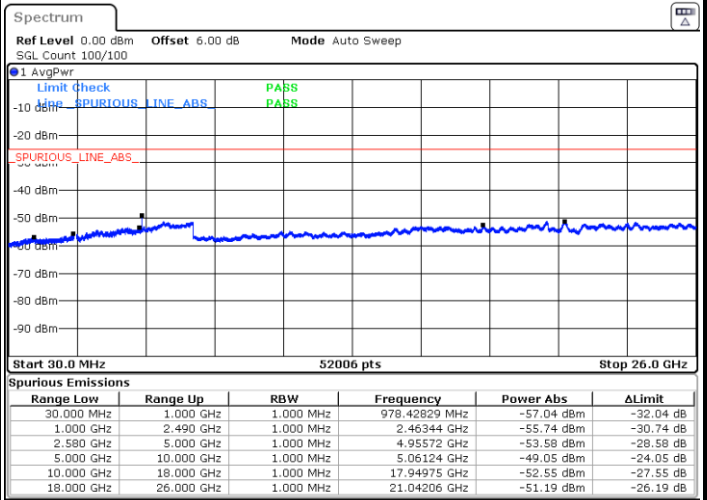
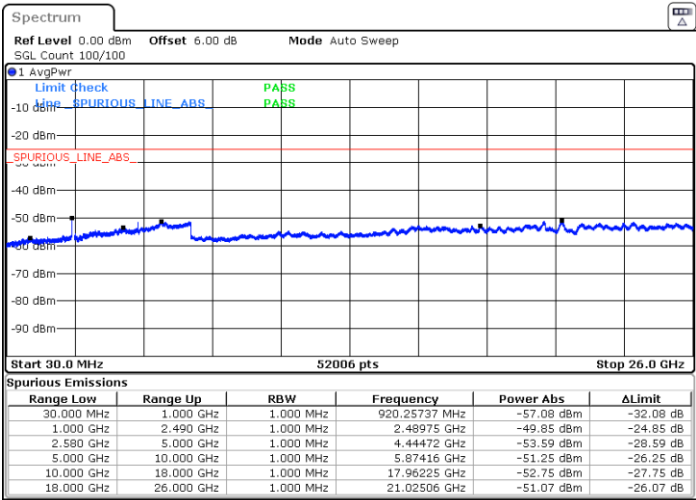




LTE Band 7 / 10MHz

Lowest Channel / QPSK

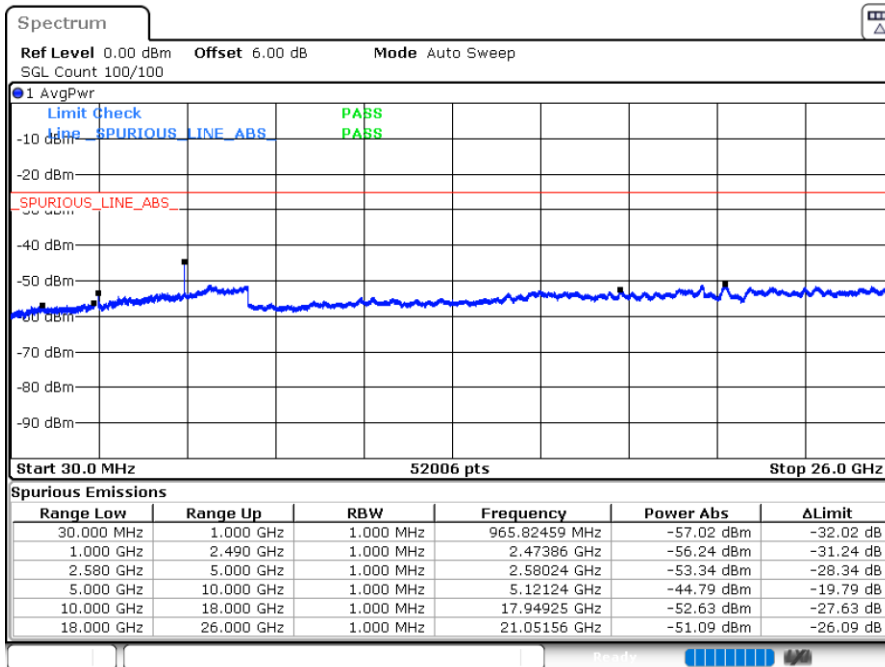
Middle Channel / QPSK



Date: 14.FEB.2023 21:38:57

Date: 14.FEB.2023 21:40:16

Highest Channel / QPSK



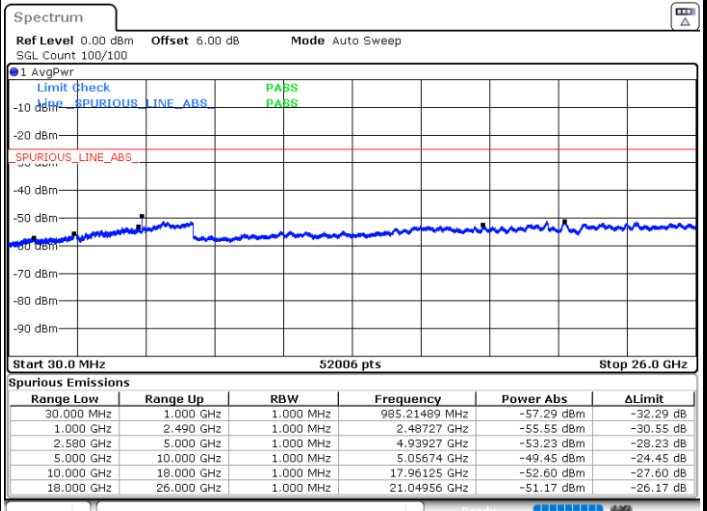
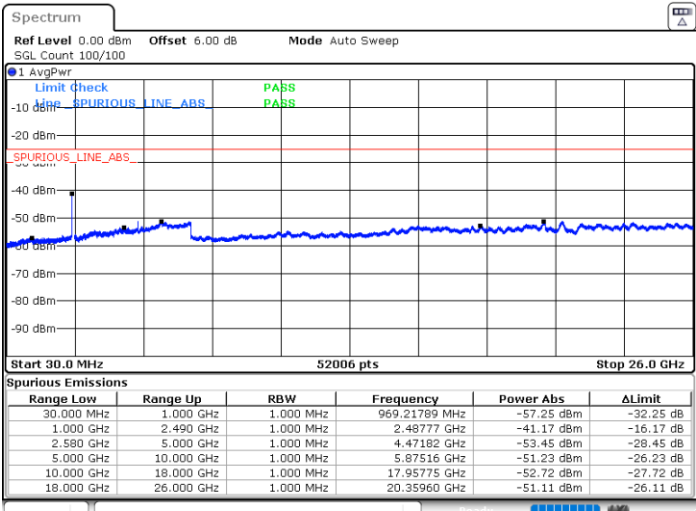
Date: 14.FEB.2023 21:41:35



LTE Band 7 / 15MHz

Lowest Channel / QPSK

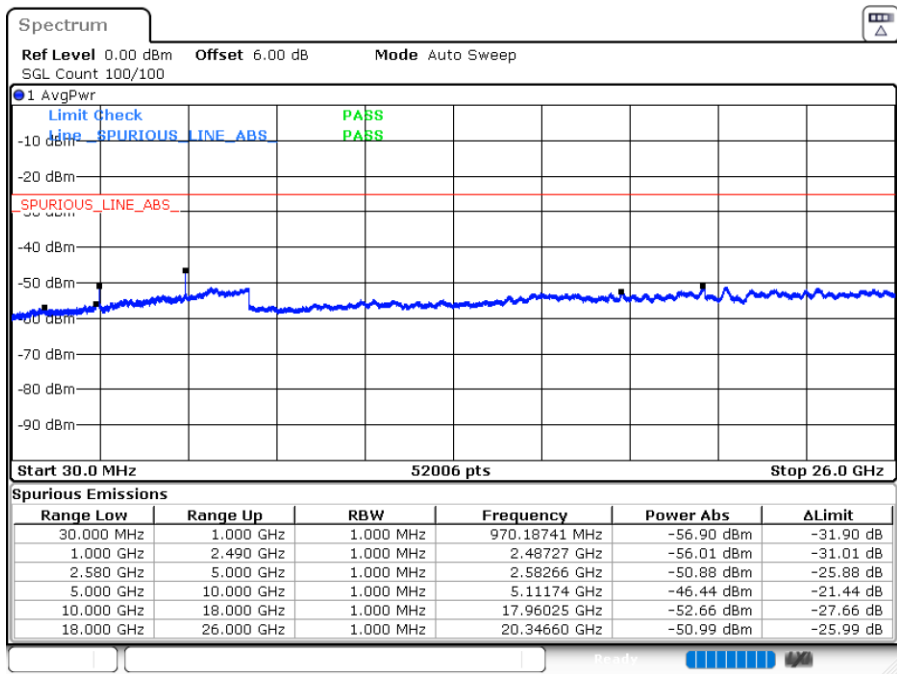
Middle Channel / QPSK



Date: 14.FEB.2023 21:56:11

Date: 14.FEB.2023 21:57:30

Highest Channel / QPSK



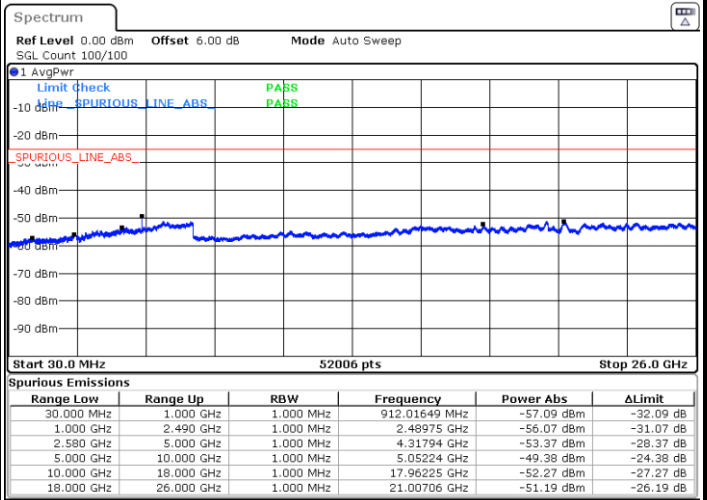
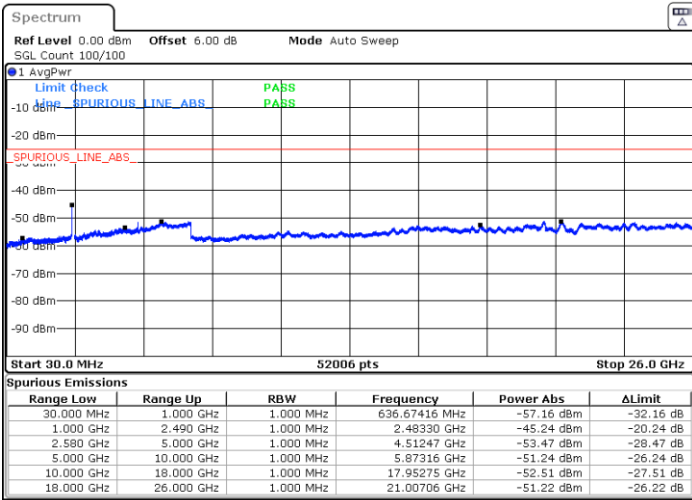
Date: 14.FEB.2023 21:58:49



LTE Band 7 / 20MHz

Lowest Channel / QPSK

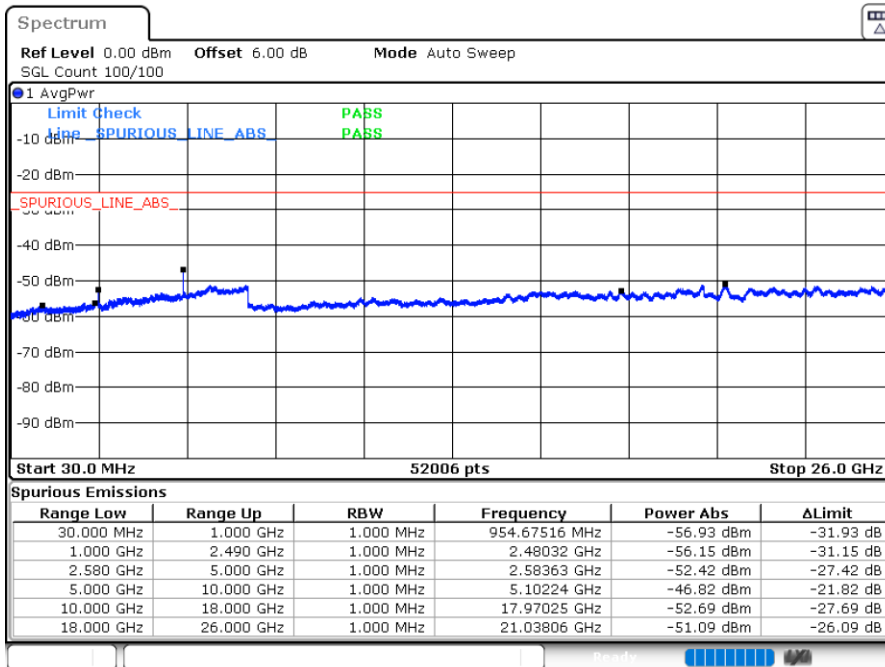
Middle Channel / QPSK



Date: 14.FEB.2023 22:11:39

Date: 14.FEB.2023 22:12:58

Highest Channel / QPSK



Date: 14.FEB.2023 22:14:17



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	0.0013	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0008	
20	Battery End Point	0.0014	

Note:

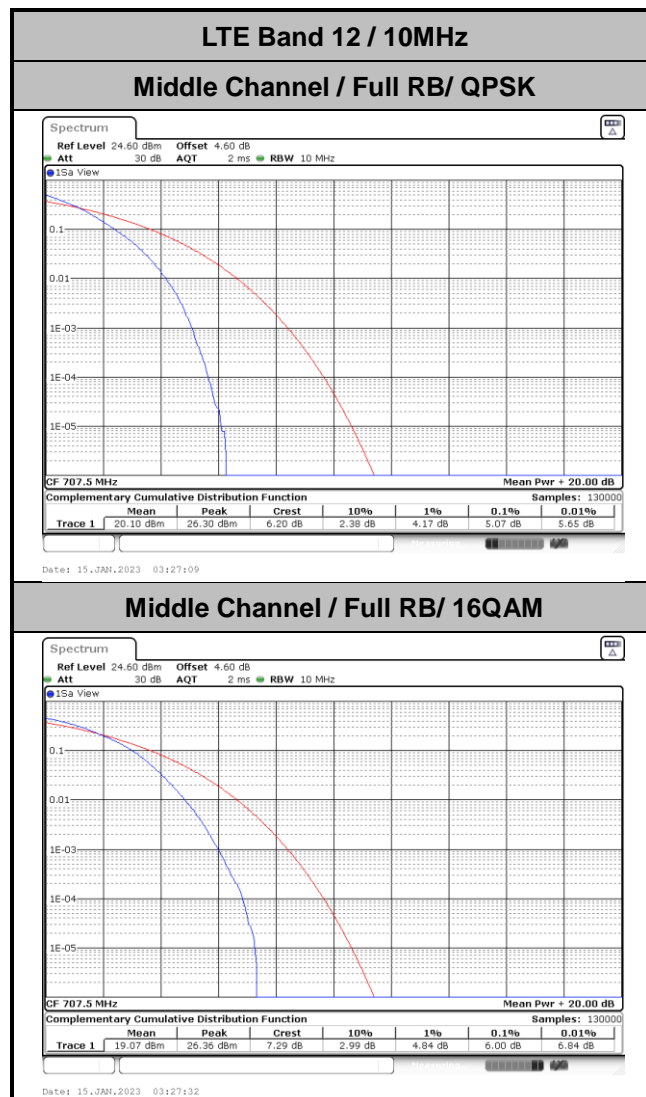
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

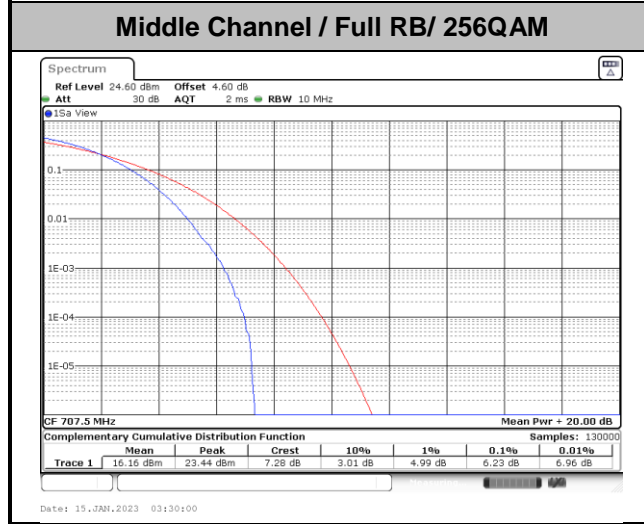
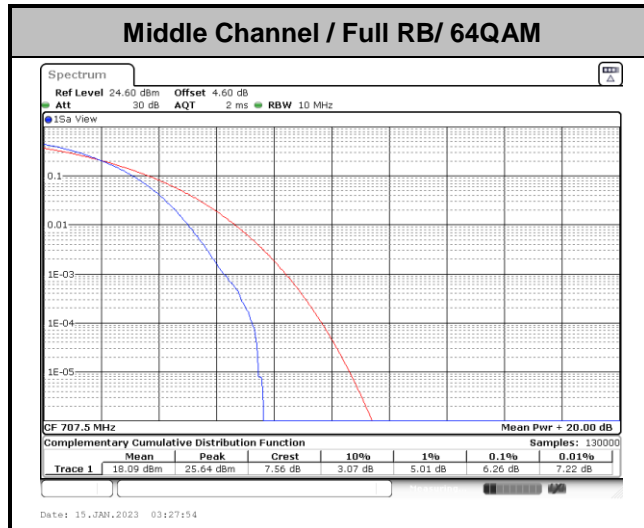


LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.07	6.00	6.26	6.23	PASS

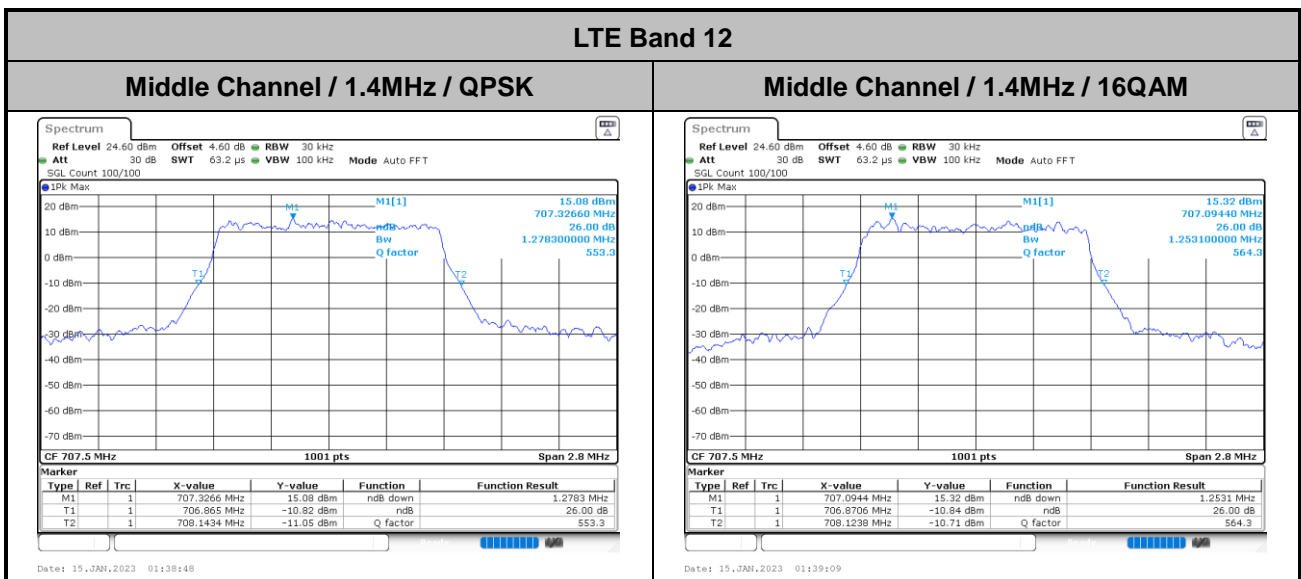






26dB Bandwidth

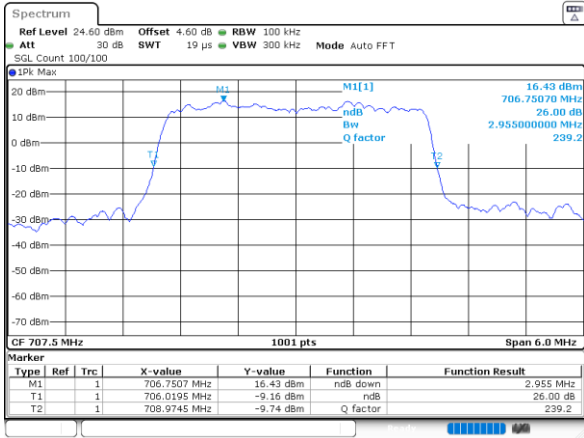
Mode	LTE Band 12 : 26dB BW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.28	1.25
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.96	3.00
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.75	4.86
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.61	9.71





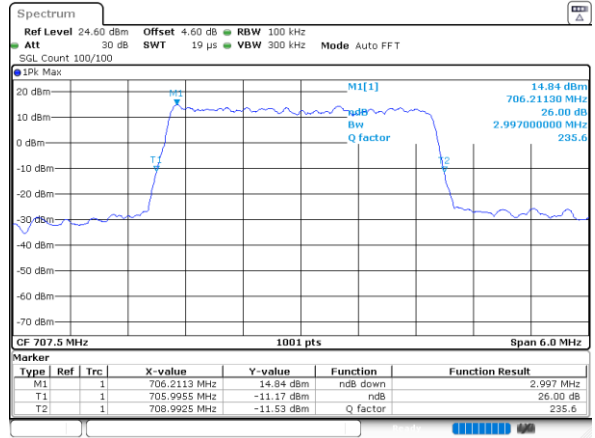
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 15_JAN_2023 02:11:02

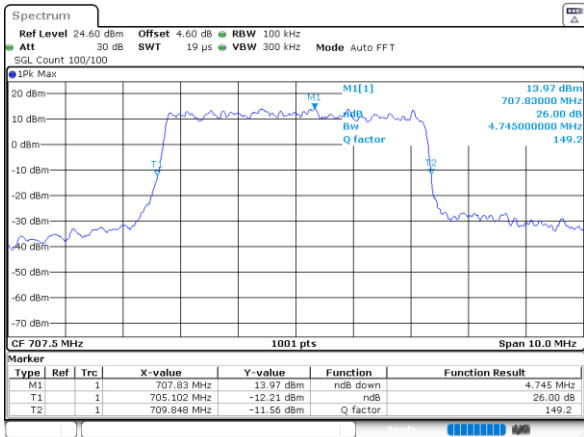
Middle Channel / 3MHz / 16QAM



Date: 15_JAN_2023 02:11:23

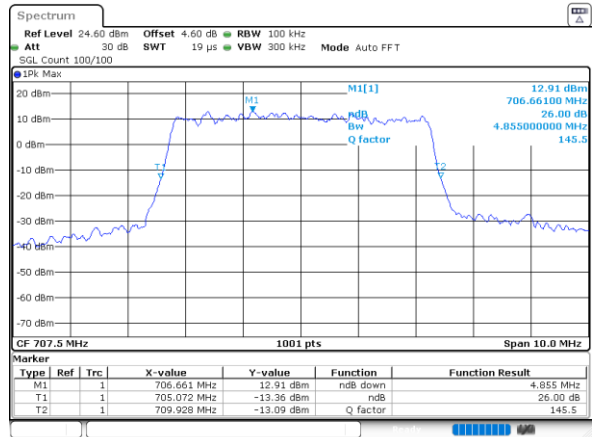
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 15_JAN_2023 02:41:54

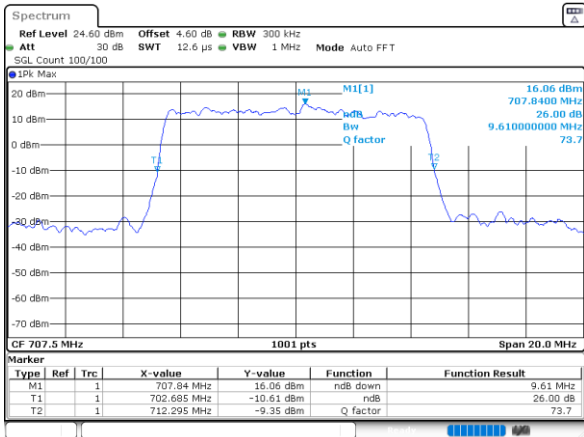
Middle Channel / 5MHz / 16QAM



Date: 15_JAN_2023 02:42:15

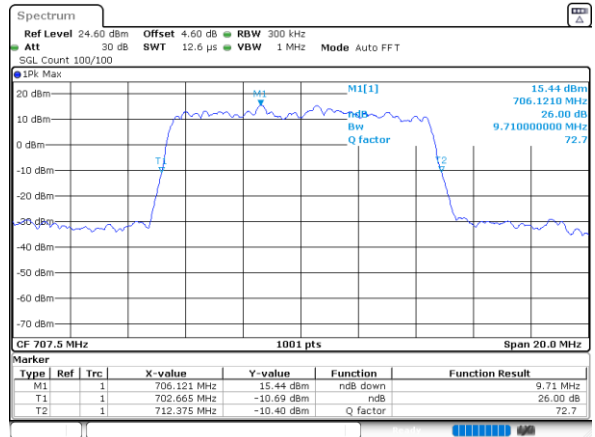
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15_JAN_2023 03:26:26

Middle Channel / 10MHz / 16QAM

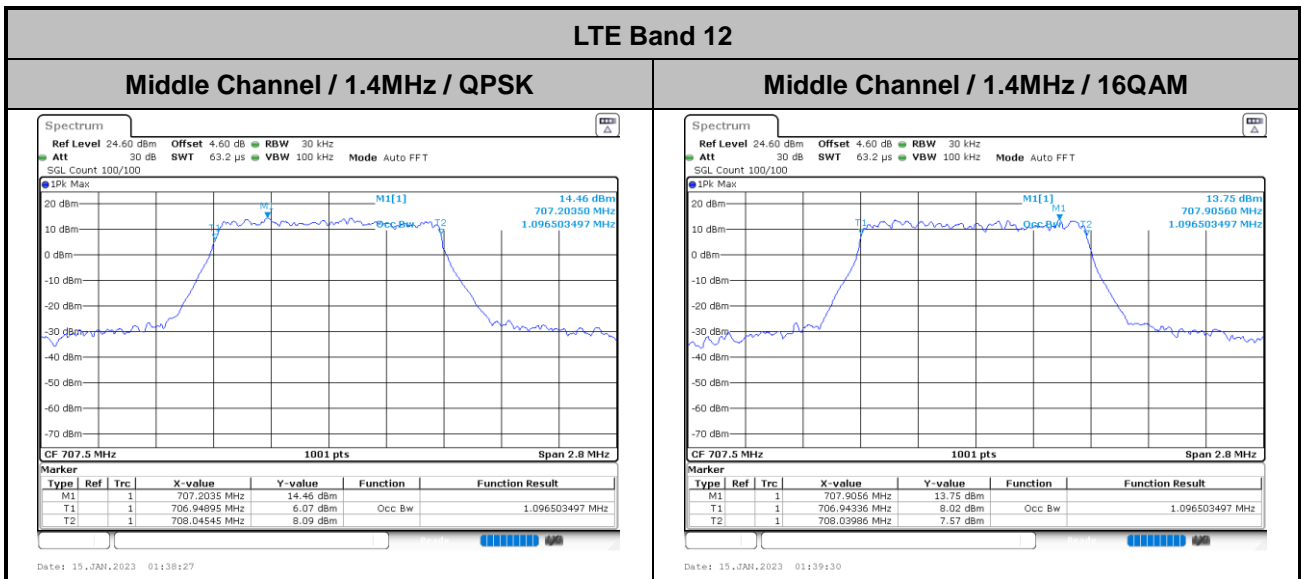


Date: 15_JAN_2023 03:26:47



Occupied Bandwidth

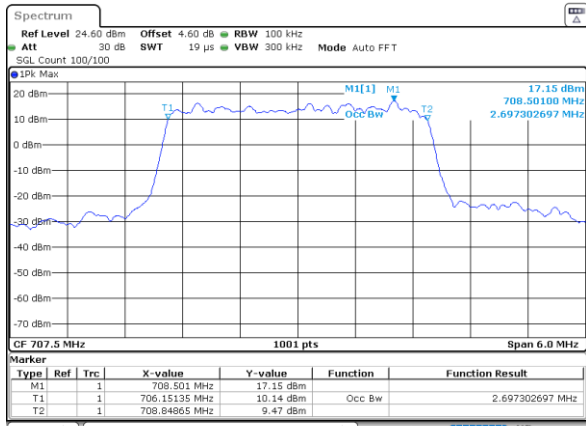
Mode	LTE Band 12 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.10	1.10
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.70	2.71
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.48
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.01	8.93





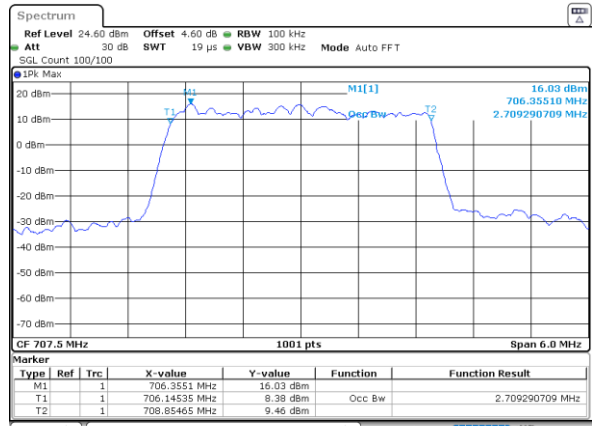
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 15_JAN_2023 02:10:41

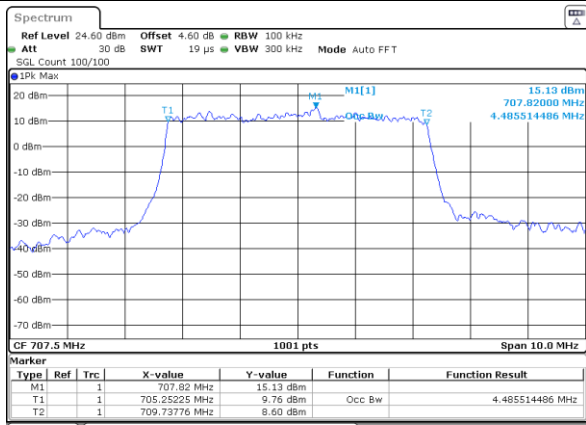
Middle Channel / 3MHz / 16QAM



Date: 15_JAN_2023 02:11:44

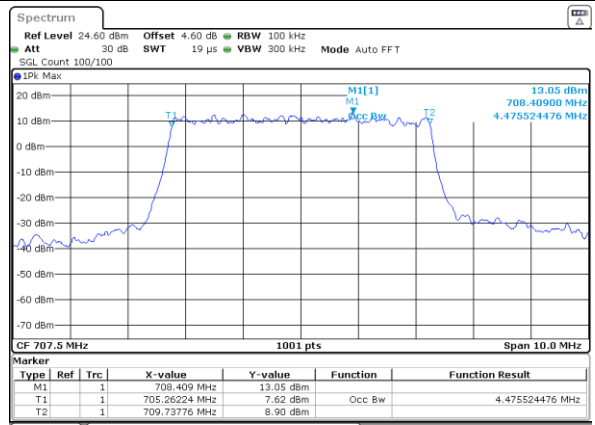
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 15_JAN_2023 02:41:33

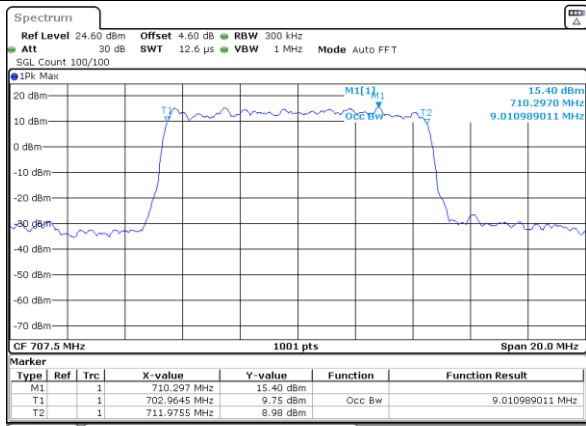
Middle Channel / 5MHz / 16QAM



Date: 15_JAN_2023 02:42:36

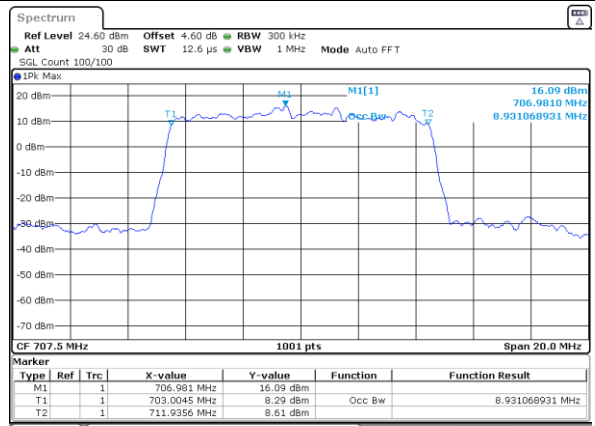
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15_JAN_2023 03:25:44

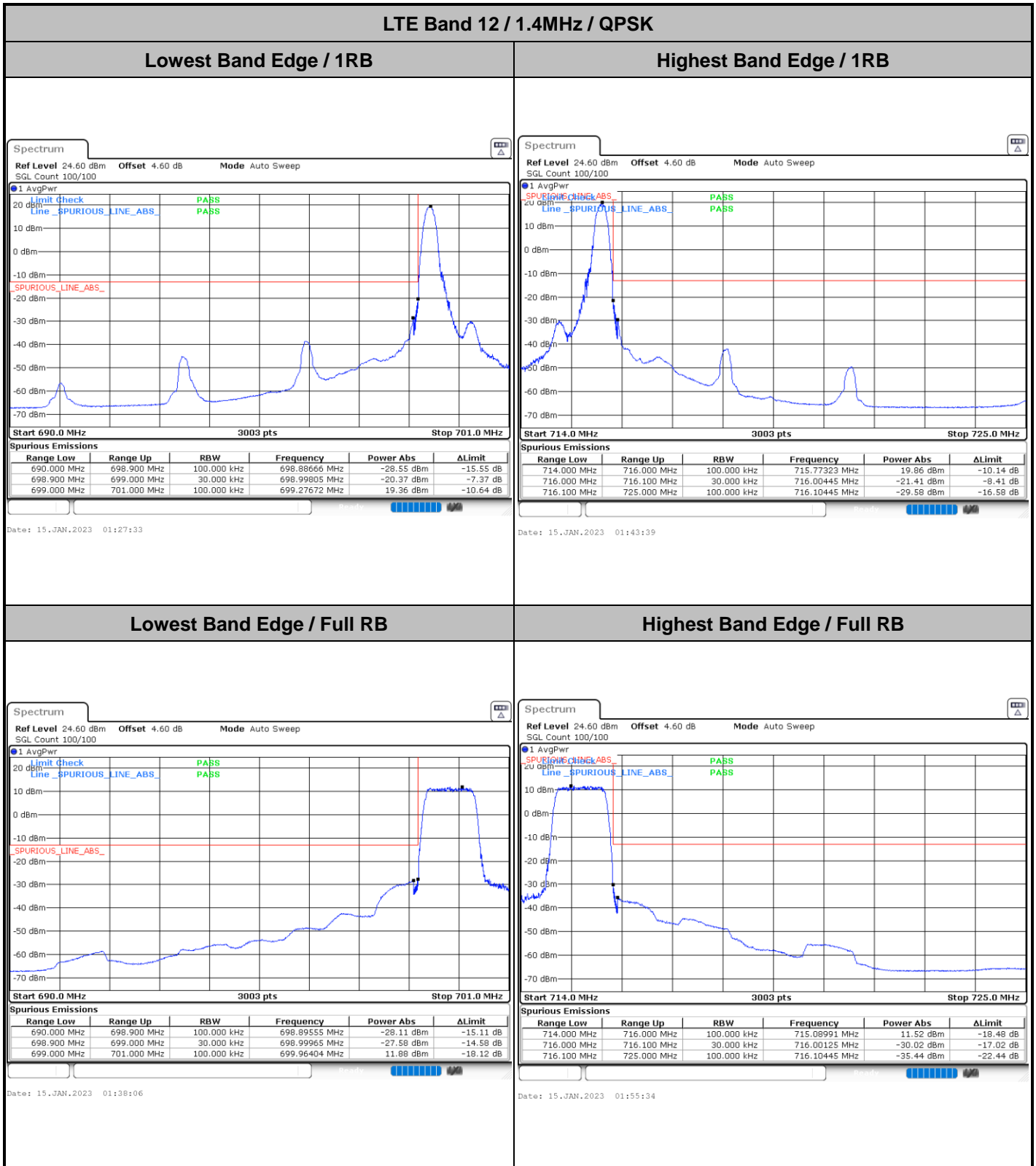
Middle Channel / 10MHz / 16QAM



Date: 15_JAN_2023 03:26:05



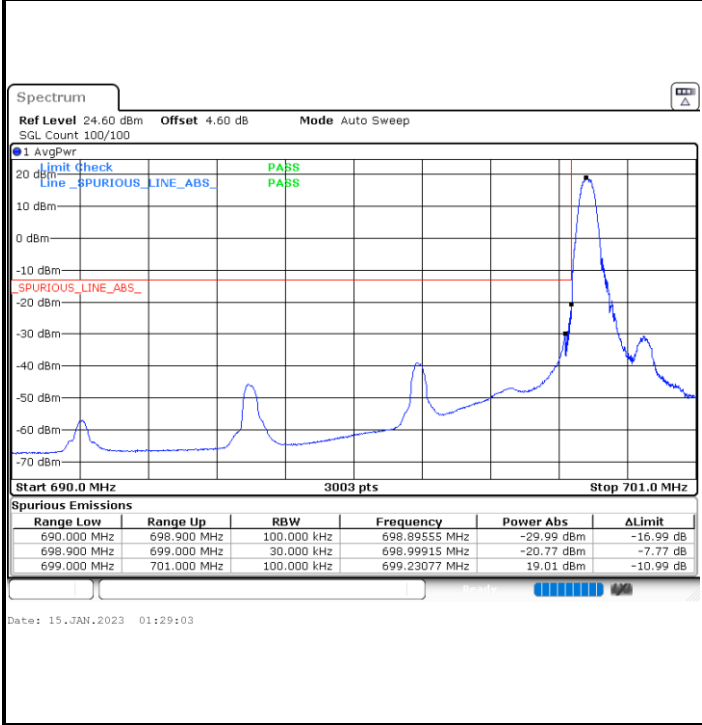
Conducted Band Edge



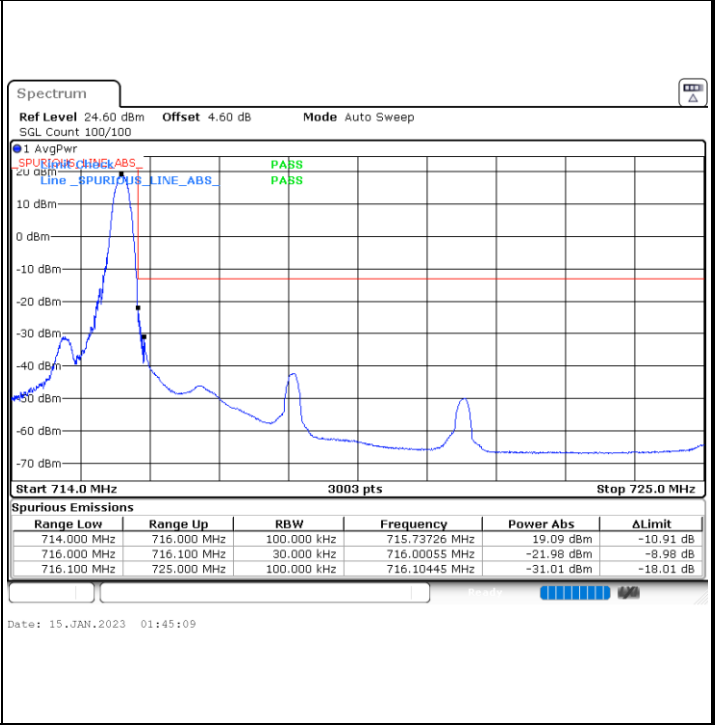


LTE Band 12 / 1.4MHz / 16QAM

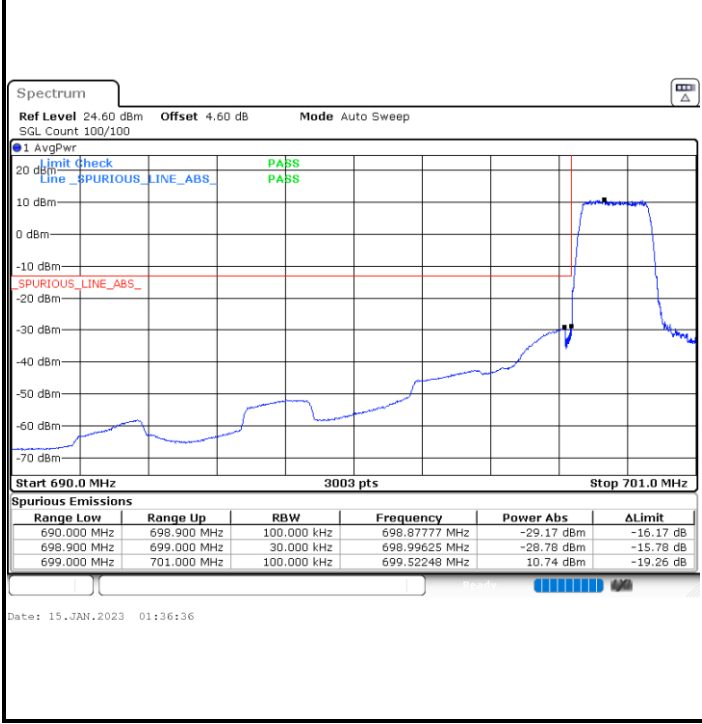
Lowest Band Edge / 1 RB



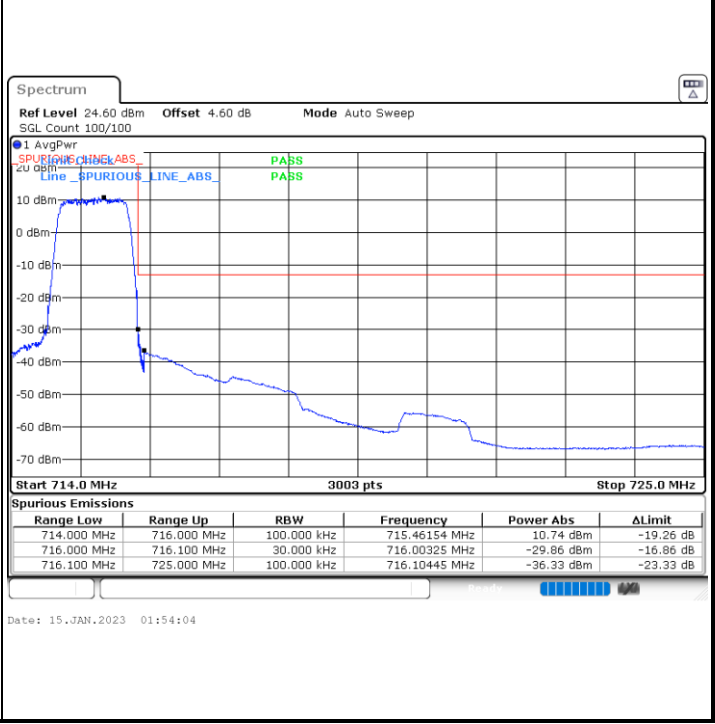
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



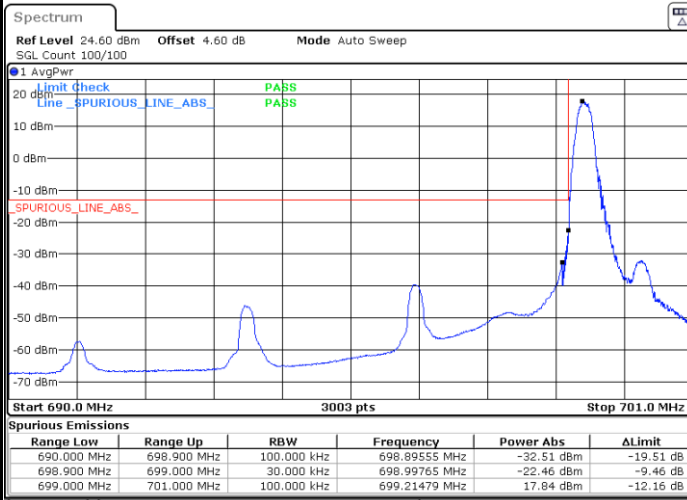
Highest Band Edge / Full RB





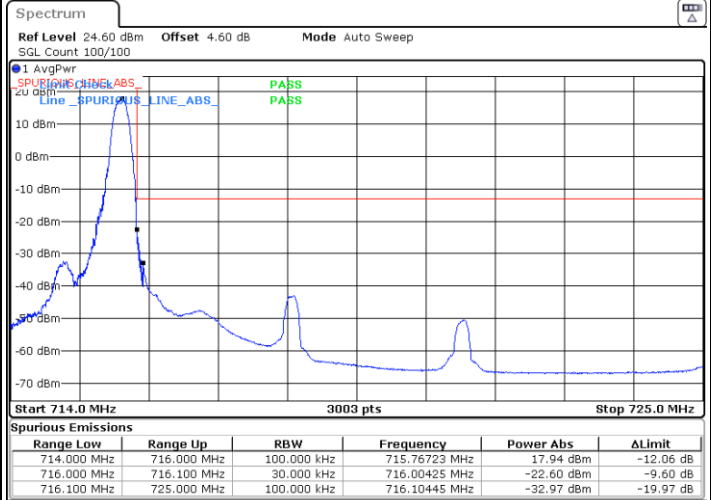
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



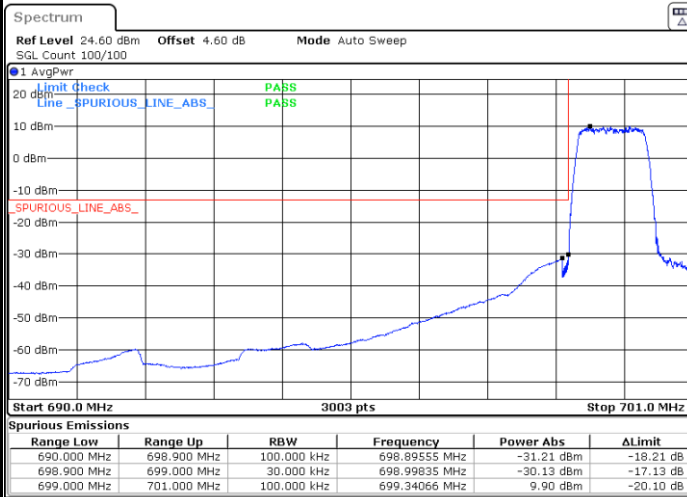
Date: 15. JAN. 2023 01:30:33

Highest Band Edge / 1 RB



Date: 15. JAN. 2023 01:46:40

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 01:35:06

Highest Band Edge / Full RB

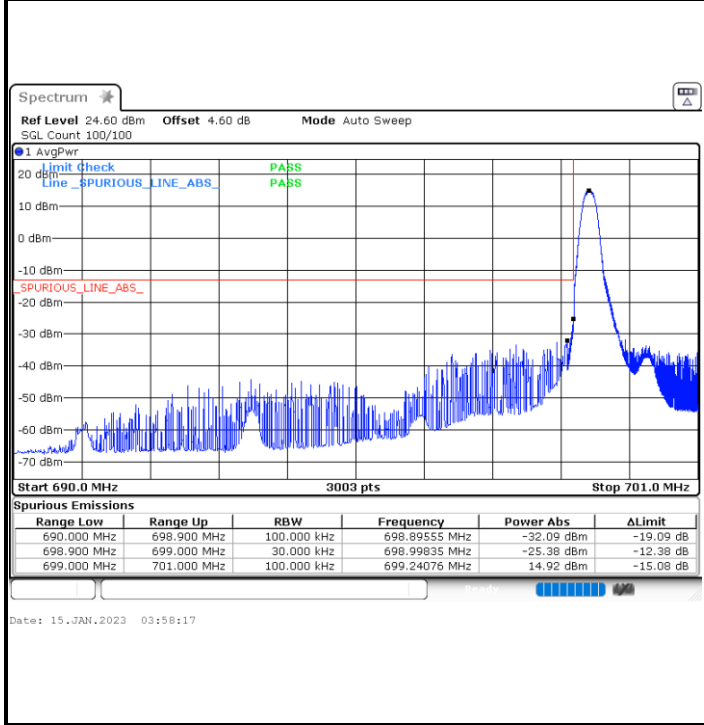


Date: 15. JAN. 2023 01:52:34

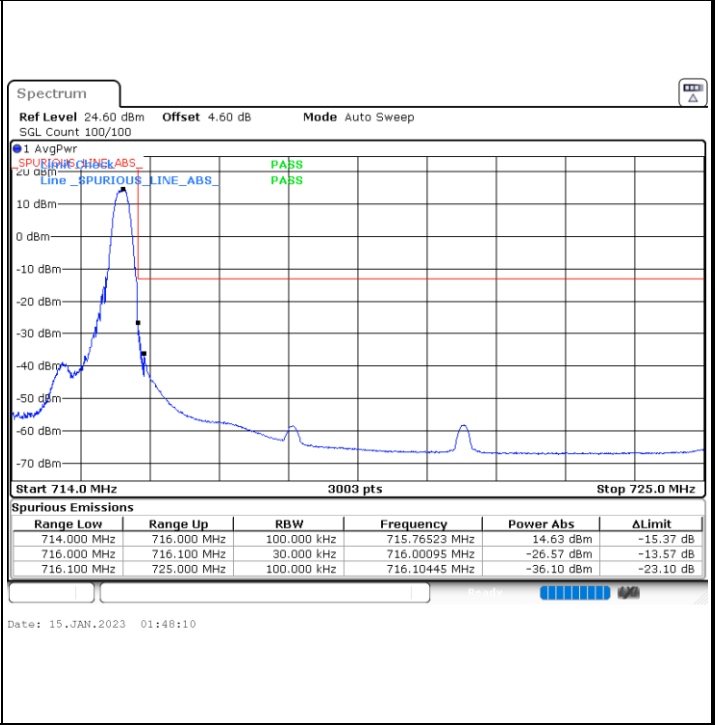


LTE Band 12 / 1.4MHz / 256QAM

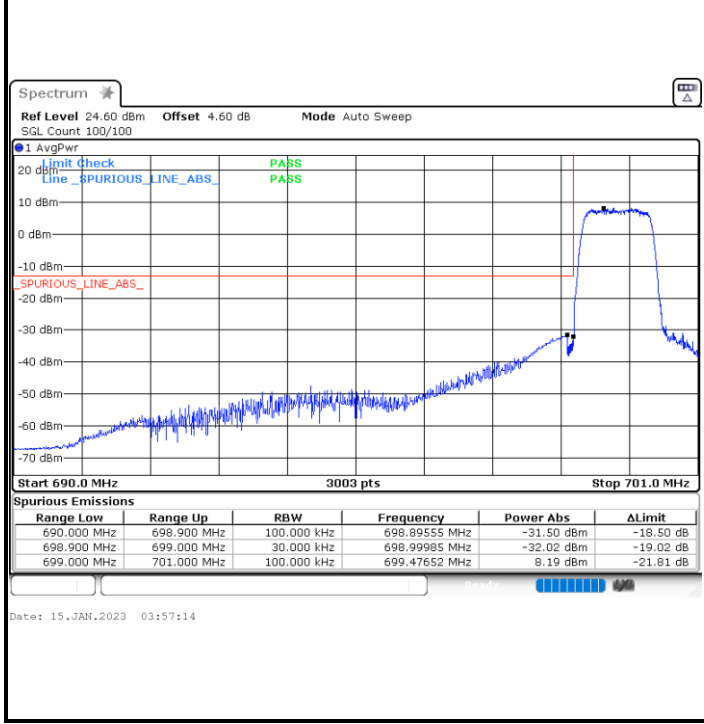
Lowest Band Edge / 1 RB



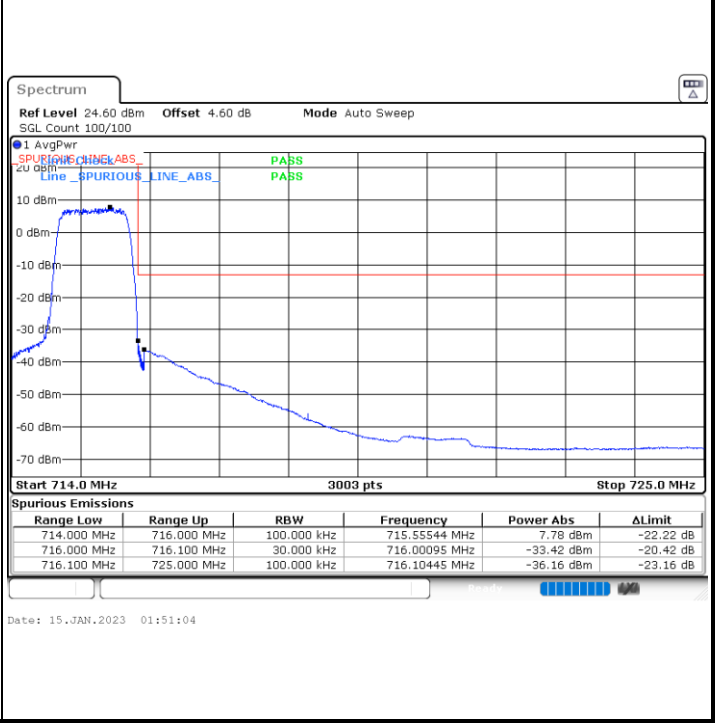
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



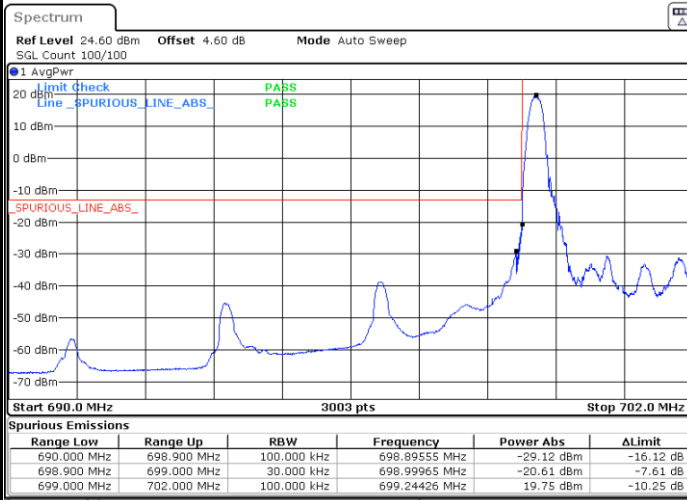
Highest Band Edge / Full RB





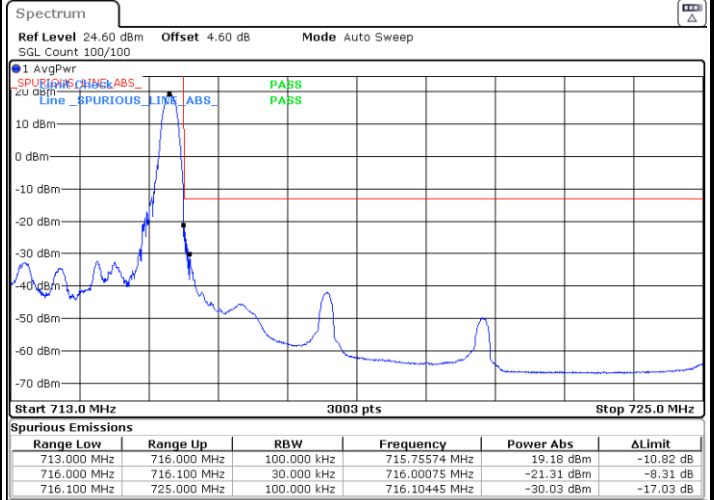
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



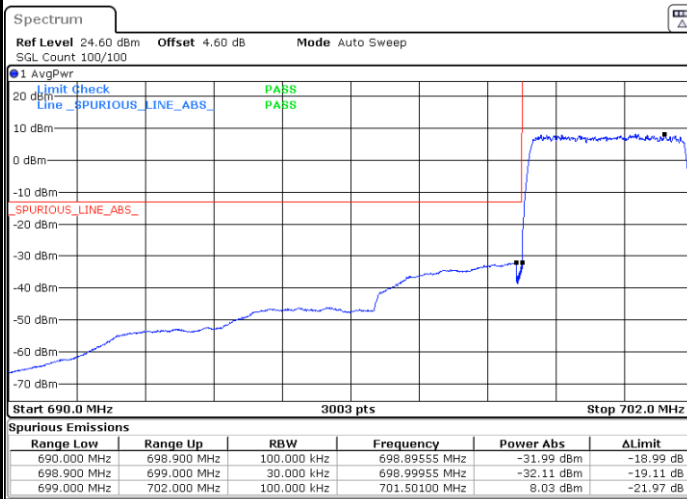
Date: 15.JAN.2023 01:58:25

Highest Band Edge / 1 RB



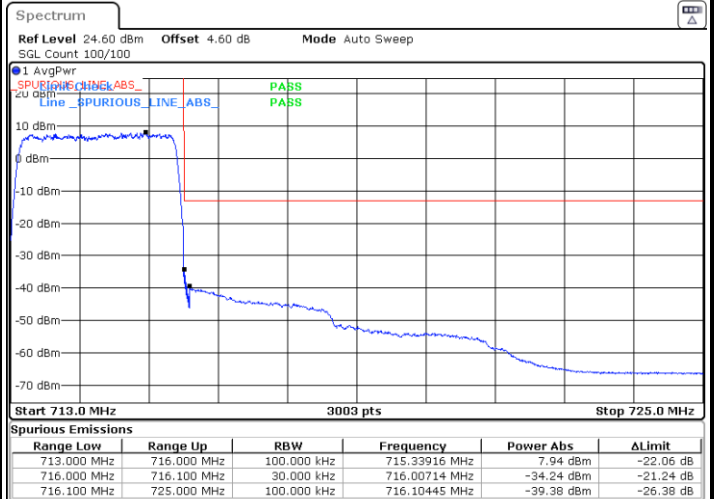
Date: 15.JAN.2023 02:15:53

Lowest Band Edge / Full RB



Date: 15.JAN.2023 02:10:19

Highest Band Edge / Full RB

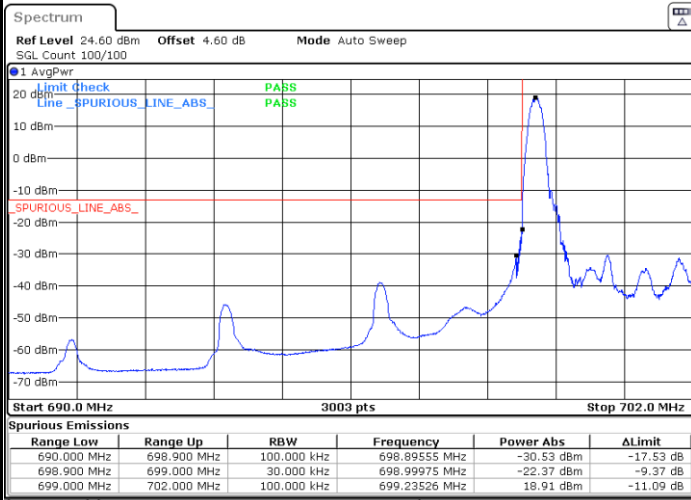


Date: 15.JAN.2023 02:27:48



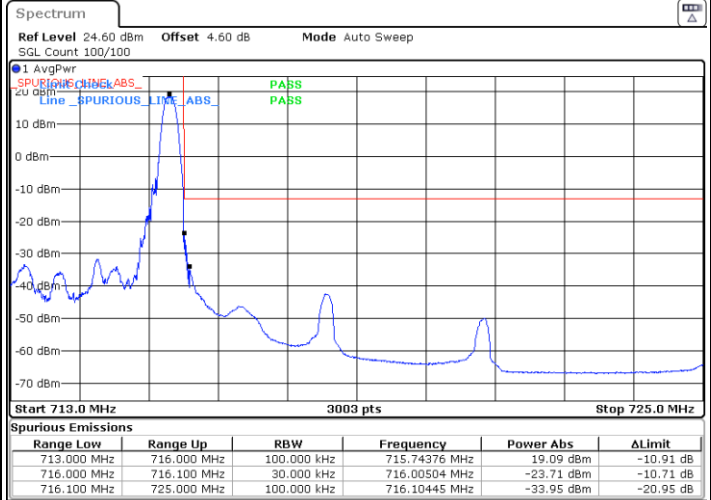
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



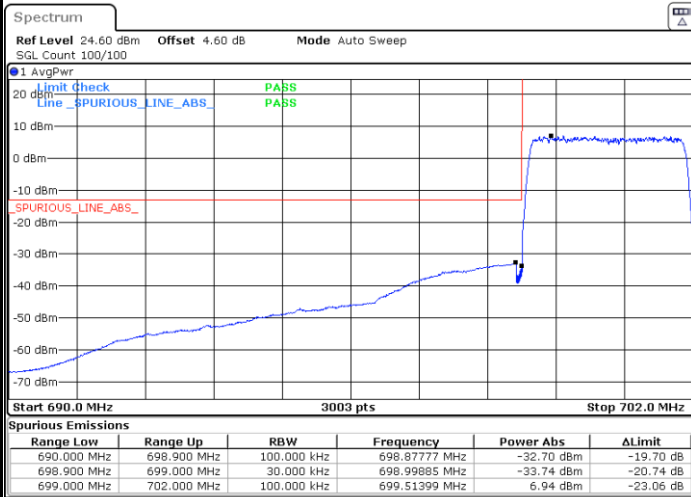
Date: 15.JAN.2023 01:59:55

Highest Band Edge / 1 RB



Date: 15.JAN.2023 02:17:23

Lowest Band Edge / Full RB



Date: 15.JAN.2023 02:08:49

Highest Band Edge / Full RB

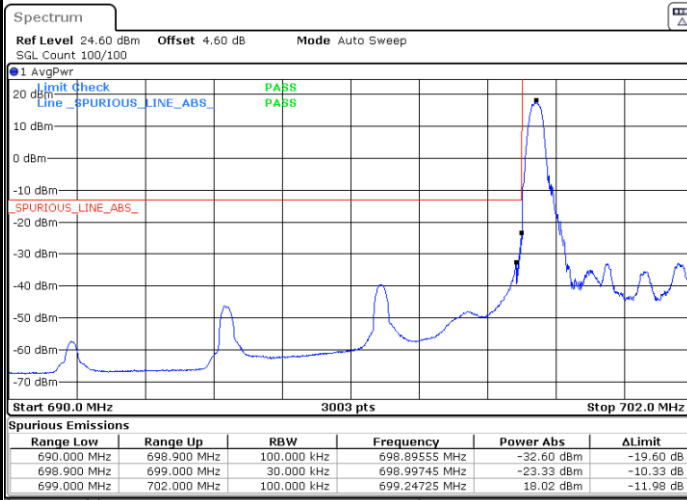


Date: 15.JAN.2023 02:26:18



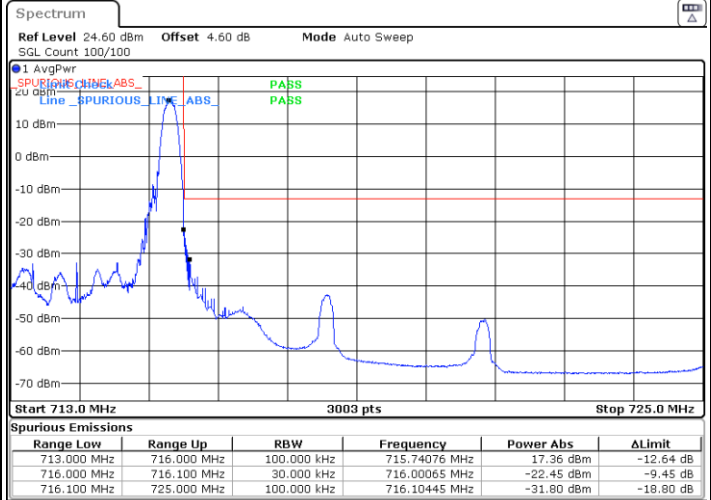
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



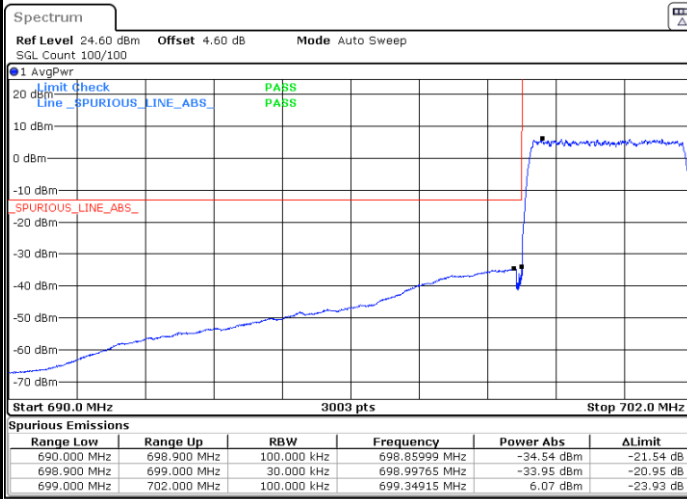
Date: 15.JAN.2023 02:01:25

Highest Band Edge / 1 RB



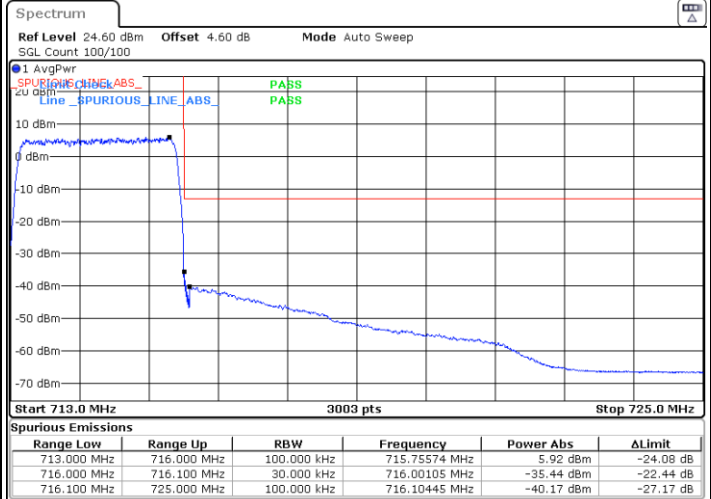
Date: 15.JAN.2023 02:18:53

Lowest Band Edge / Full RB



Date: 15.JAN.2023 02:07:19

Highest Band Edge / Full RB

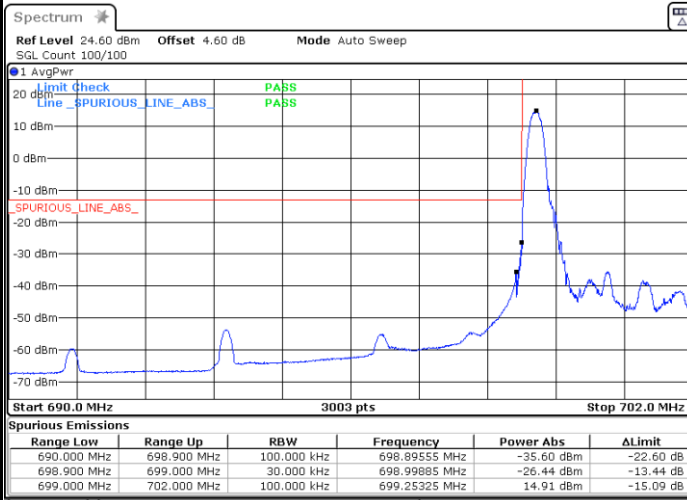


Date: 15.JAN.2023 02:24:48



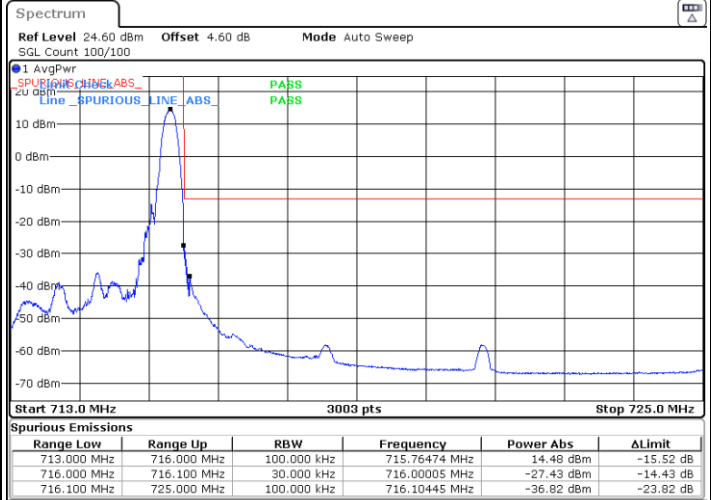
LTE Band 12 / 3MHz / 256QAM

Lowest Band Edge / 1 RB



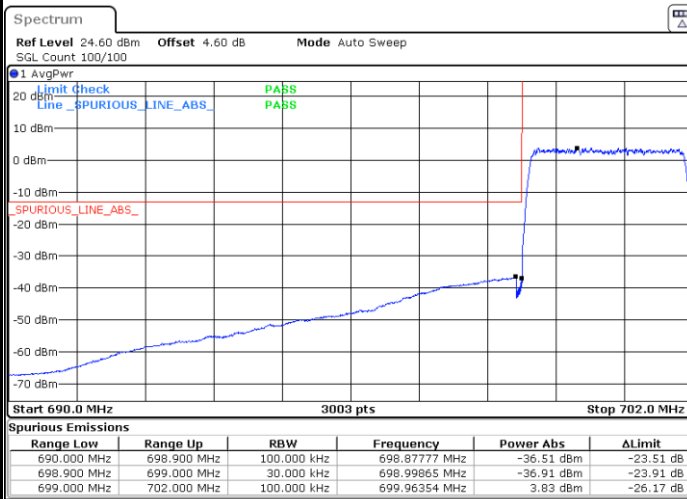
Date: 15. JAN. 2023 03:46:40

Highest Band Edge / 1 RB



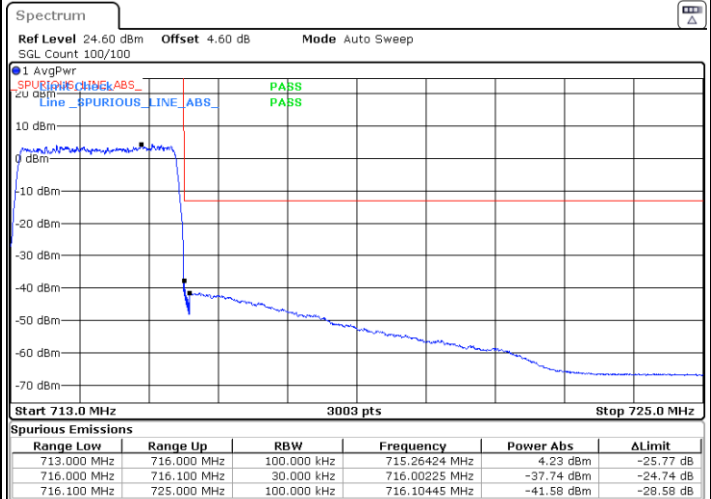
Date: 15. JAN. 2023 02:20:23

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 02:05:49

Highest Band Edge / Full RB



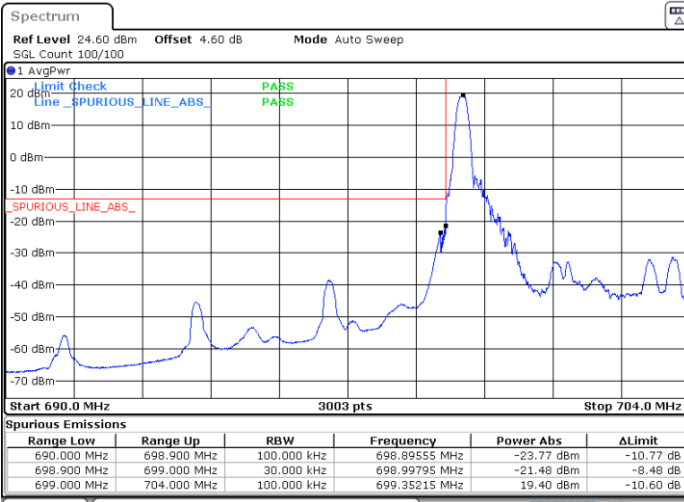
Date: 15. JAN. 2023 02:23:18



LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



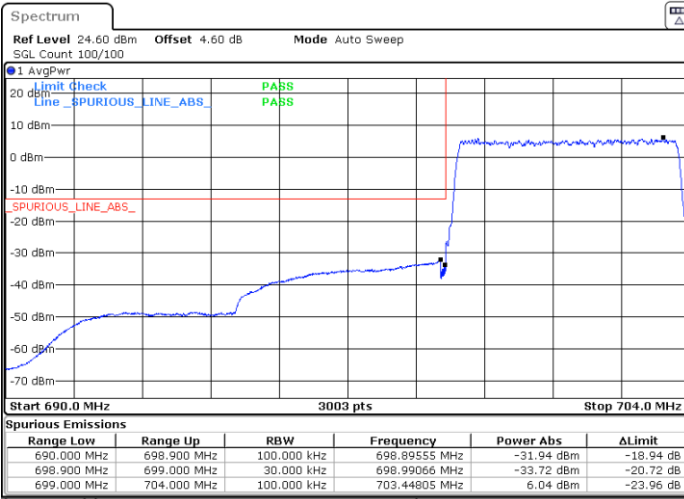
Date: 15.JAN.2023 02:30:38



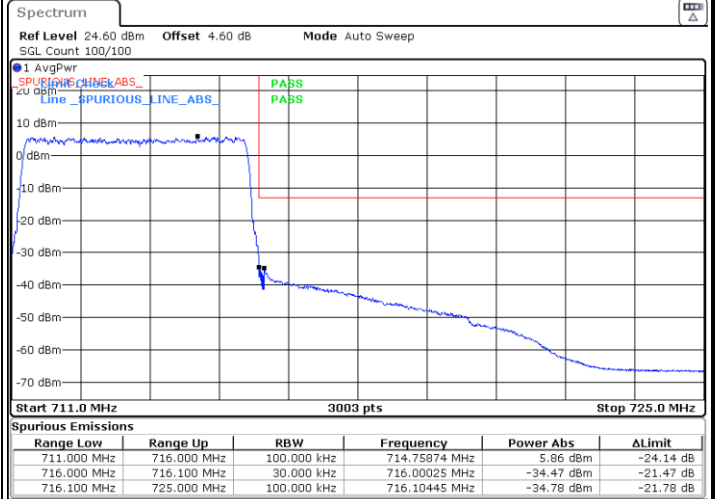
Date: 15.JAN.2023 02:46:45

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15.JAN.2023 02:41:12

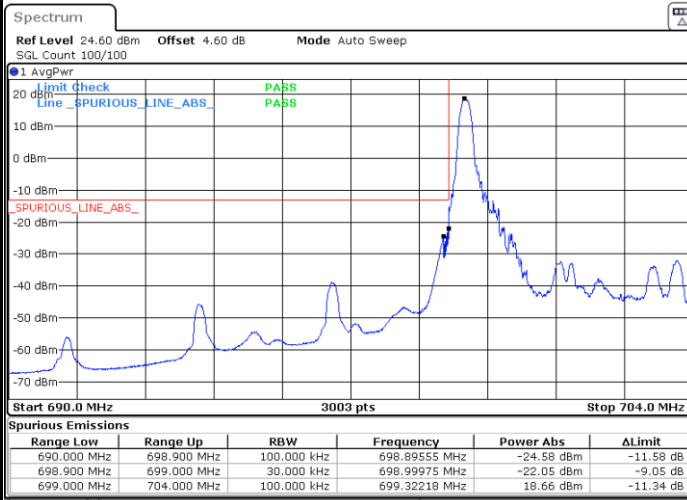


Date: 15.JAN.2023 02:57:19



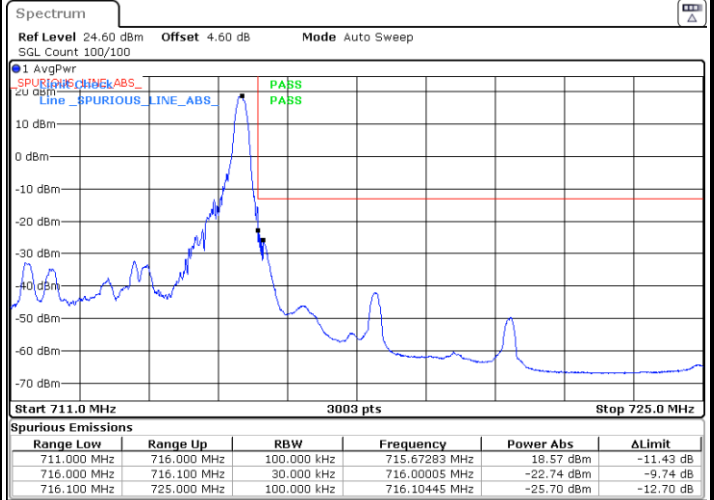
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



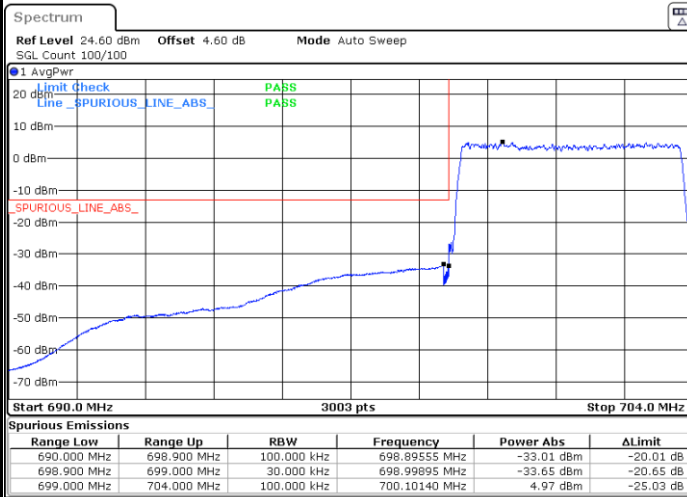
Date: 15. JAN. 2023 02:32:08

Highest Band Edge / 1 RB



Date: 15. JAN. 2023 02:48:15

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 02:39:42

Highest Band Edge / Full RB

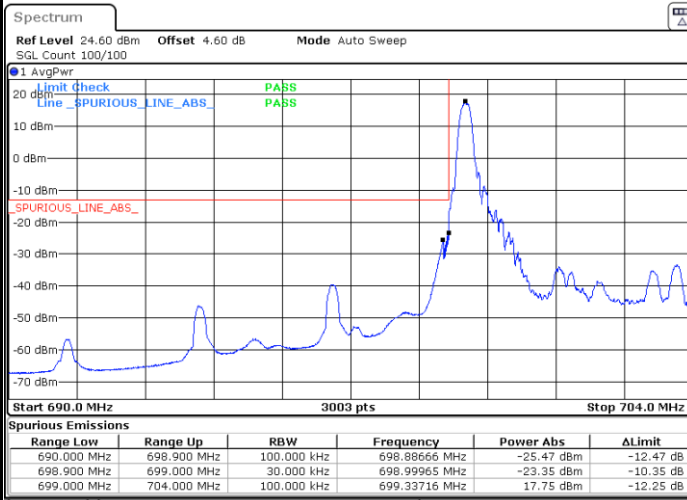


Date: 15. JAN. 2023 02:55:49



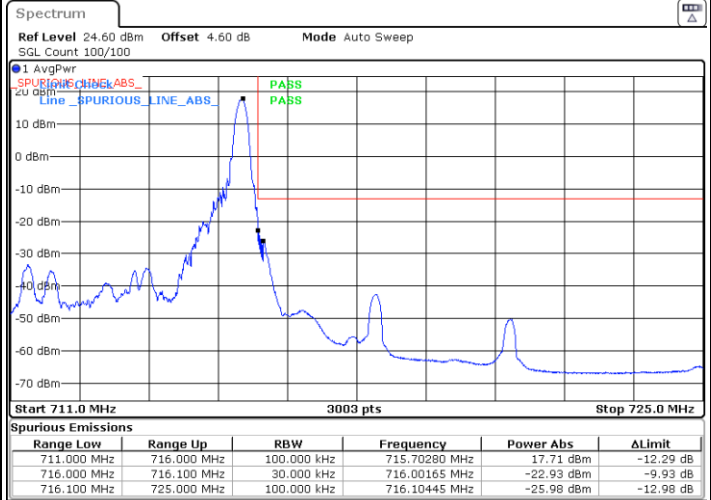
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



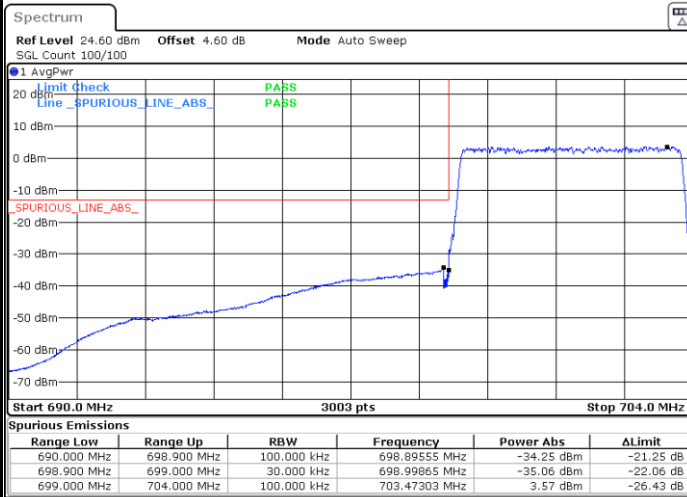
Date: 15. JAN. 2023 02:33:39

Highest Band Edge / 1 RB



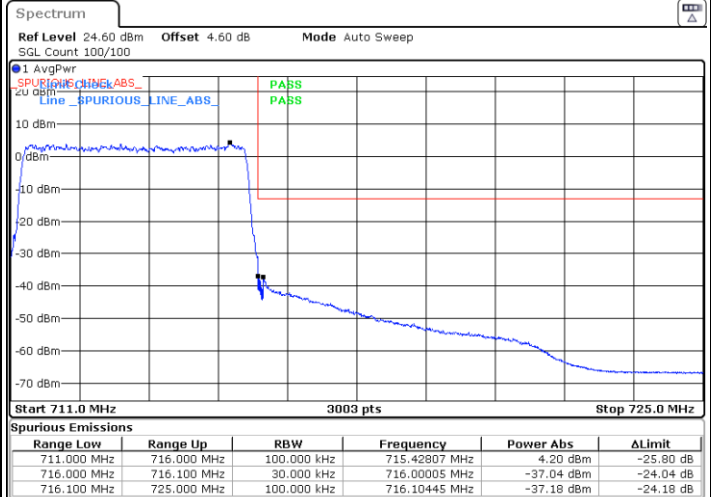
Date: 15. JAN. 2023 02:49:46

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 02:38:12

Highest Band Edge / Full RB

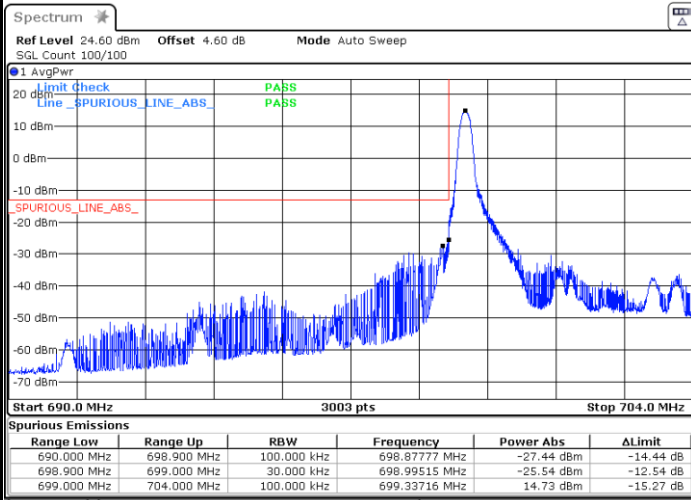


Date: 15. JAN. 2023 02:54:19



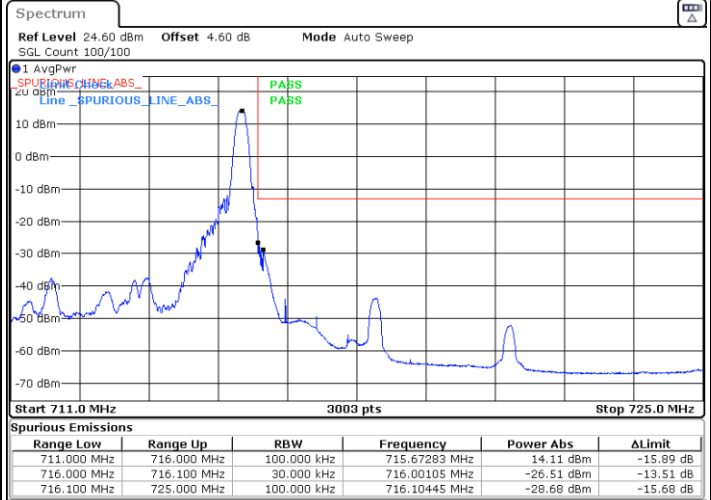
LTE Band 12 / 5MHz / 256QAM

Lowest Band Edge / 1RB



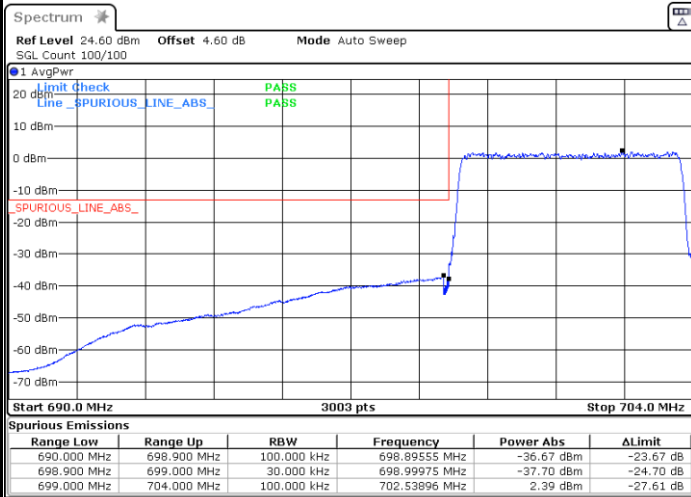
Date: 15. JAN. 2023 03:44:06

Highest Band Edge / 1 RB



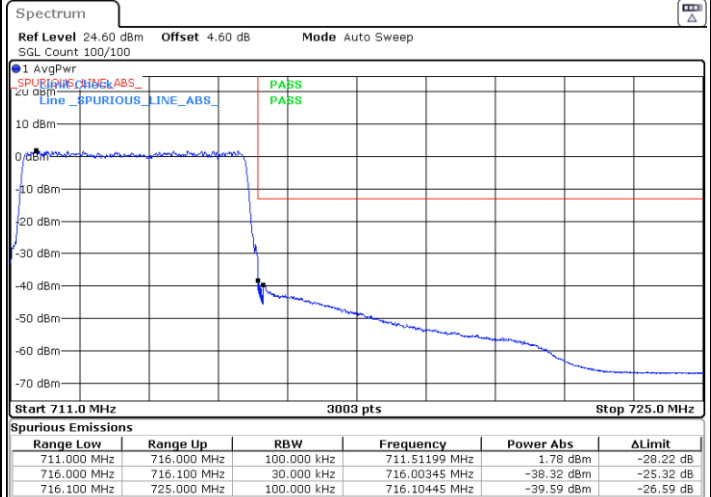
Date: 15. JAN. 2023 03:40:30

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 03:41:59

Highest Band Edge / Full RB

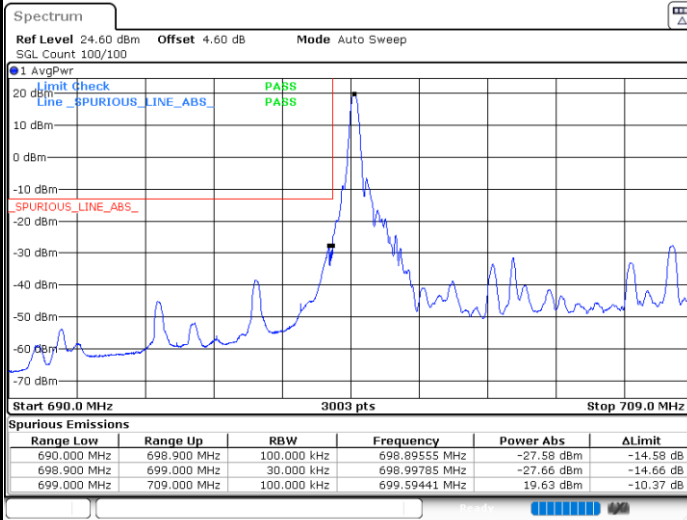


Date: 15. JAN. 2023 02:52:49



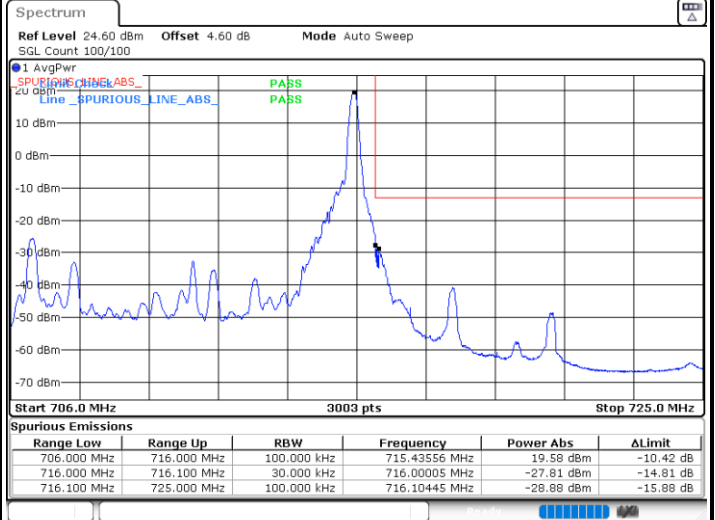
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



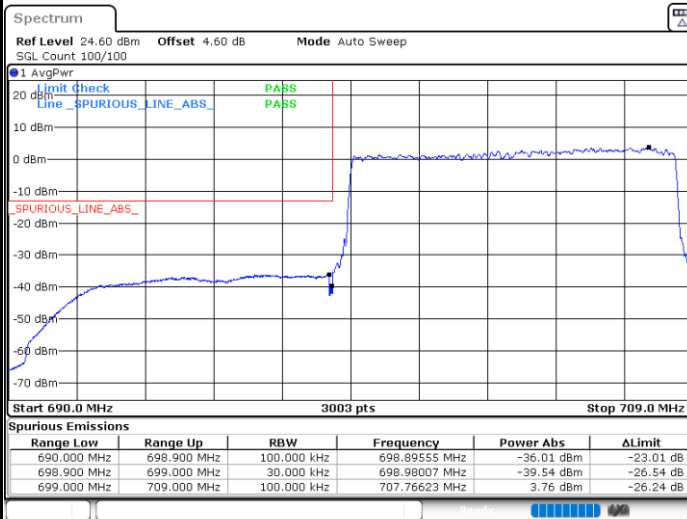
Date: 15.JAN.2023 03:00:09

Highest Band Edge / 1 RB



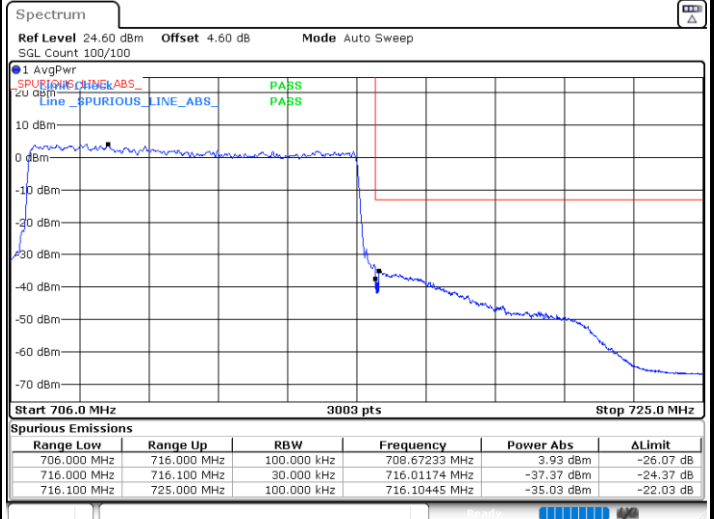
Date: 15.JAN.2023 03:14:49

Lowest Band Edge / Full RB



Date: 15.JAN.2023 03:10:40

Highest Band Edge / Full RB

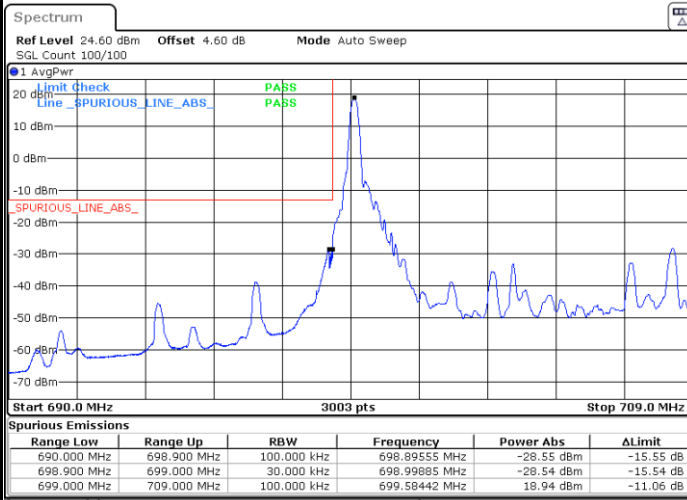


Date: 15.JAN.2023 03:25:22



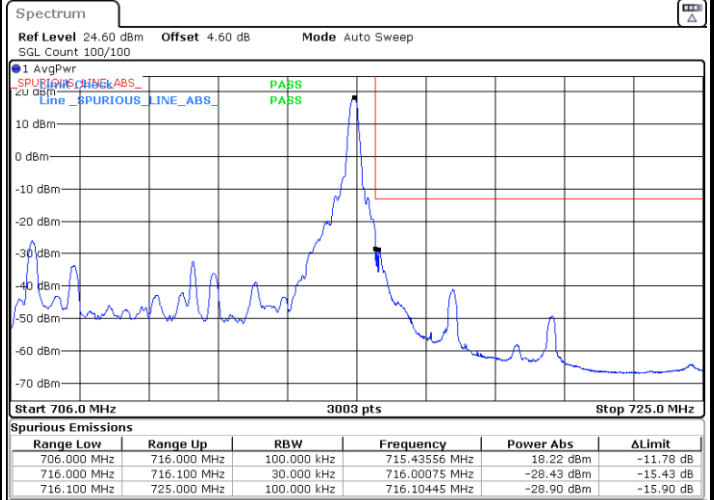
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



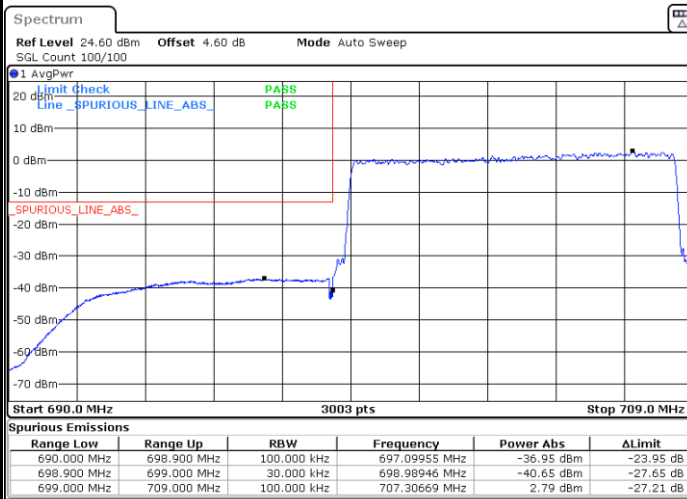
Date: 15. JAN. 2023 03:01:39

Highest Band Edge / 1 RB



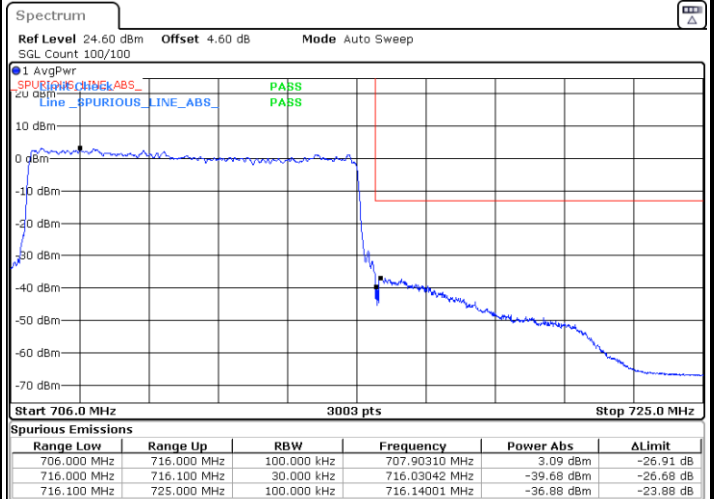
Date: 15. JAN. 2023 03:16:19

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 03:09:10

Highest Band Edge / Full RB

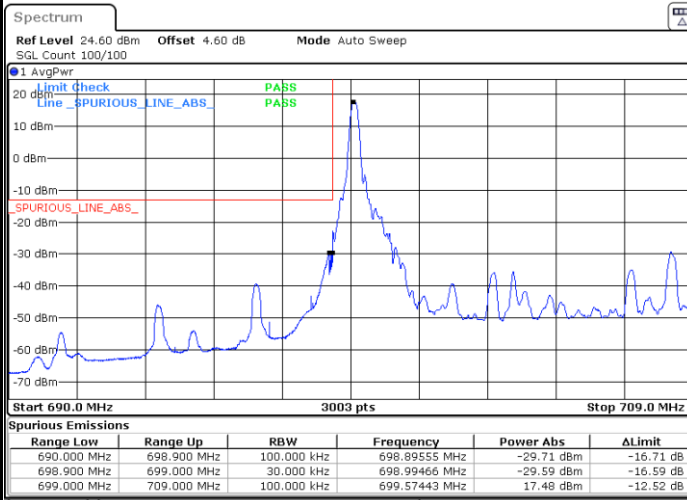


Date: 15. JAN. 2023 03:23:52



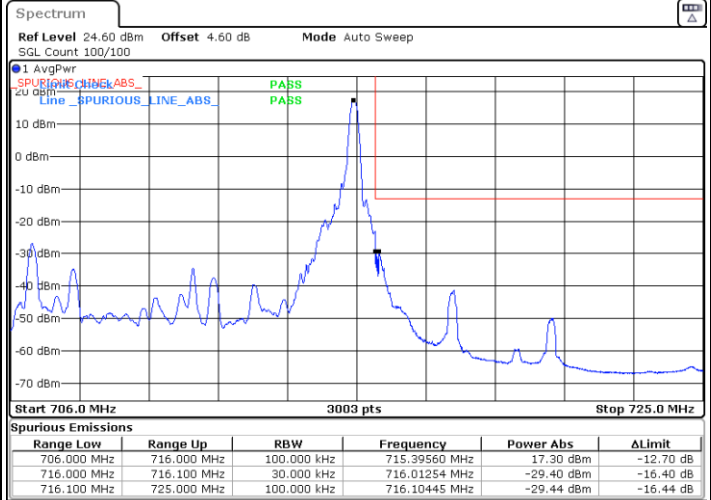
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



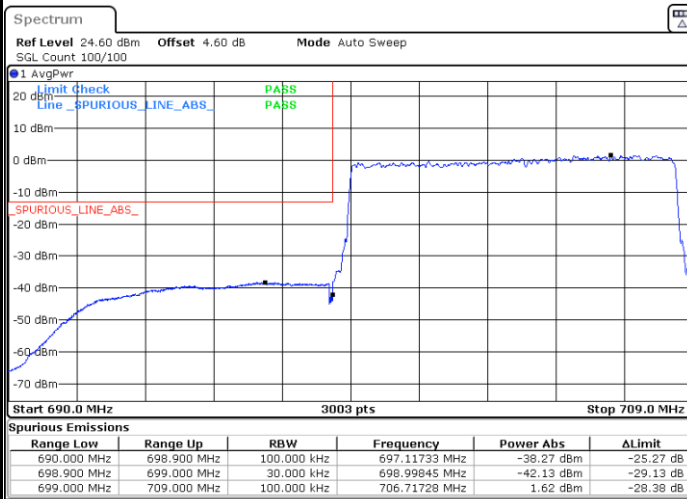
Date: 15. JAN. 2023 03:03:09

Highest Band Edge / 1 RB



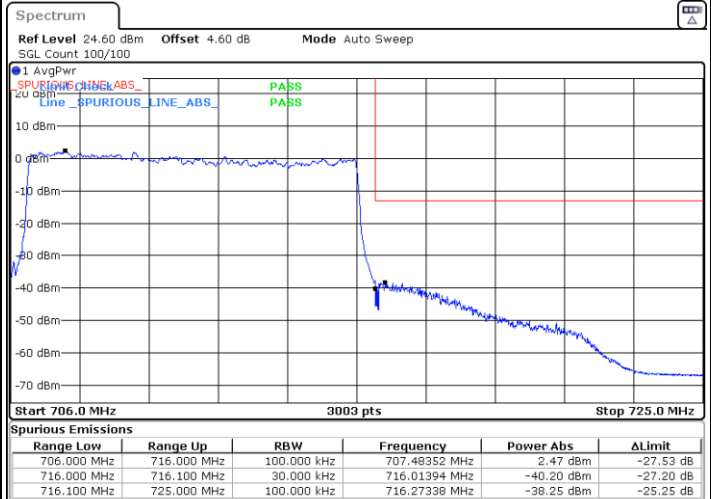
Date: 15. JAN. 2023 03:17:49

Lowest Band Edge / Full RB



Date: 15. JAN. 2023 03:07:39

Highest Band Edge / Full RB

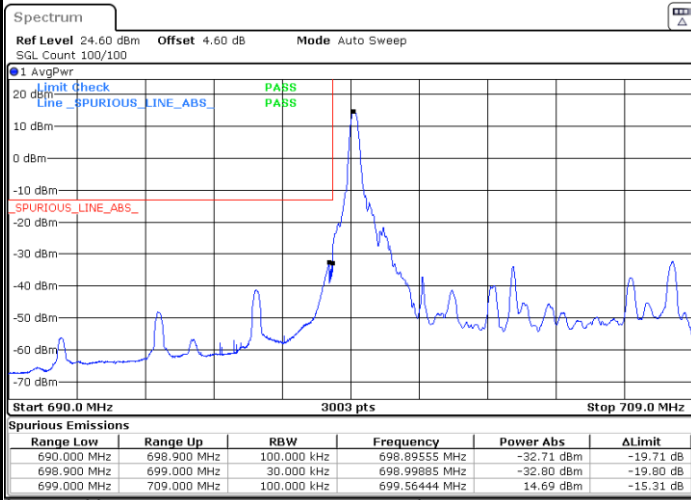


Date: 15. JAN. 2023 03:22:22

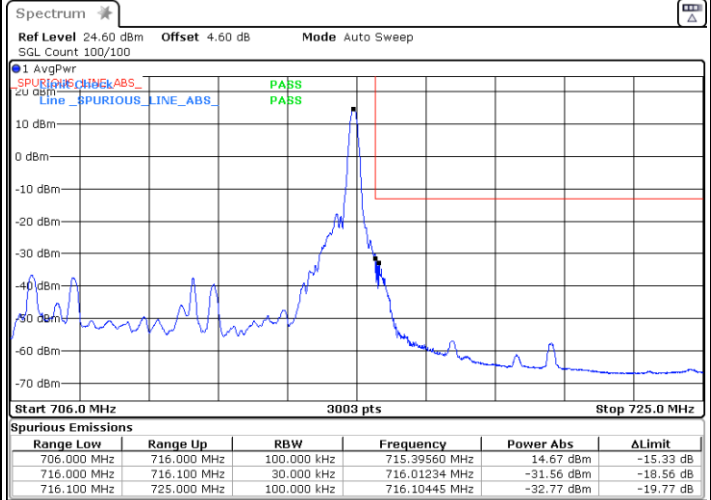


LTE Band 12 / 10MHz / 256QAM

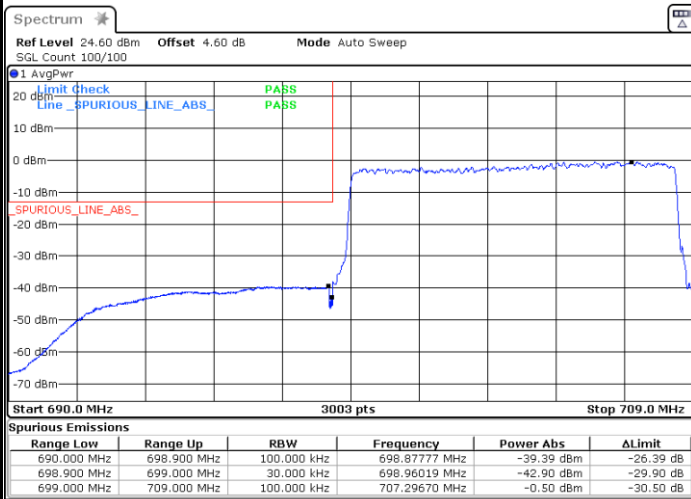
Lowest Band Edge / 1 RB



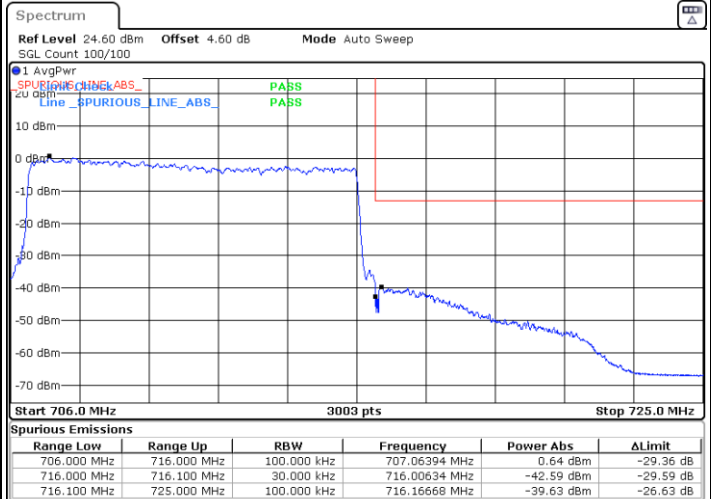
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

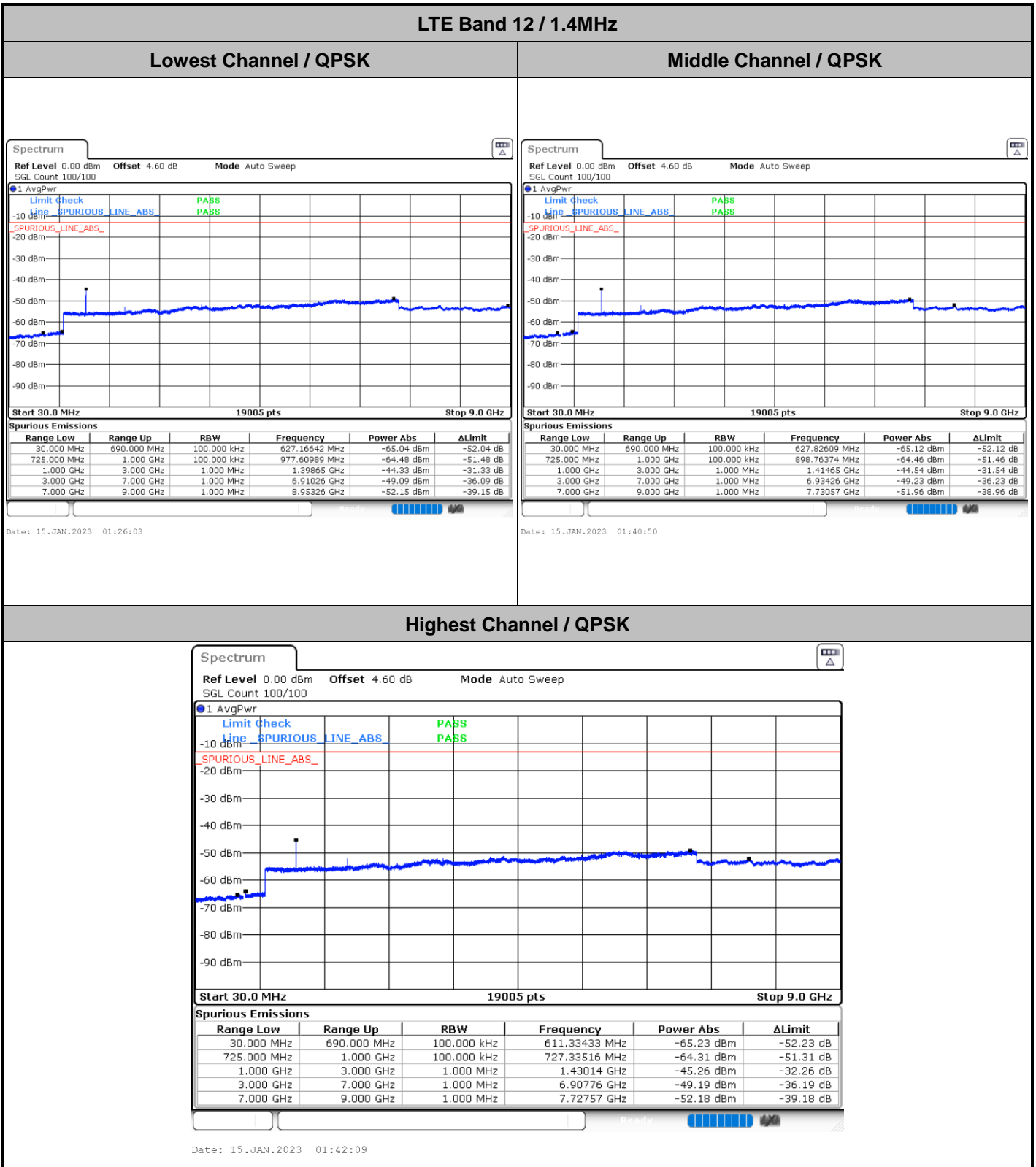


Highest Band Edge / Full RB





Conducted Spurious Emission

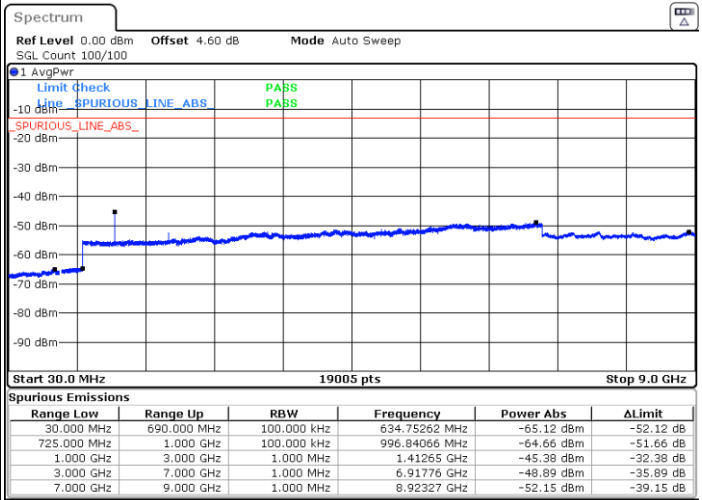
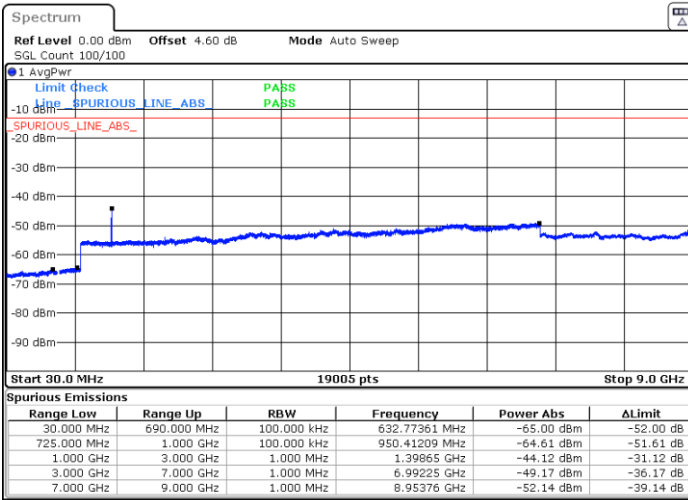




LTE Band 12 / 3MHz

Lowest Channel / QPSK

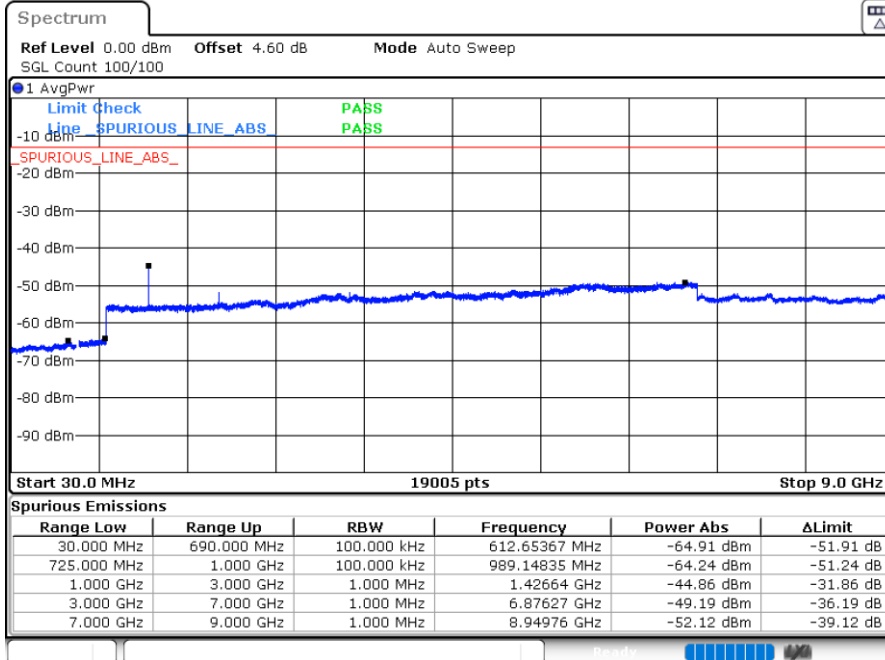
Middle Channel / QPSK



Date: 15.JAN.2023 01:56:55

Date: 15.JAN.2023 02:13:03

Highest Channel / QPSK



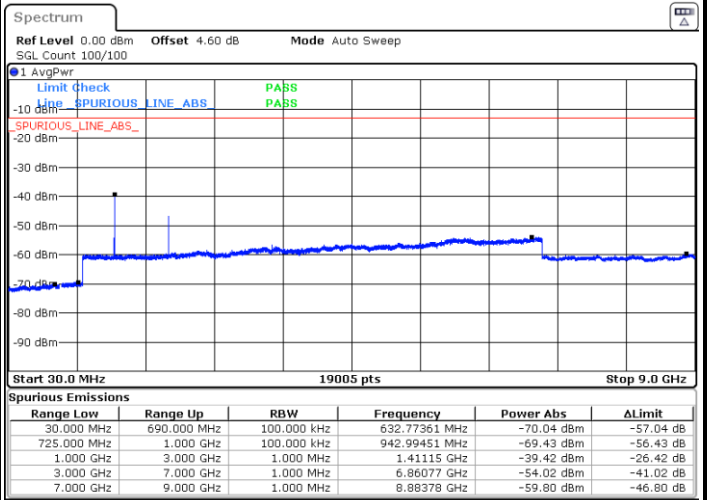
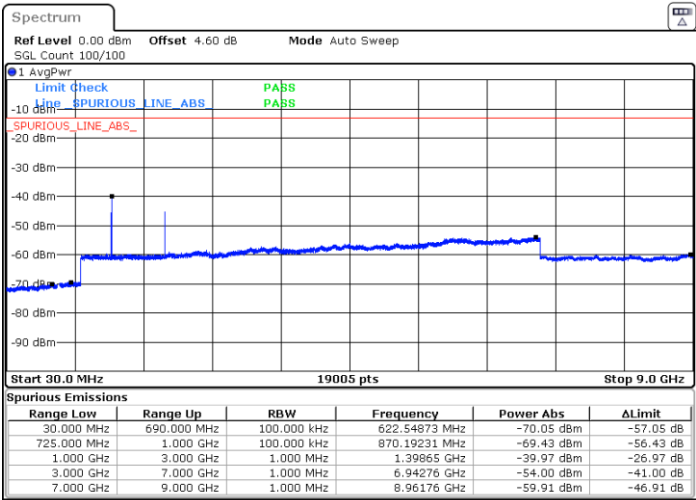
Date: 15.JAN.2023 02:14:23



LTE Band 12 / 5MHz

Lowest Channel / QPSK

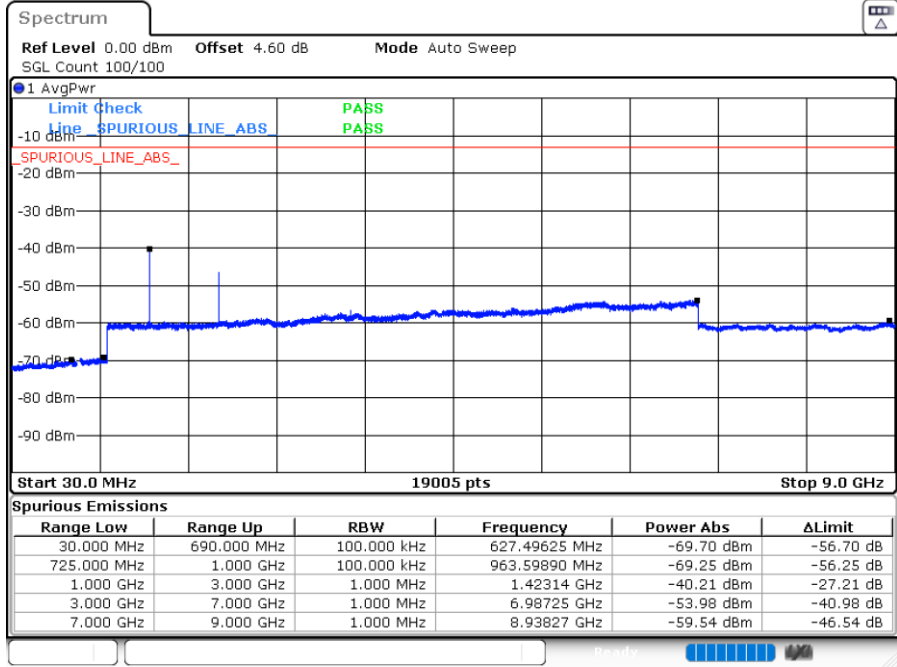
Middle Channel / QPSK



Date: 15.JAN.2023 02:29:08

Date: 15.JAN.2023 02:43:56

Highest Channel / QPSK



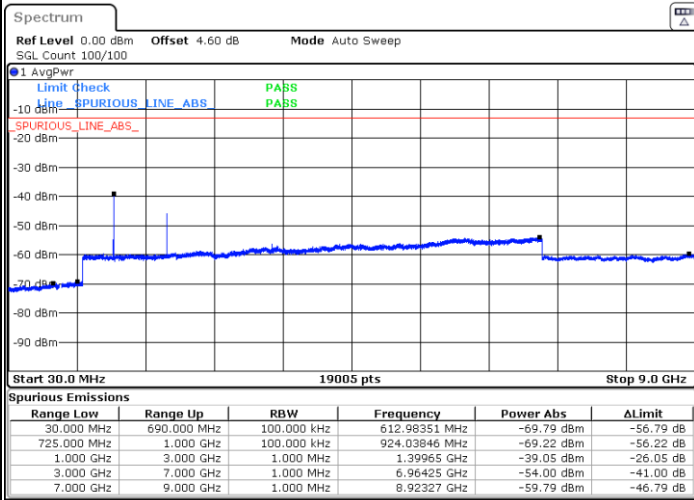
Date: 15.JAN.2023 02:45:15



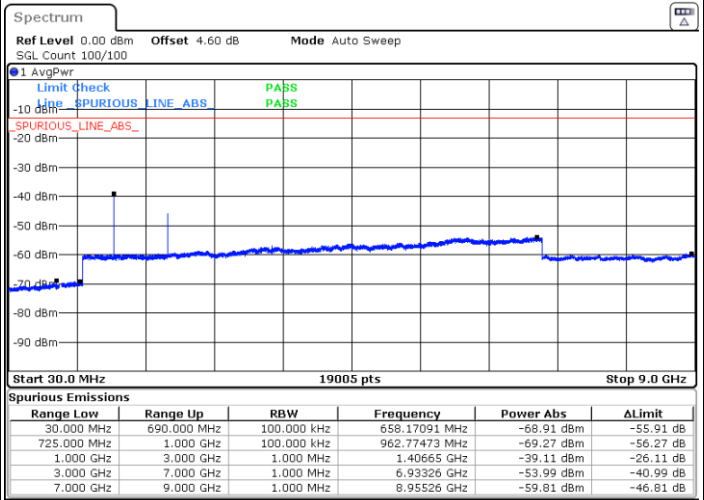
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

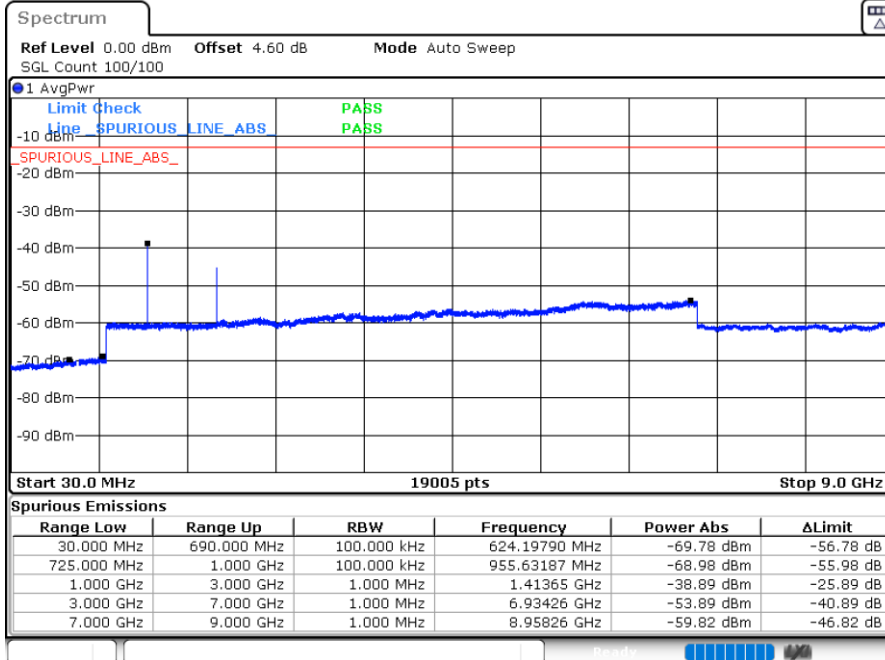


Date: 15.JAN.2023 02:58:39



Date: 15.JAN.2023 04:01:25

Highest Channel / QPSK



Date: 15.JAN.2023 03:13:19



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	0.0023	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13 (Main PA)

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.42	6.06	6.23	6.38	PASS

