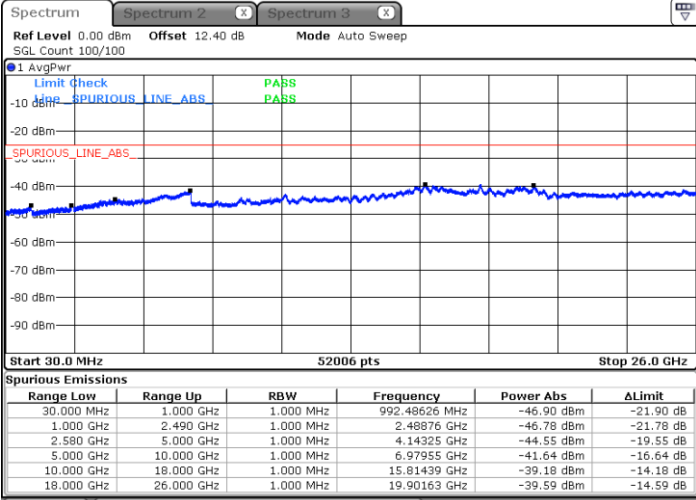




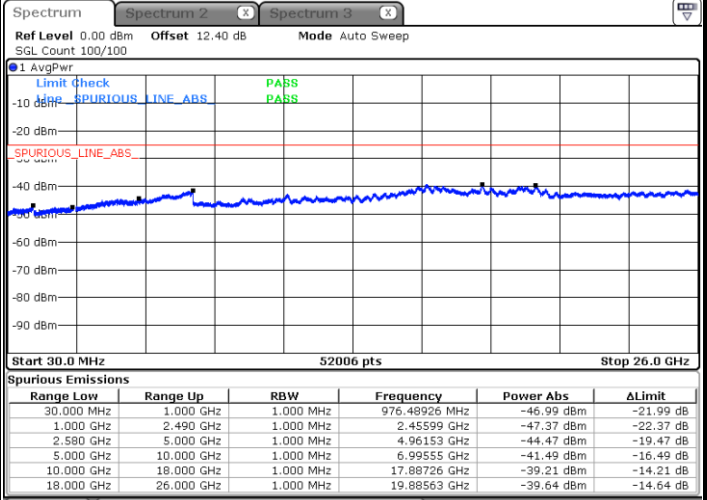
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

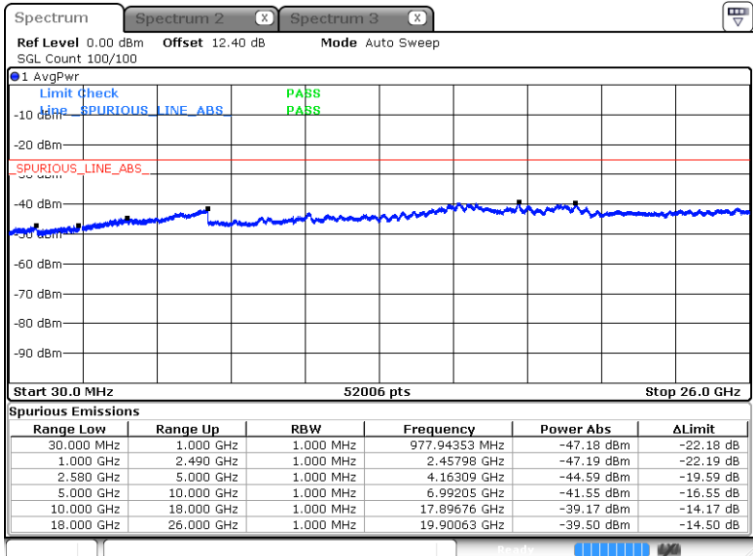


Date: 3.MAY.2021 13:22:09



Date: 3.MAY.2021 13:24:48

Highest Channel / QPSK



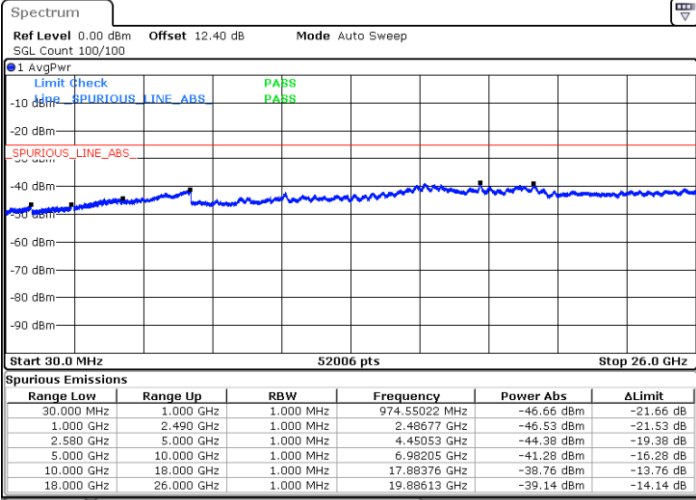
Date: 3.MAY.2021 13:28:47



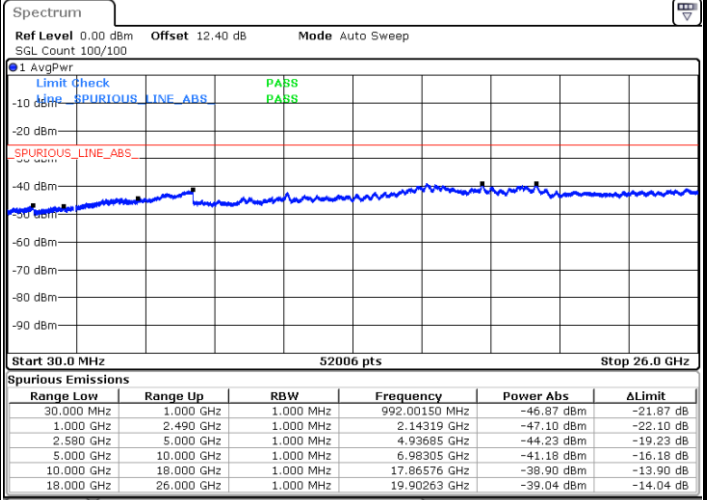
LTE Band 7 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

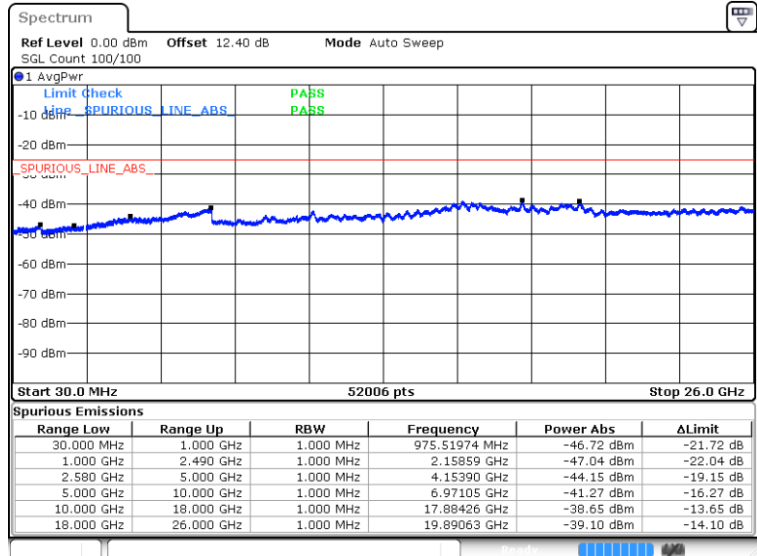


Date: 3 MAY 2021 14:47:26



Date: 3 MAY 2021 14:50:05

Highest Channel / QPSK



Date: 3 MAY 2021 14:54:01



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	0.0034	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0033	

Note:

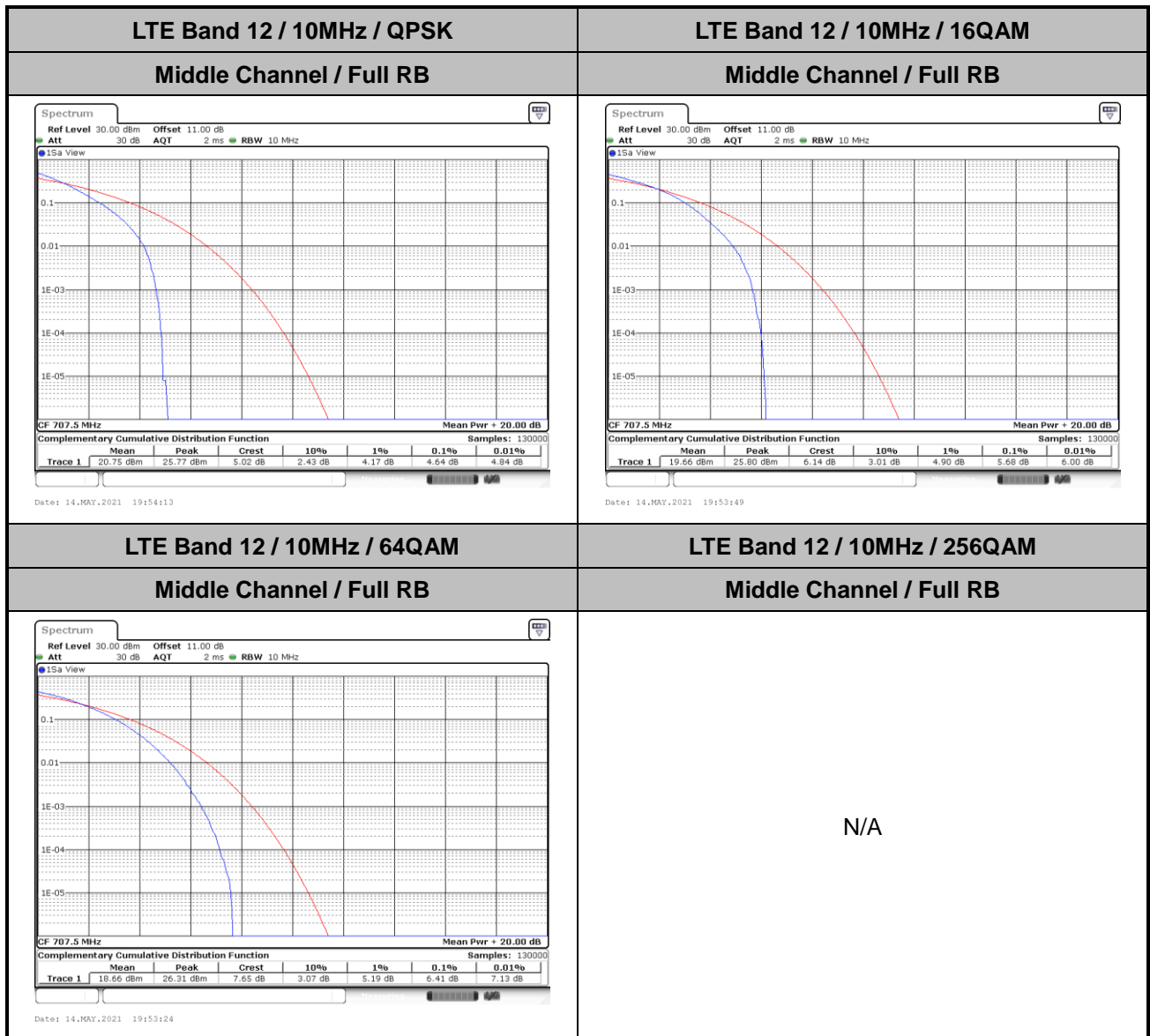
- 1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.64	5.68	6.41	-	PASS





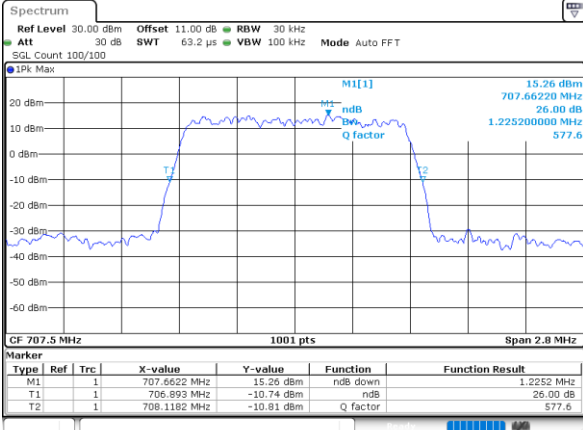
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.23	1.23	3.02	3.02	4.87	4.83	9.81	9.69	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.23	-	2.97	-	4.89	-	9.73	-	-	-	-	-



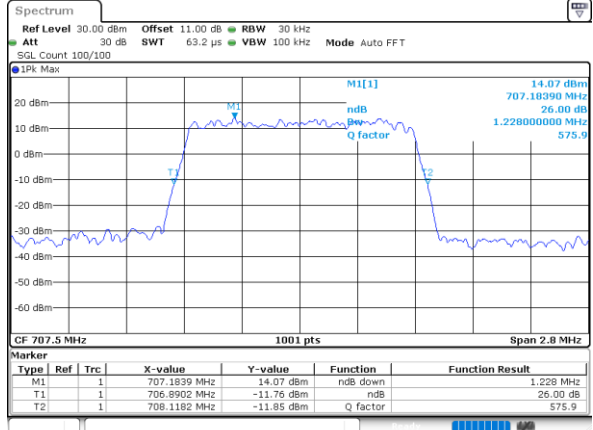
LTE Band 12

Middle Channel / 1.4MHz / QPSK



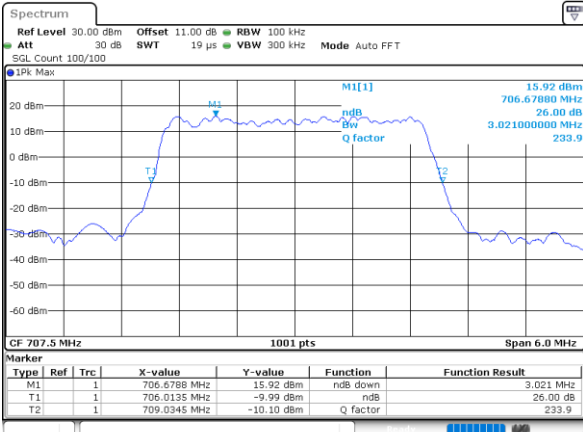
Date: 14.MAY.2021 18:28:08

Middle Channel / 1.4MHz / 16QAM



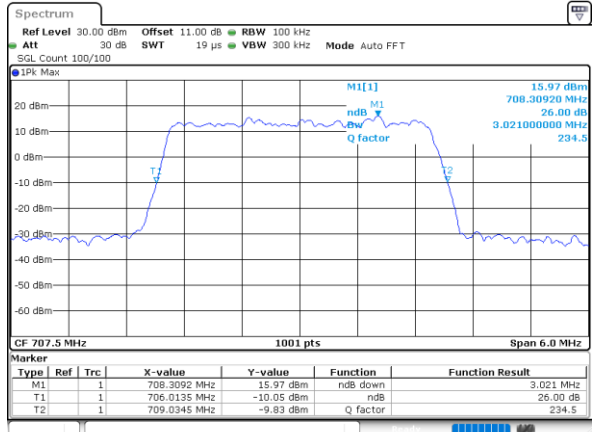
Date: 14.MAY.2021 18:28:29

Middle Channel / 3MHz / QPSK



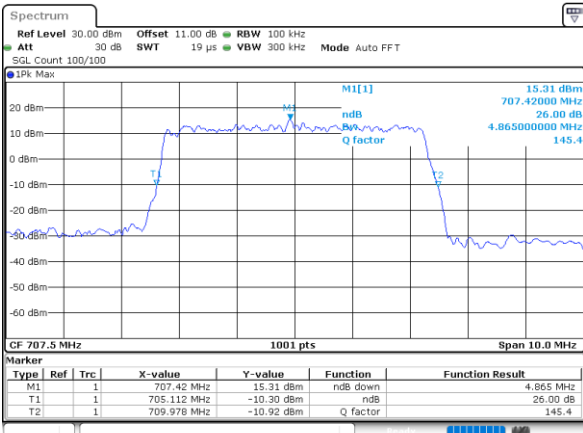
Date: 14.MAY.2021 19:18:14

Middle Channel / 3MHz / 16QAM



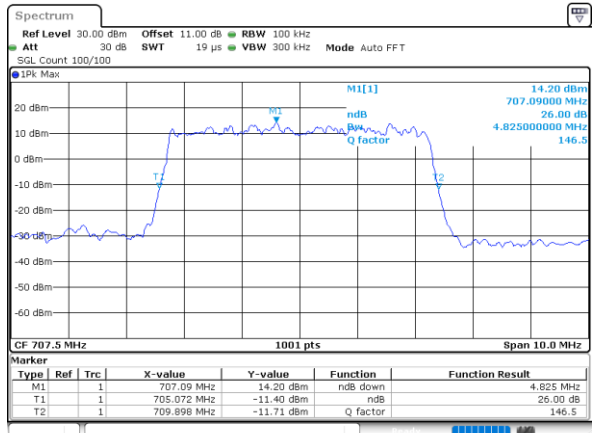
Date: 14.MAY.2021 19:18:35

Middle Channel / 5MHz / QPSK



Date: 14.MAY.2021 19:36:20

Middle Channel / 5MHz / 16QAM

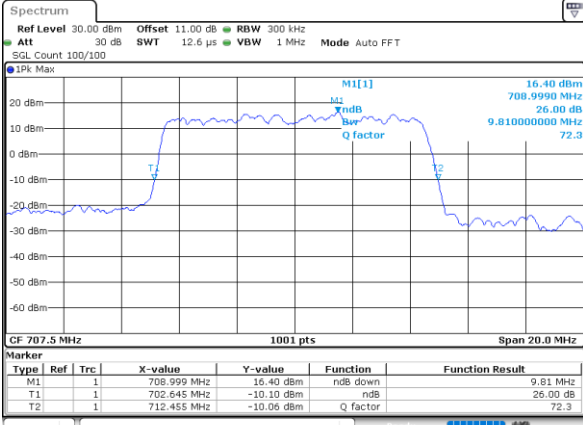


Date: 14.MAY.2021 19:36:41



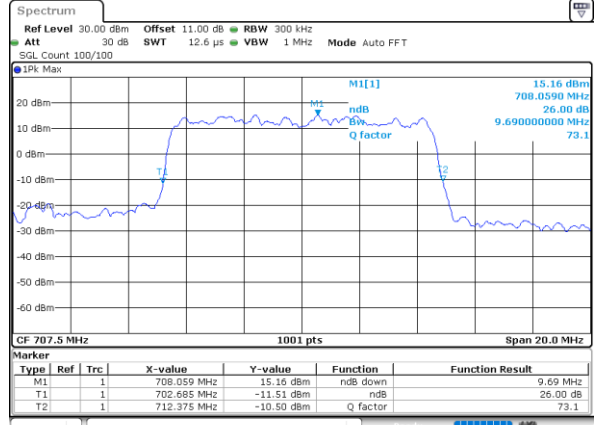
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 14.MAY.2021 19:45:09

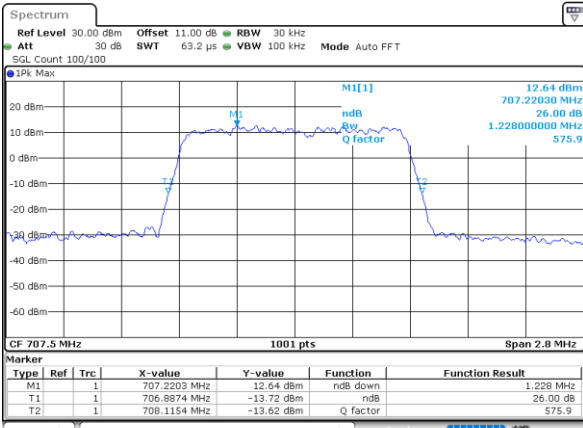
Middle Channel / 10MHz / 16QAM



Date: 14.MAY.2021 19:45:30

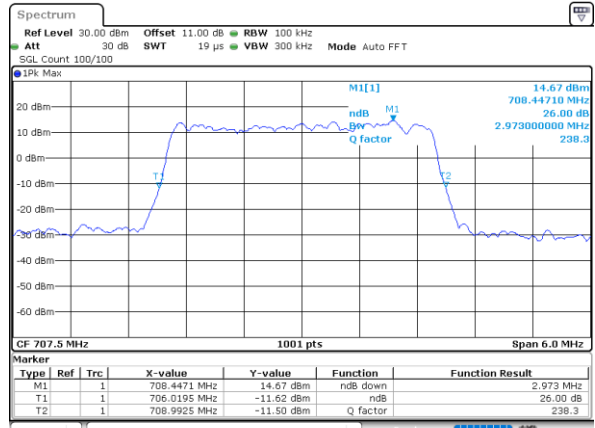
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



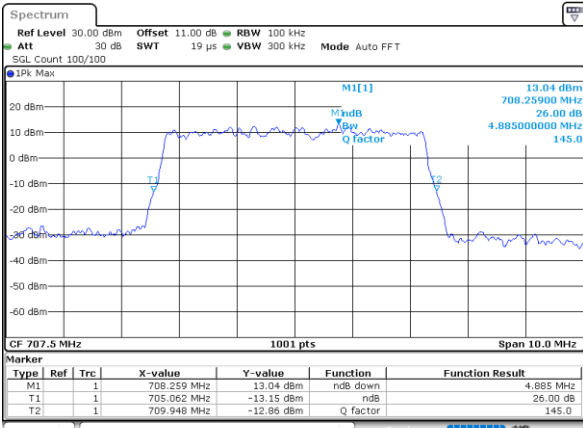
Date: 14.MAY.2021 19:34:33

Middle Channel / 3MHz / 64QAM



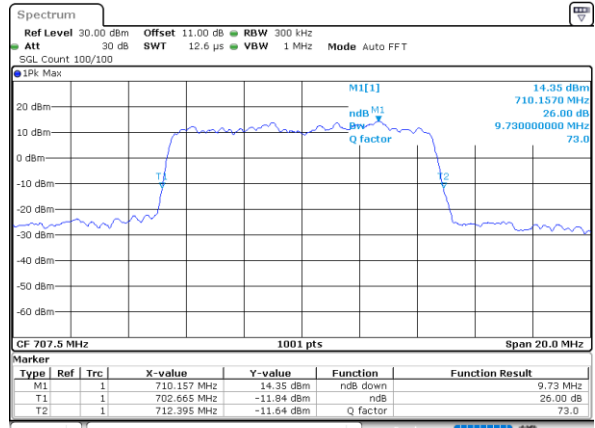
Date: 14.MAY.2021 19:27:00

Middle Channel / 5MHz / 64QAM



Date: 14.MAY.2021 19:30:29

Middle Channel / 10MHz / 64QAM



Date: 14.MAY.2021 19:51:39



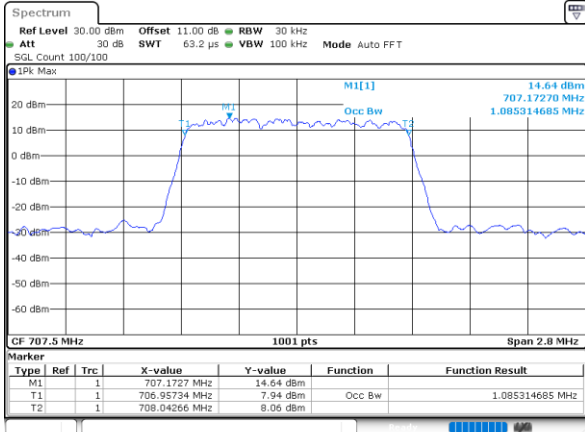
Occupied Bandwidth

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
Middle CH	1.09	1.08	2.72	2.72	4.49	4.48	9.03	9.01	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.09	-	2.72	-	4.49	-	8.99	-	-	-	-	-



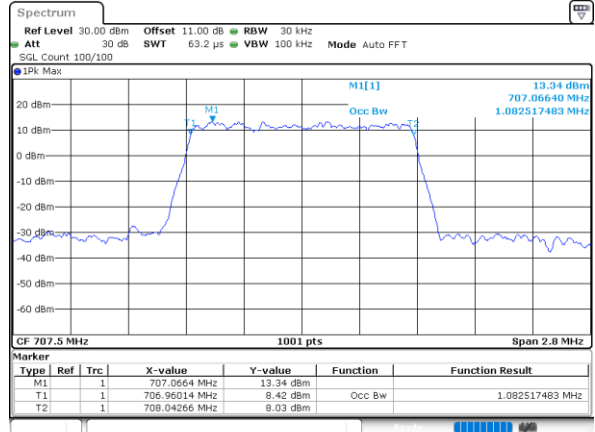
LTE Band 12

Middle Channel / 1.4MHz / QPSK



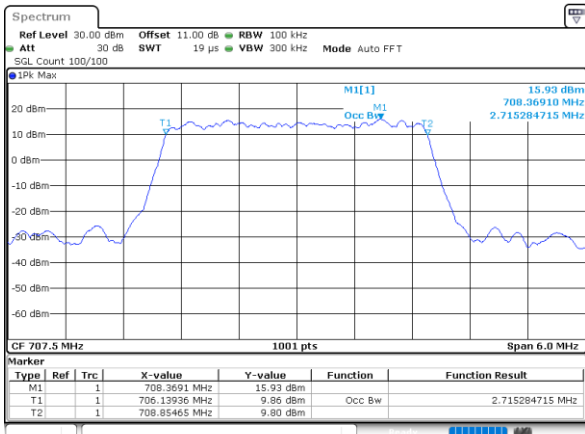
Date: 14.MAY.2021 18:27:46

Middle Channel / 1.4MHz / 16QAM



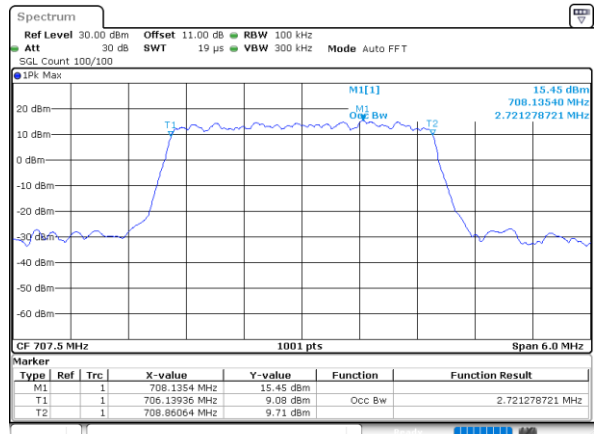
Date: 14.MAY.2021 18:27:23

Middle Channel / 3MHz / QPSK



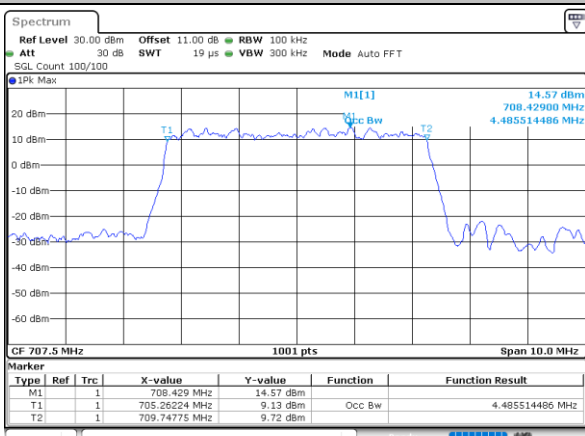
Date: 14.MAY.2021 19:17:52

Middle Channel / 3MHz / 16QAM



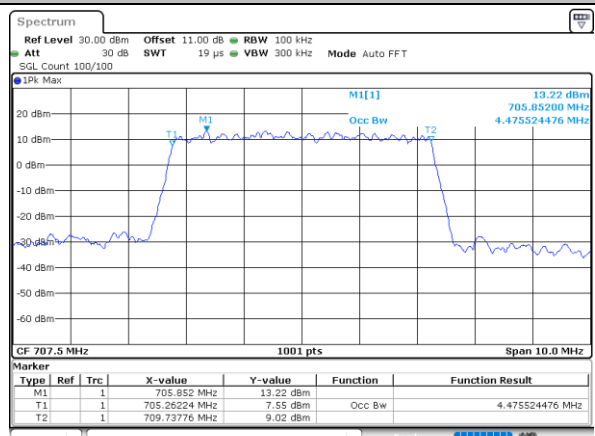
Date: 14.MAY.2021 19:17:29

Middle Channel / 5MHz / QPSK



Date: 14.MAY.2021 19:35:58

Middle Channel / 5MHz / 16QAM

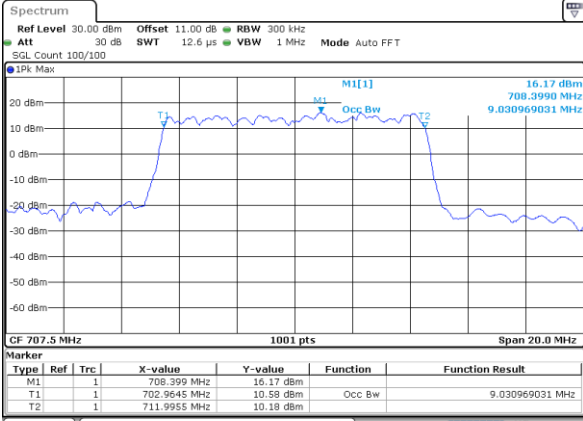


Date: 14.MAY.2021 19:35:35



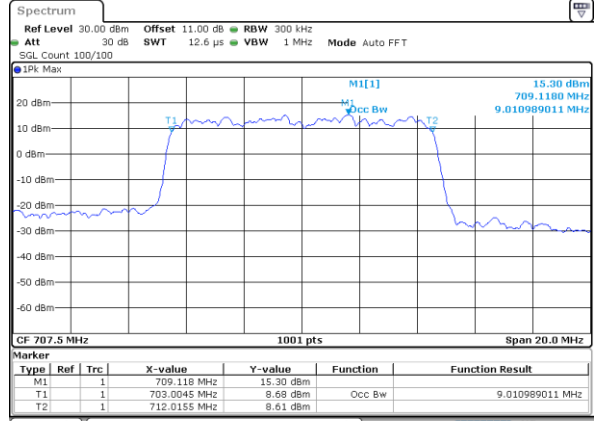
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 14.MAY.2021 19:44:46

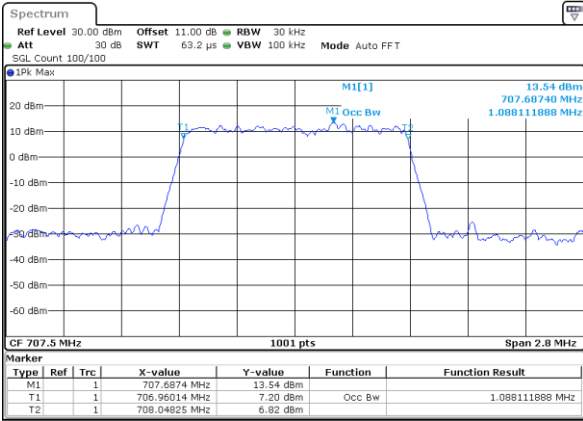
Middle Channel / 10MHz / 16QAM



Date: 14.MAY.2021 19:44:24

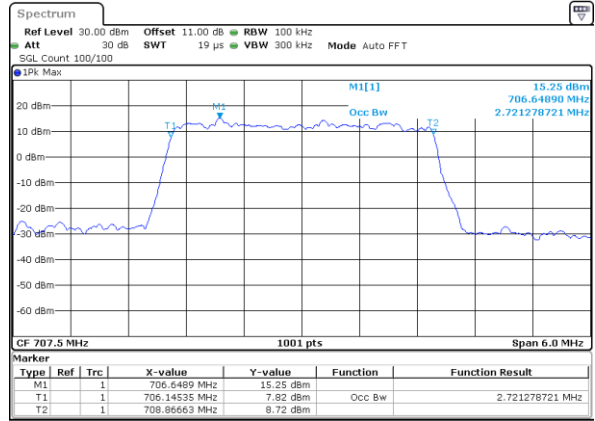
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



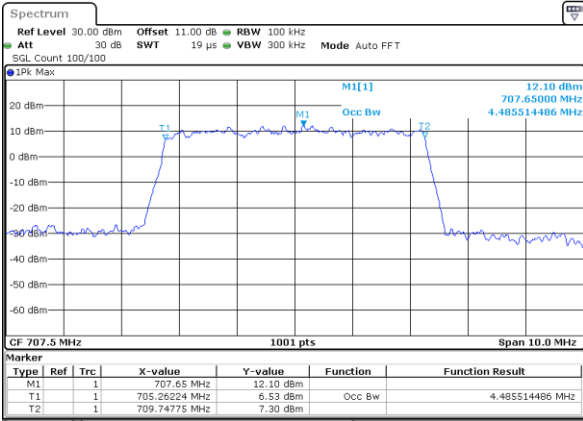
Date: 14.MAY.2021 18:34:10

Middle Channel / 3MHz / 64QAM



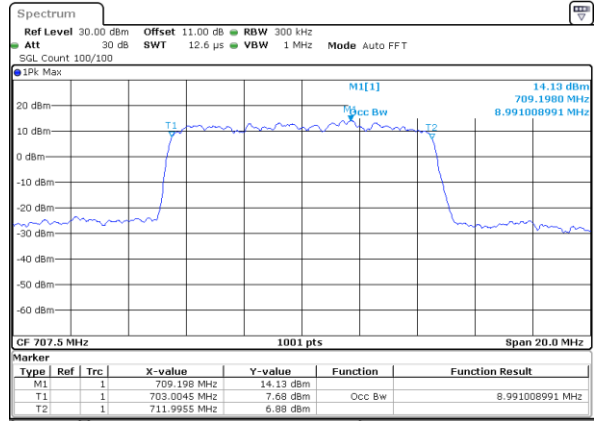
Date: 14.MAY.2021 19:26:37

Middle Channel / 5MHz / 64QAM



Date: 14.MAY.2021 19:30:07

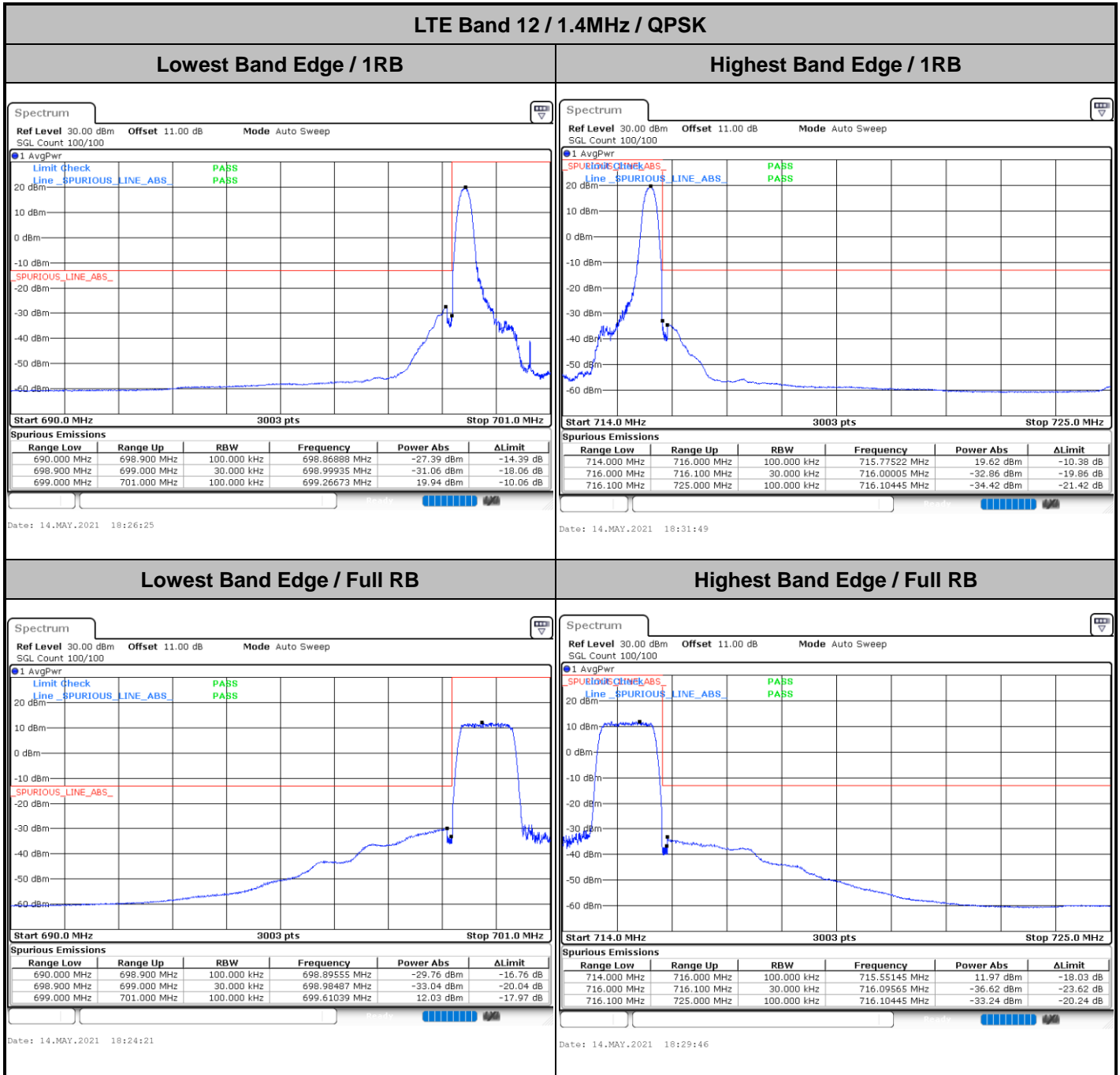
Middle Channel / 10MHz / 64QAM



Date: 14.MAY.2021 19:51:17



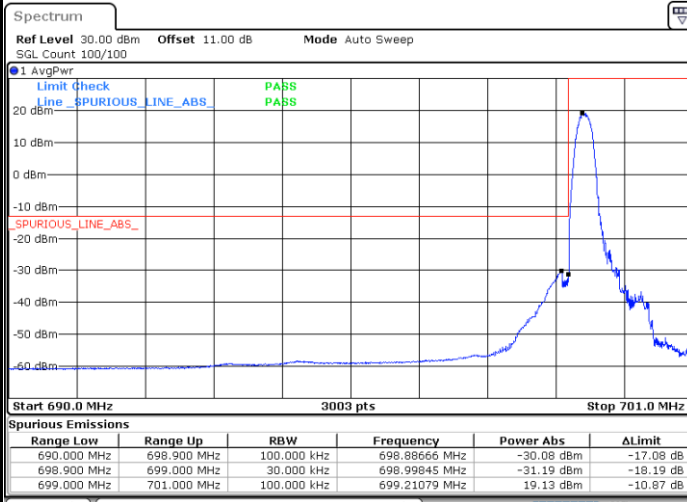
Conducted Band Edge





LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



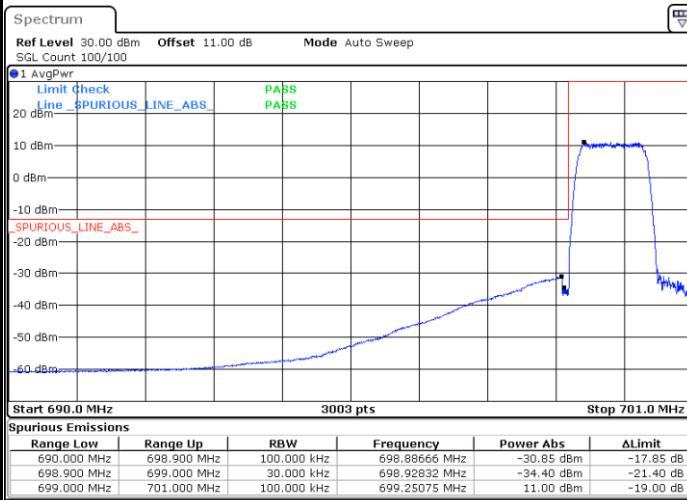
Date: 14.MAY.2021 18:25:44

Highest Band Edge / 1 RB



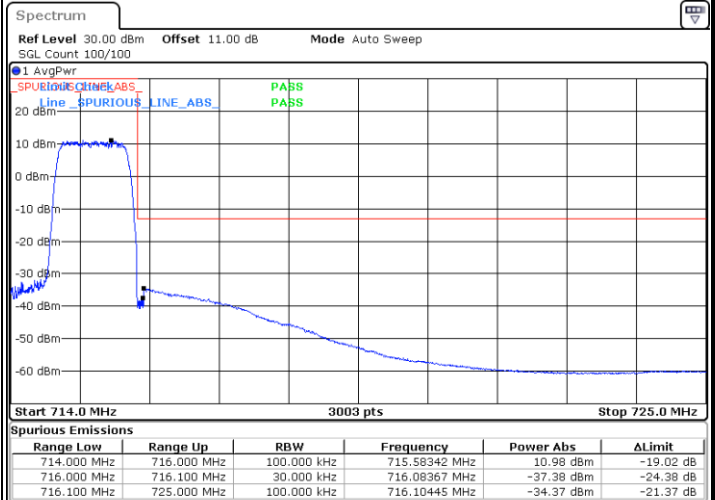
Date: 14.MAY.2021 18:31:08

Lowest Band Edge / Full RB



Date: 14.MAY.2021 18:25:03

Highest Band Edge / Full RB

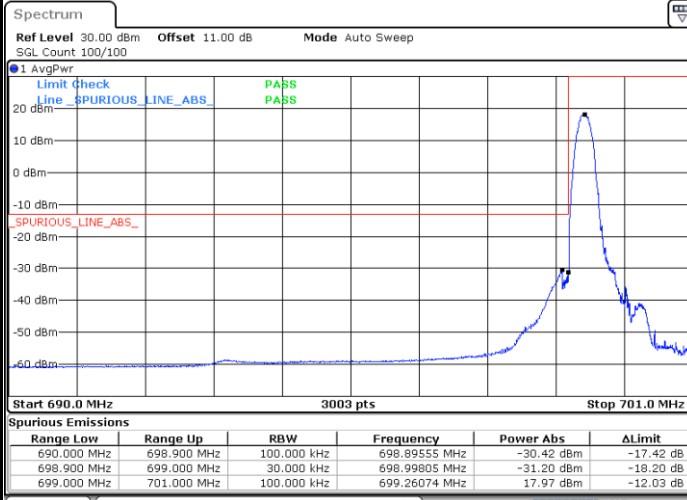


Date: 14.MAY.2021 18:30:27



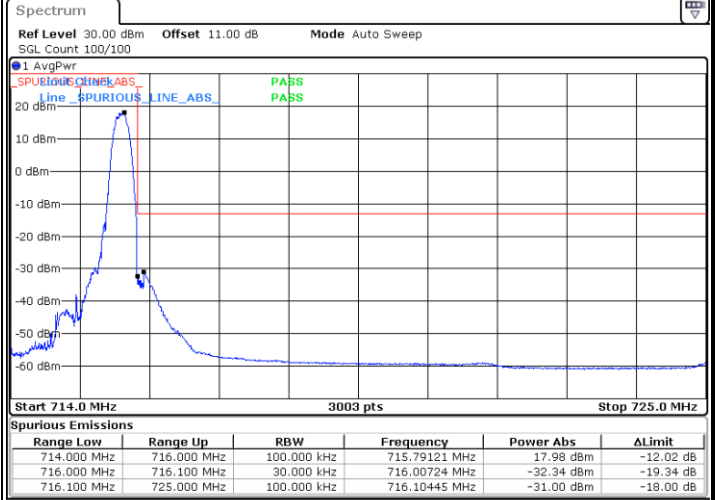
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



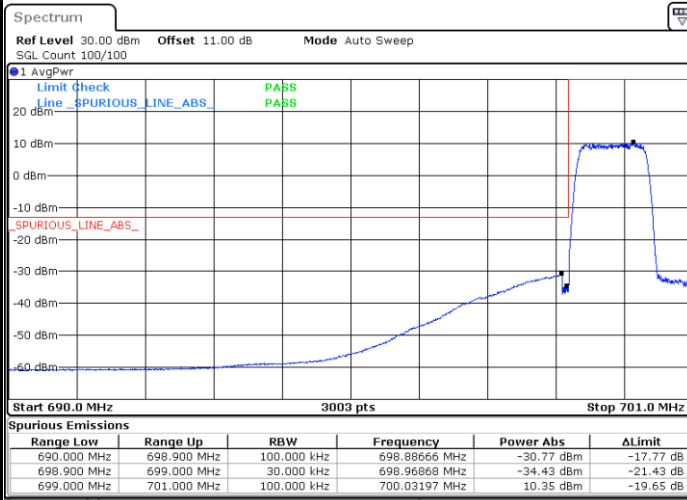
Date: 14.MAY.2021 18:33:48

Highest Band Edge / 1 RB



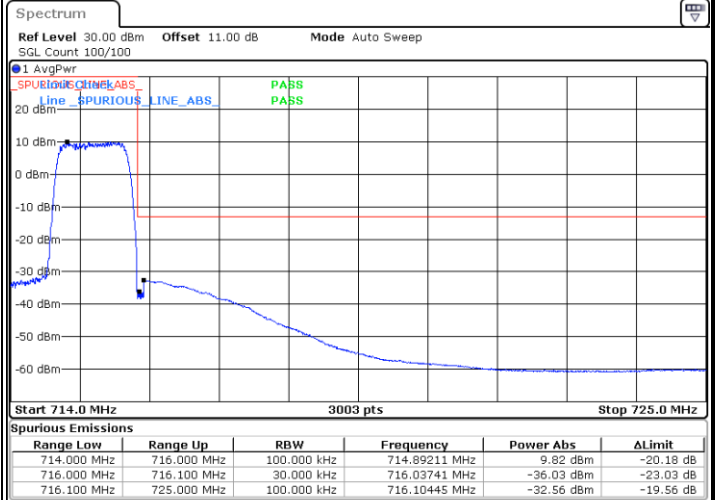
Date: 14.MAY.2021 18:35:54

Lowest Band Edge / Full RB



Date: 14.MAY.2021 18:33:07

Highest Band Edge / Full RB

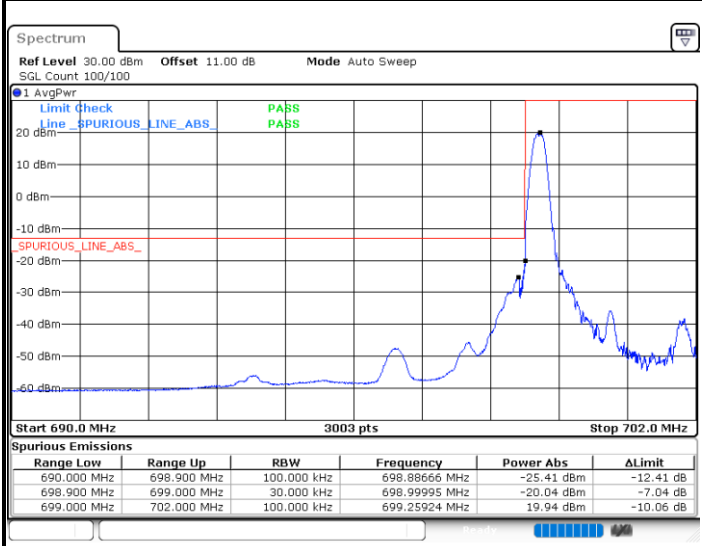


Date: 14.MAY.2021 18:35:13

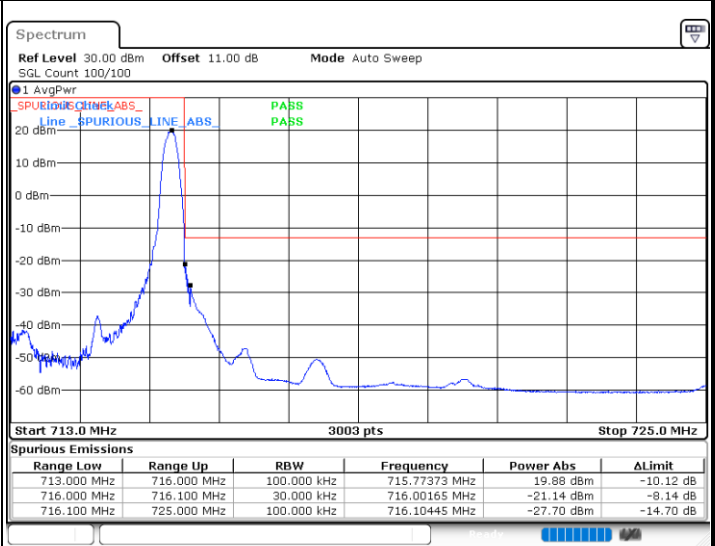


LTE Band 12 / 3MHz / QPSK

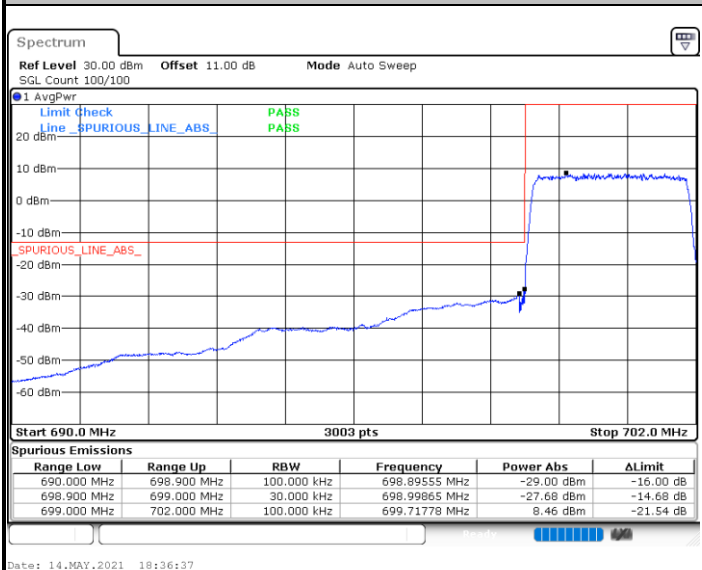
Lowest Band Edge / 1RB



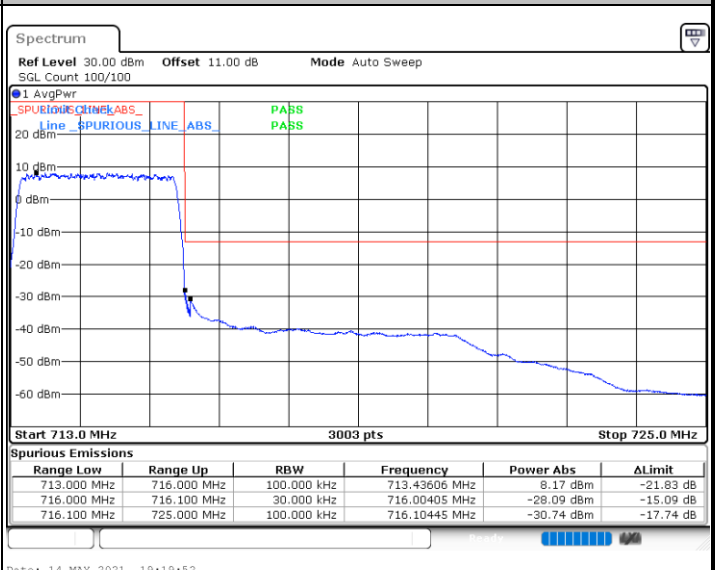
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



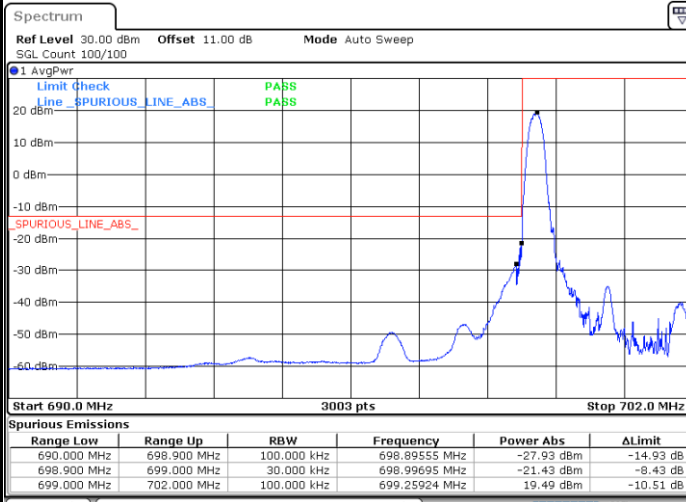
Highest Band Edge / Full RB





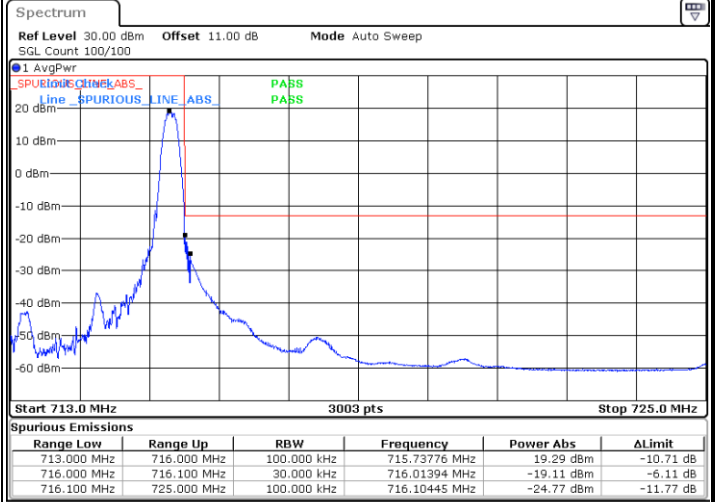
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



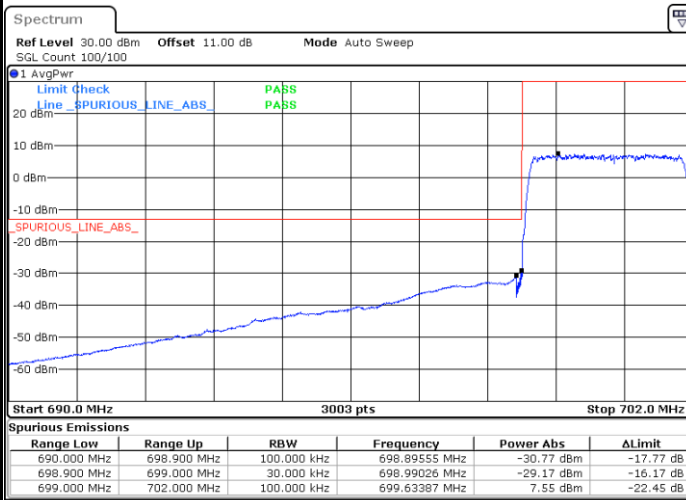
Date: 14.MAY.2021 19:15:50

Highest Band Edge / 1 RB



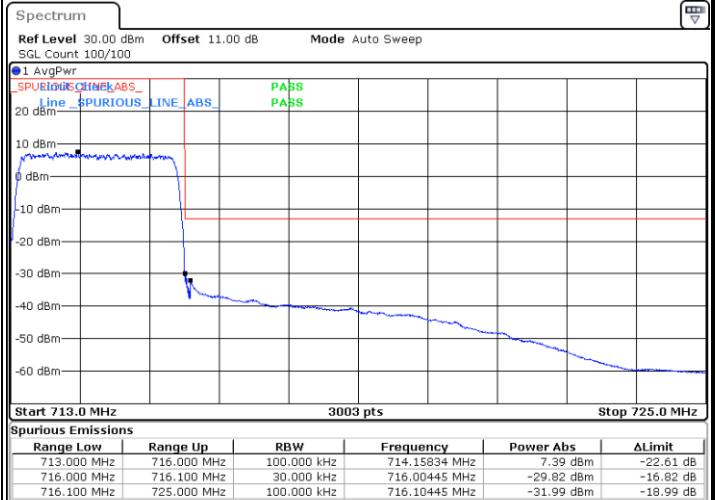
Date: 14.MAY.2021 19:21:15

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:15:09

Highest Band Edge / Full RB

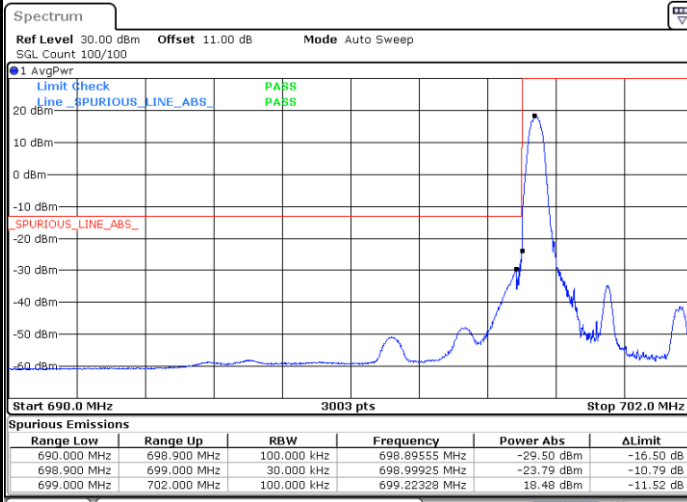


Date: 14.MAY.2021 19:20:34



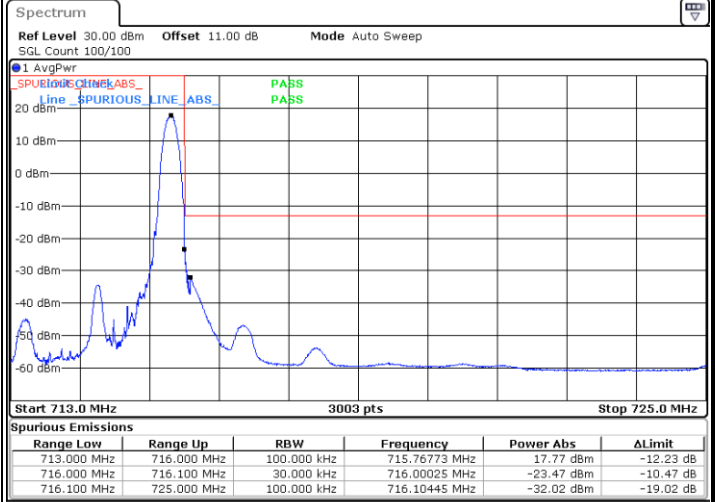
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



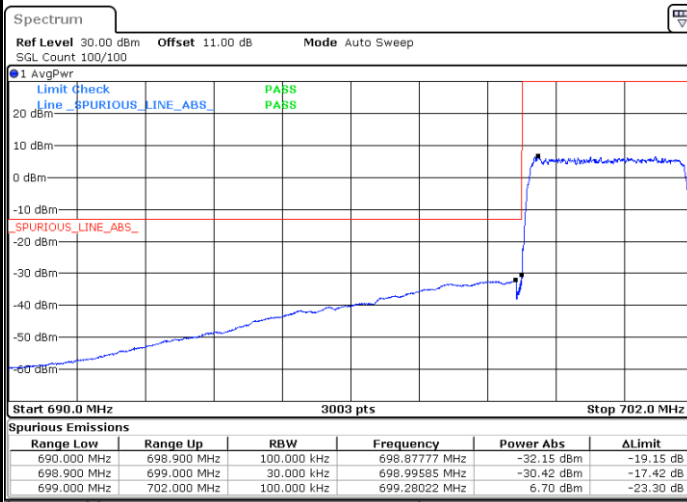
Date: 14.MAY.2021 19:26:16

Highest Band Edge / 1 RB



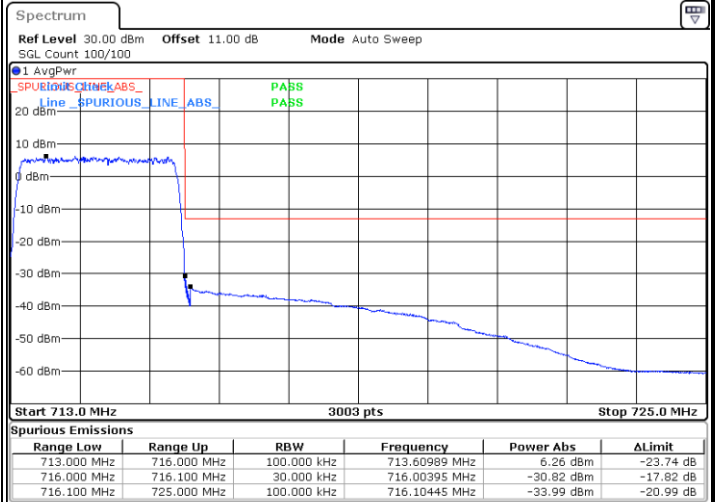
Date: 14.MAY.2021 19:28:21

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:25:34

Highest Band Edge / Full RB

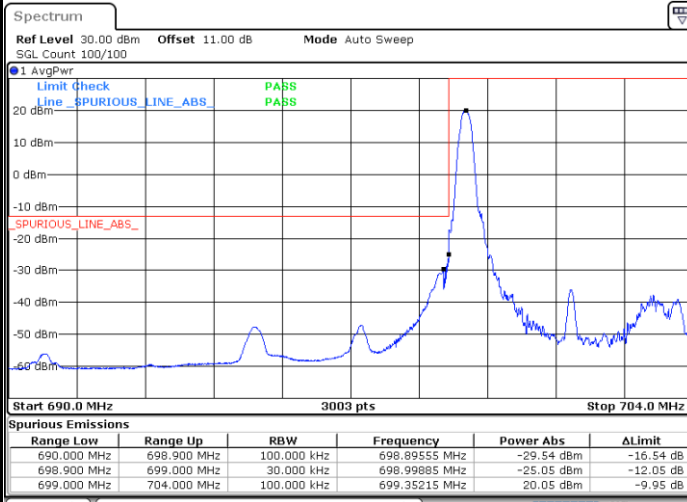


Date: 14.MAY.2021 19:27:40

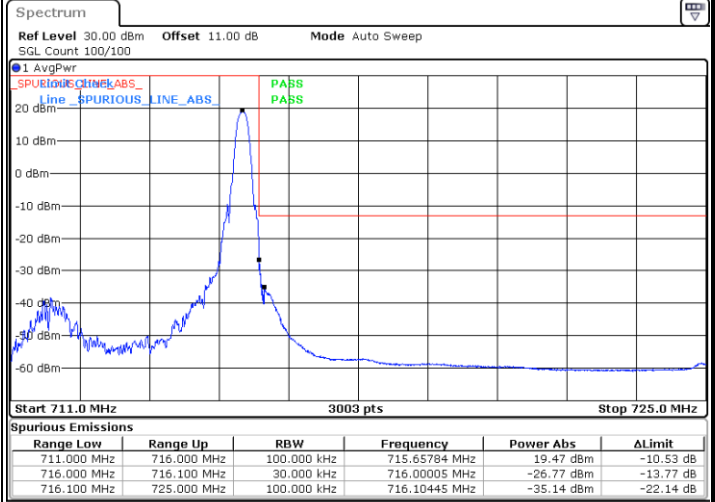


LTE Band 12 / 5MHz / QPSK

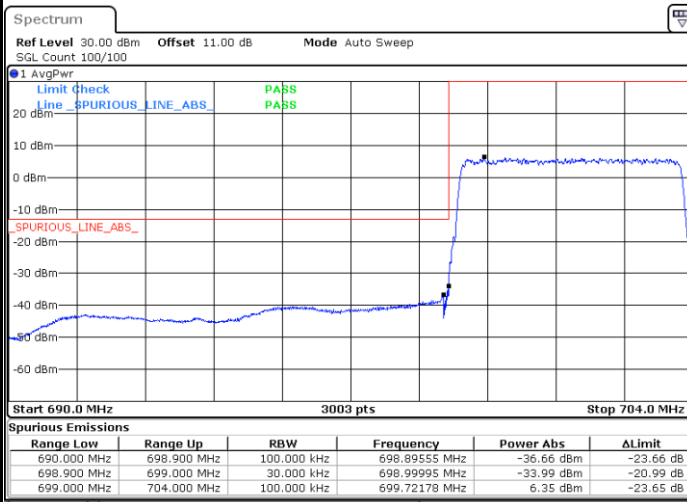
Lowest Band Edge / 1 RB



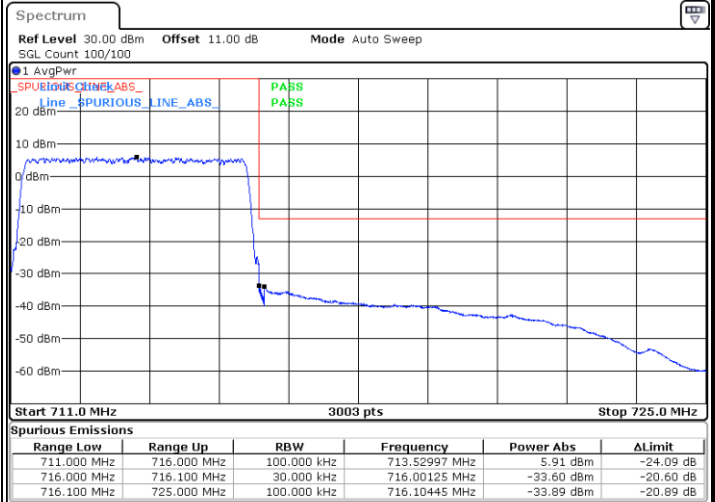
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



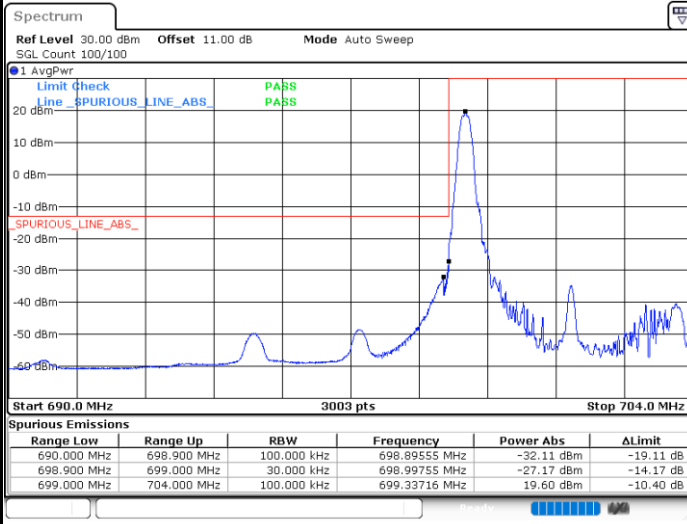
Highest Band Edge / Full RB





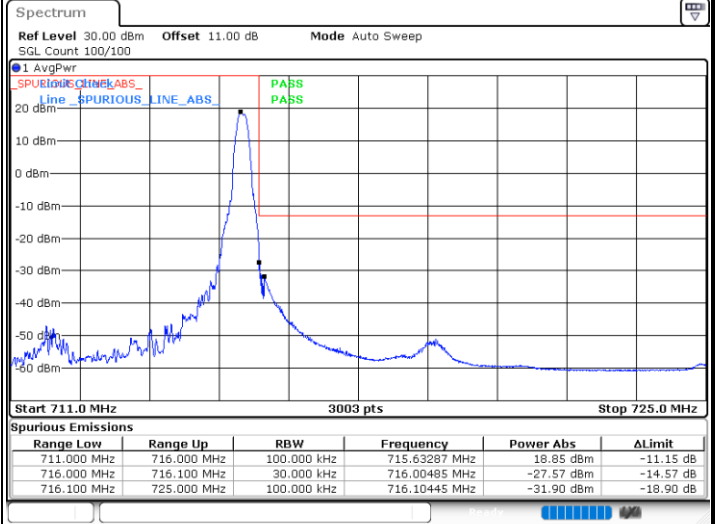
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



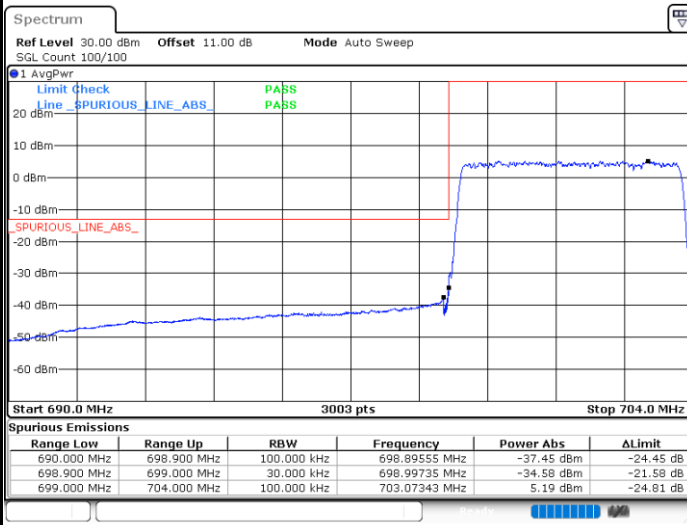
Date: 14.MAY.2021 19:33:55

Highest Band Edge / 1 RB



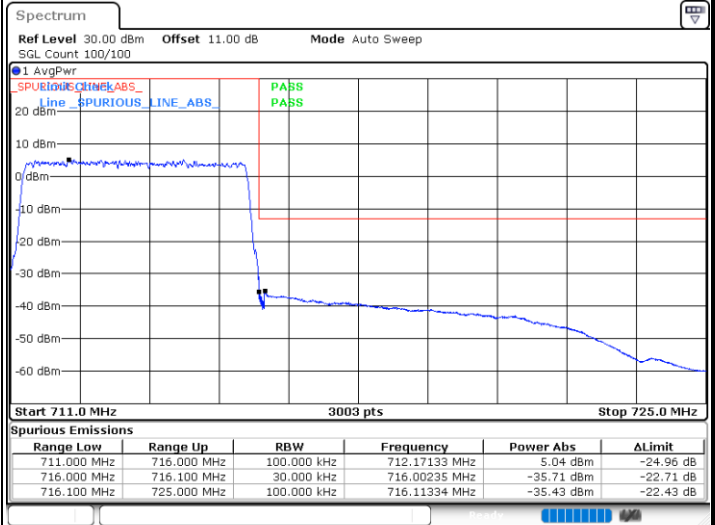
Date: 14.MAY.2021 19:40:01

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:33:14

Highest Band Edge / Full RB

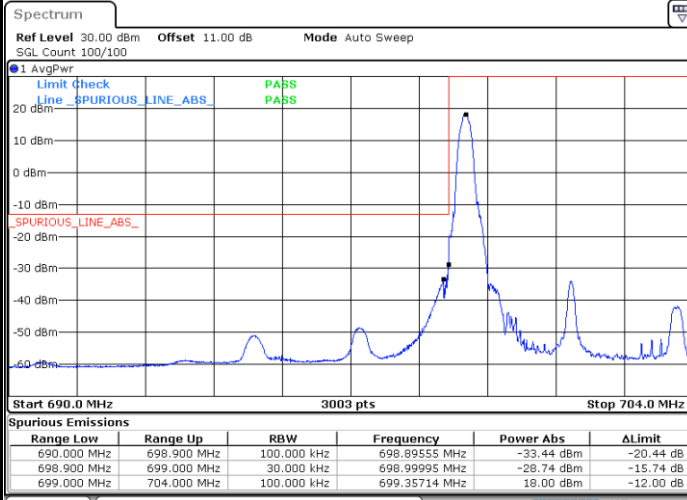


Date: 14.MAY.2021 19:38:39



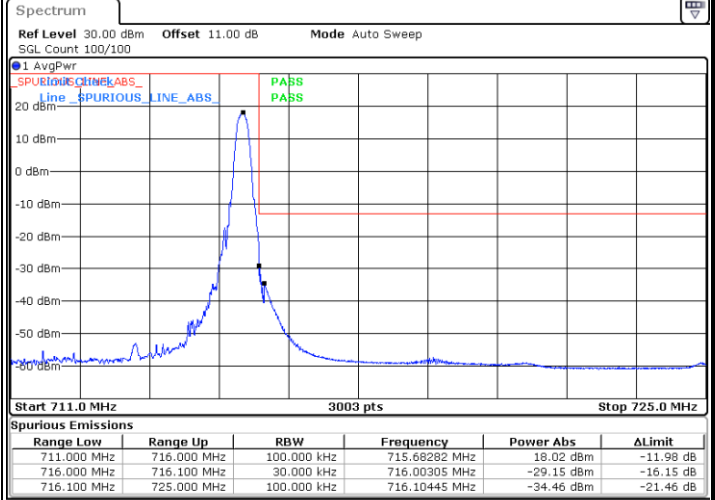
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



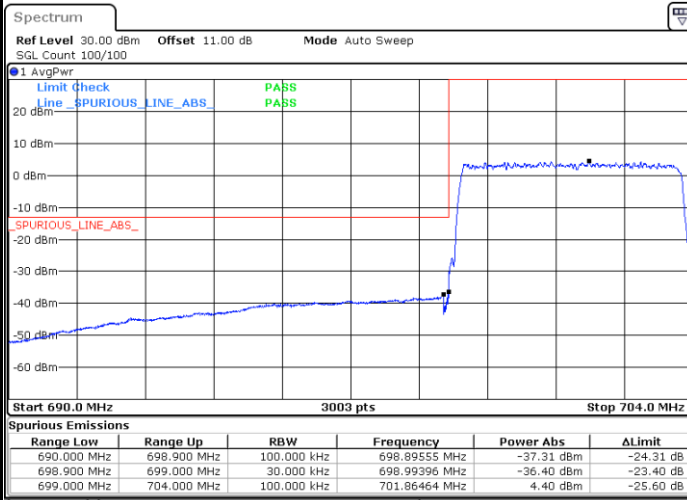
Date: 14.MAY.2021 19:29:46

Highest Band Edge / 1 RB



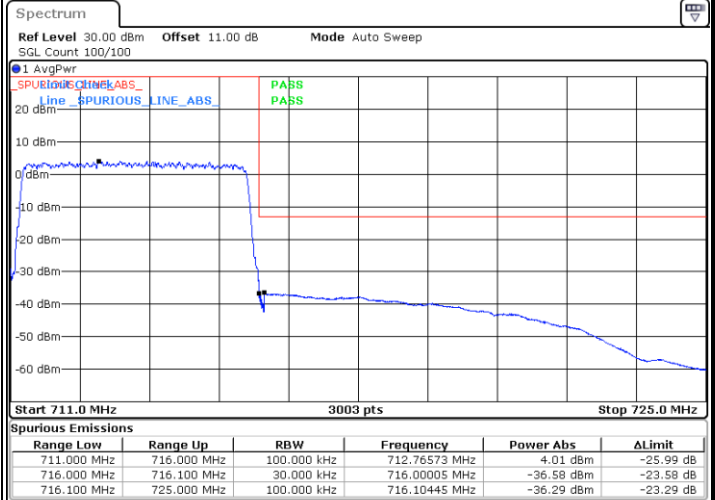
Date: 14.MAY.2021 19:31:51

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:29:04

Highest Band Edge / Full RB

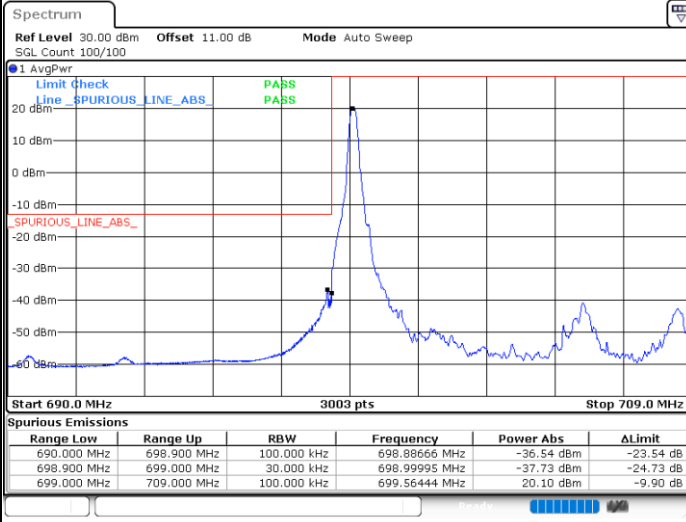


Date: 14.MAY.2021 19:31:10



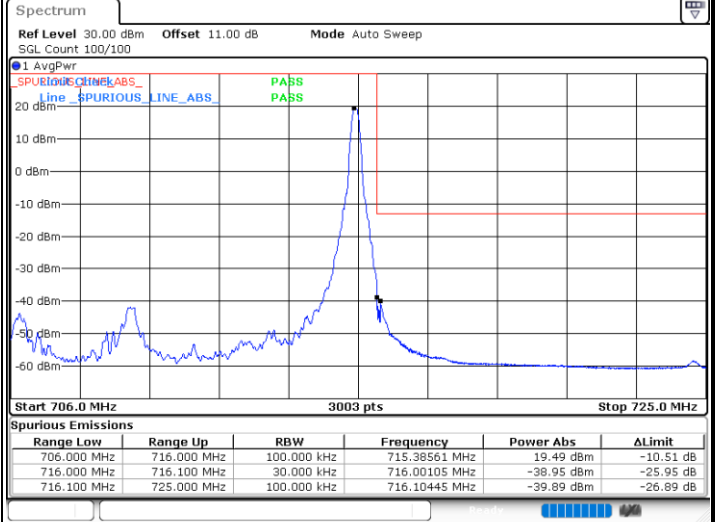
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



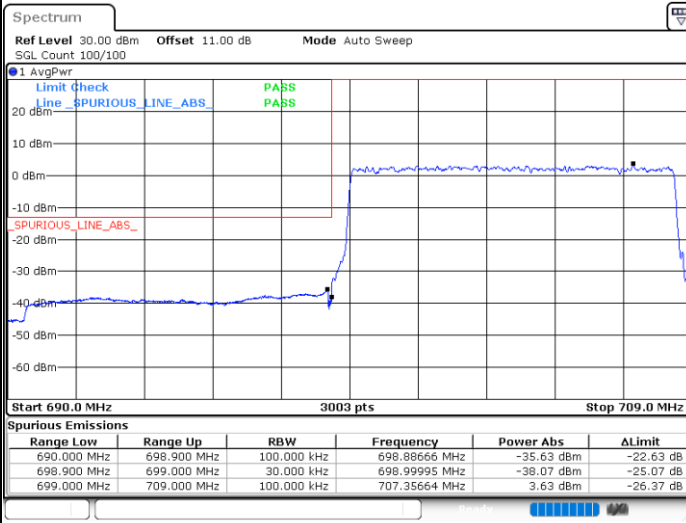
Date: 14.MAY.2021 19:43:26

Highest Band Edge / 1 RB



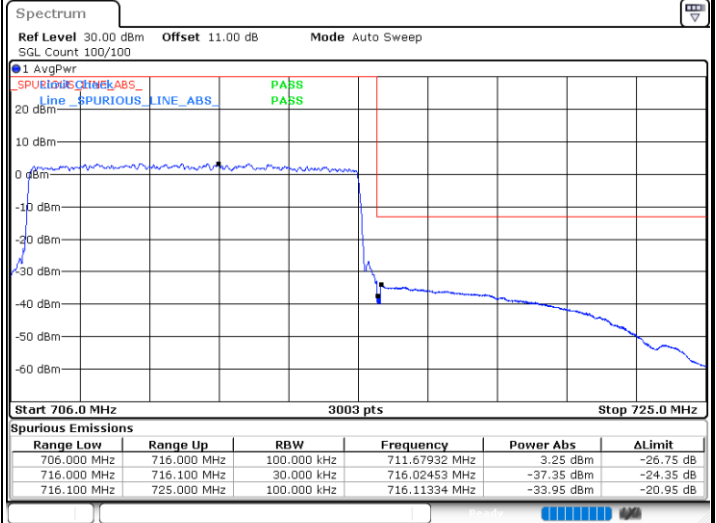
Date: 14.MAY.2021 19:48:55

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:41:21

Highest Band Edge / Full RB

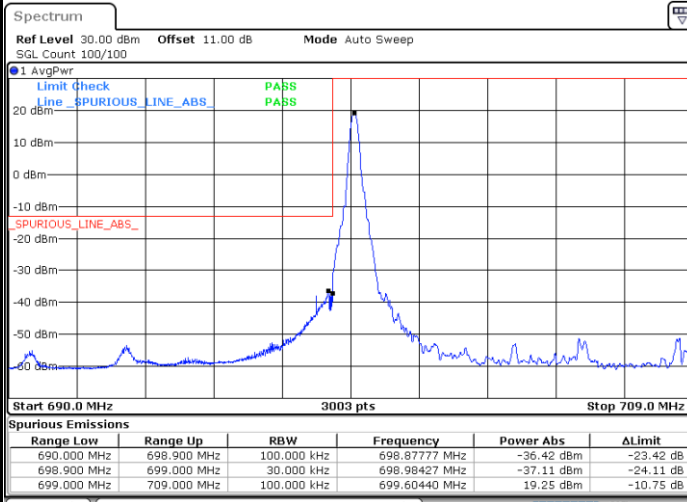


Date: 14.MAY.2021 19:46:47



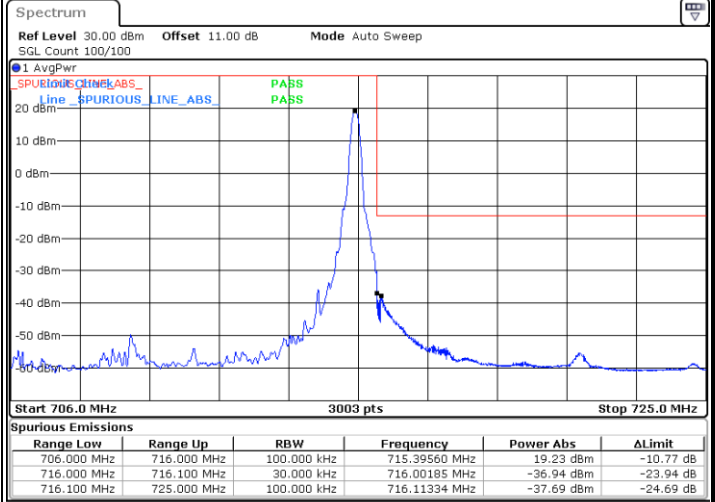
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



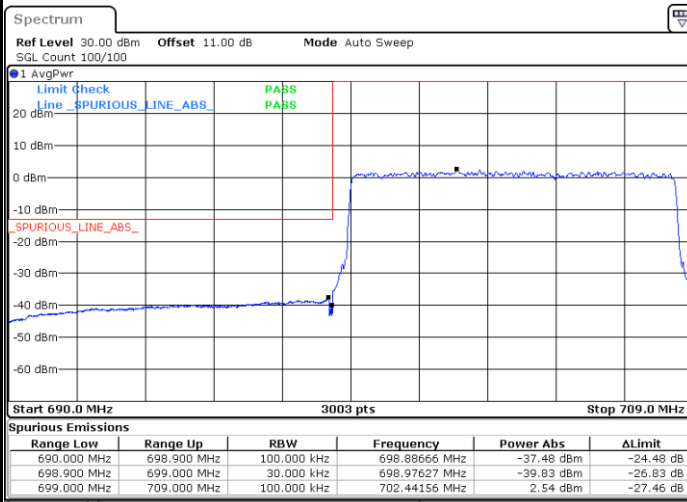
Date: 14.MAY.2021 19:42:44

Highest Band Edge / 1 RB



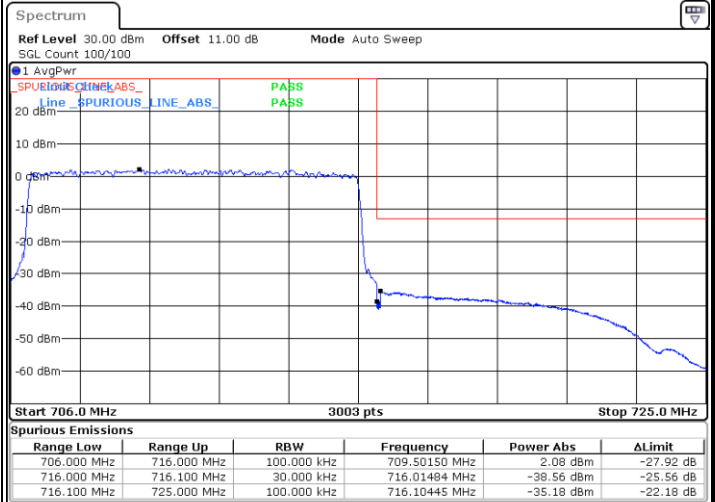
Date: 14.MAY.2021 19:48:14

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:42:03

Highest Band Edge / Full RB

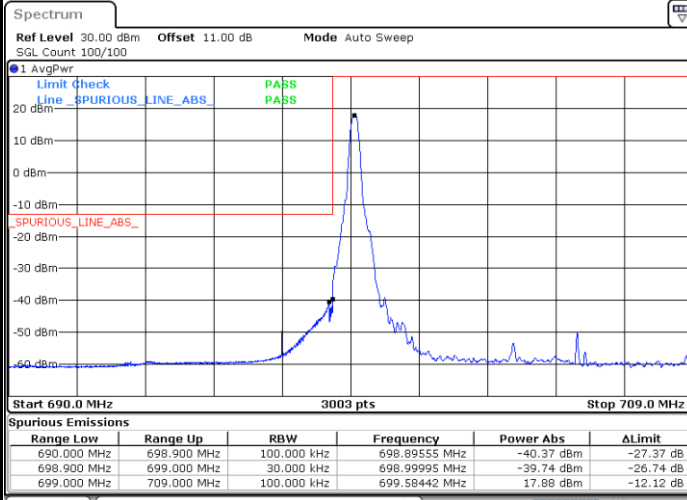


Date: 14.MAY.2021 19:47:32



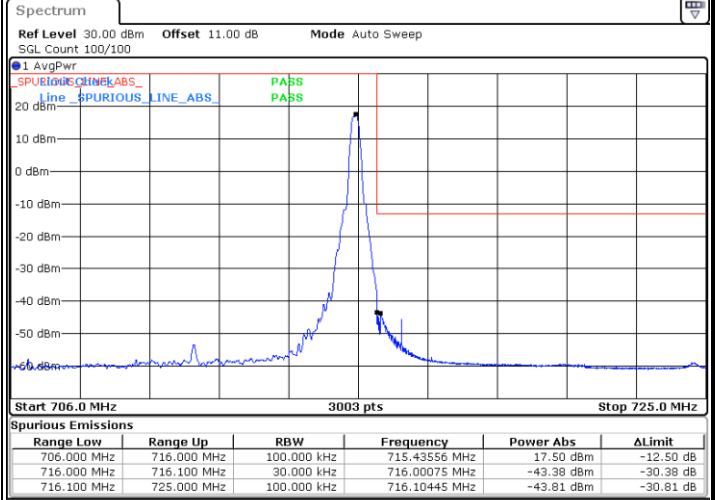
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



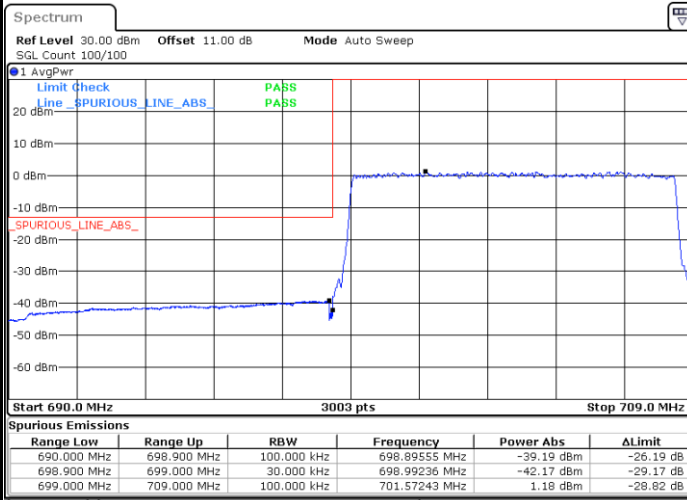
Date: 14.MAY.2021 19:50:55

Highest Band Edge / 1 RB



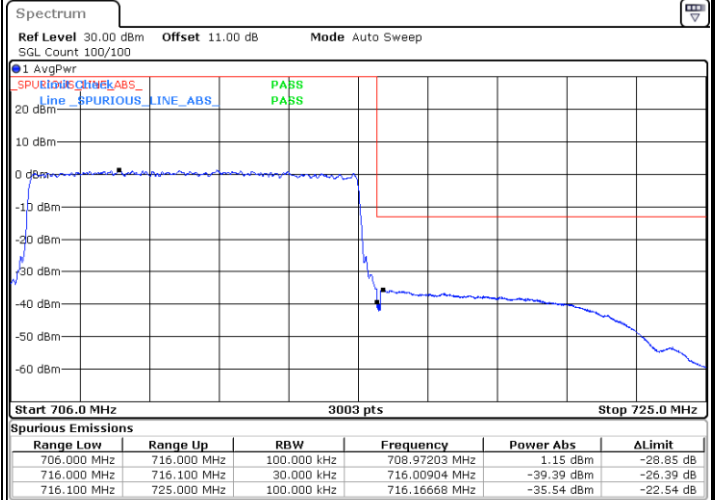
Date: 14.MAY.2021 19:53:02

Lowest Band Edge / Full RB



Date: 14.MAY.2021 19:50:14

Highest Band Edge / Full RB



Date: 14.MAY.2021 19:52:20

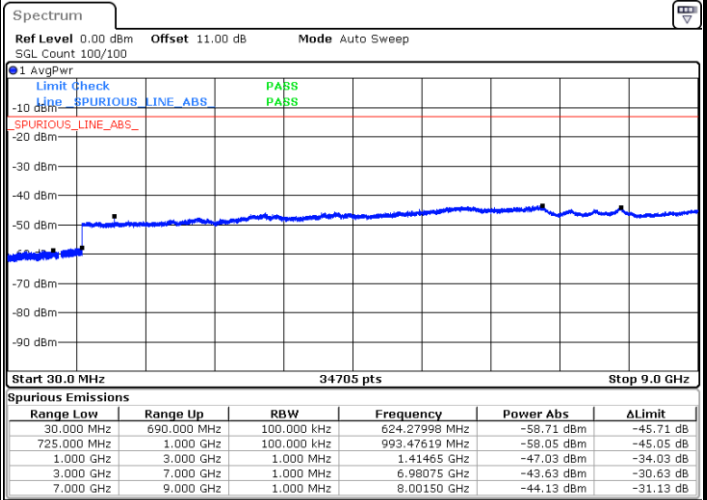
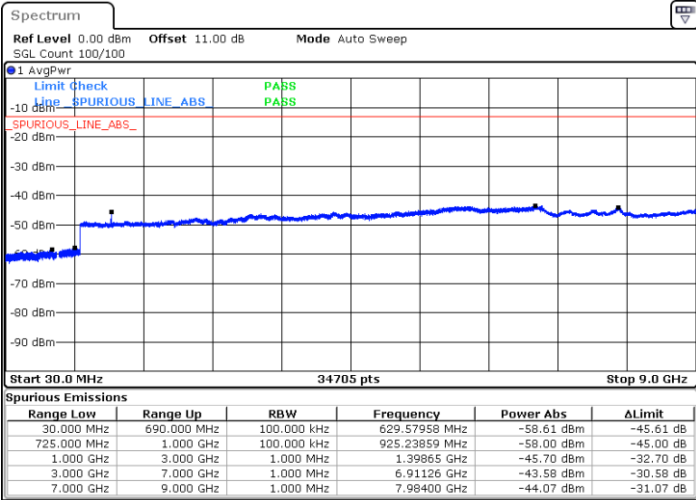


Conducted Spurious Emission

LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

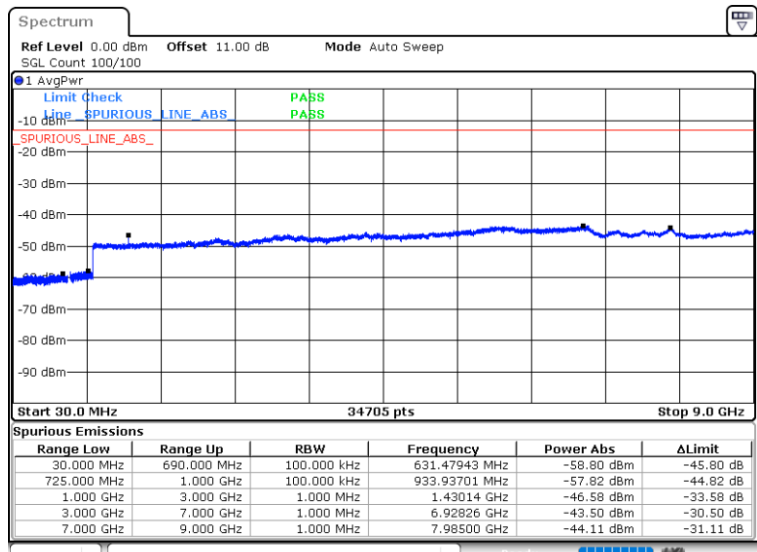
Middle Channel / QPSK



Date: 14.MAY.2021 18:27:01

Date: 14.MAY.2021 18:29:04

Highest Channel / QPSK



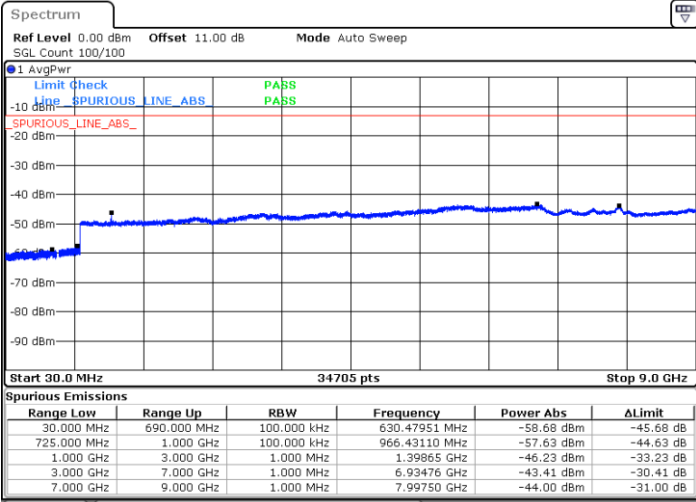
Date: 14.MAY.2021 18:32:25



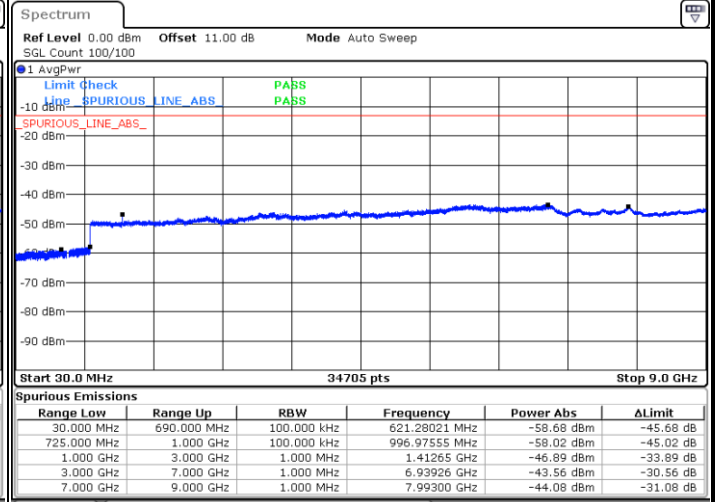
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

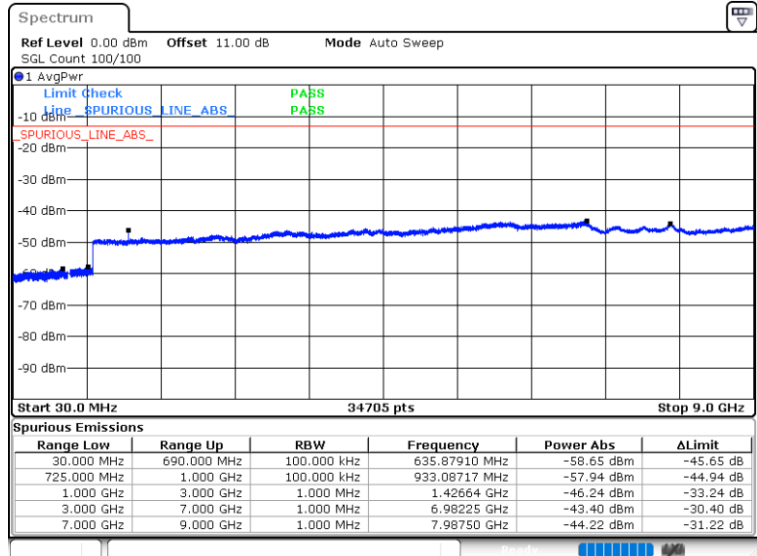


Date: 14.MAY.2021 19:17:07



Date: 14.MAY.2021 19:19:10

Highest Channel / QPSK



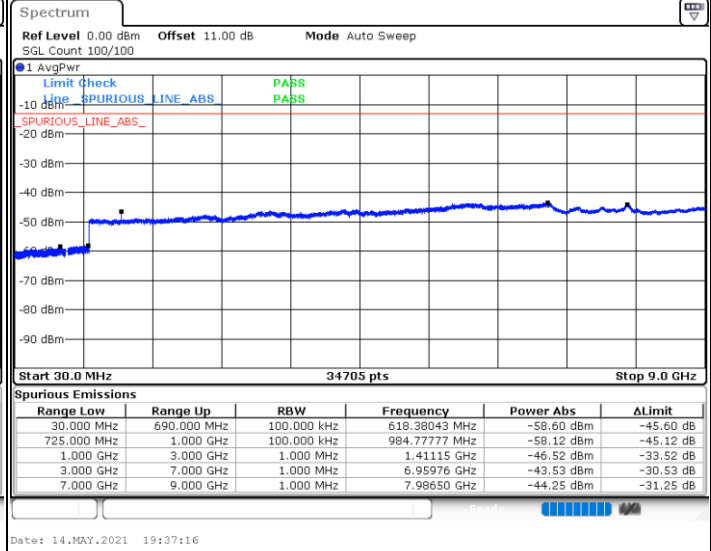
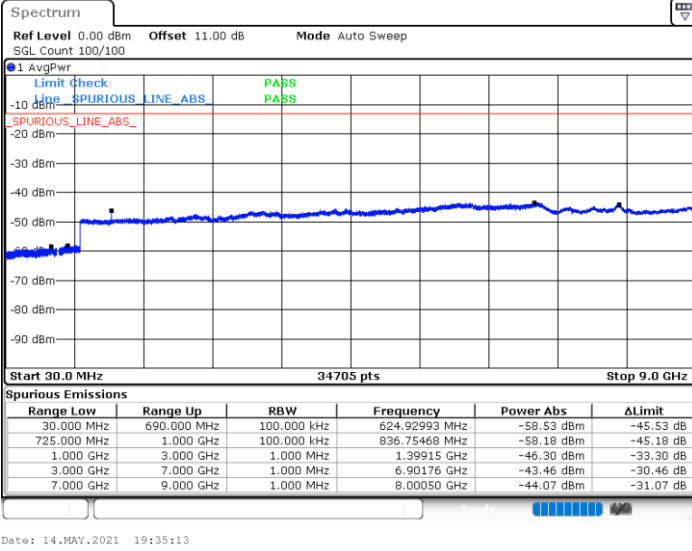
Date: 14.MAY.2021 19:24:52



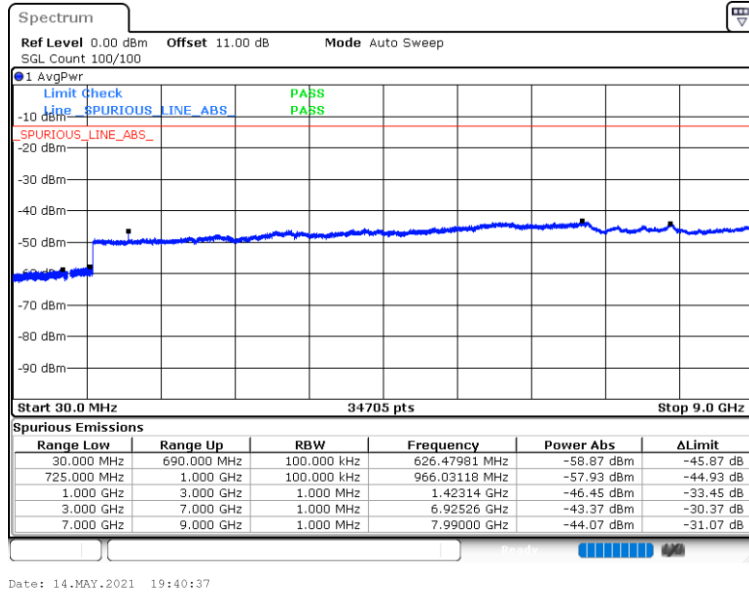
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

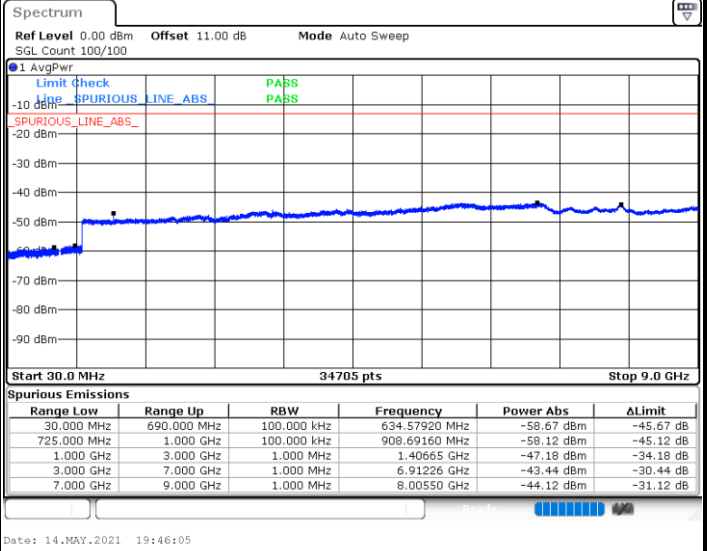
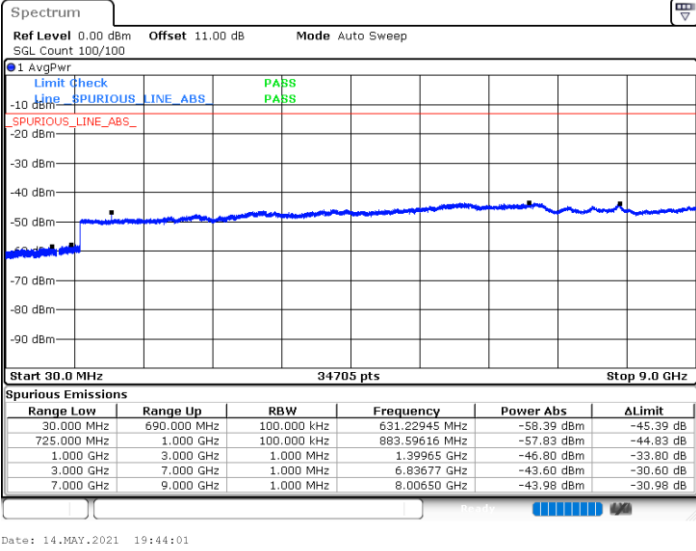




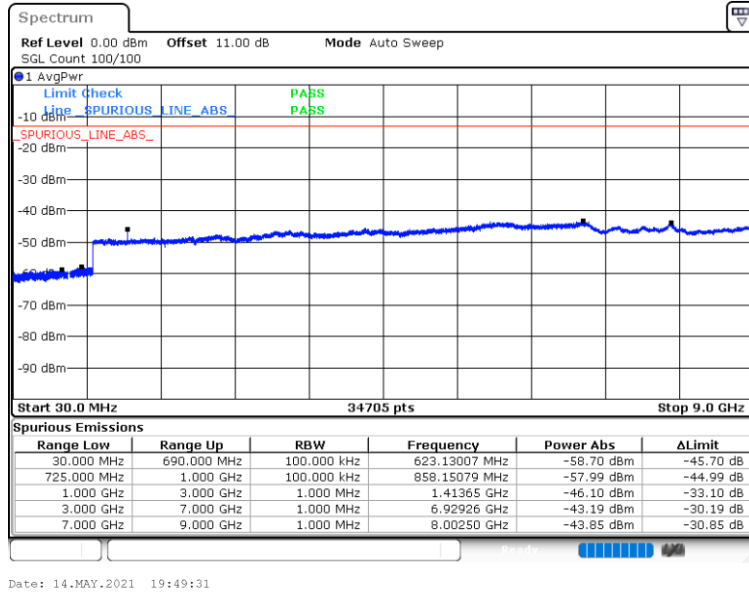
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest 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	0.0099	PASS
40	Normal Voltage	0.0042	
30	Normal Voltage	0.0089	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0220	
0	Normal Voltage	0.0233	
-10	Normal Voltage	0.0164	
-20	Normal Voltage	0.0232	
-30	Normal Voltage	0.0044	
20	Maximum Voltage	0.0160	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0256	

Note:

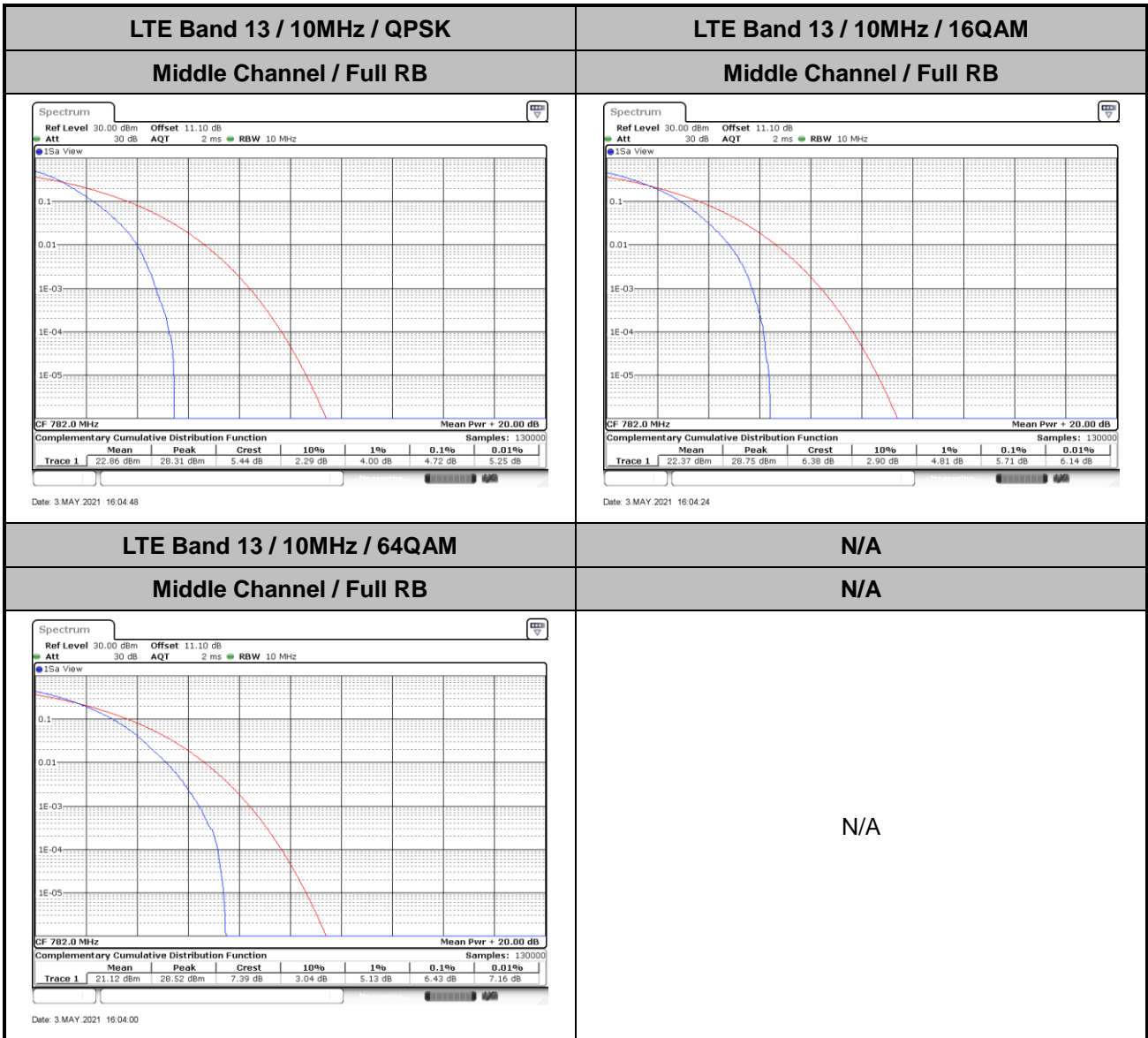
- 1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.72	5.71	6.43	-	PASS





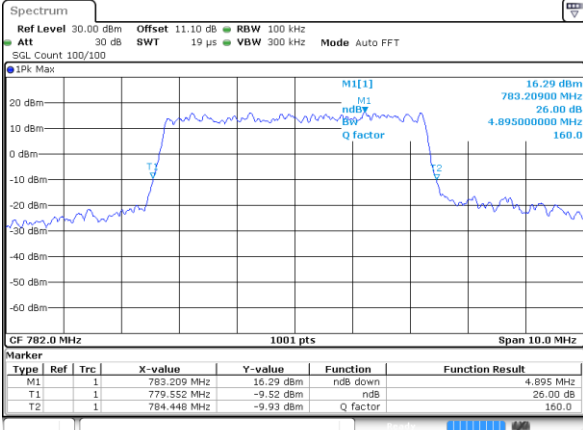
26dB Bandwidth

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
Middle CH	-	-	-	-	4.90	4.92	9.83	9.87	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.91	-	9.79	-	-	-	-	-



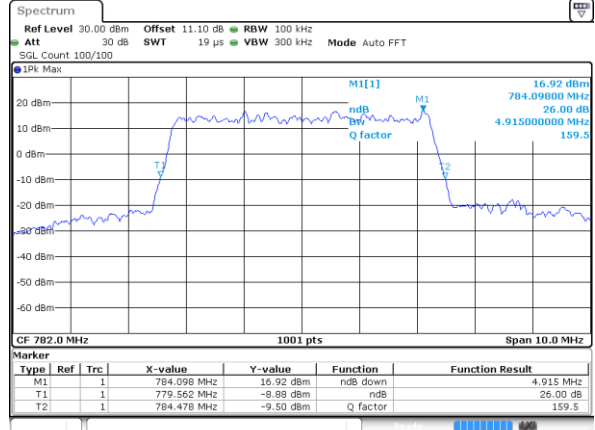
LTE Band 13

Middle Channel / 5MHz / QPSK



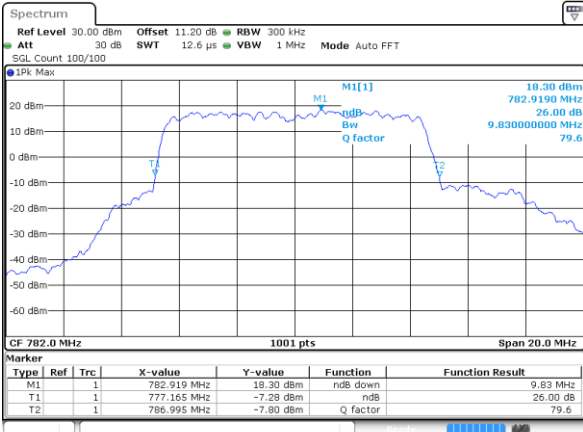
Date: 3 MAY 2021 15:24:43

Middle Channel / 5MHz / 16QAM



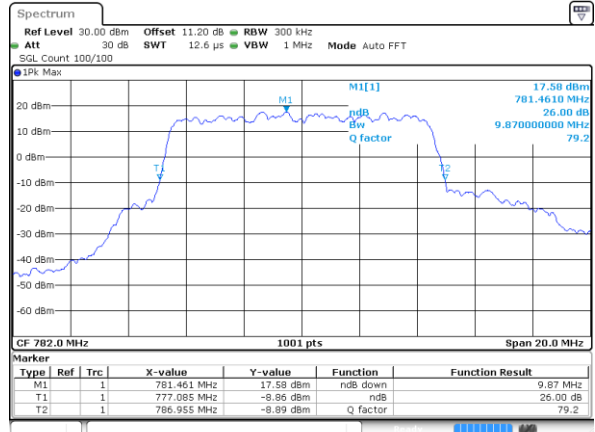
Date: 3 MAY 2021 15:25:04

Middle Channel / 10MHz / QPSK



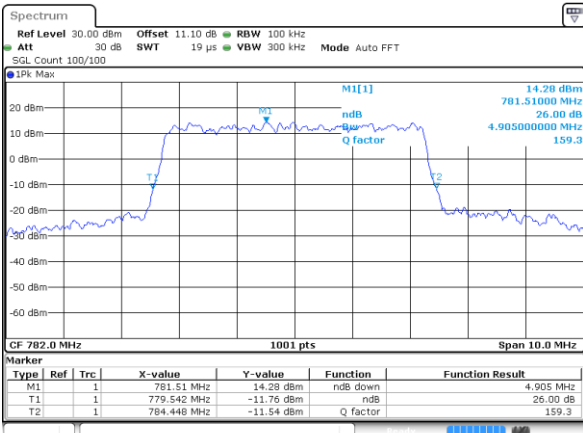
Date: 24 MAR 2021 00:06:31

Middle Channel / 10MHz / 16QAM



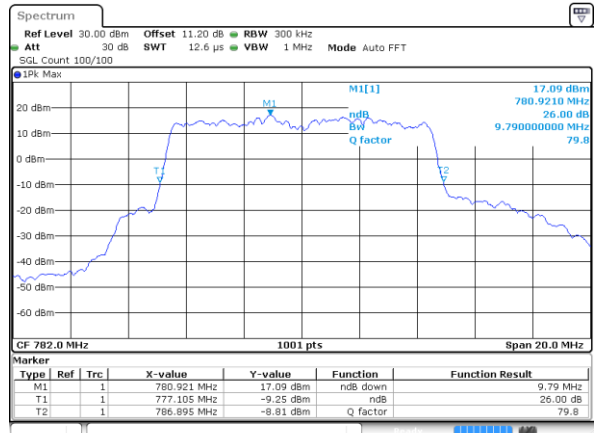
Date: 24 MAR 2021 00:06:08

Middle Channel / 5MHz / 64QAM



Date: 3 MAY 2021 15:39:26

Middle Channel / 10MHz / 64QAM



Date: 24 MAR 2021 00:19:18



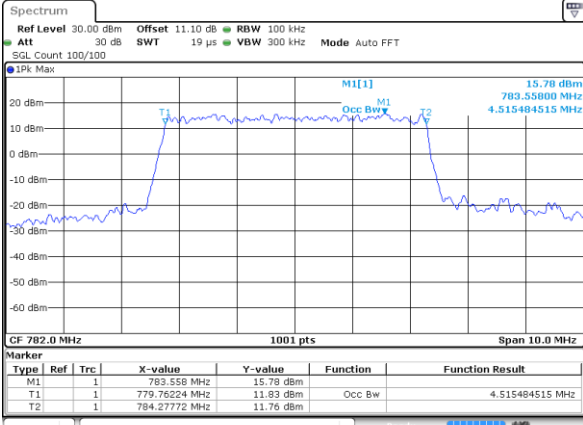
Occupied Bandwidth

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
Middle CH	-	-	-	-	4.52	4.50	9.05	9.03	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.49	-	9.03	-	-	-	-	-



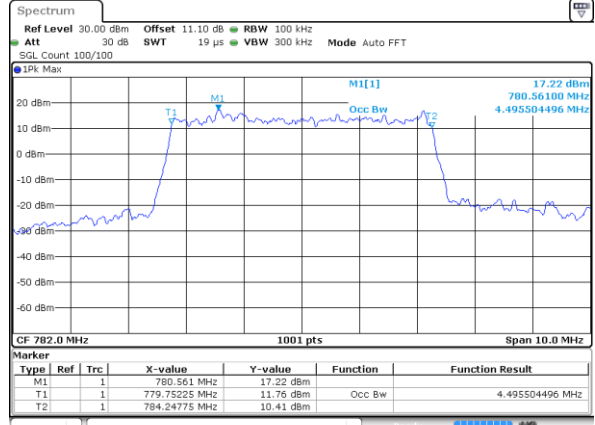
LTE Band 13

Middle Channel / 5MHz / QPSK



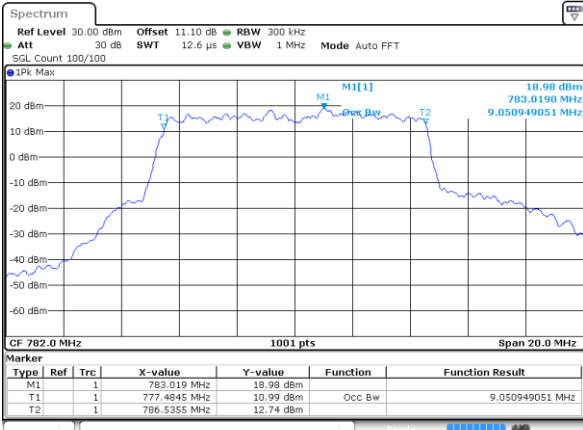
Date: 3 MAY 2021 15:25:48

Middle Channel / 5MHz / 16QAM



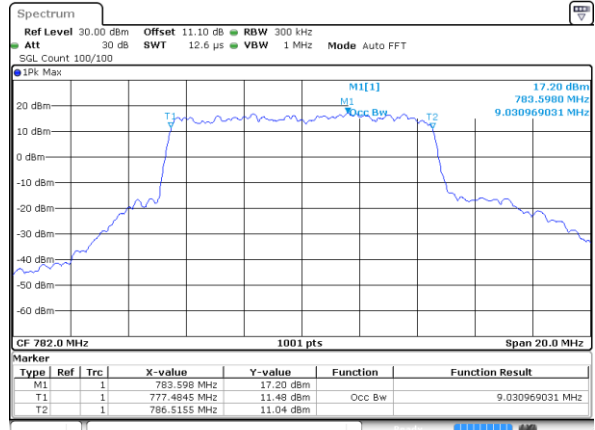
Date: 3 MAY 2021 15:25:25

Middle Channel / 10MHz / QPSK



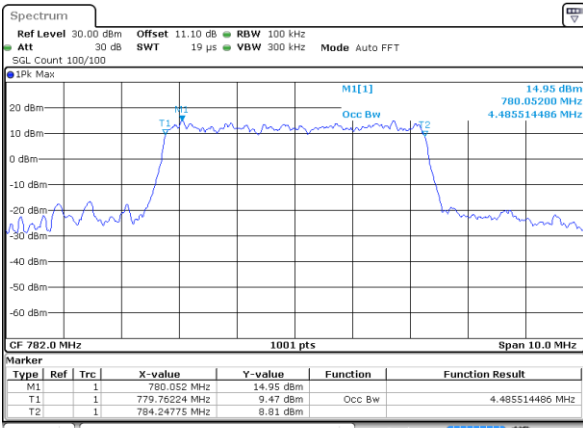
Date: 3 MAY 2021 15:43:54

Middle Channel / 10MHz / 16QAM



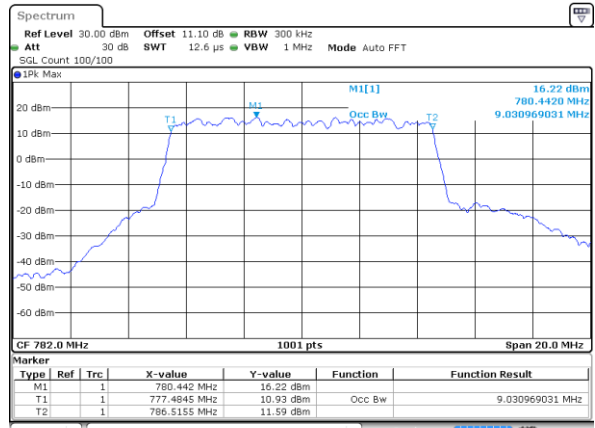
Date: 3 MAY 2021 15:44:17

Middle Channel / 5MHz / 64QAM



Date: 3 MAY 2021 15:39:47

Middle Channel / 10MHz / 64QAM



Date: 3 MAY 2021 15:57:41