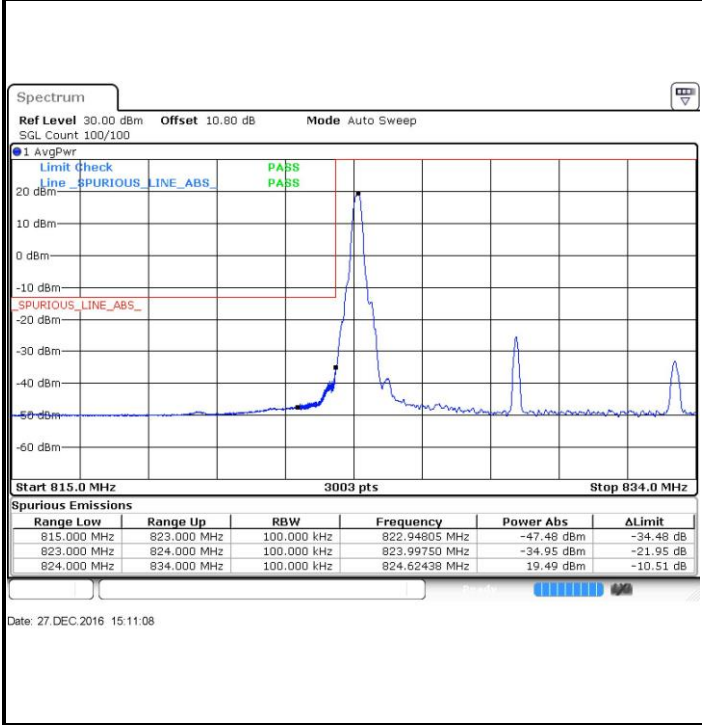


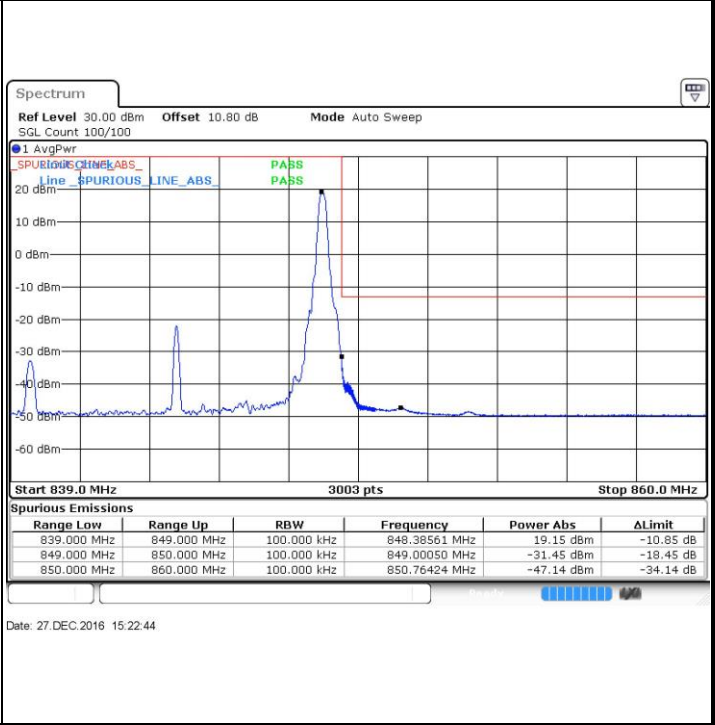


LTE Band 5 / 10MHz / QPSK

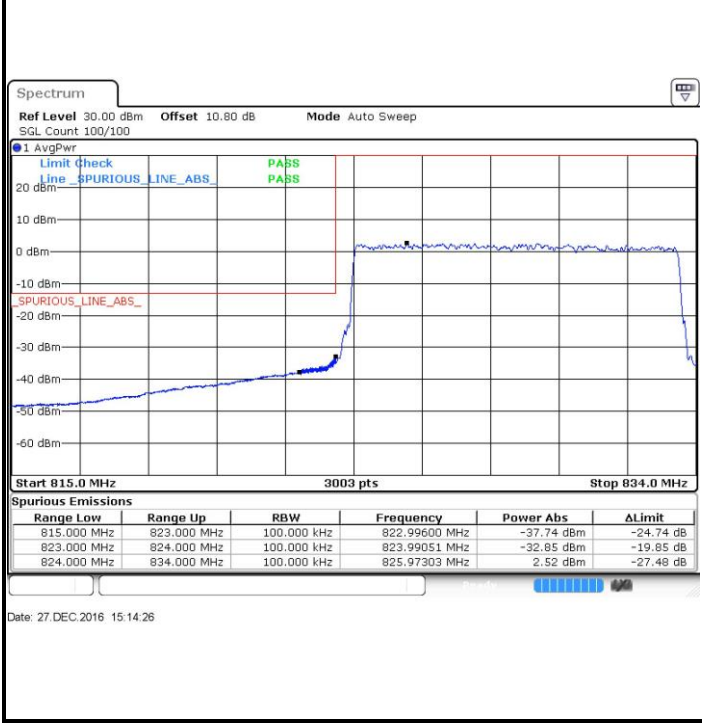
Lowest Band Edge / 1 RB



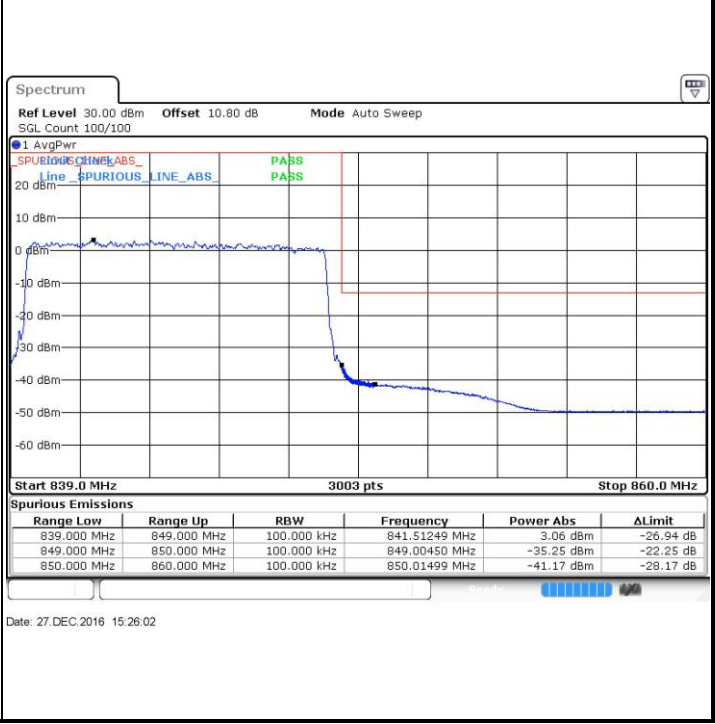
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



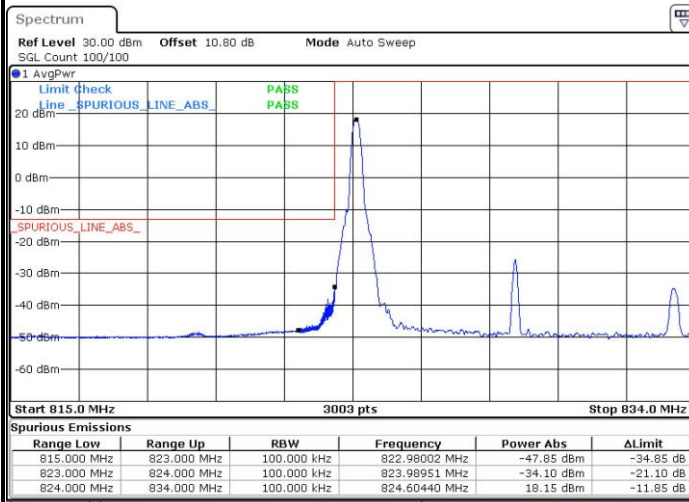
Highest Band Edge / Full RB





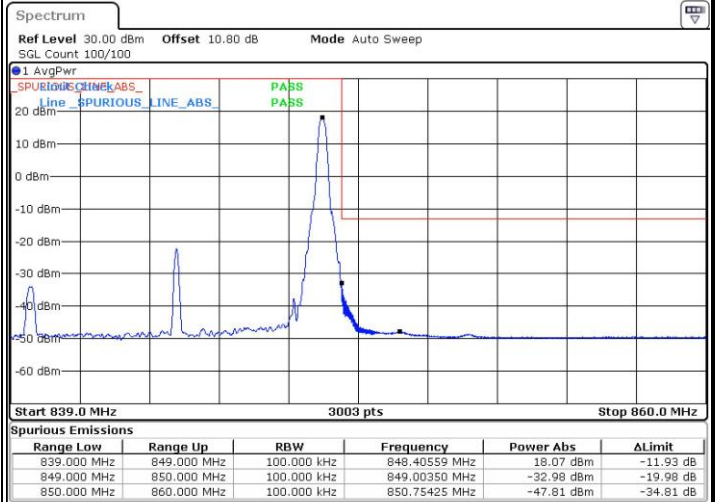
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



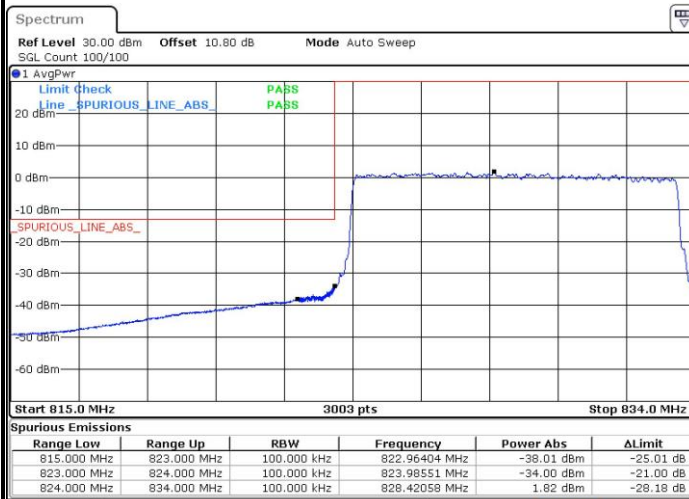
Date: 27.DEC.2016 15:12:47

Highest Band Edge / 1 RB



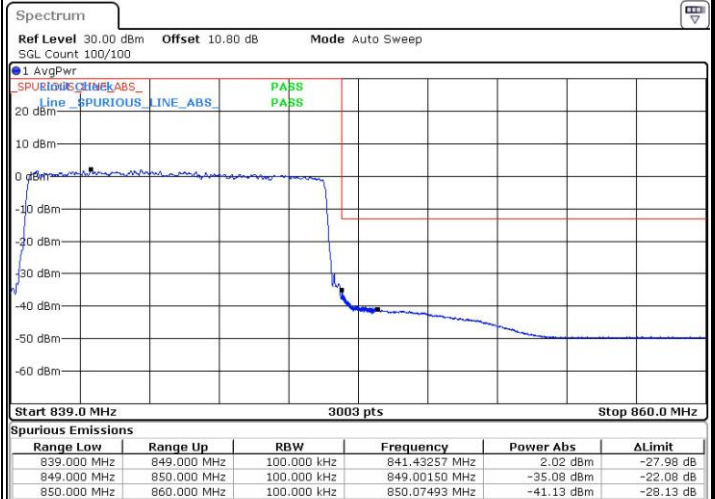
Date: 27.DEC.2016 15:24:23

Lowest Band Edge / Full RB



Date: 27.DEC.2016 15:16:05

Highest Band Edge / Full RB



Date: 27.DEC.2016 15:27:41



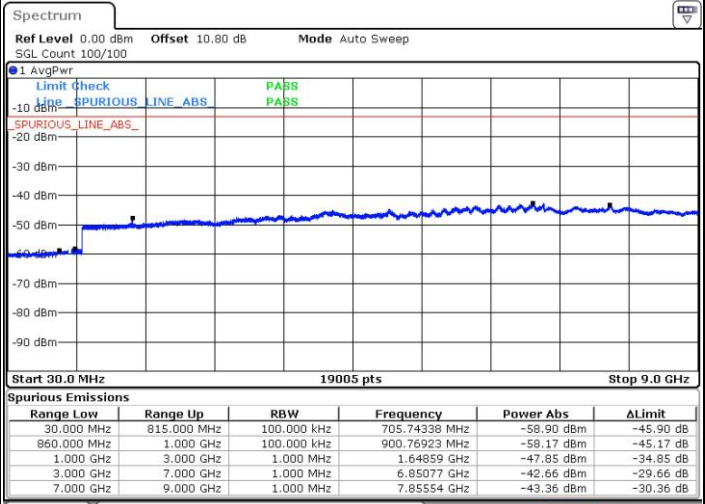
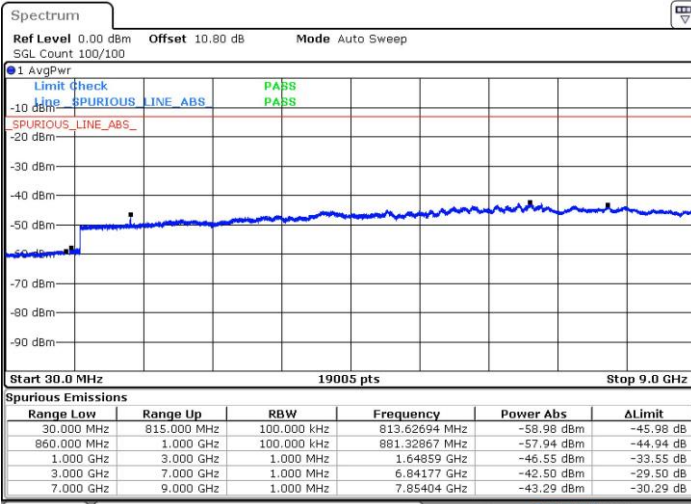
Conducted Spurious Emission



LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

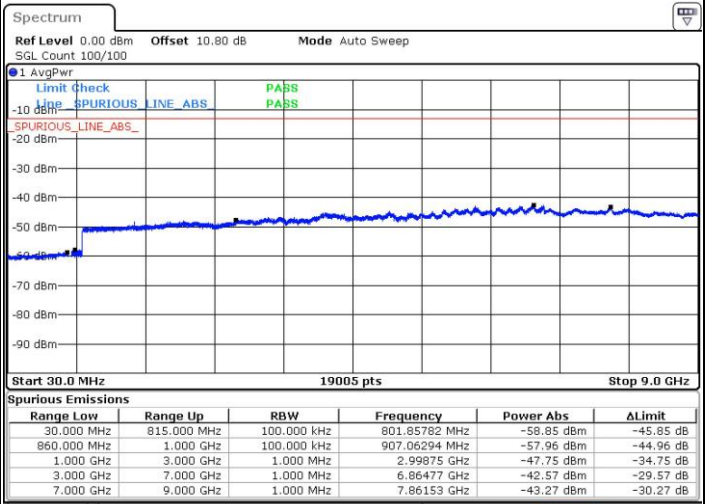
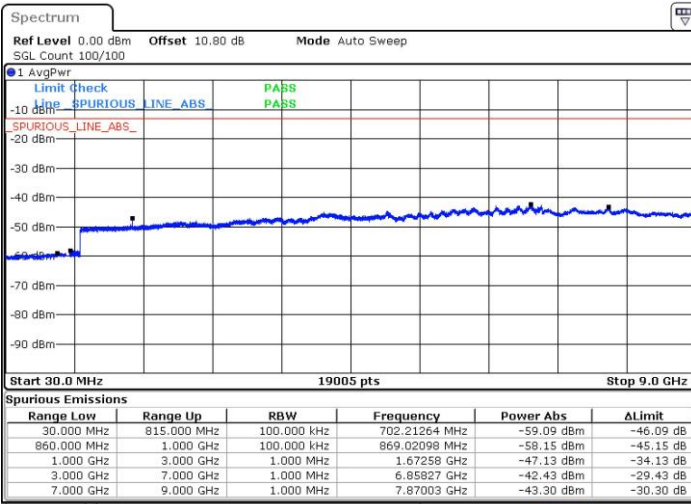


Date: 27.DEC.2016 15:37:42

Date: 27.DEC.2016 15:38:37

Middle Channel / QPSK

Middle Channel / 16QAM



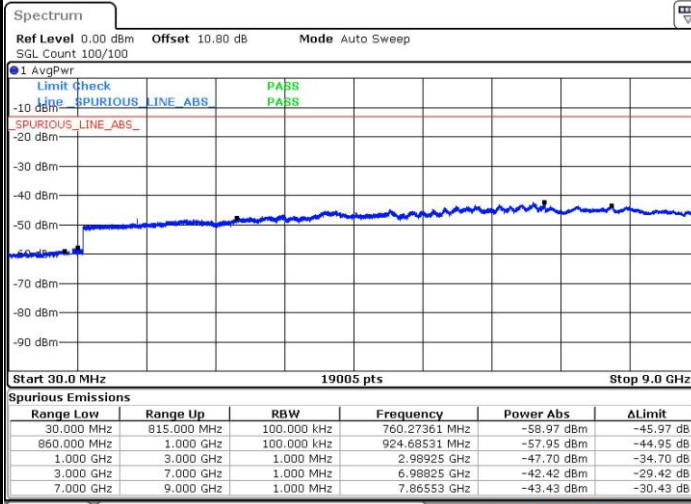
Date: 27.DEC.2016 15:40:12

Date: 27.DEC.2016 15:41:06



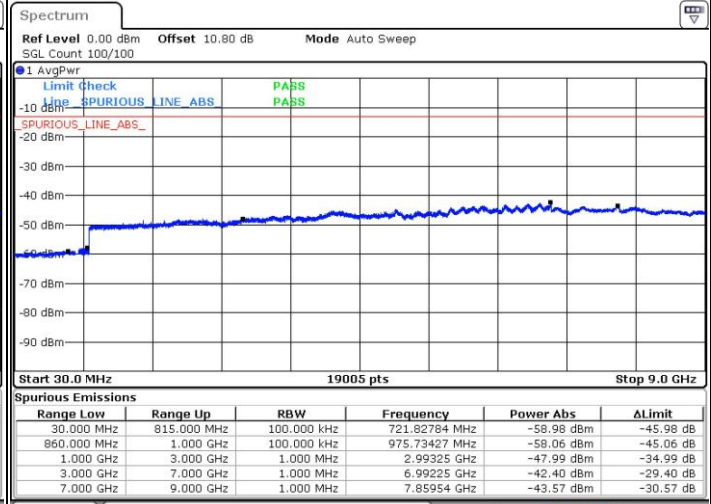
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 27.DEC.2016 15:49:19

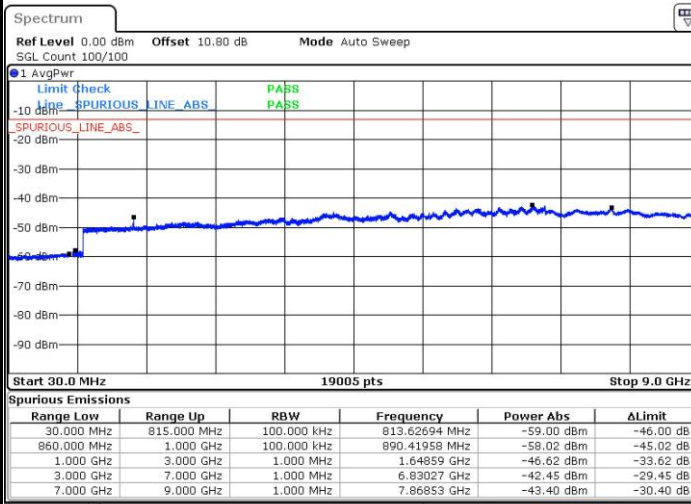
Highest Channel / 16QAM



Date: 27.DEC.2016 15:50:13

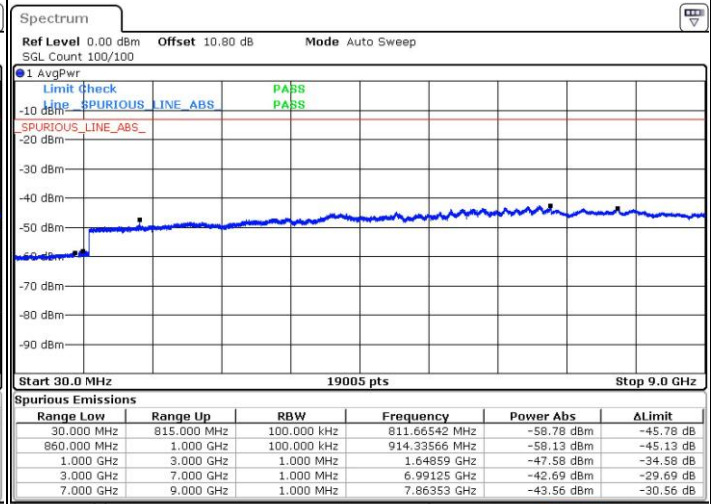
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 27.DEC.2016 14:35:34

Lowest Channel / 16QAM



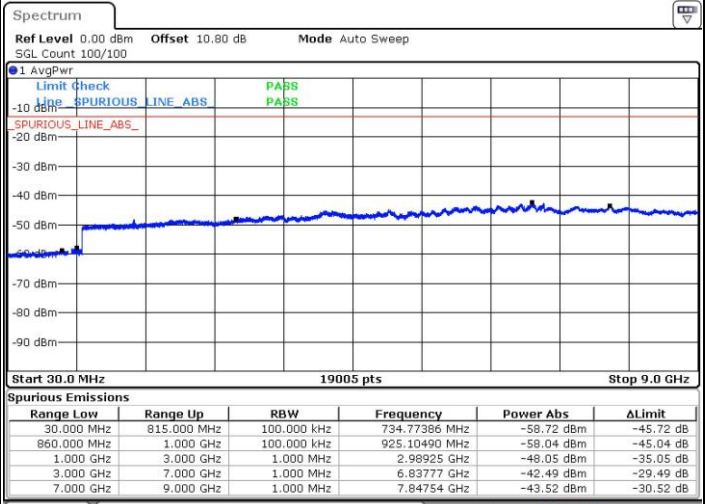
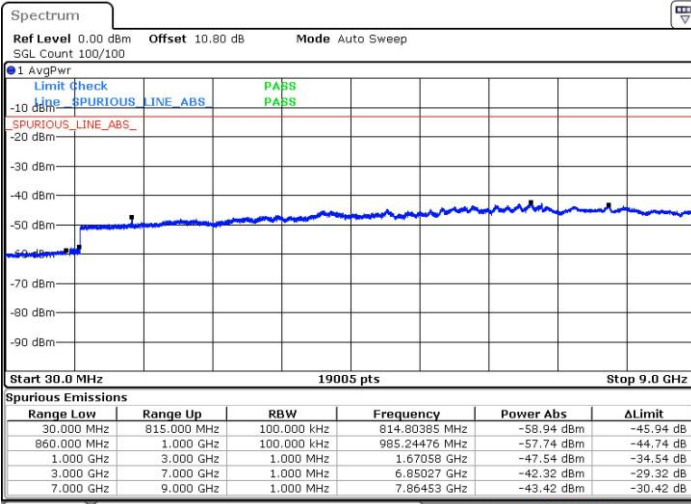
Date: 27.DEC.2016 14:36:28



LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

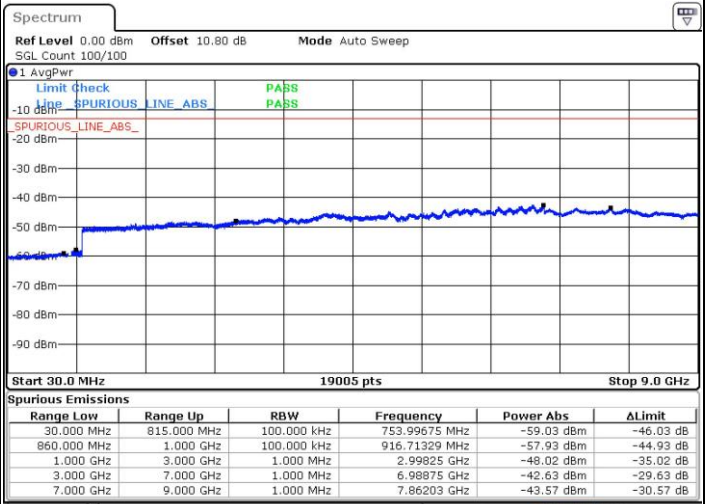
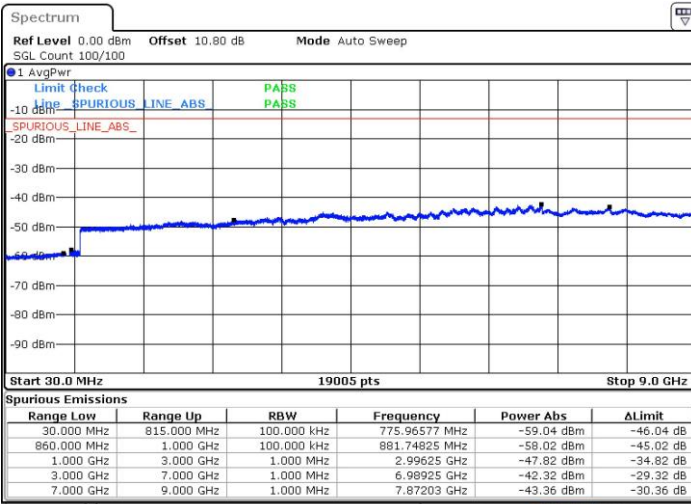


Date: 27.DEC.2016 14:38:04

Date: 27.DEC.2016 14:38:58

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 27.DEC.2016 14:47:10

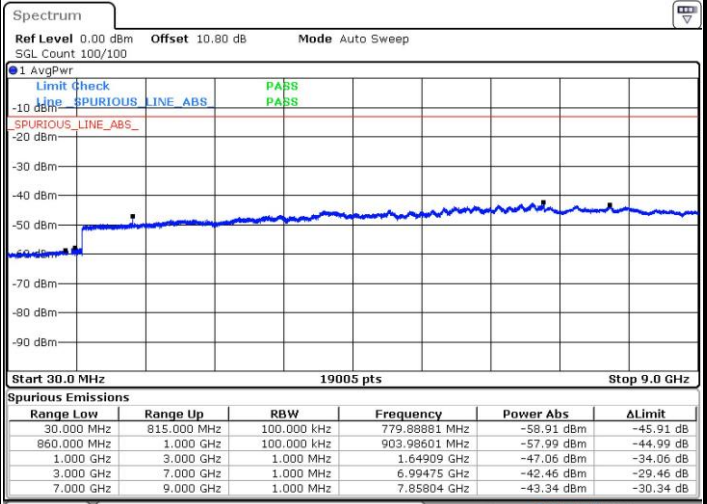
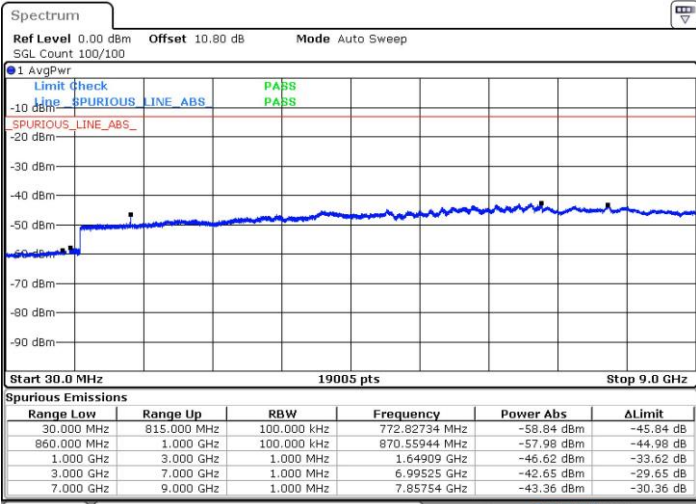
Date: 27.DEC.2016 14:48:05



LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

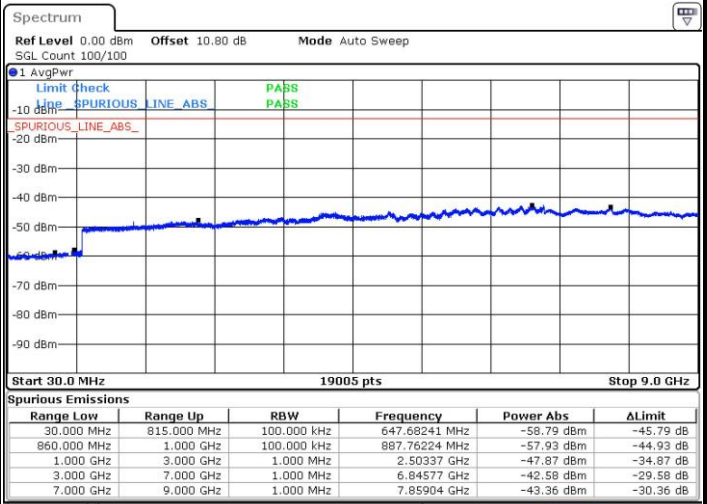
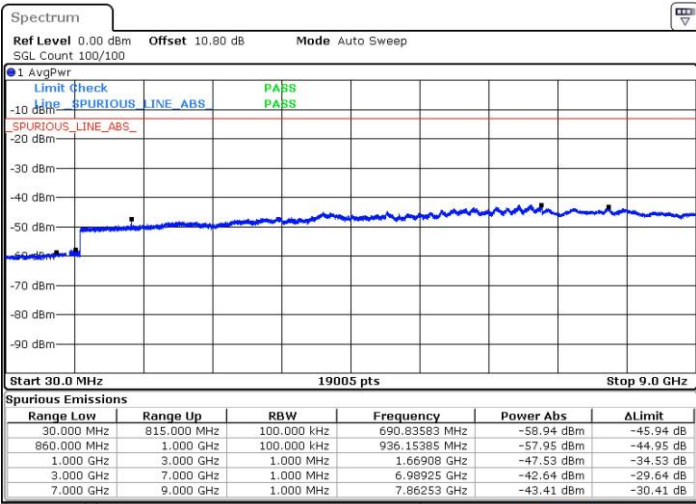


Date: 27.DEC.2016 14:56:17

Date: 27.DEC.2016 14:57:11

Middle Channel / QPSK

Middle Channel / 16QAM



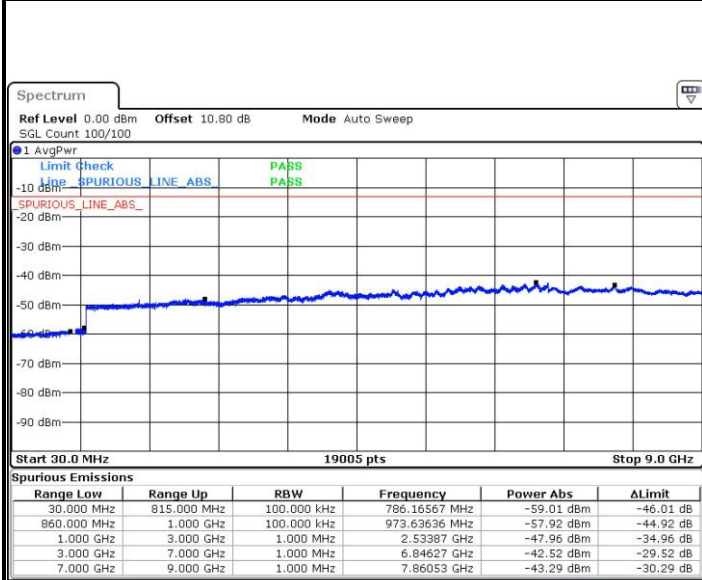
Date: 27.DEC.2016 14:58:47

Date: 27.DEC.2016 14:59:41



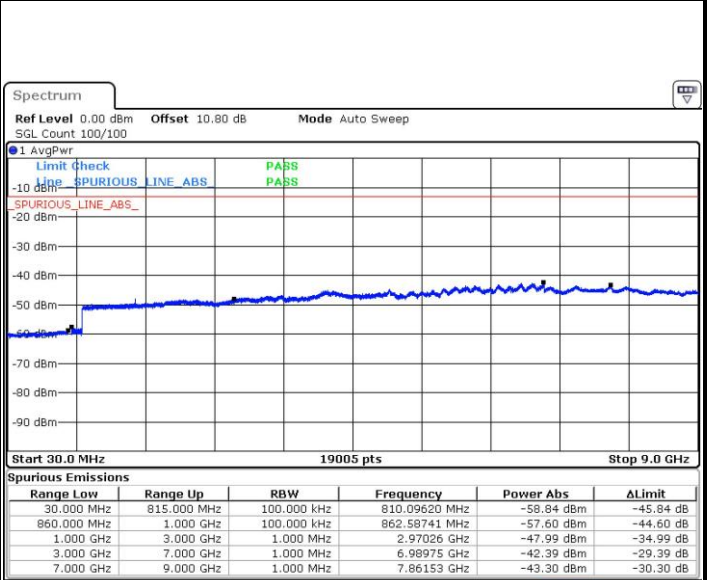
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 27.DEC.2016 15:07:53

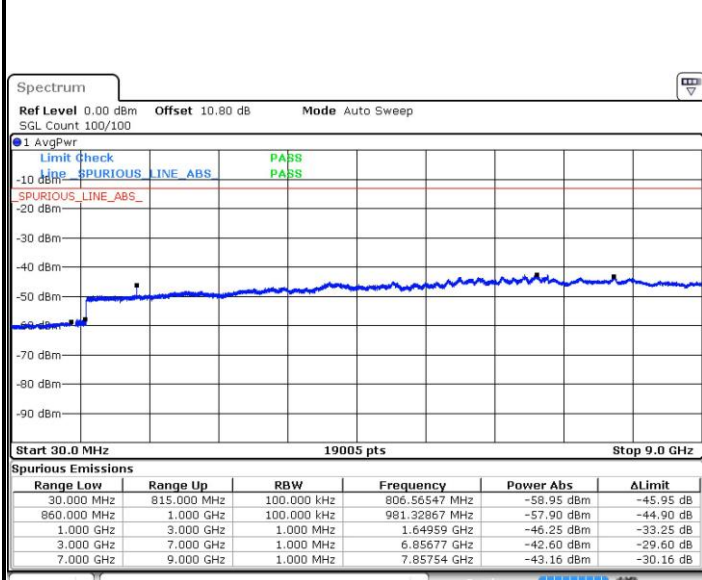
Highest Channel / 16QAM



Date: 27.DEC.2016 15:08:48

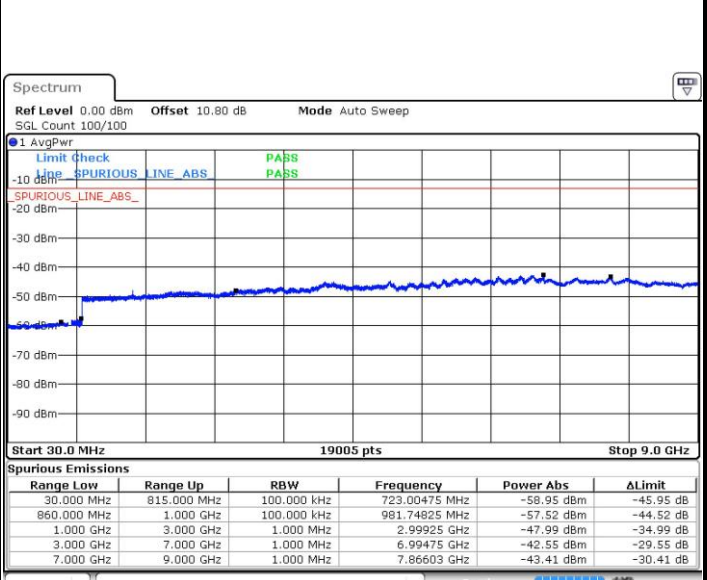
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 27.DEC.2016 15:17:00

Lowest Channel / 16QAM

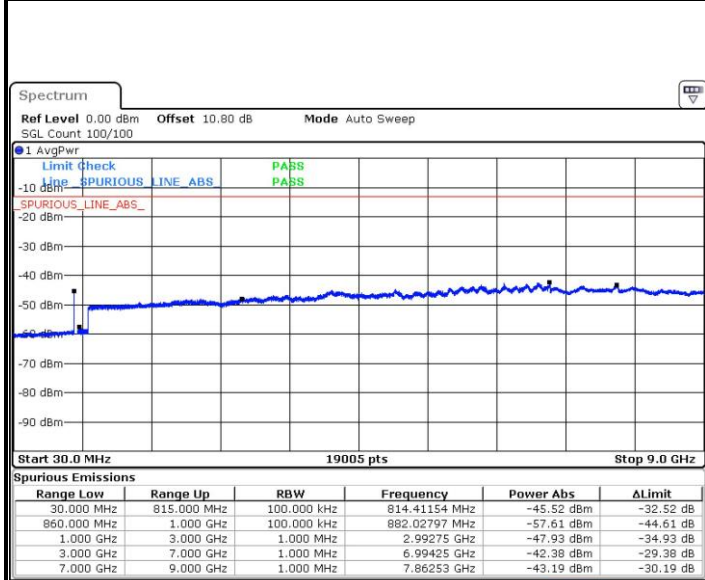


Date: 27.DEC.2016 15:17:54



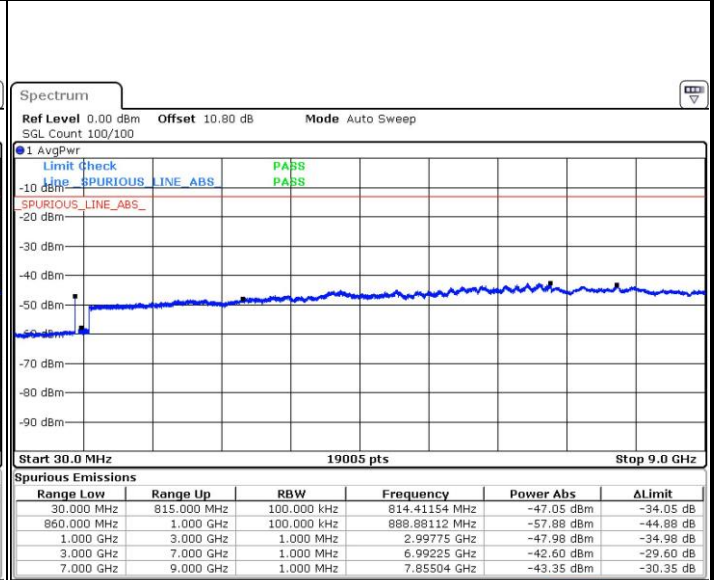
LTE Band 5 / 10MHz

Middle Channel / QPSK



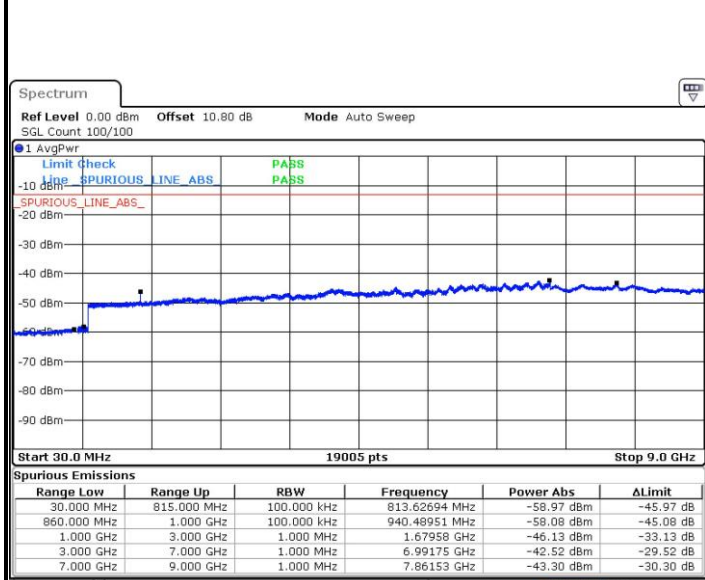
Date: 27.DEC.2016 15:19:30

Middle Channel / 16QAM



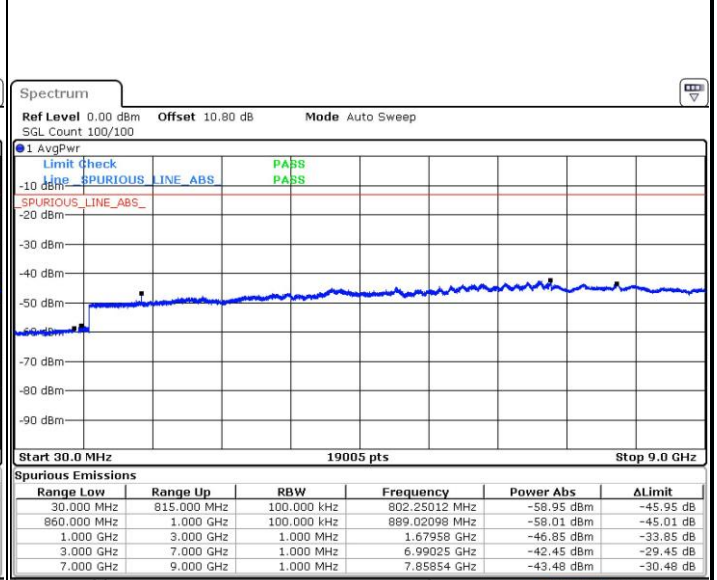
Date: 27.DEC.2016 15:20:24

Highest Channel / QPSK



Date: 27.DEC.2016 15:28:36

Highest Channel / 16QAM



Date: 27.DEC.2016 15:29:30



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0160	PASS
40	Normal Voltage	0.0143	
30	Normal Voltage	0.0166	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0157	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0166	
-20	Normal Voltage	0.0169	
-30	Normal Voltage	0.0142	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =24.0 V. ; Battery End Point (BEP) =12.0 V. ; Maximum Voltage =48.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

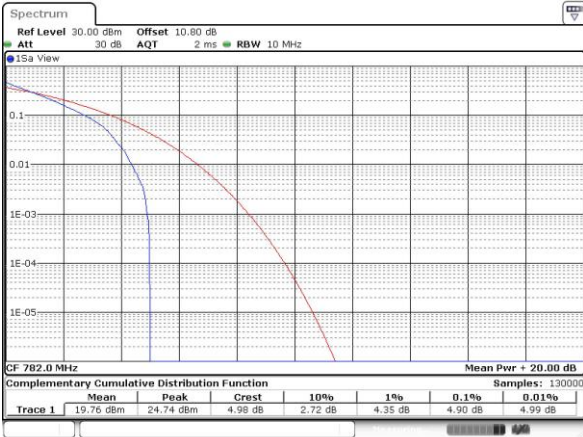
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.9	4.96	5.74	5.94	
Highest CH	-	-	-	-	



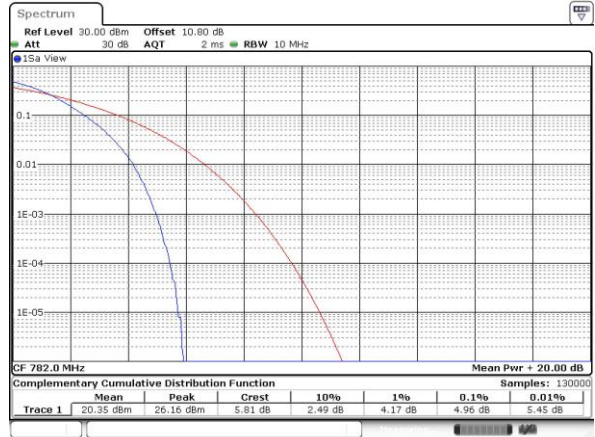
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 27 DEC 2016 14:26:20

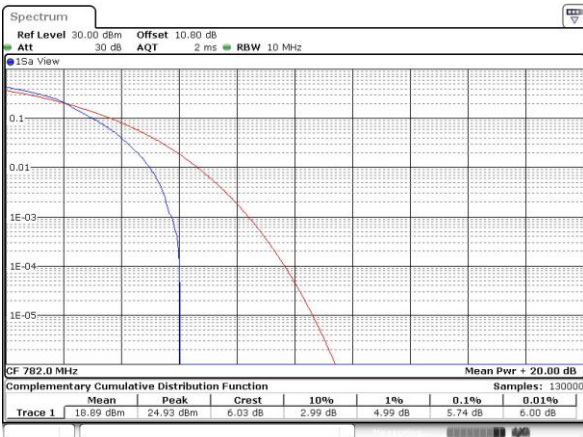
Middle Channel / Full RB



Date: 27 DEC 2016 14:26:29

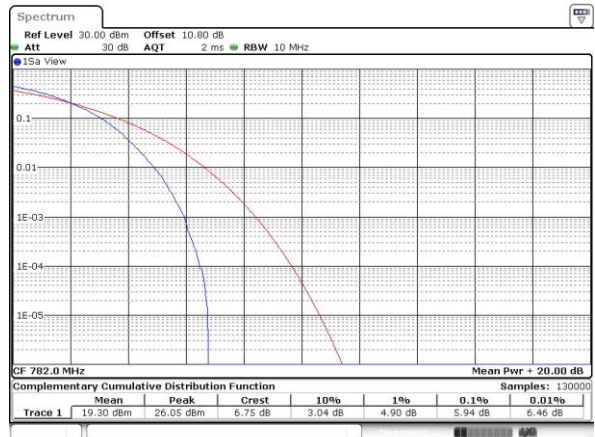
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 27 DEC 2016 14:25:48

Middle Channel / Full RB



Date: 27 DEC 2016 14:26:10



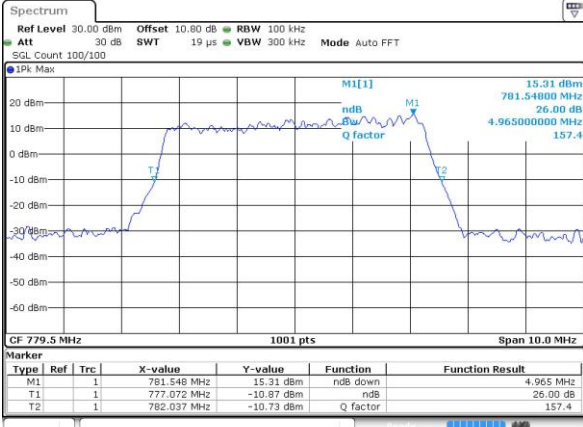
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.97	4.95	-	-	-	-	-	-
Middle CH	-	-	-	-	4.90	4.91	9.65	9.67	-	-	-	-
Highest CH	-	-	-	-	4.97	4.93	-	-	-	-	-	-



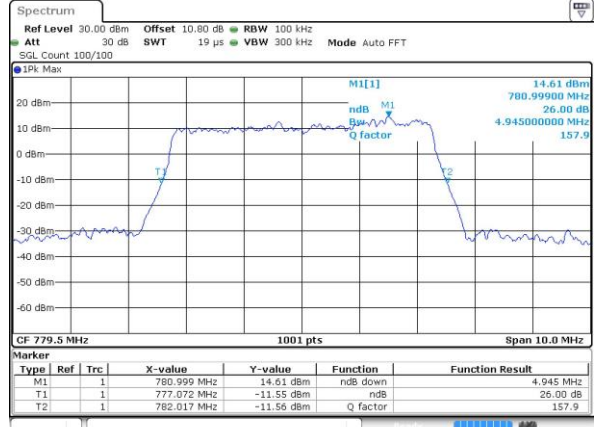
LTE Band 13

Lowest Channel / 5MHz / QPSK



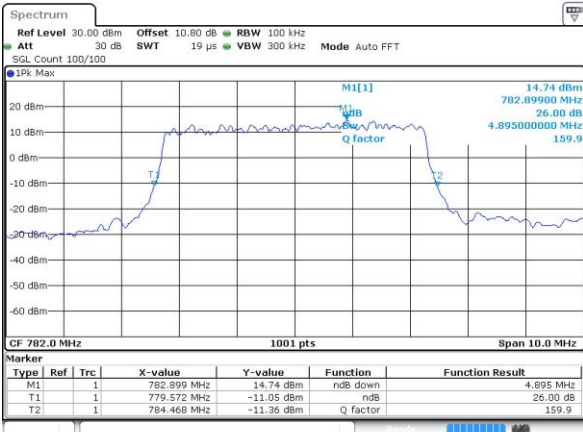
Date: 27 DEC 2016 13:48:48

Lowest Channel / 5MHz / 16QAM



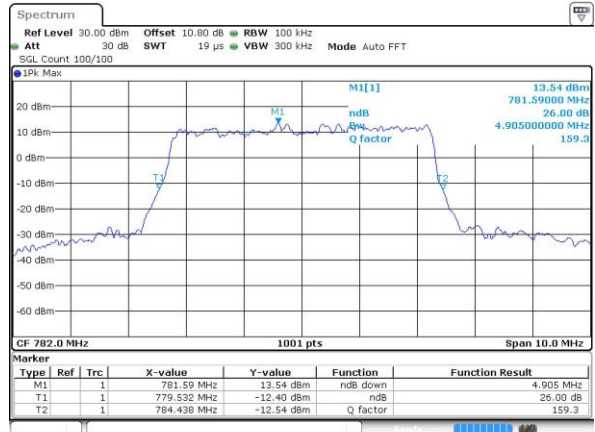
Date: 27 DEC 2016 13:48:38

Middle Channel / 5MHz / QPSK



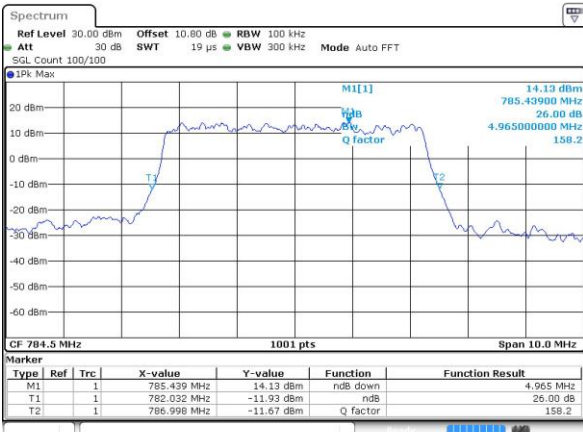
Date: 27 DEC 2016 13:59:12

Middle Channel / 5MHz / 16QAM



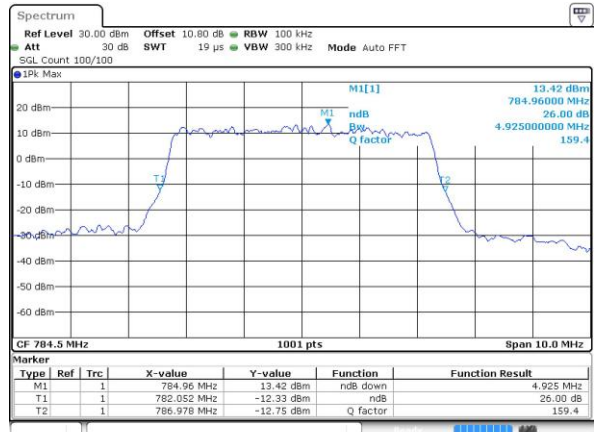
Date: 27 DEC 2016 13:59:22

Highest Channel / 5MHz / QPSK



Date: 27 DEC 2016 14:00:24

Highest Channel / 5MHz / 16QAM

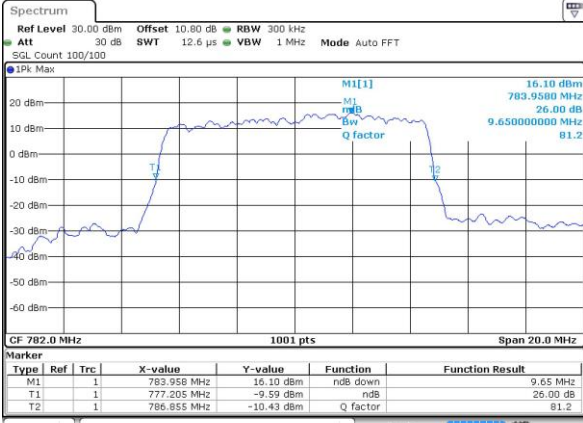


Date: 27 DEC 2016 14:00:14



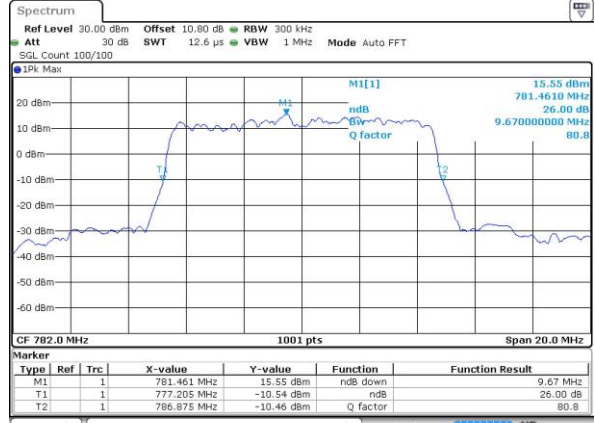
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 27 DEC 2016 14:09:31

Middle Channel / 10MHz / 16QAM



Date: 27 DEC 2016 14:09:21



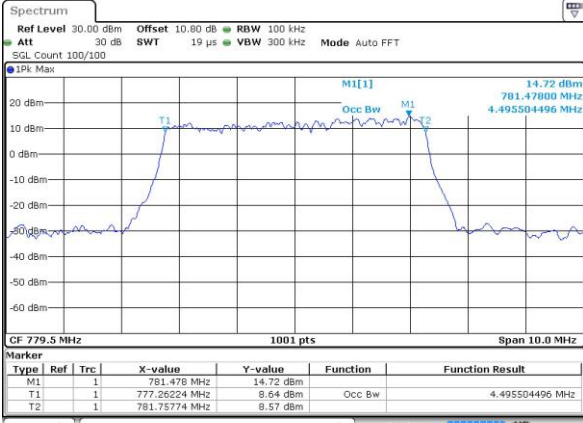
Occupied Bandwidth

Mode	LTE Band 13 : 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	-	-	-	-	4.5	4.5	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.48	8.97	8.97	-	-	-	-
Highest CH	-	-	-	-	4.47	4.47	-	-	-	-	-	-



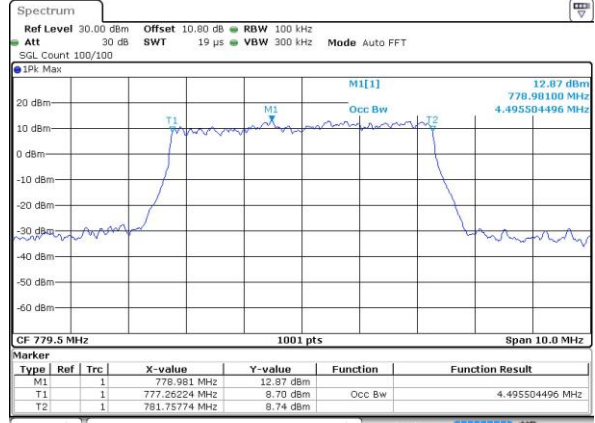
LTE Band 13

Lowest Channel / 5MHz / QPSK



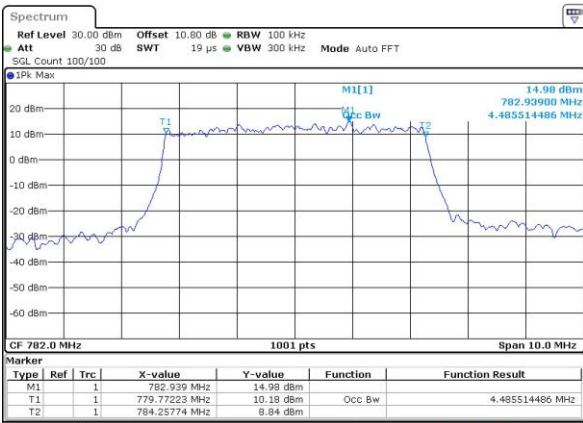
Date: 27 DEC 2016 13:48:17

Lowest Channel / 5MHz / 16QAM



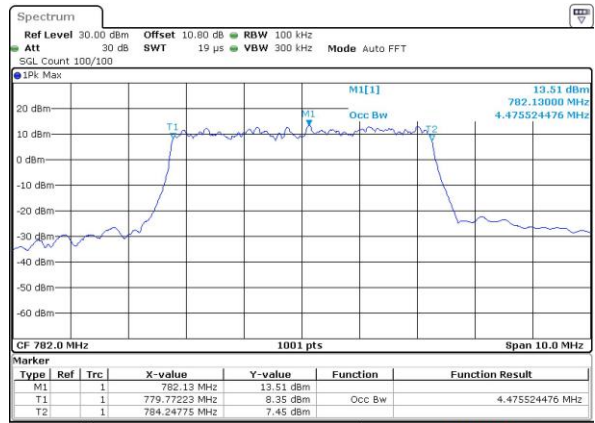
Date: 27 DEC 2016 13:48:28

Middle Channel / 5MHz / QPSK



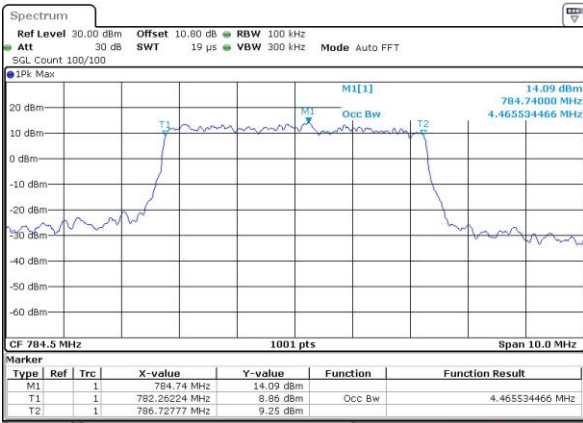
Date: 27 DEC 2016 13:59:43

Middle Channel / 5MHz / 16QAM



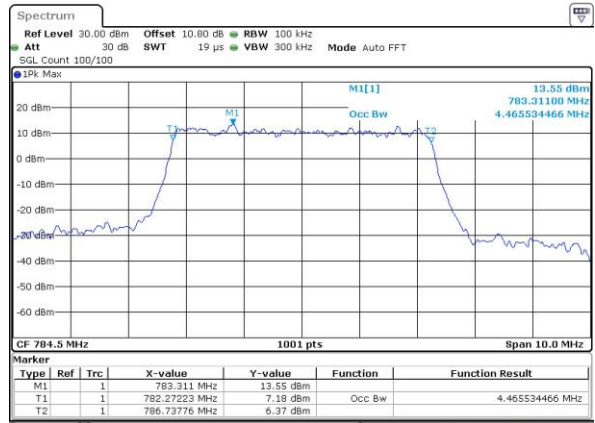
Date: 27 DEC 2016 13:59:33

Highest Channel / 5MHz / QPSK



Date: 27 DEC 2016 13:59:53

Highest Channel / 5MHz / 16QAM

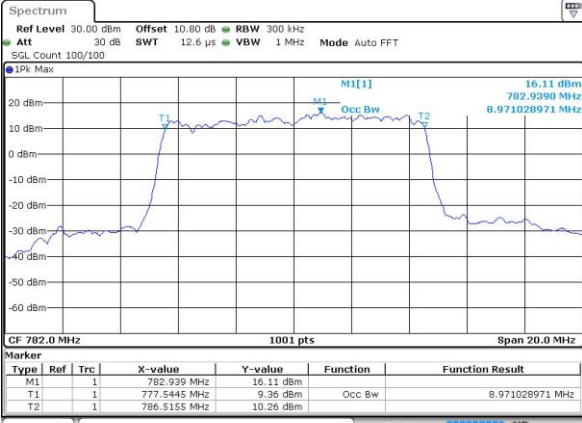


Date: 27 DEC 2016 14:00:04



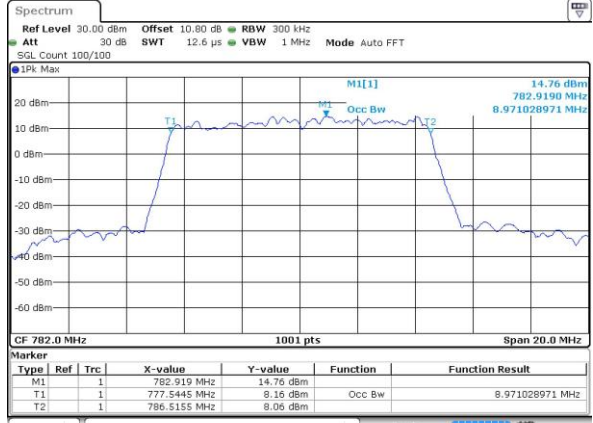
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 27 DEC 2016 14:09:00

Middle Channel / 10MHz / 16QAM



Date: 27 DEC 2016 14:09:11



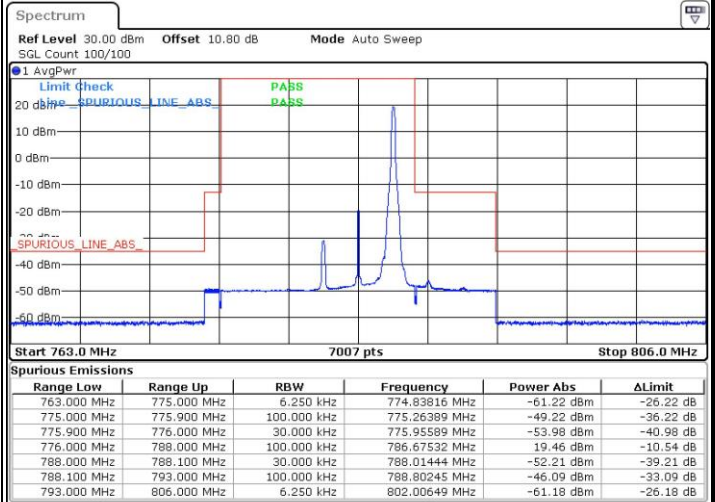
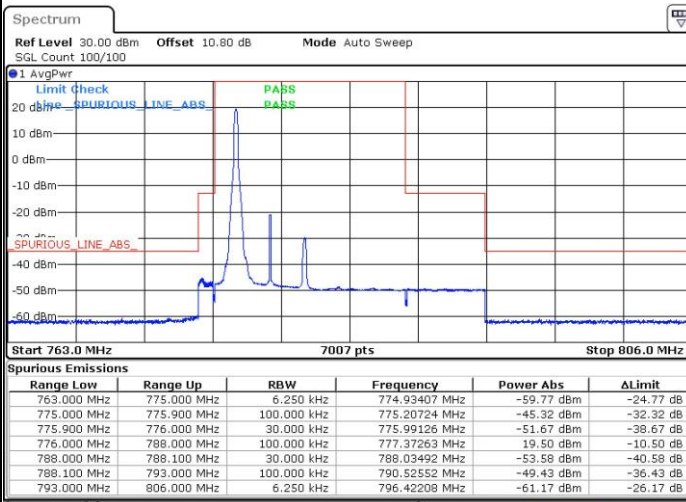
Conducted Band Edge



LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

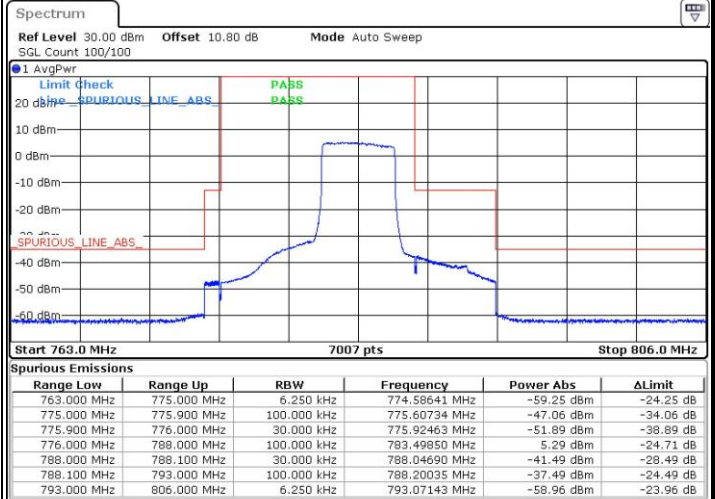
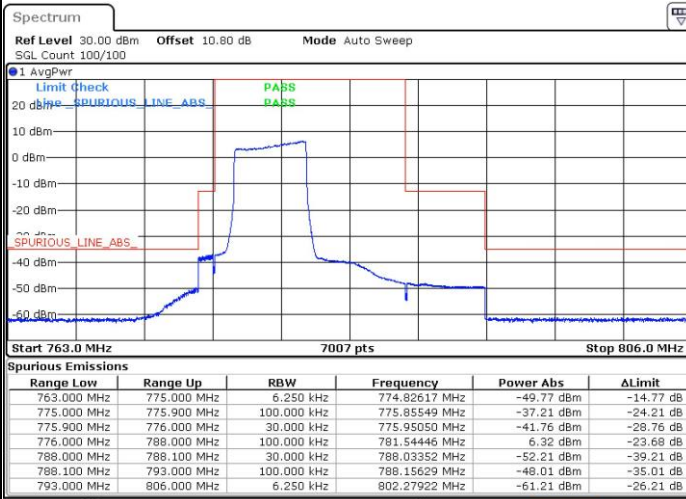


Date: 27.DEC.2016 13:55:25

Date: 27.DEC.2016 14:07:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 27.DEC.2016 13:50:27

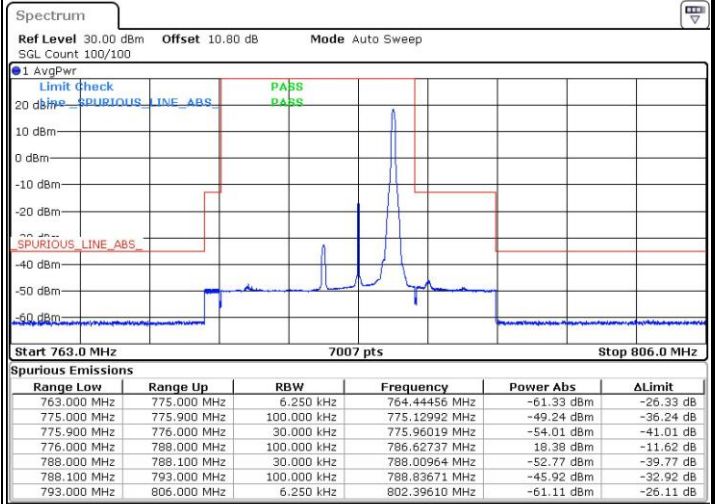
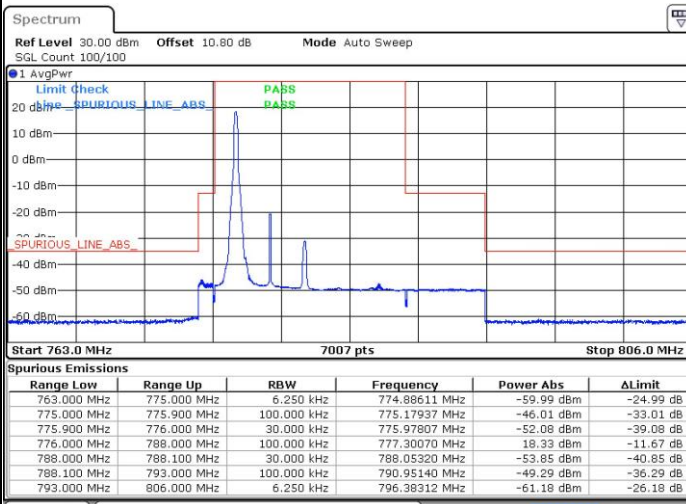
Date: 27.DEC.2016 14:02:03



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

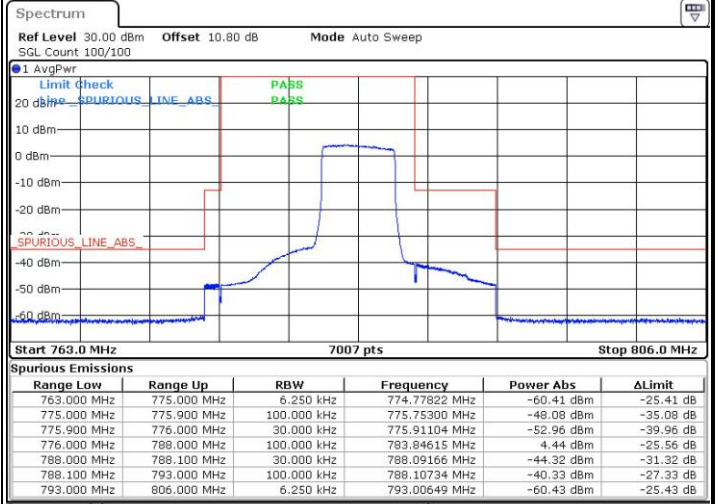
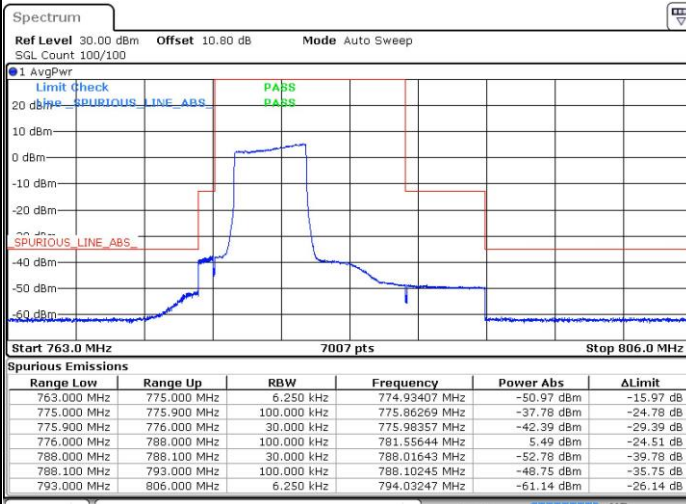


Date: 27.DEC.2016 13:53:46

Date: 27.DEC.2016 14:05:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



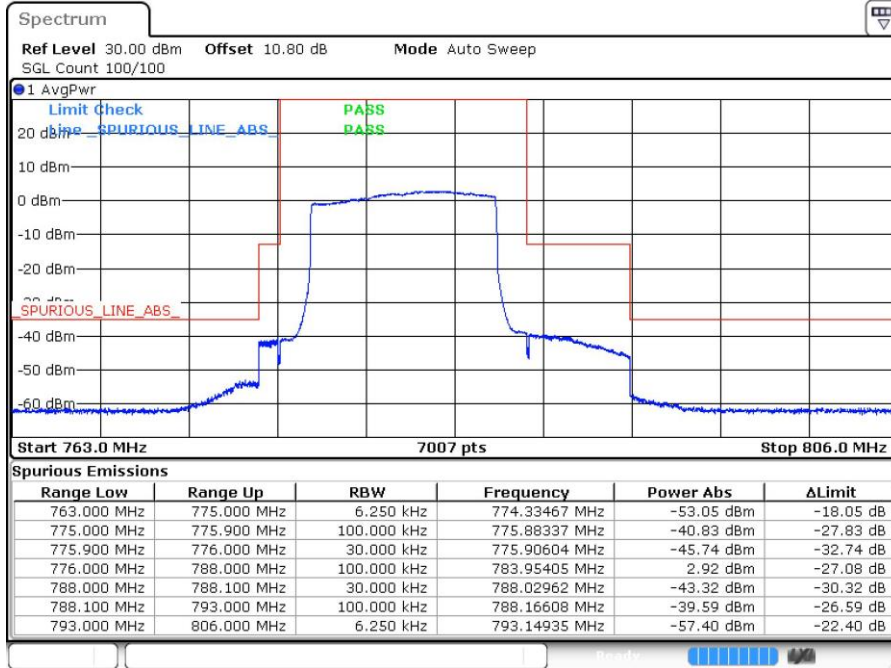
Date: 27.DEC.2016 13:52:06

Date: 27.DEC.2016 14:03:42



LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB

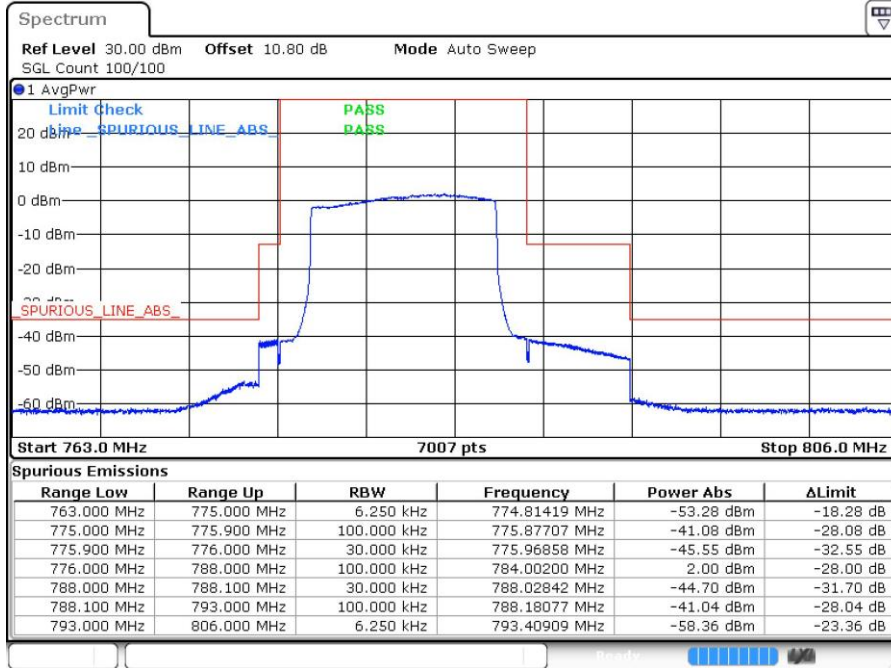


Date: 27 DEC 2016 14:11:10



LTE Band 13 / 10MHz / 16QAM

Band Edge / Full RB



Date: 27 DEC 2016 14:12:50

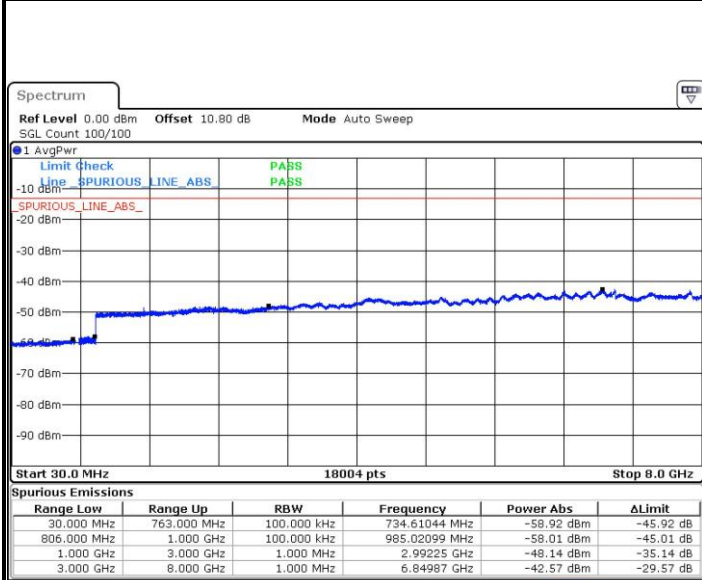


Conducted Spurious Emission



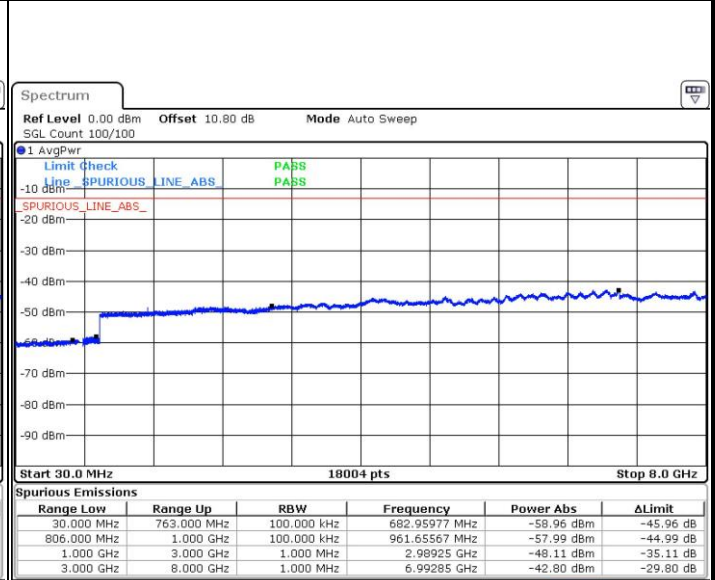
LTE Band 13 / 5MHz

Lowest Channel / QPSK



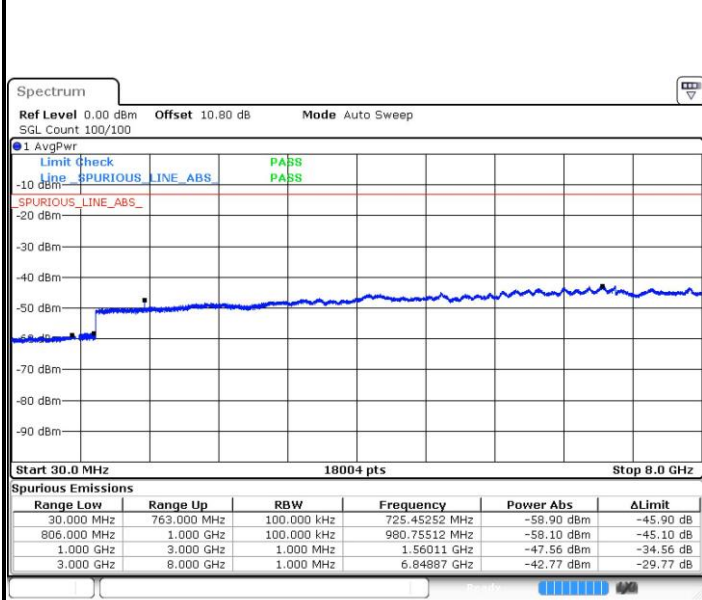
Date: 27.DEC.2016 13:56:20

Lowest Channel / 16QAM



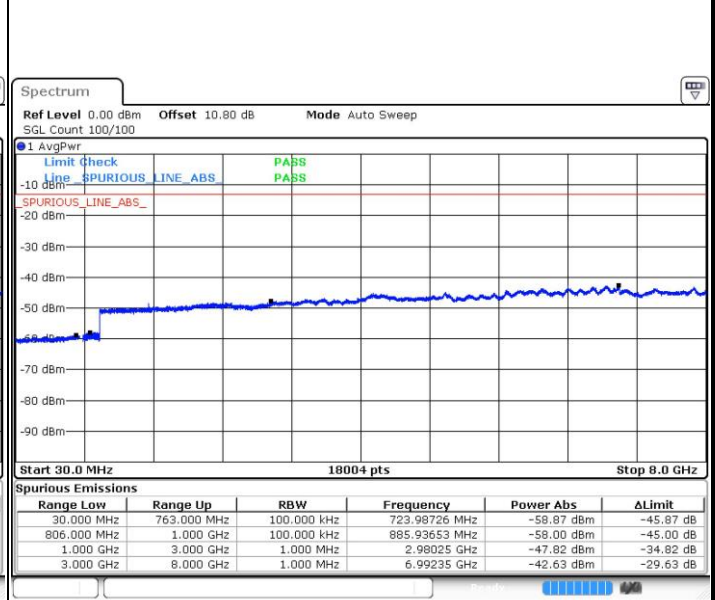
Date: 27.DEC.2016 13:57:14

Middle Channel / QPSK



Date: 27.DEC.2016 13:59:02

Middle Channel / 16QAM

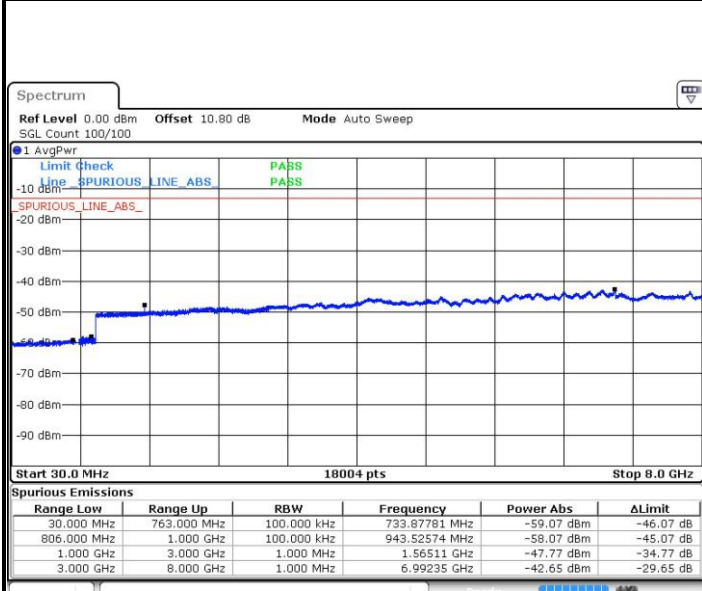


Date: 27.DEC.2016 13:58:08



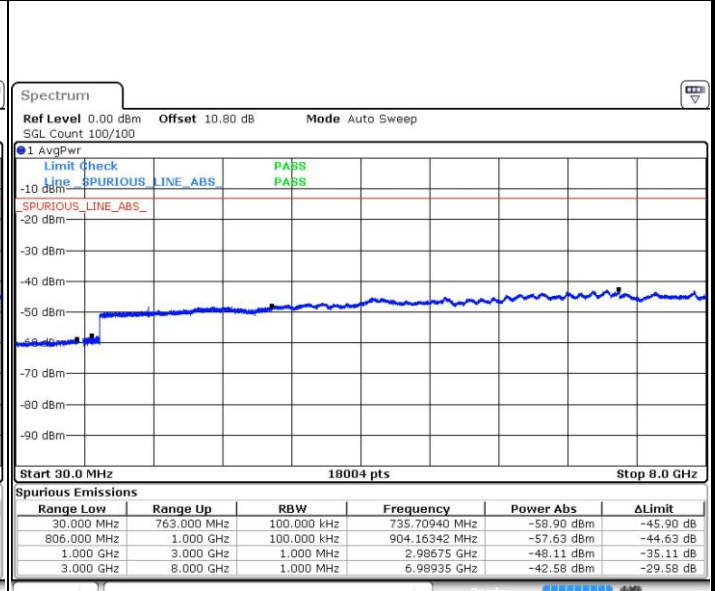
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 27.DEC.2016 14:07:56

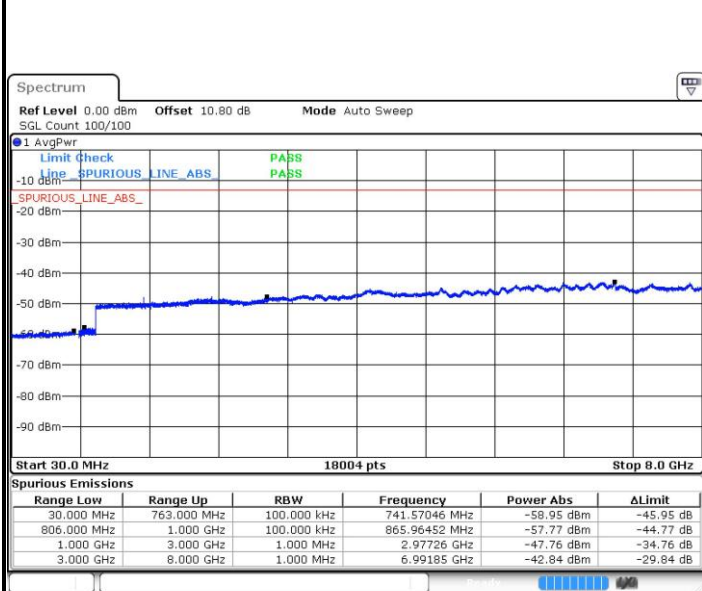
Highest Channel / 16QAM



Date: 27.DEC.2016 14:08:50

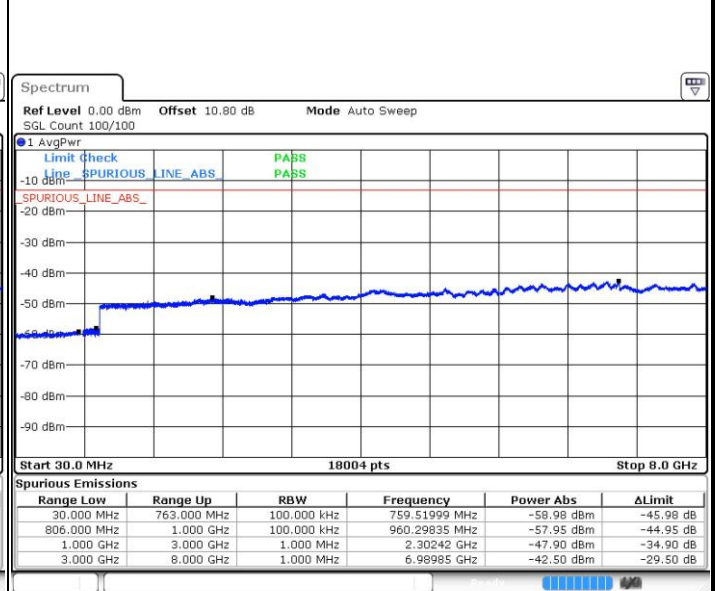
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 27.DEC.2016 14:21:16

Middle Channel / 16QAM



Date: 27.DEC.2016 14:20:22



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0092	PASS
40	Normal Voltage	0.0114	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0091	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0107	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0119	
20	Maximum Voltage	0.0101	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0098	

Note:

1. Normal Voltage =24.0 V. ; Battery End Point (BEP) =12.0 V. ; Maximum Voltage =48.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 17

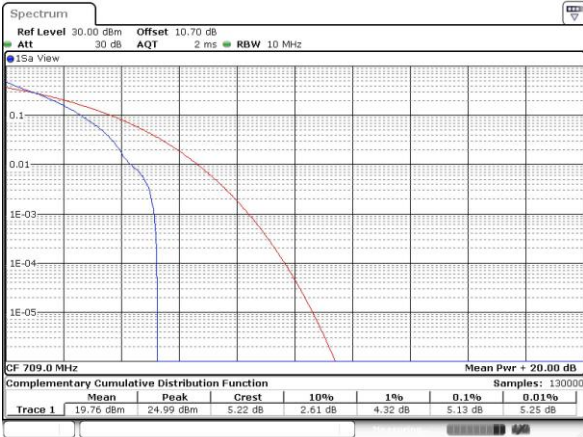
Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.13	5.28	6.49	6.14	PASS
Middle CH	4.75	5.28	6.12	6.29	
Highest CH	4.46	5.36	5.59	6.29	



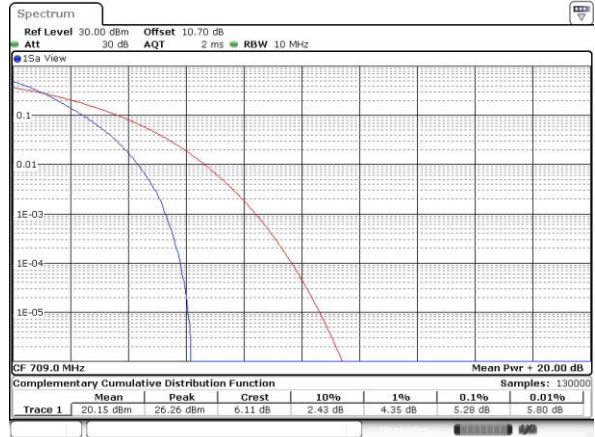
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



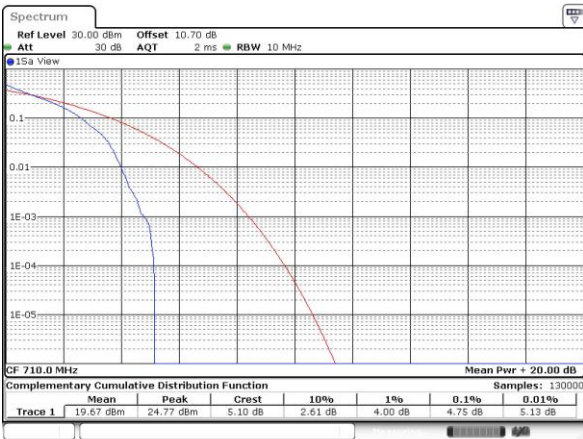
Date: 27 DEC 2016 16:57:50

Lowest Channel / Full RB



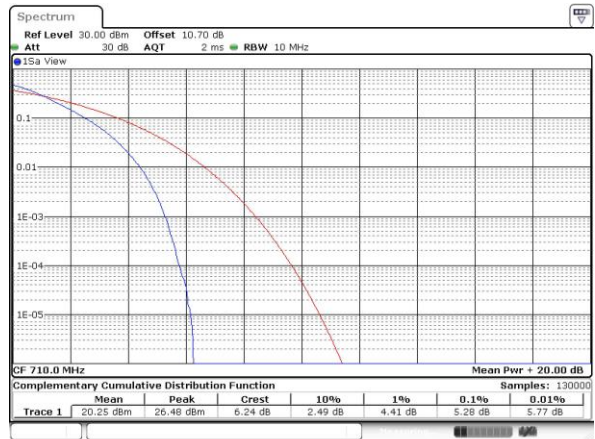
Date: 27 DEC 2016 16:57:59

Middle Channel / 1RB



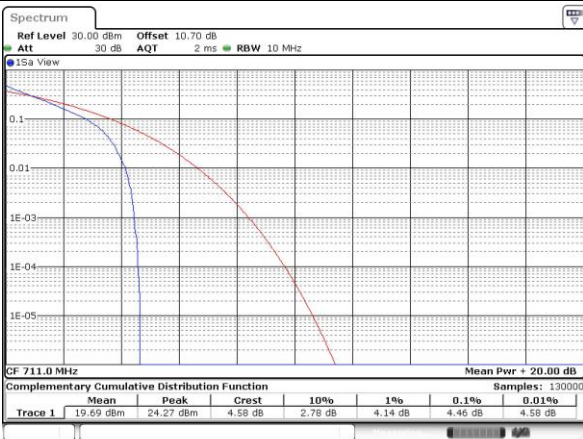
Date: 27 DEC 2016 16:58:09

Middle Channel / Full RB



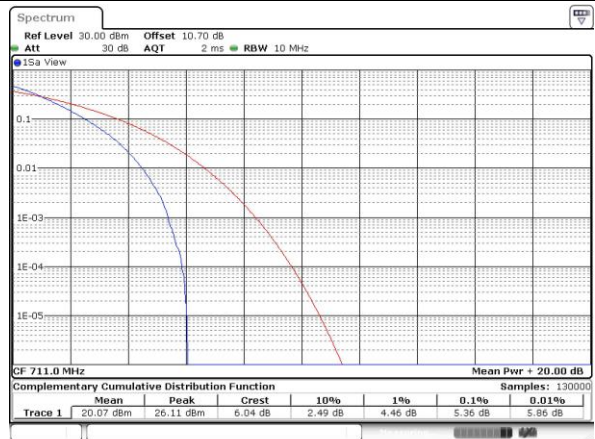
Date: 27 DEC 2016 16:58:19

Highest Channel / 1RB



Date: 27 DEC 2016 16:58:29

Highest Channel / Full RB



Date: 27 DEC 2016 16:58:38