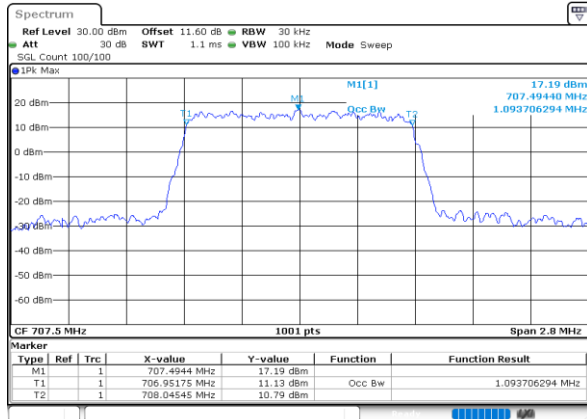


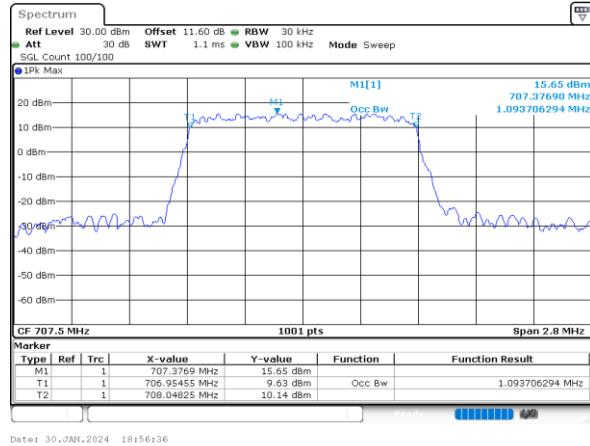


LTE Band 12

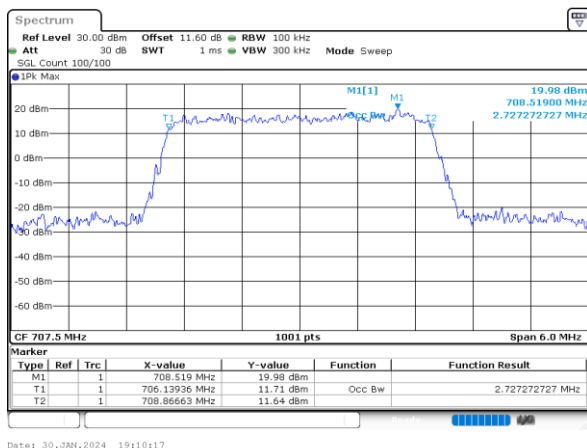
Middle Channel / 1.4MHz / QPSK



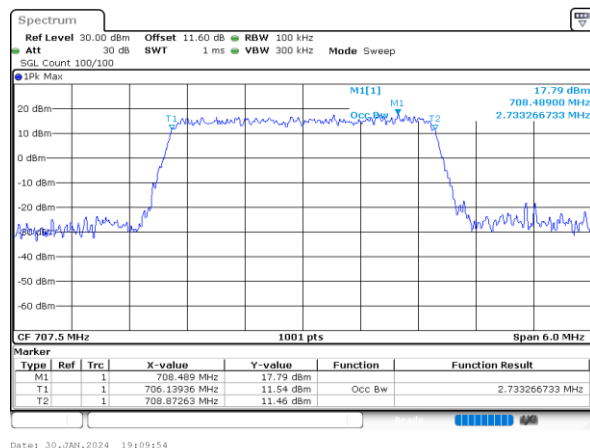
Middle Channel / 1.4MHz / 16QAM



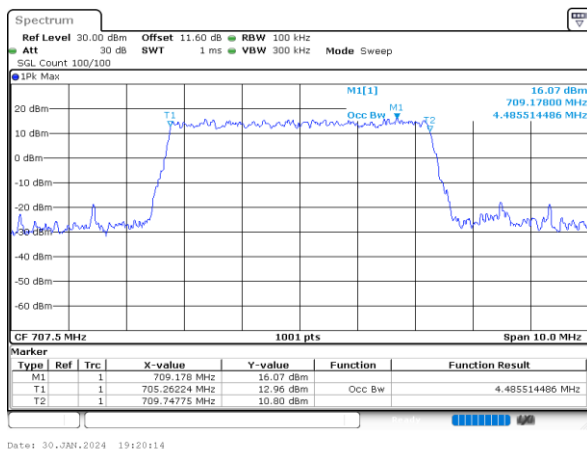
Middle Channel / 3MHz / QPSK



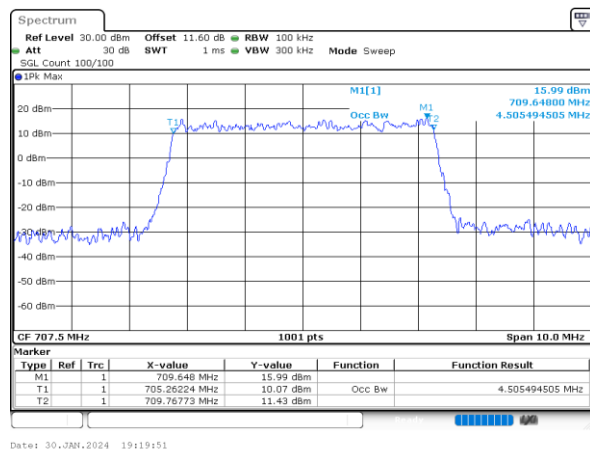
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



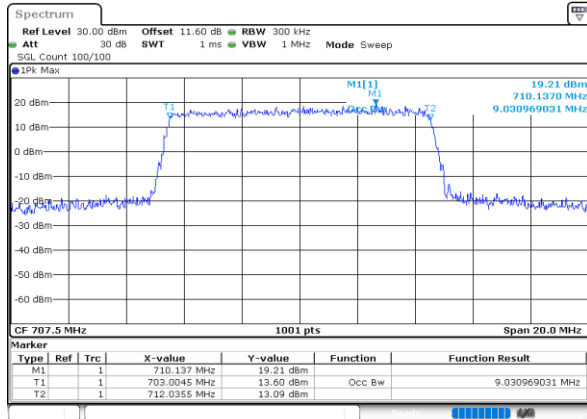
Middle Channel / 5MHz / 16QAM



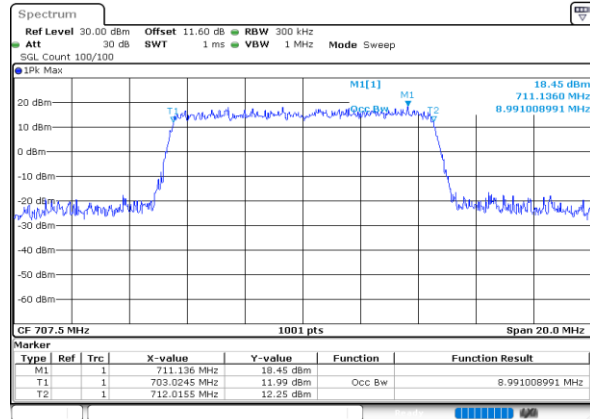


LTE Band 12

Middle Channel / 10MHz / QPSK

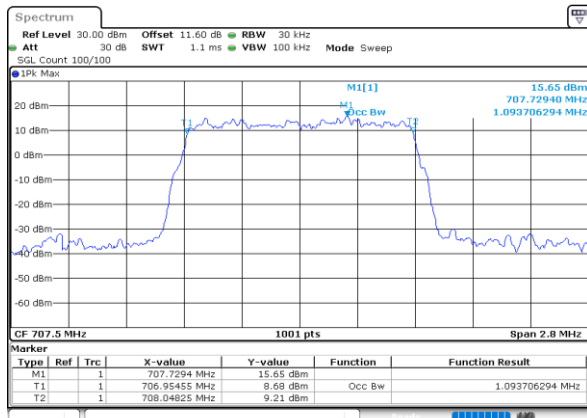


Middle Channel / 10MHz / 16QAM

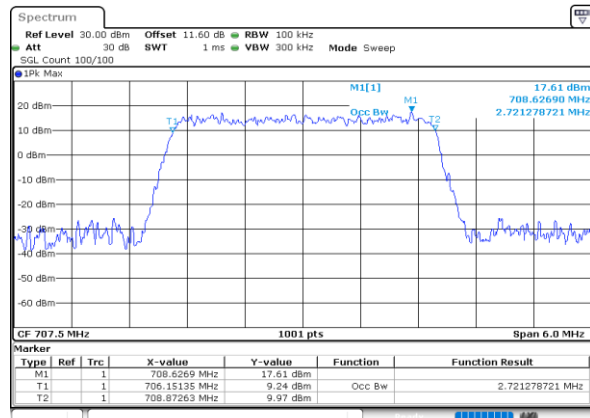


LTE Band 12

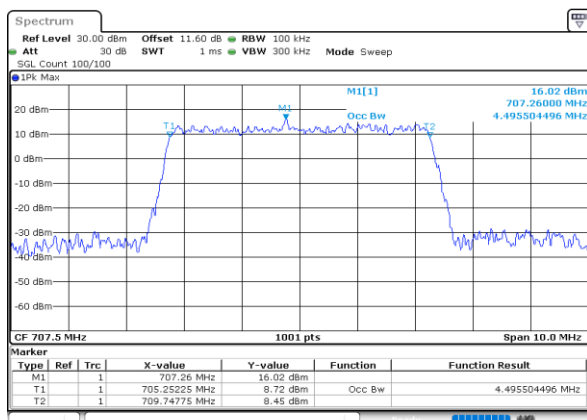
Middle Channel / 1.4MHz / 64QAM



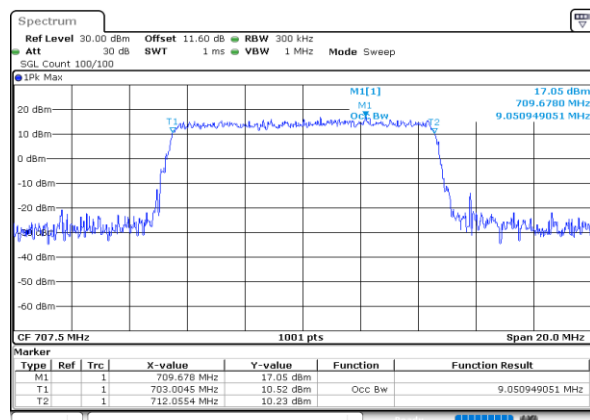
Middle Channel / 3MHz / 64QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

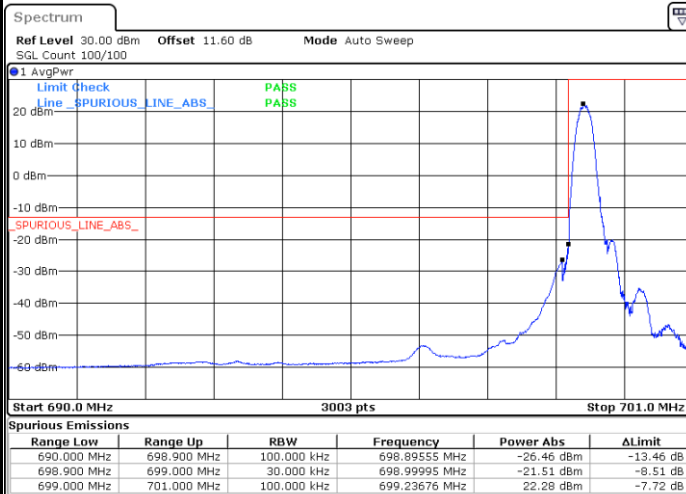




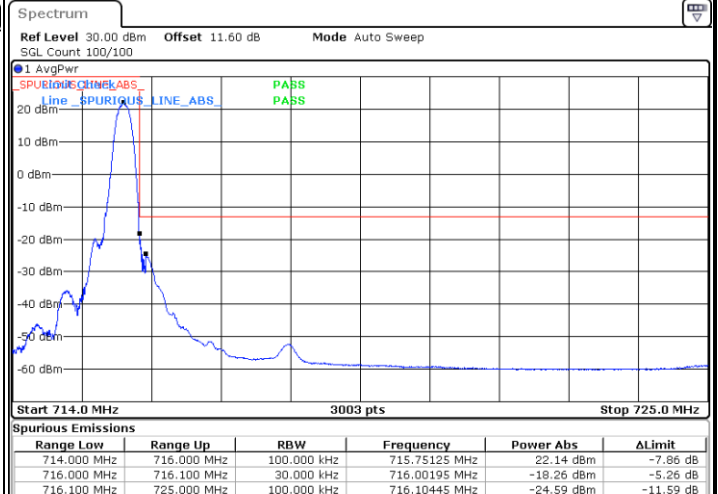
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

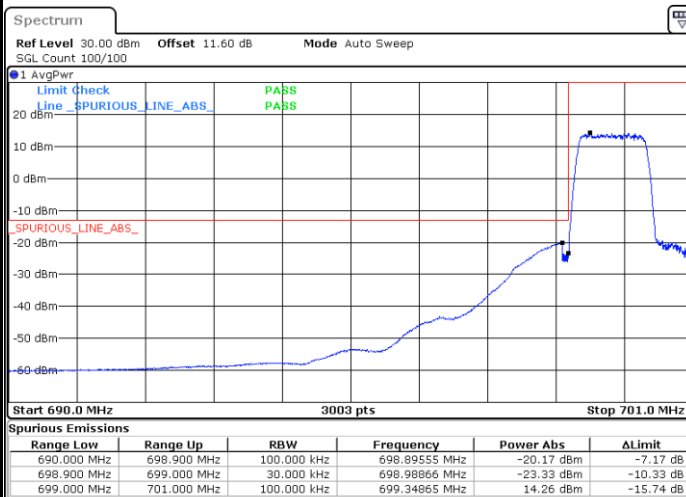
Lowest Band Edge / 1RB



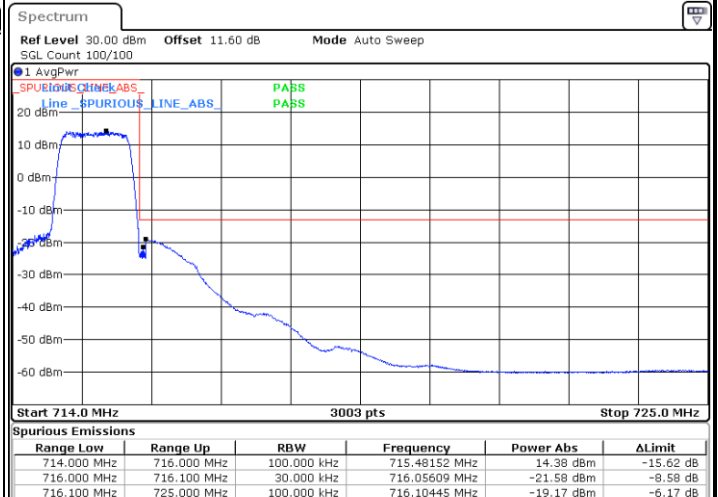
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



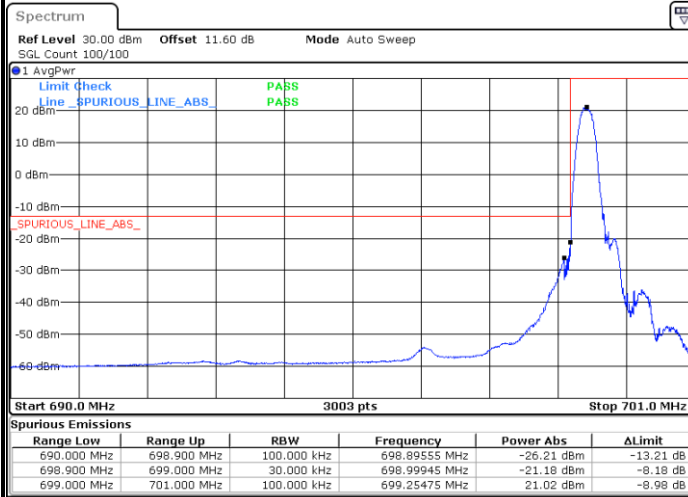
Highest Band Edge / Full RB



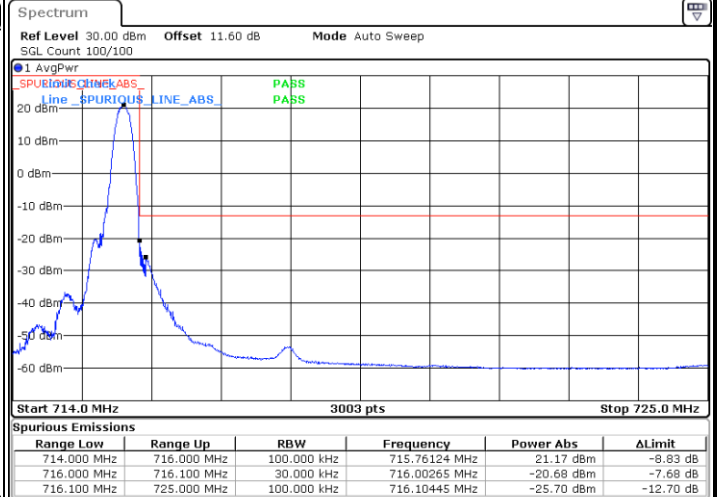


LTE Band 12 / 1.4MHz / 16QAM

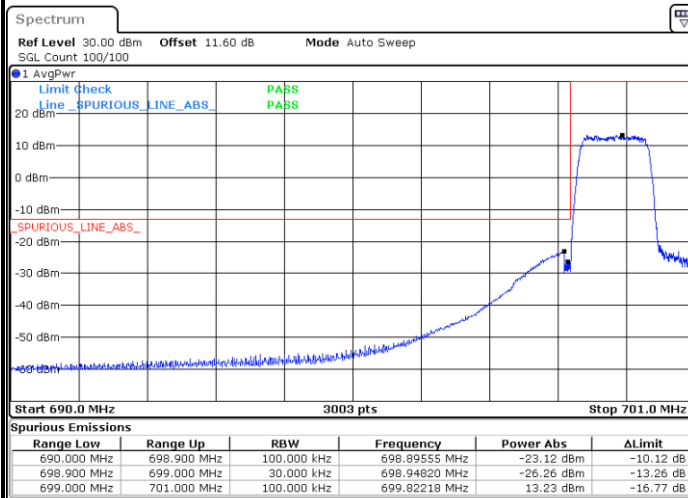
Lowest Band Edge / 1 RB



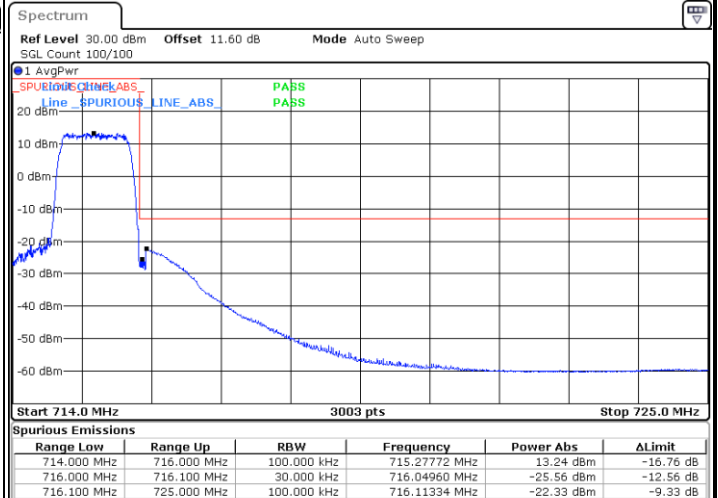
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



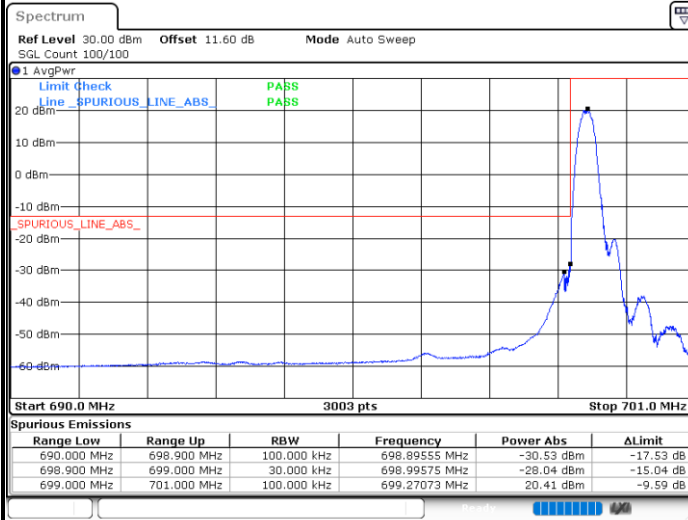
Highest Band Edge / Full RB



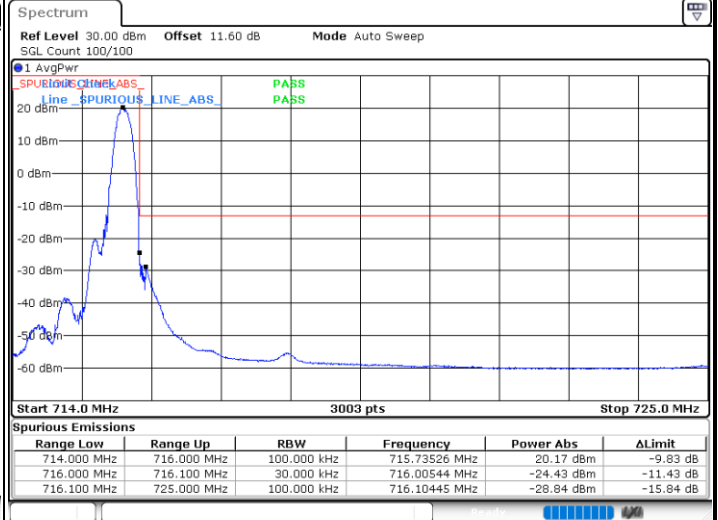


LTE Band 12 / 1.4MHz / 64QAM

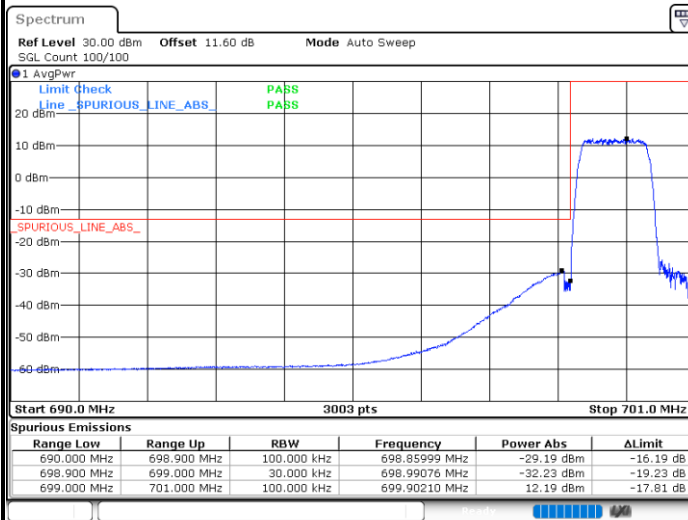
Lowest Band Edge / 1 RB



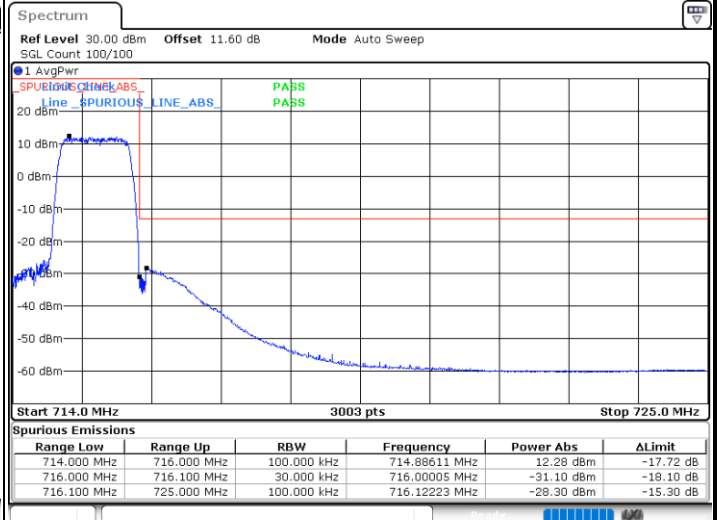
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

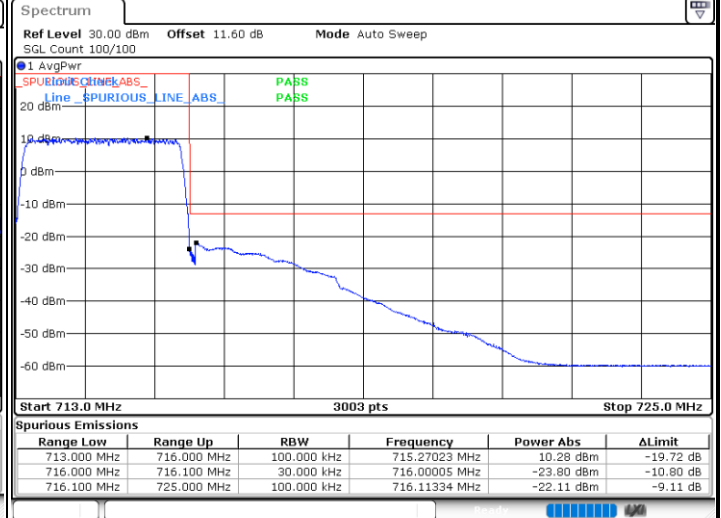
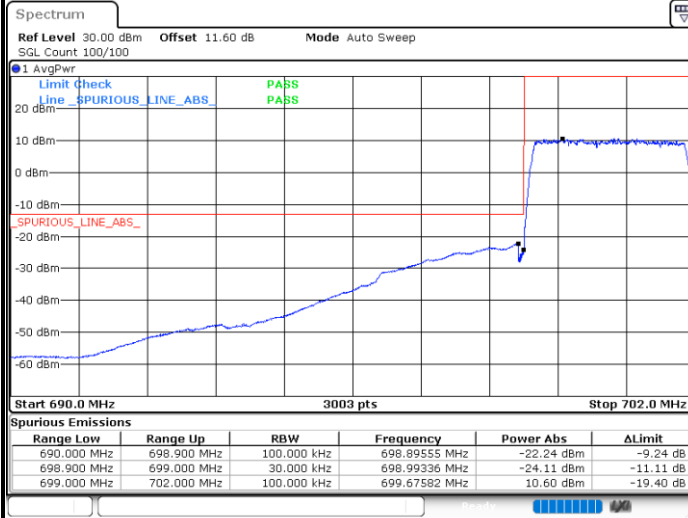




LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / Full RB

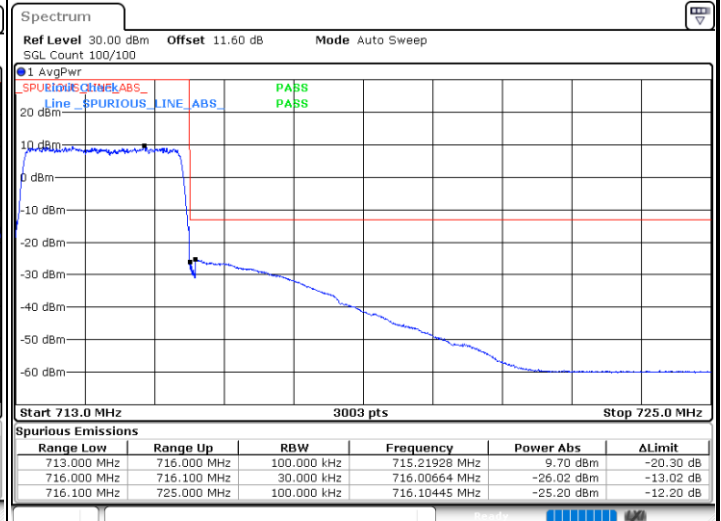
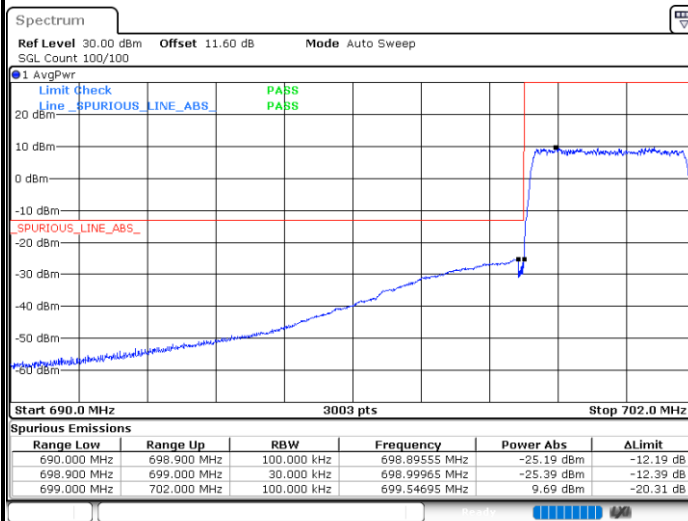
Highest Band Edge / Full RB



LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

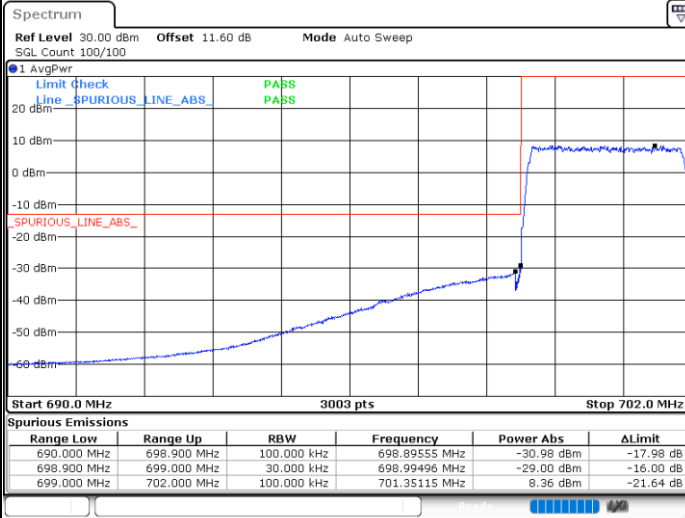




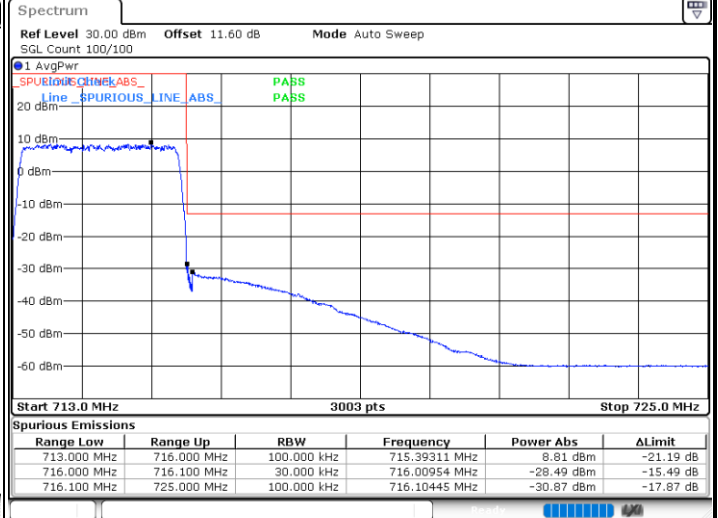
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.JAN.2024 19:13:37



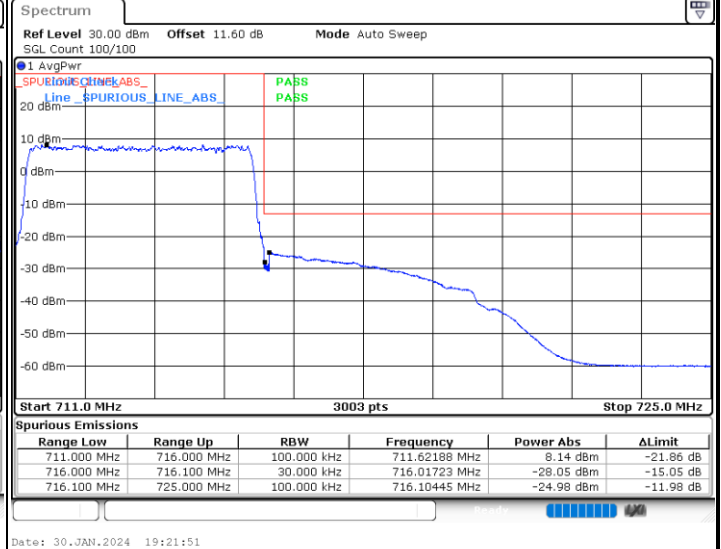
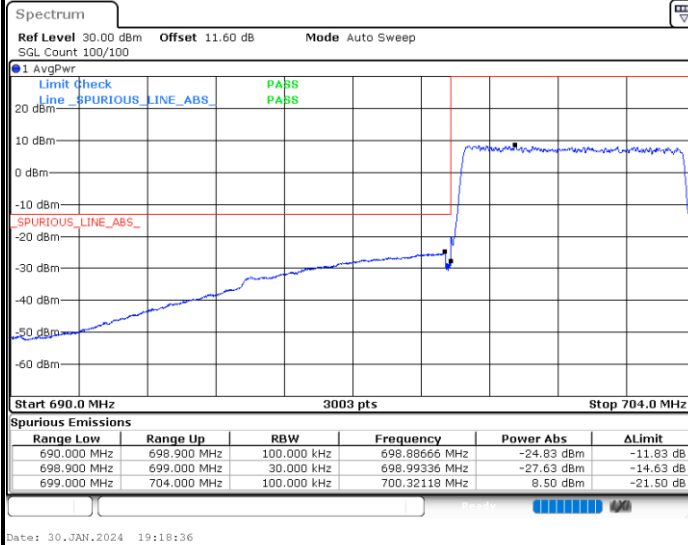
Date: 30.JAN.2024 19:15:15



LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / Full RB

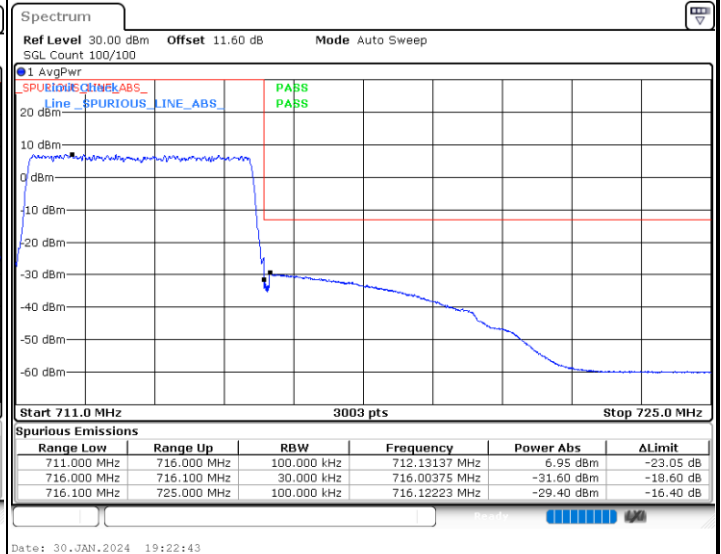
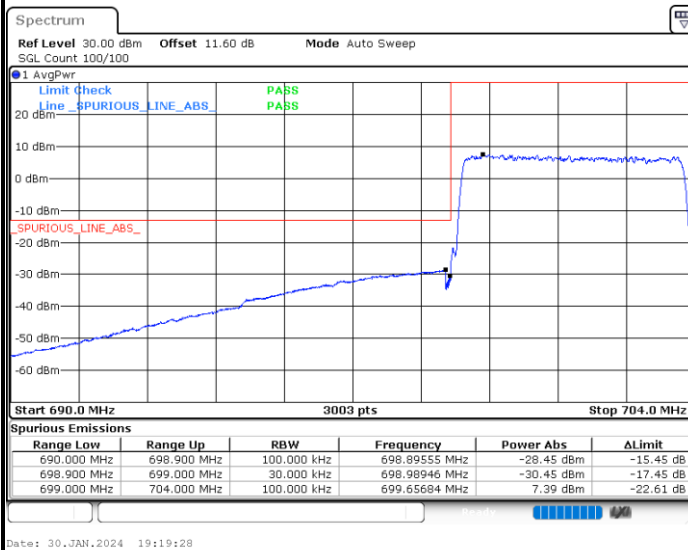
Highest Band Edge / Full RB



LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

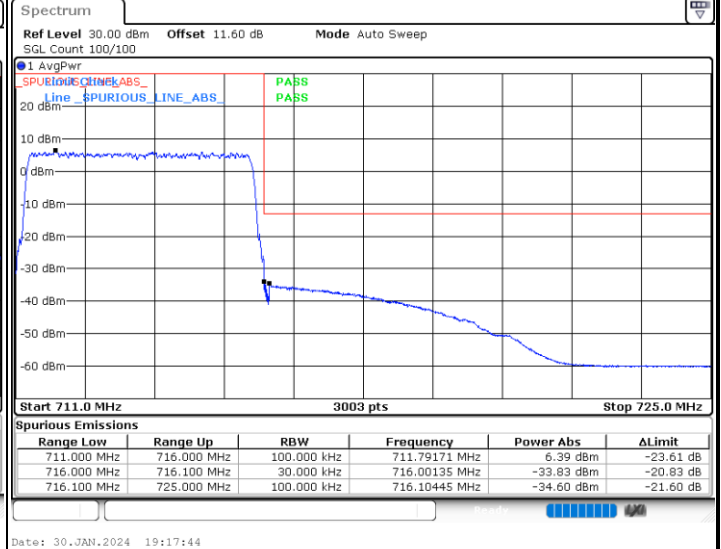
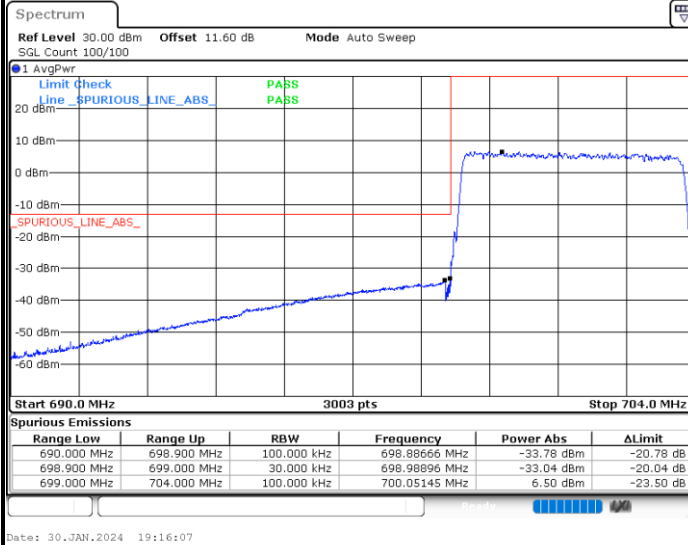




LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

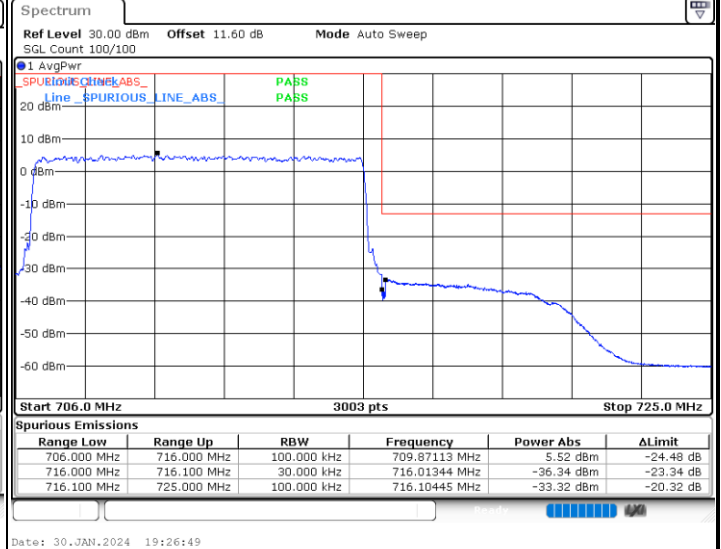
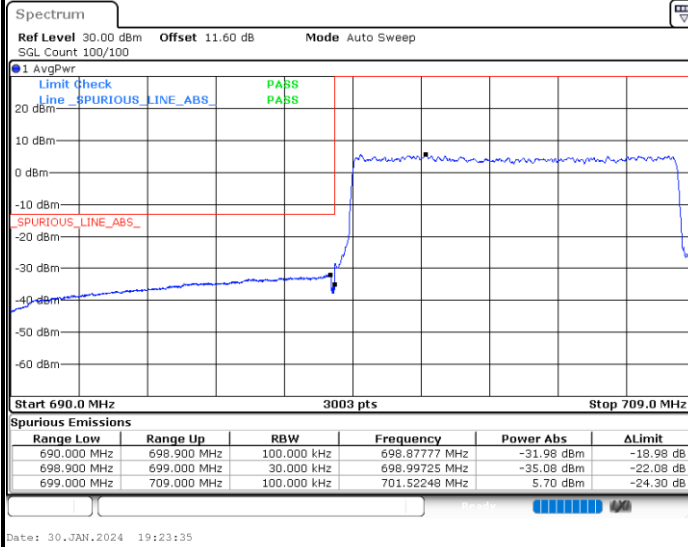




LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / Full RB

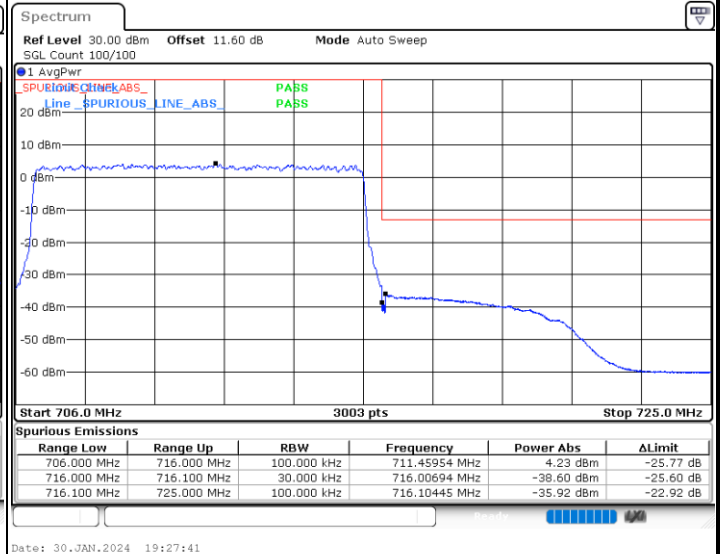
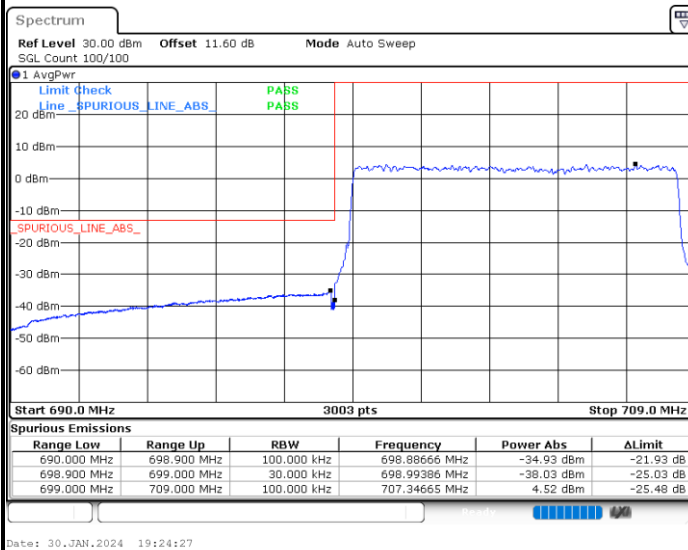
Highest Band Edge / Full RB



LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

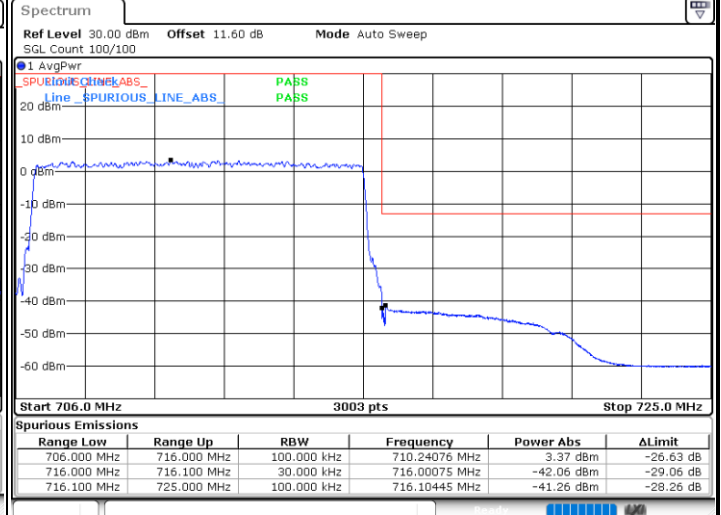
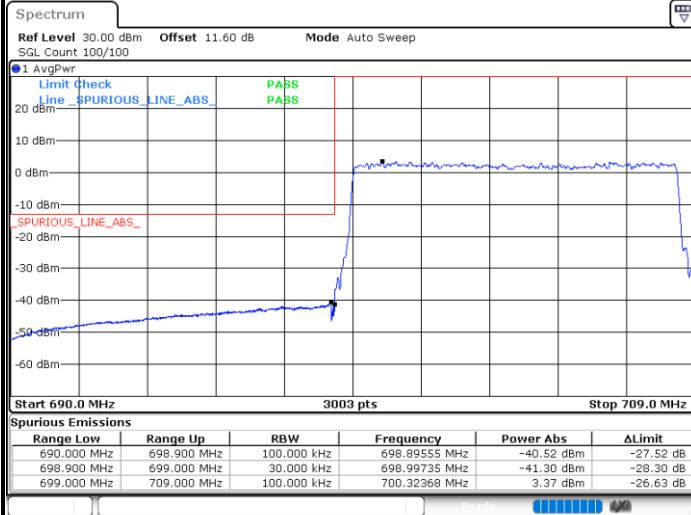




LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

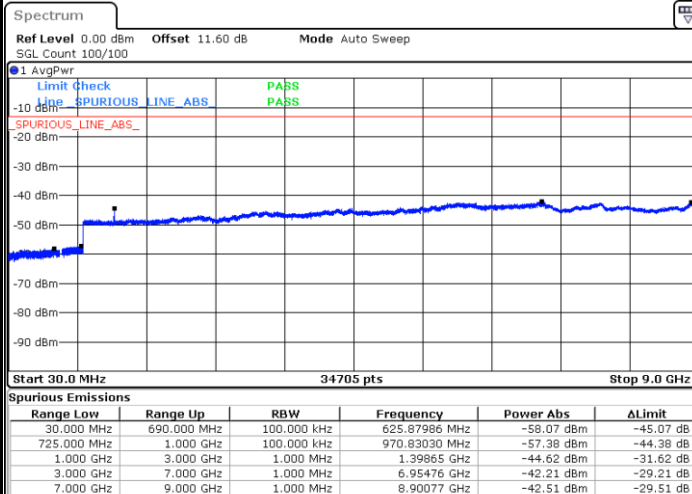




Conducted Spurious Emission

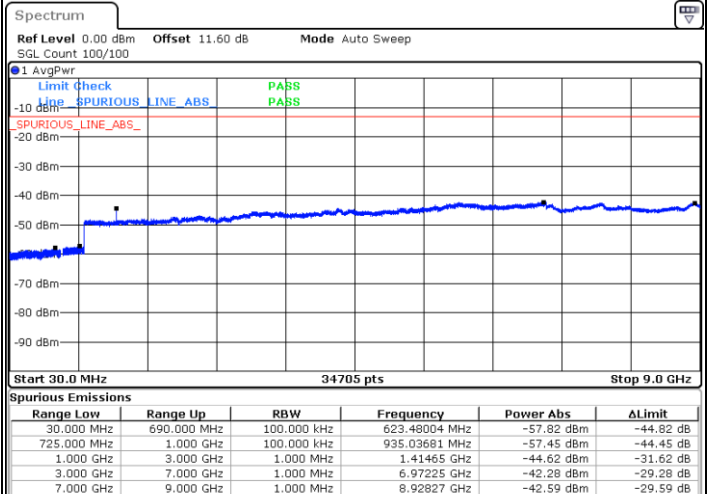
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



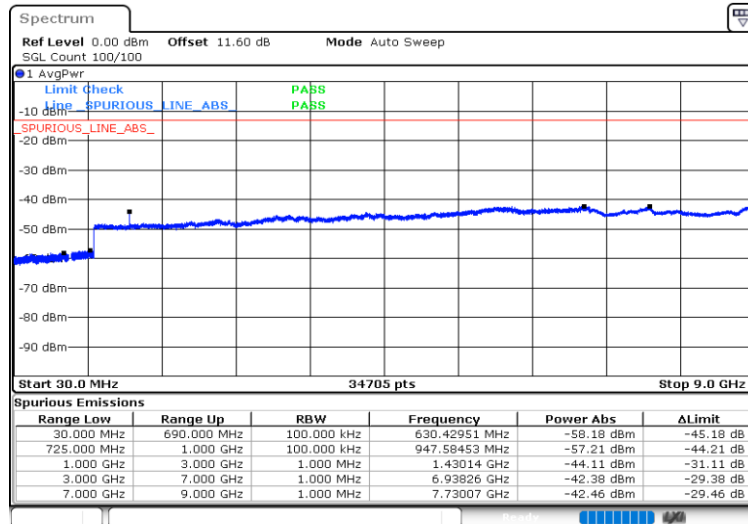
Date: 30.JAN.2024 18:56:12

Middle Channel / QPSK



Date: 30.JAN.2024 18:58:54

Highest Channel / QPSK

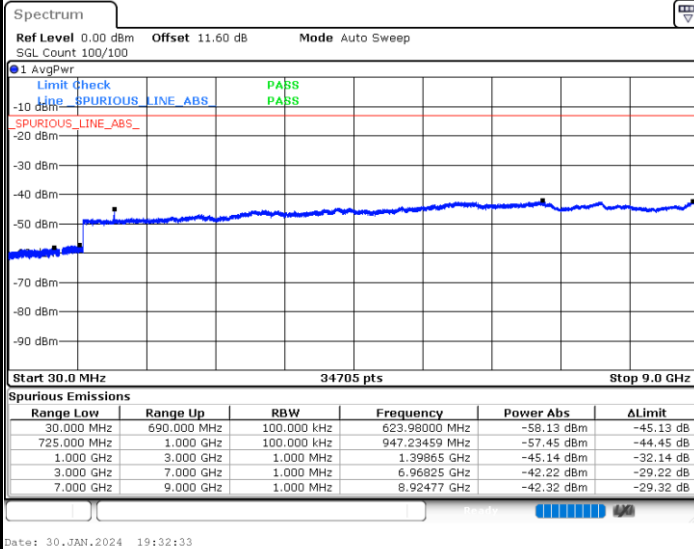


Date: 30.JAN.2024 19:03:33

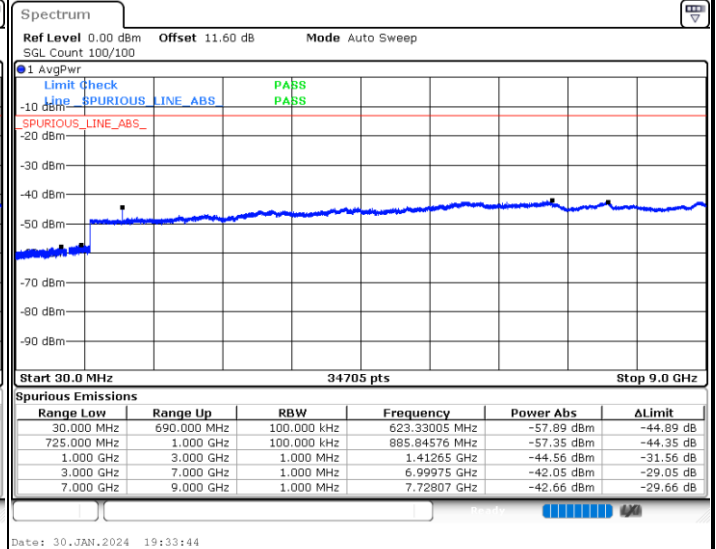


LTE Band 12 / 3MHz

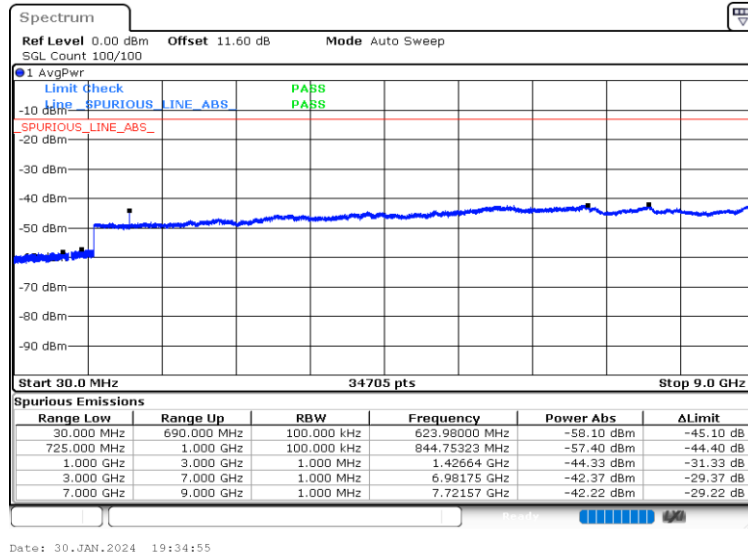
Lowest Channel / QPSK



Middle Channel / QPSK



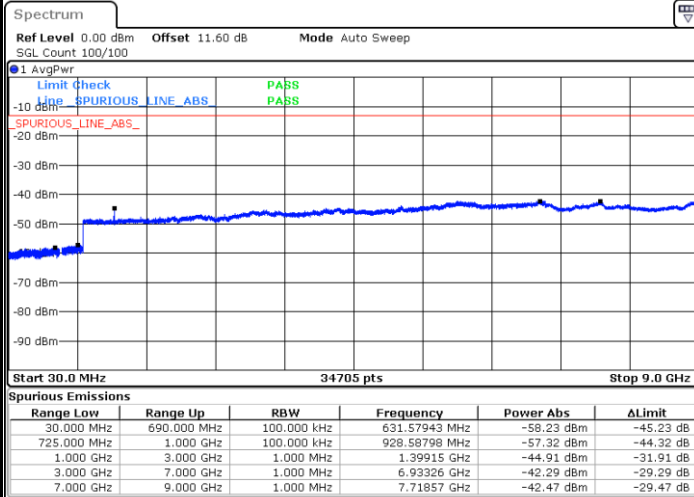
Highest Channel / QPSK





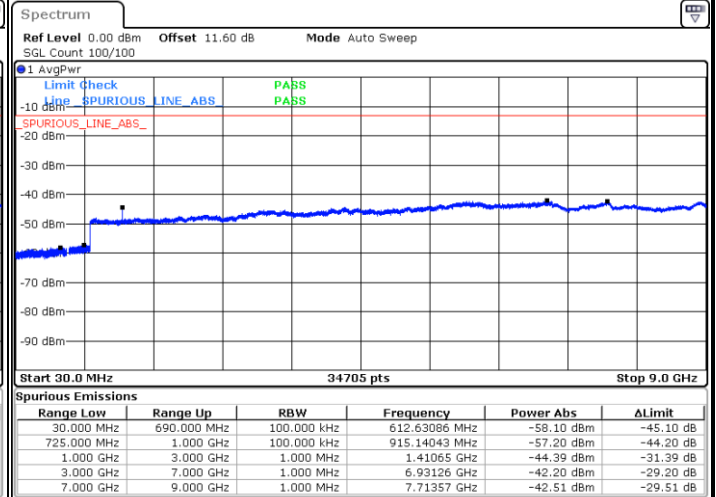
LTE Band 12 / 5MHz

Lowest Channel / QPSK



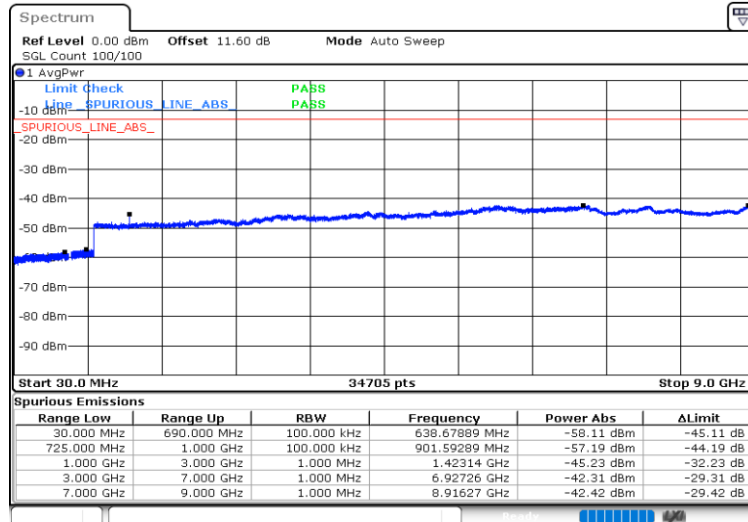
Date: 30.JAN.2024 19:36:07

Middle Channel / QPSK



Date: 30.JAN.2024 19:37:18

Highest Channel / QPSK

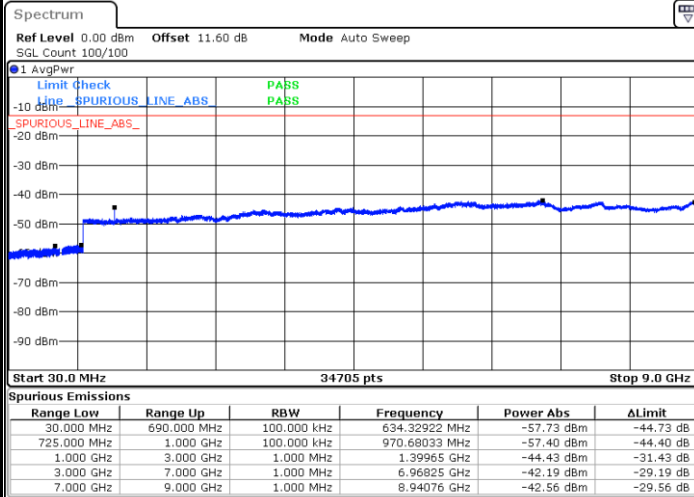


Date: 30.JAN.2024 19:38:29



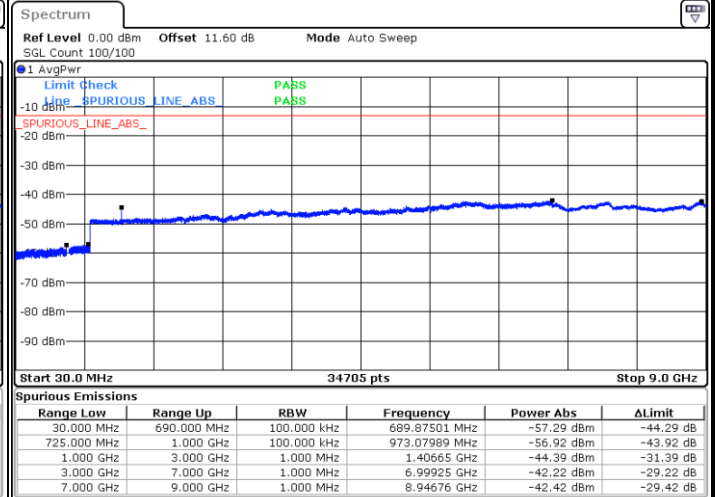
LTE Band 12 / 10MHz

Lowest Channel / QPSK



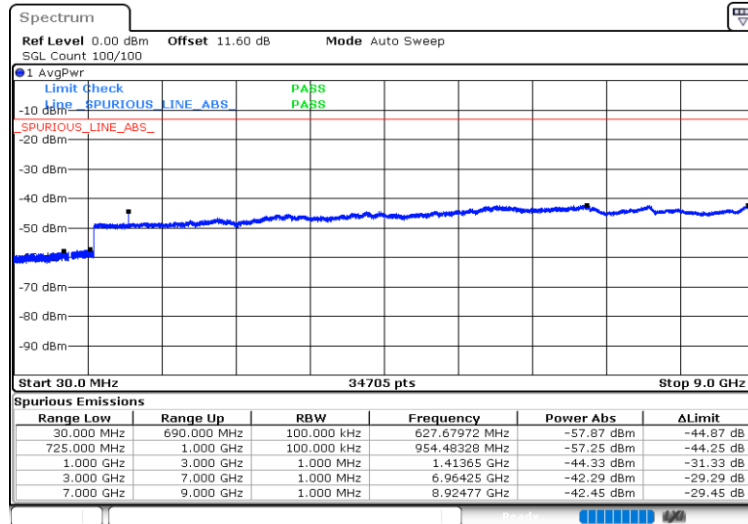
Date: 30.JAN.2024 19:39:41

Middle Channel / QPSK



Date: 30.JAN.2024 19:40:52

Highest Channel / QPSK



Date: 30.JAN.2024 19:42:03

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	0.0000	PASS
40	Normal Voltage	0.0178	
30	Normal Voltage	0.0055	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0085	
-10	Normal Voltage	0.0044	
-20	Normal Voltage	0.0260	
-30	Normal Voltage	0.0127	
20	Maximum Voltage	0.0112	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0114	

Note:

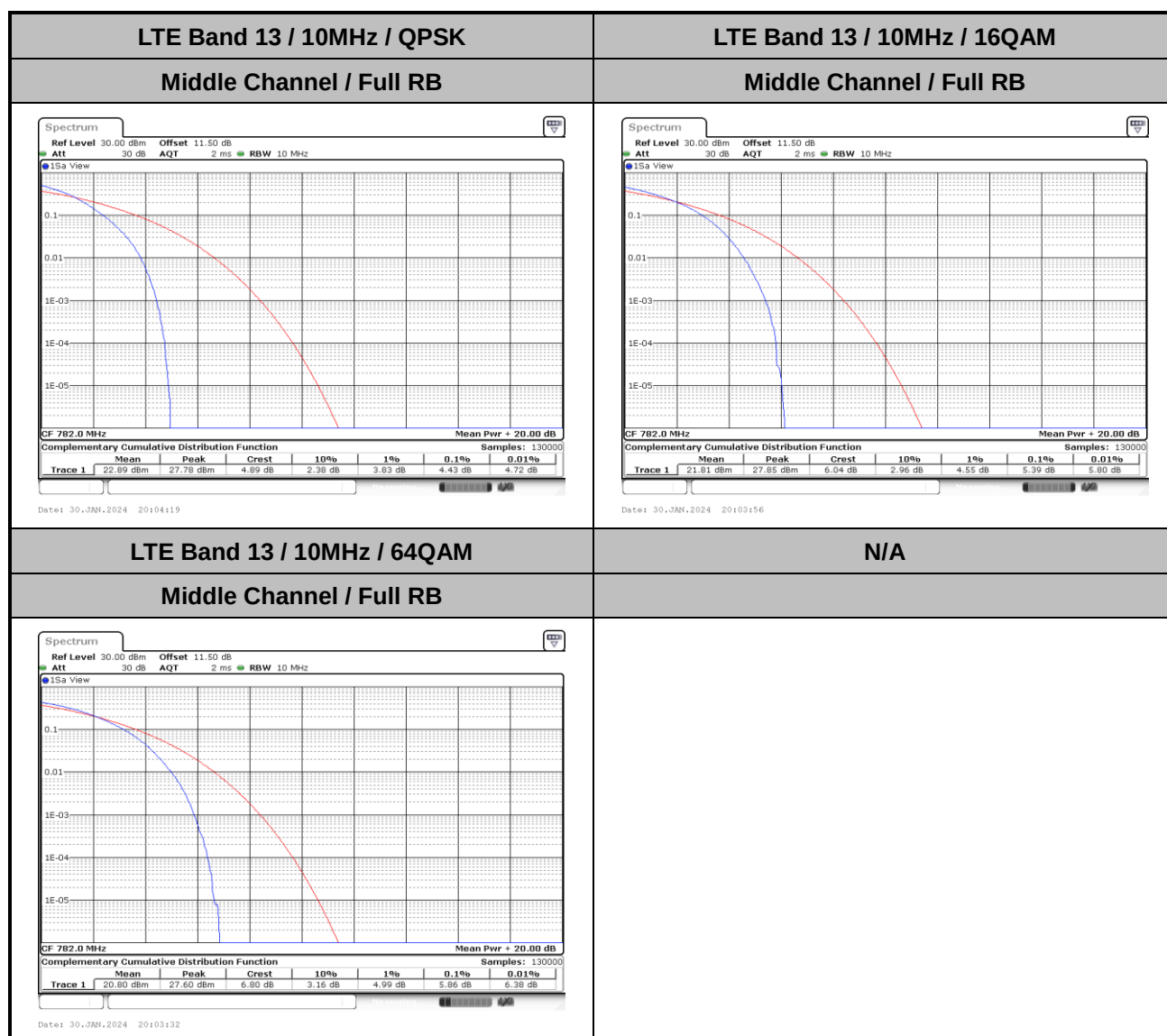
1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.43	5.39	5.86	-	PASS



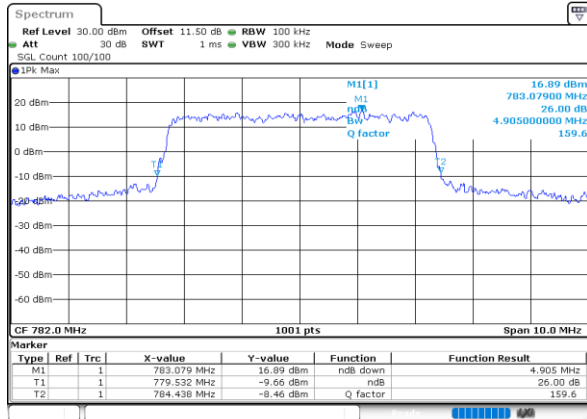
**26dB Bandwidth**

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	-	-	-	-	4.90	4.91	9.78	9.78	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.89	-	9.68	-	-	-	-	-

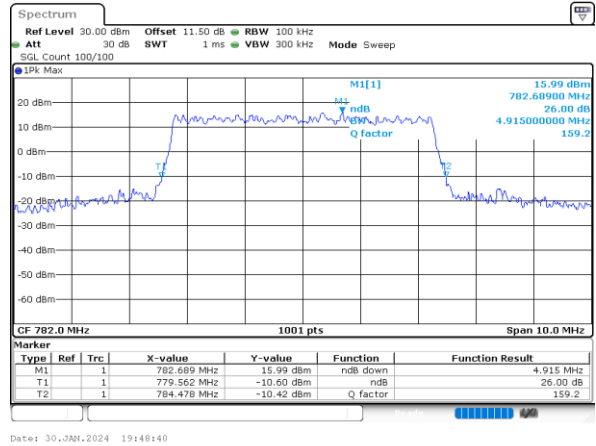


LTE Band 13

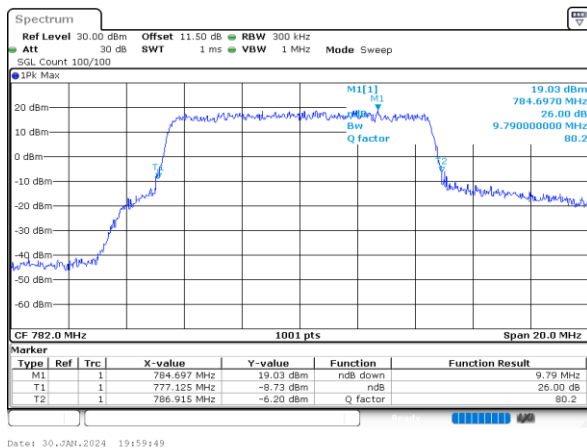
Middle Channel / 5MHz / QPSK



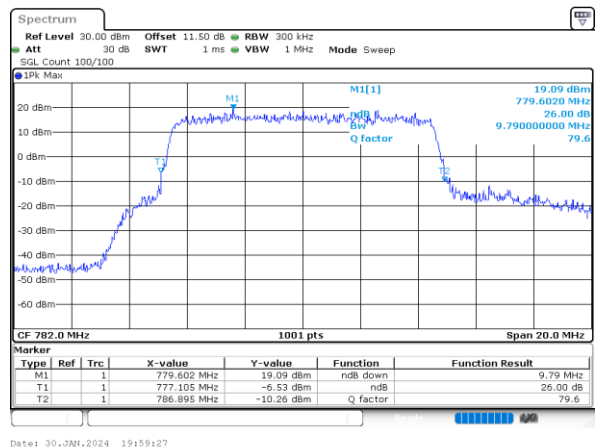
Middle Channel / 5MHz / 16QAM



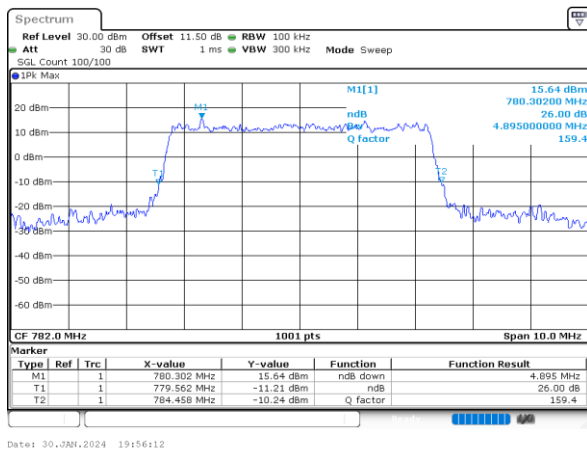
Middle Channel / 10MHz / QPSK



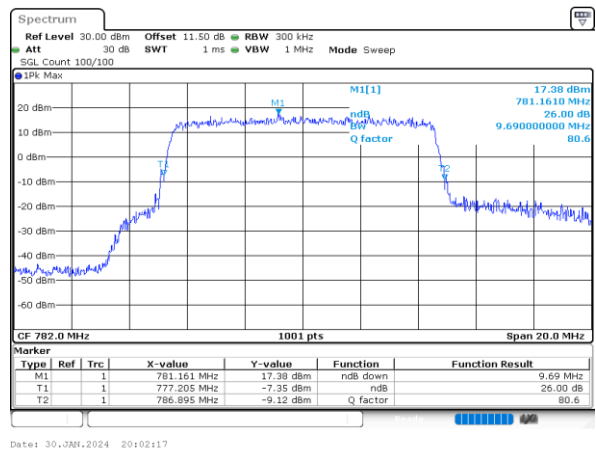
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



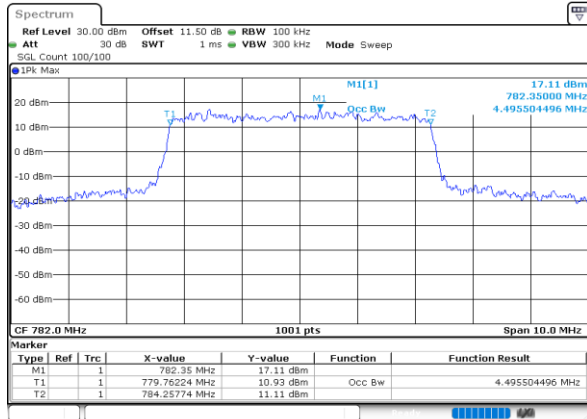
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.51	8.99	9.01	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.51	-	8.99	-	-	-	-	-

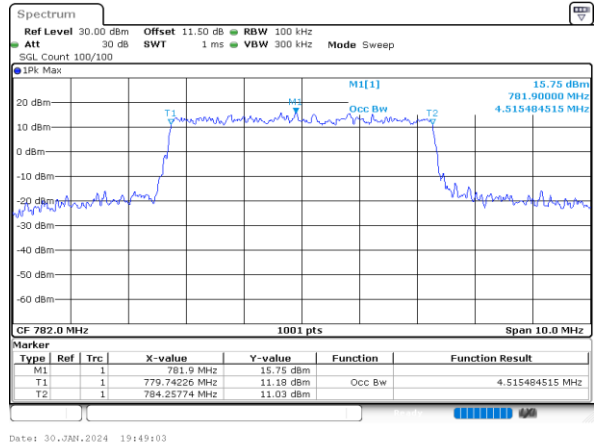


LTE Band 13

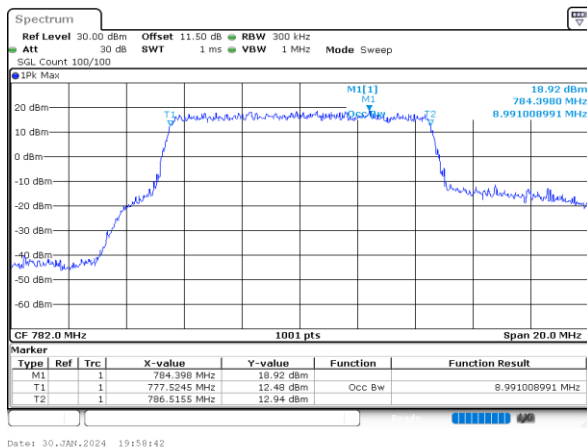
Middle Channel / 5MHz / QPSK



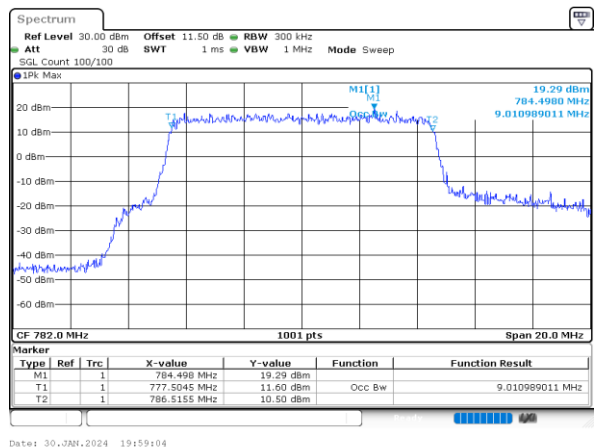
Middle Channel / 5MHz / 16QAM



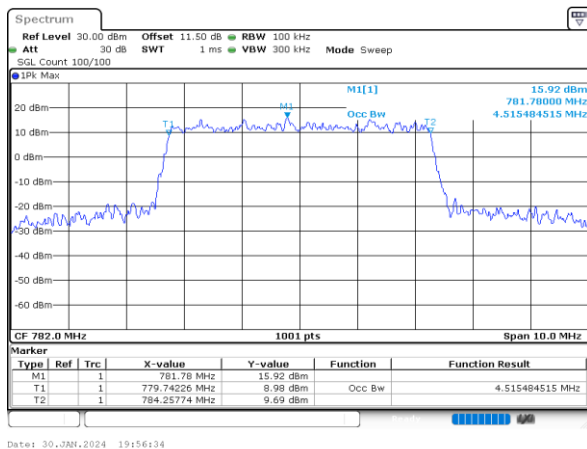
Middle Channel / 10MHz / QPSK



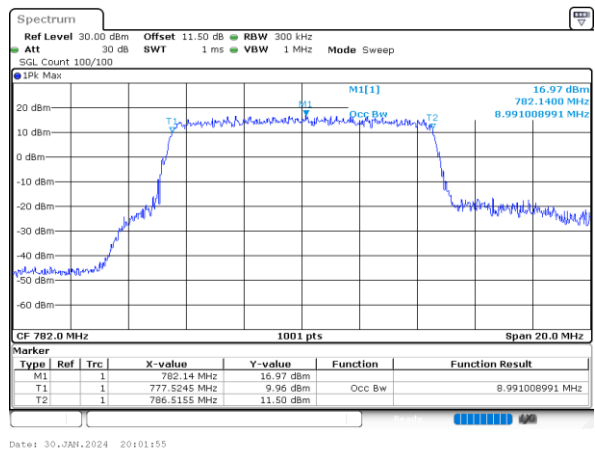
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

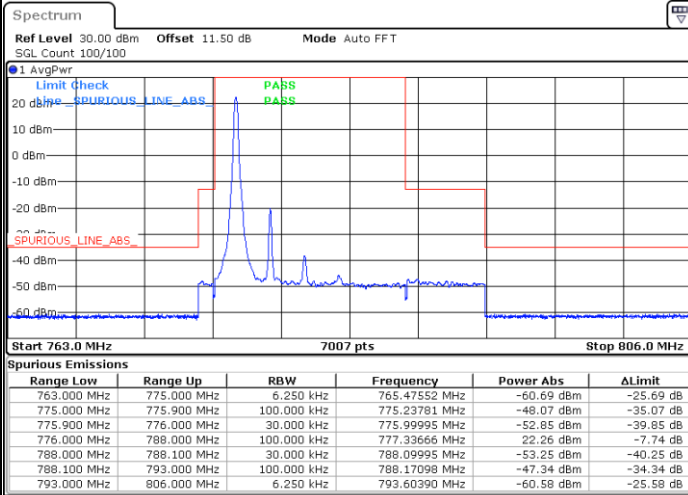




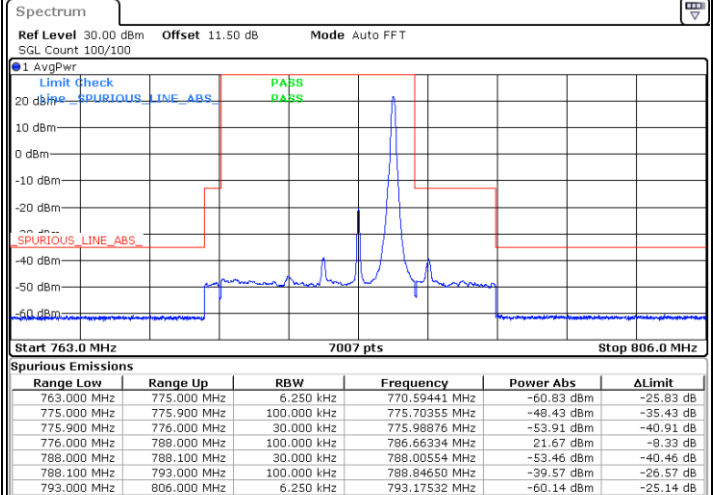
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

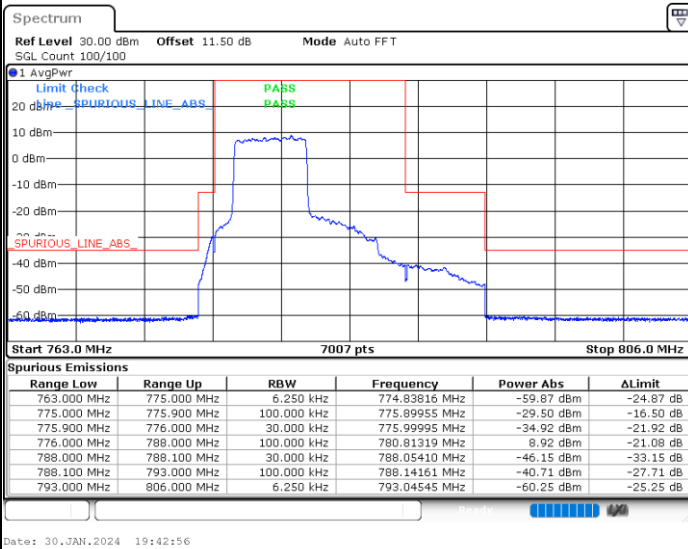
Lowest Band Edge / 1 RB



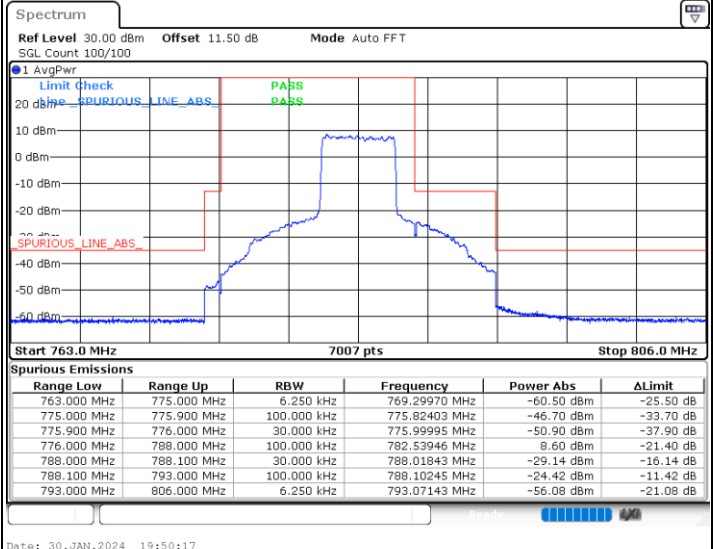
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



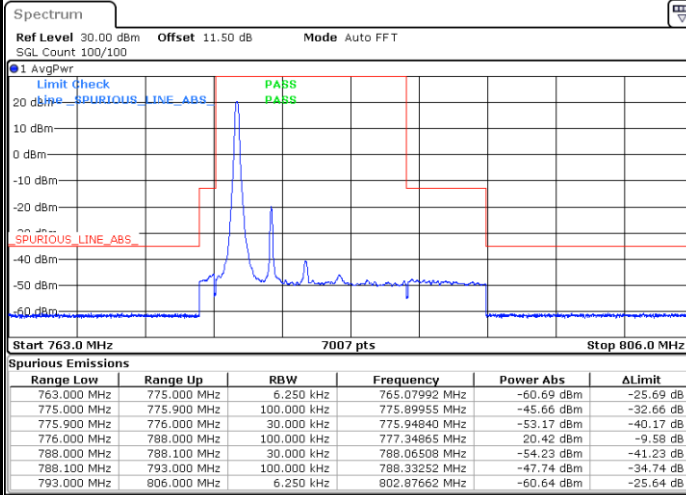
Highest Band Edge / Full RB



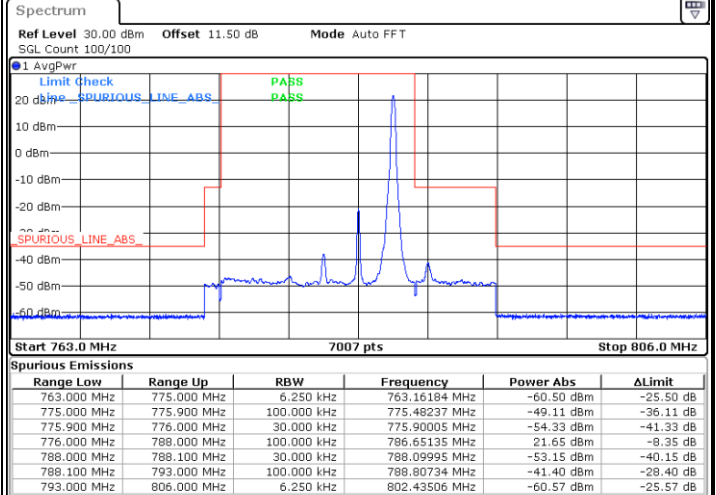


LTE Band 13 / 5MHz / 16QAM

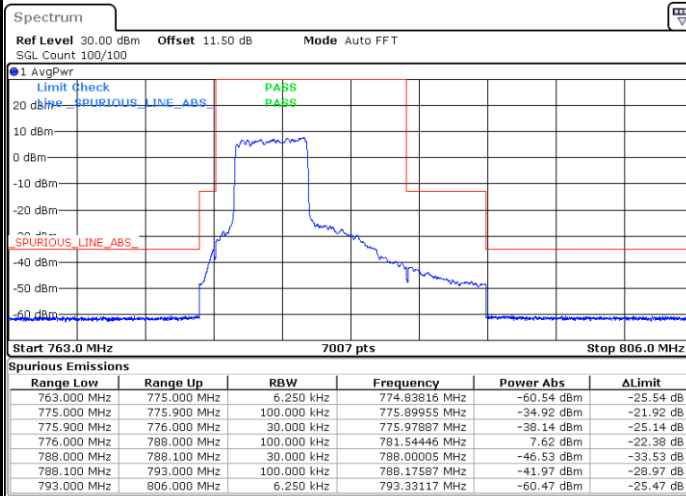
Lowest Band Edge / 1 RB



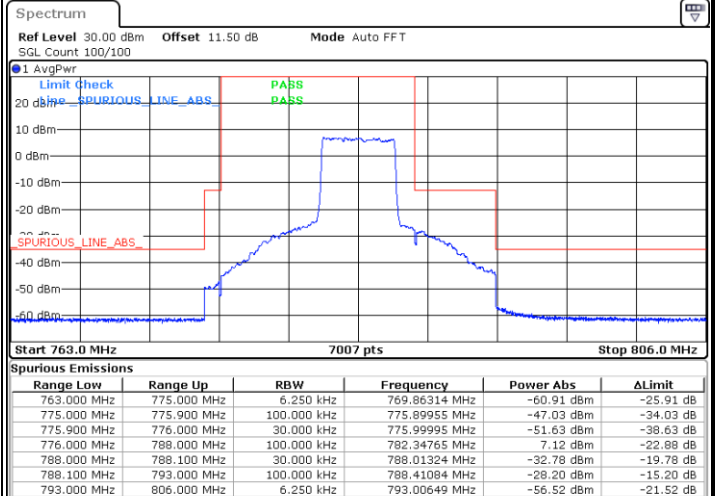
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



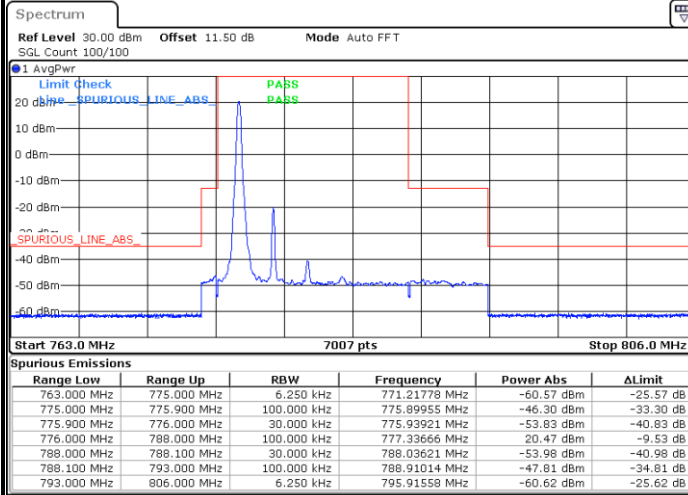
Highest Band Edge / Full RB





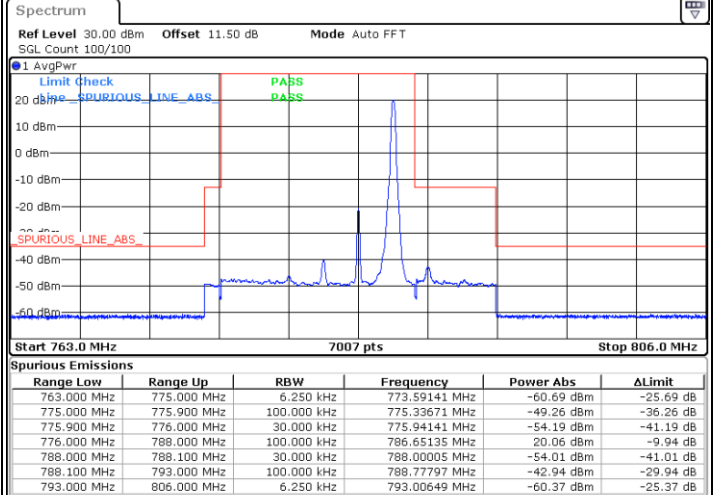
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



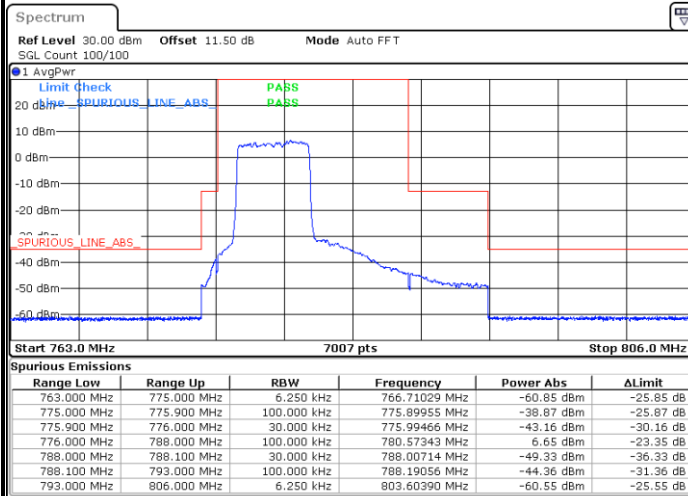
Date: 30.JAN.2024 19:55:48

Highest Band Edge / 1 RB



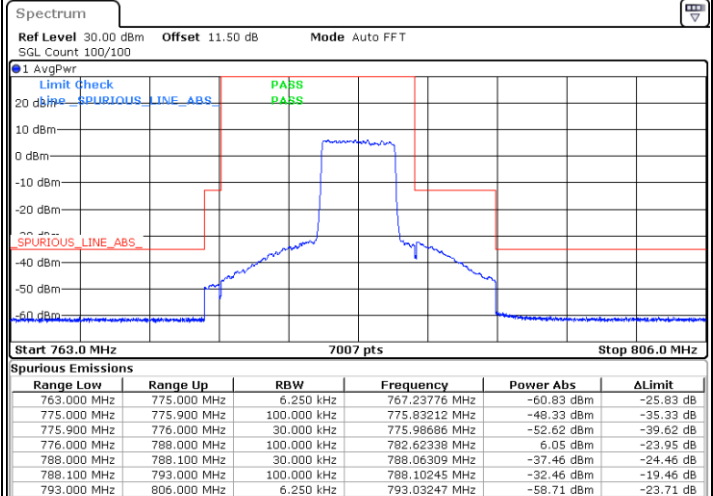
Date: 30.JAN.2024 19:58:18

Lowest Band Edge / Full RB



Date: 30.JAN.2024 19:54:56

Highest Band Edge / Full RB



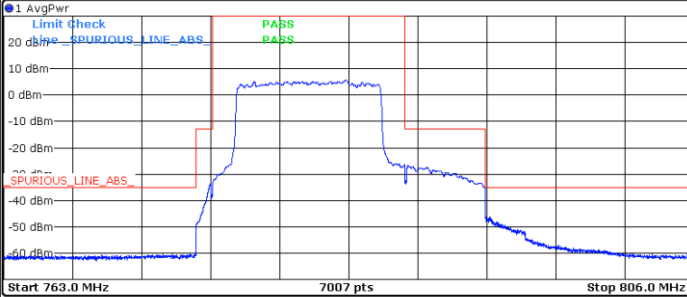
Date: 30.JAN.2024 19:57:26



LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB

Spectrum

Ref Level 30.00 dBm Offset 11.50 dB Mode Auto FFT
SGL Count 100/100

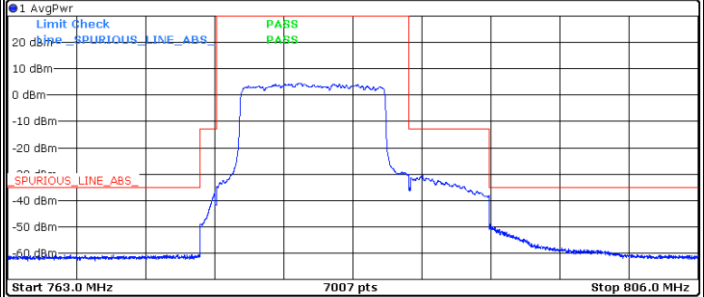
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.91009 MHz	-60.27 dBm	-25.27 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-33.63 dBm	-20.63 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97617 MHz	-37.72 dBm	-24.72 dB
776.000 MHz	788.000 MHz	100.000 kHz	784.32567 MHz	5.75 dBm	-24.25 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.05440 MHz	-32.55 dBm	-19.55 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.18077 MHz	-26.91 dBm	-13.91 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.07143 MHz	-46.41 dBm	-11.41 dB

Date: 30.JAN.2024 20:00:40

LTE Band 13 / 10MHz / 16QAM

Band Edge / Full RB

Spectrum

Ref Level 30.00 dBm Offset 11.50 dB Mode Auto FFT
SGL Count 100/100

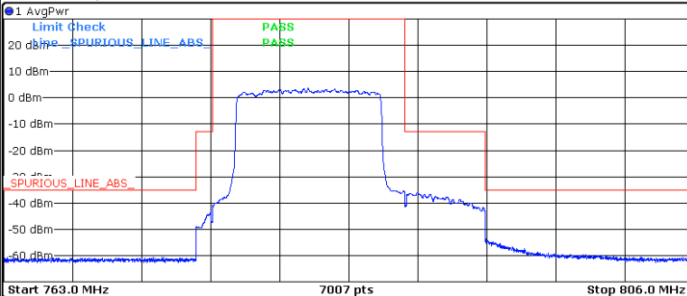
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.02298 MHz	-60.57 dBm	-25.57 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-36.86 dBm	-23.86 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.99995 MHz	-41.49 dBm	-28.49 dB
776.000 MHz	788.000 MHz	100.000 kHz	781.16084 MHz	4.48 dBm	-25.52 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09995 MHz	-34.96 dBm	-21.96 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.81224 MHz	-30.53 dBm	-17.53 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.03247 MHz	-49.23 dBm	-14.23 dB

Date: 30.JAN.2024 20:01:32

LTE Band 13 / 10MHz / 64QAM

Band Edge / Full RB

Spectrum

Ref Level 30.00 dBm Offset 11.50 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	772.94406 MHz	-60.81 dBm	-25.81 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.89955 MHz	-43.52 dBm	-30.52 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.96319 MHz	-46.98 dBm	-33.98 dB
776.000 MHz	788.000 MHz	100.000 kHz	781.96404 MHz	3.63 dBm	-26.37 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.04590 MHz	-40.73 dBm	-27.73 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.75839 MHz	-35.99 dBm	-22.99 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.05844 MHz	-53.77 dBm	-18.77 dB

Date: 30.JAN.2024 20:03:08

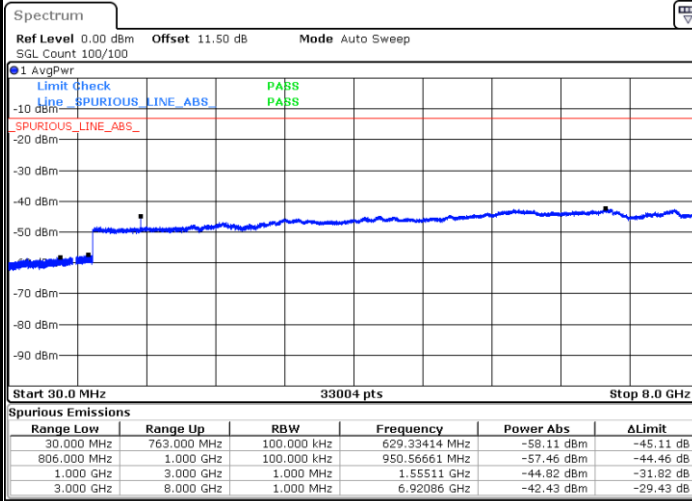
N/A



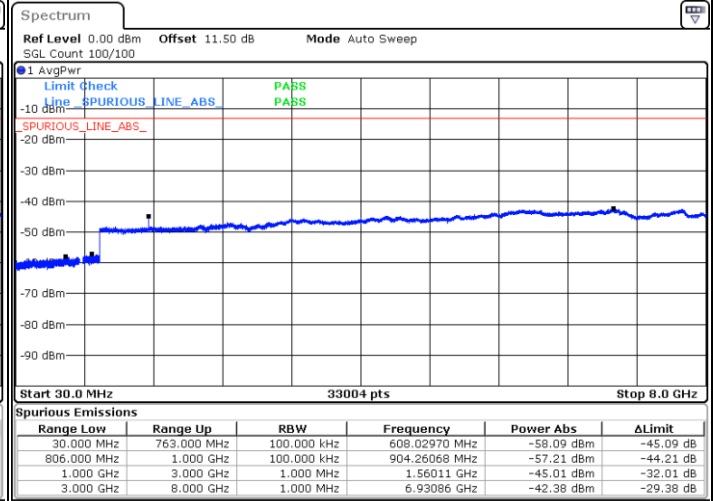
Conducted Spurious Emission

LTE Band 13 / 5MHz

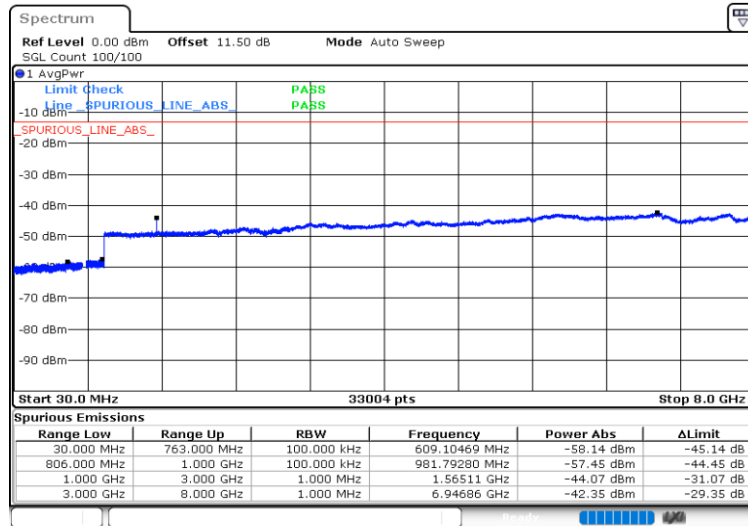
Lowest Channel / QPSK



Middle Channel / QPSK



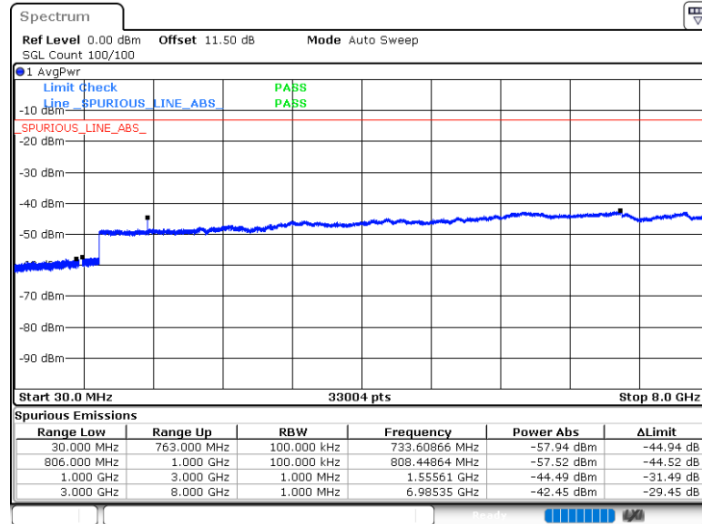
Highest Channel / QPSK





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 31.JAN.2024 13:41:49

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	0.0000	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0125	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0111	
-20	Normal Voltage	0.0141	
-30	Normal Voltage	0.0178	
20	Maximum Voltage	0.0147	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0100	

Note:

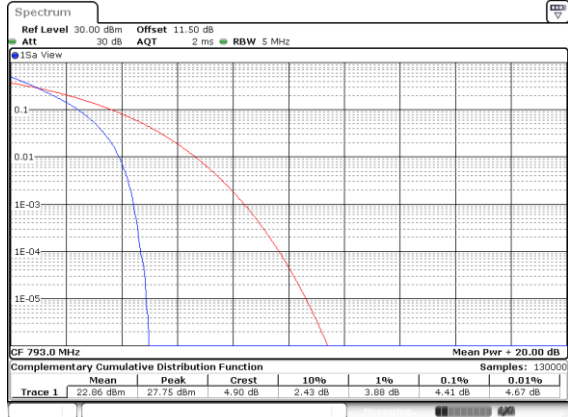
1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



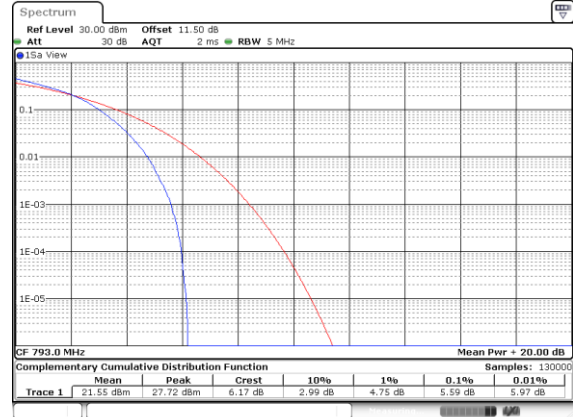
LTE Band 14

Peak-to-Average Ratio

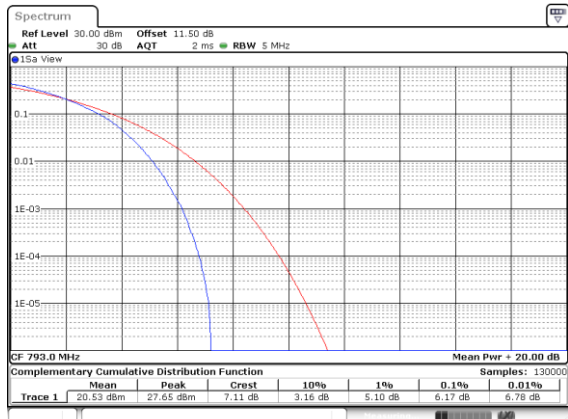
Mode	LTE Band 14 / 5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.41	5.59	6.17	-	PASS
Mode	LTE Band 14 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.49	5.54	6.03	-	PASS

LTE Band 14 / 5MHz / QPSK
Middle Channel / Full RB


Date: 31.JAN.2024 02:16:43

LTE Band 14 / 5MHz / 16QAM
Middle Channel / Full RB


Date: 31.JAN.2024 02:16:14

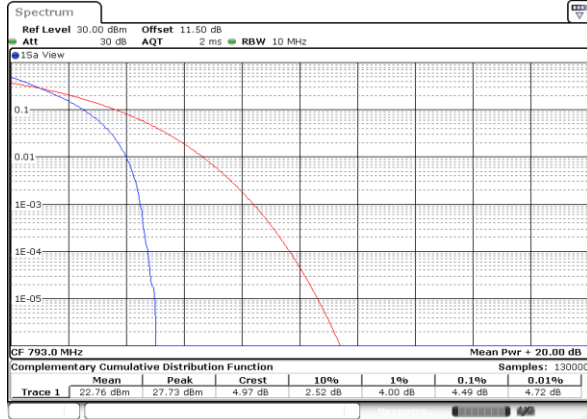
LTE Band 14 / 5MHz / 64QAM
Middle Channel / Full RB


Date: 31.JAN.2024 02:15:45

N/A

LTE Band 14 / 10MHz / QPSK

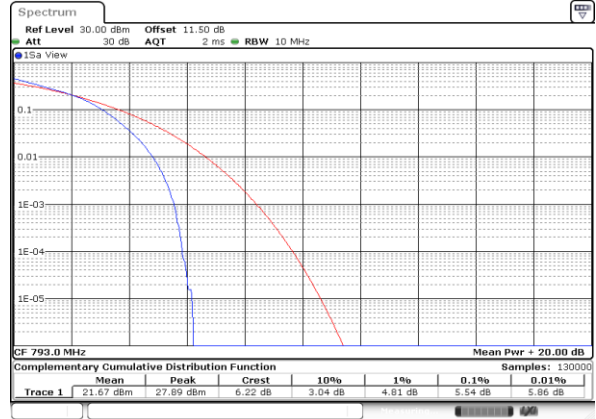
Middle Channel / Full RB



Date: 31.JAN.2024 02:15:10

LTE Band 14 / 10MHz / 16QAM

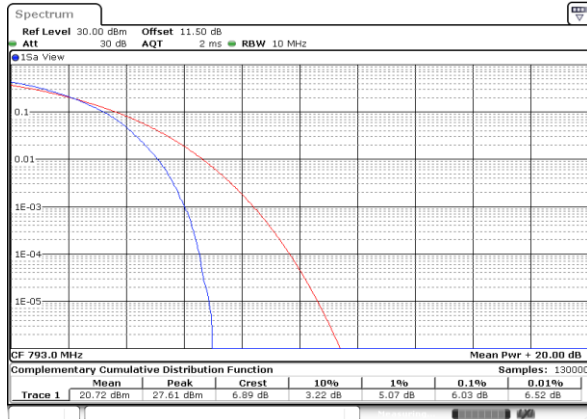
Middle Channel / Full RB



Date: 31.JAN.2024 02:14:41

LTE Band 14 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 31.JAN.2024 02:14:12

N/A

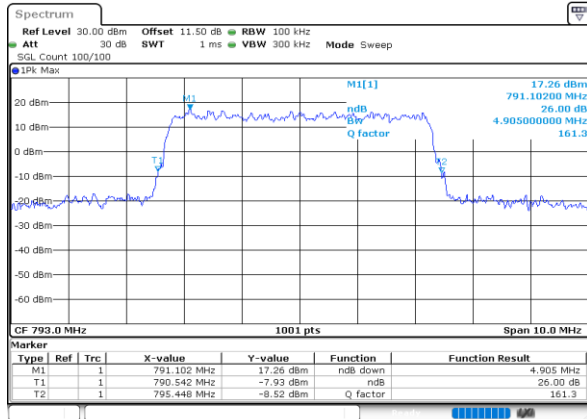
**26dB Bandwidth**

Mode	LTE Band 14 : 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	-	-	-	-	4.90	4.93	9.86	9.76	-	-	-	-
Mode	LTE Band 14 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.89	-	9.81	-	-	-	-	-

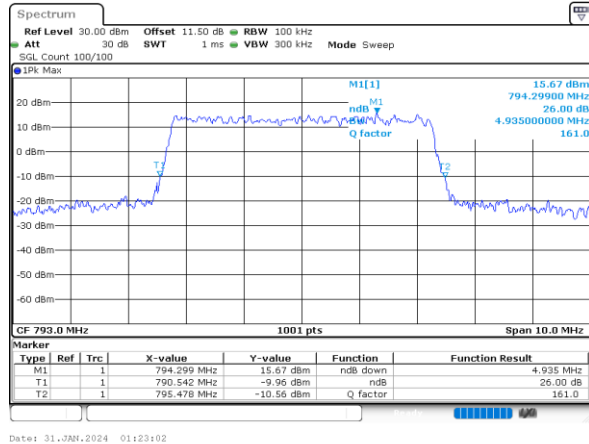


LTE Band 14

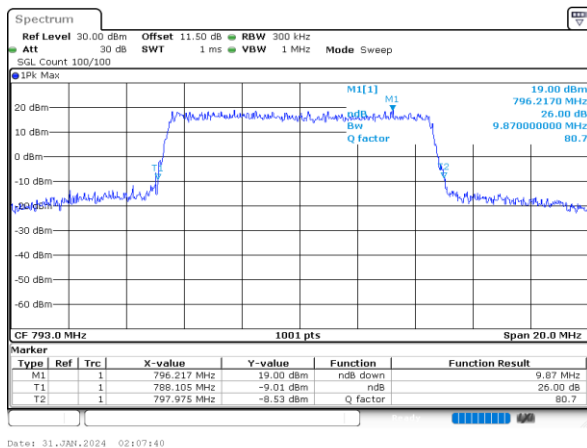
Middle Channel / 5MHz / QPSK



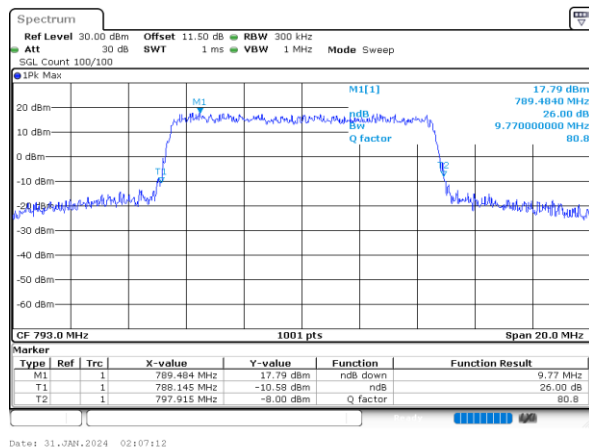
Middle Channel / 5MHz / 16QAM



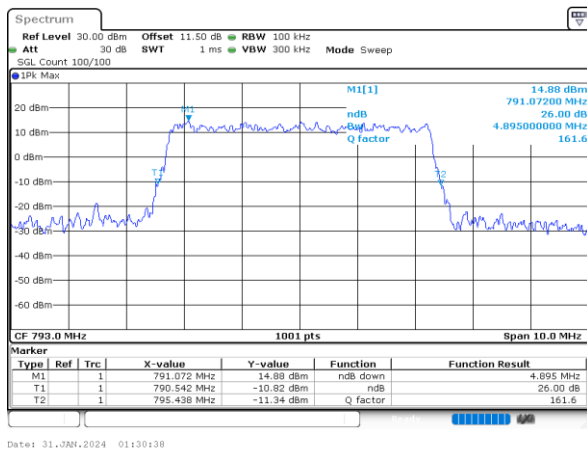
Middle Channel / 10MHz / QPSK



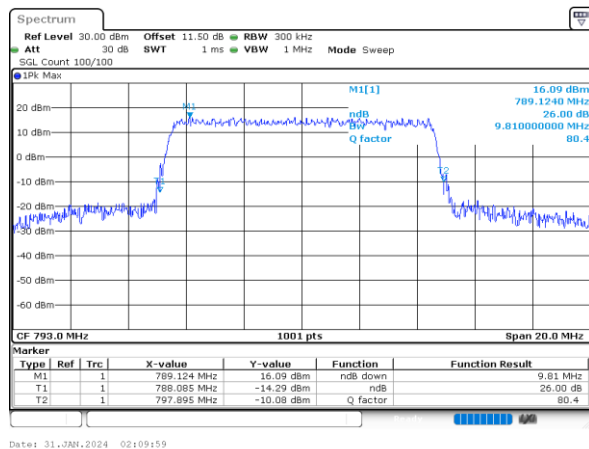
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



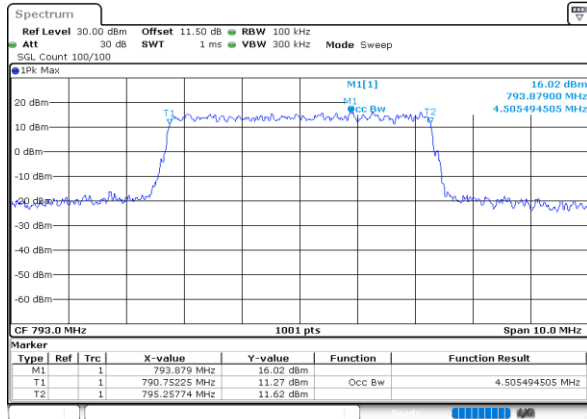
**Occupied Bandwidth**

Mode	LTE Band 14 : 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	4.50	9.03	9.03	-	-	-	-
Mode	LTE Band 14 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.49	-	9.05	-	-	-	-	-

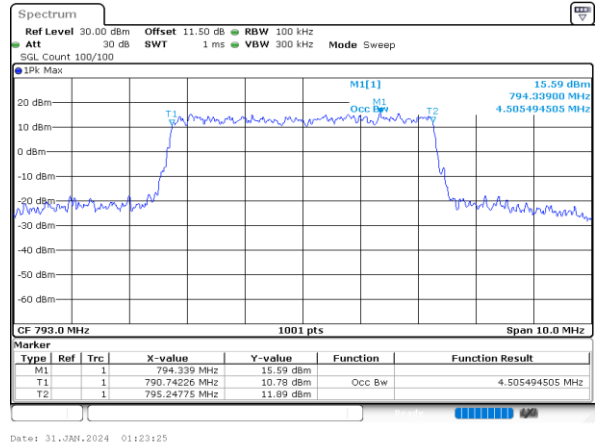


LTE Band 14

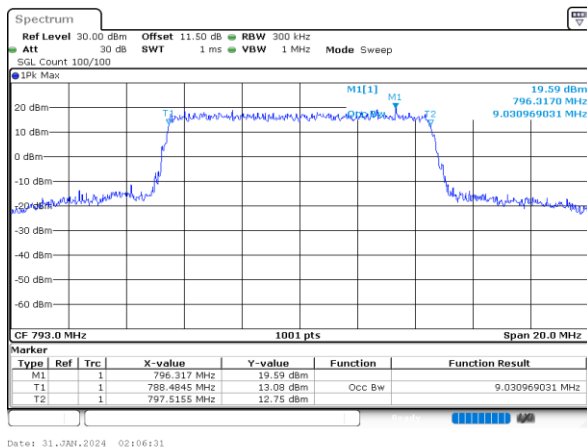
Middle Channel / 5MHz / QPSK



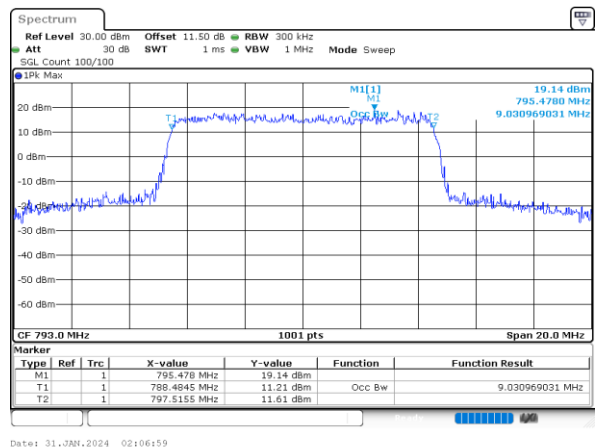
Middle Channel / 5MHz / 16QAM



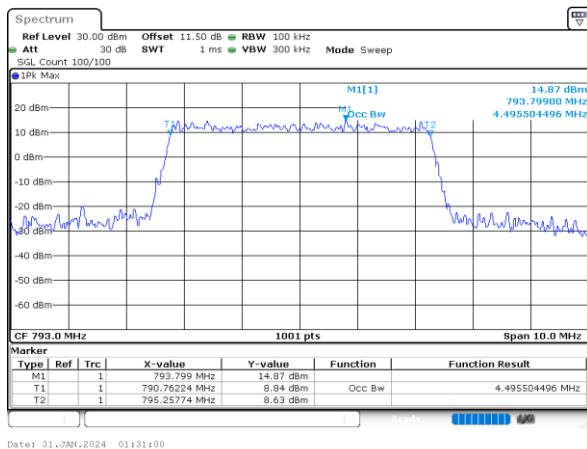
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

