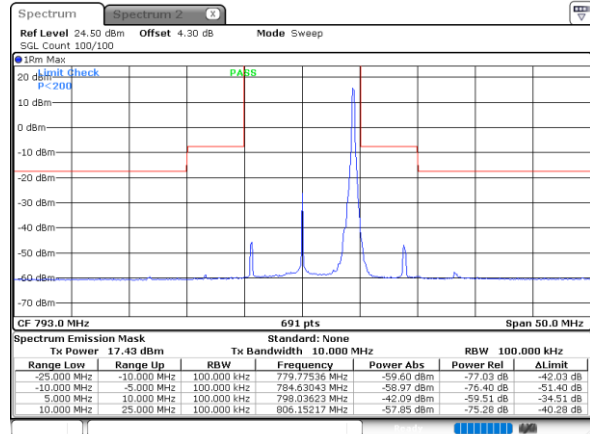
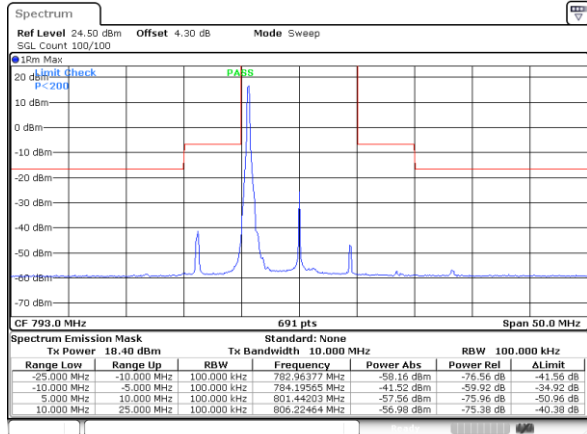
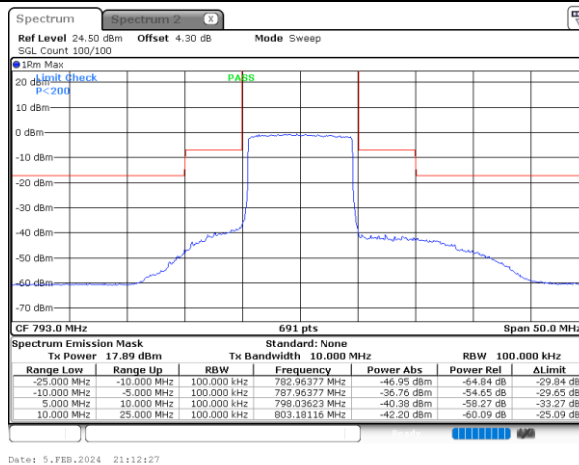


LTE Band 14 / 10MHz / 256QAM

Middle Channel / 1RB



Middle Channel / Full RB



Frequency Stability

Test Conditions		LTE Band 14 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0018	PASS
40	Normal Voltage	0.0045	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0030	
-20	Normal Voltage	0.0038	
-30	Normal Voltage	0.0045	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0002	
20	Minimum Voltage	0.0019	

Note:

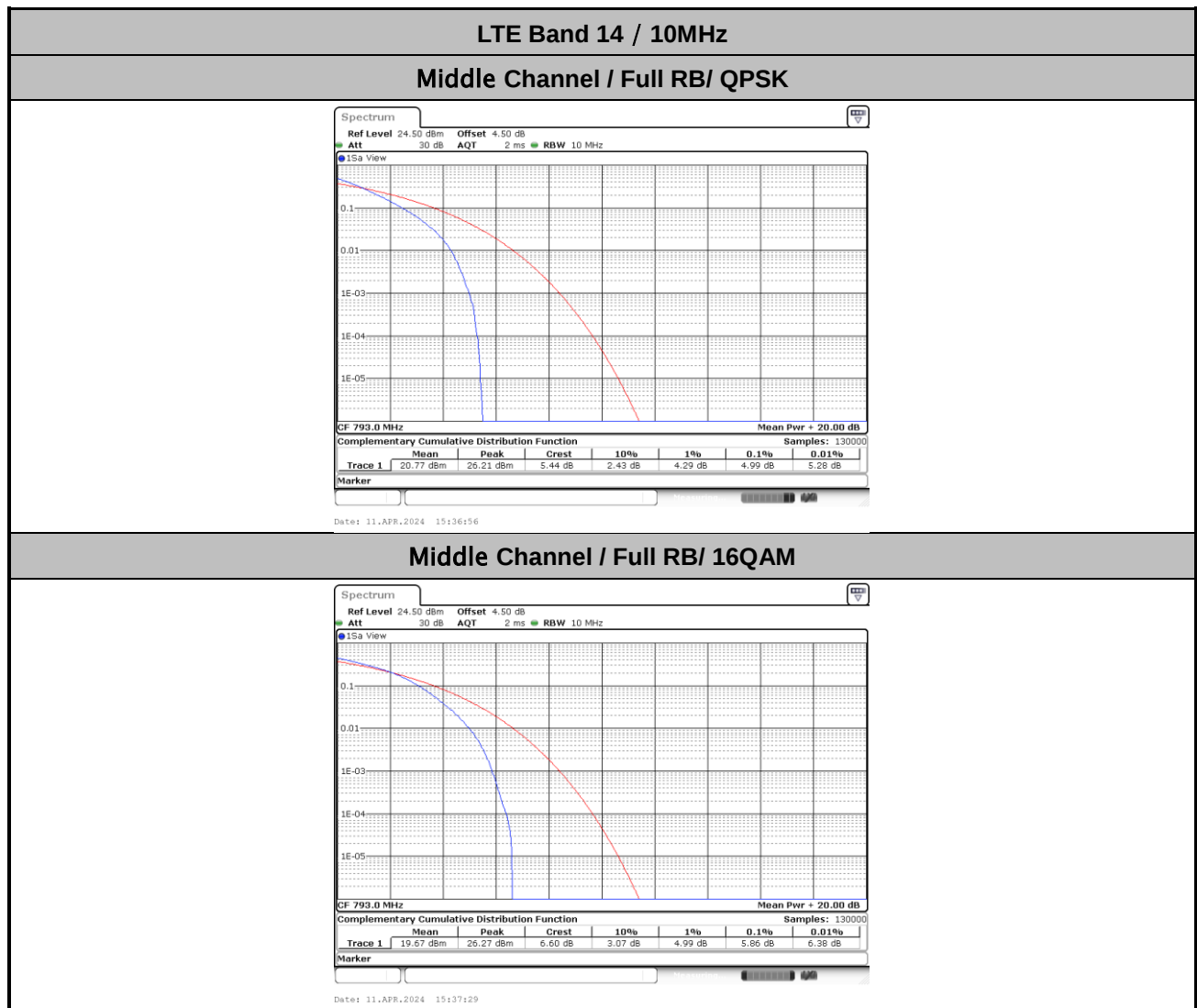
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



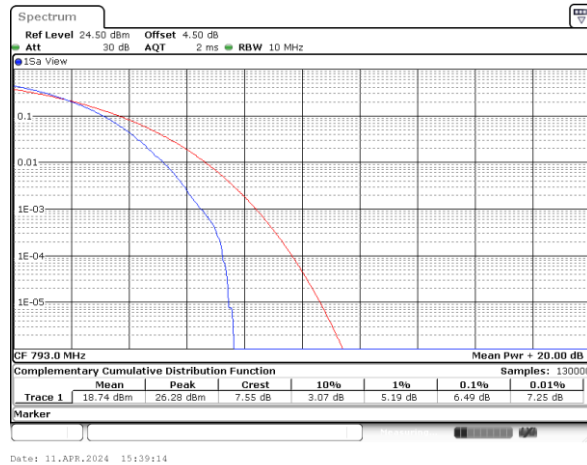
LTE Band 14 (other PA)

Peak-to-Average Ratio

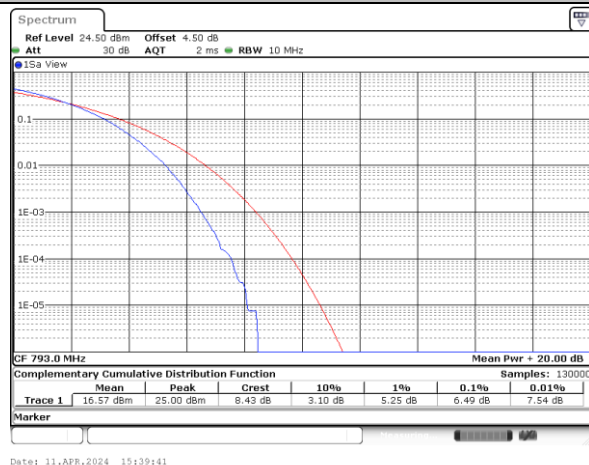
Mode	LTE Band 14 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.99	5.86	6.49	6.49	PASS



Middle Channel / Full RB/ 64QAM



Middle Channel / Full RB/ 256QAM



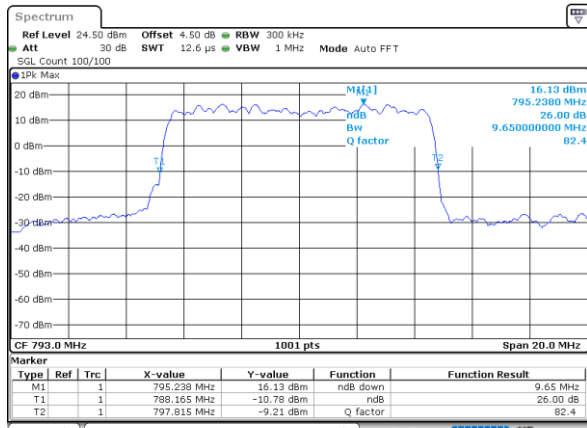


26dB Bandwidth

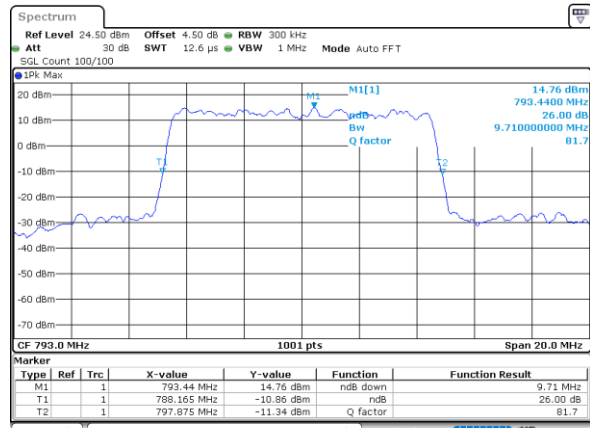
Mode	LTE Band 14 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.65	9.71
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.94	4.94

LTE Band 14

Middle Channel / 10MHz / QPSK

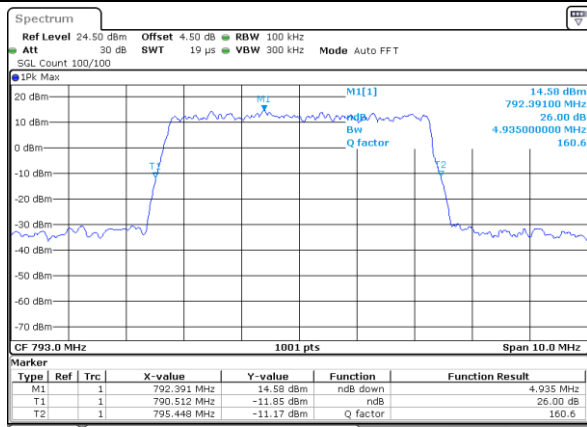


Middle Channel / 10MHz / 16QAM

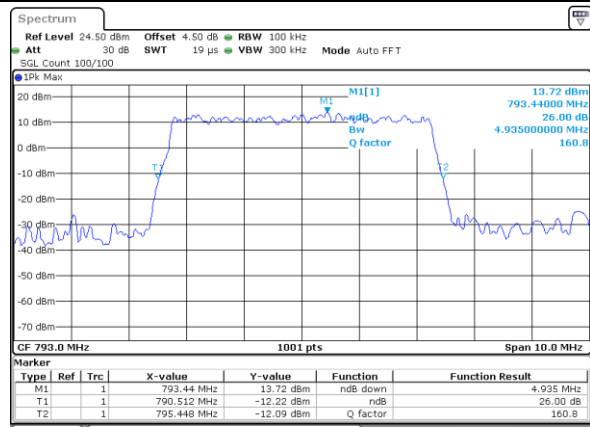


LTE Band 14

Middle Channel / 5MHz / QPSK

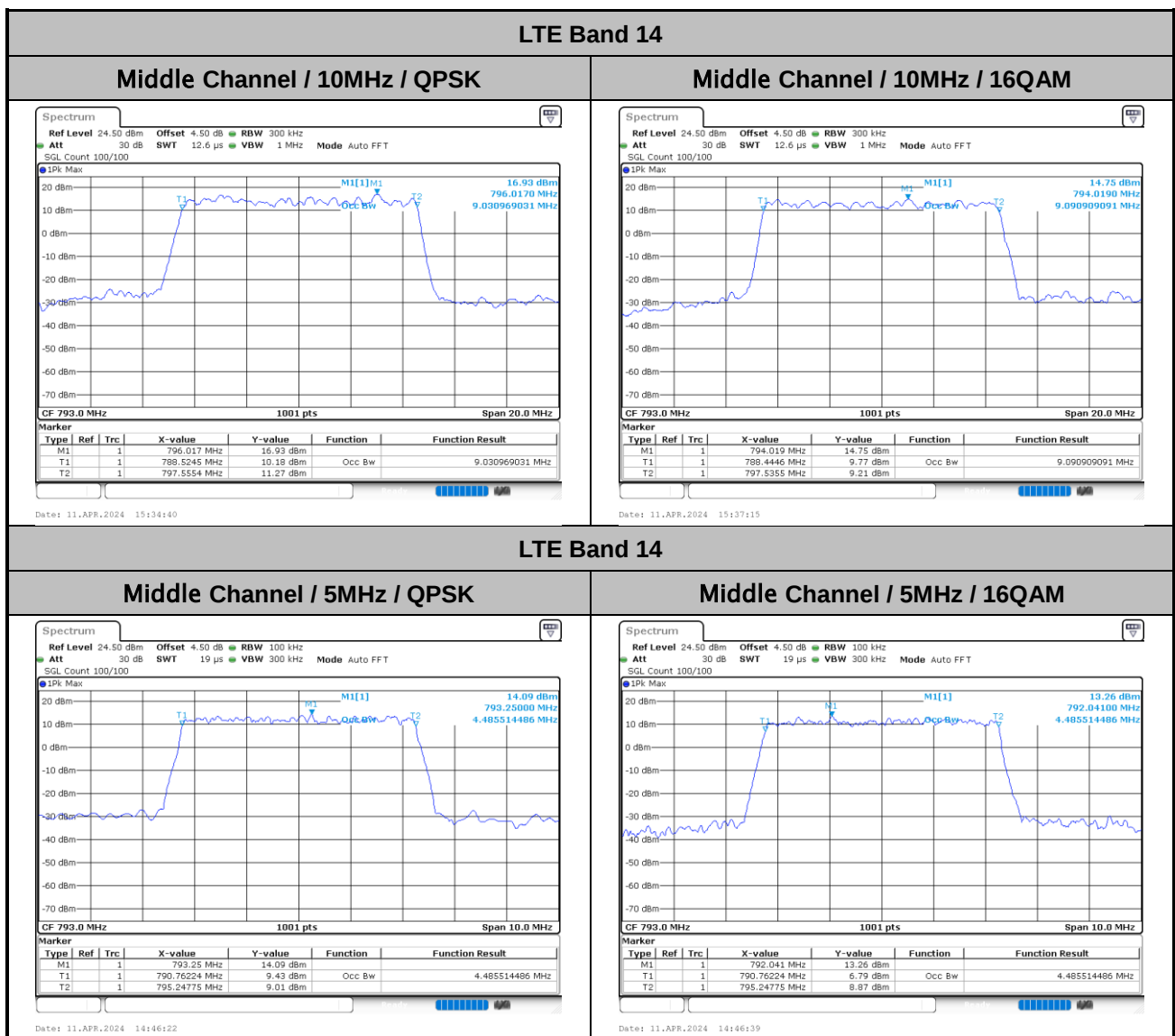


Middle Channel / 5MHz / 16QAM



Occupied Bandwidth

Mode	LTE Band 14 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.03	9.09
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.49

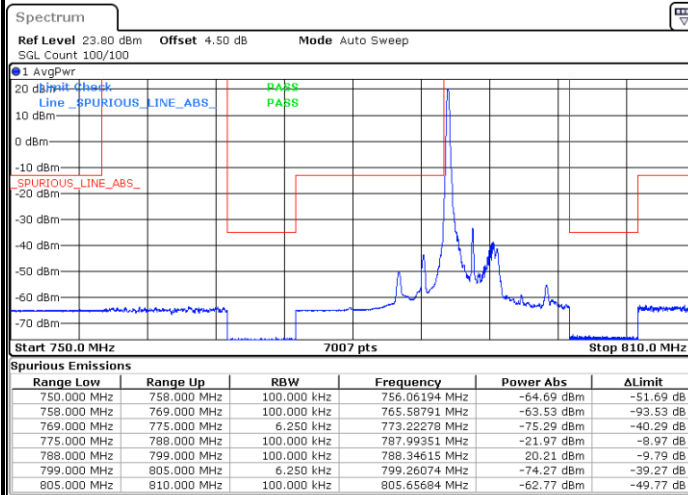




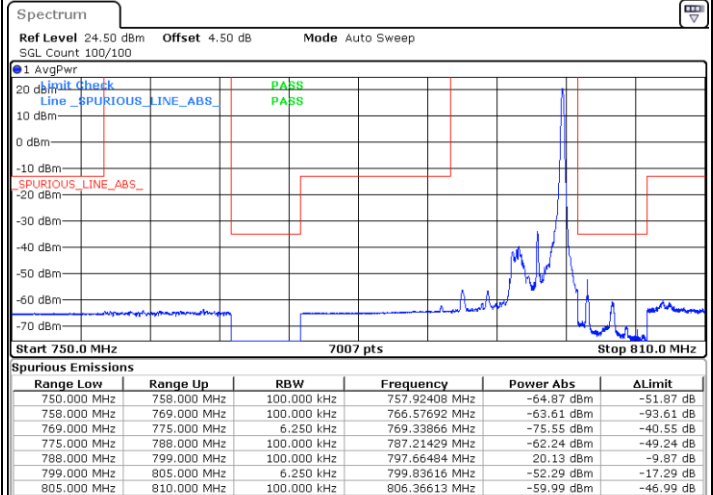
Conducted Band Edge

LTE Band 14 / 5MHz / QPSK

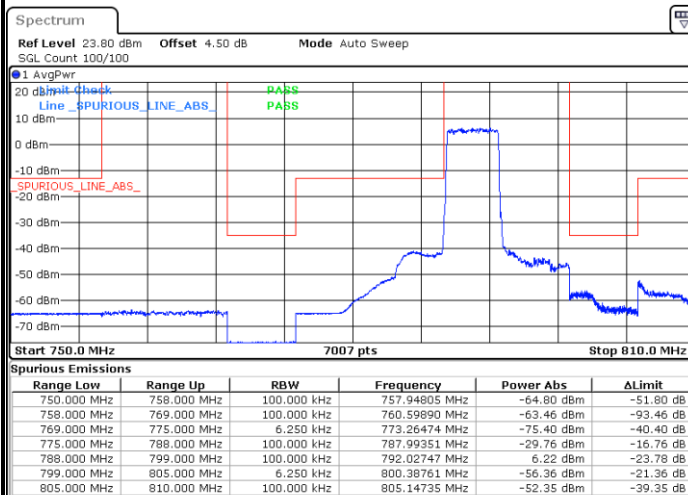
Lowest Band Edge / 1 RB



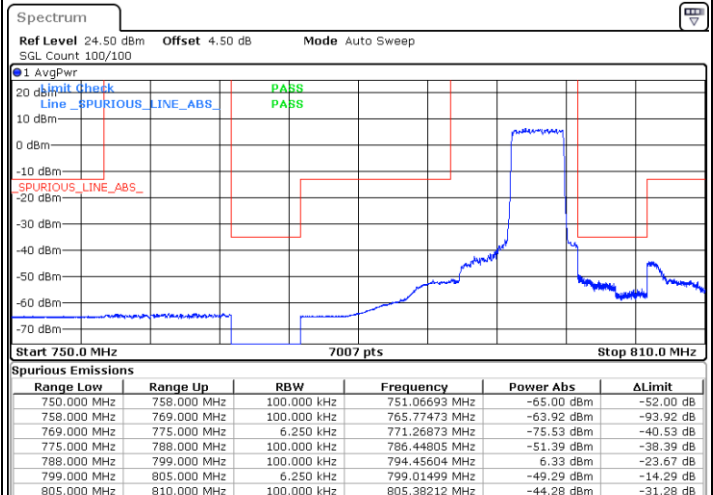
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



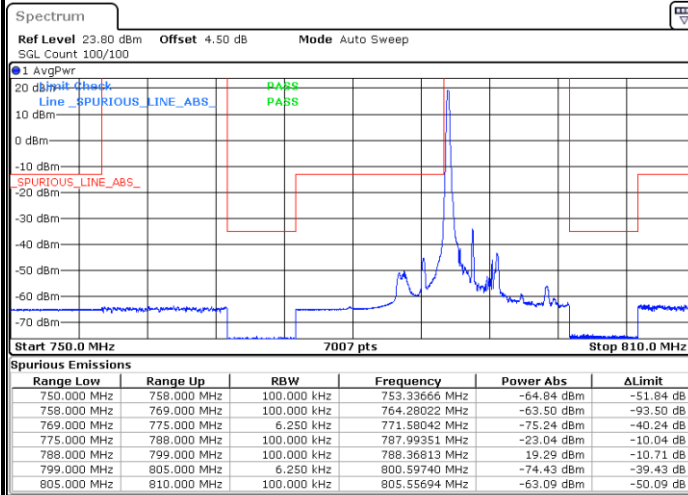
Highest Band Edge / Full RB





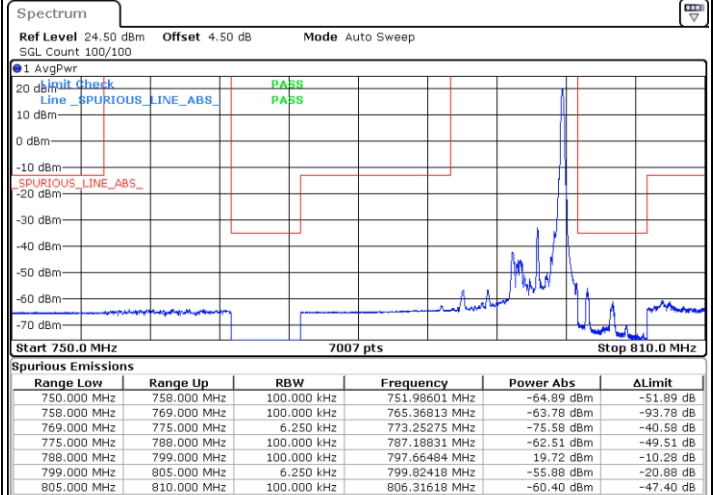
LTE Band 14 / 5MHz / 16QAM

Lowest Band Edge /1 RB



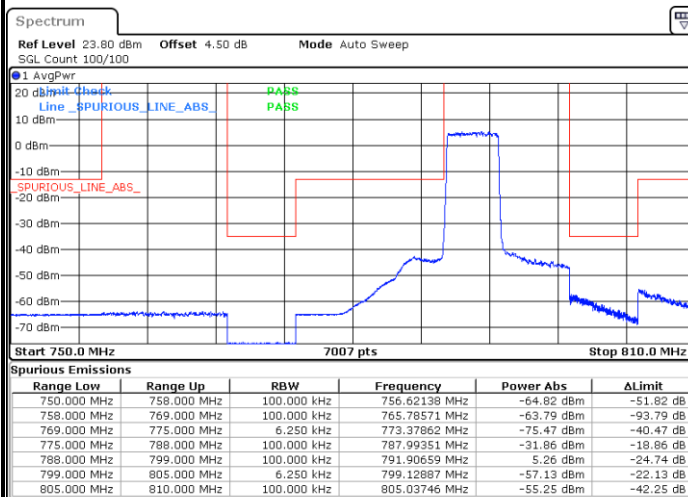
Date: 11.APR.2024 14:35:22

Highest Band Edge / 1 RB



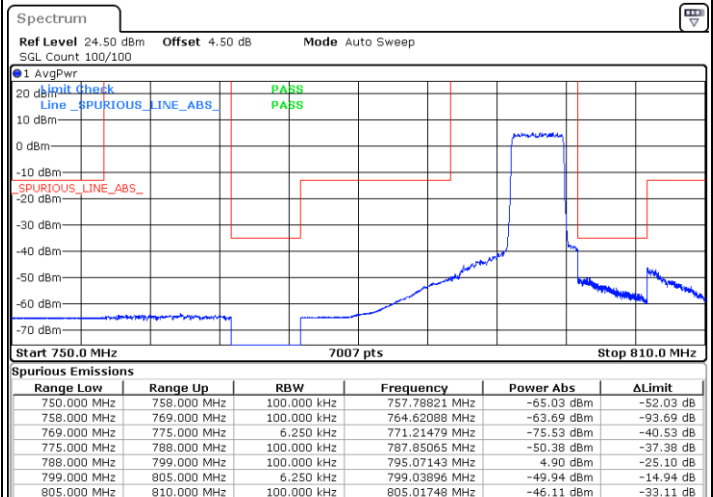
Date: 11.APR.2024 14:54:21

Lowest Band Edge / Full RB



Date: 11.APR.2024 14:44:20

Highest Band Edge / Full RB

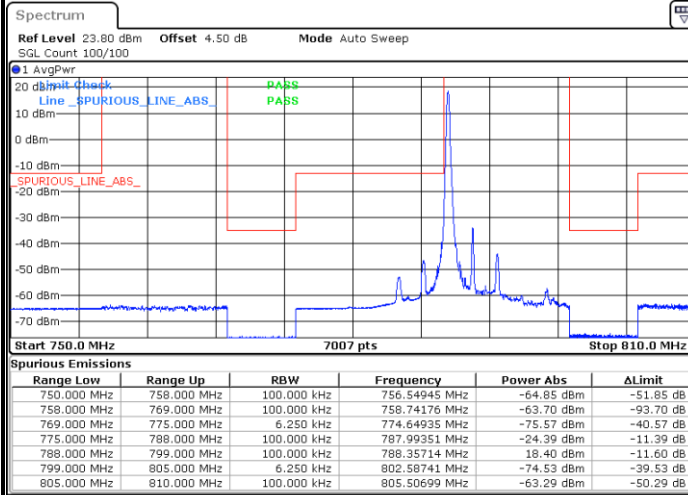


Date: 11.APR.2024 15:03:42



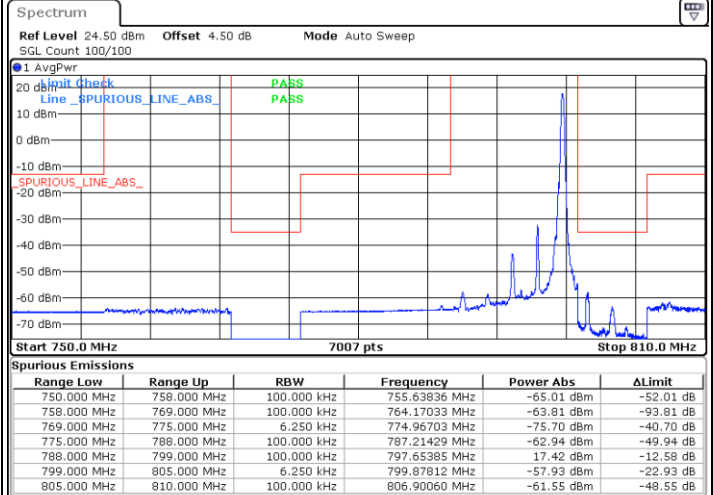
LTE Band 14 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



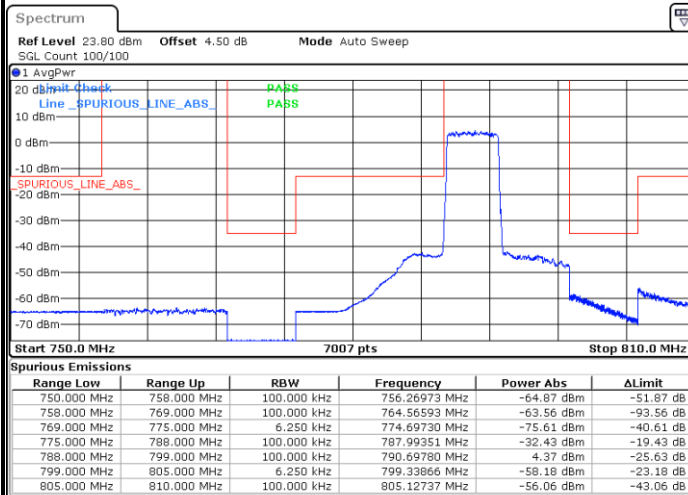
Date: 11.APR.2024 14:36:51

Highest Band Edge / 1 RB



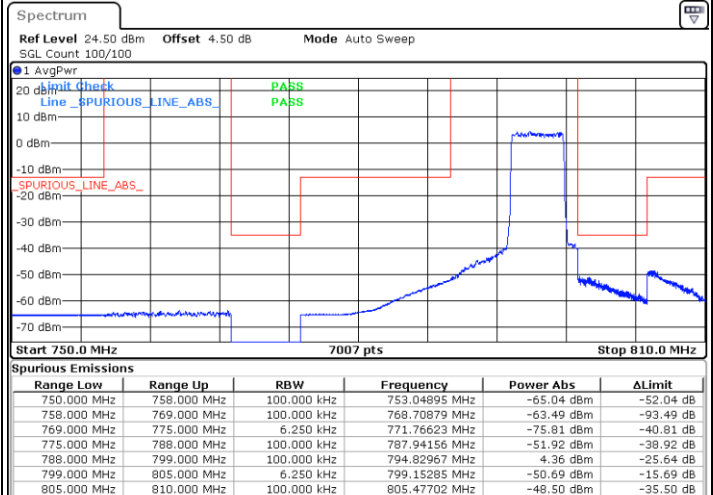
Date: 11.APR.2024 14:56:13

Lowest Band Edge / Full RB



Date: 11.APR.2024 14:42:46

Highest Band Edge / Full RB

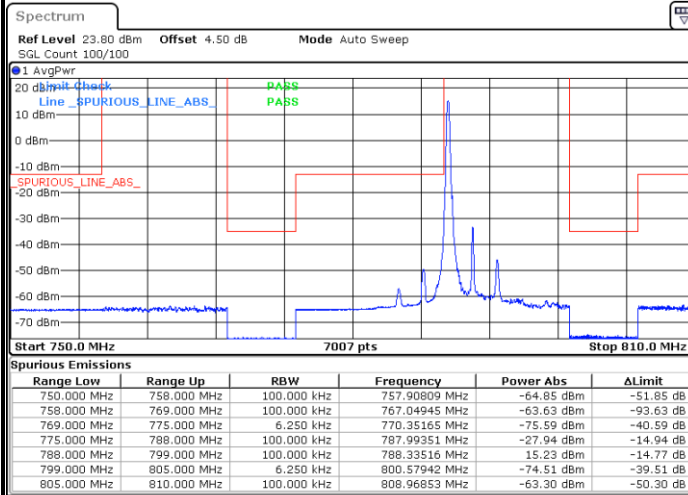


Date: 11.APR.2024 15:02:24



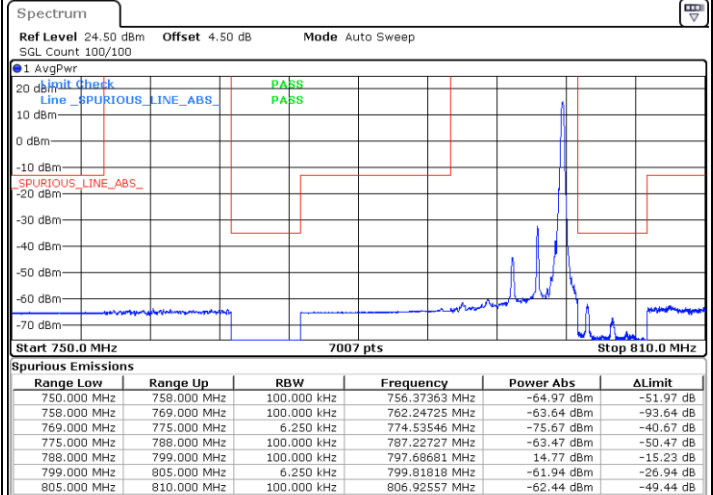
LTE Band 14 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



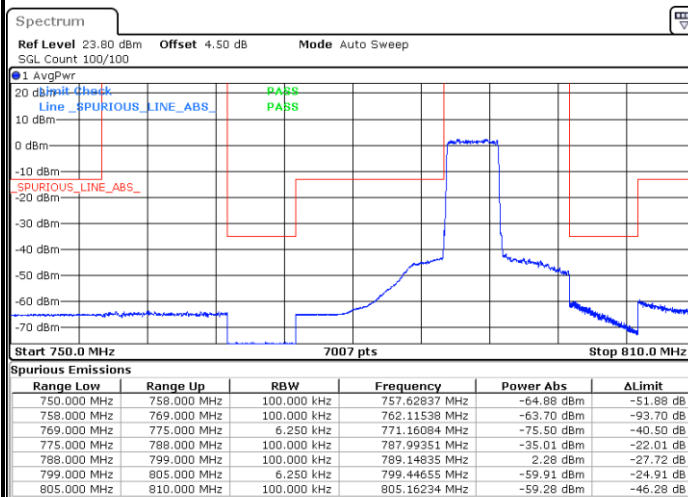
Date: 11.APR.2024 14:39:35

Highest Band Edge / 1 RB



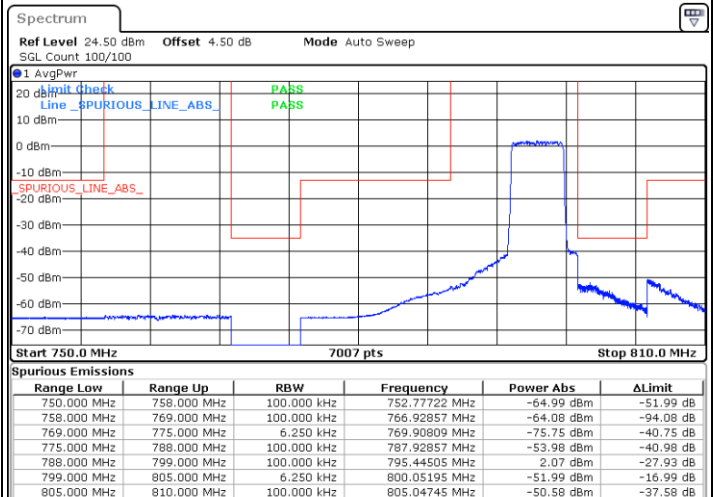
Date: 11.APR.2024 14:58:00

Lowest Band Edge / Full RB



Date: 11.APR.2024 14:40:46

Highest Band Edge / Full RB

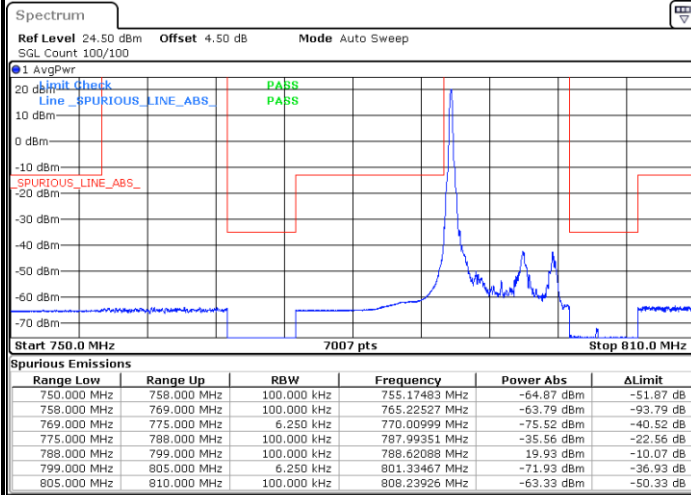


Date: 11.APR.2024 14:59:58

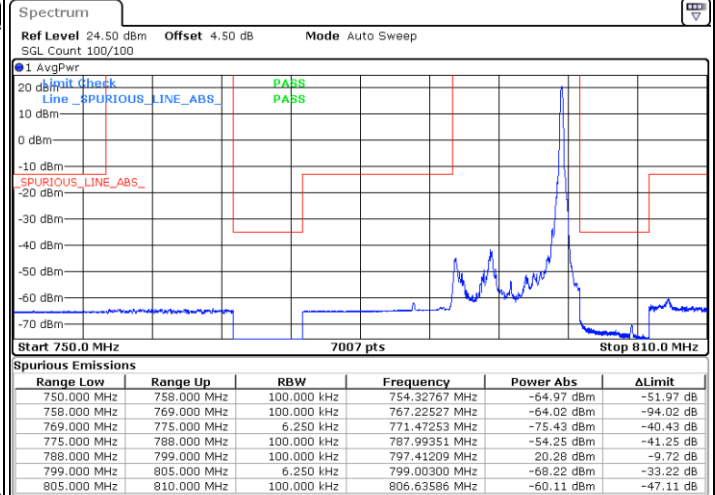


LTE Band 14 / 10MHz / QPSK

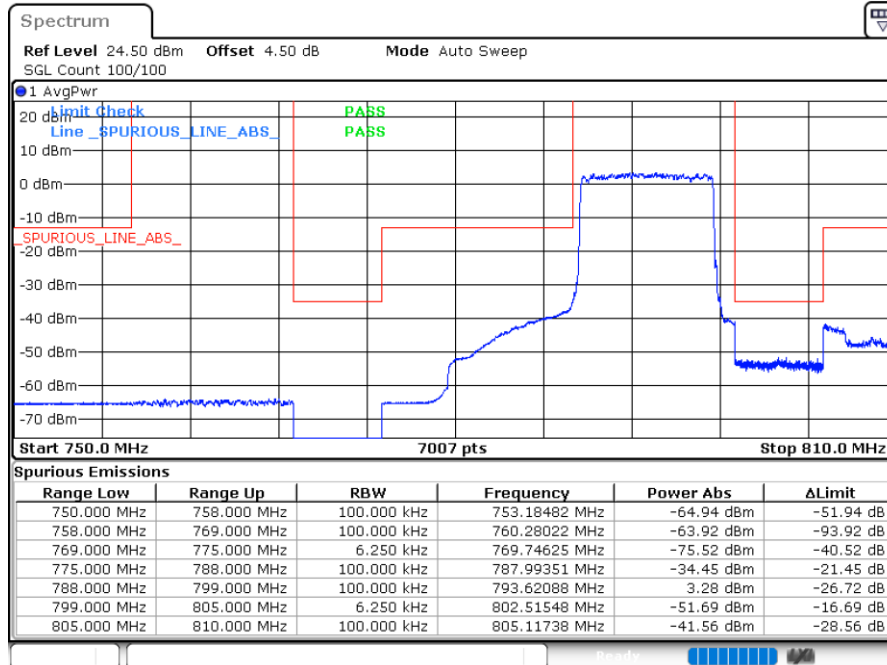
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



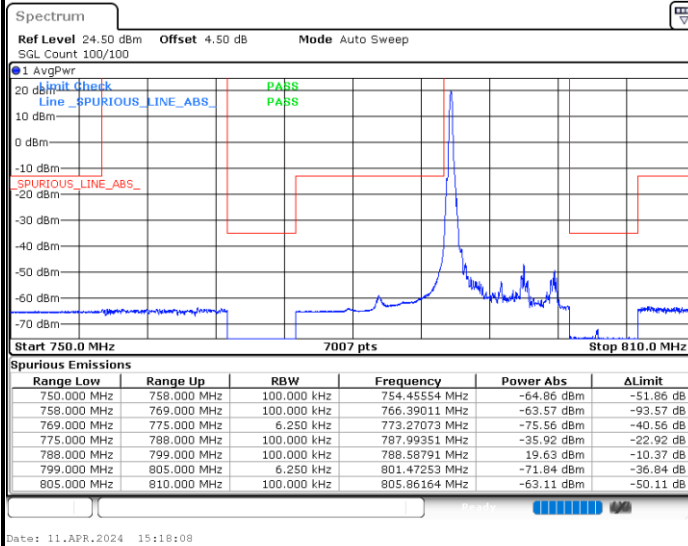
Band Edge / Full RB



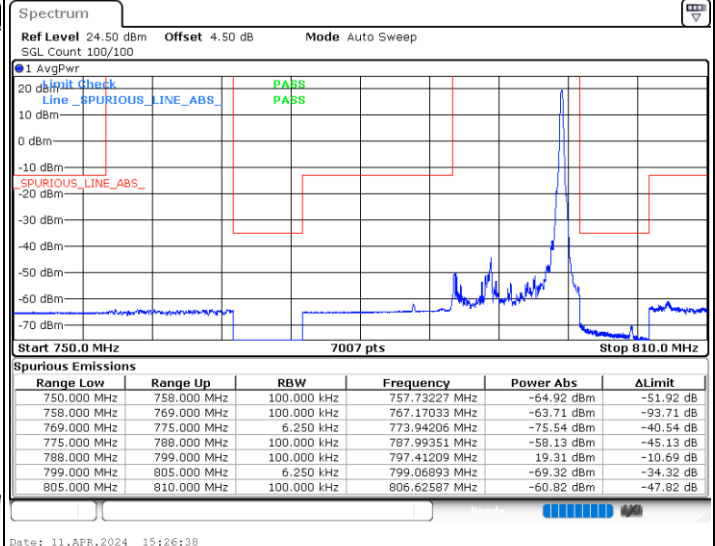


LTE Band 14 / 10MHz / 16QAM

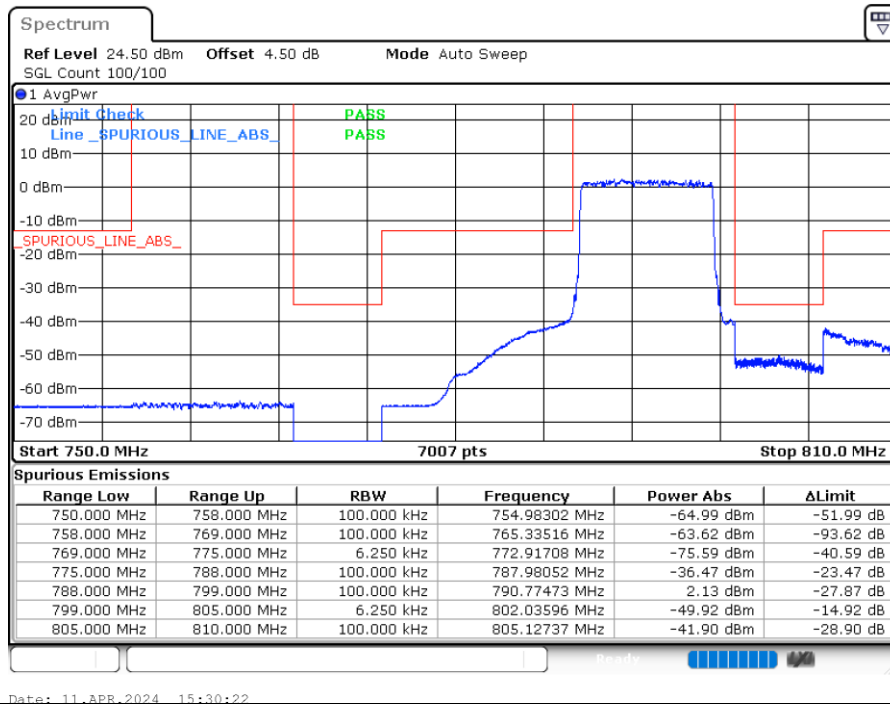
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



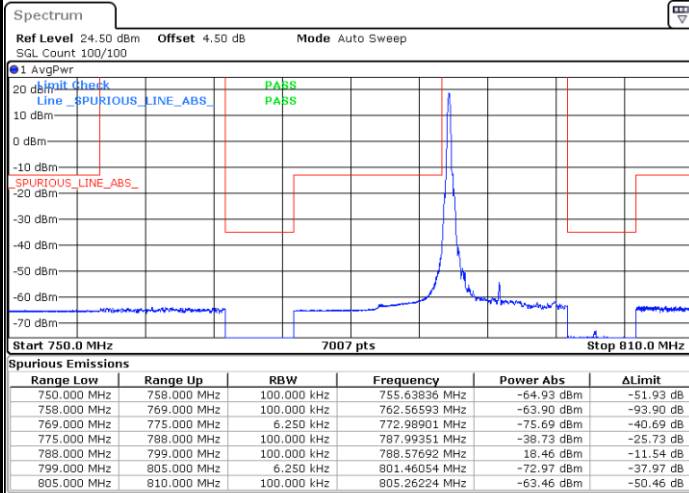
Band Edge / Full RB





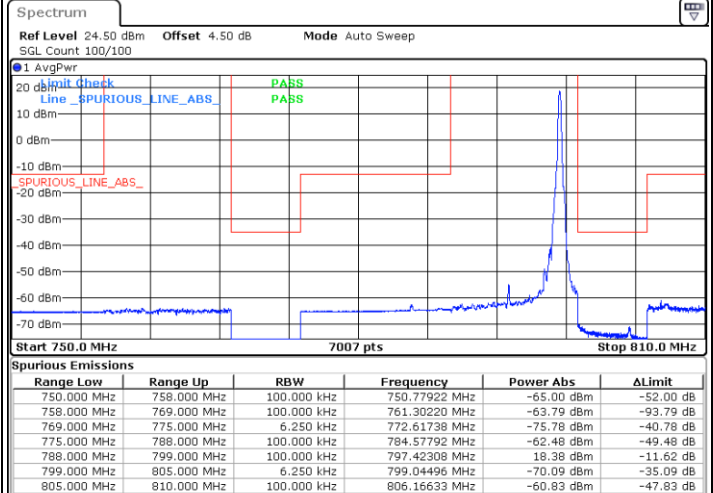
LTE Band 14 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



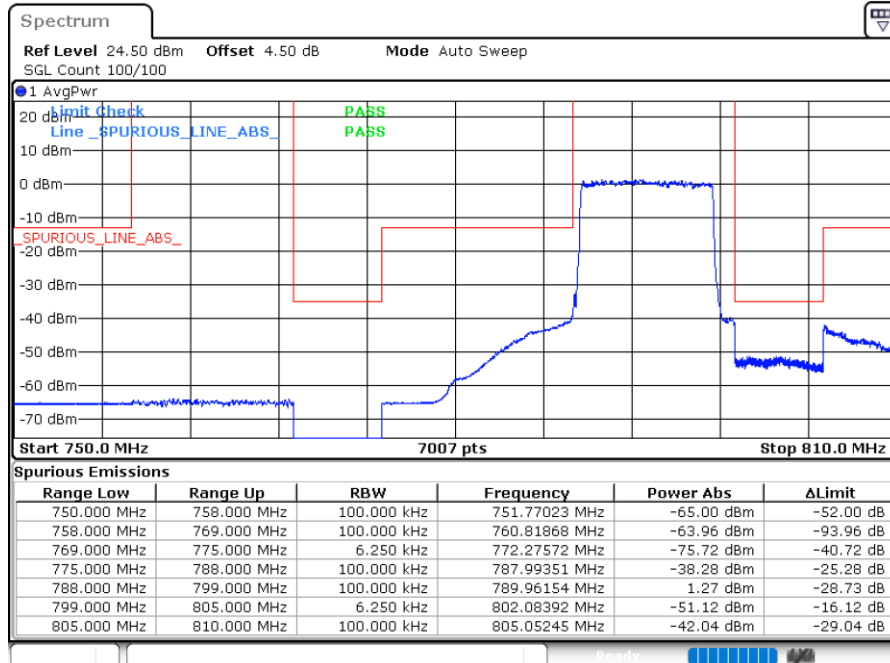
Date: 11.APR.2024 15:19:46

Highest Band Edge / 1 RB



Date: 11.APR.2024 15:25:08

Band Edge / Full RB

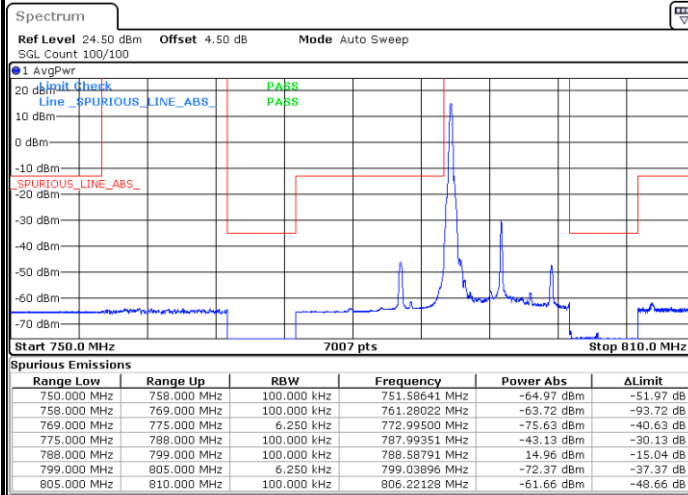


Date: 11.APR.2024 15:31:31



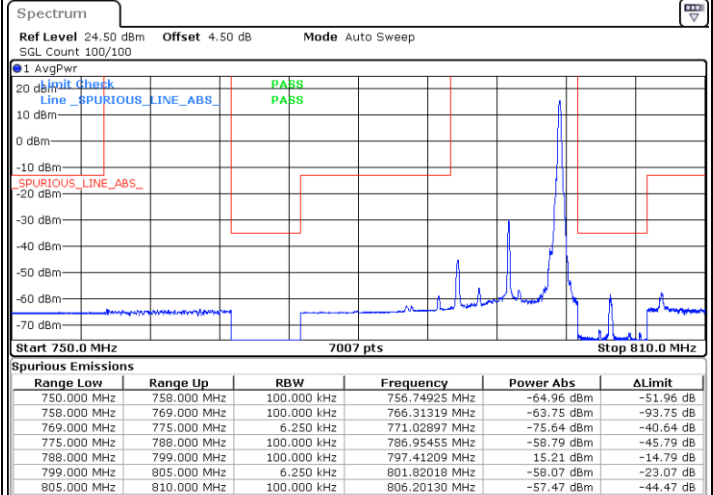
LTE Band 14 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



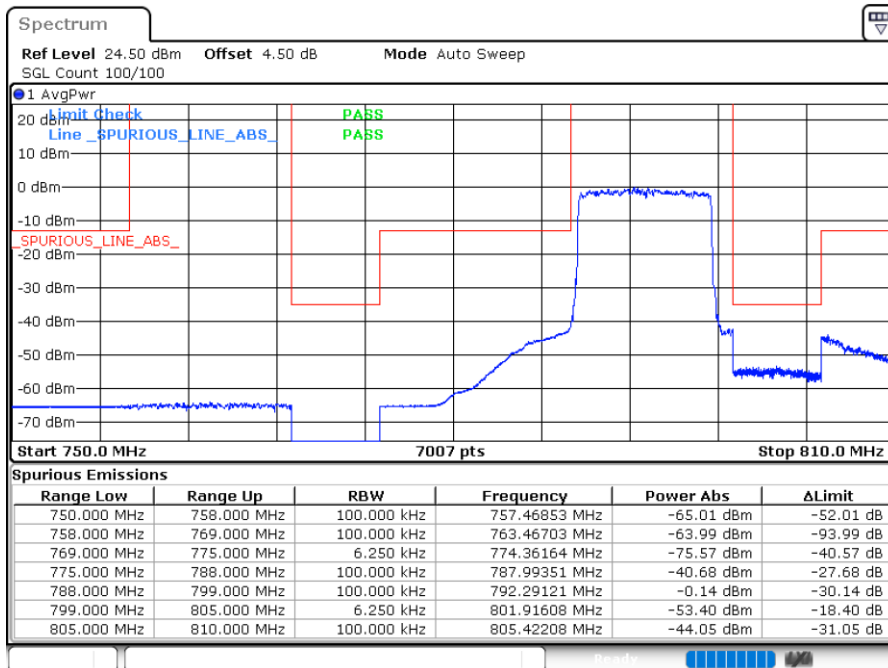
Date: 11.APR.2024 15:20:58

Highest Band Edge / 1 RB



Date: 11.APR.2024 15:22:06

Band Edge / Full RB



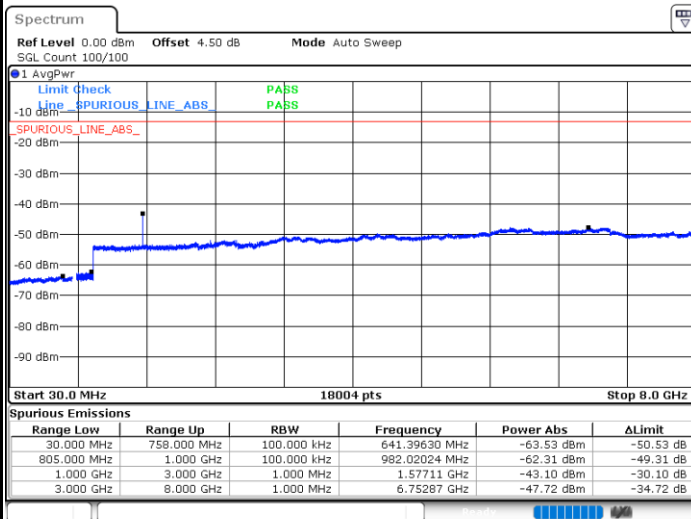
Date: 11.APR.2024 15:33:09



Conducted Spurious Emission

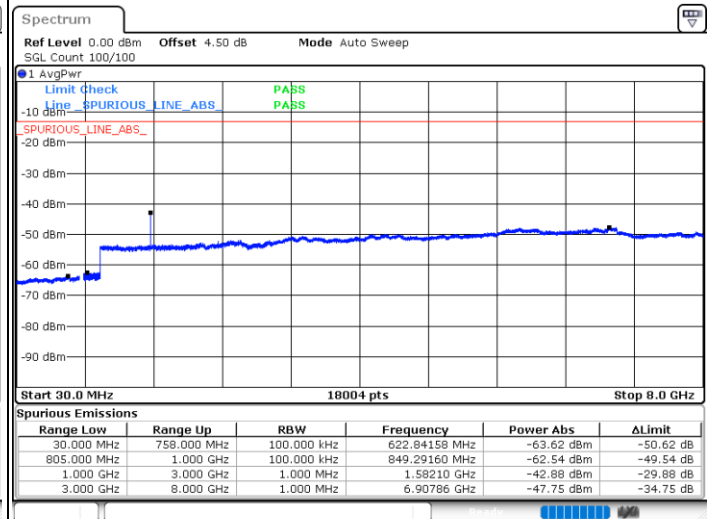
LTE Band 14 / 5MHz

Lowest Channel / QPSK



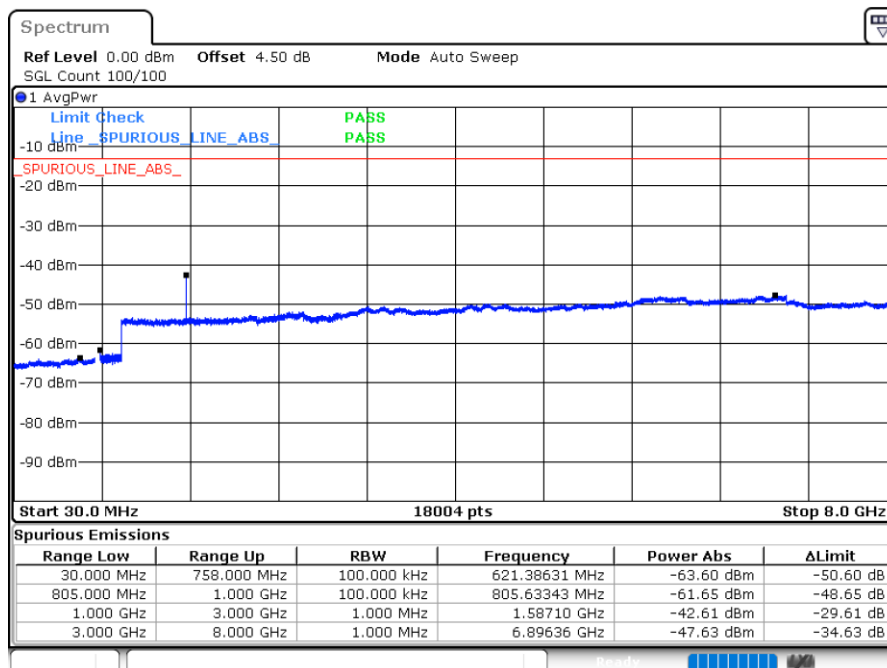
Date: 11.APR.2024 14:22:51

Middle Channel / QPSK



Date: 11.APR.2024 14:49:33

Highest Channel / QPSK

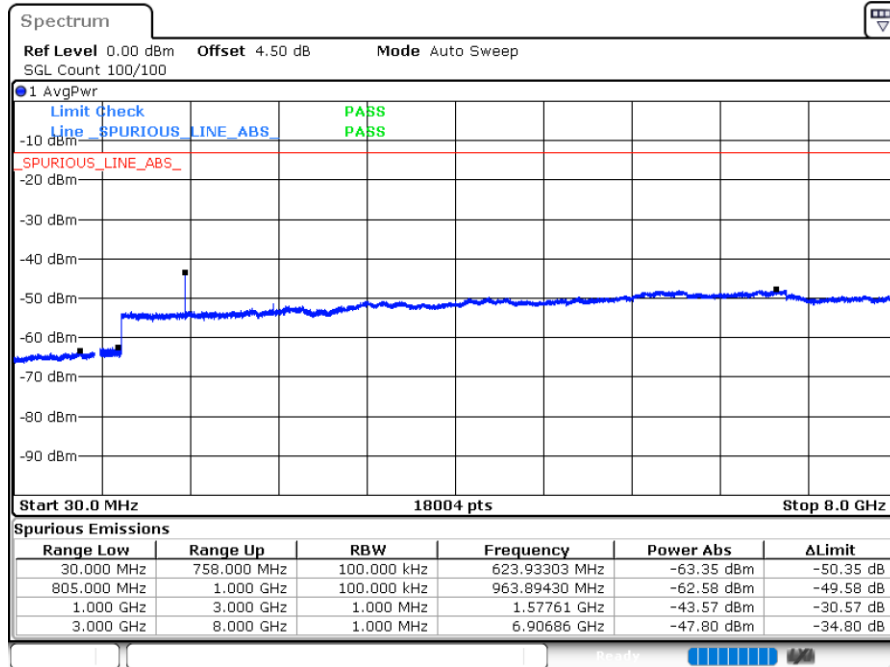


Date: 11.APR.2024 14:50:07



LTE Band 14 / 10MHz

Middle Channel / QPSK



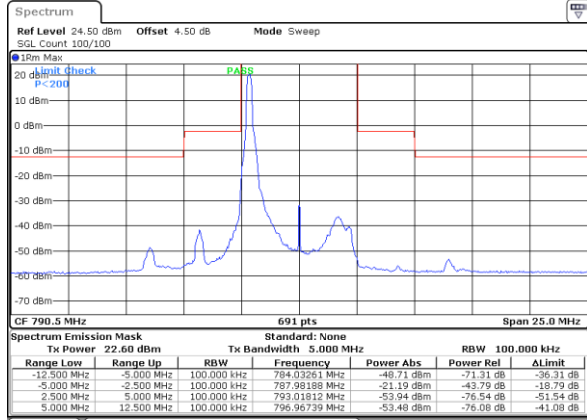
Date: 11.APR.2024 15:06:50



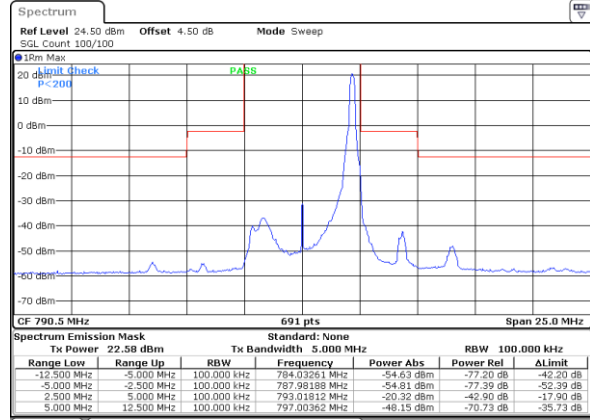
Emission Mask

LTE Band 14 / 5MHz / QPSK

Lowest Channel / 1RB

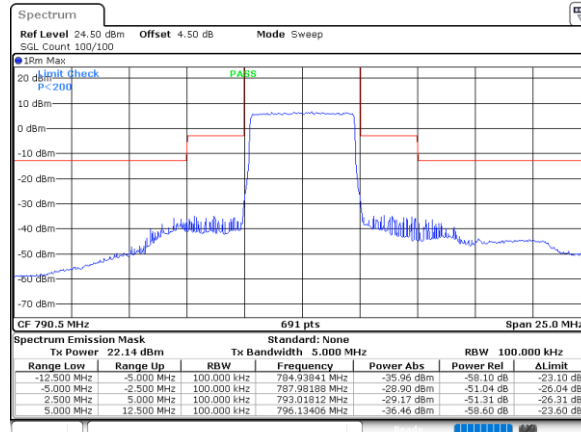


Date: 11.APR.2024 15:46:13



Date: 11.APR.2024 16:17:06

Lowest Channel / Full RB

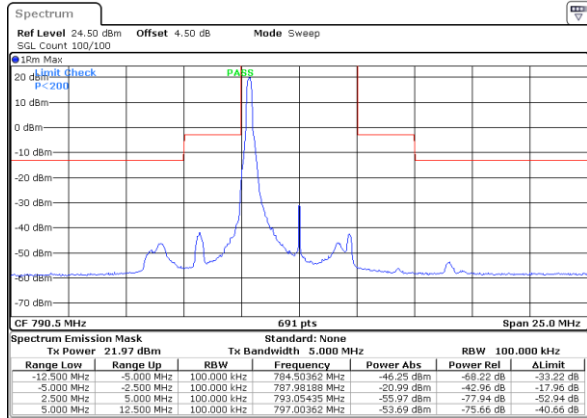


Date: 11.APR.2024 16:19:40

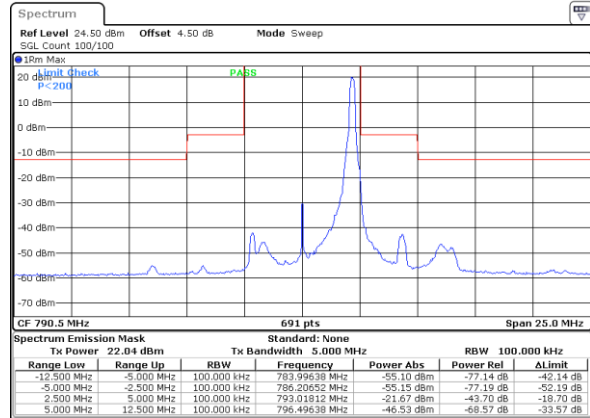


LTE Band 14 / 5MHz / 16QAM

Lowest Channel / 1RB

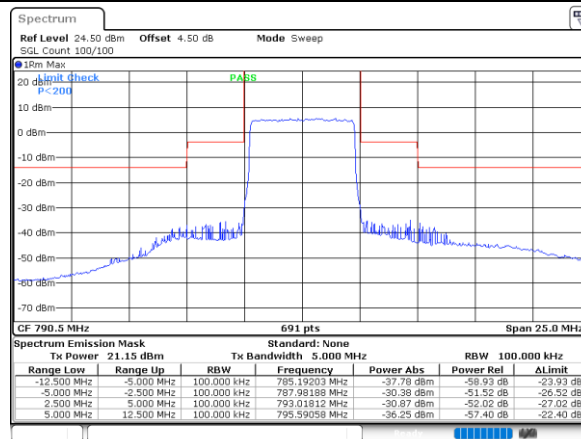


Date: 11.APR.2024 16:04:42



Date: 11.APR.2024 16:14:17

Lowest Channel / Full RB

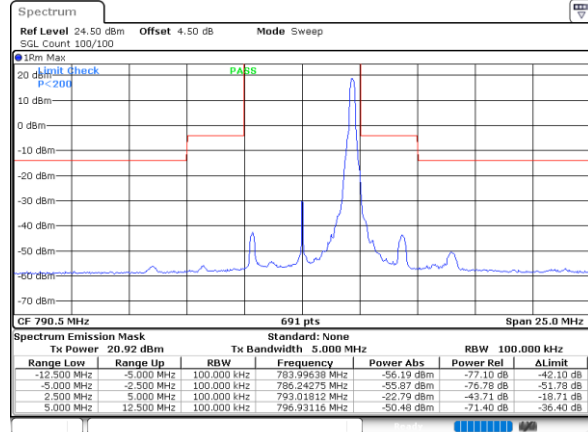
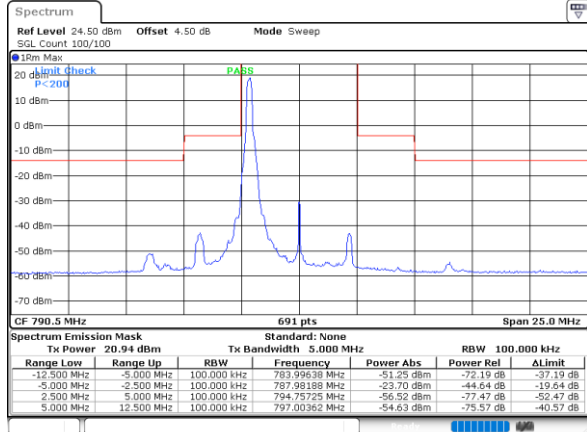


Date: 11.APR.2024 16:22:02

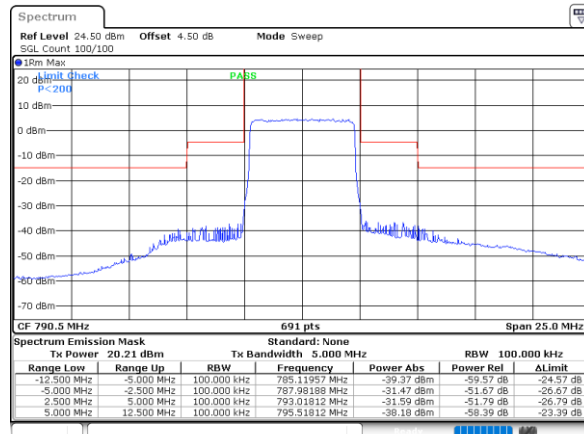


LTE Band 14 / 5MHz / 64QAM

Lowest Channel / 1RB



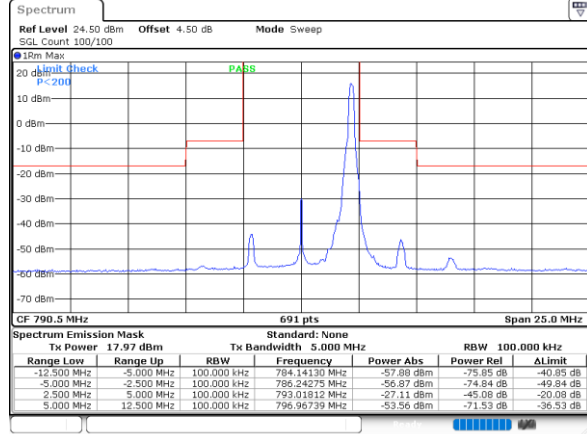
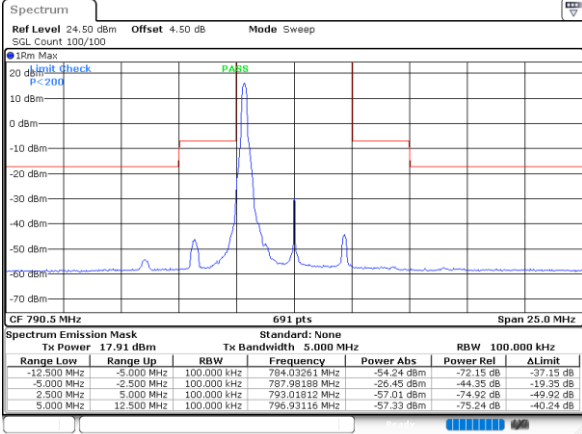
Lowest Channel / Full RB



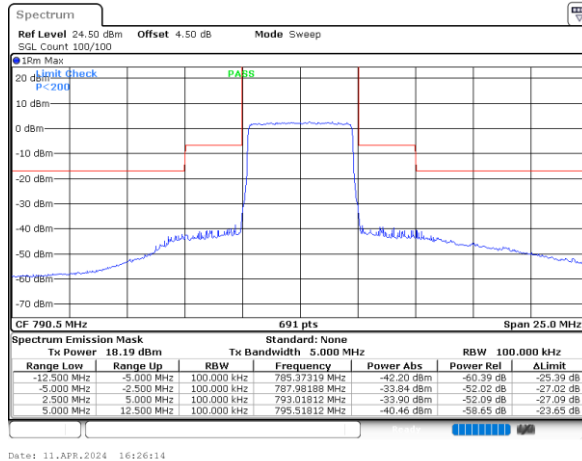


LTE Band 14 / 5MHz / 256QAM

Lowest Channel / 1RB

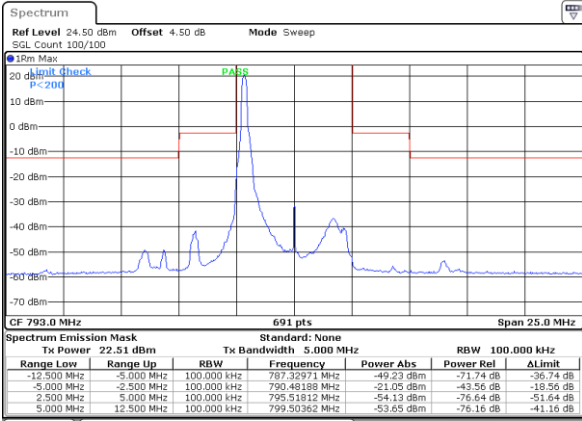


Lowest Channel / Full RB

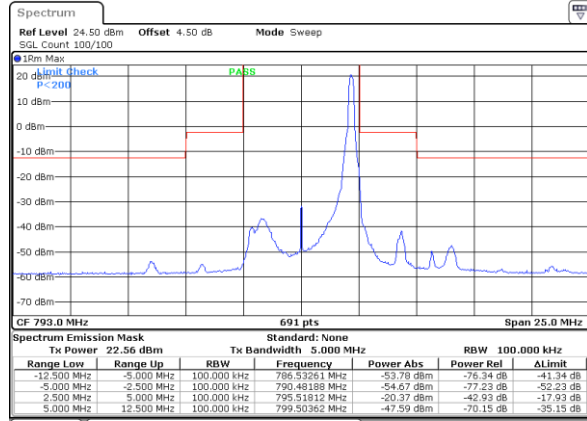


LTE Band 14 / 5MHz / QPSK

Middle Channel / 1RB

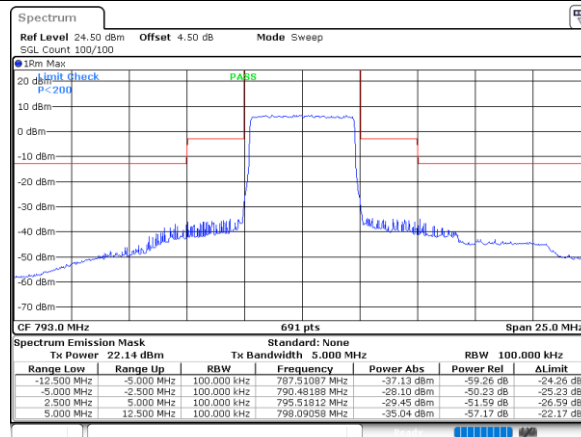


Date: 11.APR.2024 16:37:04



Date: 11.APR.2024 16:38:27

Middle Channel / Full RB

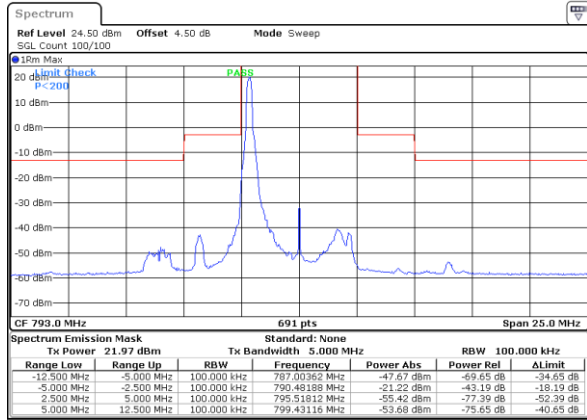


Date: 11.APR.2024 16:28:07

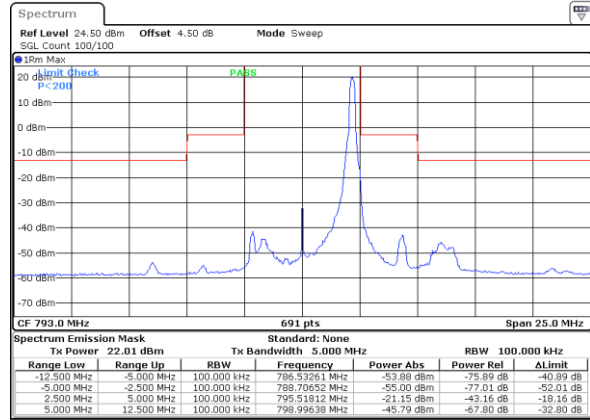


LTE Band 14 / 5MHz / 16QAM

Middle Channel / 1RB

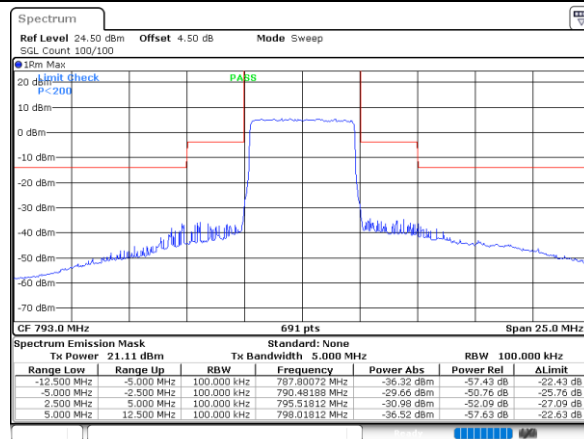


Date: 11.APR.2024 16:13:02



Date: 11.APR.2024 16:13:44

Middle Channel / Full RB

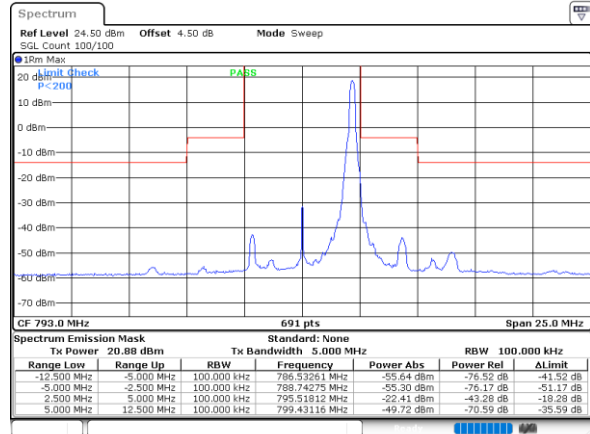
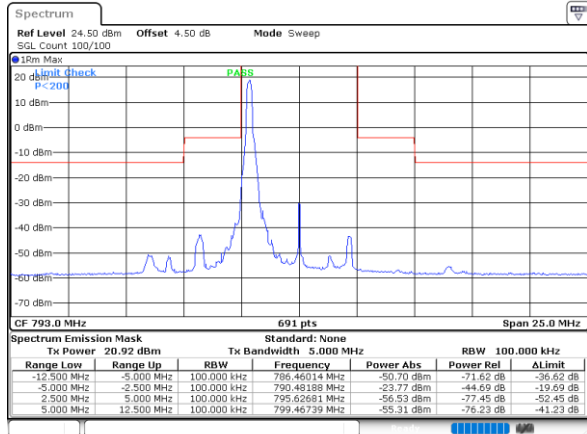


Date: 11.APR.2024 16:29:17

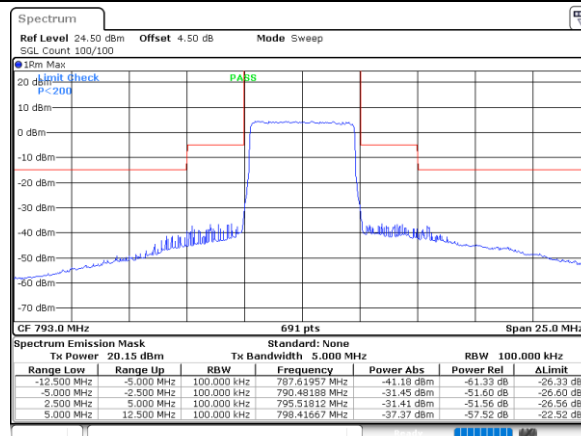


LTE Band 14 / 5MHz / 64QAM

Middle Channel / 1RB



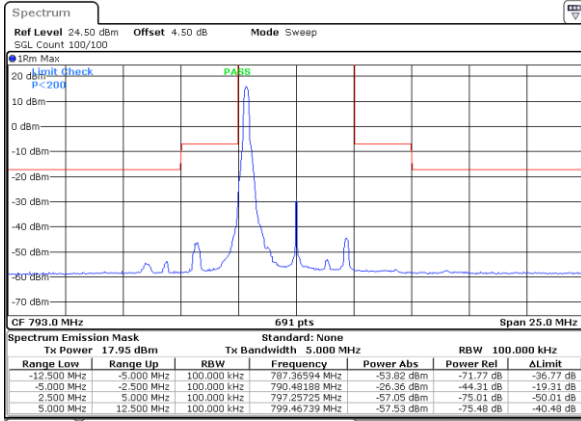
Middle Channel / Full RB



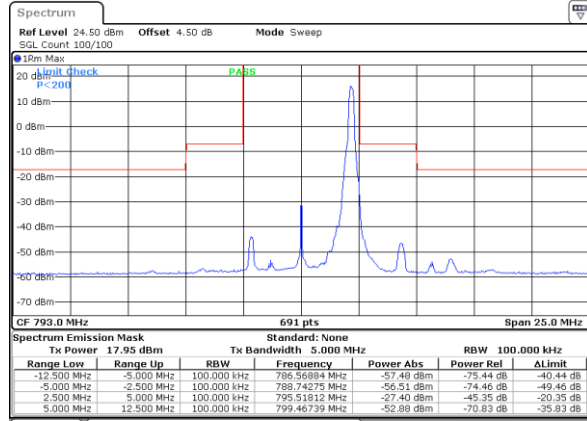


LTE Band 14 / 5MHz / 256QAM

Middle Channel / 1RB

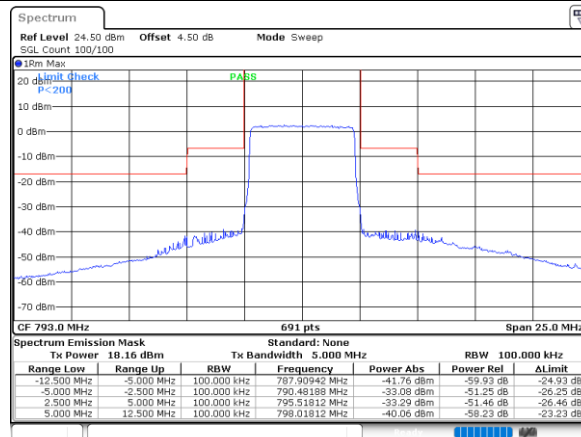


Date: 11.APR.2024 16:33:46



Date: 11.APR.2024 16:42:59

Middle Channel / Full RB

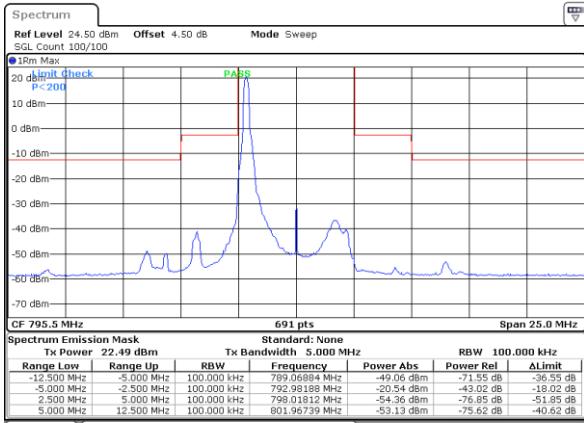


Date: 11.APR.2024 16:32:17

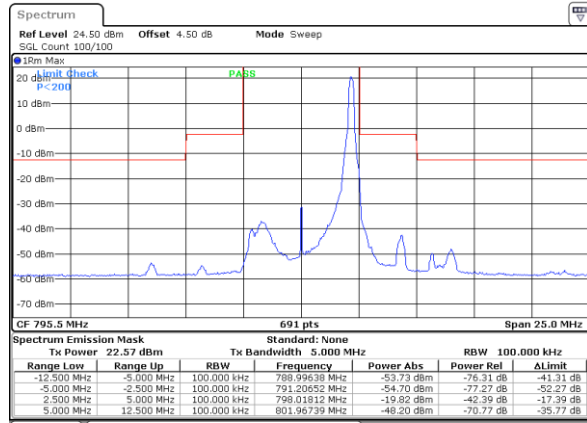


LTE Band 14 / 5MHz / QPSK

Highest Channel / 1RB

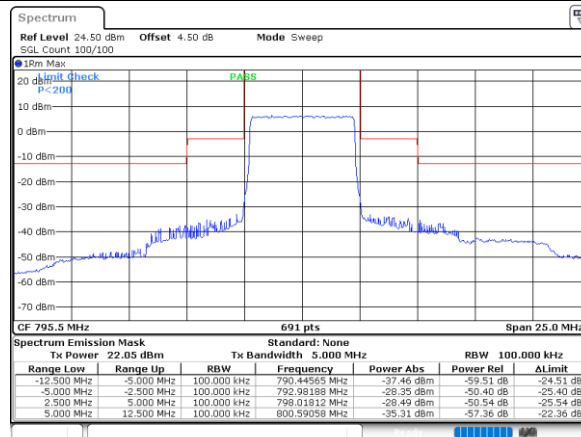


Date: 11.APR.2024 16:55:05



Date: 11.APR.2024 16:45:11

Highest Channel / Full RB

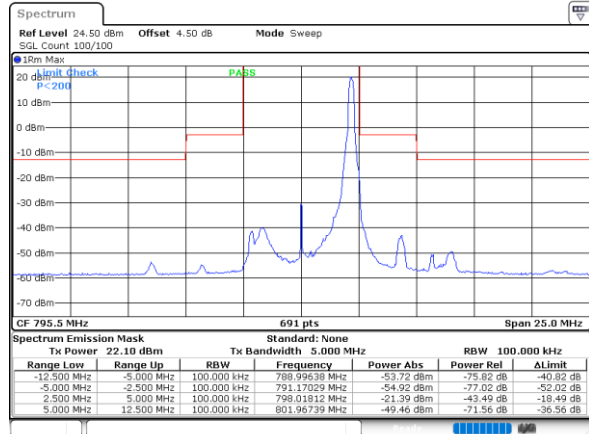
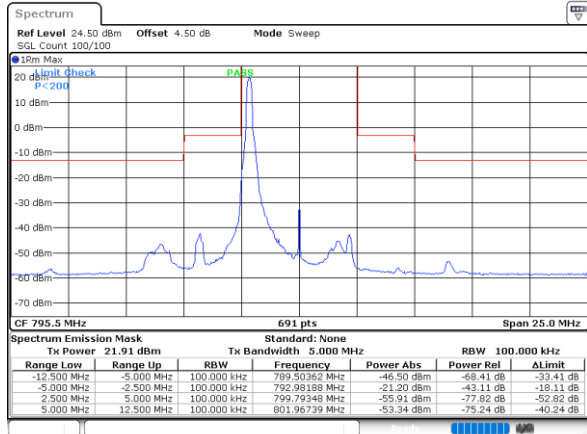


Date: 11.APR.2024 16:58:00

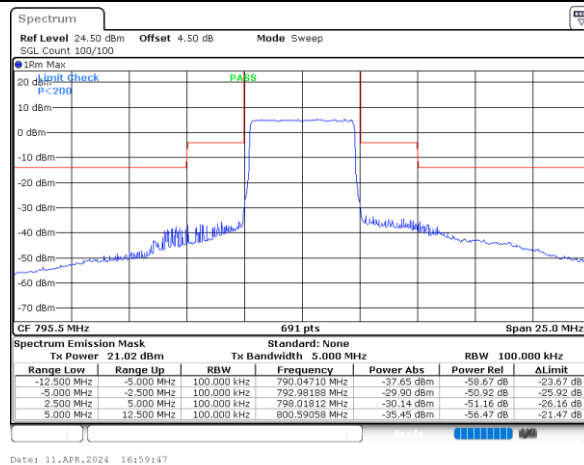


LTE Band 14 / 5MHz / 16QAM

Highest Channel / 1RB



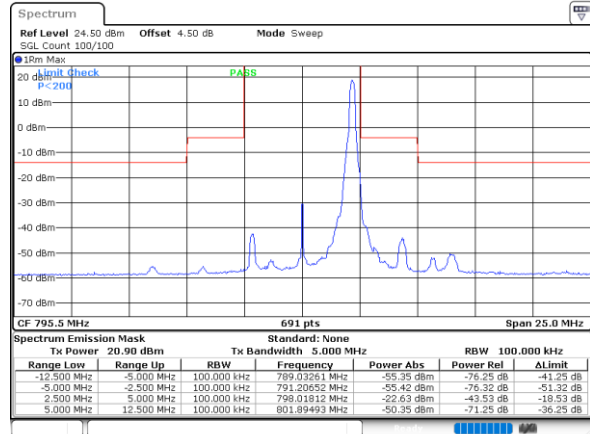
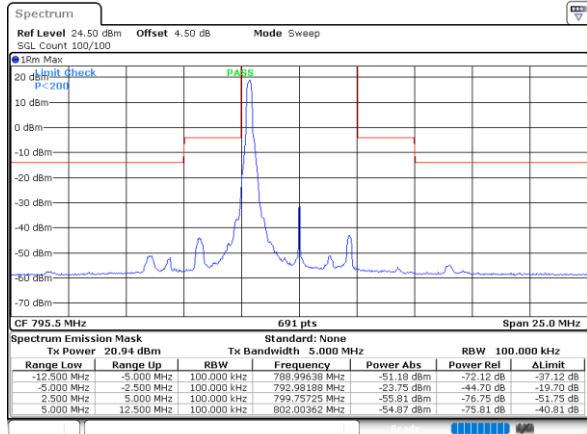
Highest Channel / Full RB



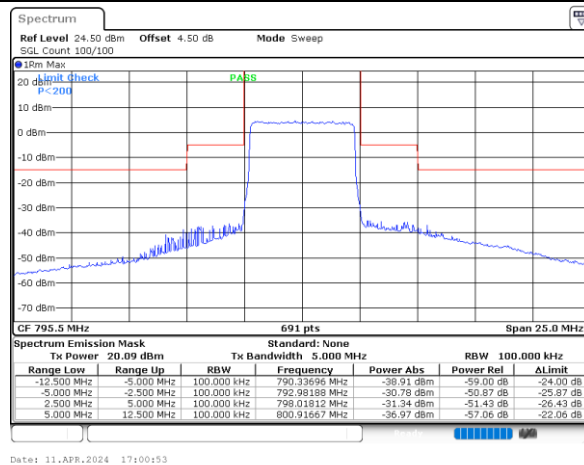


LTE Band 14 / 5MHz / 64QAM

Highest Channel / 1RB

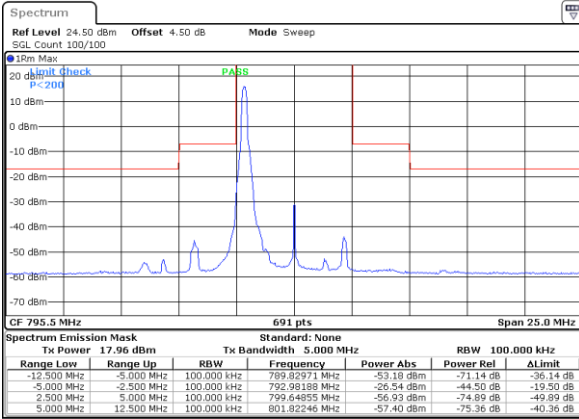


Highest Channel / Full RB

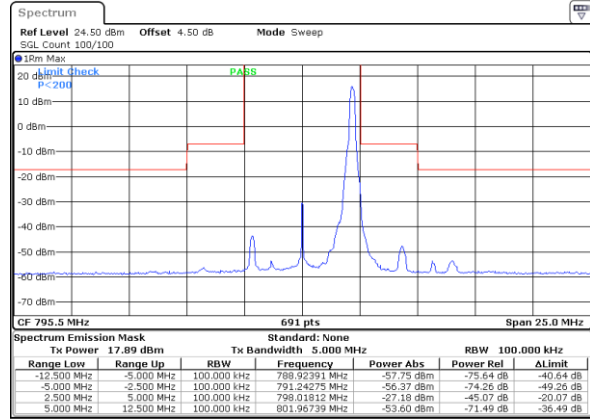


LTE Band 14 / 5MHz / 256QAM

Highest Channel / 1RB

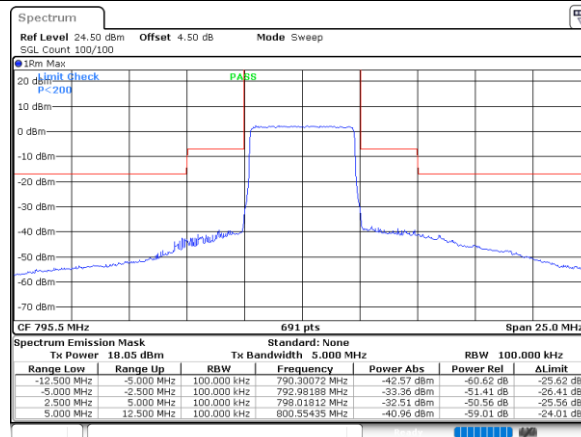


Date: 11.APR.2024 16:51:01



Date: 11.APR.2024 16:49:59

Highest Channel / Full RB

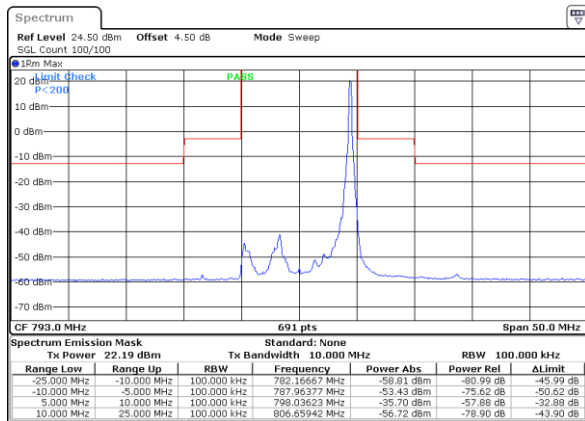
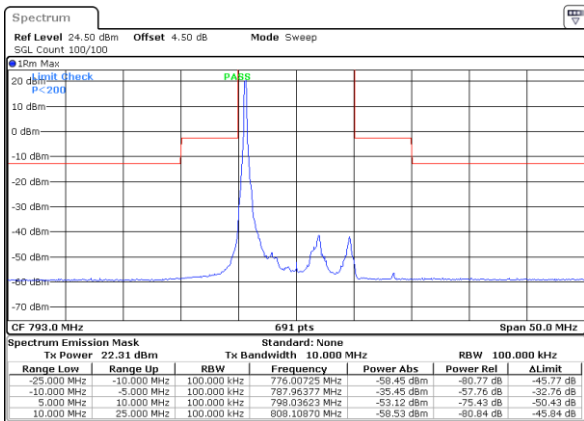


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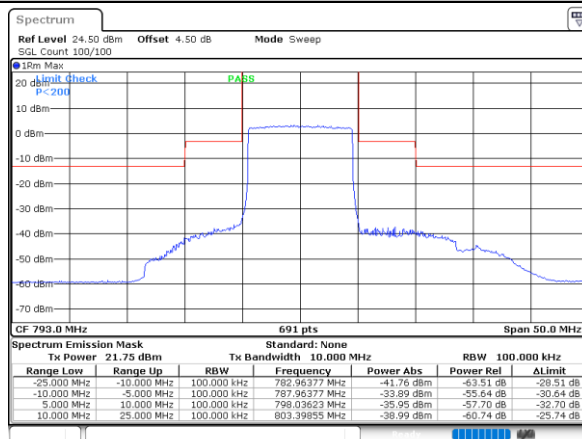


LTE Band 14 / 10MHz / QPSK

Middle Channel / 1RB



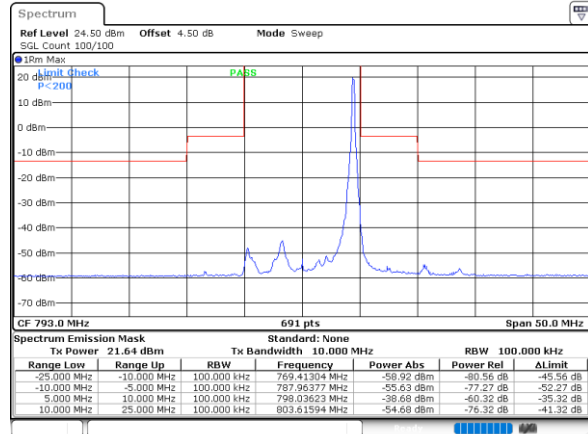
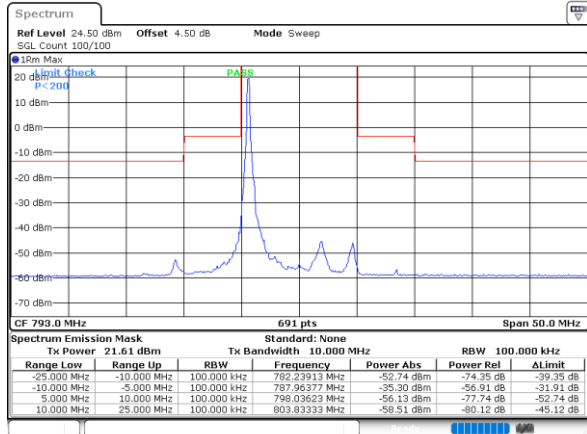
Middle Channel / Full RB



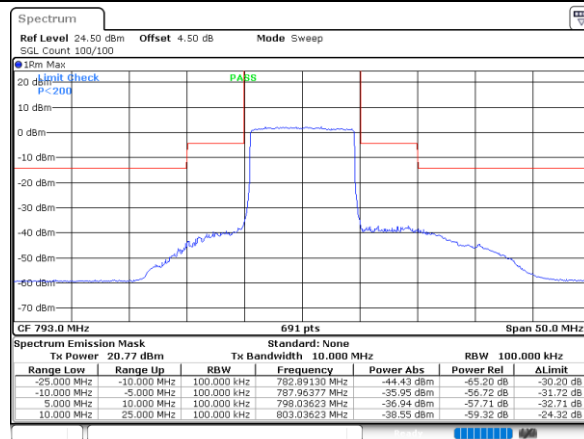


LTE Band 14 / 10MHz / 16QAM

Middle Channel / 1RB

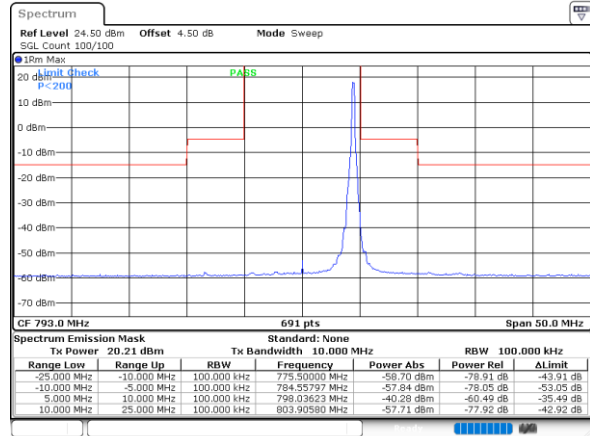
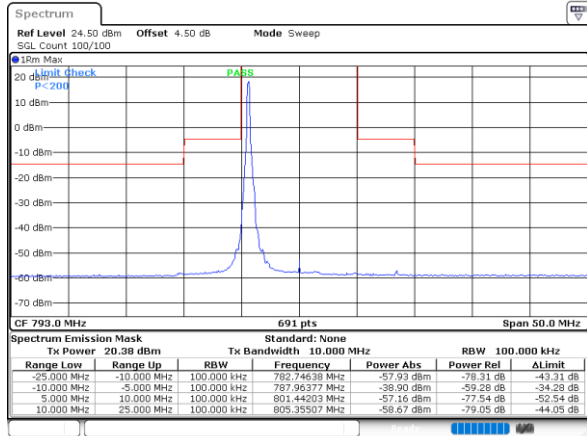


Middle Channel / Full RB

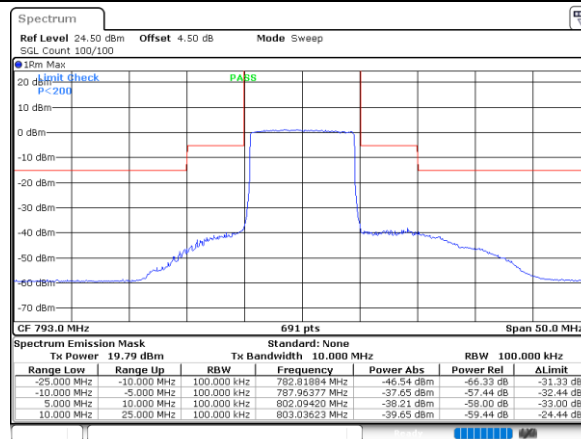


LTE Band 14 / 10MHz / 64QAM

Middle Channel / 1RB

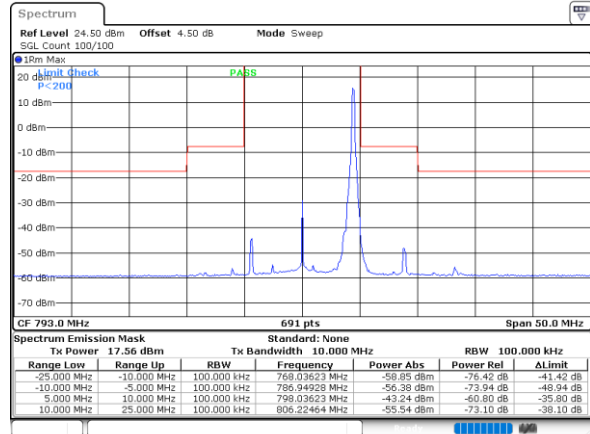
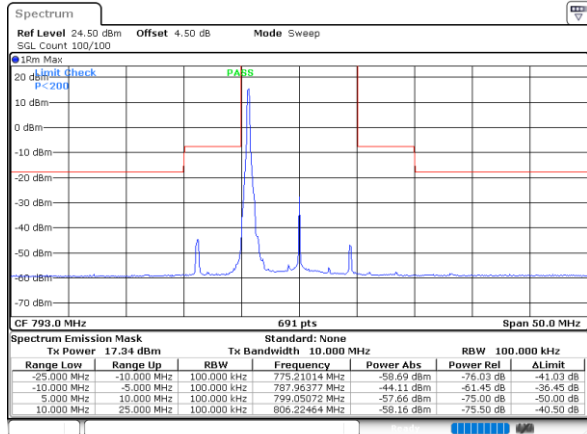


Middle Channel / Full RB

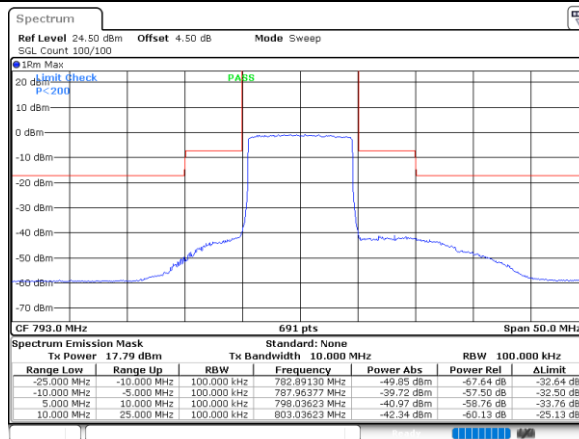


LTE Band 14 / 10MHz / 256QAM

Middle Channel / 1RB



Middle Channel / Full RB



Frequency Stability

Test Conditions		LTE Band 14 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0029	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0042	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0057	
-30	Normal Voltage	0.0051	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Field Strength of Spurious Radiated

Test Engineer :	Chris	Temperature :	23~25°C
		Relative Humidity :	41~42%

LTE Band 14 / 5MHz / QPSK Ant.1 / Main PA								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1576	-66.86	-42.15	-24.71	-69.49	1.09	5.87	H
	2368	-62.10	-13	-49.10	-64.50	1.37	5.92	H
	3152	-59.79	-13	-46.79	-63.68	1.64	7.68	H
	1576	-66.47	-42.15	-24.32	-69.10	1.09	5.87	V
	2368	-60.15	-13	-47.15	-62.55	1.37	5.92	V
	3152	-60.04	-13	-47.04	-63.93	1.64	7.68	V
Middle	1584	-66.52	-42.15	-24.37	-69.15	1.09	5.87	H
	2376	-61.98	-13	-48.98	-64.38	1.37	5.92	H
	3160	-60.01	-13	-47.01	-63.90	1.64	7.68	H
	1584	-66.06	-42.15	-23.91	-68.69	1.09	5.87	V
	2376	-59.63	-13	-46.63	-62.03	1.37	5.92	V
	3160	-60.18	-13	-47.18	-64.07	1.64	7.68	V
Highest	1584	-67.06	-42.15	-24.91	-69.69	1.09	5.87	H
	2384	-62.37	-13	-49.37	-64.77	1.37	5.92	H
	3176	-60.48	-13	-47.48	-64.37	1.64	7.68	H
	1584	-66.21	-42.15	-24.06	-68.84	1.09	5.87	V
	2384	-60.03	-13	-47.03	-62.43	1.37	5.92	V
	3176	-60.42	-13	-47.42	-64.31	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 14 / 10MHz / QPSK Ant.1 / Main PA								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1576	-66.67	-42.15	-24.52	-69.30	1.09	5.87	H
	2368	-61.89	-13	-48.89	-64.29	1.37	5.92	H
	3152	-59.90	-13	-46.90	-63.79	1.64	7.68	H
	1576	-65.76	-42.15	-23.61	-68.39	1.09	5.87	V
	2368	-60.47	-13	-47.47	-62.87	1.37	5.92	V
	3152	-60.10	-13	-47.10	-63.99	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line..

ENDC 14A_n77A / 5MHz / QPSK Ant.1 / other PA								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1576	-55.73	-42.15	-13.58	-58.36	1.09	5.87	H
	2368	-51.45	-13	-38.45	-53.85	1.37	5.92	H
	3152	-50.80	-13	-37.80	-54.69	1.64	7.68	H
	1576	-56.92	-42.15	-14.77	-59.55	1.09	5.87	V
	2368	-49.82	-13	-36.82	-52.22	1.37	5.92	V
	3152	-50.01	-13	-37.01	-53.90	1.64	7.68	V
Middle	1584	-56.26	-42.15	-14.11	-58.89	1.09	5.87	H
	2376	-52.04	-13	-39.04	-54.44	1.37	5.92	H
	3160	-50.37	-13	-37.37	-54.26	1.64	7.68	H
	1584	-56.43	-42.15	-14.28	-59.06	1.09	5.87	V
	2376	-50.14	-13	-37.14	-52.54	1.37	5.92	V
	3160	-51.38	-13	-38.38	-55.27	1.64	7.68	V
Highest	1584	-57.82	-42.15	-15.67	-60.45	1.09	5.87	H
	2384	-52.50	-13	-39.50	-54.90	1.37	5.92	H
	3176	-50.69	-13	-37.69	-54.58	1.64	7.68	H
	1584	-56.63	-42.15	-14.48	-59.26	1.09	5.87	V
	2384	-51.25	-13	-38.25	-53.65	1.37	5.92	V
	3176	-50.83	-13	-37.83	-54.72	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

ENDC 14A_n77A / 10MHz / QPSK Ant.1 / other PA								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1576	-57.36	-42.15	-15.21	-59.99	1.09	5.87	H
	2368	-51.72	-13	-38.72	-54.12	1.37	5.92	H
	3152	-51.17	-13	-38.17	-55.06	1.64	7.68	H
	1576	-55.71	-42.15	-13.56	-58.34	1.09	5.87	V
	2368	-48.72	-13	-35.72	-51.12	1.37	5.92	V
	3152	-51.04	-13	-38.04	-54.93	1.64	7.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.