



## LTE Band 7

### Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.97	5.3	4.93	6.12	<b>PASS</b>
Middle CH	4.55	5.51	5.94	6.32	
Highest CH	4.49	5.68	5.39	6.52	



LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 28.OCT.2015 10:41:51

Lowest Channel / Full RB



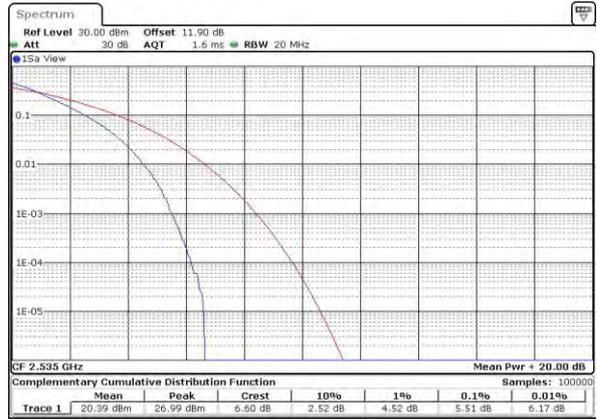
Date: 28.OCT.2015 10:42:10

Middle Channel / 1RB



Date: 28.OCT.2015 10:42:21

Middle Channel / Full RB



Date: 28.OCT.2015 10:42:31

Highest Channel / 1RB



Date: 28.OCT.2015 10:42:41

Highest Channel / Full RB



Date: 28.OCT.2015 10:42:51



LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 28.OCT.2015 10:34:39

Lowest Channel / Full RB



Date: 28.OCT.2015 10:34:52

Middle Channel / 1RB



Date: 28.OCT.2015 10:35:20

Middle Channel / Full RB



Date: 28.OCT.2015 10:35:33

Highest Channel / 1RB



Date: 28.OCT.2015 10:36:12

Highest Channel / Full RB



Date: 28.OCT.2015 10:36:45



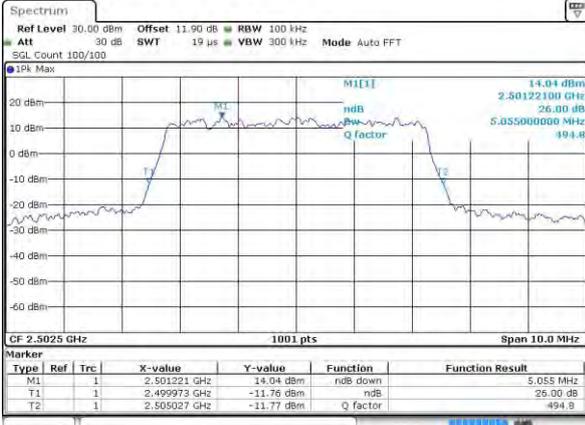
**26dB Bandwidth**

Mode	LTE Band 7 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.06	4.83	9.85	9.97	14.3	14.45	20.46	20.22
Middle CH	-	-	-	-	4.88	4.95	9.73	9.97	14.3	14.27	20.14	20.22
Highest CH	-	-	-	-	5	4.93	9.81	9.77	14.57	14.54	20.1	20.18



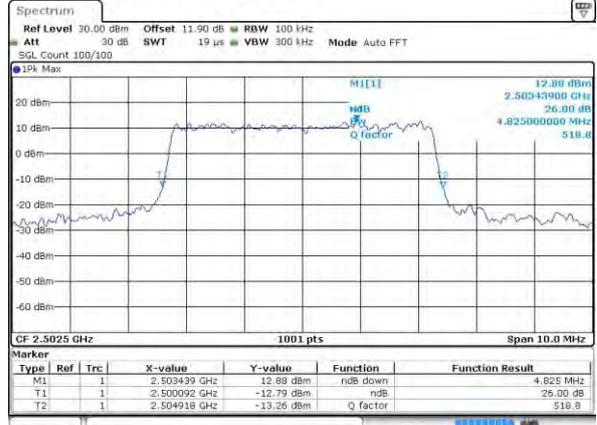
LTE Band 7

Lowest Channel / 5MHz / QPSK



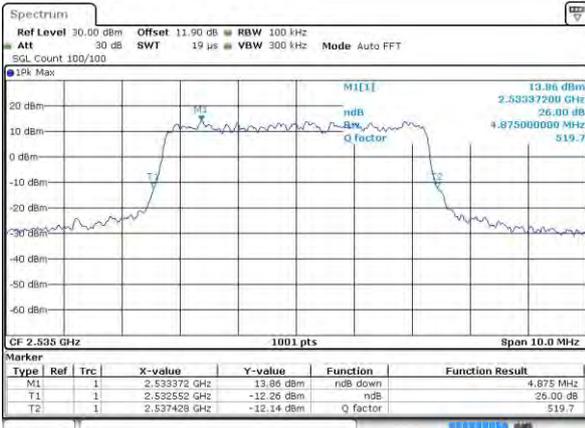
Date: 28.OCT.2015 09:18:20

Lowest Channel / 5MHz / 16QAM



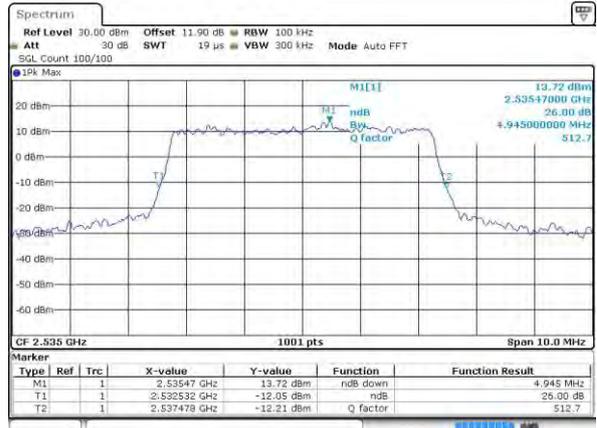
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Middle Channel / 5MHz / QPSK



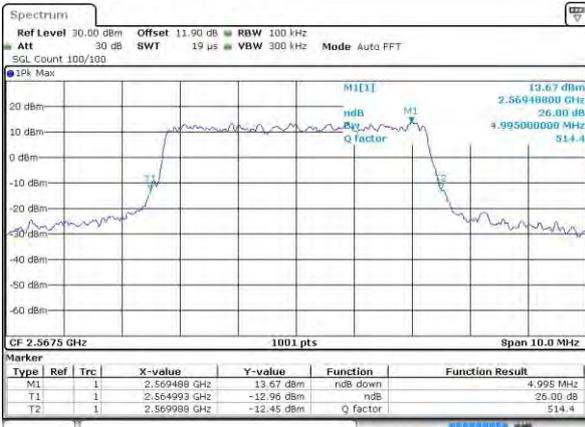
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Middle Channel / 5MHz / 16QAM



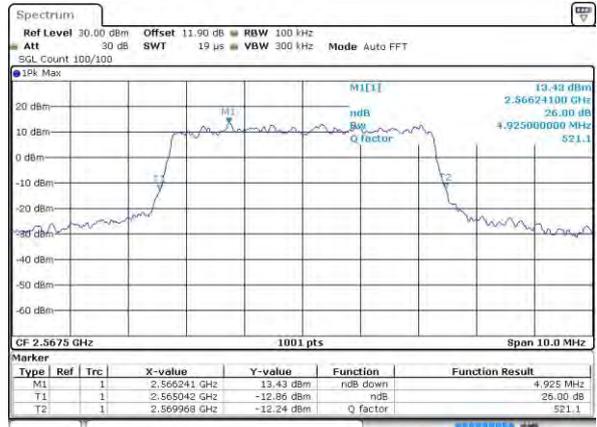
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Highest Channel / 5MHz / QPSK



Date: 28.OCT.2015 09:28:01

Highest Channel / 5MHz / 16QAM

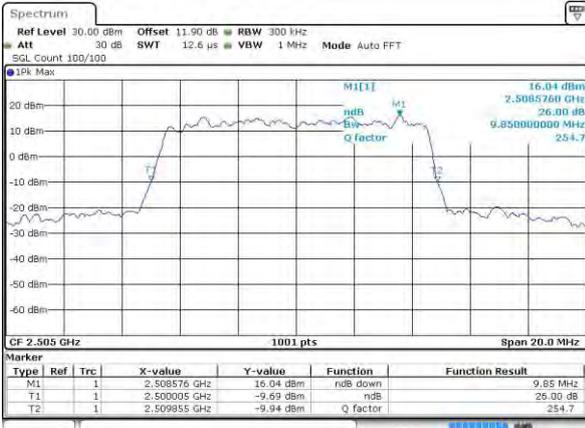


Date: 28.OCT.2015 09:28:11



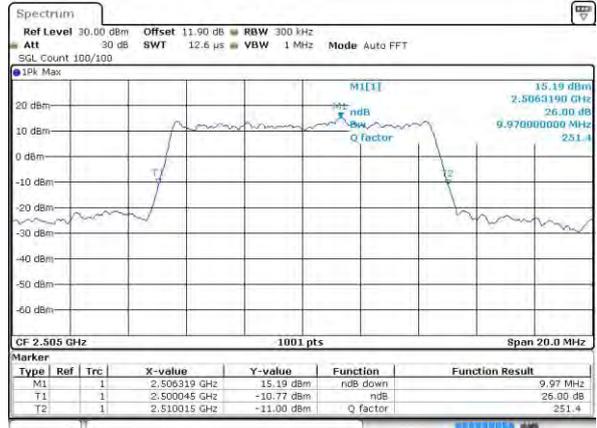
LTE Band 7

Lowest Channel / 10MHz / QPSK



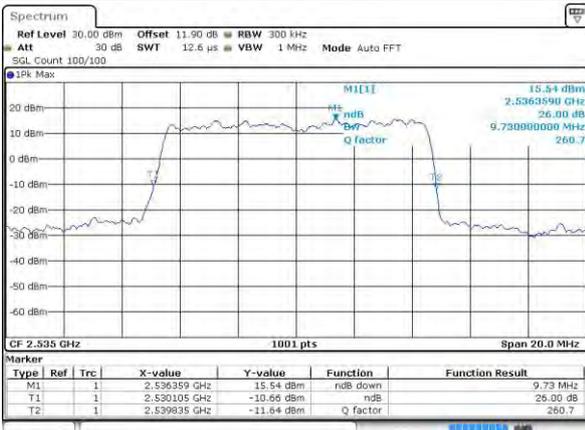
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Lowest Channel / 10MHz / 16QAM



Date: 28.OCT.2015 09:43:33

Middle Channel / 10MHz / QPSK



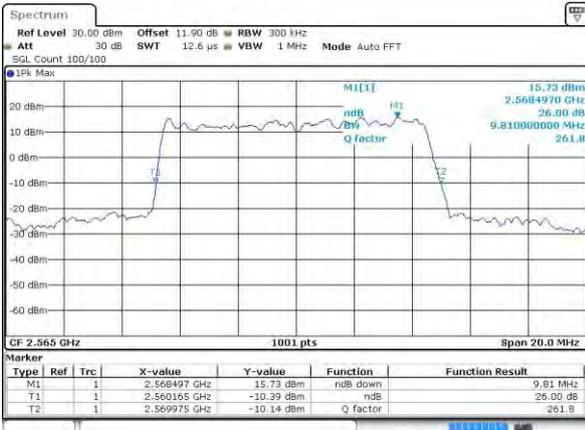
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Middle Channel / 10MHz / 16QAM



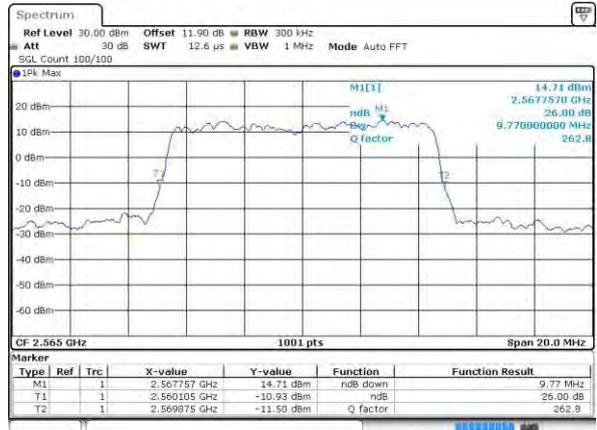
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Highest Channel / 10MHz / QPSK



Date: 28.OCT.2015 09:53:01

Highest Channel / 10MHz / 16QAM

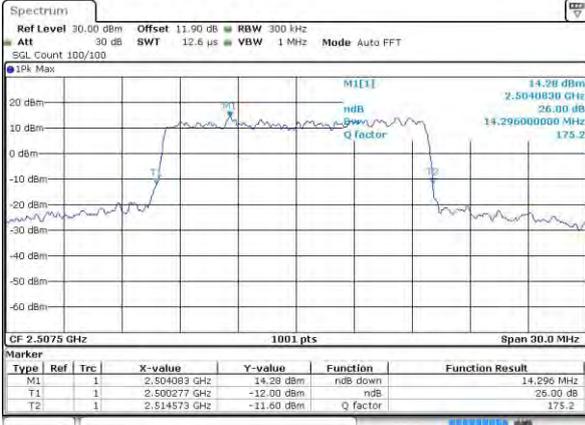


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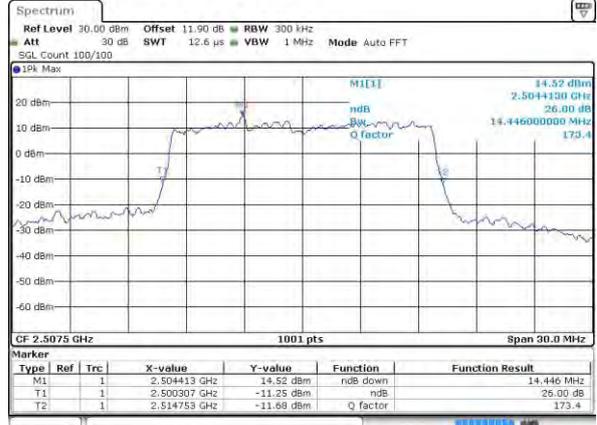
LTE Band 7

Lowest Channel / 15MHz / QPSK



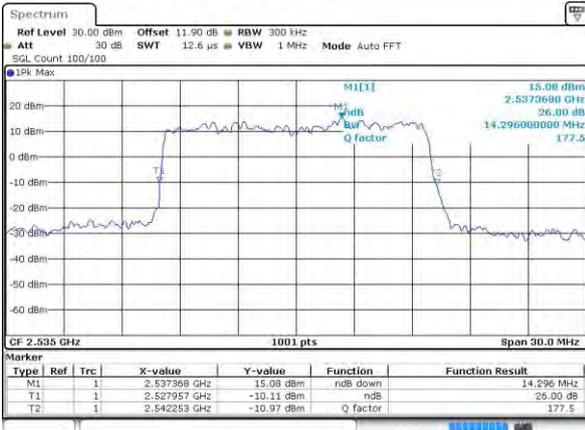
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Lowest Channel / 15MHz / 16QAM



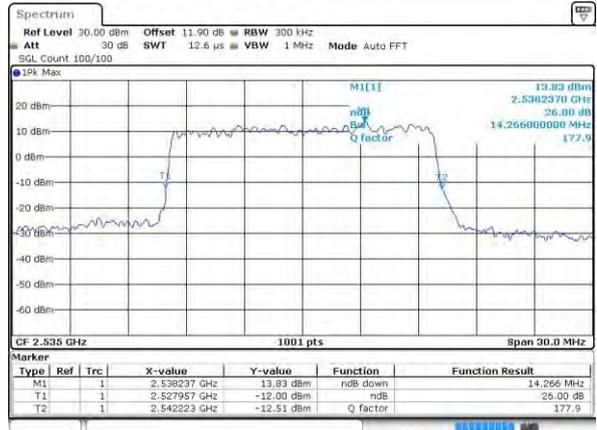
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Middle Channel / 15MHz / QPSK



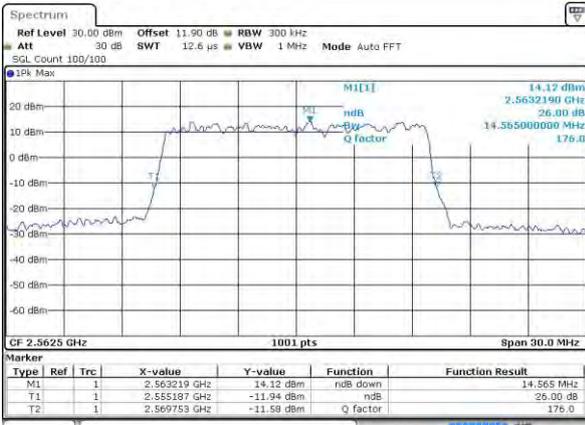
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Middle Channel / 15MHz / 16QAM



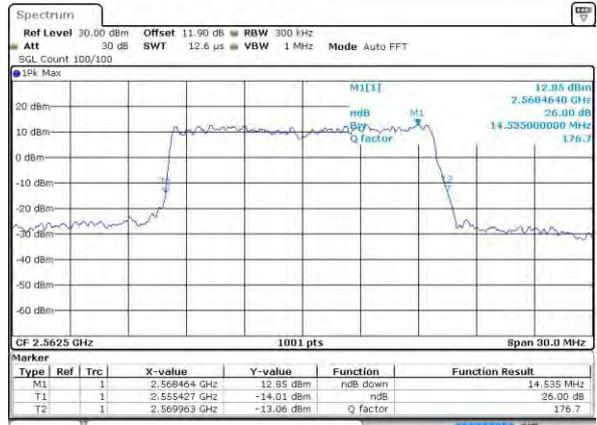
Date: 28.OCT.2015 10:07:30

Highest Channel / 15MHz / QPSK



Date: 28.OCT.2015 10:09:49

Highest Channel / 15MHz / 16QAM

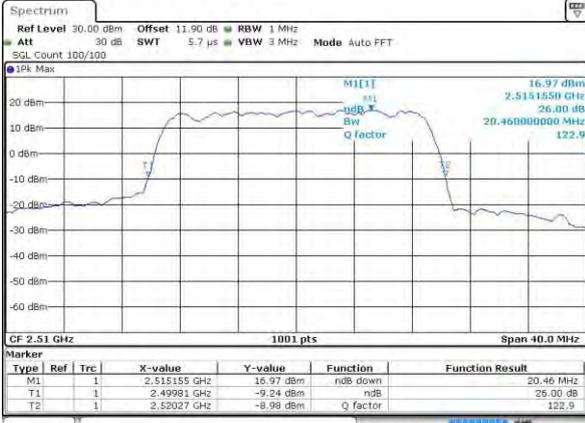


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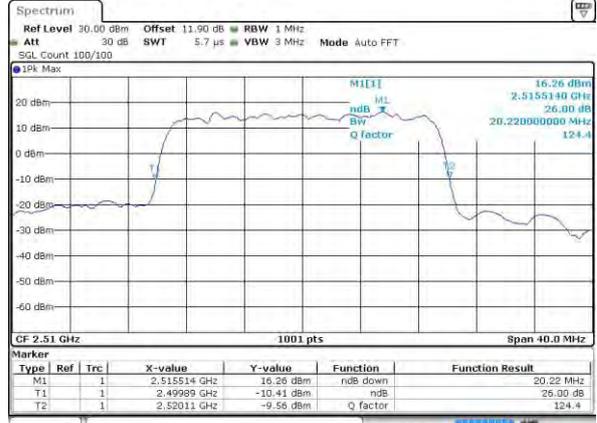
LTE Band 7

Lowest Channel / 20MHz / QPSK



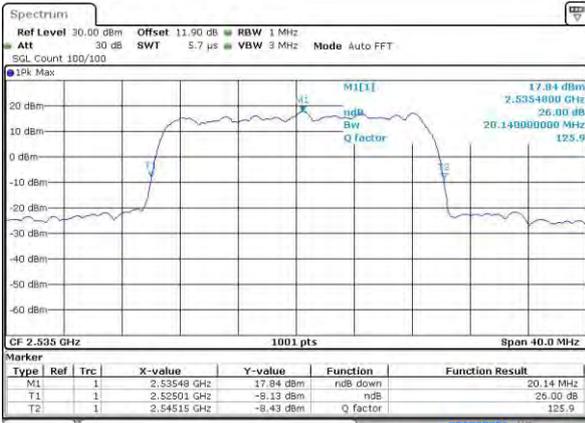
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Lowest Channel / 20MHz / 16QAM



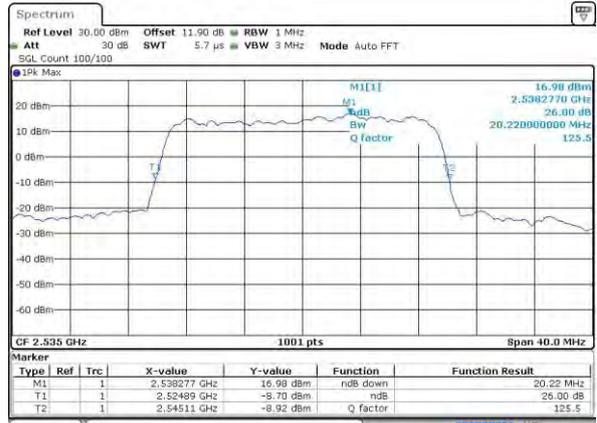
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Middle Channel / 20MHz / QPSK



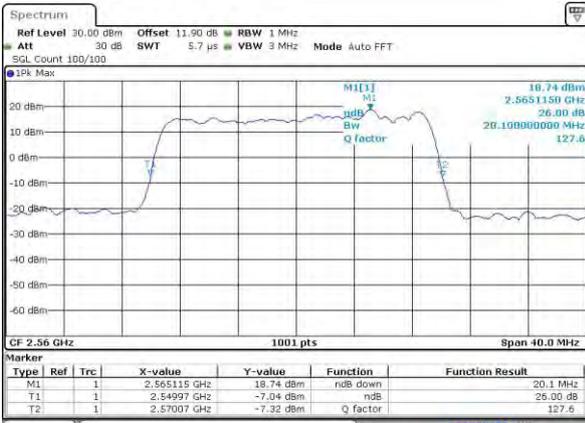
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Middle Channel / 20MHz / 16QAM



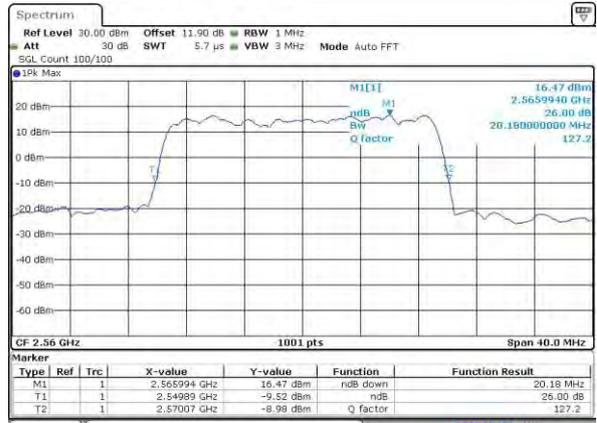
Date: 28.OCT.2015 10:24:17

Highest Channel / 20MHz / QPSK



Date: 28.OCT.2015 10:28:36

Highest Channel / 20MHz / 16QAM



Date: 28.OCT.2015 10:28:47



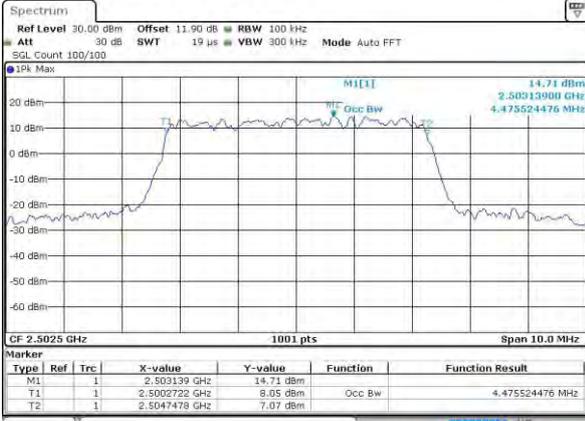
### Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.51	9.01	9.01	13.46	13.46	18.38	18.26
Middle CH	-	-	-	-	4.5	4.52	8.99	8.99	13.49	13.43	18.42	18.3
Highest CH	-	-	-	-	4.5	4.49	9.01	9.05	13.4	13.43	18.34	18.54



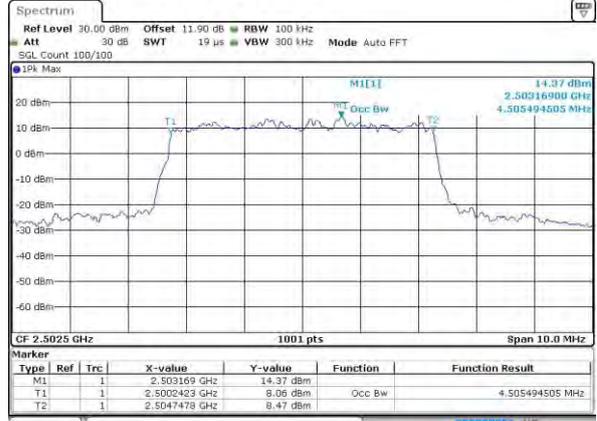
LTE Band 7

Lowest Channel / 5MHz / QPSK



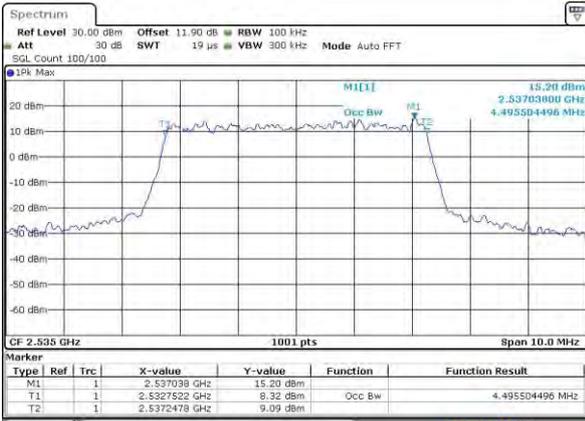
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Lowest Channel / 5MHz / 16QAM



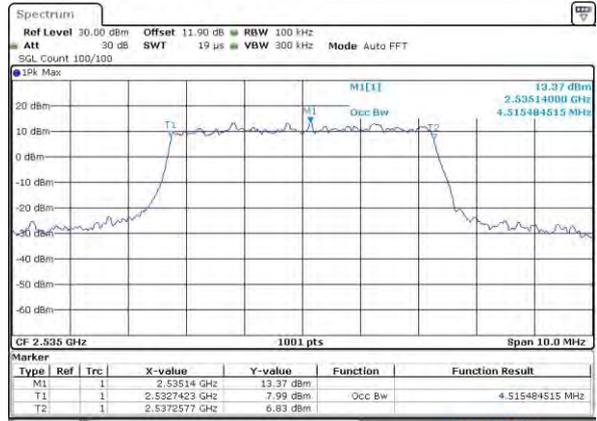
Date: 28.OCT.2015 09:18:10

Middle Channel / 5MHz / QPSK



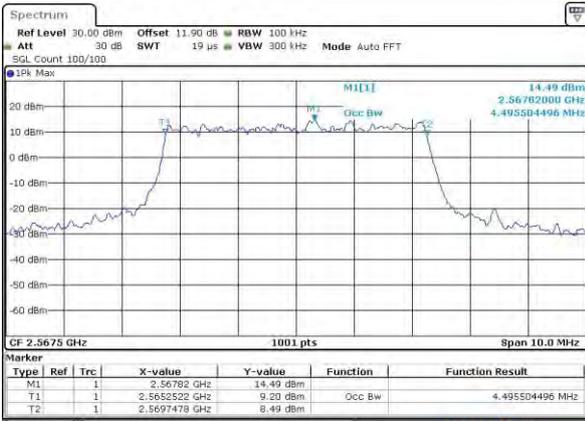
Date: 28.OCT.2015 09:25:09

Middle Channel / 5MHz / 16QAM



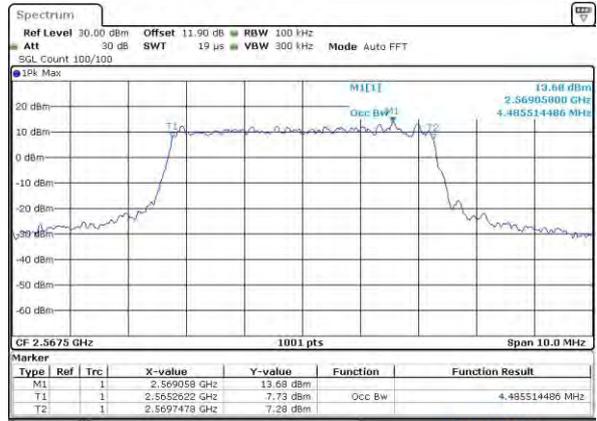
Date: 28.OCT.2015 09:25:20

Highest Channel / 5MHz / QPSK



Date: 28.OCT.2015 09:27:39

Highest Channel / 5MHz / 16QAM

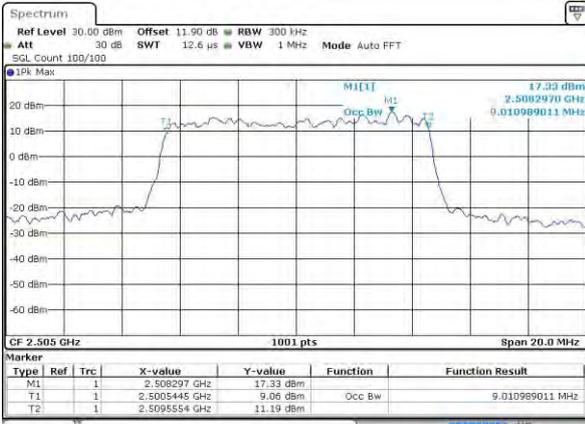


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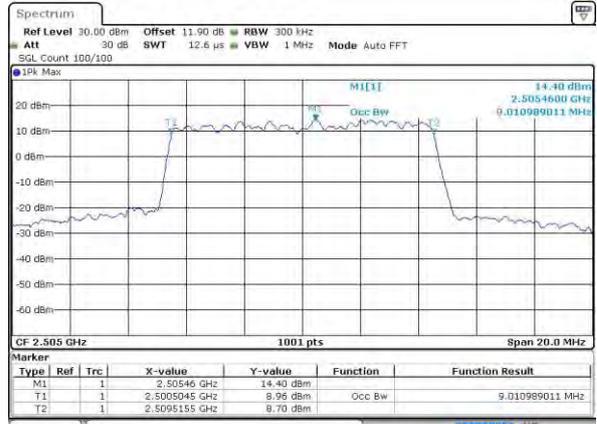
LTE Band 7

Lowest Channel / 10MHz / QPSK



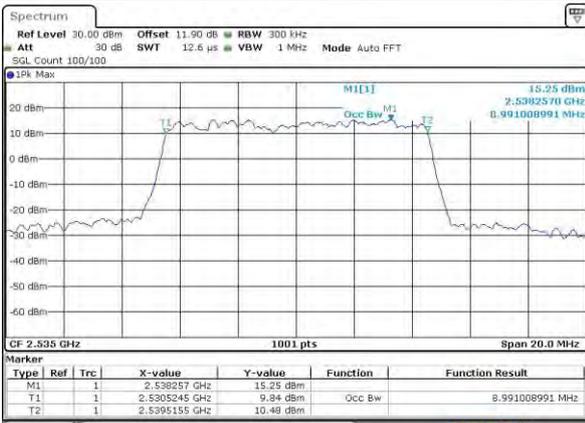
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Lowest Channel / 10MHz / 16QAM



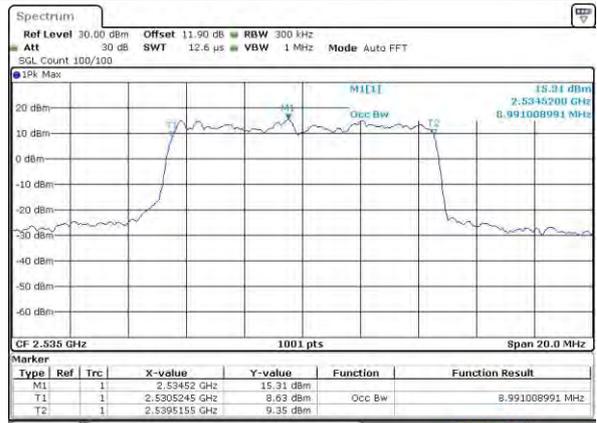
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Middle Channel / 10MHz / QPSK



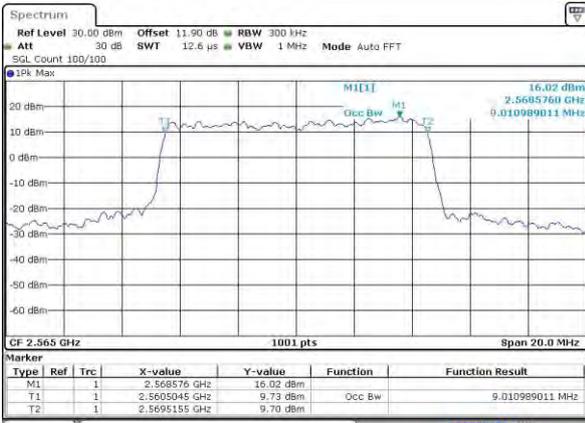
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Middle Channel / 10MHz / 16QAM



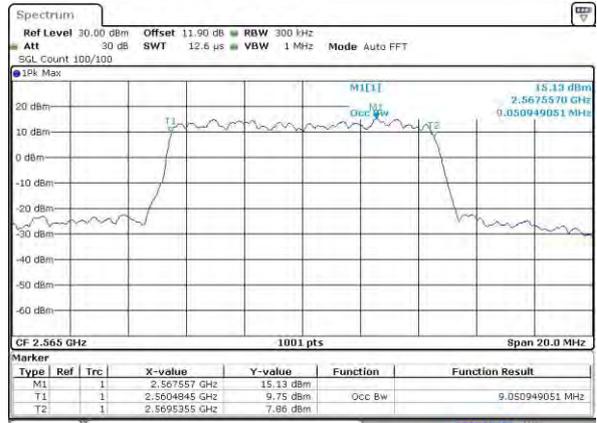
Date: 28.OCT.2015 09:50:21

Highest Channel / 10MHz / QPSK



Date: 28.OCT.2015 09:52:40

Highest Channel / 10MHz / 16QAM

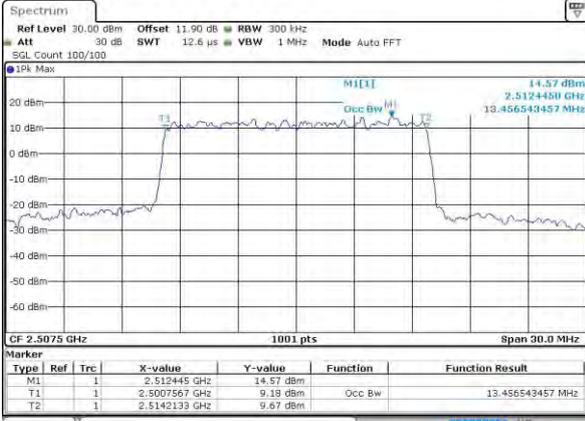


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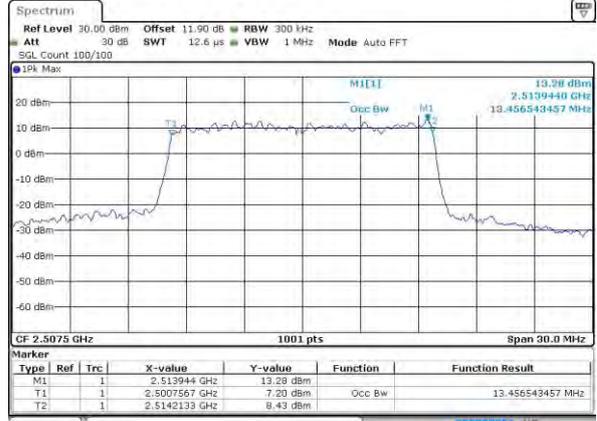
LTE Band 7

Lowest Channel / 15MHz / QPSK



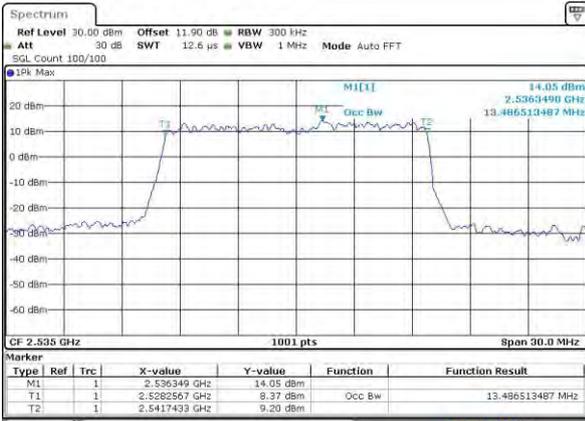
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Lowest Channel / 15MHz / 16QAM



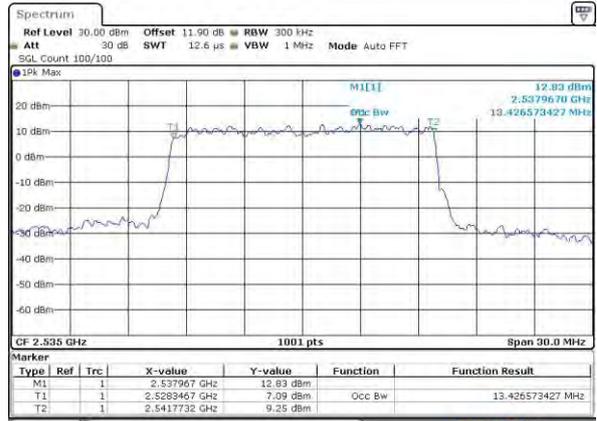
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Middle Channel / 15MHz / QPSK



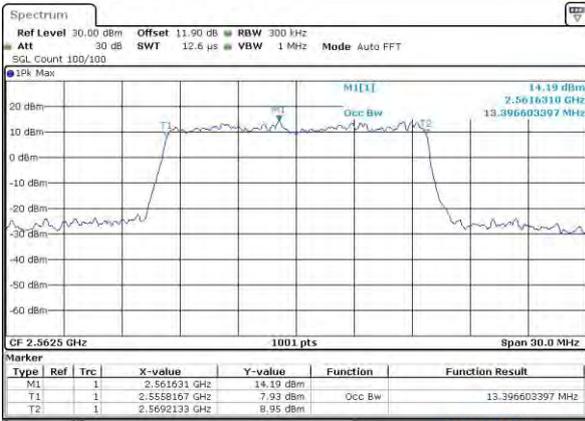
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Middle Channel / 15MHz / 16QAM



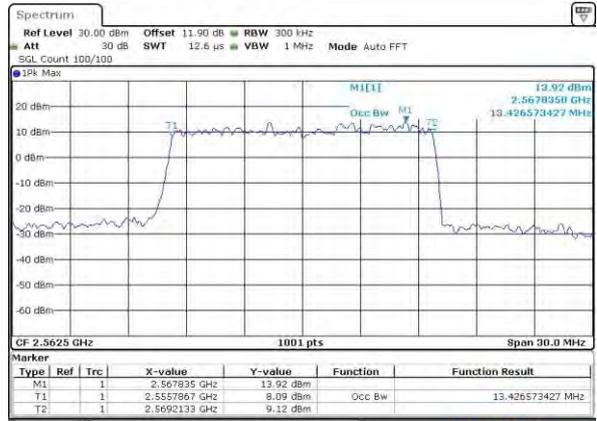
Date: 28.OCT.2015 10:07:09

Highest Channel / 15MHz / QPSK



Date: 28.OCT.2015 10:09:28

Highest Channel / 15MHz / 16QAM

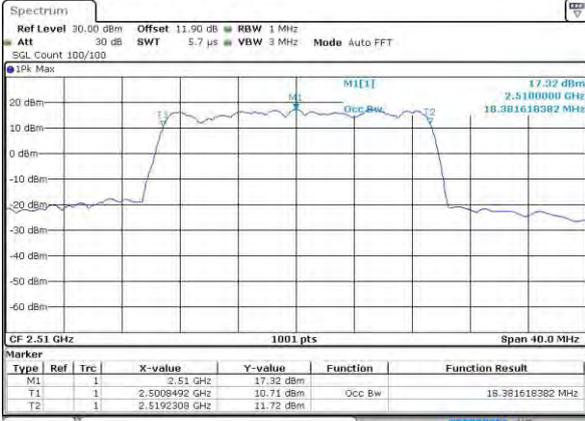


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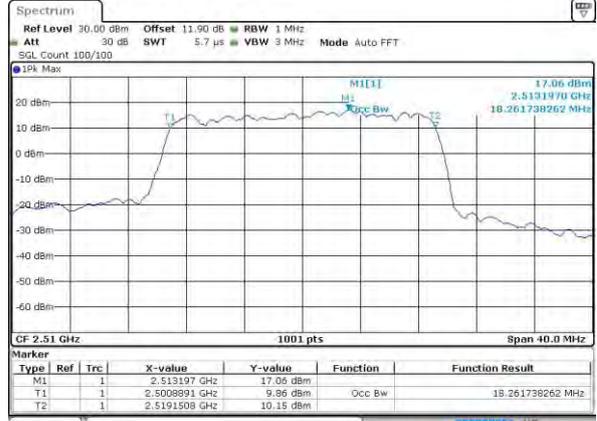
LTE Band 7

Lowest Channel / 20MHz / QPSK



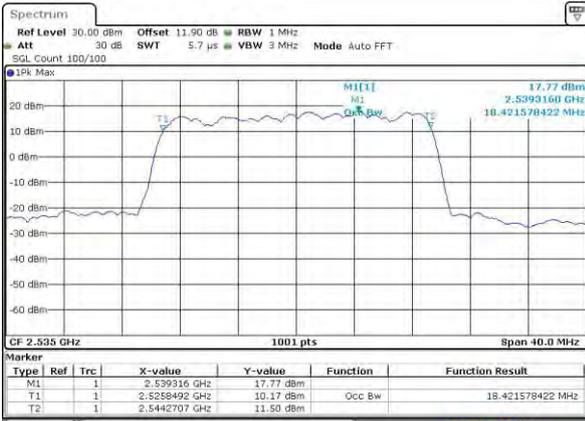
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Lowest Channel / 20MHz / 16QAM



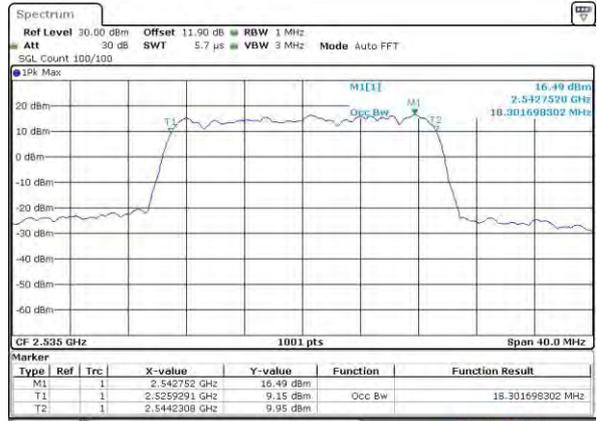
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Middle Channel / 20MHz / QPSK



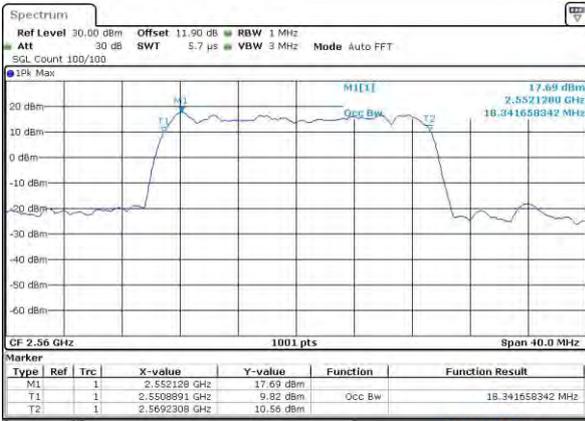
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Middle Channel / 20MHz / 16QAM



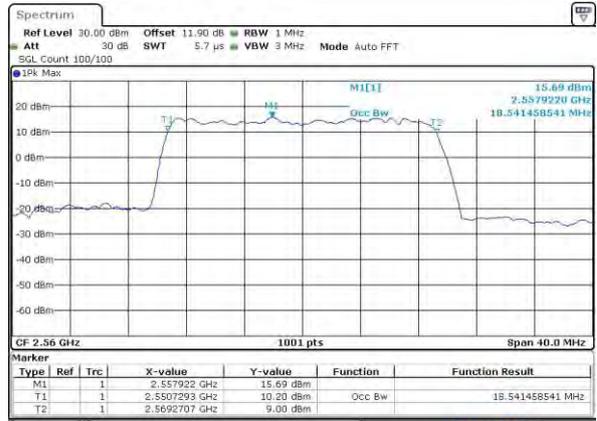
Date: 28.OCT.2015 10:23:56

Highest Channel / 20MHz / QPSK



Date: 28.OCT.2015 10:28:15

Highest Channel / 20MHz / 16QAM



Date: 28.OCT.2015 10:28:26



**Conducted Band Edge**



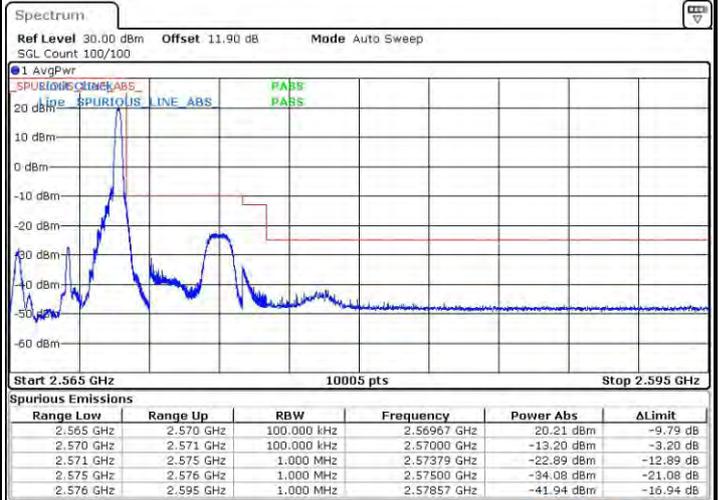
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Date: 28.OCT.2015 09:19:40

Highest Band Edge / 1 RB



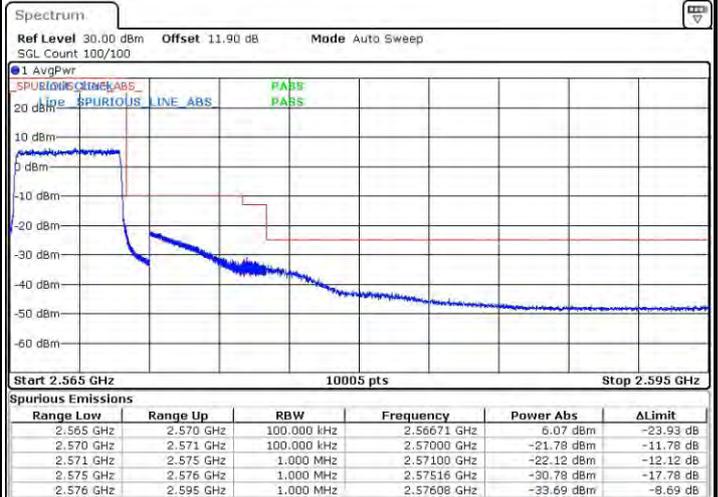
Date: 28.OCT.2015 09:29:20

Lowest Band Edge / Full RB



Date: 28.OCT.2015 09:22:00

Highest Band Edge / Full RB



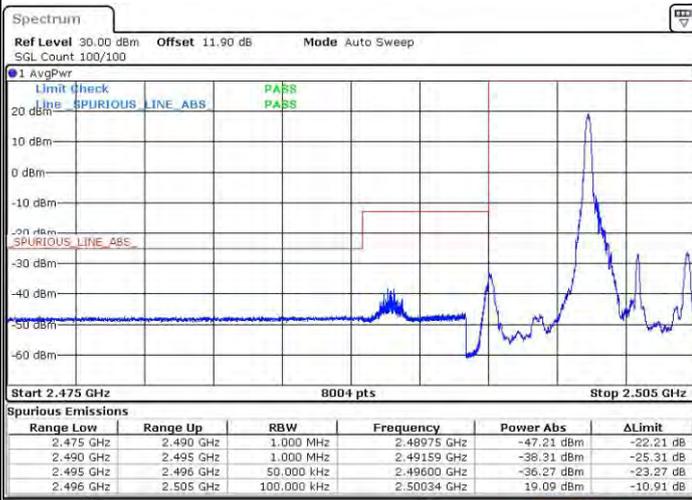
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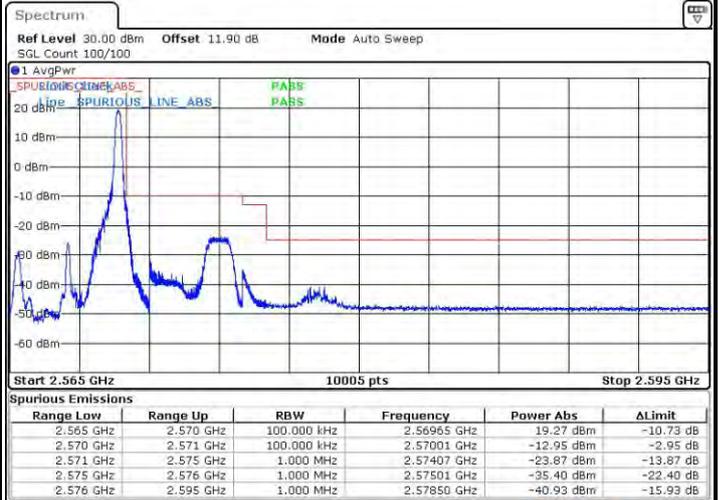
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Date: 28.OCT.2015 09:20:50



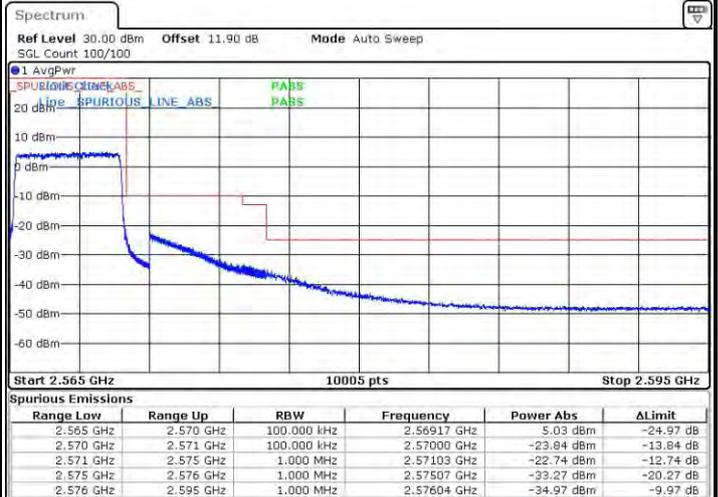
Date: 28.OCT.2015 09:30:31

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 28.OCT.2015 09:23:10



Date: 28.OCT.2015 09:32:51



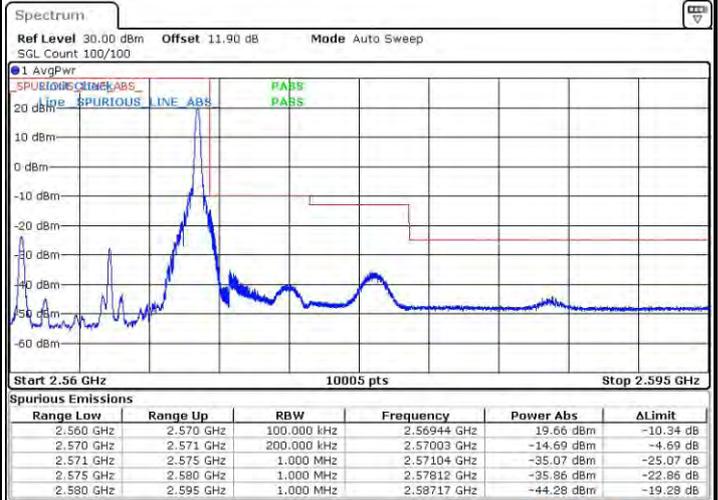
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



Date: 28.OCT.2015 09:44:42

Highest Band Edge / 1 RB



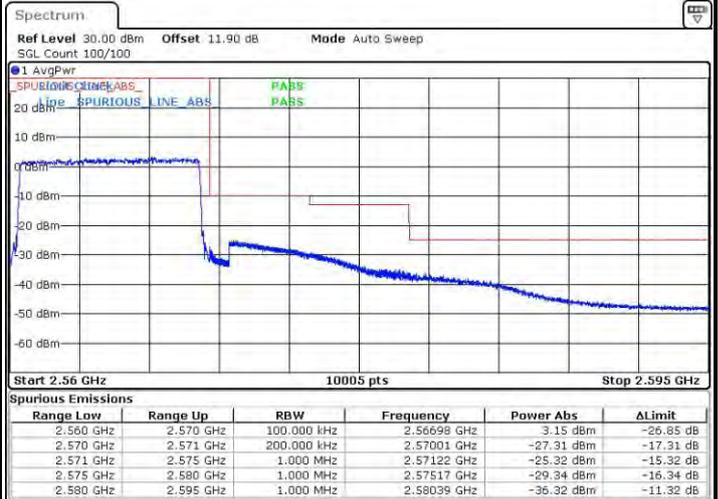
Date: 28.OCT.2015 09:54:21

Lowest Band Edge / Full RB



Date: 28.OCT.2015 09:47:02

Highest Band Edge / Full RB

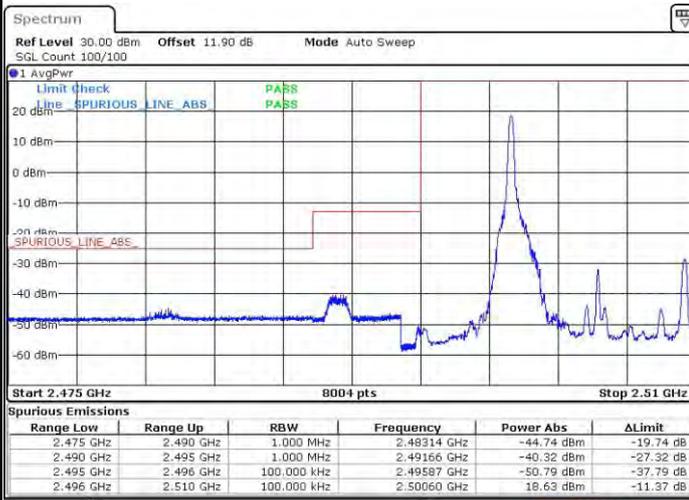


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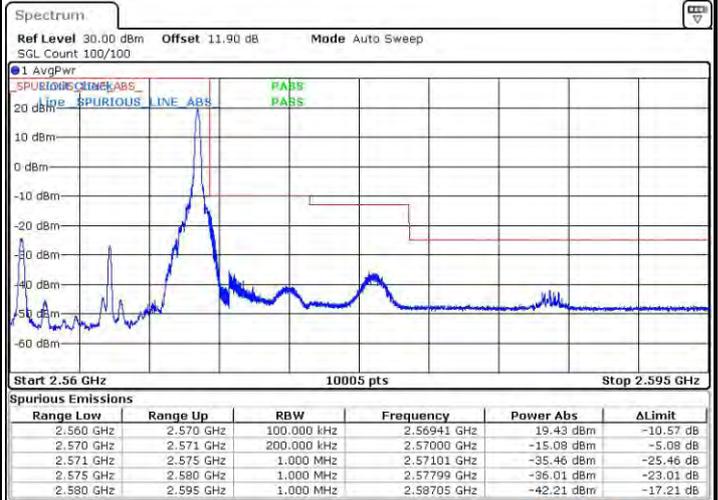
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



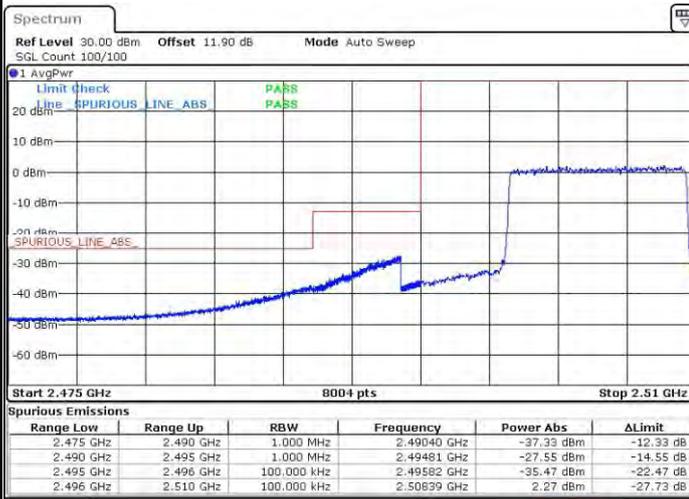
Date: 28.OCT.2015 09:45:52

Highest Band Edge / 1 RB



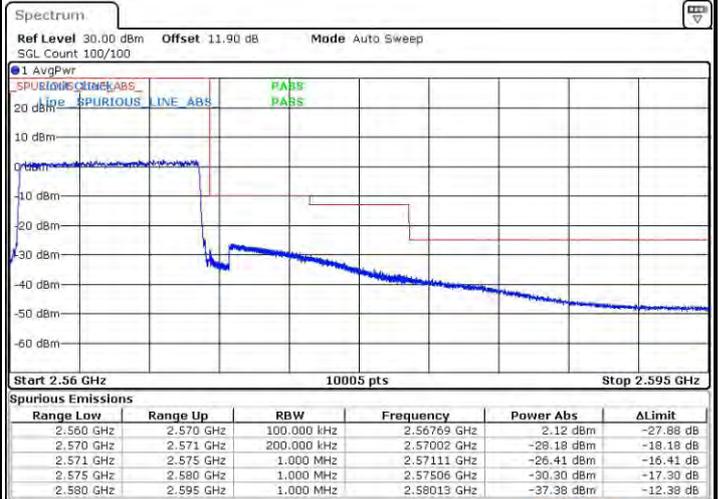
Date: 28.OCT.2015 09:55:31

Lowest Band Edge / Full RB



Date: 28.OCT.2015 09:48:11

Highest Band Edge / Full RB

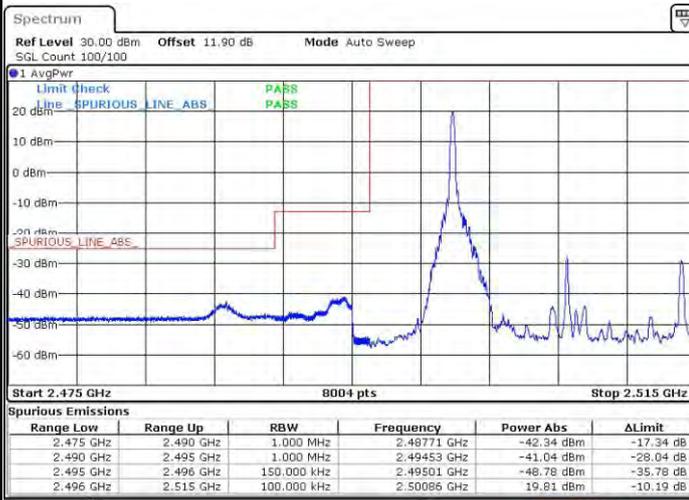


Date: 28.OCT.2015 09:57:51



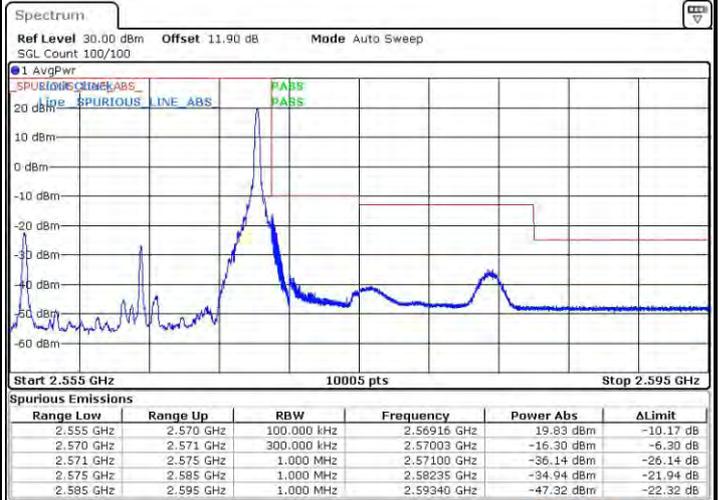
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



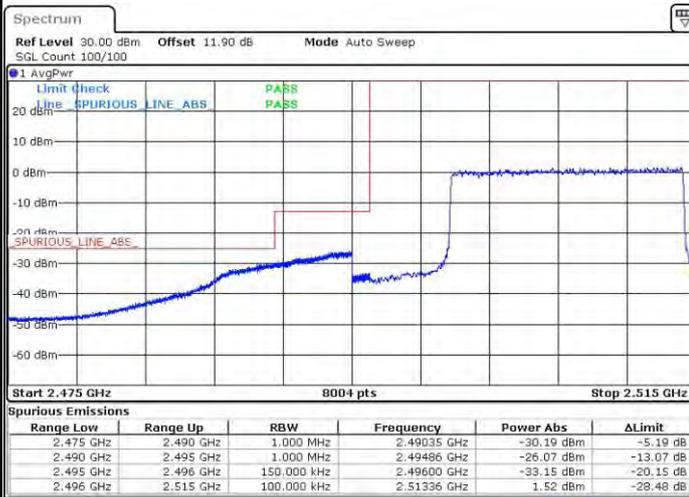
Date: 28.OCT.2015 10:01:30

Highest Band Edge / 1 RB



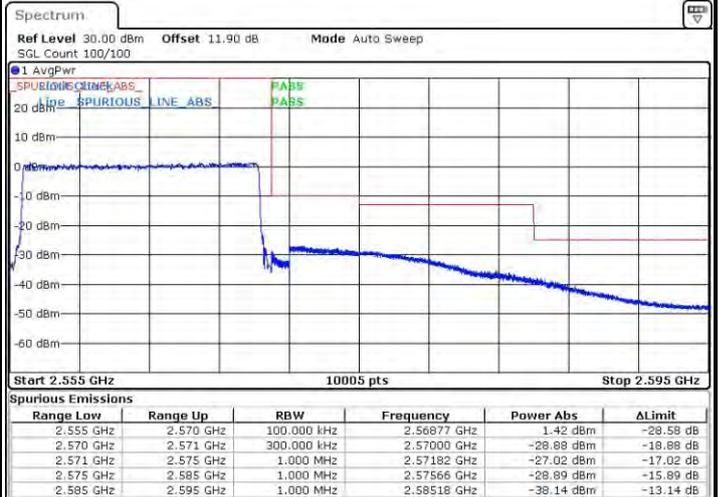
Date: 28.OCT.2015 10:11:09

Lowest Band Edge / Full RB



Date: 28.OCT.2015 10:03:50

Highest Band Edge / Full RB

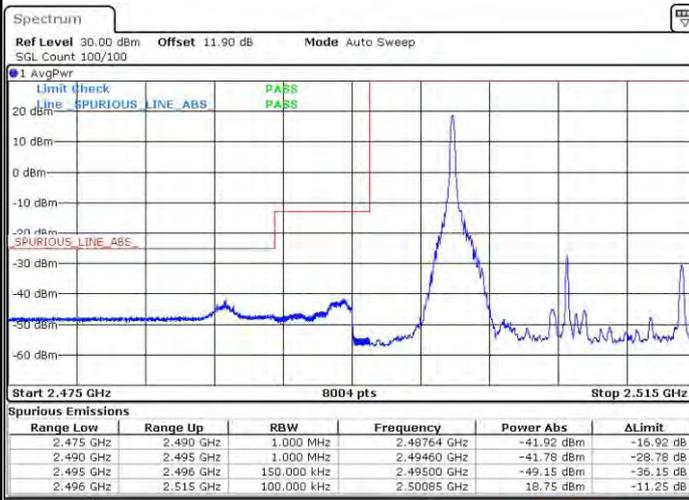


Date: 28.OCT.2015 10:13:28



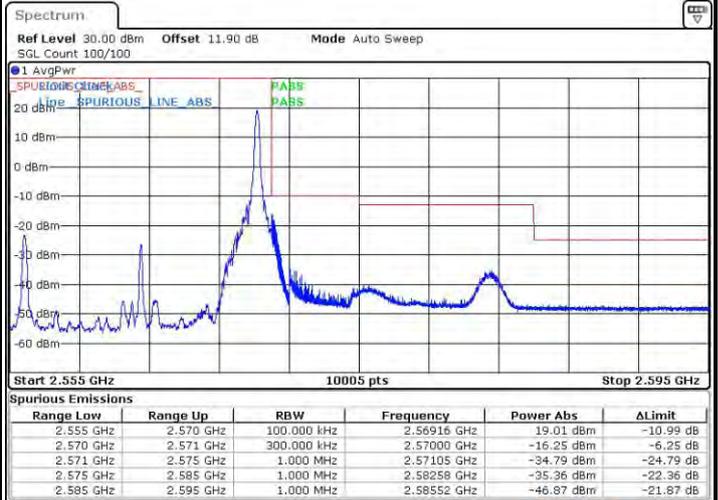
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



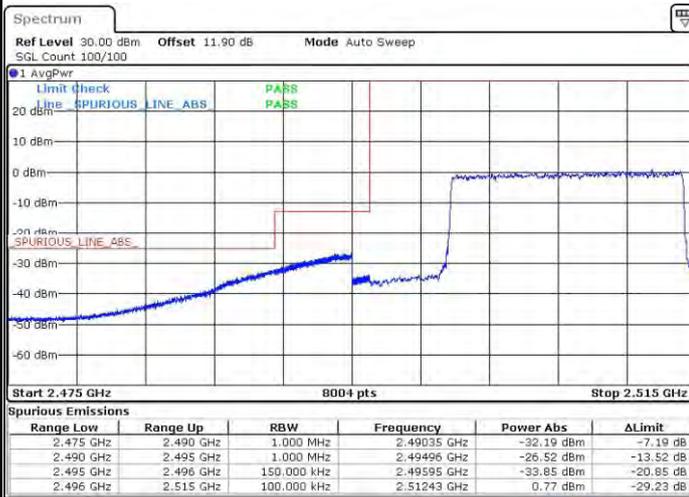
Date: 28.OCT.2015 10:02:40

Highest Band Edge / 1 RB



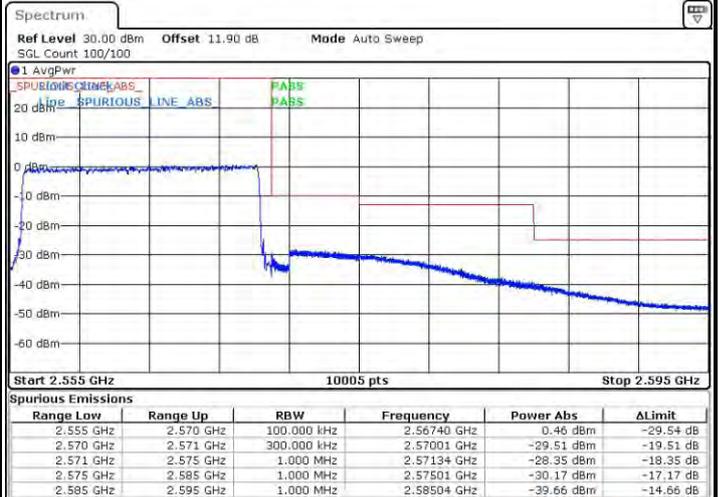
Date: 28.OCT.2015 10:12:19

Lowest Band Edge / Full RB



Date: 28.OCT.2015 10:05:00

Highest Band Edge / Full RB

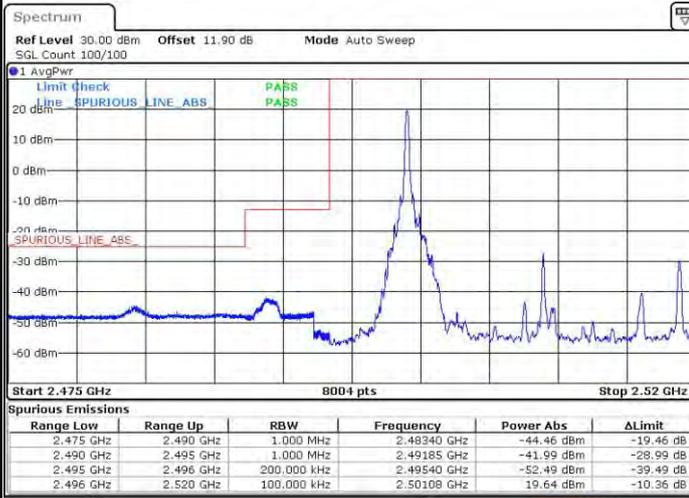


Date: 28.OCT.2015 10:14:38



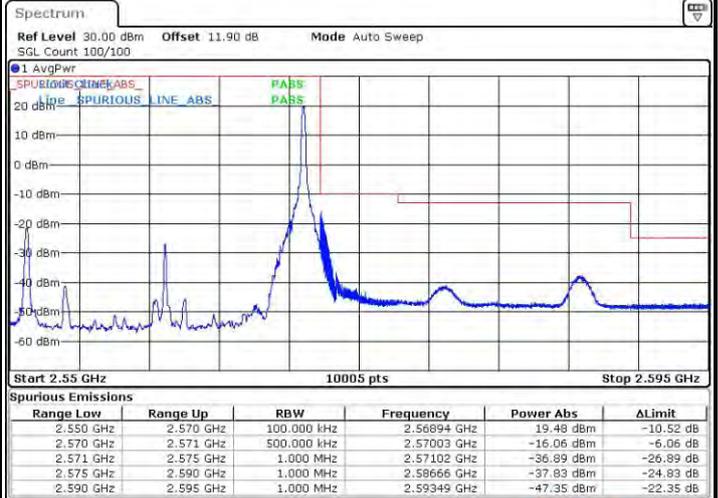
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



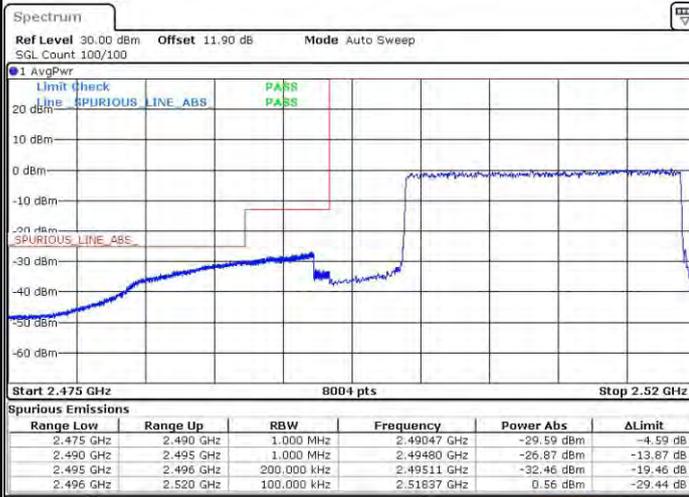
Date: 28.OCT.2015 10:18:18

Highest Band Edge / 1 RB



Date: 28.OCT.2015 10:27:56

Lowest Band Edge / Full RB



Date: 28.OCT.2015 10:20:37

Highest Band Edge / Full RB

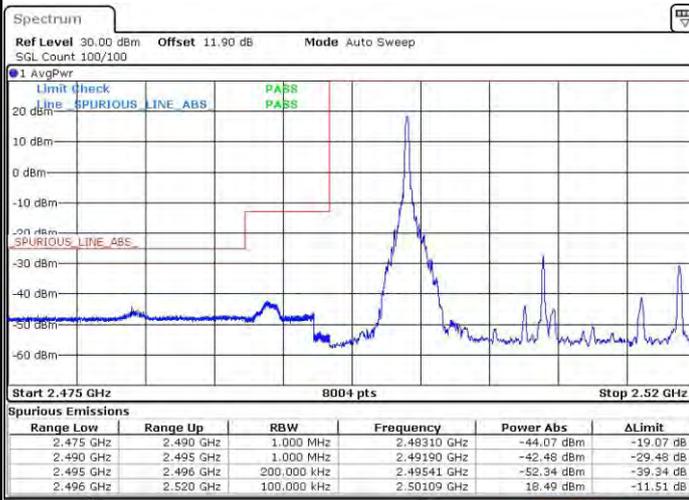


Date: 28.OCT.2015 10:31:25



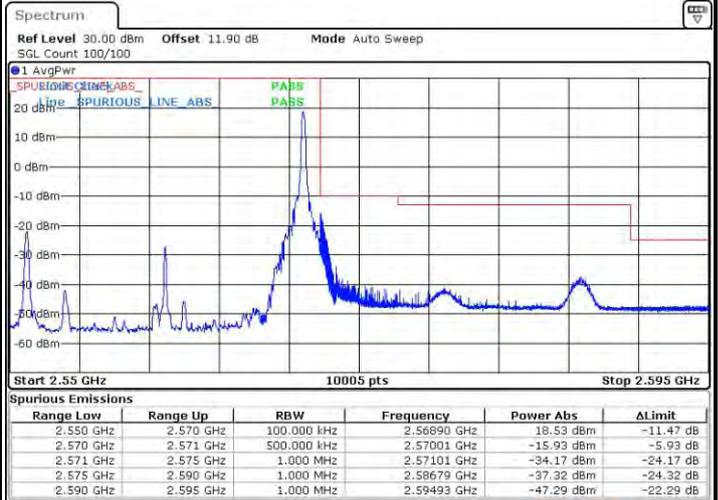
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 28.OCT.2015 10:19:27

Highest Band Edge / 1RB



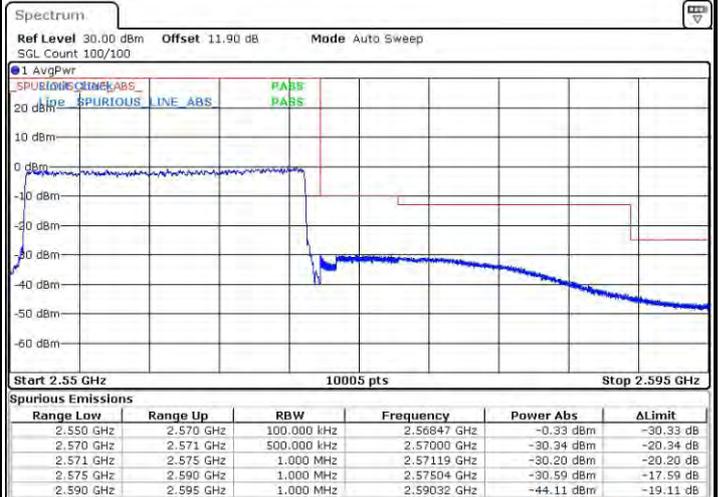
Date: 28.OCT.2015 10:29:06

Lowest Band Edge / Full RB



Date: 28.OCT.2015 10:21:47

Highest Band Edge / Full RB



Date: 28.OCT.2015 10:30:16



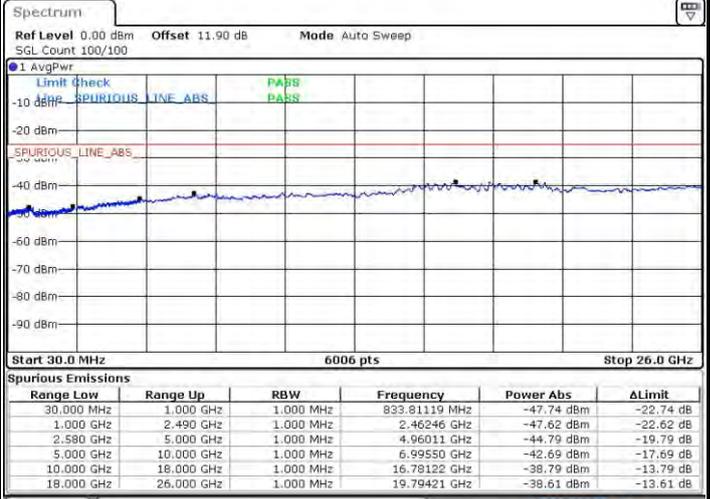
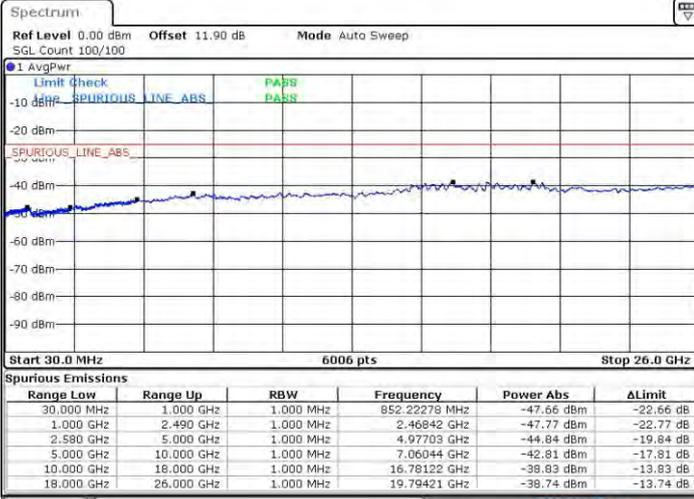
**Conducted Spurious Emission**



LTE Band 7 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

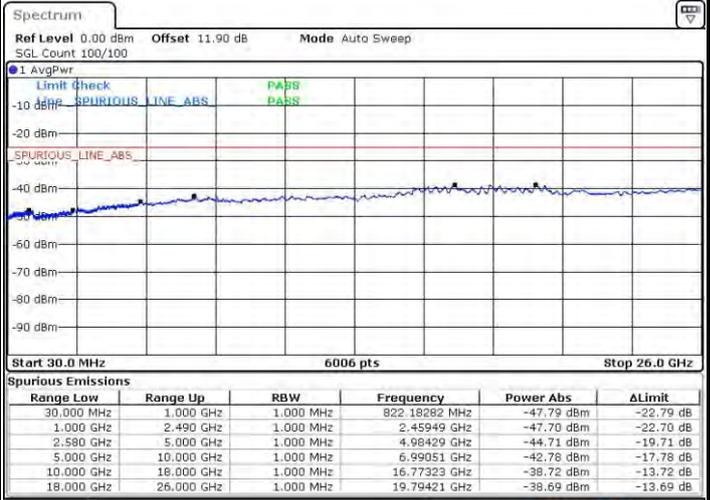
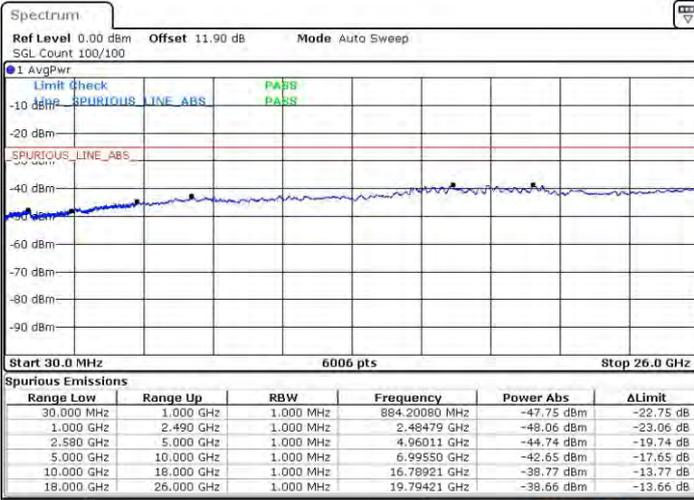


Date: 28.OCT.2015 09:24:04

Date: 28.OCT.2015 09:24:58

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 28.OCT.2015 09:26:34

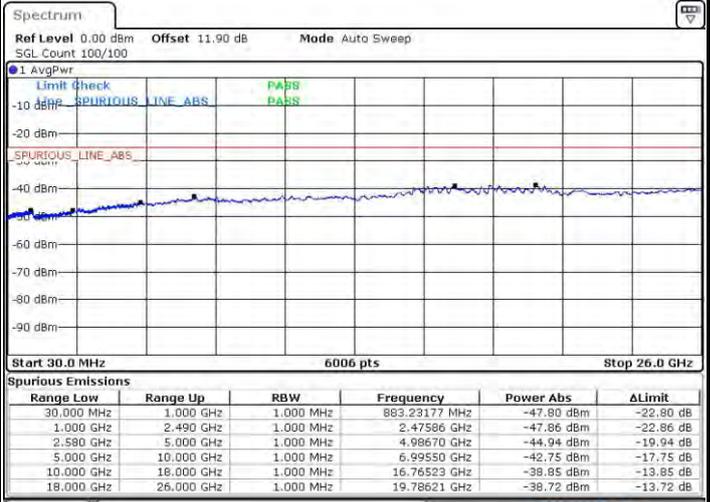
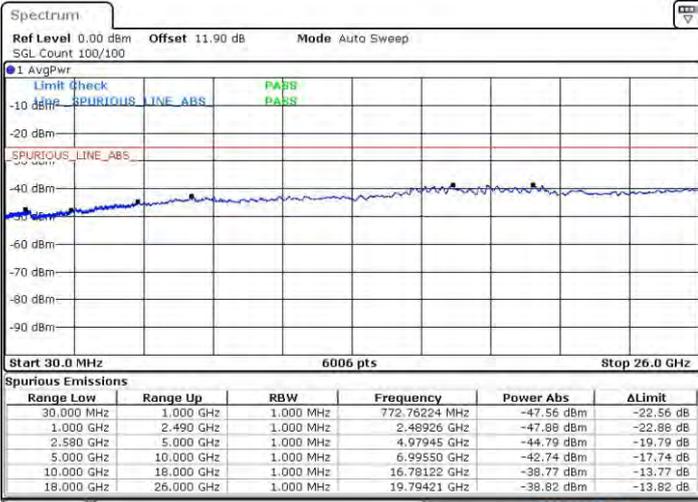
Date: 28.OCT.2015 09:27:28



LTE Band 7 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



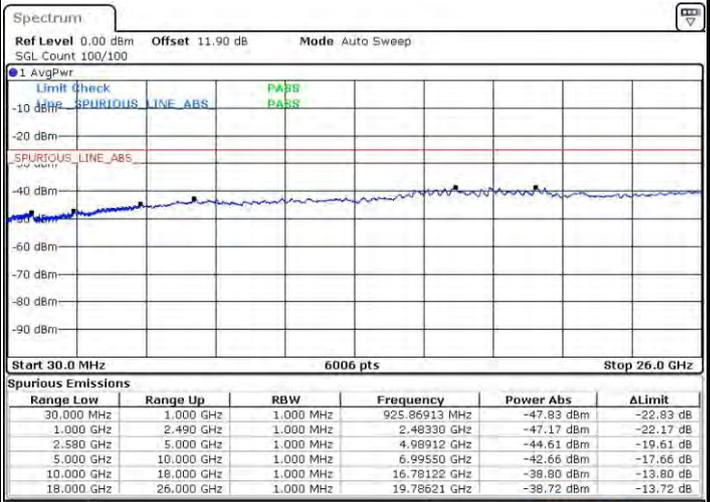
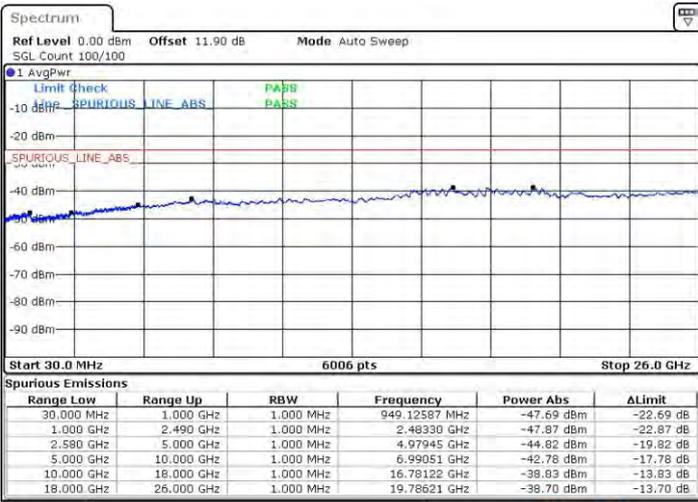
Date: 28.OCT.2015 09:33:45

Date: 28.OCT.2015 09:34:39

LTE Band 7 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 28.OCT.2015 09:49:05

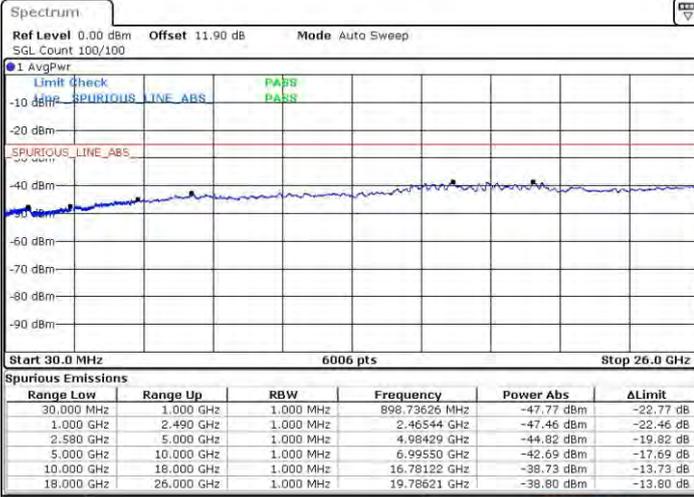
Date: 28.OCT.2015 09:49:59



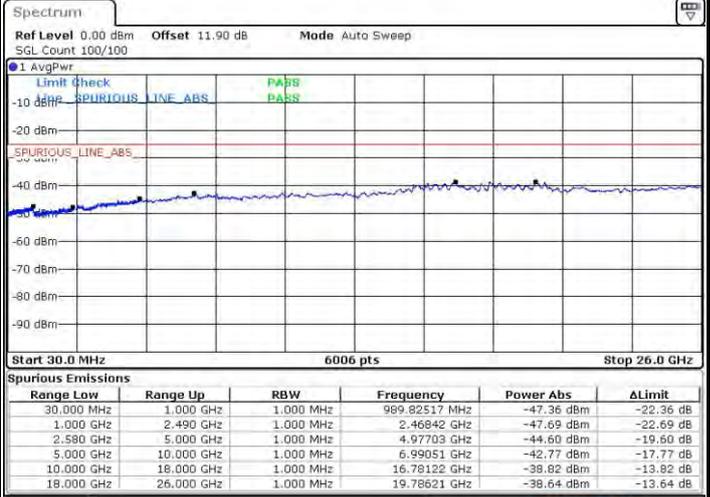
LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



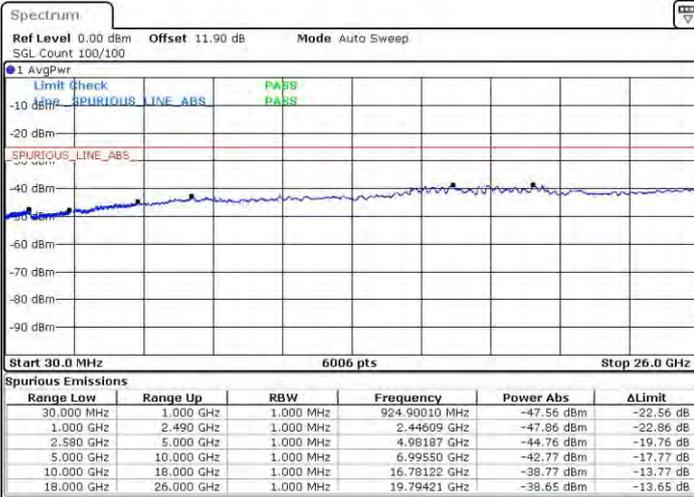
Date: 28.OCT.2015 09:51:35



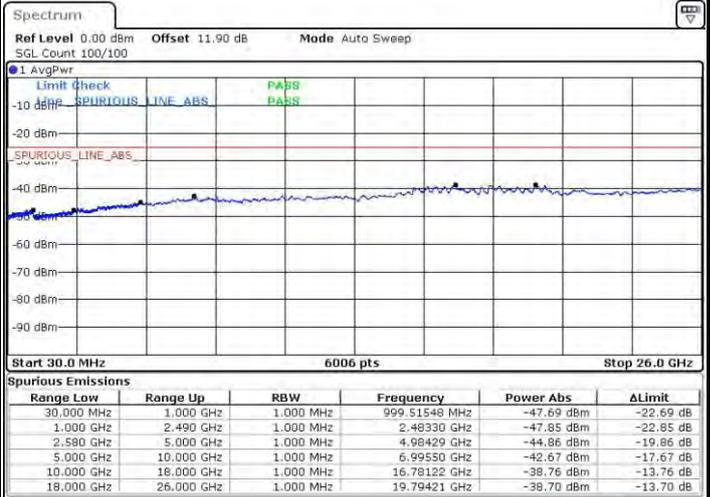
Date: 28.OCT.2015 09:52:29

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 28.OCT.2015 09:58:45



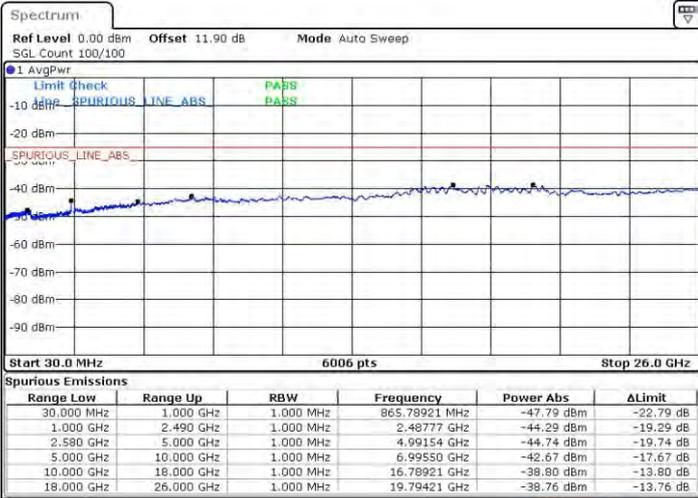
Date: 28.OCT.2015 09:59:39



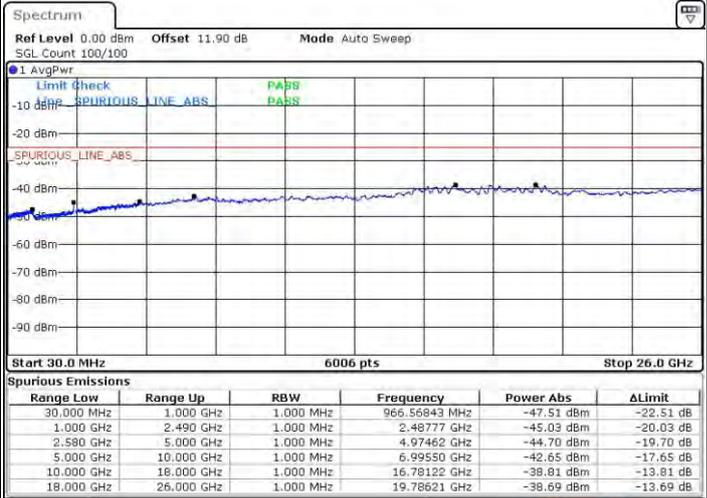
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



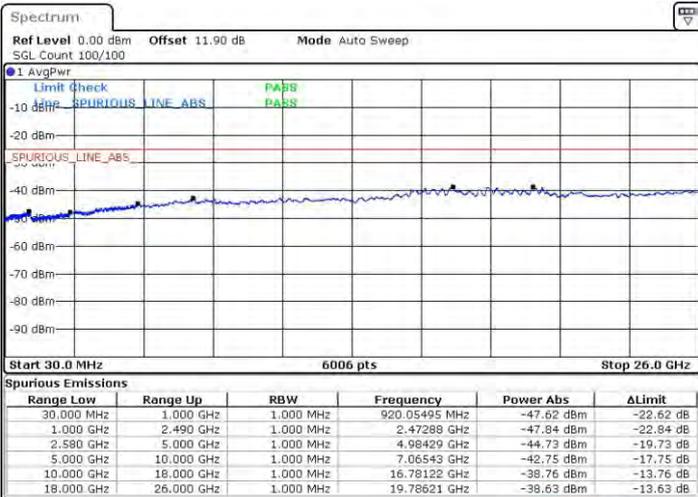
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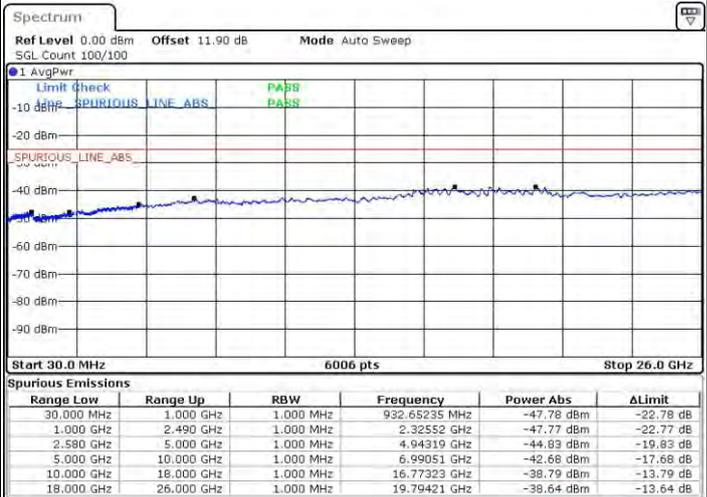
Date: 28.OCT.2015 10:06:47

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 28.OCT.2015 10:08:23

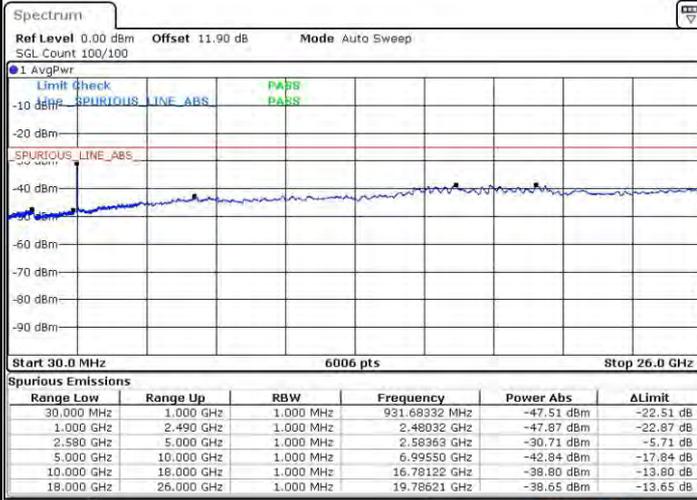


Date: 28.OCT.2015 10:09:17



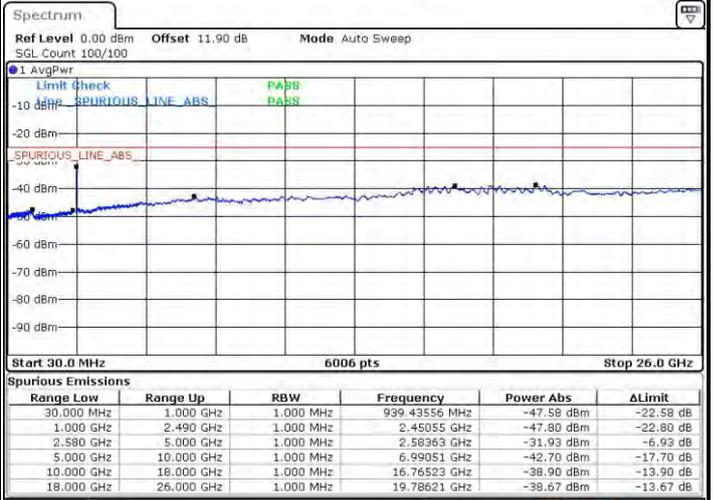
LTE Band 7 / 15MHz

Highest Channel / QPSK



Date: 28.OCT.2015 10:15:32

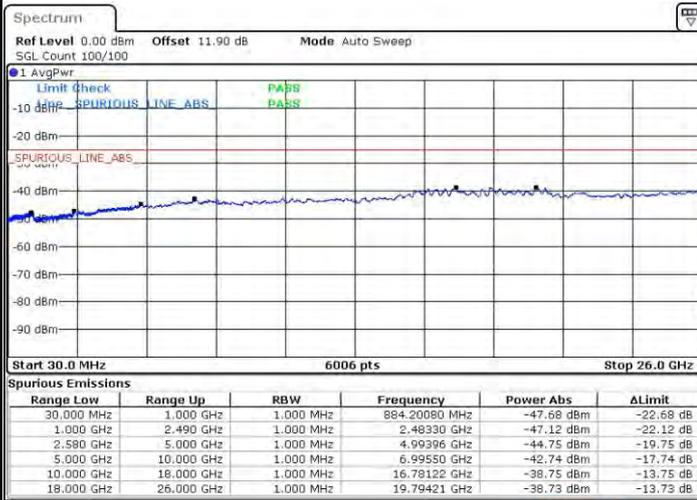
Highest Channel / 16QAM



Date: 28.OCT.2015 10:16:26

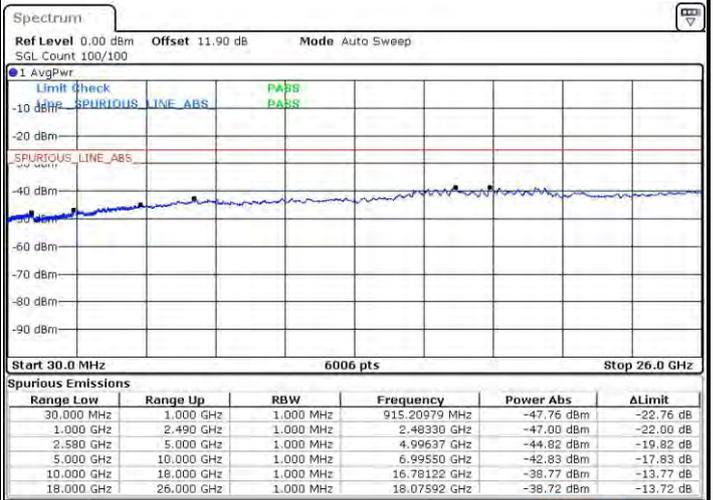
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 28.OCT.2015 10:22:41

Lowest Channel / 16QAM



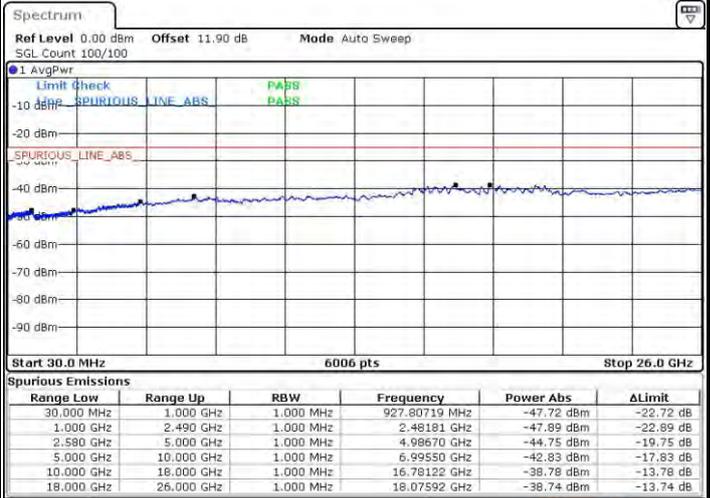
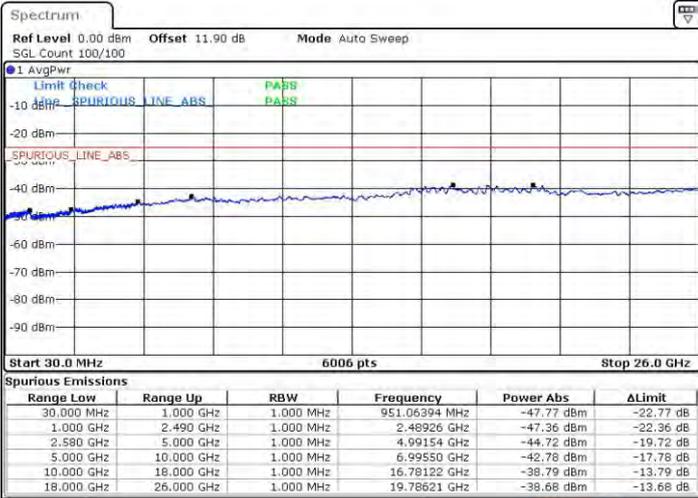
Date: 28.OCT.2015 10:23:35



LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

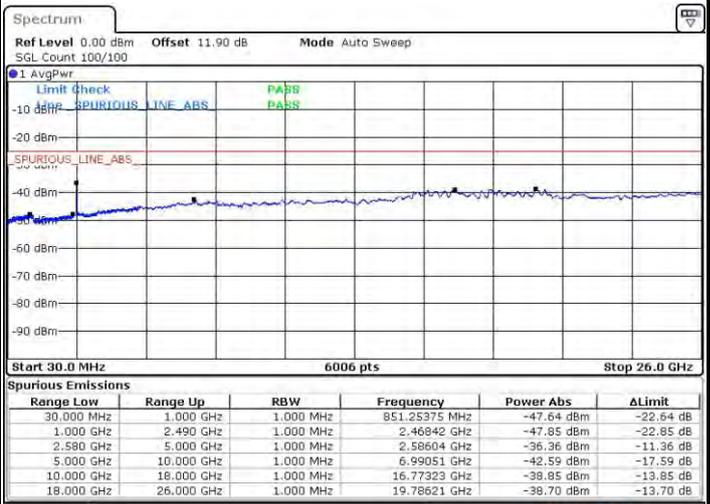
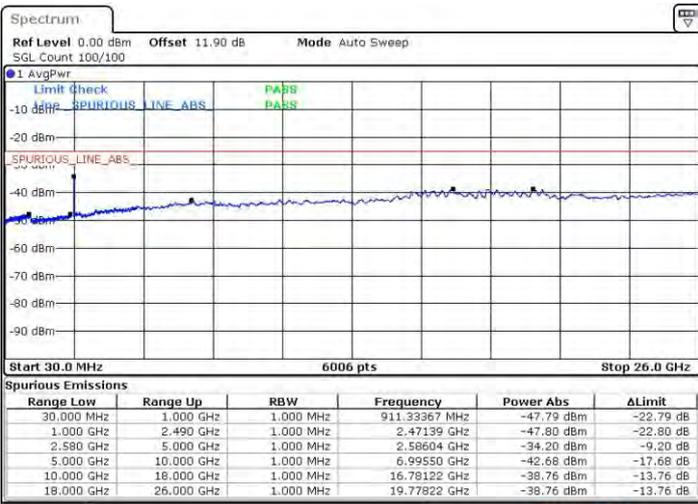


Date: 28.OCT.2015 10:25:11

Date: 28.OCT.2015 10:28:04

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 28.OCT.2015 10:32:19

Date: 28.OCT.2015 10:33:13



### Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0059	

**Note:**

- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.35 V
- 2. The frequency fundamental emissions stay within the authorized frequency block.