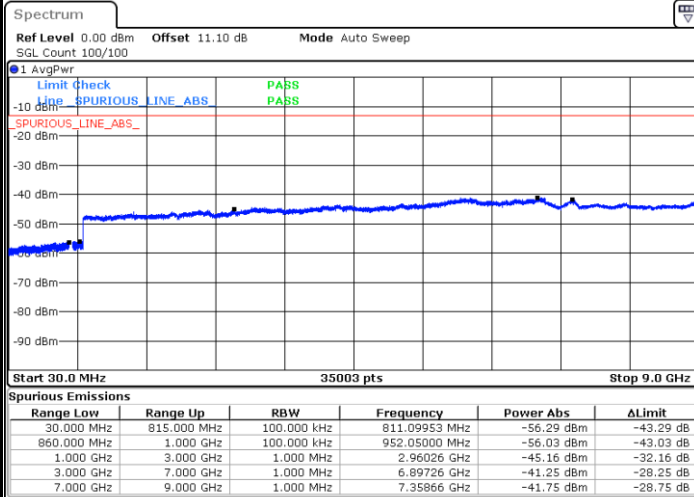




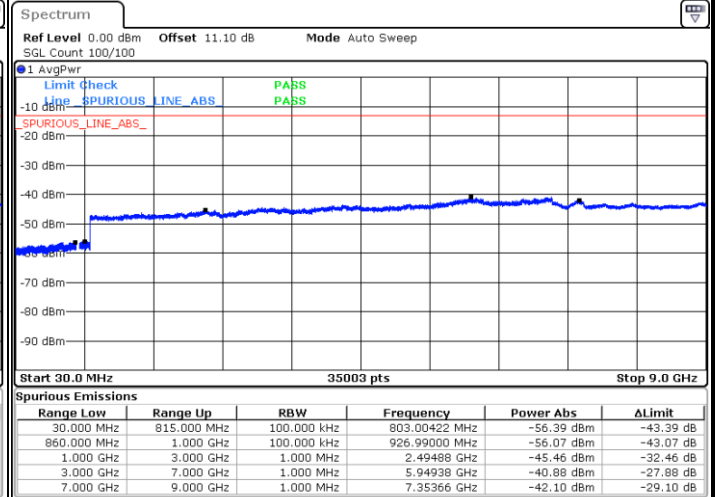
LTE Band 5 / 3MHz

Lowest Channel / QPSK



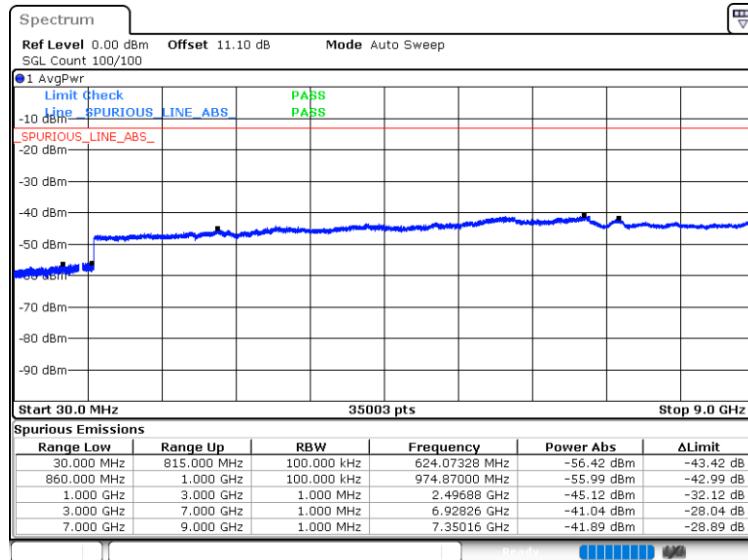
Date: 27.JAN.2022 10:09:18

Middle Channel / QPSK



Date: 27.JAN.2022 10:11:50

Highest Channel / QPSK

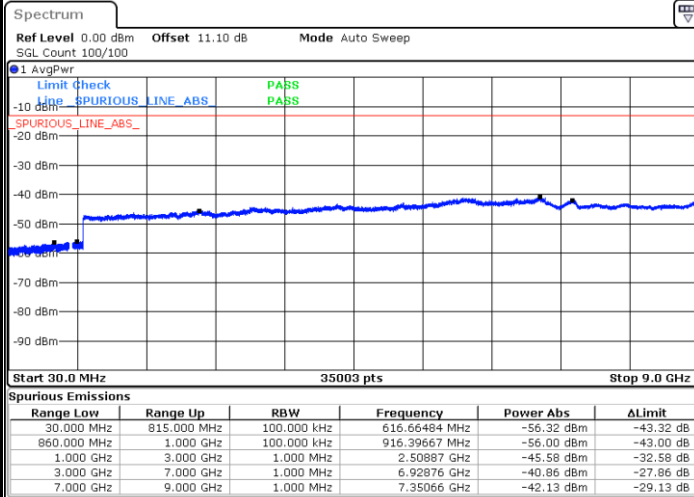


Date: 27.JAN.2022 10:15:51



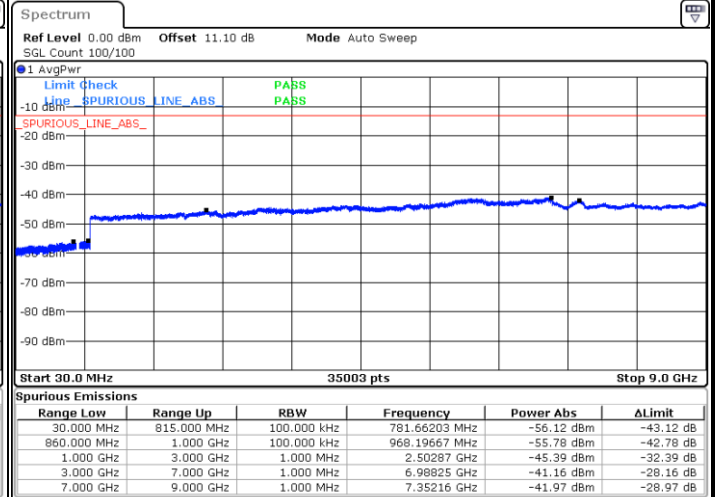
LTE Band 5 / 5MHz

Lowest Channel / QPSK



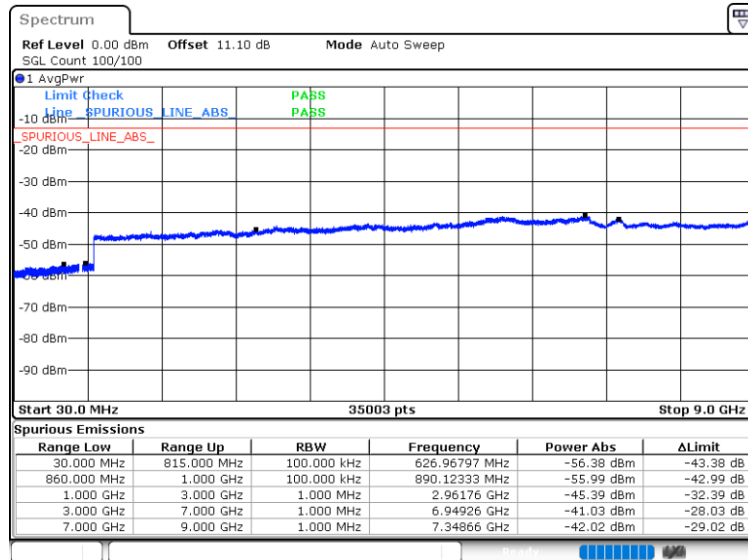
Date: 27.JAN.2022 10:23:10

Middle Channel / QPSK



Date: 27.JAN.2022 10:25:41

Highest Channel / QPSK

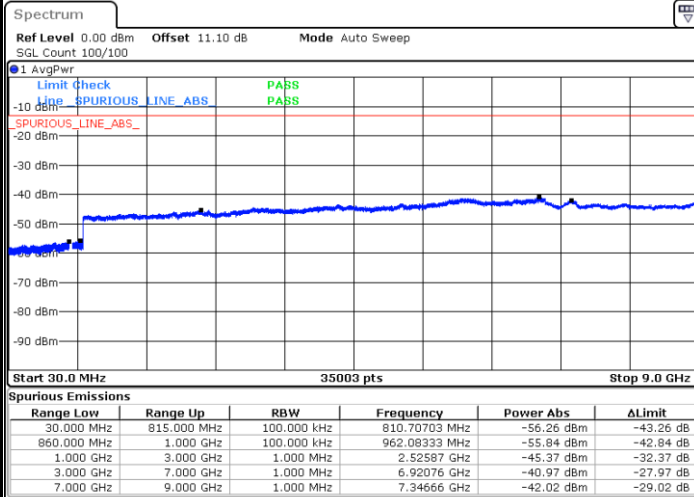


Date: 27.JAN.2022 10:29:43



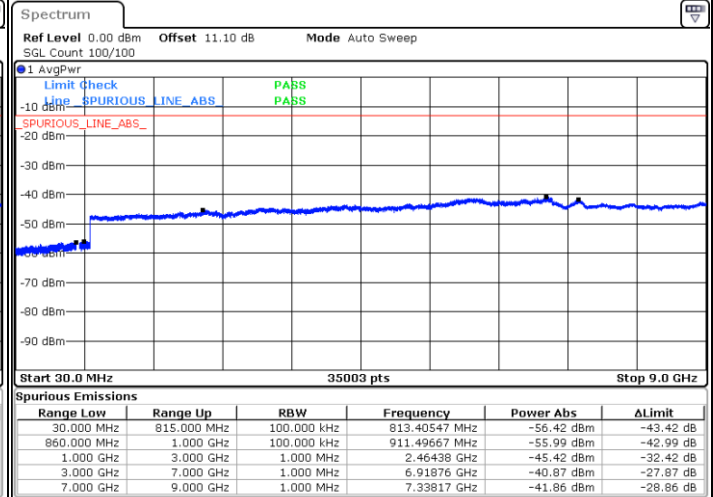
LTE Band 5 / 10MHz

Lowest Channel / QPSK



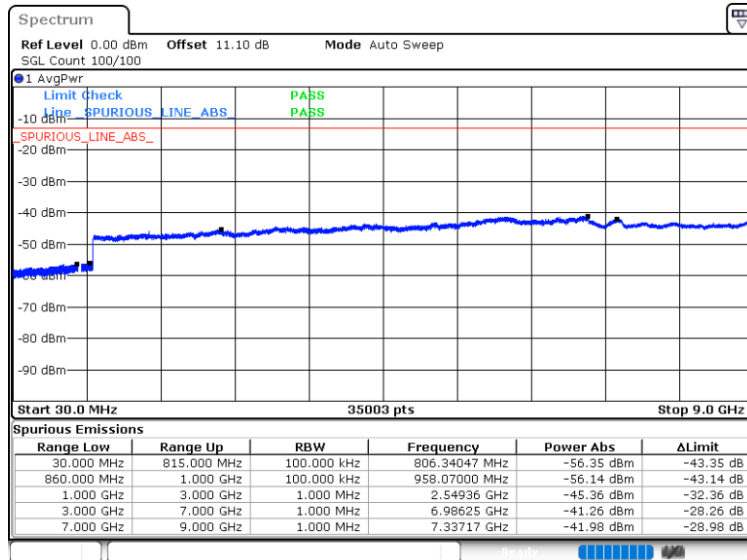
Date: 27.JAN.2022 10:37:02

Middle Channel / QPSK



Date: 27.JAN.2022 10:39:33

Highest Channel / QPSK



Date: 27.JAN.2022 10:43:35

Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0020	PASS
40	Normal Voltage	0.0104	
30	Normal Voltage	0.0086	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0124	
0	Normal Voltage	0.0117	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0197	
20	Maximum Voltage	0.0160	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0121	

Note:

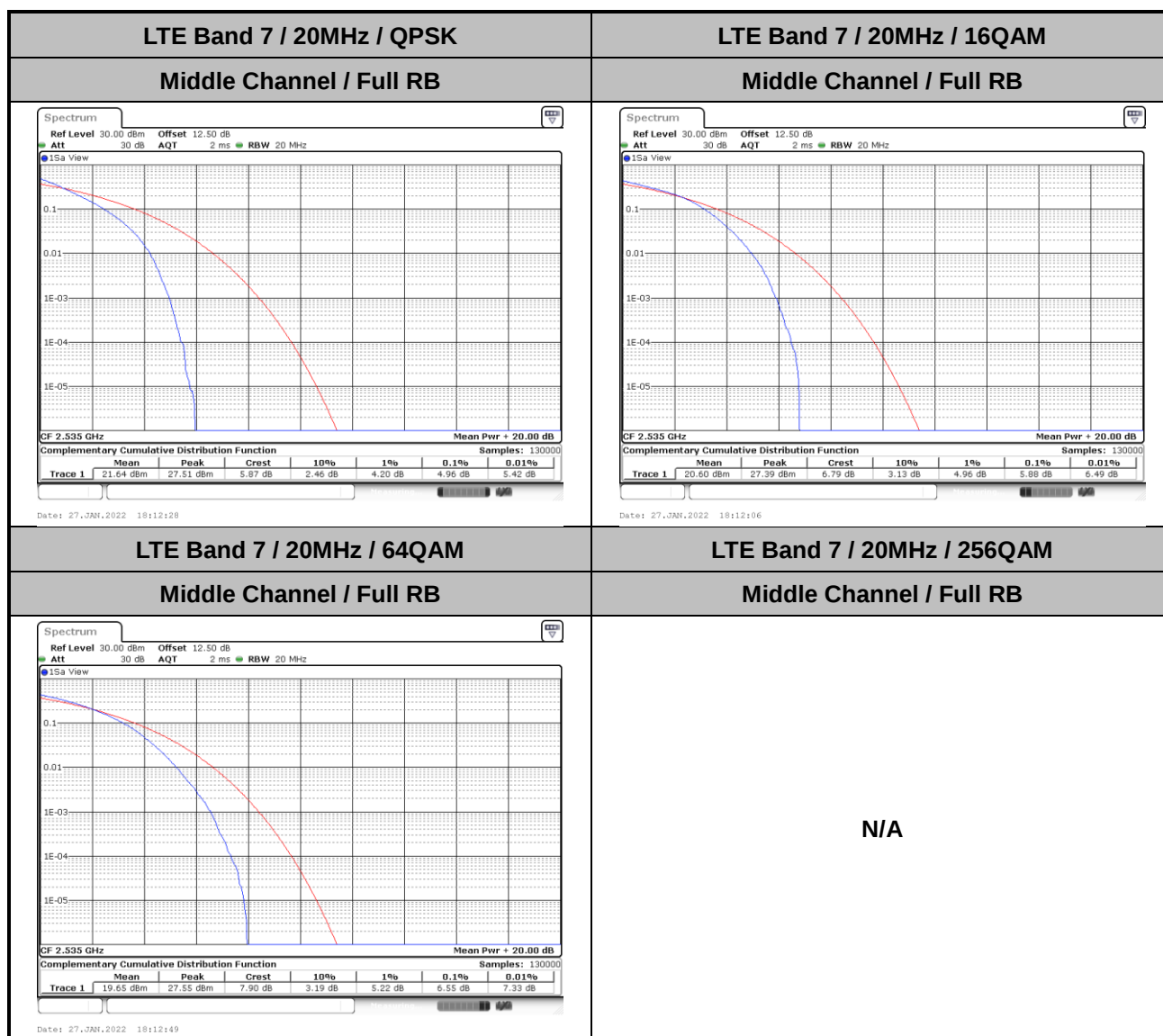
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7

Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.88	6.55	PASS



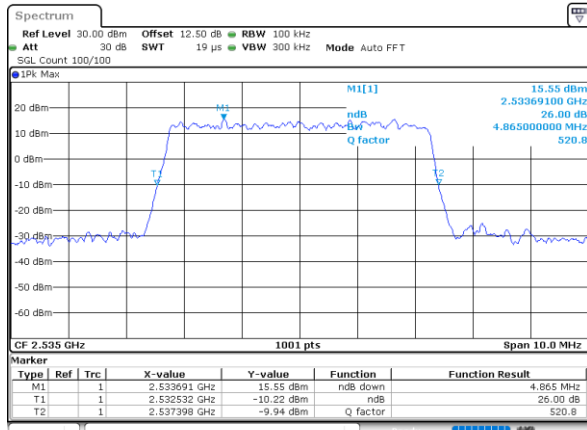
**26dB Bandwidth**

Mode	LTE Band 7 : 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	-	-	-	-	4.87	4.94	9.67	9.73	14.48	14.27	18.98	18.86
Mode	LTE Band 7 : 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	-	-	-	-	4.82	-	9.75	-	14.42	-	18.82	-



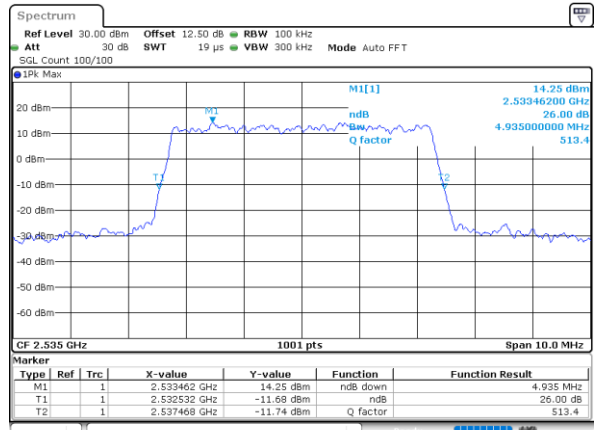
LTE Band 7

Middle Channel / 5MHz / QPSK



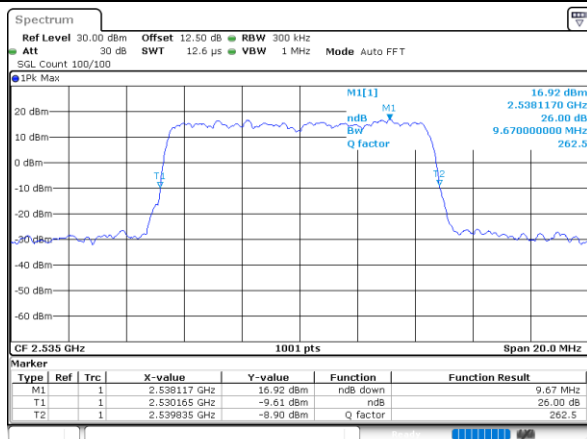
Date: 27.JAN.2022 17:16:40

Middle Channel / 5MHz / 16QAM



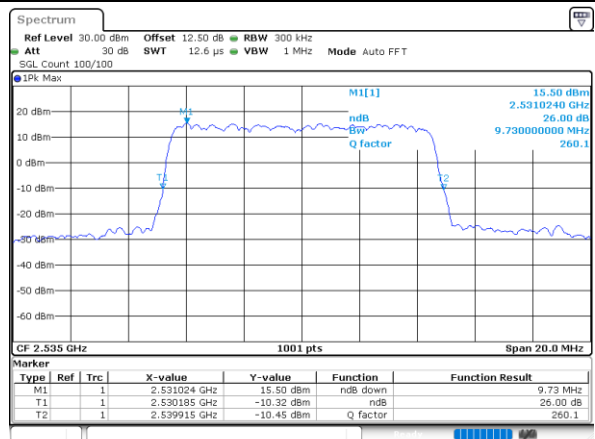
Date: 27.JAN.2022 17:17:00

Middle Channel / 10MHz / QPSK



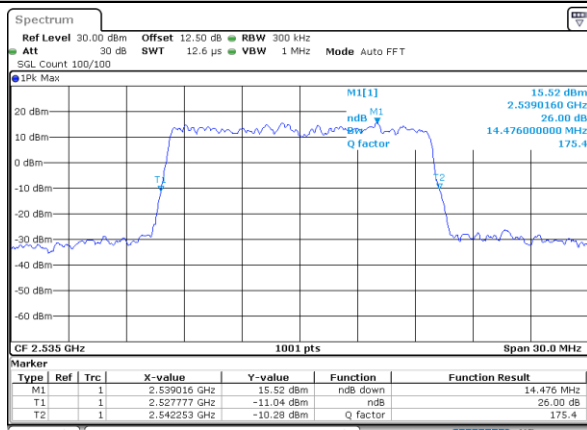
Date: 27.JAN.2022 17:31:47

Middle Channel / 10MHz / 16QAM



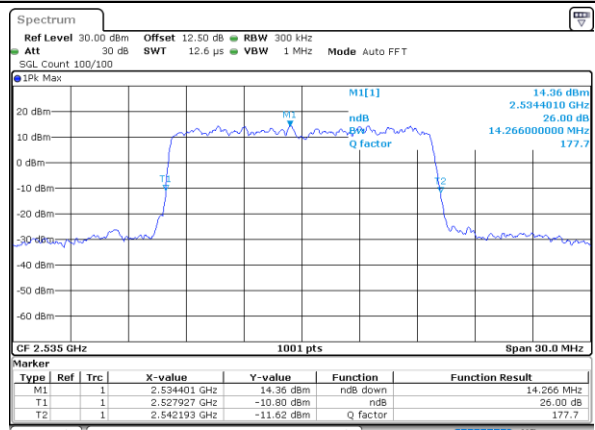
Date: 27.JAN.2022 17:32:07

Middle Channel / 15MHz / QPSK



Date: 27.JAN.2022 17:46:54

Middle Channel / 15MHz / 16QAM

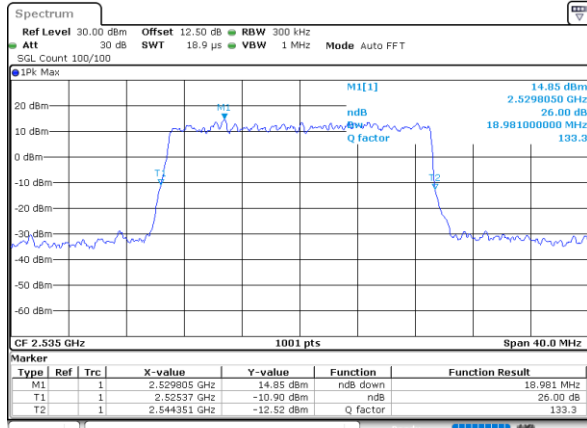


Date: 27.JAN.2022 17:47:15



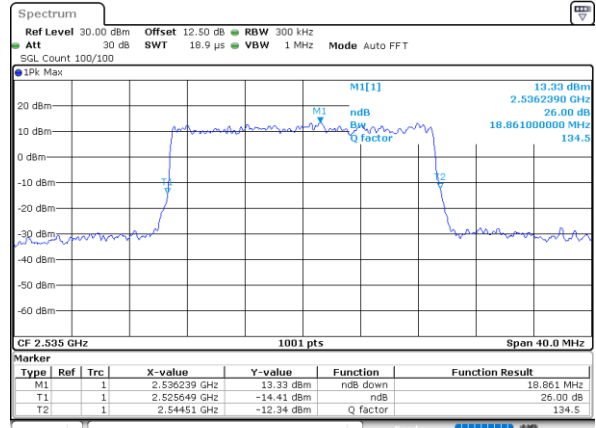
LTE Band 7

Middle Channel / 20MHz / QPSK



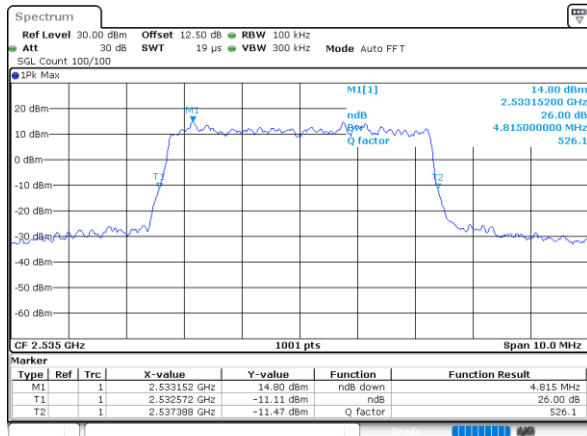
Date: 27.JAN.2022 18:02:01

Middle Channel / 20MHz / 16QAM



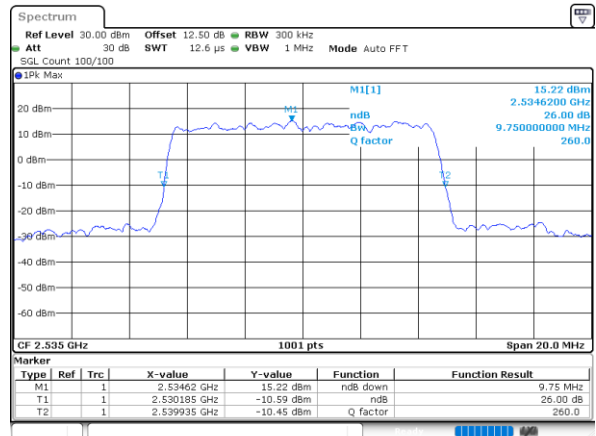
Date: 27.JAN.2022 18:02:21

Middle Channel / 5MHz / 64QAM



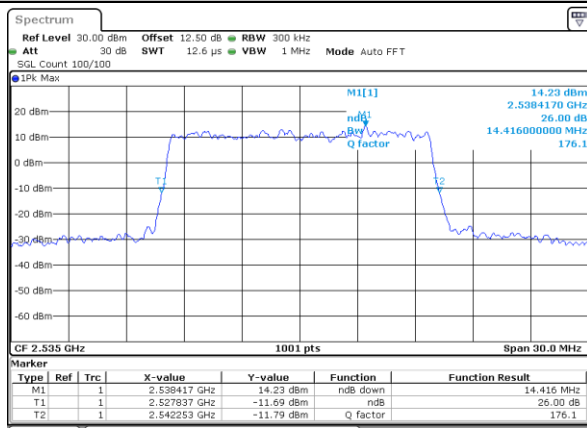
Date: 27.JAN.2022 17:24:43

Middle Channel / 10MHz / 64QAM



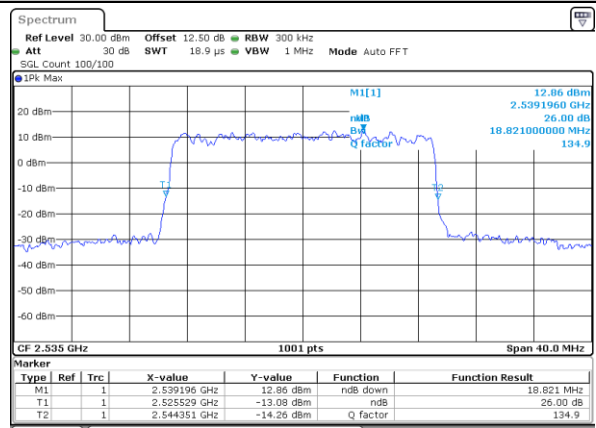
Date: 27.JAN.2022 17:39:49

Middle Channel / 15MHz / 64QAM



Date: 27.JAN.2022 17:54:56

Middle Channel / 20MHz / 64QAM



Date: 27.JAN.2022 18:10:03

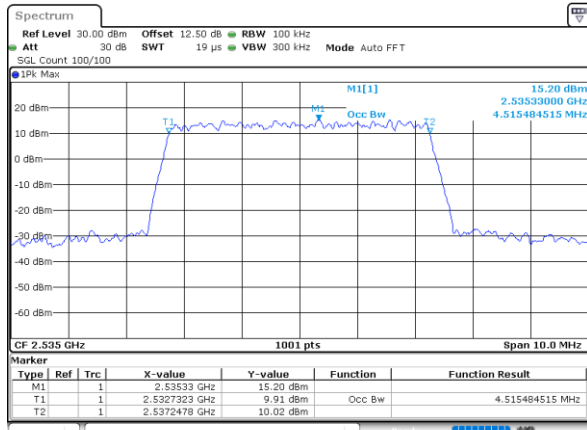
**Occupied Bandwidth**

Mode	LTE Band 7 : 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	4.49	9.11	9.01	13.46	13.49	17.90	17.94
Mode	LTE Band 7 : 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	-	-	-	-	4.51	-	8.99	-	13.49	-	17.90	-



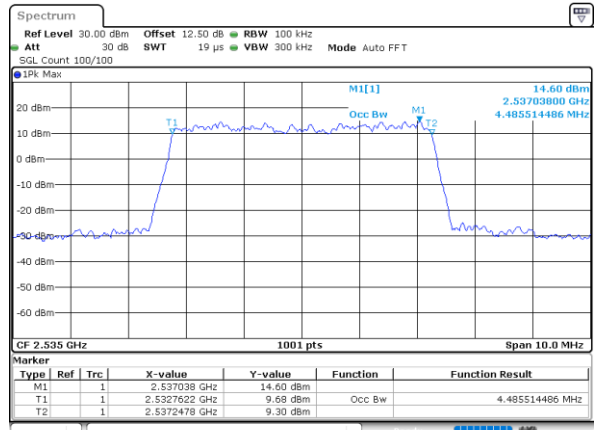
LTE Band 7

Middle Channel / 5MHz / QPSK



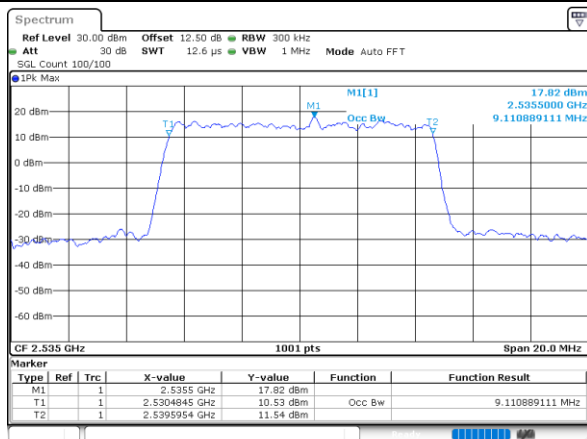
Date: 27.JAN.2022 17:15:59

Middle Channel / 5MHz / 16QAM



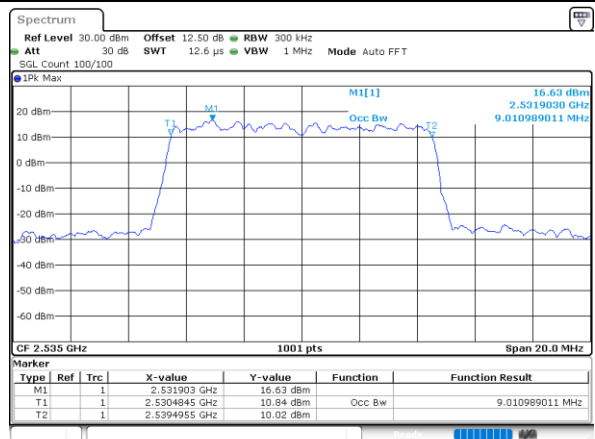
Date: 27.JAN.2022 17:16:19

Middle Channel / 10MHz / QPSK



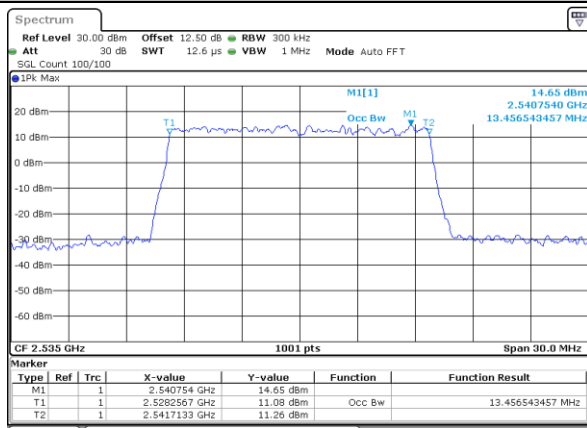
Date: 27.JAN.2022 17:31:06

Middle Channel / 10MHz / 16QAM



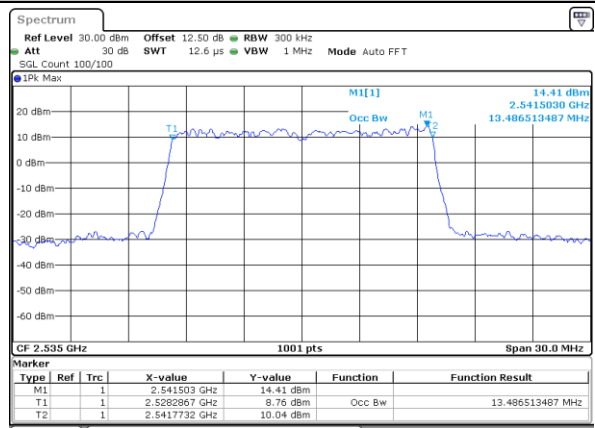
Date: 27.JAN.2022 17:31:26

Middle Channel / 15MHz / QPSK



Date: 27.JAN.2022 17:46:13

Middle Channel / 15MHz / 16QAM

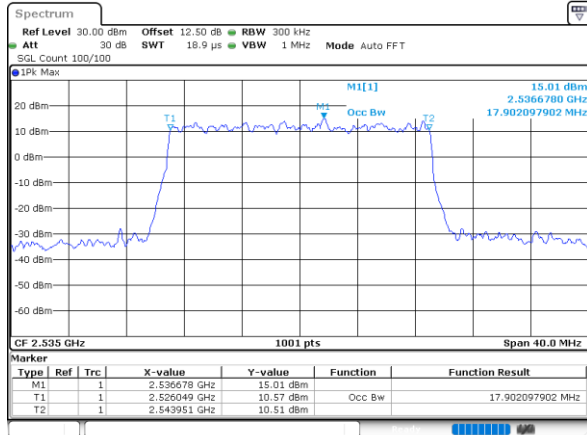


Date: 27.JAN.2022 17:46:34



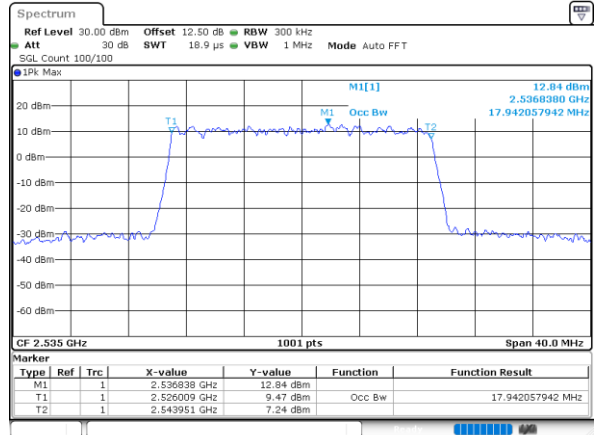
LTE Band 7

Middle Channel / 20MHz / QPSK



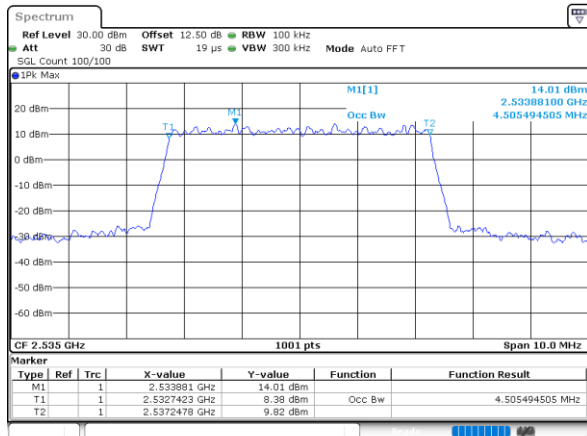
Date: 27.JAN.2022 18:01:20

Middle Channel / 20MHz / 16QAM



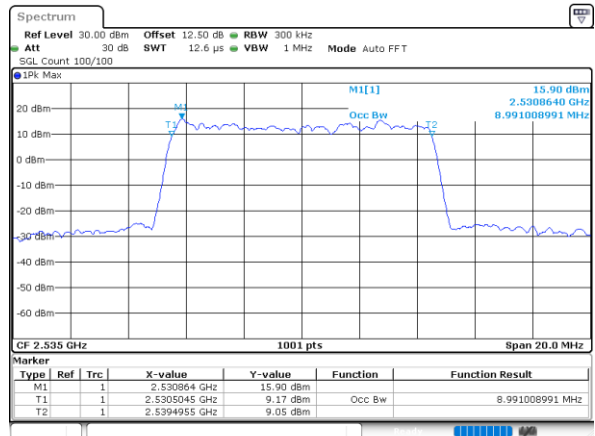
Date: 27.JAN.2022 18:01:40

Middle Channel / 5MHz / 64QAM



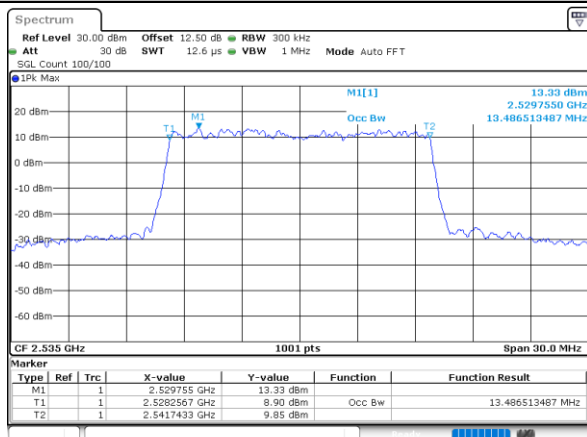
Date: 27.JAN.2022 17:24:23

Middle Channel / 10MHz / 64QAM



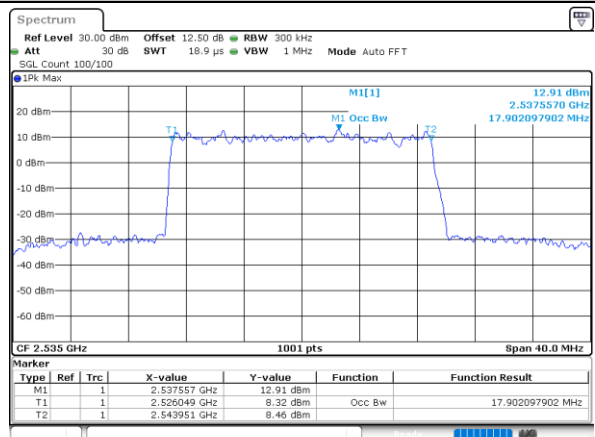
Date: 27.JAN.2022 17:39:29

Middle Channel / 15MHz / 64QAM

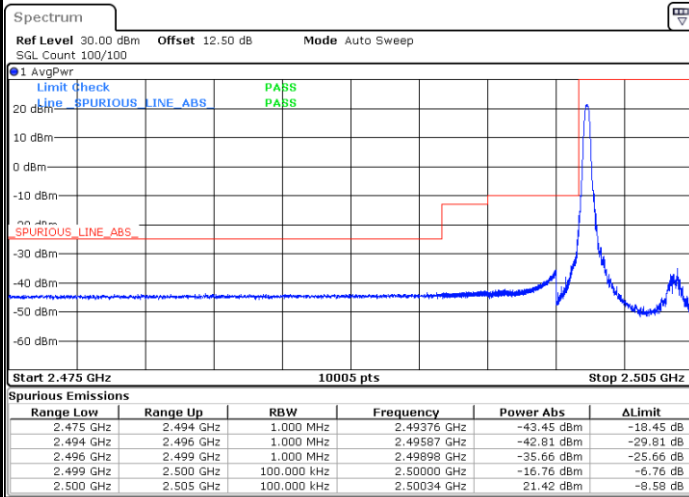
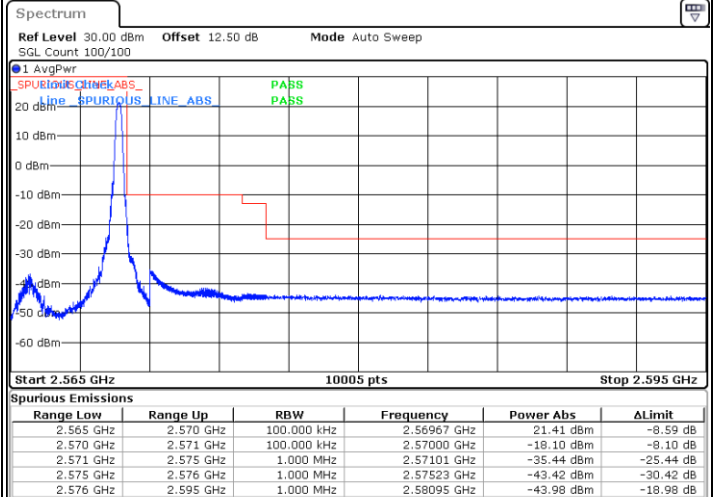
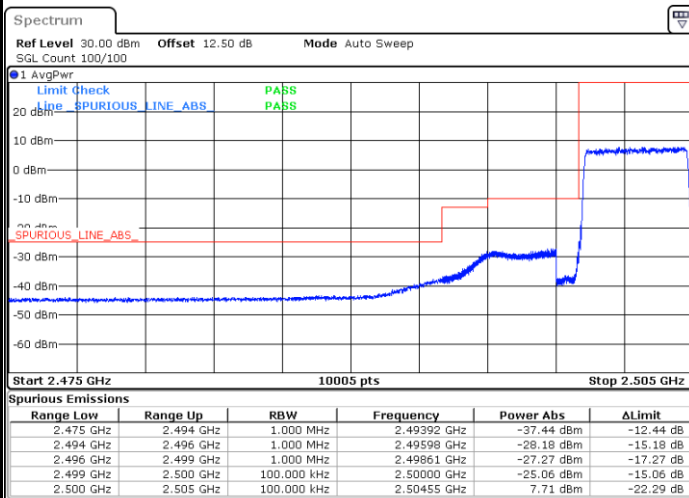
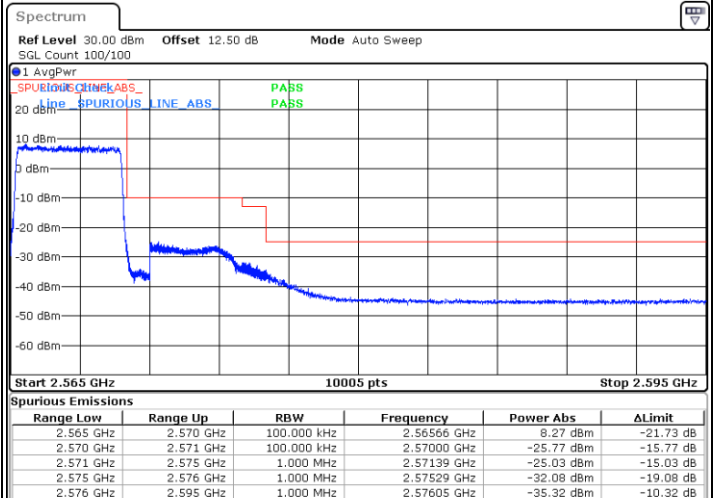


Date: 27.JAN.2022 17:54:35

Middle Channel / 20MHz / 64QAM



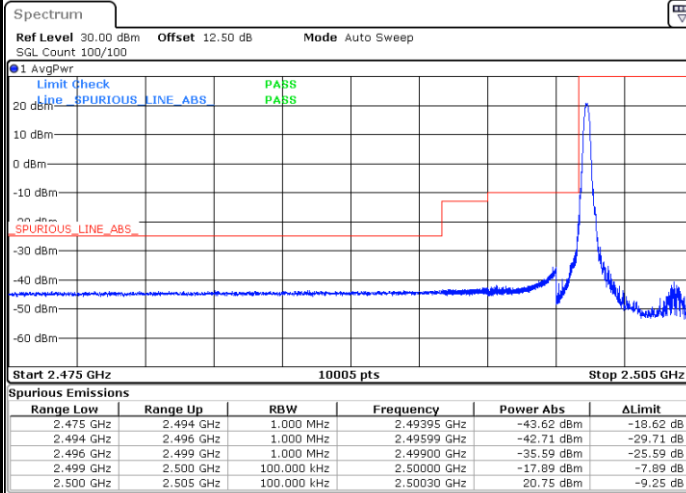
Date: 27.JAN.2022 18:09:43

**Conducted Band Edge****LTE Band 7 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

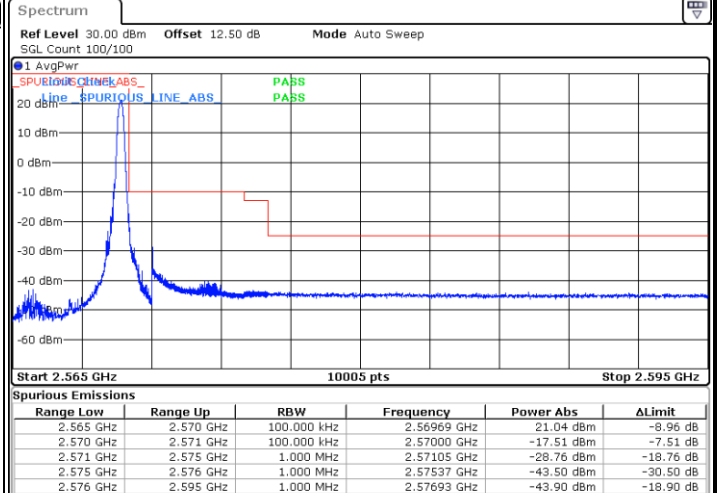


LTE Band 7 / 5MHz / 16QAM

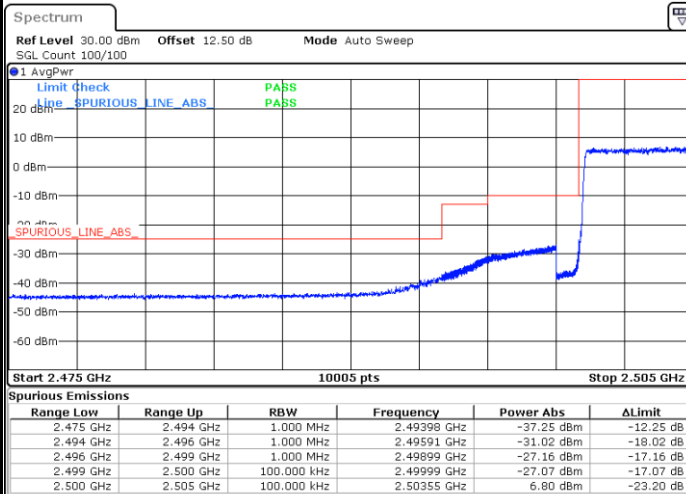
Lowest Band Edge / 1RB



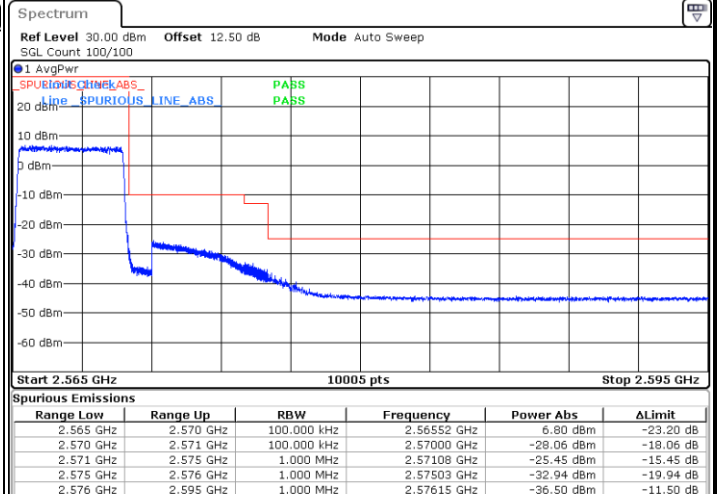
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



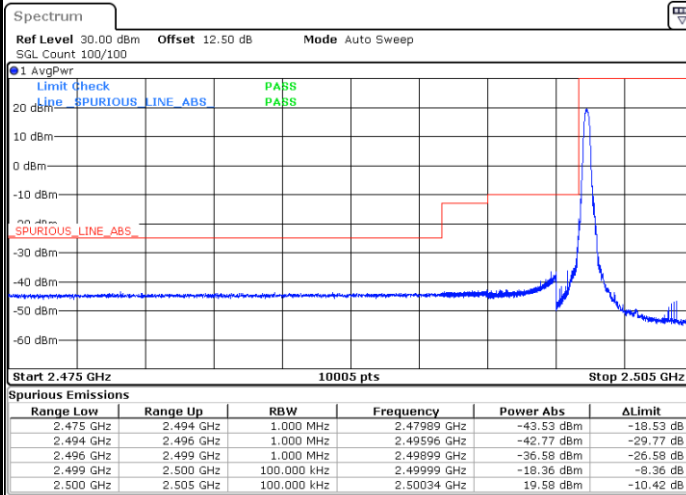
Highest Band Edge / Full RB



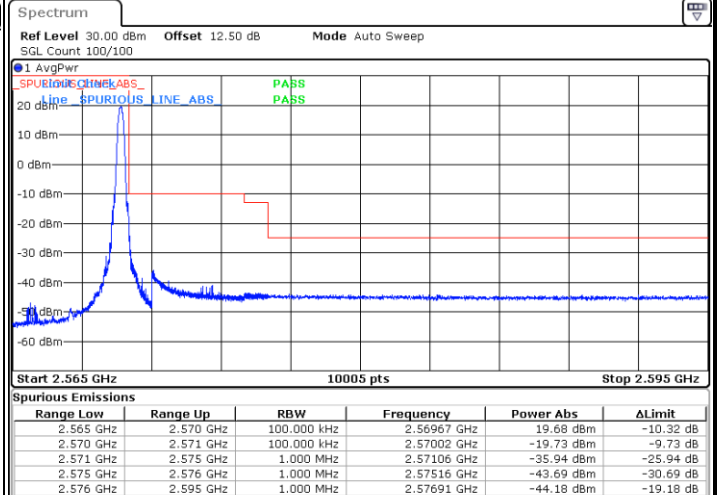


LTE Band 7 / 5MHz / 64QAM

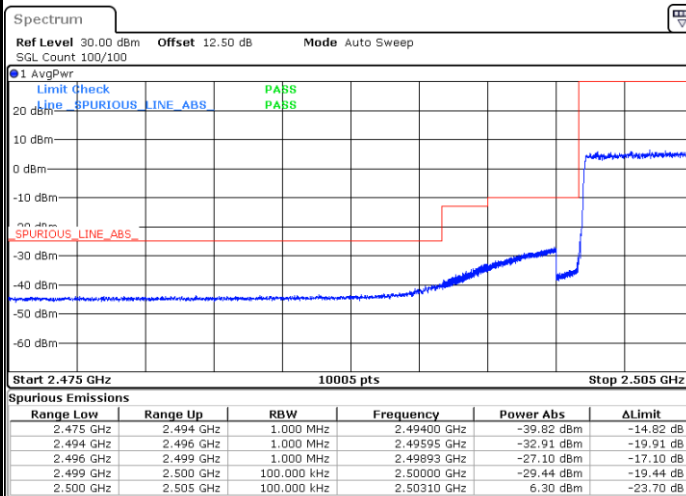
Lowest Band Edge / 1RB



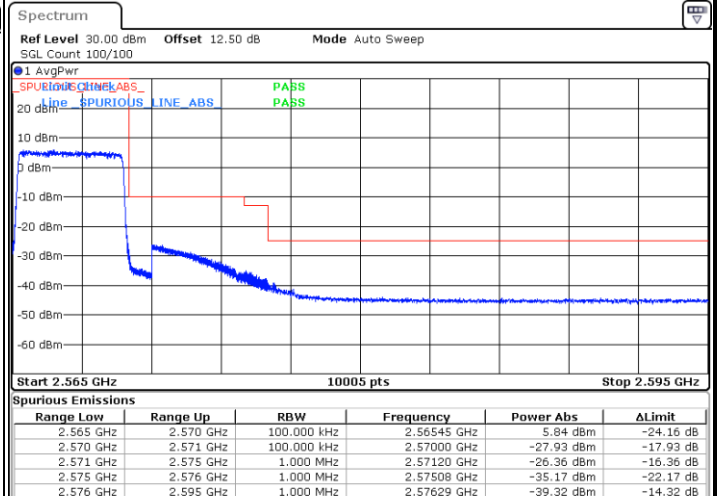
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



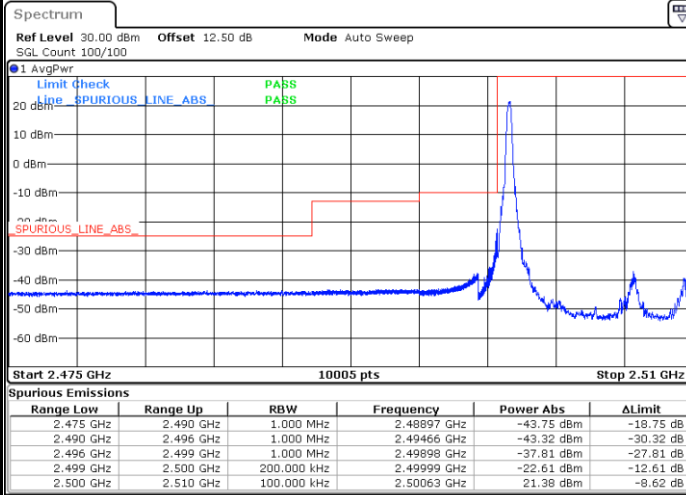
Highest Band Edge / Full RB



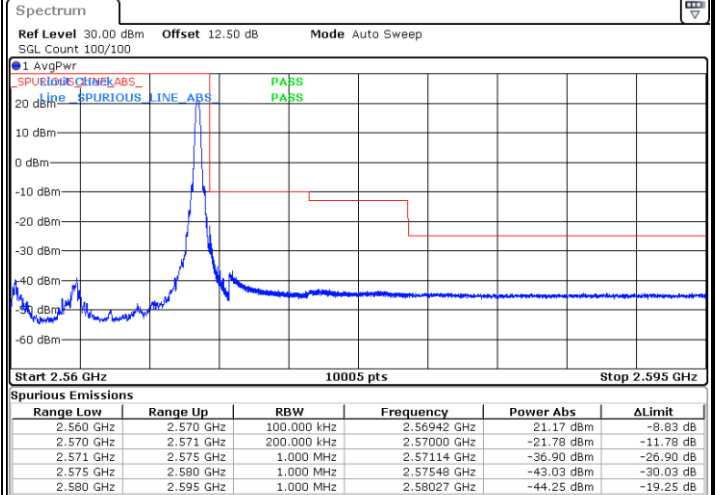


LTE Band 7 / 10MHz / QPSK

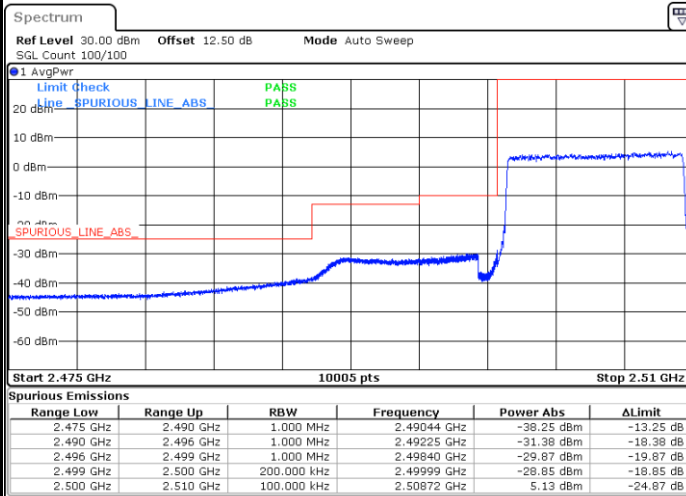
Lowest Band Edge / 1 RB



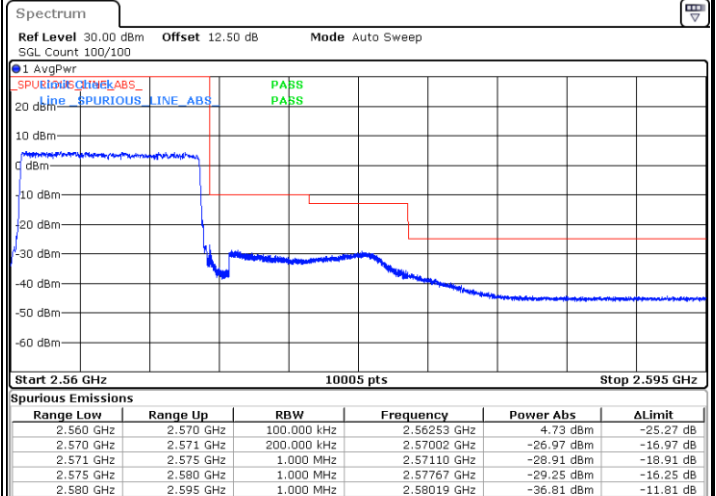
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



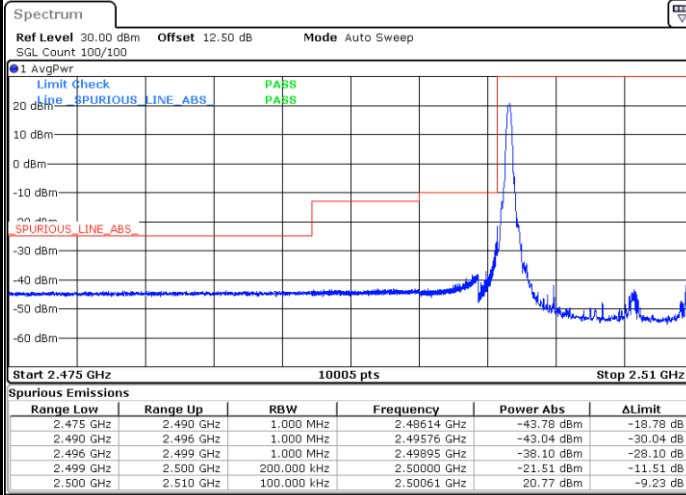
Highest Band Edge / Full RB





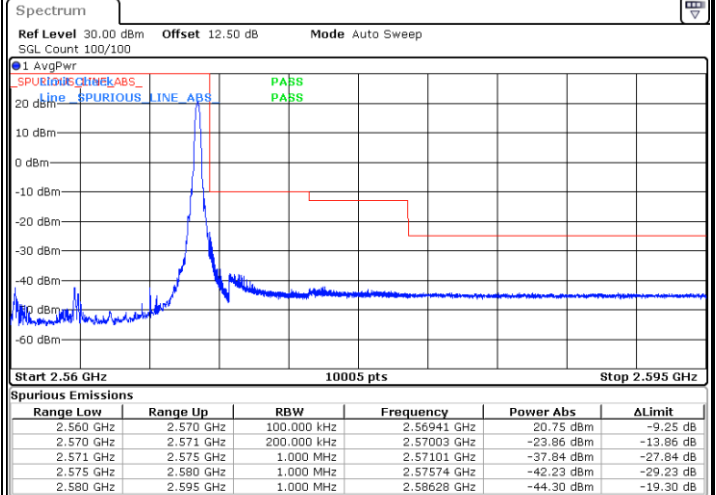
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



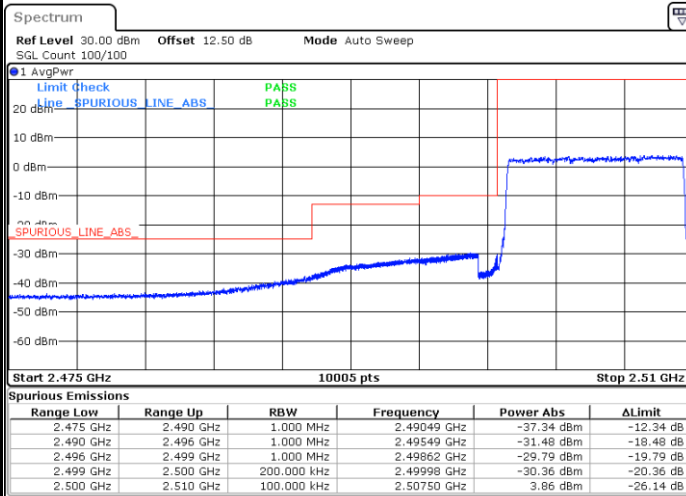
Date: 27.JAN.2022 17:28:05

Highest Band Edge / 1 RB



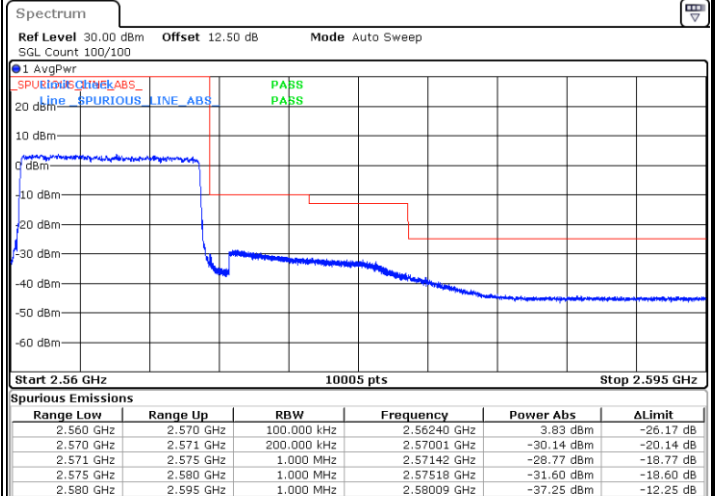
Date: 27.JAN.2022 17:34:47

Lowest Band Edge / Full RB



Date: 27.JAN.2022 17:29:46

Highest Band Edge / Full RB

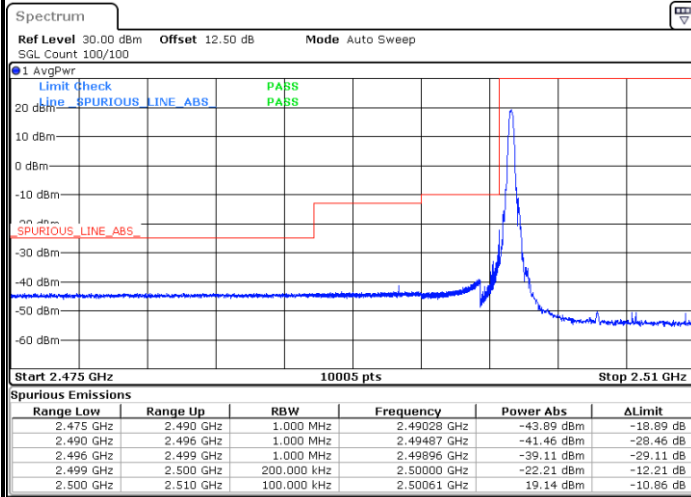


Date: 27.JAN.2022 17:36:27

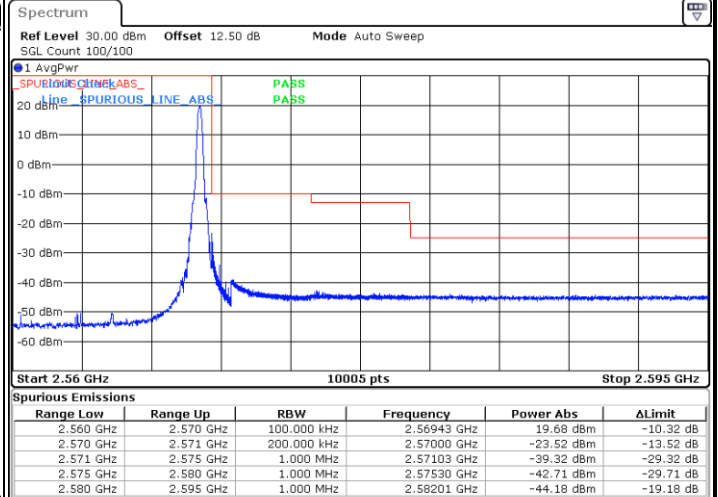


LTE Band 7 / 10MHz / 64QAM

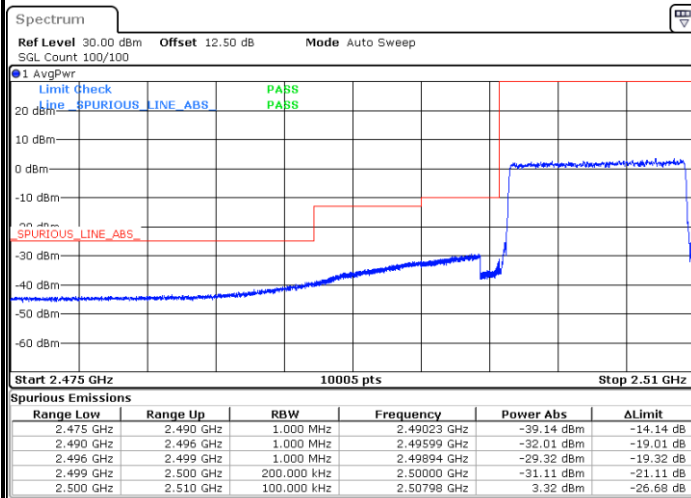
Lowest Band Edge / 1 RB



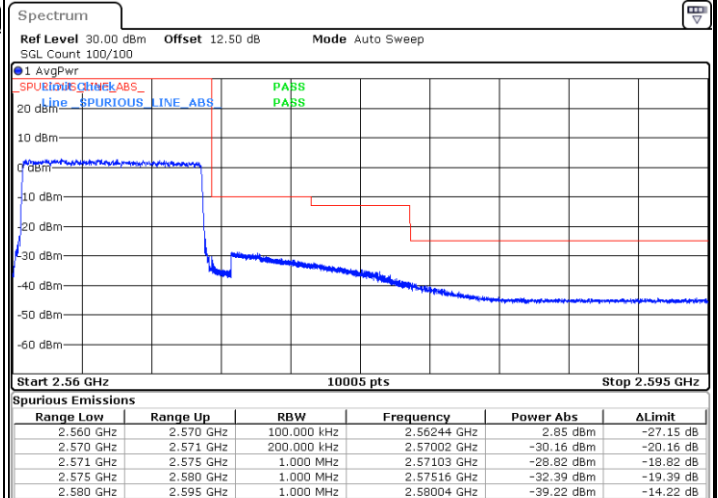
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



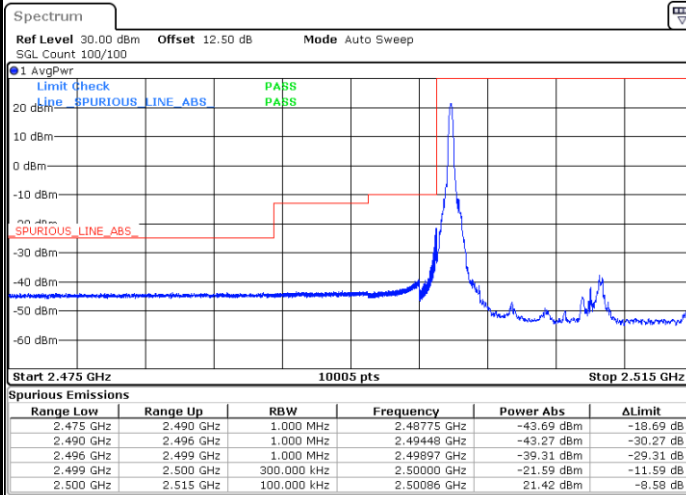
Highest Band Edge / Full RB



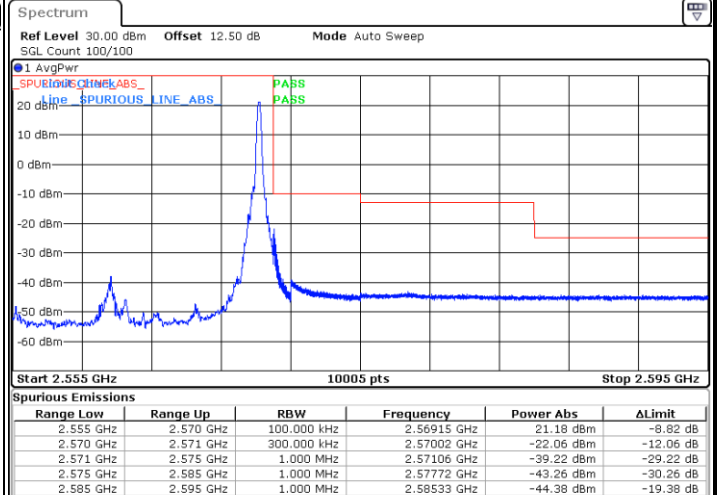


LTE Band 7 / 15MHz / QPSK

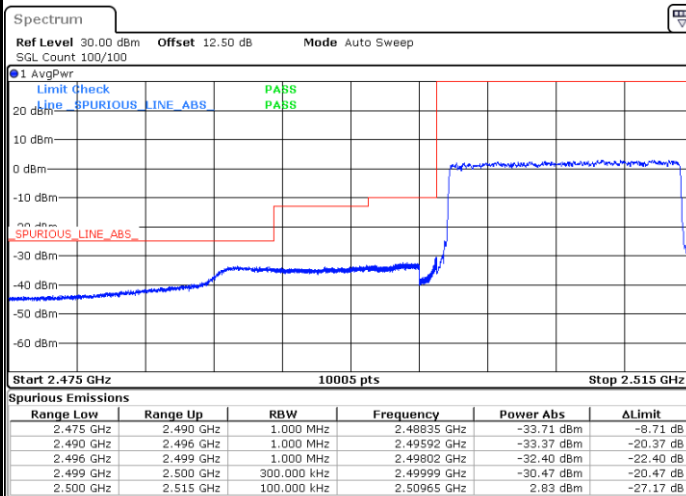
Lowest Band Edge / 1 RB



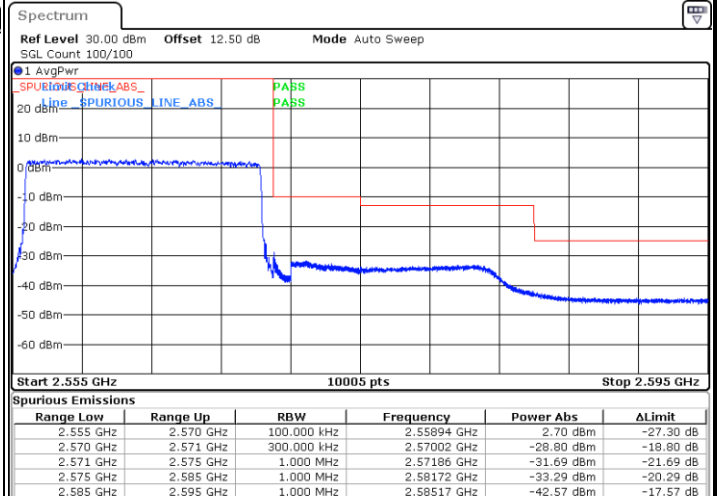
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



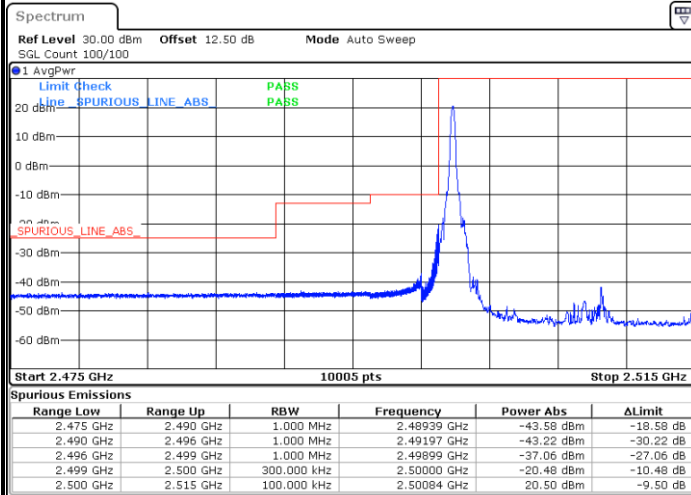
Highest Band Edge / Full RB



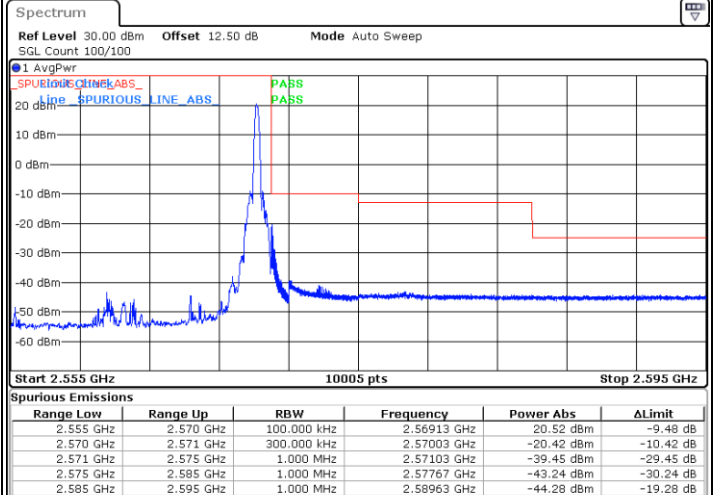


LTE Band 7 / 15MHz / 16QAM

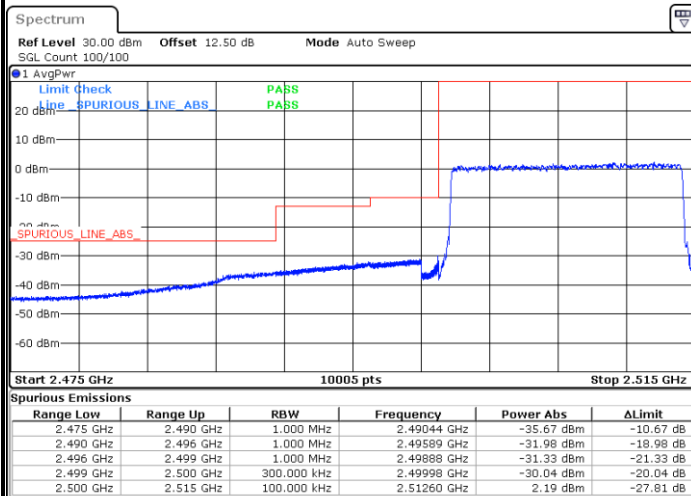
Lowest Band Edge / 1 RB



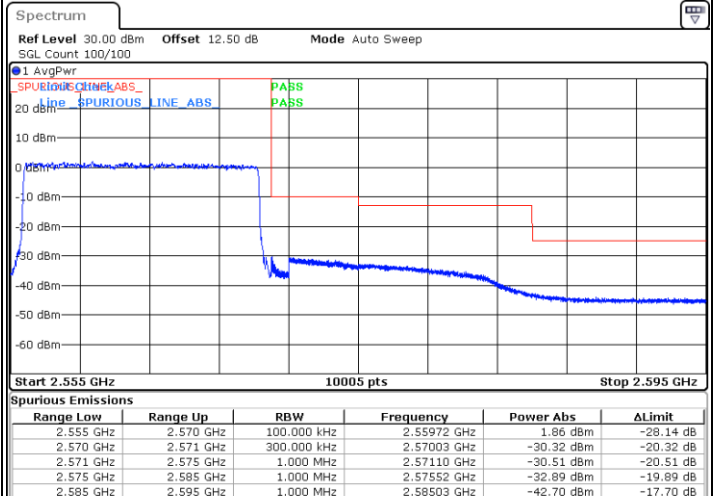
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



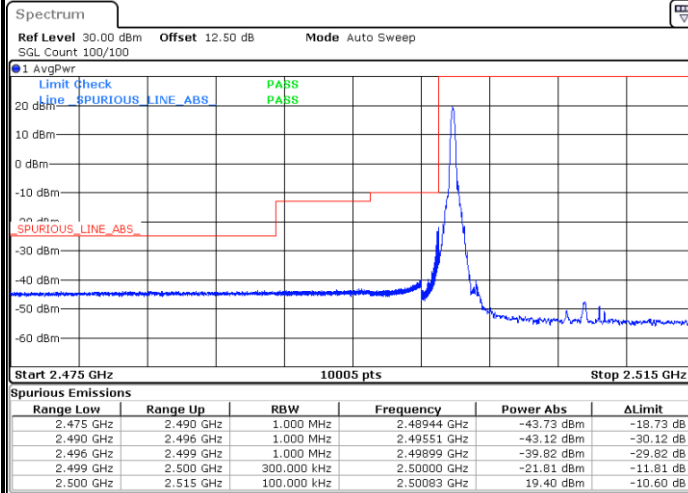
Highest Band Edge / Full RB



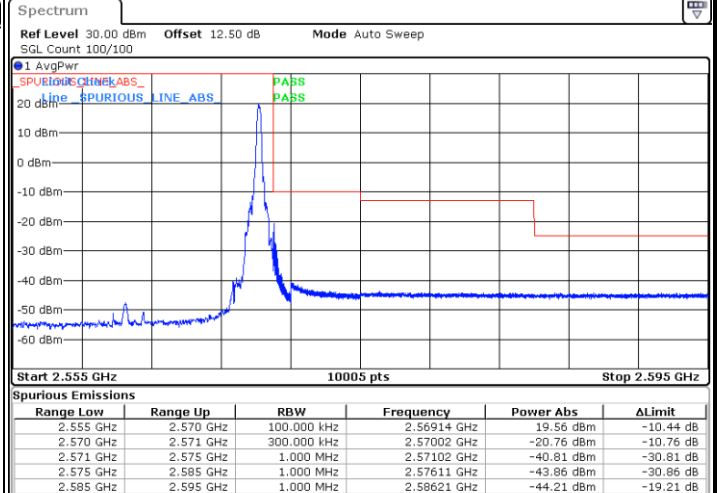


LTE Band 7 / 15MHz / 64QAM

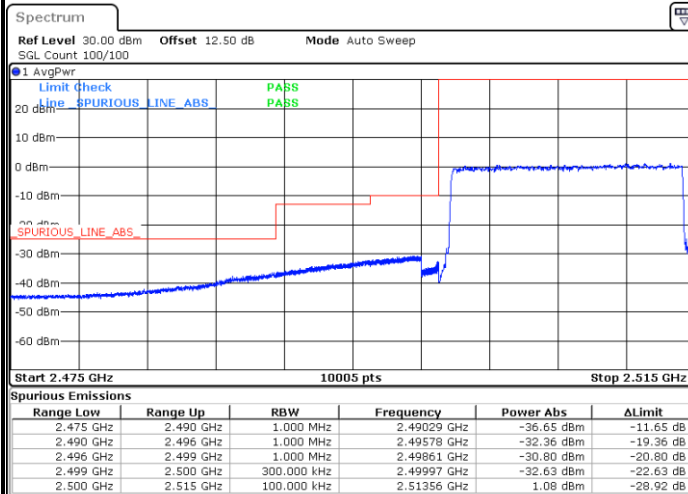
Lowest Band Edge / 1 RB



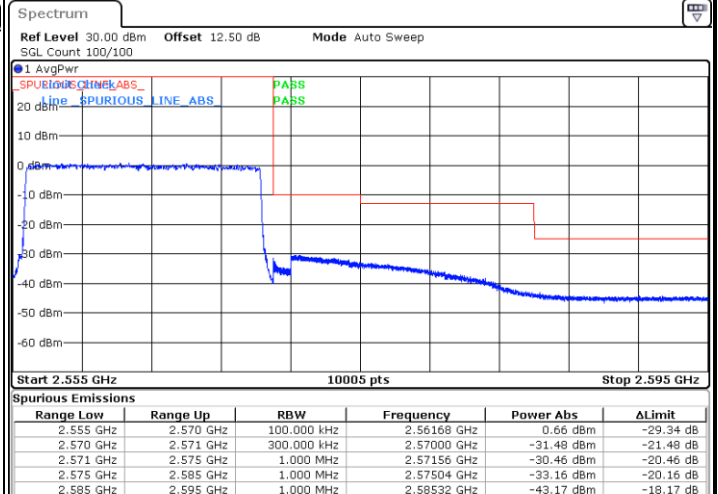
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



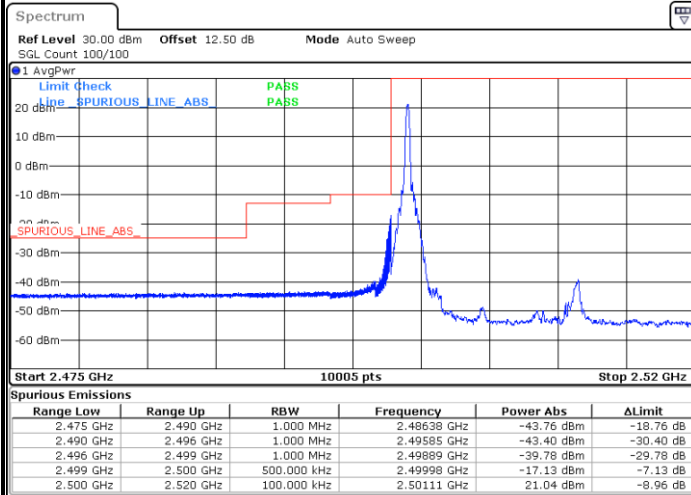
Highest Band Edge / Full RB



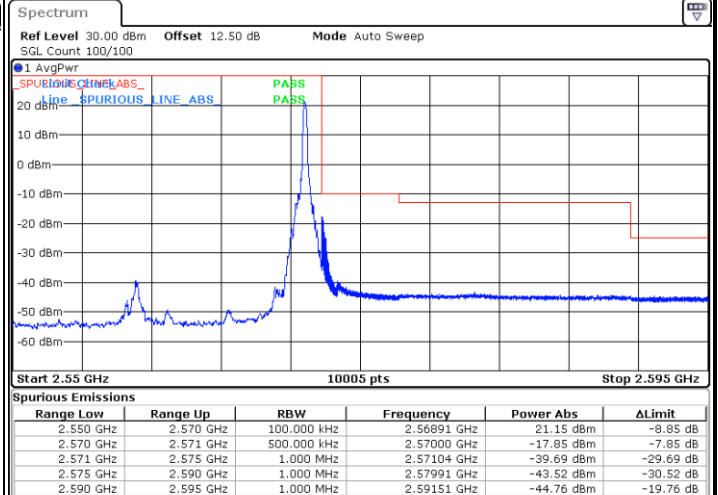


LTE Band 7 / 20MHz / QPSK

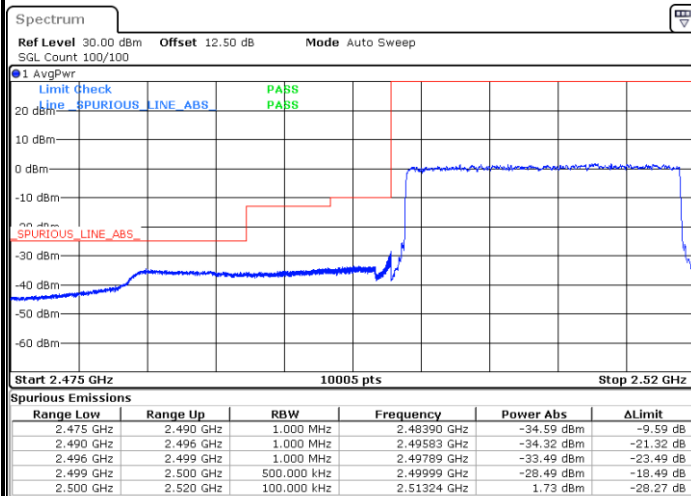
Lowest Band Edge / 1 RB



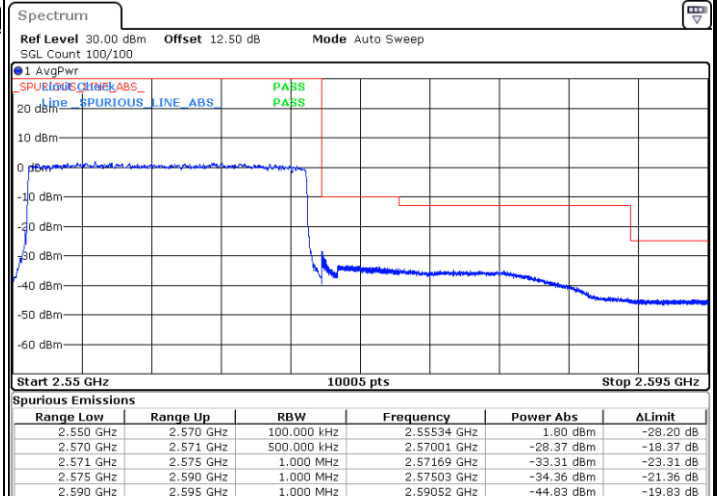
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



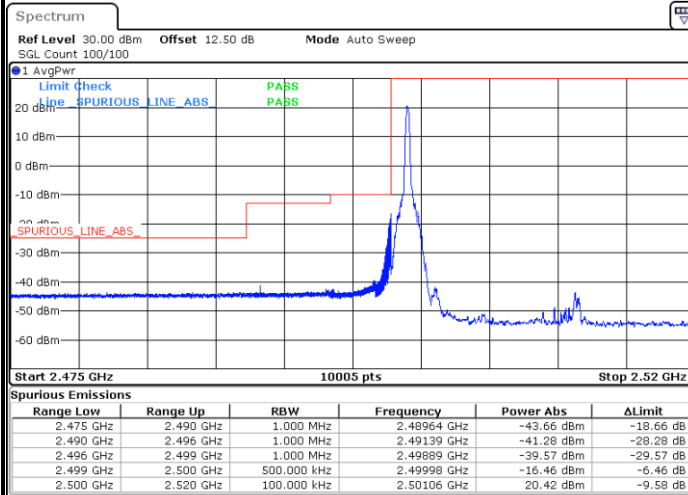
Highest Band Edge / Full RB



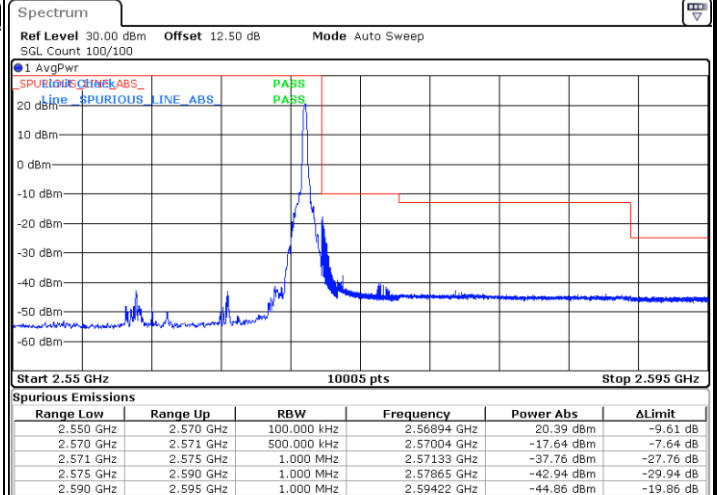


LTE Band 7 / 20MHz / 16QAM

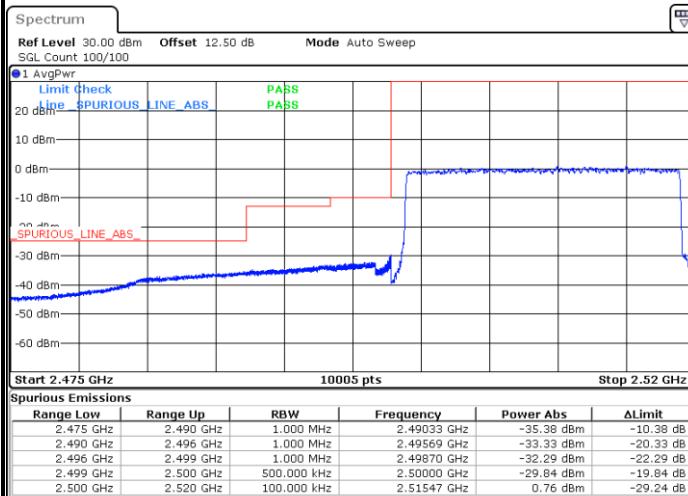
Lowest Band Edge / 1 RB



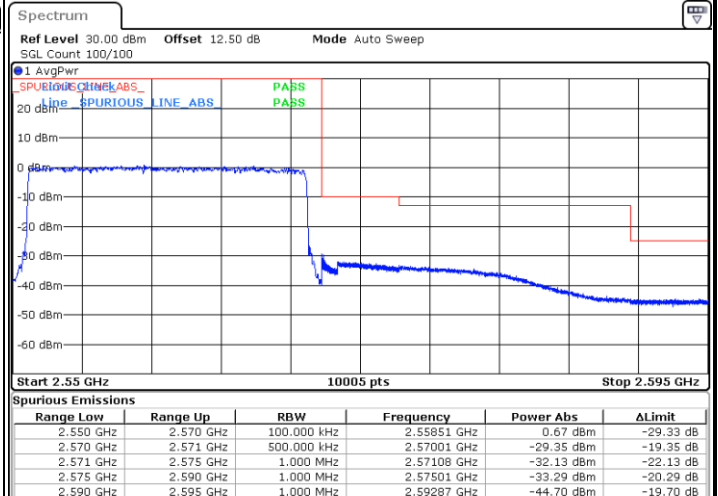
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



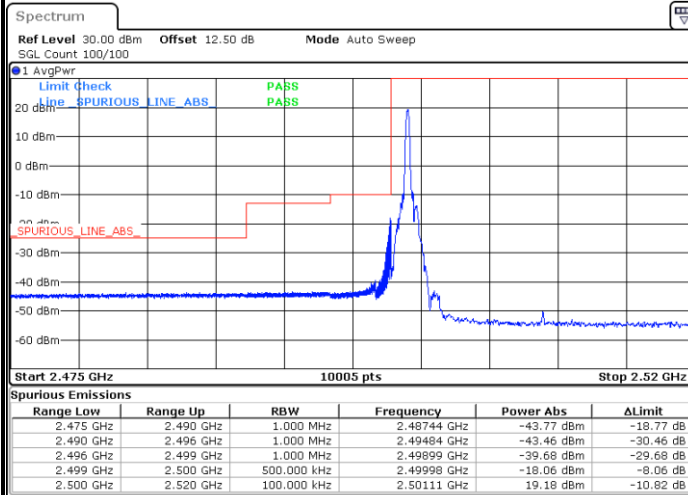
Highest Band Edge / Full RB



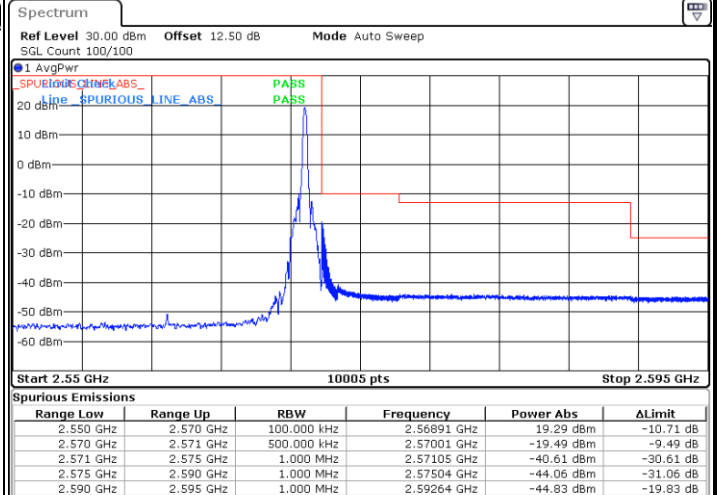


LTE Band 7 / 20MHz / 64QAM

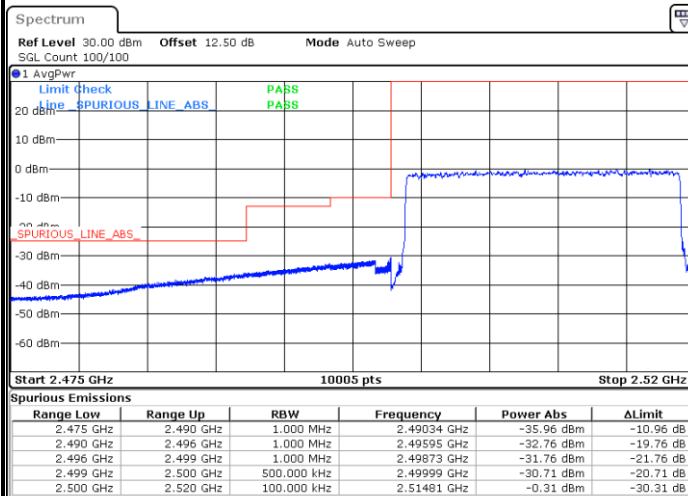
Lowest Band Edge / 1 RB



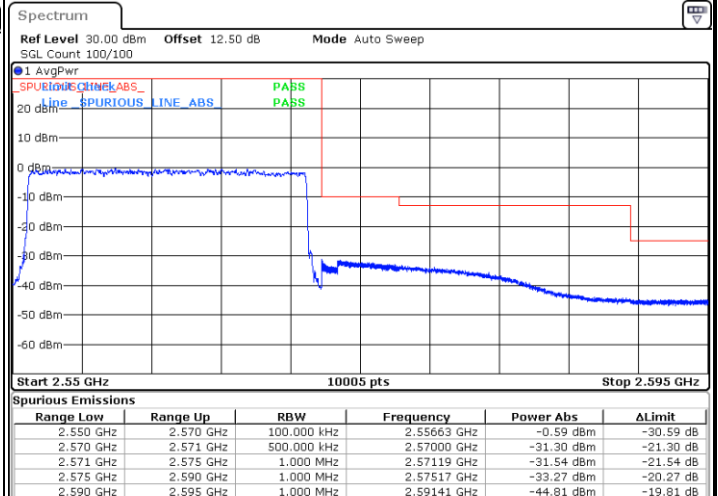
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

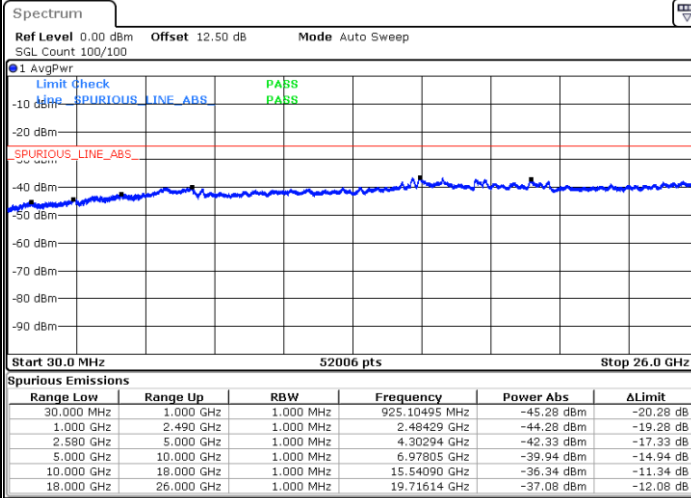




Conducted Spurious Emission

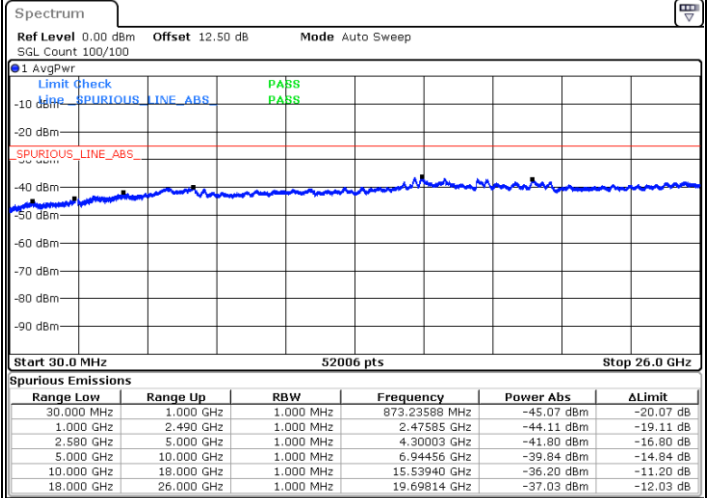
LTE Band 7 / 5MHz

Lowest Channel / QPSK



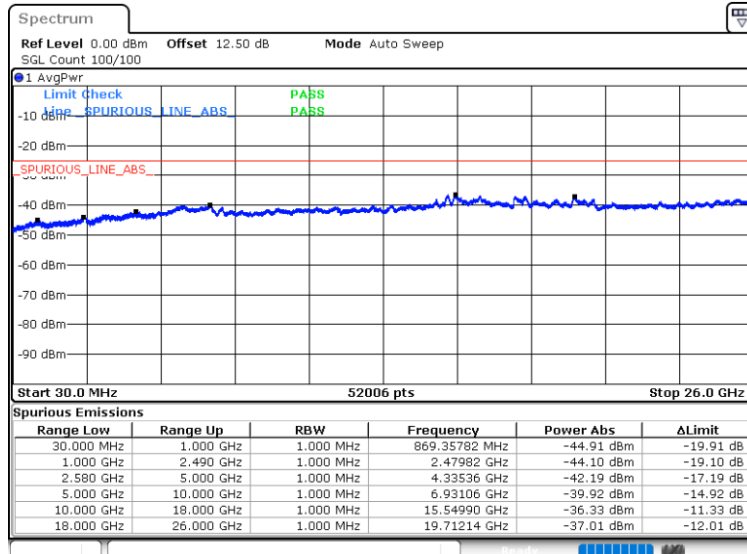
Date: 27.JAN.2022 17:15:37

Middle Channel / QPSK



Date: 27.JAN.2022 17:17:58

Highest Channel / QPSK

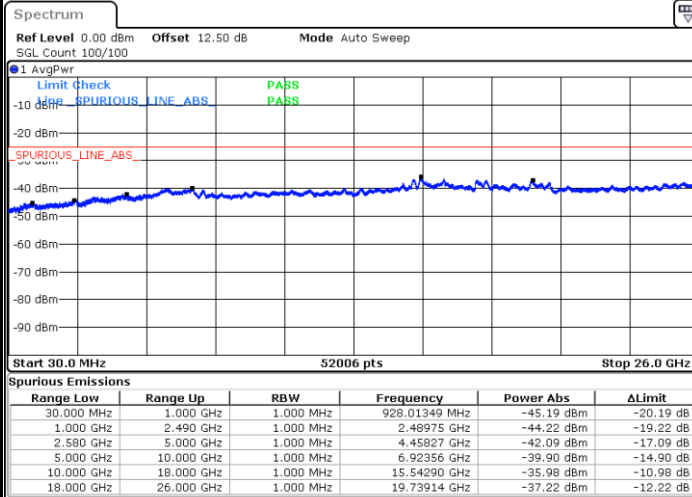


Date: 27.JAN.2022 17:22:20



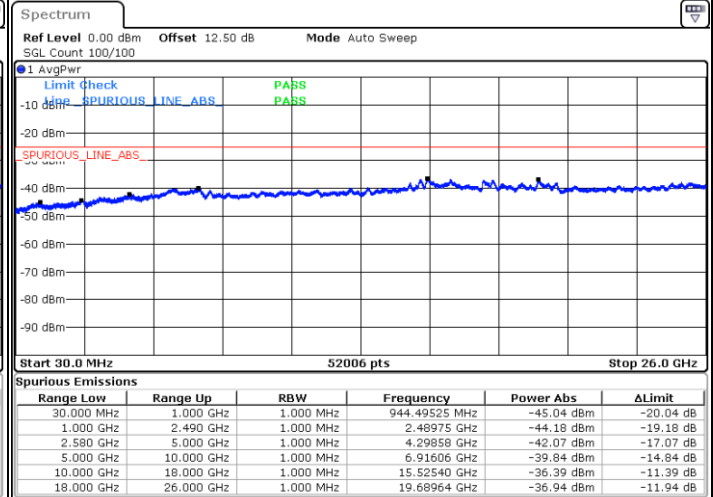
LTE Band 7 / 10MHz

Lowest Channel / QPSK



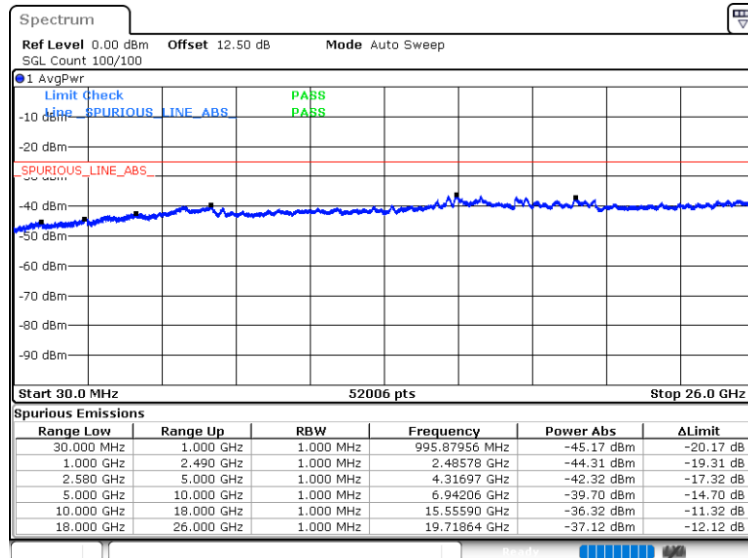
Date: 27.JAN.2022 17:30:45

Middle Channel / QPSK



Date: 27.JAN.2022 17:33:06

Highest Channel / QPSK

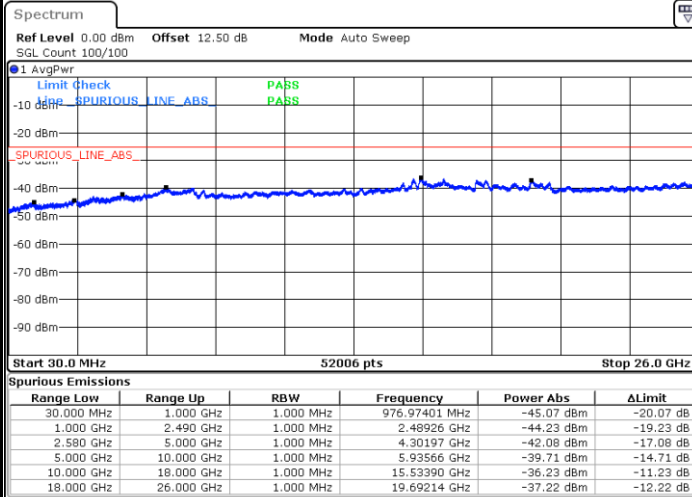


Date: 27.JAN.2022 17:37:27



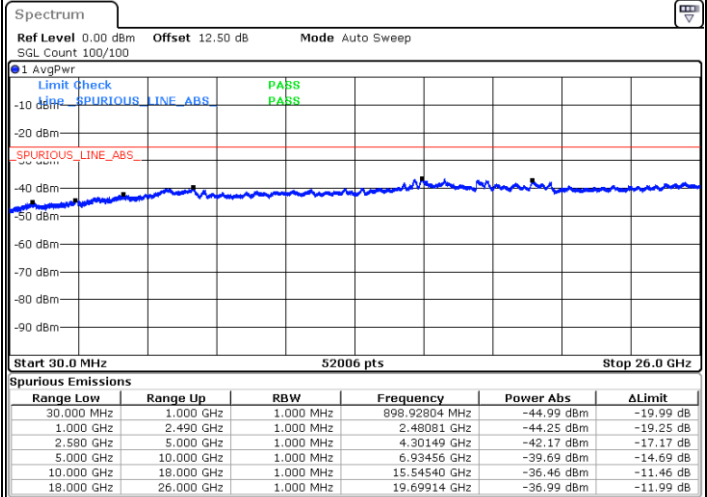
LTE Band 7 / 15MHz

Lowest Channel / QPSK



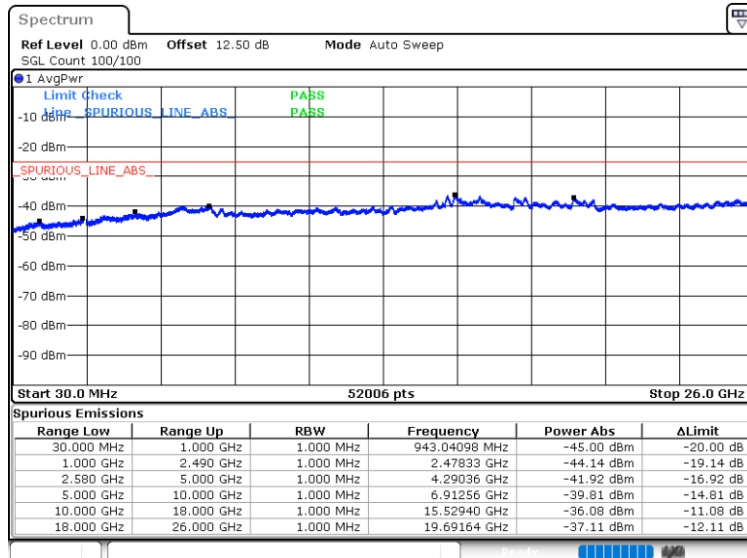
Date: 27.JAN.2022 17:45:52

Middle Channel / QPSK



Date: 27.JAN.2022 17:48:13

Highest Channel / QPSK

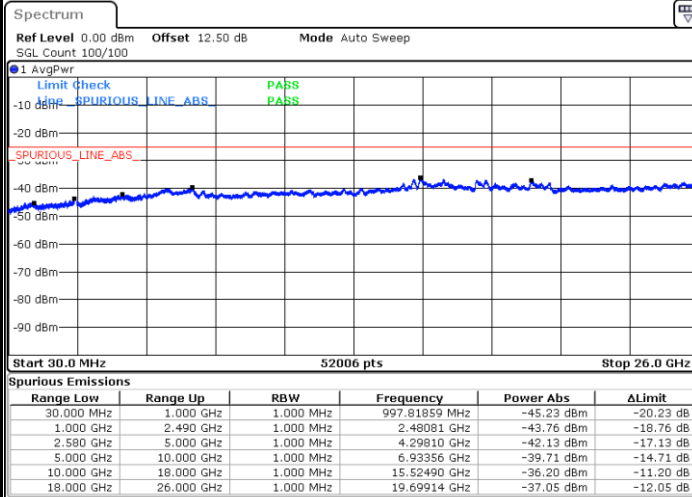


Date: 27.JAN.2022 17:52:33



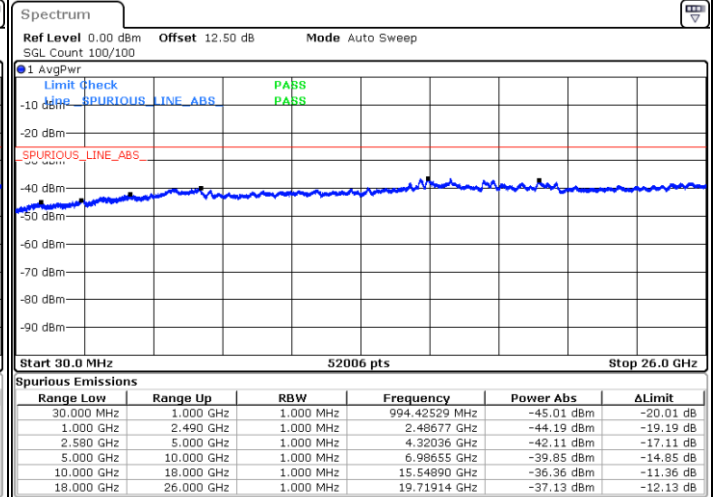
LTE Band 7 / 20MHz

Lowest Channel / QPSK



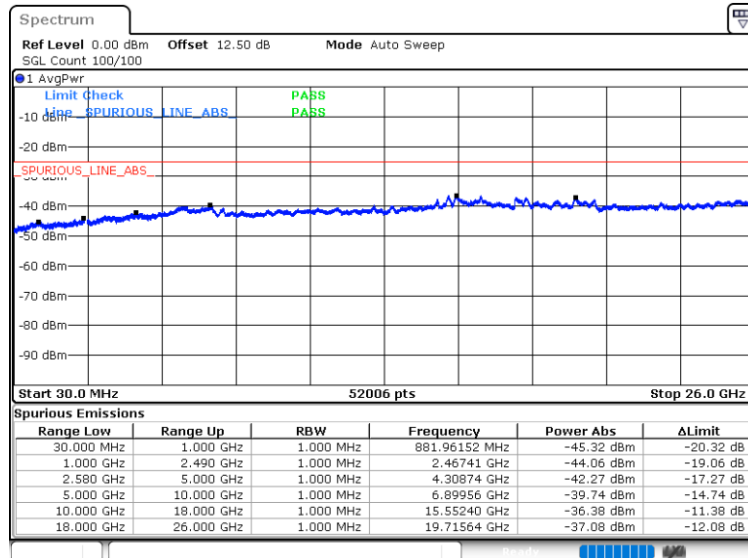
Date: 27.JAN.2022 18:00:58

Middle Channel / QPSK



Date: 27.JAN.2022 18:03:20

Highest Channel / QPSK



Date: 27.JAN.2022 18:07:40

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	0.0022	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0050	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

Note:

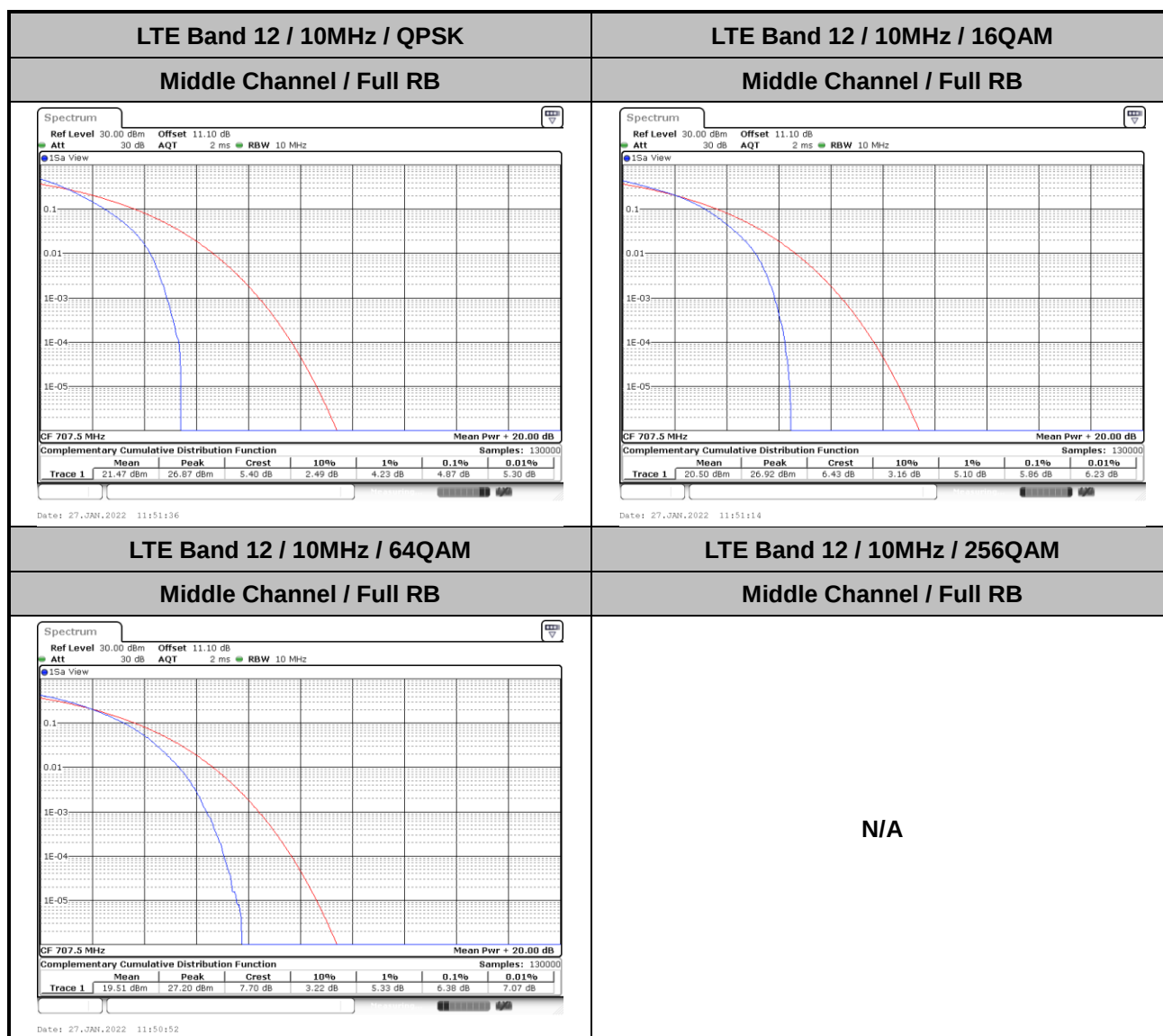
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.87	5.86	6.38	PASS



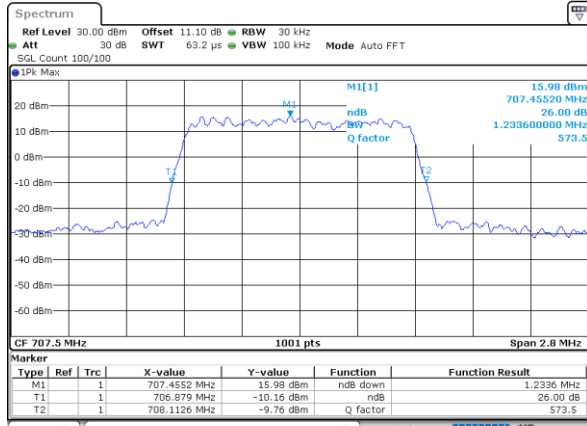
**26dB Bandwidth**

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	3.03	2.96	4.93	4.94	9.63	9.65	-	-	-	-
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	-	3.01	-	4.88	-	9.83	-	-	-	-	-



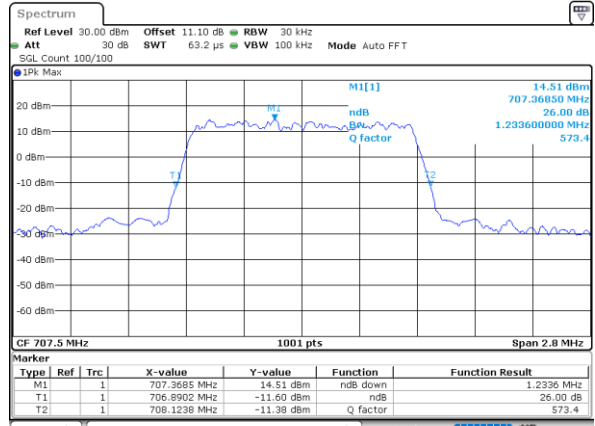
LTE Band 12

Middle Channel / 1.4MHz / QPSK



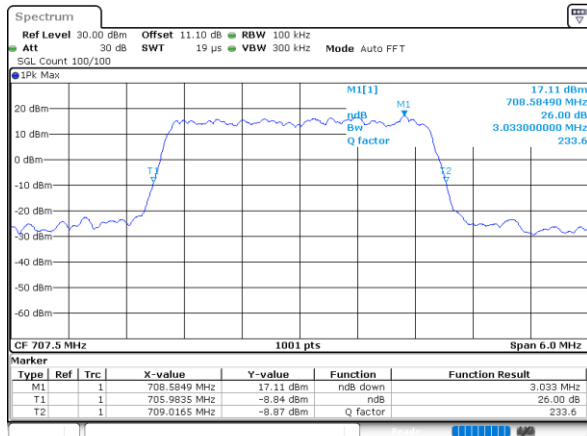
Date: 27.JAN.2022 11:00:30

Middle Channel / 1.4MHz / 16QAM



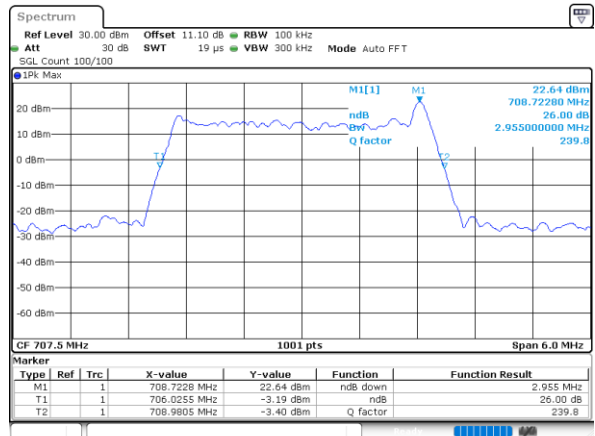
Date: 27.JAN.2022 11:00:59

Middle Channel / 3MHz / QPSK



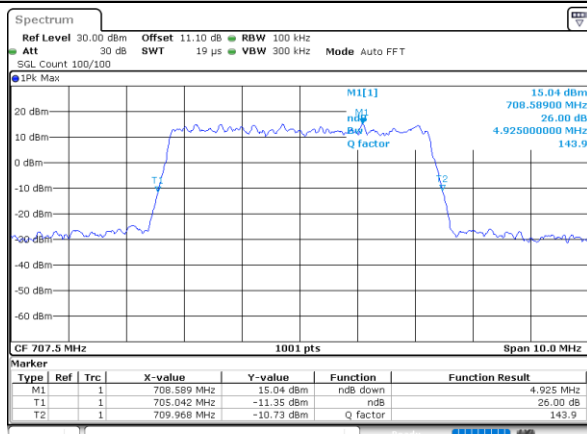
Date: 27.JAN.2022 11:14:18

Middle Channel / 3MHz / 16QAM



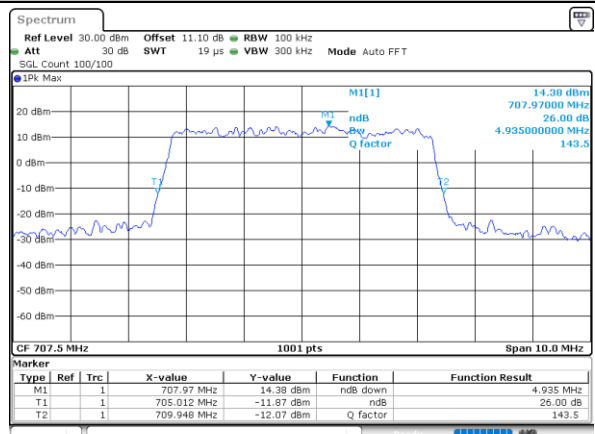
Date: 27.JAN.2022 11:14:39

Middle Channel / 5MHz / QPSK



Date: 27.JAN.2022 11:31:23

Middle Channel / 5MHz / 16QAM



Date: 27.JAN.2022 13:51:36