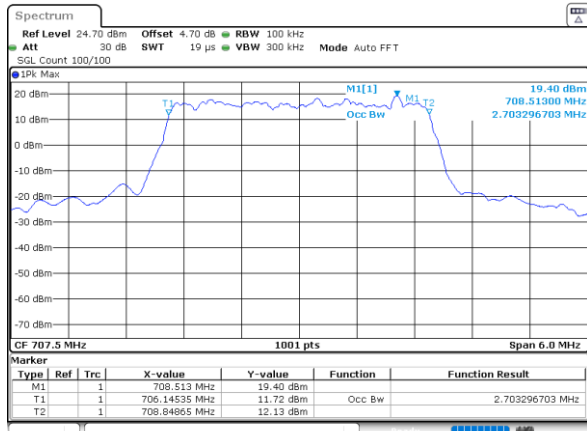


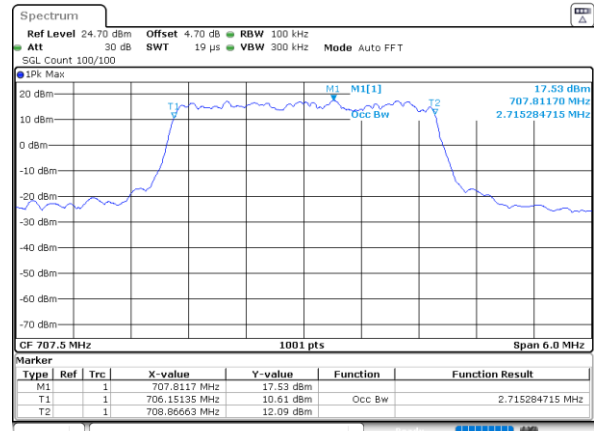


LTE Band 12

Middle Channel / 3MHz / QPSK

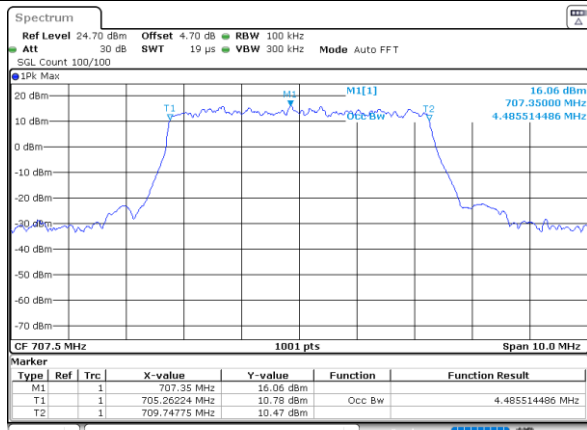


Middle Channel / 3MHz / 16QAM

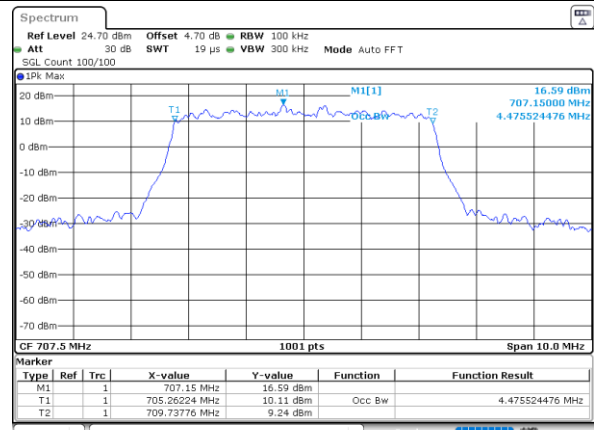


LTE Band 12

Middle Channel / 5MHz / QPSK

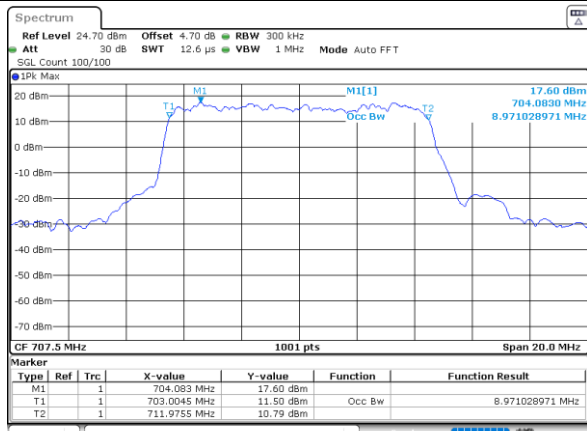


Middle Channel / 5MHz / 16QAM

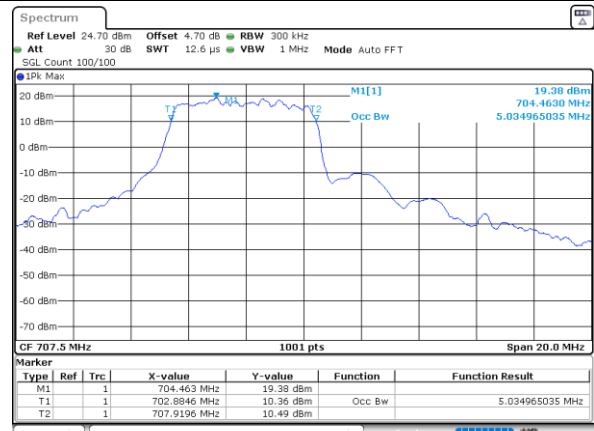


LTE Band 12

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

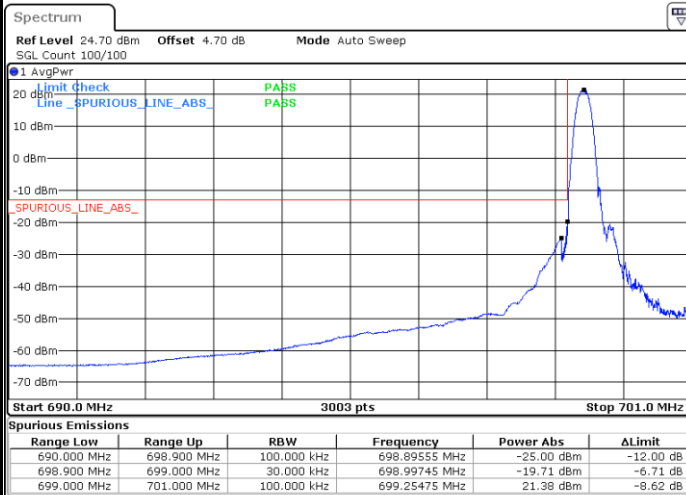




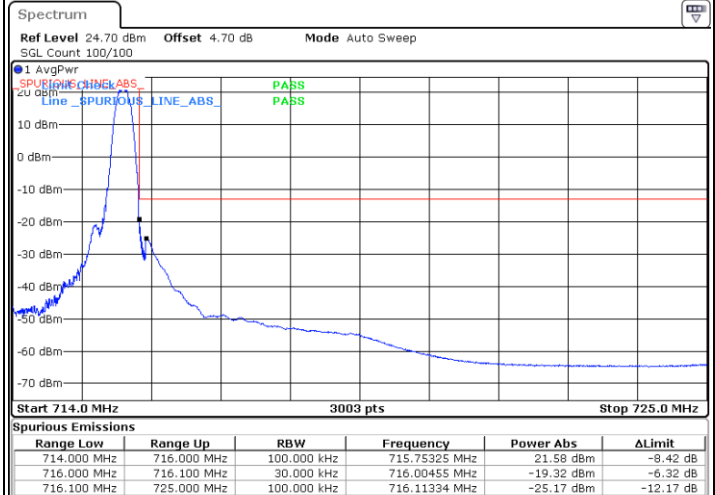
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

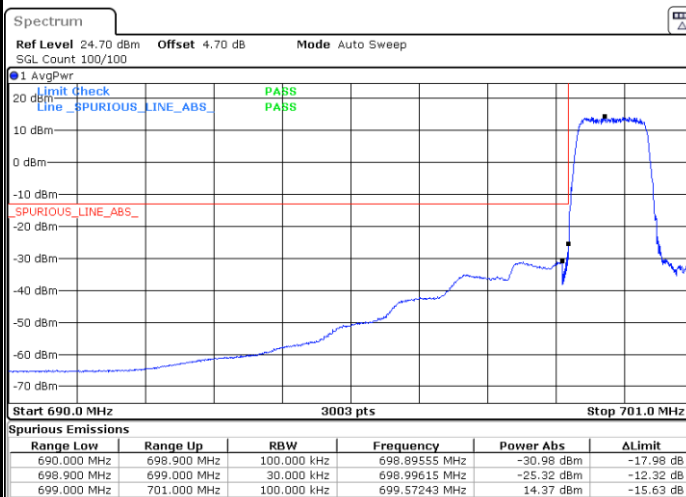
Lowest Band Edge / 1RB



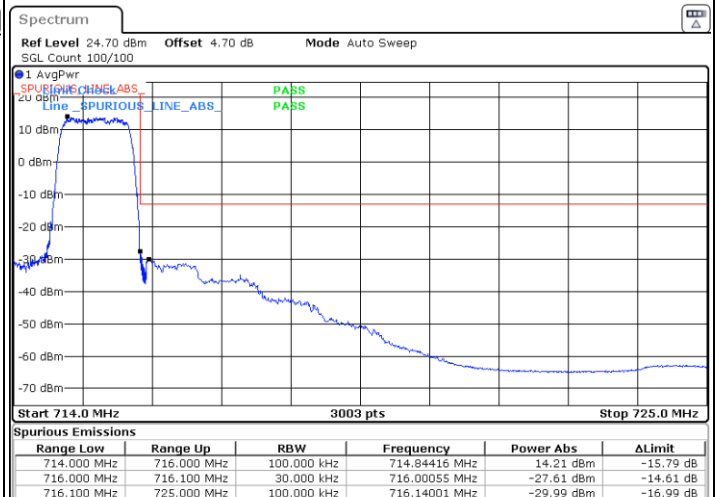
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



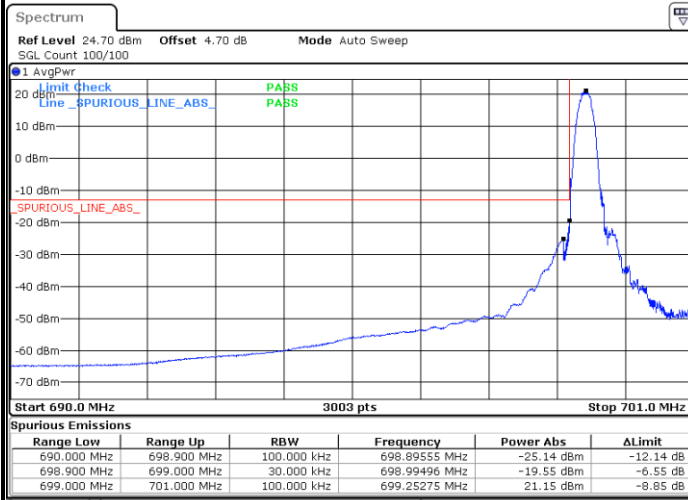
Highest Band Edge / Full RB



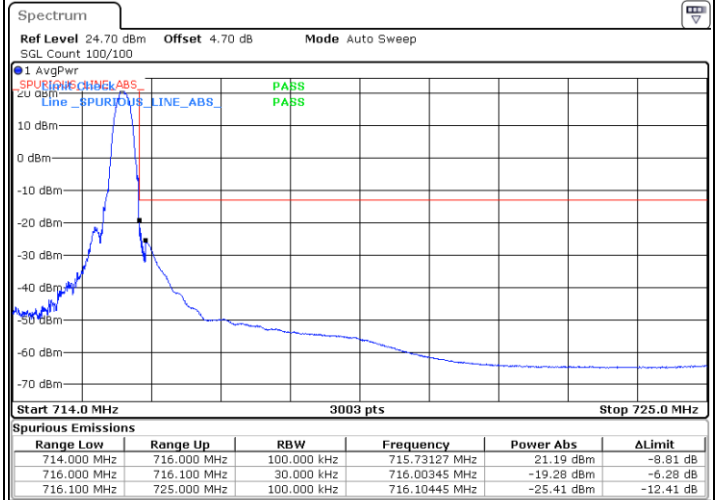


LTE Band 12 / 1.4MHz / 16QAM

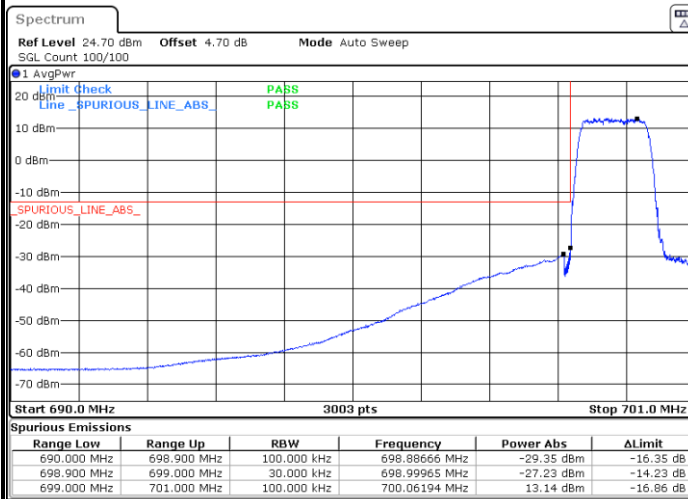
Lowest Band Edge / 1 RB



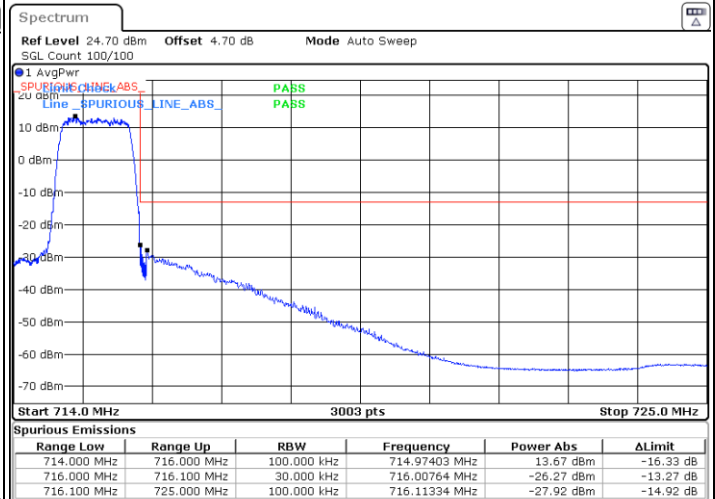
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



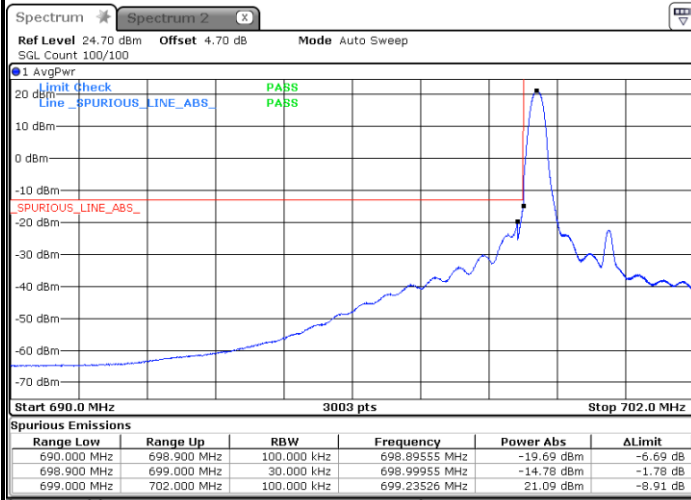
Highest Band Edge / Full RB



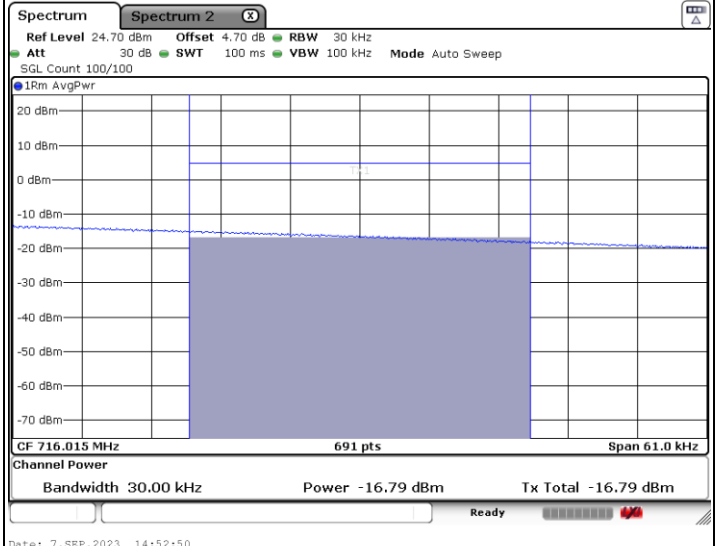
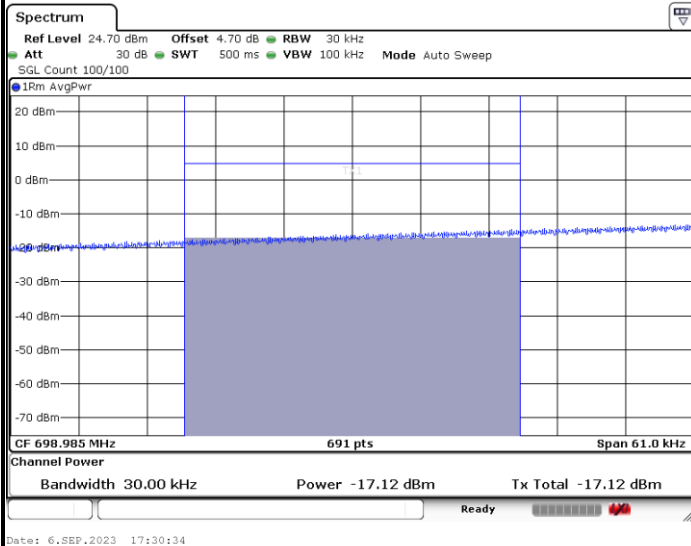
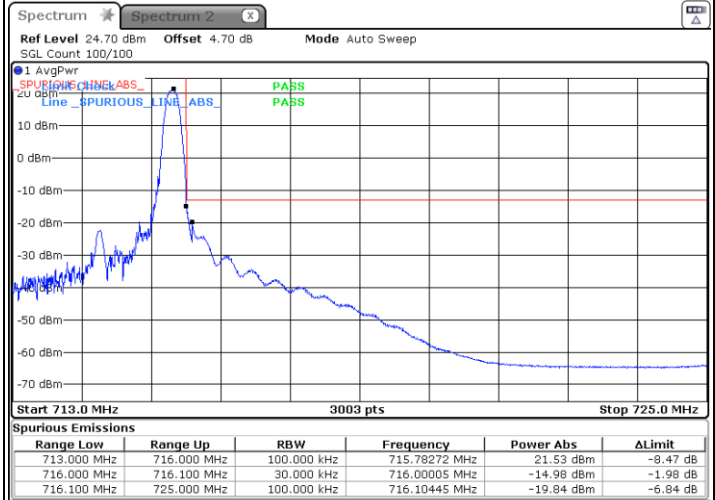


LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



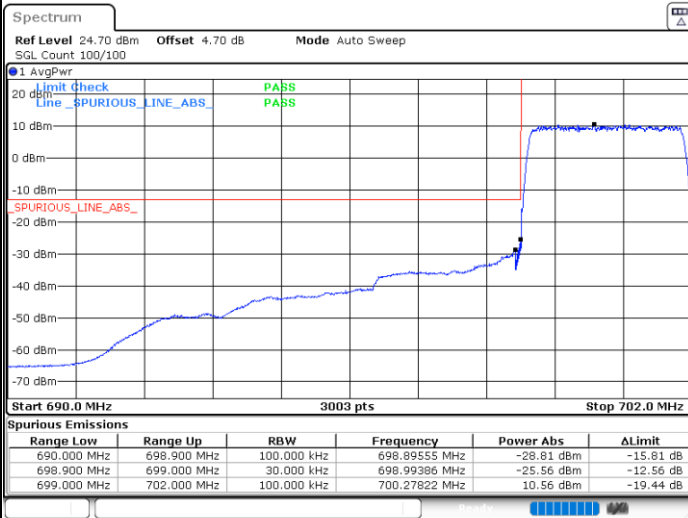
Highest Band Edge / 1 RB



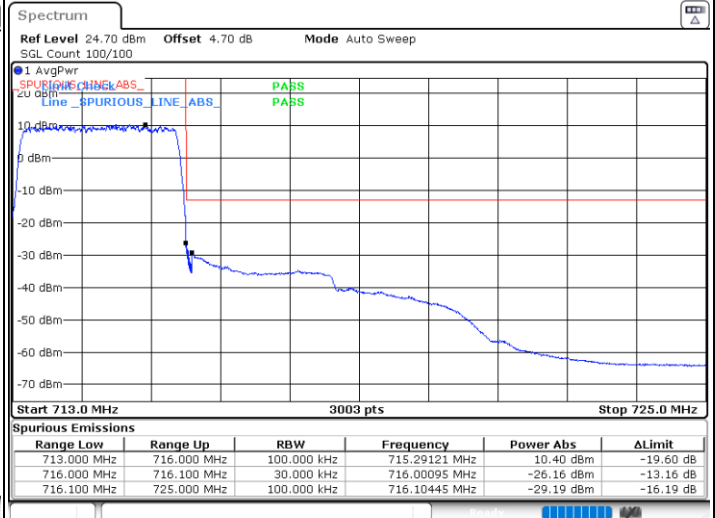


Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 27.JUL.2023 21:10:43

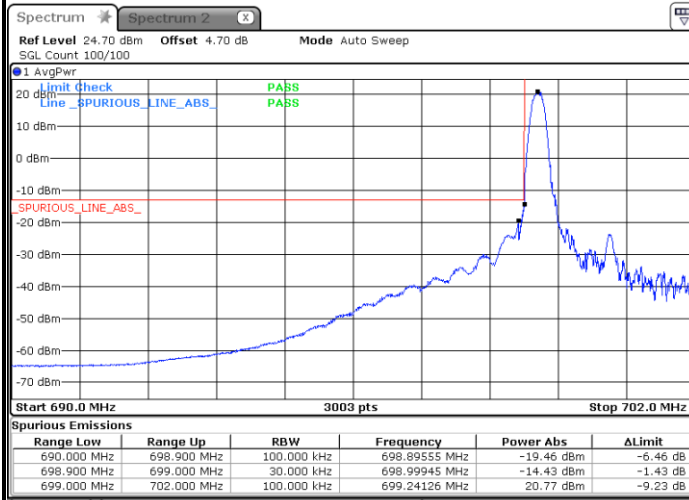


Date: 27.JUL.2023 21:21:25

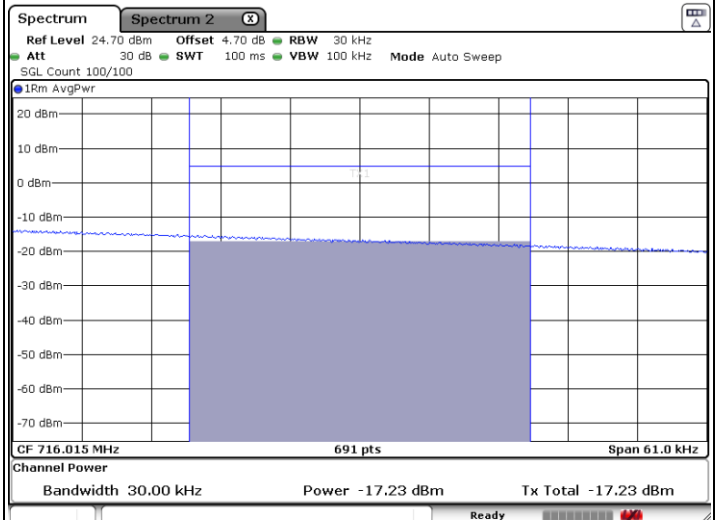
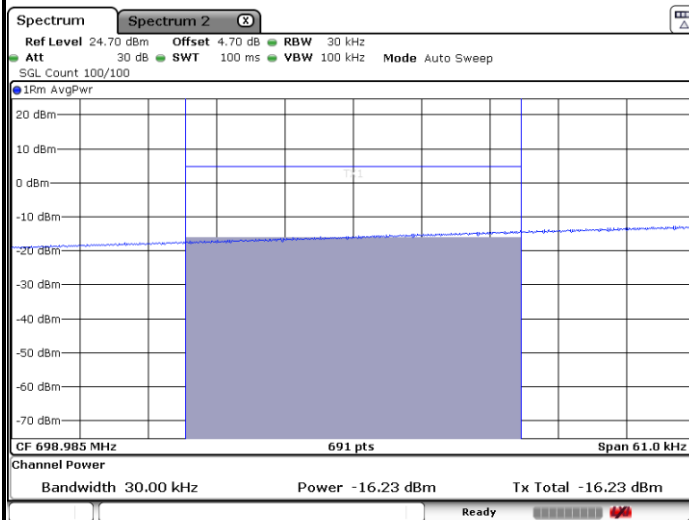
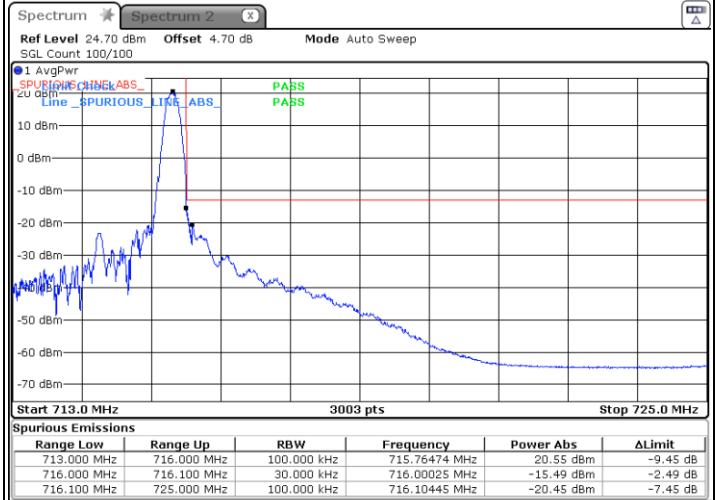


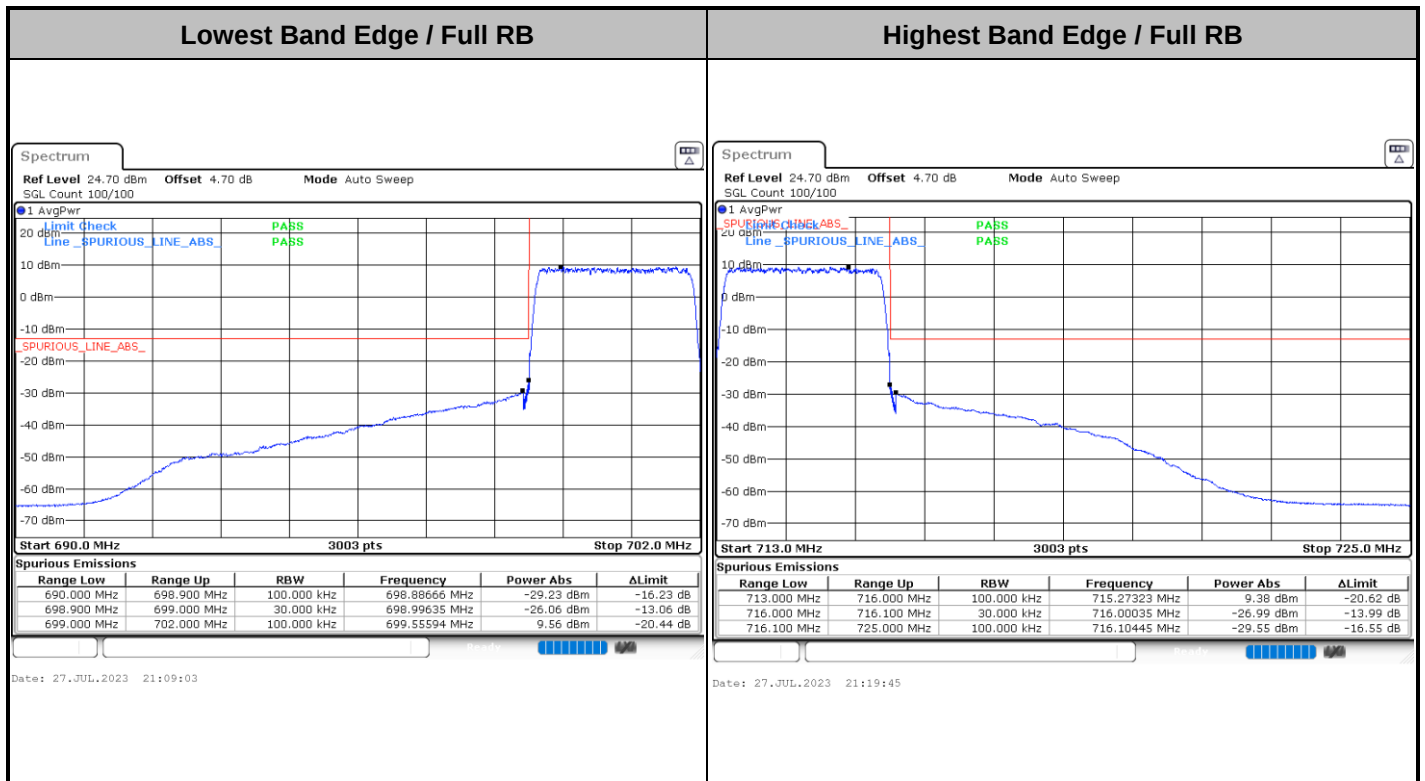
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

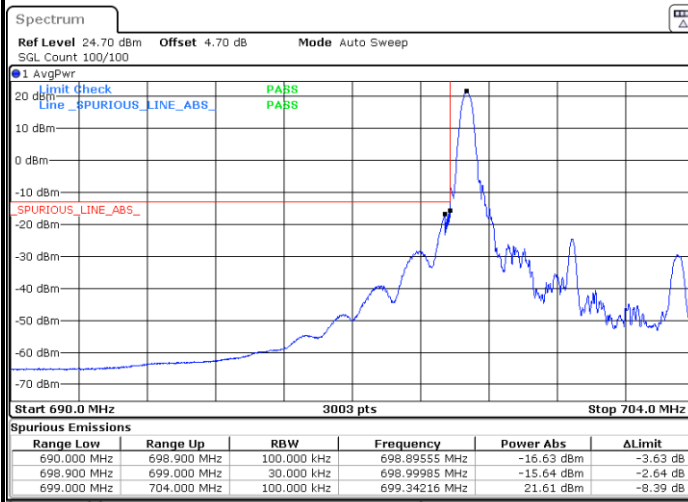




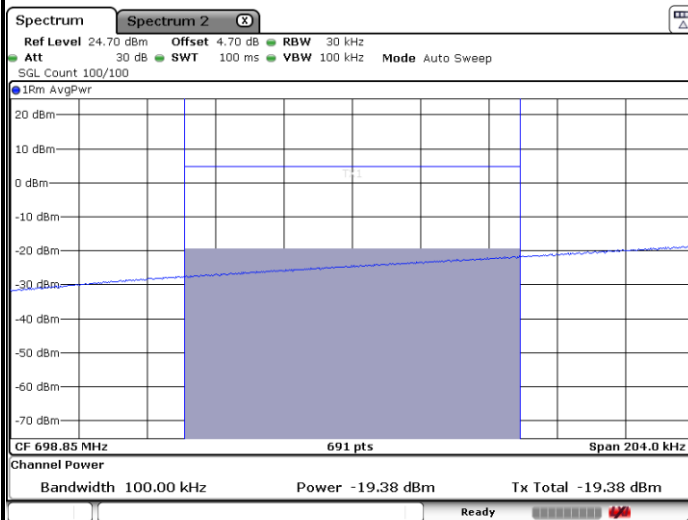


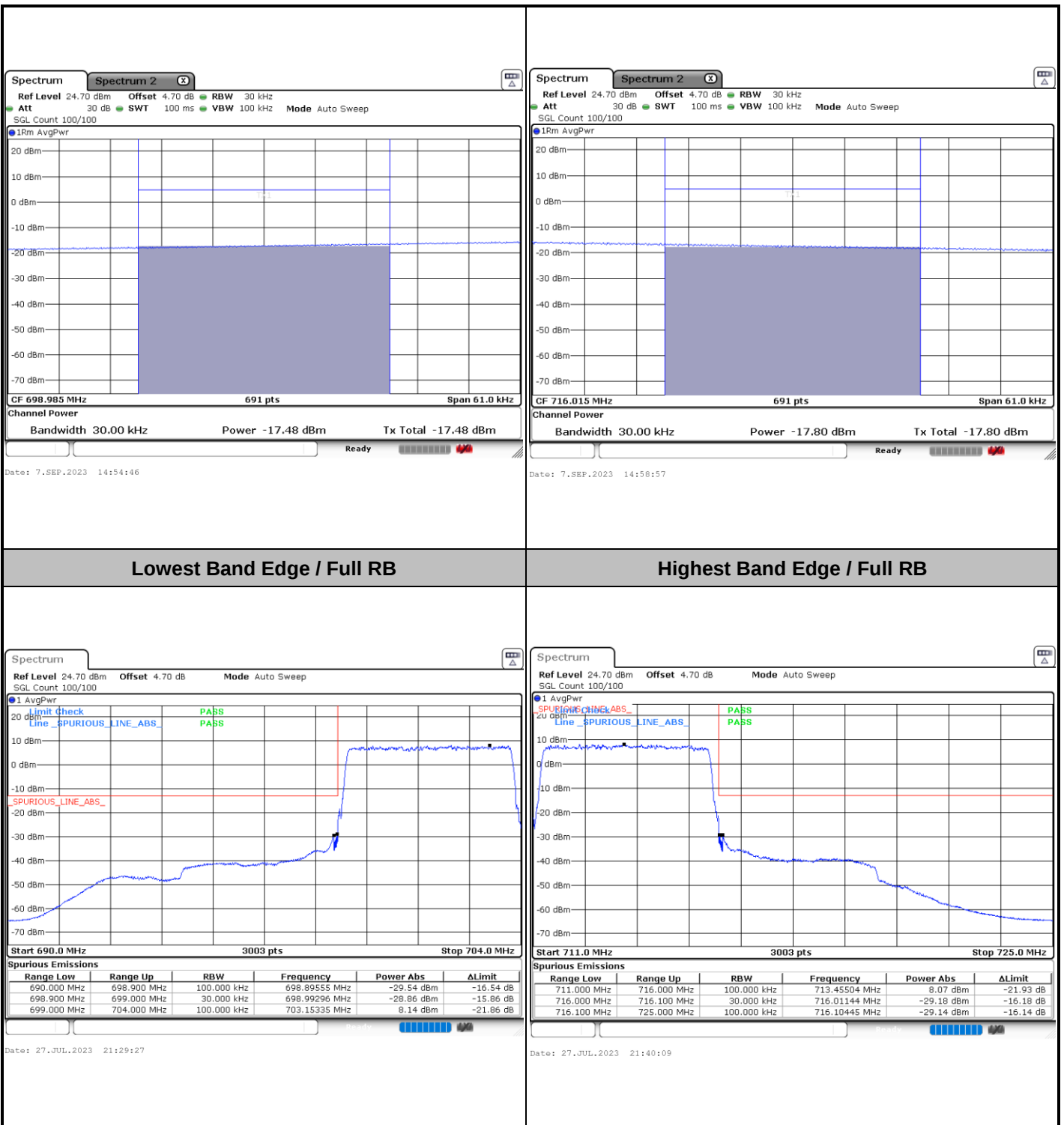
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

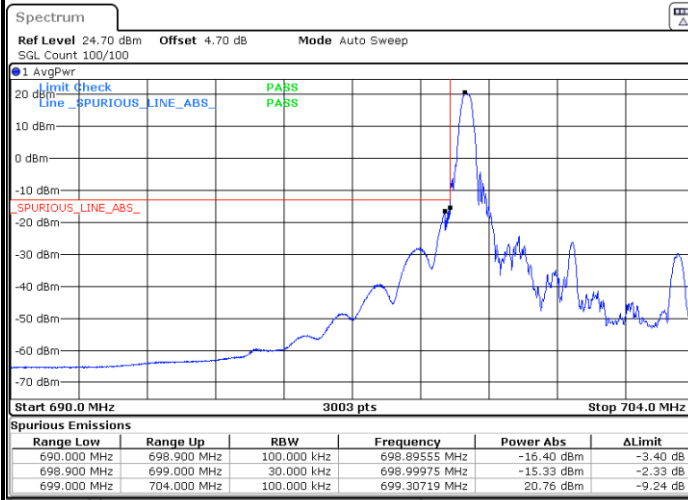




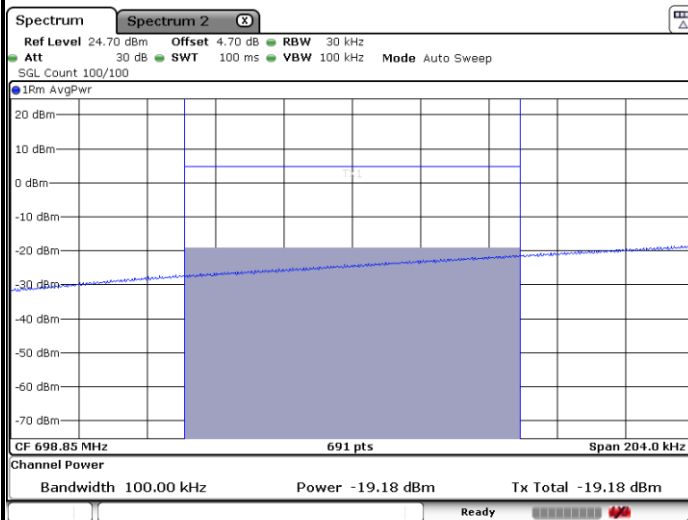
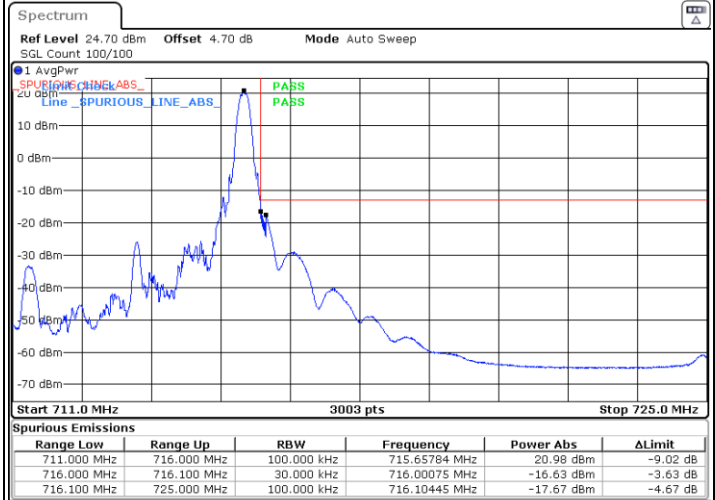


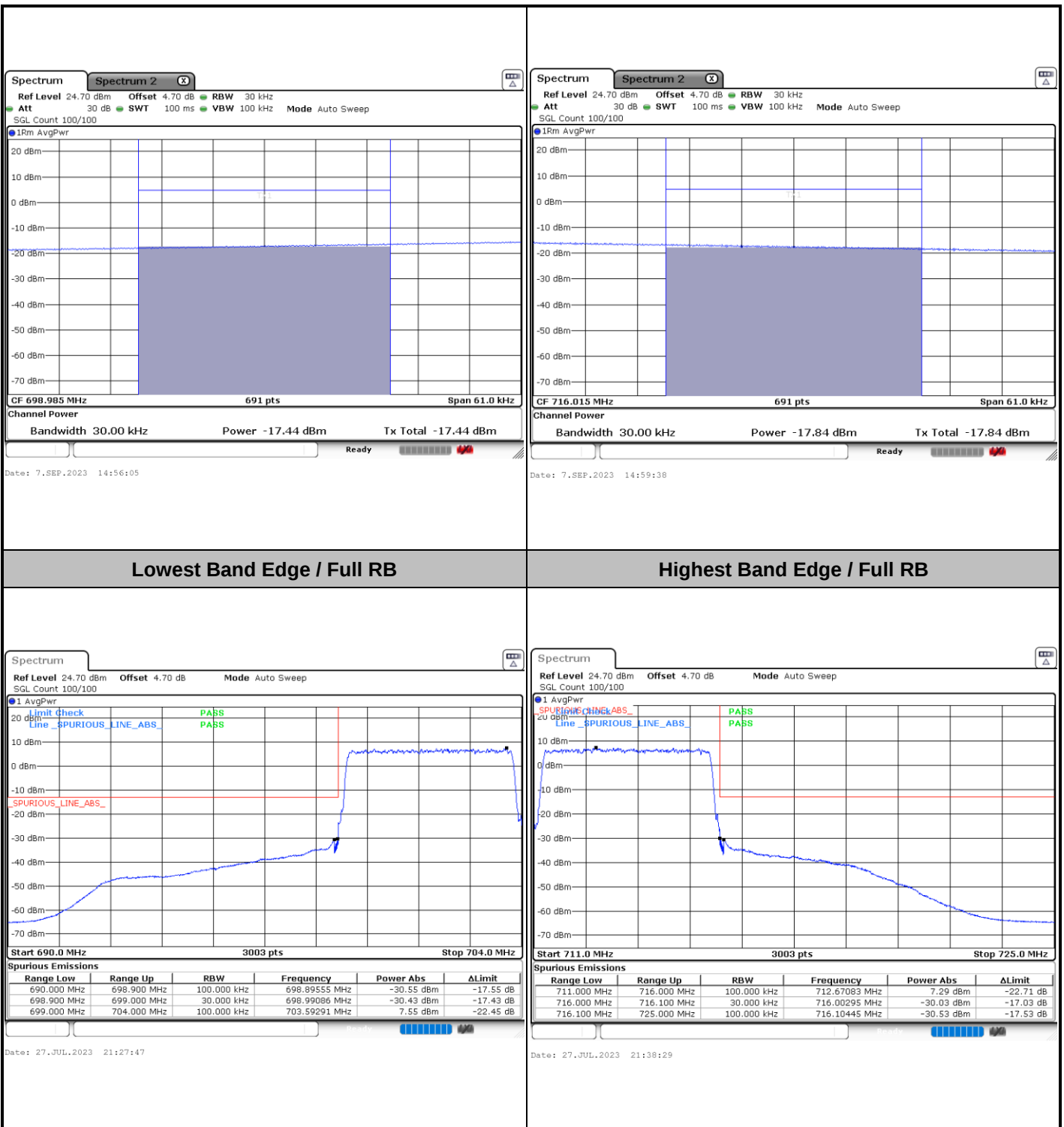
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



Highest Band Edge / 1 RB

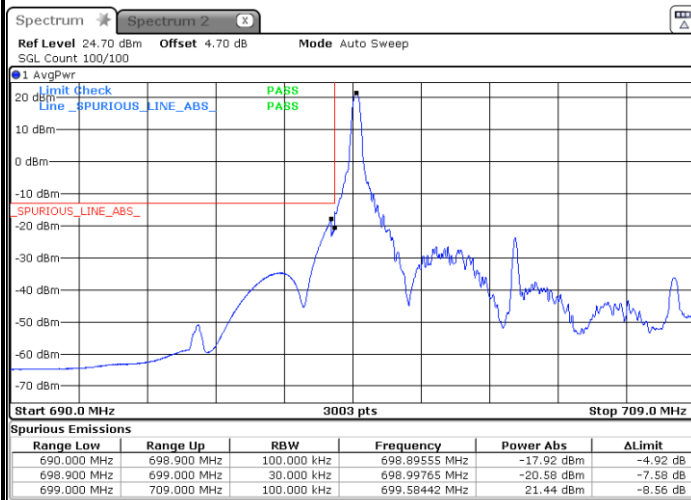




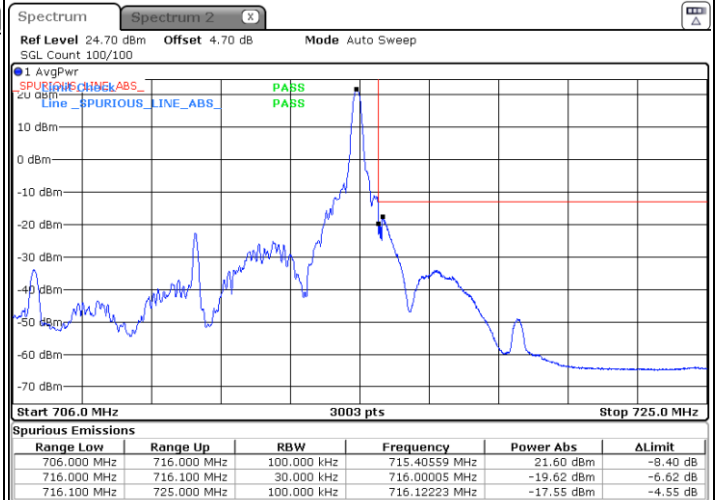


LTE Band 12 / 10MHz / QPSK

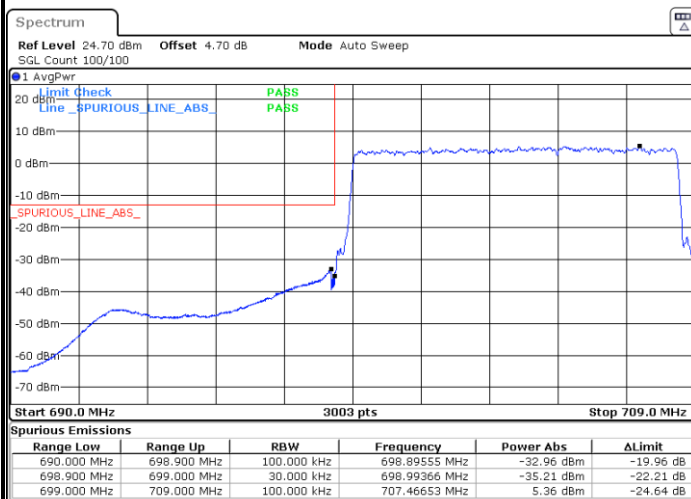
Lowest Band Edge / 1 RB



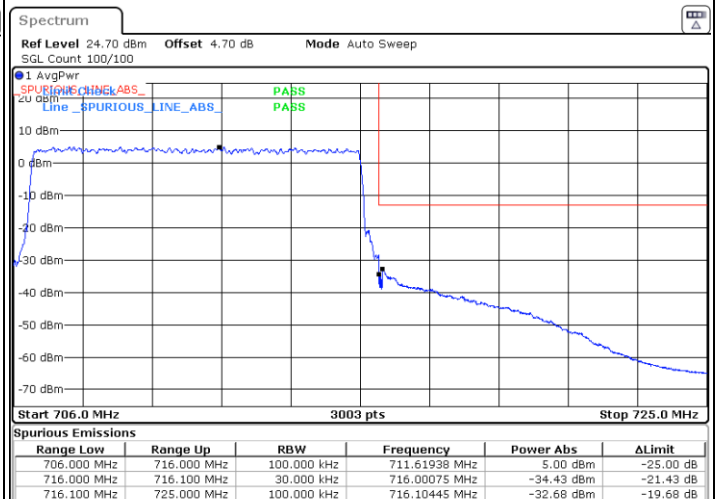
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



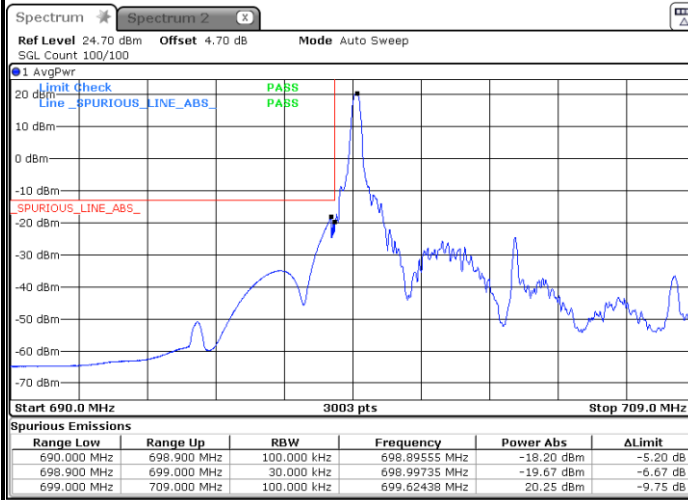
Highest Band Edge / Full RB



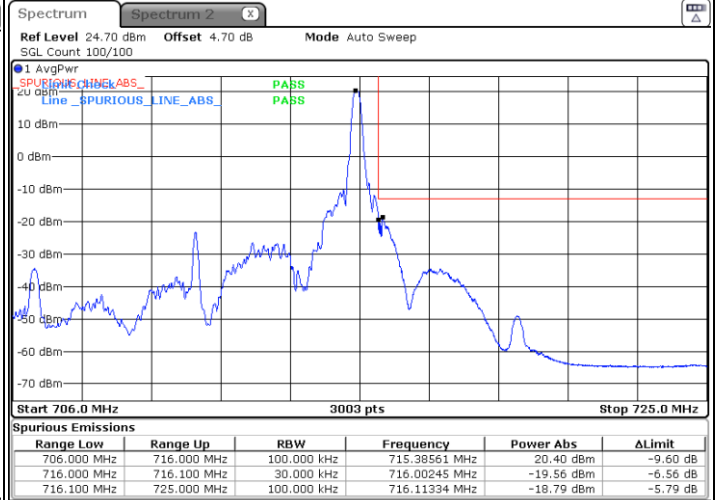


LTE Band 12 / 10MHz / 16QAM

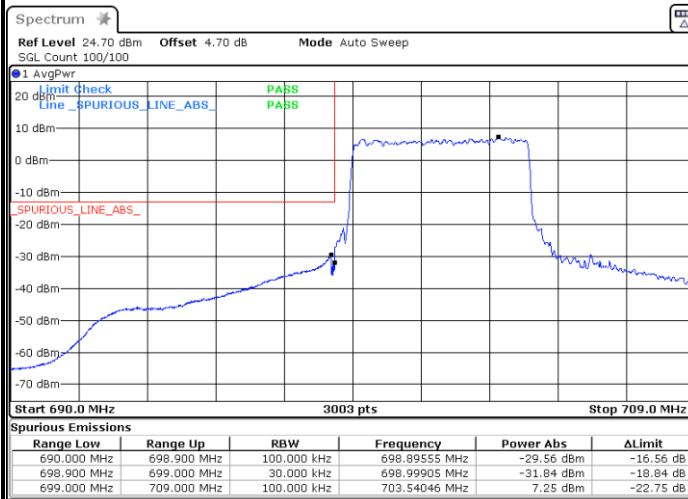
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

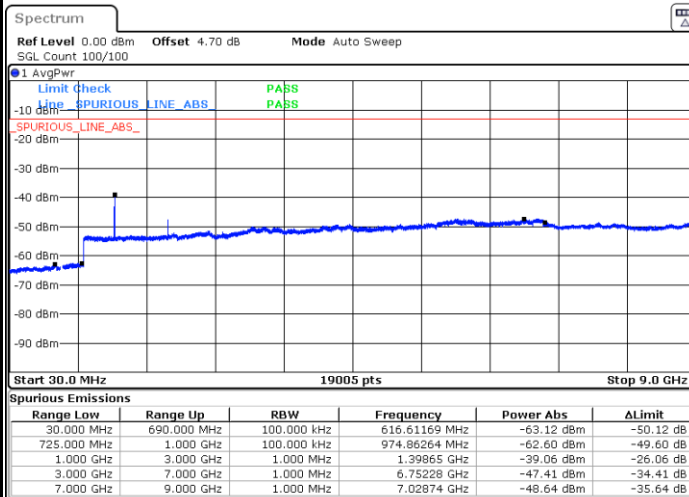




Conducted Spurious Emission

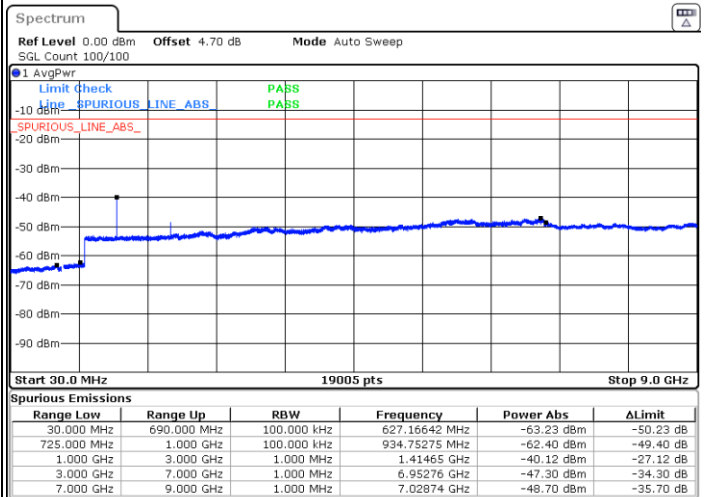
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



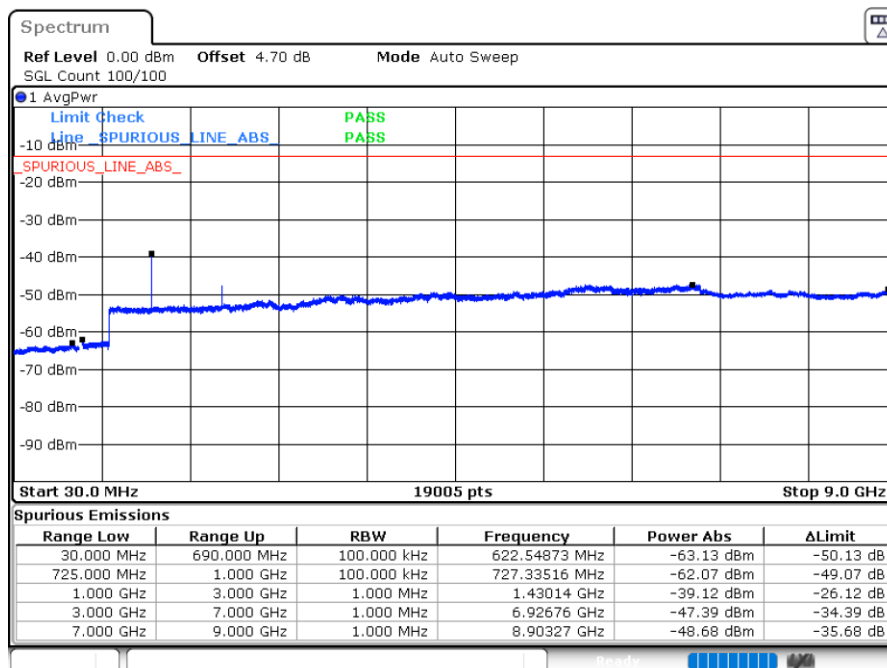
Date: 27.JUL.2023 20:45:20

Middle Channel / QPSK



Date: 27.JUL.2023 20:54:43

Highest Channel / QPSK

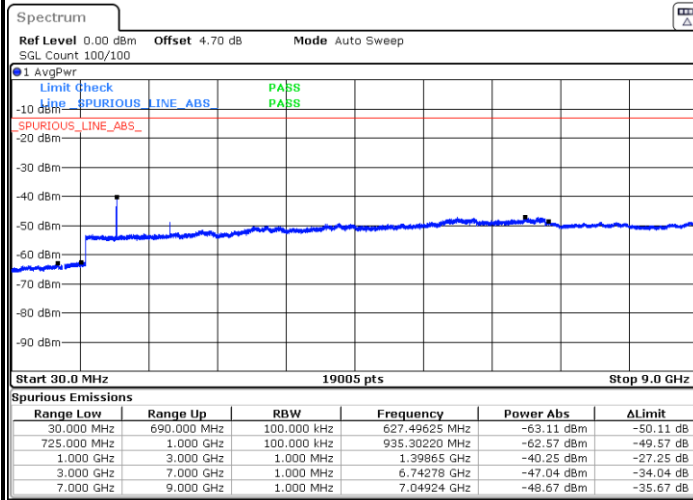


Date: 27.JUL.2023 20:56:03



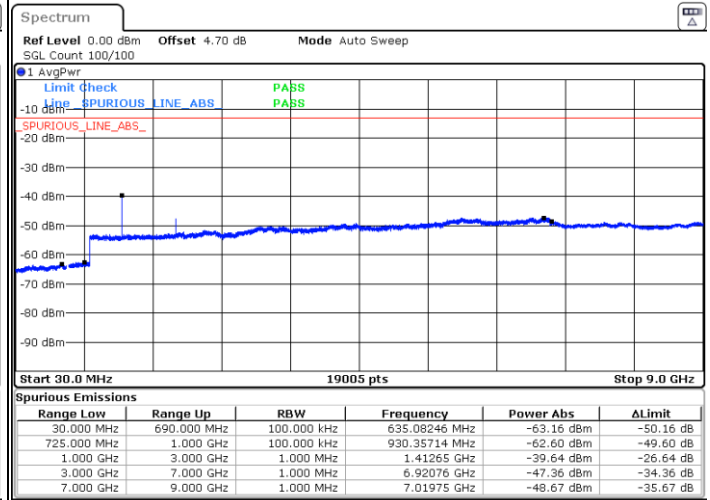
LTE Band 12 / 3MHz

Lowest Channel / QPSK



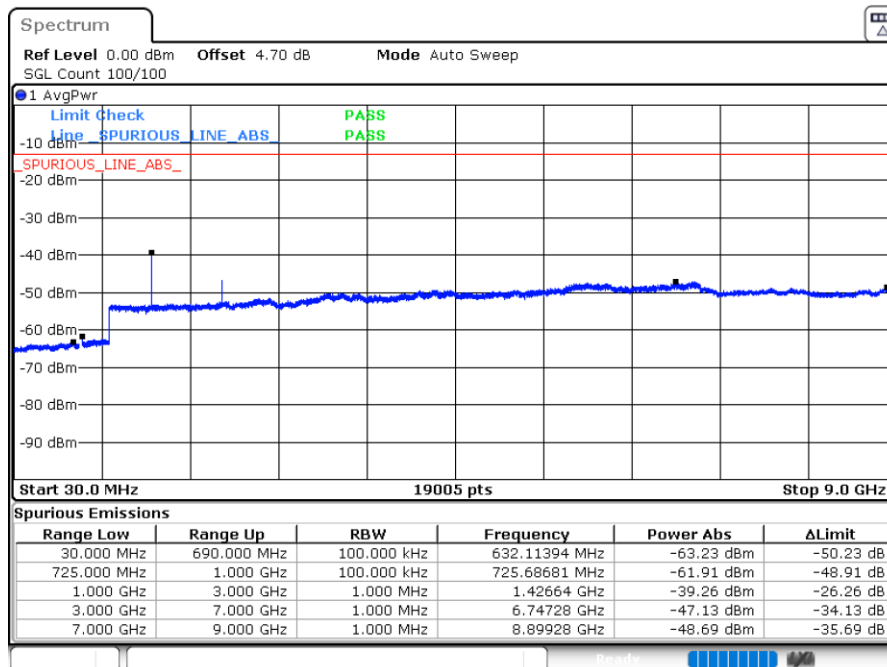
Date: 27.JUL.2023 21:04:03

Middle Channel / QPSK



Date: 27.JUL.2023 21:13:26

Highest Channel / QPSK

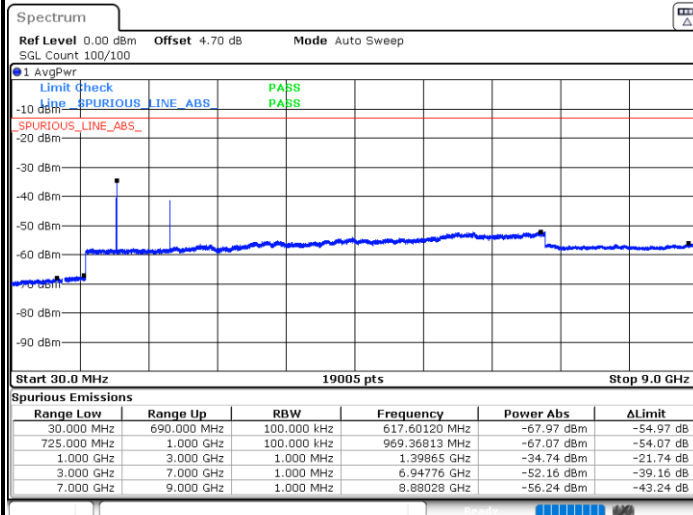


Date: 27.JUL.2023 21:14:46

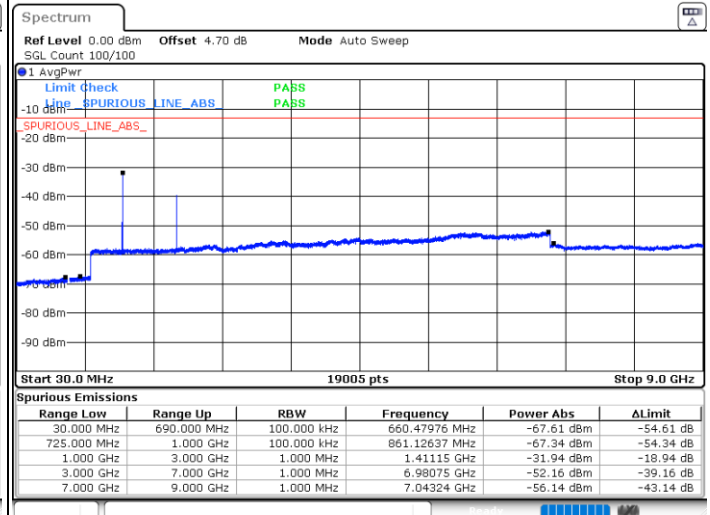


LTE Band 12 / 5MHz

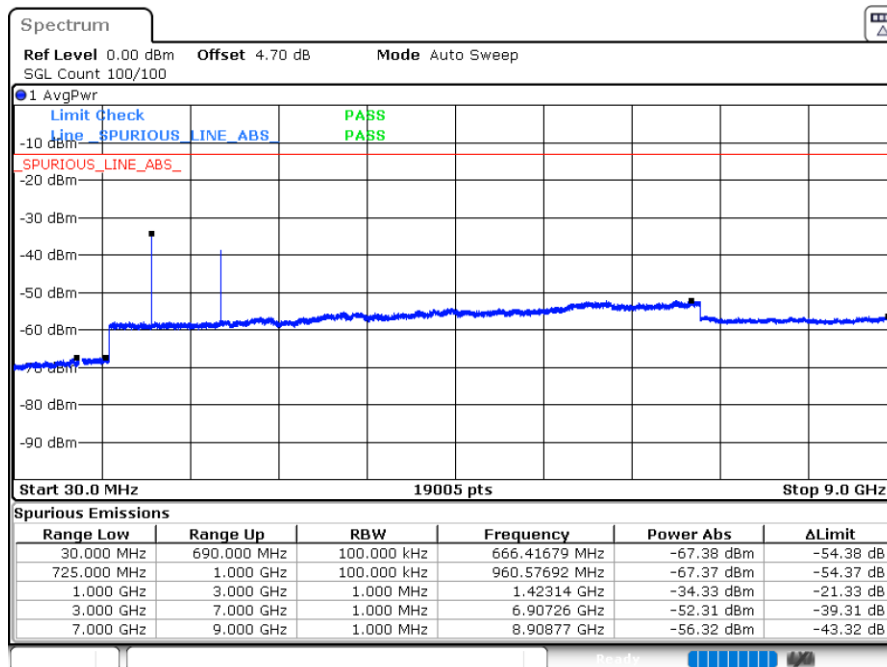
Lowest Channel / QPSK



Middle Channel / QPSK



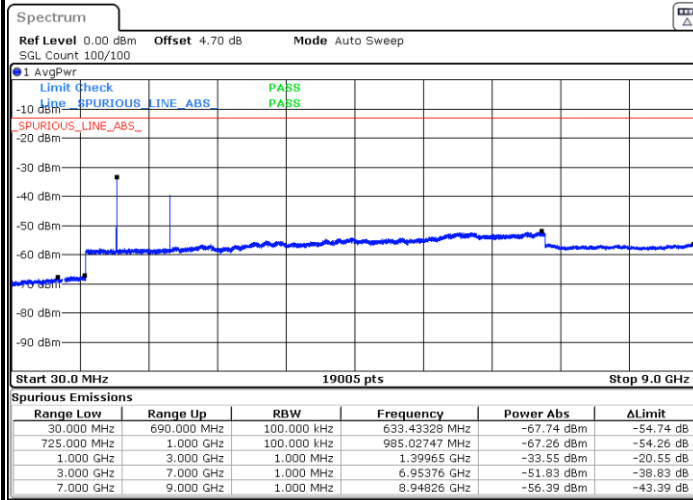
Highest Channel / QPSK





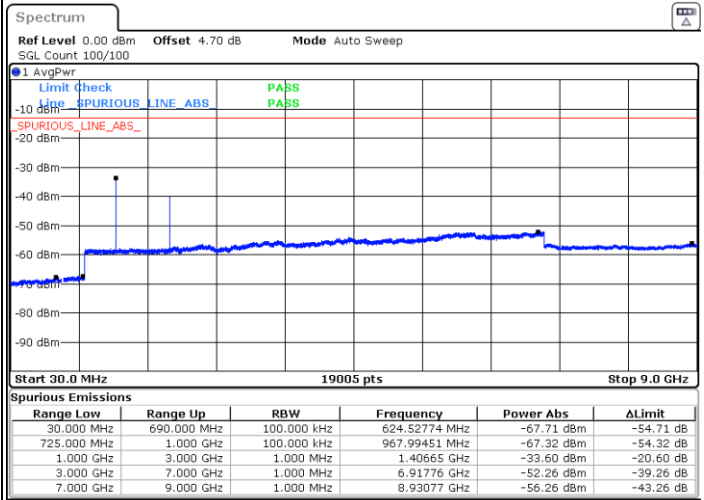
LTE Band 12 / 10MHz

Lowest Channel / QPSK



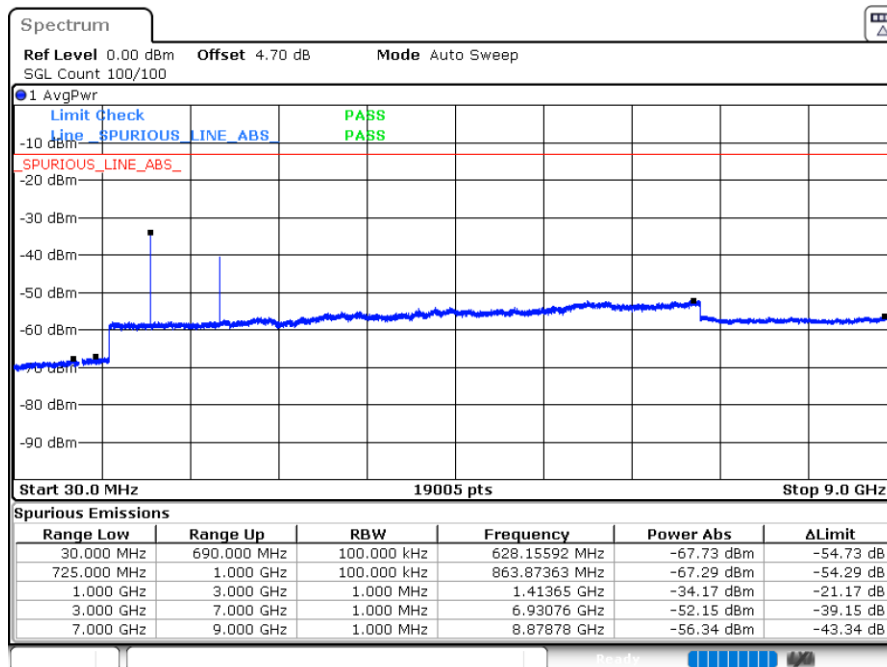
Date: 27.JUL.2023 21:41:30

Middle Channel / QPSK



Date: 27.JUL.2023 21:47:49

Highest Channel / QPSK



Date: 27.JUL.2023 21:49:09

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	0.0037	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0036	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0027	
20	Minimum Voltage	0.0013	

Note:

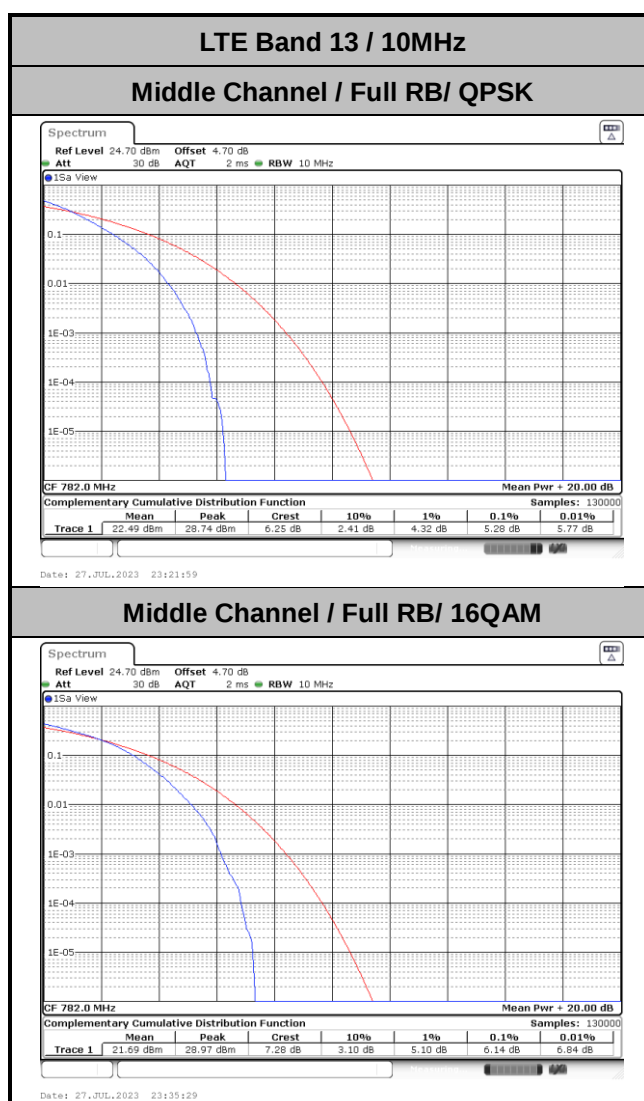
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

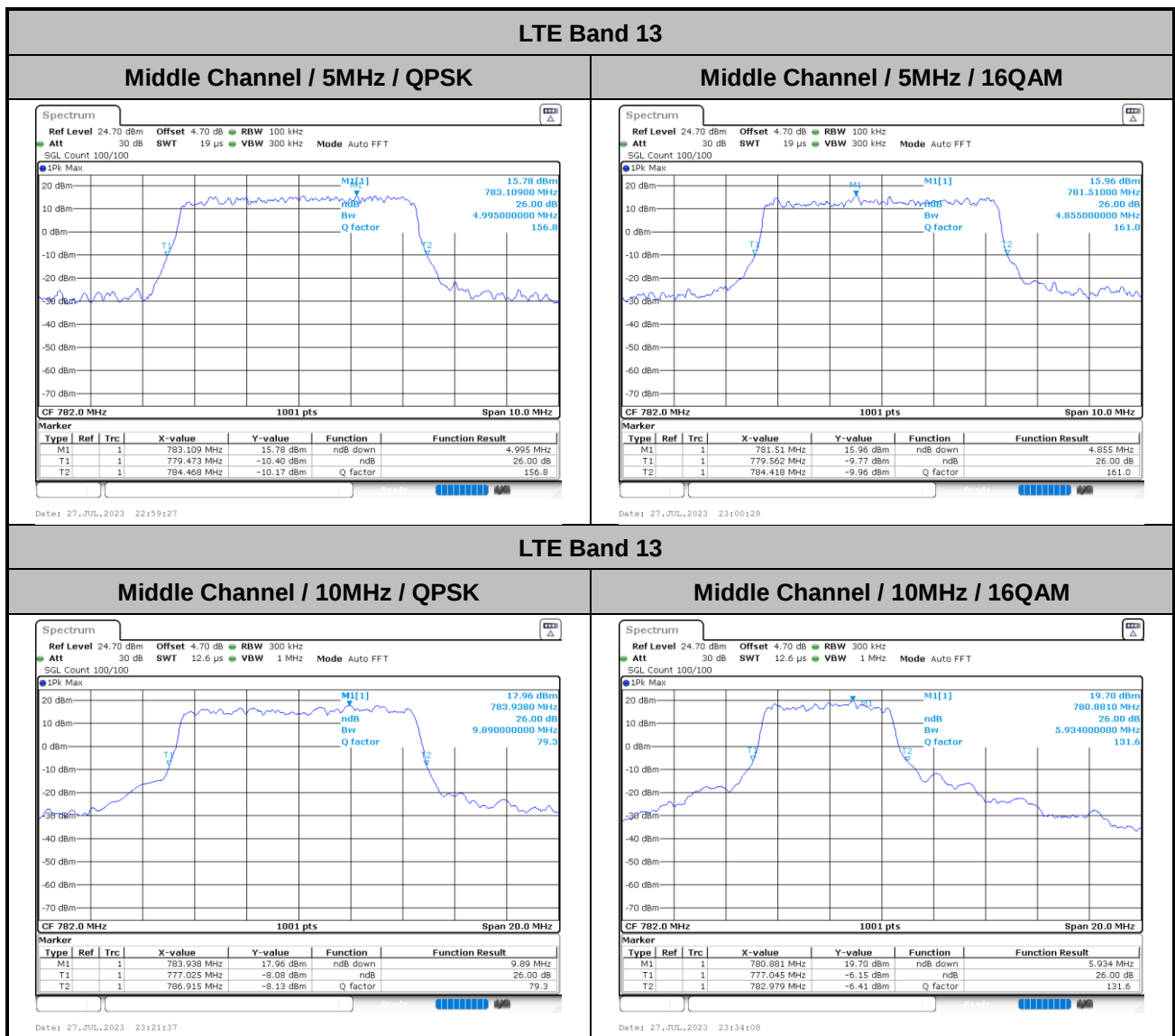
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.28	6.14	PASS



**26dB Bandwidth**

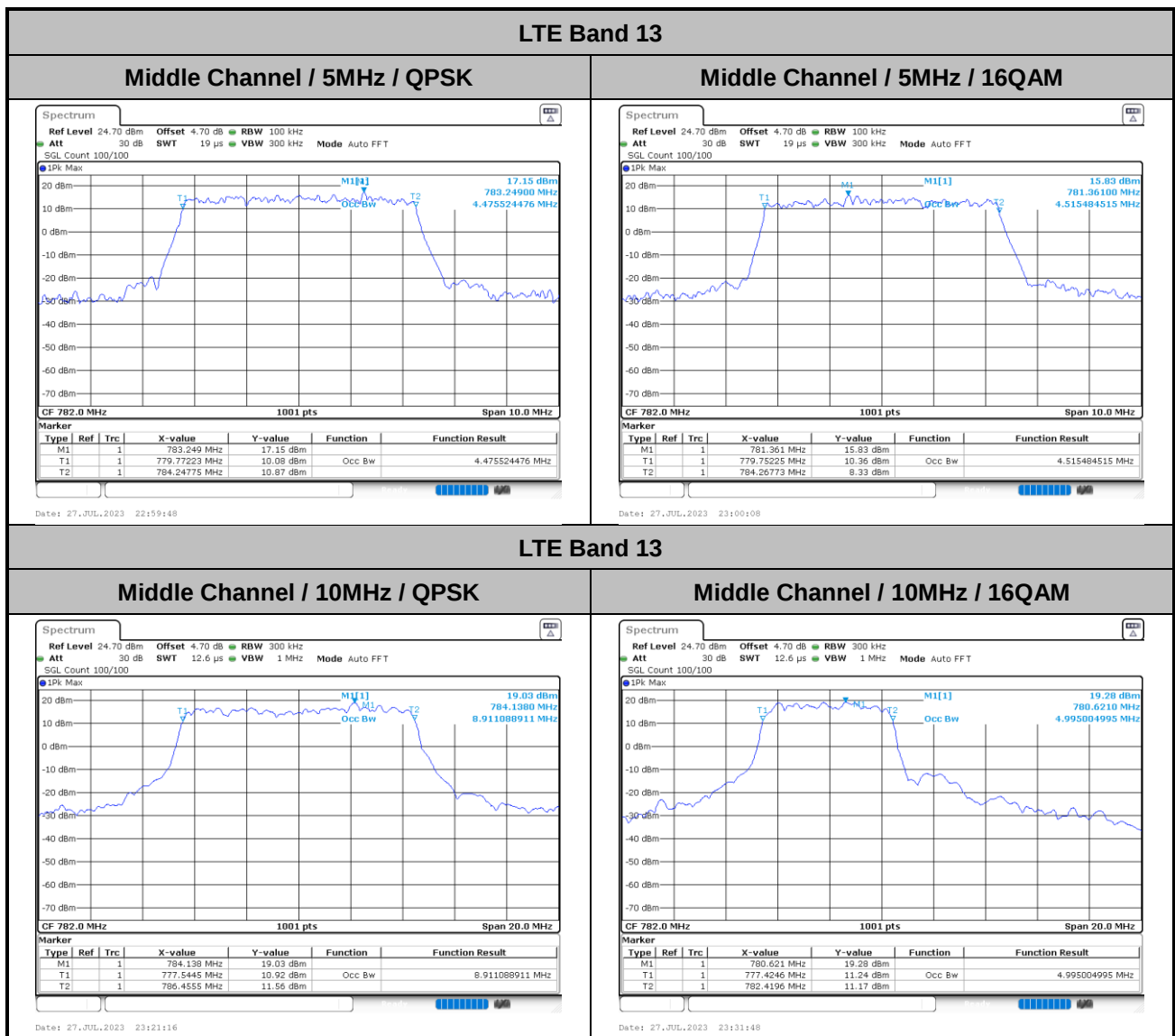
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	5.00	4.86
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.89	5.93





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.48	4.52
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.91	5.00

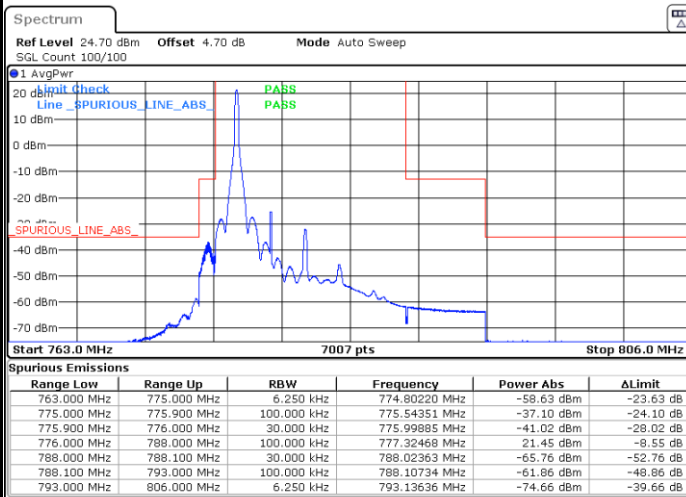




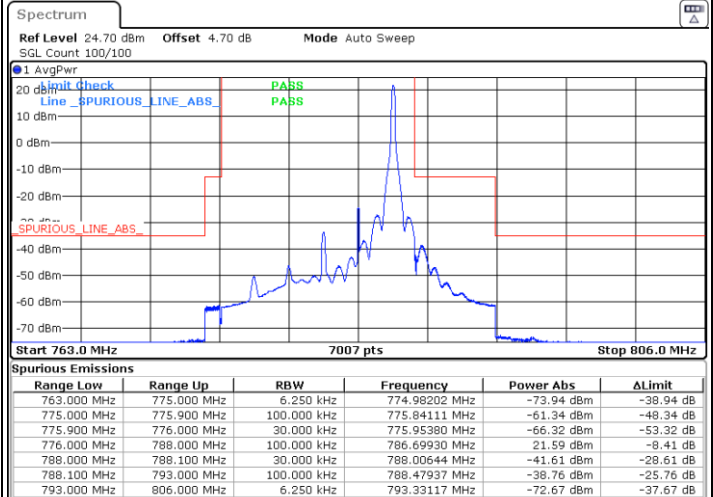
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

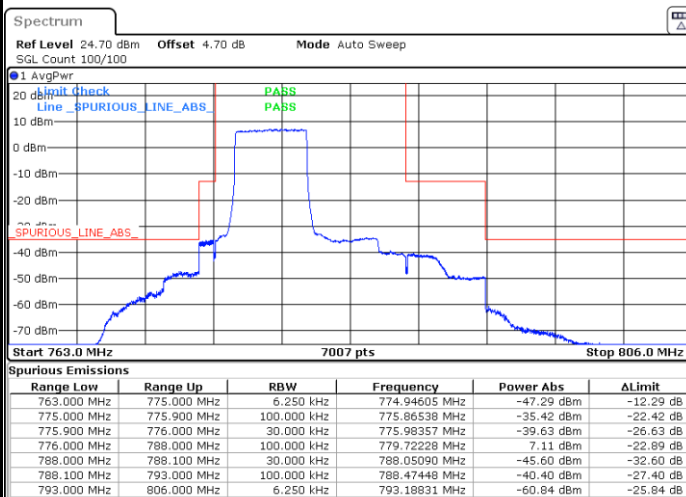
Lowest Band Edge / 1 RB



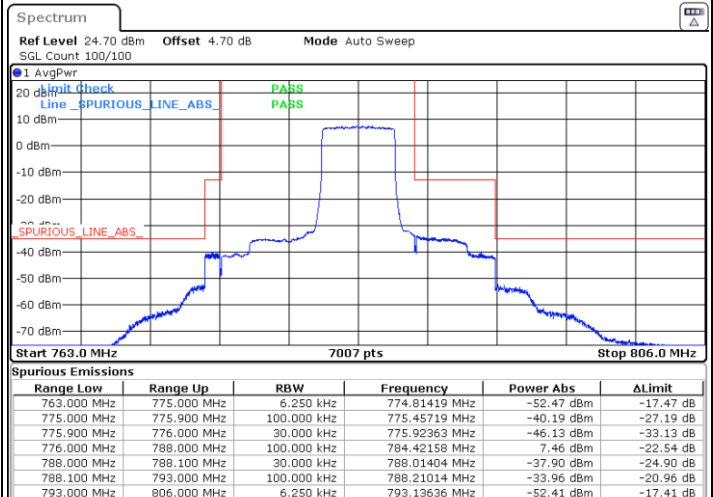
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



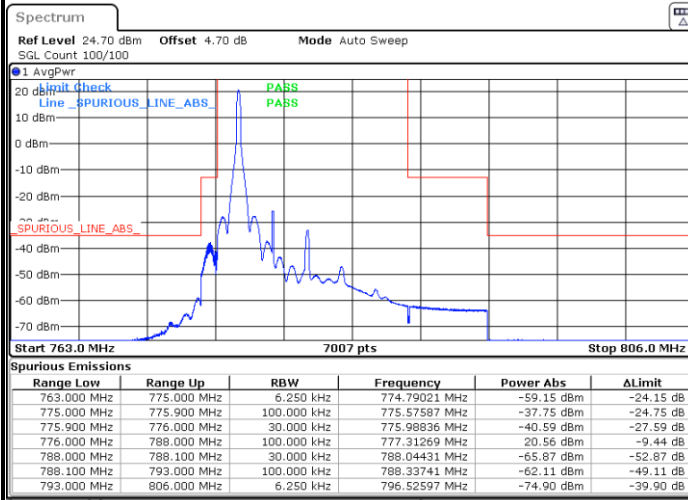
Highest Band Edge / Full RB



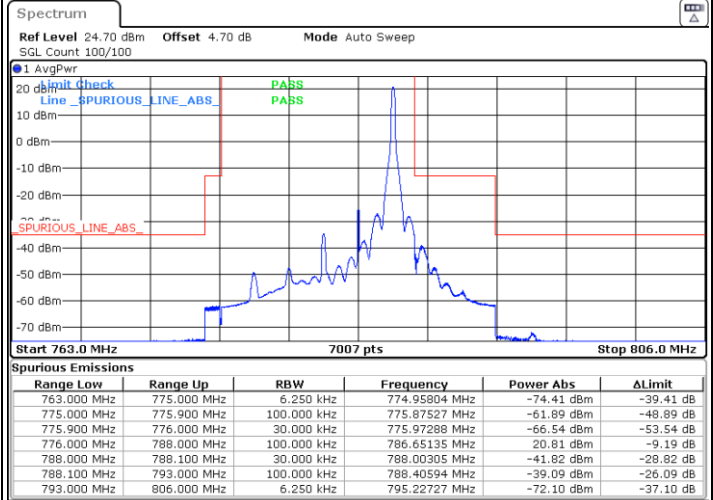


LTE Band 13 / 5MHz / 16QAM

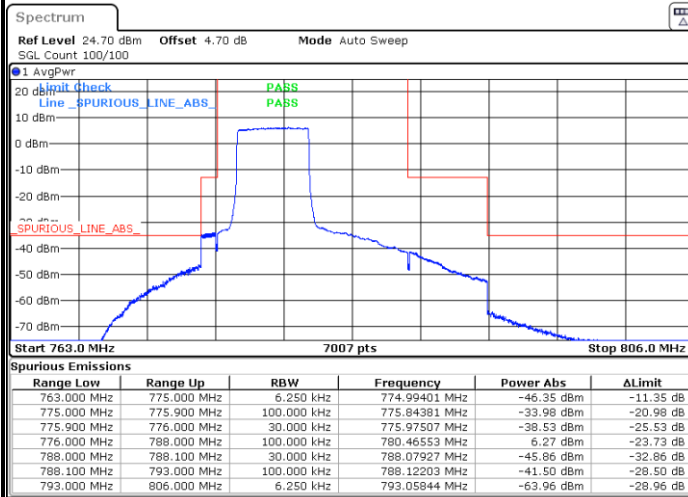
Lowest Band Edge / 1RB



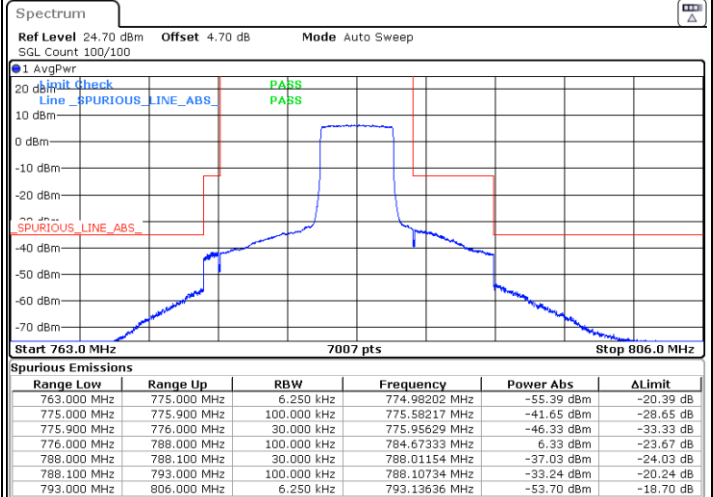
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



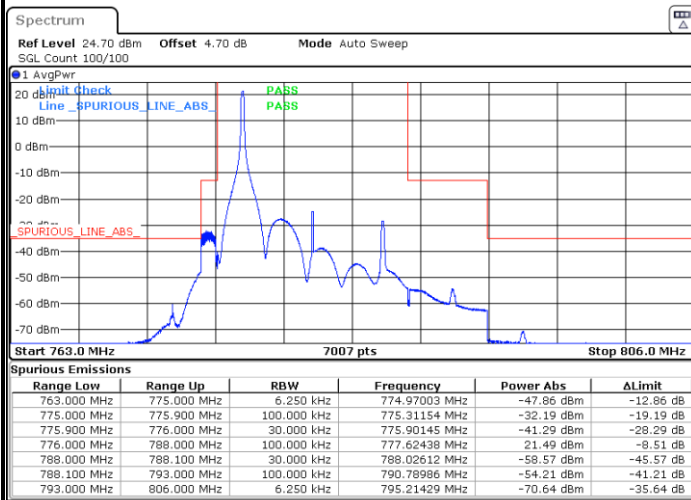
Highest Band Edge / Full RB



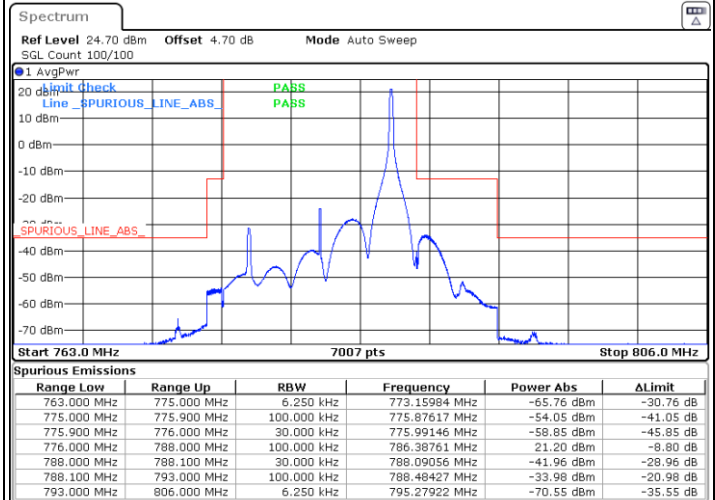


LTE Band 13 / 10MHz / QPSK

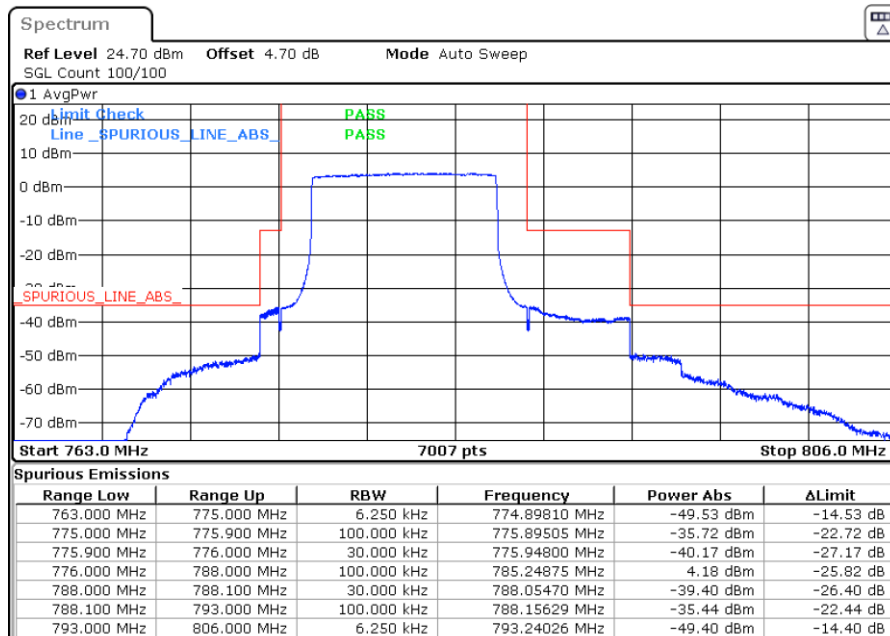
middle Band Edge / 1 RB



middle Band Edge / 1 RB



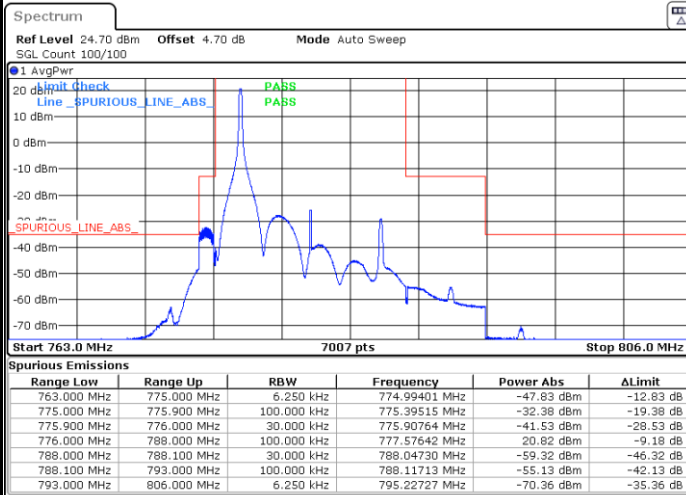
middle Band Edge / Full RB





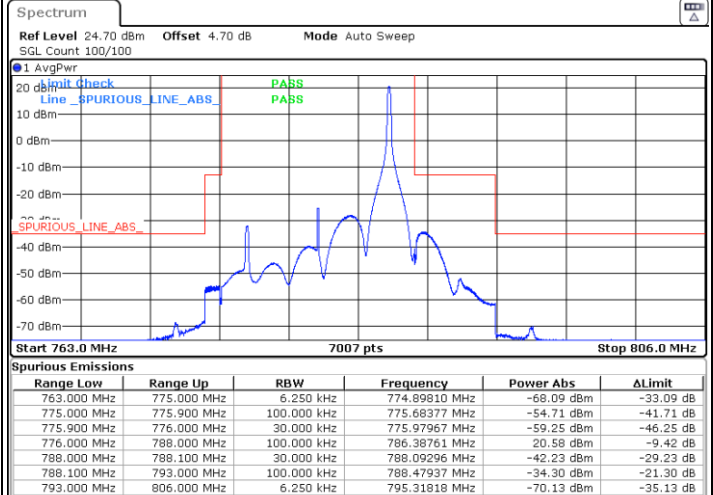
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



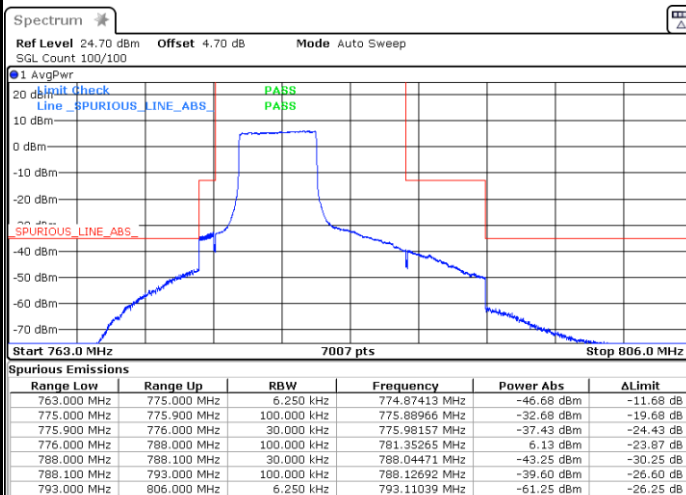
Date: 27.JUL.2023 23:15:27

middle Band Edge / 1 RB



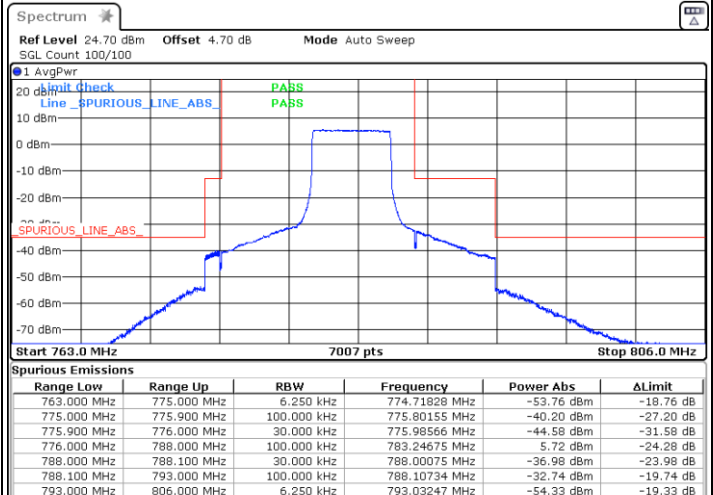
Date: 27.JUL.2023 23:17:16

middle Band Edge / 27 RB 0



Date: 27.JUL.2023 23:30:54

middle Band Edge / 27 RB 23



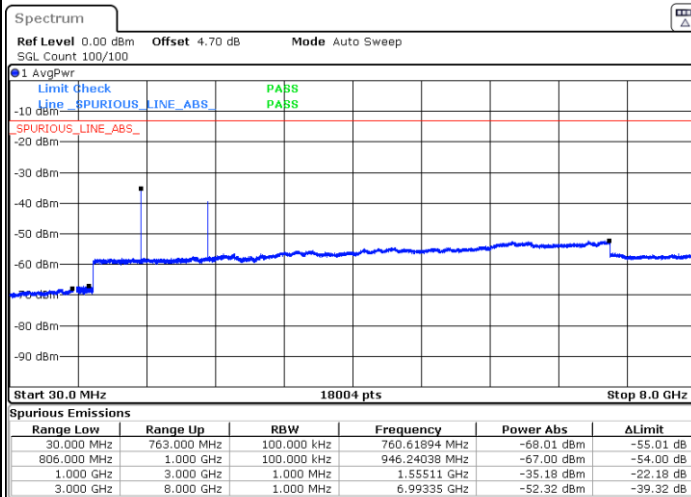
Date: 27.JUL.2023 23:49:54



Conducted Spurious Emission

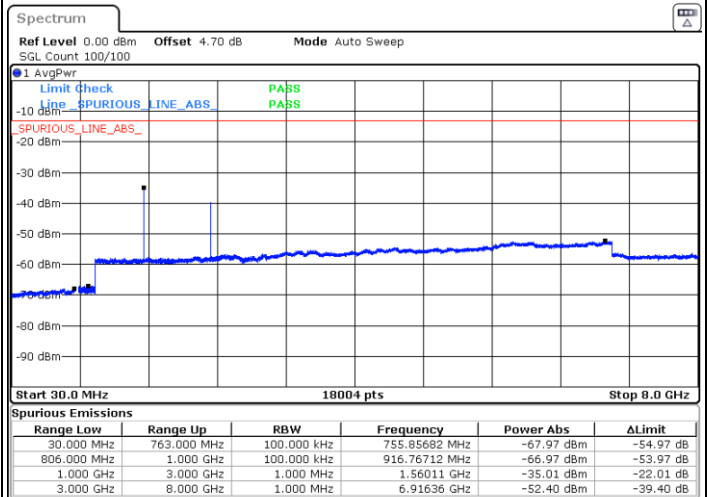
LTE Band 13 / 5MHz

Lowest Channel / QPSK



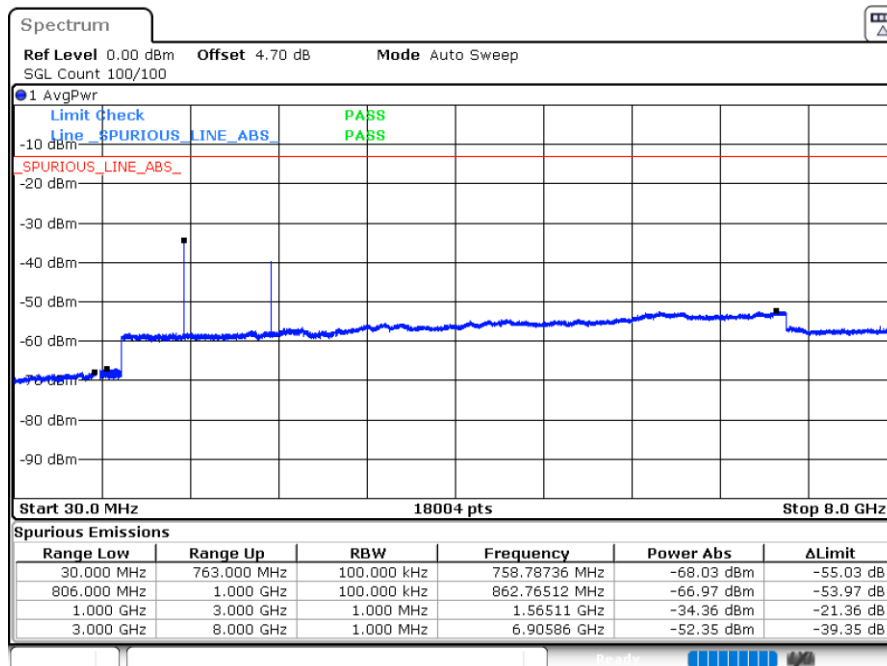
Date: 27.JUL.2023 22:51:46

Middle Channel / QPSK



Date: 27.JUL.2023 23:01:48

Highest Channel / QPSK

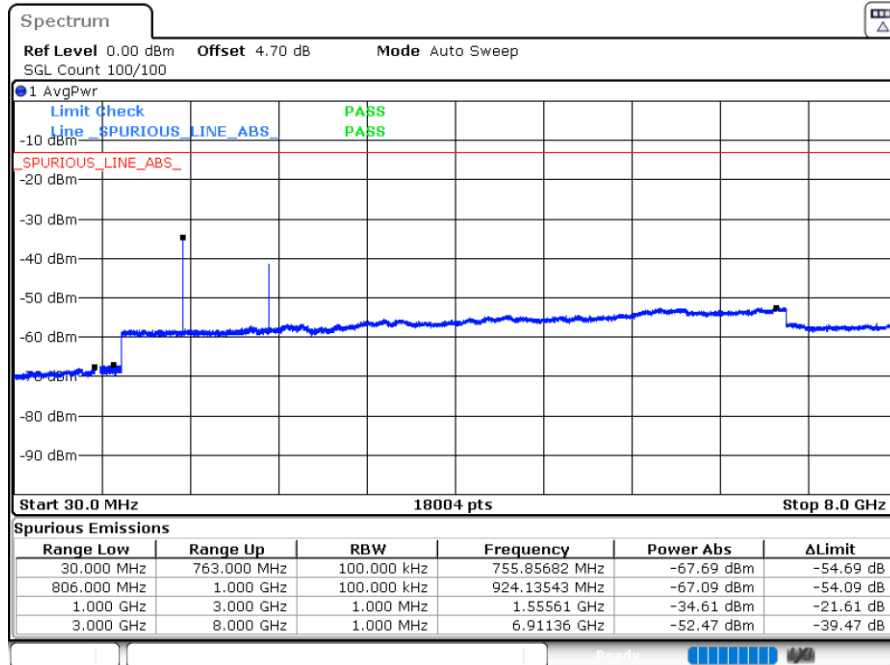


Date: 27.JUL.2023 23:03:08



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 27 JUL 2023 23:11:48

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	0.0037	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0019	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0036	
-30	Normal Voltage	0.0033	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0008	
20	Minimum Voltage	0.0033	

Note:

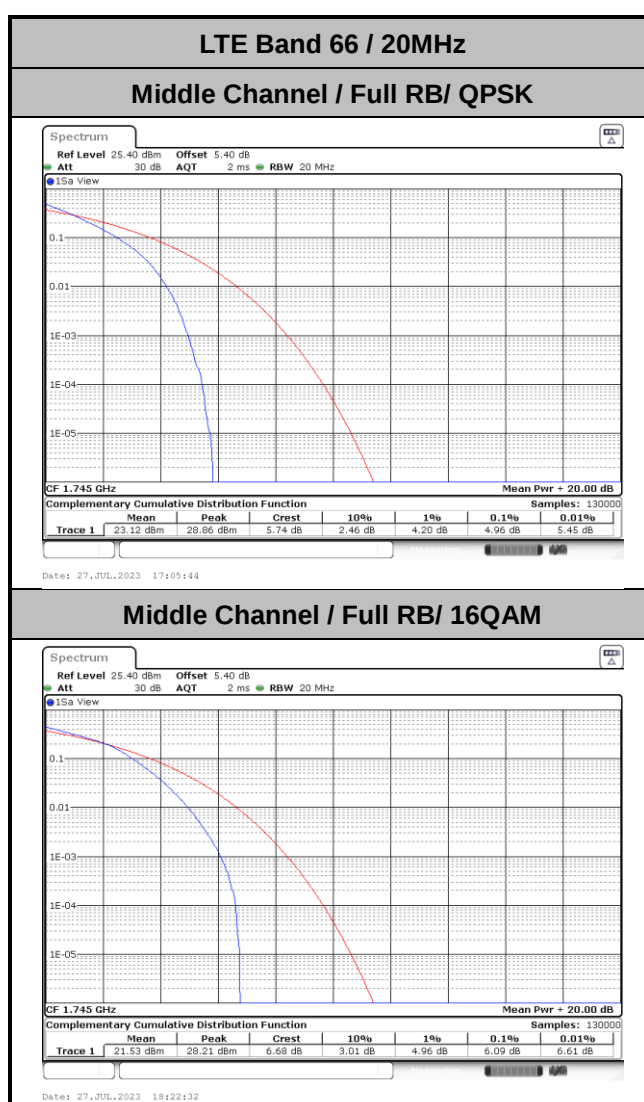
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.3V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 66

Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.96	6.09	PASS



**26dB Bandwidth**

Mode	LTE Band 66 : 26dB BW(MHz) Full RB	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.25	1.26
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.07	3.09
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.93	4.92
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.79	5.97
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.72	6.38
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.90	6.15



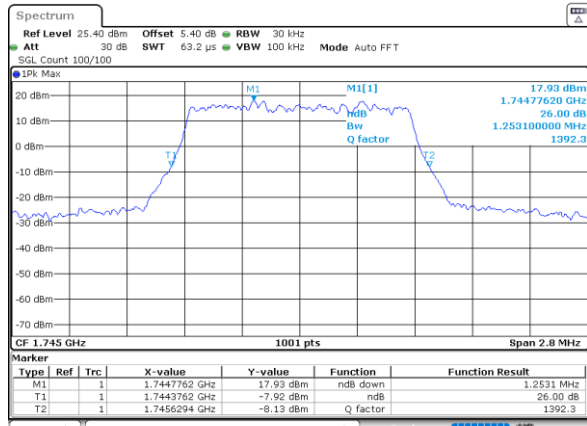
Mode	LTE Band 66 : 26dB BW(MHz) 1RB	
BW	3MHz	
Mod.	QPSK	16QAM
L CH 1RB	0.54	0.56
H CH 1RB	0.64	0.59
BW	5MHz	
Mod.	QPSK	16QAM
L CH 1RB	0.75	0.66
H CH 1RB	0.89	0.86
BW	10MHz	
Mod.	QPSK	16QAM
L CH 1RB	1.52	1.30
H CH 1RB	1.80	1.72
BW	15MHz	
Mod.	QPSK	16QAM
L CH 1RB	1.86	1.92
H CH 1RB	1.98	1.77
BW	20MHz	
Mod.	QPSK	16QAM
L CH 1RB	1.88	1.68
H CH 1RB	1.92	1.56



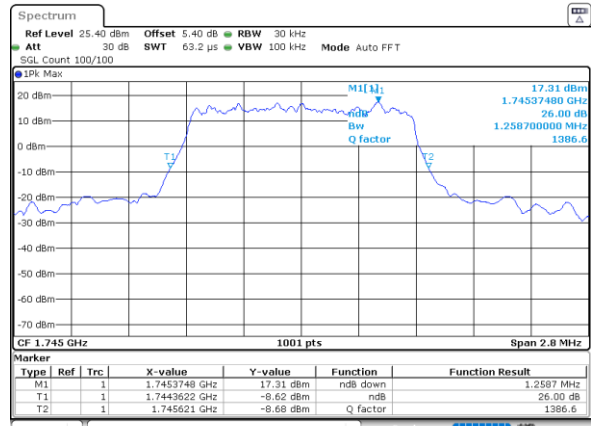
Full RB (Middle CH):

LTE Band 66

Middle Channel / 1.4MHz / QPSK

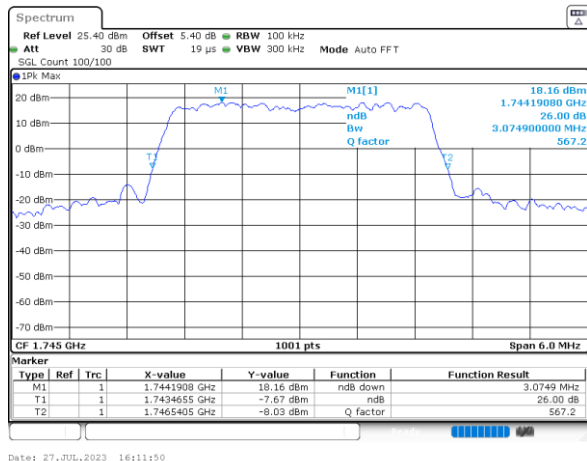


Middle Channel / 1.4MHz / 16QAM

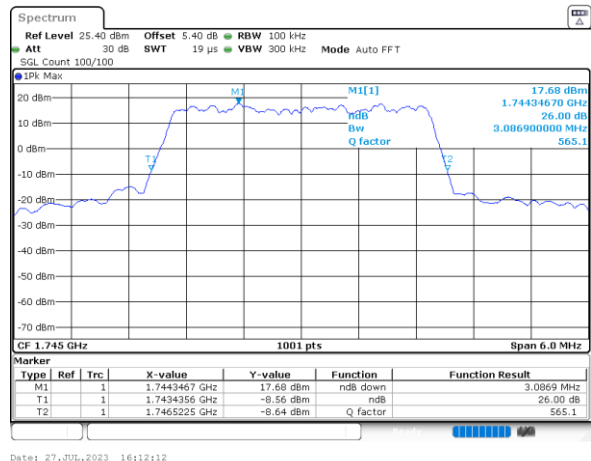


LTE Band 66

Middle Channel / 3MHz / QPSK

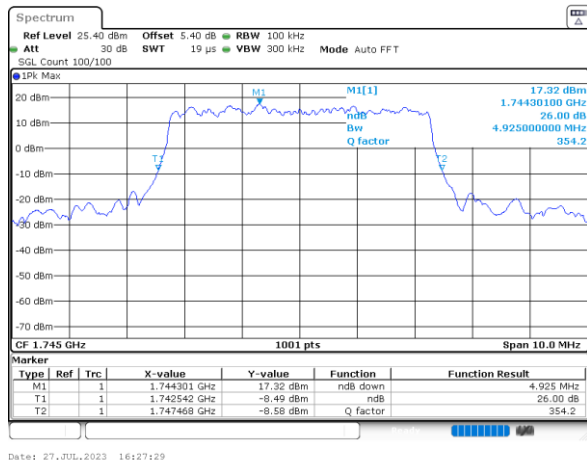


Middle Channel / 3MHz / 16QAM

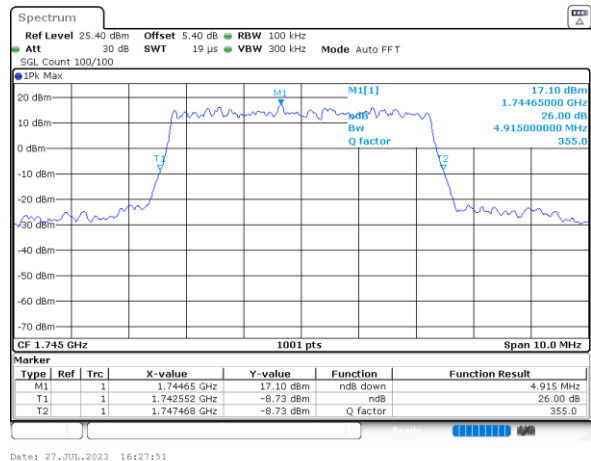


LTE Band 66

Middle Channel / 5MHz / QPSK



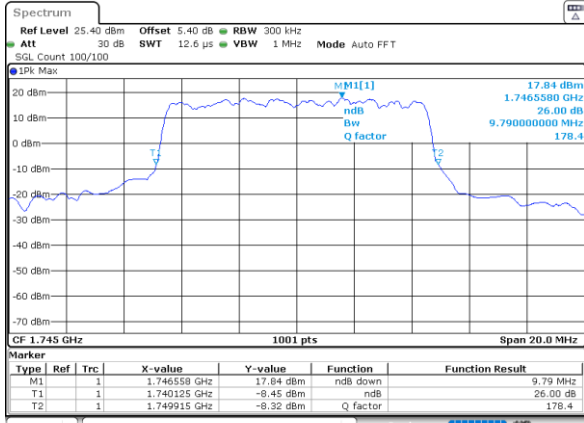
Middle Channel / 5MHz / 16QAM





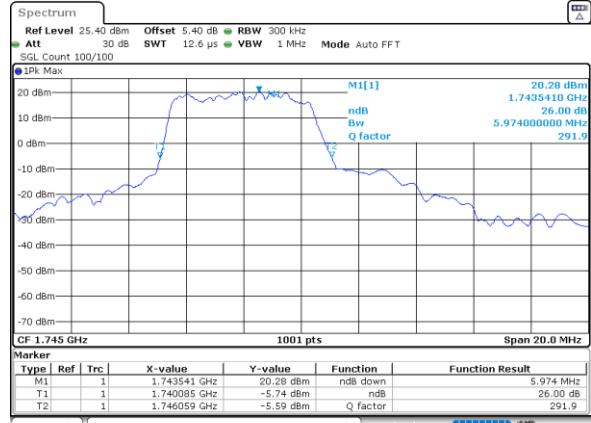
LTE Band 66

Middle Channel / 10MHz / QPSK



Date: 27.JUL.2023 16:42:41

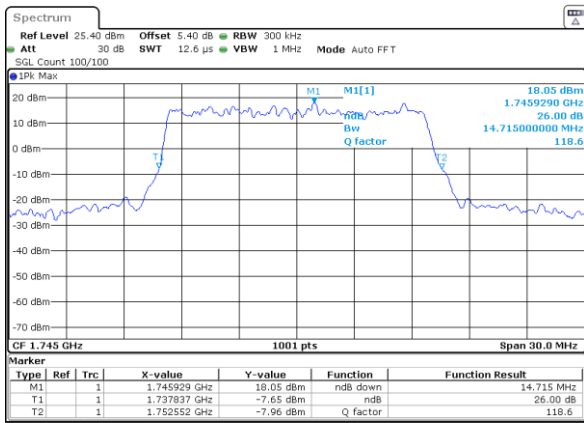
Middle Channel / 10MHz / 16QAM



Date: 27.JUL.2023 18:09:46

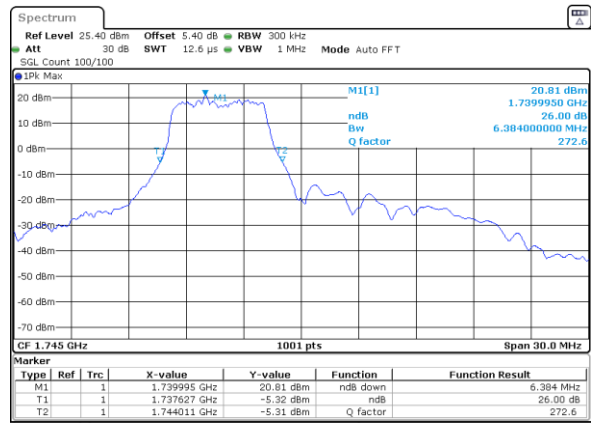
LTE Band 66

Middle Channel / 15MHz / QPSK



Date: 27.JUL.2023 16:51:56

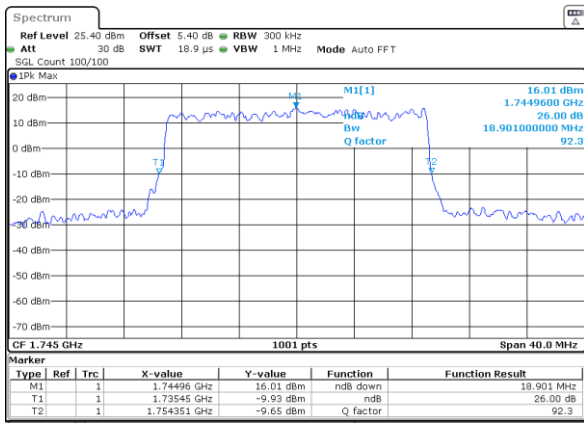
Middle Channel / 15MHz / 16QAM



Date: 27.JUL.2023 18:16:55

LTE Band 66

Middle Channel / 20MHz / QPSK



Date: 27.JUL.2023 17:05:22

Middle Channel / 20MHz / 16QAM



Date: 27.JUL.2023 18:21:44