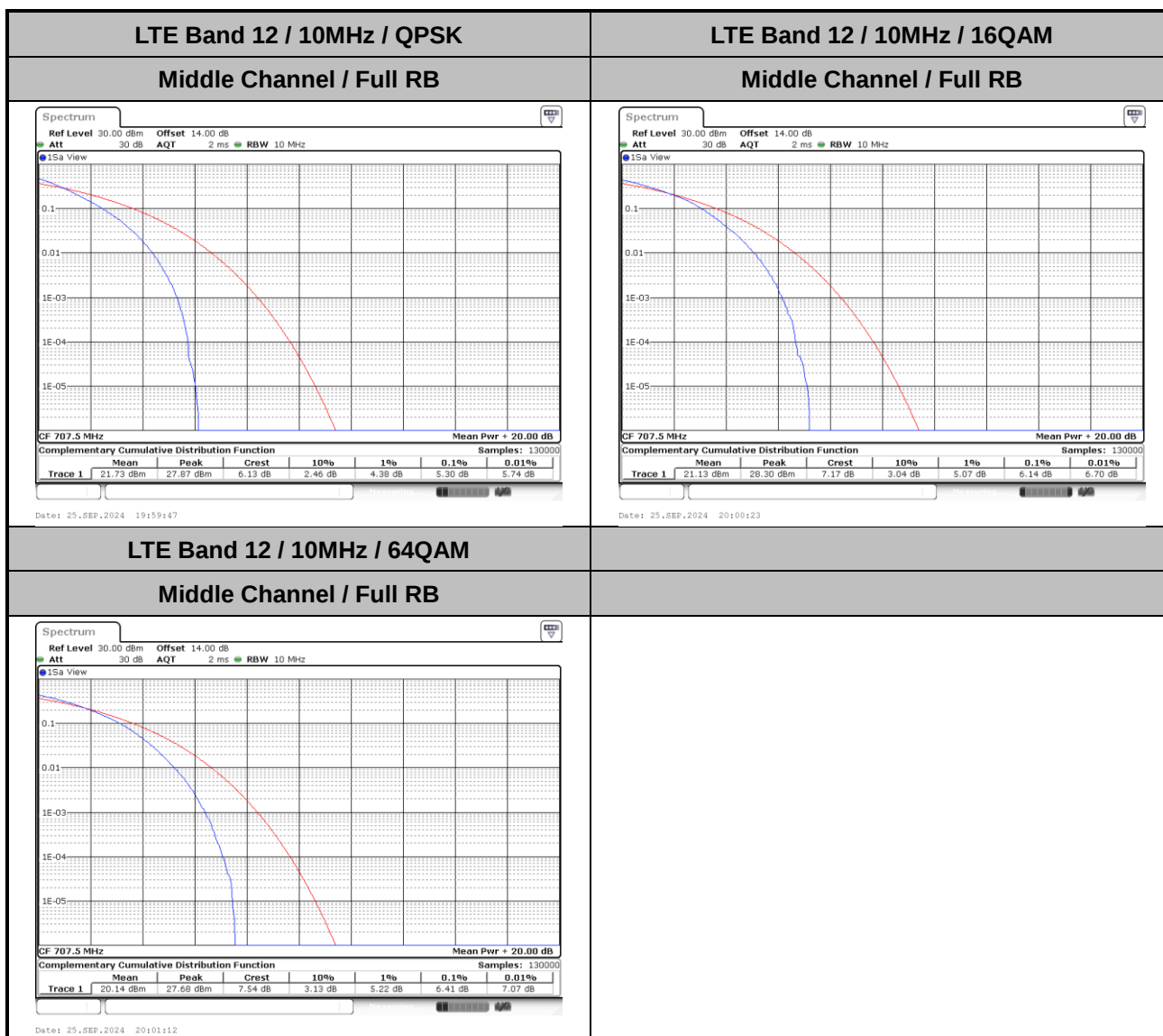




LTE Band 12

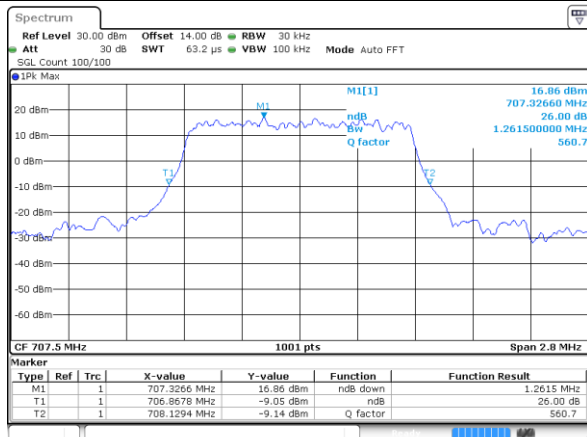
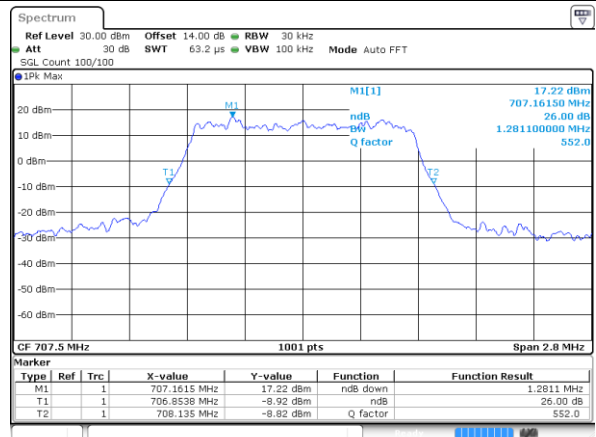
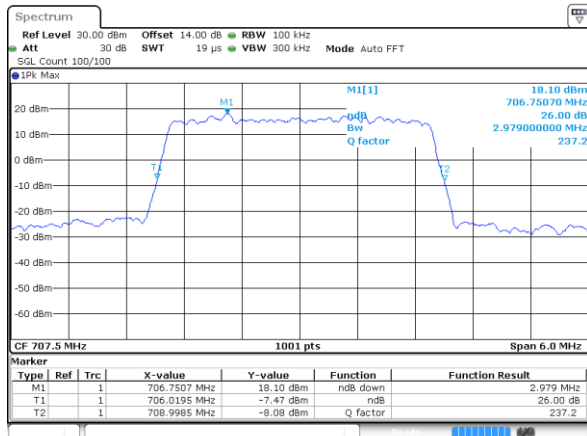
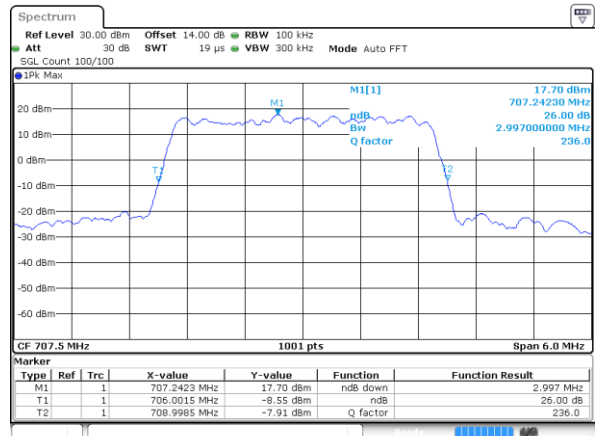
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.30	6.14	6.41	PASS



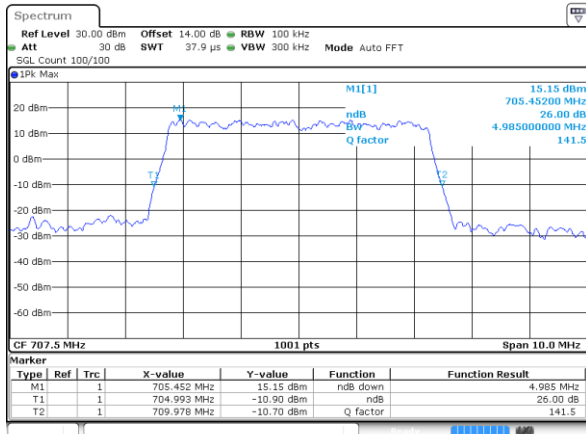
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.26	1.28	2.98	3.00	4.99	4.89	9.79	9.67

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

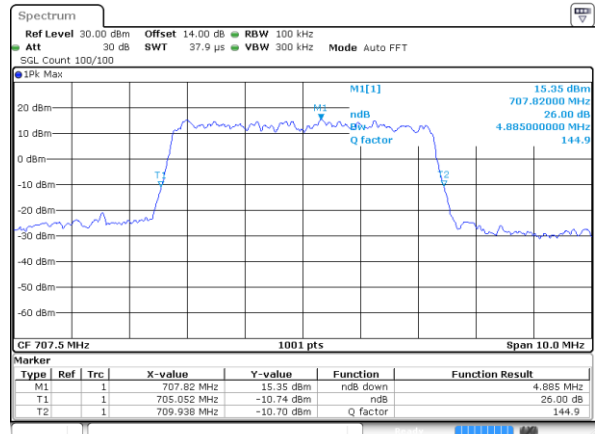


Middle Channel / 5MHz / QPSK



Date: 24 SEP 2024 04:49:30

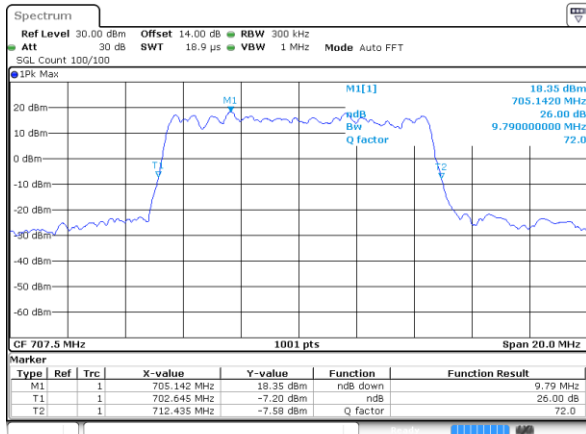
Middle Channel / 5MHz / 16QAM



Date: 24 SEP 2024 04:50:10

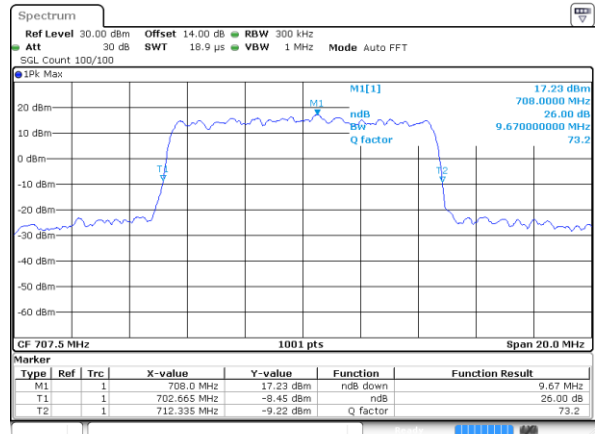
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 24 SEP 2024 05:08:35

Middle Channel / 10MHz / 16QAM

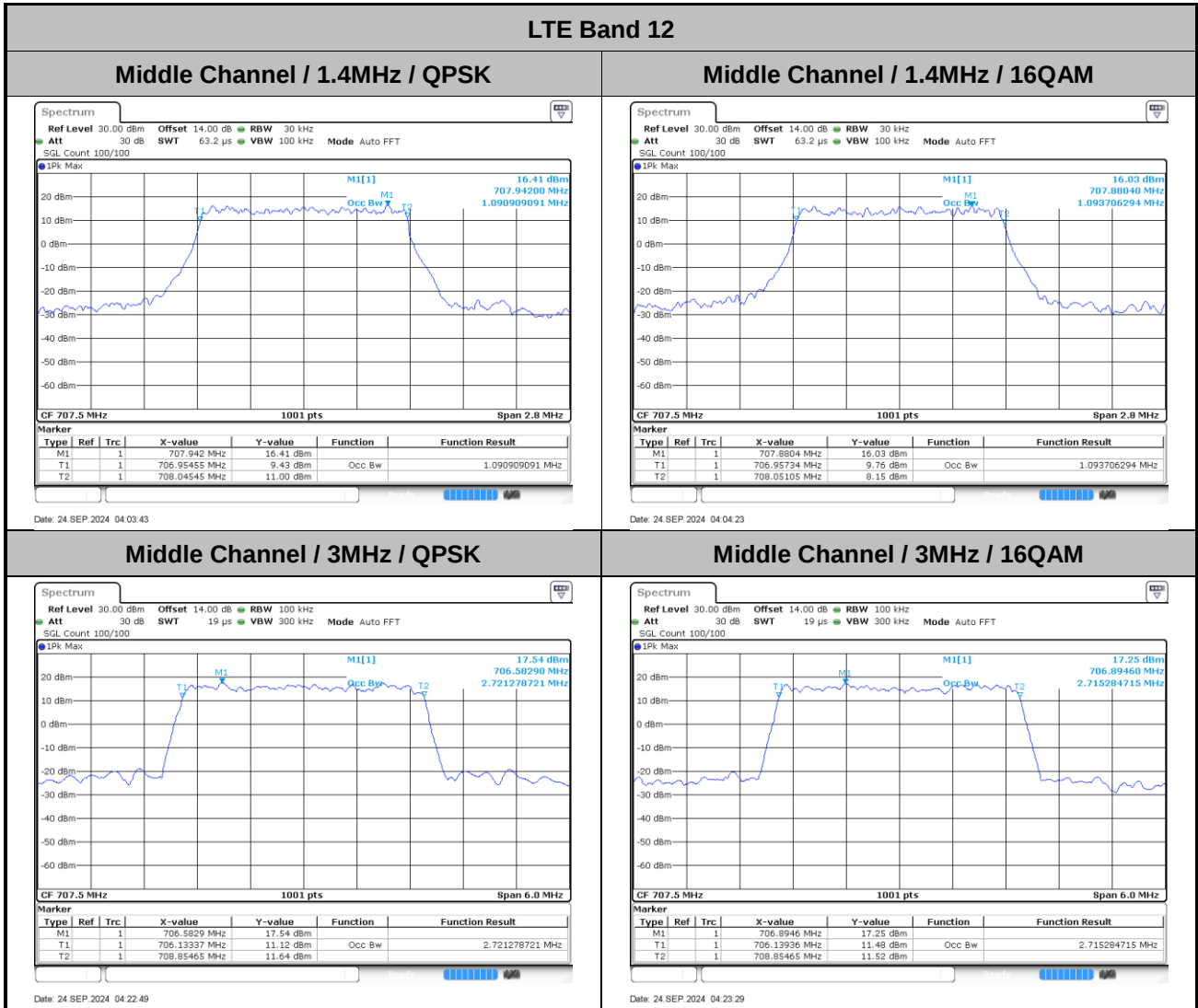


Date: 24 SEP 2024 05:09:15



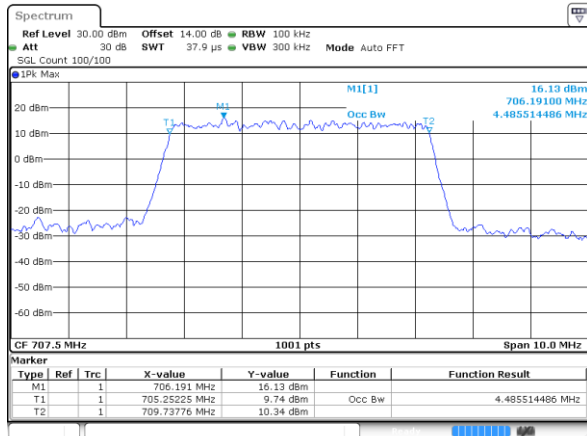
Occupied Bandwidth

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	2.72	2.72	4.49	4.48	9.01	9.03



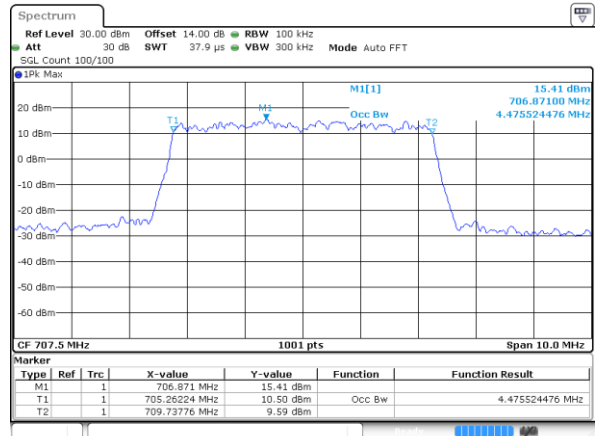


Middle Channel / 5MHz / QPSK



Date: 24 SEP 2024 04:48:16

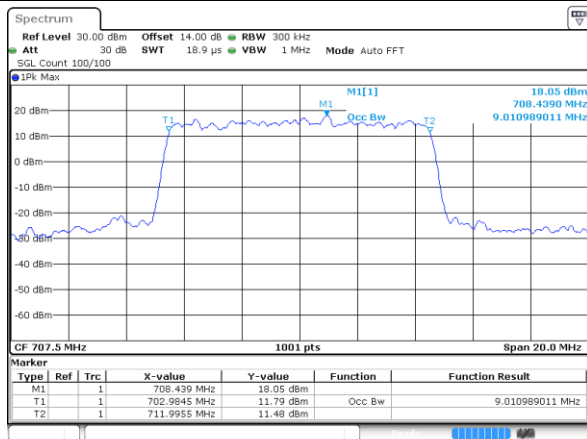
Middle Channel / 5MHz / 16QAM



Date: 24 SEP 2024 04:49:56

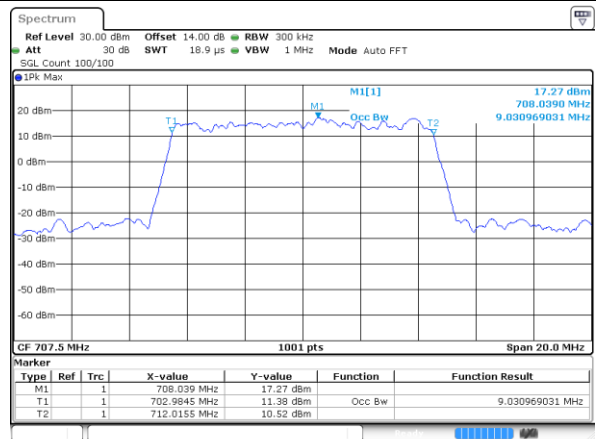
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 24 SEP 2024 05:08:21

Middle Channel / 10MHz / 16QAM



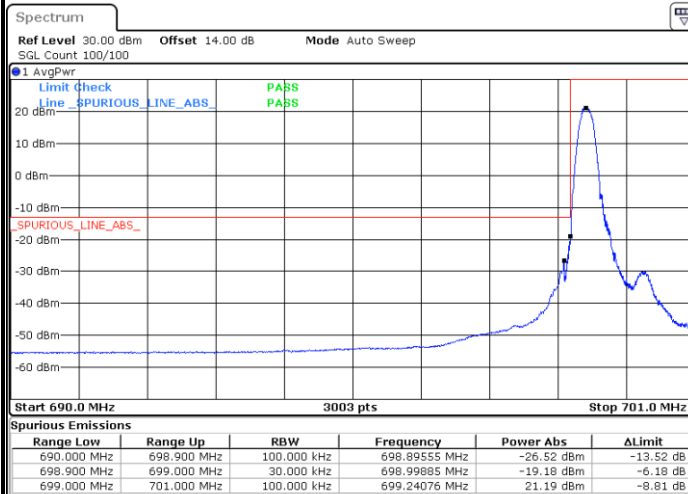
Date: 24 SEP 2024 05:09:01



Conducted Band Edge

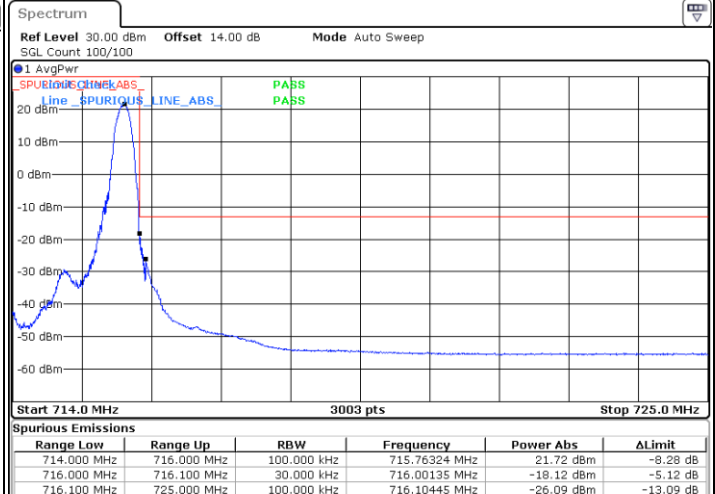
LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



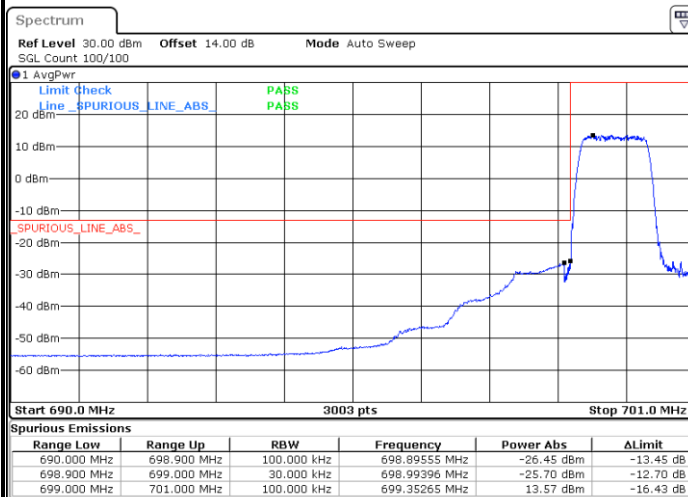
Date: 24 SEP 2024 03:55:15

Highest Band Edge / 1RB



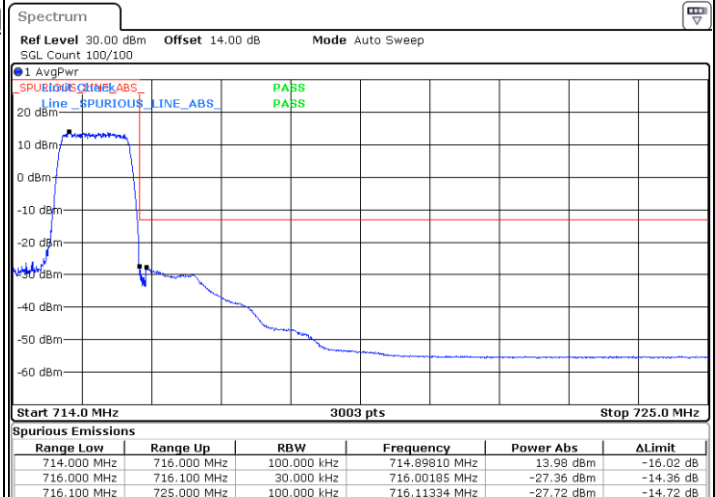
Date: 24 SEP 2024 04:05:42

Lowest Band Edge / Full RB



Date: 24 SEP 2024 03:58:34

Highest Band Edge / Full RB

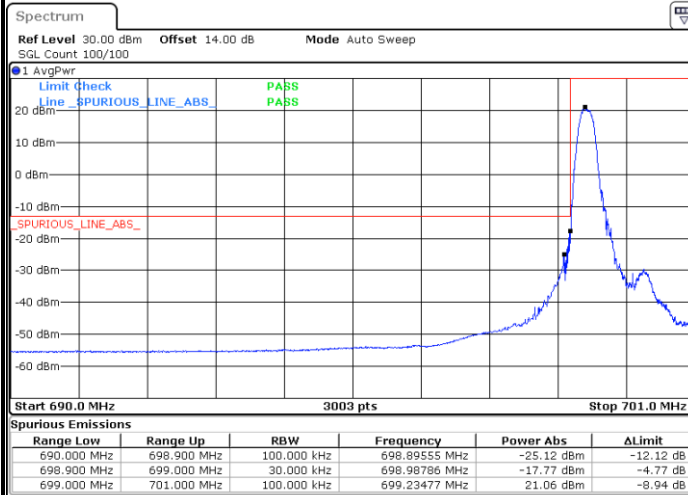


Date: 24 SEP 2024 04:09:01

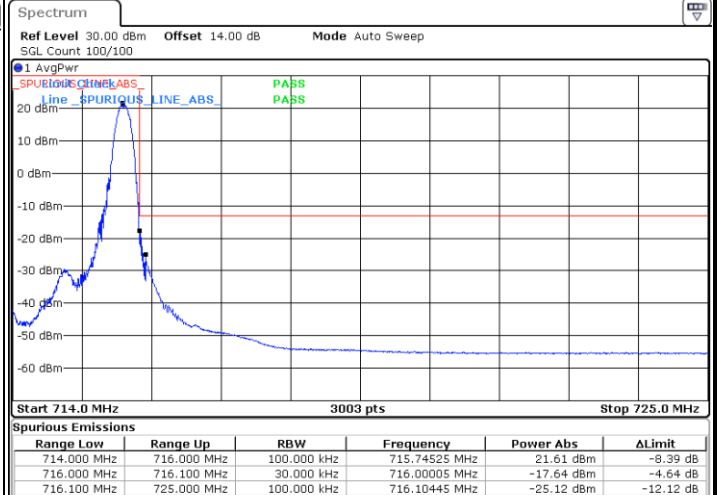


LTE Band 12 / 1.4MHz / 16QAM

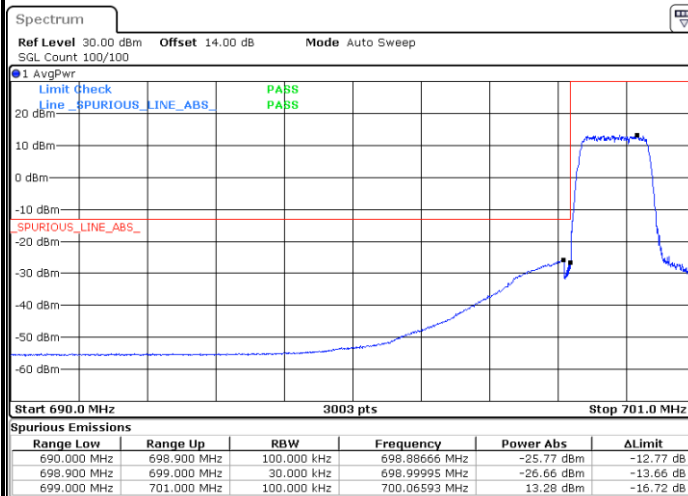
Lowest Band Edge / 1 RB



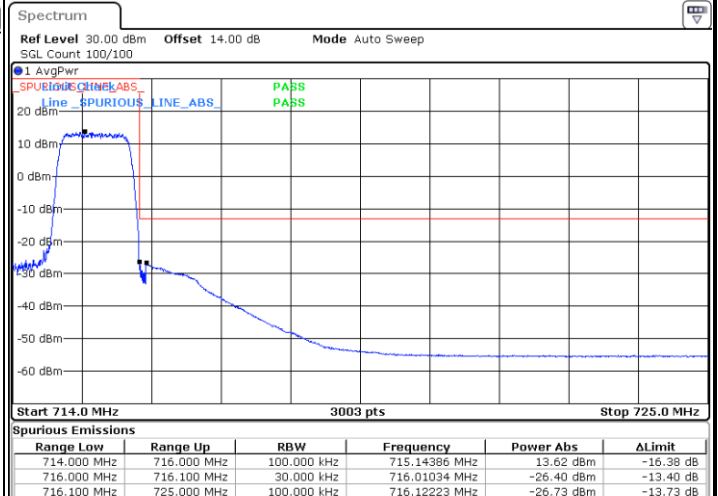
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



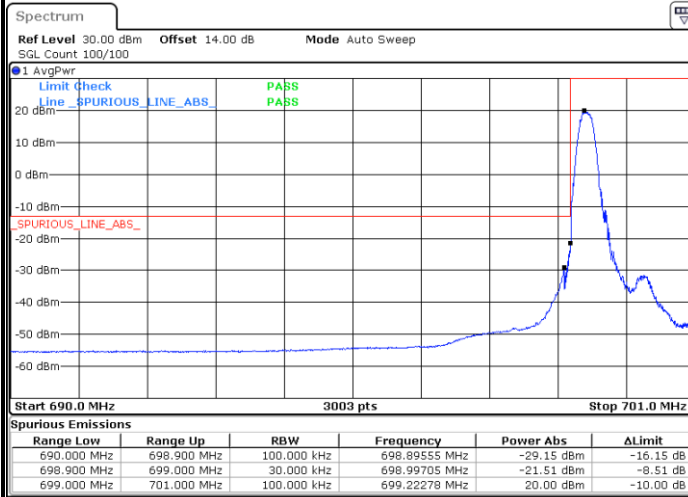
Highest Band Edge / Full RB



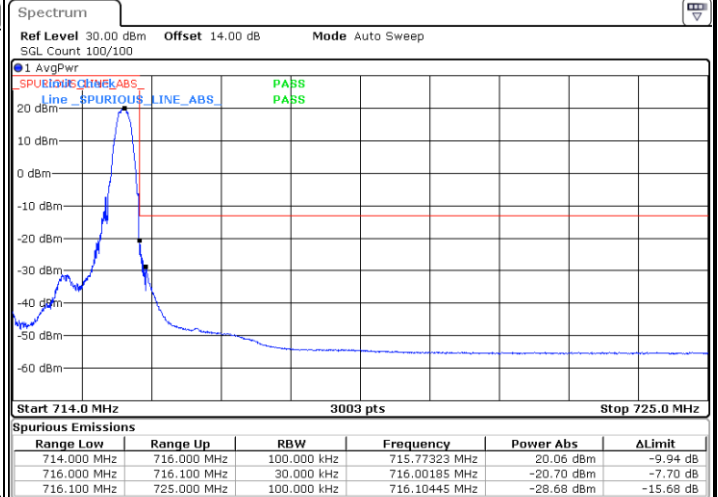


LTE Band 12 / 1.4MHz / 64QAM

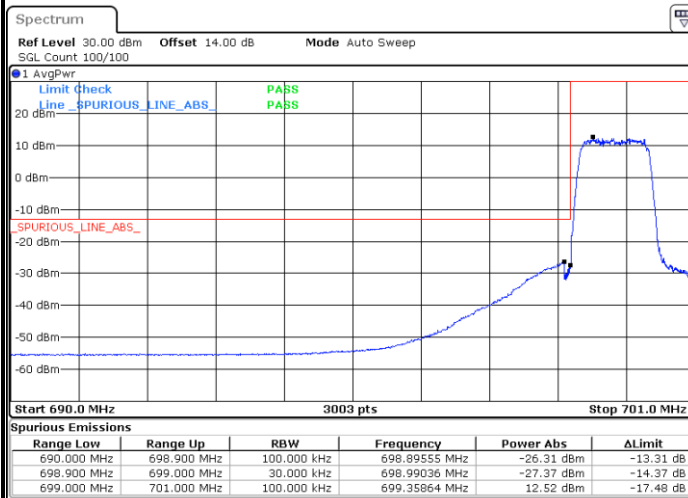
Lowest Band Edge / 1 RB



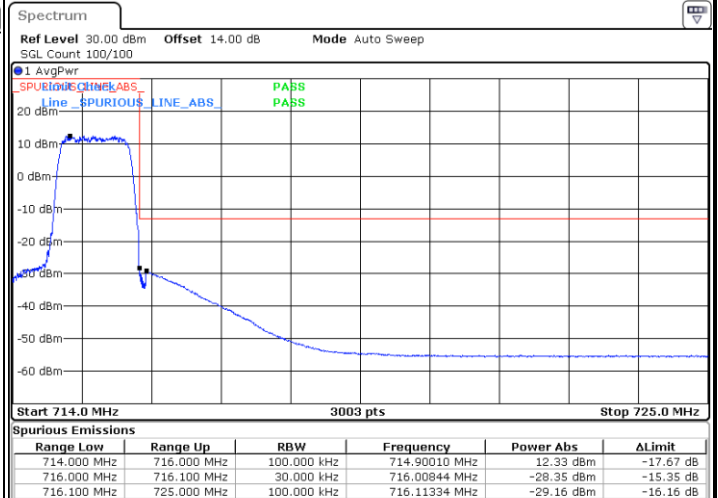
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



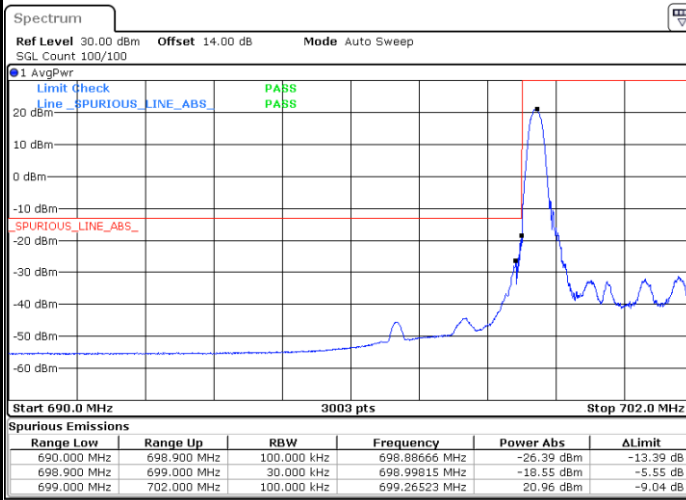
Highest Band Edge / Full RB





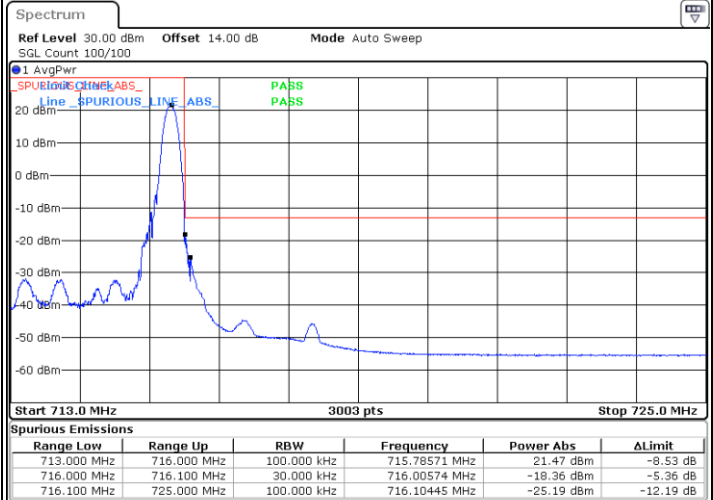
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



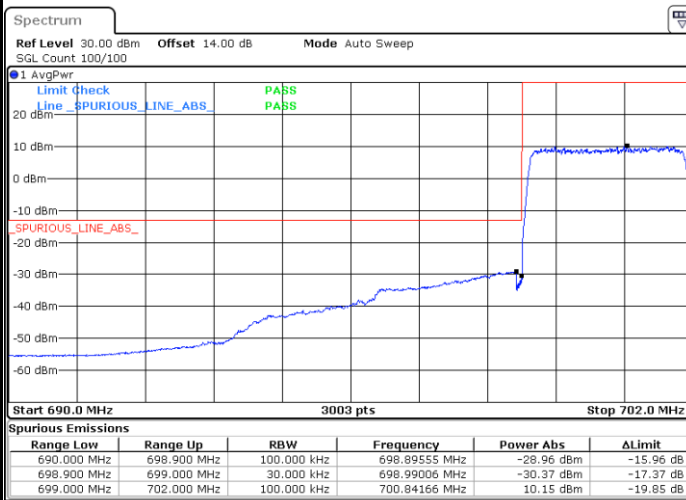
Date: 24 SEP 2024 04:14:21

Highest Band Edge / 1RB



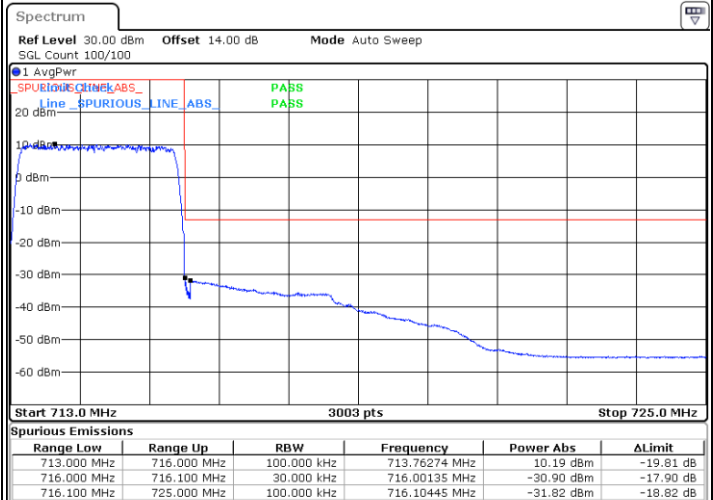
Date: 24 SEP 2024 04:24:48

Lowest Band Edge / Full RB



Date: 24 SEP 2024 04:17:40

Highest Band Edge / Full RB

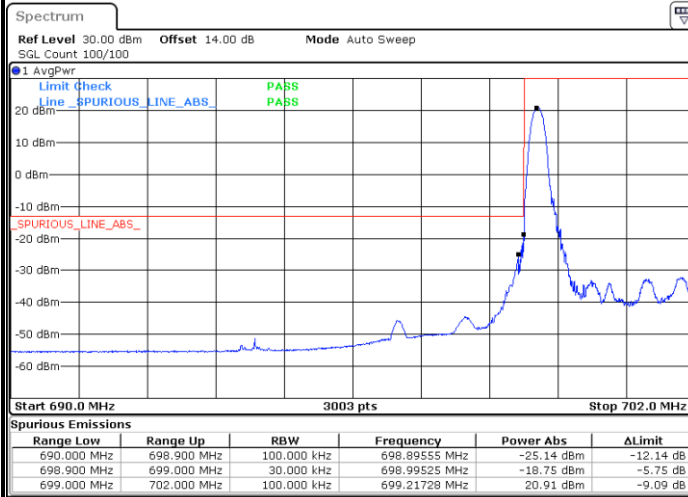


Date: 24 SEP 2024 04:28:07

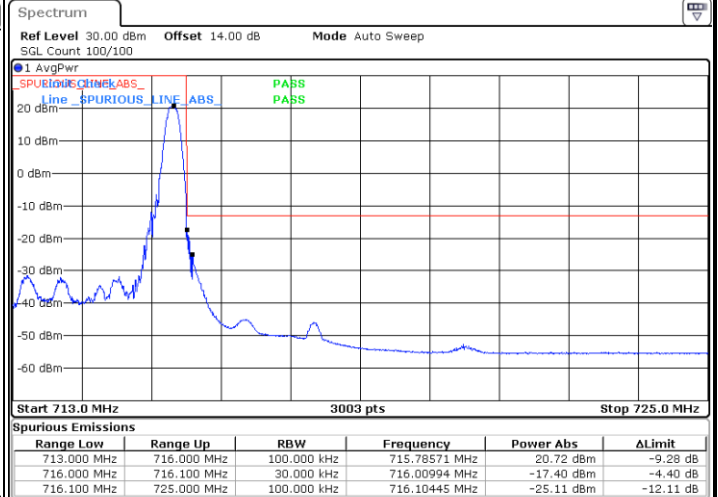


LTE Band 12 / 3MHz / 16QAM

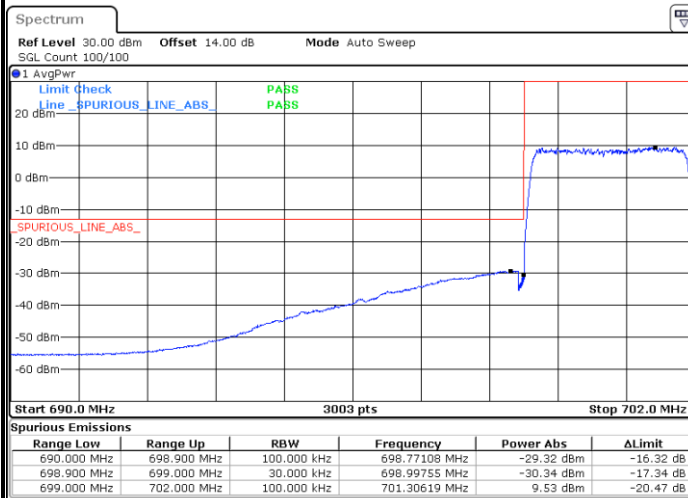
Lowest Band Edge / 1 RB



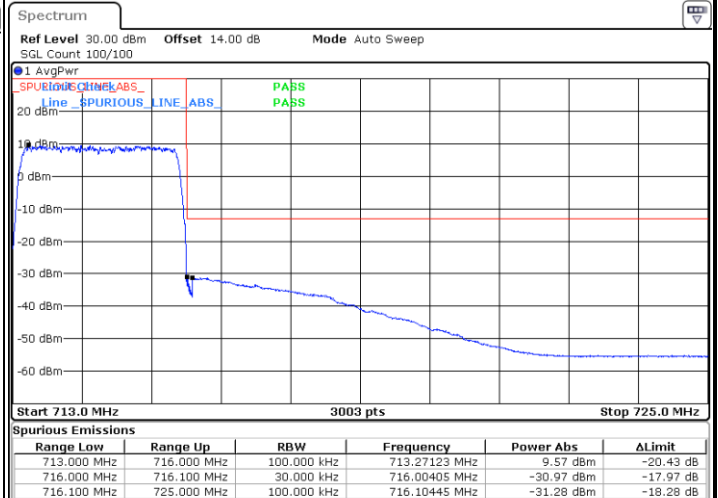
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



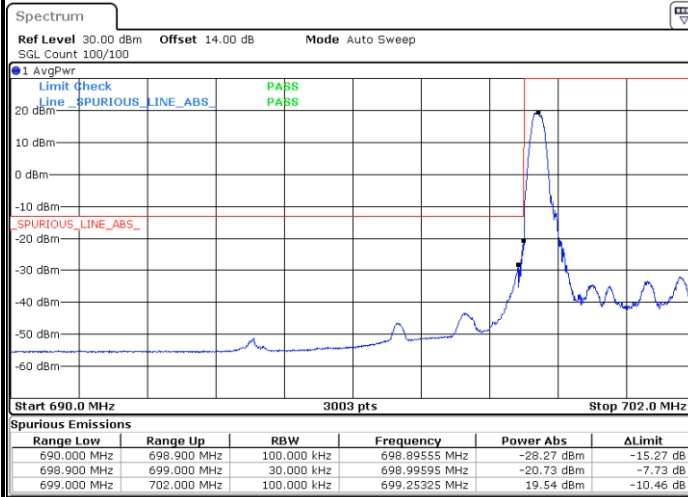
Highest Band Edge / Full RB



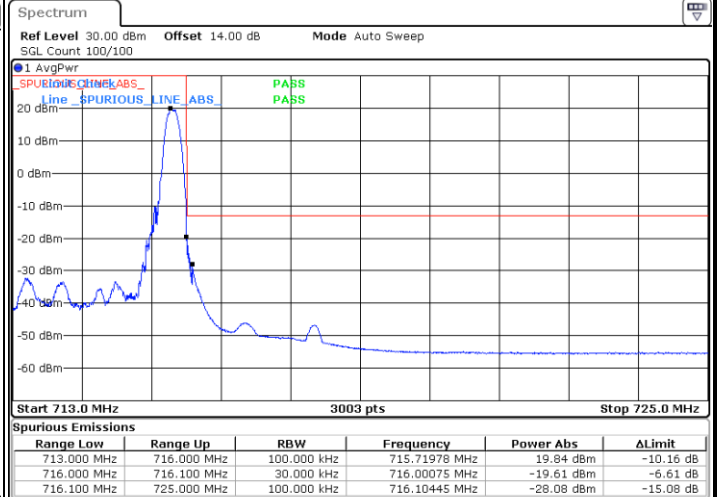


LTE Band 12 / 3MHz / 64QAM

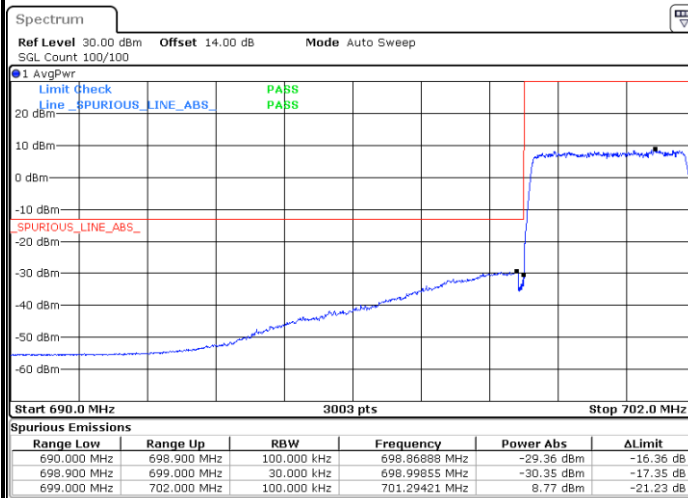
Lowest Band Edge / 1 RB



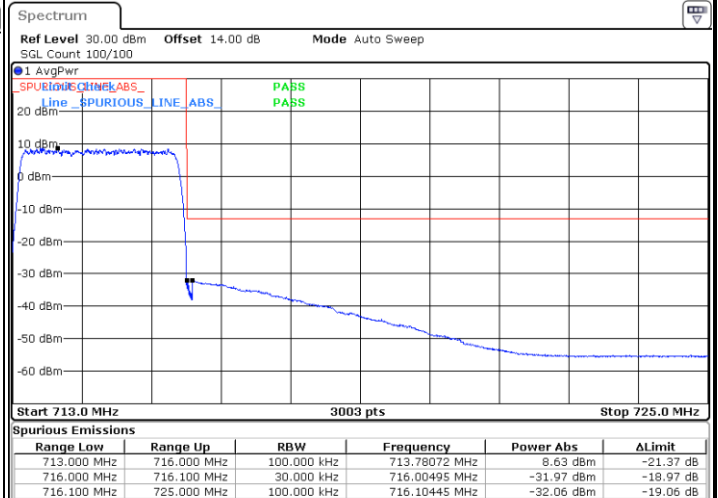
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



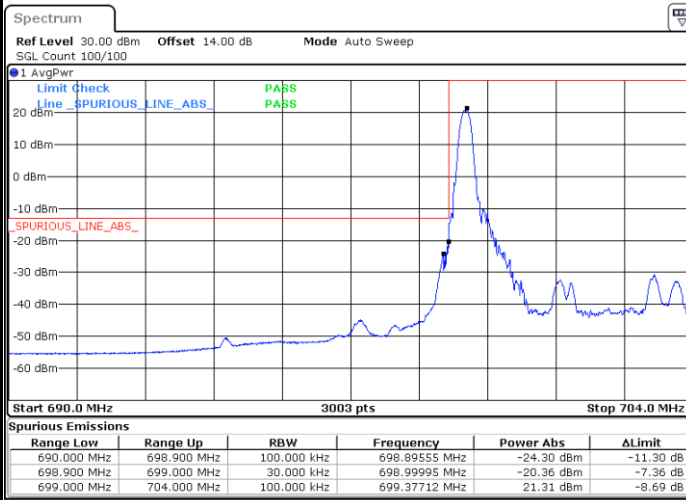
Highest Band Edge / Full RB





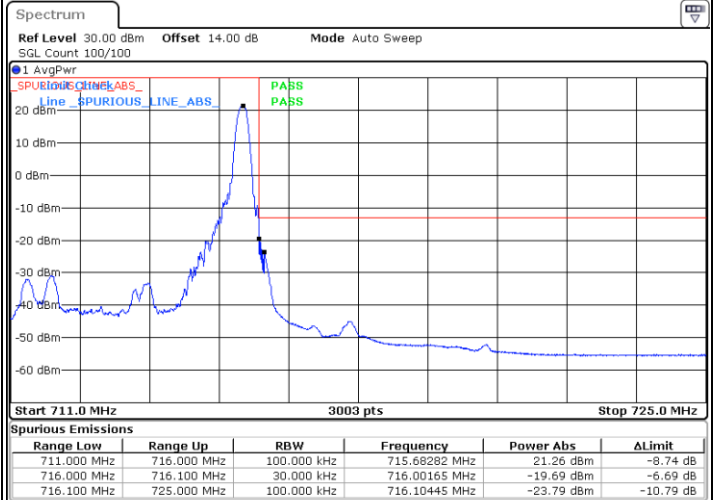
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1RB



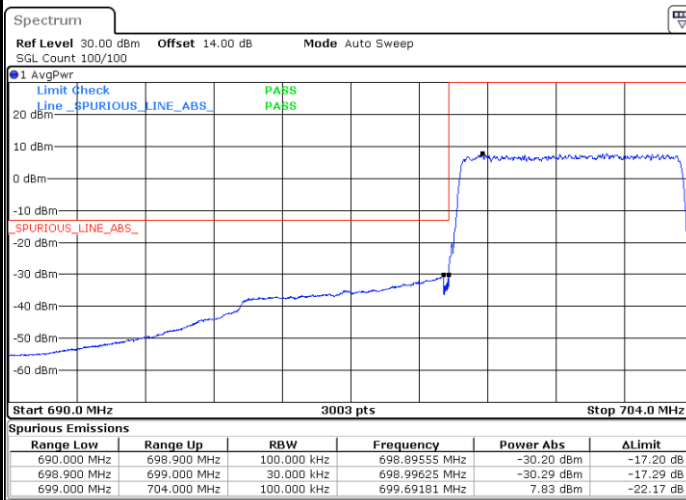
Date: 24 SEP 2024 04:40:48

Highest Band Edge / 1RB



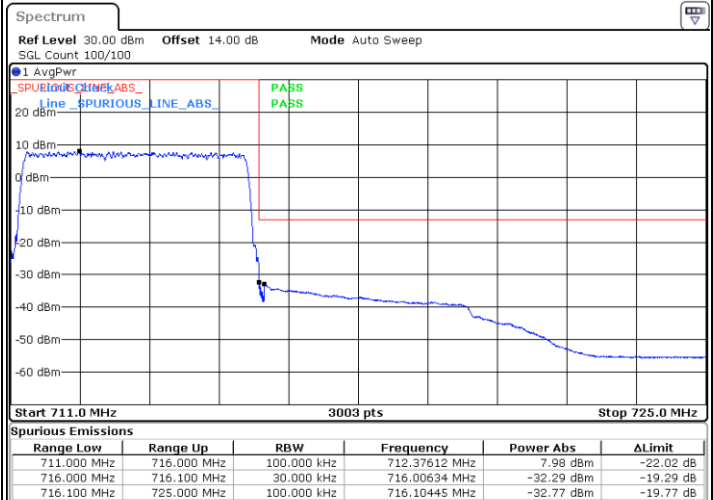
Date: 24 SEP 2024 04:51:15

Lowest Band Edge / Full RB



Date: 24 SEP 2024 04:44:06

Highest Band Edge / Full RB

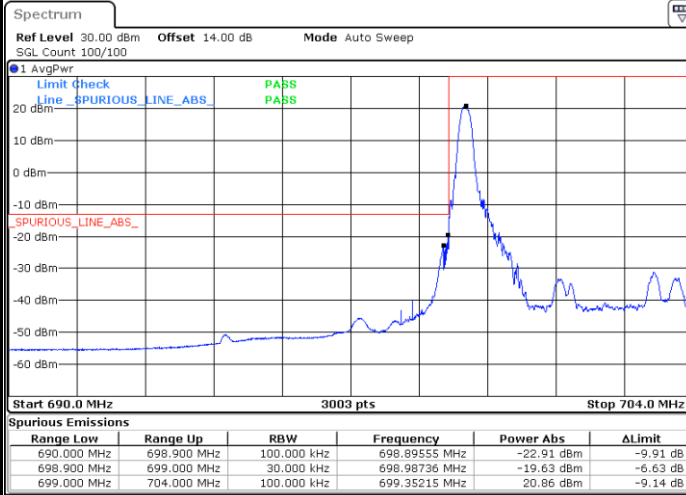


Date: 24 SEP 2024 04:54:34



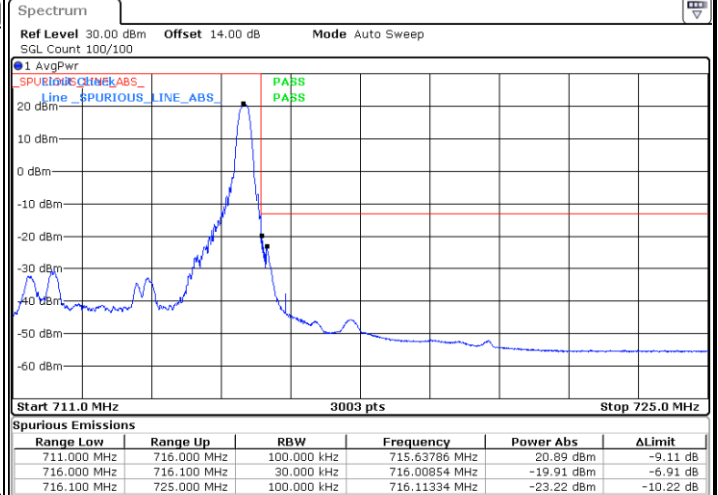
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



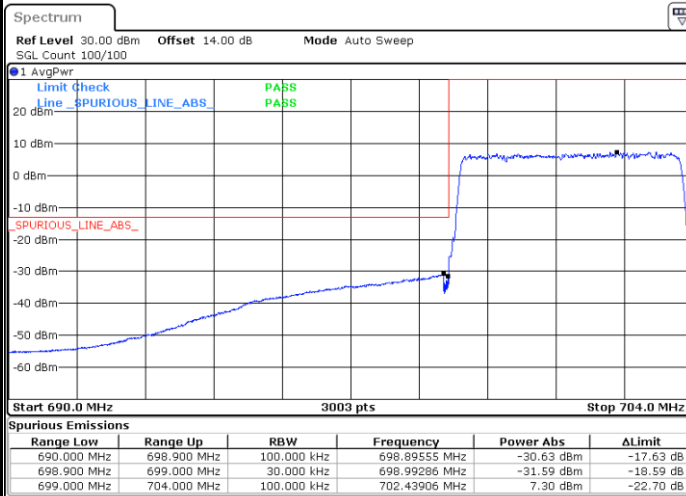
Date: 24 SEP 2024 04:41:54

Highest Band Edge / 1 RB



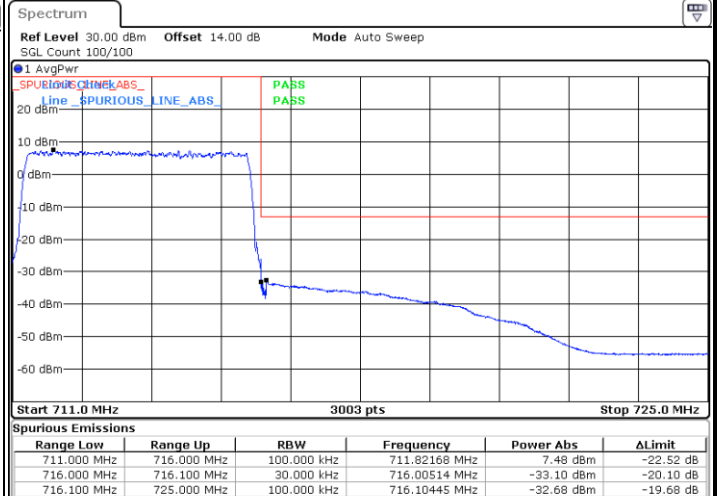
Date: 24 SEP 2024 04:52:21

Lowest Band Edge / Full RB



Date: 24 SEP 2024 04:45:13

Highest Band Edge / Full RB

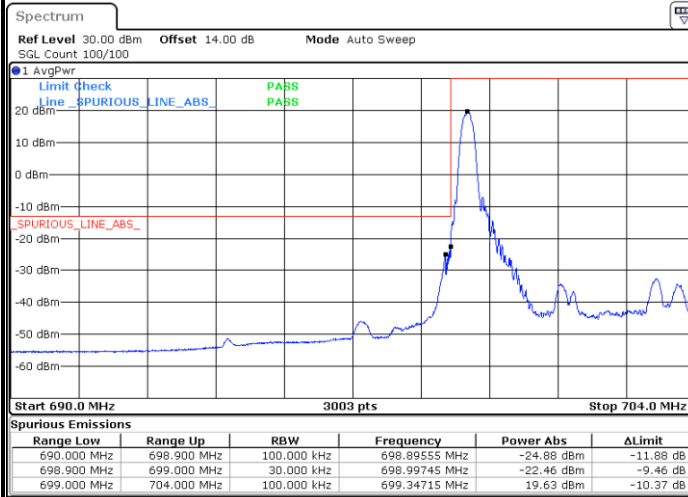


Date: 24 SEP 2024 04:55:40

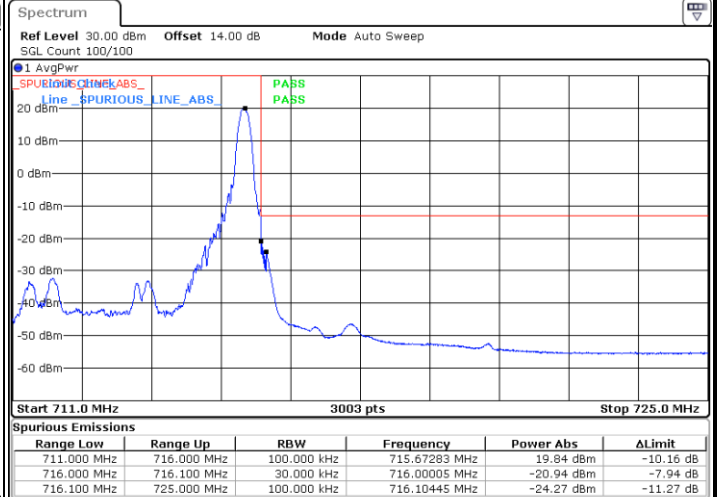


LTE Band 12 / 5MHz / 64QAM

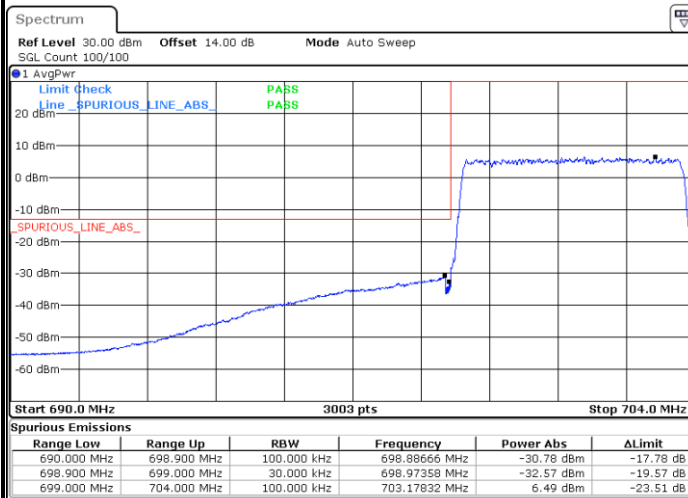
Lowest Band Edge / 1 RB



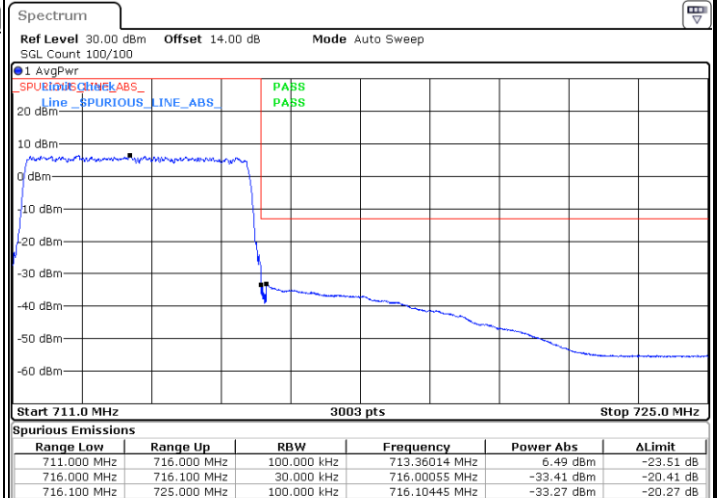
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



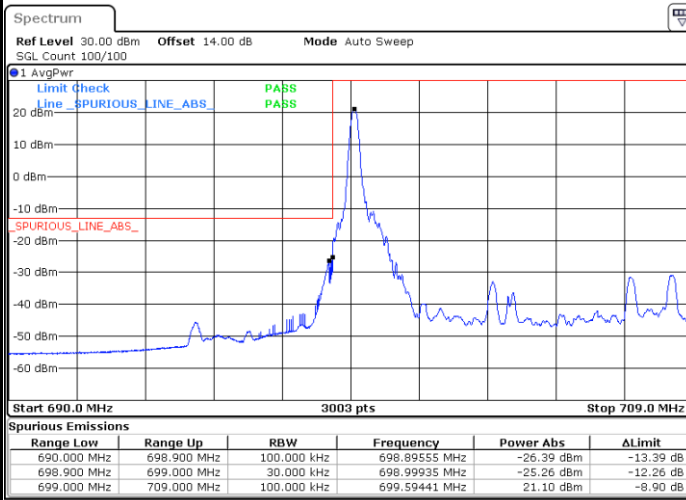
Highest Band Edge / Full RB





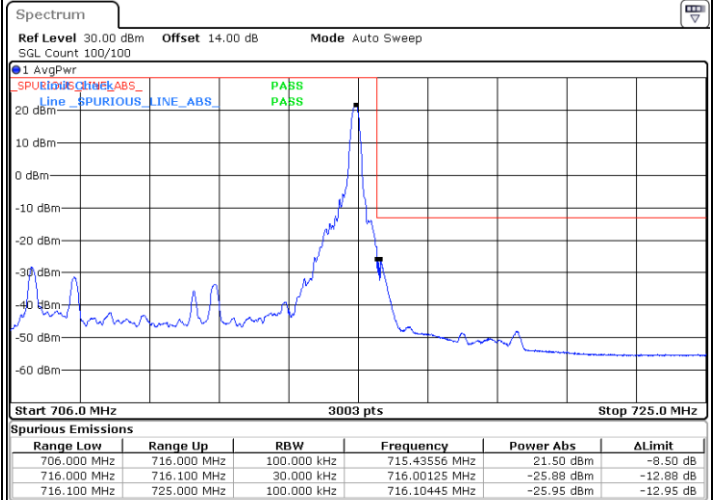
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1RB



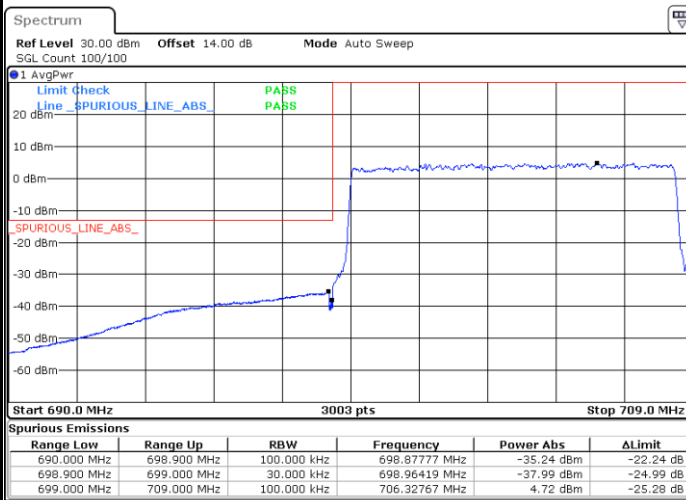
Date: 24 SEP 2024 04:59:54

Highest Band Edge / 1RB



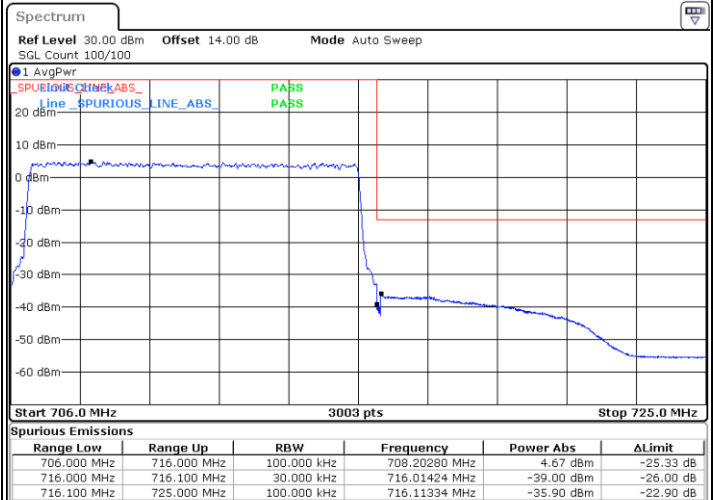
Date: 24 SEP 2024 05:10:21

Lowest Band Edge / Full RB



Date: 24 SEP 2024 05:03:12

Highest Band Edge / Full RB

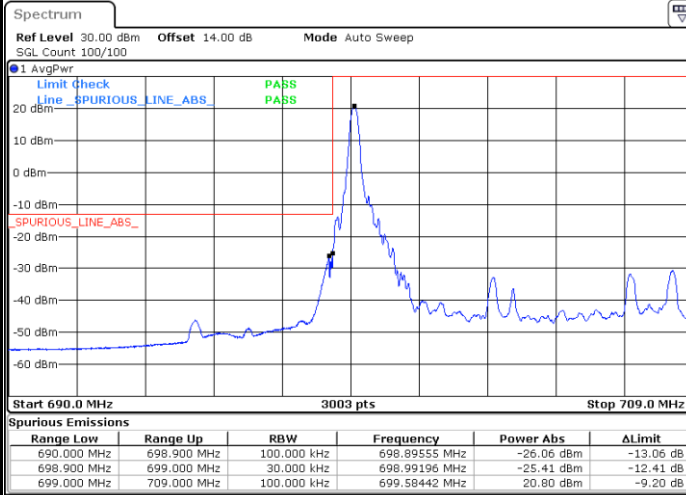


Date: 24 SEP 2024 05:13:39

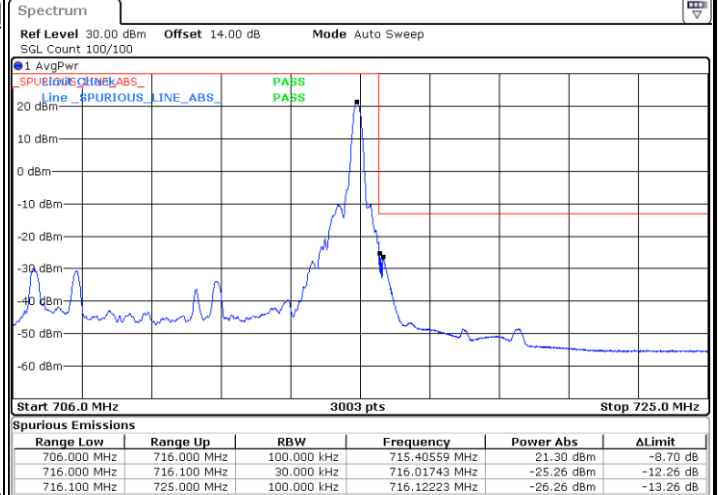


LTE Band 12 / 10MHz / 16QAM

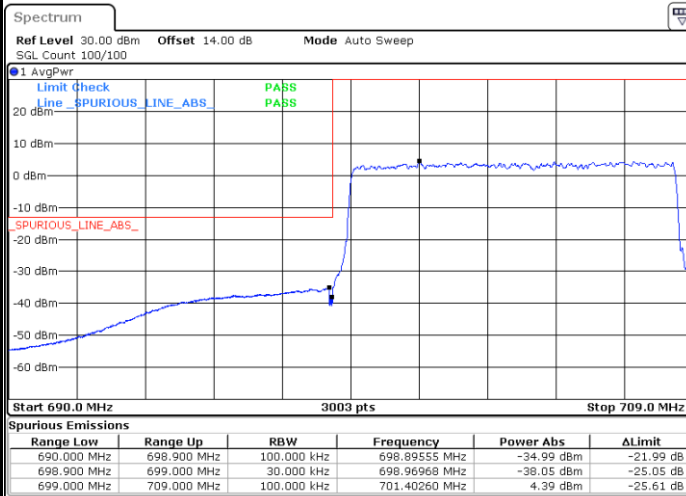
Lowest Band Edge / 1 RB



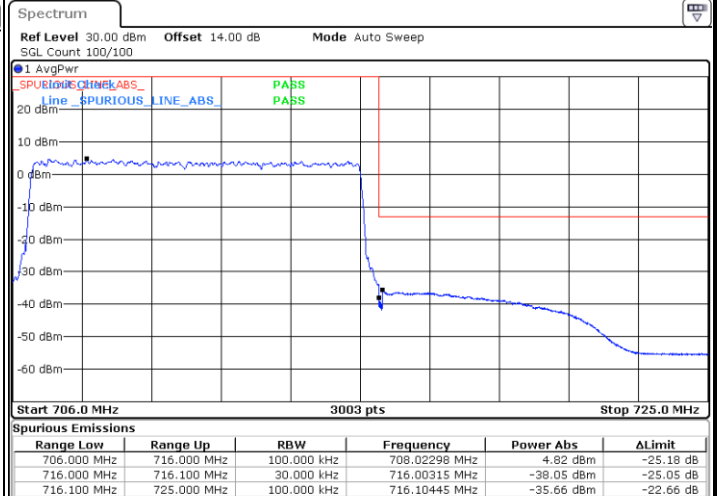
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



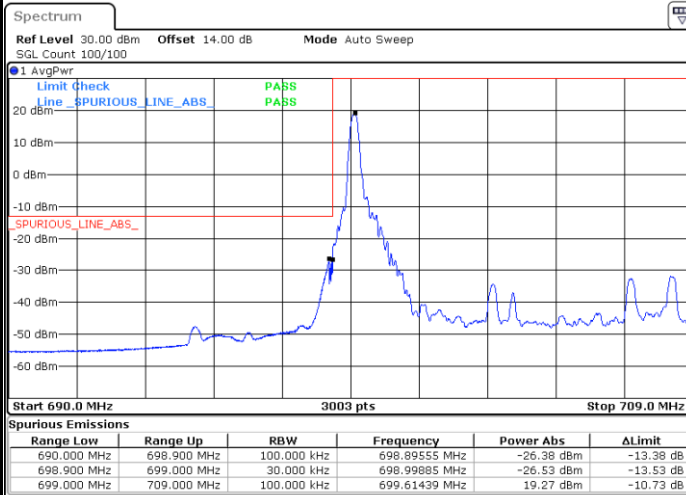
Highest Band Edge / Full RB



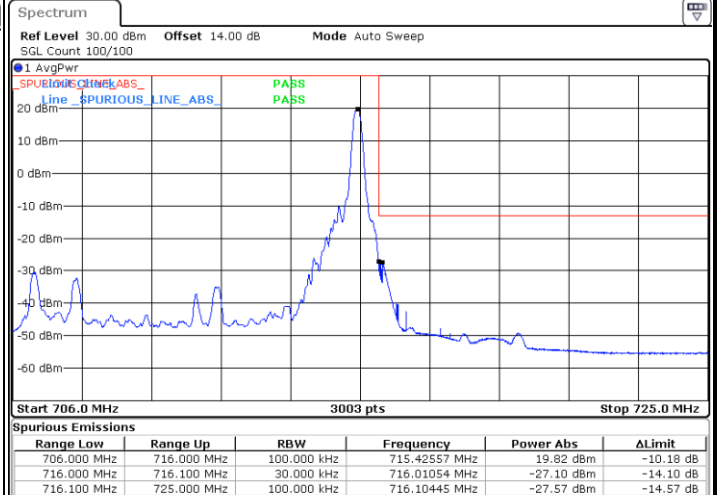


LTE Band 12 / 10MHz / 64QAM

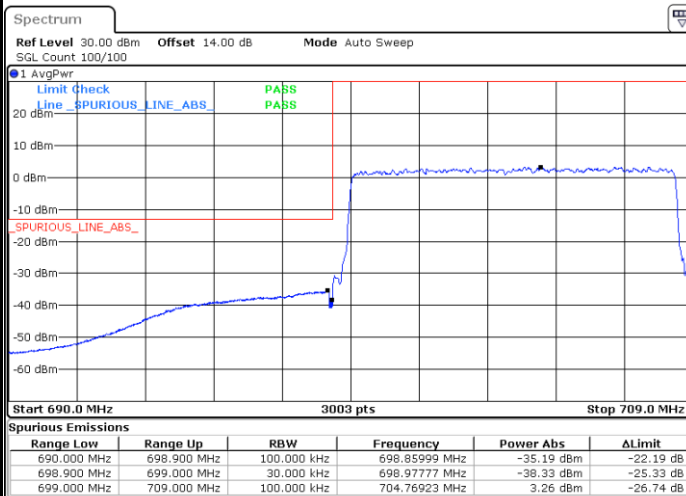
Lowest Band Edge / 1 RB



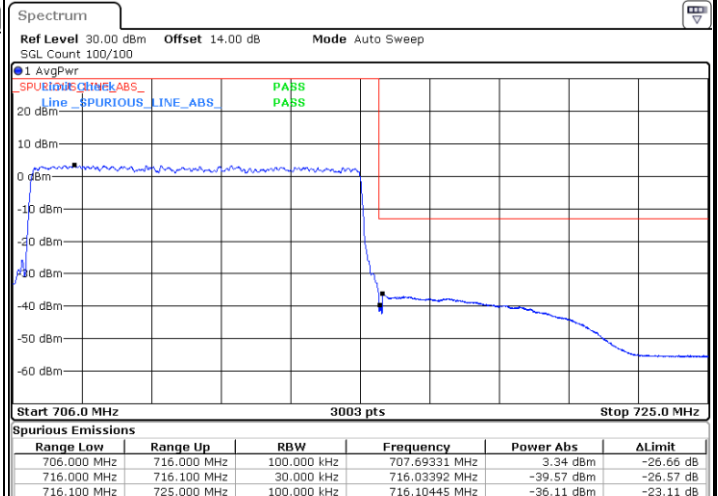
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

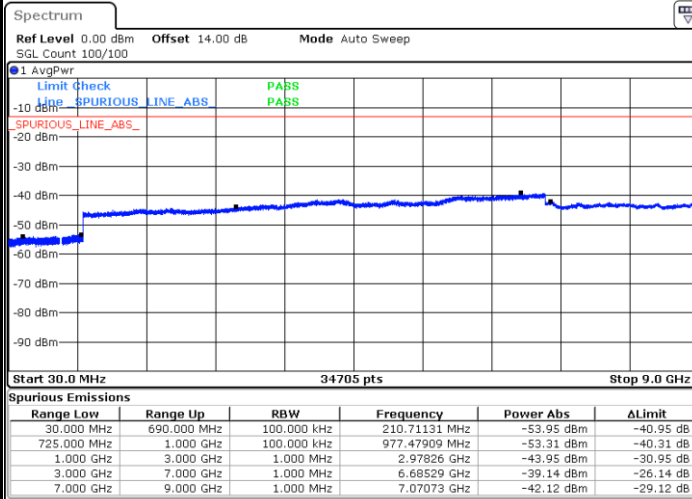




Conducted Spurious Emission

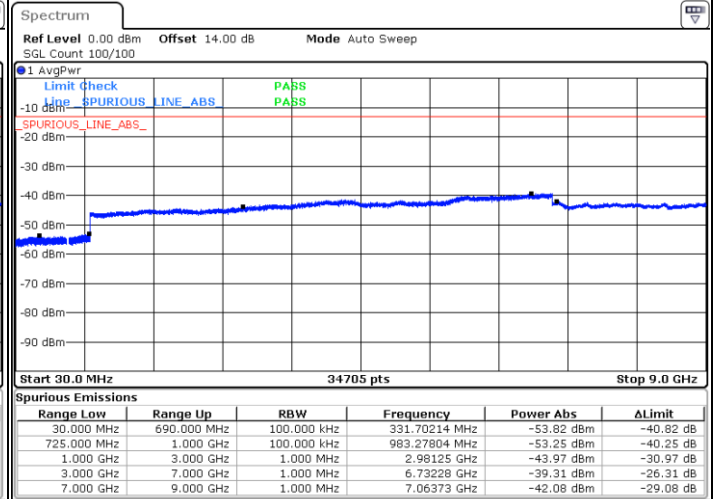
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



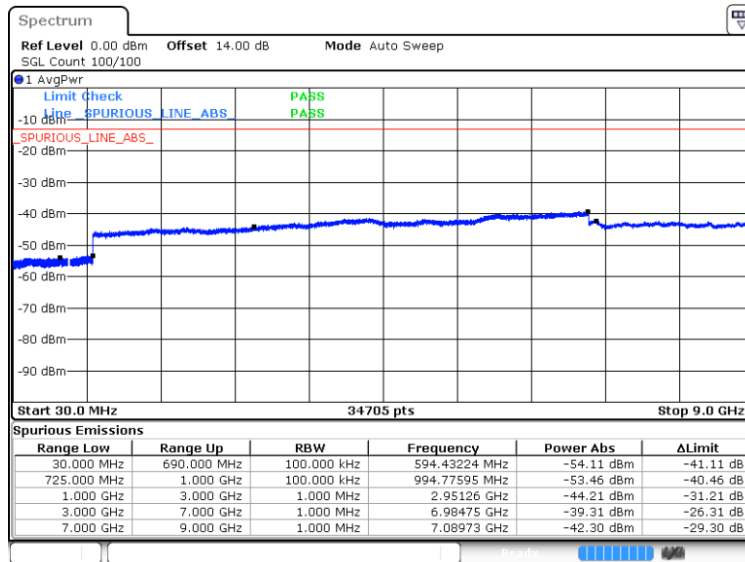
Date: 24 SEP 2024 04:02:02

Middle Channel / QPSK



Date: 24 SEP 2024 04:03:17

Highest Channel / QPSK

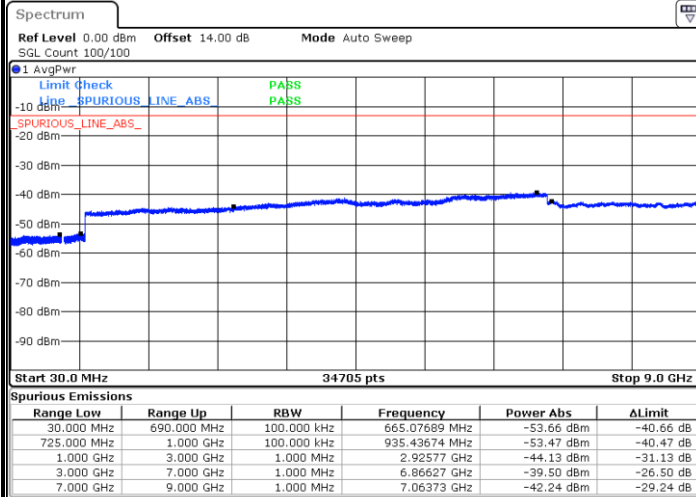


Date: 24 SEP 2024 04:12:29



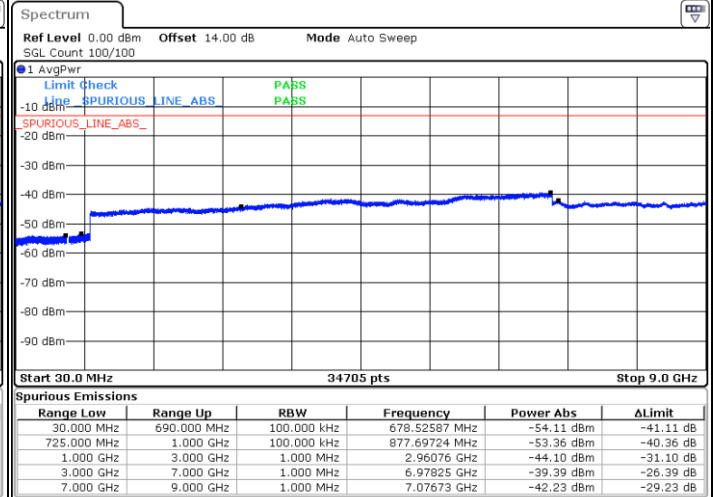
LTE Band 12 / 3MHz

Lowest Channel / QPSK



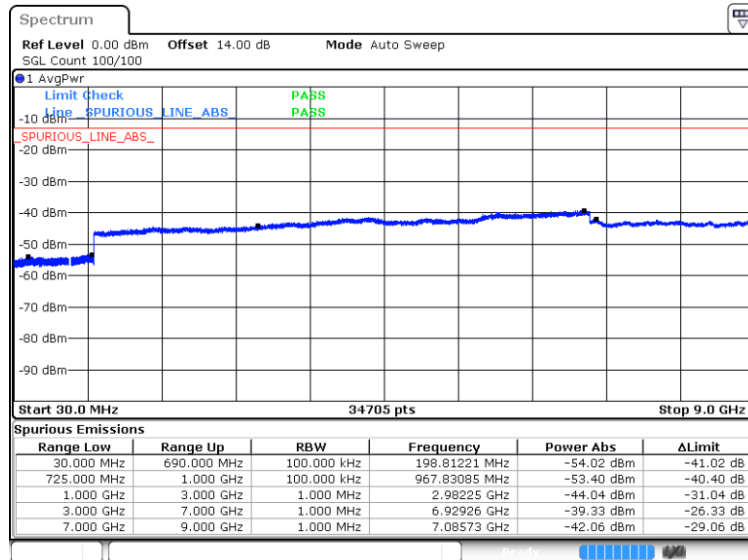
Date: 24 SEP 2024 04:21:08

Middle Channel / QPSK



Date: 24 SEP 2024 04:22:23

Highest Channel / QPSK

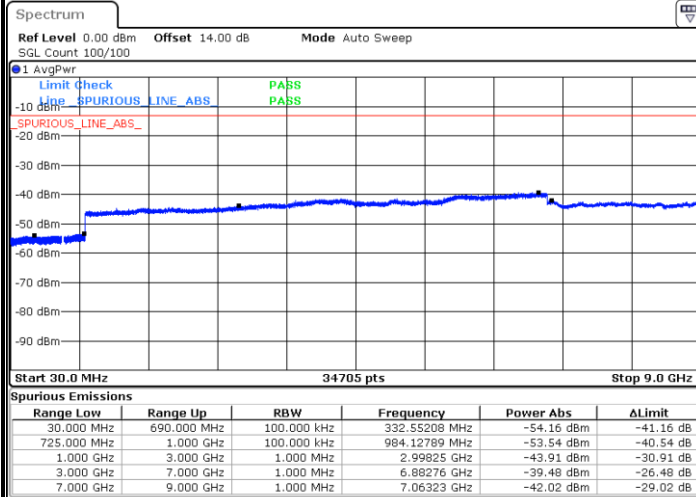


Date: 24 SEP 2024 04:31:35



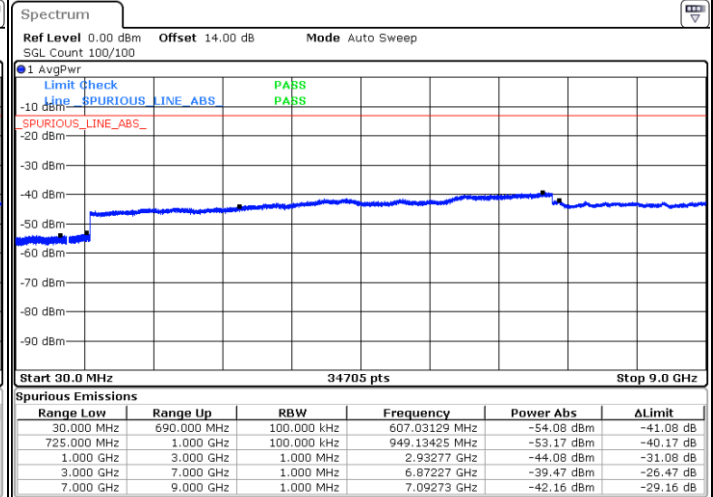
LTE Band 12 / 5MHz

Lowest Channel / QPSK



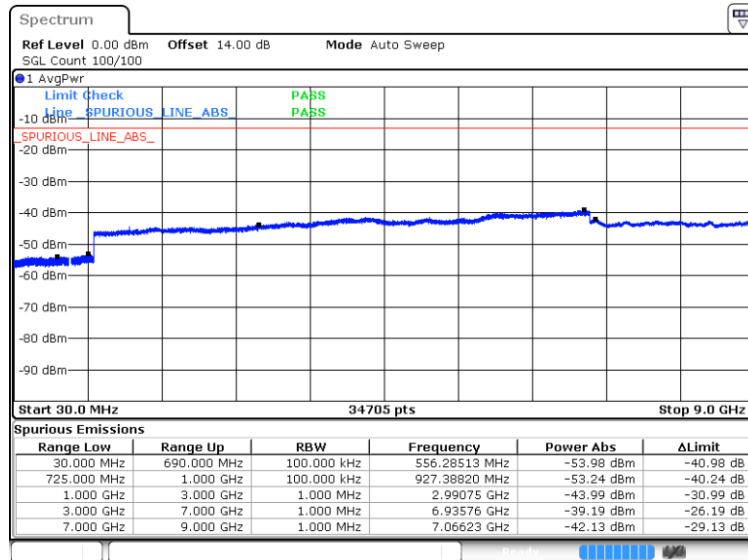
Date: 24 SEP 2024 04:47:35

Middle Channel / QPSK



Date: 24 SEP 2024 04:48:49

Highest Channel / QPSK

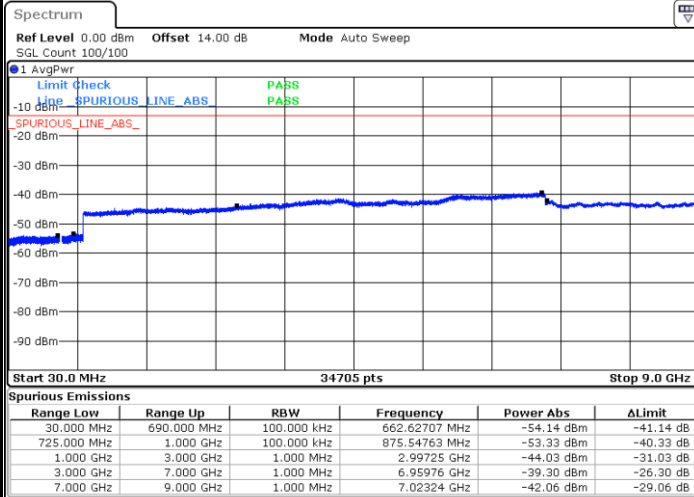


Date: 24 SEP 2024 04:58:02



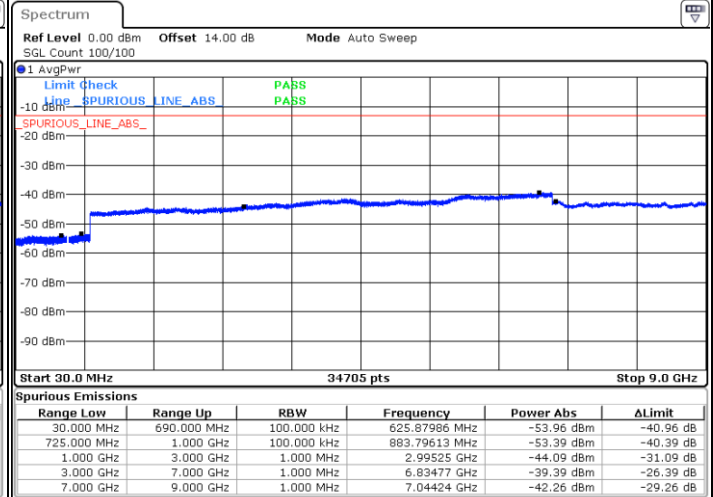
LTE Band 12 / 10MHz

Lowest Channel / QPSK



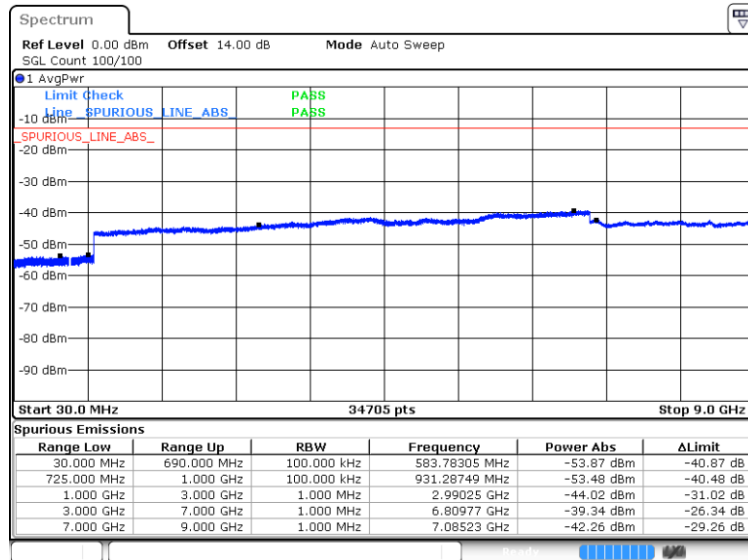
Date: 24 SEP 2024 05:06:40

Middle Channel / QPSK



Date: 24 SEP 2024 05:07:55

Highest Channel / QPSK



Date: 24 SEP 2024 05:17:07

**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	0.0046	PASS
40	Normal Voltage	0.0035	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0002	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0011	
20	Battery End Point	0.0009	

Note:

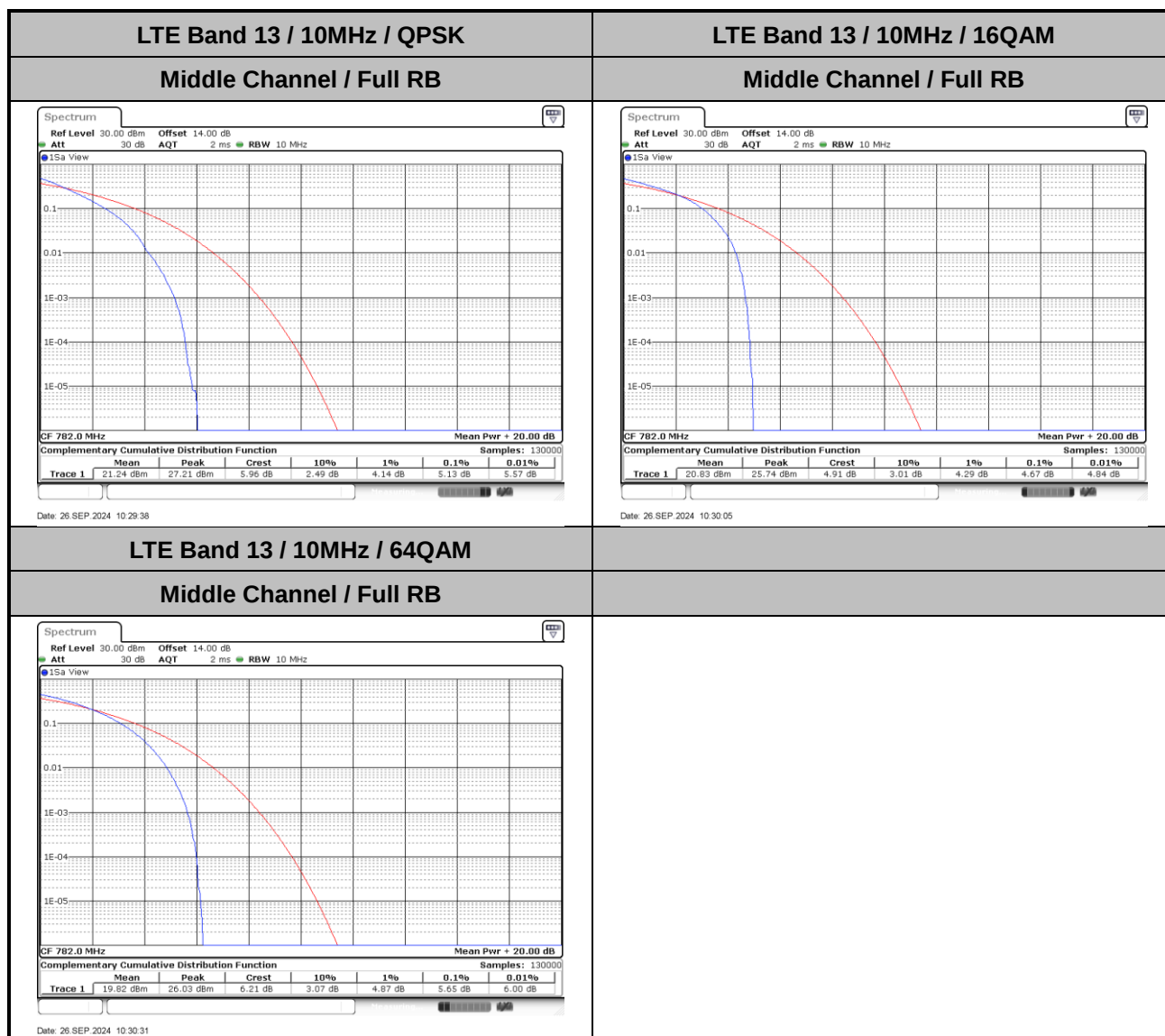
1. Normal Voltage = 4V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage = 4.53V.
2. The frequency fundamental emissions stay within the authorized frequency block



LTE Band 13

Peak-to-Average Ratio

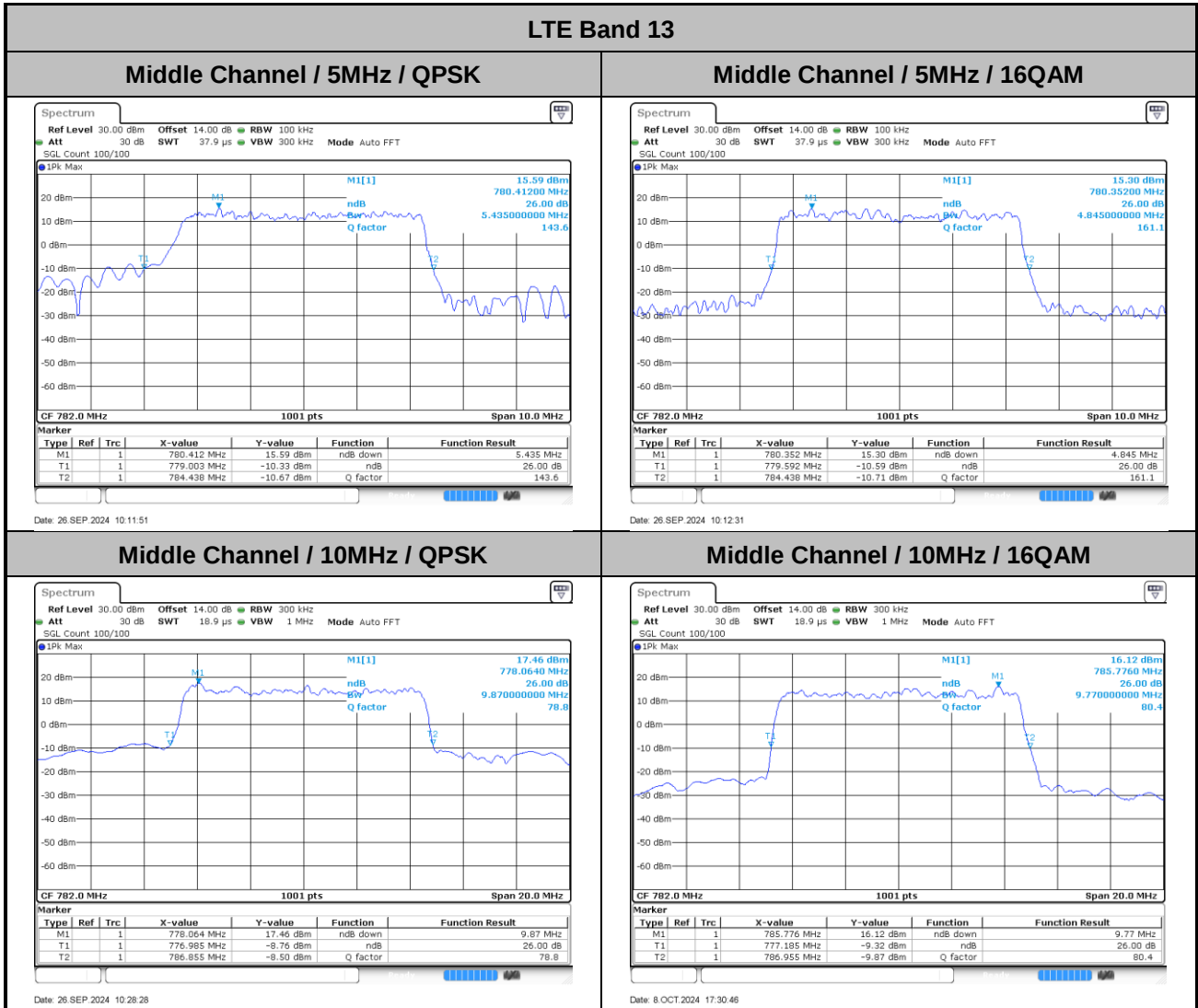
Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.13	4.67	5.65	PASS





26dB Bandwidth

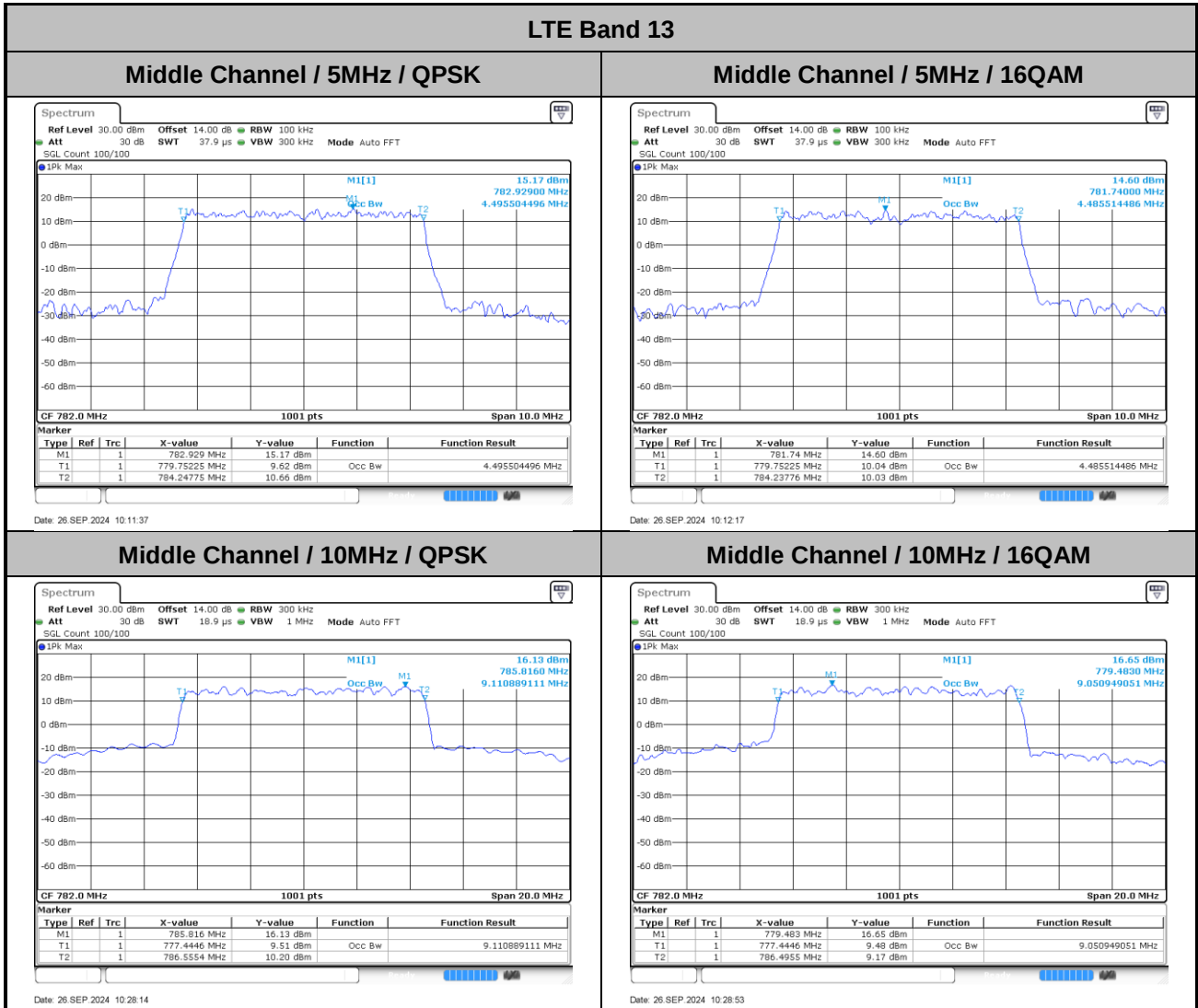
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	5.44	4.85	9.87	9.77	-	-	-	-





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.49	9.11	9.05	-	-	-	-

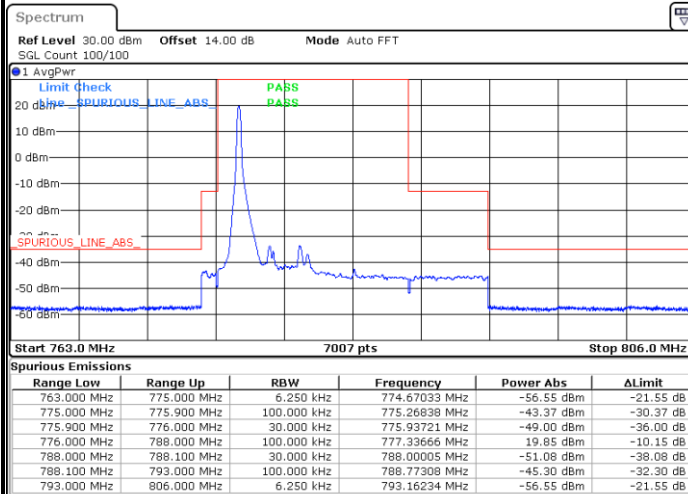




Conducted Band Edge

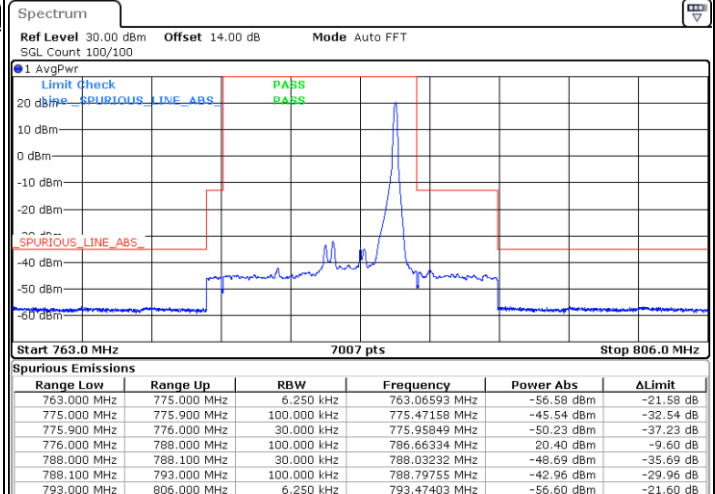
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



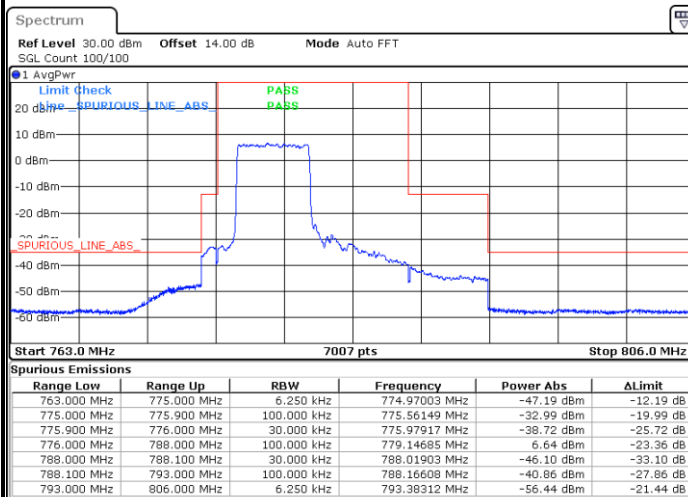
Date: 26 SEP 2024 10:05:24

Highest Band Edge / 1 RB



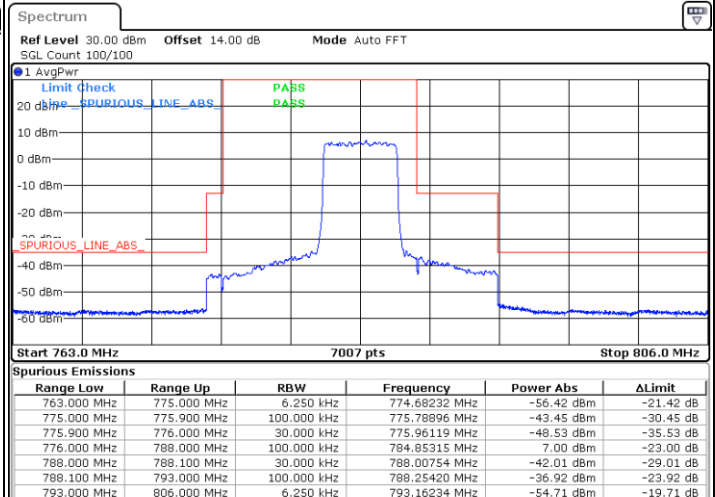
Date: 26 SEP 2024 10:13:15

Lowest Band Edge / Full RB



Date: 26 SEP 2024 10:07:41

Highest Band Edge / Full RB

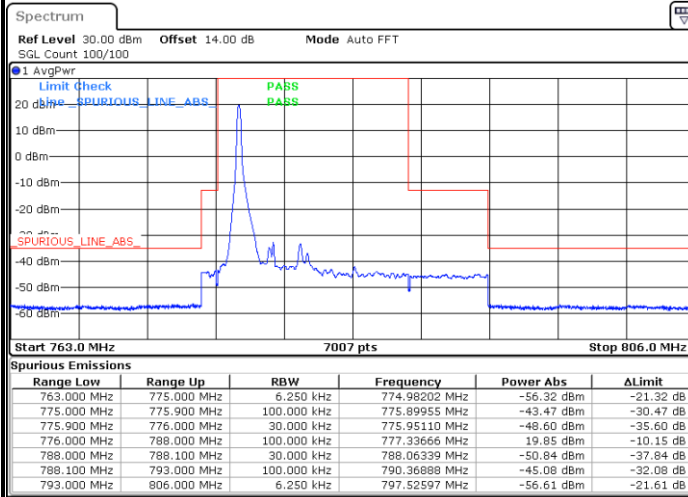


Date: 26 SEP 2024 10:15:33



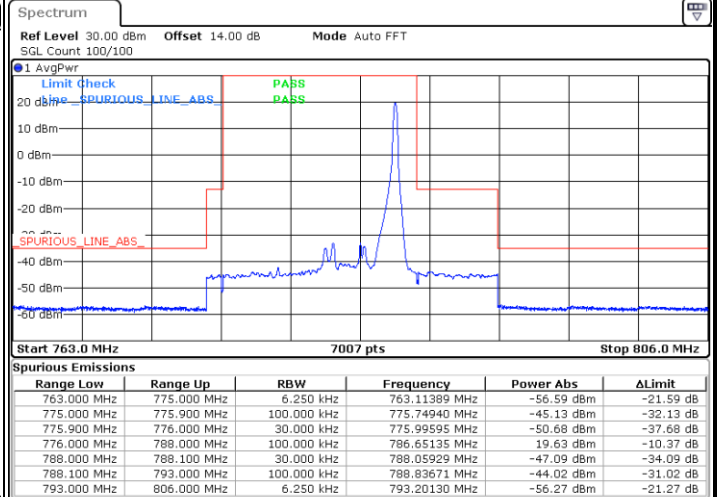
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



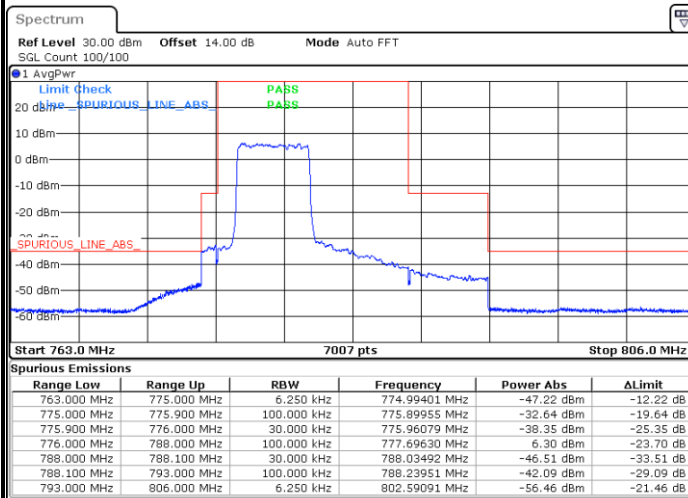
Date: 26 SEP 2024 10:06:10

Highest Band Edge / 1 RB



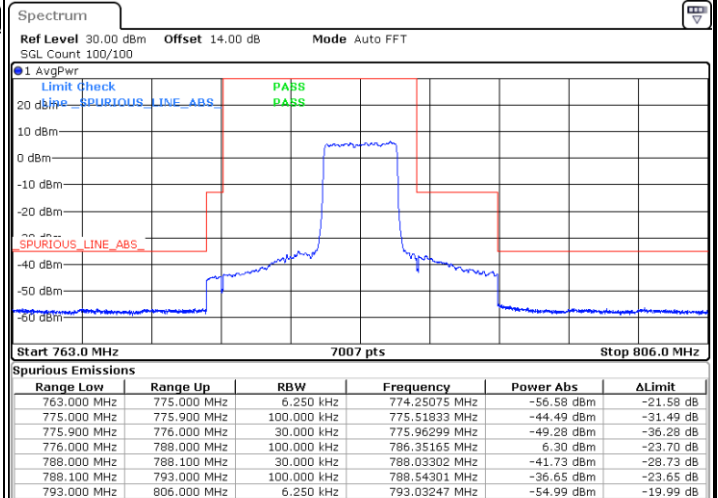
Date: 26 SEP 2024 10:14:01

Lowest Band Edge / Full RB



Date: 26 SEP 2024 10:08:27

Highest Band Edge / Full RB

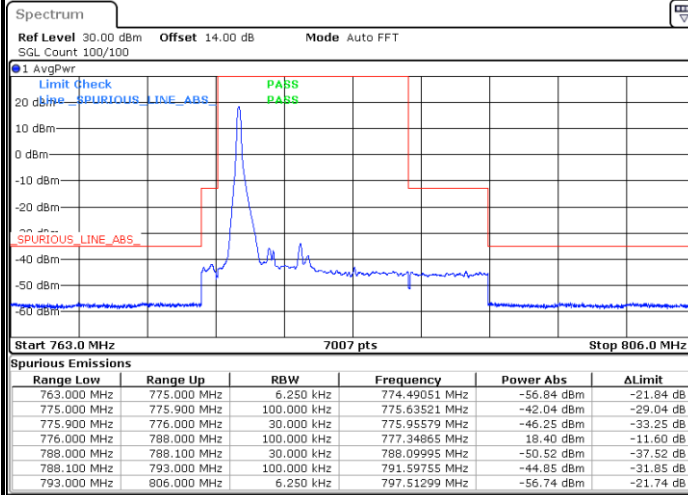


Date: 26 SEP 2024 10:16:18



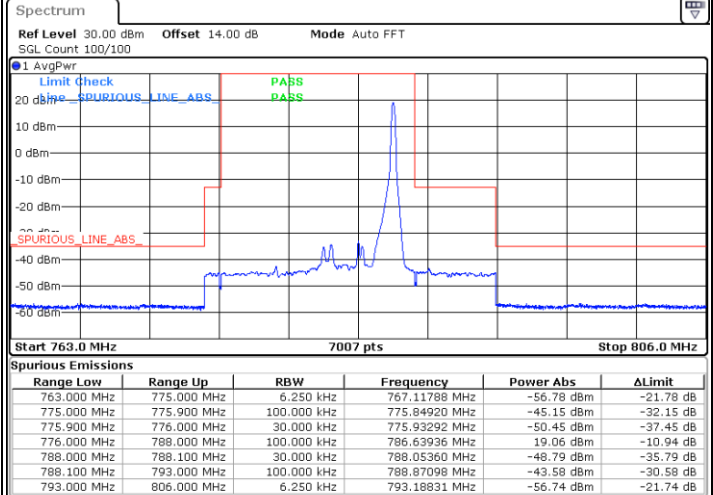
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



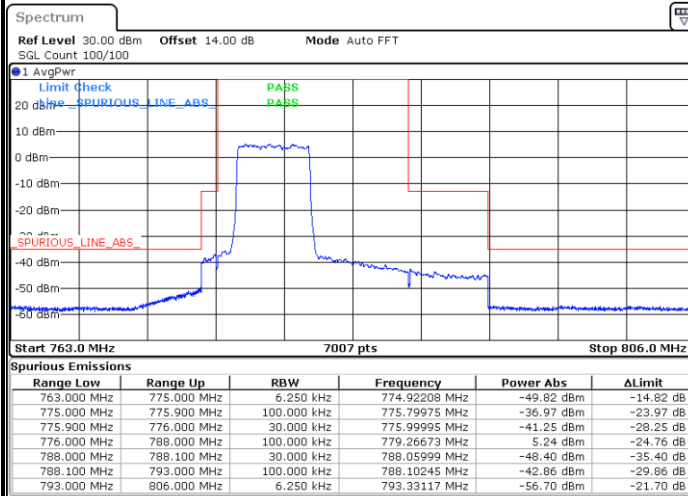
Date: 26 SEP 2024 10:06:55

Highest Band Edge / 1 RB



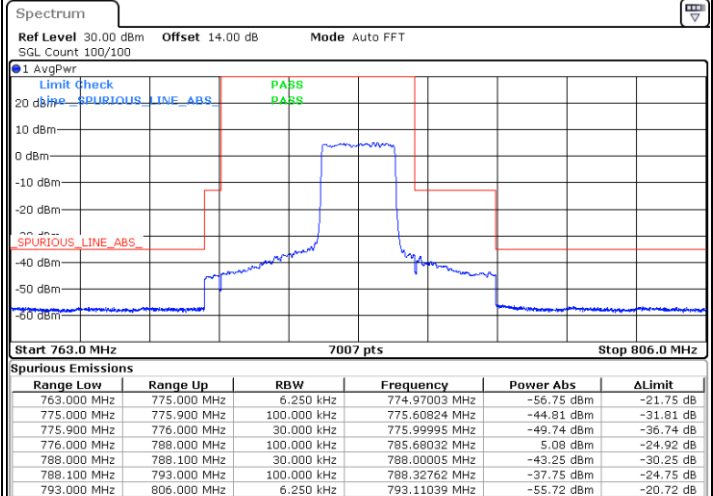
Date: 26 SEP 2024 10:14:47

Lowest Band Edge / Full RB



Date: 26 SEP 2024 10:09:12

Highest Band Edge / Full RB

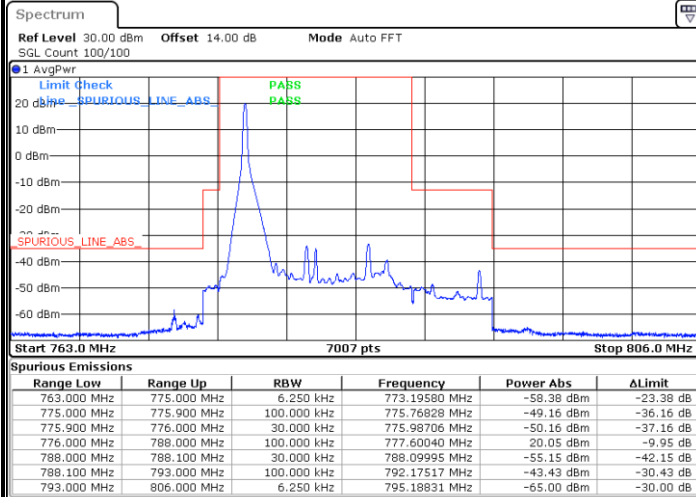


Date: 26 SEP 2024 10:17:04



LTE Band 13 / 10MHz / QPSK

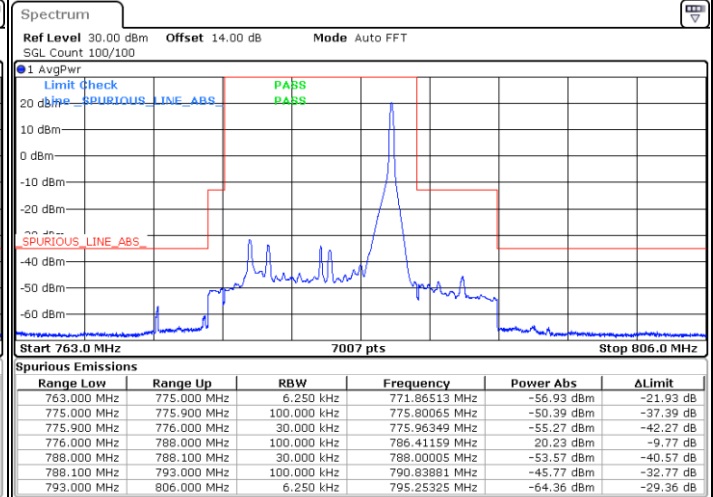
Band Edge / 1 RB



Date: 26 SEP 2024 10:20:47

LTE Band 13 / 10MHz / QPSK

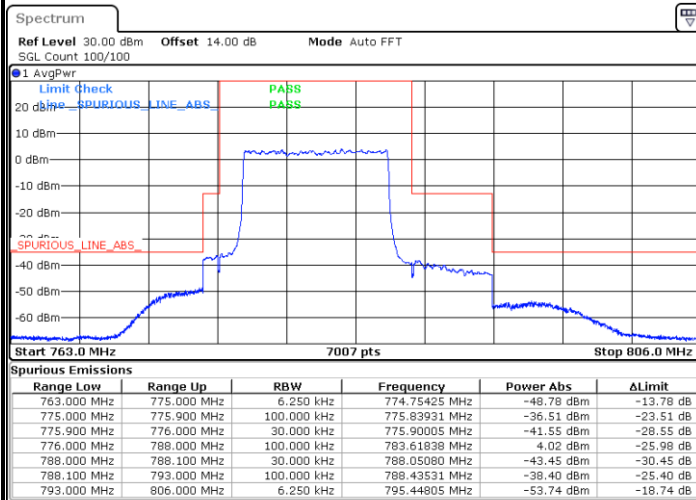
Band Edge / 1 RB



Date: 26 SEP 2024 10:23:03

LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB



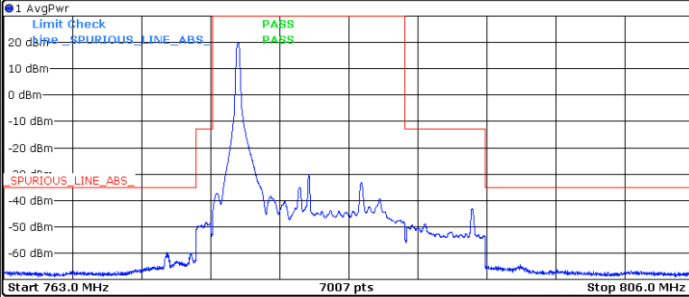
Date: 26 SEP 2024 10:25:18



LTE Band 13 / 10MHz / 16QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

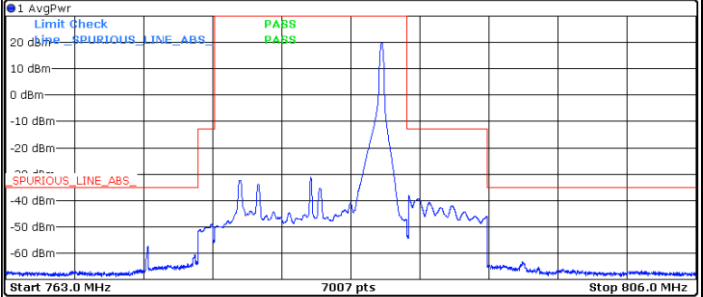
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.19580 MHz	-59.70 dBm	-24.70 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-48.48 dBm	-35.48 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.90984 MHz	-52.24 dBm	-39.24 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.60040 MHz	19.84 dBm	-10.16 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09995 MHz	-55.12 dBm	-42.12 dB
788.100 MHz	793.000 MHz	100.000 kHz	792.17517 MHz	-43.02 dBm	-30.02 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.18831 MHz	-64.45 dBm	-29.45 dB

Date: 26 SEP 2024 10:21:33

LTE Band 13 / 10MHz / 16QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

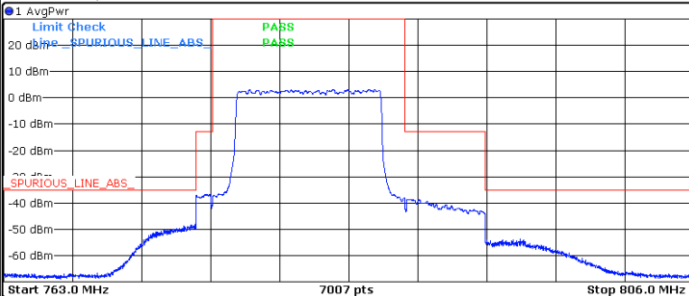
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	771.86513 MHz	-57.40 dBm	-22.40 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.81863 MHz	-49.06 dBm	-36.06 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.91484 MHz	-54.91 dBm	-41.91 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.41159 MHz	19.73 dBm	-10.27 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09016 MHz	-53.27 dBm	-40.27 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-38.12 dBm	-25.12 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.22727 MHz	-63.25 dBm	-28.25 dB

Date: 26 SEP 2024 10:23:48

LTE Band 13 / 10MHz / 16QAM

Band Edge / Full RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.92208 MHz	-48.08 dBm	-13.08 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.82403 MHz	-36.71 dBm	-23.71 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97338 MHz	-40.77 dBm	-27.77 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.12388 MHz	3.19 dBm	-26.81 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.07527 MHz	-41.79 dBm	-28.79 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.87587 MHz	-38.61 dBm	-25.61 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.16234 MHz	-53.87 dBm	-18.87 dB

Date: 26 SEP 2024 10:26:04