



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	4.32	4.67	5.62	5.74	PASS
Middle CH	3.65	4.75	4.7	5.77	
Highest CH	4.26	4.96	5.33	6.03	



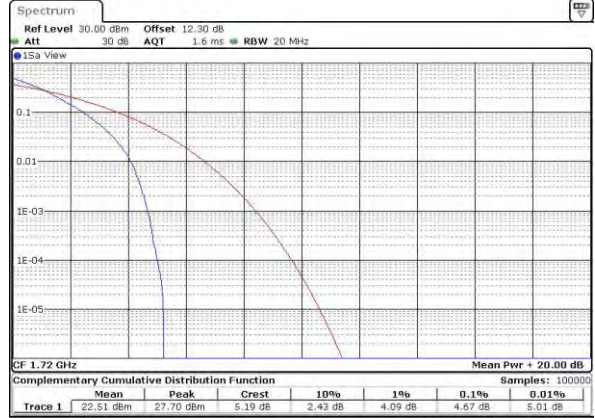
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 18_JUL_2015 13:40:21

Lowest Channel / Full RB



Date: 18_JUL_2015 13:40:49

Middle Channel / 1RB



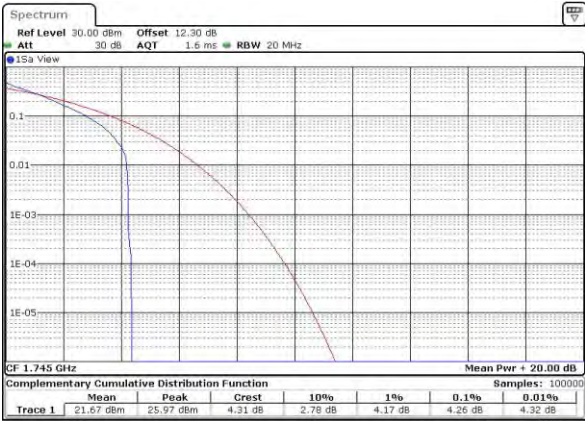
Date: 18_JUL_2015 13:41:02

Middle Channel / Full RB



Date: 18_JUL_2015 13:41:17

Highest Channel / 1RB



Date: 18_JUL_2015 13:41:34

Highest Channel / Full RB



Date: 18_JUL_2015 13:42:29



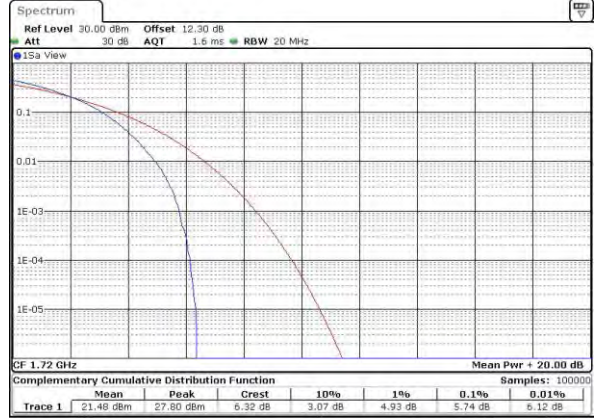
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



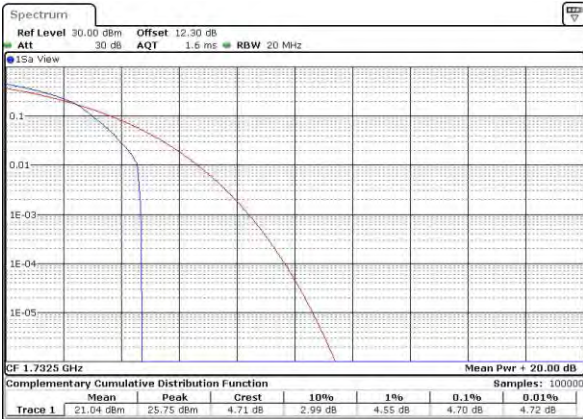
Date: 18_JUL_2015 13:38:12

Lowest Channel / Full RB



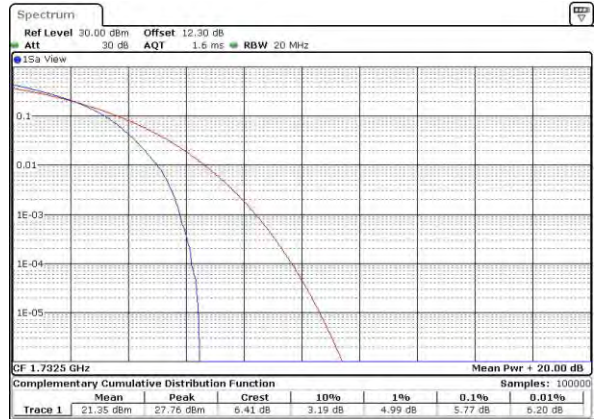
Date: 18_JUL_2015 13:38:56

Middle Channel / 1RB



Date: 18_JUL_2015 13:39:07

Middle Channel / Full RB



Date: 18_JUL_2015 13:39:23

Highest Channel / 1RB



Date: 18_JUL_2015 13:39:35

Highest Channel / Full RB



Date: 18_JUL_2015 13:39:47



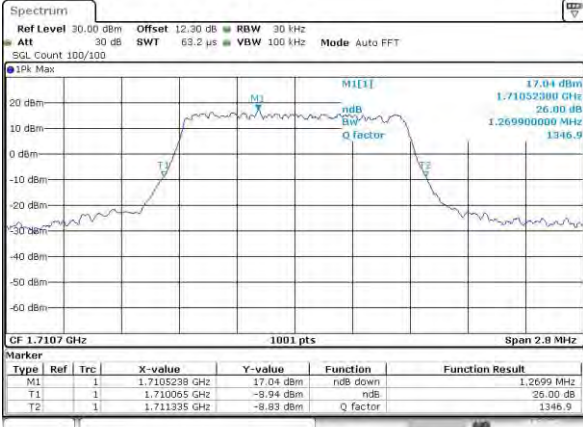
26dB Bandwidth

Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.27	1.28	3.02	3	4.93	4.96	9.91	9.81	14.36	14.18	20.02	20.1
Middle CH	1.27	1.28	3.02	3.02	5.05	4.85	9.97	9.83	14.78	14.15	20.14	20.06
Highest CH	1.28	1.23	3.05	3	4.87	4.98	9.83	9.91	14.36	14.39	20.38	20.06



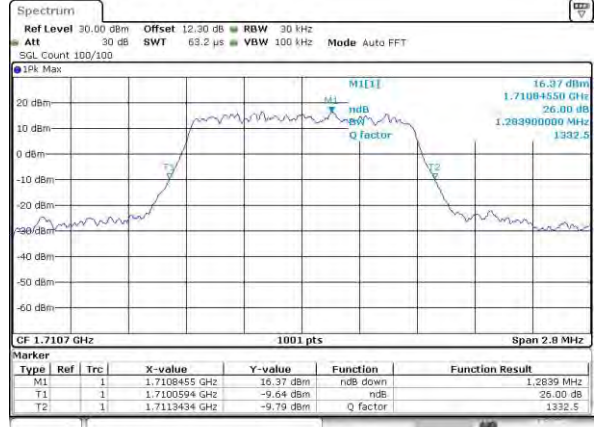
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



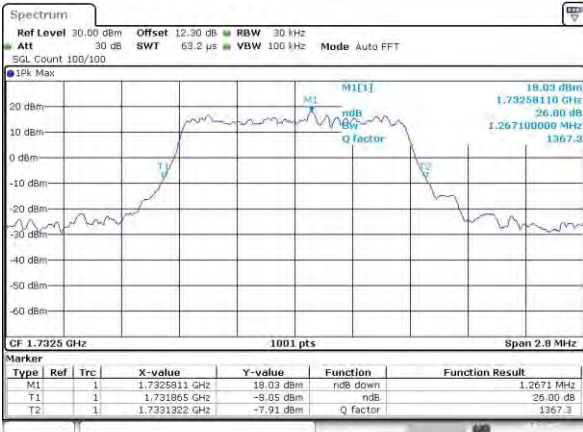
Date: 18-Jul-2018 13:19:29

Lowest Channel / 1.4MHz / 16QAM



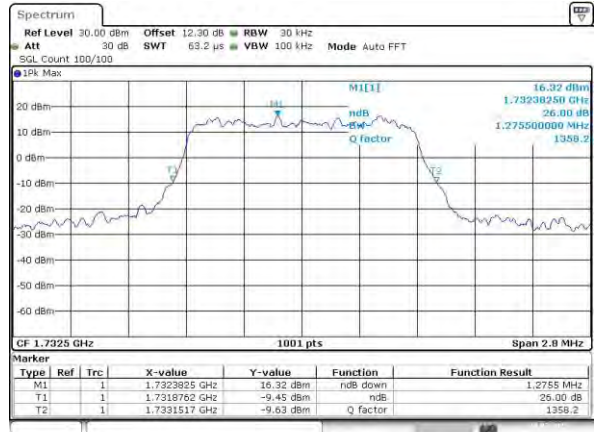
Date: 18-Jul-2018 13:19:39

Middle Channel / 1.4MHz / QPSK



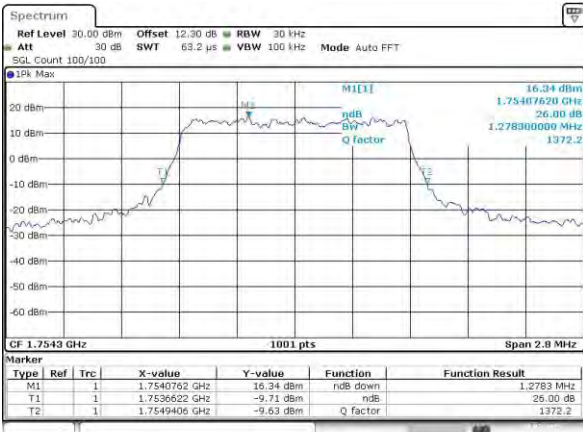
Date: 18-Jul-2018 13:26:49

Middle Channel / 1.4MHz / 16QAM



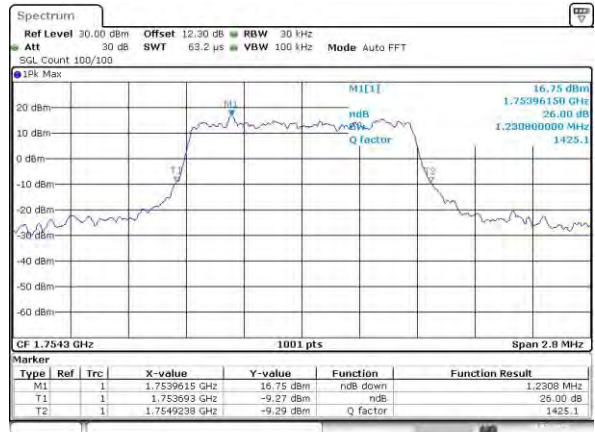
Date: 18-Jul-2018 13:27:01

Highest Channel / 1.4MHz / QPSK



Date: 18-Jul-2018 13:29:32

Highest Channel / 1.4MHz / 16QAM

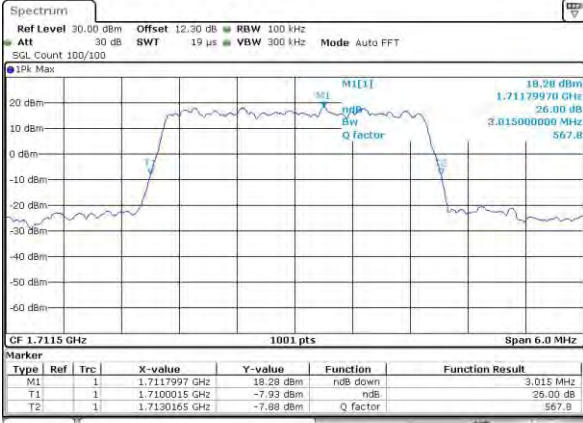


Date: 18-Jul-2018 13:29:44



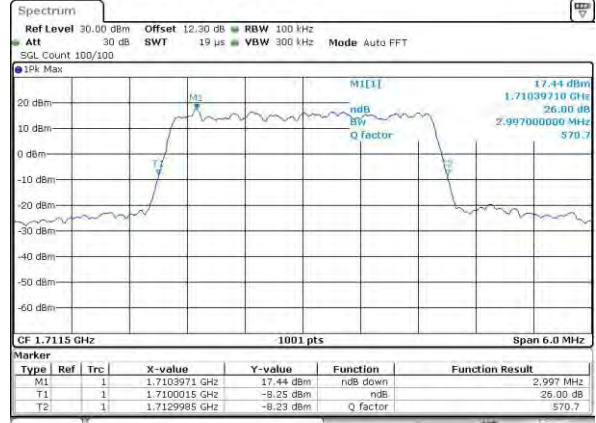
LTE Band 4

Lowest Channel / 3MHz / QPSK



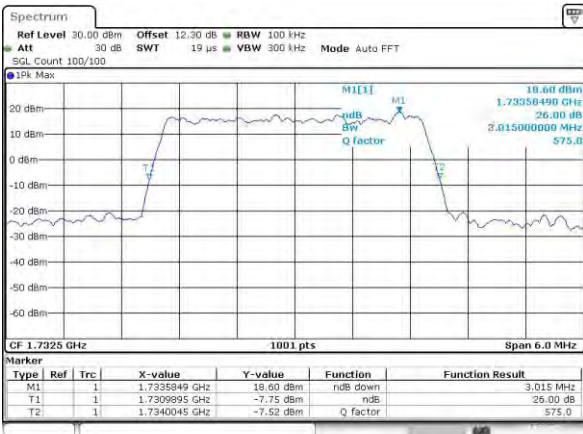
Date: 18-Jul-2018 11:26:13

Lowest Channel / 3MHz / 16QAM



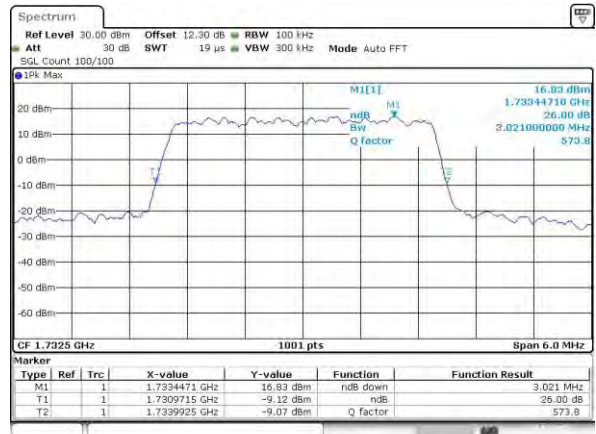
Date: 18-Jul-2018 11:26:25

Middle Channel / 3MHz / QPSK



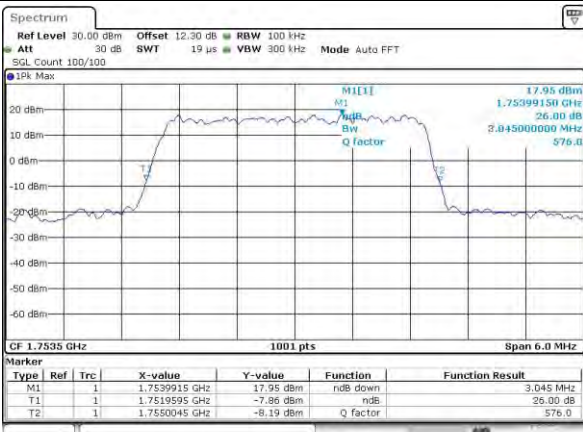
Date: 18-Jul-2018 11:33:14

Middle Channel / 3MHz / 16QAM



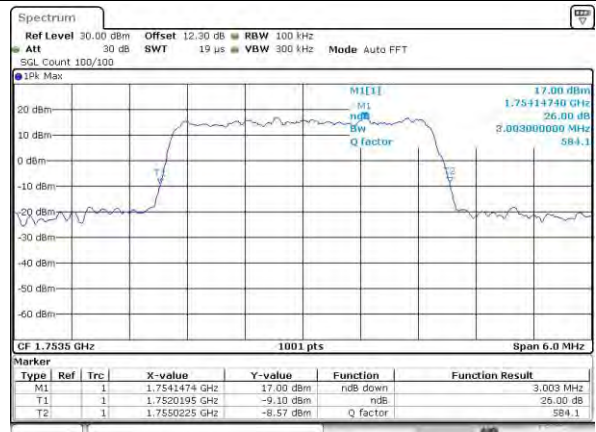
Date: 18-Jul-2018 11:33:46

Highest Channel / 3MHz / QPSK



Date: 18-Jul-2018 11:36:17

Highest Channel / 3MHz / 16QAM

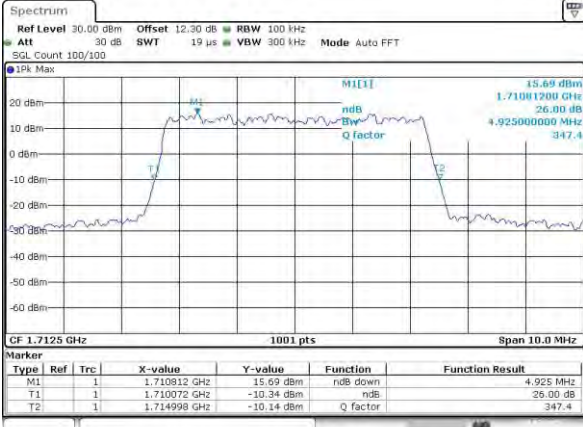


Date: 18-Jul-2018 11:36:29



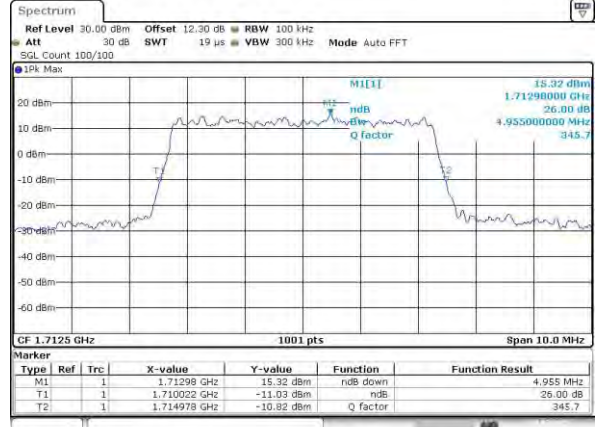
LTE Band 4

Lowest Channel / 5MHz / QPSK



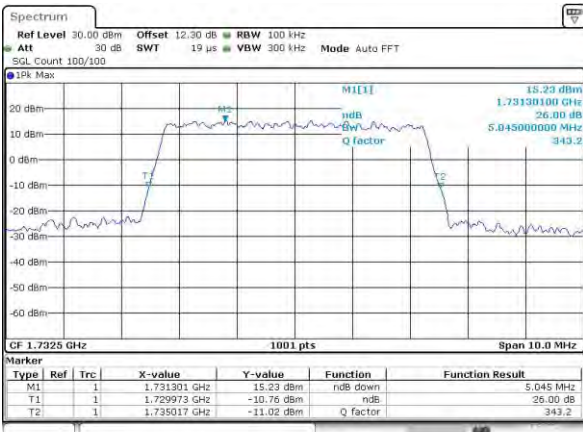
Date: 18-Jul-2018 11:43:38

Lowest Channel / 5MHz / 16QAM



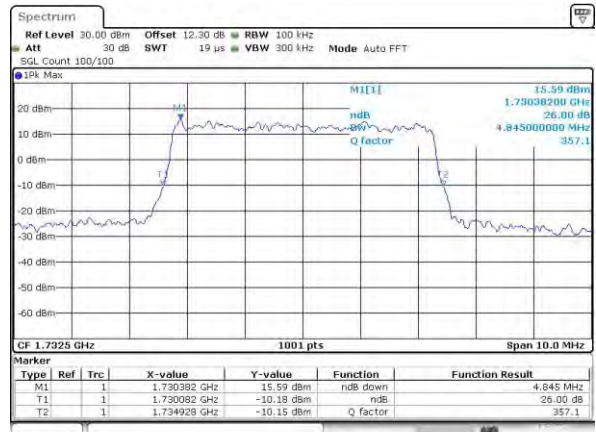
Date: 18-Jul-2018 11:43:49

Middle Channel / 5MHz / QPSK



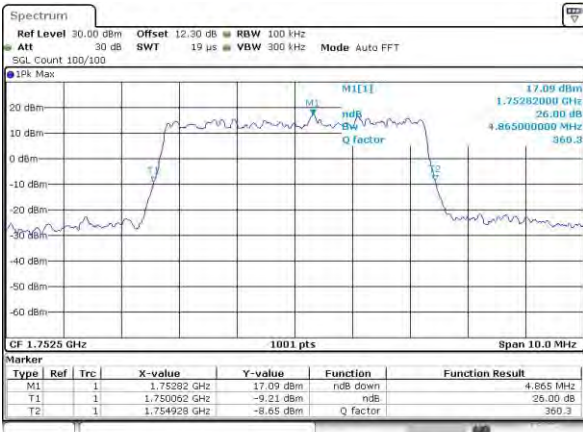
Date: 18-Jul-2018 11:58:09

Middle Channel / 5MHz / 16QAM



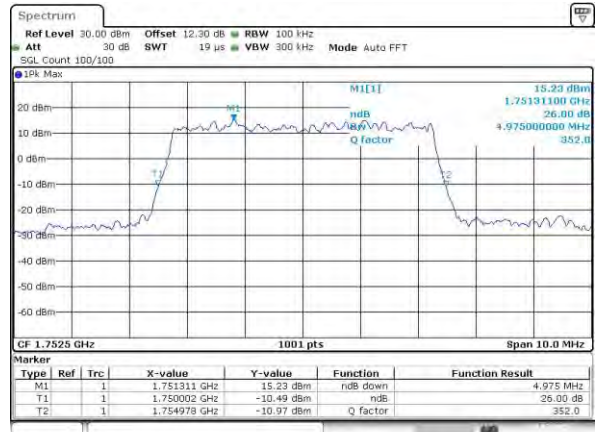
Date: 18-Jul-2018 11:58:10

Highest Channel / 5MHz / QPSK



Date: 18-Jul-2018 11:58:42

Highest Channel / 5MHz / 16QAM

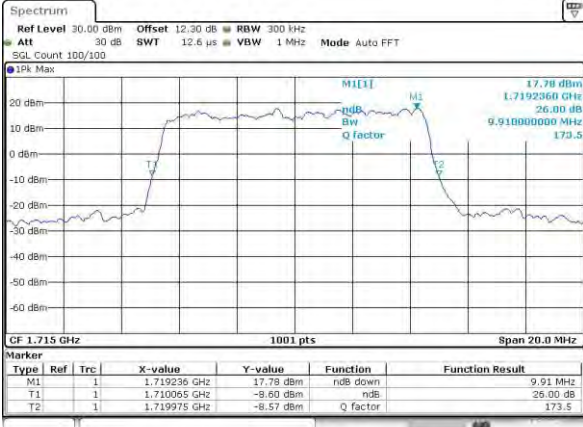


Date: 18-Jul-2018 11:58:53



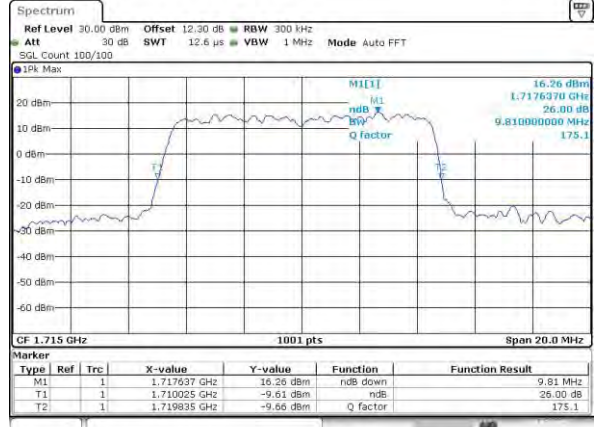
LTE Band 4

Lowest Channel / 10MHz / QPSK



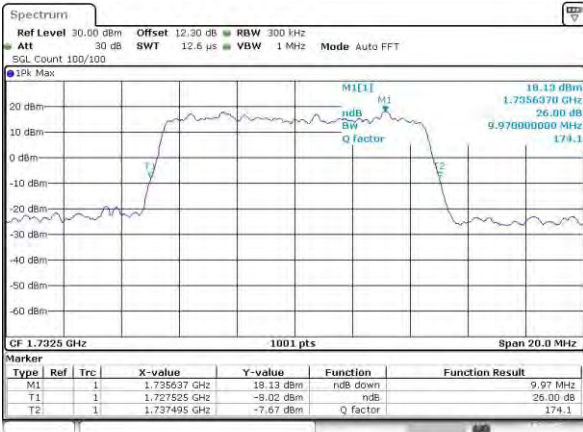
Date: 18-Jul-2018 12:01:03

Lowest Channel / 10MHz / 16QAM



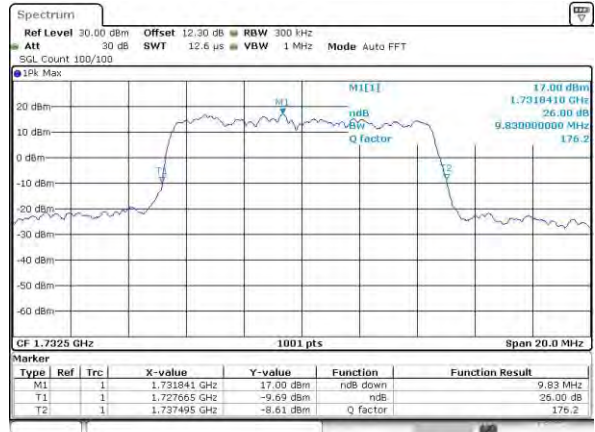
Date: 18-Jul-2018 12:01:13

Middle Channel / 10MHz / QPSK



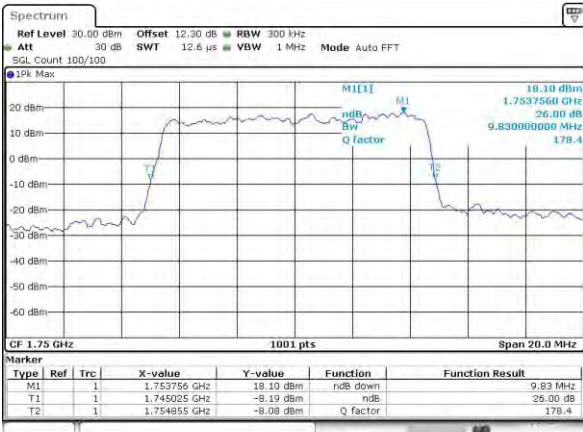
Date: 18-Jul-2018 12:08:23

Middle Channel / 10MHz / 16QAM



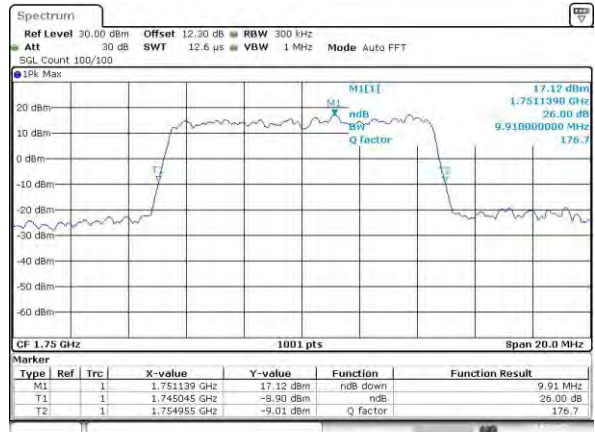
Date: 18-Jul-2018 12:08:33

Highest Channel / 10MHz / QPSK



Date: 18-Jul-2018 12:11:06

Highest Channel / 10MHz / 16QAM

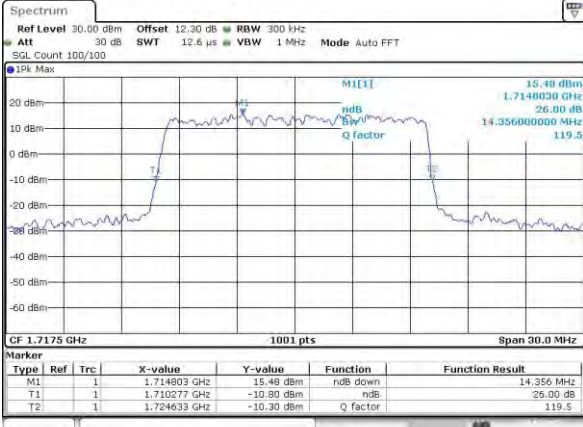


Date: 18-Jul-2018 12:11:17



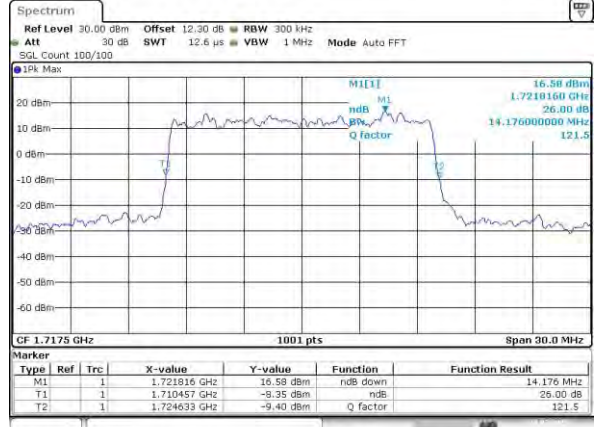
LTE Band 4

Lowest Channel / 15MHz / QPSK



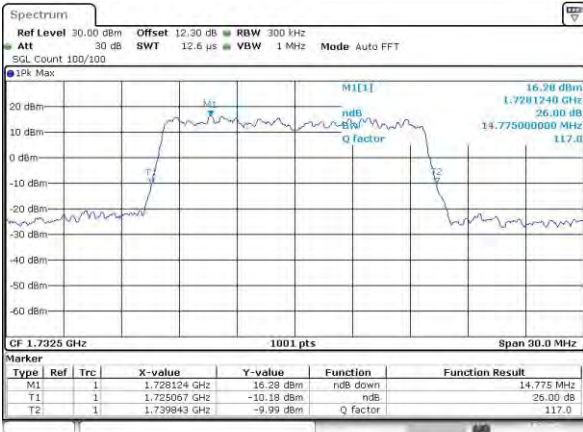
Date: 18-Jul-2018 12:18:25

Lowest Channel / 15MHz / 16QAM



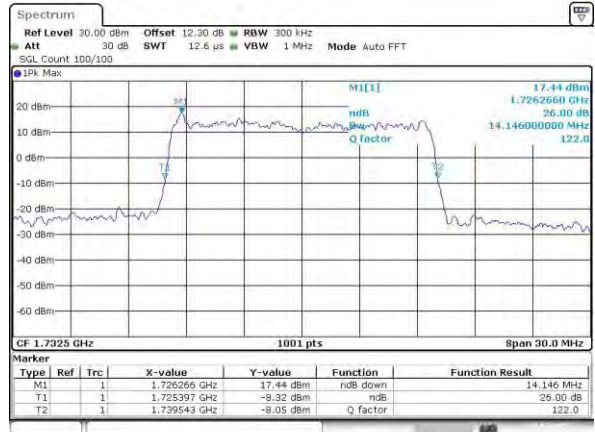
Date: 18-Jul-2018 12:18:37

Middle Channel / 15MHz / QPSK



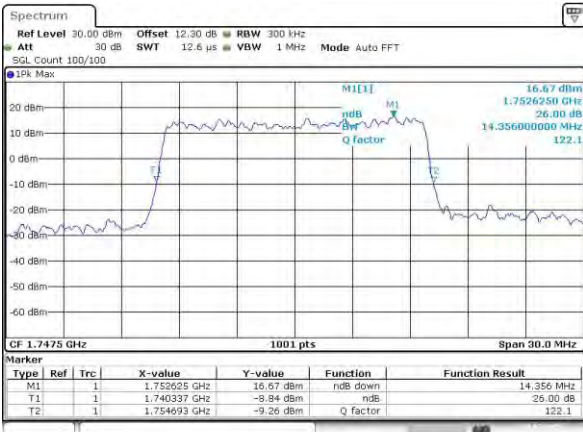
Date: 18-Jul-2018 12:20:40

Middle Channel / 15MHz / 16QAM



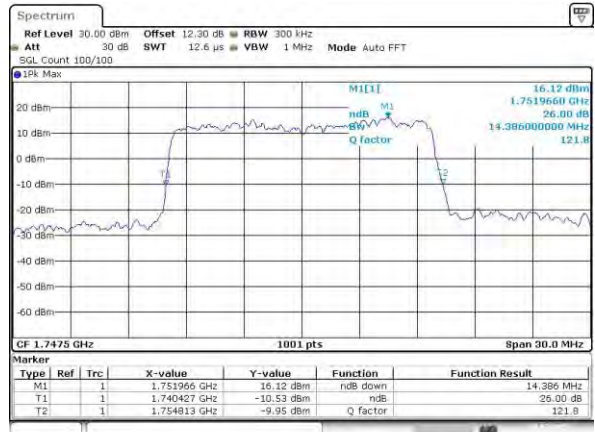
Date: 18-Jul-2018 12:20:57

Highest Channel / 15MHz / QPSK



Date: 18-Jul-2018 12:28:28

Highest Channel / 15MHz / 16QAM

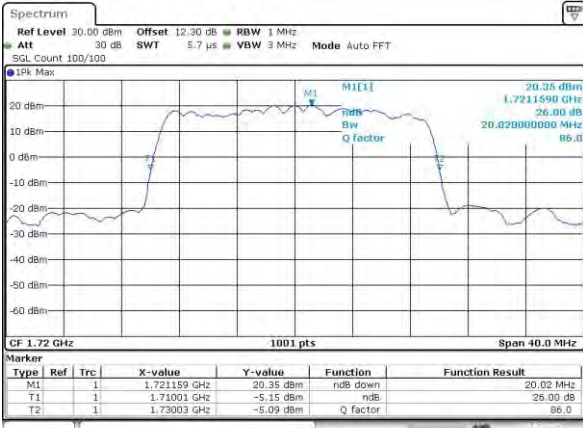


Date: 18-Jul-2018 12:28:39



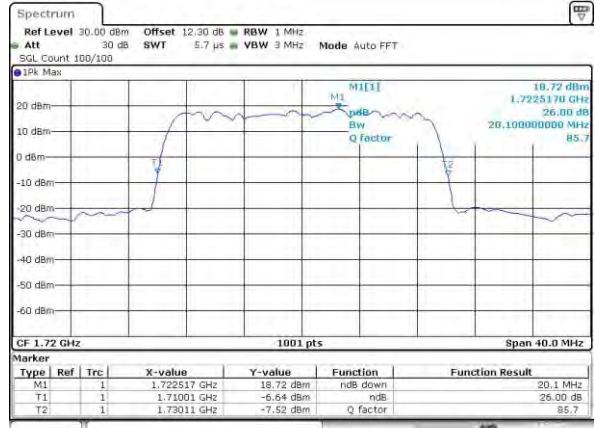
LTE Band 4

Lowest Channel / 20MHz / QPSK



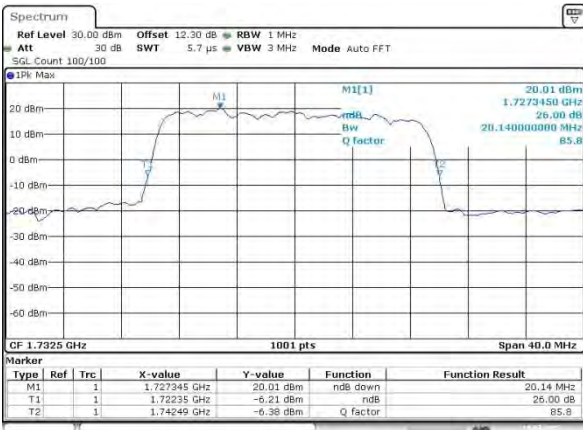
Date: 18-Jul-2015 12:59:42

Lowest Channel / 20MHz / 16QAM



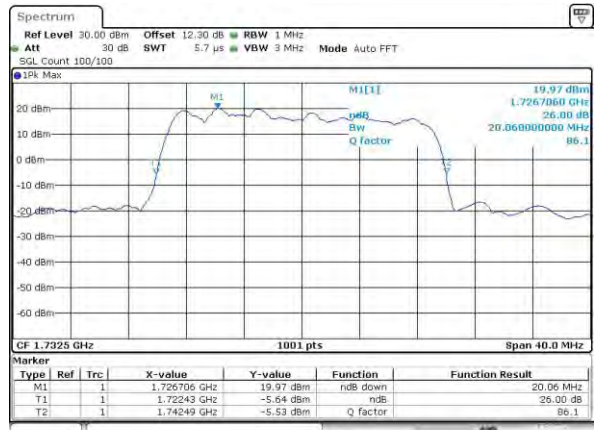
Date: 18-Jul-2015 13:00:15

Middle Channel / 20MHz / QPSK



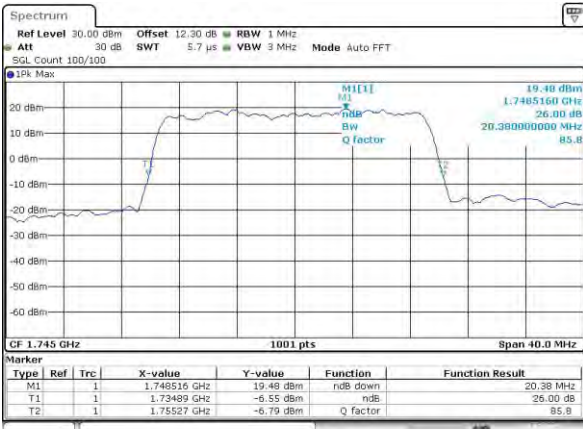
Date: 18-Jul-2015 13:09:43

Middle Channel / 20MHz / 16QAM



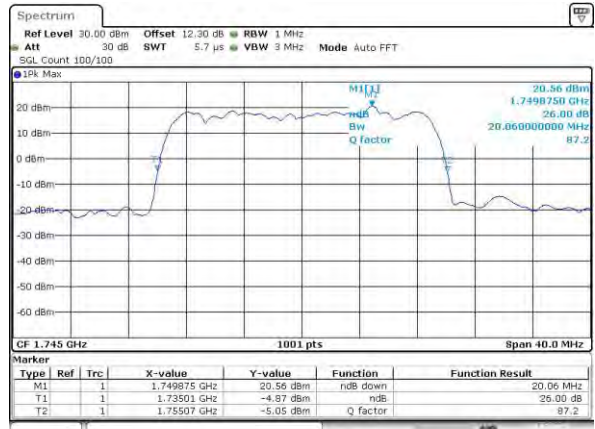
Date: 18-Jul-2015 13:08:58

Highest Channel / 20MHz / QPSK



Date: 18-Jul-2015 13:11:26

Highest Channel / 20MHz / 16QAM



Date: 18-Jul-2015 13:11:37



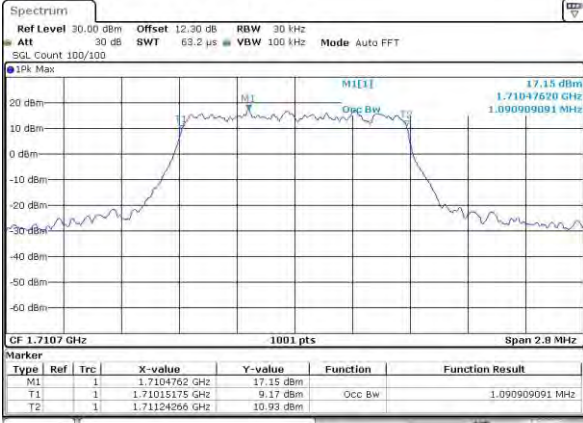
Occupied Bandwidth

Mode	LTE Band 4 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.73	2.7	4.5	4.5	9.03	9.03	13.43	13.46	18.3	18.14
Middle CH	1.09	1.09	2.72	2.7	4.49	4.5	9.11	9.05	13.49	13.49	18.26	18.3
Highest CH	1.09	1.09	2.72	2.73	4.49	4.52	9.05	9.01	13.49	13.52	18.66	18.34



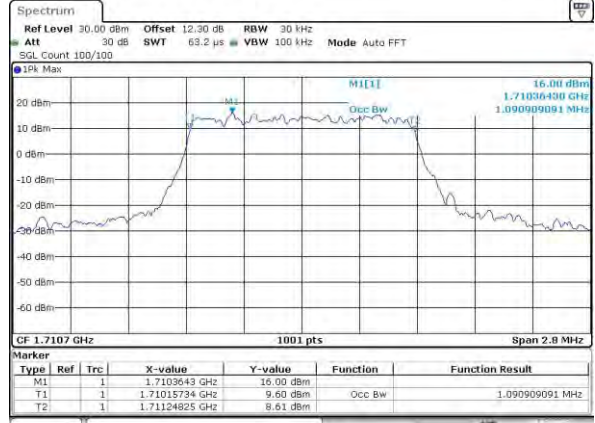
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



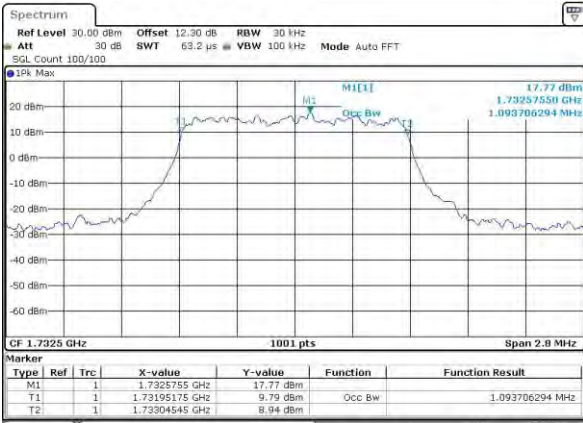
Date: 18-Jul-2018 13:44:08

Lowest Channel / 1.4MHz / 16QAM



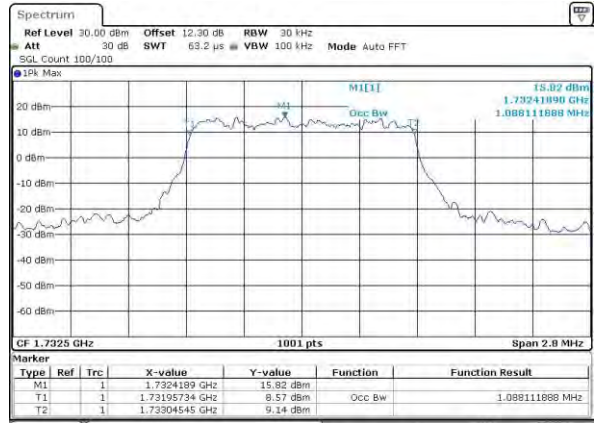
Date: 18-Jul-2018 13:18:55

Middle Channel / 1.4MHz / QPSK



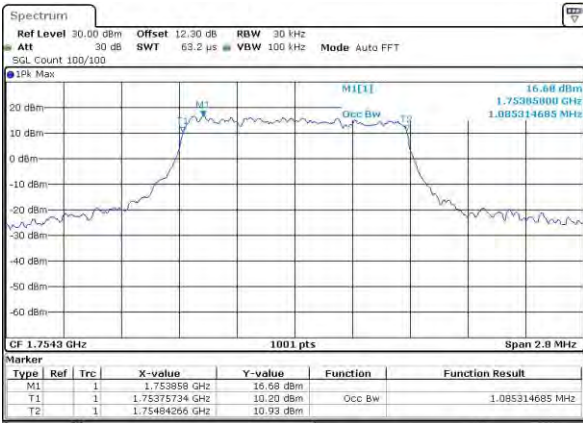
Date: 18-Jul-2018 13:28:05

Middle Channel / 1.4MHz / 16QAM



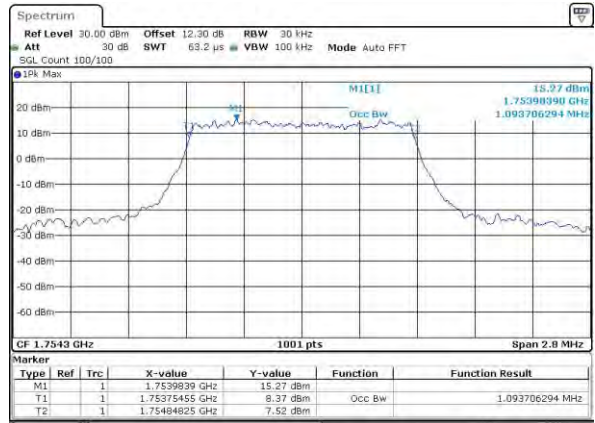
Date: 18-Jul-2018 13:26:17

Highest Channel / 1.4MHz / QPSK



Date: 18-Jul-2018 13:29:09

Highest Channel / 1.4MHz / 16QAM

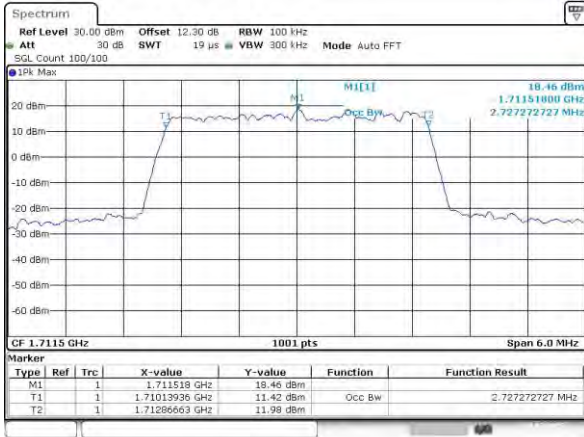


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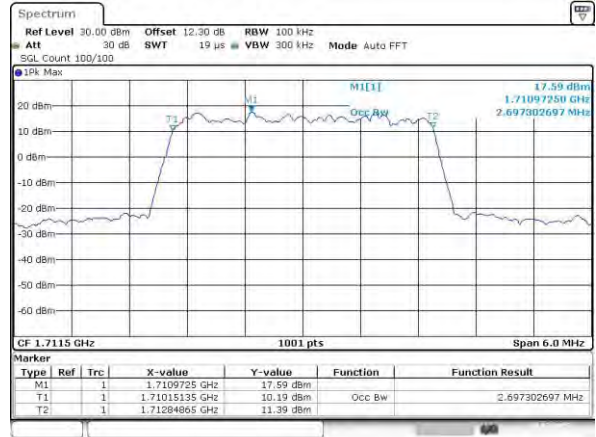


LTE Band 4

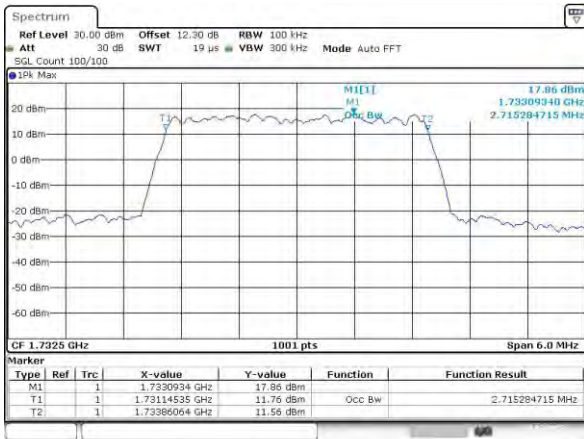
Lowest Channel / 3MHz / QPSK



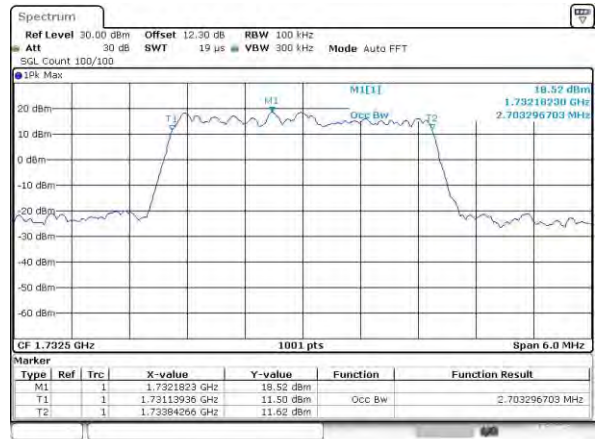
Lowest Channel / 3MHz / 16QAM



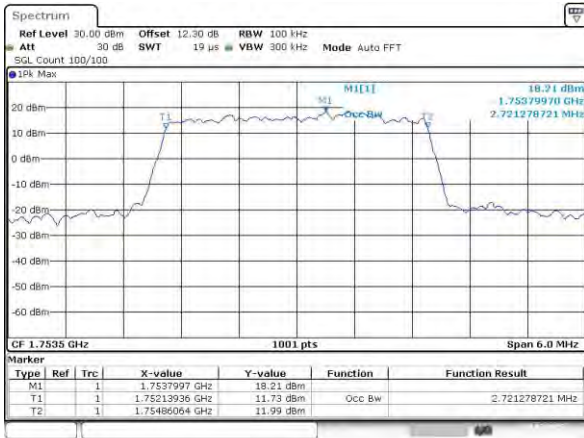
Middle Channel / 3MHz / QPSK



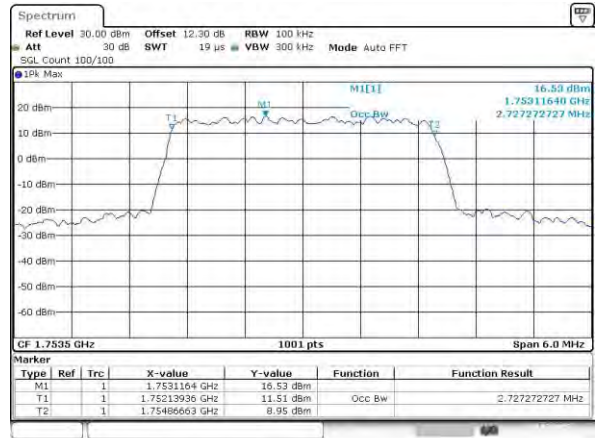
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



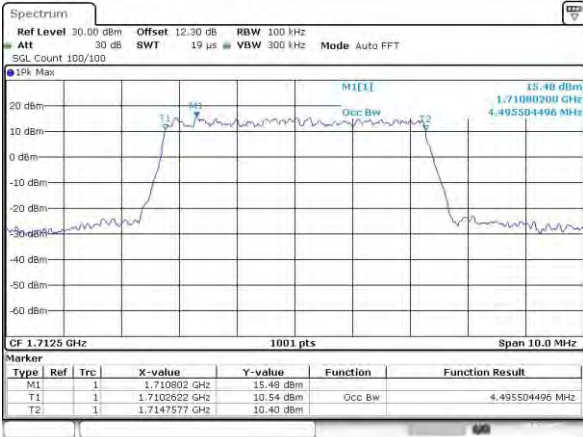
Highest Channel / 3MHz / 16QAM





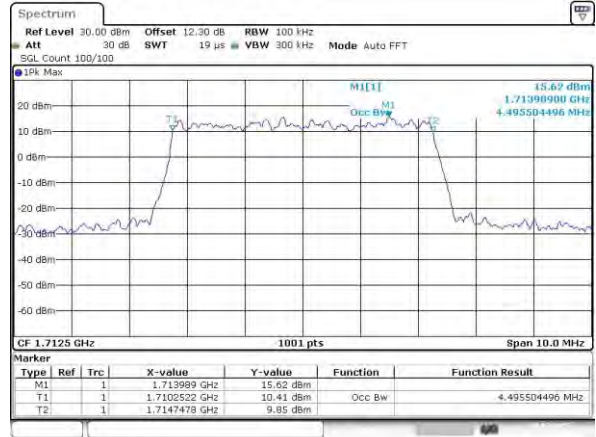
LTE Band 4

Lowest Channel / 5MHz / QPSK



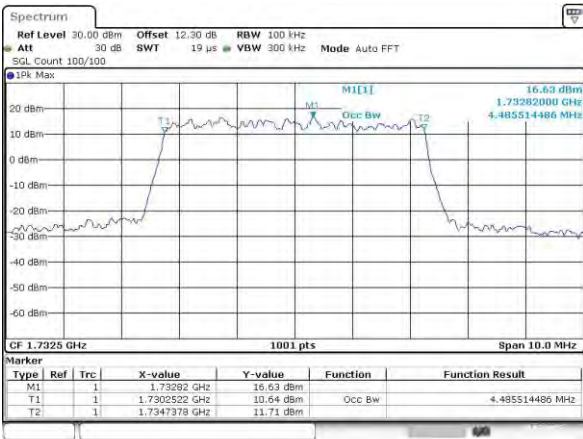
Date: 18-Jul-2018 11:43:14

Lowest Channel / 5MHz / 16QAM



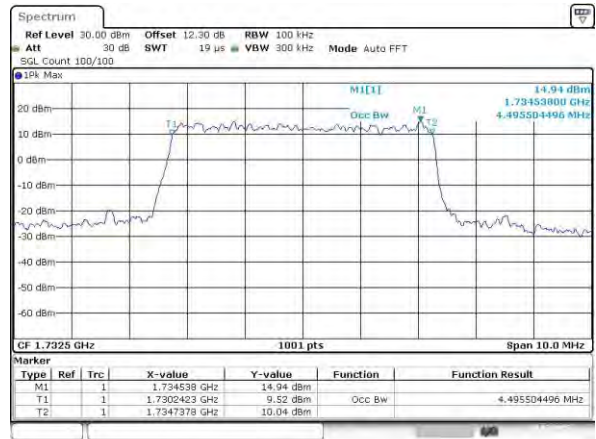
Date: 18-Jul-2018 11:43:26

Middle Channel / 5MHz / QPSK



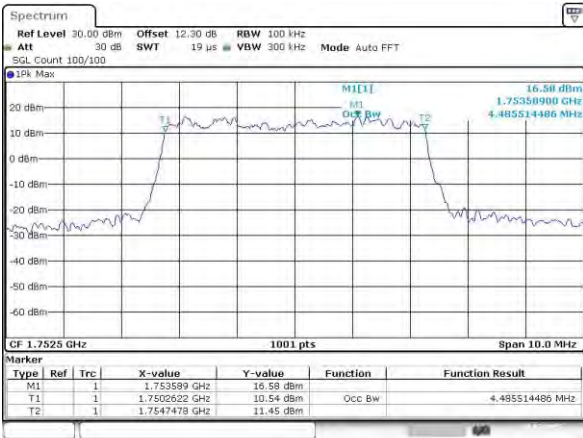
Date: 18-Jul-2018 11:49:19

Middle Channel / 5MHz / 16QAM



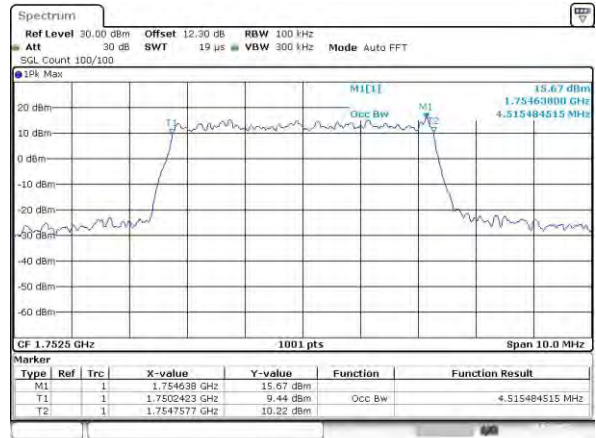
Date: 18-Jul-2018 11:49:47

Highest Channel / 5MHz / QPSK



Date: 18-Jul-2018 11:53:18

Highest Channel / 5MHz / 16QAM

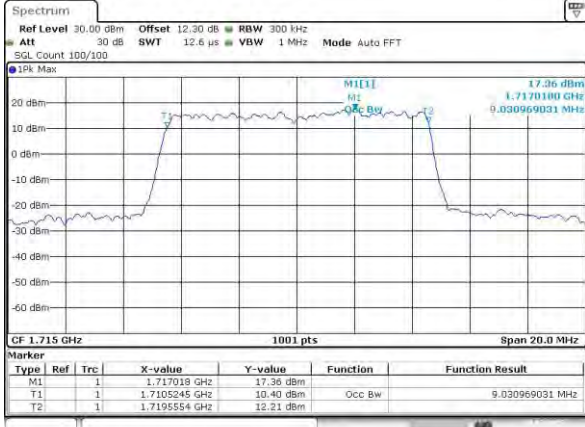


Date: 18-Jul-2018 11:53:30



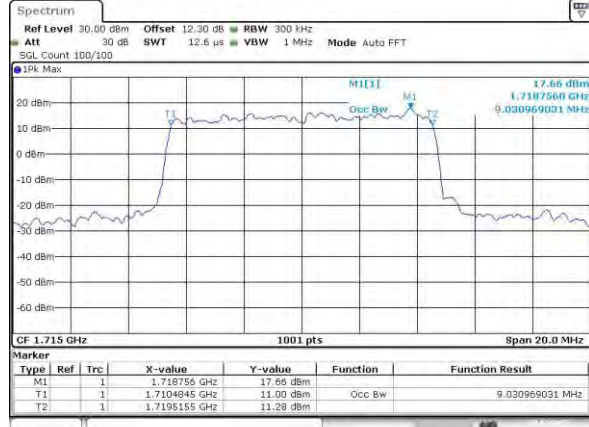
LTE Band 4

Lowest Channel / 10MHz / QPSK



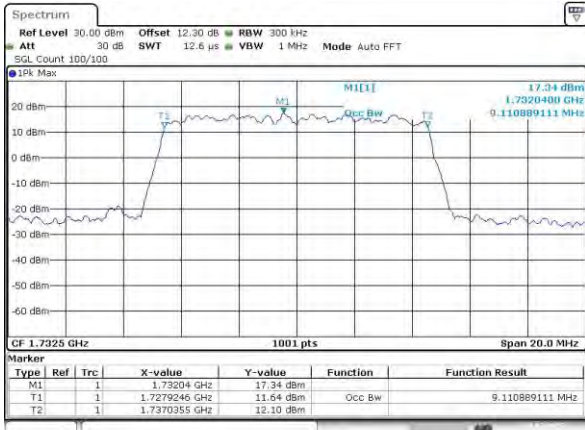
Date: 18-Jul-2018 12:08:39

Lowest Channel / 10MHz / 16QAM



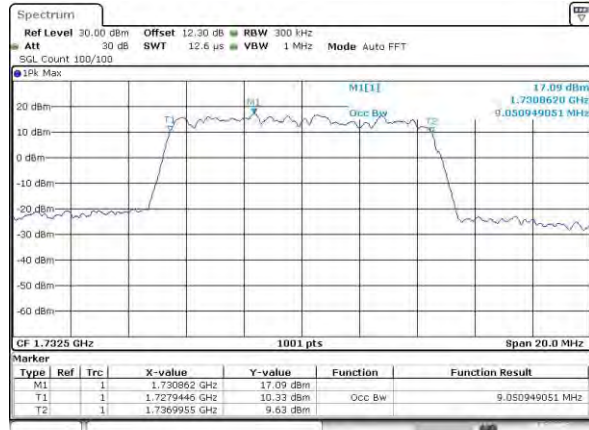
Date: 18-Jul-2018 12:09:51

Middle Channel / 10MHz / QPSK



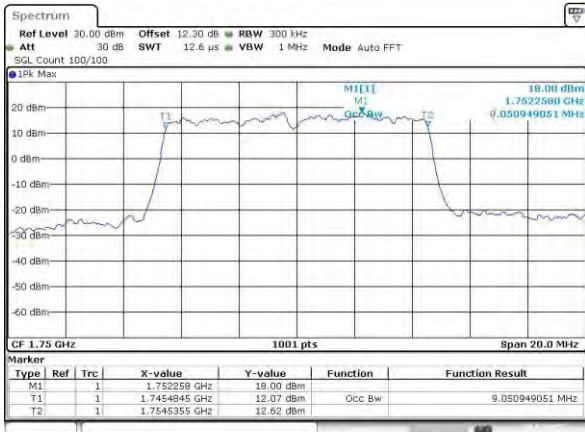
Date: 18-Jul-2018 12:07:59

Middle Channel / 10MHz / 16QAM



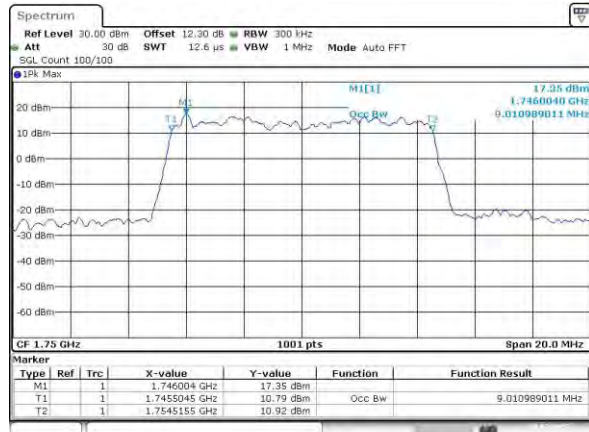
Date: 18-Jul-2018 12:08:11

Highest Channel / 10MHz / QPSK



Date: 18-Jul-2018 12:10:42

Highest Channel / 10MHz / 16QAM

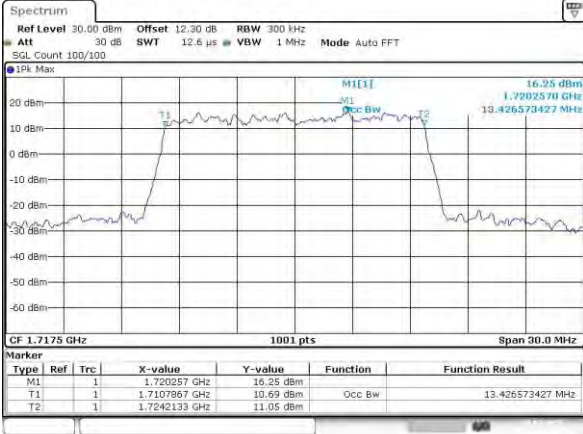


Date: 18-Jul-2018 12:10:54



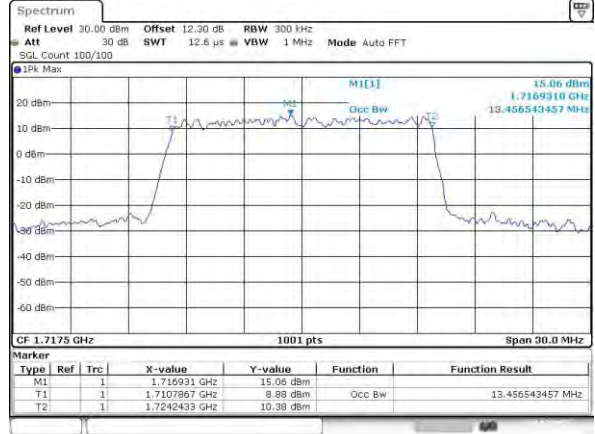
LTE Band 4

Lowest Channel / 15MHz / QPSK



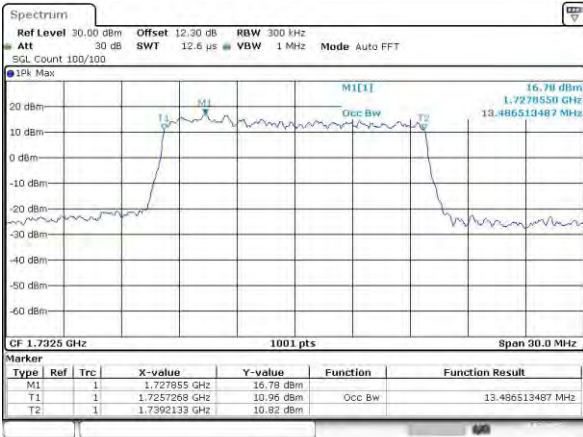
Date: 18-Jul-2018 12:18:02

Lowest Channel / 15MHz / 16QAM



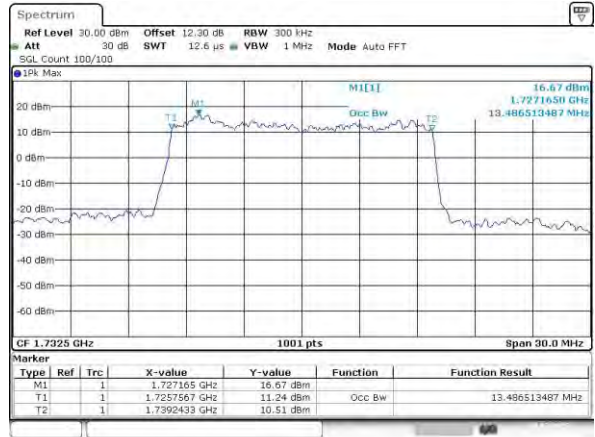
Date: 18-Jul-2018 12:18:14

Middle Channel / 15MHz / QPSK



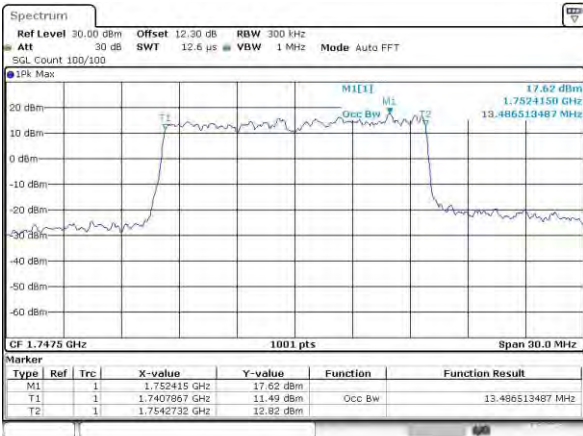
Date: 18-Jul-2018 12:25:22

Middle Channel / 15MHz / 16QAM



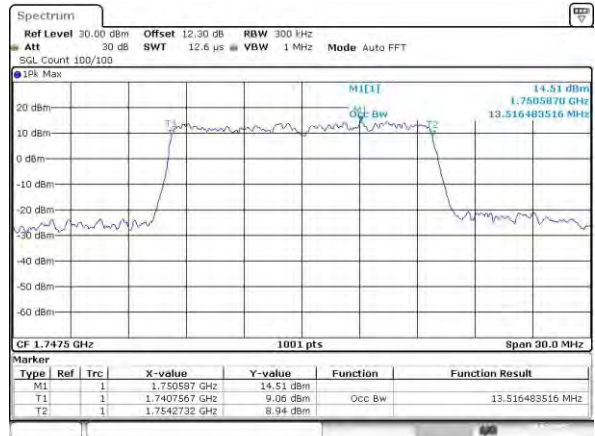
Date: 18-Jul-2018 12:25:34

Highest Channel / 15MHz / QPSK



Date: 18-Jul-2018 12:28:04

Highest Channel / 15MHz / 16QAM

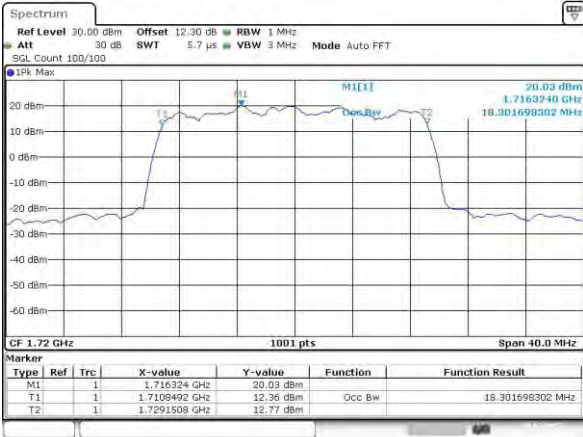


Date: 18-Jul-2018 12:28:16



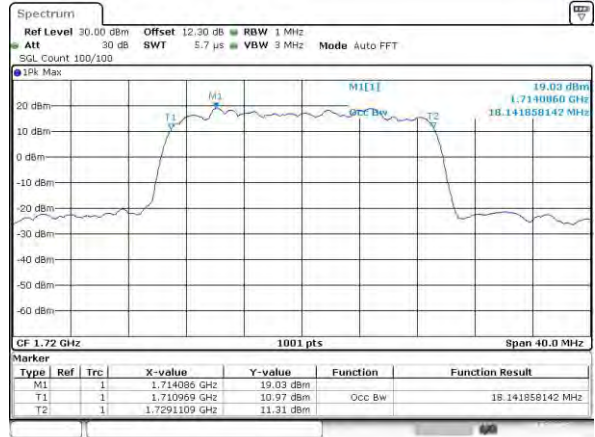
LTE Band 4

Lowest Channel / 20MHz / QPSK



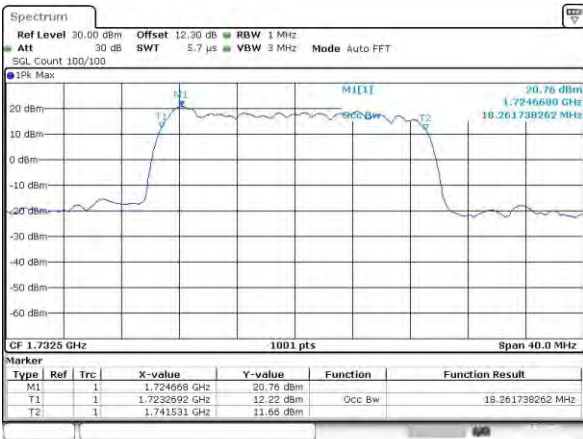
Date: 18-Jul-2018 12:59:18

Lowest Channel / 20MHz / 16QAM



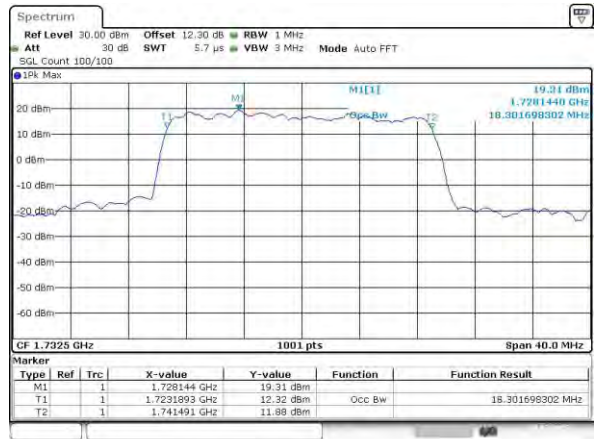
Date: 18-Jul-2018 12:59:30

Middle Channel / 20MHz / QPSK



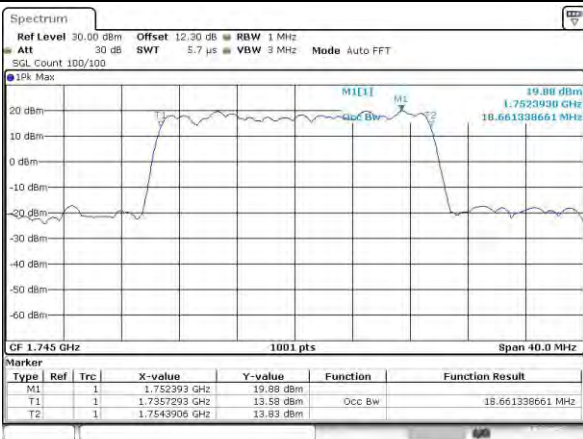
Date: 18-Jul-2018 13:08:19

Middle Channel / 20MHz / 16QAM



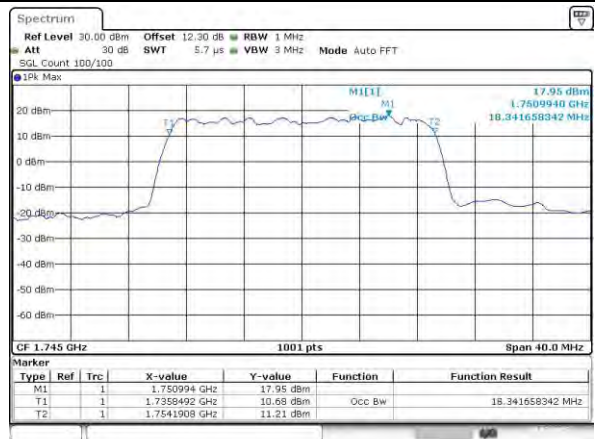
Date: 18-Jul-2018 13:08:31

Highest Channel / 20MHz / QPSK



Date: 18-Jul-2018 13:11:03

Highest Channel / 20MHz / 16QAM



Date: 18-Jul-2018 13:11:14



Conducted Band Edge



LTE Band 4 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



Date: 18.JUL.2015 13:20:49

Highest Band Edge / 1RB



Date: 18.JUL.2015 13:30:53

Lowest Band Edge / Full RB



Date: 18.JUL.2015 13:23:08

Highest Band Edge / Full RB

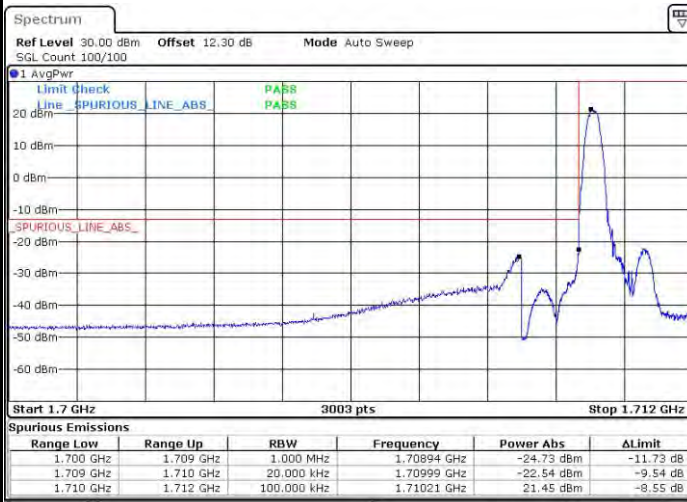


Date: 18.JUL.2015 13:33:12



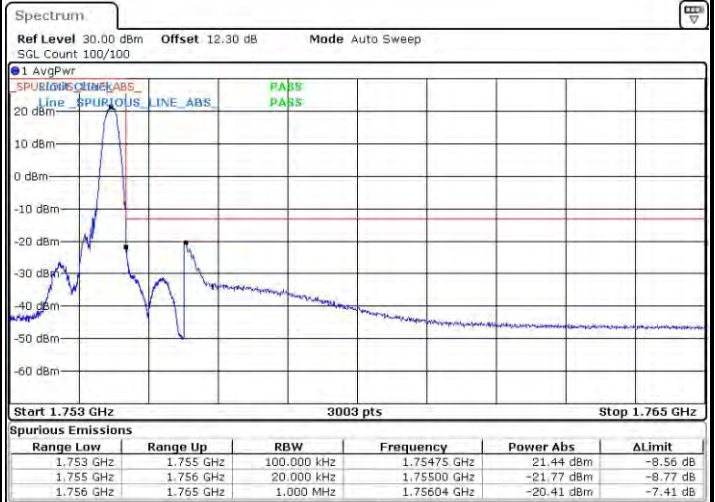
LTE Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 18.JUL.2015 13:21:58

Highest Band Edge / 1 RB



Date: 18.JUL.2015 13:32:03

Lowest Band Edge / Full RB



Date: 18.JUL.2015 13:24:17

Highest Band Edge / Full RB

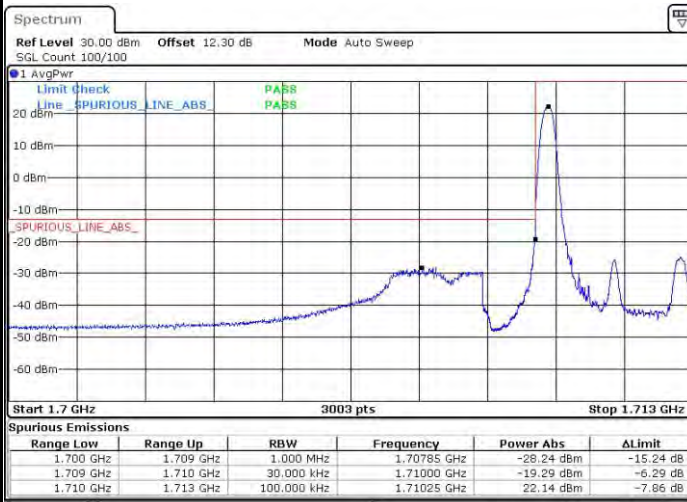


Date: 18.JUL.2015 13:34:22



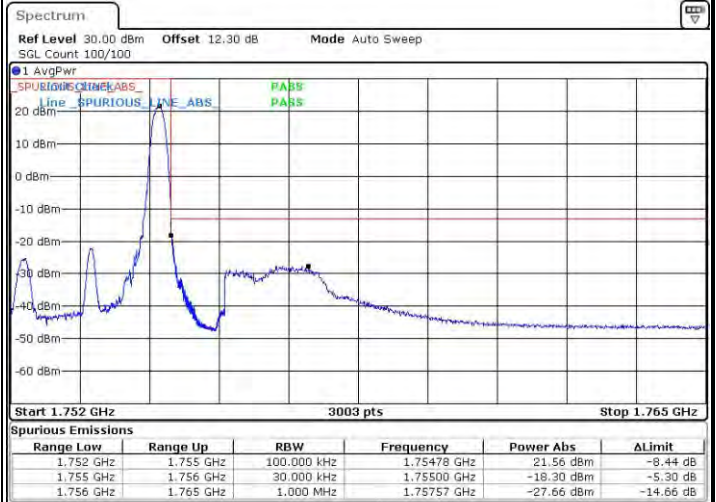
LTE Band 4 / 3MHz / QPSK

Lowest Band Edge / 1RB



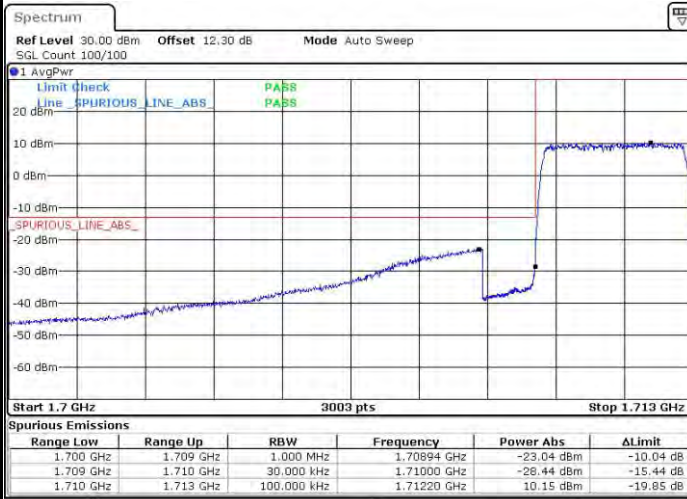
Date: 18.JUL.2015 11:27:34

Highest Band Edge / 1 RB



Date: 18.JUL.2015 11:37:38

Lowest Band Edge / Full RB



Date: 18.JUL.2015 11:29:53

Highest Band Edge / Full RB

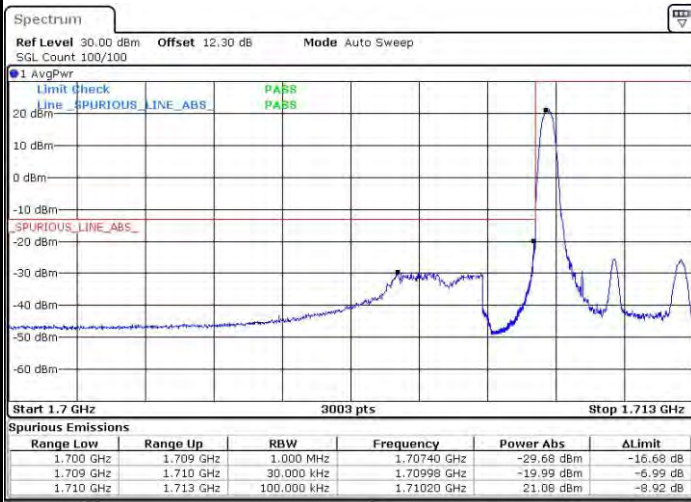


Date: 18.JUL.2015 11:39:57



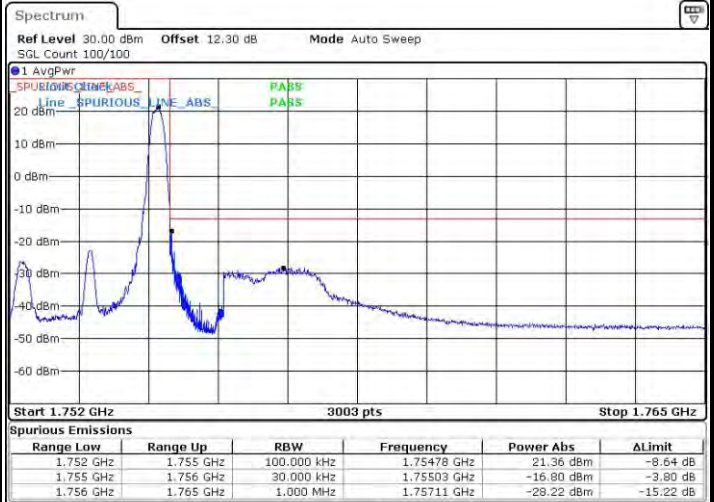
LTE Band 4 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 18.JUL.2015 11:28:44

Highest Band Edge / 1 RB



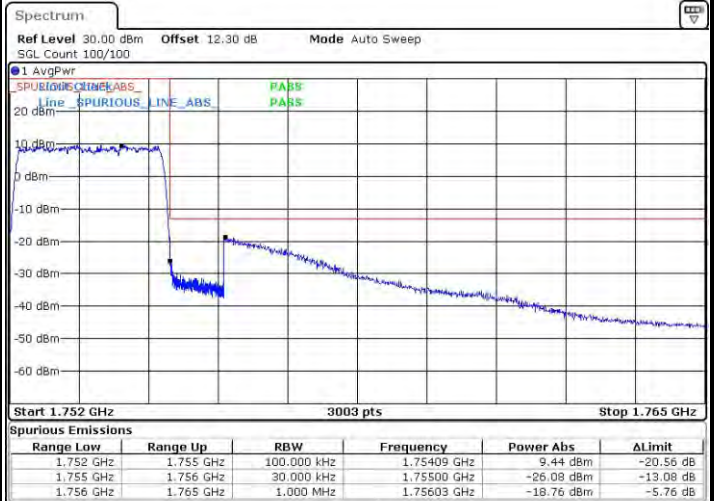
Date: 18.JUL.2015 11:38:47

Lowest Band Edge / Full RB



Date: 18.JUL.2015 11:31:03

Highest Band Edge / Full RB

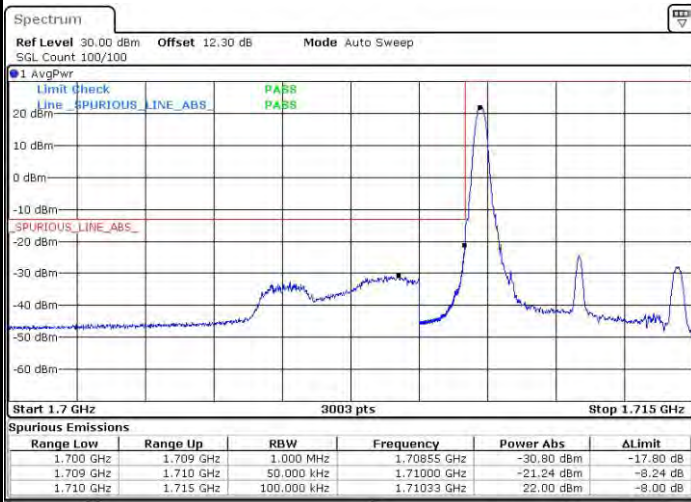


Date: 18.JUL.2015 11:41:06



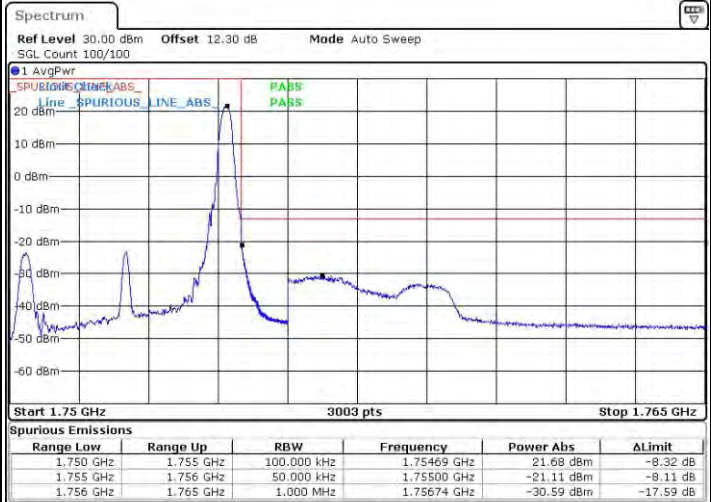
LTE Band 4 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Date: 18.JUL.2015 11:44:59

Highest Band Edge / 1 RB



Date: 18.JUL.2015 11:55:03

Lowest Band Edge / Full RB



Date: 18.JUL.2015 11:47:18

Highest Band Edge / Full RB

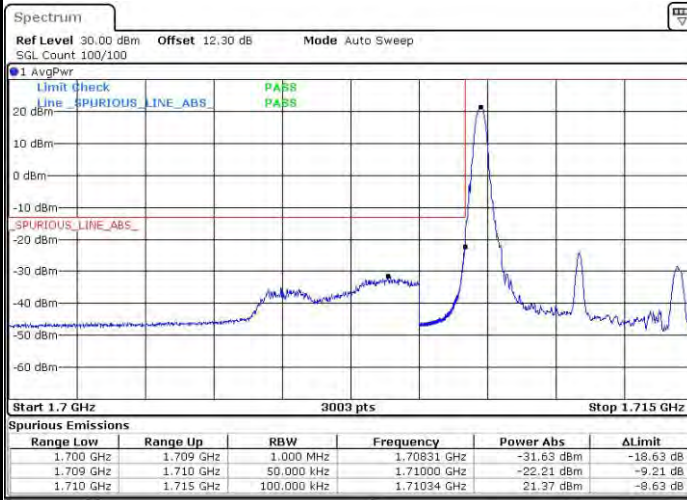


Date: 18.JUL.2015 11:57:22



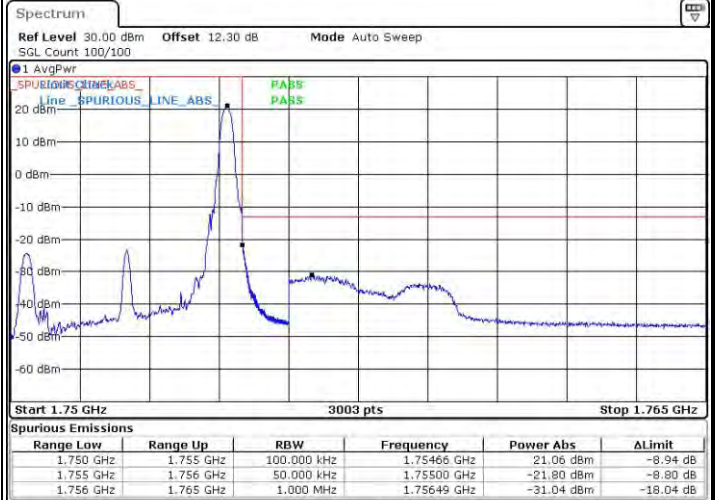
LTE Band 4 / 5MHz / 16QAM

Lowest Band Edge / 1RB



Date: 18.JUL.2015 11:46:08

Highest Band Edge / 1 RB



Date: 18.JUL.2015 11:56:12

Lowest Band Edge / Full RB



Date: 18.JUL.2015 11:49:27

Highest Band Edge / Full RB

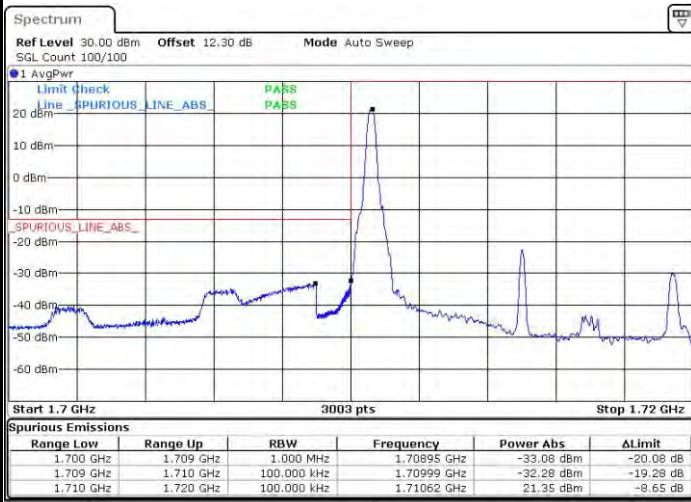


Date: 18.JUL.2015 11:58:31



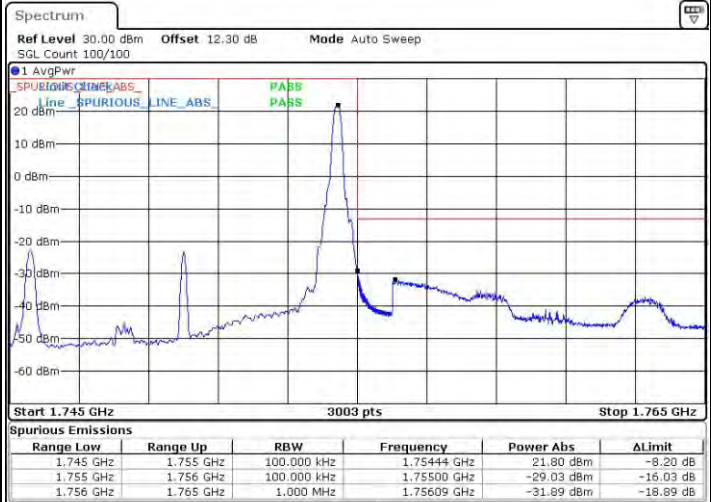
LTE Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB



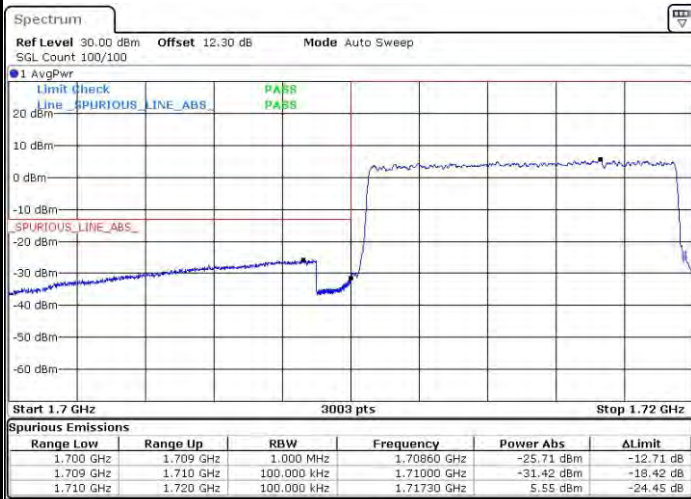
Date: 18.JUL.2015 12:02:23

Highest Band Edge / 1 RB



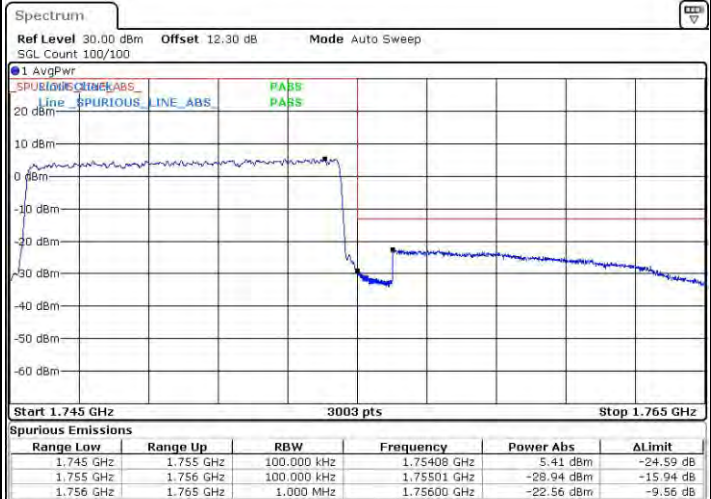
Date: 18.JUL.2015 12:12:26

Lowest Band Edge / Full RB



Date: 18.JUL.2015 12:04:42

Highest Band Edge / Full RB

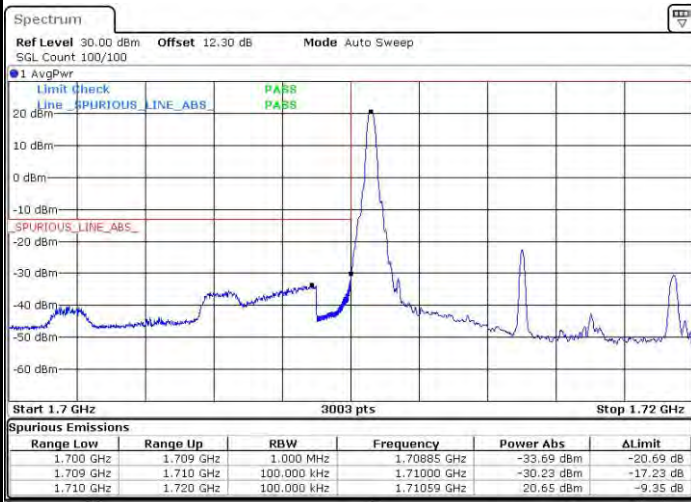


Date: 18.JUL.2015 12:14:45



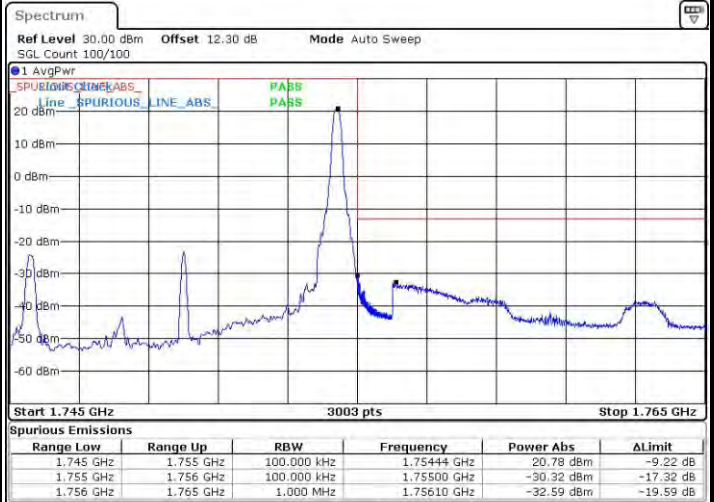
LTE Band 4 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 18.JUL.2015 12:03:33

Highest Band Edge / 1 RB



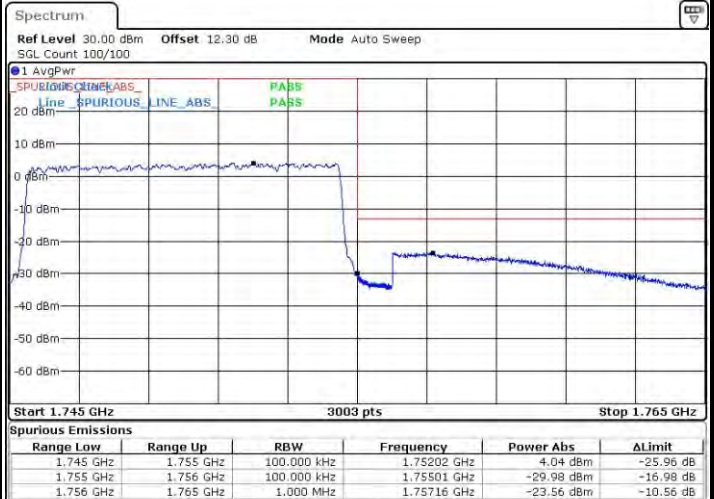
Date: 18.JUL.2015 12:13:36

Lowest Band Edge / Full RB



Date: 18.JUL.2015 12:05:52

Highest Band Edge / Full RB

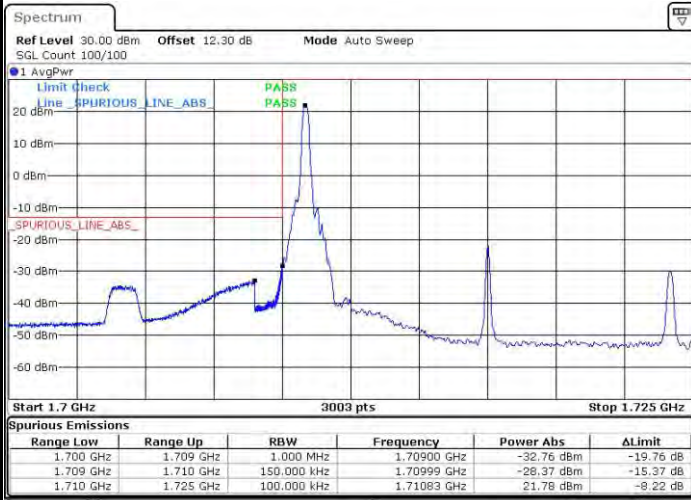


Date: 18.JUL.2015 12:13:55



LTE Band 4 / 15MHz / QPSK

Lowest Band Edge / 1 RB



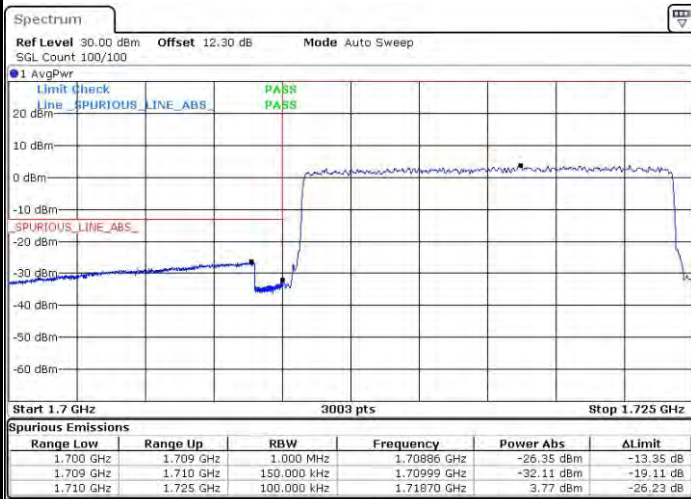
Date: 18.JUL.2015 12:19:46

Highest Band Edge / 1 RB



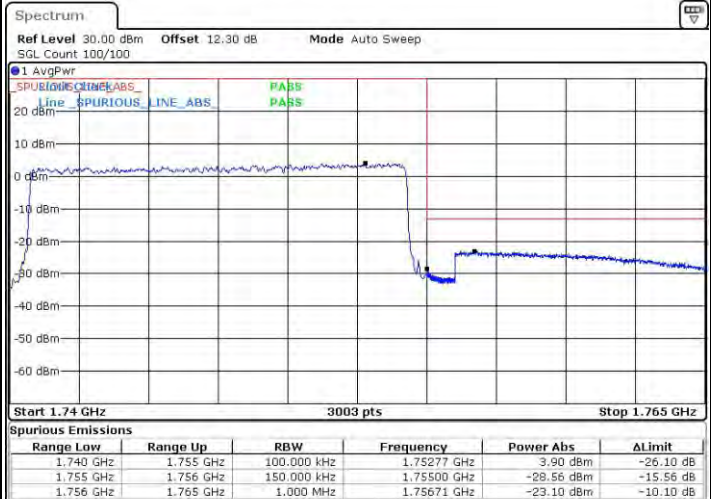
Date: 18.JUL.2015 12:29:49

Lowest Band Edge / Full RB



Date: 18.JUL.2015 12:22:05

Highest Band Edge / Full RB

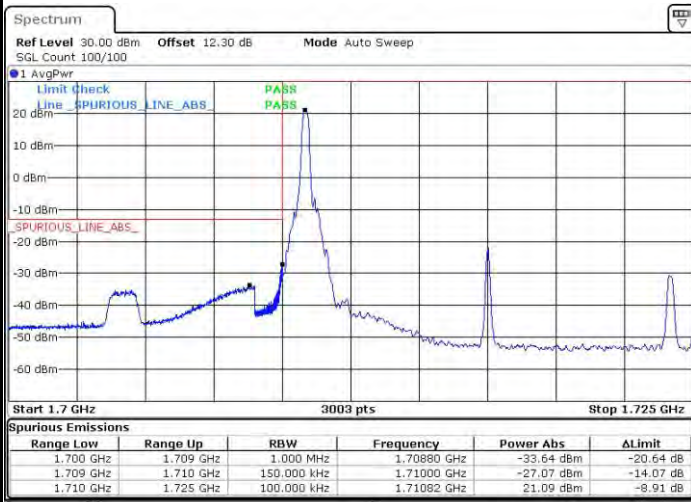


Date: 18.JUL.2015 12:32:07



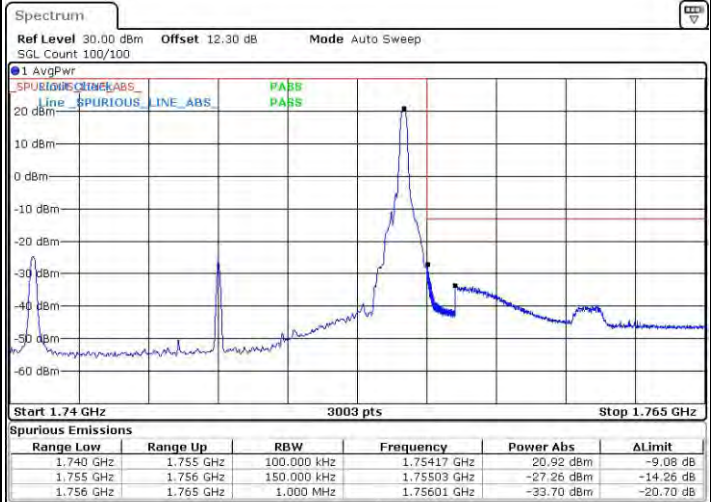
LTE Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



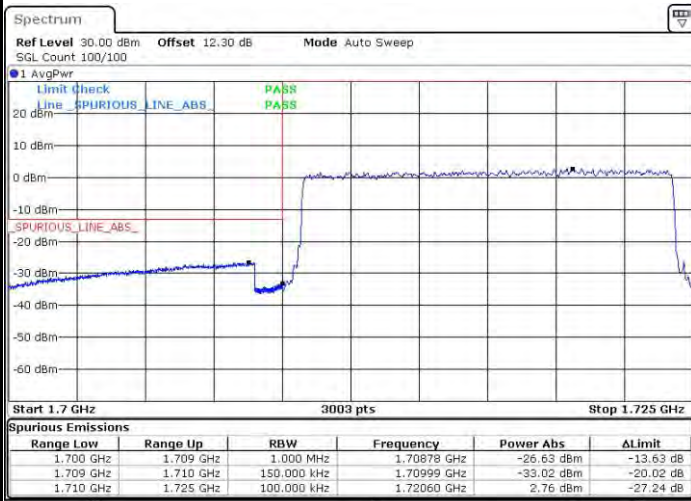
Date: 18.JUL.2015 12:20:56

Highest Band Edge / 1 RB



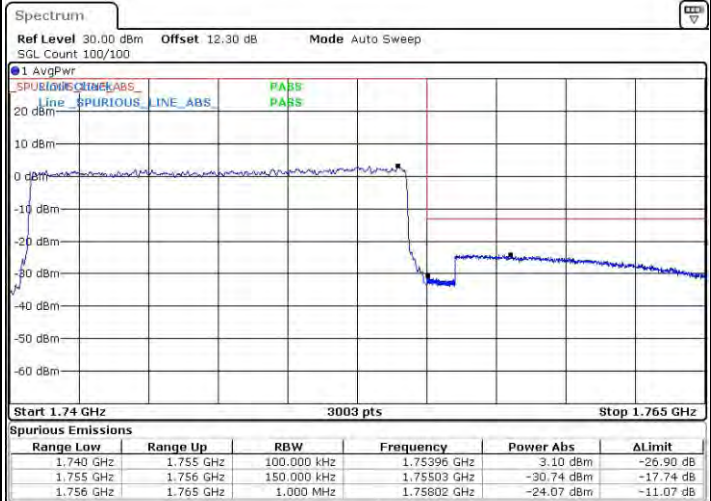
Date: 18.JUL.2015 12:30:58

Lowest Band Edge / Full RB



Date: 18.JUL.2015 12:23:15

Highest Band Edge / Full RB

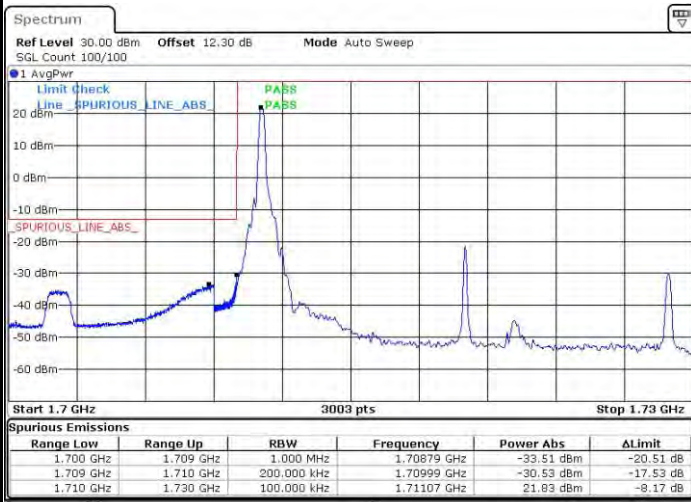


Date: 18.JUL.2015 12:33:17



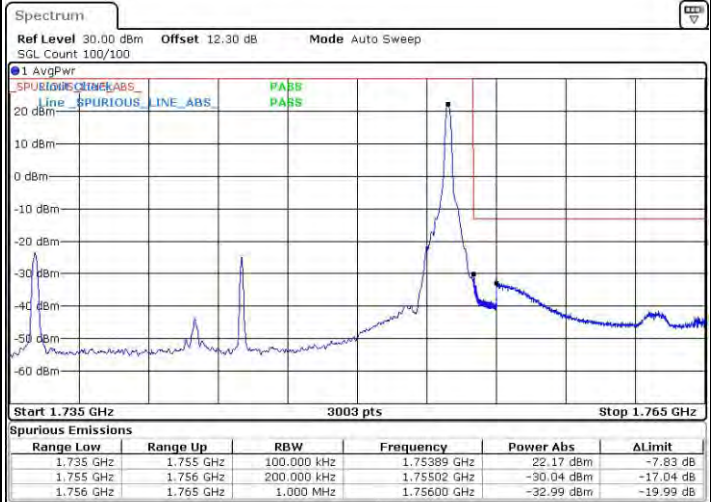
LTE Band 4 / 20MHz / QPSK

Lowest Band Edge / 1 RB



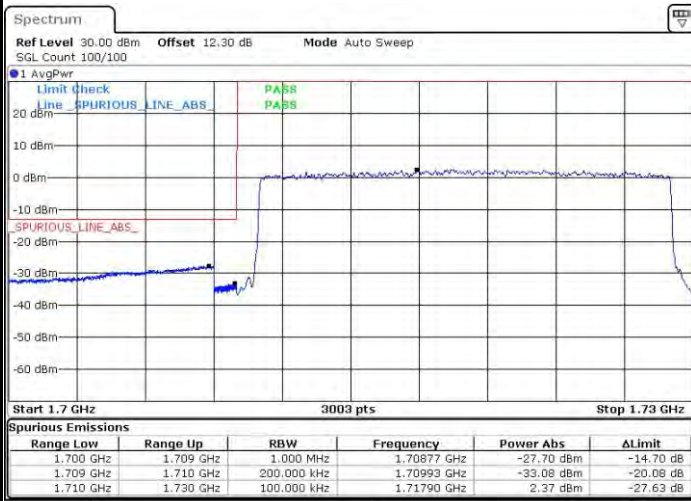
Date: 18.JUL.2015 13:01:38

Highest Band Edge / 1 RB



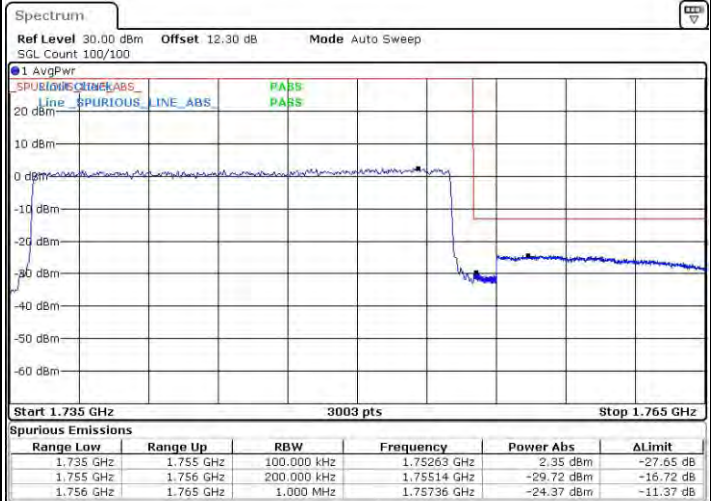
Date: 18.JUL.2015 13:12:47

Lowest Band Edge / Full RB



Date: 18.JUL.2015 13:09:02

Highest Band Edge / Full RB

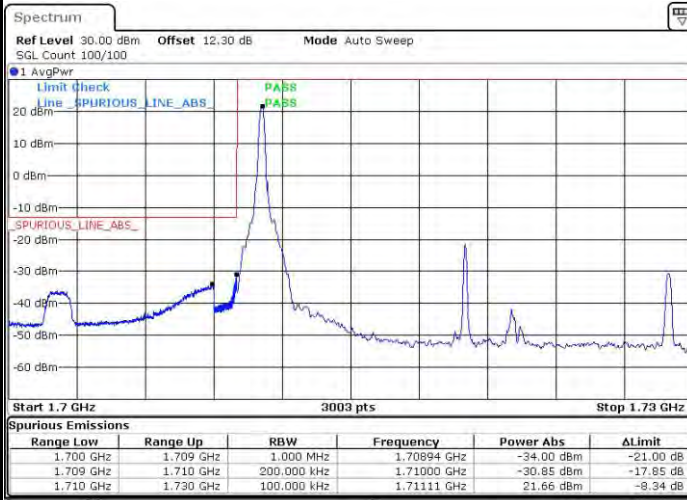


Date: 18.JUL.2015 13:15:06



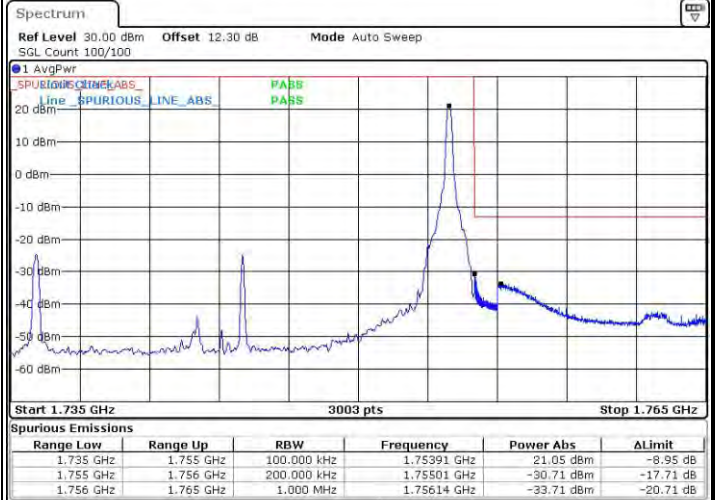
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



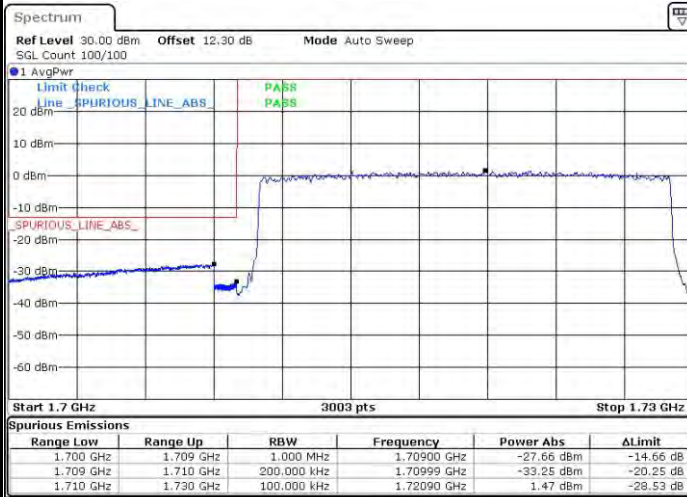
Date: 18.JUL.2015 13:03:52

Highest Band Edge / 1 RB



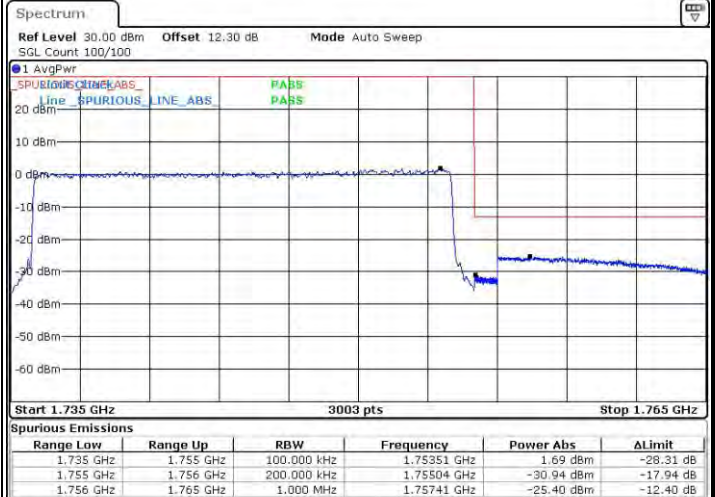
Date: 18.JUL.2015 13:13:56

Lowest Band Edge / Full RB



Date: 18.JUL.2015 13:06:11

Highest Band Edge / Full RB



Date: 18.JUL.2015 13:16:15



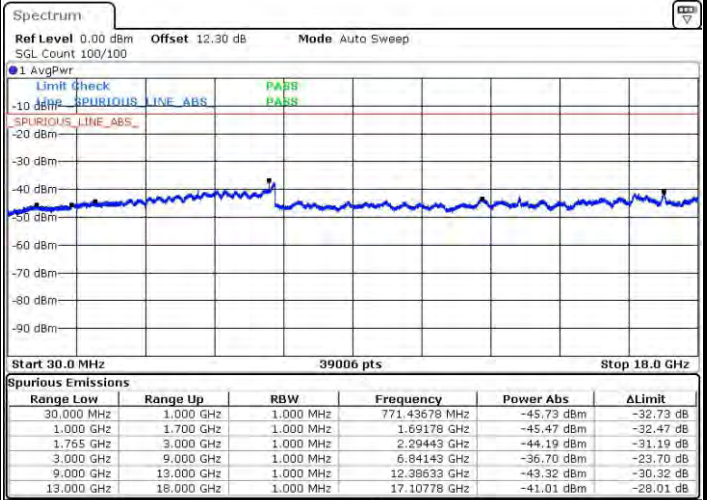
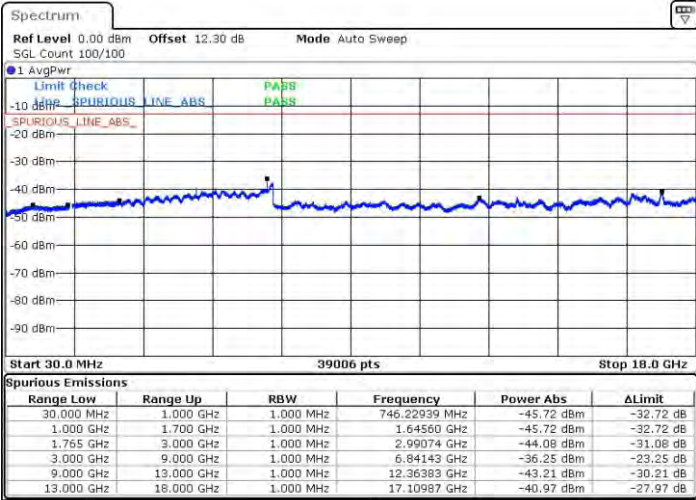
Conducted Spurious Emission



LTE Band 4 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

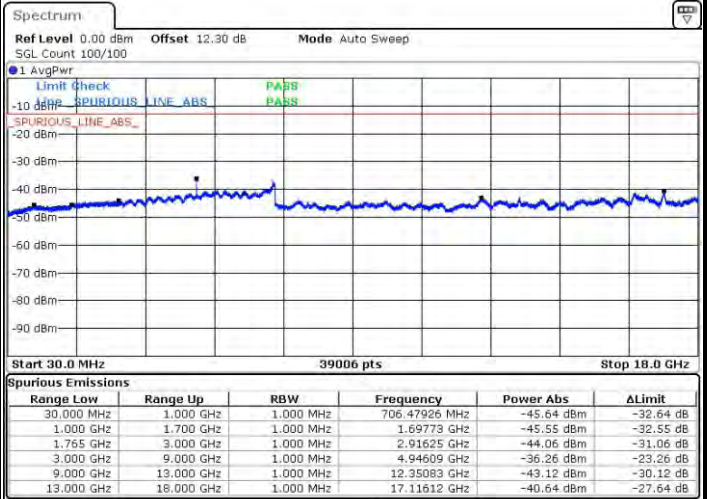
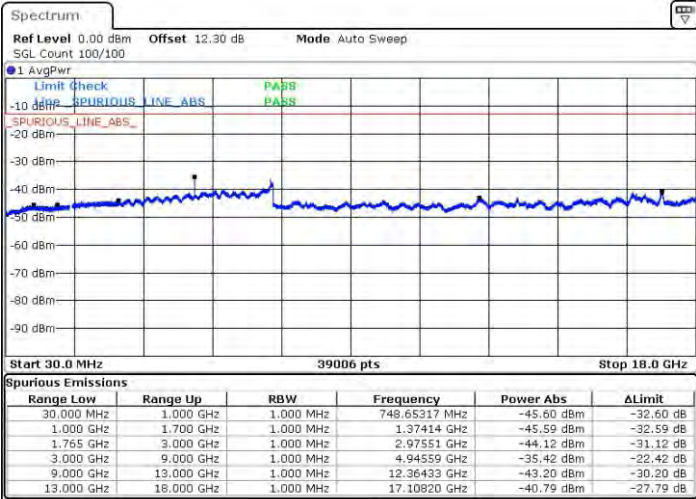


Date: 18.JUL.2015 13:25:14

Date: 18.JUL.2015 13:26:12

Middle Channel / QPSK

Middle Channel / 16QAM



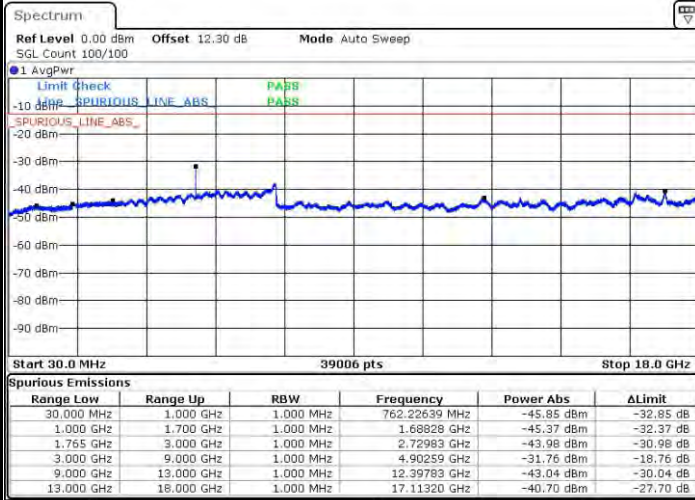
Date: 18.JUL.2015 13:27:30

Date: 18.JUL.2015 13:28:56



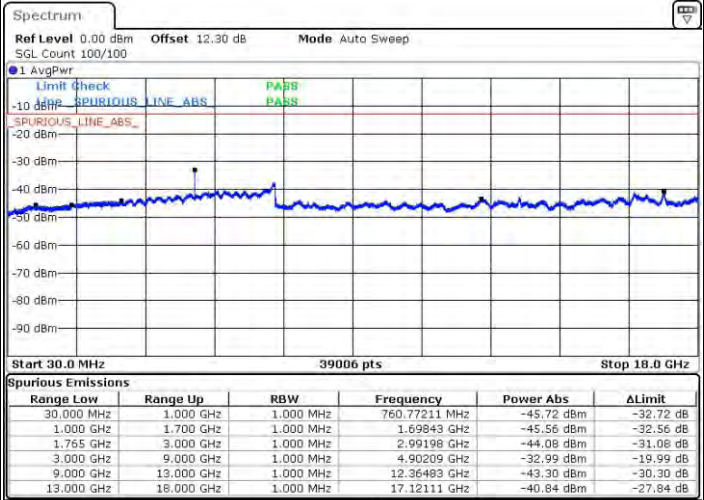
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 18.JUL.2015 13:35:18

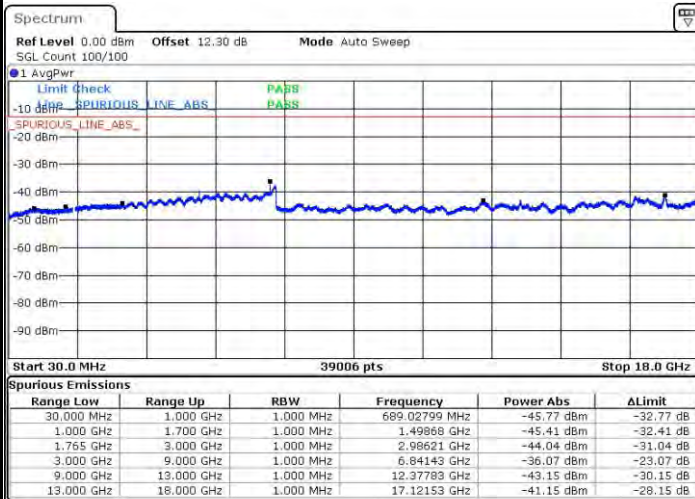
Highest Channel / 16QAM



Date: 18.JUL.2015 13:36:17

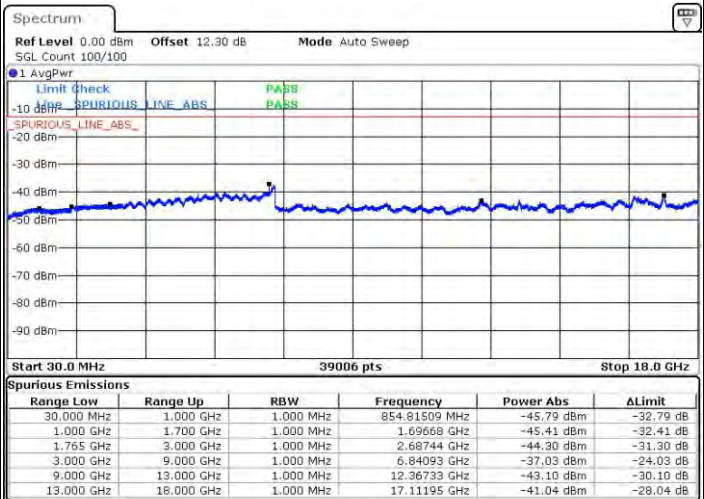
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 18.JUL.2015 11:31:59

Lowest Channel / 16QAM

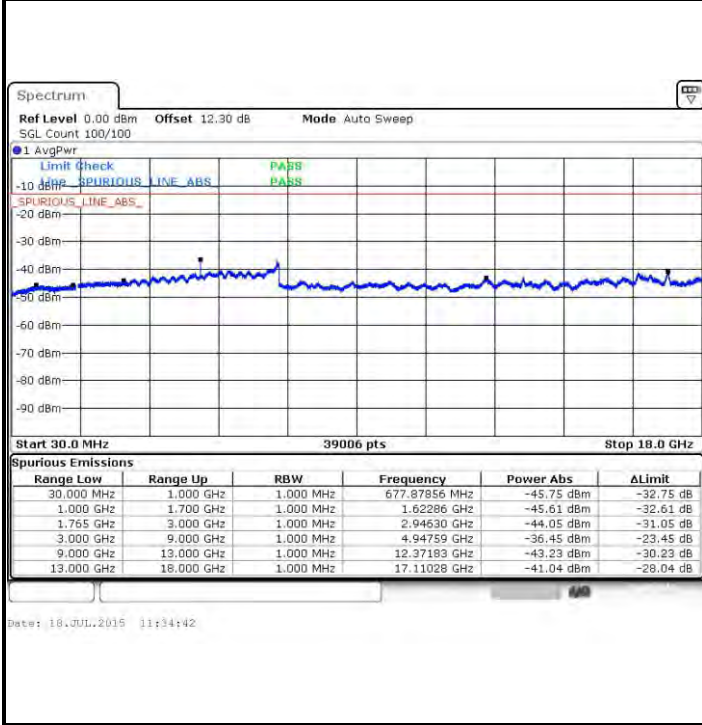


Date: 18.JUL.2015 11:32:58

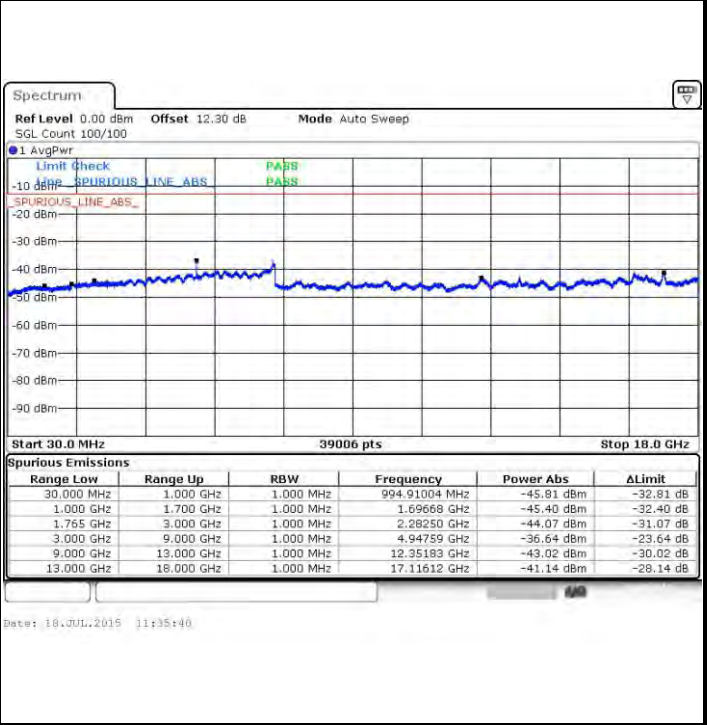


LTE Band 4 / 3MHz

Middle Channel / QPSK



Middle Channel / 16QAM



Highest Channel / QPSK



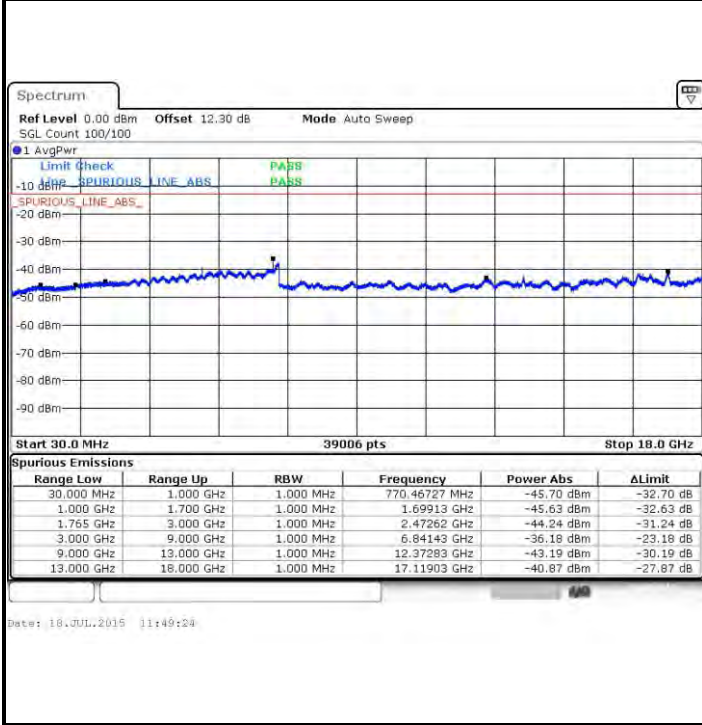
Highest Channel / 16QAM



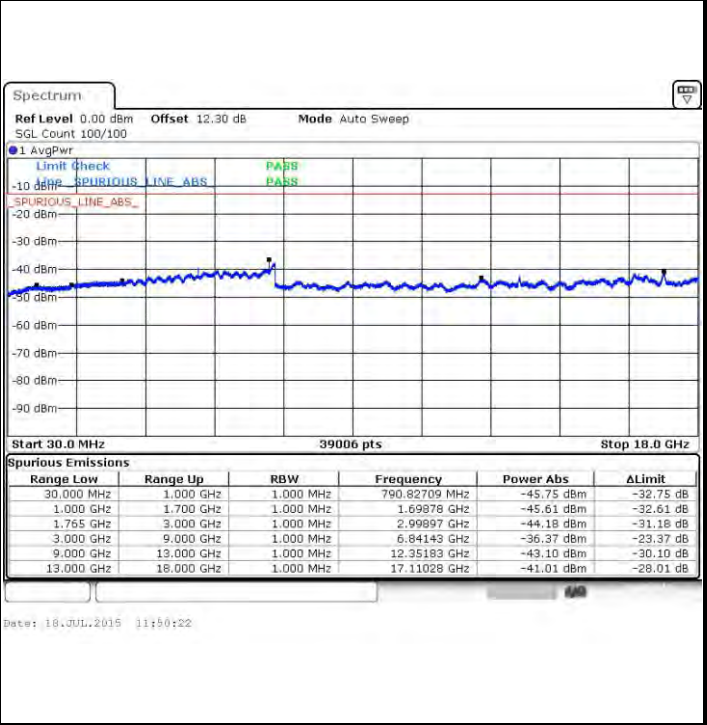


LTE Band 4 / 5MHz

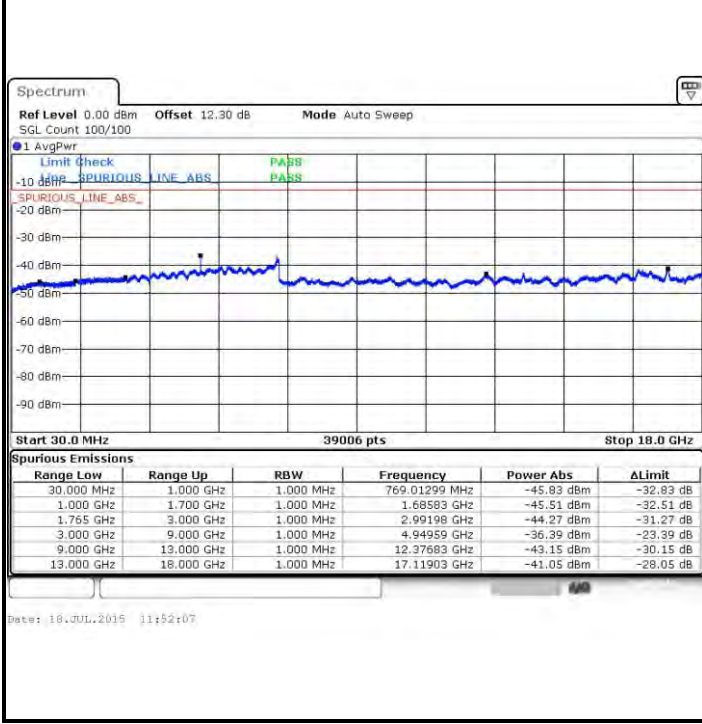
Lowest Channel / QPSK



Lowest Channel / 16QAM



Middle Channel / QPSK



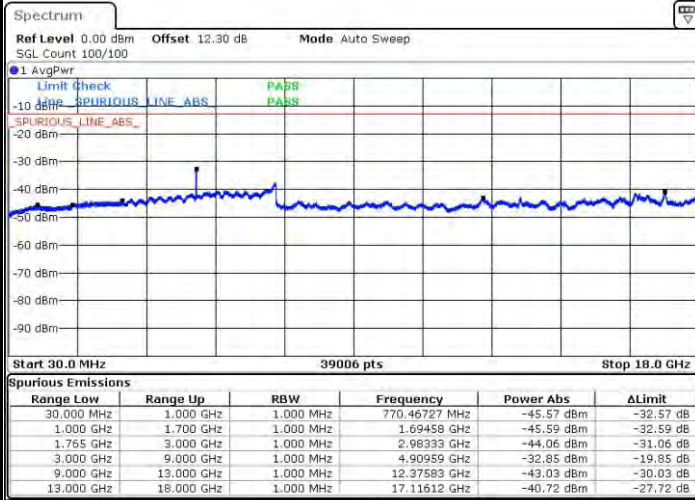
Middle Channel / 16QAM





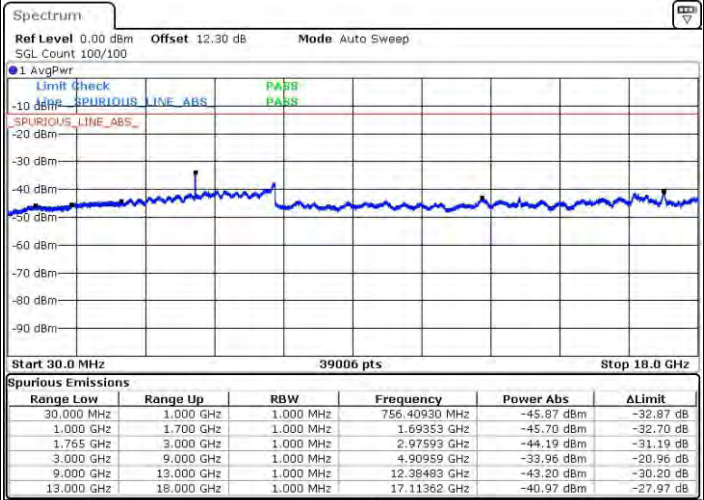
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 18.JUL.2015 11:59:28

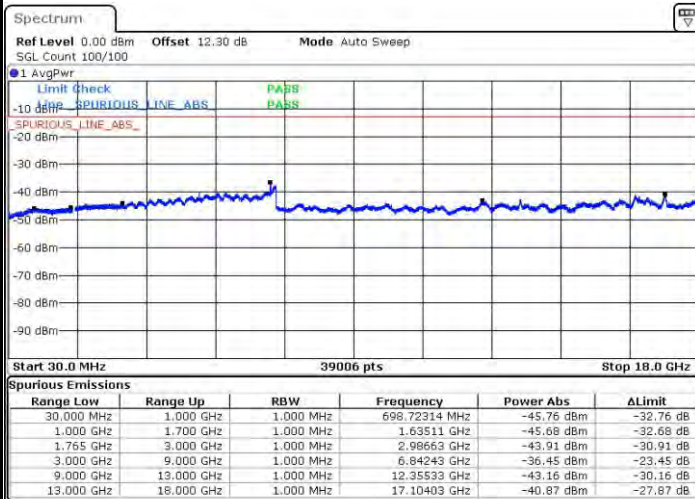
Highest Channel / 16QAM



Date: 18.JUL.2015 12:00:26

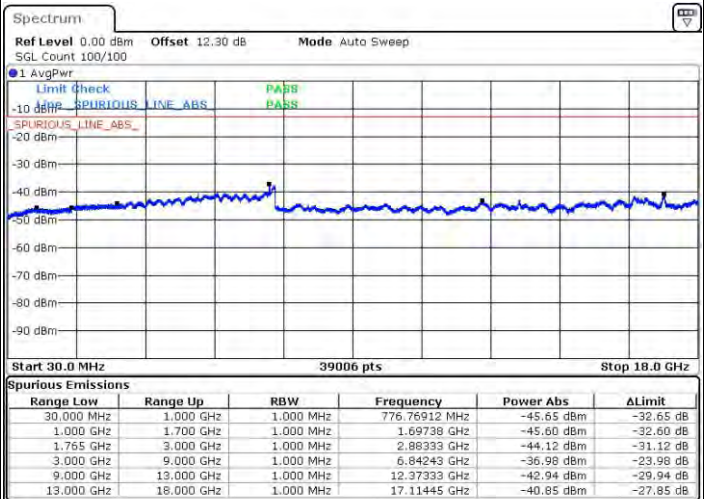
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 18.JUL.2015 12:06:49

Lowest Channel / 16QAM



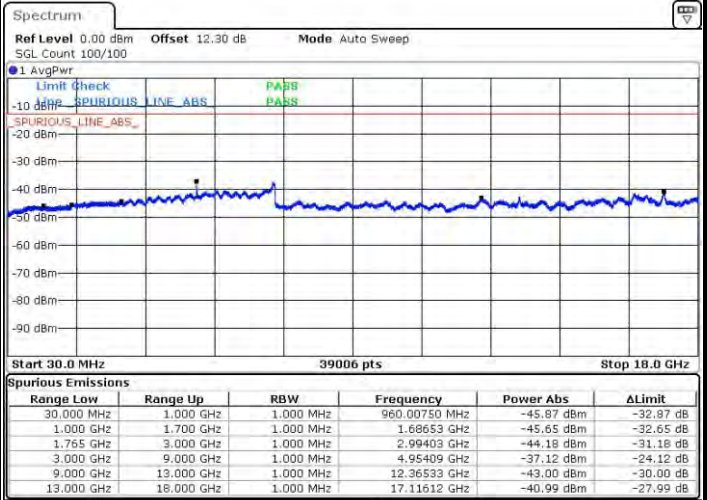
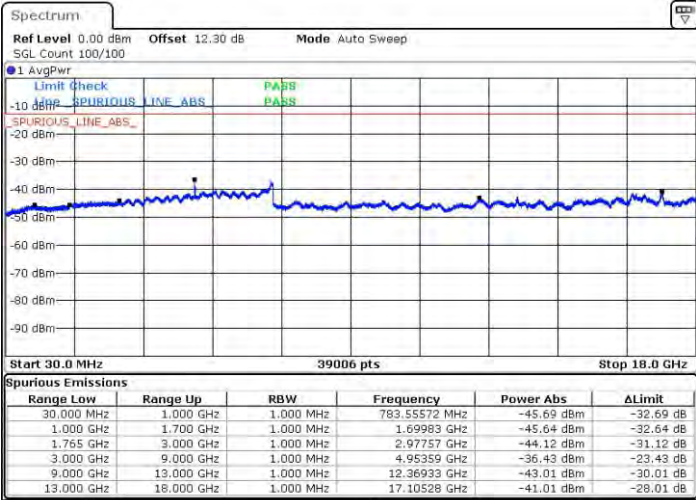
Date: 18.JUL.2015 12:07:46



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

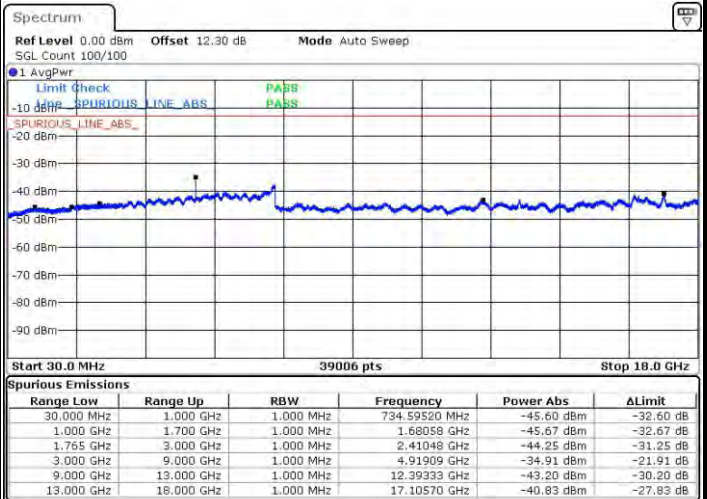
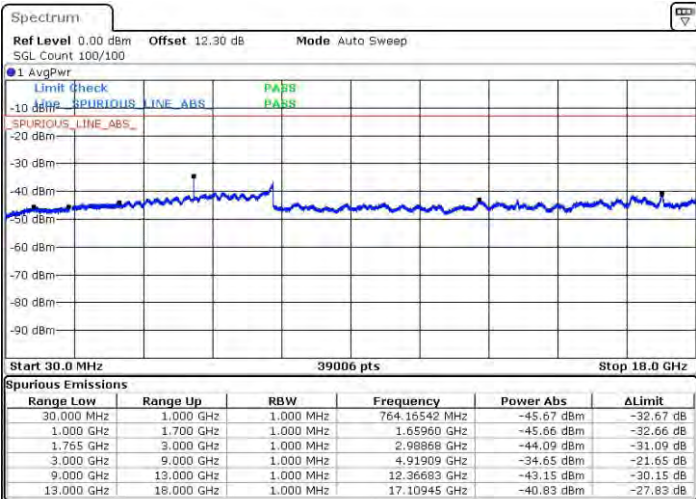


Date: 18.JUL.2015 12:09:31

Date: 18.JUL.2015 12:10:30

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 18.JUL.2015 12:16:52

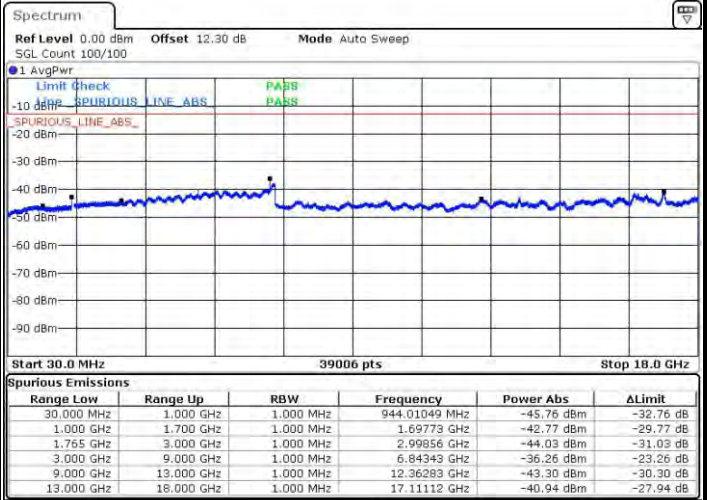
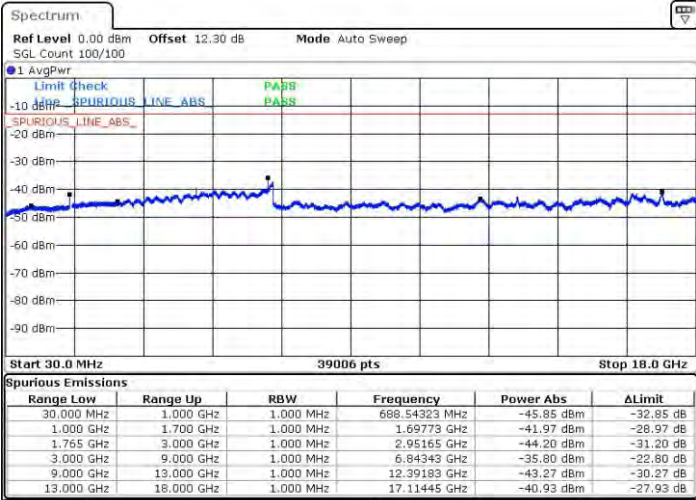
Date: 18.JUL.2015 12:17:49



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

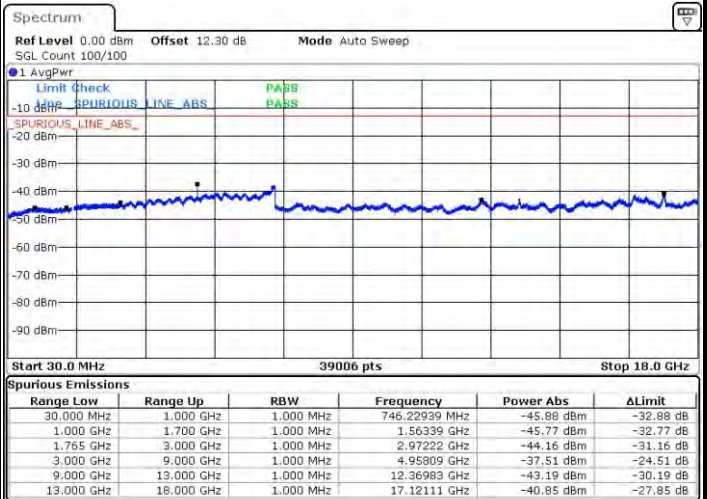
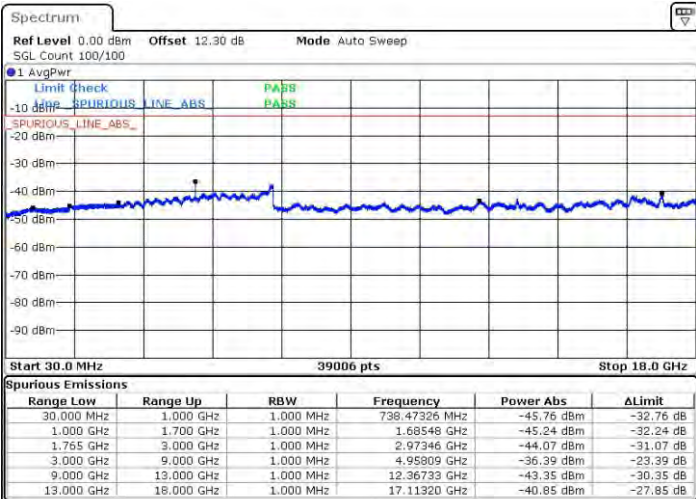


Date: 18.JUL.2015 12:24:11

Date: 18.JUL.2015 12:25:09

Middle Channel / QPSK

Middle Channel / 16QAM



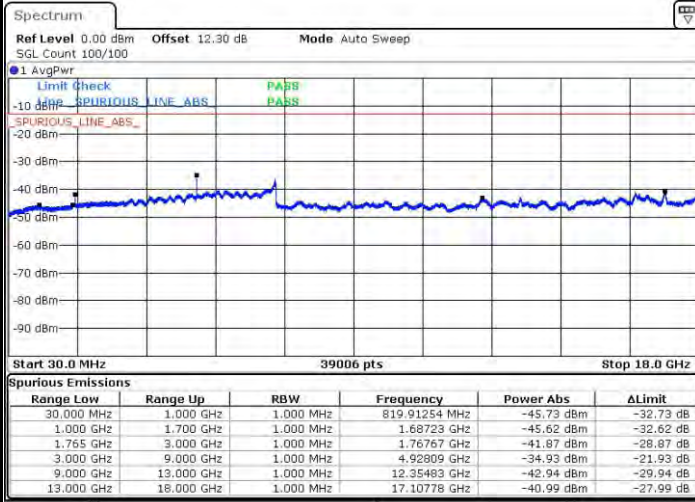
Date: 18.JUL.2015 12:26:54

Date: 18.JUL.2015 12:27:52



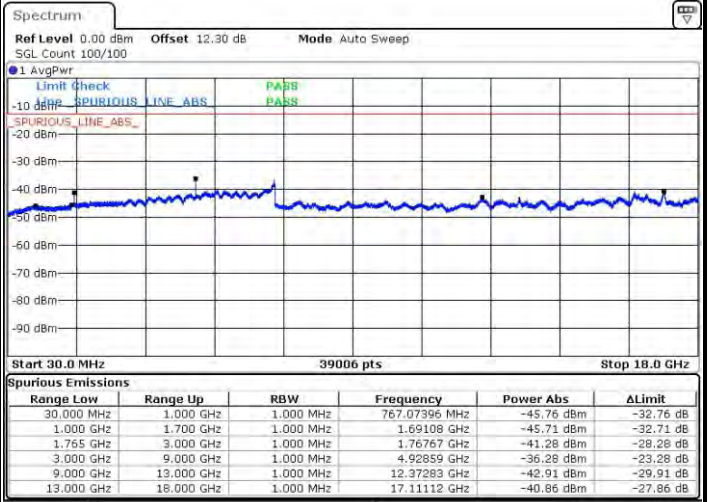
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 18.JUL.2015 12:34:14

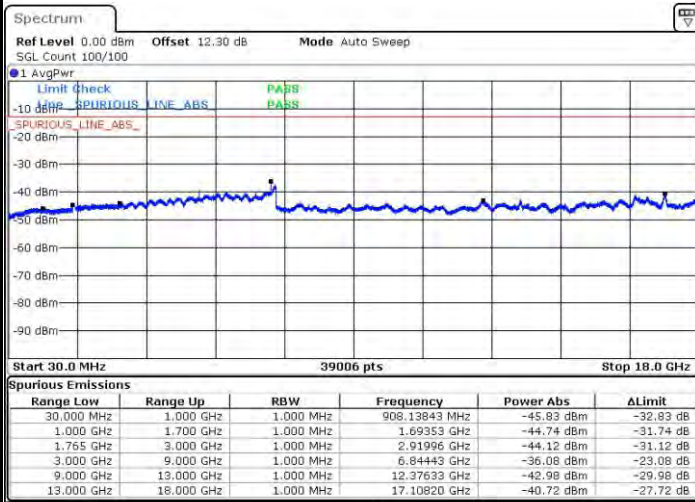
Highest Channel / 16QAM



Date: 18.JUL.2015 12:35:12

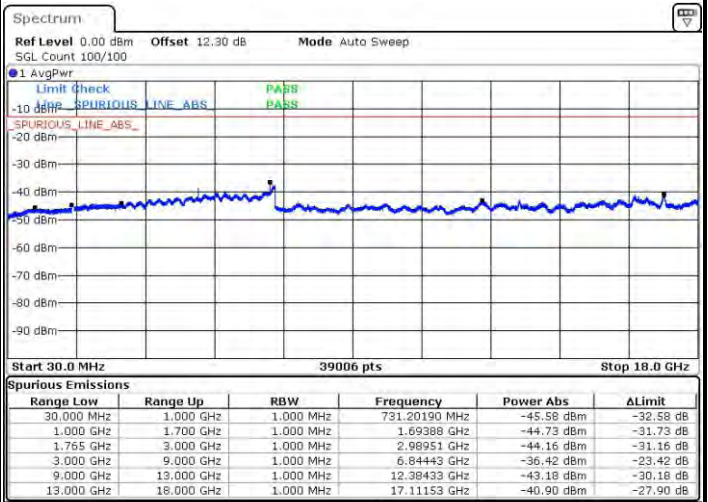
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 18.JUL.2015 13:07:09

Lowest Channel / 16QAM



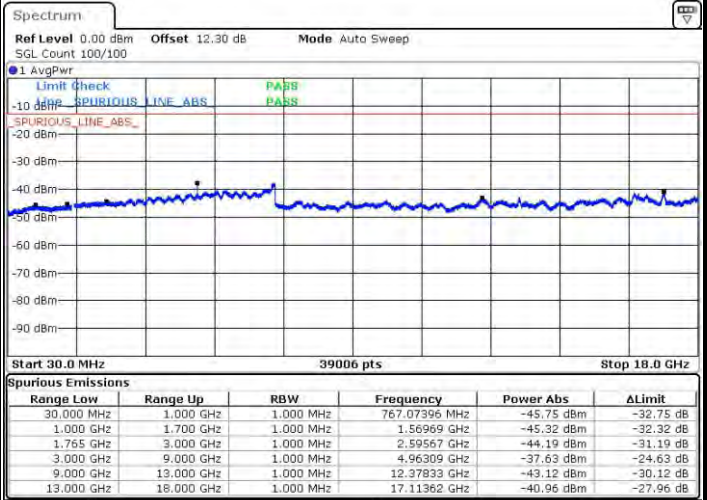
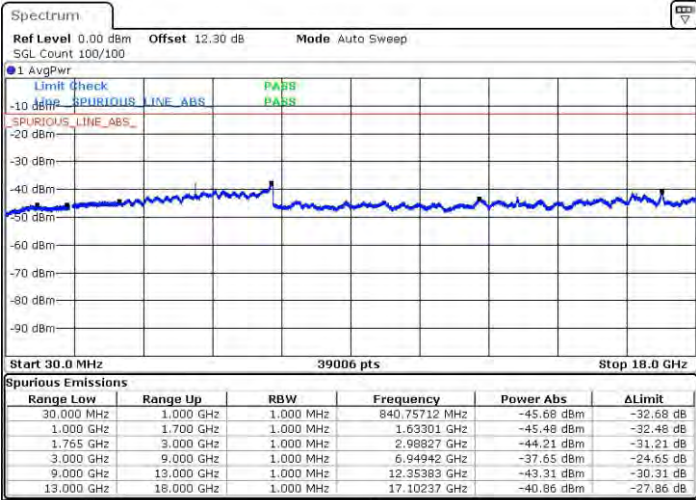
Date: 18.JUL.2015 13:08:07



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

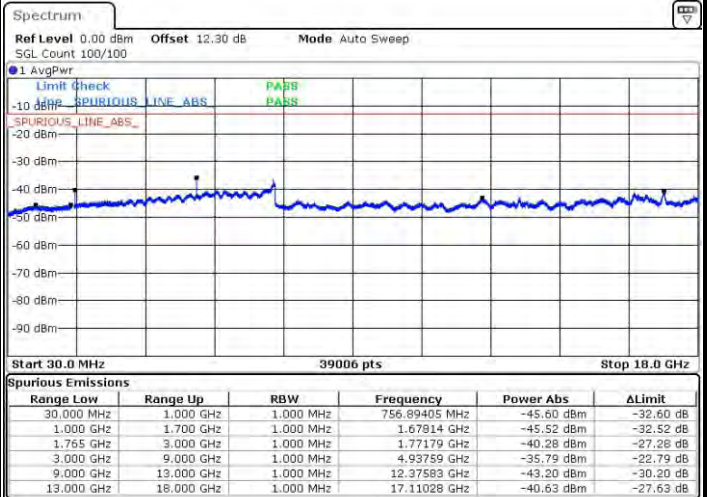
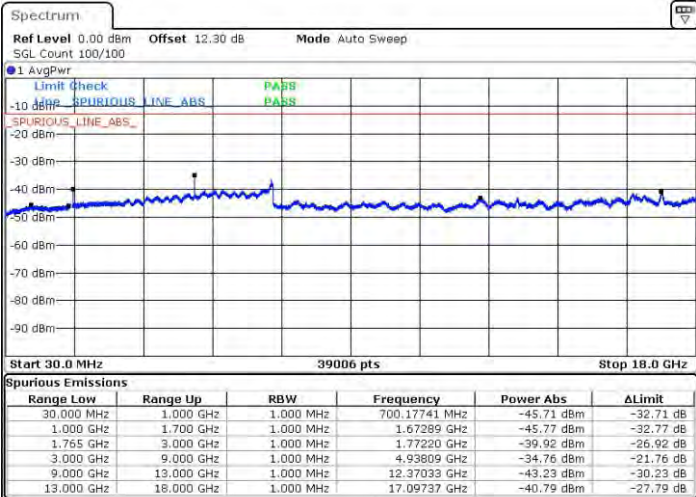


Date: 18.JUL.2015 13:09:51

Date: 18.JUL.2015 13:10:49

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 18.JUL.2015 13:17:12

Date: 18.JUL.2015 13:18:10



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	0.0001	PASS
40	Normal Voltage	0.0073	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0074	
0	Normal Voltage	0.0081	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0077	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0071	

Note:

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.4 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.