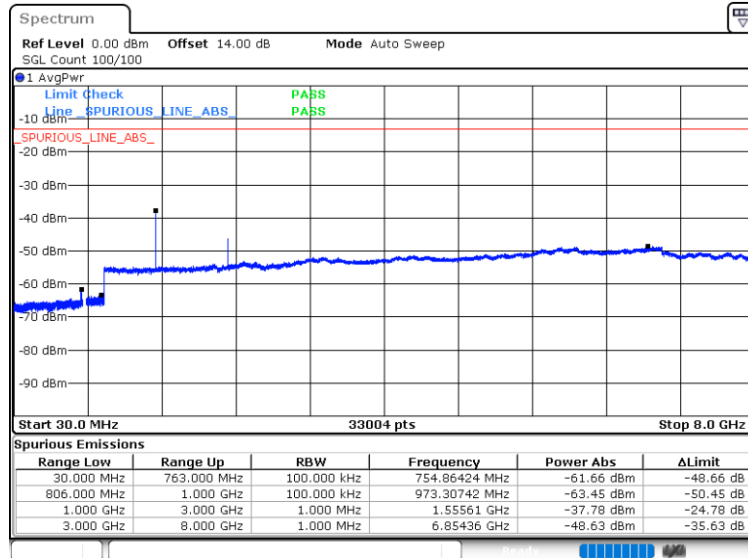




LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 22.APR.2024 16:31:21

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	0.0026	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0058	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0059	
0	Normal Voltage	0.0033	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0048	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0033	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

Note:

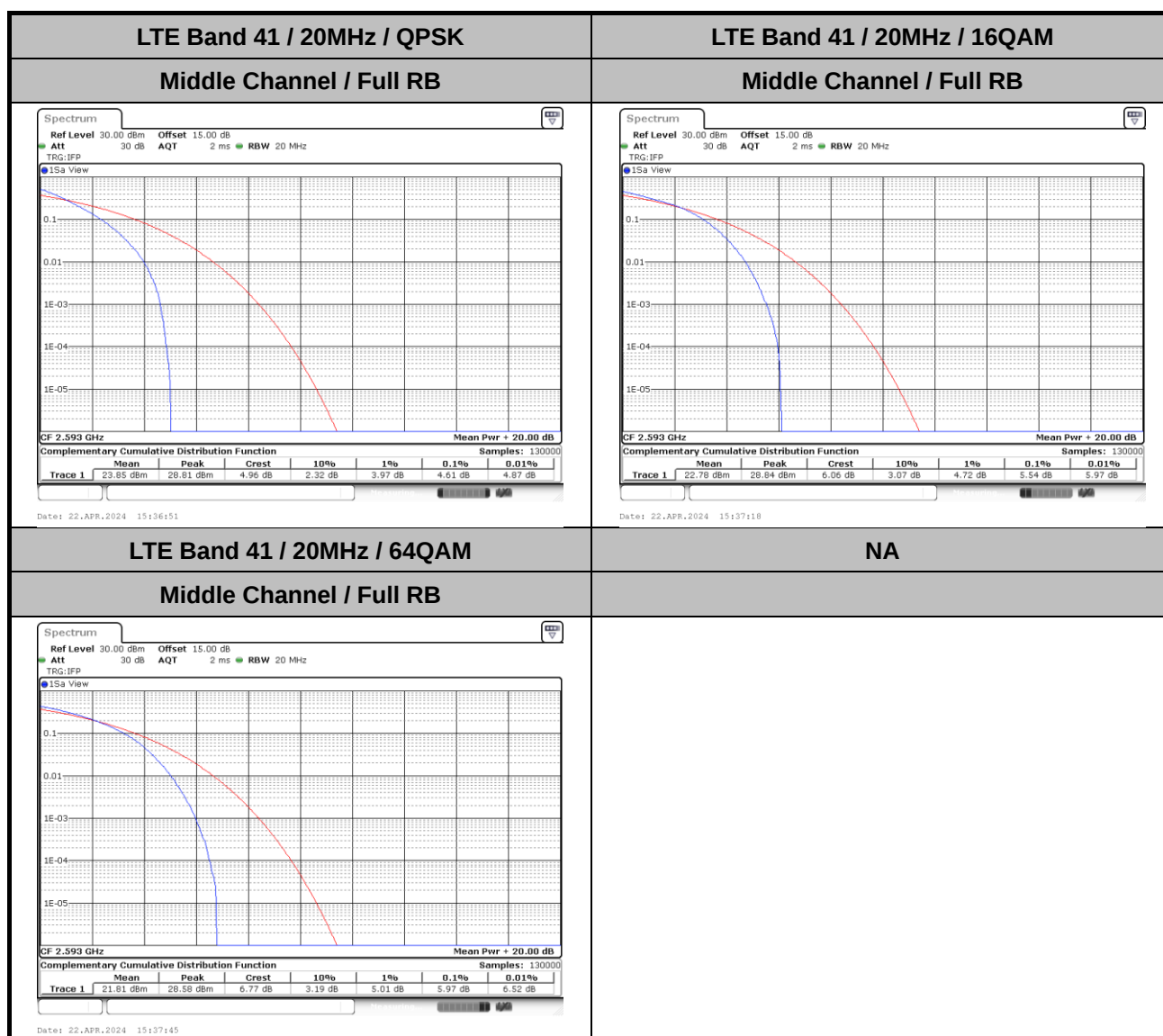
1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

Peak-to-Average Ratio

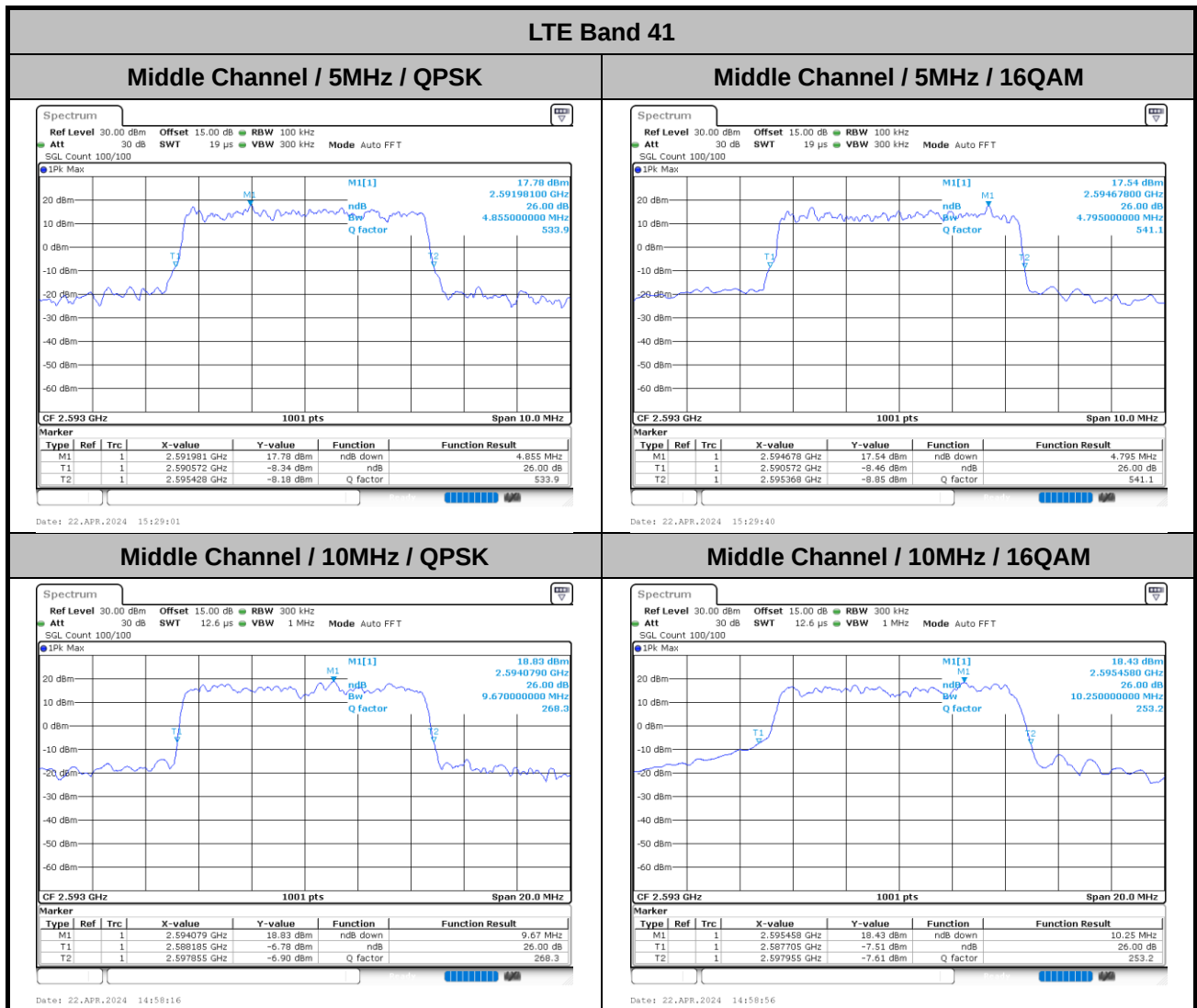
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.61	5.54	5.97	PASS





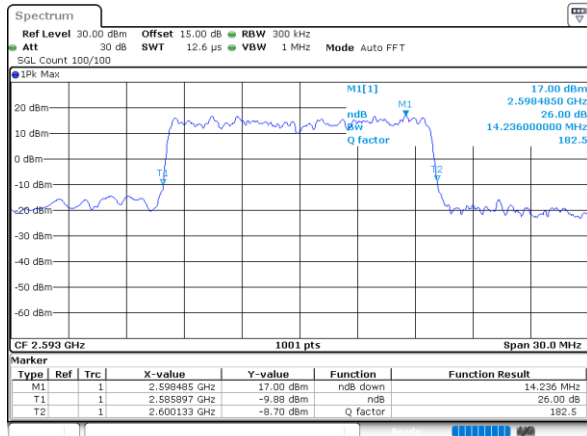
26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.86	4.80	9.67	10.25	14.24	14.30	18.62	18.94



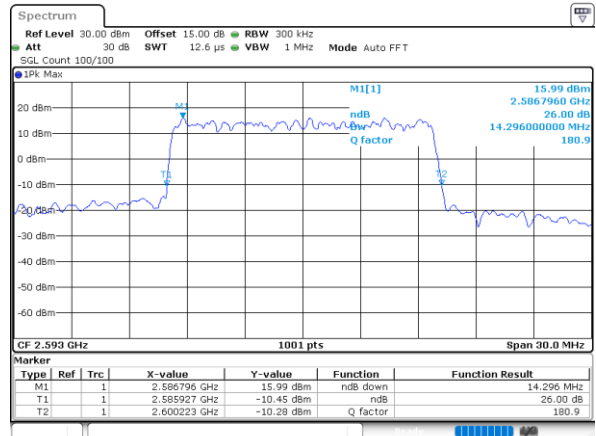


Middle Channel / 15MHz / QPSK



Date: 24.APR.2024 15:05:58

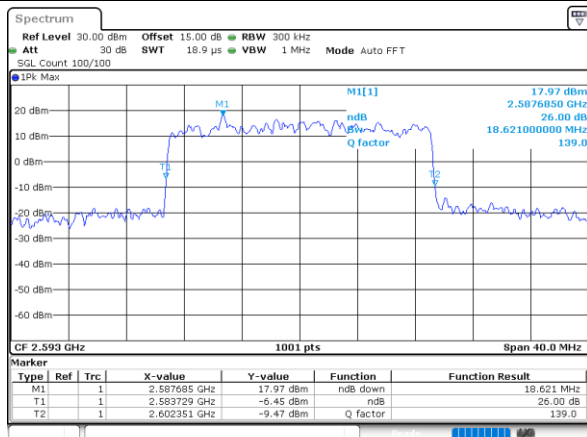
Middle Channel / 15MHz / 16QAM



Date: 24.APR.2024 15:06:37

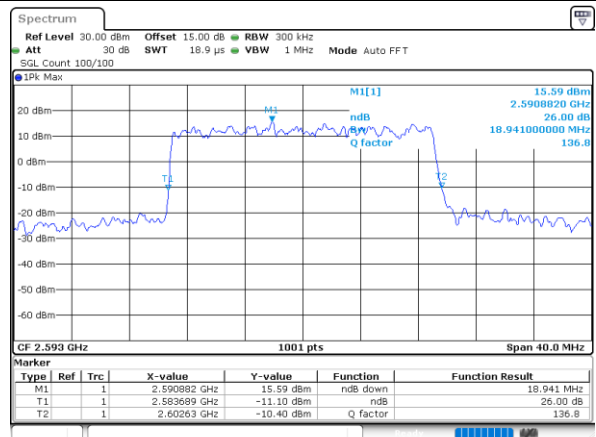
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 22.APR.2024 15:35:45

Middle Channel / 20MHz / 16QAM

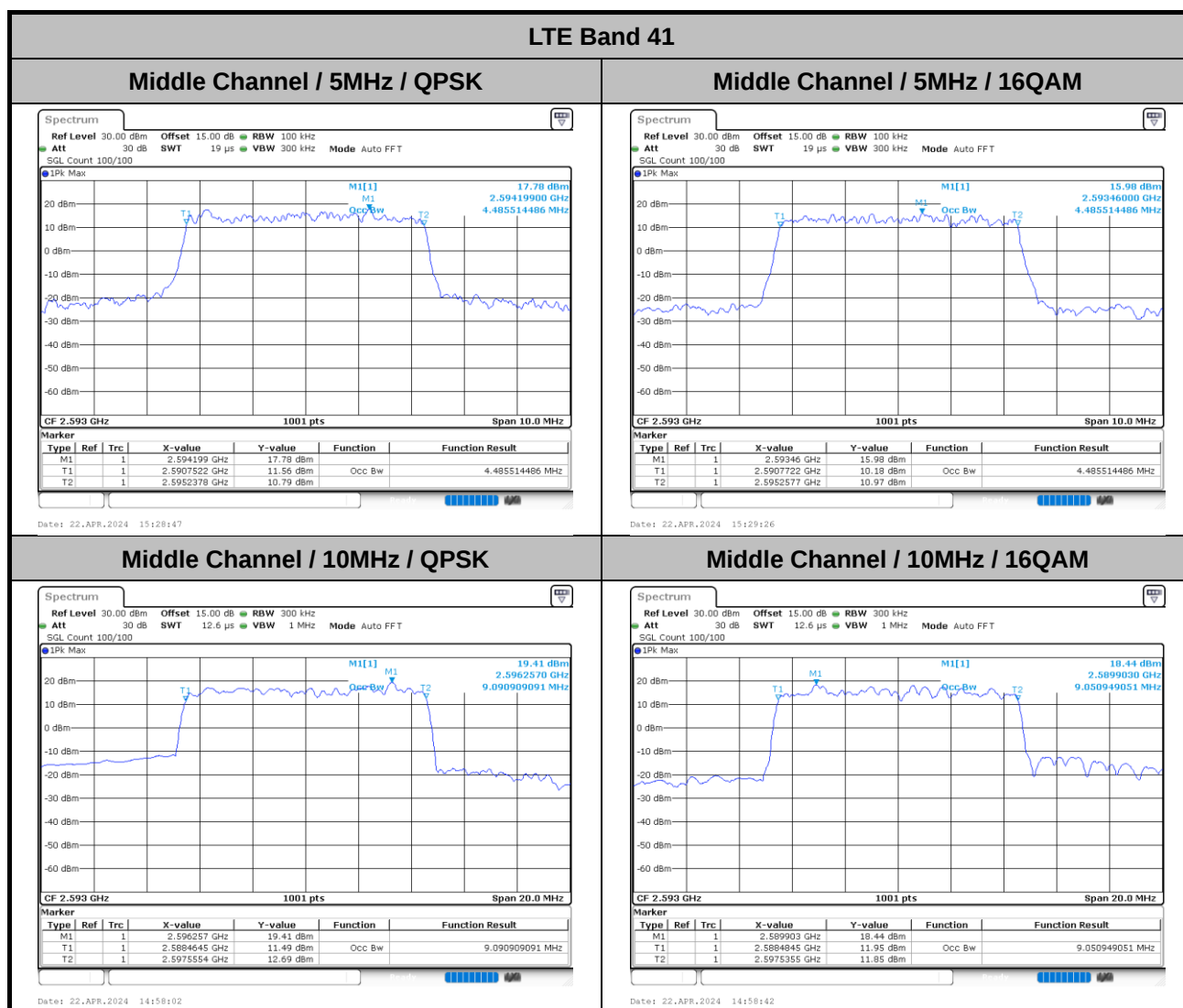


Date: 22.APR.2024 15:36:25



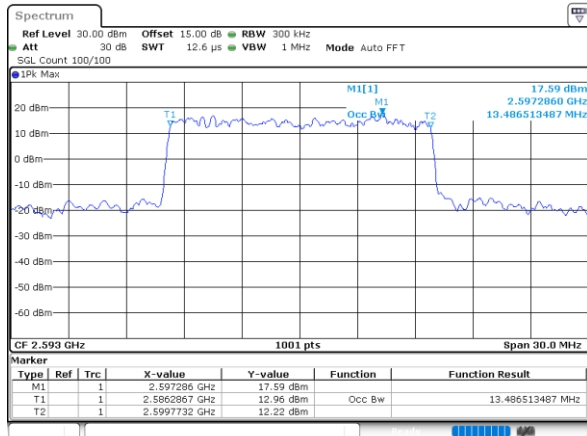
Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.49	4.49	9.09	9.05	13.49	13.43	17.90	17.94



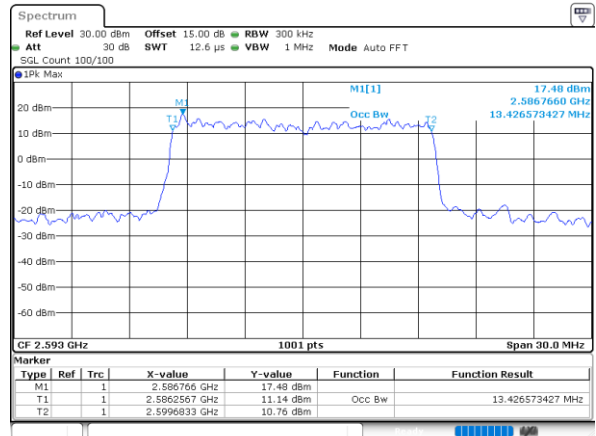


Middle Channel / 15MHz / QPSK



Date: 24.APR.2024 15:05:44

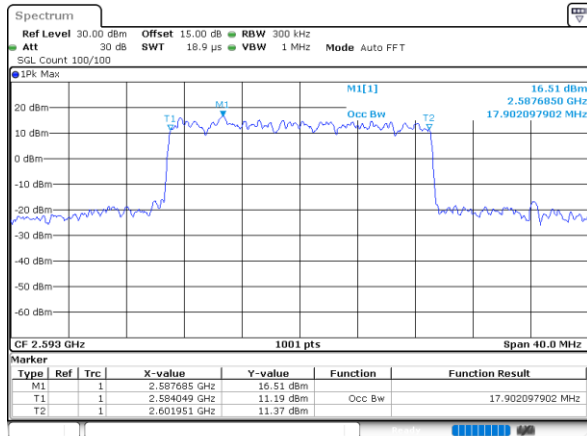
Middle Channel / 15MHz / 16QAM



Date: 24.APR.2024 15:06:23

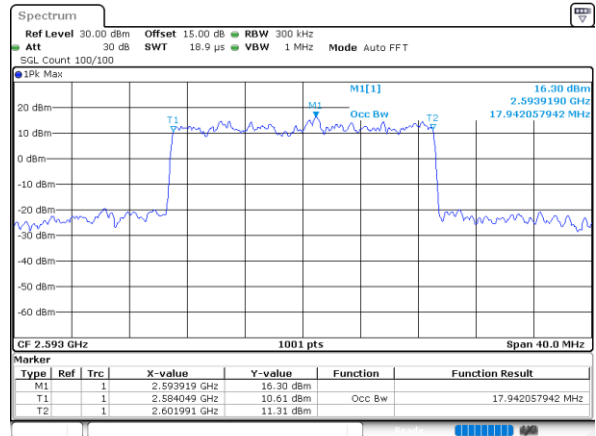
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 22.APR.2024 15:35:31

Middle Channel / 20MHz / 16QAM



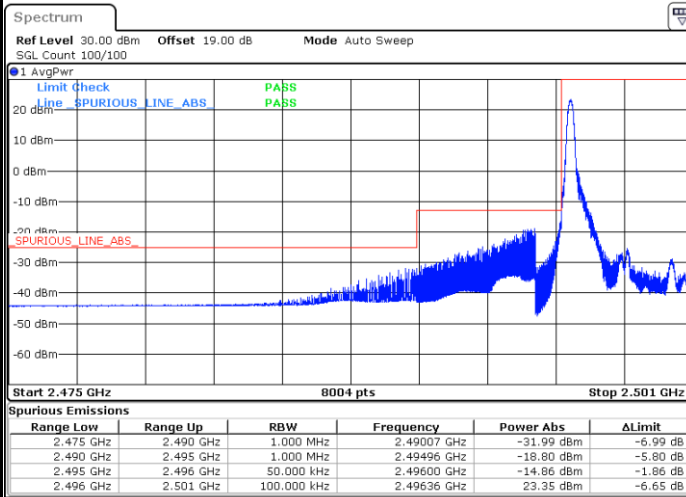
Date: 22.APR.2024 15:36:11



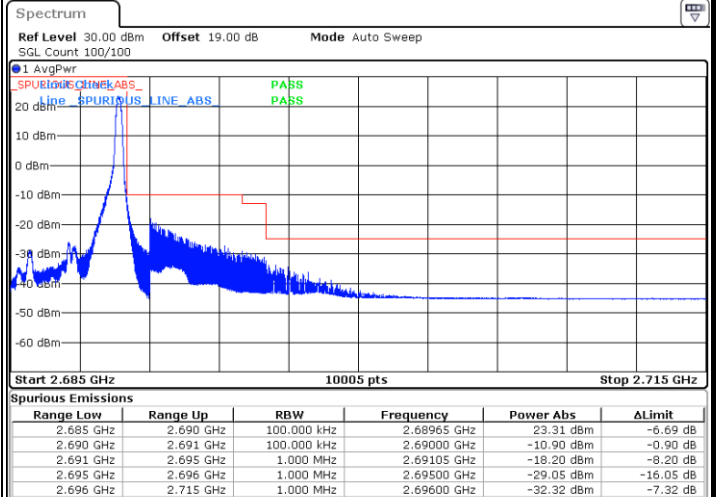
Conducted Band Edge

LTE Band 41 / 5MHz / QPSK

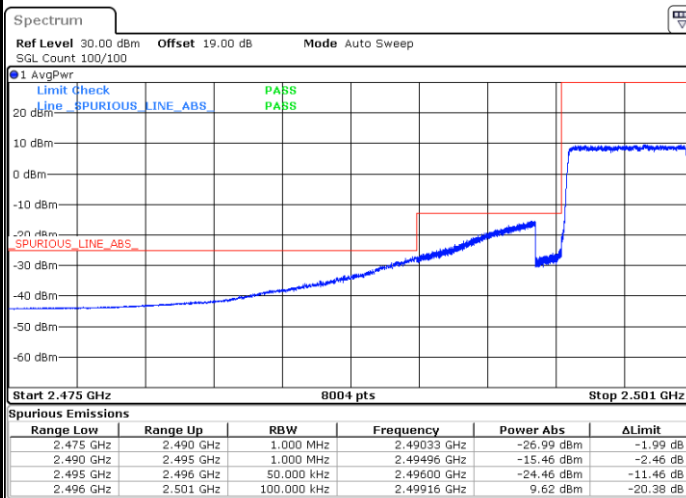
Lowest Band Edge / 1 RB



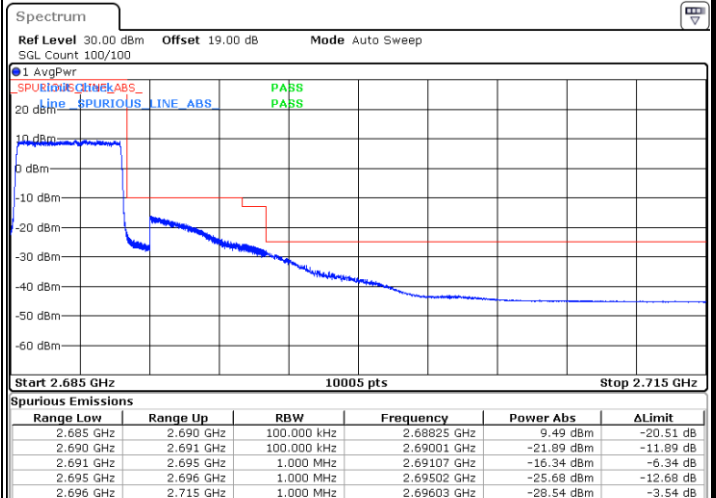
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



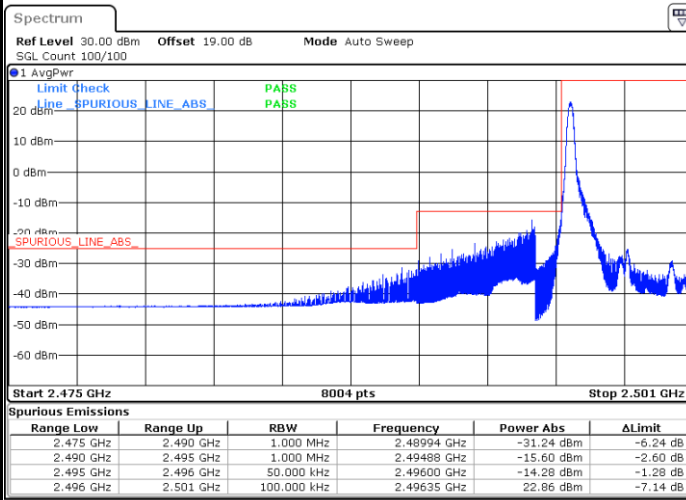
Highest Band Edge / Full RB



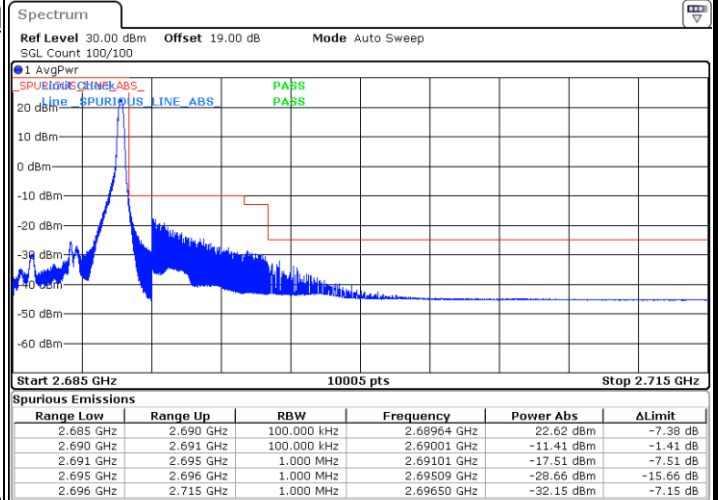


LTE Band 41 / 5MHz / 16QAM

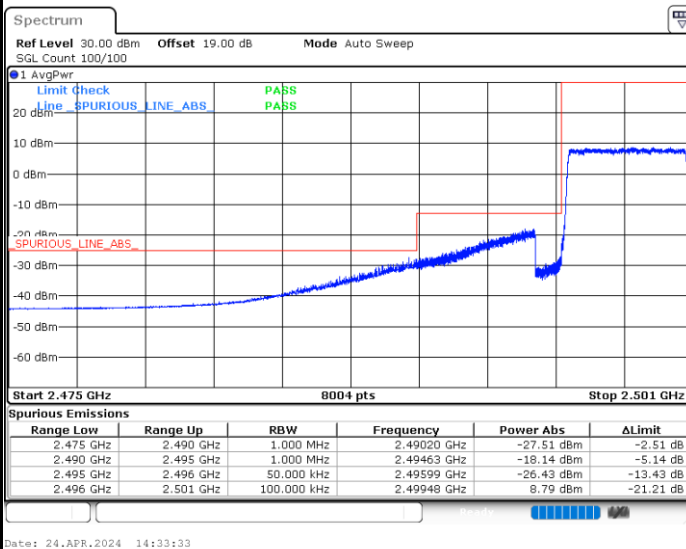
Lowest Band Edge / 1RB



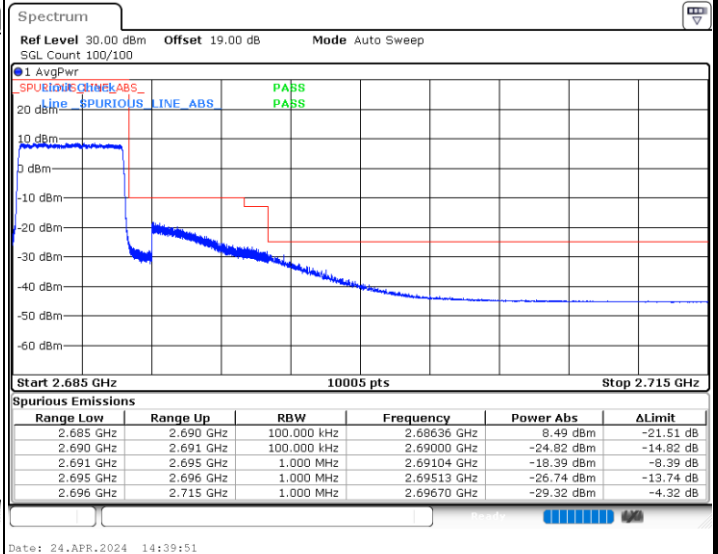
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



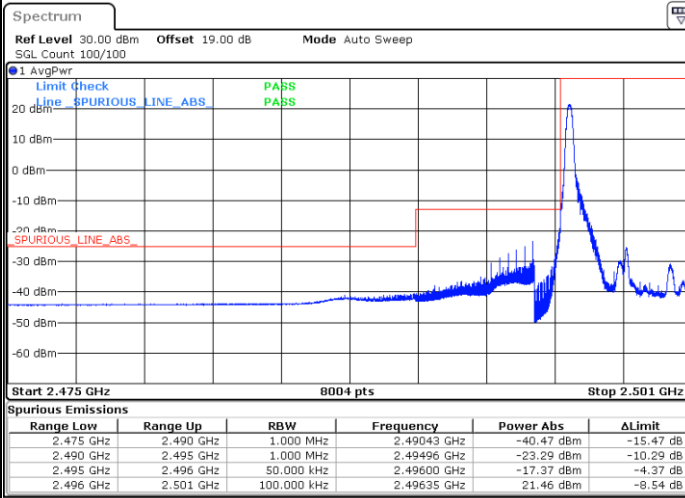
Highest Band Edge / Full RB



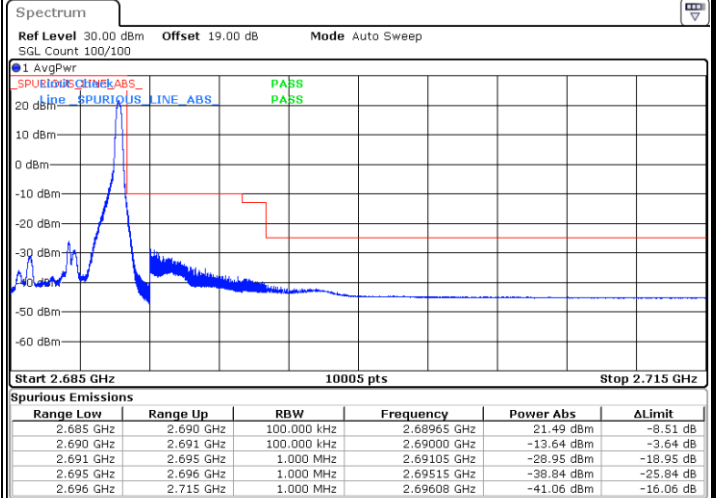


LTE Band 41 / 5MHz / 64QAM

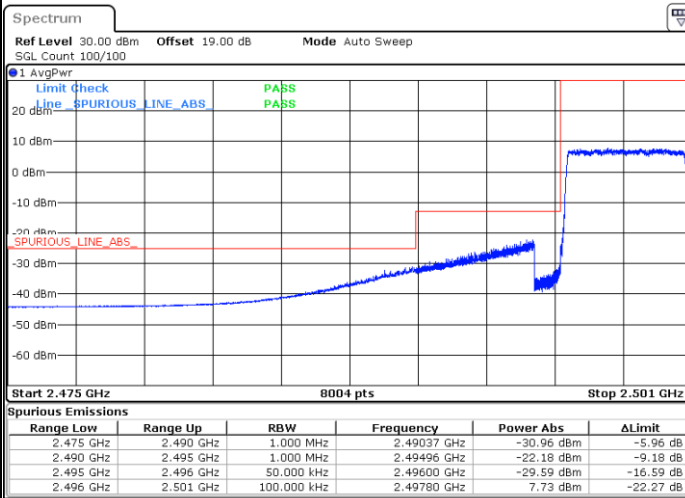
Lowest Band Edge / 1RB



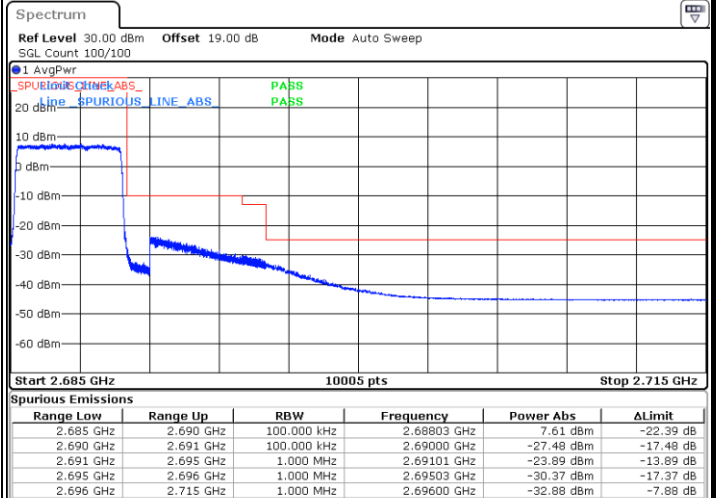
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



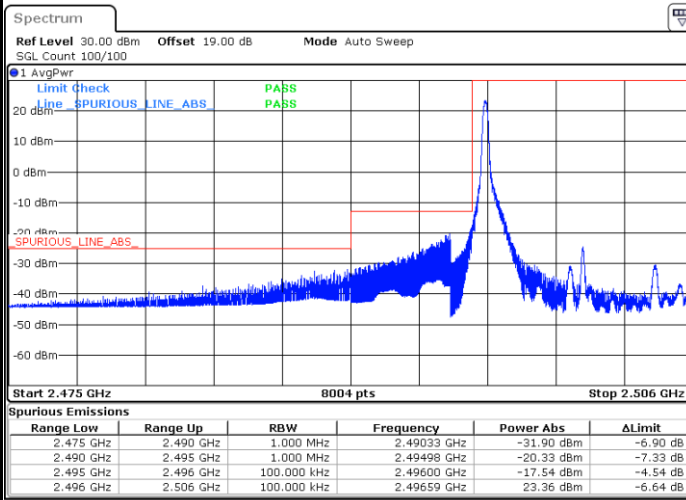
Highest Band Edge / Full RB



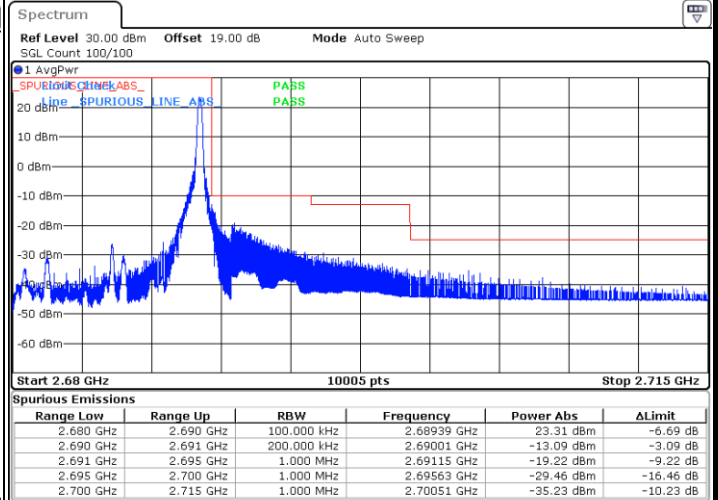


LTE Band 41 / 10MHz / QPSK

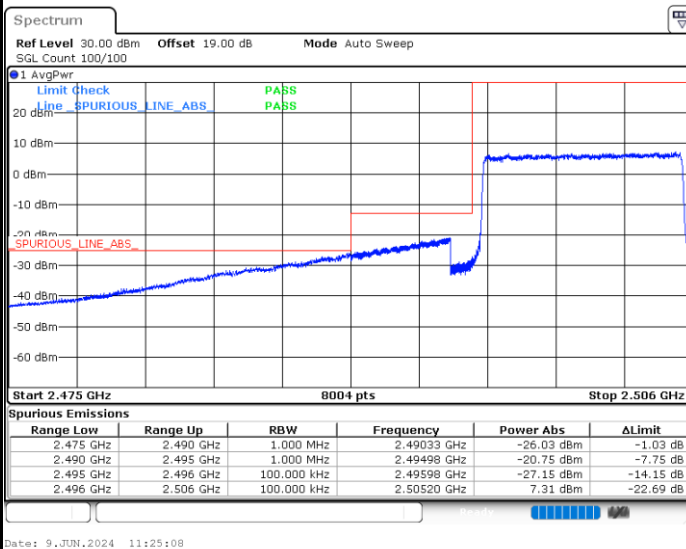
Lowest Band Edge / 1 RB



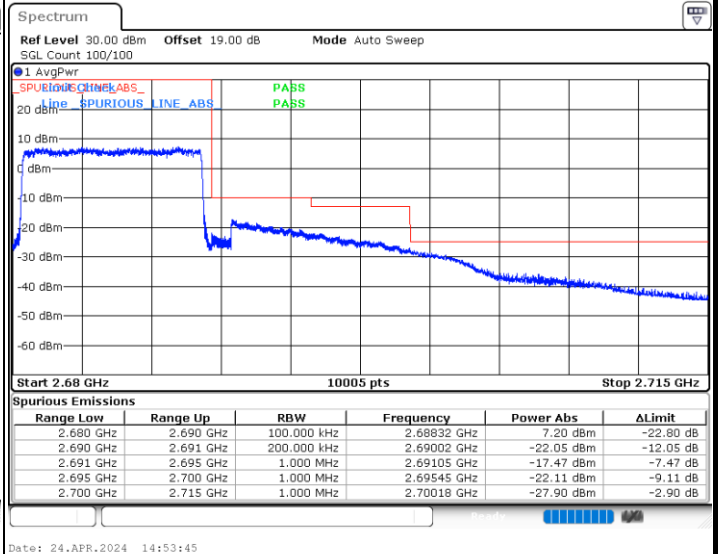
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



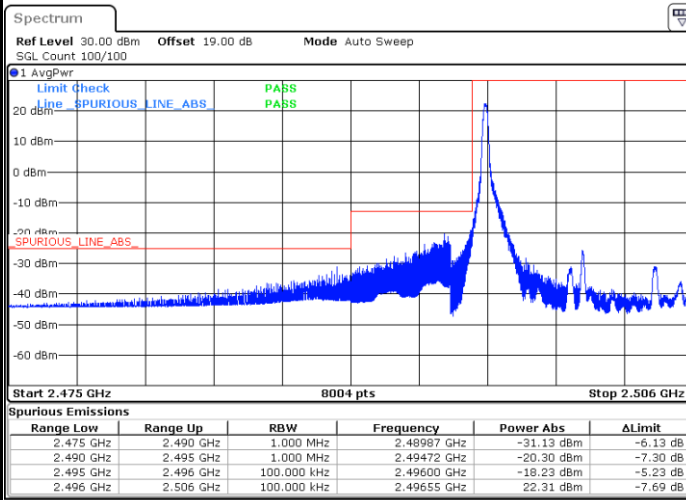
Highest Band Edge / Full RB



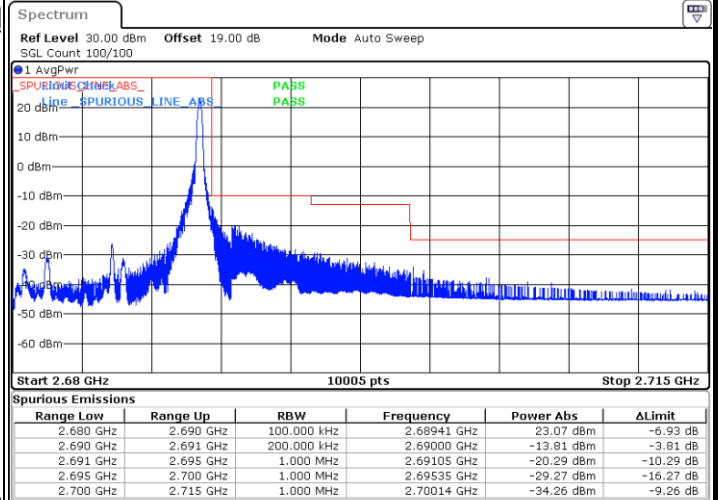


LTE Band 41 / 10MHz / 16QAM

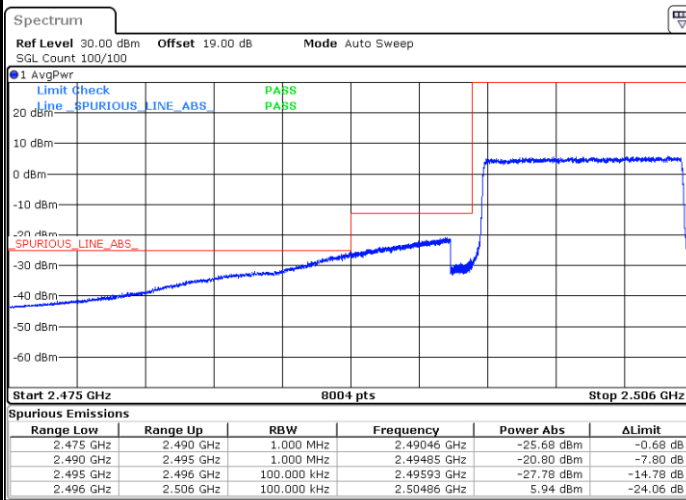
Lowest Band Edge / 1RB



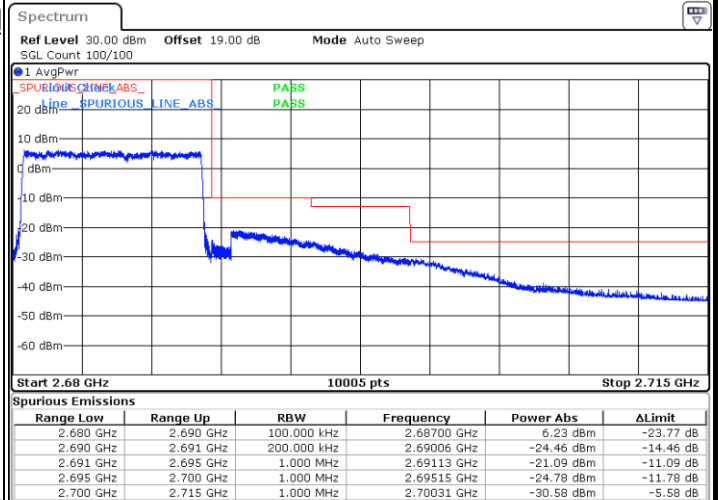
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



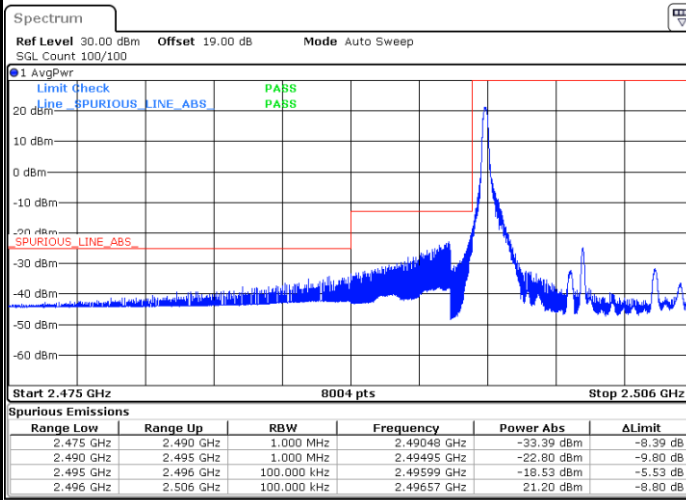
Highest Band Edge / Full RB



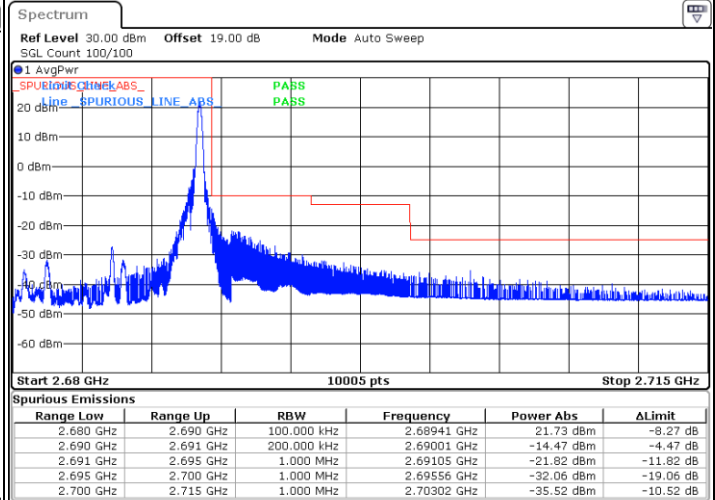


LTE Band 41 / 10MHz / 64QAM

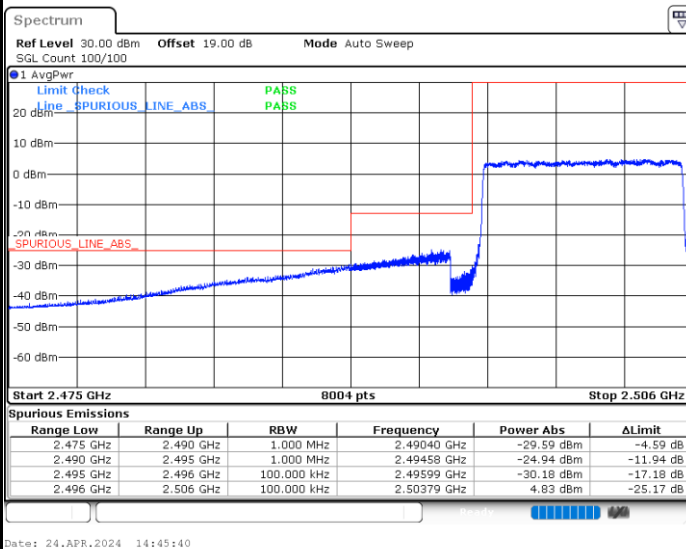
Lowest Band Edge / 1RB



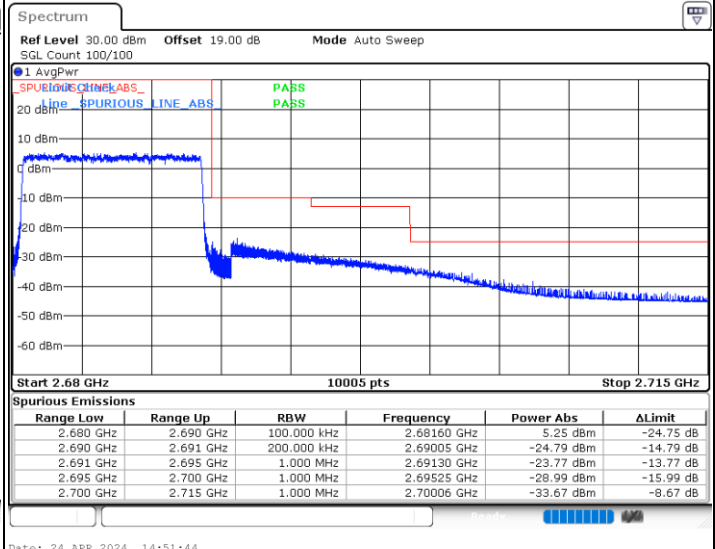
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



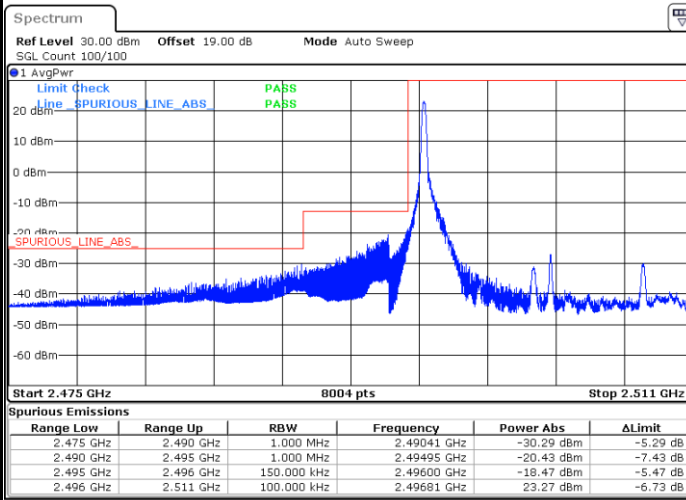
Highest Band Edge / Full RB



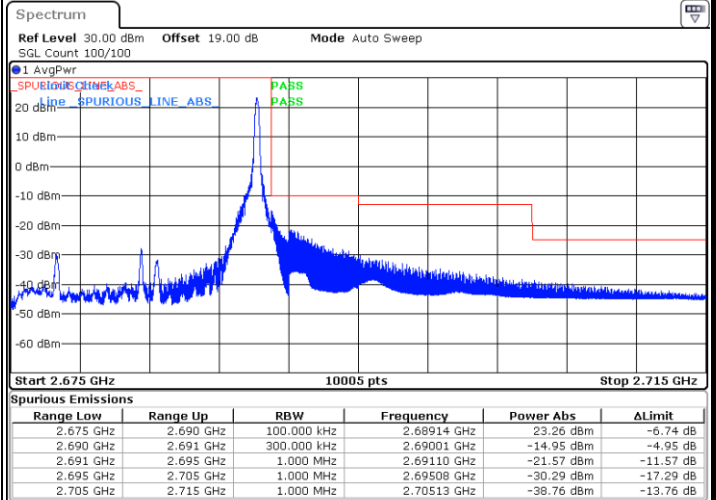


LTE Band 41 / 15MHz / QPSK

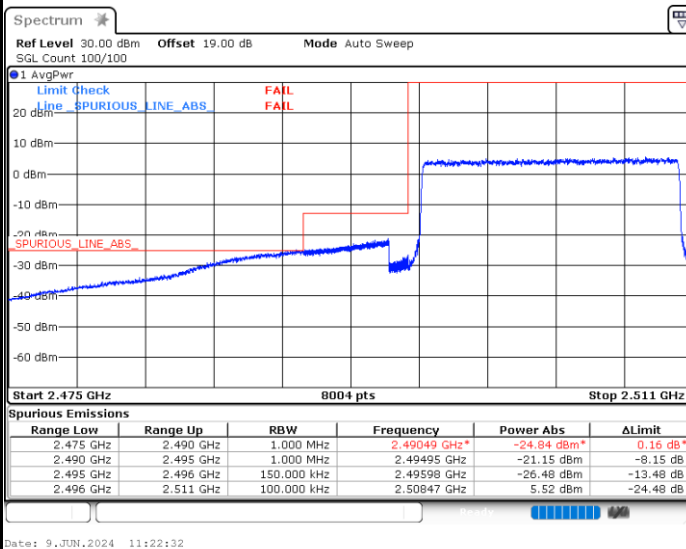
Lowest Band Edge / 1 RB



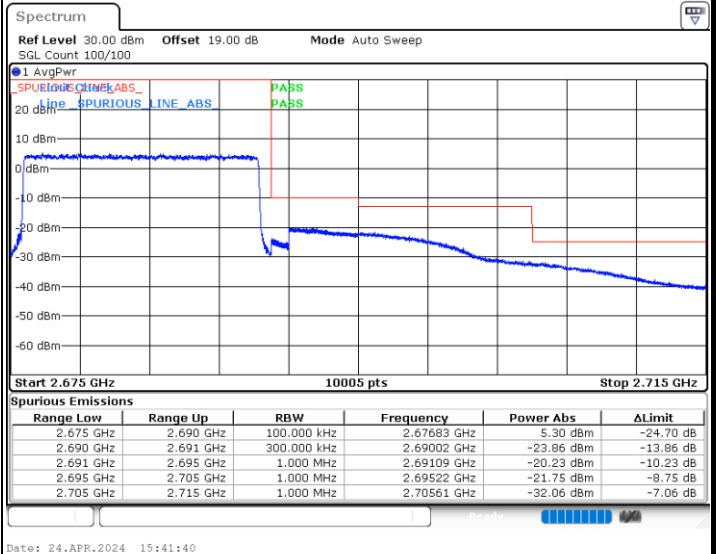
Highest Band Edge / 1 RB

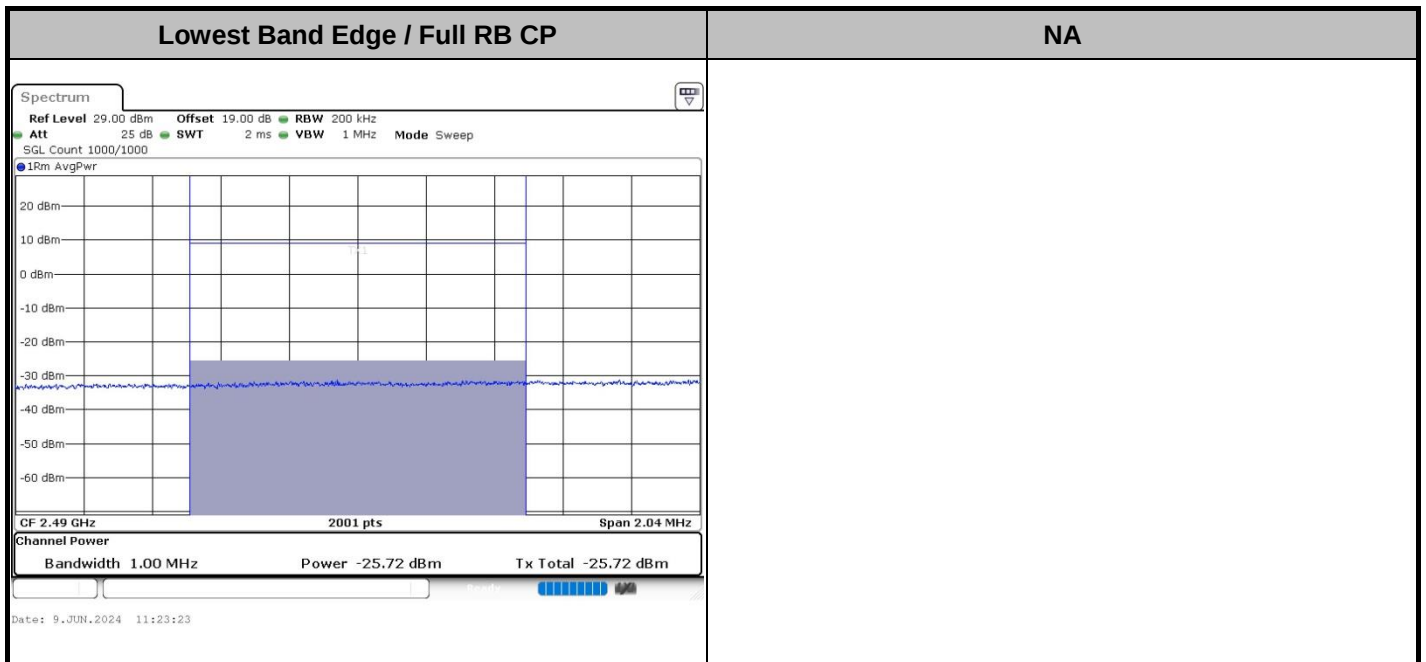


Lowest Band Edge / Full RB



Highest Band Edge / Full RB

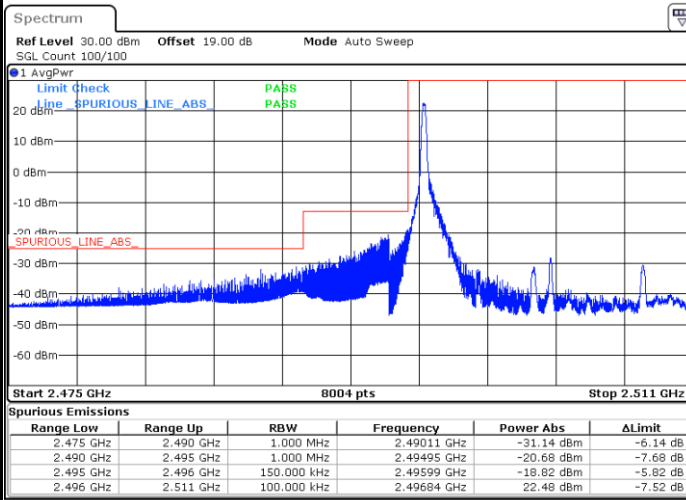




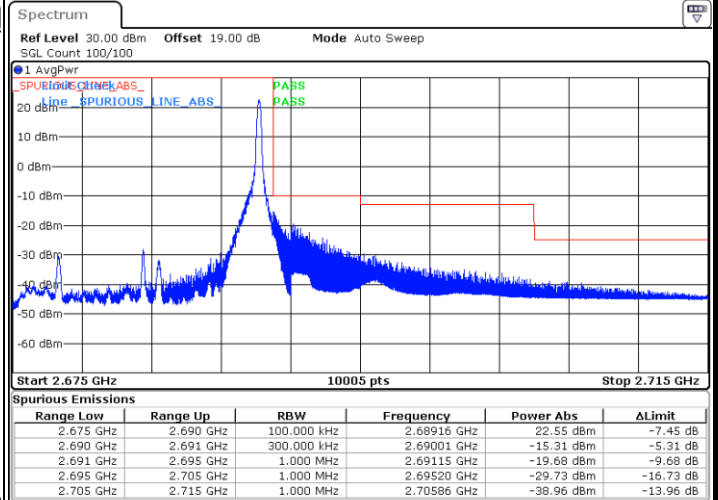


LTE Band 41 / 15MHz / 16QAM

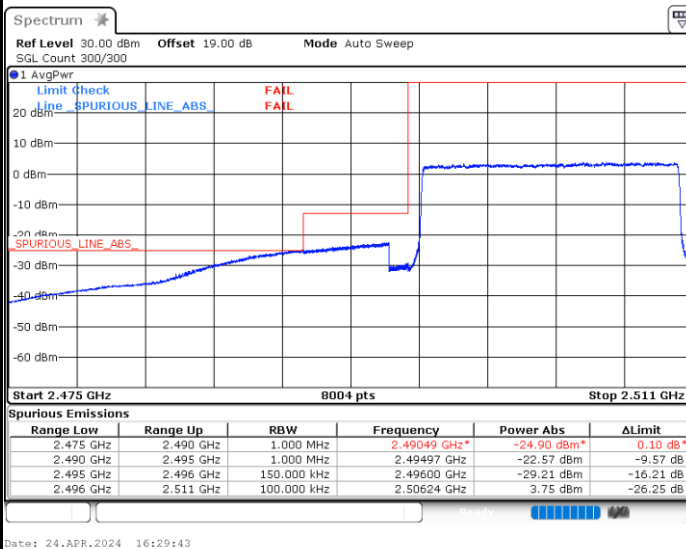
Lowest Band Edge / 1RB



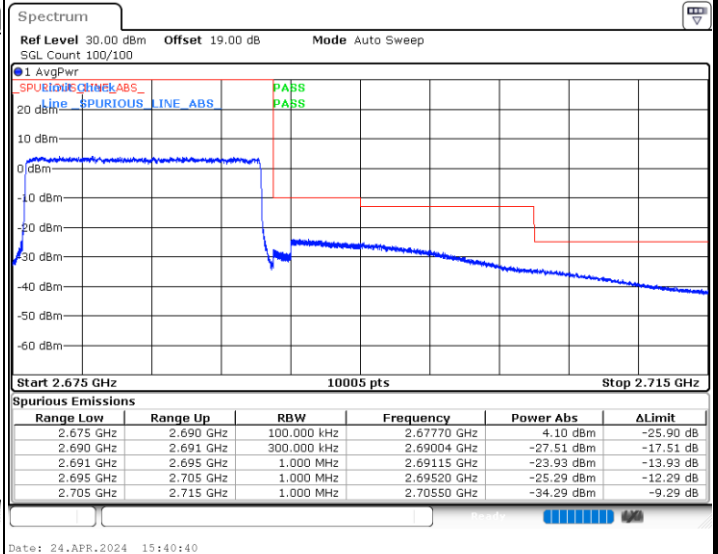
Highest Band Edge / 1 RB

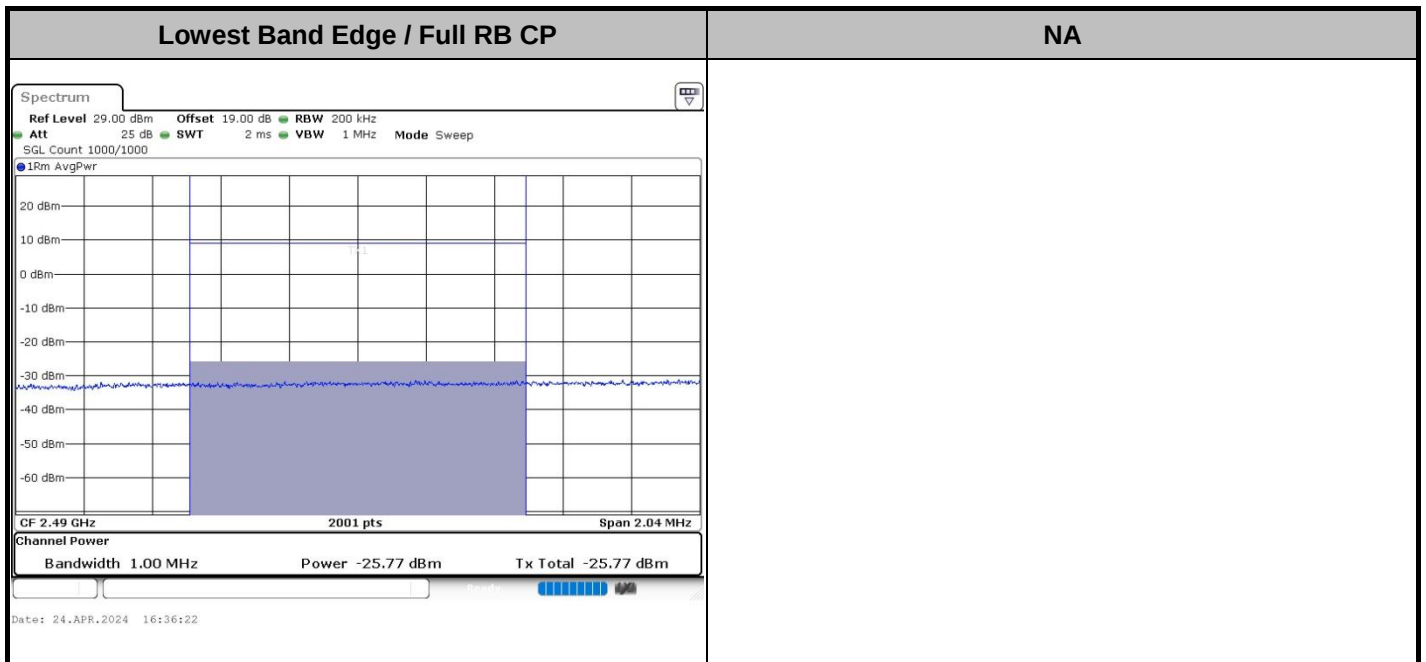


Lowest Band Edge / Full RB



Highest Band Edge / Full RB

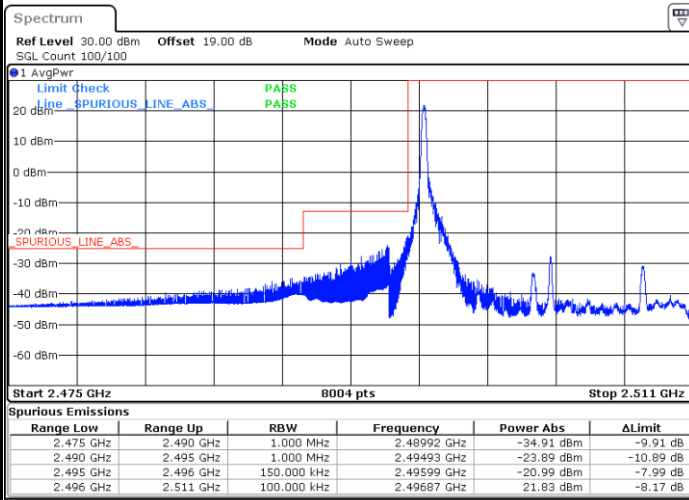




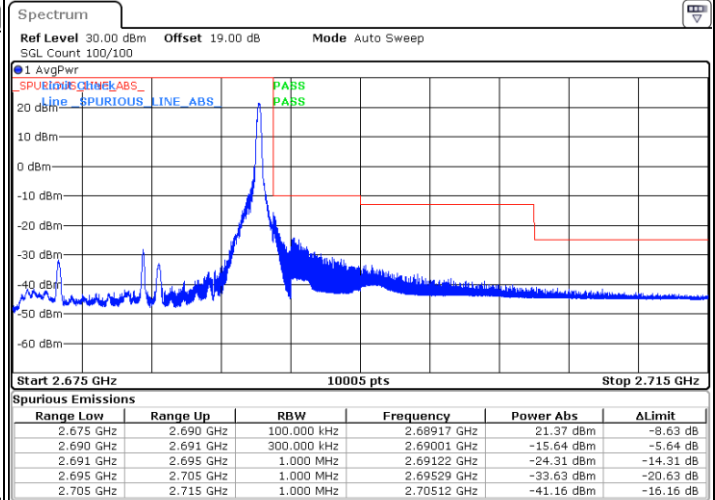


LTE Band 41 / 15MHz / 64QAM

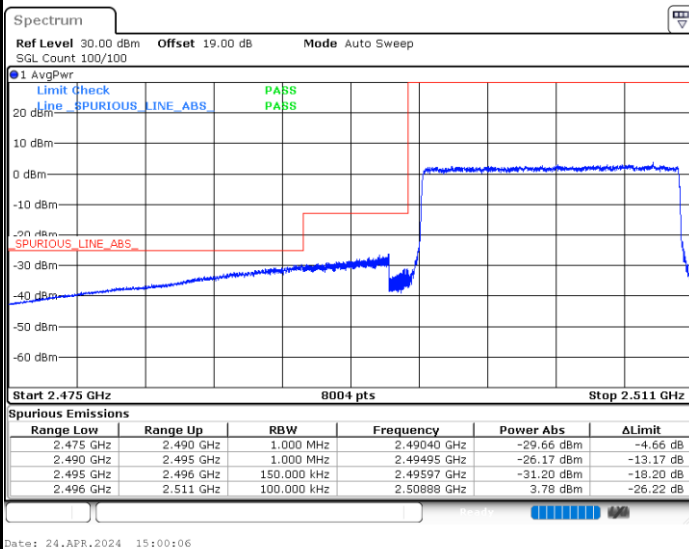
Lowest Band Edge / 1RB



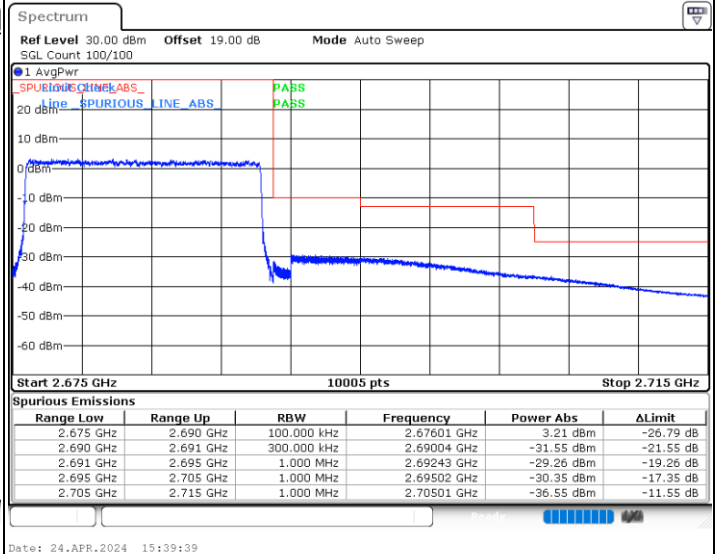
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



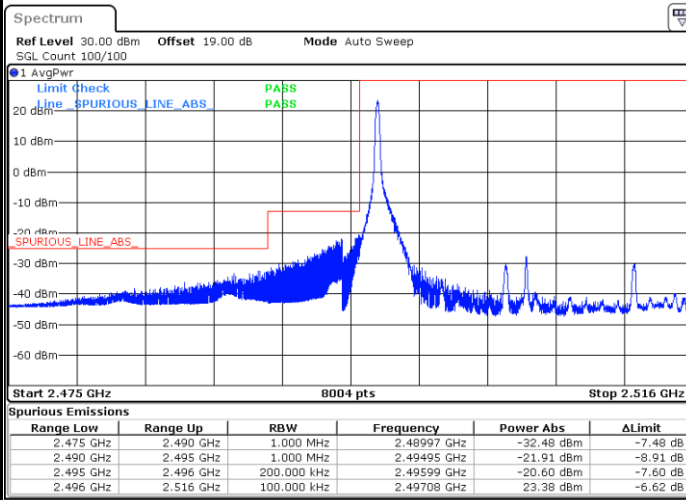
Highest Band Edge / Full RB



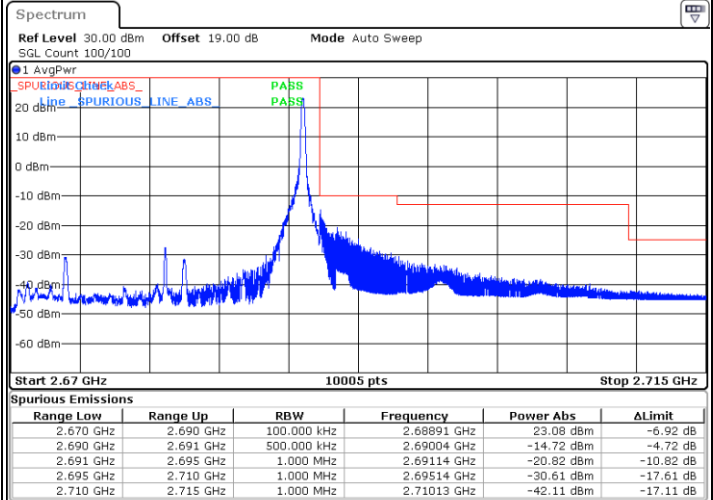


LTE Band 41 / 20MHz / QPSK

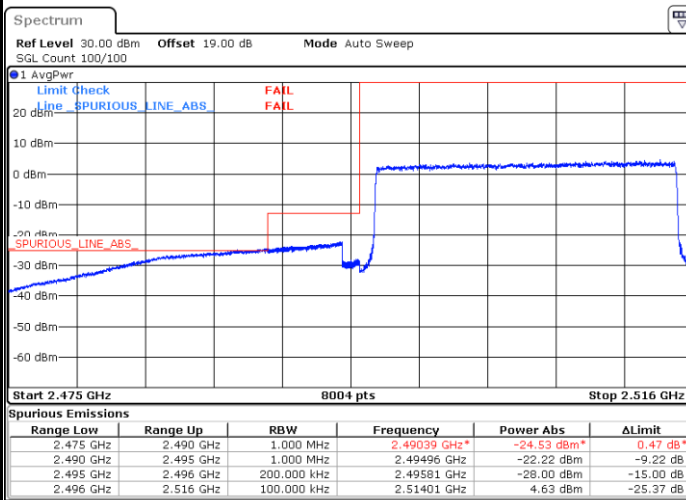
Lowest Band Edge / 1 RB



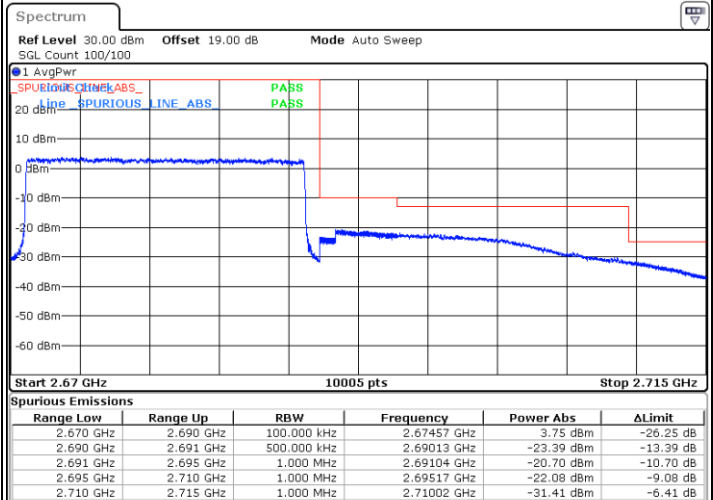
Highest Band Edge / 1 RB

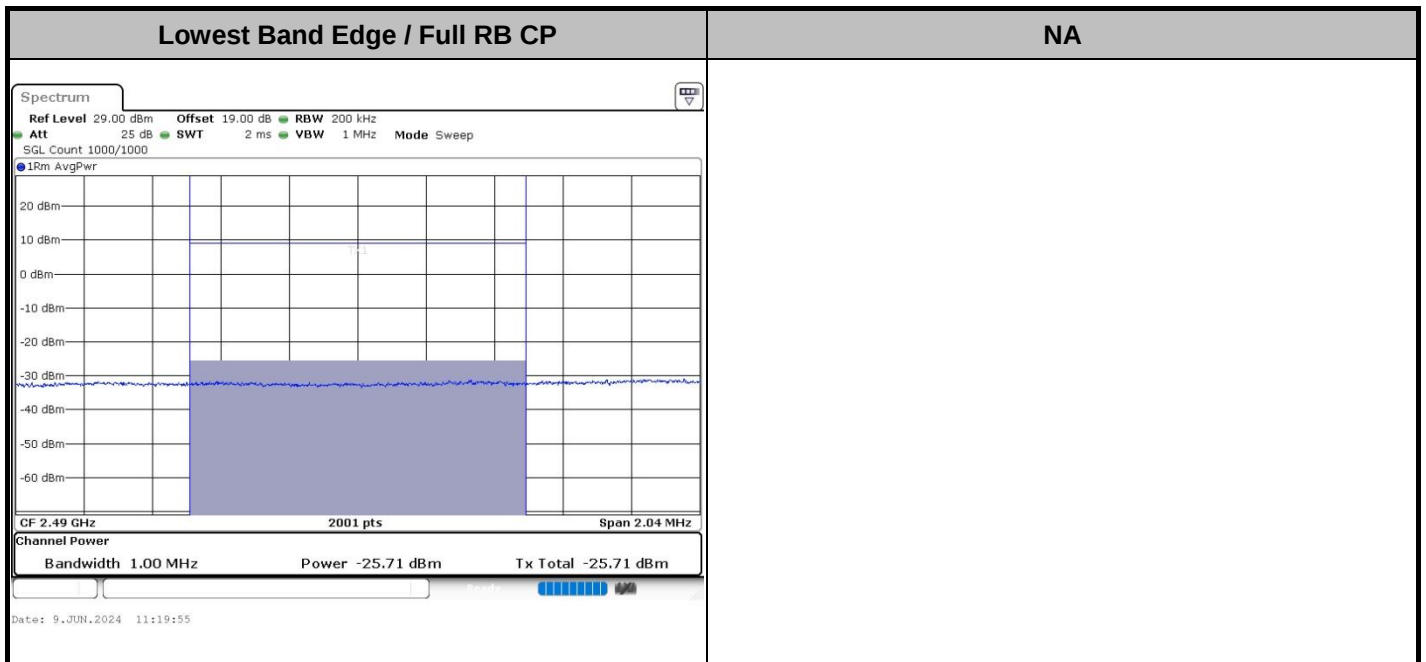


Lowest Band Edge / Full RB



Highest Band Edge / Full RB

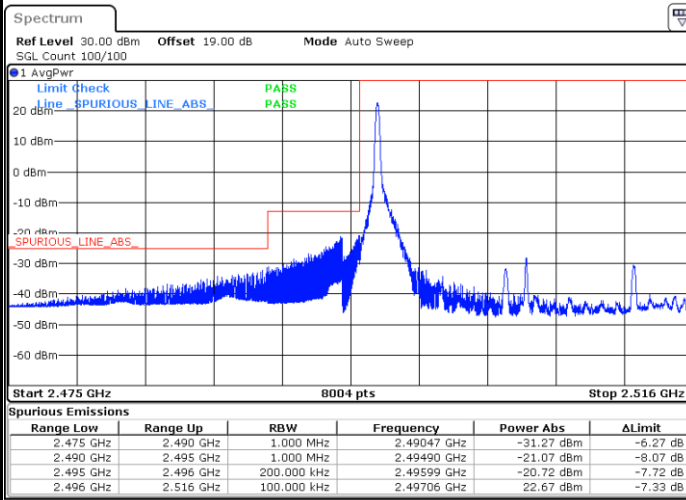




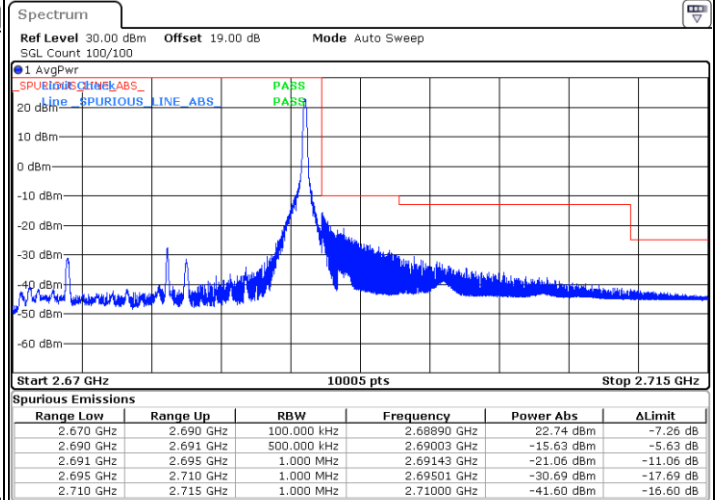


LTE Band 41 / 20MHz / 16QAM

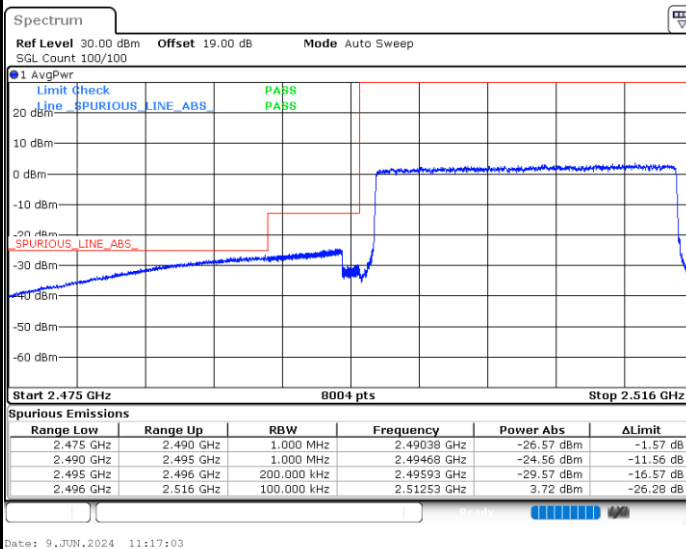
Lowest Band Edge / 1RB



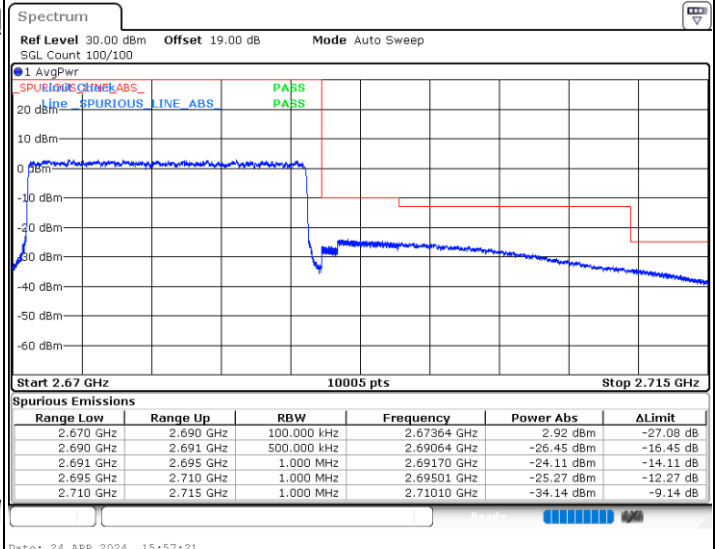
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



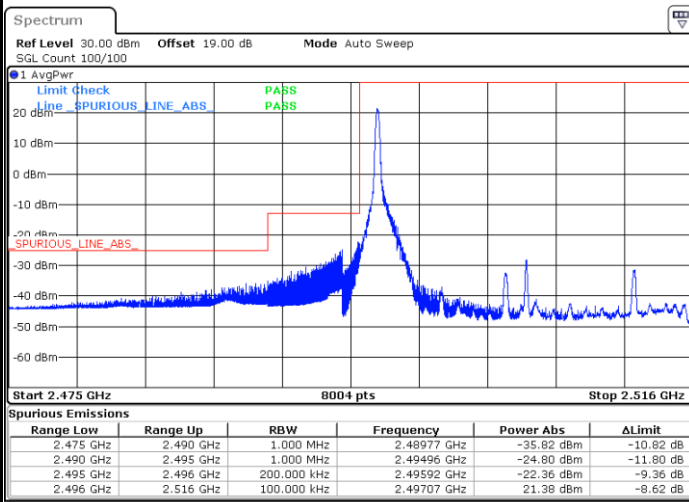
Highest Band Edge / Full RB



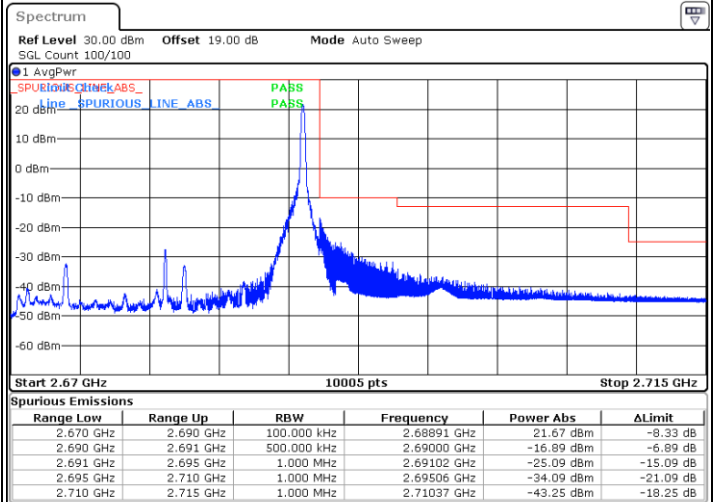


LTE Band 41 / 20MHz / 64QAM

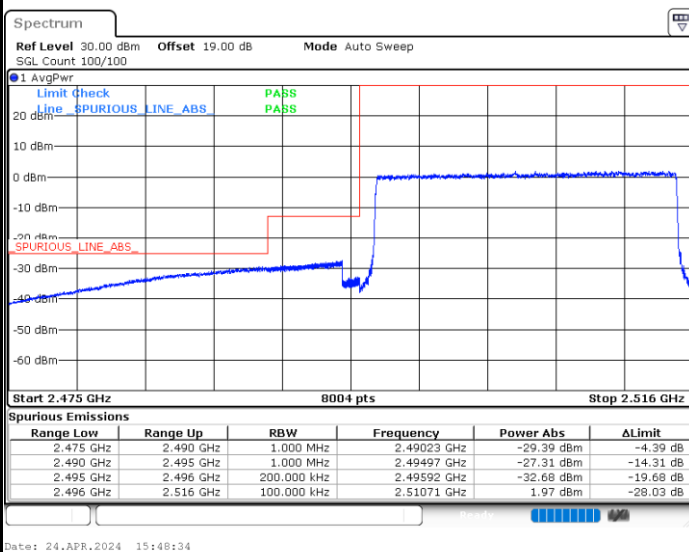
Lowest Band Edge / 1RB



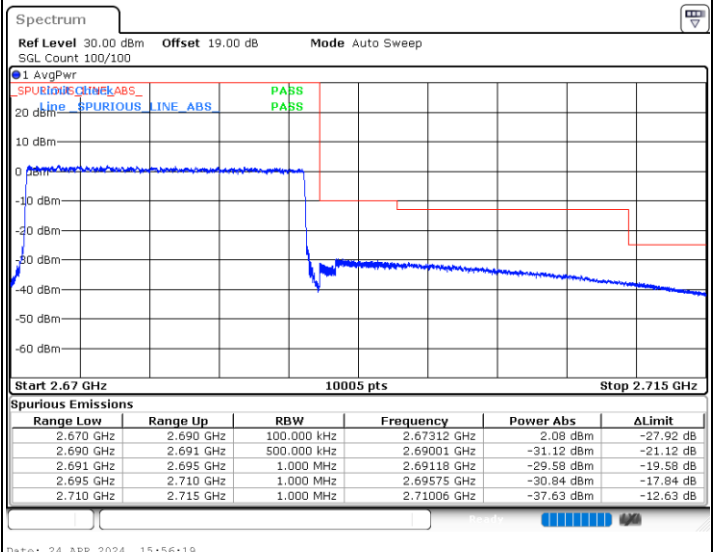
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



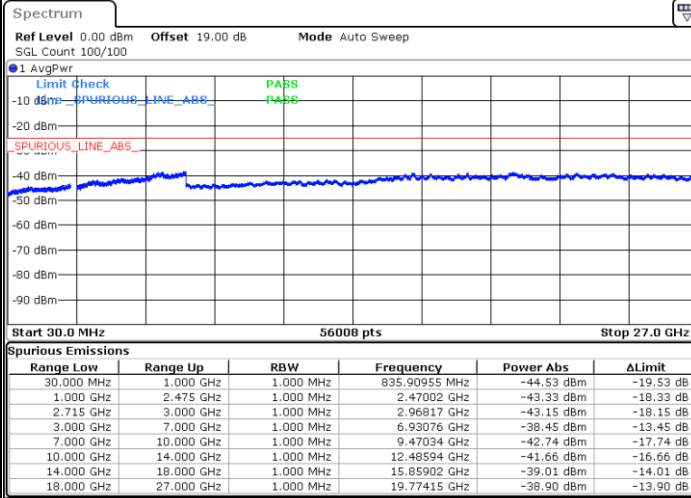
Note: for bandedge test, the "CP" means channel power integrated method.



Conducted Spurious Emission

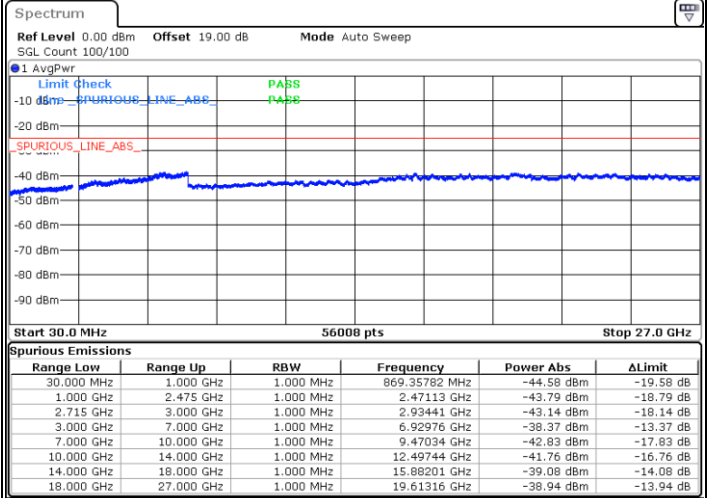
LTE Band 41 / 5MHz

Lowest Channel / QPSK



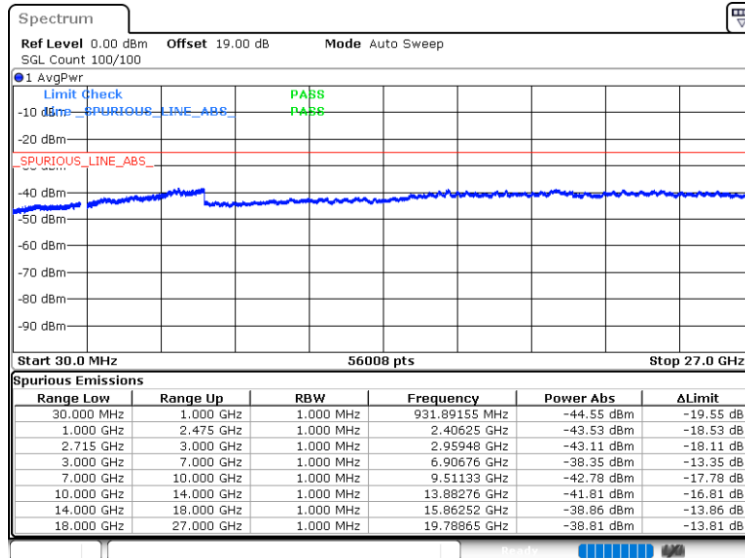
Date: 22.APR.2024 15:27:01

Middle Channel / QPSK



Date: 22.APR.2024 15:28:21

Highest Channel / QPSK



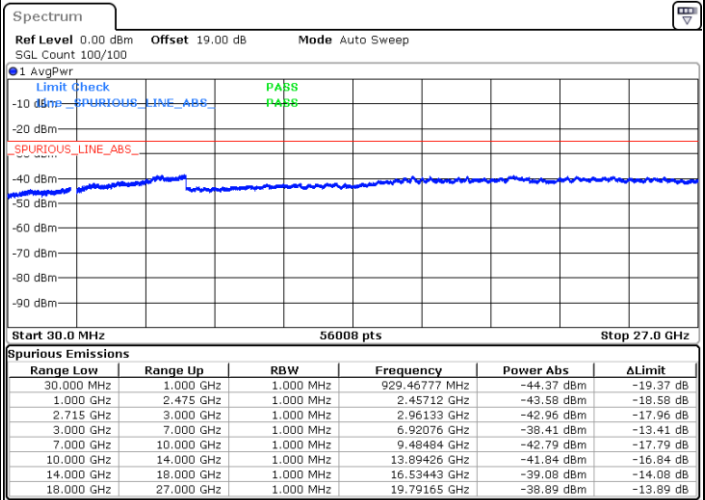
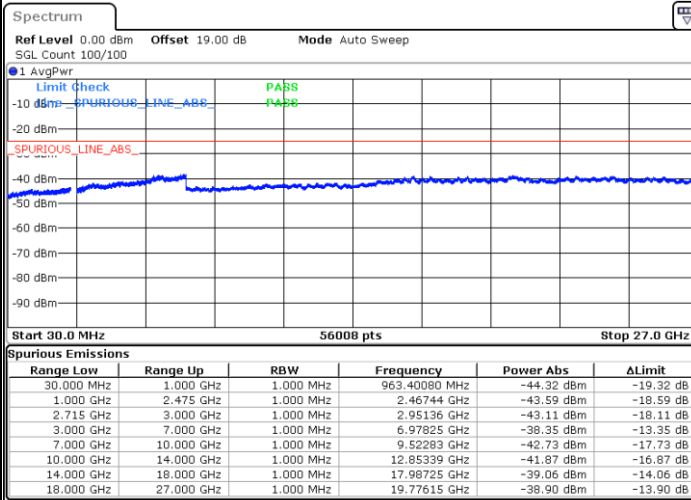
Date: 22.APR.2024 15:30:59



LTE Band 41 / 10MHz

Lowest Channel / QPSK

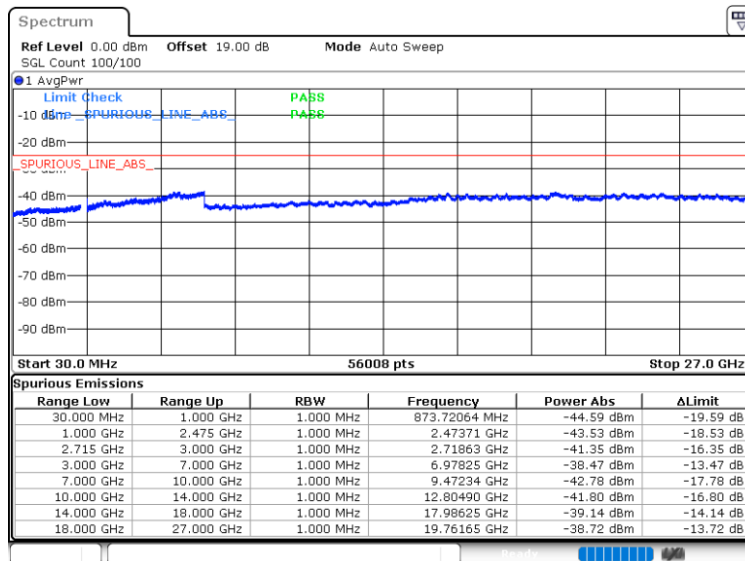
Middle Channel / QPSK



Date: 22.APR.2024 15:33:02

Date: 22.APR.2024 14:57:36

Highest Channel / QPSK



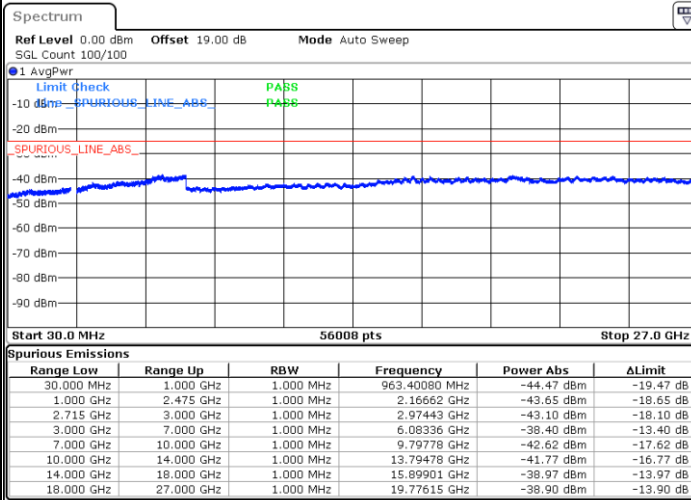
Date: 24.APR.2024 14:55:20



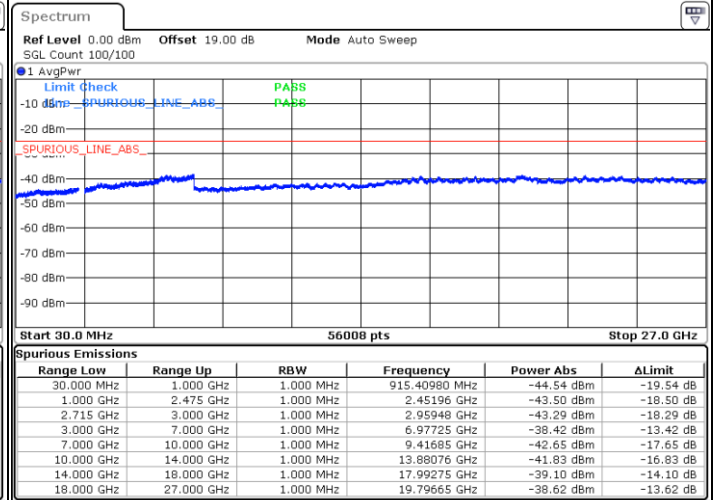
LTE Band 41 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

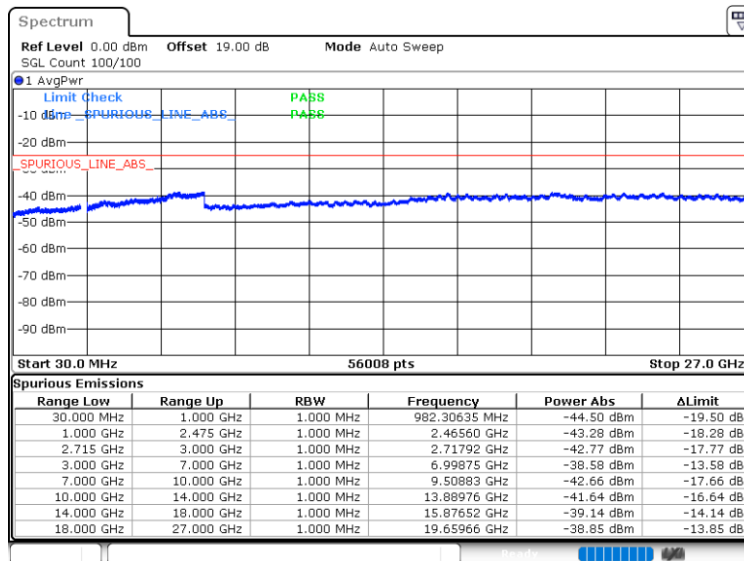


Date: 24.APR.2024 15:03:43



Date: 24.APR.2024 15:05:17

Highest Channel / QPSK



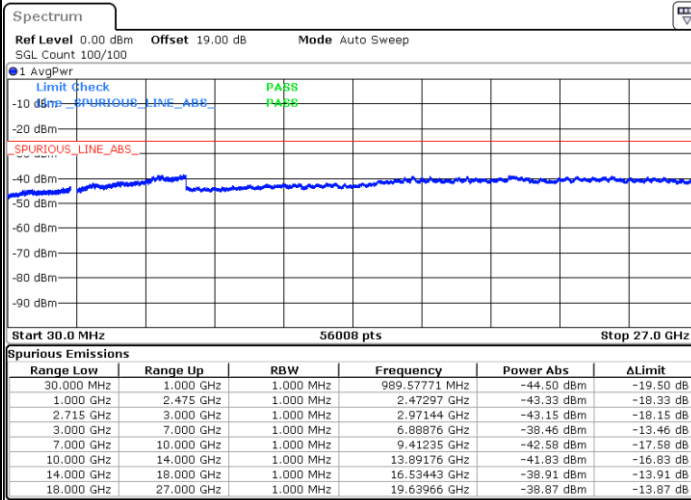
Date: 24.APR.2024 15:43:16



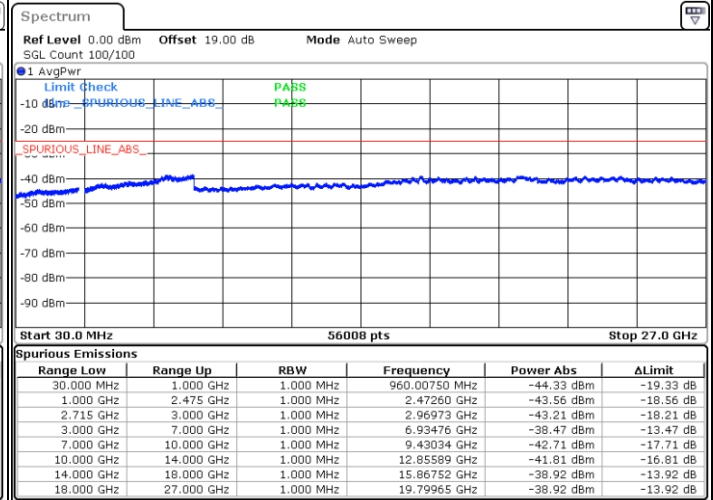
LTE Band 41 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

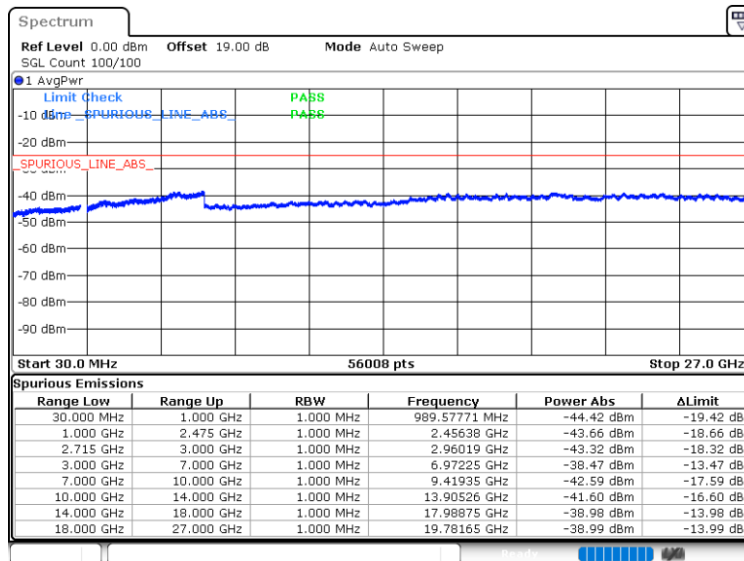


Date: 24.APR.2024 15:52:14



Date: 22.APR.2024 15:35:05

Highest Channel / QPSK



Date: 22.APR.2024 15:39:04

**Frequency Stability**

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7C

26dB Bandwidth

Mode	LTE Band 7C : 26dB BW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	29.97	25.18	30.63	34.83
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.15	35.04	39.96	

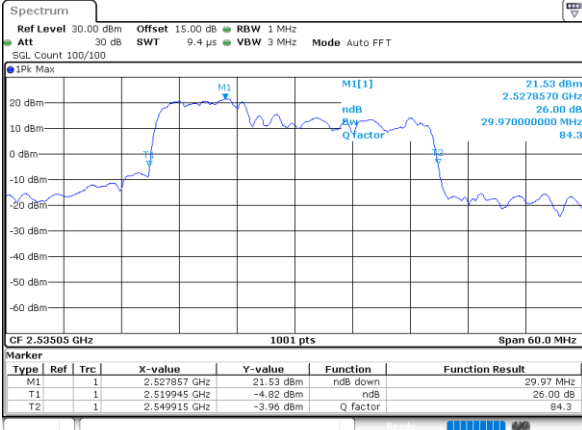
Mode	LTE Band 7C : 26dB BW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	29.91	25.08	30.51	34.69
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.85	34.97	39.96	



LTE Band 7C

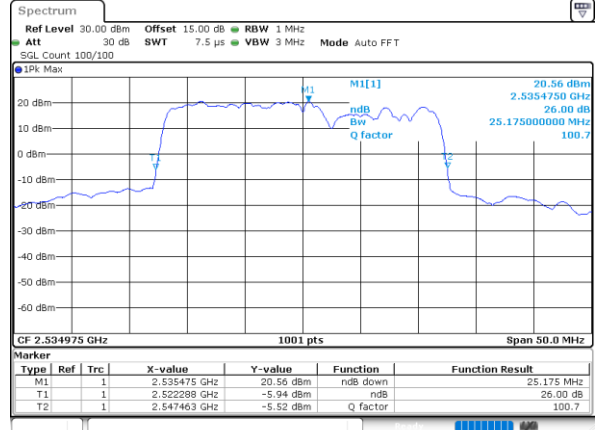
QPSK

Middle Channel / 10MHz+20MHz



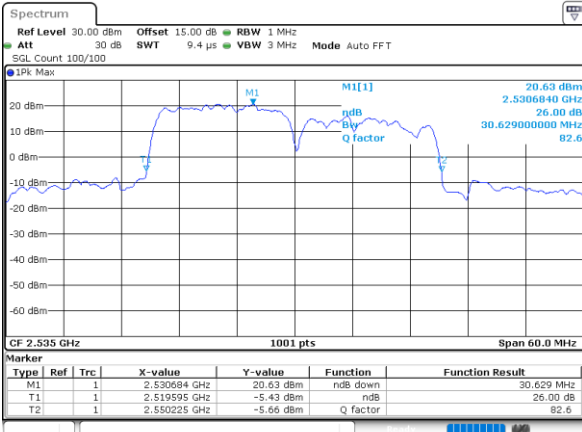
Date: 20.APR.2024 16:17:20

Middle Channel / 15MHz+10MHz



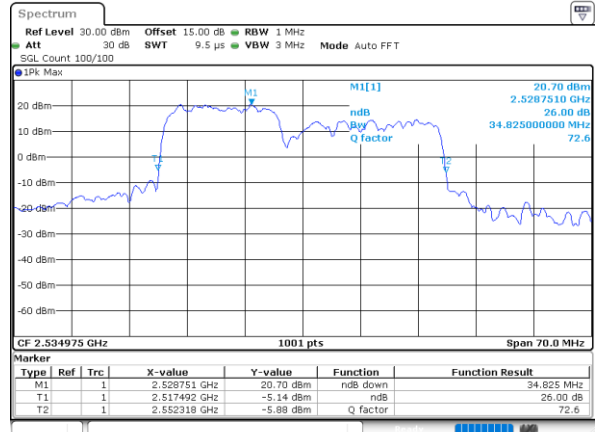
Date: 20.APR.2024 18:44:03

Middle Channel / 15MHz+15MHz



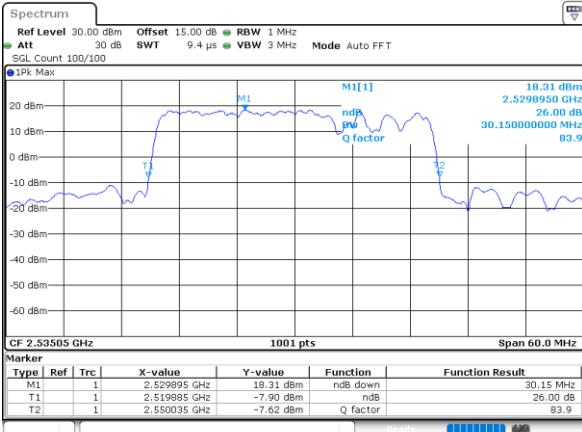
Date: 20.APR.2024 17:10:46

Middle Channel / 15MHz+20MHz



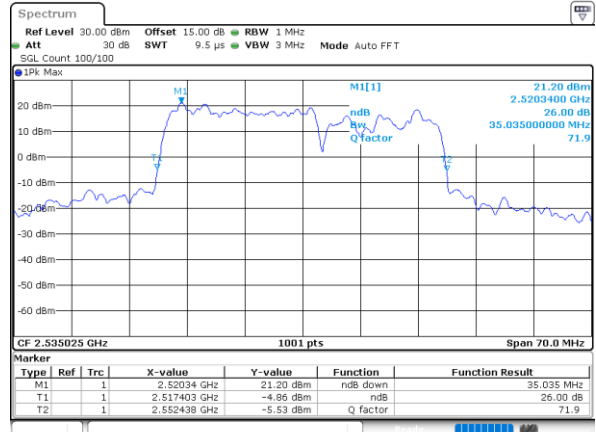
Date: 20.APR.2024 17:35:06

Middle Channel / 20MHz+10MHz



Date: 20.APR.2024 16:40:29

Middle Channel / 20MHz+15MHz



Date: 20.APR.2024 17:58:27

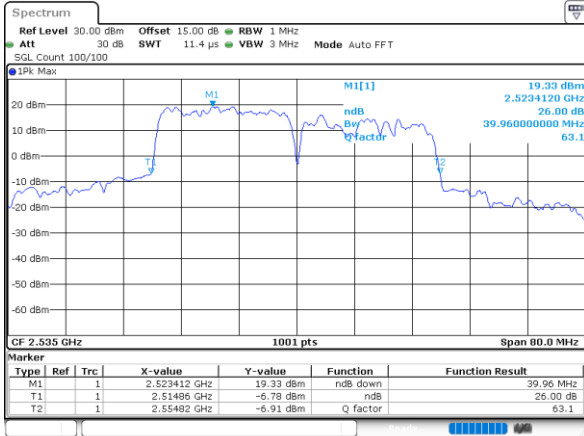


LTE Band 7C

QPSK

Middle Channel / 20MHz+20MHz

N/A



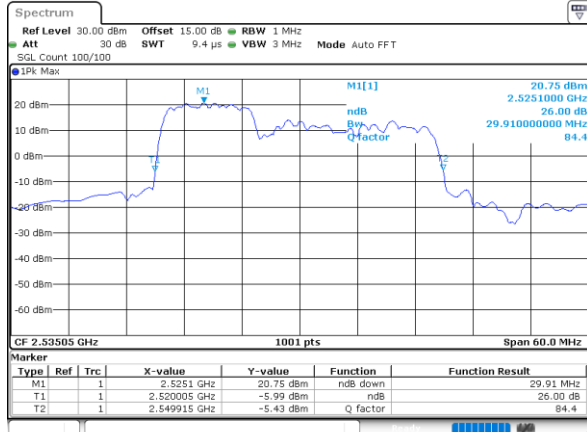
Date: 20, APR, 2024 18:21:37



LTE Band 7C

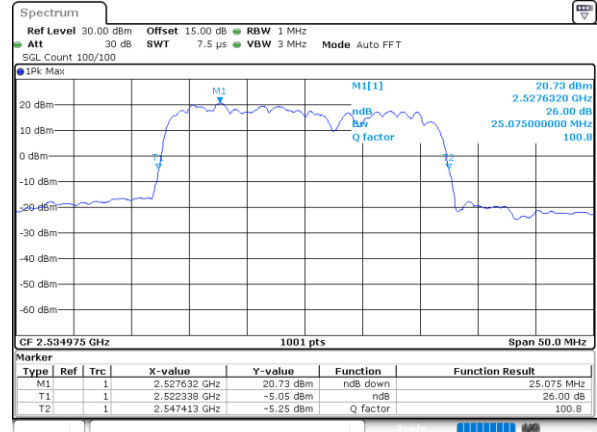
16QAM

Middle Channel / 10MHz+20MHz



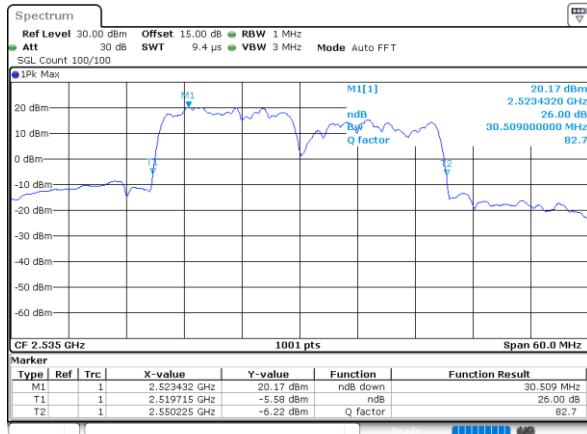
Date: 20.APR.2024 16:17:49

Middle Channel / 15MHz+10MHz



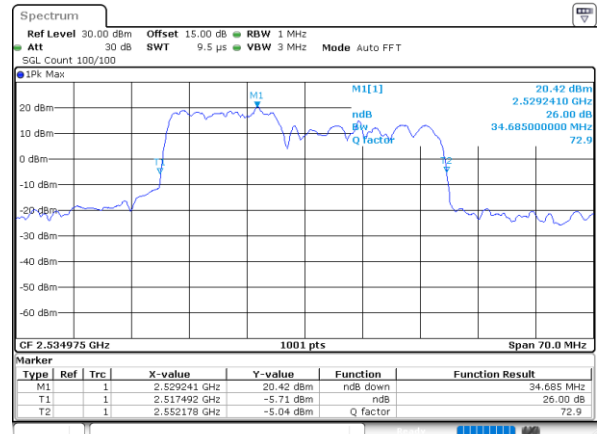
Date: 20.APR.2024 18:44:32

Middle Channel / 15MHz+15MHz



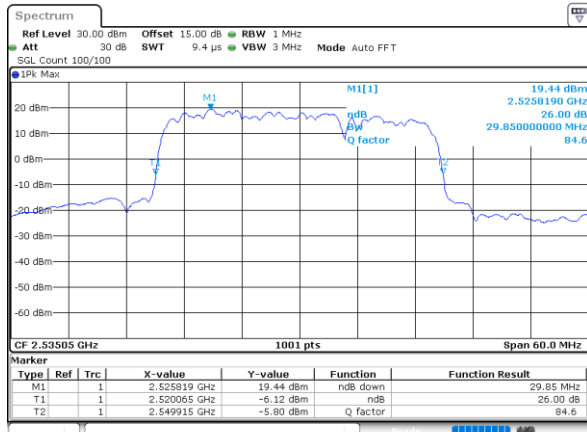
Date: 20.APR.2024 17:11:14

Middle Channel / 15MHz+20MHz



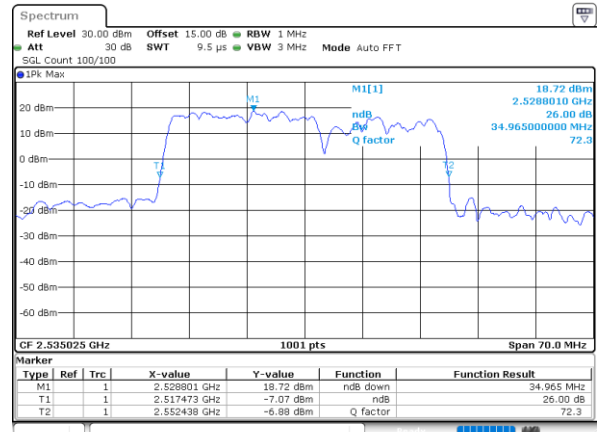
Date: 20.APR.2024 17:35:36

Middle Channel / 20MHz+10MHz



Date: 20.APR.2024 16:40:58

Middle Channel / 20MHz+15MHz



Date: 20.APR.2024 17:58:57

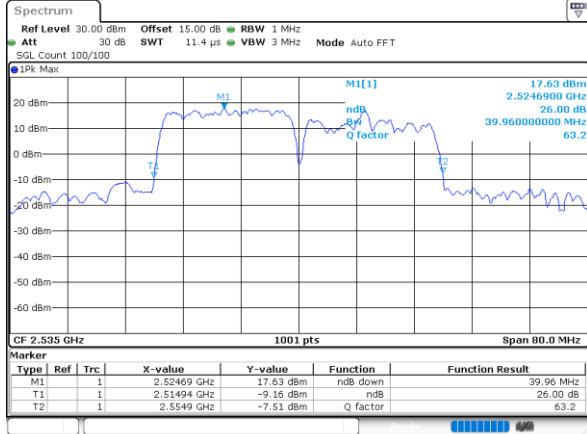


LTE Band 7C

16QAM

Middle Channel / 20MHz+20MHz

N/A



Date: 20, APR, 2024 18:22:04

Occupied Bandwidth

Mode	LTE Band 7C : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	27.87	23.53	28.47	32.52
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.11	32.87	37.40	

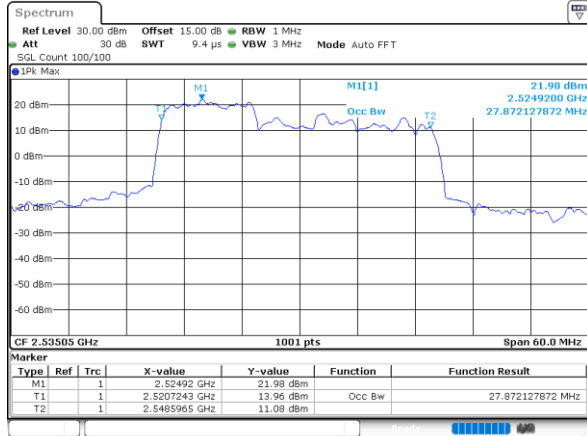
Mode	LTE Band 7C : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	27.39	23.53	28.47	32.87
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.11	32.80	37.24	



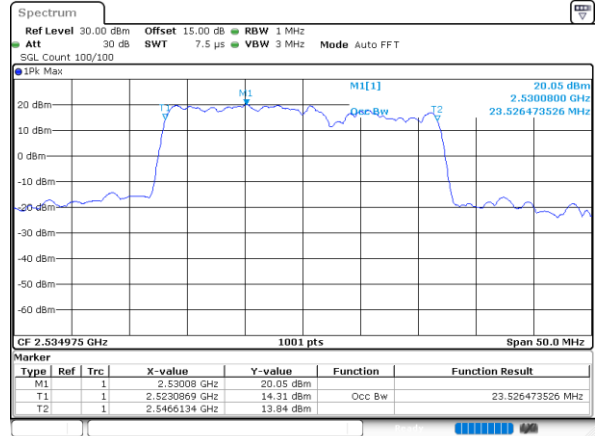
LTE Band 7C

QPSK

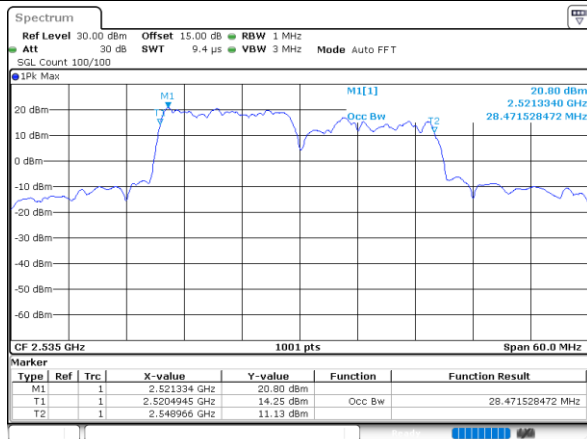
Middle Channel / 10MHz+20MHz



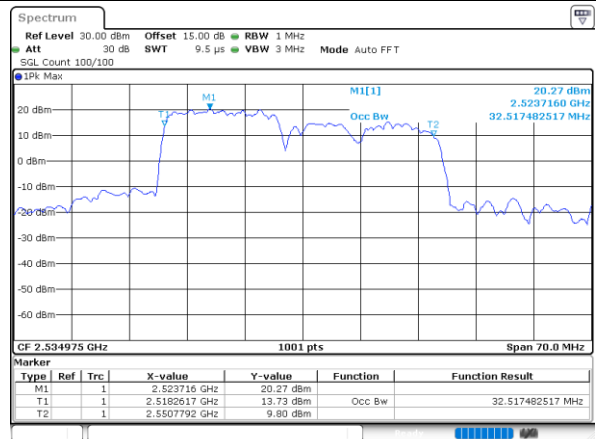
Middle Channel / 15MHz+10MHz



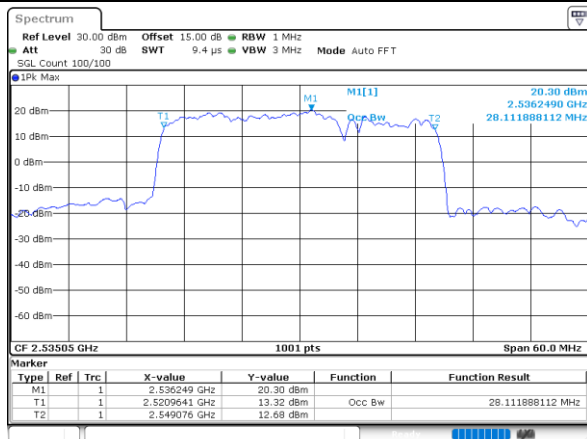
Middle Channel / 15MHz+15MHz



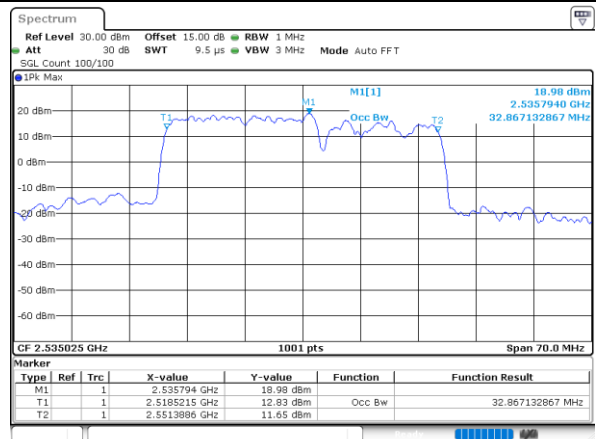
Middle Channel / 15MHz+20MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



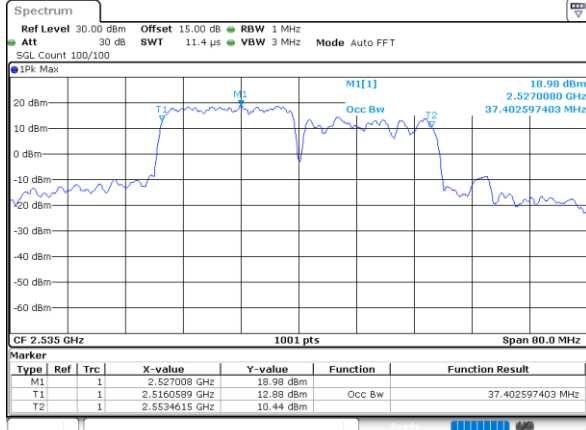


LTE Band 7C

QPSK

Middle Channel / 20MHz+20MHz

N/A

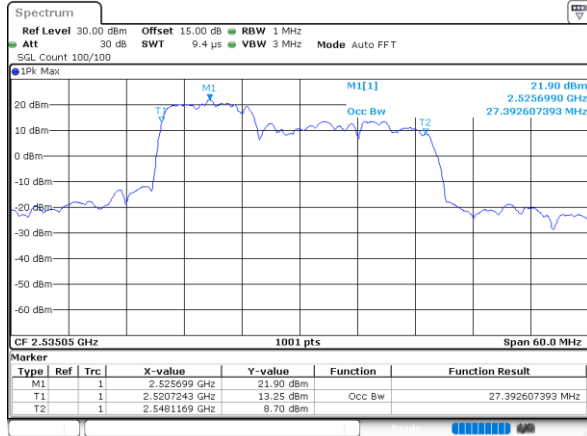




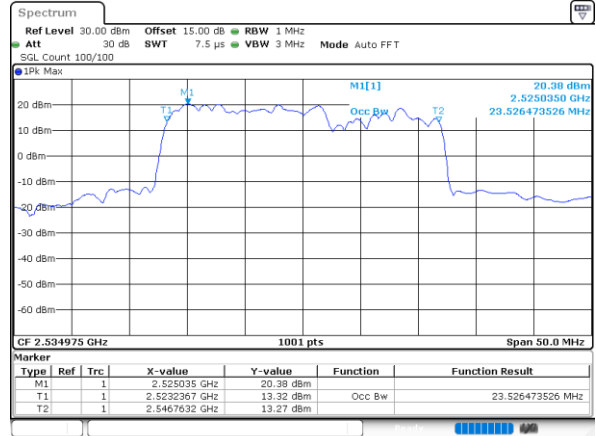
LTE Band 7C

16QAM

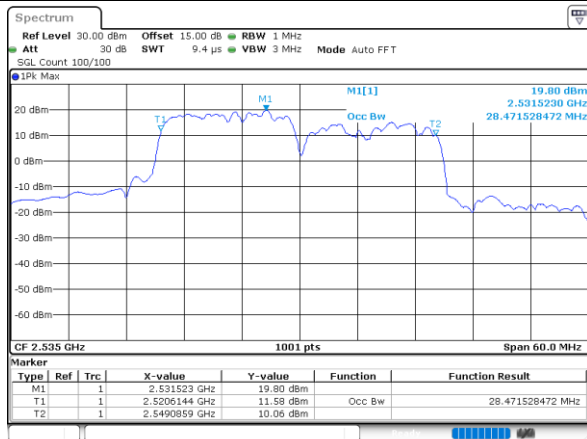
Middle Channel / 10MHz+20MHz



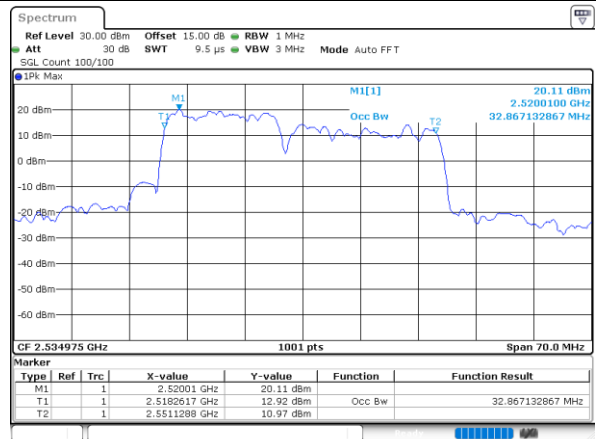
Middle Channel / 15MHz+10MHz



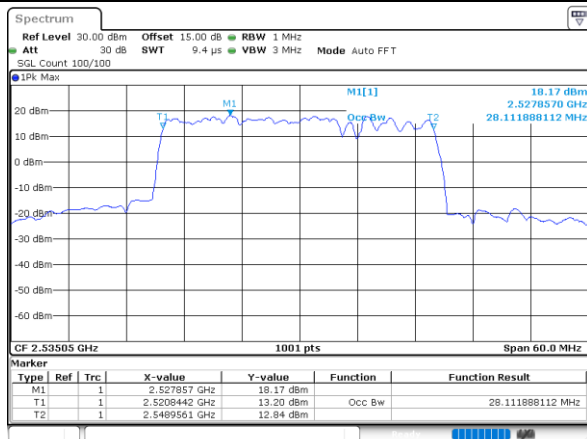
Middle Channel / 15MHz+15MHz



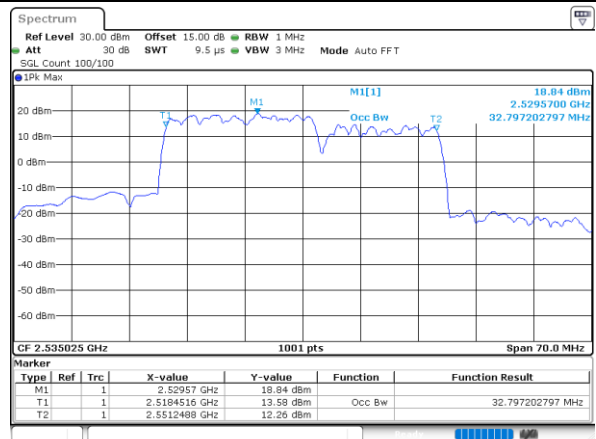
Middle Channel / 15MHz+20MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz





LTE Band 7C

16QAM

Middle Channel / 20MHz+20MHz

N/A

