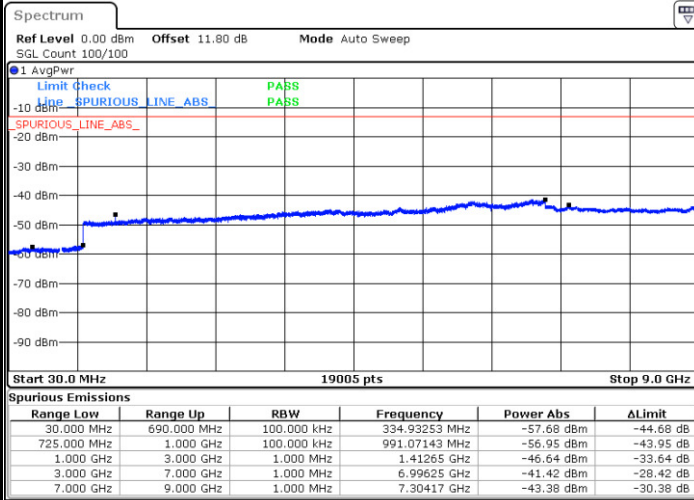




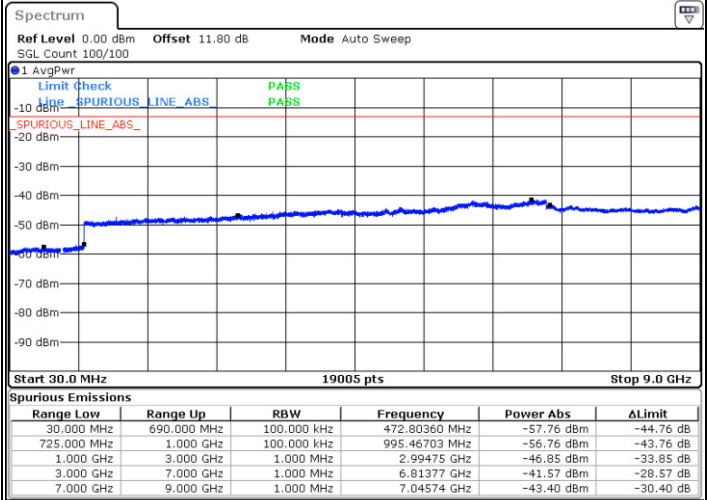
LTE Band 12 / 3MHz

Middle Channel / QPSK



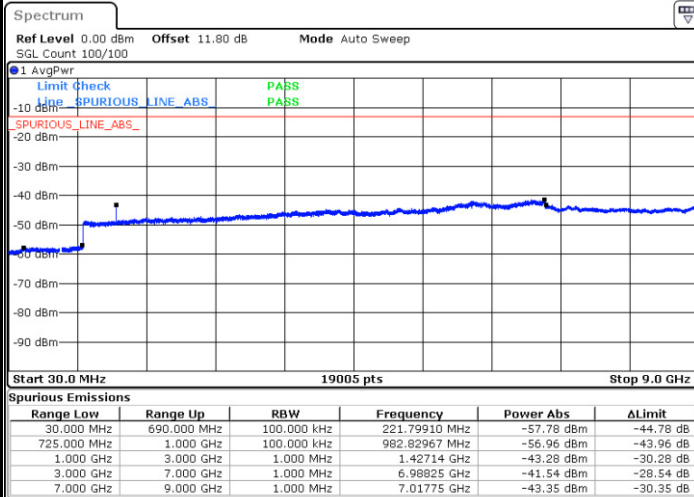
Date: 6.JAN.2018 19:08:48

Middle Channel / 16QAM



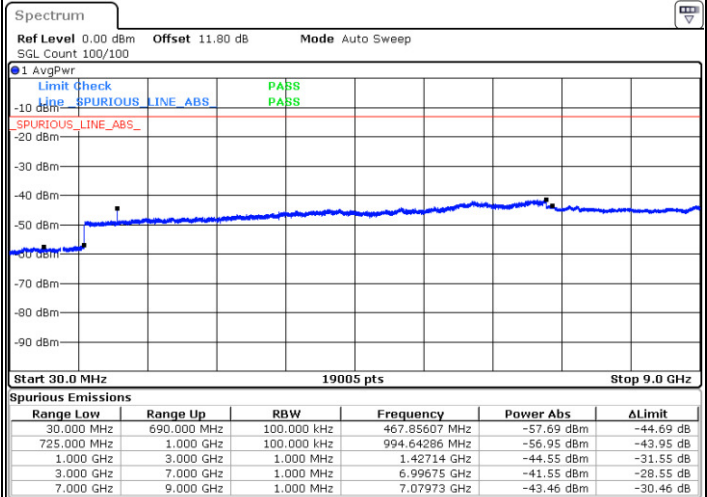
Date: 6.JAN.2018 19:07:55

Highest Channel / QPSK



Date: 6.JAN.2018 19:14:52

Highest Channel / 16QAM

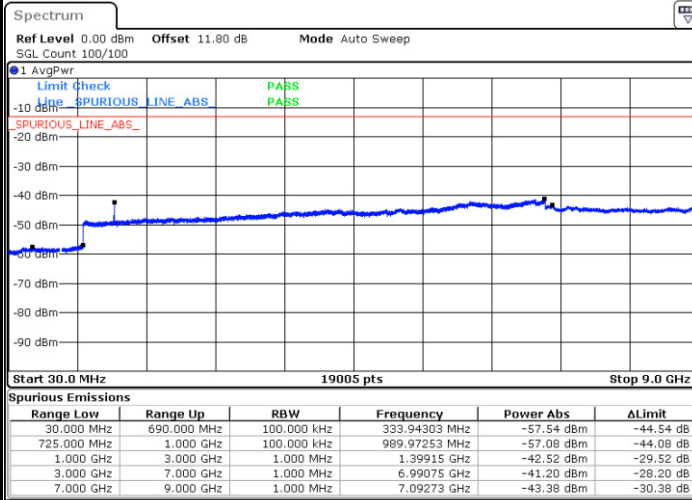


Date: 6.JAN.2018 19:15:45



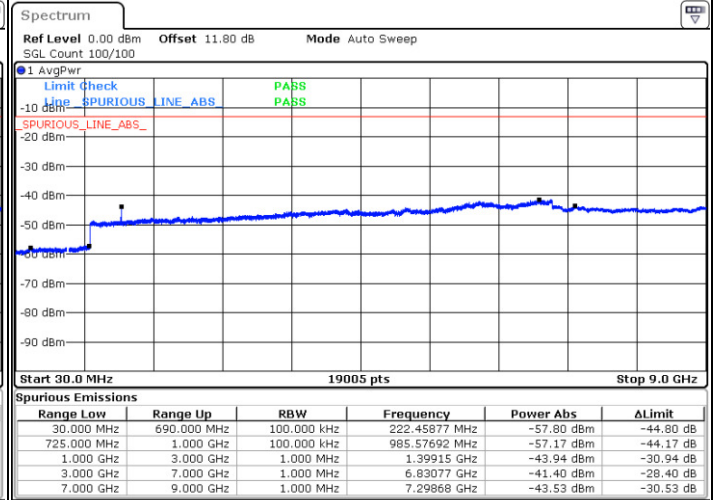
LTE Band 12 / 5MHz

Lowest Channel / QPSK



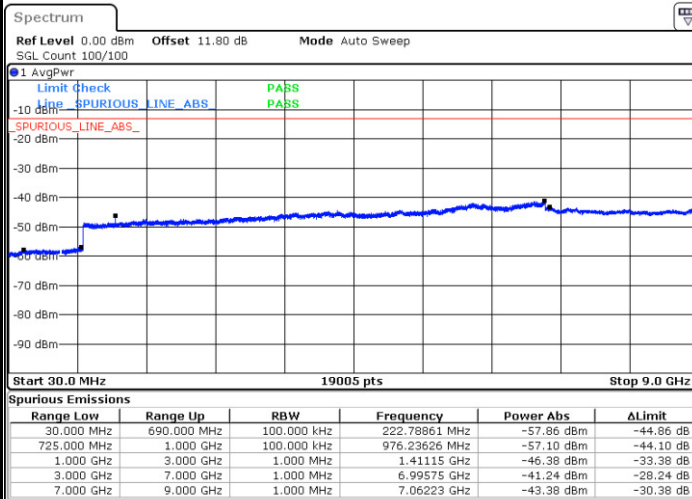
Date: 6.JAN.2018 19:21:49

Lowest Channel / 16QAM



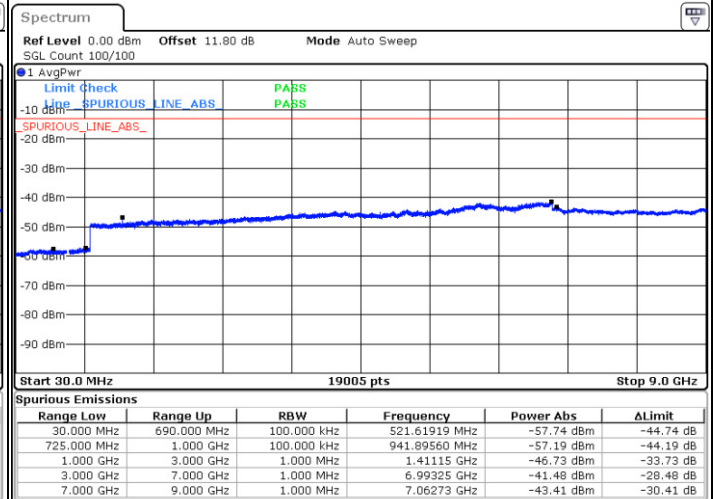
Date: 6.JAN.2018 19:22:42

Middle Channel / QPSK



Date: 6.JAN.2018 19:25:07

Middle Channel / 16QAM

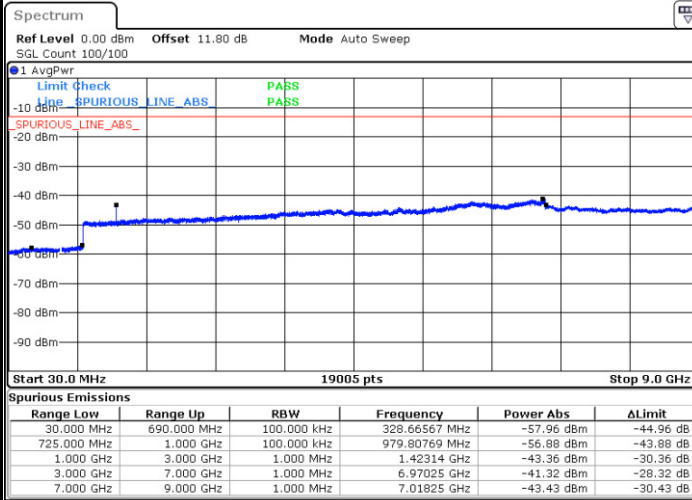


Date: 6.JAN.2018 19:24:14



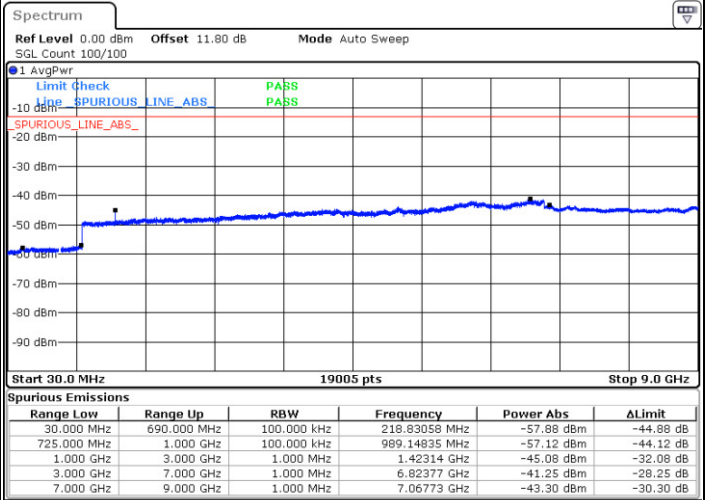
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 6.JAN.2018 19:32:04

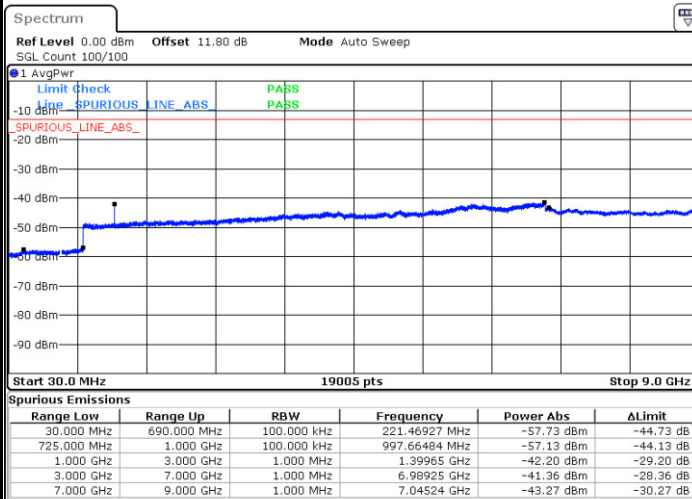
Highest Channel / 16QAM



Date: 6.JAN.2018 19:31:11

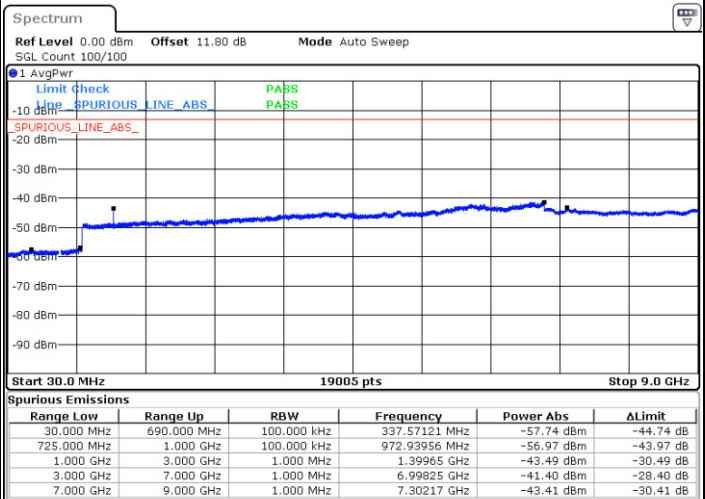
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 6.JAN.2018 19:38:07

Lowest Channel / 16QAM

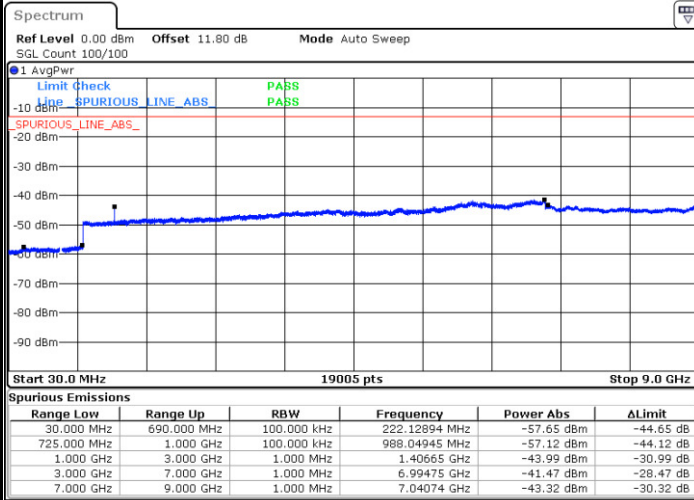


Date: 6.JAN.2018 19:39:00



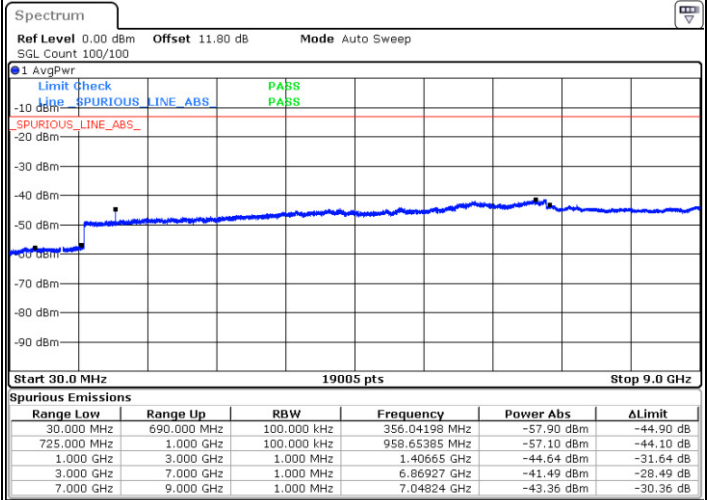
LTE Band 12 / 10MHz

Middle Channel / QPSK



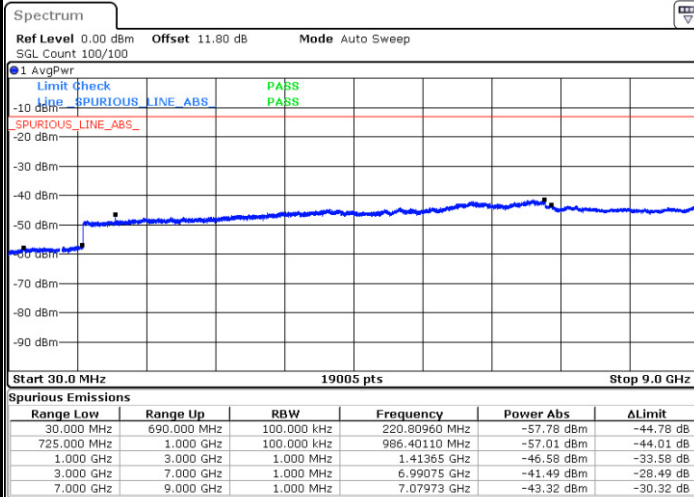
Date: 6.JAN.2018 19:41:25

Middle Channel / 16QAM



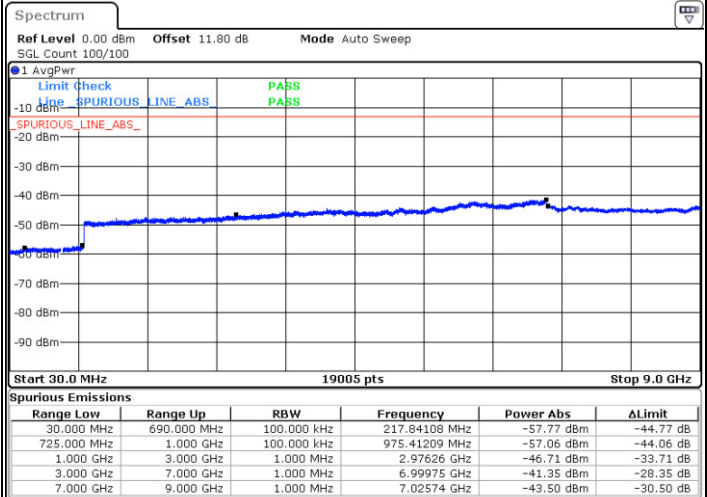
Date: 6.JAN.2018 19:40:32

Highest Channel / QPSK



Date: 6.JAN.2018 19:47:28

Highest Channel / 16QAM



Date: 6.JAN.2018 19:48:21

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

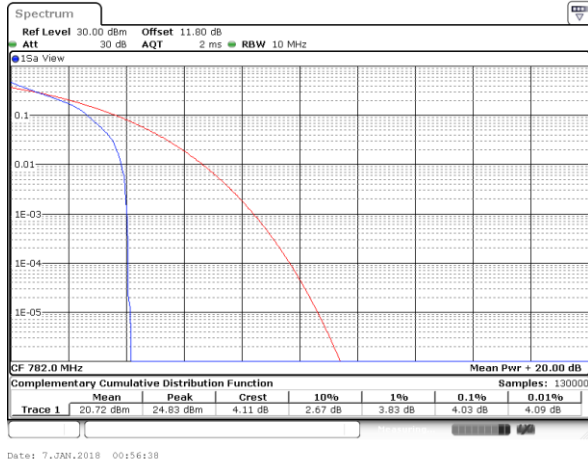
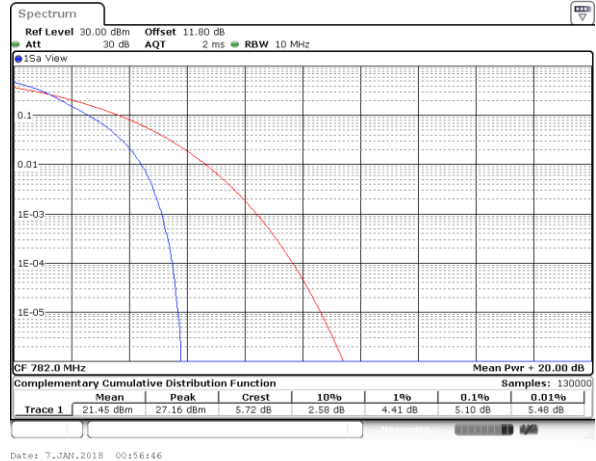
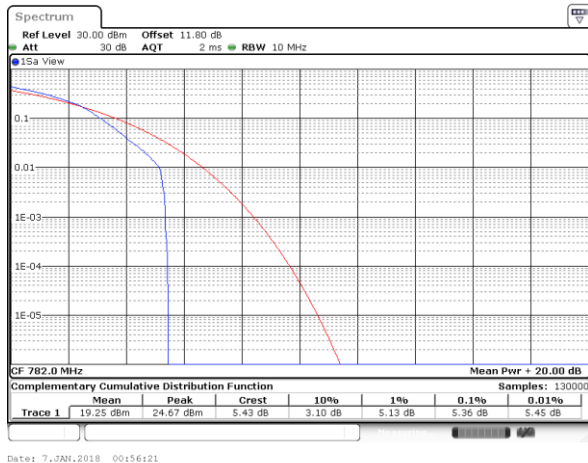
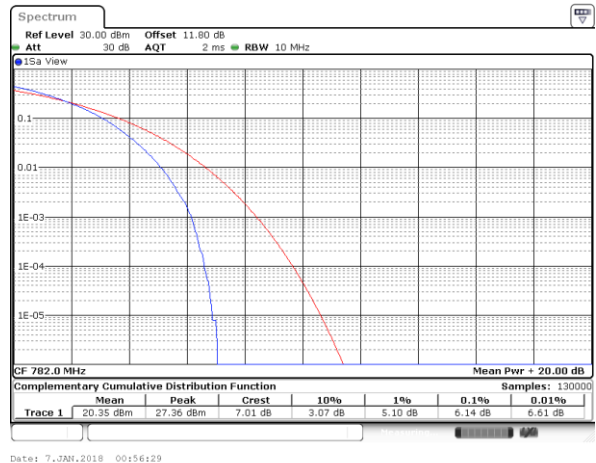
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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	4.03	5.1	5.36	6.14	
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel/ 1RB

Middle Channel / Full RB

LTE Band 13 / 10MHz / 16QAM
Middle Channel/ 1RB

Middle Channel / Full RB


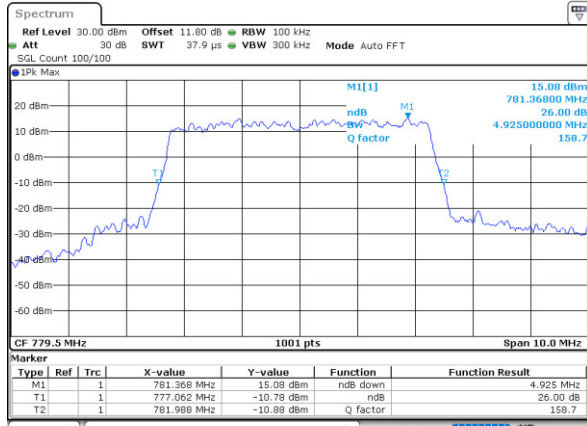
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.93	4.87	-	-	-	-	-	-
Middle CH	-	-	-	-	4.96	4.92	9.85	9.71	-	-	-	-
Highest CH	-	-	-	-	4.90	4.93	-	-	-	-	-	-



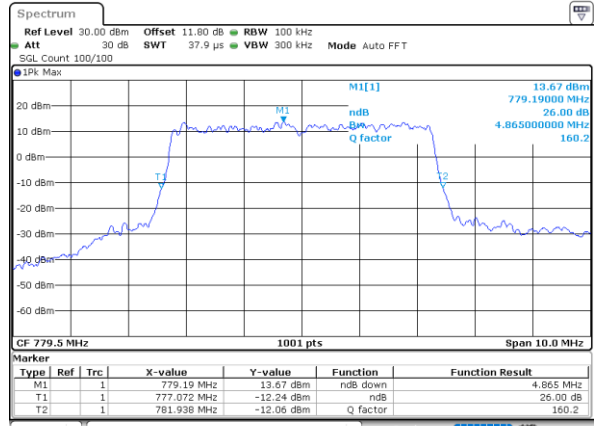
LTE Band 13

Lowest Channel / 5MHz / QPSK



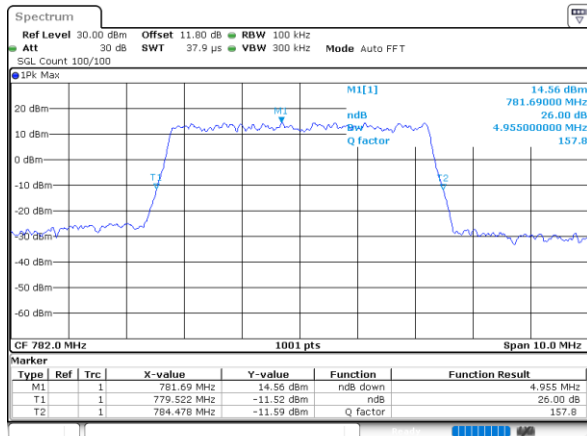
Date: 7,JAN,2018 00:20:46

Lowest Channel / 5MHz / 16QAM



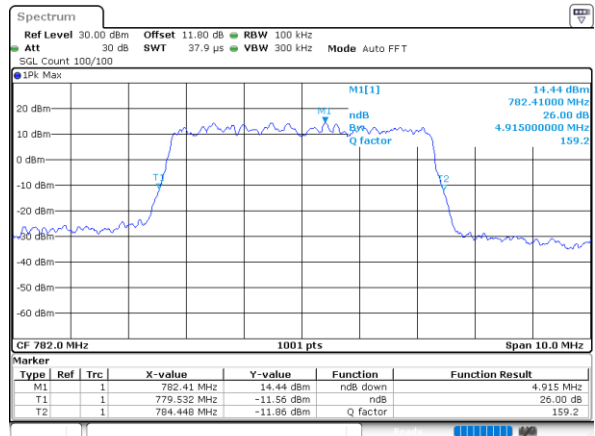
Date: 7,JAN,2018 00:20:36

Middle Channel / 5MHz / QPSK



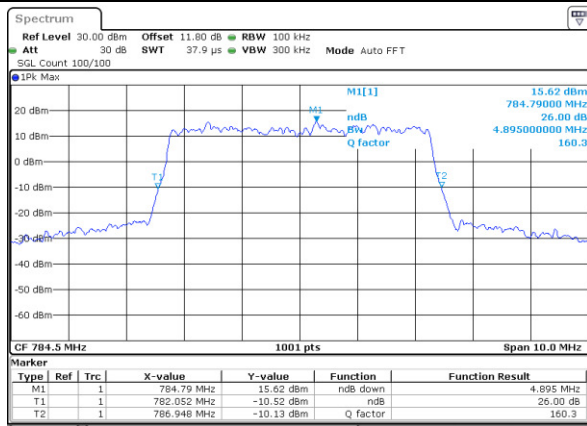
Date: 7,JAN,2018 00:33:31

Middle Channel / 5MHz / 16QAM



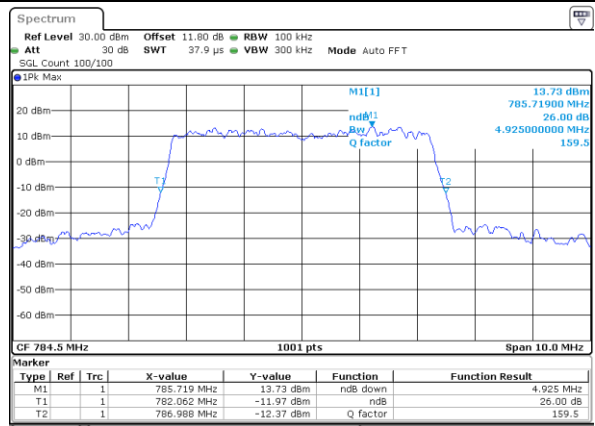
Date: 7,JAN,2018 00:33:41

Highest Channel / 5MHz / QPSK



Date: 7,JAN,2018 00:34:40

Highest Channel / 5MHz / 16QAM

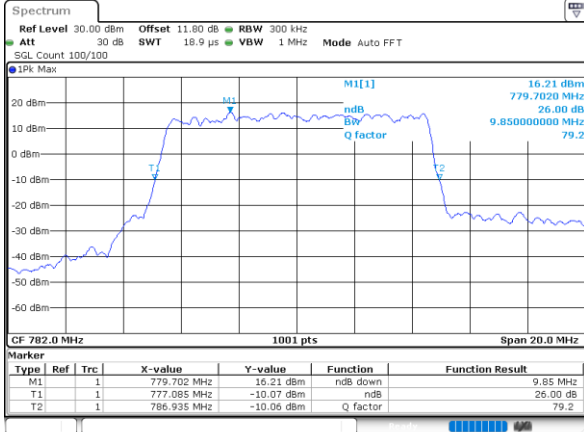


Date: 7,JAN,2018 00:34:31



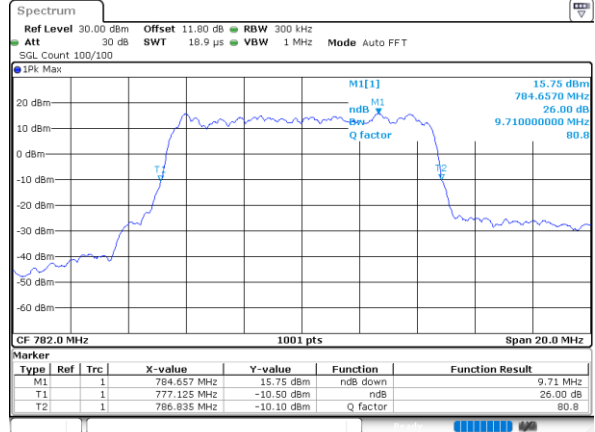
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7.JAN.2018 00:43:18

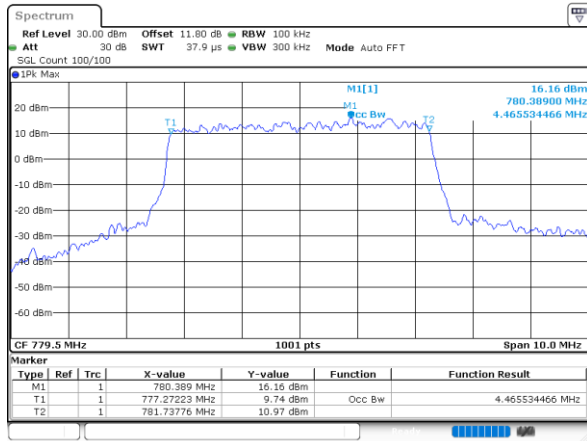
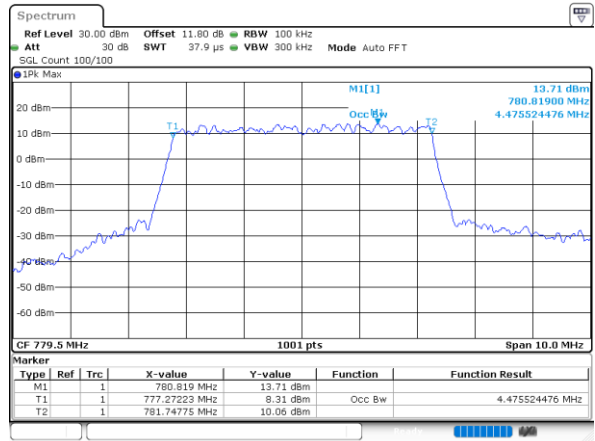
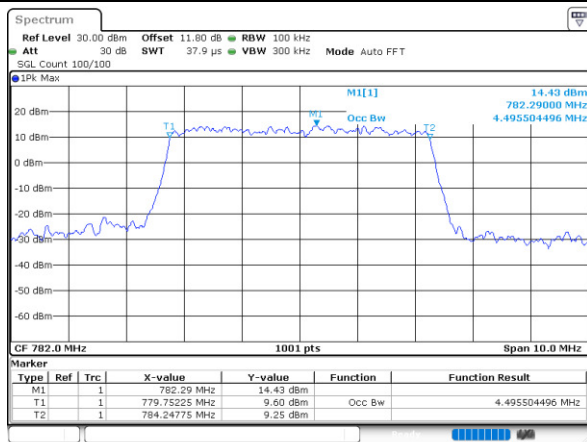
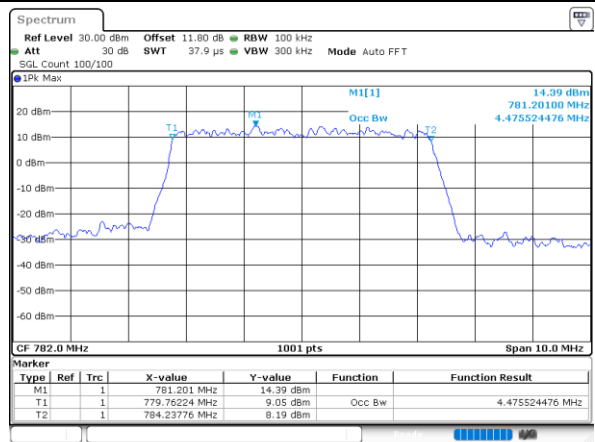
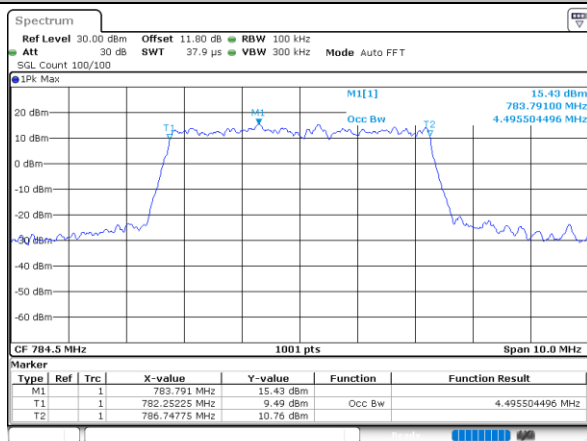
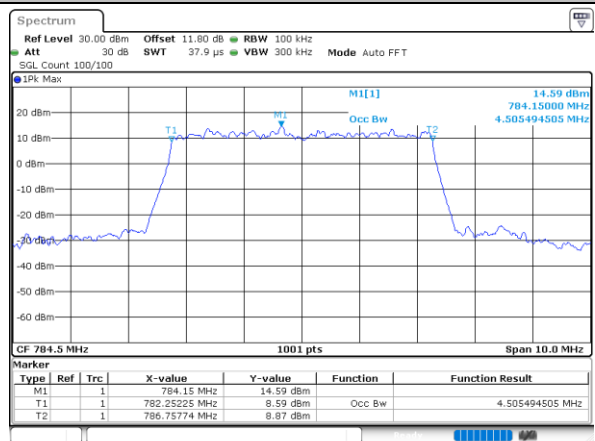
Middle Channel / 10MHz / 16QAM



Date: 7.JAN.2018 00:43:28

**Occupied Bandwidth**

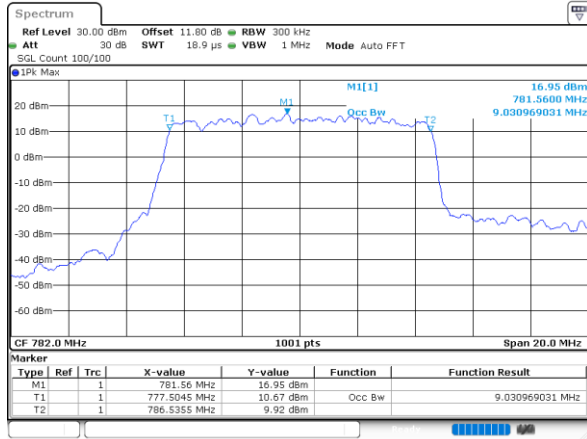
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.47	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.5	4.48	9.03	9.03	-	-	-	-
Highest CH	-	-	-	-	4.5	4.51	-	-	-	-	-	-

LTE Band 13
Lowest Channel / 5MHz / QPSK

Lowest Channel / 5MHz / 16QAM

Middle Channel / 5MHz / QPSK

Middle Channel / 5MHz / 16QAM

Highest Channel / 5MHz / QPSK

Highest Channel / 5MHz / 16QAM




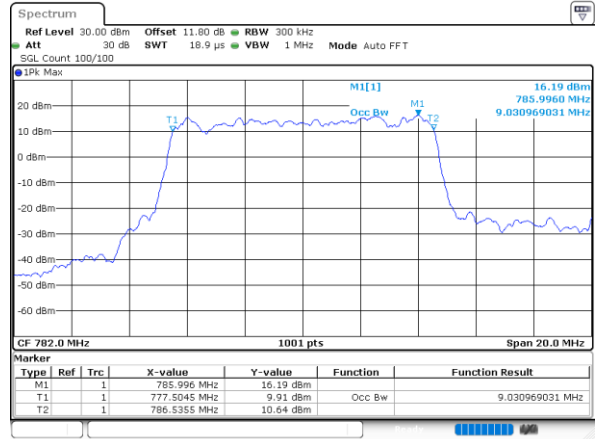
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7.JAN.2018 00:43:08

Middle Channel / 10MHz / 16QAM



Date: 7.JAN.2018 00:43:18

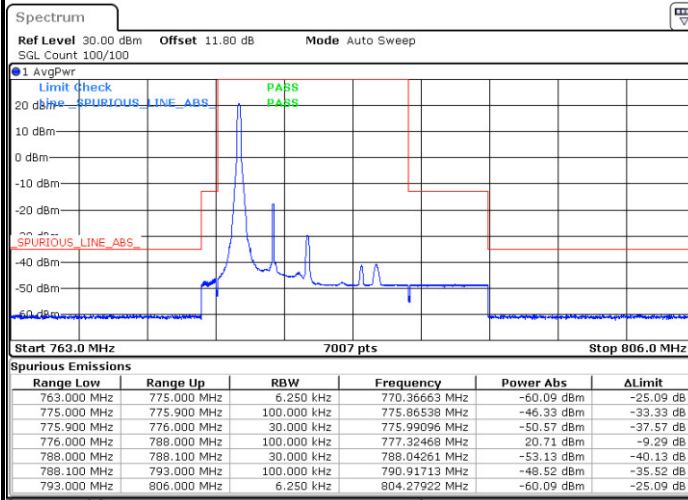


Conducted Band Edge

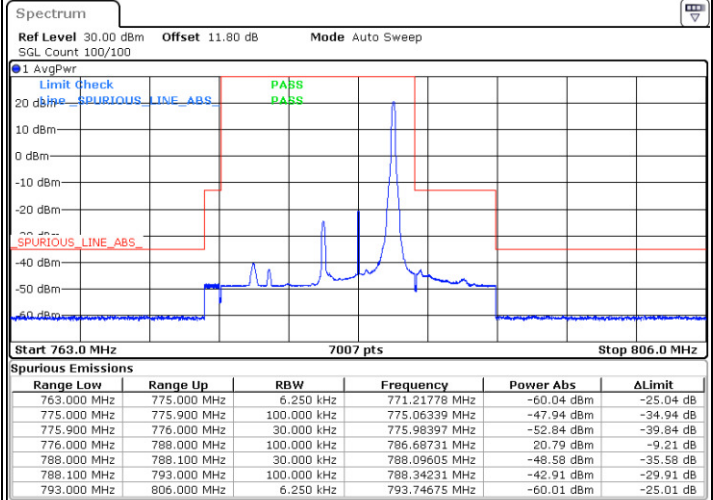


LTE Band 13 / 5MHz / QPSK

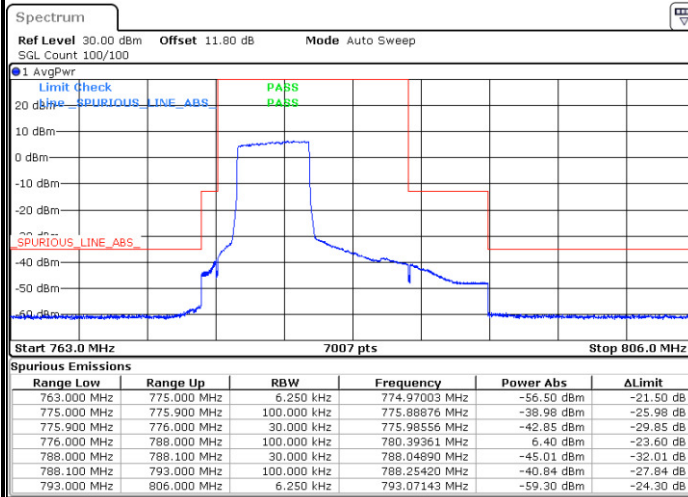
Lowest Band Edge / 1 RB



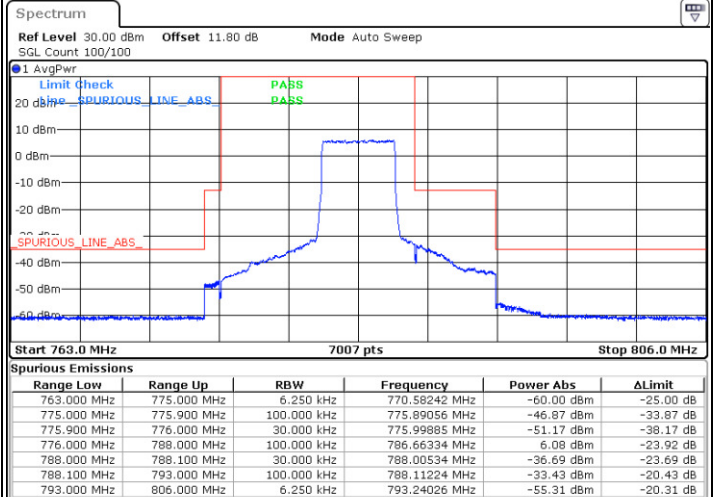
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



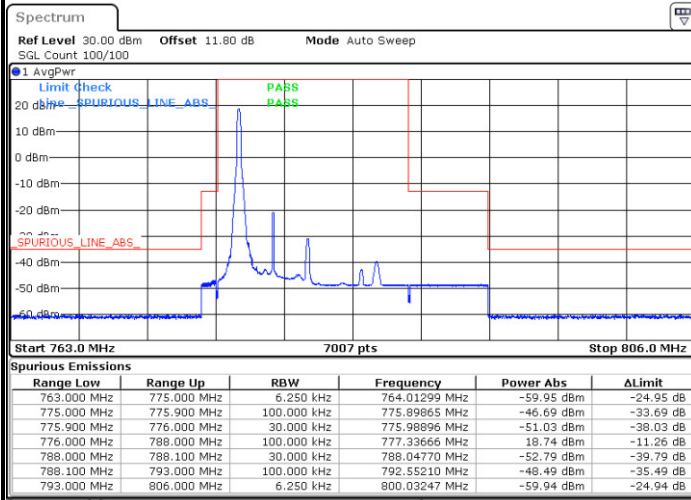
Highest Band Edge / Full RB



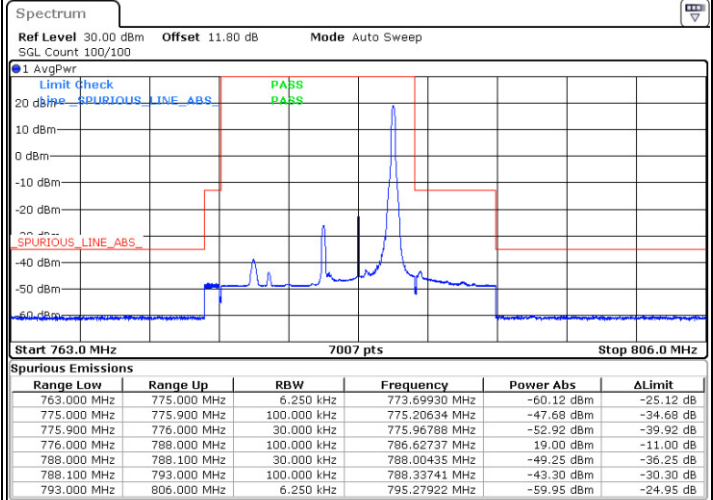


LTE Band 13 / 5MHz / 16QAM

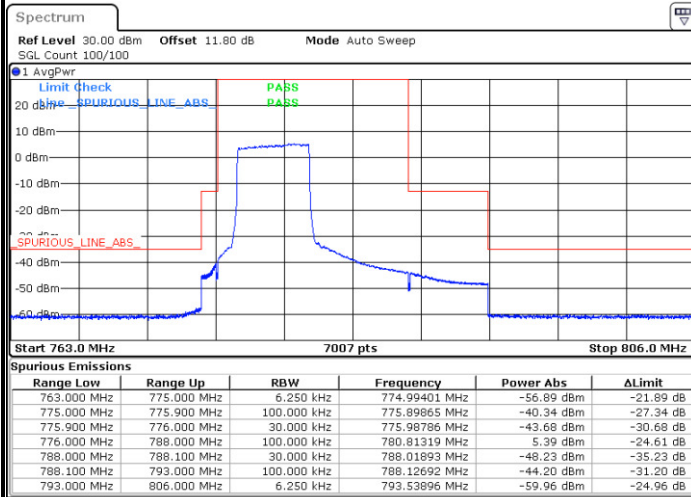
Lowest Band Edge / 1 RB



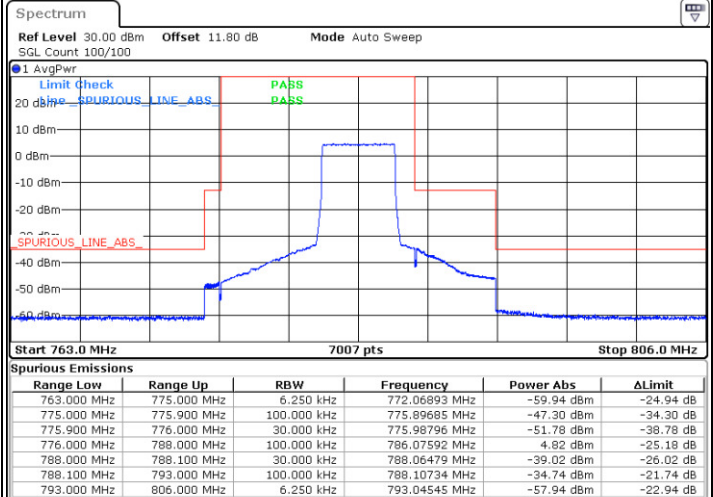
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



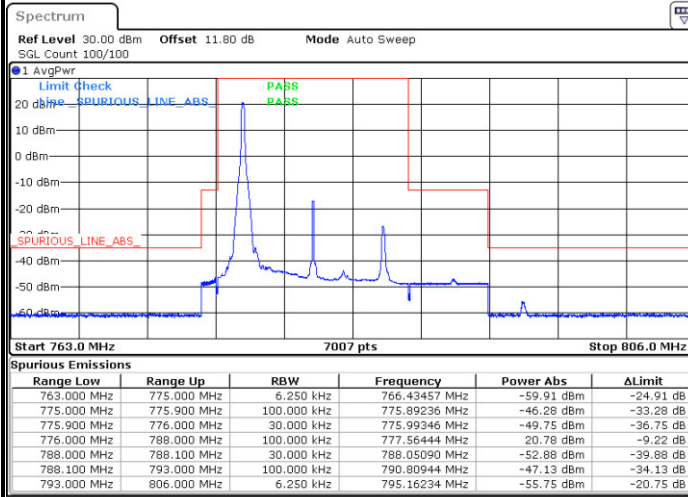
Highest Band Edge / Full RB



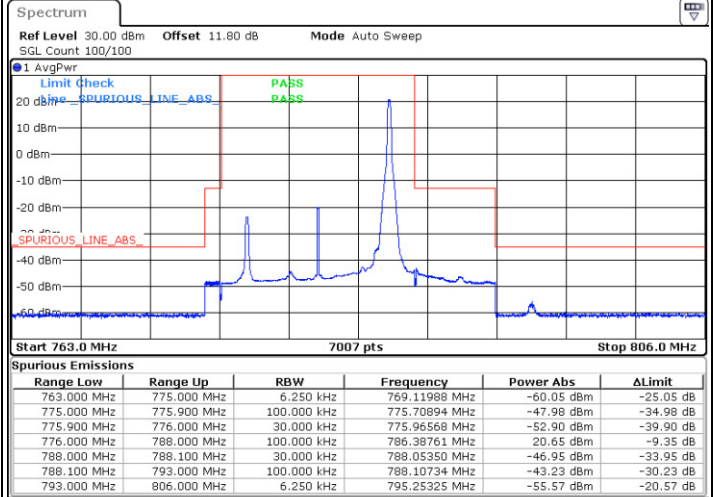


LTE Band 13 / 10MHz / QPSK

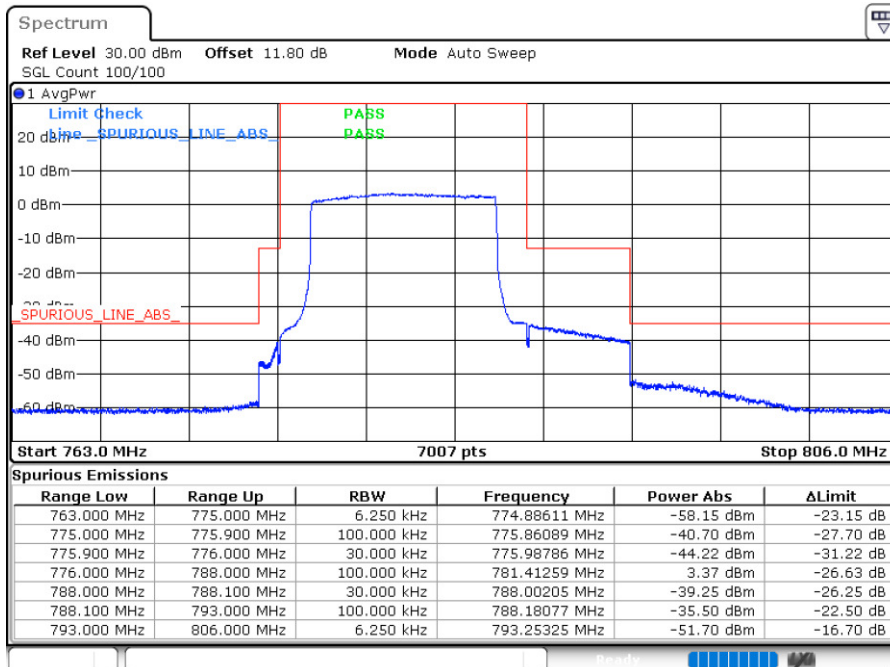
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



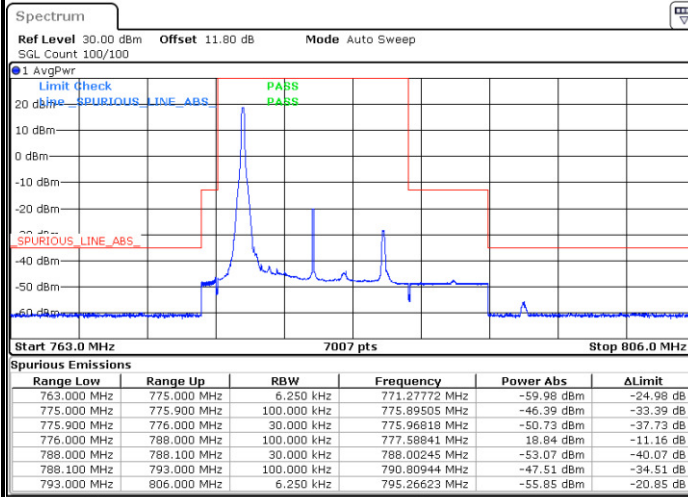
Band Edge / Full RB





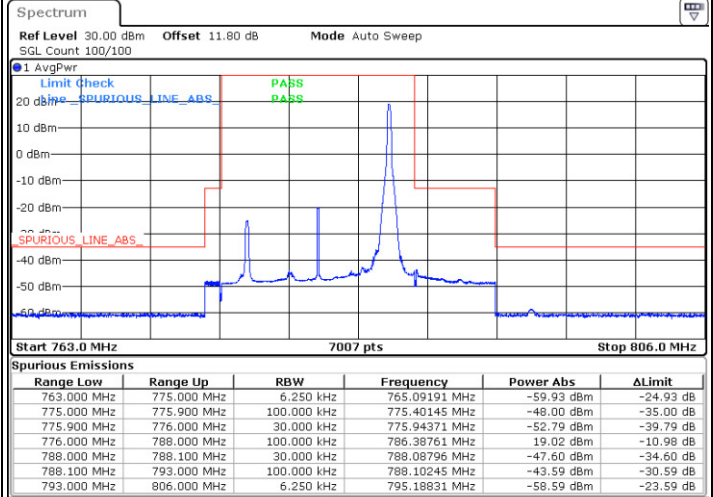
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



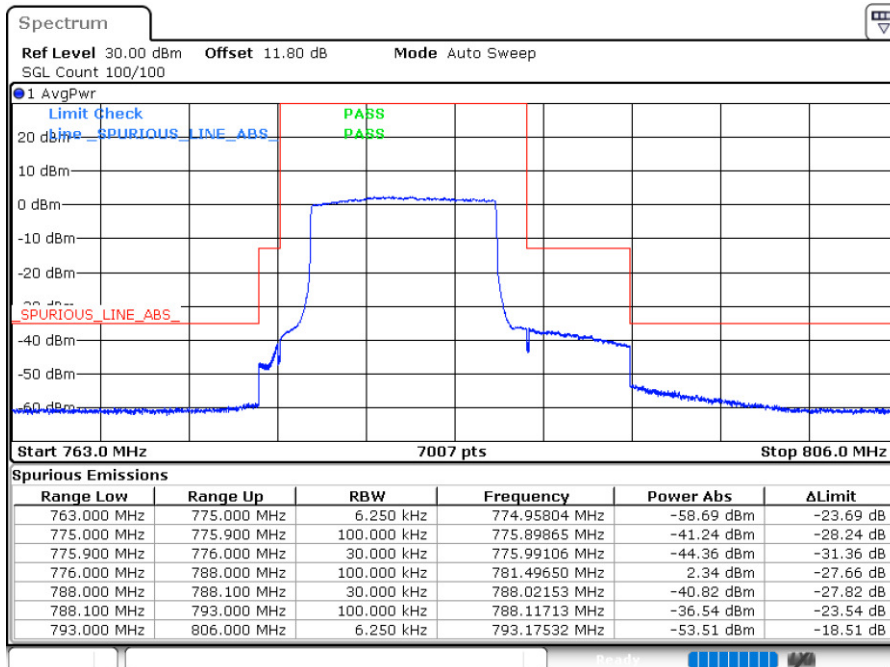
Date: 7.JAN.2018 00:48:32

Highest Band Edge / 1 RB



Date: 7.JAN.2018 00:53:26

Band Edge / Full RB

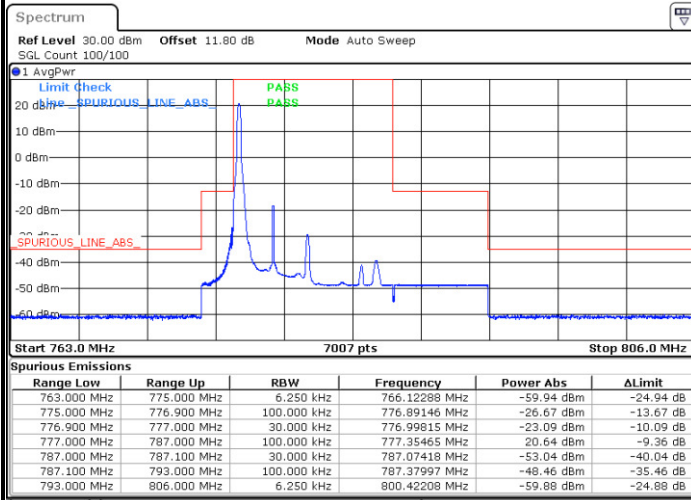


Date: 7.JAN.2018 00:46:54

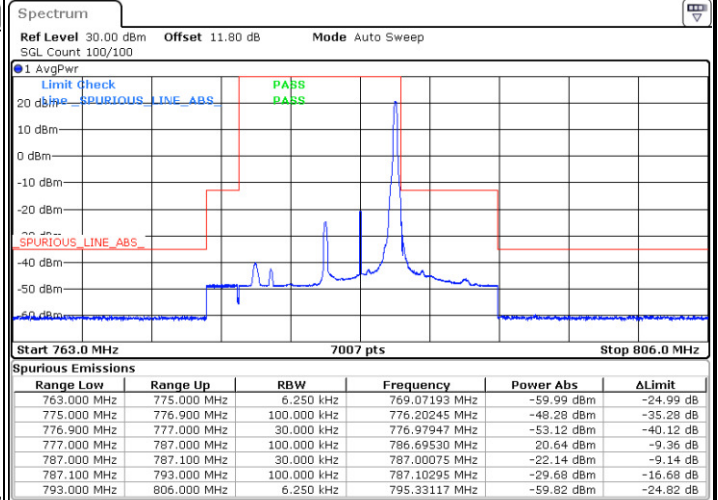


IC LTE Band 13 / 5MHz / QPSK

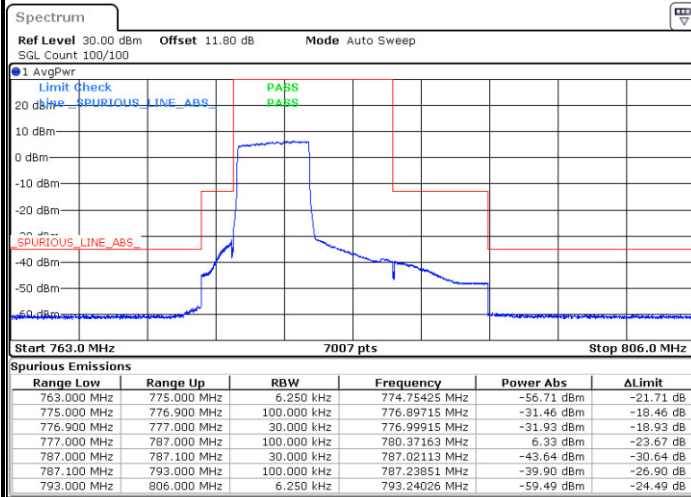
Lowest Band Edge / 1 RB



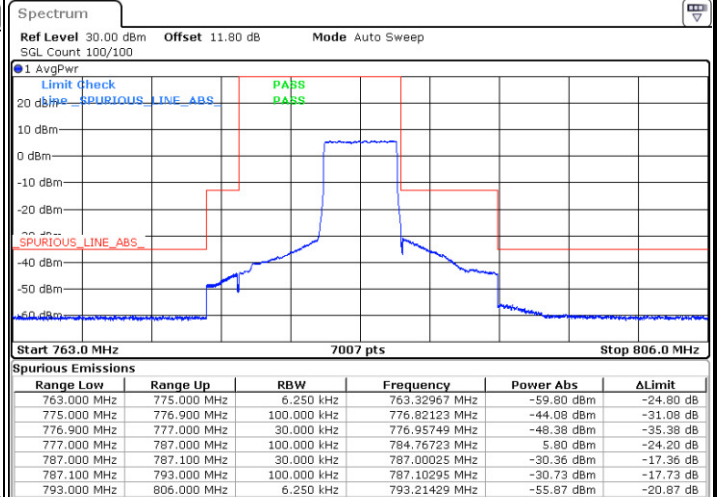
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



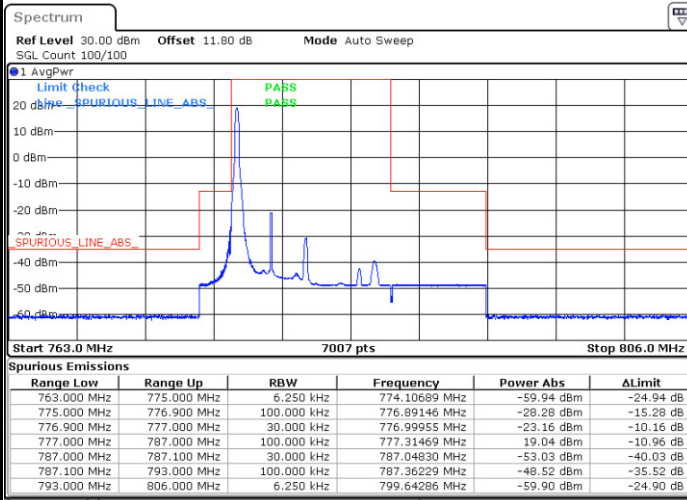
Highest Band Edge / Full RB



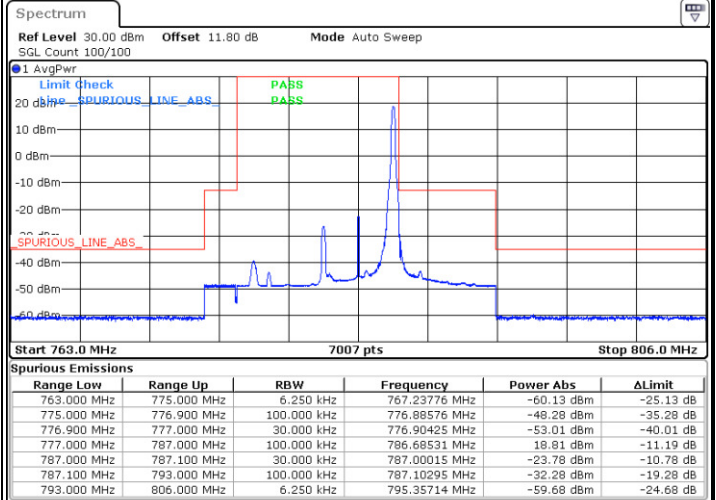


IC LTE Band 13 / 5MHz / 16QAM

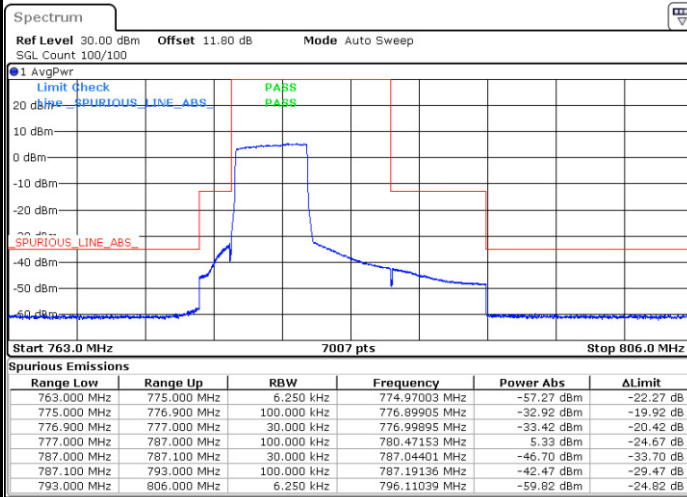
Lowest Band Edge / 1 RB



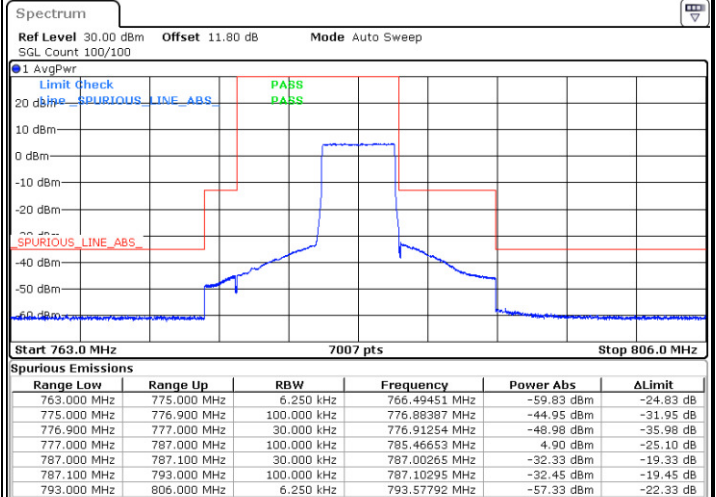
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



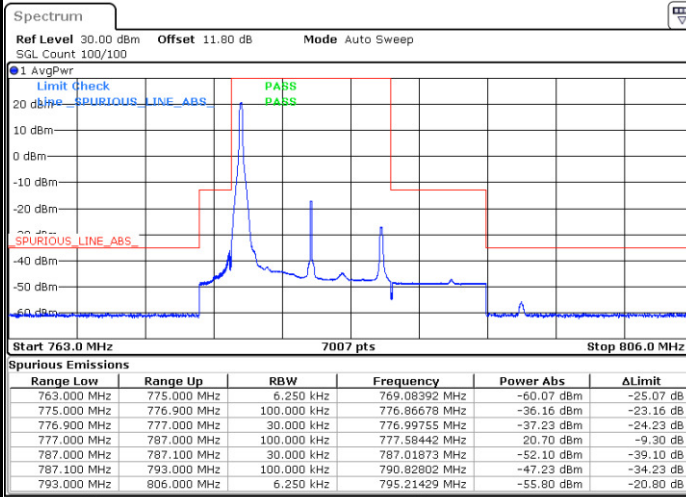
Highest Band Edge / Full RB





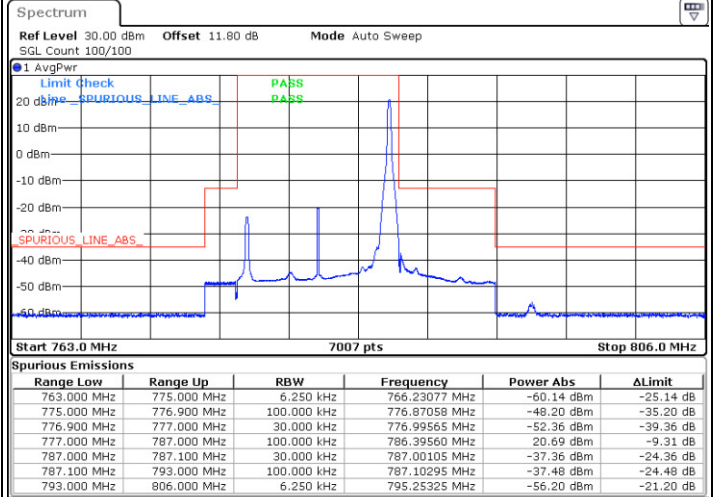
IC LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



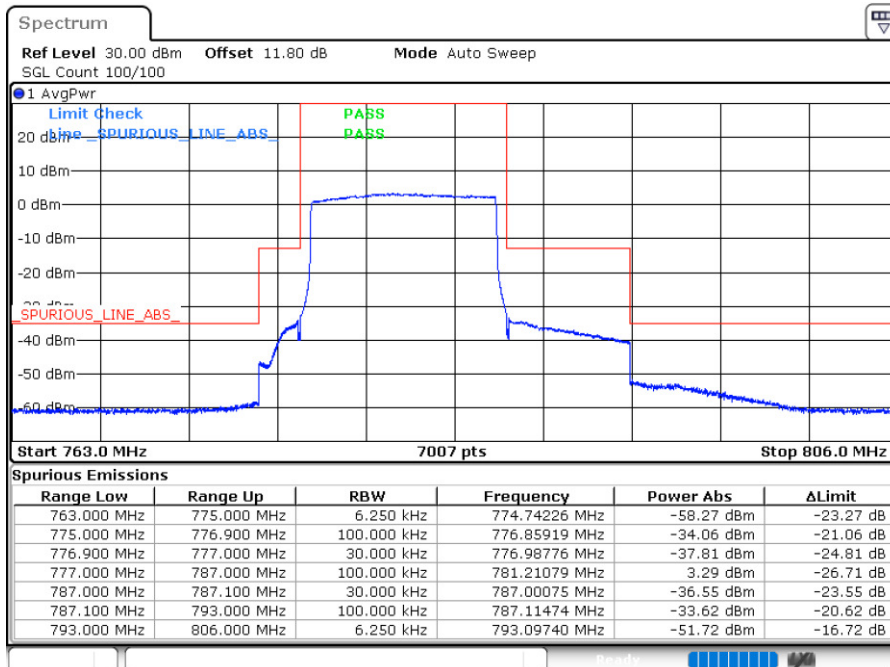
Date: 7.JAN.2018 01:16:48

Highest Band Edge / 1 RB



Date: 7.JAN.2018 01:18:26

Band Edge / Full RB

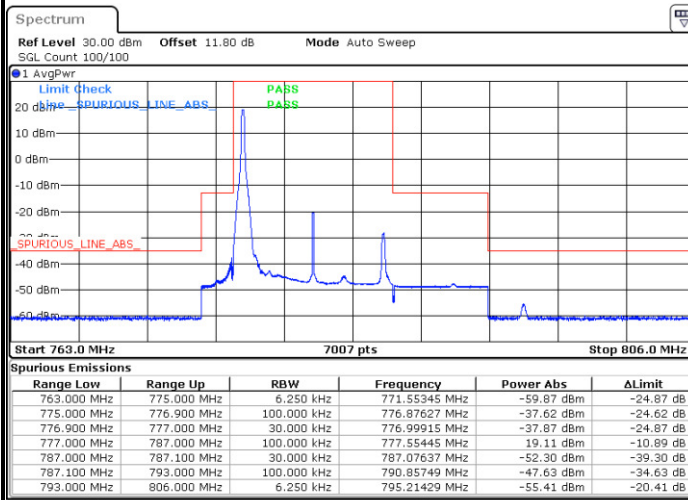


Date: 7.JAN.2018 01:11:54



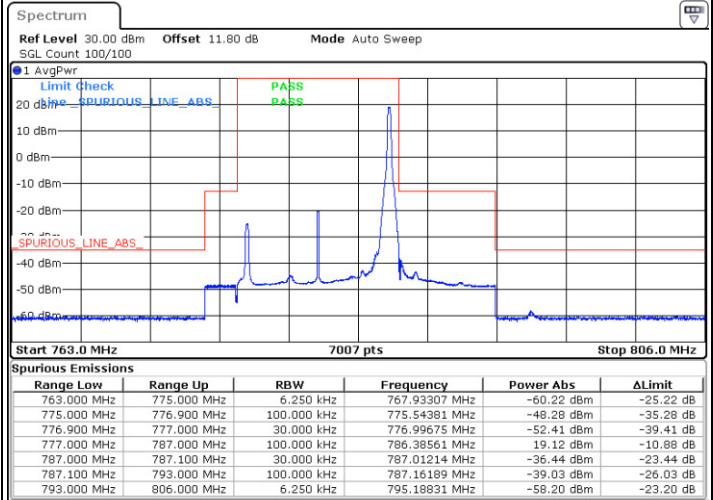
IC LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



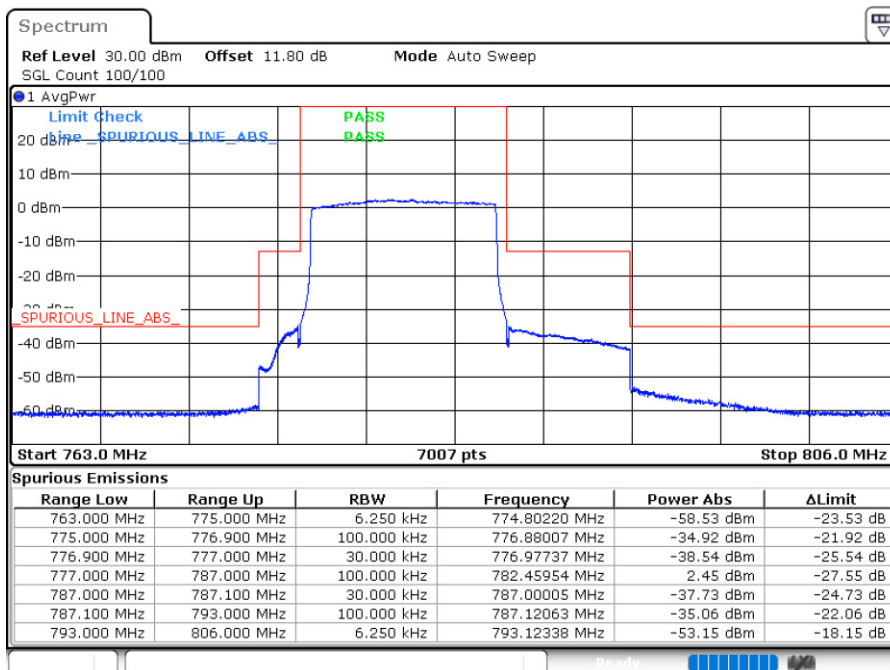
Date: 7.JAN.2018 01:15:10

Highest Band Edge / 1 RB



Date: 7.JAN.2018 01:20:04

Band Edge / Full RB



Date: 7.JAN.2018 01:13:32

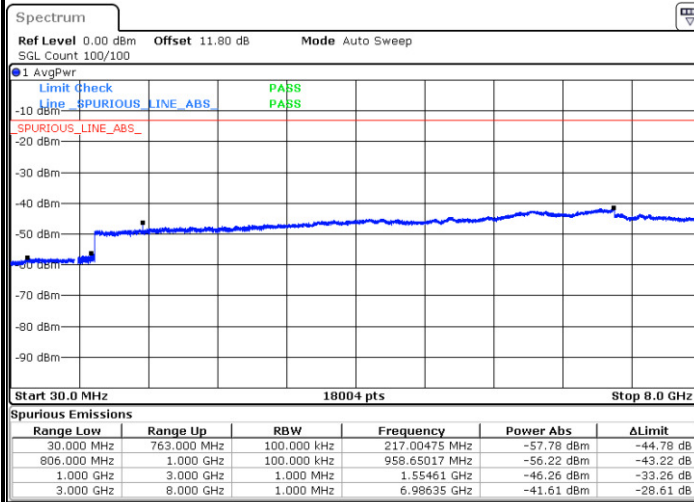


Conducted Spurious Emission



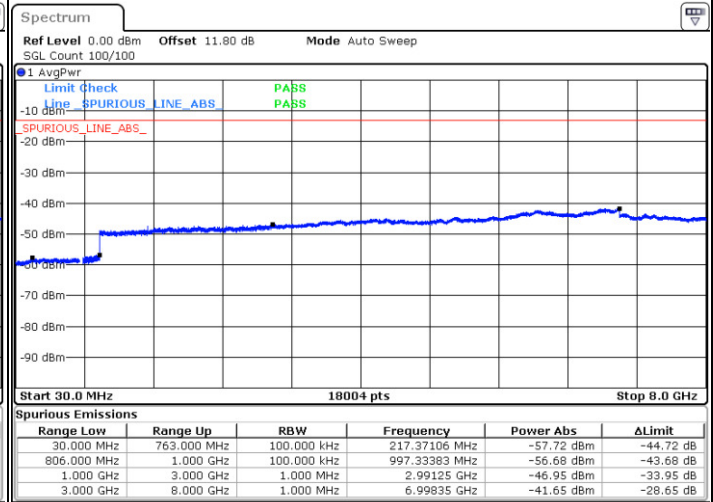
LTE Band 13 / 5MHz

Lowest Channel / QPSK



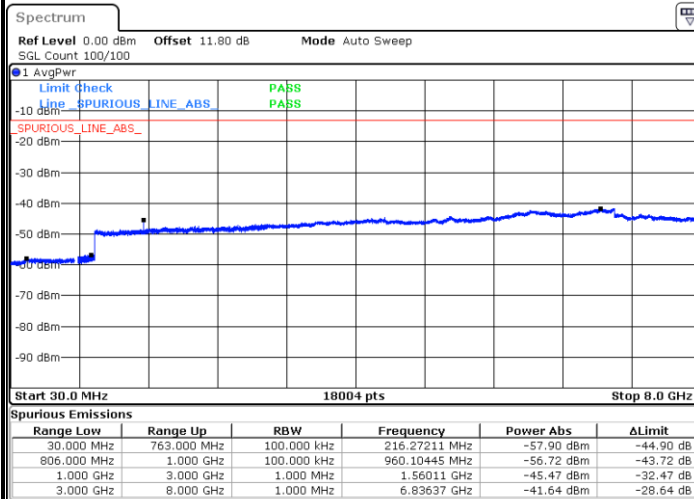
Date: 7.JAN.2018 00:30:44

Lowest Channel / 16QAM



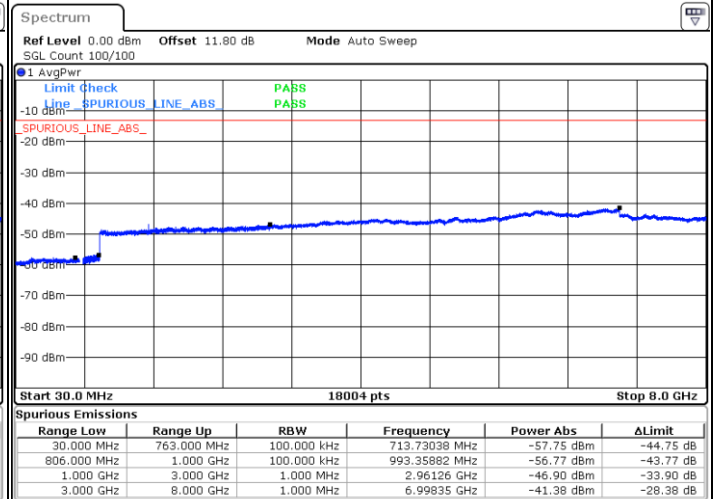
Date: 7.JAN.2018 00:31:36

Middle Channel / QPSK



Date: 7.JAN.2018 00:33:22

Middle Channel / 16QAM

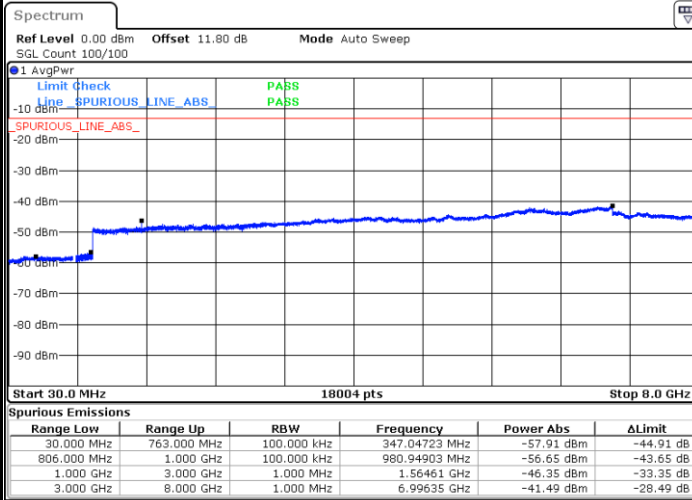


Date: 7.JAN.2018 00:32:29



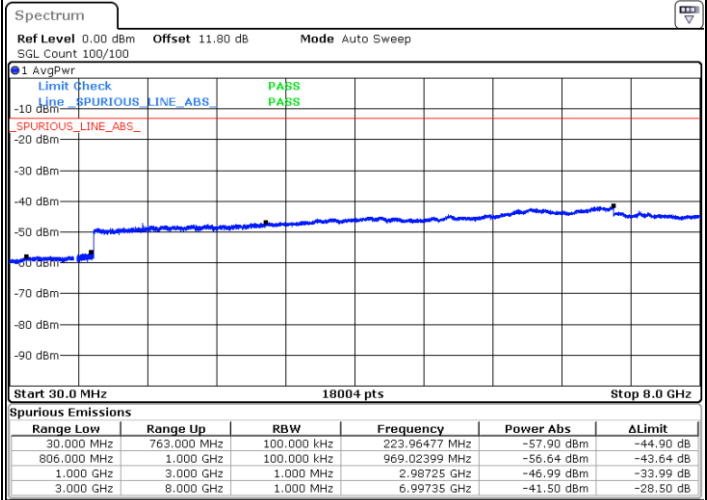
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 7.JAN.2018 00:42:05

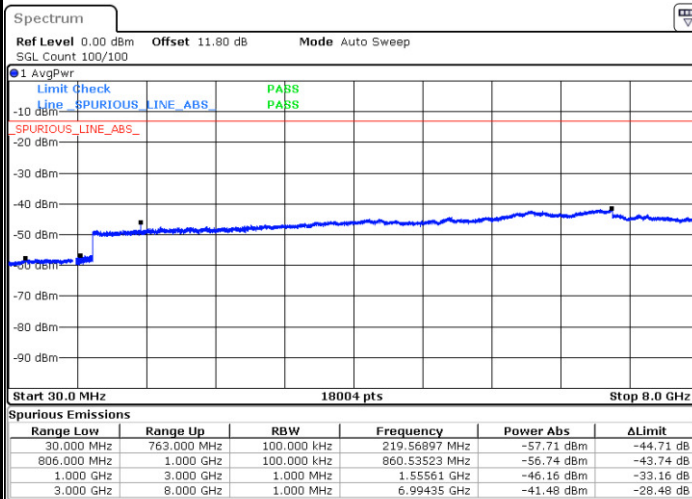
Highest Channel / 16QAM



Date: 7.JAN.2018 00:42:58

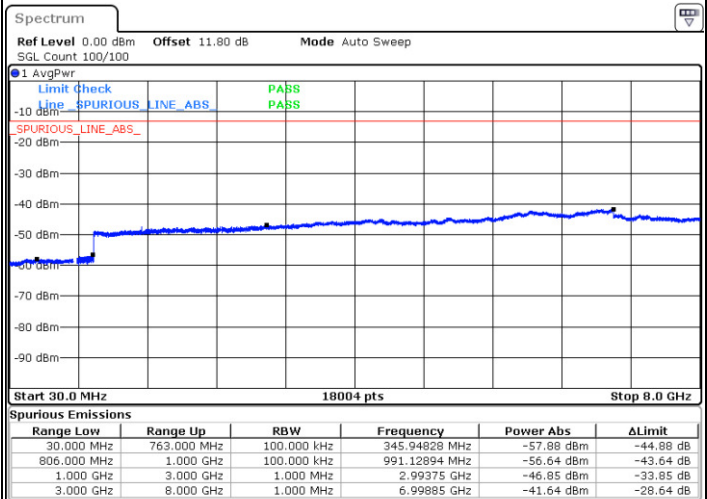
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 7.JAN.2018 00:55:12

Middle Channel / 16QAM



Date: 7.JAN.2018 00:54:19

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	0.0001	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0017	

Note:

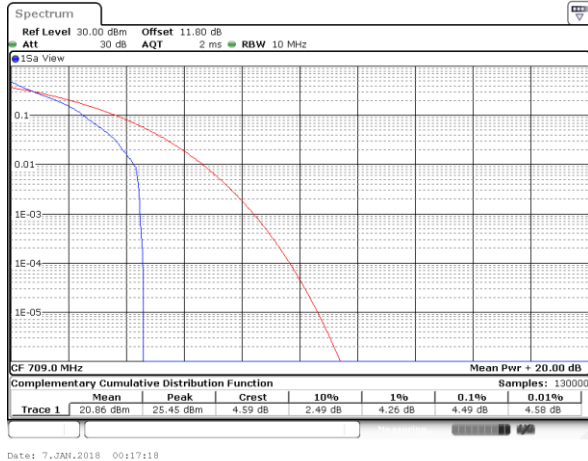
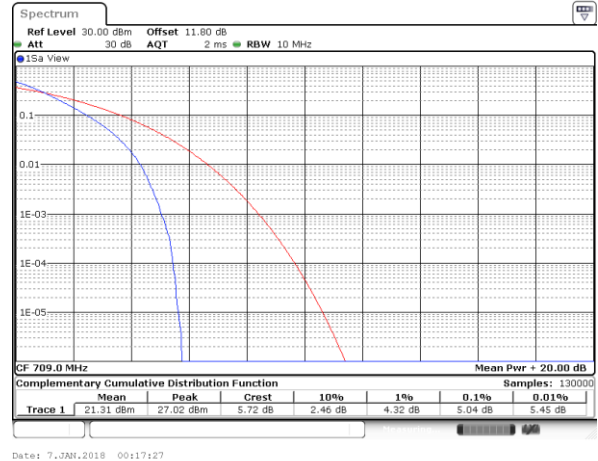
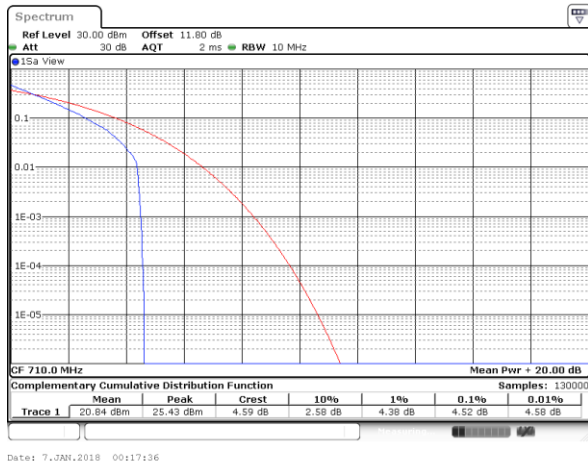
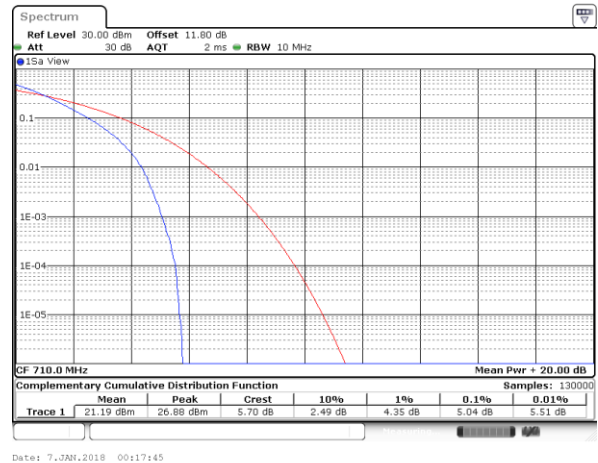
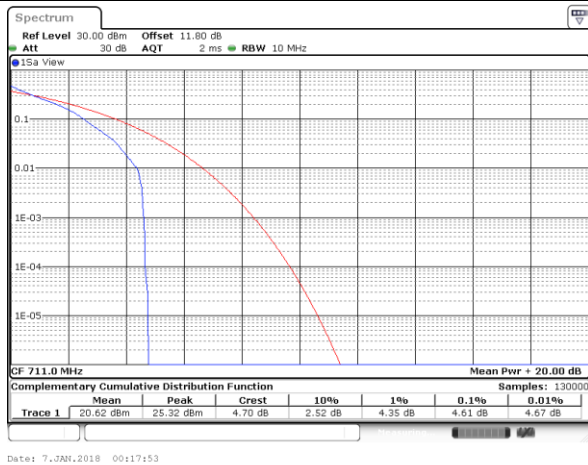
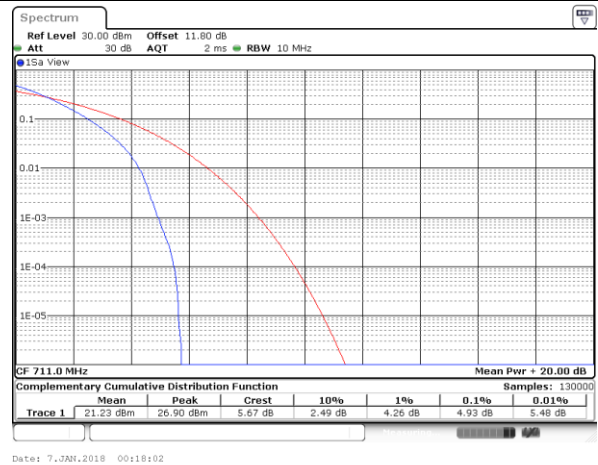
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

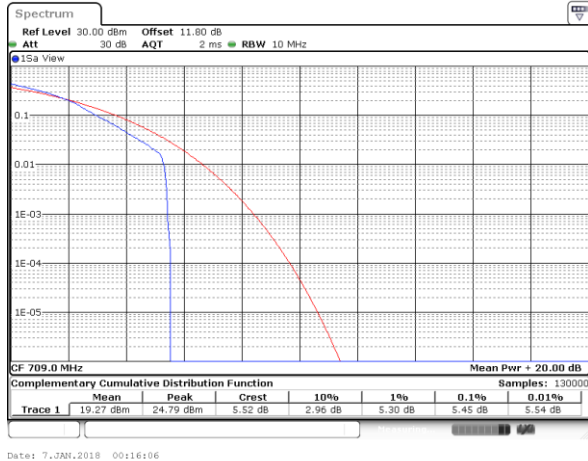
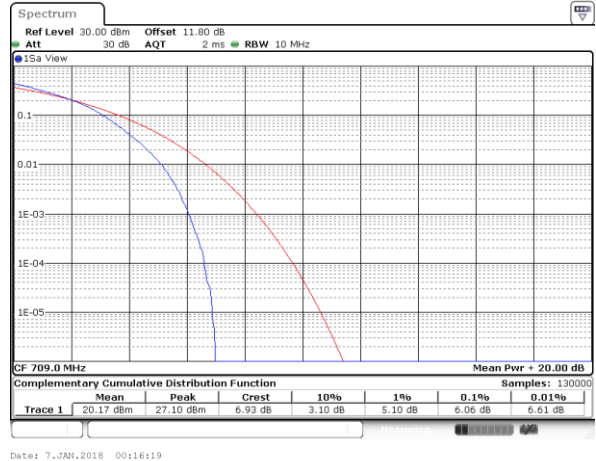
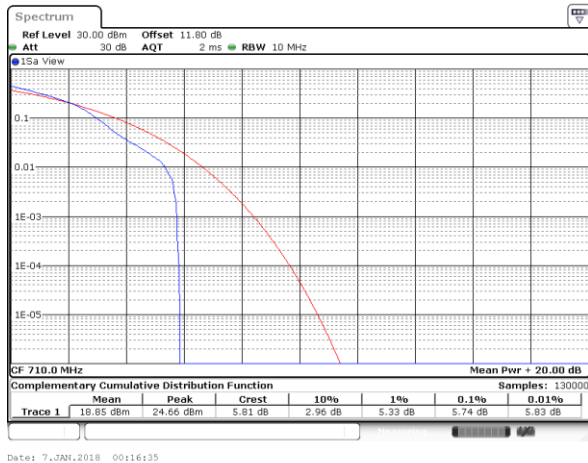
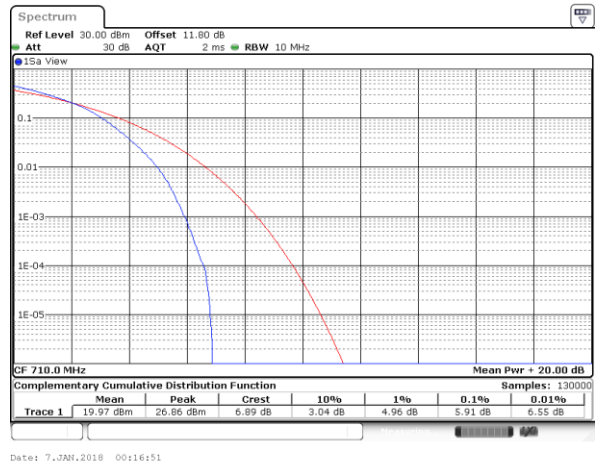
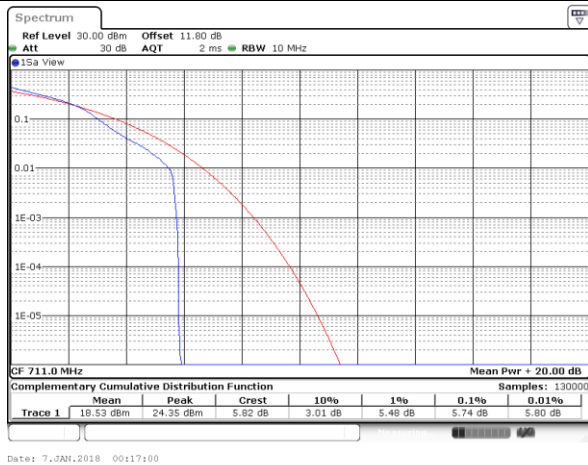
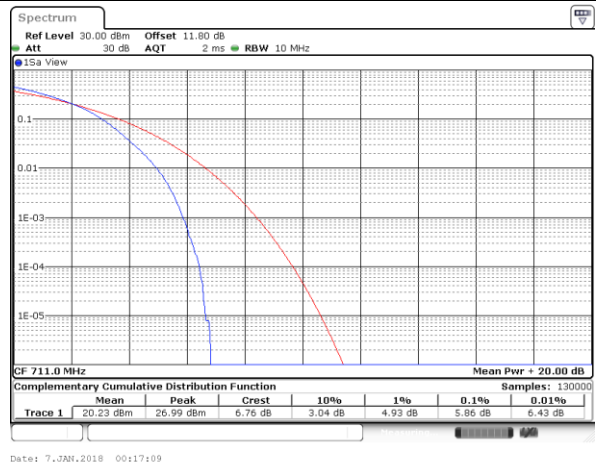


LTE Band 17

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	4.49	5.04	5.45	6.06	PASS
Middle CH	4.52	5.04	5.74	5.91	
Highest CH	4.61	4.93	5.74	5.86	

LTE Band 17 / 10MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel/ 1RB

Middle Channel / Full RB

Highest Channel/ 1RB

Highest Channel / Full RB


LTE Band 17 / 10MHz / 16QAM
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel/ 1RB

Middle Channel / Full RB

Highest Channel/ 1RB

Highest Channel / Full RB


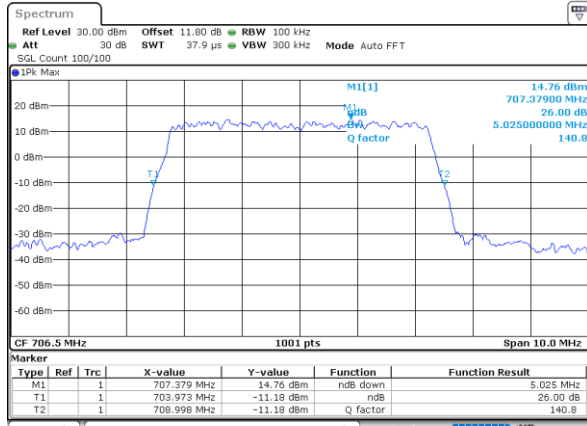
**26dB Bandwidth**

Mode	LTE Band 17 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.03	4.86	9.85	9.77	-	-	-	-
Middle CH	-	-	-	-	4.92	4.91	9.75	9.77	-	-	-	-
Highest CH	-	-	-	-	4.98	4.91	9.87	9.95	-	-	-	-



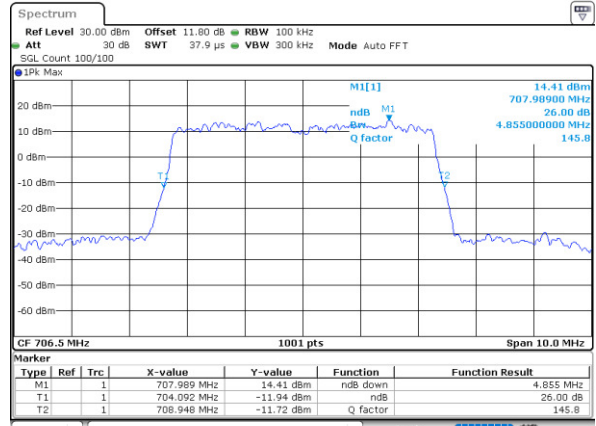
LTE Band 17

Lowest Channel / 5MHz / QPSK



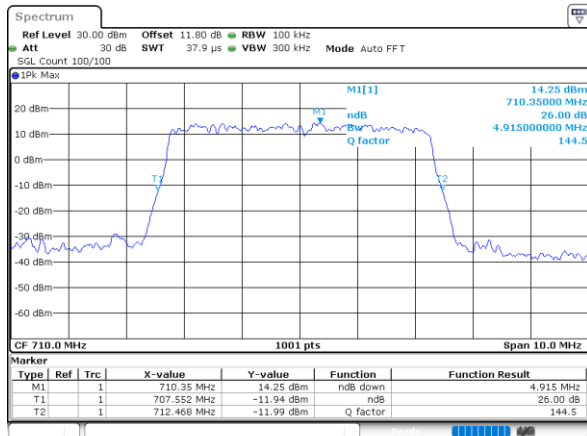
Date: 6,JAN,2018 23:43:29

Lowest Channel / 5MHz / 16QAM



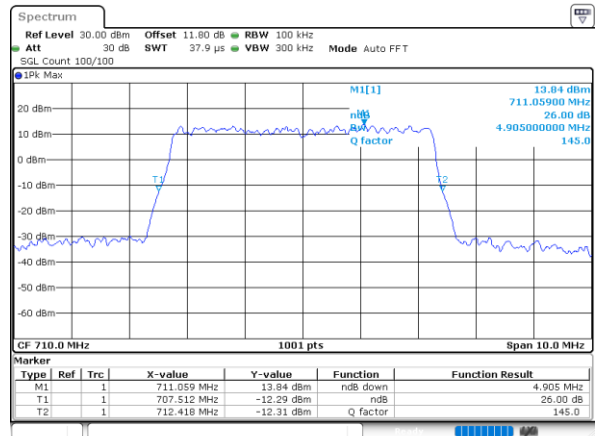
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Middle Channel / 5MHz / QPSK



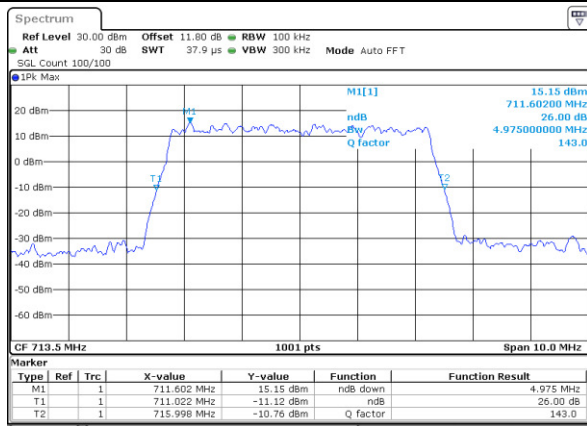
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Middle Channel / 5MHz / 16QAM



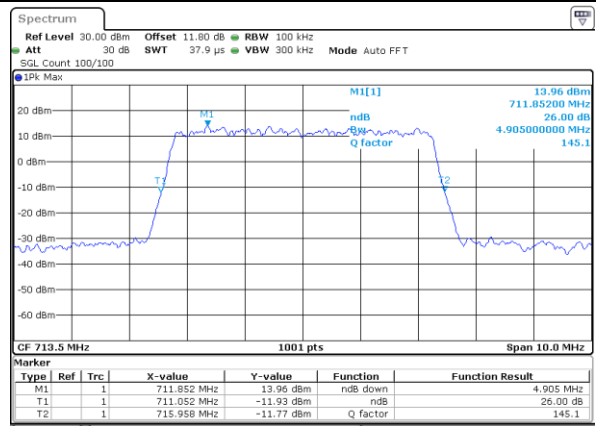
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Highest Channel / 5MHz / QPSK



Date: 6,JAN,2018 23:52:52

Highest Channel / 5MHz / 16QAM

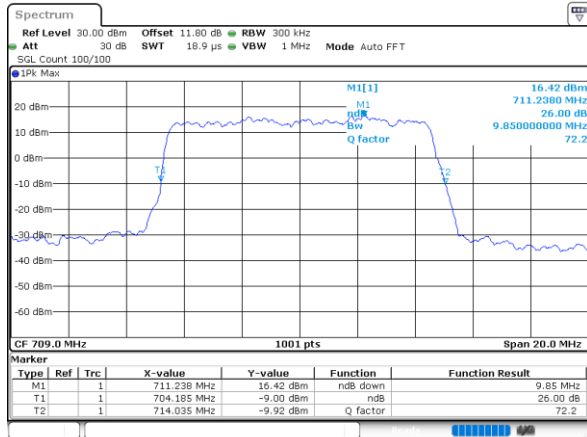


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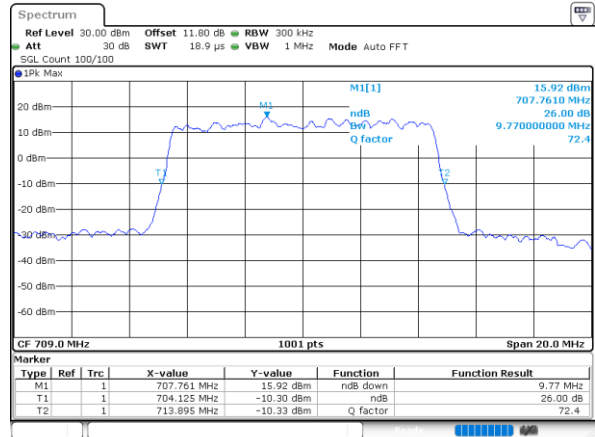


LTE Band 17

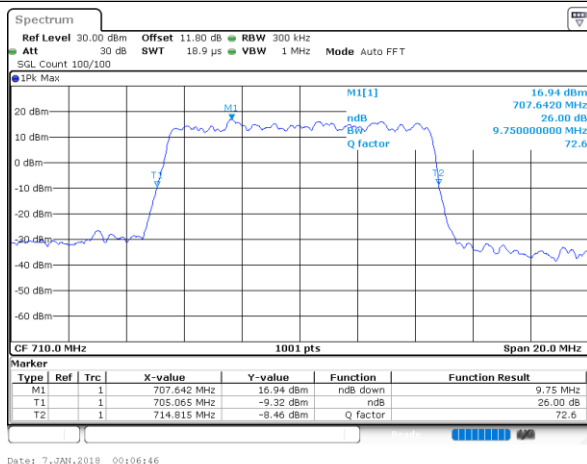
Lowest Channel / 10MHz / QPSK



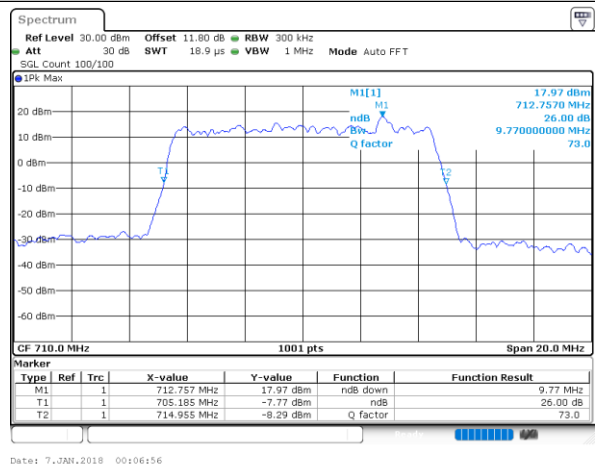
Lowest Channel / 10MHz / 16QAM



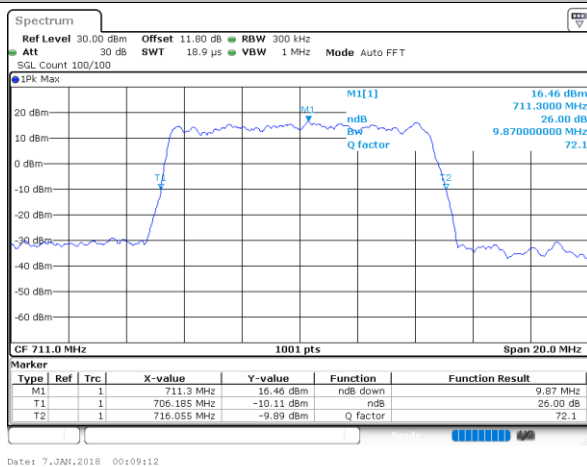
Middle Channel / 10MHz / QPSK



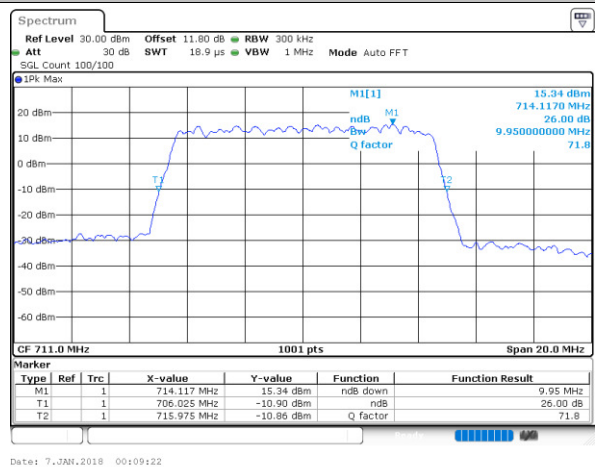
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



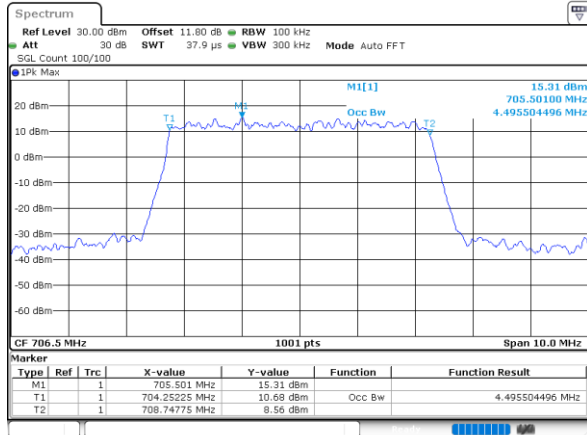
**Occupied Bandwidth**

Mode	LTE Band 17 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.5	4.48	9.01	9.03	-	-	-	-
Middle CH	-	-	-	-	4.51	4.49	8.99	8.97	-	-	-	-
Highest CH	-	-	-	-	4.47	4.49	9.05	8.97	-	-	-	-



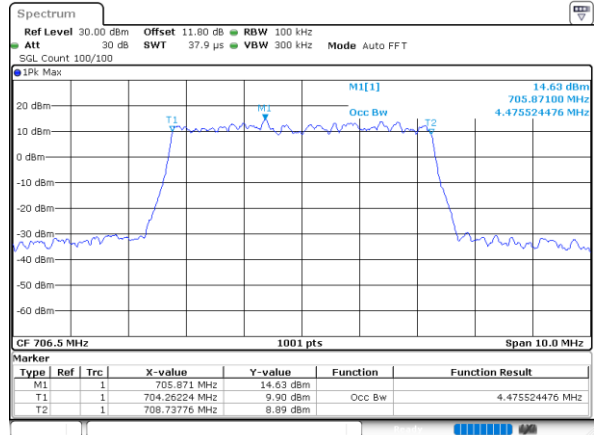
LTE Band 17

Lowest Channel / 5MHz / QPSK



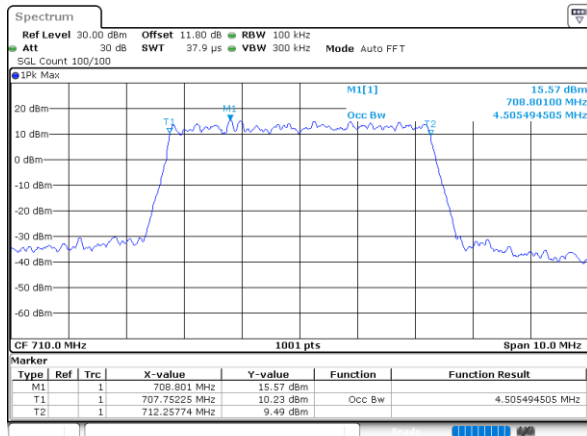
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Lowest Channel / 5MHz / 16QAM



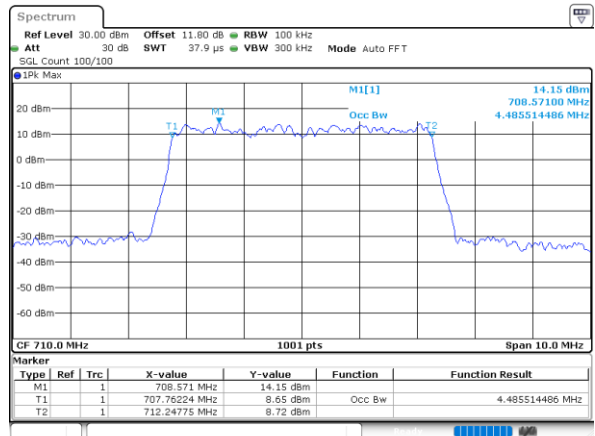
Date: 6,JAN,2018 23:43:19

Middle Channel / 5MHz / QPSK



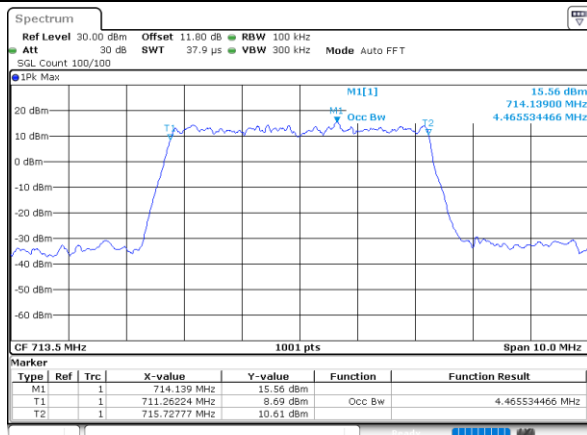
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Middle Channel / 5MHz / 16QAM



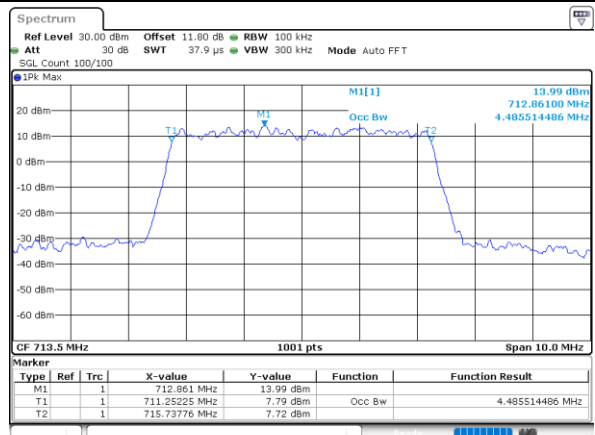
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Highest Channel / 5MHz / QPSK



Date: 6,JAN,2018 23:52:32

Highest Channel / 5MHz / 16QAM

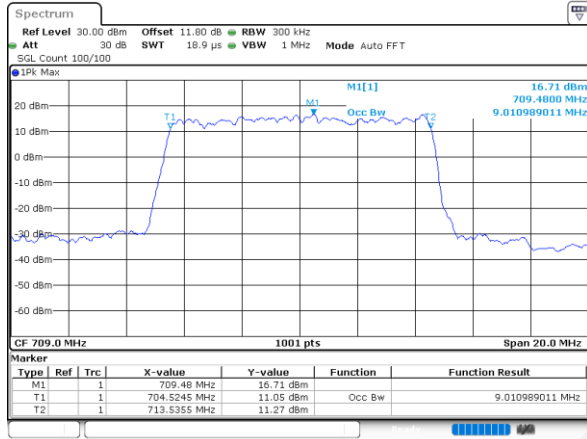


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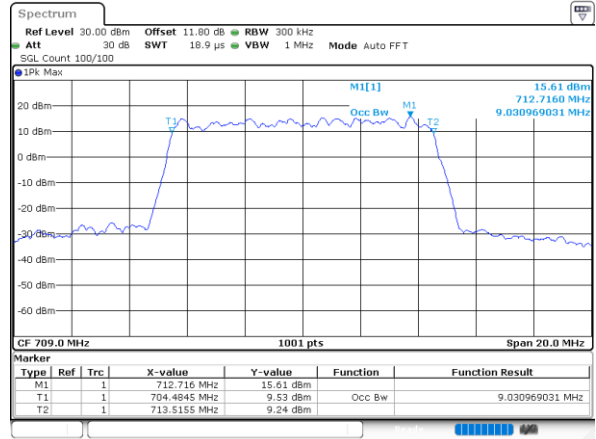


LTE Band 17

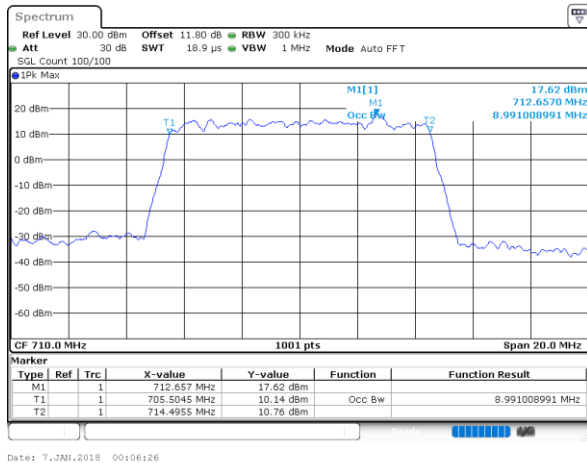
Lowest Channel / 10MHz / QPSK



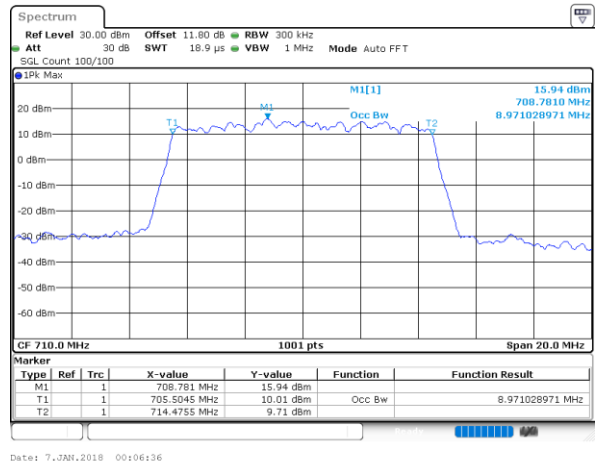
Lowest Channel / 10MHz / 16QAM



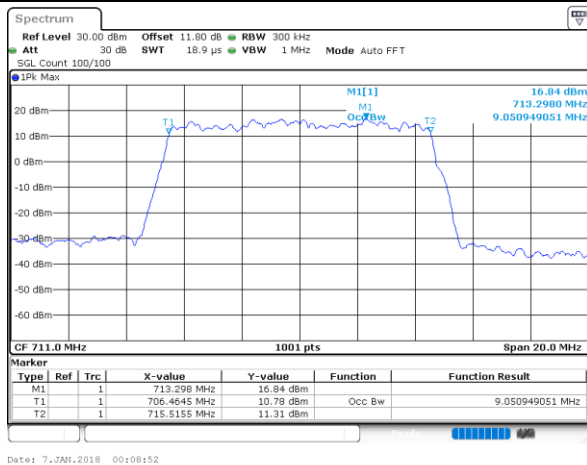
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM

