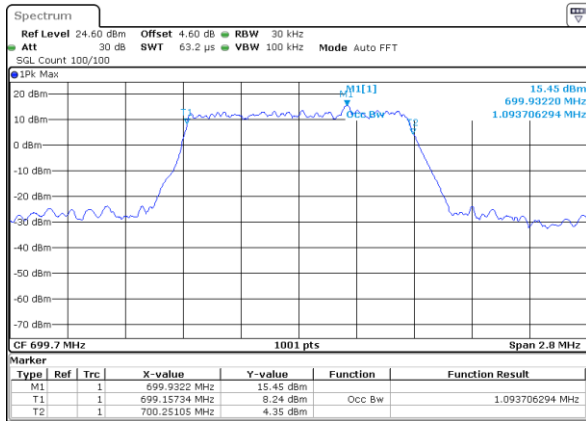


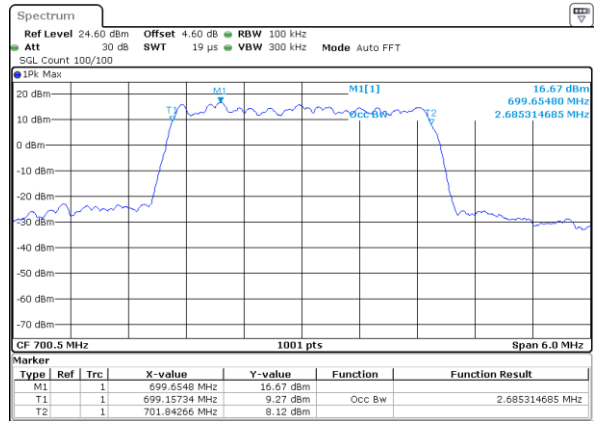


LTE Band 12

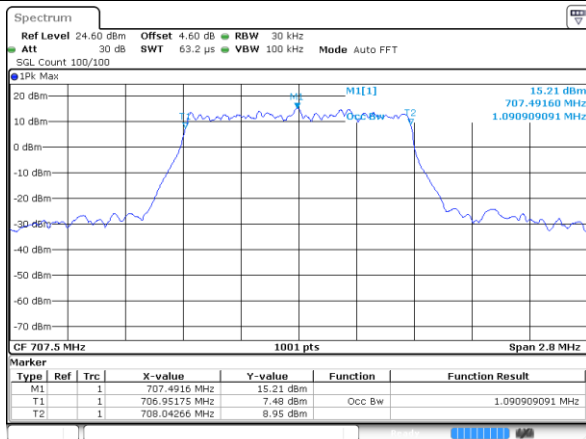
Lowest Channel / 1.4MHz / 64QAM



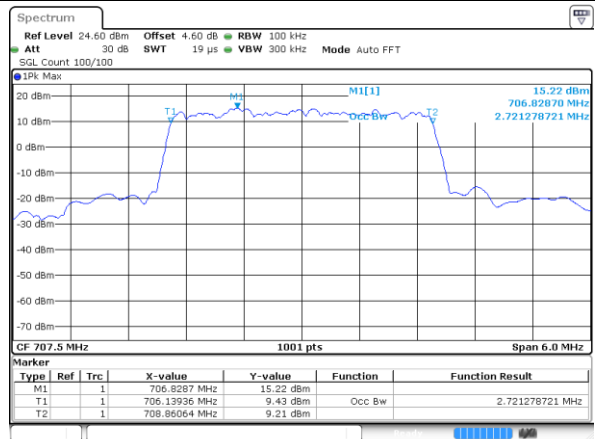
Lowest Channel / 3MHz / 64QAM



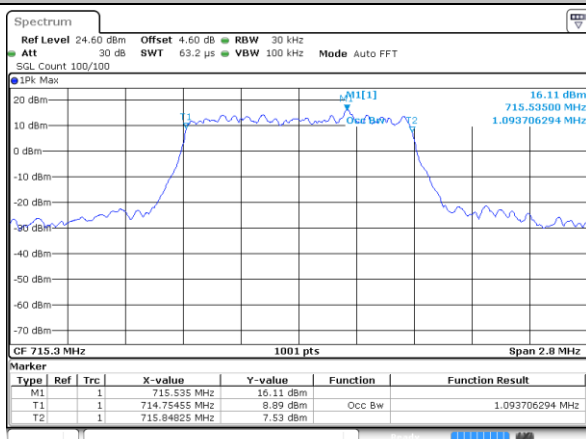
Middle Channel / 1.4MHz / 64QAM



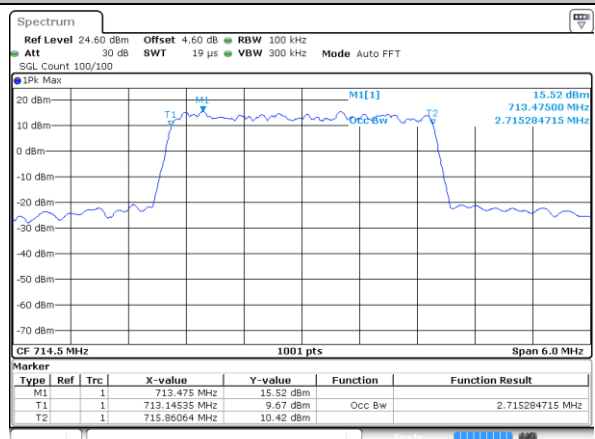
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



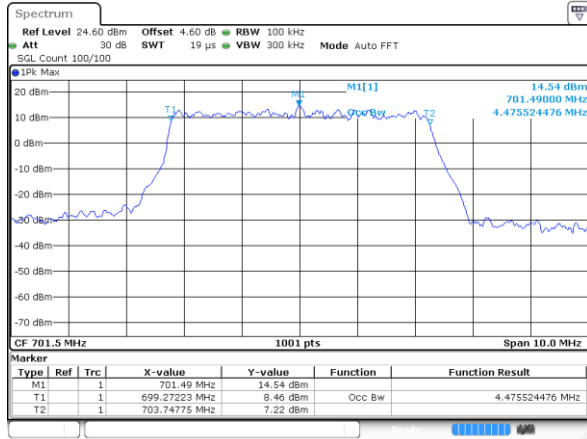
Highest Channel / 3MHz / 64QAM



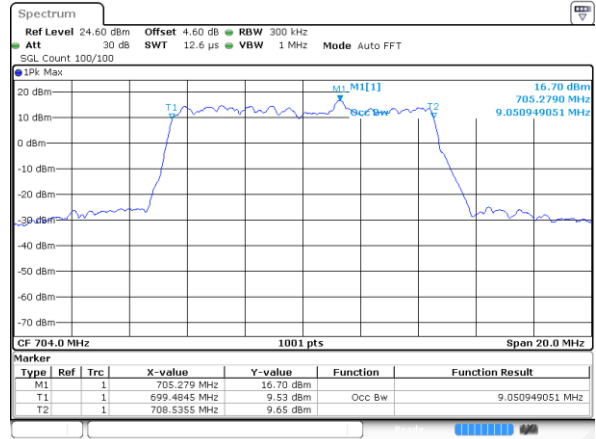


LTE Band 12

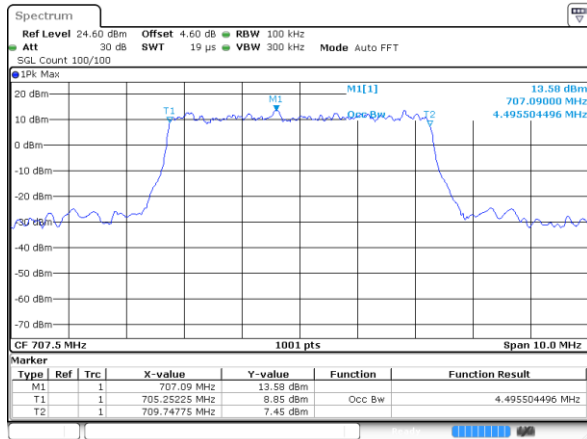
Lowest Channel / 5MHz / 64QAM



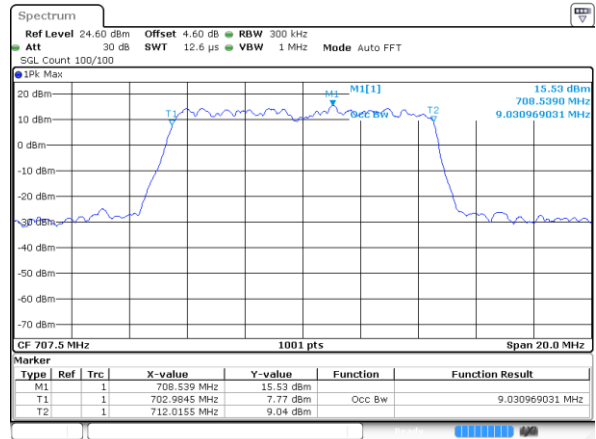
Lowest Channel / 10MHz / 64QAM



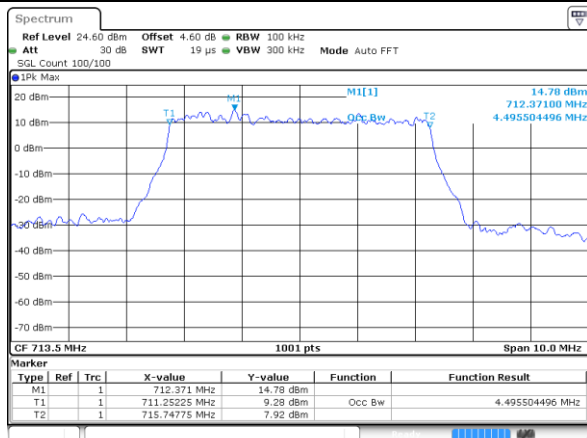
Middle Channel / 5MHz / 64QAM



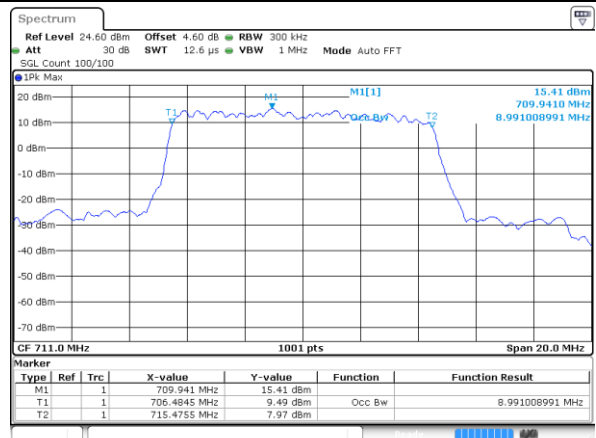
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM

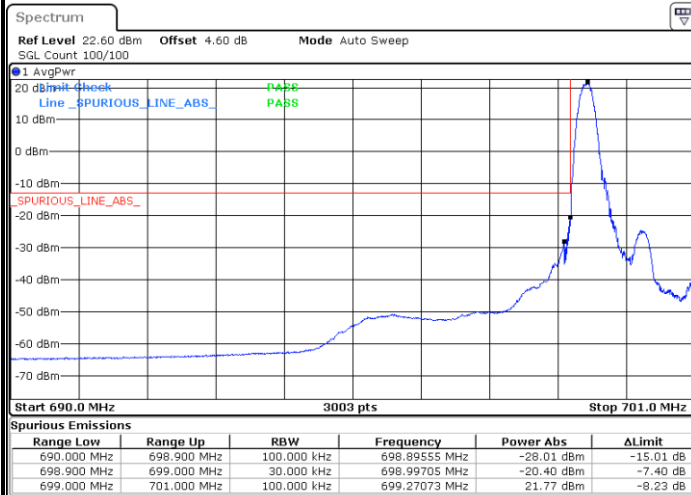




Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

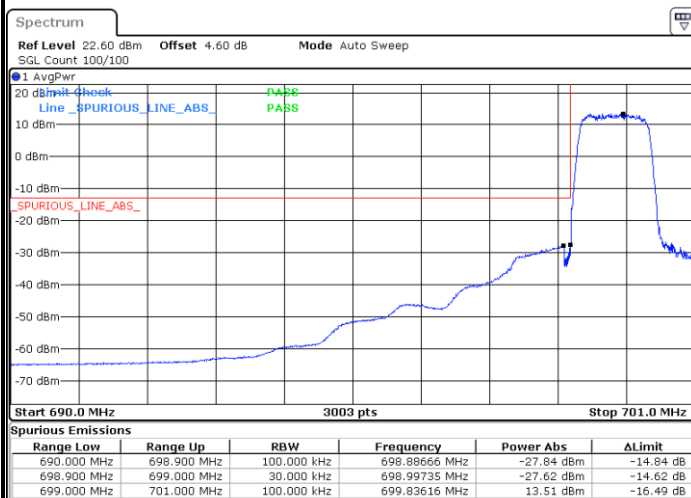
Lowest Band Edge / 1 RB



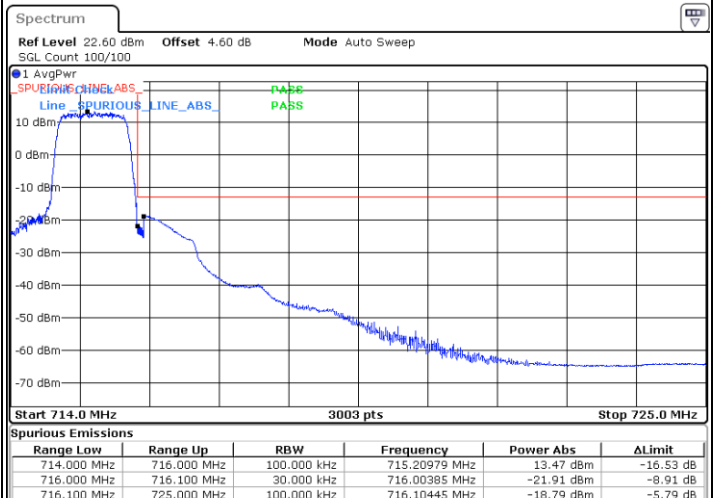
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



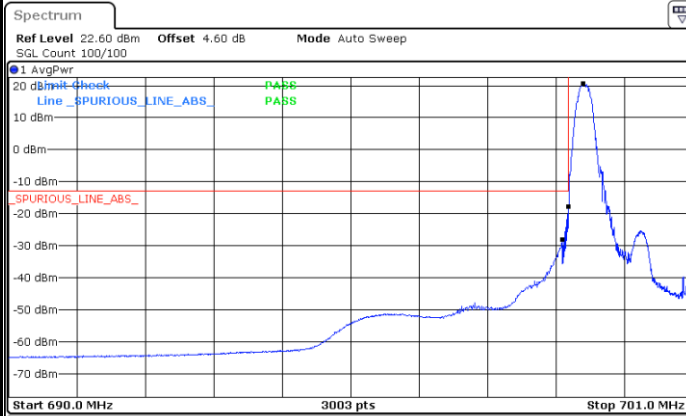
Highest Band Edge / Full RB





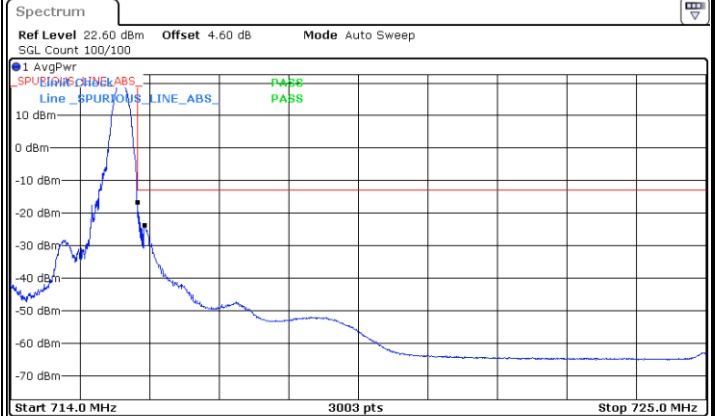
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



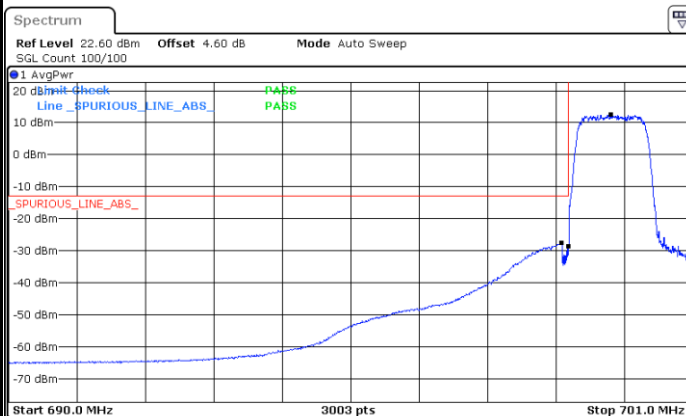
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-27.97 dBm	-14.97 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99945 MHz	-17.74 dBm	-4.74 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.23277 MHz	20.65 dBm	-9.35 dB

Highest Band Edge / 1 RB



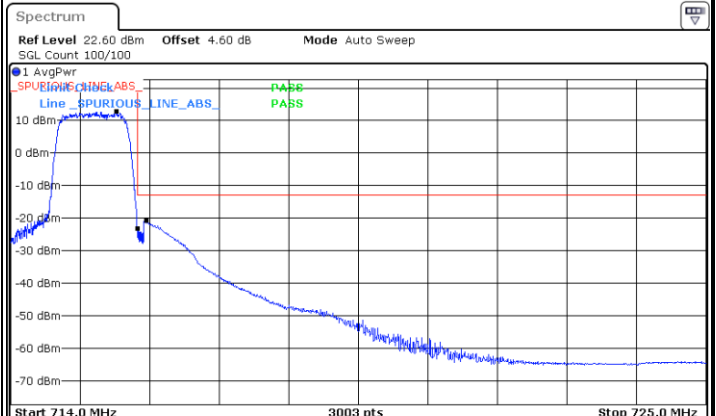
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.74525 MHz	20.26 dBm	-9.74 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00055 MHz	-16.67 dBm	-3.67 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.11334 MHz	-23.86 dBm	-10.86 dB

Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-27.63 dBm	-14.63 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99955 MHz	-28.55 dBm	-15.55 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.67233 MHz	12.65 dBm	-17.35 dB

Highest Band Edge / Full RB

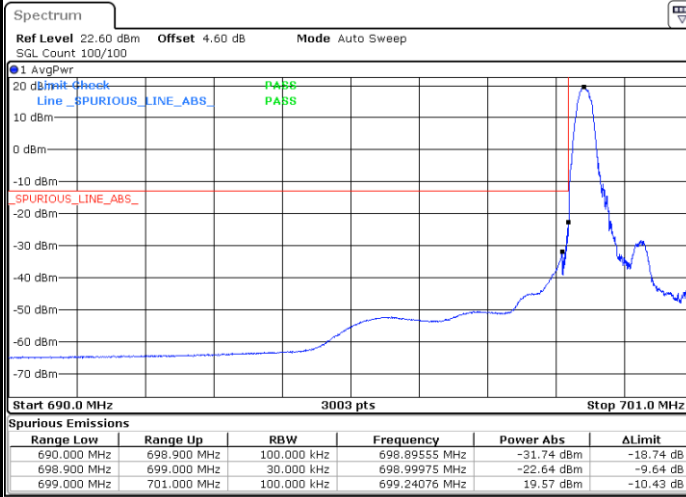


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.66733 MHz	12.77 dBm	-17.23 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01064 MHz	-23.24 dBm	-10.24 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.14001 MHz	-20.89 dBm	-7.89 dB

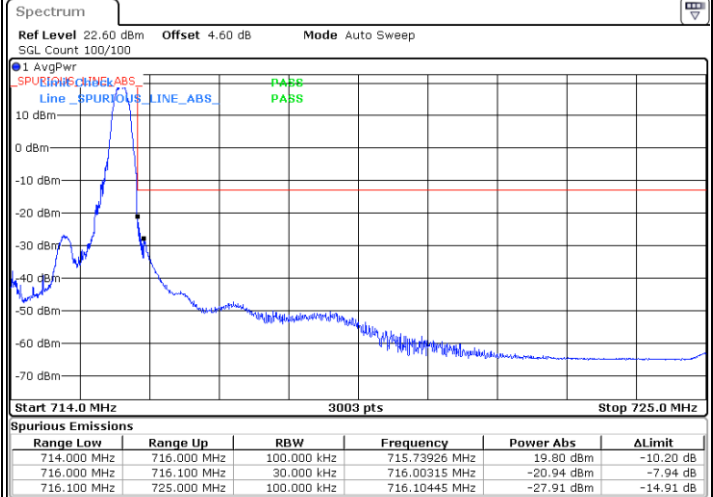


LTE Band 12 / 1.4MHz / 64QAM

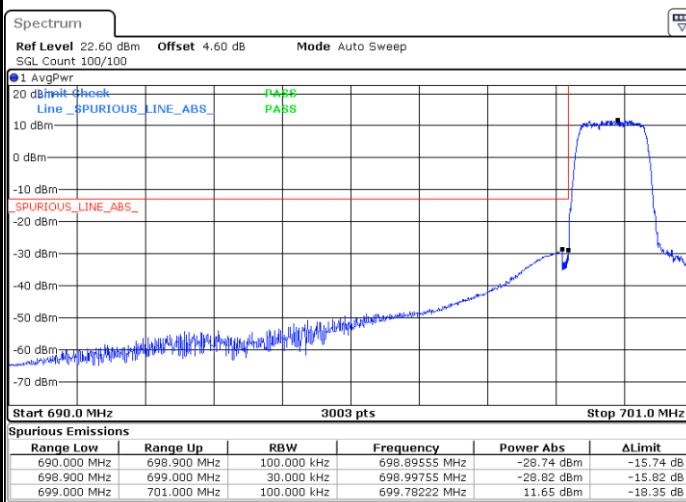
Lowest Band Edge / 1 RB



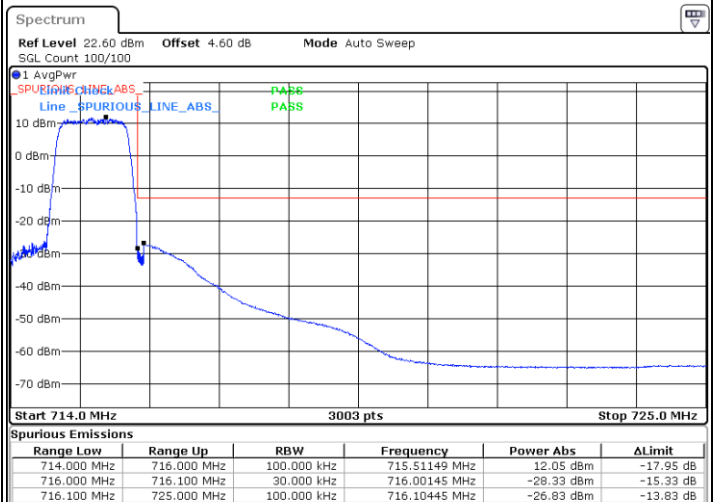
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



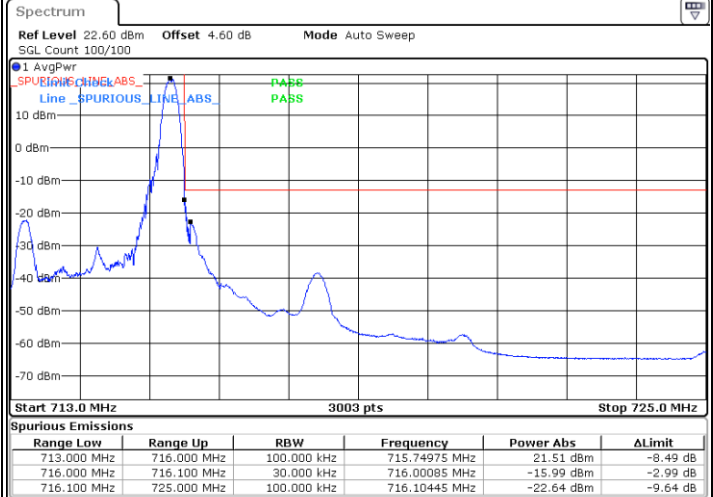


LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



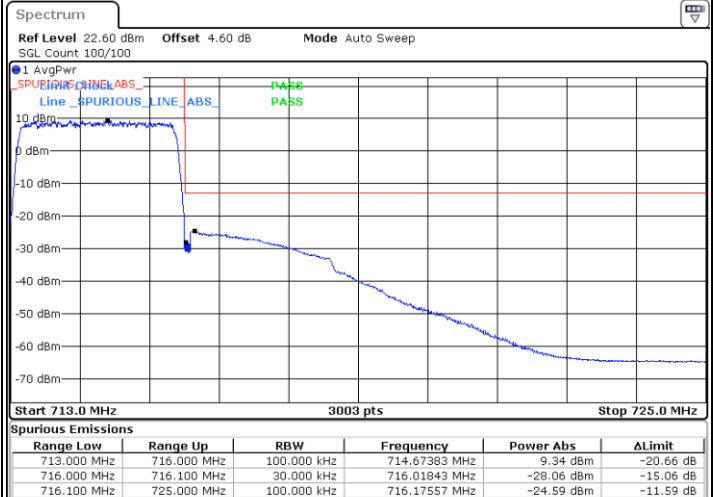
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



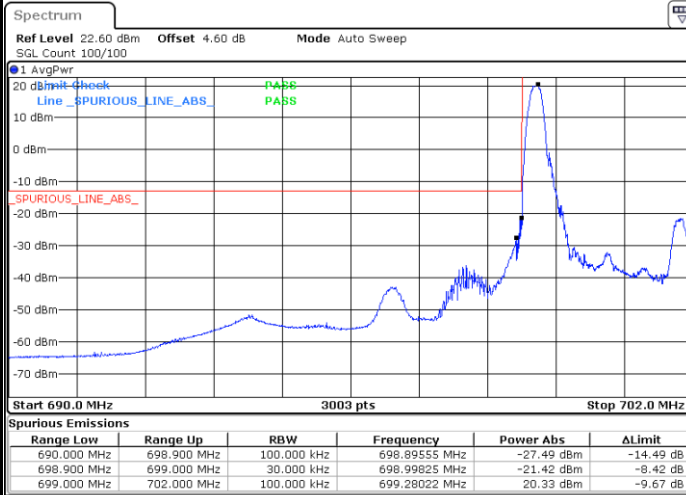
Highest Band Edge / Full RB





LTE Band 12 / 3MHz / 16QAM

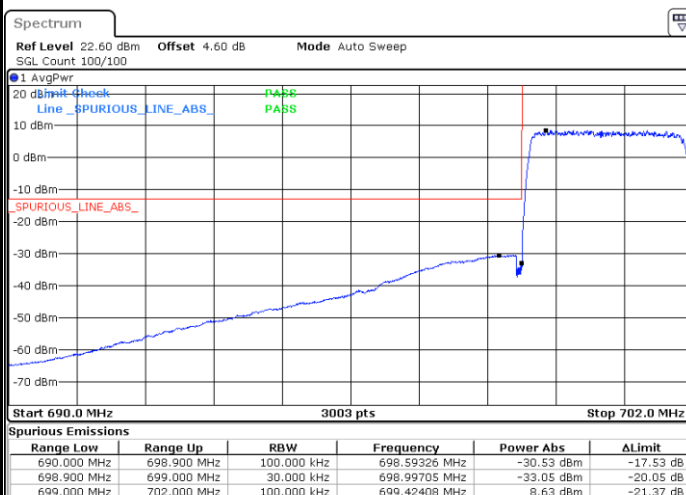
Lowest Band Edge / 1 RB



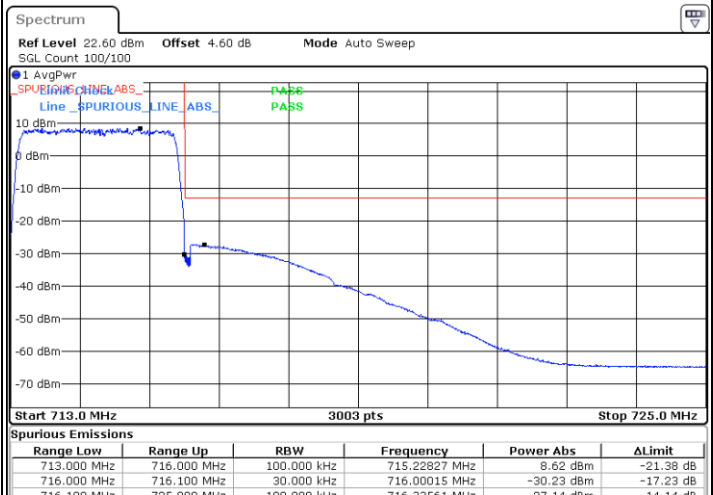
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



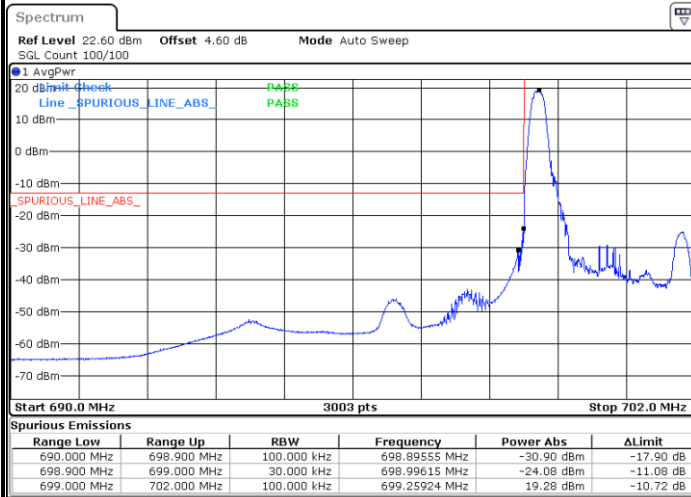
Highest Band Edge / Full RB





LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



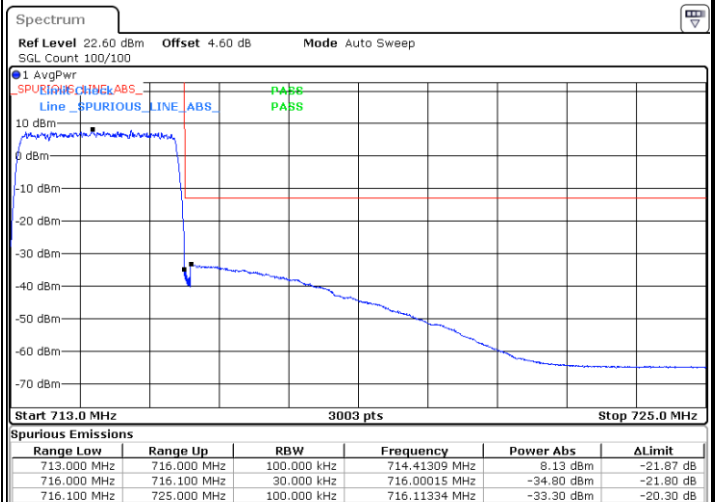
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



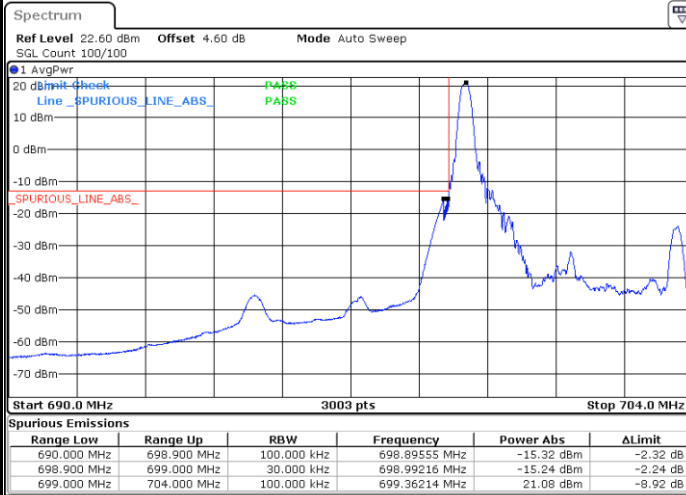
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / QPSK

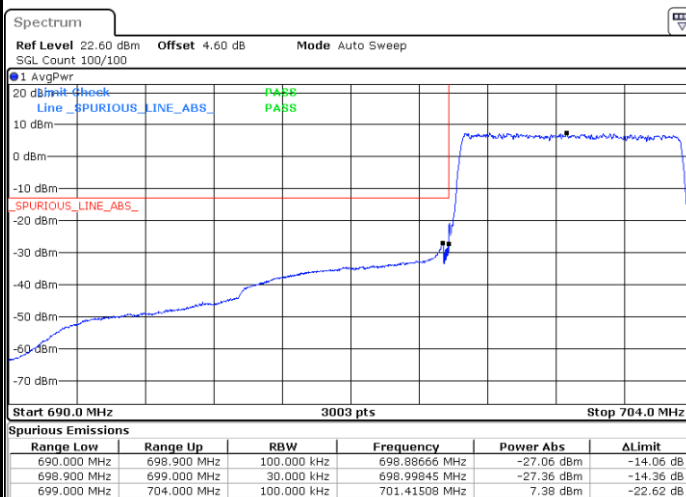
Lowest Band Edge / 1 RB



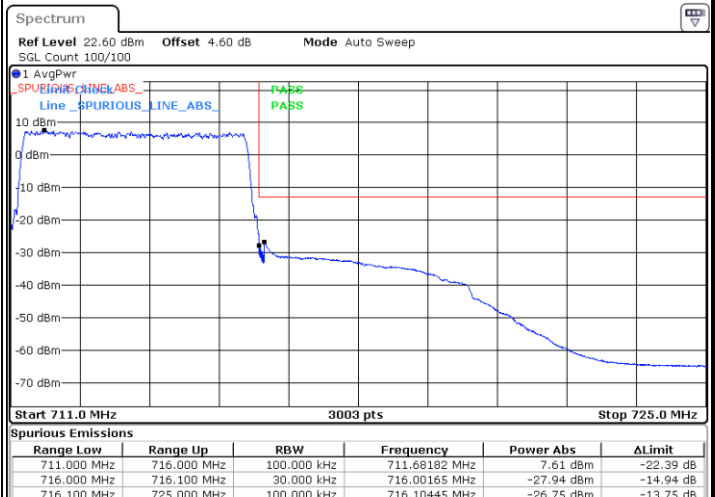
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



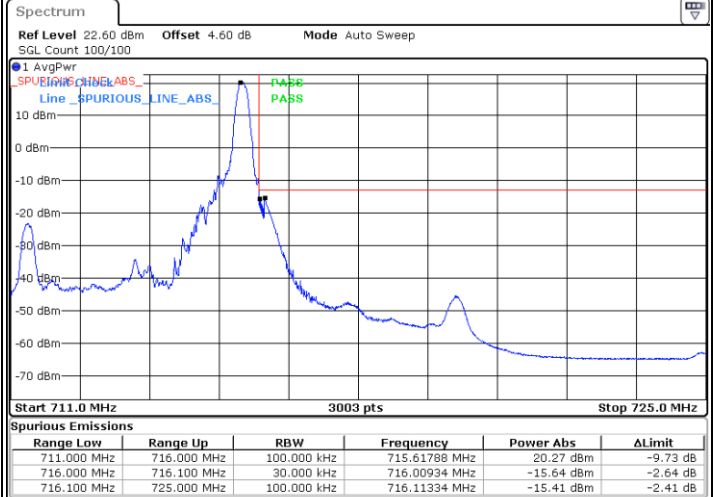


LTE Band 12 / 5MHz / 16QAM

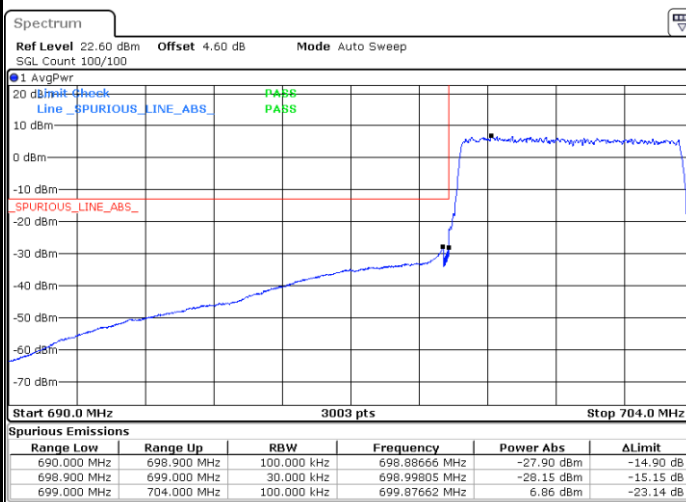
Lowest Band Edge / 1RB



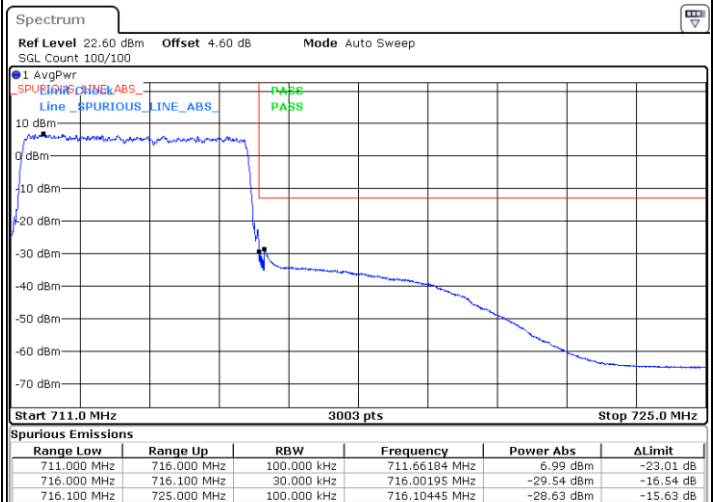
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



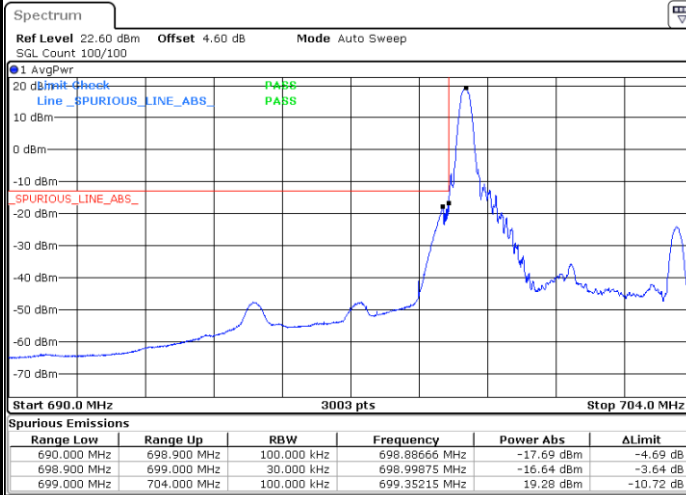
Highest Band Edge / Full RB



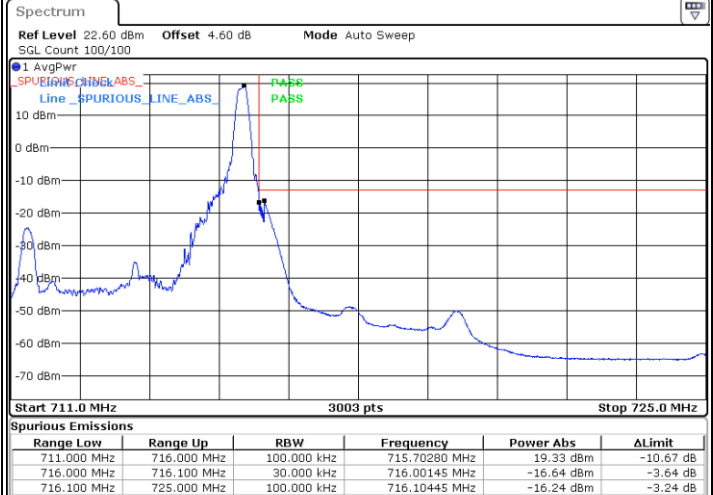


LTE Band 12 / 5MHz / 64QAM

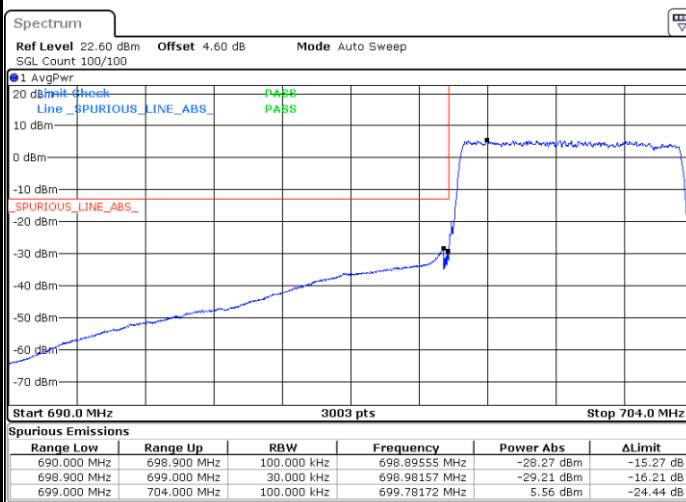
Lowest Band Edge / 1RB



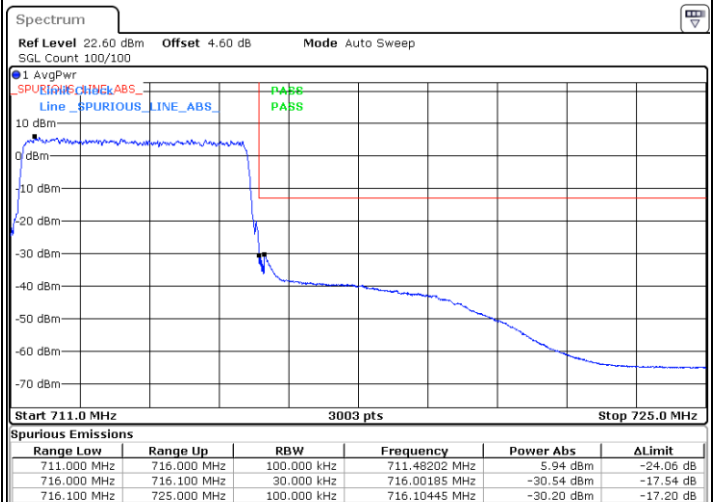
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



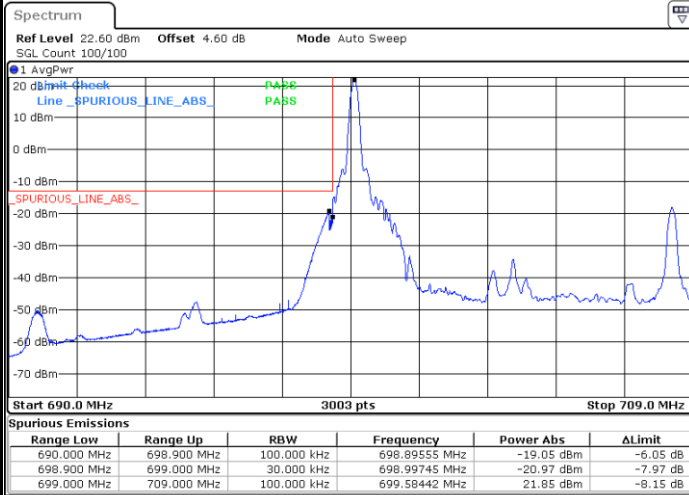
Highest Band Edge / Full RB



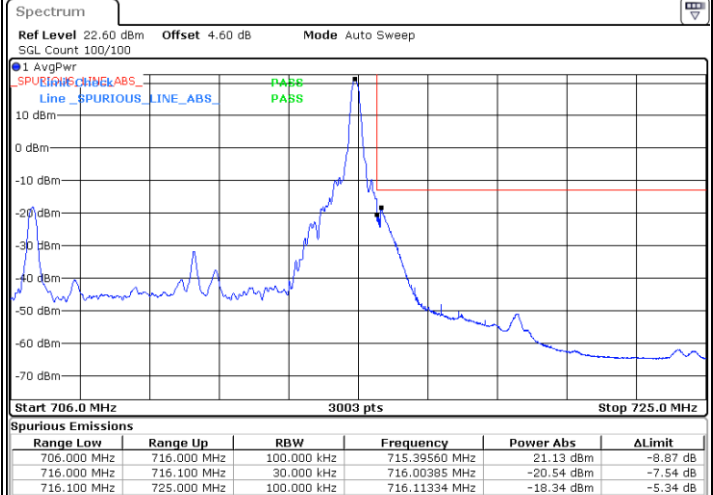


LTE Band 12 / 10MHz / QPSK

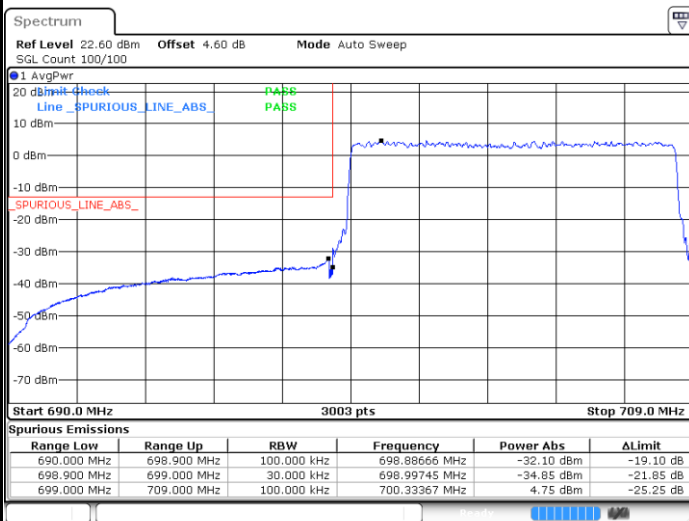
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



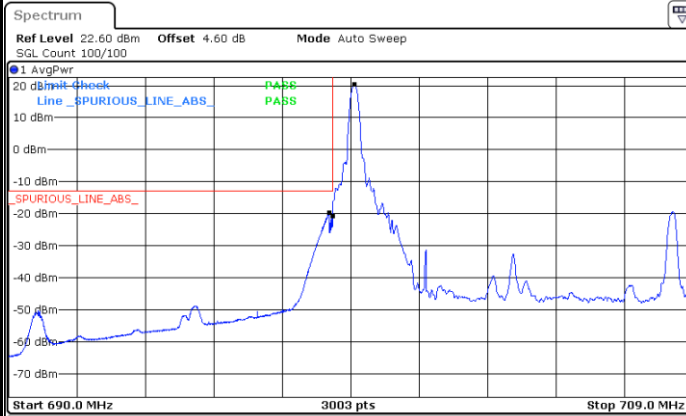
Highest Band Edge / Full RB





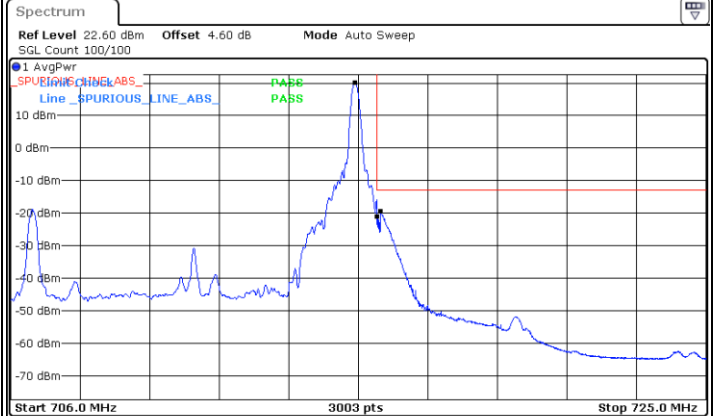
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



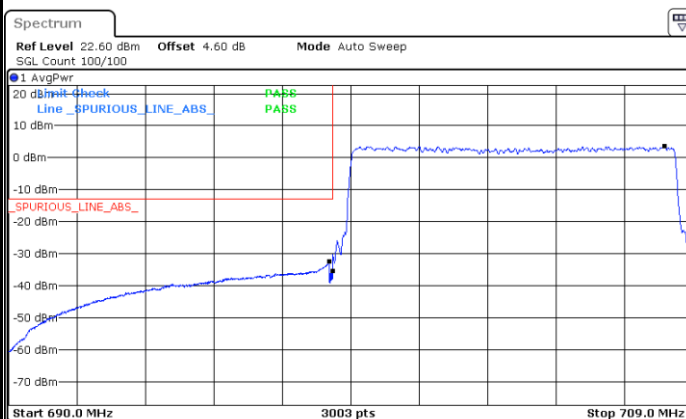
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-19.68 dBm	-6.68 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99695 MHz	-20.87 dBm	-7.87 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.58442 MHz	20.56 dBm	-9.44 dB

Highest Band Edge / 1 RB



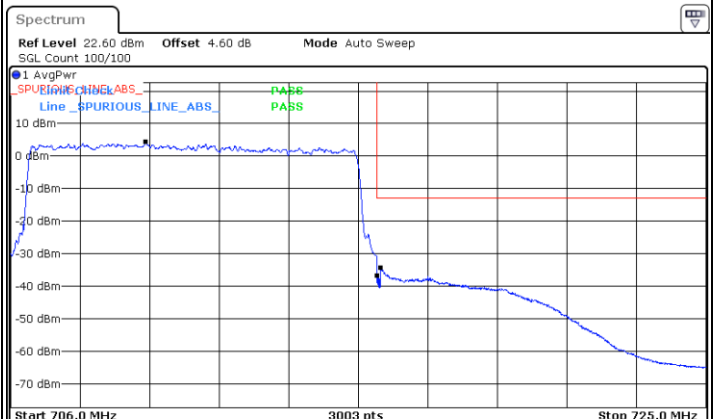
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.40559 MHz	20.09 dBm	-9.91 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00684 MHz	-21.10 dBm	-8.10 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-19.48 dBm	-6.48 dB

Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-32.40 dBm	-19.40 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.98616 MHz	-35.30 dBm	-22.30 dB
699.000 MHz	709.000 MHz	100.000 kHz	708.20579 MHz	3.57 dBm	-26.43 dB

Highest Band Edge / Full RB

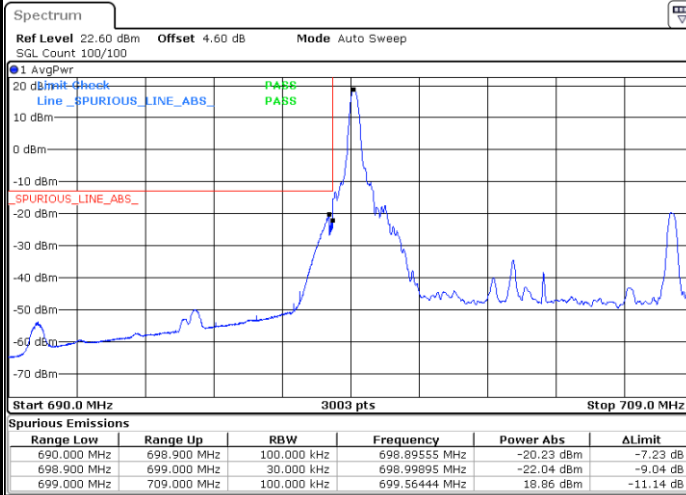


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	709.69131 MHz	4.39 dBm	-25.61 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00095 MHz	-36.64 dBm	-23.64 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-34.33 dBm	-21.33 dB

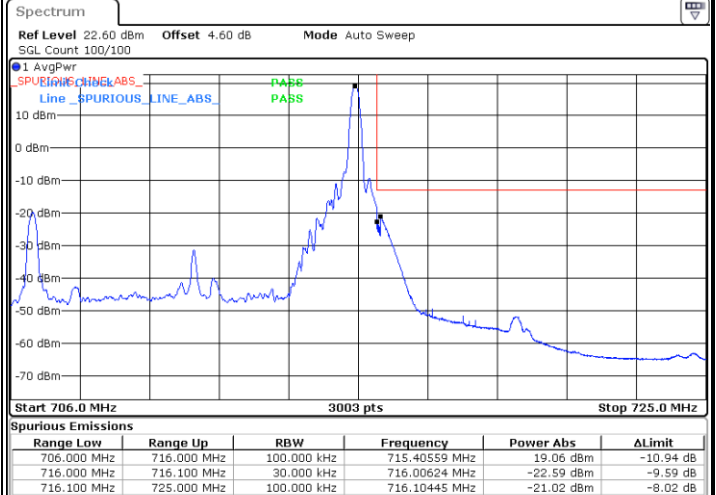


LTE Band 12 / 10MHz / 64QAM

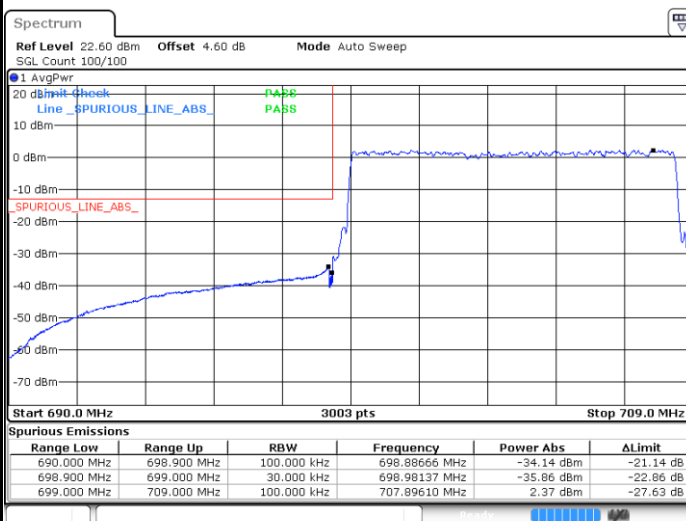
Lowest Band Edge / 1 RB



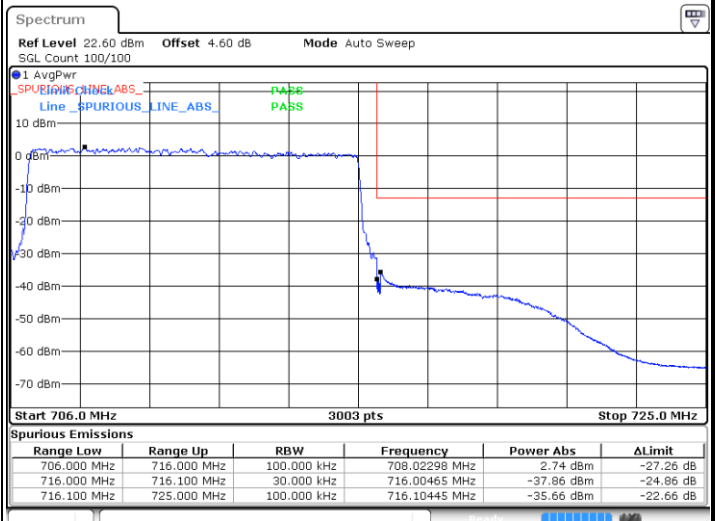
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

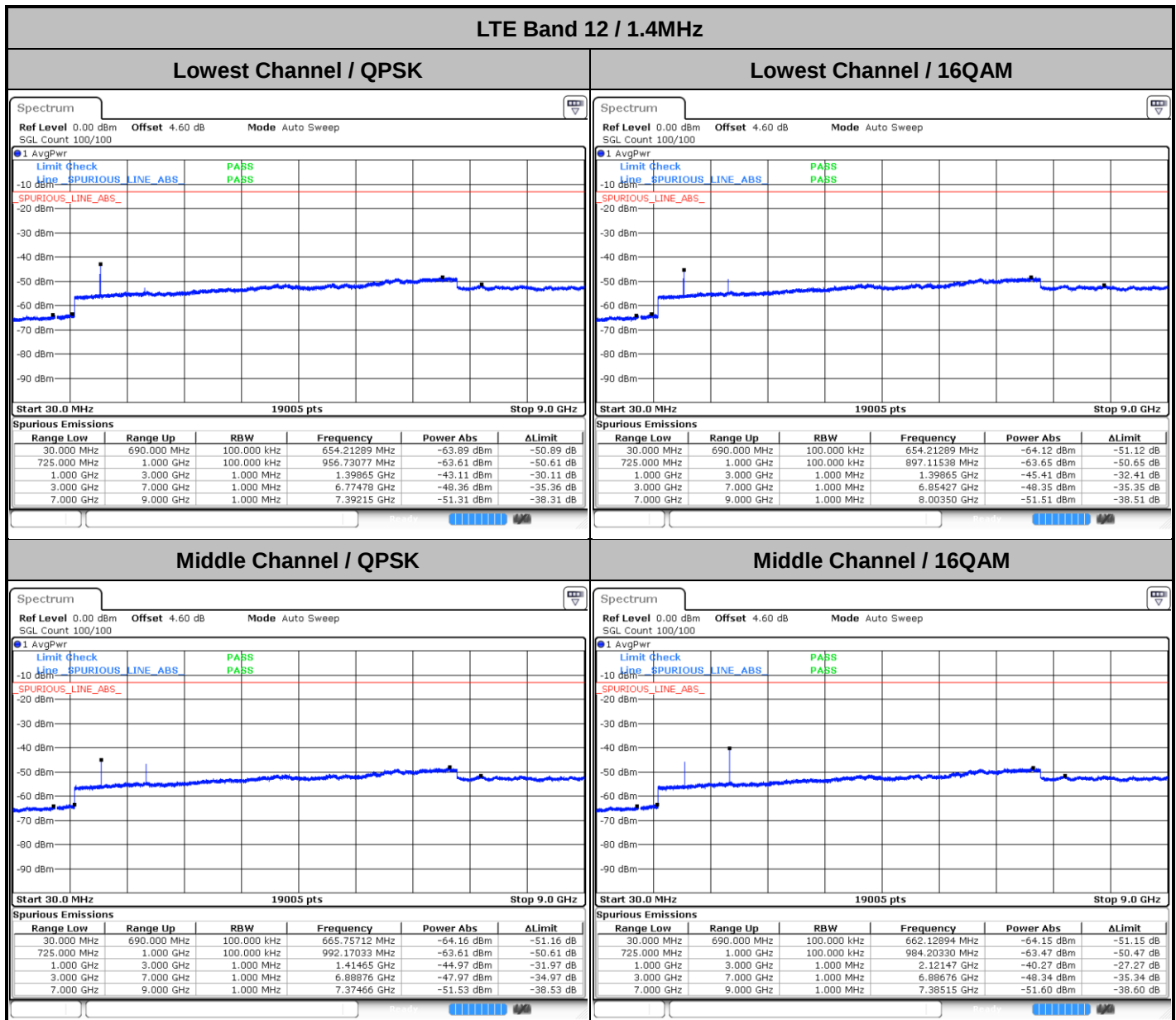


Highest Band Edge / Full RB





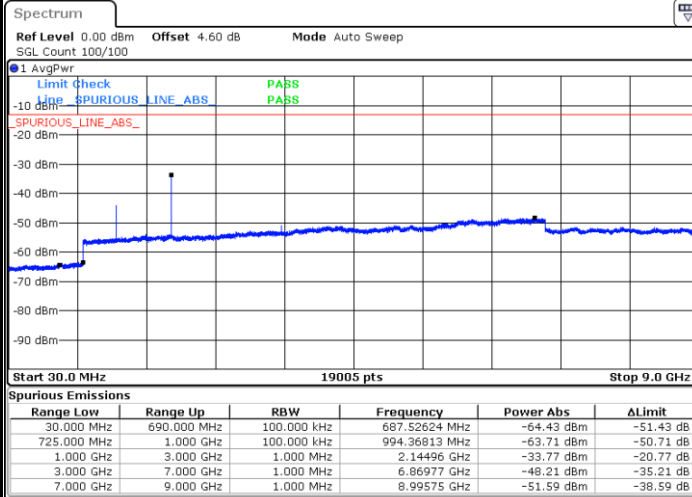
Conducted Spurious Emission



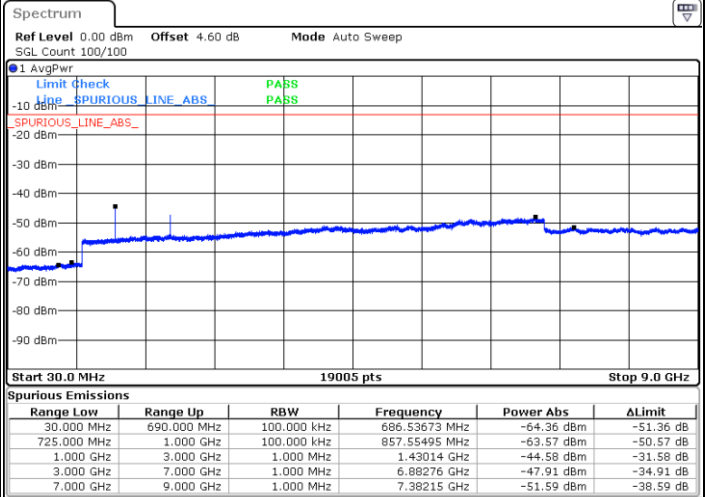


LTE Band 12 / 1.4MHz

Highest Channel / QPSK

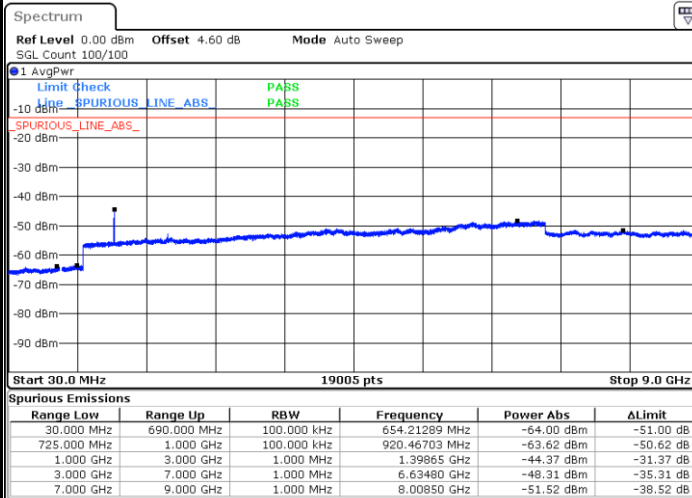


Highest Channel / 16QAM

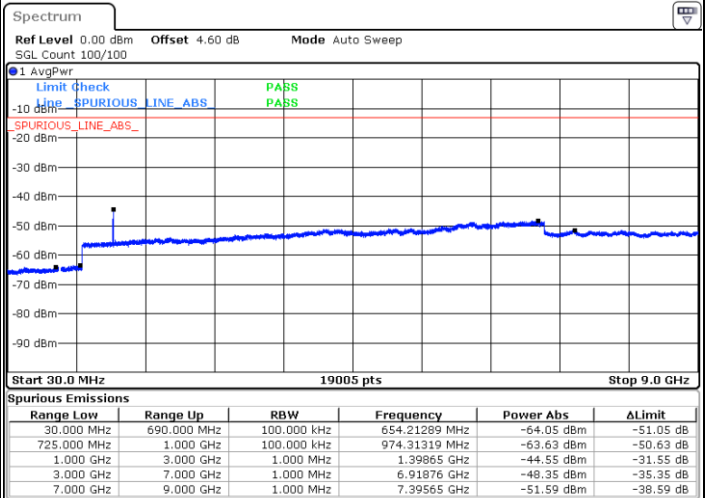


LTE Band 12 / 3MHz

Lowest Channel / QPSK



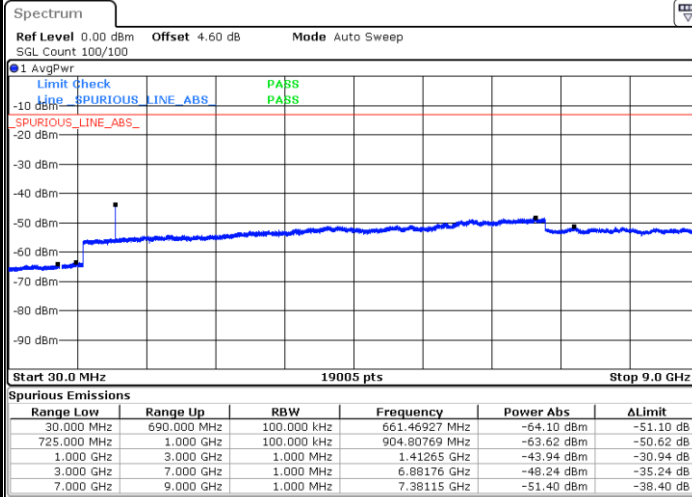
Lowest Channel / 16QAM



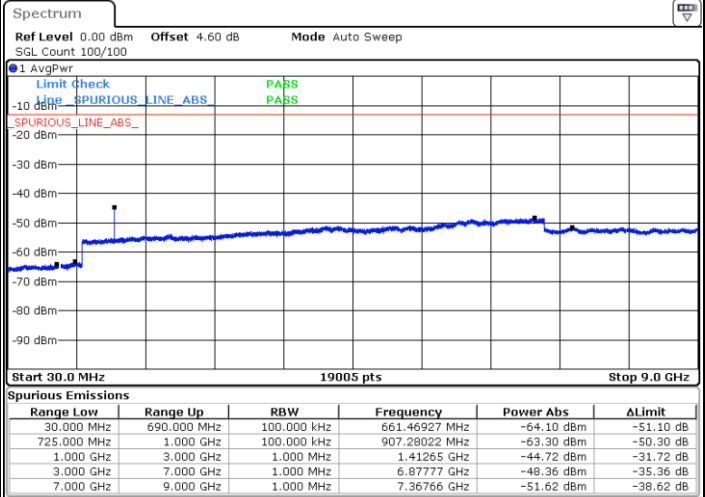


LTE Band 12 / 3MHz

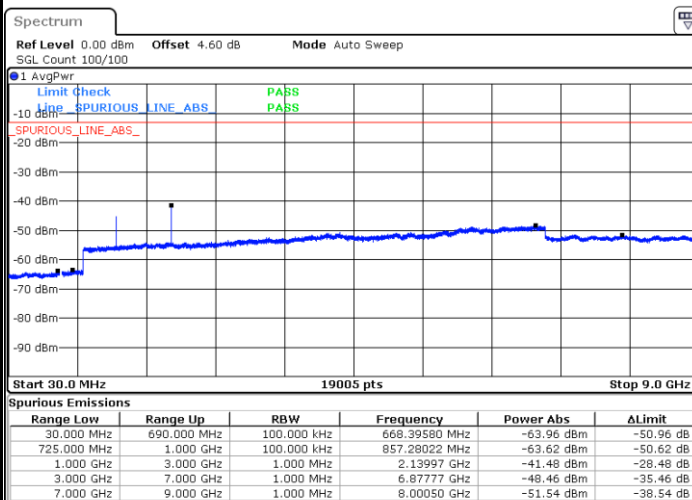
Middle Channel / QPSK



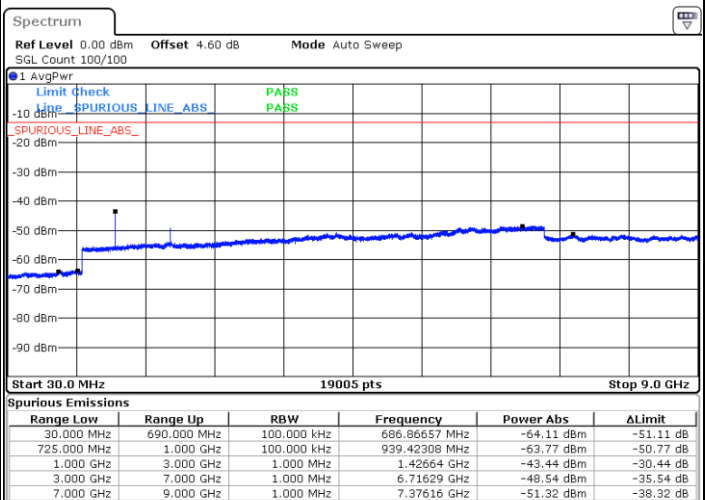
Middle Channel / 16QAM



Highest Channel / QPSK



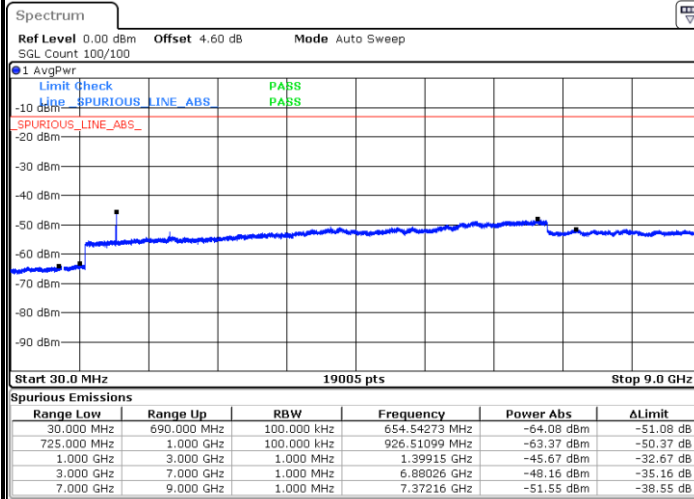
Highest Channel / 16QAM



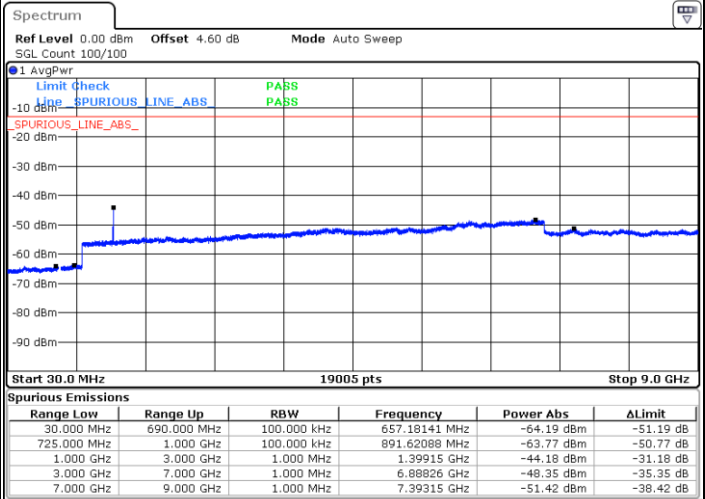


LTE Band 12 / 5MHz

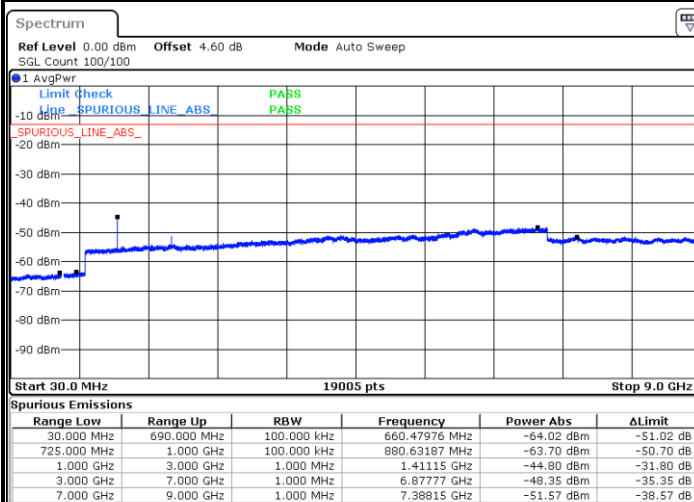
Lowest Channel / QPSK



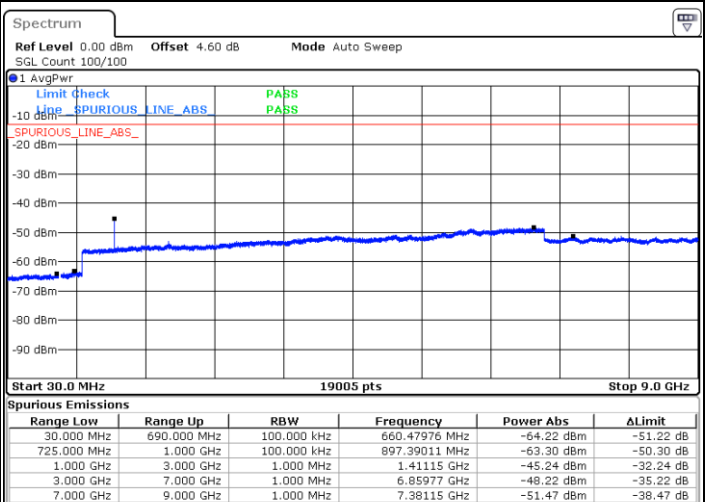
Lowest Channel / 16QAM



Middle Channel / QPSK



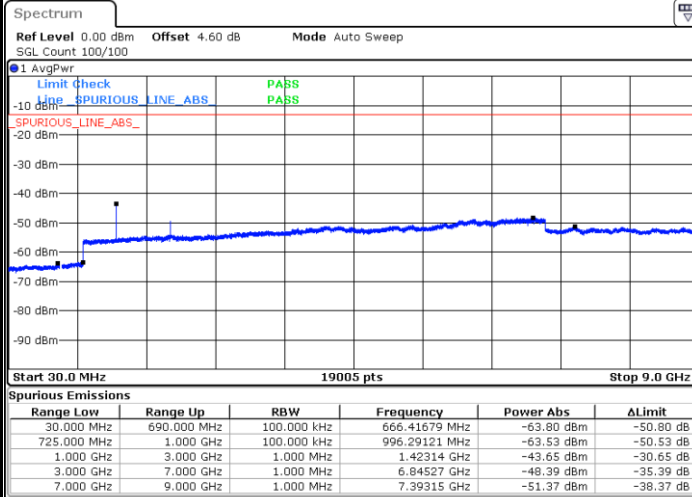
Middle Channel / 16QAM



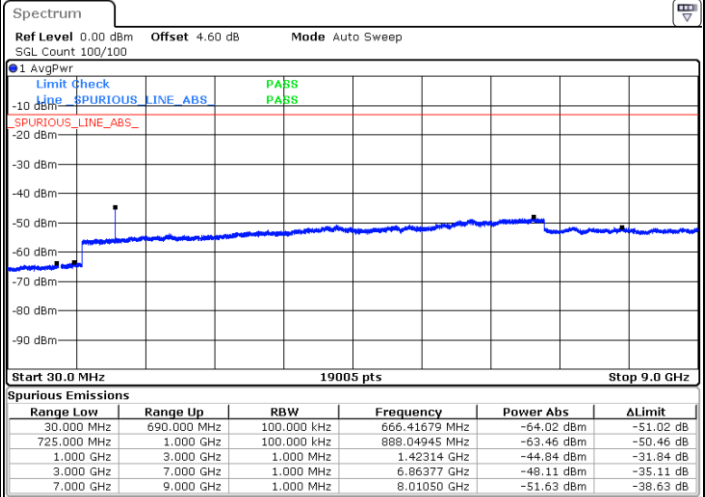


LTE Band 12 / 5MHz

Highest Channel / QPSK

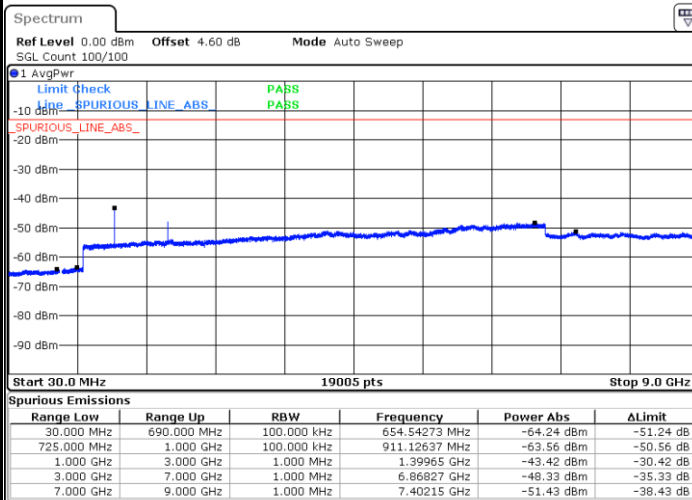


Highest Channel / 16QAM

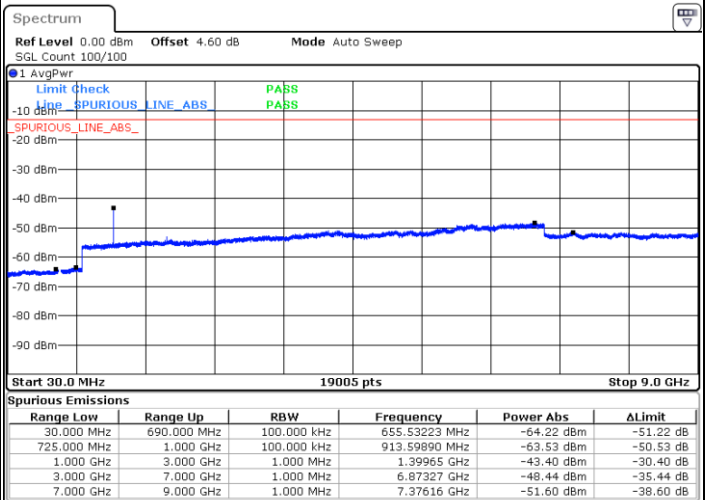


LTE Band 12 / 10MHz

Lowest Channel / QPSK



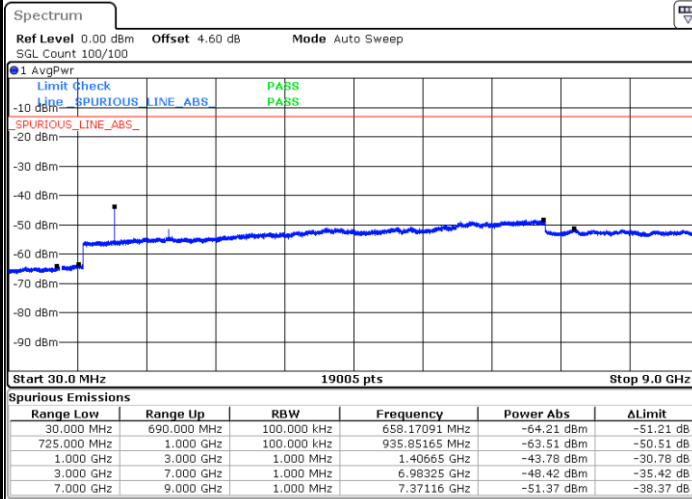
Lowest Channel / 16QAM



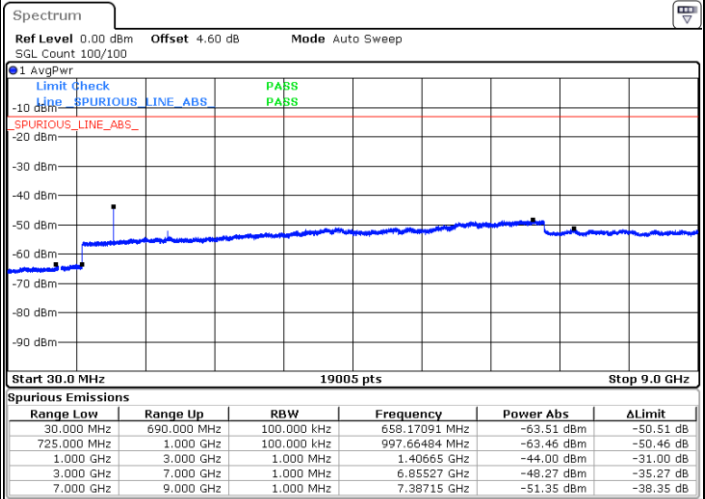


LTE Band 12 / 10MHz

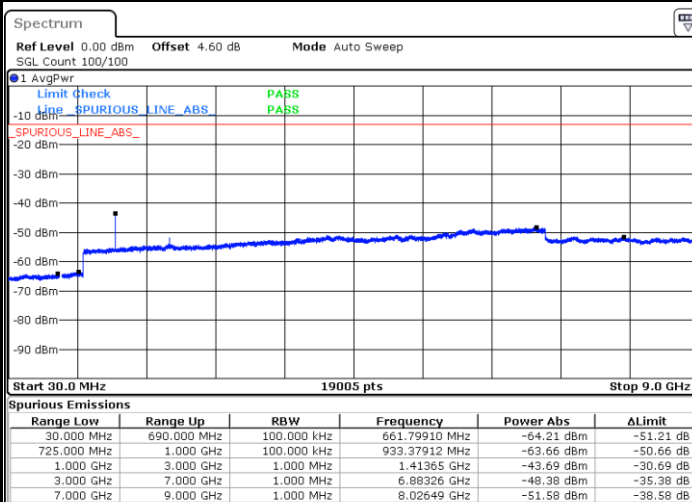
Middle Channel / QPSK



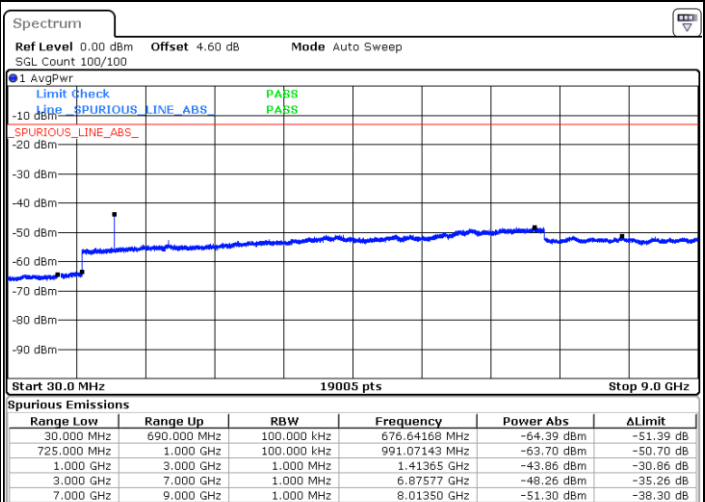
Middle Channel / 16QAM



Highest Channel / QPSK



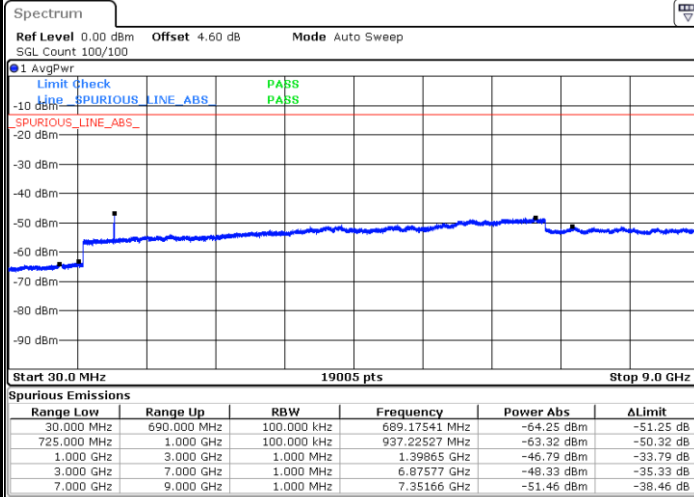
Highest Channel / 16QAM



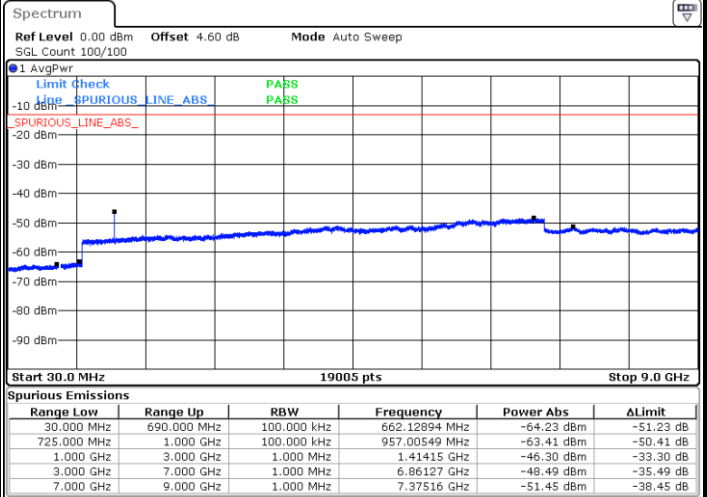


LTE Band 12 / 1.4MHz

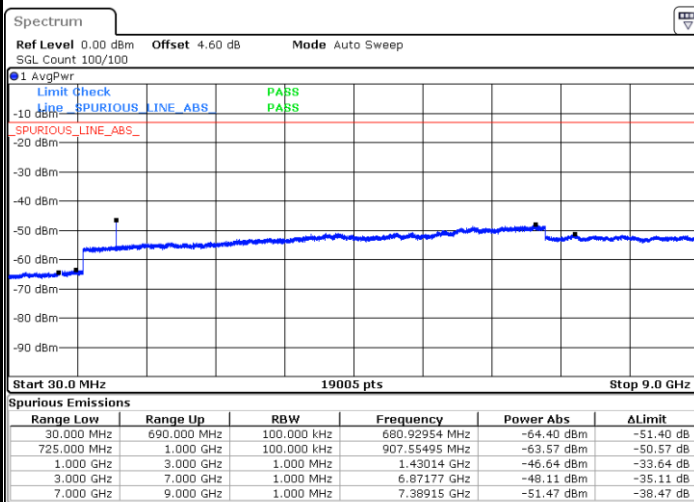
Lowest Channel / 64QAM



Middle Channel / 64QAM



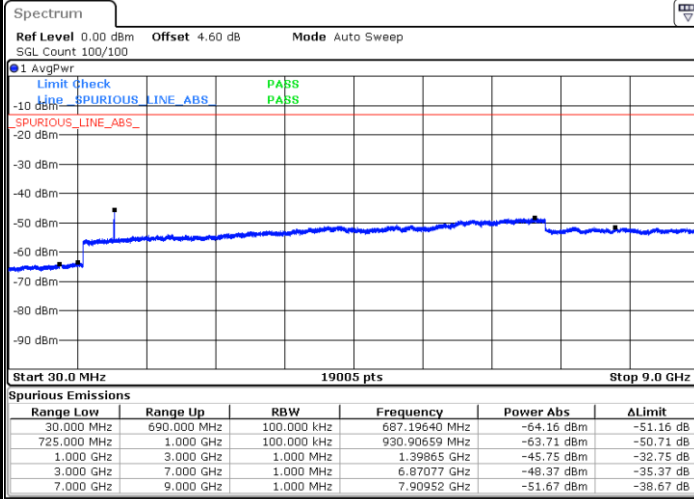
Highest Channel / 64QAM



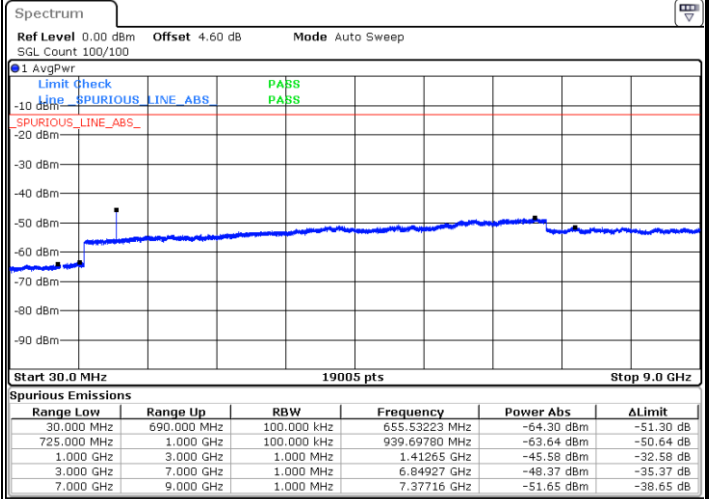


LTE Band 12 / 3MHz

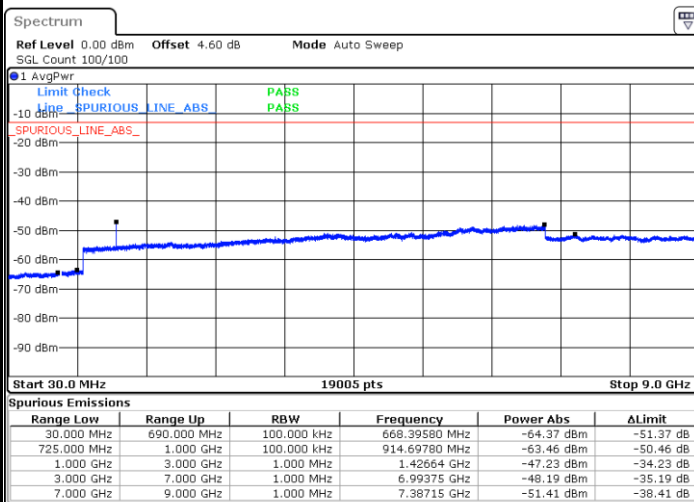
Lowest Channel / 64QAM



Middle Channel / 64QAM



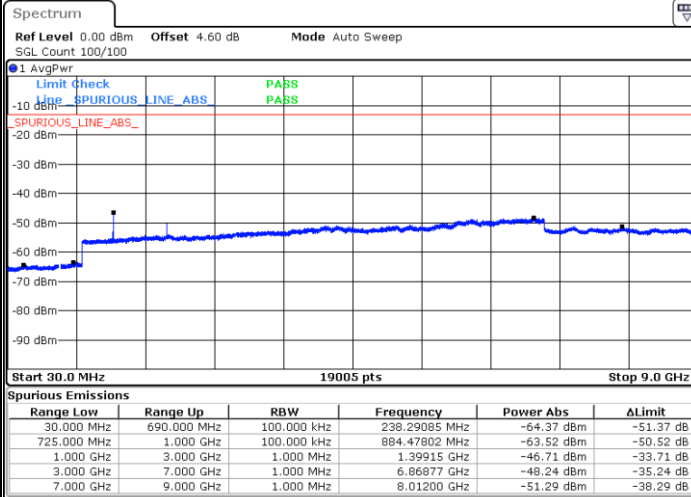
Highest Channel / 64QAM



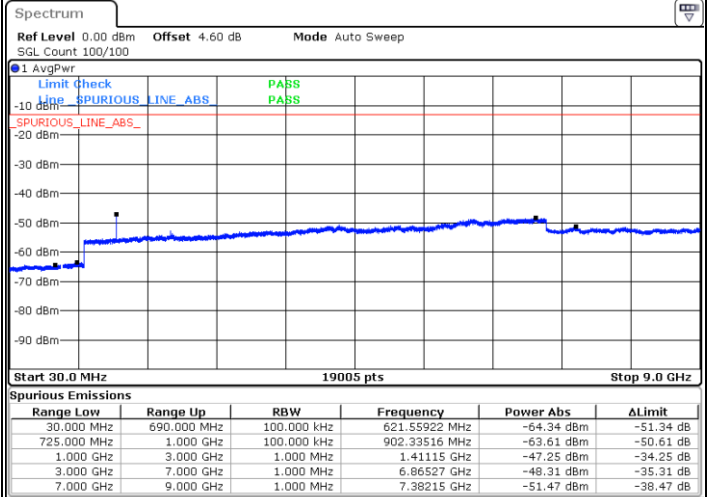


LTE Band 12 / 5MHz

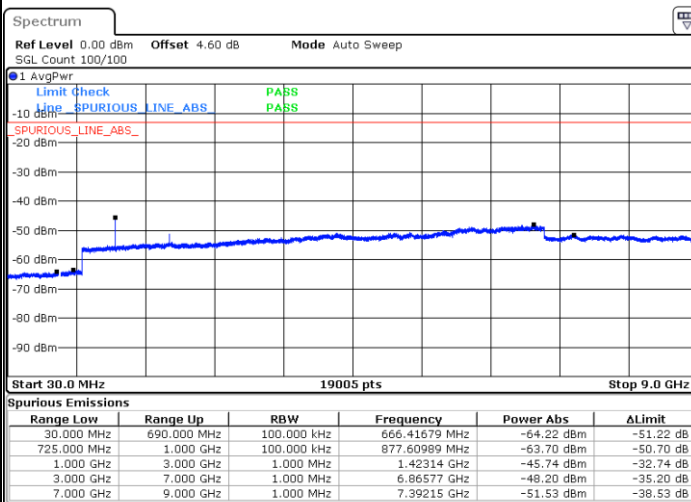
Lowest Channel / 64QAM



Middle Channel / 64QAM



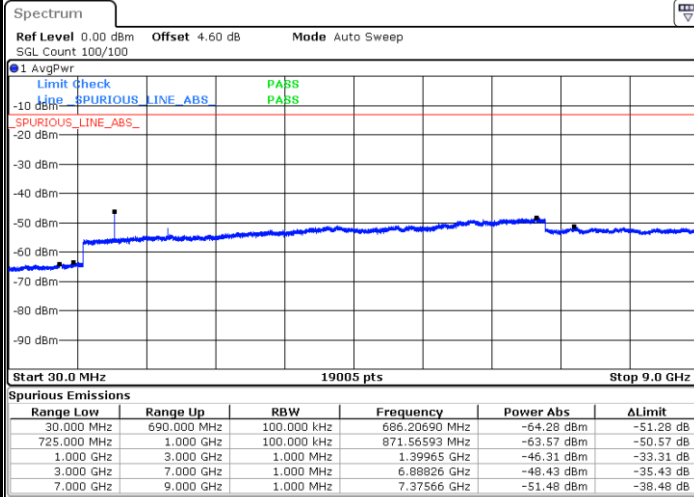
Highest Channel / 64QAM



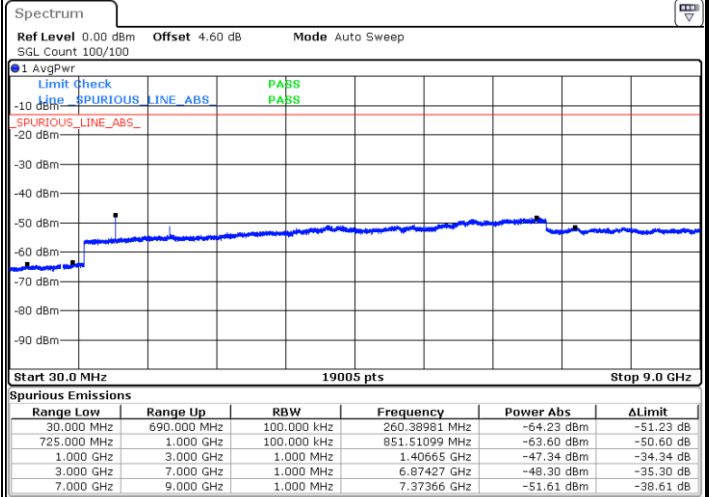


LTE Band 12 / 10MHz

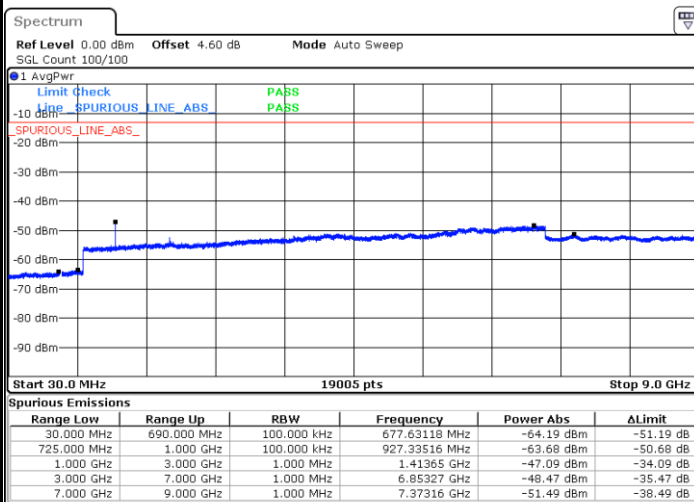
Lowest Channel / 64QAM



Middle Channel / 64QAM



Highest Channel / 64QAM



Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0009	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0006	
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 13

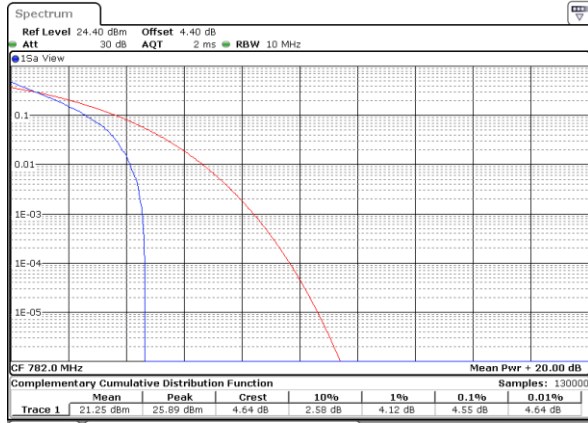
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.55	5.13	5.39	6.09	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.28	6.23	-	-	
Highest CH	-	-	-	-	

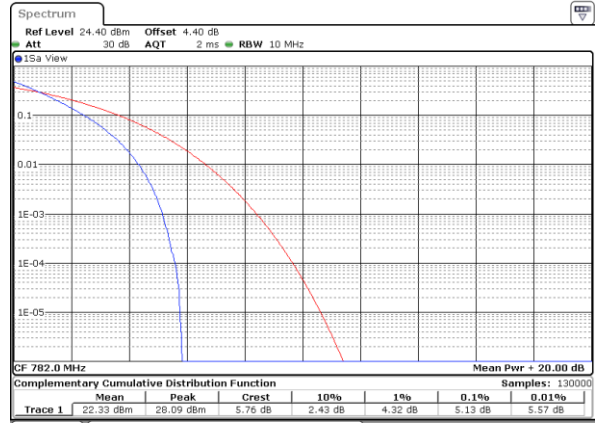


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Middle Channel / Full RB



LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

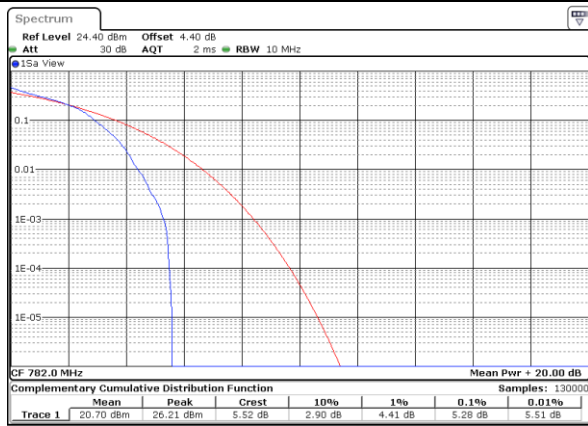


Middle Channel / Full RB



LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



Date: 21 FEB 2020 23:39:14

Date: 21 FEB 2020 23:39:31

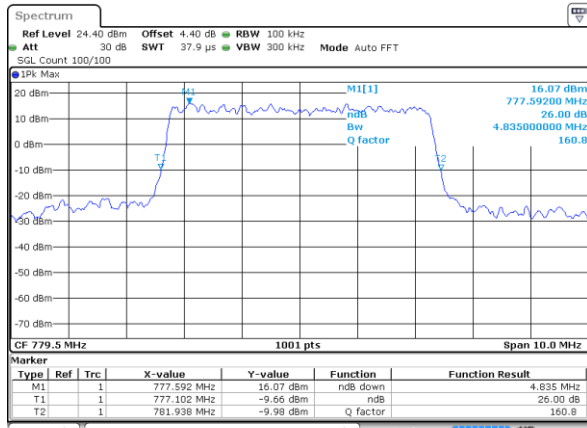
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.835	4.865		
Middle CH	4.815	4.855	9.79	9.61
Highest CH	4.815	4.775		
Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	64QAM		64QAM	
Lowest CH	4.895		-	
Middle CH	4.825		9.75	
Highest CH	4.865		-	

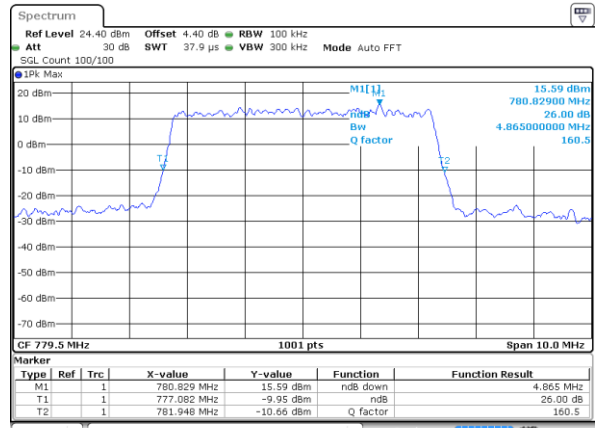


LTE Band 13

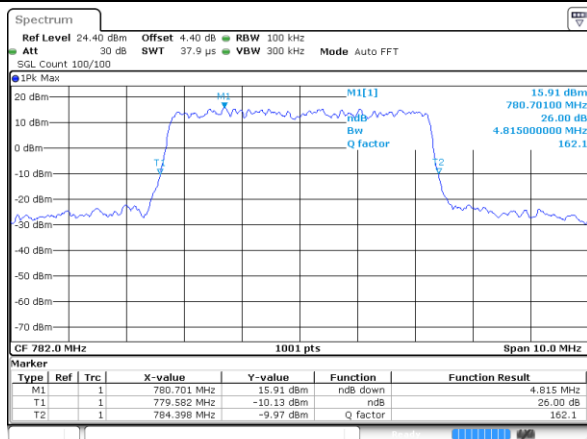
Lowest Channel / 5MHz / QPSK



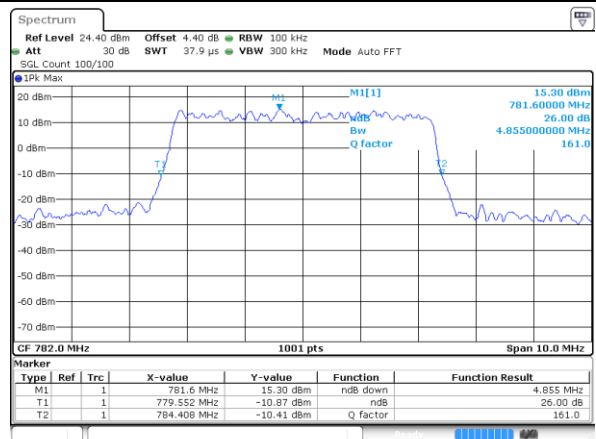
Lowest Channel / 5MHz / 16QAM



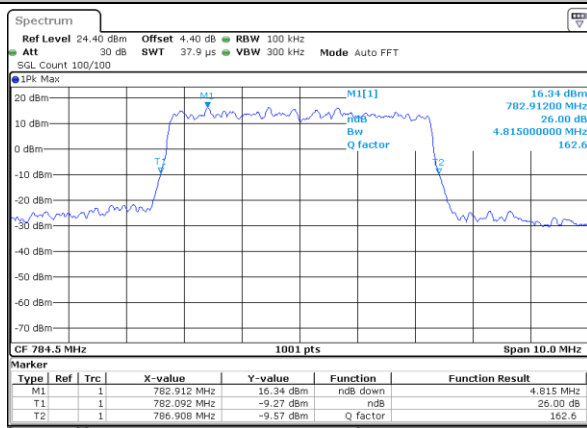
Middle Channel / 5MHz / QPSK



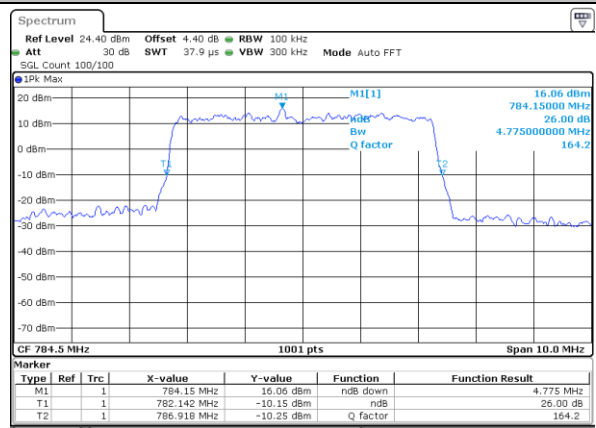
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



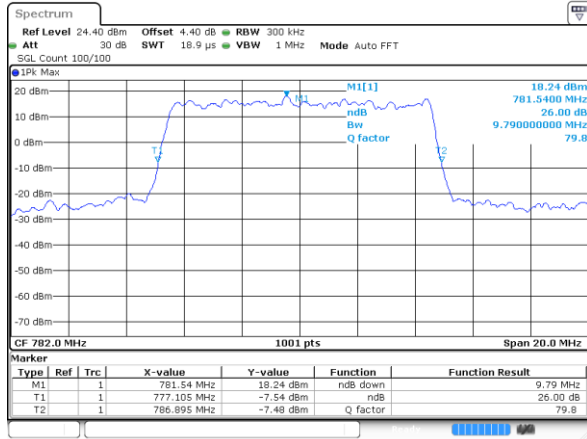
Highest Channel / 5MHz / 16QAM





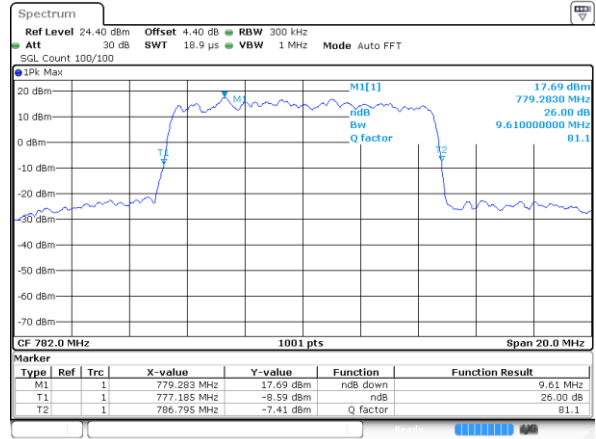
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 21 FEB 2020 23:09:12

Middle Channel / 10MHz / 16QAM



Date: 21 FEB 2020 23:09:03