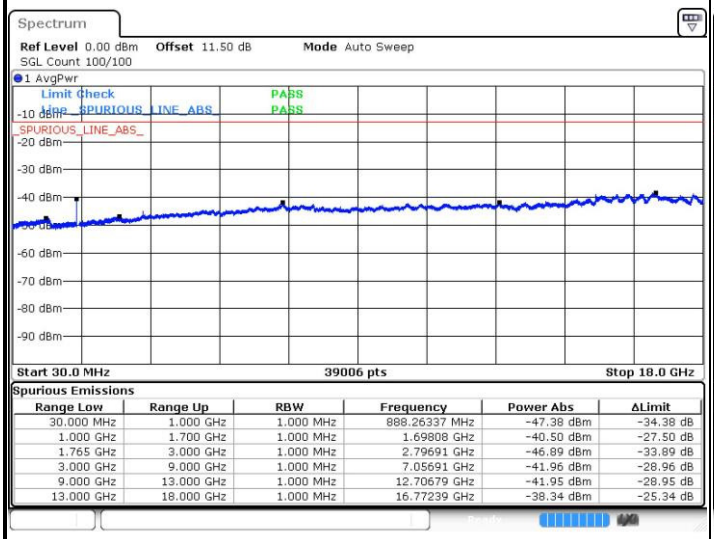
LTE Band 4 / 15MHz

Lowest Channel / QPSK

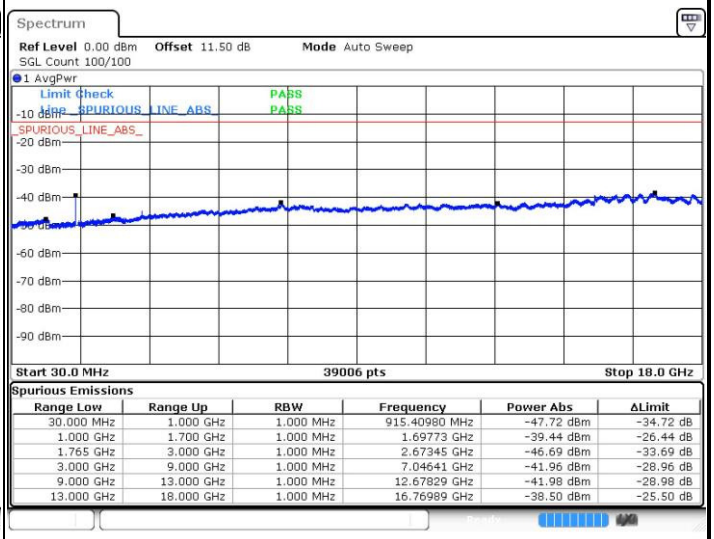


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	888.26337 MHz	-47.38 dBm	-34.38 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69808 GHz	-40.50 dBm	-27.50 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.79691 GHz	-46.89 dBm	-33.89 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05691 GHz	-41.96 dBm	-28.96 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.70679 GHz	-41.95 dBm	-28.95 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.77239 GHz	-38.34 dBm	-25.34 dB

Date: 8.APR.2016 14:25:13

Lowest Channel / 16QAM

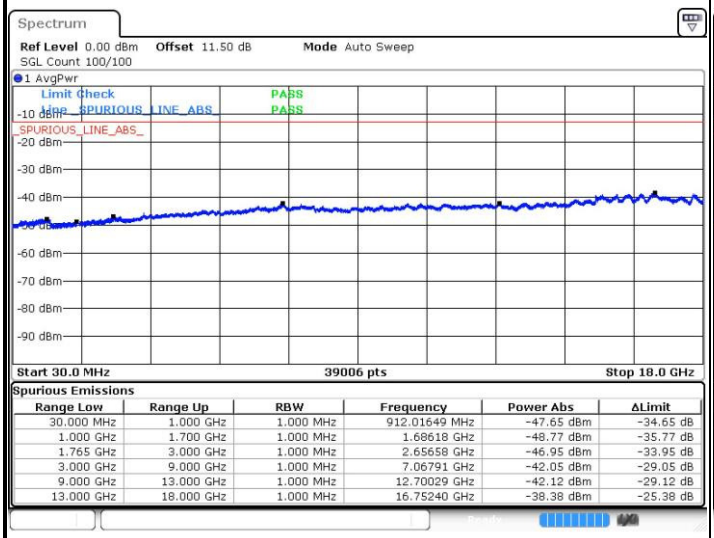


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	915.40980 MHz	-47.72 dBm	-34.72 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69773 GHz	-39.44 dBm	-26.44 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.67345 GHz	-46.69 dBm	-33.69 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.04641 GHz	-41.96 dBm	-28.96 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.67829 GHz	-41.98 dBm	-28.98 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.76989 GHz	-38.50 dBm	-25.50 dB

Date: 8.APR.2016 14:26:07

Middle Channel / QPSK

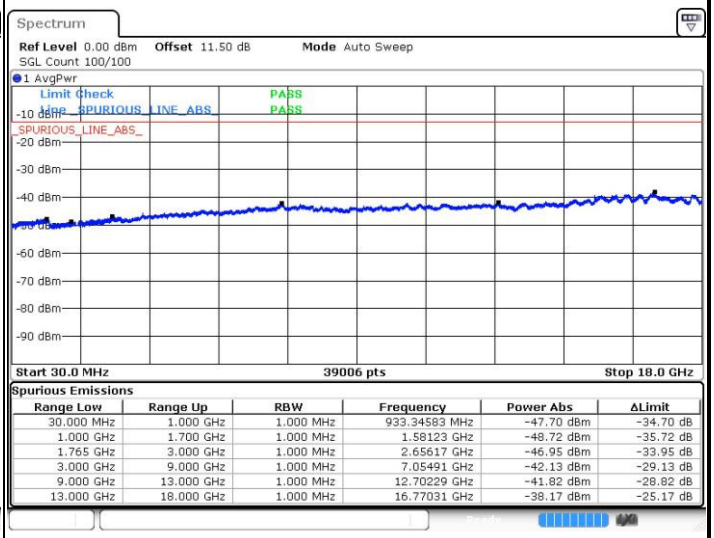


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	912.01649 MHz	-47.65 dBm	-34.65 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.68618 GHz	-48.77 dBm	-35.77 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.65658 GHz	-46.95 dBm	-33.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.06791 GHz	-42.05 dBm	-29.05 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.70029 GHz	-42.12 dBm	-29.12 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.75240 GHz	-38.38 dBm	-25.38 dB

Date: 8.APR.2016 14:27:02

Middle Channel / 16QAM



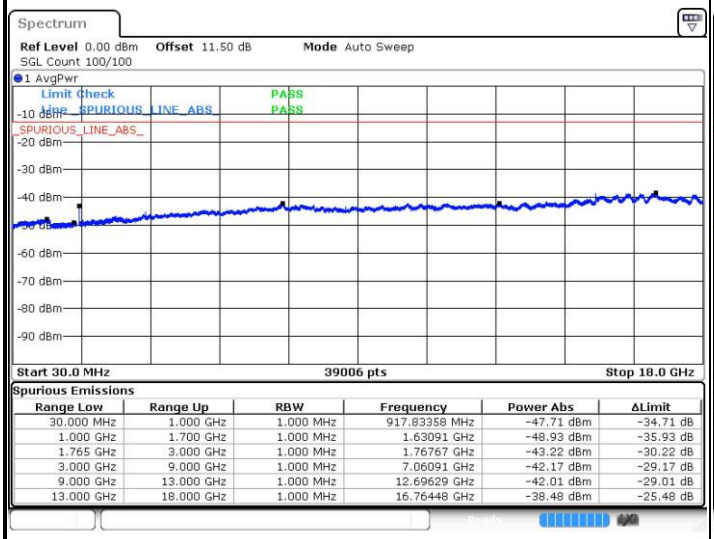
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	933.34583 MHz	-47.70 dBm	-34.70 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.58123 GHz	-48.72 dBm	-35.72 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.65617 GHz	-46.95 dBm	-33.95 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05491 GHz	-42.13 dBm	-29.13 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.70229 GHz	-41.82 dBm	-28.82 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.77031 GHz	-38.17 dBm	-25.17 dB

Date: 8.APR.2016 14:27:57

LTE Band 4 / 15MHz

Highest Channel / QPSK

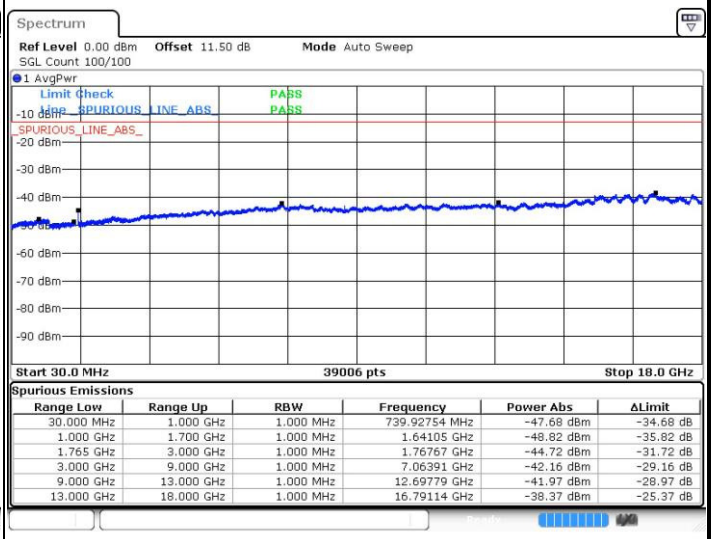


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	917.83358 MHz	-47.71 dBm	-34.71 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.63091 GHz	-48.93 dBm	-35.93 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.76767 GHz	-43.22 dBm	-30.22 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.06091 GHz	-42.17 dBm	-29.17 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69629 GHz	-42.01 dBm	-29.01 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.76448 GHz	-38.48 dBm	-25.48 dB

Date: 8.APR.2016 14:28:52

Highest Channel / 16QAM



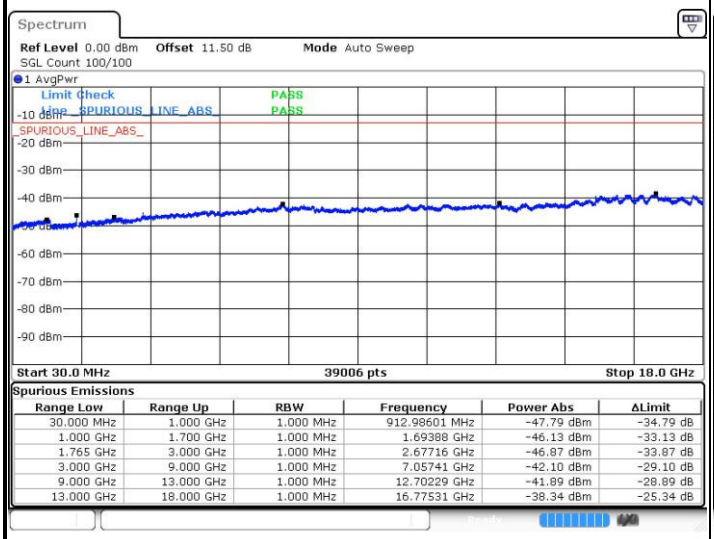
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	739.92754 MHz	-47.68 dBm	-34.68 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.64105 GHz	-48.82 dBm	-35.82 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.76767 GHz	-44.72 dBm	-31.72 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.06391 GHz	-42.16 dBm	-29.16 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69779 GHz	-41.97 dBm	-28.97 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.79114 GHz	-38.37 dBm	-25.37 dB

Date: 8.APR.2016 14:29:46

LTE Band 4 / 20MHz

Lowest Channel / QPSK

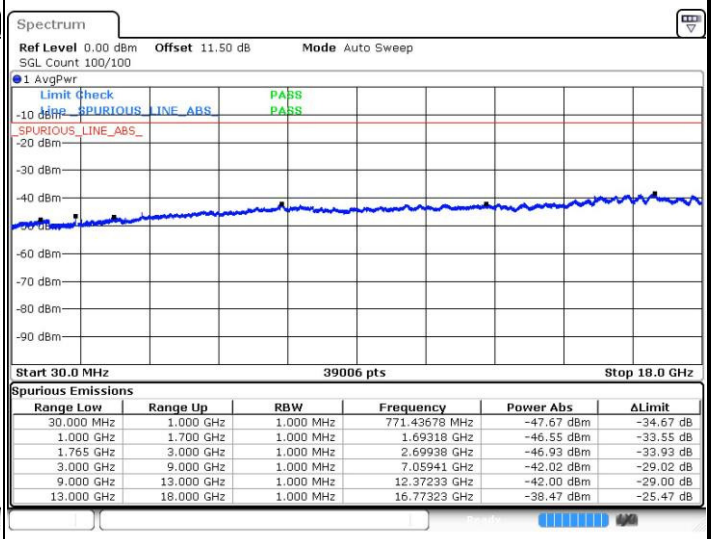


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	912.98601 MHz	-47.79 dBm	-34.79 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69388 GHz	-46.13 dBm	-33.13 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.67716 GHz	-46.87 dBm	-33.87 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05741 GHz	-42.10 dBm	-29.10 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.70229 GHz	-41.89 dBm	-28.89 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.77531 GHz	-38.34 dBm	-25.34 dB

Date: 8.APR.2016 14:30:41

Lowest Channel / 16QAM



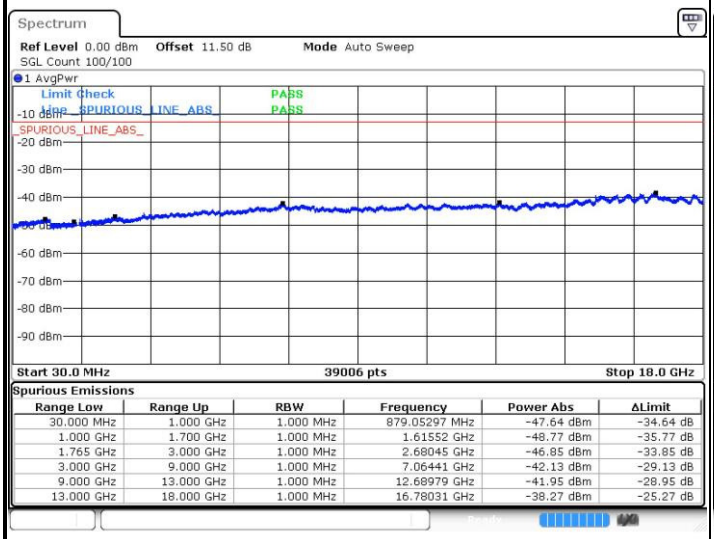
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	771.43678 MHz	-47.67 dBm	-34.67 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69318 GHz	-46.55 dBm	-33.55 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.69938 GHz	-46.93 dBm	-33.93 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05941 GHz	-42.02 dBm	-29.02 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.37233 GHz	-42.00 dBm	-29.00 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.77323 GHz	-38.47 dBm	-25.47 dB

Date: 8.APR.2016 14:31:36

LTE Band 4 / 20MHz

Middle Channel / QPSK

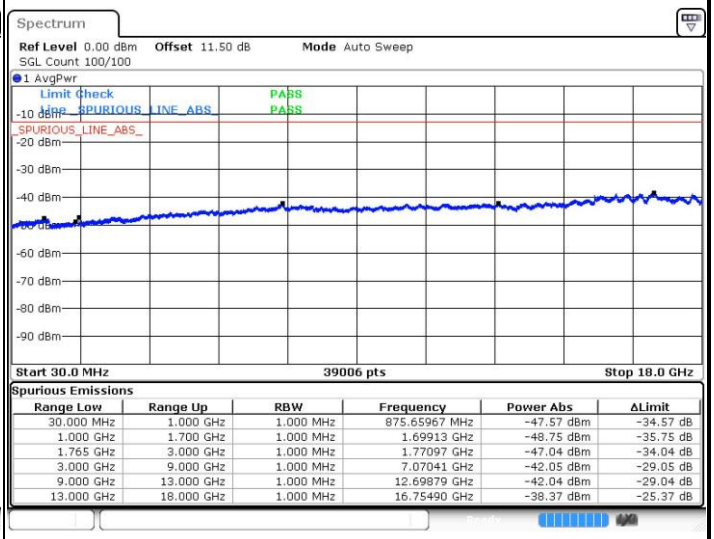


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	879.05297 MHz	-47.64 dBm	-34.64 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.61552 GHz	-48.77 dBm	-35.77 dB
1.765 GHz	3.000 GHz	1.000 MHz	2.68045 GHz	-46.85 dBm	-33.85 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.06441 GHz	-42.13 dBm	-29.13 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.68979 GHz	-41.95 dBm	-28.95 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.78031 GHz	-38.27 dBm	-25.27 dB

Date: 8.APR.2016 14:32:30

Middle Channel / 16QAM

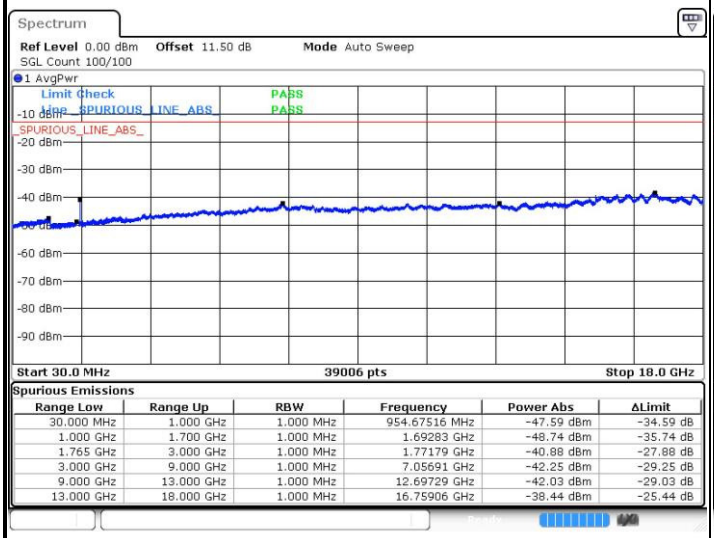


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	875.65967 MHz	-47.57 dBm	-34.57 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69913 GHz	-48.75 dBm	-35.75 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.77097 GHz	-47.04 dBm	-34.04 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.07041 GHz	-42.05 dBm	-29.05 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69879 GHz	-42.04 dBm	-29.04 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.75490 GHz	-38.37 dBm	-25.37 dB

Date: 8.APR.2016 14:33:25

Highest Channel / QPSK

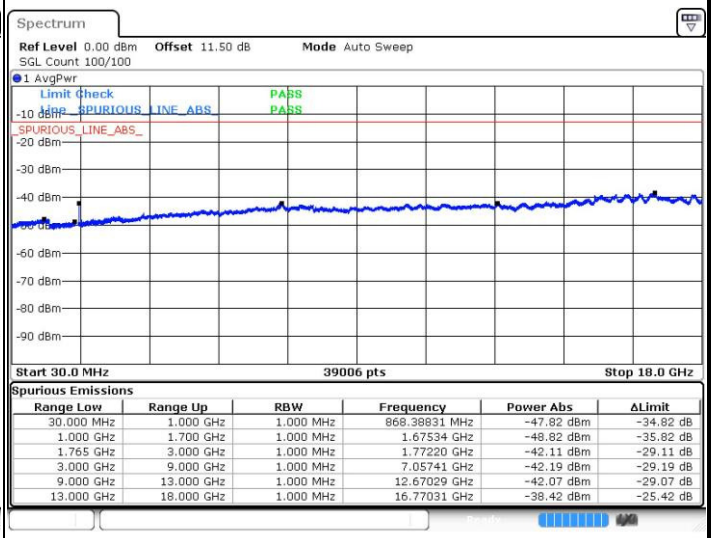


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	954.67516 MHz	-47.59 dBm	-34.59 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.69283 GHz	-48.74 dBm	-35.74 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.77179 GHz	-40.88 dBm	-27.88 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05691 GHz	-42.25 dBm	-29.25 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69729 GHz	-42.03 dBm	-29.03 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.75906 GHz	-38.44 dBm	-25.44 dB

Date: 8.APR.2016 14:34:20

Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	868.38831 MHz	-47.82 dBm	-34.82 dB
1.000 GHz	1.700 GHz	1.000 MHz	1.67534 GHz	-48.82 dBm	-35.82 dB
1.765 GHz	3.000 GHz	1.000 MHz	1.77220 GHz	-42.11 dBm	-29.11 dB
3.000 GHz	9.000 GHz	1.000 MHz	7.05741 GHz	-42.19 dBm	-29.19 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.67029 GHz	-42.07 dBm	-29.07 dB
13.000 GHz	18.000 GHz	1.000 MHz	16.77031 GHz	-38.42 dBm	-25.42 dB

Date: 8.APR.2016 14:35:15

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0065	
0	Normal Voltage	0.0069	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0076	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0077	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4V.；Maximum Voltage =4.35V
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

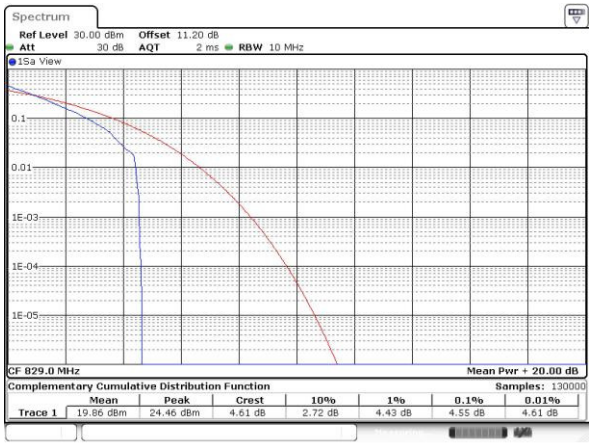
LTE Band 5

Peak-to-Average Ratio

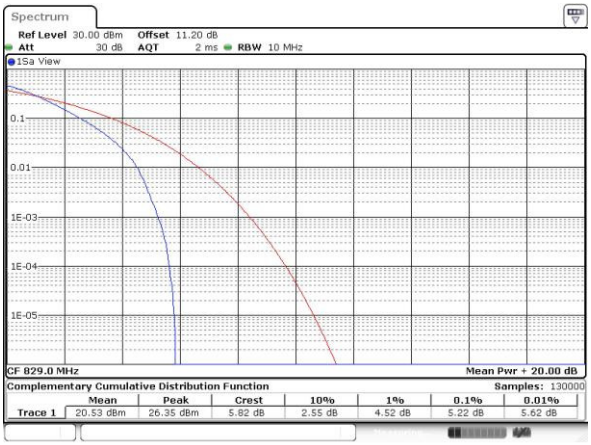
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.55	5.22	5.83	6.12	PASS
Middle CH	4.72	5.59	5.91	6.43	
Highest CH	4.9	5.25	6.23	6.09	

LTE Band 5 / 10MHz / QPSK

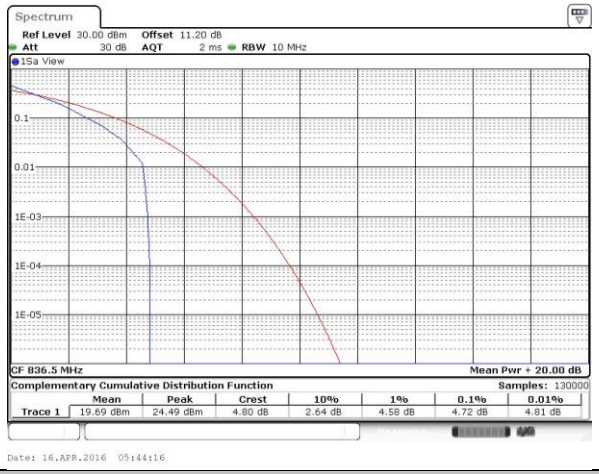
Lowest Channel / 1RB



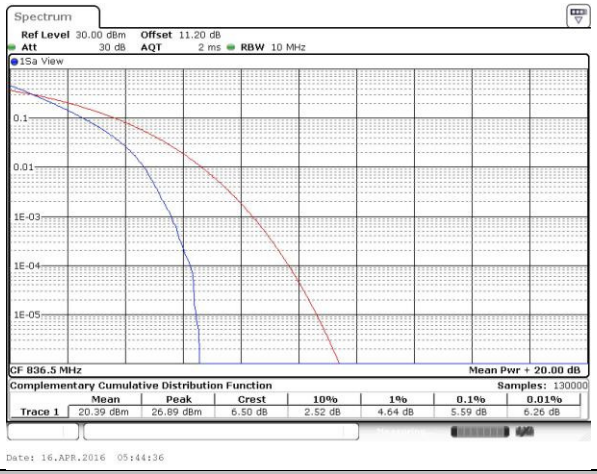
Lowest Channel / Full RB



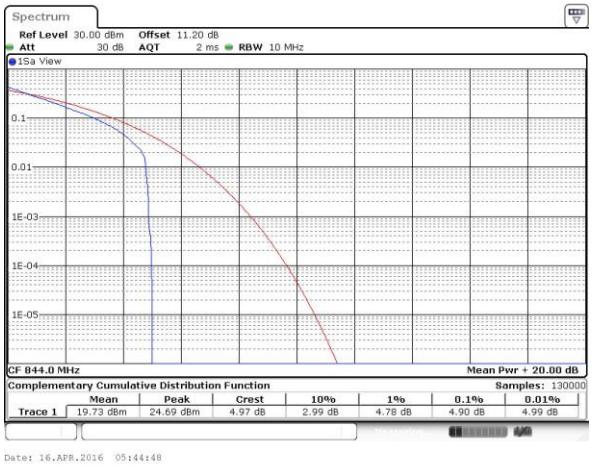
Middle Channel / 1RB



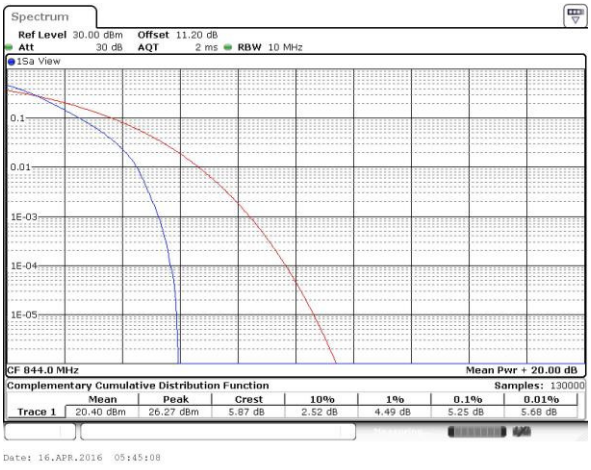
Middle Channel / Full RB



Highest Channel / 1RB

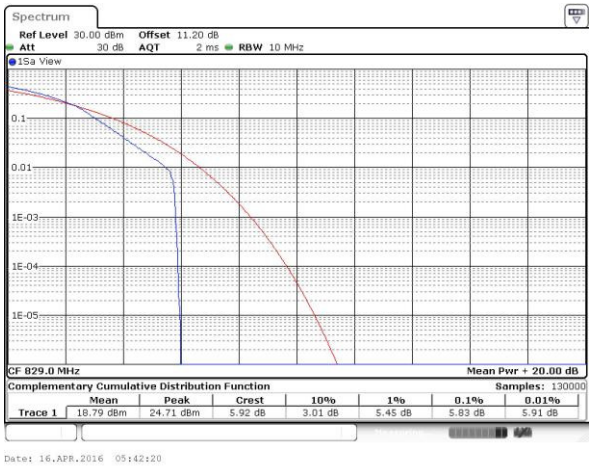


Highest Channel / Full RB

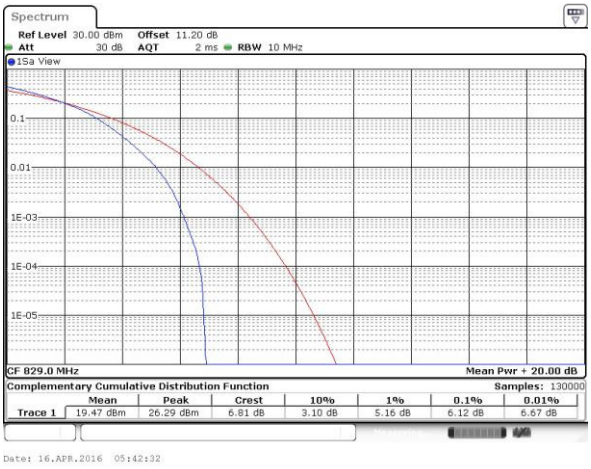


LTE Band 5 / 10MHz / 16QAM

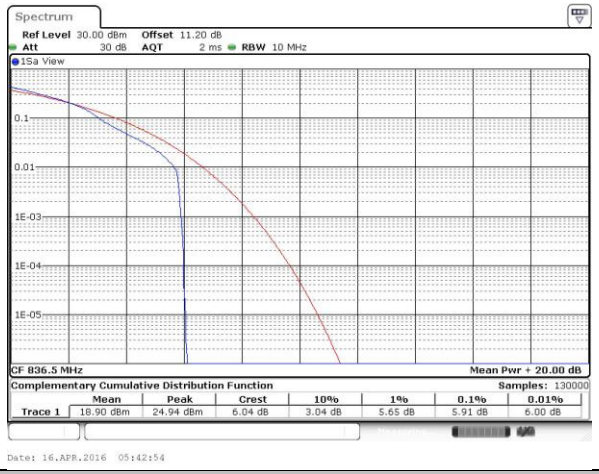
Lowest Channel / 1RB



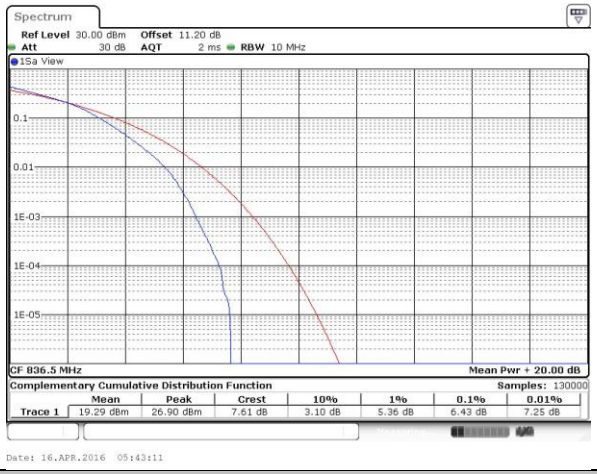
Lowest Channel / Full RB



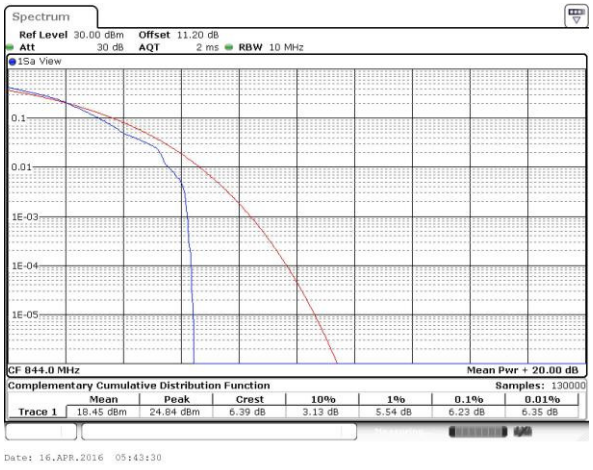
Middle Channel / 1RB



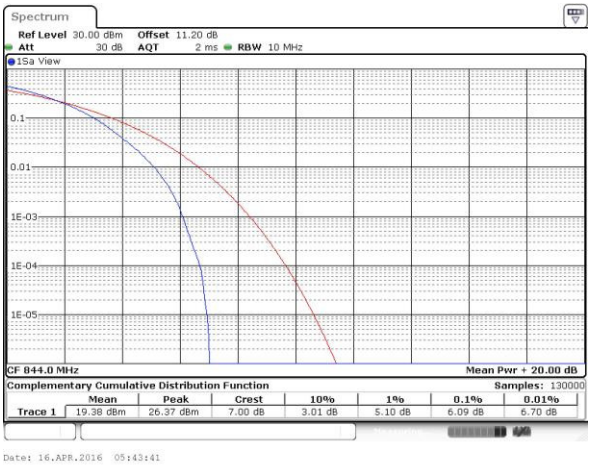
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

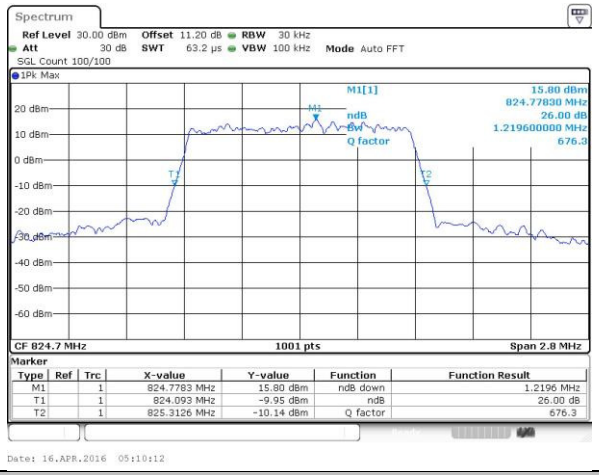


26dB Bandwidth

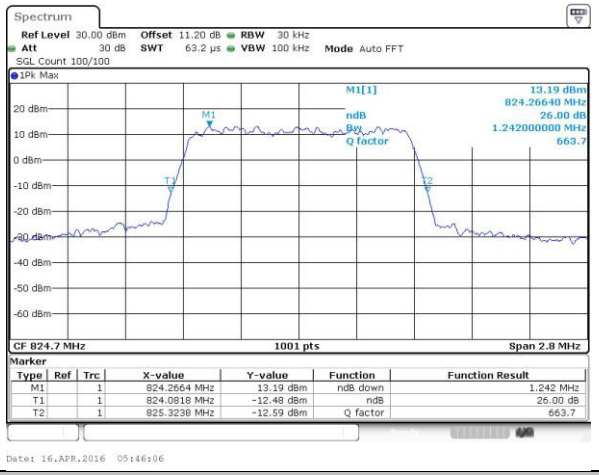
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.22	1.24	3.03	3.02	4.86	4.90	9.85	9.83	-	-	-	-
Middle CH	1.23	1.23	3.03	3.03	4.90	4.83	9.65	9.63	-	-	-	-
Highest CH	1.23	1.23	3.02	3.04	4.91	4.85	9.83	9.75	-	-	-	-

LTE Band 5

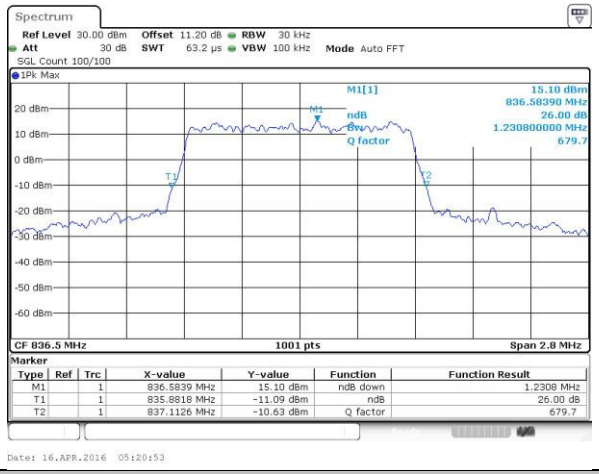
Lowest Channel / 1.4MHz / QPSK



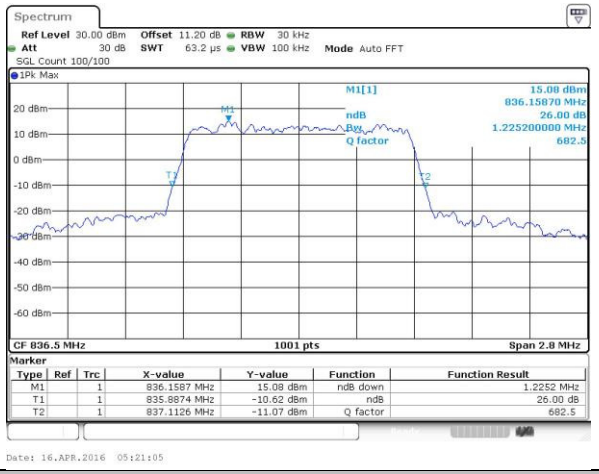
Lowest Channel / 1.4MHz / 16QAM



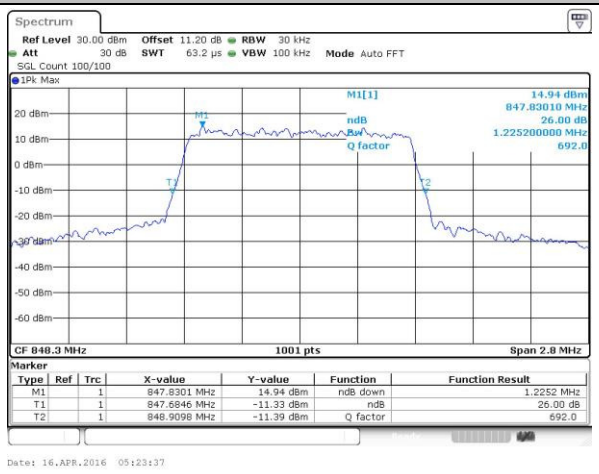
Middle Channel / 1.4MHz / QPSK



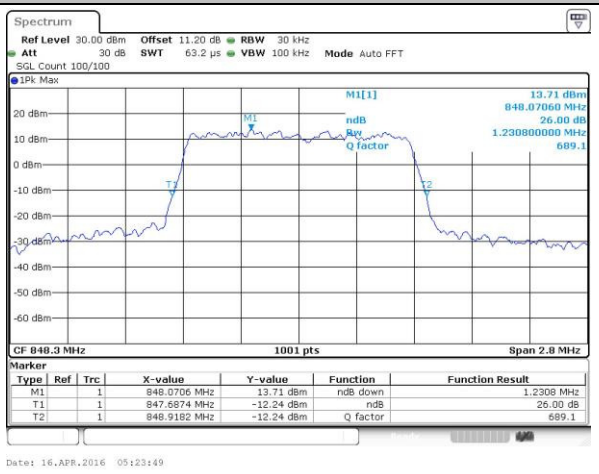
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

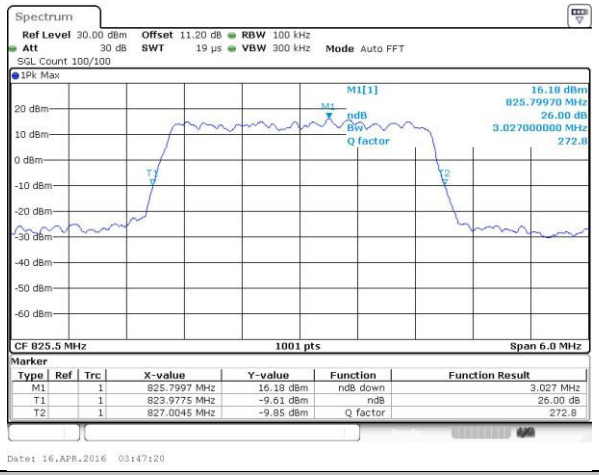


Highest Channel / 1.4MHz / 16QAM

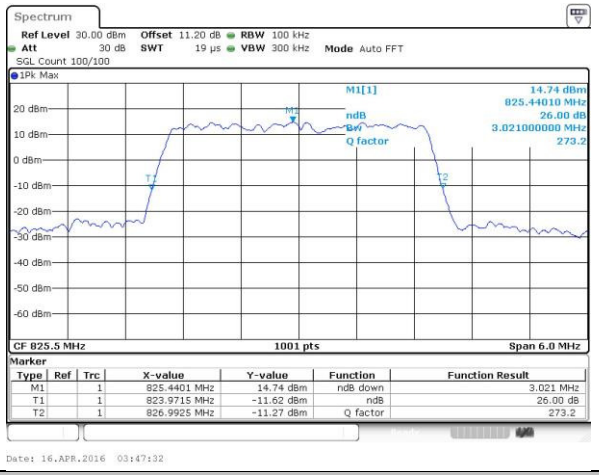


LTE Band 5

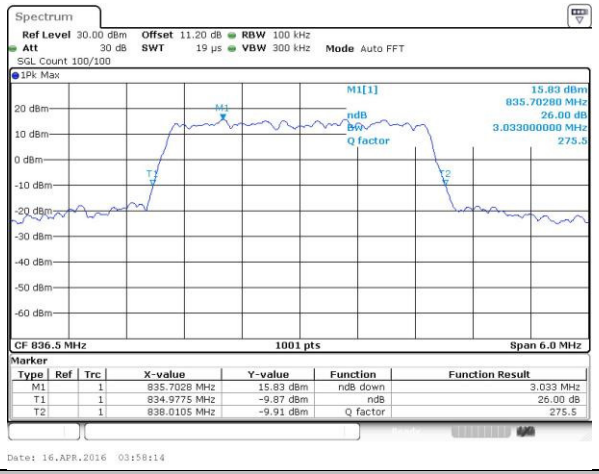
Lowest Channel / 3MHz / QPSK



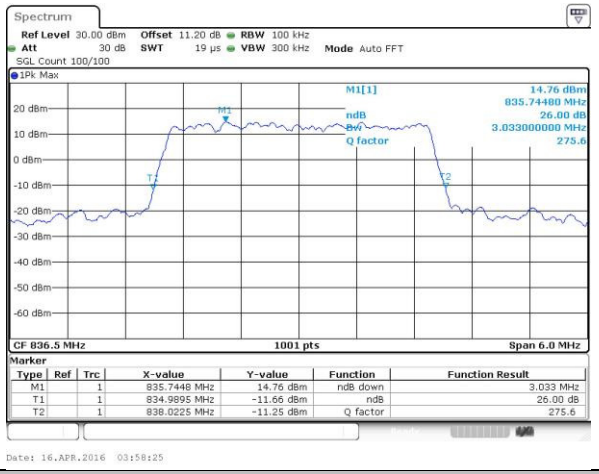
Lowest Channel / 3MHz / 16QAM



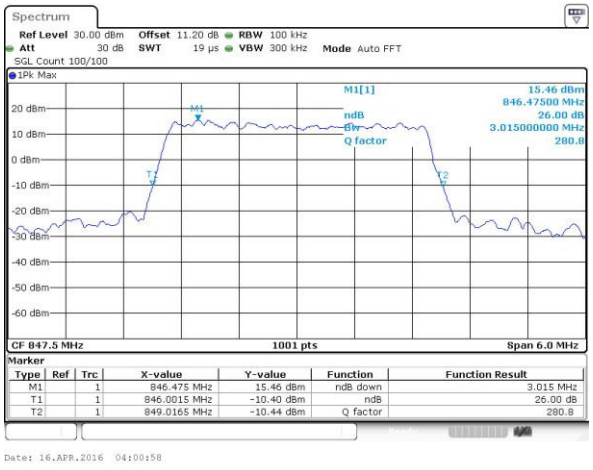
Middle Channel / 3MHz / QPSK



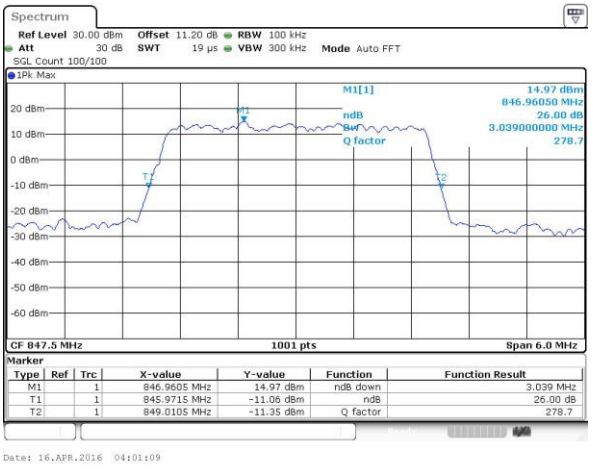
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

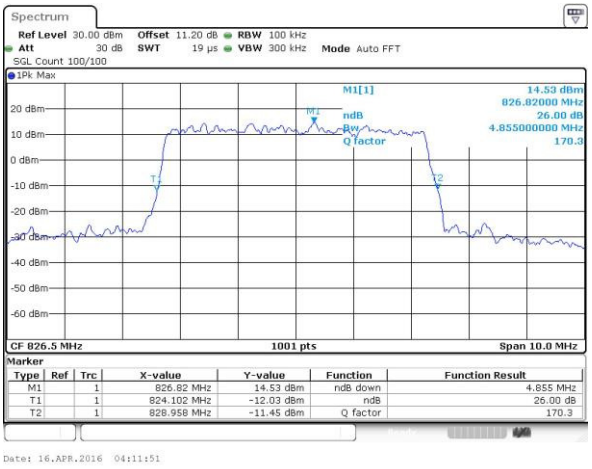


Highest Channel /3MHz / 16QAM

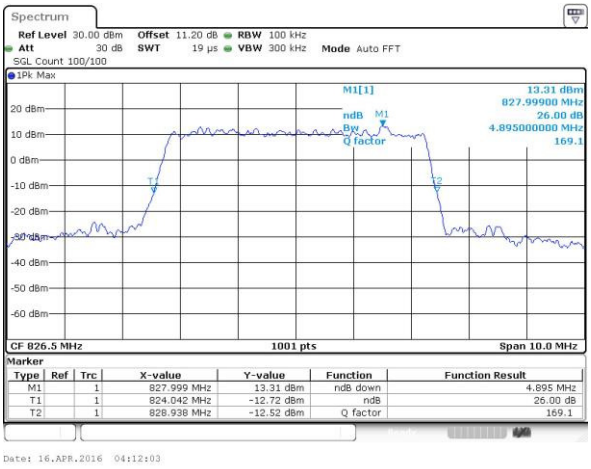


LTE Band 5

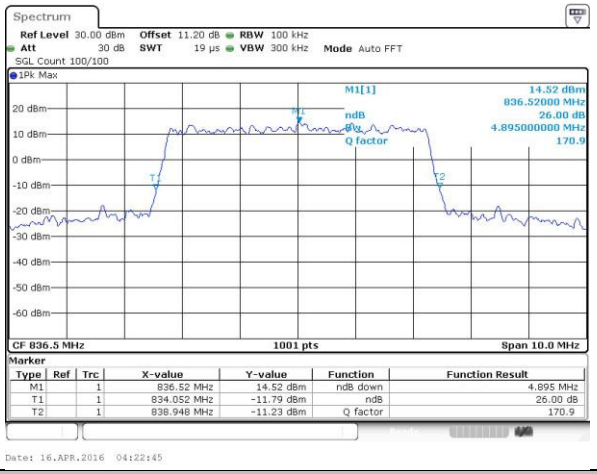
Lowest Channel / 5MHz / QPSK



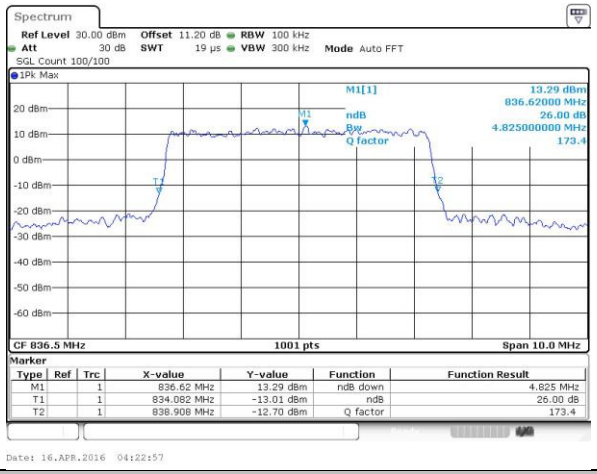
Lowest Channel / 5MHz / 16QAM



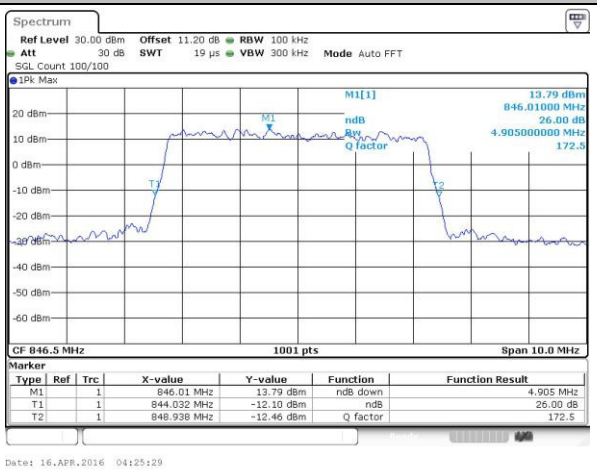
Middle Channel / 5MHz / QPSK



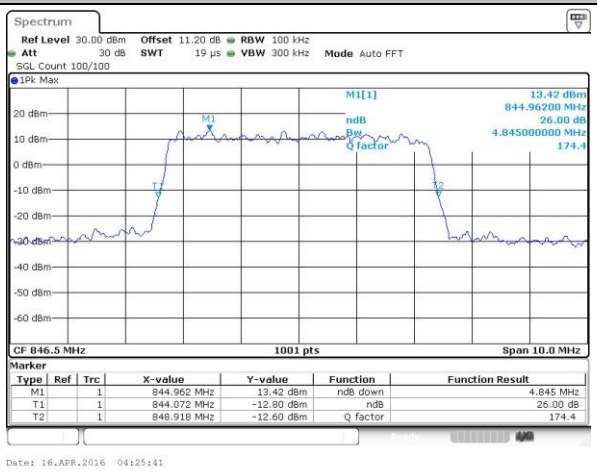
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

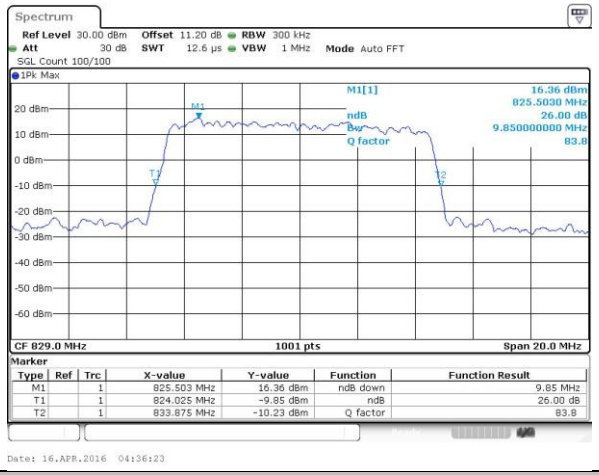


Highest Channel / 5MHz / 16QAM

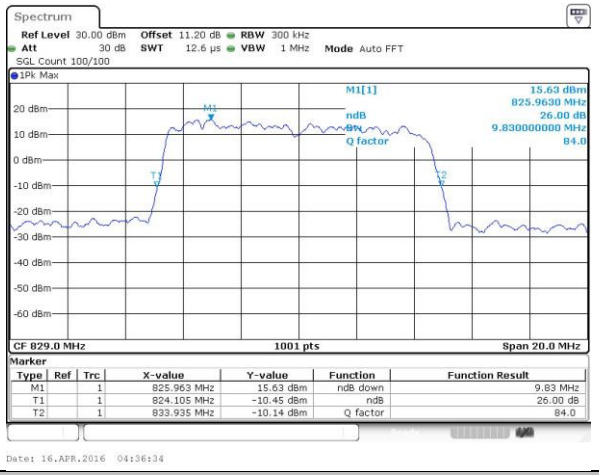


LTE Band 5

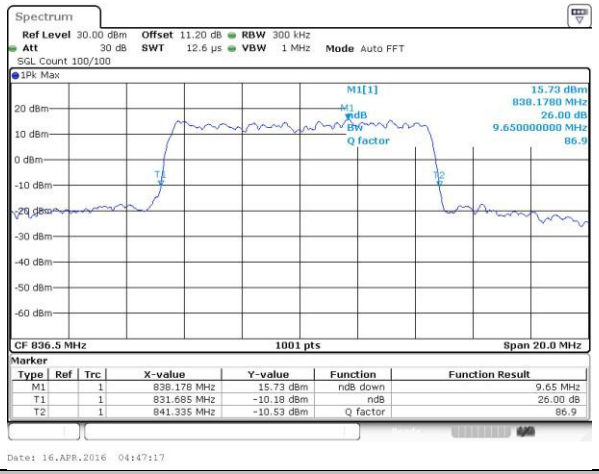
Lowest Channel / 10MHz / QPSK



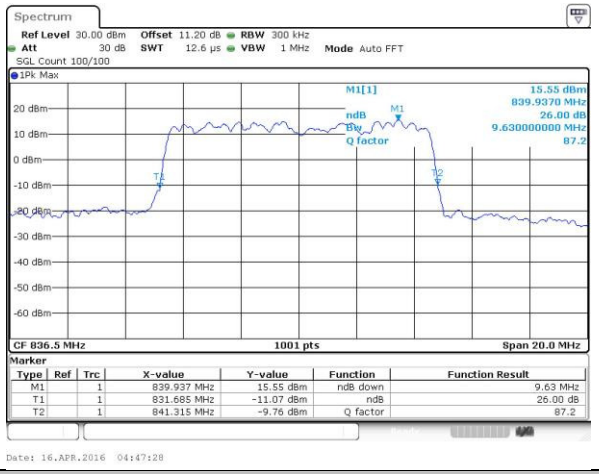
Lowest Channel / 10MHz / 16QAM



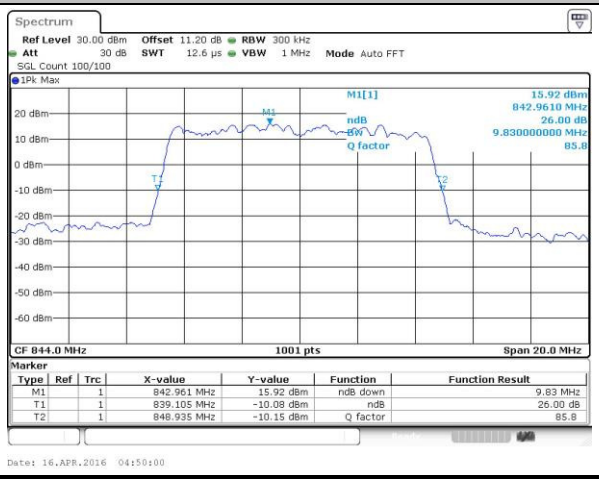
Middle Channel / 10MHz / QPSK



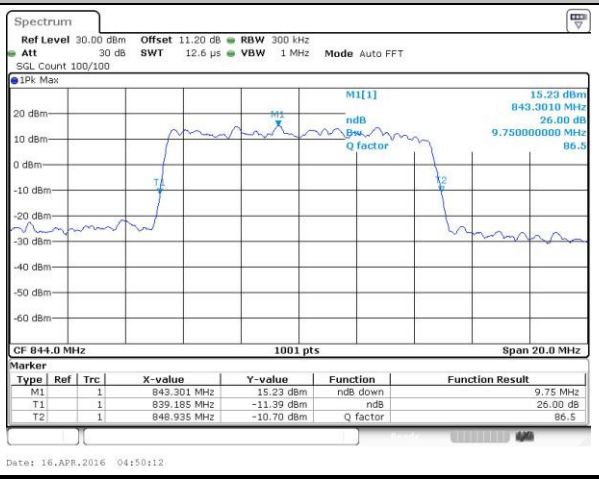
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM

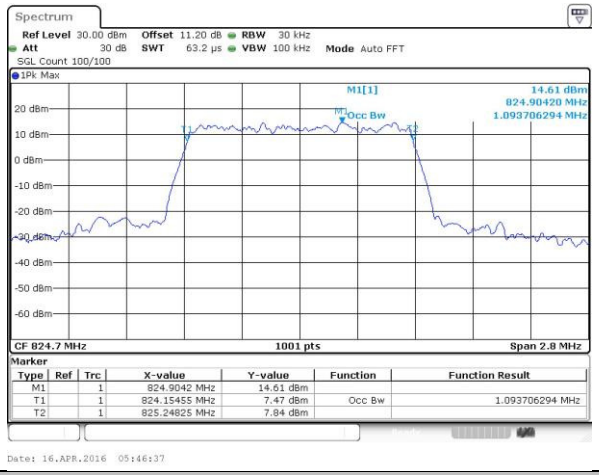


Occupied Bandwidth

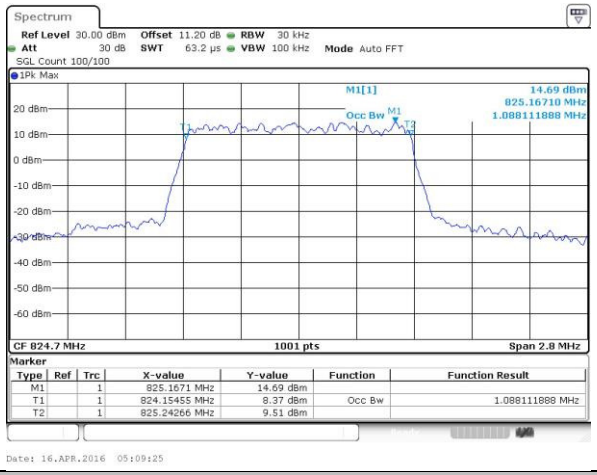
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.7	2.72	4.48	4.49	9.05	8.99	-	-	-	-
Middle CH	1.09	1.09	2.7	2.72	4.51	4.5	9.03	9.05	-	-	-	-
Highest CH	1.09	1.09	2.74	2.73	4.47	4.5	9.03	8.95	-	-	-	-

LTE Band 5

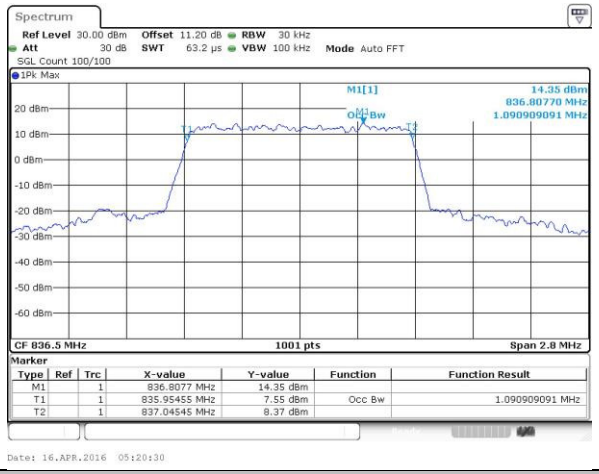
Lowest Channel / 1.4MHz / QPSK



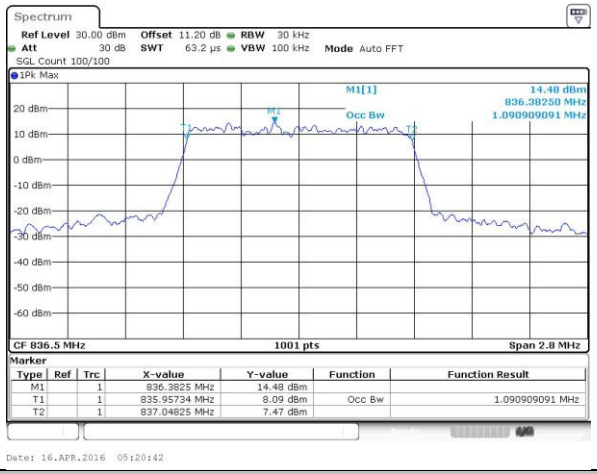
Lowest Channel / 1.4MHz / 16QAM



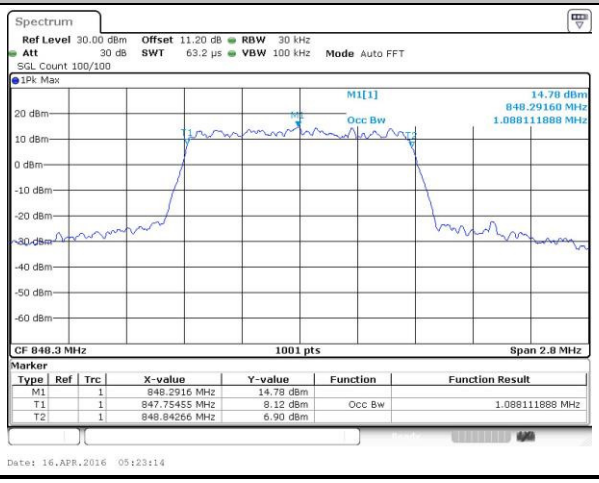
Middle Channel / 1.4MHz / QPSK



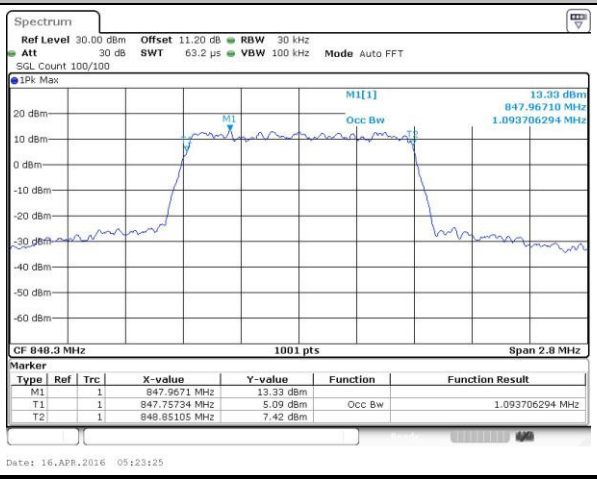
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

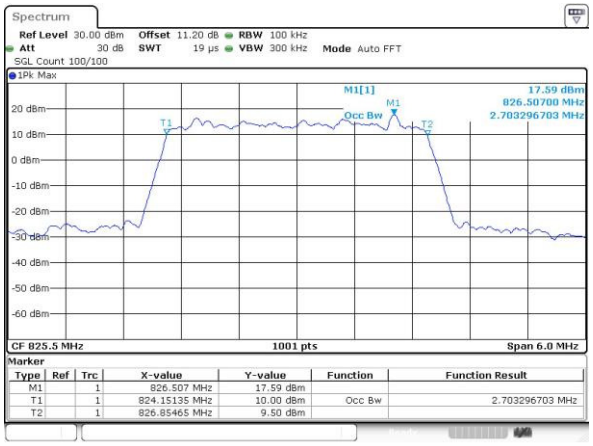


Highest Channel / 1.4MHz / 16QAM

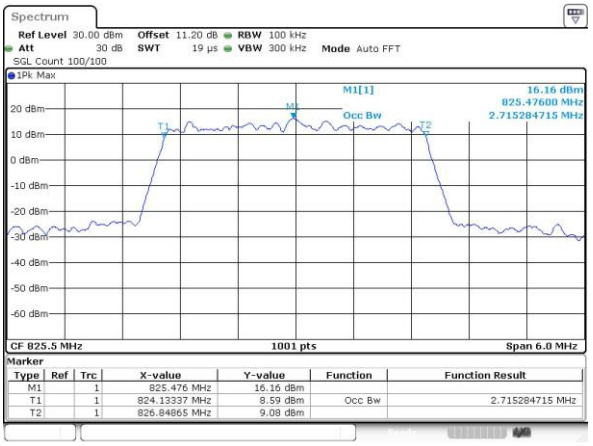


LTE Band 5

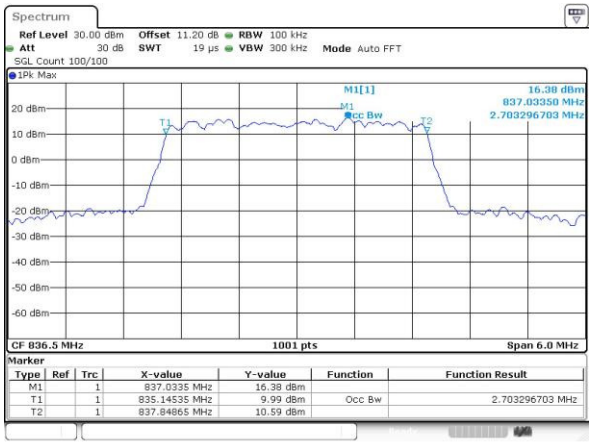
Lowest Channel / 3MHz / QPSK



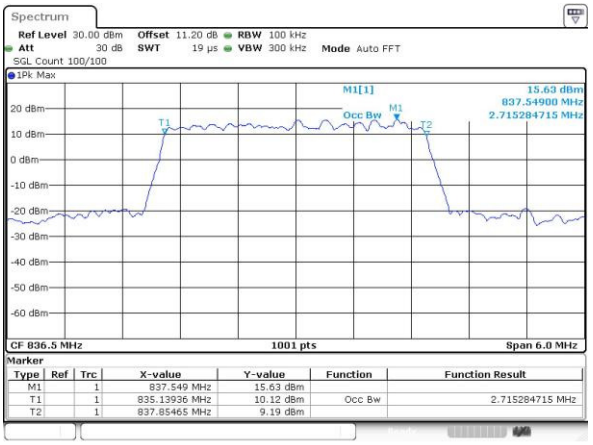
Lowest Channel / 3MHz / 16QAM



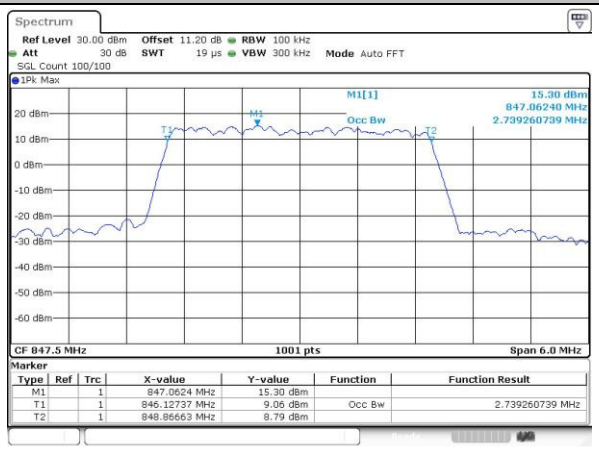
Middle Channel / 3MHz / QPSK



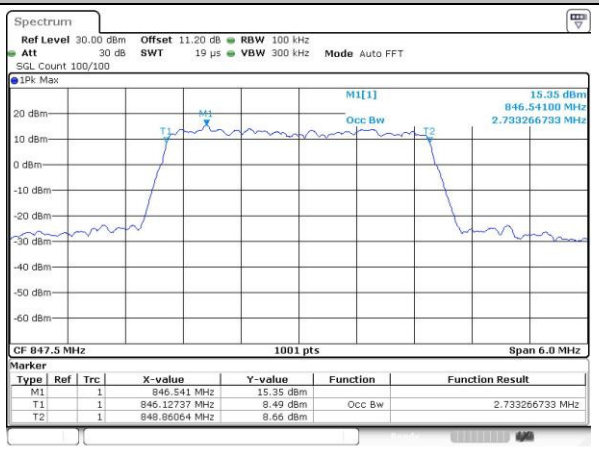
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

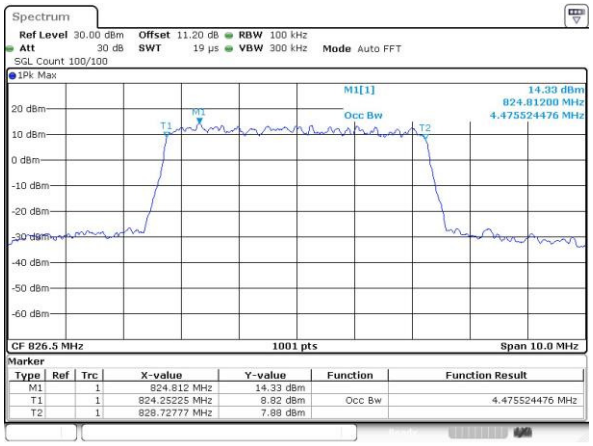


Highest Channel / 3MHz / 16QAM

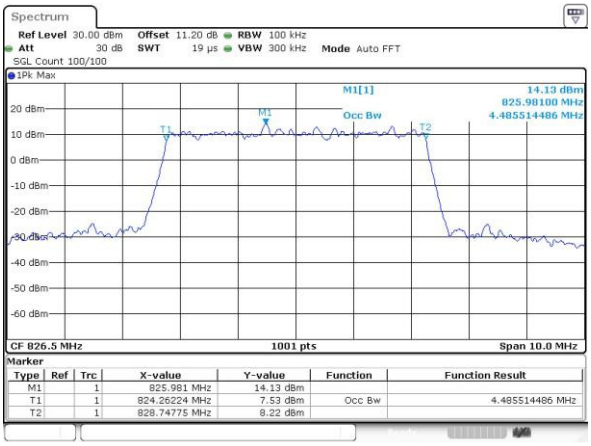


LTE Band 5

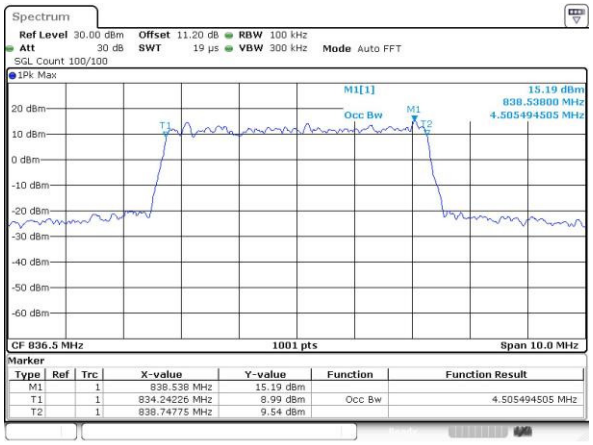
Lowest Channel / 5MHz / QPSK



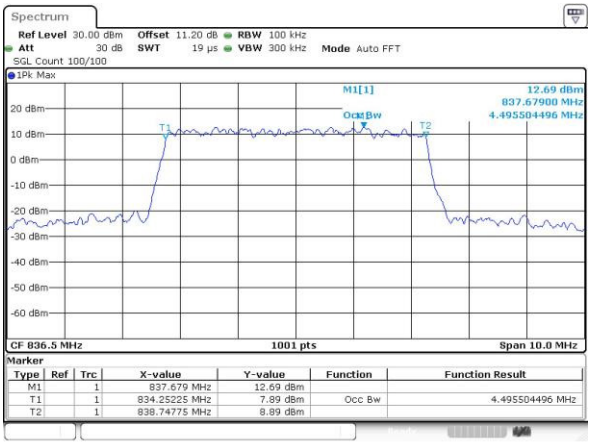
Lowest Channel / 5MHz / 16QAM



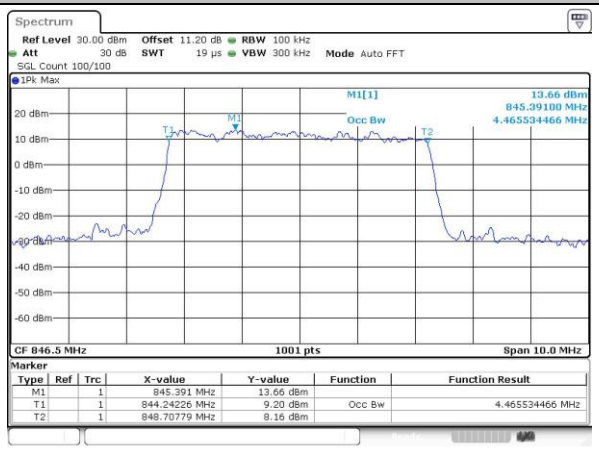
Middle Channel / 5MHz / QPSK



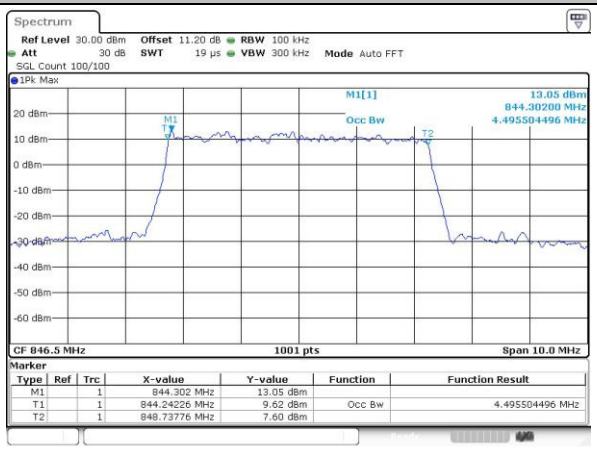
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

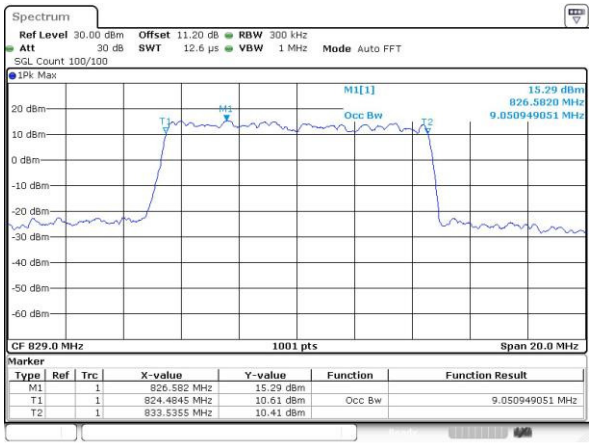


Highest Channel / 5MHz / 16QAM

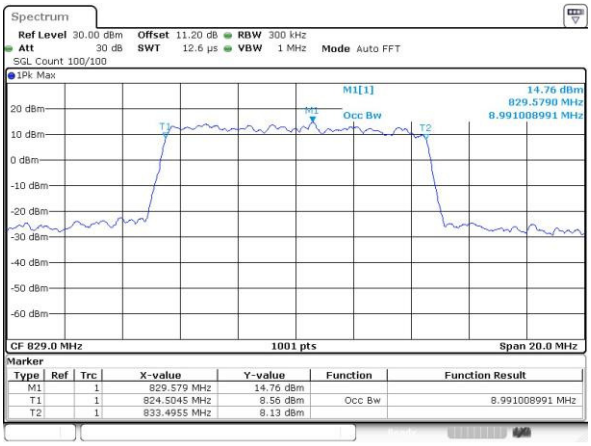


LTE Band 5

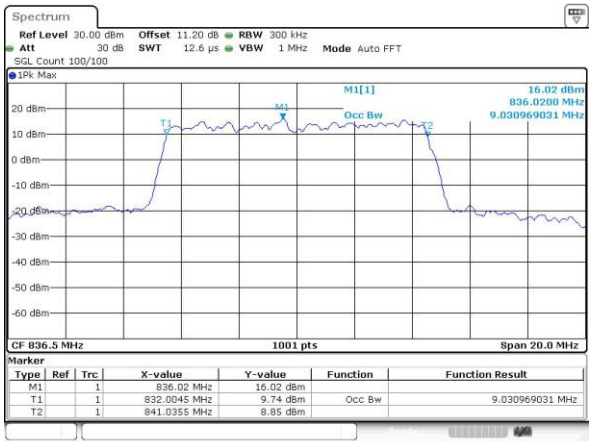
Lowest Channel / 10MHz / QPSK



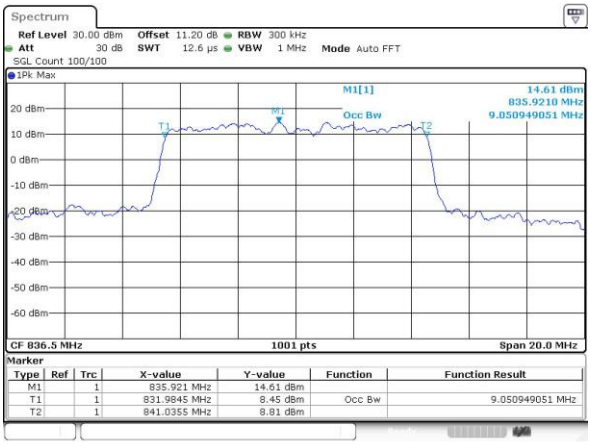
Lowest Channel / 10MHz / 16QAM



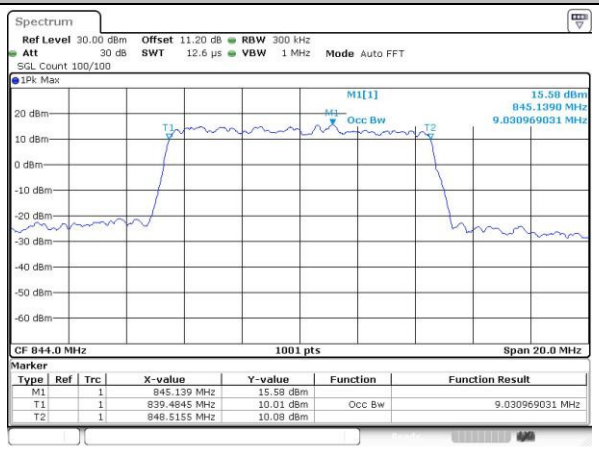
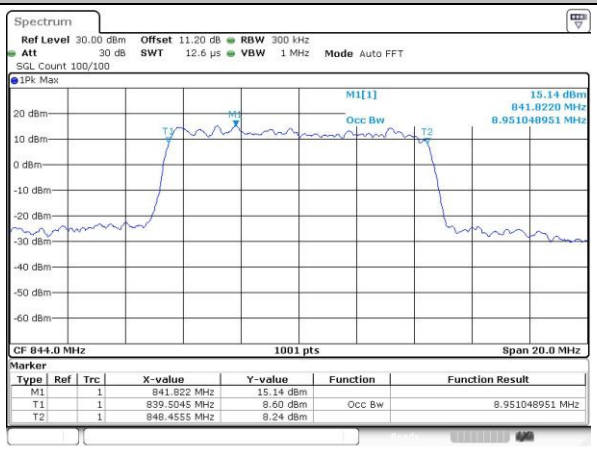
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM