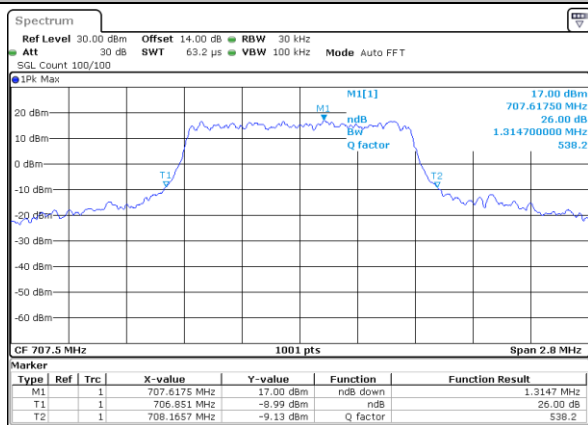
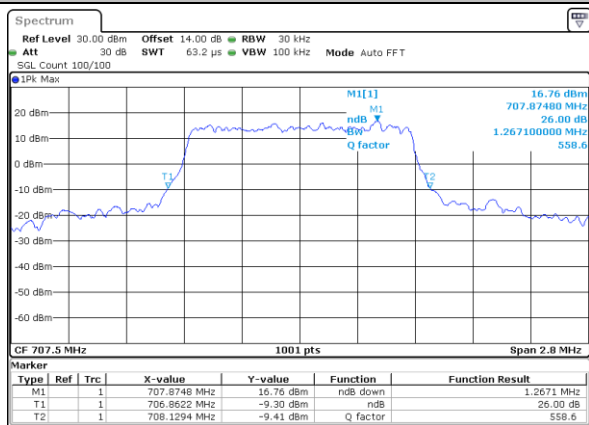
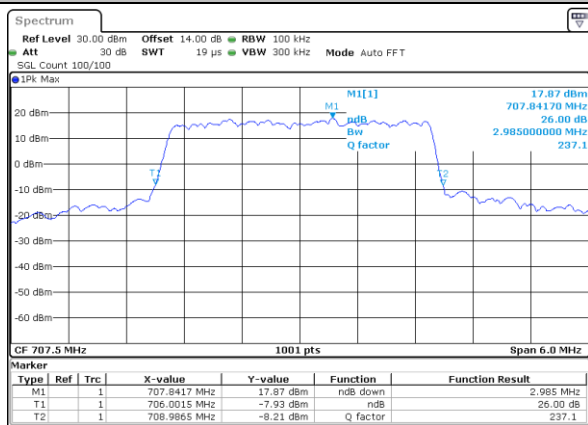
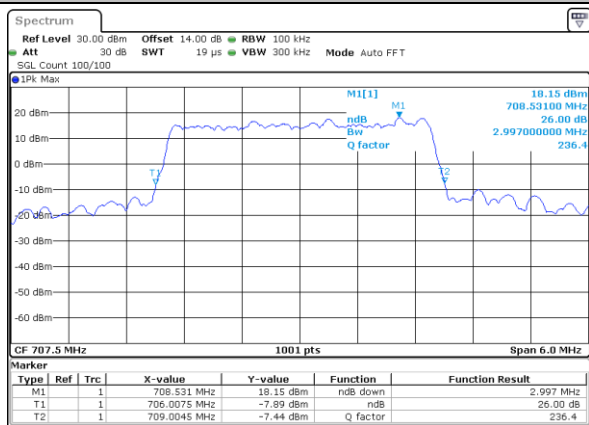


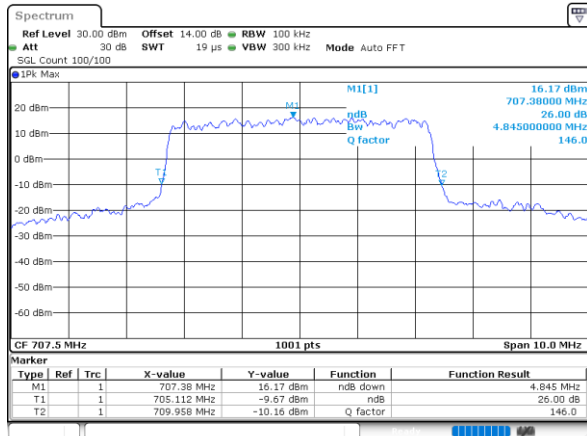
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.31	1.27	2.99	3.00	4.85	4.83	9.75	9.75

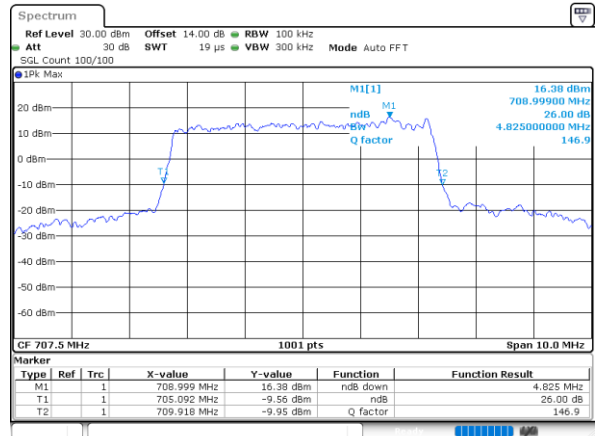
LTE Band 12**Middle Channel / 1.4MHz / QPSK****Middle Channel / 1.4MHz / 16QAM****Middle Channel / 3MHz / QPSK****Middle Channel / 3MHz / 16QAM**



Middle Channel / 5MHz / QPSK

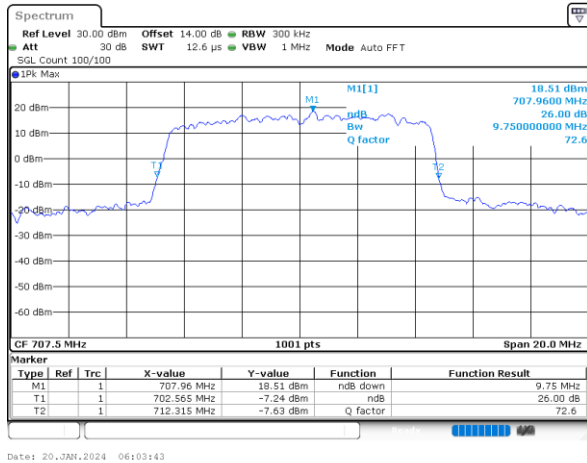


Middle Channel / 5MHz / 16QAM

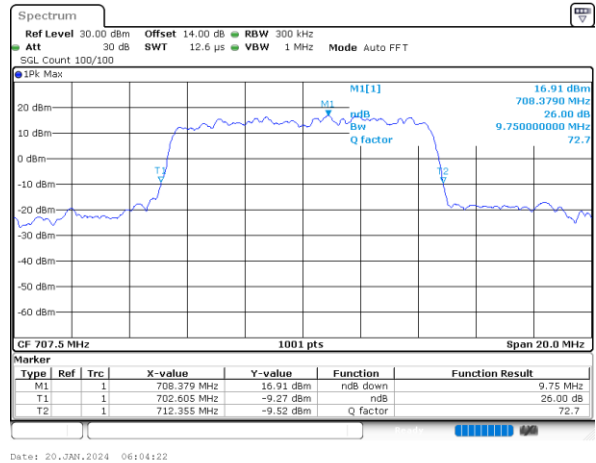


LTE Band 12

Middle Channel / 10MHz / QPSK



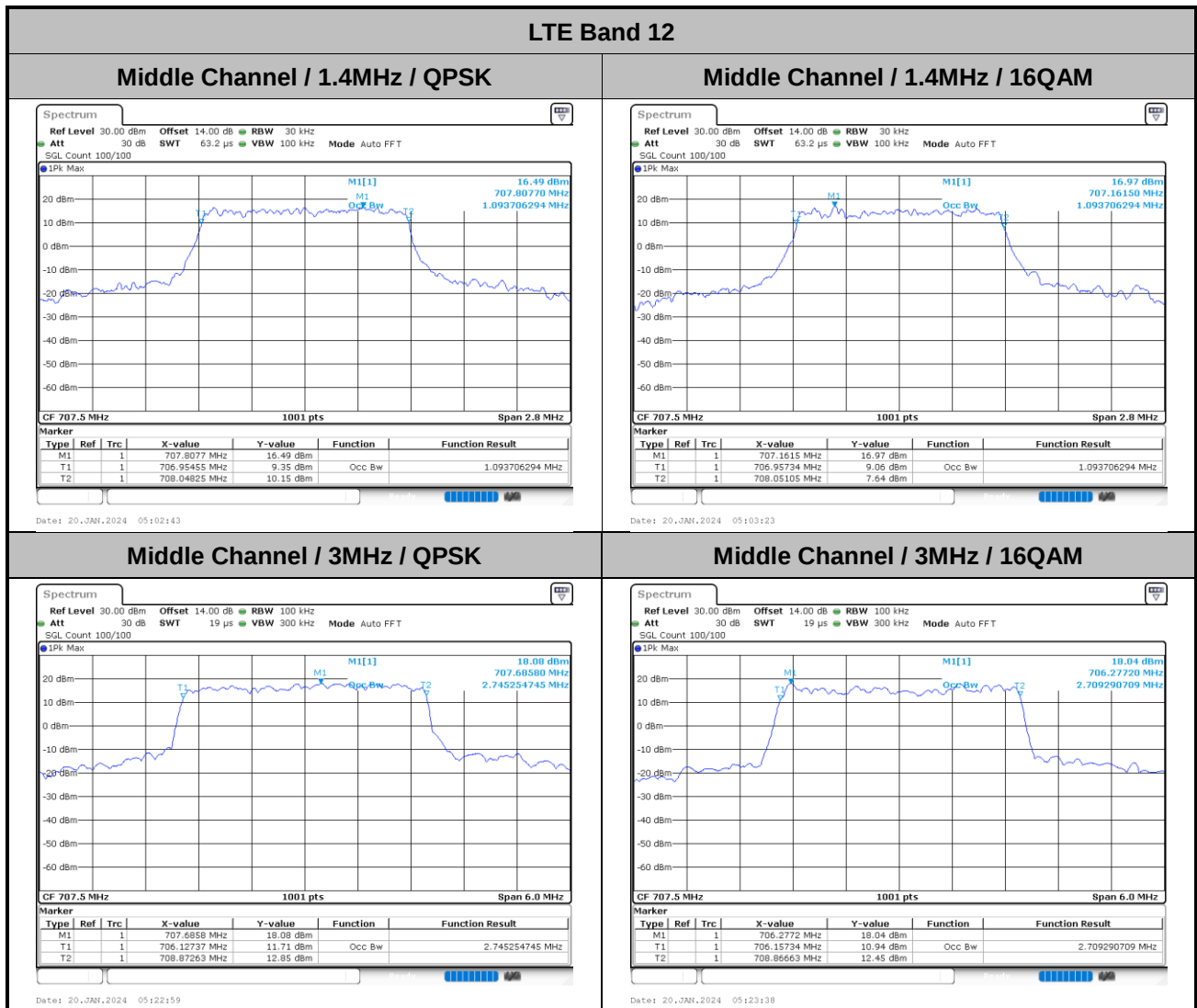
Middle Channel / 10MHz / 16QAM





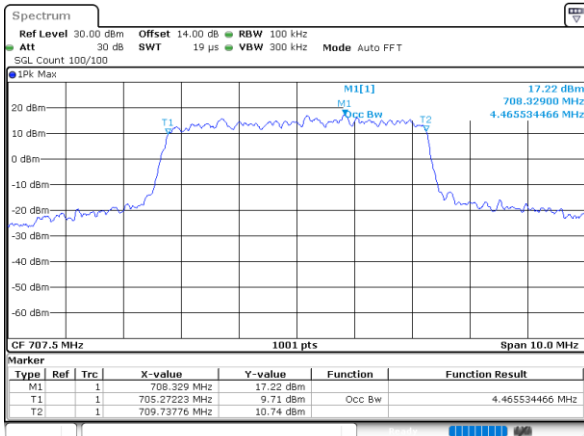
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.09	2.75	2.71	4.47	4.47	8.91	8.91



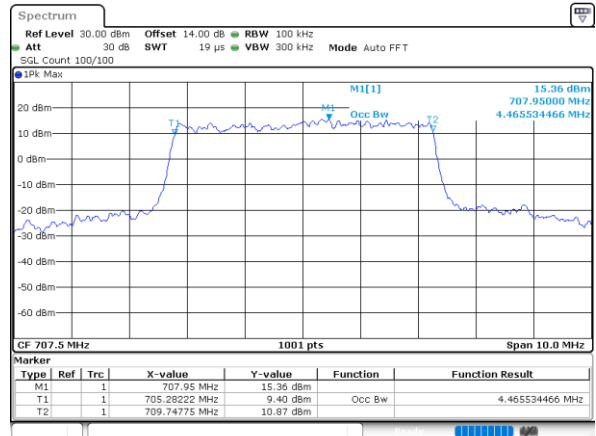


Middle Channel / 5MHz / QPSK



Date: 20_JAN_2024 05:43:14

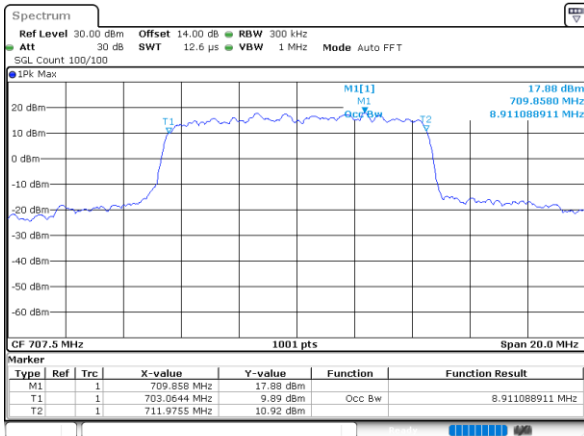
Middle Channel / 5MHz / 16QAM



Date: 20_JAN_2024 05:43:53

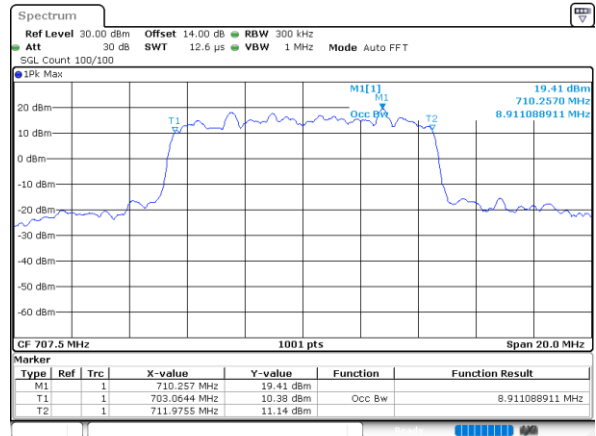
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 20_JAN_2024 06:03:29

Middle Channel / 10MHz / 16QAM



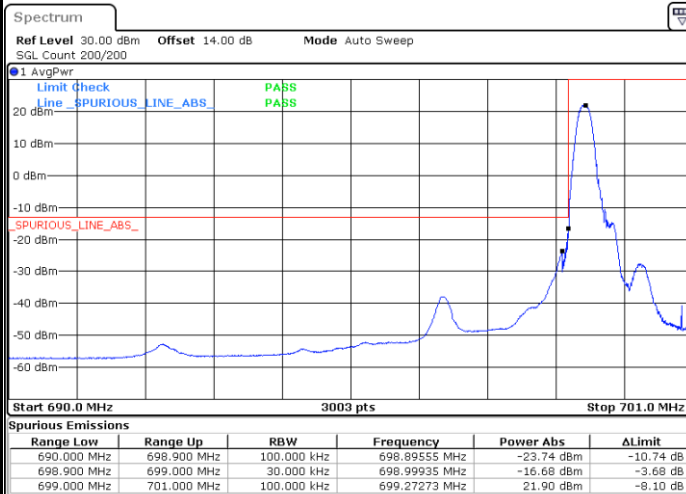
Date: 20_JAN_2024 06:04:08



Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

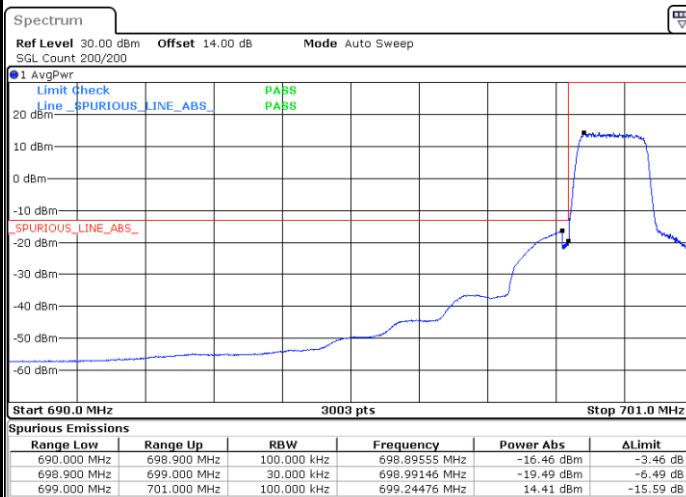
Lowest Band Edge / 1RB



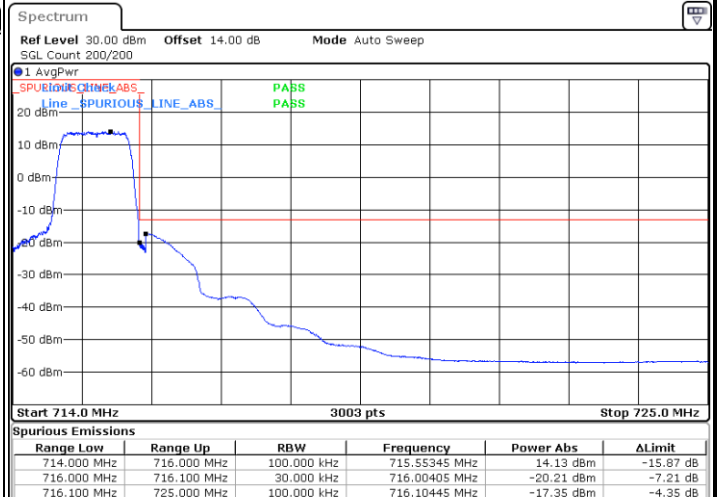
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



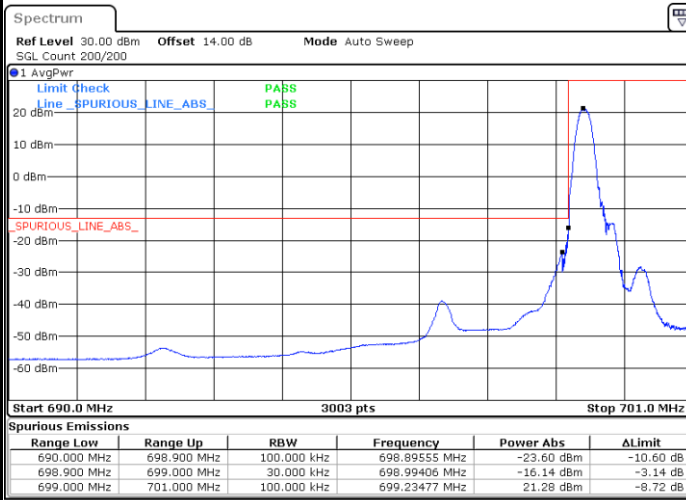
Highest Band Edge / Full RB



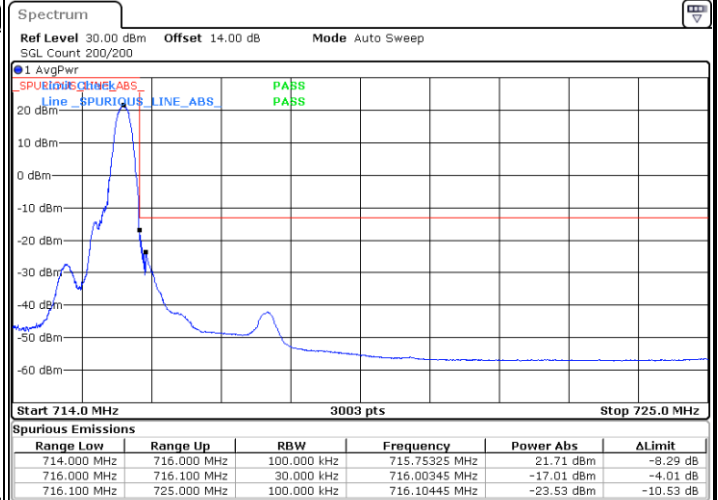


LTE Band 12 / 1.4MHz / 16QAM

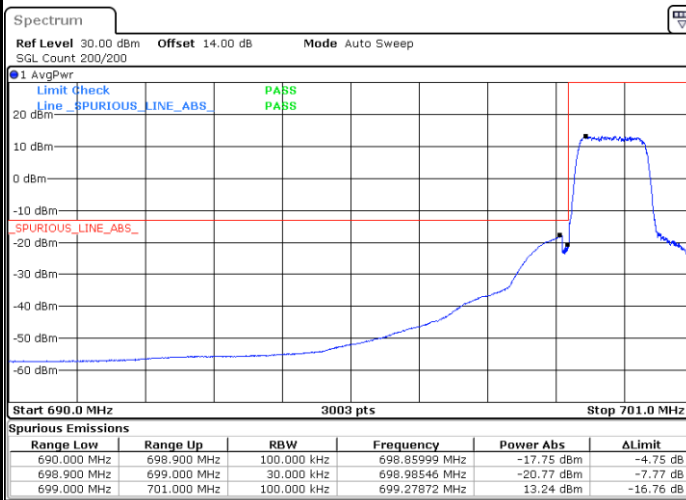
Lowest Band Edge / 1 RB



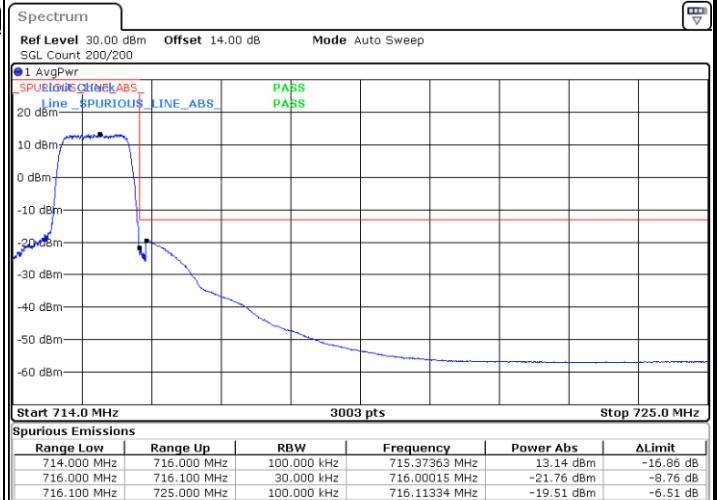
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



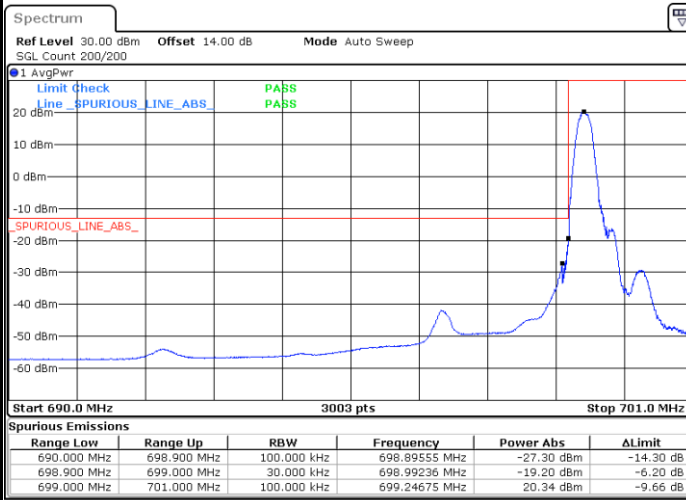
Highest Band Edge / Full RB



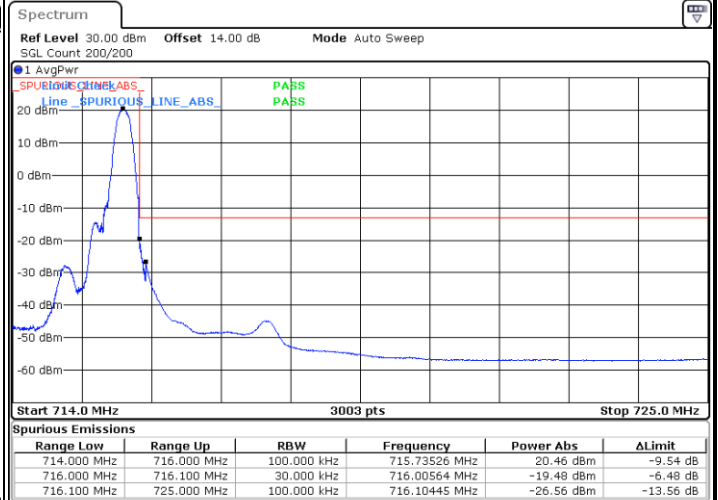


LTE Band 12 / 1.4MHz / 64QAM

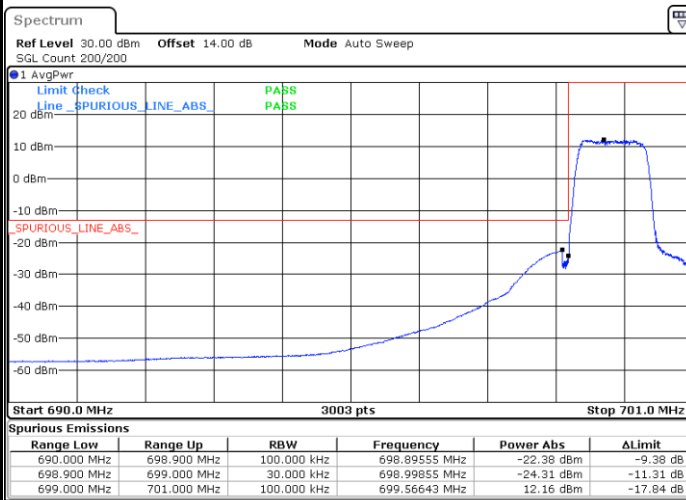
Lowest Band Edge / 1 RB



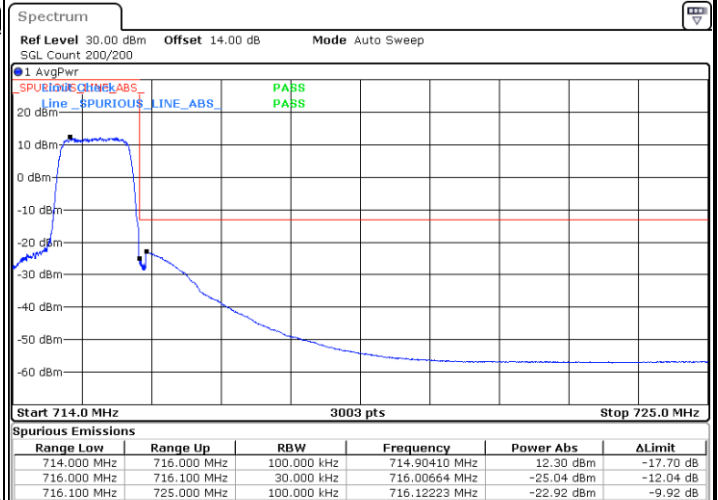
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



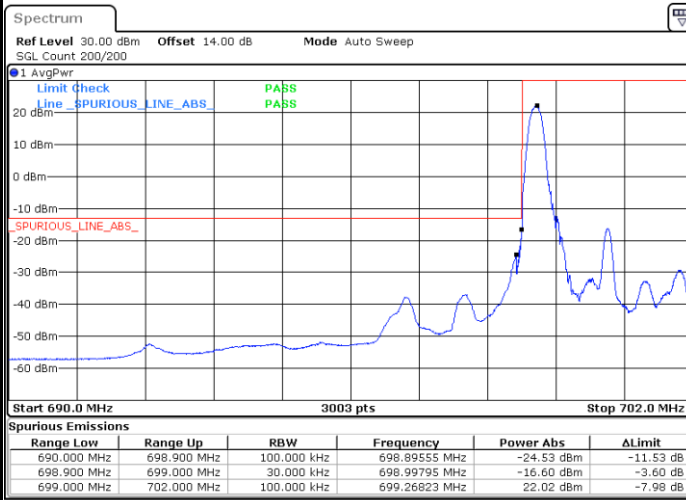
Highest Band Edge / Full RB



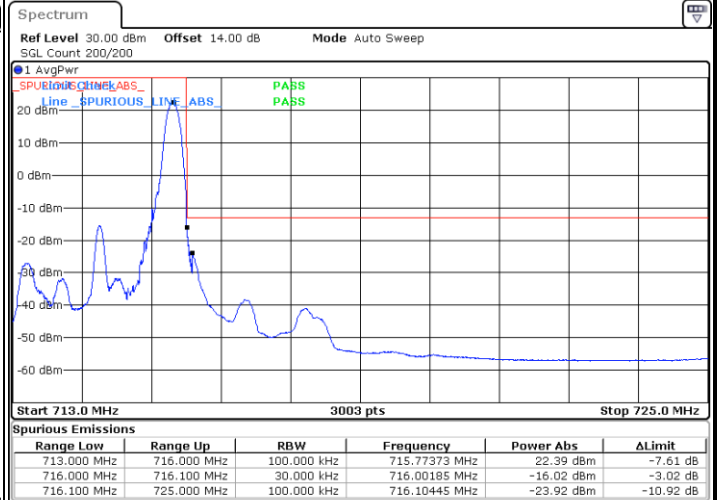


LTE Band 12 / 3MHz / QPSK

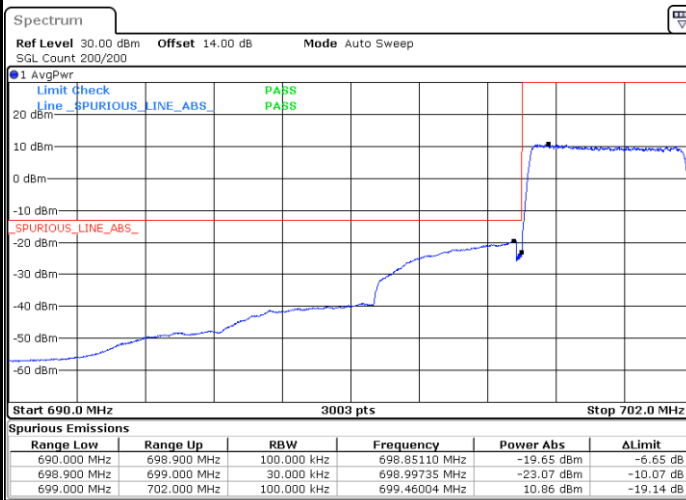
Lowest Band Edge / 1RB



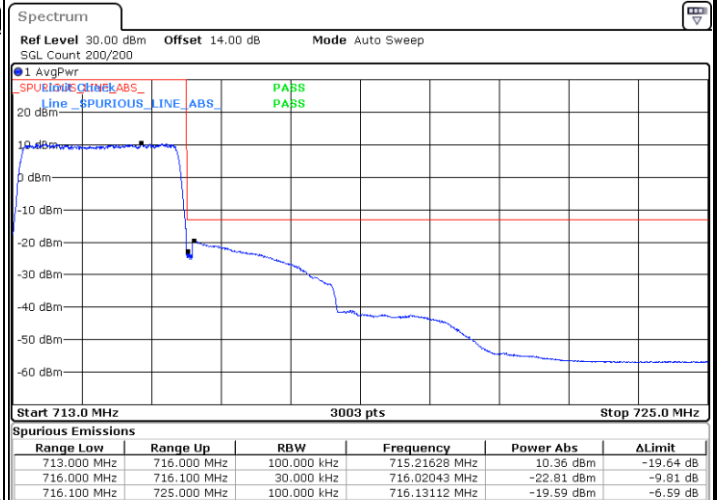
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



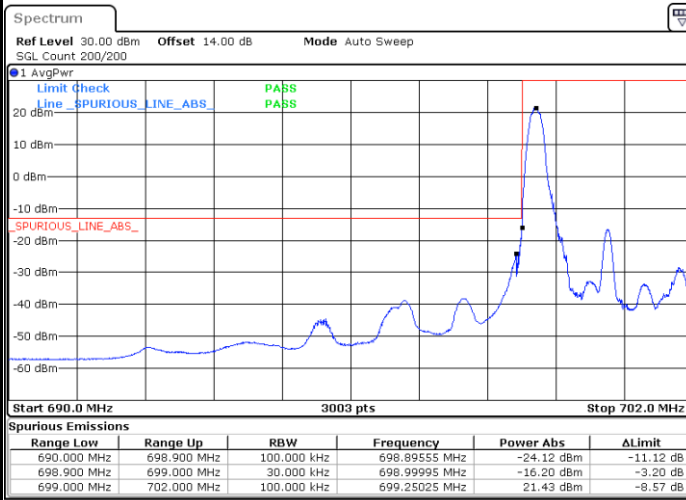
Highest Band Edge / Full RB



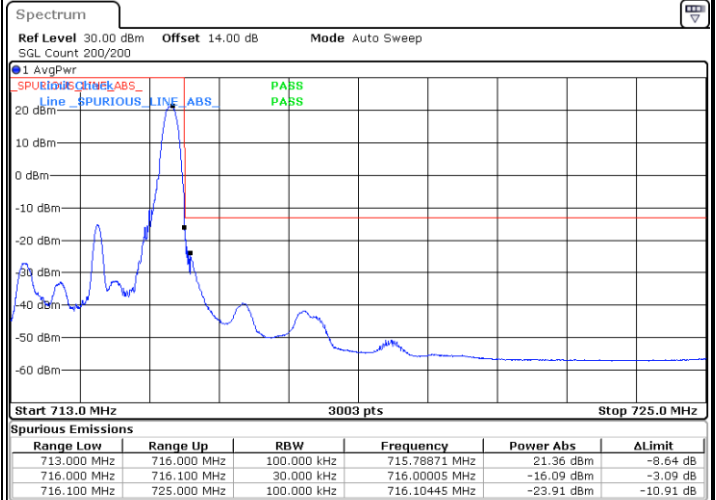


LTE Band 12 / 3MHz / 16QAM

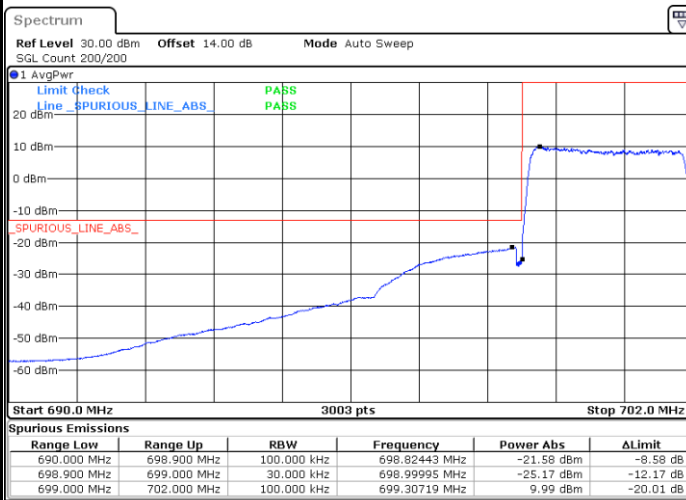
Lowest Band Edge / 1 RB



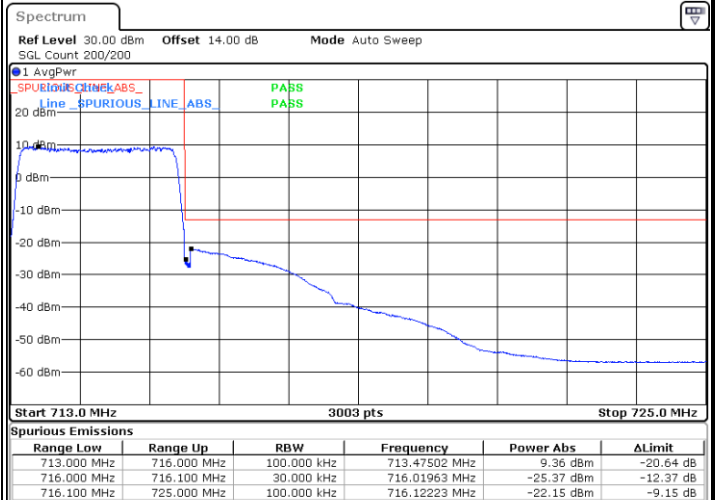
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



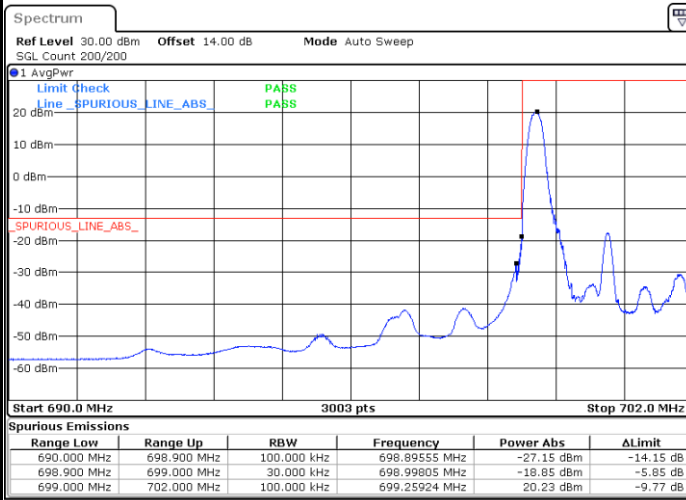
Highest Band Edge / Full RB



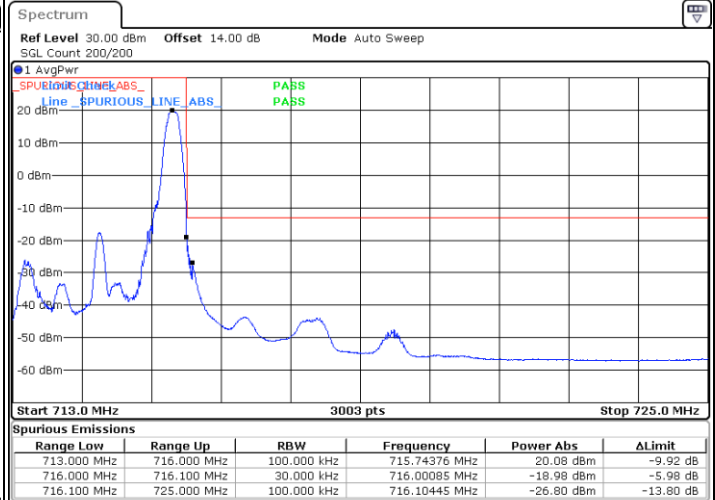


LTE Band 12 / 3MHz / 64QAM

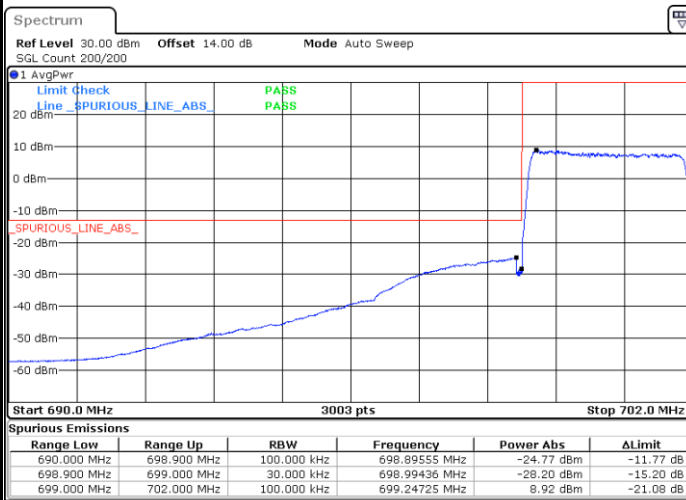
Lowest Band Edge / 1 RB



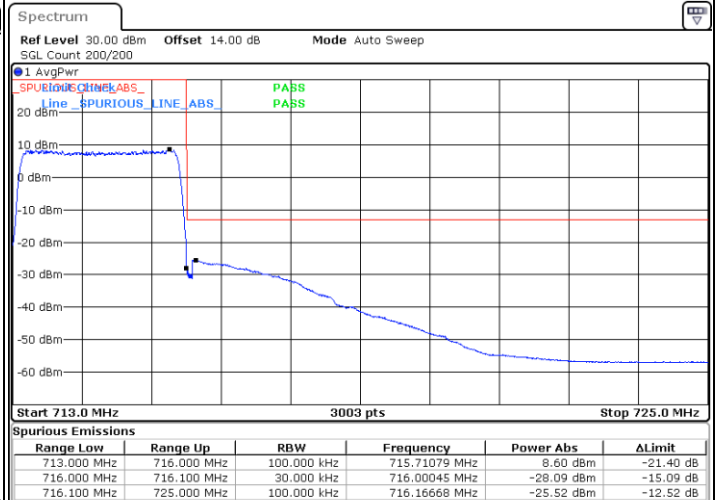
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



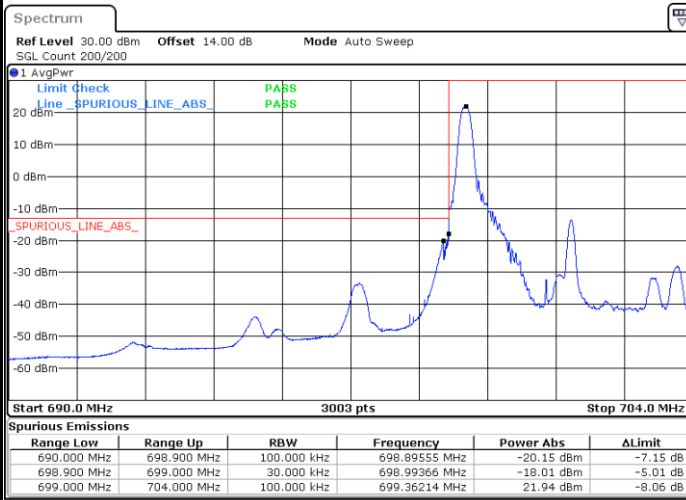
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / QPSK

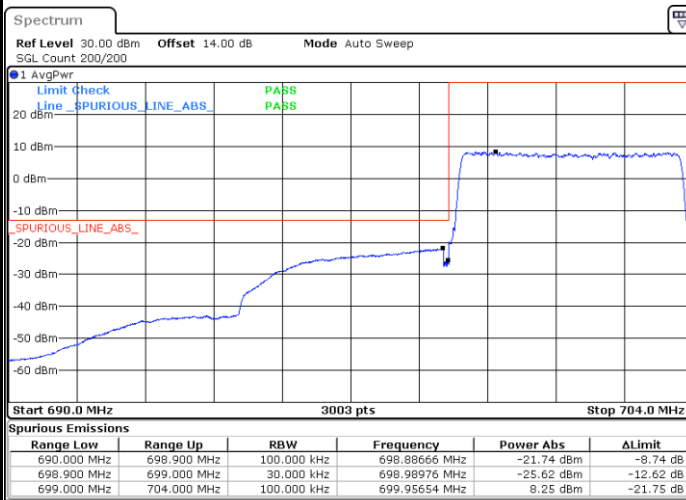
Lowest Band Edge / 1RB



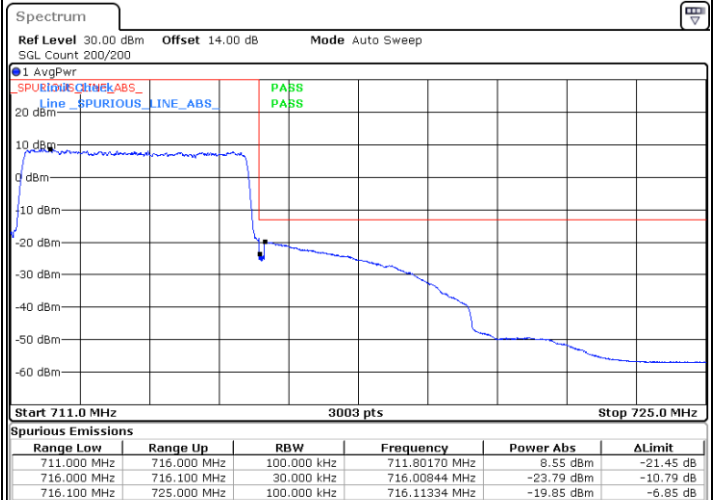
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



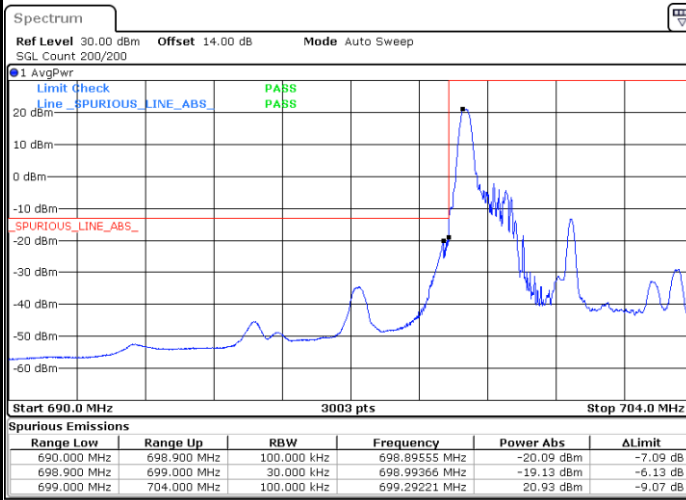
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / 16QAM

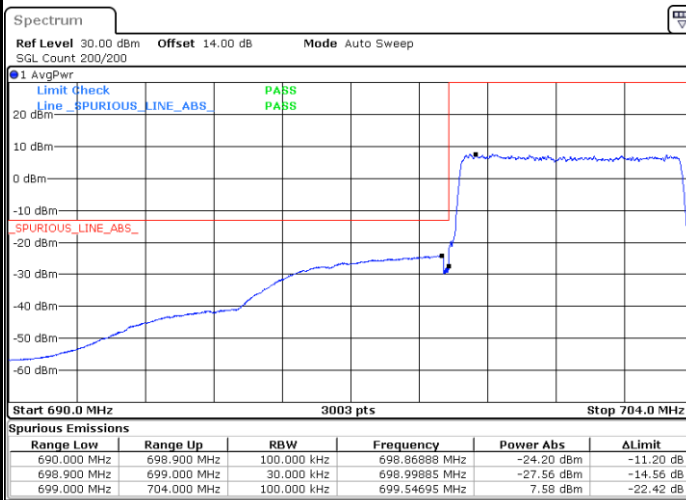
Lowest Band Edge / 1 RB



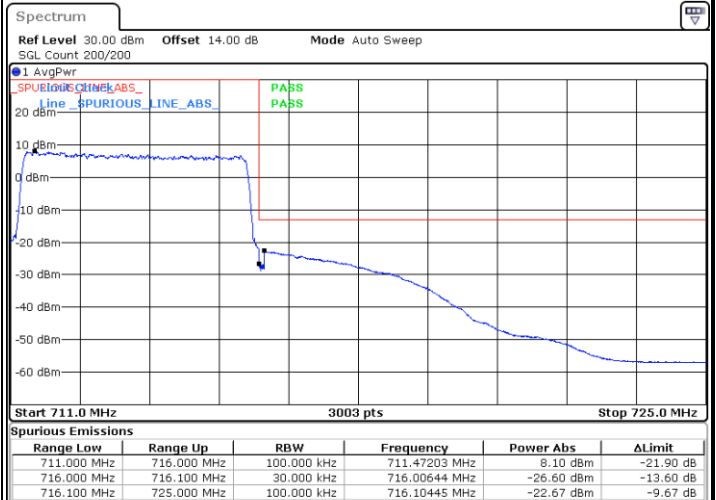
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



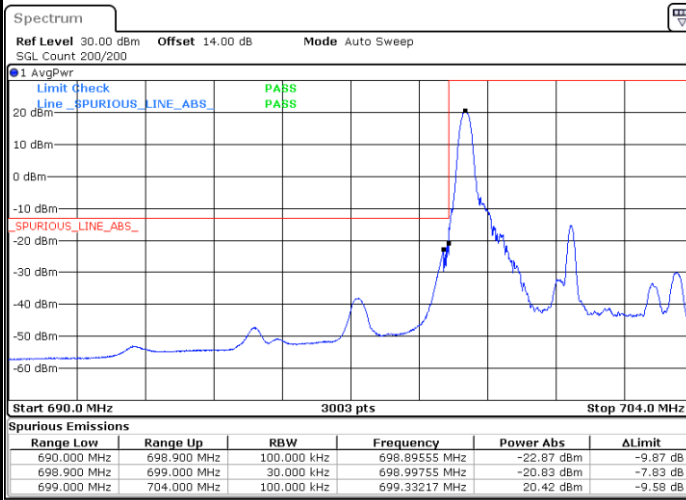
Highest Band Edge / Full RB





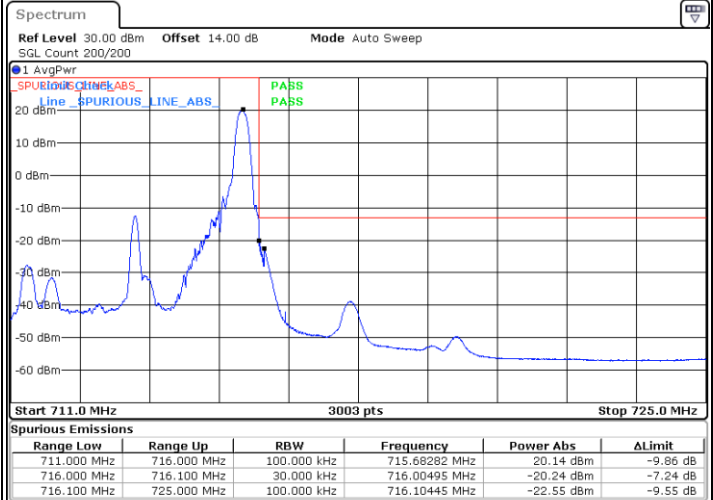
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



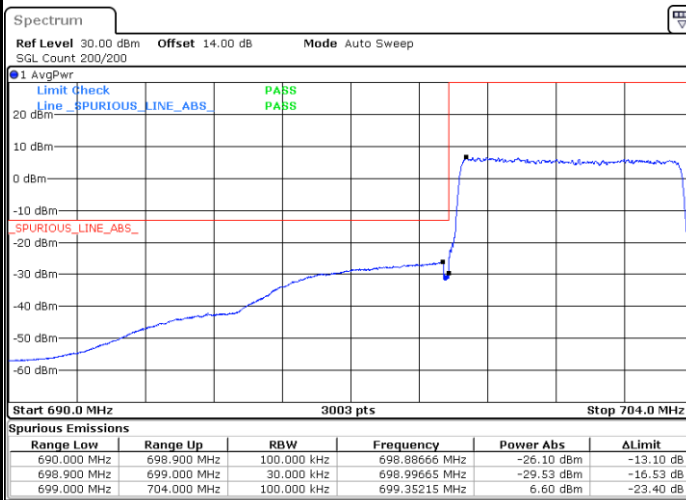
Date: 20.JAN.2024 05:36:55

Highest Band Edge / 1 RB



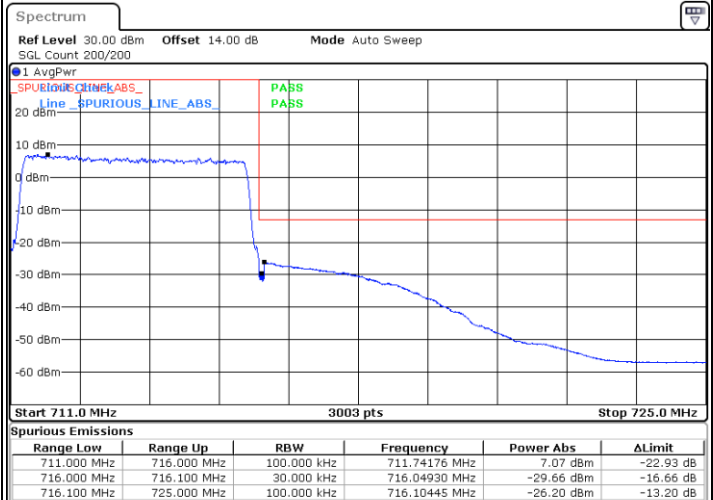
Date: 20.JAN.2024 05:47:39

Lowest Band Edge / Full RB



Date: 20.JAN.2024 05:40:28

Highest Band Edge / Full RB

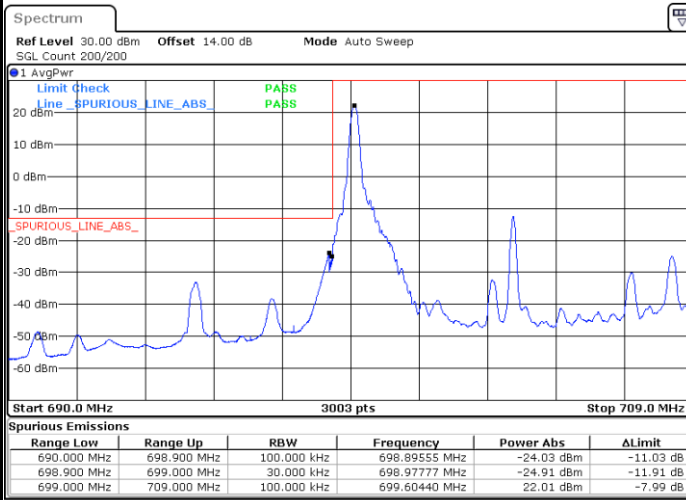


Date: 20.JAN.2024 05:51:12

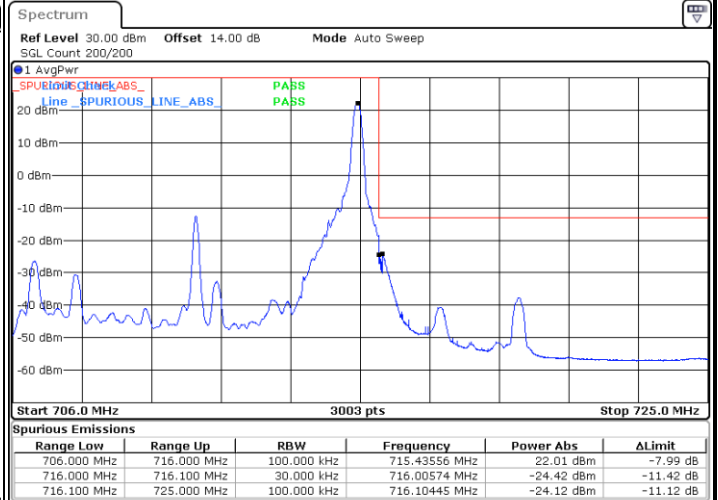


LTE Band 12 / 10MHz / QPSK

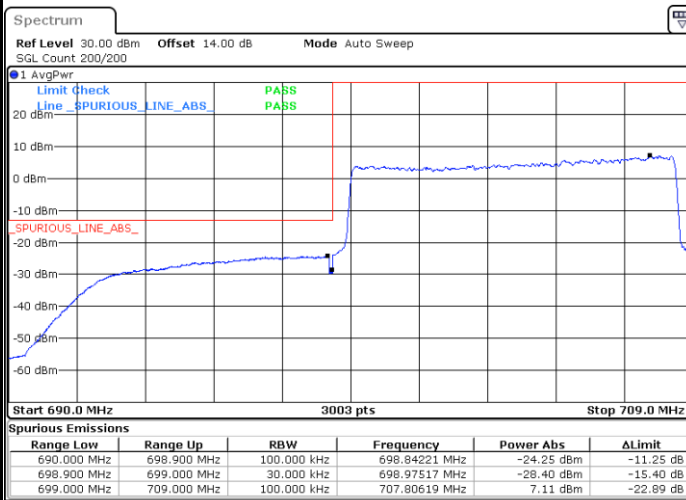
Lowest Band Edge / 1RB



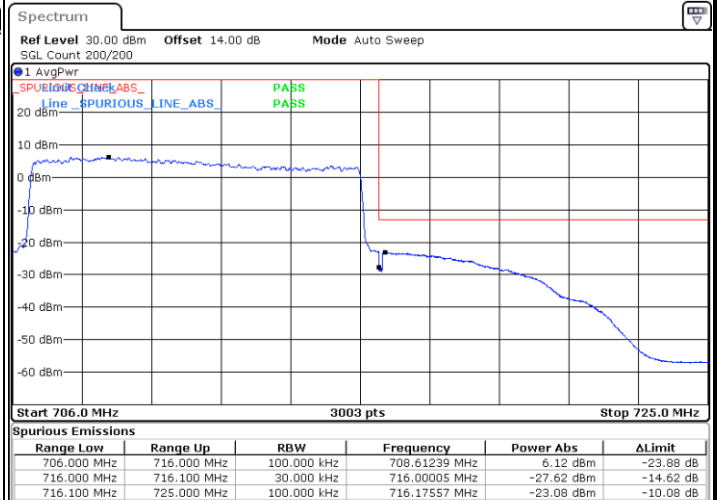
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



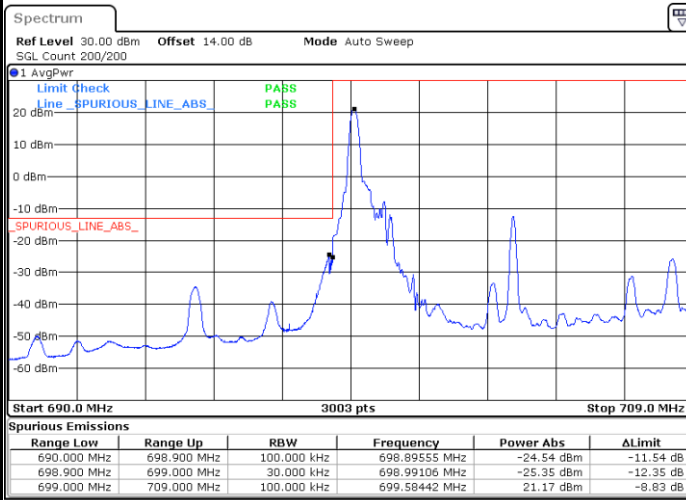
Highest Band Edge / Full RB



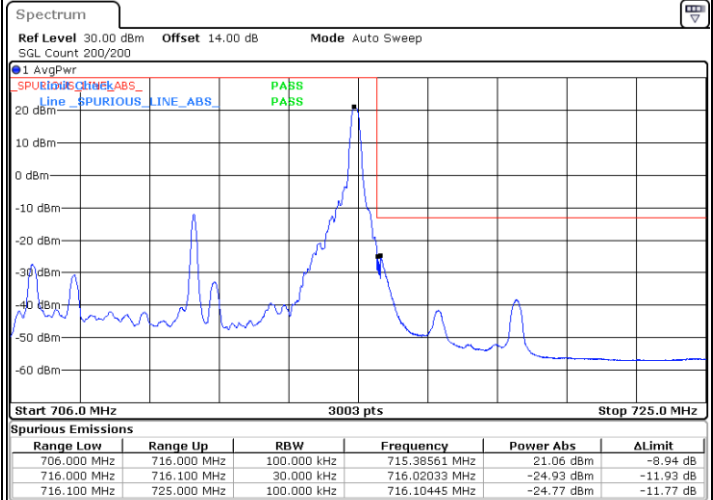


LTE Band 12 / 10MHz / 16QAM

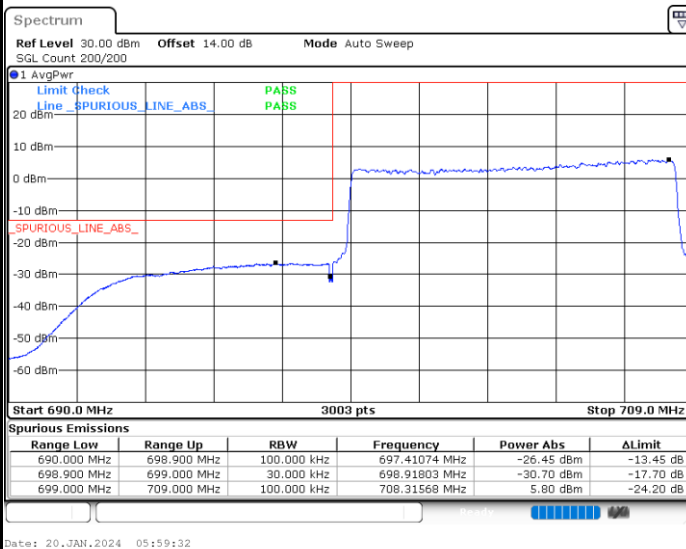
Lowest Band Edge / 1 RB



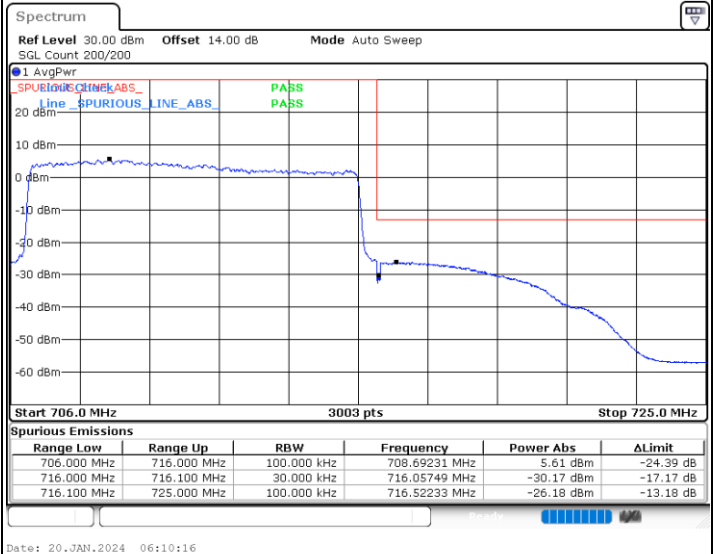
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



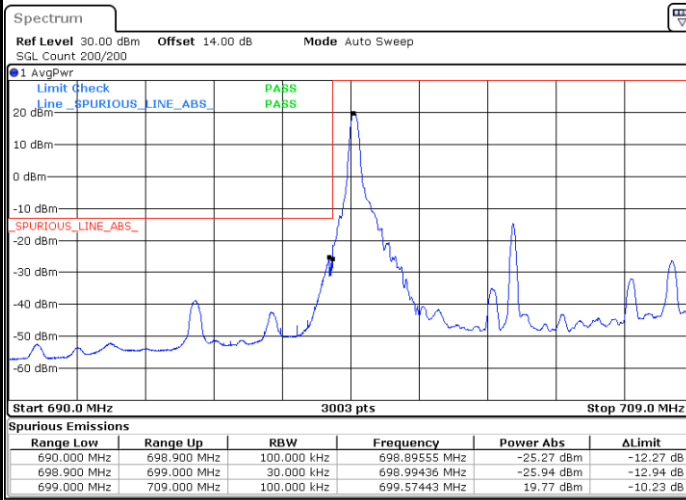
Highest Band Edge / Full RB



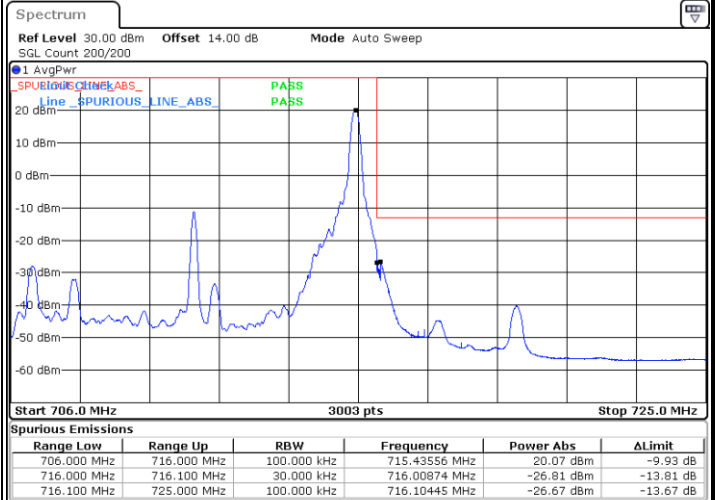


LTE Band 12 / 10MHz / 64QAM

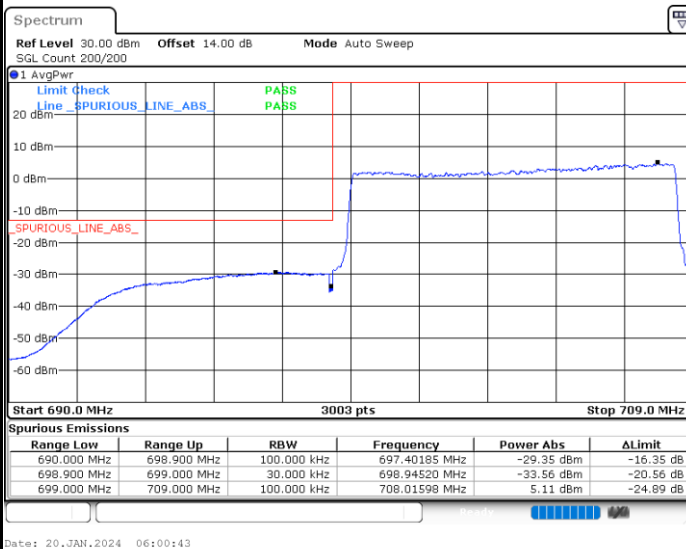
Lowest Band Edge / 1 RB



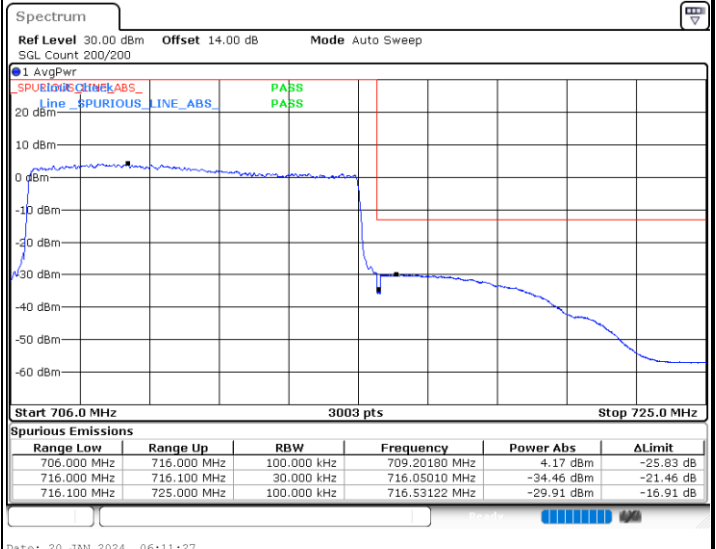
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

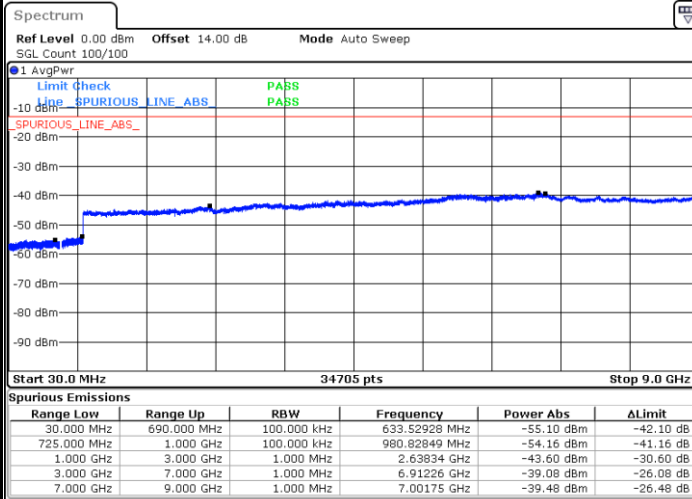




Conducted Spurious Emission

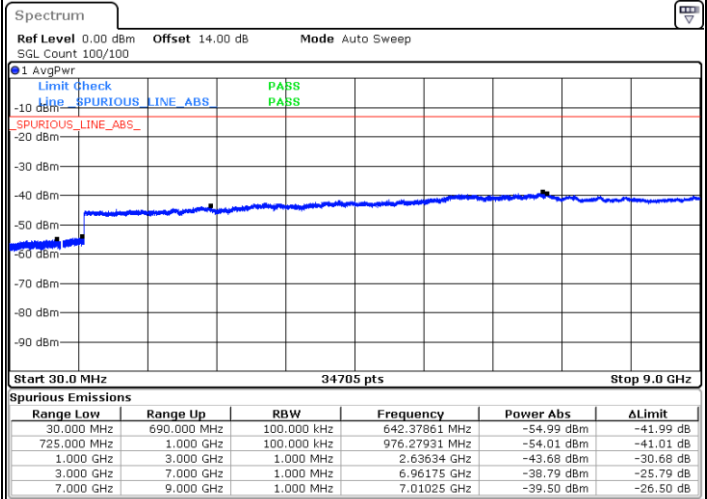
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



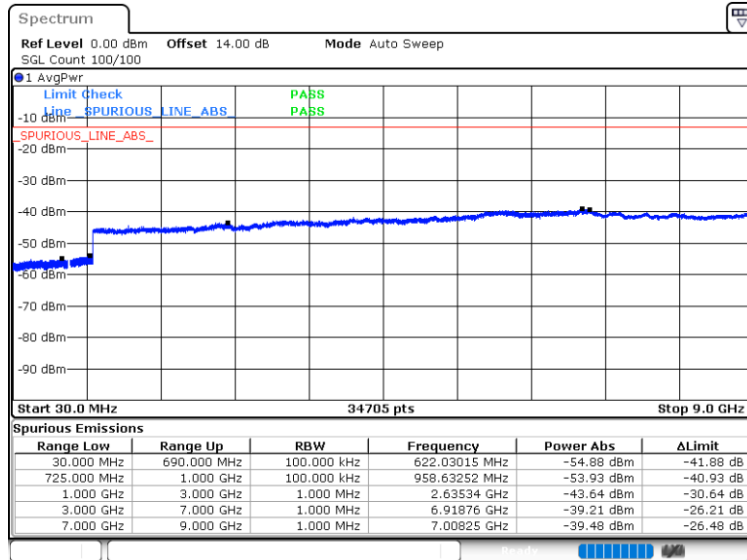
Date: 20.JAN.2024 05:01:08

Middle Channel / QPSK



Date: 20.JAN.2024 05:02:17

Highest Channel / QPSK

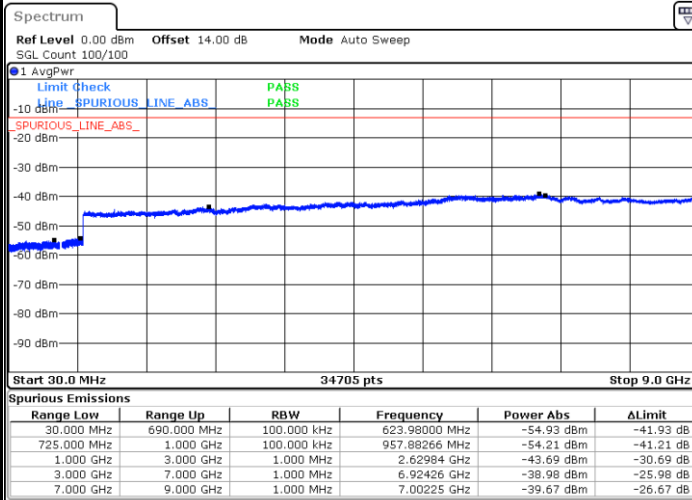


Date: 20.JAN.2024 05:11:52



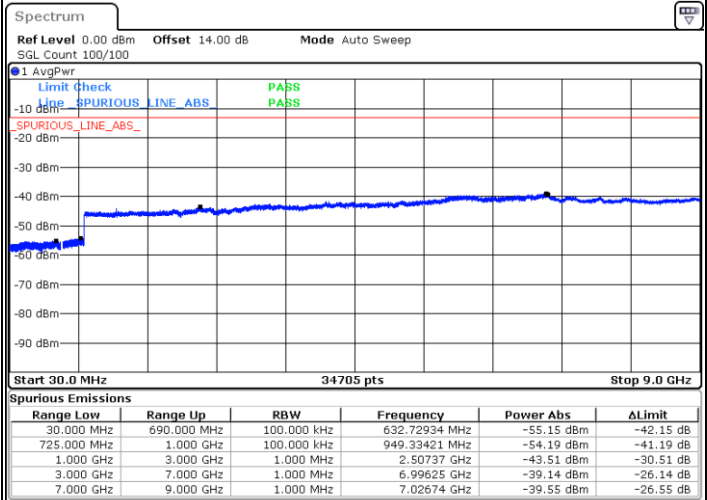
LTE Band 12 / 3MHz

Lowest Channel / QPSK



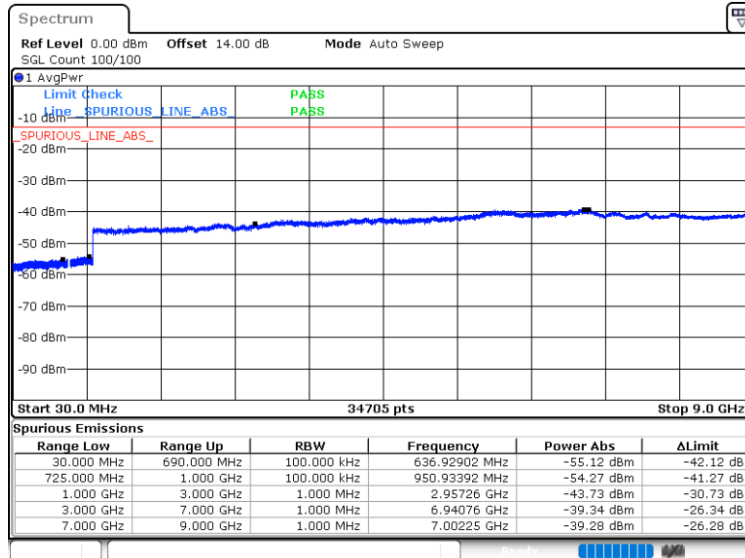
Date: 20.JAN.2024 05:21:23

Middle Channel / QPSK



Date: 20.JAN.2024 05:22:32

Highest Channel / QPSK

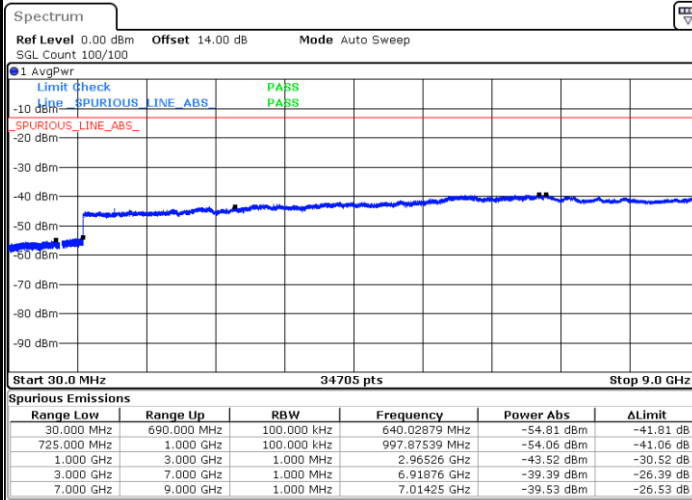


Date: 20.JAN.2024 05:32:07



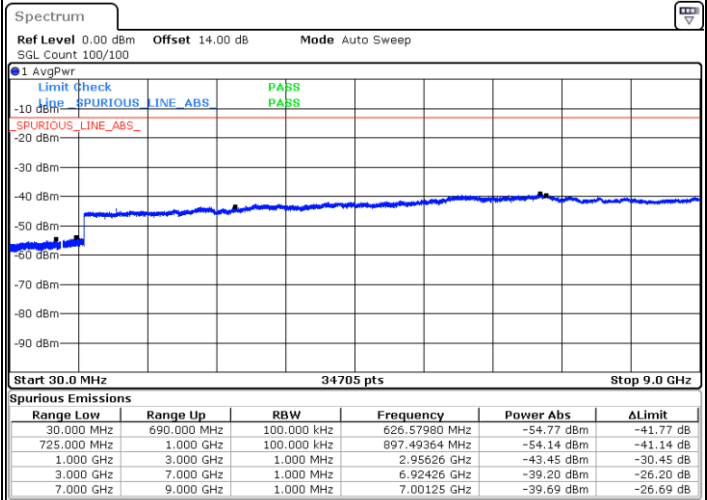
LTE Band 12 / 5MHz

Lowest Channel / QPSK



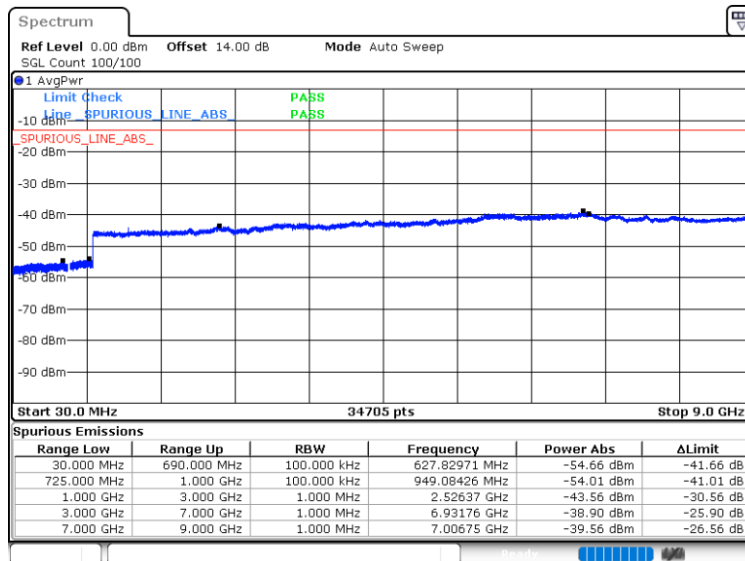
Date: 20.JAN.2024 05:41:38

Middle Channel / QPSK



Date: 20.JAN.2024 05:42:48

Highest Channel / QPSK



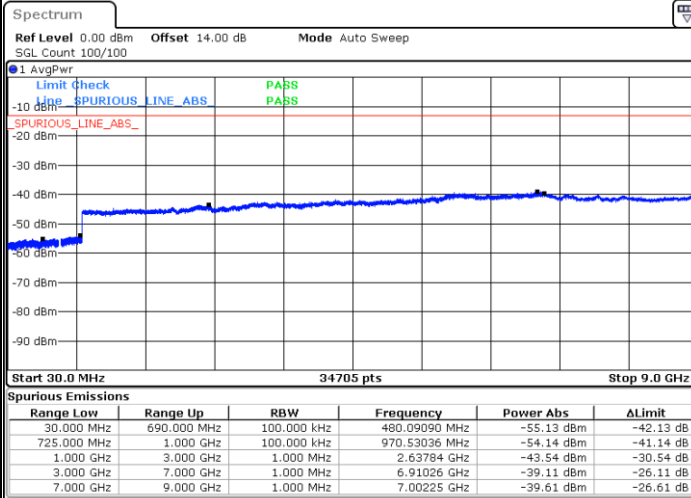
Date: 20.JAN.2024 05:52:22



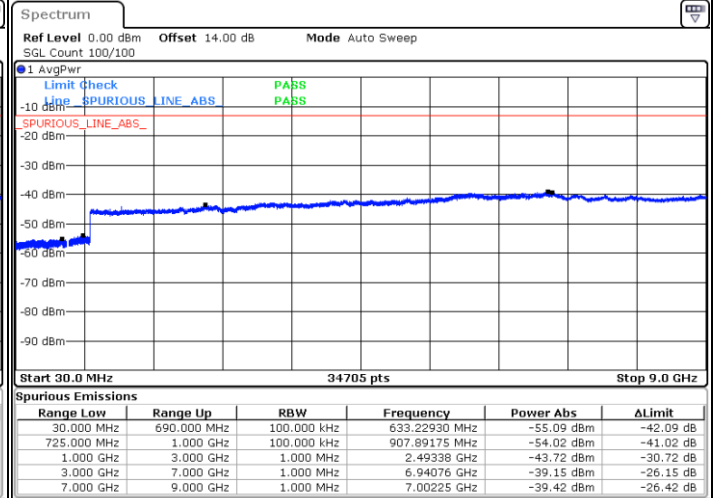
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

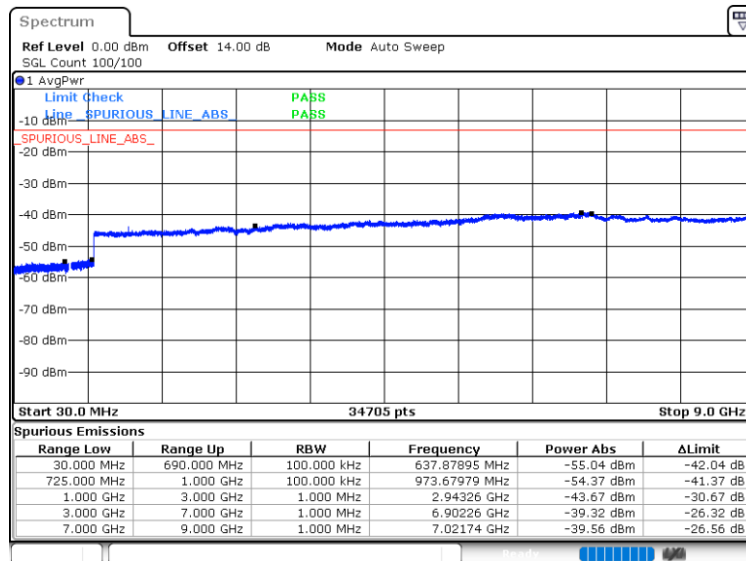


Date: 20.JAN.2024 06:01:53



Date: 20.JAN.2024 06:03:03

Highest Channel / QPSK



Date: 20.JAN.2024 06:12:37

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	0.0004	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

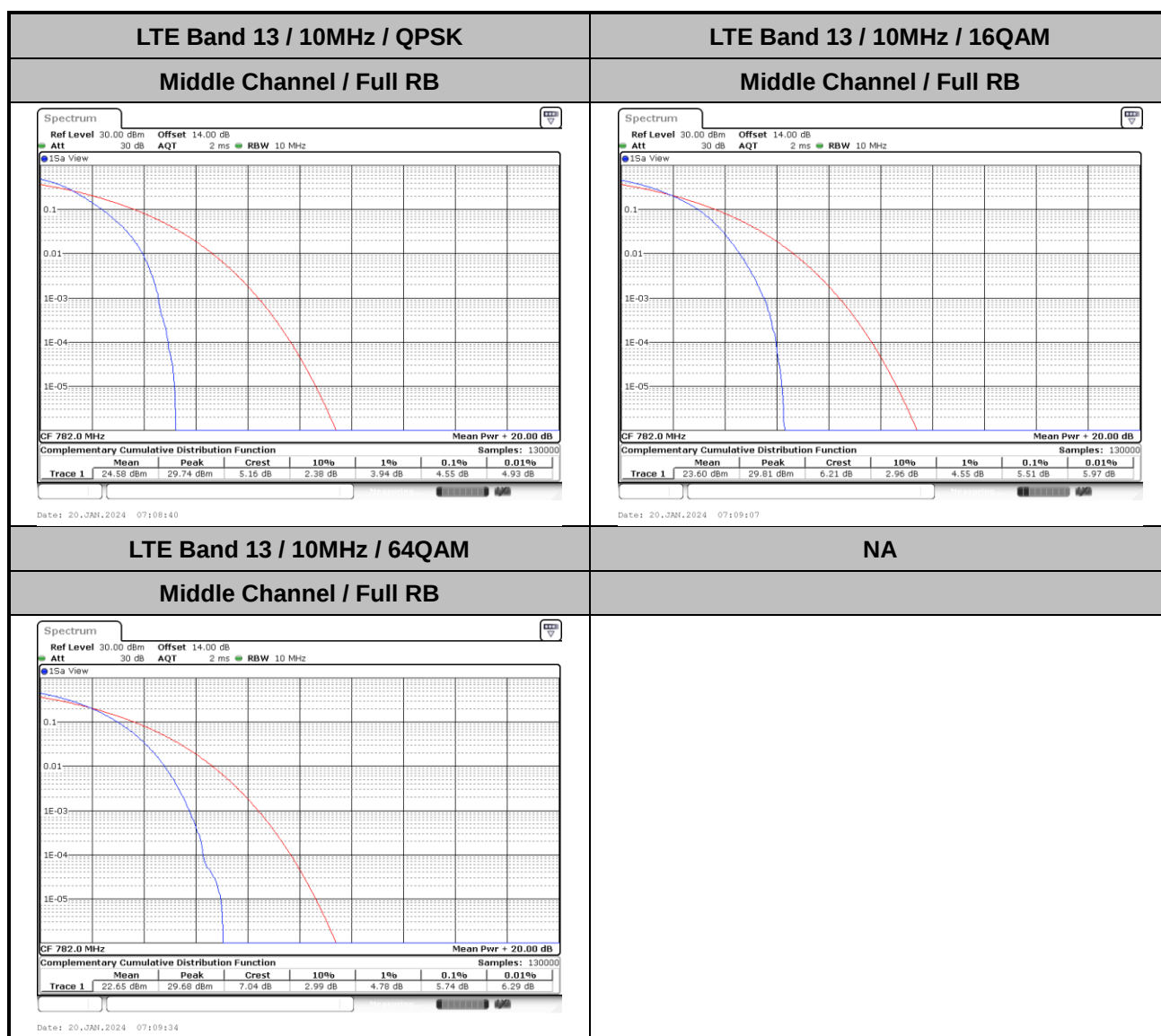
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.3 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

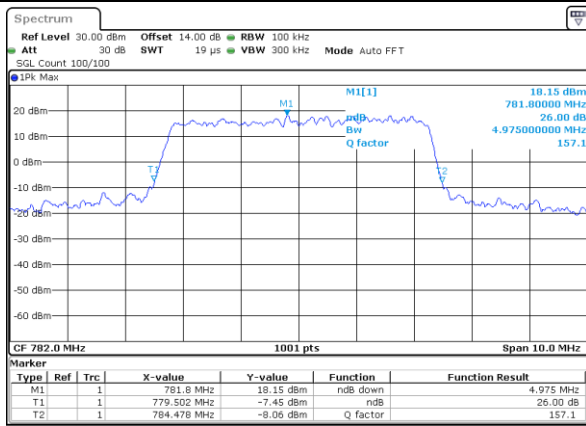
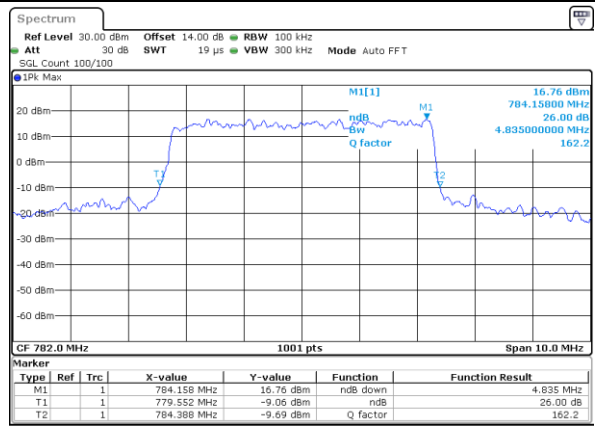
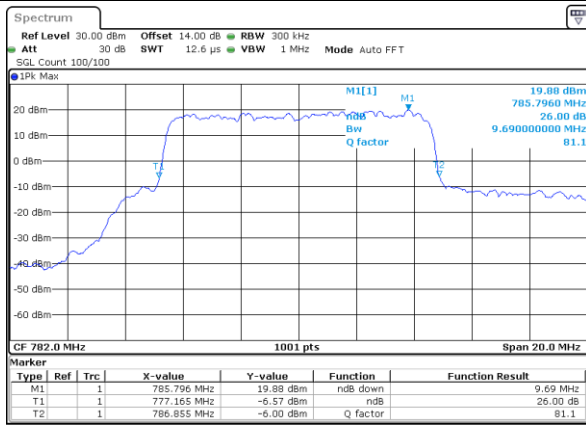
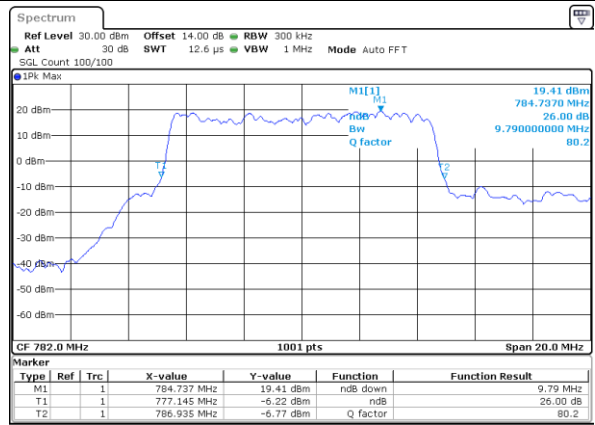
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.55	5.51	5.74	PASS



**26dB Bandwidth**

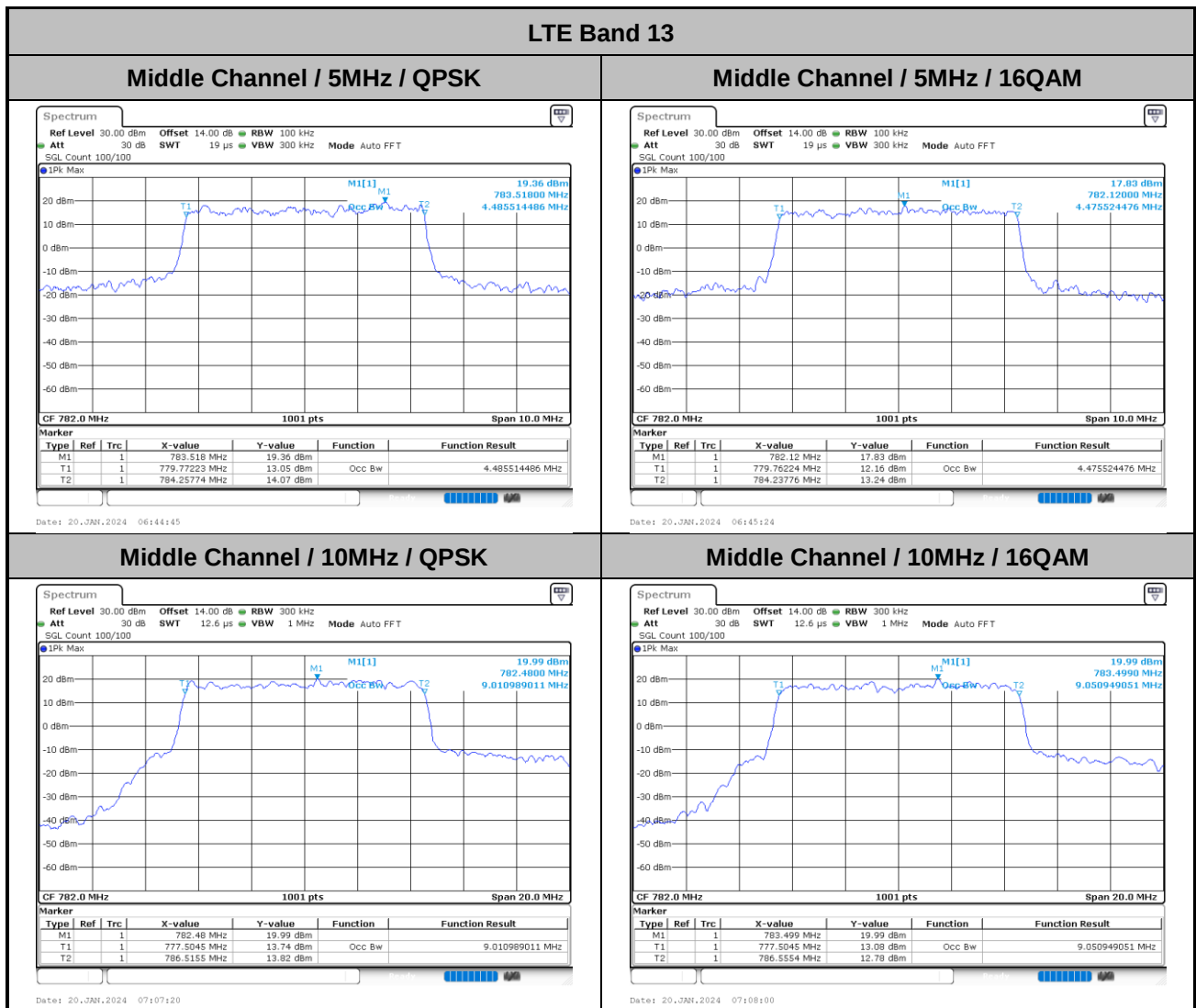
Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.98	4.84	9.69	9.79

LTE Band 13**Middle Channel / 5MHz / QPSK****Middle Channel / 5MHz / 16QAM****Middle Channel / 10MHz / QPSK****Middle Channel / 10MHz / 16QAM**



Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.49	4.48	9.01	9.05

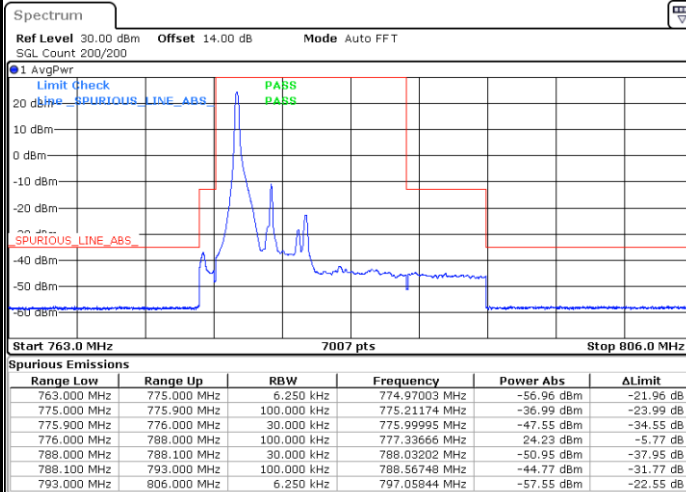




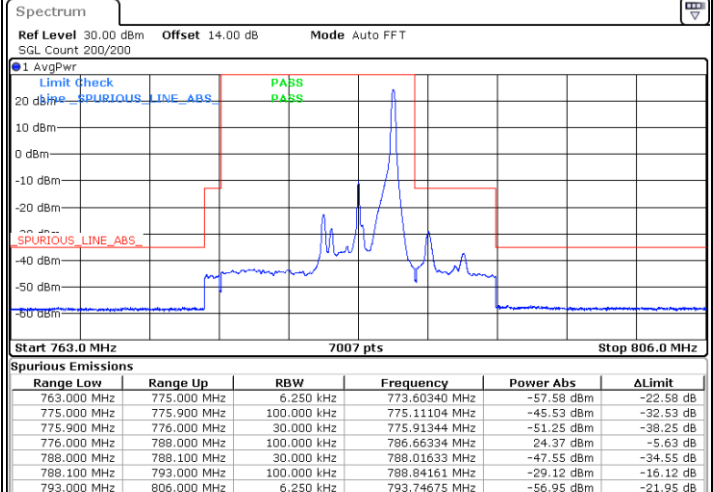
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

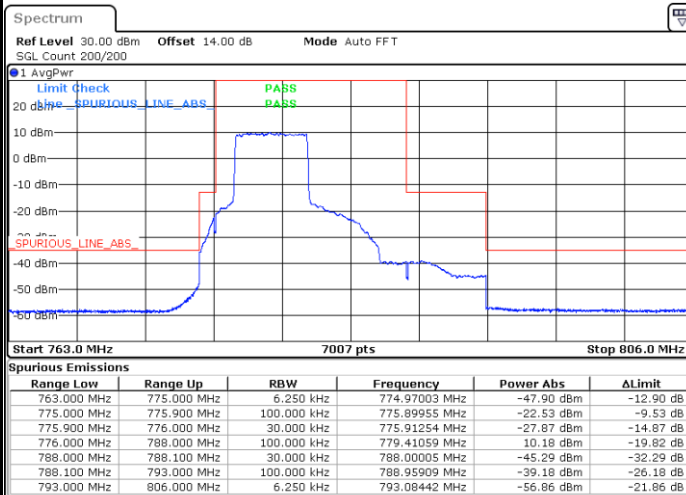
Lowest Band Edge / 1 RB



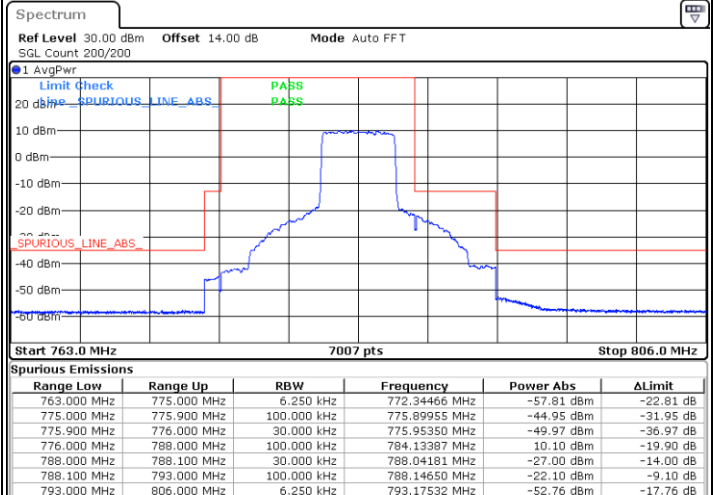
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



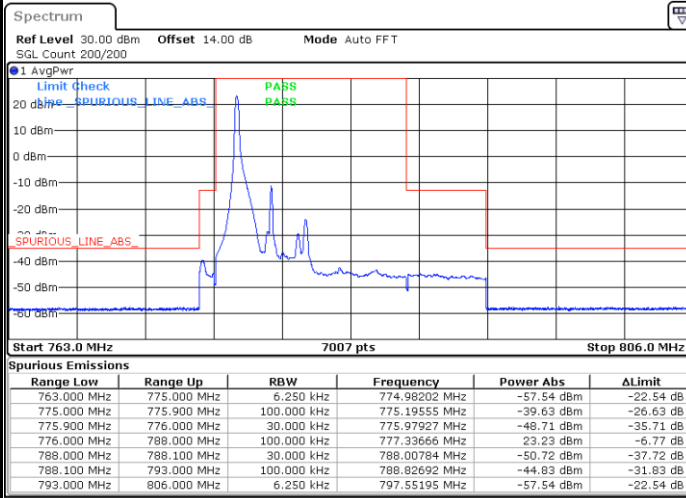
Highest Band Edge / Full RB





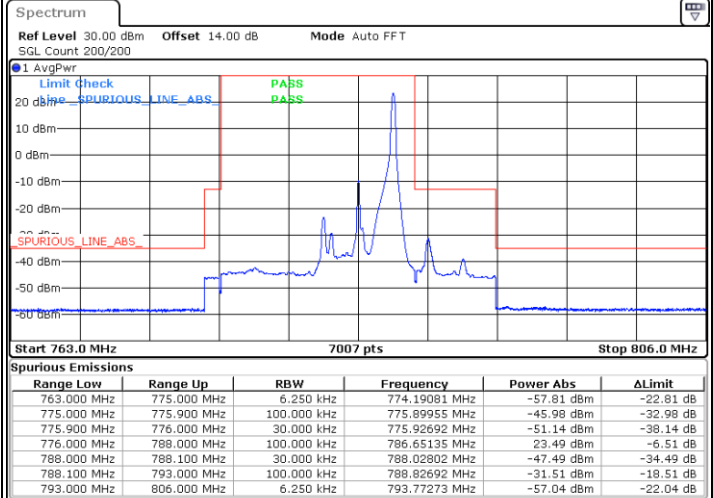
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



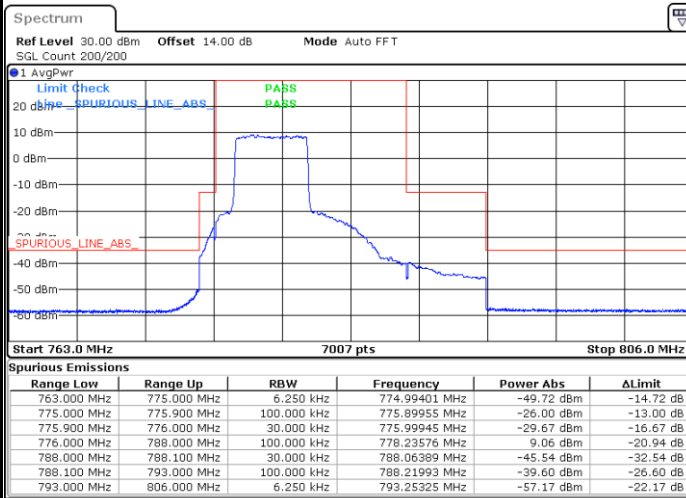
Date: 20.JAN.2024 06:24:26

Highest Band Edge / 1 RB



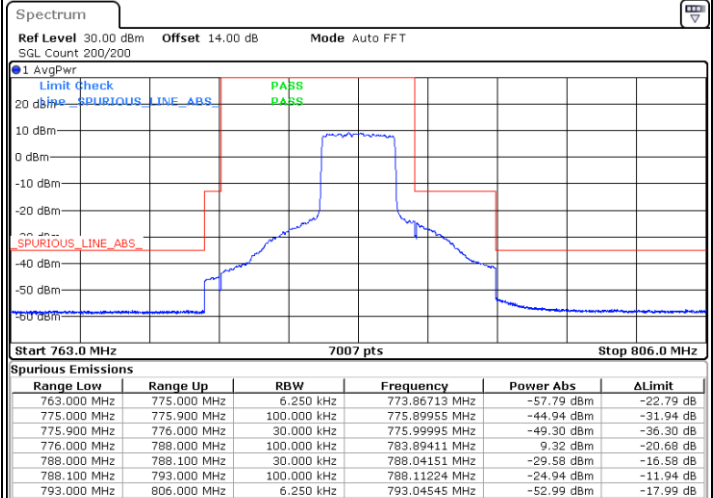
Date: 20.JAN.2024 06:47:59

Lowest Band Edge / Full RB



Date: 20.JAN.2024 06:28:00

Highest Band Edge / Full RB

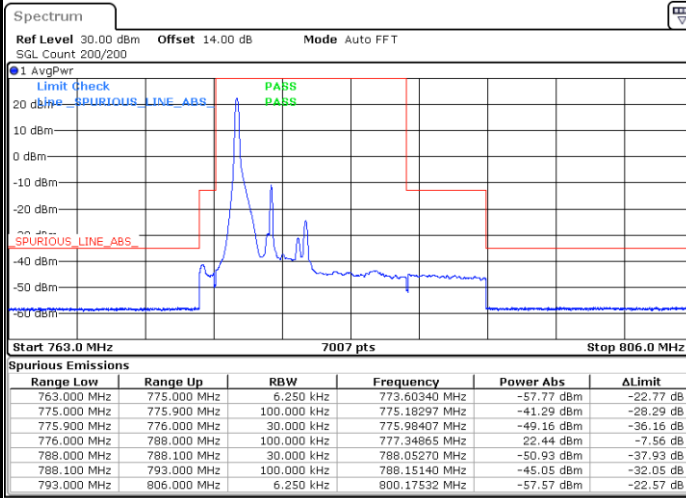


Date: 20.JAN.2024 06:51:33



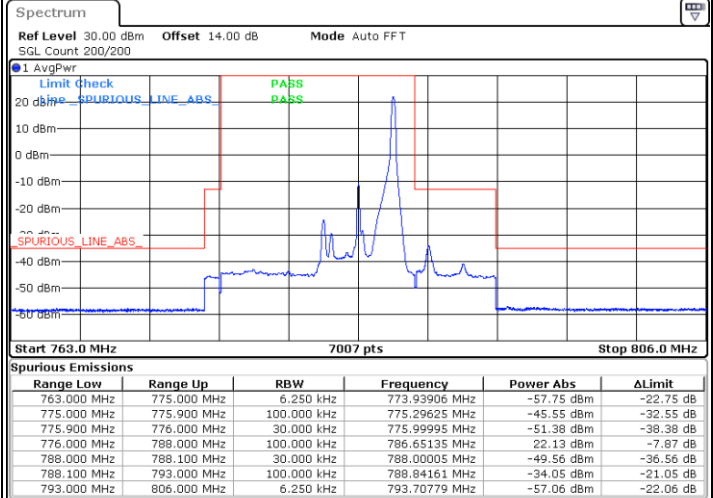
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



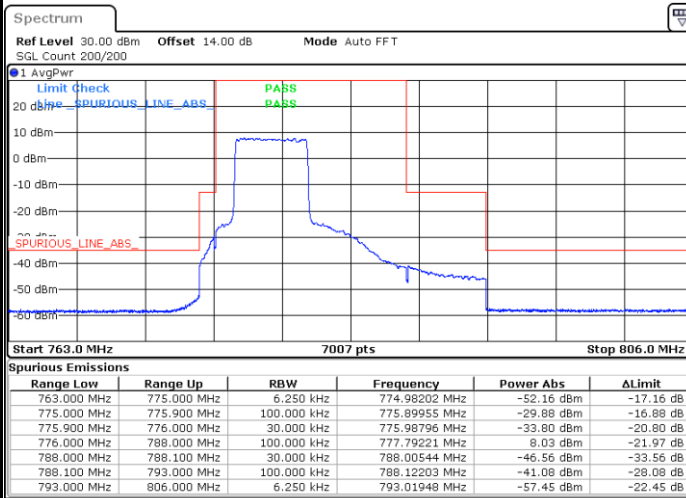
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Highest Band Edge / 1 RB



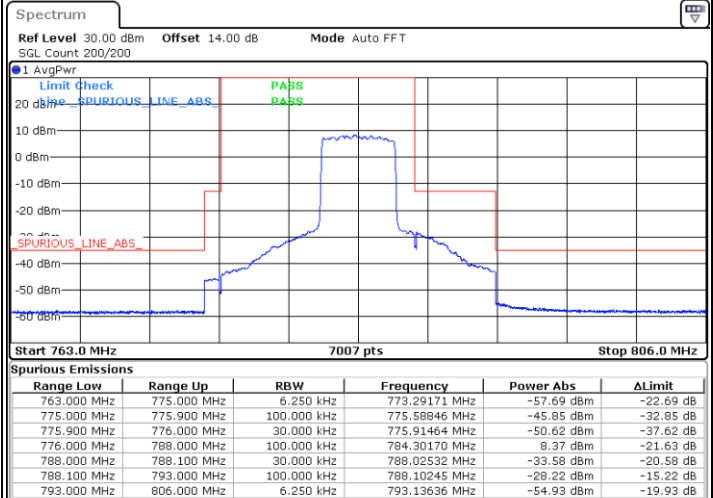
Date: 20.JAN.2024 06:49:10

Lowest Band Edge / Full RB



Date: 20.JAN.2024 07:12:32

Highest Band Edge / Full RB

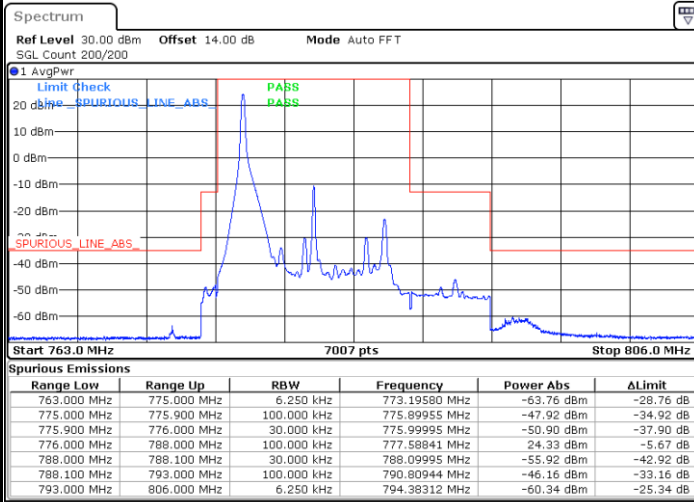


Date: 20.JAN.2024 06:52:44



LTE Band 13 / 10MHz / QPSK

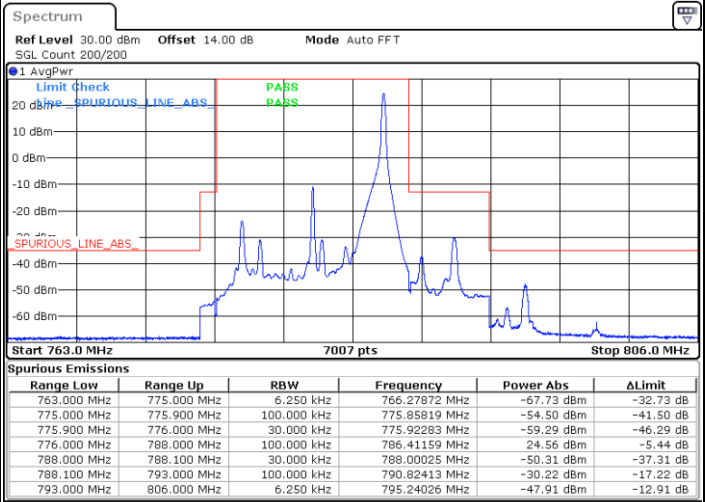
Band Edge / 1 RB



Date: 20.JAN.2024 06:56:20

LTE Band 13 / 10MHz / QPSK

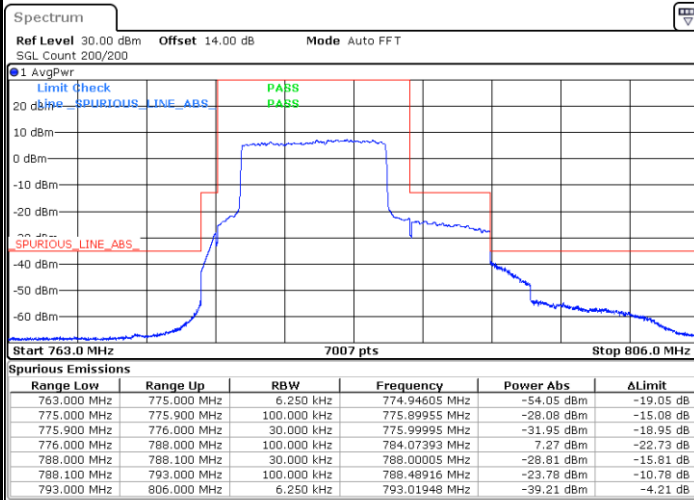
Band Edge / 1 RB



Date: 20.JAN.2024 06:59:52

LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB



Date: 20.JAN.2024 07:03:23

NA



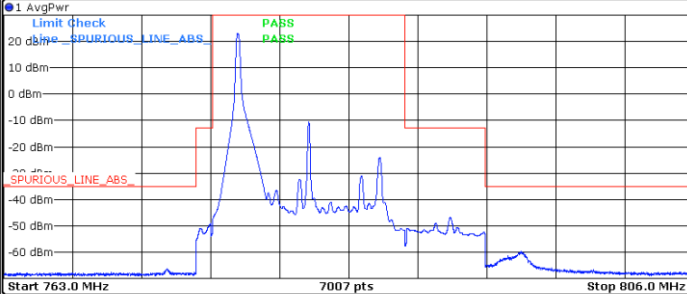
LTE Band 13 / 10MHz / 16QAM

Band Edge / 1 RB

LTE Band 13 / 10MHz / 16QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

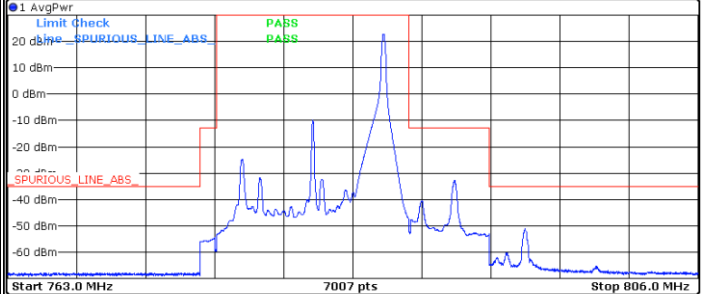
Start 763.0 MHz 7007 pts Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.18382 MHz	-66.39 dBm	-31.39 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-49.16 dBm	-36.16 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99955 MHz	-52.28 dBm	-39.28 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.57642 MHz	-23.11 dBm	-6.89 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.07408 MHz	-56.48 dBm	-43.48 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.81434 MHz	-46.81 dBm	-33.81 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.20130 MHz	-59.87 dBm	-24.87 dB

Date: 20.JAN.2024 06:57:31

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

Start 763.0 MHz 7007 pts Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.87413 MHz	-67.79 dBm	-32.79 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-54.47 dBm	-41.47 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.93002 MHz	-59.12 dBm	-46.12 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	-22.94 dBm	-7.16 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02303 MHz	-52.29 dBm	-39.29 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.83392 MHz	-32.89 dBm	-19.89 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.24026 MHz	-51.17 dBm	-16.17 dB

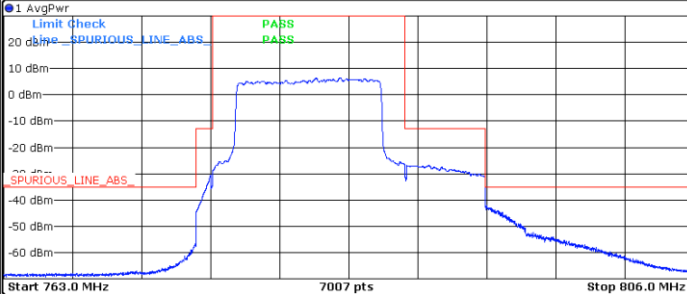
Date: 20.JAN.2024 07:01:02

LTE Band 13 / 10MHz / 16QAM

Band Edge / Full RB

NA

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

Start 763.0 MHz 7007 pts Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.99401 MHz	-56.62 dBm	-21.62 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-30.45 dBm	-17.45 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99955 MHz	-34.41 dBm	-21.41 dB
776.000 MHz	788.000 MHz	100.000 kHz	783.94206 MHz	-6.37 dBm	-23.63 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.08536 MHz	-30.41 dBm	-17.41 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-26.83 dBm	-13.83 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.12338 MHz	-42.16 dBm	-7.16 dB

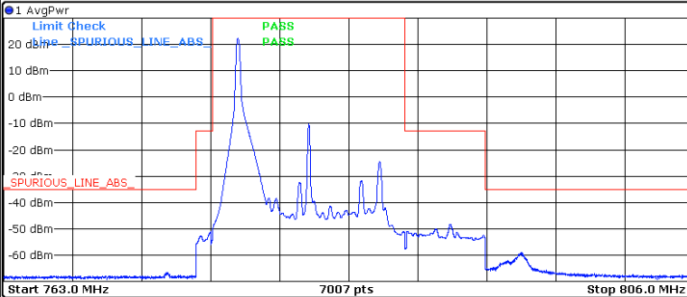
Date: 20.JAN.2024 07:04:34



LTE Band 13 / 10MHz / 64QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

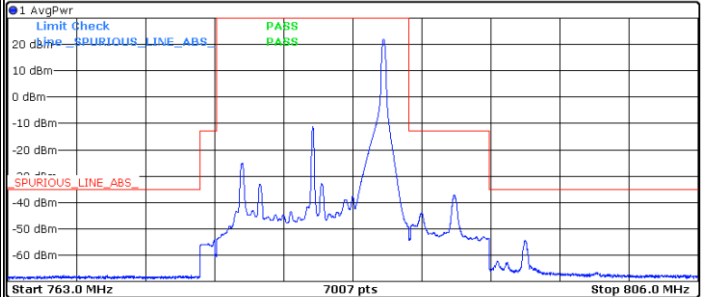
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.21978 MHz	-66.57 dBm	-31.57 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-51.12 dBm	-38.12 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99306 MHz	-54.16 dBm	-41.16 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.58841 MHz	22.26 dBm	-7.74 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09356 MHz	-56.76 dBm	-43.76 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.81434 MHz	-48.33 dBm	-35.33 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.21429 MHz	-59.06 dBm	-24.06 dB

Date: 20.JAN.2024 06:58:41

LTE Band 13 / 10MHz / 64QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

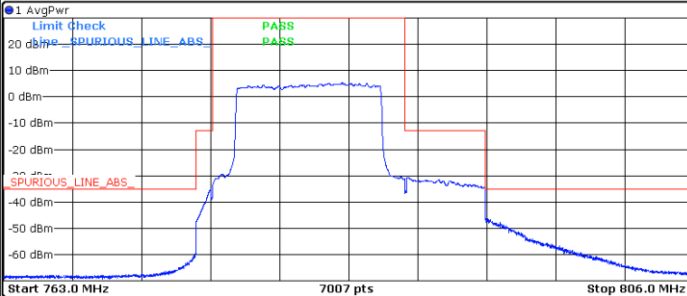
Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	766.48252 MHz	-67.57 dBm	-32.57 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89056 MHz	-54.44 dBm	-41.44 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.94510 MHz	-59.61 dBm	-46.61 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	22.02 dBm	-7.98 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.05330 MHz	-53.83 dBm	-40.83 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.81434 MHz	-37.27 dBm	-24.27 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.20130 MHz	-54.42 dBm	-19.42 dB

Date: 20.JAN.2024 07:02:13

LTE Band 13 / 10MHz / 64QAM

Band Edge / Full RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 200/200

Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.98202 MHz	-59.42 dBm	-24.42 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-35.10 dBm	-22.10 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99995 MHz	-38.06 dBm	-25.06 dB
776.000 MHz	788.000 MHz	100.000 kHz	784.07393 MHz	5.41 dBm	-24.59 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04231 MHz	-35.66 dBm	-22.66 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.11224 MHz	-30.76 dBm	-17.76 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.05844 MHz	-46.42 dBm	-11.42 dB

Date: 20.JAN.2024 07:05:44

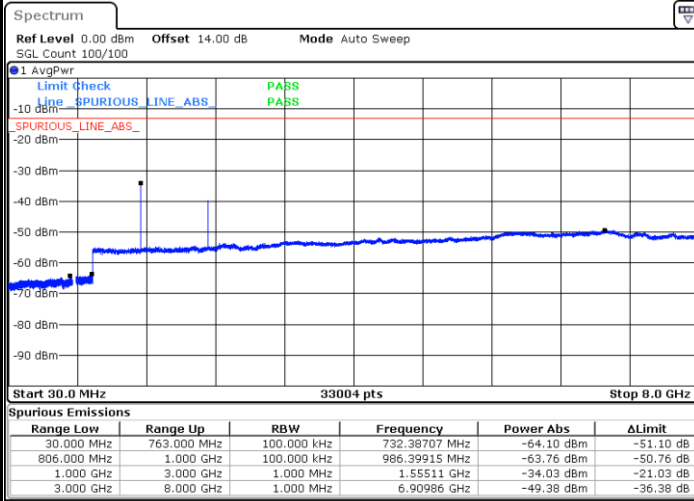
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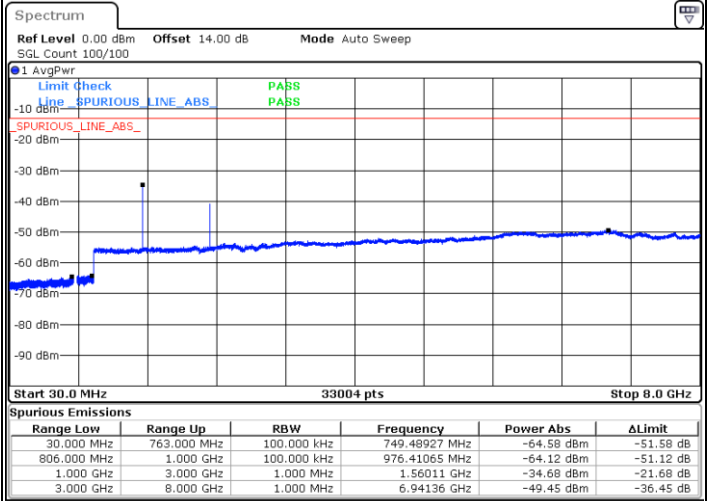
Conducted Spurious Emission

LTE Band 13 / 5MHz

Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

