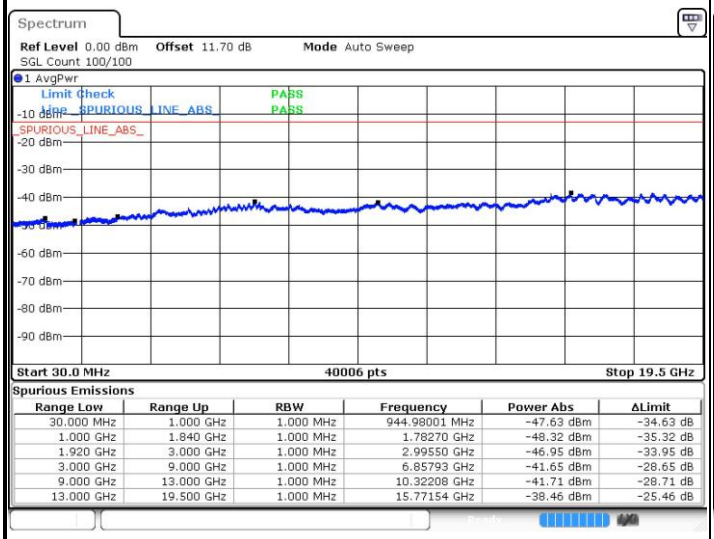
LTE Band 2 / 20MHz

Middle Channel / QPSK

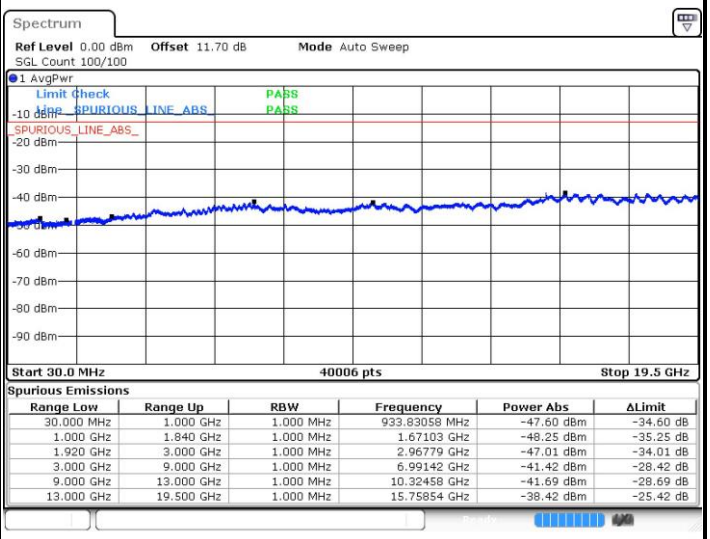


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	944.98001 MHz	-47.63 dBm	-34.63 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.78270 GHz	-48.32 dBm	-35.32 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99550 GHz	-46.95 dBm	-33.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.85793 GHz	-41.65 dBm	-28.65 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.32208 GHz	-41.71 dBm	-28.71 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.77154 GHz	-38.46 dBm	-25.46 dB

Date: 2.MAY.2017 11:51:52

Middle Channel / 16QAM

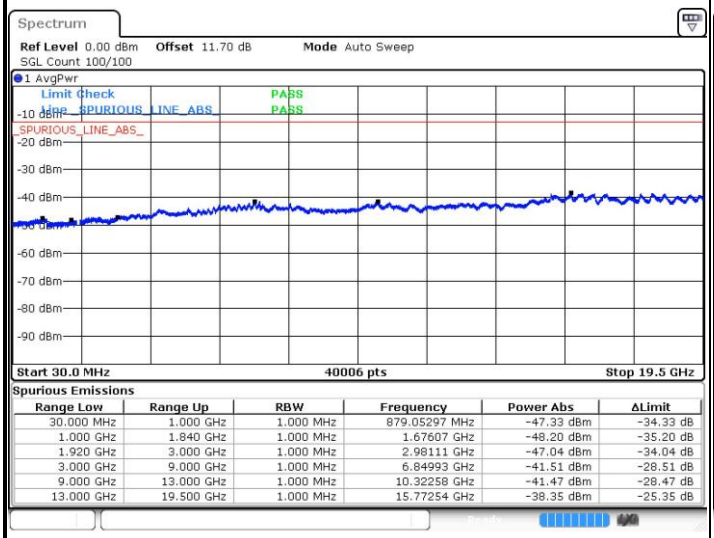


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	933.83058 MHz	-47.60 dBm	-34.60 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.67103 GHz	-48.25 dBm	-35.25 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.96779 GHz	-47.01 dBm	-34.01 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.99142 GHz	-41.42 dBm	-28.42 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.32458 GHz	-41.69 dBm	-28.69 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.75854 GHz	-38.42 dBm	-25.42 dB

Date: 2.MAY.2017 11:52:47

Highest Channel / QPSK

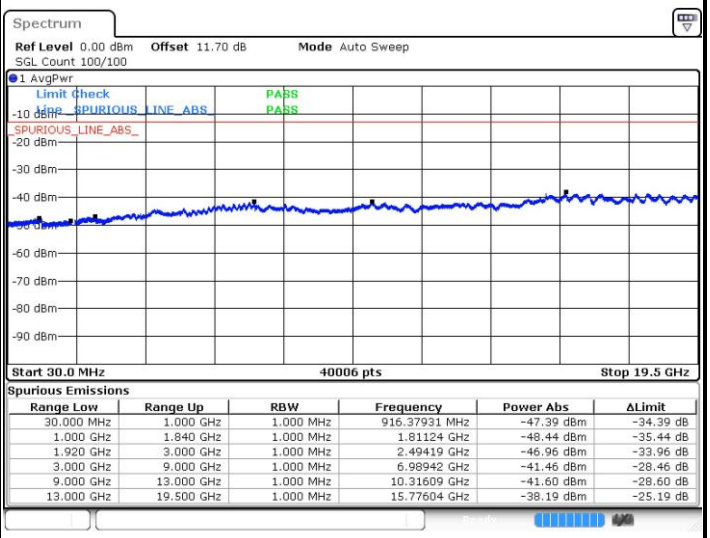


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	879.05297 MHz	-47.33 dBm	-34.33 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.67607 GHz	-48.20 dBm	-35.20 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98111 GHz	-47.04 dBm	-34.04 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.84993 GHz	-41.51 dBm	-28.51 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.32258 GHz	-41.47 dBm	-28.47 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.77254 GHz	-38.35 dBm	-25.35 dB

Date: 2.MAY.2017 11:58:59

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	916.37931 MHz	-47.39 dBm	-34.39 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.81124 GHz	-48.44 dBm	-35.44 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.49419 GHz	-46.96 dBm	-33.96 dB
3.000 GHz	9.000 GHz	1.000 MHz	6.98942 GHz	-41.46 dBm	-28.46 dB
9.000 GHz	13.000 GHz	1.000 MHz	10.31609 GHz	-41.60 dBm	-28.60 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.77604 GHz	-38.19 dBm	-25.19 dB

Date: 2.MAY.2017 11:59:54

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

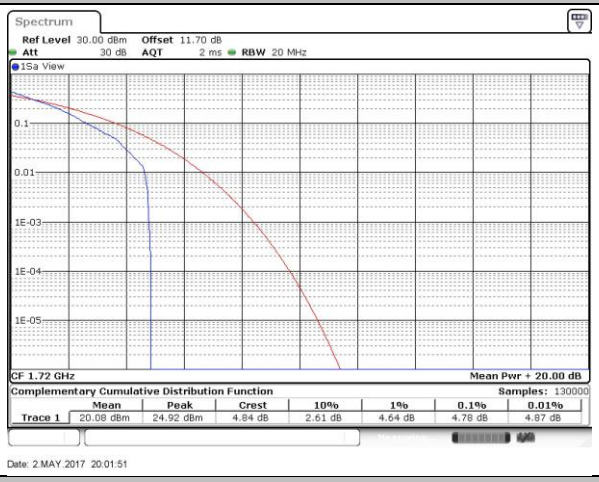
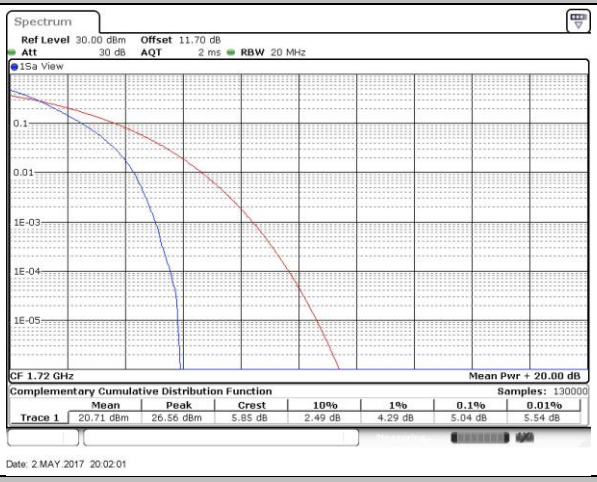
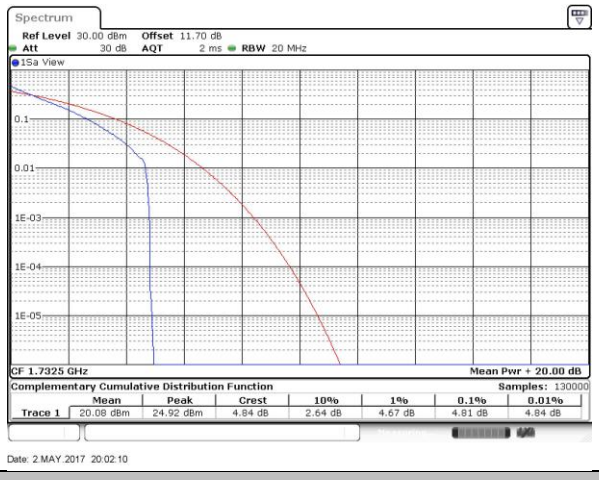
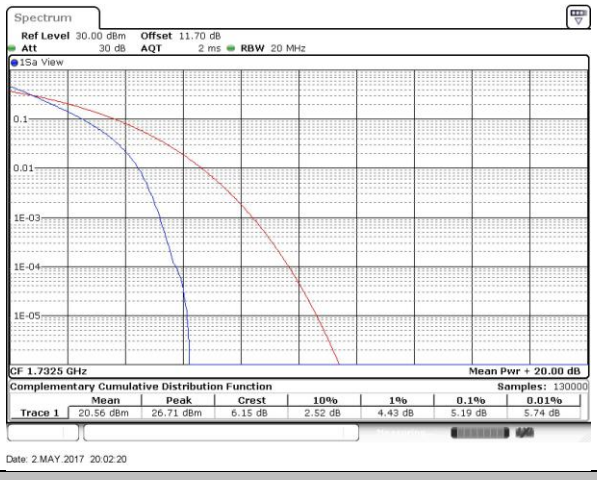
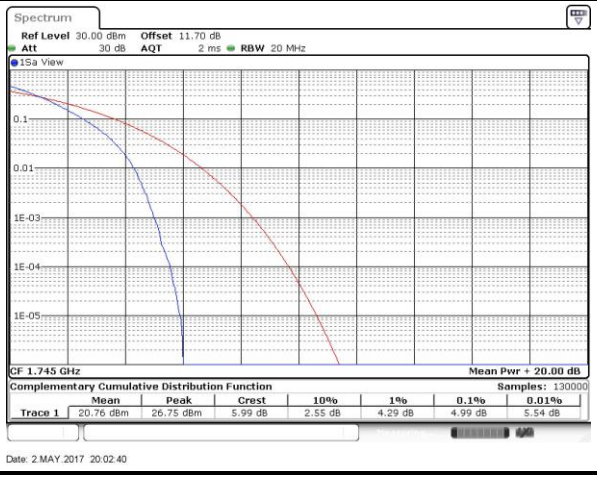
1. Normal Voltage =4.0 V.；Battery End Point (BEP) =3.7 V.；Maximum Voltage =4.0 V.

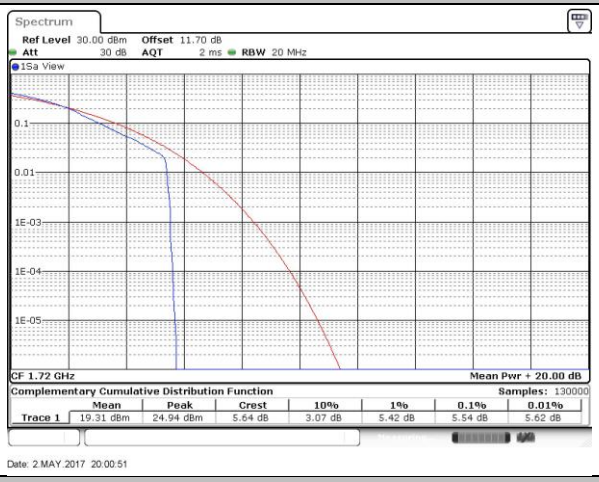
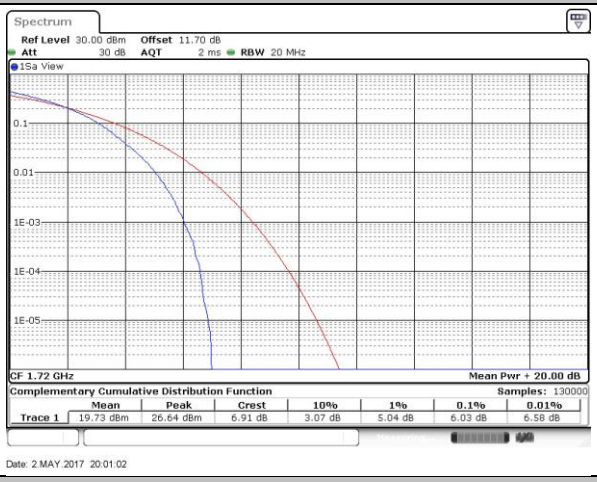
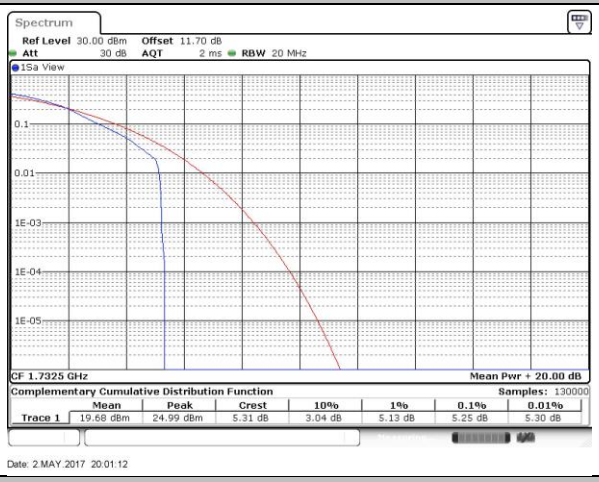
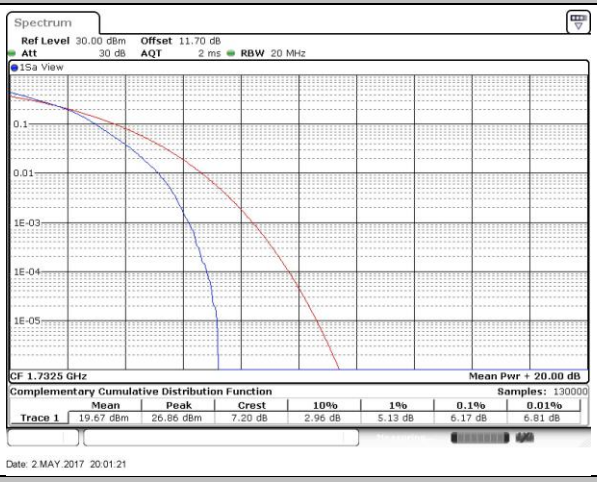
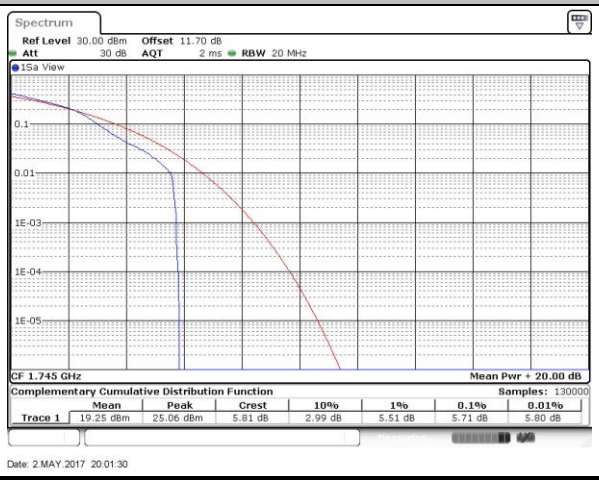
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 4

Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.78	5.04	5.54	6.03	PASS
Middle CH	4.81	5.19	5.25	6.17	
Highest CH	4.78	4.99	5.71	6.06	

LTE Band 4 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

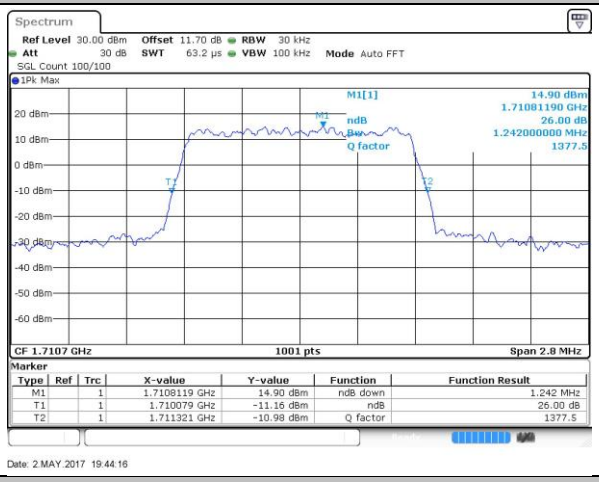
LTE Band 4 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

26dB Bandwidth

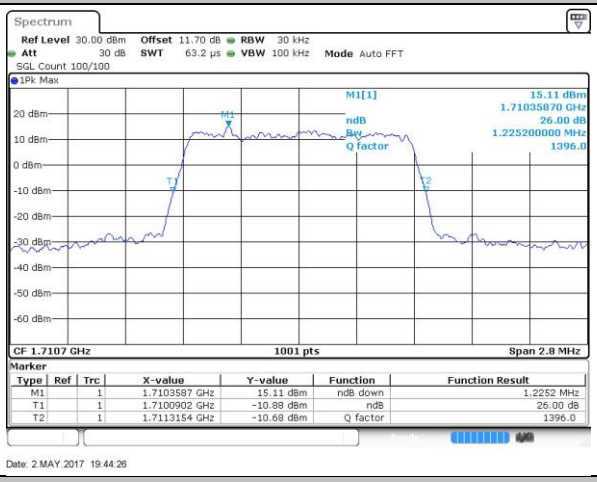
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.242	1.225	3.015	3.003	4.955	4.885	9.69	9.77	14.296	14.236	20.18	20.1
Middle CH	1.228	1.228	3.039	3.057	4.855	4.875	9.67	9.69	14.655	14.505	20.18	20.34
Highest CH	1.228	1.211	3.009	2.991	4.875	4.885	9.73	9.73	14.356	14.236	20.14	20.18

LTE Band 4

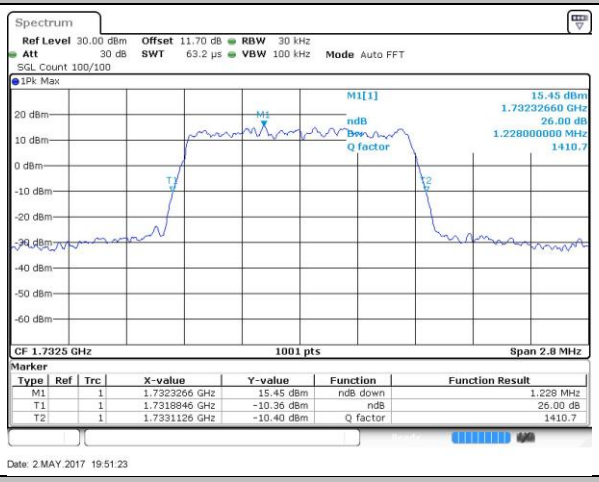
Lowest Channel / 1.4MHz / QPSK



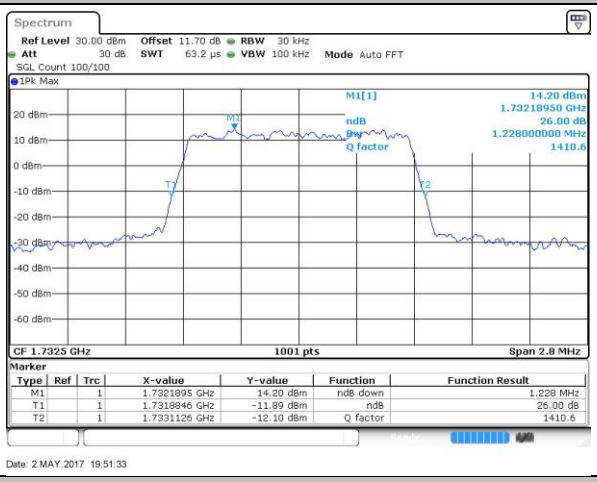
Lowest Channel / 1.4MHz / 16QAM



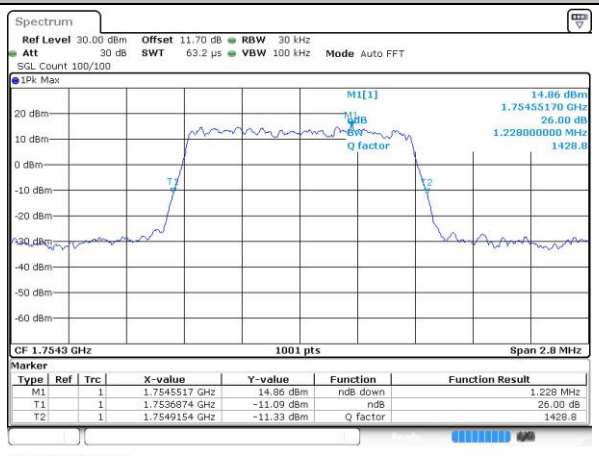
Middle Channel / 1.4MHz / QPSK



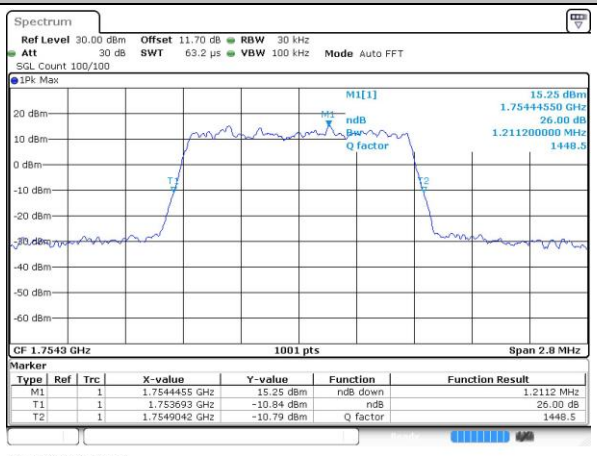
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

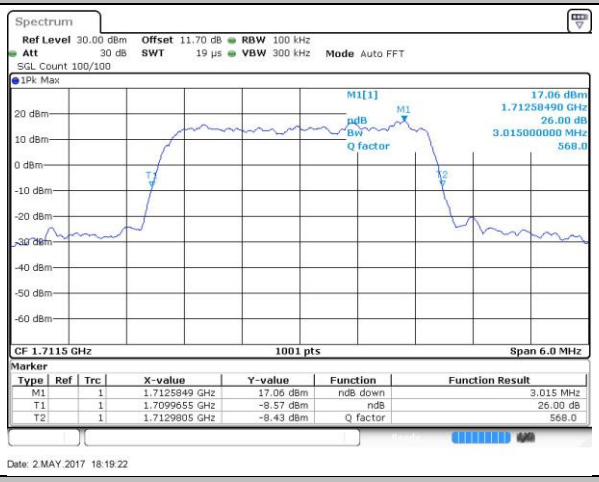


Highest Channel / 1.4MHz / 16QAM

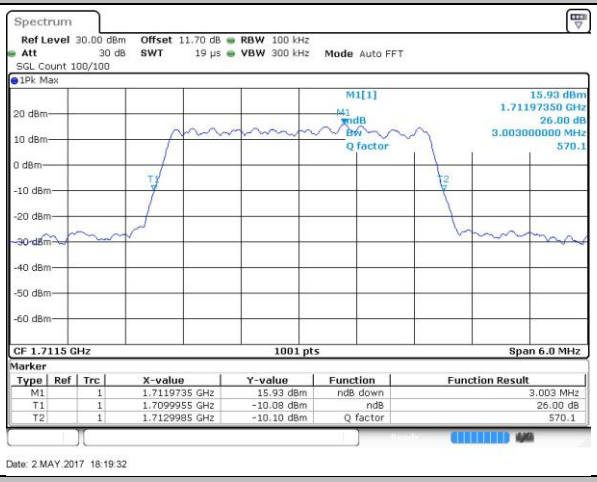


LTE Band 4

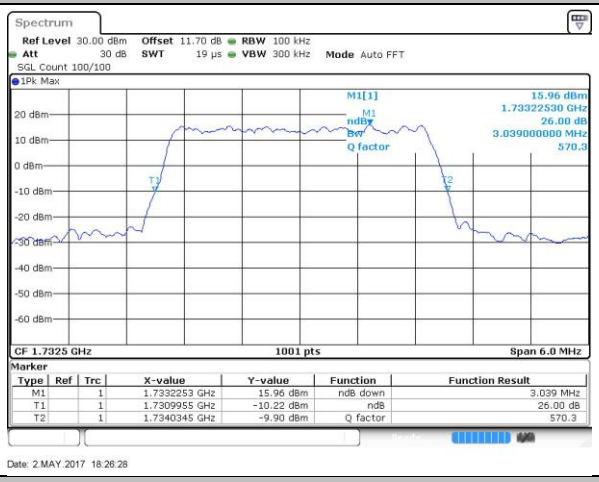
Lowest Channel / 3MHz / QPSK



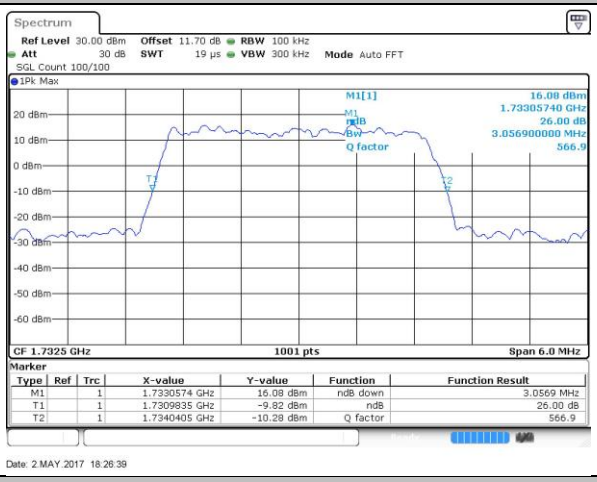
Lowest Channel / 3MHz / 16QAM



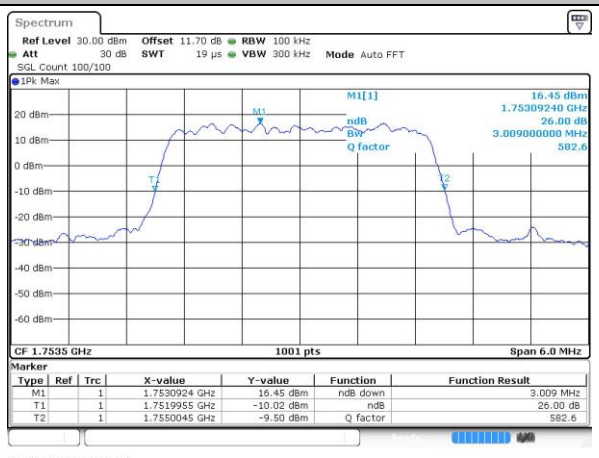
Middle Channel / 3MHz / QPSK



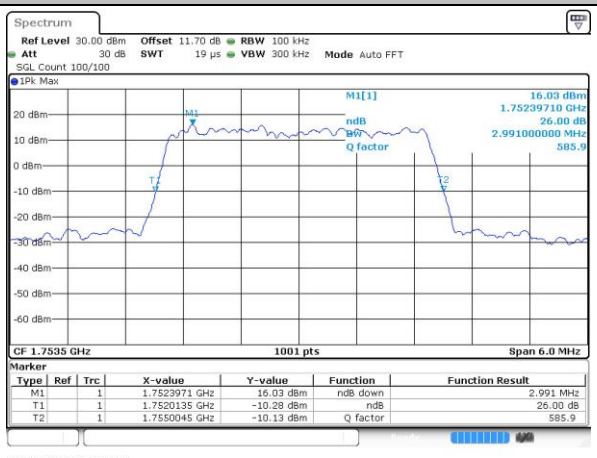
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

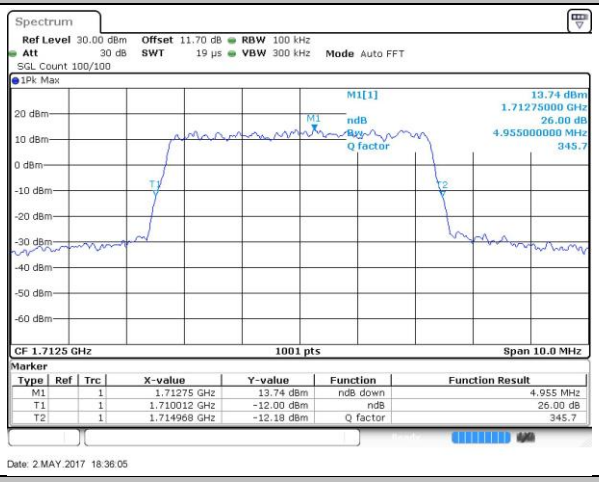


Highest Channel /3MHz / 16QAM

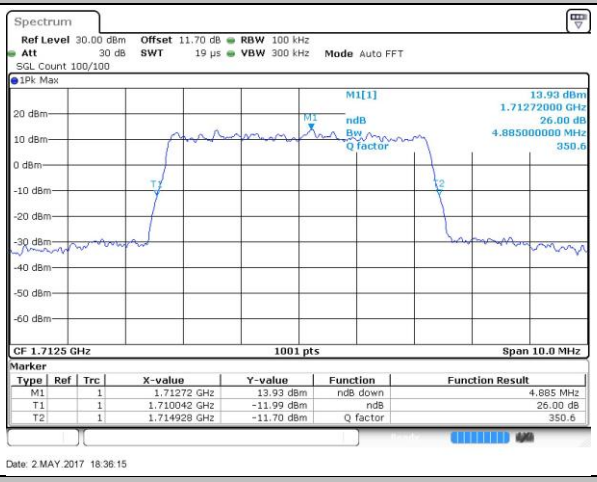


LTE Band 4

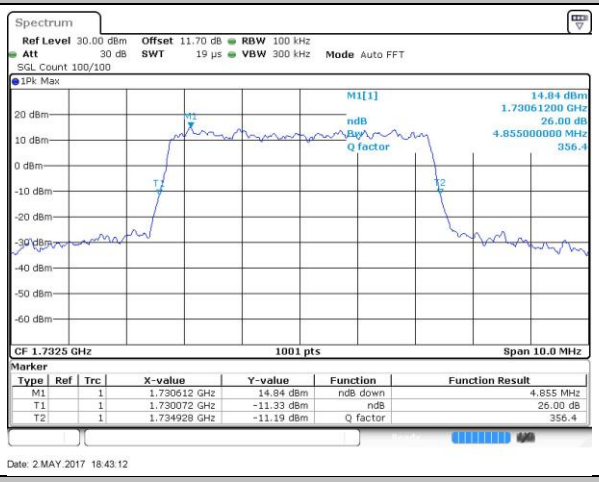
Lowest Channel / 5MHz / QPSK



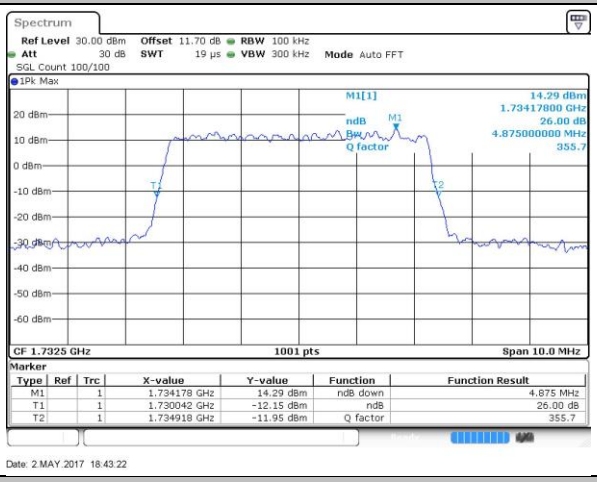
Lowest Channel / 5MHz / 16QAM



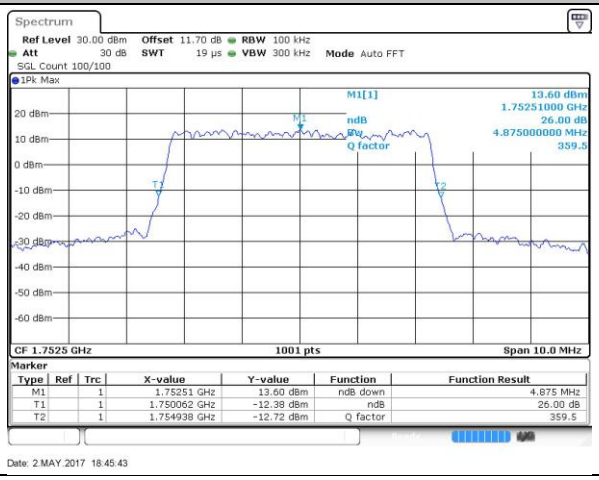
Middle Channel / 5MHz / QPSK



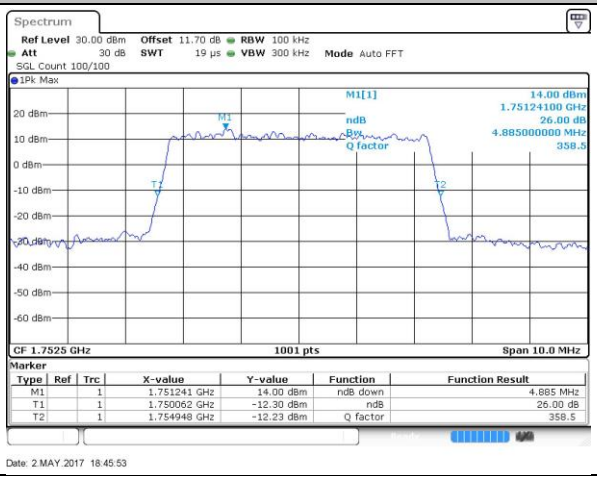
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

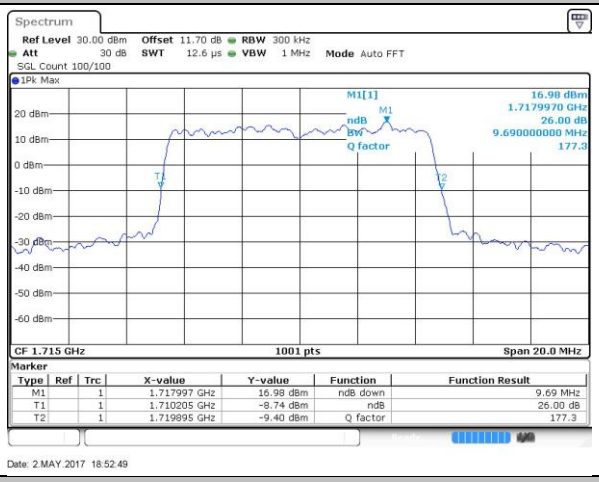


Highest Channel / 5MHz / 16QAM

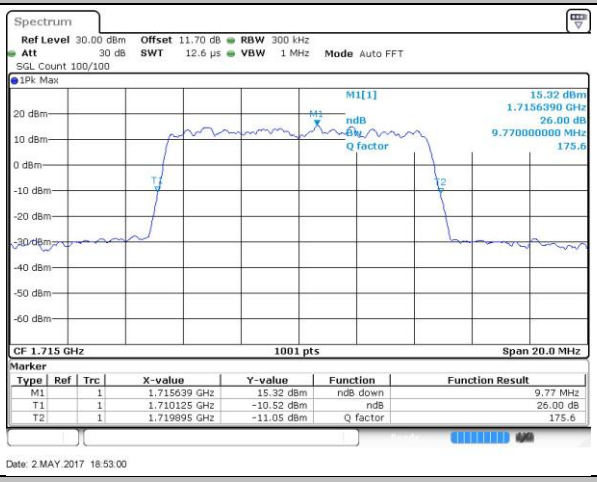


LTE Band 4

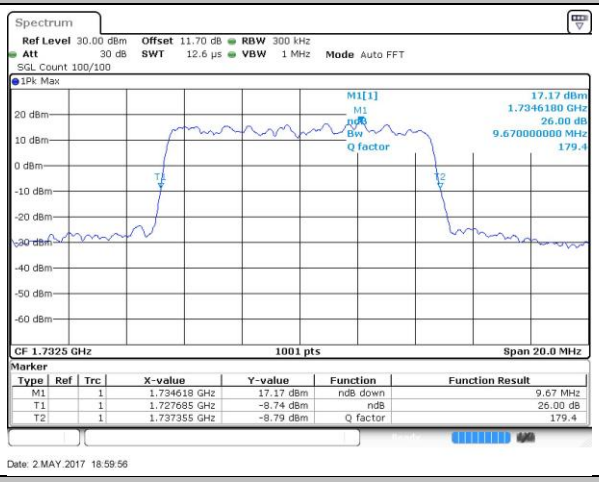
Lowest Channel / 10MHz / QPSK



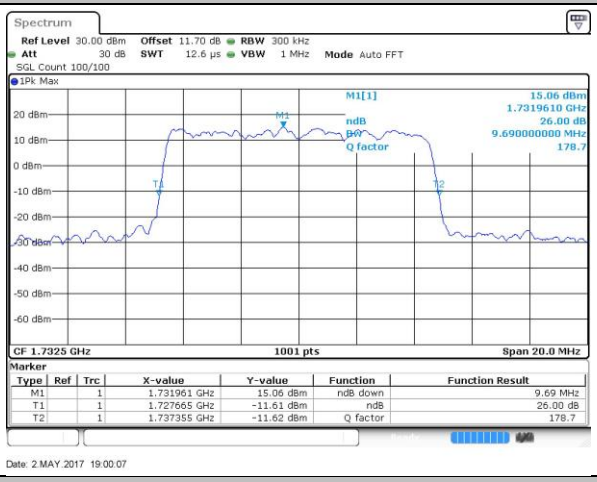
Lowest Channel / 10MHz / 16QAM



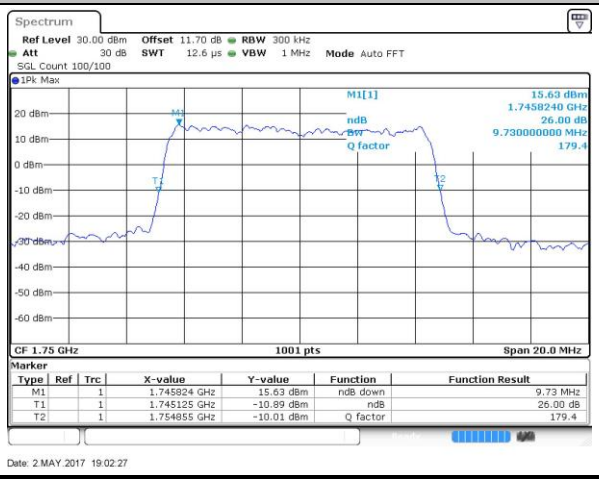
Middle Channel / 10MHz / QPSK



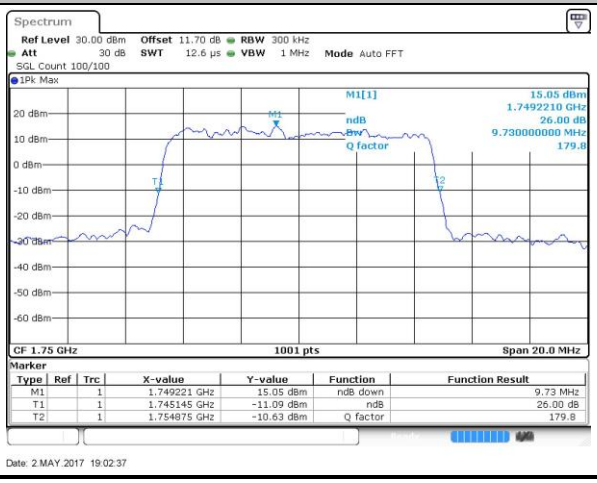
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

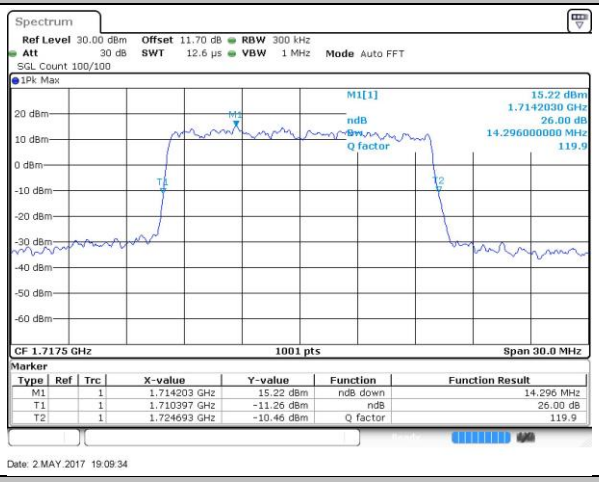


Highest Channel / 10MHz / 16QAM

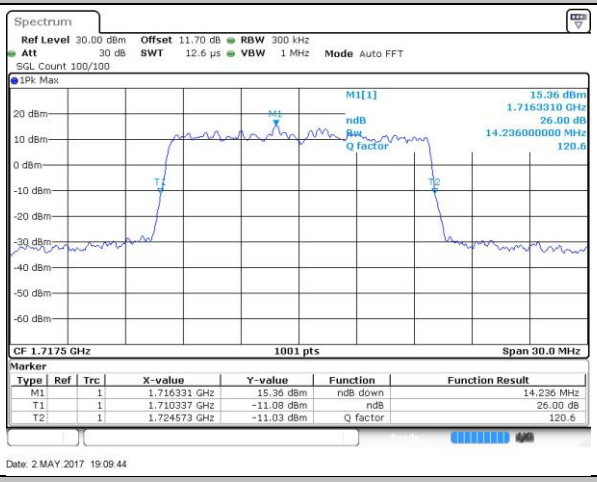


LTE Band 4

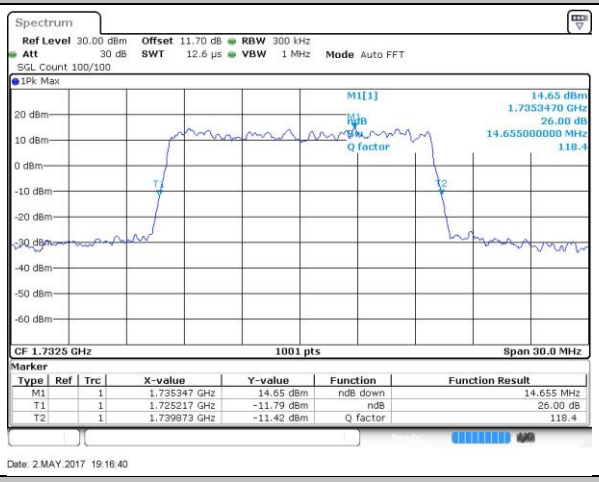
Lowest Channel / 15MHz / QPSK



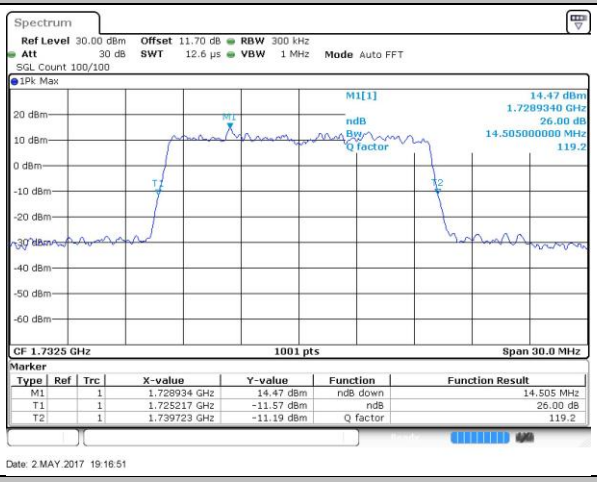
Lowest Channel / 15MHz / 16QAM



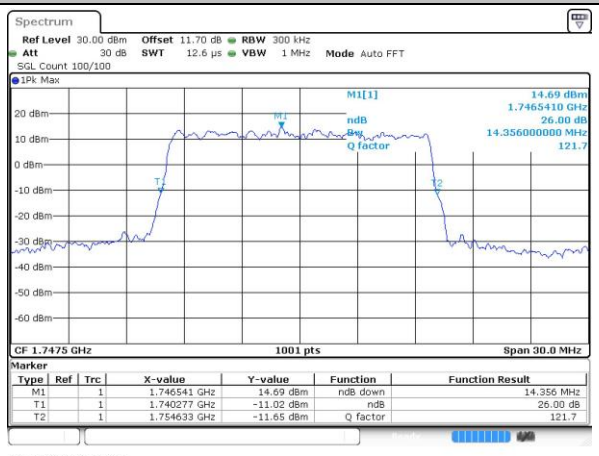
Middle Channel / 15MHz / QPSK



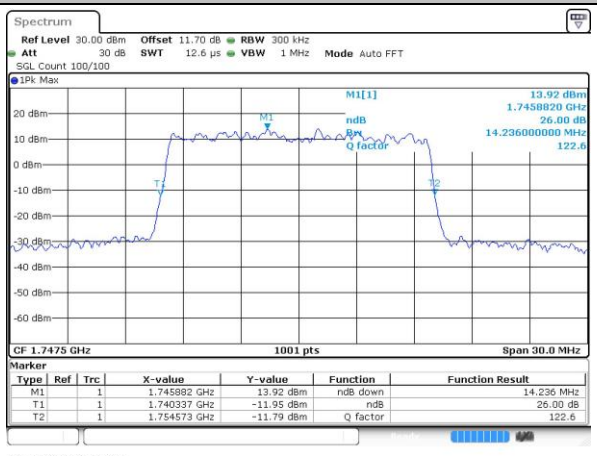
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

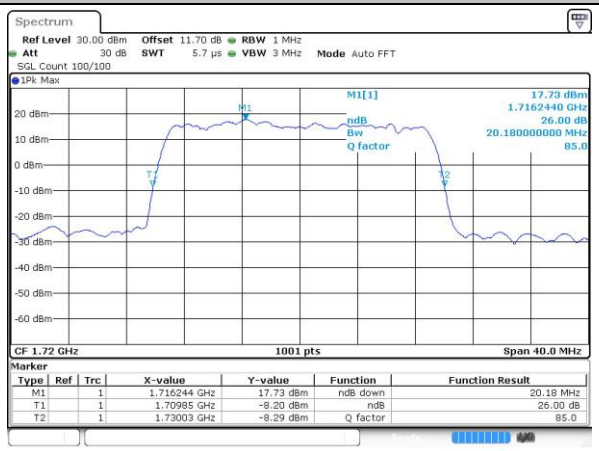


Highest Channel / 15MHz / 16QAM

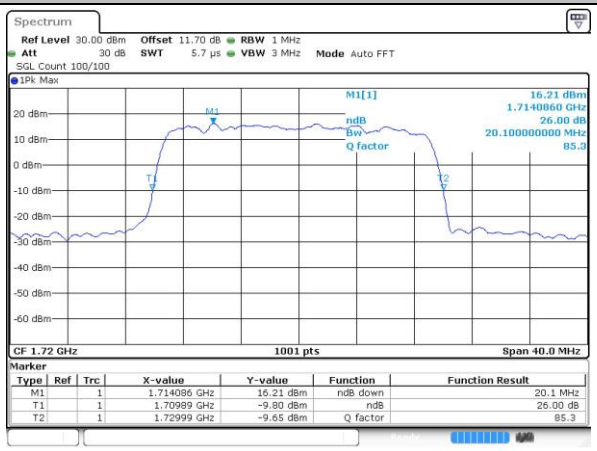


LTE Band 4

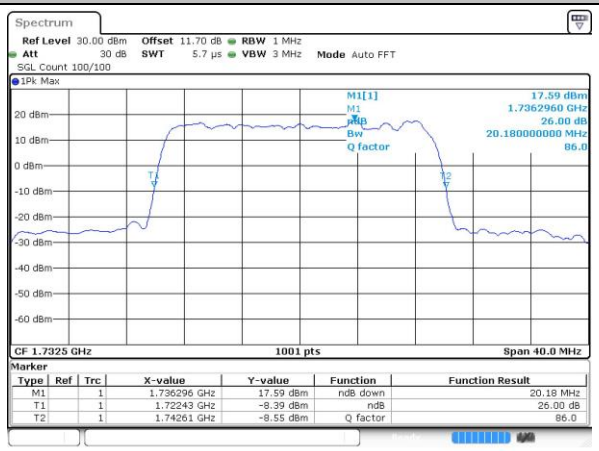
Lowest Channel / 20MHz / QPSK



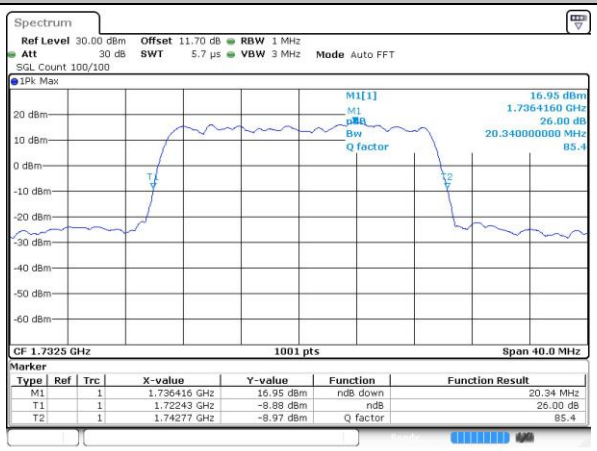
Lowest Channel / 20MHz / 16QAM



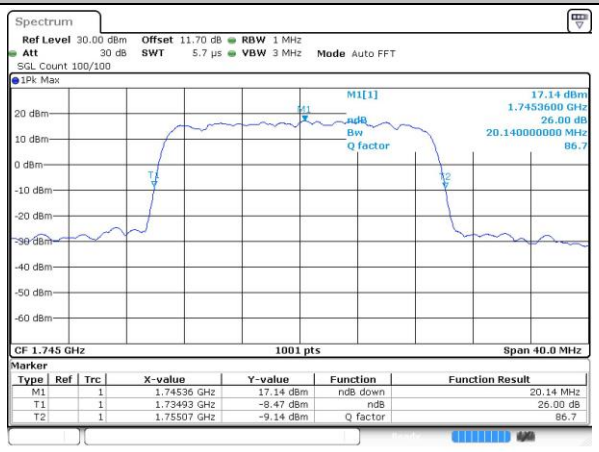
Middle Channel / 20MHz / QPSK



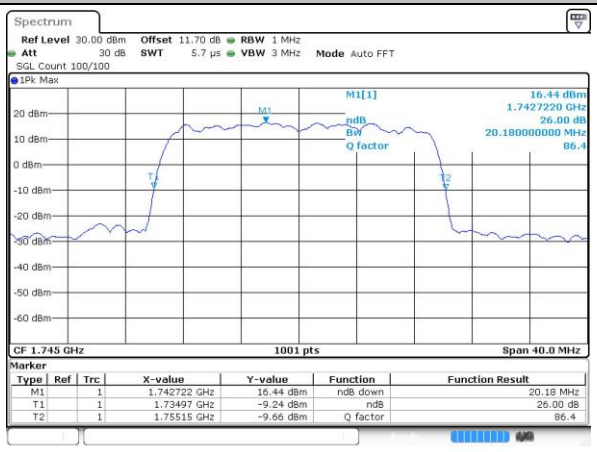
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM

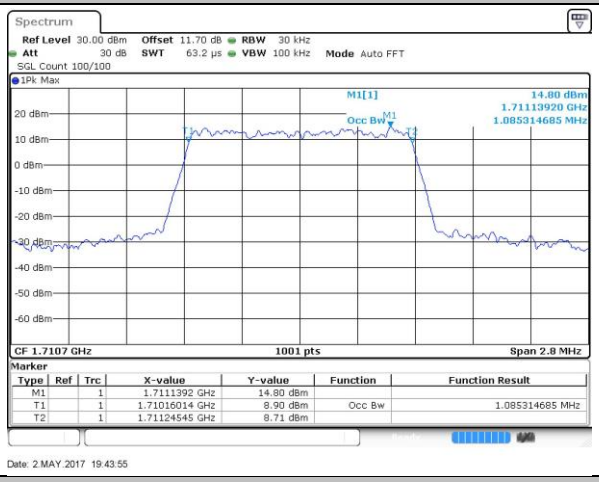


Occupied Bandwidth

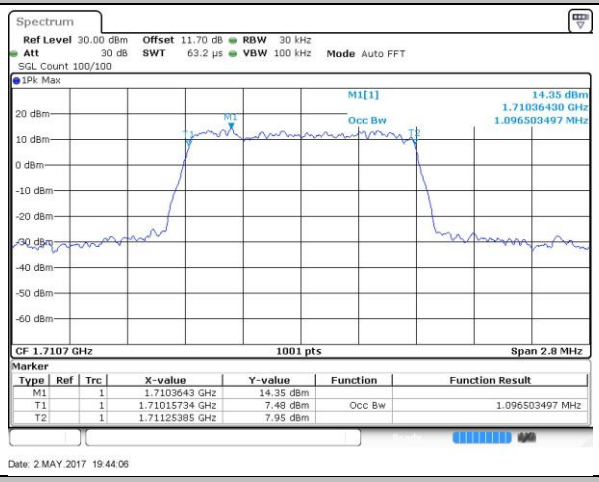
Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.1	2.71	2.7	4.48	4.49	9.01	8.95	13.43	13.46	18.26	18.26
Middle CH	1.09	1.09	2.73	2.72	4.5	4.5	9.07	9.01	13.52	13.49	18.46	18.38
Highest CH	1.08	1.09	2.71	2.7	4.5	4.5	9.03	9.01	13.43	13.4	18.22	18.38

LTE Band 4

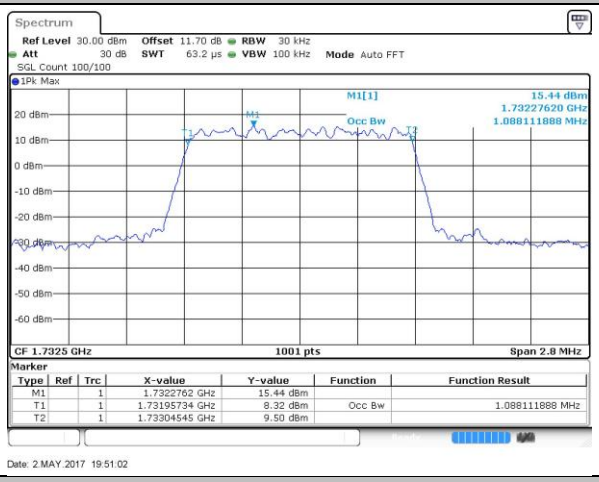
Lowest Channel / 1.4MHz / QPSK



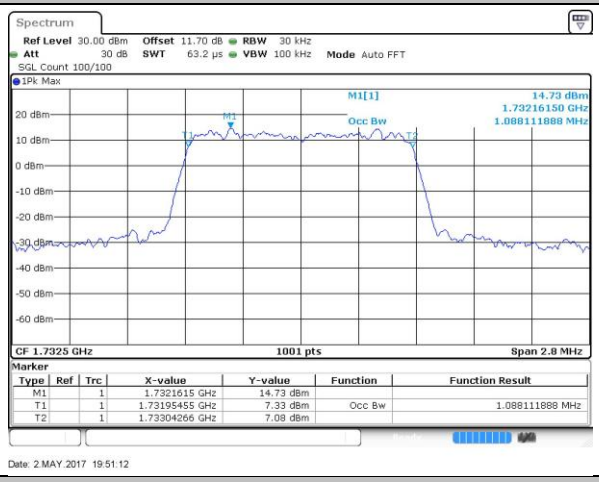
Lowest Channel / 1.4MHz / 16QAM



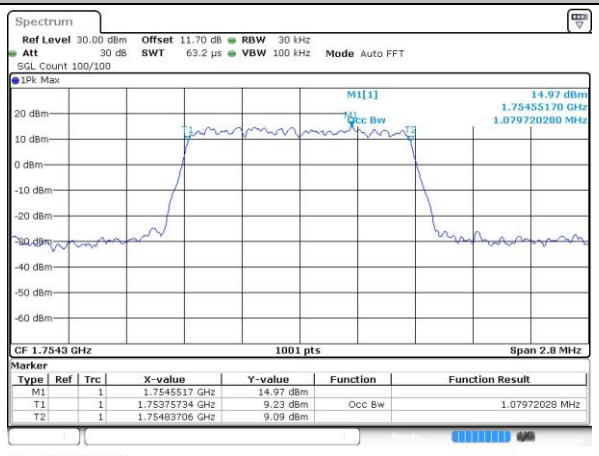
Middle Channel / 1.4MHz / QPSK



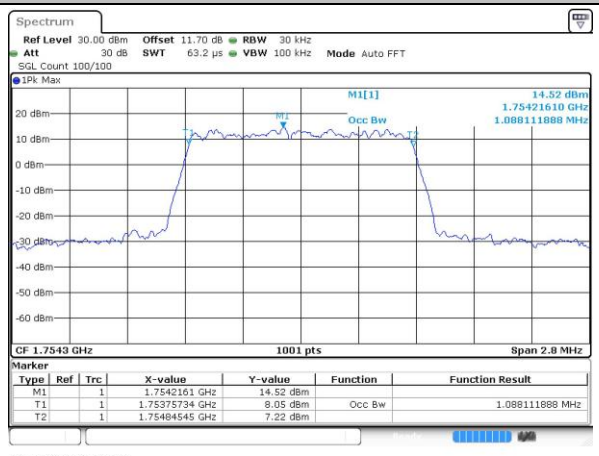
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

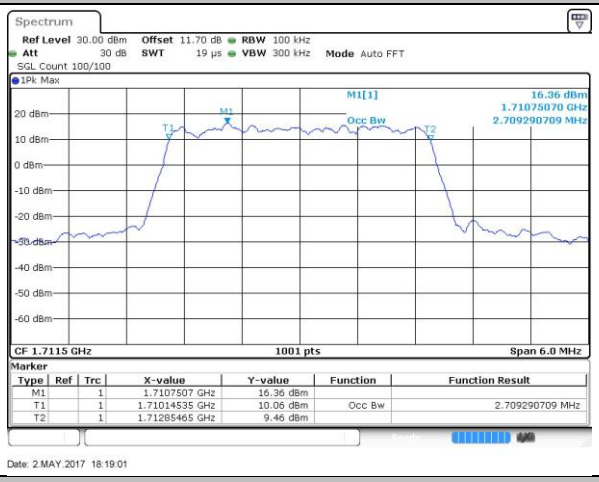


Highest Channel / 1.4MHz / 16QAM

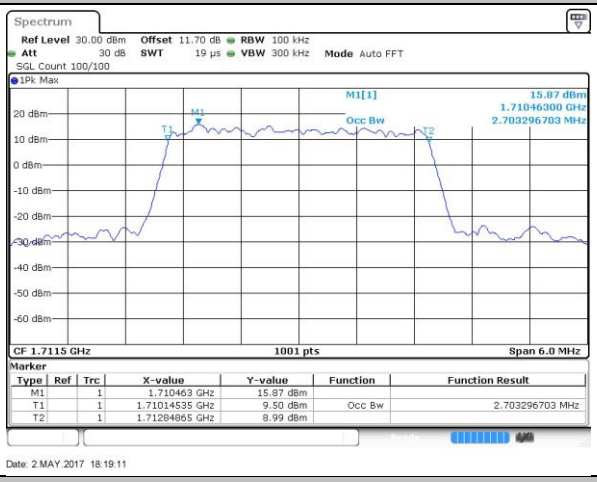


LTE Band 4

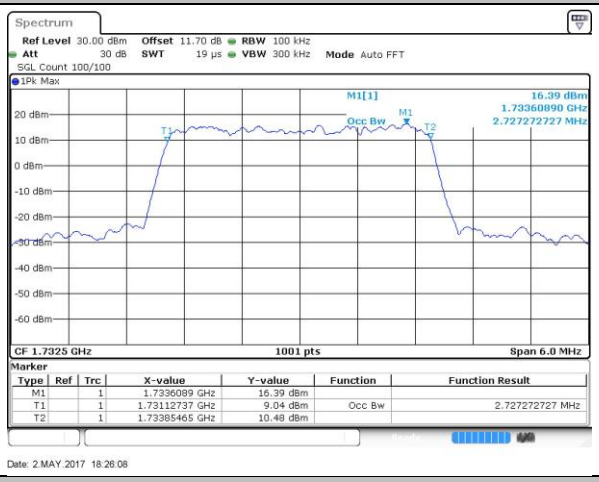
Lowest Channel / 3MHz / QPSK



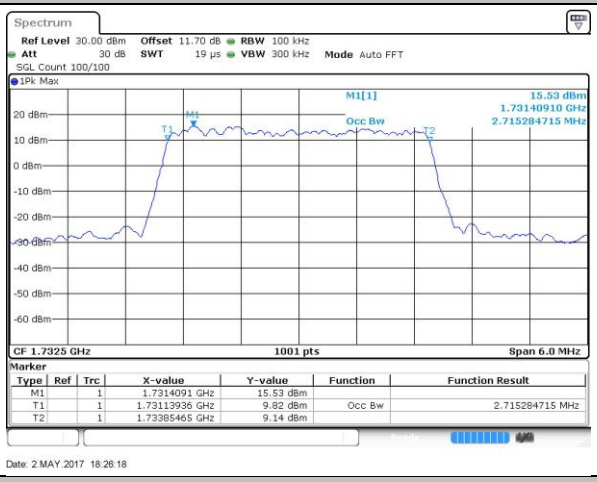
Lowest Channel / 3MHz / 16QAM



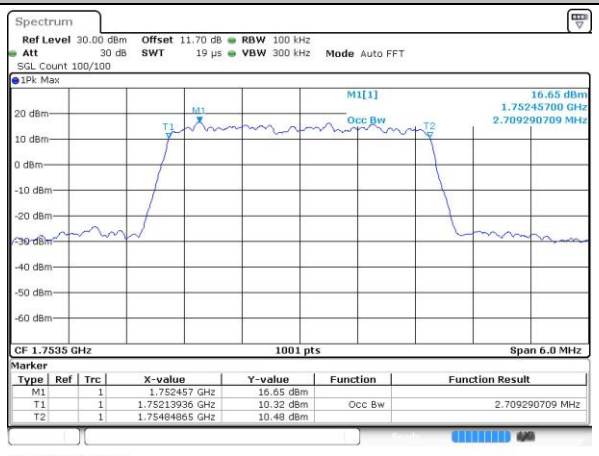
Middle Channel / 3MHz / QPSK



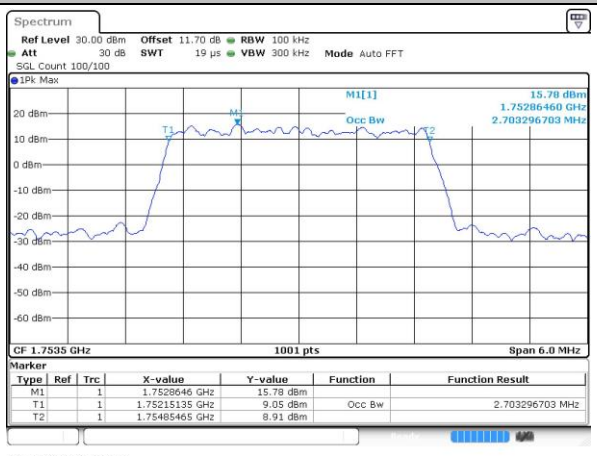
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

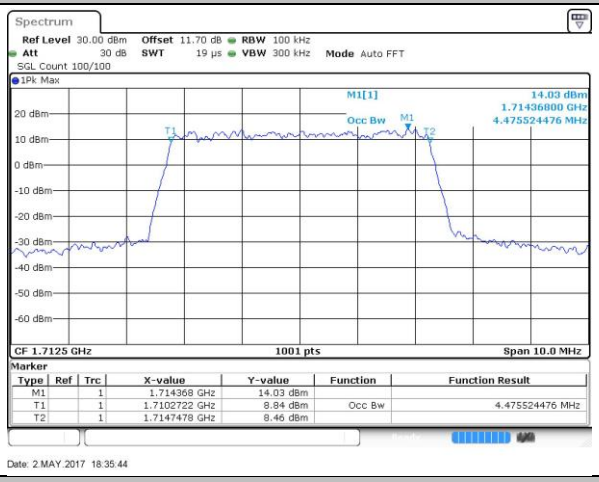


Highest Channel / 3MHz / 16QAM

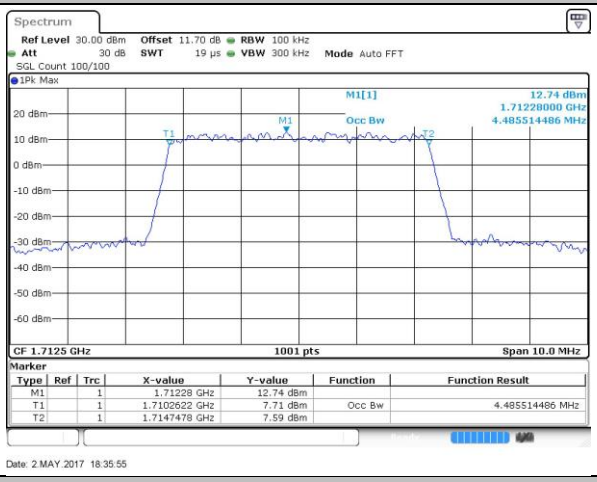


LTE Band 4

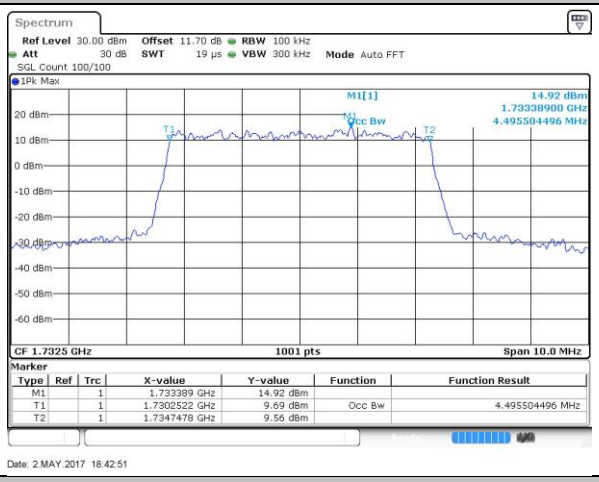
Lowest Channel / 5MHz / QPSK



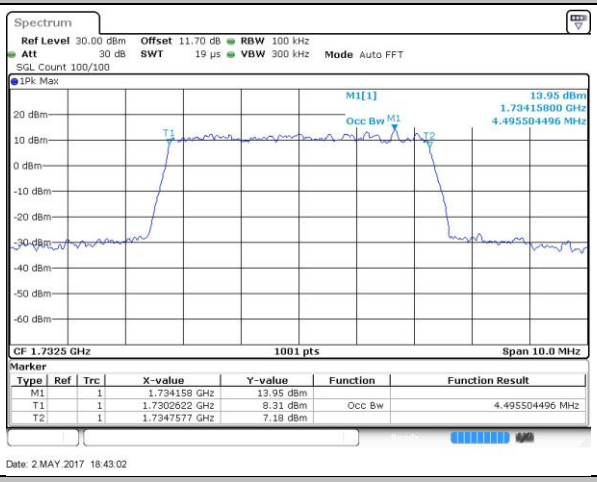
Lowest Channel / 5MHz / 16QAM



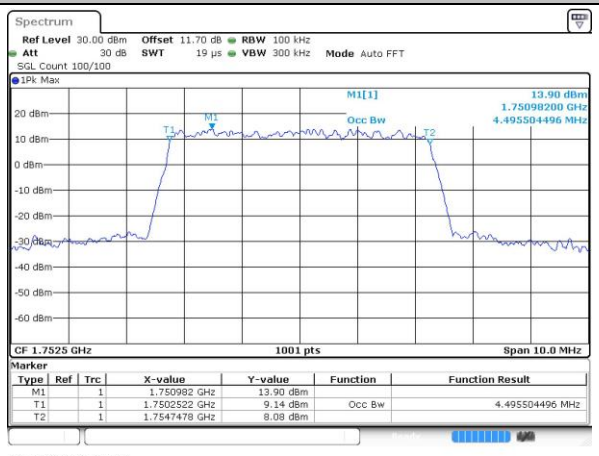
Middle Channel / 5MHz / QPSK



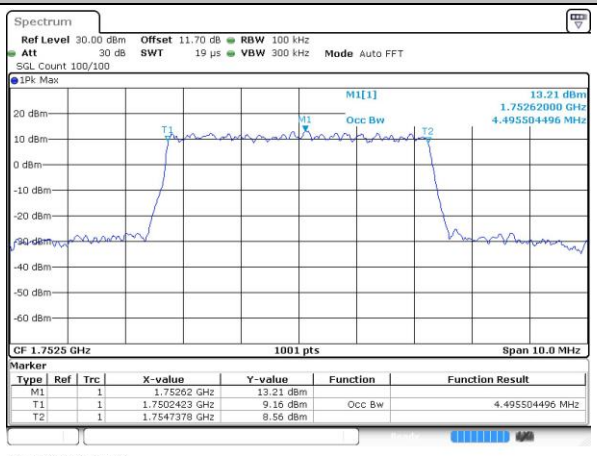
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

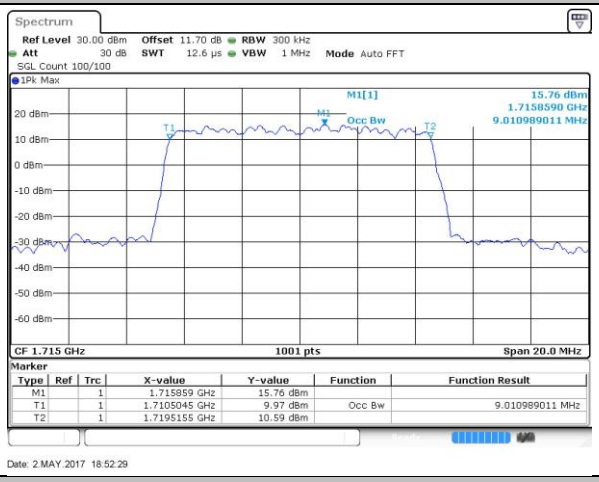


Highest Channel / 5MHz / 16QAM

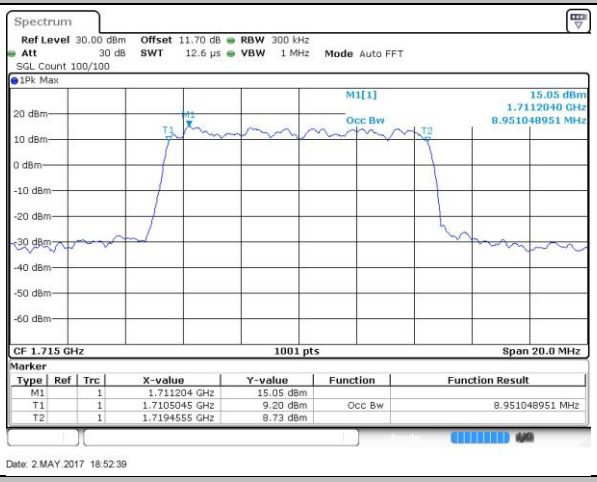


LTE Band 4

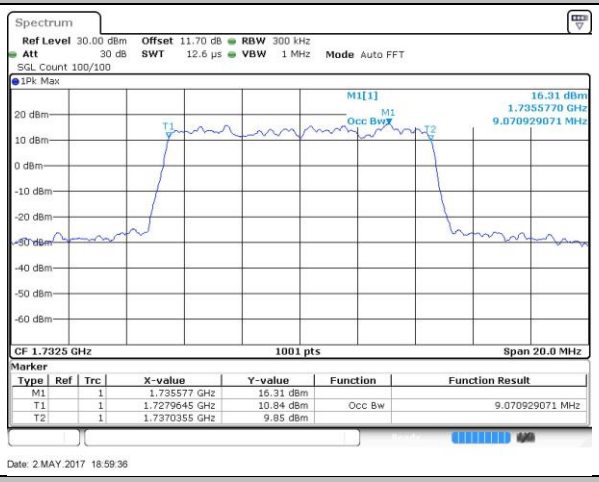
Lowest Channel / 10MHz / QPSK



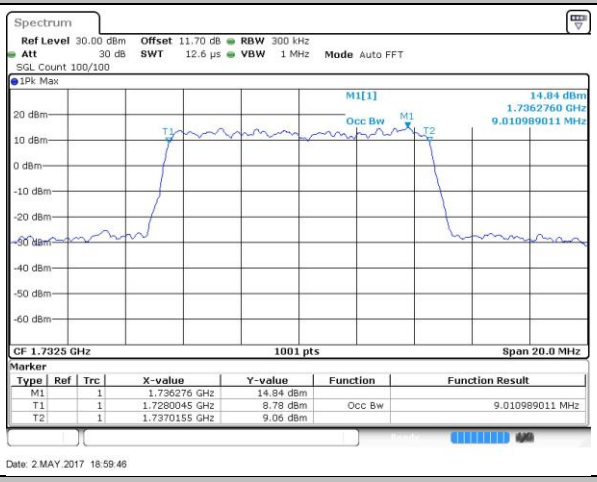
Lowest Channel / 10MHz / 16QAM



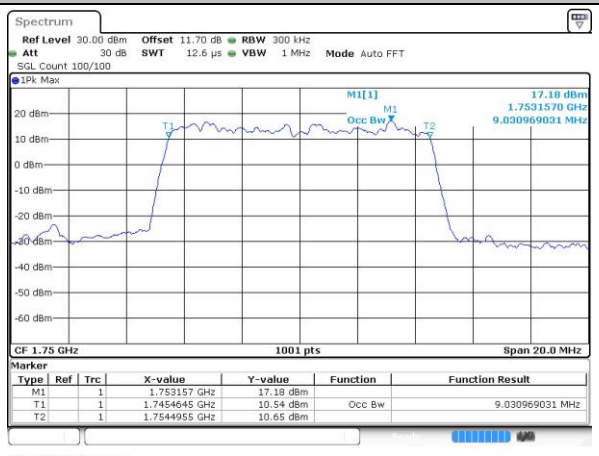
Middle Channel / 10MHz / QPSK



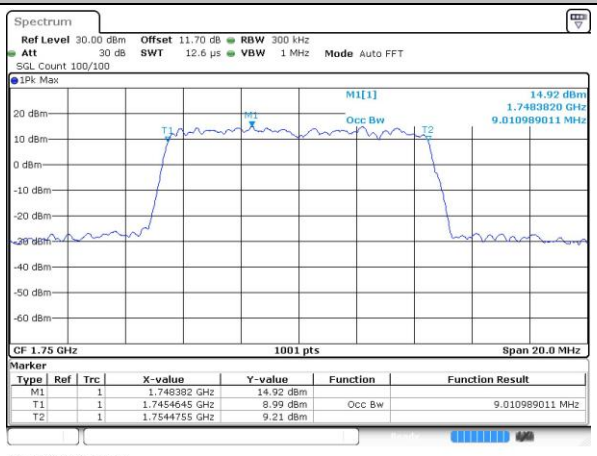
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

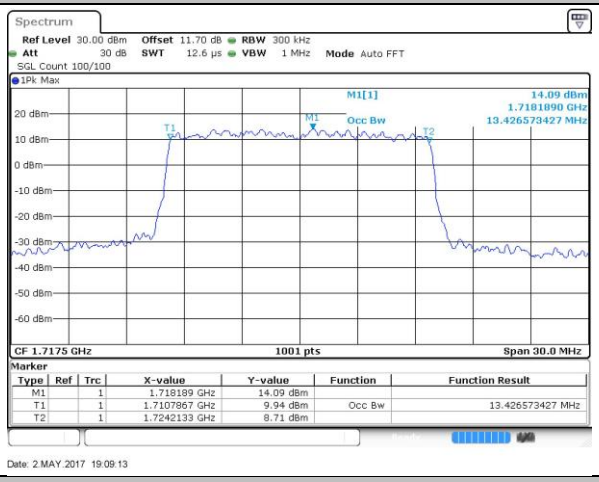


Highest Channel / 10MHz / 16QAM

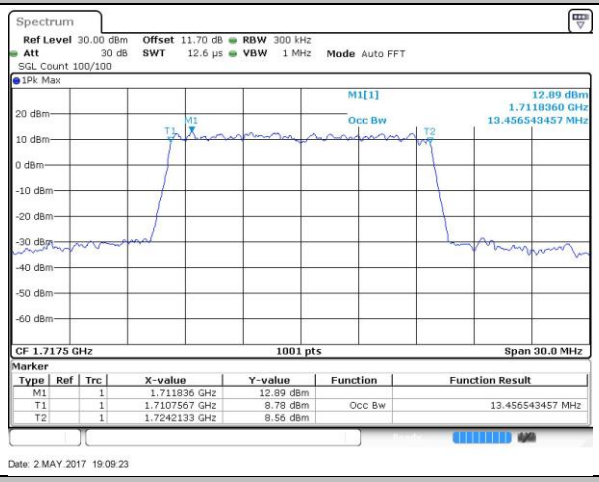


LTE Band 4

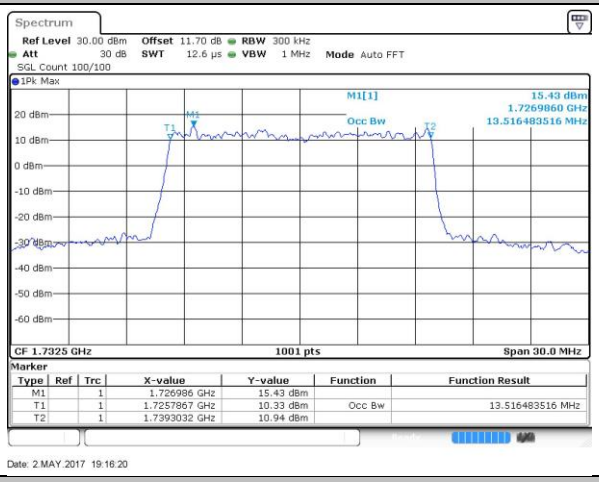
Lowest Channel / 15MHz / QPSK



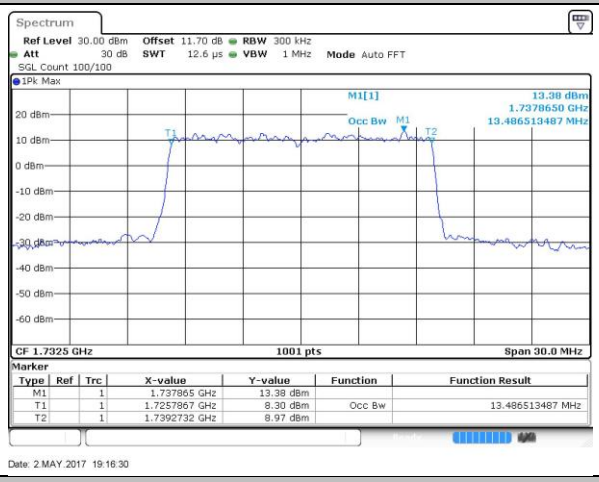
Lowest Channel / 15MHz / 16QAM



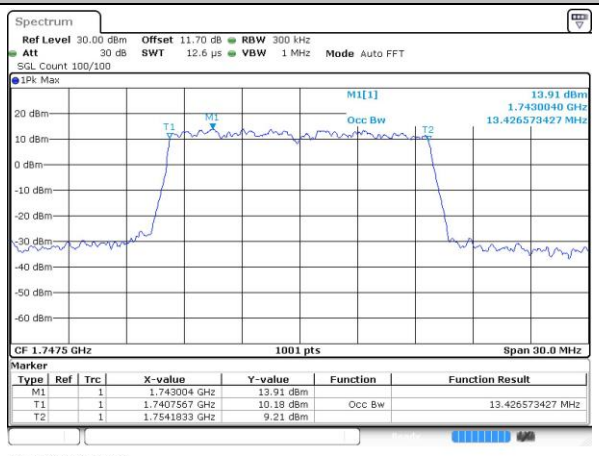
Middle Channel / 15MHz / QPSK



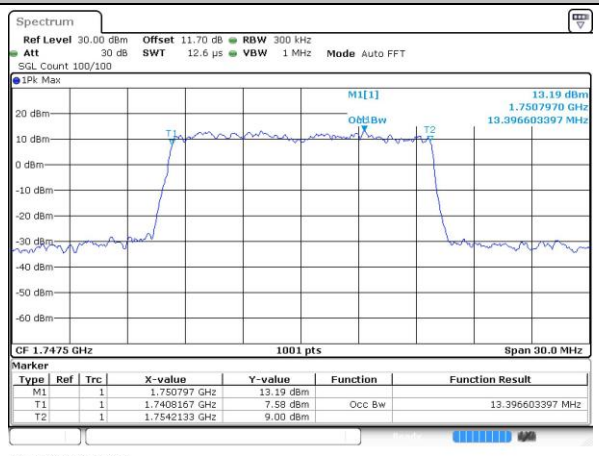
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

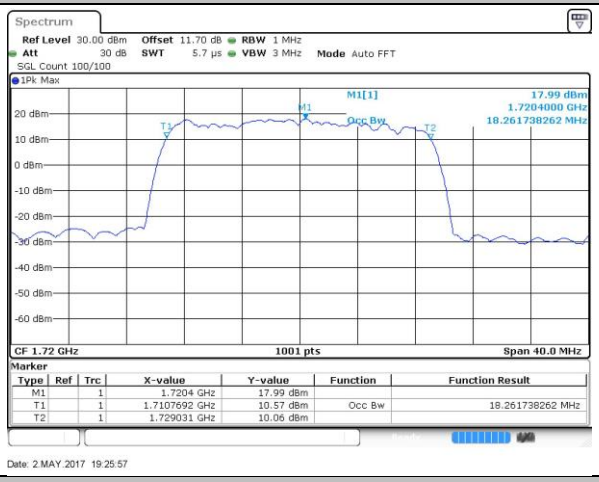


Highest Channel / 15MHz / 16QAM

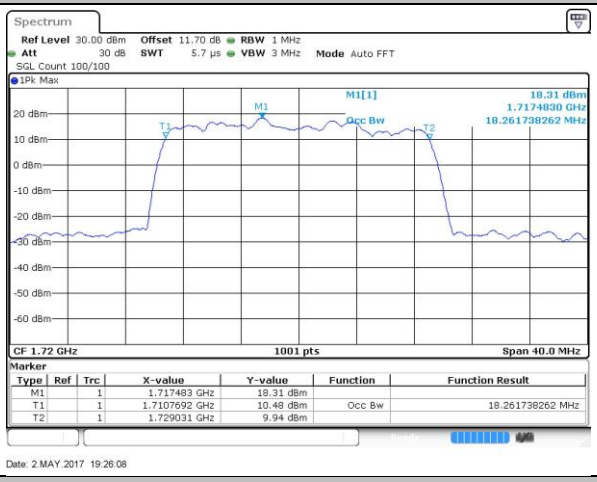


LTE Band 4

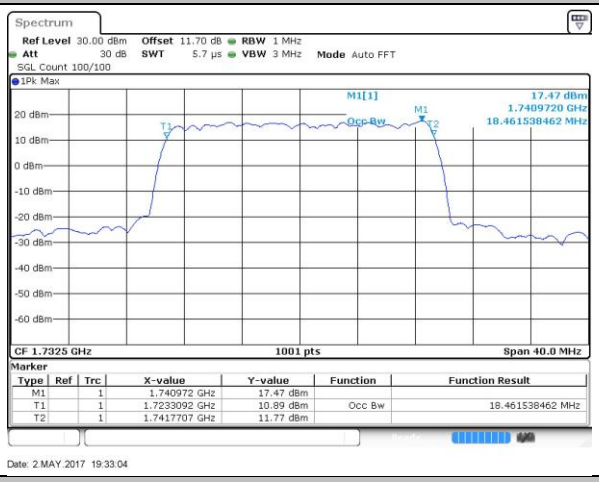
Lowest Channel / 20MHz / QPSK



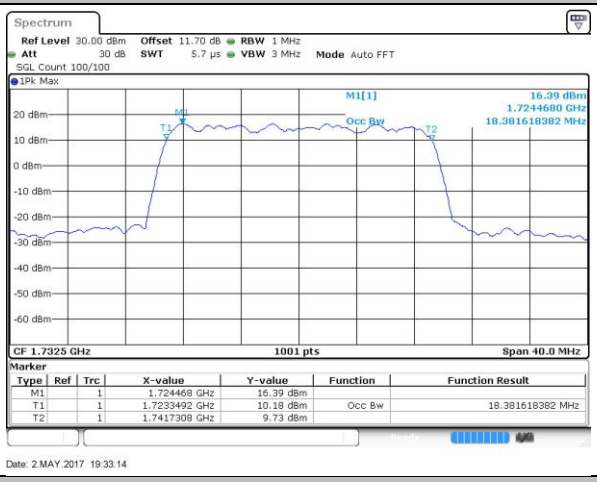
Lowest Channel / 20MHz / 16QAM



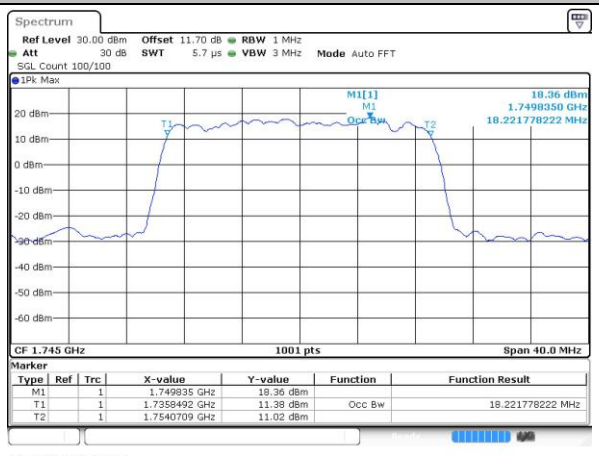
Middle Channel / 20MHz / QPSK



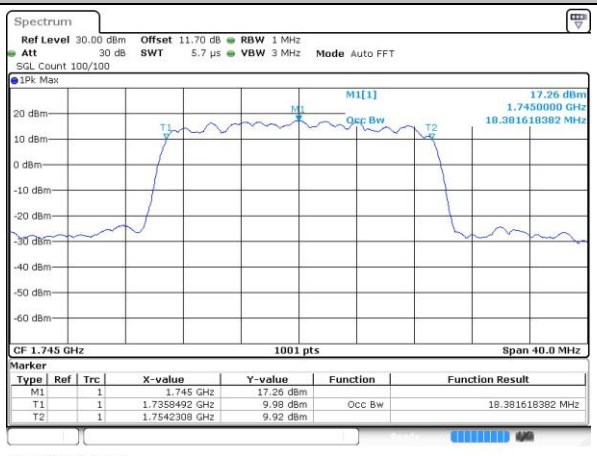
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



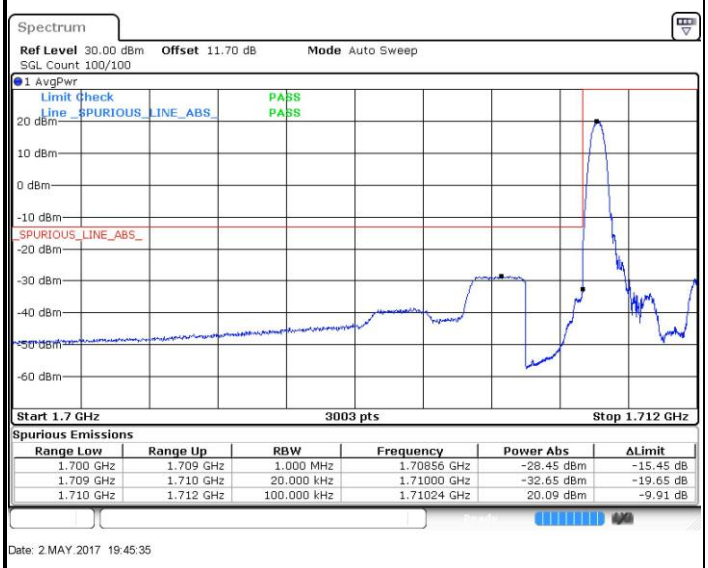
Highest Channel / 20MHz / 16QAM



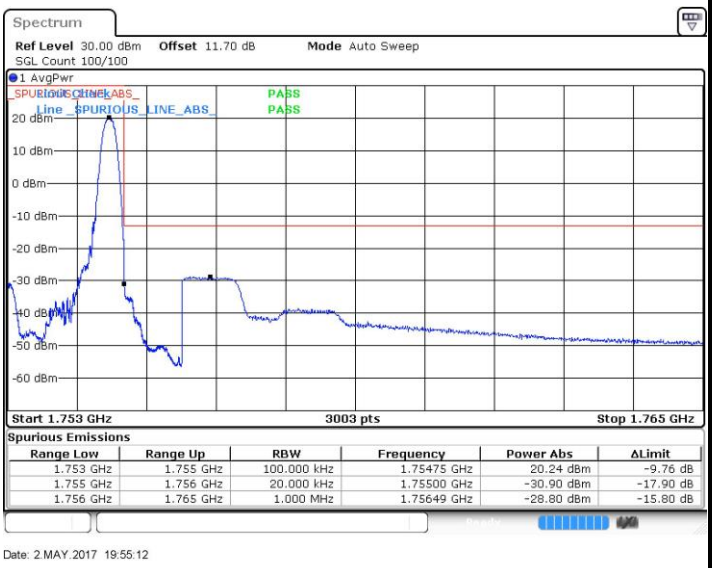
Conducted Band Edge

LTE Band 4 / 1.4MHz / QPSK

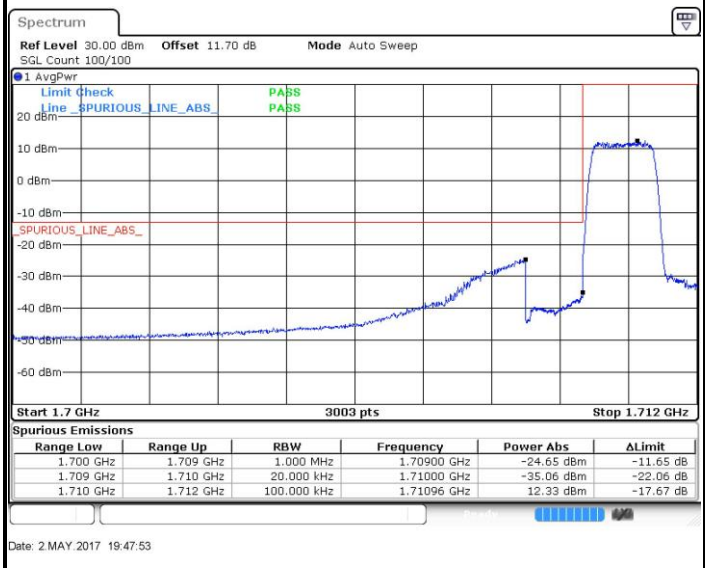
Lowest Band Edge / 1RB



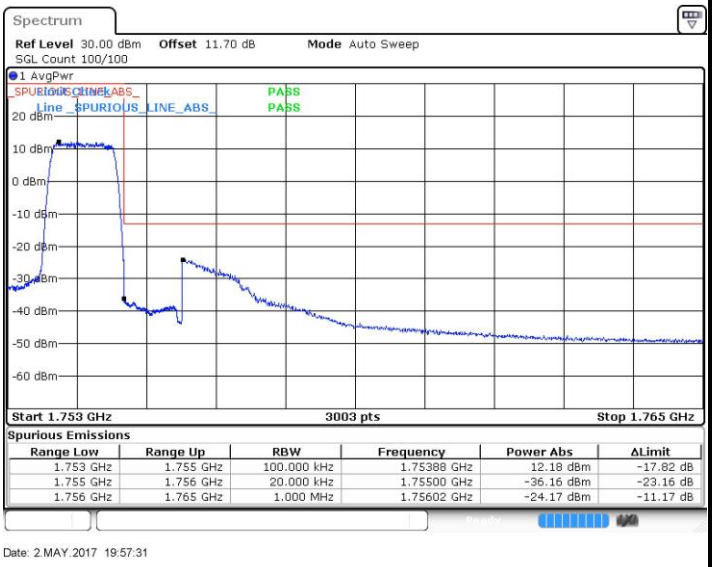
Highest Band Edge / 1RB

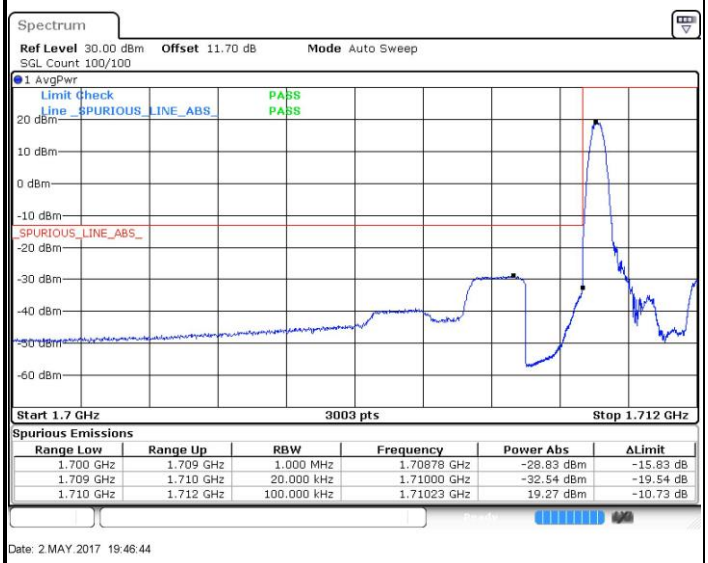
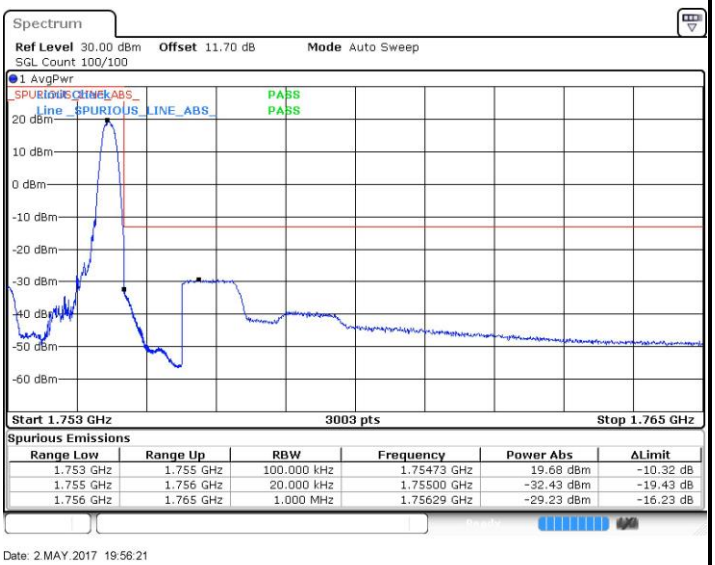
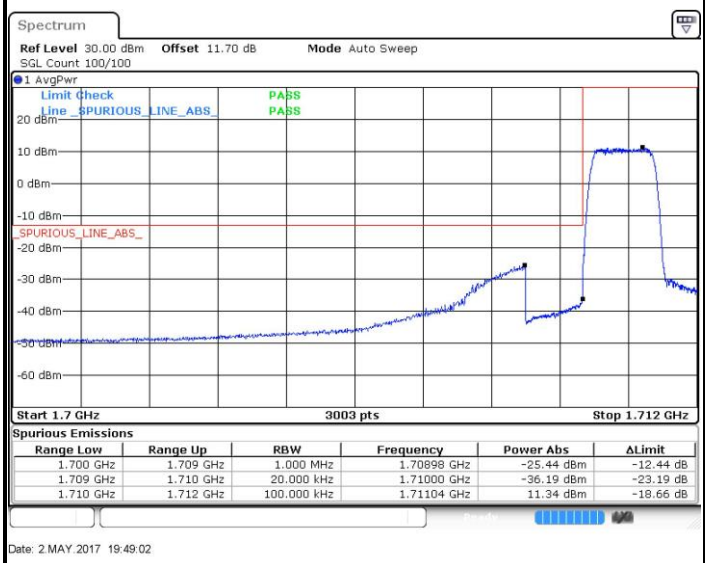
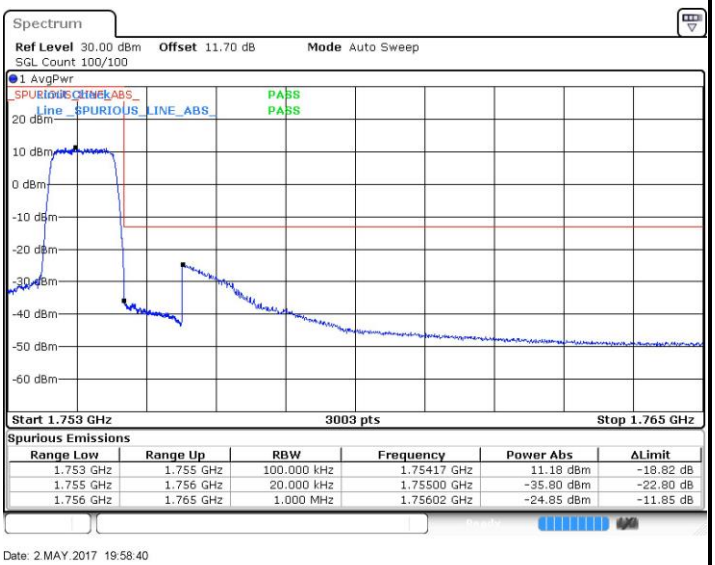


Lowest Band Edge / Full RB



Highest Band Edge / Full RB



LTE Band 4 / 1.4MHz / 16QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**