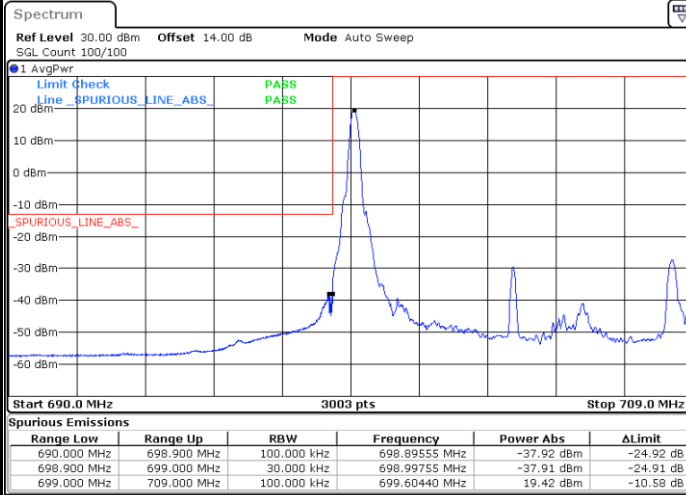


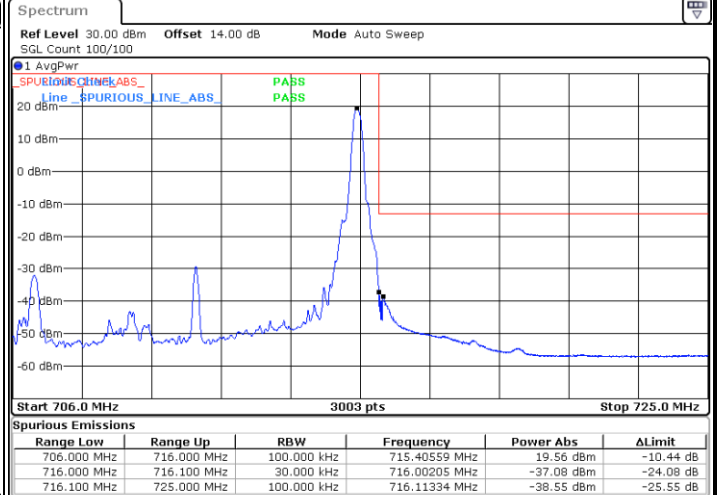


LTE Band 12 / 10MHz / 16QAM

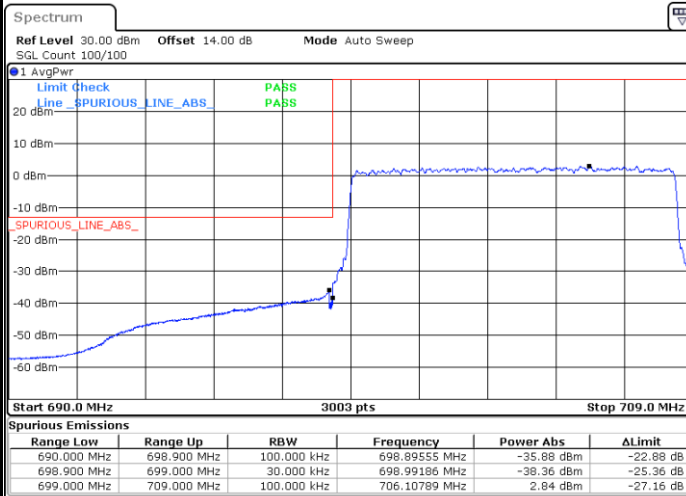
Lowest Band Edge / 1 RB



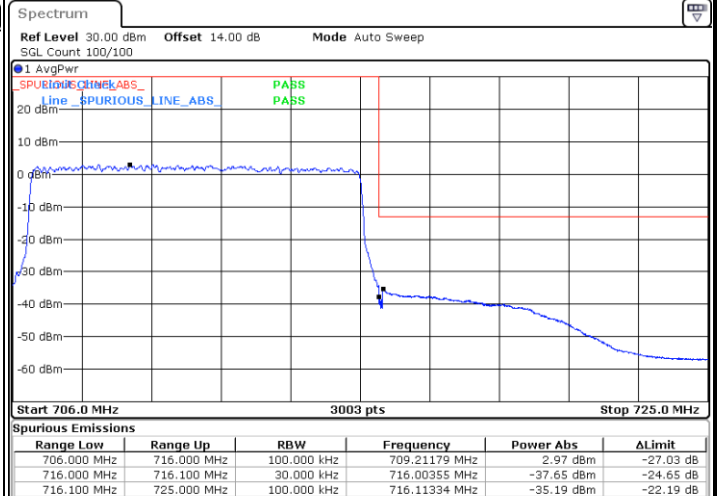
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

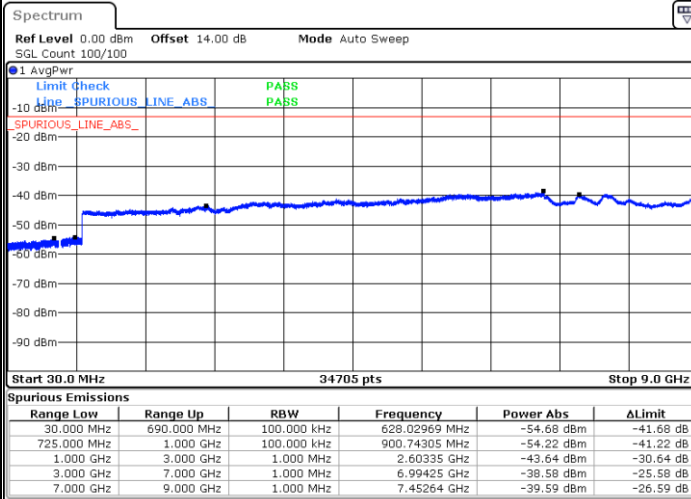




Conducted Spurious Emission

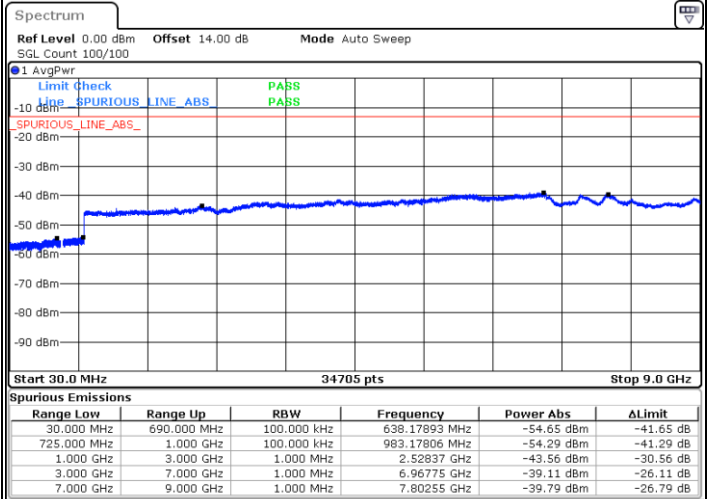
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



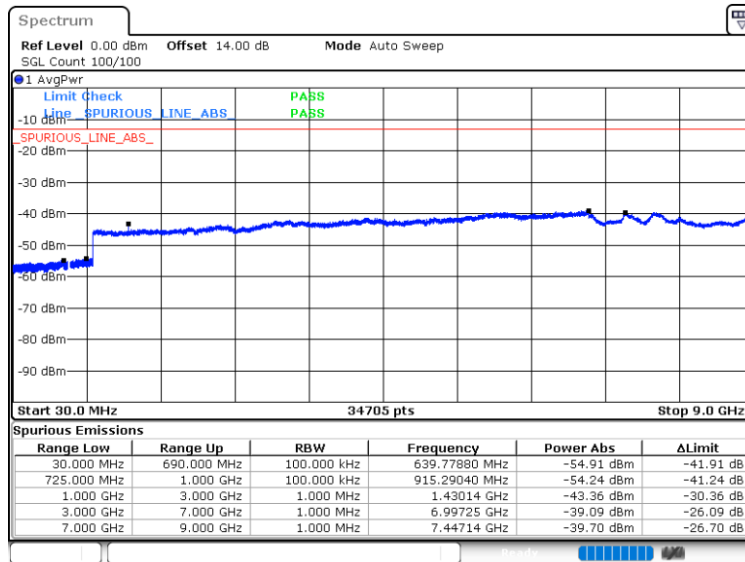
Date: 6.NOV.2023 08:43:05

Middle Channel / QPSK



Date: 6.NOV.2023 08:50:32

Highest Channel / QPSK

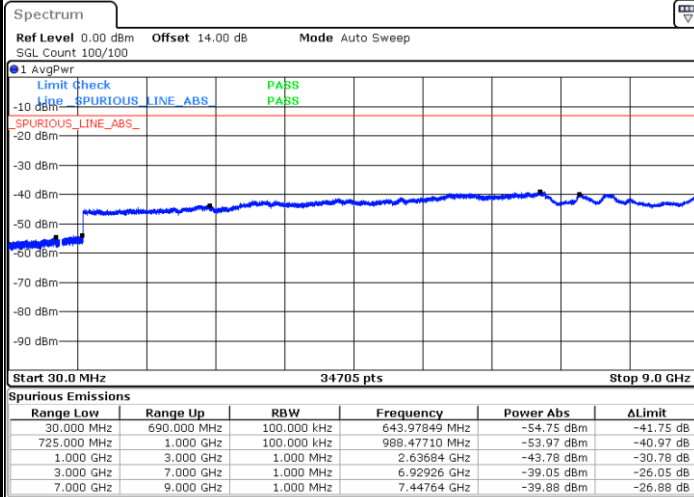


Date: 6.NOV.2023 08:49:43



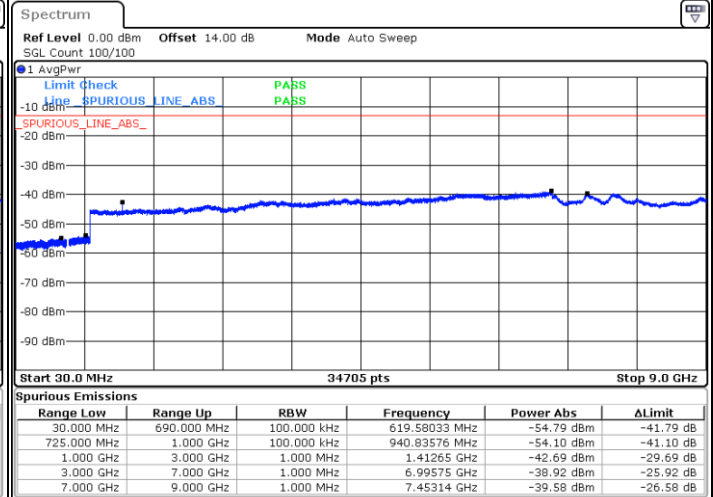
LTE Band 12 / 3MHz

Lowest Channel / QPSK



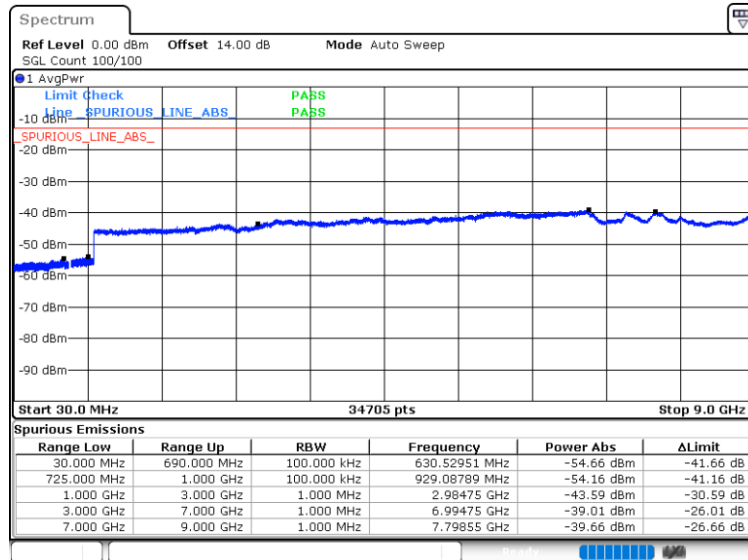
Date: 6.NOV.2023 08:54:52

Middle Channel / QPSK



Date: 6.NOV.2023 09:03:43

Highest Channel / QPSK

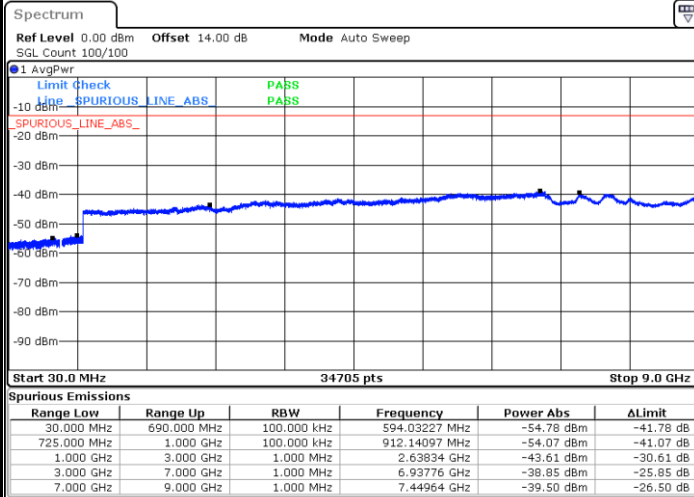


Date: 6.NOV.2023 09:02:49



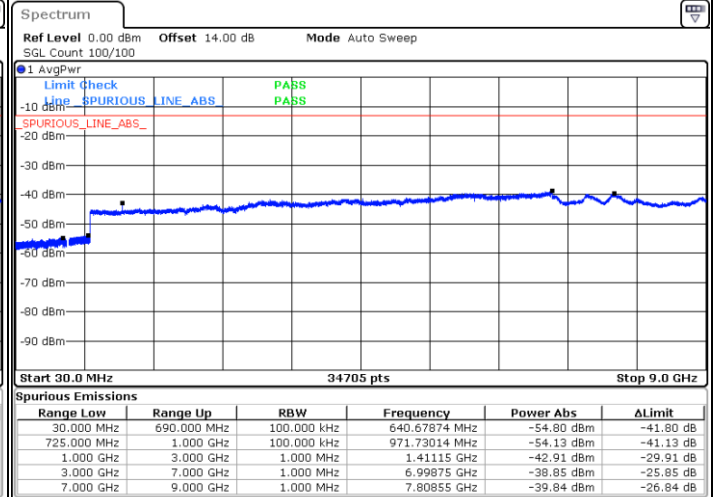
LTE Band 12 / 5MHz

Lowest Channel / QPSK



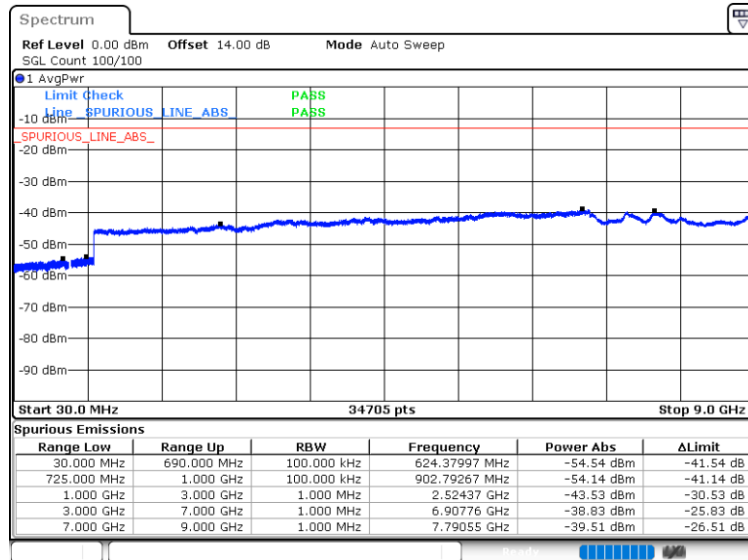
Date: 6.NOV.2023 09:08:35

Middle Channel / QPSK



Date: 6.NOV.2023 09:31:51

Highest Channel / QPSK

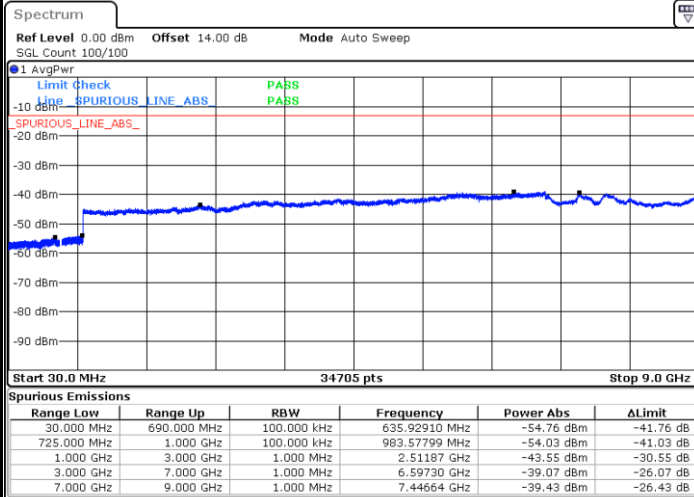


Date: 6.NOV.2023 09:31:00



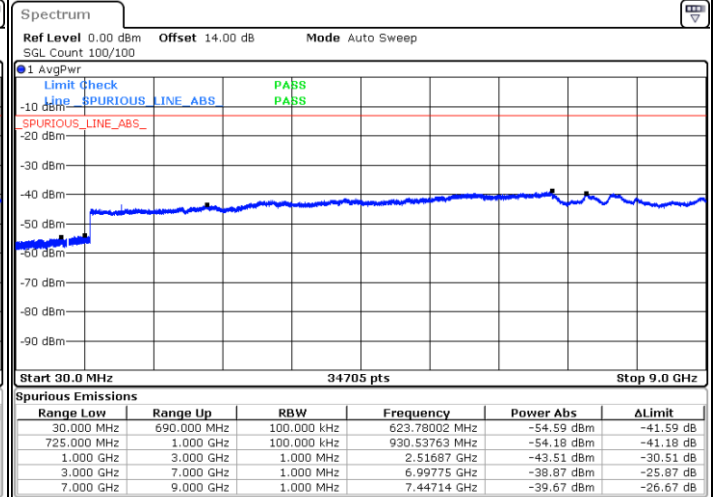
LTE Band 12 / 10MHz

Lowest Channel / QPSK



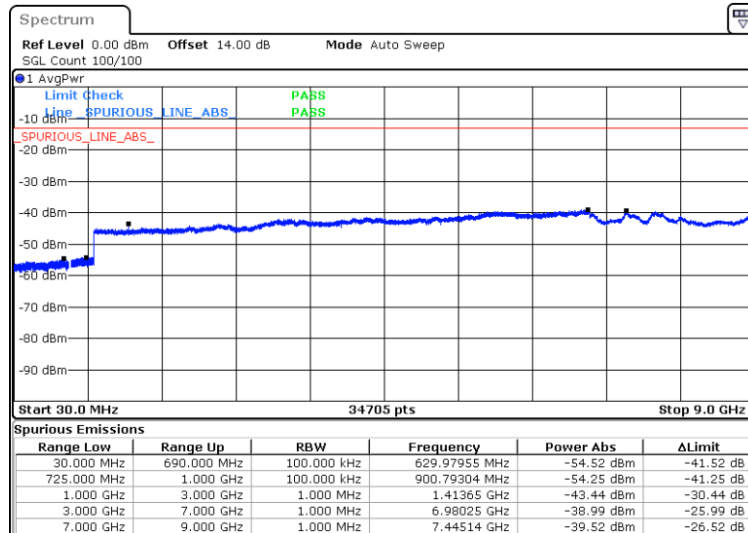
Date: 6.NOV.2023 09:41:17

Middle Channel / QPSK



Date: 6.NOV.2023 10:12:55

Highest Channel / QPSK



Date: 6.NOV.2023 10:11:59

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	0.0041	PASS
40	Normal Voltage	0.0040	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0030	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0042	
20	Maximum Voltage	0.0044	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0031	

Note:

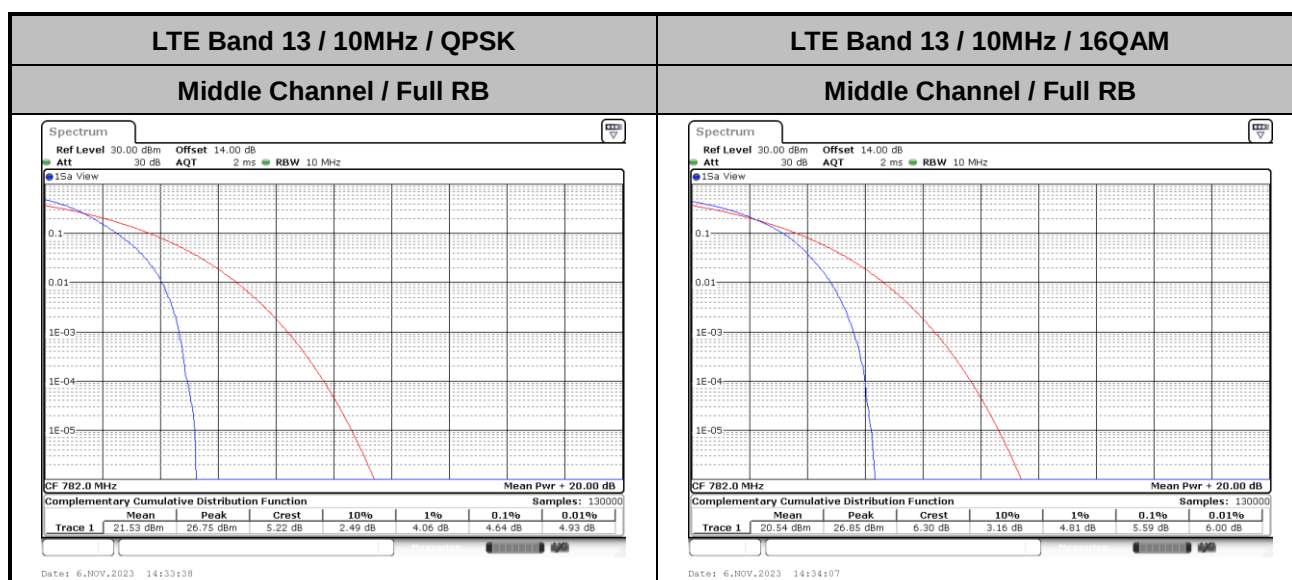
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

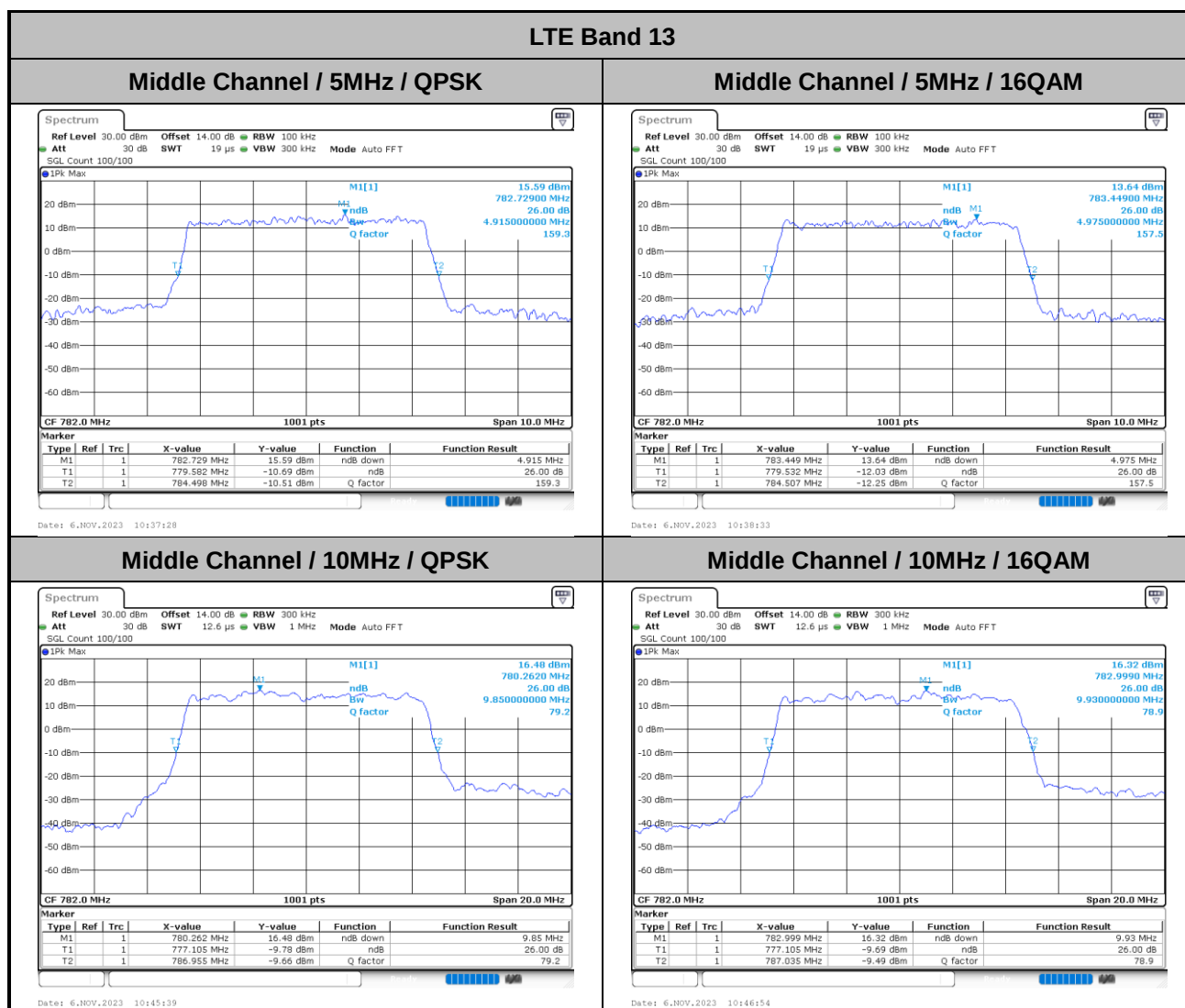
Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	-	Limit: 13dB
RB Size	Full RB	Full RB	-	Result
Middle CH	4.64	5.59	-	PASS





26dB Bandwidth

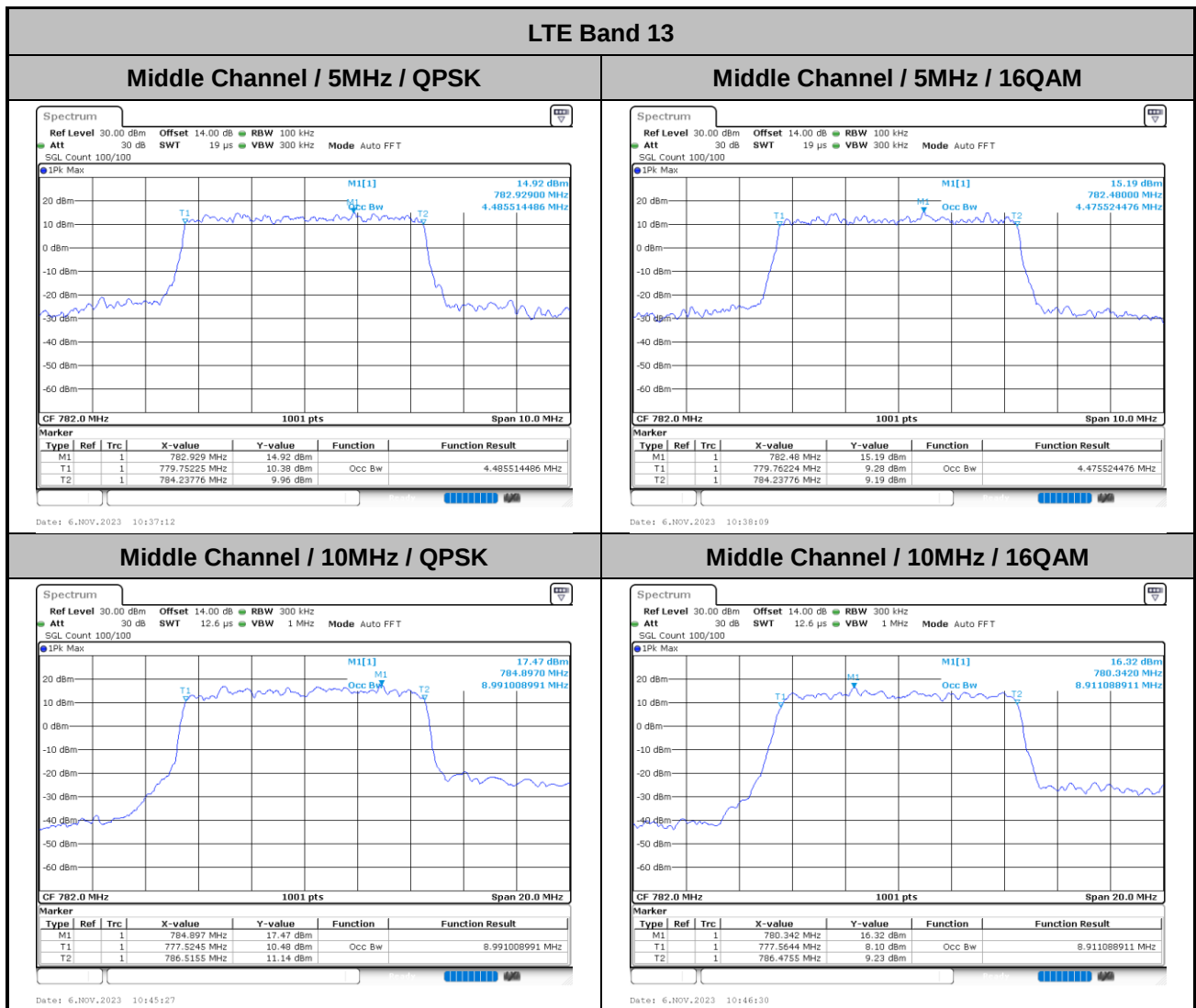
Mode	LTE Band 13 : 26dB BW(MHz)							
BW	5MHz				10MHz			
Mod.	QPSK		16QAM		QPSK		16QAM	
Middle CH	4.92	4.98	9.85	9.93				





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)							
BW	5MHz				10MHz			
Mod.	QPSK		16QAM		QPSK		16QAM	
Middle CH	4.49	4.48	8.99	8.91				

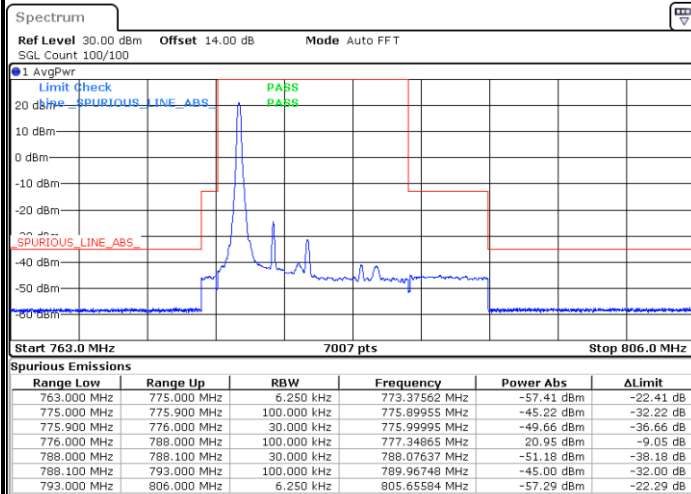




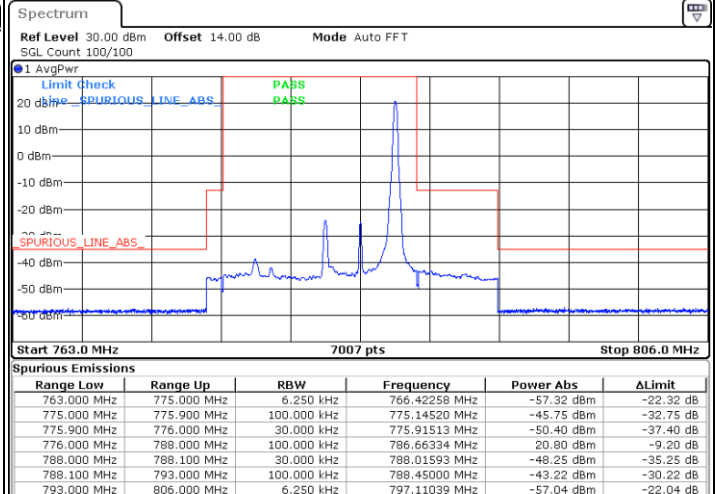
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

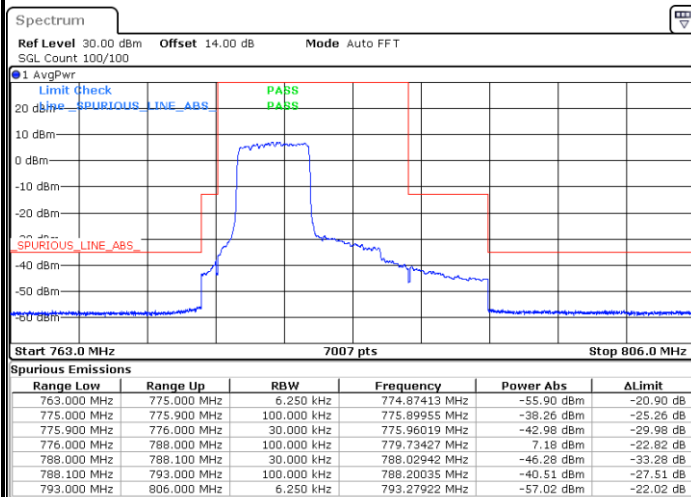
Lowest Band Edge / 1 RB



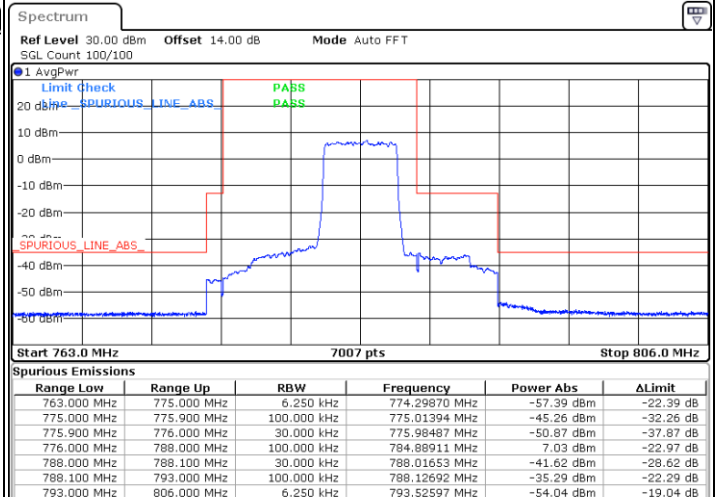
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



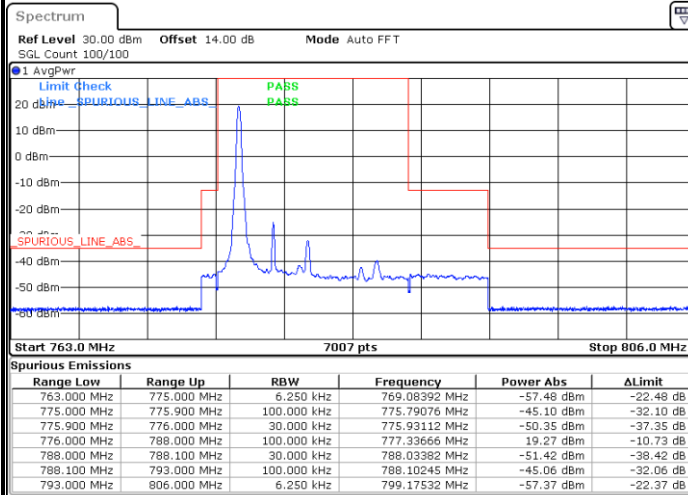
Highest Band Edge / Full RB



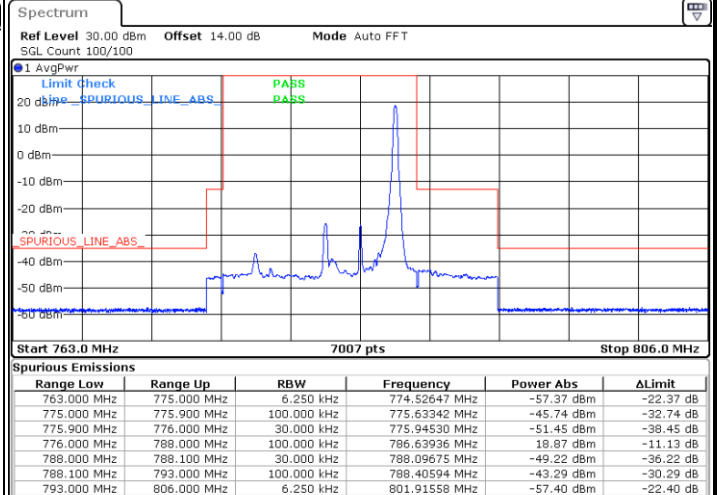


LTE Band 13 / 5MHz / 16QAM

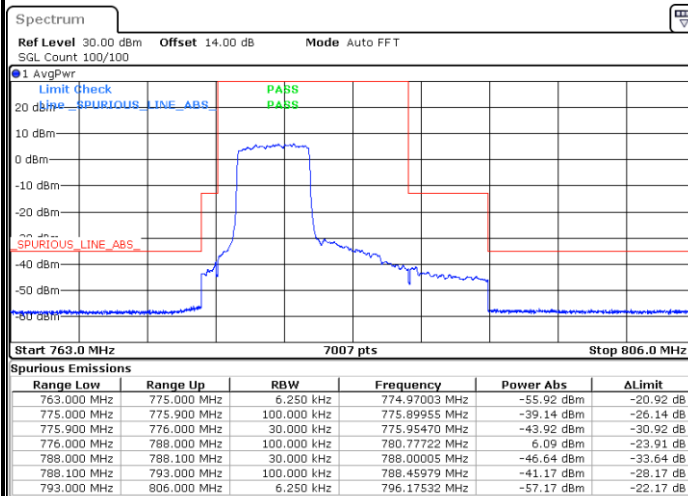
Lowest Band Edge / 1 RB



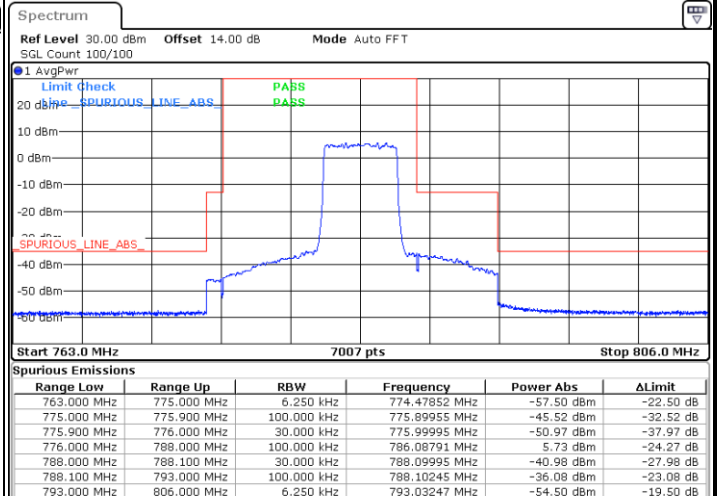
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

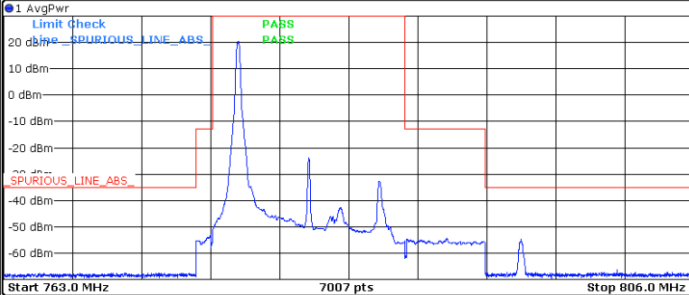




LTE Band 13 / 10MHz / QPSK

Band Edge / 1 RB

Spectrum

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

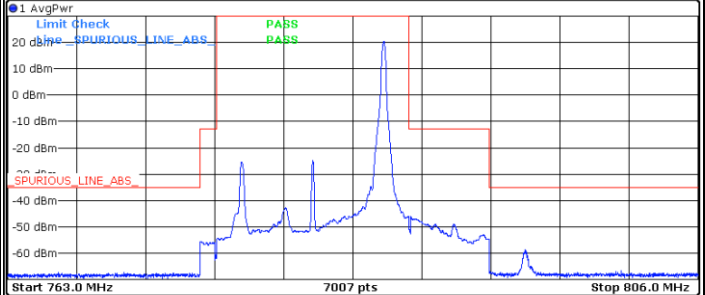
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	769.79121 MHz	-67.59 dBm	-32.59 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-53.00 dBm	-40.00 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99795 MHz	-55.68 dBm	-42.68 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.61239 MHz	20.35 dBm	-9.65 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.03242 MHz	-61.11 dBm	-48.11 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.58916 MHz	-54.49 dBm	-41.49 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.21429 MHz	-54.87 dBm	-19.87 dB

Date: 6.NOV.2023 10:39:46

LTE Band 13 / 10MHz / QPSK

Band Edge / 1 RB

Spectrum

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

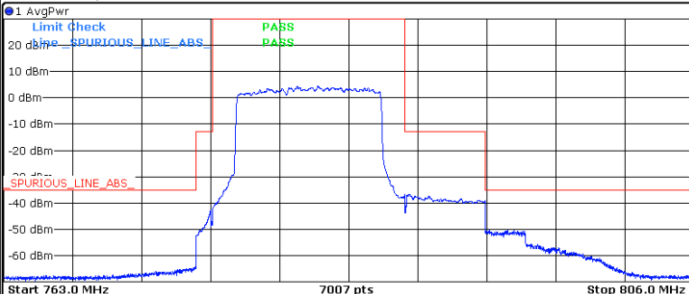
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	766.15884 MHz	-67.49 dBm	-32.49 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.01484 MHz	-55.66 dBm	-42.66 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.94720 MHz	-60.68 dBm	-47.68 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.43556 MHz	20.33 dBm	-9.67 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-50.71 dBm	-37.71 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-46.18 dBm	-33.18 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.24026 MHz	-58.76 dBm	-23.76 dB

Date: 6.NOV.2023 10:42:49

LTE Band 13 / 10MHz / QPSK

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	774.99401 MHz	-63.99 dBm	-28.99 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-42.78 dBm	-29.78 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97547 MHz	-46.96 dBm	-33.96 dB
776.000 MHz	788.000 MHz	100.000 kHz	782.57542 MHz	4.36 dBm	-25.64 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.08237 MHz	-40.83 dBm	-27.83 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.24930 MHz	-36.74 dBm	-23.74 dB
793.000 MHz	806.000 MHz	6.250 kHz	794.79870 MHz	-50.34 dBm	-15.34 dB

Date: 6.NOV.2023 10:42:04

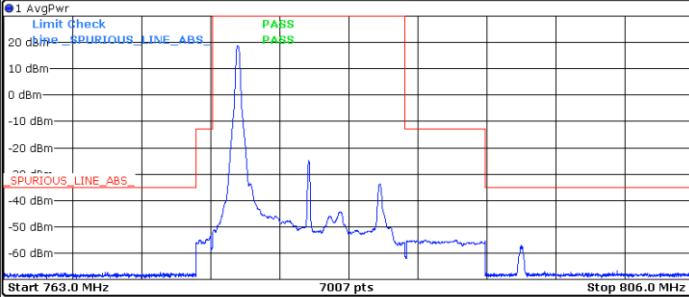
NA



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

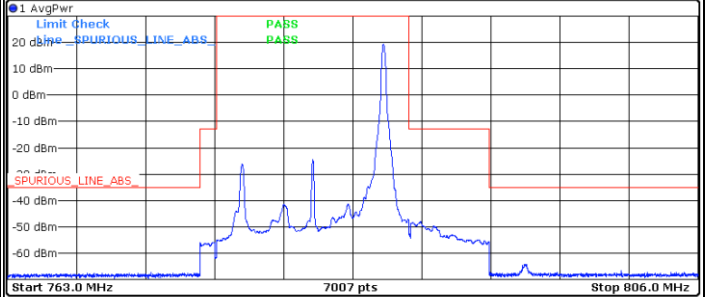
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	772.75225 MHz	-67.30 dBm	-32.30 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-53.46 dBm	-40.46 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99655 MHz	-57.52 dBm	-44.52 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.57642 MHz	-18.80 dBm	-11.20 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00834 MHz	-61.21 dBm	-49.21 dB
788.100 MHz	793.000 MHz	100.000 kHz	789.27277 MHz	-54.99 dBm	-41.99 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.22727 MHz	-57.09 dBm	-22.09 dB

Date: 6.NOV.2023 10:41:00

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

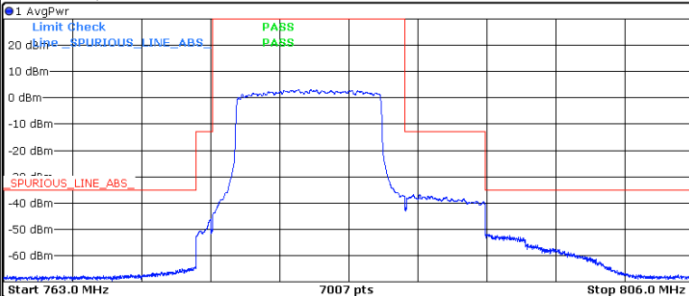
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	771.93706 MHz	-67.51 dBm	-32.51 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.78087 MHz	-55.89 dBm	-42.89 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.98926 MHz	-61.53 dBm	-48.53 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	-19.28 dBm	-10.72 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.01334 MHz	-52.72 dBm	-39.72 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.69965 MHz	-48.18 dBm	-35.18 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.24026 MHz	-64.26 dBm	-29.26 dB

Date: 6.NOV.2023 10:43:40

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	774.99401 MHz	-63.96 dBm	-28.96 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-46.14 dBm	-33.14 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97008 MHz	-50.13 dBm	-37.13 dB
776.000 MHz	788.000 MHz	100.000 kHz	781.36464 MHz	-3.20 dBm	-26.80 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.06948 MHz	-41.76 dBm	-28.76 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.90524 MHz	-36.84 dBm	-23.84 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.14935 MHz	-51.90 dBm	-16.90 dB

Date: 6.NOV.2023 10:41:34

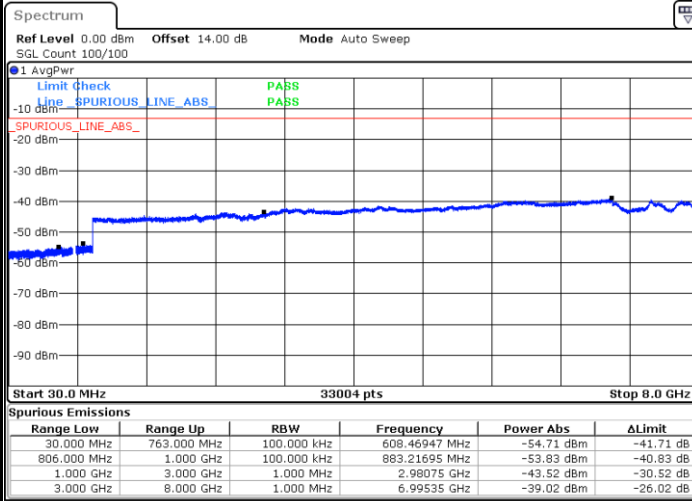
NA



Conducted Spurious Emission

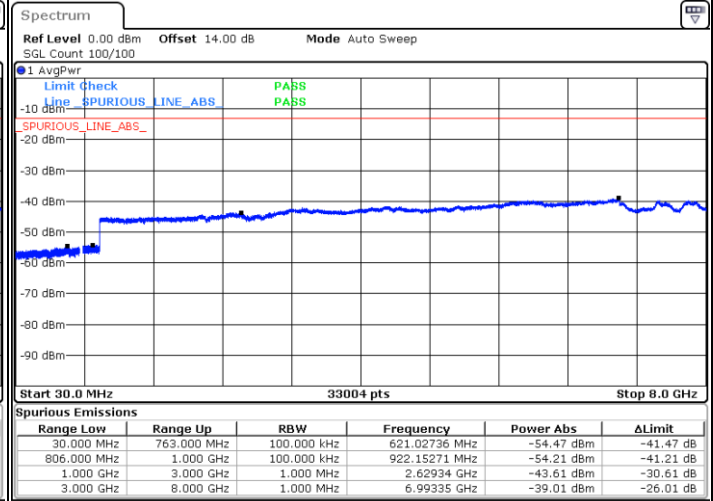
LTE Band 13 / 5MHz

Lowest Channel / QPSK



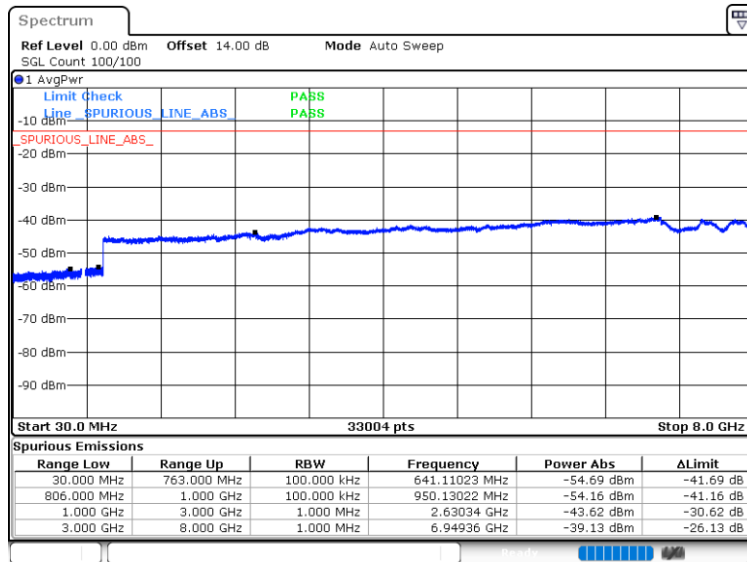
Date: 6.NOV.2023 10:29:26

Middle Channel / QPSK



Date: 6.NOV.2023 10:36:31

Highest Channel / QPSK

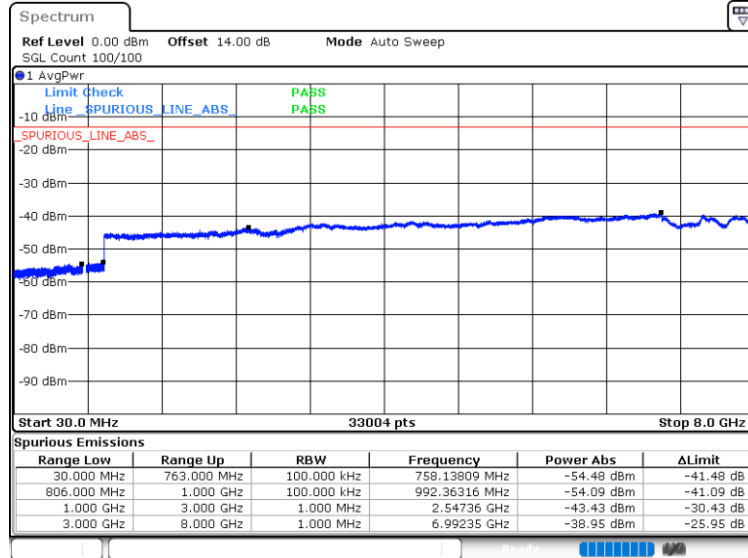


Date: 6.NOV.2023 10:35:32



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 6.NOV.2023 10:40:22

**Frequency Stability**

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0010	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0026	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

Note:

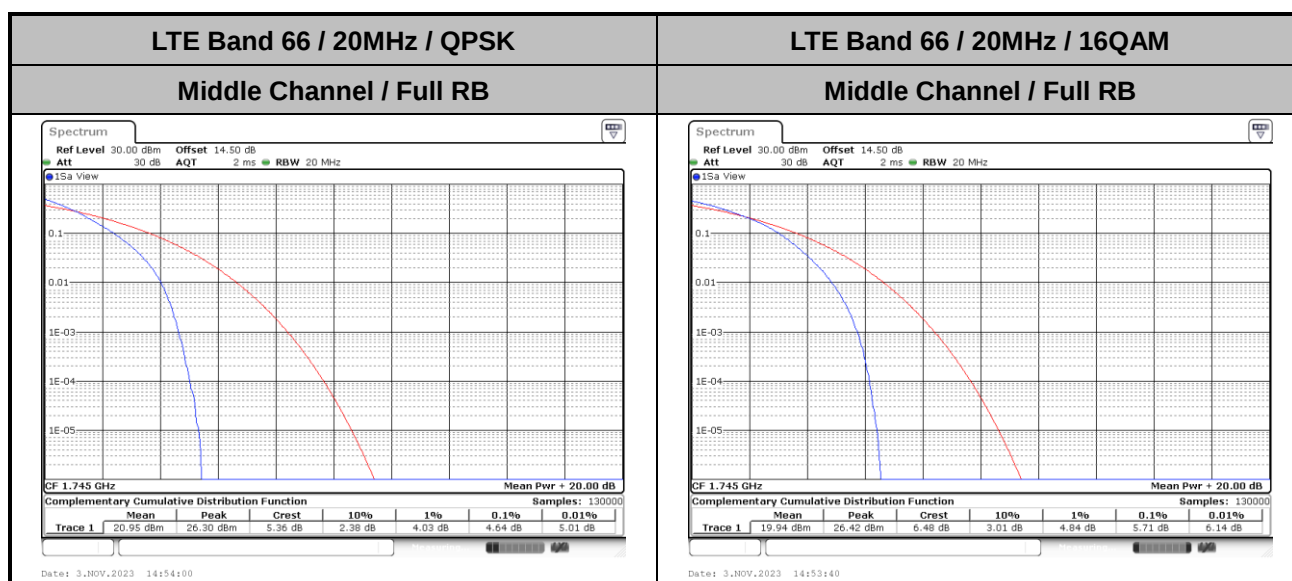
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 66

Peak-to-Average Ratio

Mode	LTE Band 66 / 20MHz			
Mod.	QPSK	16QAM	-	Limit: 13dB
RB Size	Full RB	Full RB	-	Result
Middle CH	4.64	5.71	-	PASS





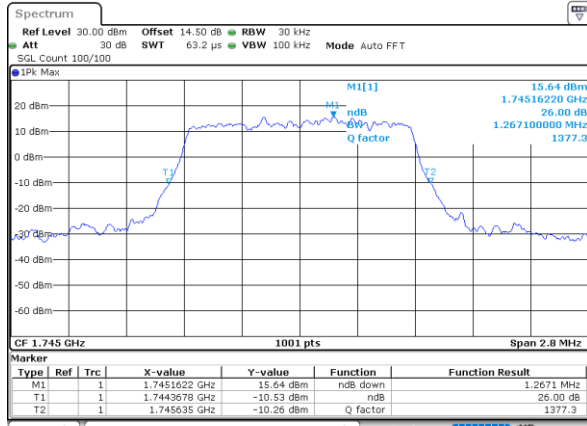
26dB Bandwidth

Mode	LTE Band 66 : 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	1.27	1.26	3.03	3.05	4.97	4.96	9.71	9.87	14.45	14.51	19.10	18.94



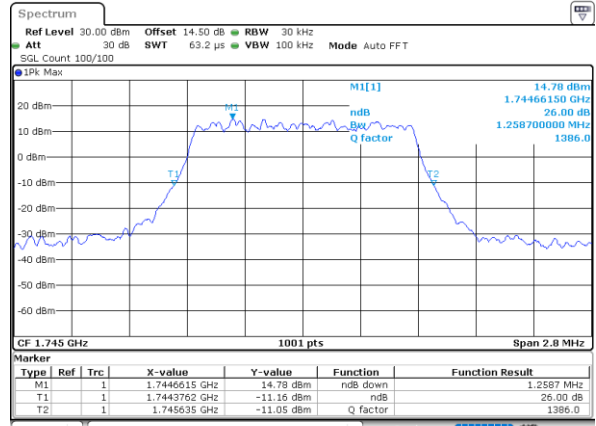
LTE Band 66

Middle Channel / 1.4MHz / QPSK



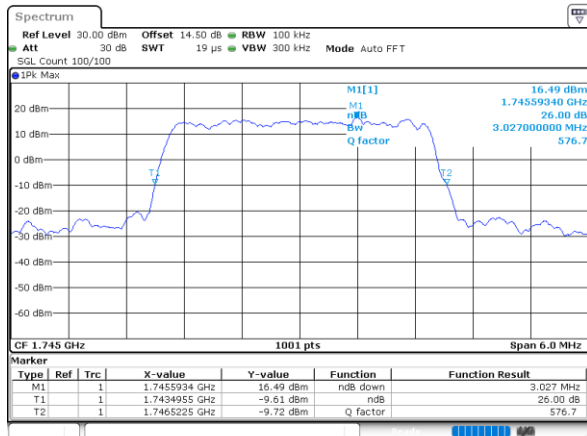
Date: 3,NOV,2023 13:40:19

Middle Channel / 1.4MHz / 16QAM



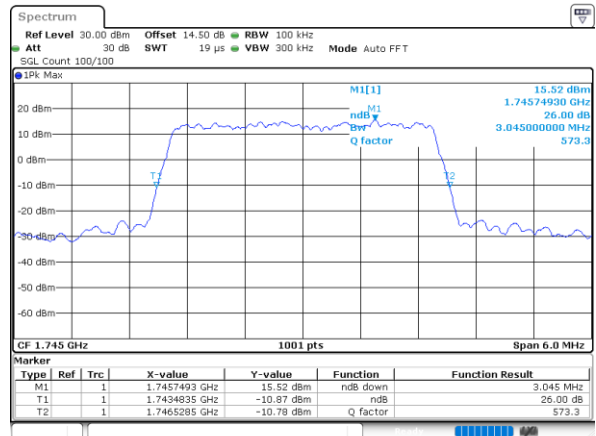
Date: 3,NOV,2023 13:41:41

Middle Channel / 3MHz / QPSK



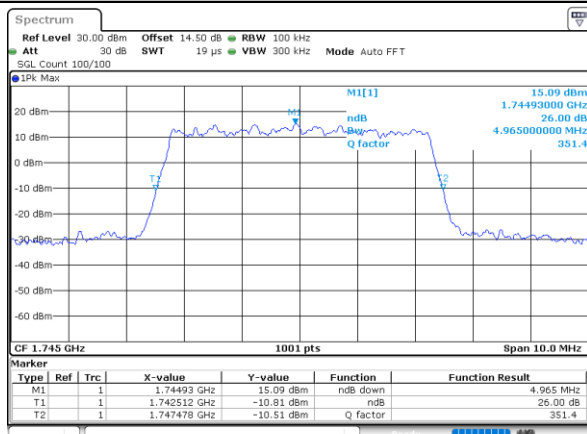
Date: 3,NOV,2023 13:50:05

Middle Channel / 3MHz / 16QAM



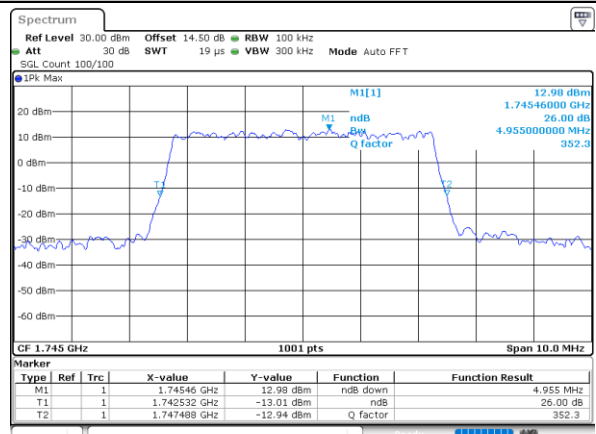
Date: 3,NOV,2023 13:51:25

Middle Channel / 5MHz / QPSK



Date: 3,NOV,2023 14:00:19

Middle Channel / 5MHz / 16QAM

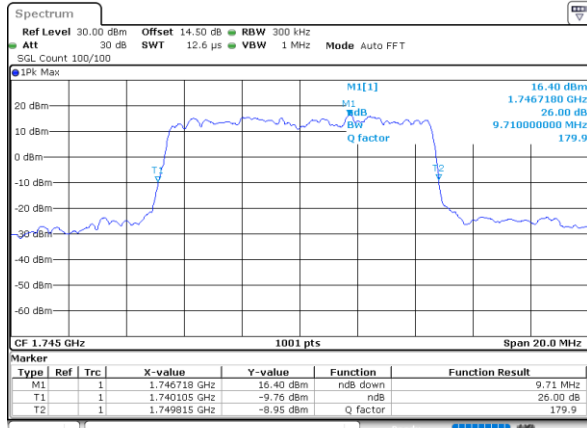


Date: 3,NOV,2023 14:00:51



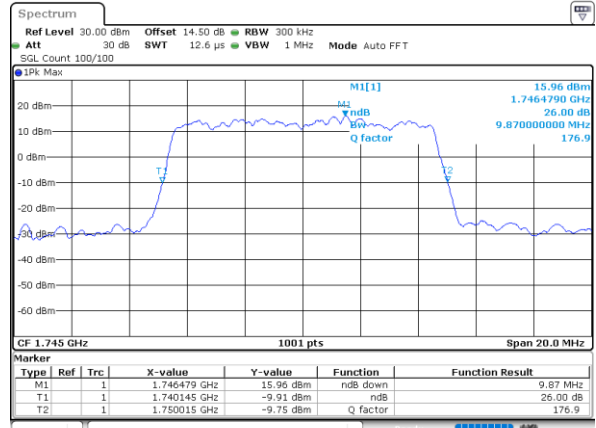
LTE Band 66

Middle Channel / 10MHz / QPSK



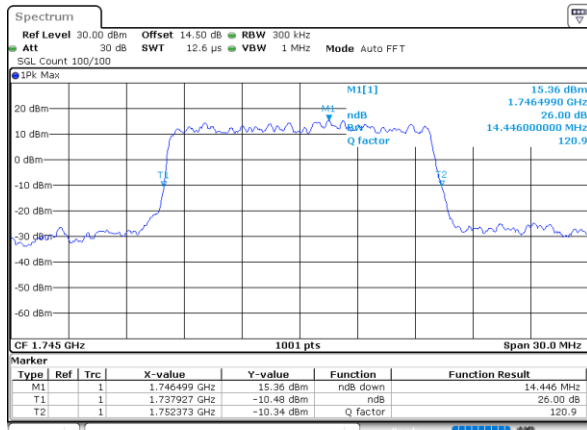
Date: 3,NOV,2023 14:25:05

Middle Channel / 10MHz / 16QAM



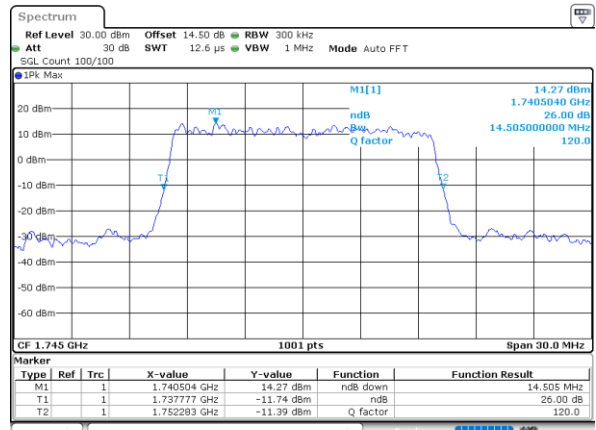
Date: 3,NOV,2023 14:26:53

Middle Channel / 15MHz / QPSK



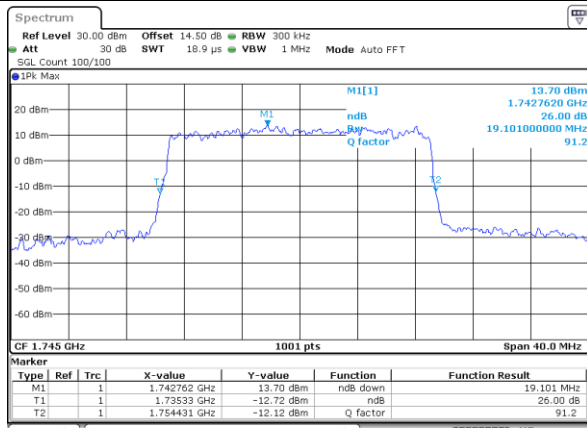
Date: 3,NOV,2023 14:40:52

Middle Channel / 15MHz / 16QAM



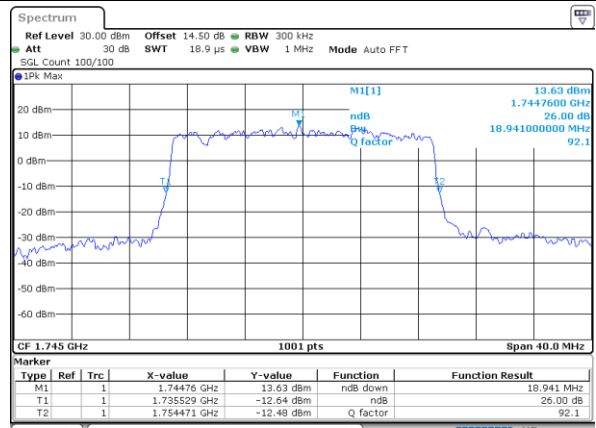
Date: 3,NOV,2023 14:41:29

Middle Channel / 20MHz / QPSK



Date: 3,NOV,2023 14:52:37

Middle Channel / 20MHz / 16QAM



Date: 3,NOV,2023 14:53:25

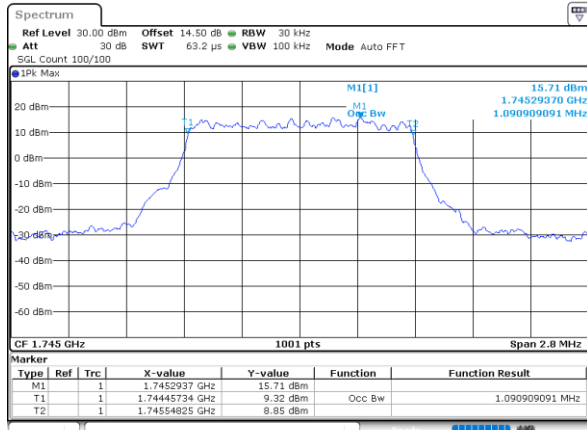
**Occupied Bandwidth**

Mode	LTE Band 66 : 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	1.09	1.09	2.73	2.72	4.49	4.49	9.01	9.01	13.46	13.37	17.82	17.82

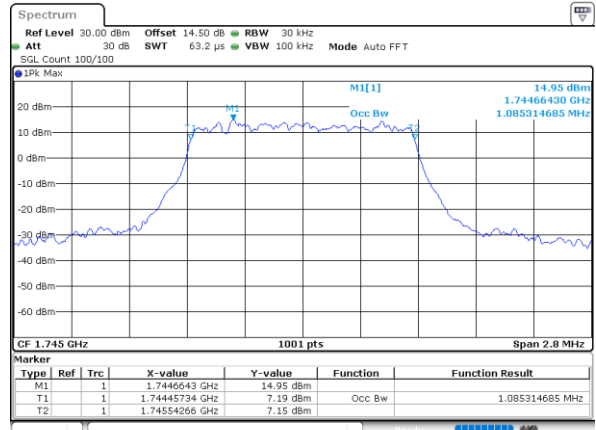


LTE Band 66

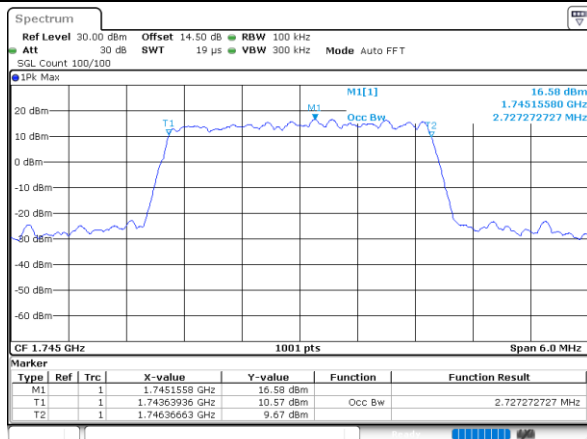
Middle Channel / 1.4MHz / QPSK



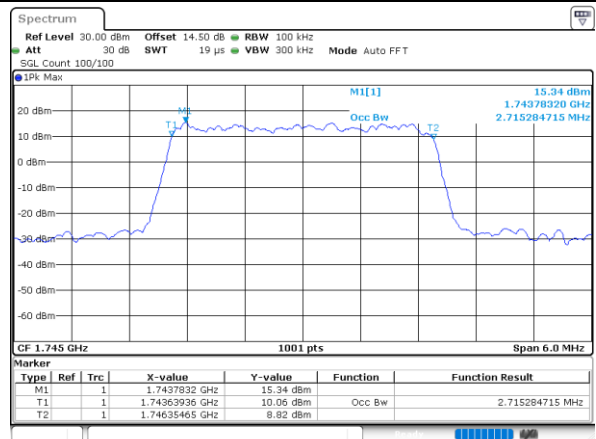
Middle Channel / 1.4MHz / 16QAM



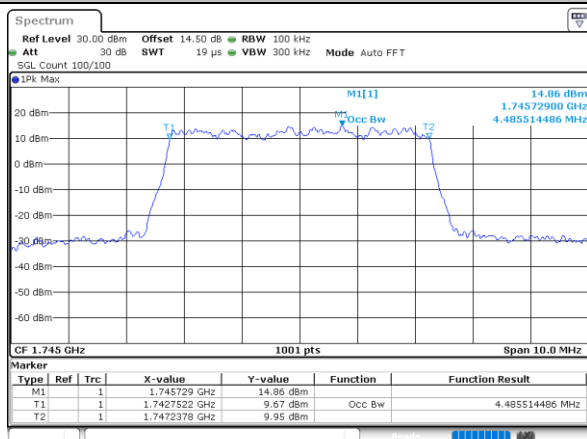
Middle Channel / 3MHz / QPSK



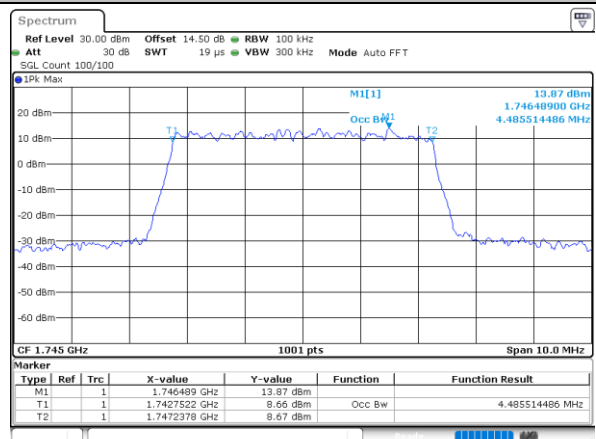
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



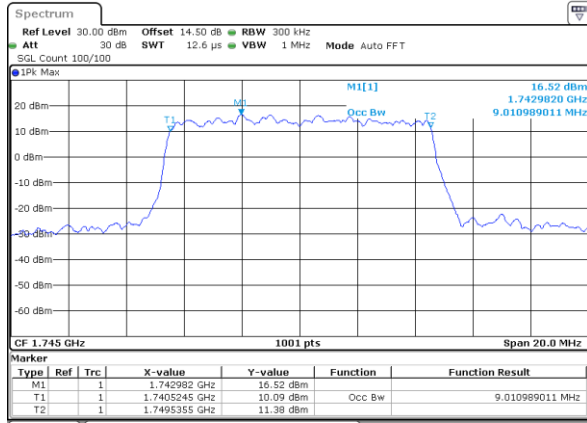
Middle Channel / 5MHz / 16QAM





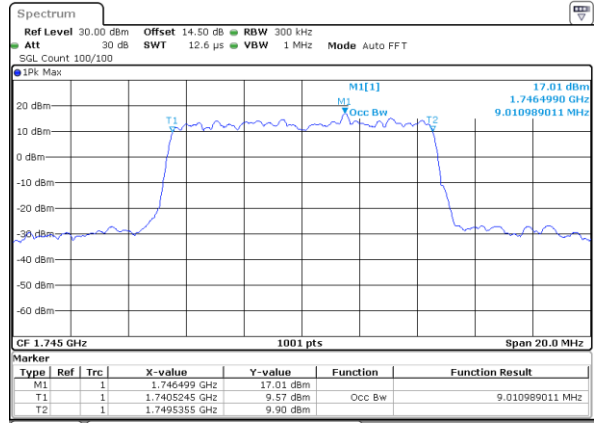
LTE Band 66

Middle Channel / 10MHz / QPSK



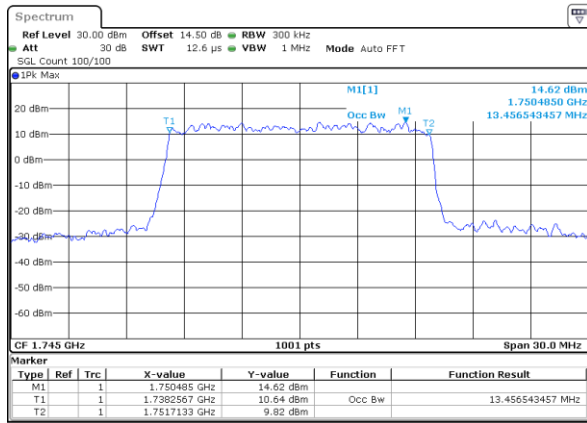
Date: 3,NOV,2023 14:24:52

Middle Channel / 10MHz / 16QAM



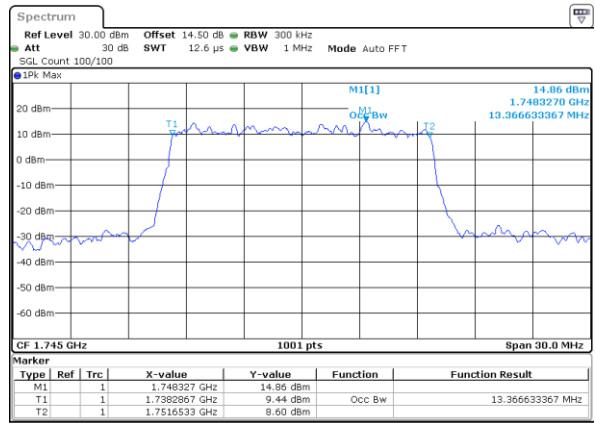
Date: 3,NOV,2023 14:26:13

Middle Channel / 15MHz / QPSK



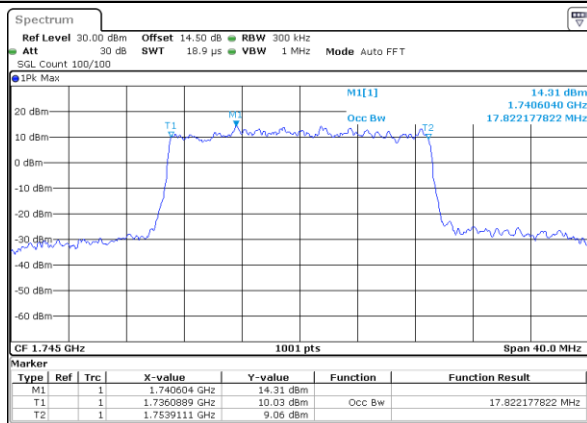
Date: 3,NOV,2023 14:40:39

Middle Channel / 15MHz / 16QAM



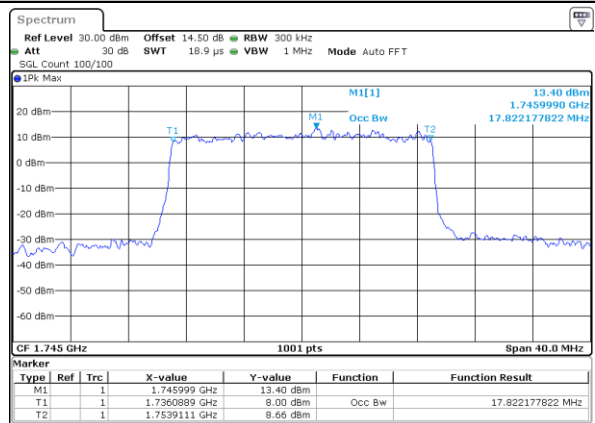
Date: 3,NOV,2023 14:41:15

Middle Channel / 20MHz / QPSK



Date: 3,NOV,2023 14:51:59

Middle Channel / 20MHz / 16QAM



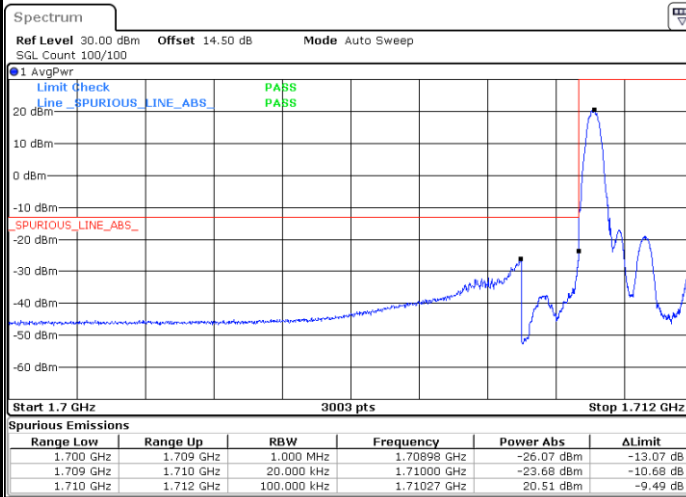
Date: 3,NOV,2023 14:53:08



Conducted Band Edge

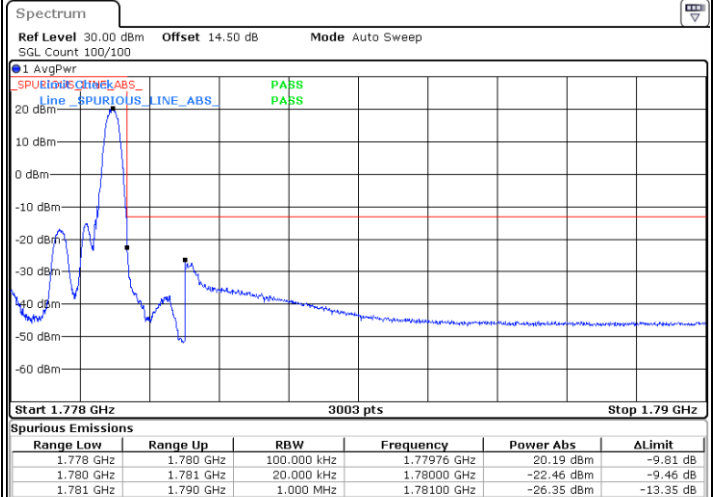
LTE Band 66 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



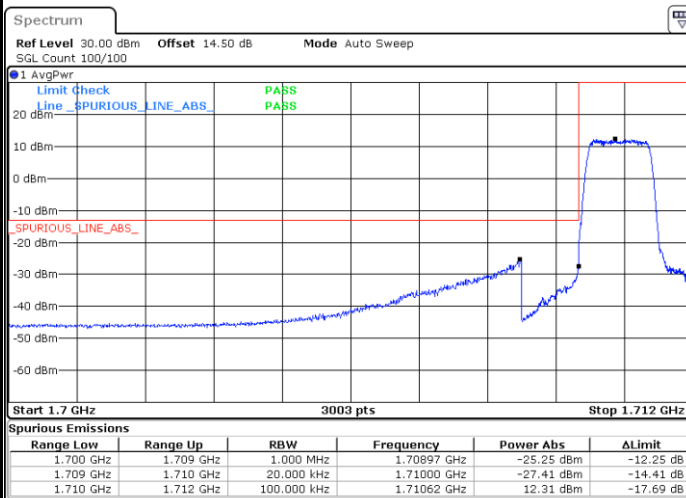
Date: 3.NOV.2023 13:32:12

Highest Band Edge / 1RB



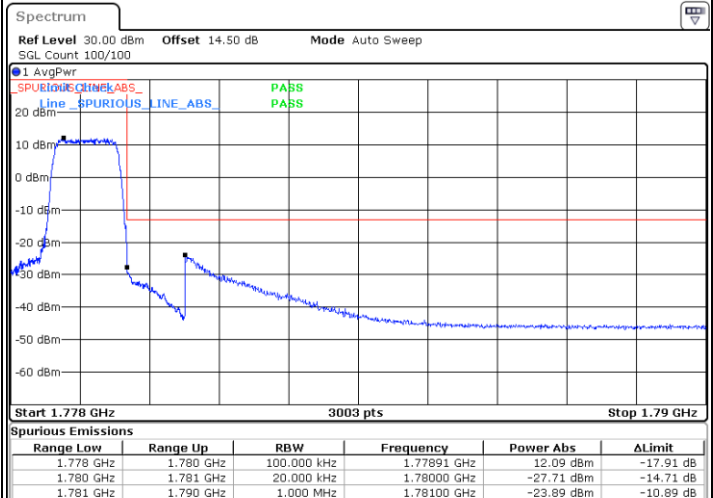
Date: 3.NOV.2023 13:37:43

Lowest Band Edge / Full RB



Date: 3.NOV.2023 13:35:02

Highest Band Edge / Full RB

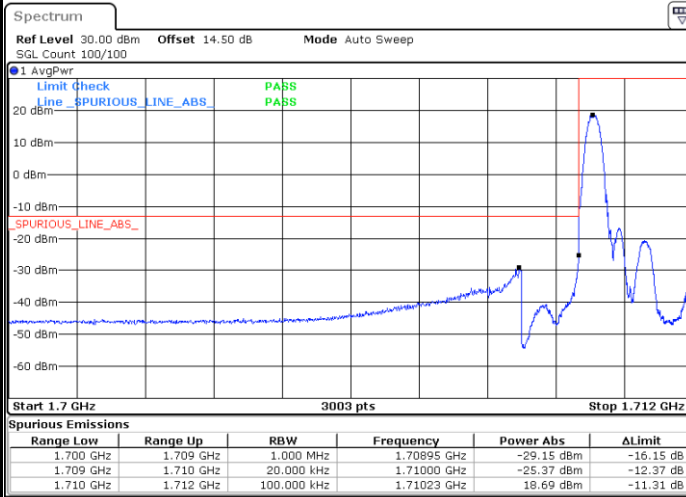


Date: 3.NOV.2023 13:36:05



LTE Band 66 / 1.4MHz / 16QAM

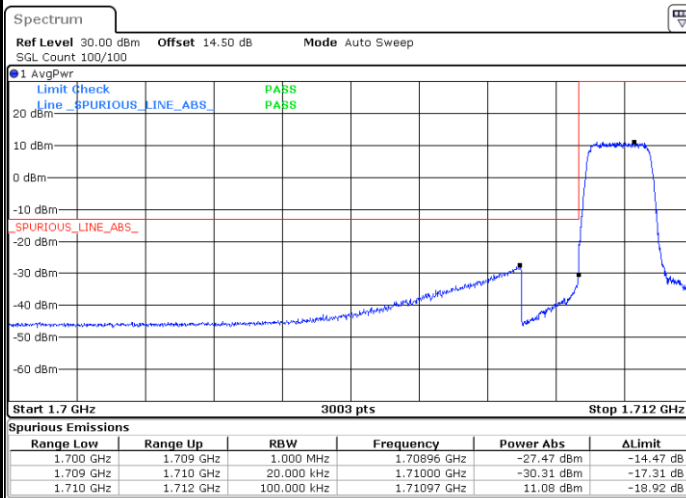
Lowest Band Edge / 1 RB



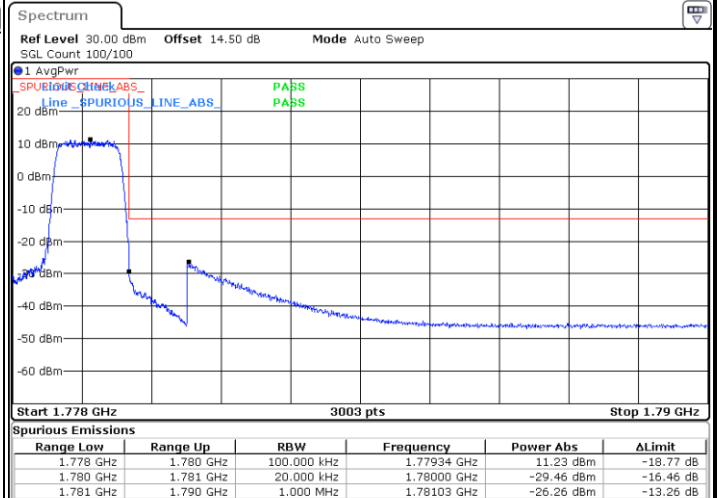
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



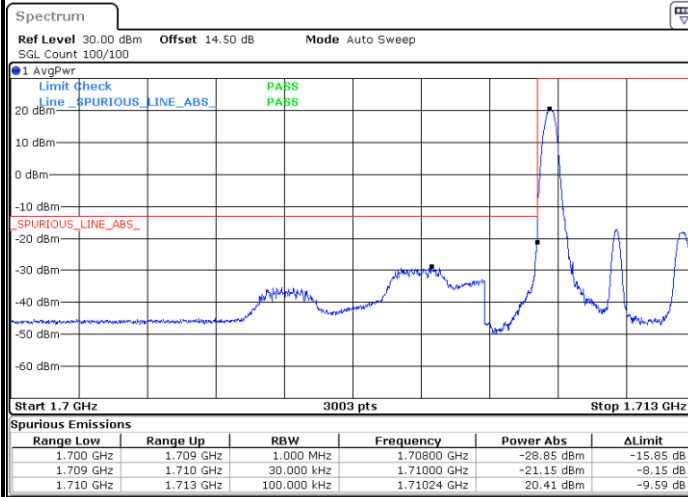
Highest Band Edge / Full RB



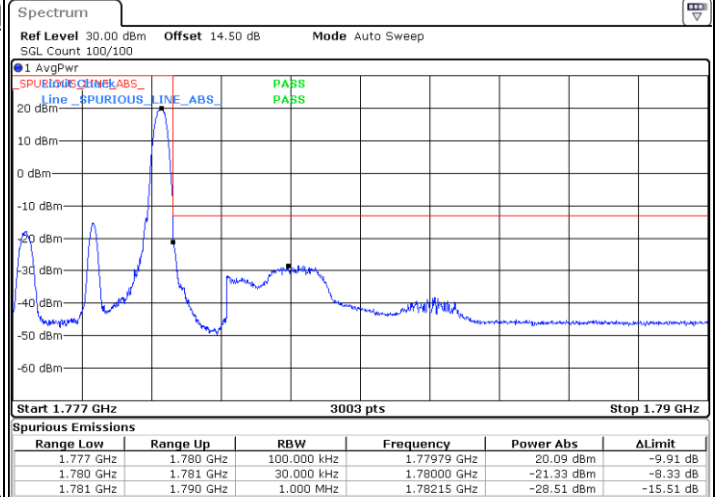


LTE Band 66 / 3MHz / QPSK

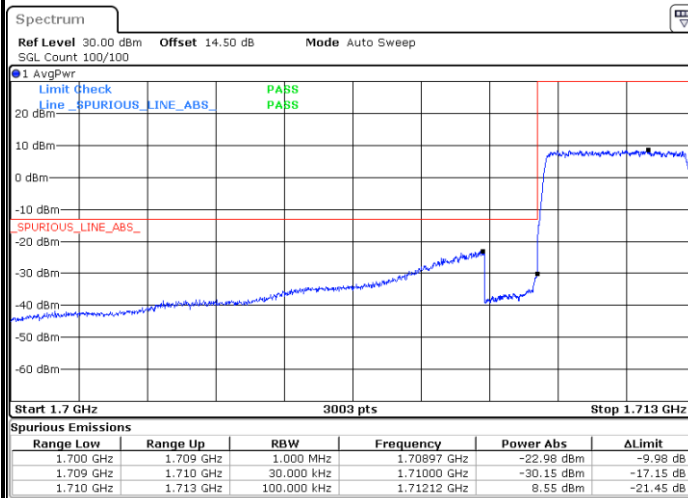
Lowest Band Edge / 1RB



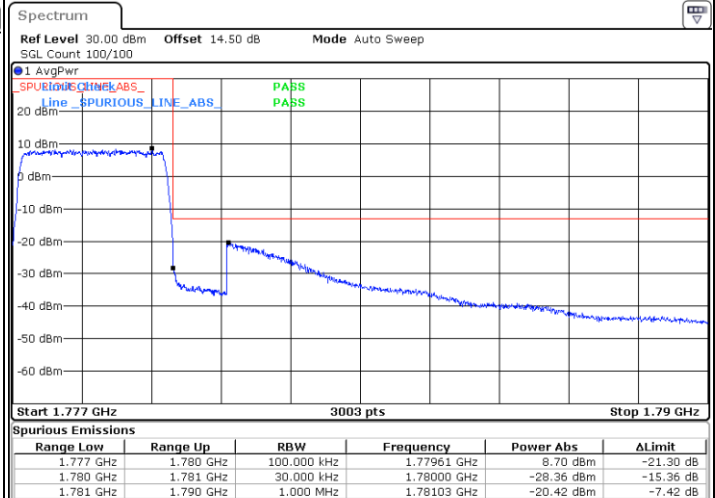
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



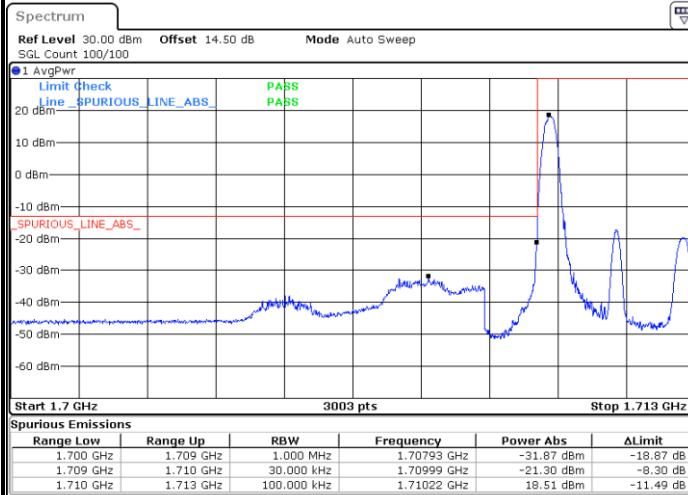
Highest Band Edge / Full RB



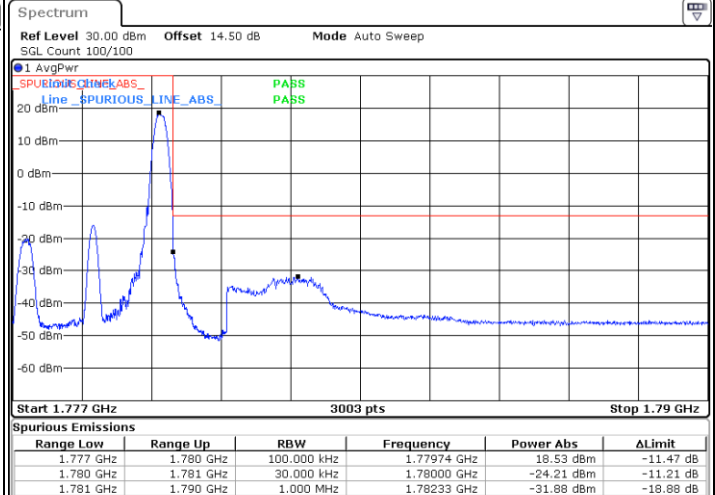


LTE Band 66 / 3MHz / 16QAM

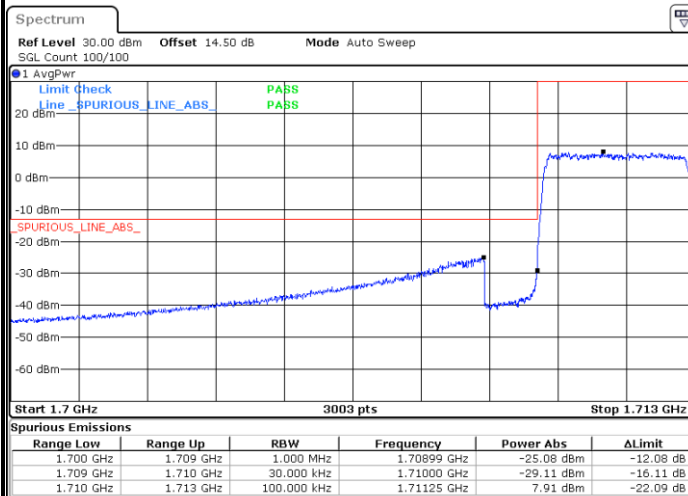
Lowest Band Edge / 1 RB



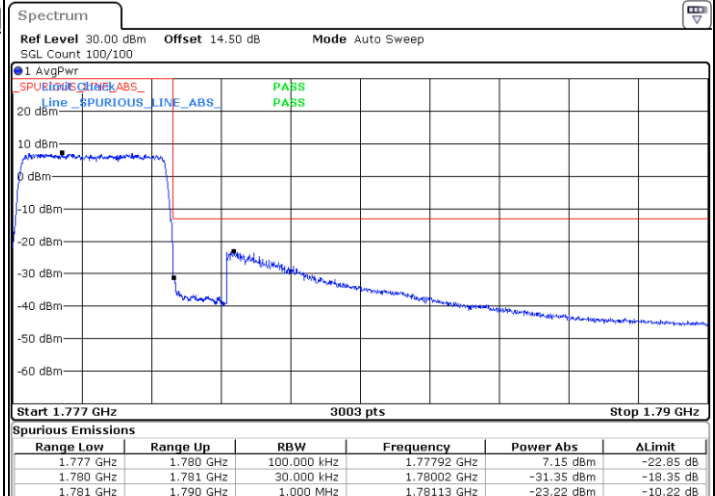
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



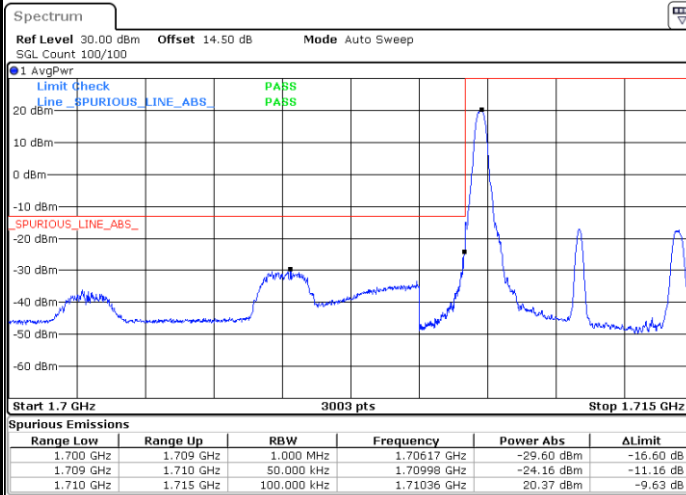
Highest Band Edge / Full RB



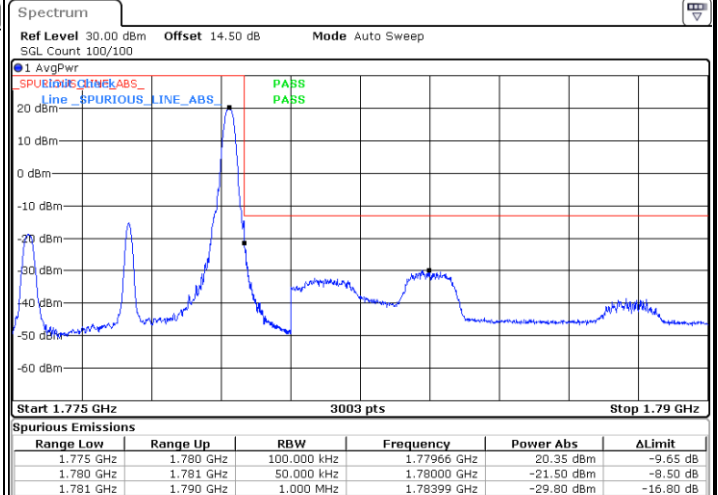


LTE Band 66 / 5MHz / QPSK

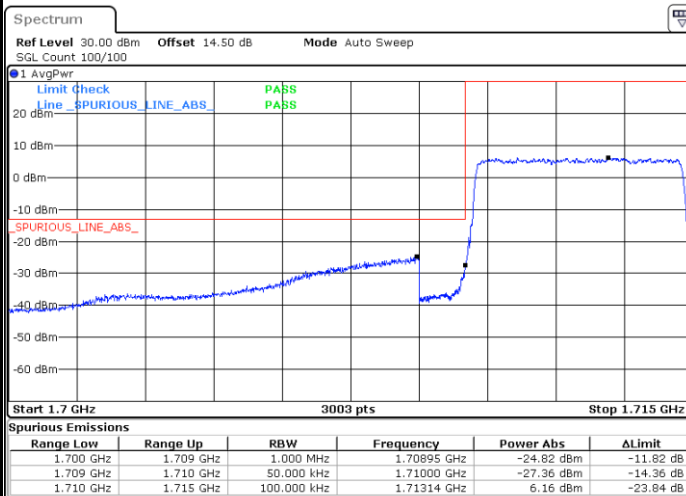
Lowest Band Edge / 1RB



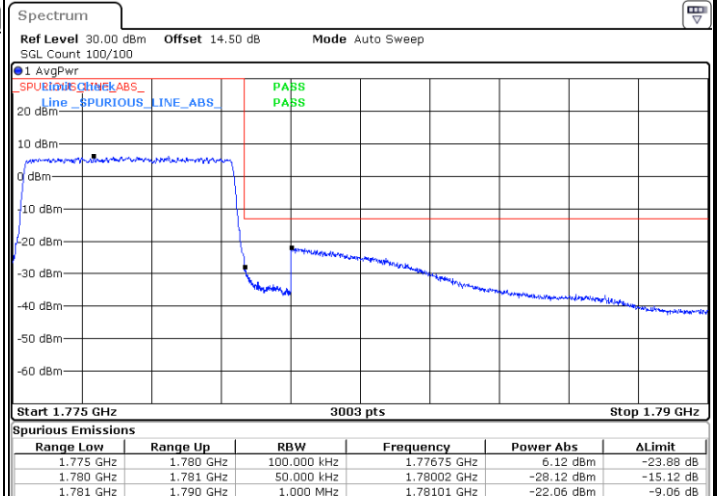
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



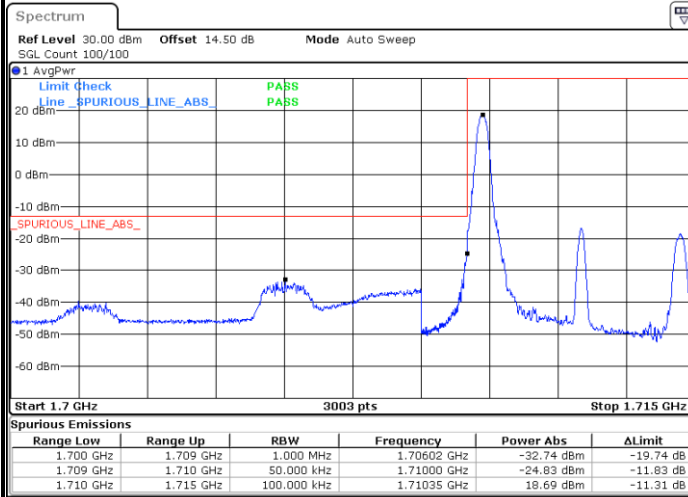
Highest Band Edge / Full RB



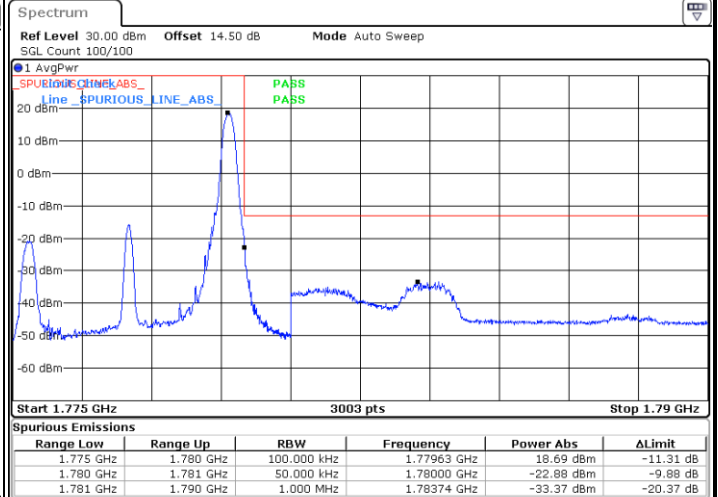


LTE Band 66 / 5MHz / 16QAM

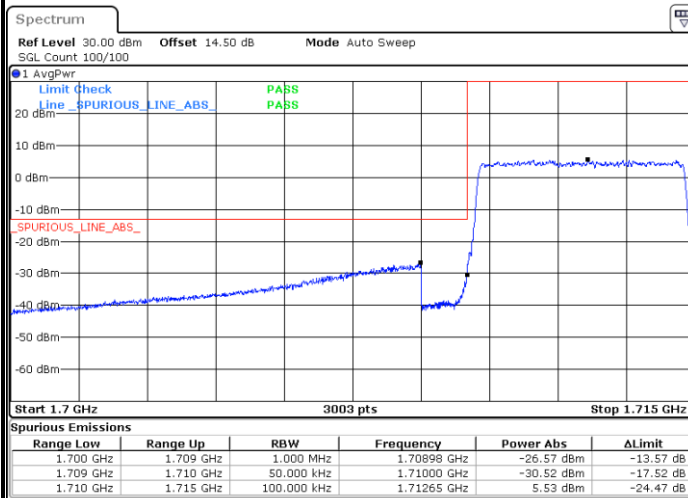
Lowest Band Edge / 1 RB



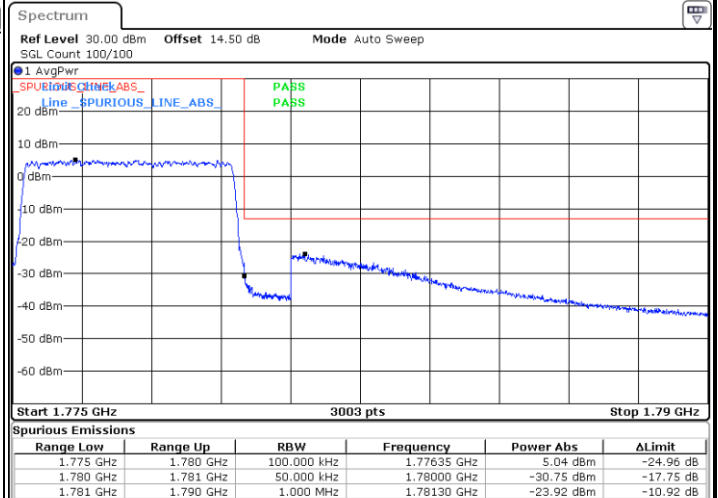
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



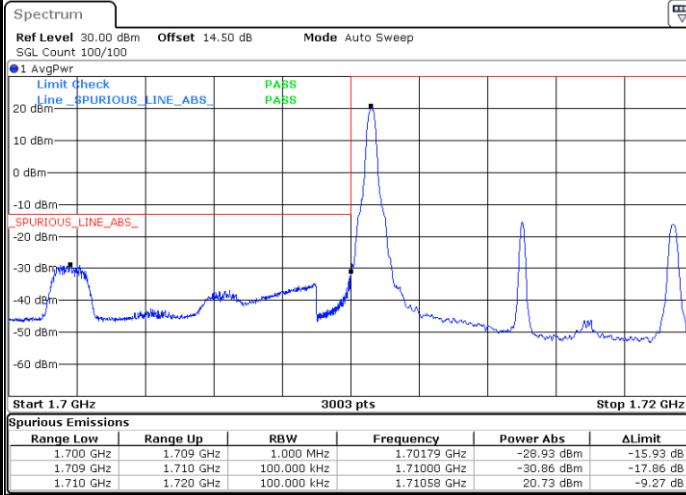
Highest Band Edge / Full RB



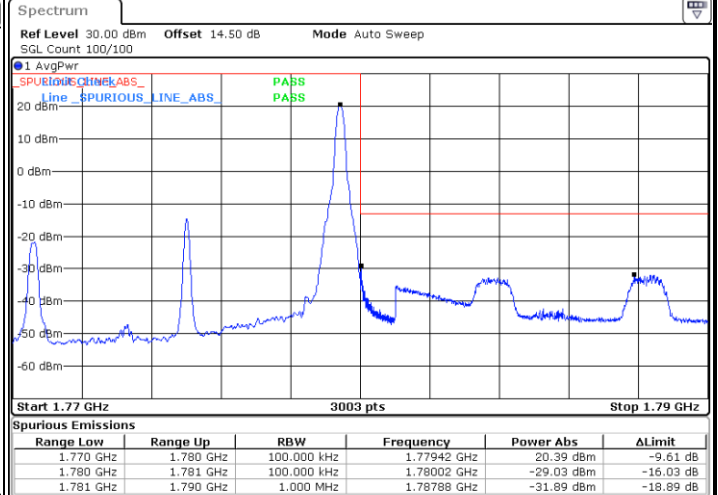


LTE Band 66 / 10MHz / QPSK

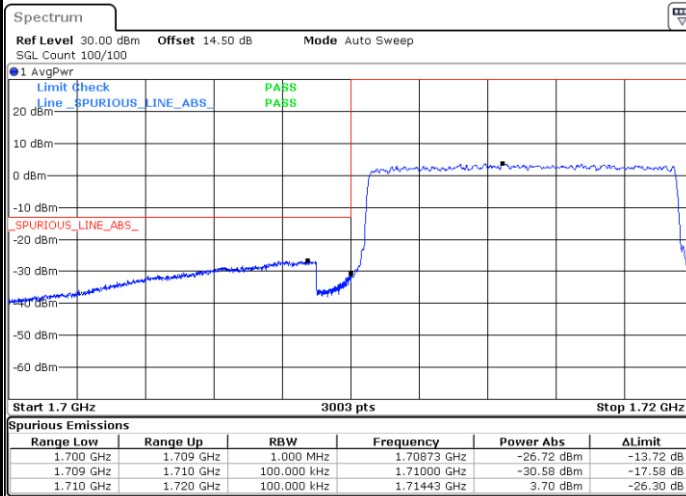
Lowest Band Edge / 1RB



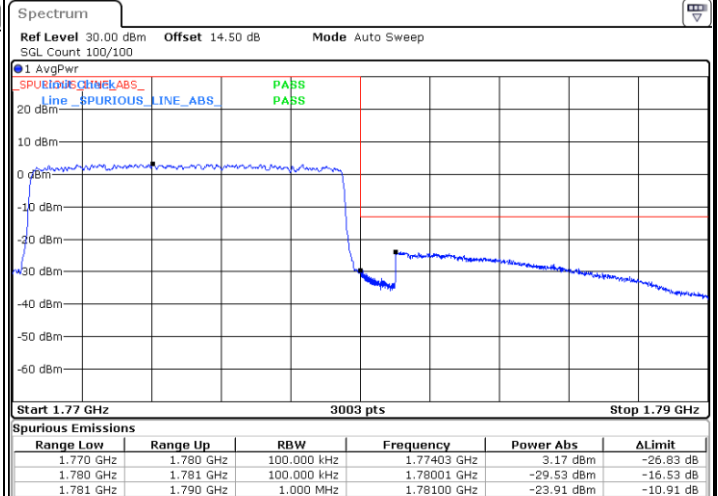
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



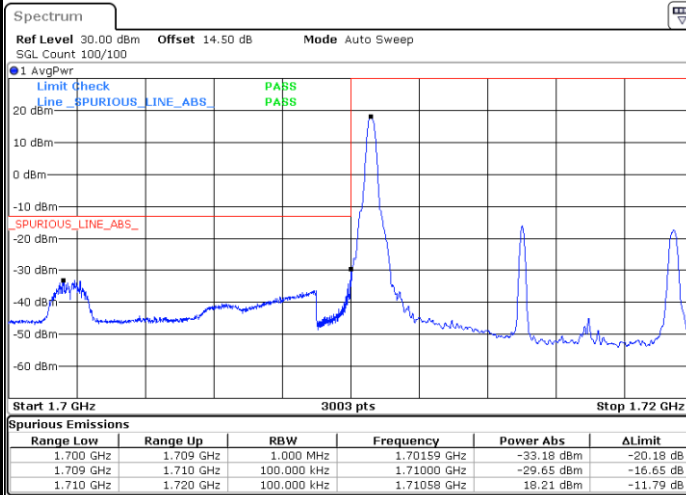
Highest Band Edge / Full RB



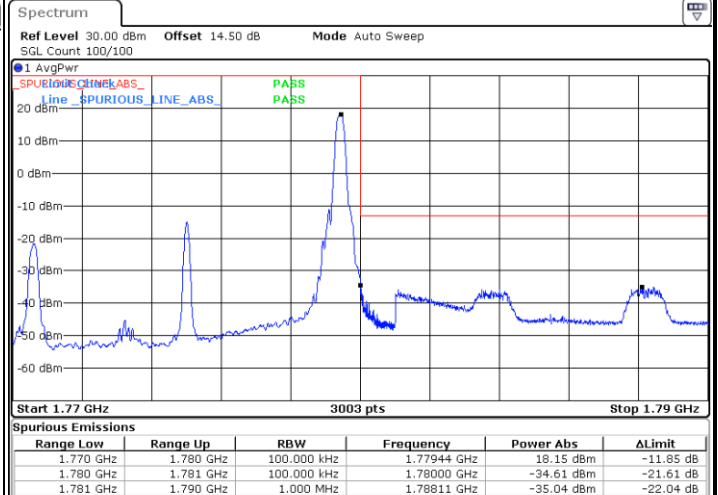


LTE Band 66 / 10MHz / 16QAM

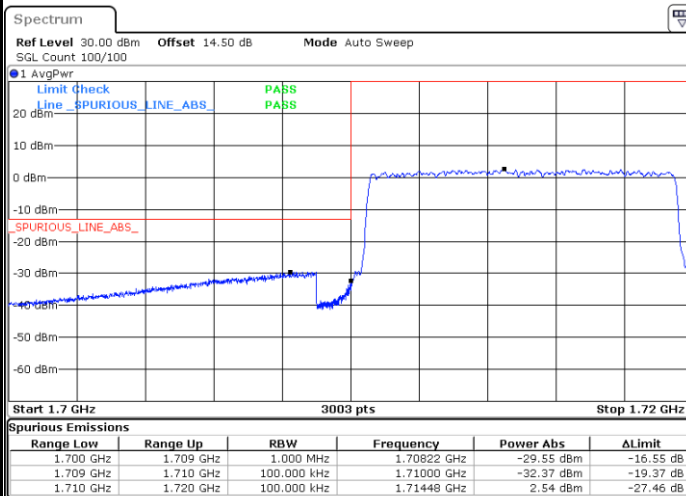
Lowest Band Edge / 1 RB



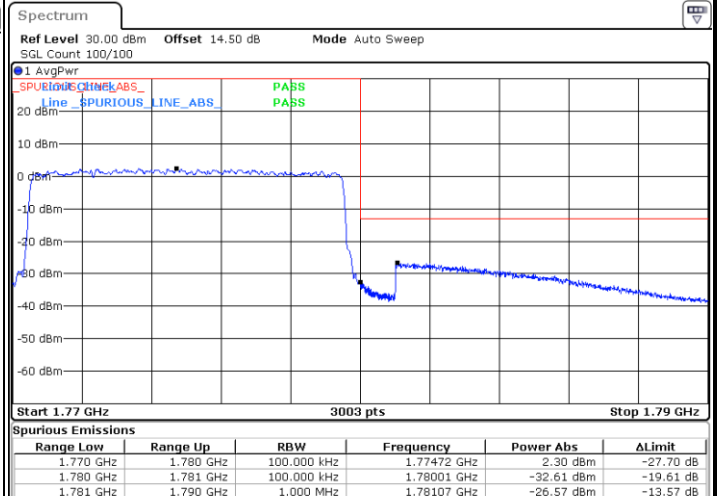
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



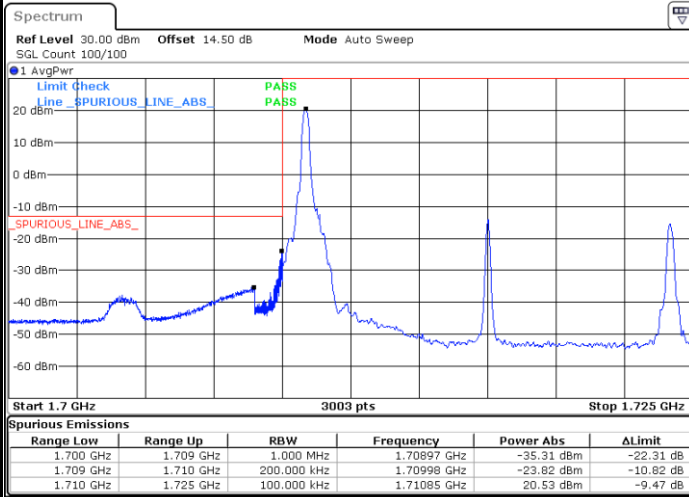
Highest Band Edge / Full RB



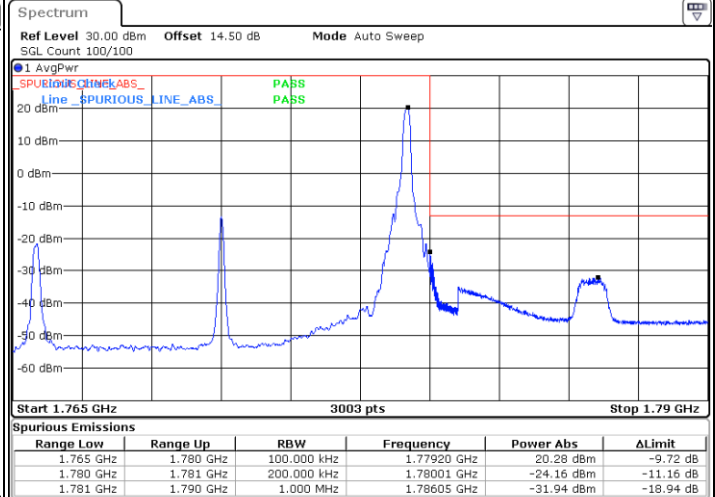


LTE Band 66 / 15MHz / QPSK

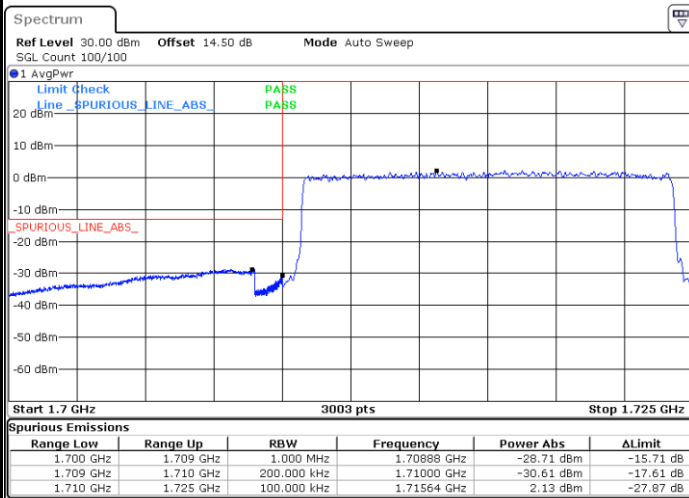
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

