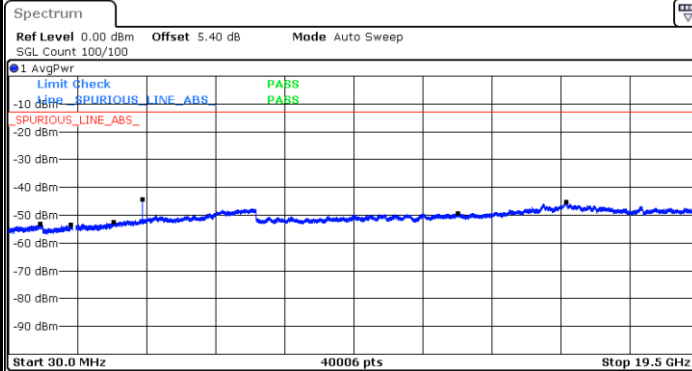




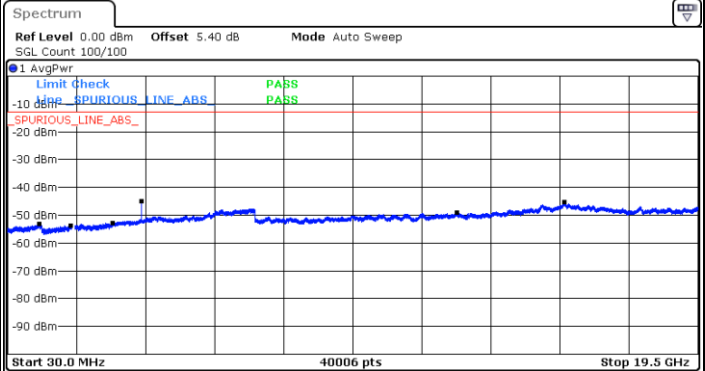
LTE Band 2 / 5MHz

Highest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	921.71164 MHz	-53.21 dBm	-40.21 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.77640 GHz	-53.31 dBm	-40.31 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99910 GHz	-52.52 dBm	-39.52 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.91068 GHz	-44.31 dBm	-31.31 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69529 GHz	-49.24 dBm	-36.24 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.75104 GHz	-45.24 dBm	-32.24 dB

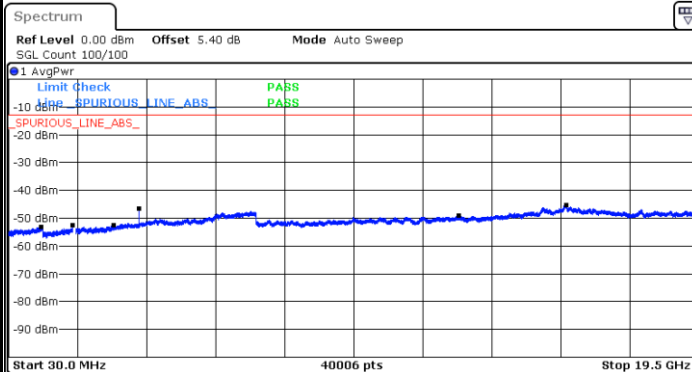
Highest Channel / 16QAM



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	921.22689 MHz	-53.01 dBm	-40.01 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.80663 GHz	-53.68 dBm	-40.68 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98291 GHz	-52.78 dBm	-39.78 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.81068 GHz	-45.06 dBm	-32.06 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69879 GHz	-49.12 dBm	-36.12 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.72304 GHz	-45.25 dBm	-32.25 dB

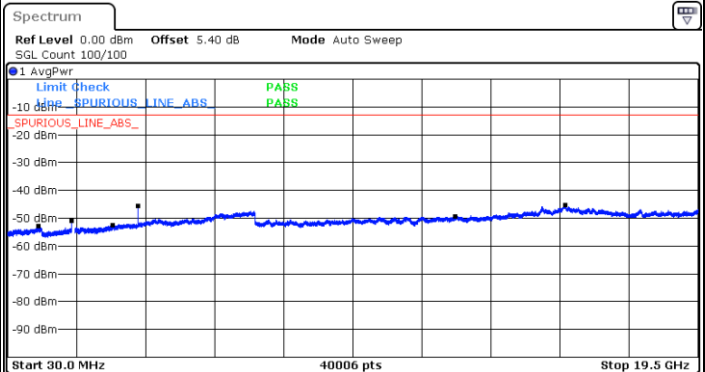
LTE Band 2 / 10MHz

Lowest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	952.73613 MHz	-53.16 dBm	-40.16 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83349 GHz	-52.63 dBm	-39.63 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99442 GHz	-52.65 dBm	-39.65 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.70119 GHz	-46.44 dBm	-33.44 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.73228 GHz	-49.16 dBm	-36.16 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.74454 GHz	-45.31 dBm	-32.31 dB

Lowest Channel / 16QAM

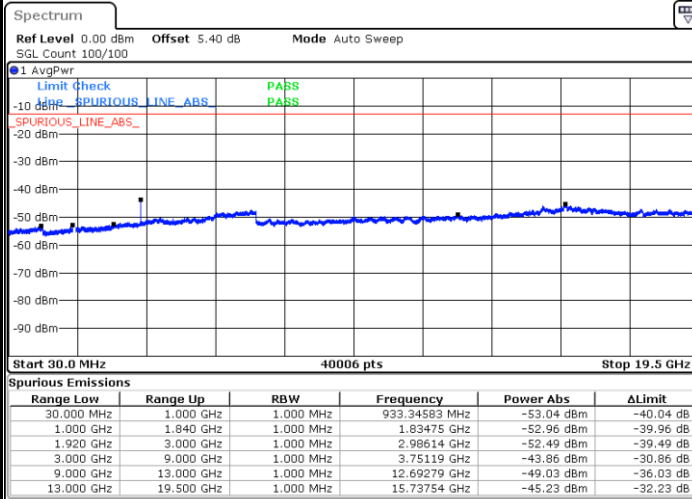


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	884.87006 MHz	-52.95 dBm	-39.95 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83307 GHz	-50.97 dBm	-37.97 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98938 GHz	-52.60 dBm	-39.60 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.70119 GHz	-45.62 dBm	-32.62 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.65079 GHz	-49.24 dBm	-36.24 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.74804 GHz	-45.40 dBm	-32.40 dB

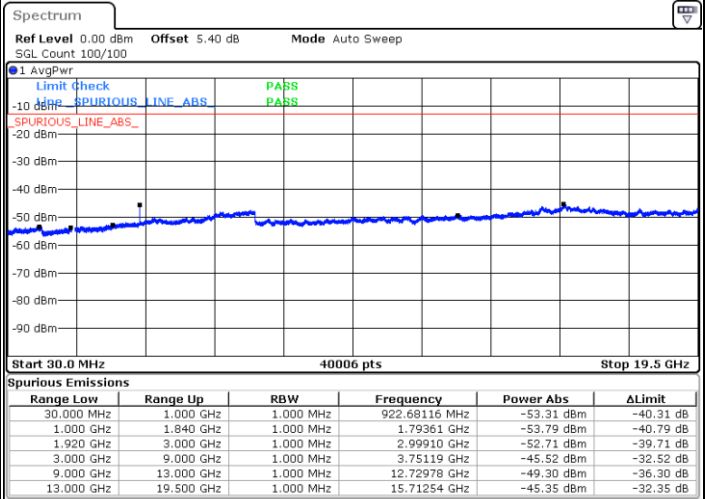


LTE Band 2 / 10MHz

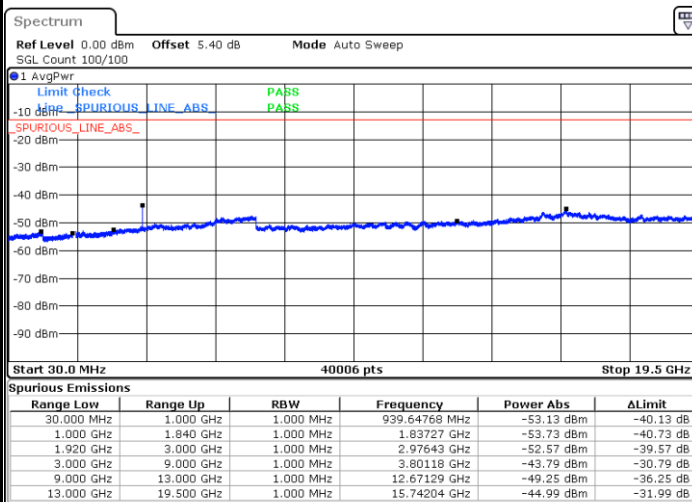
Middle Channel / QPSK



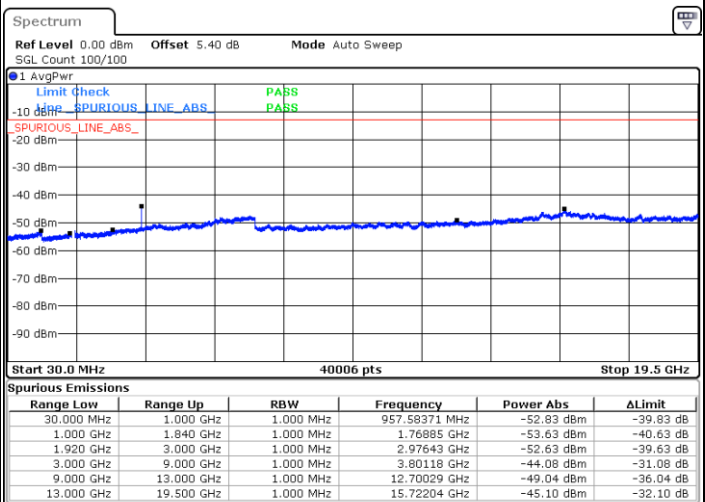
Middle Channel / 16QAM



Highest Channel / QPSK



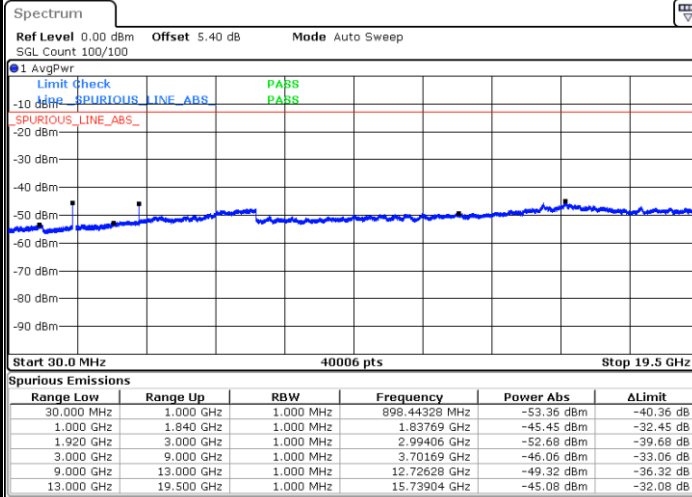
Highest Channel / 16QAM



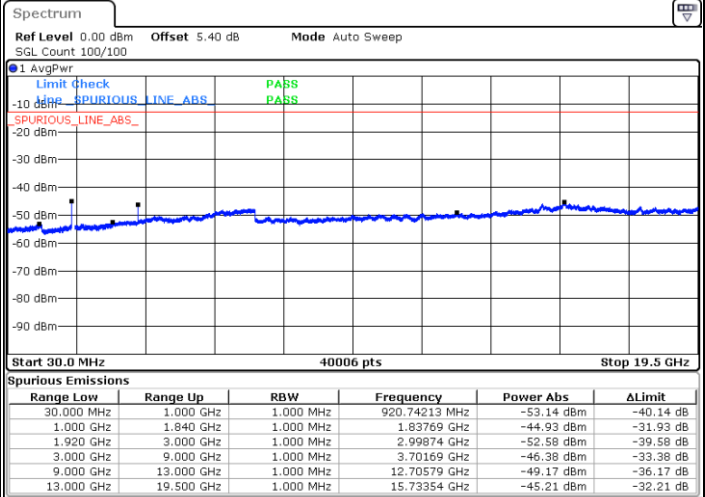


LTE Band 2 / 15MHz

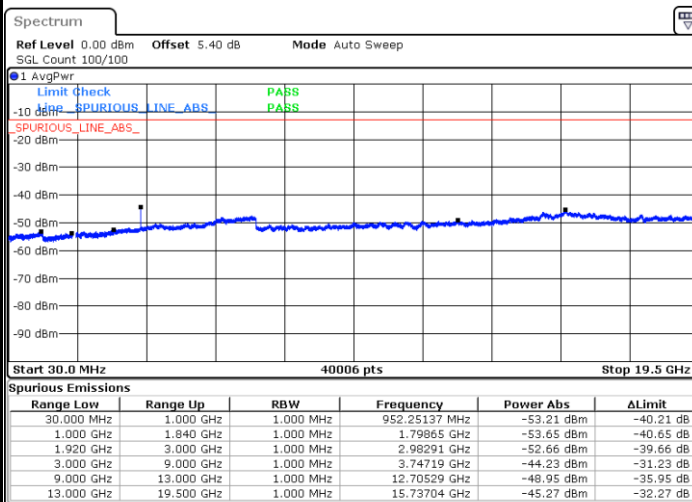
Lowest Channel / QPSK



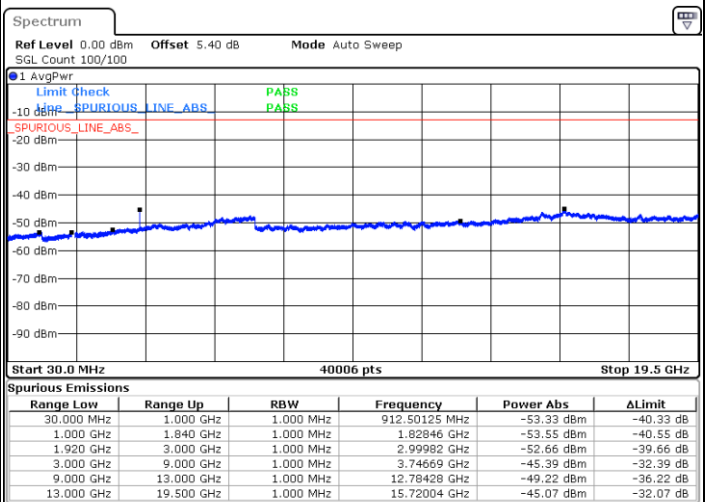
Lowest Channel / 16QAM



Middle Channel / QPSK



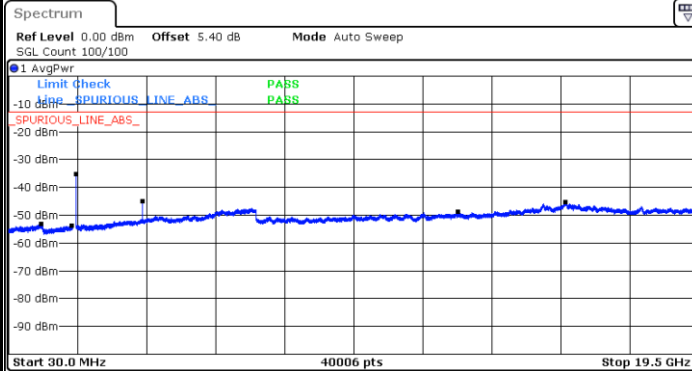
Middle Channel / 16QAM





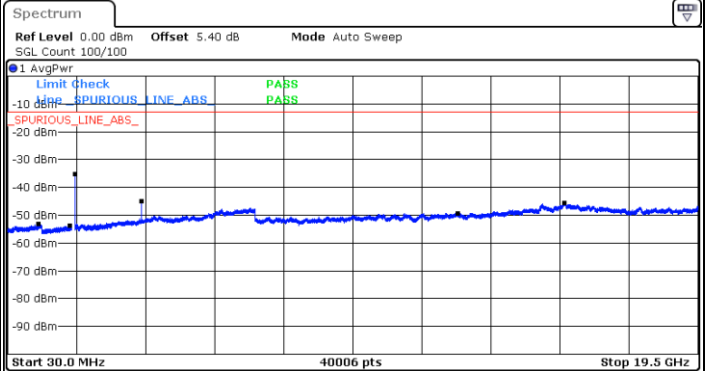
LTE Band 2 / 15MHz

Highest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	948.37331 MHz	-53.19 dBm	-40.19 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.80327 GHz	-53.70 dBm	-40.70 dB
1.920 GHz	3.000 GHz	1.000 MHz	1.92270 GHz	-35.25 dBm	-22.25 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.79168 GHz	-45.04 dBm	-32.04 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.70229 GHz	-48.78 dBm	-35.78 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.72354 GHz	-45.29 dBm	-32.29 dB

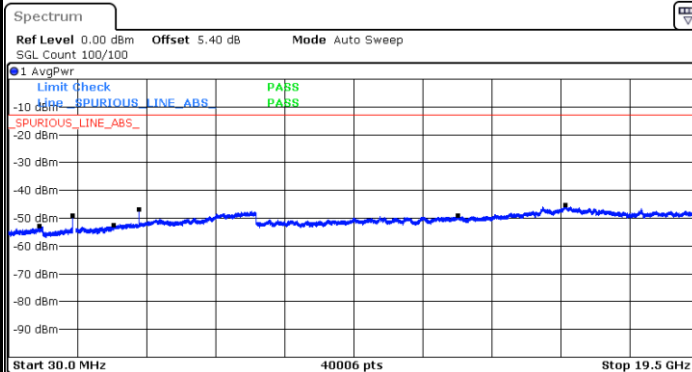
Highest Channel / 16QAM



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	894.08046 MHz	-53.12 dBm	-40.12 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.78648 GHz	-53.65 dBm	-40.65 dB
1.920 GHz	3.000 GHz	1.000 MHz	1.92270 GHz	-35.36 dBm	-22.36 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.79168 GHz	-44.89 dBm	-31.89 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.71379 GHz	-49.28 dBm	-36.28 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.71754 GHz	-45.54 dBm	-32.54 dB

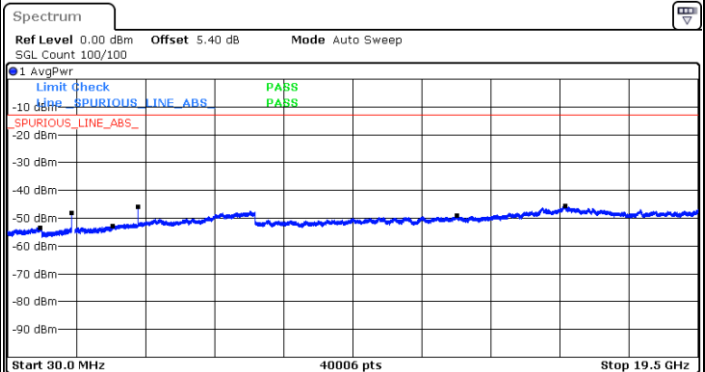
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	900.86707 MHz	-52.90 dBm	-39.90 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83979 GHz	-49.19 dBm	-36.19 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.99658 GHz	-52.52 dBm	-39.52 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.70219 GHz	-46.97 dBm	-33.97 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69029 GHz	-49.18 dBm	-36.18 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.73054 GHz	-45.33 dBm	-32.33 dB

Lowest Channel / 16QAM

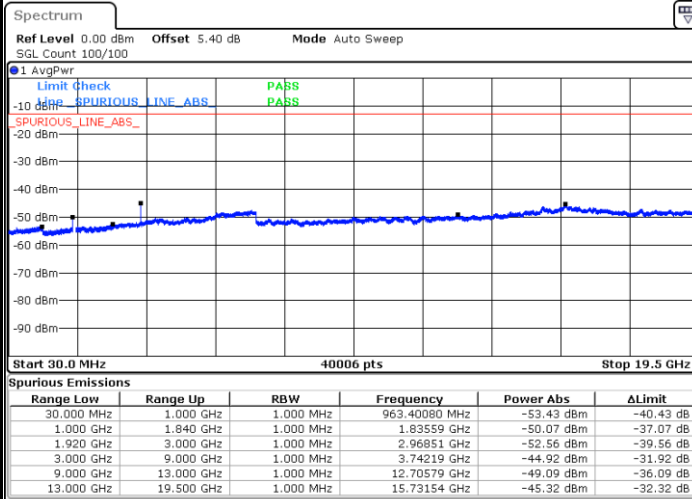


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	931.89155 MHz	-53.36 dBm	-40.36 dB
1.000 GHz	1.840 GHz	1.000 MHz	1.83979 GHz	-47.97 dBm	-34.97 dB
1.920 GHz	3.000 GHz	1.000 MHz	2.98147 GHz	-52.88 dBm	-39.88 dB
3.000 GHz	9.000 GHz	1.000 MHz	3.70219 GHz	-46.00 dBm	-33.00 dB
9.000 GHz	13.000 GHz	1.000 MHz	12.69129 GHz	-49.04 dBm	-36.04 dB
13.000 GHz	19.500 GHz	1.000 MHz	15.74854 GHz	-45.45 dBm	-32.45 dB

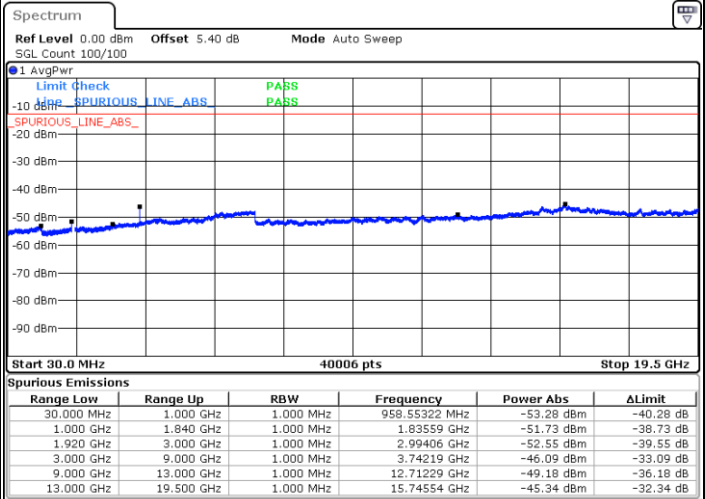


LTE Band 2 / 20MHz

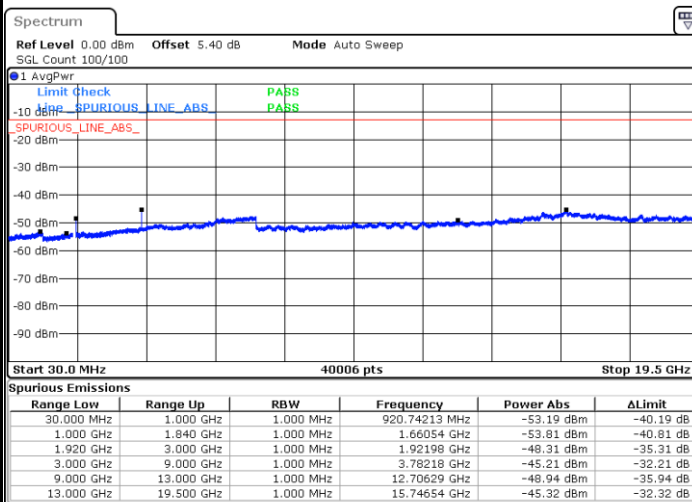
Middle Channel / QPSK



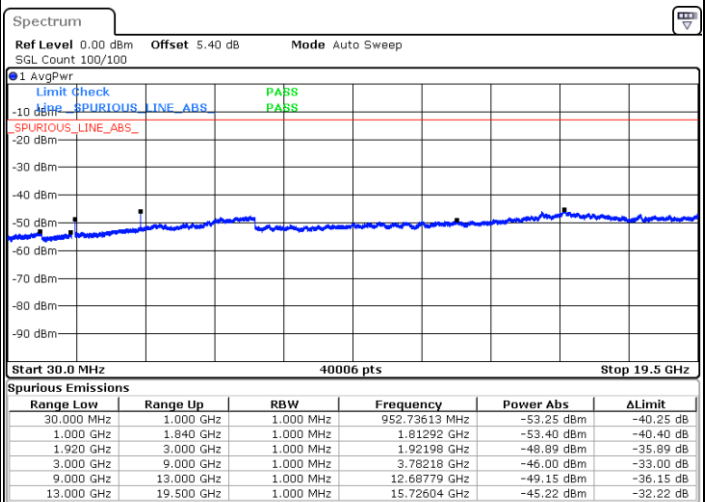
Middle Channel / 16QAM



Highest Channel / QPSK



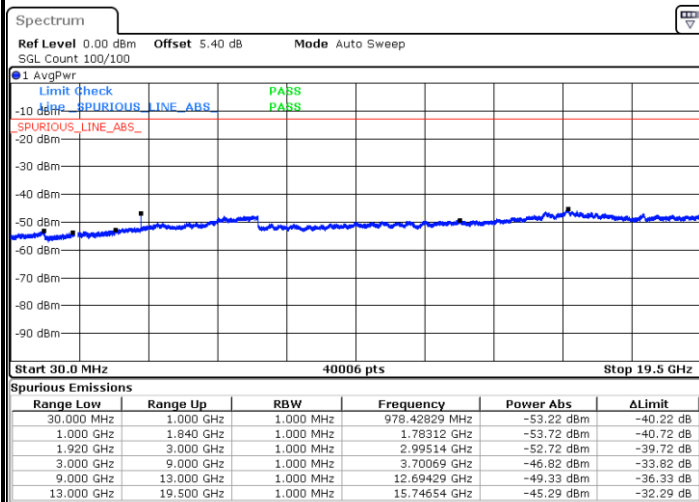
Highest Channel / 16QAM



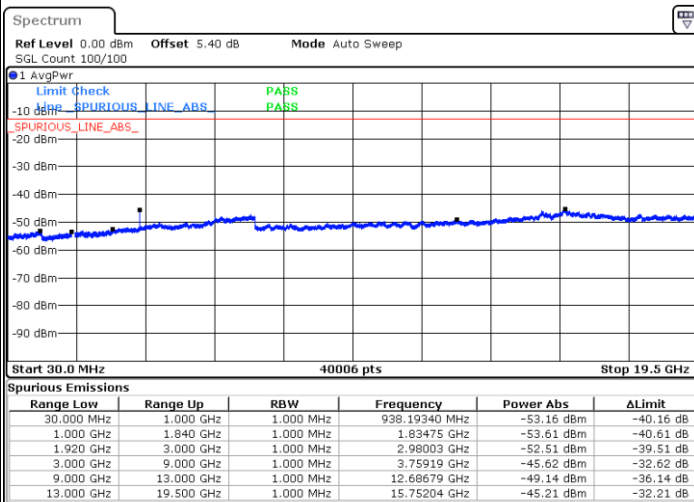


LTE Band 2 / 1.4MHz

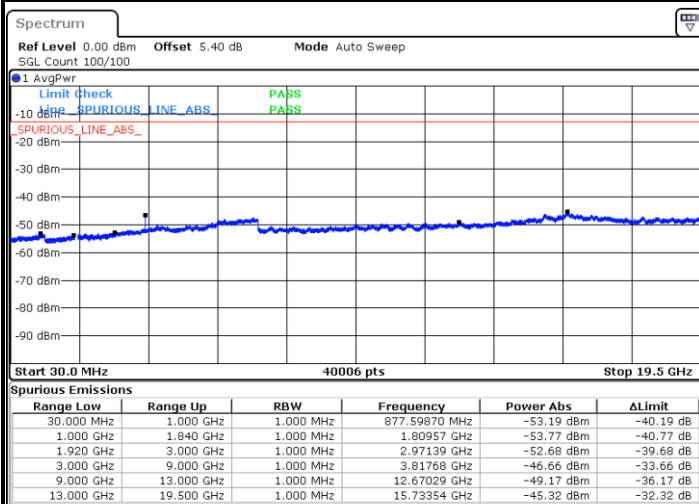
Lowest Channel / 64QAM



Middle Channel / 64QAM



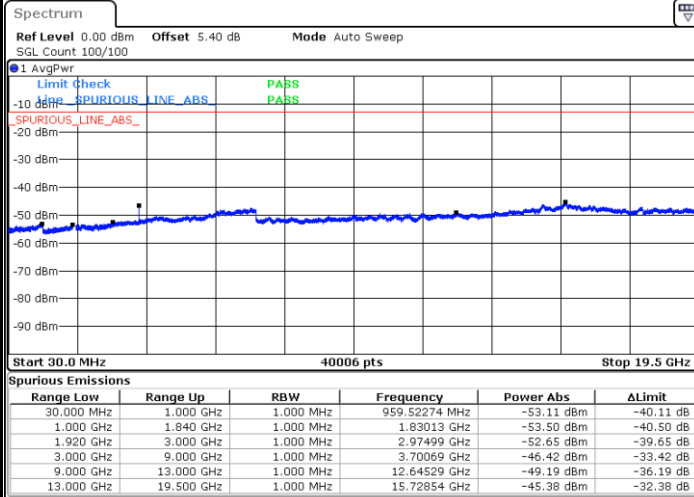
Highest Channel / 64QAM



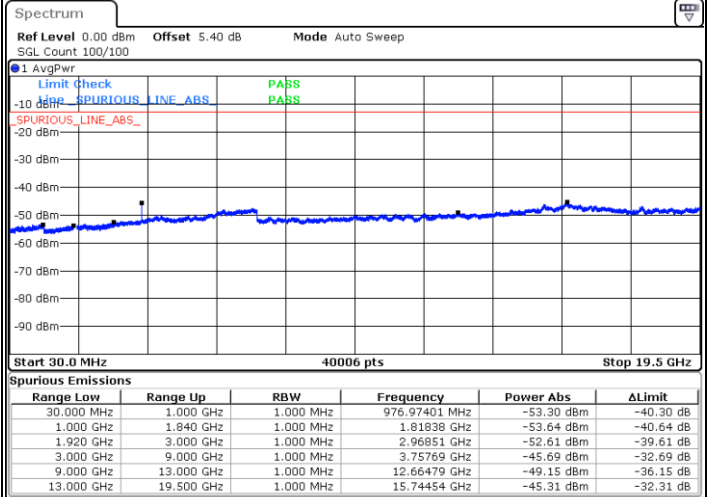


LTE Band 2 / 3MHz

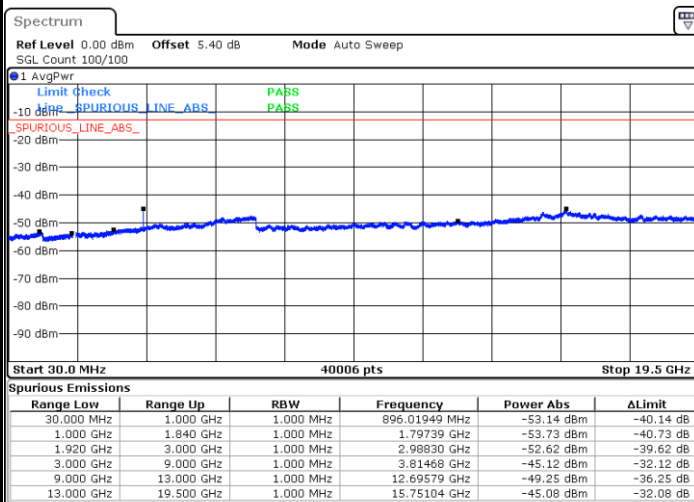
Lowest Channel / 64QAM



Middle Channel / 64QAM



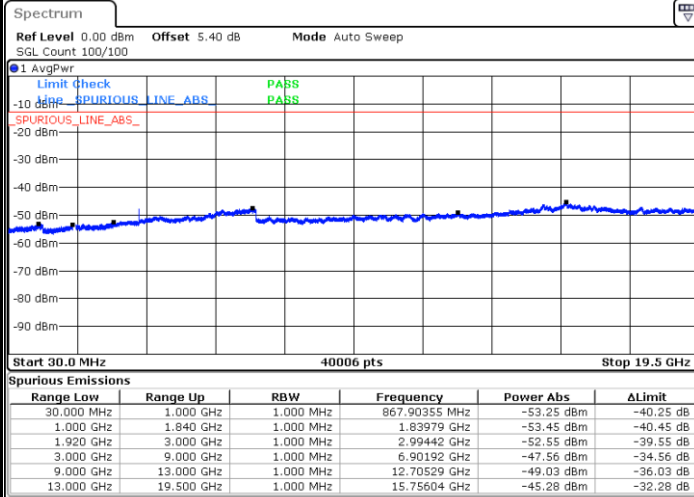
Highest Channel / 64QAM



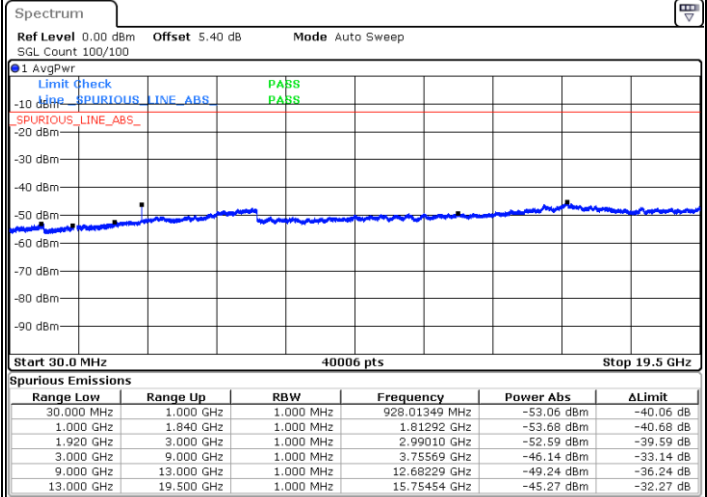


LTE Band 2 / 5MHz

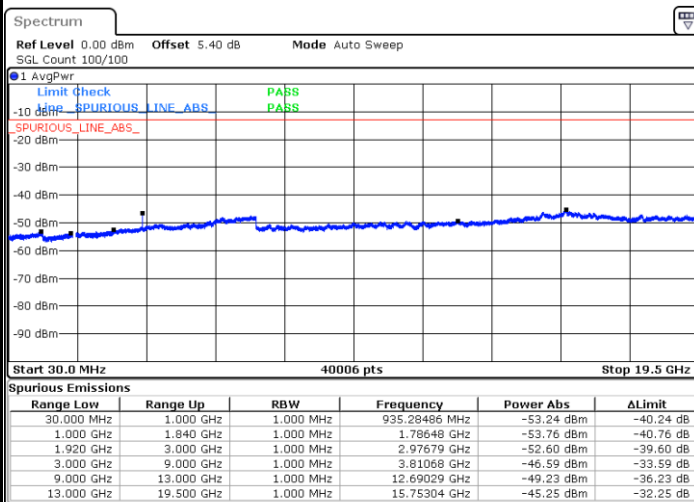
Lowest Channel / 64QAM



Middle Channel / 64QAM



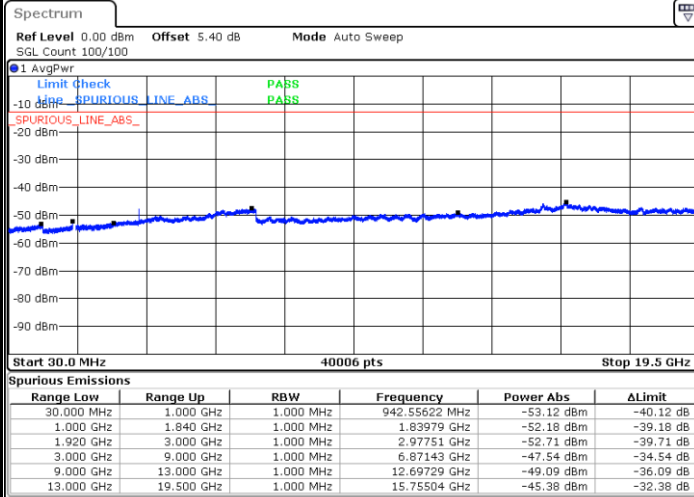
Highest Channel / 64QAM



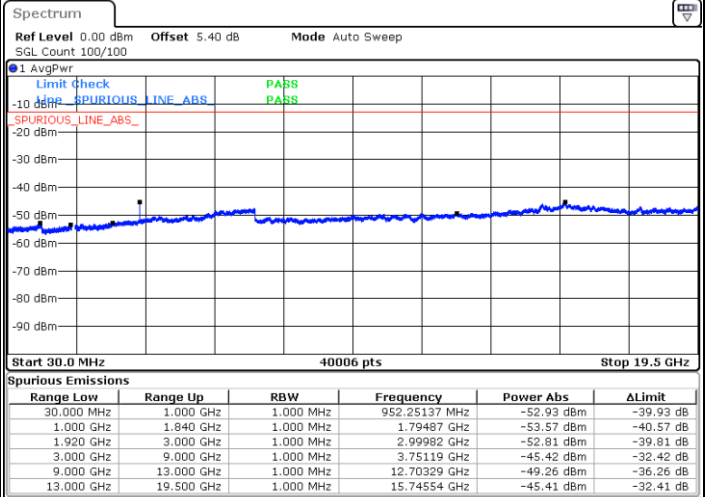


LTE Band 2 / 10MHz

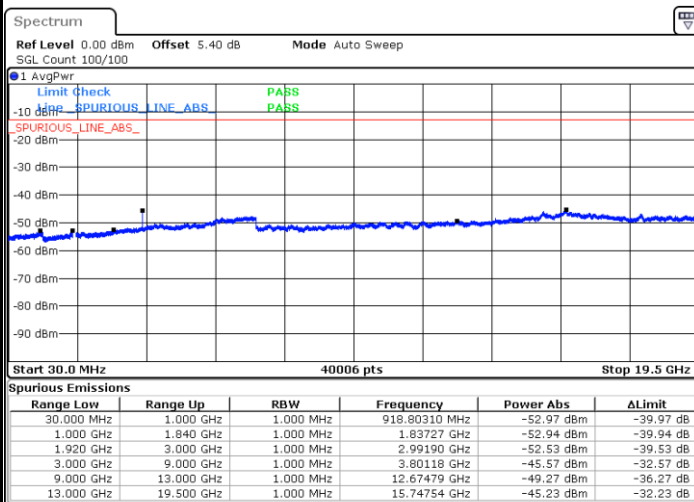
Lowest Channel / 64QAM



Middle Channel / 64QAM



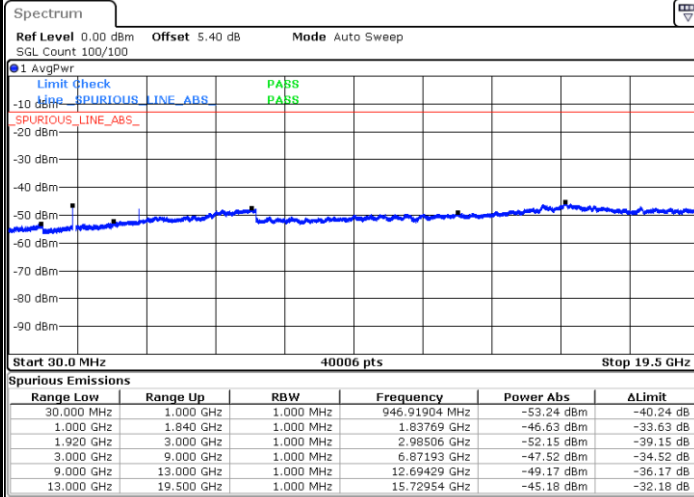
Highest Channel / 64QAM



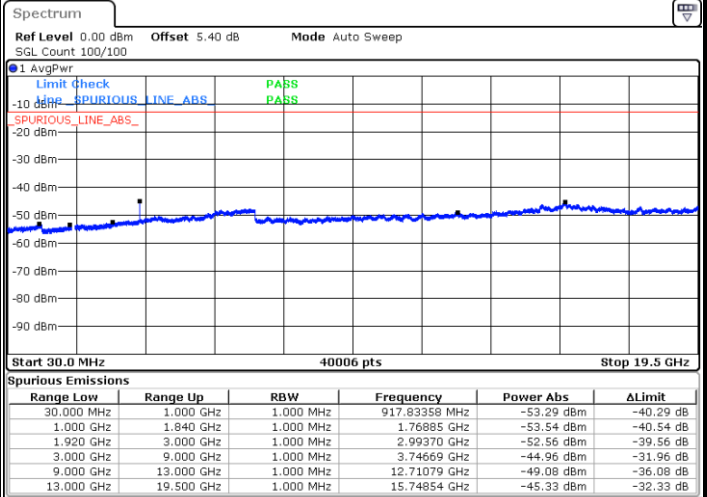


LTE Band 2 / 15MHz

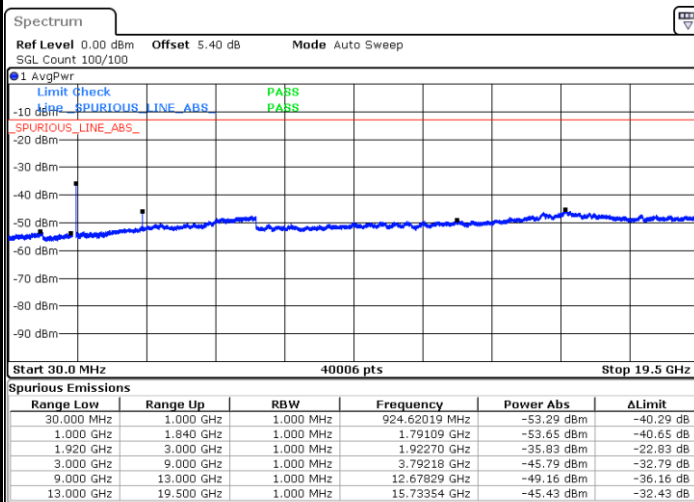
Lowest Channel / 64QAM



Middle Channel / 64QAM



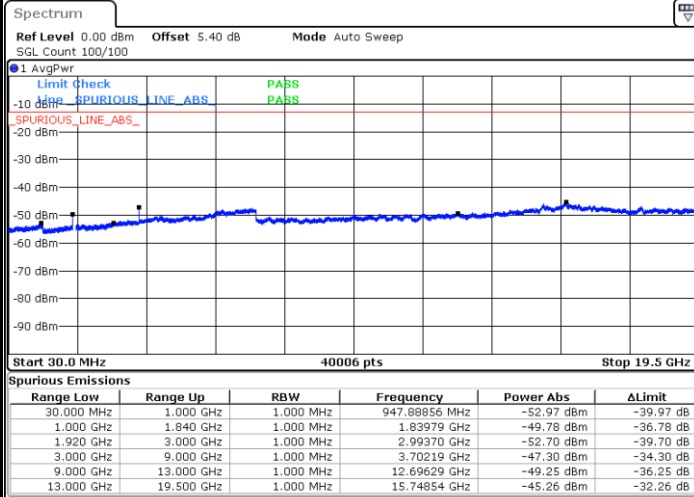
Highest Channel / 64QAM



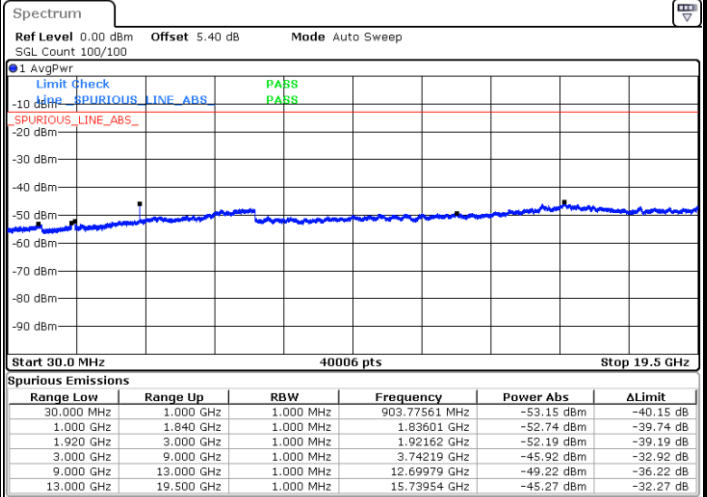


LTE Band 2 / 20MHz

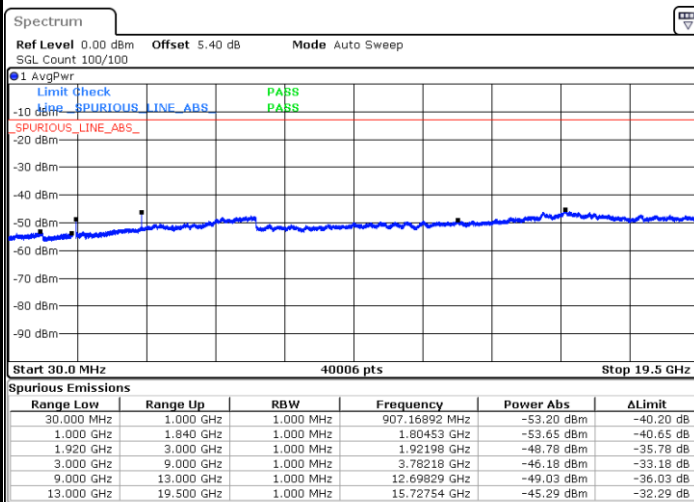
Lowest Channel / 64QAM



Middle Channel / 64QAM



Highest Channel / 64QAM



**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	0.0006	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0016	

Note:

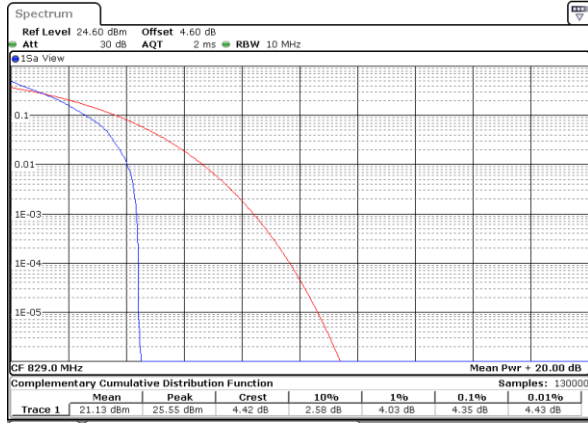
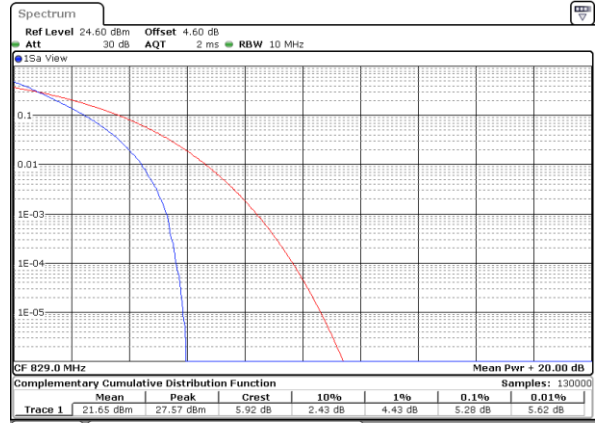
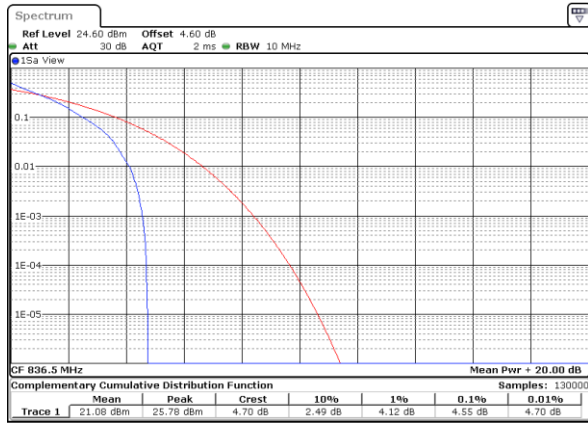
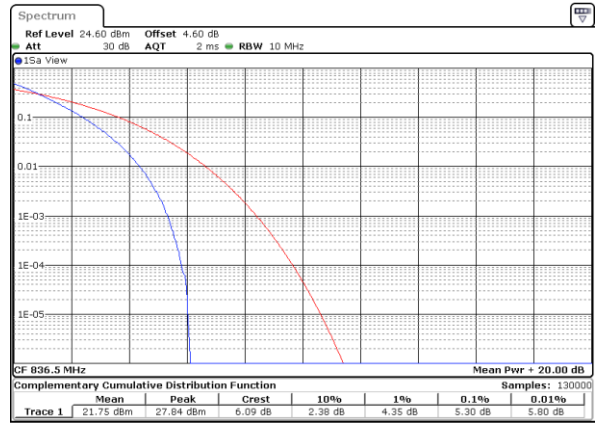
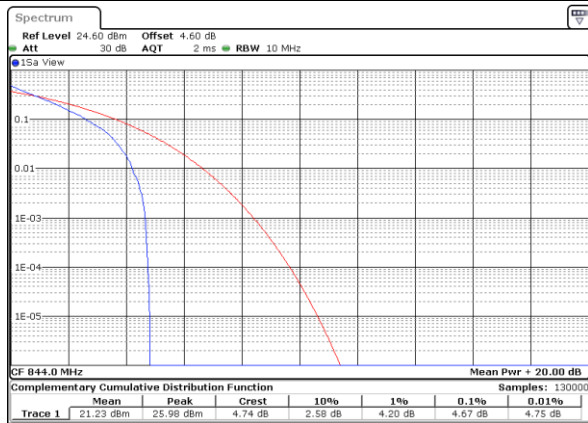
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

Peak-to-Average Ratio

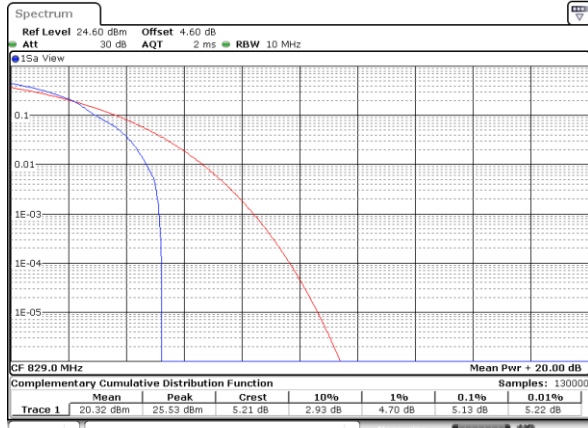
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.35	5.28	5.13	6.06	PASS
Middle CH	4.55	5.30	5.68	6.20	
Highest CH	4.67	4.96	5.48	5.94	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.77	6.38	-	-	PASS
Middle CH	6.14	6.49	-	-	
Highest CH	6.03	6.35	-	-	

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

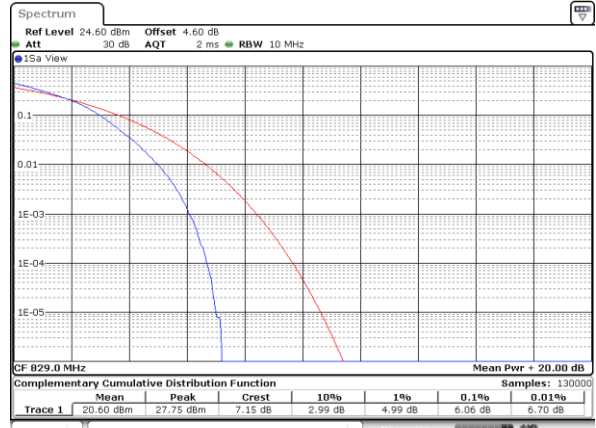



LTE Band 5 / 10MHz / 16QAM

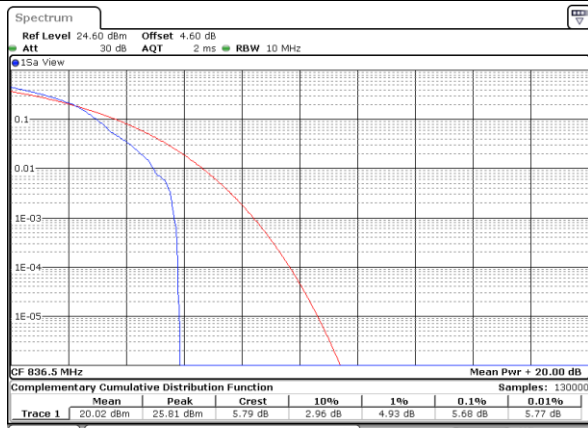
Lowest Channel / 1RB



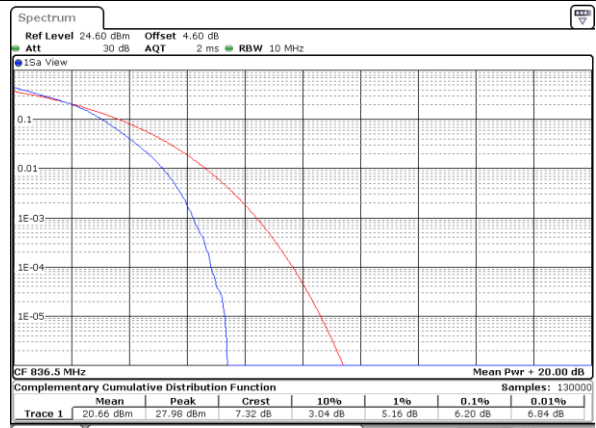
Lowest Channel / Full RB



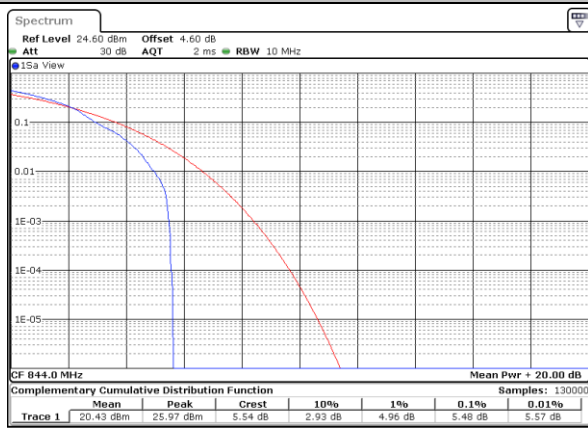
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



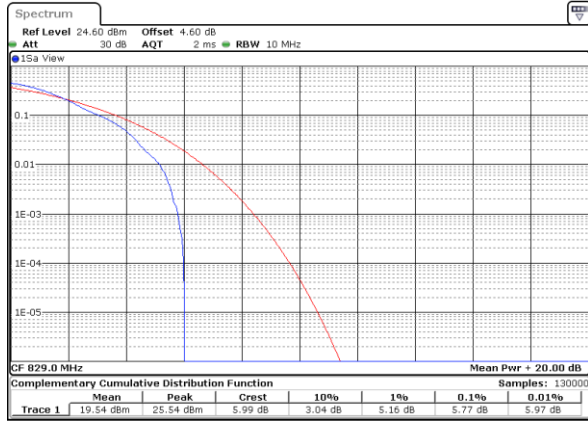
Highest Channel / Full RB



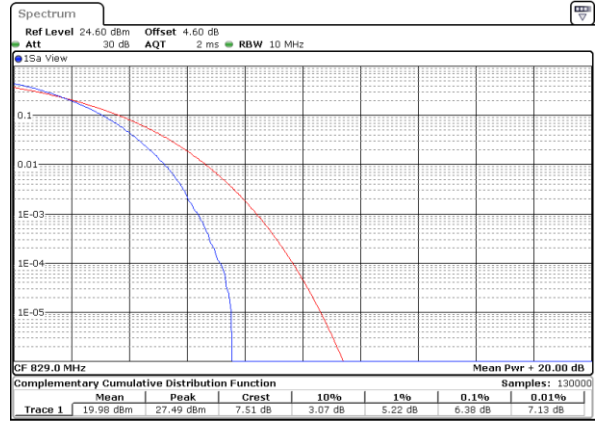


LTE Band 5 / 10MHz / 64QAM

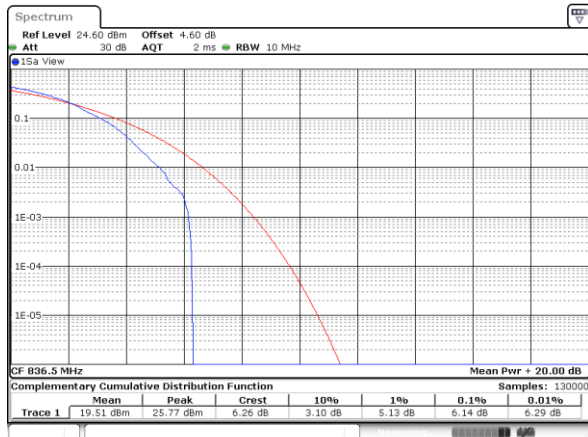
Lowest Channel / 1RB



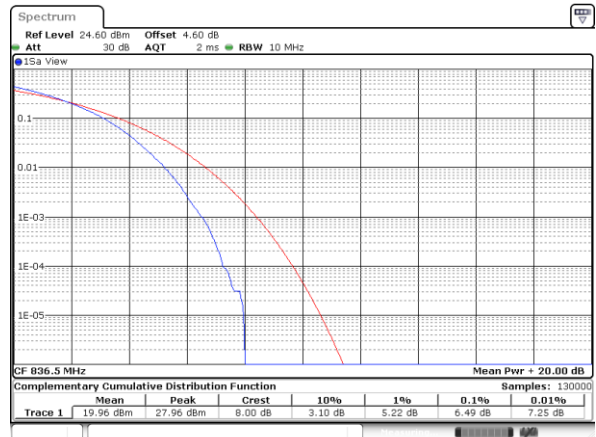
Lowest Channel / Full RB



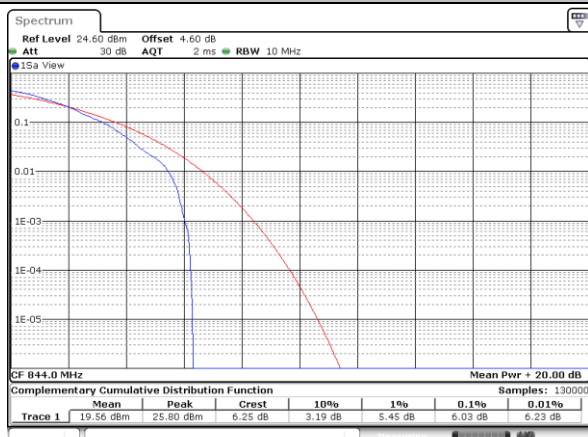
Middle Channel / 1RB



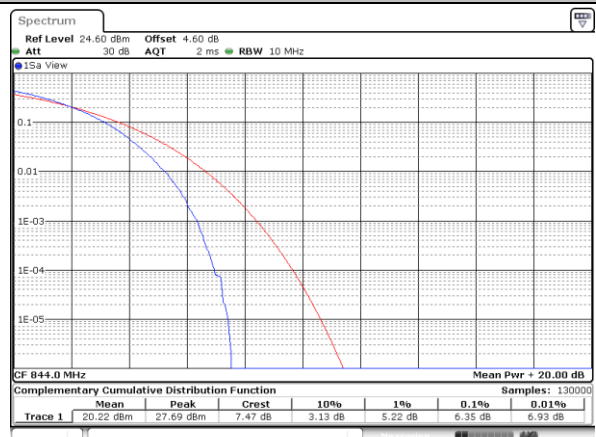
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



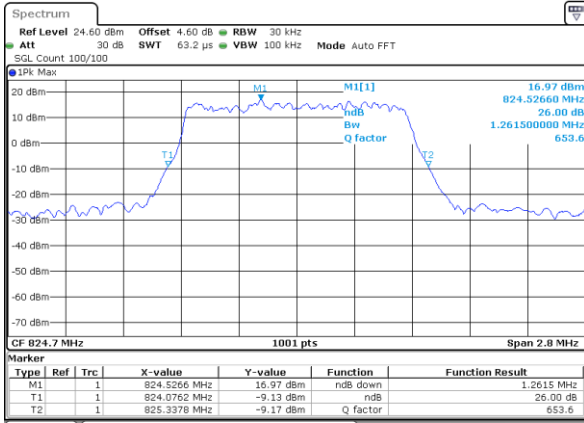
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.26	1.26	2.93	2.93	4.89	4.84	9.79	9.69
Middle CH	1.29	1.26	2.97	2.96	4.95	4.86	9.93	9.83
Highest CH	1.26	1.26	2.99	2.98	4.84	4.83	9.89	9.81
Mode	LTE Band 5 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.25		2.94		4.91		9.83	
Middle CH	1.28		2.96		4.86		9.91	
Highest CH	1.28		2.99		4.84		9.77	

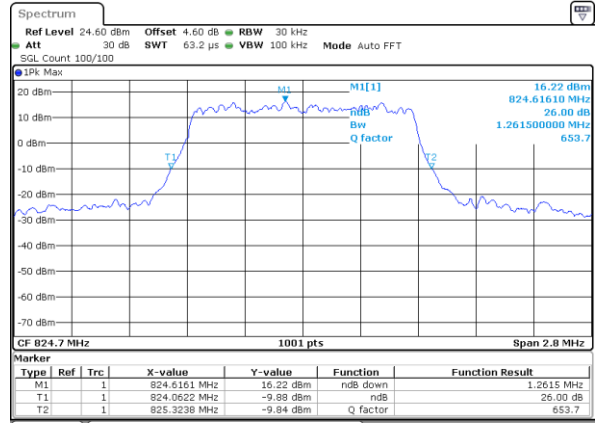


LTE Band 5

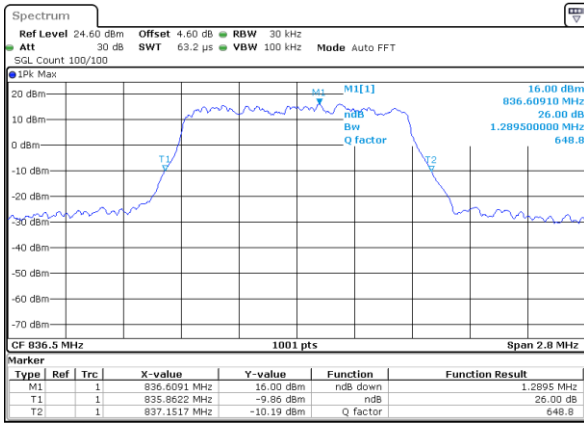
Lowest Channel / 1.4MHz / QPSK



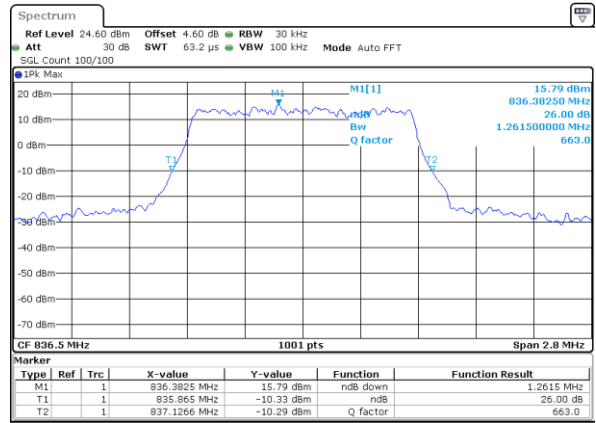
Lowest Channel / 1.4MHz / 16QAM



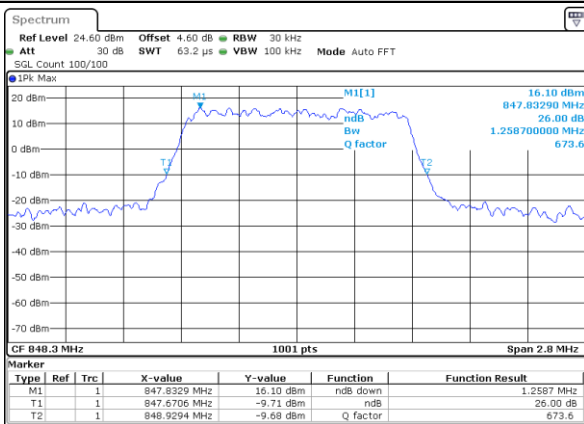
Middle Channel / 1.4MHz / QPSK



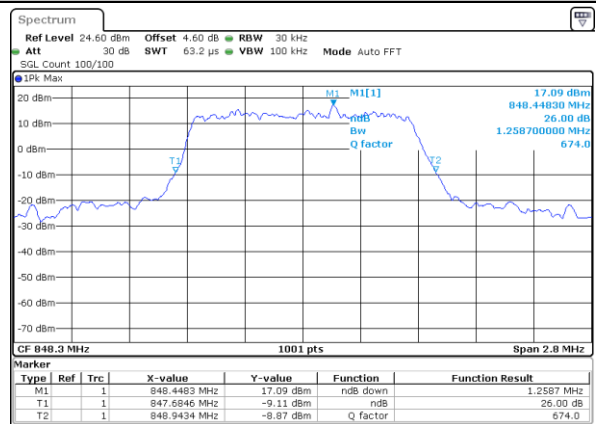
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



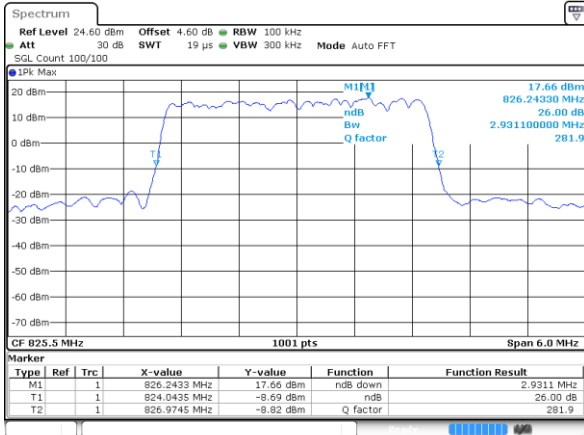
Highest Channel / 1.4MHz / 16QAM



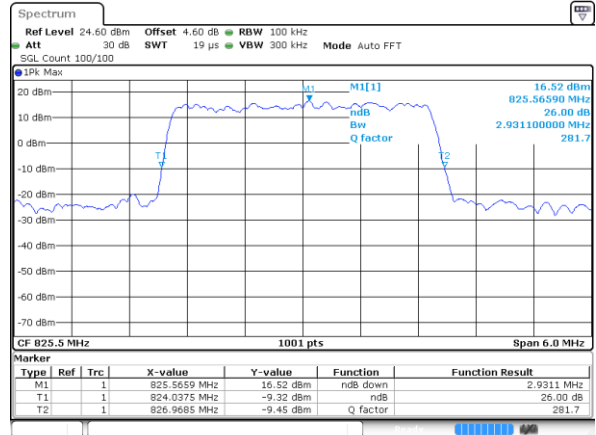


LTE Band 5

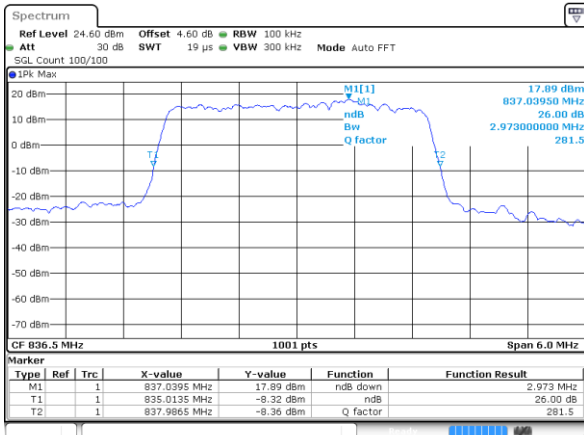
Lowest Channel / 3MHz / QPSK



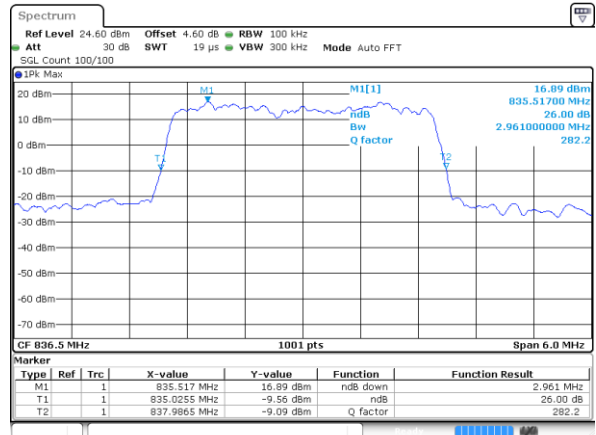
Lowest Channel / 3MHz / 16QAM



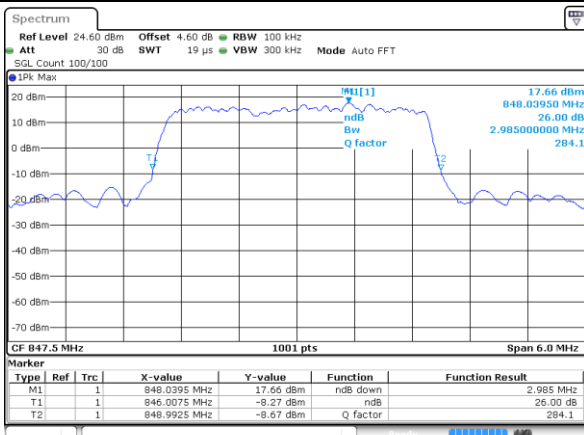
Middle Channel / 3MHz / QPSK



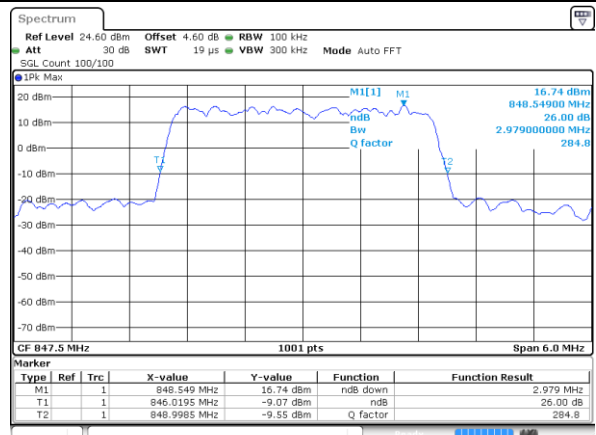
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



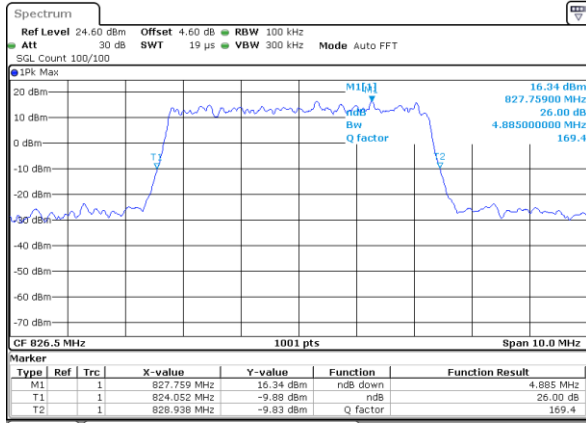
Highest Channel / 3MHz / 16QAM



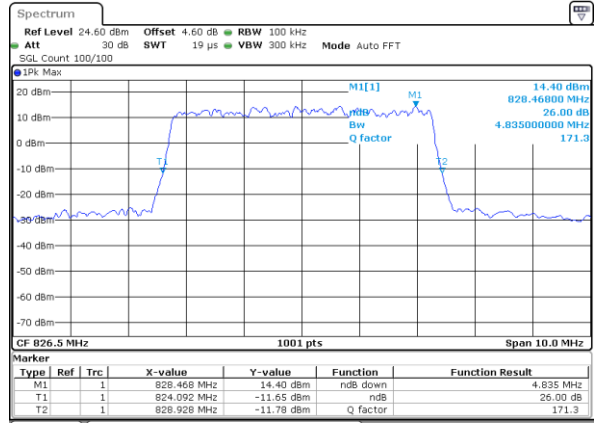


LTE Band 5

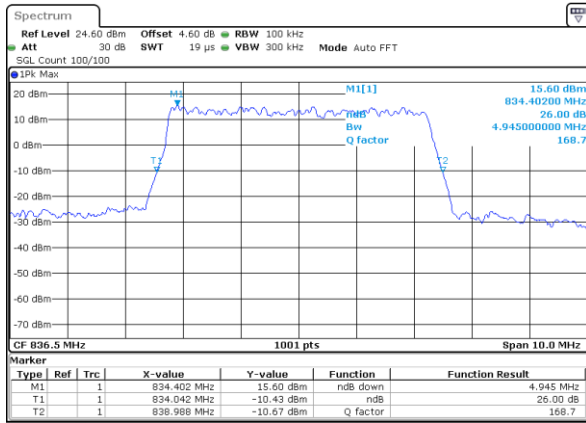
Lowest Channel / 5MHz / QPSK



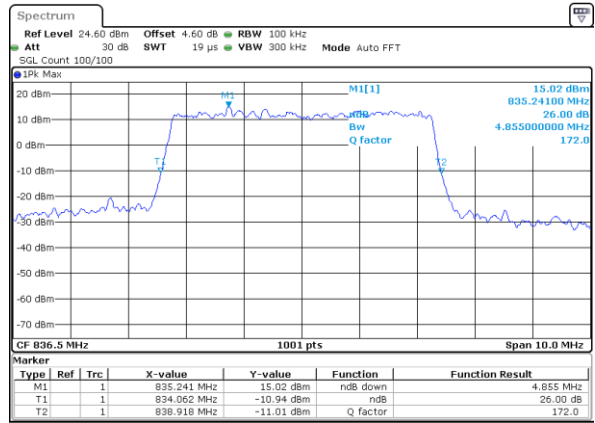
Lowest Channel / 5MHz / 16QAM



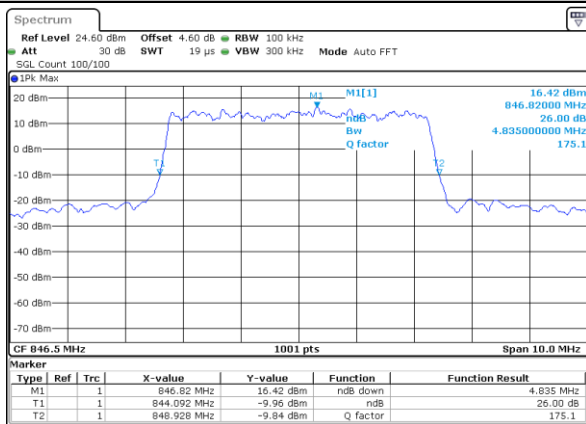
Middle Channel / 5MHz / QPSK



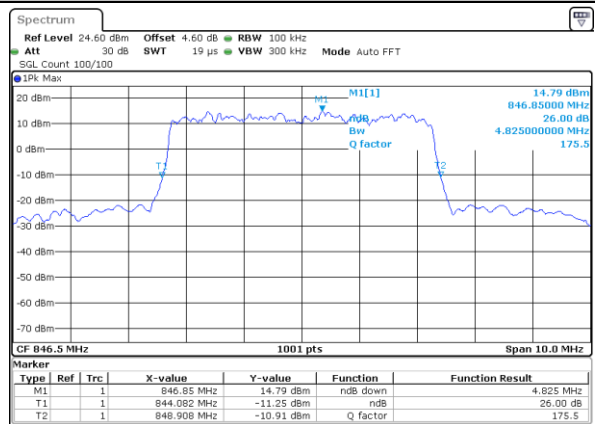
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



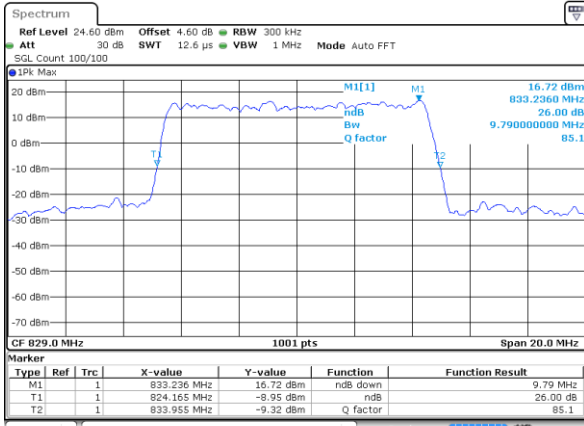
Highest Channel / 5MHz / 16QAM



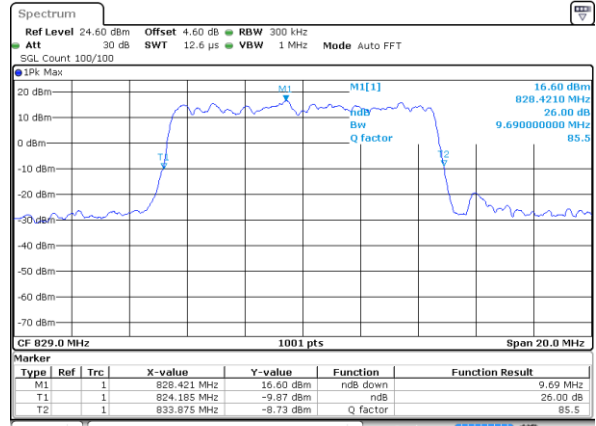


LTE Band 5

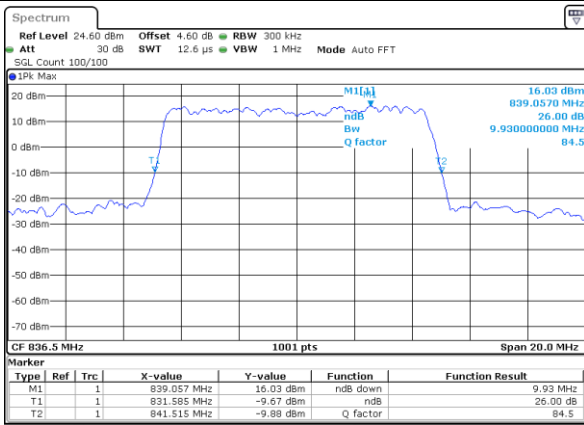
Lowest Channel / 10MHz / QPSK



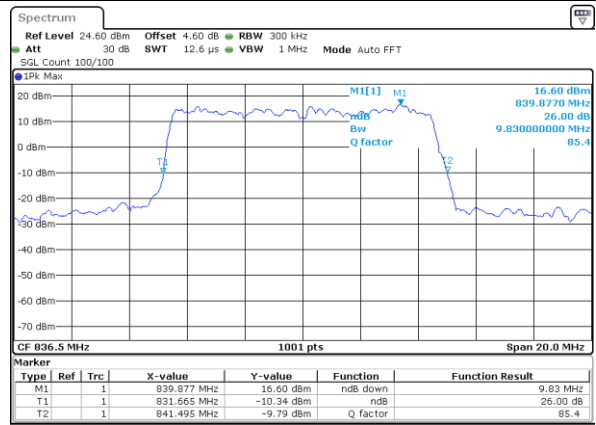
Lowest Channel / 10MHz / 16QAM



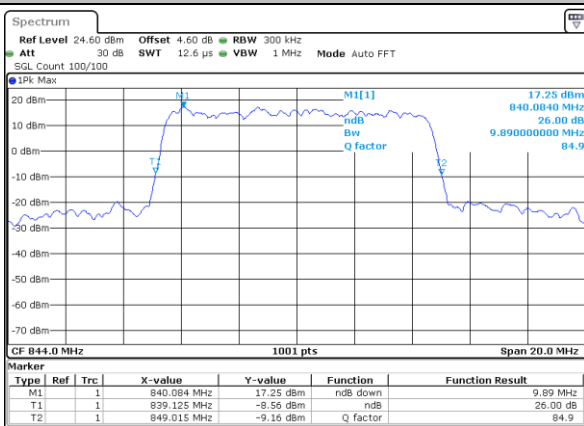
Middle Channel / 10MHz / QPSK



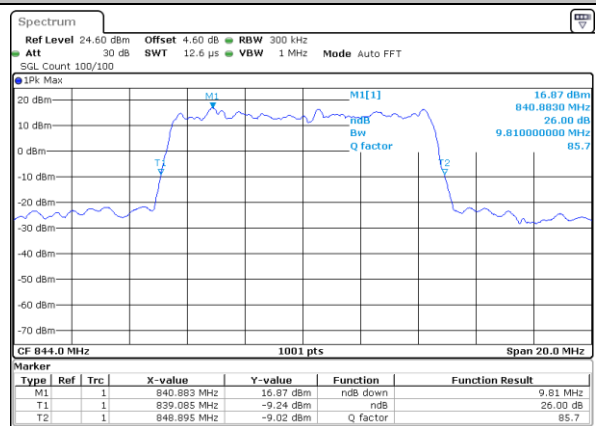
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



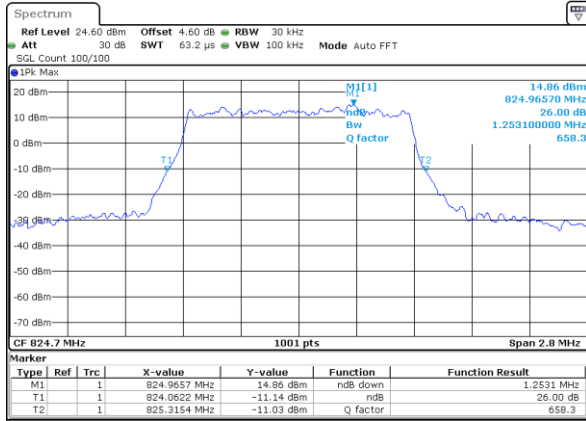
Highest Channel / 10MHz / 16QAM



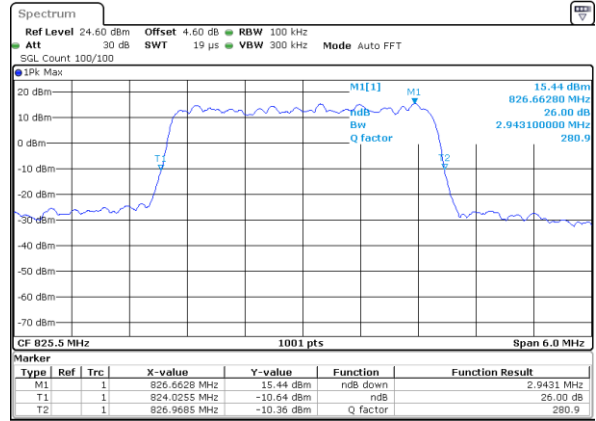


LTE Band 5

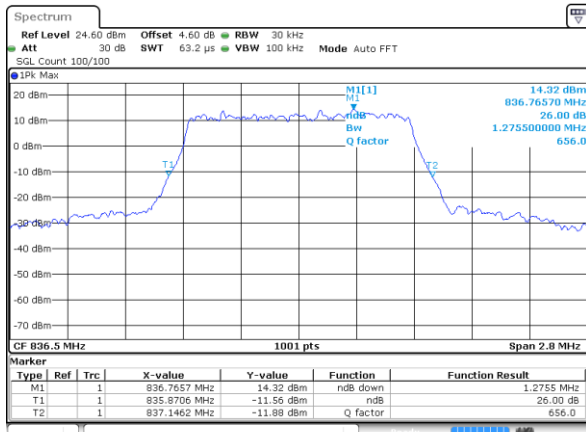
Lowest Channel / 1.4MHz / 64QAM



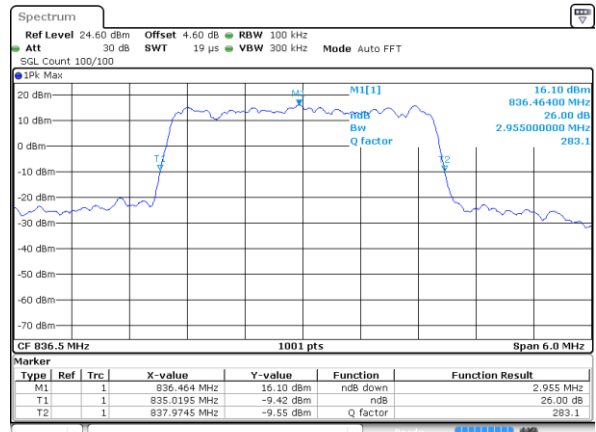
Lowest Channel / 3MHz / 64QAM



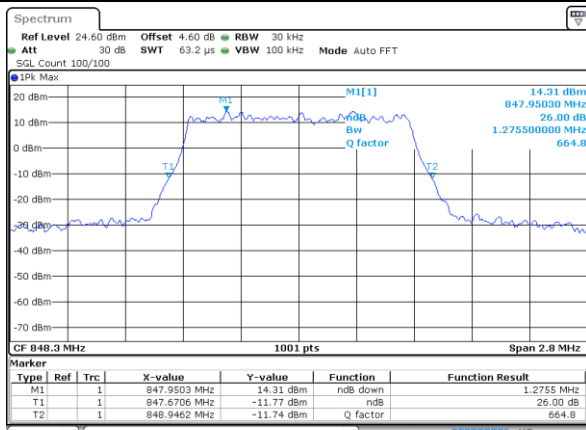
Middle Channel / 1.4MHz / 64QAM



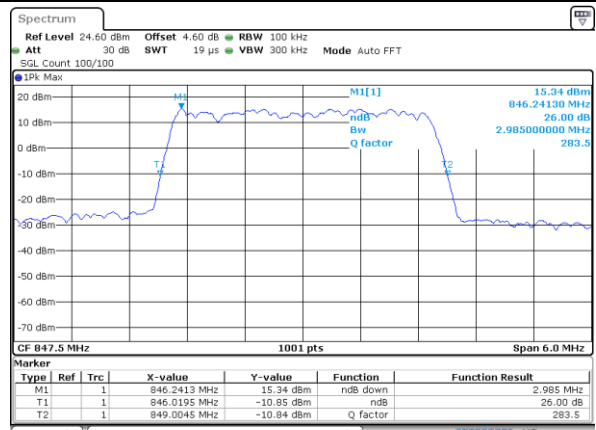
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



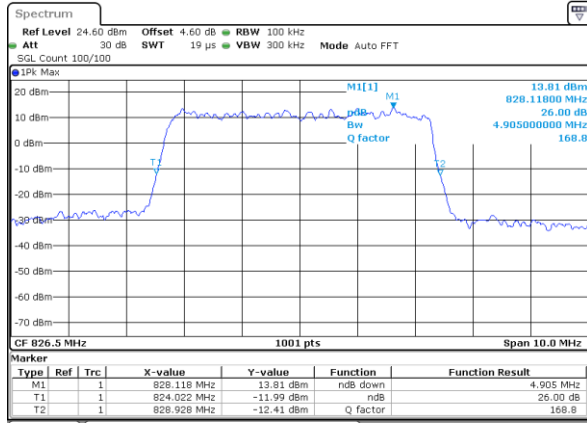
Highest Channel / 3MHz / 64QAM



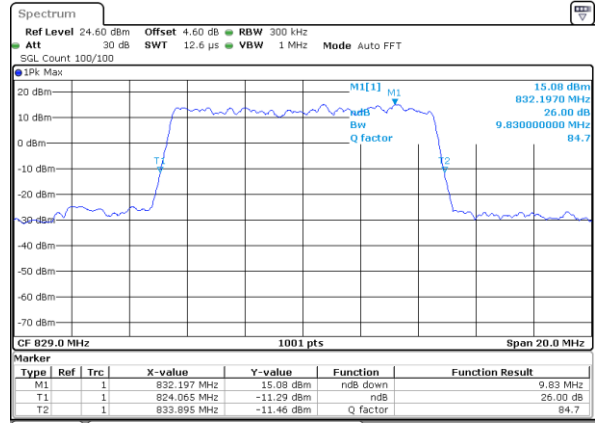


LTE Band 5

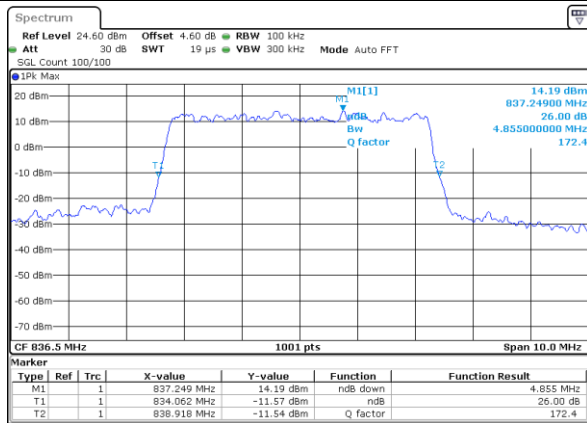
Lowest Channel / 5MHz / 64QAM



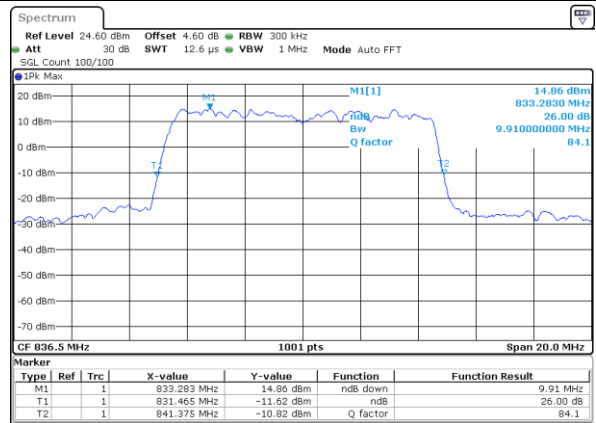
Lowest Channel / 10MHz / 64QAM



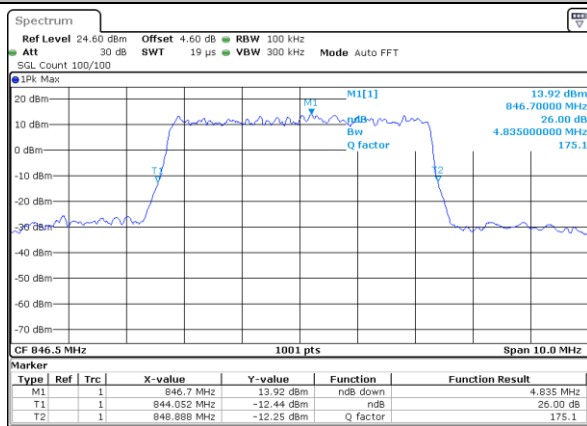
Middle Channel / 5MHz / 64QAM



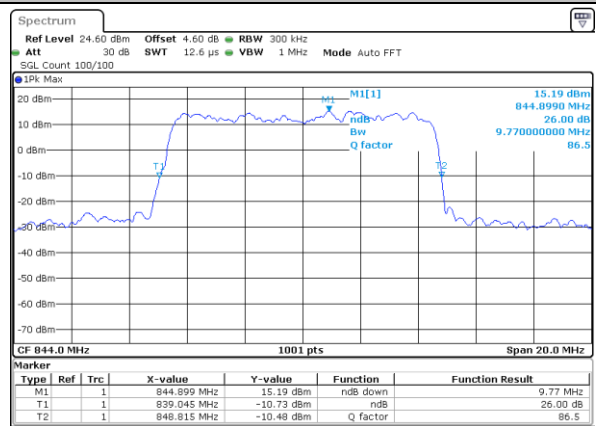
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



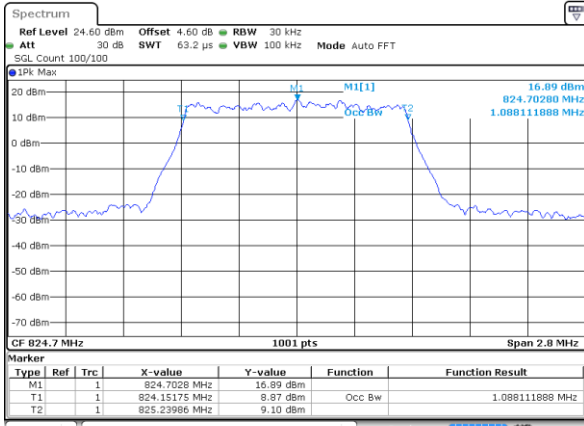
**Occupied Bandwidth**

Mode	LTE Band 5 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.08	2.70	2.71	4.49	4.48	9.07	8.99
Middle CH	1.09	1.10	2.70	2.71	4.48	4.51	9.03	8.99
Highest CH	1.08	1.09	2.71	2.69	4.48	4.49	9.07	9.03
Mode	LTE Band 5 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.72		4.51		9.03	
Middle CH	1.10		2.71		4.51		9.09	
Highest CH	1.09		2.71		4.50		9.01	

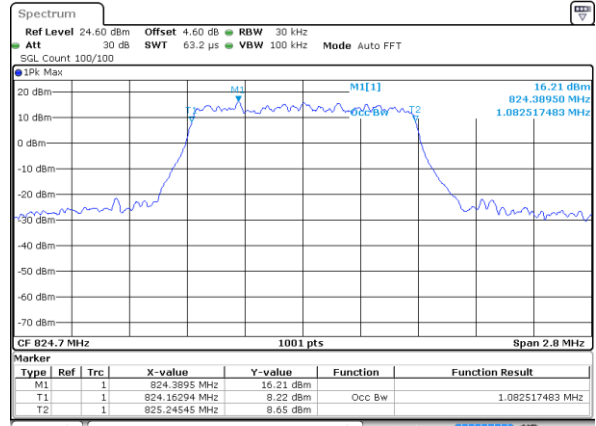


LTE Band 5

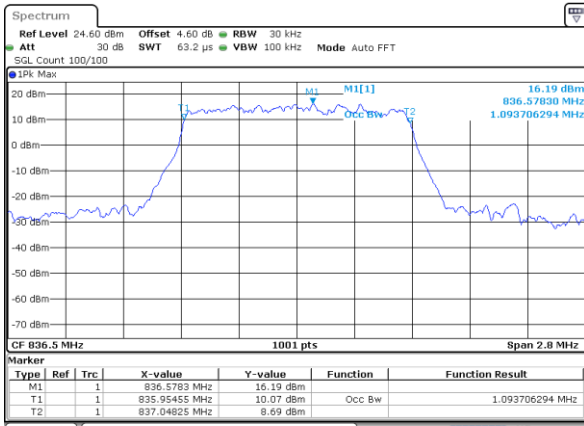
Lowest Channel / 1.4MHz / QPSK



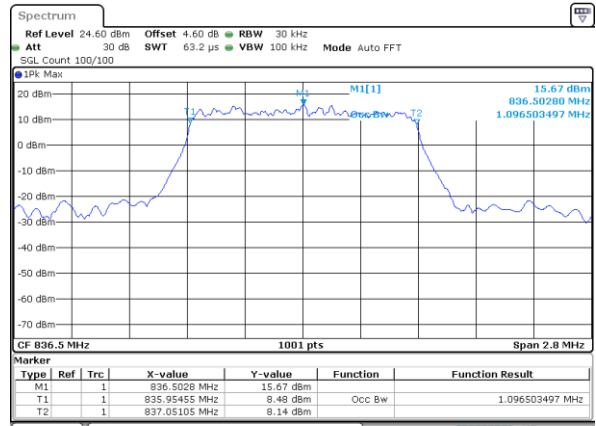
Lowest Channel / 1.4MHz / 16QAM



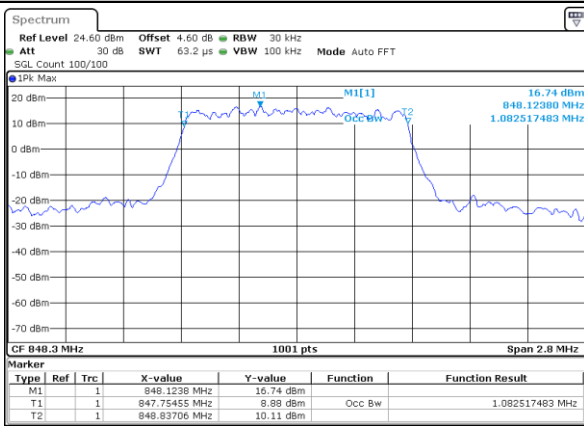
Middle Channel / 1.4MHz / QPSK



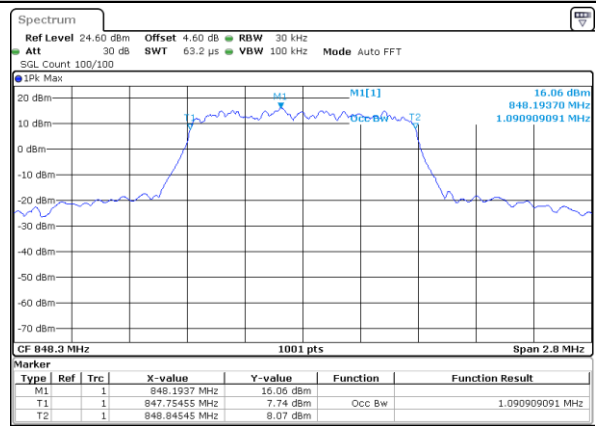
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



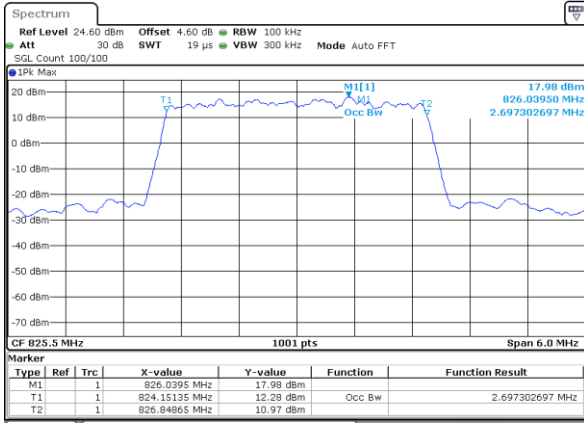
Highest Channel / 1.4MHz / 16QAM



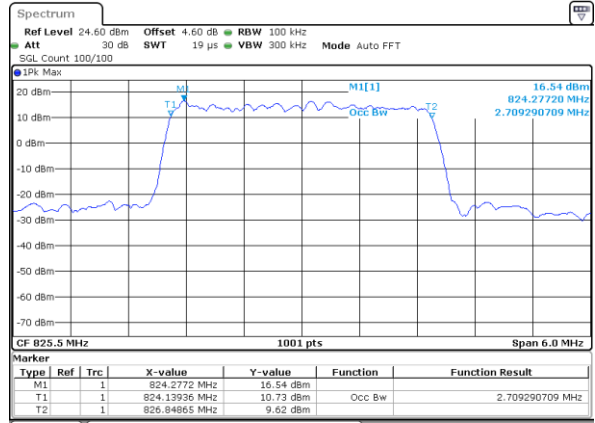


LTE Band 5

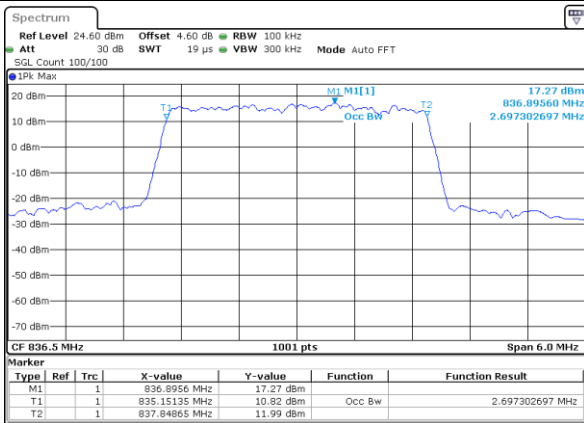
Lowest Channel / 3MHz / QPSK



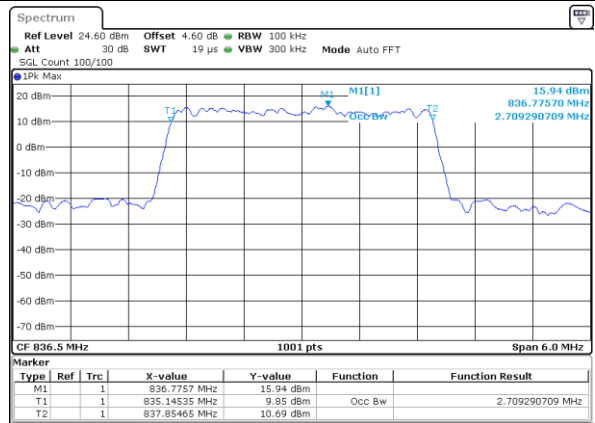
Lowest Channel / 3MHz / 16QAM



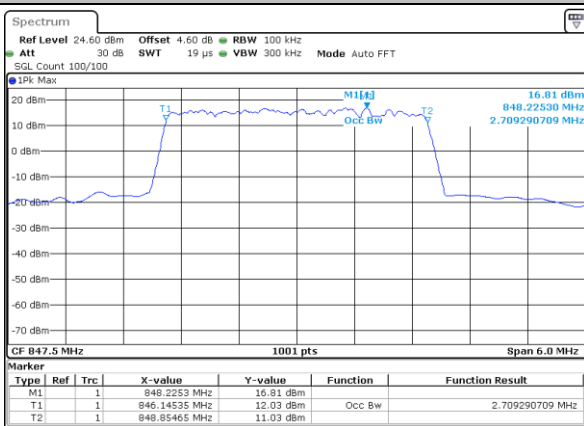
Middle Channel / 3MHz / QPSK



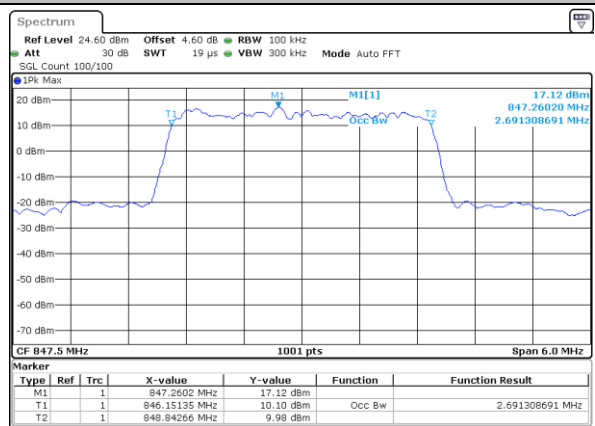
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



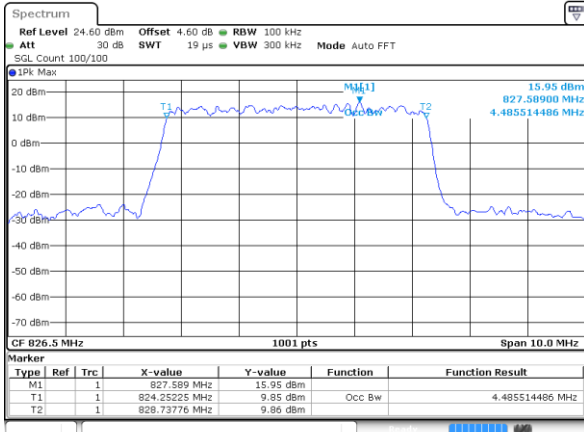
Highest Channel / 3MHz / 16QAM



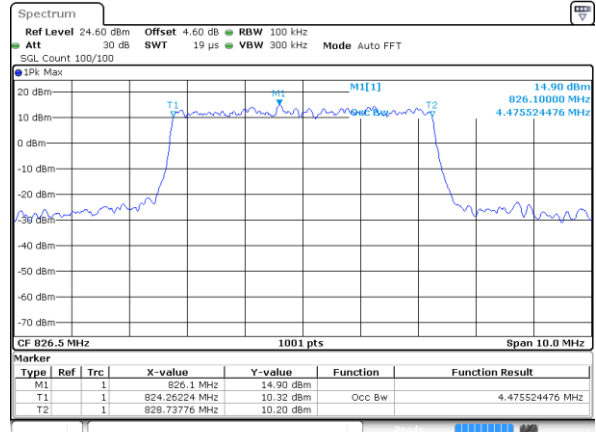


LTE Band 5

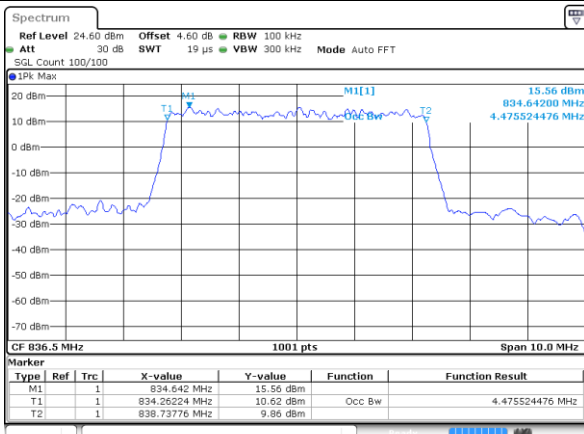
Lowest Channel / 5MHz / QPSK



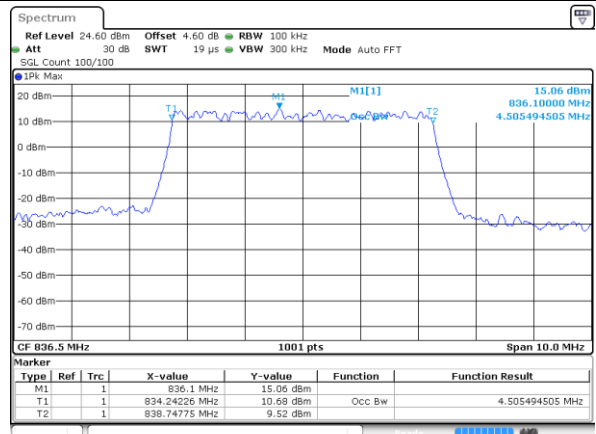
Lowest Channel / 5MHz / 16QAM



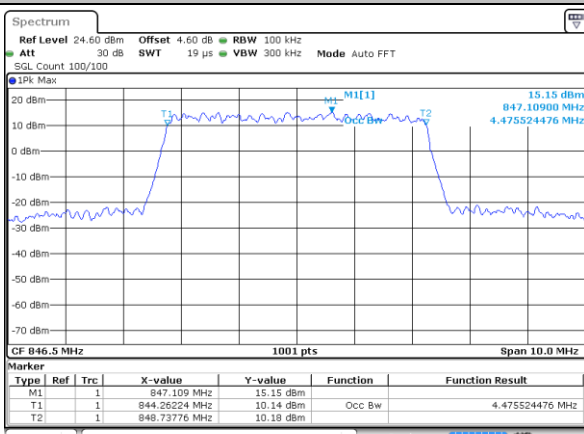
Middle Channel / 5MHz / QPSK



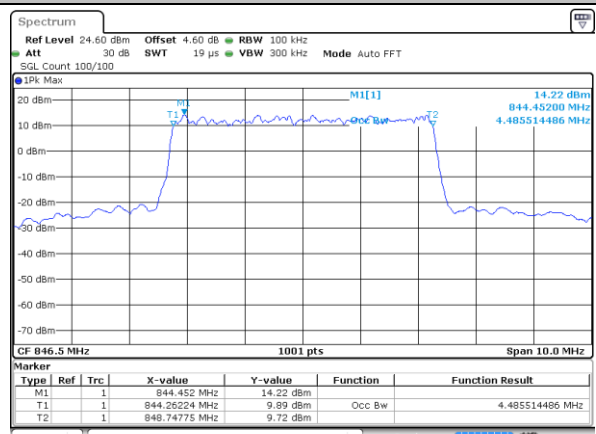
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



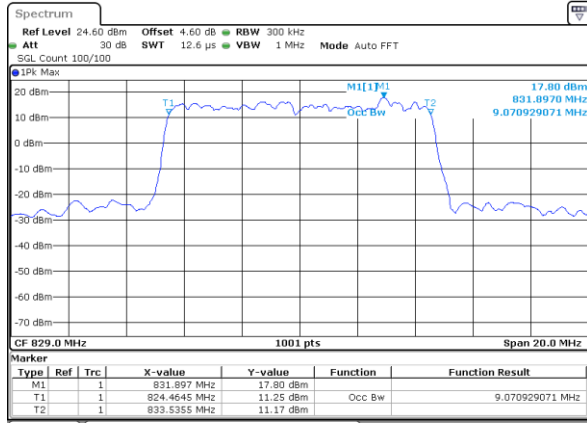
Highest Channel / 5MHz / 16QAM



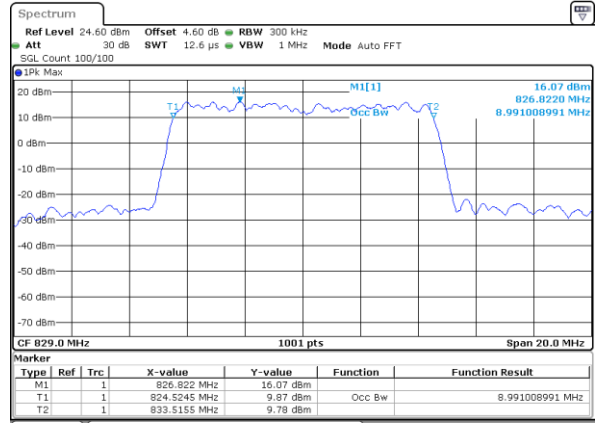


LTE Band 5

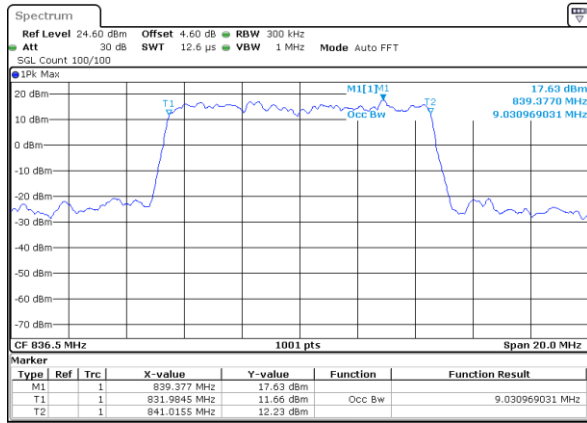
Lowest Channel / 10MHz / QPSK



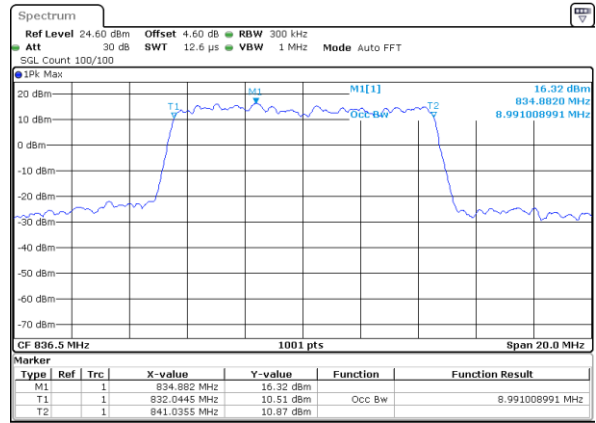
Lowest Channel / 10MHz / 16QAM



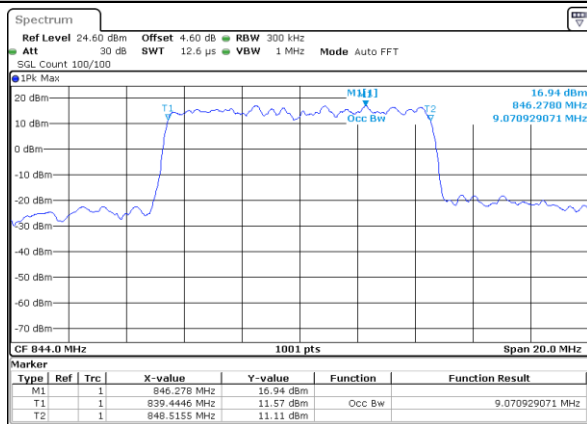
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM

