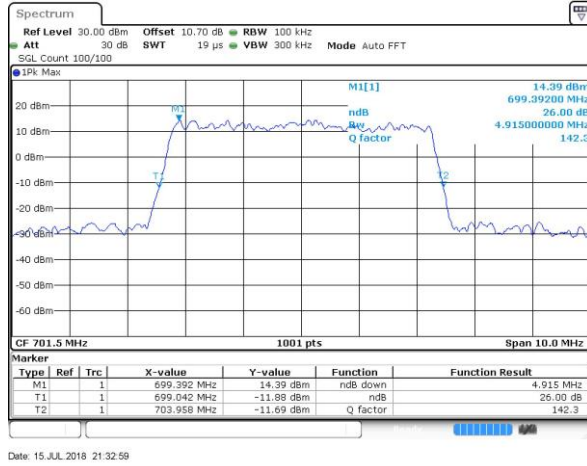


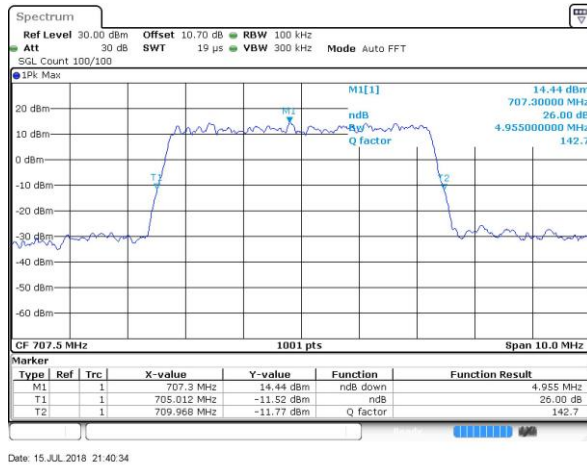


LTE Band 12

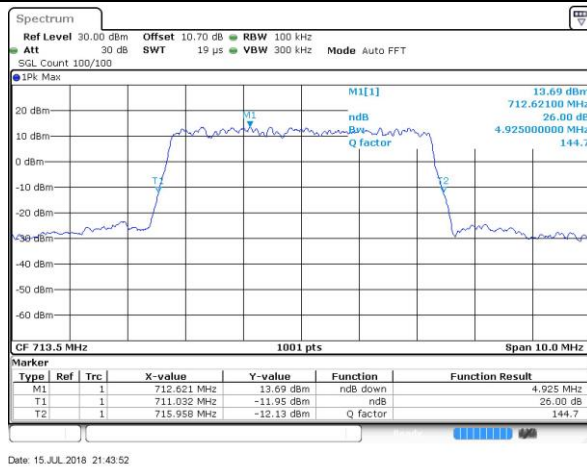
Lowest Channel / 5MHz / QPSK



Middle Channel / 5MHz / QPSK



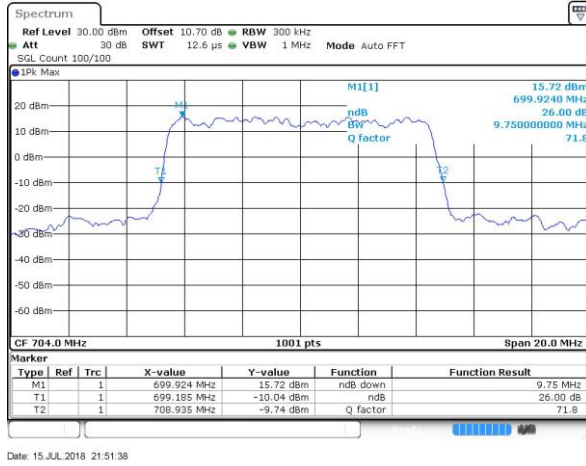
Highest Channel / 5MHz / QPSK



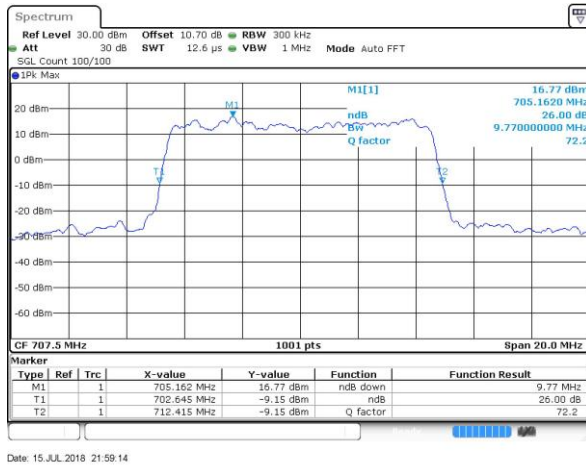


LTE Band 12

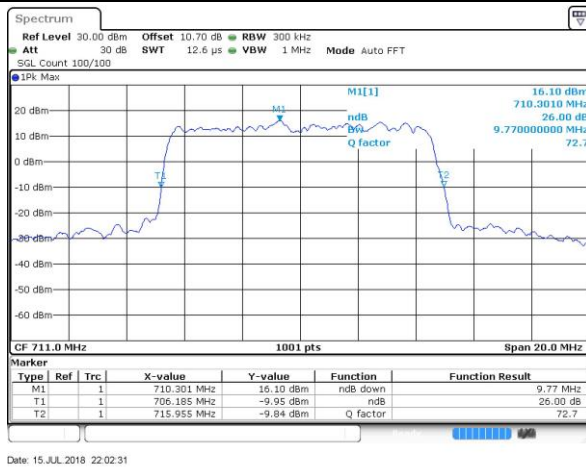
Lowest Channel / 10MHz / QPSK



Middle Channel / 10MHz / QPSK



Highest Channel / 10MHz / QPSK





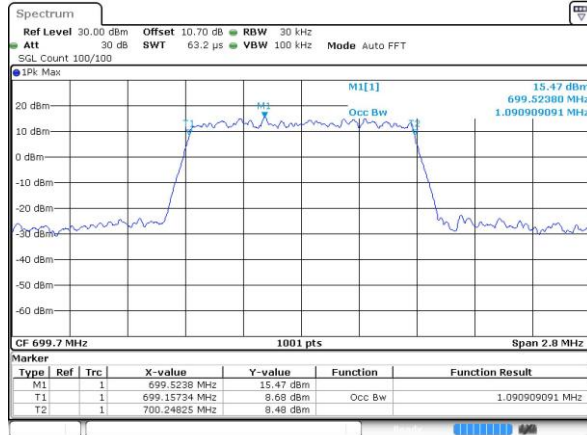
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	-	2.72	-	4.50	-	9.03	-	-	-	-	-
Middle CH	1.09	-	2.70	-	4.48	-	9.05	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.48	-	8.99	-	-	-	-	-



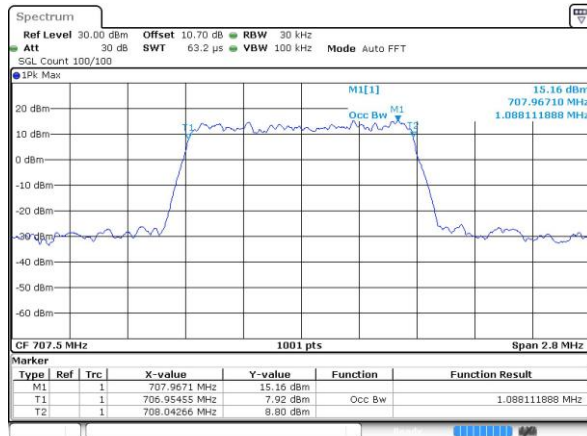
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



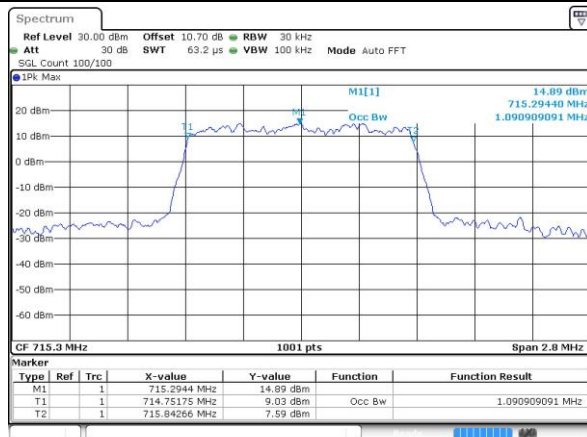
Date: 15 JUL 2018 20:08:12

Middle Channel / 1.4MHz / QPSK



Date: 15 JUL 2018 20:18:10

Highest Channel / 1.4MHz / QPSK

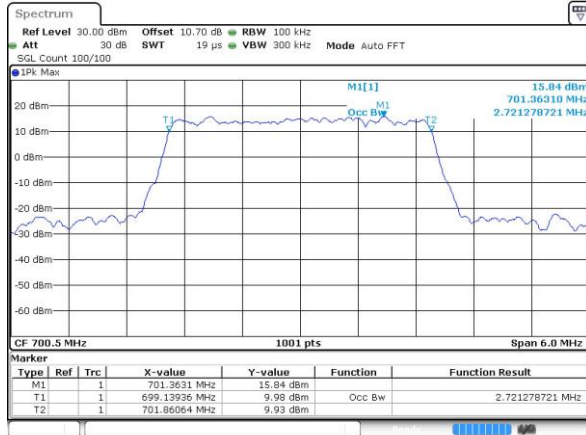


Date: 15 JUL 2018 20:19:05



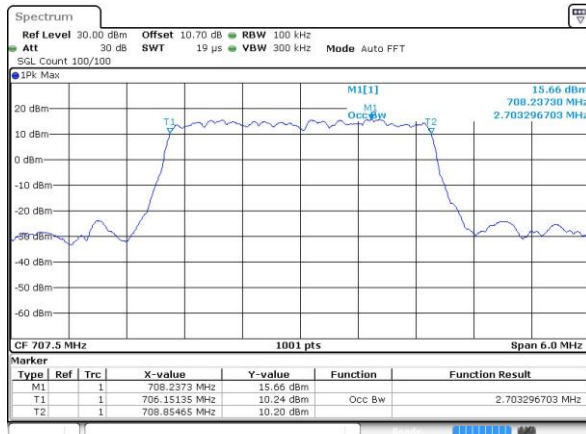
LTE Band 12

Lowest Channel / 3MHz / QPSK



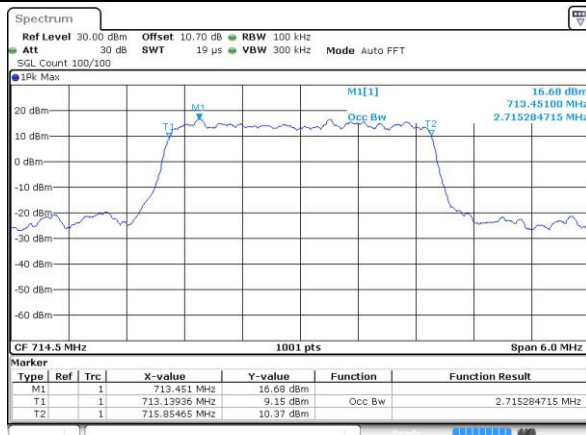
Date: 15 JUL 2018 20:52:30

Middle Channel / 3MHz / QPSK



Date: 15 JUL 2018 21:00:28

Highest Channel / 3MHz / QPSK

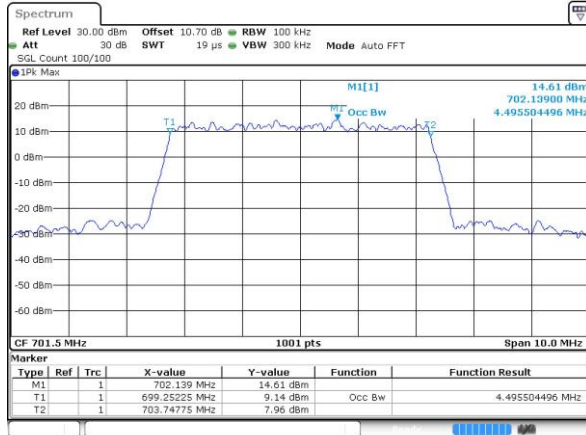


Date: 15 JUL 2018 21:03:22



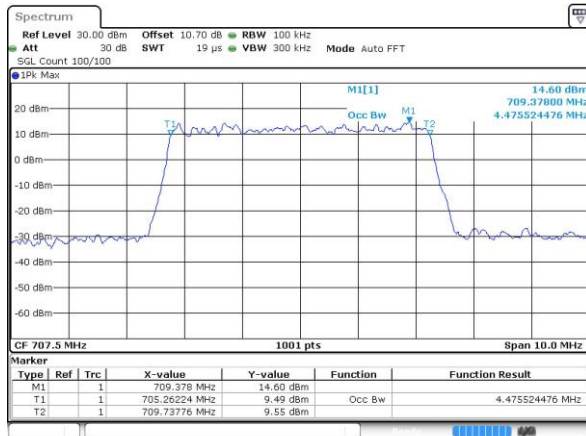
LTE Band 12

Lowest Channel / 5MHz / QPSK



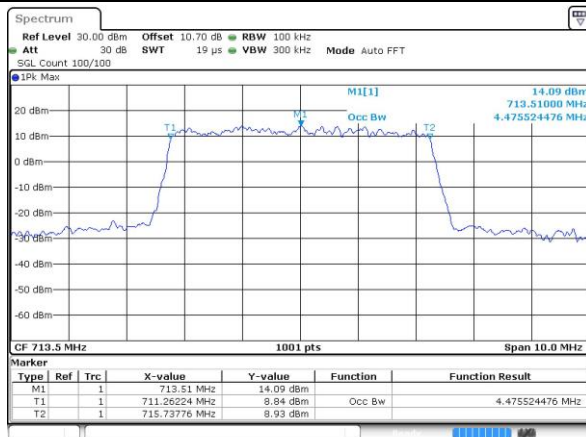
Date: 15 JUL 2018 21:32:25

Middle Channel / 5MHz / QPSK



Date: 15 JUL 2018 21:40:23

Highest Channel / 5MHz / QPSK

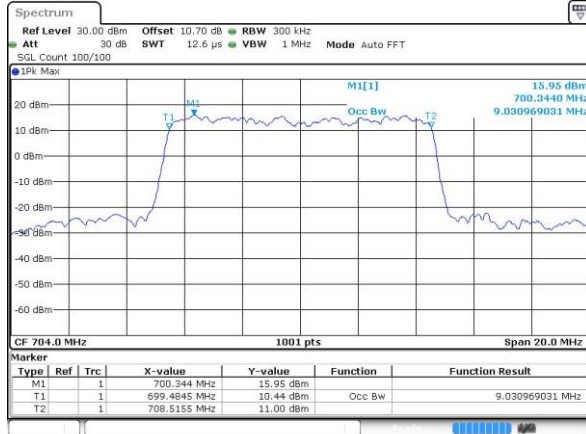


Date: 15 JUL 2018 21:43:18



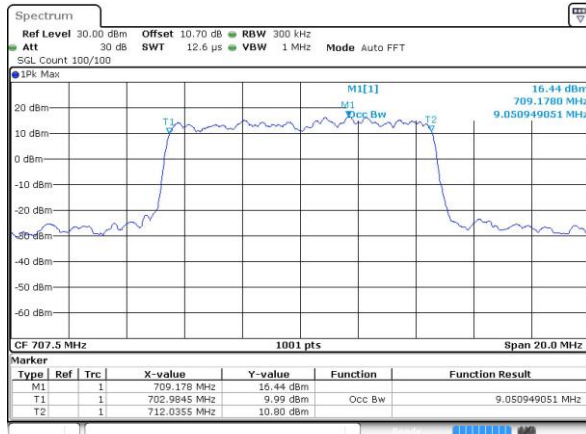
LTE Band 12

Lowest Channel / 10MHz / QPSK



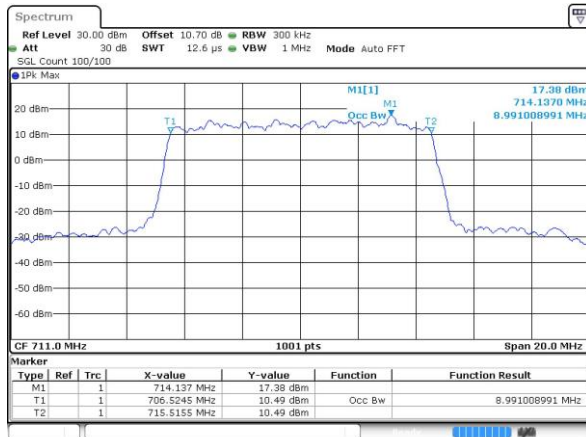
Date: 15.JUL.2018 21:51:04

Middle Channel / 10MHz / QPSK



Date: 15.JUL.2018 21:59:02

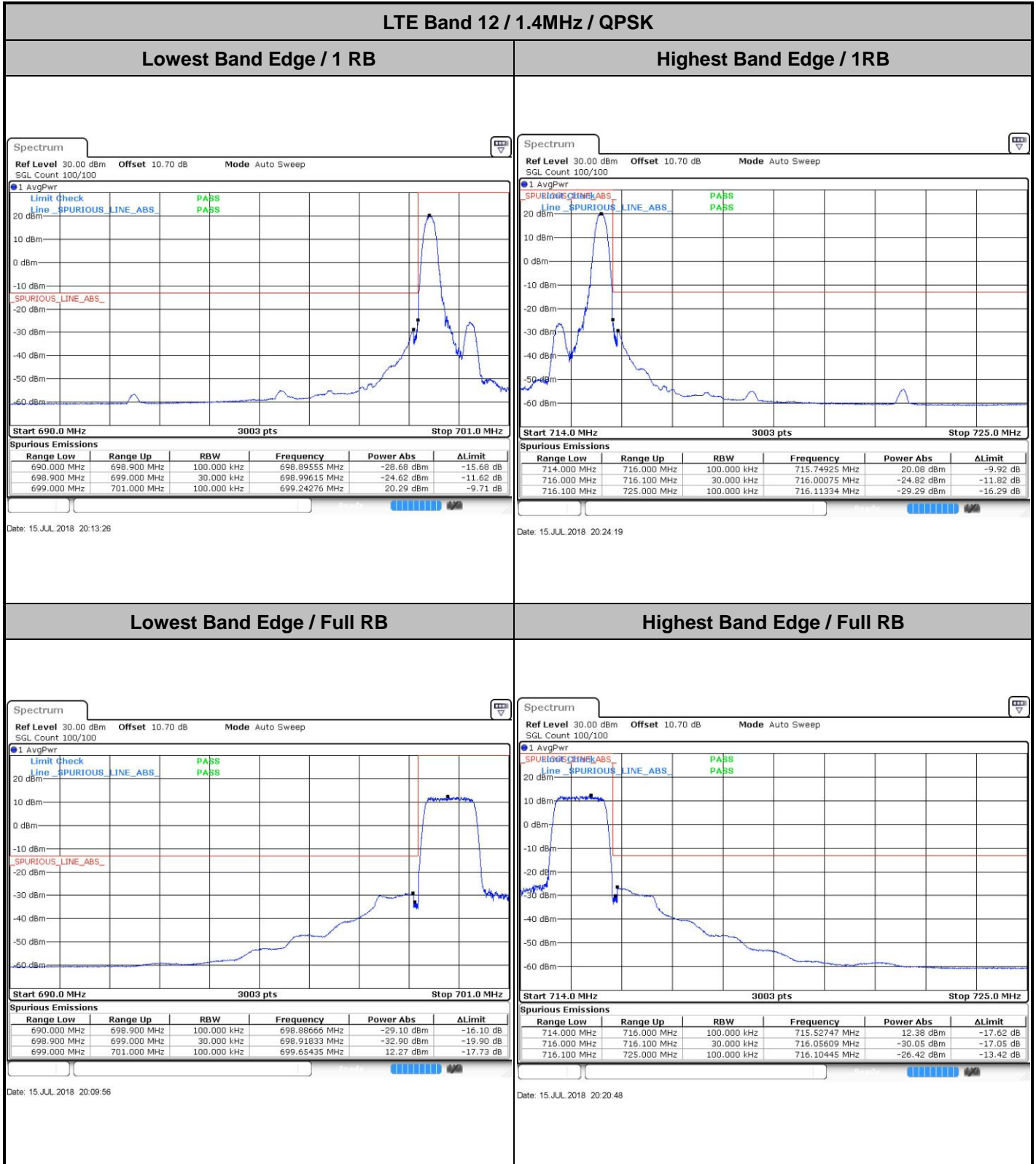
Highest Channel / 10MHz / QPSK



Date: 15.JUL.2018 22:01:57



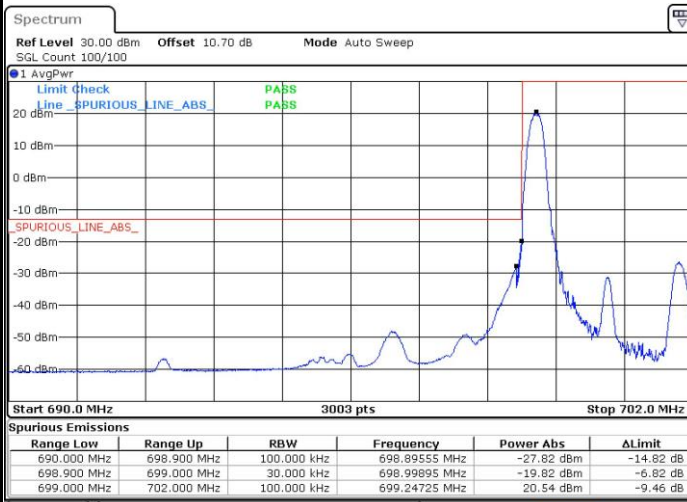
Conducted Band Edge





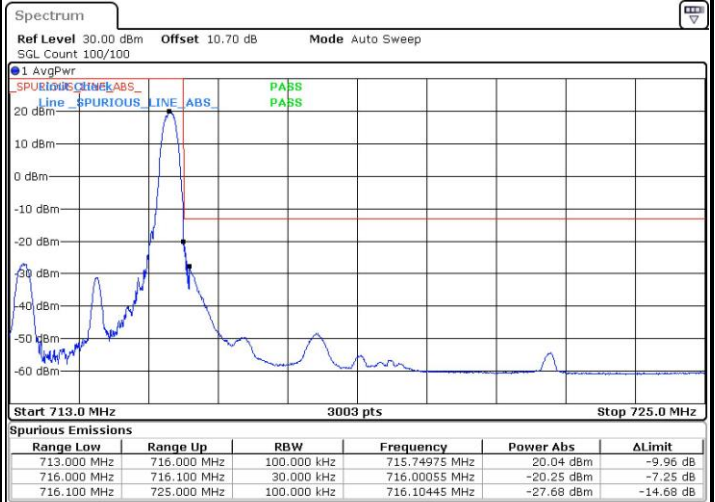
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



Date: 15.JUL.2018 20:57:44

Highest Band Edge / 1 RB



Date: 15.JUL.2018 21:08:36

Lowest Band Edge / Full RB



Date: 15.JUL.2018 20:54:14

Highest Band Edge / Full RB

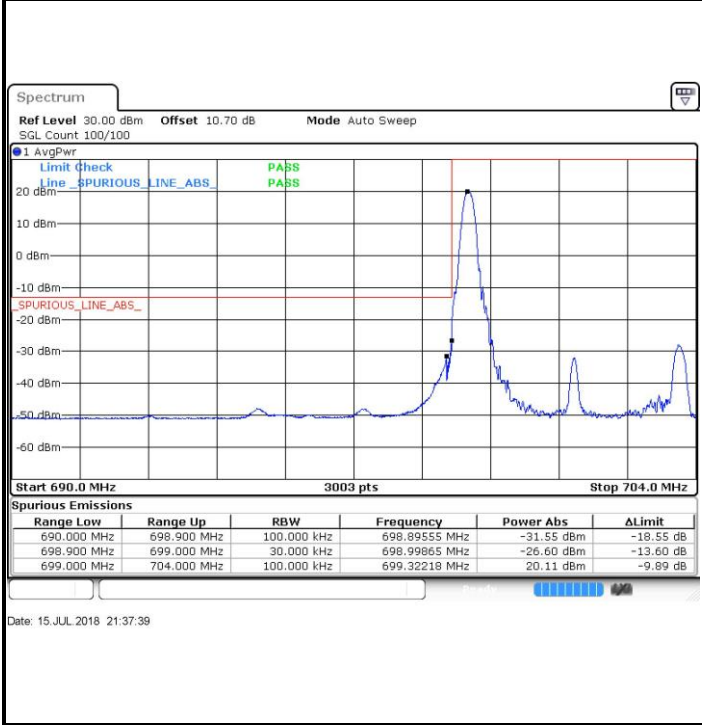


Date: 15.JUL.2018 21:05:06

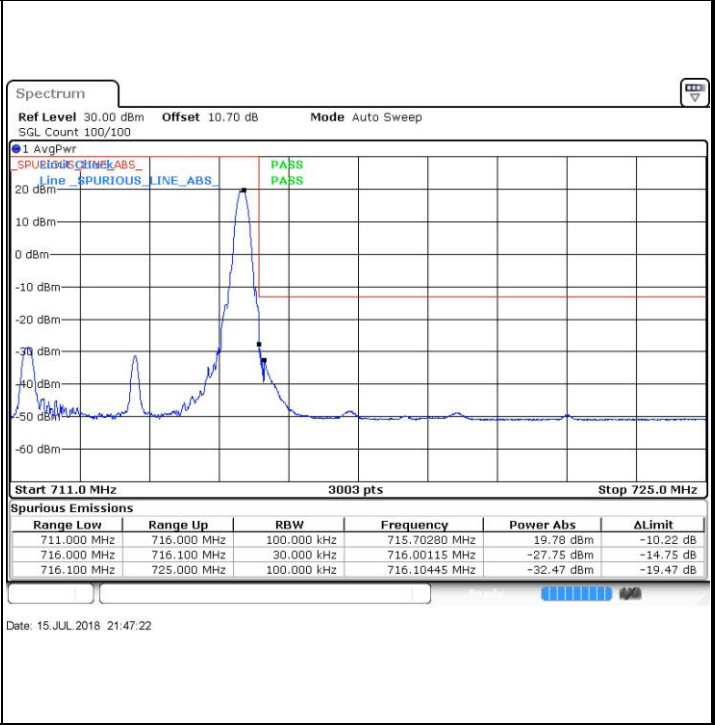


LTE Band 12 / 5MHz / QPSK

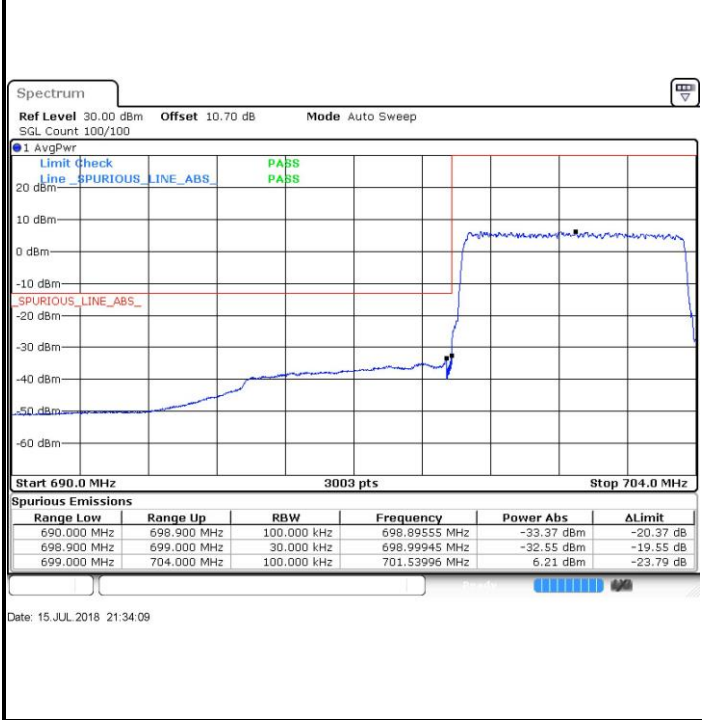
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



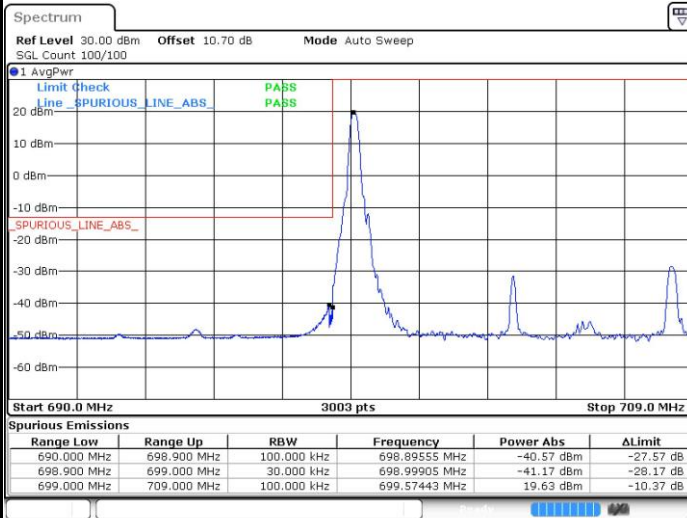
Highest Band Edge / Full RB





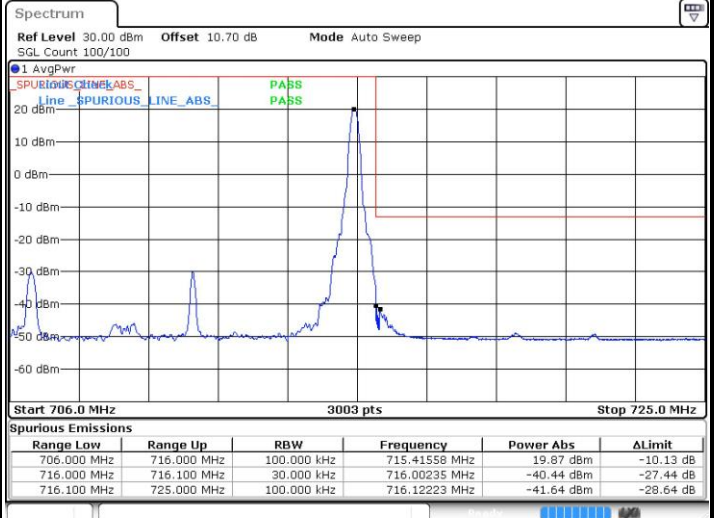
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



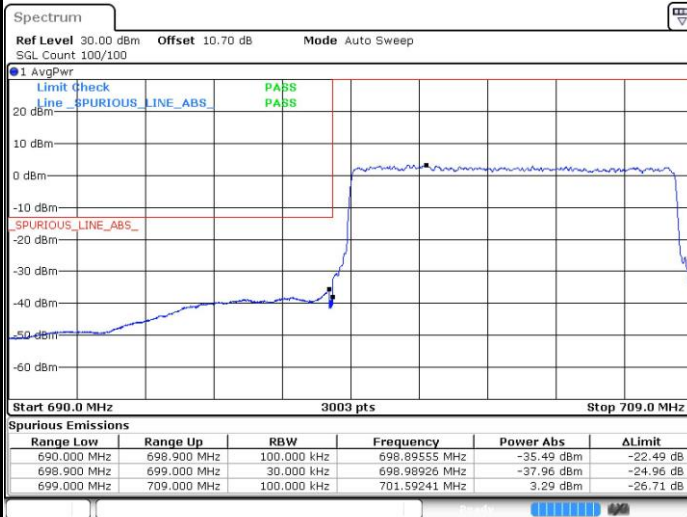
Date: 15 JUL 2018 21:56:19

Highest Band Edge / 1 RB



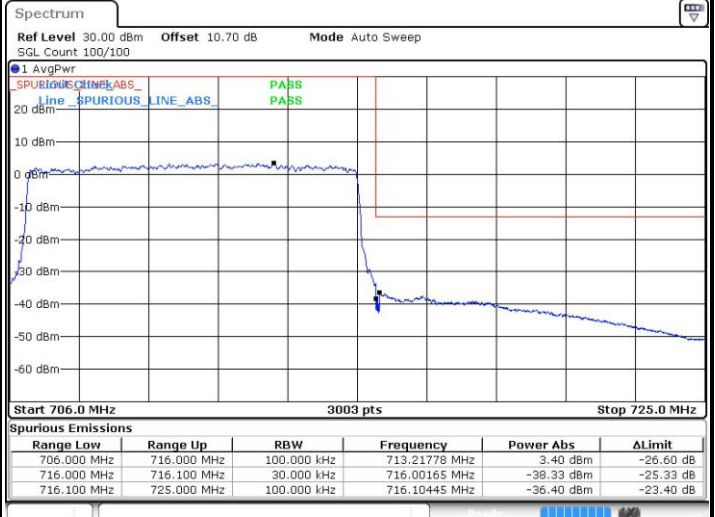
Date: 15 JUL 2018 22:07:12

Lowest Band Edge / Full RB



Date: 15 JUL 2018 21:52:48

Highest Band Edge / Full RB



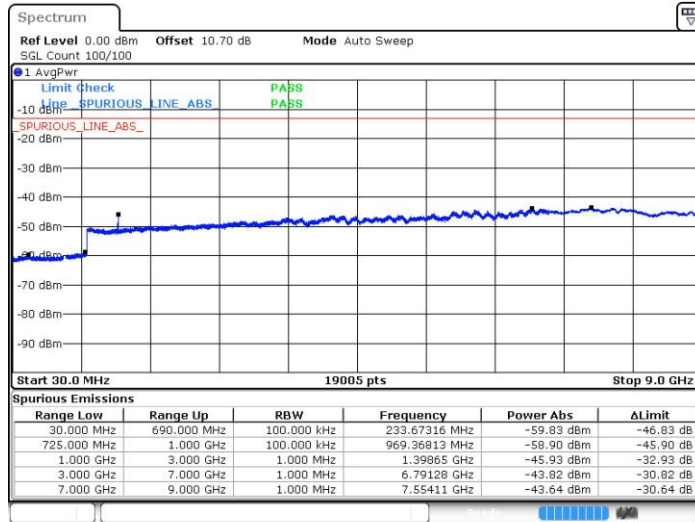
Date: 15 JUL 2018 22:03:41



Conducted Spurious Emission

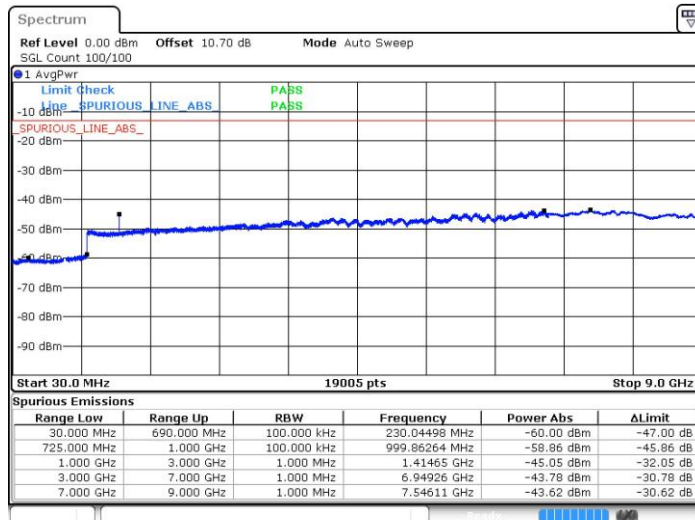
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



Date: 15 JUL 2018 20:14:37

Middle Channel / QPSK

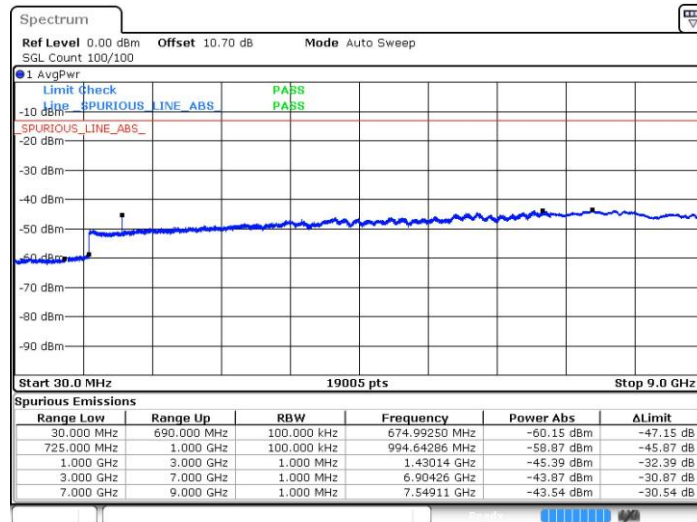


Date: 15 JUL 2018 20:18:53



LTE Band 12 / 1.4MHz

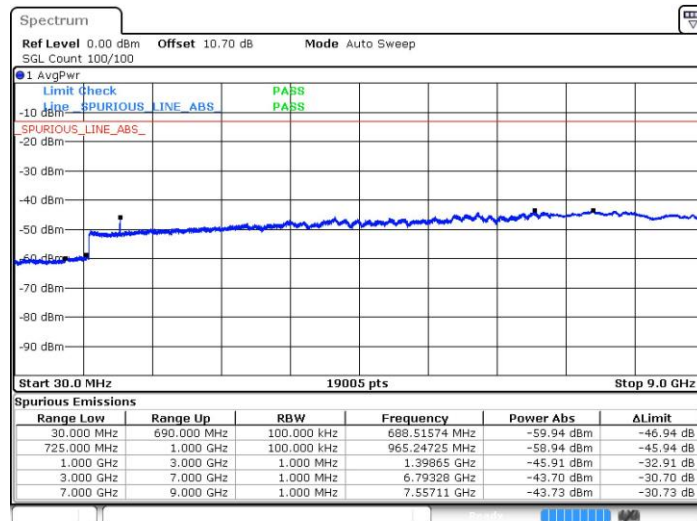
Highest Channel / QPSK



Date: 15 JUL 2018 20:25:29

LTE Band 12 / 3MHz

Lowest Channel / QPSK

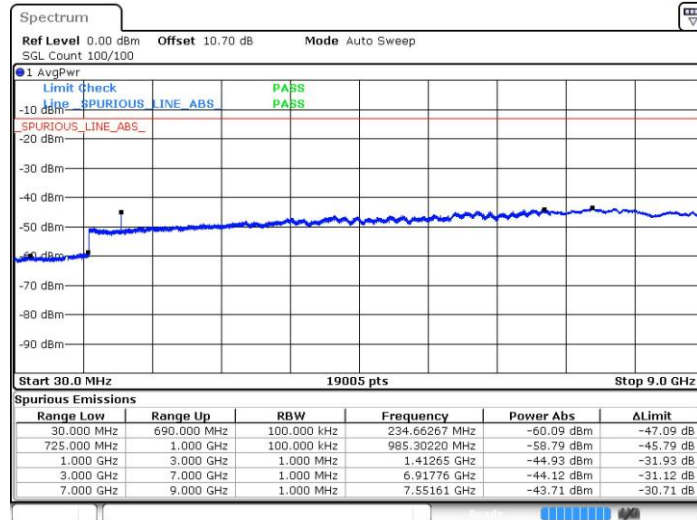


Date: 15 JUL 2018 20:58:55



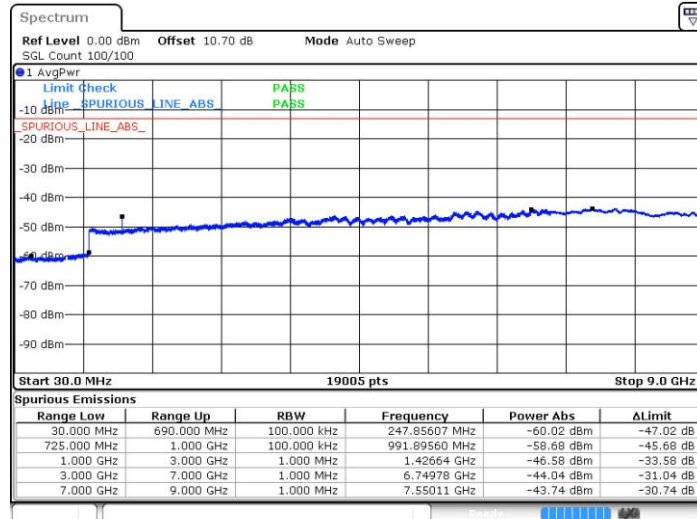
LTE Band 12 / 3MHz

Middle Channel / QPSK



Date: 15 JUL 2018 21:03:11

Highest Channel / QPSK

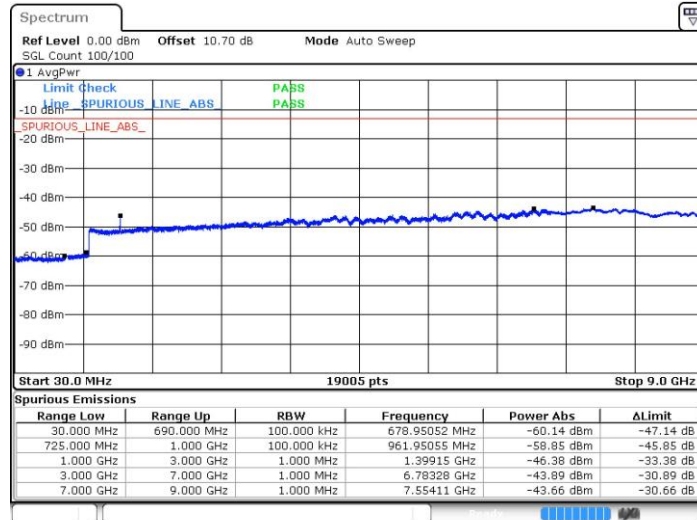


Date: 15 JUL 2018 21:09:47



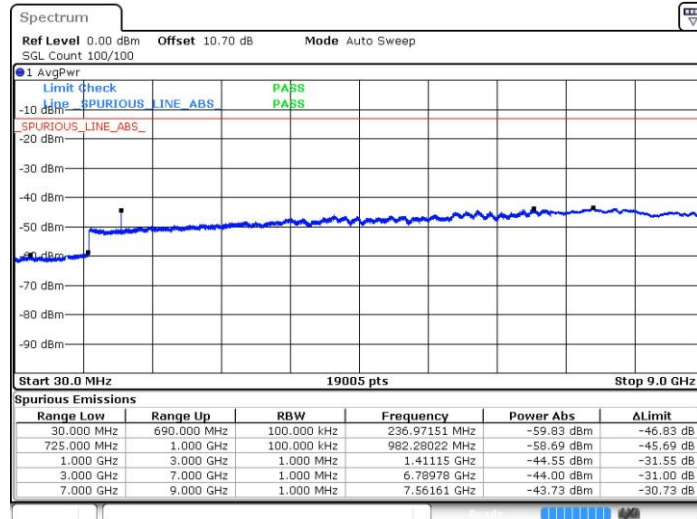
LTE Band 12 / 5MHz

Lowest Channel / QPSK



Date: 15 JUL 2018 21:38:50

Middle Channel / QPSK

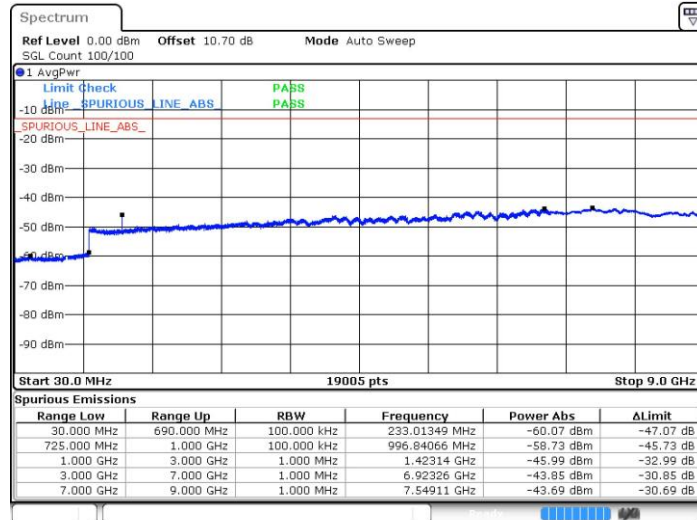


Date: 15 JUL 2018 21:43:06



LTE Band 12 / 5MHz

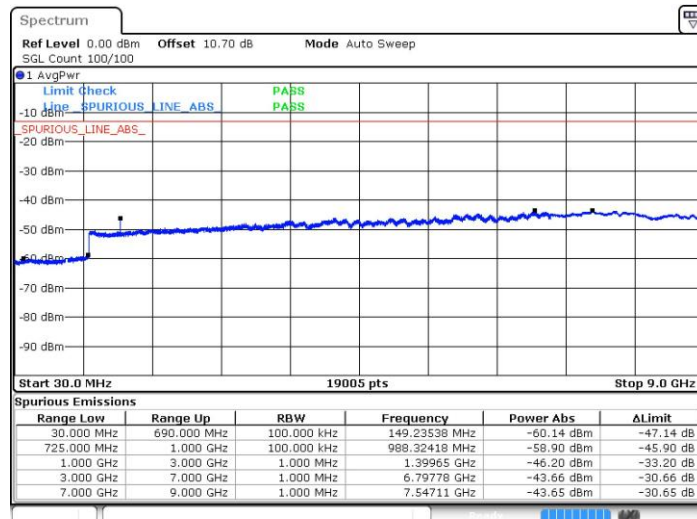
Highest Channel / QPSK



Date: 15 JUL 2018 21:50:53

LTE Band 12 / 10MHz

Lowest Channel / QPSK

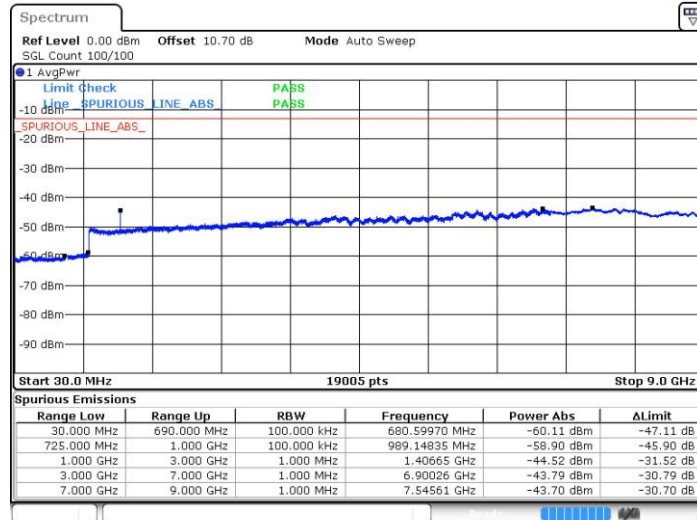


Date: 15 JUL 2018 21:57:29



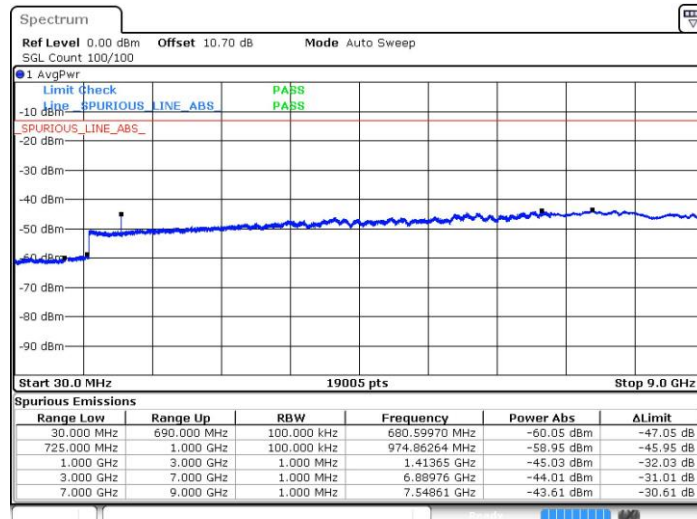
LTE Band 12 / 10MHz

Middle Channel / QPSK



Date: 15 JUL 2018 22:01:46

Highest Channel / QPSK



Date: 15 JUL 2018 22:08:22



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	0.0013	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0141	
0	Normal Voltage	0.0065	
-10	Normal Voltage	0.0061	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0047	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0065	

Note:

1. Normal Voltage =12.0 V. ; Battery End Point (BEP) =10.8 V. ; Maximum Voltage =13.2 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	3.68	4.75	-	-	
Highest CH	-	-	-	-	



LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 17 JUL 2016 07:54:13

Middle Channel / Full RB



Date: 17 JUL 2016 07:54:23



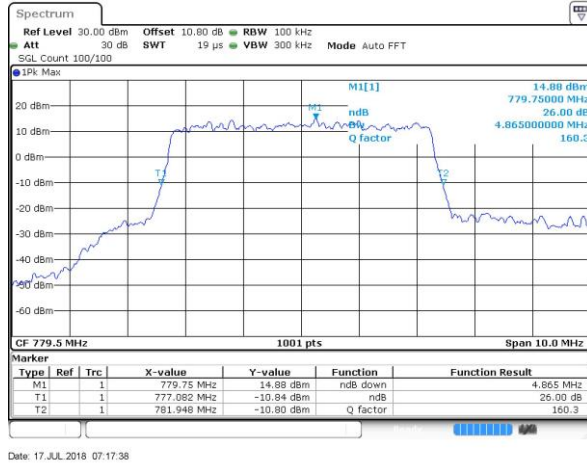
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.87	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	-	9.77	-	-	-	-	-
Highest CH	-	-	-	-	4.93	-	-	-	-	-	-	-

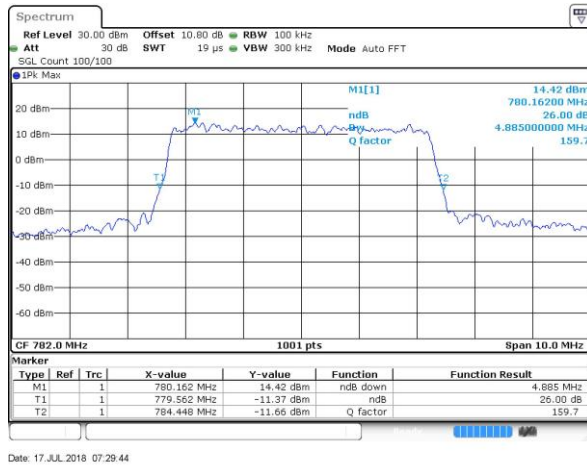


LTE Band 13

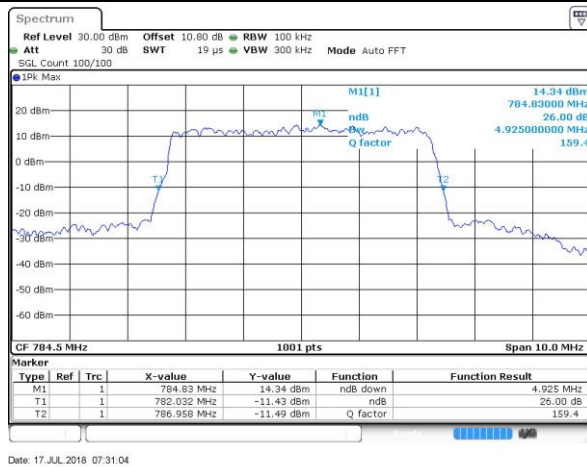
Lowest Channel / 5MHz / QPSK



Middle Channel / 5MHz / QPSK



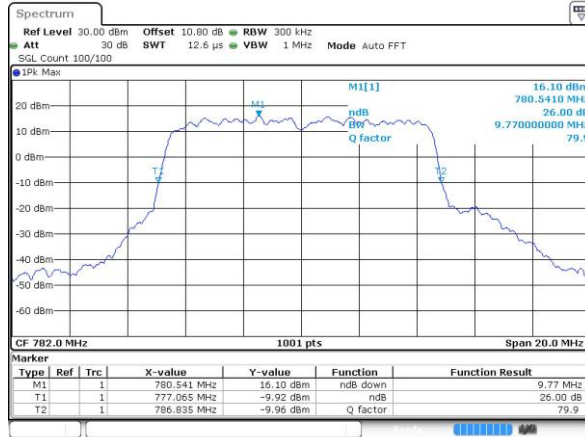
Highest Channel / 5MHz / QPSK





LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 17 JUL 2016 07:40:50



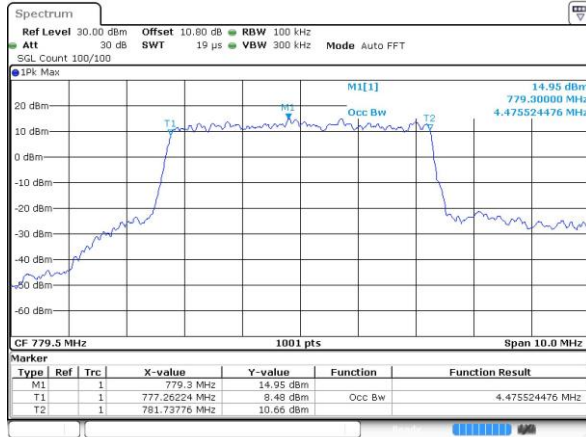
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-



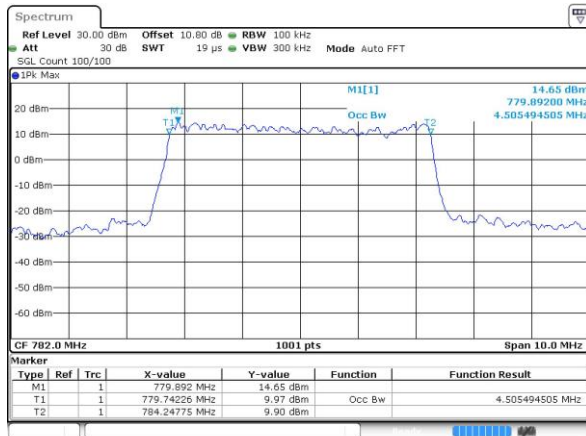
LTE Band 13

Lowest Channel / 5MHz / QPSK



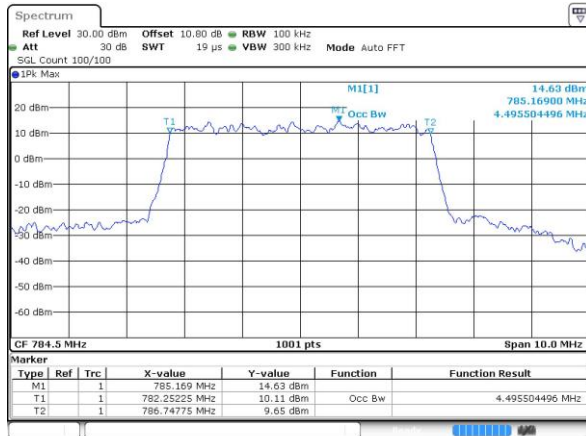
Date: 17 JUL 2018 07:17:04

Middle Channel / 5MHz / QPSK



Date: 17 JUL 2018 07:30:18

Highest Channel / 5MHz / QPSK

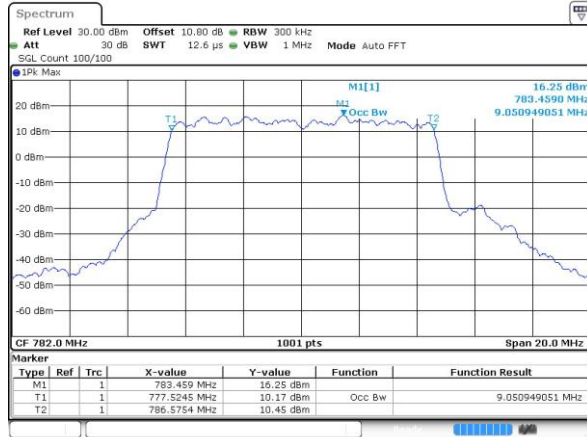


Date: 17 JUL 2018 07:30:30



LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 17 JUL 2016 07:40:16

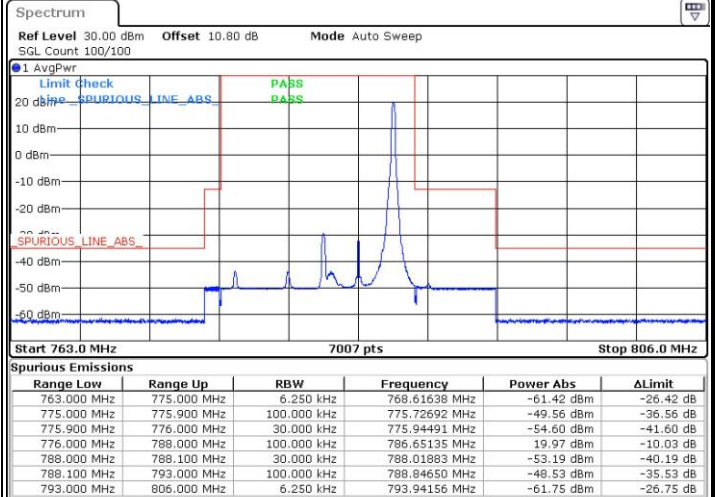
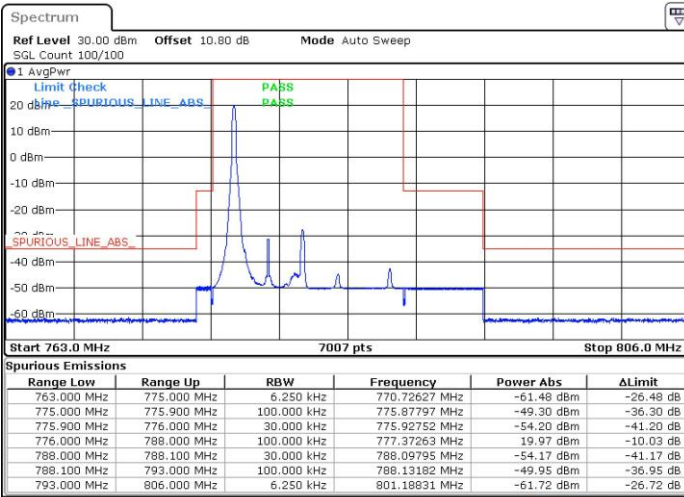


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

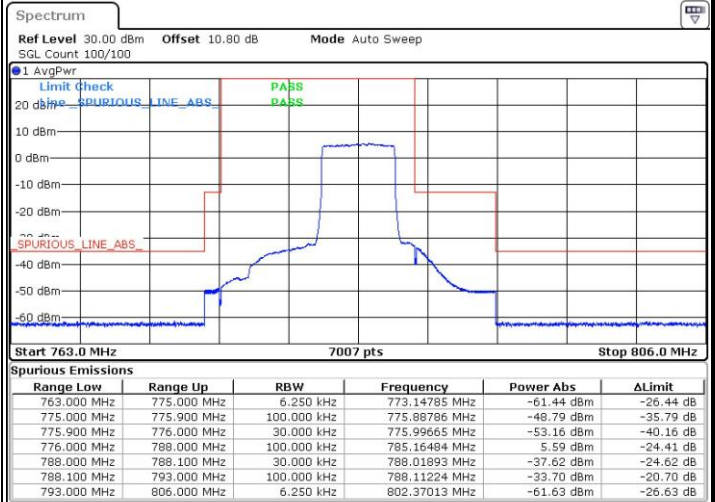
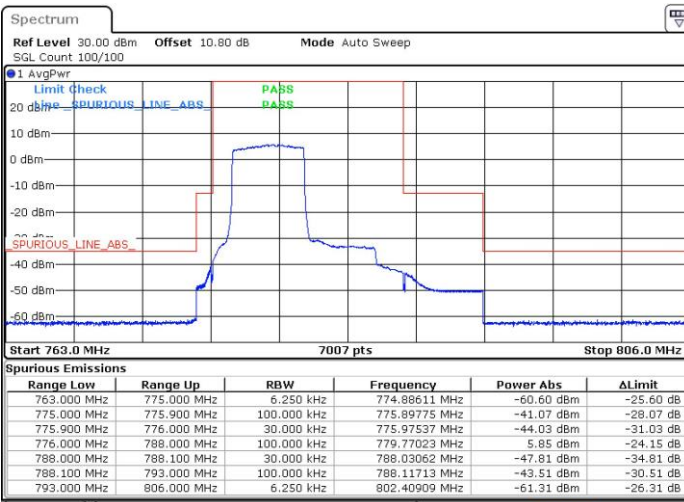


Date: 17.JUL.2018 08:01:19

Date: 17.JUL.2018 08:08:00

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 17.JUL.2018 07:56:18

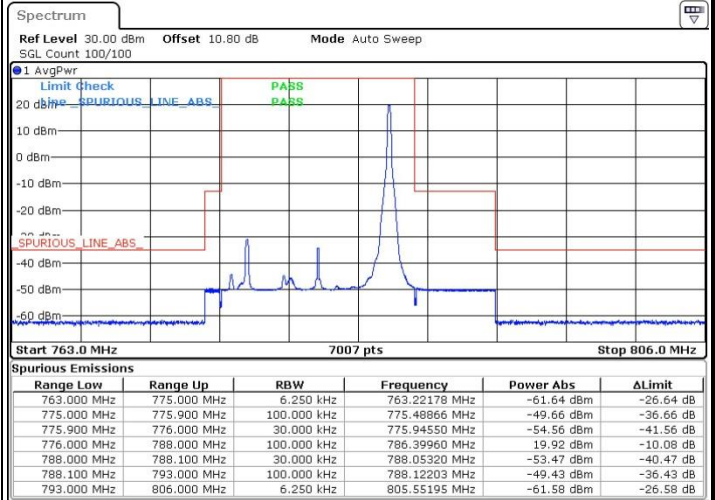
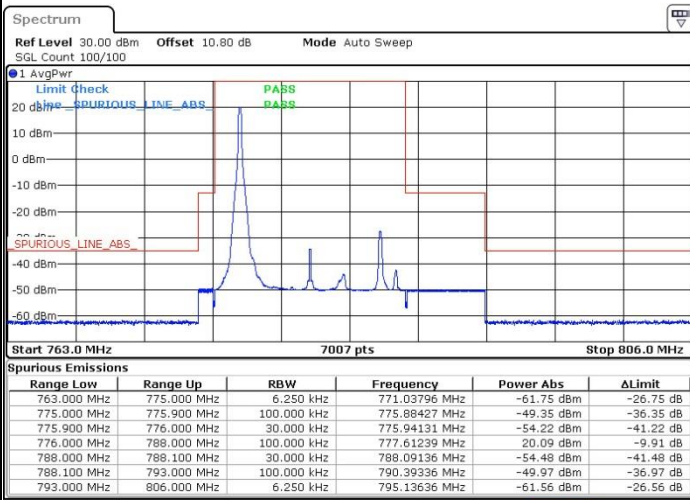
Date: 17.JUL.2018 08:02:59



LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

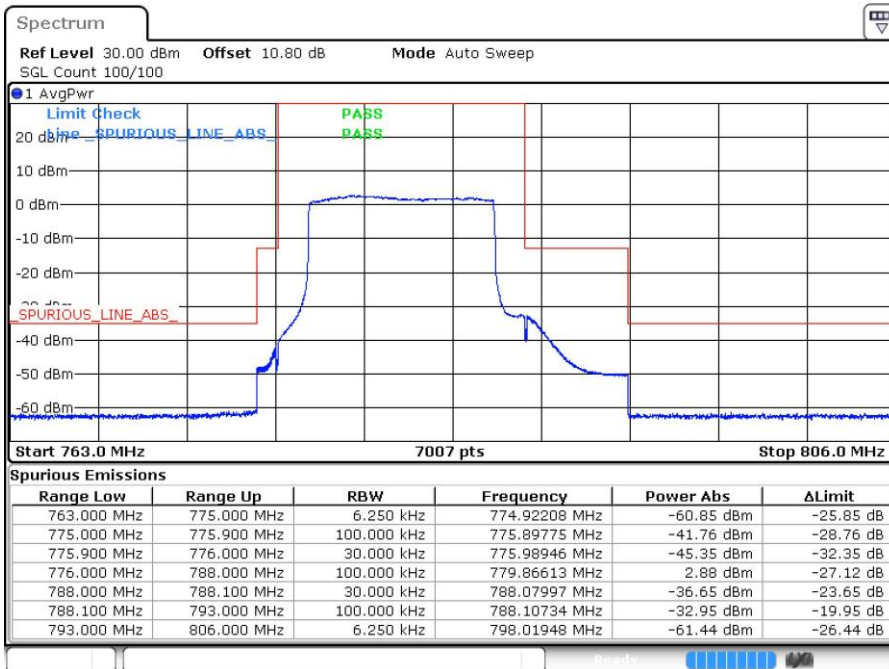
Highest Band Edge / 1 RB



Date: 17.JUL.2018 08:14:41

Date: 17.JUL.2018 08:16:21

Band Edge / Full RB



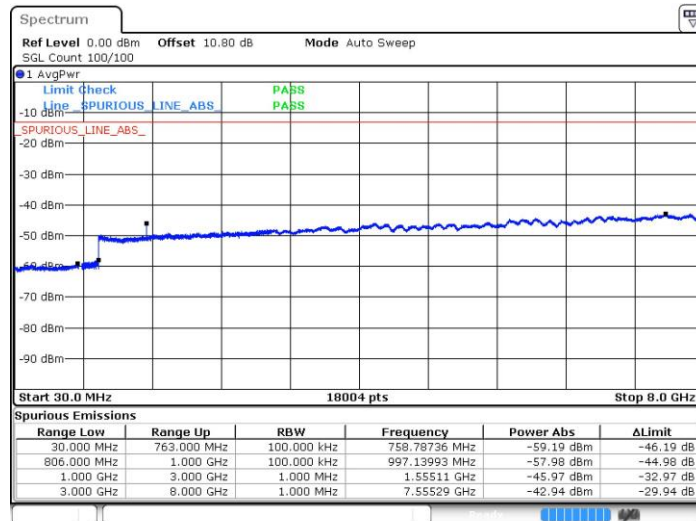
Date: 17.JUL.2018 08:09:40



Conducted Spurious Emission

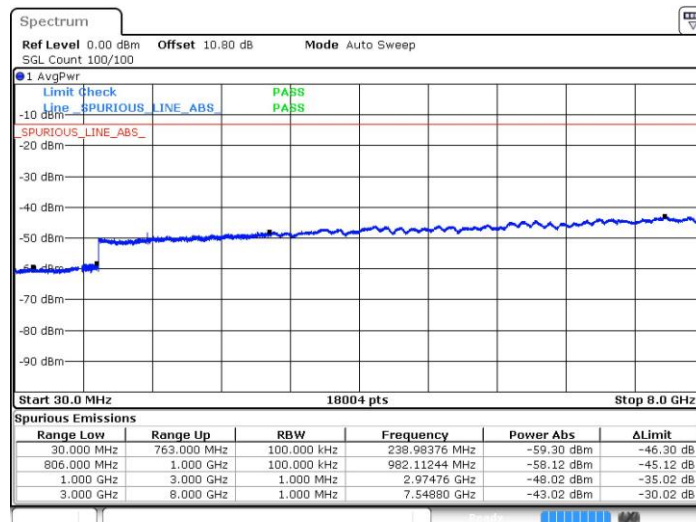
LTE Band 13 / 5MHz

Lowest Channel / QPSK



Date: 17 JUL 2018 07:26 03

Middle Channel / QPSK

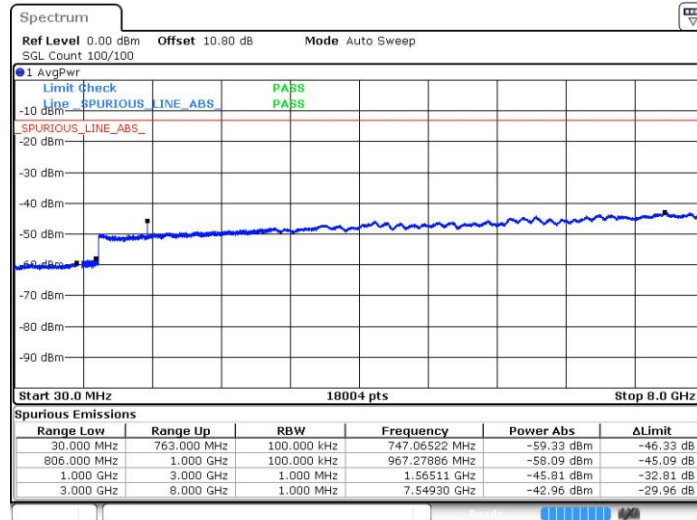


Date: 17 JUL 2018 07:29 33



LTE Band 13 / 5MHz

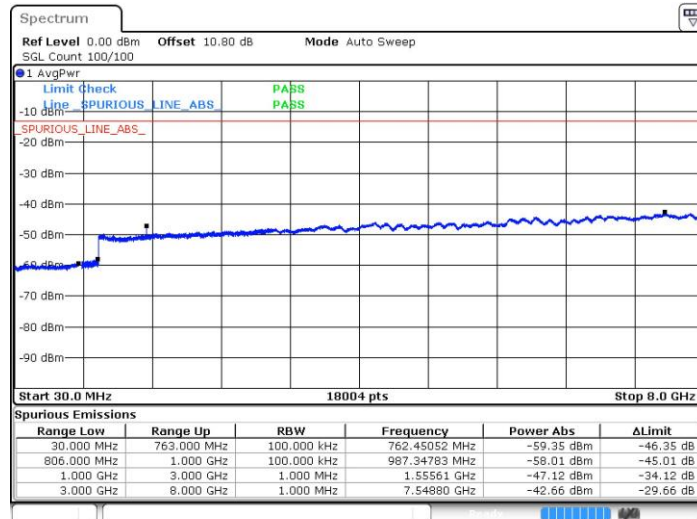
Highest Channel / QPSK



Date: 17 JUL 2018 07:38:55

LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 17 JUL 2018 07:53:12



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	0.0064	PASS
40	Normal Voltage	0.0051	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0070	

Note:

1. Normal Voltage =12.0 V. ; Battery End Point (BEP) =10.8 V. ; Maximum Voltage =13.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 66

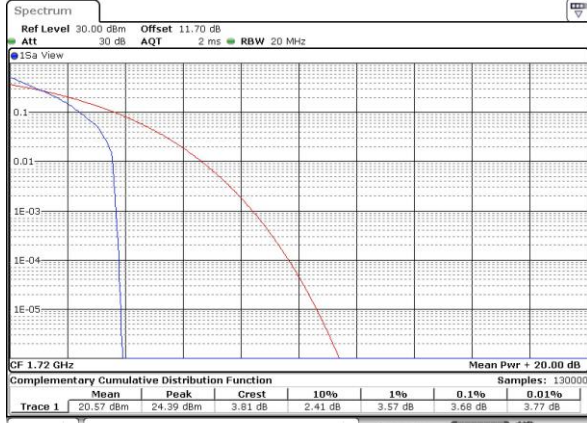
Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.68	4.46	-	-	PASS
Middle CH	4.06	4.58	-	-	
Highest CH	3.13	4.43	-	-	



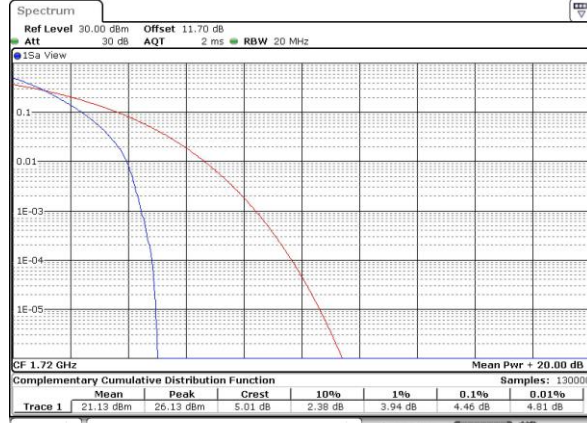
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



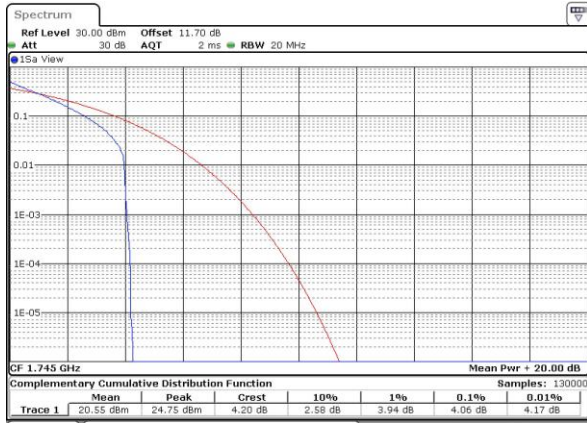
Date: 17 JUL 2018 04:23:20

Lowest Channel / Full RB



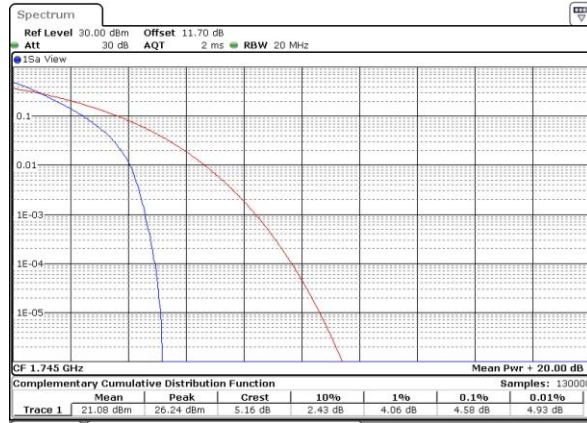
Date: 17 JUL 2018 04:24:38

Middle Channel / 1RB



Date: 17 JUL 2018 04:24:48

Middle Channel / Full RB



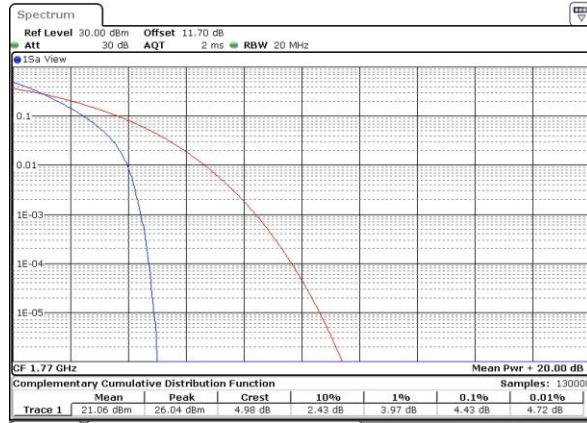
Date: 17 JUL 2018 04:24:58

Highest Channel / 1RB



Date: 17 JUL 2018 04:25:08

Highest Channel / Full RB



Date: 17 JUL 2018 04:25:18