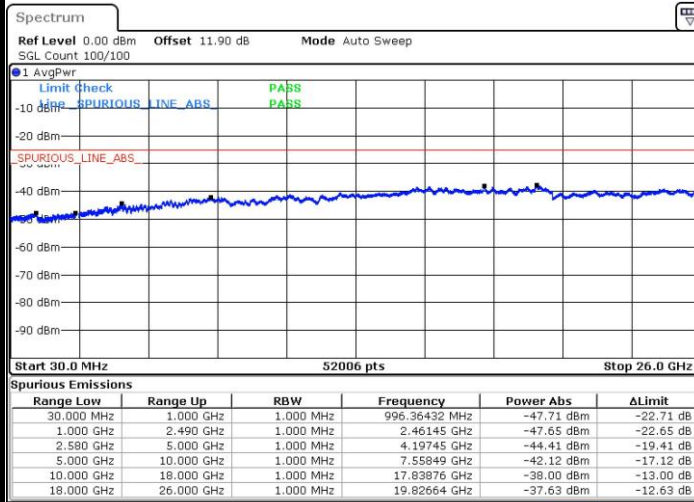




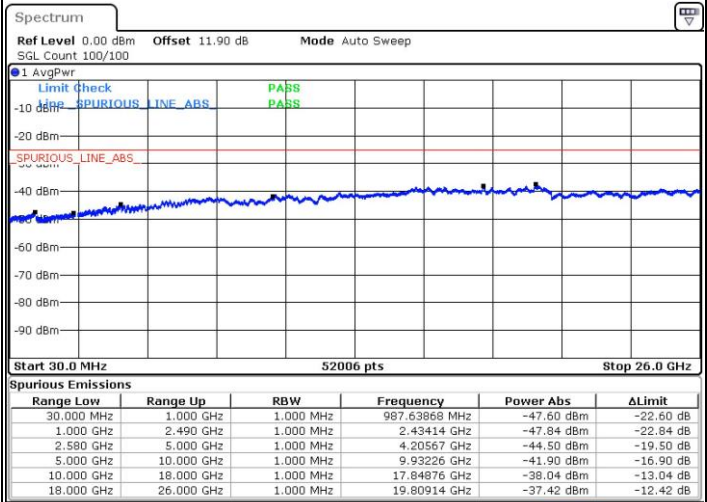
LTE Band 7 / 10MHz

Middle Channel / QPSK



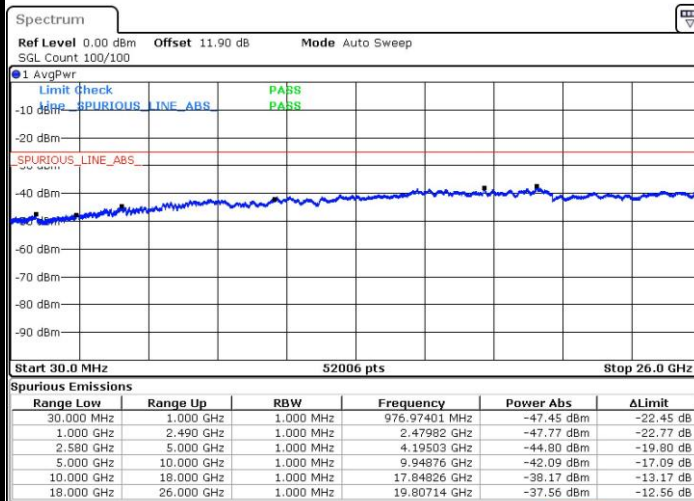
Date: 5.FEB.2019 13:30:24

Middle Channel / 16QAM



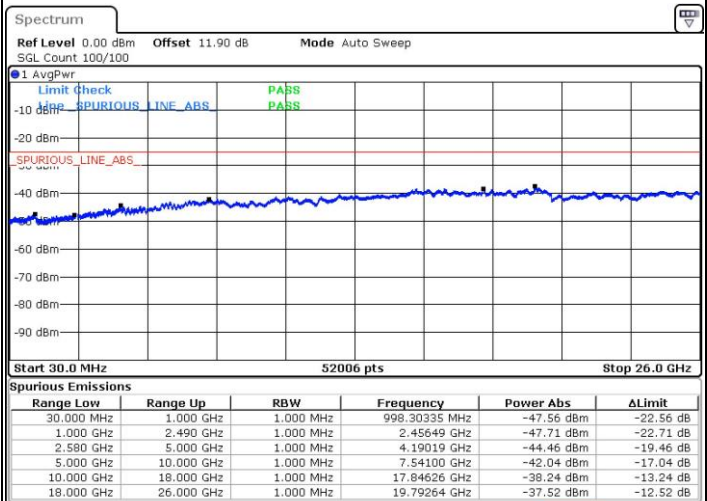
Date: 5.FEB.2019 13:31:07

Highest Channel / QPSK



Date: 5.FEB.2019 13:36:39

Highest Channel / 16QAM

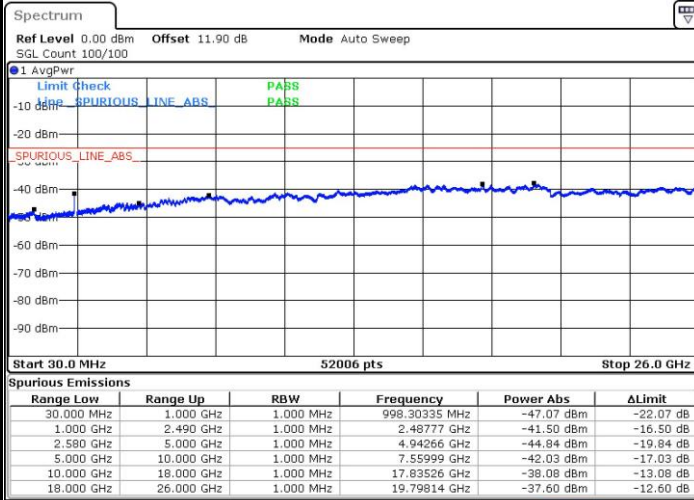


Date: 5.FEB.2019 13:37:22



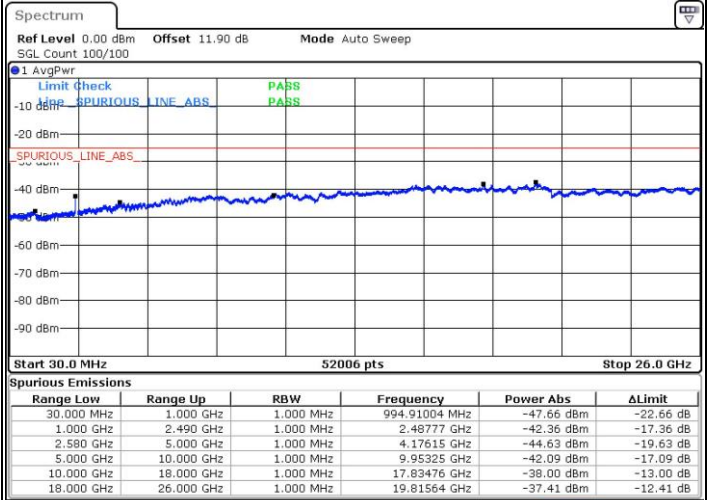
LTE Band 7 / 15MHz

Lowest Channel / QPSK



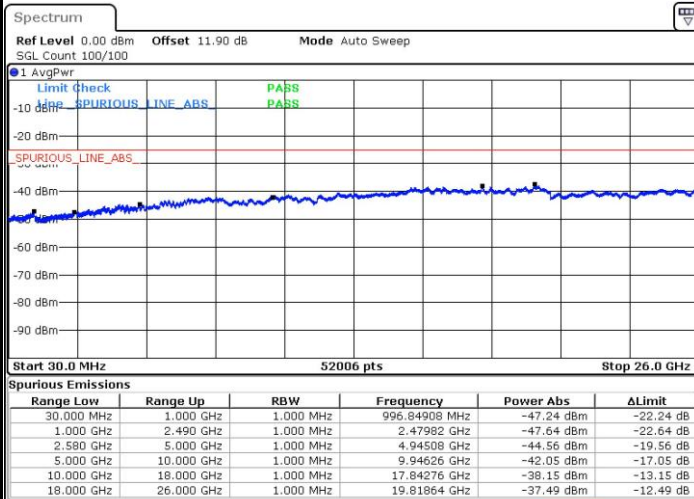
Date: 5.FEB.2019 13:50:14

Lowest Channel / 16QAM



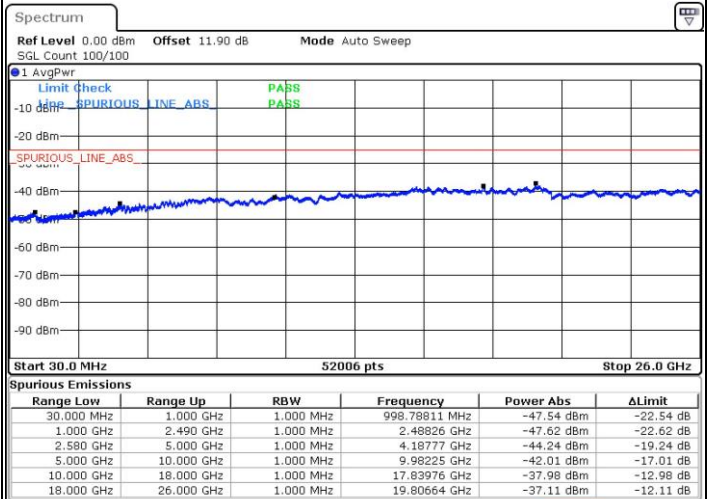
Date: 5.FEB.2019 13:50:57

Middle Channel / QPSK



Date: 5.FEB.2019 13:52:26

Middle Channel / 16QAM

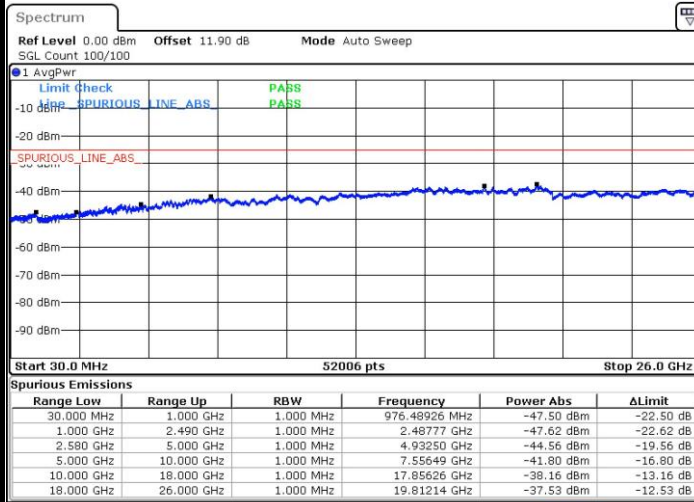


Date: 5.FEB.2019 13:53:09



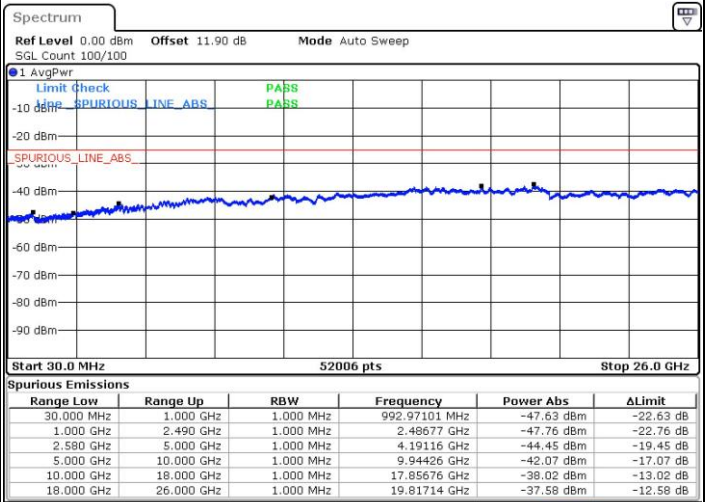
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 5.FEB.2019 13:58:41

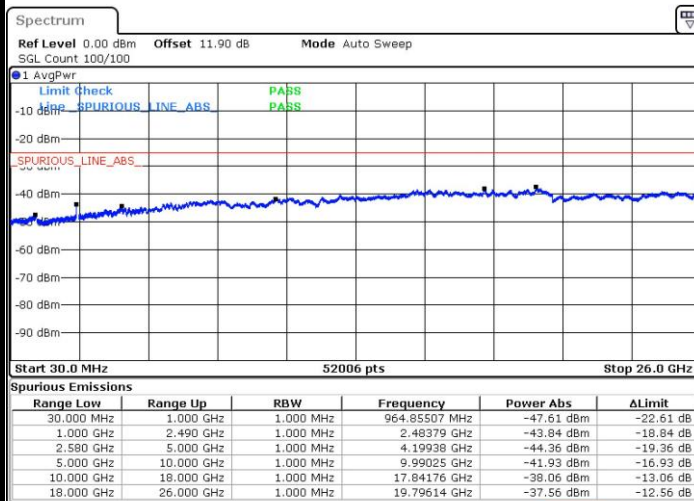
Highest Channel / 16QAM



Date: 5.FEB.2019 13:59:24

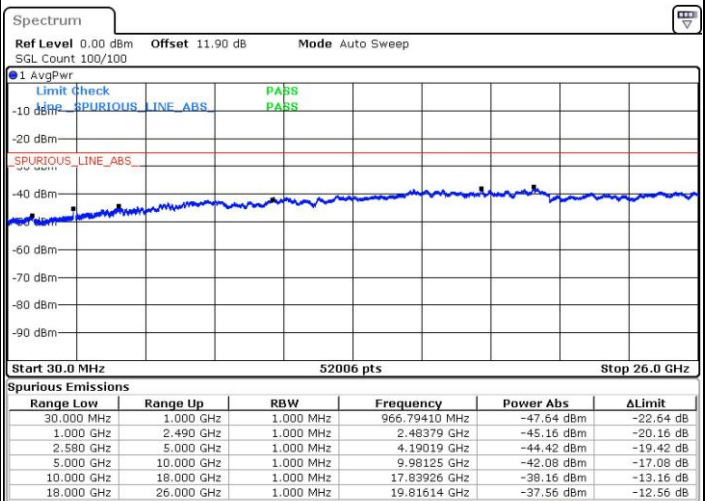
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 5.FEB.2019 14:17:42

Lowest Channel / 16QAM

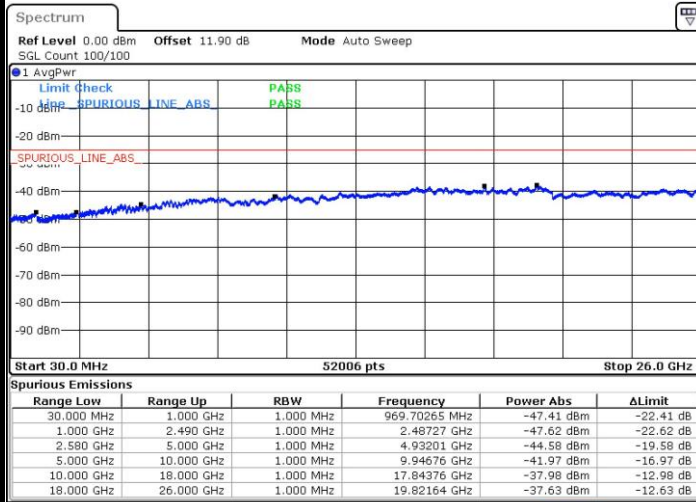


Date: 5.FEB.2019 14:18:25



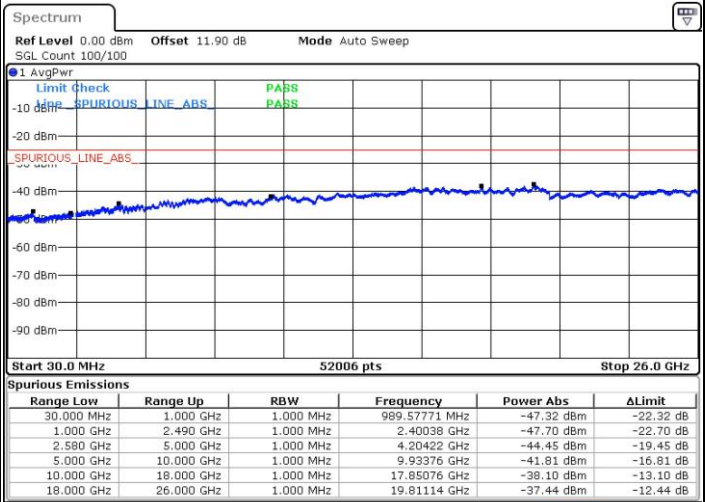
LTE Band 7 / 20MHz

Middle Channel / QPSK



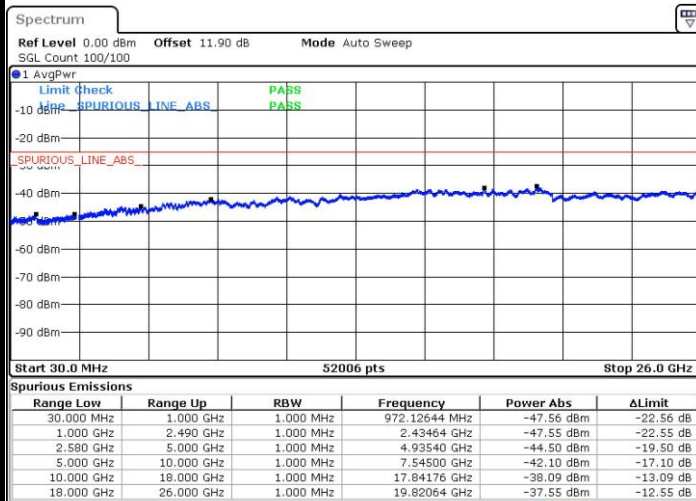
Date: 5.FEB.2019 14:19:54

Middle Channel / 16QAM



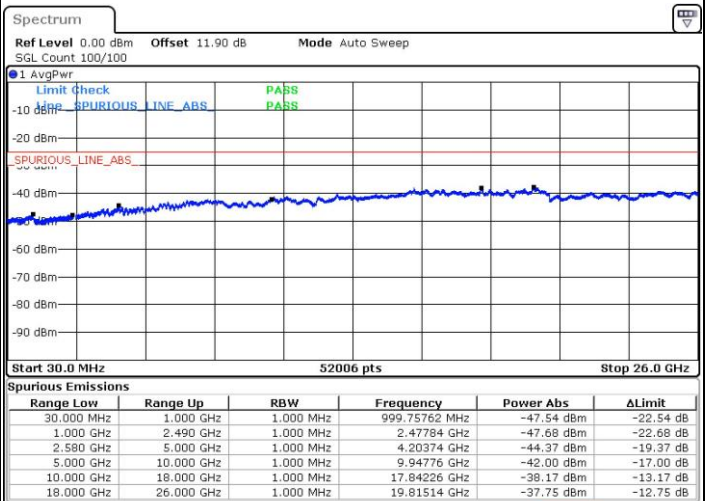
Date: 5.FEB.2019 14:20:37

Highest Channel / QPSK



Date: 5.FEB.2019 14:26:09

Highest Channel / 16QAM

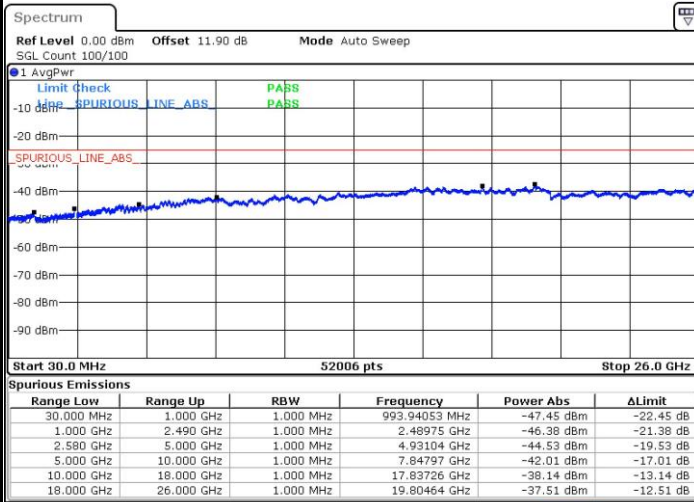


Date: 5.FEB.2019 14:26:52



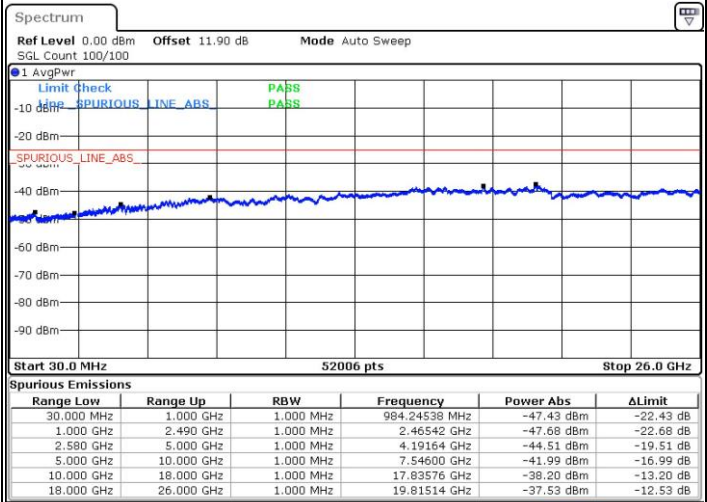
LTE Band 7 / 5MHz

Lowest Channel / 64QAM



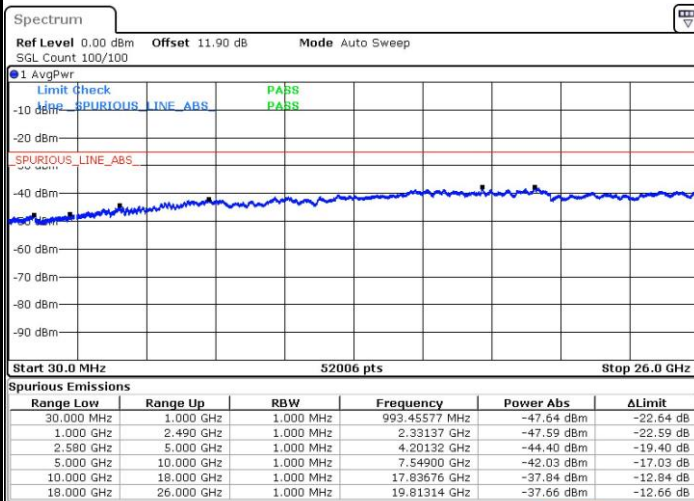
Date: 5.FEB.2019 13:18:28

Middle Channel / 64QAM



Date: 5.FEB.2019 13:19:34

Highest Channel / 64QAM

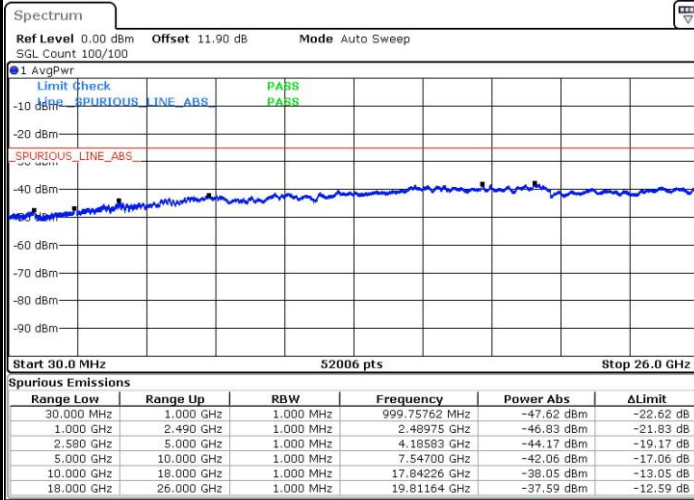


Date: 5.FEB.2019 13:22:41



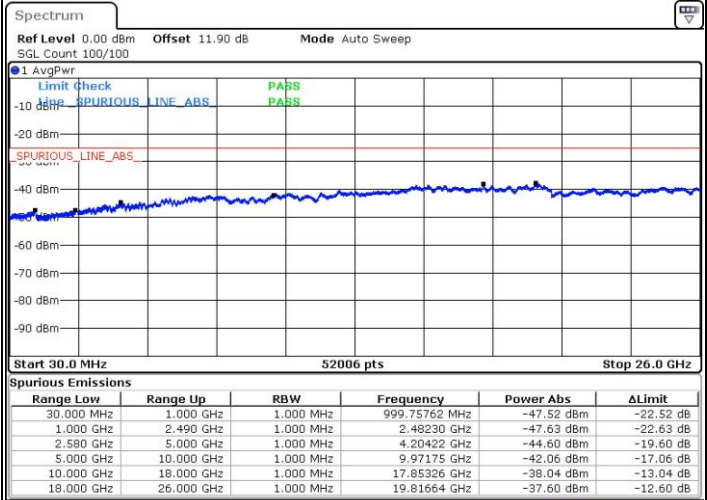
LTE Band 7 / 10MHz

Lowest Channel / 64QAM



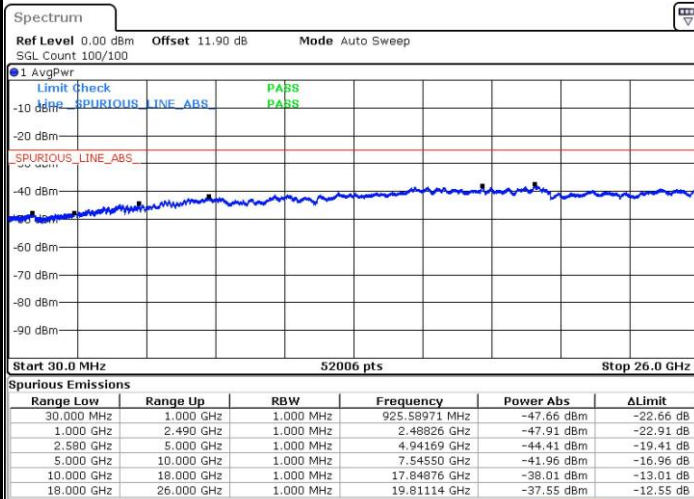
Date: 5.FEB.2019 13:40:29

Middle Channel / 64QAM



Date: 5.FEB.2019 13:41:35

Highest Channel / 64QAM

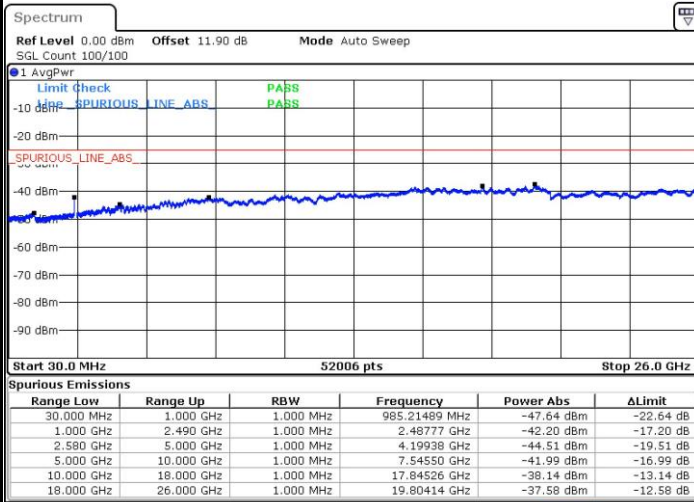


Date: 5.FEB.2019 13:44:42



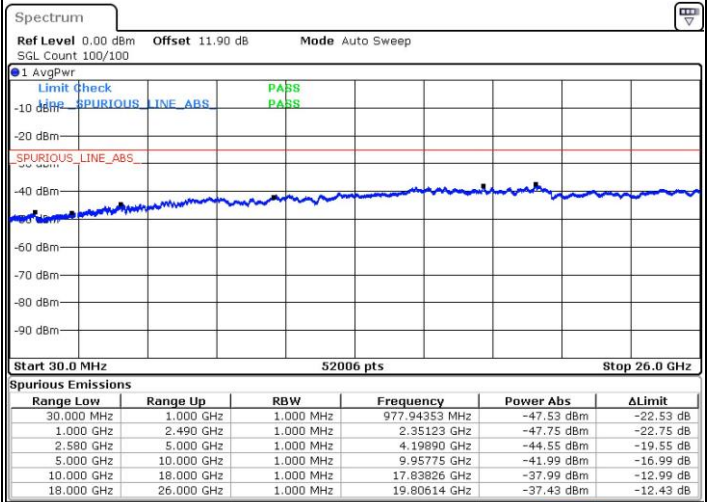
LTE Band 7 / 15MHz

Lowest Channel / 64QAM



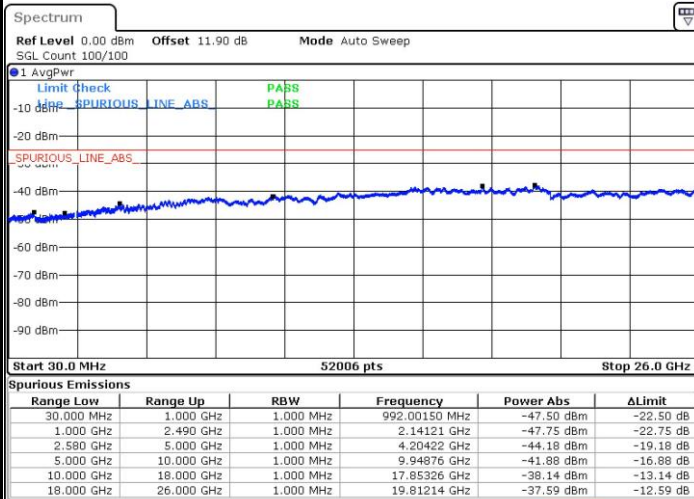
Date: 5.FEB.2019 14:02:31

Middle Channel / 64QAM



Date: 5.FEB.2019 14:03:37

Highest Channel / 64QAM

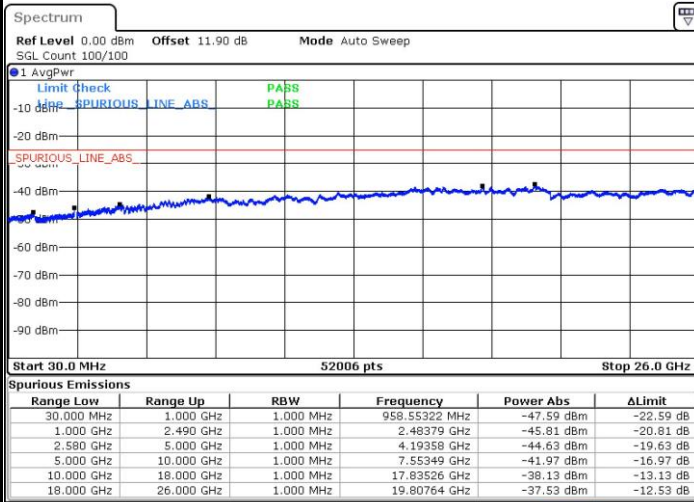


Date: 5.FEB.2019 14:06:45



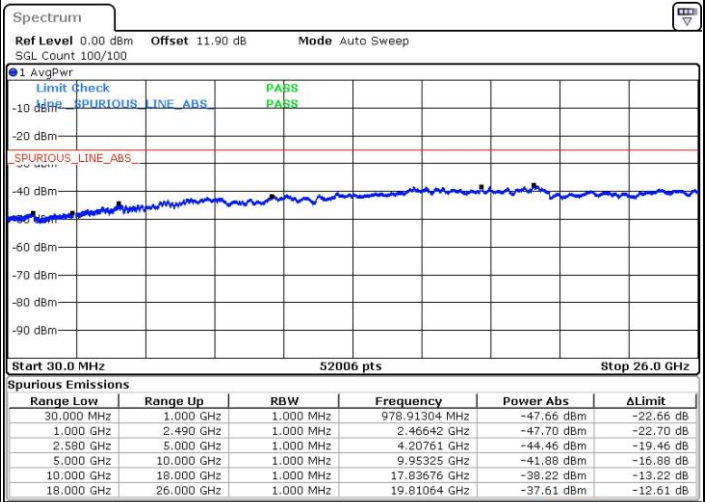
LTE Band 7 / 20MHz

Lowest Channel / 64QAM



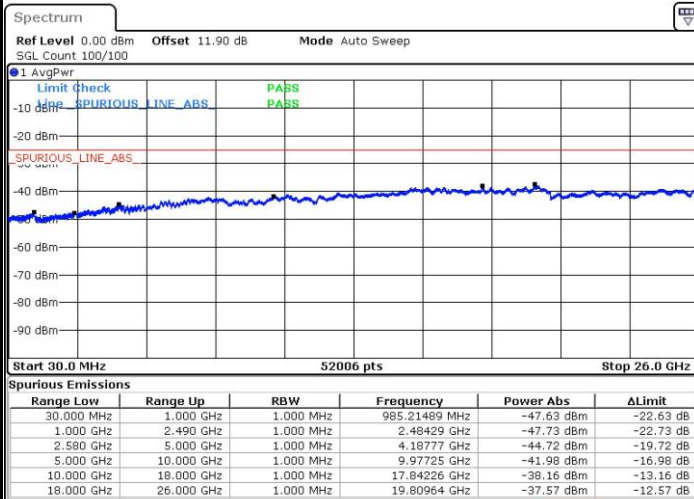
Date: 5.FEB.2019 14:29:59

Middle Channel / 64QAM



Date: 5.FEB.2019 14:31:05

Highest Channel / 64QAM



Date: 5.FEB.2019 14:34:13

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0061	
30	Normal Voltage	0.0065	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0065	
0	Normal Voltage	0.0057	
-10	Normal Voltage	0.0054	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0058	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0057	

Note:

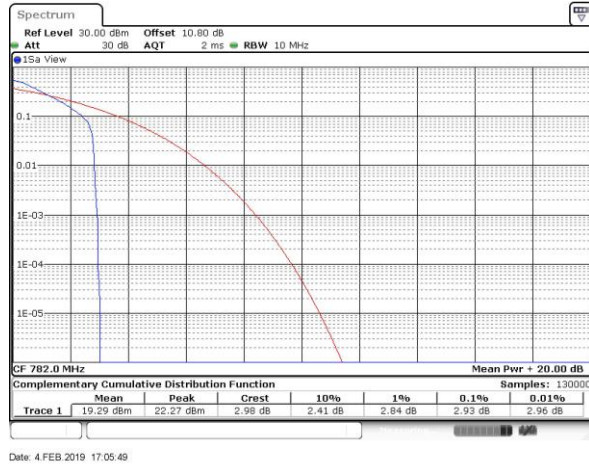
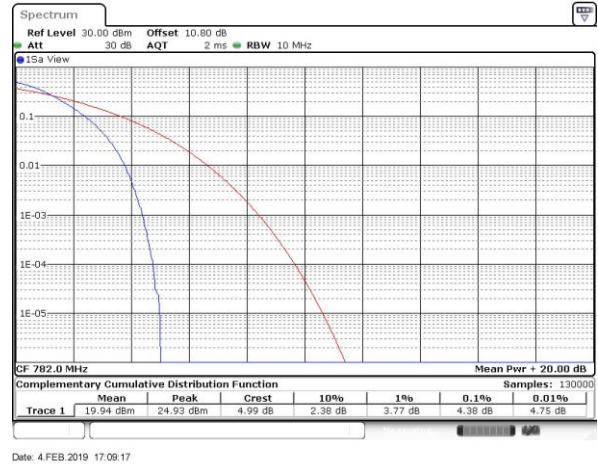
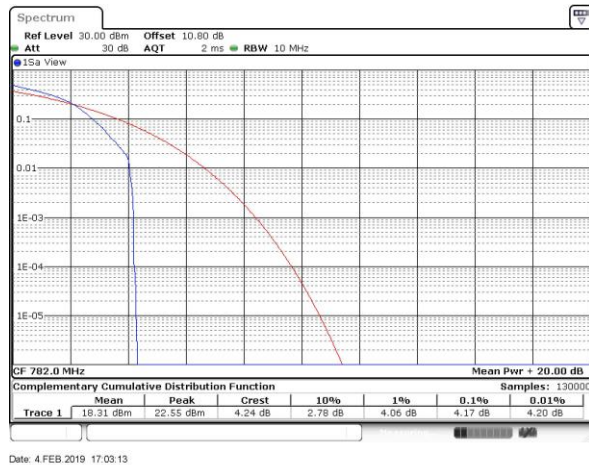
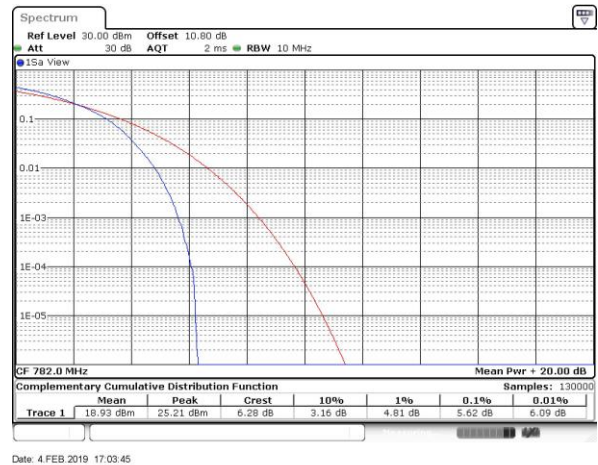
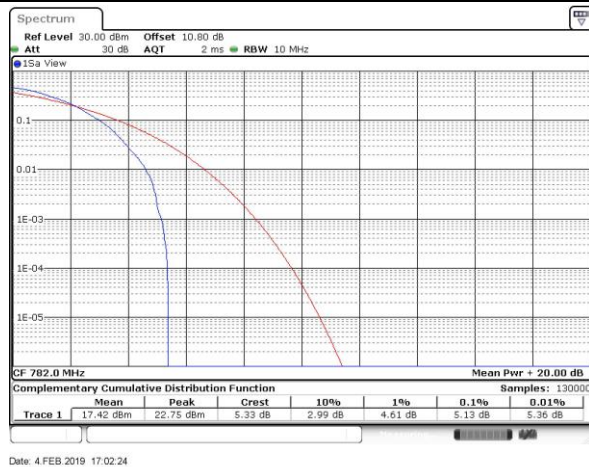
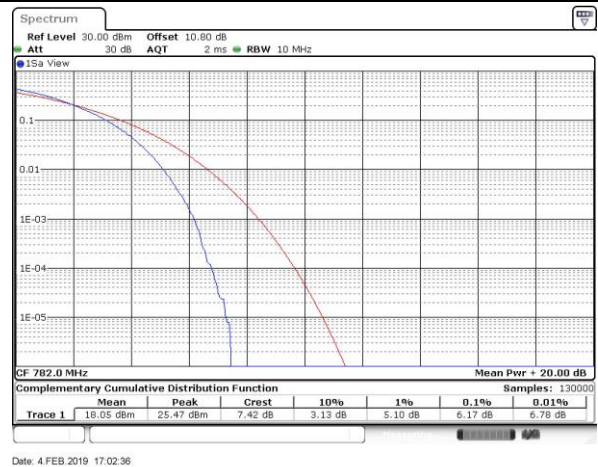
1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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	2.93	4.38	4.17	5.62	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.13	6.17	-	-	
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

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

Middle Channel / Full RB


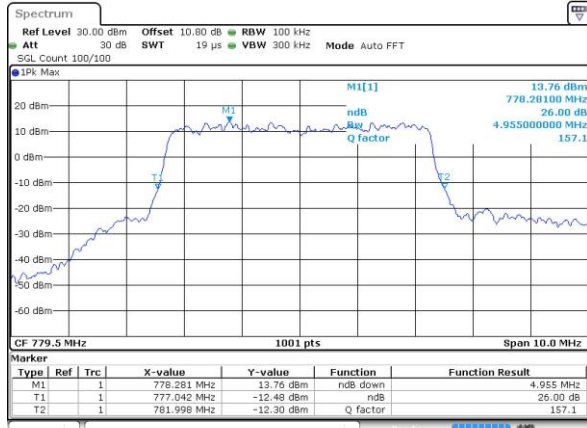
**26dB Bandwidth**

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	-	-	-	-	4.96	4.92	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	4.86	9.79	9.83	-	-	-	-
Highest CH	-	-	-	-	4.87	4.97	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.89	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.88	-	9.93	-	-	-	-	-
Highest CH	-	-	-	-	4.93	-	-	-	-	-	-	-



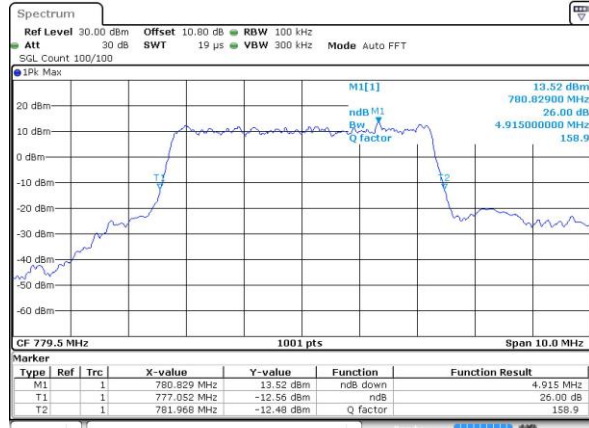
LTE Band 13

Lowest Channel / 5MHz / QPSK



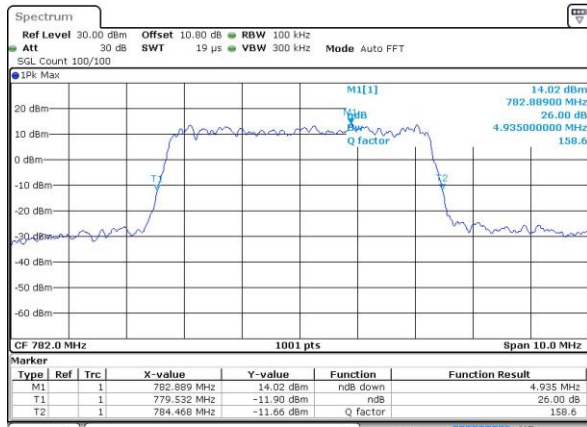
Date: 4 FEB 2019 16:09:10

Lowest Channel / 5MHz / 16QAM



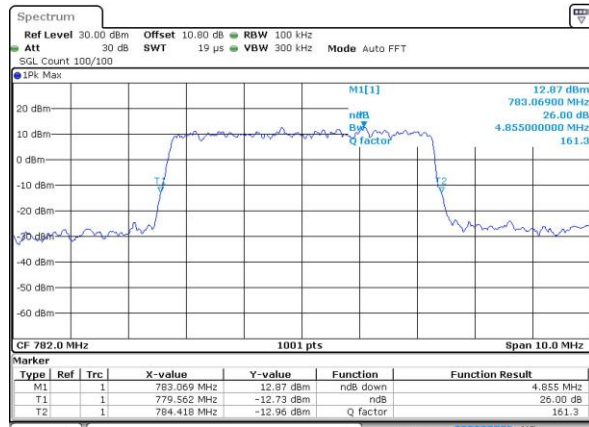
Date: 4 FEB 2019 16:08:59

Middle Channel / 5MHz / QPSK



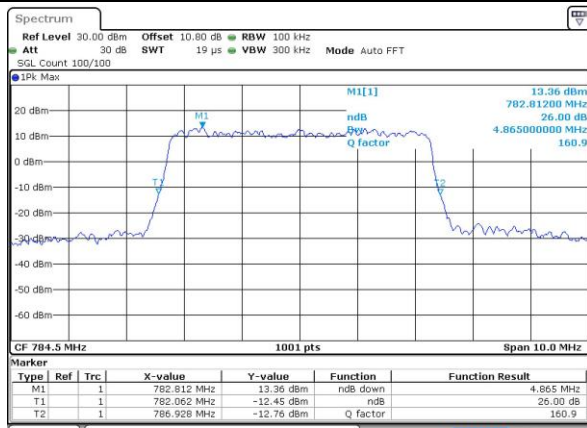
Date: 4 FEB 2019 16:18:43

Middle Channel / 5MHz / 16QAM



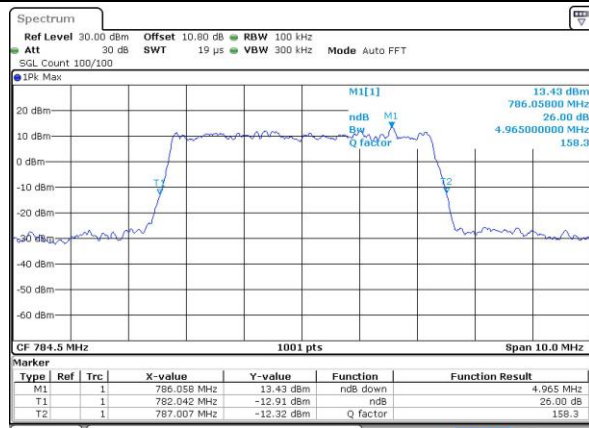
Date: 4 FEB 2019 16:18:54

Highest Channel / 5MHz / QPSK



Date: 4 FEB 2019 16:20:03

Highest Channel / 5MHz / 16QAM

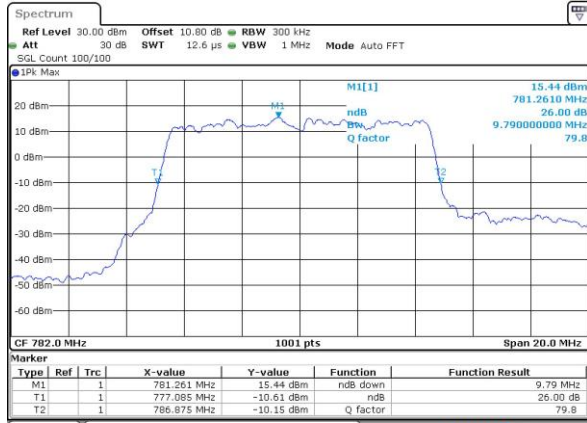


Date: 4 FEB 2019 16:19:51



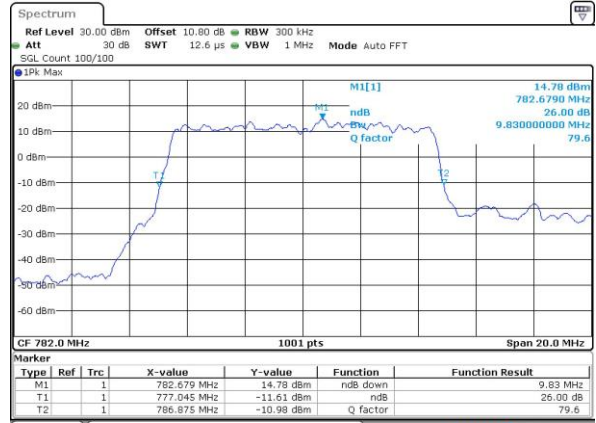
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 4 FEB 2019 16:38:40

Middle Channel / 10MHz / 16QAM

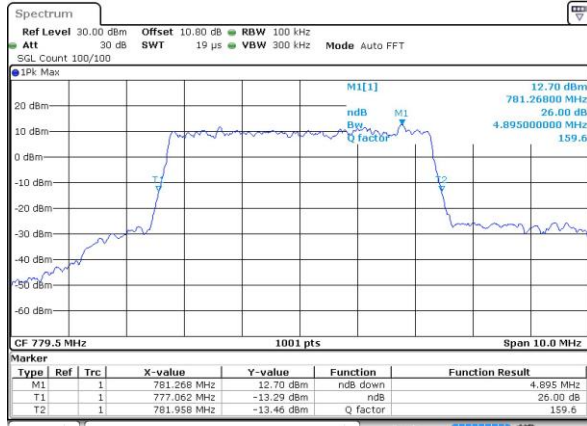


Date: 4 FEB 2019 16:38:28

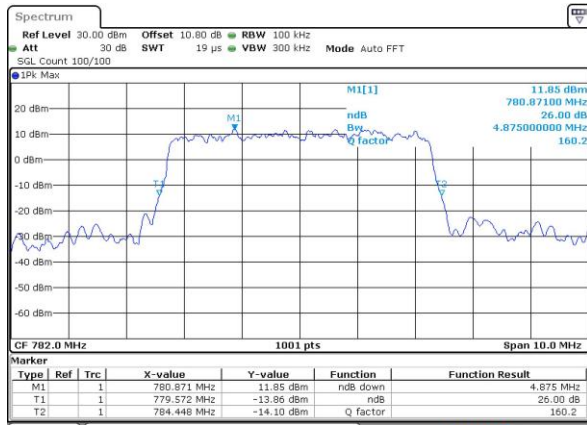


LTE Band 13

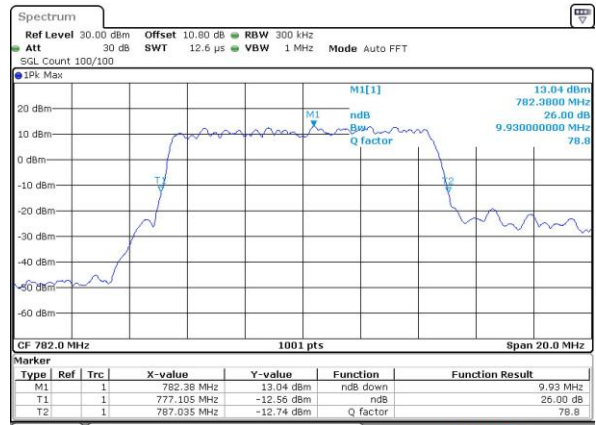
Lowest Channel / 5MHz / 64QAM



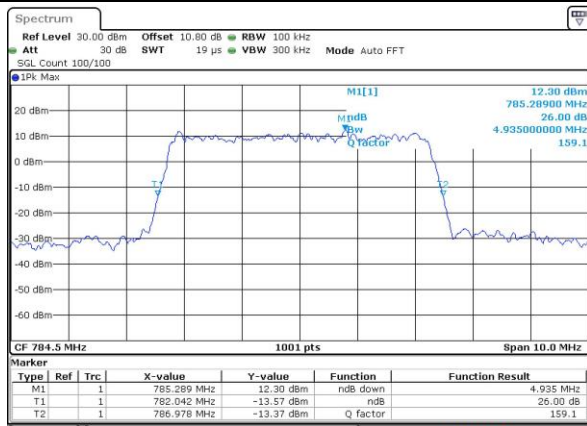
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



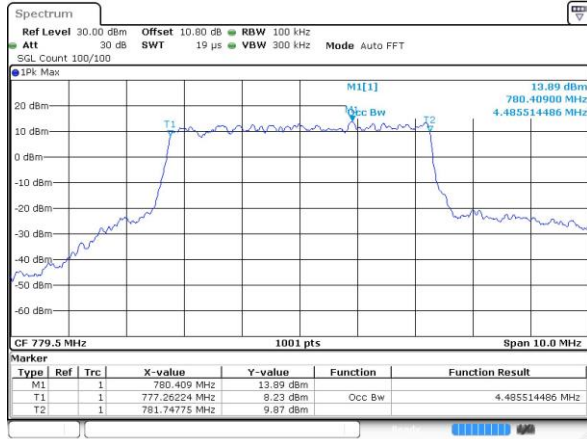
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.51	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.5	9.05	8.97	-	-	-	-
Highest CH	-	-	-	-	4.49	4.48	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.49	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	9.07	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-



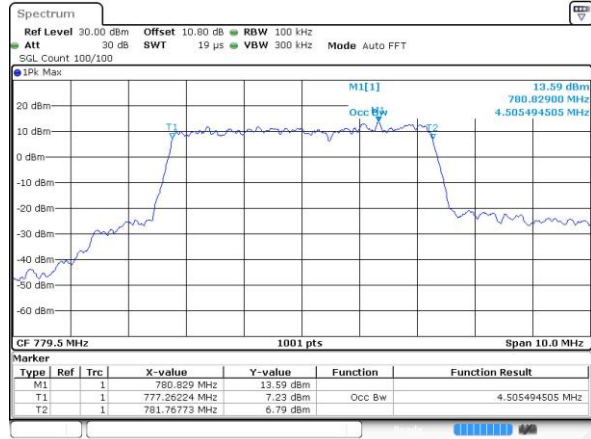
LTE Band 13

Lowest Channel / 5MHz / QPSK



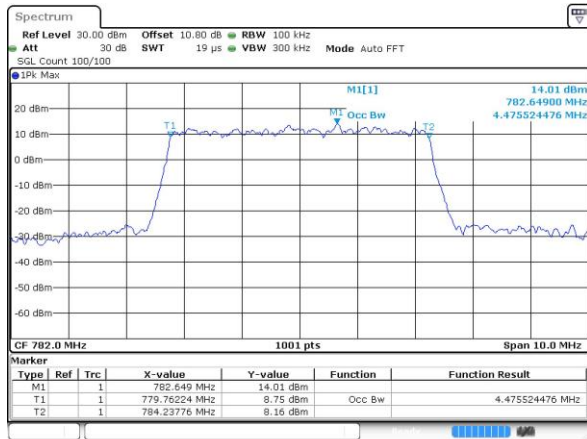
Date: 4 FEB 2019 16:08:36

Lowest Channel / 5MHz / 16QAM



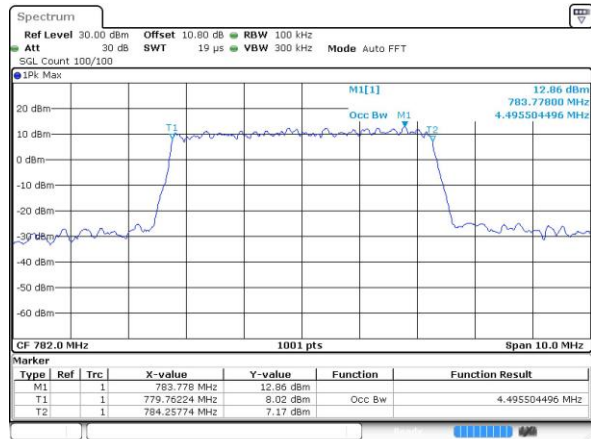
Date: 4 FEB 2019 16:08:47

Middle Channel / 5MHz / QPSK



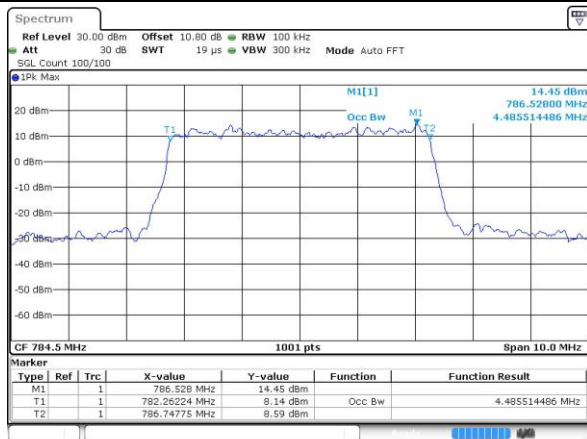
Date: 4 FEB 2019 16:19:17

Middle Channel / 5MHz / 16QAM



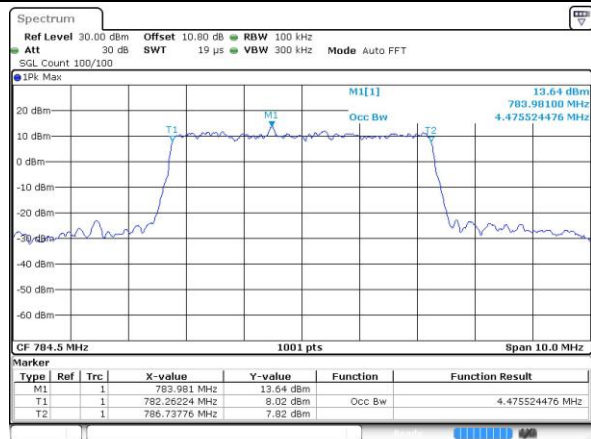
Date: 4 FEB 2019 16:19:05

Highest Channel / 5MHz / QPSK



Date: 4 FEB 2019 16:19:28

Highest Channel / 5MHz / 16QAM

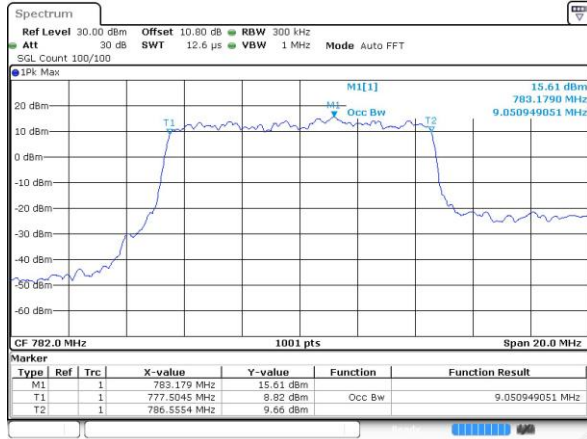


Date: 4 FEB 2019 16:19:40



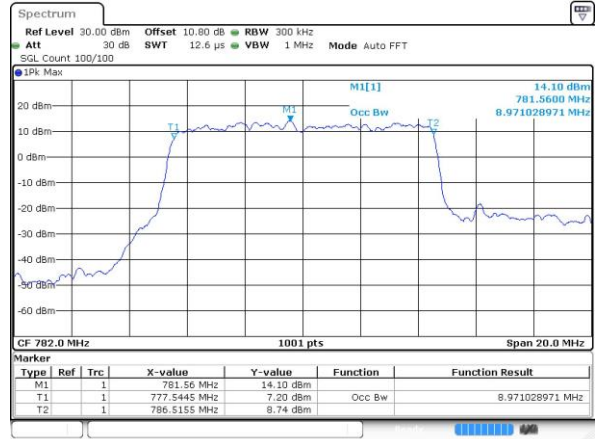
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 4 FEB 2019 16:38:05

Middle Channel / 10MHz / 16QAM

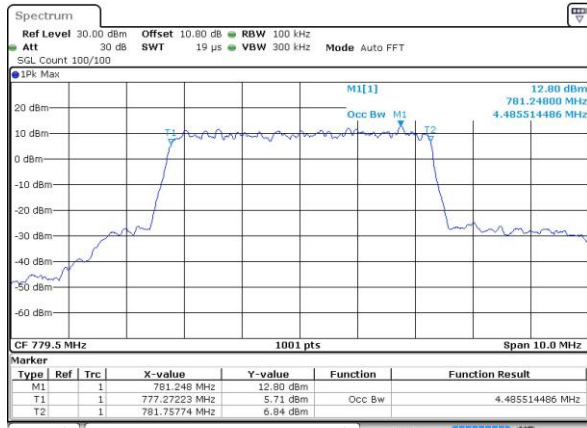


Date: 4 FEB 2019 16:38:17

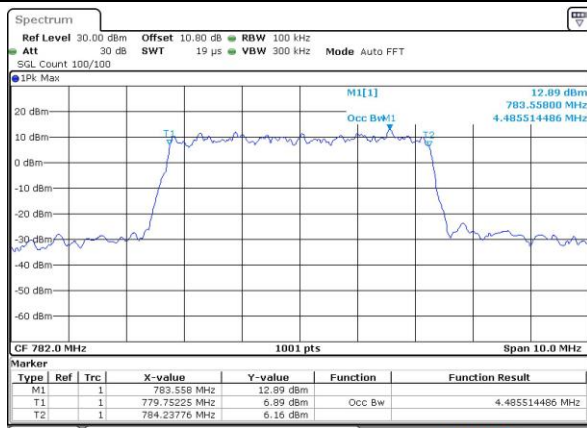


LTE Band 13

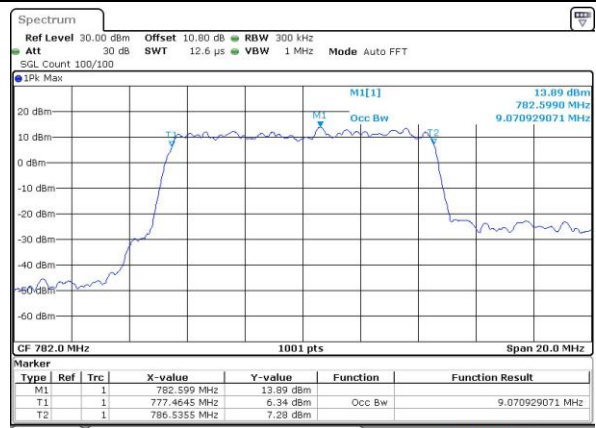
Lowest Channel / 5MHz / 64QAM



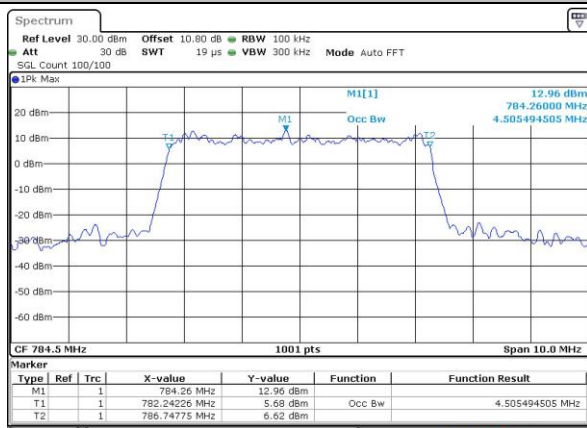
Middle Channel / 5MHz / 64QAM

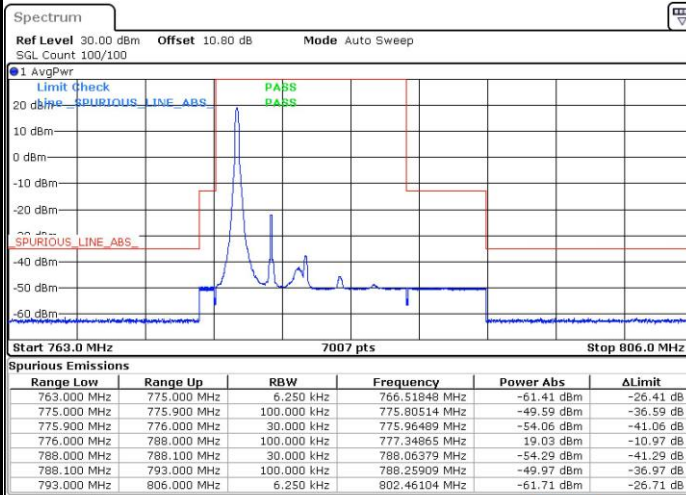
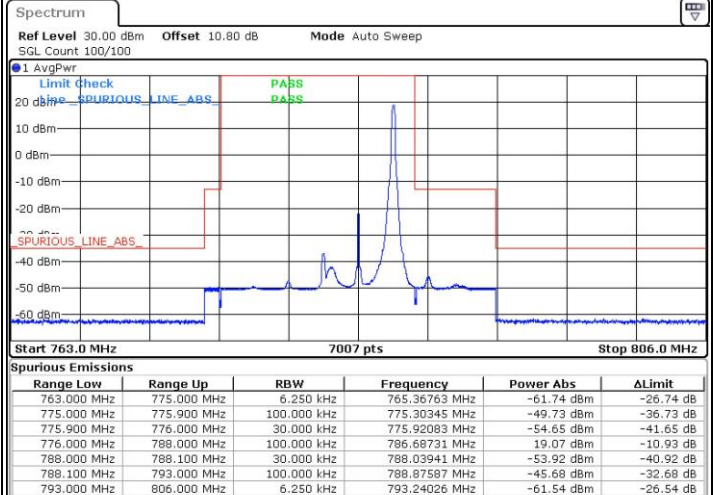
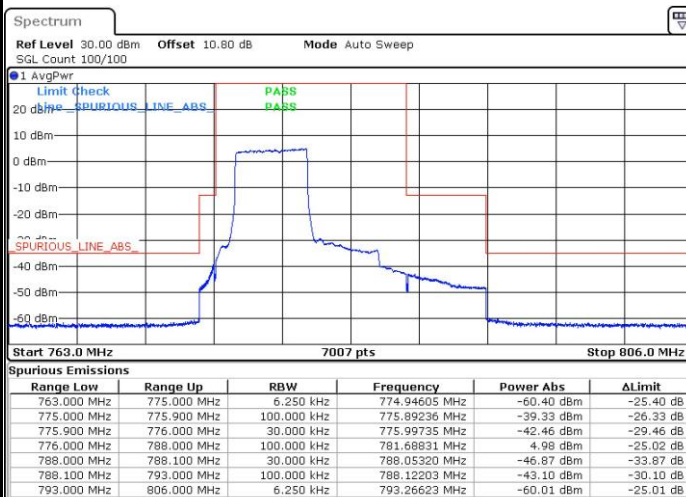
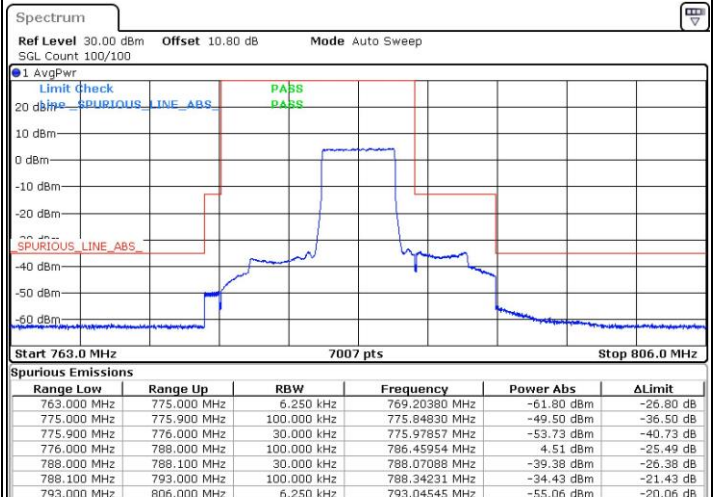


Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

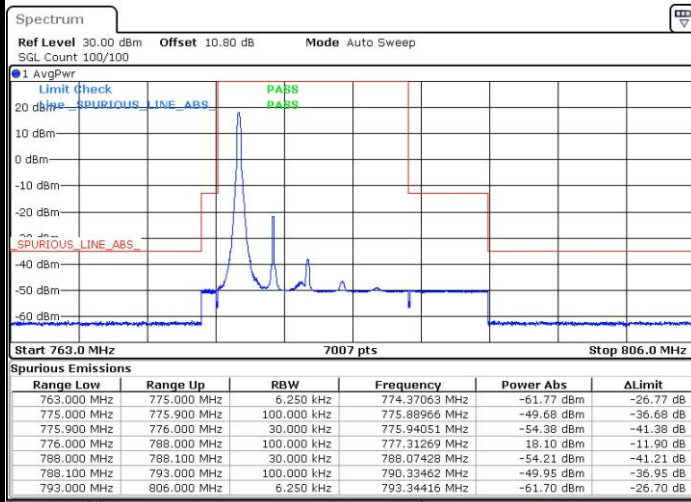


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

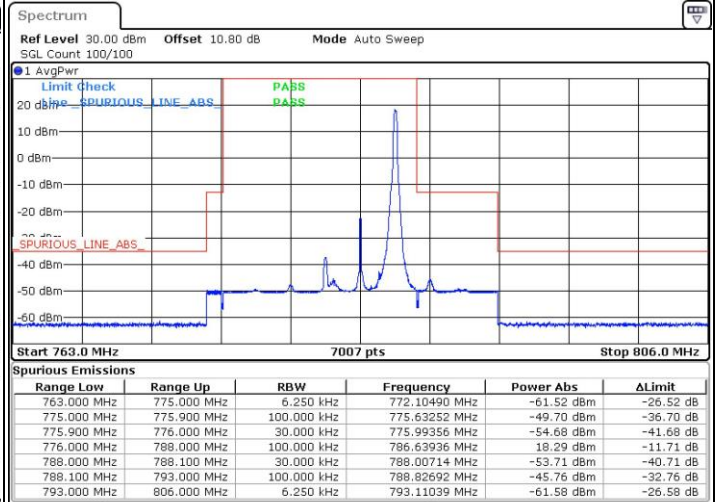


LTE Band 13 / 5MHz / 16QAM

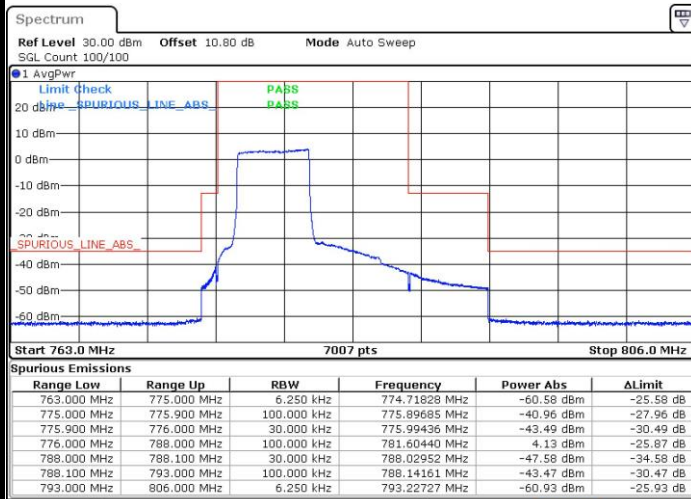
Lowest Band Edge / 1 RB



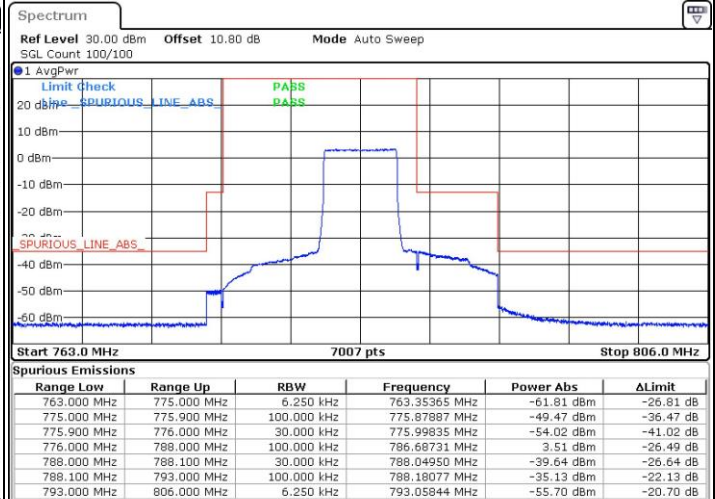
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



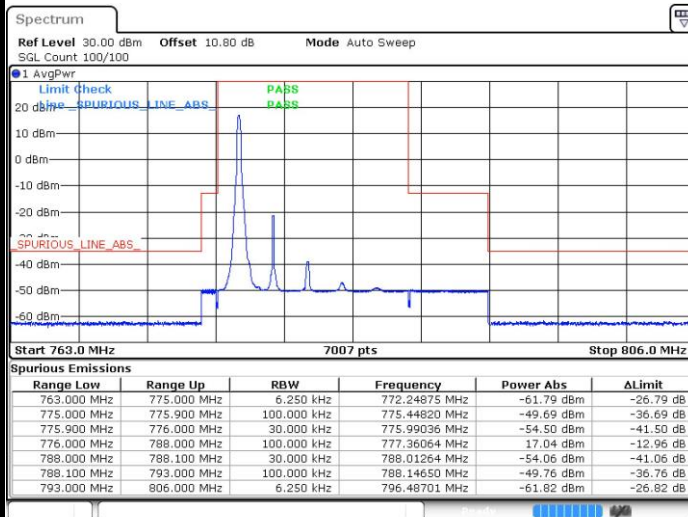
Highest Band Edge / Full RB



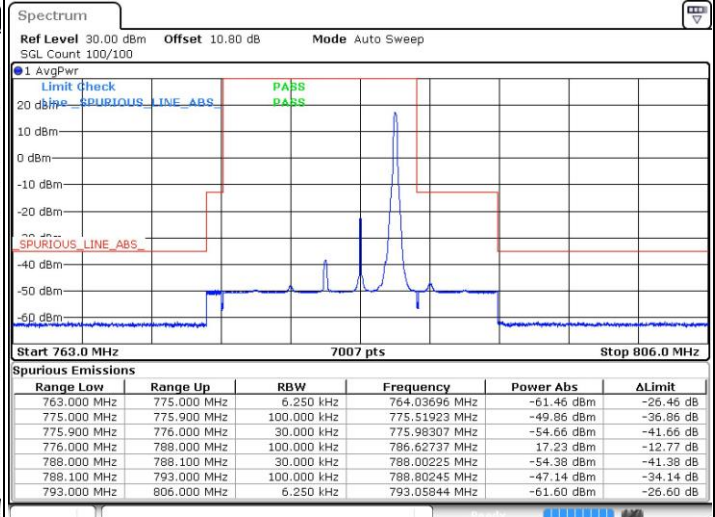


LTE Band 13 / 5MHz / 64QAM

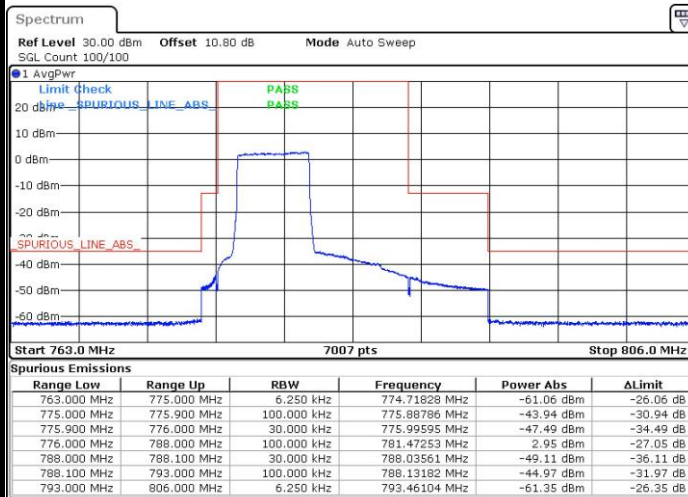
Lowest Band Edge / 1 RB



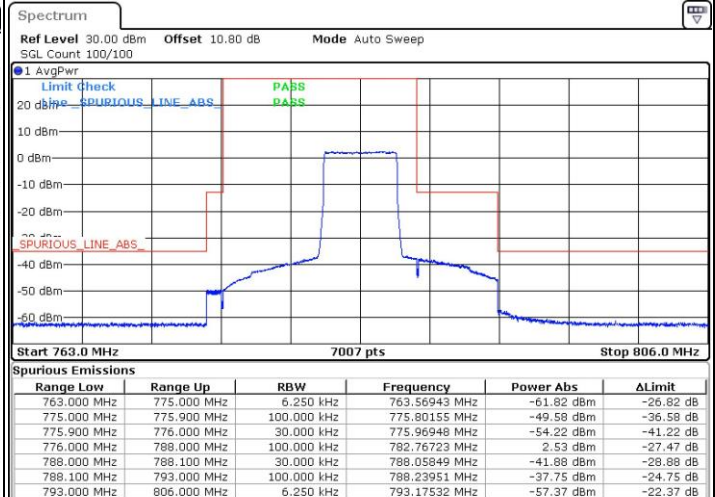
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



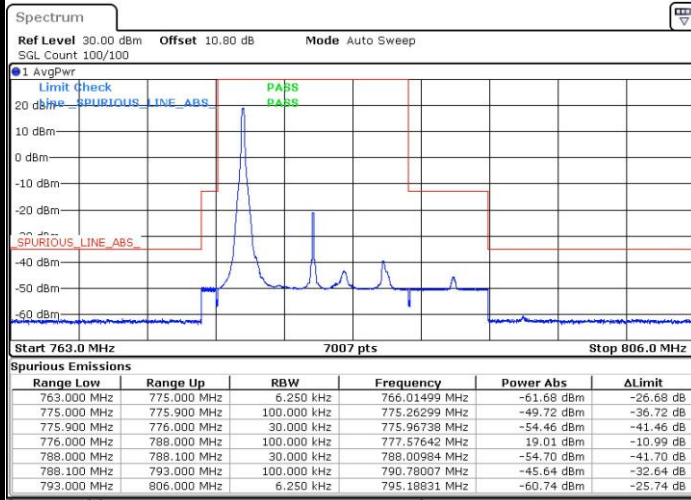
Highest Band Edge / Full RB





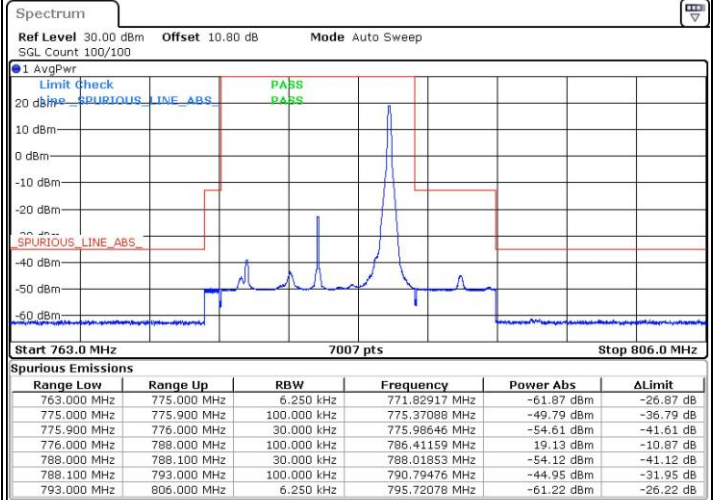
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



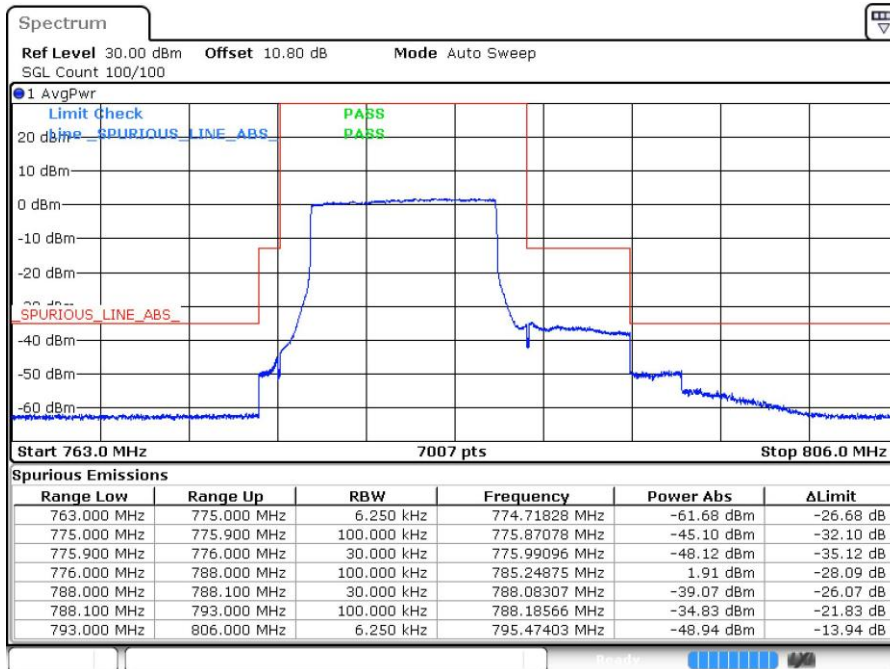
Date: 4 FEB 2019 16:45:21

Highest Band Edge / 1 RB



Date: 4 FEB 2019 16:47:01

Band Edge / Full RB

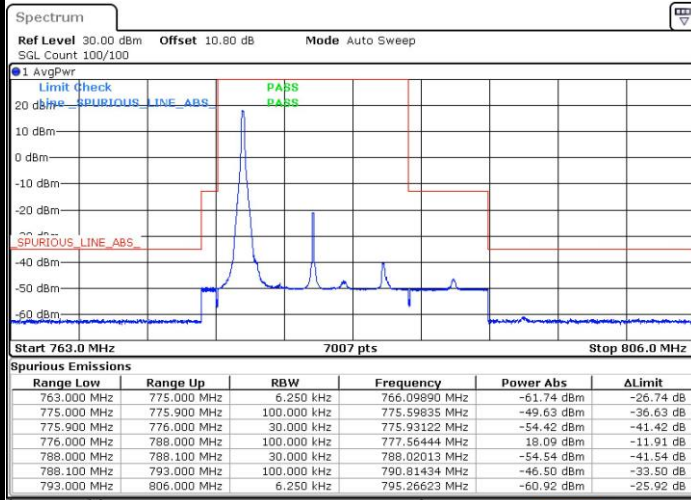


Date: 4 FEB 2019 16:40:20



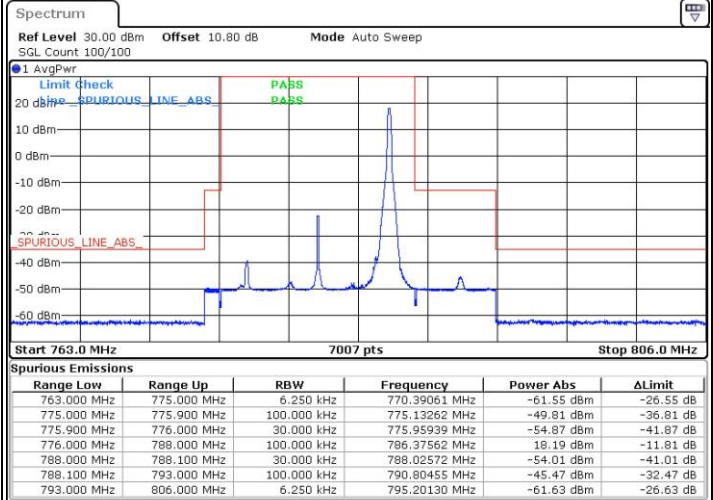
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



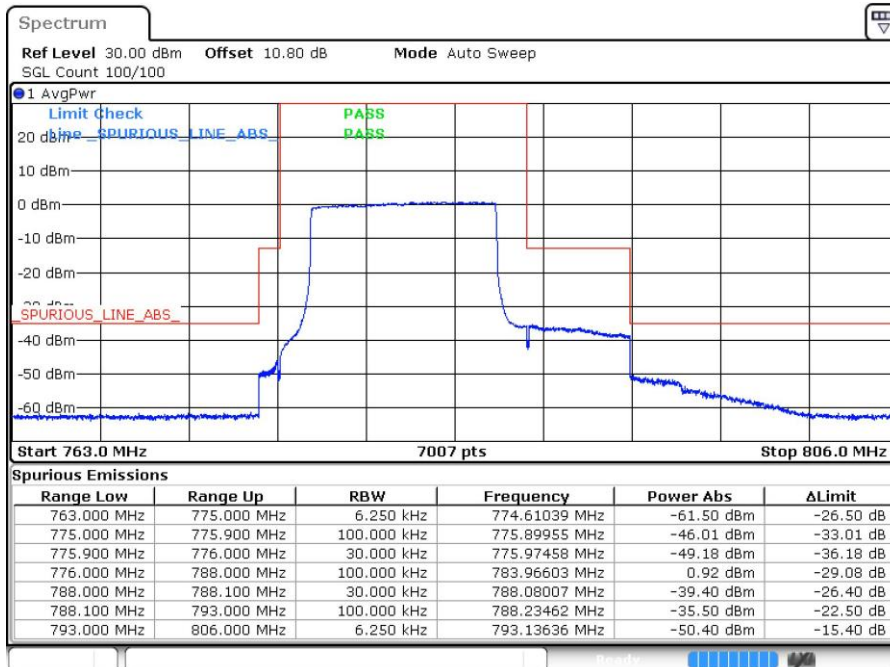
Date: 4 FEB 2019 16:43:40

Highest Band Edge / 1 RB



Date: 4 FEB 2019 16:48:42

Band Edge / Full RB



Date: 4 FEB 2019 16:42:00