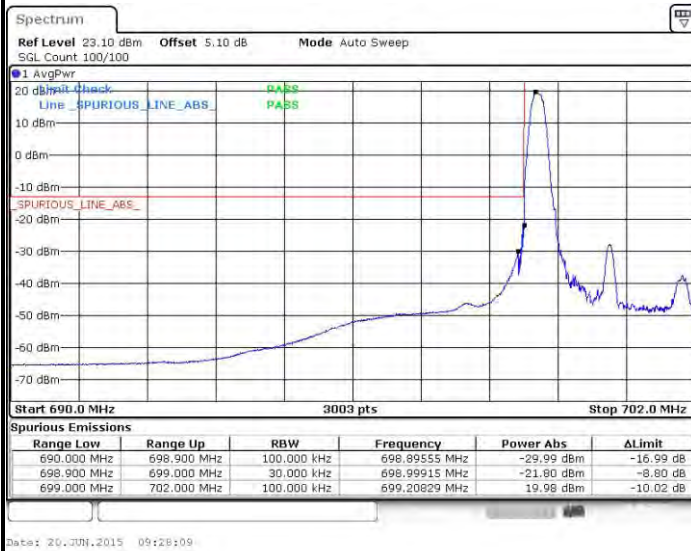


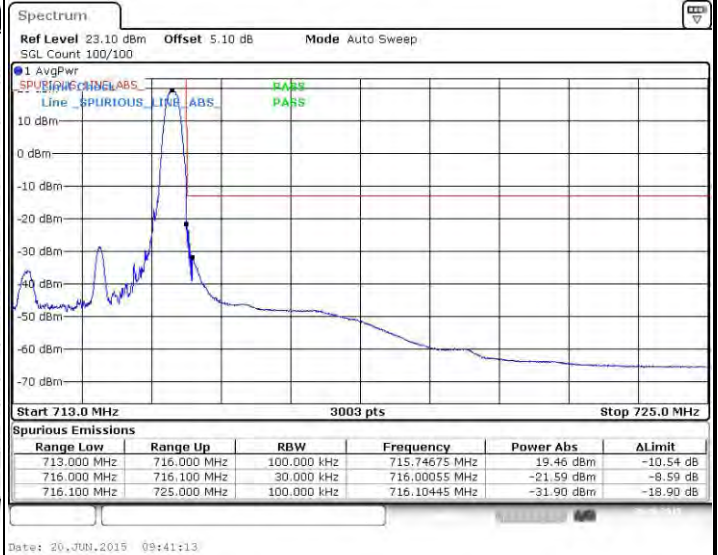


LTE Band 12 / 3MHz / 16QAM

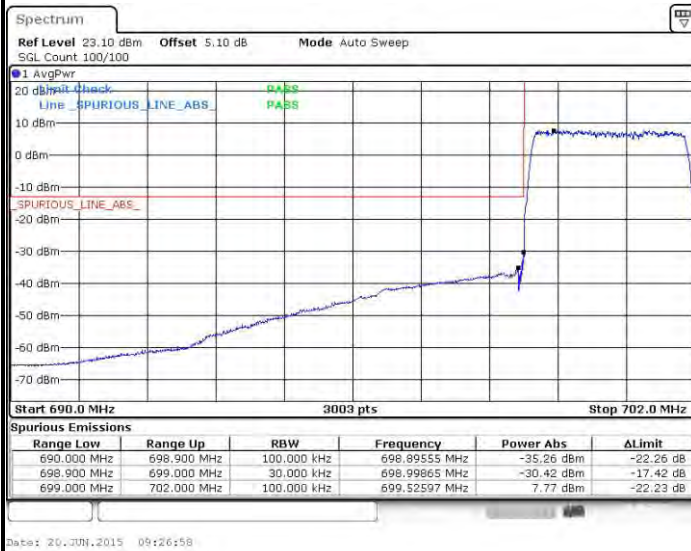
Lowest Band Edge / 1 RB



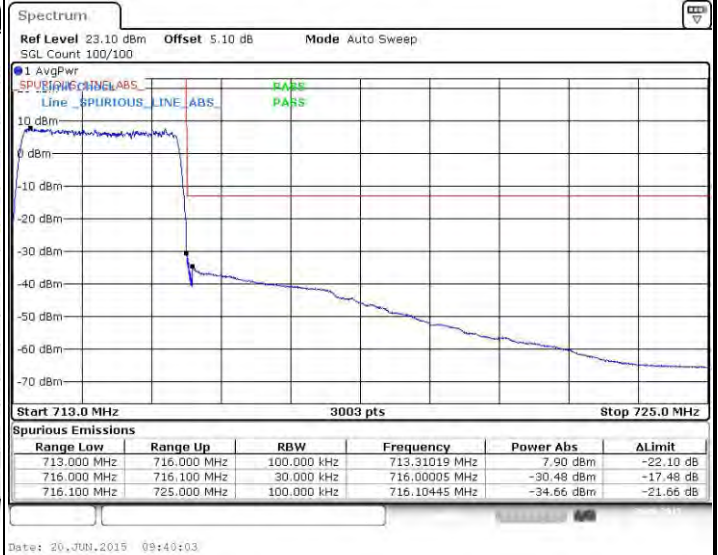
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



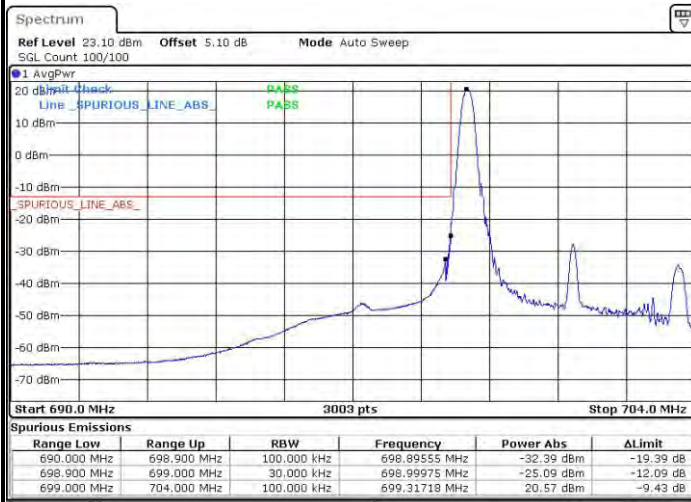
Highest Band Edge / Full RB



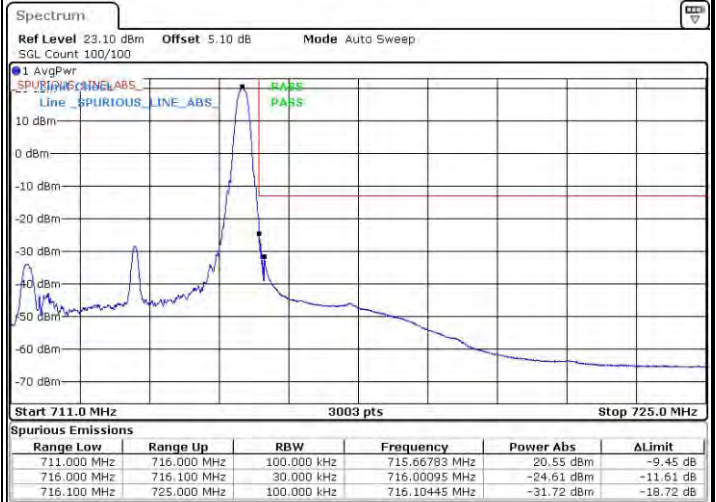


LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



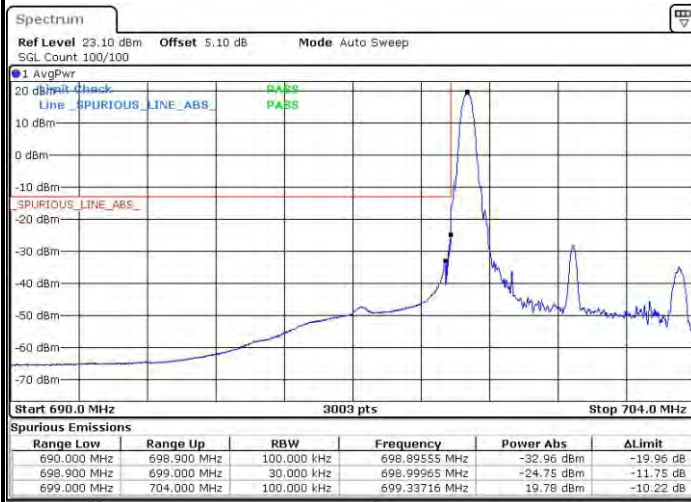
Highest Band Edge / Full RB



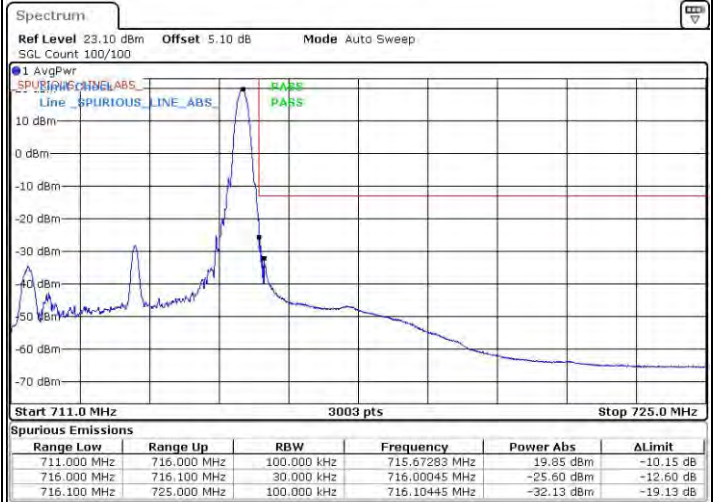


LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



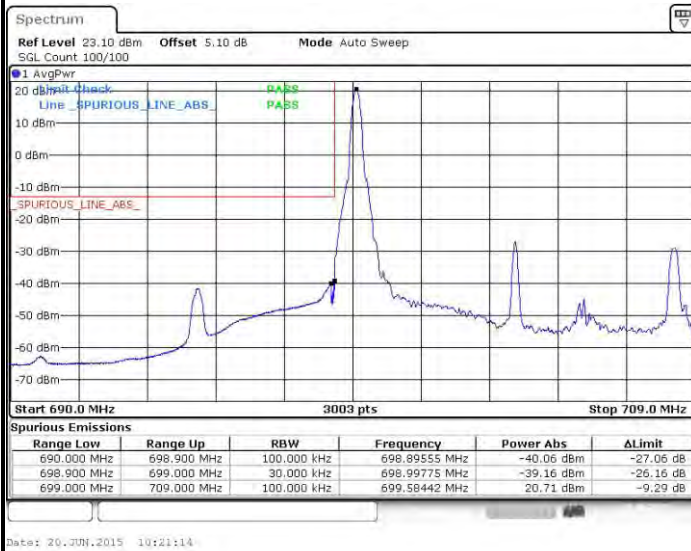
Highest Band Edge / Full RB



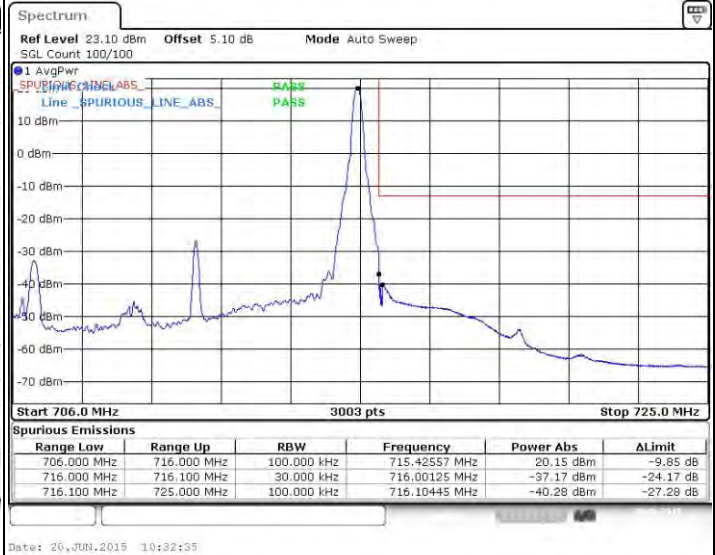


LTE Band 12 / 10MHz / QPSK

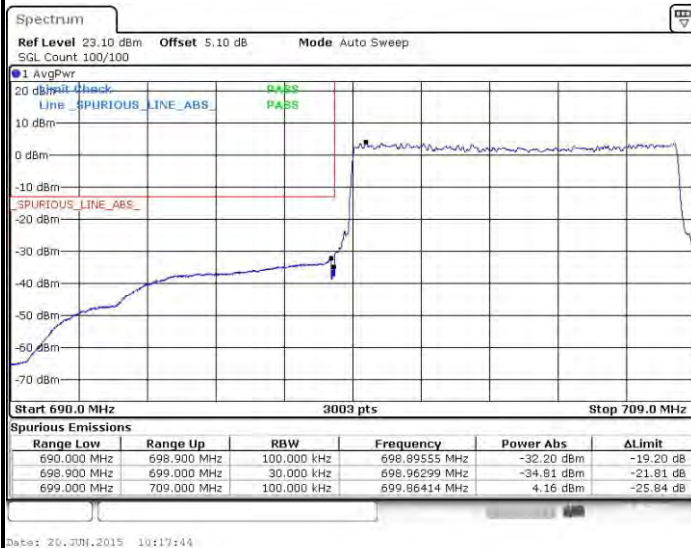
Lowest Band Edge / 1 RB



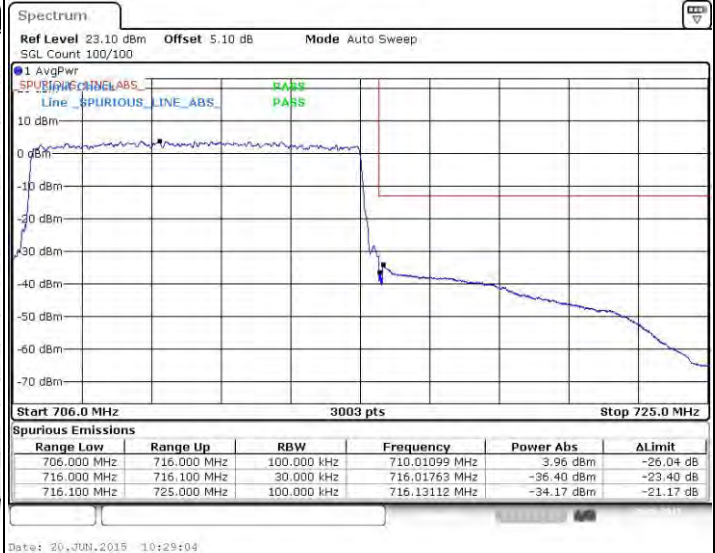
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



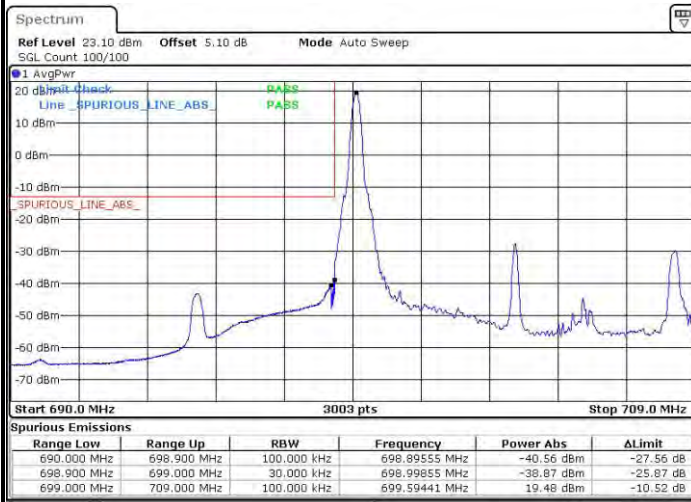
Highest Band Edge / Full RB



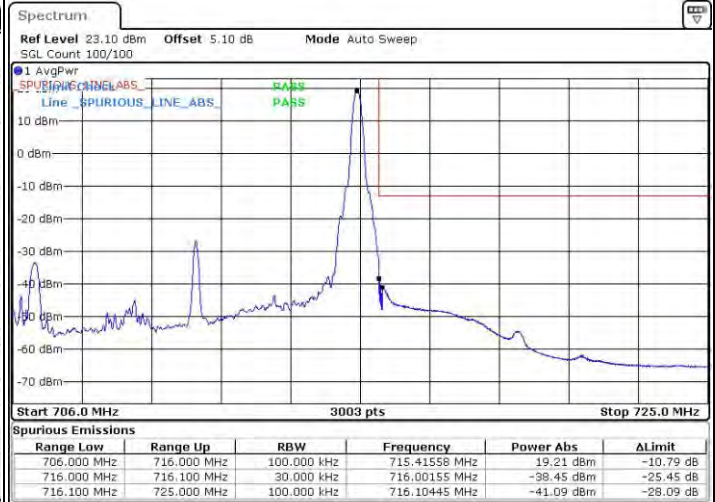


LTE Band 12 / 10MHz / 16QAM

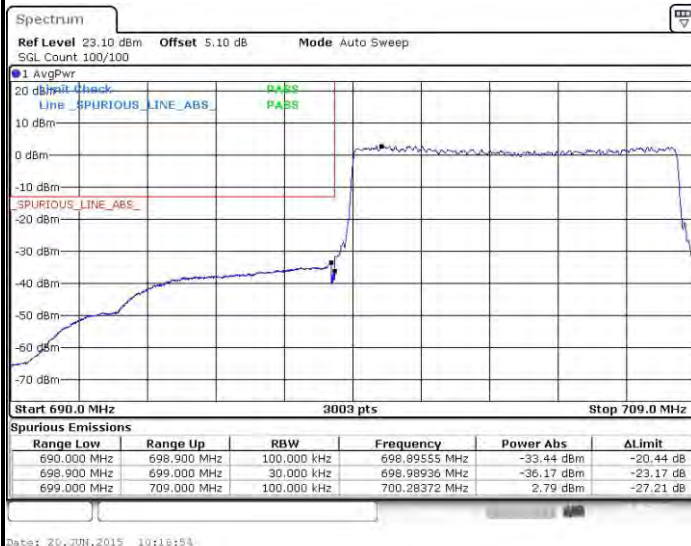
Lowest Band Edge / 1 RB



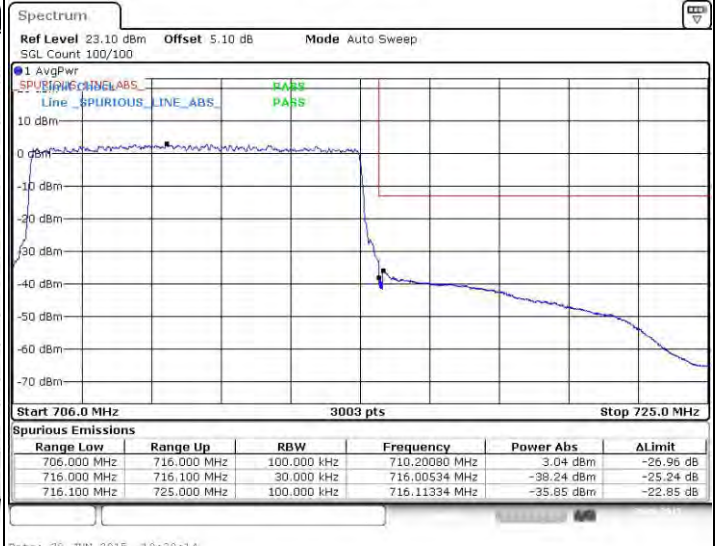
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



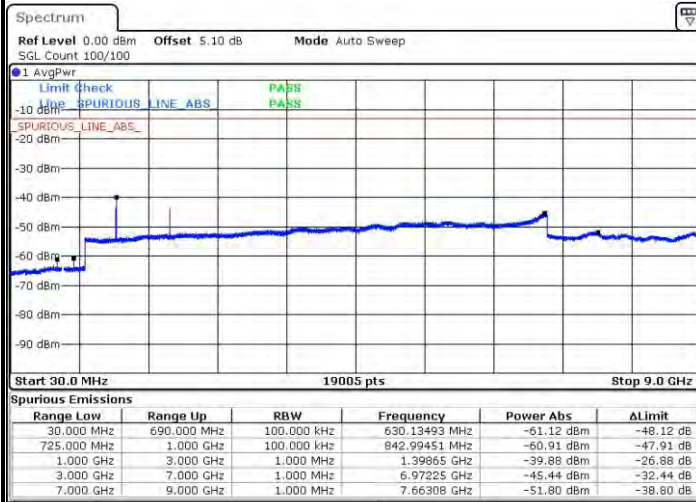


Conducted Spurious Emission



LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



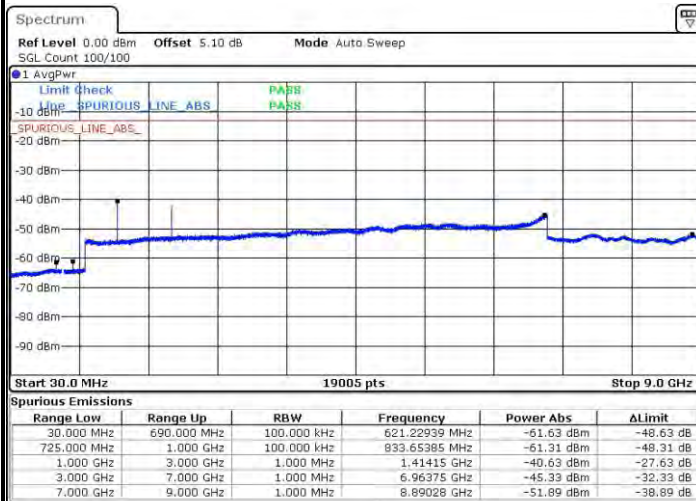
Date: 20.JUN.2015 11:18:17

Lowest Channel / 16QAM



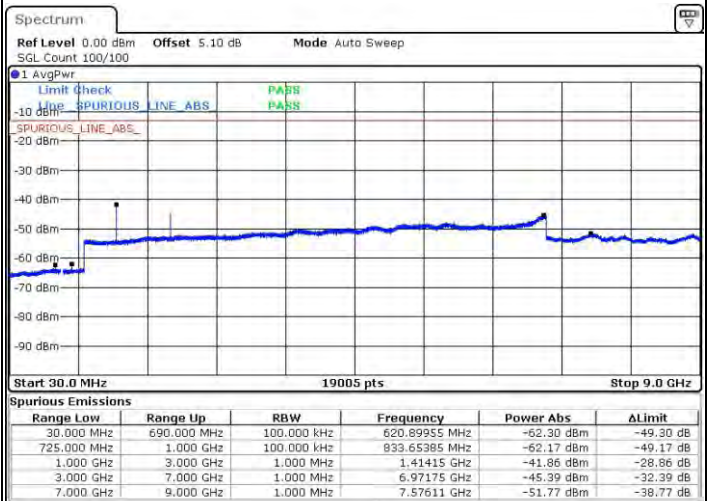
Date: 20.JUN.2015 11:19:32

Middle Channel / QPSK



Date: 20.JUN.2015 11:22:52

Middle Channel / 16QAM

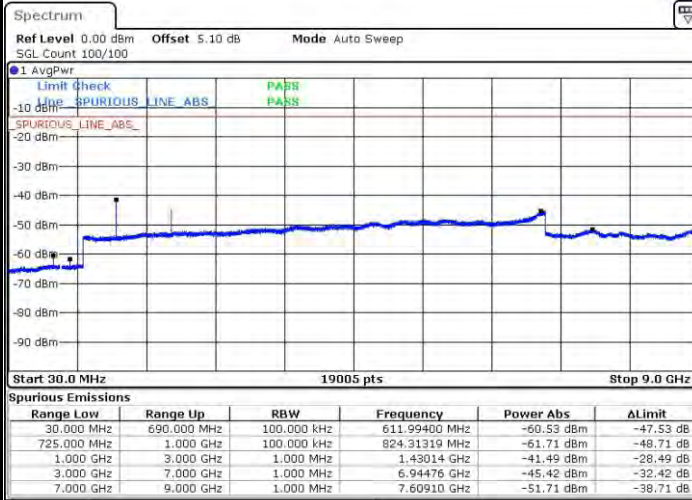


Date: 20.JUN.2015 11:21:38



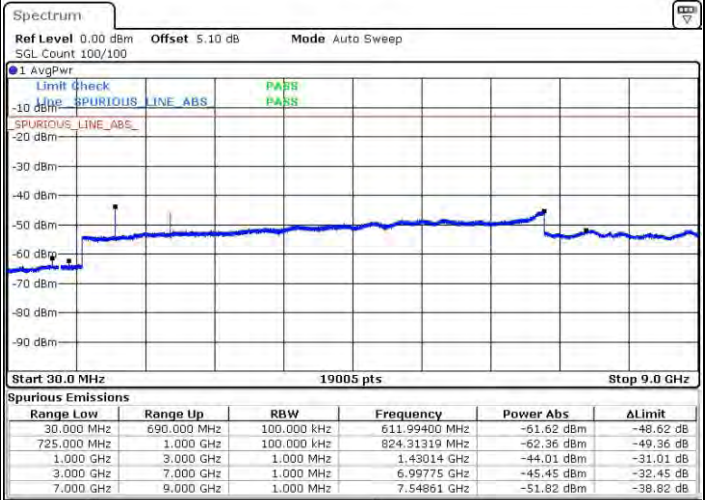
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 20.JUN.2015 11:29:38

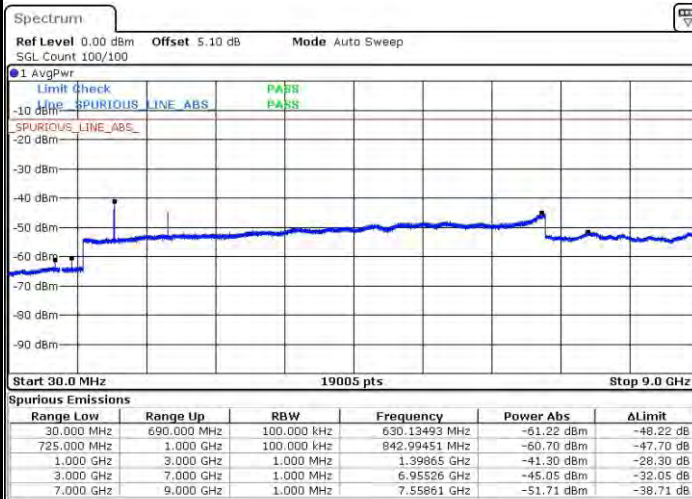
Highest Channel / 16QAM



Date: 20.JUN.2015 11:30:53

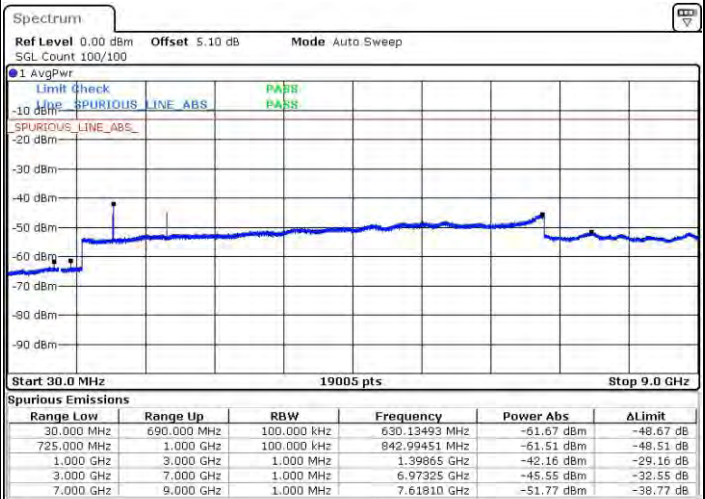
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 20.JUN.2015 09:30:33

Lowest Channel / 16QAM

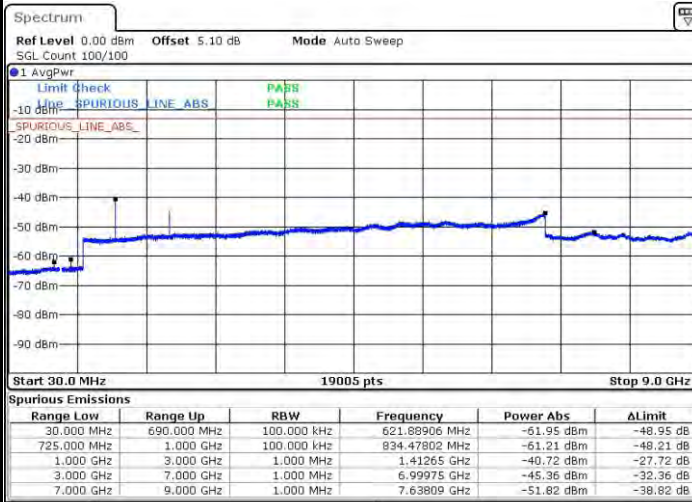


Date: 20.JUN.2015 09:31:47



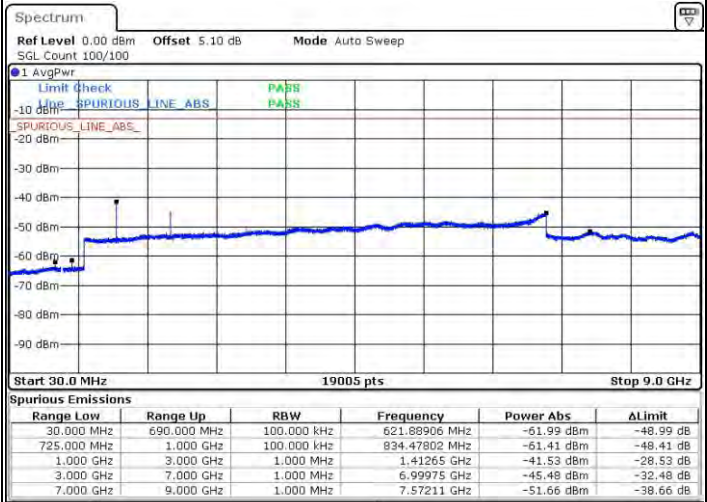
LTE Band 12 / 3MHz

Middle Channel / QPSK



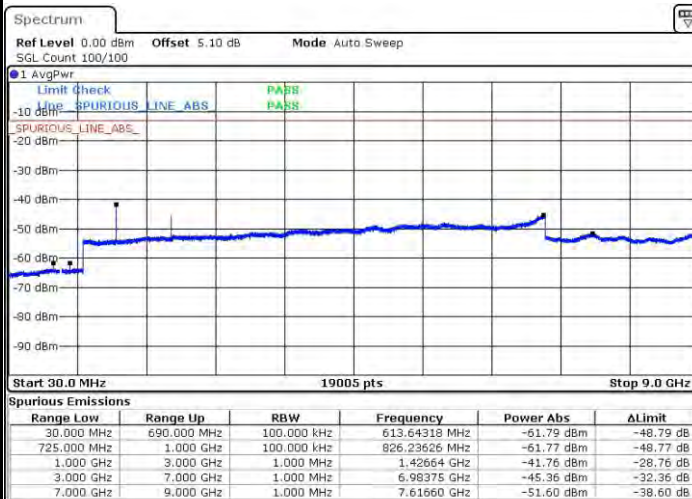
Date: 20.JUN.2015 09:35:08

Middle Channel / 16QAM



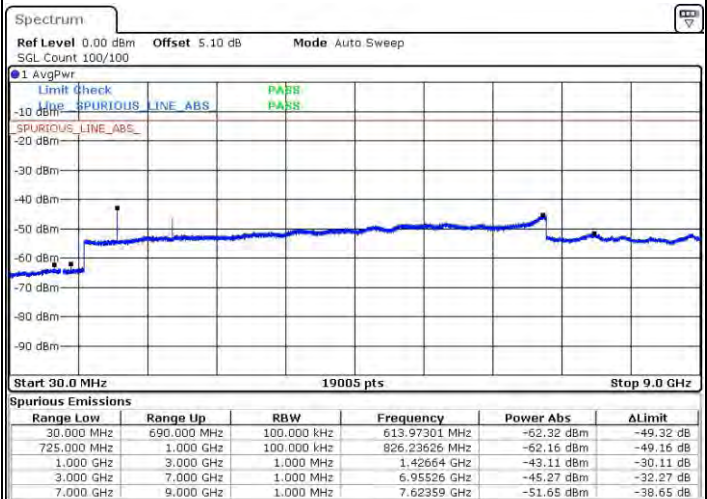
Date: 20.JUN.2015 09:35:53

Highest Channel / QPSK



Date: 20.JUN.2015 09:43:37

Highest Channel / 16QAM

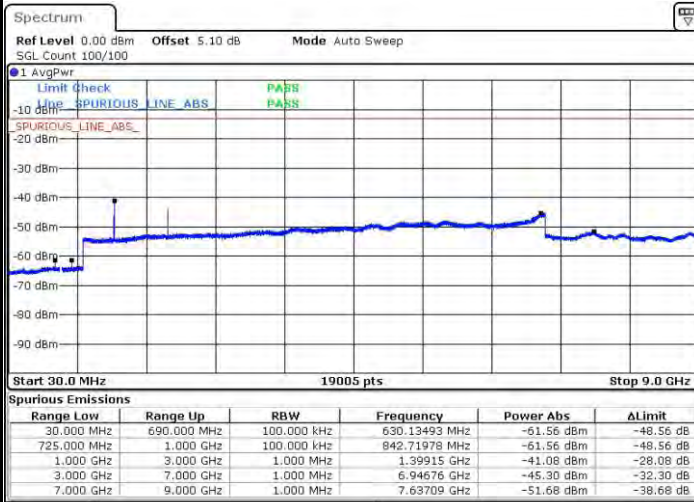


Date: 20.JUN.2015 09:44:31



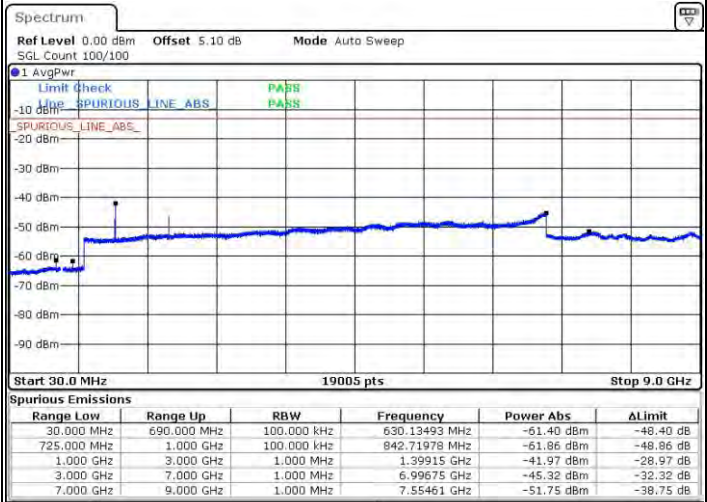
LTE Band 12 / 5MHz

Lowest Channel / QPSK



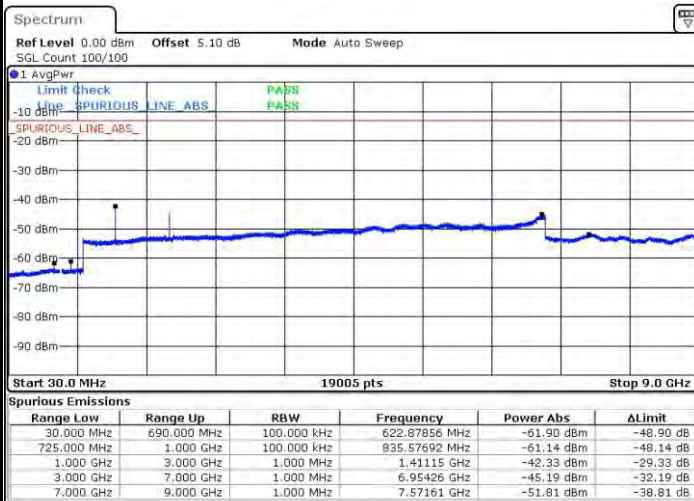
Date: 20.JUN.2015 09:51:42

Lowest Channel / 16QAM



Date: 20.JUN.2015 09:52:57

Middle Channel / QPSK



Date: 20.JUN.2015 09:56:17

Middle Channel / 16QAM

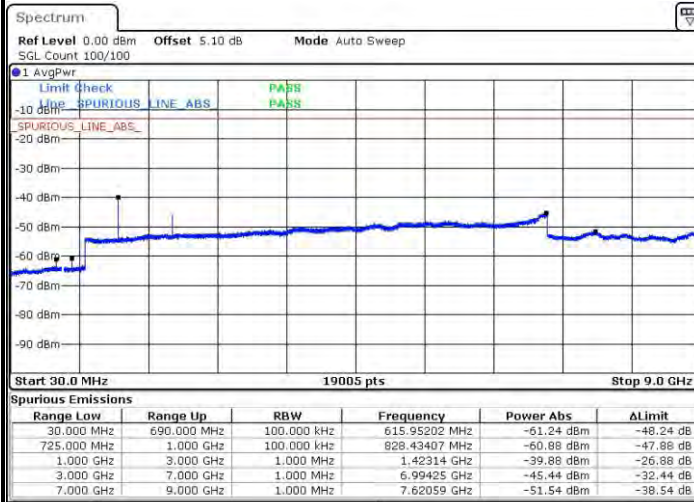


Date: 20.JUN.2015 09:55:03



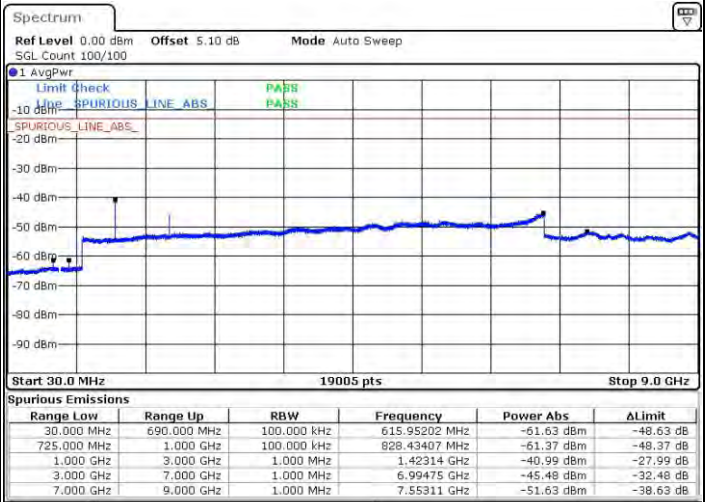
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 20.JUN.2015 10:04:16

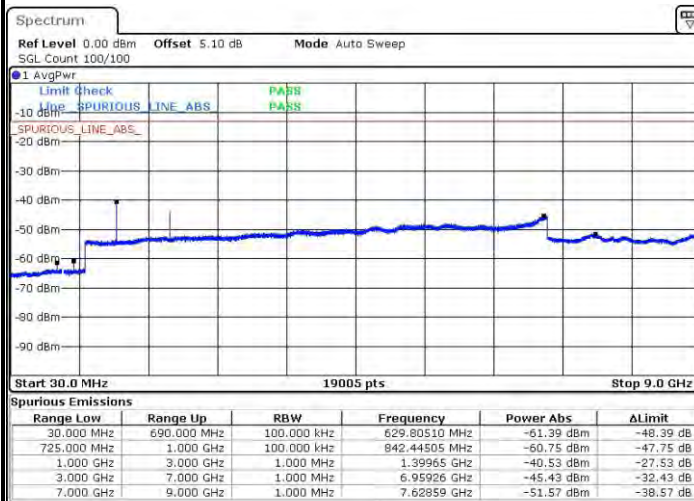
Highest Channel / 16QAM



Date: 20.JUN.2015 10:05:04

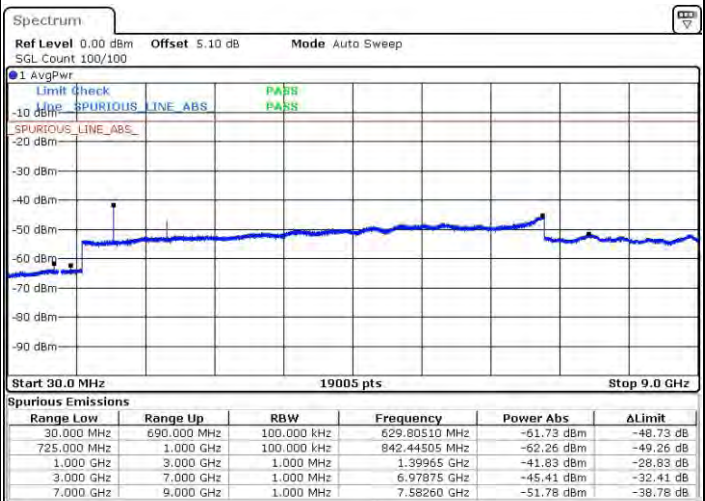
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 20.JUN.2015 10:22:27

Lowest Channel / 16QAM

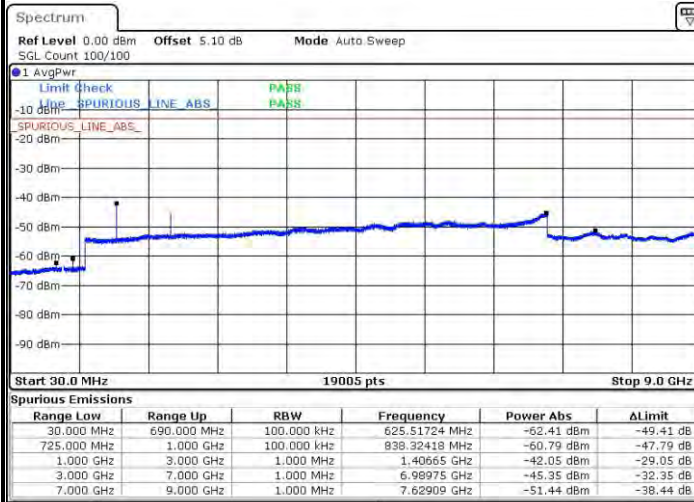


Date: 20.JUN.2015 10:23:11



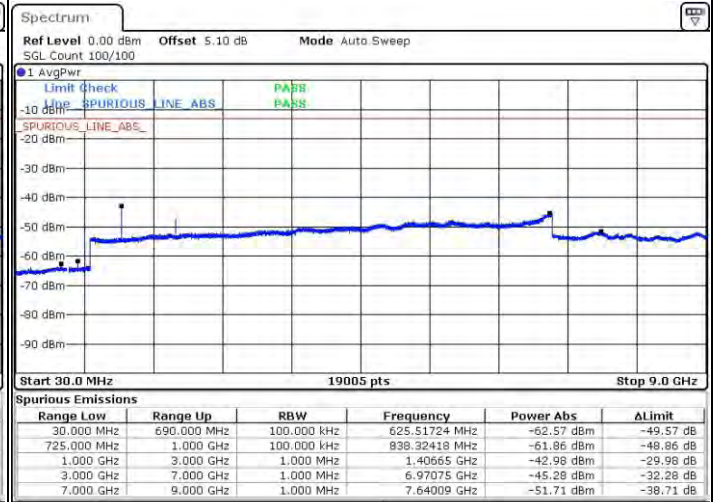
LTE Band 12 / 10MHz

Middle Channel / QPSK



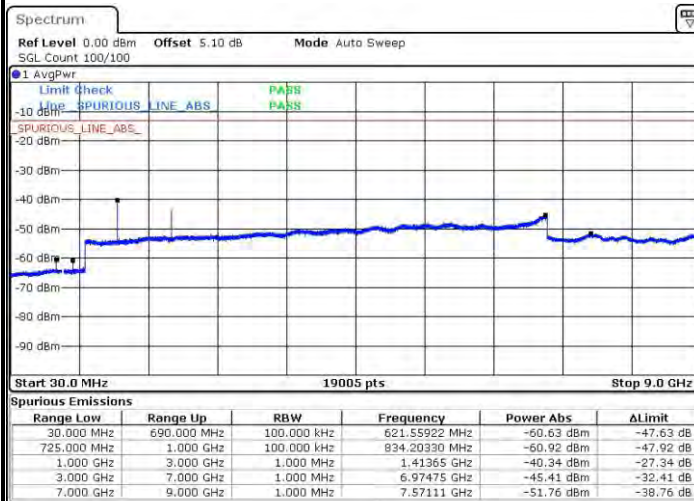
Date: 20 JUN 2015 10:27:02

Middle Channel / 16QAM



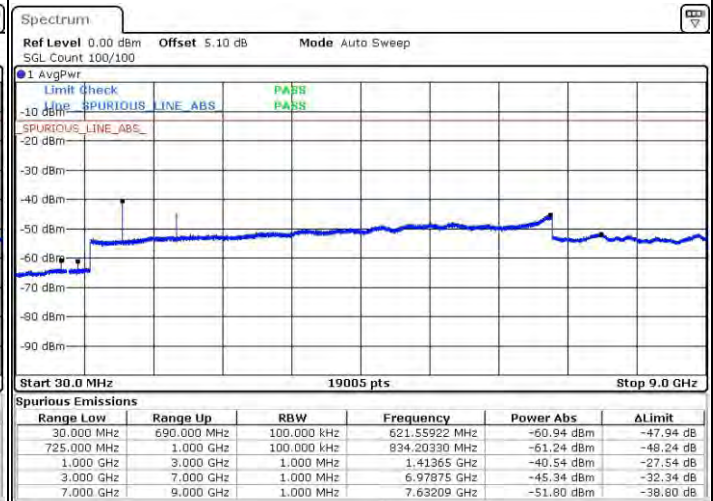
Date: 20 JUN 2015 10:25:47

Highest Channel / QPSK



Date: 20 JUN 2015 10:33:40

Highest Channel / 16QAM



Date: 20 JUN 2015 10:35:02

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	0.0006	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0072	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0079	
0	Normal Voltage	0.0068	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0014	
20	Battery End Point	0.0112	

Note:

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

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	-0.4	PASS
40	Normal Voltage	0.8	
30	Normal Voltage	-5.1	
20(Ref.)	Normal Voltage	0	
10	Normal Voltage	-5.6	
0	Normal Voltage	-4.8	
-10	Normal Voltage	0.5	
-20	Normal Voltage	0.9	
-30	Normal Voltage	1.6	
20	Maximum Voltage	1.1	
20	Normal Voltage	0	
20	Battery End Point	-7.9	

$|\text{MAX}(\Delta f)|$ 7.9= Hz

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	699.109	$\geq 698 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	715.8913	$\leq 716 \text{ MHz}$	



LTE Band 17

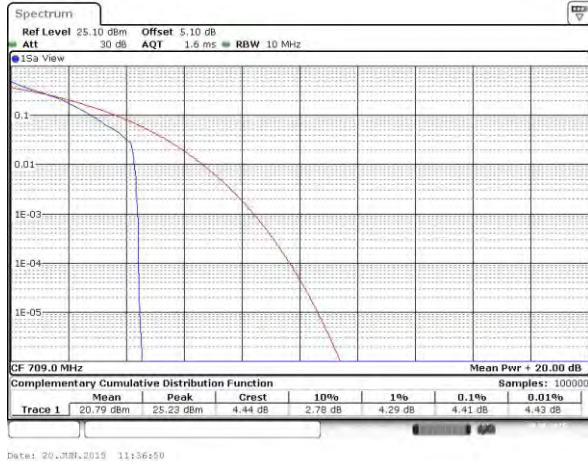
Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.41	4.78	5.48	5.74	PASS
Middle CH	5.13	4.87	5.51	5.71	
Highest CH	4.43	4.72	5.39	5.71	



LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



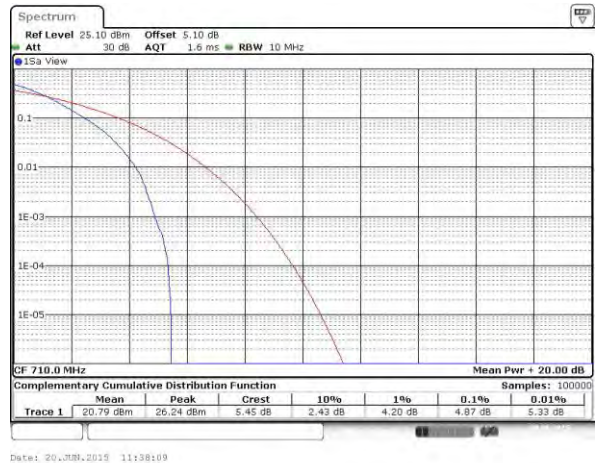
Lowest Channel / Full RB



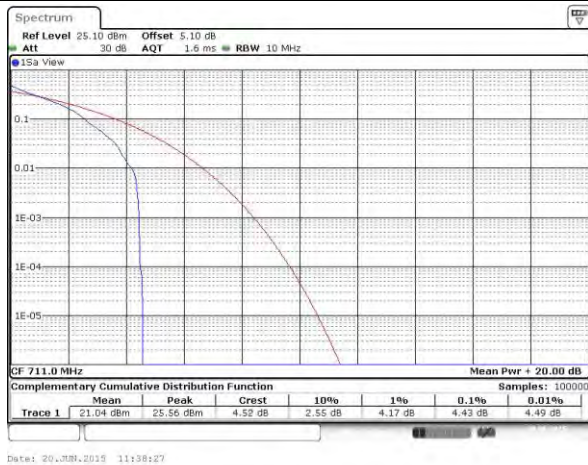
Middle Channel/ 1RB



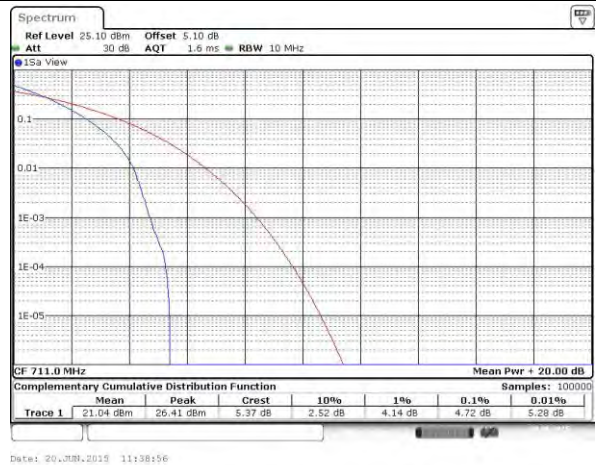
Middle Channel / Full RB



Highest Channel/ 1RB



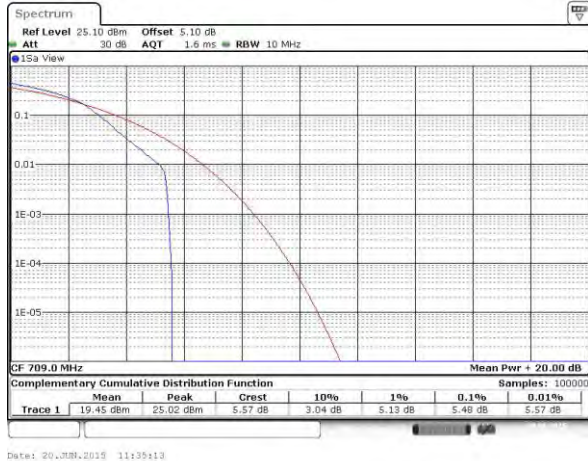
Highest Channel / Full RB



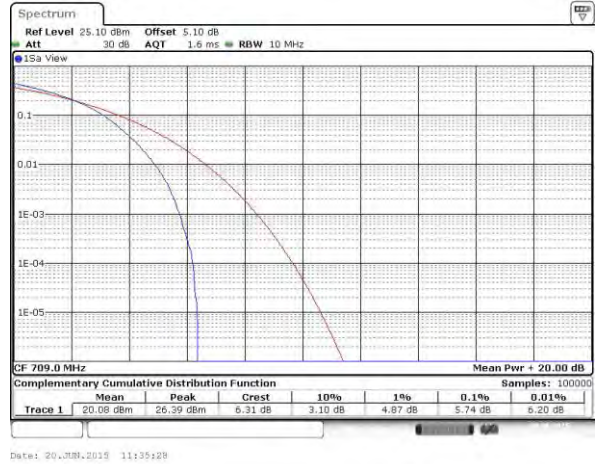


LTE Band 17 / 10MHz / 16QAM

Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel/ 1RB



Middle Channel / Full RB



Highest Channel/ 1RB



Highest Channel / Full RB





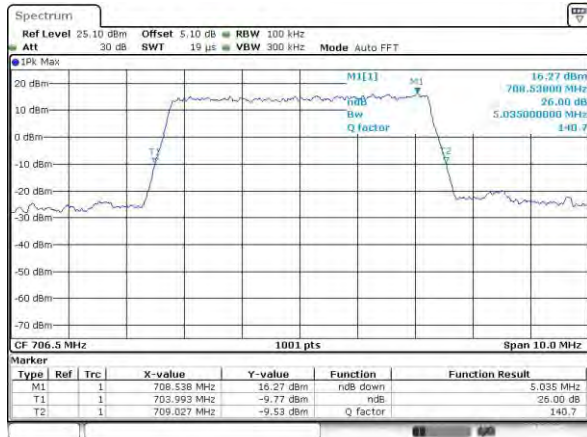
26dB Bandwidth

Mode	LTE Band 17 : 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	-	-	-	-	5.04	5.02	10.03	9.97	-	-	-	-
Middle CH	-	-	-	-	5.01	5.04	10.23	10.03	-	-	-	-
Highest CH	-	-	-	-	5.38	5.06	9.95	10.01	-	-	-	-

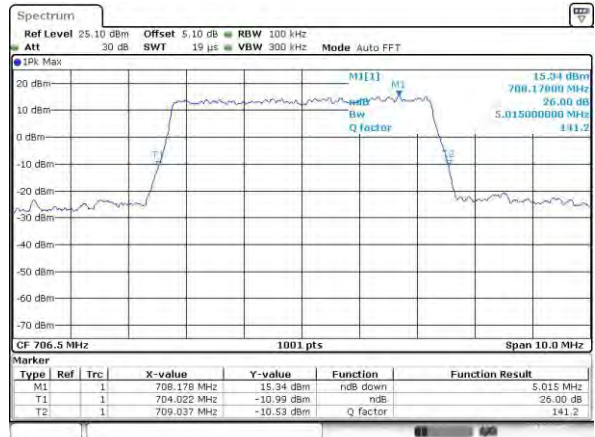


LTE Band 17

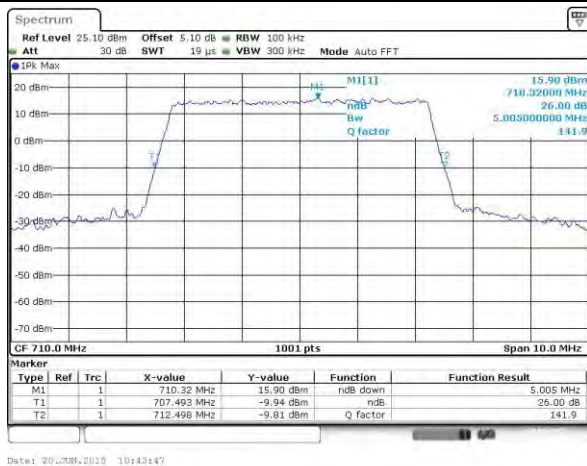
Lowest Channel / 5MHz / QPSK



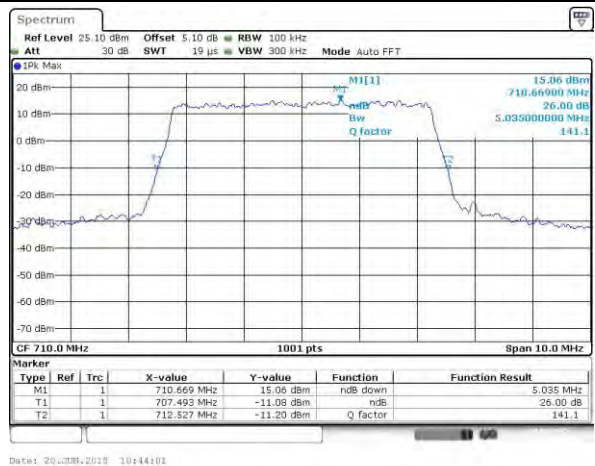
Lowest Channel / 5MHz / 16QAM



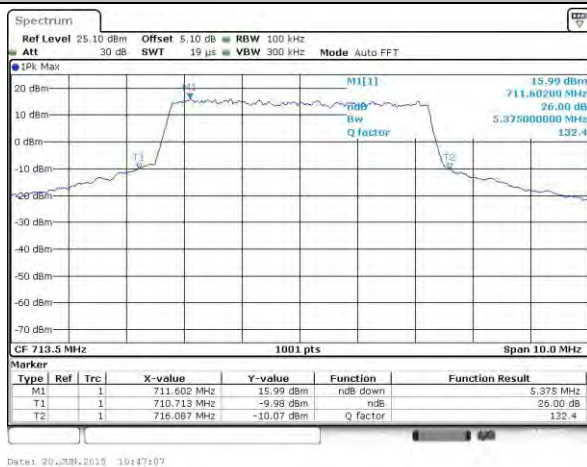
Middle Channel / 5MHz / QPSK



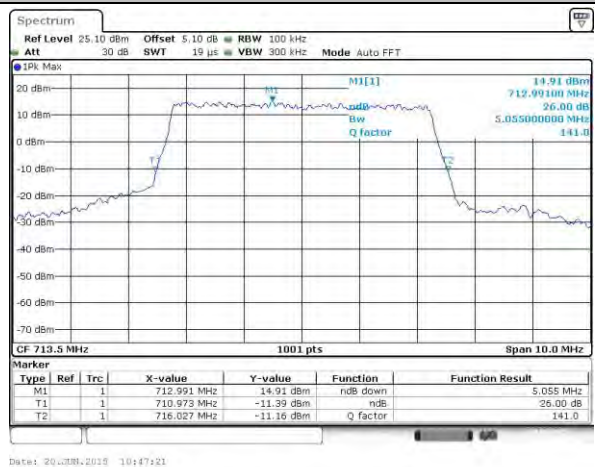
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



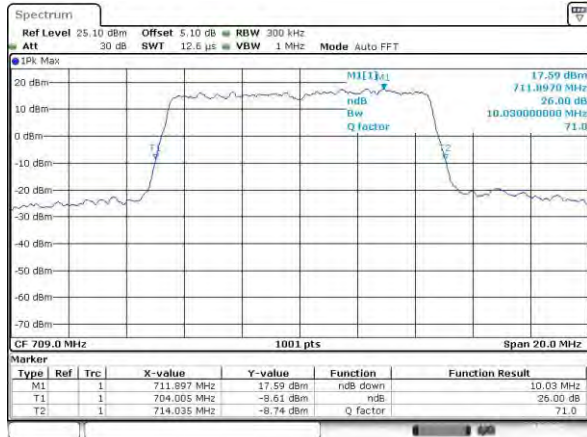
Highest Channel / 5MHz / 16QAM



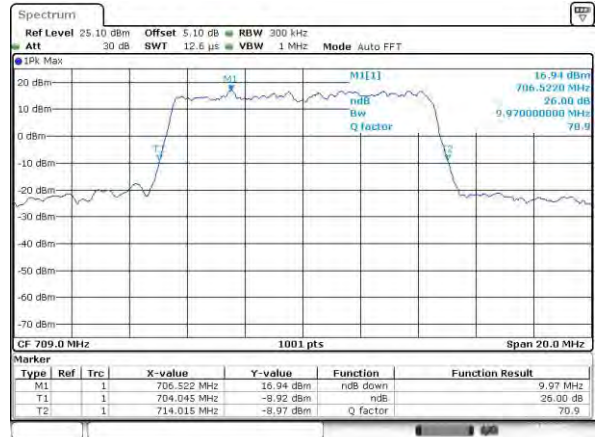


LTE Band 17

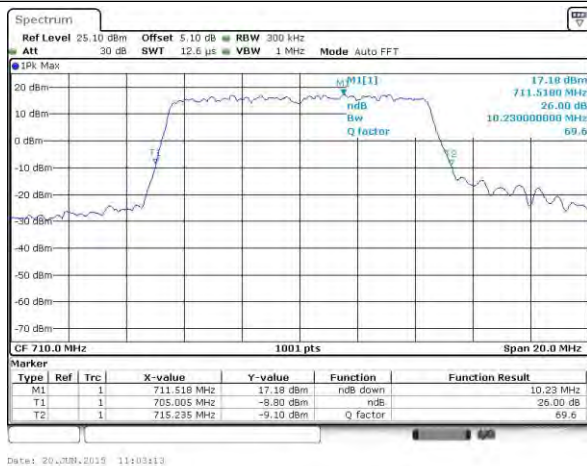
Lowest Channel / 10MHz / QPSK



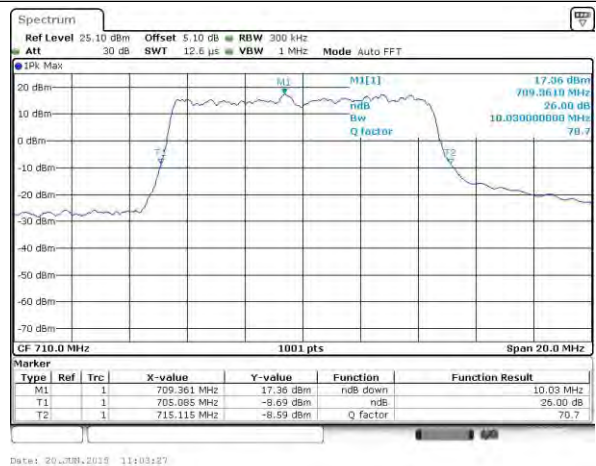
Lowest Channel / 10MHz / 16QAM



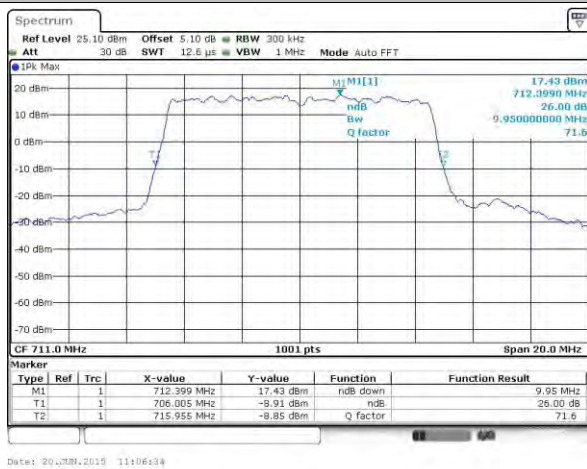
Middle Channel / 10MHz / QPSK



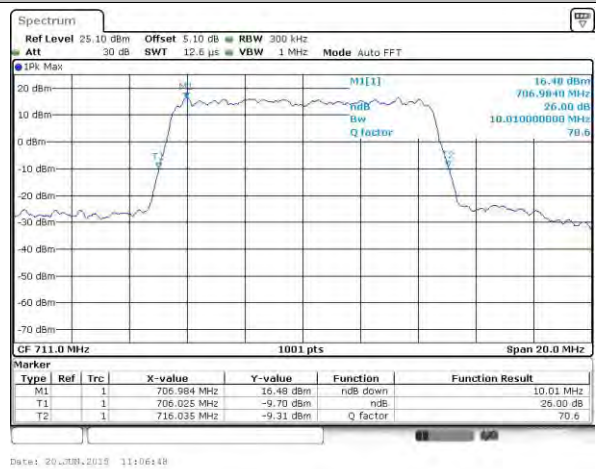
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



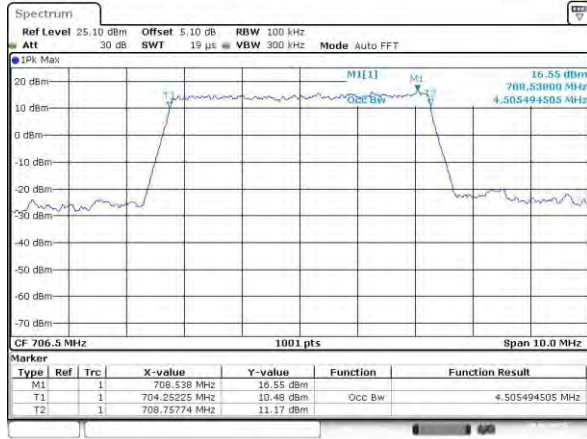
**Occupied Bandwidth**

Mode	LTE Band 17 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.51	4.51	9.05	8.99	-	-	-	-
Middle CH	-	-	-	-	4.5	4.49	9.07	9.01	-	-	-	-
Highest CH	-	-	-	-	4.51	4.5	9.01	9.01	-	-	-	-

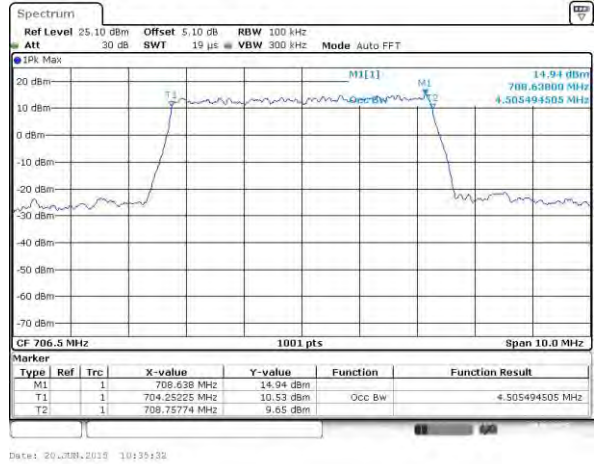


LTE Band 17

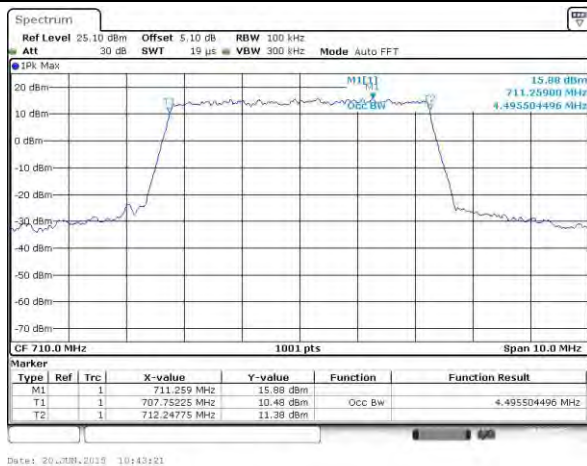
Lowest Channel / 5MHz / QPSK



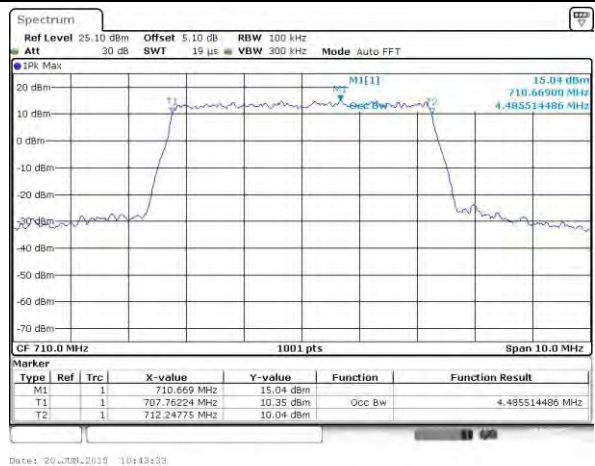
Lowest Channel / 5MHz / 16QAM



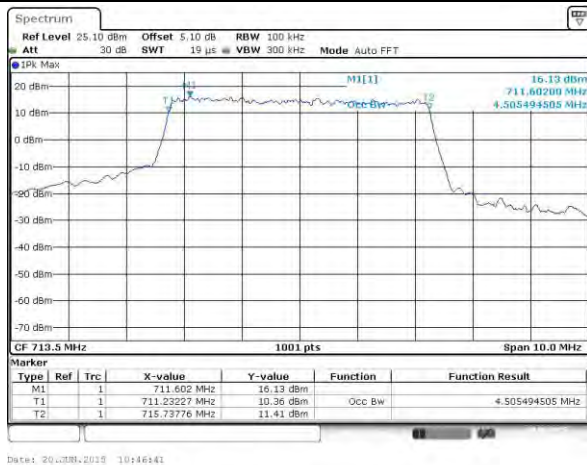
Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM

