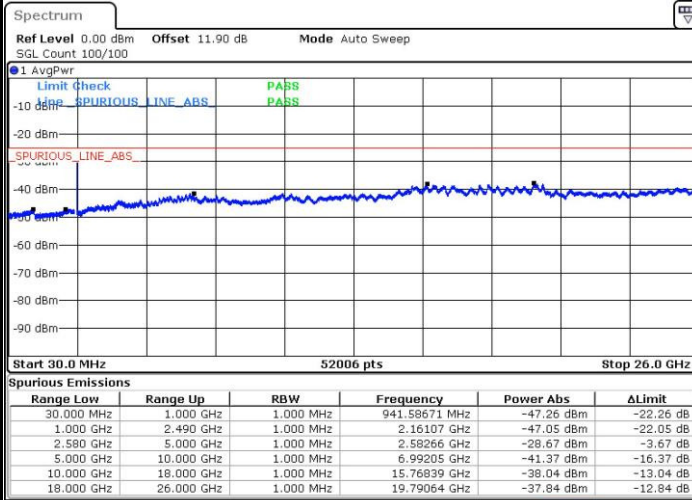




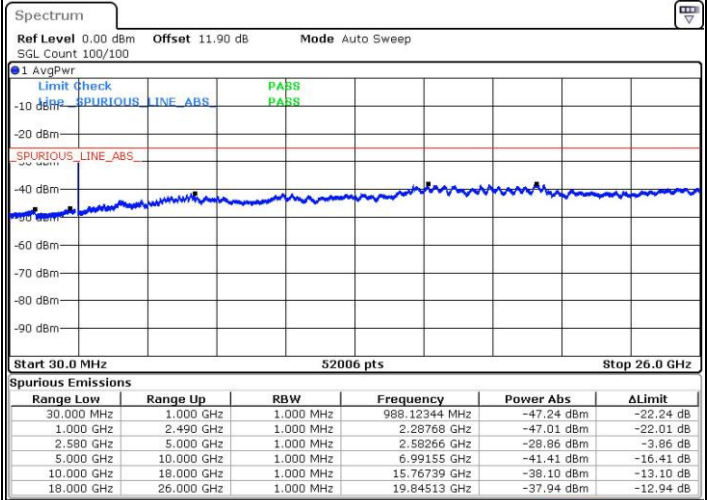
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 31.JAN.2017 15:32:42

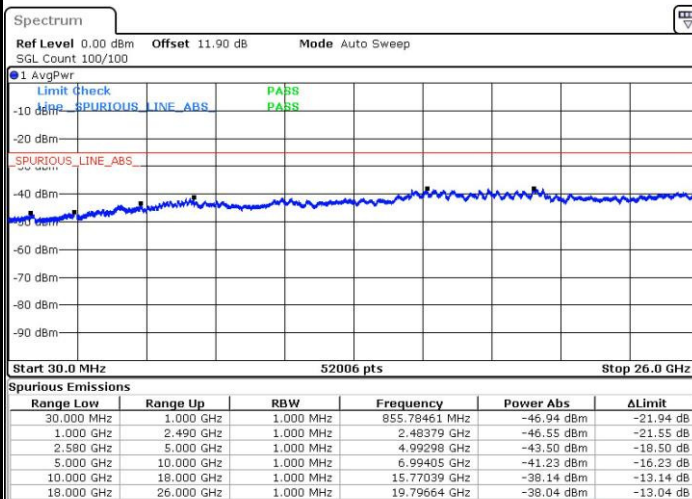
Highest Channel / 16QAM



Date: 31.JAN.2017 15:33:36

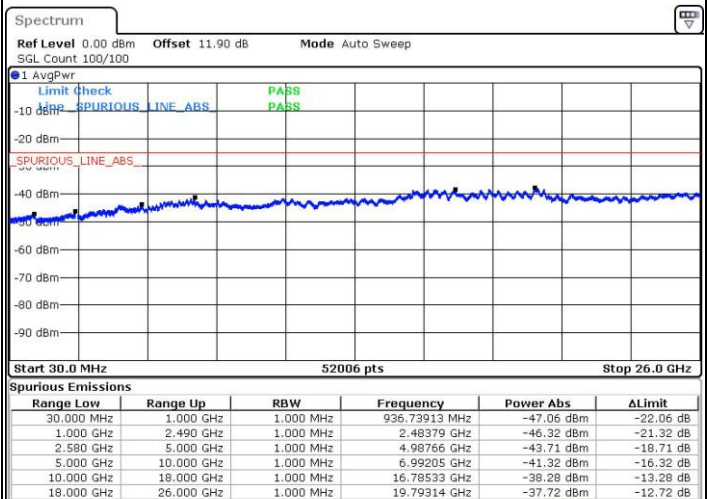
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 31.JAN.2017 15:39:49

Lowest Channel / 16QAM

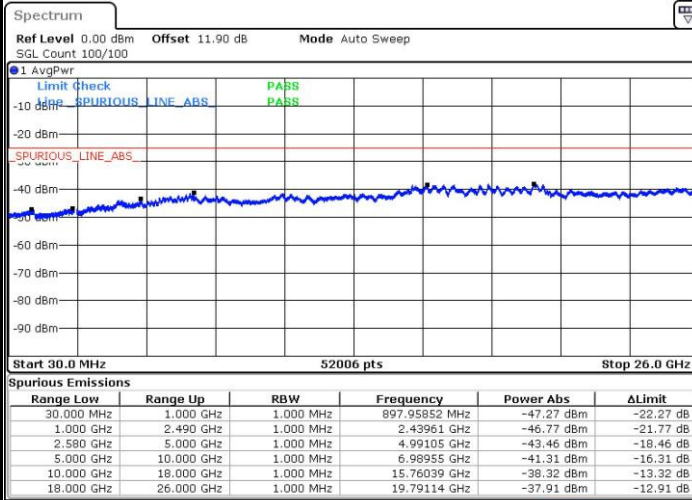


Date: 31.JAN.2017 15:40:43



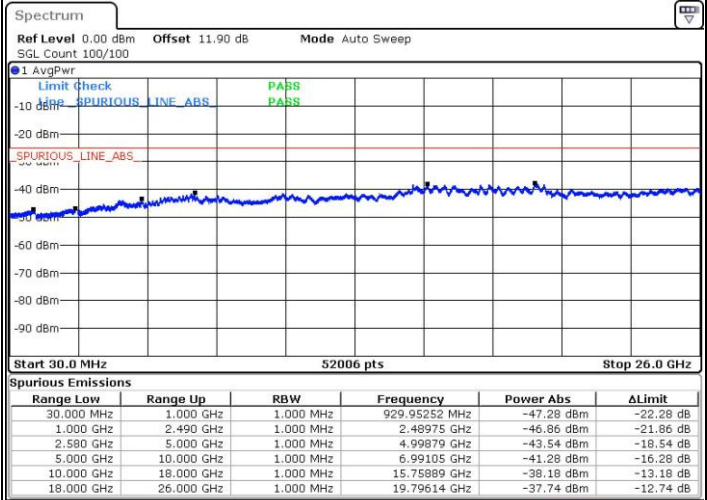
LTE Band 7 / 20MHz

Middle Channel / QPSK



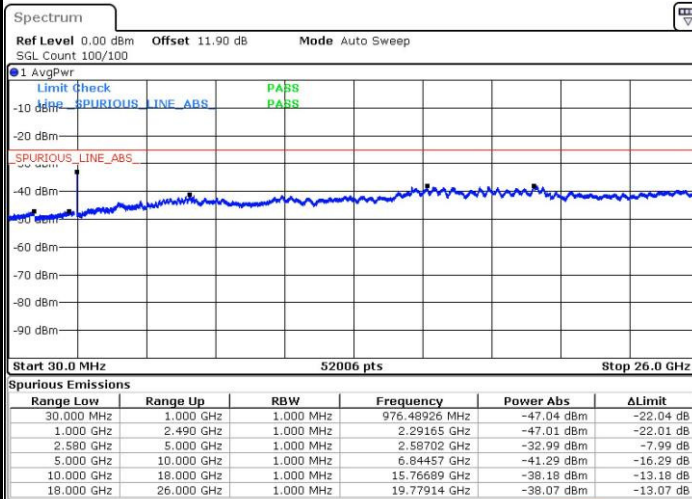
Date: 31.JAN.2017 15:42:18

Middle Channel / 16QAM



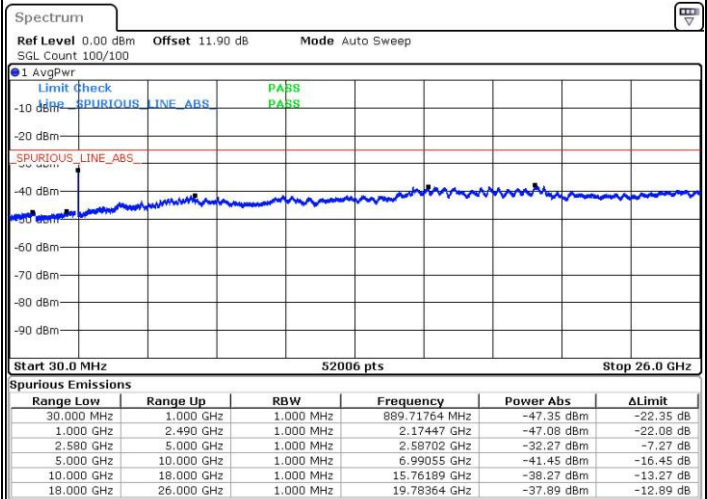
Date: 31.JAN.2017 15:43:12

Highest Channel / QPSK



Date: 31.JAN.2017 15:49:26

Highest Channel / 16QAM



Date: 31.JAN.2017 15:50:20

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	0.0107	PASS
40	Normal Voltage	0.0105	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0107	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0101	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

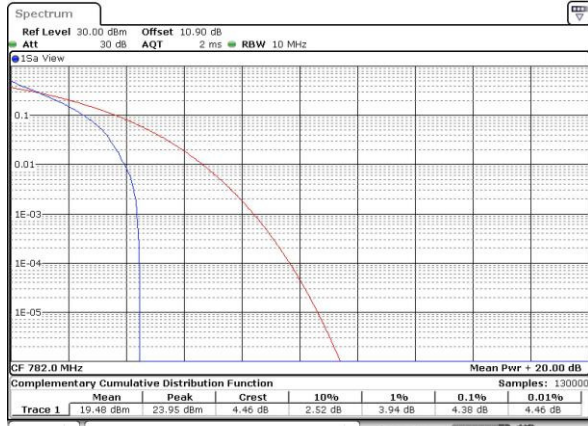
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.38	5.45	5.36	6.14	
Highest CH	-	-	-	-	



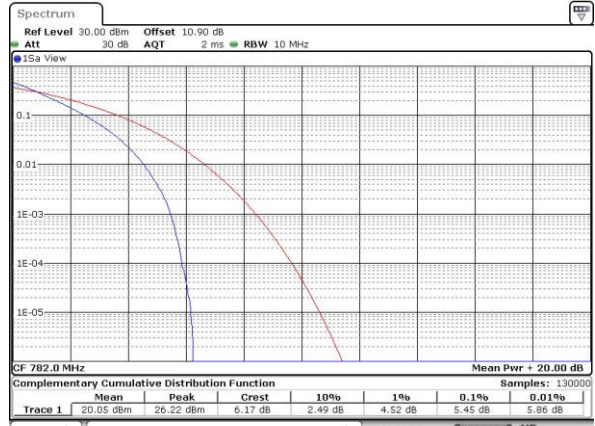
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 1.FEB.2017 02:09:55

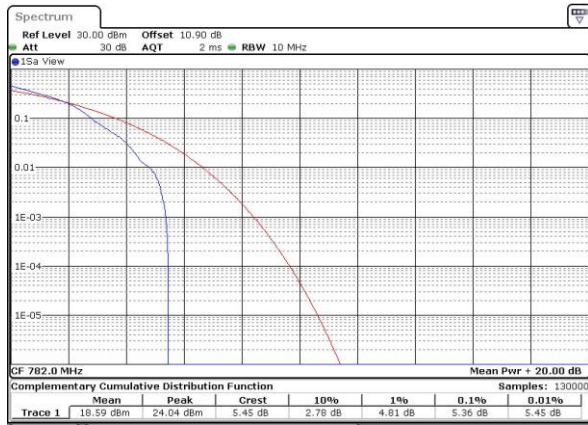
Middle Channel / Full RB



Date: 1.FEB.2017 02:10:05

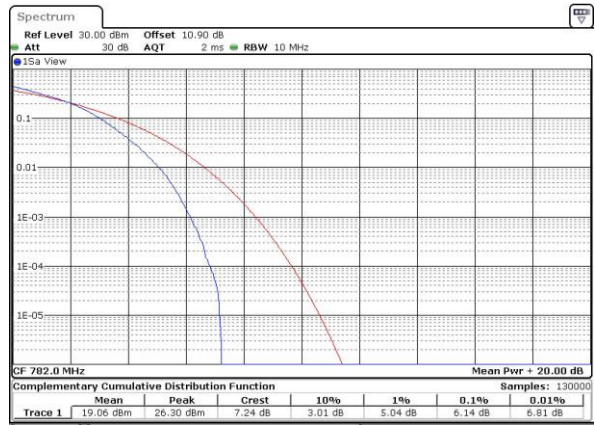
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 1.FEB.2017 02:09:35

Middle Channel / Full RB



Date: 1.FEB.2017 02:09:45

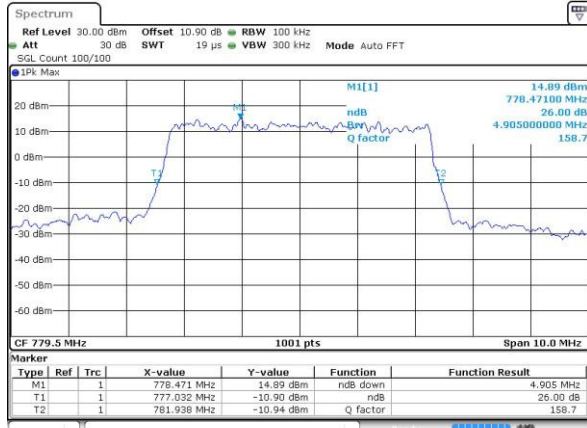
**26dB Bandwidth**

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	-	-	-	-	4.91	4.90	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	4.89	10.07	9.81	-	-	-	-
Highest CH	-	-	-	-	4.98	4.99	-	-	-	-	-	-



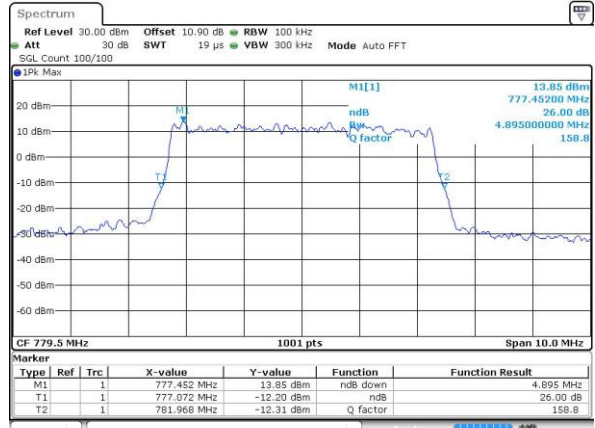
LTE Band 13

Lowest Channel / 5MHz / QPSK



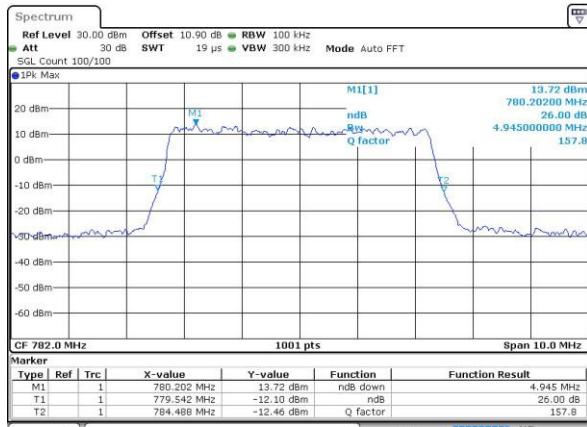
Date: 1.FEB.2017 01:25:29

Lowest Channel / 5MHz / 16QAM



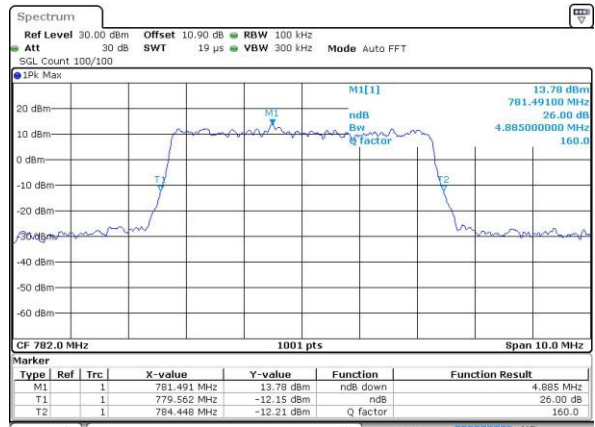
Date: 1.FEB.2017 01:25:19

Middle Channel / 5MHz / QPSK



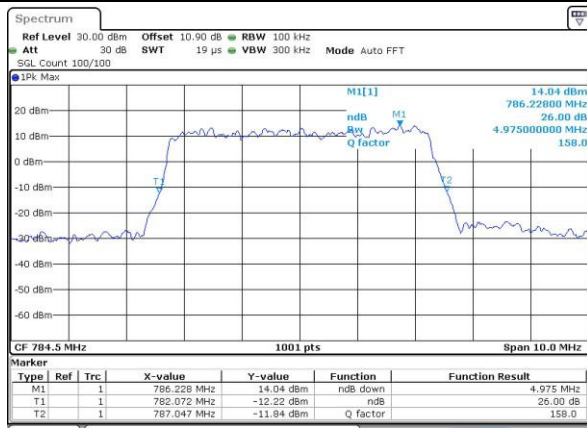
Date: 1.FEB.2017 01:36:49

Middle Channel / 5MHz / 16QAM



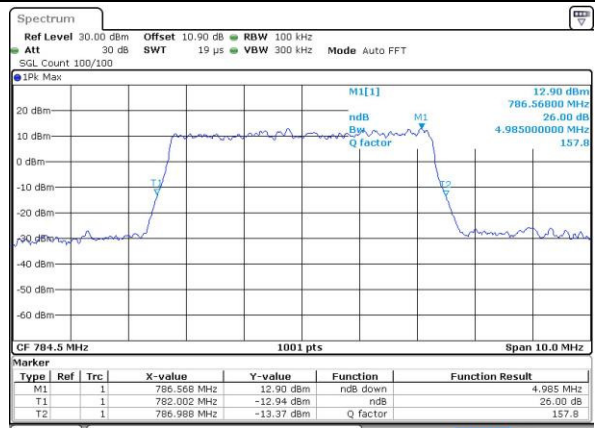
Date: 1.FEB.2017 01:37:00

Highest Channel / 5MHz / QPSK



Date: 1.FEB.2017 01:38:04

Highest Channel / 5MHz / 16QAM

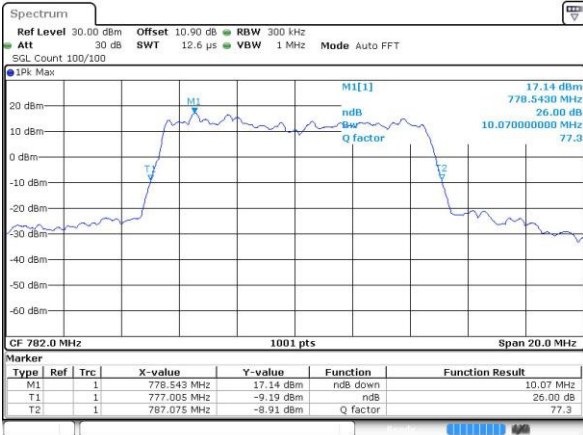


Date: 1.FEB.2017 01:37:54



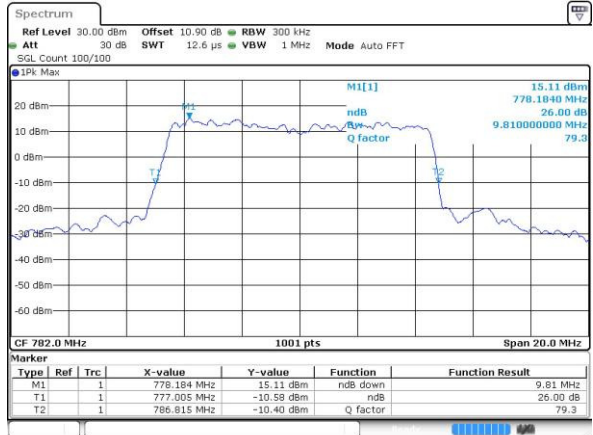
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 1.FEB.2017 01:47:49

Middle Channel / 10MHz / 16QAM



Date: 1.FEB.2017 01:47:39

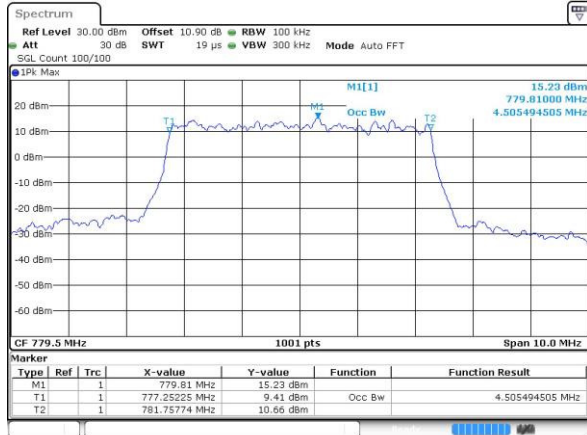
**Occupied Bandwidth**

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	-	-	-	-	4.51	4.5	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	4.5	9.07	9.05	-	-	-	-
Highest CH	-	-	-	-	4.49	4.5	-	-	-	-	-	-

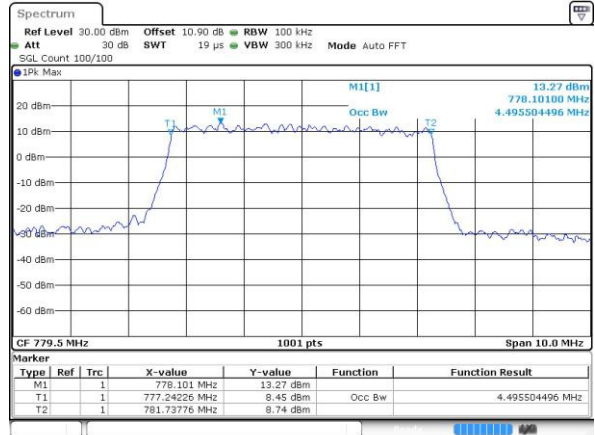


LTE Band 13

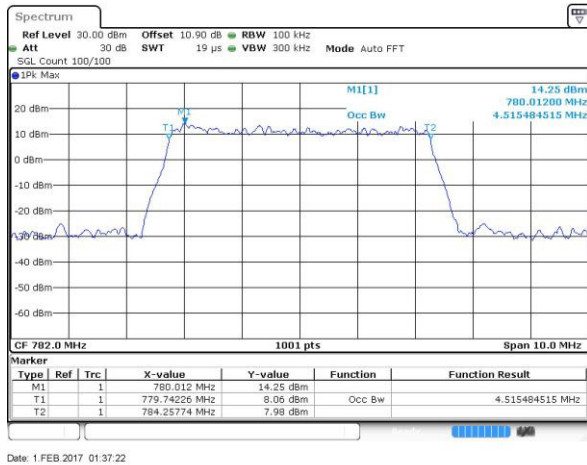
Lowest Channel / 5MHz / QPSK



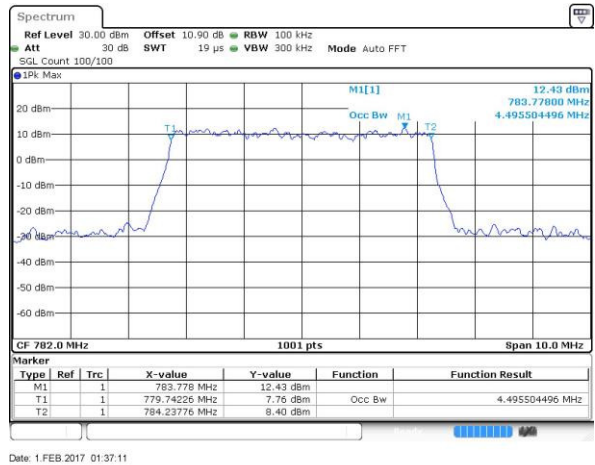
Lowest Channel / 5MHz / 16QAM



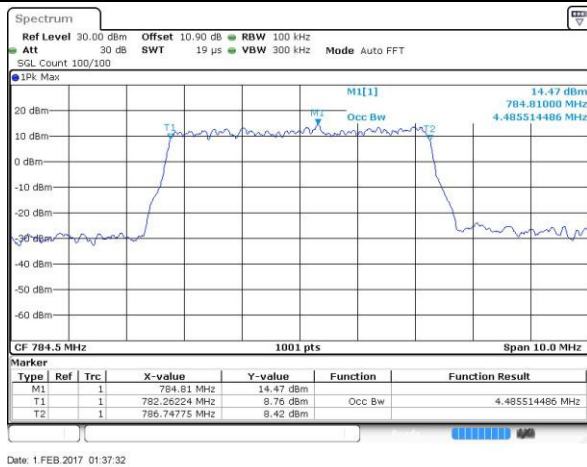
Middle Channel / 5MHz / QPSK



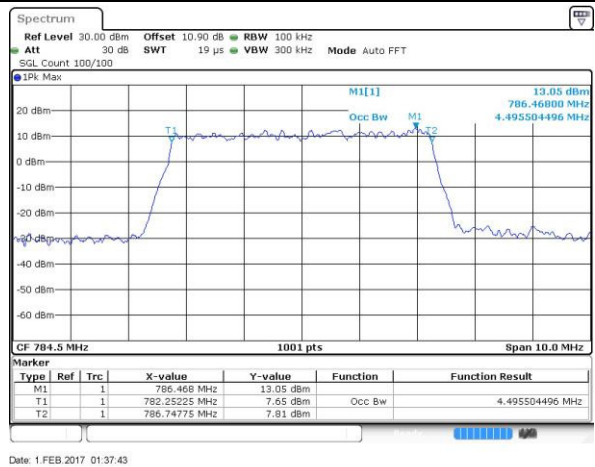
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



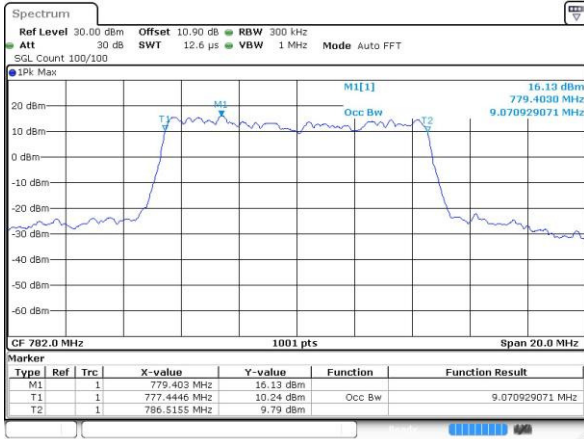
Highest Channel / 5MHz / 16QAM





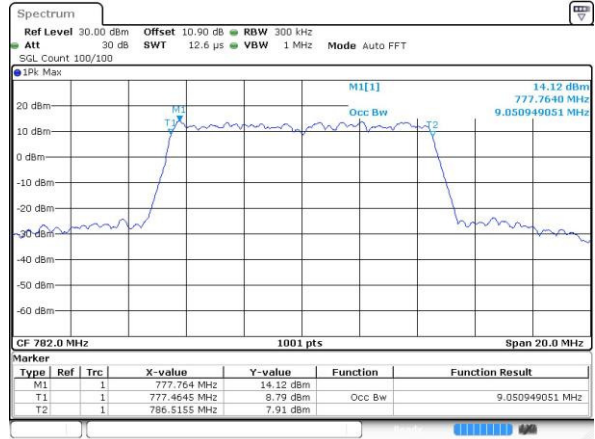
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 1.FEB.2017 01:47:18

Middle Channel / 10MHz / 16QAM



Date: 1.FEB.2017 01:47:28

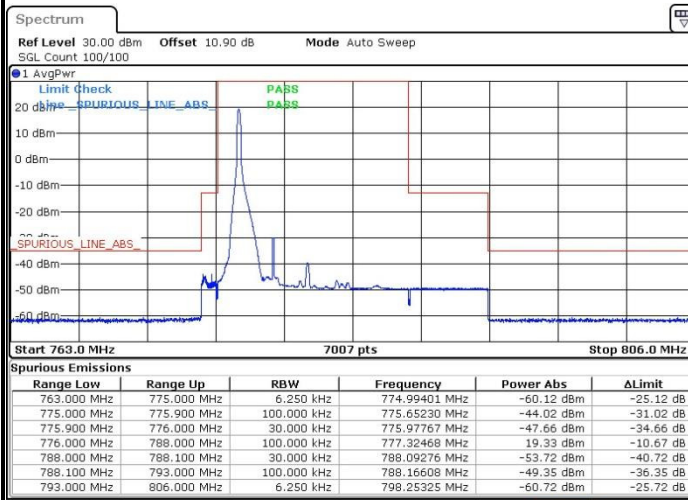


Conducted Band Edge



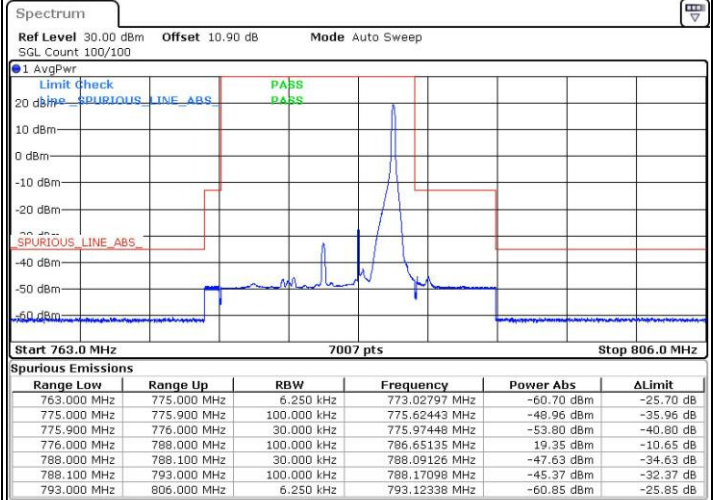
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



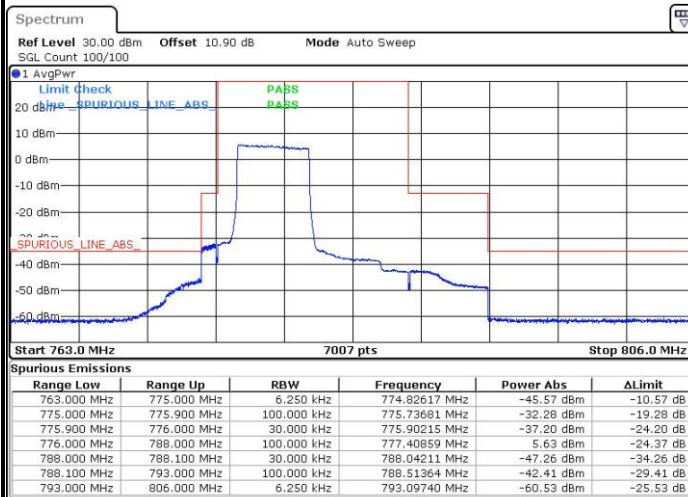
Date: 1.FEB.2017 01:32:27

Highest Band Edge / 1 RB



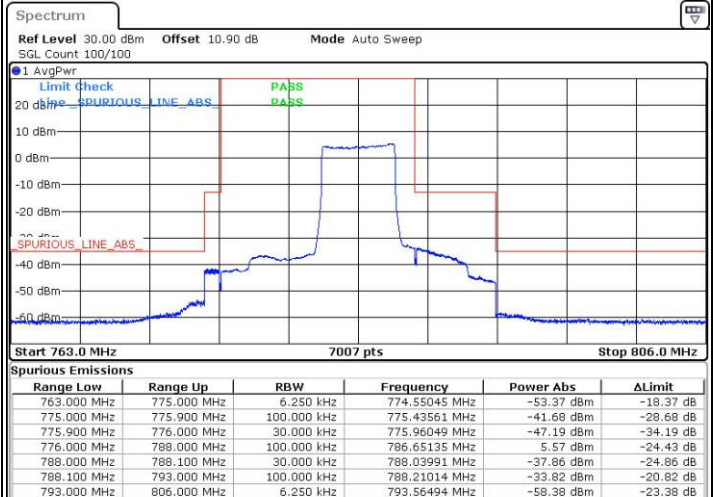
Date: 1.FEB.2017 01:45:02

Lowest Band Edge / Full RB



Date: 1.FEB.2017 01:27:14

Highest Band Edge / Full RB

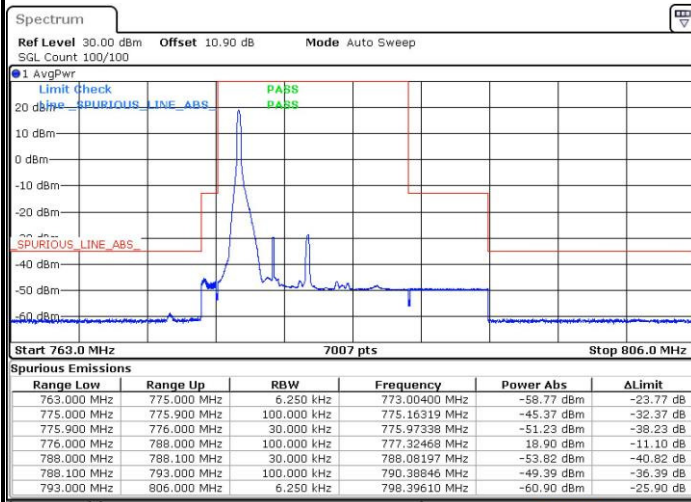


Date: 1.FEB.2017 01:39:49

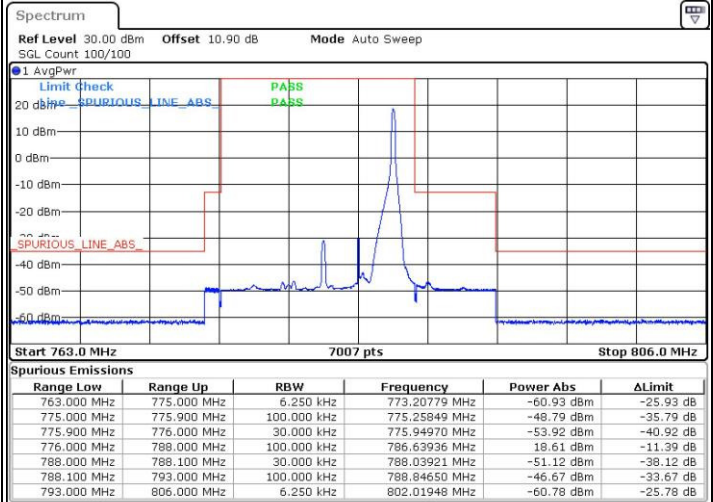


LTE Band 13 / 5MHz / 16QAM

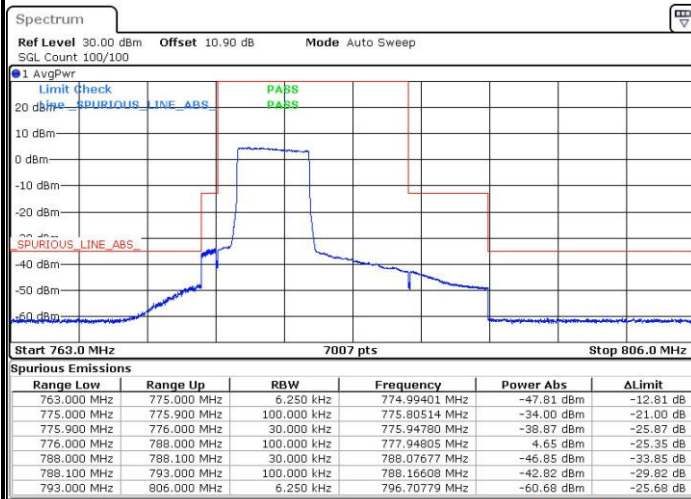
Lowest Band Edge / 1 RB



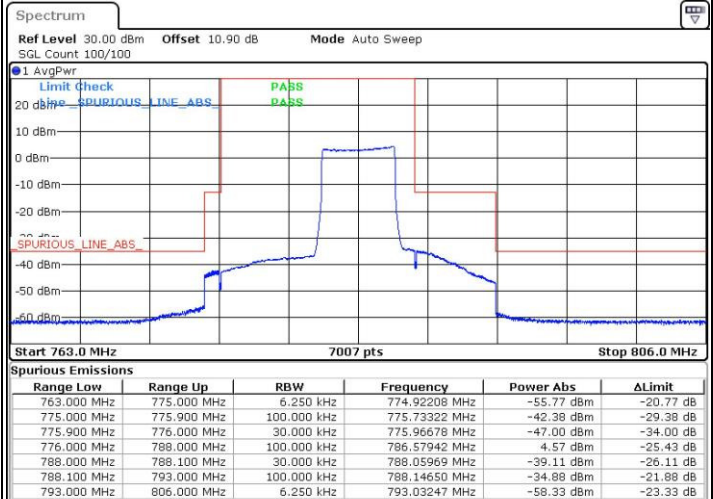
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



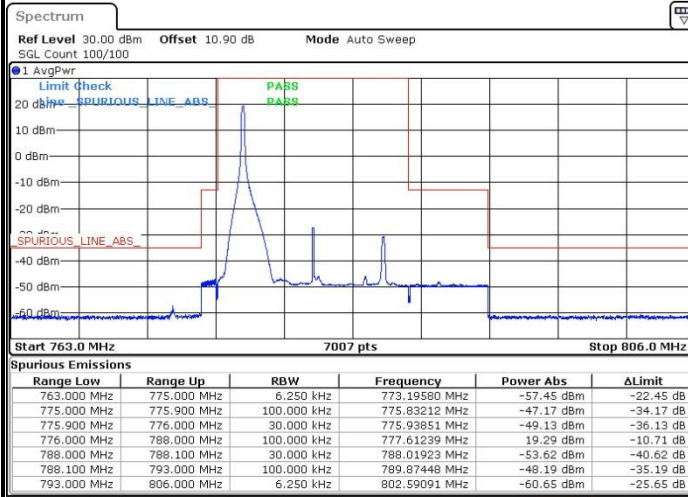
Highest Band Edge / Full RB





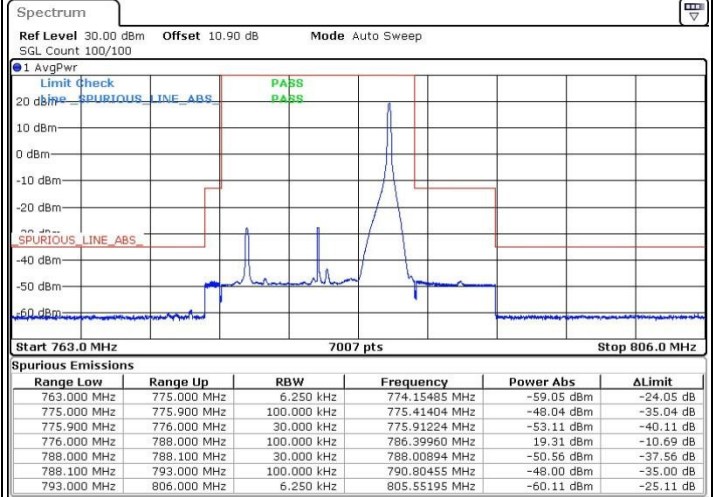
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



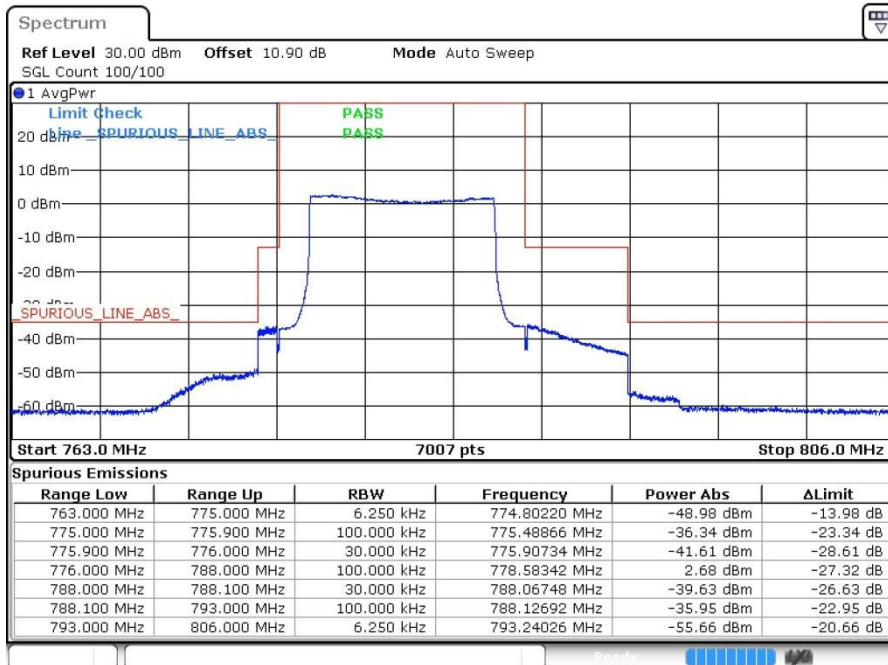
Date: 1.FEB.2017 01:54:46

Highest Band Edge / 1 RB



Date: 1.FEB.2017 01:56:29

Band Edge / Full RB

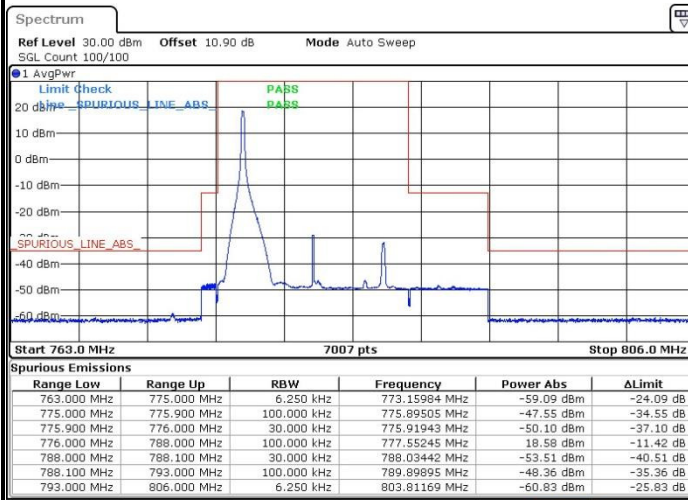


Date: 1.FEB.2017 01:49:33



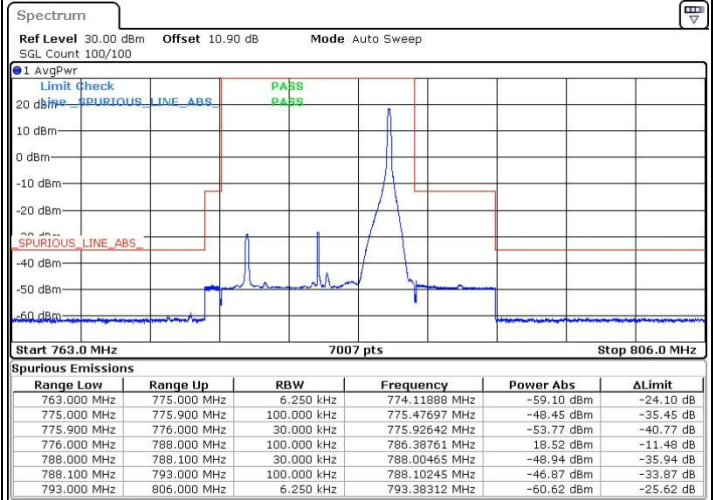
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



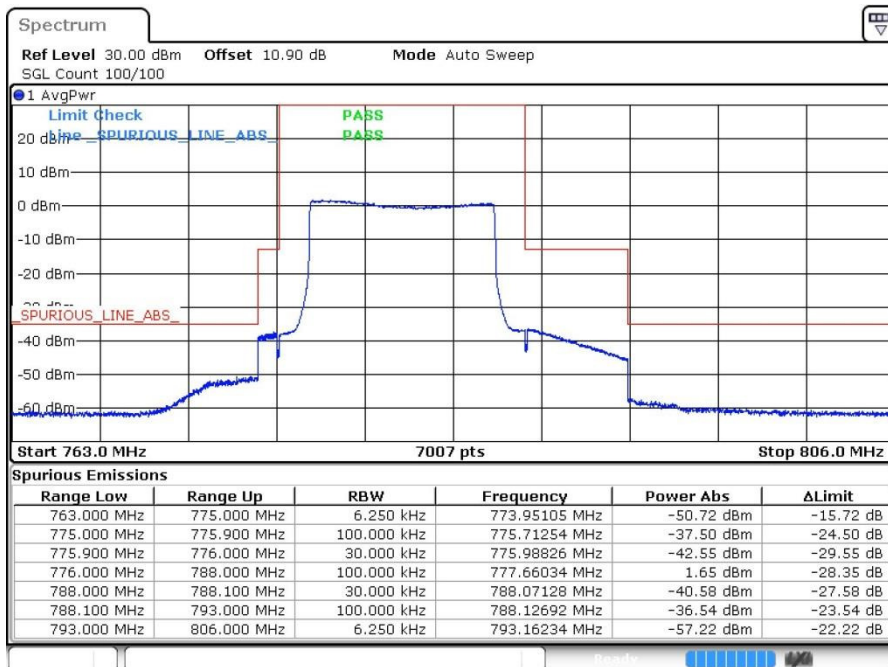
Date: 1.FEB.2017 01:53:02

Highest Band Edge / 1 RB



Date: 1.FEB.2017 01:58:12

Band Edge / Full RB



Date: 1.FEB.2017 01:51:17

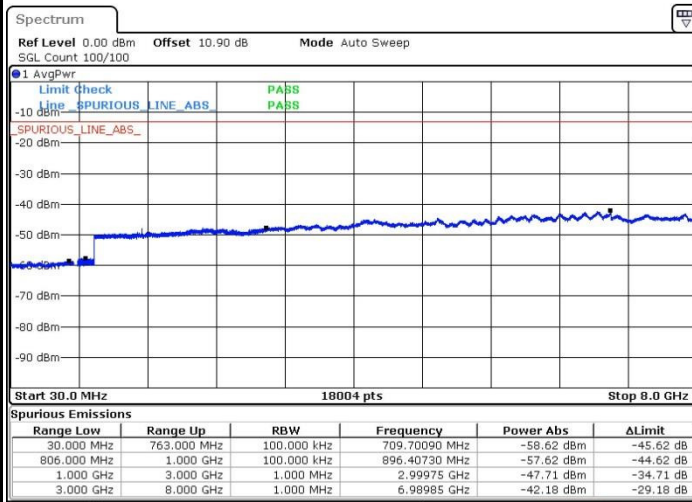


Conducted Spurious Emission



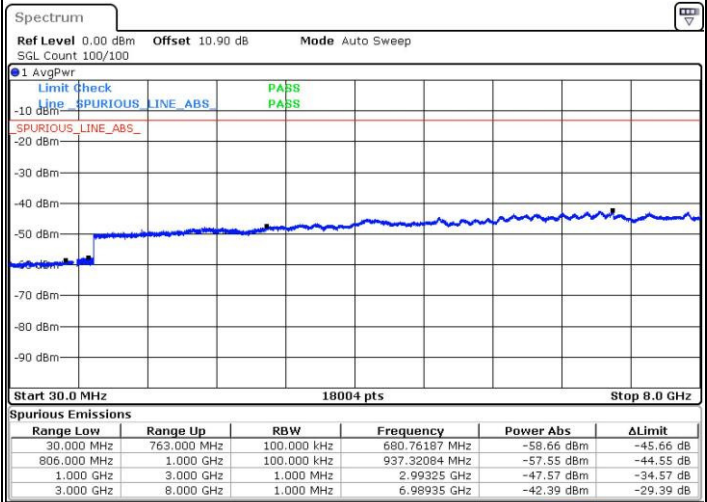
LTE Band 13 / 5MHz

Lowest Channel / QPSK



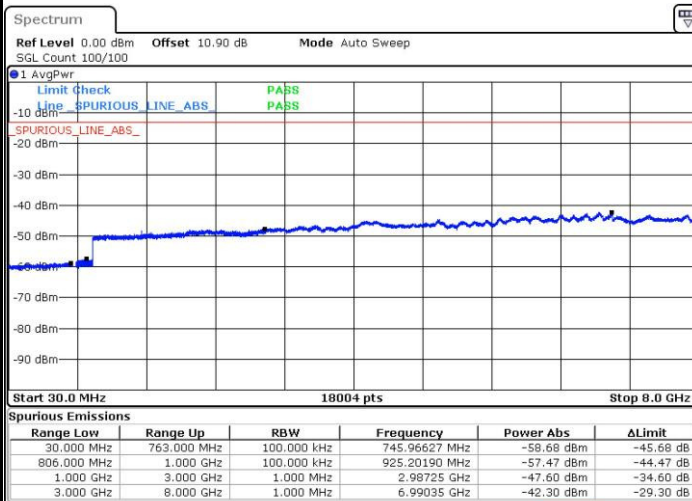
Date: 1.FEB.2017 01:33:31

Lowest Channel / 16QAM



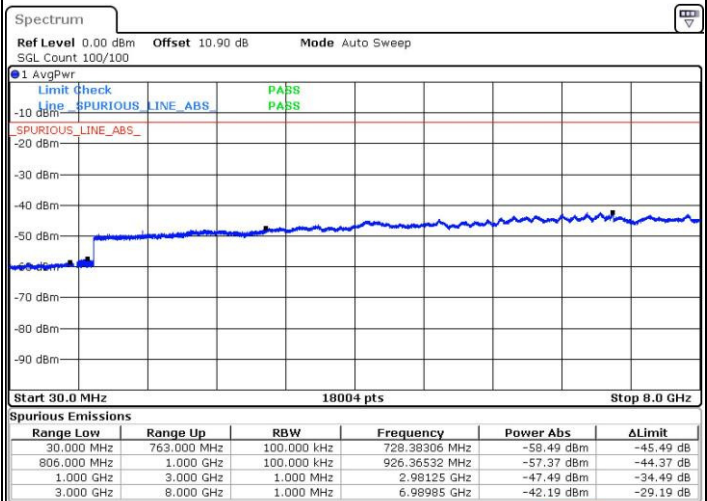
Date: 1.FEB.2017 01:34:35

Middle Channel / QPSK



Date: 1.FEB.2017 01:36:39

Middle Channel / 16QAM

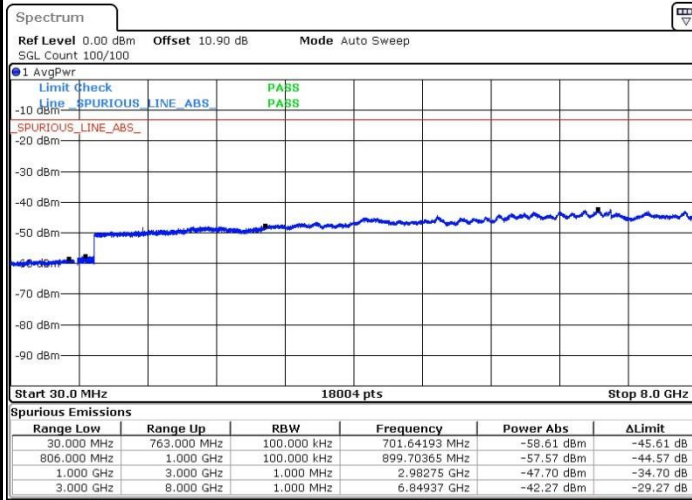


Date: 1.FEB.2017 01:35:37



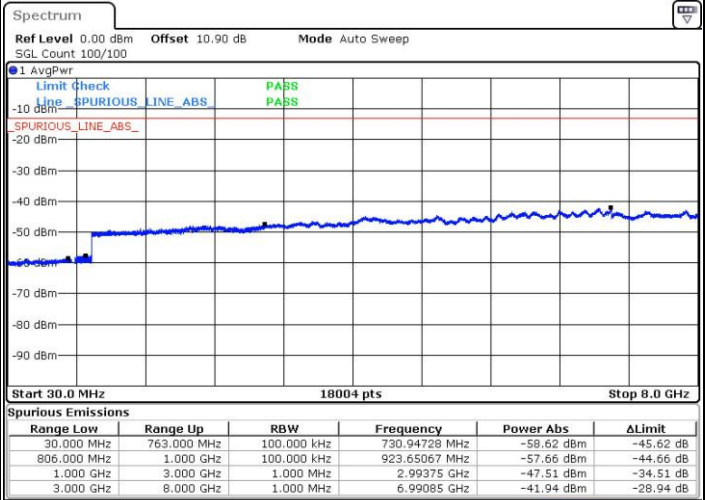
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 1.FEB.2017 01:46:06

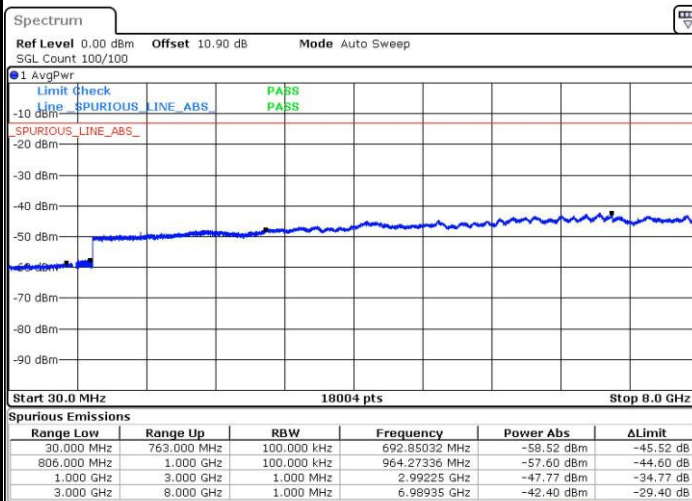
Highest Channel / 16QAM



Date: 1.FEB.2017 01:47:08

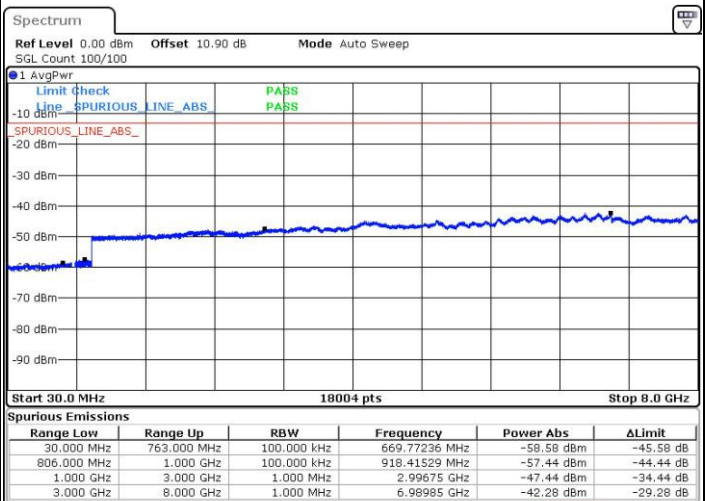
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 1.FEB.2017 02:00:17

Middle Channel / 16QAM



Date: 1.FEB.2017 01:59:15

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	0.0010	PASS
40	Normal Voltage	0.0100	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0110	
0	Normal Voltage	0.0128	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0111	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0106	

Note:

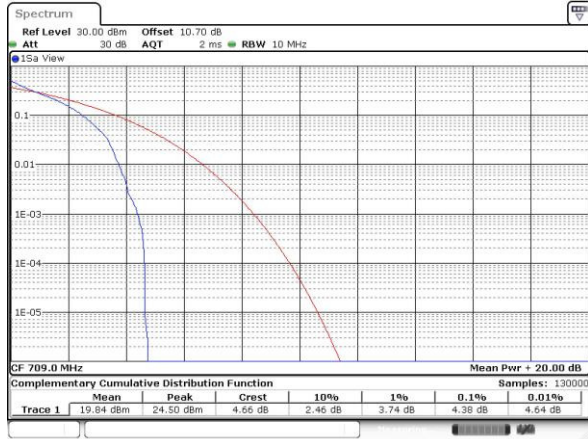
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



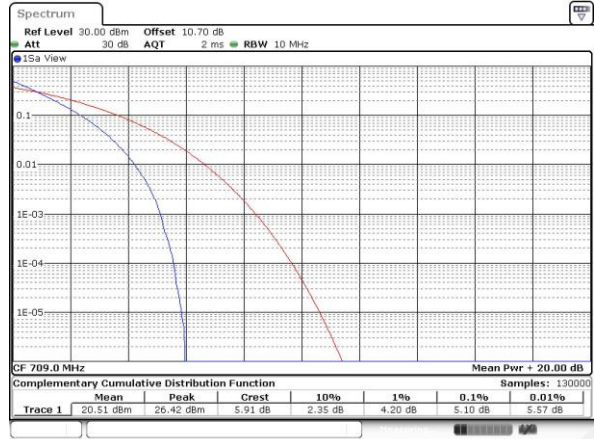
LTE Band 17

Peak-to-Average Ratio

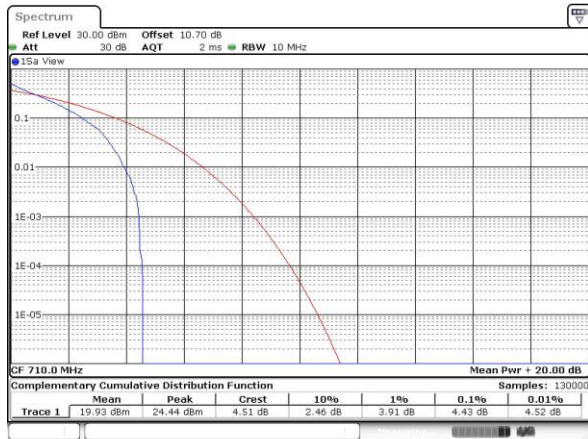
Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.38	5.1	5.51	6.09	PASS
Middle CH	4.43	5.19	5.54	5.86	
Highest CH	4.32	5.1	5.65	5.86	

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


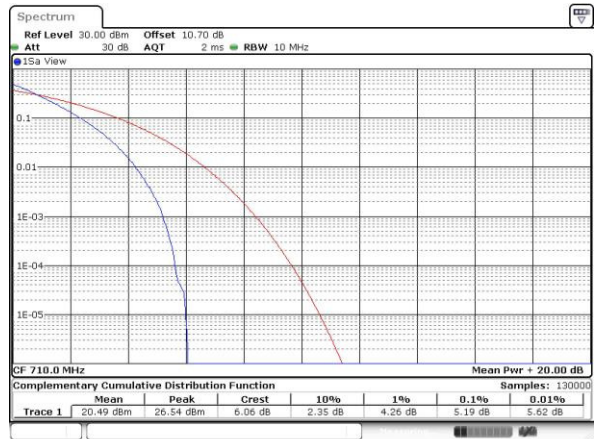
Date: 1.FEB.2017 02:54:11

Lowest Channel / Full RB


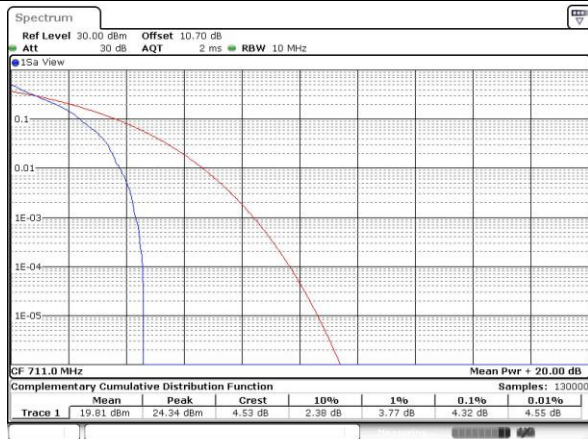
Date: 1.FEB.2017 02:54:36

Middle Channel/ 1RB


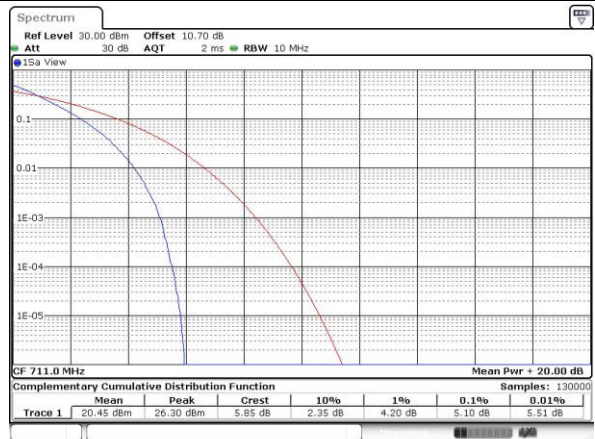
Date: 1.FEB.2017 02:54:56

Middle Channel / Full RB


Date: 1.FEB.2017 02:55:05

Highest Channel/ 1RB


Date: 1.FEB.2017 02:55:15

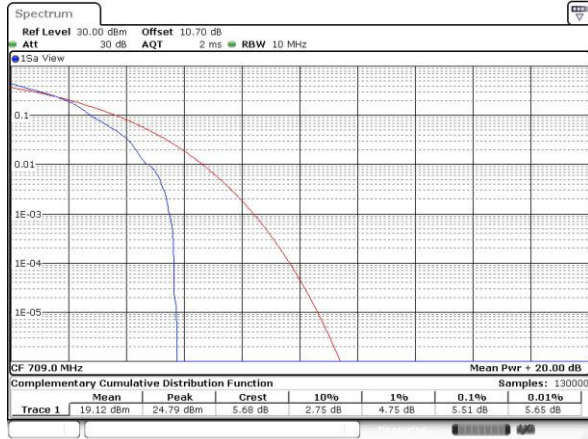
Highest Channel / Full RB


Date: 1.FEB.2017 02:55:25

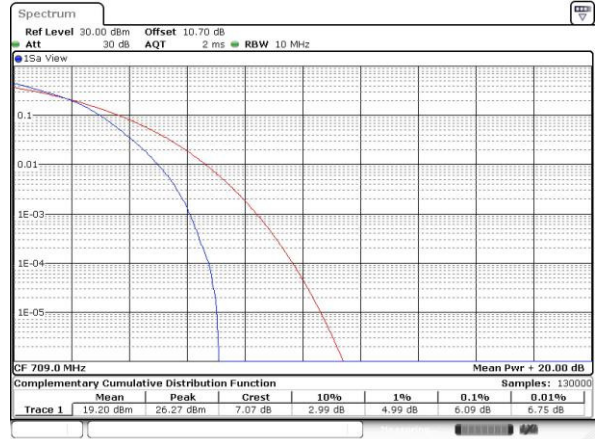


LTE Band 17 / 10MHz / 16QAM

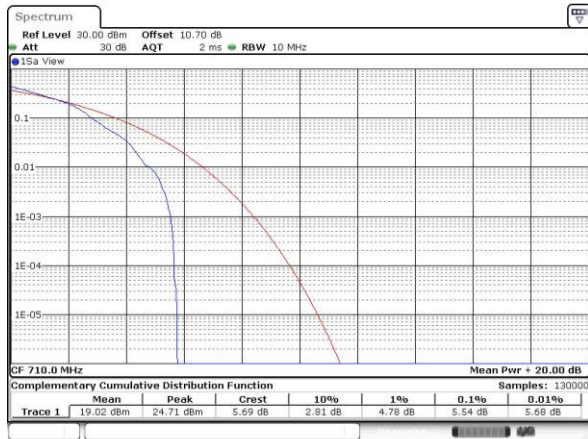
Lowest Channel / 1RB



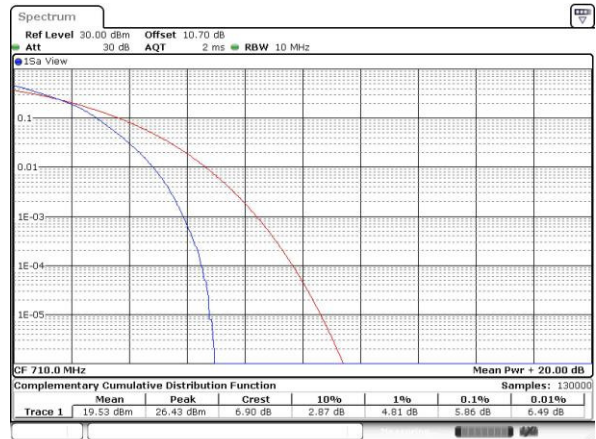
Lowest Channel / Full RB



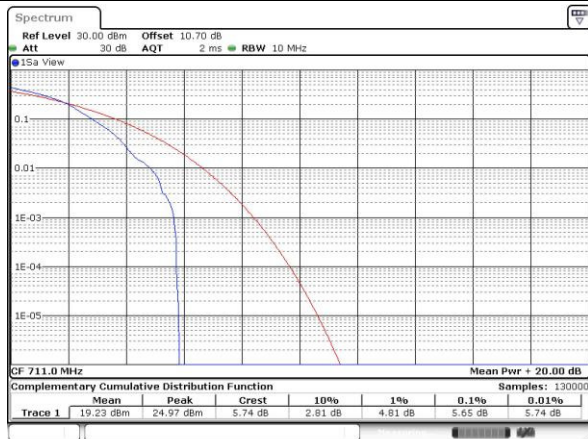
Middle Channel/ 1RB



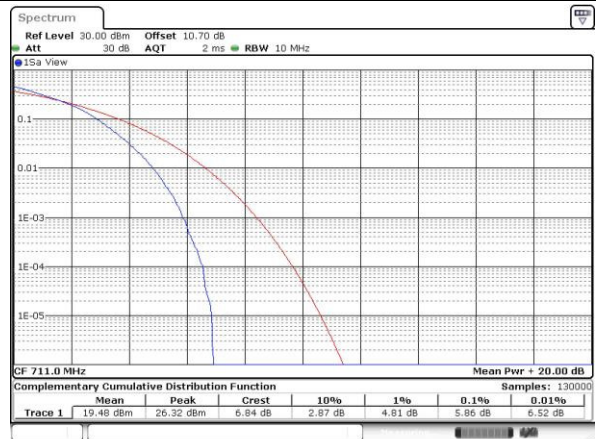
Middle Channel / Full RB



Highest Channel/ 1RB



Highest Channel / Full RB



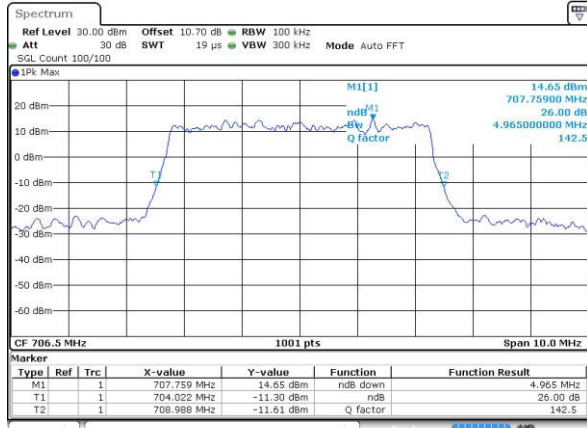
**26dB Bandwidth**

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	-	-	-	-	4.97	5.03	9.87	9.69	-	-	-	-
Middle CH	-	-	-	-	5.04	4.97	9.83	9.61	-	-	-	-
Highest CH	-	-	-	-	4.86	4.87	9.83	9.91	-	-	-	-



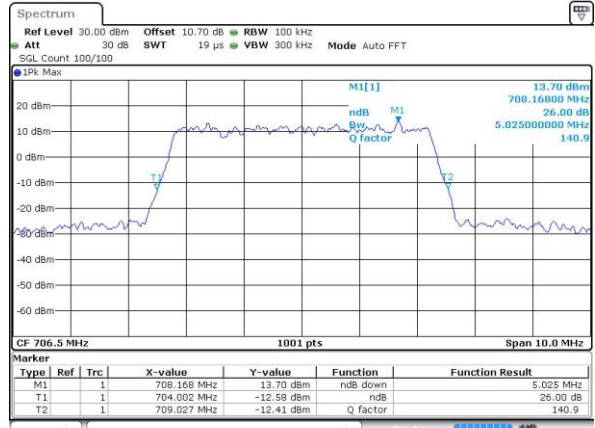
LTE Band 17

Lowest Channel / 5MHz / QPSK



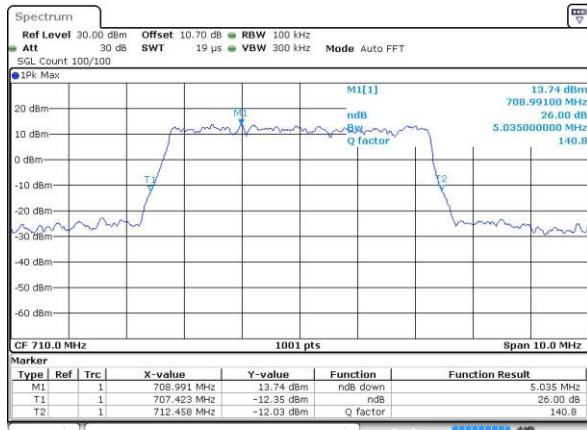
Date: 1.FEB.2017 02:11:42

Lowest Channel / 5MHz / 16QAM



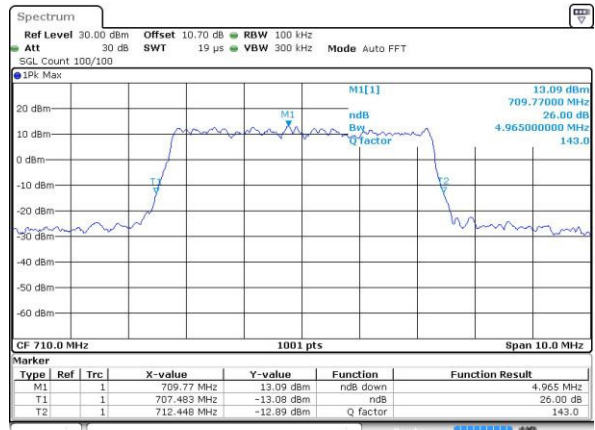
Date: 1.FEB.2017 02:11:53

Middle Channel / 5MHz / QPSK



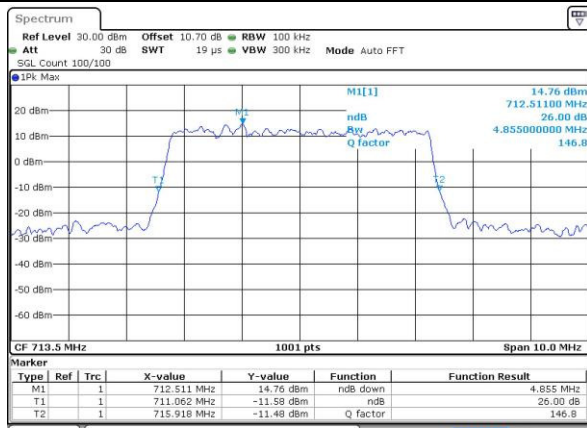
Date: 1.FEB.2017 02:19:27

Middle Channel / 5MHz / 16QAM



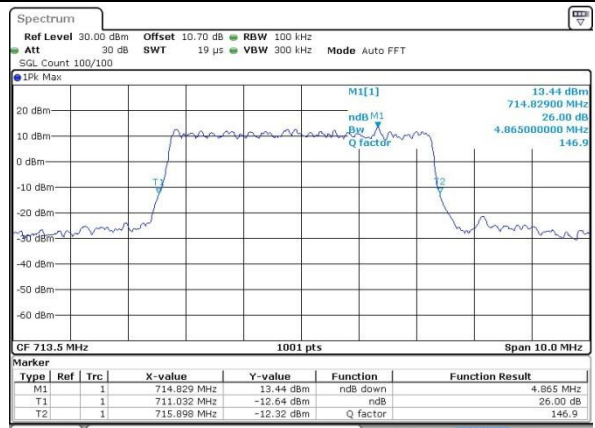
Date: 1.FEB.2017 02:19:38

Highest Channel / 5MHz / QPSK



Date: 1.FEB.2017 02:22:17

Highest Channel / 5MHz / 16QAM

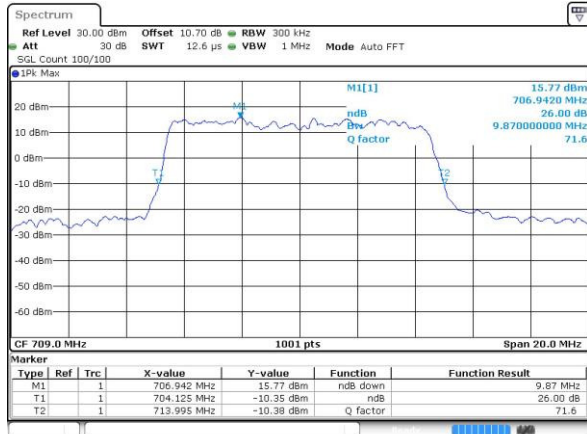


Date: 1.FEB.2017 02:22:28

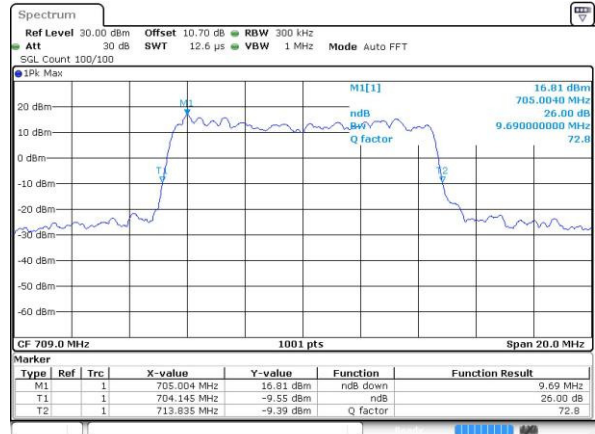


LTE Band 17

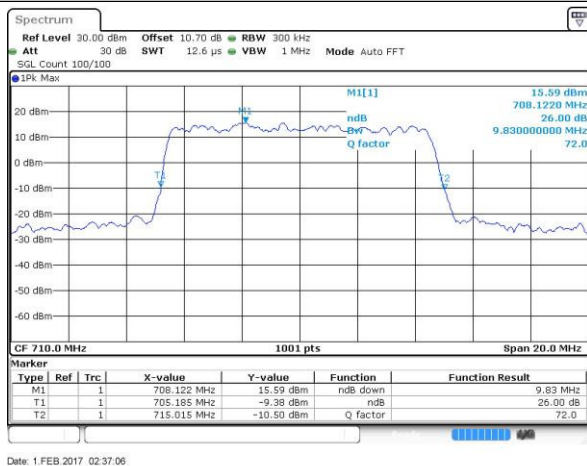
Lowest Channel / 10MHz / QPSK



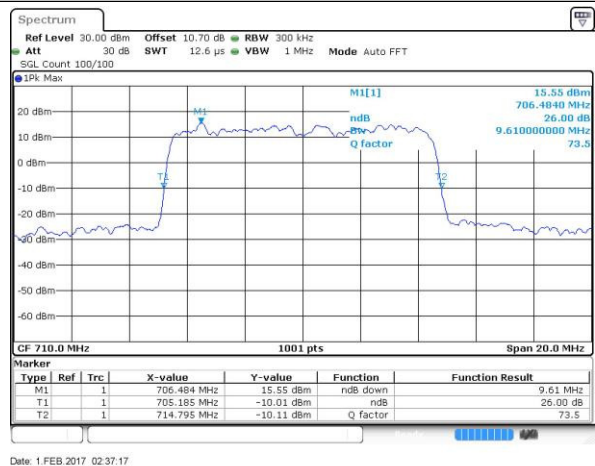
Lowest Channel / 10MHz / 16QAM



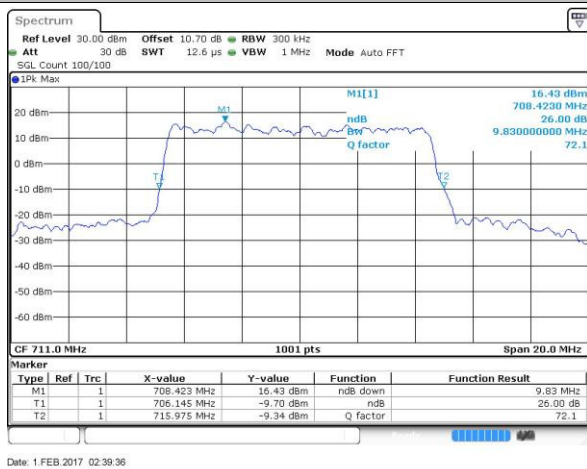
Middle Channel / 10MHz / QPSK



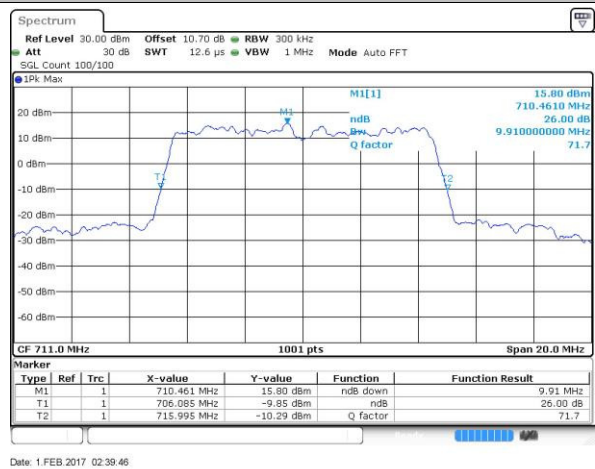
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



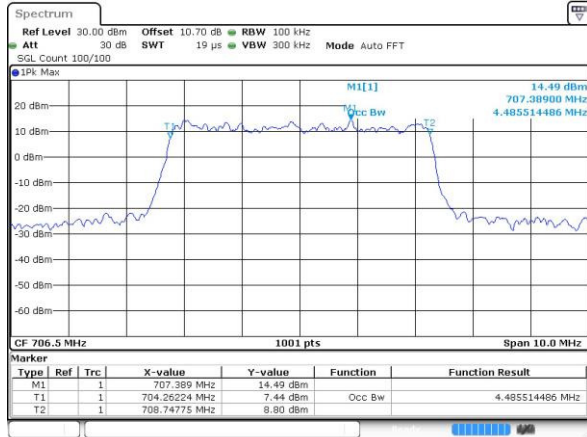
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.5	9.07	9.01	-	-	-	-
Middle CH	-	-	-	-	4.49	4.48	9.09	8.99	-	-	-	-
Highest CH	-	-	-	-	4.49	4.5	8.99	8.99	-	-	-	-

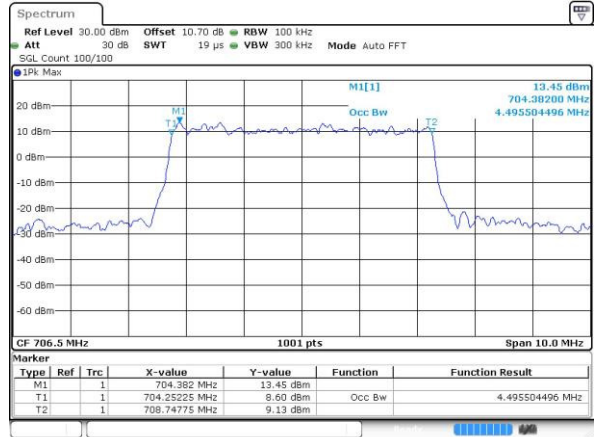


LTE Band 17

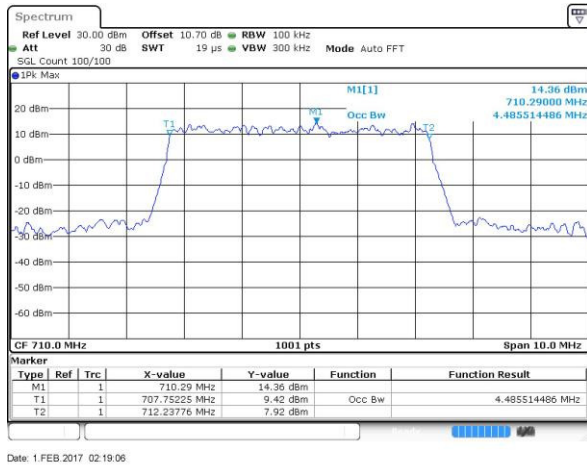
Lowest Channel / 5MHz / QPSK



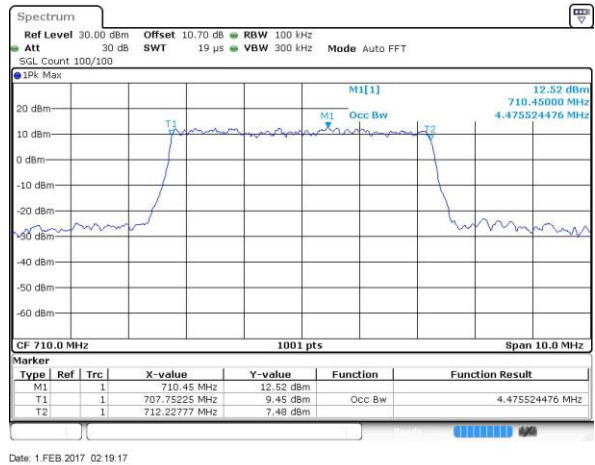
Lowest Channel / 5MHz / 16QAM



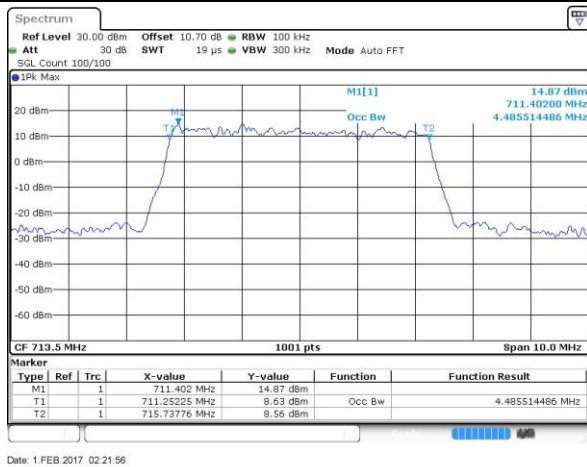
Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM

