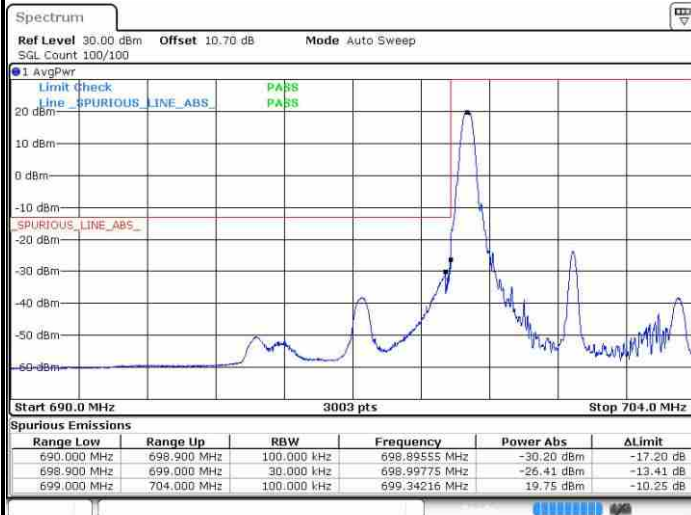


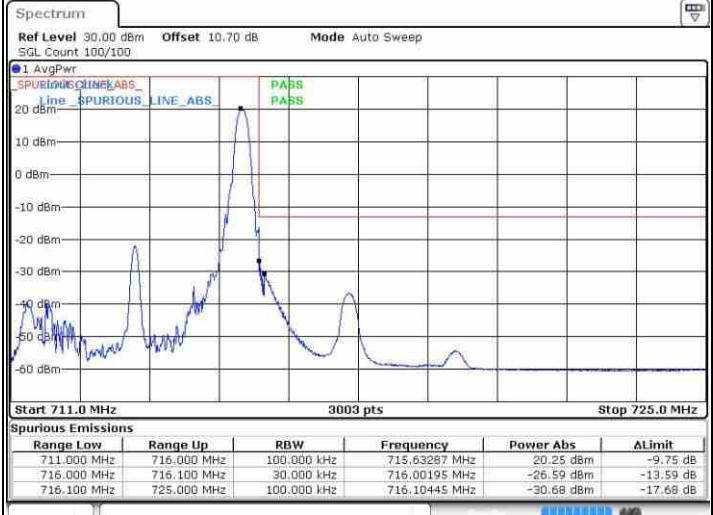


LTE Band 12 / 5MHz / 16QAM

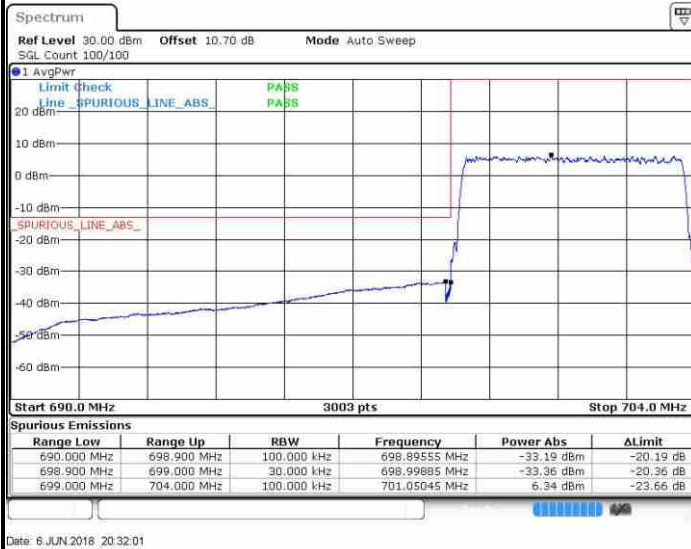
Lowest Band Edge / 1RB



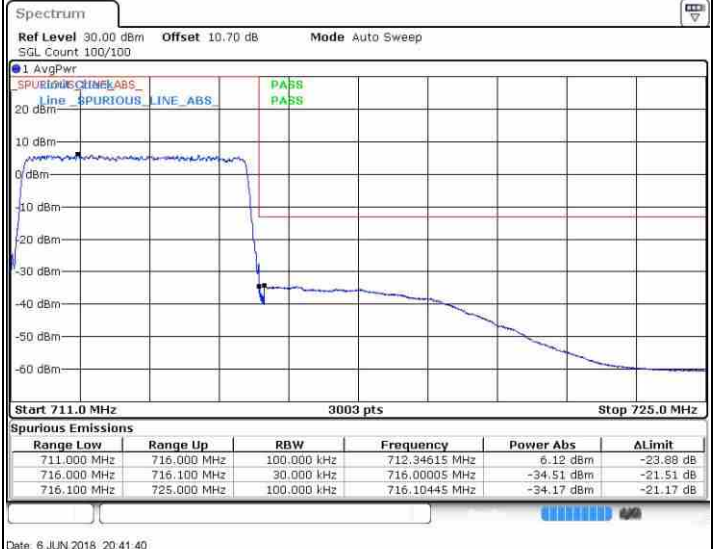
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



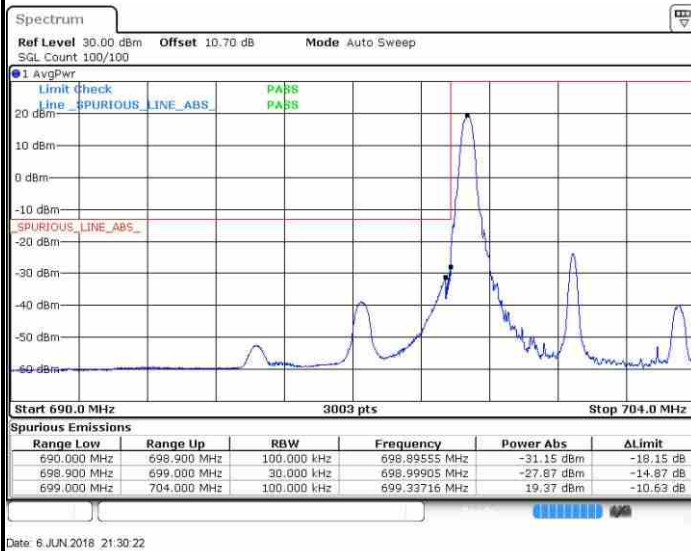
Highest Band Edge / Full RB



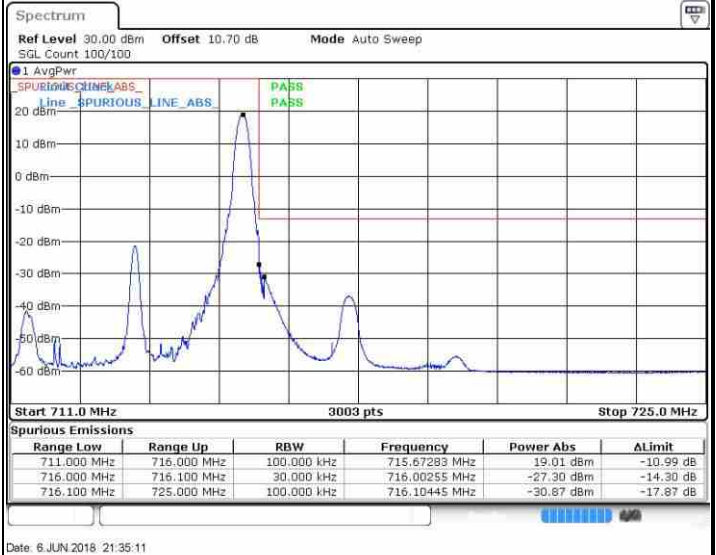


LTE Band 12 / 5MHz / 64QAM

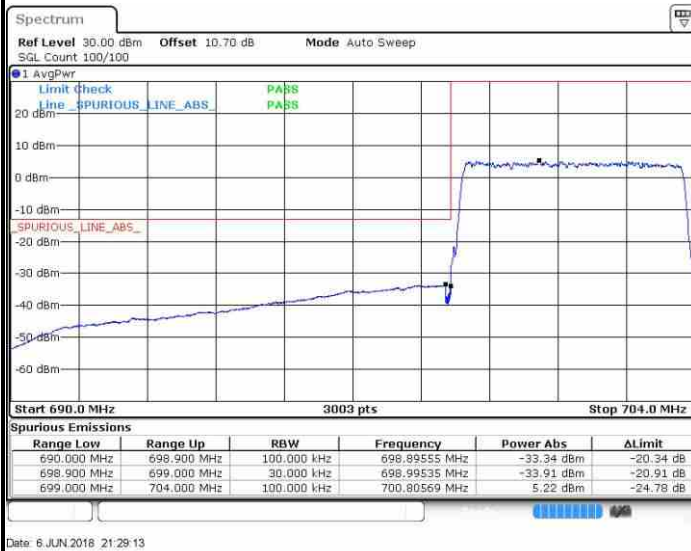
Lowest Band Edge / 1RB



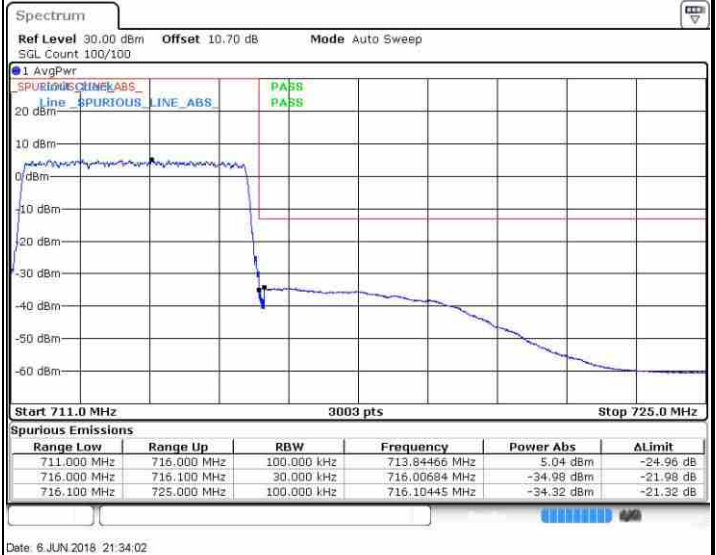
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



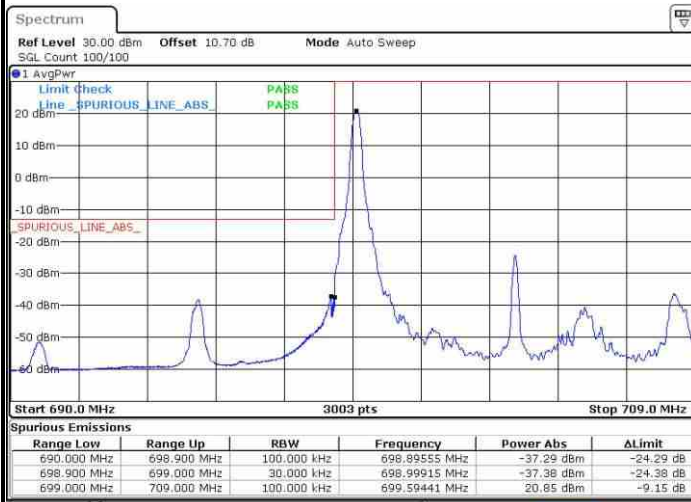
Highest Band Edge / Full RB



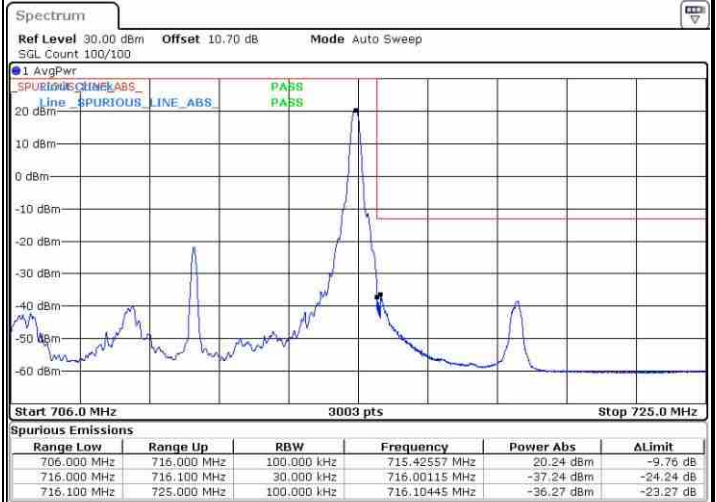


LTE Band 12 / 10MHz / QPSK

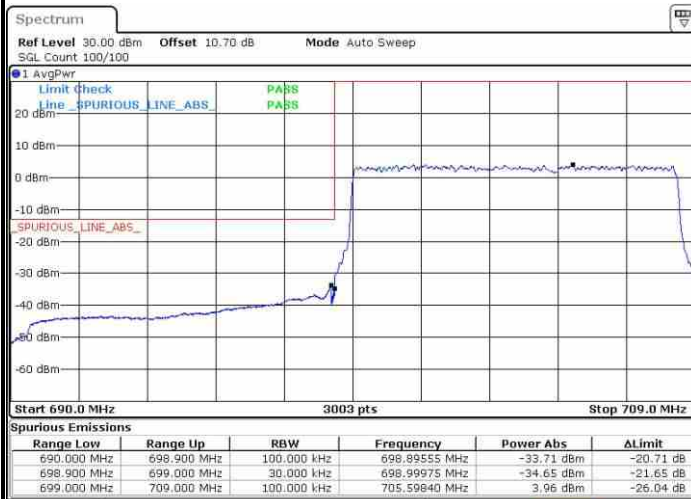
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



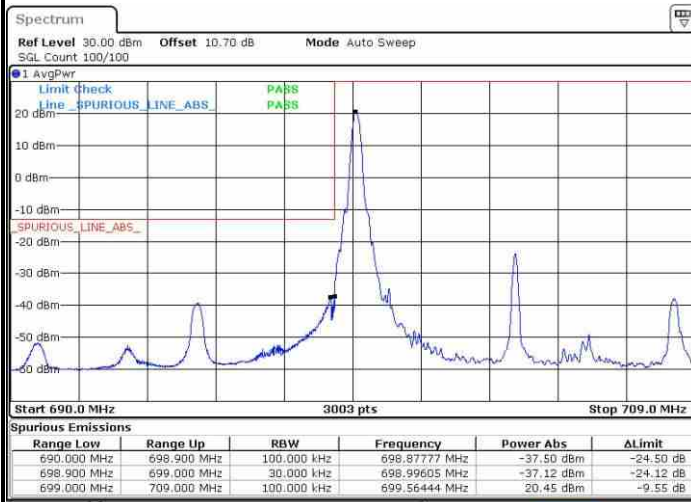
Highest Band Edge / Full RB



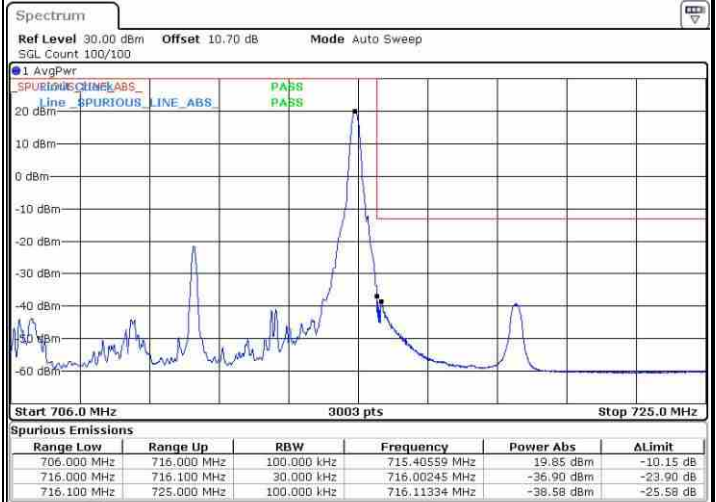


LTE Band 12 / 10MHz / 16QAM

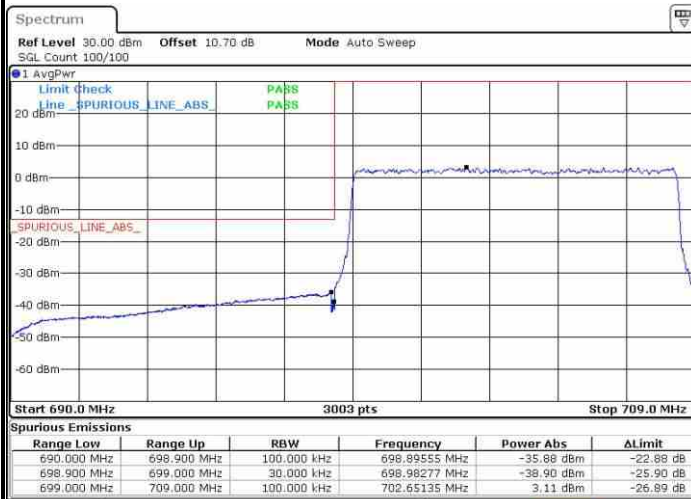
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



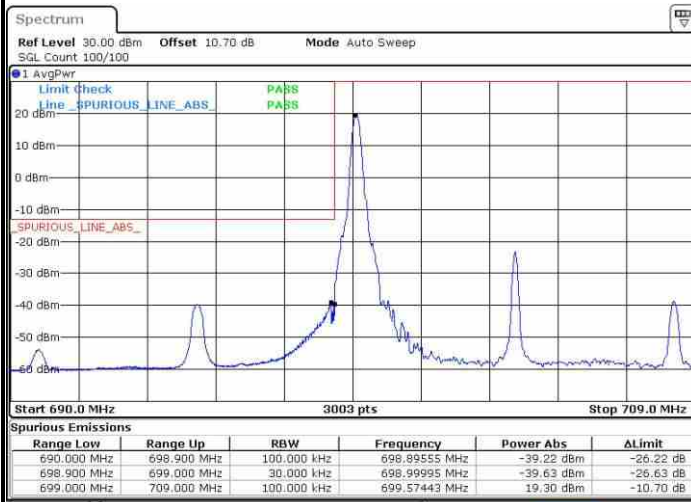
Highest Band Edge / Full RB



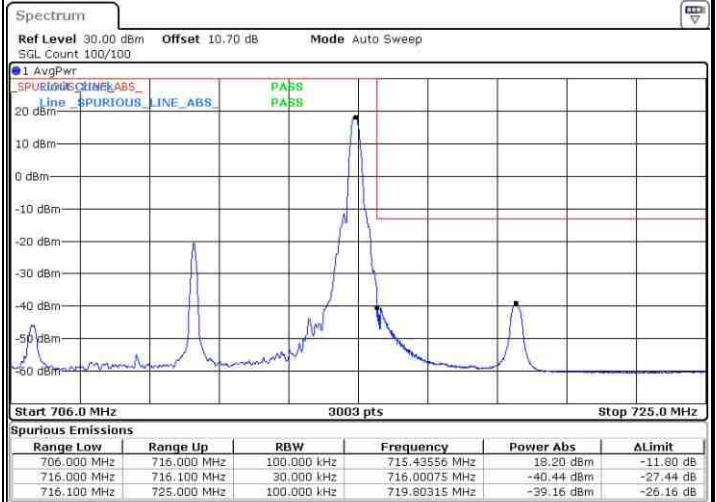


LTE Band 12 / 10MHz / 64QAM

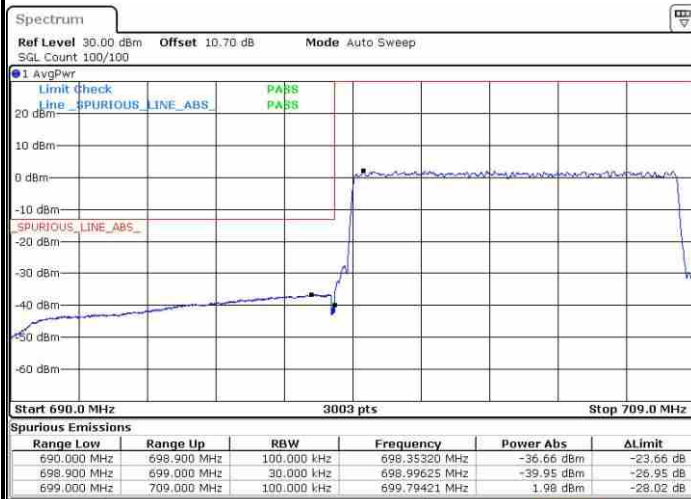
Lowest Band Edge / 1 RB



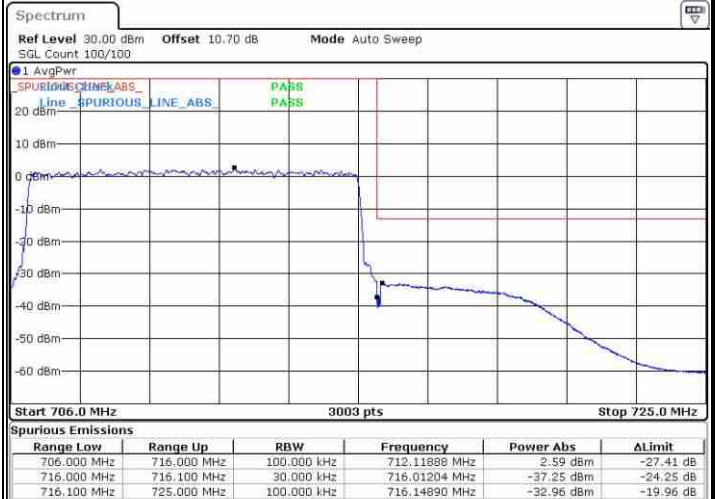
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

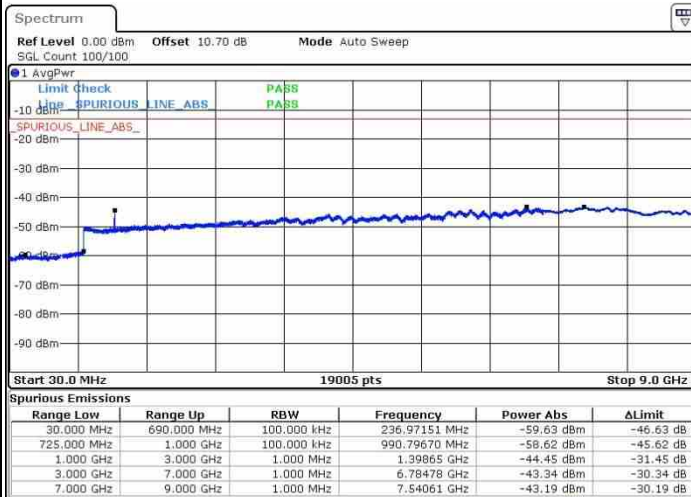




Conducted Spurious Emission

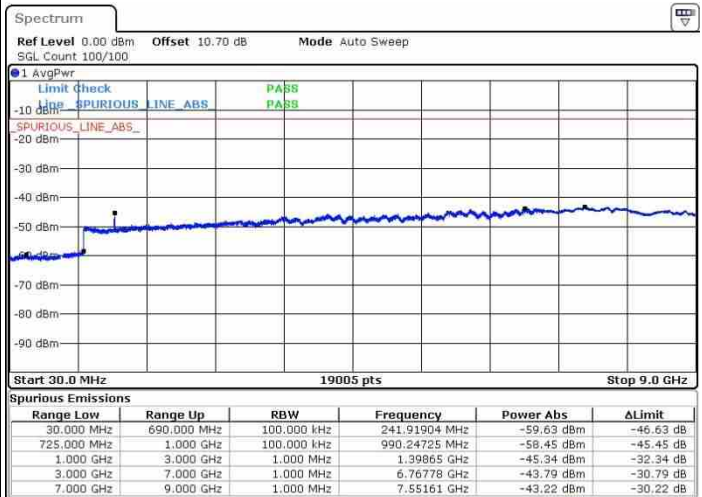
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



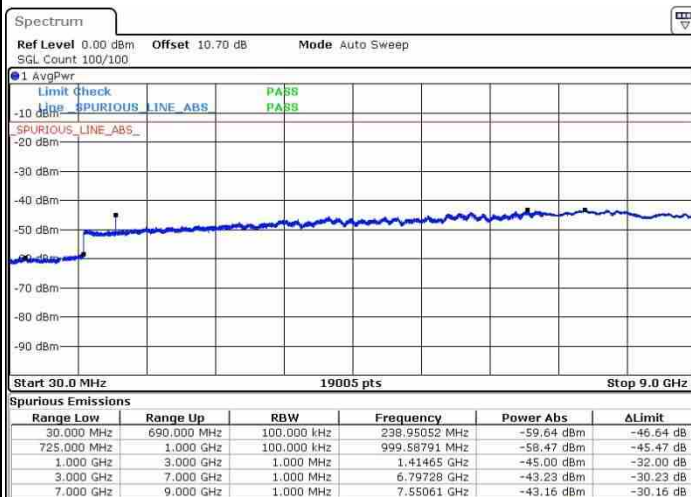
Date: 6 JUN 2018 21:08:47

Lowest Channel / 16QAM



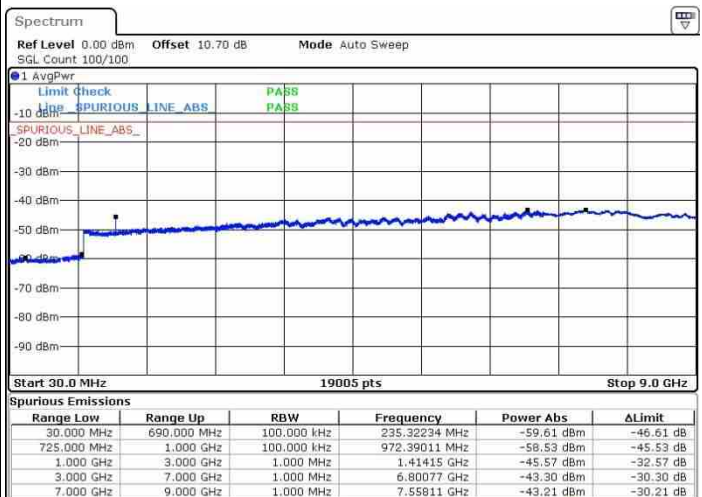
Date: 6 JUN 2018 21:08:42

Middle Channel / QPSK



Date: 6 JUN 2018 21:12:12

Middle Channel / 16QAM

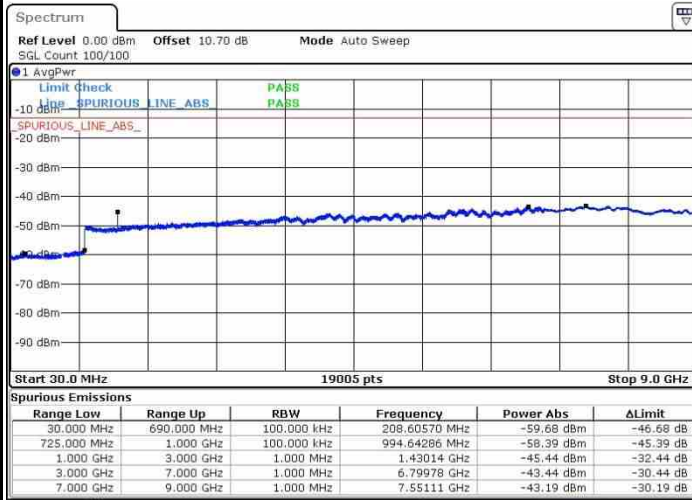


Date: 6 JUN 2018 21:11:18



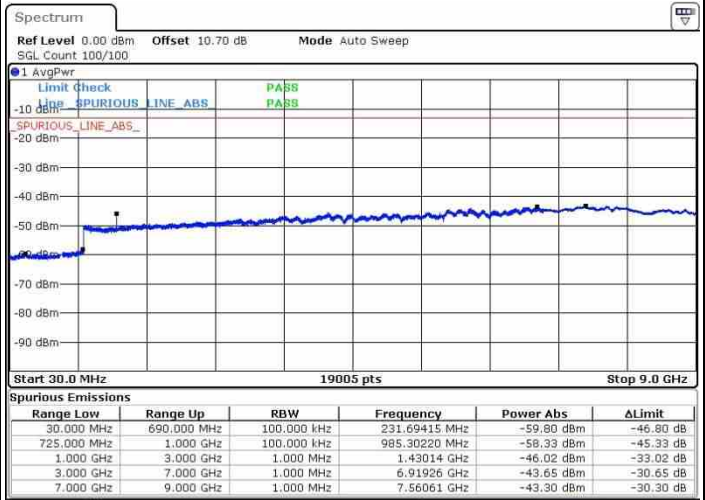
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 6 JUN 2018 21:18:26

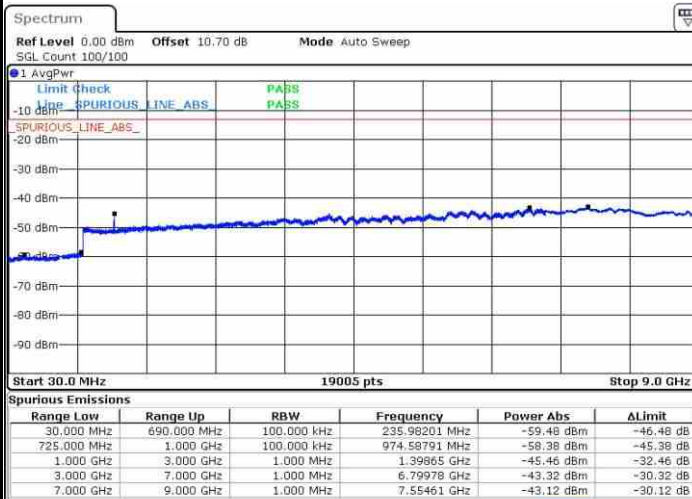
Highest Channel / 16QAM



Date: 6 JUN 2018 21:19:20

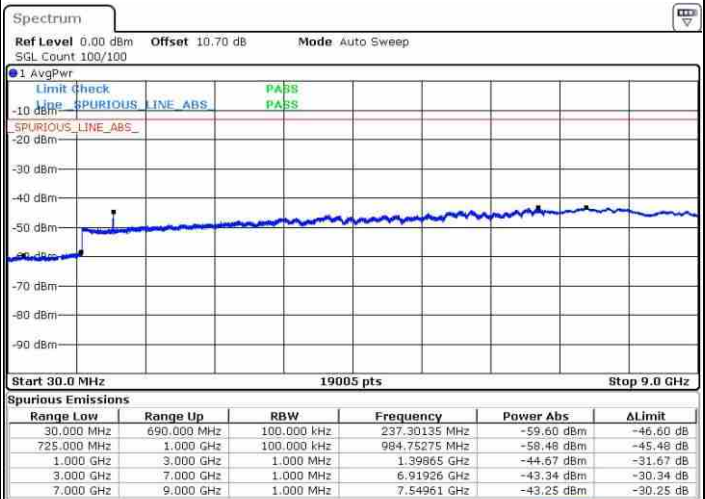
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 6 JUN 2018 20:18:21

Lowest Channel / 16QAM

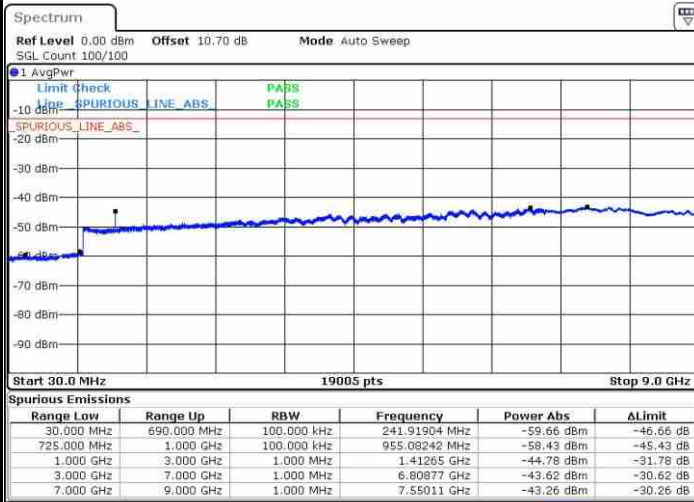


Date: 6 JUN 2018 20:19:16



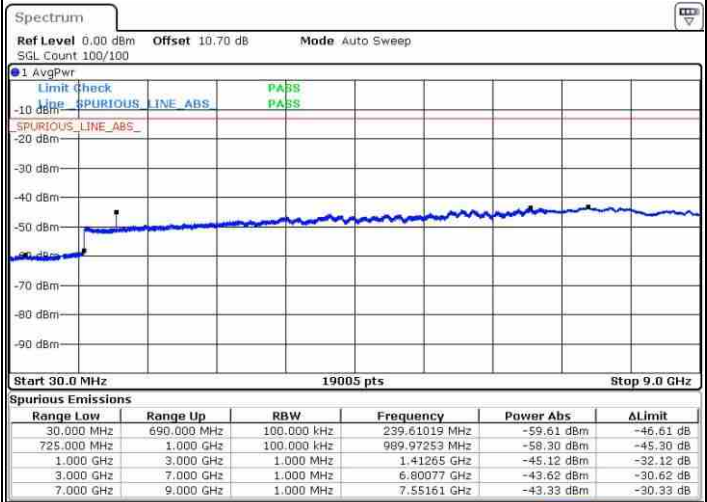
LTE Band 12 / 3MHz

Middle Channel / QPSK



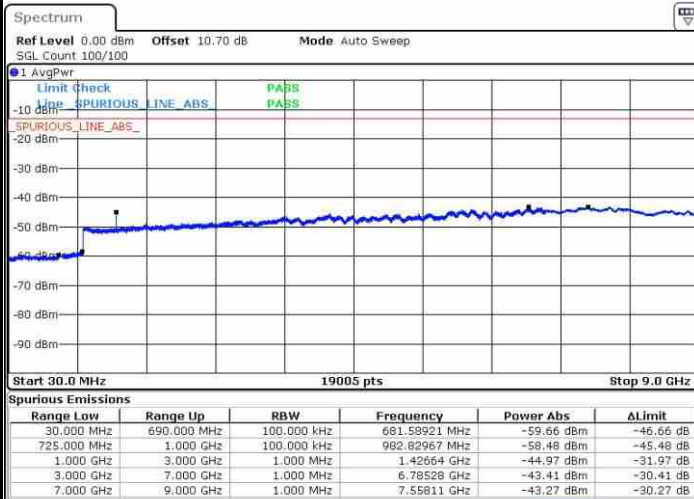
Date: 6 JUN 2018 20:21:53

Middle Channel / 16QAM



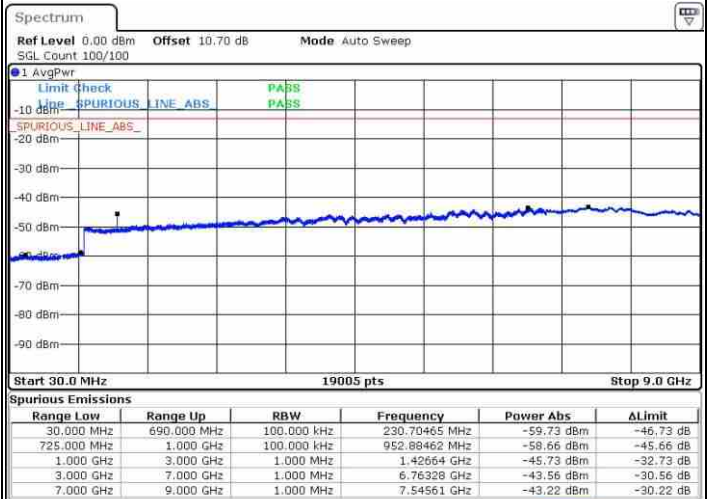
Date: 6 JUN 2018 20:20:58

Highest Channel / QPSK



Date: 6 JUN 2018 20:28:07

Highest Channel / 16QAM

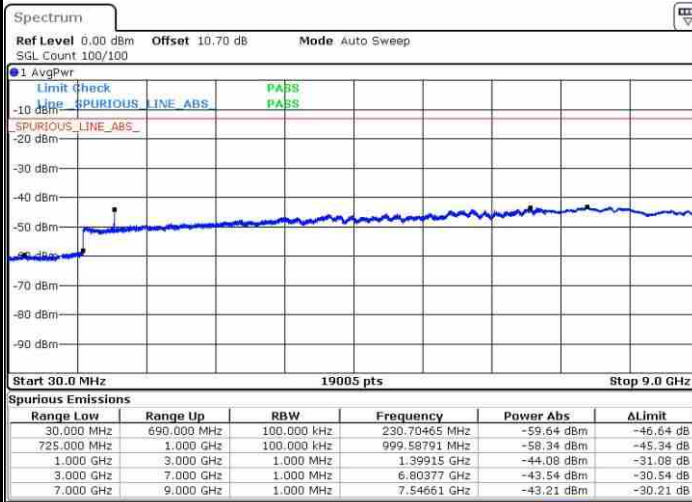


Date: 6 JUN 2018 20:29:01



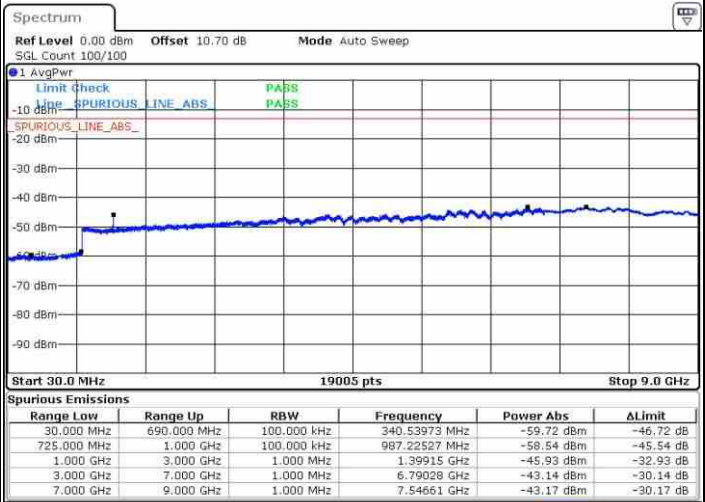
LTE Band 12 / 5MHz

Lowest Channel / QPSK



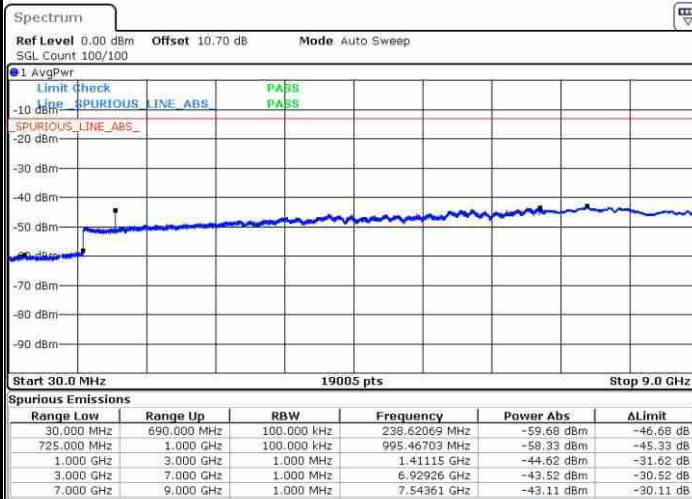
Date: 6 JUN 2018 20:35:15

Lowest Channel / 16QAM



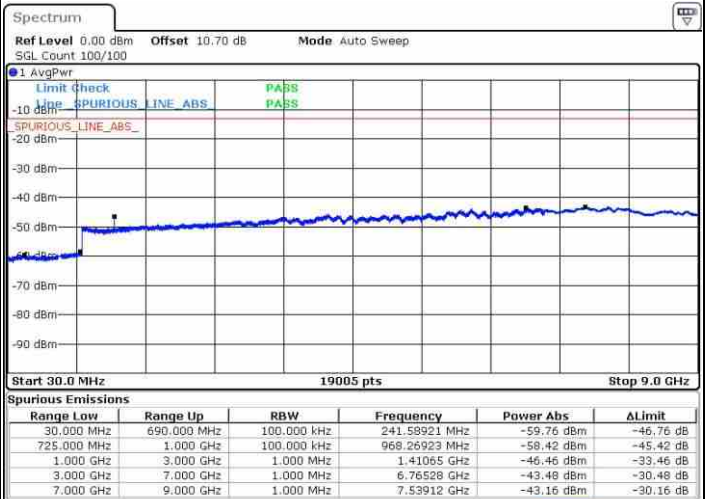
Date: 6 JUN 2018 20:36:09

Middle Channel / QPSK



Date: 6 JUN 2018 20:38:40

Middle Channel / 16QAM

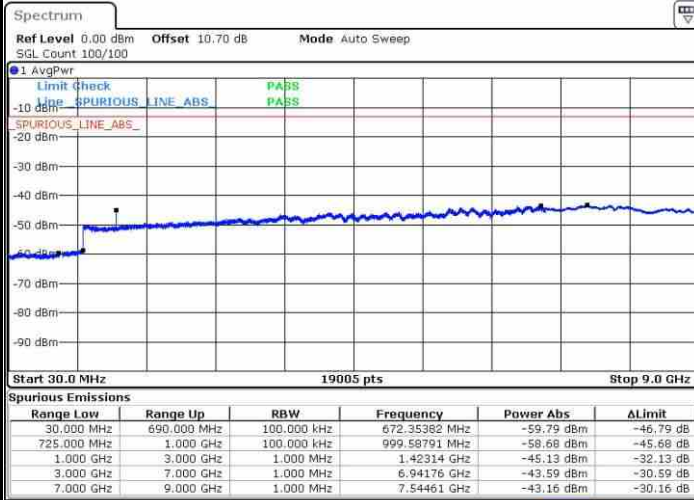


Date: 6 JUN 2018 20:37:45



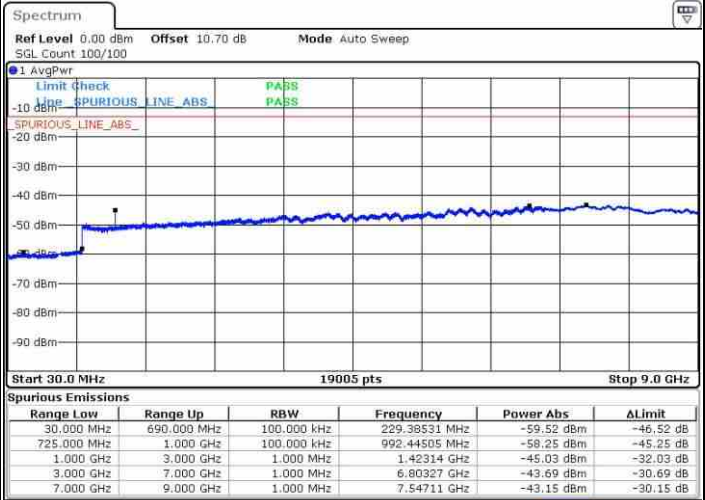
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 6 JUN 2018 20:45:48

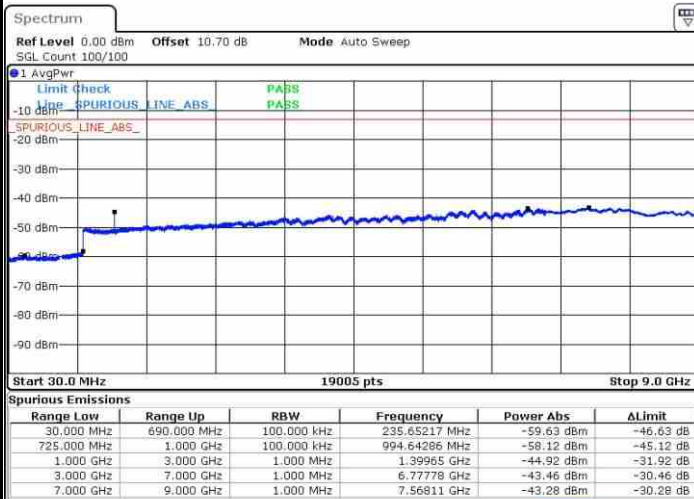
Highest Channel / 16QAM



Date: 6 JUN 2018 20:44:53

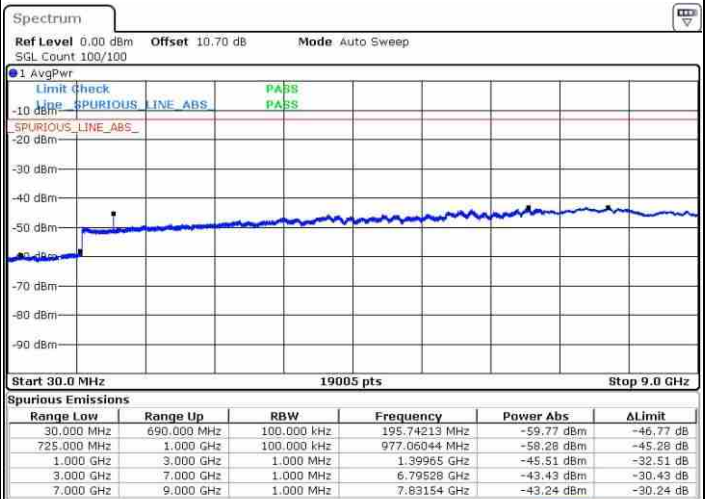
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 6 JUN 2018 20:52:01

Lowest Channel / 16QAM

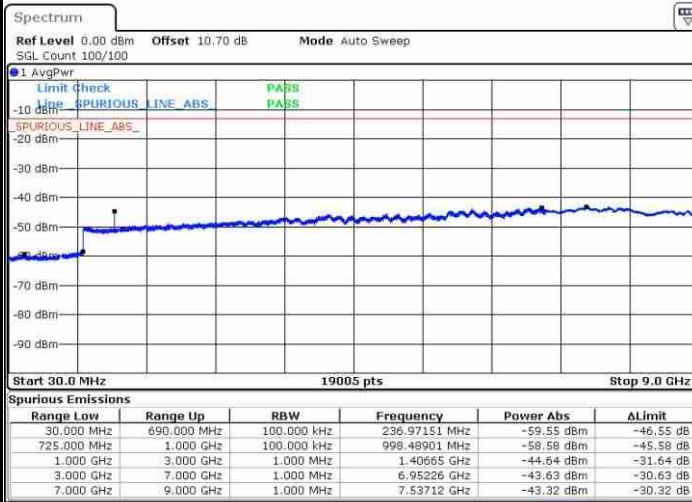


Date: 6 JUN 2018 20:52:55



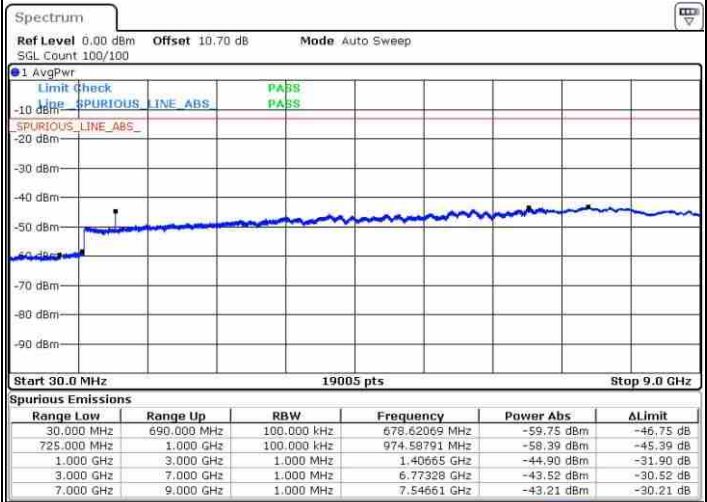
LTE Band 12 / 10MHz

Middle Channel / QPSK



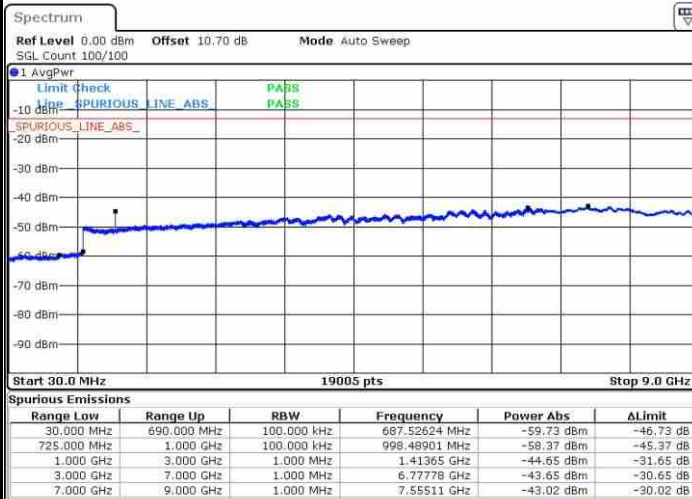
Date: 6 JUN 2018 20:55:26

Middle Channel / 16QAM



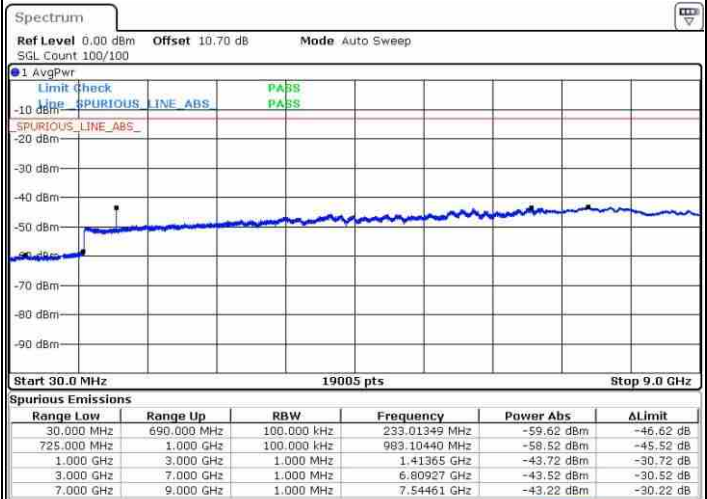
Date: 6 JUN 2018 20:54:32

Highest Channel / QPSK



Date: 6 JUN 2018 21:01:39

Highest Channel / 16QAM

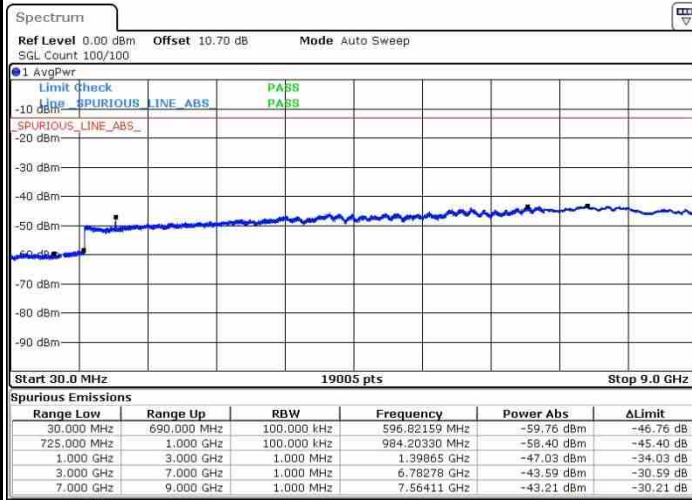


Date: 6 JUN 2018 21:02:34



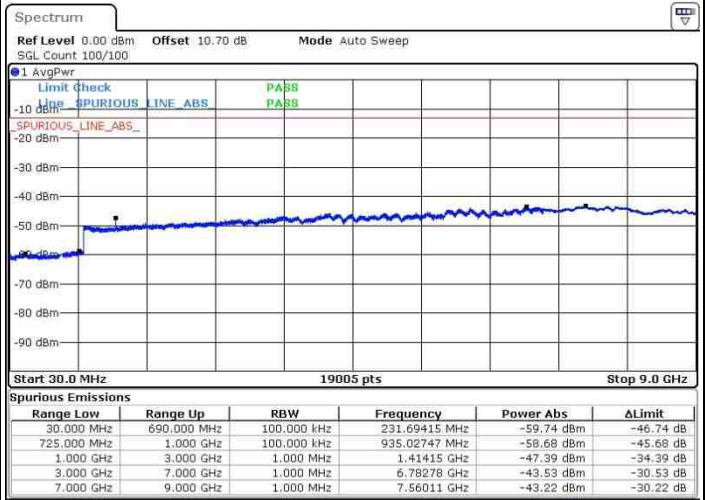
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



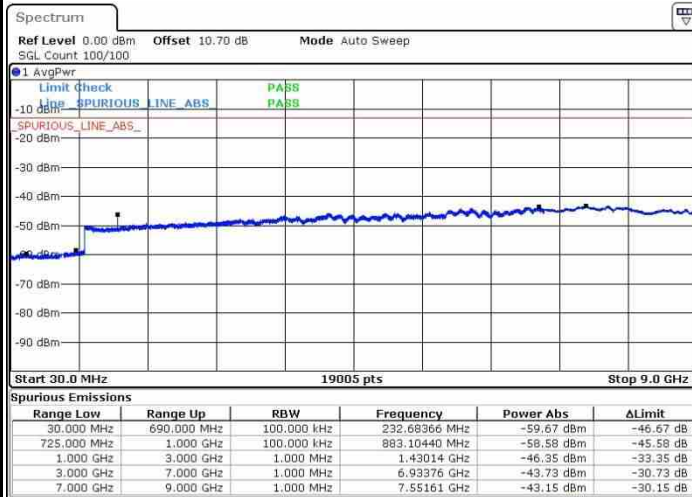
Date: 6 JUN 2018 21:48:03

Middle Channel / 64QAM



Date: 6 JUN 2018 21:48:19

Highest Channel / 64QAM

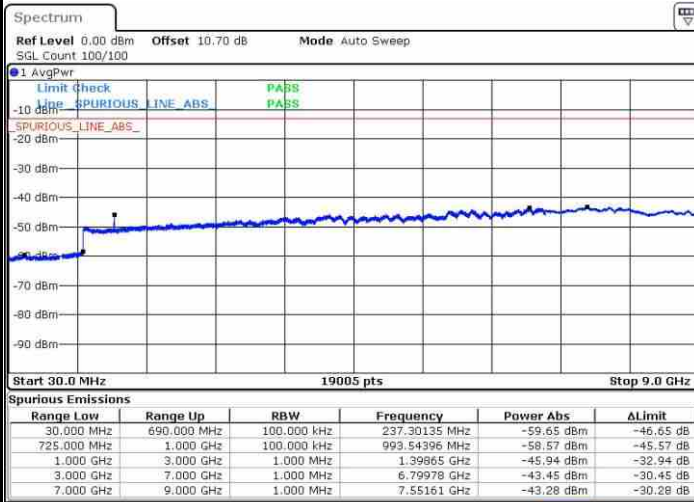


Date: 6 JUN 2018 21:52:53



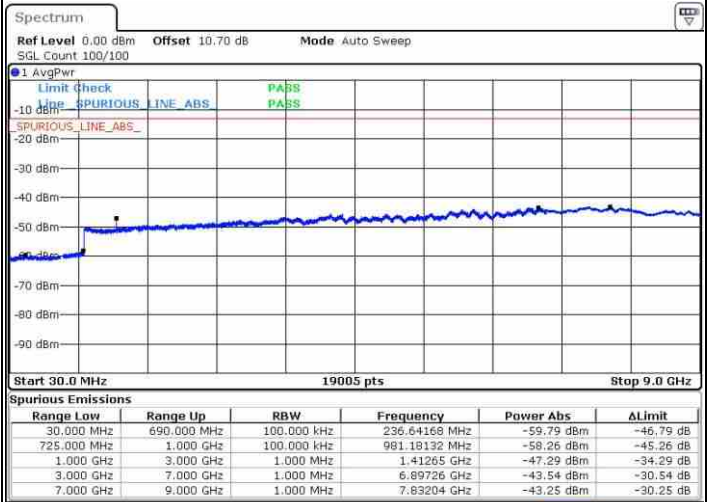
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



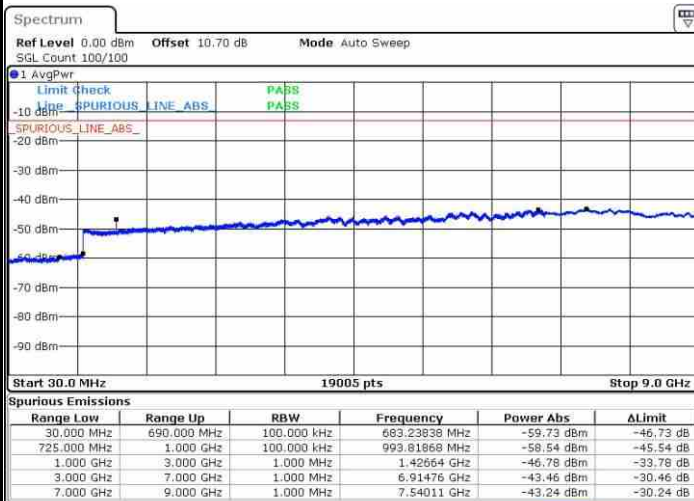
Date: 6 JUN 2018 21:22:54

Middle Channel / 64QAM



Date: 6 JUN 2018 21:24:09

Highest Channel / 64QAM

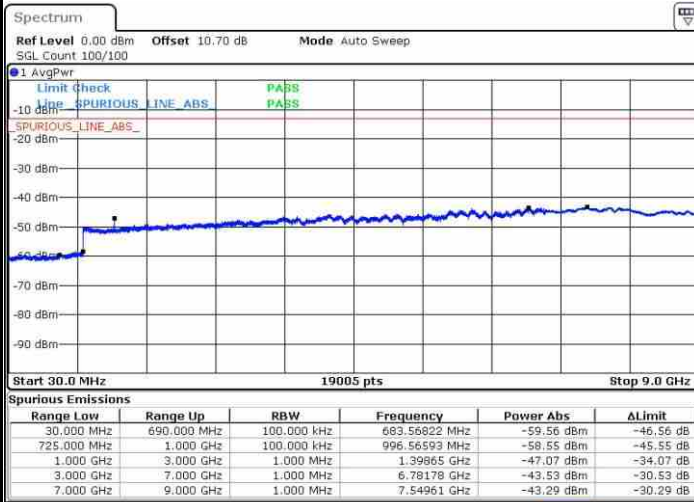


Date: 6 JUN 2018 21:27:43



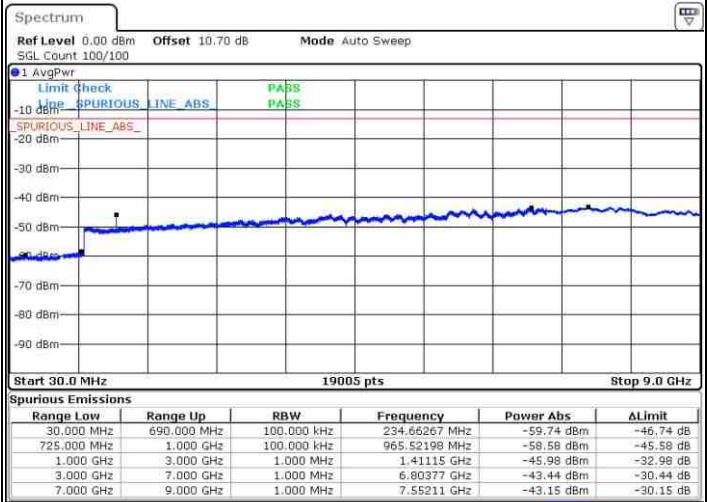
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



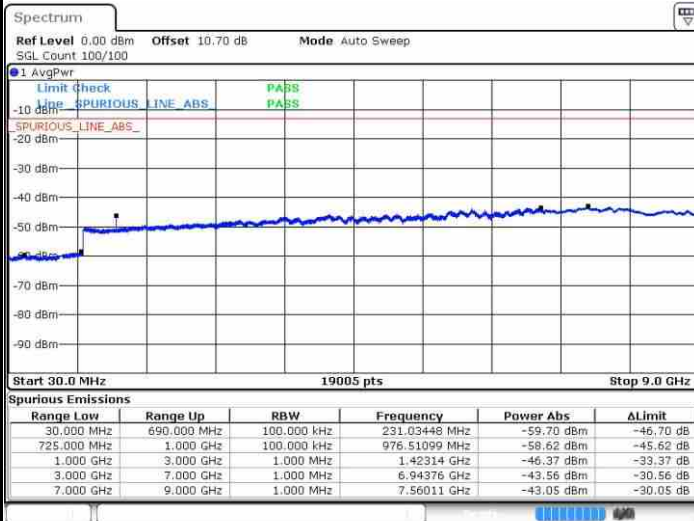
Date: 6 JUN 2018 21:31:17

Middle Channel / 64QAM



Date: 6 JUN 2018 21:32:32

Highest Channel / 64QAM

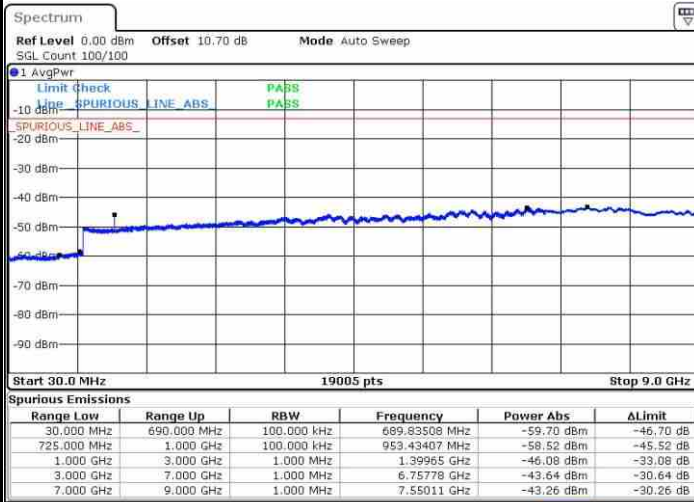


Date: 6 JUN 2018 21:36:06



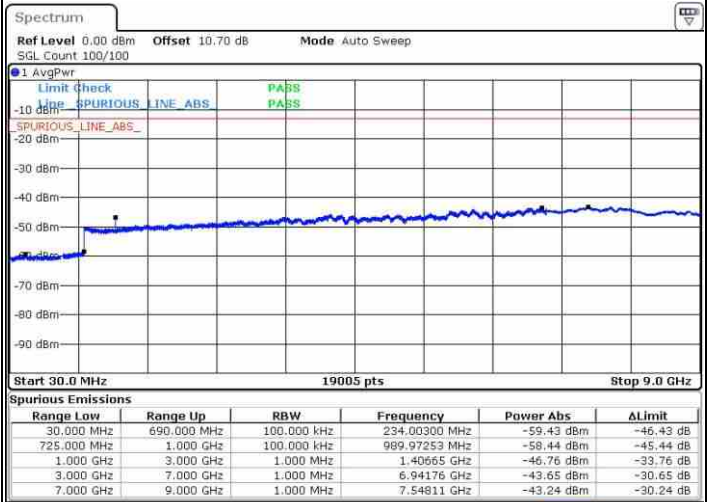
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



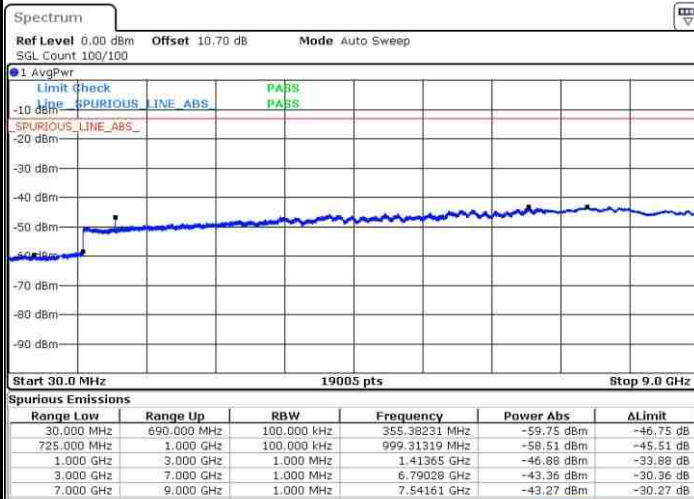
Date: 6 JUN 2018 21:39:40

Middle Channel / 64QAM



Date: 6 JUN 2018 21:40:55

Highest Channel / 64QAM



Date: 6 JUN 2018 21:44:29

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	0.0017	PASS
40	Normal Voltage	0.0114	
30	Normal Voltage	0.0143	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0116	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0141	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0130	
20	Maximum Voltage	0.0137	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0033	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 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

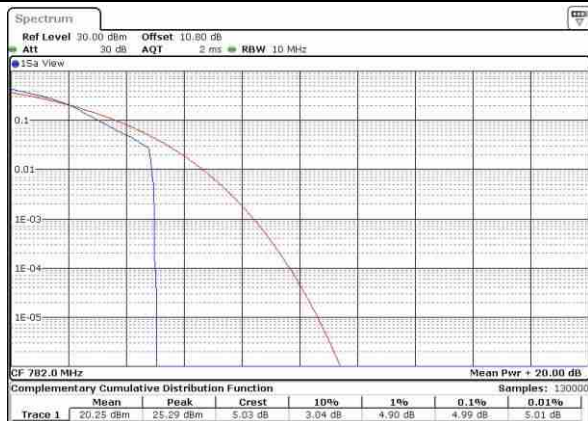
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.68	4.61	4.99	5.97	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.00	6.41	-	-	
Highest CH	-	-	-	-	

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


Date: 6 JUN 2018 22:54:29

Middle Channel / Full RB


Date: 6 JUN 2018 22:54:39

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


Date: 6 JUN 2018 22:54:08

Middle Channel / Full RB


Date: 6 JUN 2018 22:54:18

LTE Band 13 / 10MHz / 64QAM
Middle Channel / 1RB


Date: 6 JUN 2018 22:53:49

Middle Channel / Full RB


Date: 6 JUN 2018 22:53:59

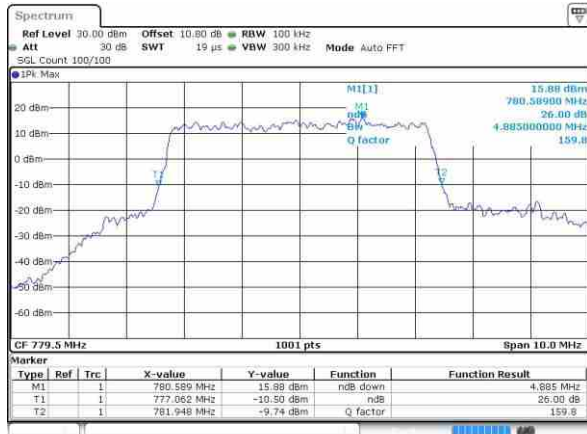
**26dB Bandwidth**

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	-	-	-	-	4.89	4.87	-	-	-	-	-	-
Middle CH	-	-	-	-	4.85	4.86	9.87	9.79	-	-	-	-
Highest CH	-	-	-	-	4.98	4.83	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.95	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.90	-	9.91	-	-	-	-	-
Highest CH	-	-	-	-	4.86	-	-	-	-	-	-	-

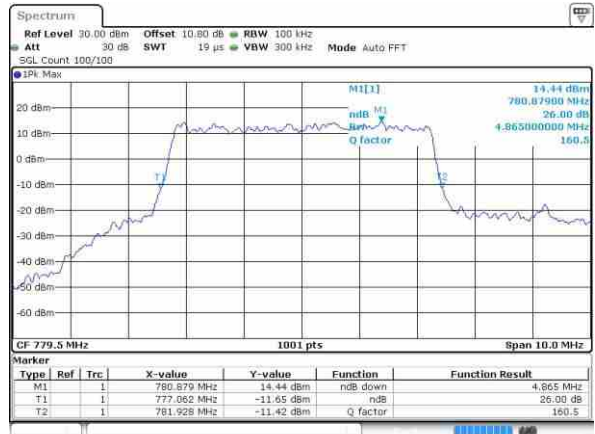


LTE Band 13

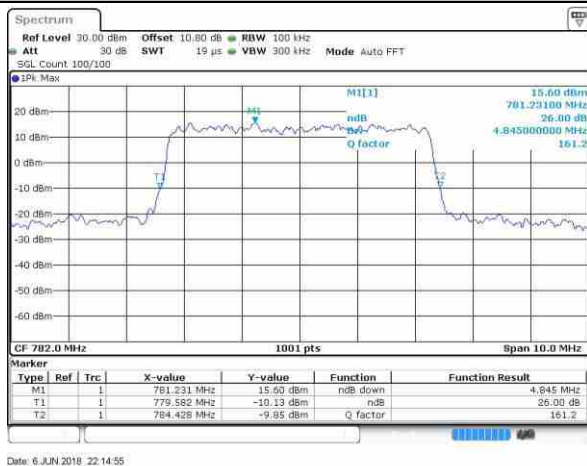
Lowest Channel / 5MHz / QPSK



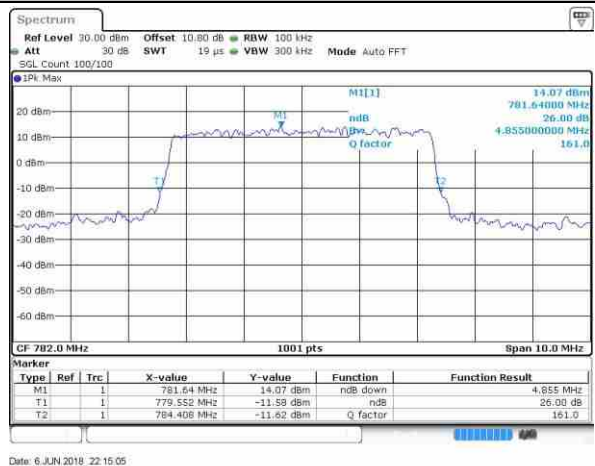
Lowest Channel / 5MHz / 16QAM



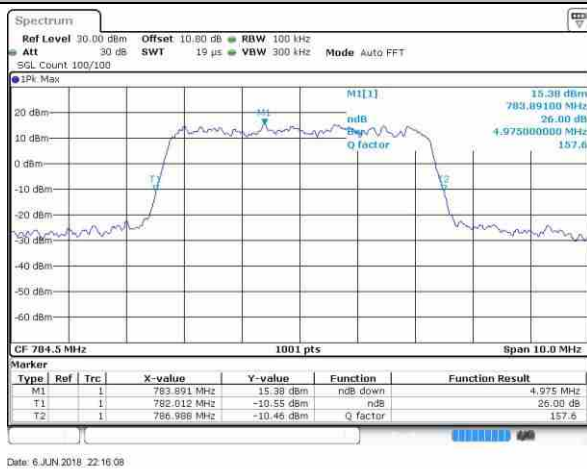
Middle Channel / 5MHz / QPSK



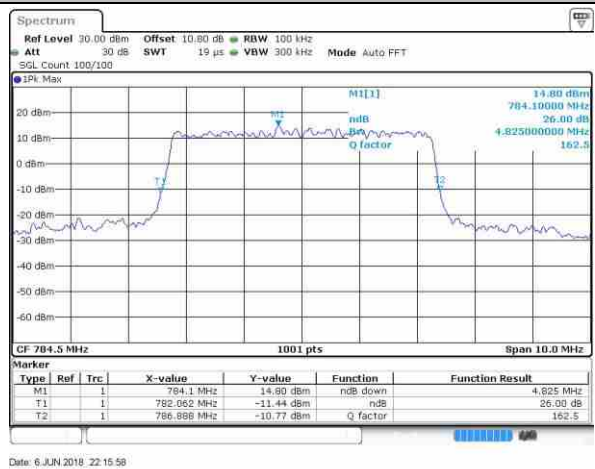
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



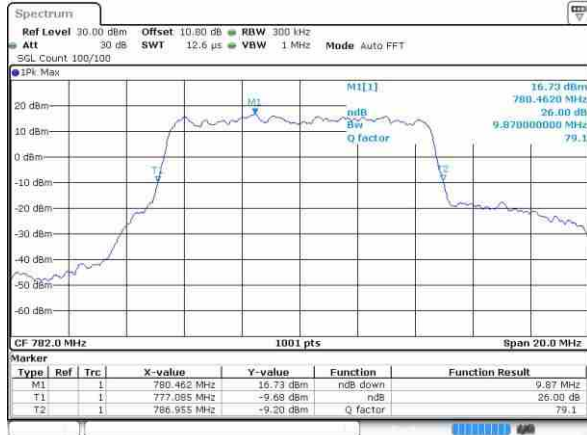
Highest Channel / 5MHz / 16QAM





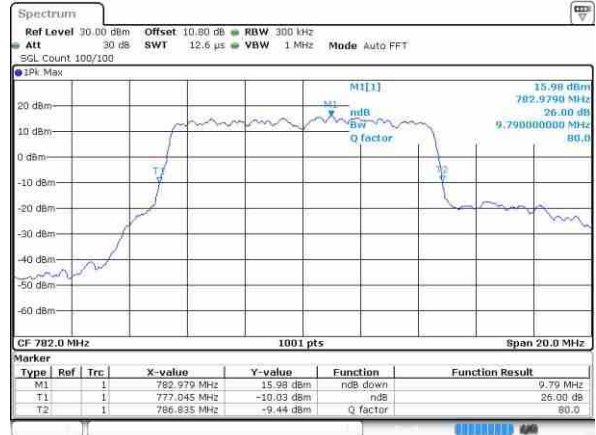
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 JUN 2018 22:35:39

Middle Channel / 10MHz / 16QAM

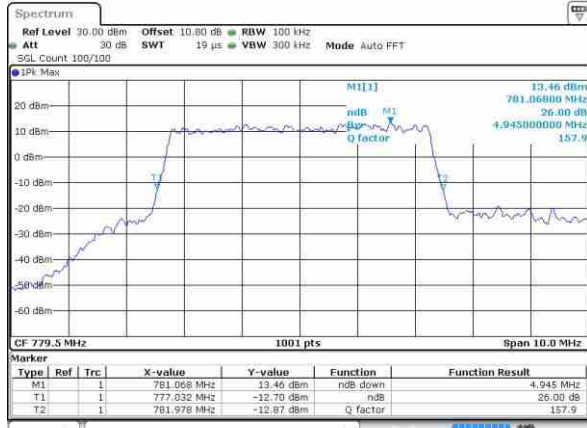


Date: 6 JUN 2018 22:35:29

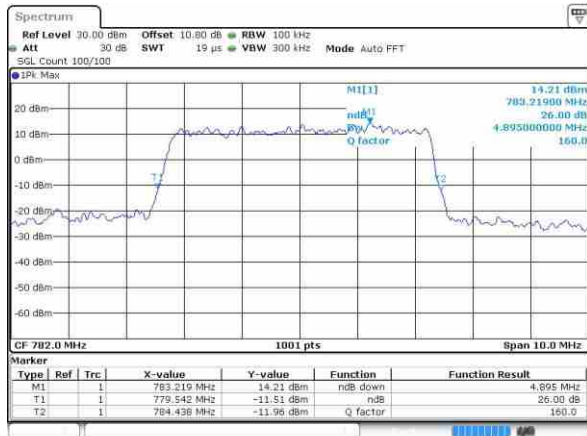


LTE Band 13

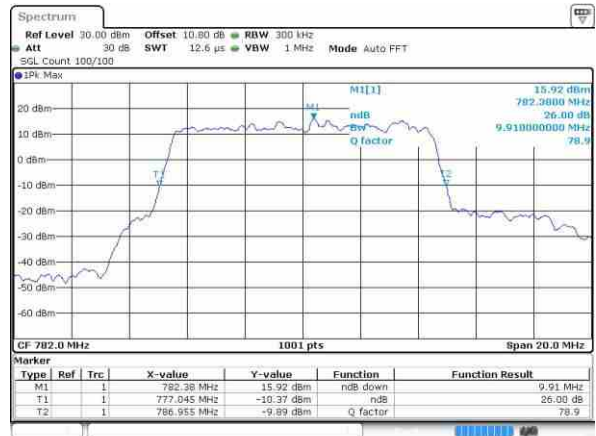
Lowest Channel / 5MHz / 64QAM



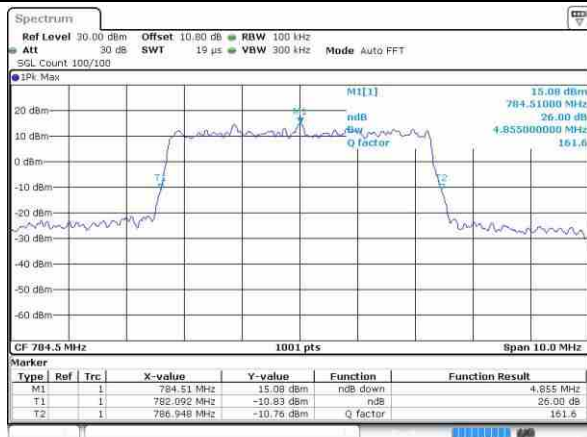
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



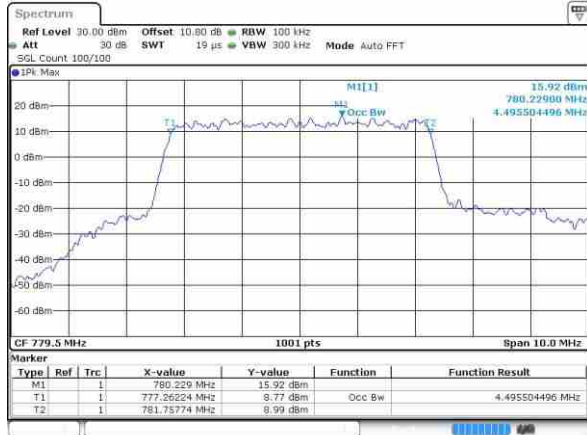
**Occupied Bandwidth**

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	-	-	-	-	4.5	4.5	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.49	8.99	9.03	-	-	-	-
Highest CH	-	-	-	-	4.51	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.52	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	-	8.99	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-

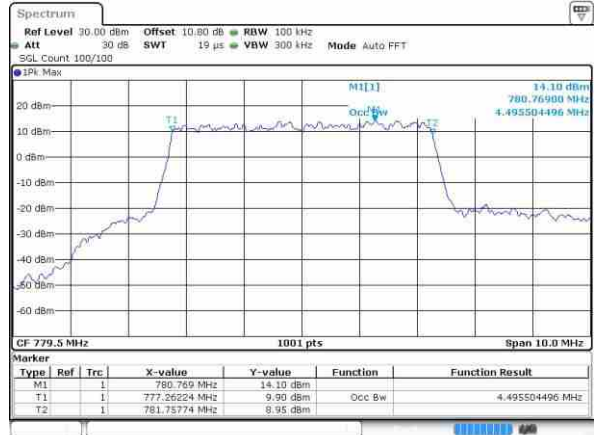


LTE Band 13

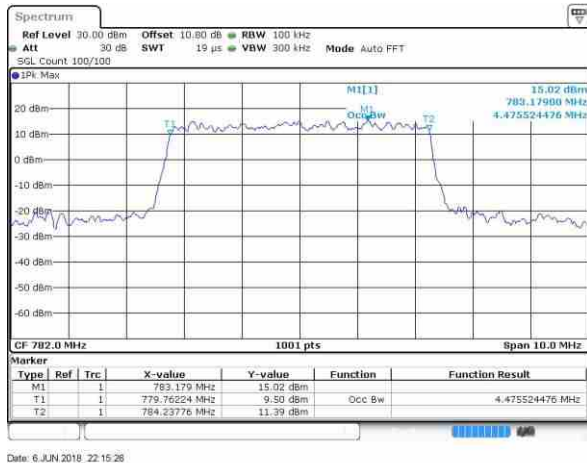
Lowest Channel / 5MHz / QPSK



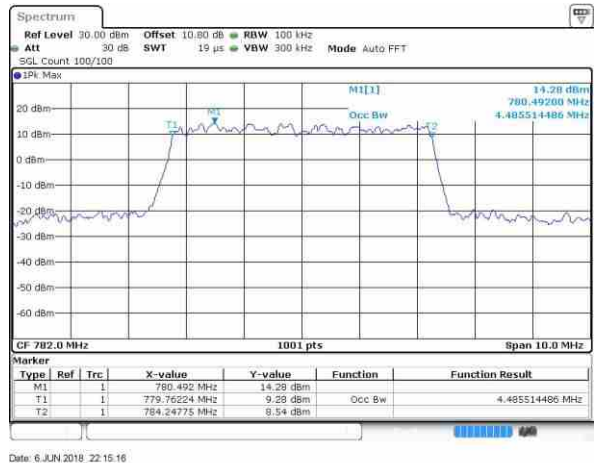
Lowest Channel / 5MHz / 16QAM



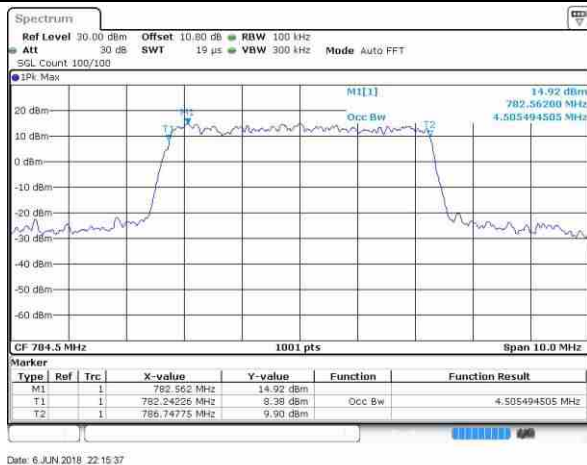
Middle Channel / 5MHz / QPSK



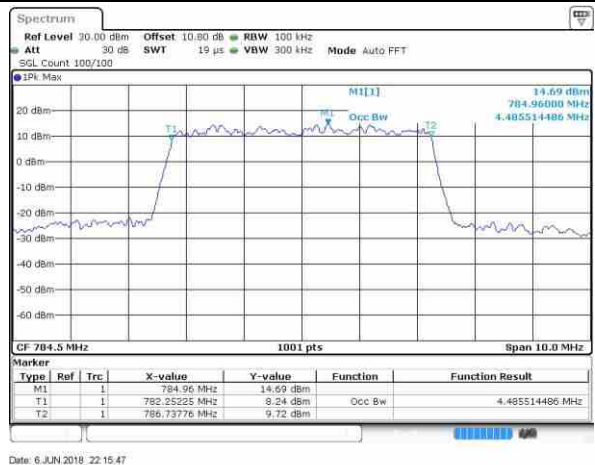
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



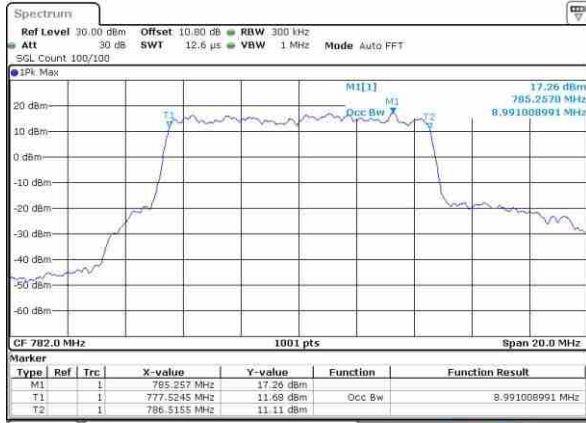
Highest Channel / 5MHz / 16QAM





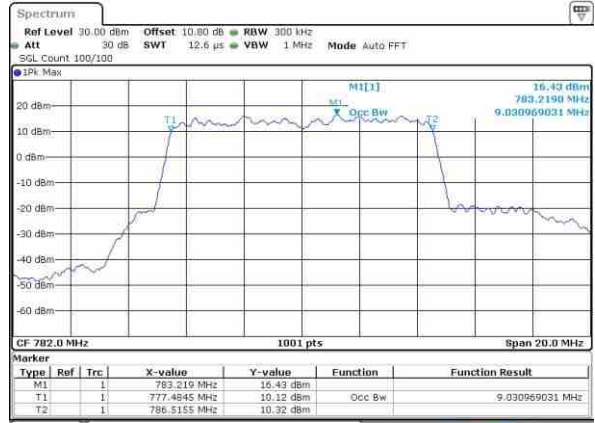
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 JUN 2018 22:35:08

Middle Channel / 10MHz / 16QAM

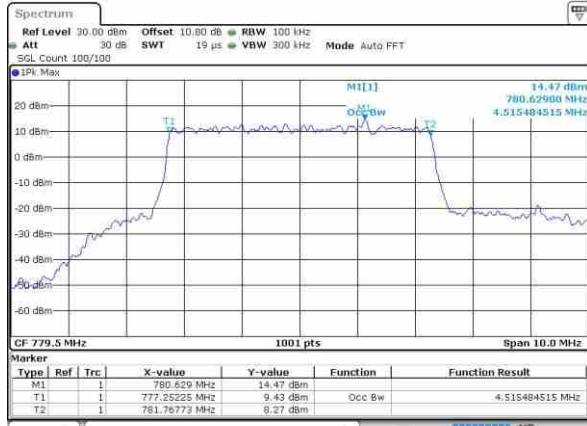


Date: 6 JUN 2018 22:35:19

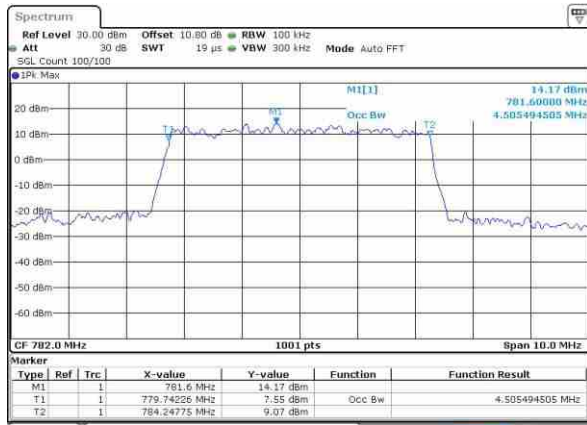


LTE Band 13

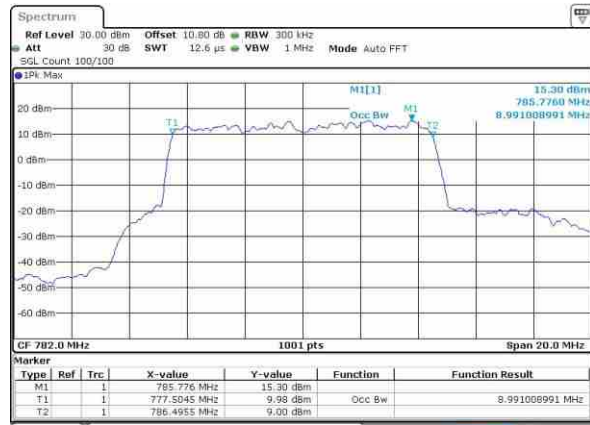
Lowest Channel / 5MHz / 64QAM



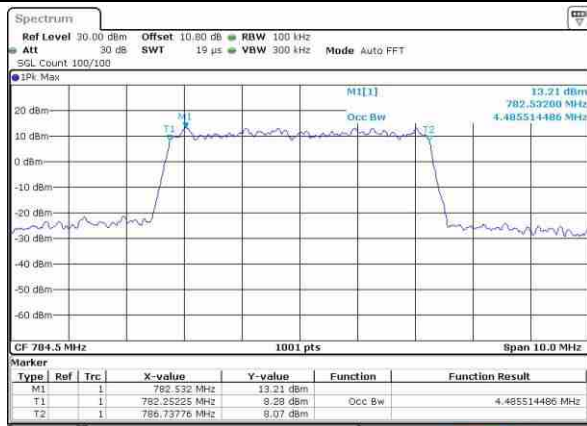
Middle Channel / 5MHz / 64QAM

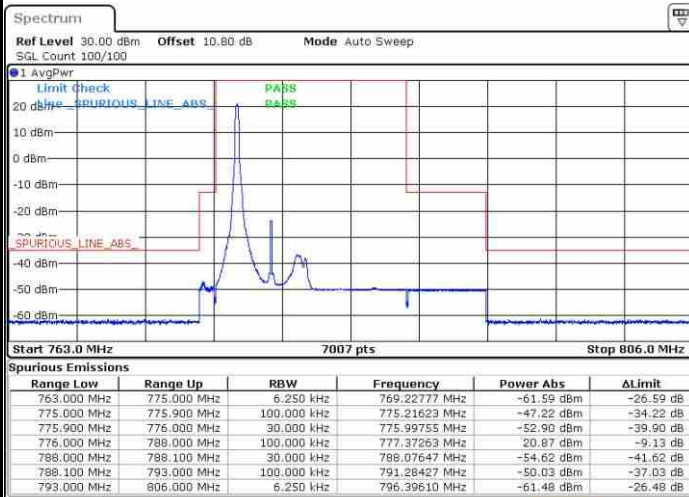
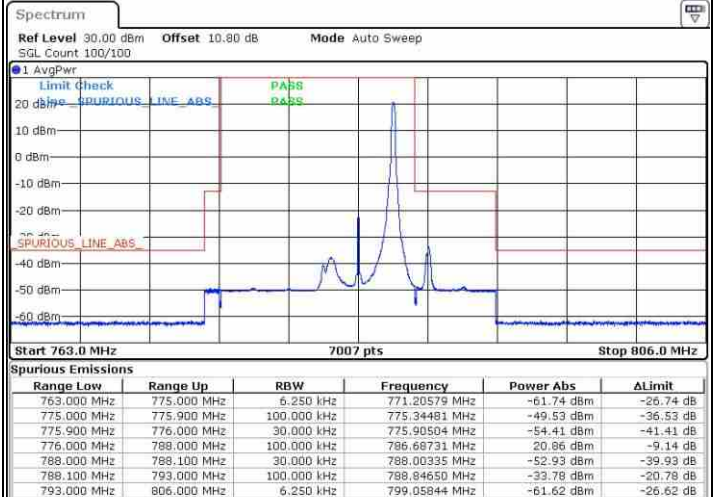
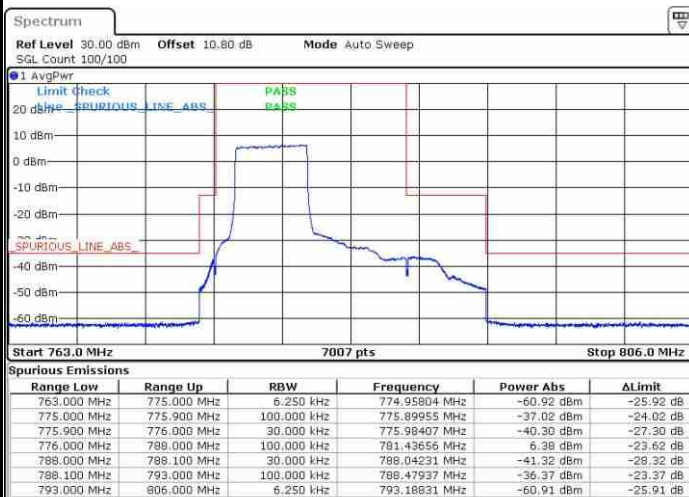
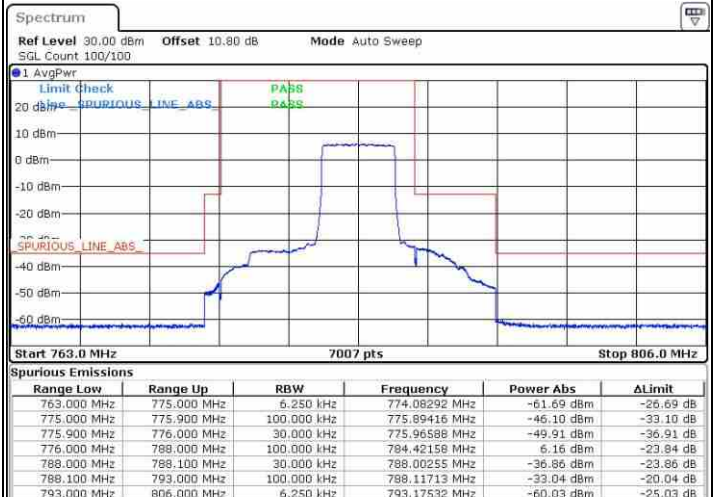


Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

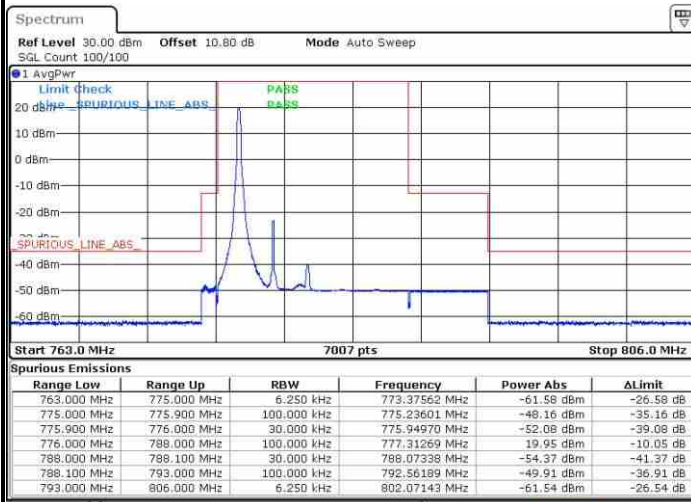


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

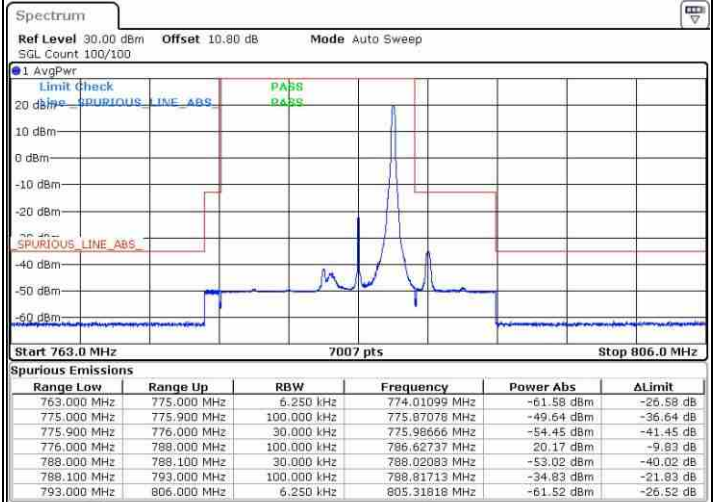


LTE Band 13 / 5MHz / 16QAM

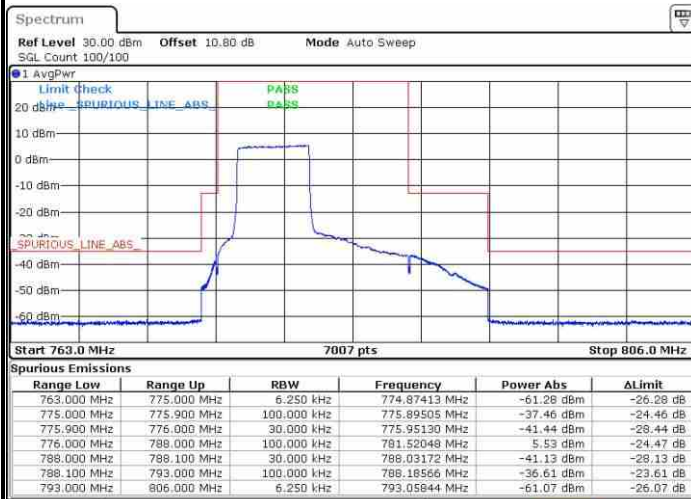
Lowest Band Edge / 1 RB



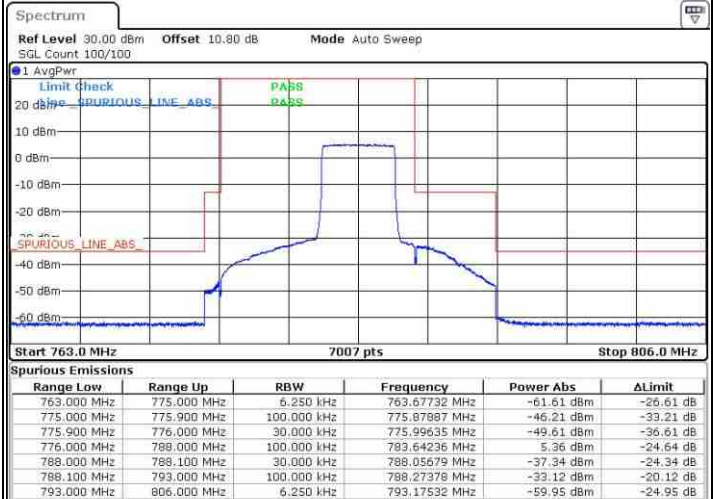
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



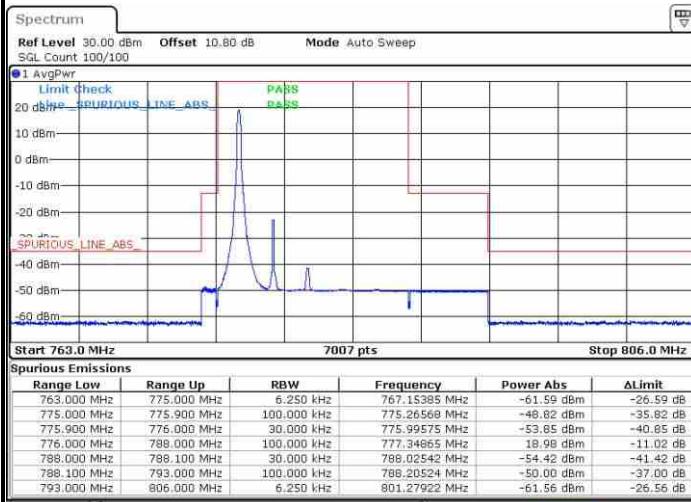
Highest Band Edge / Full RB





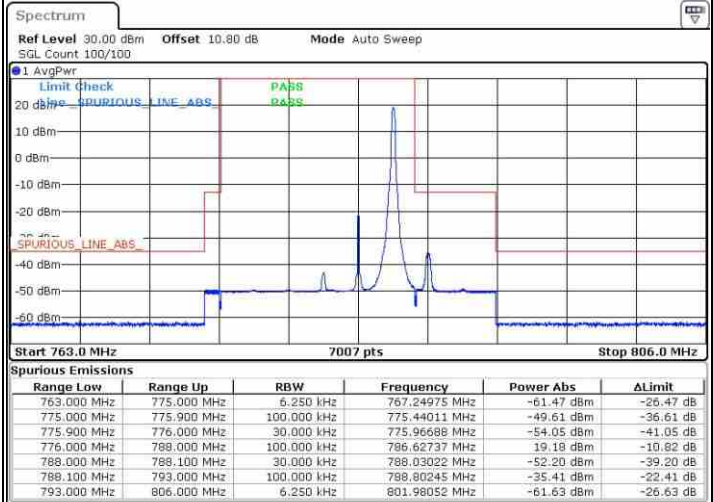
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



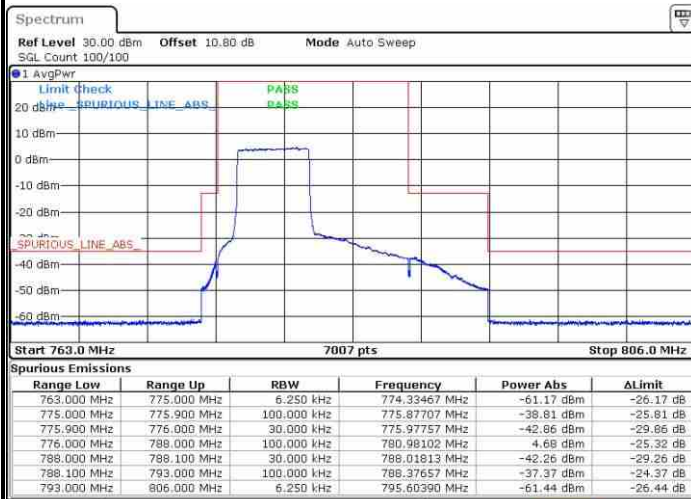
Date: 6 JUN 2018 22:28:14

Highest Band Edge / 1 RB



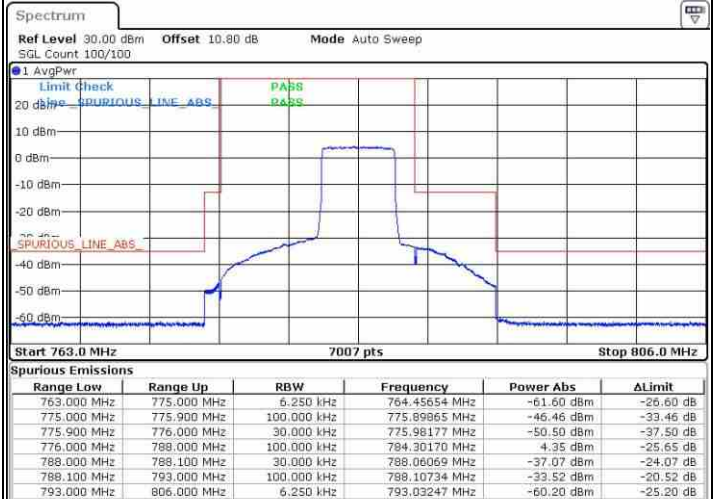
Date: 6 JUN 2018 22:34:03

Lowest Band Edge / Full RB



Date: 6 JUN 2018 22:26:34

Highest Band Edge / Full RB

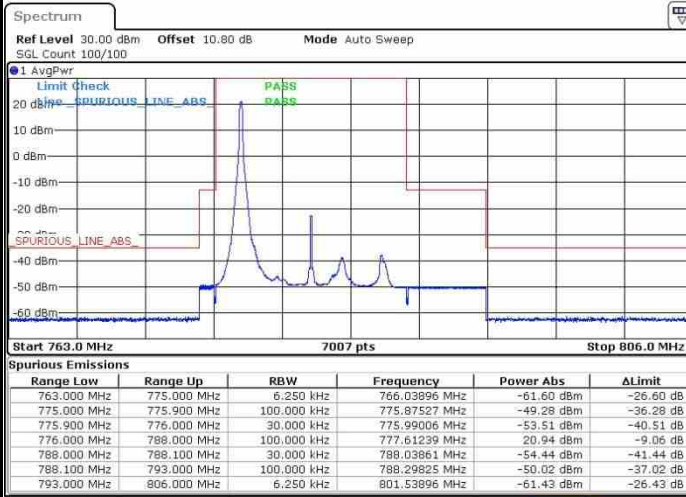


Date: 6 JUN 2018 22:32:23

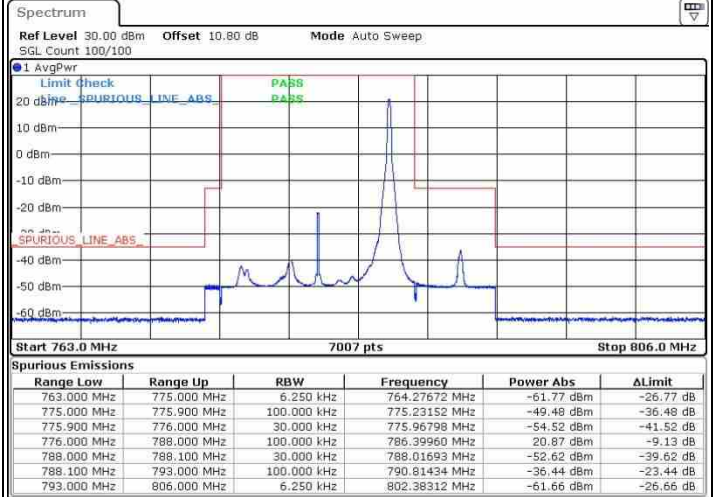


LTE Band 13 / 10MHz / QPSK

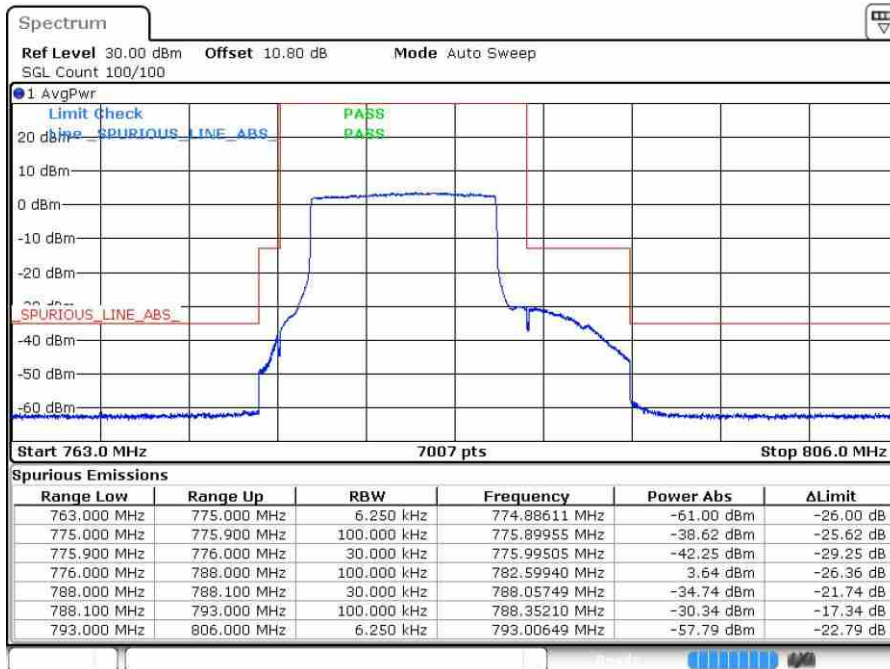
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



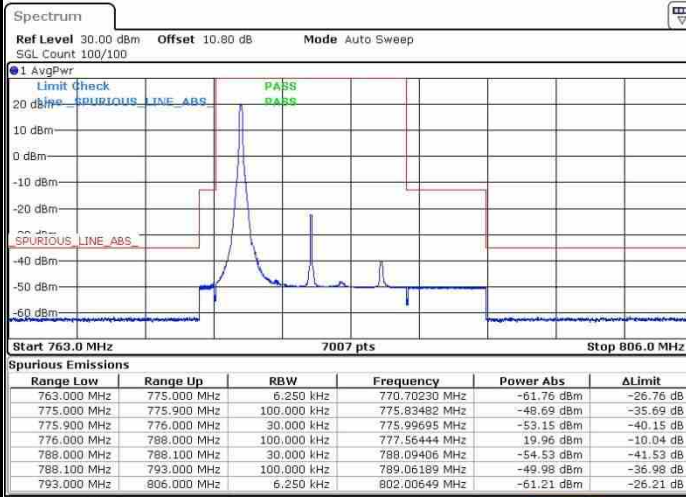
Band Edge / Full RB





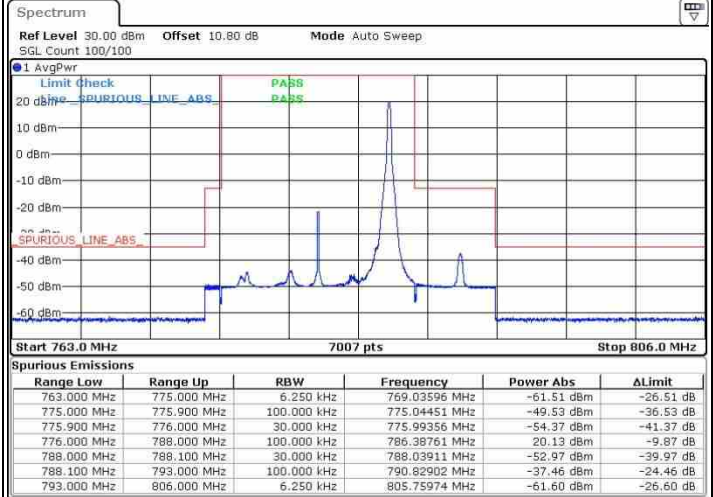
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



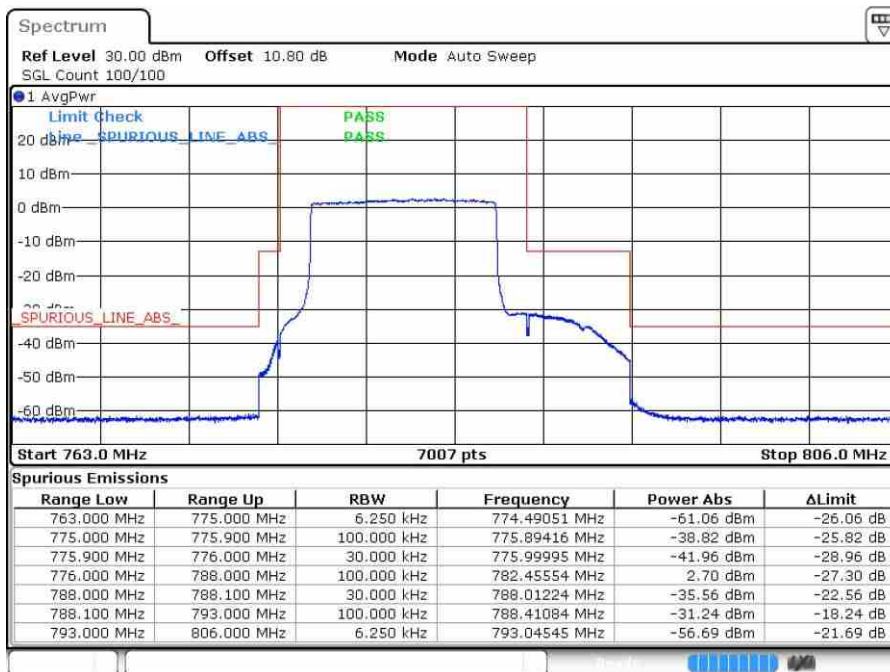
Date: 6 JUN 2018 22:40:37

Highest Band Edge / 1 RB



Date: 6 JUN 2018 22:45:36

Band Edge / Full RB

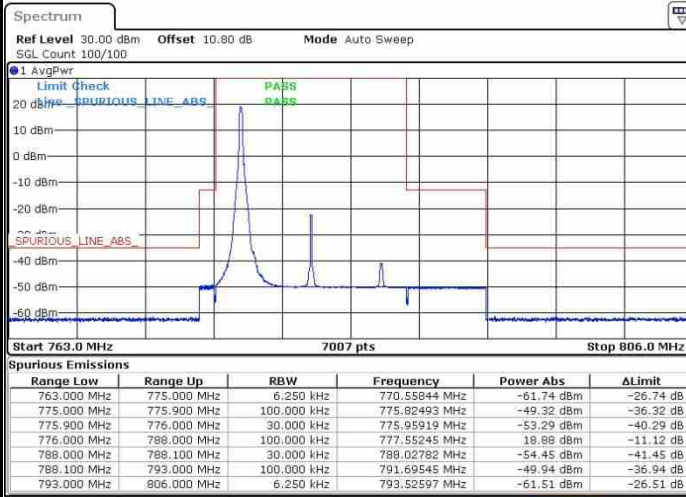


Date: 6 JUN 2018 22:38:58



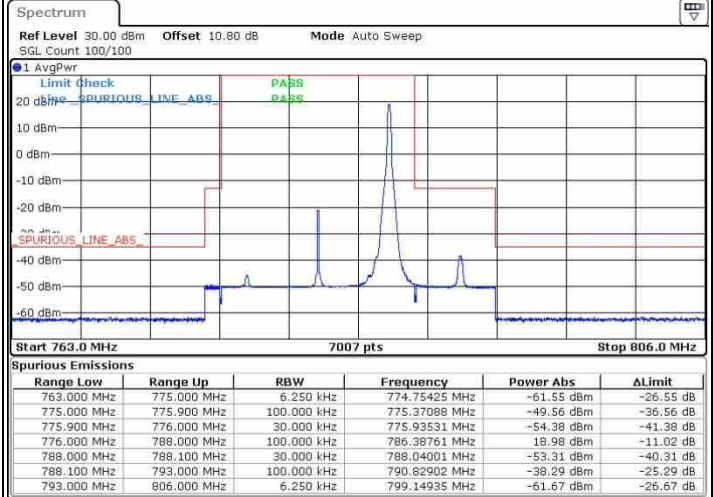
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



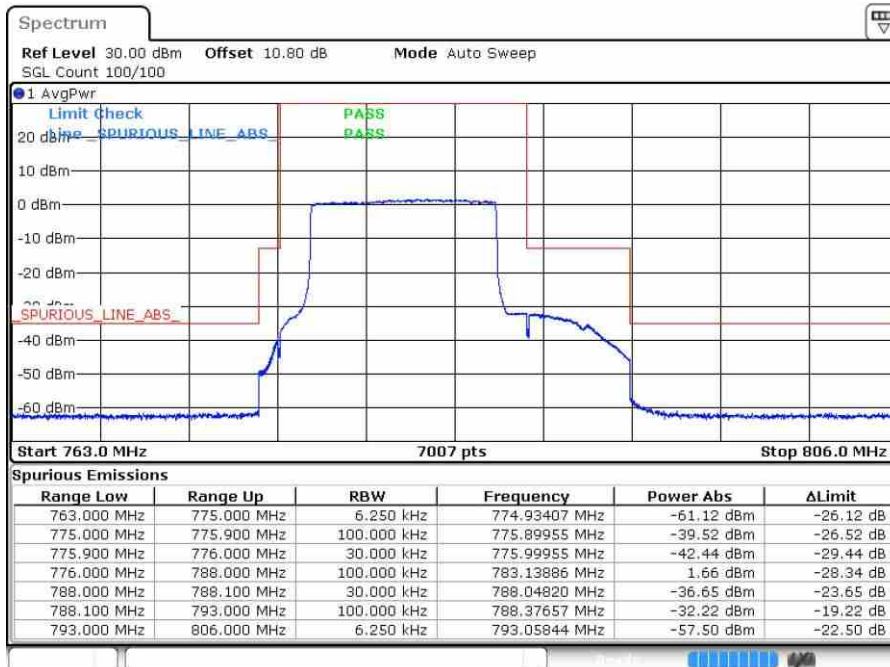
Date: 6 JUN 2018 22:51:04

Highest Band Edge / 1 RB



Date: 6 JUN 2018 22:52:44

Band Edge / Full RB



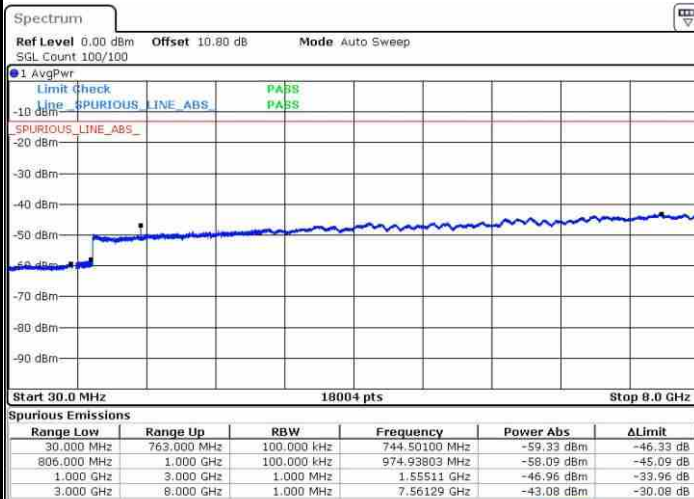
Date: 6 JUN 2018 22:49:24



Conducted Spurious Emission

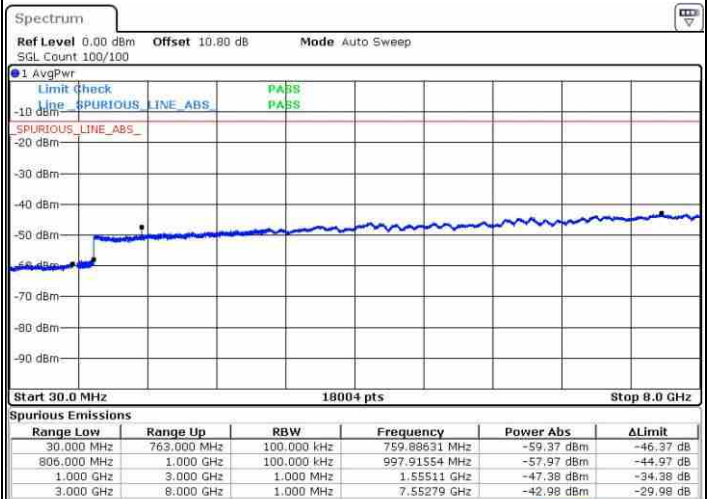
LTE Band 13 / 5MHz

Lowest Channel / QPSK



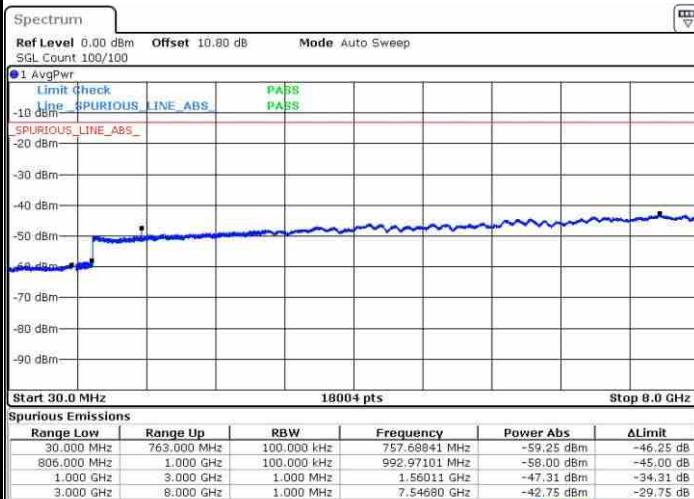
Date: 6 JUN 2018 22:12:03

Lowest Channel / 16QAM



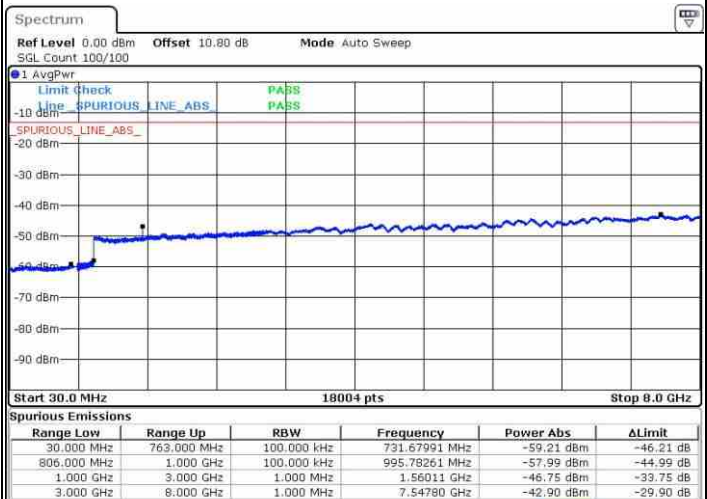
Date: 6 JUN 2018 22:12:57

Middle Channel / QPSK



Date: 6 JUN 2018 22:14:45

Middle Channel / 16QAM

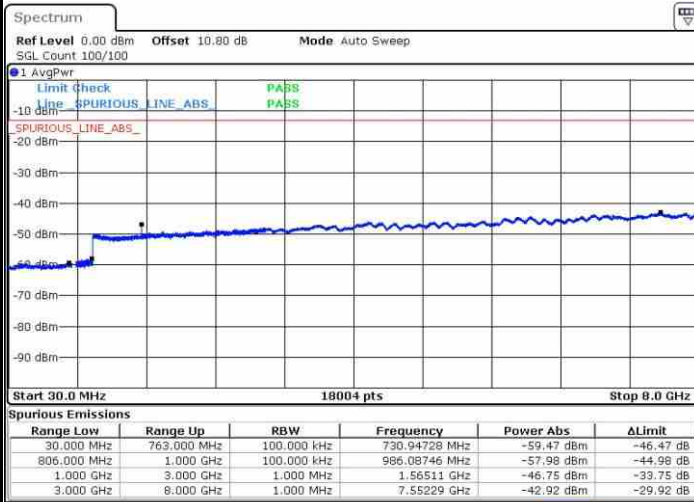


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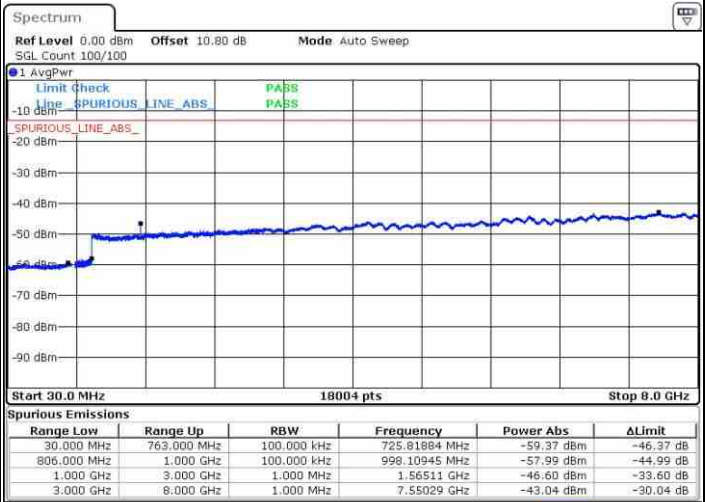
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 6 JUN 2018 22:23:41

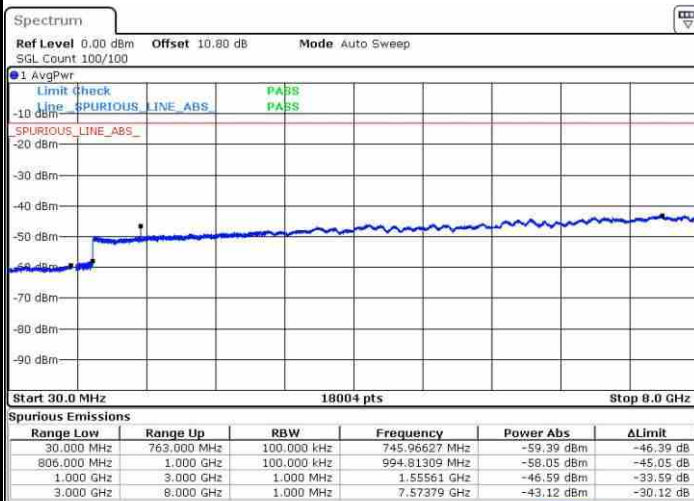
Highest Channel / 16QAM



Date: 6 JUN 2018 22:24:35

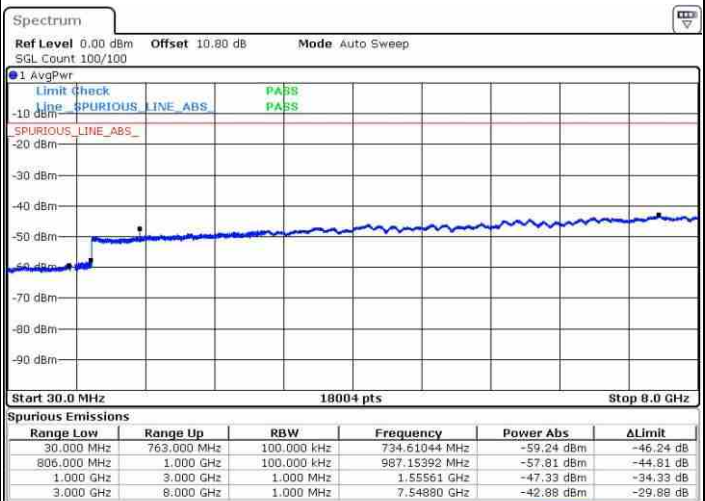
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 6 JUN 2018 22:47:25

Middle Channel / 16QAM

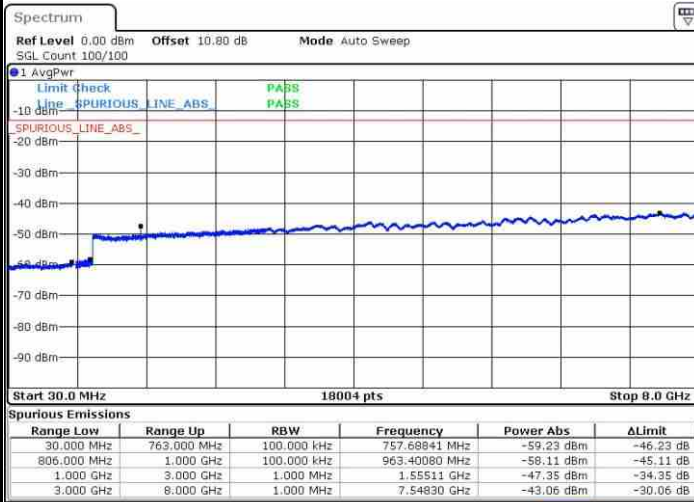


Date: 6 JUN 2018 22:46:31



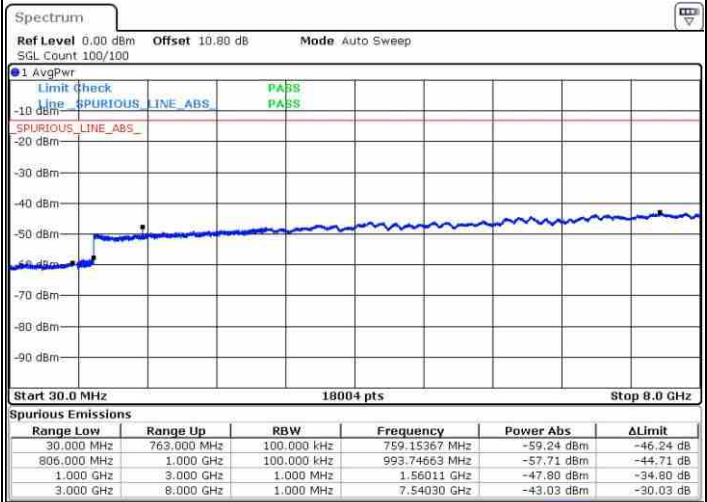
LTE Band 13 / 5MHz

Lowest Channel / 64QAM



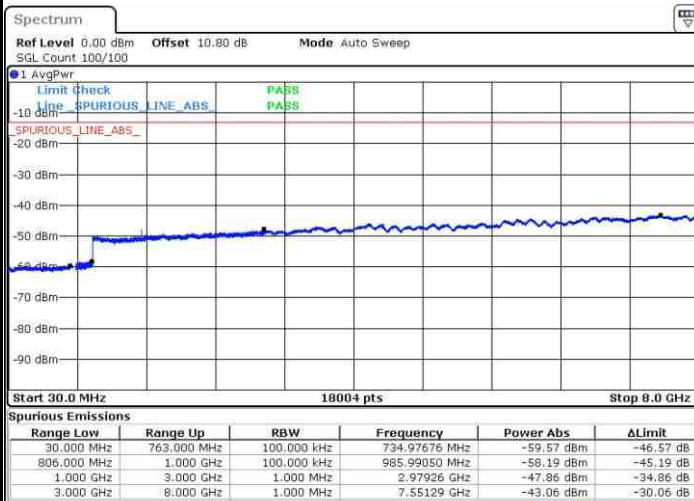
Date: 6 JUN 2018 22:29:09

Middle Channel / 64QAM



Date: 6 JUN 2018 22:30:03

Highest Channel / 64QAM

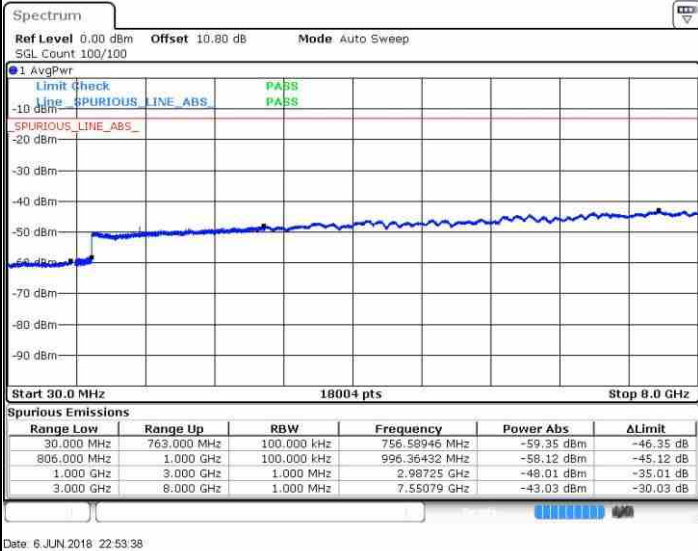


Date: 6 JUN 2018 22:34:58



LTE Band 13 / 10MHz

Middle Channel / 64QAM



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	0.0014	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0092	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0106	
-20	Normal Voltage	0.0088	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0092	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 25

Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.48	4.38	4.35	5.54	PASS
Middle CH	3.51	4.35	4.58	5.62	
Highest CH	3.48	4.41	4.38	5.59	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.1	6.14	-	-	PASS
Middle CH	5.48	6.29	-	-	
Highest CH	5.04	6.2	-	-	



LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



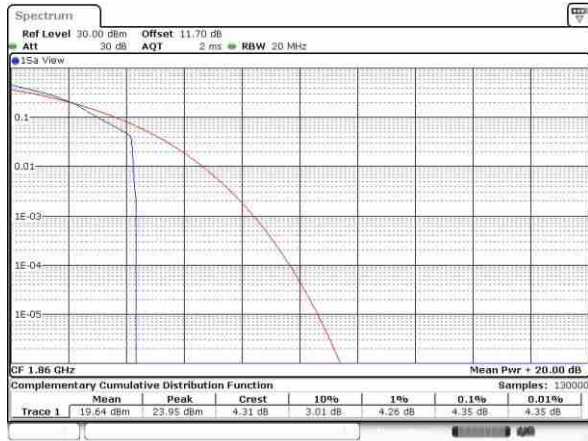
Highest Channel / Full RB



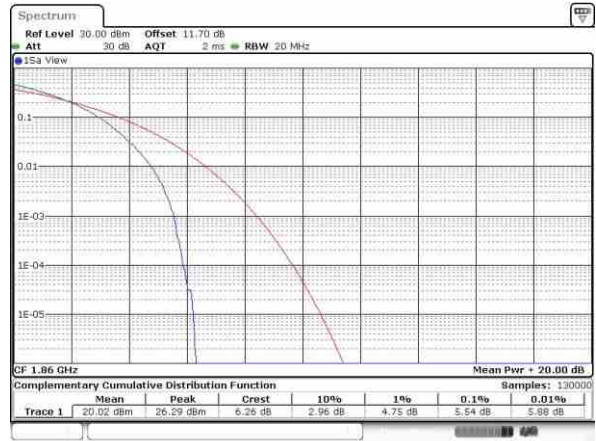


LTE Band 25 / 20MHz / 16QAM

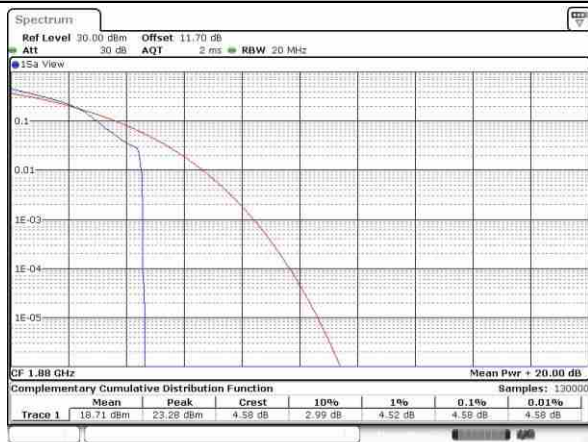
Lowest Channel / 1RB



Lowest Channel / Full RB



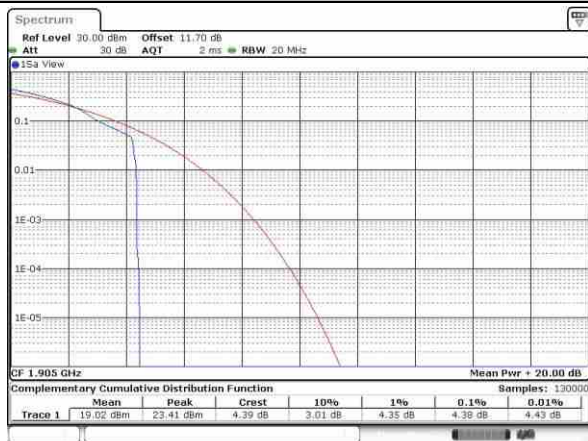
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



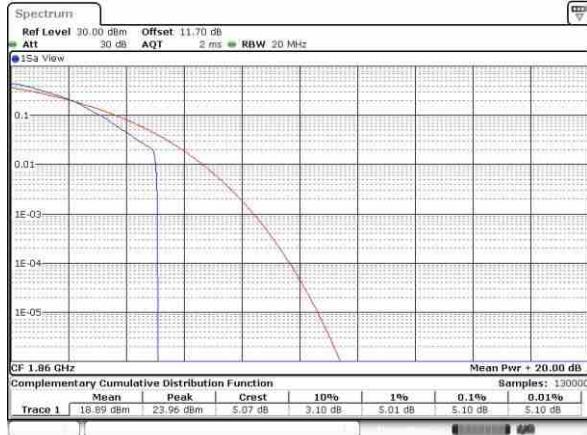
Highest Channel / Full RB



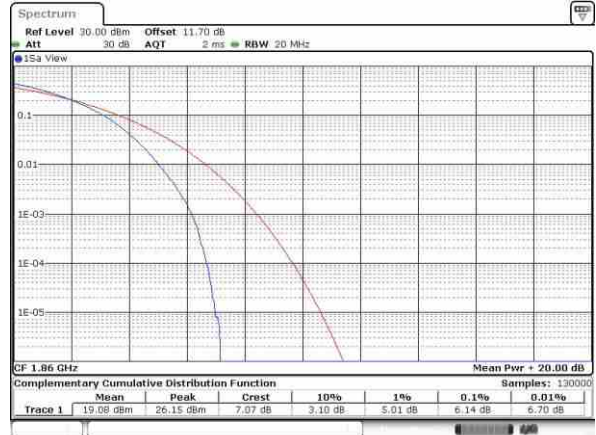


LTE Band 25 / 20MHz / 64QAM

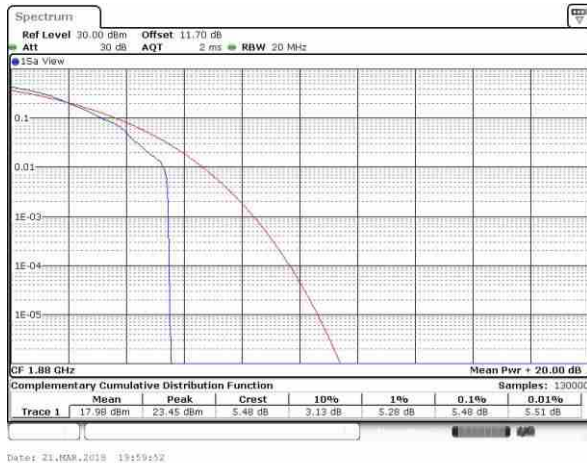
Lowest Channel / 1RB



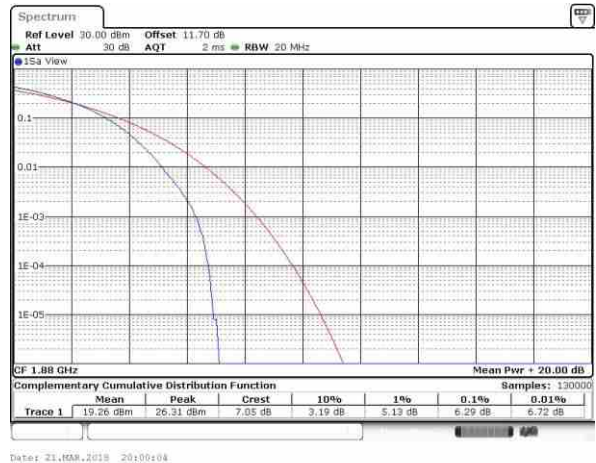
Lowest Channel / Full RB



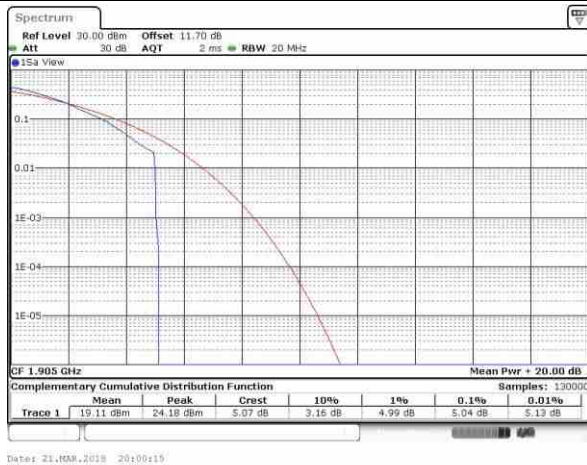
Middle Channel / 1RB



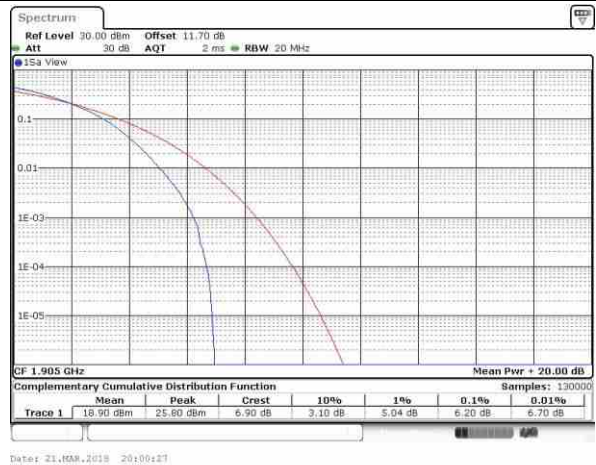
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



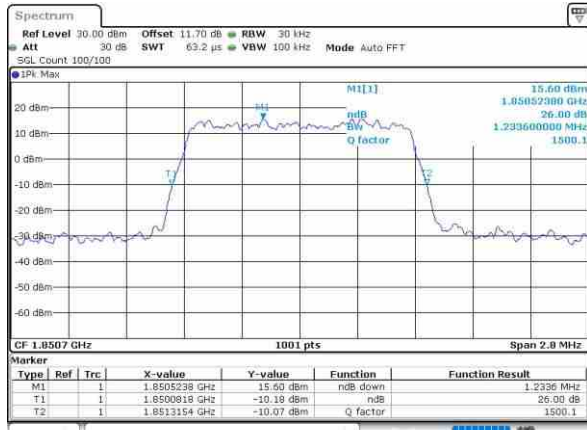
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.23	1.21	3.03	3.01	4.94	4.82	9.65	9.79	14.24	14.42	20.98	20.22
Middle CH	1.22	1.23	3.02	3.02	4.93	4.93	9.63	9.87	14.51	14.54	20.22	20.34
Highest CH	1.24	1.24	3.06	3.02	4.92	4.86	9.69	9.83	14.24	14.30	20.18	20.18
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	2.97	-	4.90	-	9.73	-	14.33	-	20.26	-
Middle CH	1.23	-	3.00	-	4.81	-	9.67	-	14.18	-	20.26	-
Highest CH	1.22	-	2.97	-	4.92	-	9.85	-	14.27	-	20.22	-

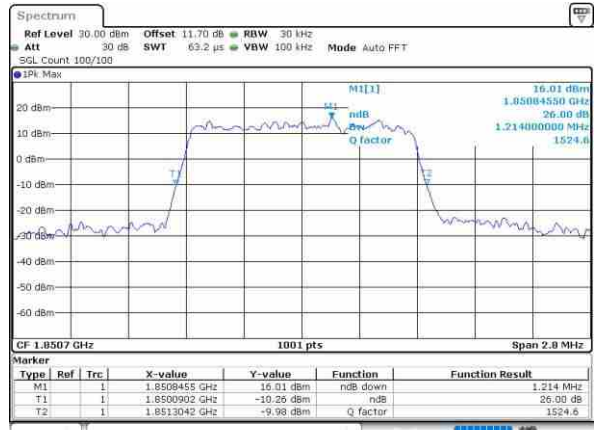


LTE Band 25

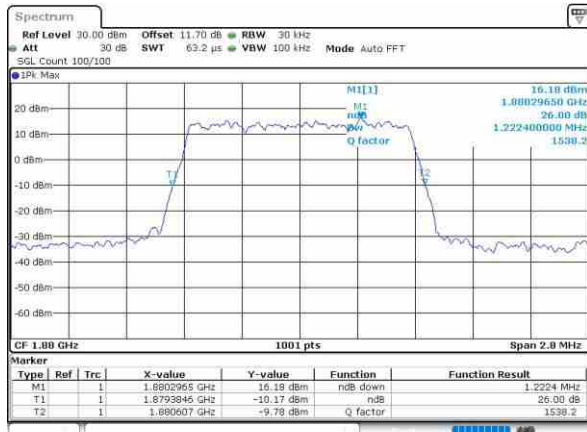
Lowest Channel / 1.4MHz / QPSK



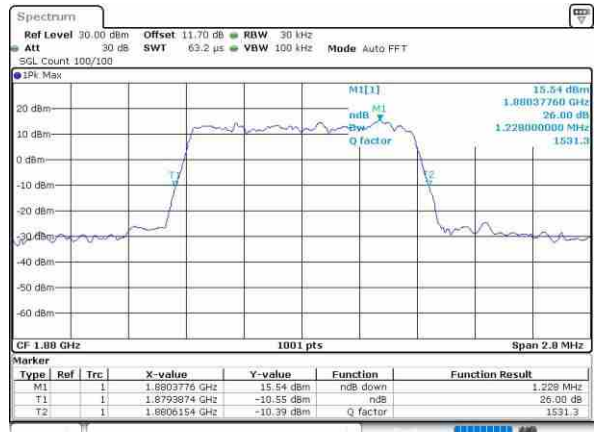
Lowest Channel / 1.4MHz / 16QAM



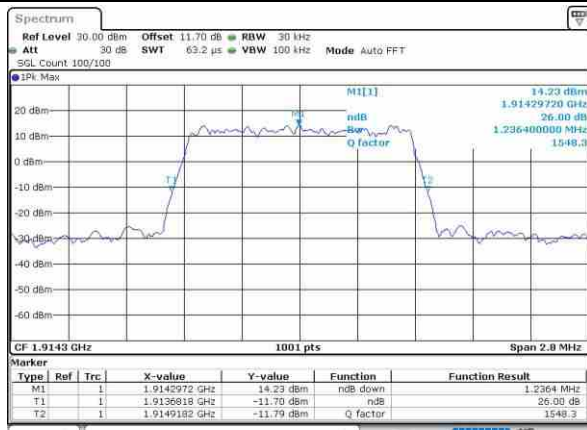
Middle Channel / 1.4MHz / QPSK



Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / 16QAM

