



LTE Band 4

Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.88	4.61	4.49	5.65	PASS
Middle CH	3.77	4.55	4.81	5.68	
Highest CH	3.57	4.55	4.38	5.59	



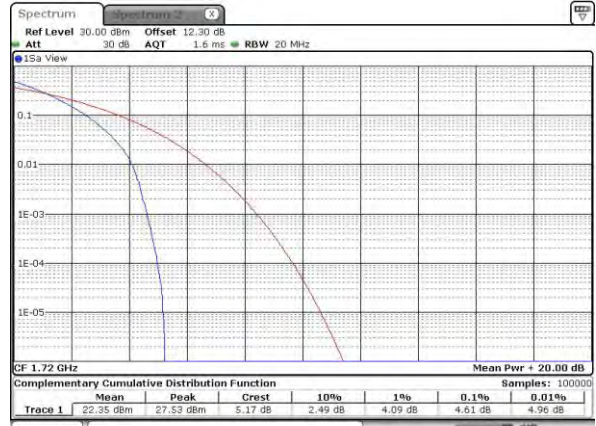
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



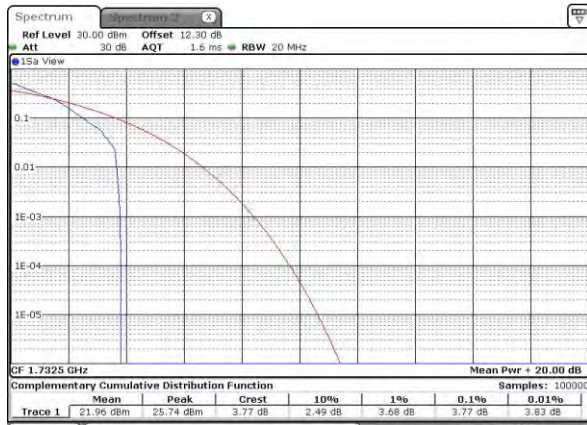
Date: 15 AUG 2015 00:18:18

Lowest Channel / Full RB



Date: 15 AUG 2015 00:18:30

Middle Channel / 1RB



Date: 15 AUG 2015 00:18:40

Middle Channel / Full RB



Date: 15 AUG 2015 00:18:54

Highest Channel / 1RB



Date: 15 AUG 2015 00:19:05

Highest Channel / Full RB



Date: 15 AUG 2015 00:19:19

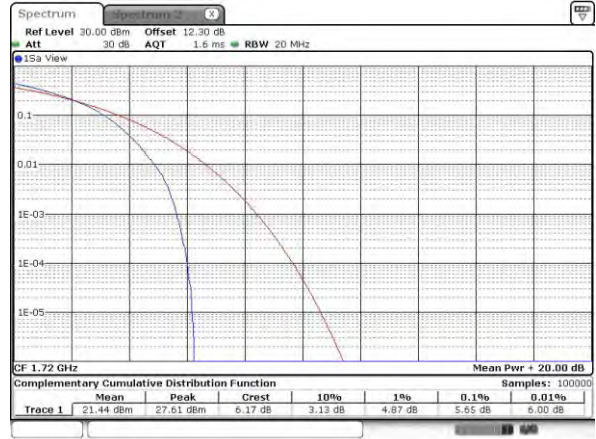


LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



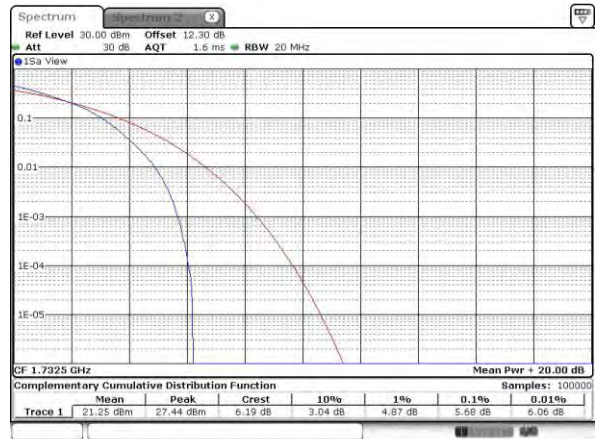
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





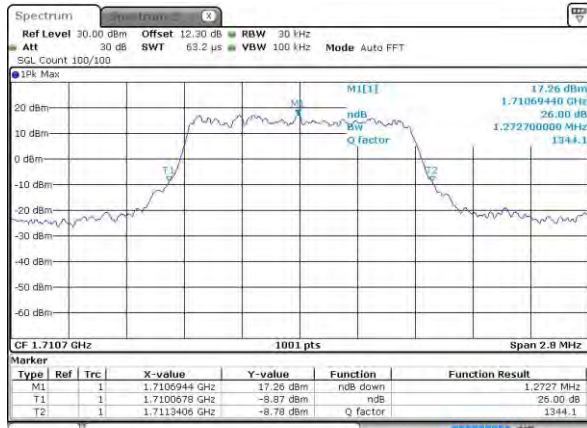
26dB Bandwidth

Mode	LTE Band 4 : 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	1.27	1.28	3.03	3.04	4.90	4.92	9.67	9.75	14.33	14.72	20.18	20.02
Middle CH	1.29	1.29	3.00	3.00	5.03	4.94	10.05	9.85	14.45	14.39	20.26	20.10
Highest CH	1.28	1.30	2.99	2.98	4.95	4.94	9.85	9.81	14.48	14.72	20.14	20.22

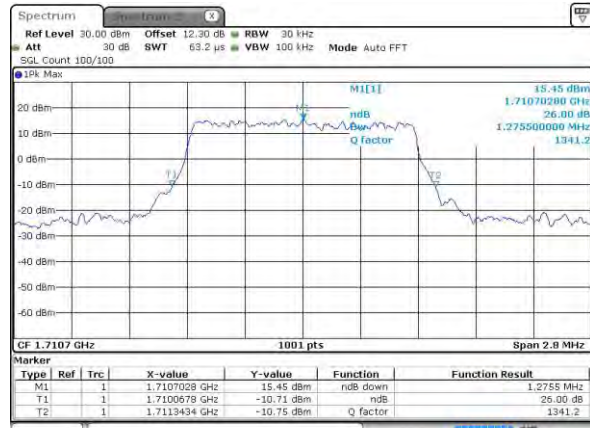


LTE Band 4

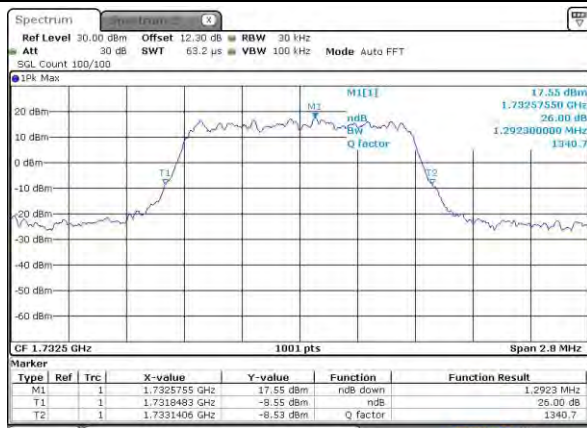
Lowest Channel / 1.4MHz / QPSK



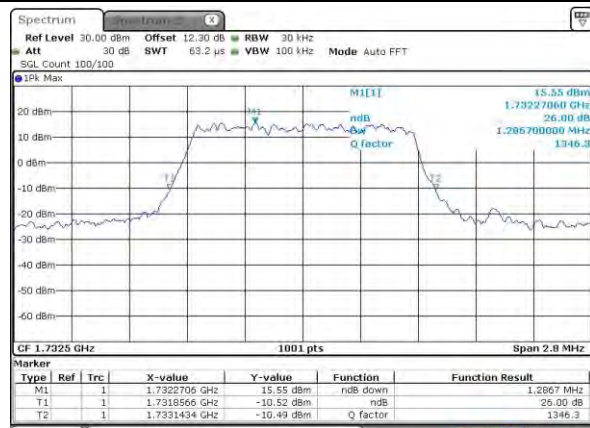
Lowest Channel / 1.4MHz / 16QAM



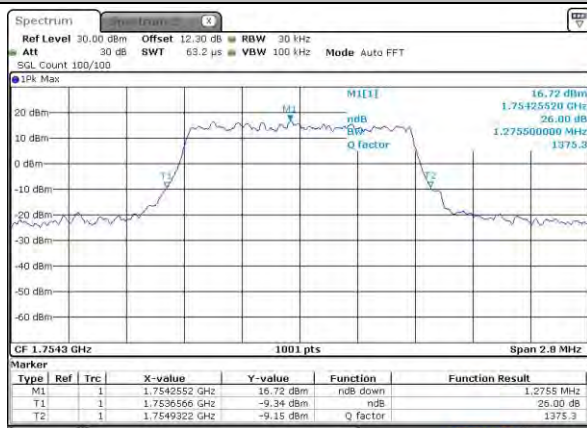
Middle Channel / 1.4MHz / QPSK



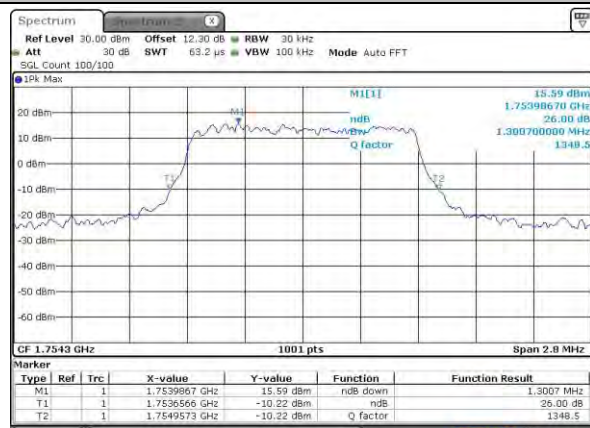
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



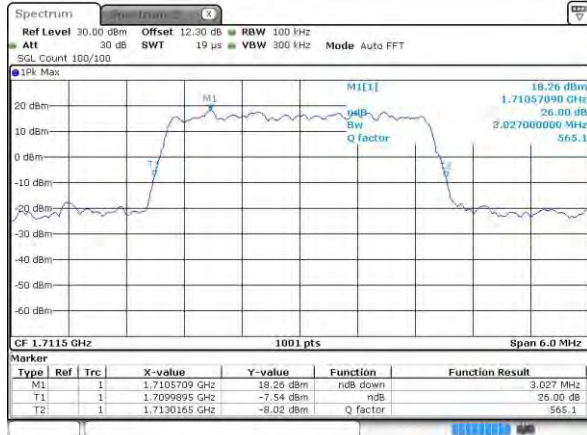
Highest Channel / 1.4MHz / 16QAM



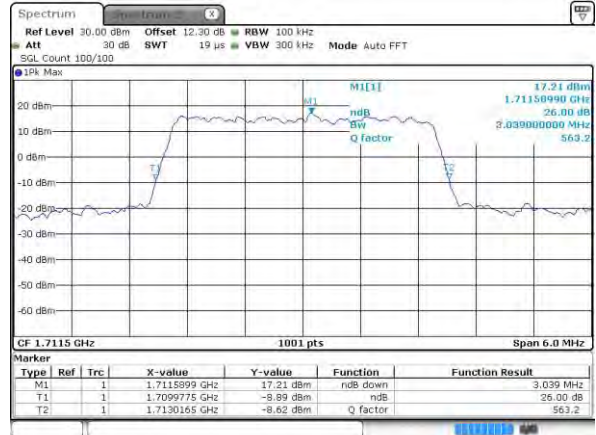


LTE Band 4

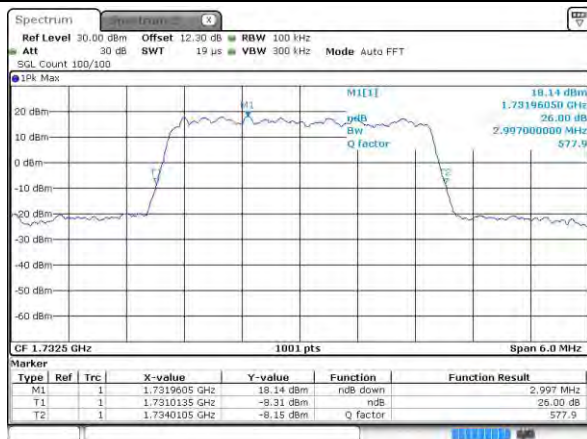
Lowest Channel / 3MHz / QPSK



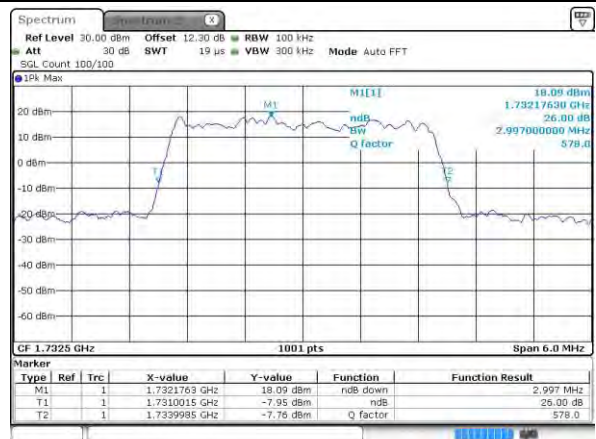
Lowest Channel / 3MHz / 16QAM



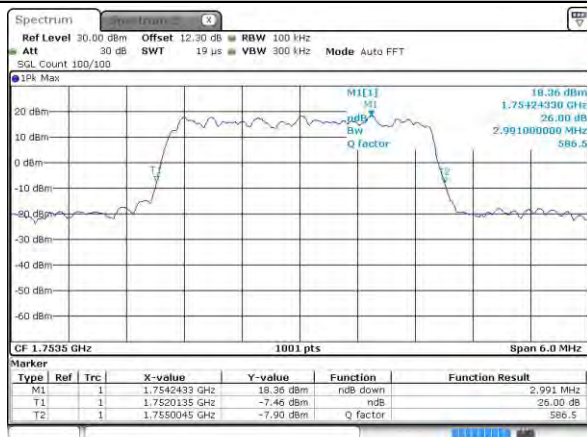
Middle Channel / 3MHz / QPSK



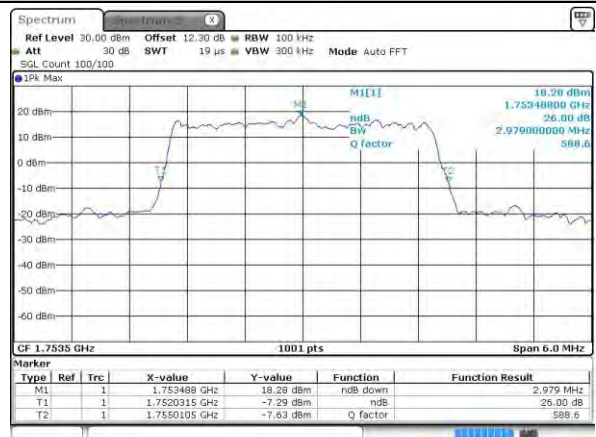
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



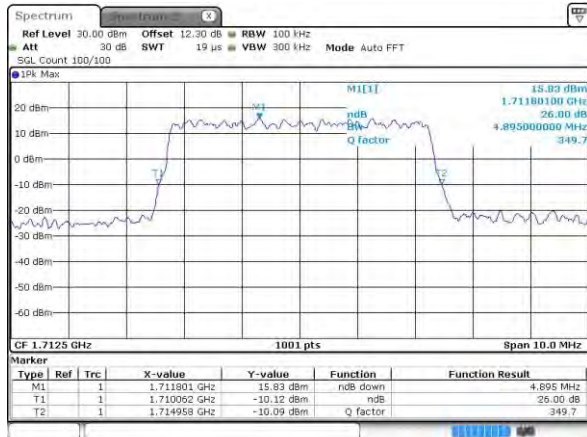
Highest Channel / 3MHz / 16QAM



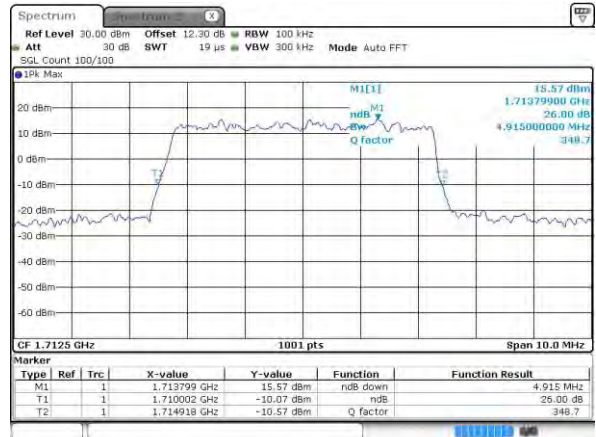


LTE Band 4

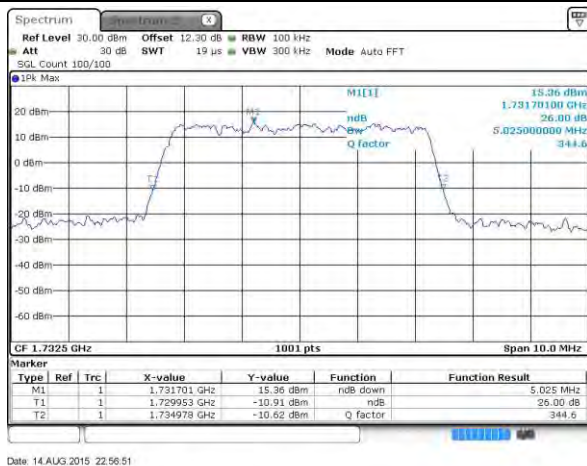
Lowest Channel / 5MHz / QPSK



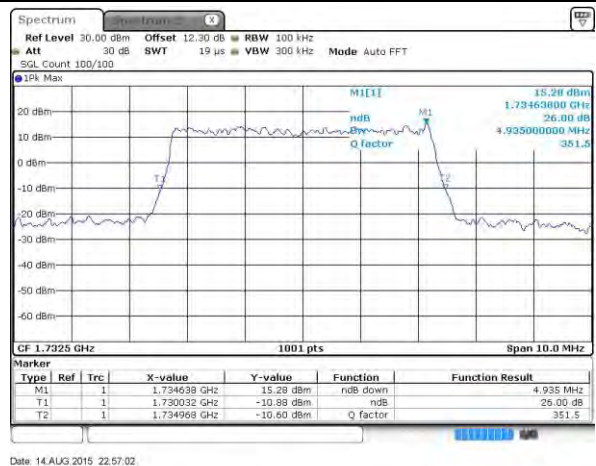
Lowest Channel / 5MHz / 16QAM



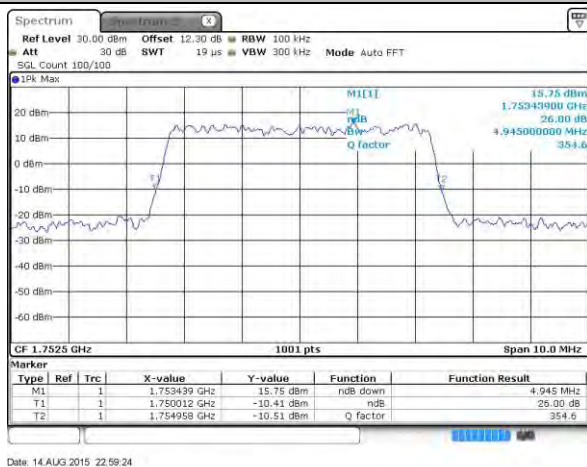
Middle Channel / 5MHz / QPSK



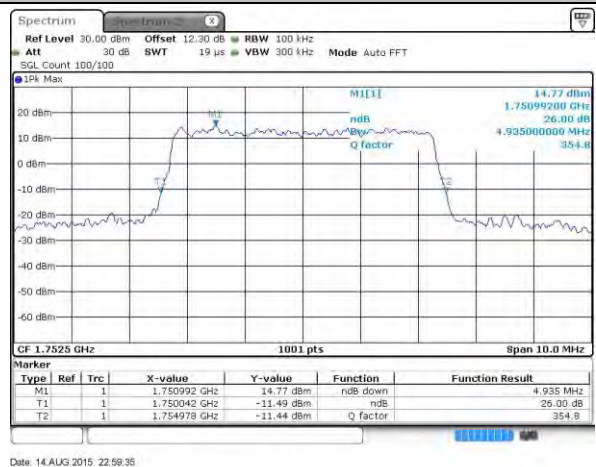
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



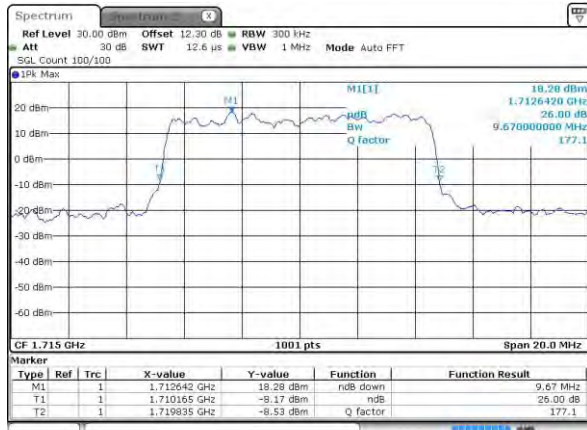
Highest Channel / 5MHz / 16QAM



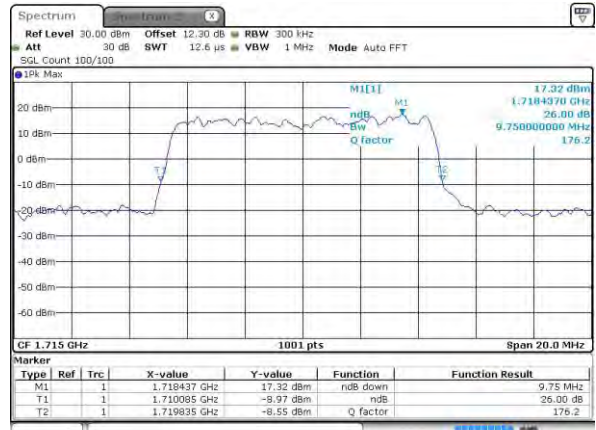


LTE Band 4

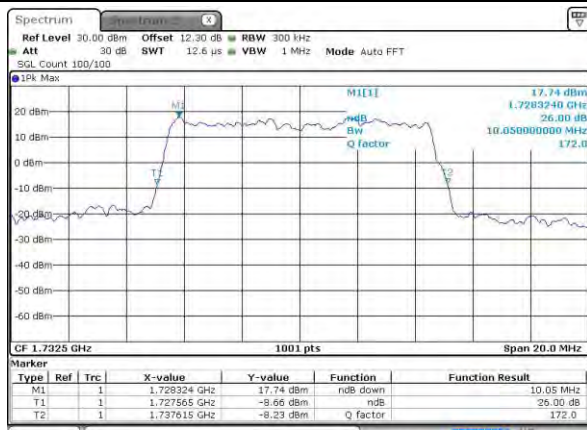
Lowest Channel / 10MHz / QPSK



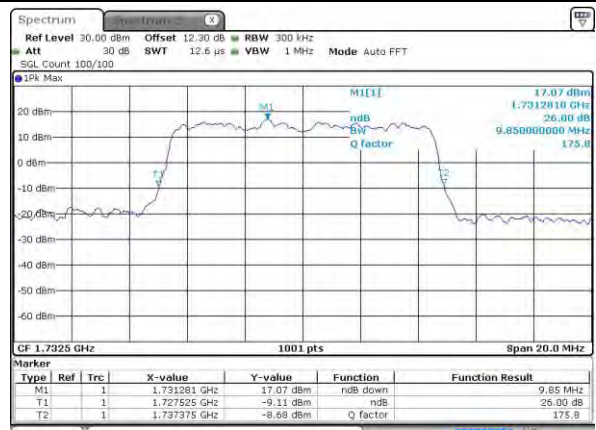
Lowest Channel / 10MHz / 16QAM



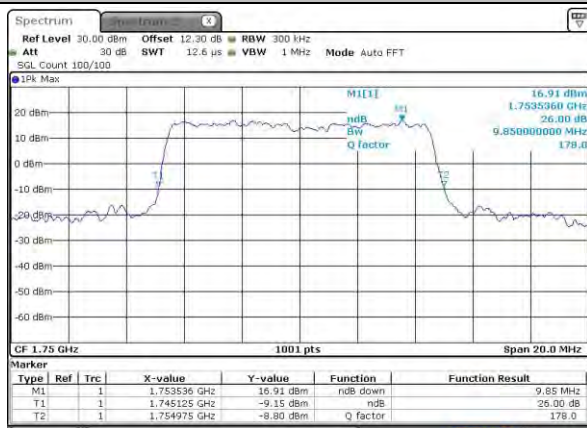
Middle Channel / 10MHz / QPSK



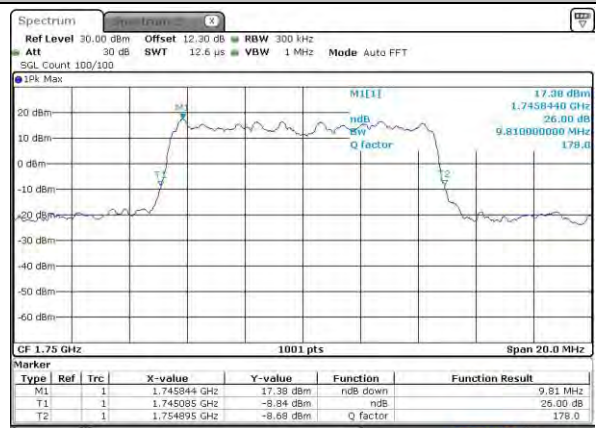
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



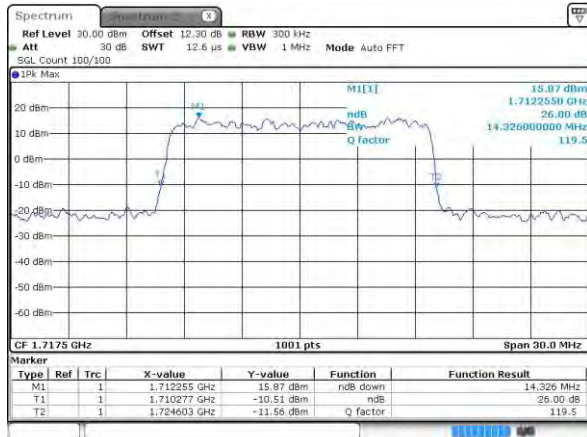
Highest Channel / 10MHz / 16QAM



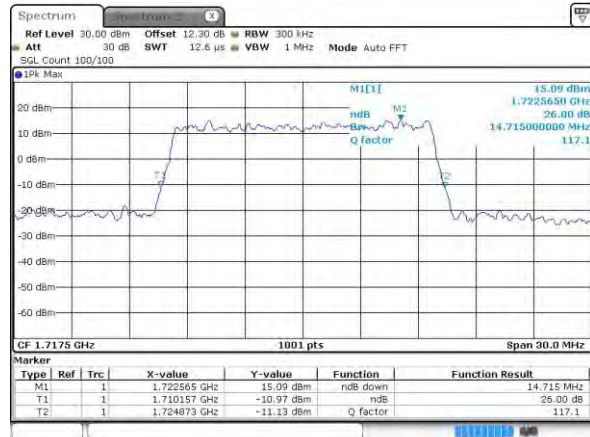


LTE Band 4

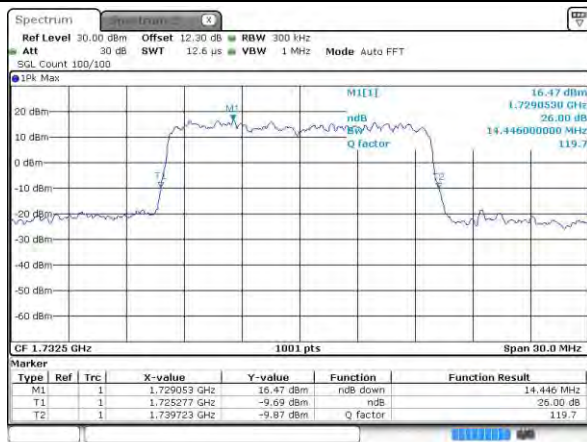
Lowest Channel / 15MHz / QPSK



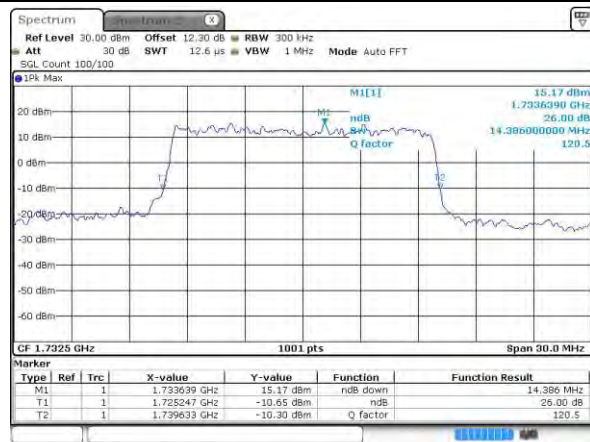
Lowest Channel / 15MHz / 16QAM



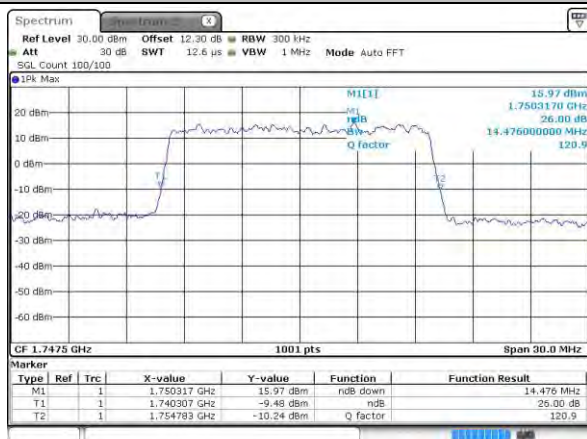
Middle Channel / 15MHz / QPSK



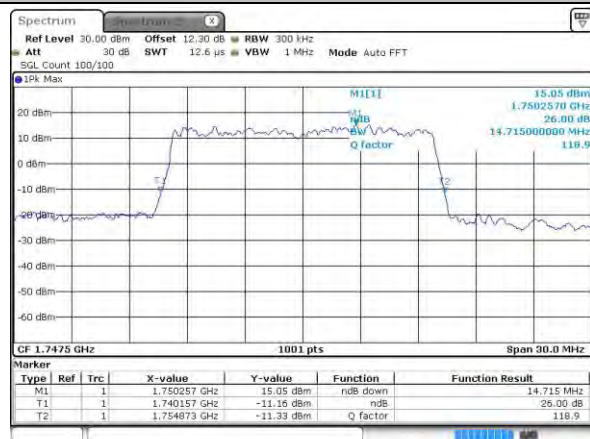
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



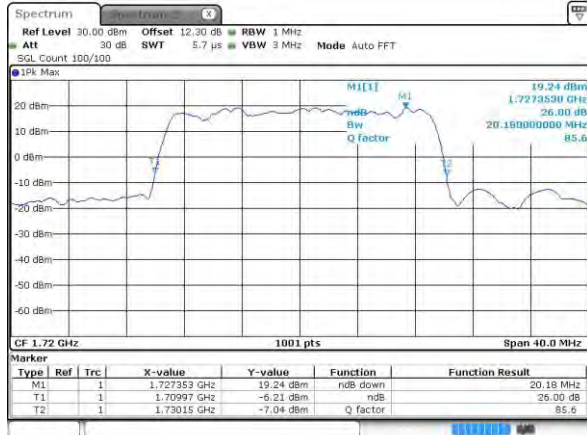
Highest Channel / 15MHz / 16QAM



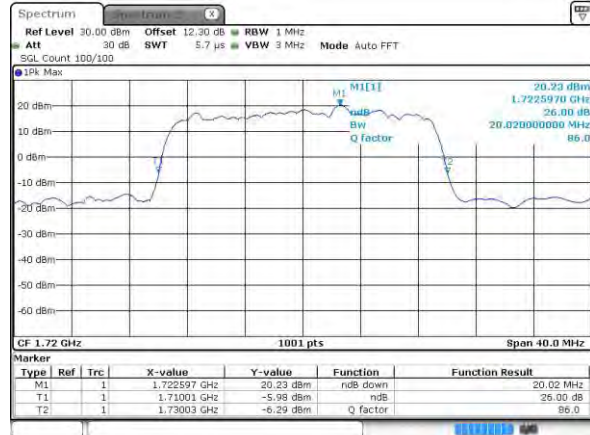


LTE Band 4

Lowest Channel / 20MHz / QPSK



Lowest Channel / 20MHz / 16QAM



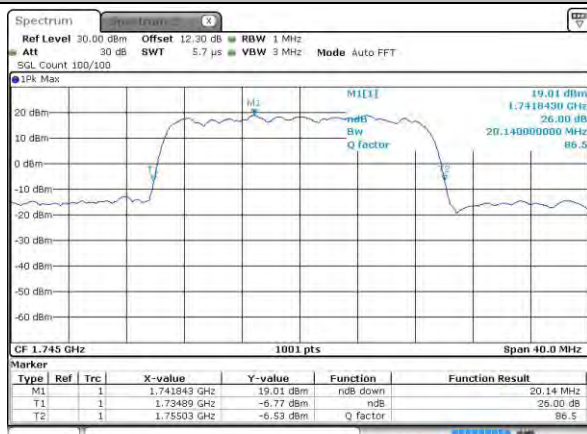
Middle Channel / 20MHz / QPSK



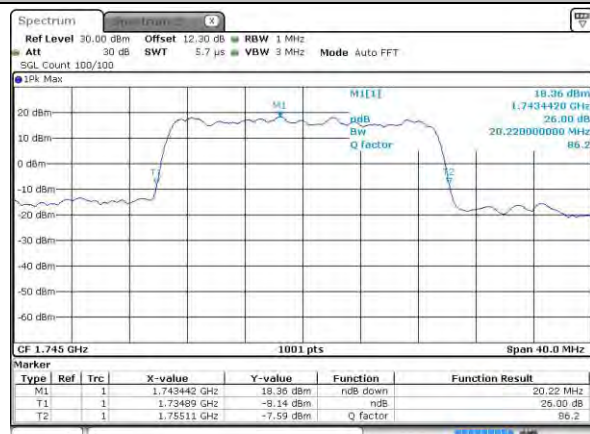
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM





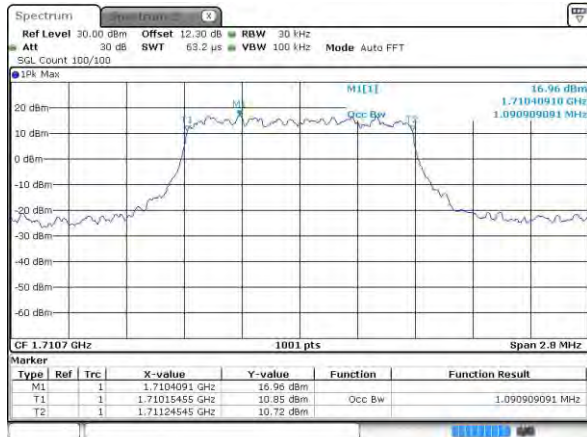
Occupied Bandwidth

Mode	LTE Band 4 : 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	1.09	1.09	2.72	2.73	4.48	4.49	9.11	9.01	13.49	13.43	18.30	18.34
Middle CH	1.09	1.10	2.72	2.70	4.49	4.51	8.97	8.97	13.55	13.46	18.38	18.34
Highest CH	1.11	1.10	2.72	2.73	4.49	4.51	9.03	9.05	13.52	13.43	18.34	18.34

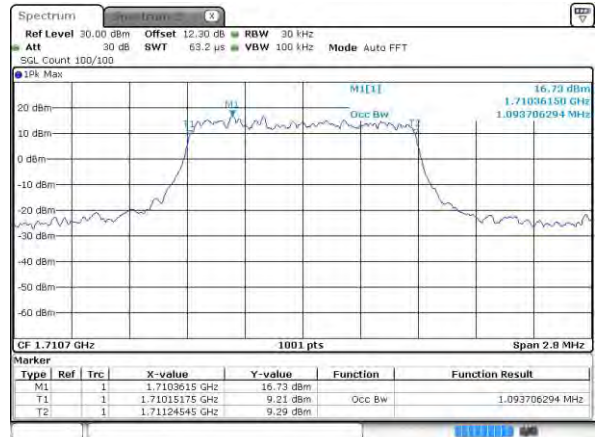


LTE Band 4

Lowest Channel / 1.4MHz / QPSK



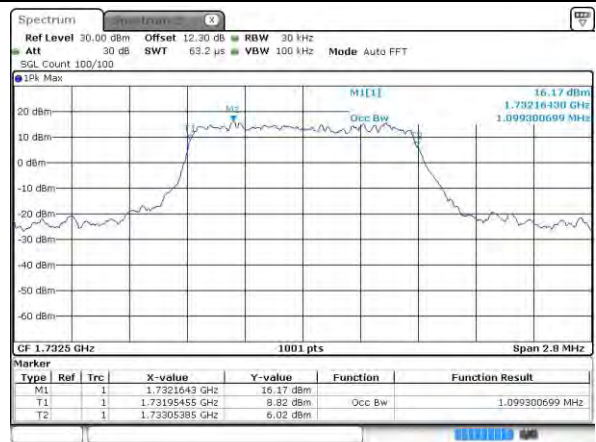
Lowest Channel / 1.4MHz / 16QAM



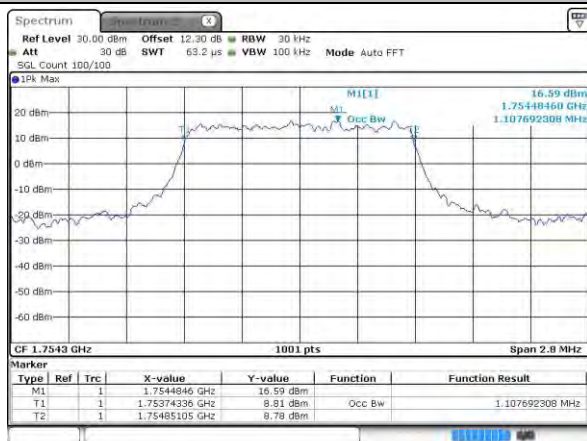
Middle Channel / 1.4MHz / QPSK



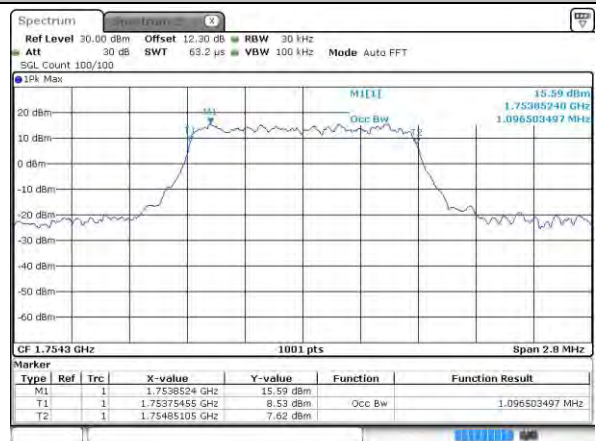
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



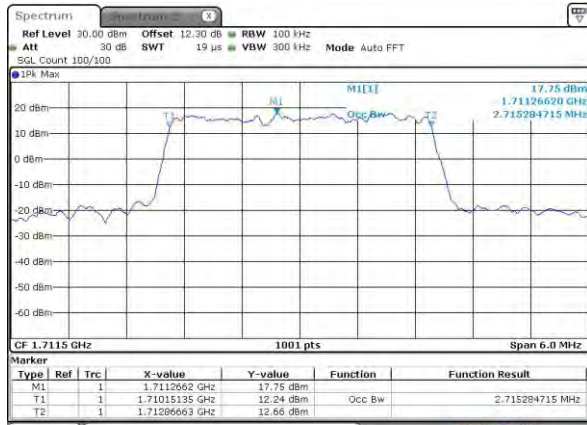
Highest Channel / 1.4MHz / 16QAM



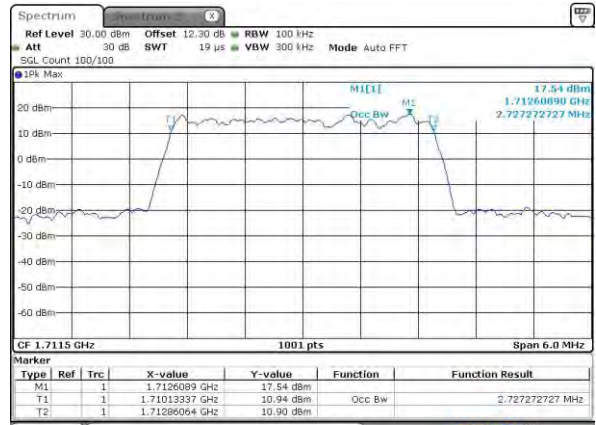


LTE Band 4

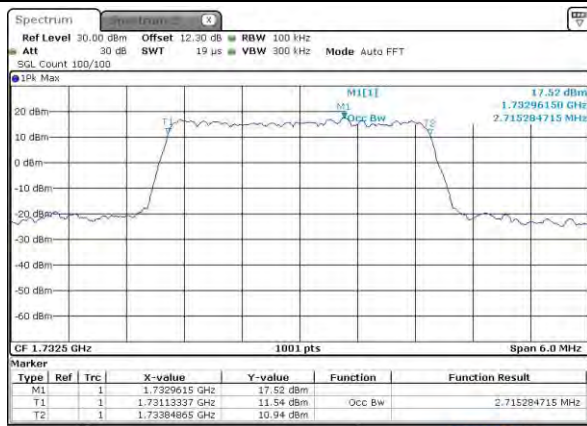
Lowest Channel / 3MHz / QPSK



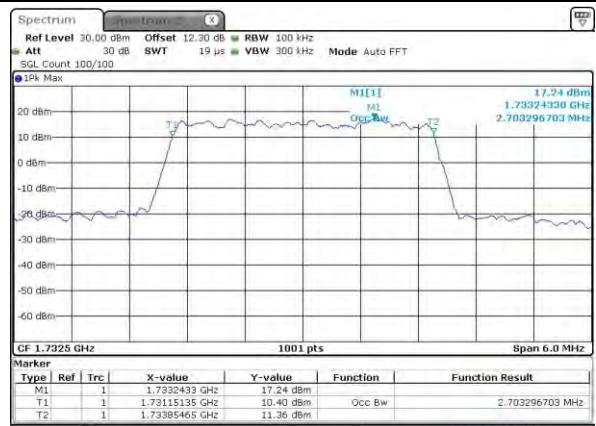
Lowest Channel / 3MHz / 16QAM



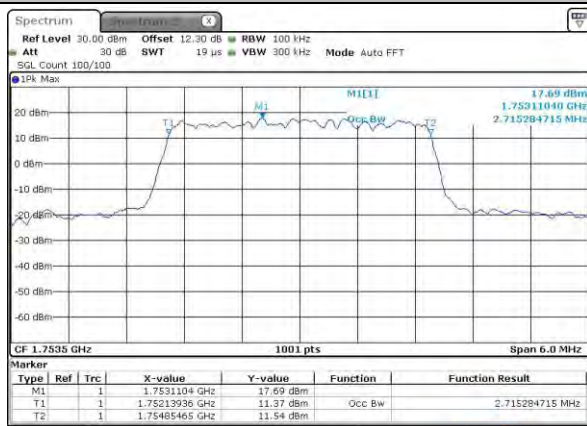
Middle Channel / 3MHz / QPSK



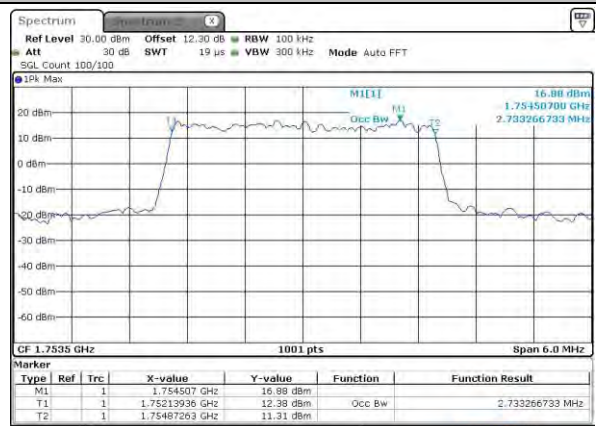
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



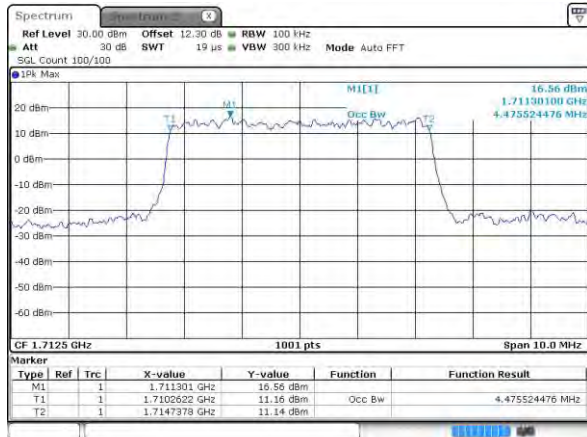
Highest Channel / 3MHz / 16QAM



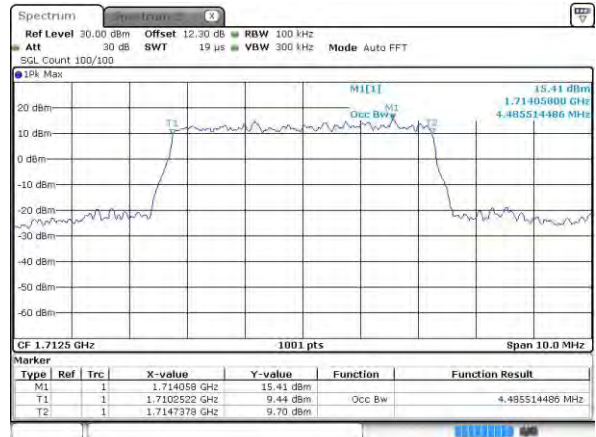


LTE Band 4

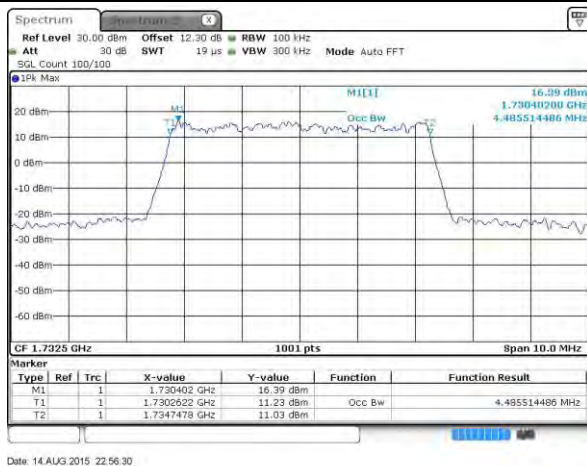
Lowest Channel / 5MHz / QPSK



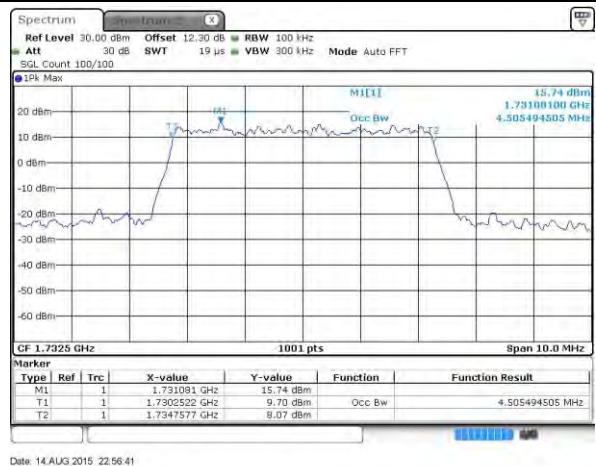
Lowest Channel / 5MHz / 16QAM



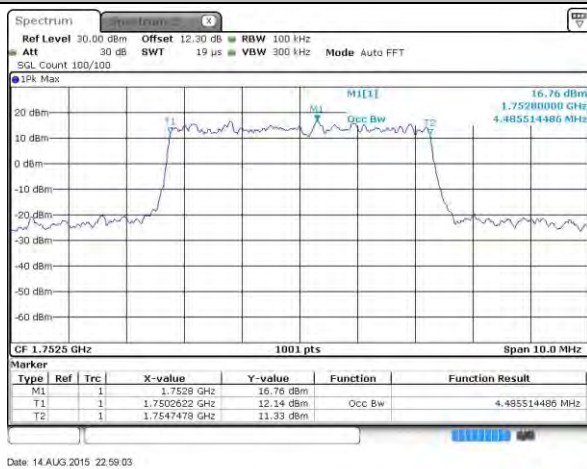
Middle Channel / 5MHz / QPSK



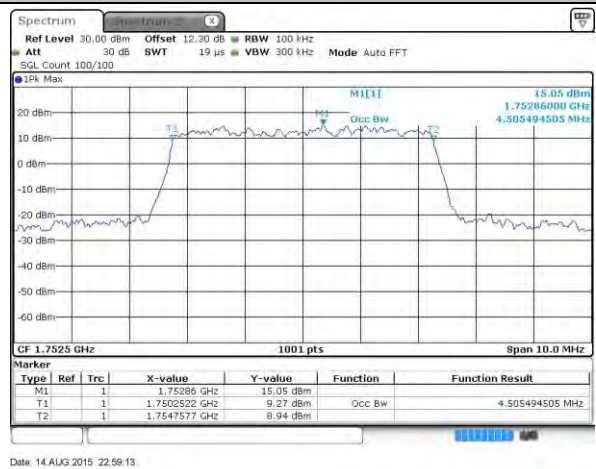
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



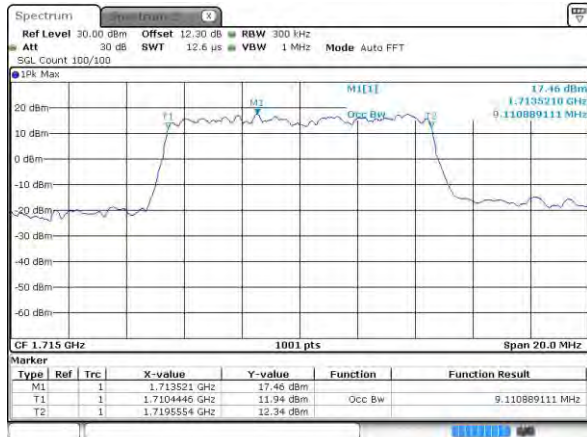
Highest Channel / 5MHz / 16QAM





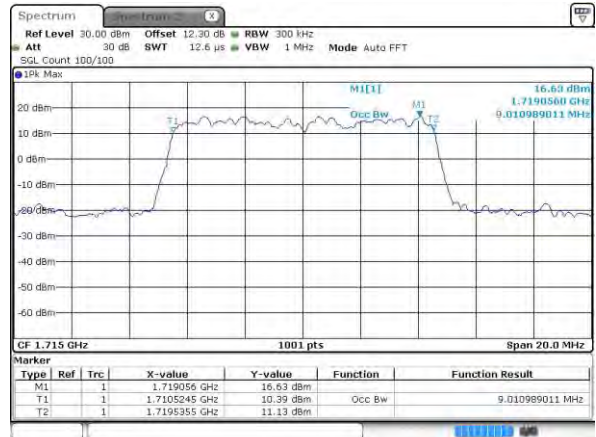
LTE Band 4

Lowest Channel / 10MHz / QPSK



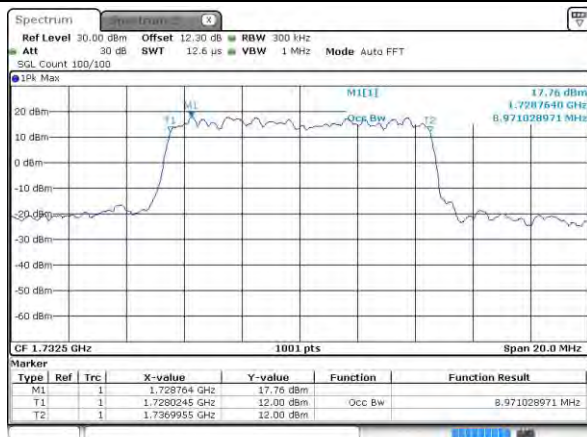
Date: 14 AUG 2015 23:06:13

Lowest Channel / 10MHz / 16QAM



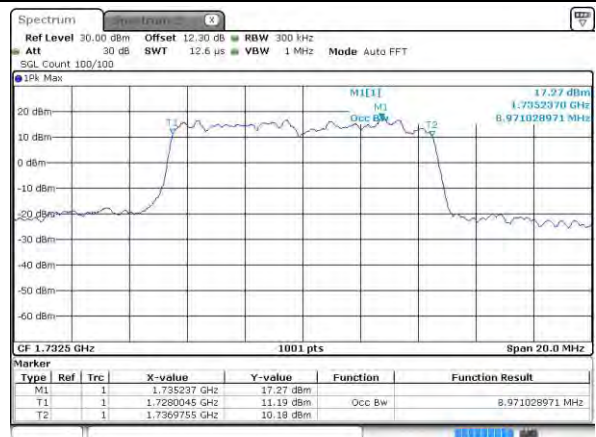
Date: 14 AUG 2015 23:06:24

Middle Channel / 10MHz / QPSK



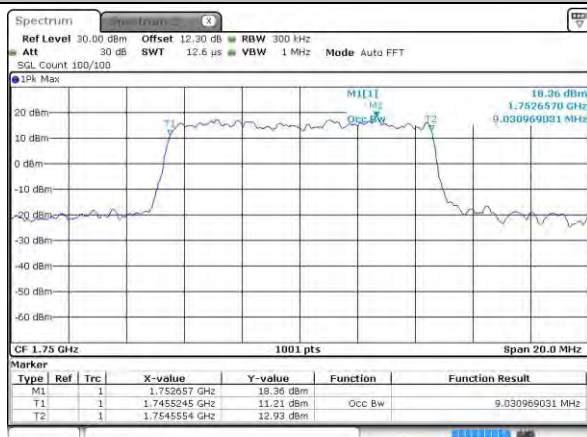
Date: 14 AUG 2015 23:13:24

Middle Channel / 10MHz / 16QAM



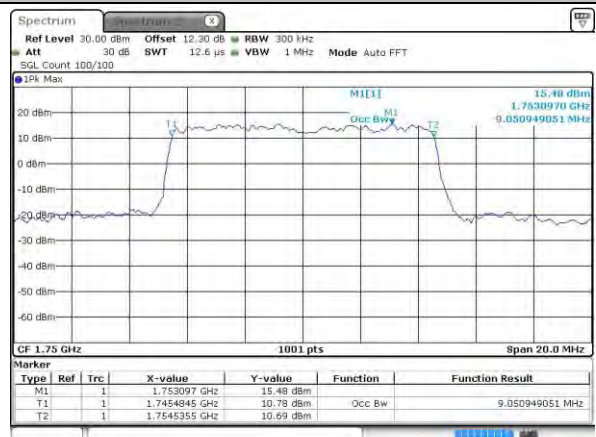
Date: 14 AUG 2015 23:13:35

Highest Channel / 10MHz / QPSK



Date: 14 AUG 2015 23:15:56

Highest Channel / 10MHz / 16QAM

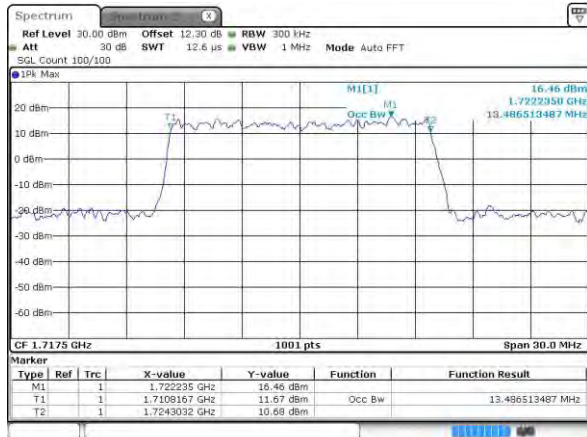


Date: 14 AUG 2015 23:16:07

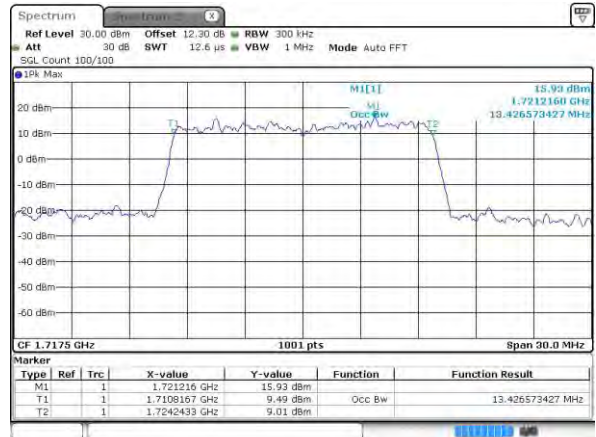


LTE Band 4

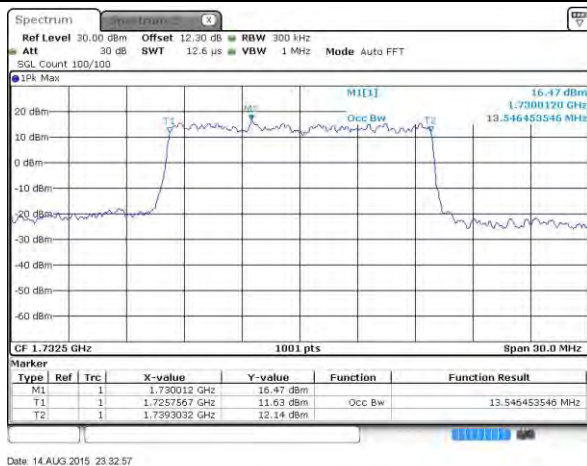
Lowest Channel / 15MHz / QPSK



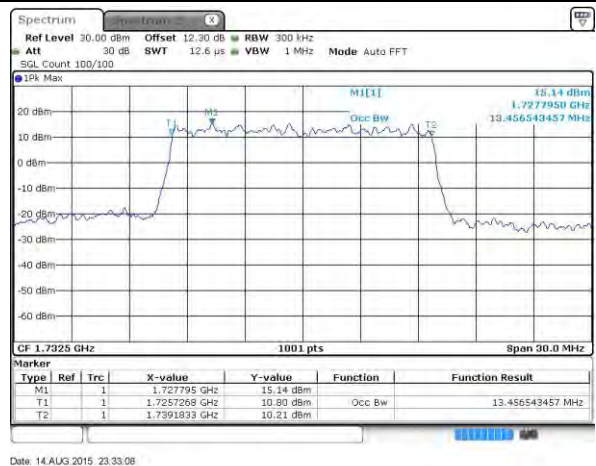
Lowest Channel / 15MHz / 16QAM



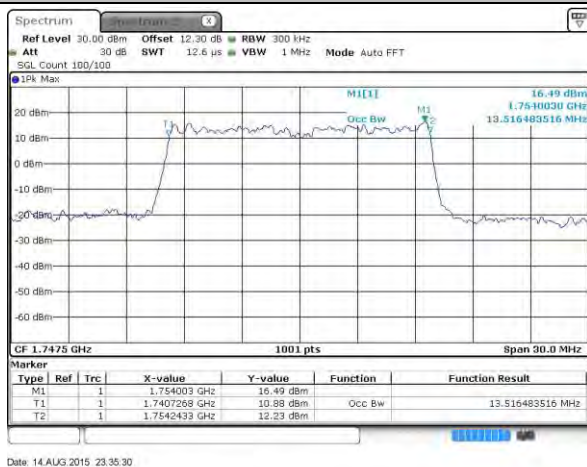
Middle Channel / 15MHz / QPSK



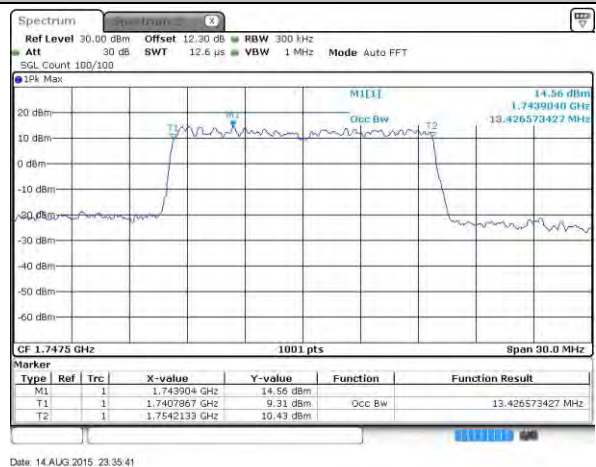
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



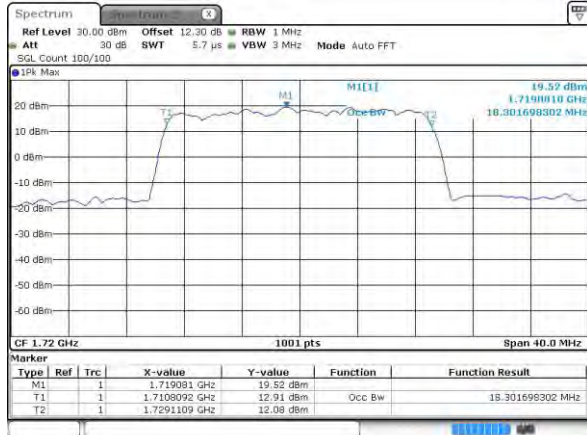
Highest Channel / 15MHz / 16QAM



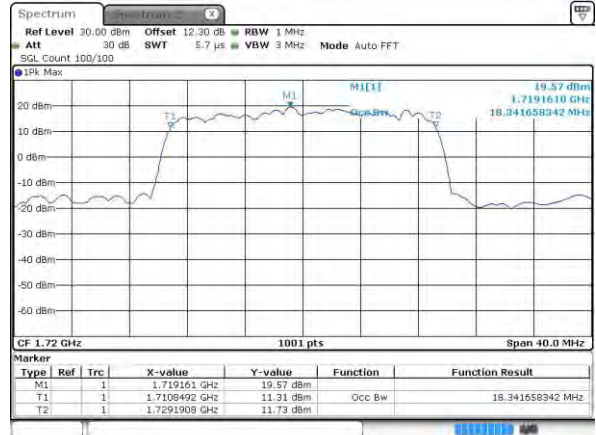


LTE Band 4

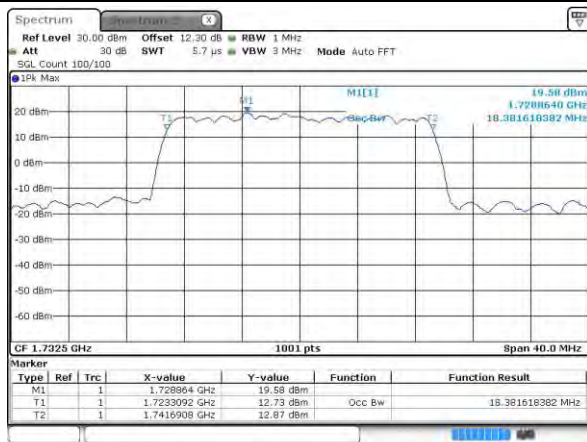
Lowest Channel / 20MHz / QPSK



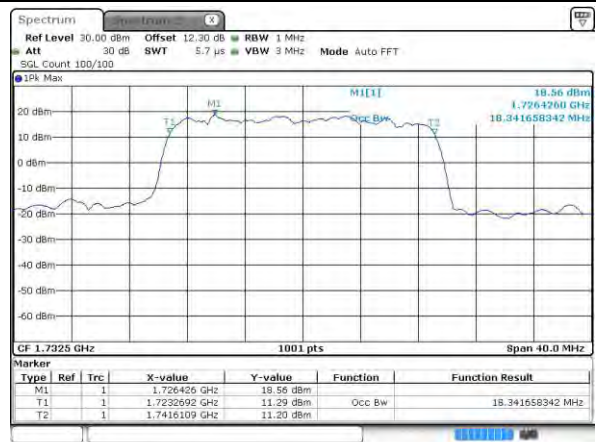
Lowest Channel / 20MHz / 16QAM



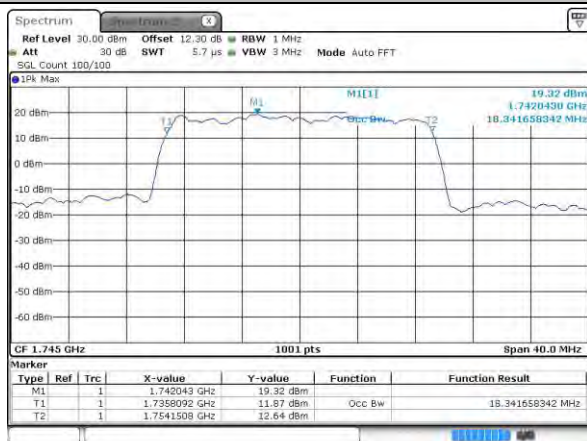
Middle Channel / 20MHz / QPSK



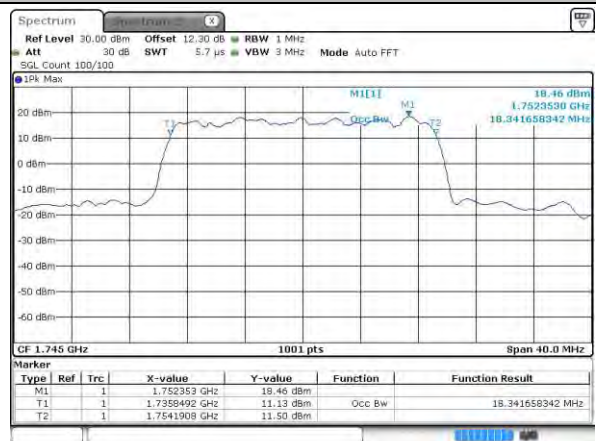
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM





Conducted Band Edge

LTE Band 4 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





LTE Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



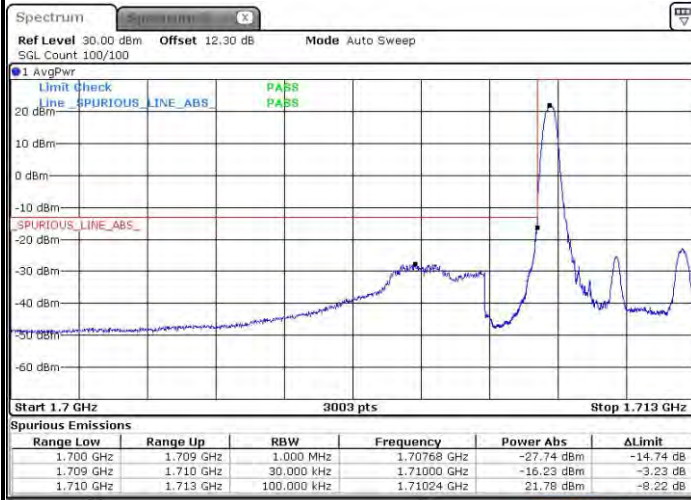
Highest Band Edge / Full RB



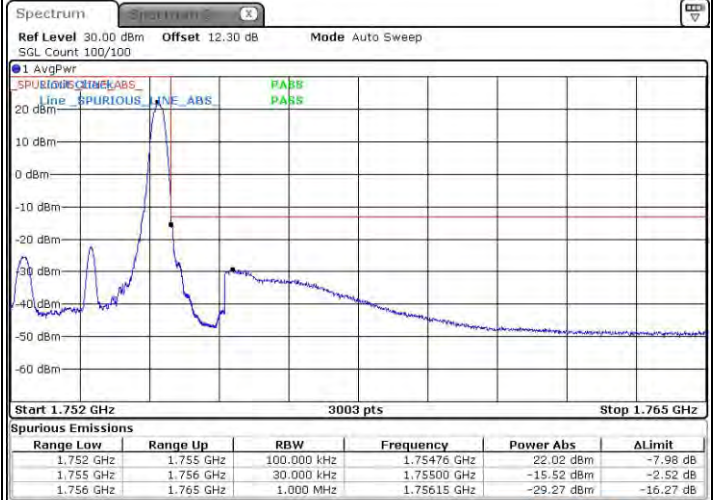


LTE Band 4 / 3MHz / QPSK

Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



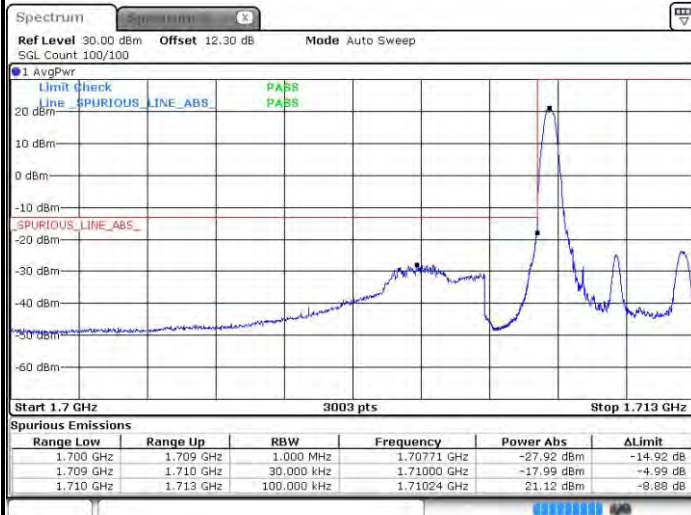
Highest Band Edge / Full RB



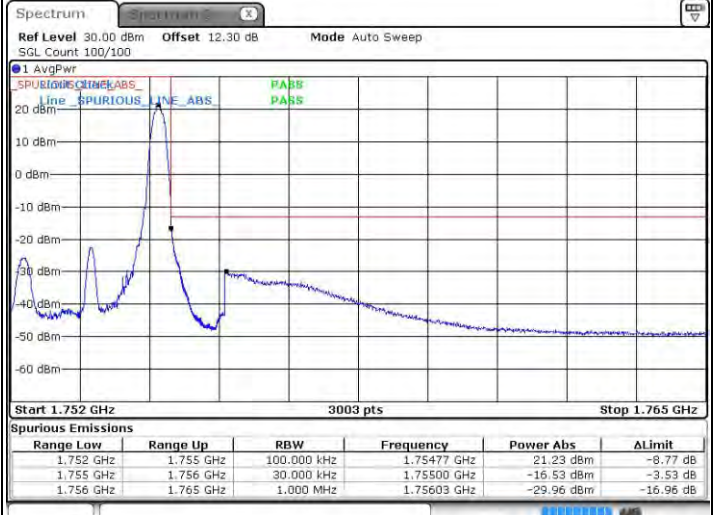


LTE Band 4 / 3MHz / 16QAM

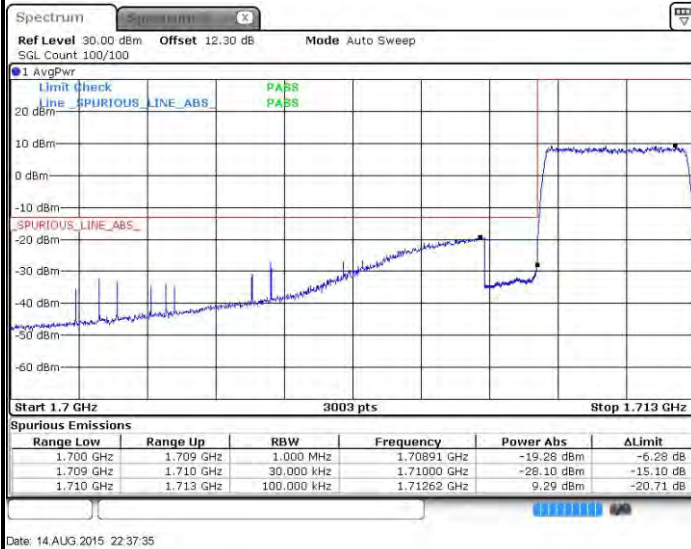
Lowest Band Edge / 1 RB



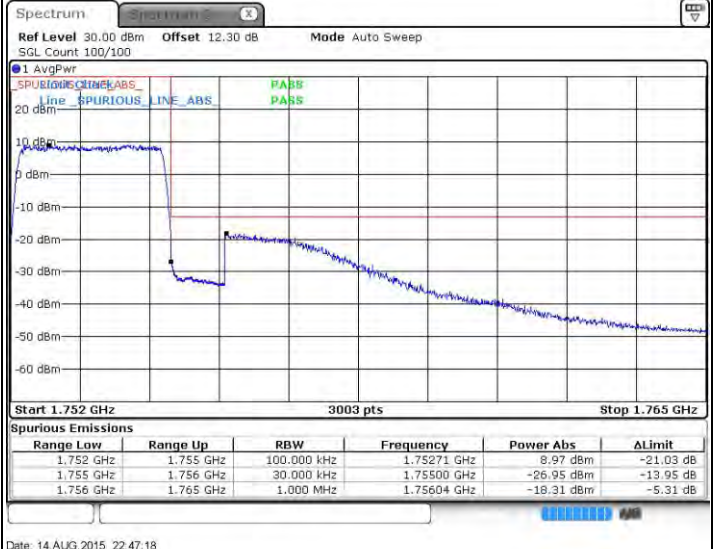
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



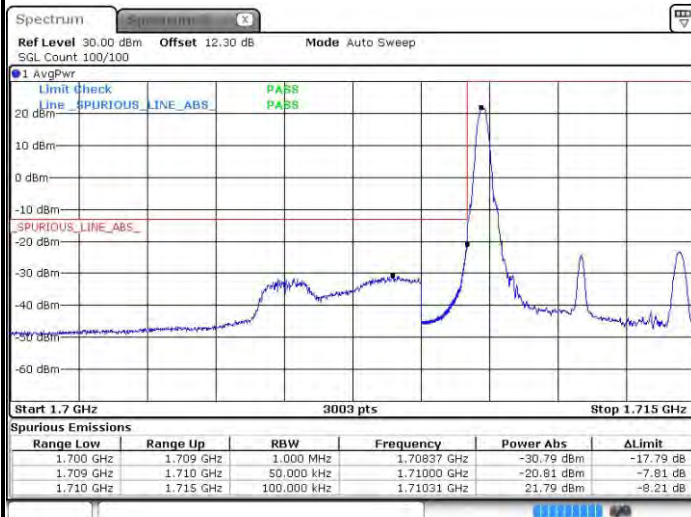
Highest Band Edge / Full RB



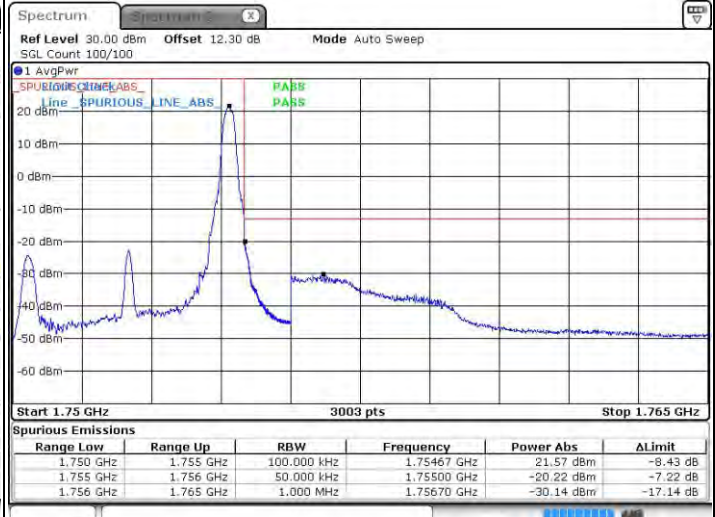


LTE Band 4 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



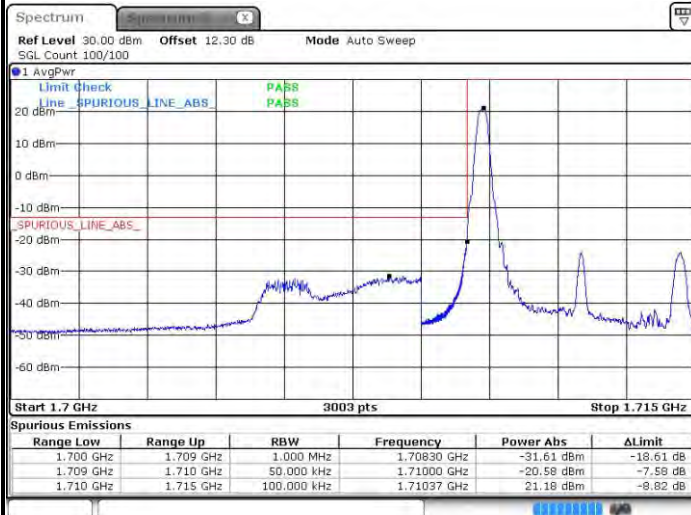
Highest Band Edge / Full RB



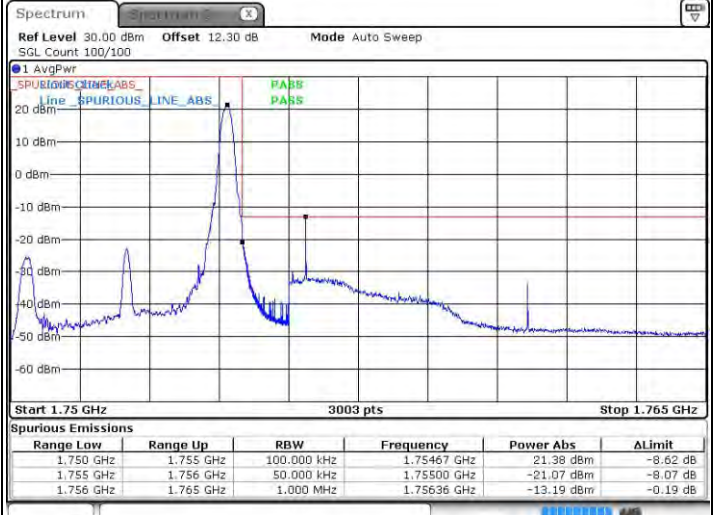


LTE Band 4 / 5MHz / 16QAM

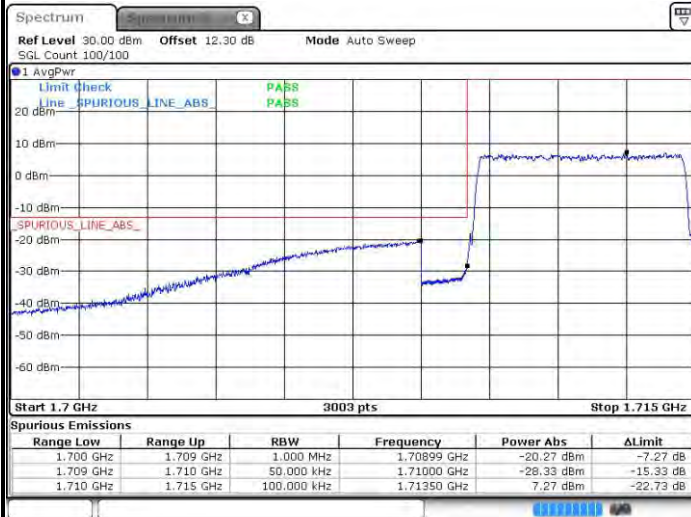
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



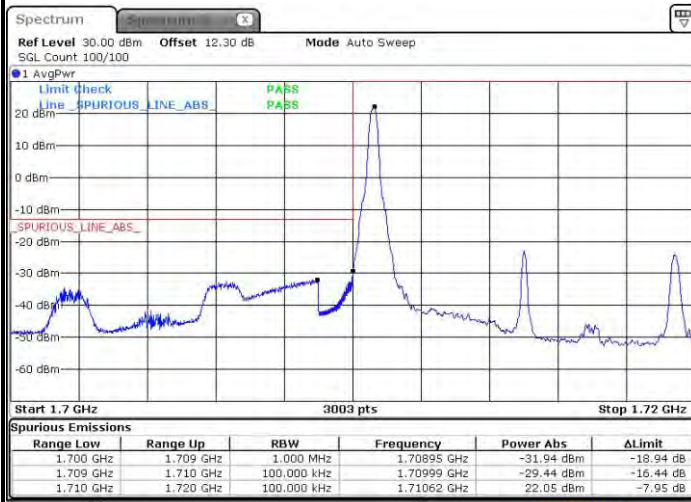
Highest Band Edge / Full RB





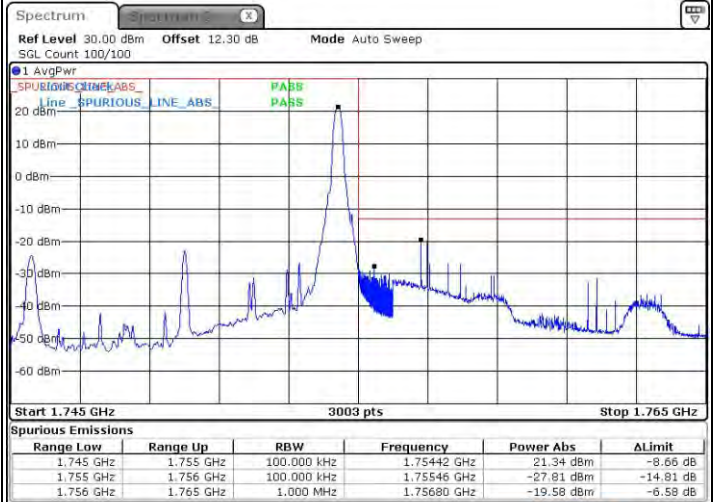
LTE Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB



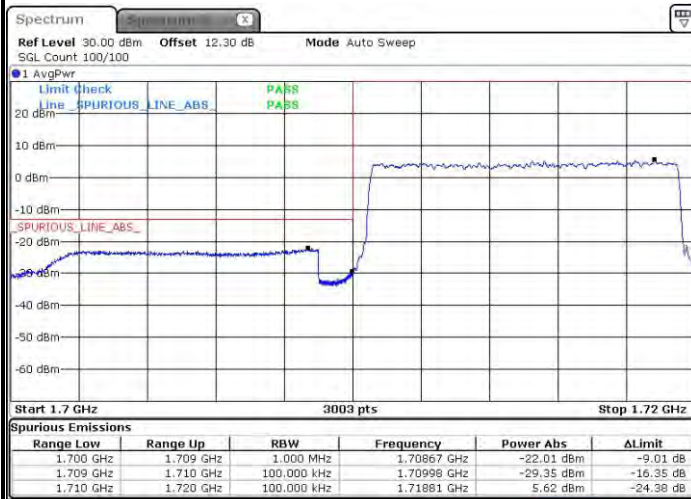
Date: 14.AUG.2015 23:07:55

Highest Band Edge / 1 RB



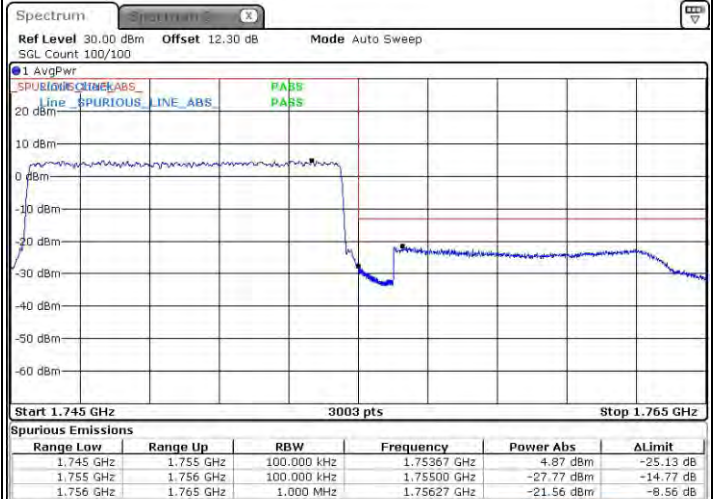
Date: 14.AUG.2015 23:17:38

Lowest Band Edge / Full RB



Date: 14.AUG.2015 23:10:14

Highest Band Edge / Full RB

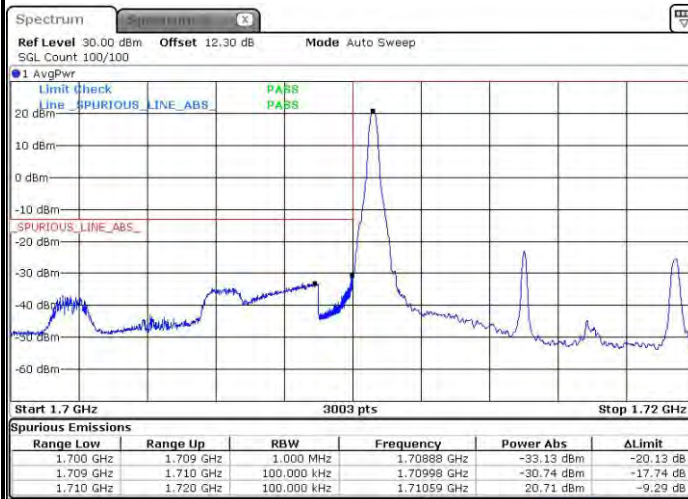


Date: 14.AUG.2015 23:19:57

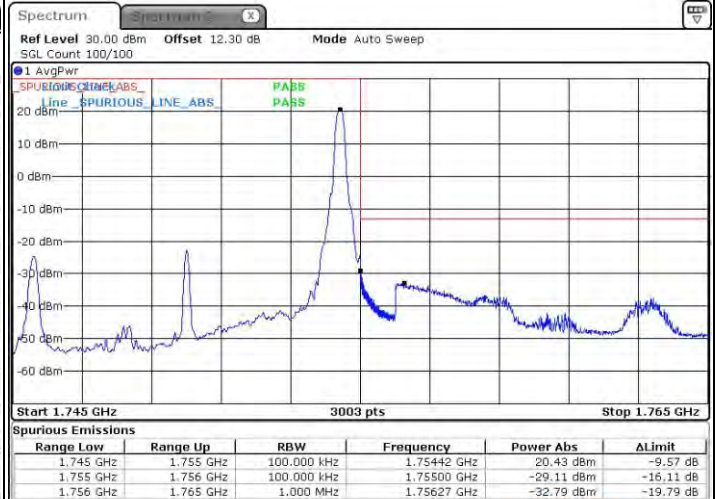


LTE Band 4 / 10MHz / 16QAM

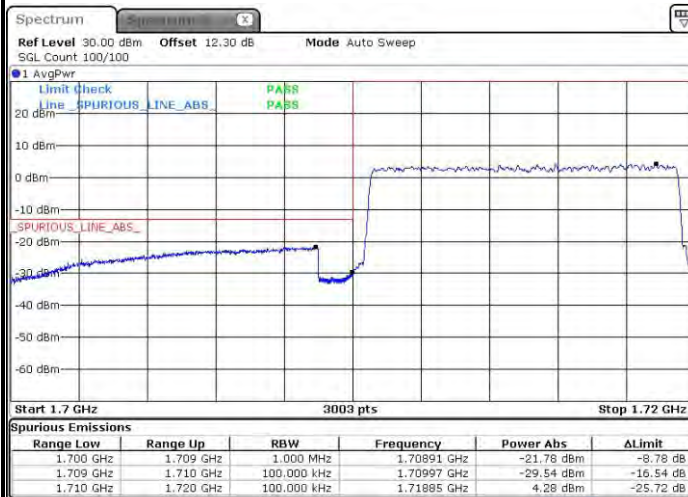
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



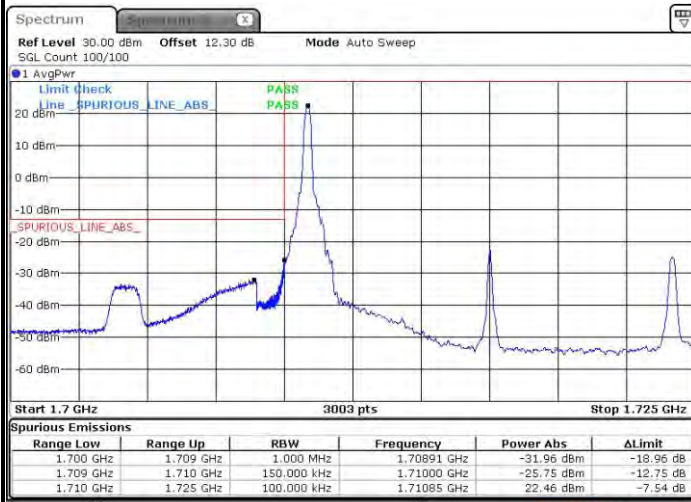
Highest Band Edge / Full RB





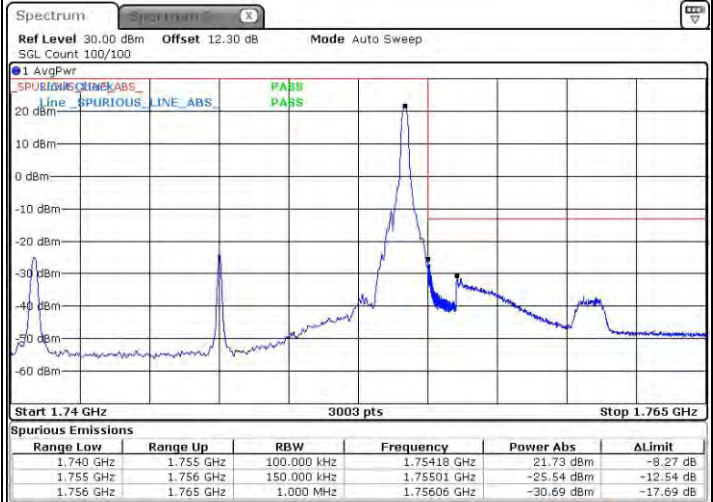
LTE Band 4 / 15MHz / QPSK

Lowest Band Edge / 1 RB



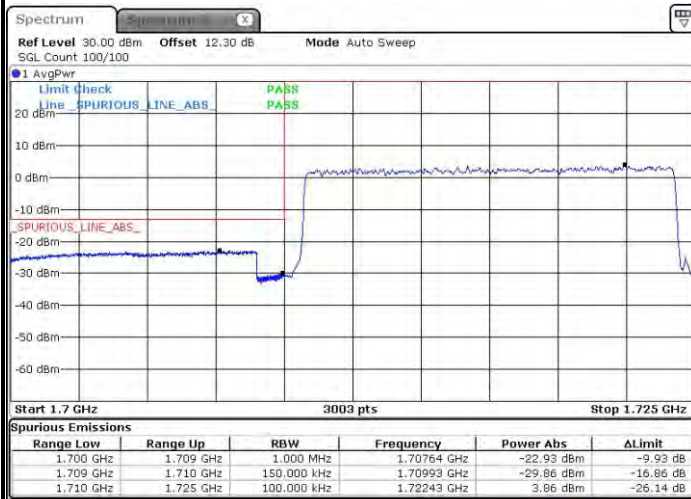
Date: 14.AUG.2015 23:27:28

Highest Band Edge / 1 RB



Date: 14.AUG.2015 23:37:11

Lowest Band Edge / Full RB



Date: 14.AUG.2015 23:28:47

Highest Band Edge / Full RB

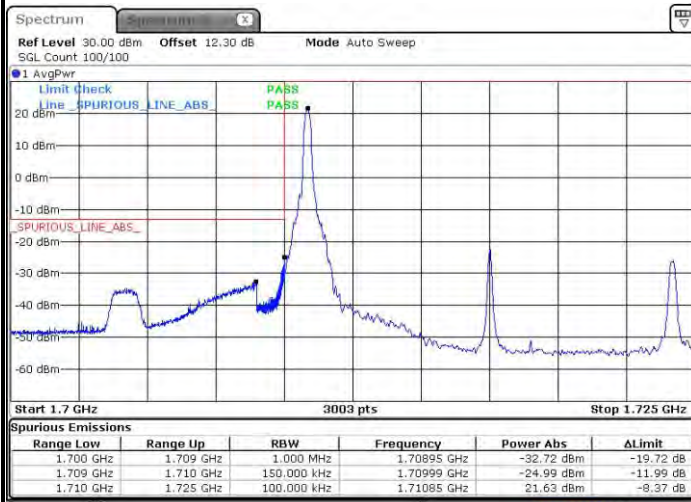


Date: 14.AUG.2015 23:39:30

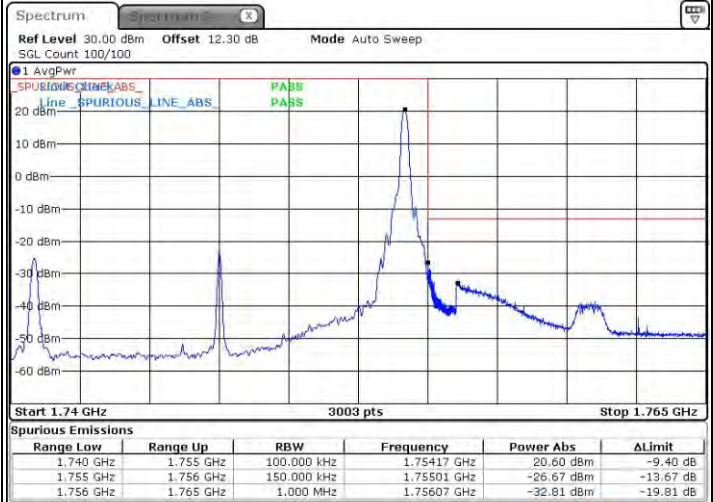


LTE Band 4 / 15MHz / 16QAM

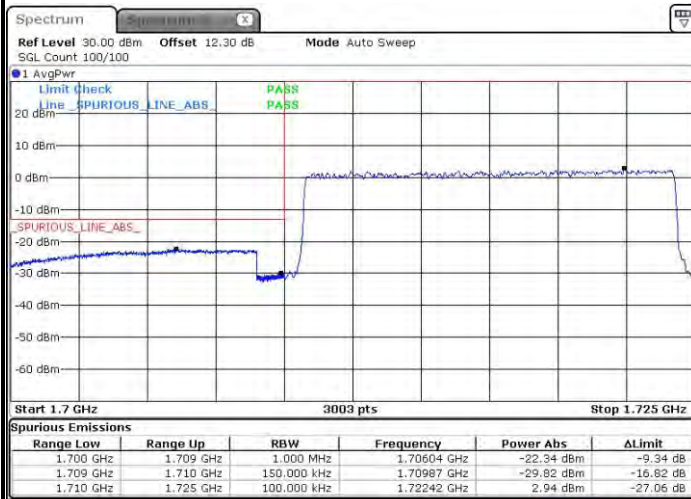
Lowest Band Edge / 1 RB



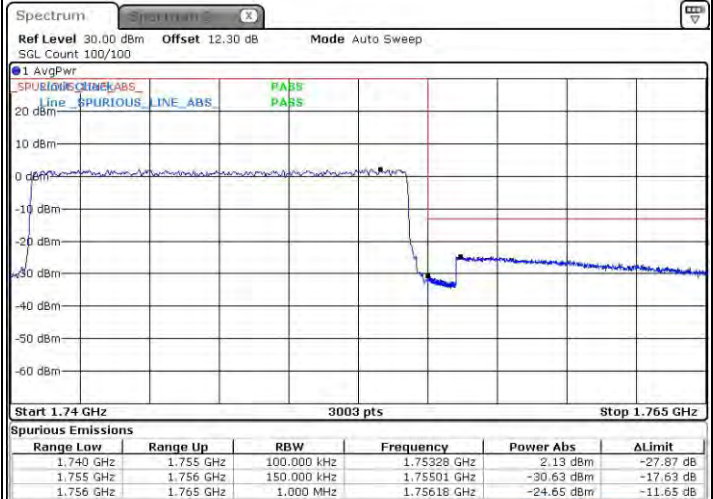
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



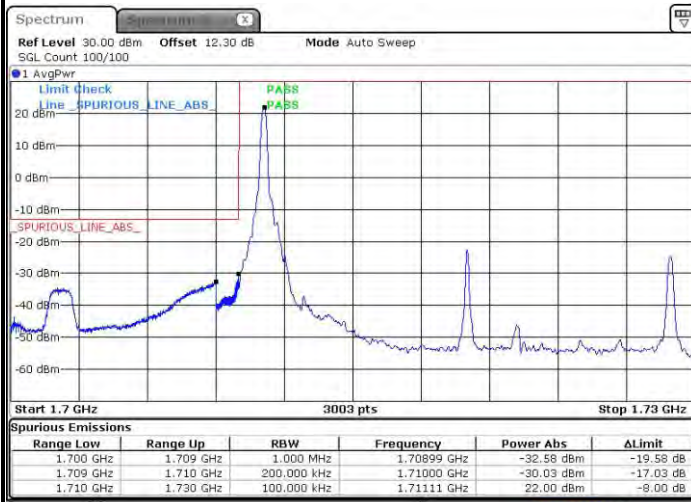
Highest Band Edge / Full RB



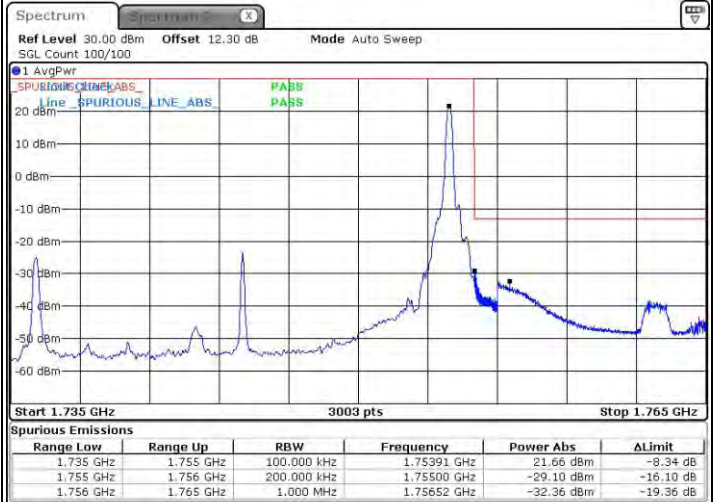


LTE Band 4 / 20MHz / QPSK

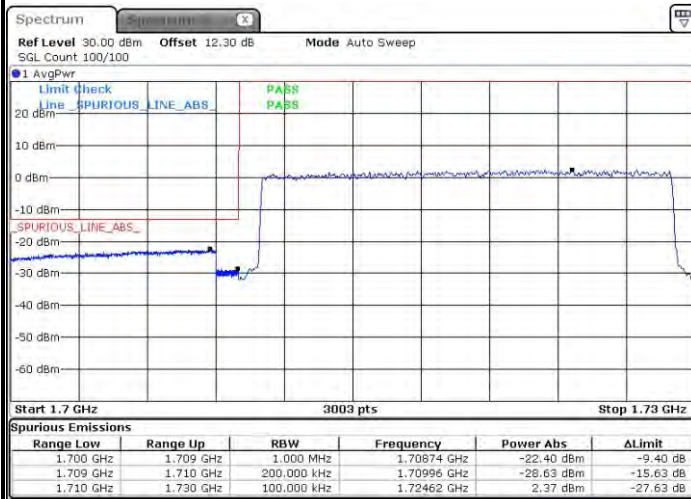
Lowest Band Edge / 1 RB



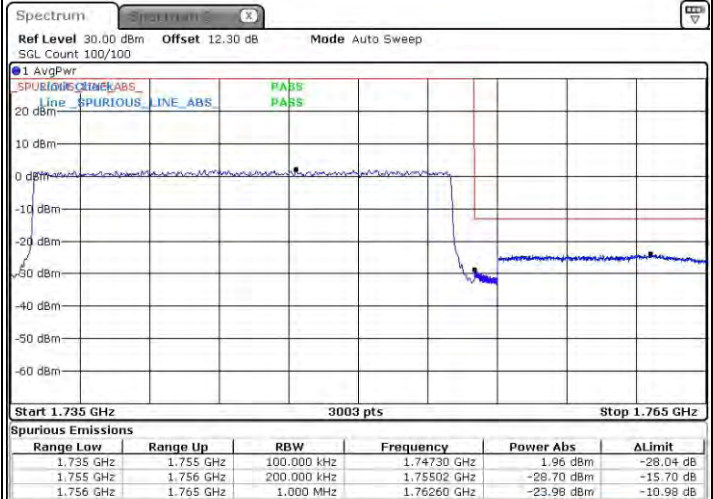
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



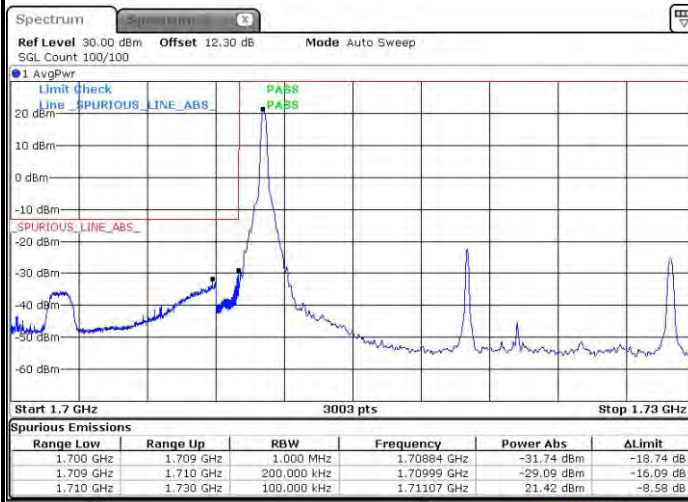
Highest Band Edge / Full RB





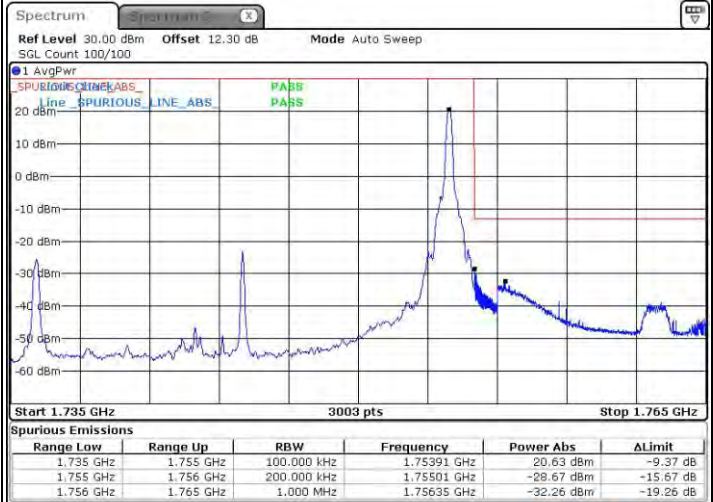
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



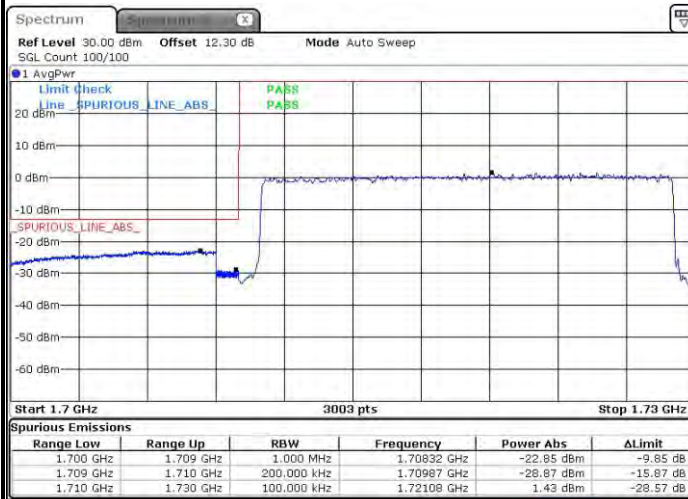
Date: 14.AUG.2015 23:45:31

Highest Band Edge / 1 RB



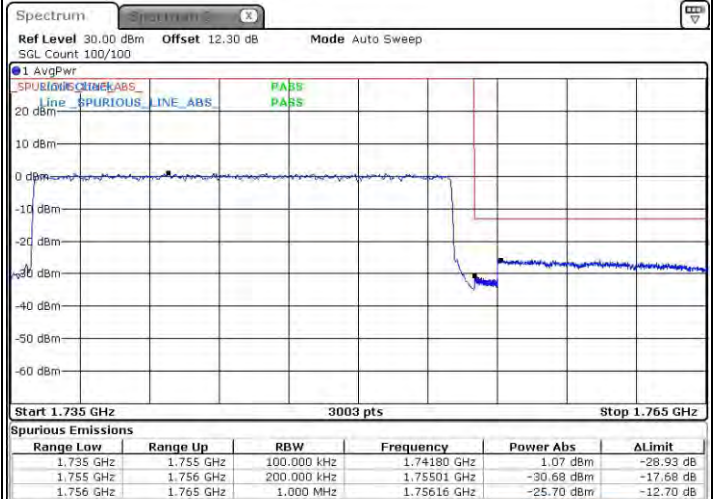
Date: 14.AUG.2015 23:55:14

Lowest Band Edge / Full RB



Date: 14.AUG.2015 23:47:50

Highest Band Edge / Full RB



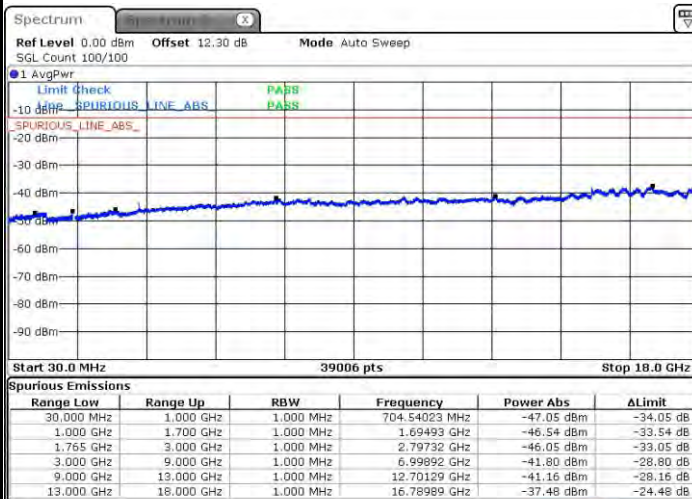
Date: 14.AUG.2015 23:57:33



Conducted Spurious Emission

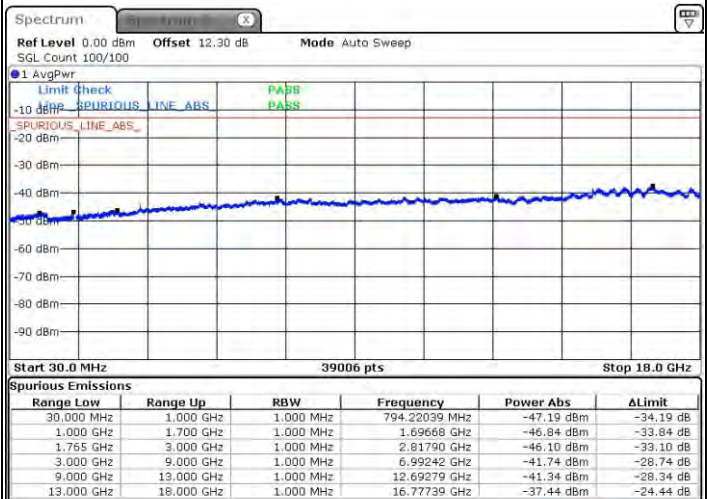
LTE Band 4 / 1.4MHz

Lowest Channel / QPSK



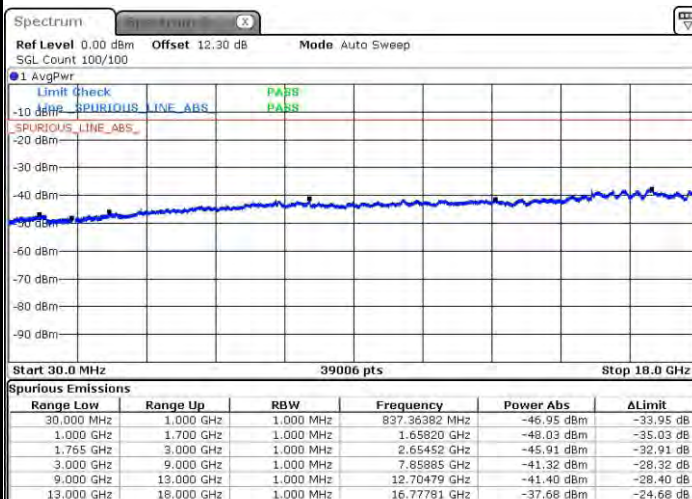
Date: 15 AUG 2015 00:05:39

Lowest Channel / 16QAM



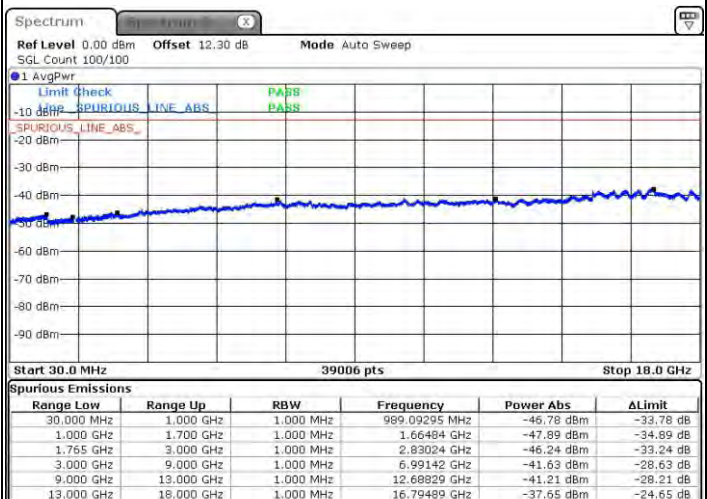
Date: 15 AUG 2015 00:06:34

Middle Channel / QPSK



Date: 15 AUG 2015 00:08:12

Middle Channel / 16QAM

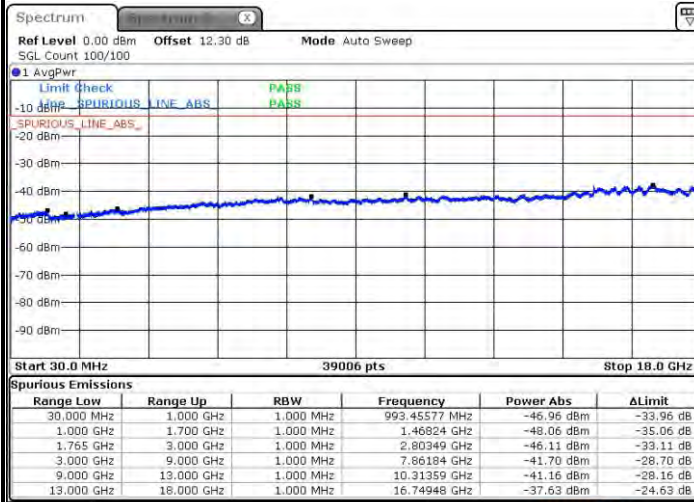


Date: 15 AUG 2015 00:09:06



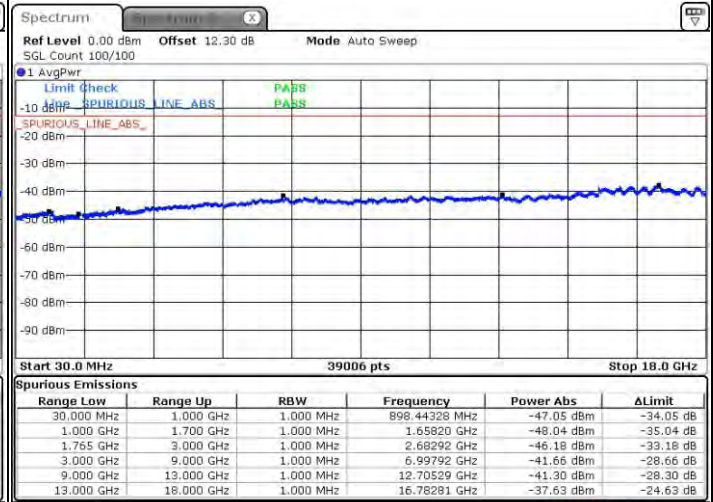
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 15 AUG 2015 00:15:23

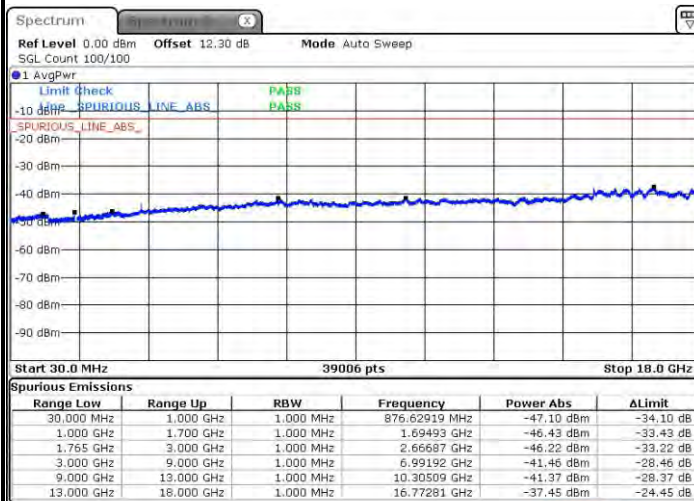
Highest Channel / 16QAM



Date: 15 AUG 2015 00:16:17

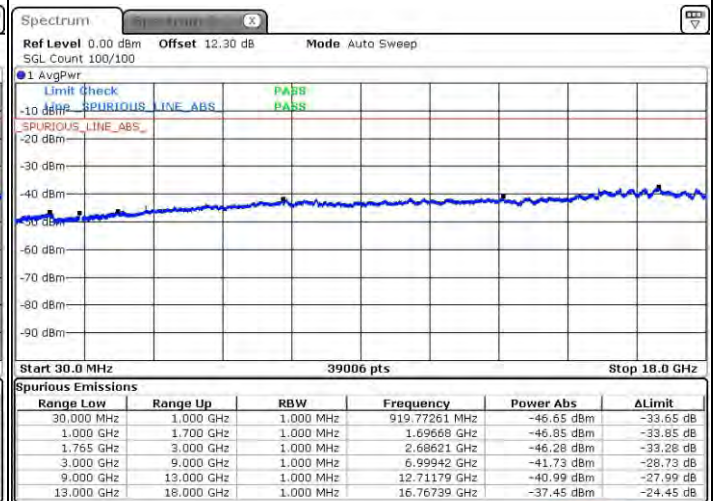
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 14 AUG 2015 22:38:30

Lowest Channel / 16QAM

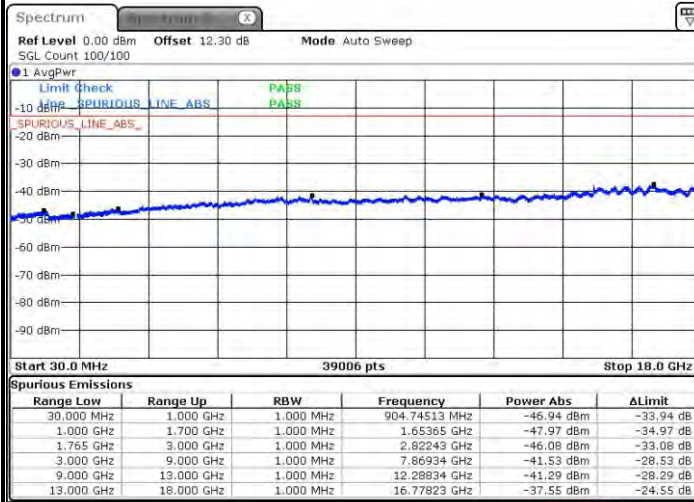


Date: 14 AUG 2015 22:39:25



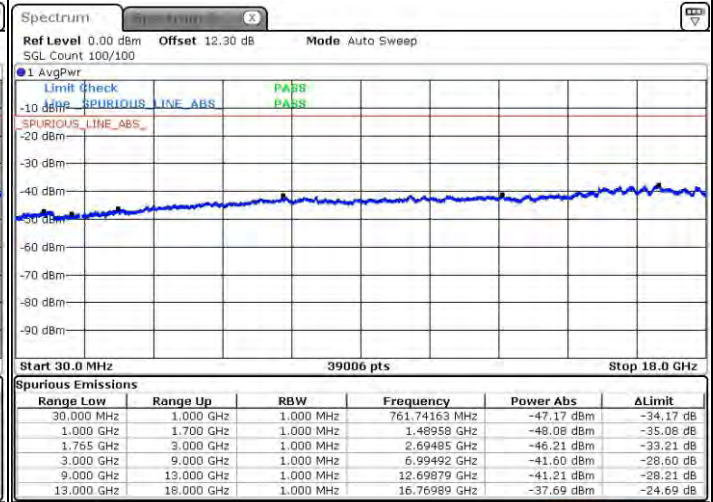
LTE Band 4 / 3MHz

Middle Channel / QPSK



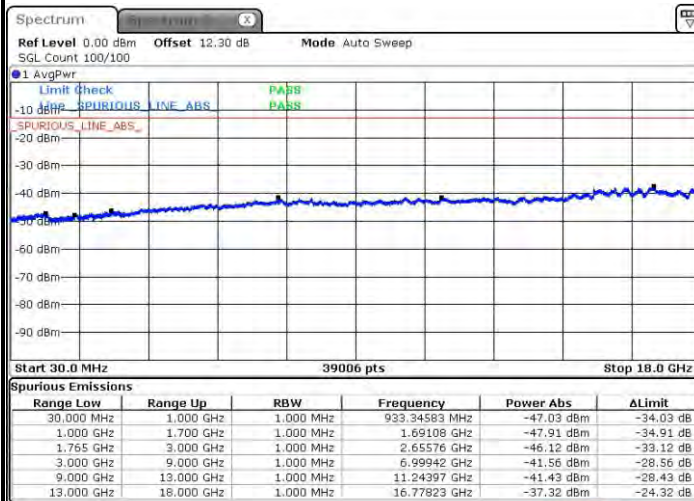
Date: 14 AUG 2015 22:41:03

Middle Channel / 16QAM



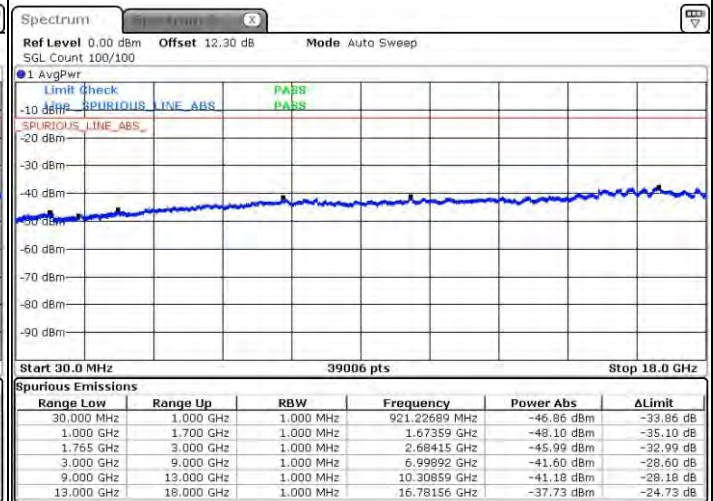
Date: 14 AUG 2015 22:41:58

Highest Channel / QPSK



Date: 14 AUG 2015 22:48:13

Highest Channel / 16QAM

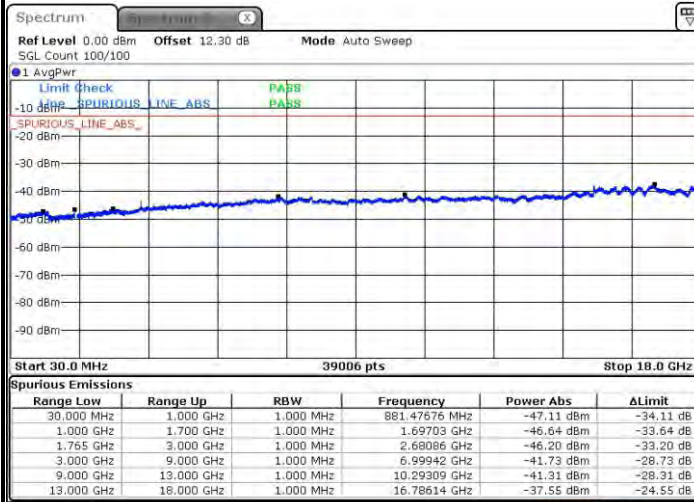


Date: 14 AUG 2015 22:49:08



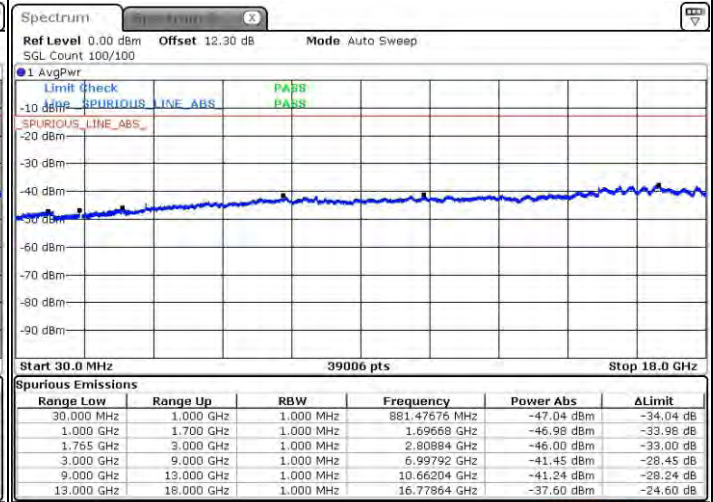
LTE Band 4 / 5MHz

Lowest Channel / QPSK



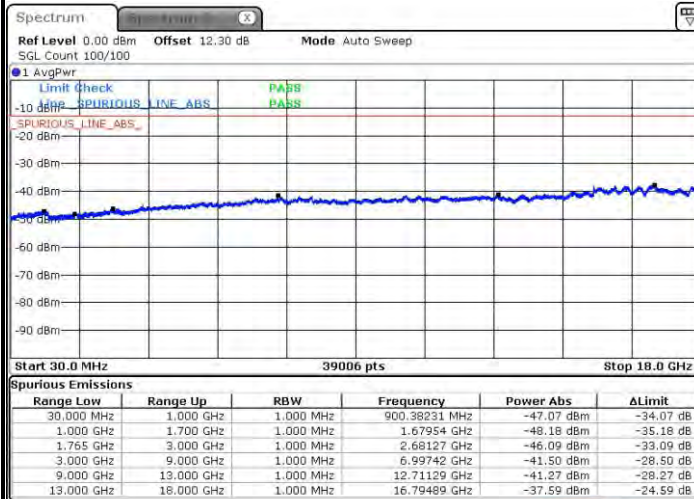
Date: 14 AUG 2015 22:55:24

Lowest Channel / 16QAM



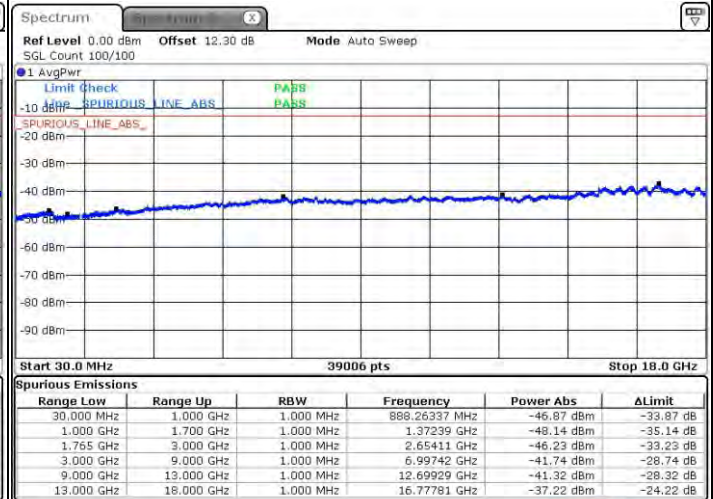
Date: 14 AUG 2015 22:56:19

Middle Channel / QPSK



Date: 14 AUG 2015 22:57:57

Middle Channel / 16QAM

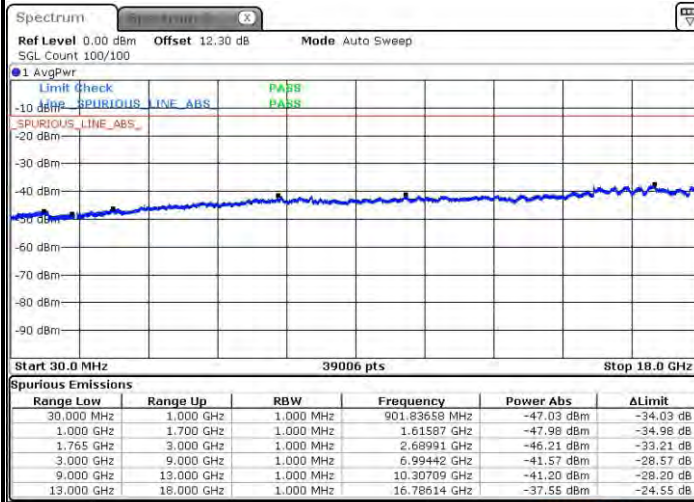


Date: 14 AUG 2015 22:58:52



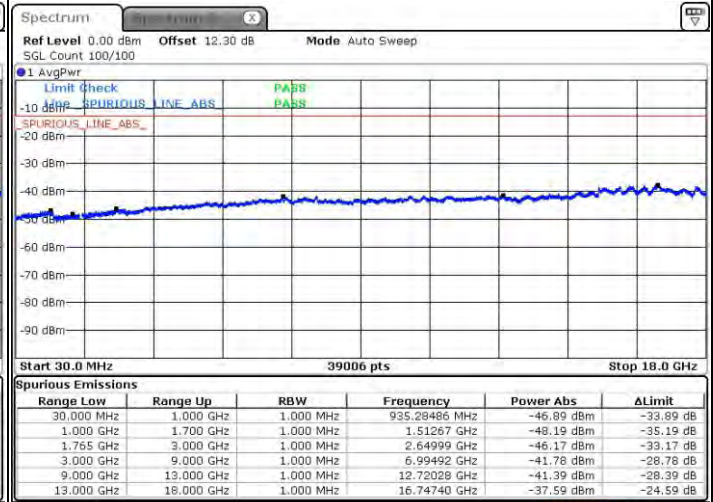
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 14 AUG 2015 23:05:08

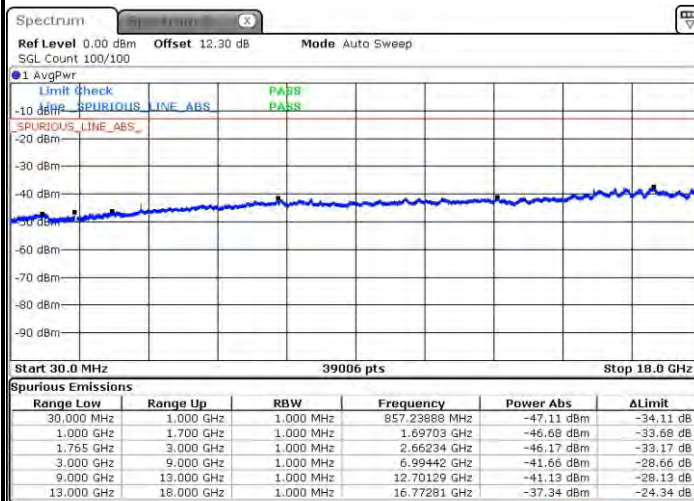
Highest Channel / 16QAM



Date: 14 AUG 2015 23:06:03

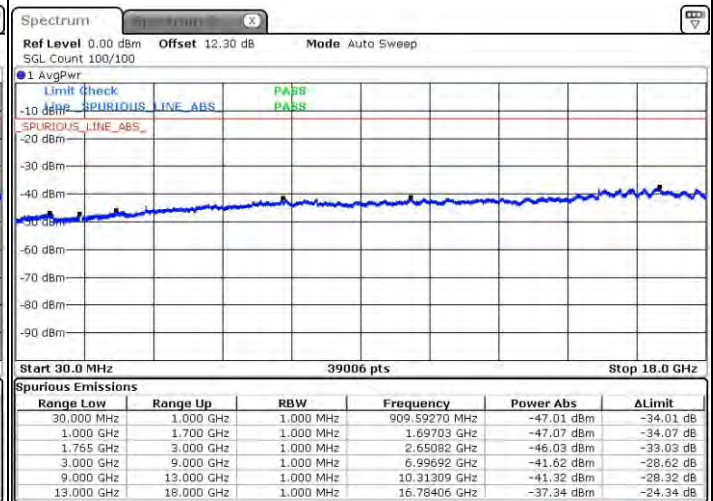
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 14 AUG 2015 23:12:18

Lowest Channel / 16QAM

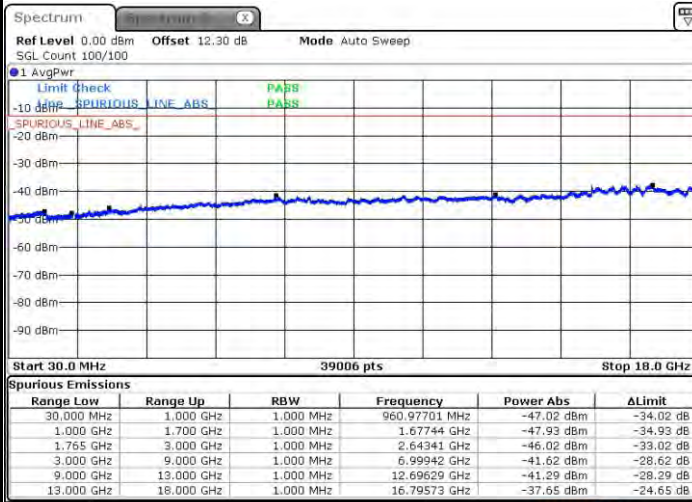


Date: 14 AUG 2015 23:13:13



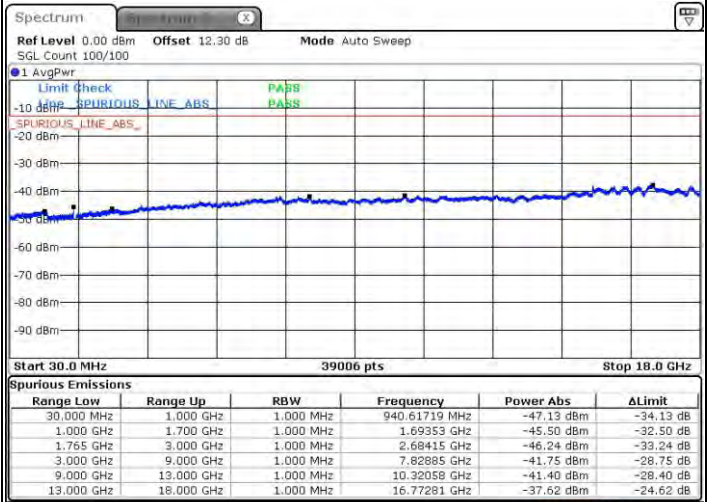
LTE Band 4 / 10MHz

Middle Channel / QPSK



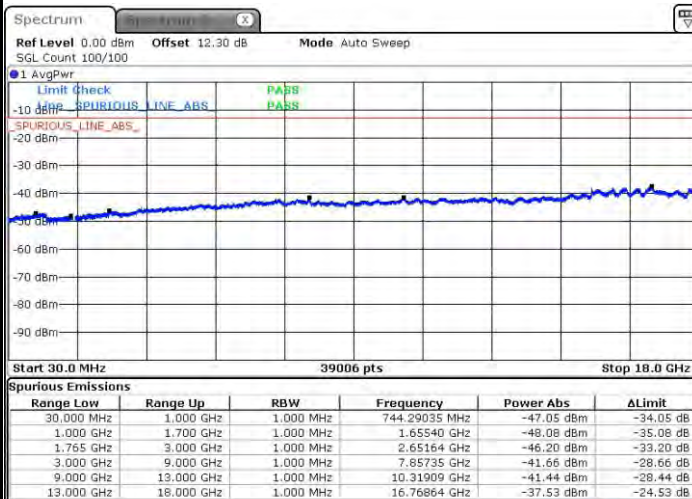
Date: 14 AUG 2015 23:14:51

Middle Channel / 16QAM



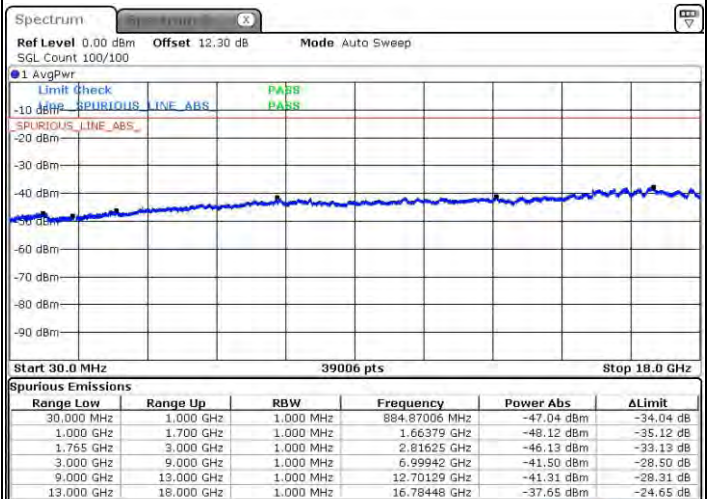
Date: 14 AUG 2015 23:15:46

Highest Channel / QPSK



Date: 14 AUG 2015 23:22:02

Highest Channel / 16QAM

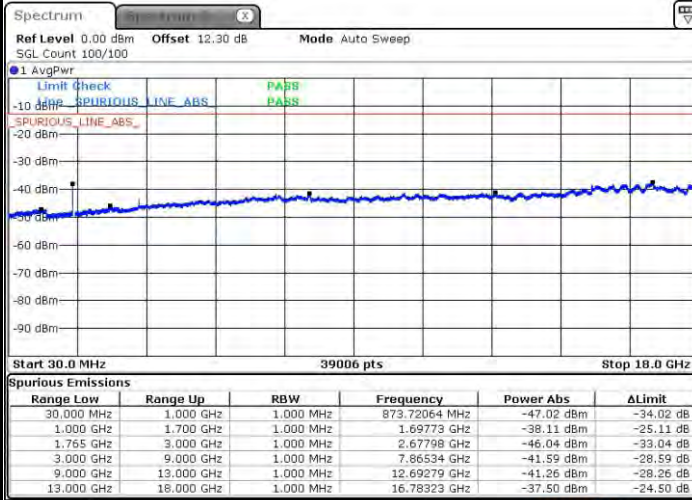


Date: 14 AUG 2015 23:22:56



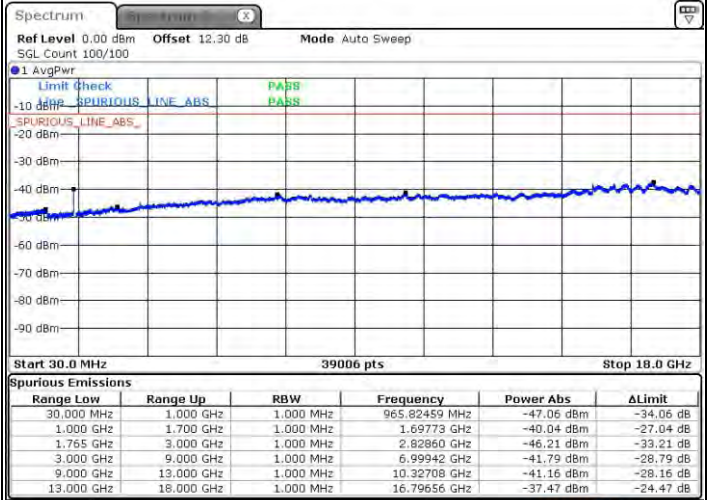
LTE Band 4 / 15MHz

Lowest Channel / QPSK



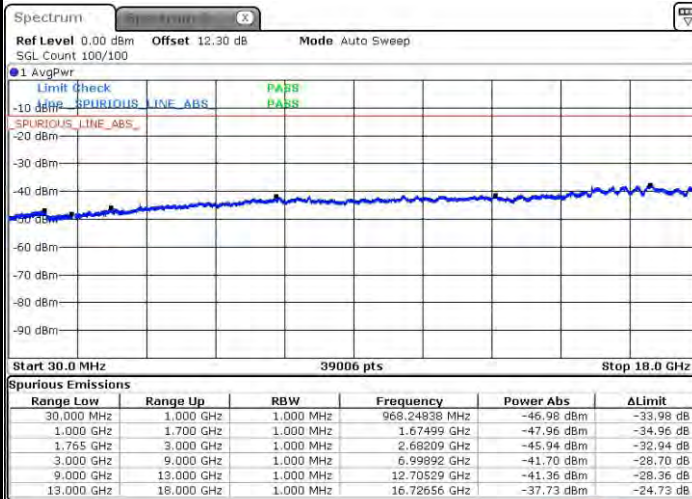
Date: 14 AUG 2015 23:31:51

Lowest Channel / 16QAM



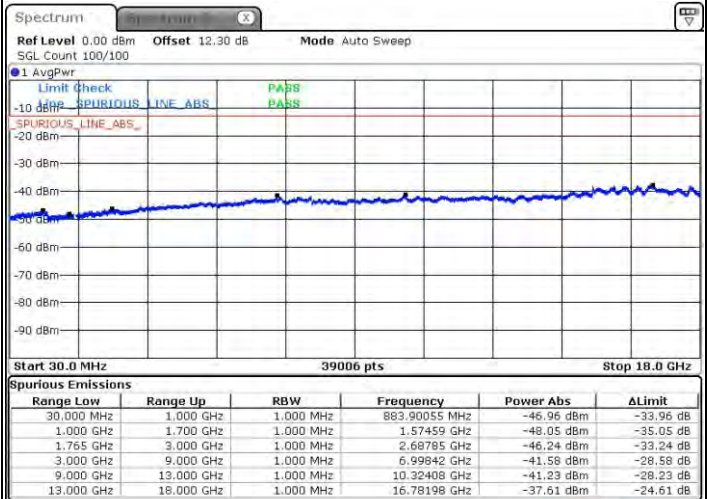
Date: 14 AUG 2015 23:32:46

Middle Channel / QPSK



Date: 14 AUG 2015 23:34:24

Middle Channel / 16QAM

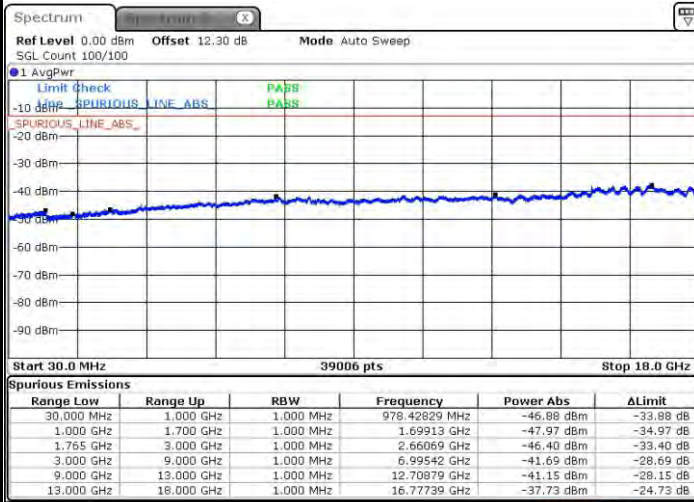


Date: 14 AUG 2015 23:35:19



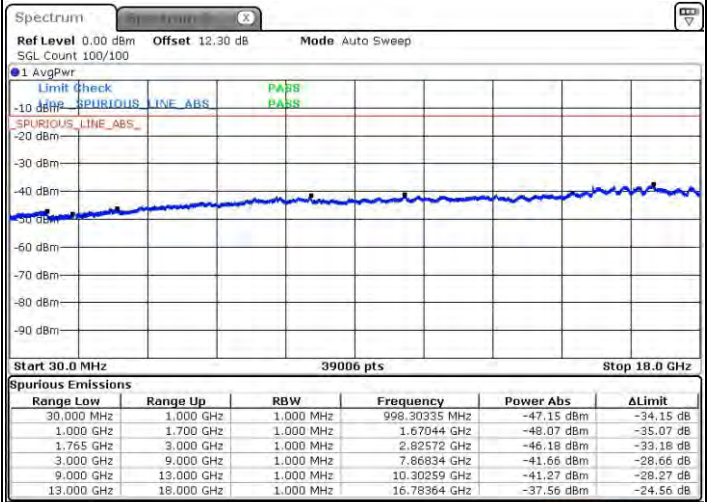
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 14 AUG 2015 23:41:35

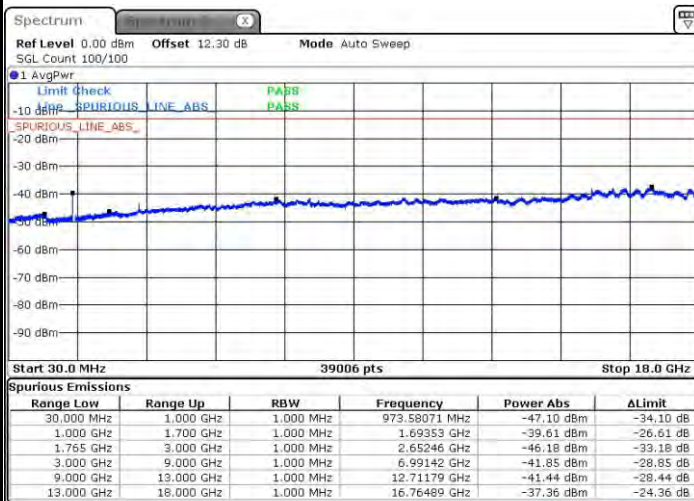
Highest Channel / 16QAM



Date: 14 AUG 2015 23:42:30

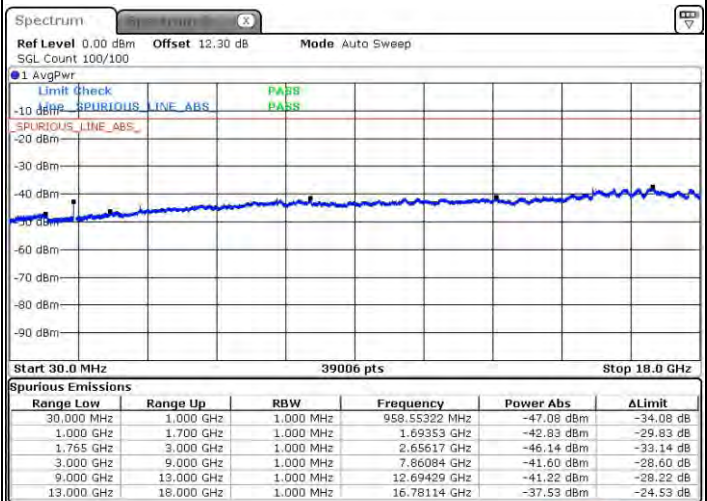
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 14 AUG 2015 23:48:45

Lowest Channel / 16QAM

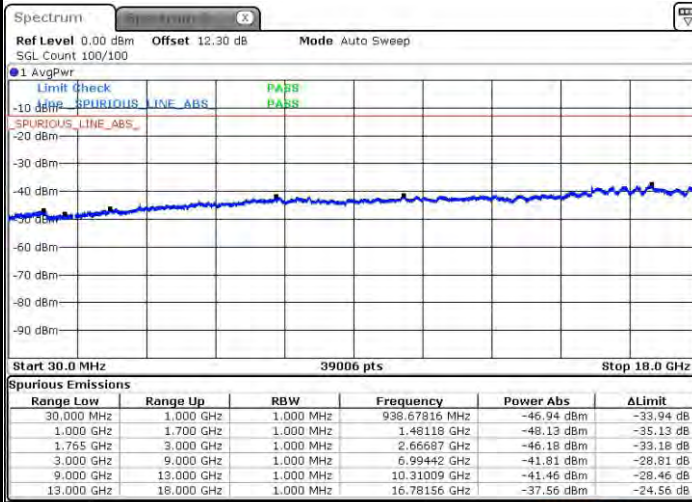


Date: 14 AUG 2015 23:49:40



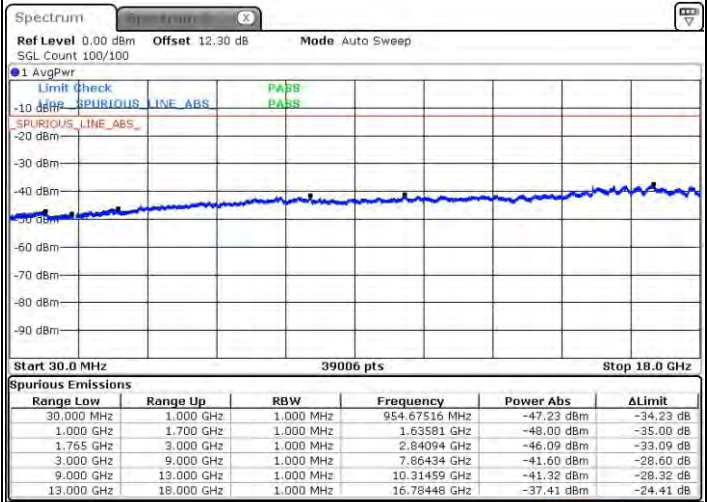
LTE Band 4 / 20MHz

Middle Channel / QPSK



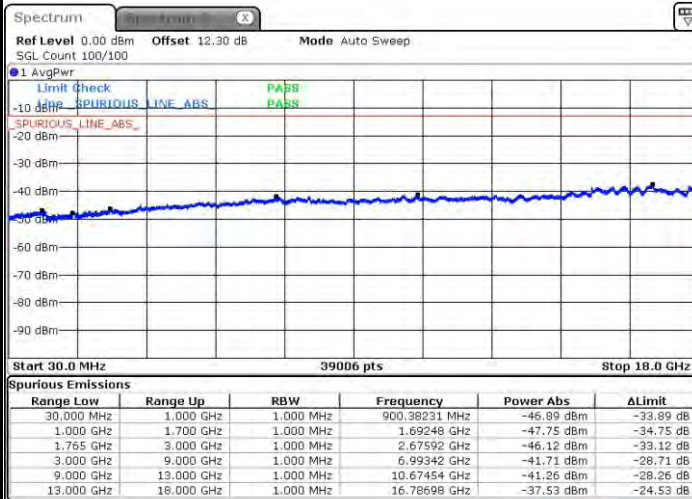
Date: 14 AUG 2015 23:51:18

Middle Channel / 16QAM



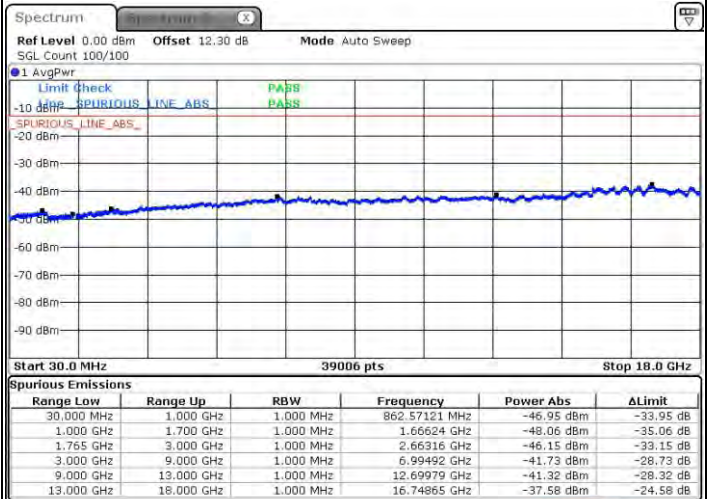
Date: 14 AUG 2015 23:52:13

Highest Channel / QPSK



Date: 14 AUG 2015 23:58:28

Highest Channel / 16QAM



Date: 14 AUG 2015 23:59:23

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0091	PASS
40	Normal Voltage	0.0066	
30	Normal Voltage	0.0071	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.35 V
2. The frequency fundamental emissions stay within the authorized frequency block.