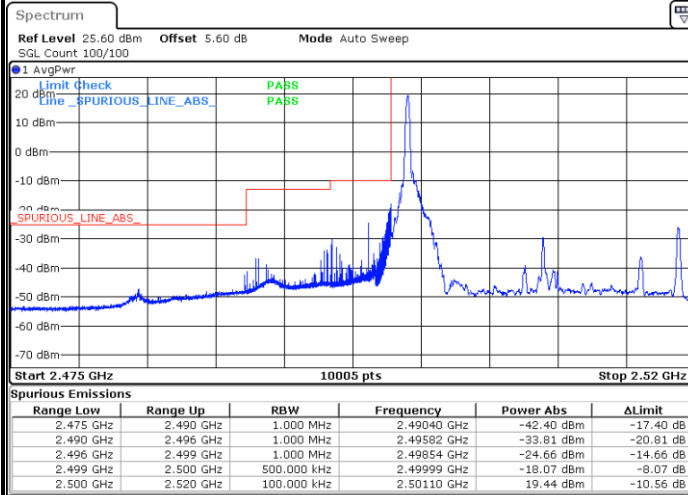


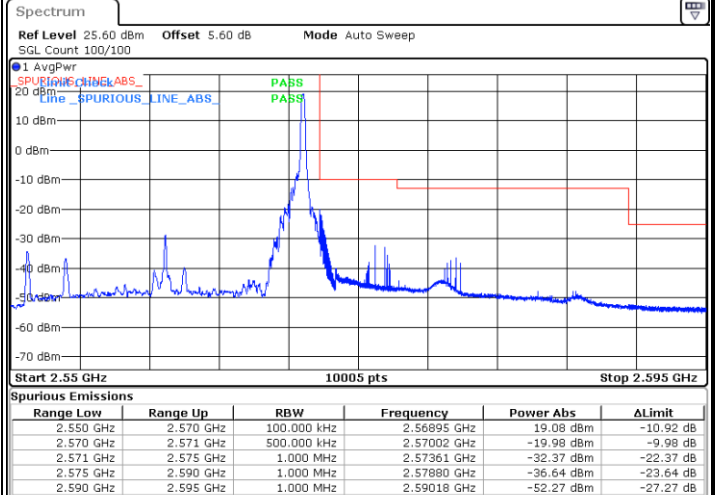


LTE Band 7 / 20MHz / 64QAM

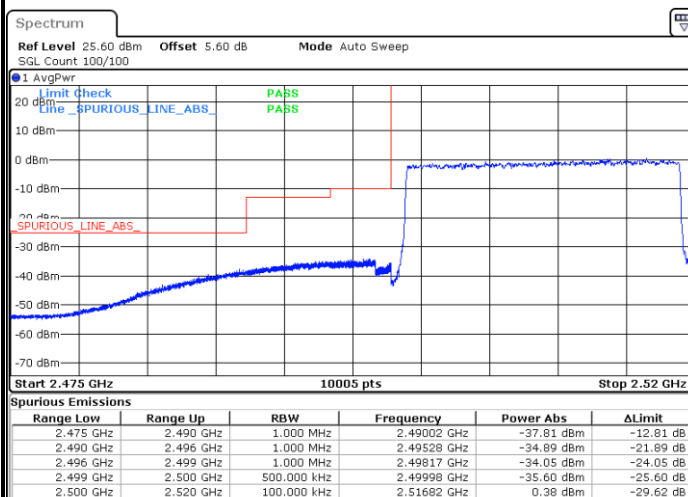
Lowest Band Edge / 1 RB



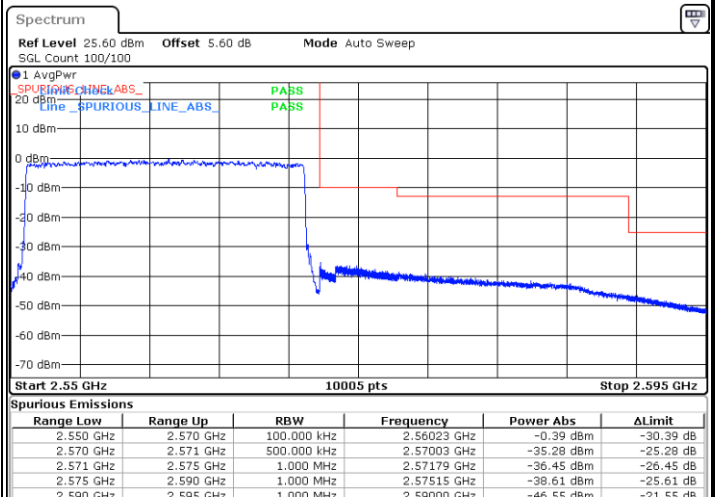
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

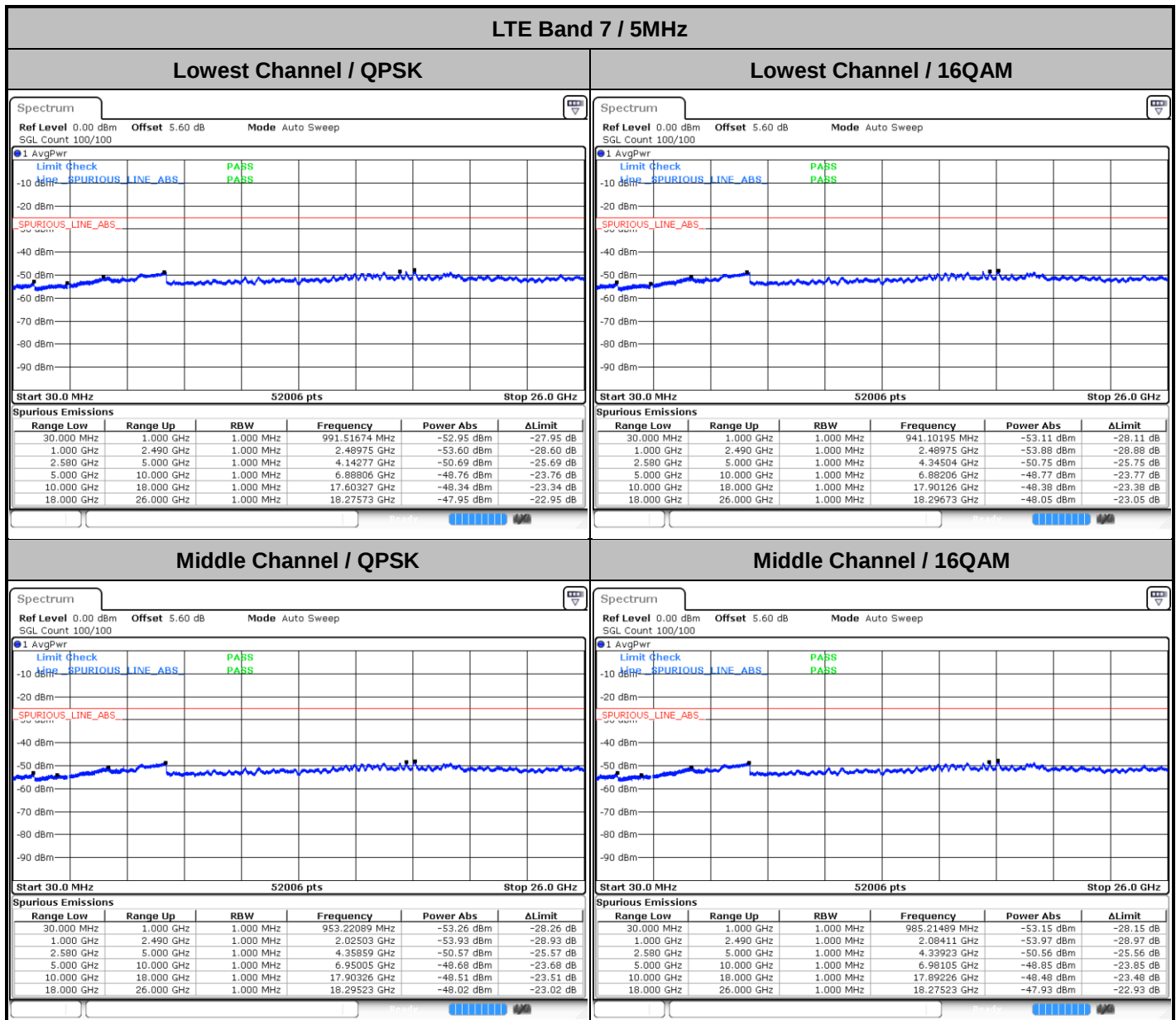


Highest Band Edge / Full RB





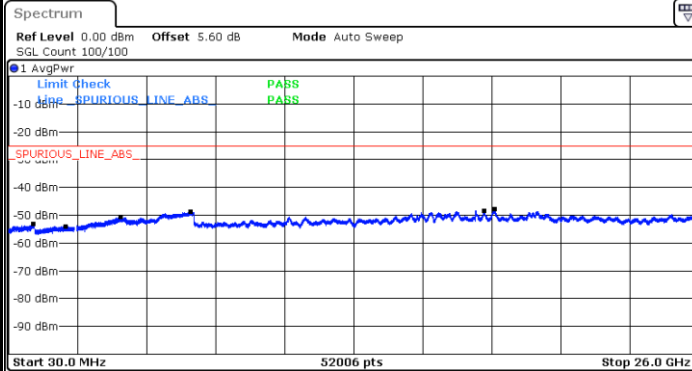
Conducted Spurious Emission





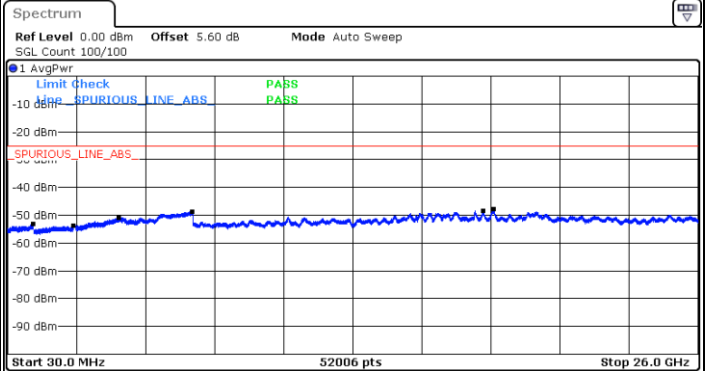
LTE Band 7 / 5MHz

Highest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	956.61419 MHz	-53.22 dBm	-28.22 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.15064 GHz	-53.95 dBm	-28.95 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.24148 GHz	-50.58 dBm	-25.58 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.87306 GHz	-48.68 dBm	-23.68 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.91126 GHz	-48.46 dBm	-23.46 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.30123 GHz	-47.88 dBm	-22.88 dB

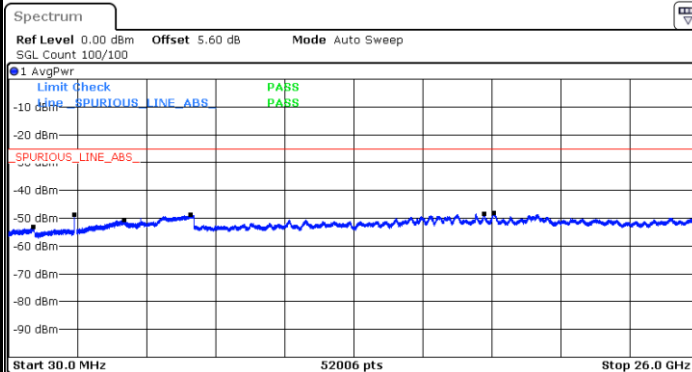
Highest Channel / 16QAM



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	972.12644 MHz	-53.20 dBm	-28.20 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48727 GHz	-53.90 dBm	-28.90 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.19648 GHz	-50.90 dBm	-25.90 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.97305 GHz	-48.79 dBm	-23.79 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.89976 GHz	-48.46 dBm	-23.46 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.29323 GHz	-47.84 dBm	-22.84 dB

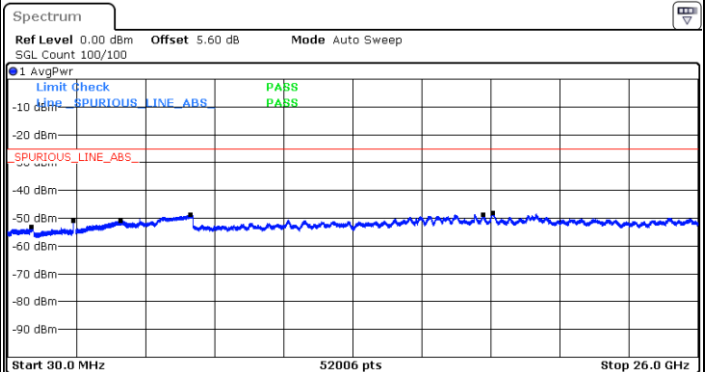
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	960.97701 MHz	-53.26 dBm	-28.26 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48330 GHz	-48.87 dBm	-23.87 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.36778 GHz	-50.74 dBm	-25.74 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.87206 GHz	-48.59 dBm	-23.59 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.90376 GHz	-48.50 dBm	-23.50 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.26623 GHz	-48.06 dBm	-23.06 dB

Lowest Channel / 16QAM

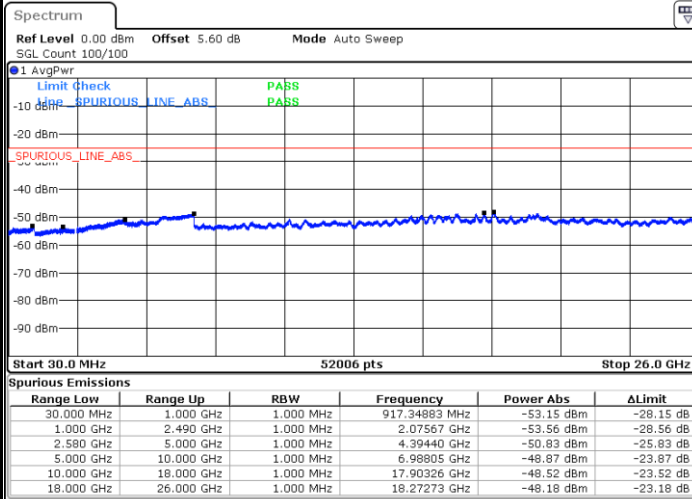


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	929.46777 MHz	-53.22 dBm	-28.22 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48330 GHz	-50.82 dBm	-25.82 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.27245 GHz	-50.82 dBm	-25.82 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.88556 GHz	-48.84 dBm	-23.84 dB
10.000 GHz	18.000 GHz	1.000 MHz	17.92375 GHz	-48.62 dBm	-23.62 dB
18.000 GHz	26.000 GHz	1.000 MHz	18.26723 GHz	-48.02 dBm	-23.02 dB

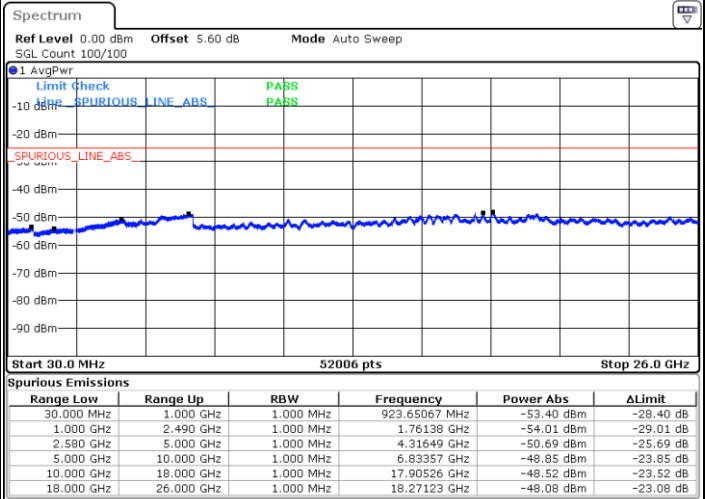


LTE Band 7 / 10MHz

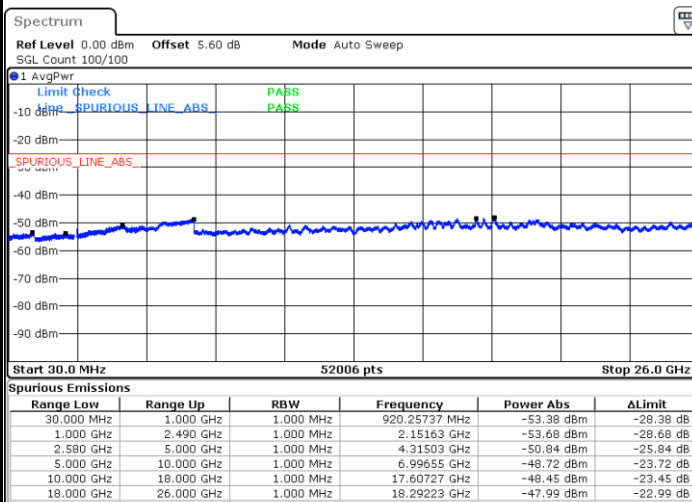
Middle Channel / QPSK



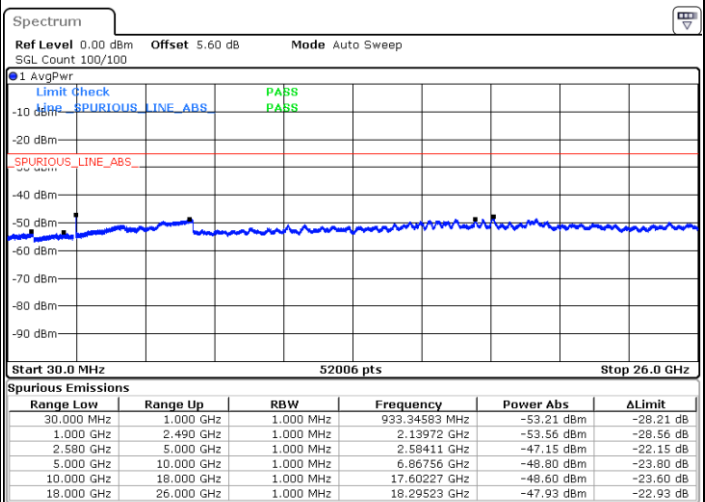
Middle Channel / 16QAM



Highest Channel / QPSK



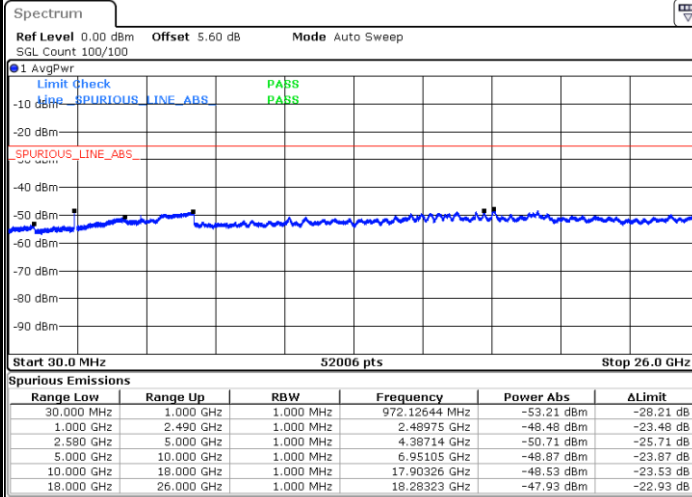
Highest Channel / 16QAM



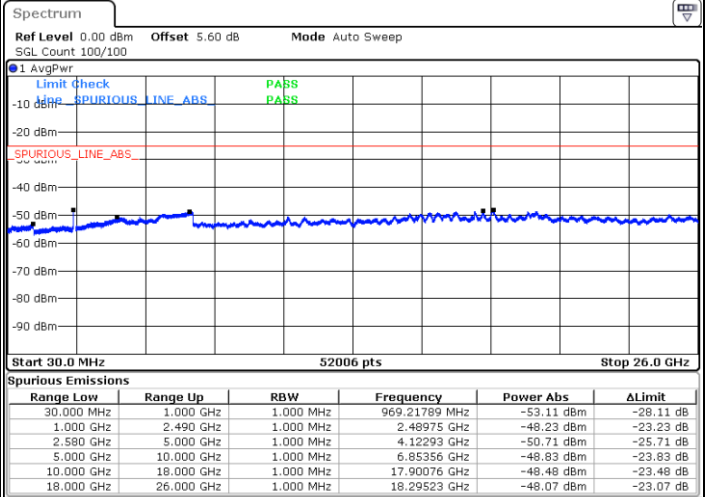


LTE Band 7 / 15MHz

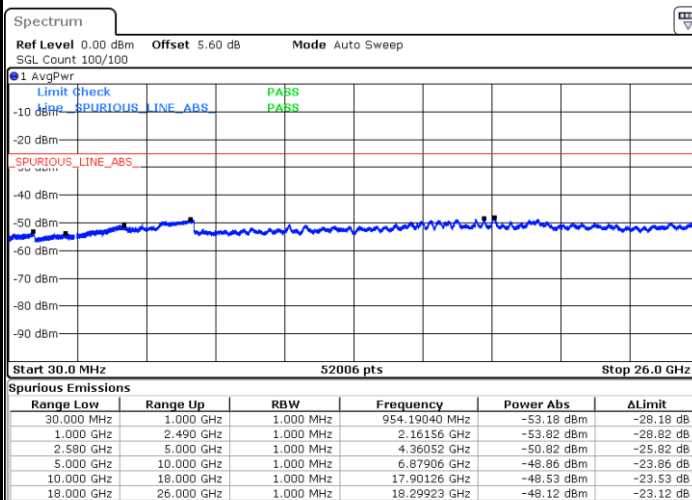
Lowest Channel / QPSK



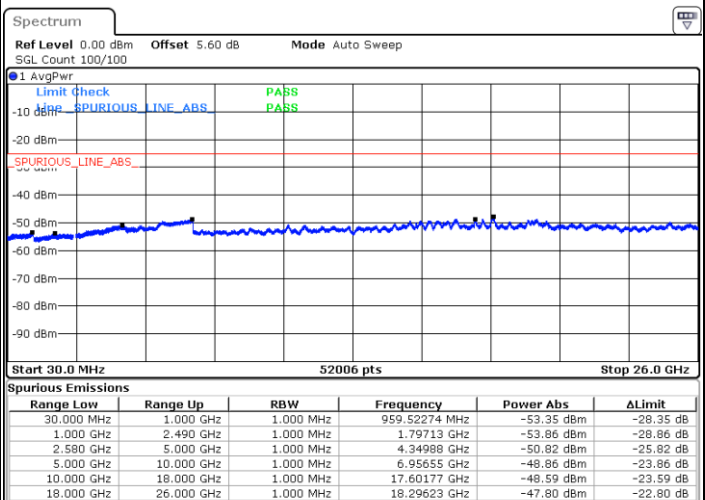
Lowest Channel / 16QAM



Middle Channel / QPSK



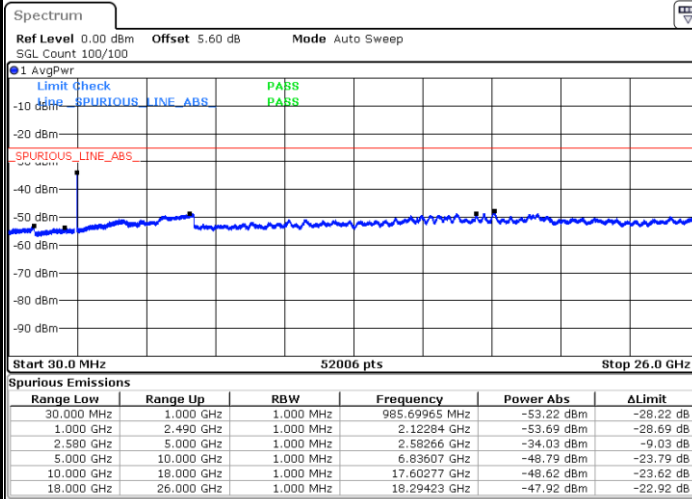
Middle Channel / 16QAM



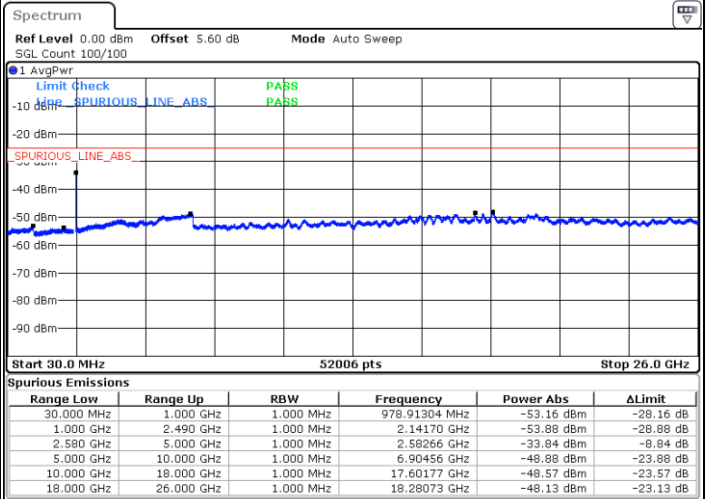


LTE Band 7 / 15MHz

Highest Channel / QPSK

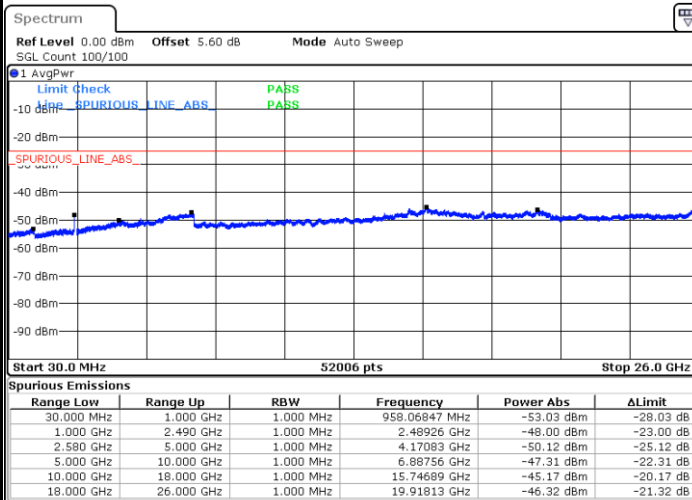


Highest Channel / 16QAM

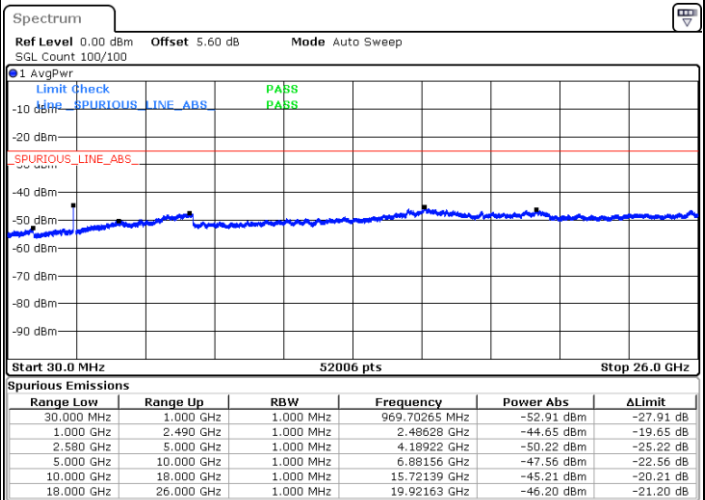


LTE Band 7 / 20MHz

Lowest Channel / QPSK



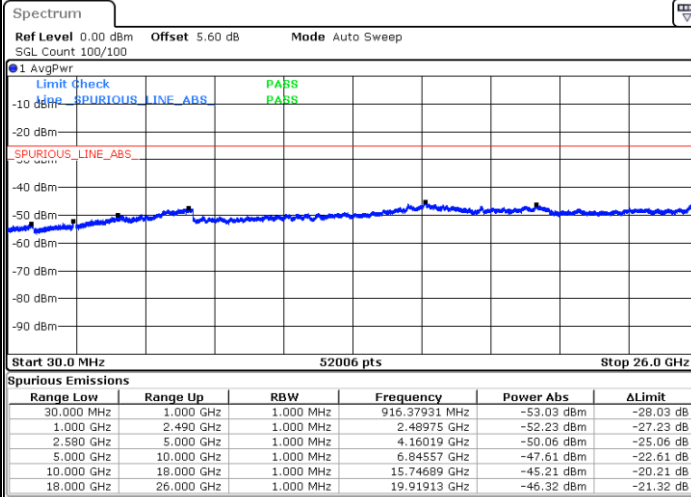
Lowest Channel / 16QAM



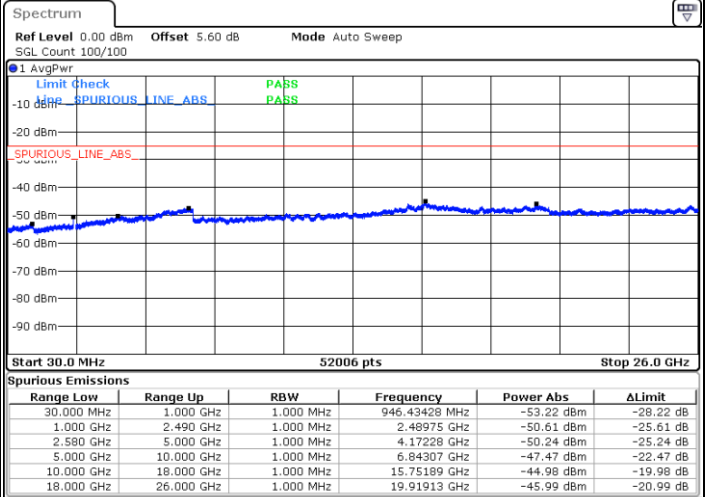


LTE Band 7 / 20MHz

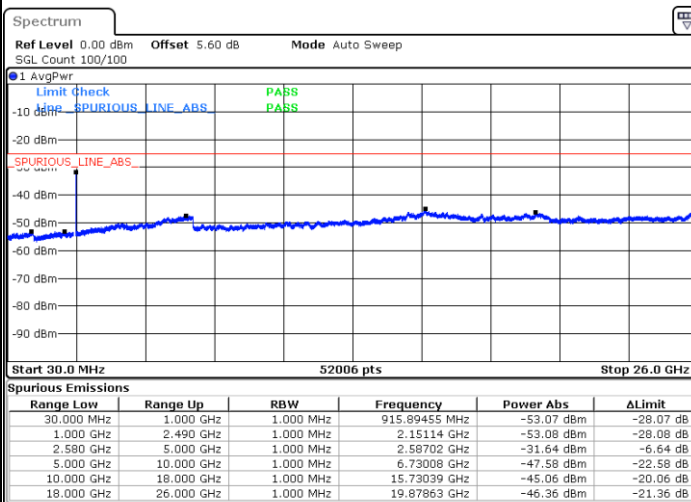
Middle Channel / QPSK



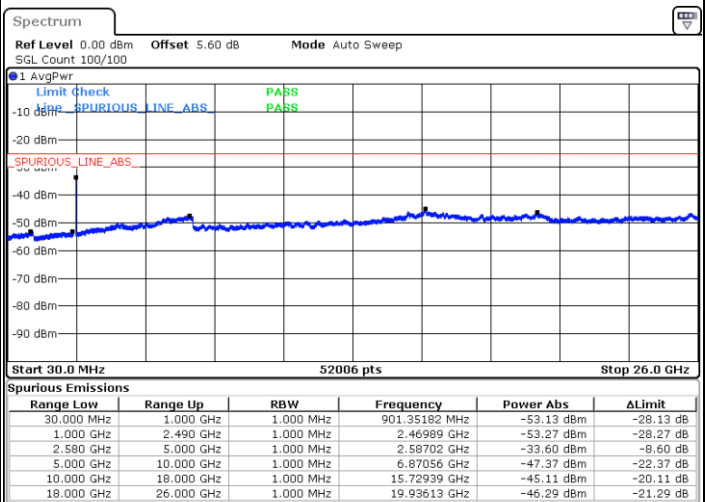
Middle Channel / 16QAM



Highest Channel / QPSK



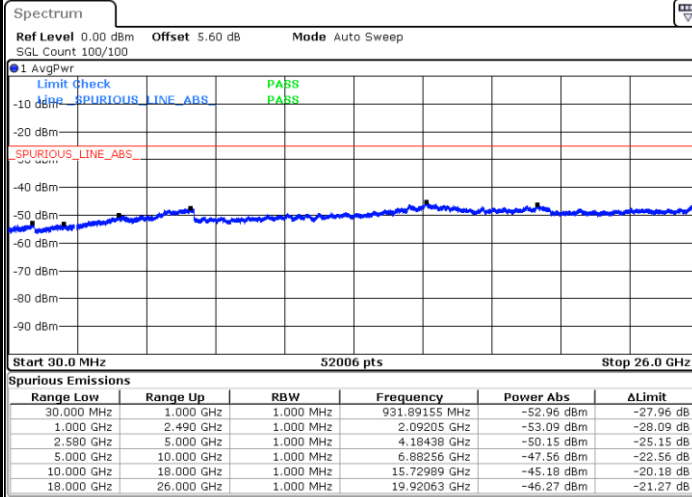
Highest Channel / 16QAM



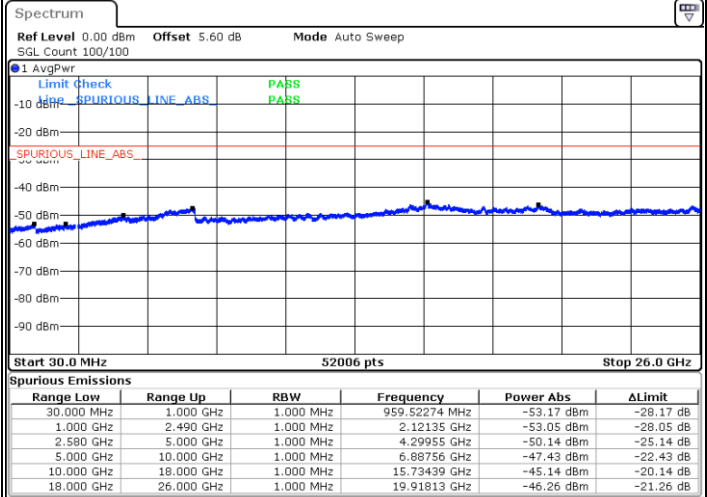


LTE Band 7 / 5MHz

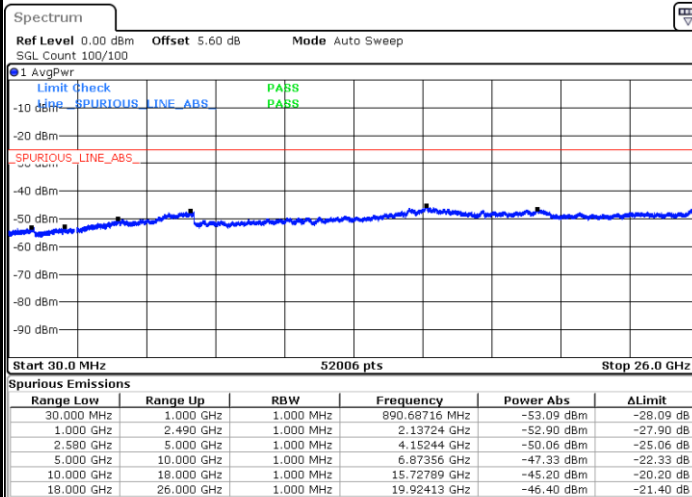
Lowest Channel / 64QAM



Middle Channel / 64QAM



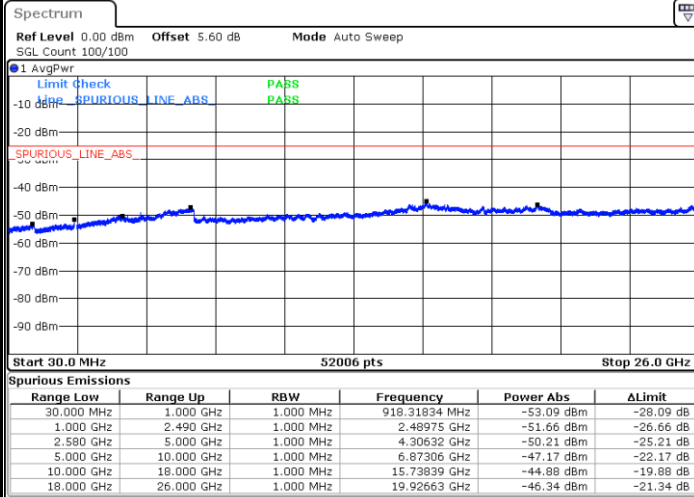
Highest Channel / 64QAM



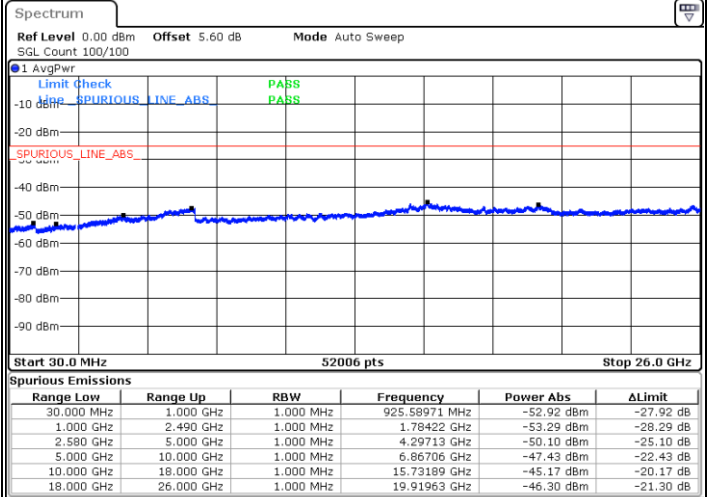


LTE Band 7 / 10MHz

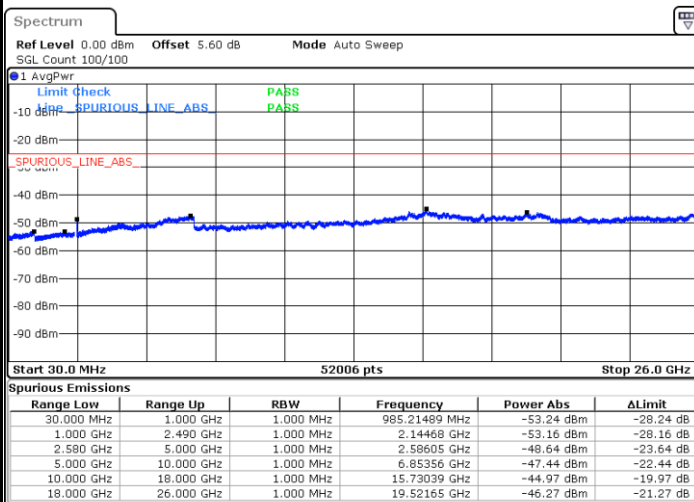
Lowest Channel / 64QAM



Middle Channel / 64QAM



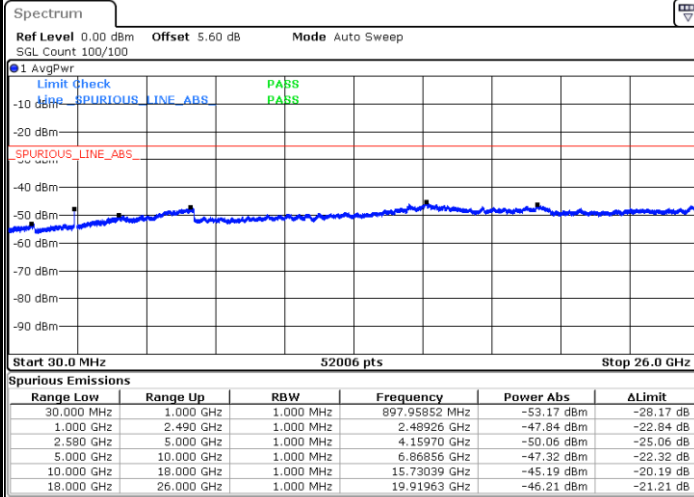
Highest Channel / 64QAM



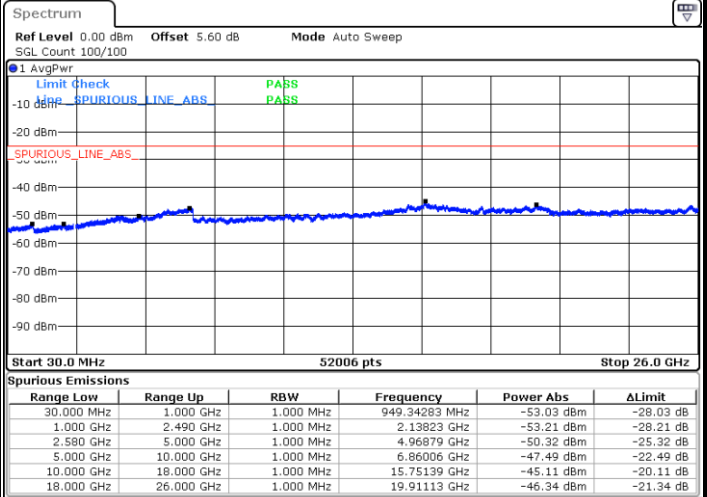


LTE Band 7 / 15MHz

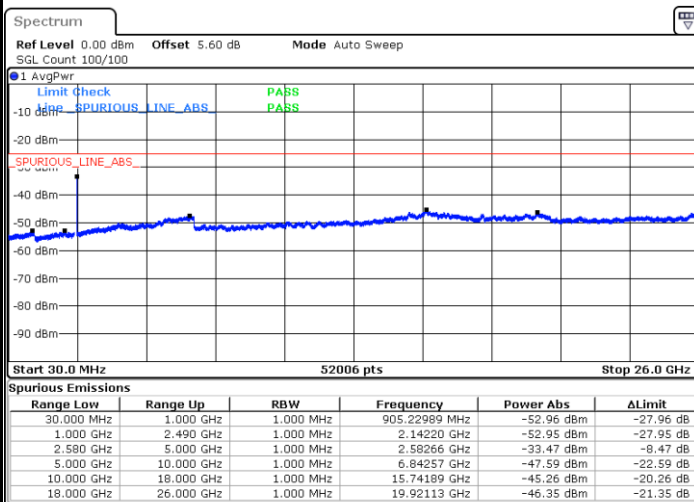
Lowest Channel / 64QAM



Middle Channel / 64QAM



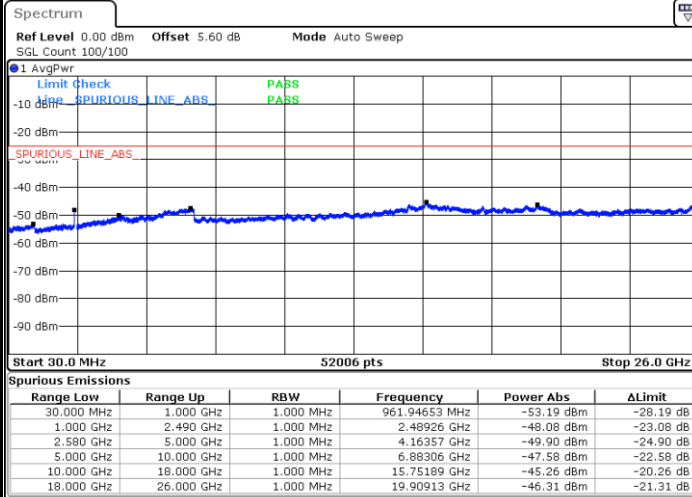
Highest Channel / 64QAM



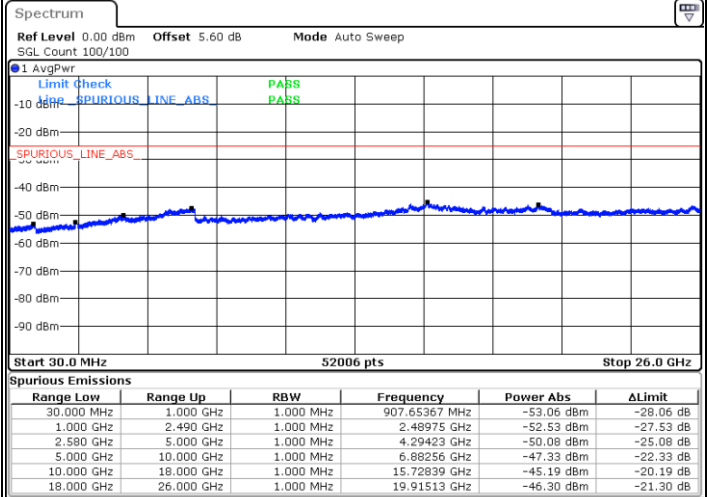


LTE Band 7 / 20MHz

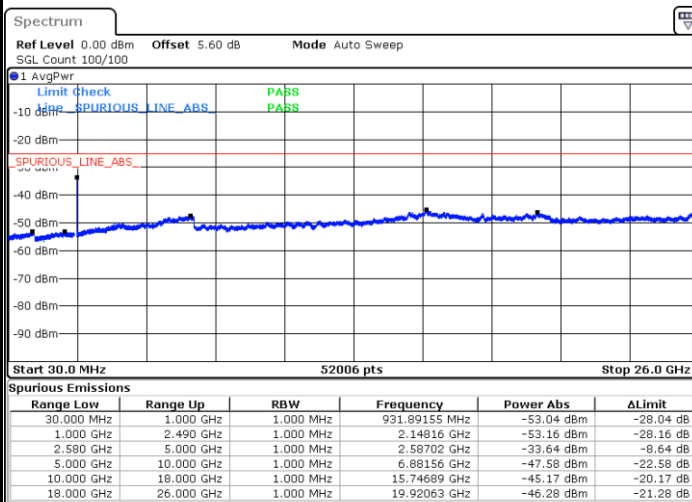
Lowest Channel / 64QAM



Middle Channel / 64QAM



Highest Channel / 64QAM



**Frequency Stability**

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0026	

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.



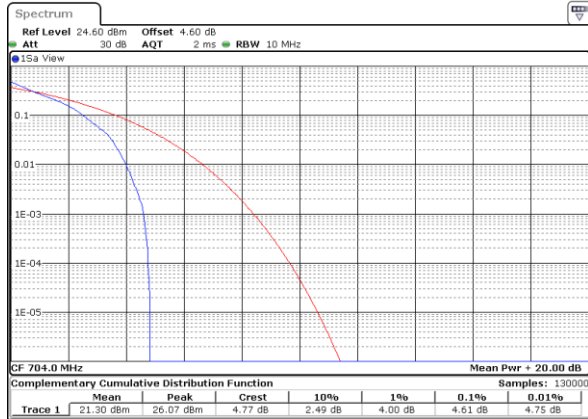
LTE Band 12

Peak-to-Average Ratio

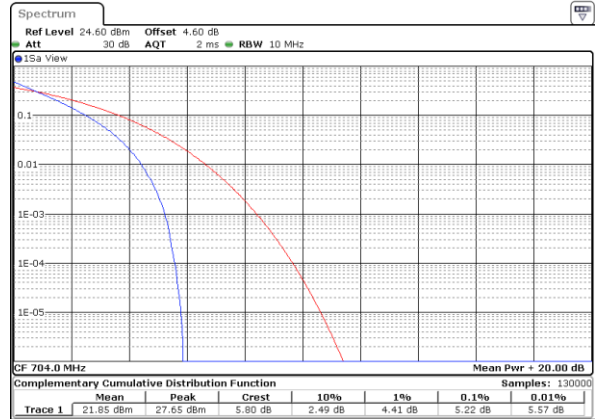
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.61	5.22	5.80	5.97	PASS
Middle CH	4.41	5.16	5.28	6.09	
Highest CH	3.83	4.90	4.52	6.00	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	6.38	6.32	-	-	PASS
Middle CH	6.14	6.32	-	-	
Highest CH	5.74	6.35	-	-	

LTE Band 12 / 10MHz / QPSK

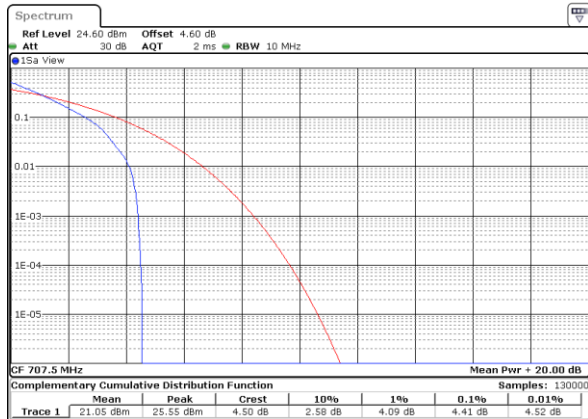
Lowest Channel / 1RB



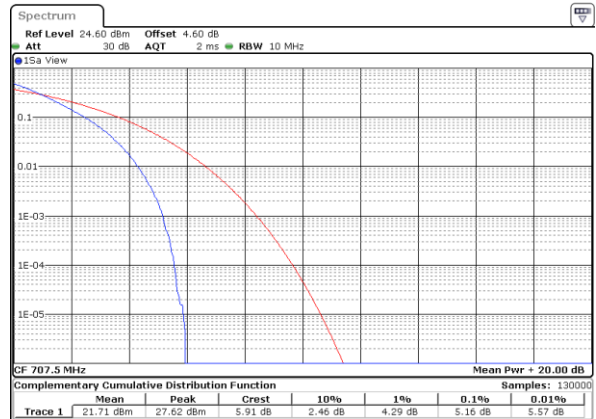
Lowest Channel / Full RB



Middle Channel / 1RB



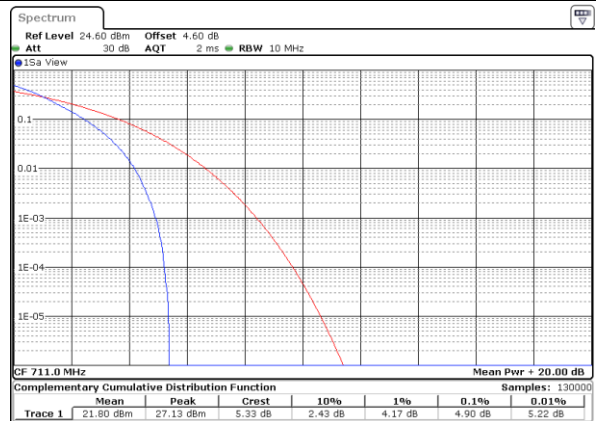
Middle Channel / Full RB



Highest Channel / 1RB



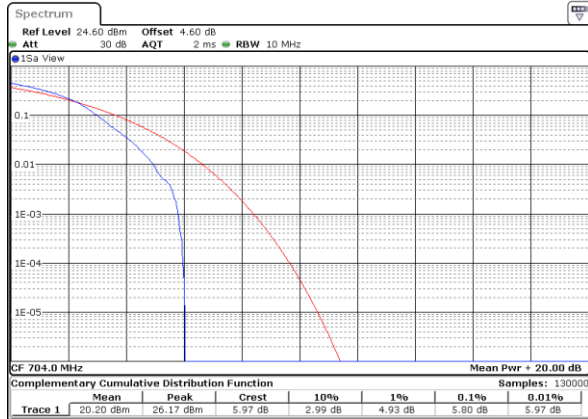
Highest Channel / Full RB



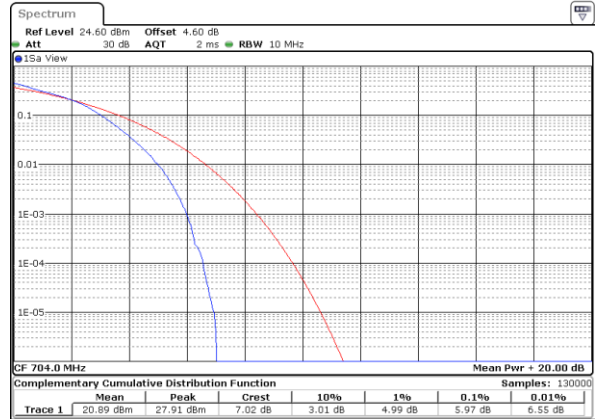


LTE Band 12 / 10MHz / 16QAM

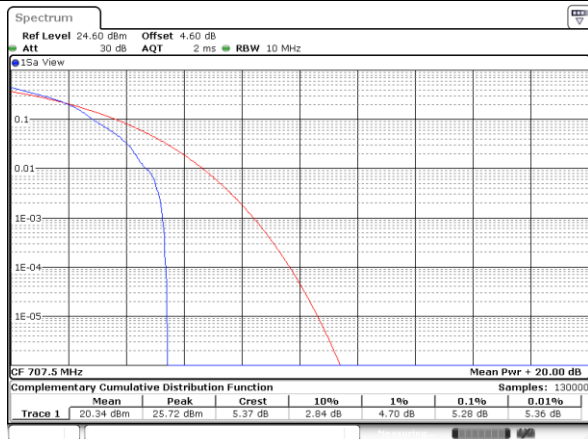
Lowest Channel / 1RB



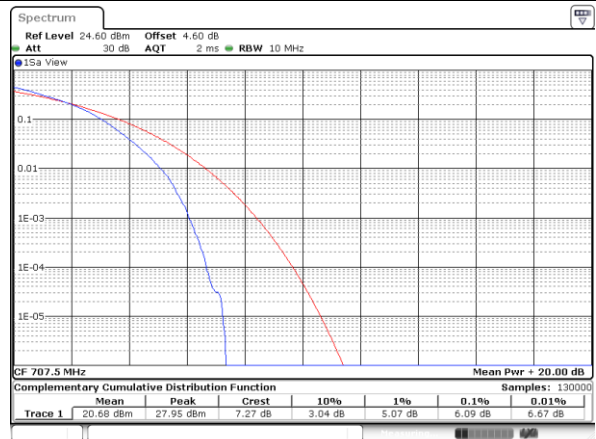
Lowest Channel / Full RB



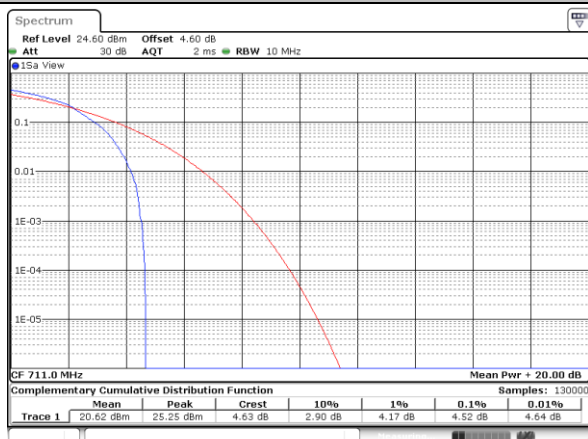
Middle Channel / 1RB



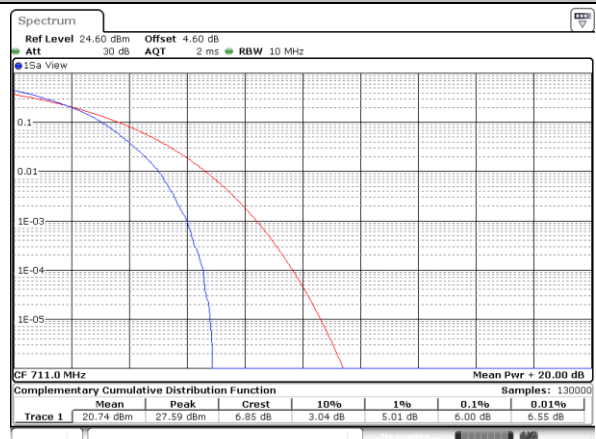
Middle Channel / Full RB



Highest Channel / 1RB



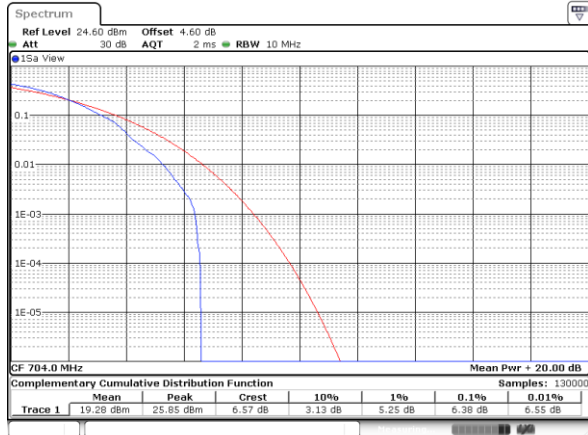
Highest Channel / Full RB



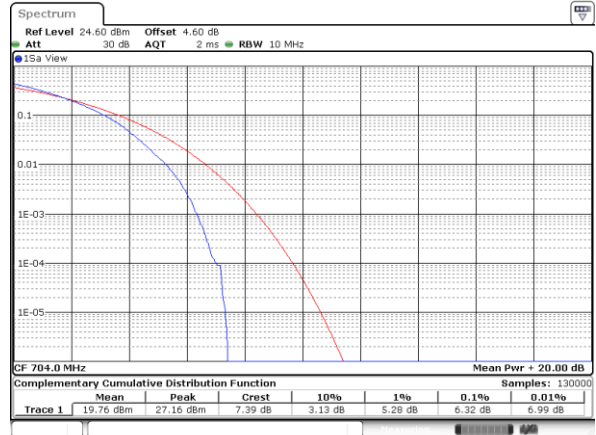


LTE Band 12 / 10MHz / 64QAM

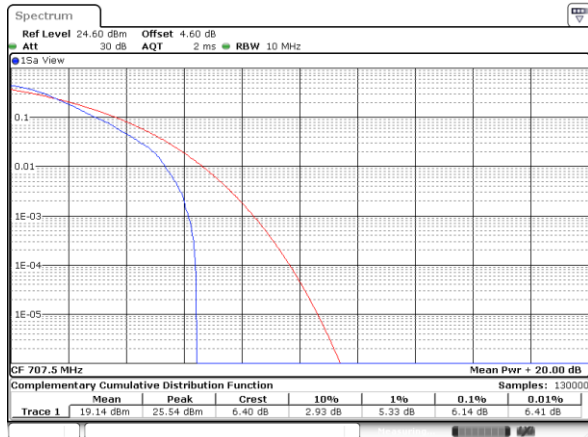
Lowest Channel / 1RB



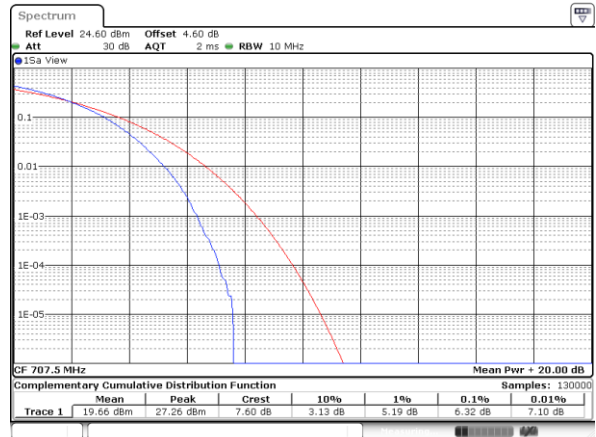
Lowest Channel / Full RB



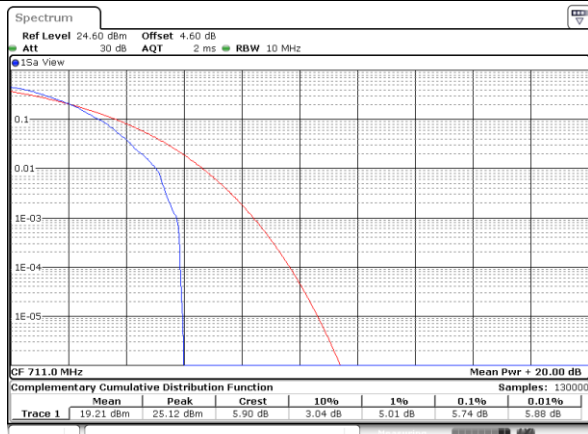
Middle Channel / 1RB



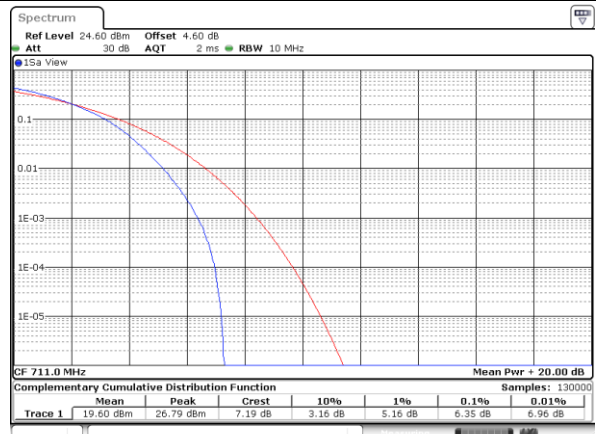
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



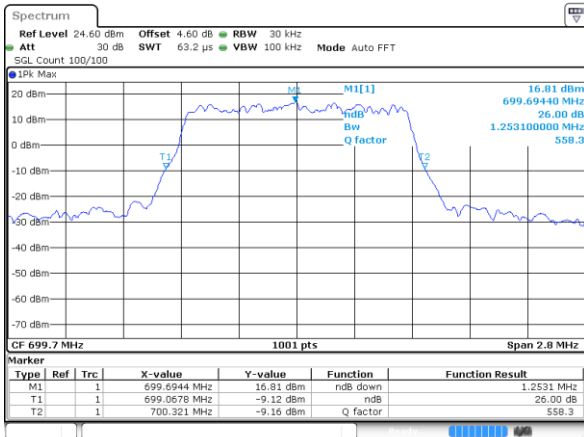
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.25	1.25	2.94	2.98	5.01	5.04	9.93	9.95
Middle CH	1.28	1.31	2.98	2.96	5.05	5.03	9.71	10.13
Highest CH	1.26	1.31	2.96	2.96	5.15	5.05	9.99	9.65
Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.28		2.92		5.09		10.19	
Middle CH	1.26		2.95		5.07		10.21	
Highest CH	1.30		2.96		5.03		9.93	

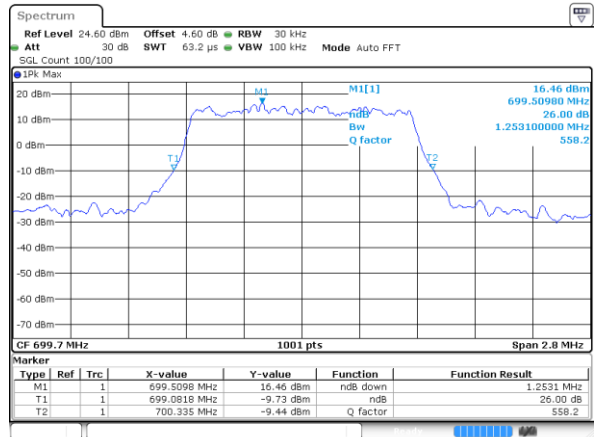


LTE Band 12

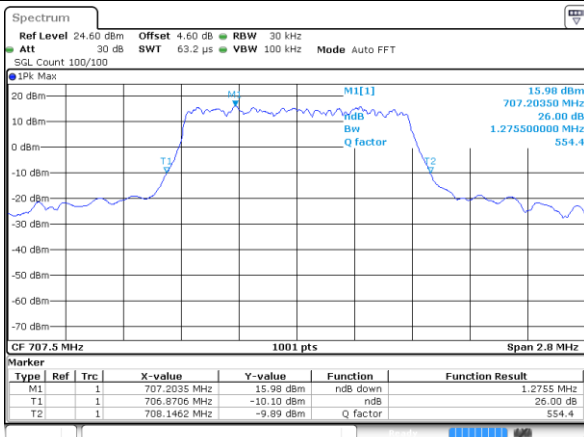
Lowest Channel / 1.4MHz / QPSK



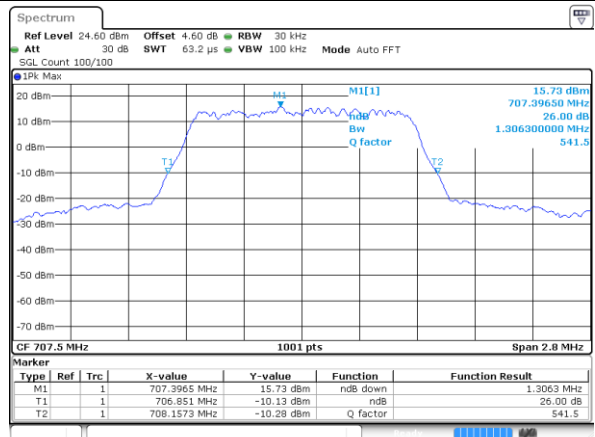
Lowest Channel / 1.4MHz / 16QAM



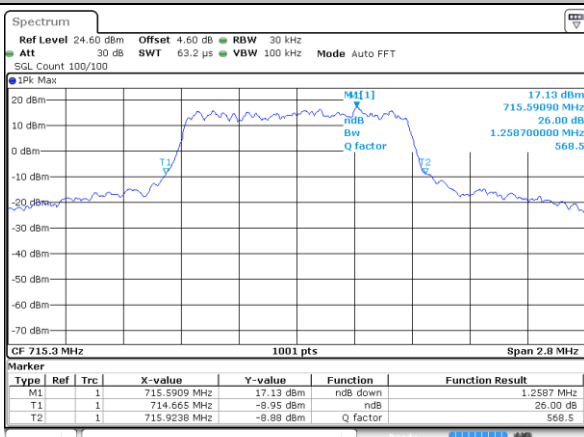
Middle Channel / 1.4MHz / QPSK



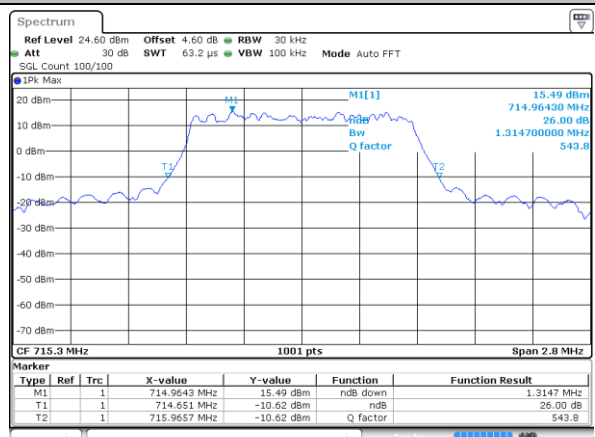
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



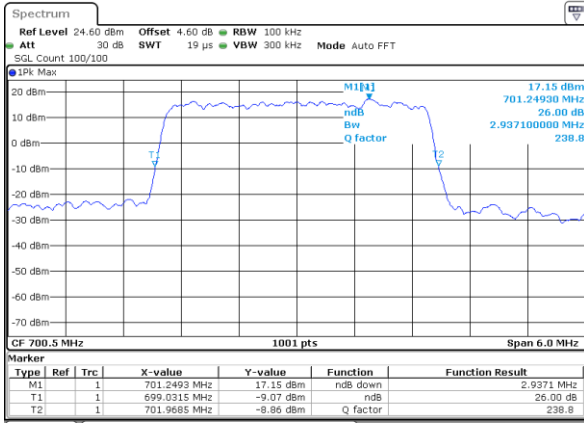
Highest Channel / 1.4MHz / 16QAM



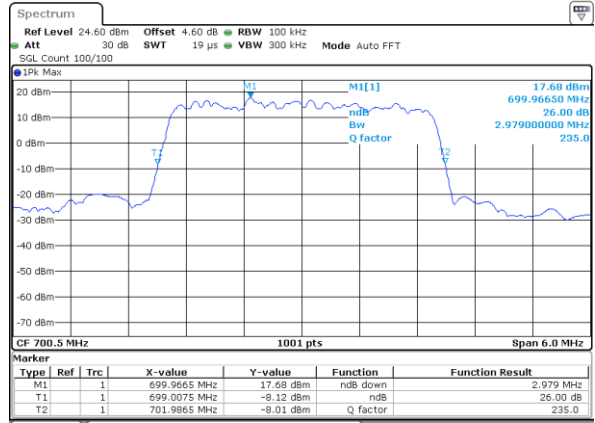


LTE Band 12

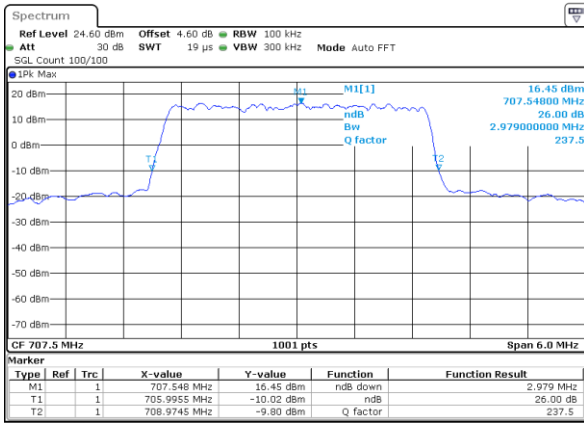
Lowest Channel / 3MHz / QPSK



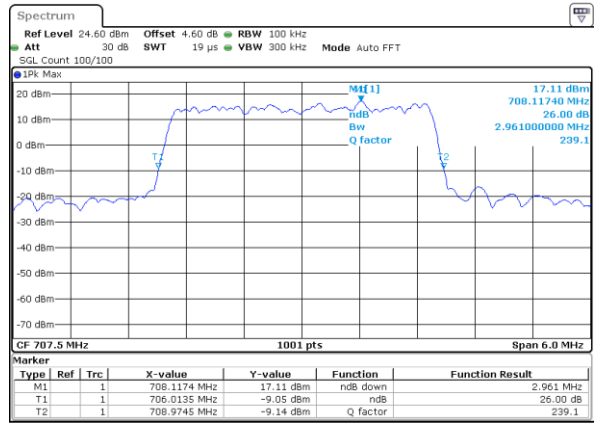
Lowest Channel / 3MHz / 16QAM



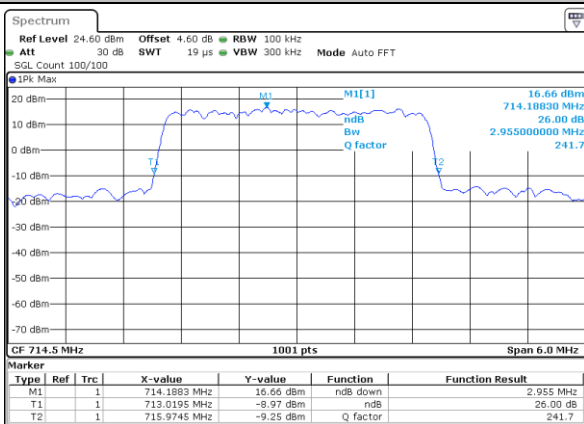
Middle Channel / 3MHz / QPSK



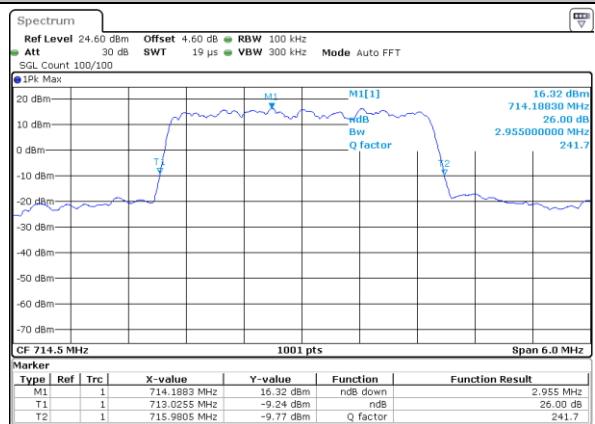
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



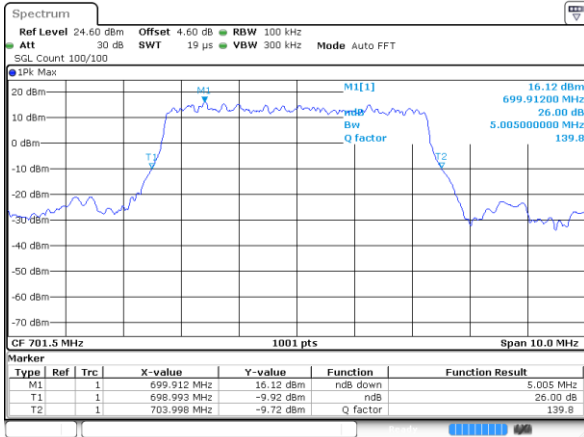
Highest Channel / 3MHz / 16QAM



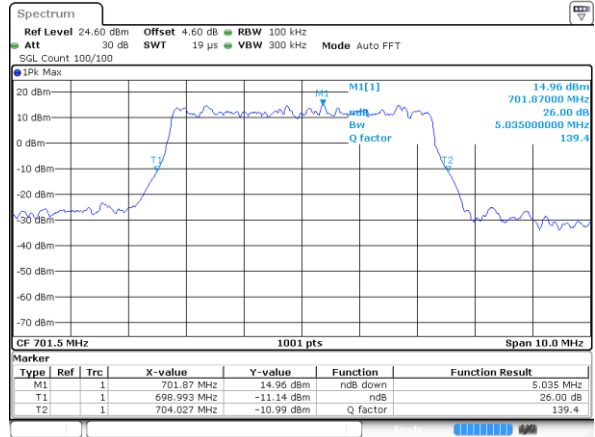


LTE Band 12

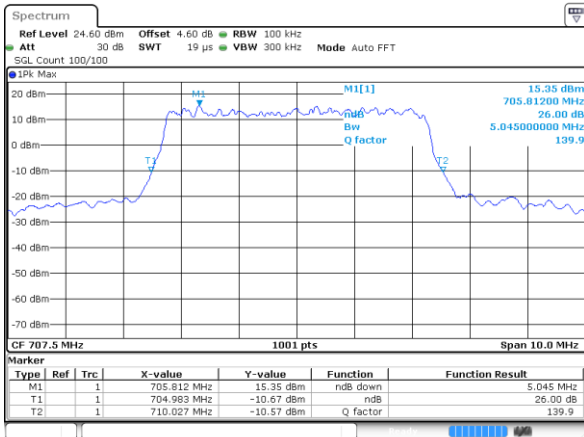
Lowest Channel / 5MHz / QPSK



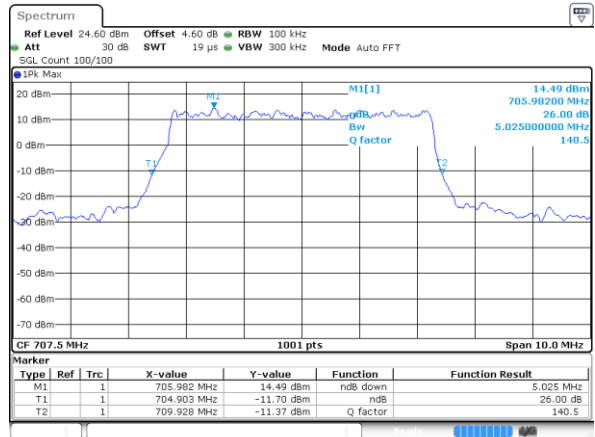
Lowest Channel / 5MHz / 16QAM



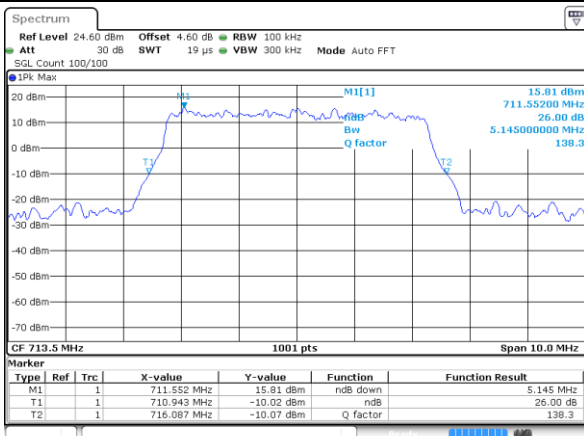
Middle Channel / 5MHz / QPSK



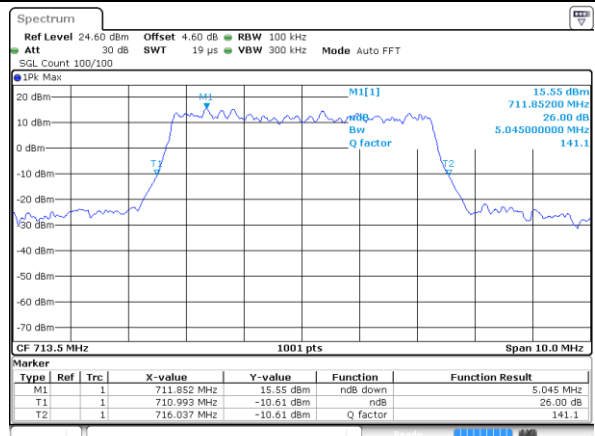
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



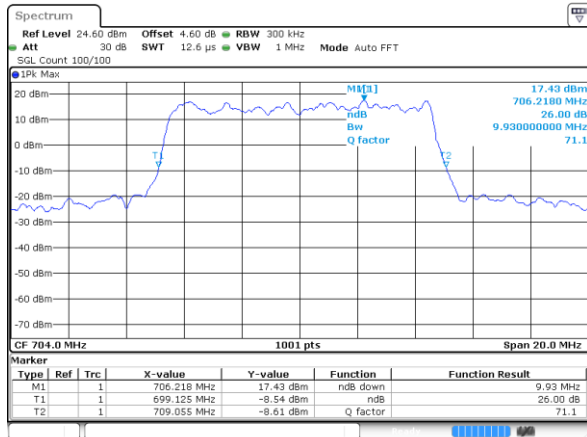
Highest Channel / 5MHz / 16QAM



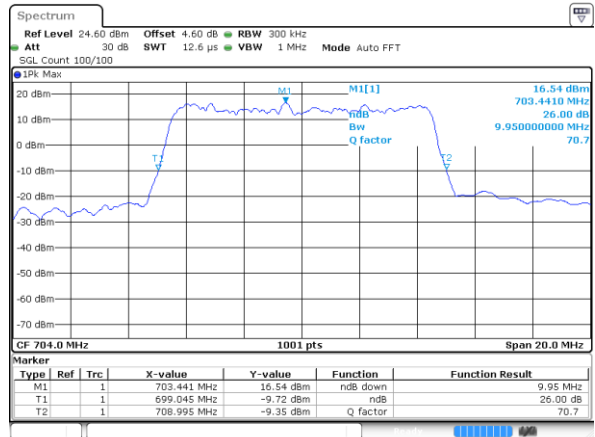


LTE Band 12

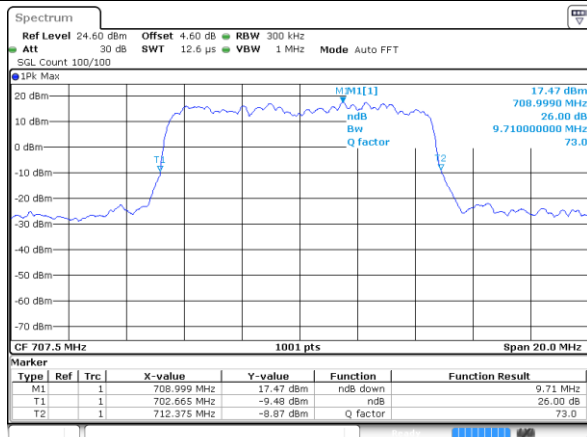
Lowest Channel / 10MHz / QPSK



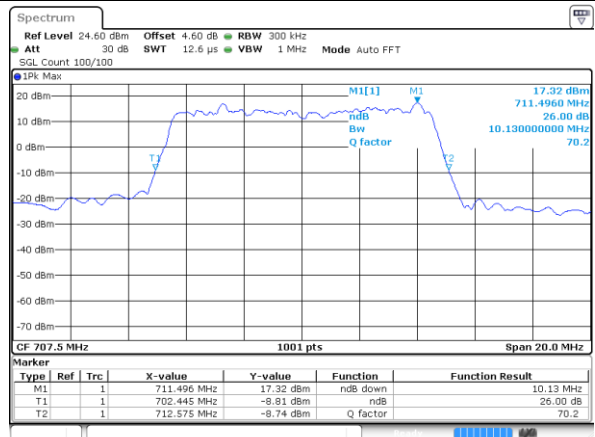
Lowest Channel / 10MHz / 16QAM



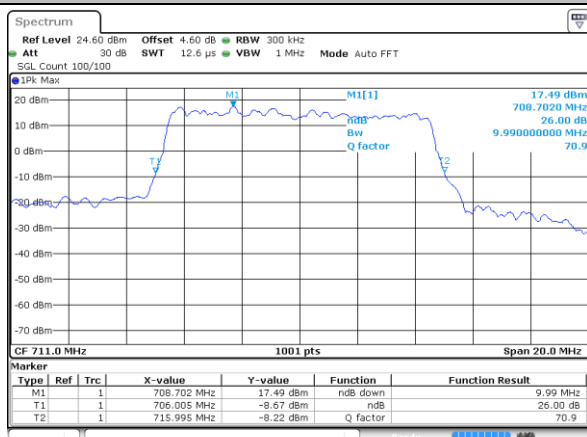
Middle Channel / 10MHz / QPSK



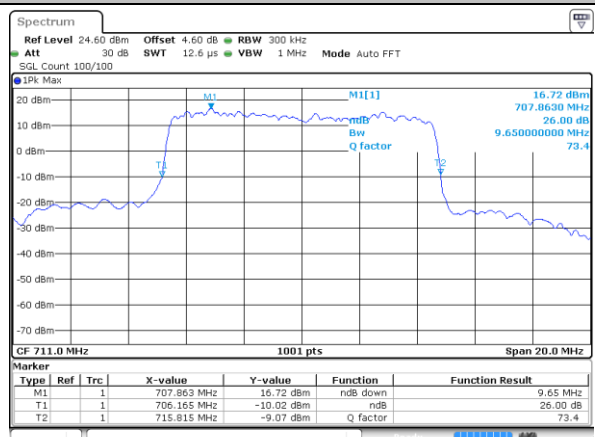
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



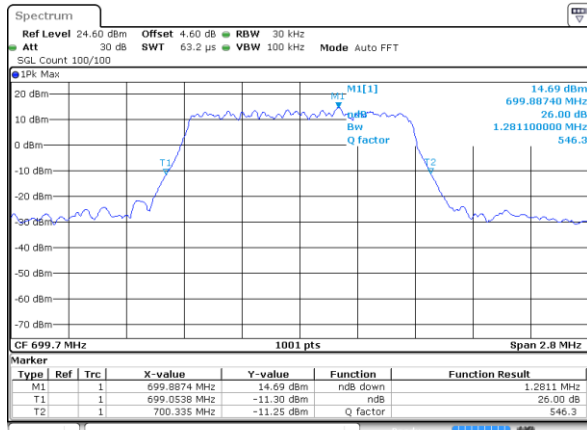
Highest Channel / 10MHz / 16QAM



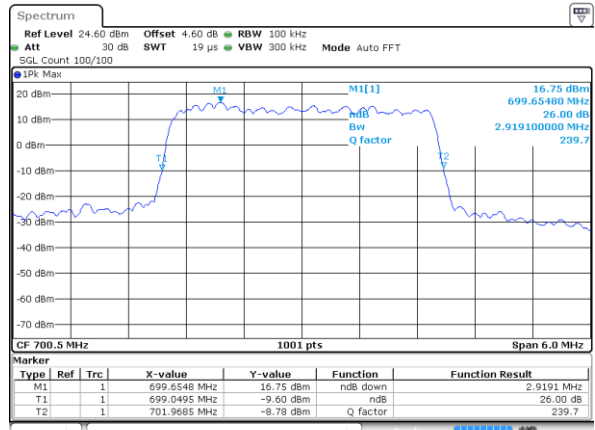


LTE Band 12

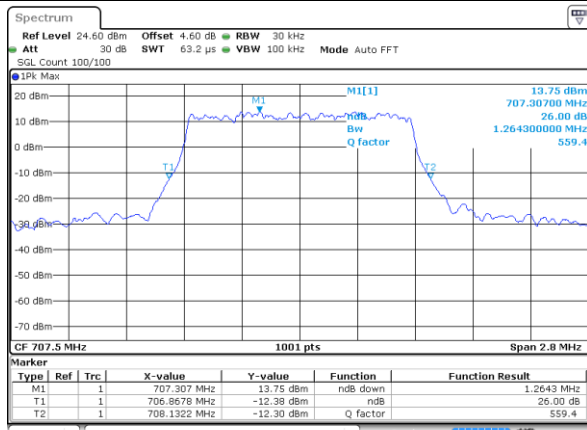
Lowest Channel / 1.4MHz / 64QAM



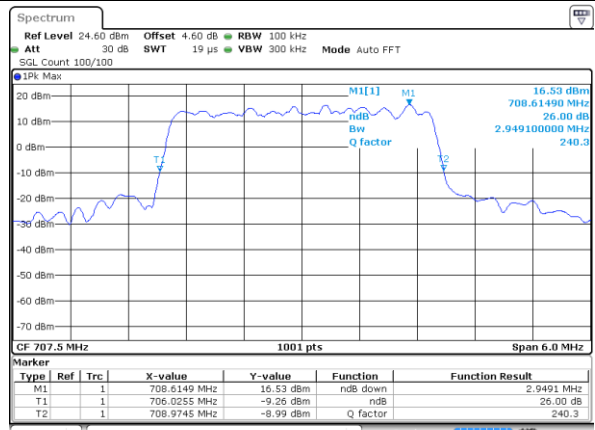
Lowest Channel / 3MHz / 64QAM



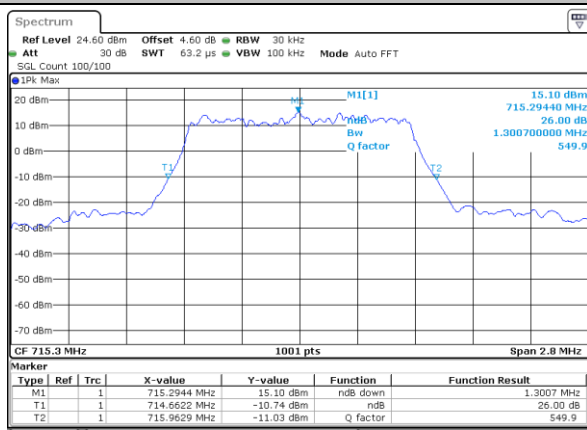
Middle Channel / 1.4MHz / 64QAM



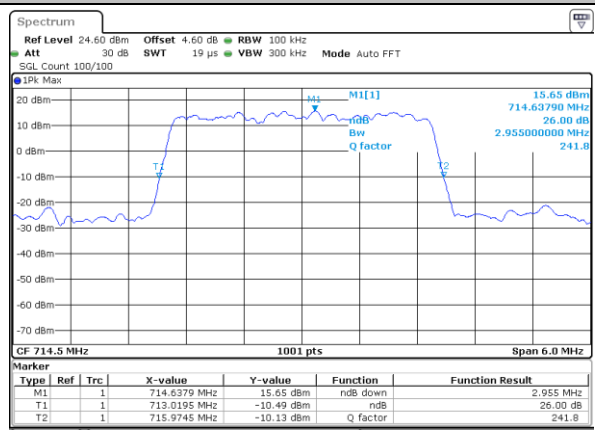
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



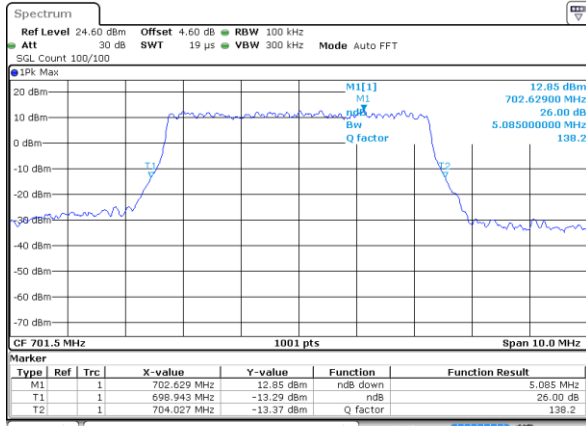
Highest Channel / 3MHz / 64QAM



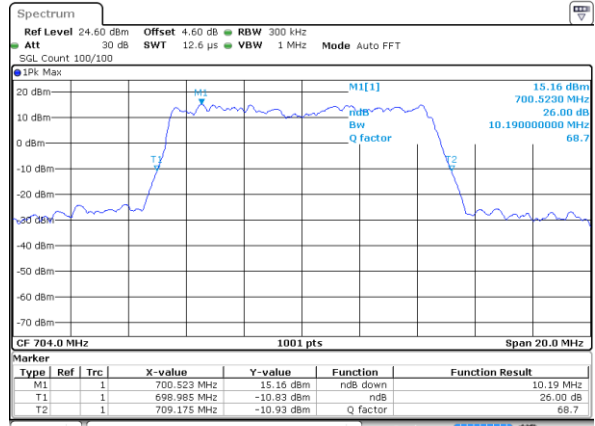


LTE Band 12

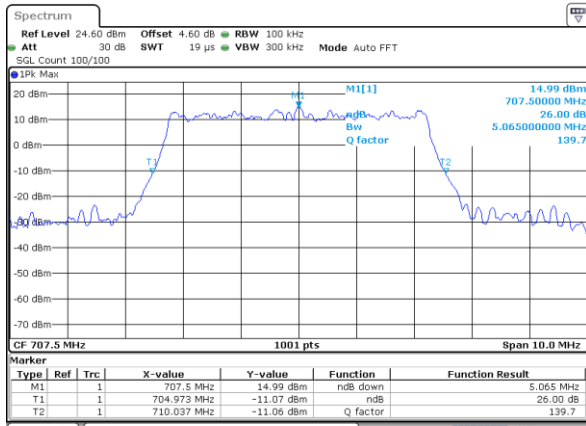
Lowest Channel / 5MHz / 64QAM



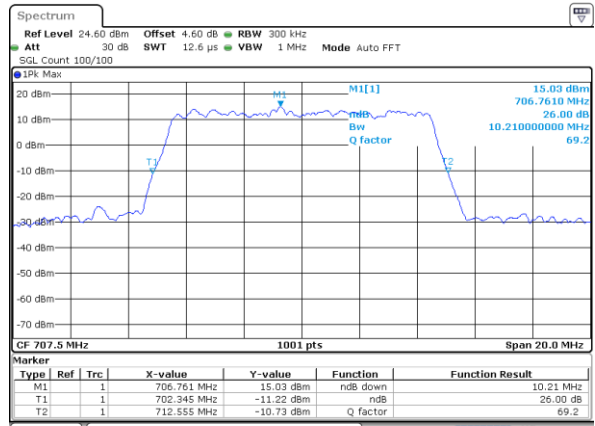
Lowest Channel / 10MHz / 64QAM



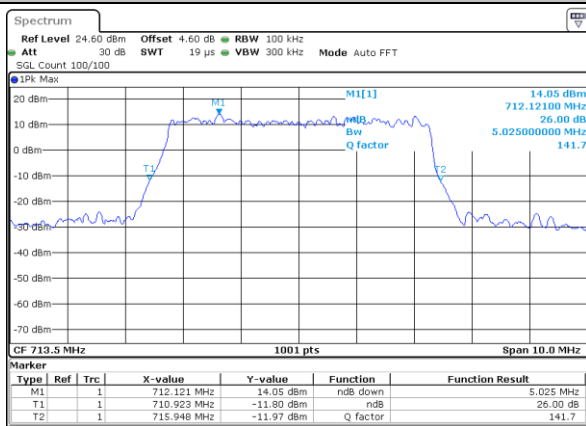
Middle Channel / 5MHz / 64QAM



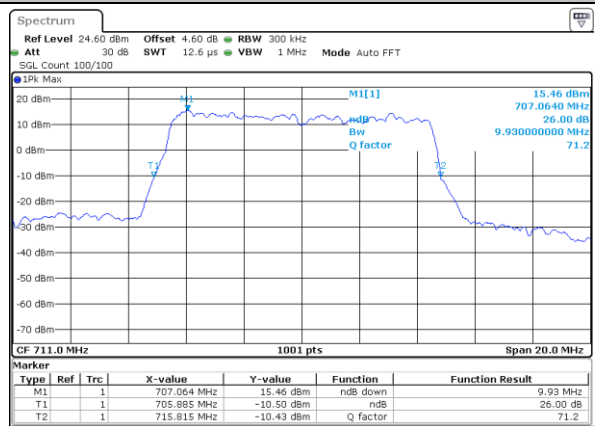
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



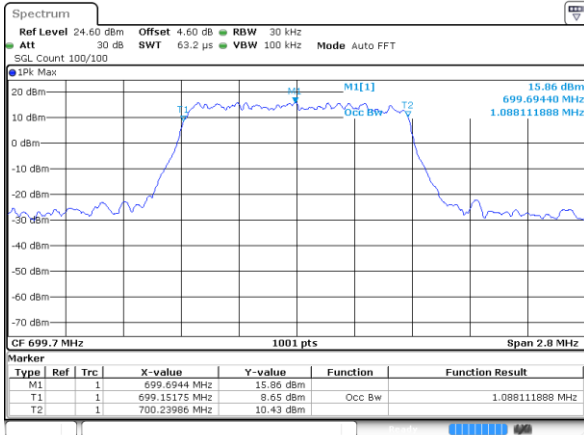
**Occupied Bandwidth`**

Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.70	2.71	4.50	4.50	9.05	9.01
Middle CH	1.10	1.09	2.72	2.72	4.48	4.51	8.97	9.03
Highest CH	1.09	1.09	2.72	2.71	4.51	4.50	9.01	9.01
Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.69		4.48		9.05	
Middle CH	1.09		2.72		4.50		9.03	
Highest CH	1.09		2.72		4.50		8.99	

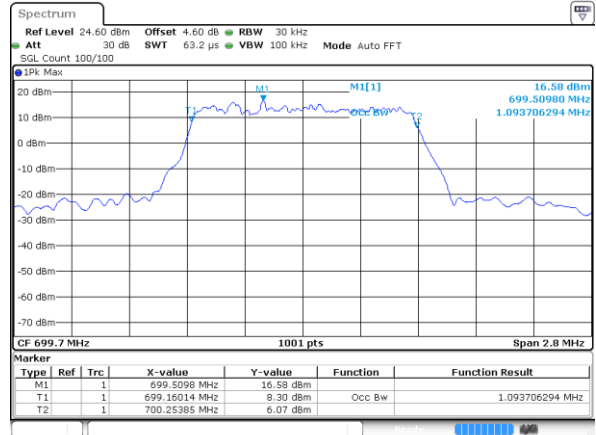


LTE Band 12

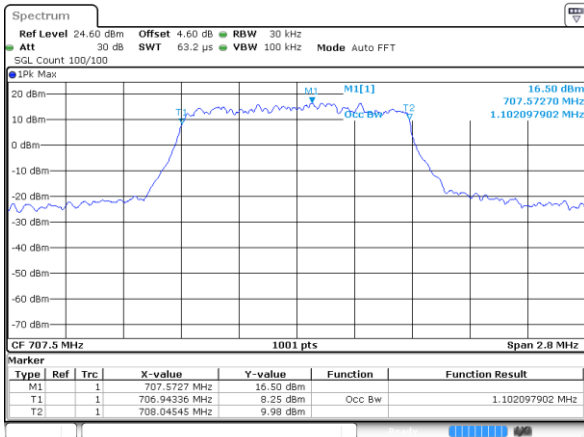
Lowest Channel / 1.4MHz / QPSK



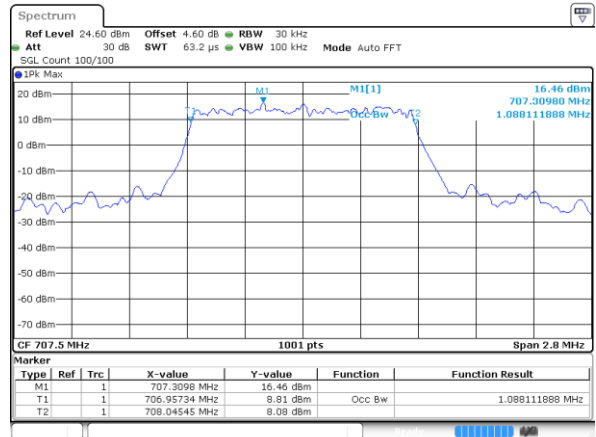
Lowest Channel / 1.4MHz / 16QAM



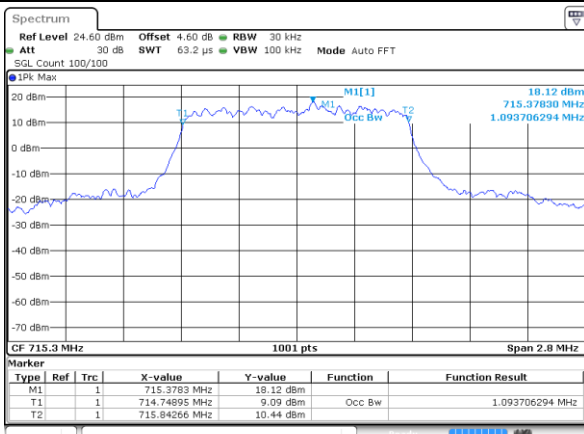
Middle Channel / 1.4MHz / QPSK



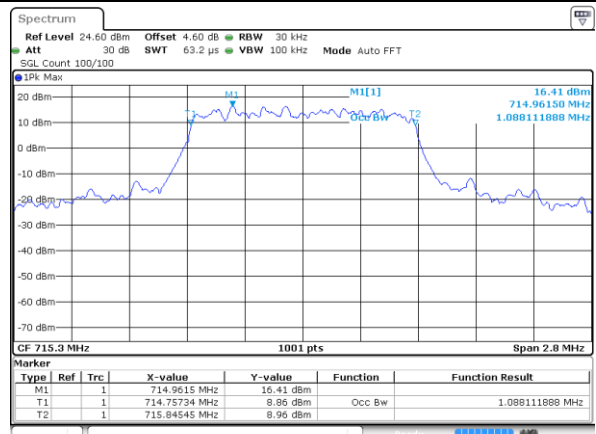
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



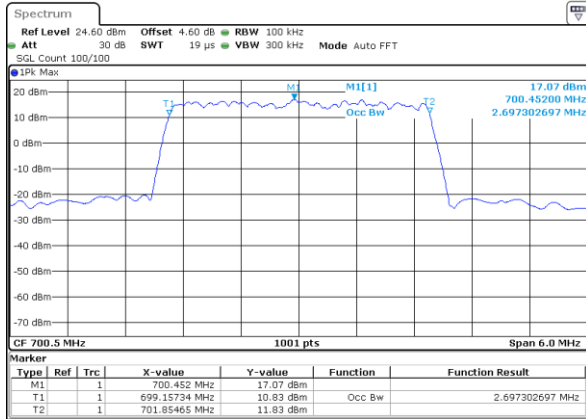
Highest Channel / 1.4MHz / 16QAM



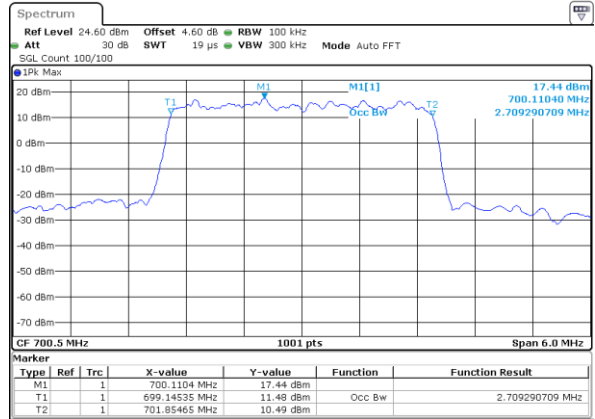


LTE Band 12

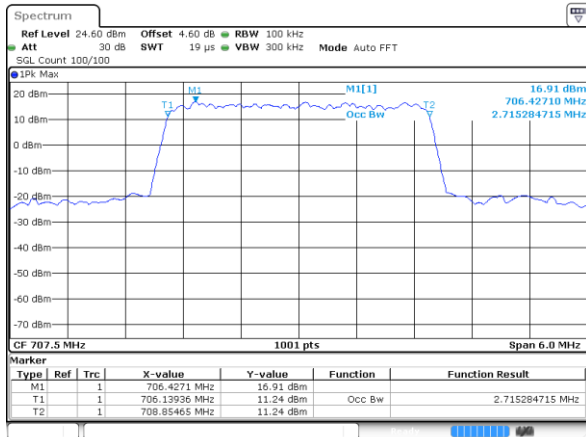
Lowest Channel / 3MHz / QPSK



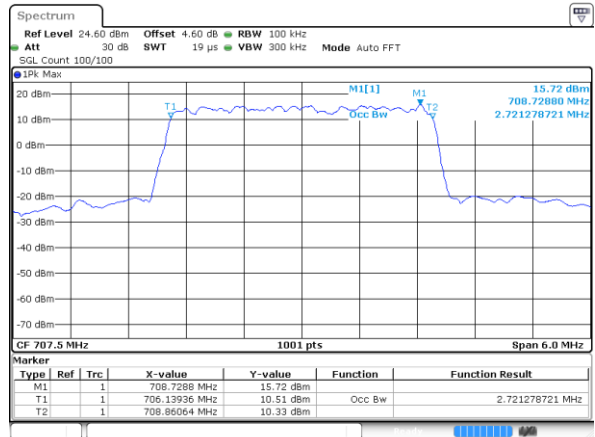
Lowest Channel / 3MHz / 16QAM



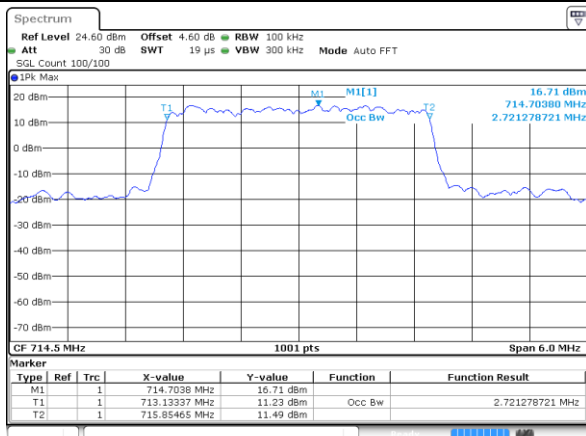
Middle Channel / 3MHz / QPSK



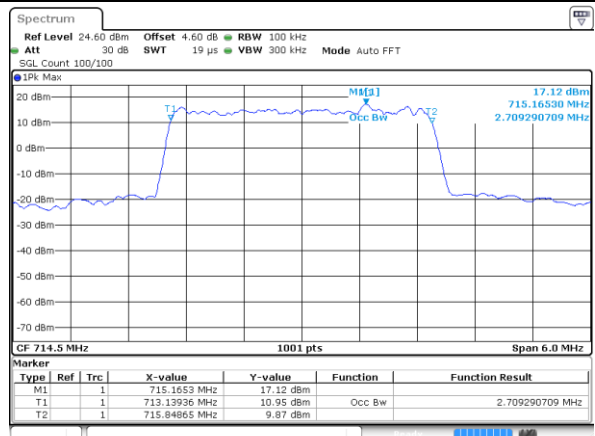
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



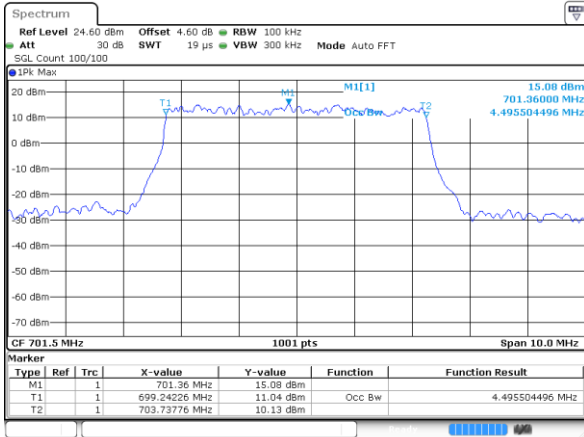
Highest Channel / 3MHz / 16QAM



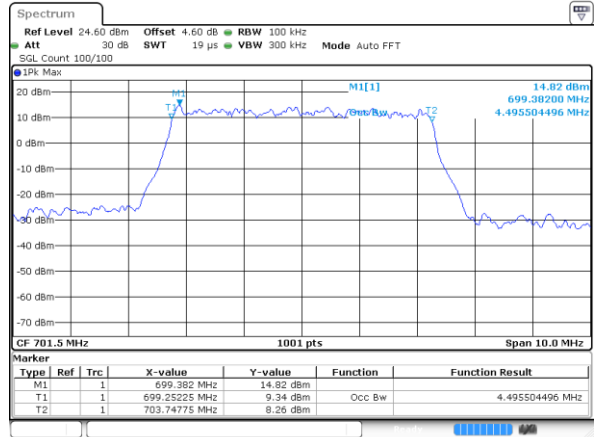


LTE Band 12

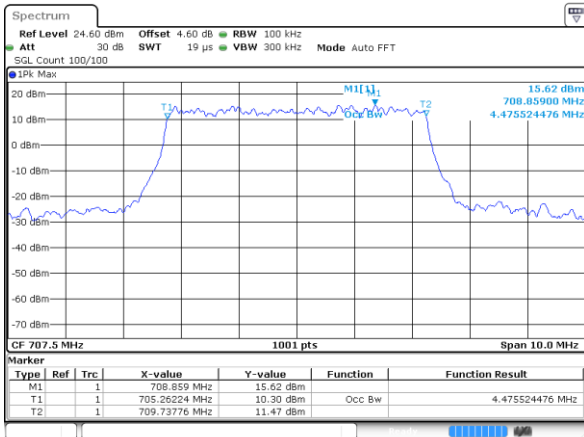
Lowest Channel / 5MHz / QPSK



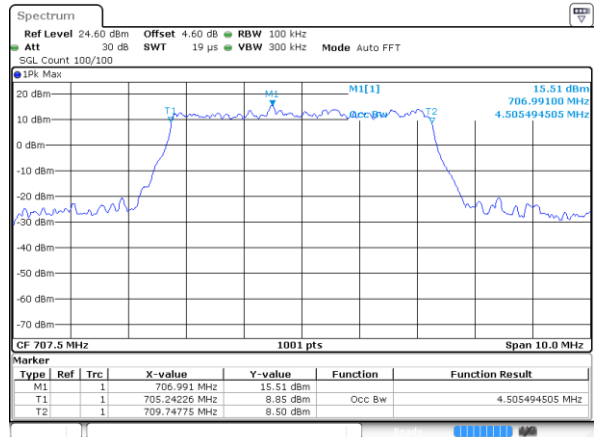
Lowest Channel / 5MHz / 16QAM



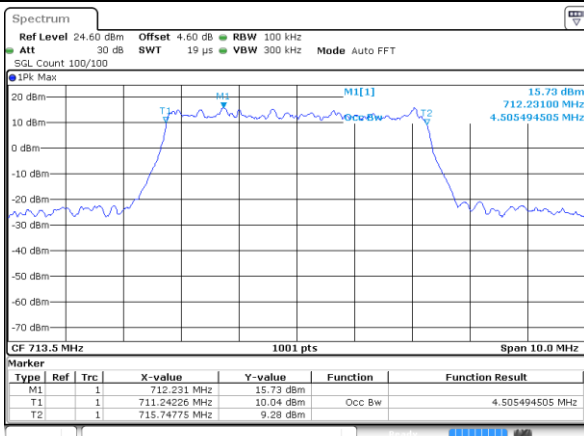
Middle Channel / 5MHz / QPSK



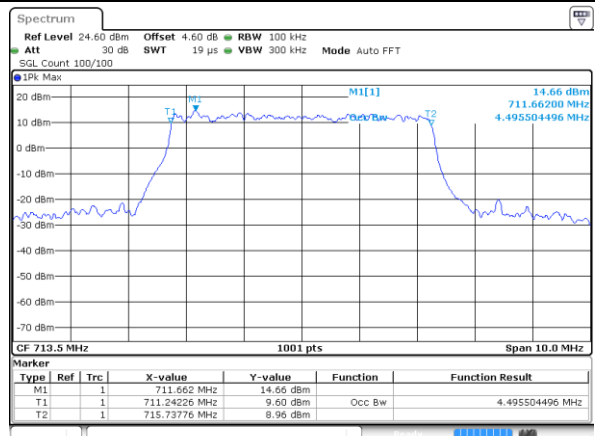
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



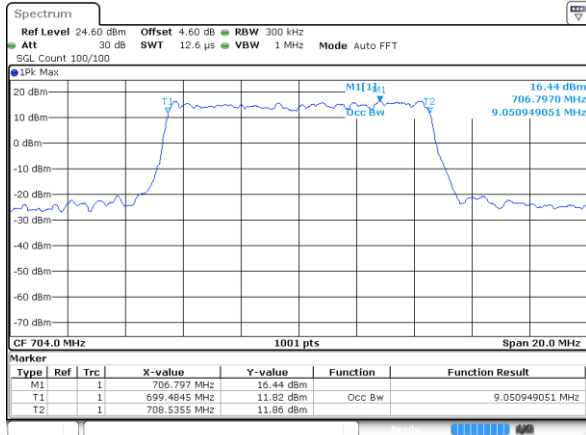
Highest Channel / 5MHz / 16QAM



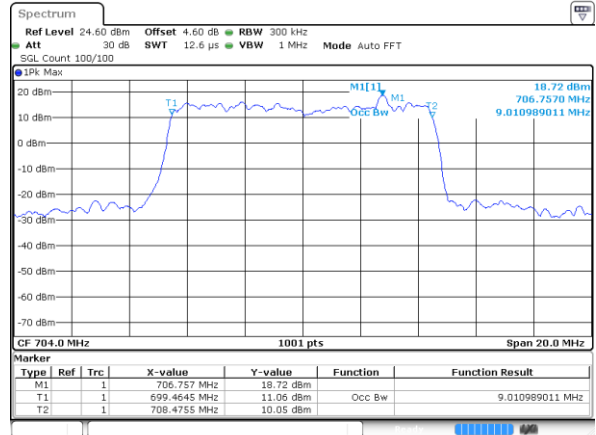


LTE Band 12

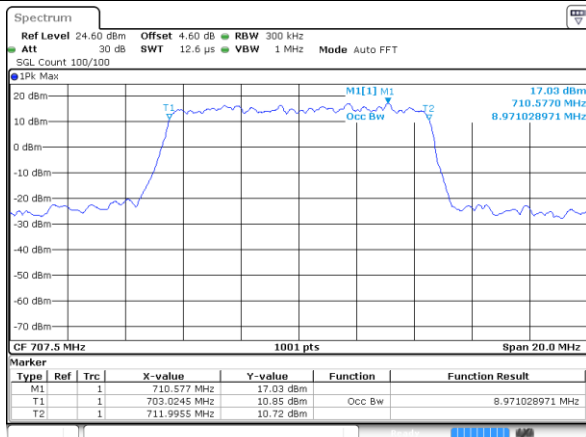
Lowest Channel / 10MHz / QPSK



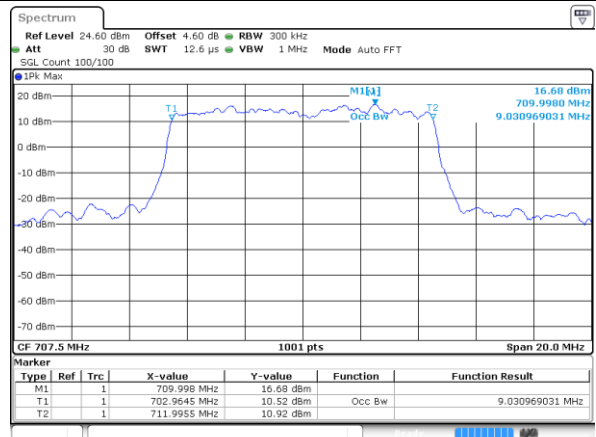
Lowest Channel / 10MHz / 16QAM



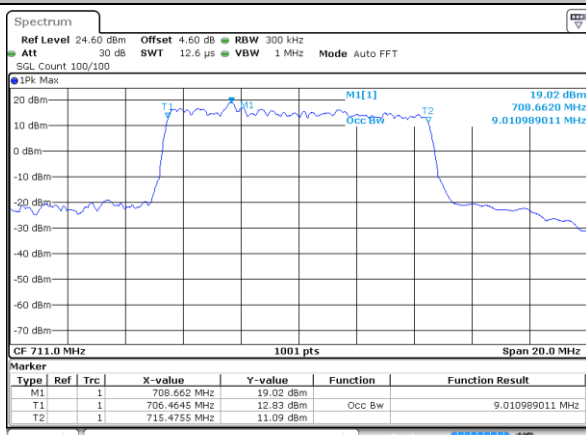
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM

