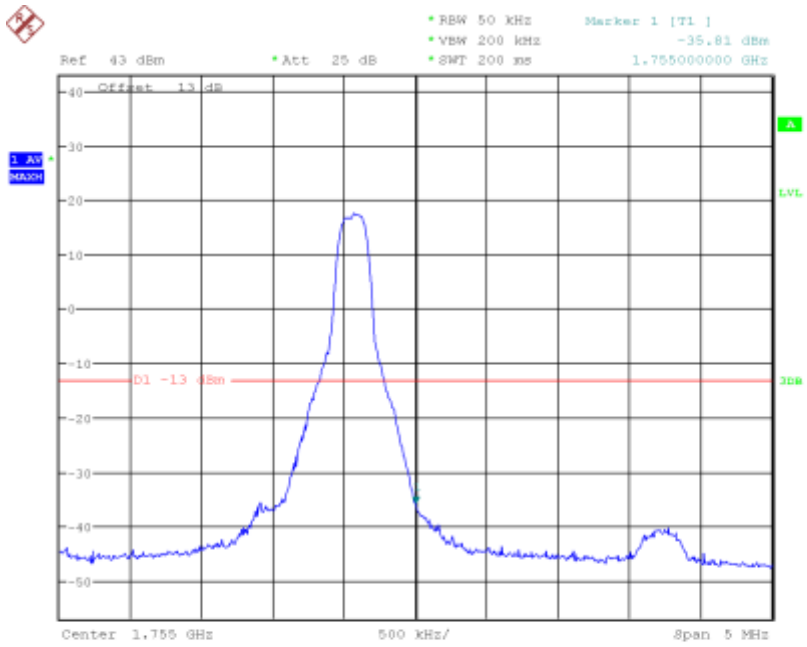
LTE Band4, 5MHz bandwidth, QPSK,(25,0) Mode, Above 1755MHz



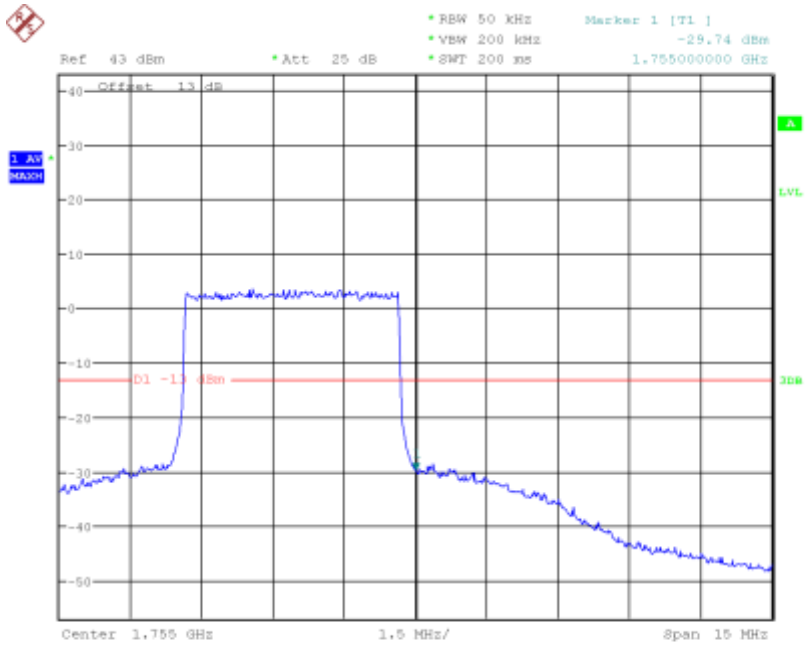
LTE Band4, 5MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



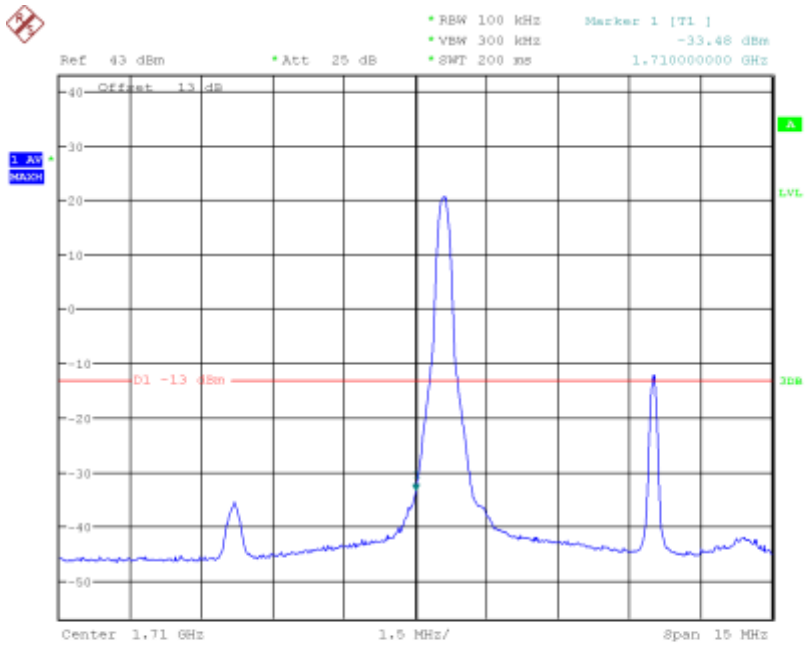
LTE Band4, 5MHz bandwidth, 16QAM,(25,0) Mode , Below 1710MHz



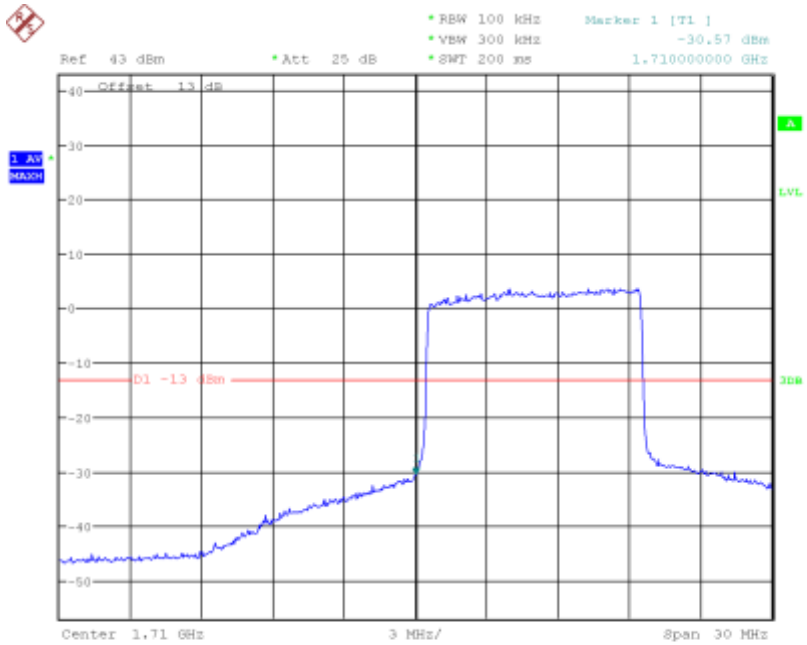
LTE Band4, 5MHz bandwidth, 16QAM,(1,25) Mode, Above 1755MHz



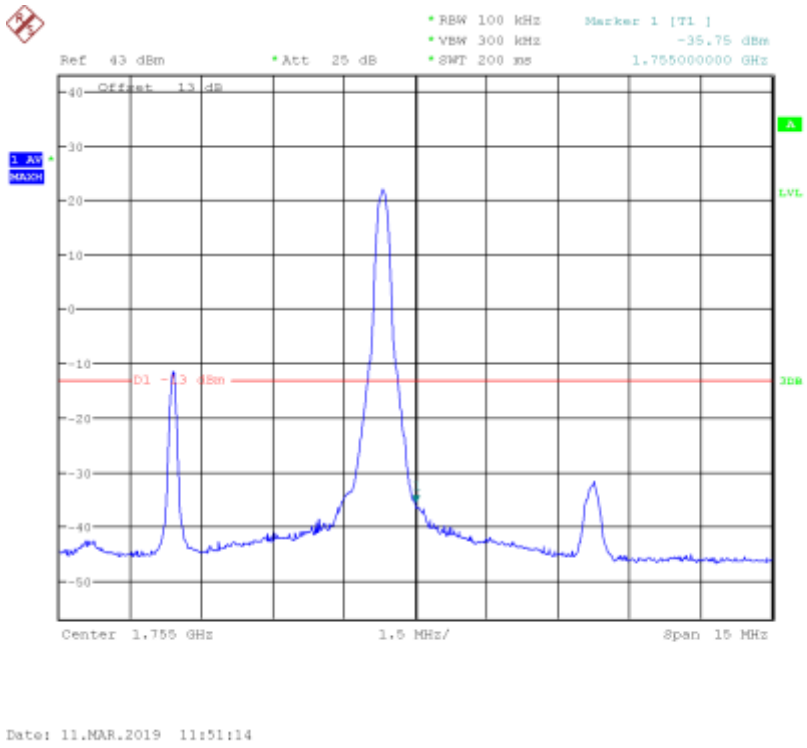
LTE Band4, 5MHz bandwidth, 16QAM,(25,0) Mode, Above 1755MHz



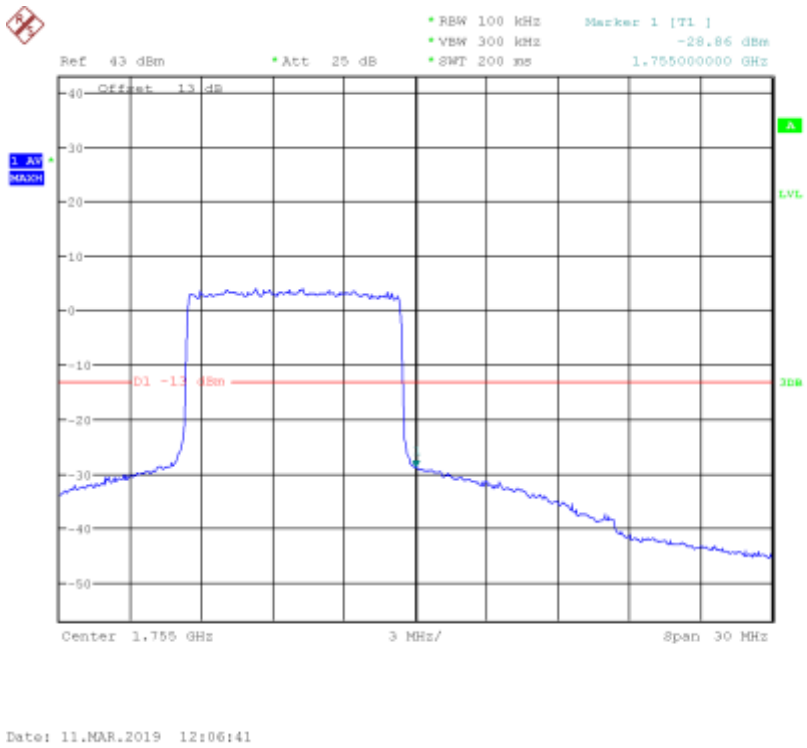
LTE Band4, 10MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



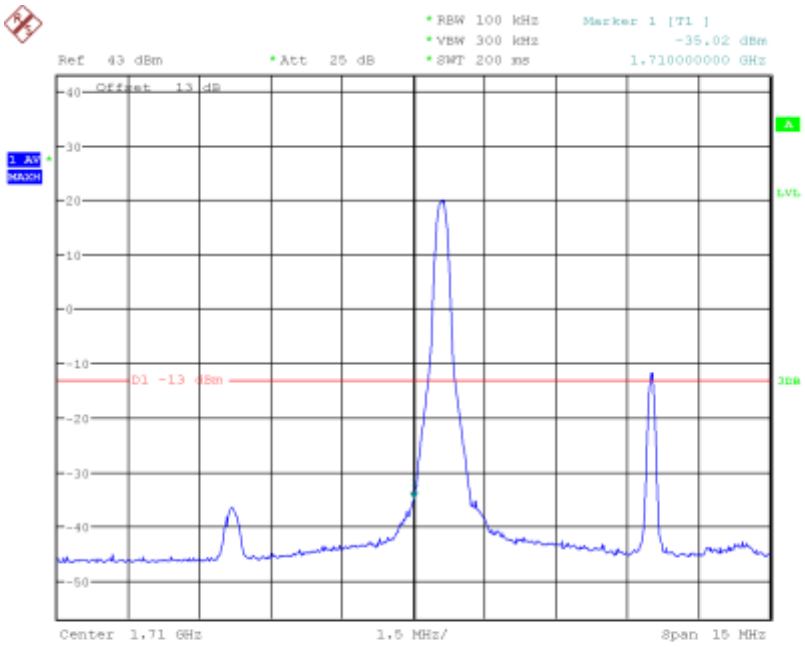
LTE Band4, 10MHz bandwidth, QPSK,(50,0) Mode , Below 1710MHz



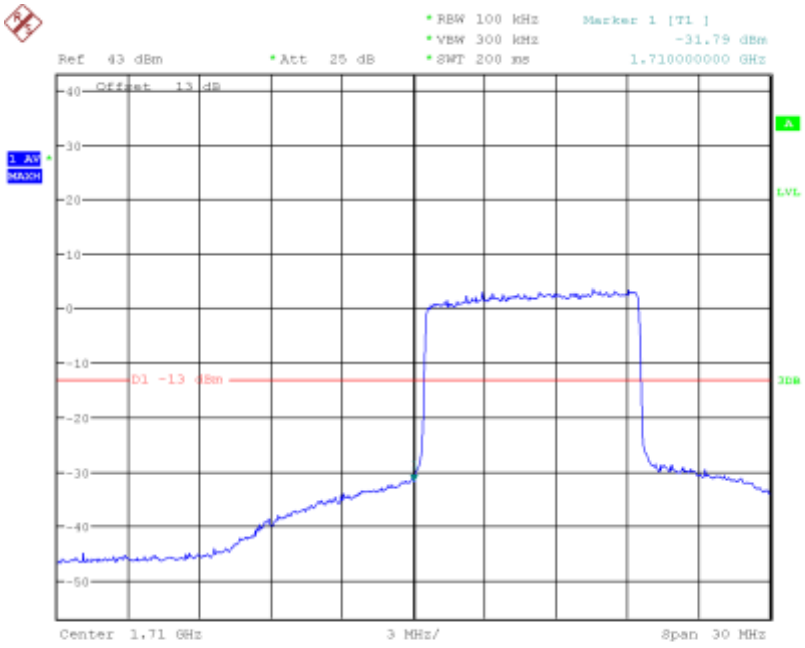
LTE Band4, 10MHz bandwidth, QPSK,(1,50) Mode, Above 1755MHz



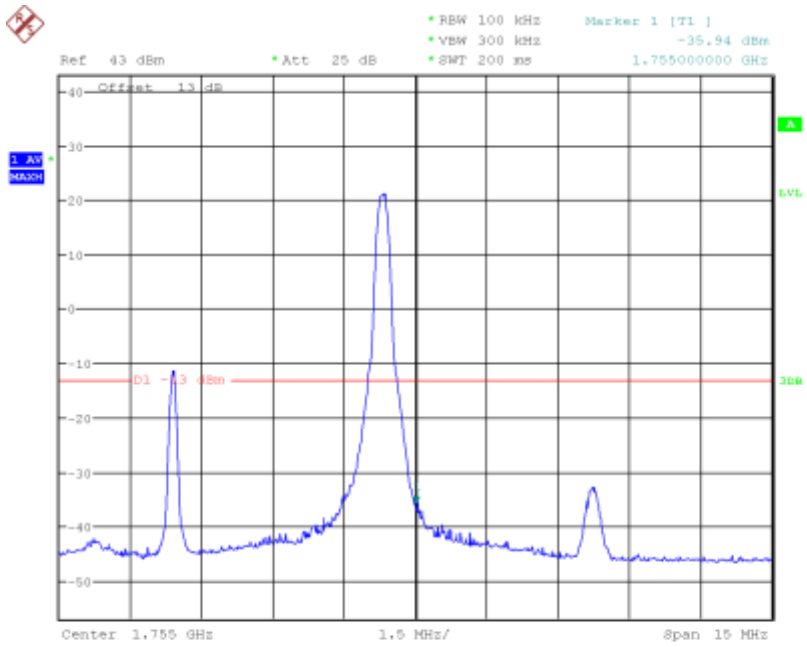
LTE Band4, 10MHz bandwidth, QPSK,(50,0) Mode, Above 1755MHz



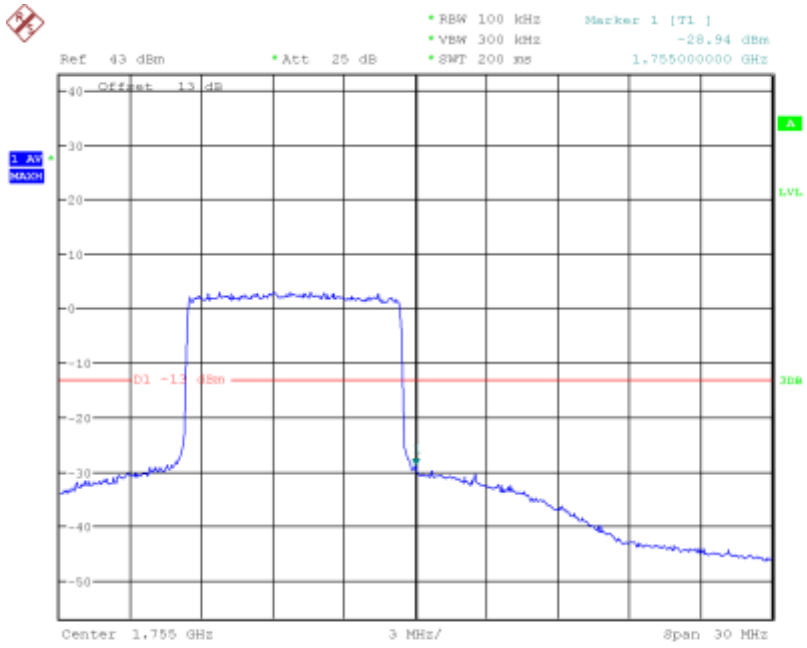
LTE Band4, 10MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



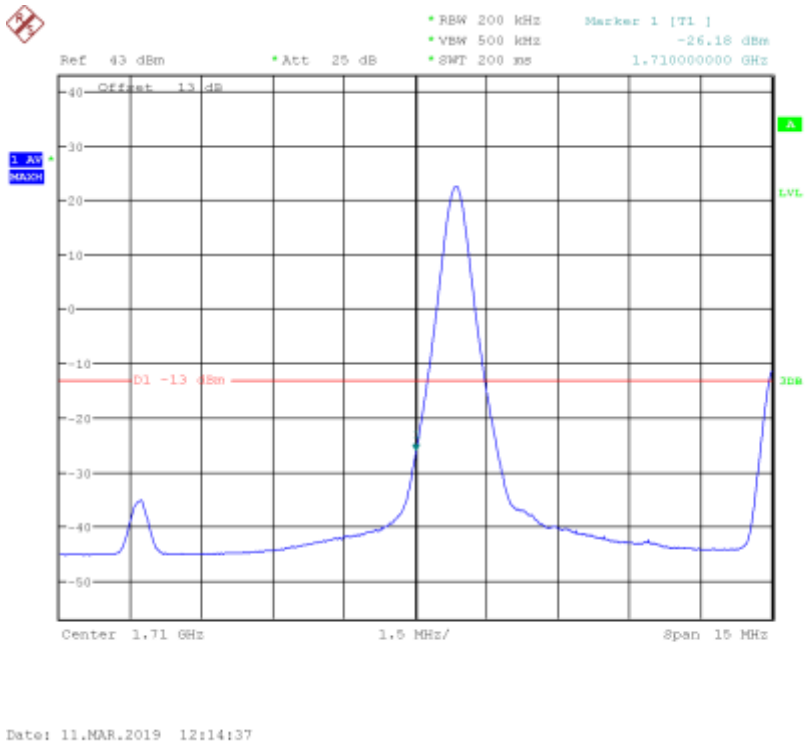
LTE Band4, 10MHz bandwidth, 16QAM,(50,0) Mode , Below 1710MHz



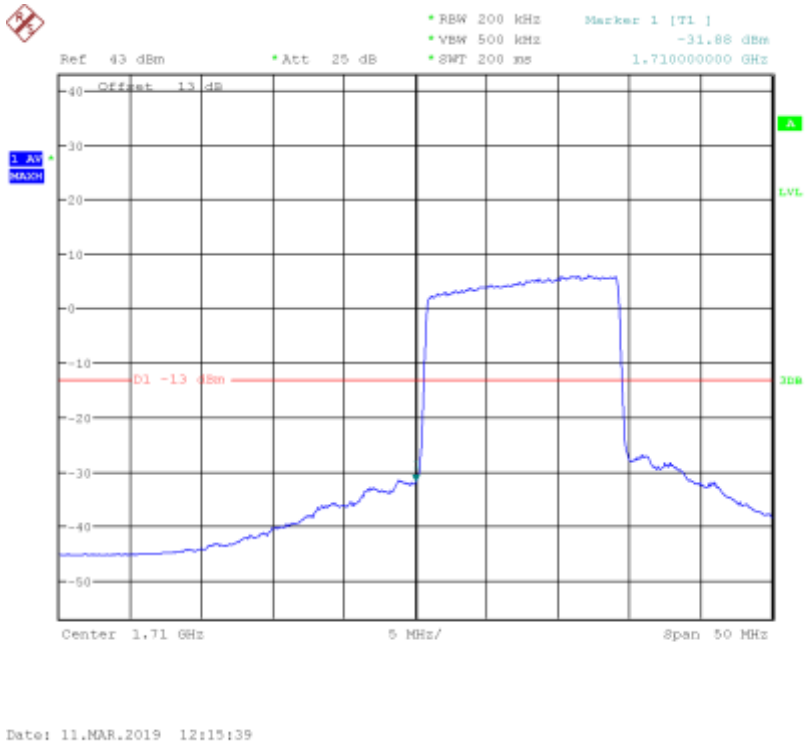
LTE Band4, 10MHz bandwidth, 16QAM,(1,50) Mode, Above 1755MHz



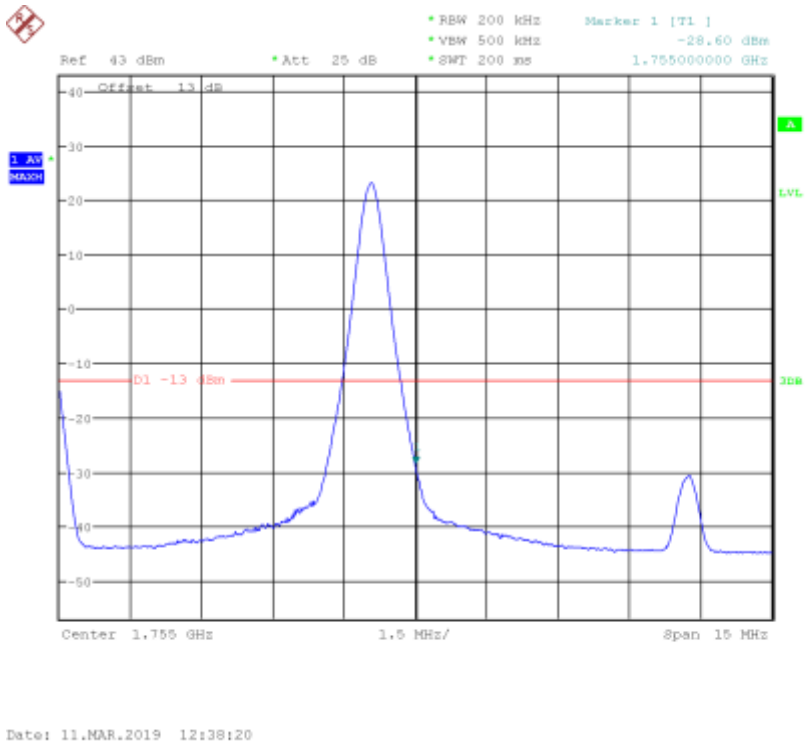
LTE Band4, 10MHz bandwidth, 16QAM,(50,0) Mode, Above 1755MHz



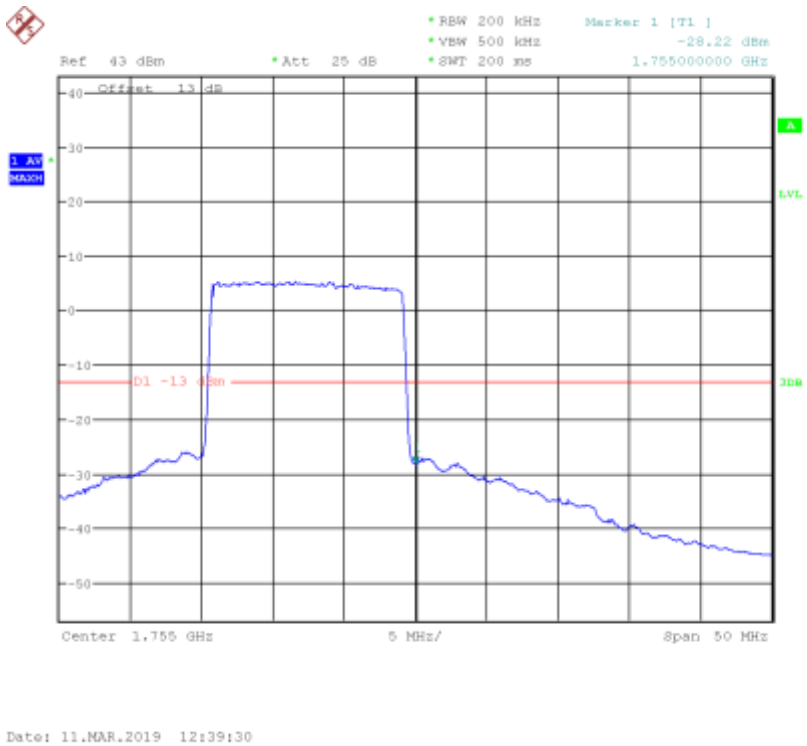
LTE Band4, 15MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



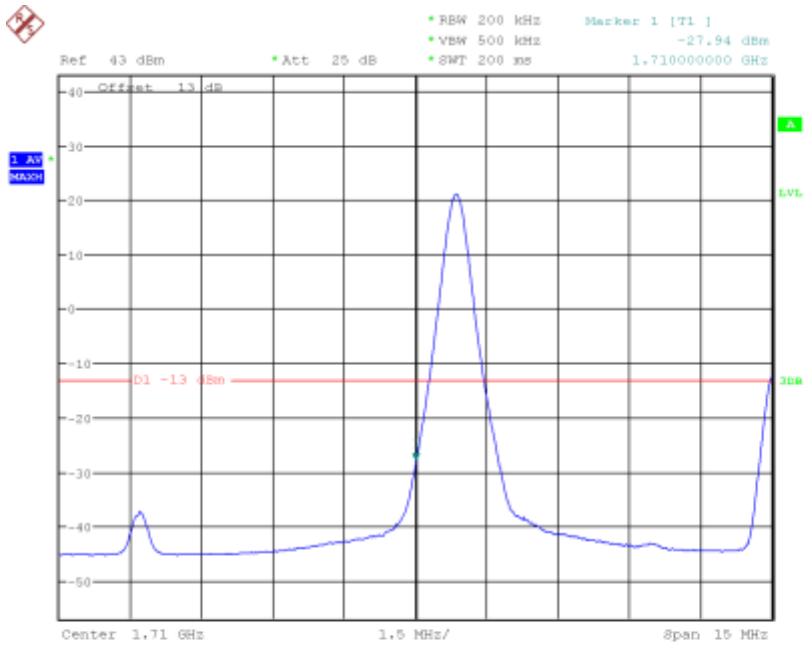
LTE Band4, 15MHz bandwidth, QPSK,(75,0) Mode , Below 1710MHz



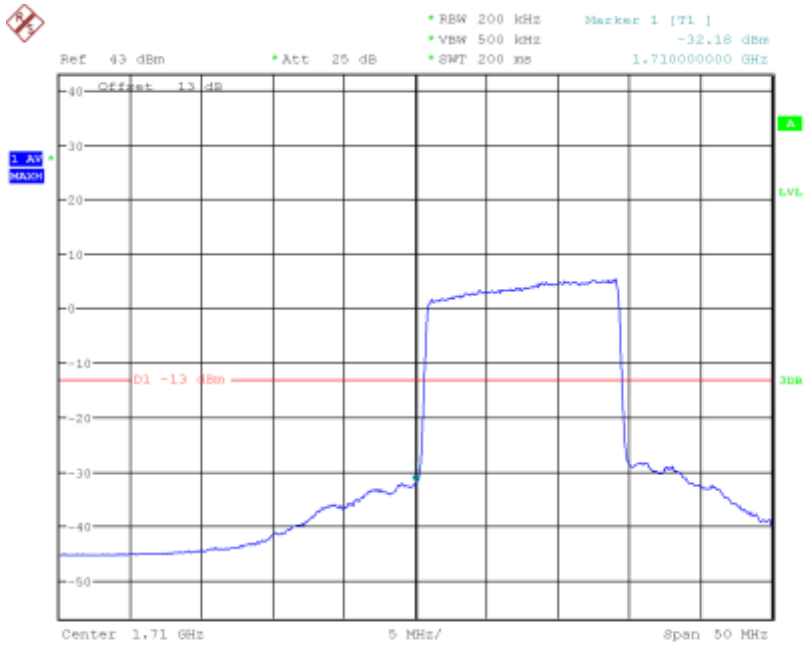
LTE Band4, 15MHz bandwidth, QPSK,(1,75) Mode, Above 1755MHz



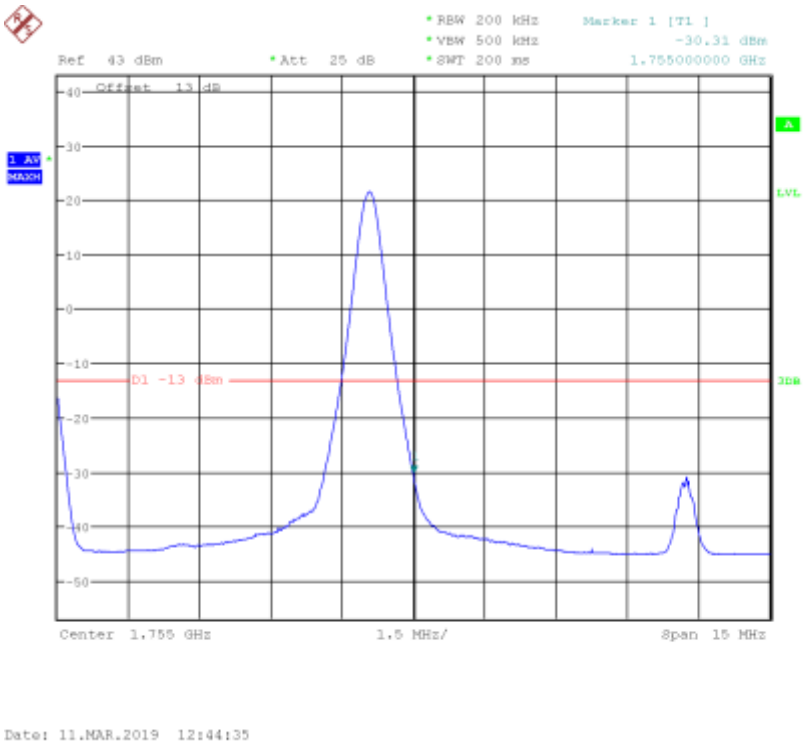
LTE Band4, 15MHz bandwidth, QPSK,(75,0) Mode, Above 1755MHz



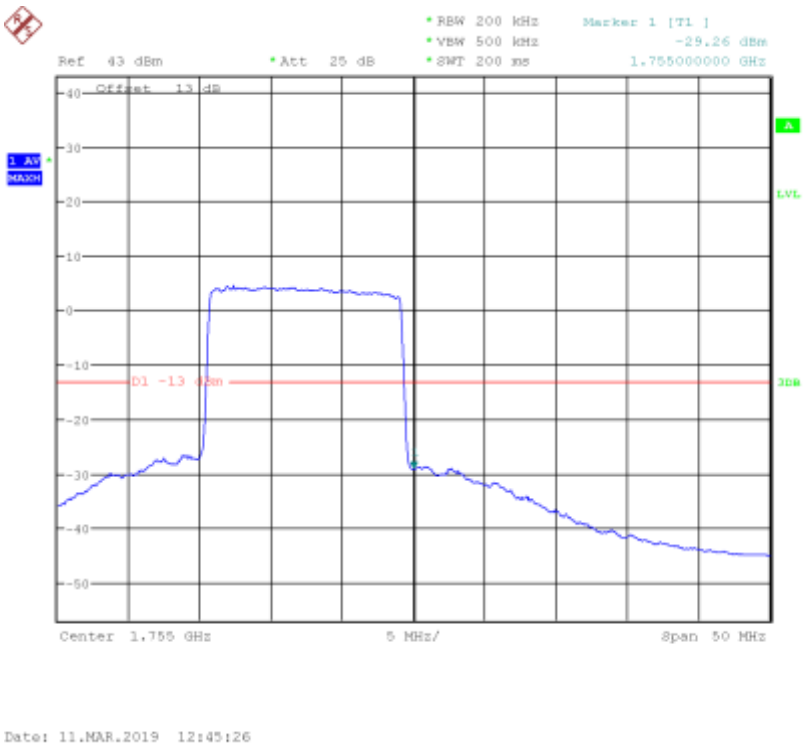
LTE Band4, 15MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



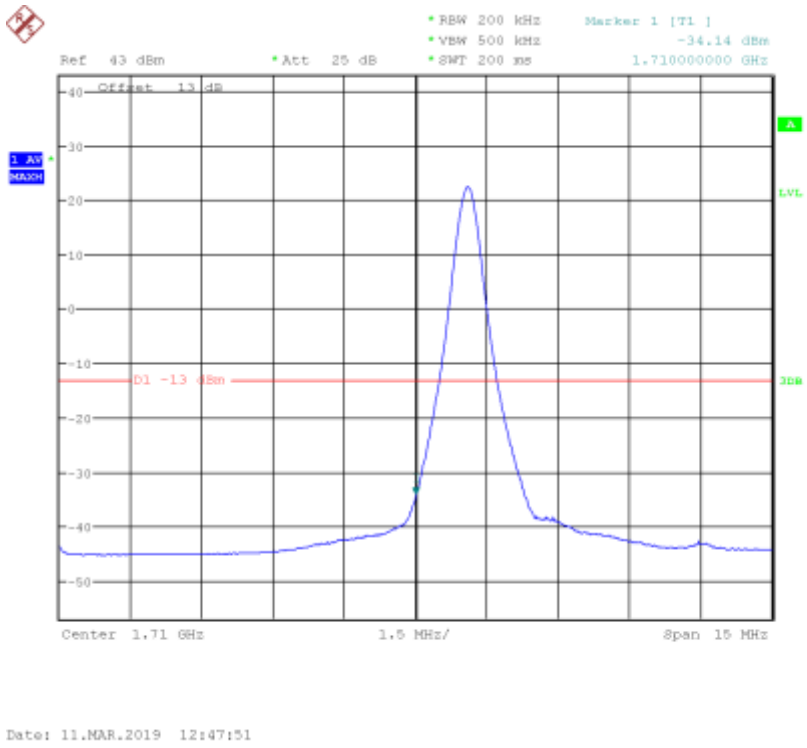
LTE Band4, 15MHz bandwidth, 16QAM,(75,0) Mode , Below 1710MHz



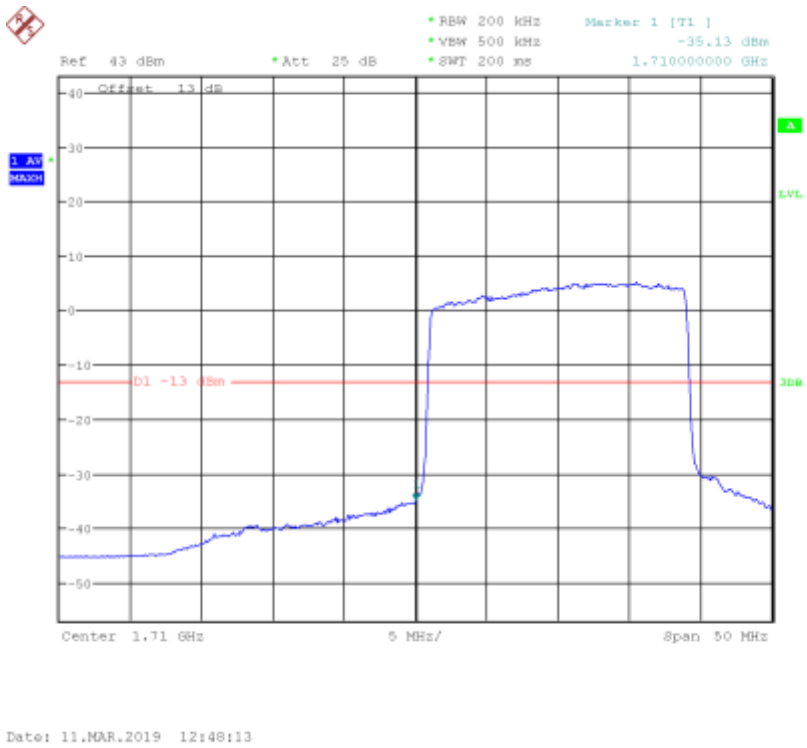
LTE Band4, 15MHz bandwidth, 16QAM,(1,75) Mode, Above 1755MHz



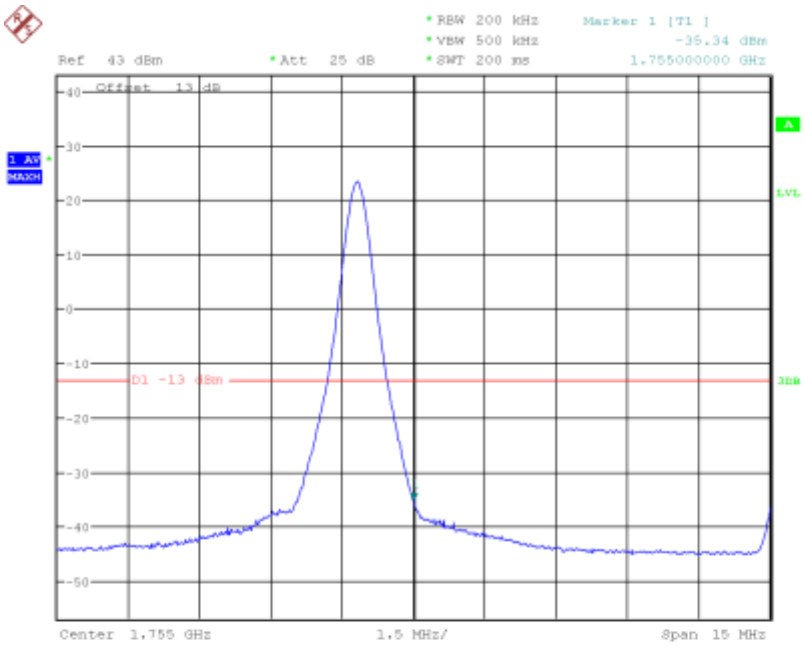
LTE Band4, 15MHz bandwidth, 16QAM,(75,0) Mode, Above 1755MHz



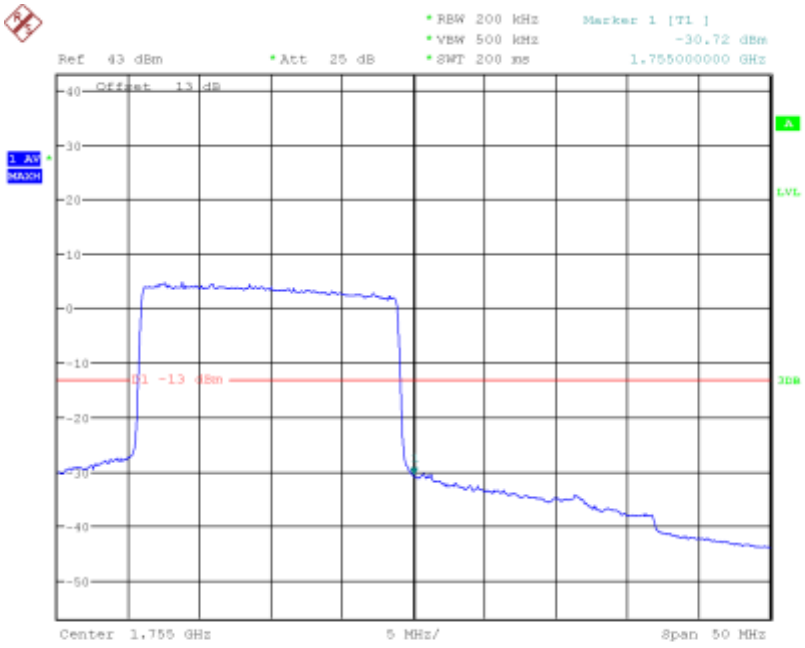
LTE Band4, 20MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



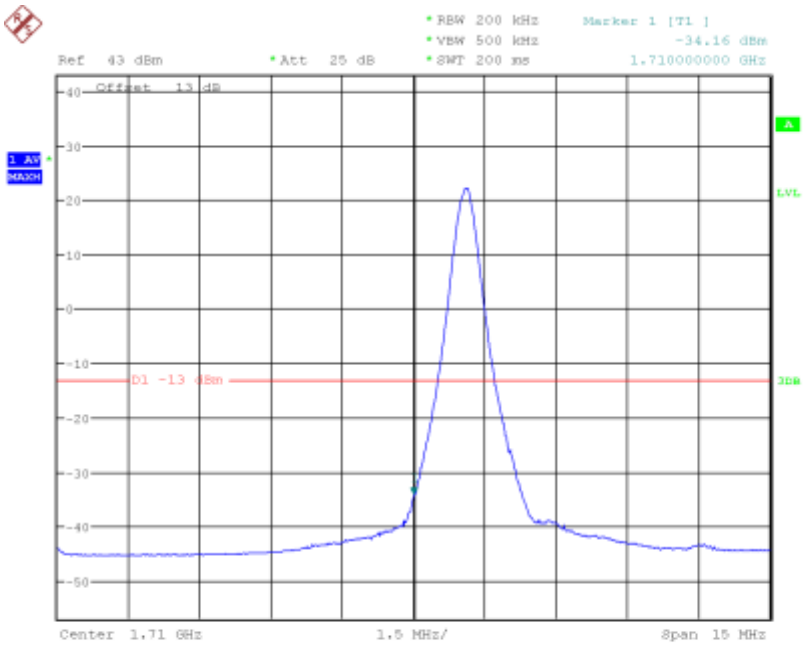
LTE Band4, 20MHz bandwidth, QPSK,(100,0) Mode , Below 1710MHz



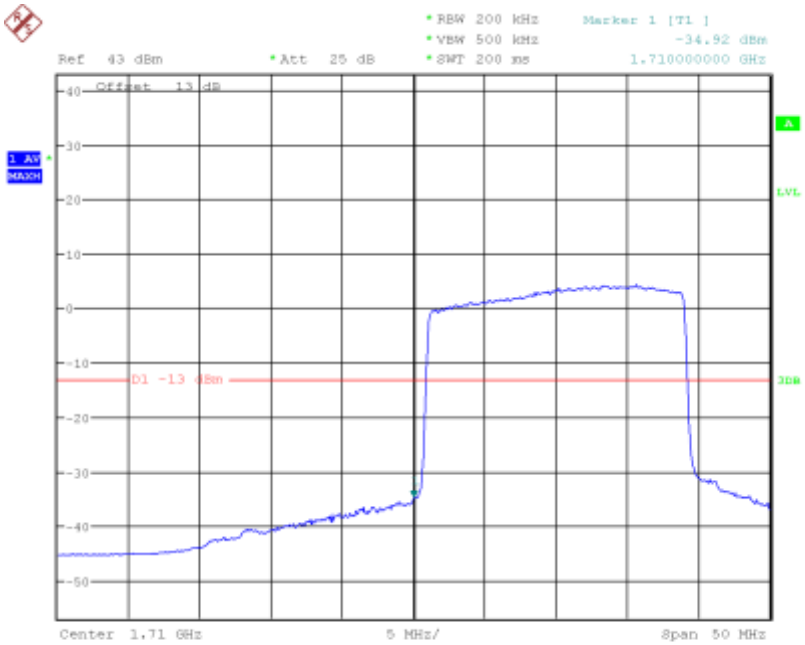
LTE Band4, 20MHz bandwidth, QPSK,(1,100) Mode, Above 1755MHz



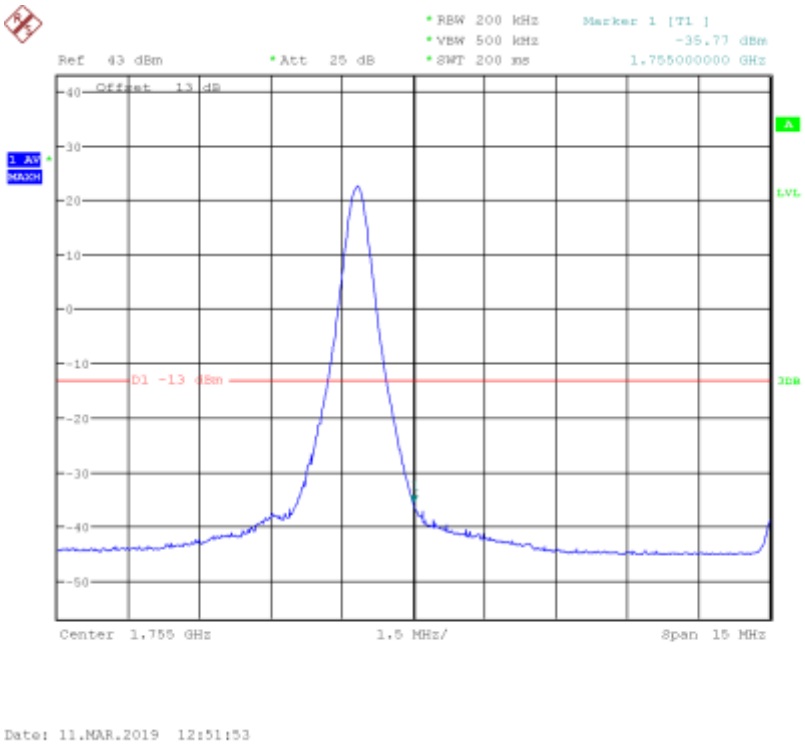
LTE Band4, 20MHz bandwidth, QPSK,(100,0) Mode, Above 1755MHz



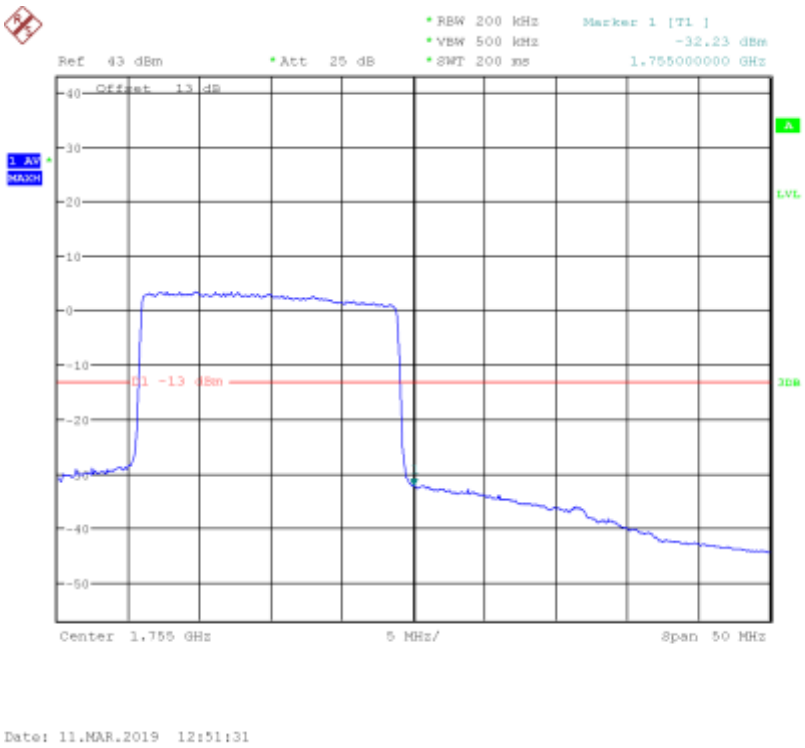
LTE Band4, 20MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



LTE Band4, 20MHz bandwidth, 16QAM,(100,0) Mode , Below 1710MHz

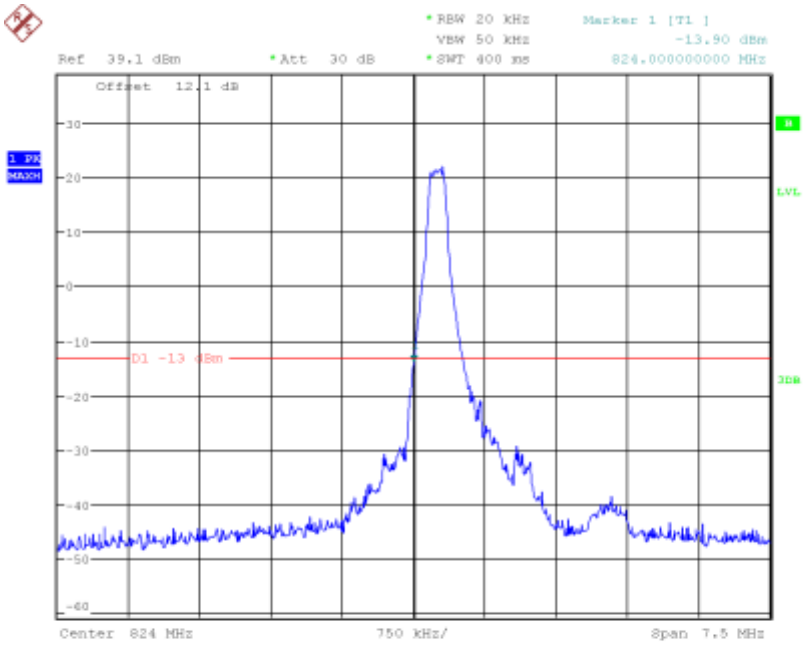


LTE Band4, 20MHz bandwidth, 16QAM,(1,100) Mode, Above 1755MHz

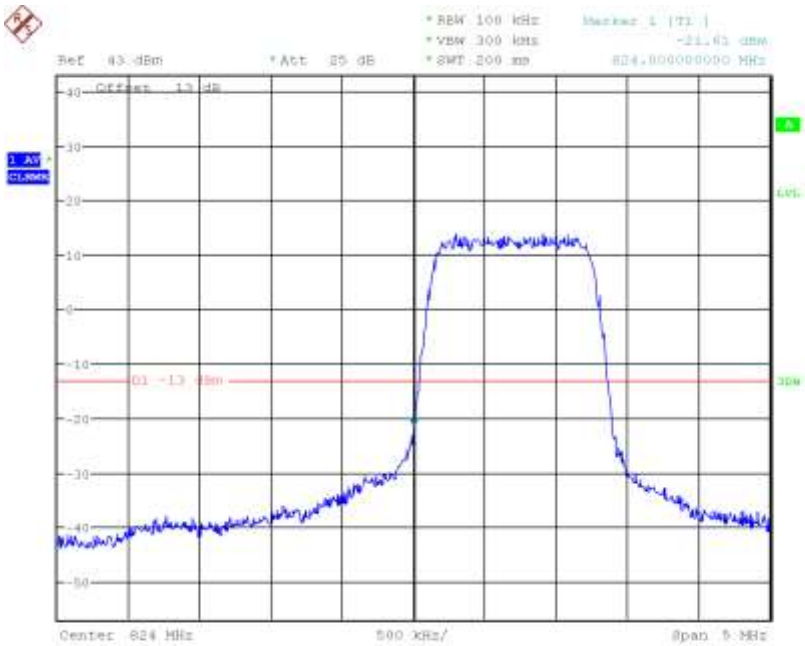


LTE Band4, 20MHz bandwidth, 16QAM,100,0) Mode, Above 1755MHz

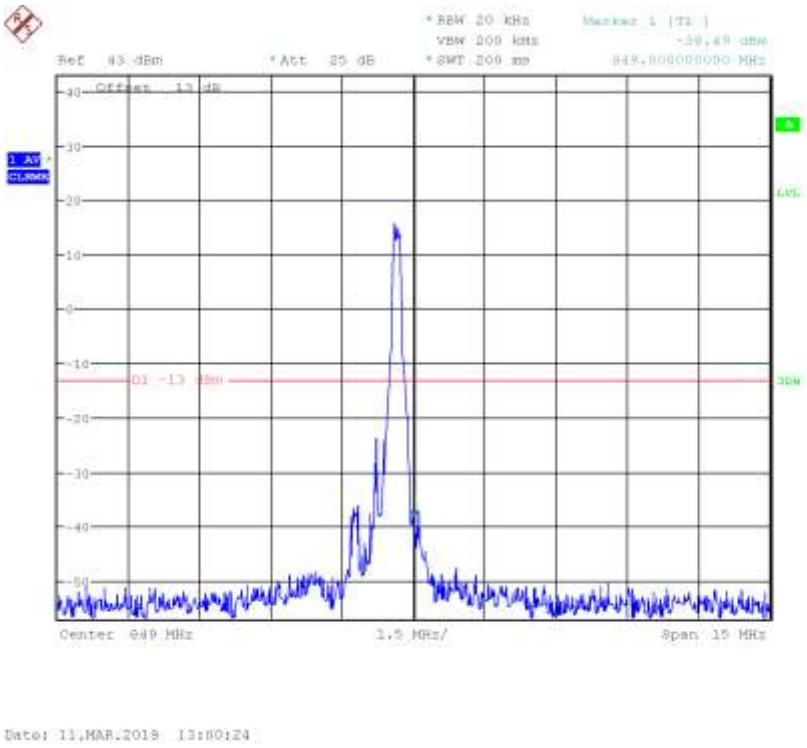
5.5.7 LTE B5 Band Edge Results



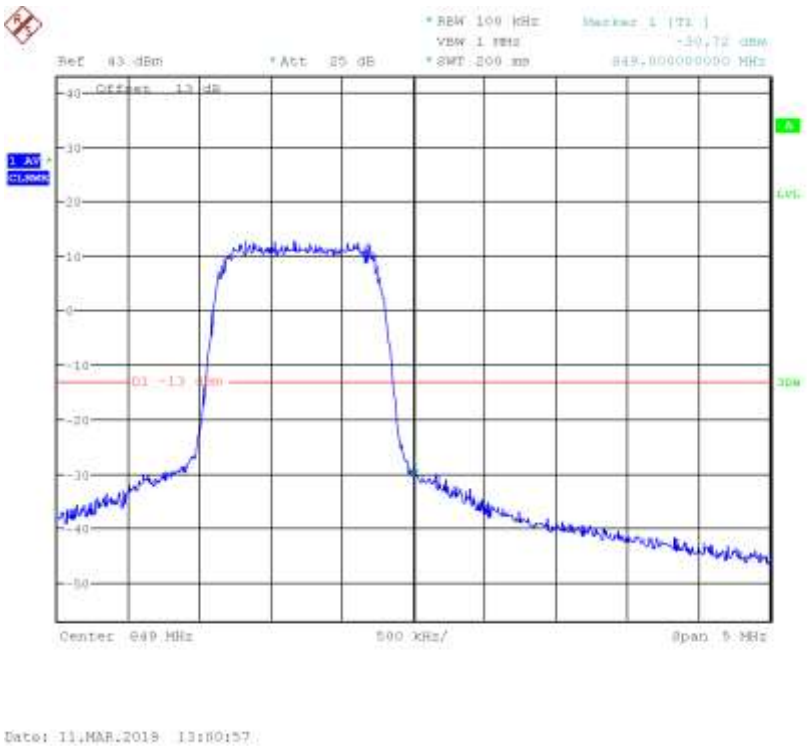
LTE Band5, 1.4MHz bandwidth, QPSK,(1,0) Mode , Below 824MHz



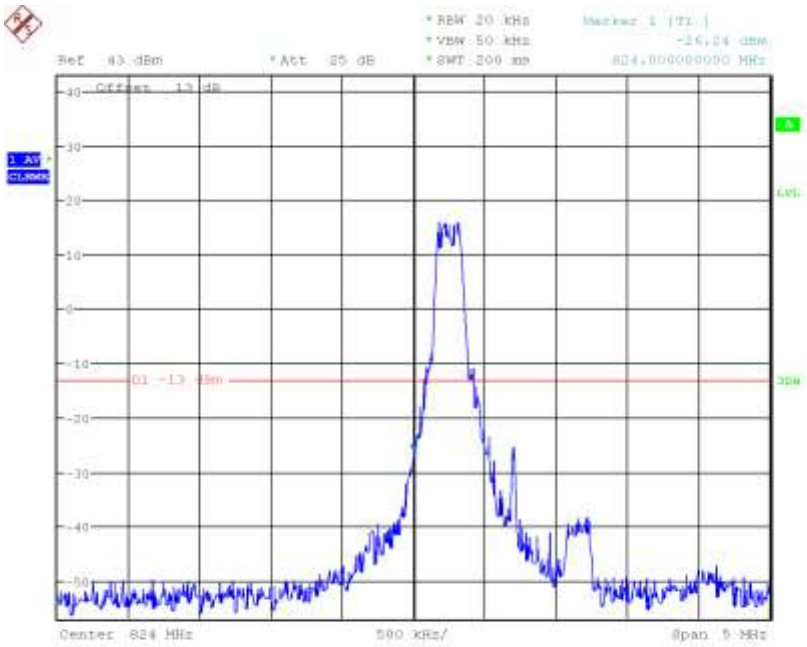
LTE Band5, 1.4MHz bandwidth, QPSK,(6,0) Mode , Below 824MHz



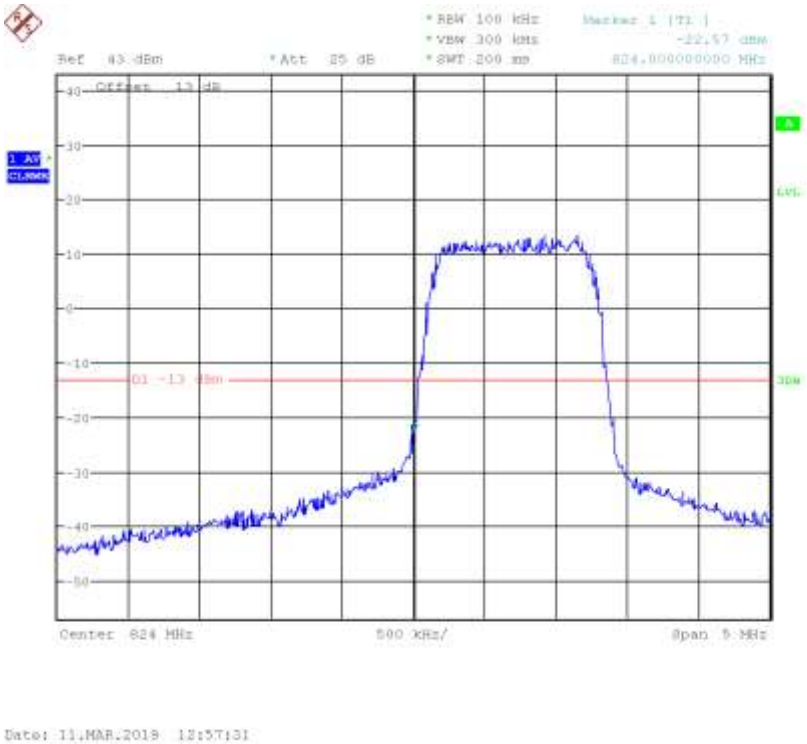
LTE Band5, 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 849MHz



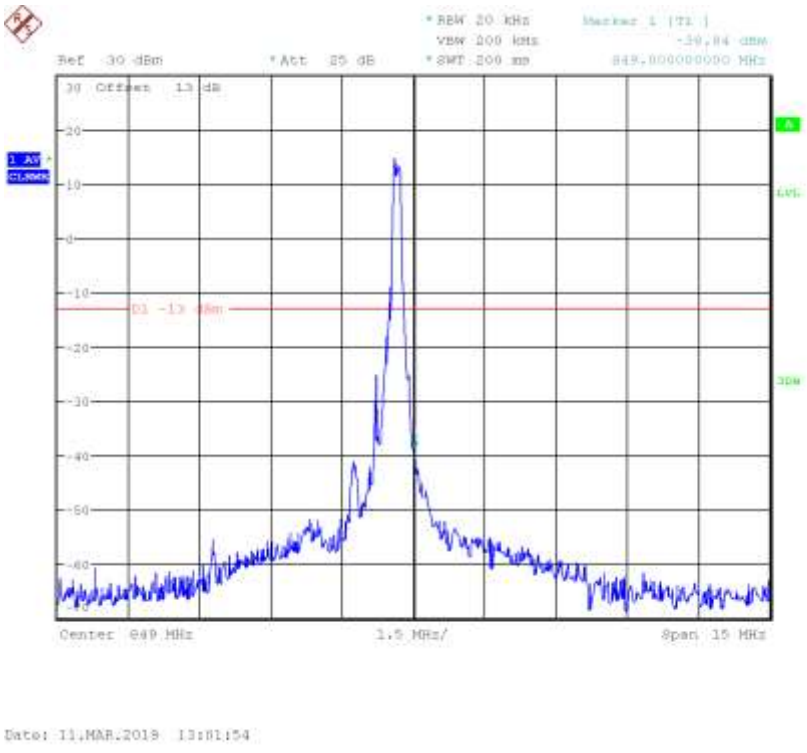
LTE Band5, 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 849MHz



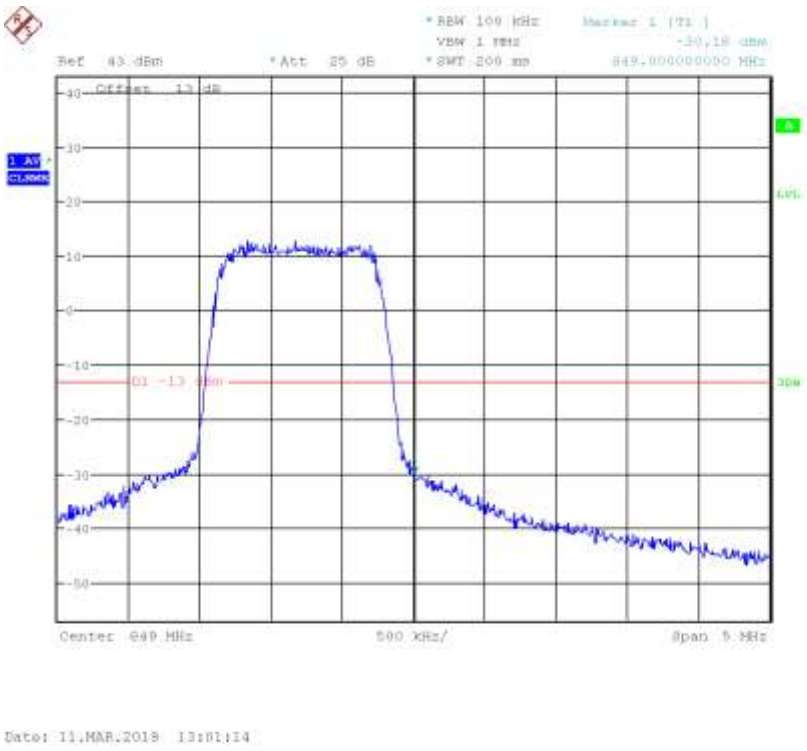
LTE Band5, 1.4MHz bandwidth, 16QAM,(1,0) Mode , Below 824MHz



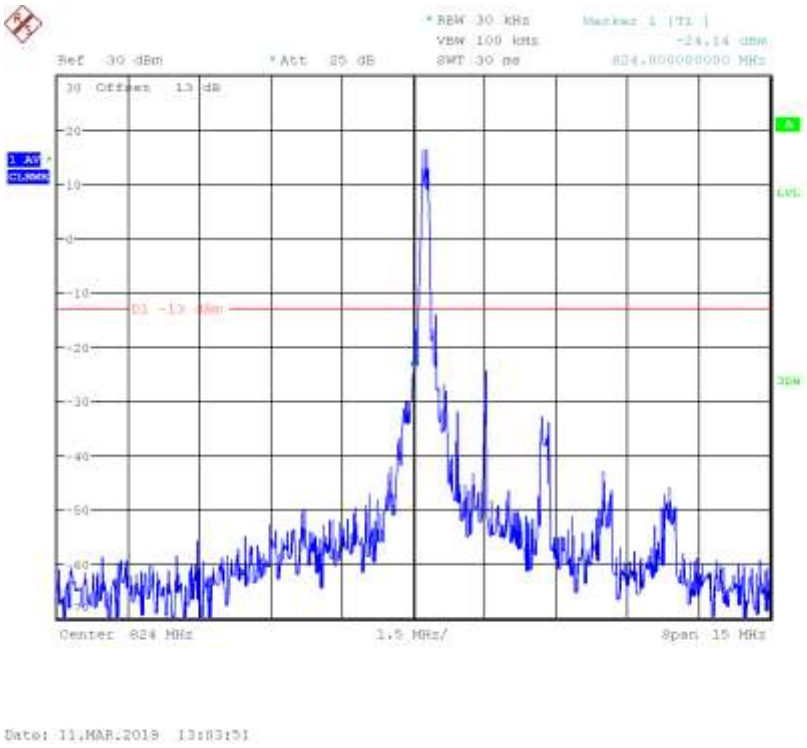
LTE Band5, 1.4MHz bandwidth, 16QAM,(6,0) Mode , Below 824MHz



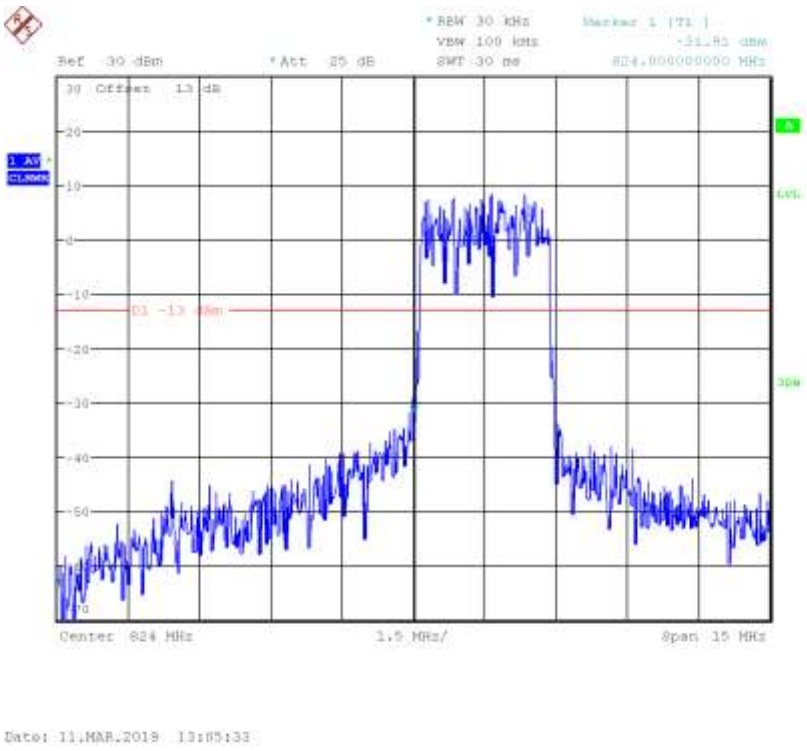
LTE Band5, 1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 849MHz



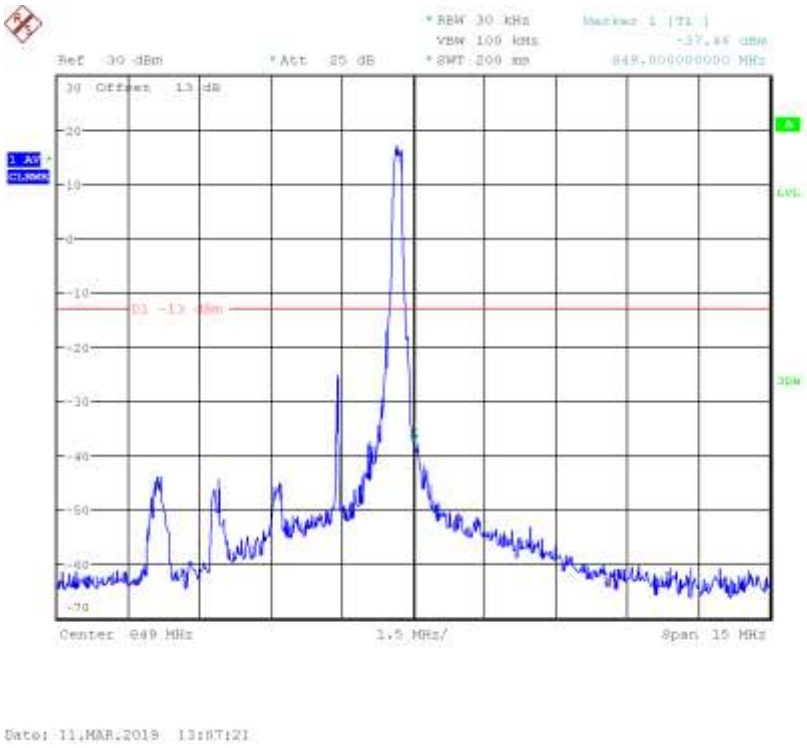
LTE Band5, 1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 849MHz



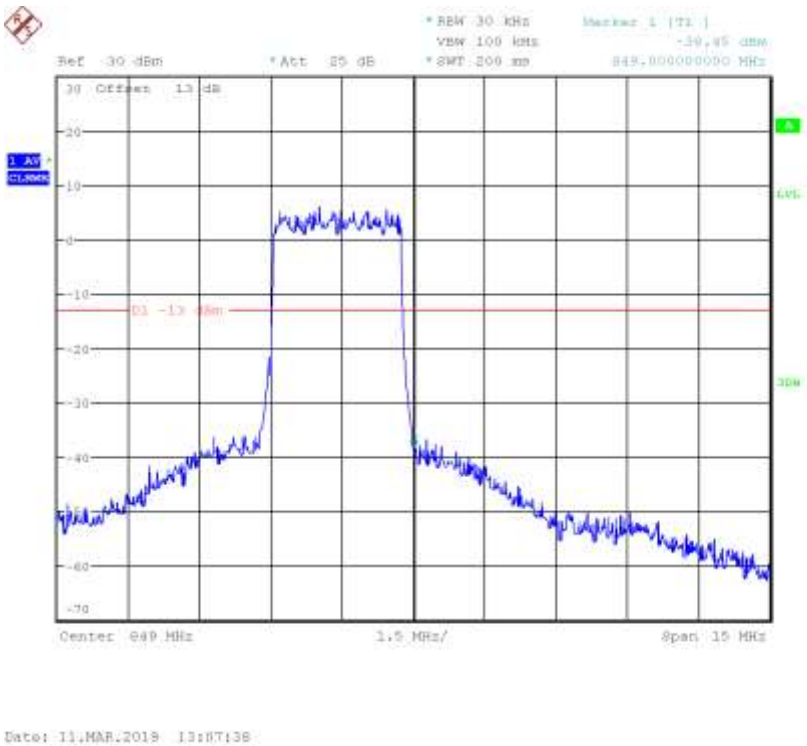
LTE Band5, 3MHz bandwidth, QPSK,(1,0) Mode , Below 824MHz



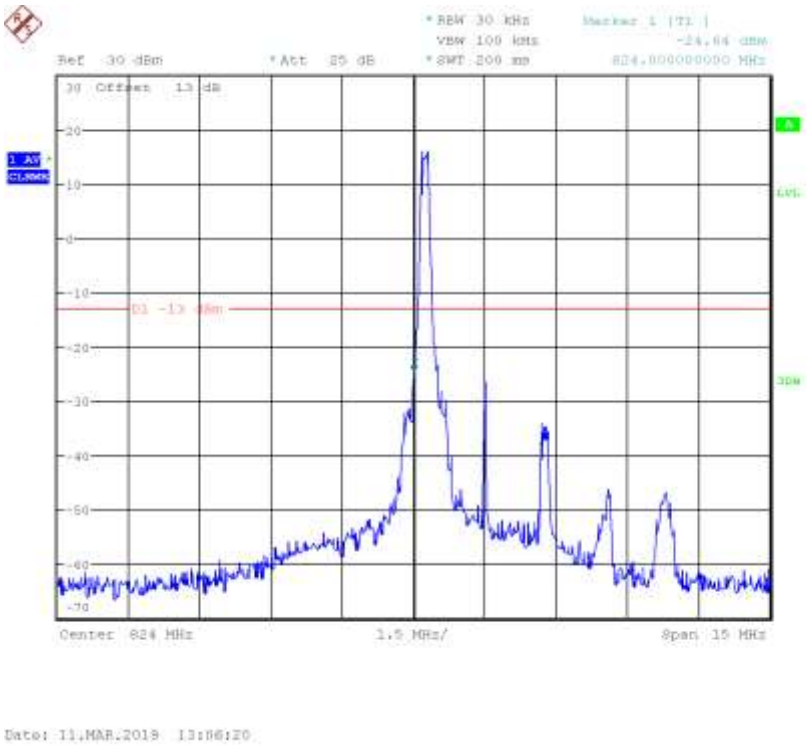
LTE Band5, 3MHz bandwidth, QPSK,(15,0) Mode , Below 824MHz



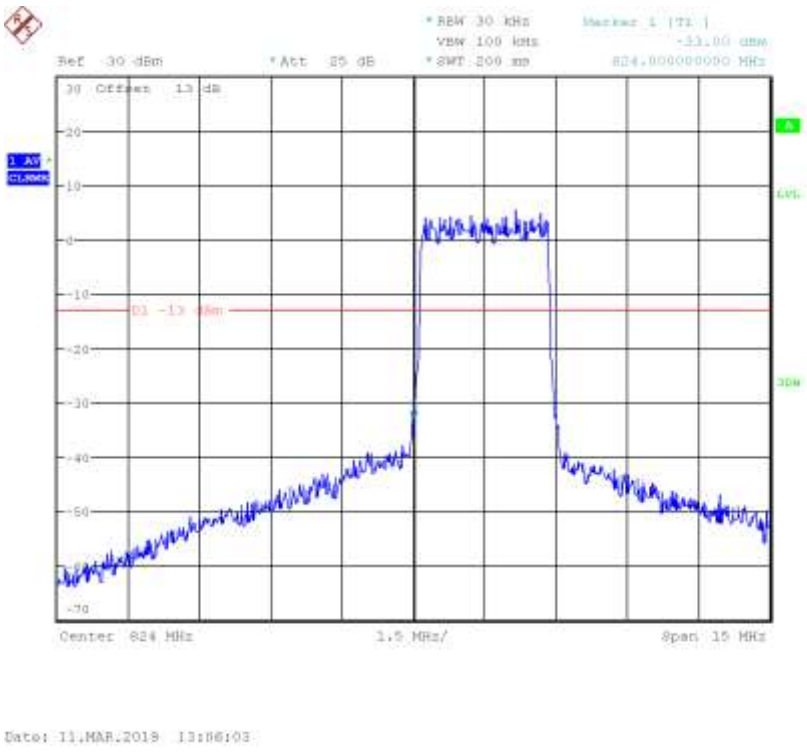
LTE Band5, 3MHz bandwidth, QPSK,(1,15) Mode, Above 849MHz



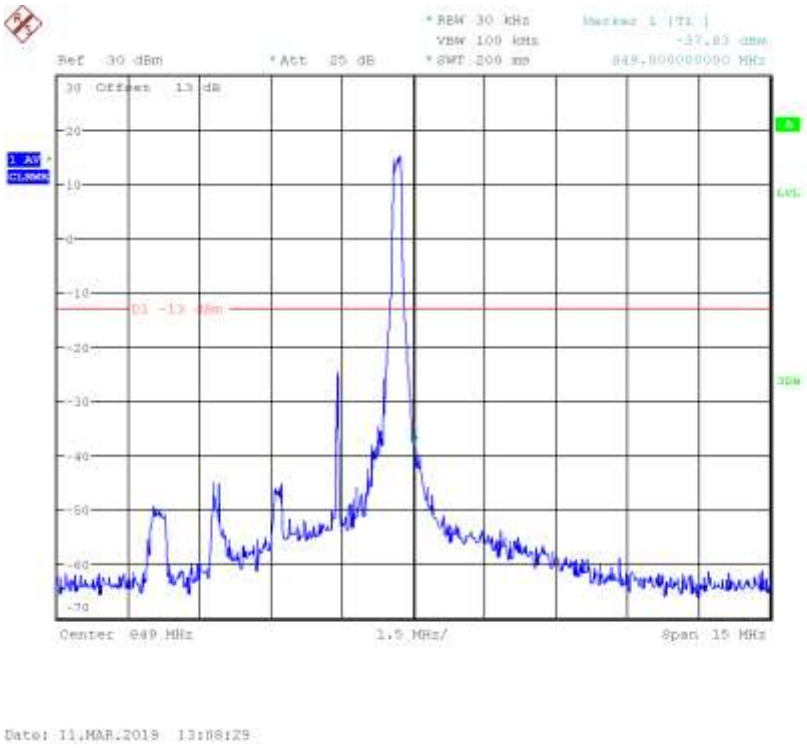
LTE Band5, 3MHz bandwidth, QPSK,(15,0) Mode, Above 849MHz



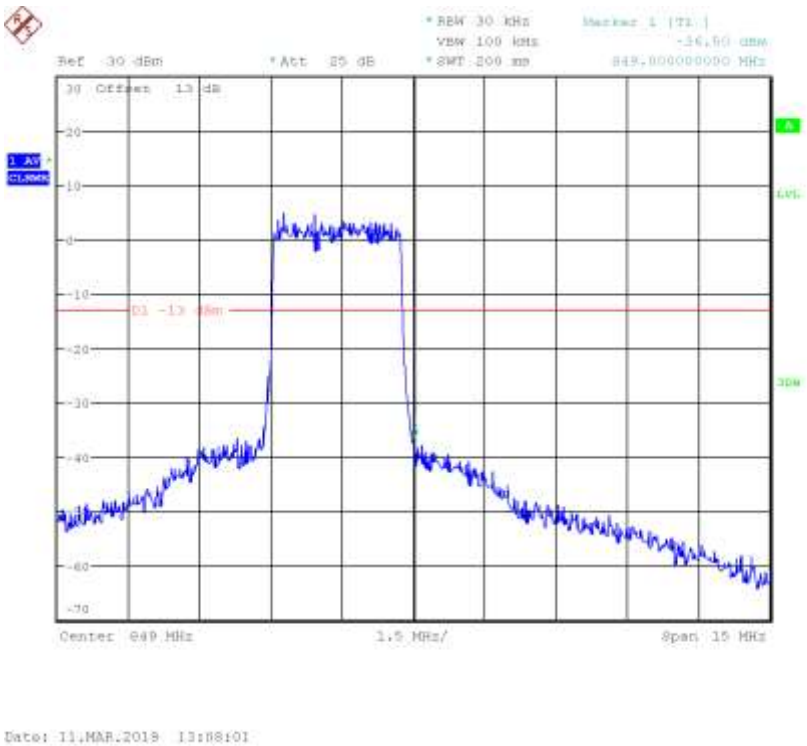
LTE Band5, 3MHz bandwidth, 16QAM,(1,0) Mode , Below 824MHz



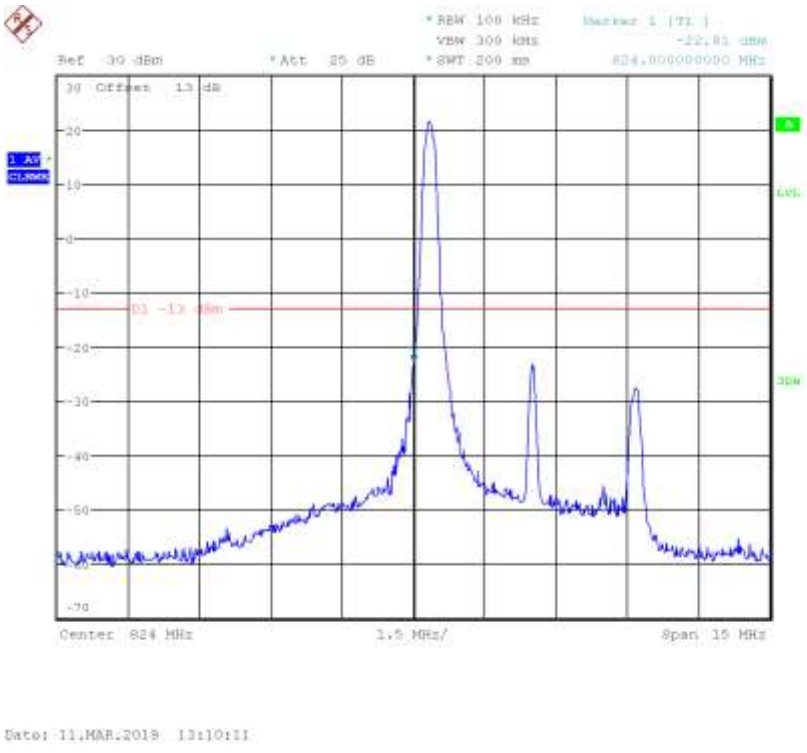
LTE Band5, 3MHz bandwidth, 16QAM,(15,0) Mode , Below 824MHz



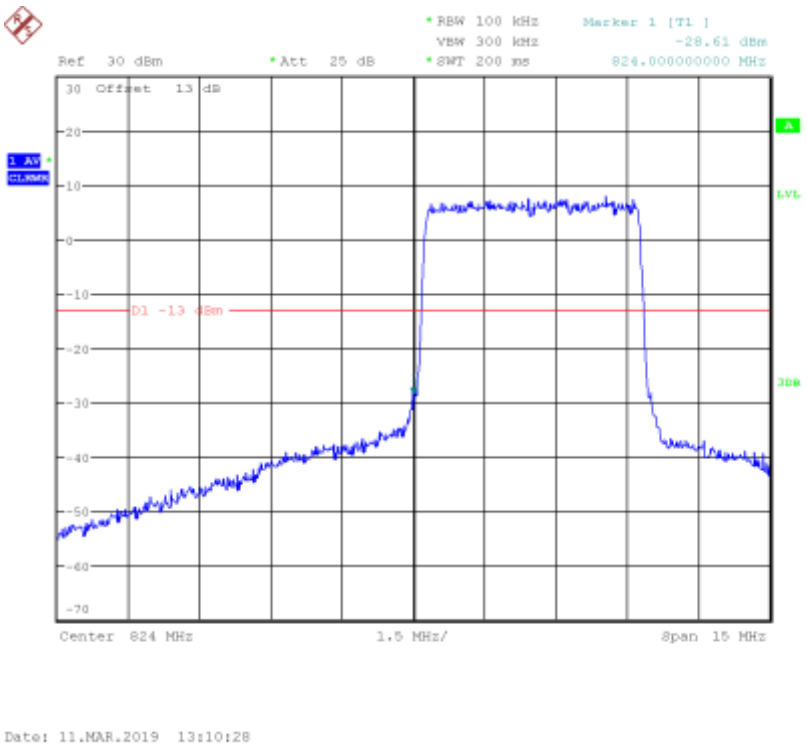
LTE Band5, 3MHz bandwidth, 16QAM,(1,15) Mode, Above 849MHz



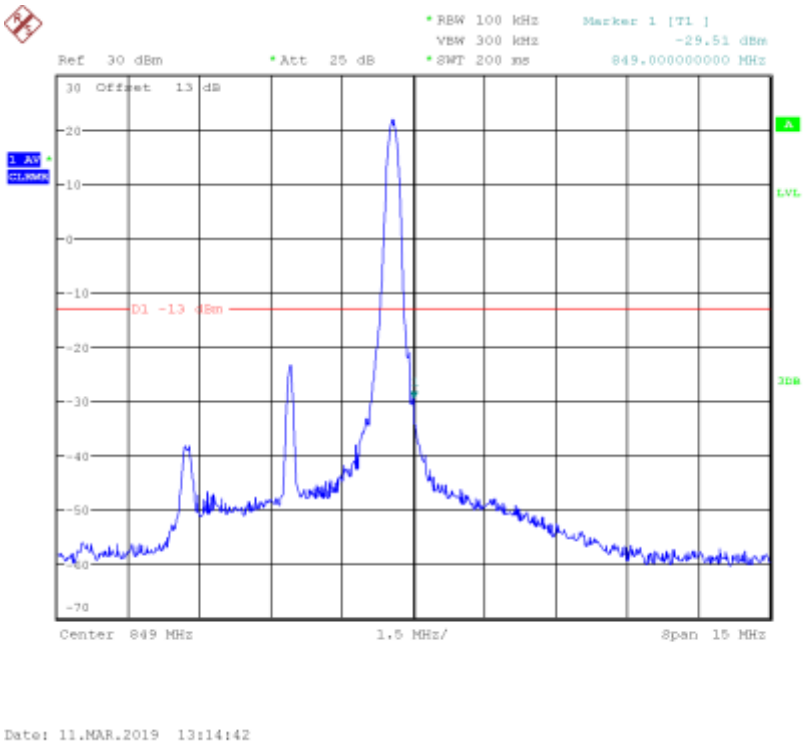
LTE Band5, 3MHz bandwidth, 16QAM,(15,0) Mode, Above 849MHz



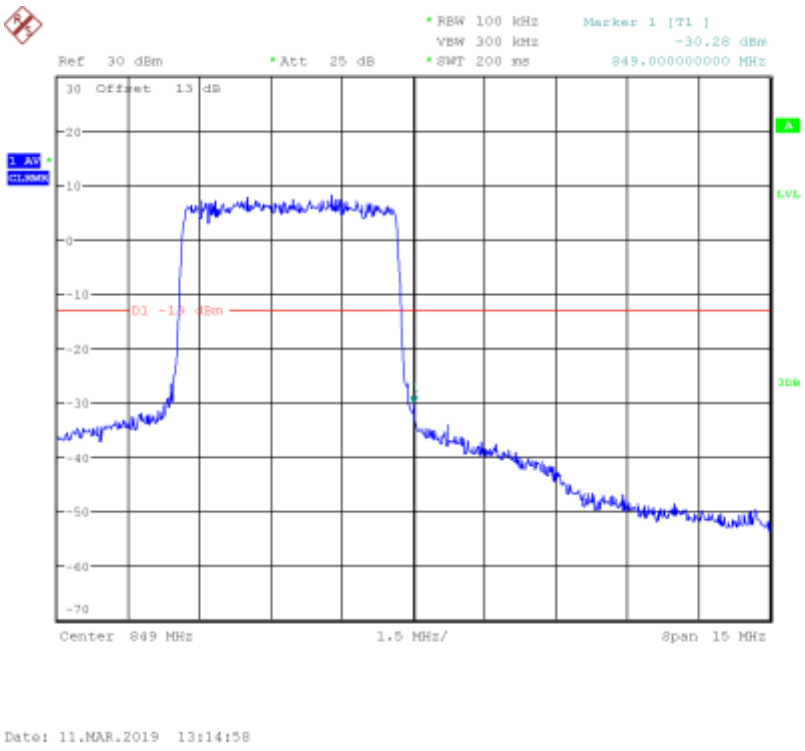
LTE Band5, 5MHz bandwidth, QPSK,(1,0) Mode , Below 824MHz



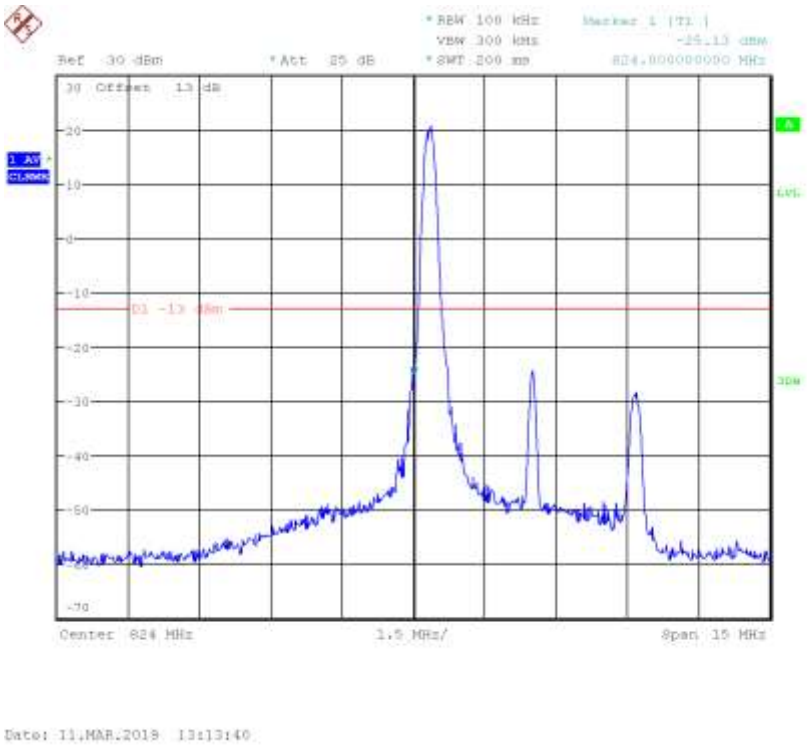
LTE Band5, 5MHz bandwidth, QPSK,(25,0) Mode , Below 824MHz



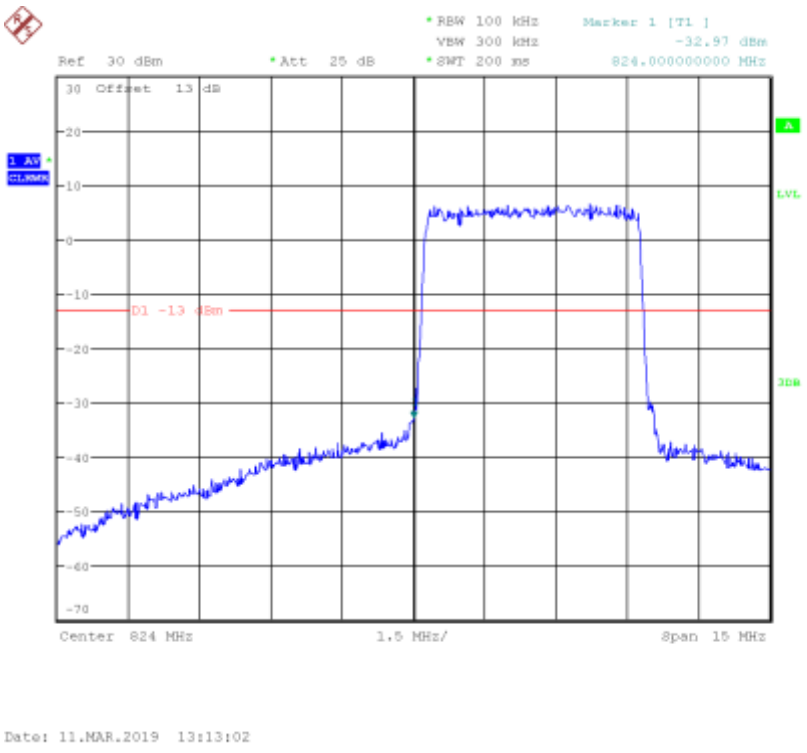
LTE Band5, 5MHz bandwidth, QPSK,(1,25) Mode, Above 849MHz



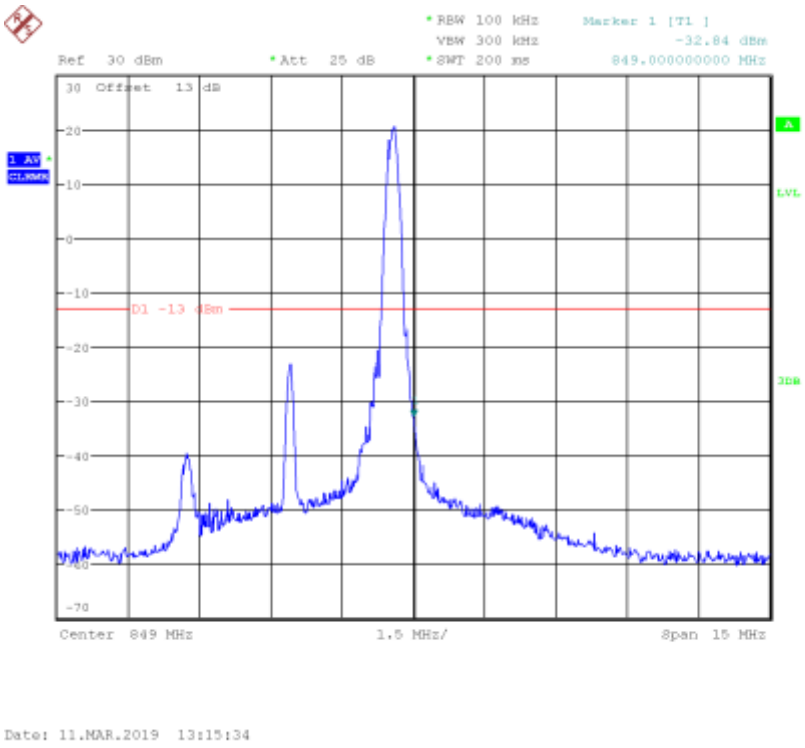
LTE Band5, 5MHz bandwidth, QPSK,(25,0) Mode, Above 849MHz



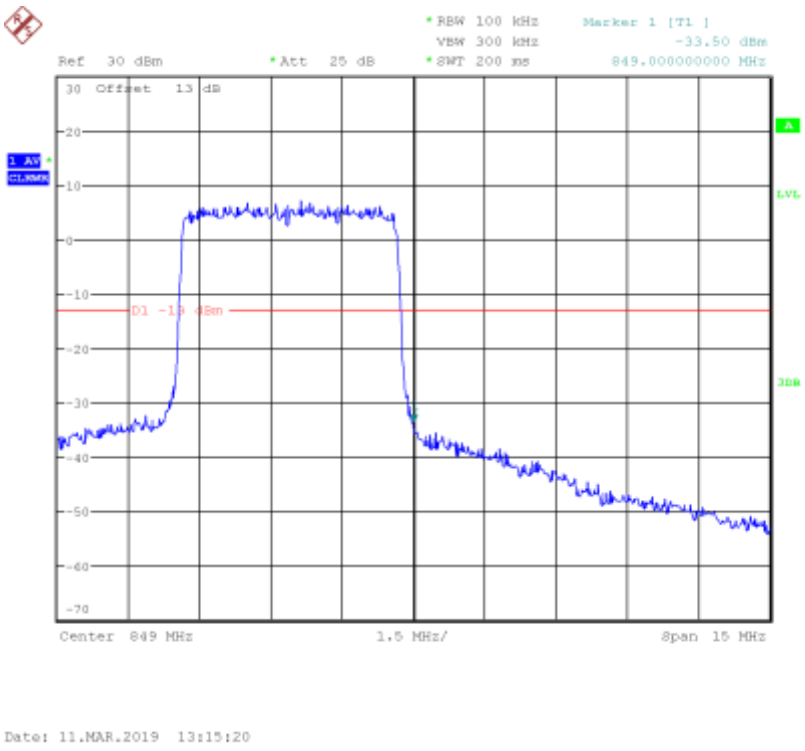
LTE Band5, 5MHz bandwidth, 16QAM,(1,0) Mode , Below 824MHz



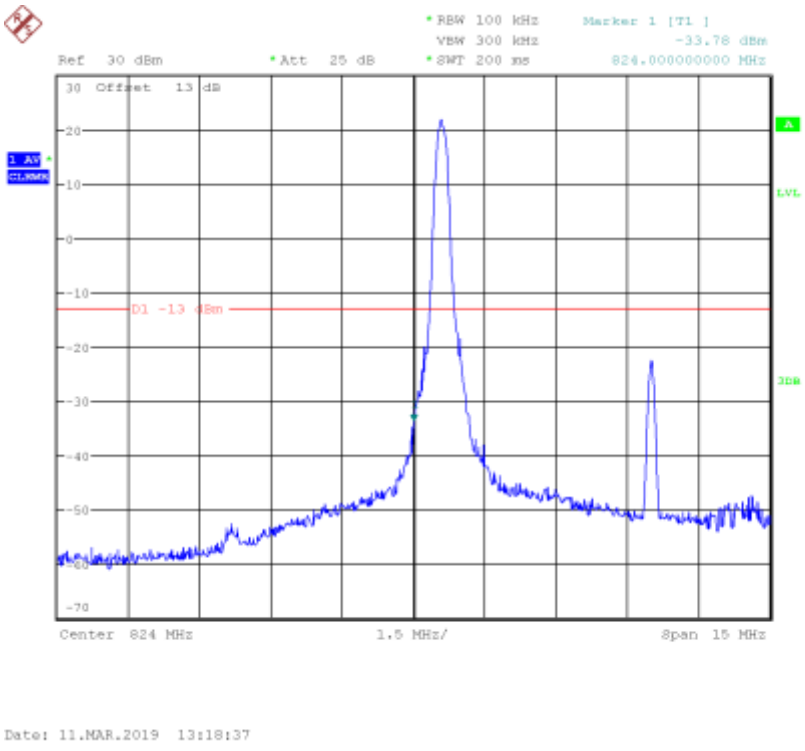
LTE Band5, 5MHz bandwidth, 16QAM,(25,0) Mode , Below 824MHz



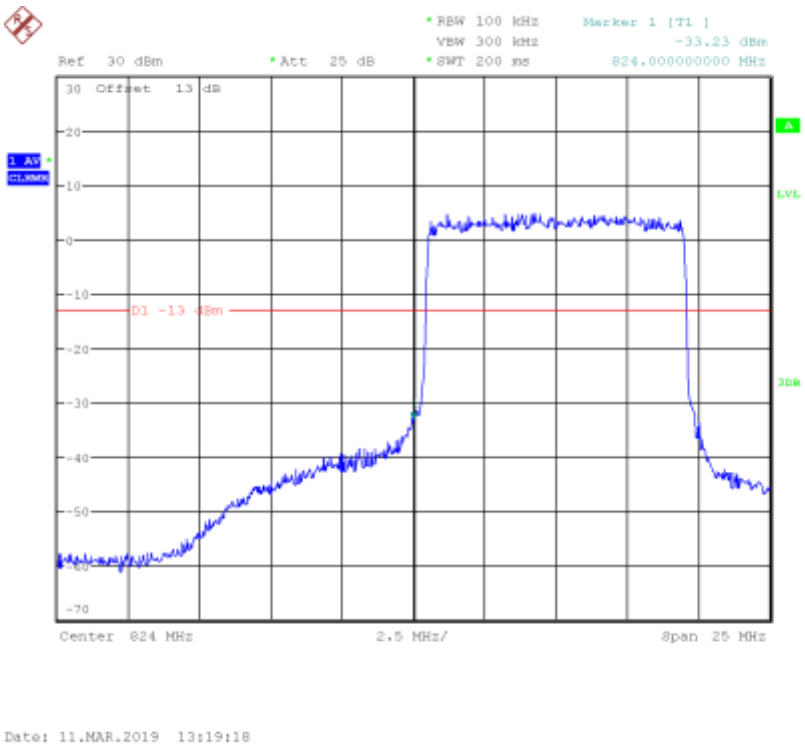
LTE Band5, 5MHz bandwidth, 16QAM,(1,25) Mode, Above 849MHz



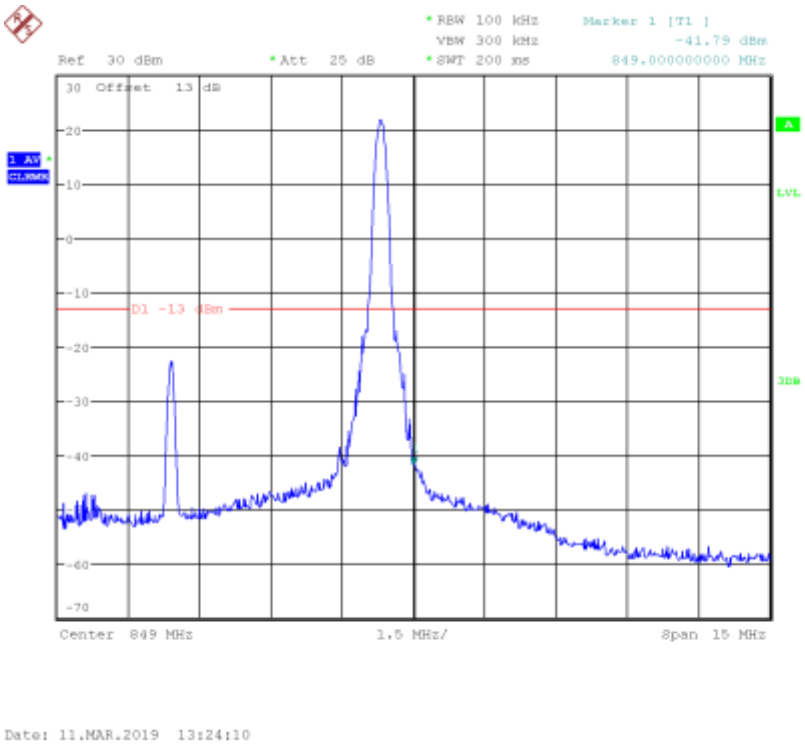
LTE Band5, 5MHz bandwidth, 16QAM,(25,0) Mode, Above 849MHz



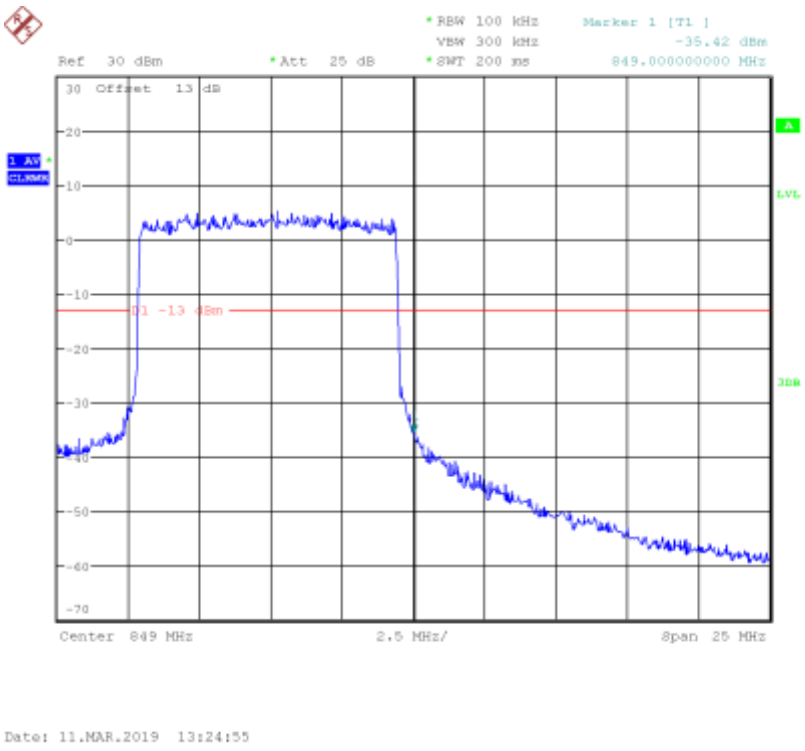
LTE Band5, 10MHz bandwidth, QPSK,(1,0) Mode , Below 824MHz



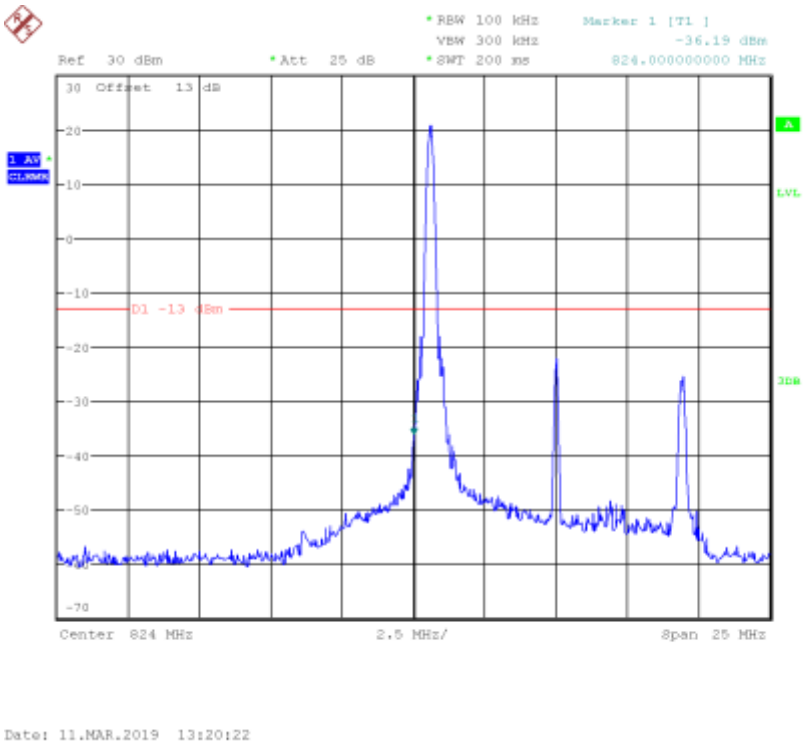
LTE Band5, 10MHz bandwidth, QPSK,(50,0) Mode , Below 824MHz



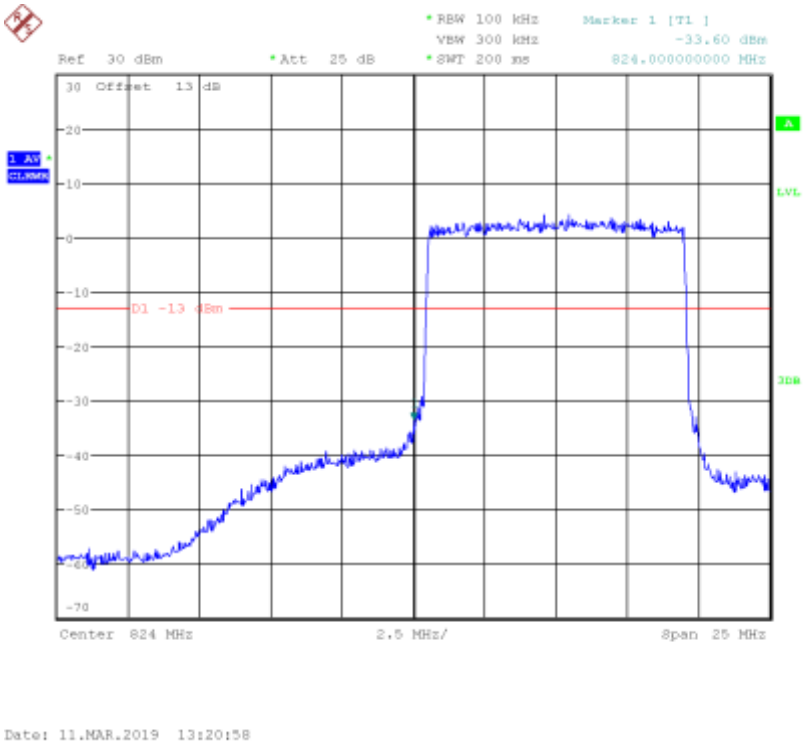
LTE Band5, 10MHz bandwidth, QPSK,(1,50) Mode, Above 849MHz



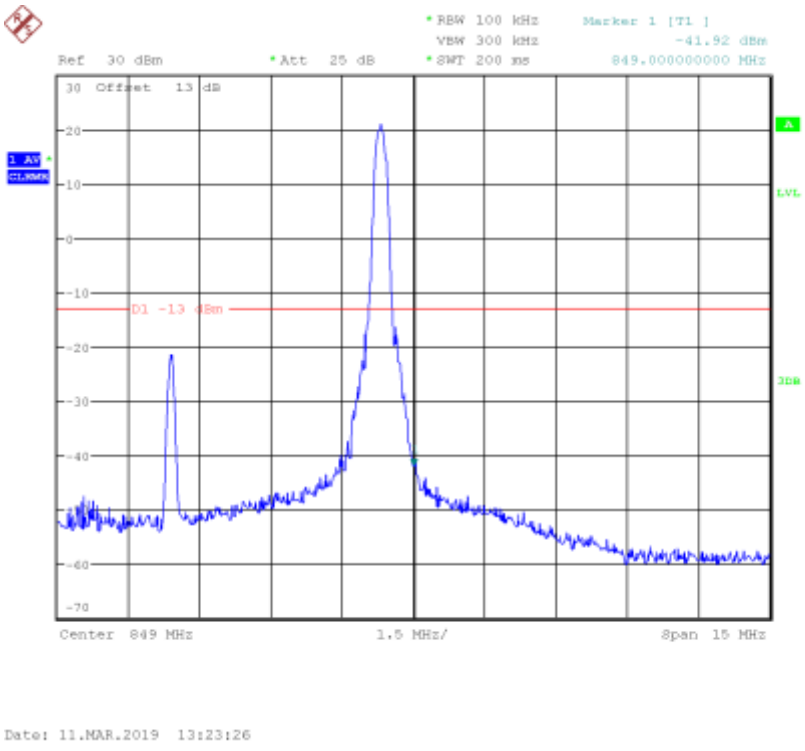
LTE Band5, 10MHz bandwidth, QPSK,(50,0) Mode, Above 849MHz



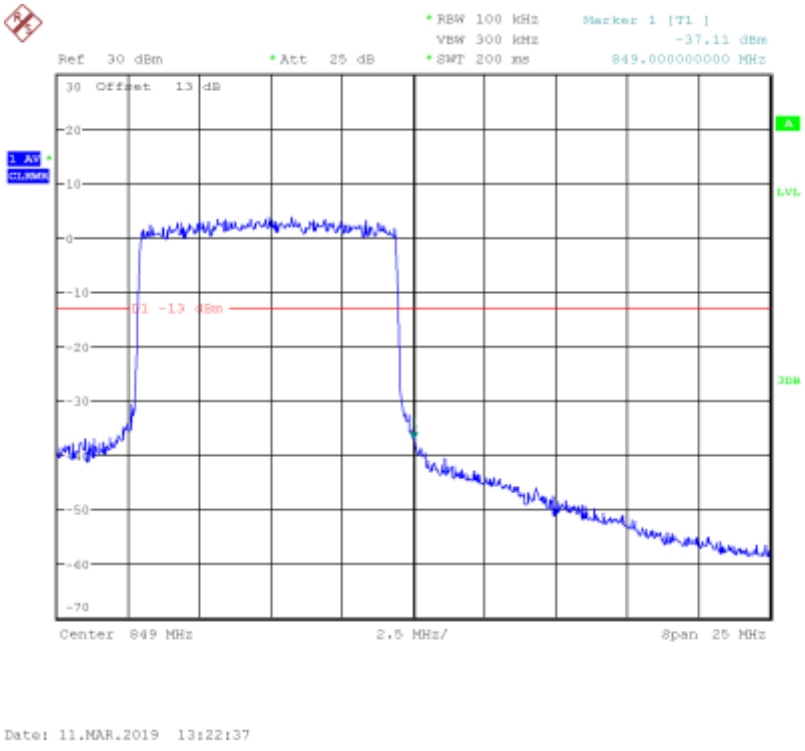
LTE Band5, 10MHz bandwidth, 16QAM,(1,0) Mode , Below 824MHz



LTE Band5, 10MHz bandwidth, 16QAM,(50,0) Mode , Below 824MHz

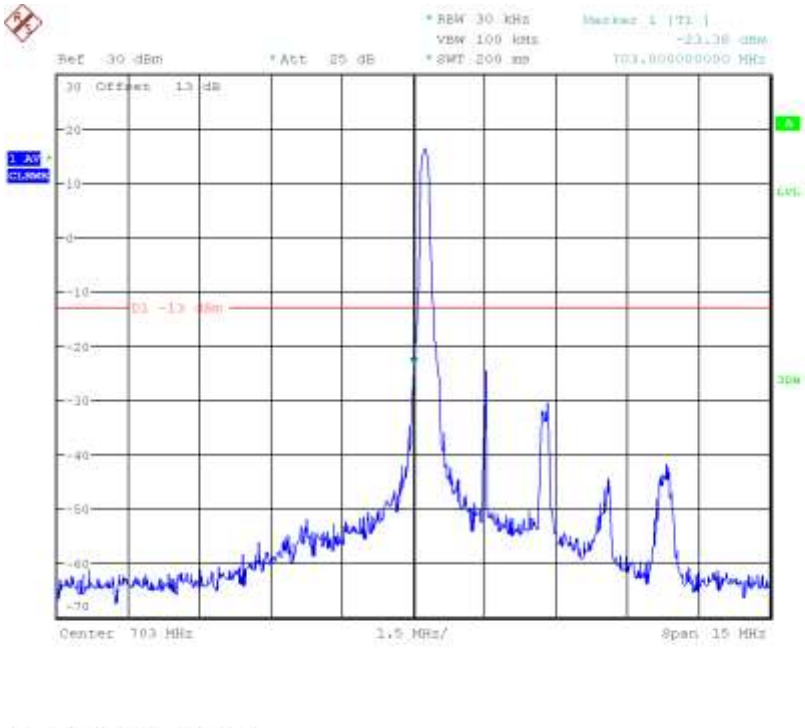


LTE Band5, 10MHz bandwidth, 16QAM,(1,50) Mode, Above 849MHz

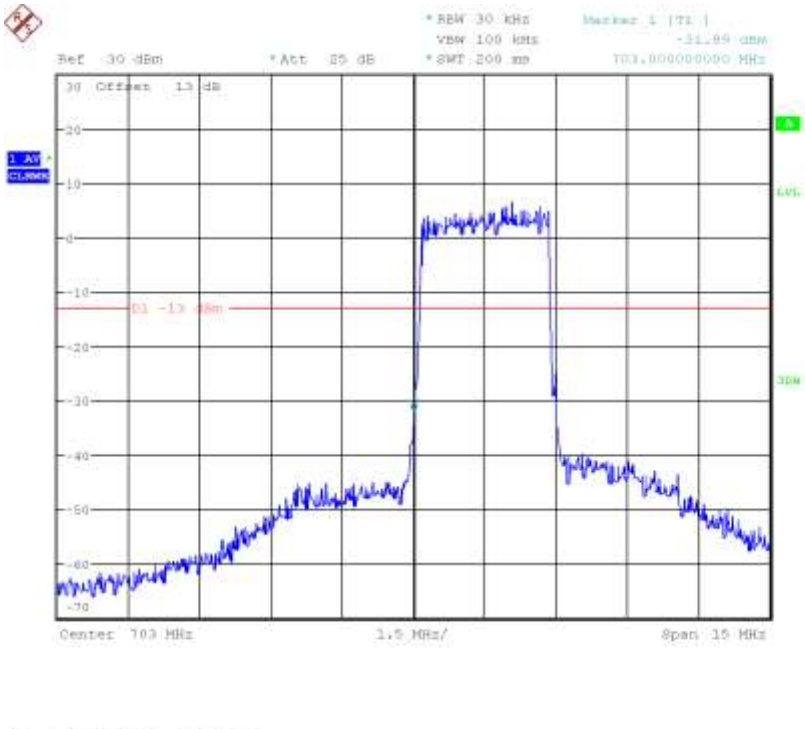


LTE Band5, 10MHz bandwidth, 16QAM,(50,0) Mode, Above 849MHz

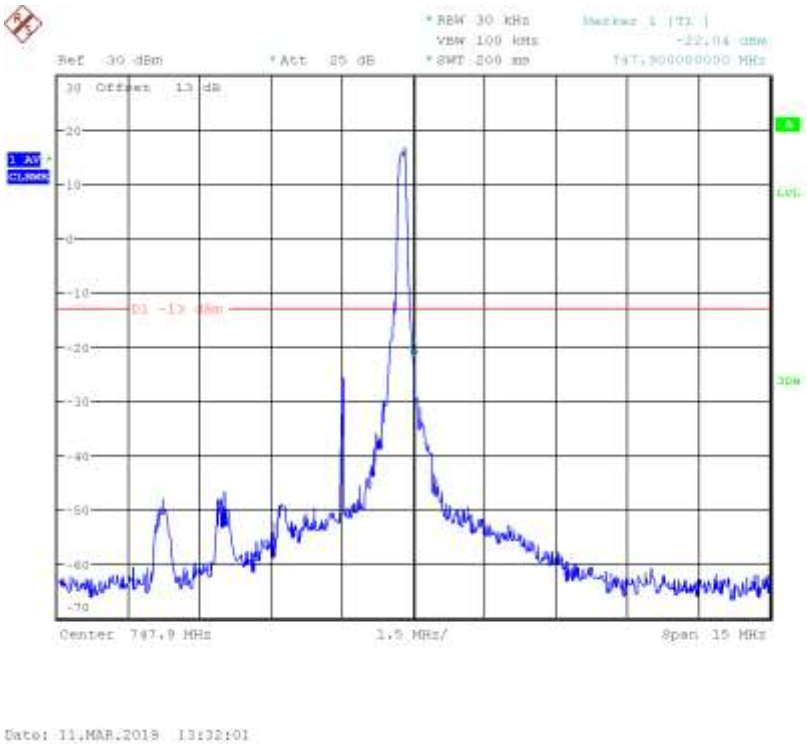
5.5.8 LTE B28 Band Edge Results



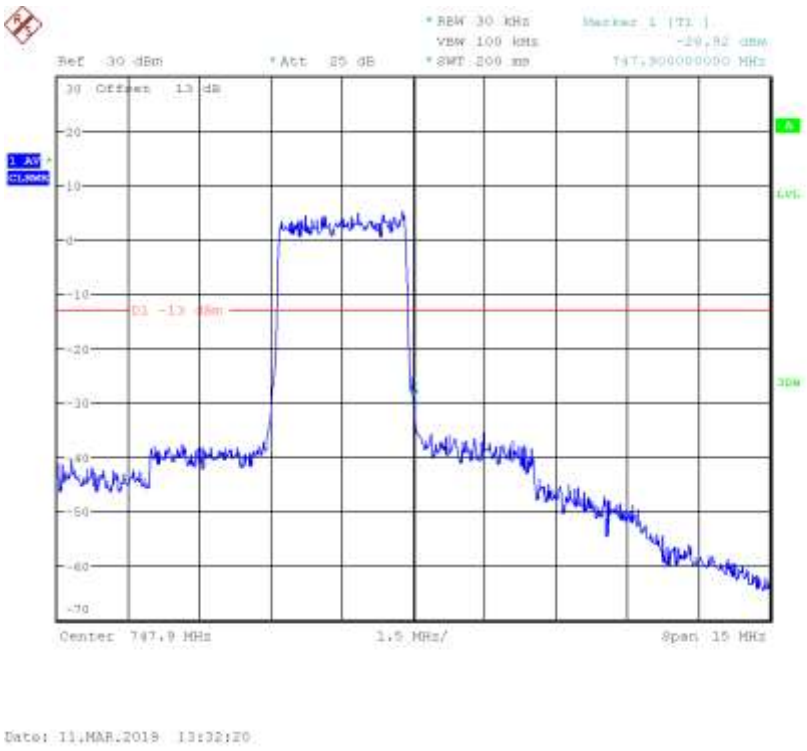
LTE Band28, 3MHz bandwidth, QPSK,(1,0) Mode , Below 703MHz



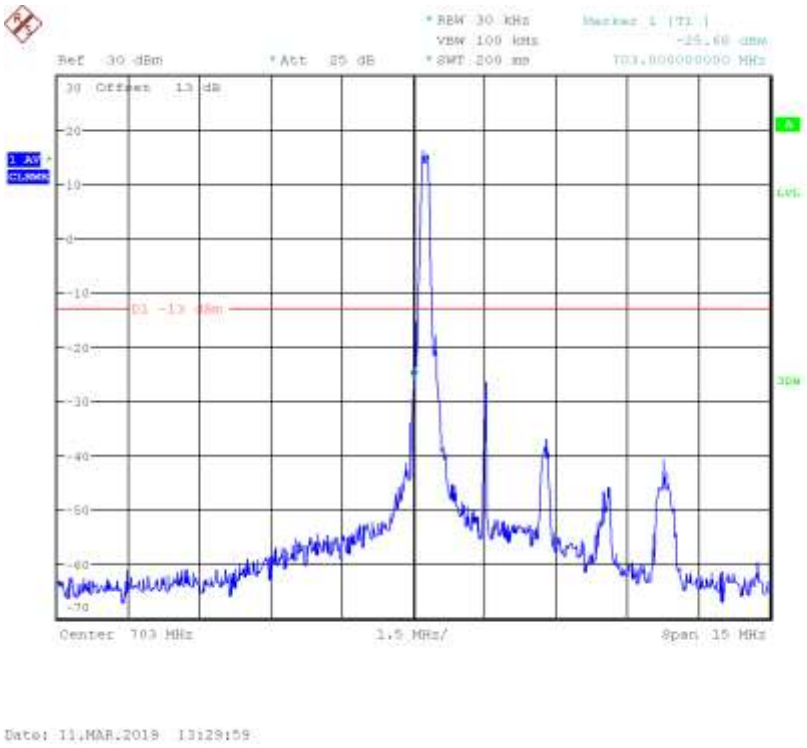
LTE Band28, 3MHz bandwidth, QPSK,(15,0) Mode , Below 703MHz



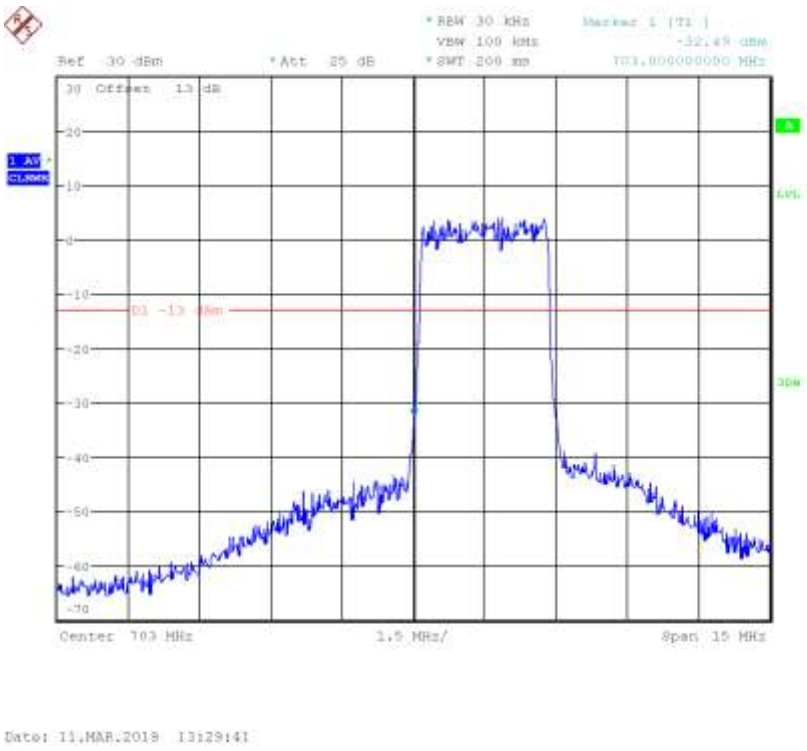
LTE Band28, 3MHz bandwidth, QPSK,(1,15) Mode, Above 748MHz



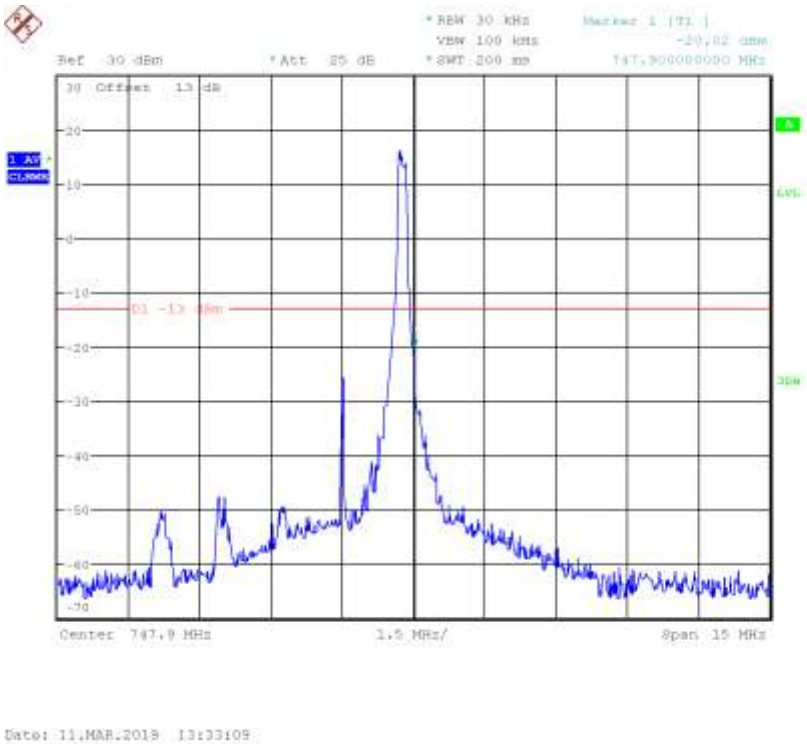
LTE Band28, 3MHz bandwidth, QPSK,(15,0) Mode, Above 748MHz



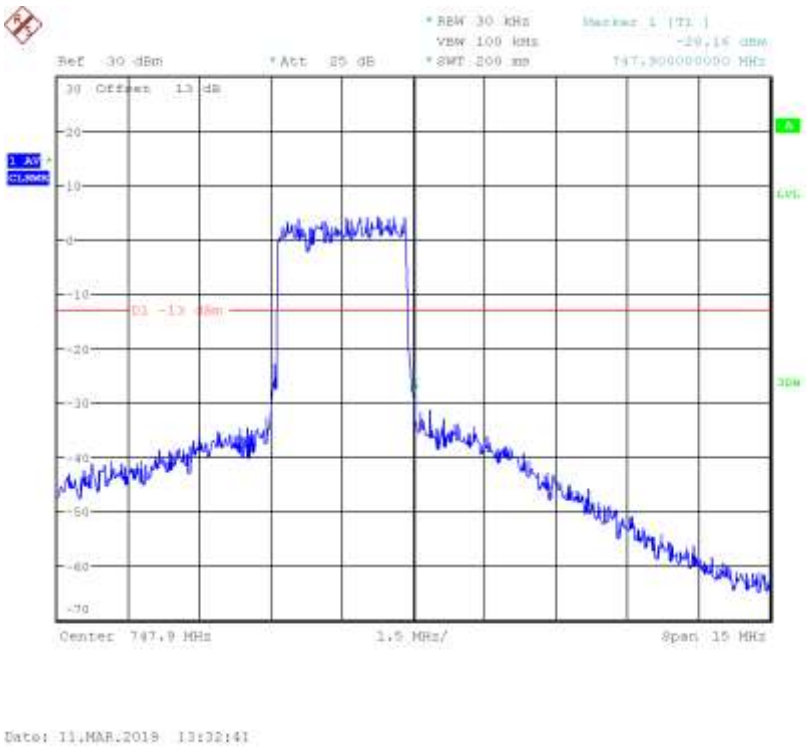
LTE Band28, 3MHz bandwidth, 16QAM,(1,0) Mode , Below 703MHz



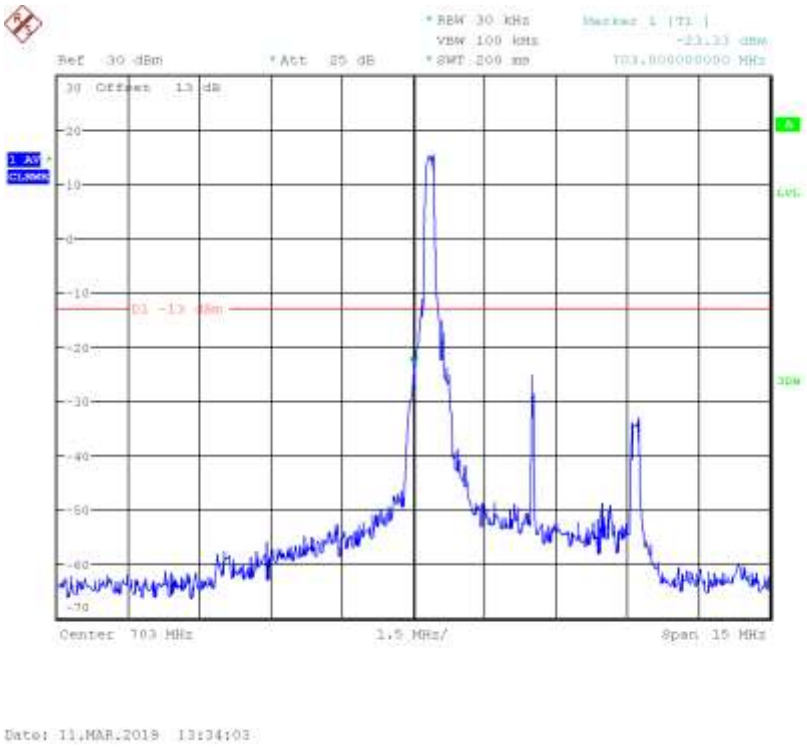
LTE Band28, 3MHz bandwidth, 16QAM,(15,0) Mode , Below 703MHz



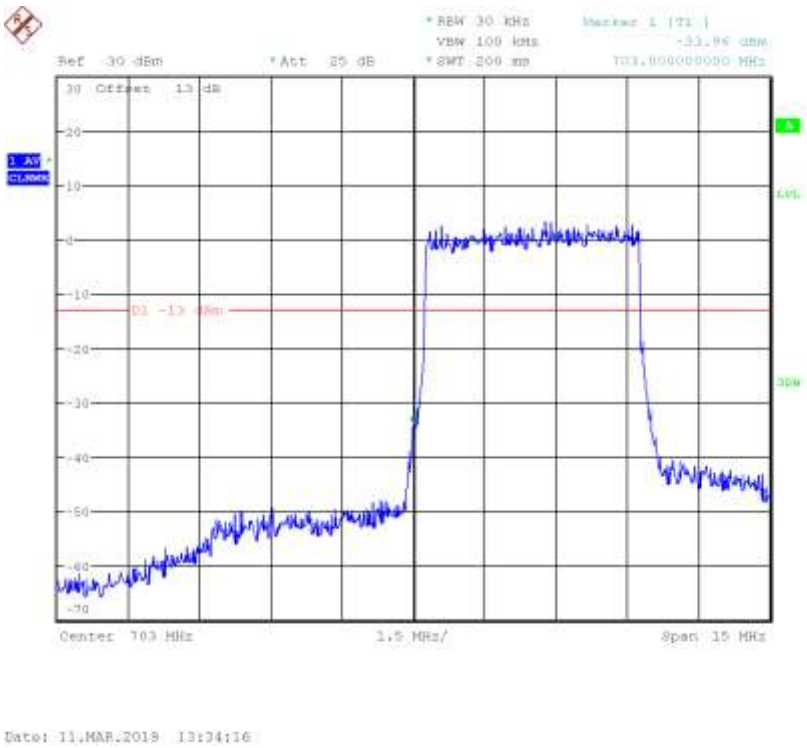
LTE Band28, 3MHz bandwidth, 16QAM,(1,15) Mode, Above 748MHz



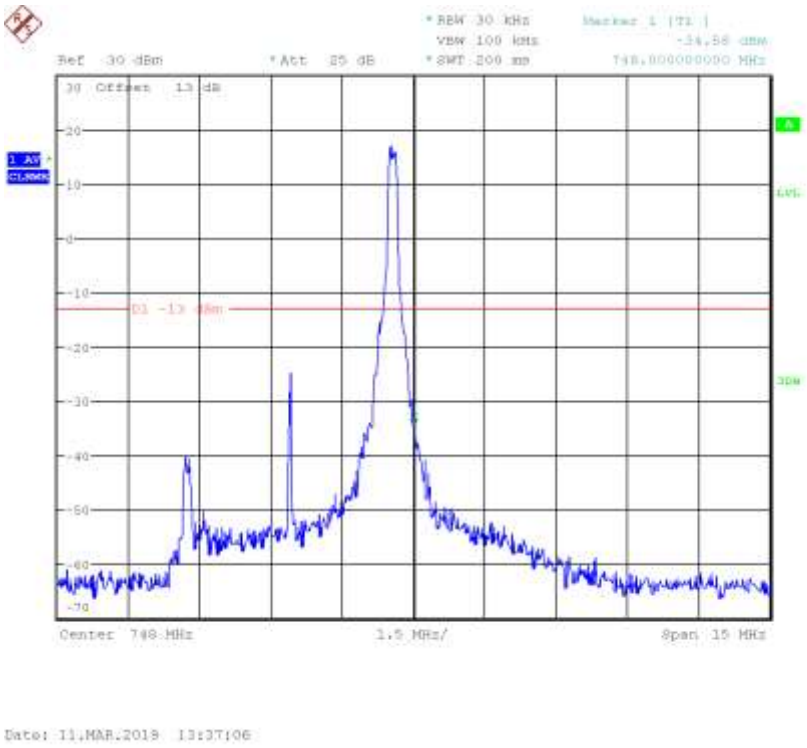
LTE Band28, 3MHz bandwidth, 16QAM,(15,0) Mode, Above 748MHz



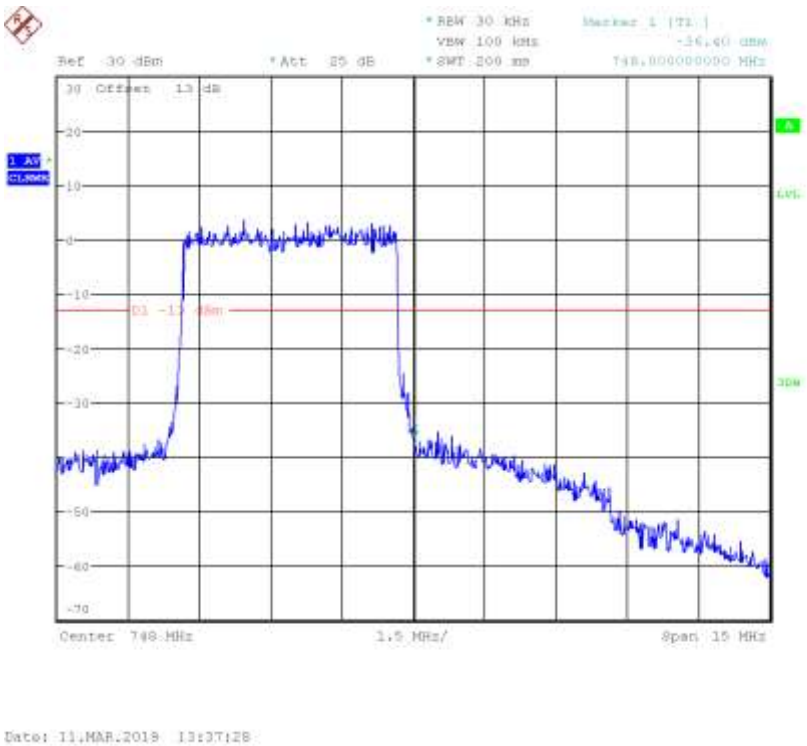
LTE Band28, 5MHz bandwidth, QPSK,(1,0) Mode , Below 703MHz



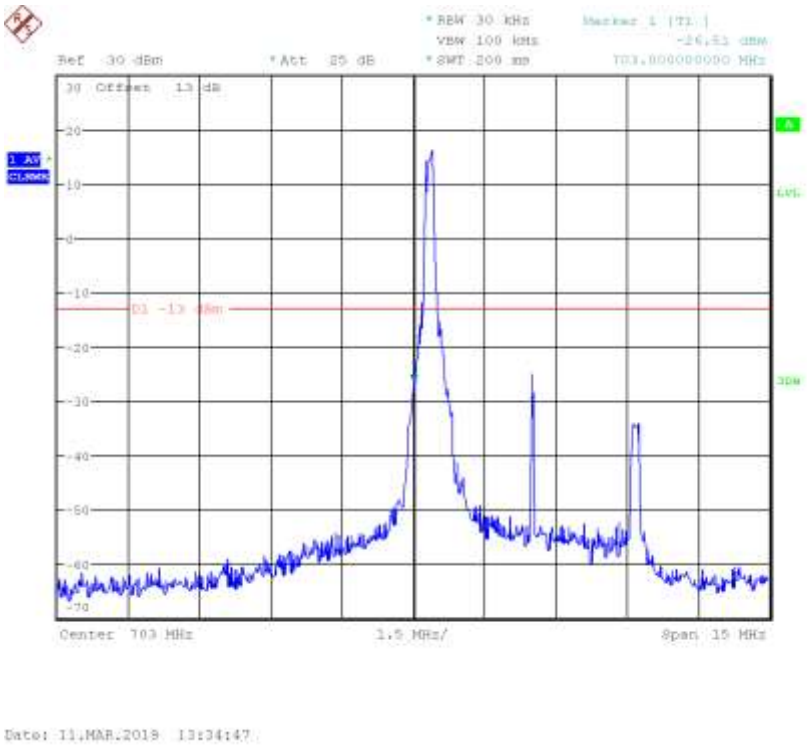
LTE Band28, 5MHz bandwidth, QPSK,(25,0) Mode , Below 703MHz



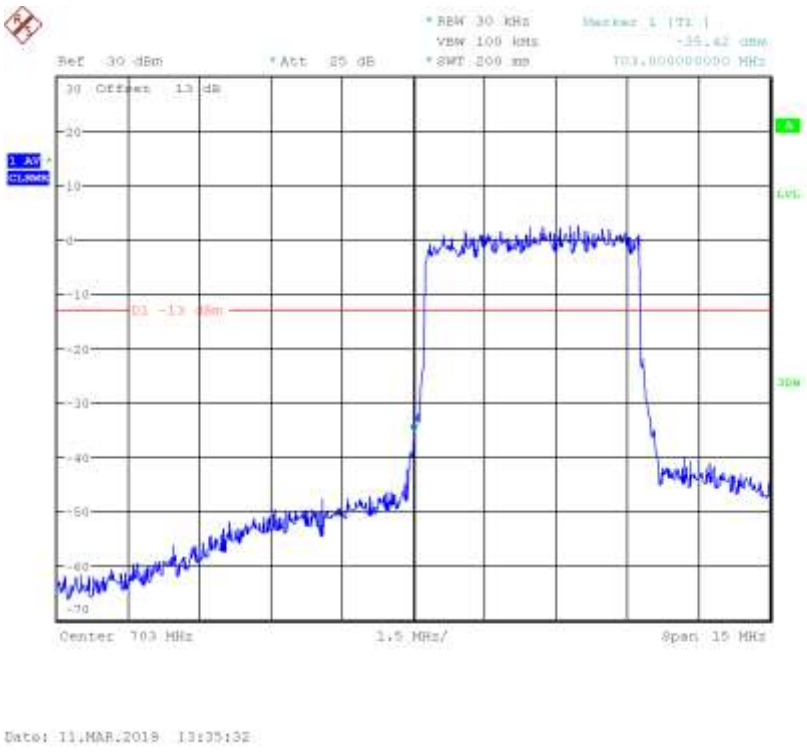
LTE Band28, 5MHz bandwidth, QPSK,(1,25) Mode, Above 748MHz



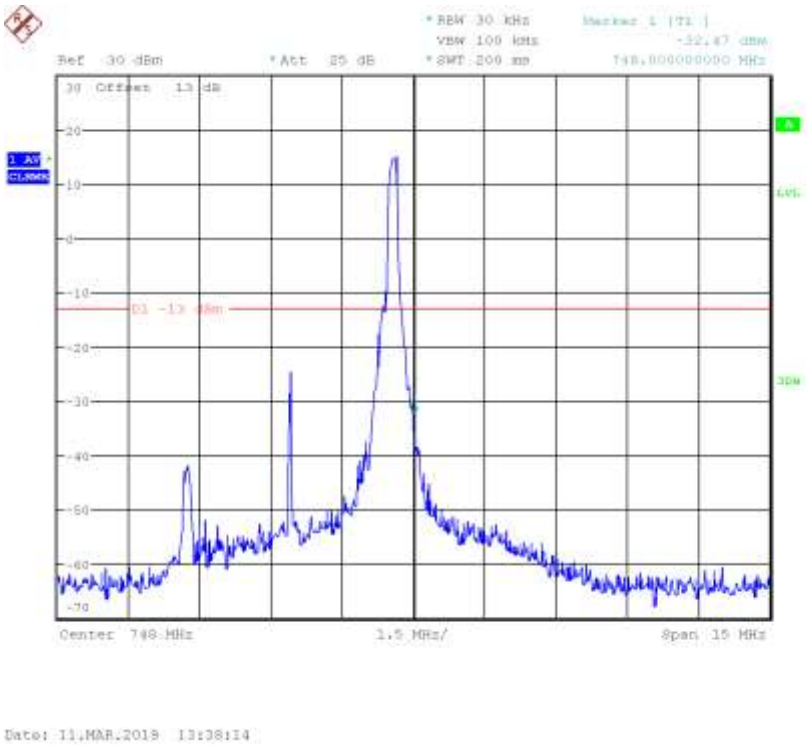
LTE Band28, 5MHz bandwidth, QPSK,(25,0) Mode, Above 748MHz



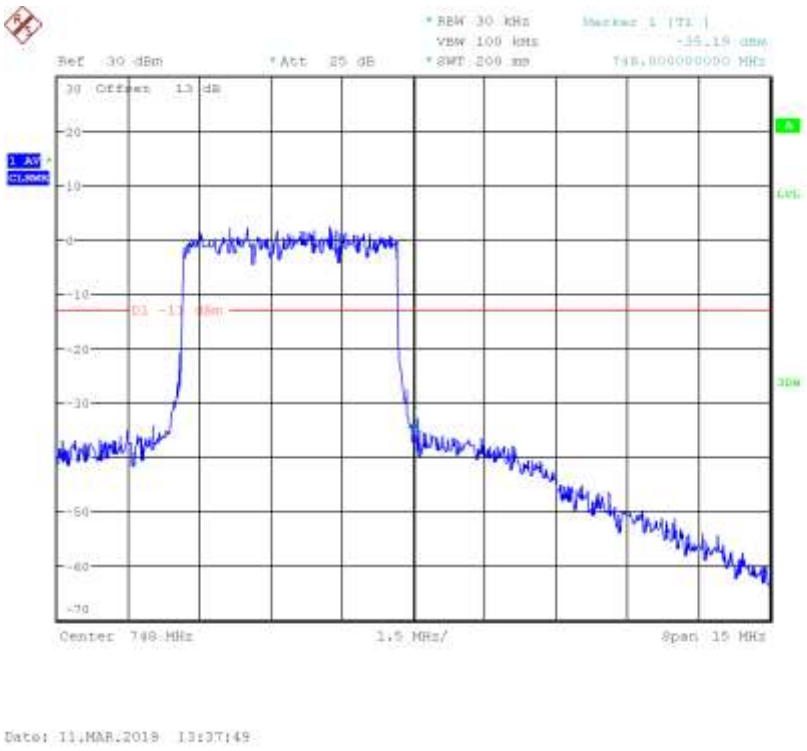
LTE Band28, 5MHz bandwidth, 16QAM,(1,0) Mode , Below 703MHz



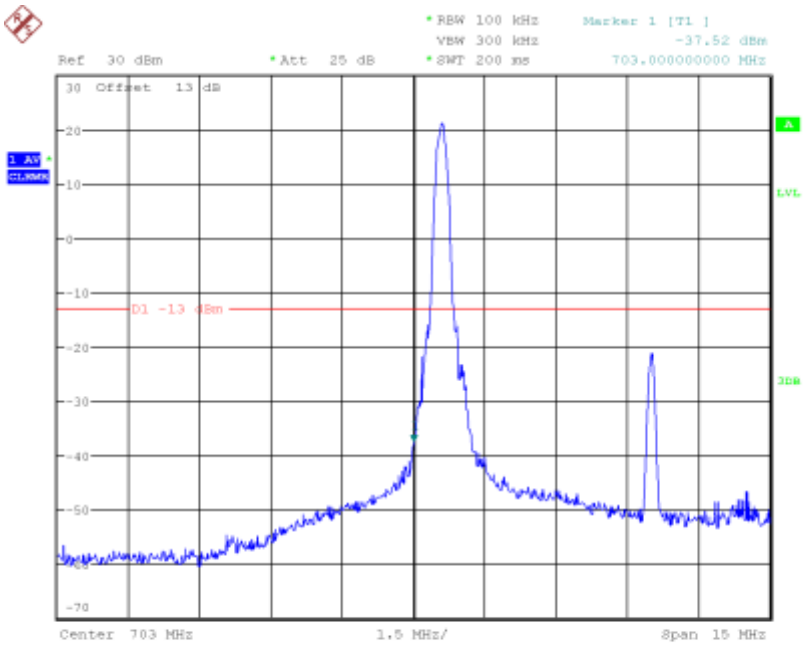
LTE Band28, 5MHz bandwidth, 16QAM,(25,0) Mode , Below 703MHz



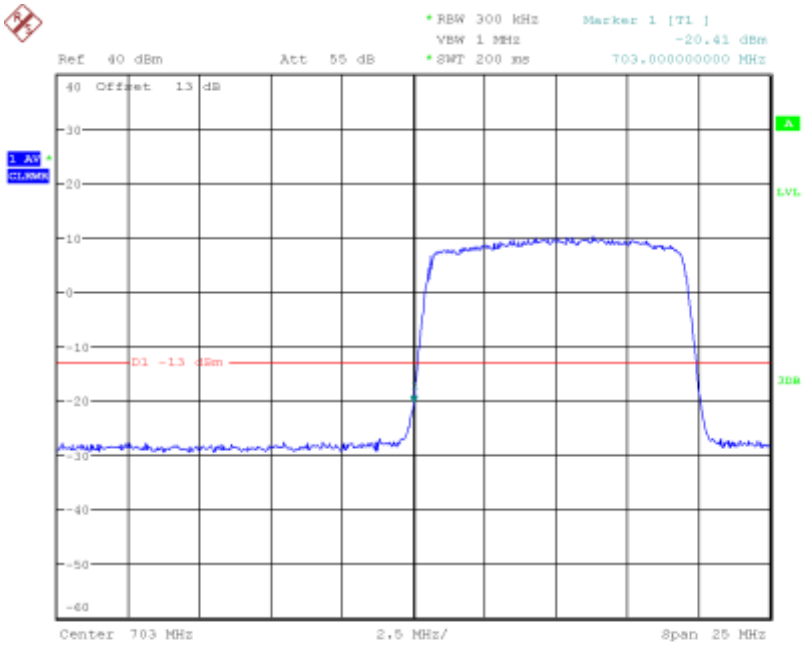
LTE Band28, 5MHz bandwidth, 16QAM,(1,25) Mode, Above 748MHz



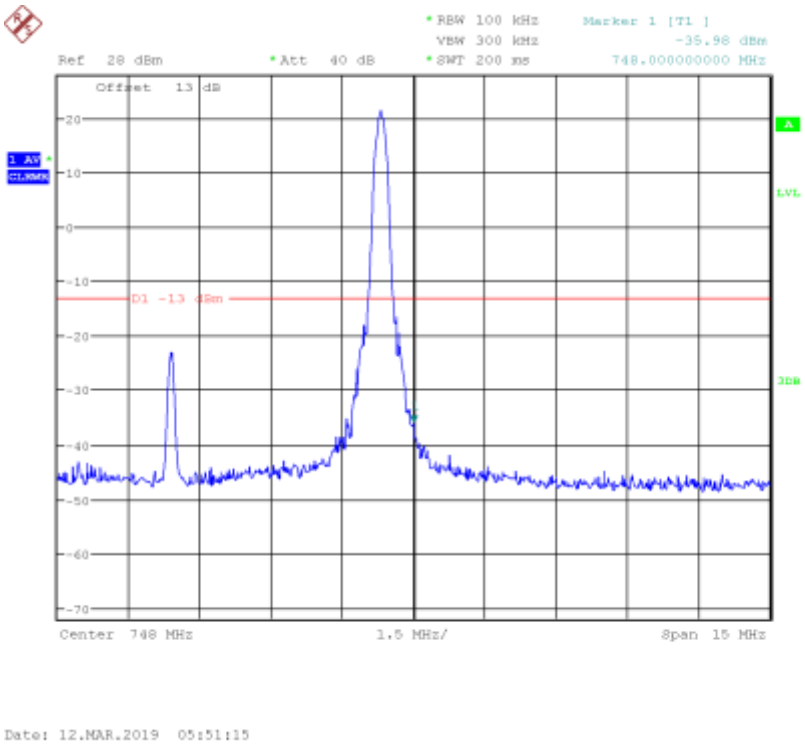
LTE Band28, 5MHz bandwidth, 16QAM,(25,0) Mode, Above 748MHz



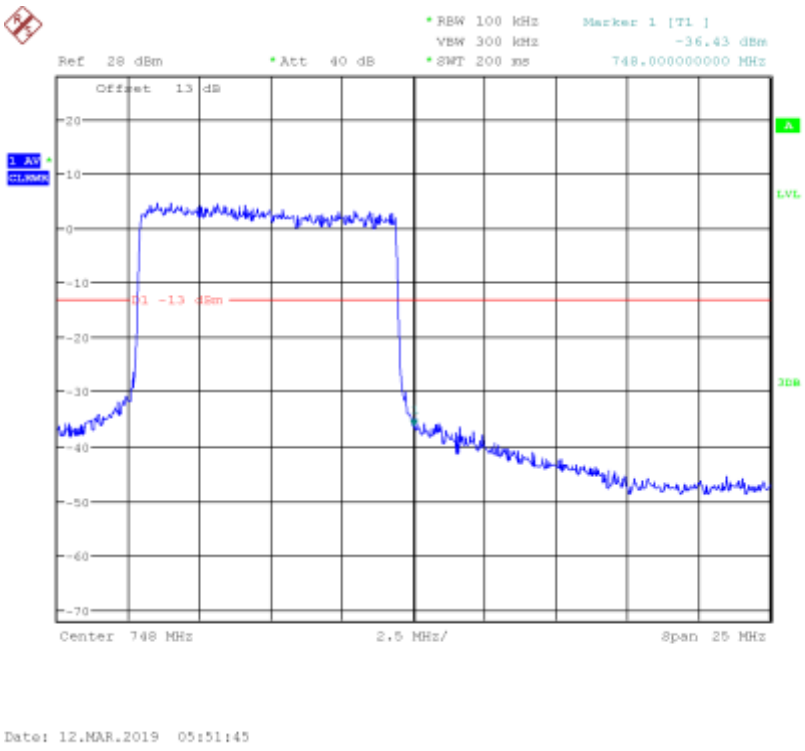
LTE Band28, 10MHz bandwidth, QPSK,(1,0) Mode , Below 703MHz



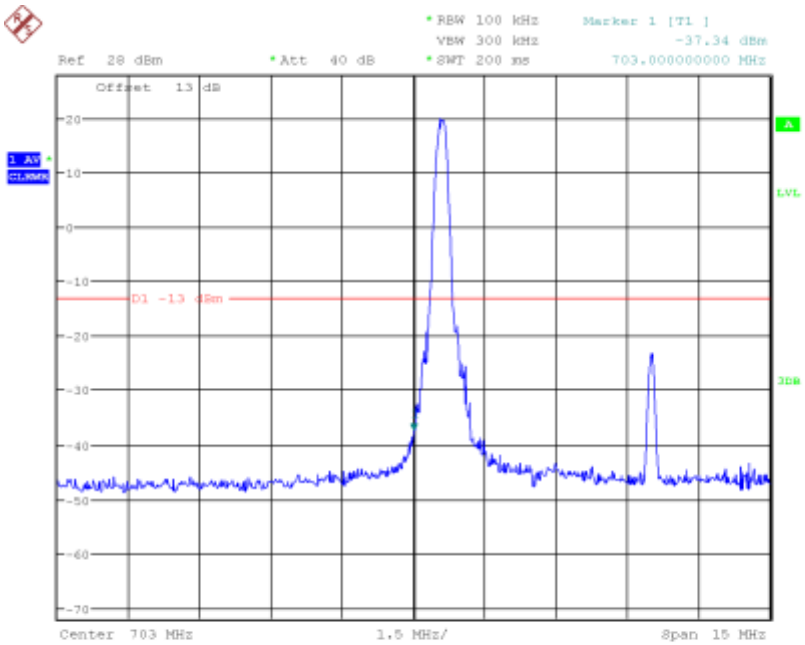
LTE Band28, 10MHz bandwidth, QPSK,(50,0) Mode , Below 703MHz



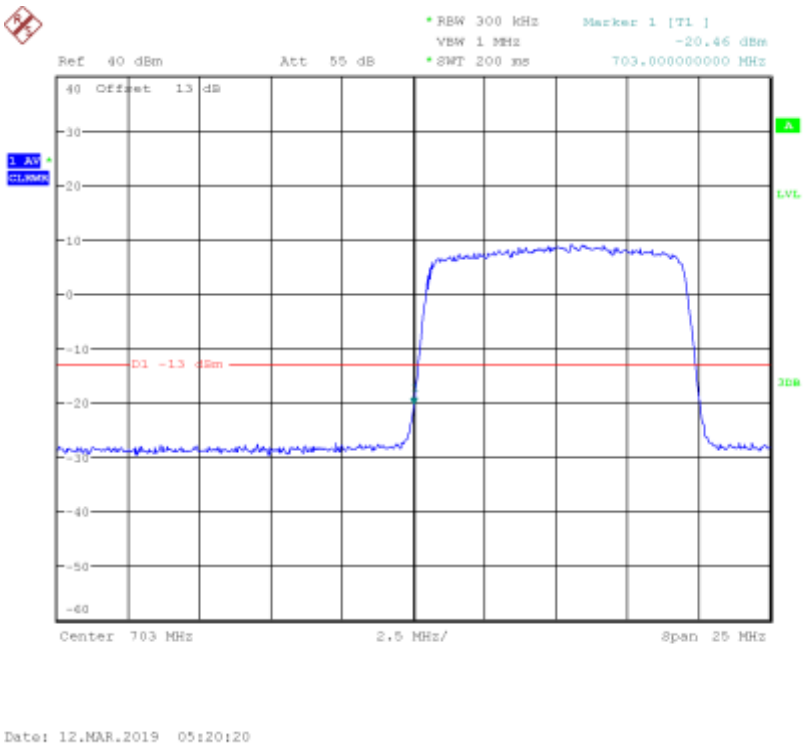
LTE Band28, 10MHz bandwidth, QPSK,(1,50) Mode, Above 748MHz



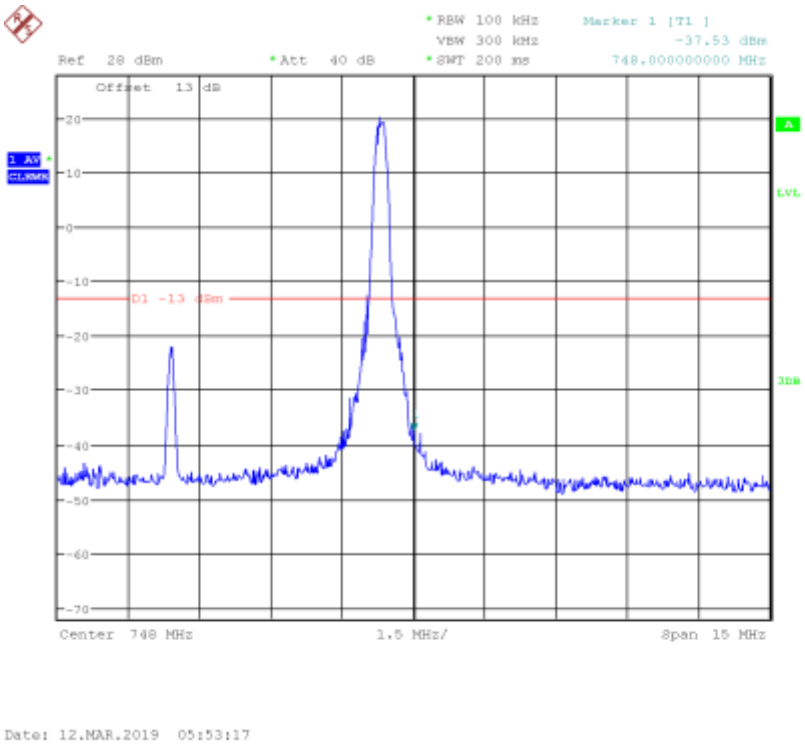
LTE Band28, 10MHz bandwidth, QPSK,(50,0) Mode, Above 748MHz



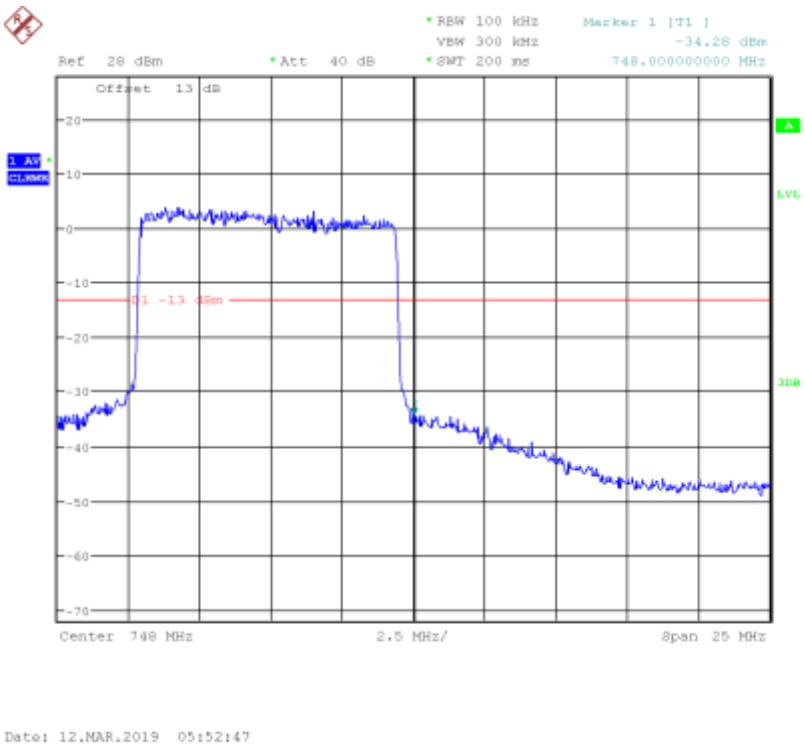
LTE Band28, 10MHz bandwidth, 16QAM,(1,0) Mode , Below 703MHz



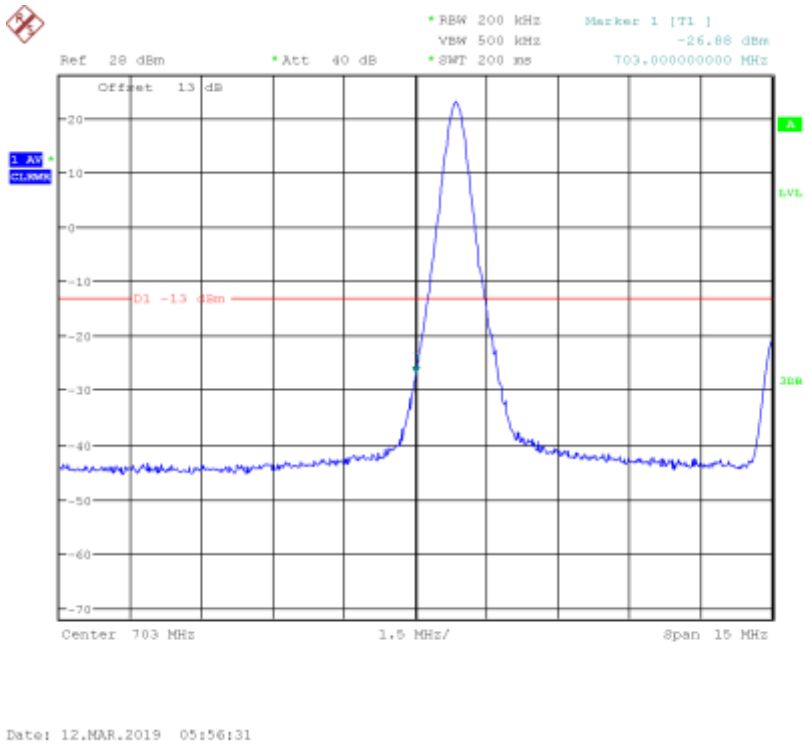
LTE Band28, 10MHz bandwidth, 16QAM,(50,0) Mode , Below 703MHz



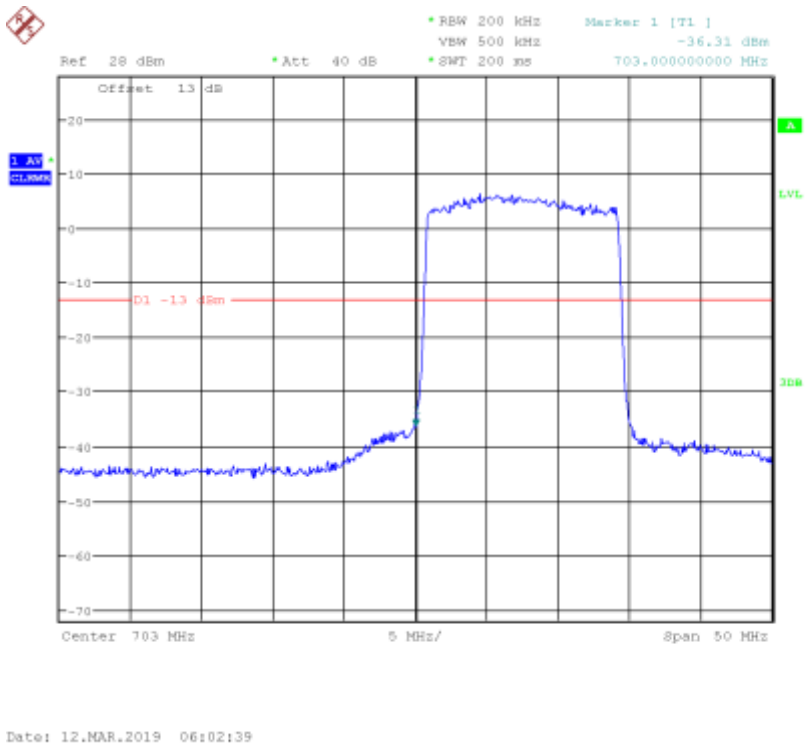
LTE Band28, 10MHz bandwidth, 16QAM,(1,50) Mode, Above 748MHz



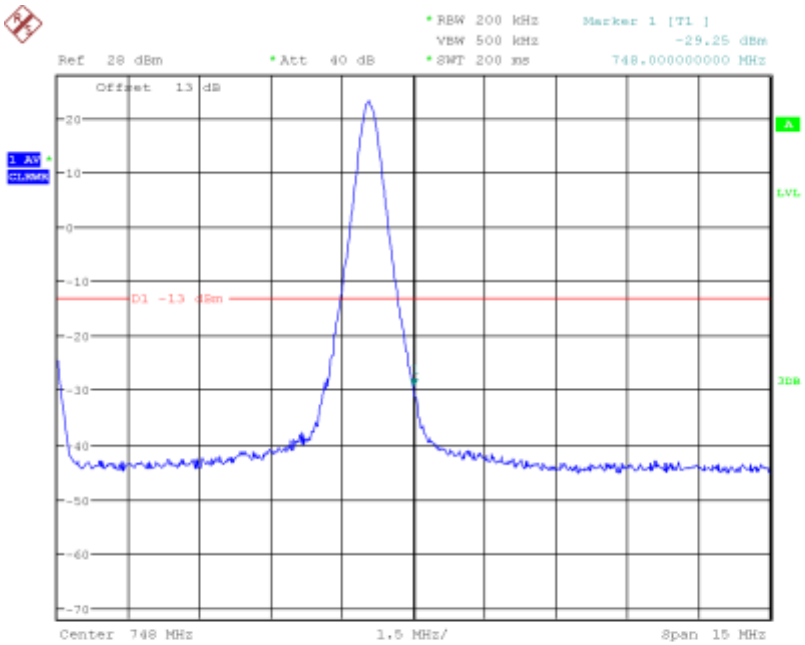
LTE Band28, 10MHz bandwidth, 16QAM,(50,0) Mode, Above 748MHz



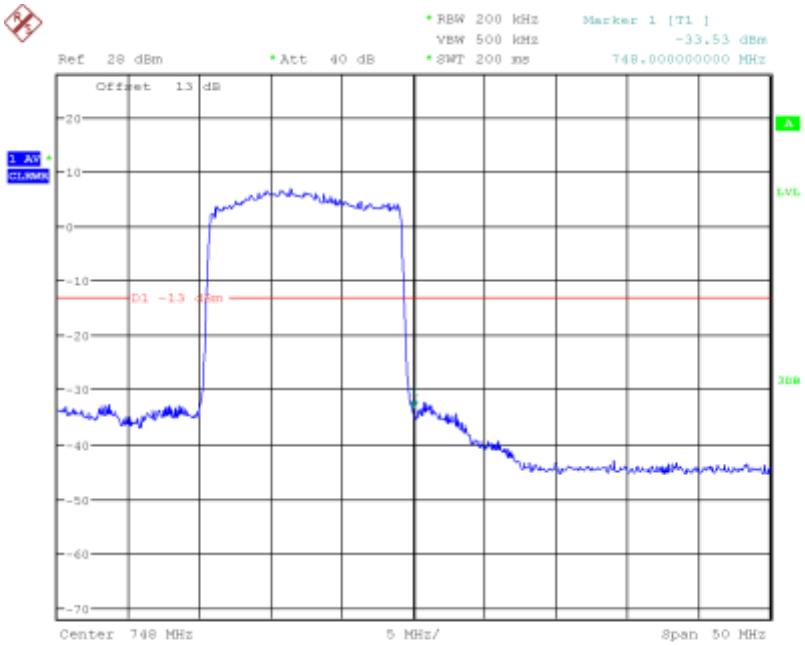
LTE Band28, 15MHz bandwidth, QPSK,(1,0) Mode , Below 703MHz



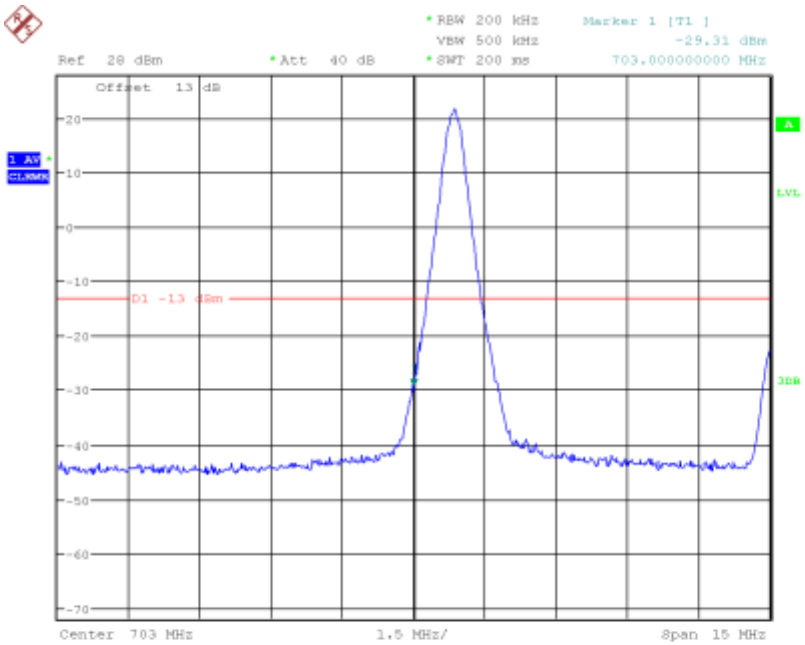
LTE Band28, 15MHz bandwidth, QPSK,(75,0) Mode , Below 703MHz



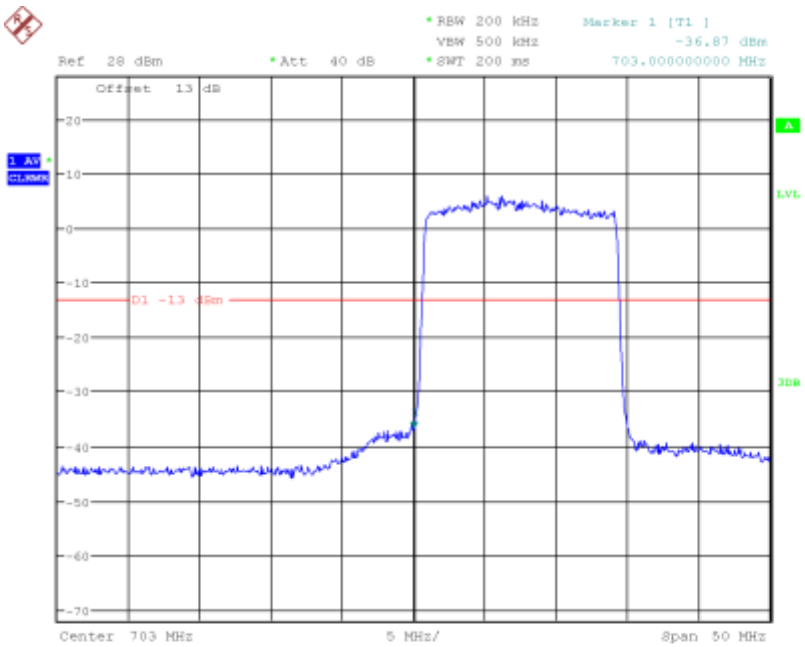
LTE Band28, 15MHz bandwidth, QPSK,(1,75) Mode, Above 748MHz



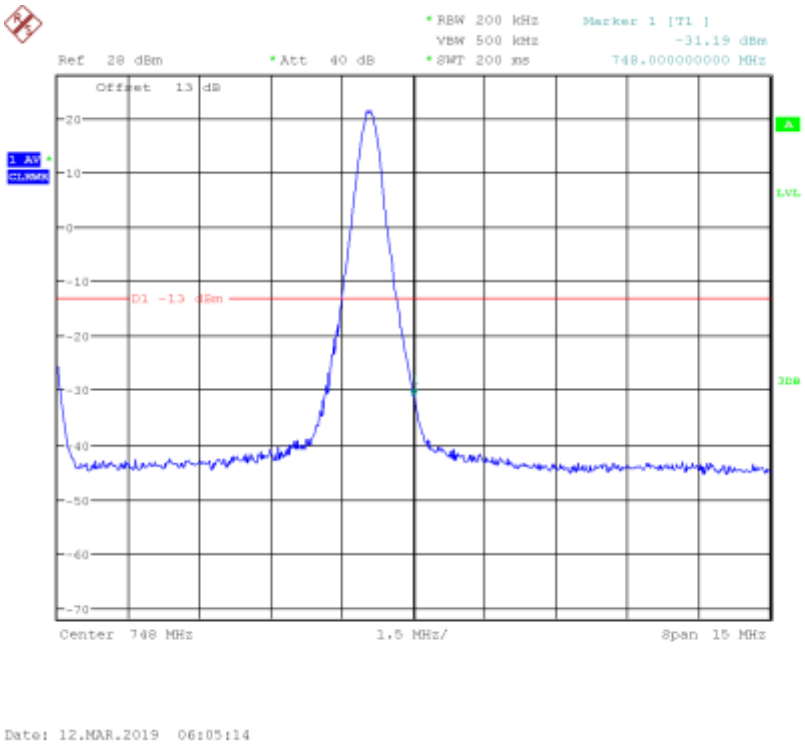
LTE Band28, 15MHz bandwidth, QPSK,(75,0) Mode, Above 748MHz



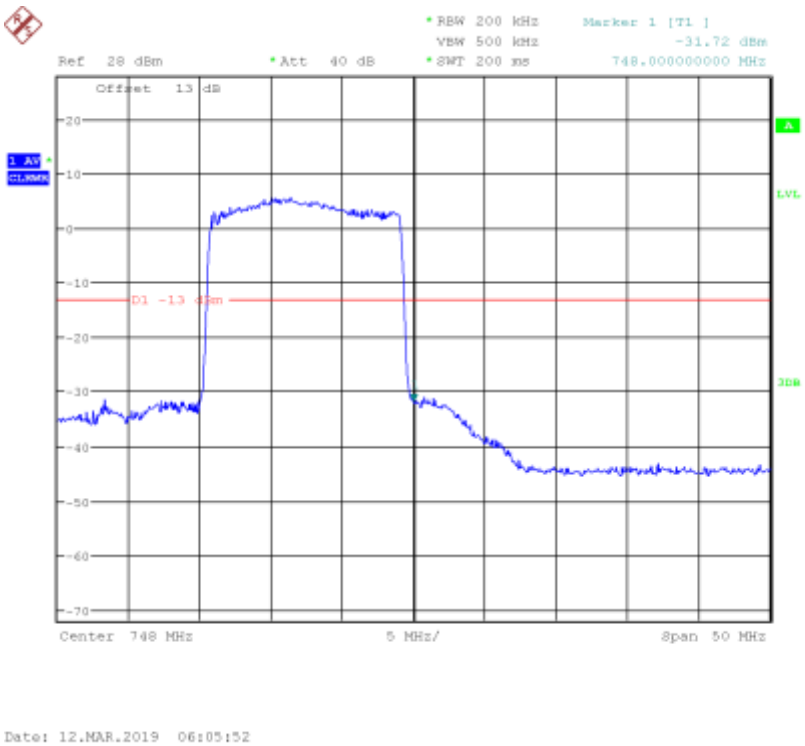
LTE Band28, 15MHz bandwidth, 16QAM,(1,0) Mode , Below 703MHz



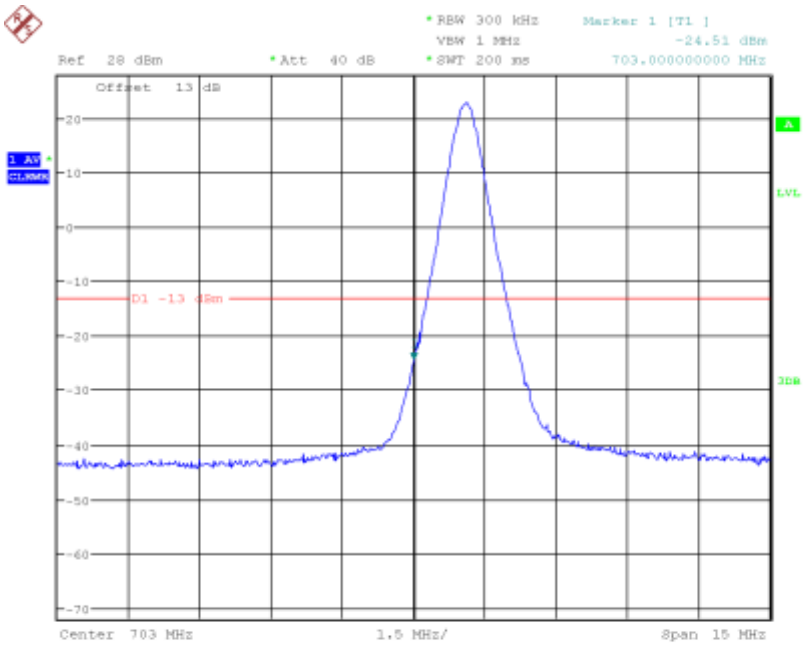
LTE Band28, 15MHz bandwidth, 16QAM,(75,0) Mode , Below 703MHz



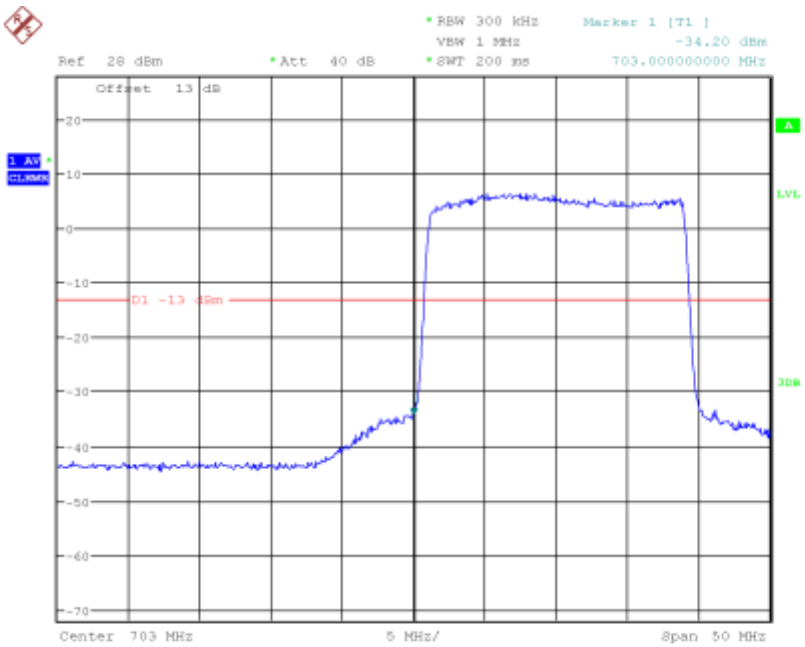
LTE Band28, 15MHz bandwidth, 16QAM,(1,75) Mode, Above 748MHz



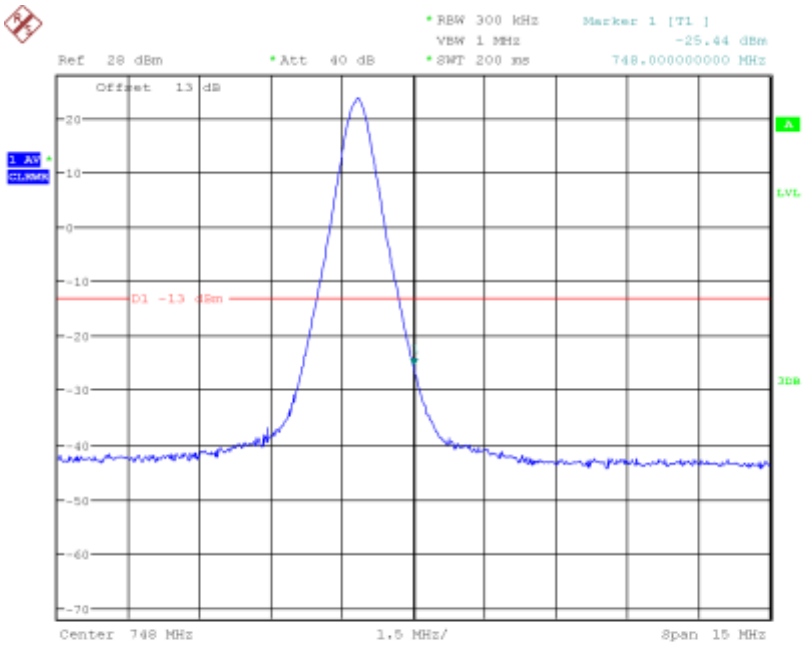
LTE Band28, 15MHz bandwidth, 16QAM,(75,0) Mode, Above 748MHz



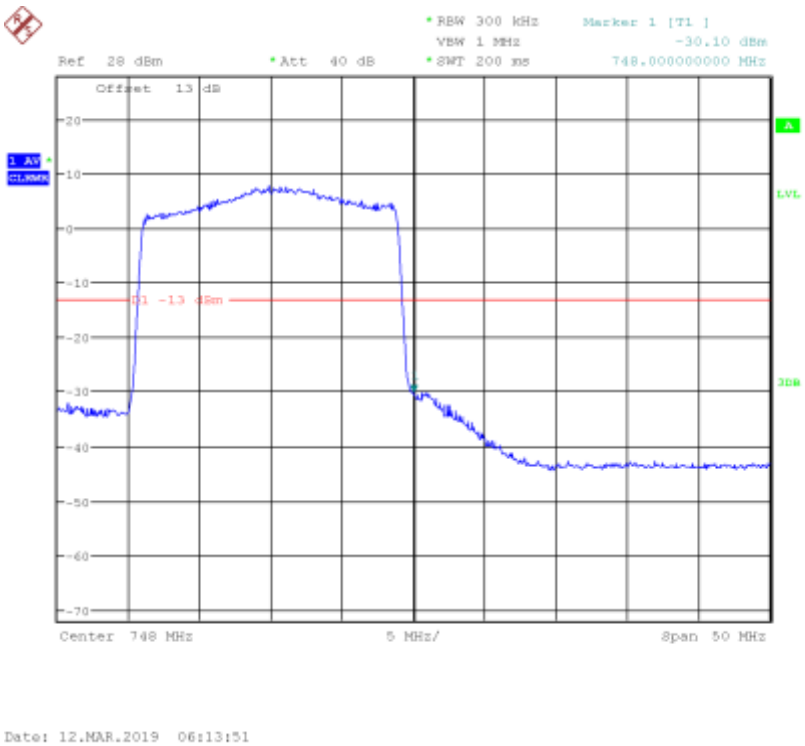
LTE Band28, 20MHz bandwidth, QPSK,(1,0) Mode , Below 703MHz



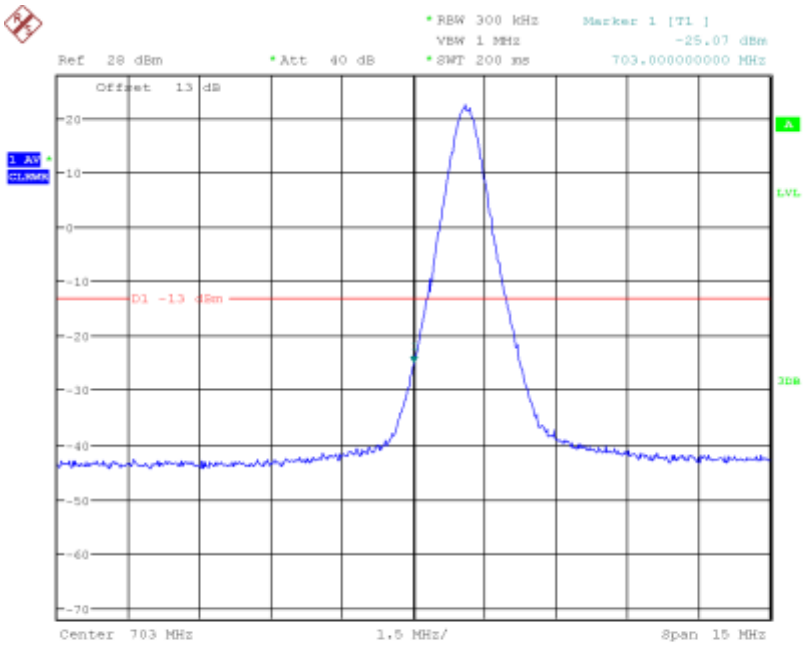
LTE Band28, 20MHz bandwidth, QPSK,(100,0) Mode , Below 703MHz



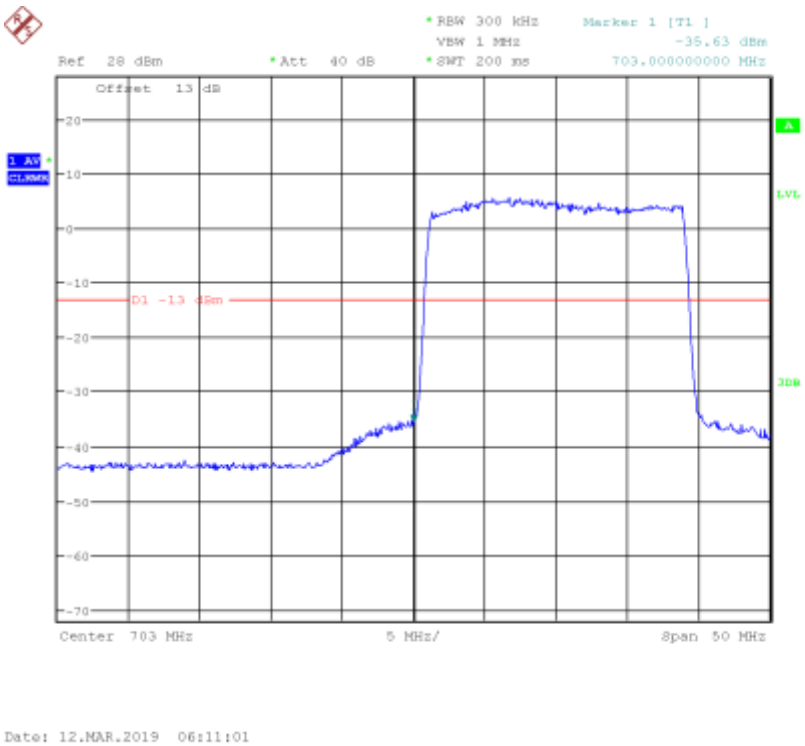
LTE Band28, 20MHz bandwidth, QPSK,(1,100) Mode, Above 748MHz



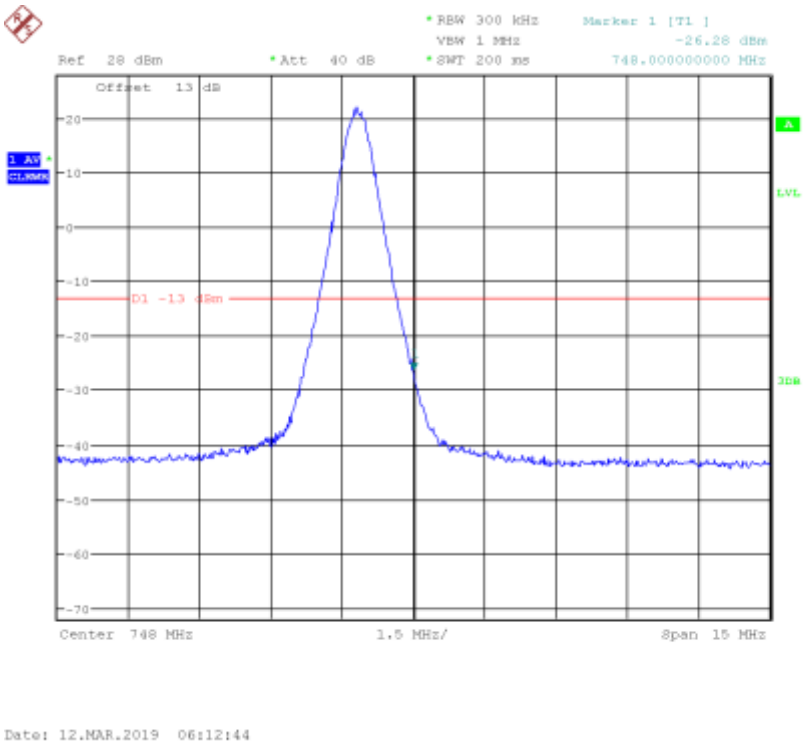
LTE Band28, 20MHz bandwidth, QPSK,(100,0) Mode, Above 748MHz



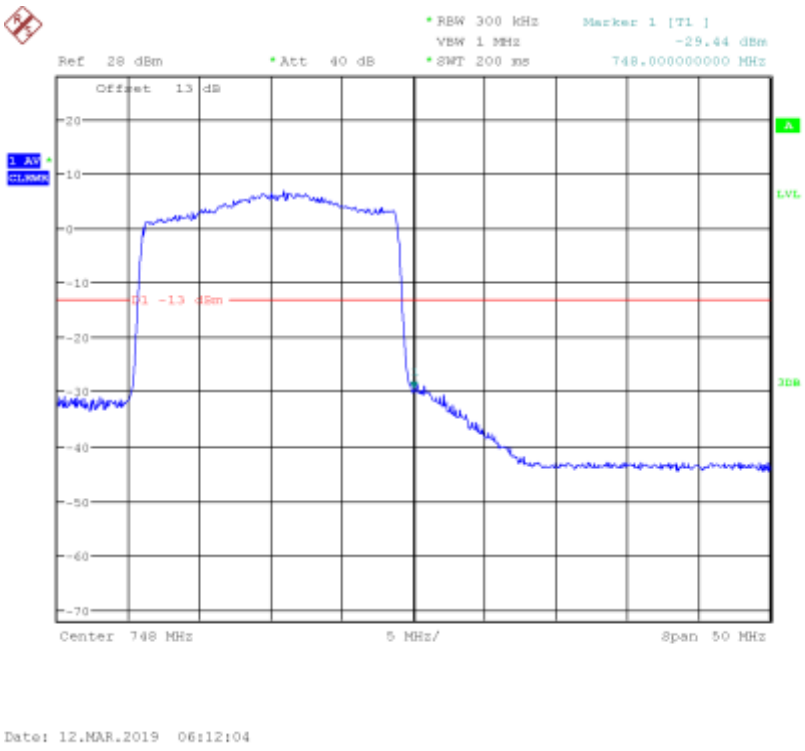
LTE Band28, 20MHz bandwidth, 16QAM,(1,0) Mode , Below 703MHz



LTE Band28, 20MHz bandwidth, 16QAM,(100,0) Mode , Below 703MHz

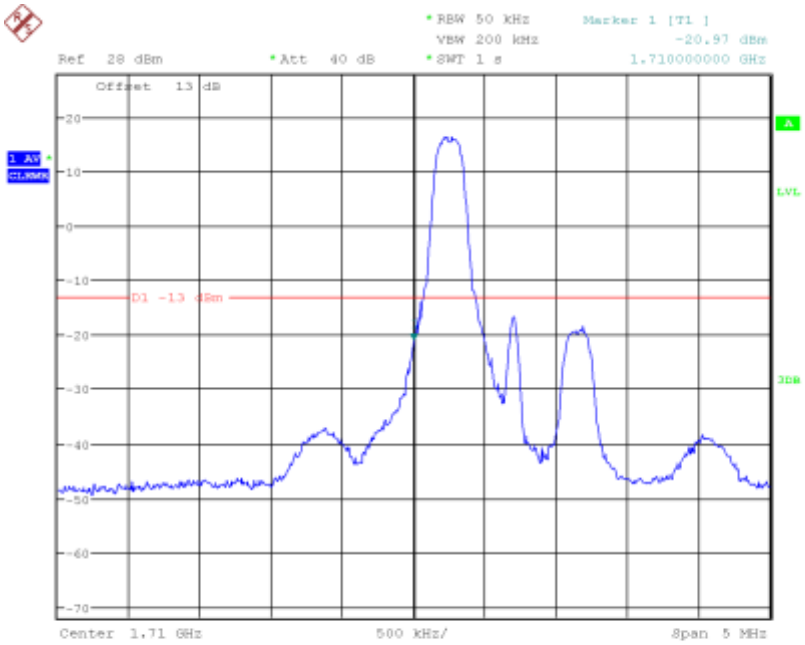


LTE Band28, 20MHz bandwidth, 16QAM,(1,100) Mode, Above 748MHz

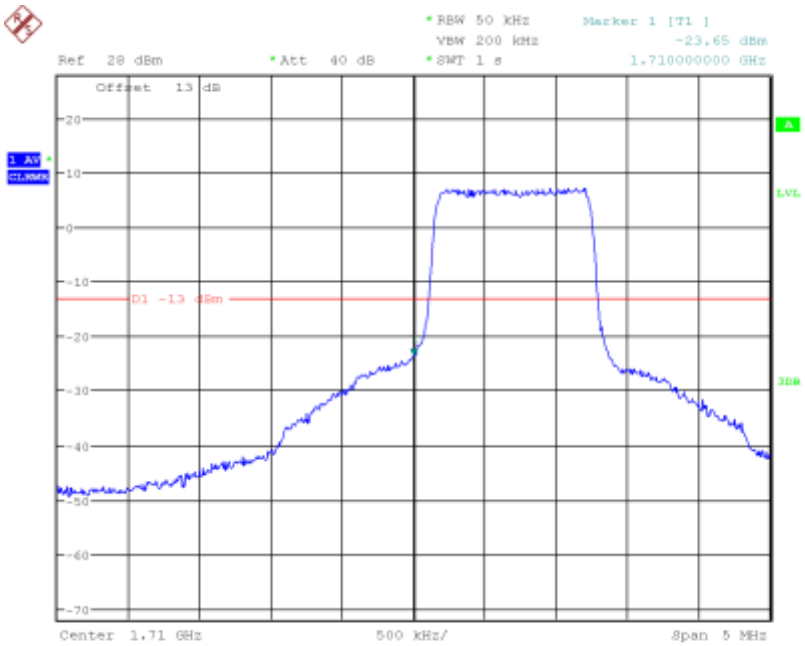


LTE Band28, 20MHz bandwidth, 16QAM,(100,0) Mode, Above 748MHz

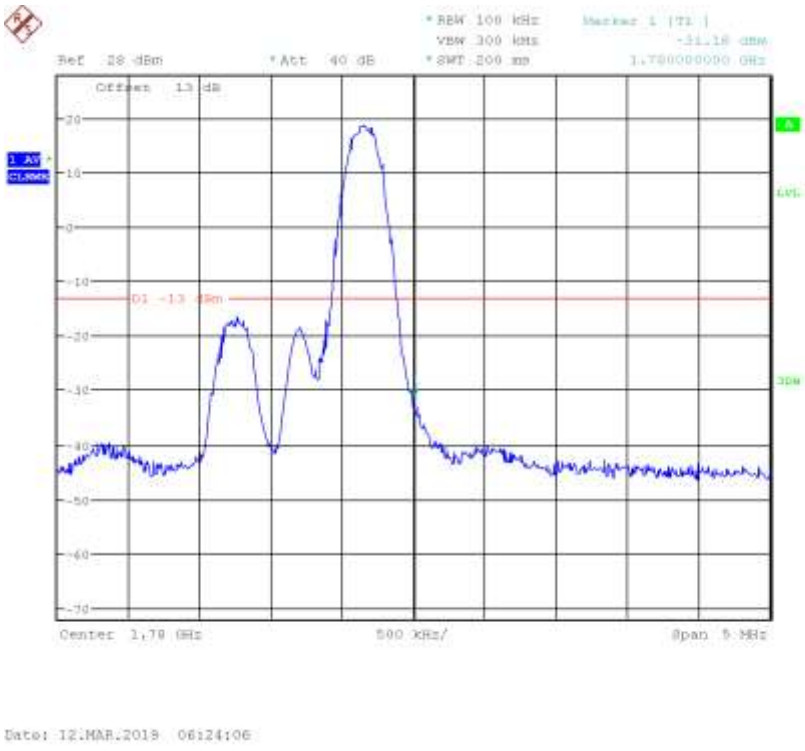
5.5.9 LTE B66 Band Edge Results



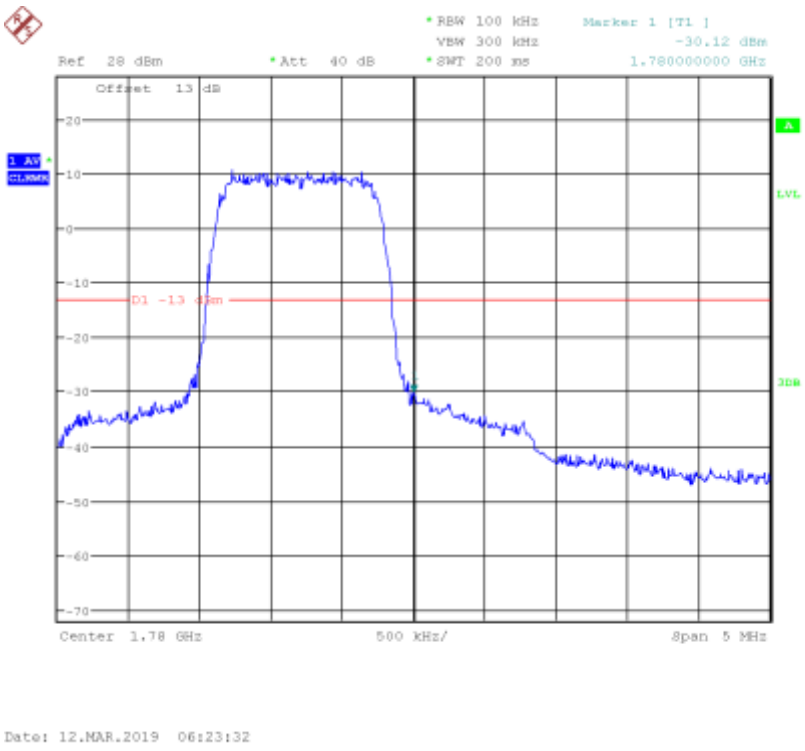
LTE Band66, 1.4MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



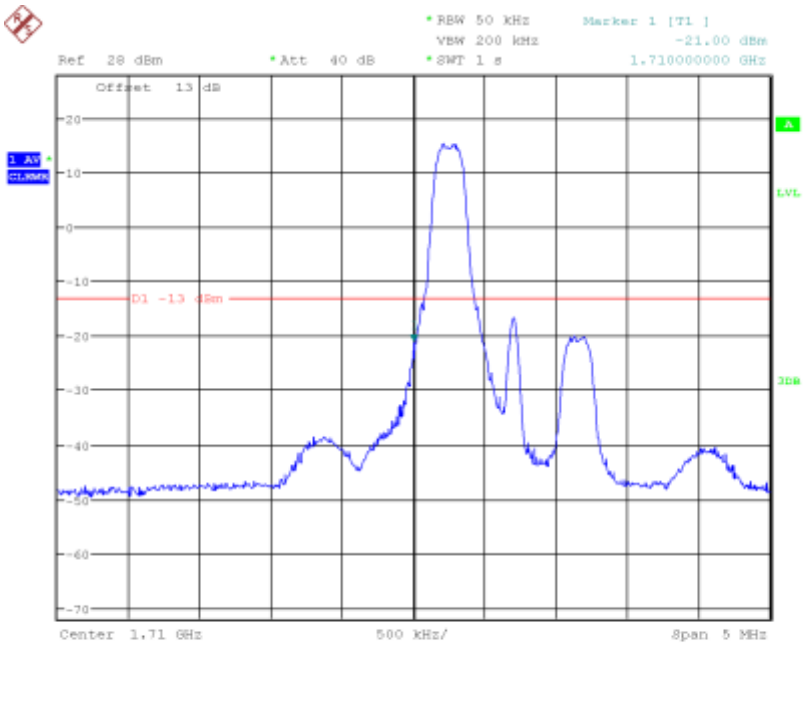
LTE Band66, 1.4MHz bandwidth, QPSK,(6,0) Mode , Below 1710MHz



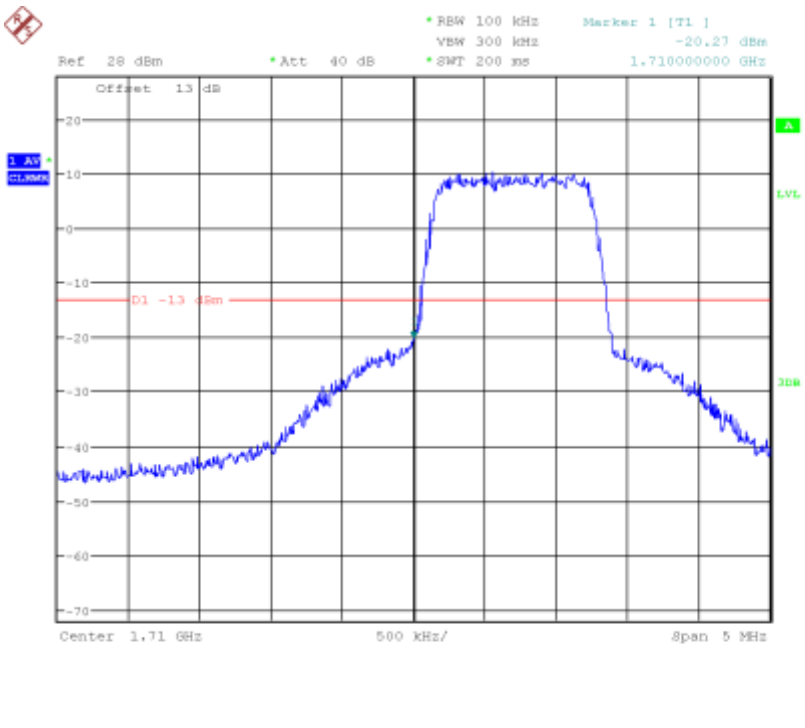
LTE Band66, 1.4MHz bandwidth, QPSK,(1,6) Mode, Above 1780MHz



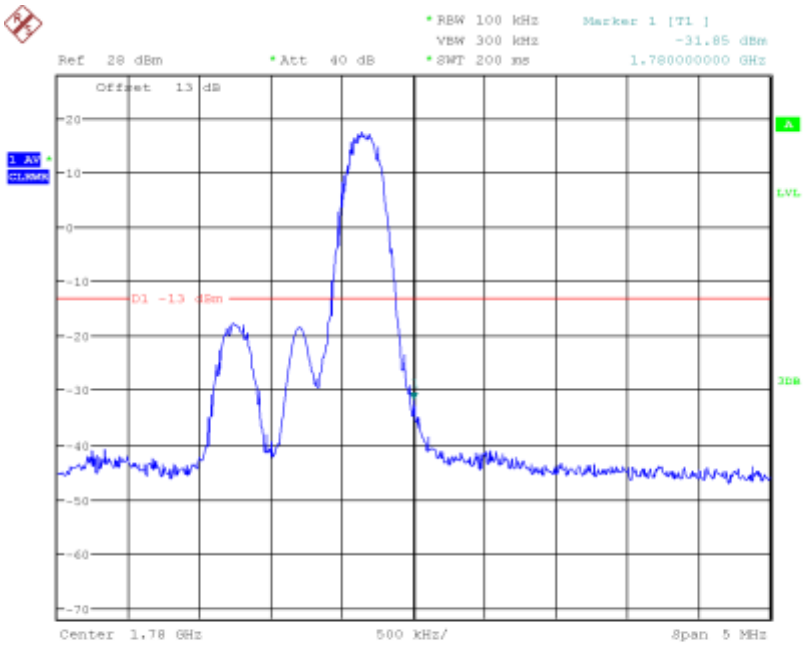
LTE Band66, 1.4MHz bandwidth, QPSK,(6,0) Mode, Above 1780MHz



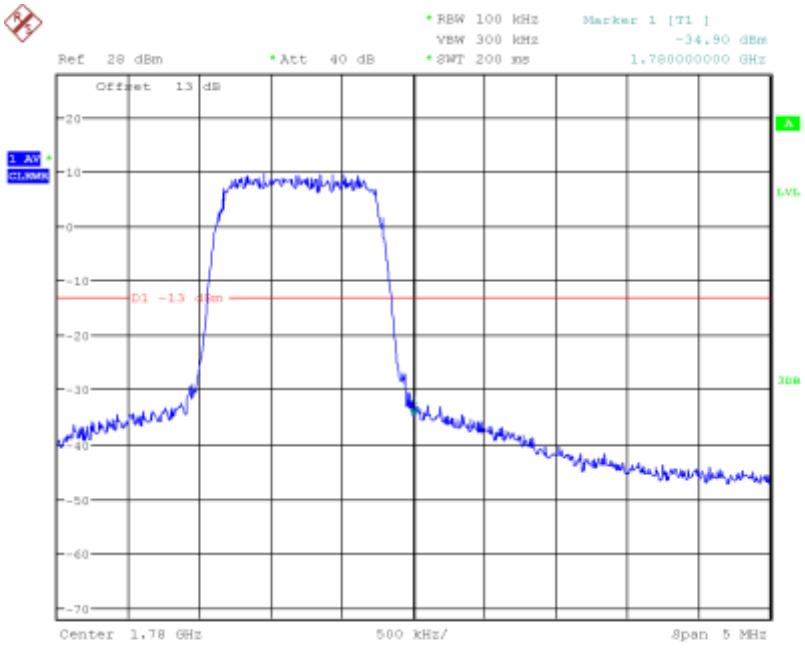
LTE Band66, 1.4MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



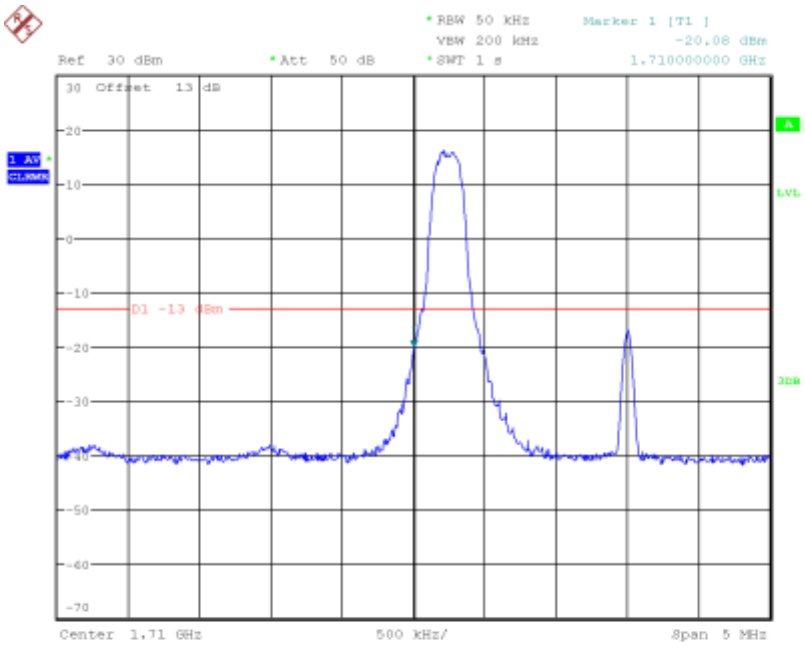
LTE Band66, 1.4MHz bandwidth, 16QAM,(6,0) Mode , Below 1710MHz



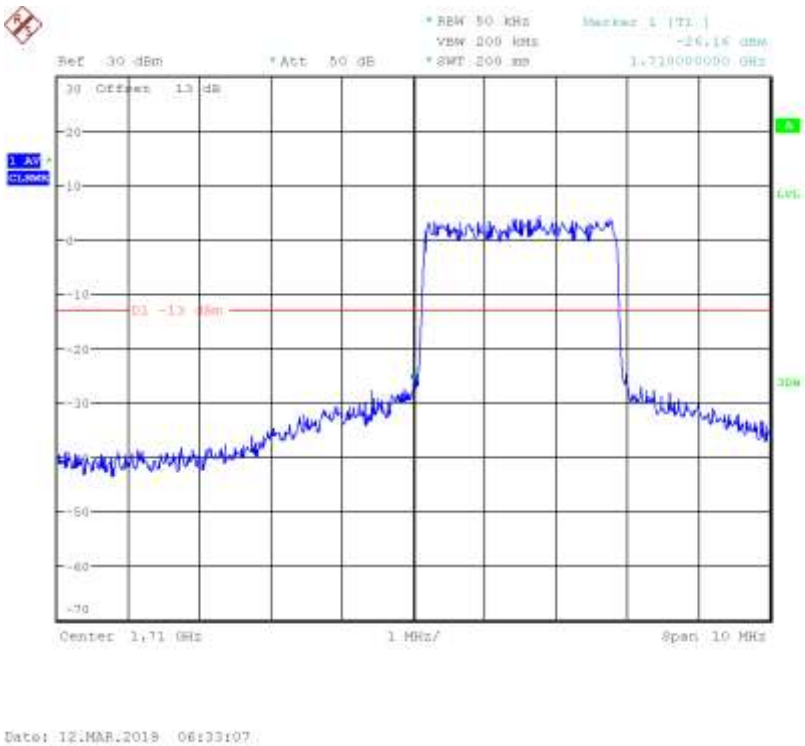
LTE Band66, 1.4MHz bandwidth, 16QAM,(1,6) Mode, Above 1780MHz



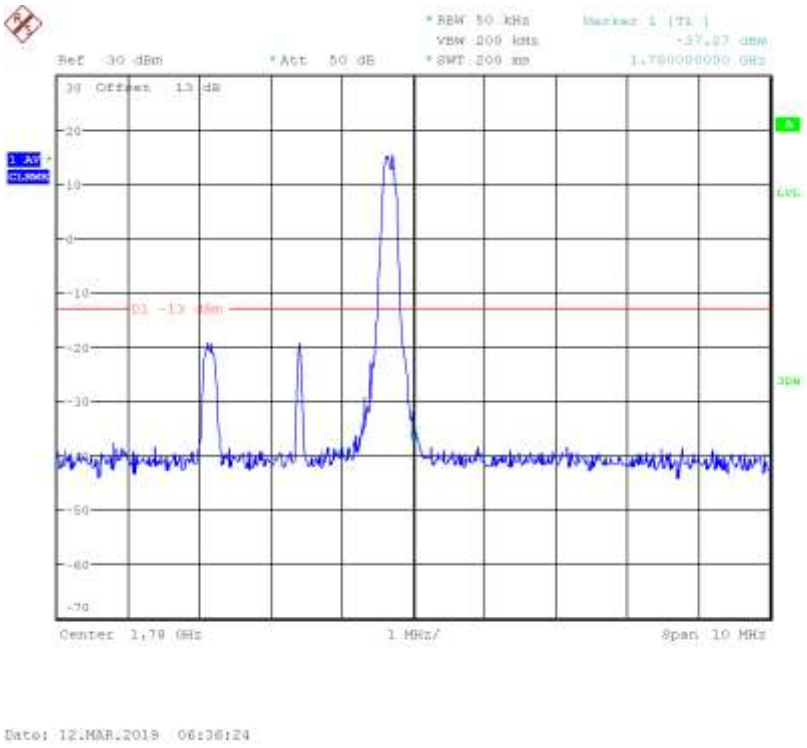
LTE Band66, 1.4MHz bandwidth, 16QAM,(6,0) Mode, Above 1780MHz



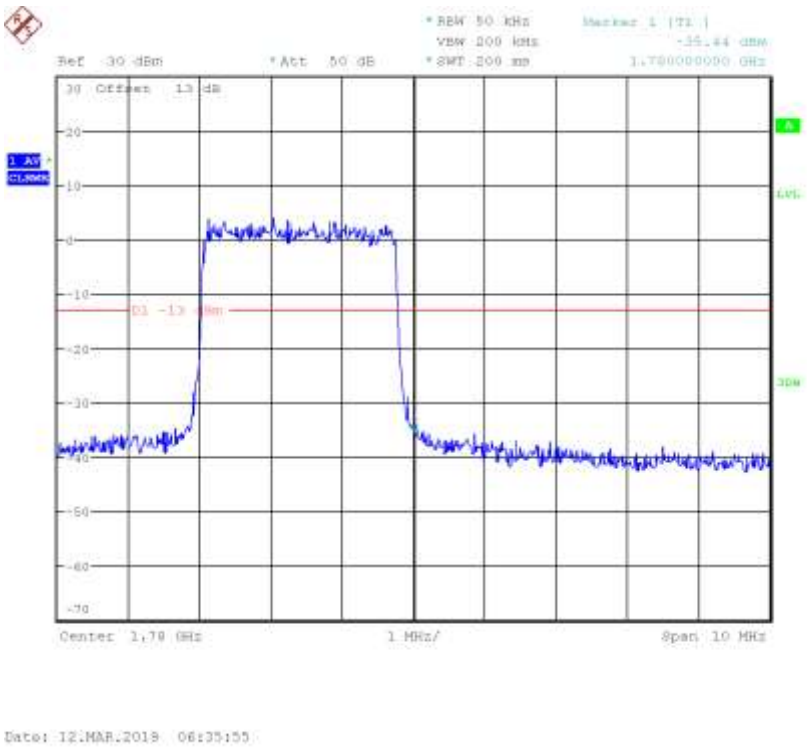
LTE Band66, 3MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



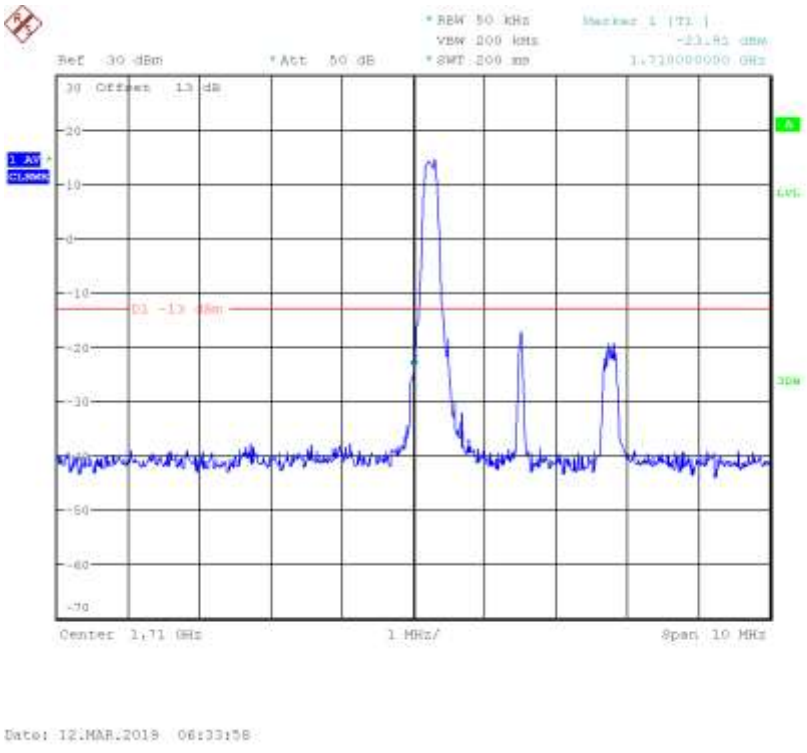
LTE Band66, 3MHz bandwidth, QPSK,(15,0) Mode , Below 1710MHz



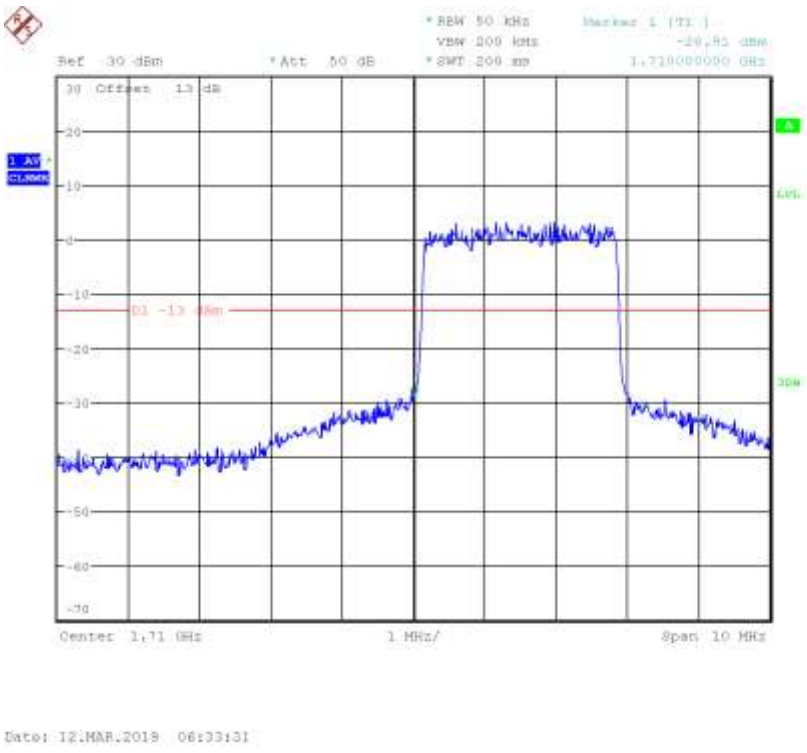
LTE Band66, 3MHz bandwidth, QPSK,(1,15) Mode, Above 1780MHz



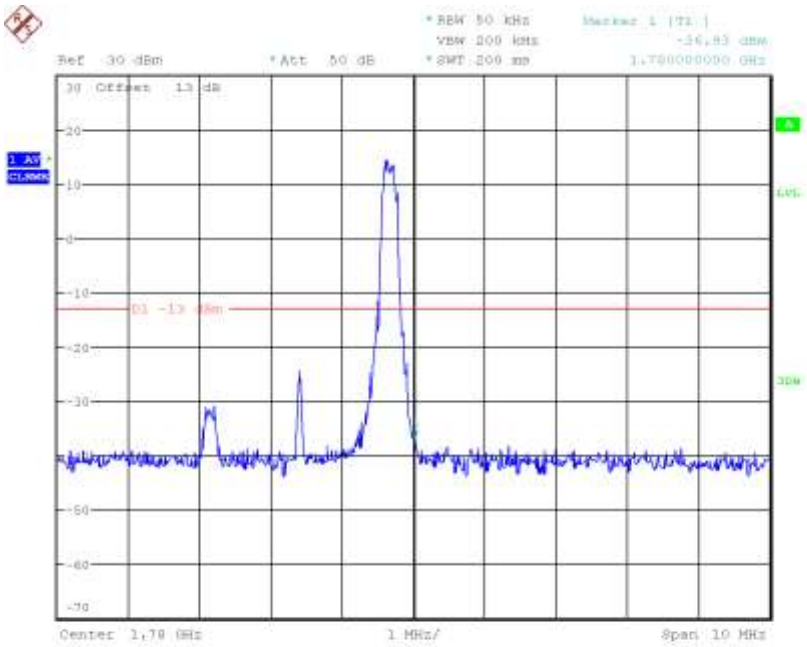
LTE Band66, 3MHz bandwidth, QPSK,(15,0) Mode, Above 1780MHz



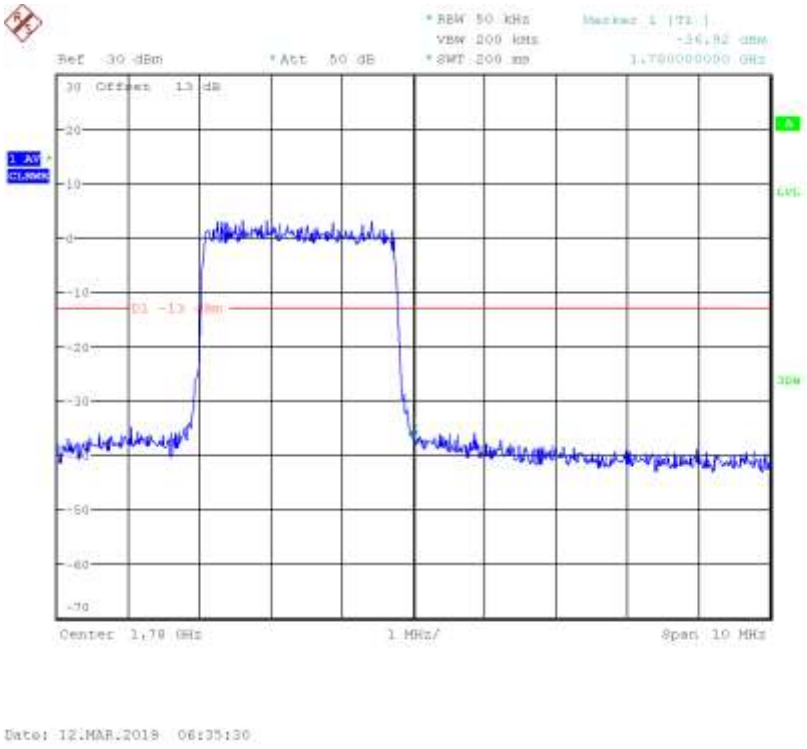
LTE Band66, 3MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



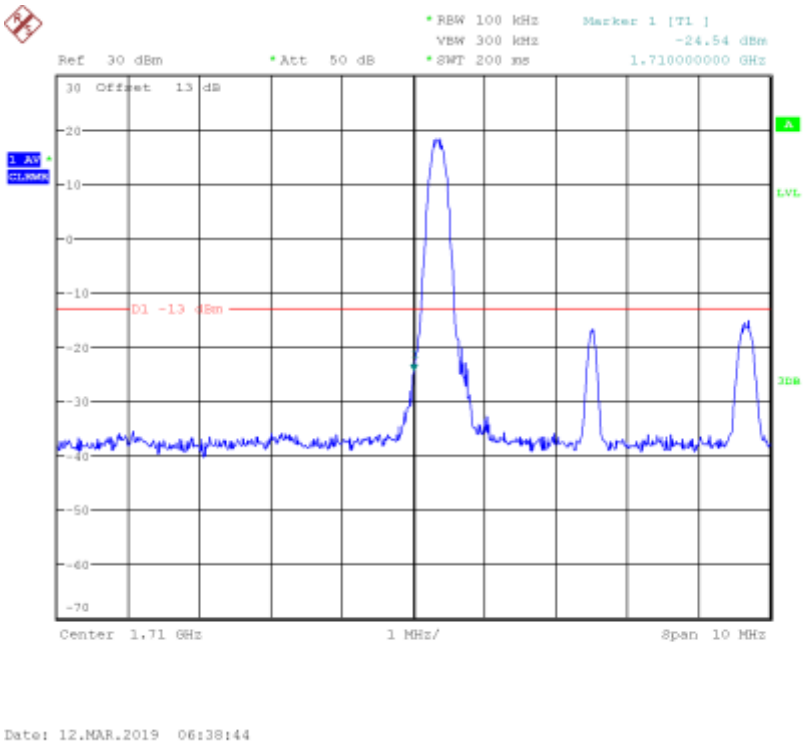
LTE Band66, 3MHz bandwidth, 16QAM,(15,0) Mode , Below 1710MHz



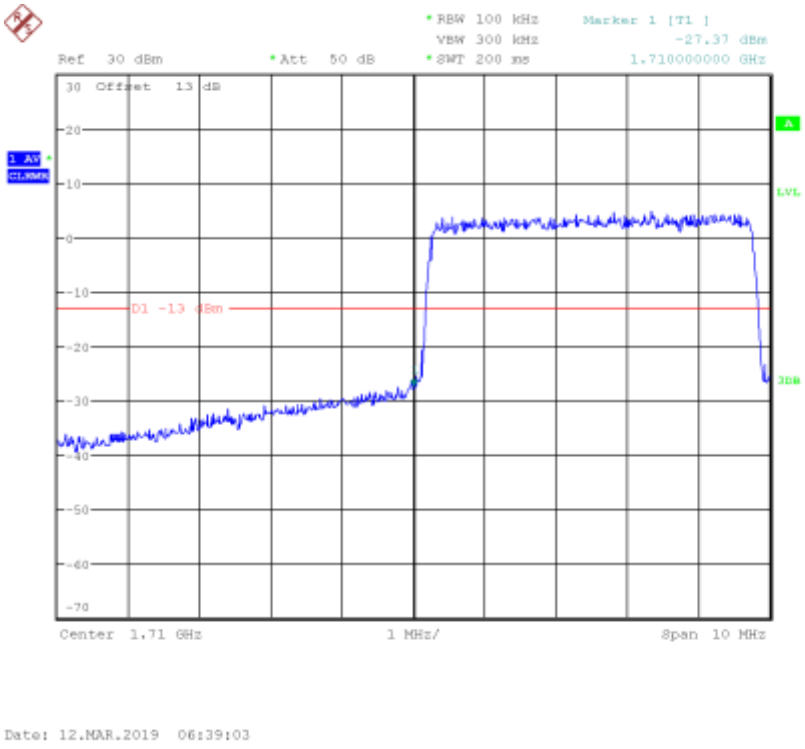
LTE Band66, 3MHz bandwidth, 16QAM,(1,15) Mode, Above 1780MHz



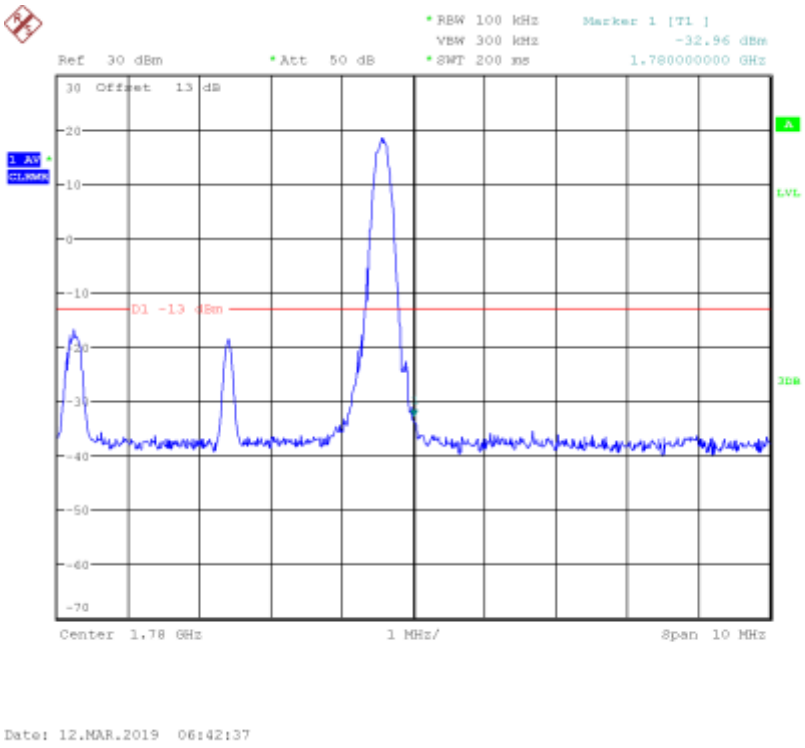
LTE Band66, 3MHz bandwidth, 16QAM,(15,0) Mode, Above 1780MHz



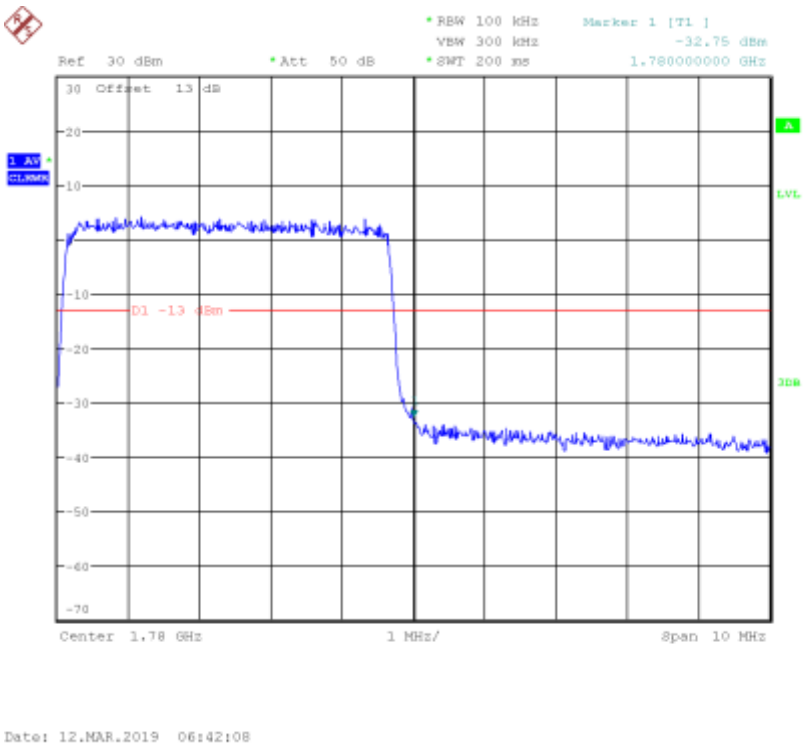
LTE Band66, 5MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



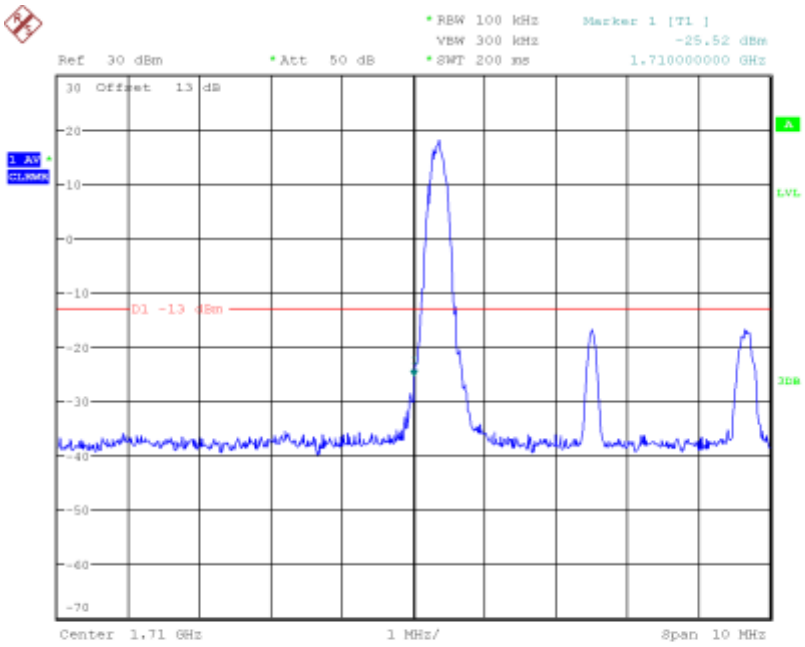
LTE Band66, 5MHz bandwidth, QPSK,(25,0) Mode , Below 1710MHz



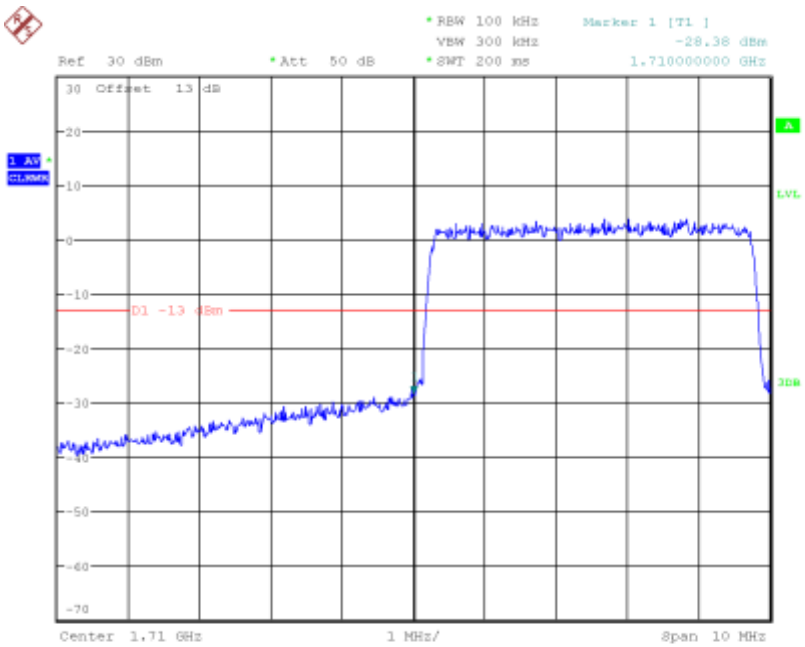
LTE Band66, 5MHz bandwidth, QPSK,(1,25) Mode, Above 1780MHz



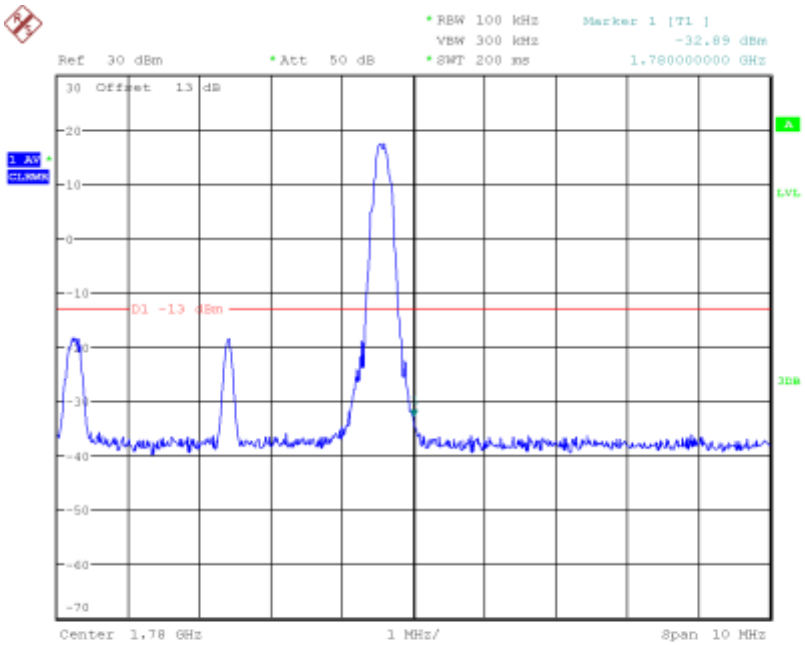
LTE Band66, 5MHz bandwidth, QPSK,(25,0) Mode, Above 1780MHz



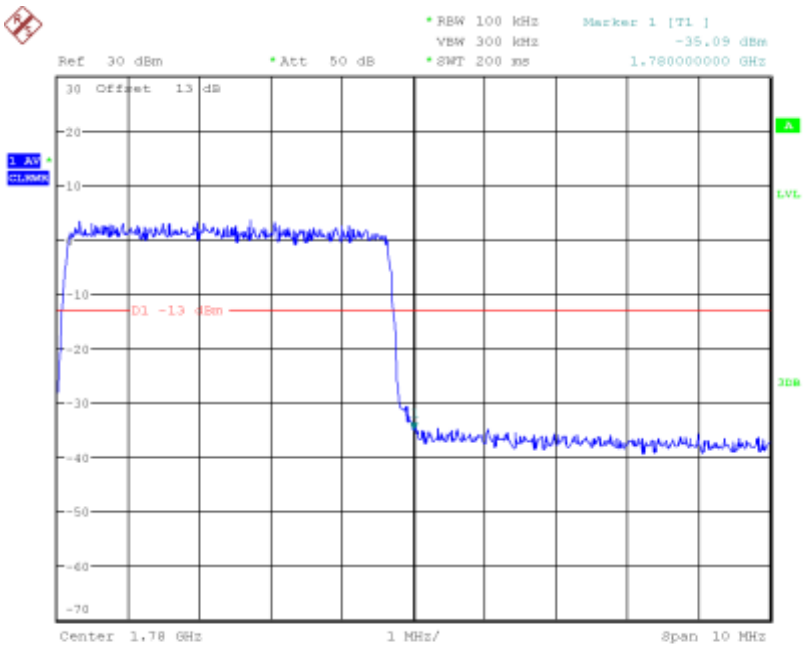
LTE Band66, 5MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



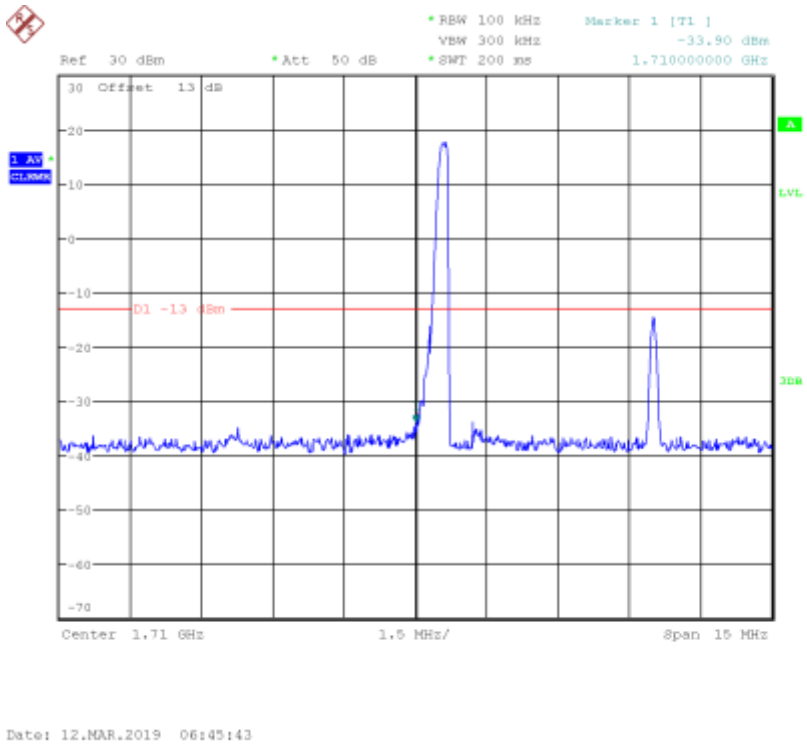
LTE Band66, 5MHz bandwidth, 16QAM,(25,0) Mode , Below 1710MHz



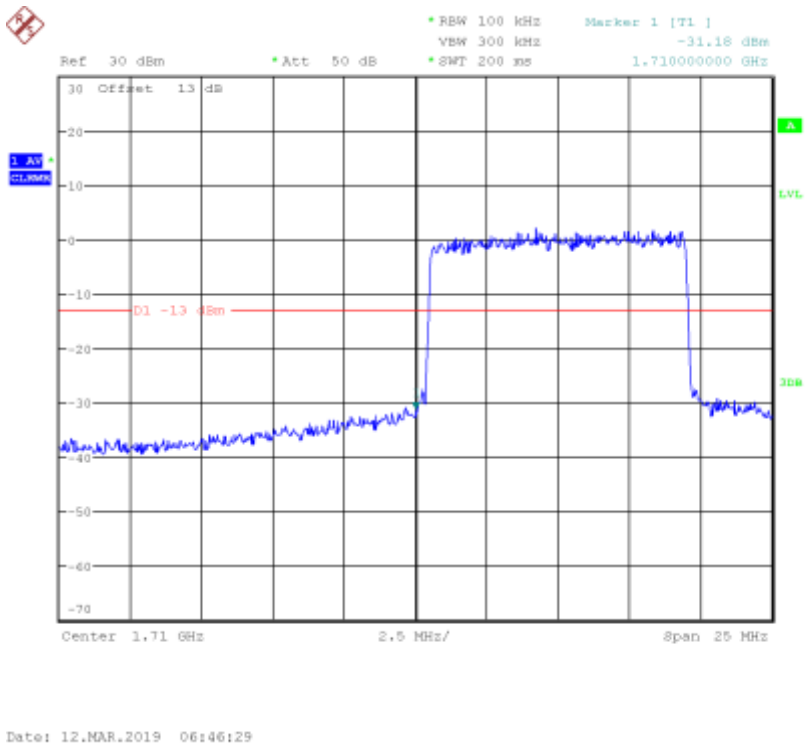
LTE Band66, 5MHz bandwidth, 16QAM,(1,25) Mode, Above 1780MHz



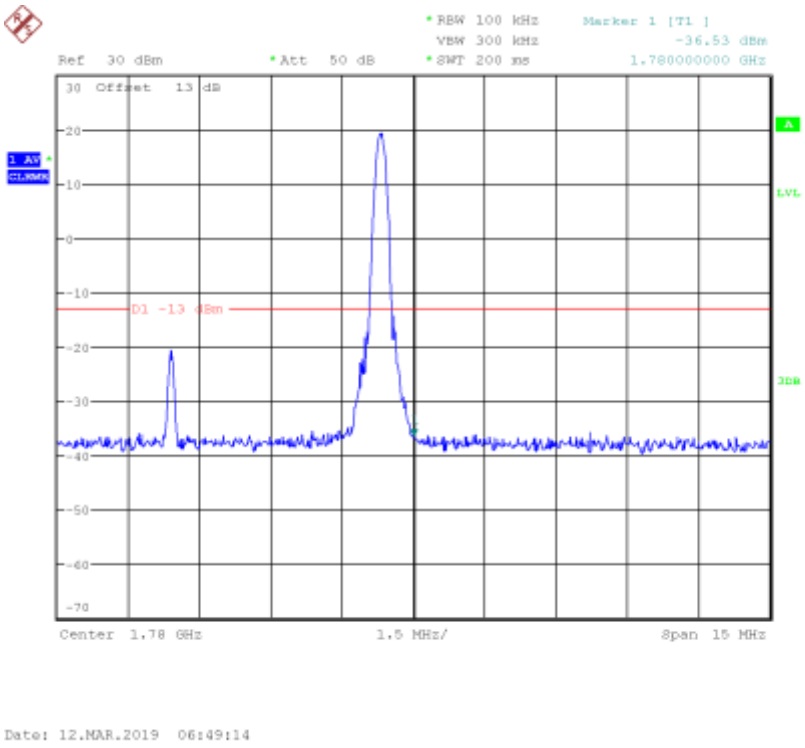
LTE Band66, 5MHz bandwidth, 16QAM,(25,0) Mode, Above 1780MHz



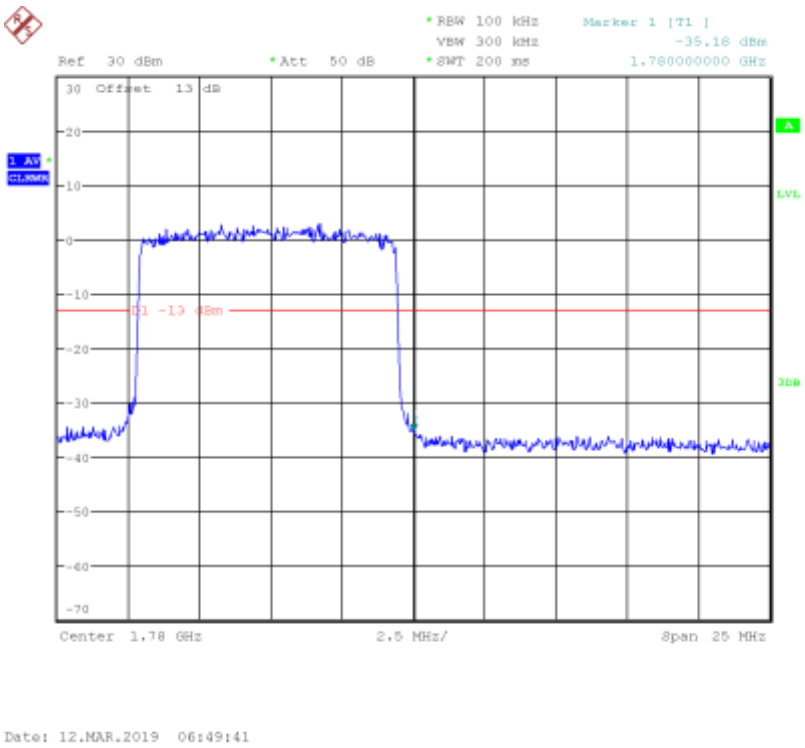
LTE Band66, 10MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



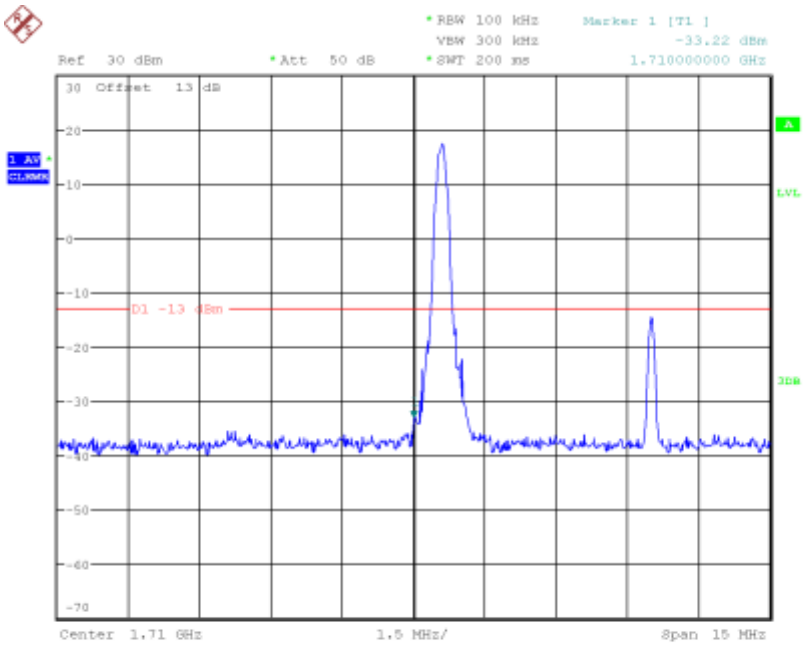
LTE Band66, 10MHz bandwidth, QPSK,(50,0) Mode , Below 1710MHz



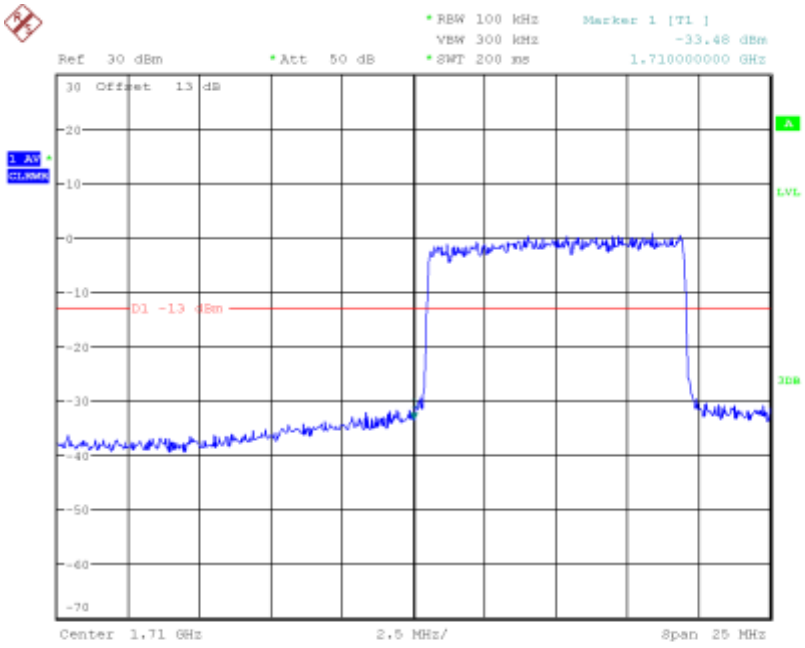
LTE Band66, 10MHz bandwidth, QPSK,(1,50) Mode, Above 1780MHz



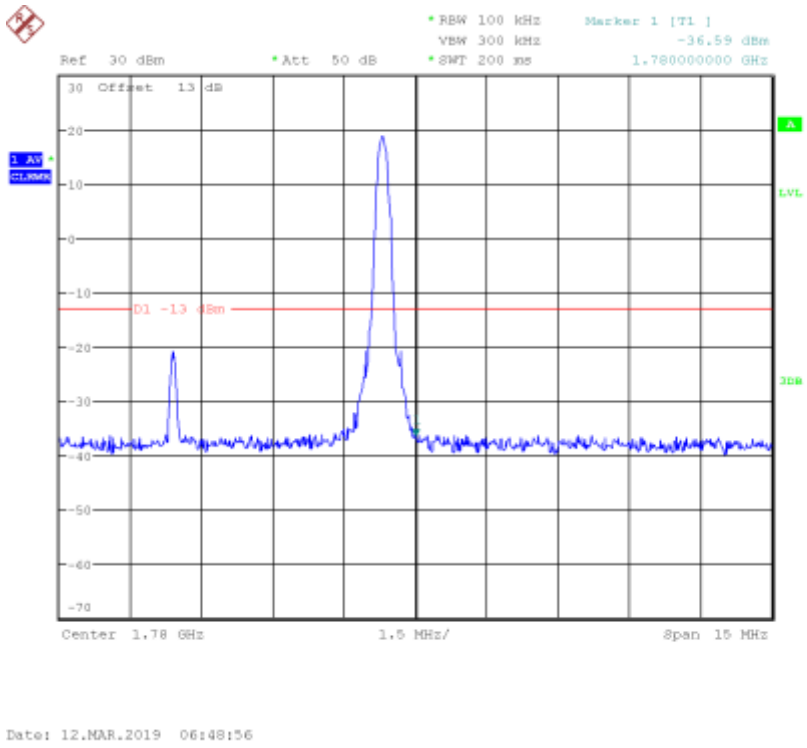
LTE Band66, 10MHz bandwidth, QPSK,(50,0) Mode, Above 1780MHz



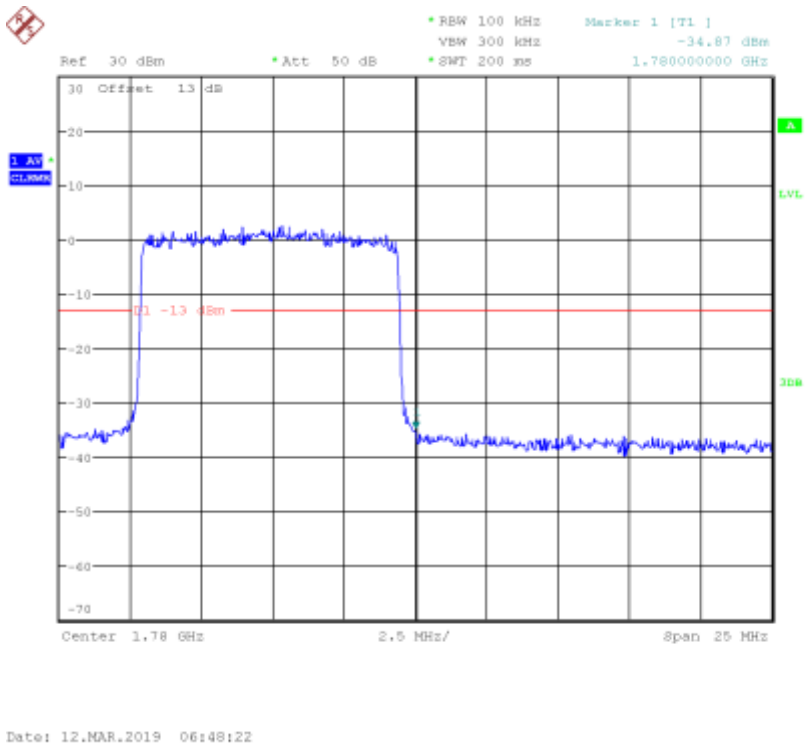
LTE Band66, 10MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



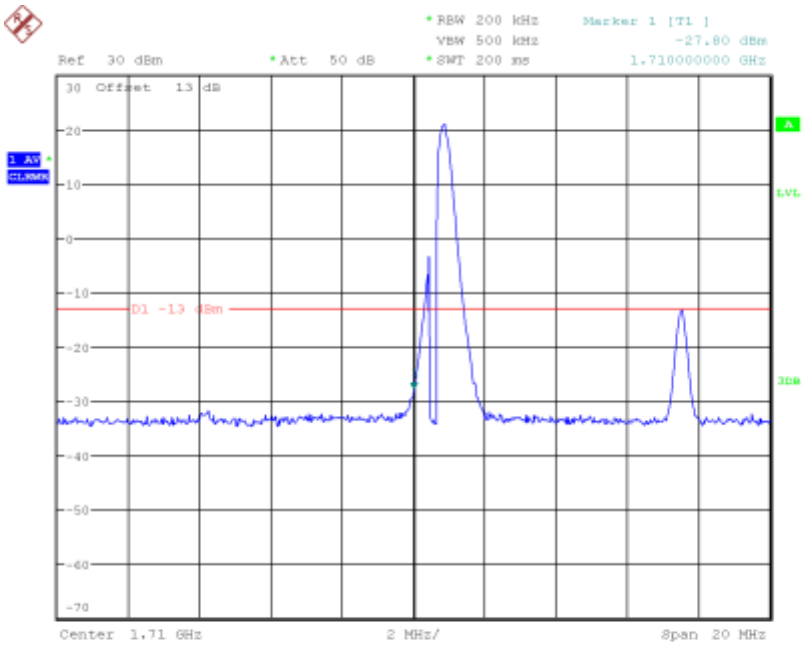
LTE Band66, 10MHz bandwidth, 16QAM,(50,0) Mode , Below 1710MHz



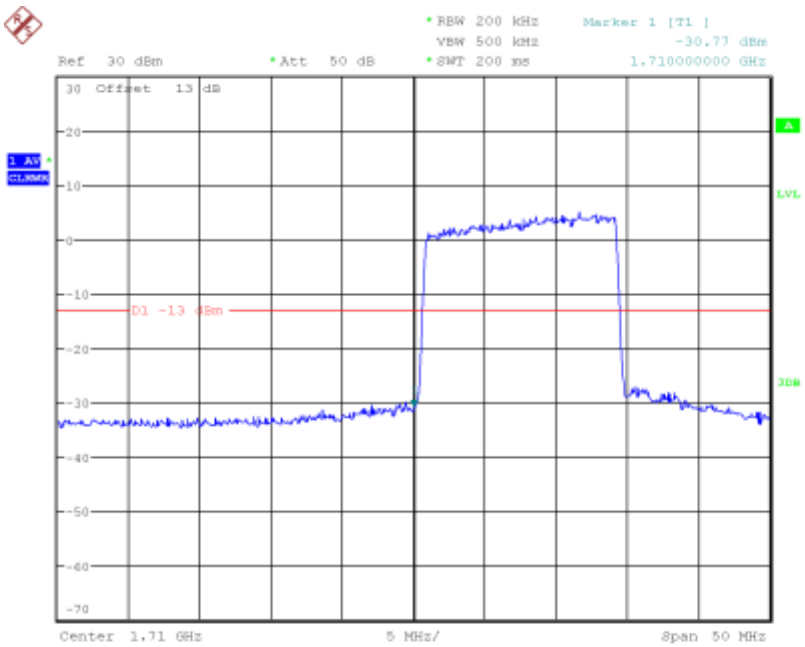
LTE Band66, 10MHz bandwidth, 16QAM,(1,50) Mode, Above 1780MHz



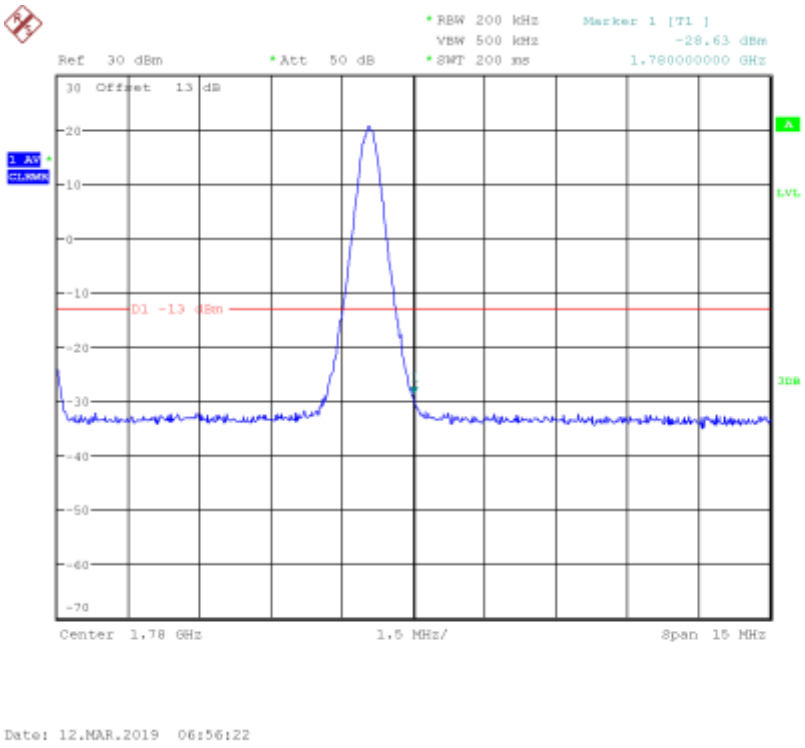
LTE Band66, 10MHz bandwidth, 16QAM,(50,0) Mode, Above 1780MHz



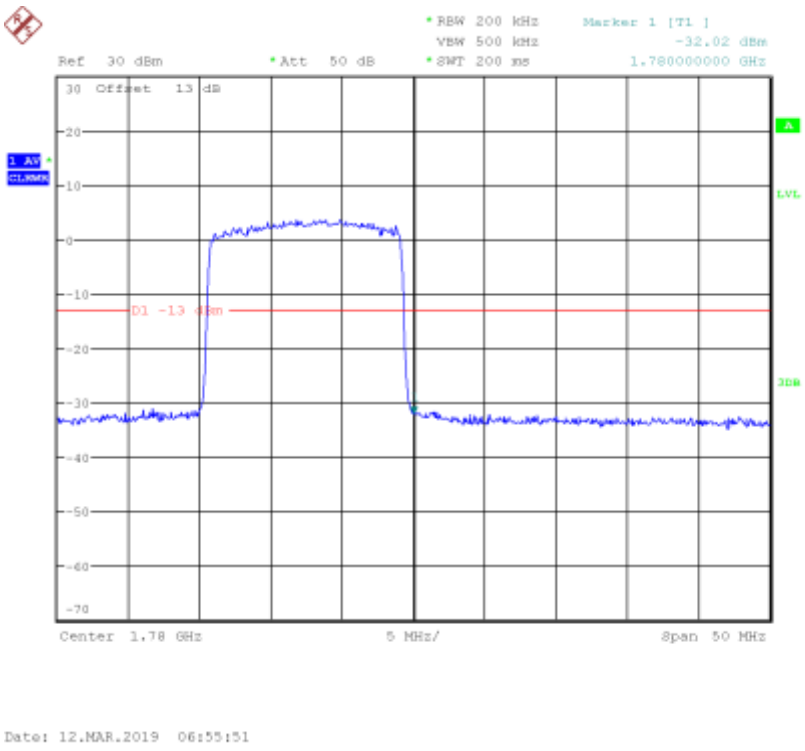
LTE Band66, 15MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



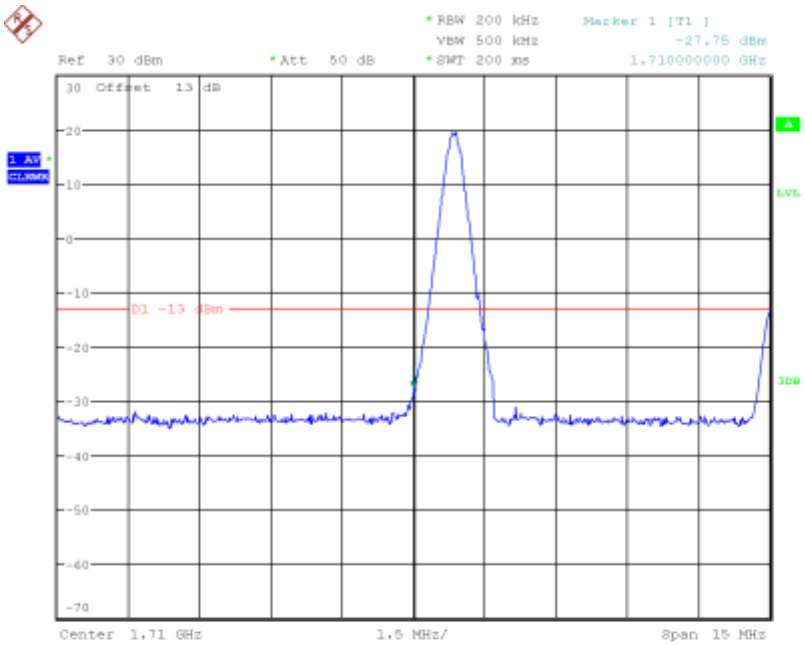
LTE Band66, 15MHz bandwidth, QPSK,(75,0) Mode , Below 1710MHz



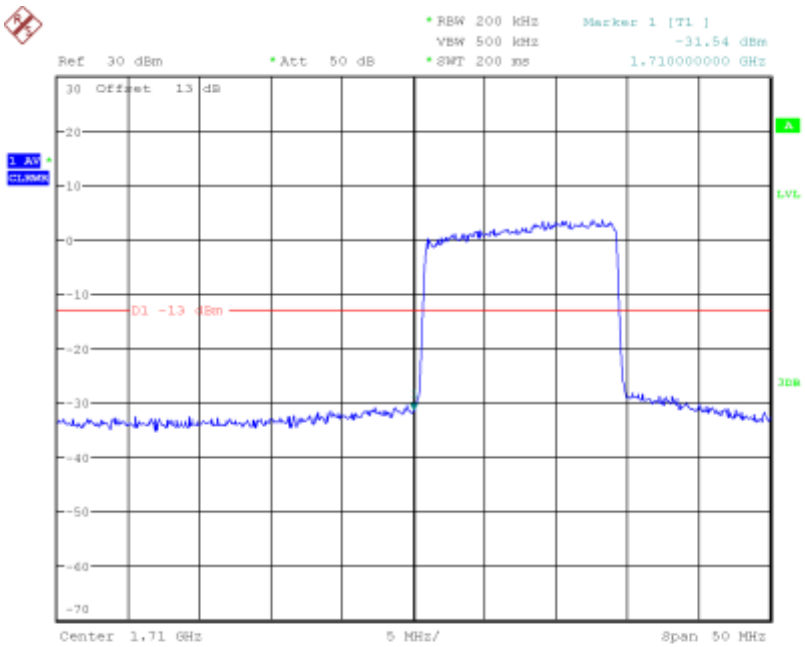
LTE Band66, 15MHz bandwidth, QPSK,(1,75) Mode, Above 1780MHz



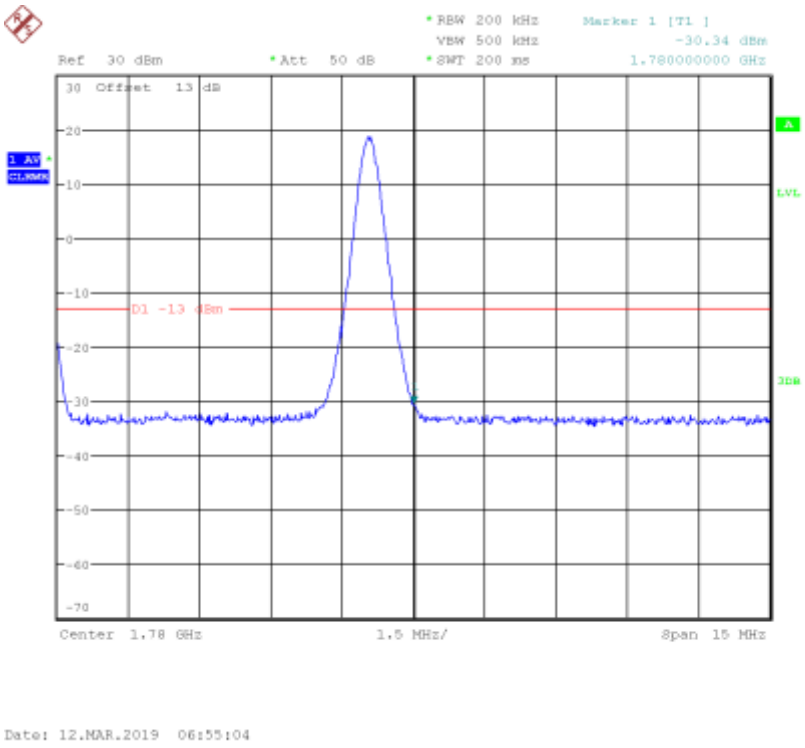
LTE Band66, 15MHz bandwidth, QPSK,(75,0) Mode, Above 1780MHz



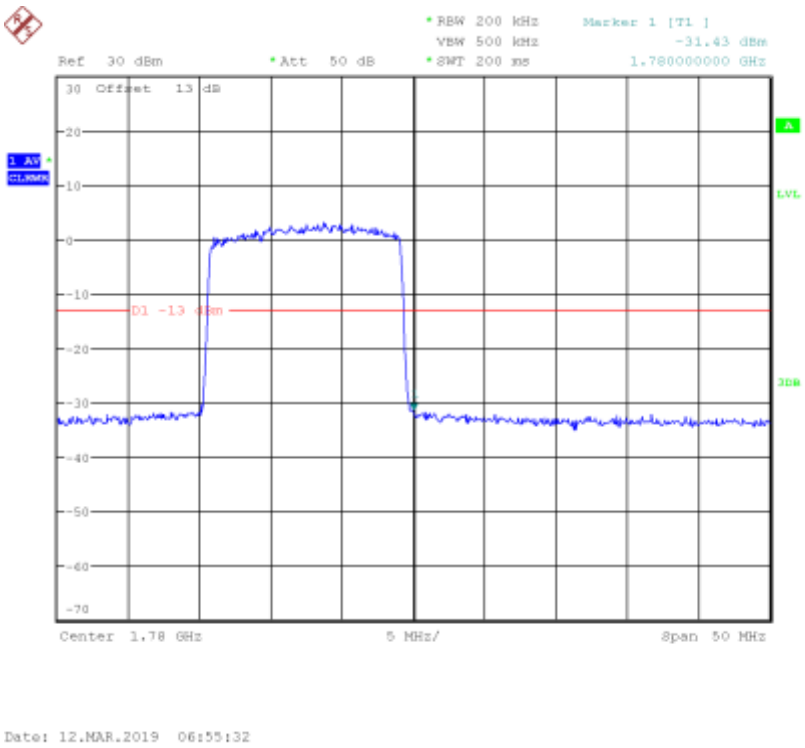
LTE Band66, 15MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



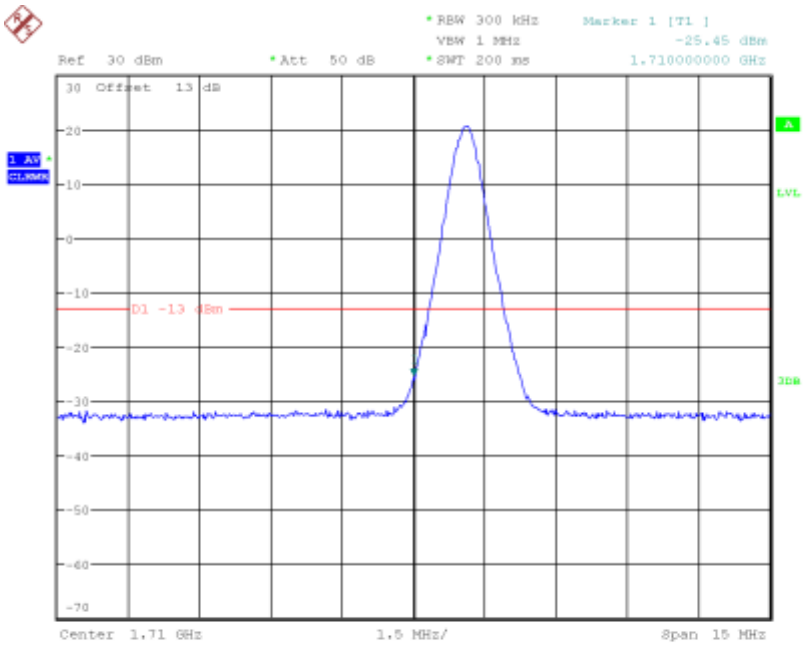
LTE Band66, 15MHz bandwidth, 16QAM,(75,0) Mode , Below 1710MHz



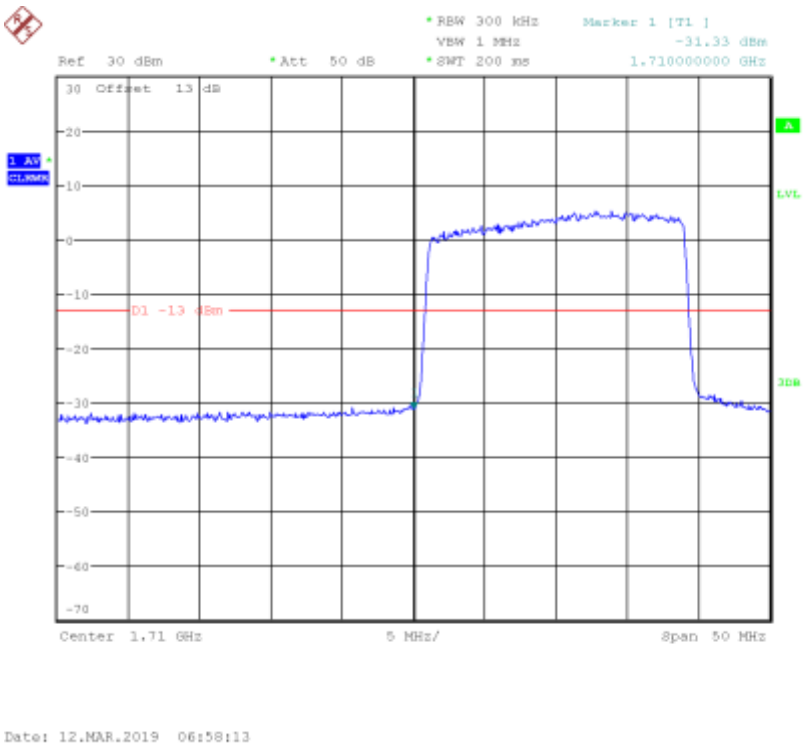
LTE Band66, 15MHz bandwidth, 16QAM,(1,75) Mode, Above 1780MHz



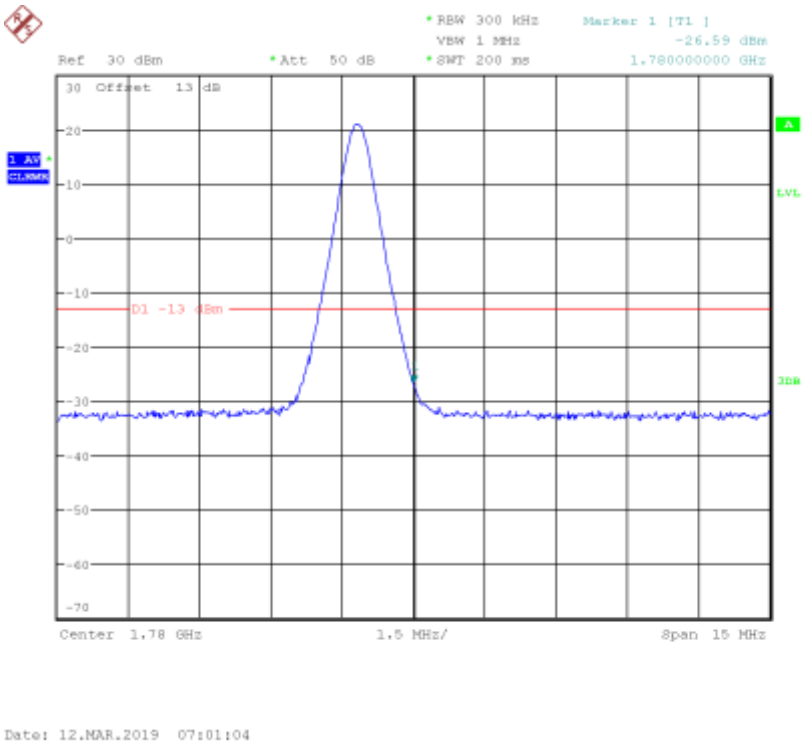
LTE Band66, 15MHz bandwidth, 16QAM,(75,0) Mode, Above 1780MHz



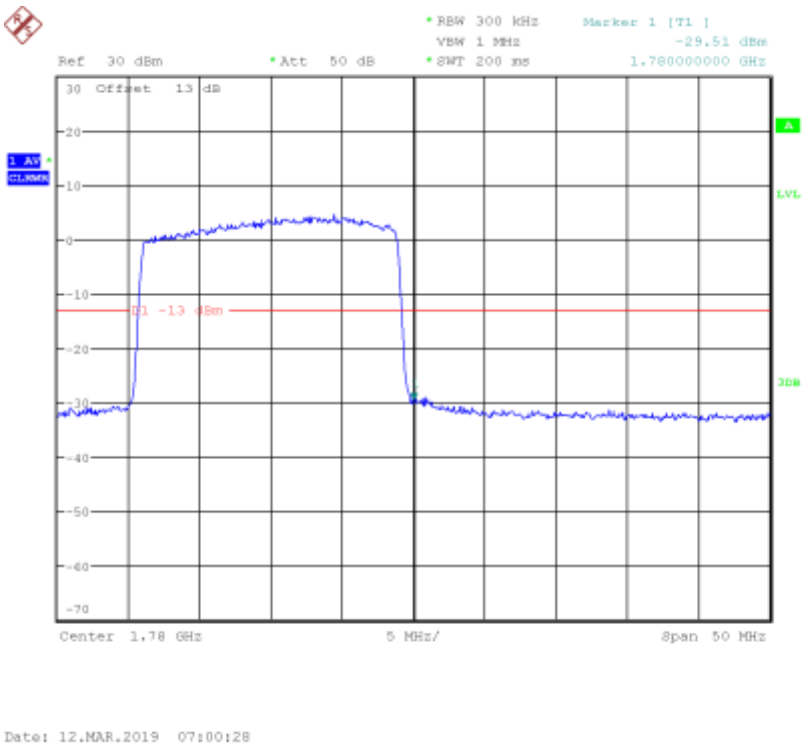
LTE Band66, 20MHz bandwidth, QPSK,(1,0) Mode , Below 1710MHz



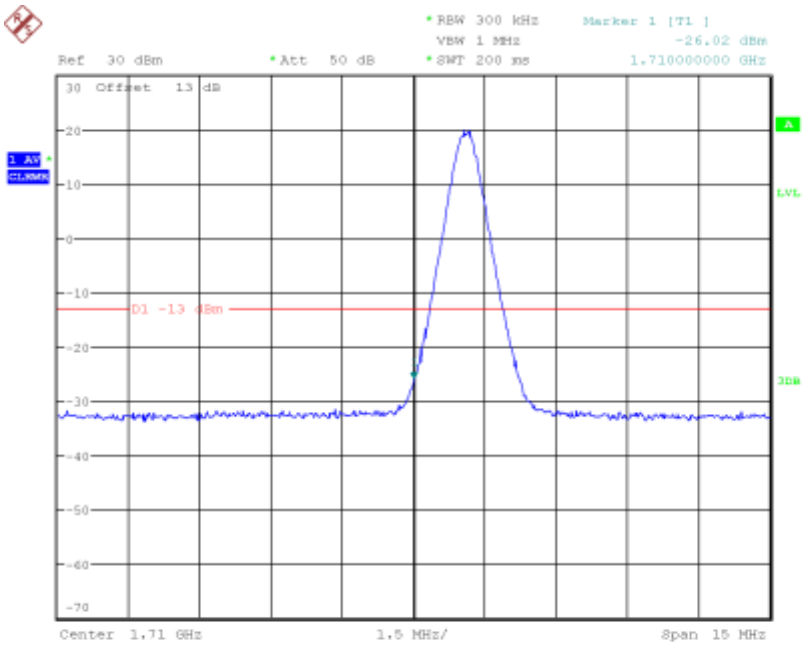
LTE Band66, 20MHz bandwidth, QPSK,(100,0) Mode , Below 1710MHz



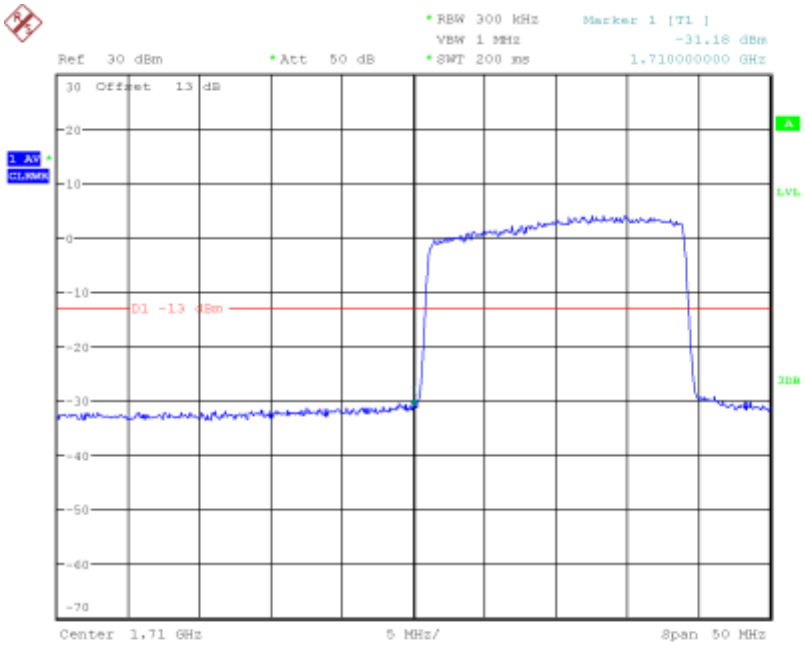
LTE Band66, 20MHz bandwidth, QPSK,(1,100) Mode, Above 1780MHz



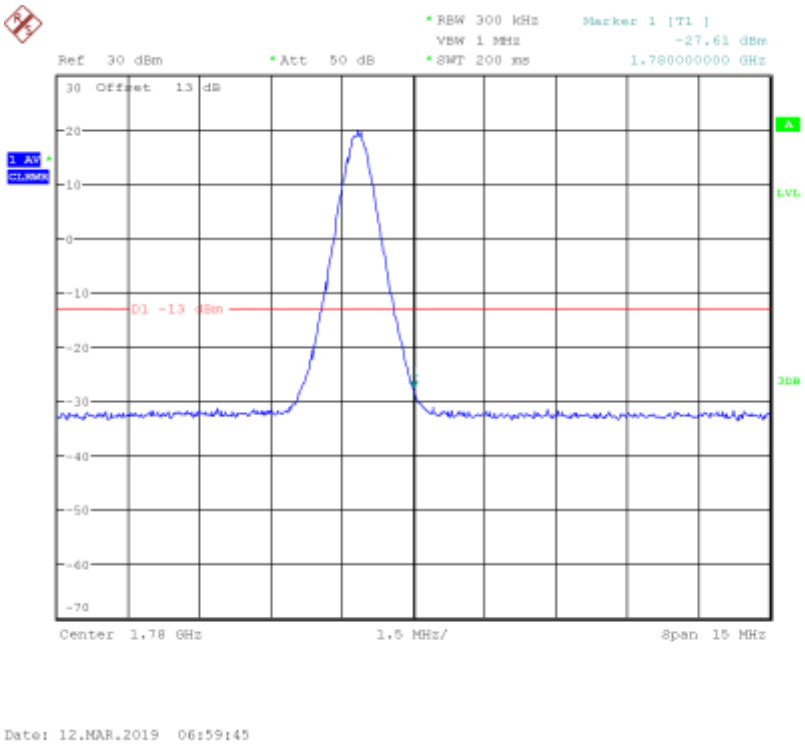
LTE Band66, 20MHz bandwidth, QPSK,(100,0) Mode, Above 1780MHz



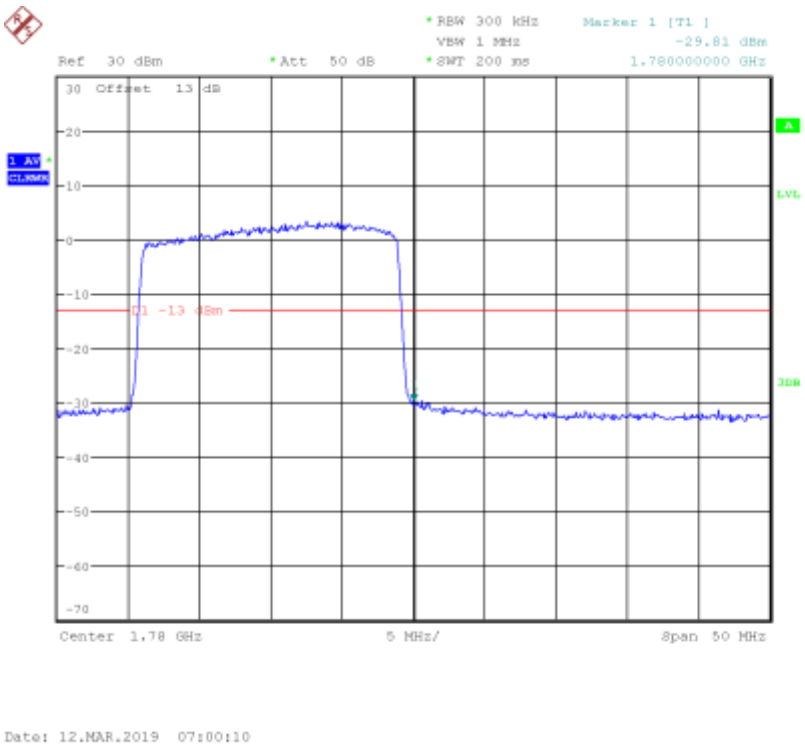
LTE Band66, 20MHz bandwidth, 16QAM,(1,0) Mode , Below 1710MHz



LTE Band66, 20MHz bandwidth, 16QAM,(100,0) Mode , Below 1710MHz



LTE Band66, 20MHz bandwidth, 16QAM,(1,100) Mode, Above 1780MHz



LTE Band66, 20MHz bandwidth, 16QAM,(100,0) Mode, Above 1780MHz

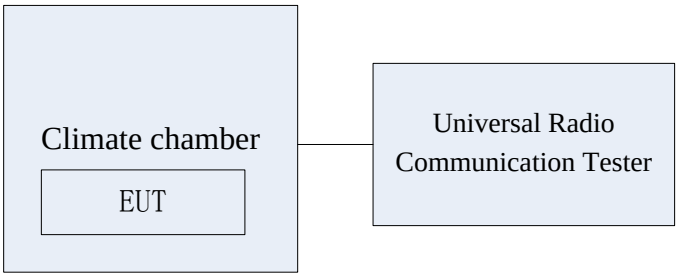
5.6 Frequency Stability over Temperature Variation

Specifications:	FCC Part 2.1055, 22.355, 24.235, 27.54
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit	
Frequency deviation [ppm]	±2.5

Test Setup

The EUT was placed in a temperature chamber, demonstrated as figure T. The Wireless Telecommunications Test Set was used to set the Tx channel and power level, modulate the TX signal with different bit patterns and measure the frequency of Tx.



Test Method

1、 The EUT was turned off and placed in the temperature chamber.

2、 The temperature of the chamber was set to -30℃ and allowed to stabilize.

3、 The EUT temperature was allowed to stabilize for 45 minutes.

4、 The EUT was turned on and set to transmit with Wireless Telecommunications Test Set.

5、 The maximum transmit frequency deviation during one minute period was measured by Wireless Communications Test Set.

6、 The steps 3-5 were repeated for -30℃,-20℃, -10℃, 0℃, 10℃, 20℃, 30℃, 40℃ and 50℃.

5.6.1 GSM Band Frequency Stability over Temperature Variation Results

Band	Offset	Temperature[℃]								
		-30	-20	-10	0	10	20	30	40	50
GSM850 GMSK	Hz	2.75	-3.82	-1.98	4.25	2.52	-3.27	-2.19	4.35	3.96
	ppm	0.003	-0.005	-0.002	0.005	0.003	-0.004	-0.003	0.005	0.005
GSM850 8PSK	Hz	4.32	-2.73	3.26	1.97	4.82	-3.84	5.27	-3.18	4.17
	ppm	0.005	-0.003	0.004	0.002	0.006	-0.005	0.006	-0.004	0.005
PCS1900 GMSK	Hz	-3.28	2.25	3.89	-1.98	6.27	-4.33	2.72	4.36	-5.27
	ppm	-0.002	0.001	0.002	-0.001	0.003	-0.002	0.001	0.002	-0.002
PCS1900 8PSK	Hz	6.25	1.87	2.91	4.23	-3.25	-4.37	1.84	2.76	4.33
	ppm	0.003	0.001	0.002	0.002	-0.002	-0.002	0.001	0.001	0.002

5.6.2 WCDMA Band Frequency Stability over Temperature Variation Results

Band	Offset	Temperature[℃]								
		-30	-20	-10	0	10	20	30	40	50
2	Hz	-5.92	-3.23	4.67	2.91	-4.19	7.62	-5.31	-2.95	4.94
	ppm	-0.003	-0.002	0.002	0.002	-0.002	0.004	-0.003	-0.002	0.003
5	Hz	3.61	4.18	-2.48	6.68	-1.53	2.82	-3.66	-4.51	3.75
	ppm	0.004	0.005	-0.003	0.008	-0.002	0.003	-0.004	-0.005	0.004

5.6.3 LTE Band Frequency Stability over Temperature Variation Results

Band	Offset	Temperature[℃]								
		-30	-20	-10	0	10	20	30	40	50
2	Hz	-4.09	2.58	6.54	5.27	3.52	-2.11	3.42	1.98	4.36
	ppm	-0.002	0.001	0.003	0.003	0.002	-0.001	0.002	0.001	0.002
4	Hz	5.36	2.98	1.59	-3.24	6.39	4.57	-4.96	3.58	-2.97
	ppm	0.003	0.002	0.001	-0.002	0.004	0.003	-0.003	0.002	-0.002
5	Hz	-4.31	5.29	3.08	-6.31	-3.28	2.72	4.39	6.83	-7.25
	ppm	-0.005	0.006	0.004	-0.008	-0.004	0.003	0.005	0.008	-0.009
28	Hz	2.93	1.28	-6.18	-4.26	3.45	6.72	5.94	-3.26	2.75
	ppm	0.004	0.002	-0.009	-0.006	0.005	0.009	0.008	-0.004	0.004
66	Hz	5.16	-3.93	3.45	2.81	4.37	-2.18	4.93	-3.69	-5.19
	ppm	0.003	-0.002	0.002	0.0021	0.003	-0.001	0.003	-0.002	-0.003

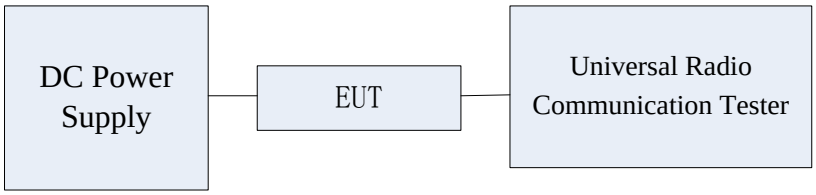
5.7 Frequency Stability over Voltage Variation

Specifications:	FCC Part 2.1055, 22.355, 24.235, 27.54
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Limit	
Frequency deviation [ppm]	±2.5

Test Setup

The EUT was placed in a shielding chamber and powered by an adjustable power supply, demonstrated as figure V. A Wireless Telecommunications Test Set was used to set the TX channel and power level, modulate the TX signal with different bit patterns and measure the frequency of TX.



Test Method

The EUT was powered by the adjustable power supply. The frequency stability is measured by the Wireless Telecommunications Test Set.

5.7.1 GSM Band Frequency Stability over Voltage Variation Results

Test data:

Band	Offset	Voltage (V)		
		3.40	3.80	4.20
GSM850 GMSK	Hz	2.37	4.29	-3.27
	ppm	0.003	0.005	-0.004
GSM850 8PSK	Hz	4.38	-3.92	-1.56
	ppm	0.005	-0.005	-0.002
PCS1900 GMSK	Hz	3.31	2.60	5.07
	ppm	0.002	0.001	0.003
PCS1900 8PSK	Hz	1.96	-4.47	-1.52
	ppm	0.001	-0.002	-0.001

5.7.2 WCDMA Band Frequency Stability over Voltage Variation Results

Test data:

Band	Offset	Voltage (V)		
		3.40	3.80	4.20
2	Hz	-5.26	1.77	-3.14
	ppm	-0.003	0.001	-0.002
5	Hz	4.50	-2.63	-5.22
	ppm	0.005	-0.003	-0.006

5.7.3 LTE Band Frequency Stability over Voltage Variation Results

Test data:

Band	Offset	Voltage (V)		
		3.40	3.80	4.20
2	Hz	5.41	3.18	1.09
	ppm	0.003	0.002	0.001
4	Hz	-2.77	-3.13	5.37
	ppm	-0.002	-0.002	0.003
5	Hz	4.51	3.66	-6.15
	ppm	0.005	0.004	-0.007
28	Hz	2.39	2.84	-4.10
	ppm	0.003	0.004	-0.006
66	Hz	1.81	5.37	-2.08
	ppm	0.001	0.003	-0.001

5.8 Peak to Average Ratio

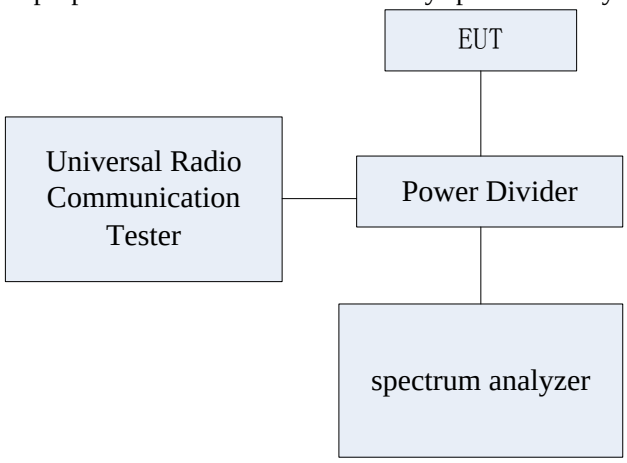
Specifications:	FCC Part 24.232, 27.50,
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit

The EUT meets the requirement of having a peak to average ratio of less than 13dB.

Test Setup

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



Test Method

The transmitter output was connected to a CMW500 through a coaxial RF cable and directional coupler, and configured to operate at maximum power. The peak to average ratio was measured at the required operating frequencies in each Band on the Spectrum Analyzer.

5.8.1 GSM850 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
836.6	190	GMSK	10.05
		8PSK	12.97

5.8.2 GSM1900 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
1880	661	GMSK	10.12
		8PSK	12.81

5.8.3 WCDMA B2 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
1880	9400	QPSK	3.53
1880	9400	16QAM	4.01

5.8.4 WCDMA B5 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	Modulation	Peak to Average Ratio
836.4	4182	QPSK	3.48
836.4	4182	16QAM	3.68

5.8.5 LTE B2 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	bandwidth	Modulation	Peak to Average Ratio
1880MHz	18900	10MHz	QPSK	6.19

			16QAM	7.77

5.8.6 LTE B4 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	bandwidth	Modulation	Peak to Average Ratio
1732.5MHz	20175	10MHz	QPSK	5.75
			16QAM	6.96

5.8.7 LTE B5 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	bandwidth	Modulation	Peak to Average Ratio
836.5MHz	23525	10MHz	QPSK	6.50
			16QAM	7.43

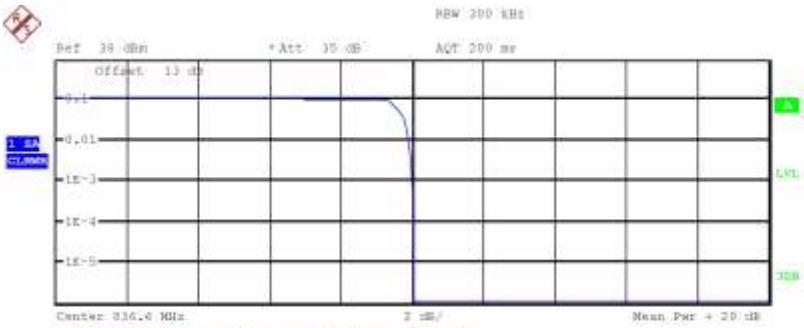
5.8.8 LTE B28 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	bandwidth	Modulation	Peak to Average Ratio
725.5MHz	27435	10MHz	QPSK	6.29
			16QAM	7.15

5.8.9 LTE B66 Peak to Average Ratio Results

Frequency (MHz)	EUT channel No.	bandwidth	Modulation	Peak to Average Ratio
1745.0MHz	132322	10MHz	QPSK	6.20
			16QAM	7.55

Graphical for Peak to Average Ratio Results

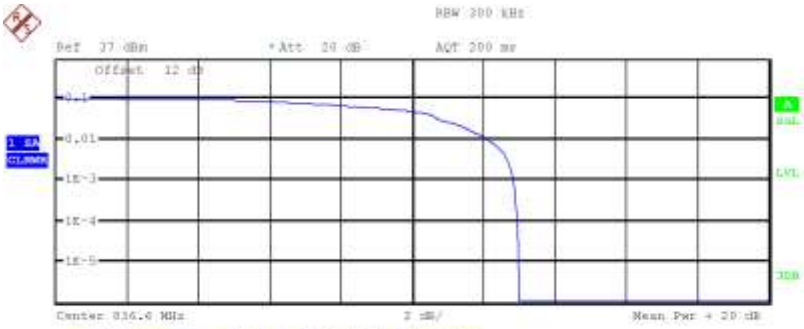


Complementary Cumulative Distribution Function
HOF samples: 100000, Usable BW: 315kHz

	Trace 1
Mean	23.71 dBm
Peak	33.76 dBm
Crest	10.05 dB
10 %	9.29 dB
1 %	9.90 dB
.1 %	10.00 dB
.01 %	10.06 dB

Date: 23.MAR.2019 12:03:43

GSM850, GMSK

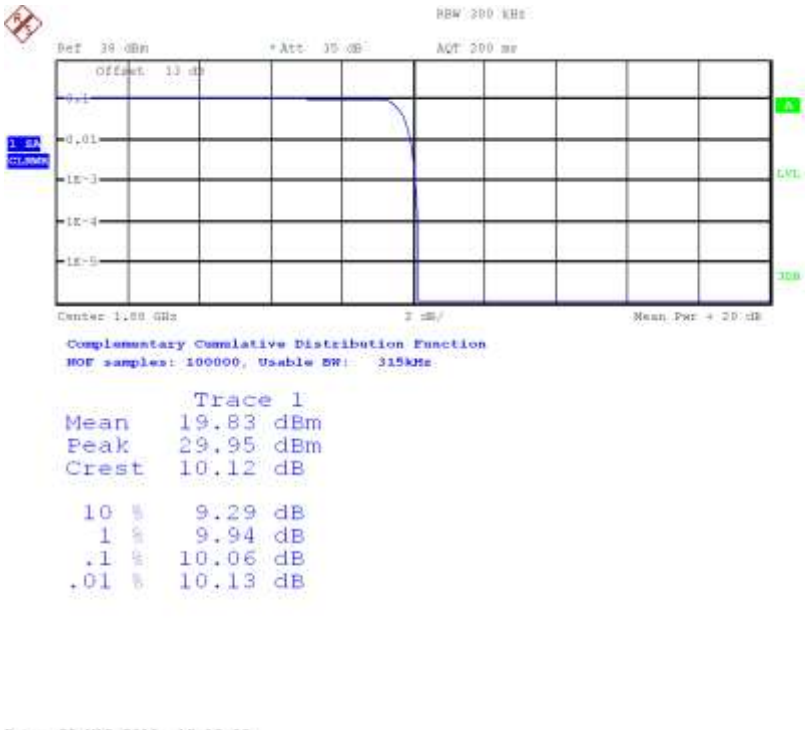


Complementary Cumulative Distribution Function
HOF samples: 100000, Usable BW: 315kHz

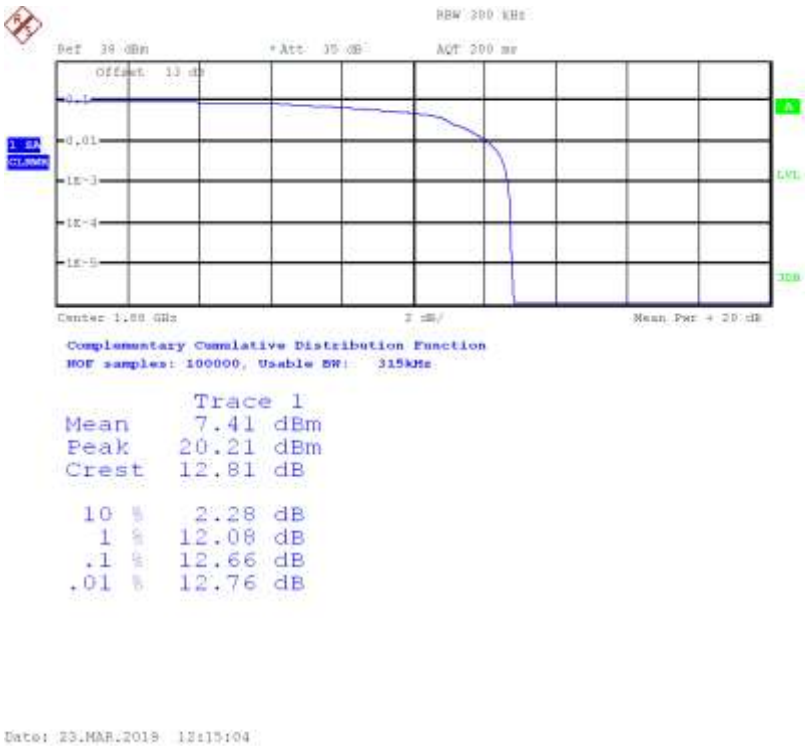
	Trace 1
Mean	16.70 dBm
Peak	29.67 dBm
Crest	12.97 dB
10 %	3.49 dB
1 %	12.15 dB
.1 %	12.85 dB
.01 %	12.95 dB

Date: 23.MAR.2019 17:21:18

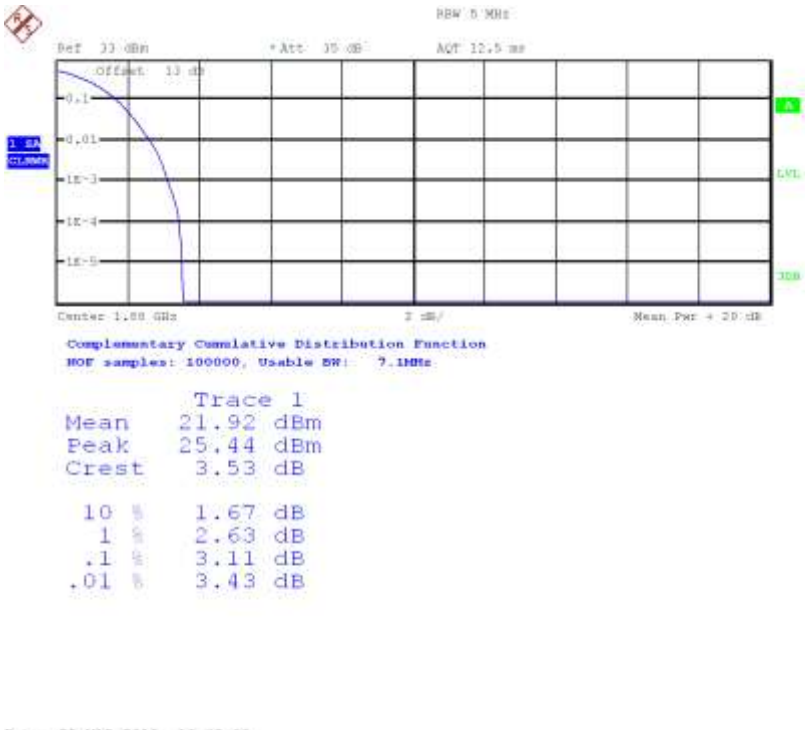
GSM850,8PSK



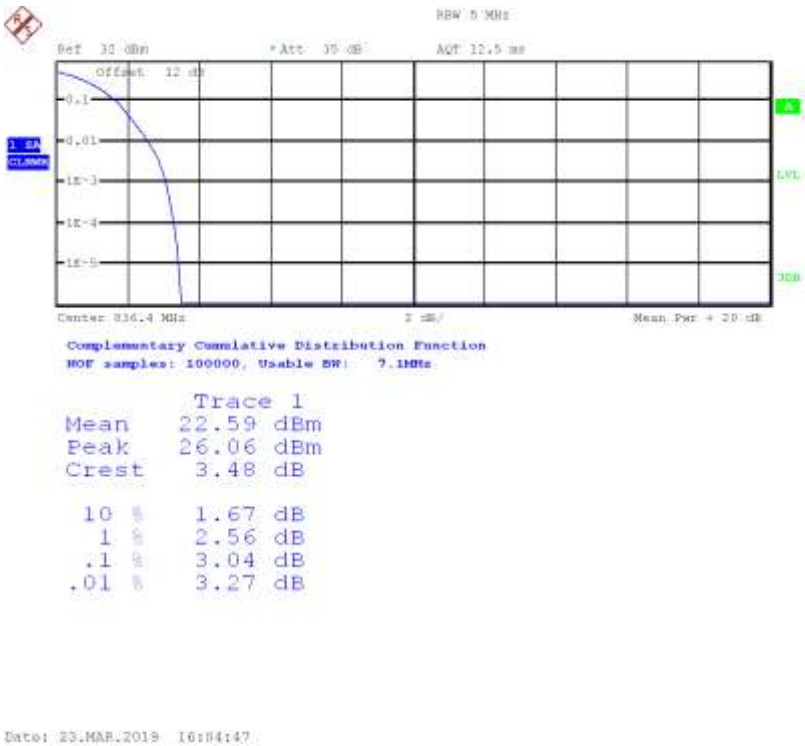
PCS1900, GMSK



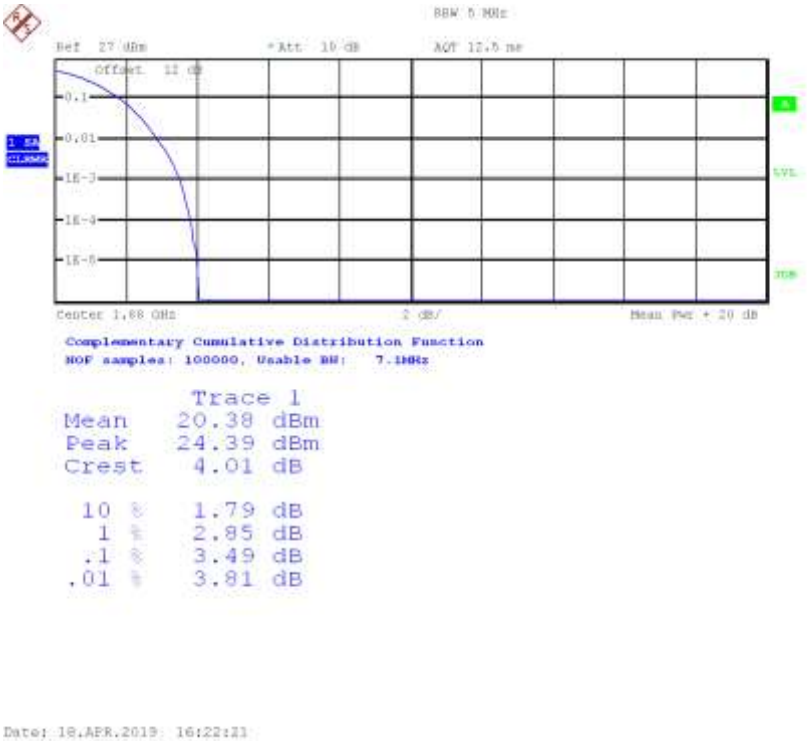
PCS1900, 8PSK



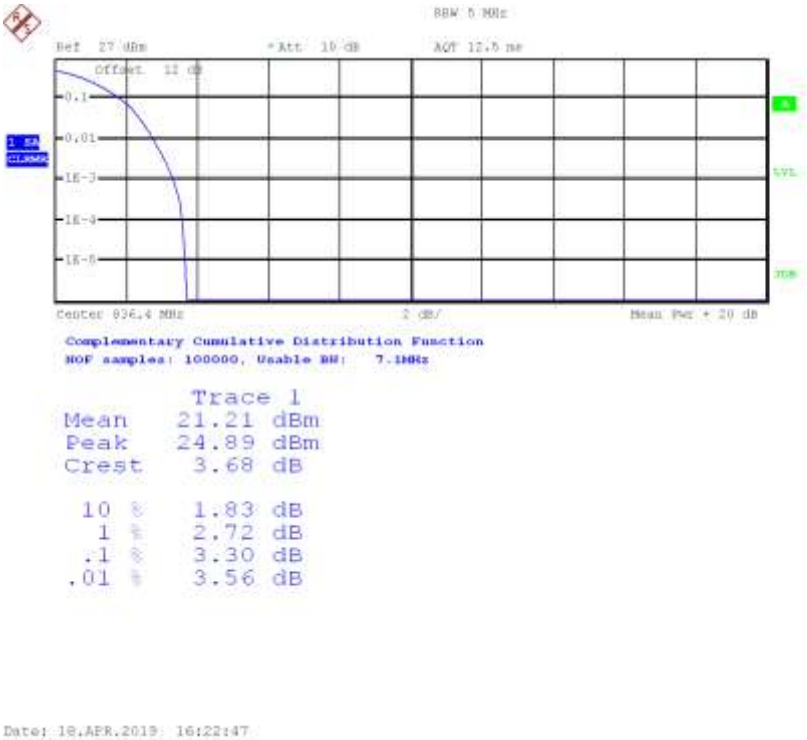
WCDMA Band2, QPSK



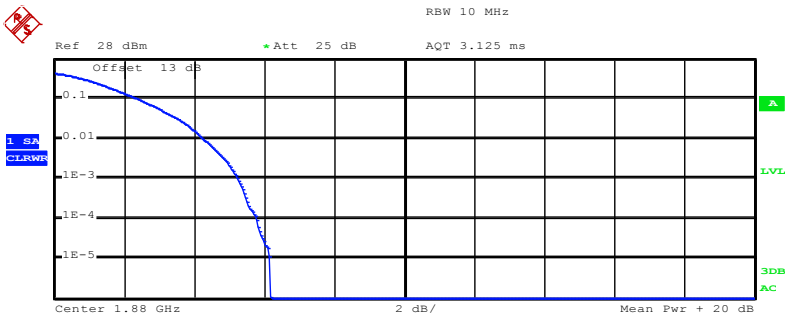
WCDMA Band5, QPSK



WCDMA Band2, 16QAM



WCDMA Band5, 16QAM

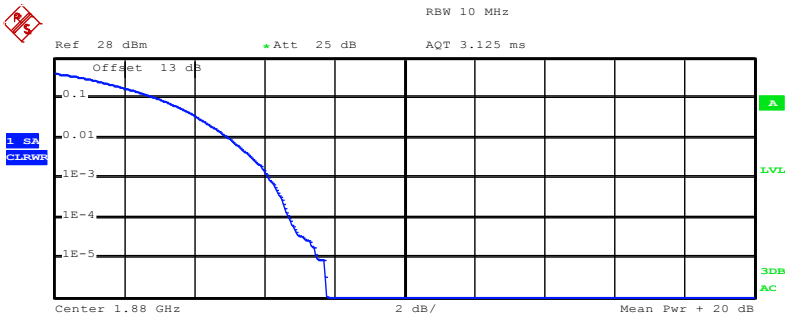


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.53 dBm
Peak	28.72 dBm
Crest	6.19 dB
10 %	2.44 dB
1 %	4.28 dB
.1 %	5.28 dB
.01 %	5.80 dB

Date: 12.MAR.2019 10:02:37

LTE Band2, QPSK

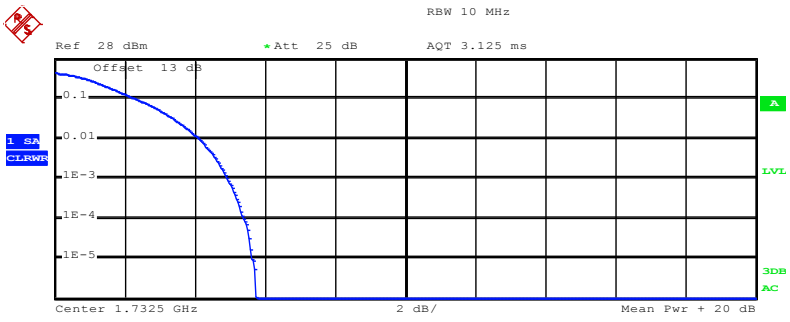


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.59 dBm
Peak	29.36 dBm
Crest	7.77 dB
10 %	3.00 dB
1 %	5.00 dB
.1 %	6.16 dB
.01 %	6.72 dB

Date: 12.MAR.2019 10:01:41

LTE Band2, 16QAM

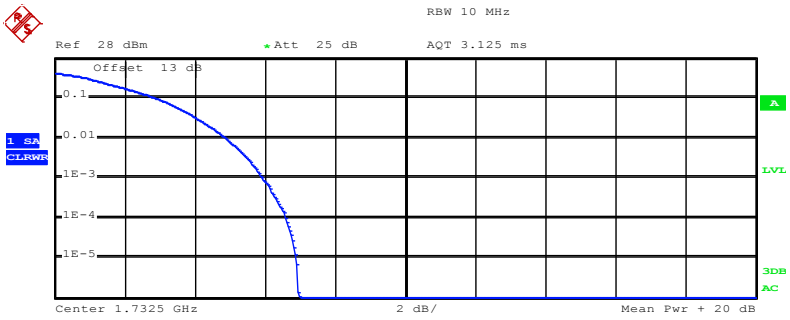


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	23.12 dBm
Peak	28.86 dBm
Crest	5.75 dB
10 %	2.40 dB
1 %	4.12 dB
.1 %	4.96 dB
.01 %	5.40 dB

Date: 12.MAR.2019 10:03:18

LTE Band4, QPSK

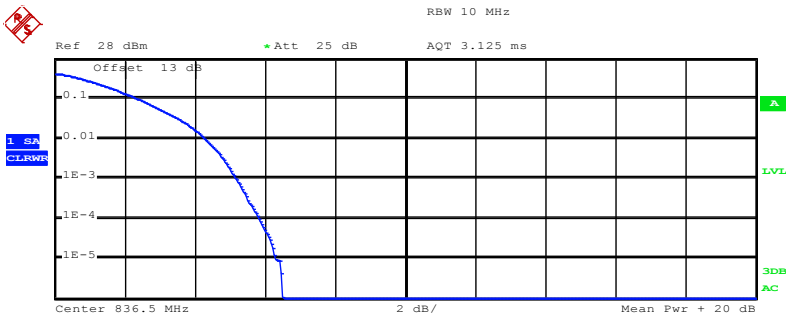


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.12 dBm
Peak	29.07 dBm
Crest	6.96 dB
10 %	3.00 dB
1 %	4.88 dB
.1 %	5.96 dB
.01 %	6.60 dB

Date: 12.MAR.2019 10:04:09

LTE Band4, 16QAM

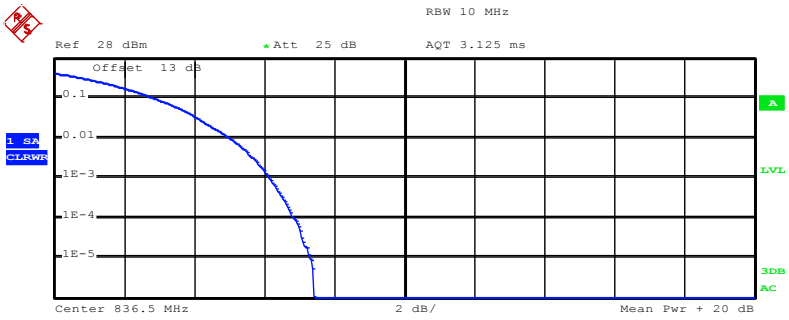


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	23.77 dBm
Peak	30.27 dBm
Crest	6.50 dB
10 %	2.44 dB
1 %	4.28 dB
.1 %	5.20 dB
.01 %	5.84 dB

Date: 12.MAR.2019 10:04:42

LTE Band5, QPSK

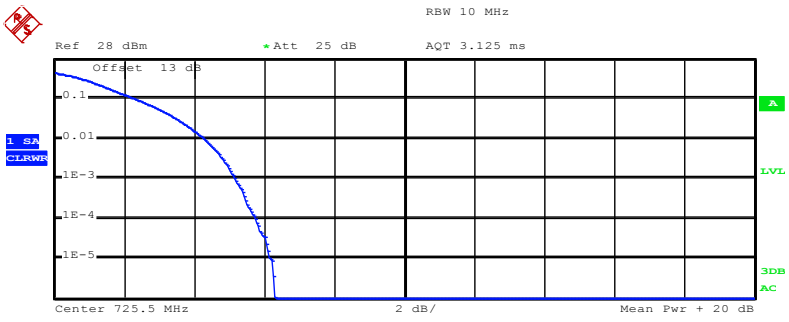


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.78 dBm
Peak	30.20 dBm
Crest	7.43 dB
10 %	2.96 dB
1 %	5.04 dB
.1 %	6.16 dB
.01 %	6.88 dB

Date: 12.MAR.2019 10:04:52

LTE Band5, 16QAM

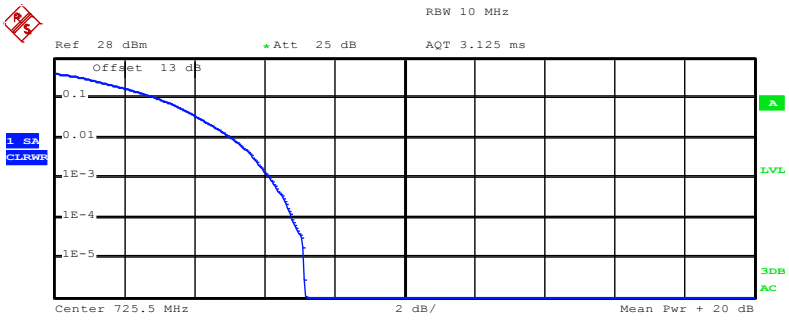


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	23.56 dBm
Peak	29.85 dBm
Crest	6.29 dB
10 %	2.40 dB
1 %	4.32 dB
.1 %	5.16 dB
.01 %	5.76 dB

Date: 12.MAR.2019 10:05:31

LTE Band28, QPSK

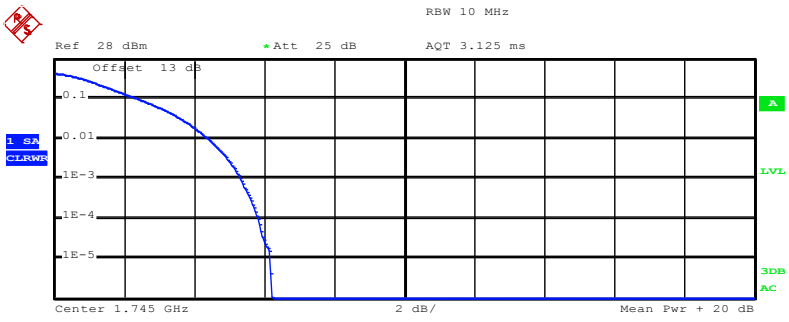


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.56 dBm
Peak	29.71 dBm
Crest	7.15 dB
10 %	3.04 dB
1 %	5.12 dB
.1 %	6.20 dB
.01 %	6.80 dB

Date: 12.MAR.2019 10:05:12

LTE Band28, 16QAM

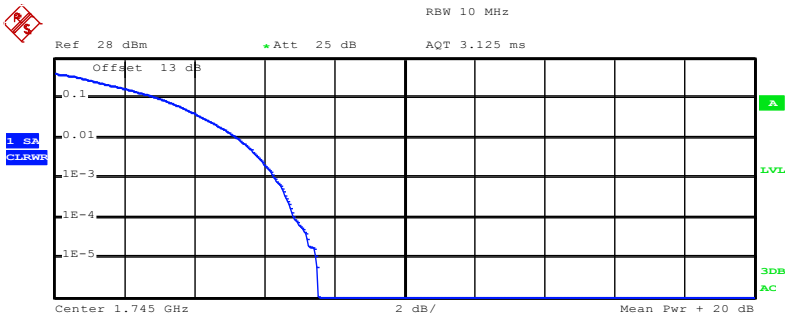


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.74 dBm
Peak	27.95 dBm
Crest	6.20 dB
10 %	2.48 dB
1 %	4.40 dB
.1 %	5.32 dB
.01 %	5.84 dB

Date: 12.MAR.2019 10:05:47

LTE Band66, QPSK



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.75 dBm
Peak	28.30 dBm
Crest	7.55 dB
10 %	3.08 dB
1 %	5.24 dB
.1 %	6.32 dB
.01 %	6.88 dB

Date: 12.MAR.2019 10:06:00

LTE Band66, 16QAM

5.9 ERP and EIRP

Specifications:	FCC Part 22.913(a), 24.232(b)
DUT Serial Number:	868020030259252
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit Level Construction:

This is the test for the maximum radiated power from the EUT.

According to Part 24.232(c),"Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power"and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage."

According to 22.913(a), The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts."

According to Part 27.50(d), "Fixed, mobile, and portable (handheld) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP".

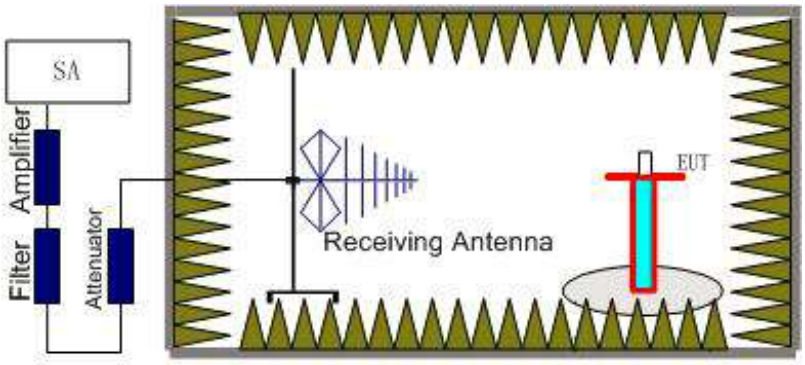
According to Part 27.50(h)(2) "Mobile stations are limited to 2.0 watts EIRP.".

According to Part 27.50(c),specifies "Portable stations (hand-held de-vices) are limited to 3 watts ERP.".

Method of Measurement

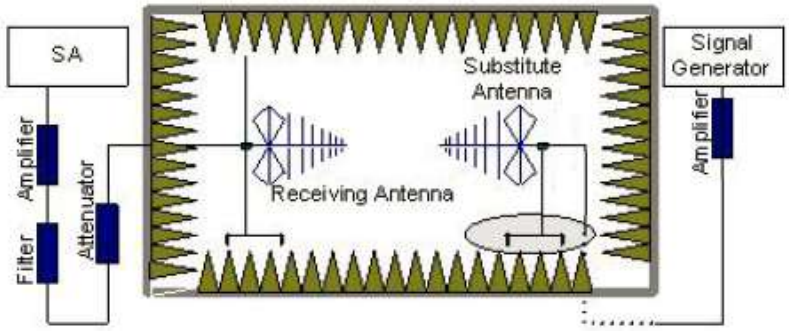
The measurements procedures in TIA-603E-2016 are used.

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).

3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. A amplifier should be connected to the Signal Source output port. And the cable should beconnect between the Amplifier and the Substitution Antenna.

The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.

The measurement results are obtained as described below:

Power(EIRP)=PMea+ PAg- Pcl+ Ga

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole,

ERP=S.G output(dBM)-cable loss (dB) + antenna gain (dBd)

EIRP=S.G output(dBM)-cable loss (dB) + antenna gain (dBi)

5.9.1 GSM 850 Measurement result

GPRS GMSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
824.2	27.8	3.4	8.0	32.4	V
836.6	28.6	3.4	6.6	31.8	V
848.8	28.4	3.4	7.2	32.2	V

EGPRS GMSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
824.2	27.9	3.4	8.0	32.5	V
836.6	28.8	3.4	6.6	32.0	V
848.8	28.4	3.4	7.2	32.2	V

EGPRS 8PSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
824.2	22.0	3.4	8.0	26.6	V
836.6	23.0	3.4	6.6	26.2	V
848.8	22.5	3.4	7.2	26.3	V

5.9.2 PCS 1900 Measurement result

GPRS GMSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.2	26.1	5.0	7.2	28.3	V

1880.0	26.3	5.0	7.2	28.5	V
1909.8	27.3	5.1	6.8	29.0	V

EGPRS GMSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.2	26.2	5.0	7.2	28.4	V
1880.0	25.8	5.0	7.2	28.0	V
1909.8	26.5	5.1	6.8	28.2	V

EGPRS 8PSK Mode

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.2	22.5	5.0	7.2	24.7	V
1880.0	22.0	5.0	7.2	24.2	V
1909.8	22.8	5.1	6.8	24.5	V

5.9.3 WCDMA Band 2 Measurement result

QPSK Measurement result

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1852.4	20.10	5.0	7.2	22.30	V
1880.0	19.42	5.0	7.2	21.62	V
1907.6	19.18	5.1	6.8	20.88	V

16QAM Measurement result

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1852.4	18.43	5.0	7.2	20.63	V

1880	18.04	5.0	7.2	20.24	V
1907.6	18.89	5.1	6.8	20.59	V

5.9.4 WCDMA Band 5 Measurement result

QPSK Measurement result

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
826.4	19.64	3.4	7.3	23.54	V
836.4	20.12	3.4	6.6	23.32	V
846.6	19.54	3.4	7.2	23.34	V

16QAM Measurement result

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
826.4	18.91	3.4	7.3	22.81	V
836.4	19.26	3.4	6.6	22.46	V
846.6	18.71	3.4	7.2	22.51	V

5.9.5 LTE Band 2 Measurement result

LTE Band 2_1.4 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.7	18.53	5.0	7.2	20.73	V
1880.0	18.42	5.0	7.2	20.62	V
1909.3	18.88	5.1	6.8	20.58	V

LTE Band 2_1.4 MHz_16QAM

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna

[MHz]	output power(P_g) [dBm]	[dB]	Gain [dB]	Emission Power (P_d) [dBm]	Polarization [H/V]
1850.7	18.12	5.0	7.2	20.32	V
1880.0	18.09	5.0	7.2	20.29	V
1909.3	18.66	5.1	6.8	20.36	V

LTE Band 2_3 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1851.5	18.40	5.0	7.2	20.60	V
1880.0	18.35	5.0	7.2	20.55	V
1908.5	19.01	5.1	6.8	20.71	V

LTE Band 2_3 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1851.5	18.21	5.0	7.2	20.41	V
1880.0	18.10	5.0	7.2	20.30	V
1908.5	18.84	5.1	6.8	20.54	V

LTE Band 2_5 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1852.5	18.36	5.0	7.2	20.56	V
1880.0	18.49	5.0	7.2	20.69	V
1907.5	18.87	5.1	6.8	20.57	V

LTE Band 2_5 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]

1852.5	18.19	5.0	7.2	20.39	V
1880.0	18.27	5.0	7.2	20.47	V
1907.5	18.59	5.1	6.8	20.29	V

LTE Band 2_10 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1855.0	18.46	5.0	7.2	20.66	V
1880.0	18.49	5.0	7.2	20.69	V
1905.0	18.87	5.1	6.8	20.57	V

LTE Band 2_10 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1855.0	18.15	5.0	7.2	20.35	V
1880.0	18.22	5.0	7.2	20.42	V
1905.0	18.59	5.1	6.8	20.29	V

LTE Band 2_15 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1857.5	18.43	5.0	7.2	20.63	V
1880.0	18.38	5.0	7.2	20.58	V
1902.5	18.98	5.1	6.8	20.68	V

LTE Band 2_15 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1857.5	18.23	5.0	7.2	20.43	V
1880.0	18.10	5.0	7.2	20.30	V

1902.5	18.78	5.1	6.8	20.48	V

LTE Band 2_20 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.0	18.32	5.0	7.2	20.52	V
1880.0	18.44	5.0	7.2	20.64	V
1910.0	18.98	5.1	6.8	20.68	V

LTE Band 2_20 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1850.0	18.01	5.0	7.2	20.21	V
1880.0	18.17	5.0	7.2	20.37	V
1910.0	18.74	5.1	6.8	20.44	V

5.9.6 LTE Band 4 Measurement result

LTE Band 4_1.4 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1710.7	18.35	4.8	7.9	21.45	V
1732.5	18.02	4.9	8.1	21.22	V
1754.3	17.40	4.9	8.8	21.30	V

LTE Band 4_1.4 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1710.7	17.69	4.8	7.9	20.79	V

1732.5	17.52	4.9	8.1	20.72	V
1754.3	16.75	4.9	8.8	20.65	V

LTE Band 4_3 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1711.5	18.24	4.8	7.9	21.34	V
1732.5	17.91	4.8	8.1	21.21	V
1753.5	17.42	4.9	8.8	21.32	V

LTE Band 4_3 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1711.5	17.67	4.8	7.9	20.77	V
1732.5	17.33	4.8	8.1	20.63	V
1753.5	16.90	4.9	8.8	20.80	V

LTE Band 4_5 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1712.5	18.29	4.8	7.9	21.39	V
1732.5	18.02	4.8	8.1	21.32	V
1752.5	17.39	4.9	8.8	21.29	V

LTE Band 4_5 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1712.5	17.63	4.8	7.9	20.73	V
1732.5	17.52	4.8	8.1	20.82	V

1752.5	16.76	4.9	8.8	20.66	V

LTE Band 4_10 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1715.0	18.22	4.8	7.9	21.32	V
1732.5	17.96	4.8	8.1	21.26	V
1750.0	17.83	4.9	8.4	21.33	V

LTE Band 4_10 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1715.0	17.67	4.8	7.9	20.77	V
1732.5	17.38	4.8	8.1	20.68	V
1750.0	17.22	4.9	8.4	20.72	V

LTE Band 4_15 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1717.5	18.52	4.8	7.9	21.62	V
1732.5	18.18	4.8	8.1	21.48	V
1747.5	18.31	4.9	8.1	21.51	V

LTE Band 4_15 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1717.5	17.60	4.8	7.9	20.70	V
1732.5	17.35	4.8	8.1	20.65	V
1747.5	17.64	4.9	8.1	20.84	V

LTE Band 4_20MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1720.0	18.21	4.8	7.9	21.31	V
1732.5	17.99	4.9	8.1	21.19	V
1745.0	18.04	4.9	8.1	21.24	V

LTE Band 4_20MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1720.0	17.70	4.8	7.9	20.80	V
1732.5	17.54	4.9	8.1	20.74	V
1745.0	17.59	4.9	8.1	20.79	V

5.9.7 LTE Band 5 Measurement result

LTE Band 5_1.4 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
824.7	17.52	3.4	7.3	21.42	V
836.5	18.42	3.4	6.6	21.62	V
848.3	17.78	3.4	7.2	21.58	V

LTE Band 5_1.4 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
824.7	16.73	3.4	7.3	20.63	V
836.5	17.68	3.4	6.6	20.88	V

848.3	16.79	3.4	7.2	20.59	V

LTE Band 5_3 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
825.5	17.58	3.4	7.3	21.48	V
836.5	18.46	3.4	6.6	21.66	V
847.5	17.73	3.4	7.2	21.53	V

LTE Band 5_3 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
825.5	16.81	3.4	7.3	20.71	V
836.5	17.44	3.4	6.6	20.64	V
847.5	16.99	3.4	7.2	20.79	V

LTE Band 5_5 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
826.5	17.65	3.4	7.3	21.55	V
836.5	18.26	3.4	6.6	21.46	V
846.5	17.80	3.4	7.2	21.60	V

LTE Band 5_5 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
826.5	16.61	3.4	7.3	20.51	V
836.5	17.72	3.4	6.6	20.92	V
846.5	16.97	3.4	7.2	20.77	V

LTE Band 5_10MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
829.0	17.49	3.4	7.3	21.39	V
836.4	18.37	3.4	6.6	21.57	V
844.0	18.30	3.4	6.6	21.50	V

LTE Band 5_10MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
829.0	16.80	3.4	7.3	20.70	V
836.4	17.71	3.4	6.6	20.91	V
844.0	17.63	3.4	6.6	20.83	V

5.9.8 LTE Band 28 Measurement result

LTE Band 28_3 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
704.5	14.49	3.1	9.1	20.49	V
725.5	14.70	3.1	9.0	20.60	V
746.5	15.20	3.2	8.5	20.50	V

LTE Band 28_3 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
704.5	14.33	3.1	9.1	20.33	V
725.5	14.36	3.1	9.0	20.26	V

746.5	15.04	3.2	8.5	20.34	V

LTE Band 28_5 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
705.5	14.52	3.1	9.1	20.52	V
725.5	14.57	3.1	9.0	20.47	V
745.5	15.20	3.2	8.5	20.50	V

LTE Band 28_5 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
705.5	14.39	3.1	9.1	20.39	V
725.5	14.52	3.1	9.0	20.42	V
745.5	14.99	3.2	8.5	20.29	V

LTE Band 28_10 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
708.0	14.44	3.1	9.1	20.44	V
725.5	14.70	3.1	9.0	20.60	V
743.0	15.22	3.2	8.5	20.52	V

LTE Band 28_10 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
708.0	14.19	3.1	9.1	20.19	V
725.5	14.35	3.1	9.0	20.25	V
743.0	15.08	3.2	8.5	20.38	V

LTE Band 28_15 MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
710.5	14.40	3.1	9.1	20.40	V
725.5	14.50	3.1	9.0	20.40	V
740.5	15.25	3.2	8.5	20.55	V

LTE Band 28_15 MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
710.5	14.31	3.1	9.1	20.31	V
725.5	14.38	3.1	9.0	20.28	V
740.5	15.07	3.2	8.5	20.37	V

LTE Band 28_20MHz_ QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
713.5	14.43	3.1	9.1	20.43	V
725.5	14.51	3.1	9.1	20.51	V
737.9	14.86	3.2	8.8	20.46	V

LTE Band 28_20MHz_ 16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
713.5	14.27	3.1	9.1	20.27	V
725.5	14.22	3.1	9.1	20.22	V
737.9	14.74	3.2	8.8	20.34	V

5.9.9 LTE Band 66 Measurement result

LTE Band 66_1.4MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1710.7	17.76	4.8	7.9	20.86	V
1745.0	16.62	4.9	8.8	20.52	V
1779.3	16.59	4.9	8.8	20.49	V

LTE Band 66_1.4MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1710.7	17.32	4.8	7.9	20.42	V
1745.0	16.43	4.9	8.8	20.33	V
1779.3	16.27	4.9	8.8	20.17	V

LTE Band 66_3MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1711.5	17.65	4.8	7.9	20.75	V
1745.0	16.59	4.9	8.8	20.49	V
1778.5	17.68	4.9	7.8	20.58	V

LTE Band 66_3MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1711.5	17.29	4.8	7.9	20.39	V
1745.0	16.32	4.9	8.8	20.22	V

1778.5	16.40	4.9	8.8	20.30	V

LTE Band 66_5MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1712.5	17.73	4.8	7.9	20.83	V
1745.0	16.55	4.9	8.8	20.45	V
1777.5	16.77	4.9	8.8	20.67	V

LTE Band 66_5MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1712.5	17.45	4.8	7.9	20.55	V
1745.0	16.39	4.9	8.8	20.29	V
1777.5	16.44	4.9	8.8	20.34	V

LTE Band 66_10MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1715.0	17.78	4.8	7.9	20.88	V
1745.0	16.59	4.9	8.8	20.49	V
1775.0	16.76	4.9	8.8	20.66	V

LTE Band 66_10MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1715.0	17.43	4.8	7.9	20.53	V
1745.0	16.46	4.9	8.8	20.36	V
1775.0	16.32	4.9	8.8	20.22	V

LTE Band 66_15MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1717.5	17.61	4.8	7.9	20.71	V
1745.0	16.63	4.9	8.8	20.53	V
1772.5	16.76	4.9	8.8	20.66	V

LTE Band 66_15MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1717.5	17.50	4.8	7.9	20.60	V
1745.0	16.33	4.9	8.8	20.23	V
1772.5	16.42	4.9	8.8	20.32	V

LTE Band 66_20MHz_QPSK

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1720.0	17.70	4.8	7.9	20.80	V
1745.0	17.24	4.9	8.1	20.44	V
1769.0	16.69	4.9	8.8	20.59	V

LTE Band 66_20MHz_16QAM

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1720.0	17.41	4.8	7.9	20.51	V
1745.0	17.10	4.9	8.1	20.30	V
1769.0	16.21	4.9	8.8	20.11	V

Annex A EUT Photos

See the document" SIM7600SA-H,SIM7600SA-H miniPCIE -External Photos".
See the document" SIM7600SA-H,SIM7600SA-H miniPCIE -Internal Photos".

ANNEX B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

End Of Report