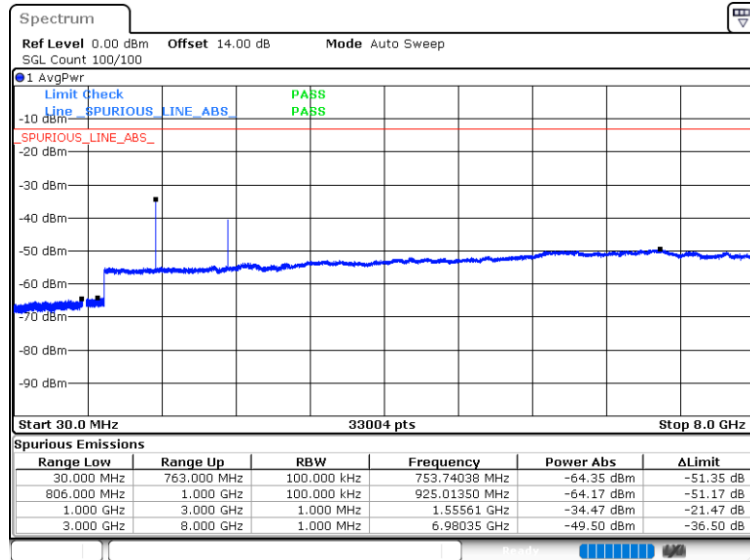




LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 20.JAN.2024 07:06:54

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	0.0005	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0009	

Note:

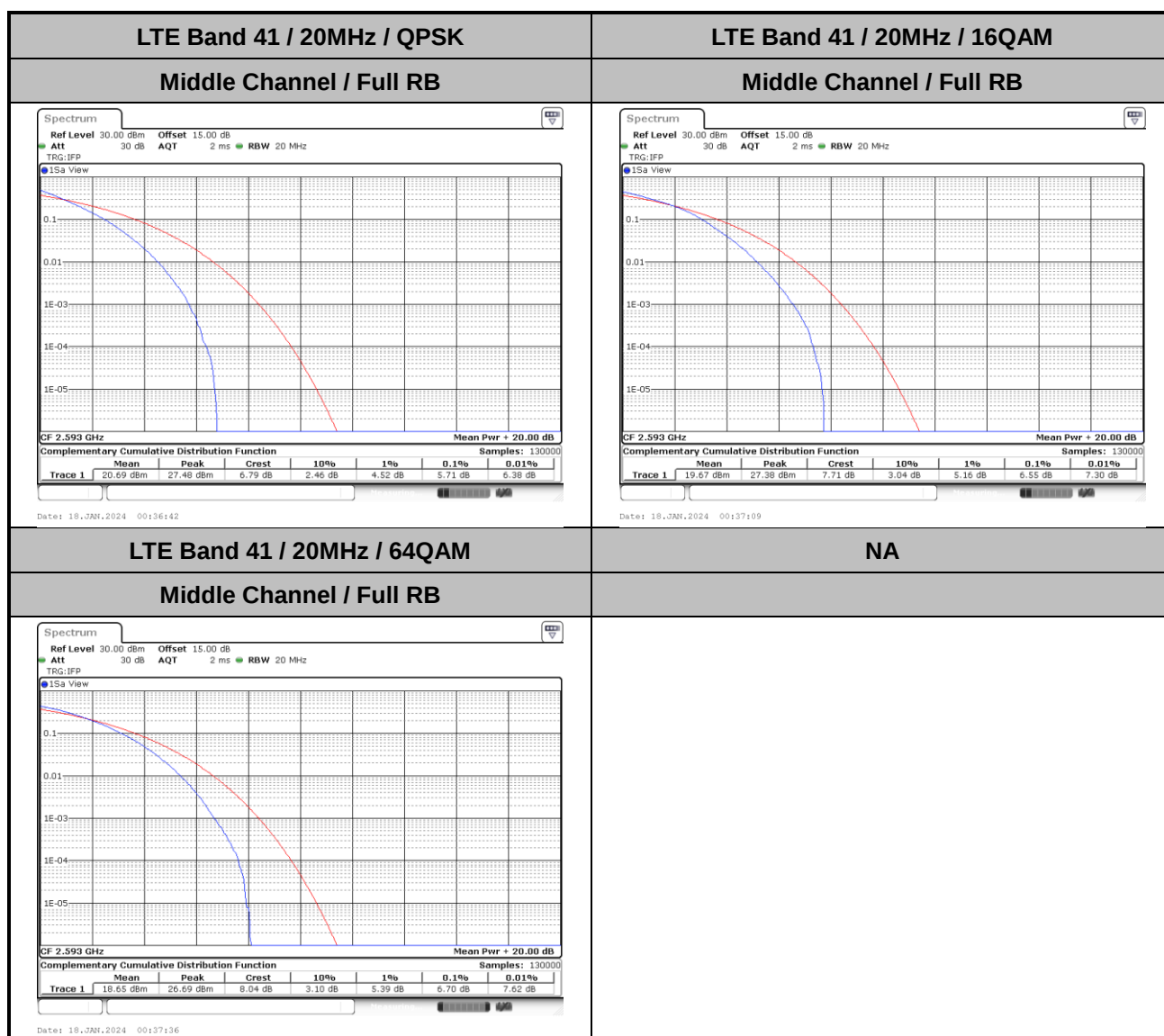
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.3 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



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	5.71	6.55	6.70	PASS



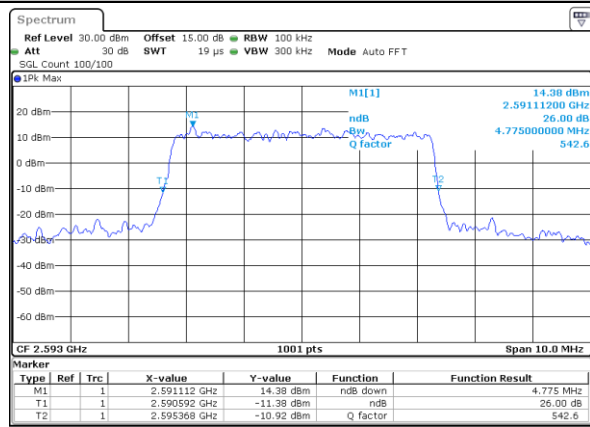


26dB Bandwidth

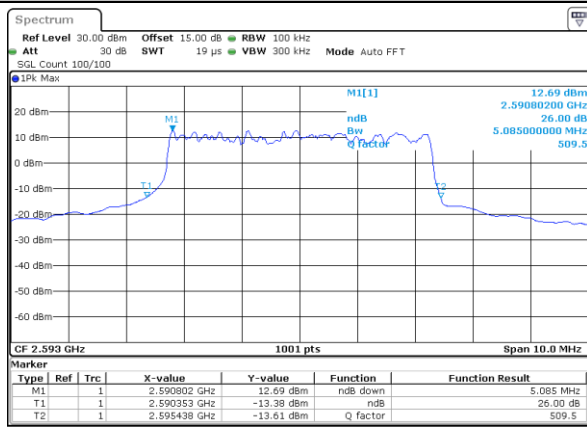
Mode	LTE Band 41 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.78	5.09	9.69	9.79	14.39	14.24	18.74	18.70

LTE Band 41

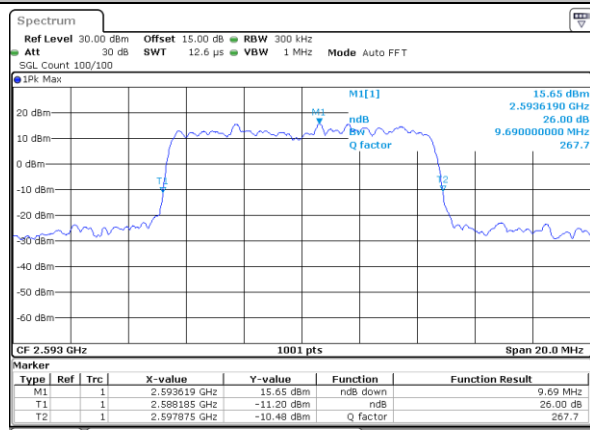
Middle Channel / 5MHz / QPSK



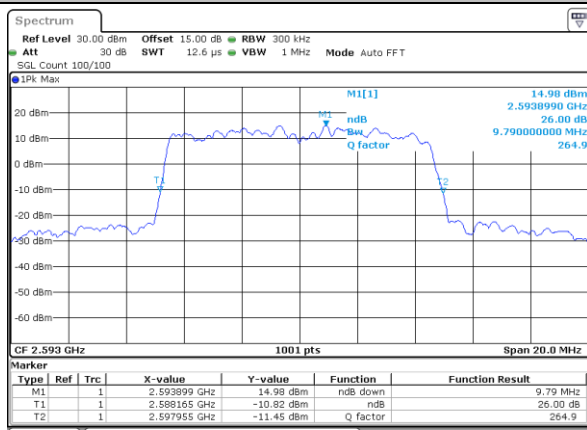
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK

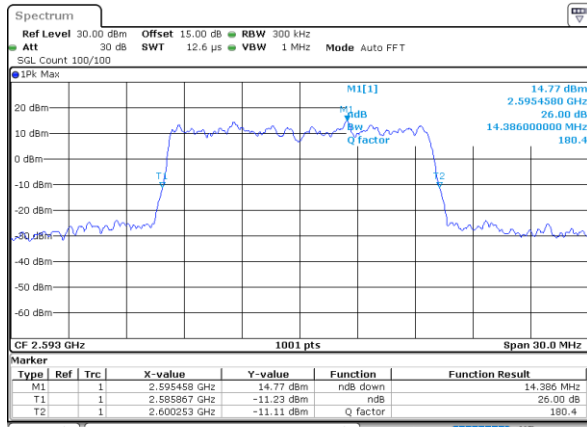


Middle Channel / 10MHz / 16QAM



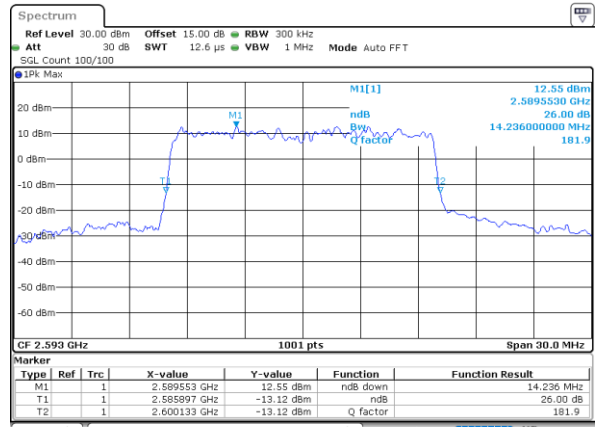


Middle Channel / 15MHz / QPSK



Date: 18, JAN, 2024 00:16:47

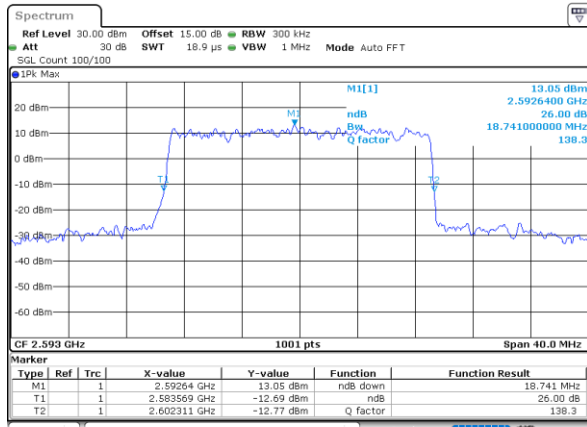
Middle Channel / 15MHz / 16QAM



Date: 18, JAN, 2024 00:17:27

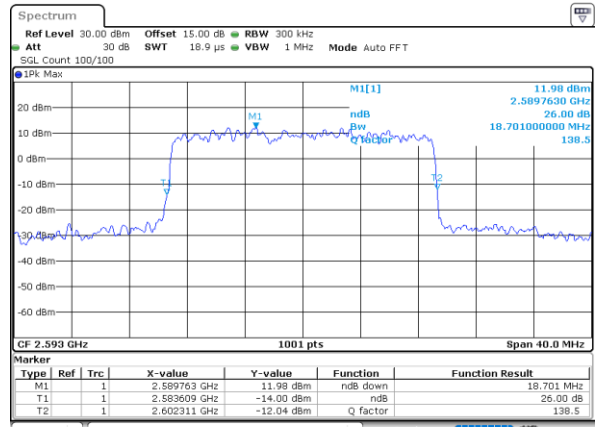
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 18, JAN, 2024 00:35:36

Middle Channel / 20MHz / 16QAM



Date: 18, JAN, 2024 00:36:15

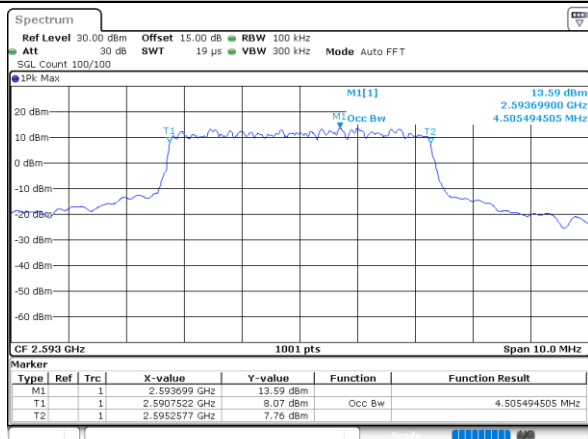


Occupied Bandwidth

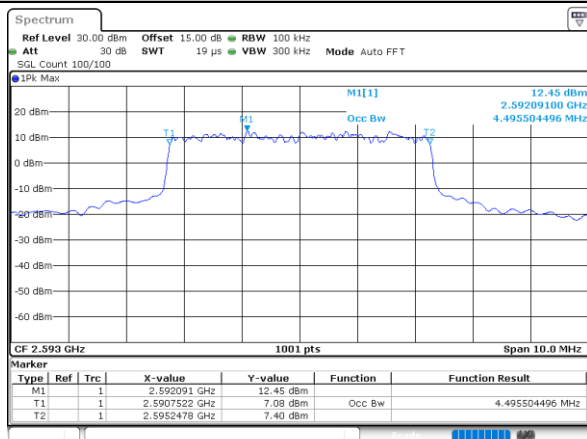
Mode	LTE Band 41 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.51	4.50	9.07	9.05	13.46	13.55	17.90	17.82

LTE Band 41

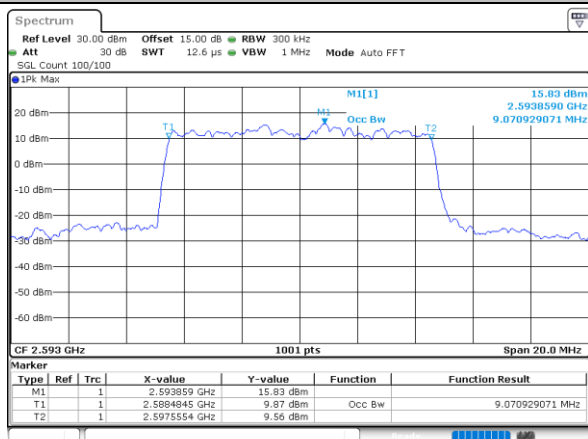
Middle Channel / 5MHz / QPSK



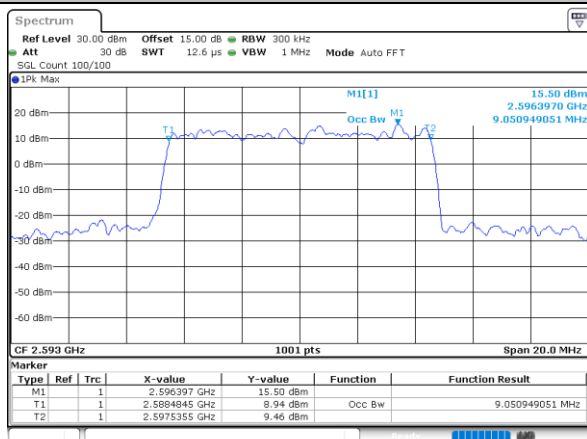
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK

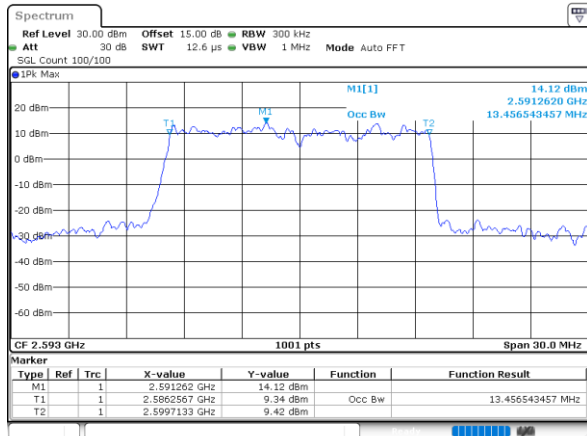


Middle Channel / 10MHz / 16QAM



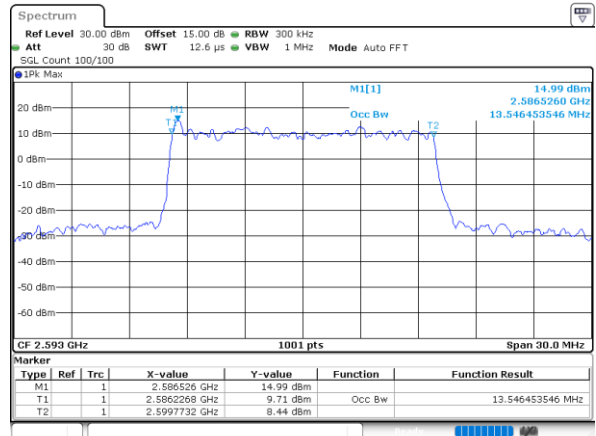


Middle Channel / 15MHz / QPSK



Date: 18, JAN, 2024 00:16:33

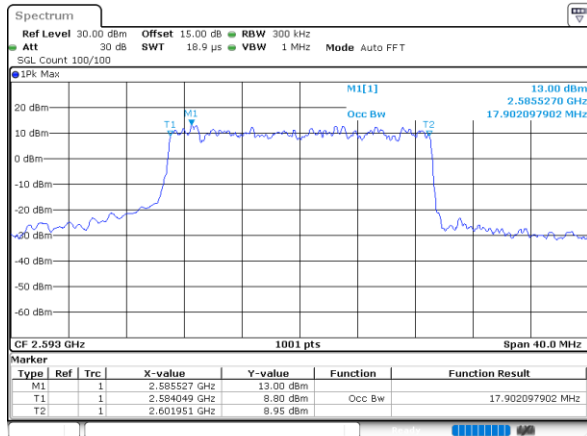
Middle Channel / 15MHz / 16QAM



Date: 18, JAN, 2024 00:17:13

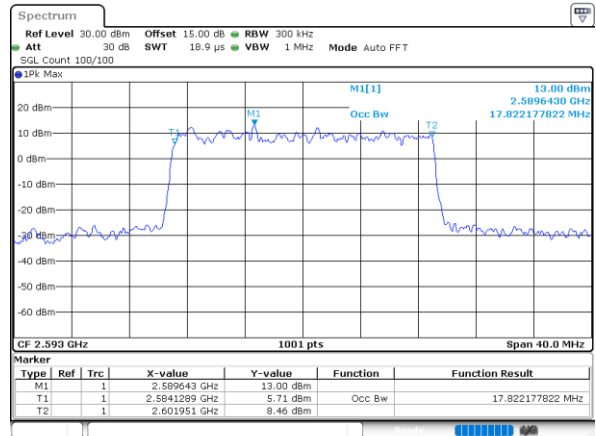
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 18, JAN, 2024 00:35:22

Middle Channel / 20MHz / 16QAM



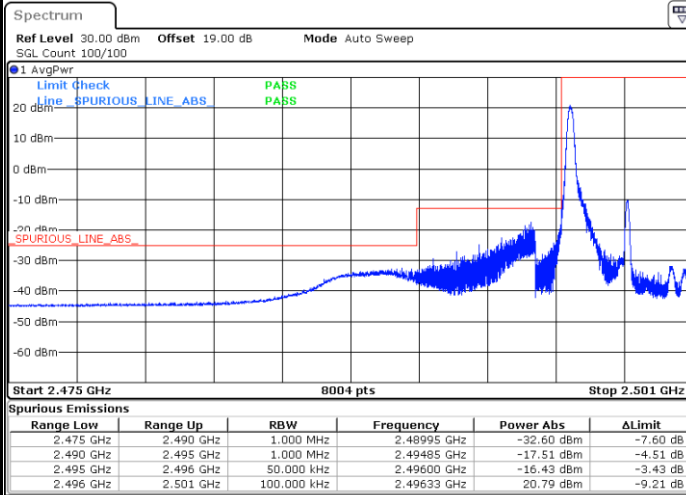
Date: 18, JAN, 2024 00:36:01



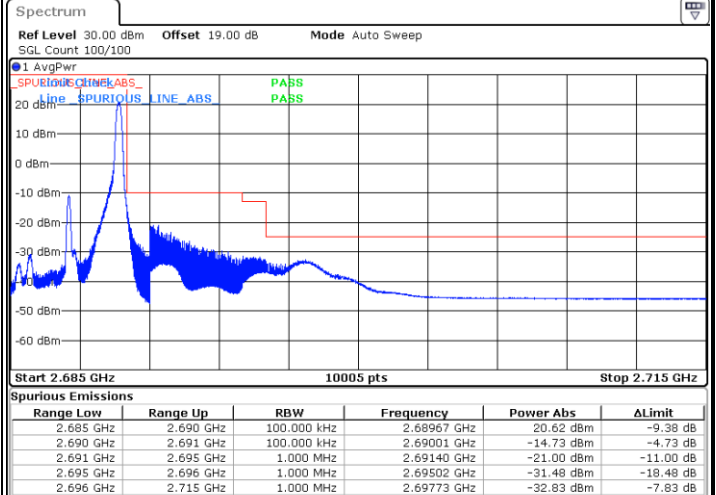
Conducted Band Edge

LTE Band 41 / 5MHz / QPSK

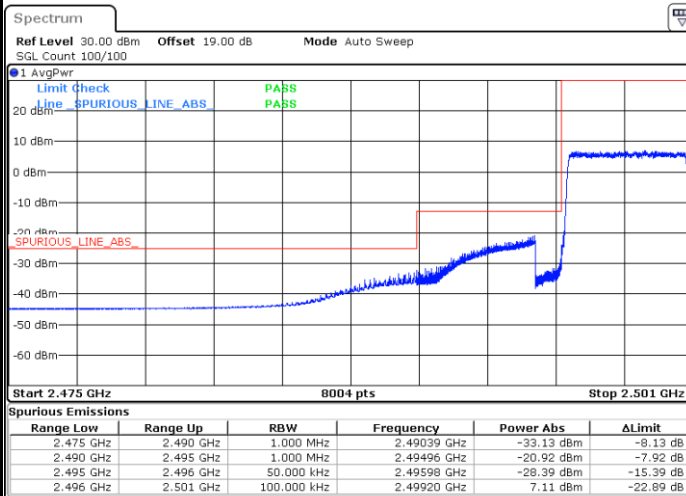
Lowest Band Edge / 1 RB



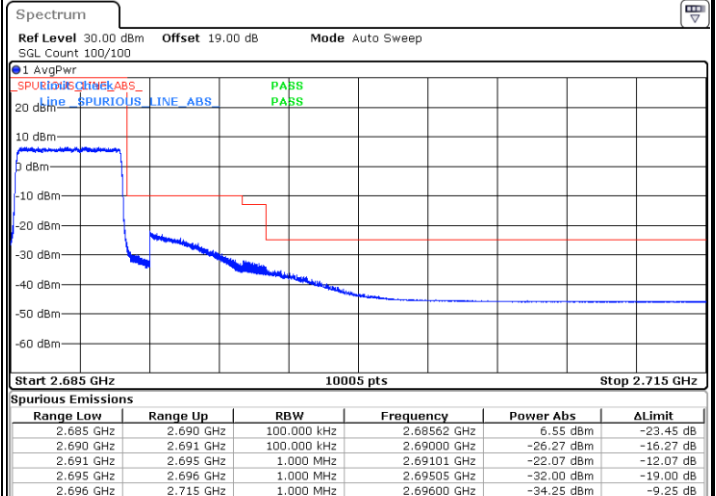
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



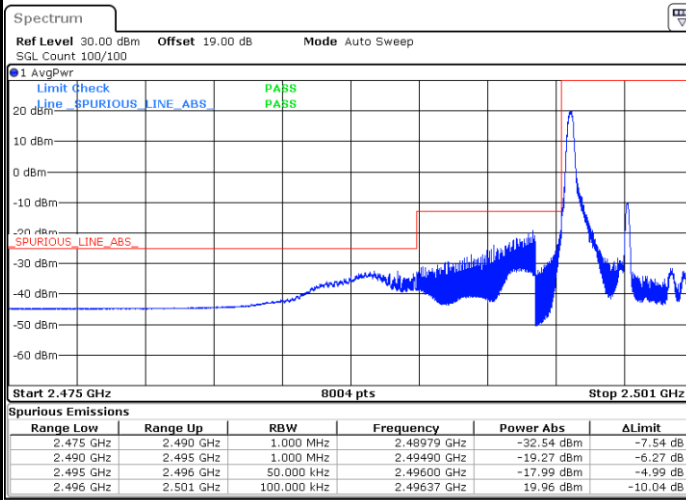
Highest Band Edge / Full RB



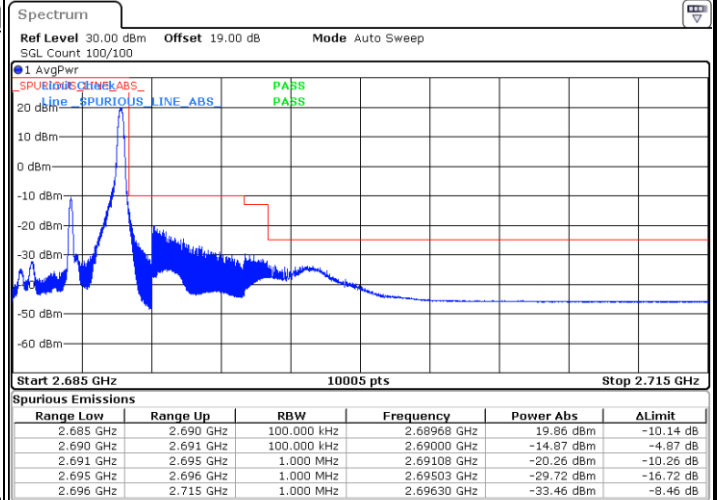


LTE Band 41 / 5MHz / 16QAM

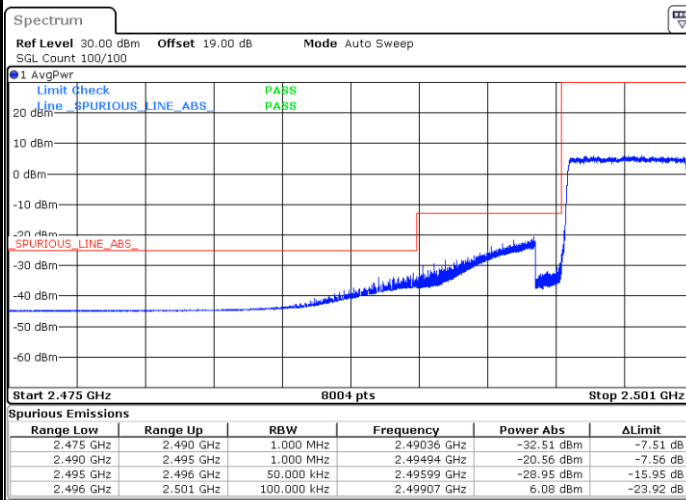
Lowest Band Edge / 1RB



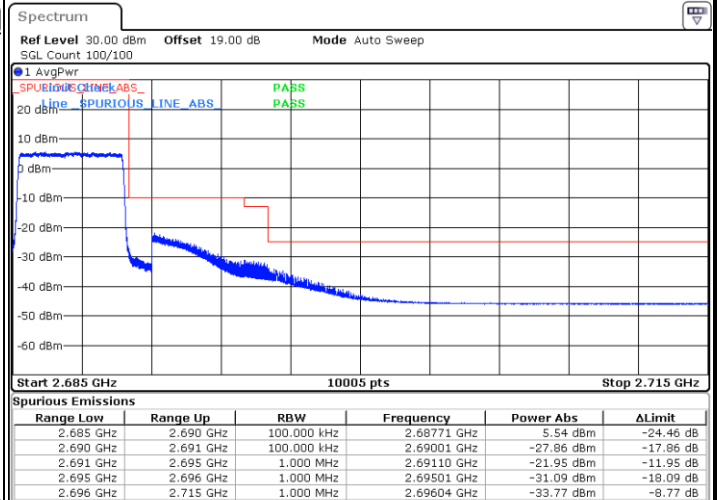
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



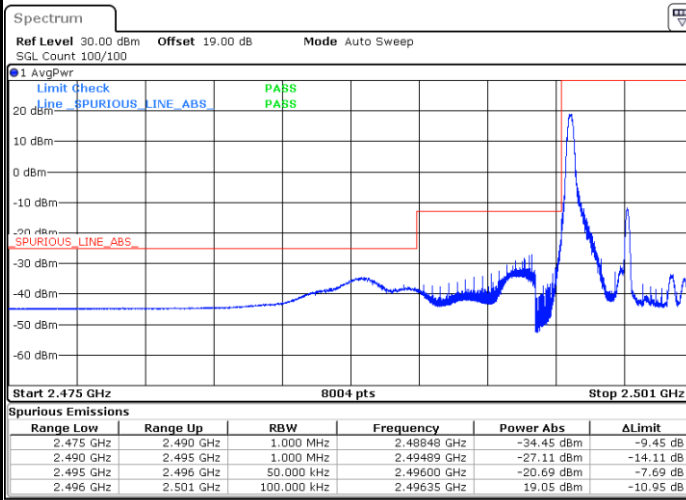
Highest Band Edge / Full RB



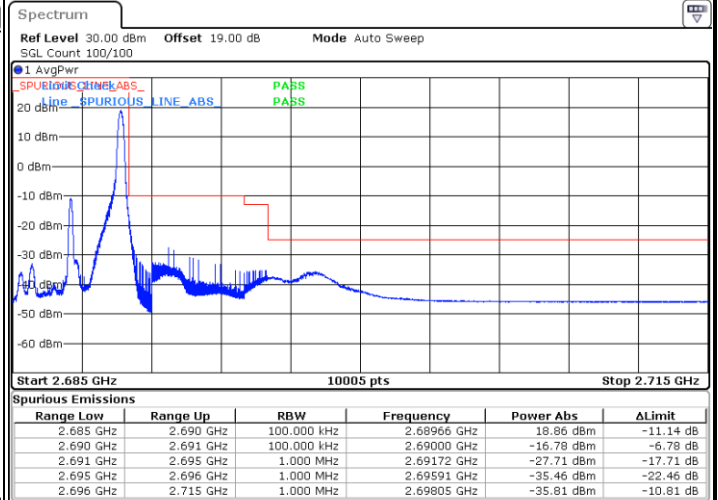


LTE Band 41 / 5MHz / 64QAM

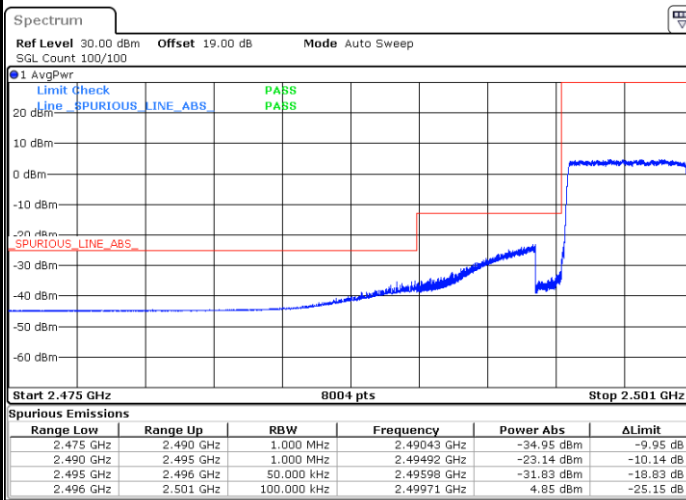
Lowest Band Edge / 1RB



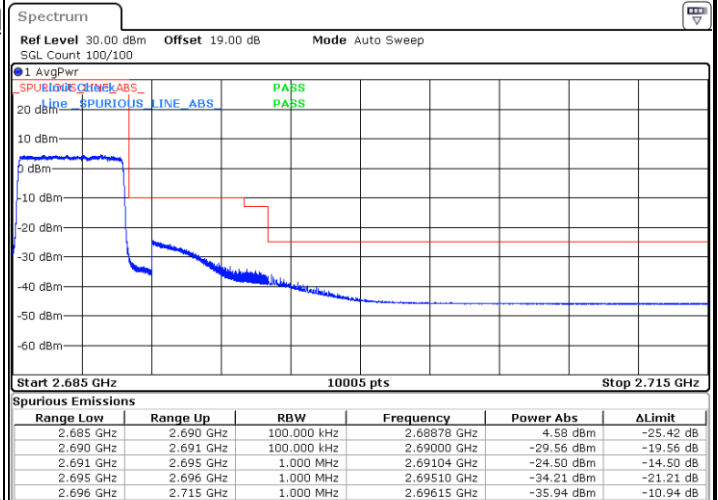
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



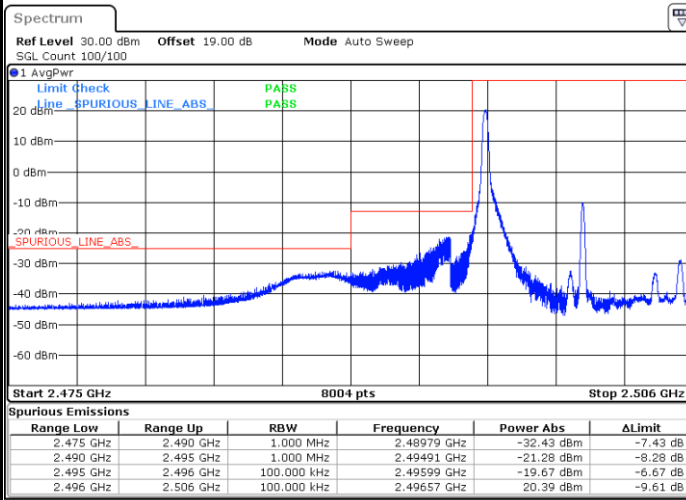
Highest Band Edge / Full RB



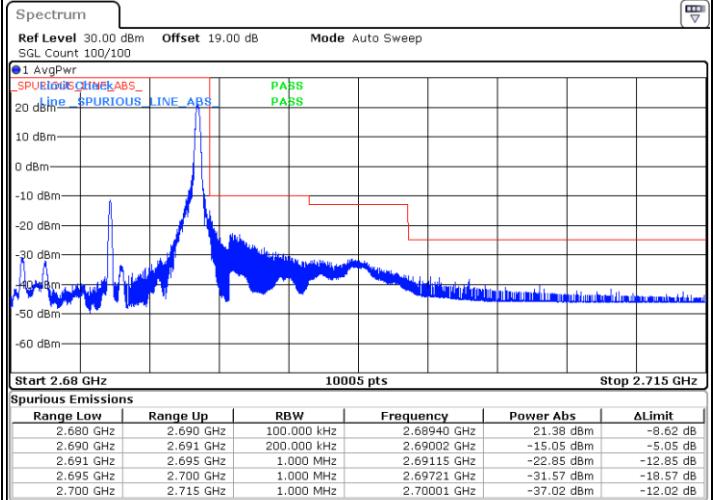


LTE Band 41 / 10MHz / QPSK

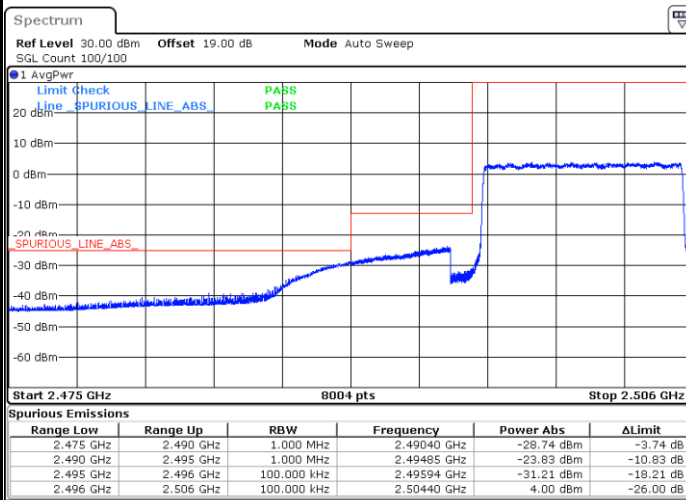
Lowest Band Edge / 1 RB



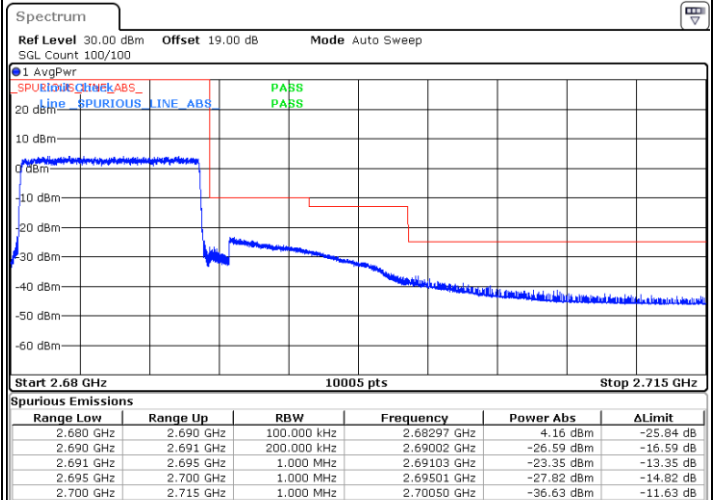
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



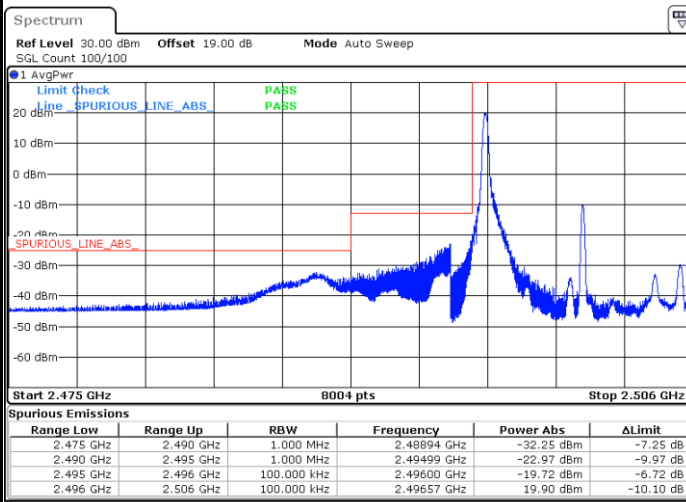
Highest Band Edge / Full RB



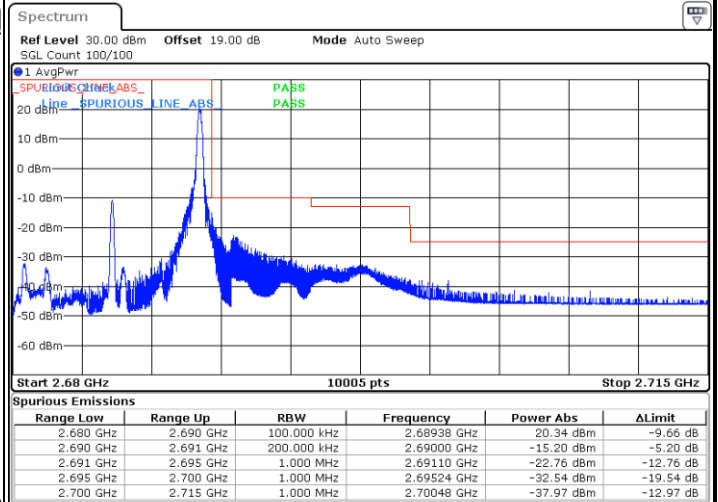


LTE Band 41 / 10MHz / 16QAM

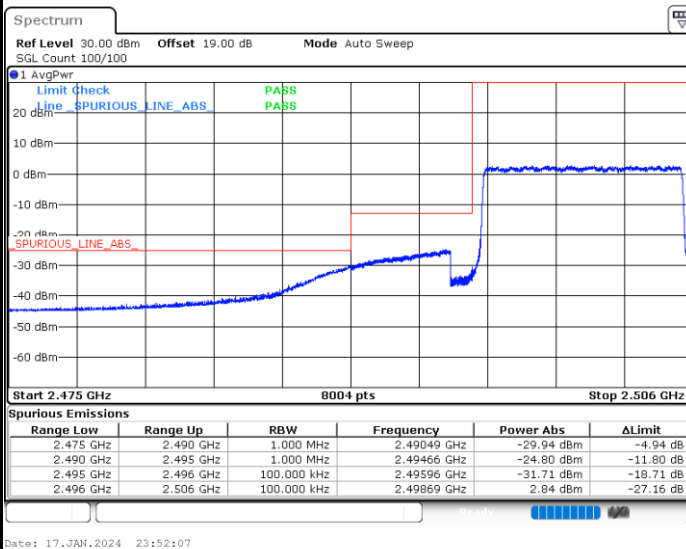
Lowest Band Edge / 1RB



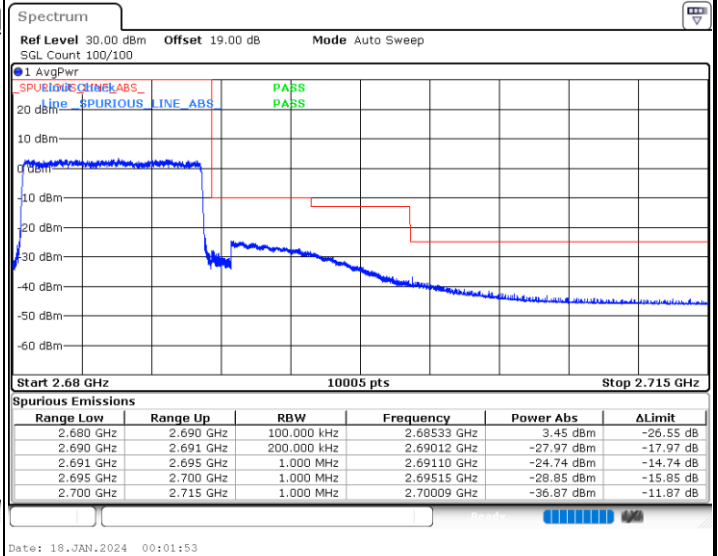
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



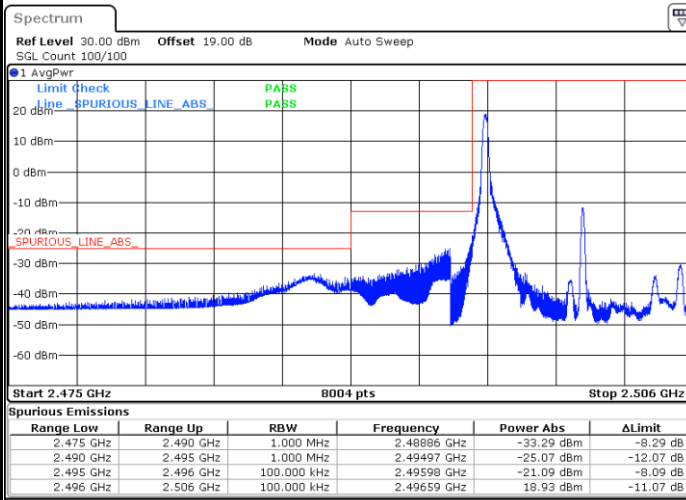
Highest Band Edge / Full RB



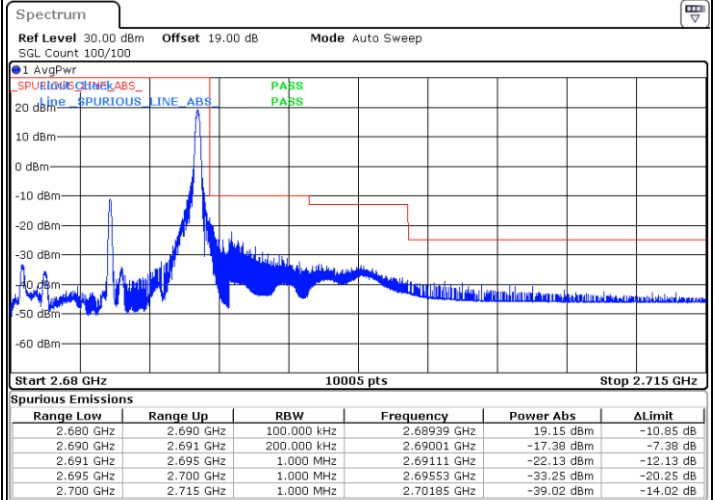


LTE Band 41 / 10MHz / 64QAM

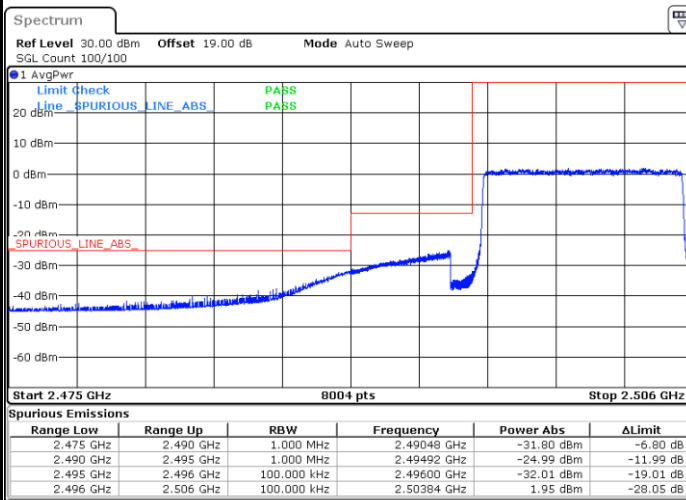
Lowest Band Edge / 1RB



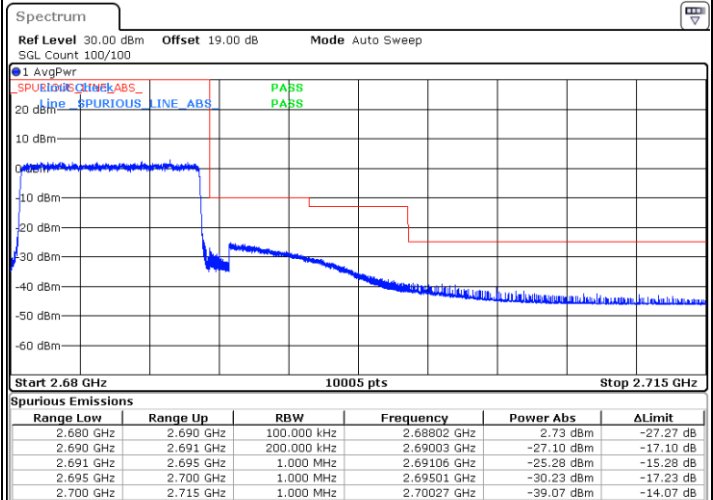
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



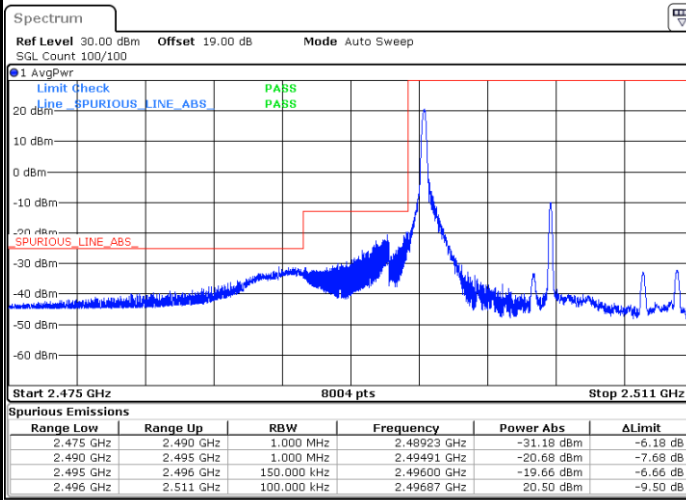
Highest Band Edge / Full RB



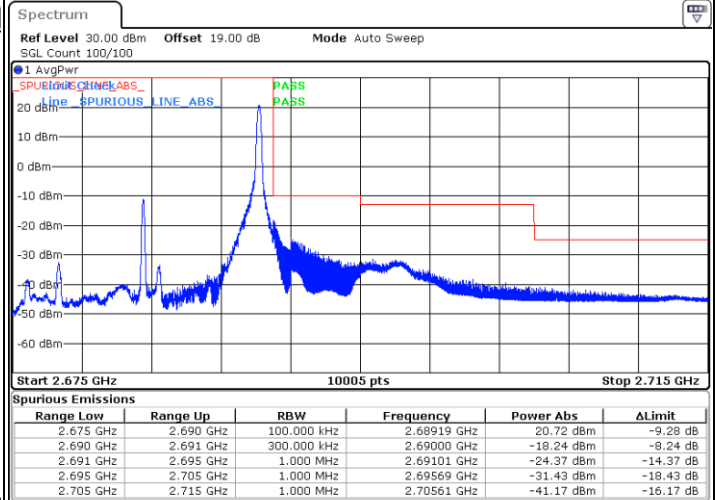


LTE Band 41 / 15MHz / QPSK

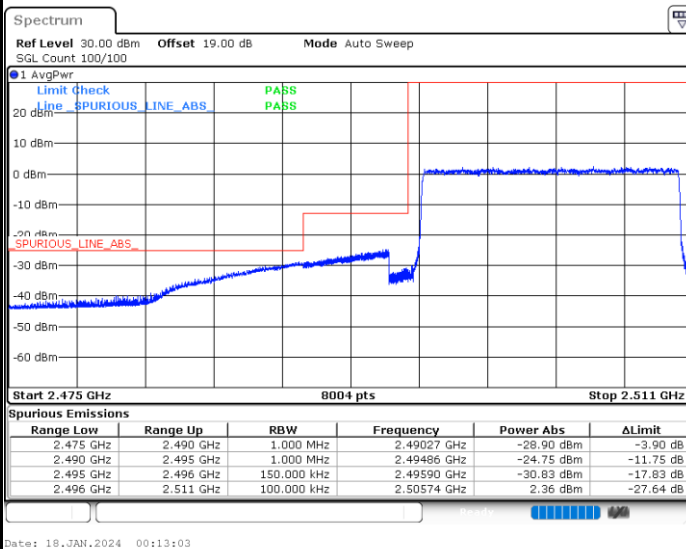
Lowest Band Edge / 1 RB



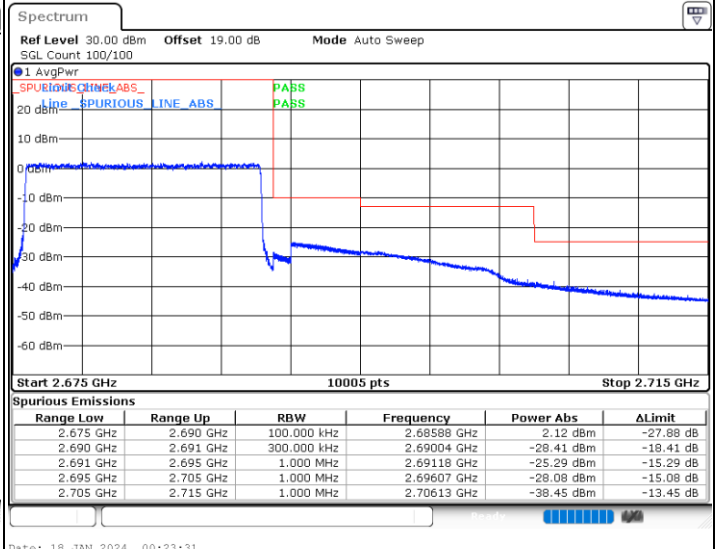
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



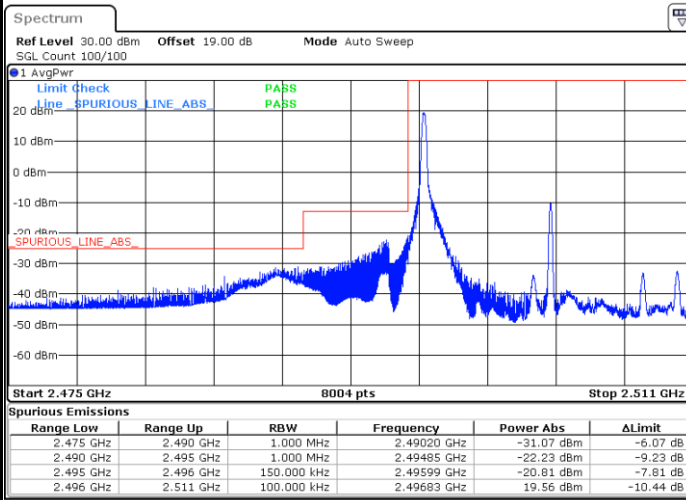
Highest Band Edge / Full RB



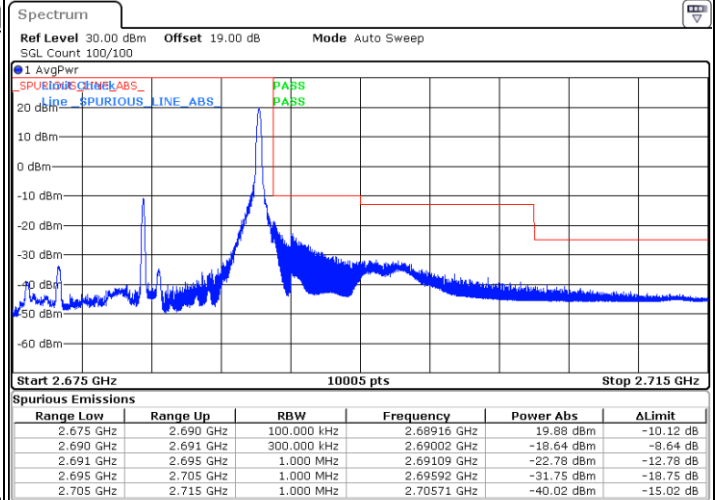


LTE Band 41 / 15MHz / 16QAM

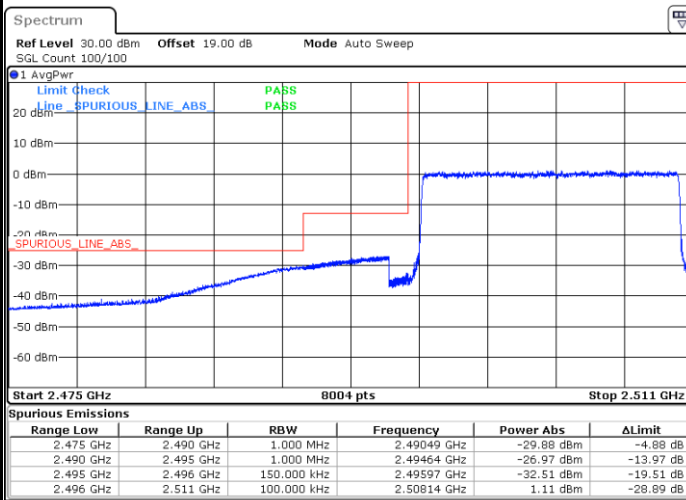
Lowest Band Edge / 1RB



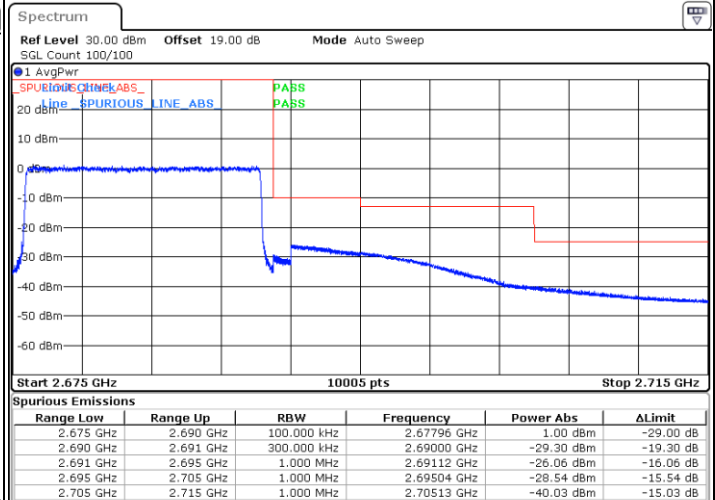
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



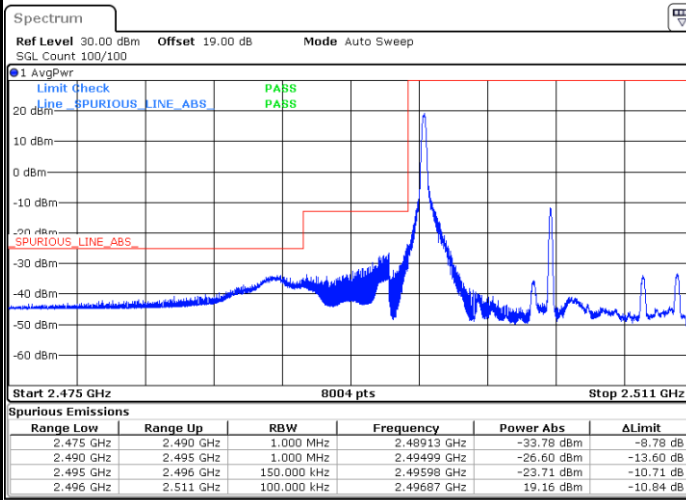
Highest Band Edge / Full RB



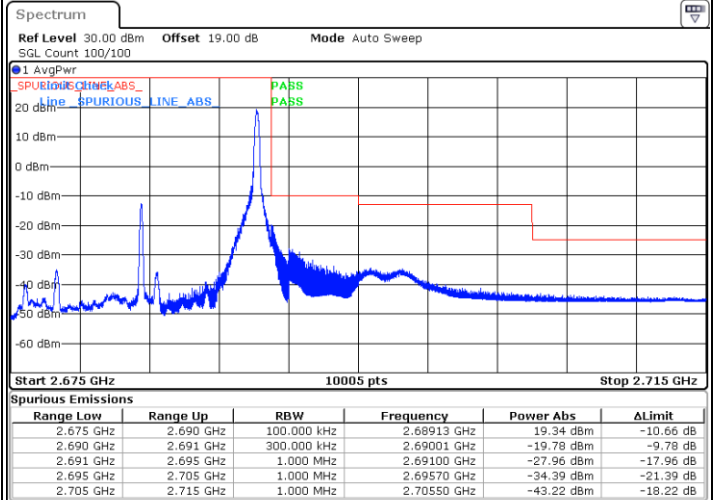


LTE Band 41 / 15MHz / 64QAM

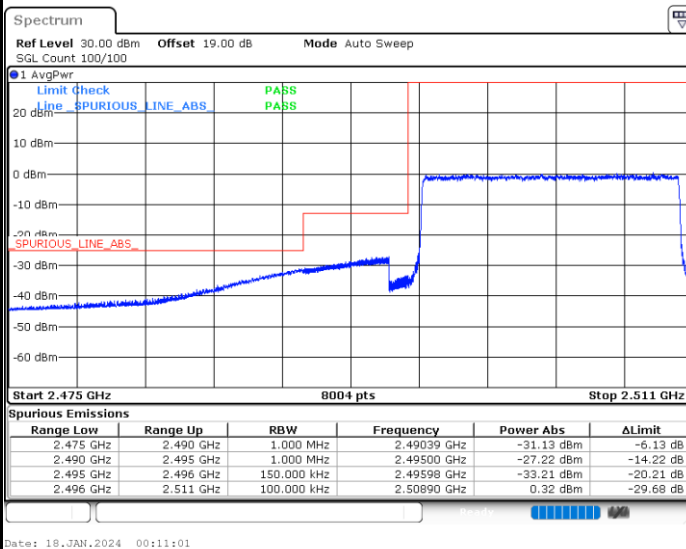
Lowest Band Edge / 1RB



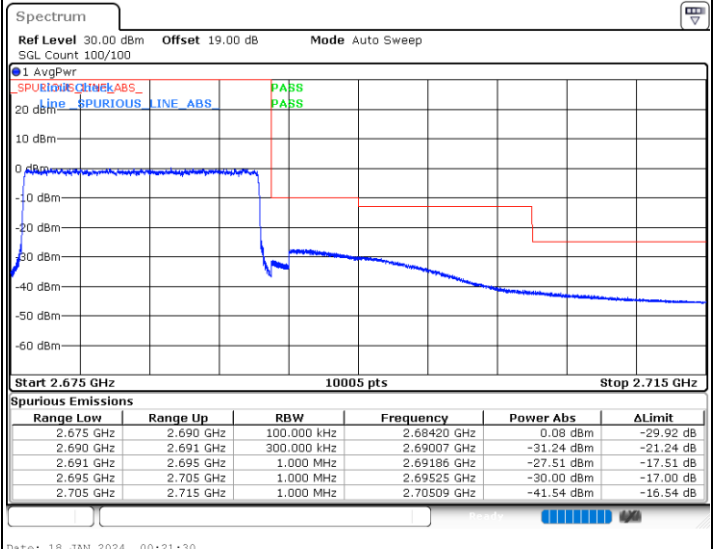
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



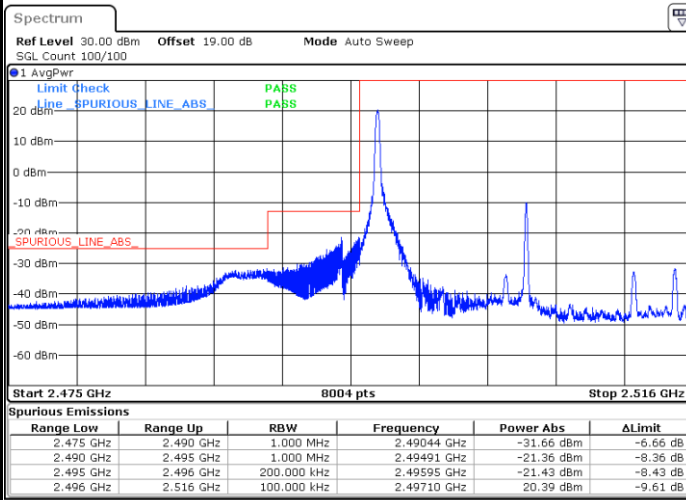
Highest Band Edge / Full RB



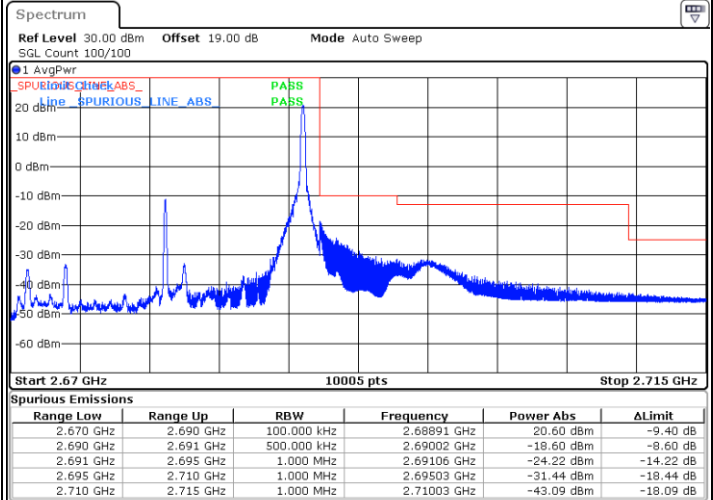


LTE Band 41 / 20MHz / QPSK

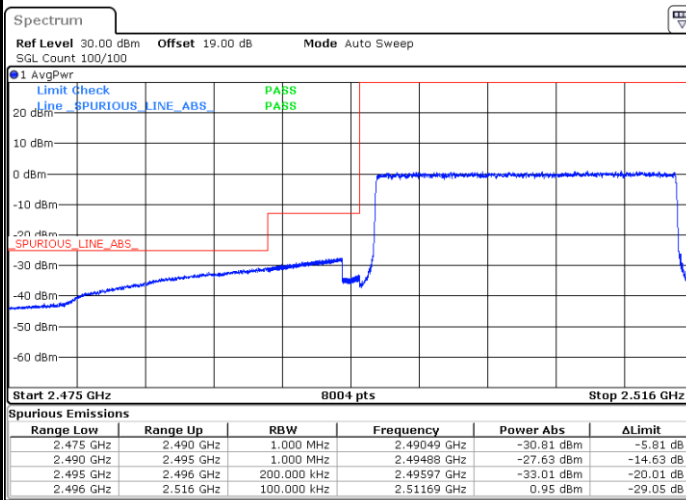
Lowest Band Edge / 1 RB



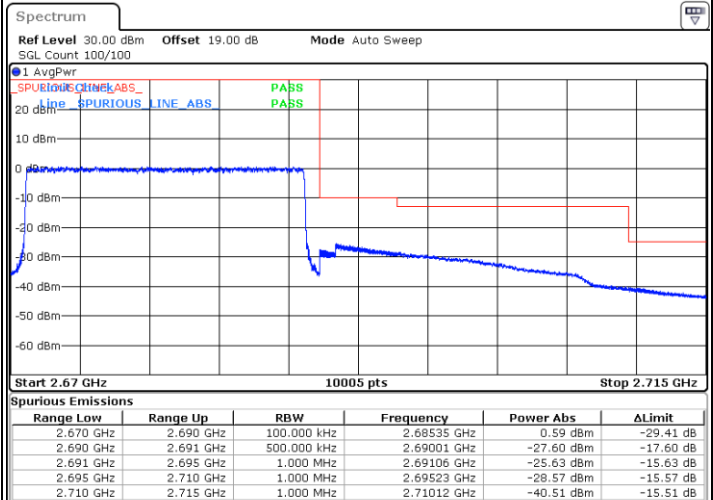
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



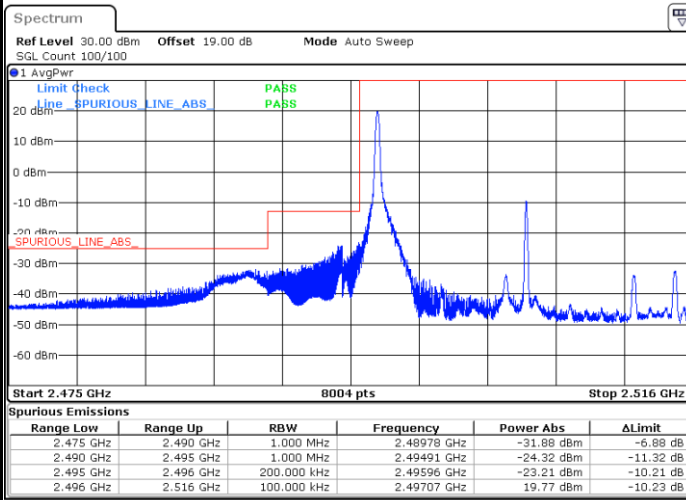
Highest Band Edge / Full RB



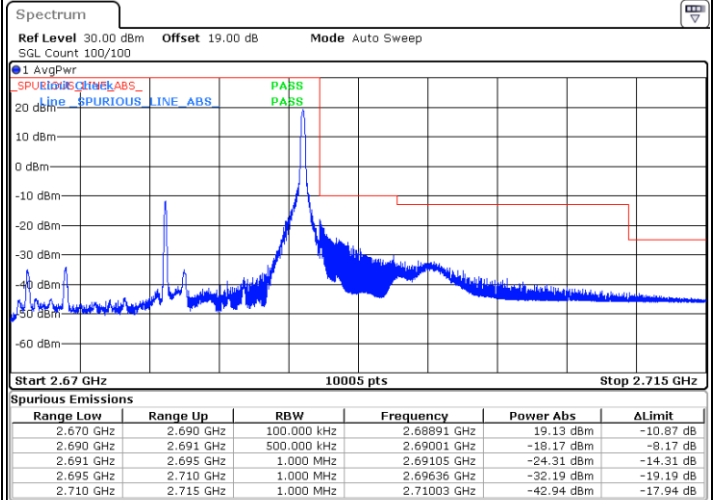


LTE Band 41 / 20MHz / 16QAM

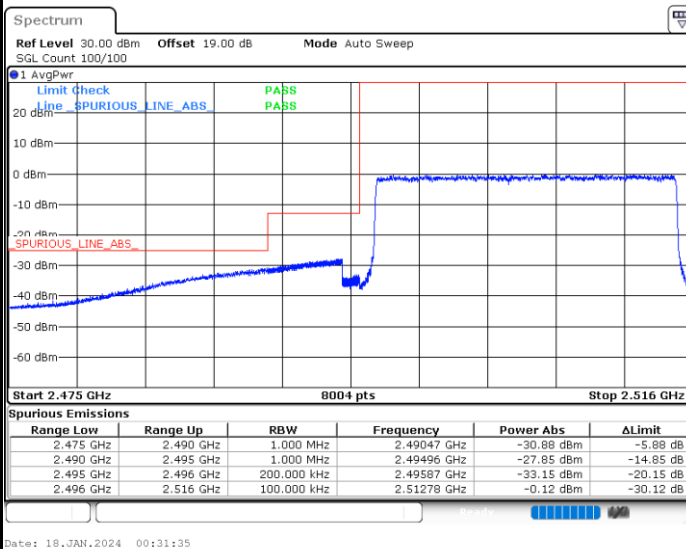
Lowest Band Edge / 1RB



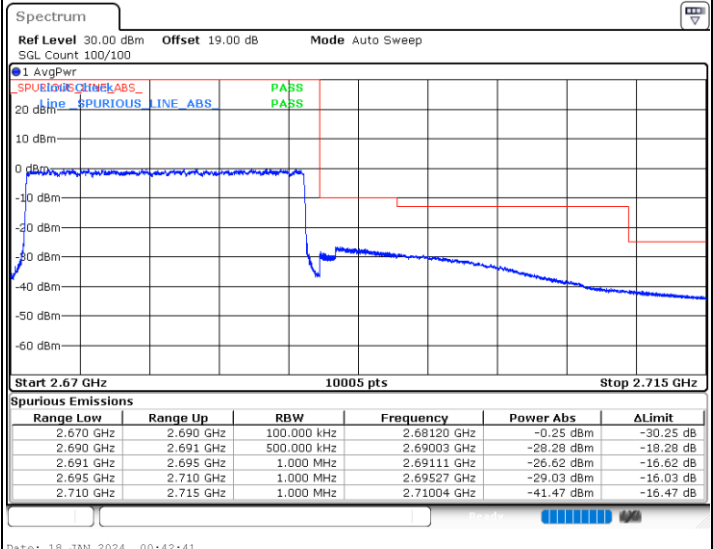
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



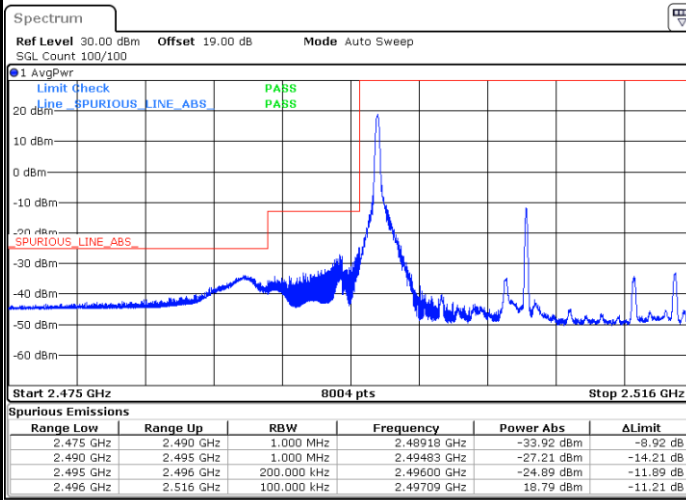
Highest Band Edge / Full RB



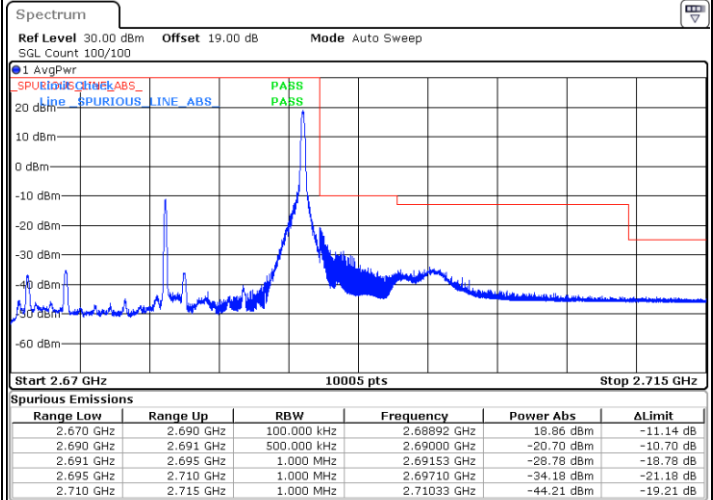


LTE Band 41 / 20MHz / 64QAM

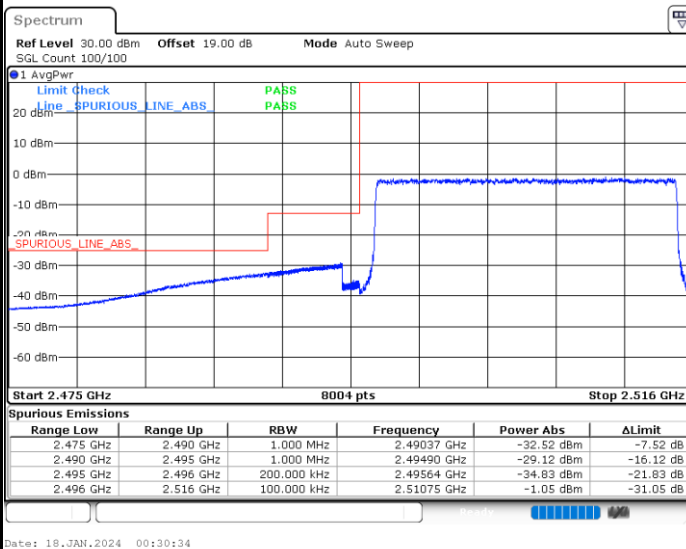
Lowest Band Edge / 1RB



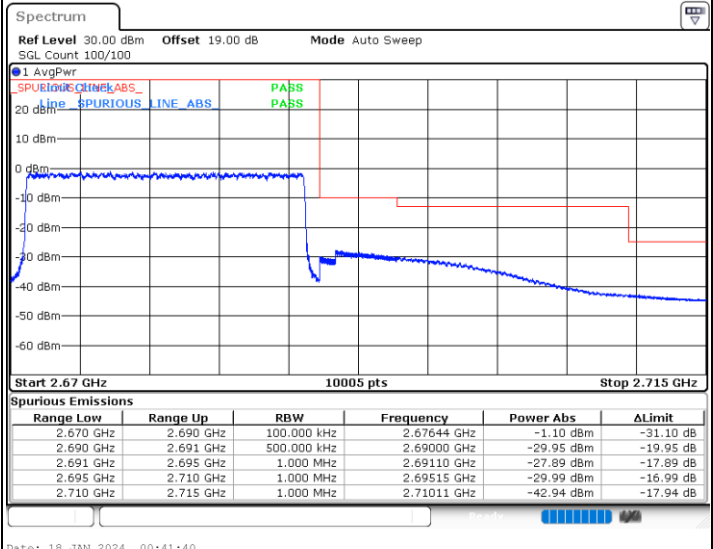
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

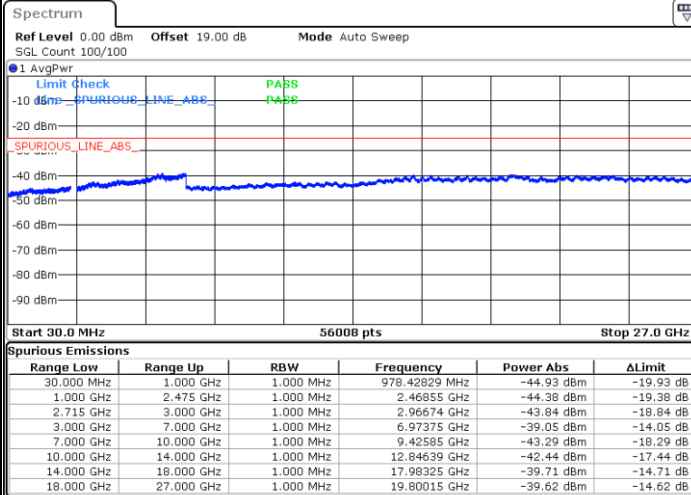




Conducted Spurious Emission

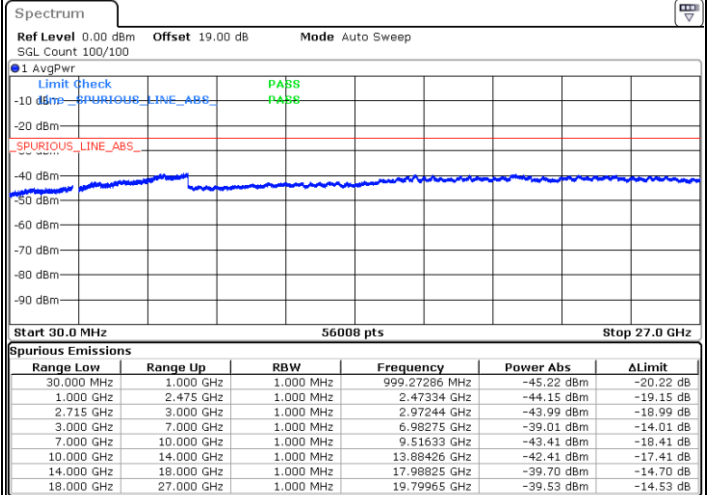
LTE Band 41 / 5MHz

Lowest Channel / QPSK



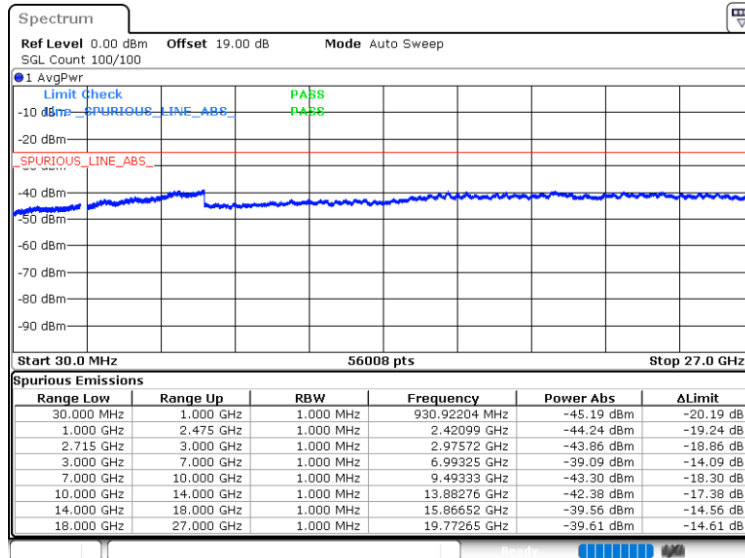
Date: 17.JAN.2024 23:35:42

Middle Channel / QPSK



Date: 17.JAN.2024 23:36:52

Highest Channel / QPSK



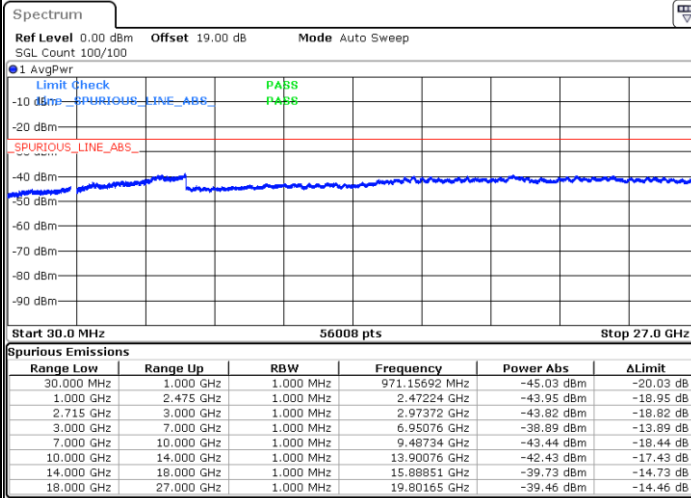
Date: 17.JAN.2024 23:45:45



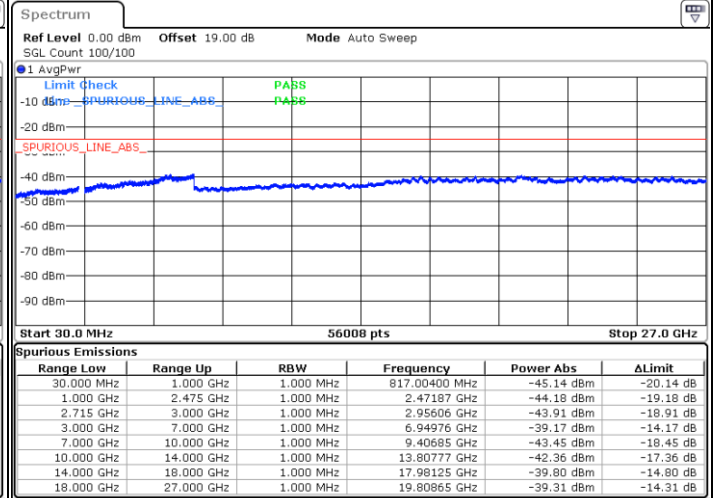
LTE Band 41 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

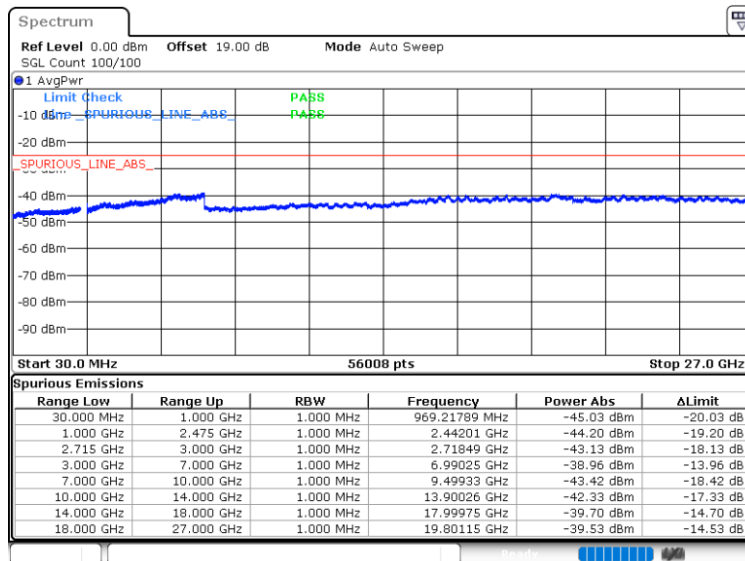


Date: 17.JAN.2024 23:54:18



Date: 17.JAN.2024 23:55:29

Highest Channel / QPSK



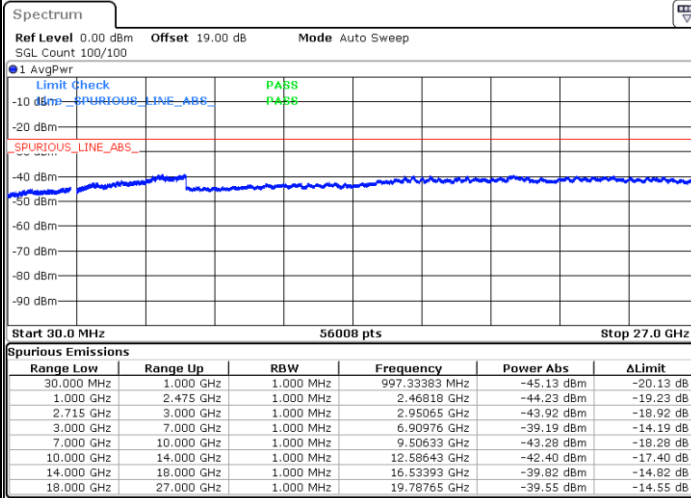
Date: 18.JAN.2024 00:04:05



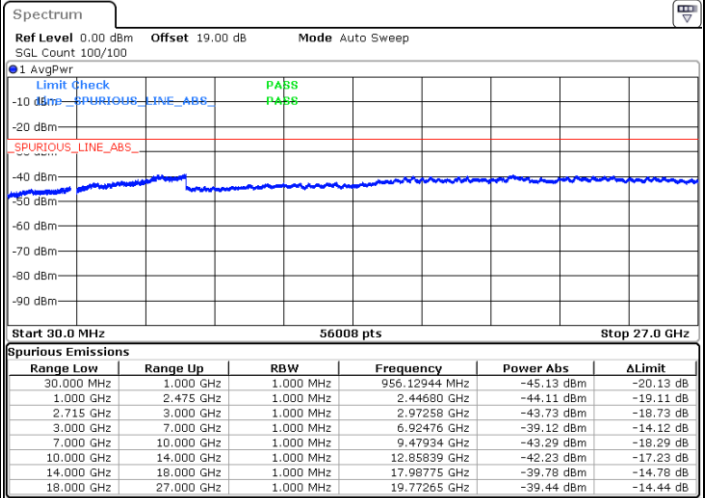
LTE Band 41 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

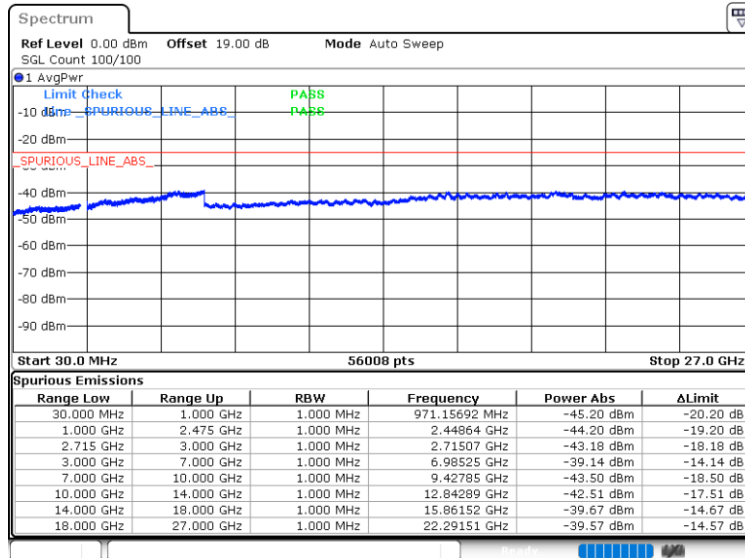


Date: 18.JAN.2024 00:14:13



Date: 18.JAN.2024 00:16:08

Highest Channel / QPSK



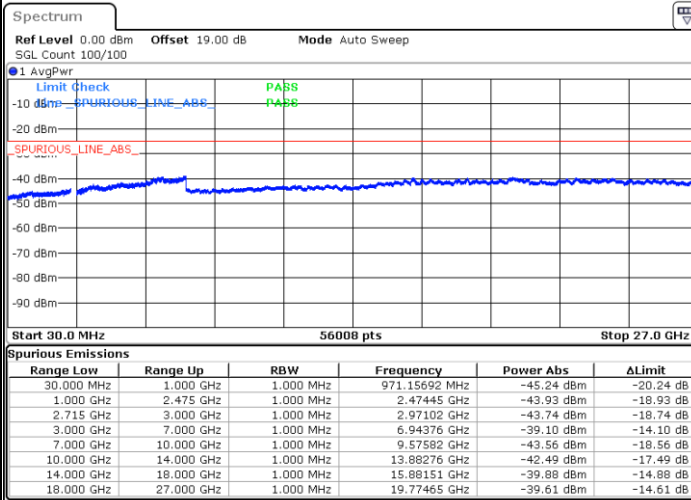
Date: 18.JAN.2024 00:24:42



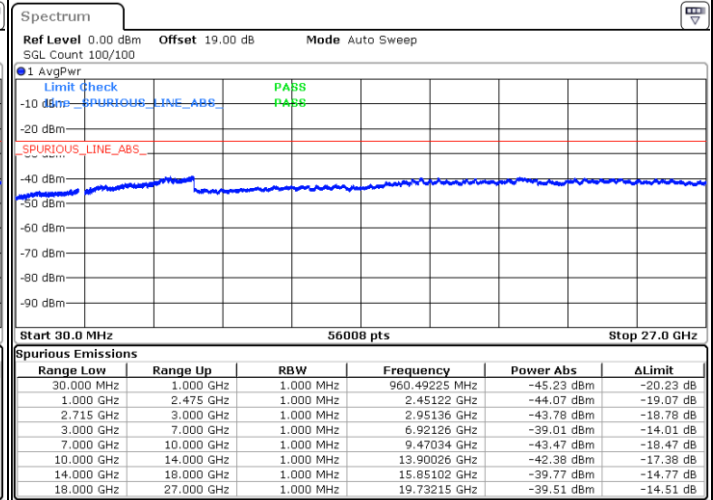
LTE Band 41 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

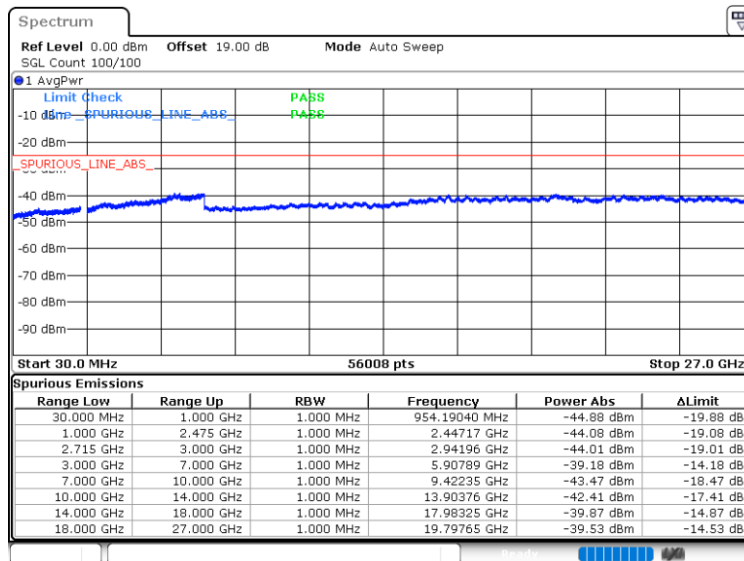


Date: 18.JAN.2024 00:33:47



Date: 18.JAN.2024 00:34:56

Highest Channel / QPSK



Date: 18.JAN.2024 00:44:53

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	0.0004	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

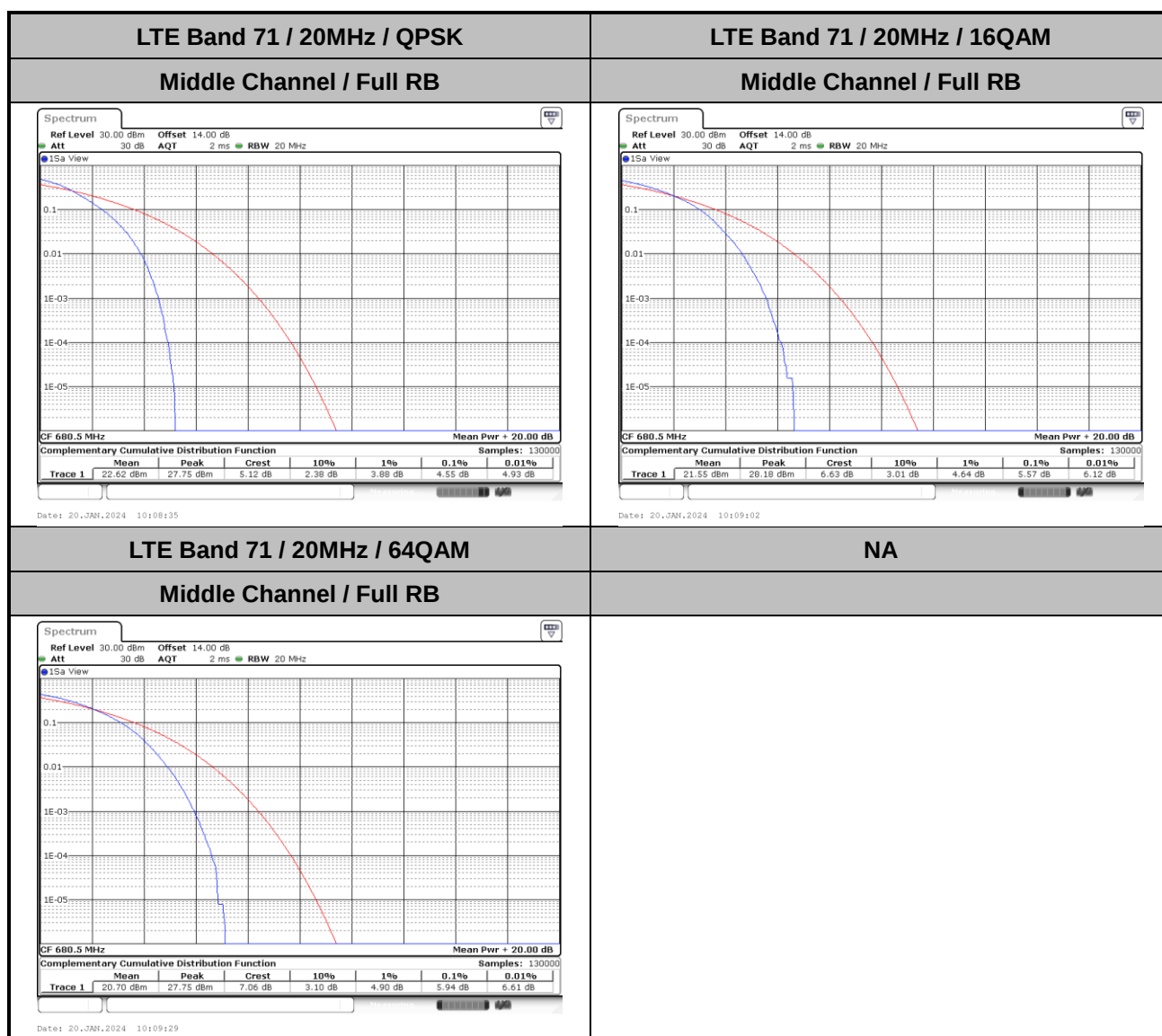
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.3 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 71

Peak-to-Average Ratio

Mode	LTE Band 71 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.55	5.57	5.94	PASS



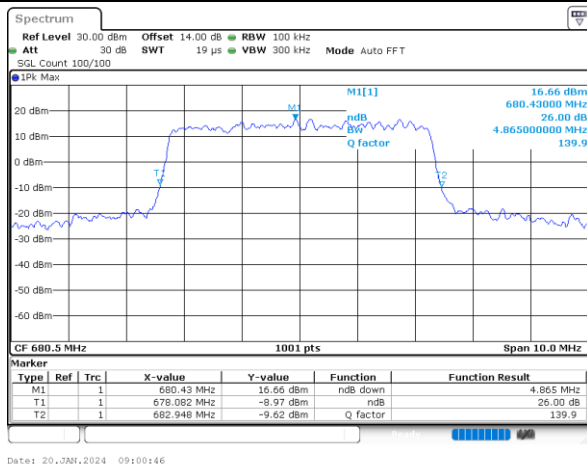


26dB Bandwidth

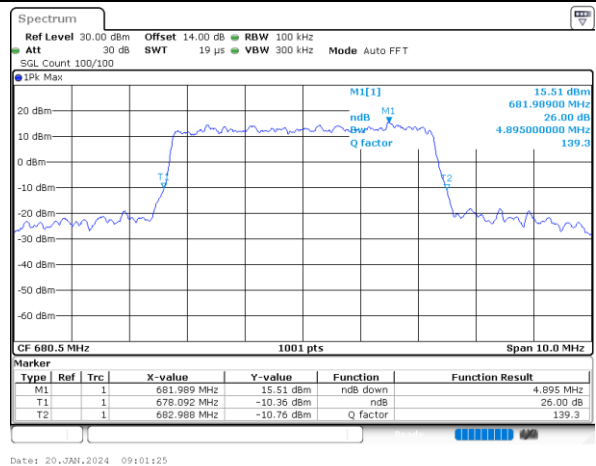
Mode	LTE Band 71 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.87	4.90	9.79	9.65	14.27	14.12	18.90	19.06

LTE Band 71

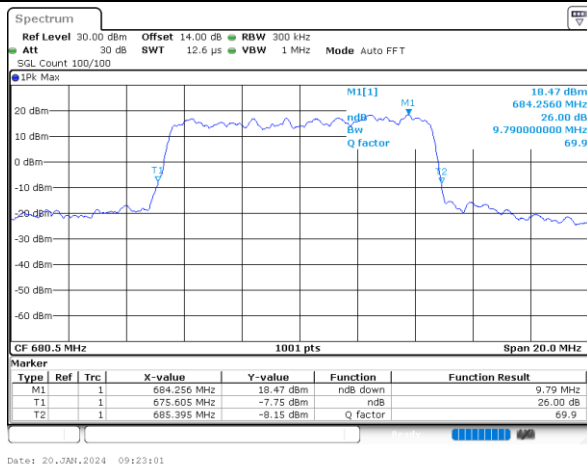
Middle Channel / 5MHz / QPSK



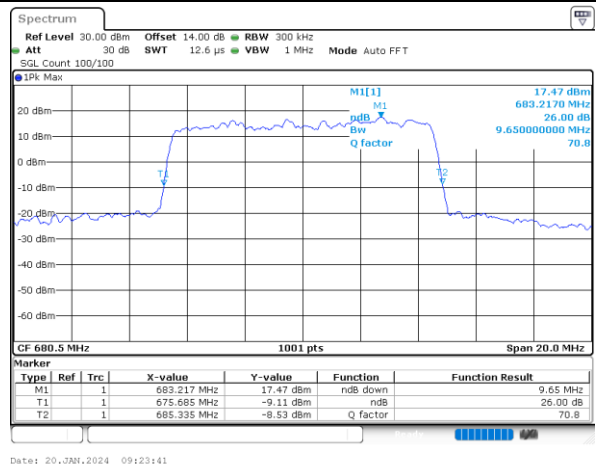
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



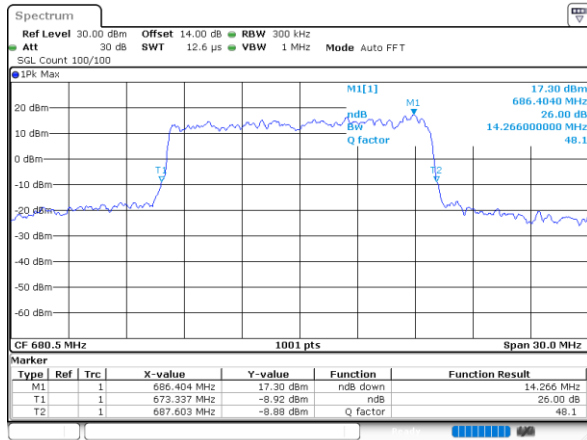
Middle Channel / 10MHz / 16QAM



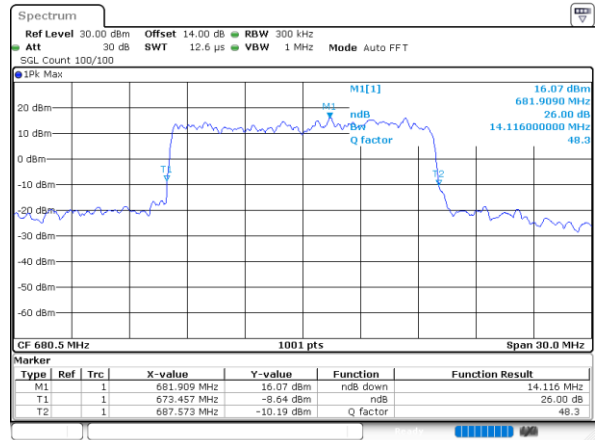


LTE Band 71

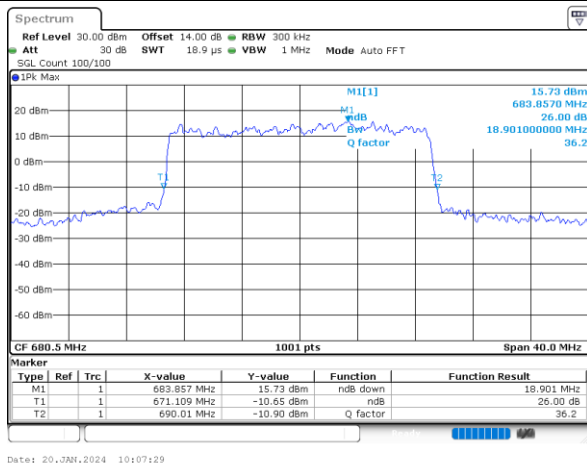
Middle Channel / 15MHz / QPSK



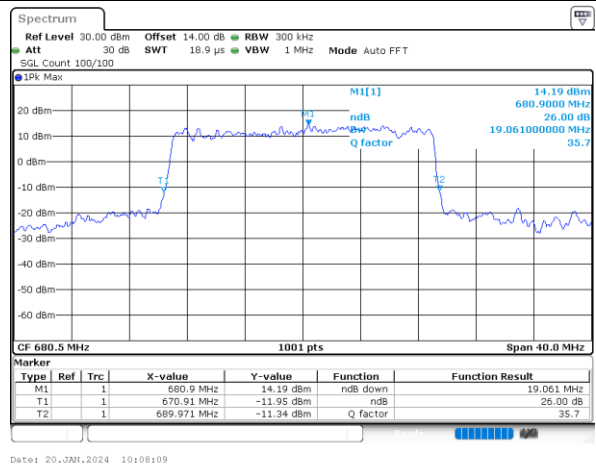
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM



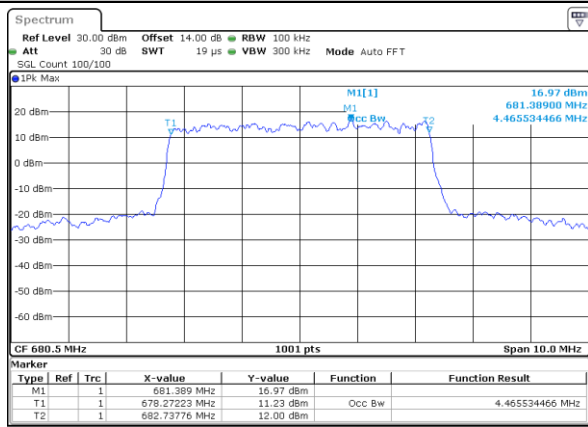


Occupied Bandwidth

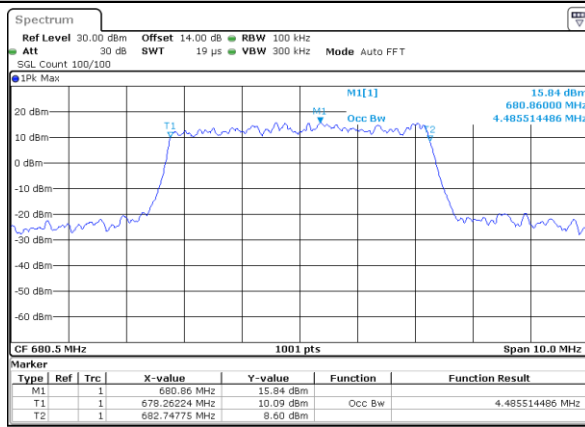
Mode	LTE Band 71 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.47	4.49	9.05	8.99	13.43	13.46	17.86	17.78

LTE Band 71

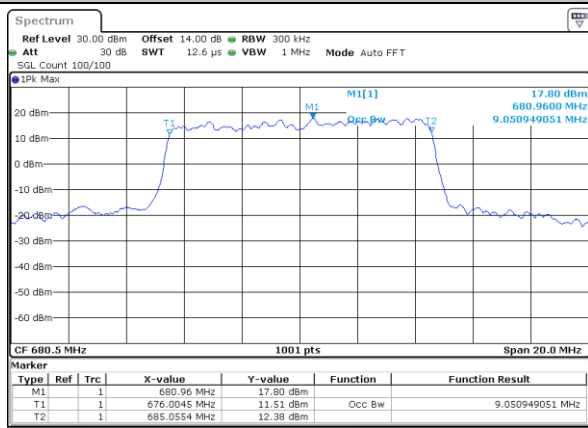
Middle Channel / 5MHz / QPSK



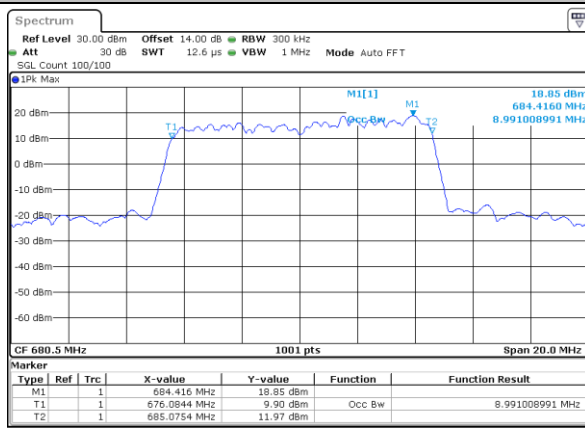
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



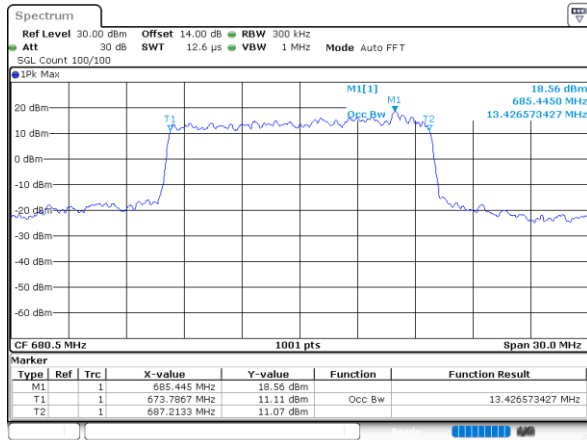
Middle Channel / 10MHz / 16QAM



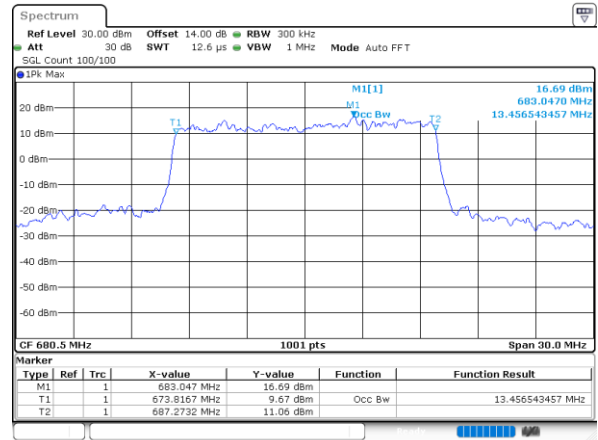


LTE Band 71

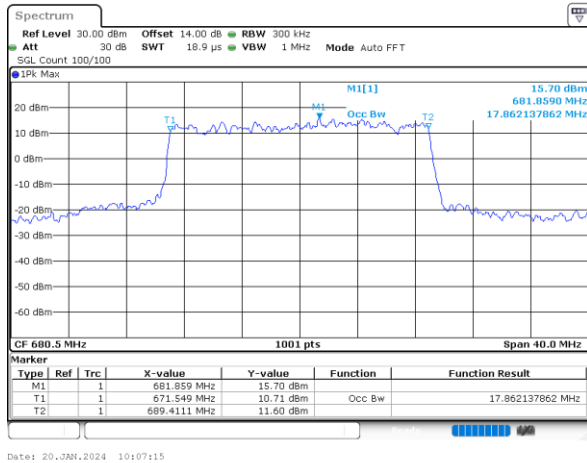
Middle Channel / 15MHz / QPSK



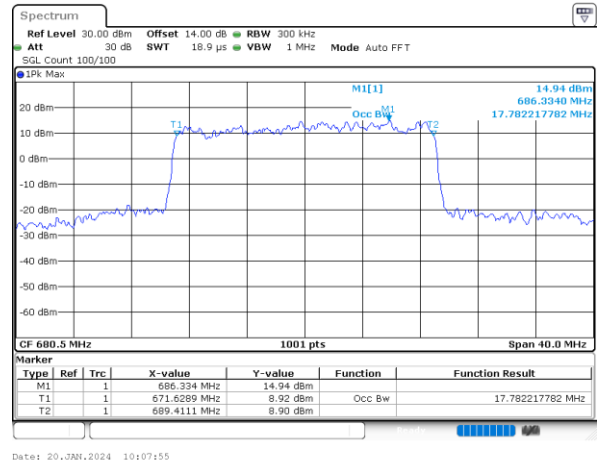
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM

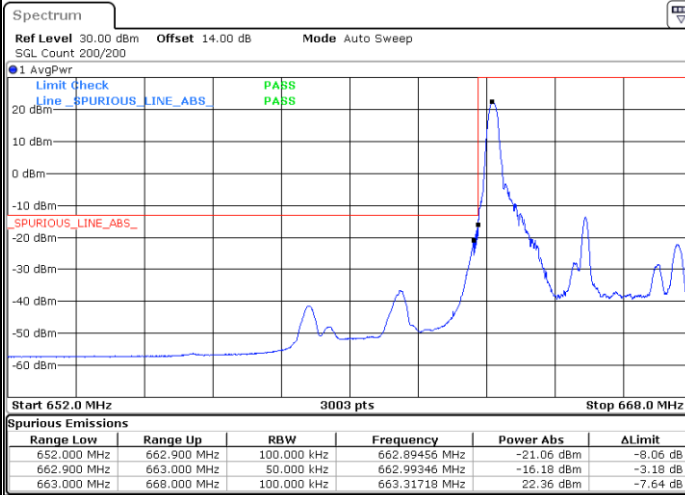




Conducted Band Edge

LTE Band 71 / 5MHz / QPSK

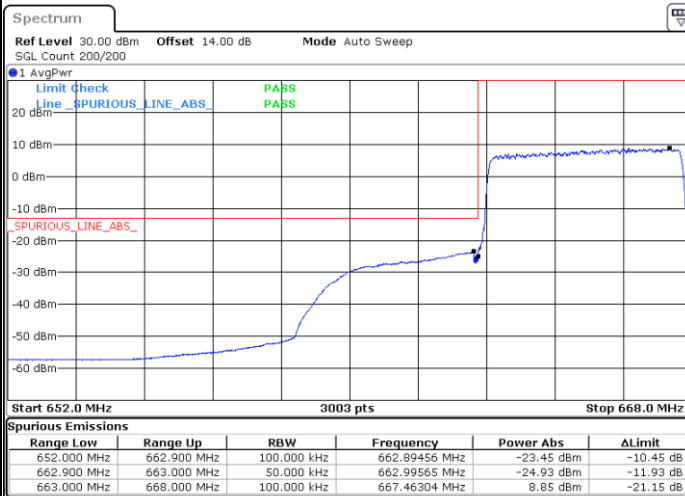
Lowest Band Edge / 1 RB



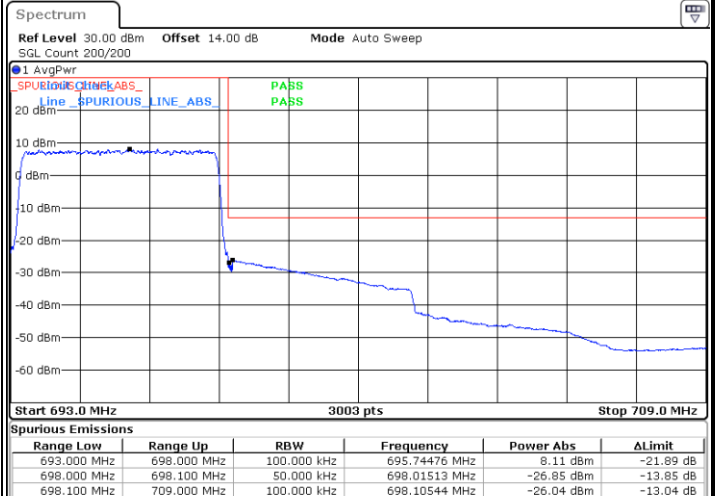
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



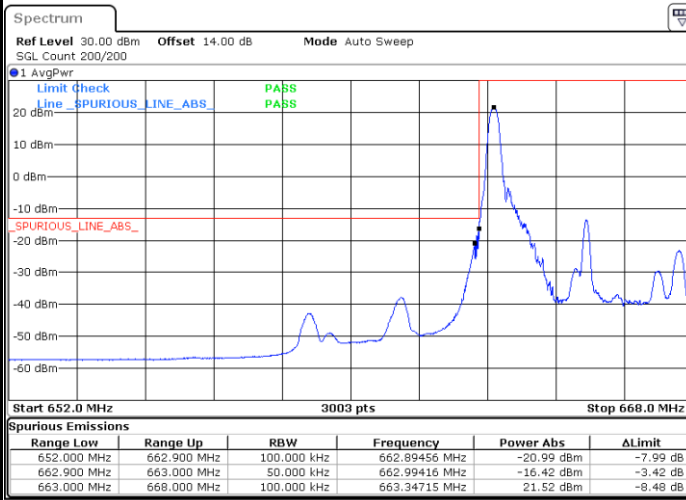
Highest Band Edge / Full RB





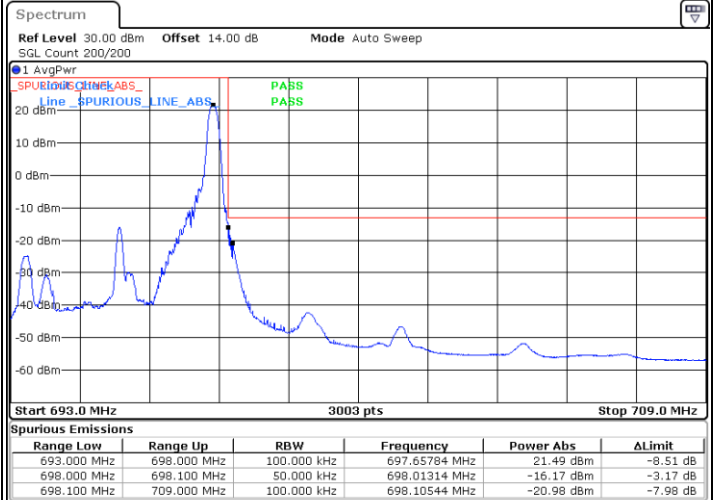
LTE Band 71 / 5MHz / 16QAM

Lowest Band Edge / 1RB



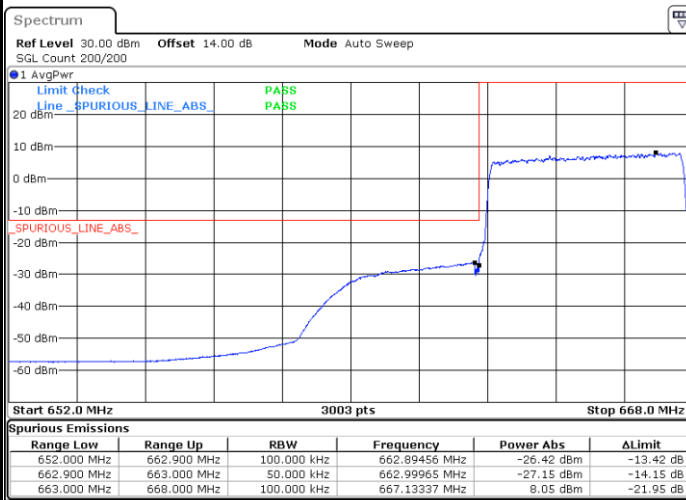
Date: 20.JAN.2024 08:52:22

Highest Band Edge / 1 RB



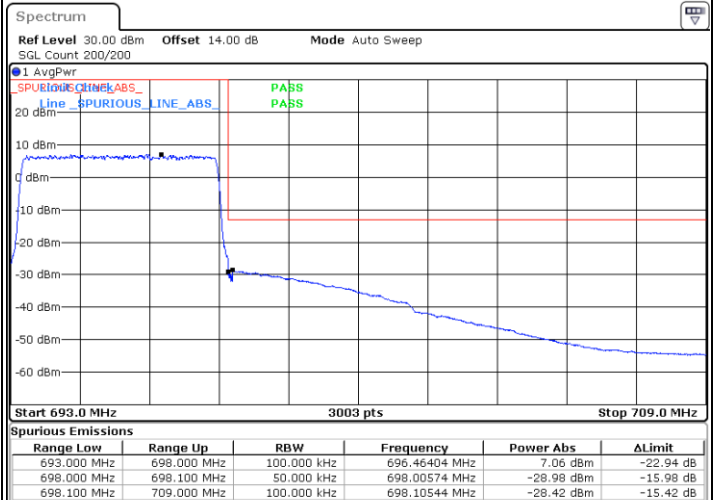
Date: 20.JAN.2024 21:52:14

Lowest Band Edge / Full RB



Date: 20.JAN.2024 08:56:24

Highest Band Edge / Full RB

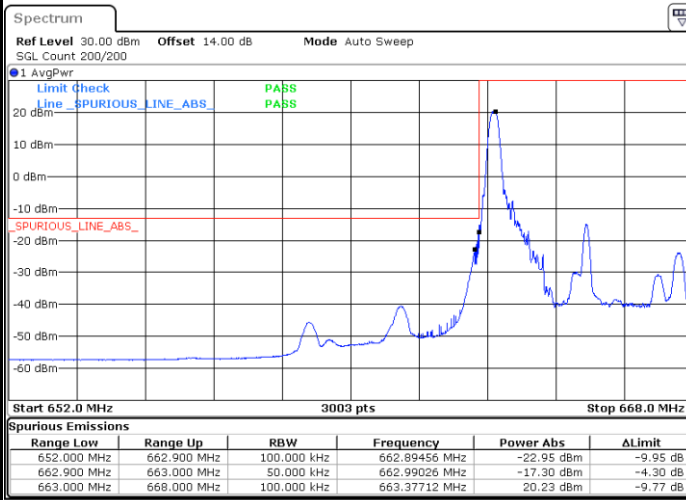


Date: 20.JAN.2024 09:08:09



LTE Band 71 / 5MHz / 64QAM

Lowest Band Edge / 1RB



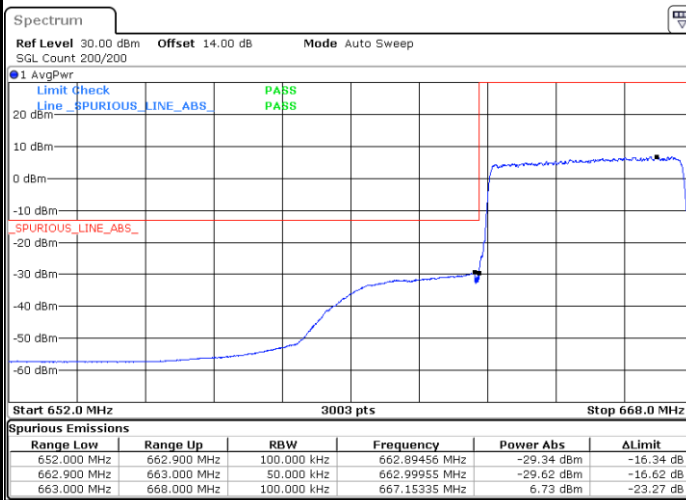
Date: 20.JAN.2024 08:53:42

Highest Band Edge / 1 RB



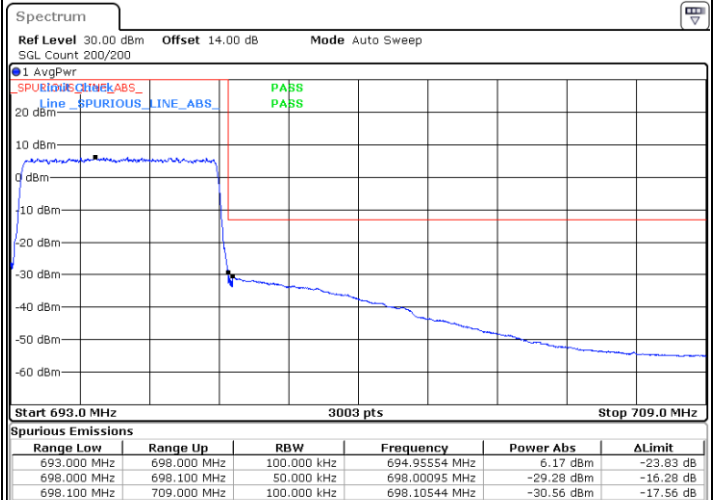
Date: 20.JAN.2024 09:05:27

Lowest Band Edge / Full RB



Date: 20.JAN.2024 08:57:45

Highest Band Edge / Full RB



Date: 20.JAN.2024 09:09:30