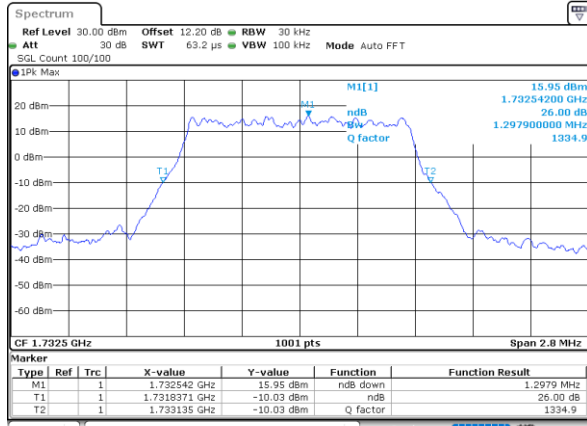




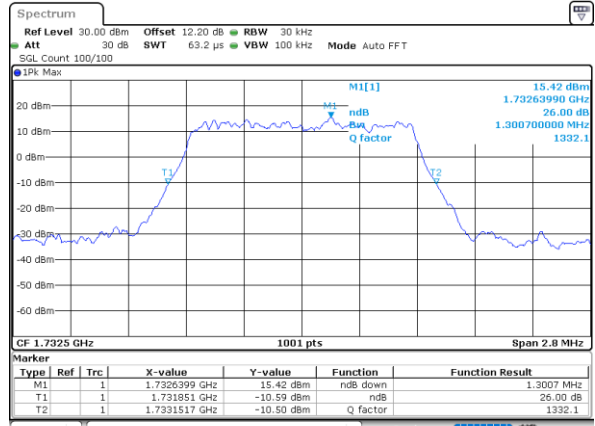
LTE Cat 1 Band 4

Middle Channel / 1.4MHz / QPSK



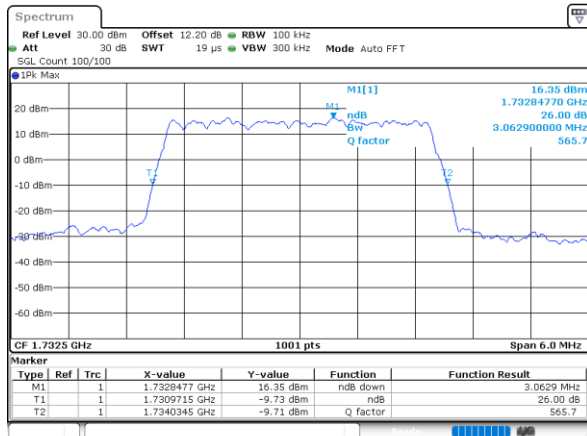
Date: 17.FEB.2022 19:29:08

Middle Channel / 1.4MHz / 16QAM



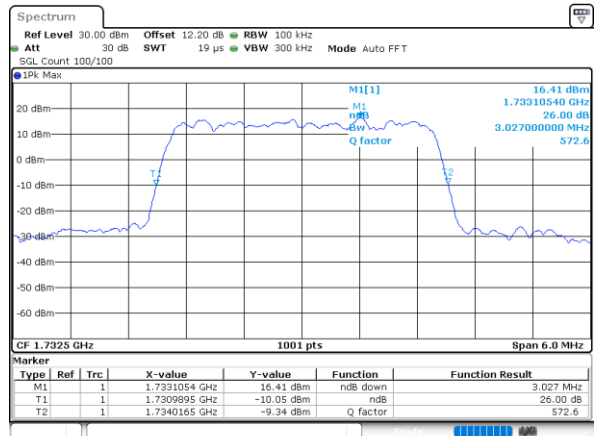
Date: 17.FEB.2022 19:29:31

Middle Channel / 3MHz / QPSK



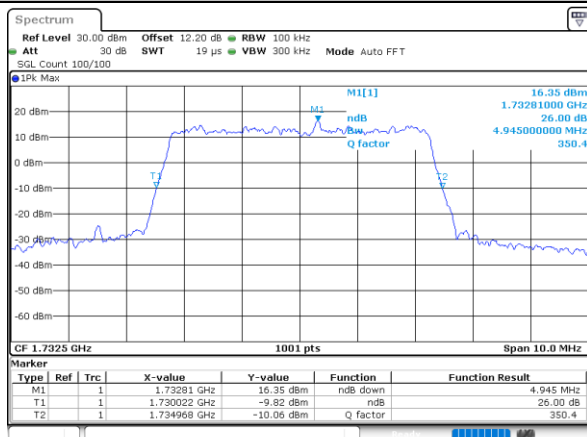
Date: 17.FEB.2022 19:39:49

Middle Channel / 3MHz / 16QAM



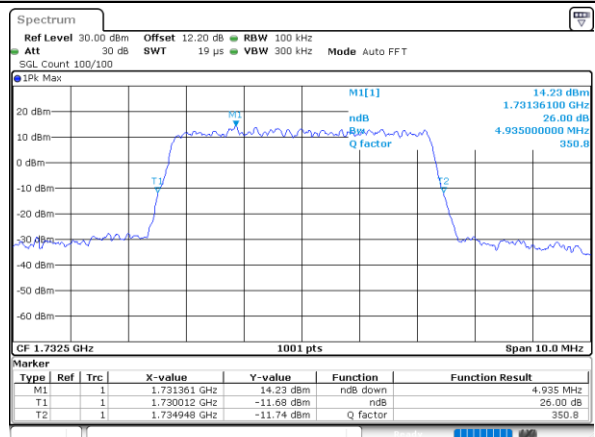
Date: 17.FEB.2022 19:40:12

Middle Channel / 5MHz / QPSK



Date: 17.FEB.2022 19:49:09

Middle Channel / 5MHz / 16QAM

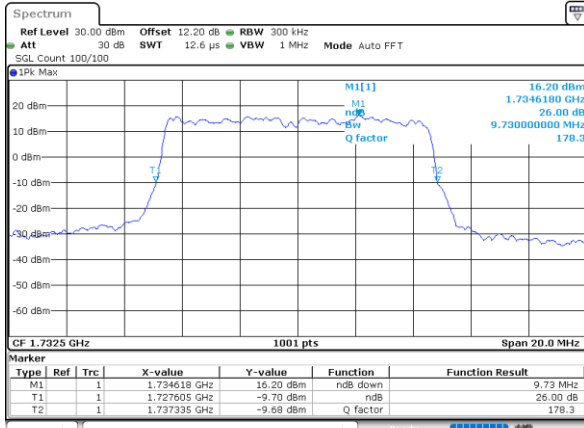


Date: 17.FEB.2022 19:49:33



LTE Cat 1 Band 4

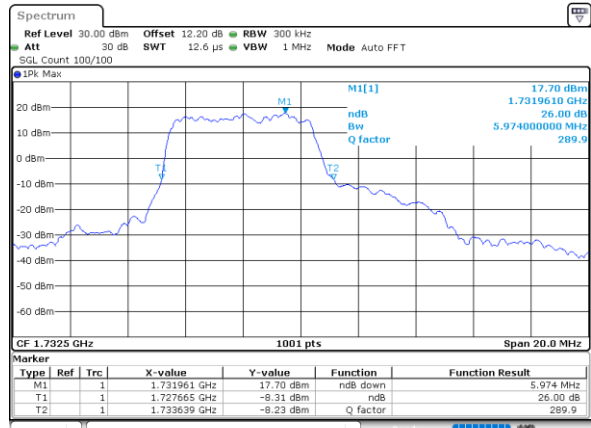
Middle Channel / 10MHz / QPSK



Date: 17.FEB.2022 19:57:28

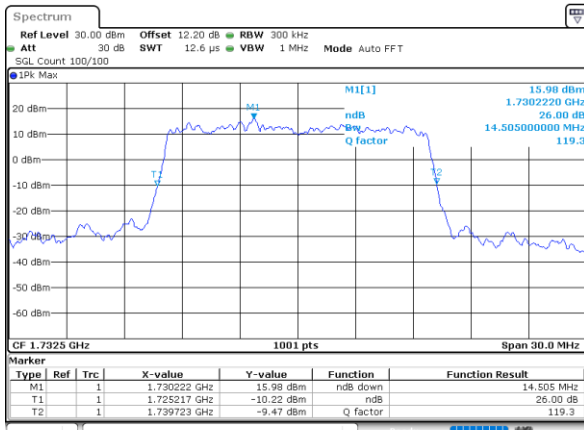
LTE Cat 1 Band 4

Middle Channel / 10MHz / 16QAM



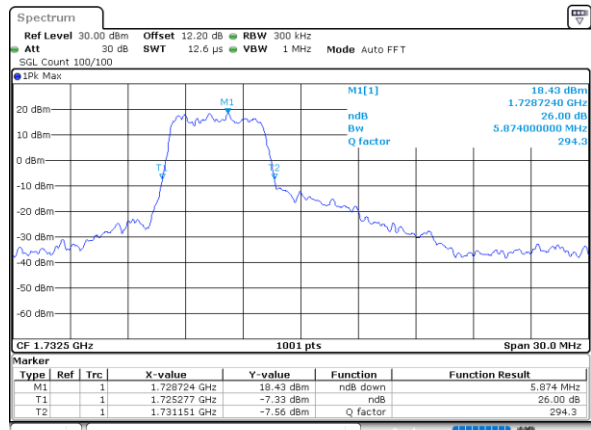
Date: 25.FEB.2022 09:24:40

Middle Channel / 15MHz / QPSK



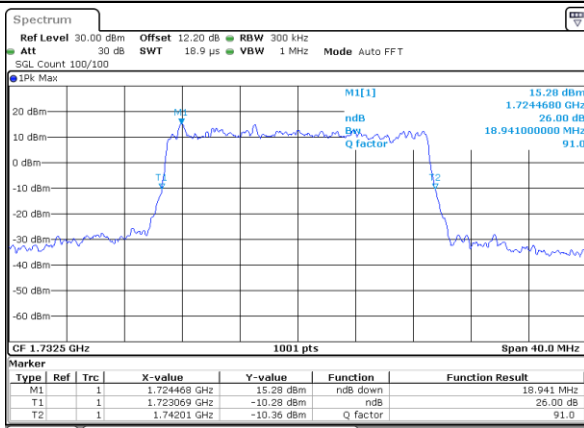
Date: 17.FEB.2022 20:05:52

Middle Channel / 15MHz / 16QAM



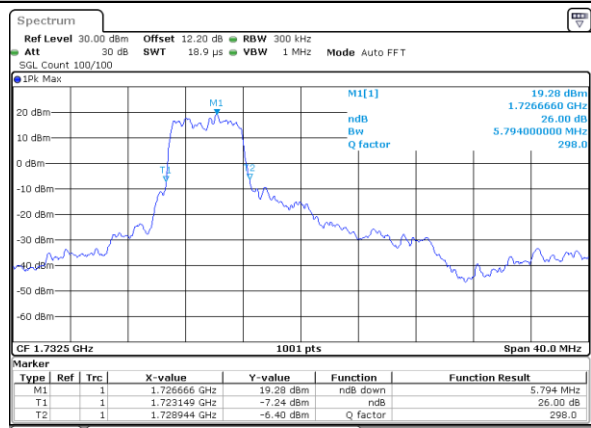
Date: 25.FEB.2022 09:32:50

Middle Channel / 20MHz / QPSK



Date: 17.FEB.2022 20:22:03

Middle Channel / 20MHz / 16QAM



Date: 25.FEB.2022 09:32:23

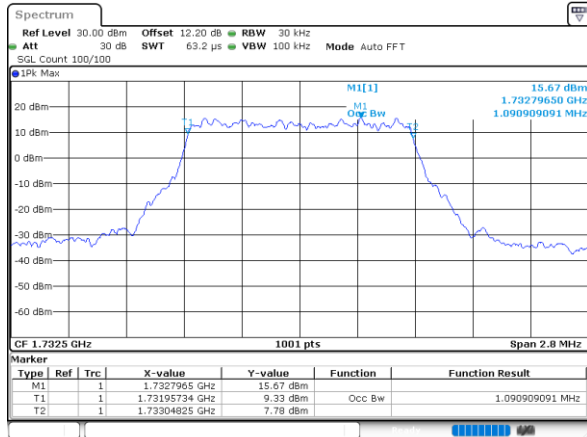
**Occupied Bandwidth**

Mode	LTE Cat 1 Band 4 : 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	1.09	2.73	2.73	4.49	4.49	8.99	5.03	13.37	5.00	17.90	5.07
Mode	LTE Cat 1 Band 4 : 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	-	-	-	-	-	-	-	-	-	-	-	-

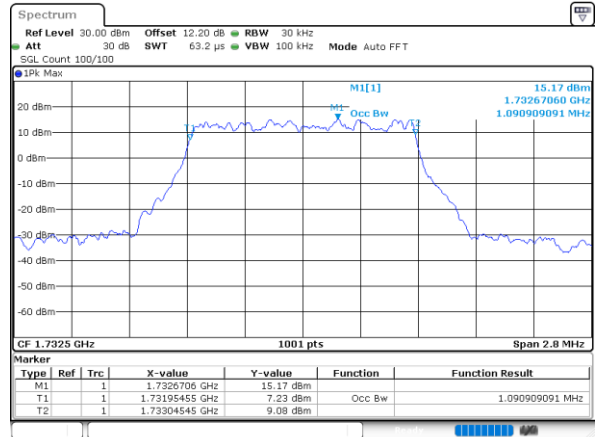


LTE Cat 1 Band 4

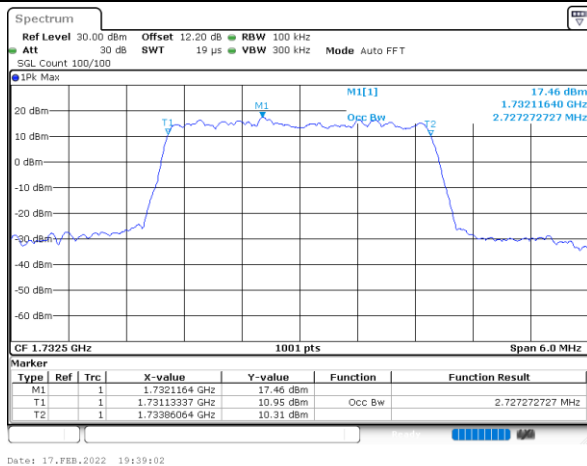
Middle Channel / 1.4MHz / QPSK



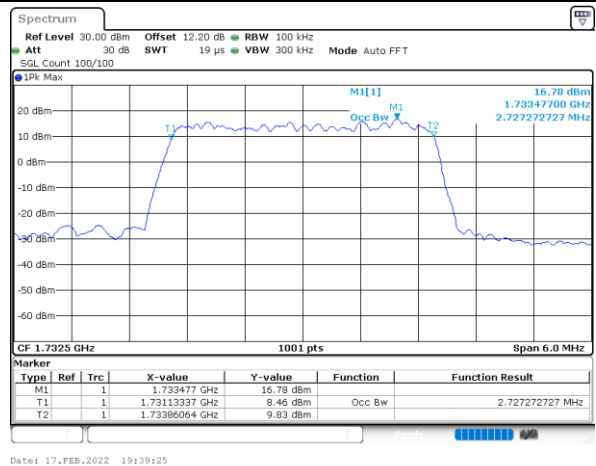
Middle Channel / 1.4MHz / 16QAM



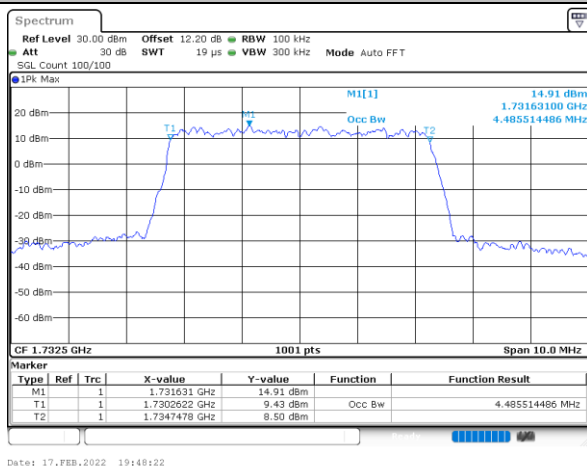
Middle Channel / 3MHz / QPSK



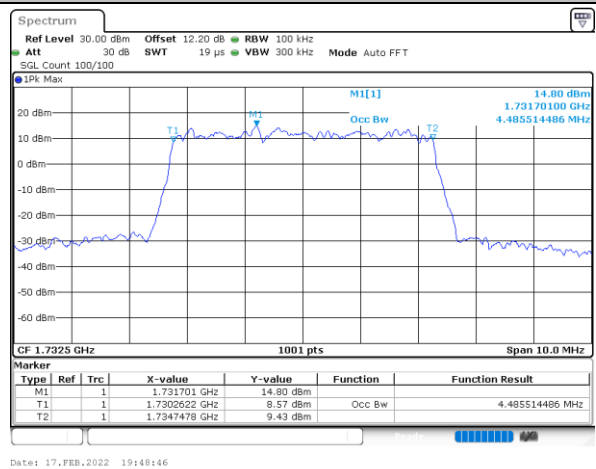
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



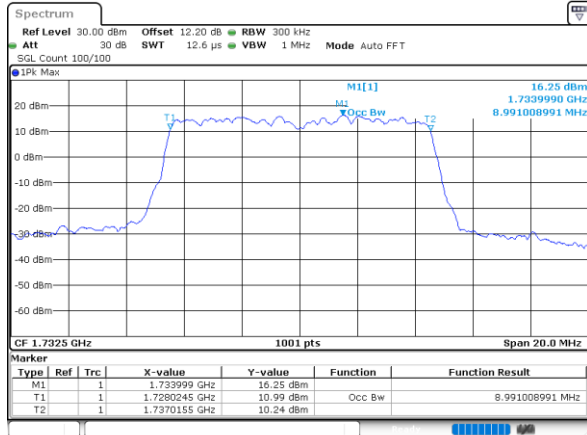
Middle Channel / 5MHz / 16QAM





LTE Cat 1 Band 4

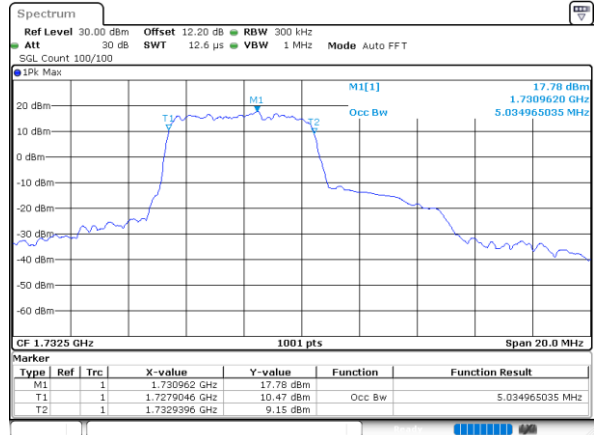
Middle Channel / 10MHz / QPSK



Date: 17.FEB.2022 19:57:05

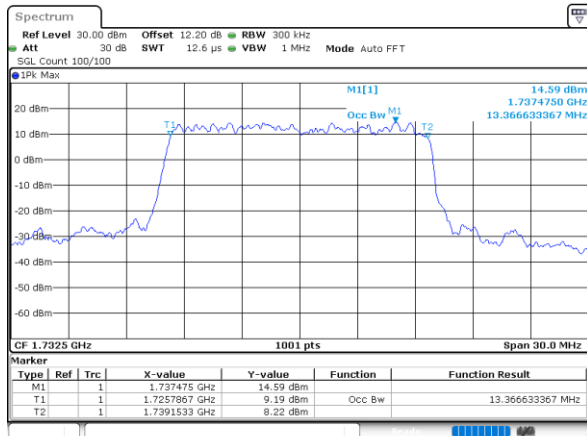
LTE Cat 1 Band 4

Middle Channel / 10MHz / 16QAM



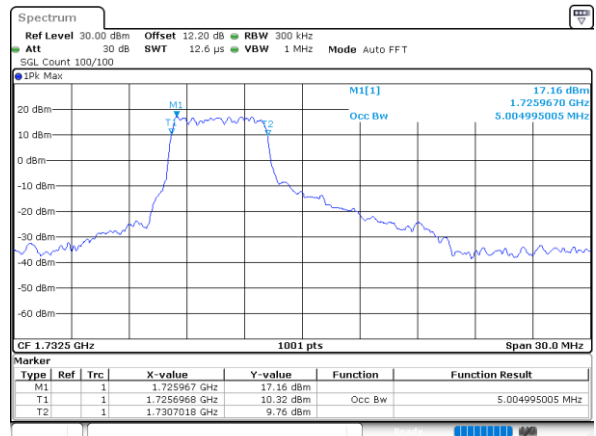
Date: 25.FEB.2022 09:24:127

Middle Channel / 15MHz / QPSK



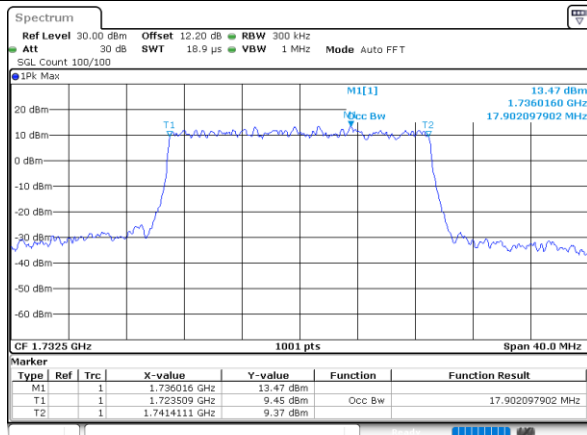
Date: 17.FEB.2022 20:04:21

Middle Channel / 15MHz / 16QAM



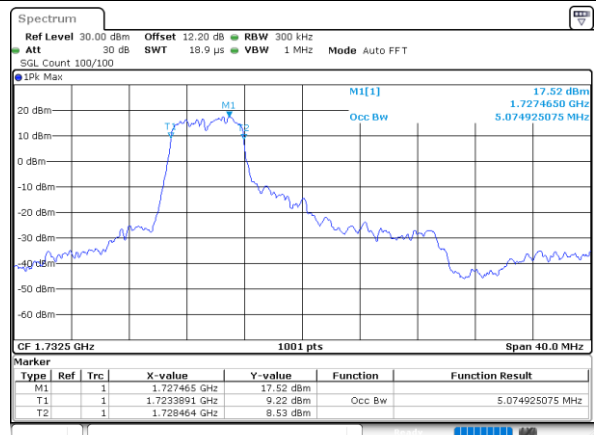
Date: 25.FEB.2022 09:31:157

Middle Channel / 20MHz / QPSK

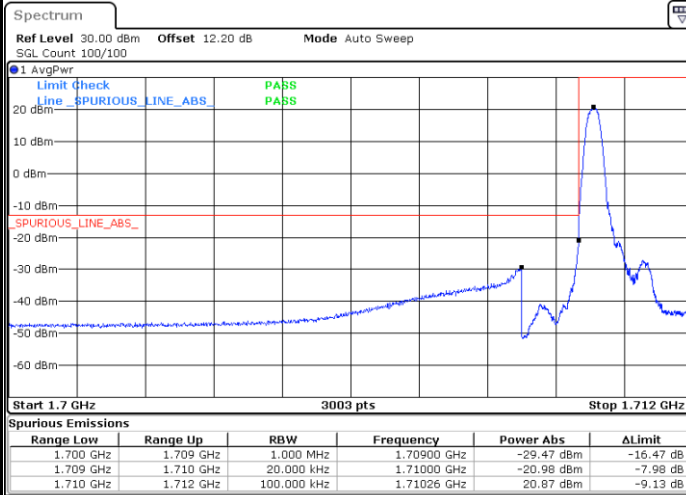
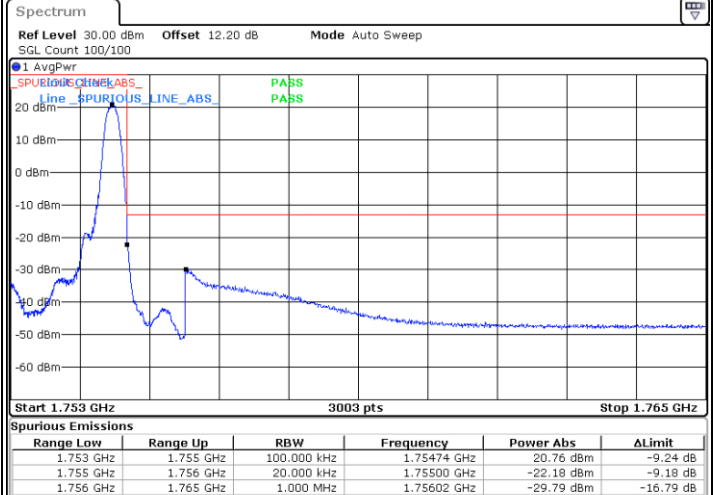
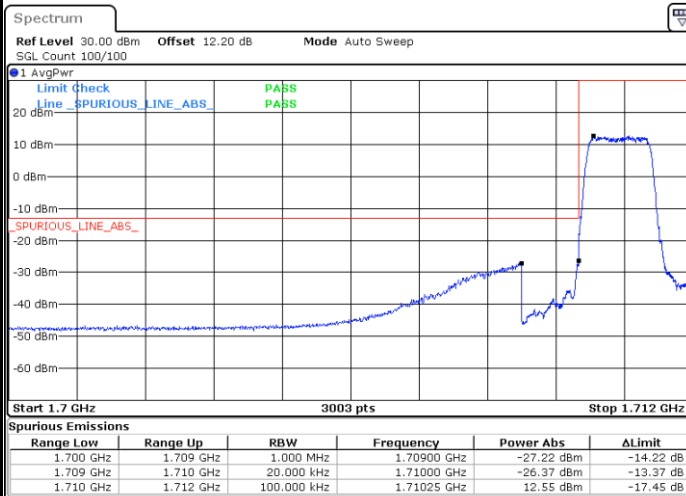
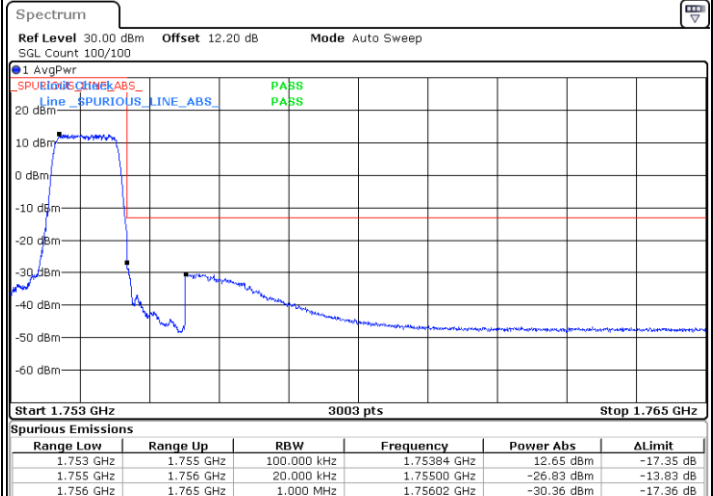


Date: 17.FEB.2022 20:21:39

Middle Channel / 20MHz / 16QAM



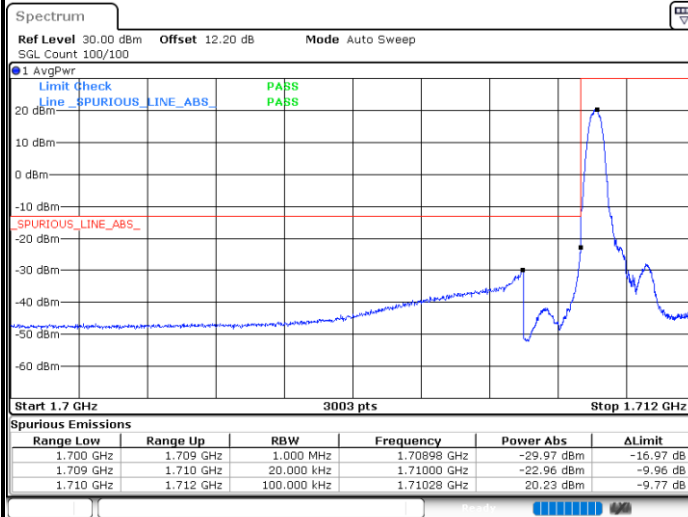
Date: 25.FEB.2022 09:32:136

**Conducted Band Edge****LTE Cat 1 Band 4 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

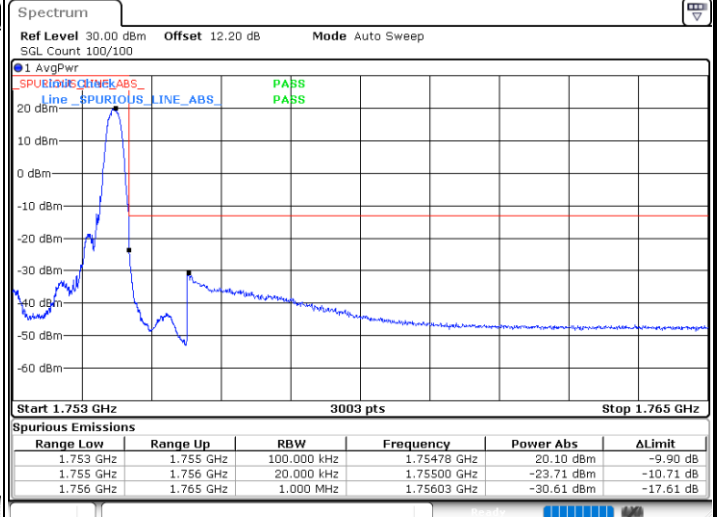


LTE Cat 1 Band 4 / 1.4MHz / 16QAM

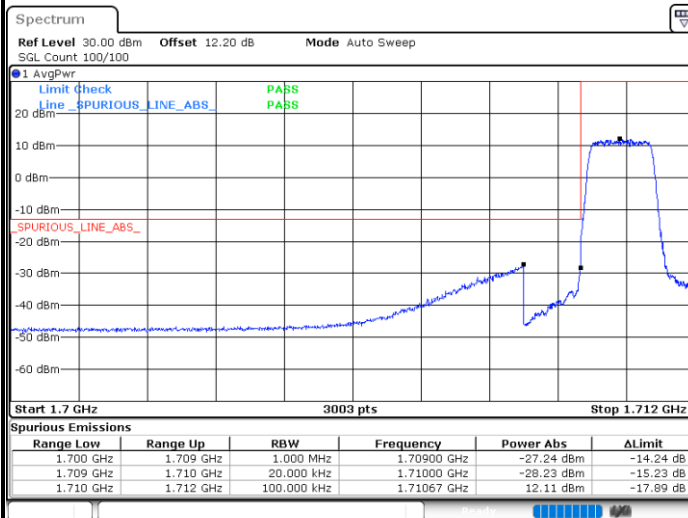
Lowest Band Edge / 1 RB



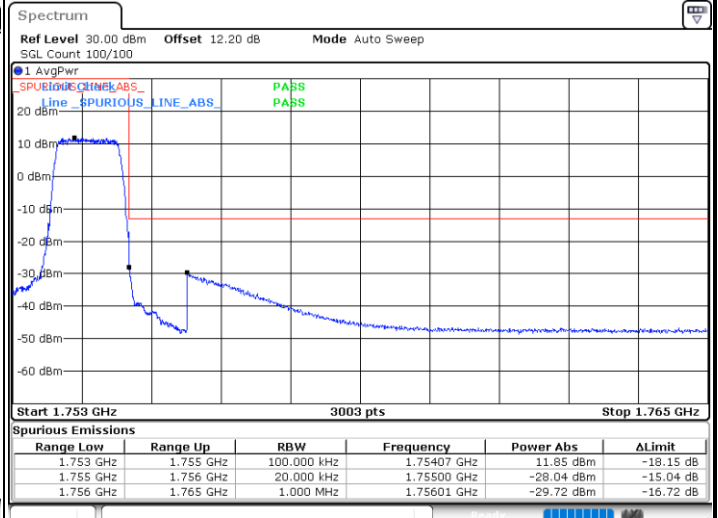
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



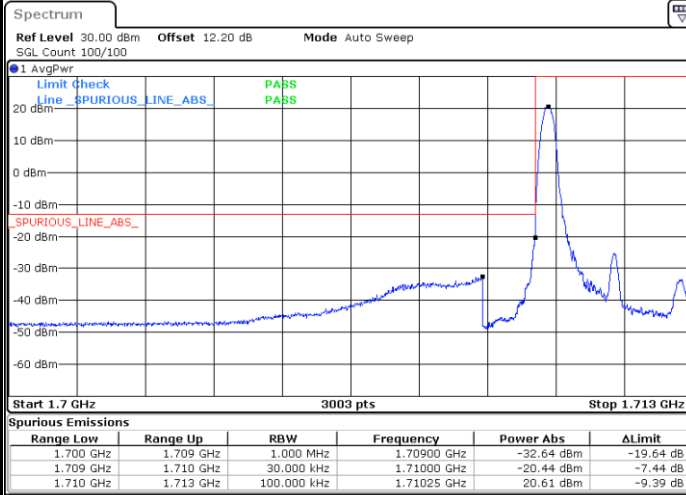
Highest Band Edge / Full RB



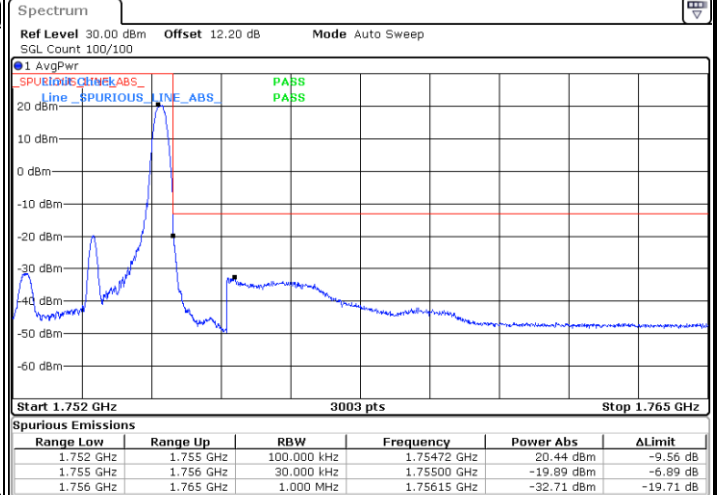


LTE Cat 1 Band 4 / 3MHz / QPSK

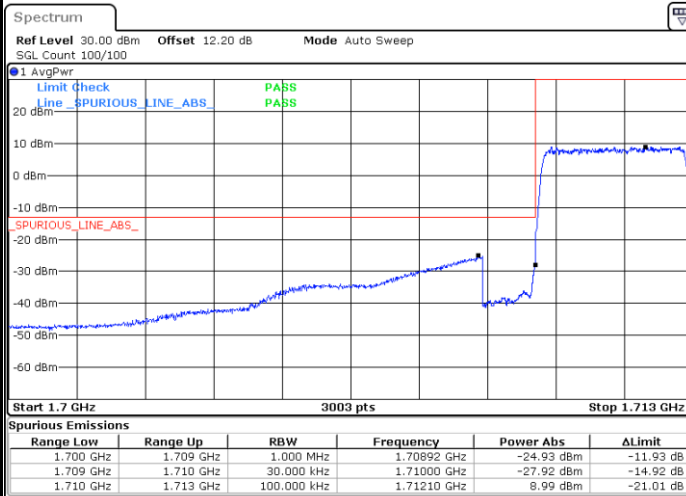
Lowest Band Edge / 1RB



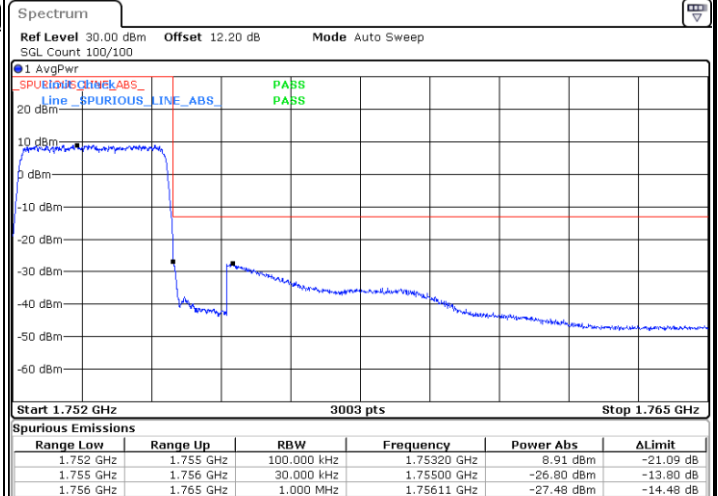
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



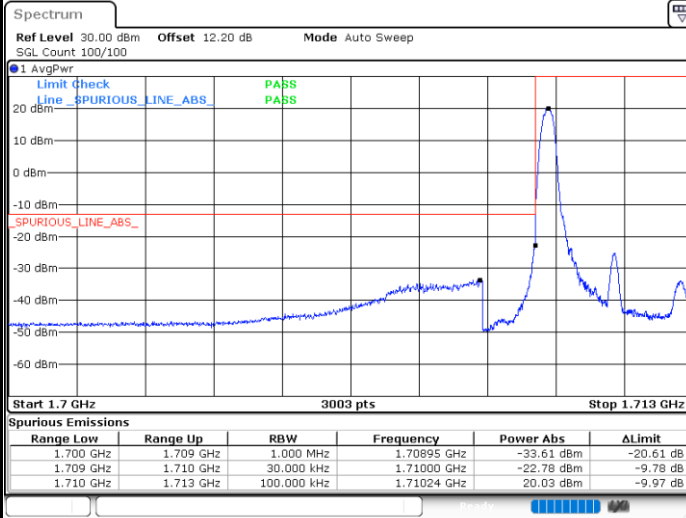
Highest Band Edge / Full RB



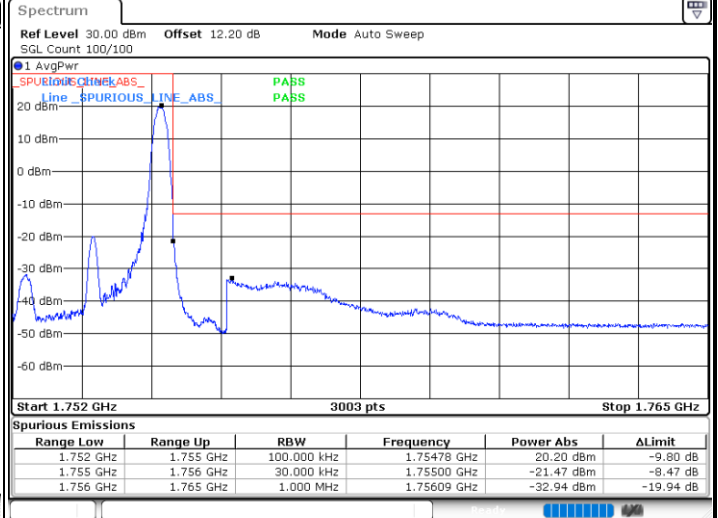


LTE Cat 1 Band 4 / 3MHz / 16QAM

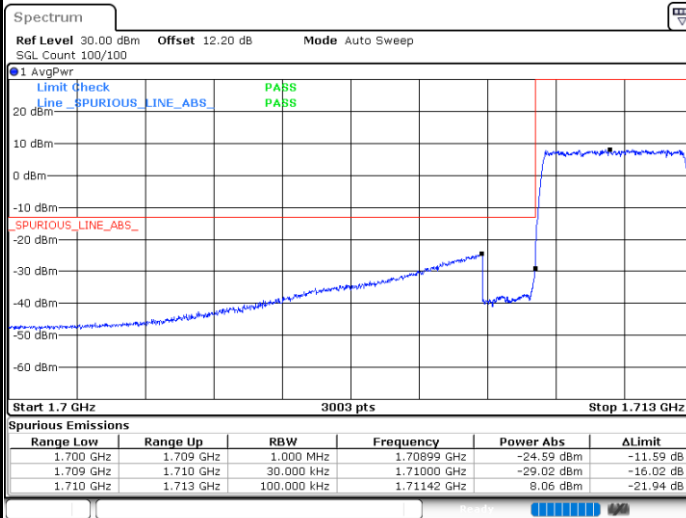
Lowest Band Edge / 1 RB



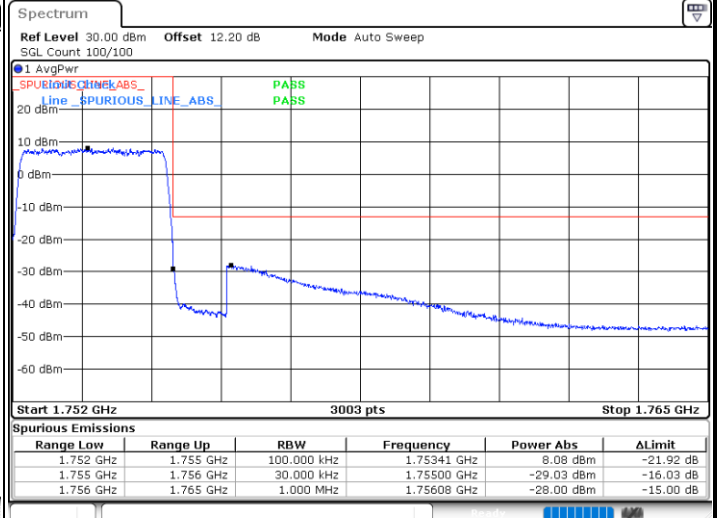
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



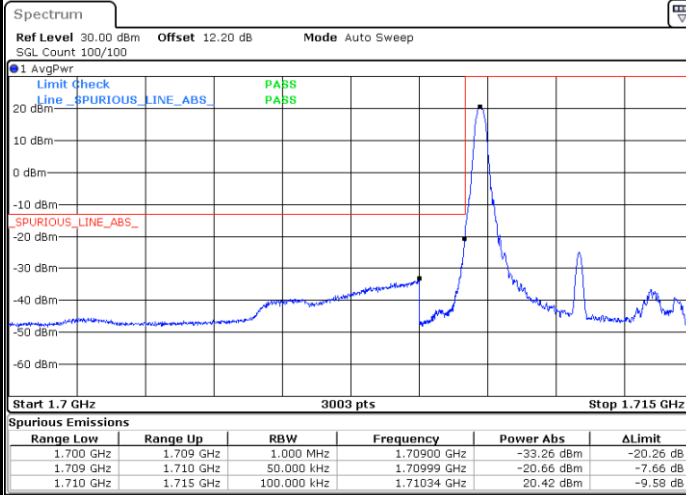
Highest Band Edge / Full RB



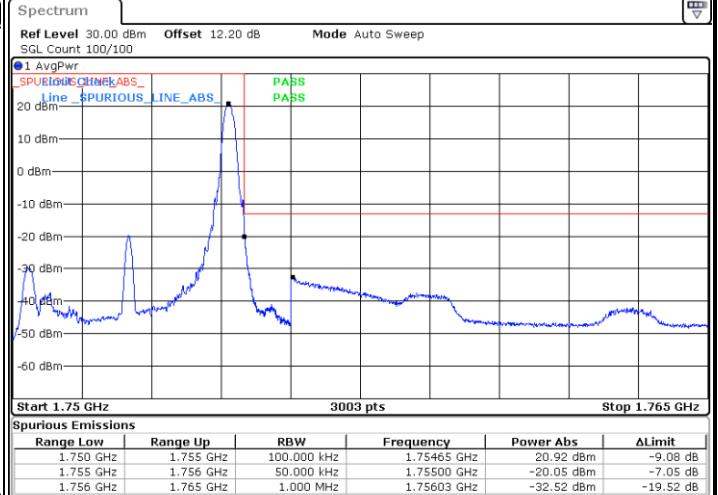


LTE Cat 1 Band 4 / 5MHz / QPSK

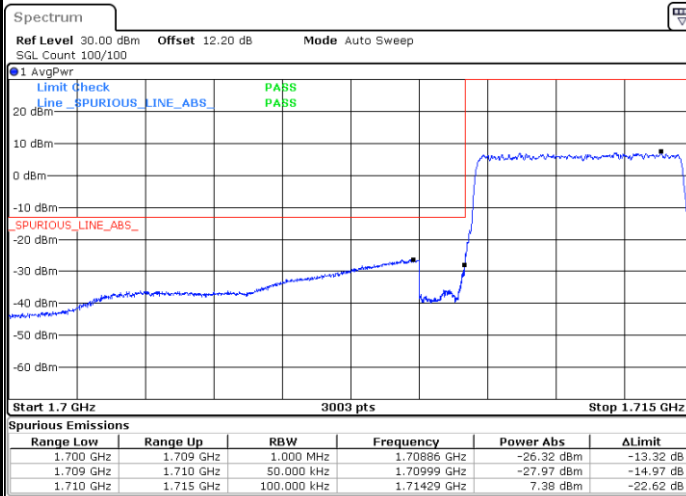
Lowest Band Edge / 1 RB



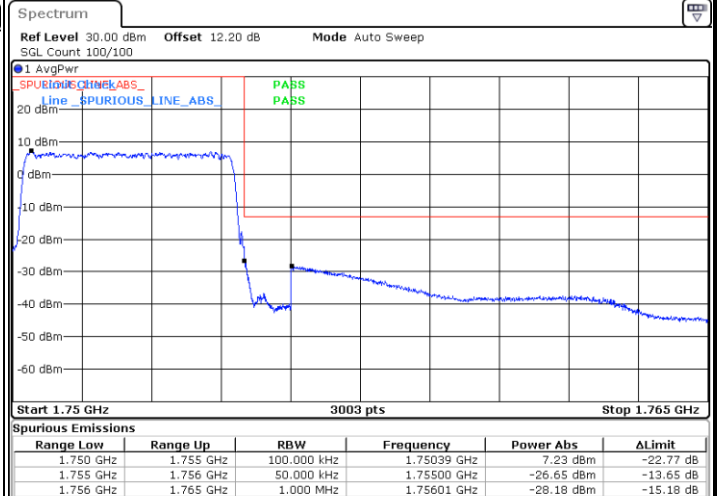
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



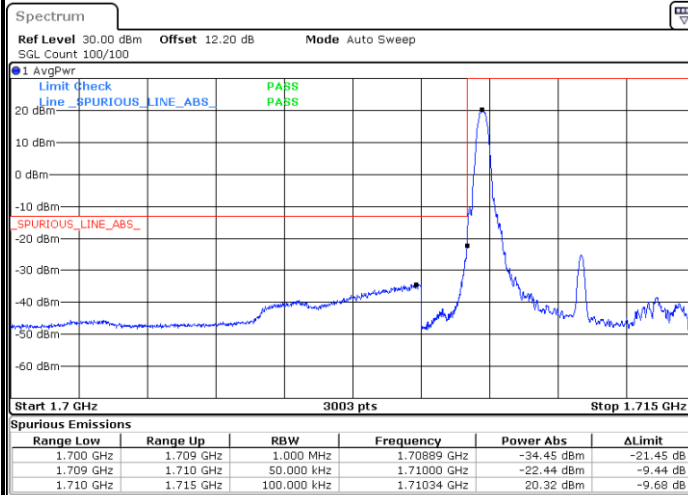
Highest Band Edge / Full RB



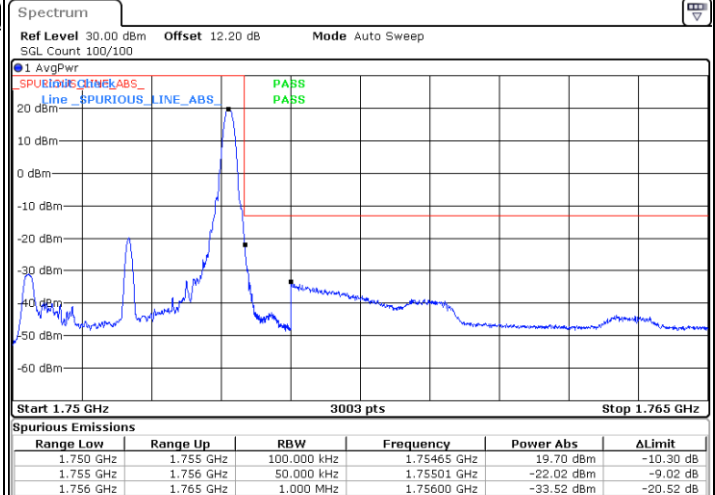


LTE Cat 1 Band 4 / 5MHz / 16QAM

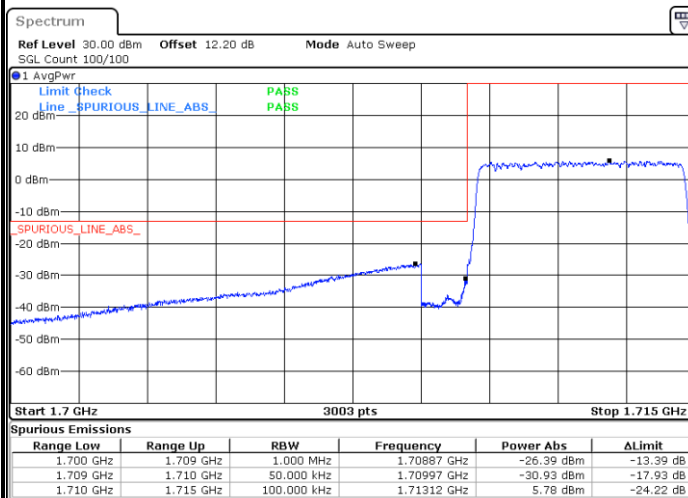
Lowest Band Edge / 1RB



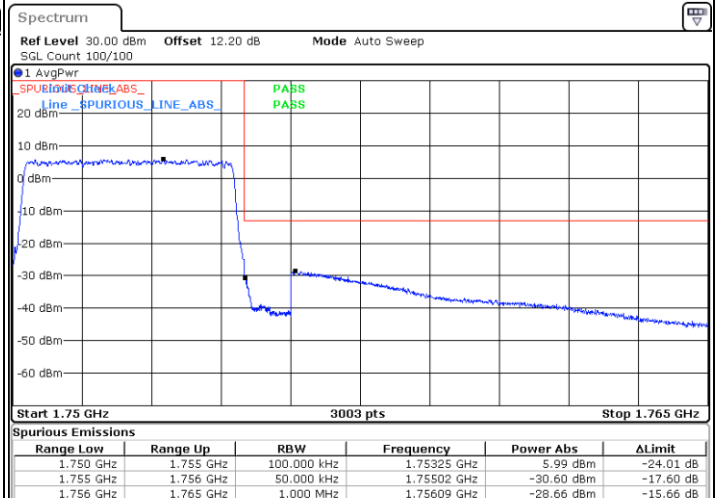
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



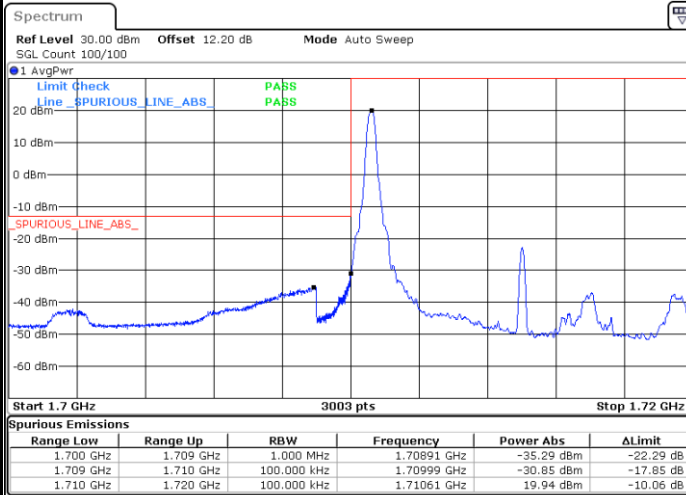
Highest Band Edge / Full RB



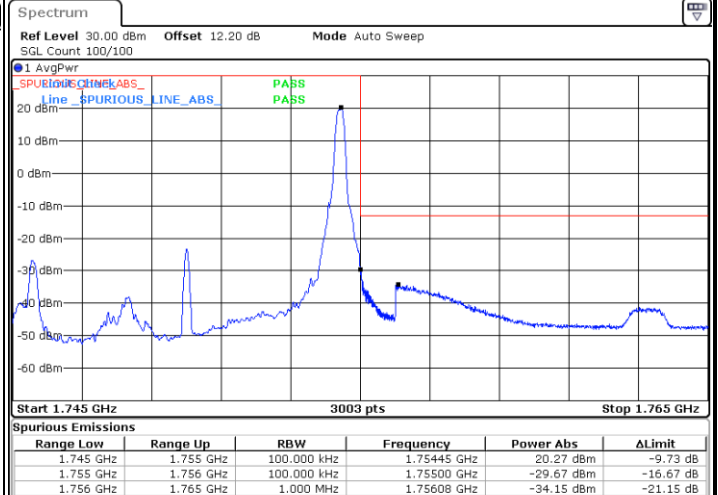


LTE Cat 1 Band 4 / 10MHz / QPSK

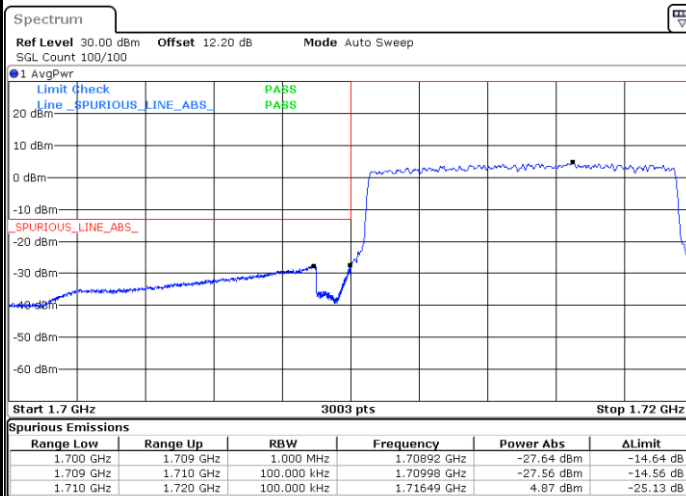
Lowest Band Edge / 1 RB



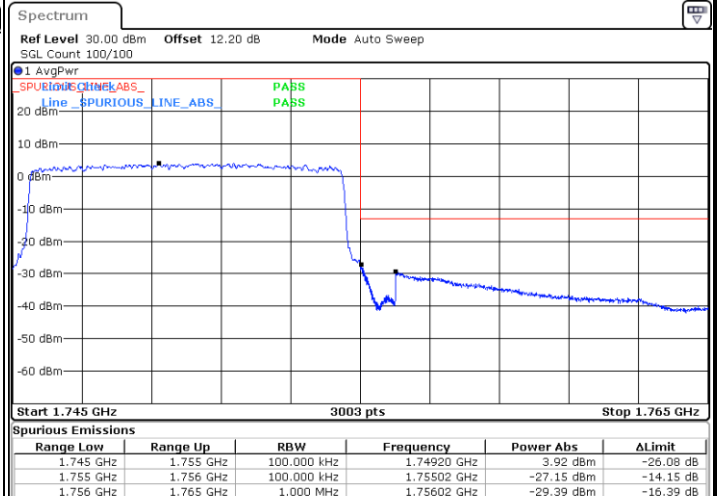
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



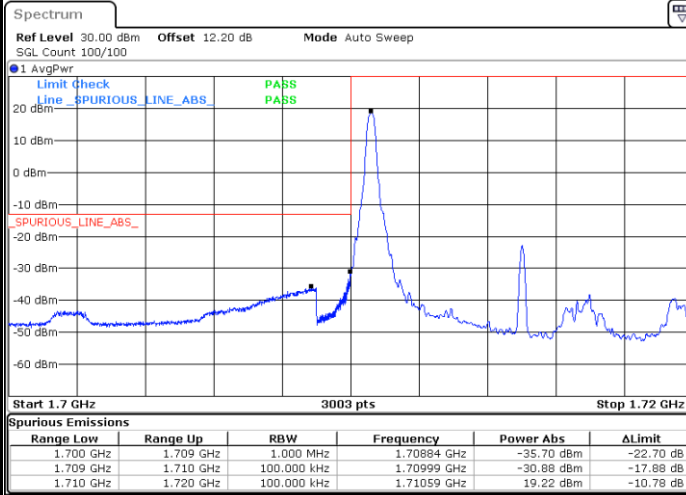
Highest Band Edge / Full RB



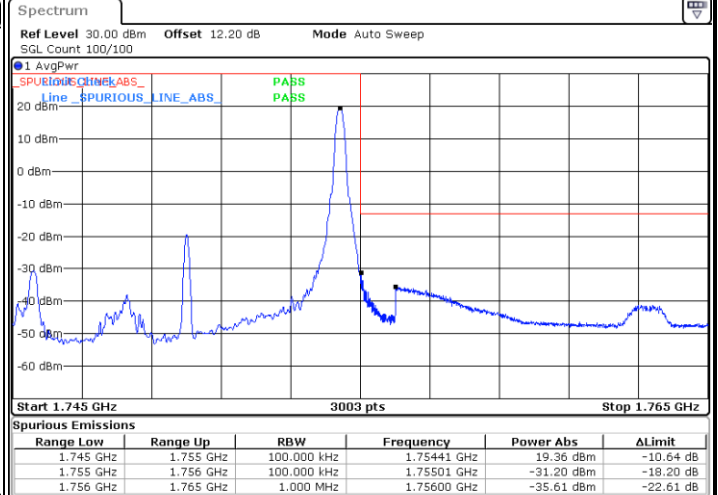


LTE Cat 1 Band 4 / 10MHz / 16QAM

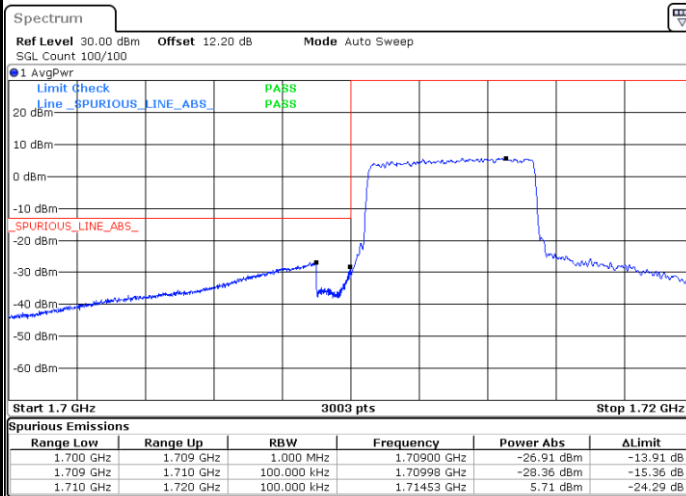
Lowest Band Edge / 1 RB



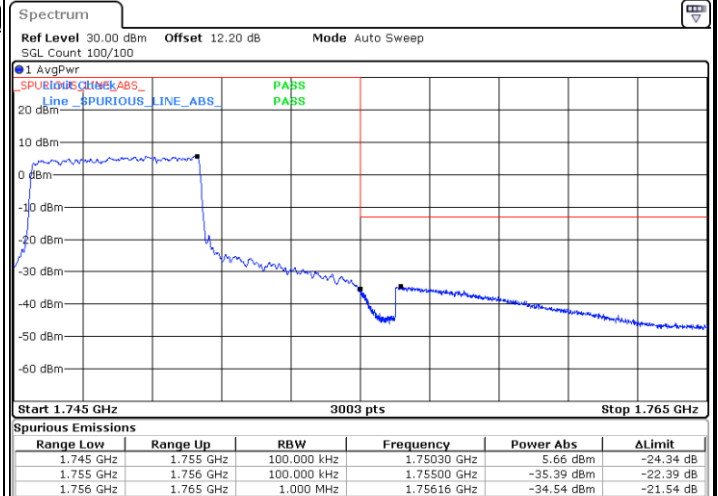
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



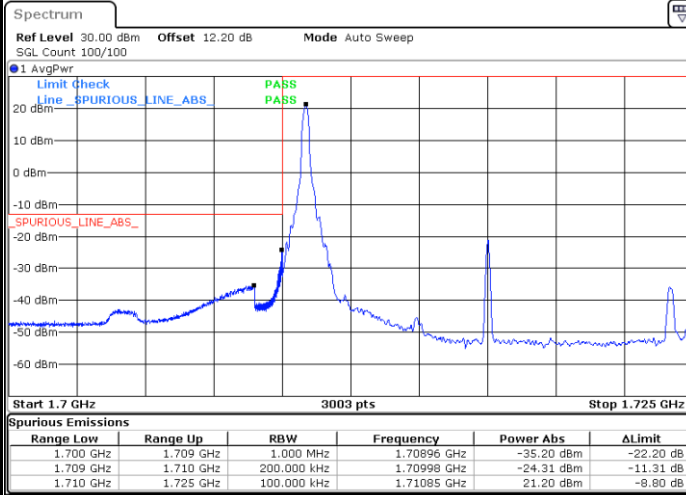
Highest Band Edge / Full RB



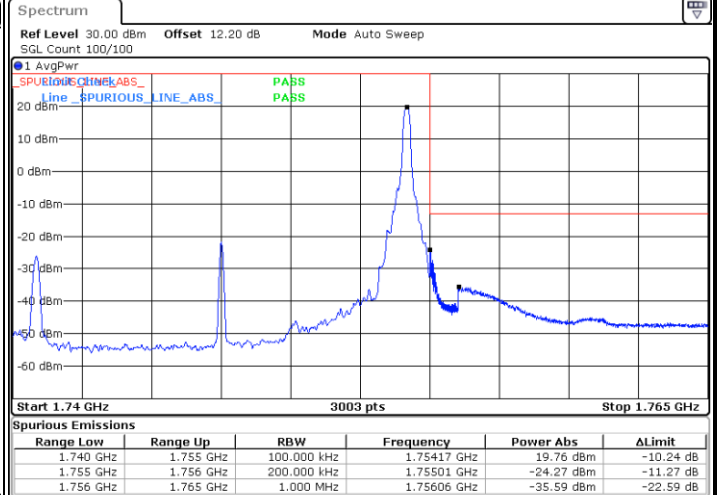


LTE Cat 1 Band 4 / 15MHz / QPSK

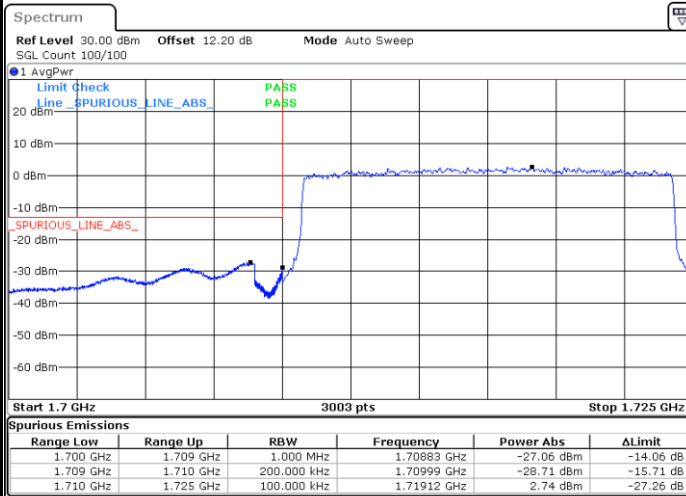
Lowest Band Edge / 1 RB



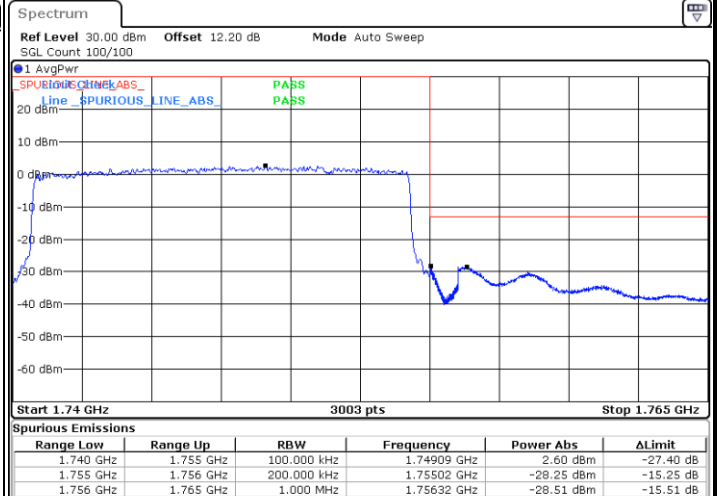
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



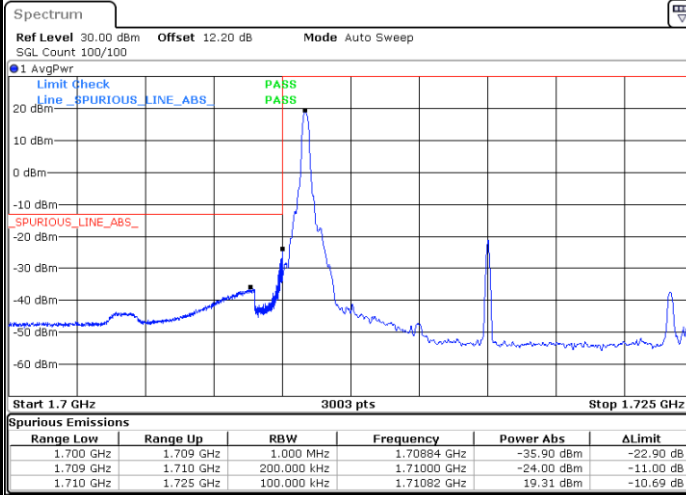
Highest Band Edge / Full RB



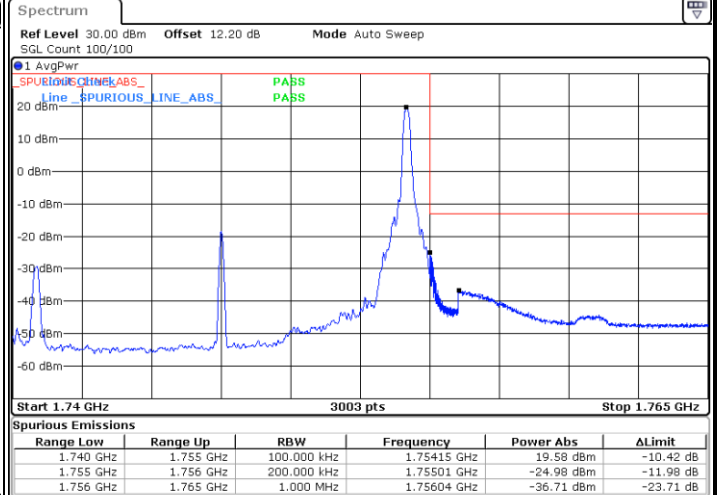


LTE Cat 1 Band 4 / 15MHz / 16QAM

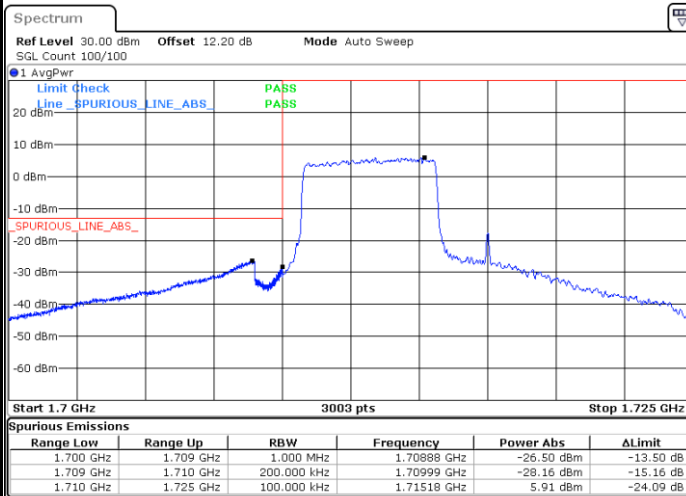
Lowest Band Edge / 1 RB



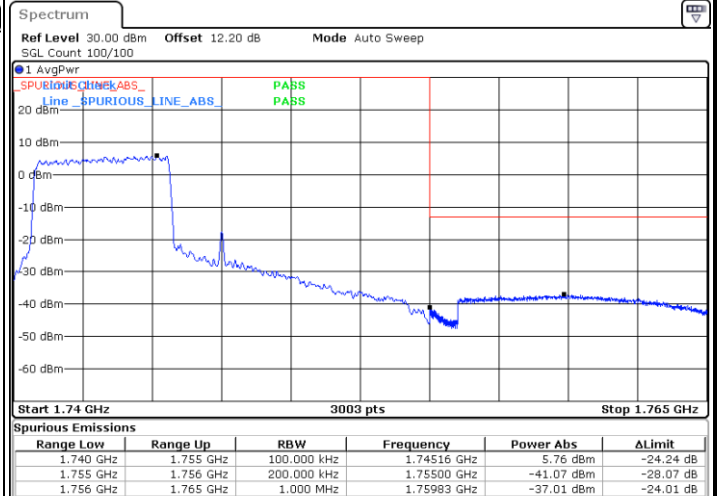
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



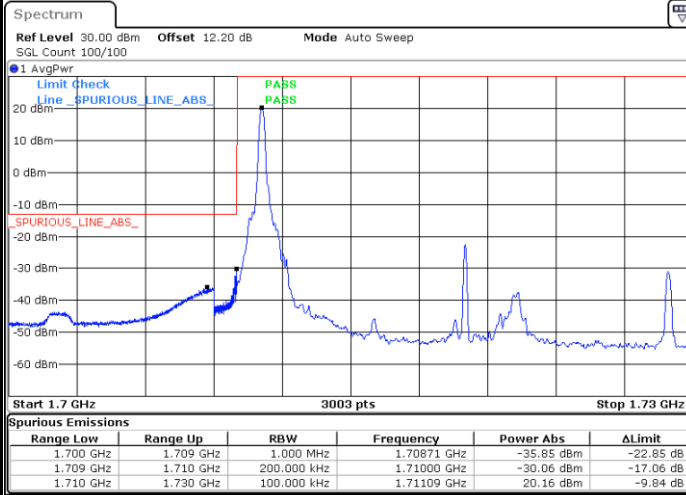
Highest Band Edge / Full RB



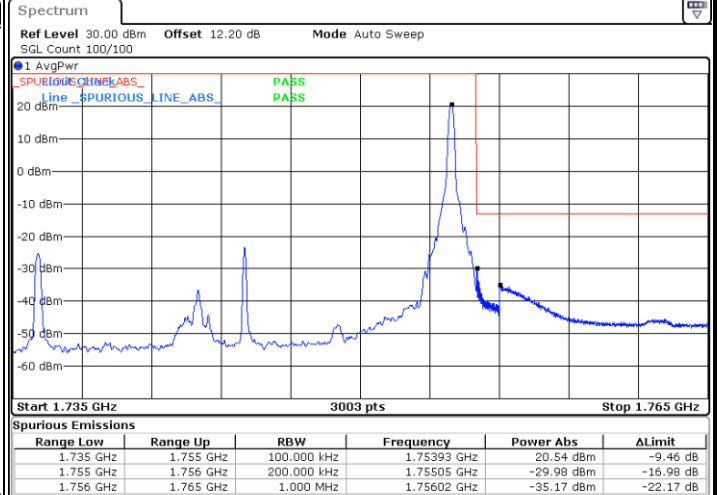


LTE Cat 1 Band 4 / 20MHz / QPSK

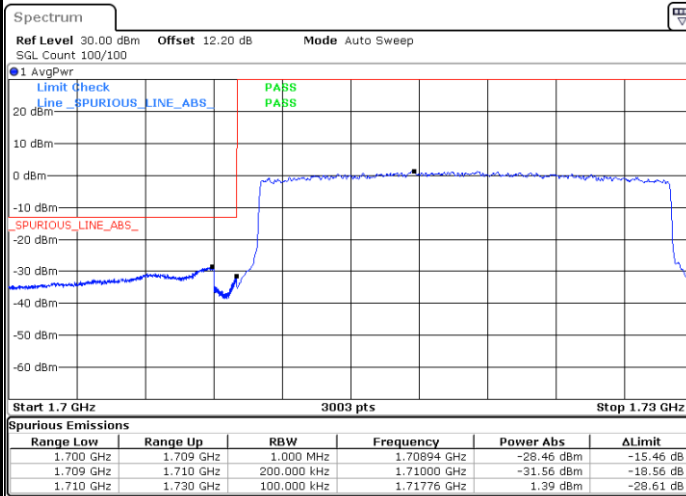
Lowest Band Edge / 1 RB



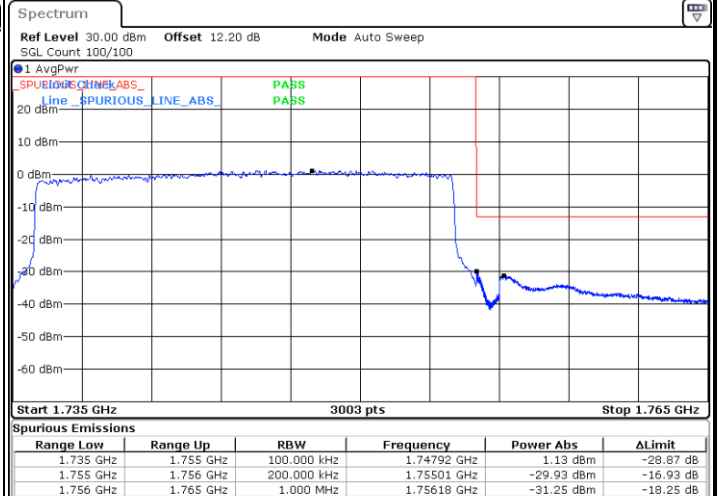
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



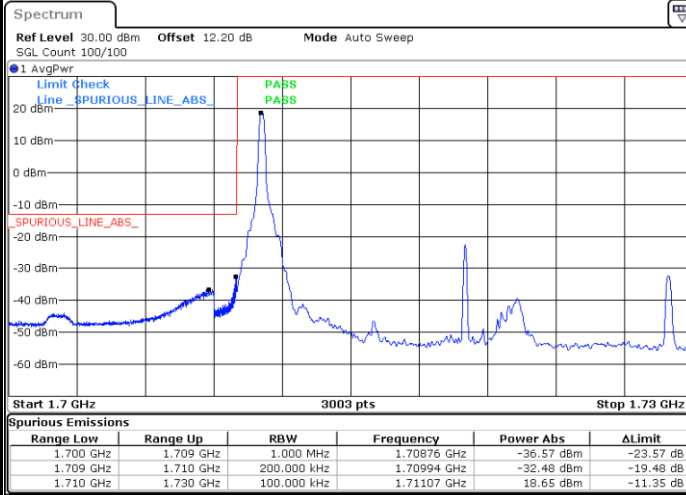
Highest Band Edge / Full RB



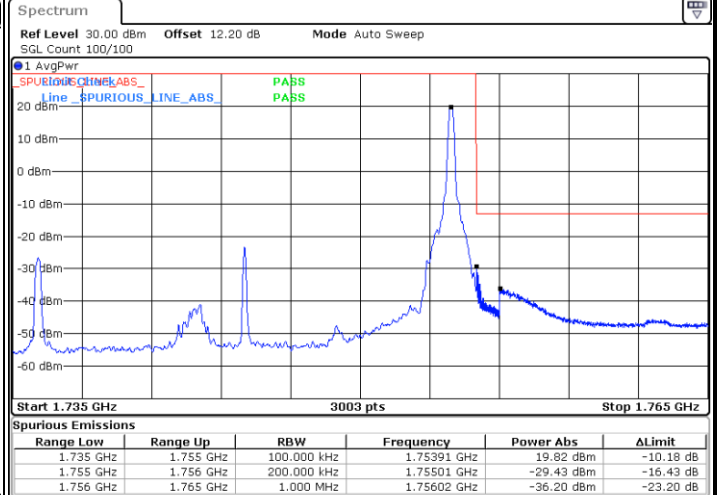


LTE Cat 1 Band 4 / 20MHz / 16QAM

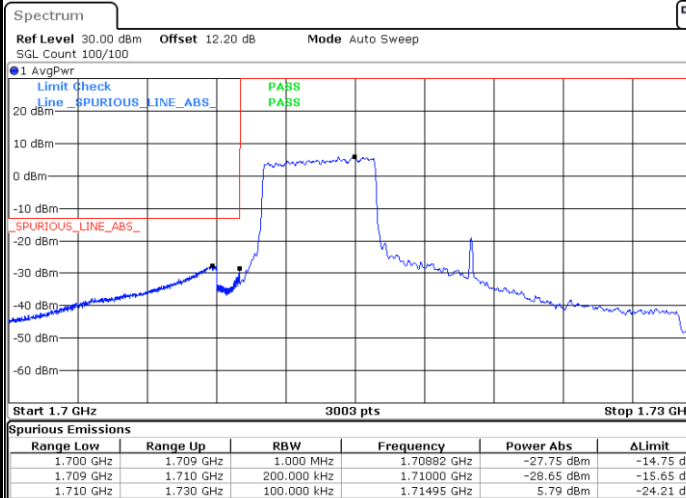
Lowest Band Edge / 1 RB



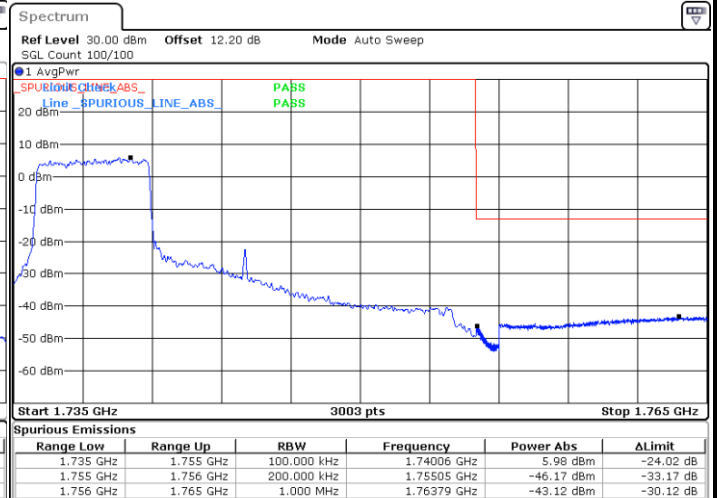
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

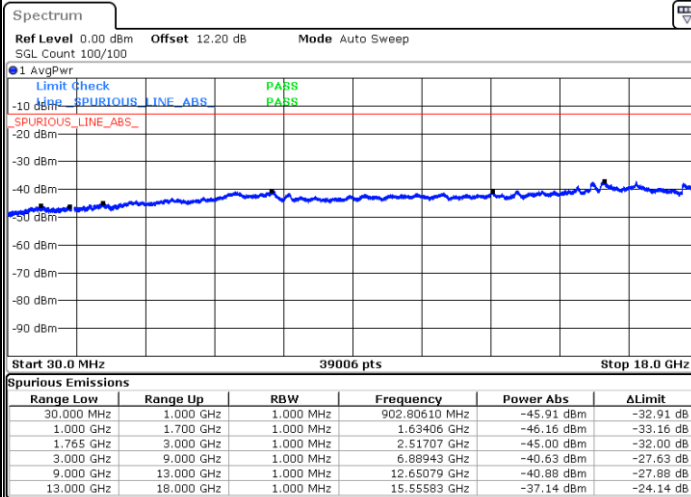




Conducted Spurious Emission

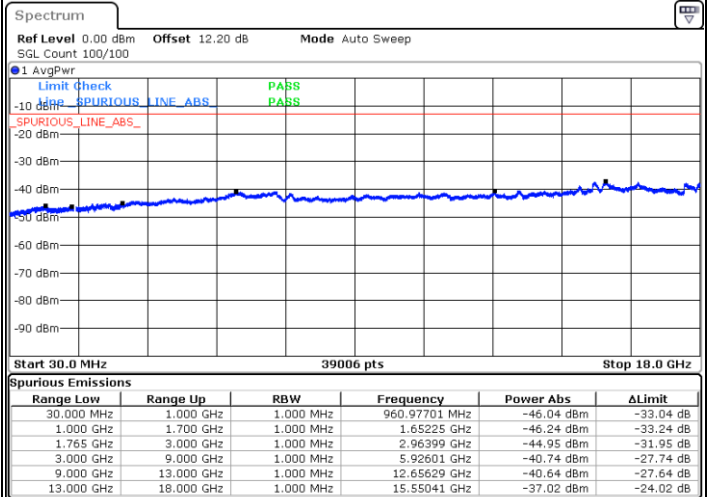
LTE Cat 1 Band 4 / 1.4MHz

Lowest Channel / QPSK



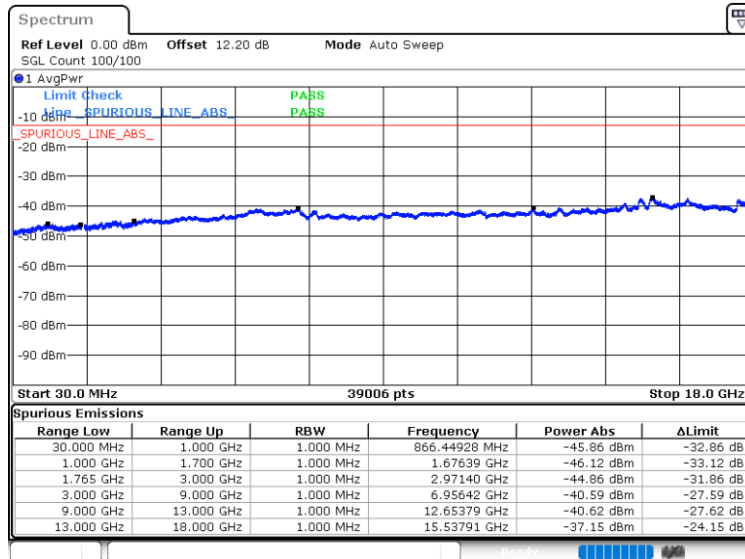
Date: 17.FEB.2022 19:27:56

Middle Channel / QPSK



Date: 17.FEB.2022 19:30:28

Highest Channel / QPSK

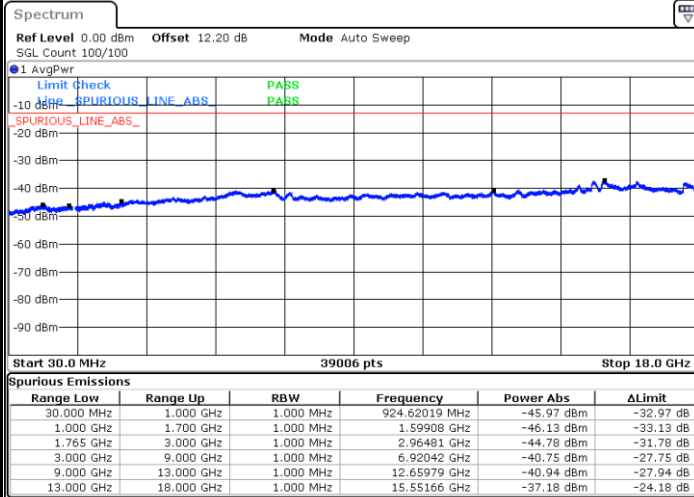


Date: 17.FEB.2022 19:35:10



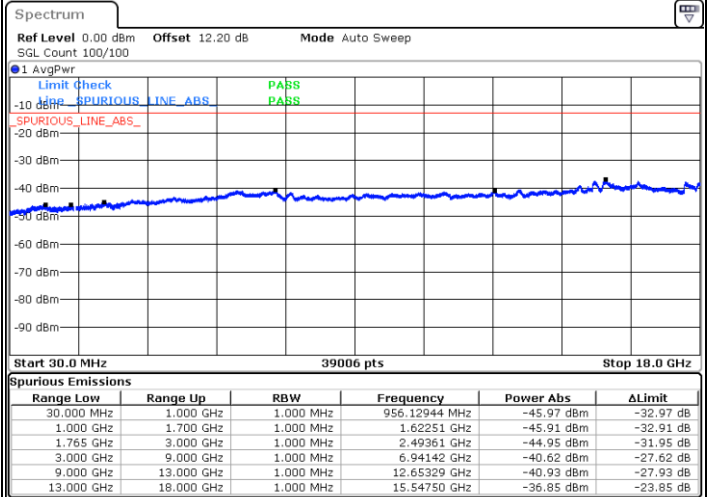
LTE Cat 1 Band 4 / 3MHz

Lowest Channel / QPSK



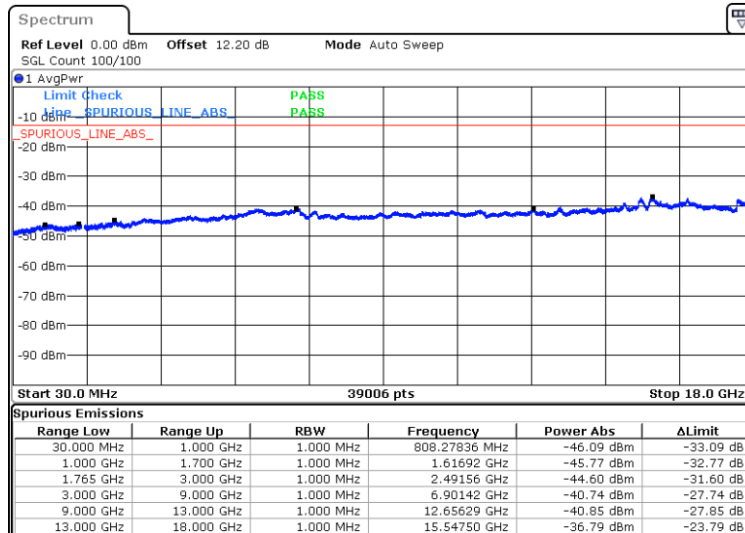
Date: 17.FEB.2022 19:38:37

Middle Channel / QPSK



Date: 17.FEB.2022 19:41:04

Highest Channel / QPSK

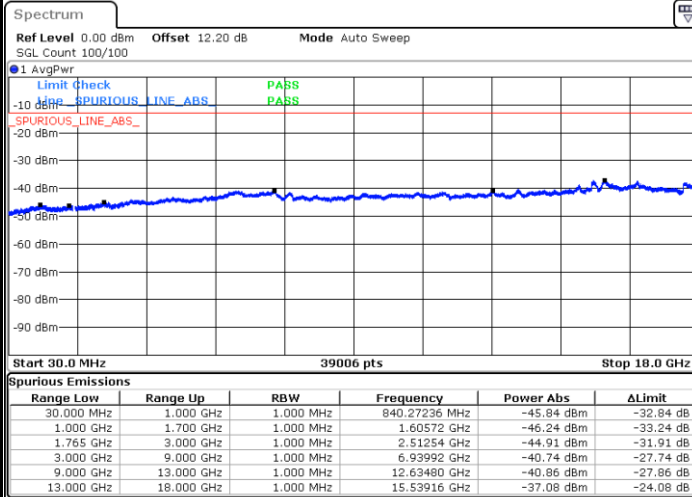


Date: 17.FEB.2022 19:44:31



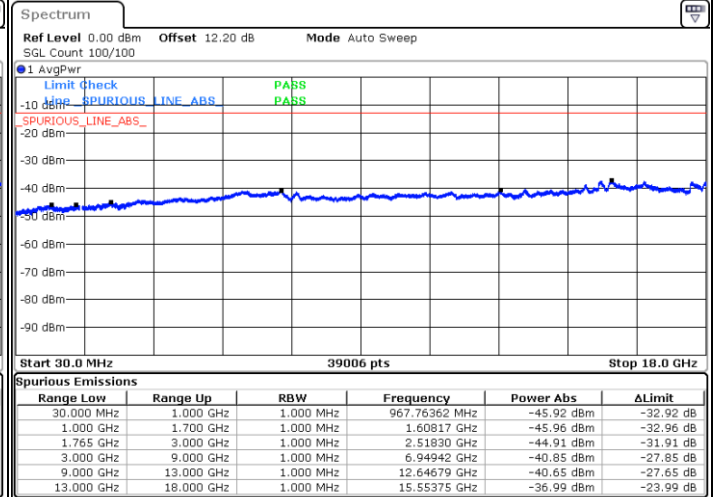
LTE Cat 1 Band 4 / 5MHz

Lowest Channel / QPSK



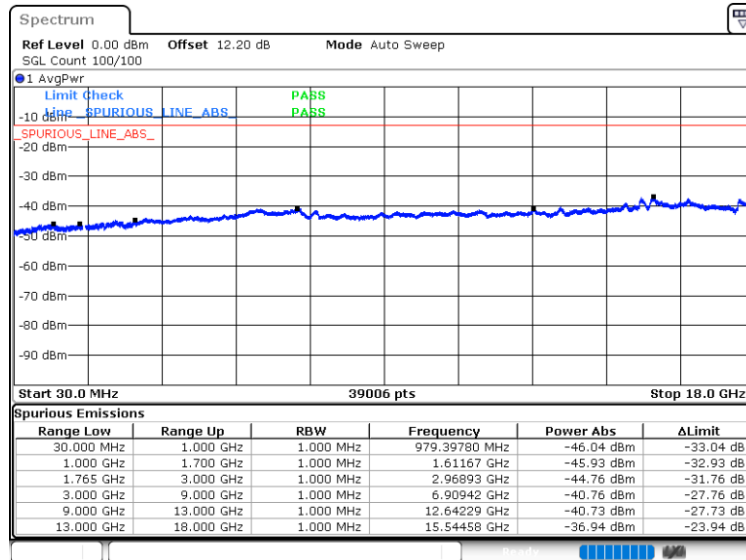
Date: 17.FEB.2022 19:47:58

Middle Channel / QPSK



Date: 17.FEB.2022 19:50:25

Highest Channel / QPSK

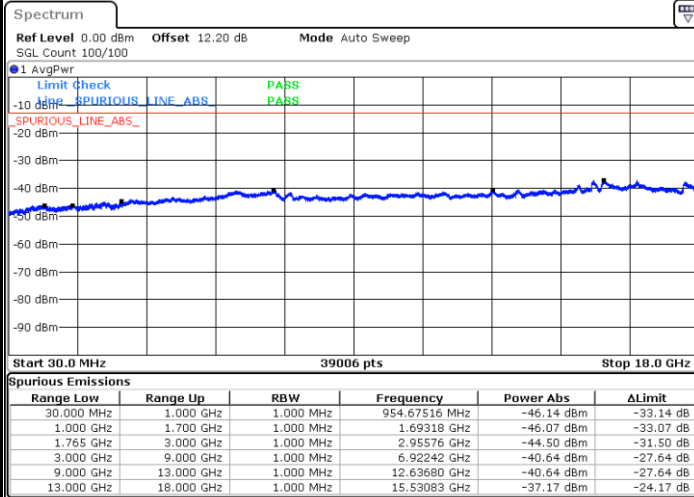


Date: 17.FEB.2022 19:53:51



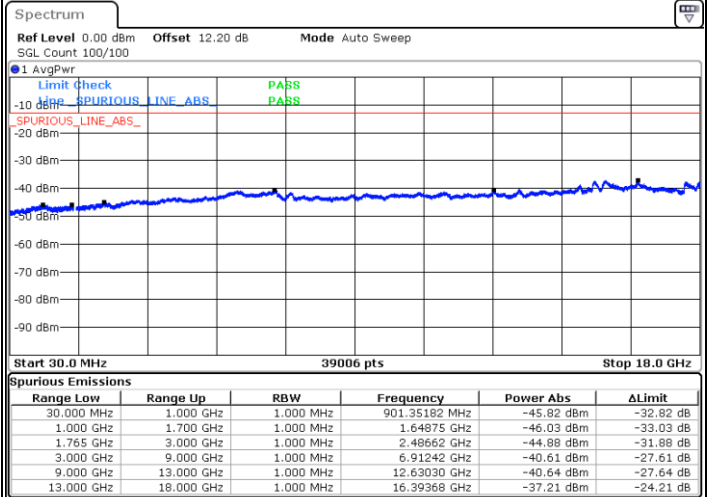
LTE Cat 1 Band 4 / 10MHz

Lowest Channel / QPSK



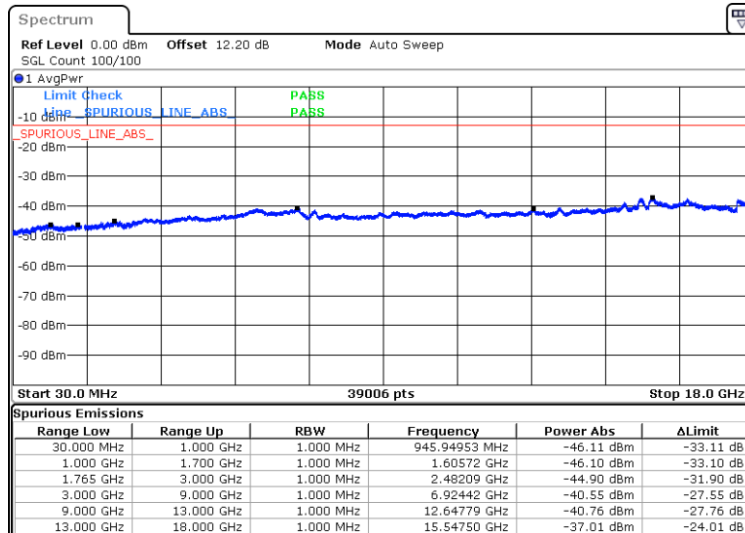
Date: 17.FEB.2022 19:56:40

Middle Channel / QPSK



Date: 17.FEB.2022 19:58:20

Highest Channel / QPSK

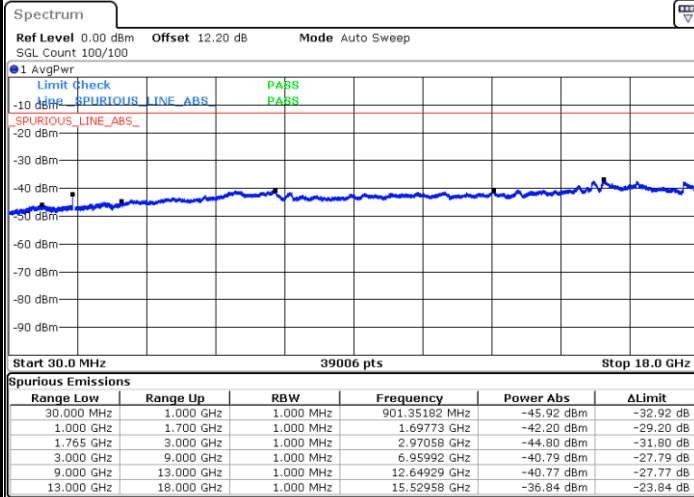


Date: 17.FEB.2022 20:01:08



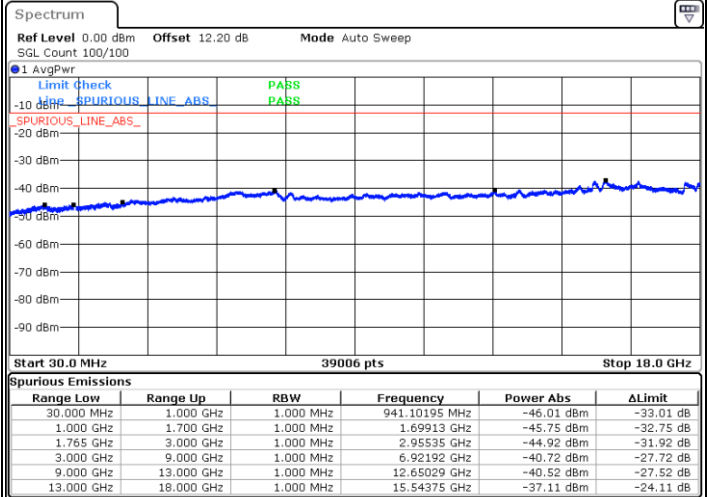
LTE Cat 1 Band 4 / 15MHz

Lowest Channel / QPSK



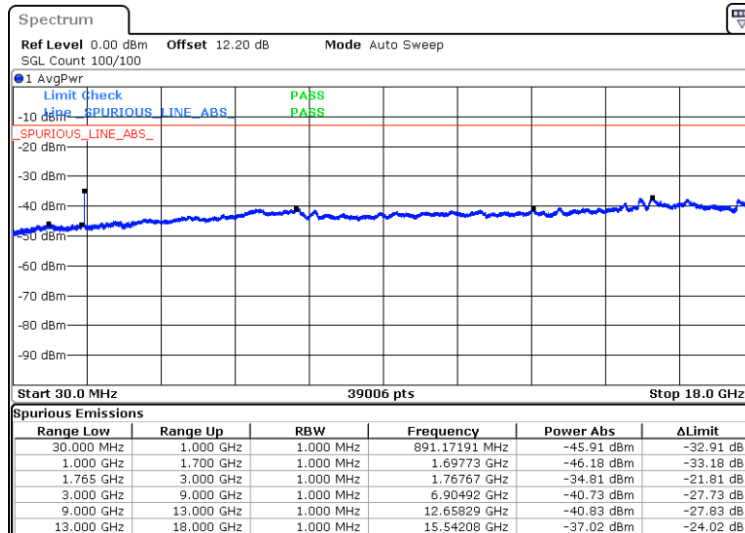
Date: 17.FEB.2022 20:03:56

Middle Channel / QPSK



Date: 17.FEB.2022 20:06:44

Highest Channel / QPSK

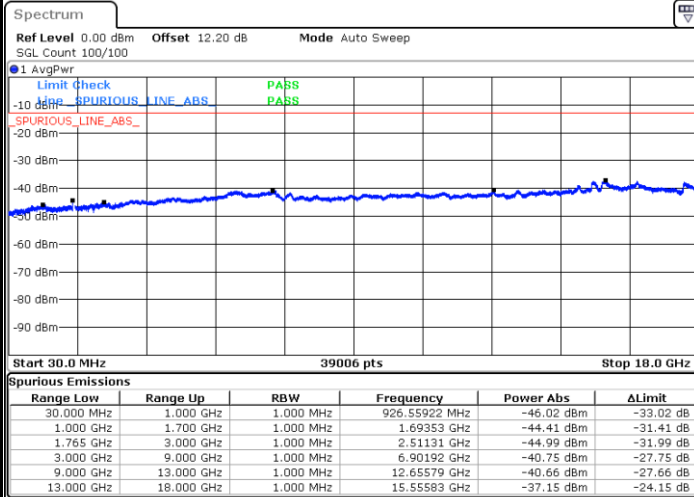


Date: 17.FEB.2022 20:09:32



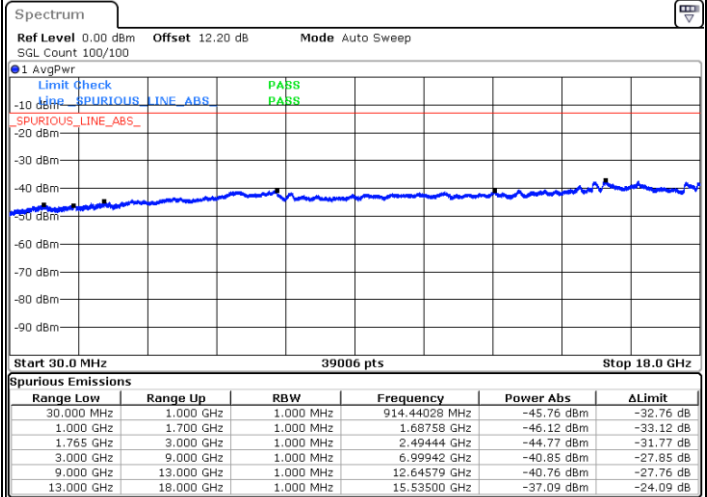
LTE Cat 1 Band 4 / 20MHz

Lowest Channel / QPSK



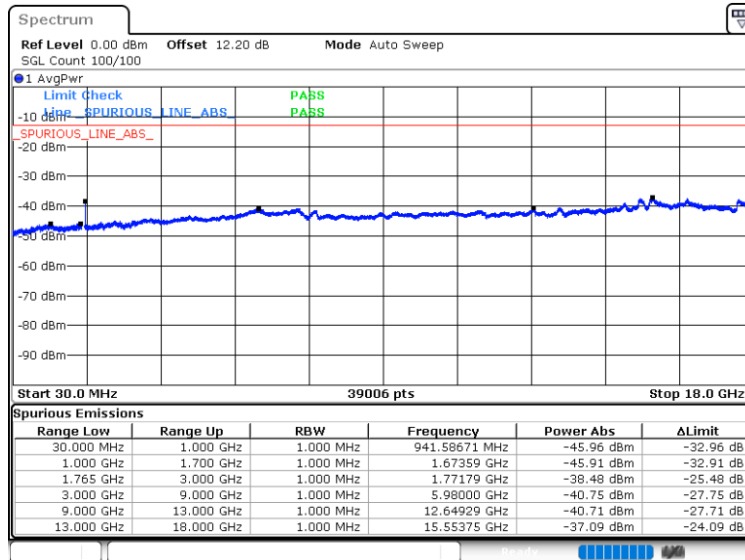
Date: 17.FEB.2022 20:21:15

Middle Channel / QPSK



Date: 17.FEB.2022 20:22:55

Highest Channel / QPSK



Date: 17.FEB.2022 20:25:43

Frequency Stability

Test Conditions		LTE Cat 1 Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0044	PASS
40	Normal Voltage	0.0056	
30	Normal Voltage	0.0062	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0042	
-10	Normal Voltage	0.0076	
-20	Normal Voltage	0.0046	
-30	Normal Voltage	0.0051	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0014	
20	Battery End Point	0.0010	

Note:

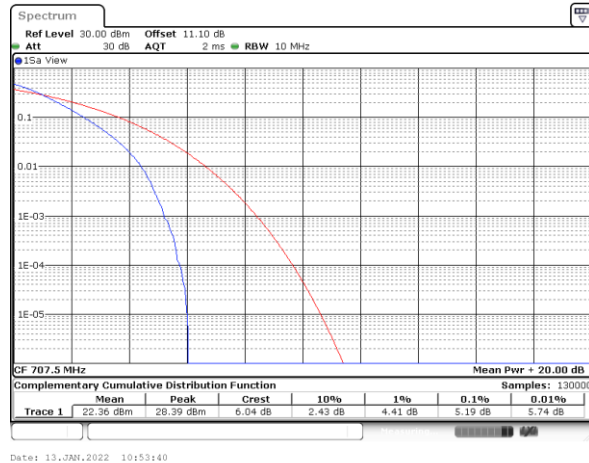
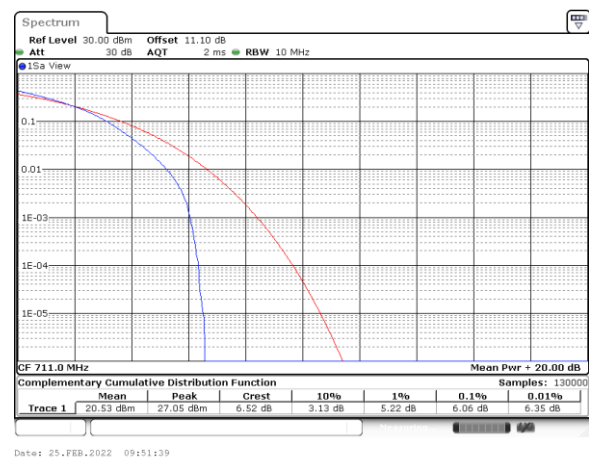
1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Cat 1 Band 12

Peak-to-Average Ratio

Mode	LTE Cat 1 Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.19	6.06	-	-	PASS

LTE Cat 1 Band 12 / 10MHz / QPSK
Middle Channel / Full RB

LTE Cat 1 Band 12 / 10MHz / 16QAM
Middle Channel / Full RB


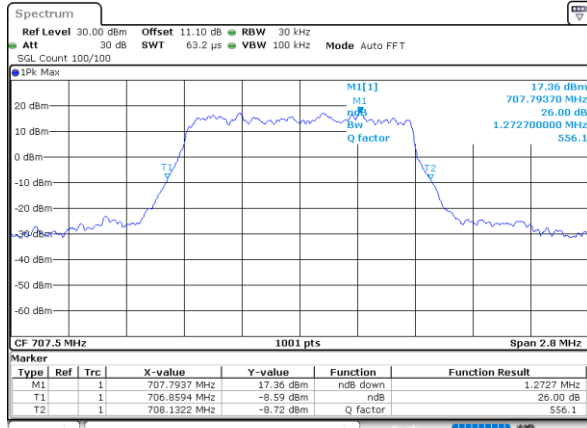
**26dB Bandwidth**

Mode	LTE Cat 1 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	1.27	1.29	3.01	3.05	4.93	4.97	9.83	5.91	-	-	-	-
Mode	LTE Cat 1 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	-	-	-	-	-	-	-	-	-	-	-	-



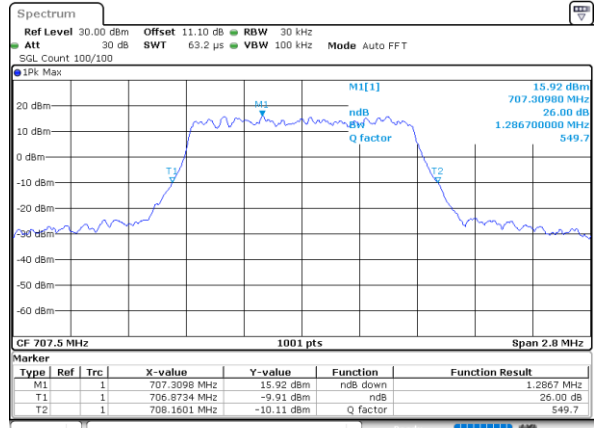
LTE Cat 1 Band 12

Middle Channel / 1.4MHz / QPSK



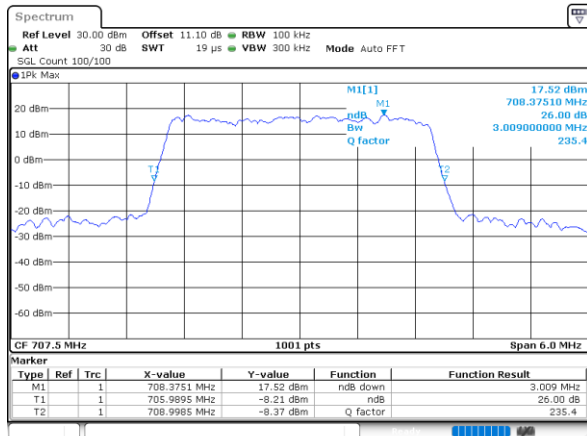
Date: 13.JAN.2022 10:10:26

Middle Channel / 1.4MHz / 16QAM



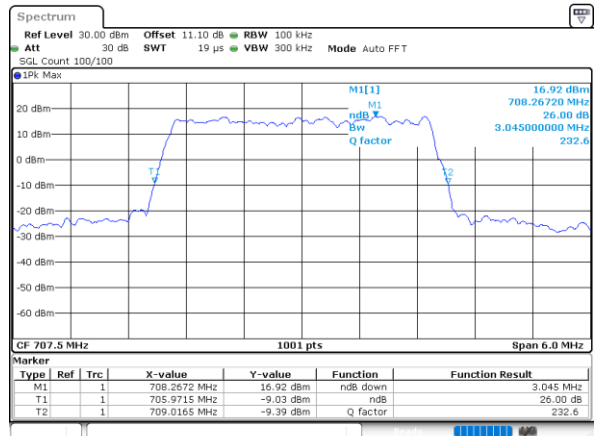
Date: 13.JAN.2022 10:10:46

Middle Channel / 3MHz / QPSK



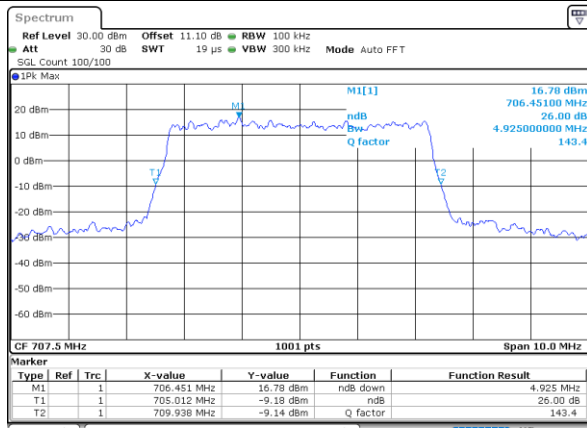
Date: 13.JAN.2022 10:26:56

Middle Channel / 3MHz / 16QAM



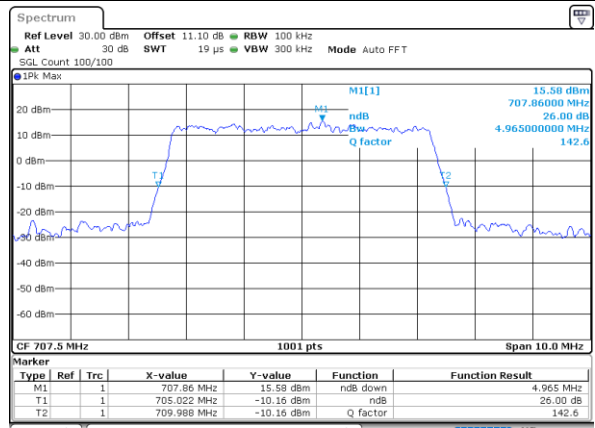
Date: 13.JAN.2022 10:27:17

Middle Channel / 5MHz / QPSK



Date: 13.JAN.2022 10:38:27

Middle Channel / 5MHz / 16QAM

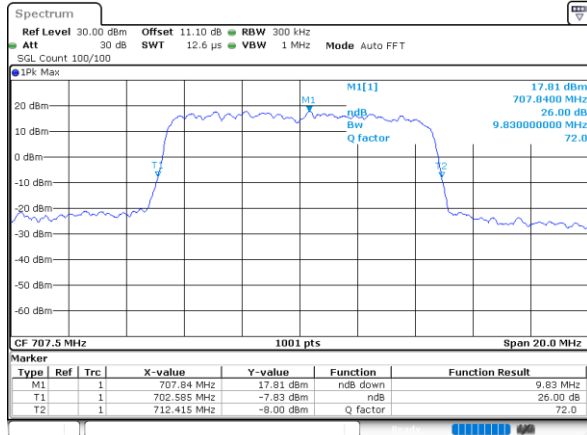


Date: 13.JAN.2022 10:38:47



LTE Cat 1 Band 12

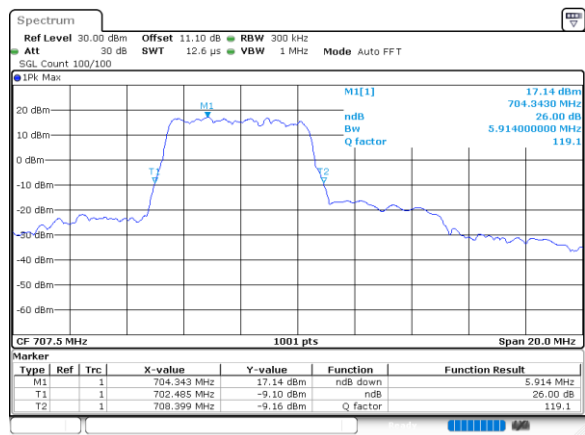
Middle Channel / 10MHz / QPSK



Date: 13.JAN.2022 10:48:43

LTE Cat 1 Band 12

Middle Channel / 10MHz / 16QAM



Date: 25.FEB.2022 09:42:46

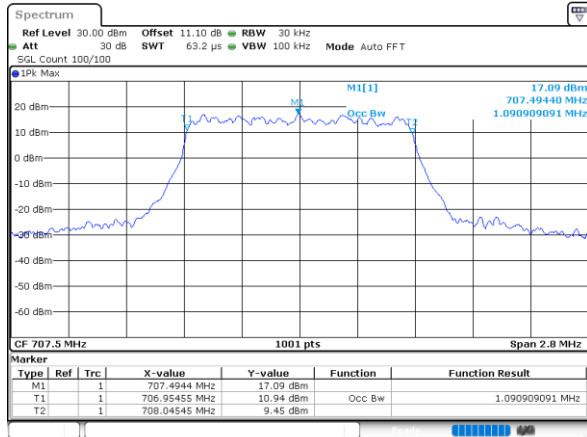
**Occupied Bandwidth**

Mode	LTE Cat 1 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	1.09	2.72	2.73	4.49	4.49	8.97	5.03	-	-	-	-
Mode	LTE Cat 1 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	-	-	-	-	-	-	-	-	-	-	-	-

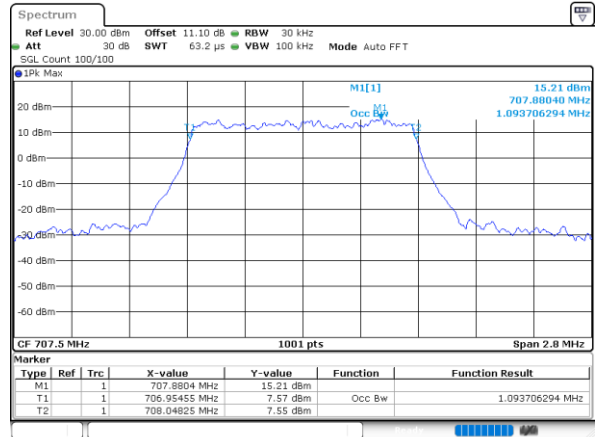


LTE Cat 1 Band 12

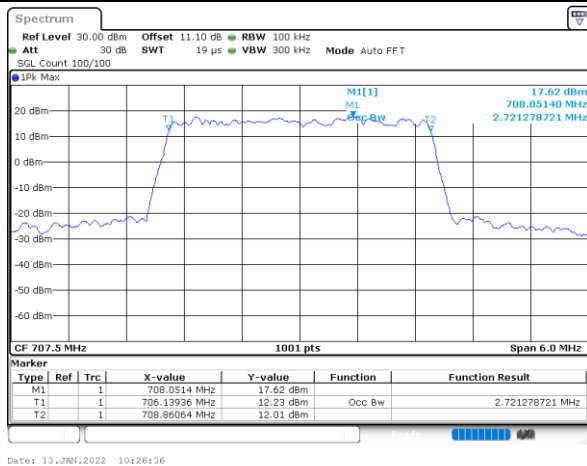
Middle Channel / 1.4MHz / QPSK



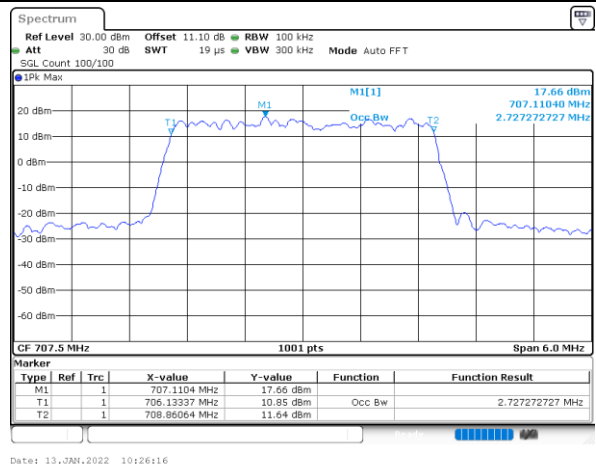
Middle Channel / 1.4MHz / 16QAM



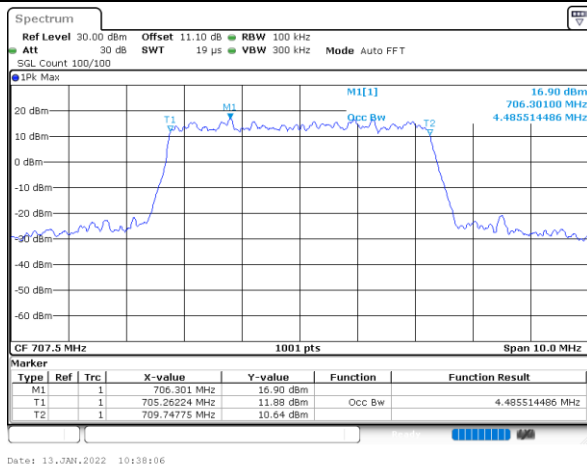
Middle Channel / 3MHz / QPSK



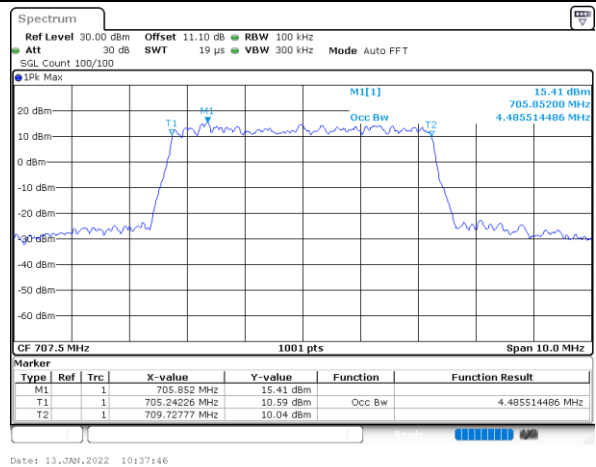
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



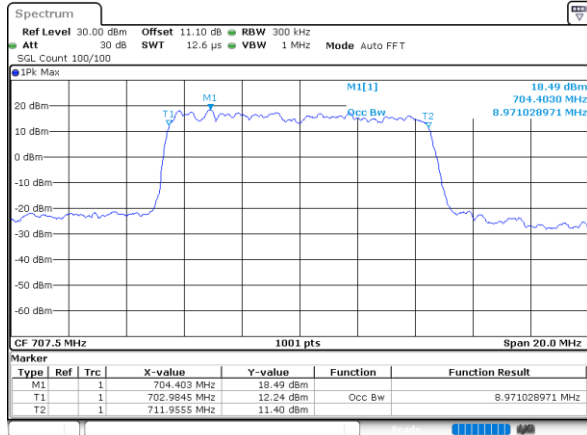
Middle Channel / 5MHz / 16QAM





LTE Cat 1 Band 12

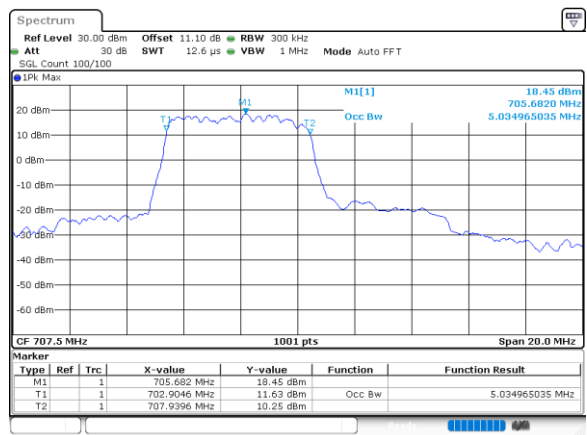
Middle Channel / 10MHz / QPSK



Date: 13.JAN.2022 10:48:22

LTE Cat 1 Band 12

Middle Channel / 10MHz / 16QAM



Date: 25.FEB.2022 09:42:33