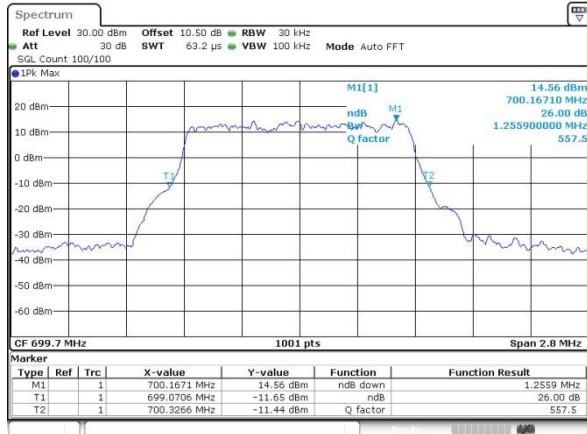




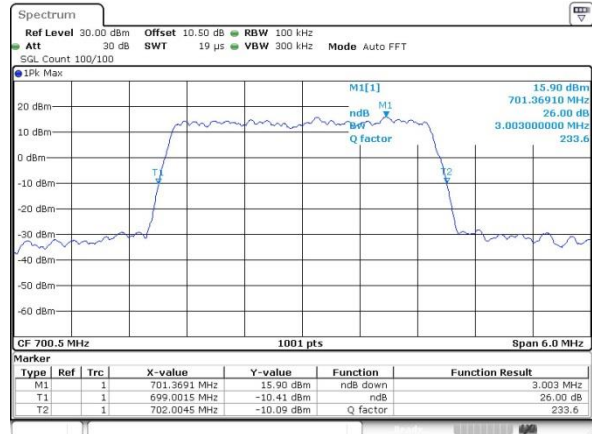
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



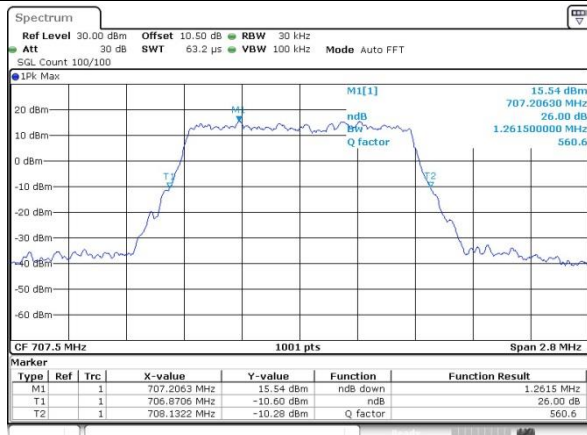
Date: 21.MAY.2019 09:33:22

Lowest Channel / 3MHz / QPSK



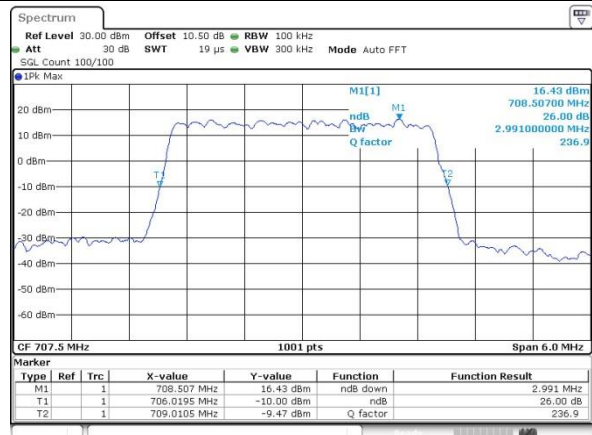
Date: 20.MAY.2019 17:36:43

Middle Channel / 1.4MHz / QPSK



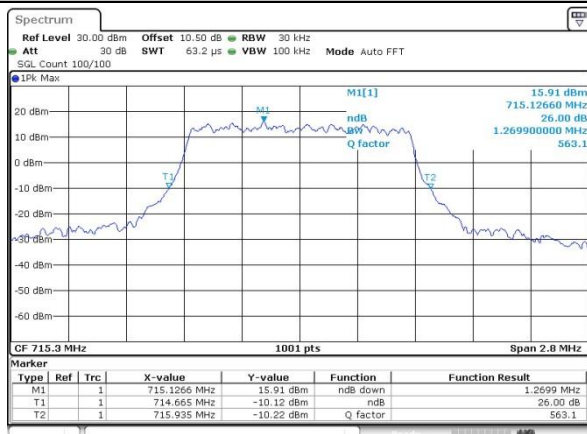
Date: 21.MAY.2019 09:42:26

Middle Channel / 3MHz / QPSK



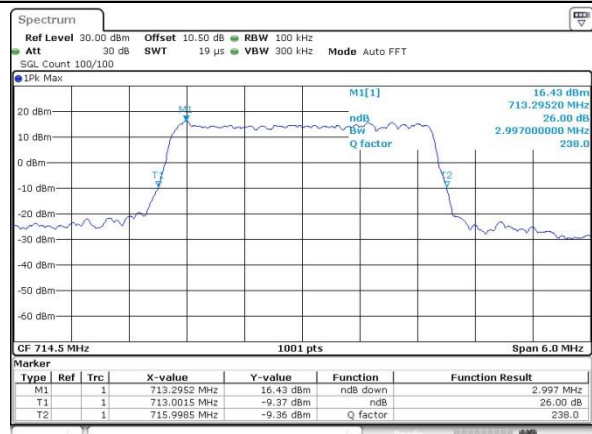
Date: 20.MAY.2019 17:45:22

Highest Channel / 1.4MHz / QPSK



Date: 21.MAY.2019 09:45:32

Highest Channel / 3MHz / QPSK

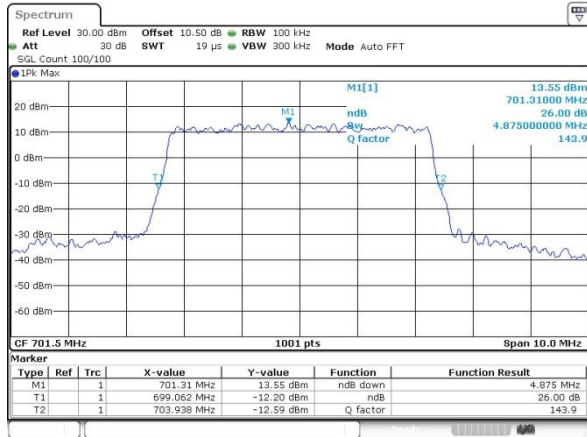


Date: 20.MAY.2019 17:48:26

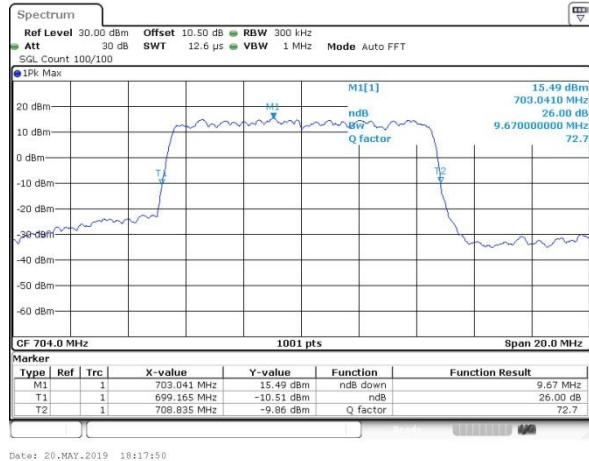


LTE Band 12

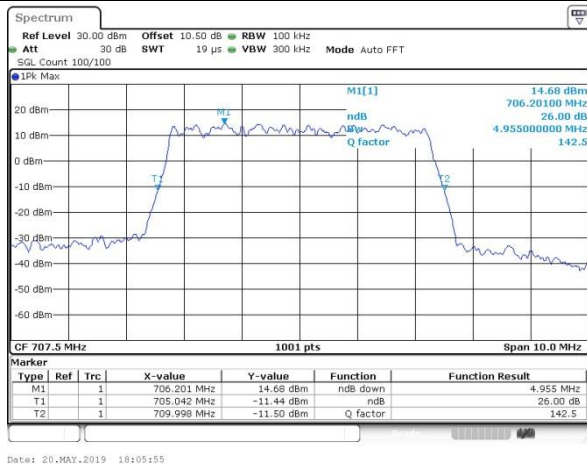
Lowest Channel / 5MHz / QPSK



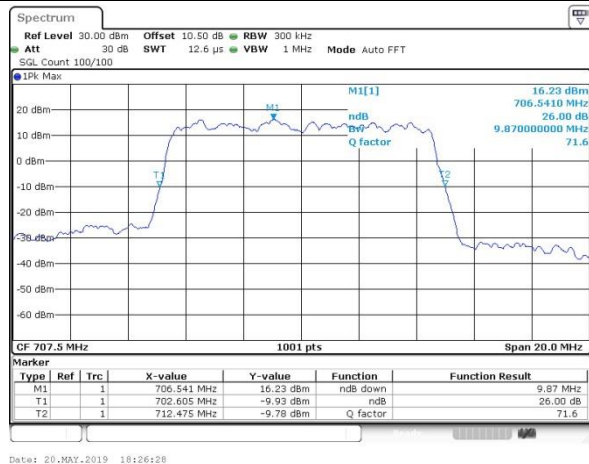
Lowest Channel / 10MHz / QPSK



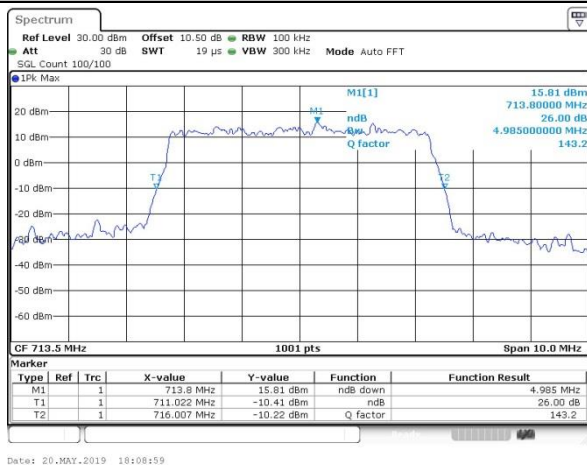
Middle Channel / 5MHz / QPSK



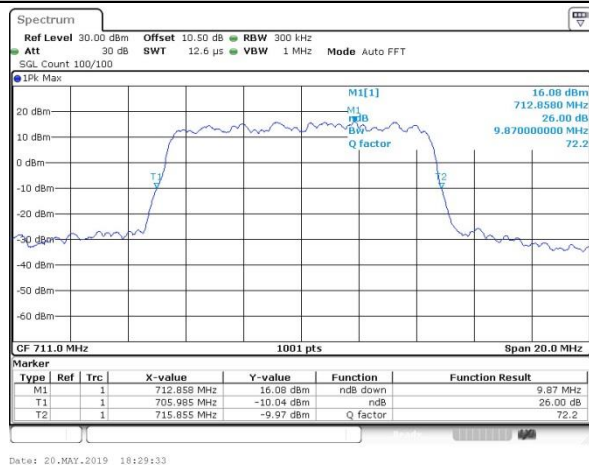
Middle Channel / 10MHz / QPSK



Highest Channel / 5MHz / QPSK



Highest Channel / 10MHz / QPSK





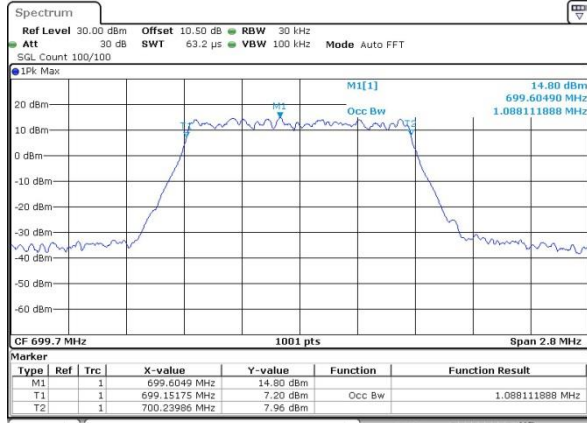
Occupied Bandwidth

Mode	LTE Band 12 : 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	1.09	-	2.72	-	4.49	-	8.99	-	-	-	-	-
Middle CH	1.09	-	2.72	-	4.49	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.48	-	9.03	-	-	-	-	-

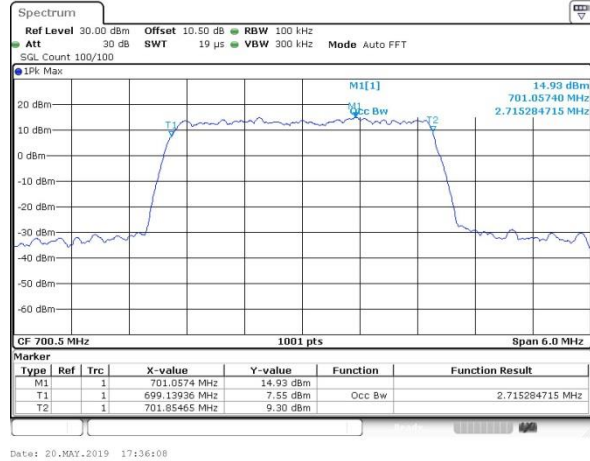


LTE Band 12

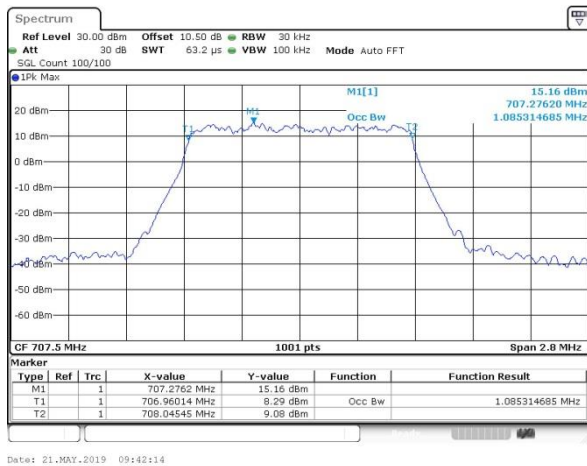
Lowest Channel / 1.4MHz / QPSK



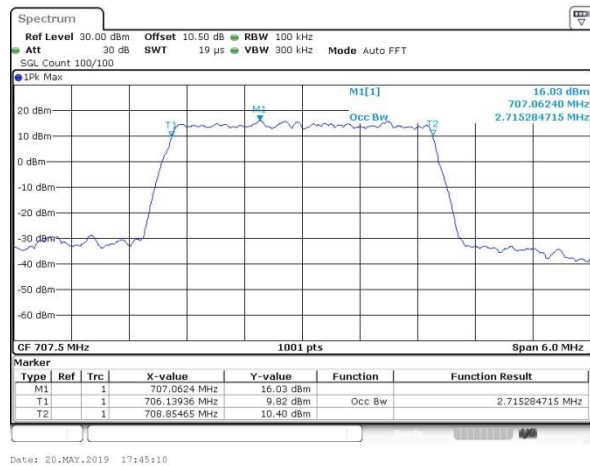
Lowest Channel / 3MHz / QPSK



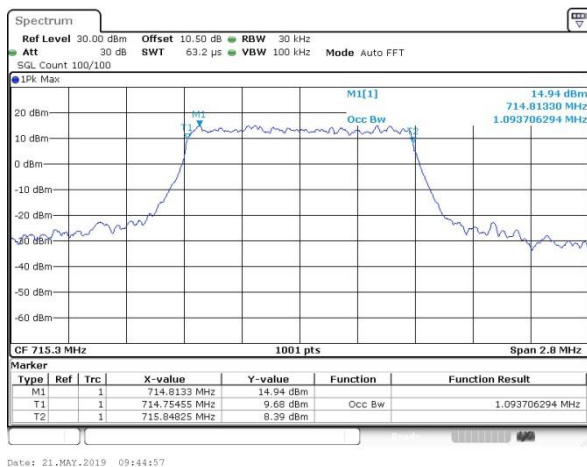
Middle Channel / 1.4MHz / QPSK



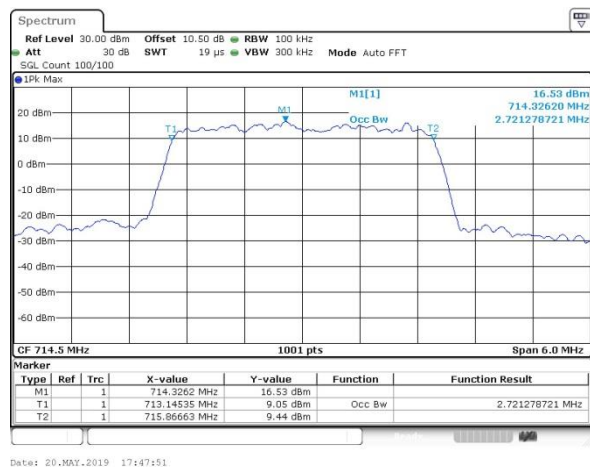
Middle Channel / 3MHz / QPSK



Highest Channel / 1.4MHz / QPSK



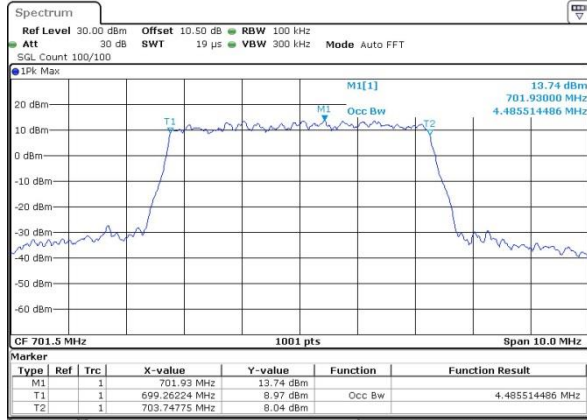
Highest Channel / 3MHz / QPSK





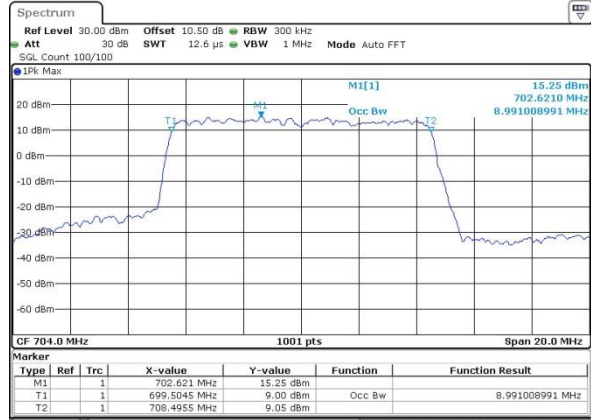
LTE Band 12

Lowest Channel / 5MHz / QPSK



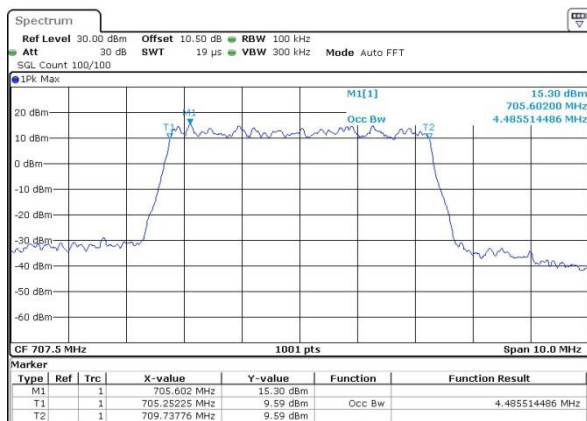
Date: 20.MAY.2019 17:56:41

Lowest Channel / 10MHz / QPSK



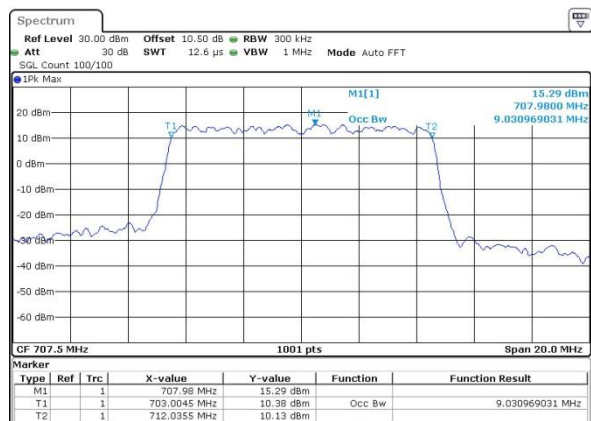
Date: 20.MAY.2019 18:17:15

Middle Channel / 5MHz / QPSK



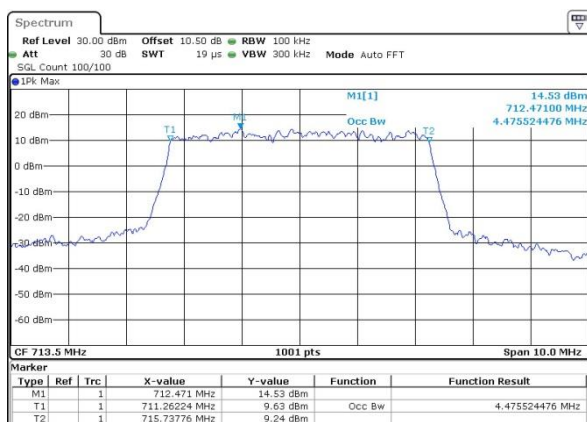
Date: 20.MAY.2019 18:05:43

Middle Channel / 10MHz / QPSK



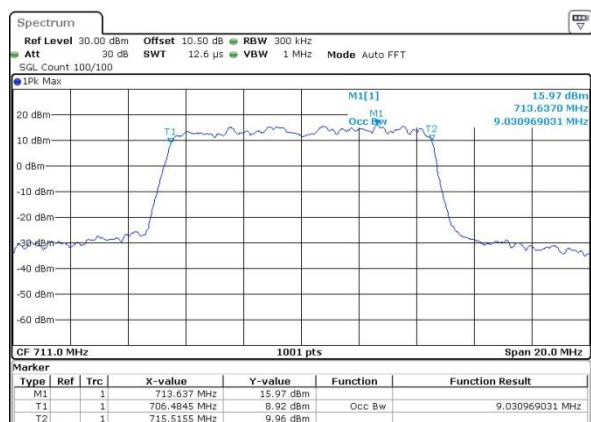
Date: 20.MAY.2019 18:26:17

Highest Channel / 5MHz / QPSK



Date: 20.MAY.2019 18:08:24

Highest Channel / 10MHz / QPSK



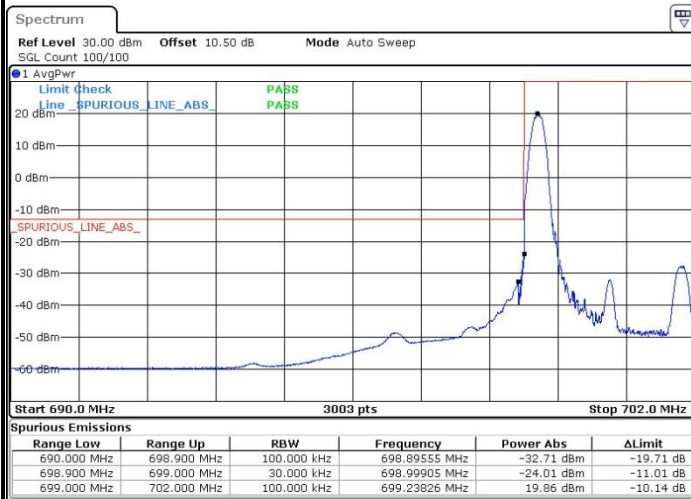
Date: 20.MAY.2019 18:28:58

**Conducted Band Edge****LTE Band 12 / 1.4MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

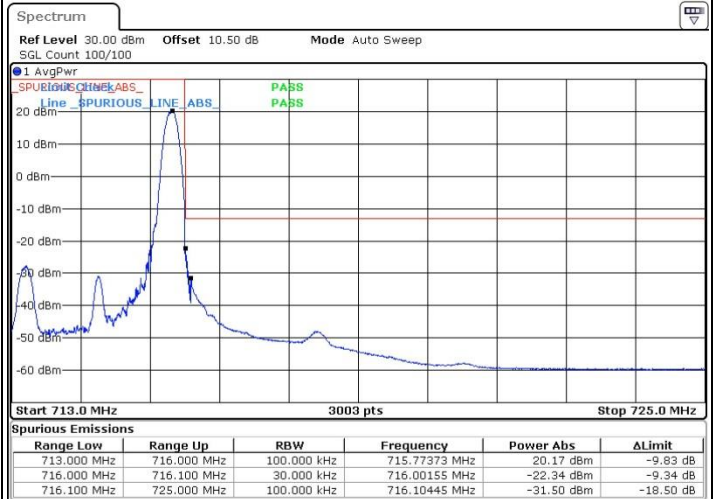


LTE Band 12 / 3MHz / QPSK

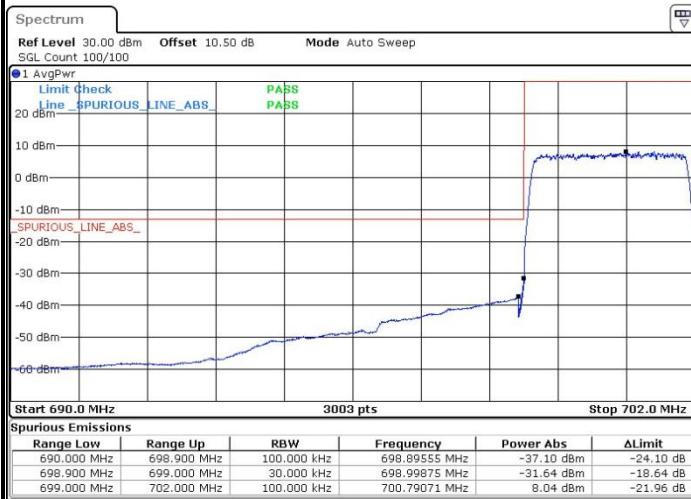
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



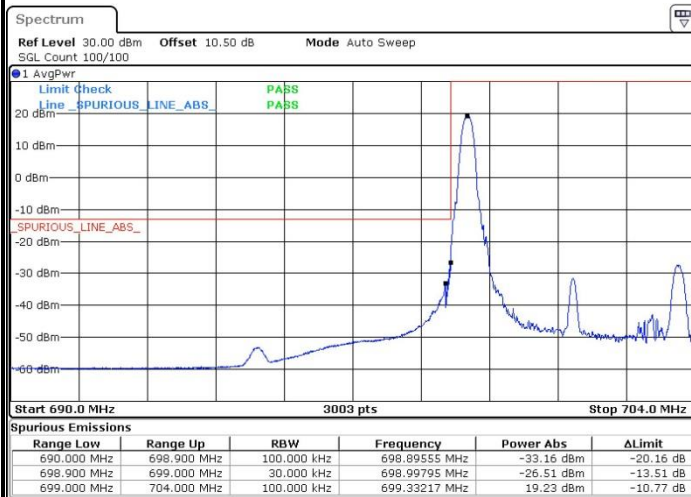
Highest Band Edge / Full RB



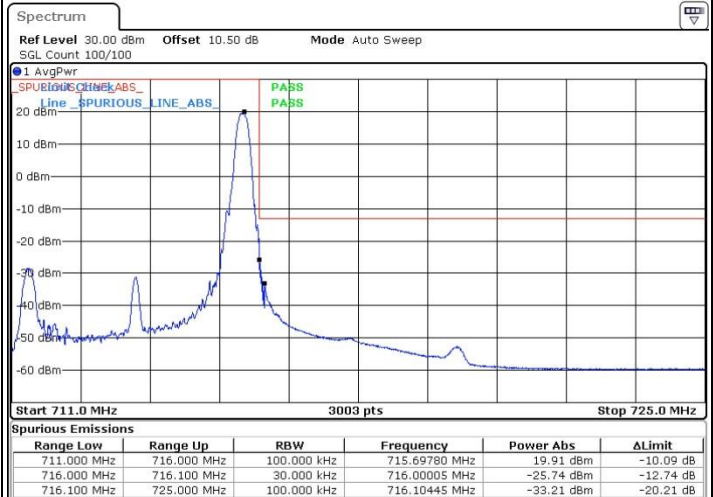


LTE Band 12 / 5MHz / QPSK

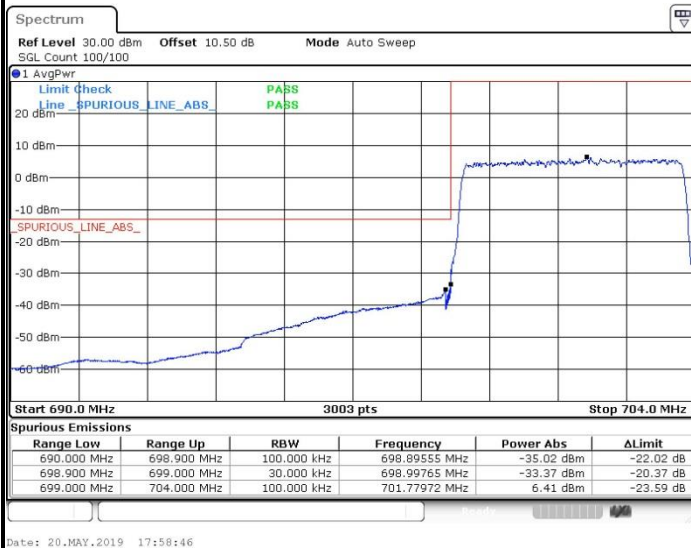
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



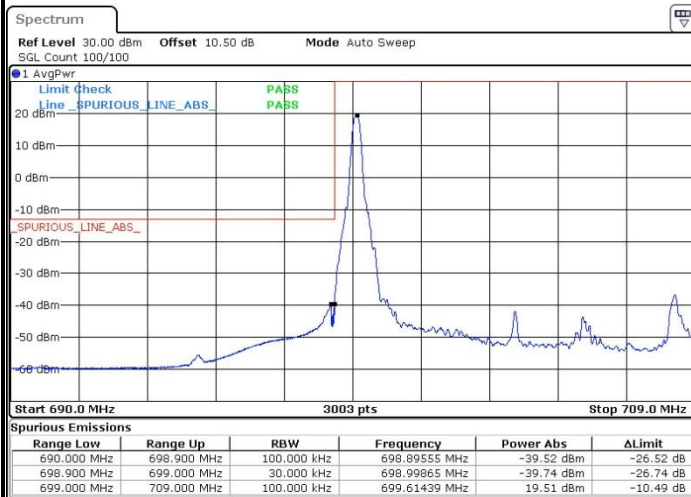
Highest Band Edge / Full RB



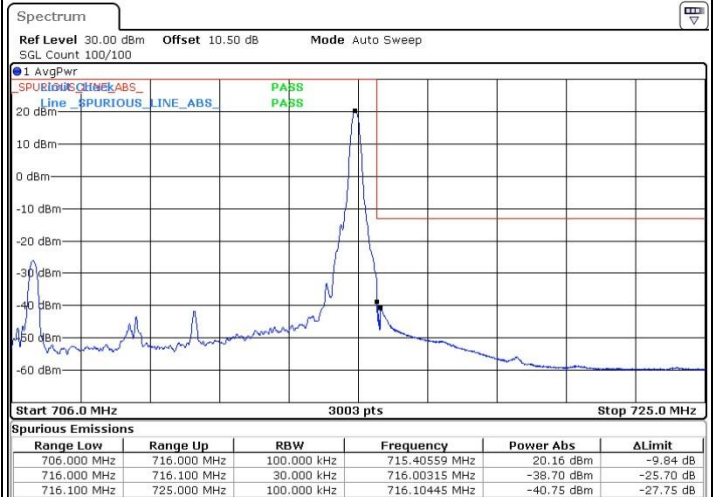


LTE Band 12 / 10MHz / QPSK

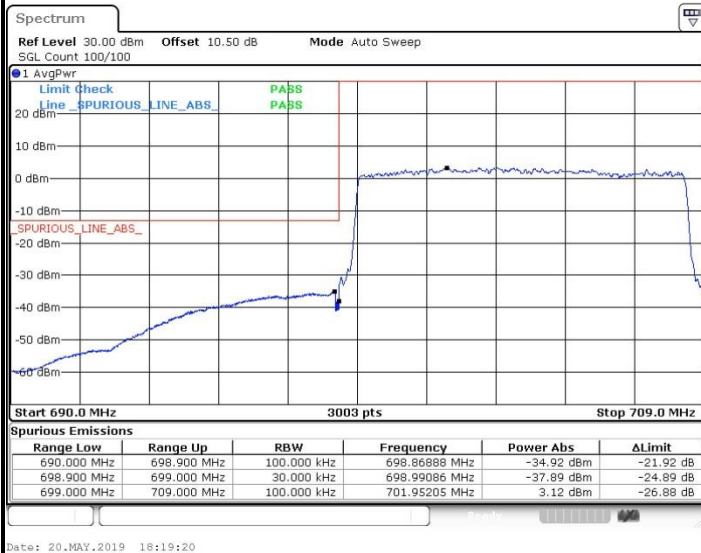
Lowest Band Edge / 1 RB



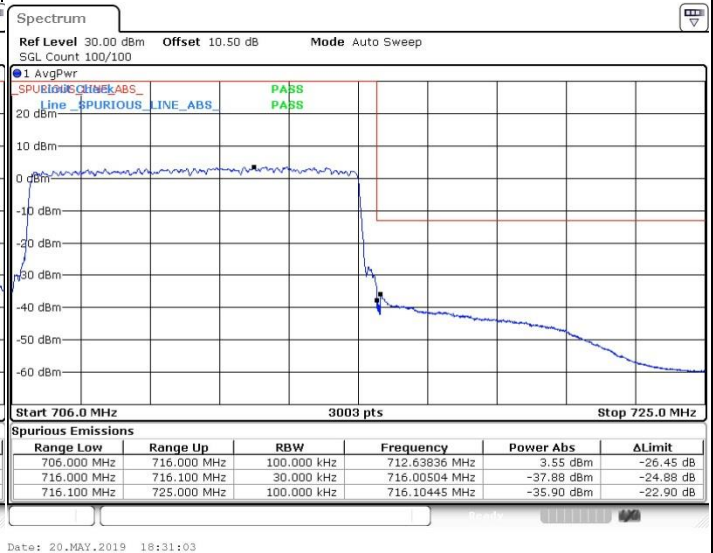
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

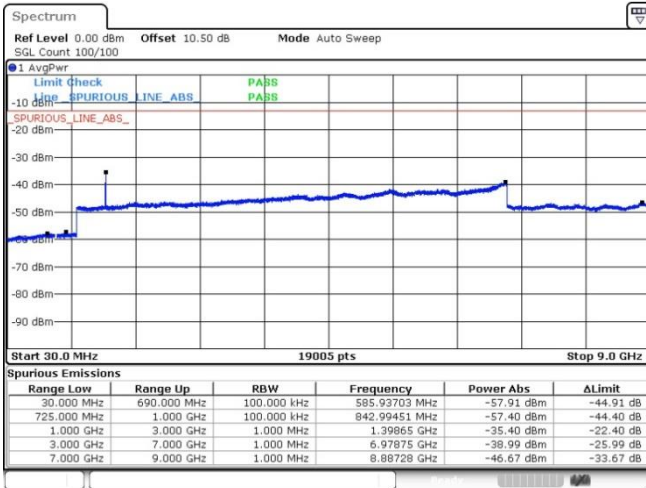




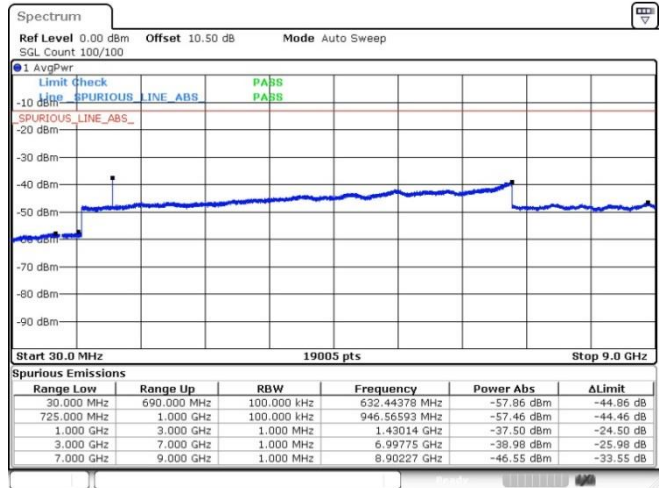
Conducted Spurious Emission

LTE Band 12 / 1.4MHz

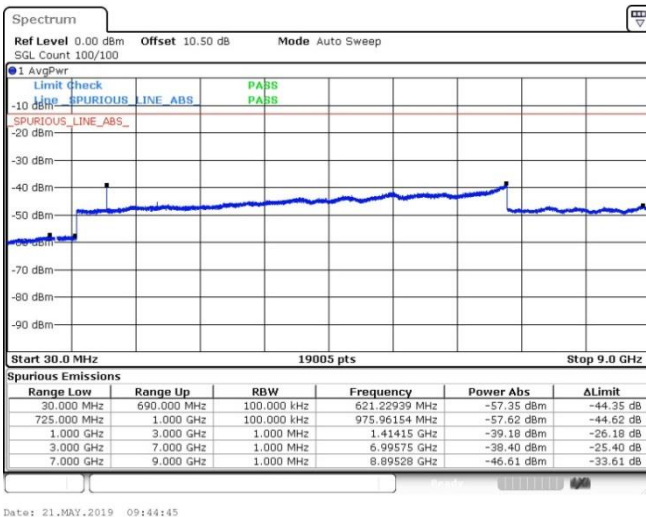
Lowest Channel / QPSK



Highest Channel / QPSK



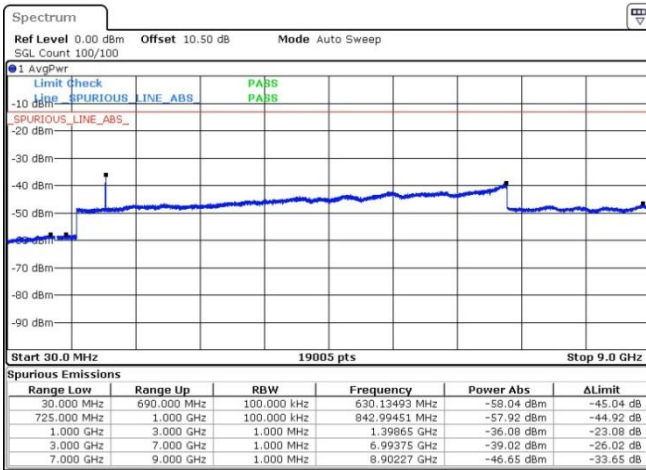
Middle Channel / QPSK





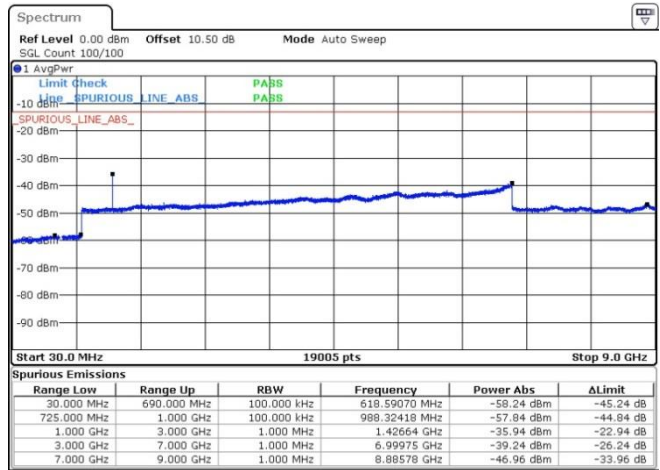
LTE Band 12 / 3MHz

Lowest Channel / QPSK



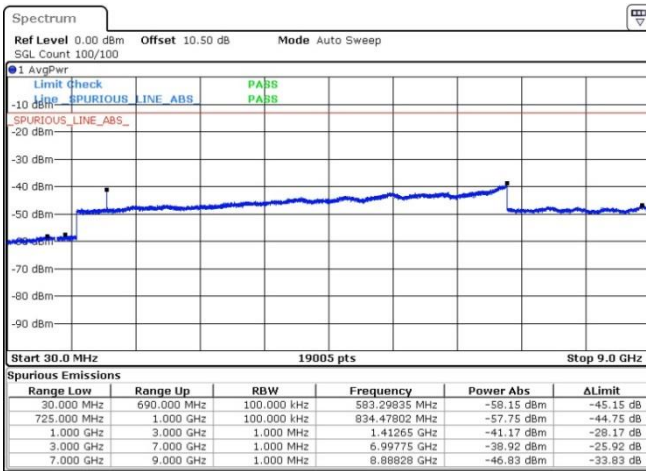
Date: 20.MAY.2019 17:43:43

Highest Channel / QPSK



Date: 20.MAY.2019 17:55:25

Middle Channel / QPSK

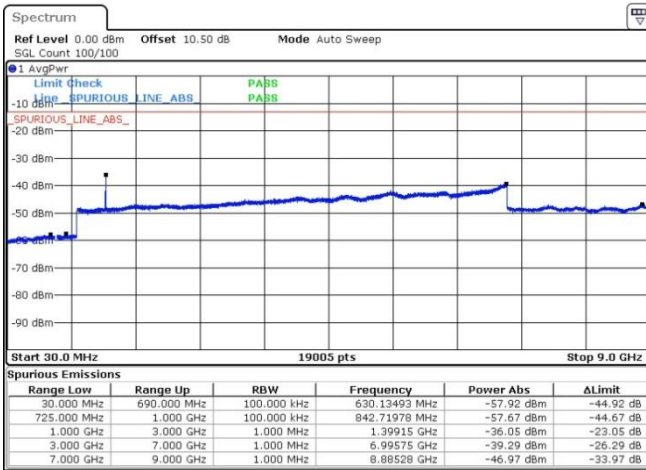


Date: 20.MAY.2019 17:47:38



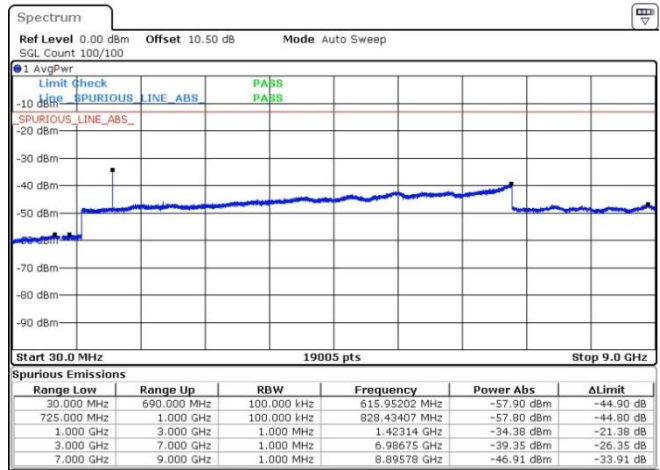
LTE Band 12 / 5MHz

Lowest Channel / QPSK



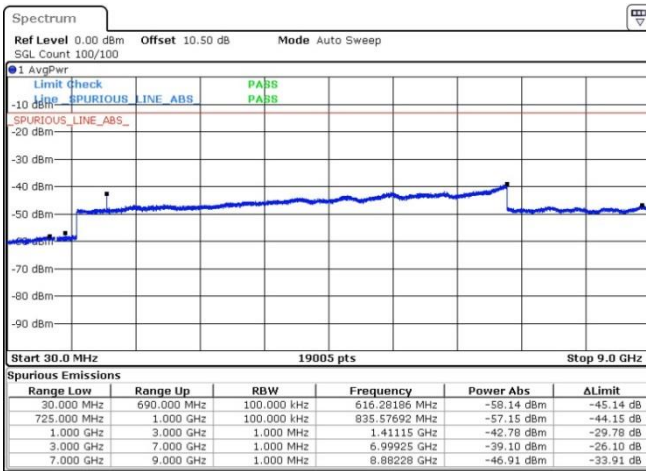
Date: 20.MAY.2019 18:04:16

Highest Channel / QPSK



Date: 20.MAY.2019 18:17:02

Middle Channel / QPSK

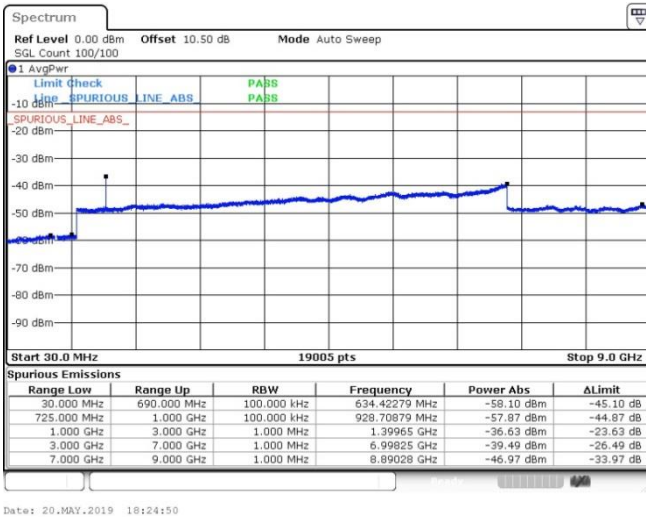


Date: 20.MAY.2019 18:08:12

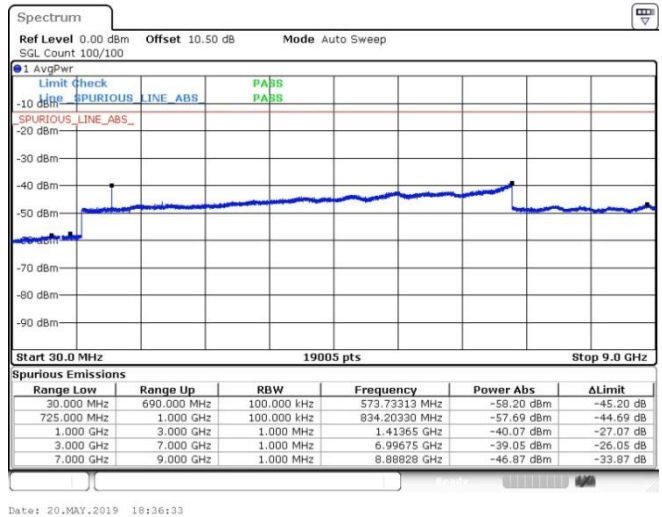


LTE Band 12 / 10MHz

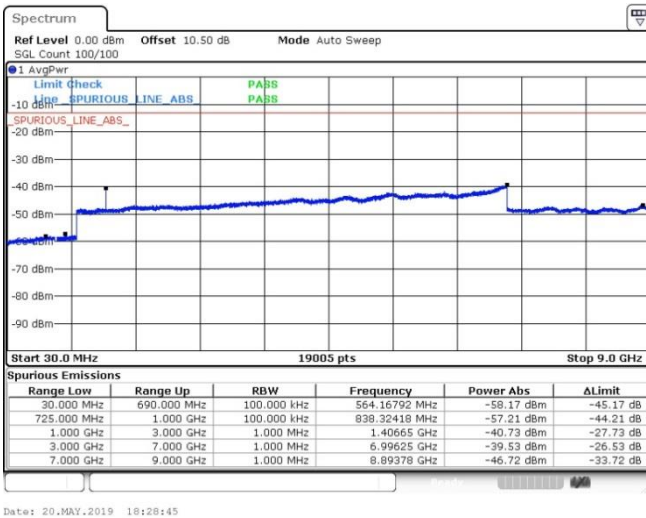
Lowest Channel / QPSK



Highest Channel / QPSK



Middle Channel / QPSK



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	0.0025	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0054	
-30	Normal Voltage	0.0088	
20	Maximum Voltage	0.0042	
20	Normal Voltage	0.0042	
20	Battery End Point	0.0035	

Note:

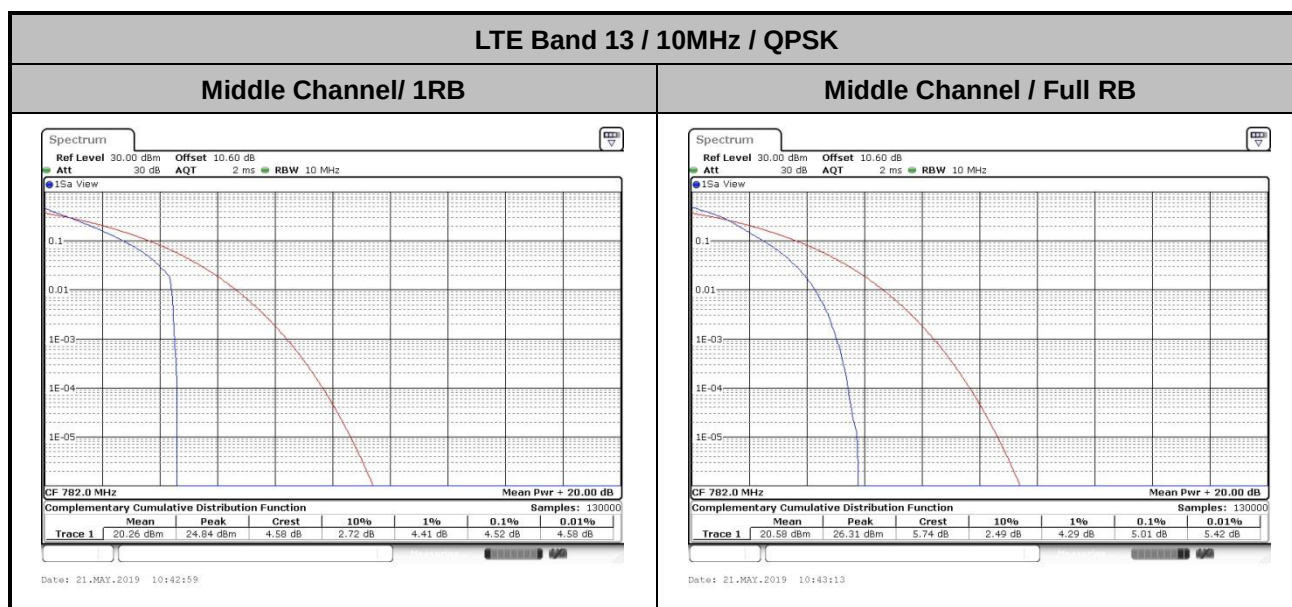
1. Normal Voltage =14.0 V. ; Battery End Point (BEP) =14.0 V. ; Maximum Voltage =16.0 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



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	4.52	5.01	-	-	
Highest CH	-	-	-	-	





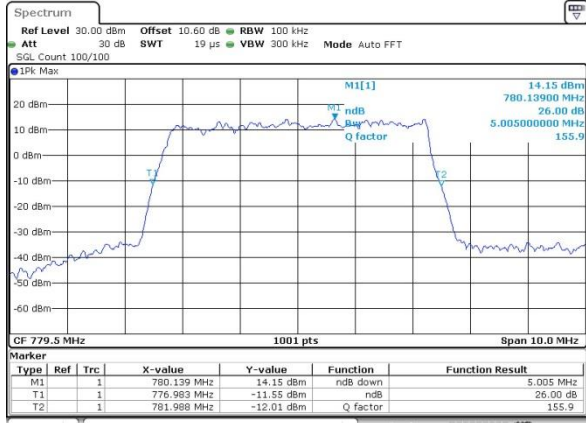
26dB Bandwidth

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	-	-	-	-	5.01	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	-	9.85	-	-	-	-	-
Highest CH	-	-	-	-	5.00	-	-	-	-	-	-	-

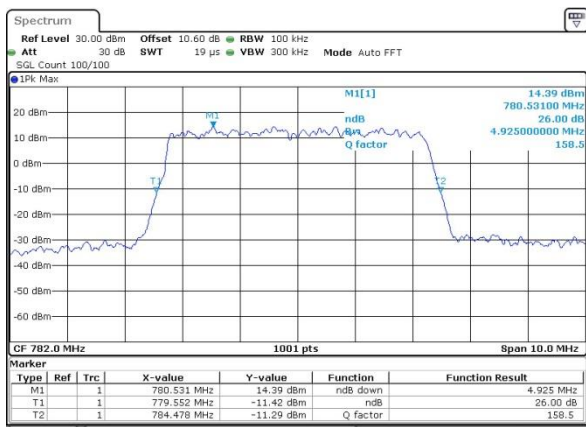


LTE Band 13

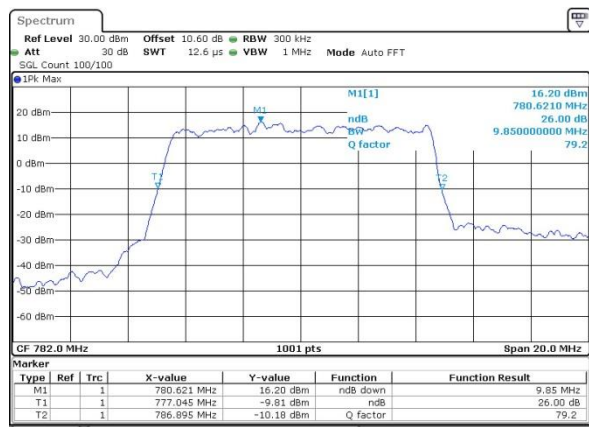
Lowest Channel / 5MHz / QPSK



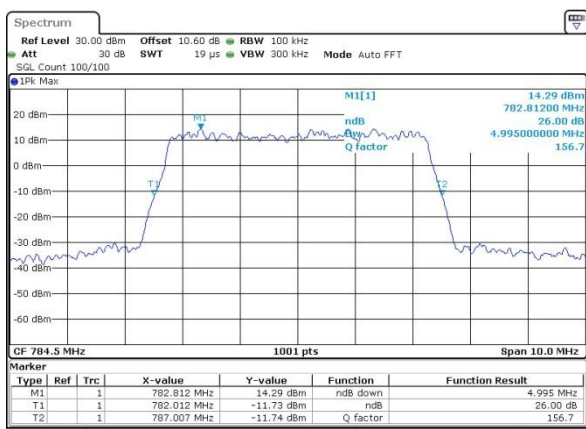
Middle Channel / 5MHz / QPSK



Middle Channel / 10MHz / QPSK



Highest Channel / 5MHz / QPSK





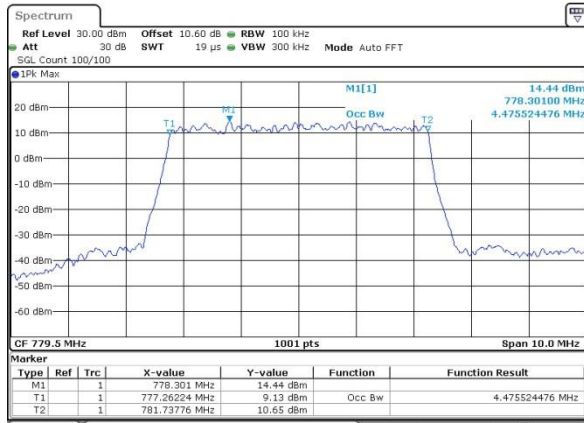
Occupied Bandwidth

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	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.47	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-



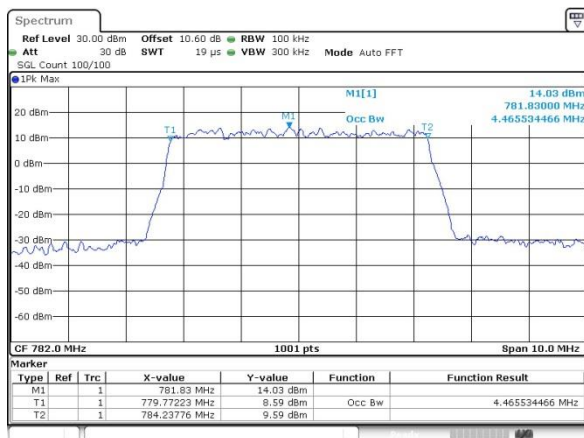
LTE Band 13

Lowest Channel / 5MHz / QPSK



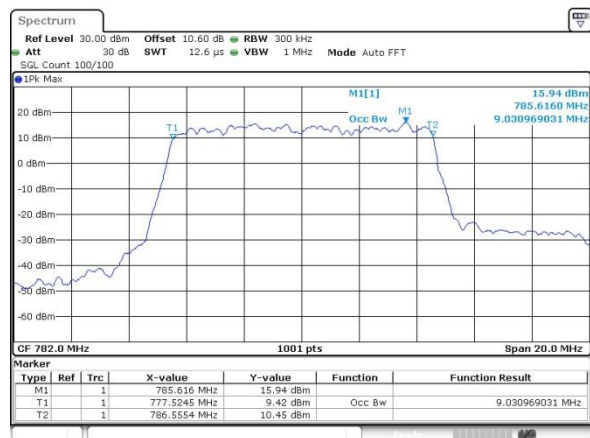
Date: 21.MAY.2019 10:07:05

Middle Channel / 5MHz / QPSK



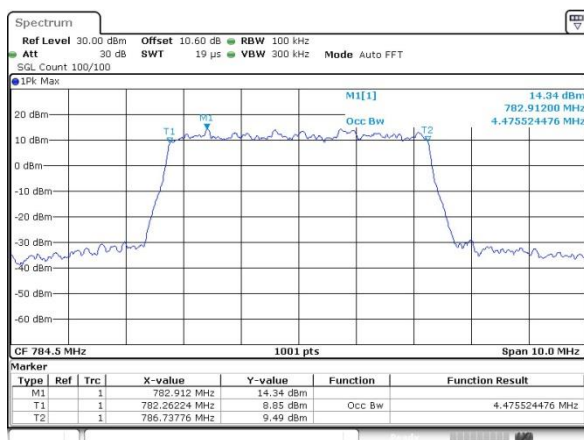
Date: 21.MAY.2019 10:19:32

Middle Channel / 10MHz / QPSK

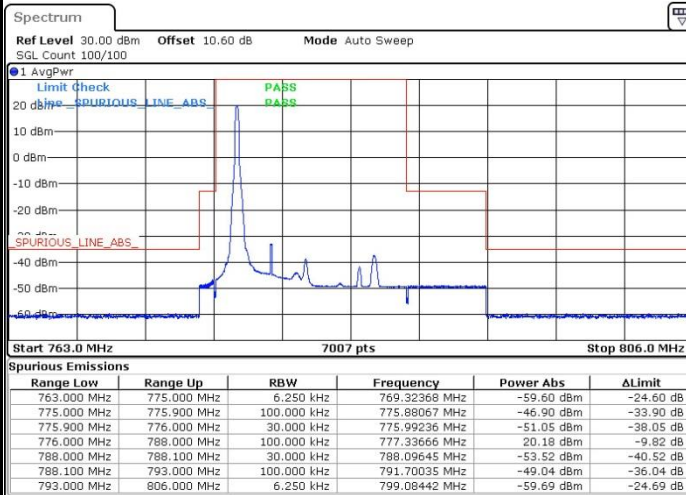


Date: 21.MAY.2019 10:29:24

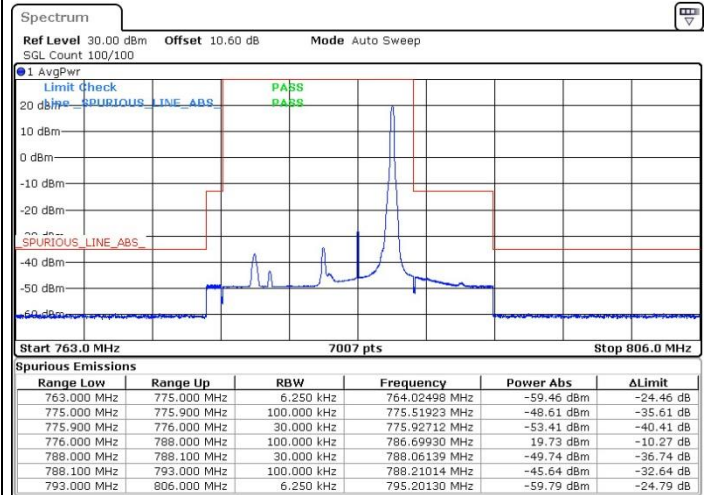
Highest Channel / 5MHz / QPSK



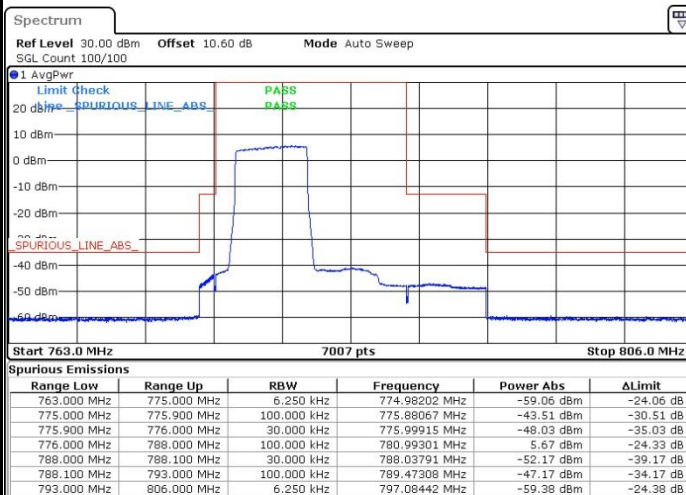
Date: 21.MAY.2019 10:19:44

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

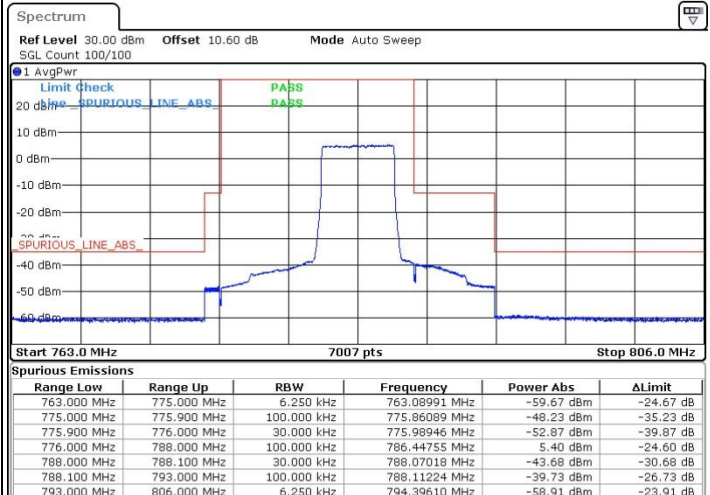
Date: 21.MAY.2019 10:56:26

Highest Band Edge / 1 RB

Date: 21.MAY.2019 11:03:11

Lowest Band Edge / Full RB

Date: 21.MAY.2019 10:51:22

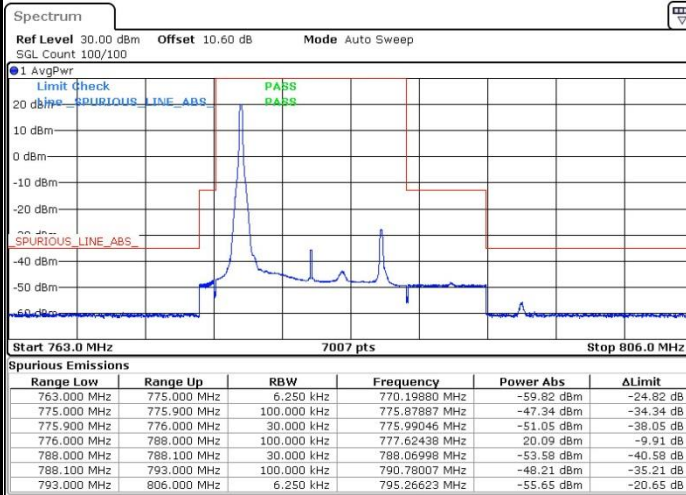
Highest Band Edge / Full RB

Date: 21.MAY.2019 10:58:07



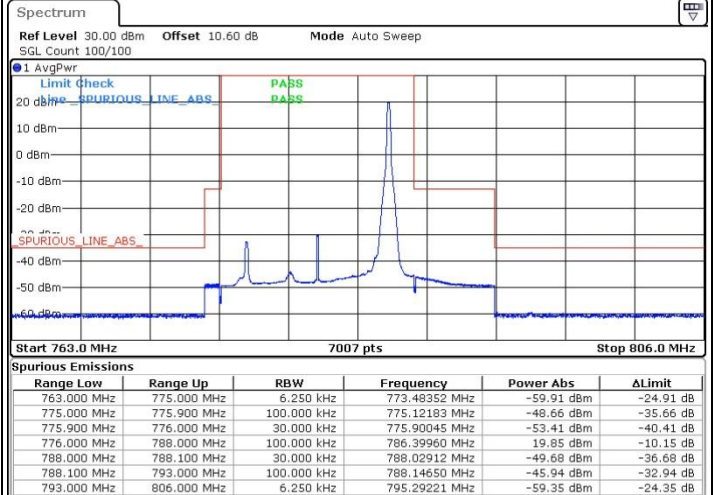
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



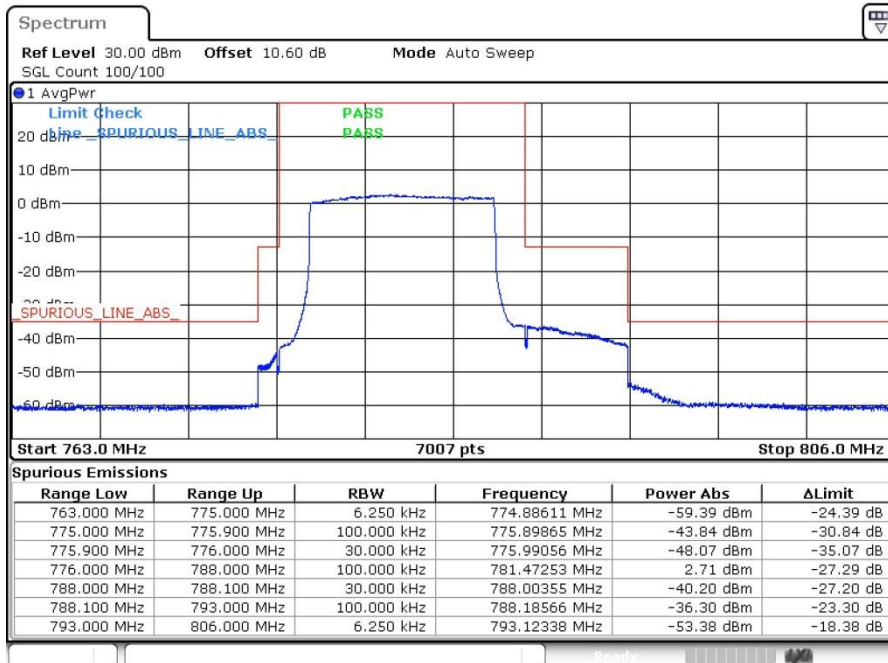
Date: 21.MAY.2019 11:09:53

Highest Band Edge / 1 RB



Date: 21.MAY.2019 11:11:34

Band Edge / Full RB



Date: 21.MAY.2019 11:04:51