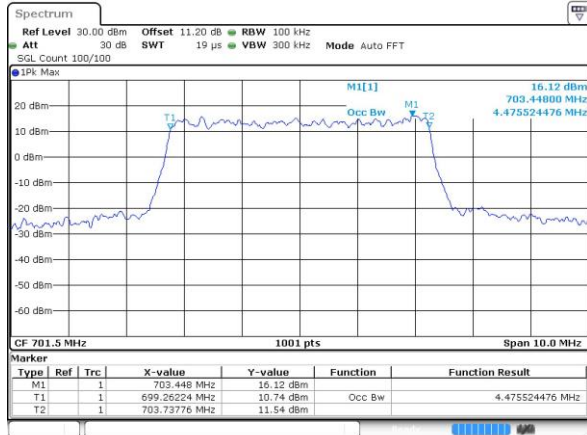


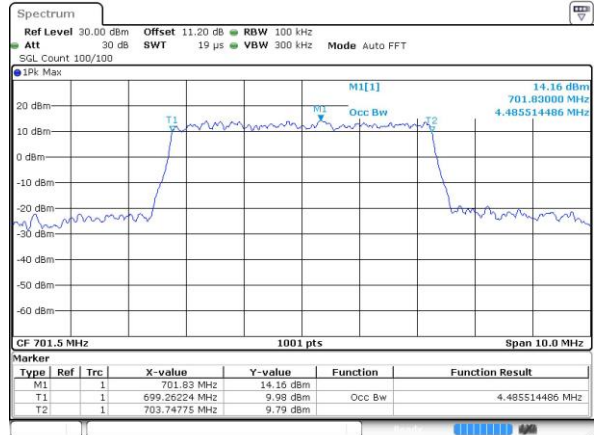


LTE Band 12

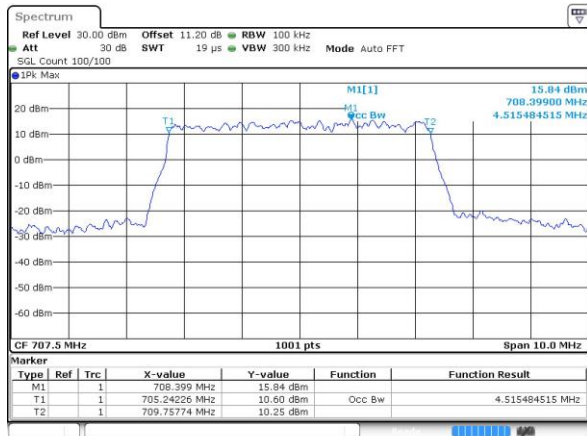
Lowest Channel / 5MHz / QPSK



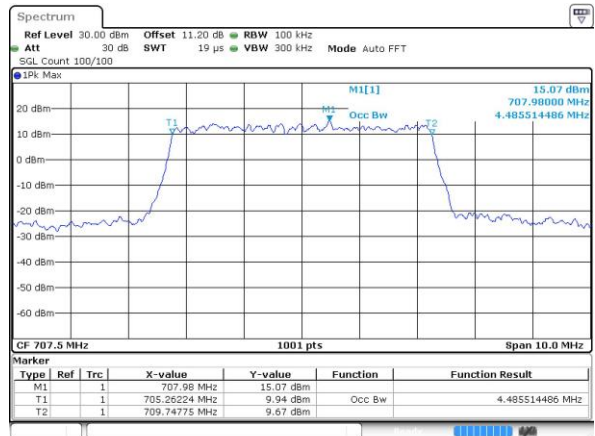
Lowest Channel / 5MHz / 16QAM



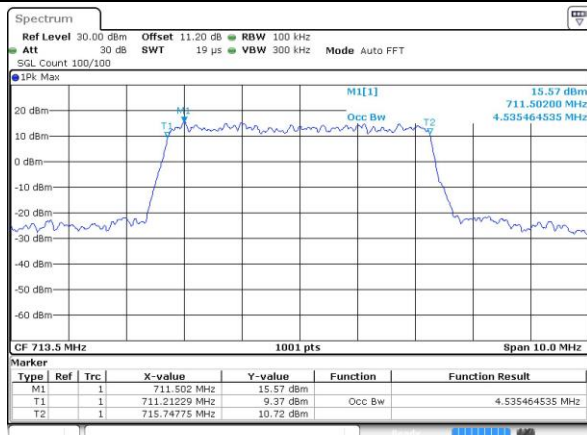
Middle Channel / 5MHz / QPSK



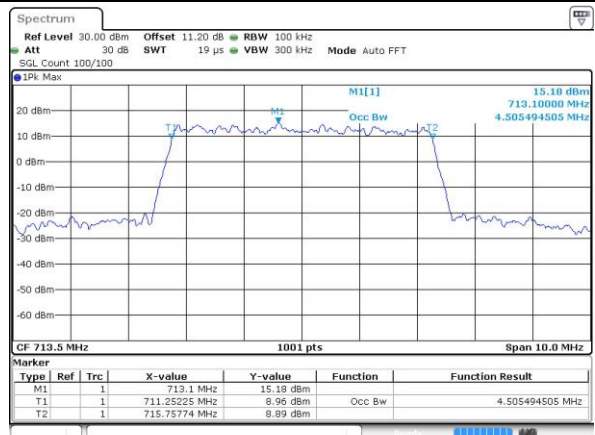
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



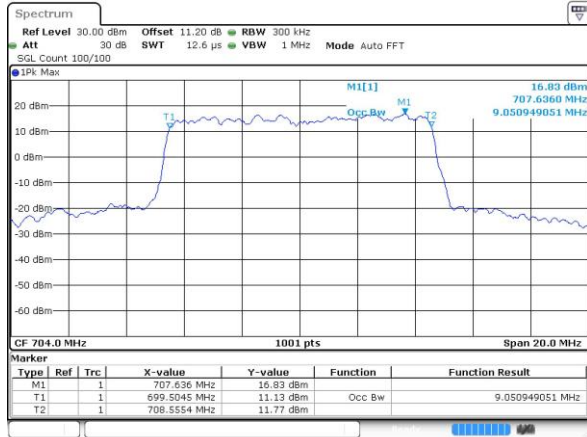
Highest Channel / 5MHz / 16QAM



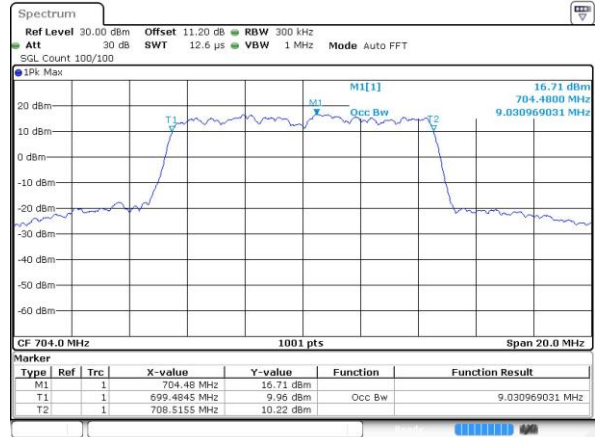


LTE Band 12

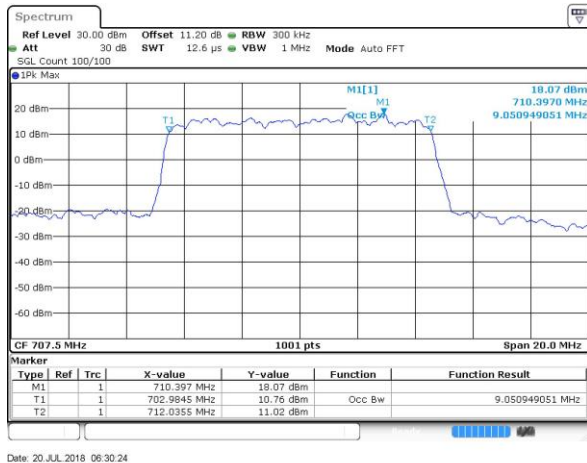
Lowest Channel / 10MHz / QPSK



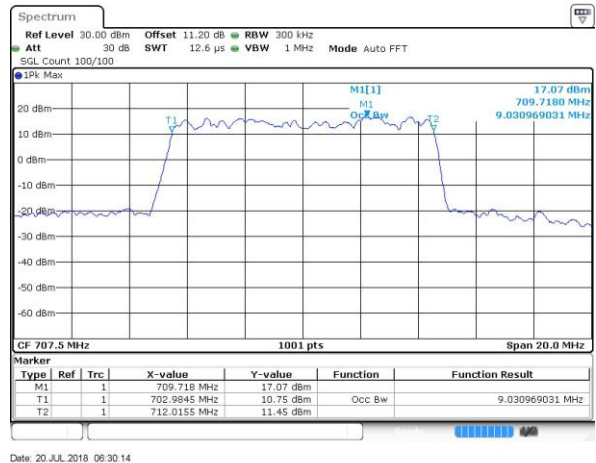
Lowest Channel / 10MHz / 16QAM



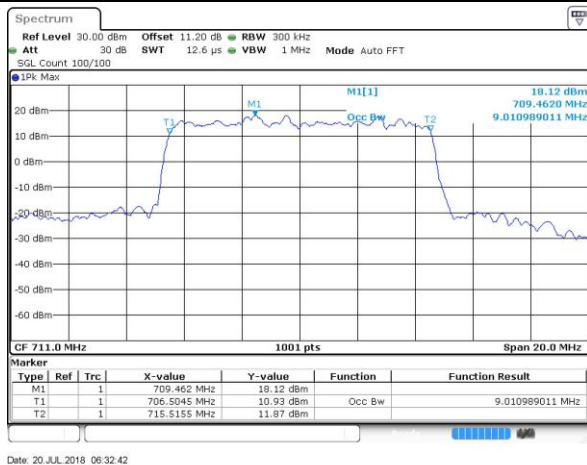
Middle Channel / 10MHz / QPSK



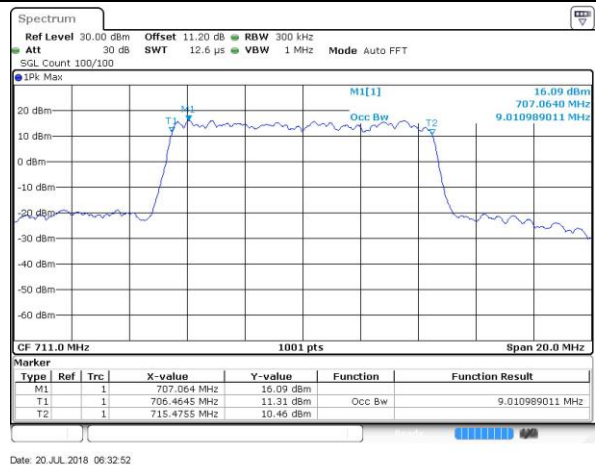
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



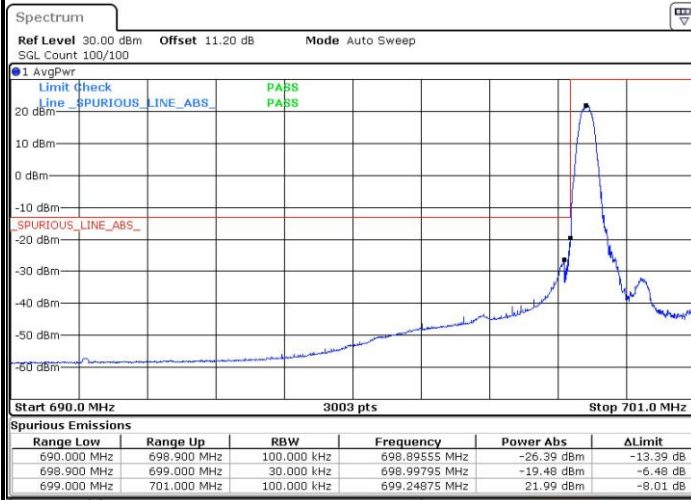


Conducted Band Edge



LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



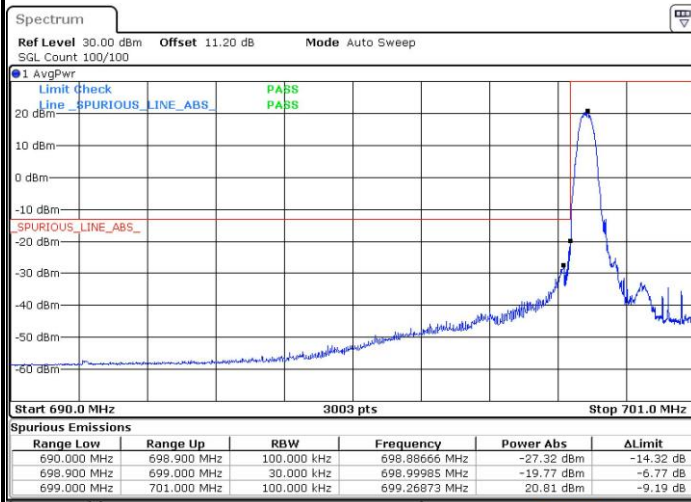
Highest Band Edge / Full RB



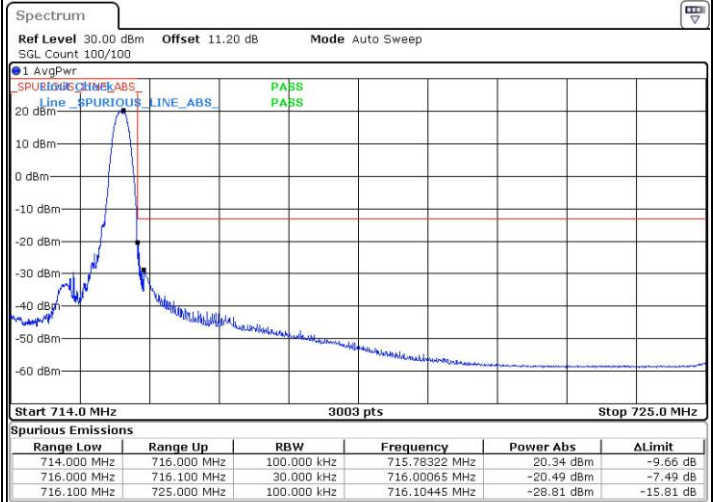


LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



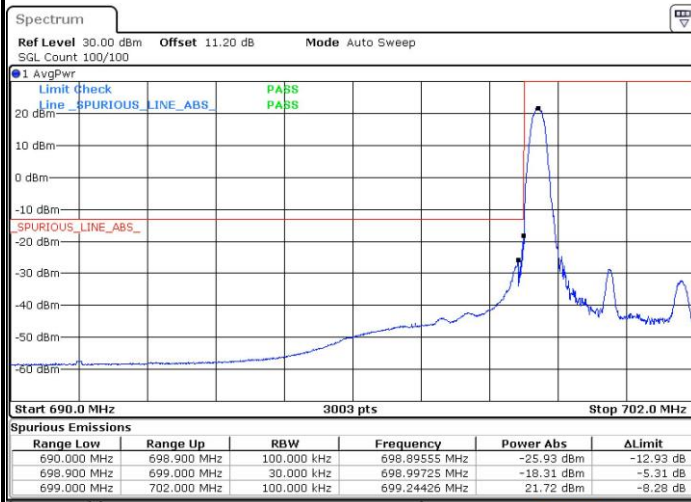
Highest Band Edge / Full RB



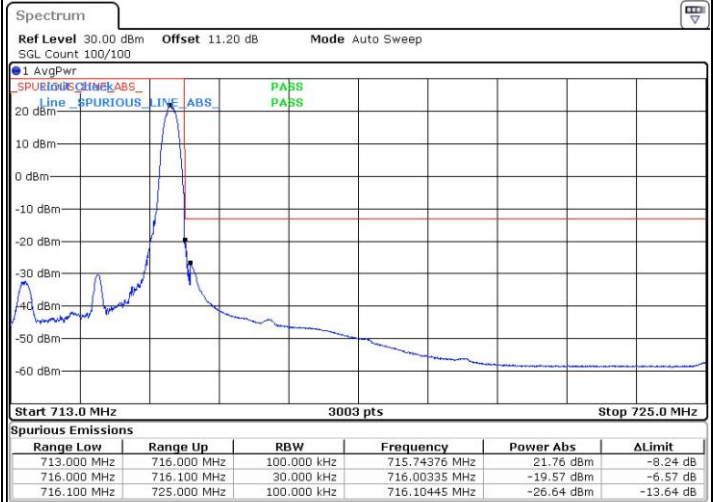


LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



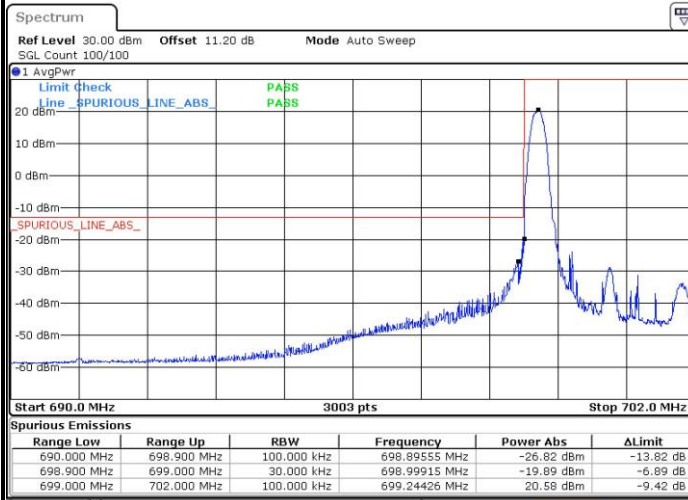
Highest Band Edge / Full RB



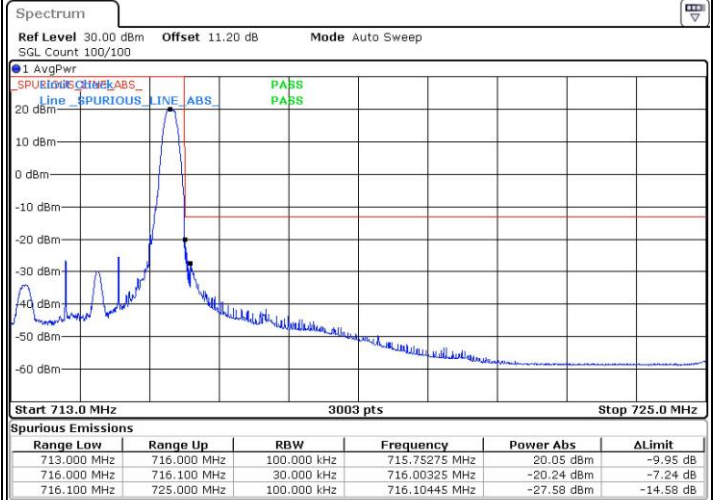


LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



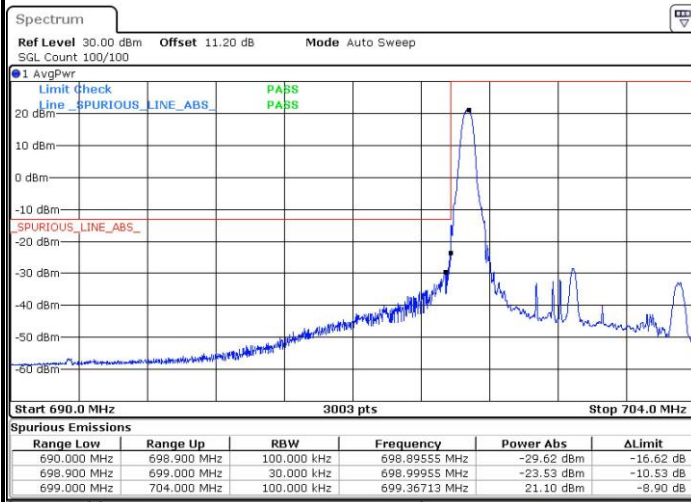
Highest Band Edge / Full RB



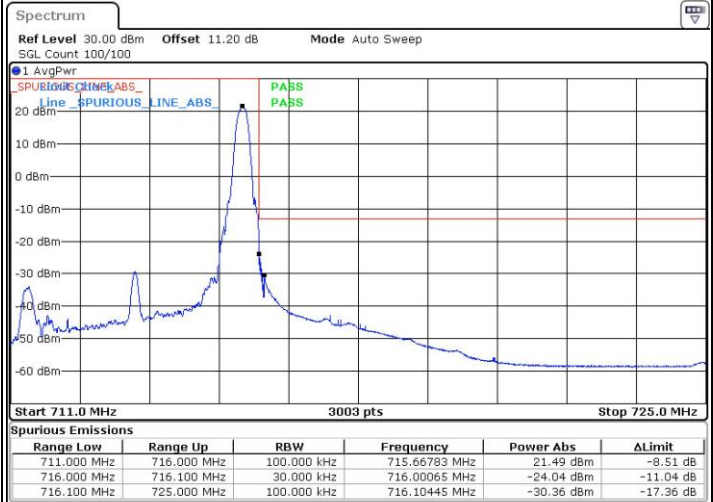


LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



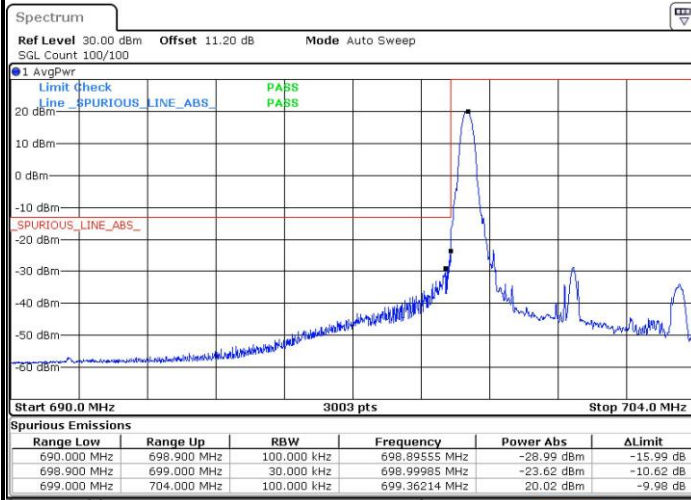
Highest Band Edge / Full RB



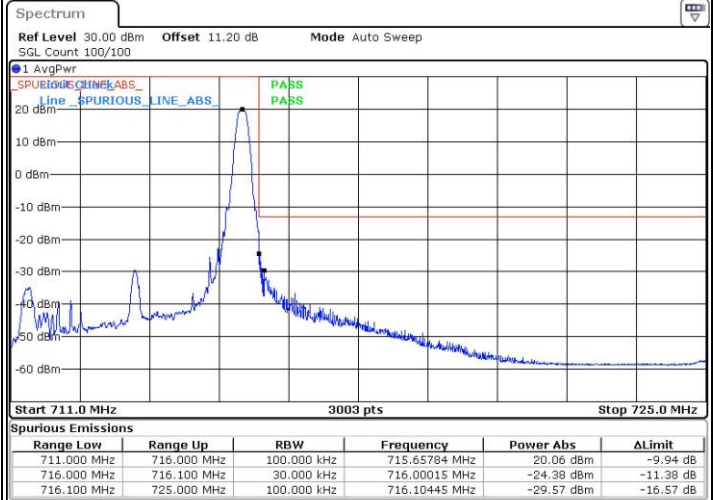


LTE Band 12 / 5MHz / 16QAM

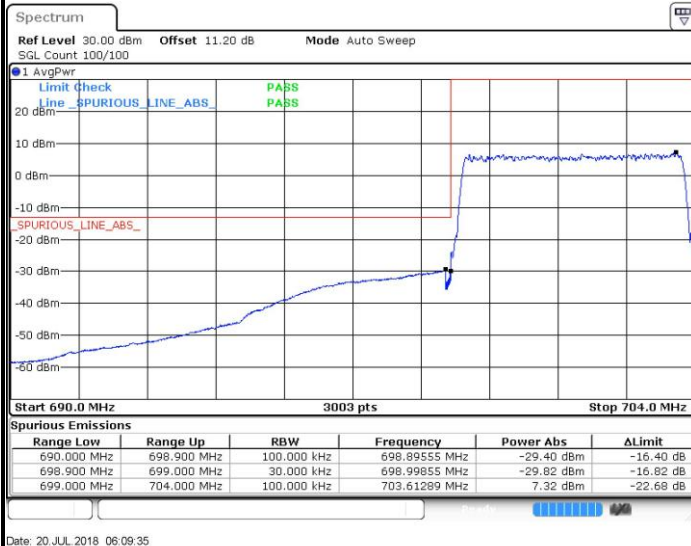
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



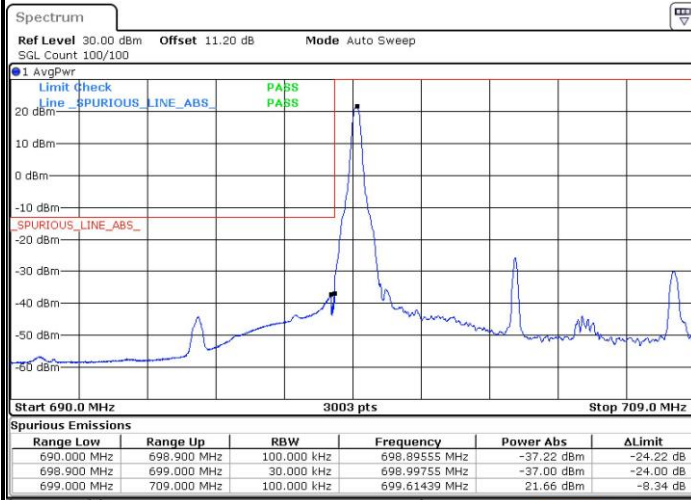
Highest Band Edge / Full RB



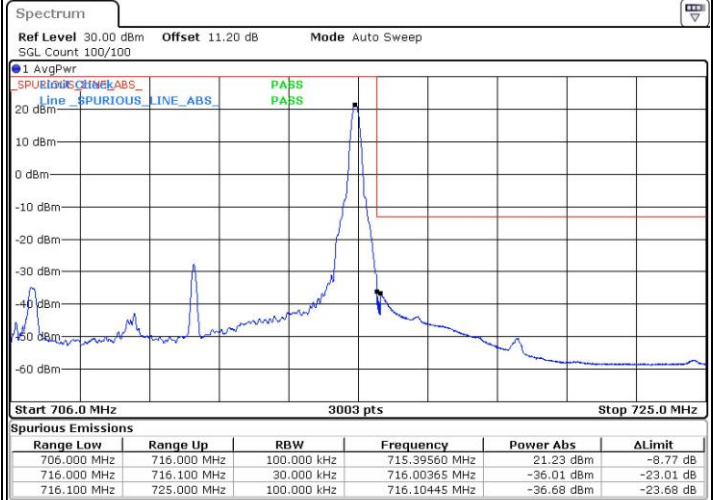


LTE Band 12 / 10MHz / QPSK

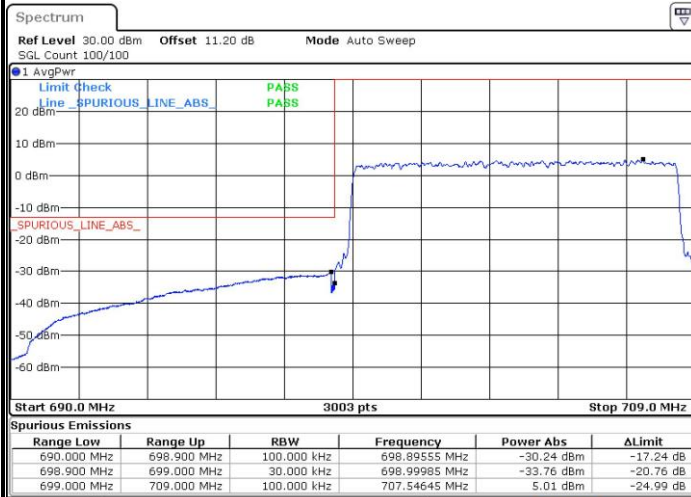
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



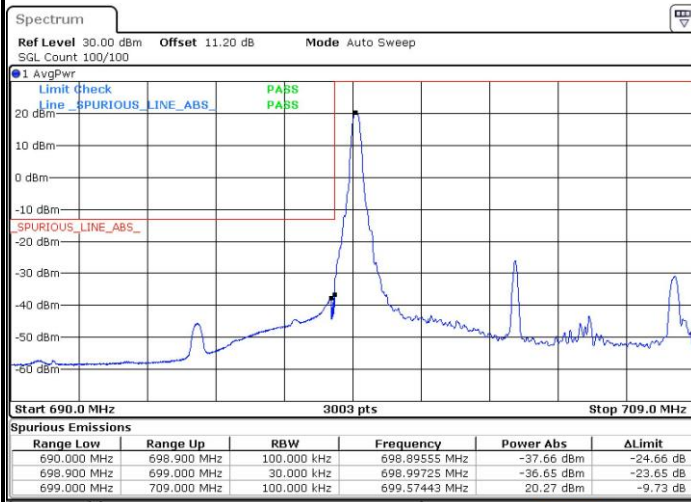
Highest Band Edge / Full RB



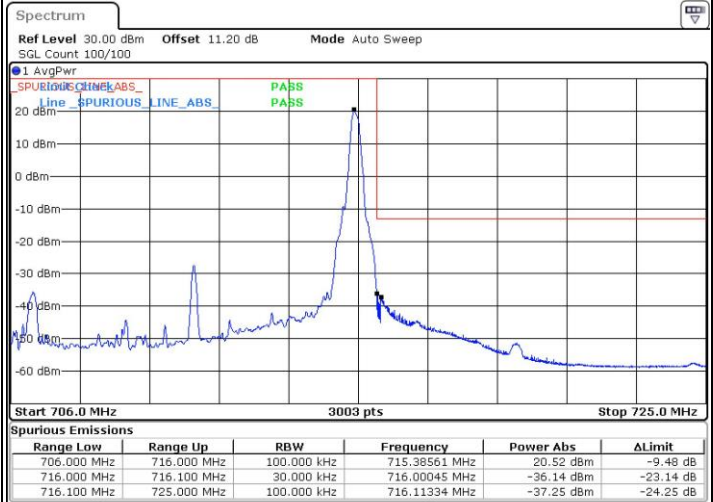


LTE Band 12 / 10MHz / 16QAM

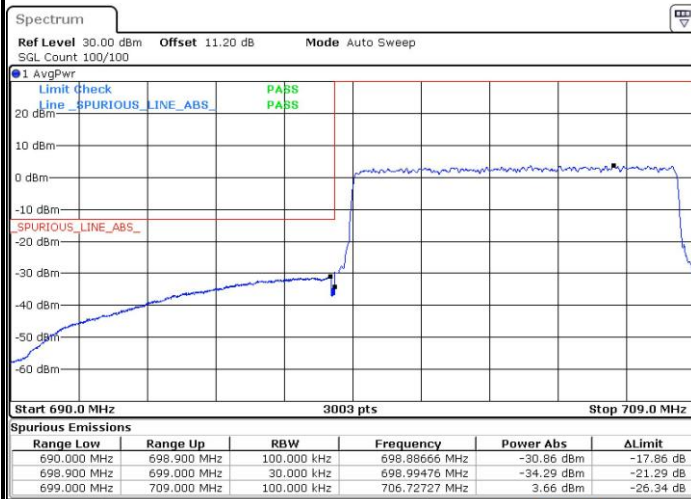
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



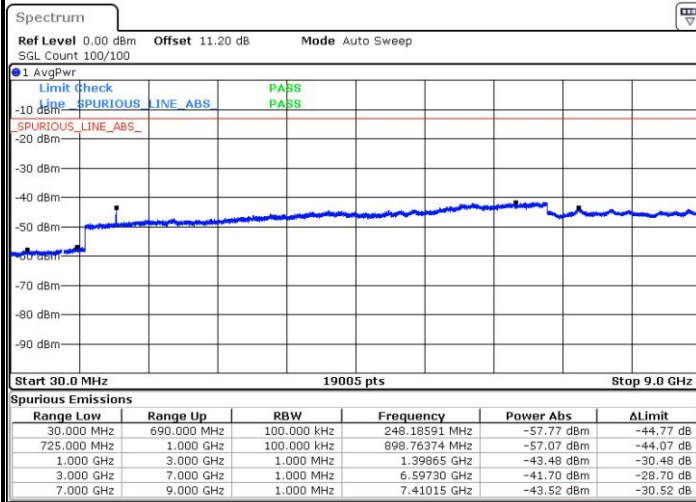


Conducted Spurious Emission



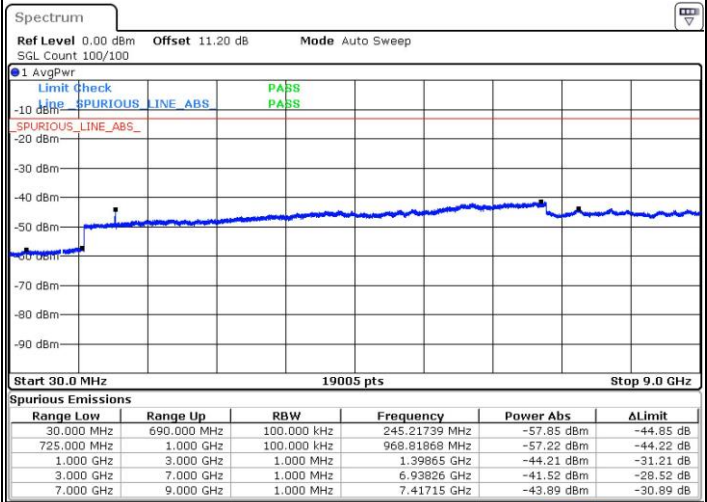
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



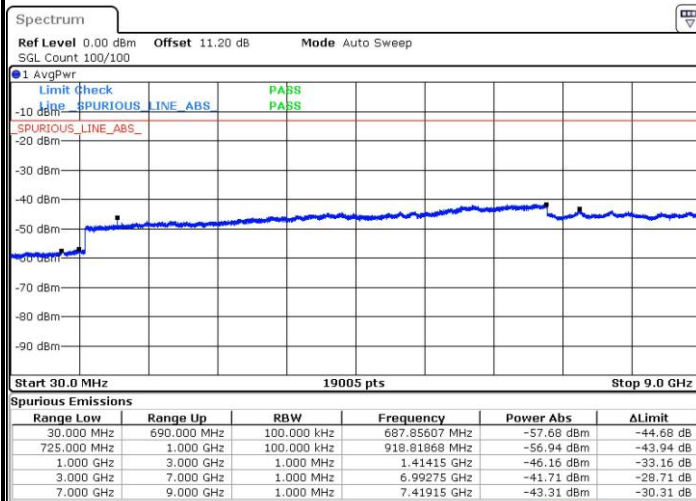
Date: 20 JUL 2018 06:52:39

Lowest Channel / 16QAM



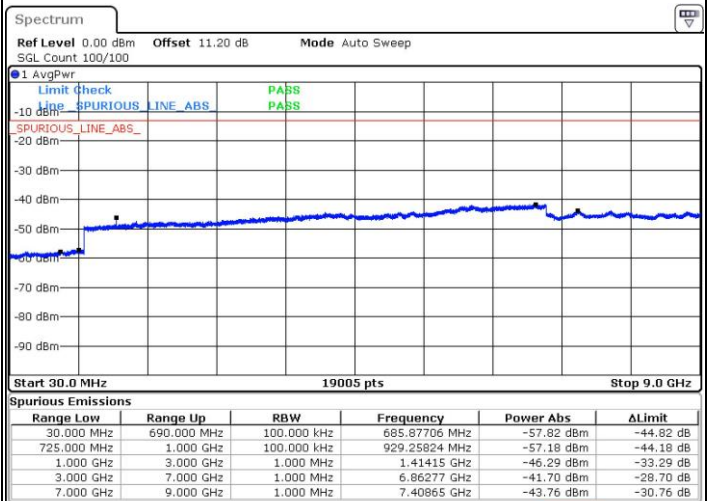
Date: 20 JUL 2018 06:53:33

Middle Channel / QPSK



Date: 20 JUL 2018 06:56:02

Middle Channel / 16QAM

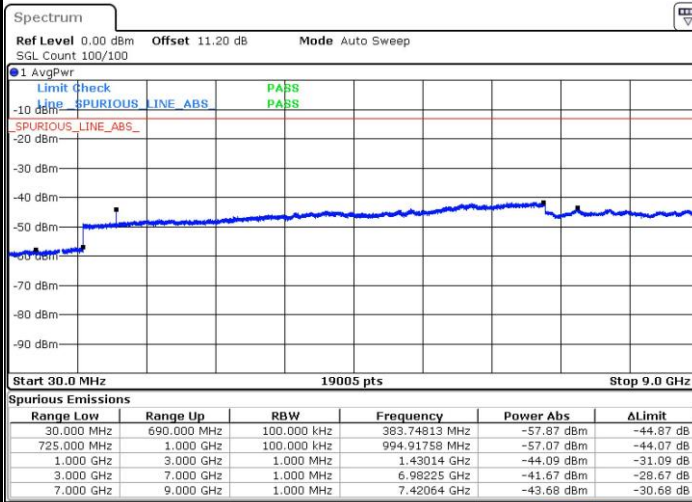


Date: 20 JUL 2018 06:55:08



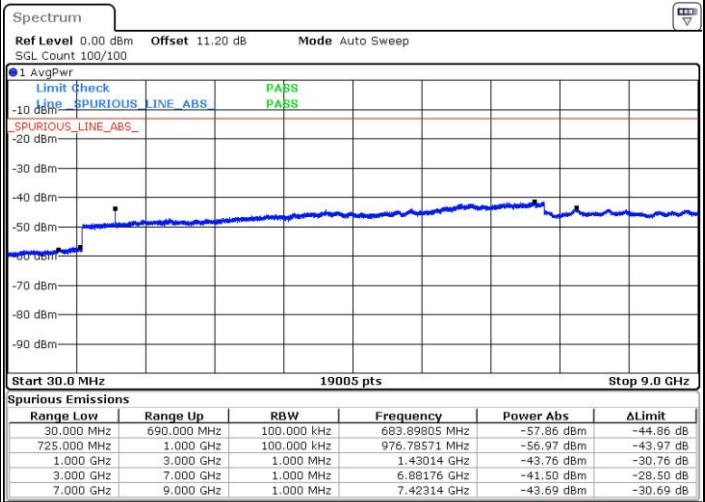
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 20 JUL 2018 07:02:07

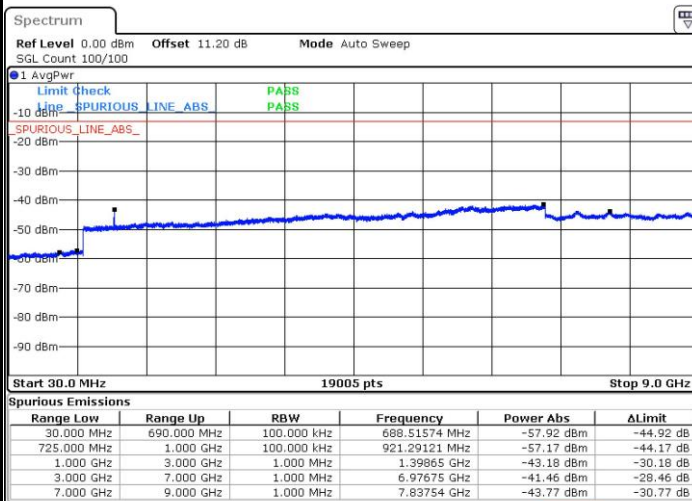
Highest Channel / 16QAM



Date: 20 JUL 2018 07:03:01

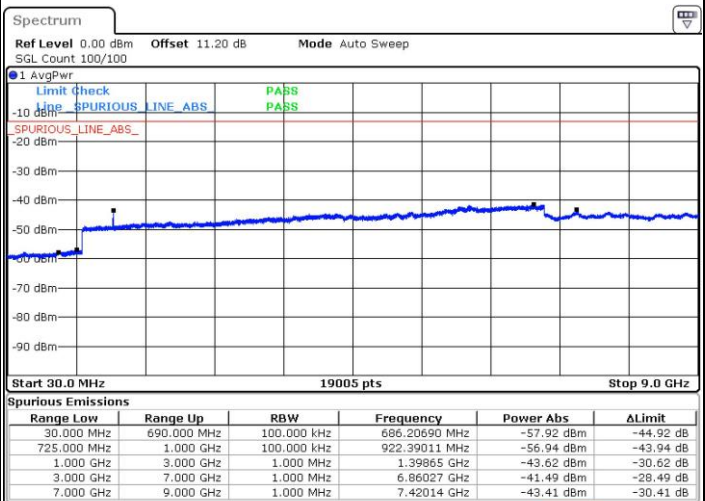
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 20 JUL 2018 05:56:17

Lowest Channel / 16QAM

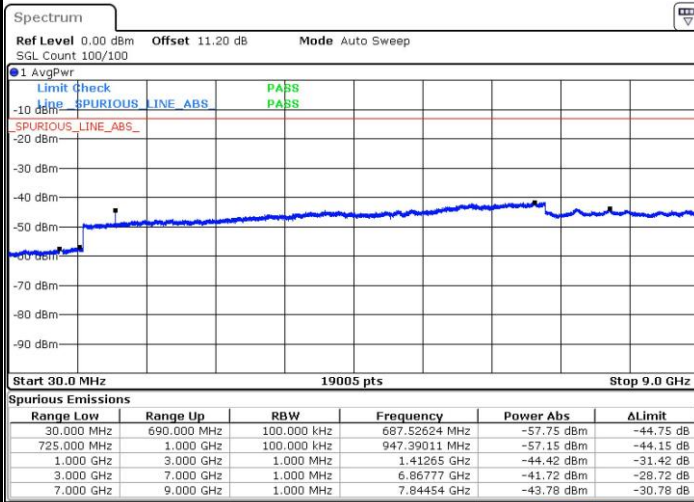


Date: 20 JUL 2018 05:57:11



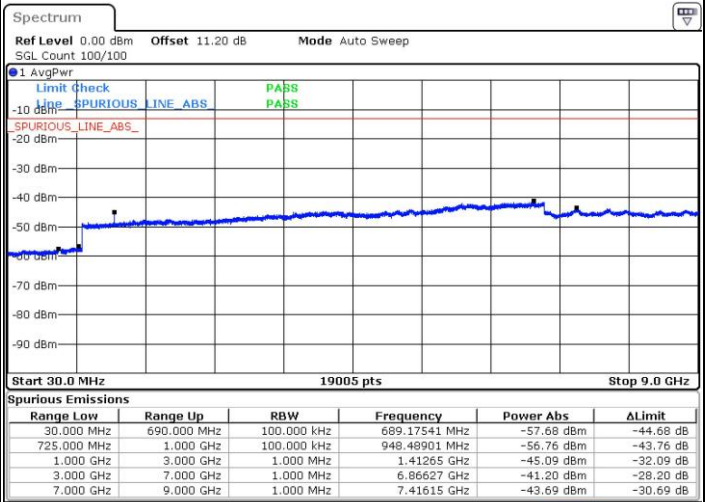
LTE Band 12 / 3MHz

Middle Channel / QPSK



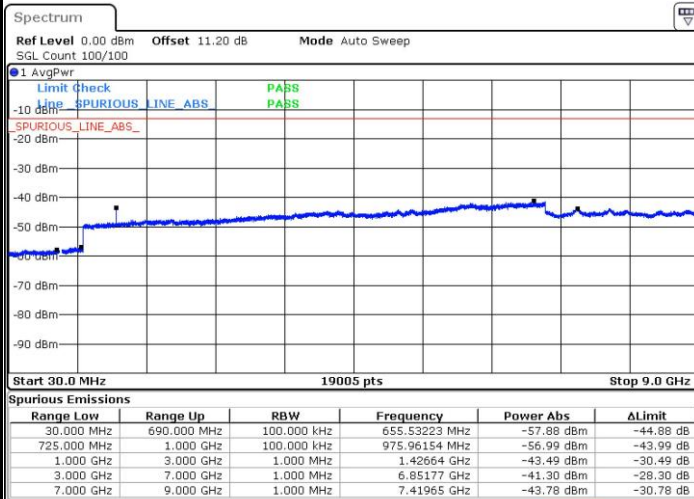
Date: 20 JUL 2018 05:59:40

Middle Channel / 16QAM



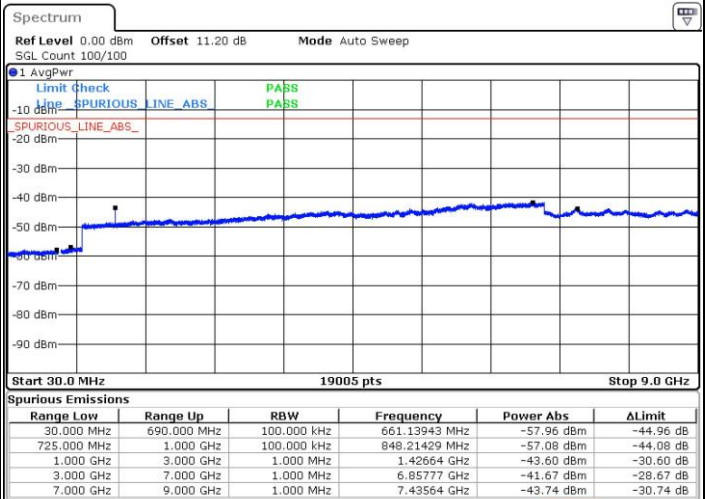
Date: 20 JUL 2018 05:58:46

Highest Channel / QPSK



Date: 20 JUL 2018 06:05:44

Highest Channel / 16QAM

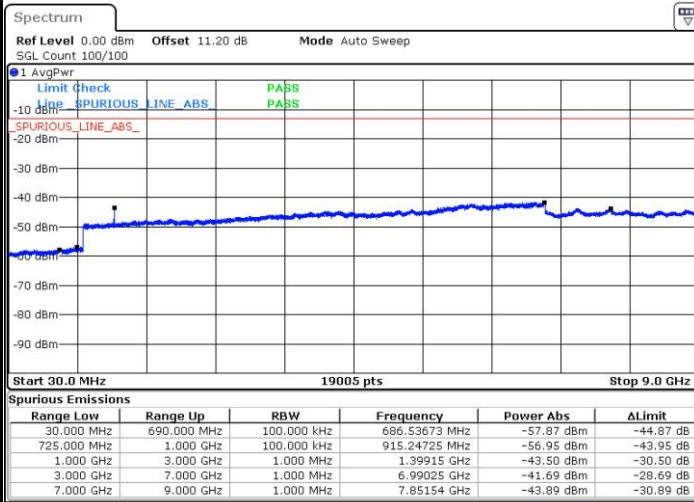


Date: 20 JUL 2018 06:06:38



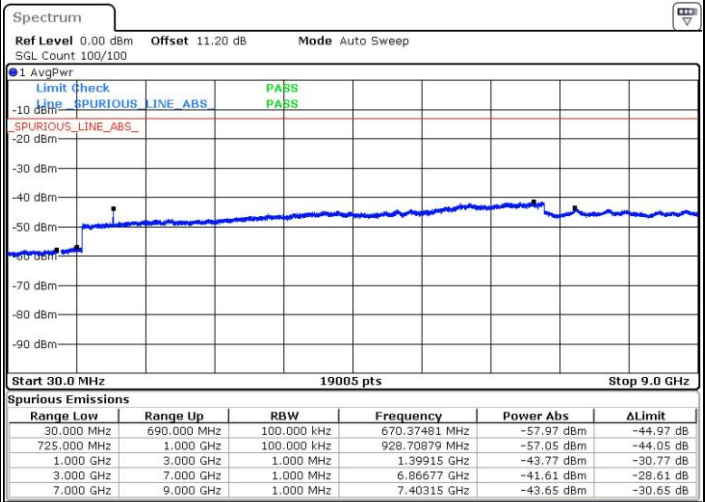
LTE Band 12 / 5MHz

Lowest Channel / QPSK



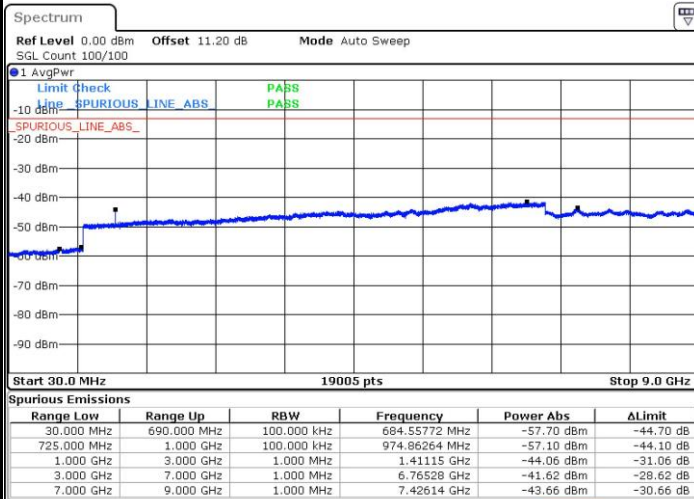
Date: 20 JUL 2018 06:12:43

Lowest Channel / 16QAM



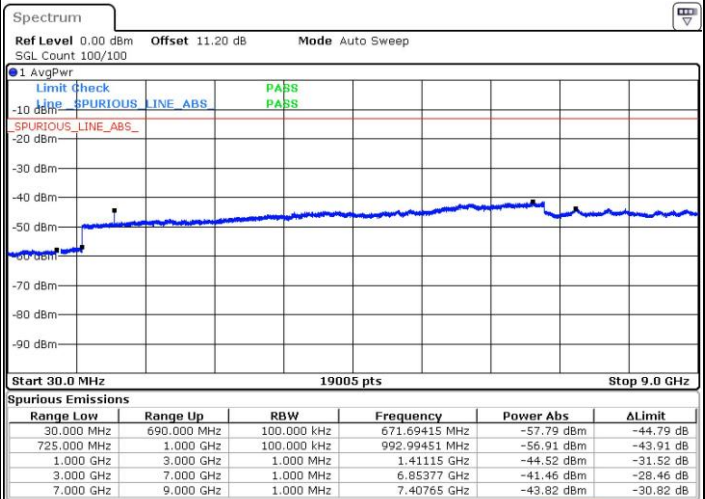
Date: 20 JUL 2018 06:13:37

Middle Channel / QPSK



Date: 20 JUL 2018 06:16:06

Middle Channel / 16QAM

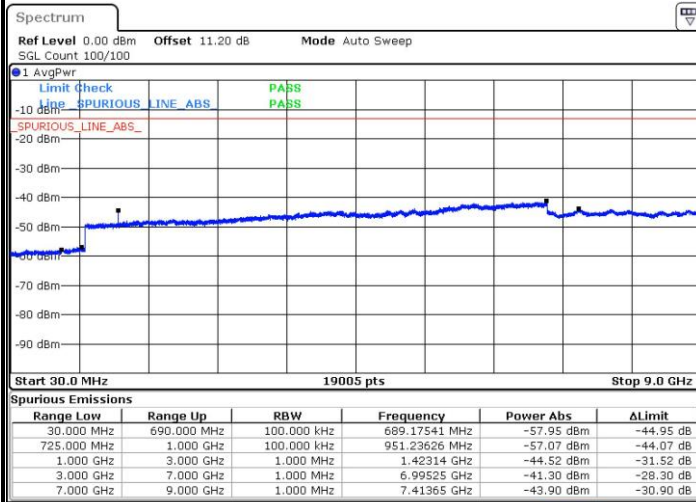


Date: 20 JUL 2018 06:15:12



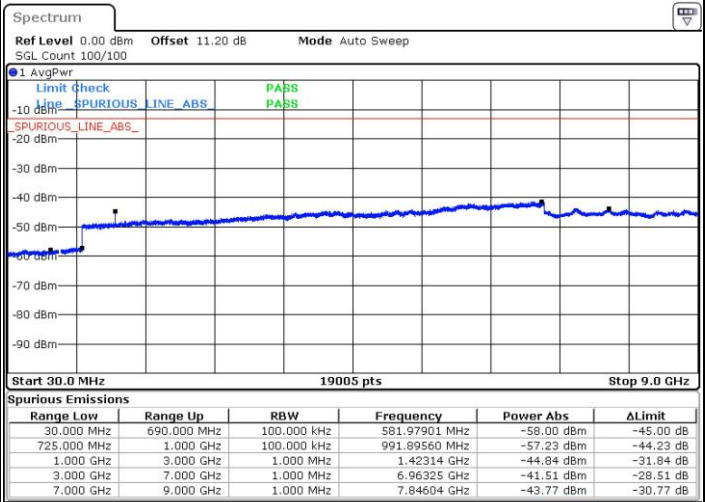
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 20 JUL 2018 06:23:04

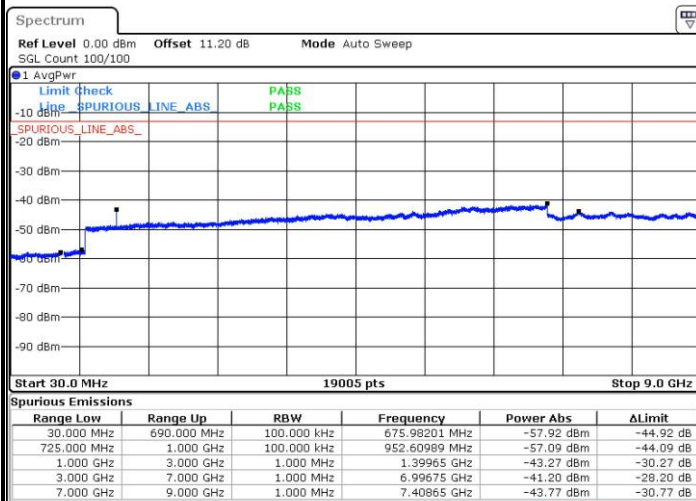
Highest Channel / 16QAM



Date: 20 JUL 2018 06:22:10

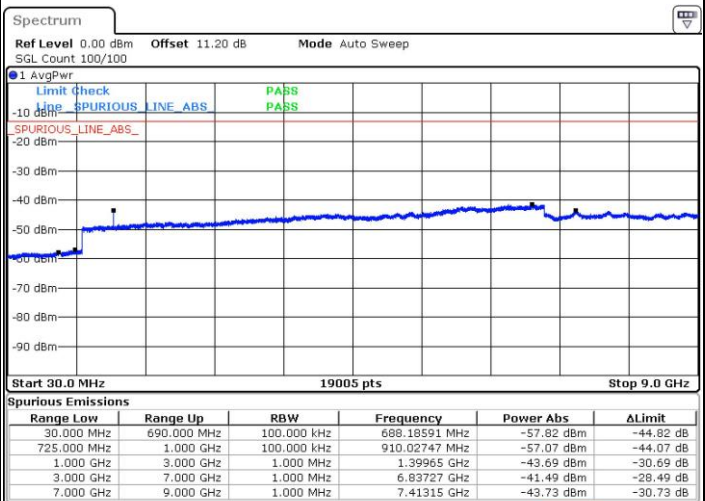
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 20 JUL 2018 06:29:09

Lowest Channel / 16QAM

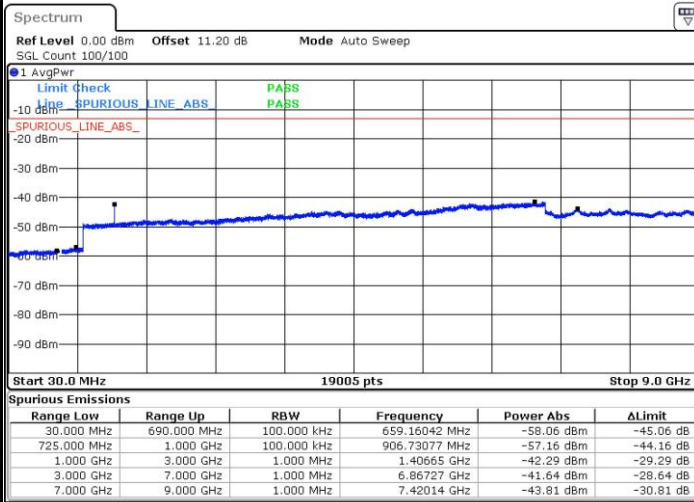


Date: 20 JUL 2018 06:30:03



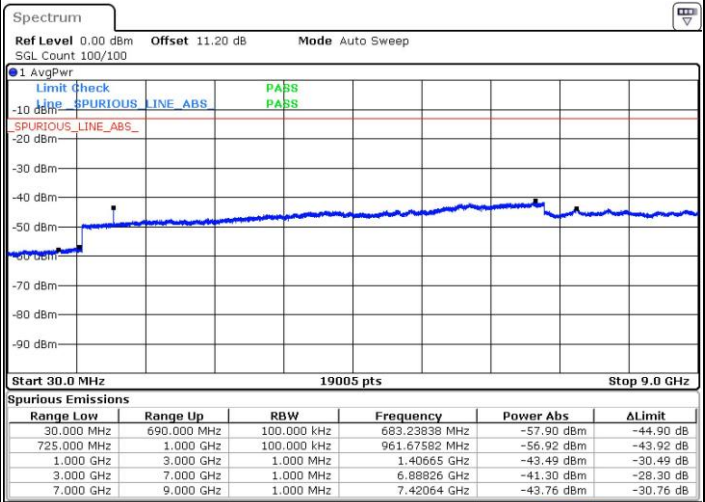
LTE Band 12 / 10MHz

Middle Channel / QPSK



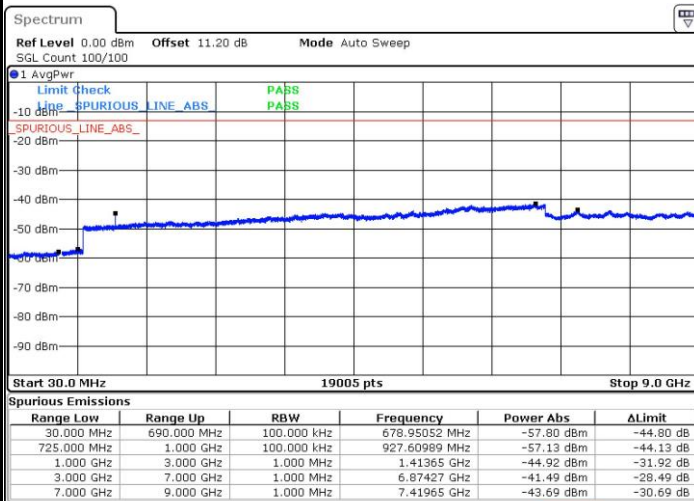
Date: 20 JUL 2018 06:32:32

Middle Channel / 16QAM



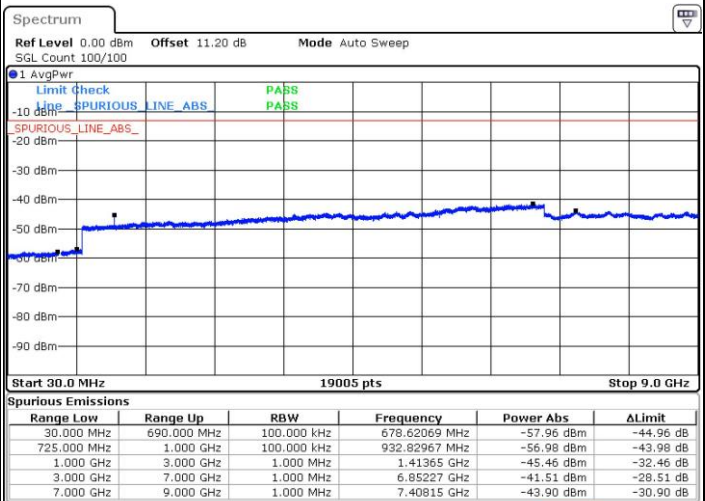
Date: 20 JUL 2018 06:31:38

Highest Channel / QPSK



Date: 20 JUL 2018 06:38:36

Highest Channel / 16QAM



Date: 20 JUL 2018 06:39:30

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	0.0034	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0112	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0141	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0055	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Within Band
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	2.4	PASS
40	Normal Voltage	-1	
30	Normal Voltage	-3.3	
20(Ref.)	Normal Voltage	0	
10	Normal Voltage	-7.9	
0	Normal Voltage	1.4	
-10	Normal Voltage	-10	
-20	Normal Voltage	-0.5	
-30	Normal Voltage	3.7	
20	Maximum Voltage	-0.7	
20	Normal Voltage	0	
20	Battery End Point	-3.9	

 $|\text{MAX}(\Delta f)| = 3.7\text{Hz}$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	699.038690	$\geq 699 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	715.955610	$\leq 716 \text{ MHz}$	

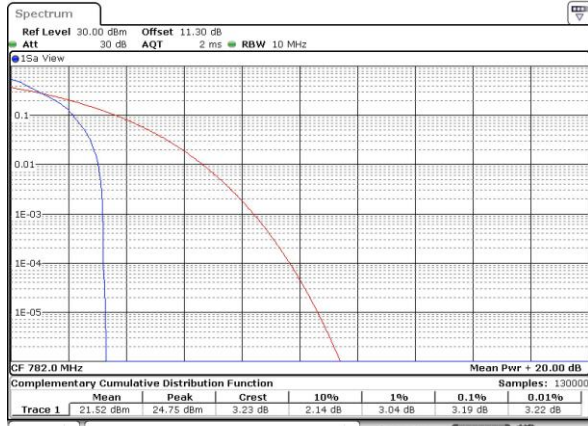
**LTE Band 13****Peak-to-Average Ratio**

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.19	4.81	4.14	5.86	
Highest CH	-	-	-	-	

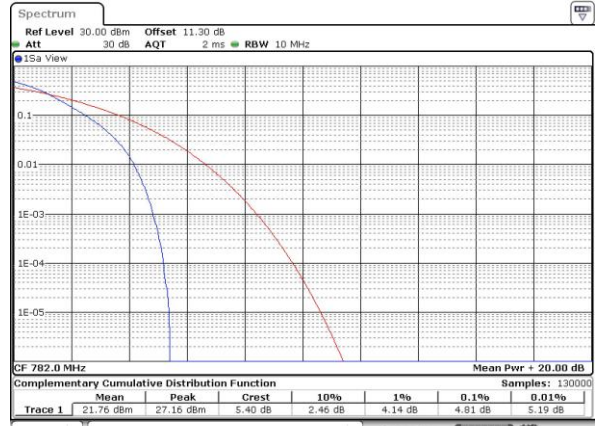


LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Middle Channel / Full RB



LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB



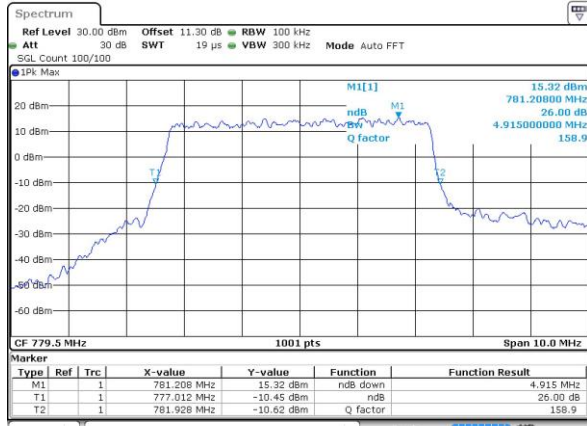
**26dB Bandwidth**

Mode	LTE Band 13 : 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	-	-	-	-	4.92	4.98	-	-	-	-	-	-
Middle CH	-	-	-	-	4.97	4.84	9.81	9.67	-	-	-	-
Highest CH	-	-	-	-	4.97	4.85	-	-	-	-	-	-



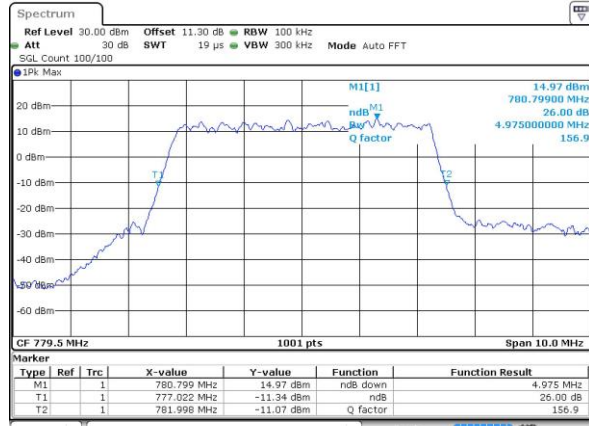
LTE Band 13

Lowest Channel / 5MHz / QPSK



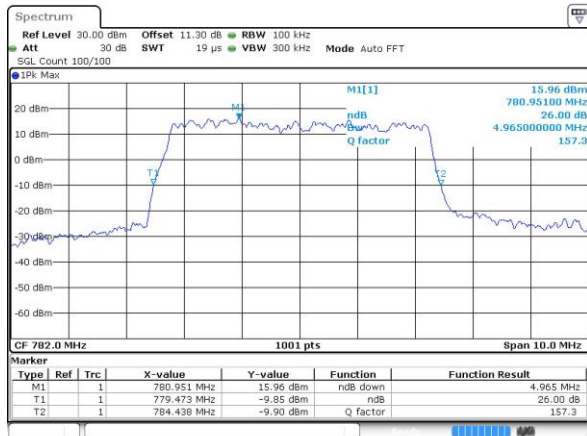
Date: 20 JUL 2018 07:23:08

Lowest Channel / 5MHz / 16QAM



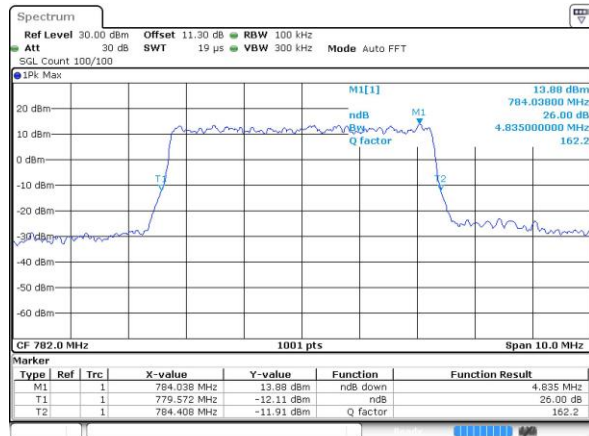
Date: 20 JUL 2018 07:22:58

Middle Channel / 5MHz / QPSK



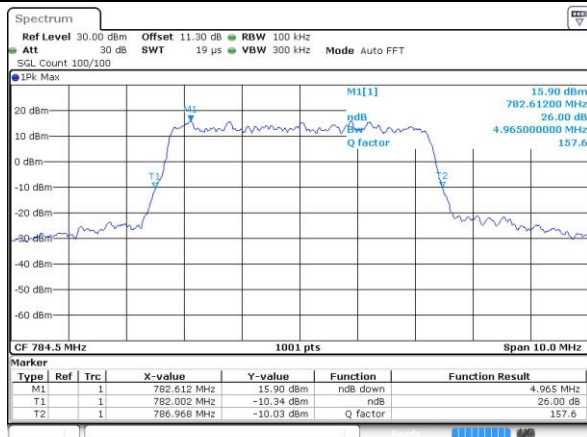
Date: 20 JUL 2018 07:33:24

Middle Channel / 5MHz / 16QAM



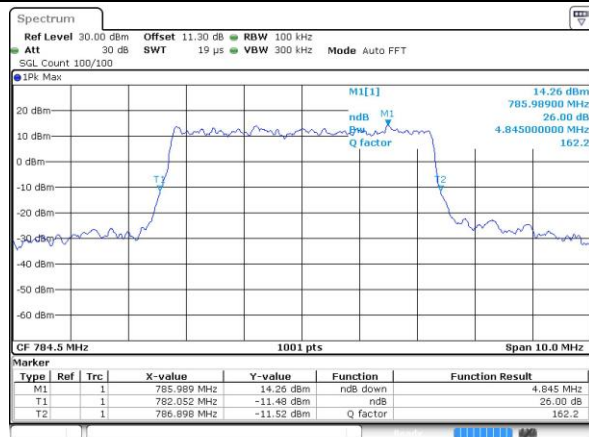
Date: 20 JUL 2018 07:33:34

Highest Channel / 5MHz / QPSK



Date: 20 JUL 2018 07:34:35

Highest Channel / 5MHz / 16QAM



Date: 20 JUL 2018 07:34:25