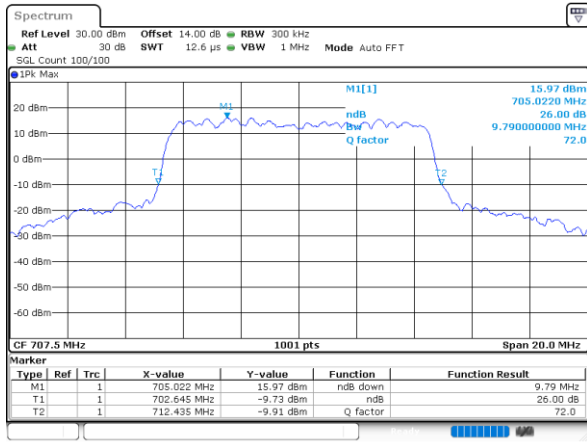




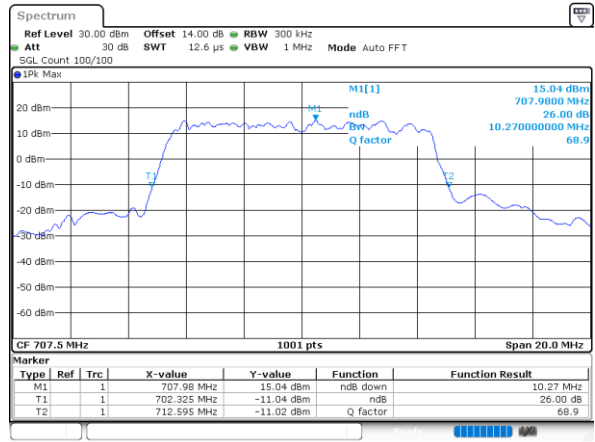
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 19, FEB, 2024 15:47:26

Middle Channel / 10MHz / 16QAM



Date: 19, FEB, 2024 15:48:07



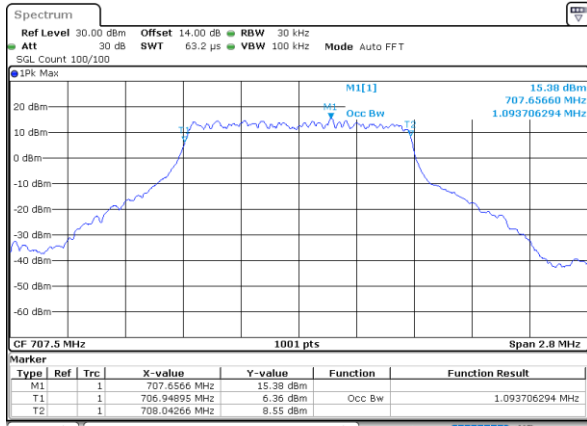
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Middle CH	1.09	1.10	2.73	2.72	4.50	4.49	9.07	9.11				



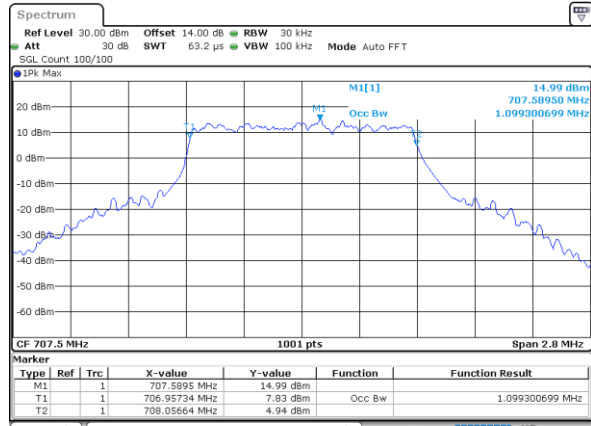
LTE Band 12

Middle Channel / 1.4MHz / QPSK



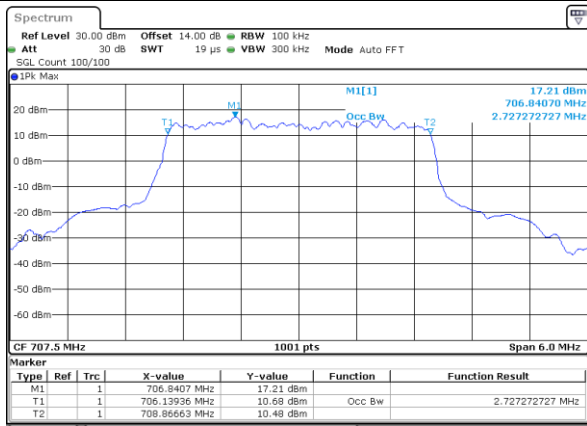
Date: 19.FEB.2024 14:56:35

Middle Channel / 1.4MHz / 16QAM



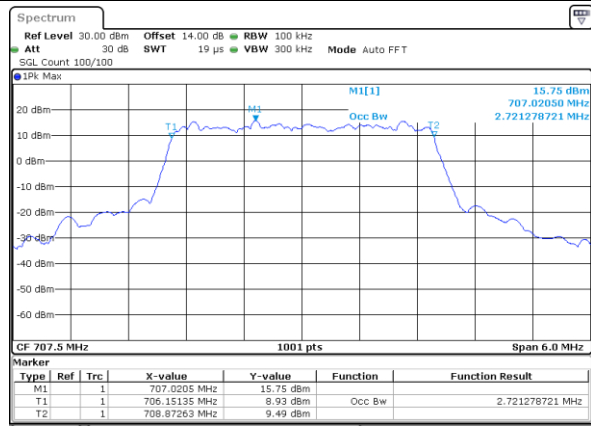
Date: 19.FEB.2024 14:57:15

Middle Channel / 3MHz / QPSK



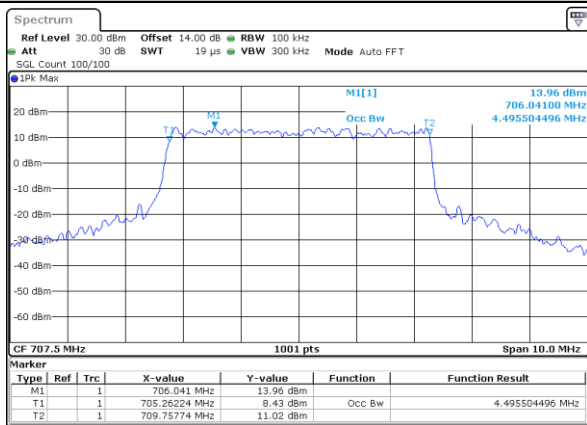
Date: 19.FEB.2024 15:13:41

Middle Channel / 3MHz / 16QAM



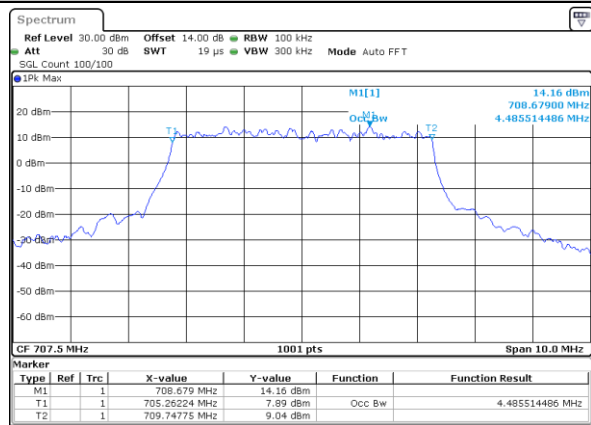
Date: 19.FEB.2024 15:14:21

Middle Channel / 5MHz / QPSK



Date: 19.FEB.2024 15:30:37

Middle Channel / 5MHz / 16QAM

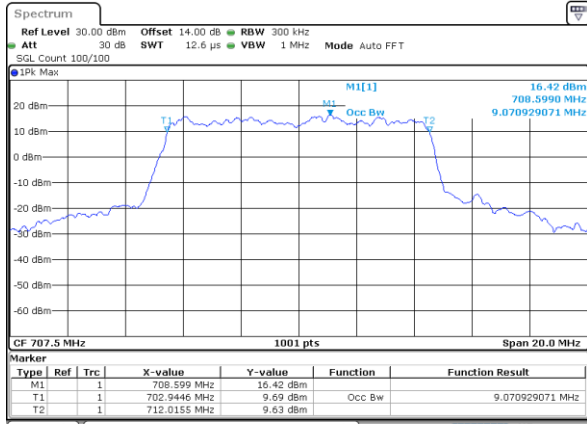


Date: 19.FEB.2024 15:31:18



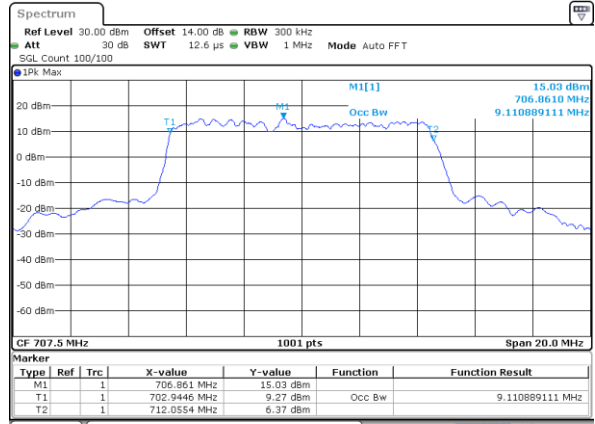
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 19.FEB.2024 15:47:12

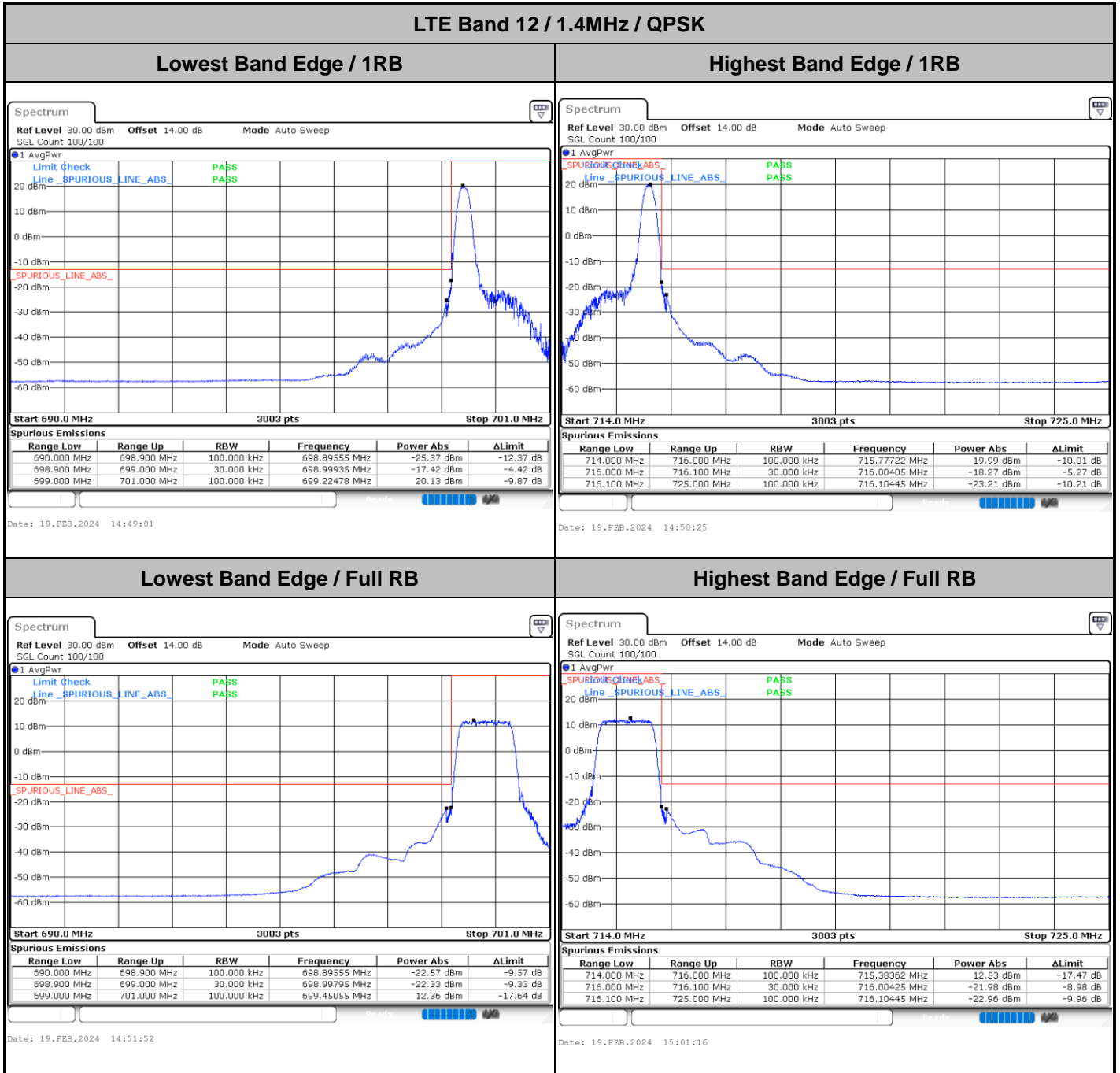
Middle Channel / 10MHz / 16QAM



Date: 19.FEB.2024 15:47:53



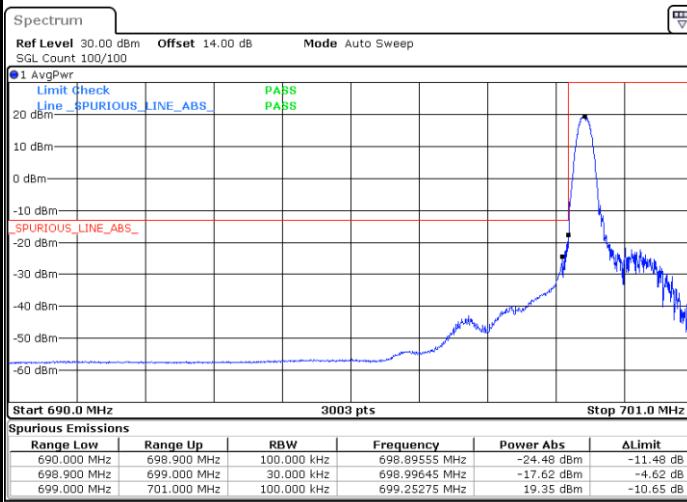
Conducted Band Edge





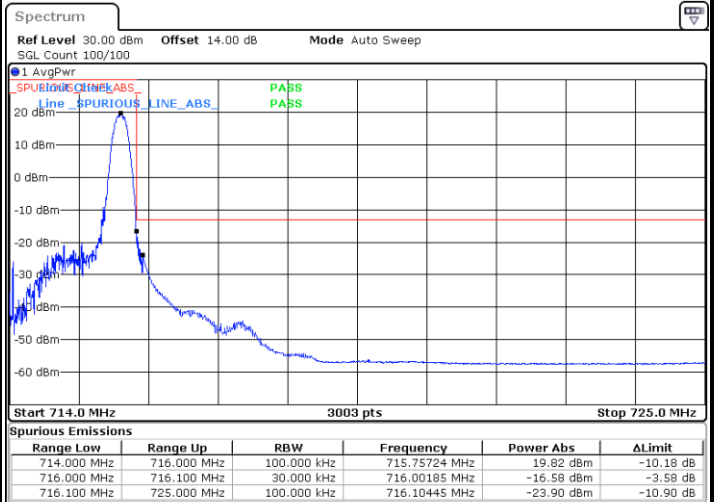
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



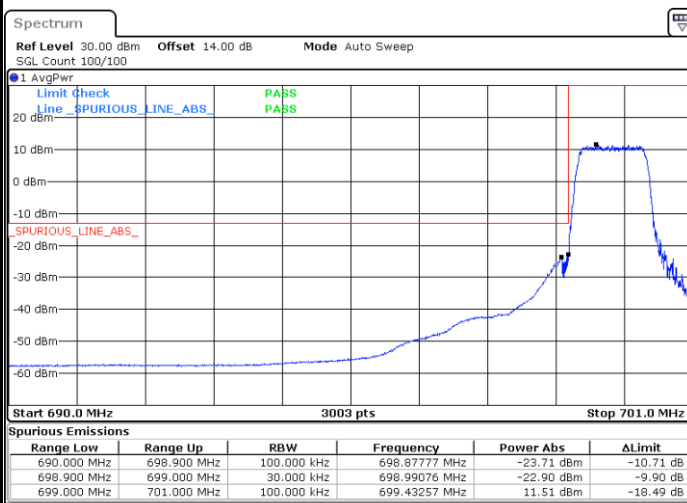
Date: 19.FEB.2024 14:49:57

Highest Band Edge / 1 RB



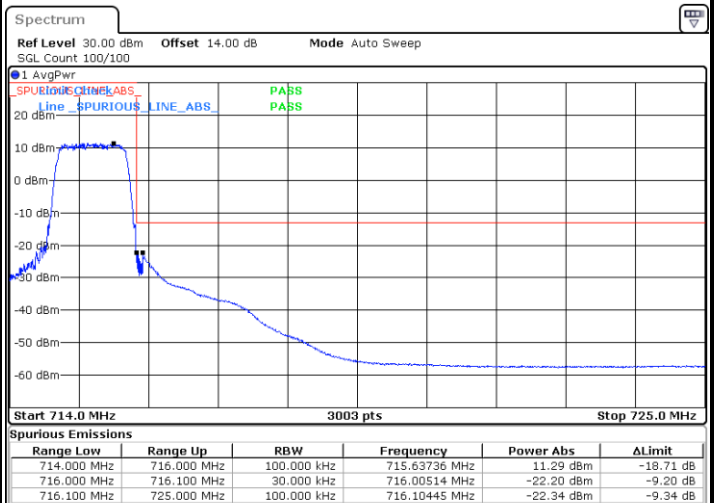
Date: 19.FEB.2024 14:59:22

Lowest Band Edge / Full RB



Date: 19.FEB.2024 14:52:48

Highest Band Edge / Full RB

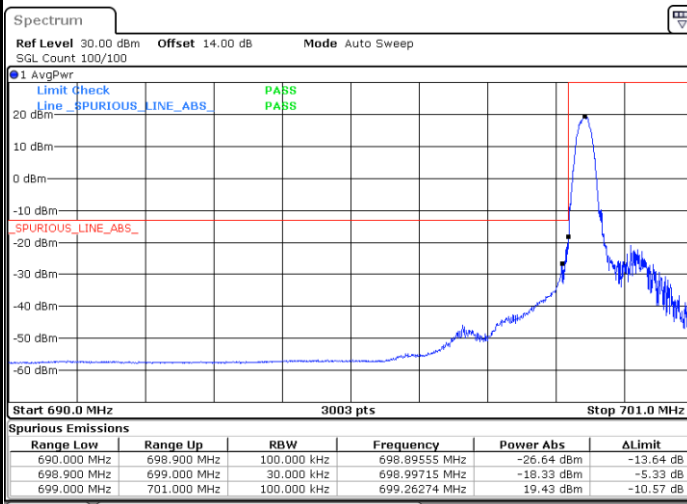


Date: 19.FEB.2024 15:02:13



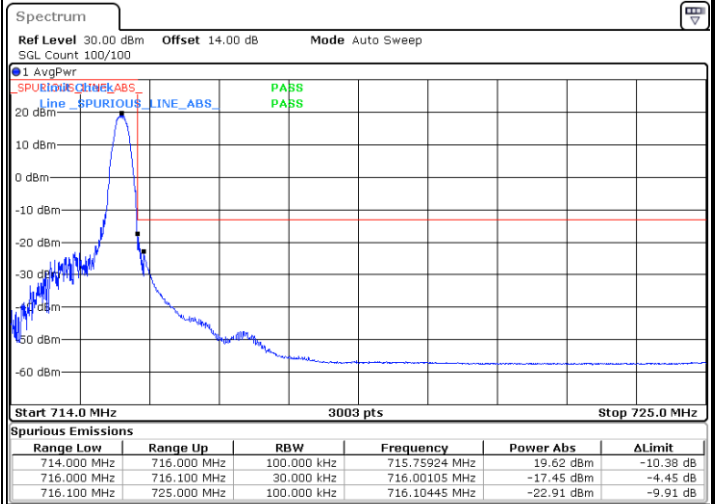
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



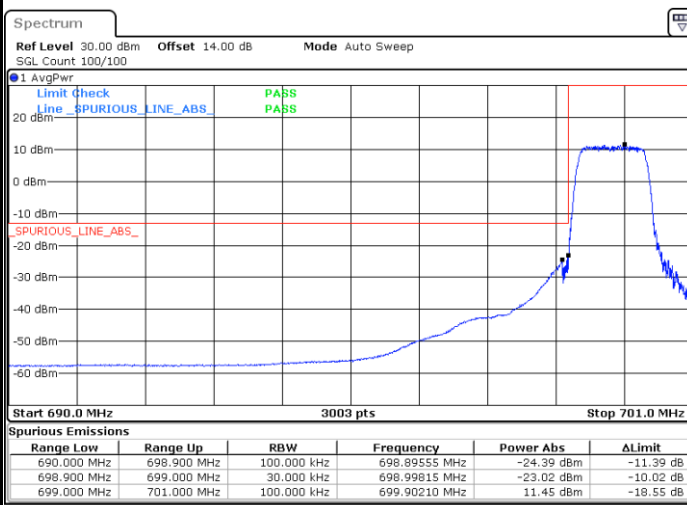
Date: 19.FEB.2024 14:50:54

Highest Band Edge / 1 RB



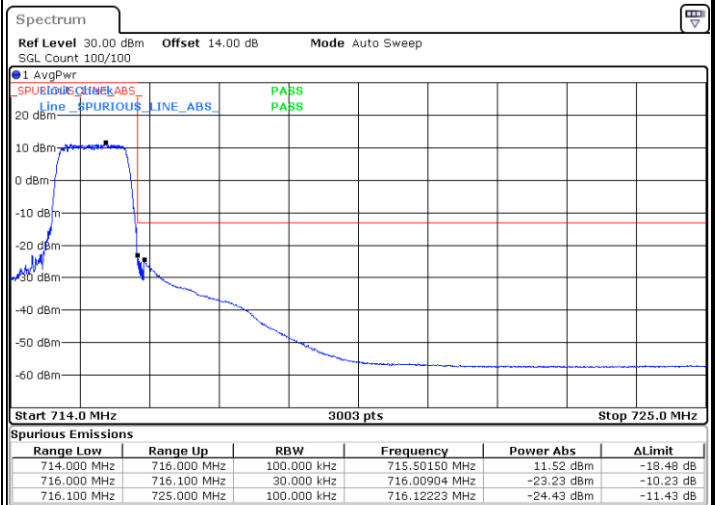
Date: 19.FEB.2024 15:00:19

Lowest Band Edge / Full RB



Date: 19.FEB.2024 14:53:45

Highest Band Edge / Full RB

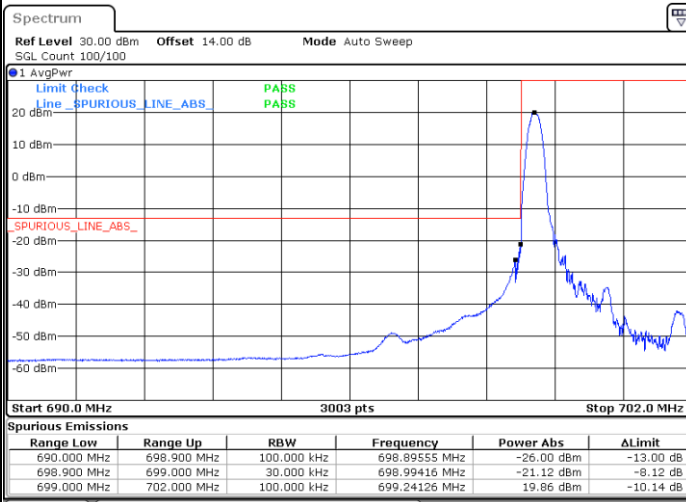


Date: 19.FEB.2024 15:03:10



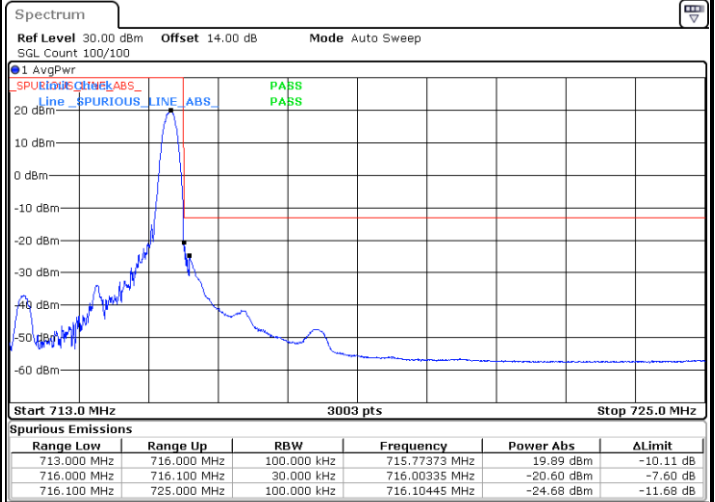
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



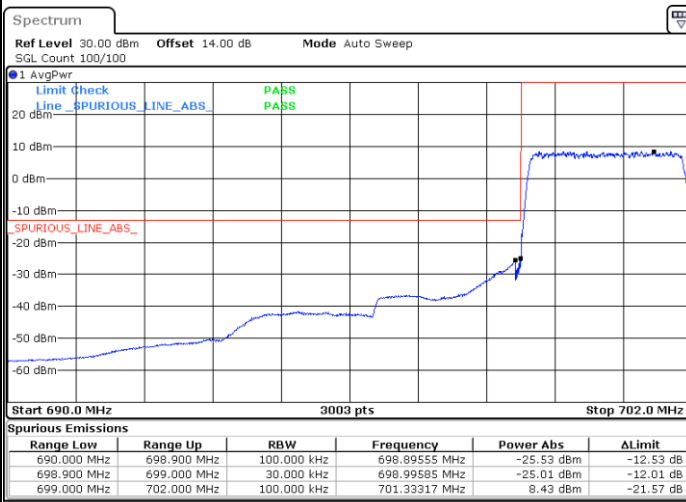
Date: 19.FEB.2024 15:06:07

Highest Band Edge / 1RB



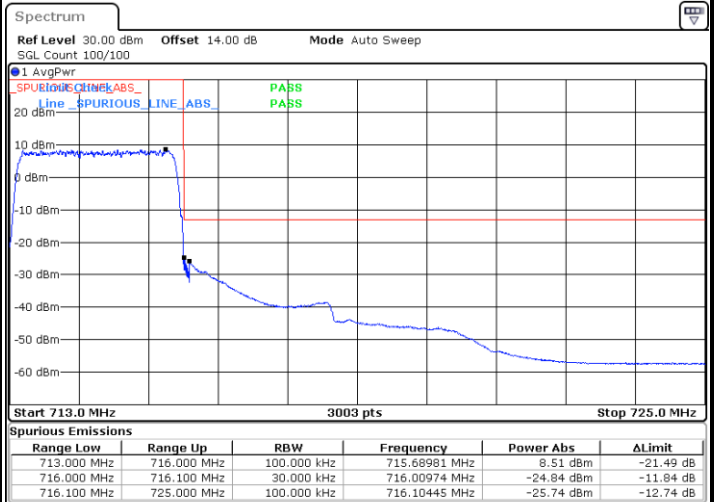
Date: 19.FEB.2024 15:15:31

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:08:58

Highest Band Edge / Full RB

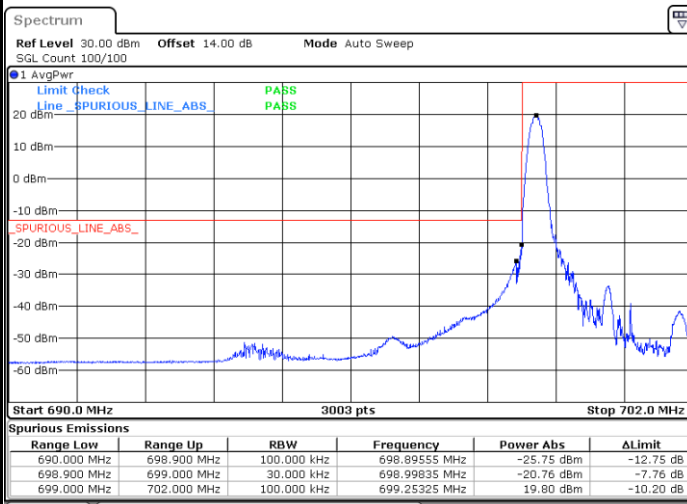


Date: 19.FEB.2024 15:18:22



LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



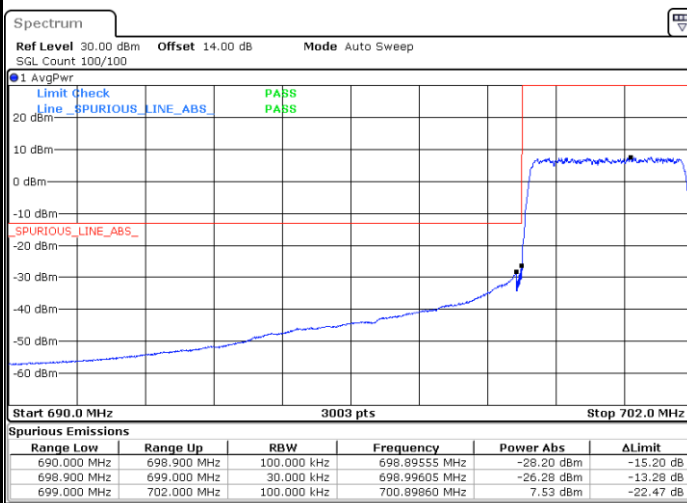
Date: 19.FEB.2024 15:07:04

Highest Band Edge / 1 RB



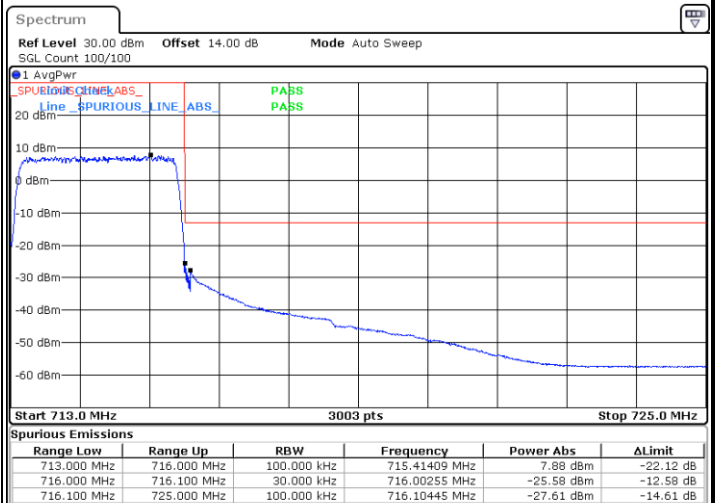
Date: 19.FEB.2024 15:16:28

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:09:55

Highest Band Edge / Full RB

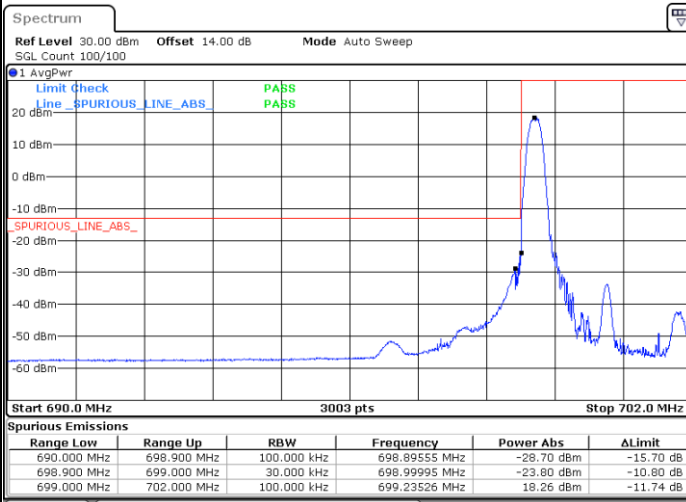


Date: 19.FEB.2024 15:19:19



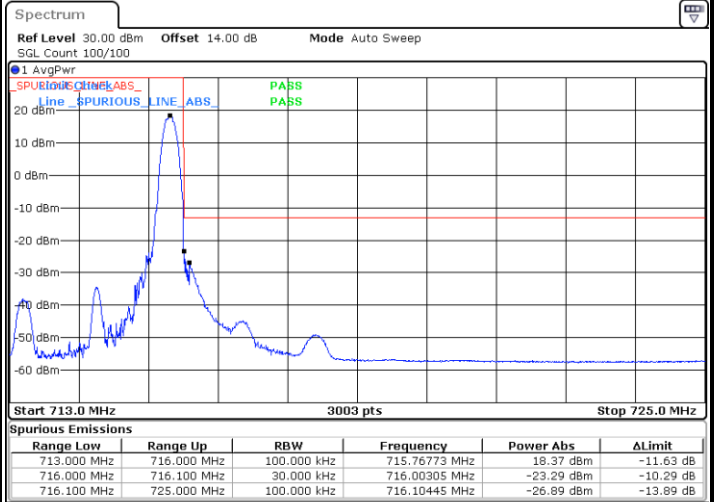
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



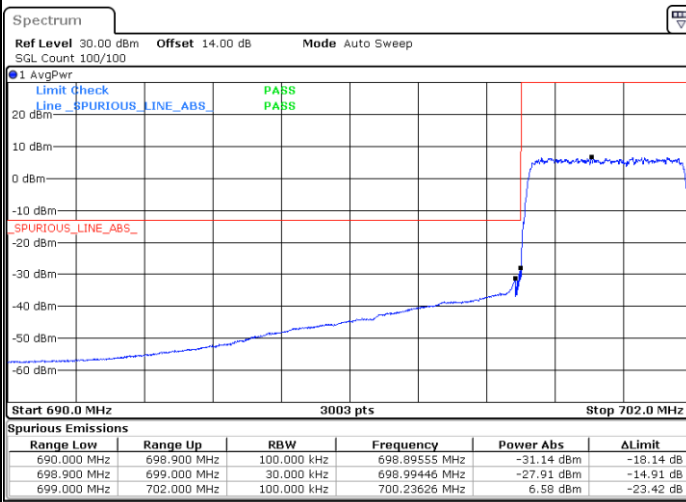
Date: 19.FEB.2024 15:08:01

Highest Band Edge / 1 RB



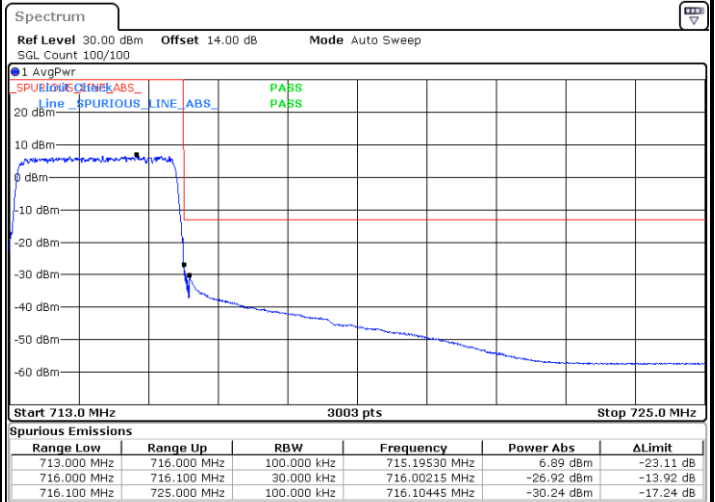
Date: 19.FEB.2024 15:17:25

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:10:52

Highest Band Edge / Full RB

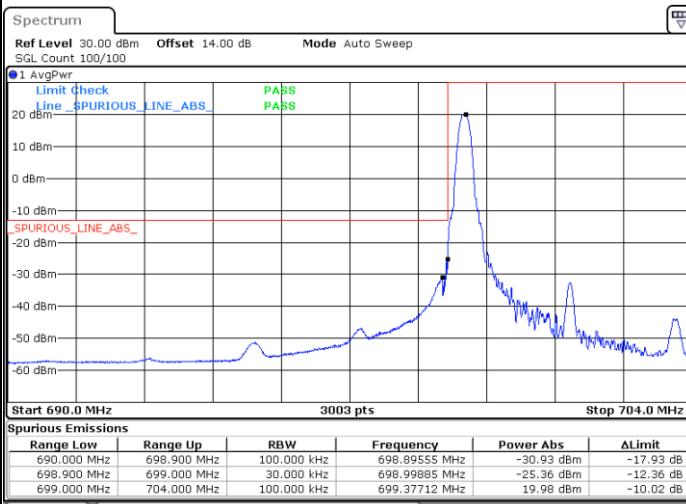


Date: 19.FEB.2024 15:20:15



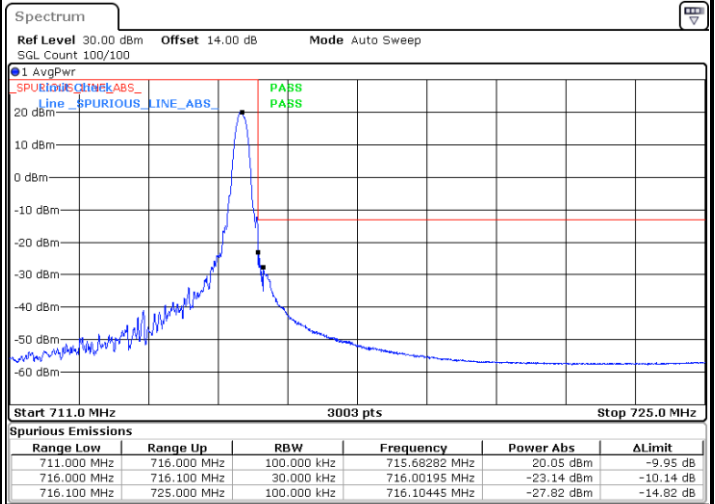
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1RB



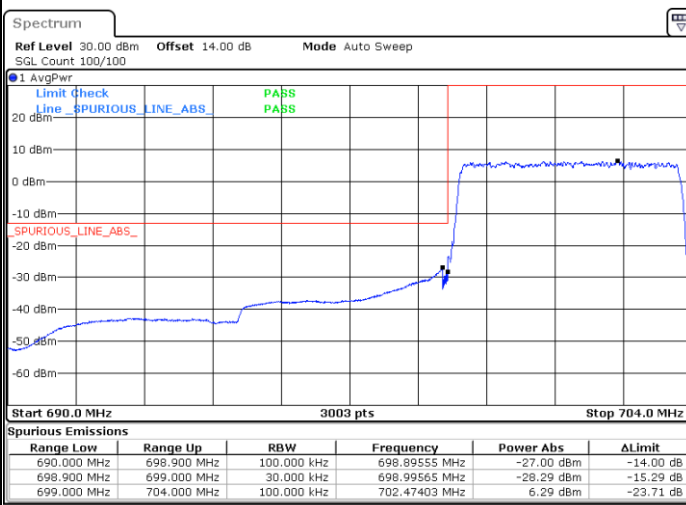
Date: 19.FEB.2024 15:23:13

Highest Band Edge / 1RB



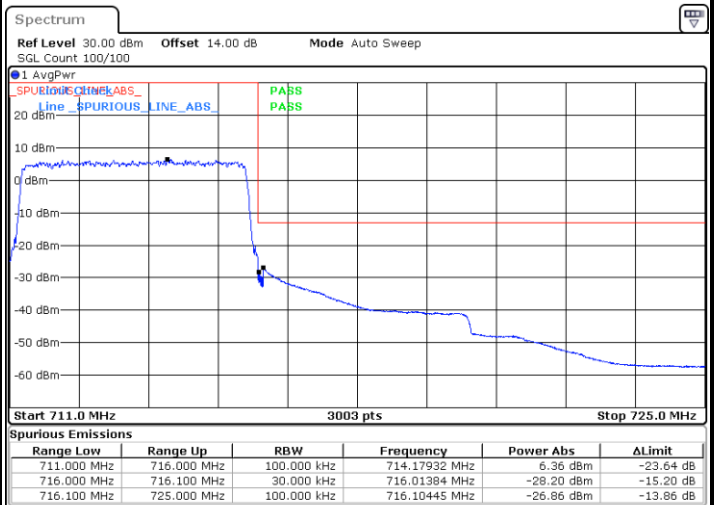
Date: 19.FEB.2024 15:32:27

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:26:04

Highest Band Edge / Full RB

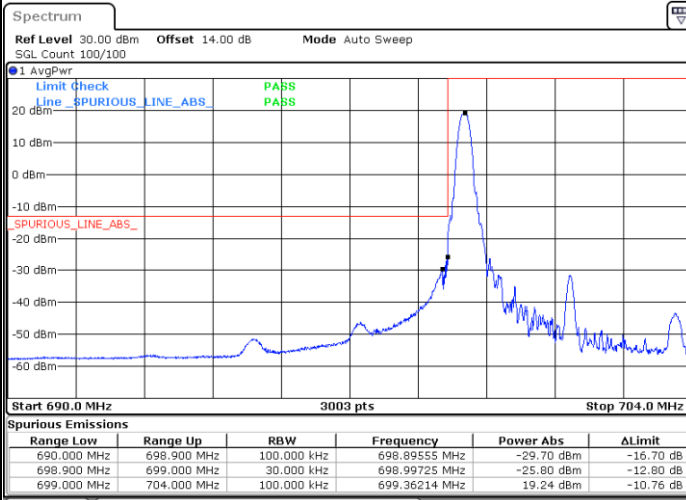


Date: 19.FEB.2024 15:35:18



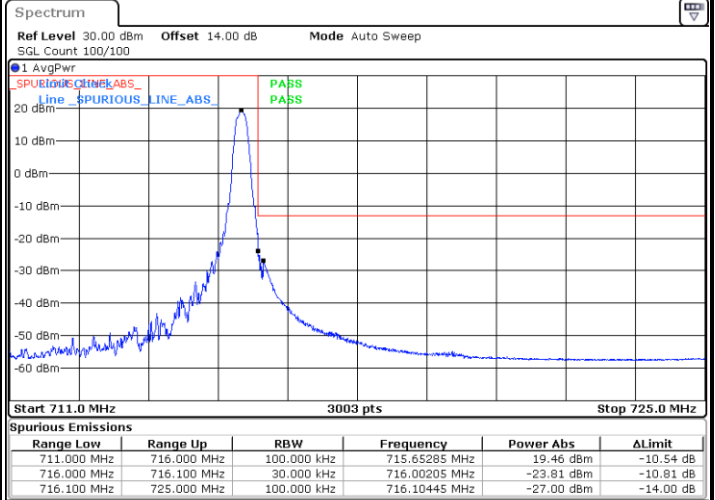
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



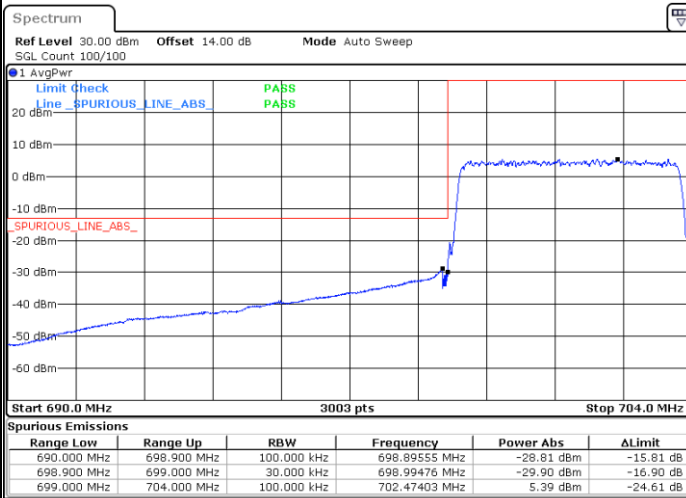
Date: 19.FEB.2024 15:24:10

Highest Band Edge / 1 RB



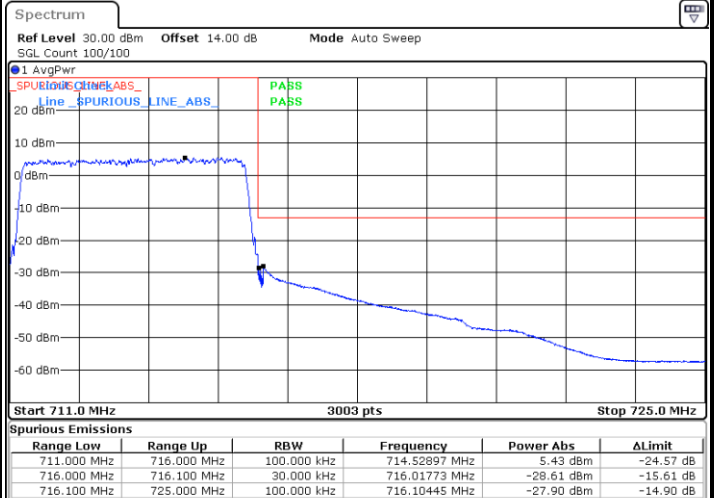
Date: 19.FEB.2024 15:33:25

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:27:00

Highest Band Edge / Full RB

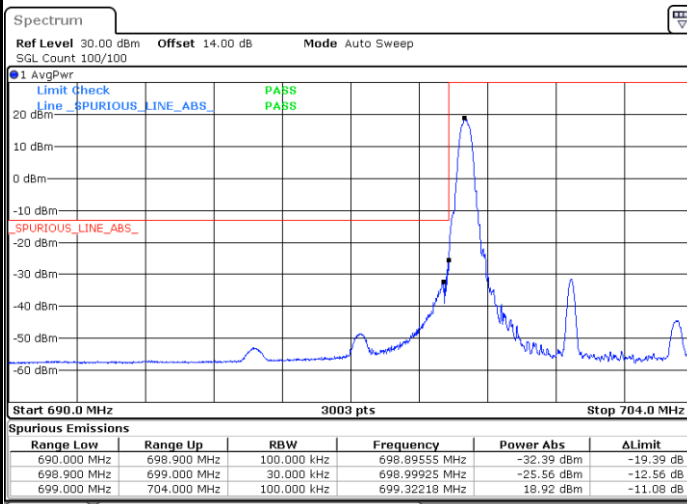


Date: 19.FEB.2024 15:33:15



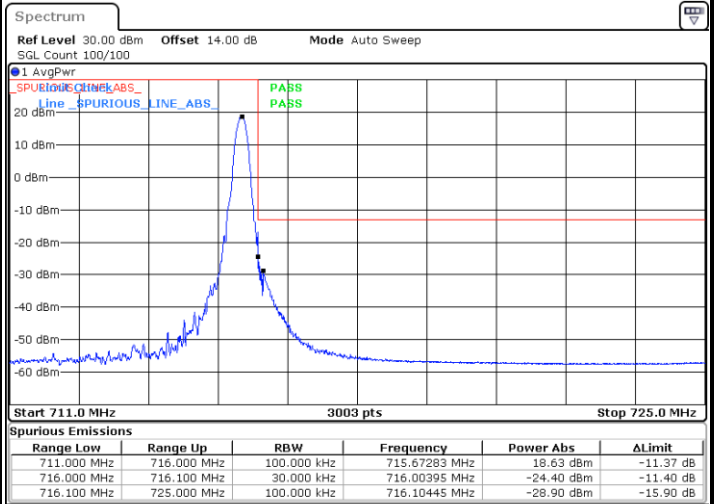
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



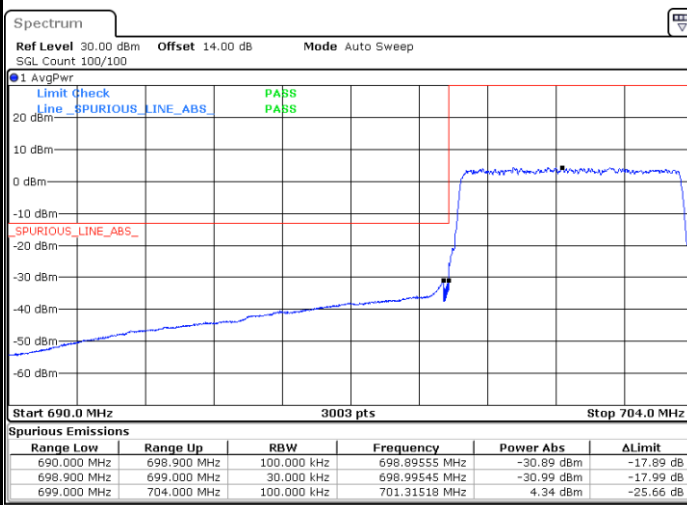
Date: 19.FEB.2024 15:25:07

Highest Band Edge / 1 RB



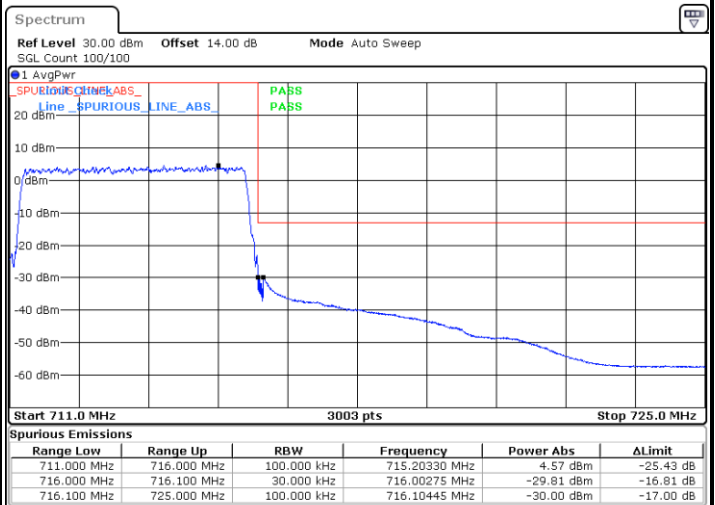
Date: 19.FEB.2024 15:34:22

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:27:58

Highest Band Edge / Full RB

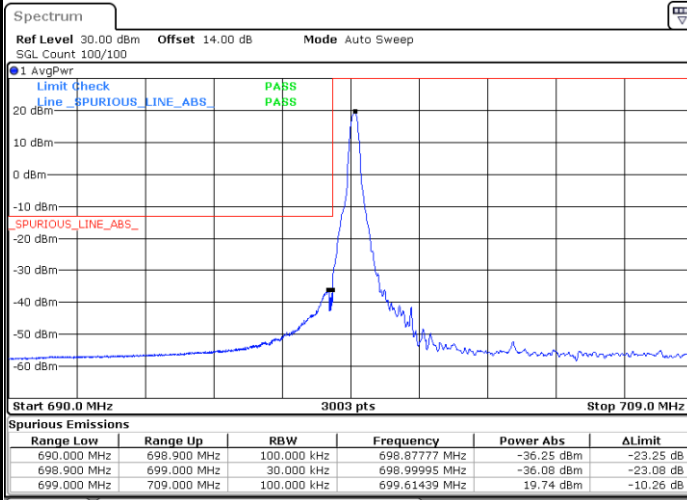


Date: 19.FEB.2024 15:37:12



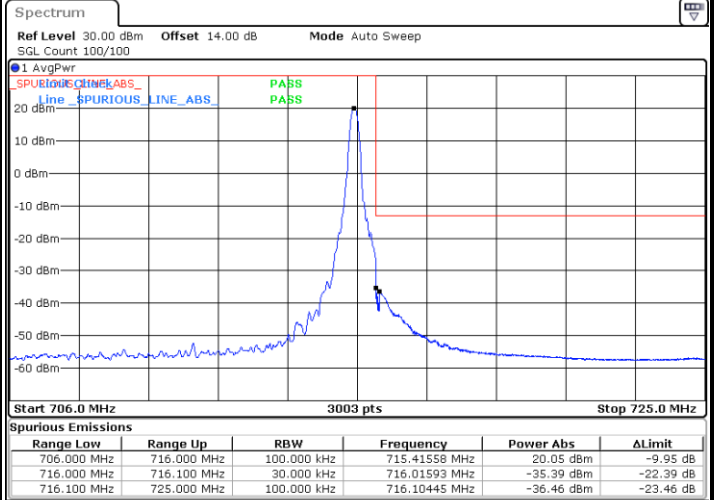
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1RB



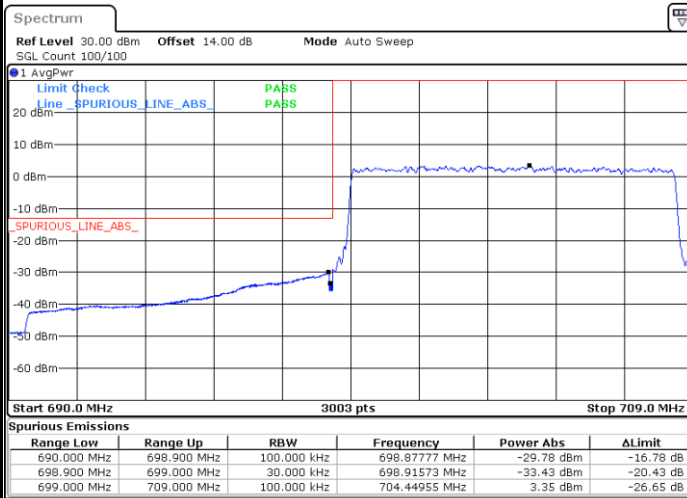
Date: 19.FEB.2024 15:39:59

Highest Band Edge / 1RB



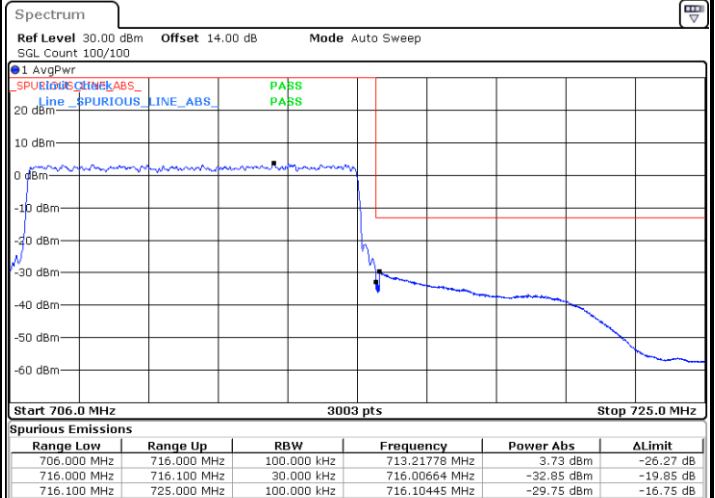
Date: 19.FEB.2024 15:49:03

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:42:49

Highest Band Edge / Full RB

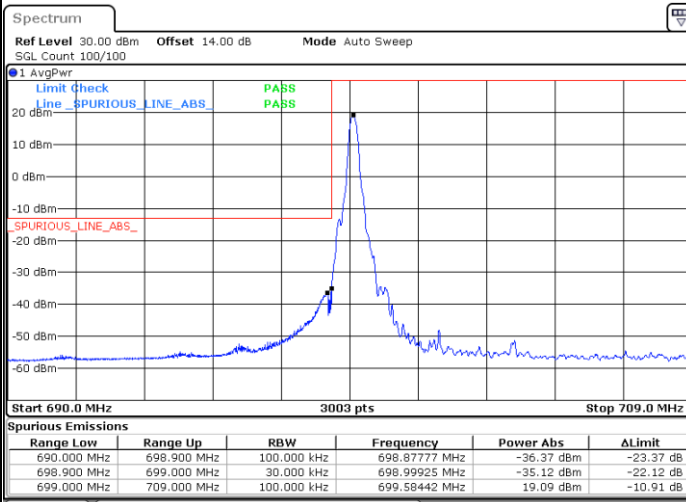


Date: 19.FEB.2024 15:51:53



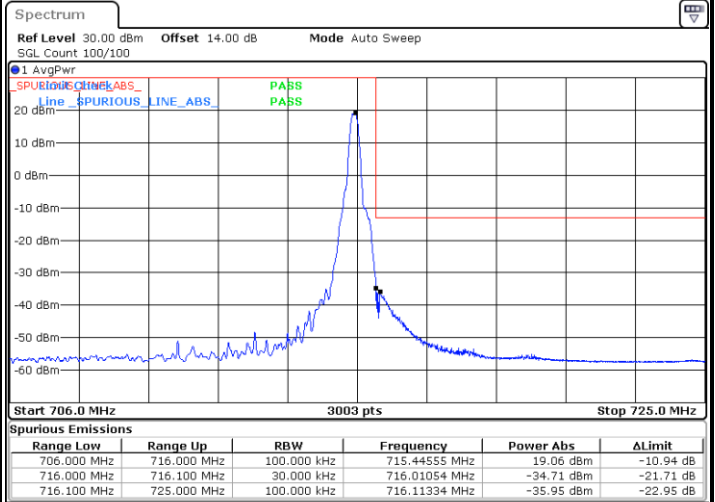
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



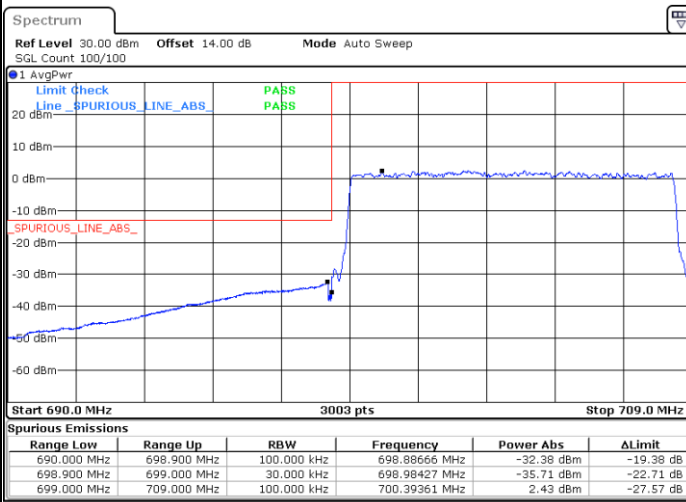
Date: 19.FEB.2024 15:40:56

Highest Band Edge / 1 RB



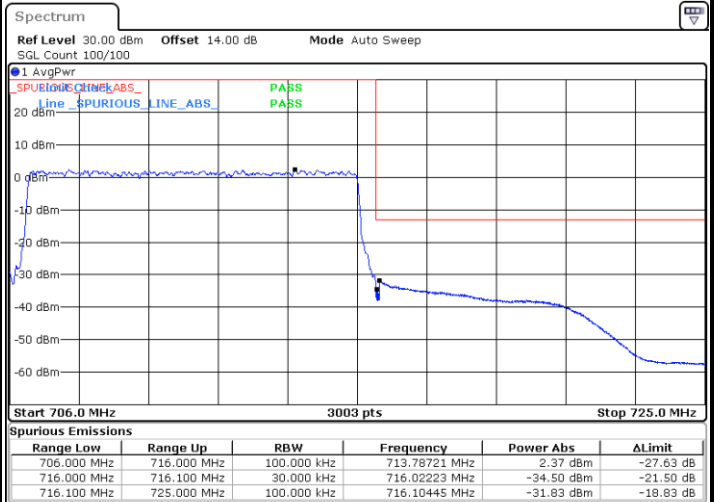
Date: 19.FEB.2024 15:50:00

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:43:46

Highest Band Edge / Full RB

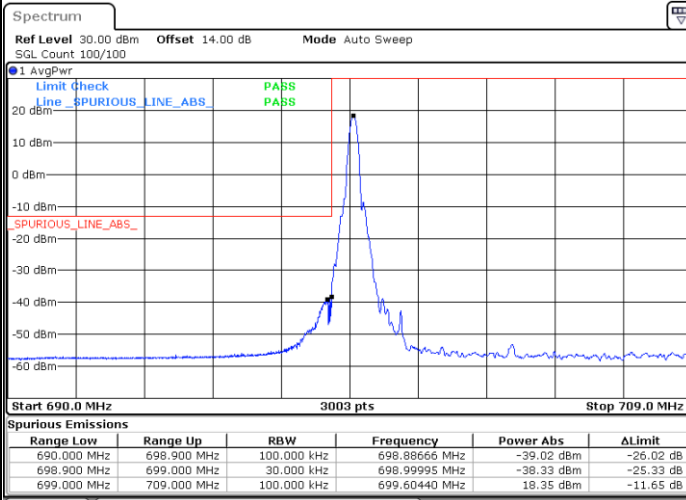


Date: 19.FEB.2024 15:52:51



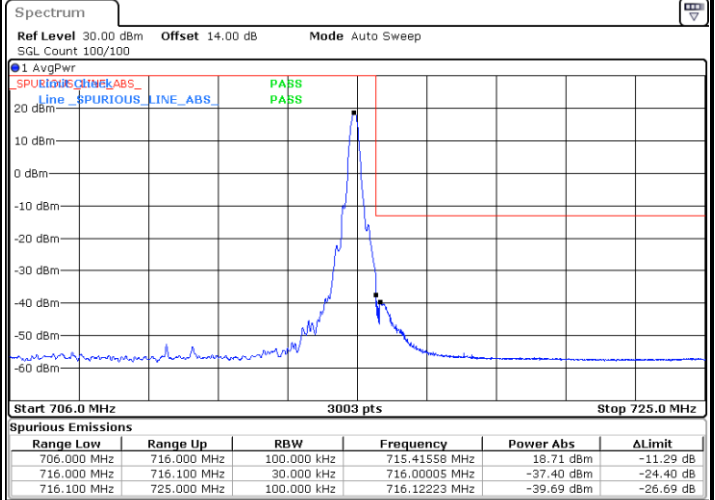
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



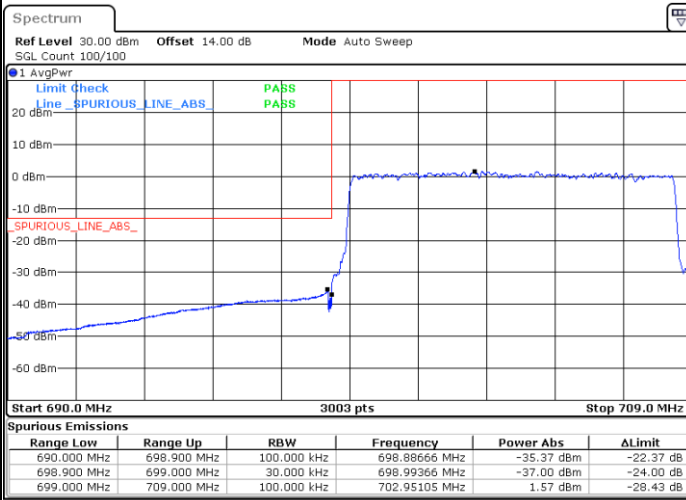
Date: 19.FEB.2024 15:41:52

Highest Band Edge / 1 RB



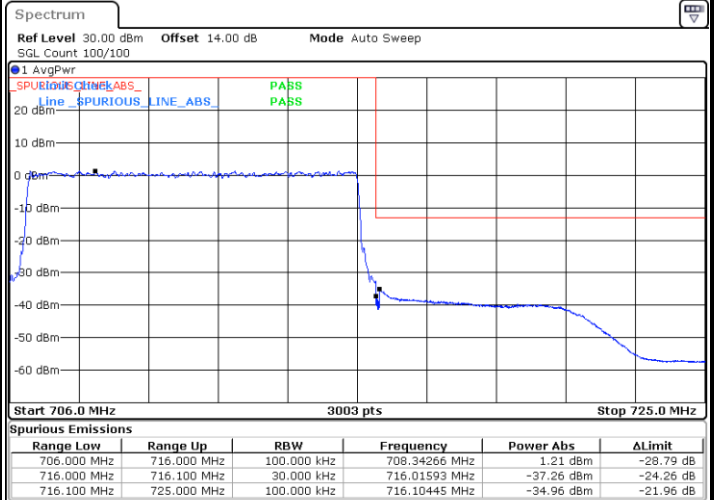
Date: 19.FEB.2024 15:50:56

Lowest Band Edge / Full RB



Date: 19.FEB.2024 15:44:43

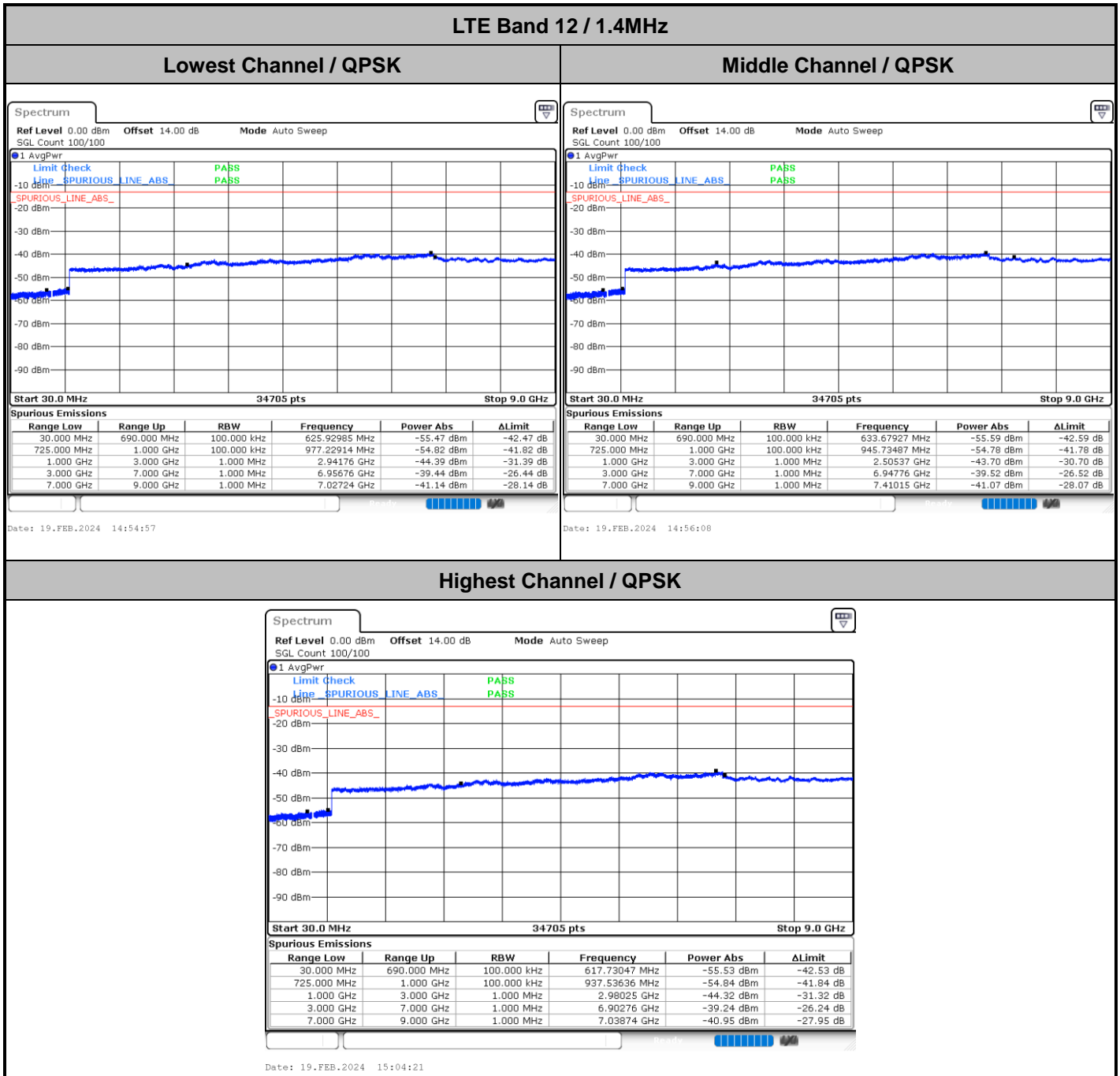
Highest Band Edge / Full RB



Date: 19.FEB.2024 15:53:48



Conducted Spurious Emission

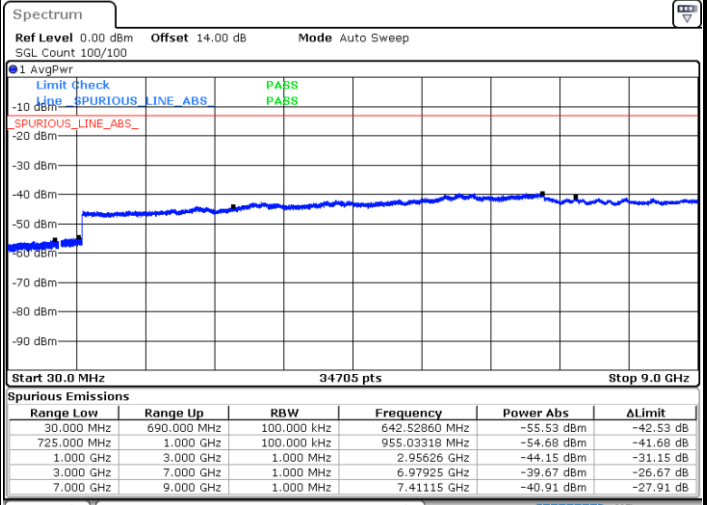
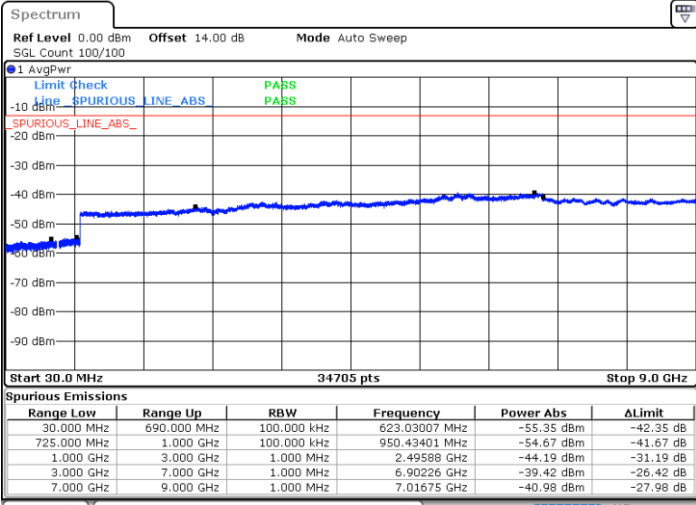




LTE Band 12 / 3MHz

Lowest Channel / QPSK

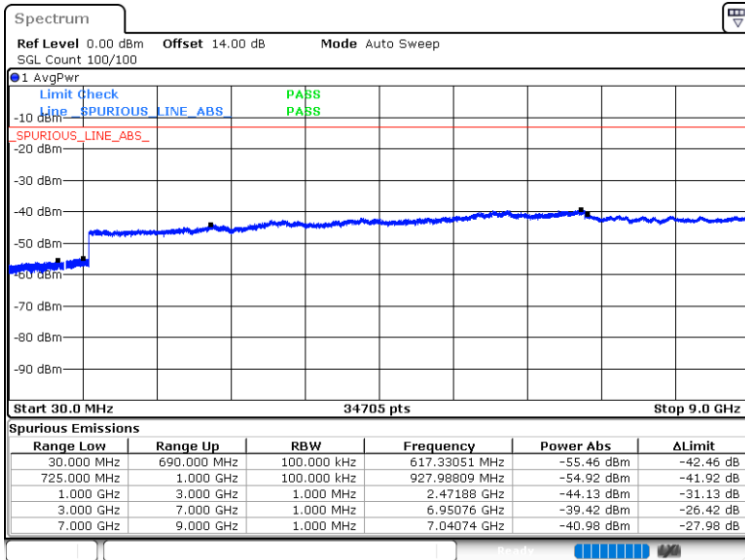
Middle Channel / QPSK



Date: 19.FEB.2024 15:12:03

Date: 19.FEB.2024 15:13:13

Highest Channel / QPSK



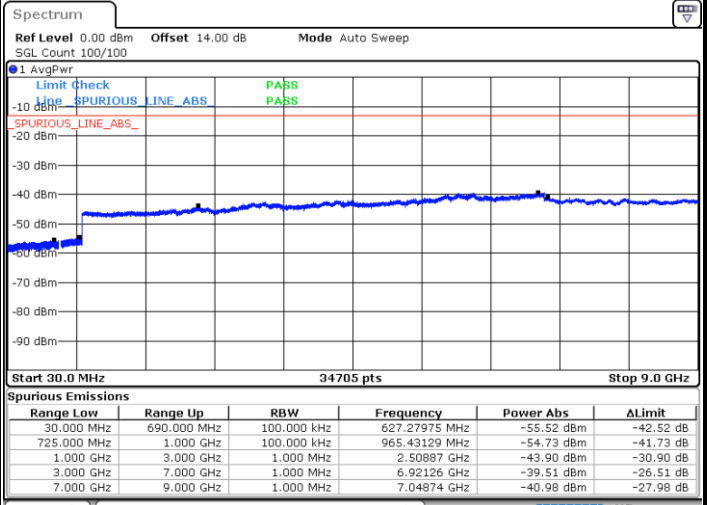
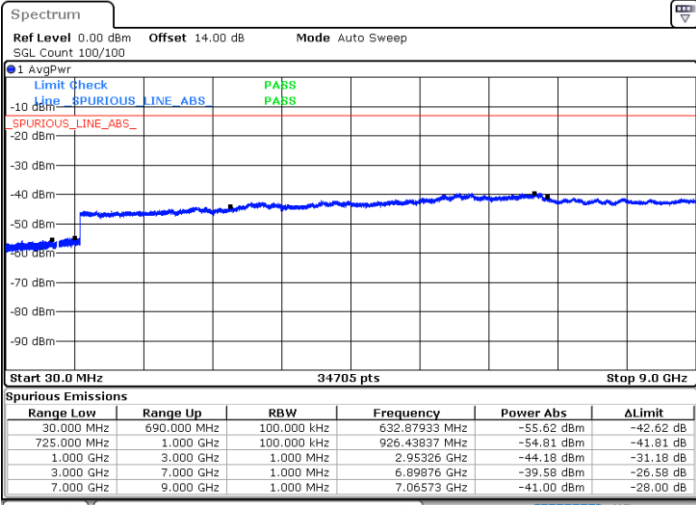
Date: 19.FEB.2024 15:21:28



LTE Band 12 / 5MHz

Lowest Channel / QPSK

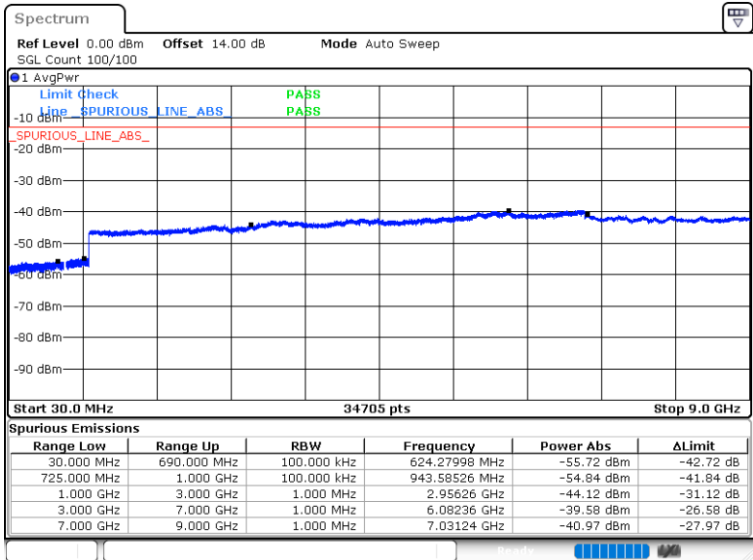
Middle Channel / QPSK



Date: 19.FEB.2024 15:29:09

Date: 19.FEB.2024 15:30:10

Highest Channel / QPSK



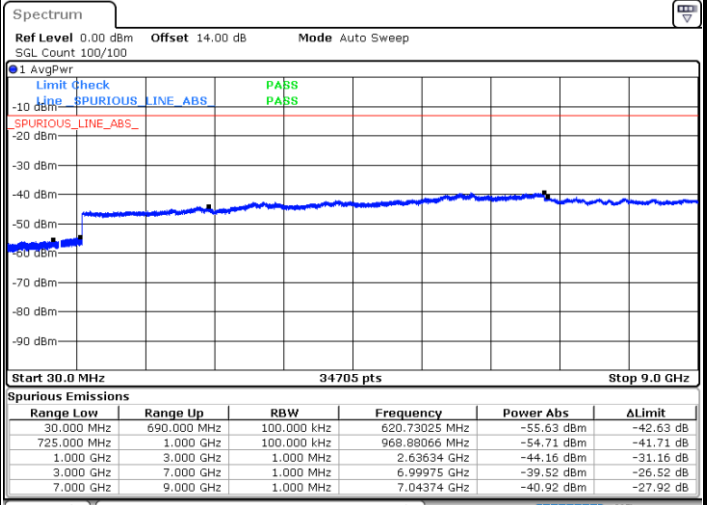
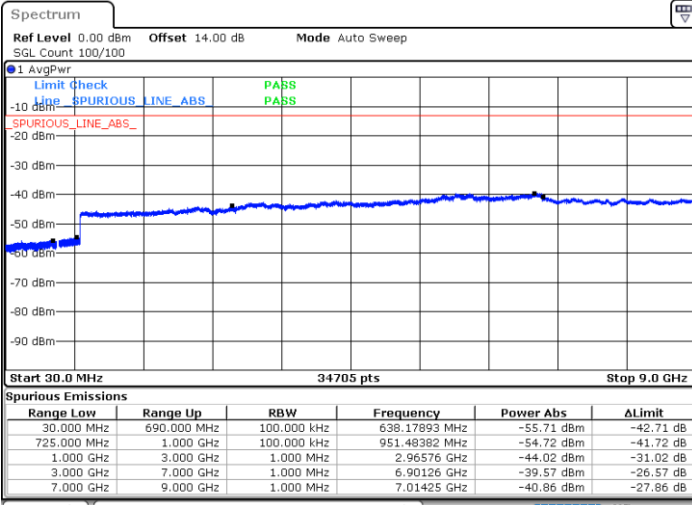
Date: 19.FEB.2024 15:38:13



LTE Band 12 / 10MHz

Lowest Channel / QPSK

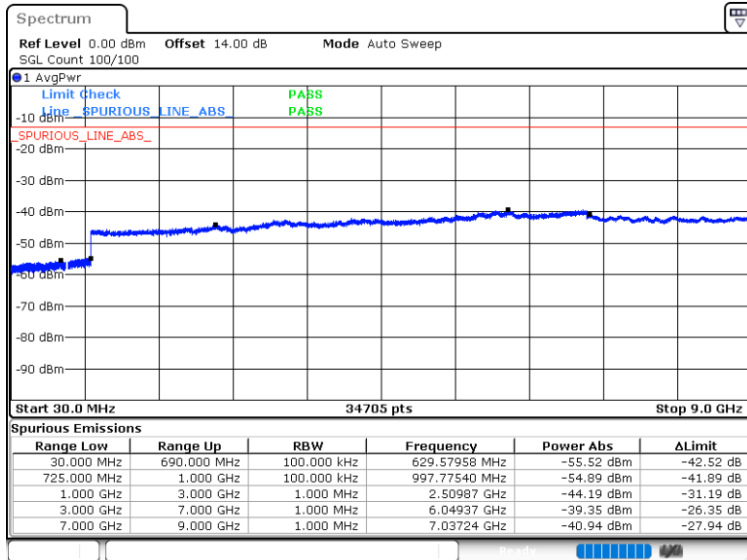
Middle Channel / QPSK



Date: 19.FEB.2024 15:45:44

Date: 19.FEB.2024 15:46:45

Highest Channel / QPSK



Date: 19.FEB.2024 15:54:49



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	0.0002	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

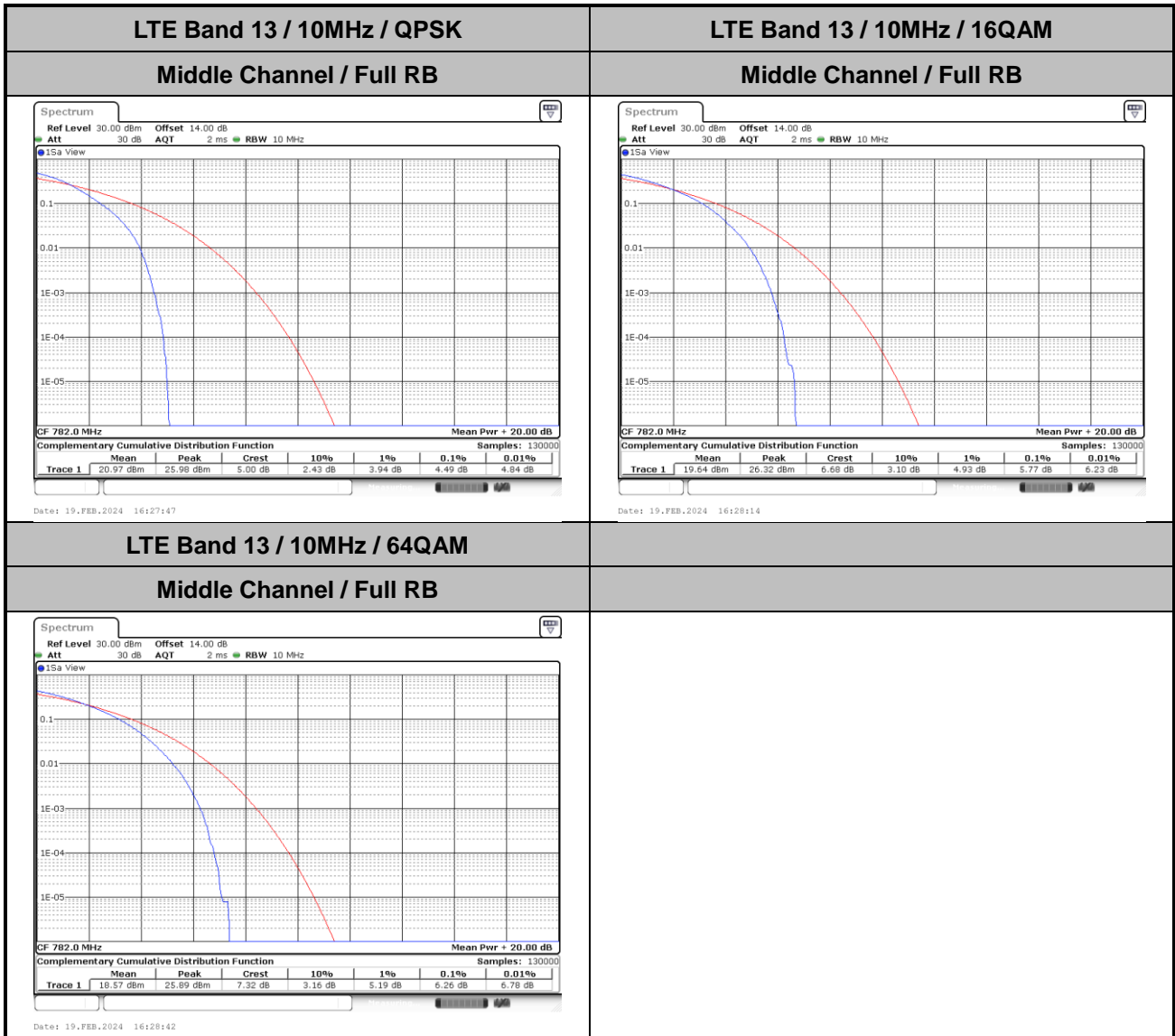
1. Normal Voltage = 3.88 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.53 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



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	4.49	5.77	6.26	PASS





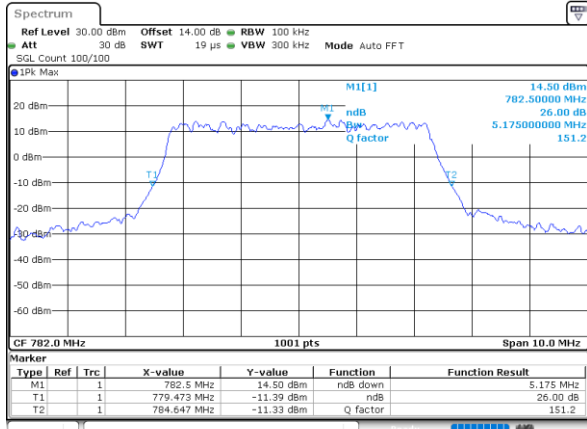
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	BW				5MHz		10MHz					
Mod.					QPSK	16QAM	QPSK	16QAM				
Middle CH					5.18	5.05	9.83	10.05				



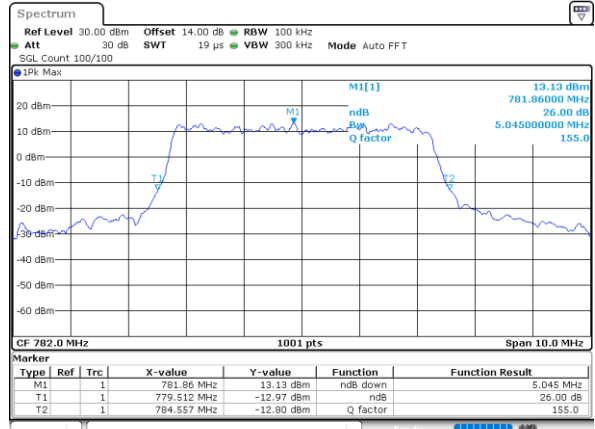
LTE Band 13

Middle Channel / 5MHz / QPSK



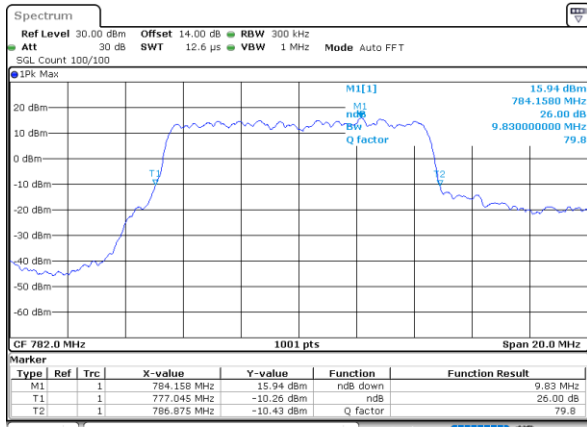
Date: 19.FEB.2024 16:08:40

Middle Channel / 5MHz / 16QAM



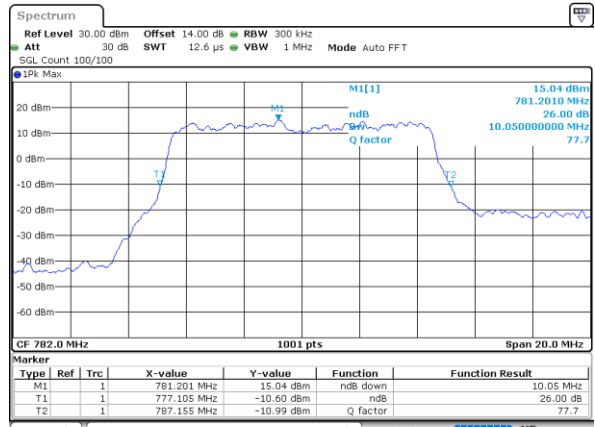
Date: 19.FEB.2024 16:09:20

Middle Channel / 10MHz / QPSK



Date: 19.FEB.2024 16:26:41

Middle Channel / 10MHz / 16QAM



Date: 19.FEB.2024 16:27:20



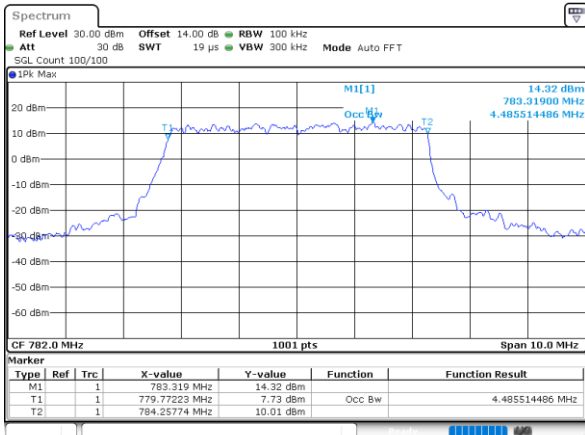
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
	BW				5MHz		10MHz					
Mod.					QPSK	16QAM	QPSK	16QAM				
Middle CH					4.49	4.49	9.03	8.99				



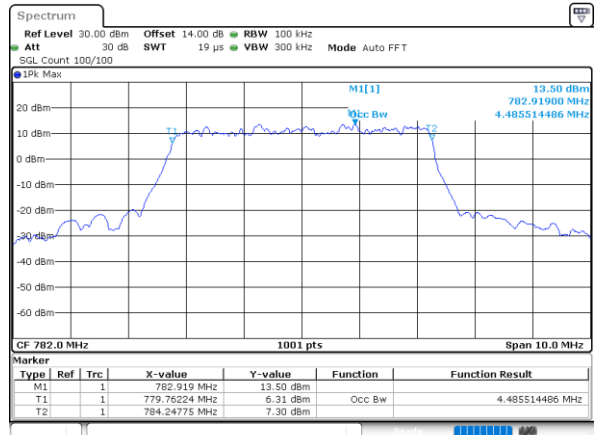
LTE Band 13

Middle Channel / 5MHz / QPSK



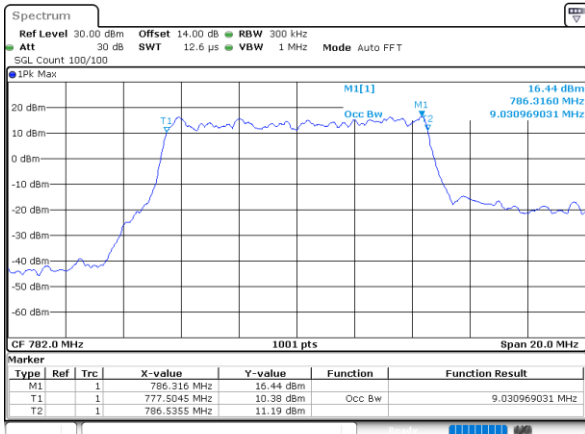
Date: 19.FEB.2024 16:08:26

Middle Channel / 5MHz / 16QAM



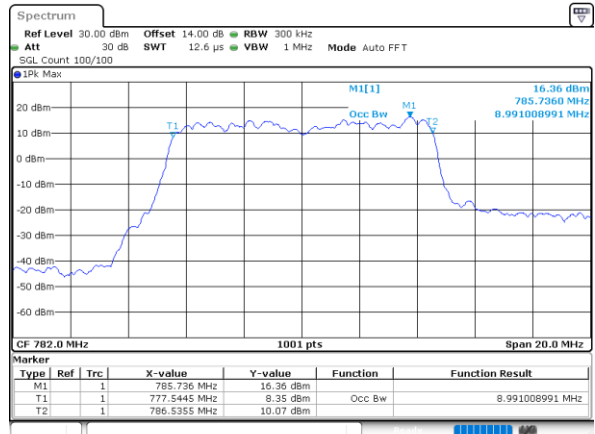
Date: 19.FEB.2024 16:09:06

Middle Channel / 10MHz / QPSK



Date: 19.FEB.2024 16:26:27

Middle Channel / 10MHz / 16QAM



Date: 19.FEB.2024 16:27:06

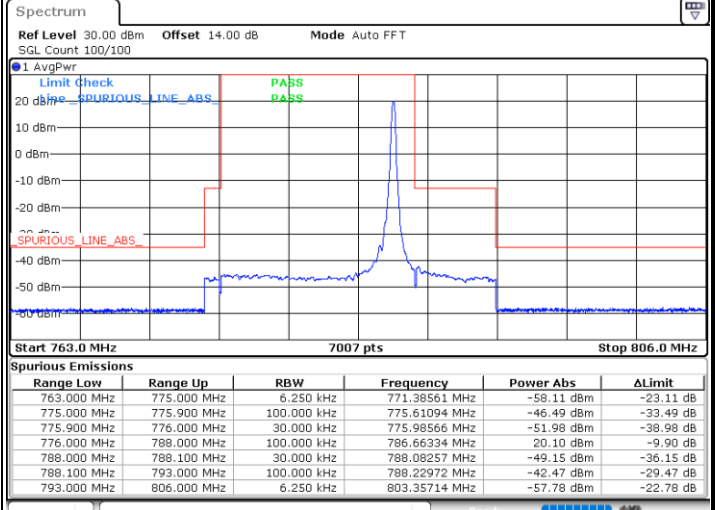
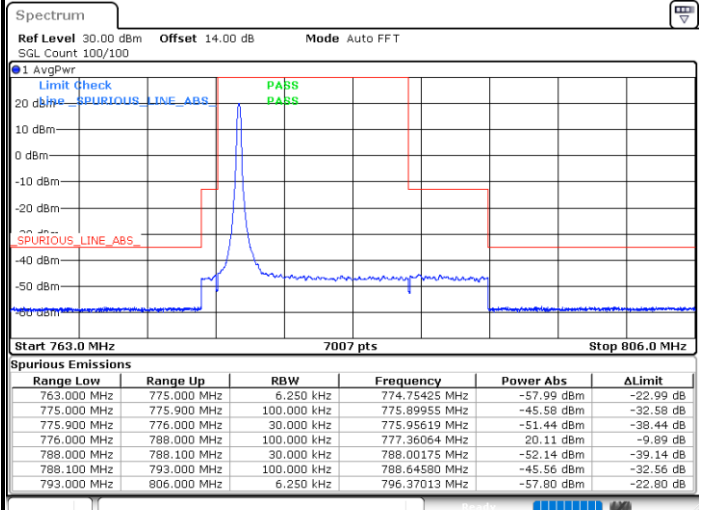


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

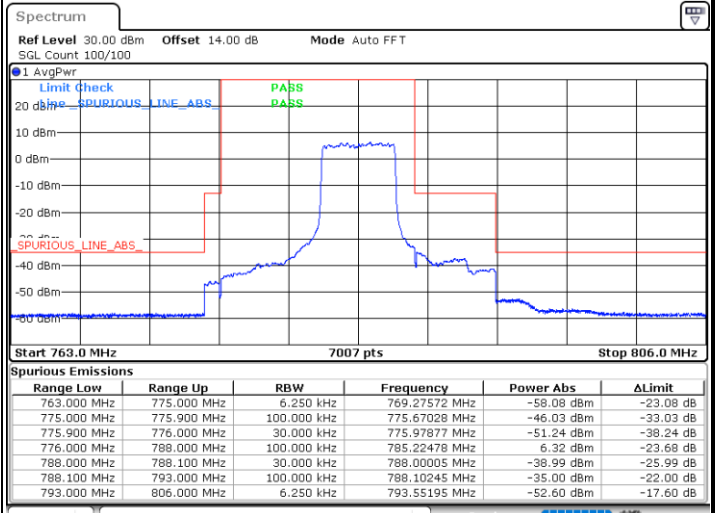
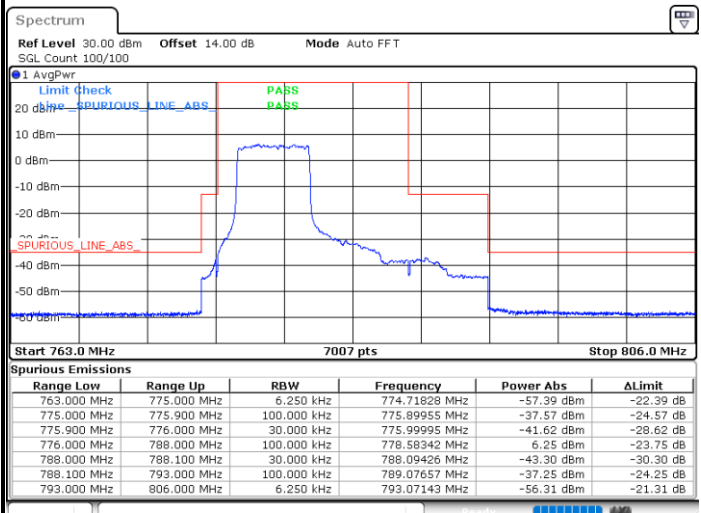


Date: 19.FEB.2024 16:01:21

Date: 19.FEB.2024 16:10:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 19.FEB.2024 16:04:09

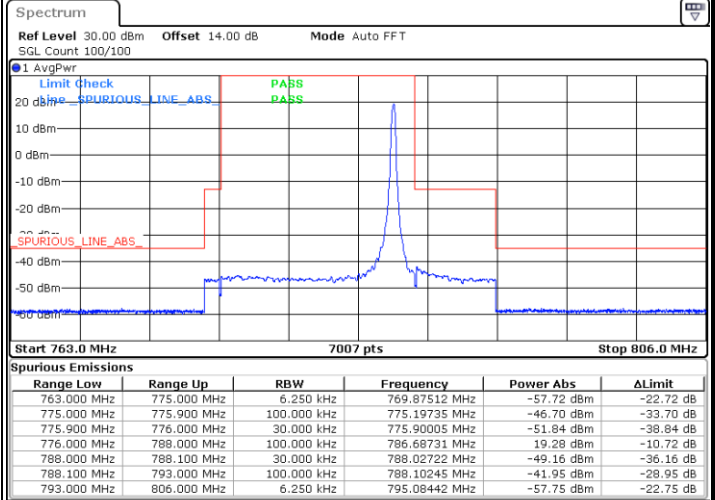
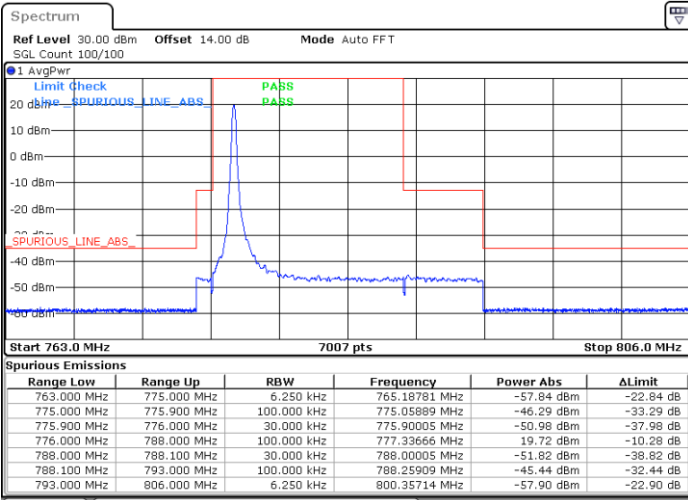
Date: 19.FEB.2024 16:13:02



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

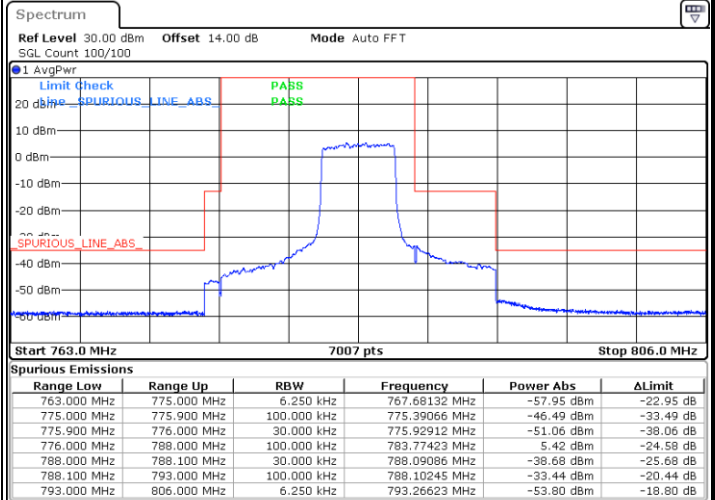
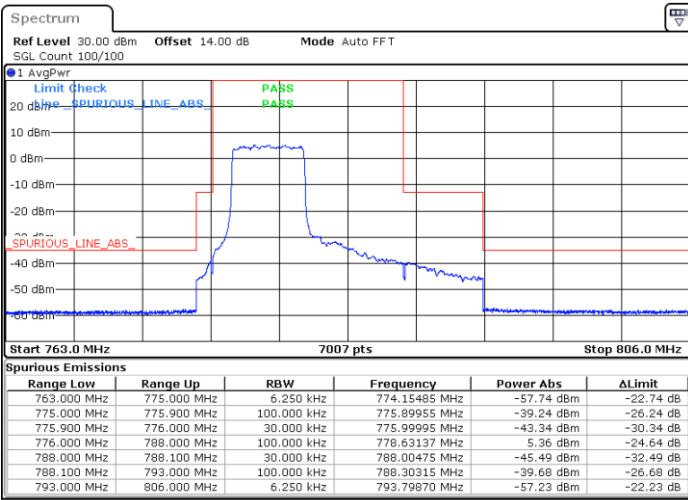


Date: 19.FEB.2024 16:02:17

Date: 19.FEB.2024 16:11:10

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 19.FEB.2024 16:05:04

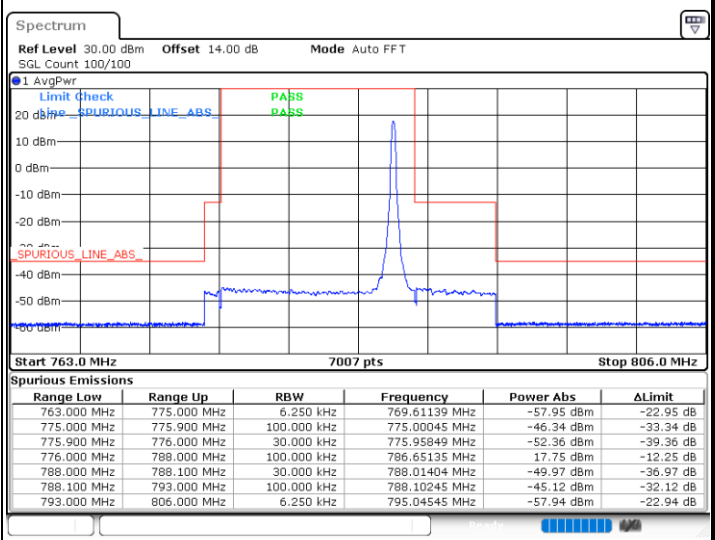
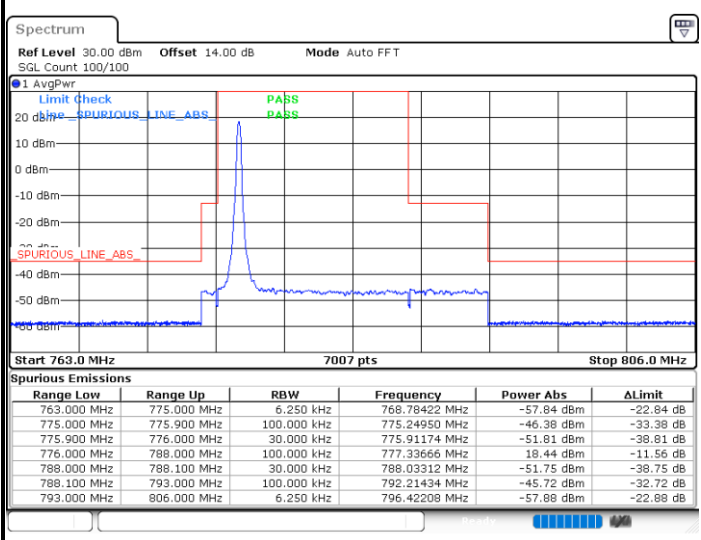
Date: 19.FEB.2024 16:13:58



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

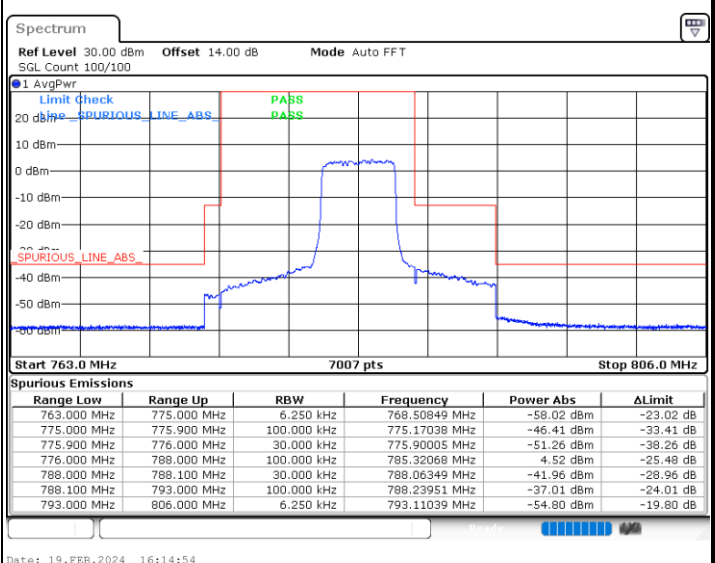
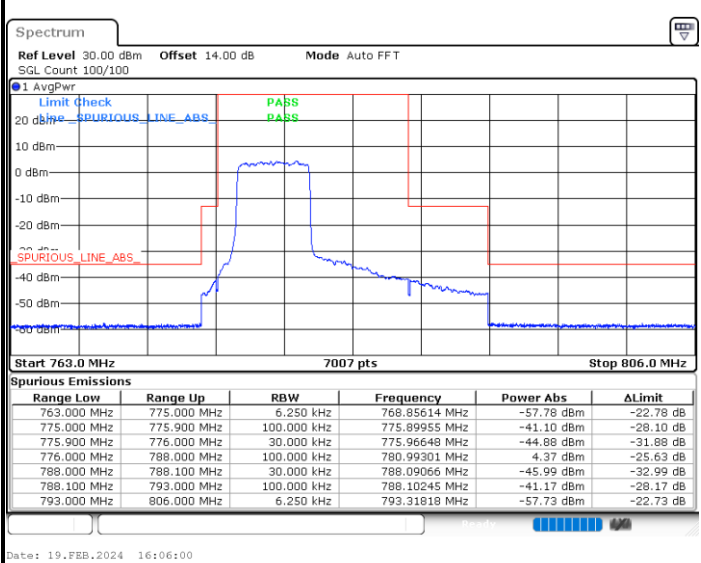


Date: 19.FEB.2024 16:03:13

Date: 19.FEB.2024 16:12:06

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

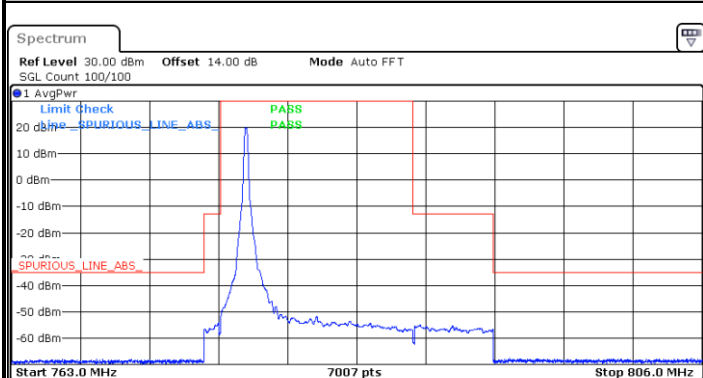


Date: 19.FEB.2024 16:06:00

Date: 19.FEB.2024 16:14:54

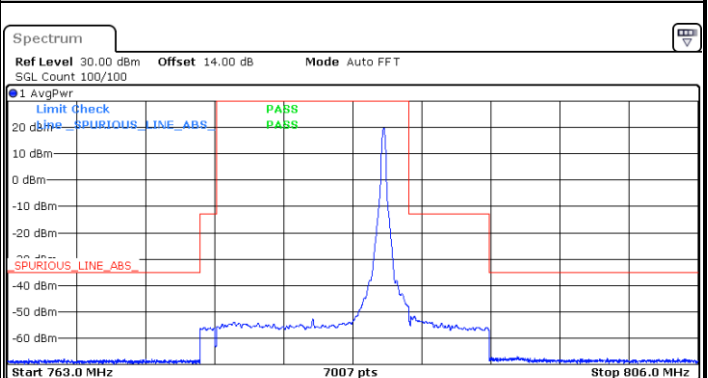


LTE Band 13 / 10MHz / QPSK	LTE Band 13 / 10MHz / QPSK
Band Edge / 1 RB	Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	768.65235 MHz	-68.02 dBm	-33.02 db
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-53.98 dBm	-40.98 db
775.900 MHz	776.000 MHz	30.000 kHz	775.99955 MHz	-57.88 dBm	-44.88 db
776.000 MHz	788.000 MHz	100.000 kHz	777.58841 MHz	-20.09 dBm	-9.91 db
788.000 MHz	788.100 MHz	30.000 kHz	788.01034 MHz	-61.63 dBm	-48.63 db
788.100 MHz	793.000 MHz	100.000 kHz	788.43042 MHz	-55.14 dBm	-42.14 db
793.000 MHz	806.000 MHz	6.250 kHz	794.03247 MHz	-67.63 dBm	-32.63 db

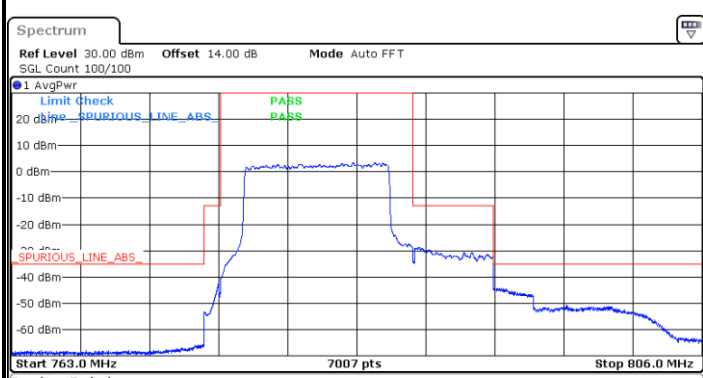
Date: 19.FEB.2024 16:17:37



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	771.97303 MHz	-68.04 dBm	-33.04 db
775.000 MHz	775.900 MHz	100.000 kHz	775.24051 MHz	-55.91 dBm	-42.91 db
775.900 MHz	776.000 MHz	30.000 kHz	775.99955 MHz	-62.02 dBm	-49.02 db
776.000 MHz	788.000 MHz	100.000 kHz	786.42358 MHz	-19.80 dBm	-10.20 db
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-53.85 dBm	-40.85 db
788.100 MHz	793.000 MHz	100.000 kHz	788.32273 MHz	-51.75 dBm	-38.75 db
793.000 MHz	806.000 MHz	6.250 kHz	794.74675 MHz	-67.02 dBm	-32.02 db

Date: 19.FEB.2024 16:20:24

LTE Band 13 / 10MHz / QPSK	
Band Edge / Full RB	



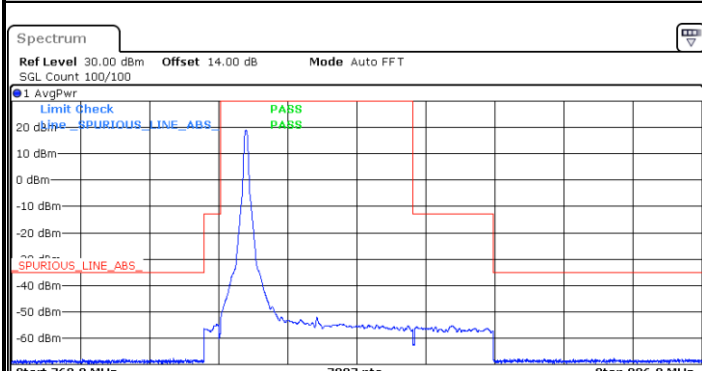
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.97003 MHz	-65.52 dBm	-30.52 db
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-42.38 dBm	-29.38 db
775.900 MHz	776.000 MHz	30.000 kHz	775.97448 MHz	-46.07 dBm	-33.07 db
776.000 MHz	788.000 MHz	100.000 kHz	784.25375 MHz	3.42 dBm	-26.58 db
788.000 MHz	788.100 MHz	30.000 kHz	788.01464 MHz	-34.06 dBm	-21.06 db
788.100 MHz	793.000 MHz	100.000 kHz	788.35699 MHz	-28.77 dBm	-15.77 db
793.000 MHz	806.000 MHz	6.250 kHz	793.38312 MHz	-44.30 dBm	-9.30 db

Date: 19.FEB.2024 16:23:10



LTE Band 13 / 10MHz / 16QAM Band Edge / 1 RB

LTE Band 13 / 10MHz / 16QAM Band Edge / 1 RB

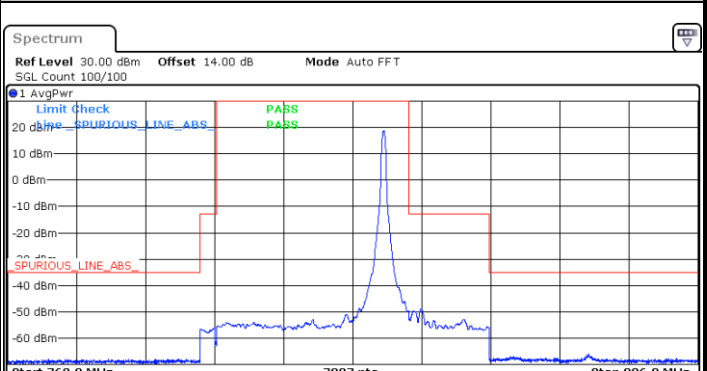


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	773.08791 MHz	-67.80 dBm	-32.80 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.78447 MHz	-54.79 dBm	-41.79 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99995 MHz	-58.32 dBm	-45.32 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.60040 MHz	-19.96 dBm	-11.04 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09585 MHz	-61.51 dBm	-48.51 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.45210 MHz	-55.27 dBm	-42.27 dB
793.000 MHz	806.000 MHz	6.250 kHz	800.47403 MHz	-67.57 dBm	-32.57 dB

Date: 19.FEB.2024 16:18:33

LTE Band 13 / 10MHz / 16QAM Band Edge / 1 RB

LTE Band 13 / 10MHz / 16QAM Band Edge / 1 RB

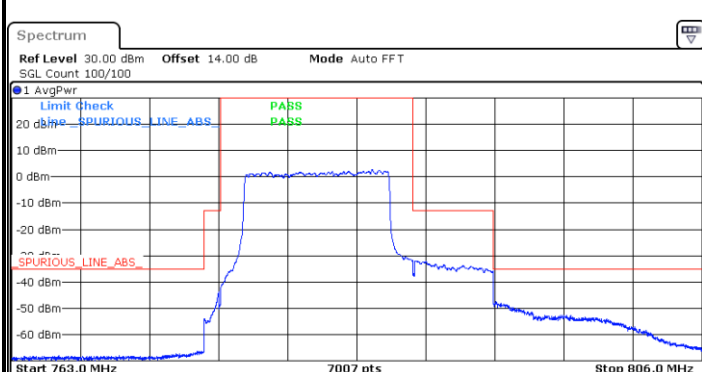


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.22478 MHz	-67.95 dBm	-32.95 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-56.29 dBm	-43.29 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.95539 MHz	-61.31 dBm	-48.31 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.42358 MHz	-19.60 dBm	-11.40 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04171 MHz	-52.82 dBm	-39.82 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.74371 MHz	-48.99 dBm	-35.99 dB
793.000 MHz	806.000 MHz	6.250 kHz	799.17532 MHz	-66.07 dBm	-31.07 dB

Date: 19.FEB.2024 16:21:19

LTE Band 13 / 10MHz / 16QAM Band Edge / Full RB

LTE Band 13 / 10MHz / 16QAM Band Edge / Full RB

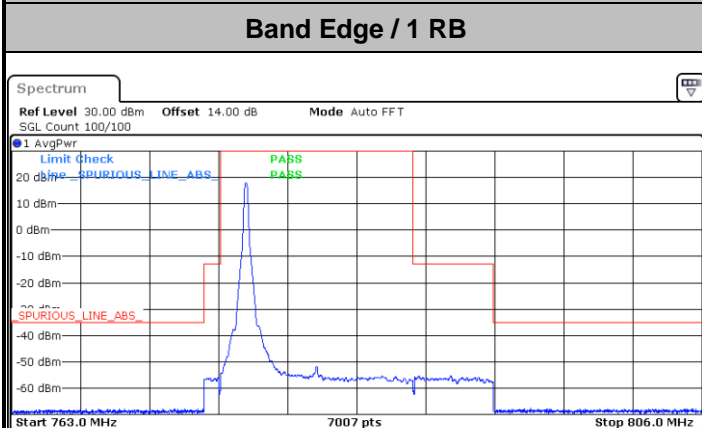


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.99401 MHz	-66.16 dBm	-31.16 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-43.83 dBm	-30.83 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99995 MHz	-48.17 dBm	-35.17 dB
776.000 MHz	788.000 MHz	100.000 kHz	785.45255 MHz	2.75 dBm	-27.25 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.02812 MHz	-36.66 dBm	-23.66 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.15629 MHz	-32.13 dBm	-19.13 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.14935 MHz	-47.51 dBm	-12.51 dB

Date: 19.FEB.2024 16:24:05



LTE Band 13 / 10MHz / 64QAM Band Edge / 1 RB

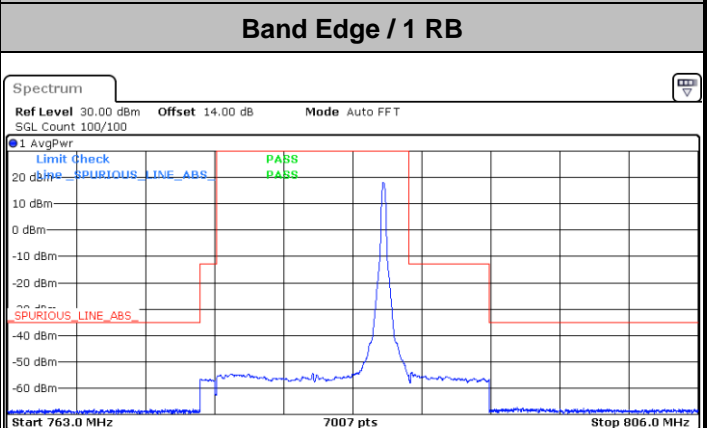


Start 763.0 MHz 7007 pts Stop 806.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	768.37662 MHz	-67.92 dBm	-32.92 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.85729 MHz	-56.15 dBm	-43.15 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99995 MHz	-60.45 dBm	-47.45 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.58841 MHz	-19.02 dBm	-11.99 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01414 MHz	-60.87 dBm	-47.87 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.34930 MHz	-55.48 dBm	-42.48 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.34416 MHz	-67.76 dBm	-32.76 dB

Date: 19.FEB.2024 16:19:28

LTE Band 13 / 10MHz / 64QAM Band Edge / 1 RB

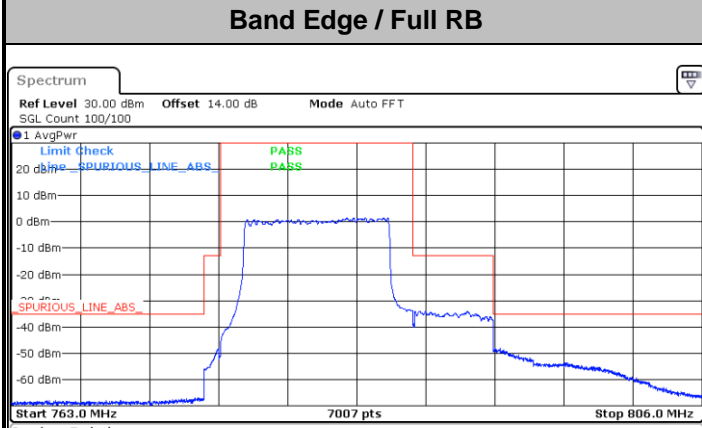


Start 763.0 MHz 7007 pts Stop 806.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.77622 MHz	-68.03 dBm	-33.03 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.03372 MHz	-56.70 dBm	-43.70 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.91284 MHz	-62.06 dBm	-49.06 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	-19.09 dBm	-11.91 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-56.61 dBm	-43.61 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.15629 MHz	-54.15 dBm	-41.15 dB
793.000 MHz	806.000 MHz	6.250 kHz	794.74675 MHz	-67.44 dBm	-32.44 dB

Date: 19.FEB.2024 16:22:15

LTE Band 13 / 10MHz / 64QAM Band Edge / Full RB



Start 763.0 MHz 7007 pts Stop 806.0 MHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.61039 MHz	-66.87 dBm	-31.87 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-47.04 dBm	-34.04 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99406 MHz	-51.03 dBm	-38.03 dB
776.000 MHz	788.000 MHz	100.000 kHz	785.03297 MHz	-1.52 dBm	-28.48 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.06429 MHz	-38.85 dBm	-25.85 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.38636 MHz	-33.98 dBm	-20.98 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.09740 MHz	-48.21 dBm	-13.21 dB

Date: 19.FEB.2024 16:25:01