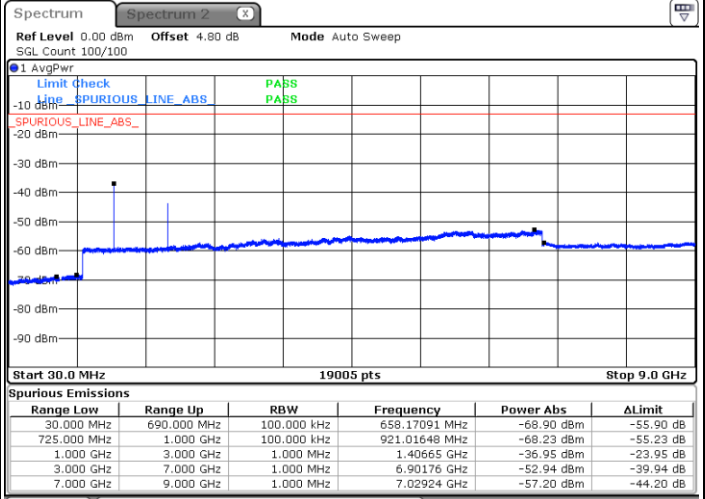
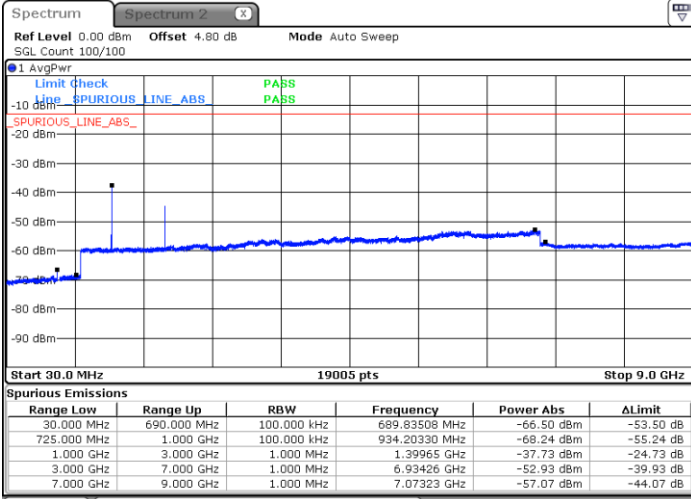




LTE Band 12 / 10MHz

Lowest Channel / QPSK

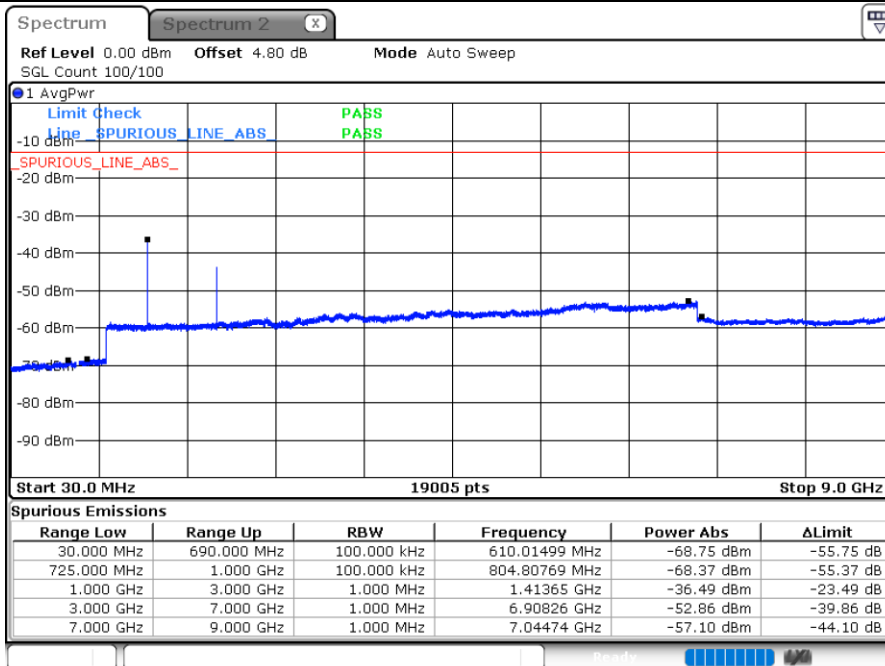
Middle Channel / QPSK



Date: 24.APR.2024 23:23:44

Date: 24.APR.2024 23:33:14

Highest Channel / QPSK



Date: 24.APR.2024 23:35:13



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	0.0022	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0026	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0046	
20	Normal Voltage	0.0048	
20	Battery End Point	0.0017	

Note:

1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

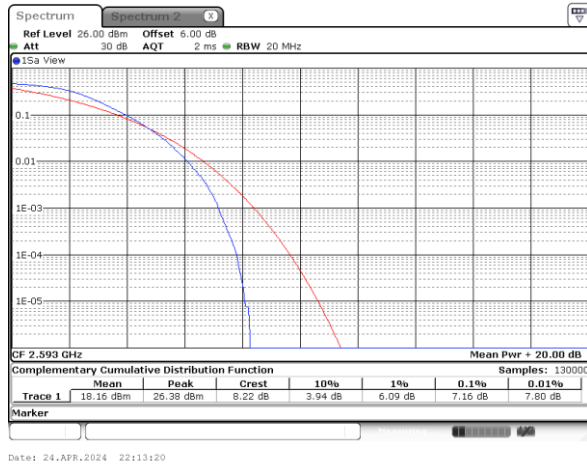
Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	7.16	6.70	6.32	PASS



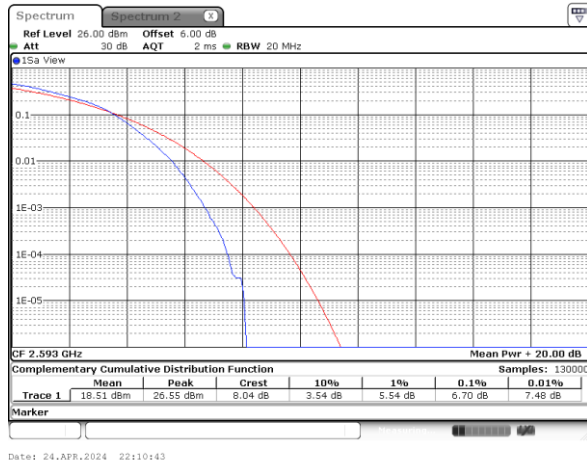
LTE Band 41 / 20MHz

Middle Channel / Full RB / QPSK



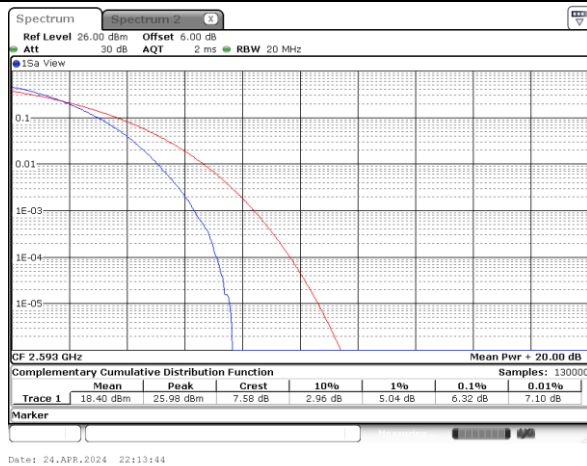
Date: 24.APR.2024 22:13:20

Middle Channel / Full RB / 16QAM



Date: 24.APR.2024 22:10:43

Middle Channel / Full RB / 64QAM

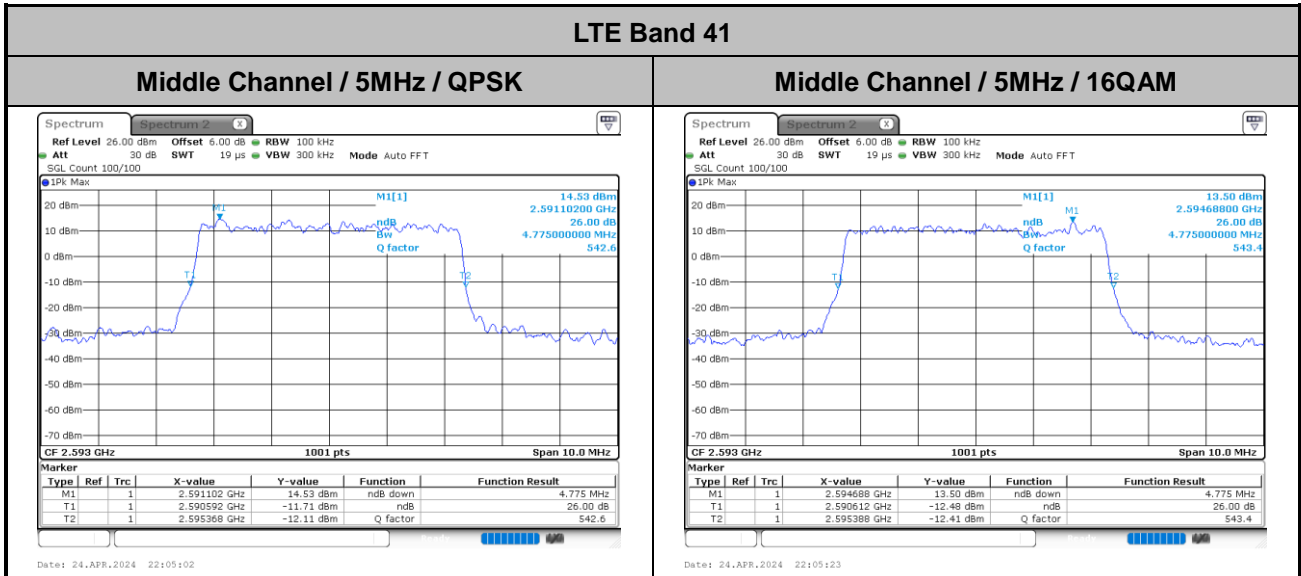


Date: 24.APR.2024 22:13:44



26dB Bandwidth

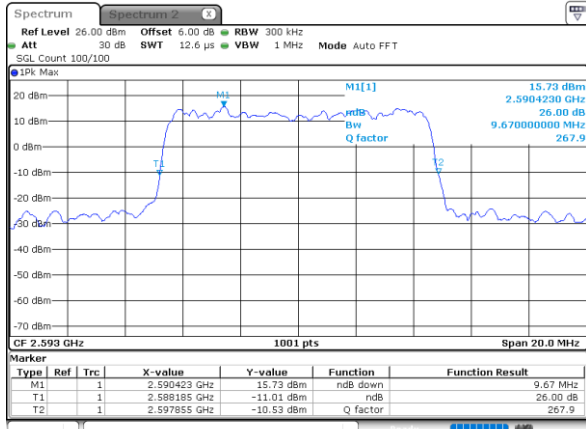
Mode	LTE Band 41 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.78	4.78
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.67	9.73
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.18	14.45
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.86	18.98





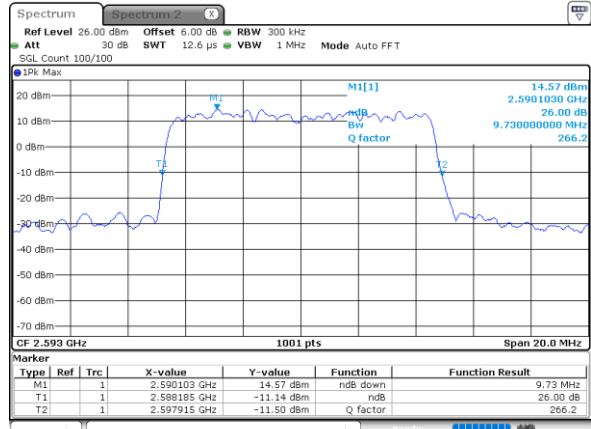
LTE Band 41

Middle Channel / 10MHz / QPSK



Date: 24.APR.2024 22:06:27

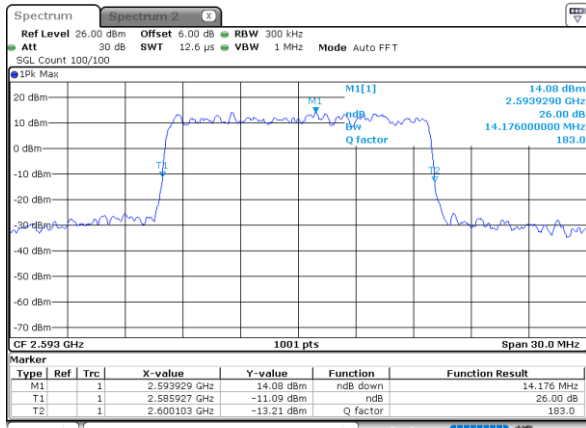
Middle Channel / 10MHz / 16QAM



Date: 24.APR.2024 22:06:48

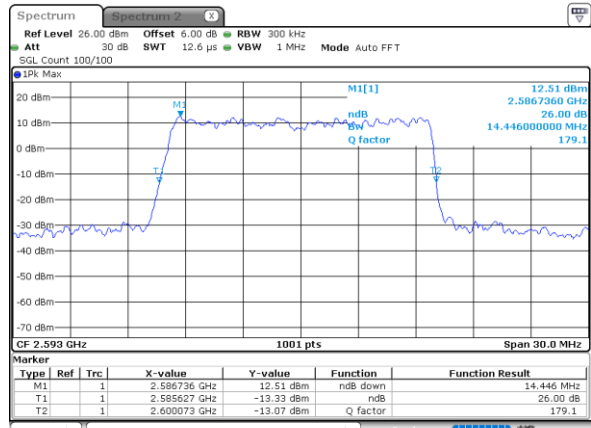
LTE Band 41

Middle Channel / 15MHz / QPSK



Date: 24.APR.2024 22:07:52

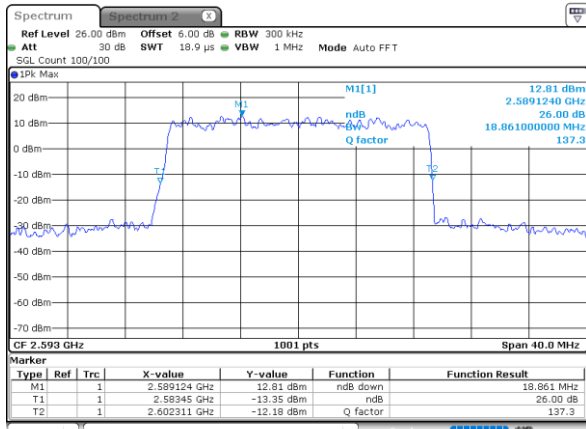
Middle Channel / 15MHz / 16QAM



Date: 24.APR.2024 22:08:13

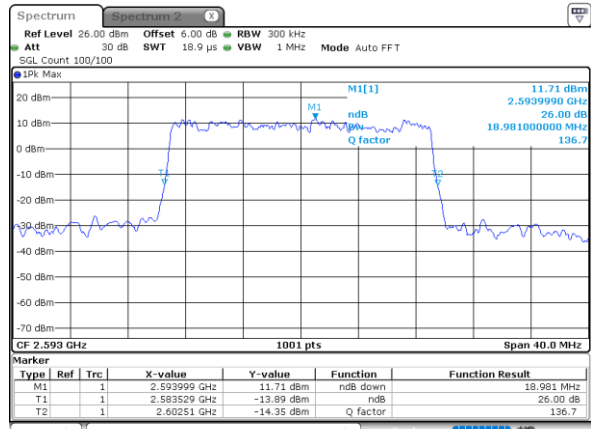
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 24.APR.2024 22:09:16

Middle Channel / 20MHz / 16QAM

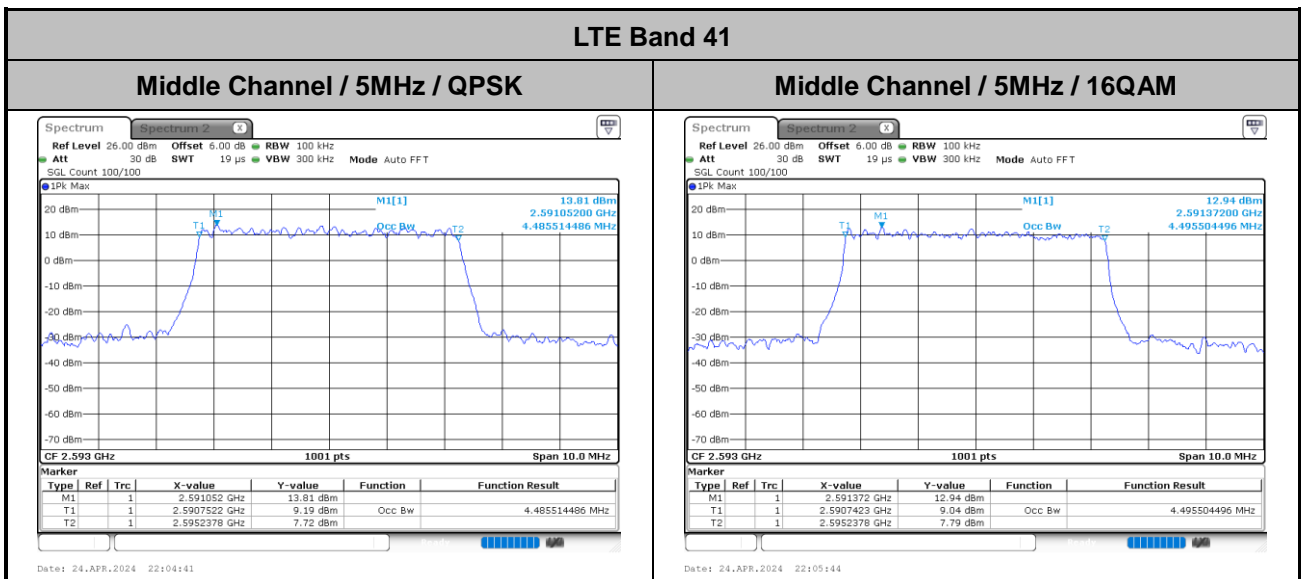


Date: 24.APR.2024 22:09:37



Occupied Bandwidth

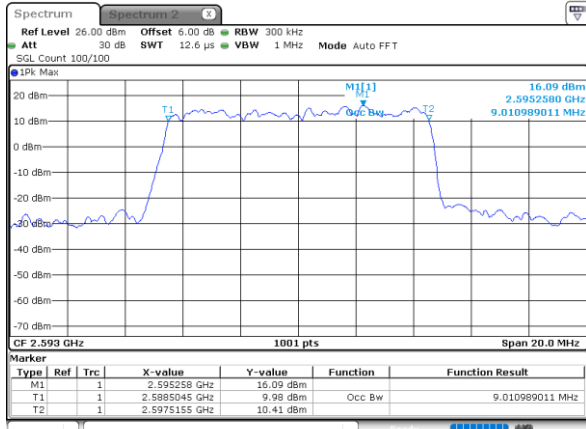
Mode	LTE Band 41 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.50
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.01	9.01
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	13.43	13.46
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.86	17.86





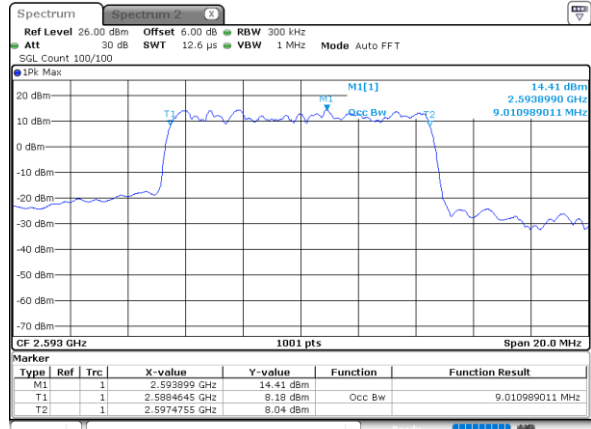
LTE Band 41

Middle Channel / 10MHz / QPSK



Date: 24.APR.2024 22:06:06

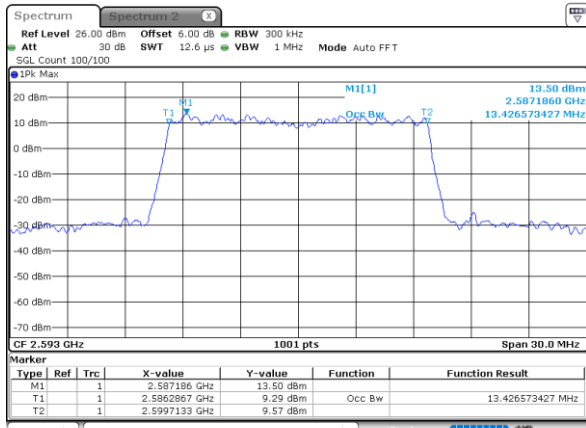
Middle Channel / 10MHz / 16QAM



Date: 24.APR.2024 22:07:09

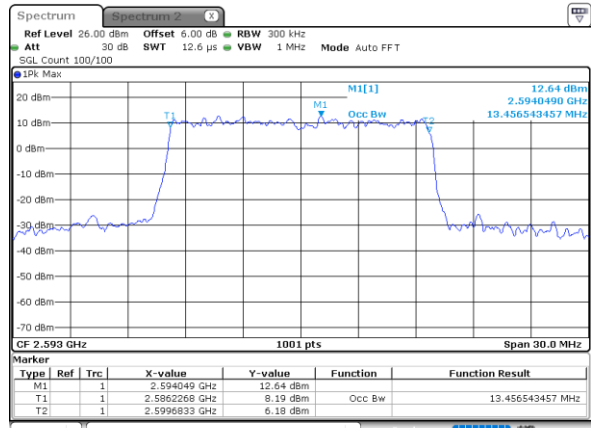
LTE Band 41

Middle Channel / 15MHz / QPSK



Date: 24.APR.2024 22:07:31

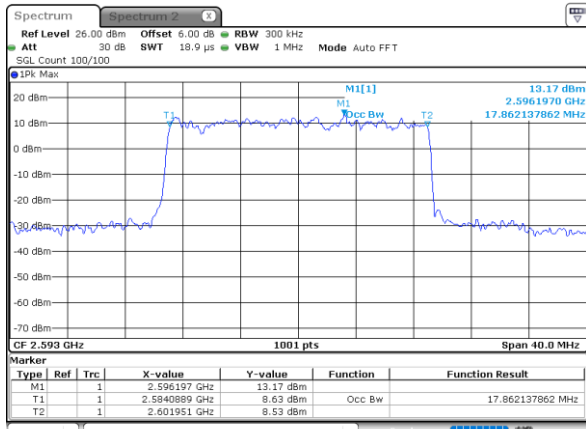
Middle Channel / 15MHz / 16QAM



Date: 24.APR.2024 22:08:33

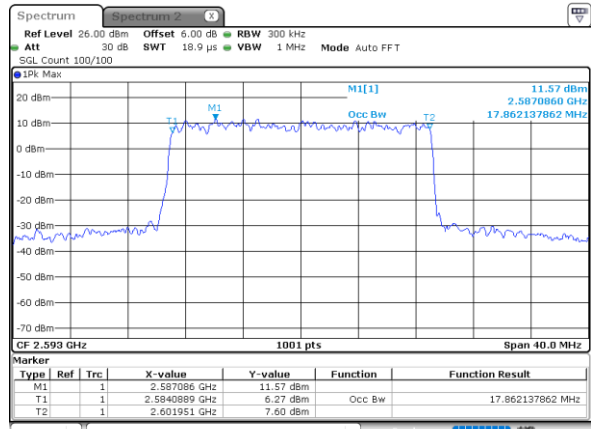
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 24.APR.2024 22:08:55

Middle Channel / 20MHz / 16QAM



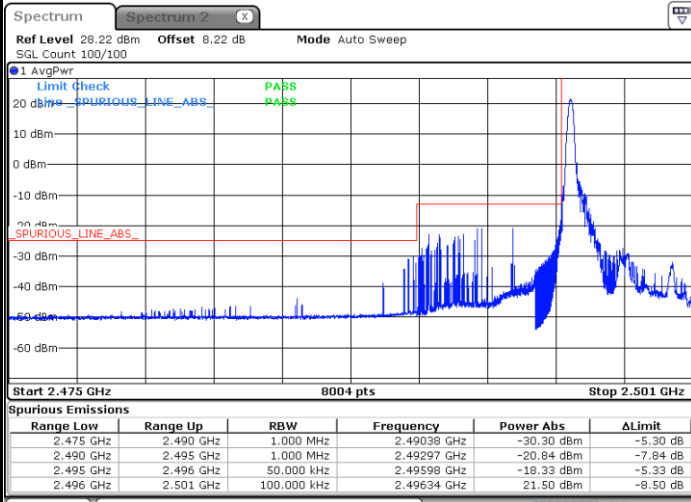
Date: 24.APR.2024 22:09:58



Conducted Band Edge

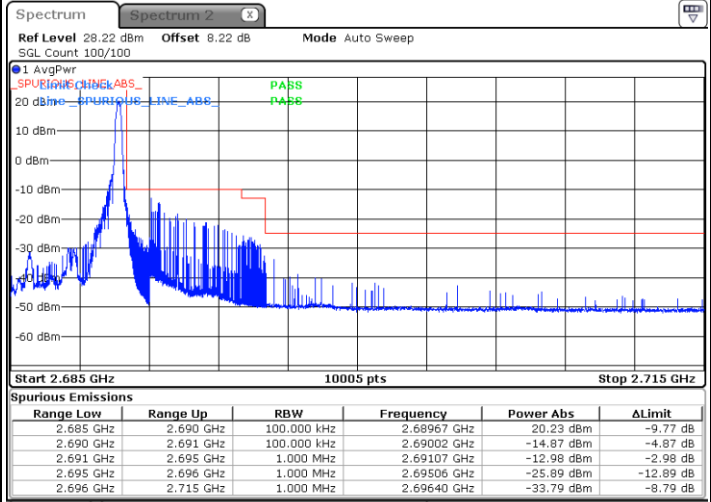
LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB



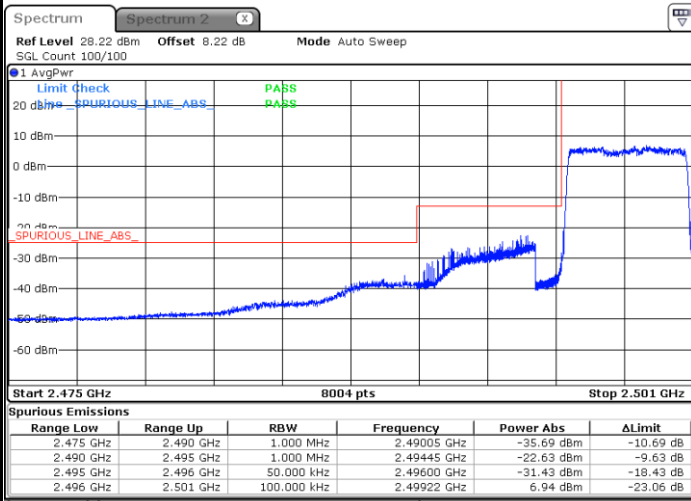
Date: 24.APR.2024 21:05:11

Highest Band Edge / 1 RB



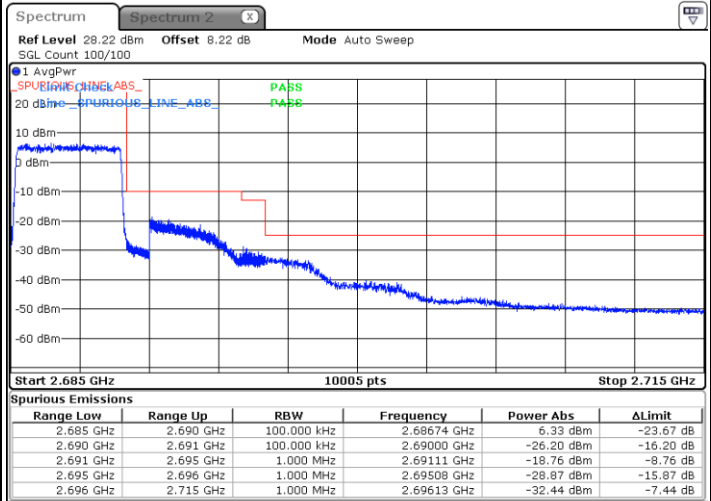
Date: 24.APR.2024 21:13:09

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:08:31

Highest Band Edge / Full RB

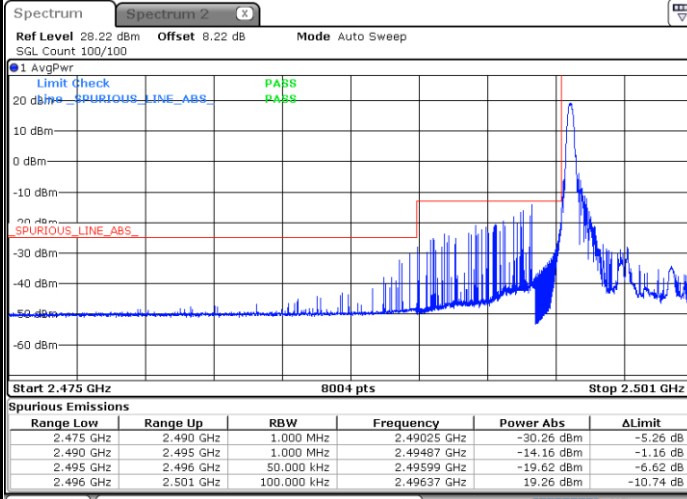


Date: 24.APR.2024 21:16:29



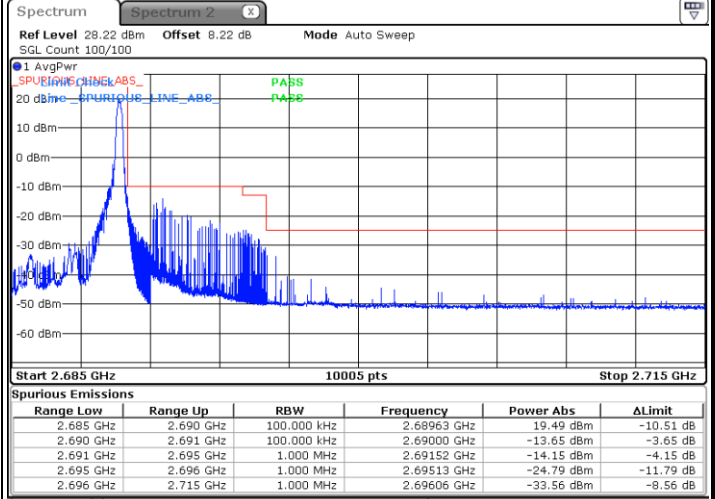
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



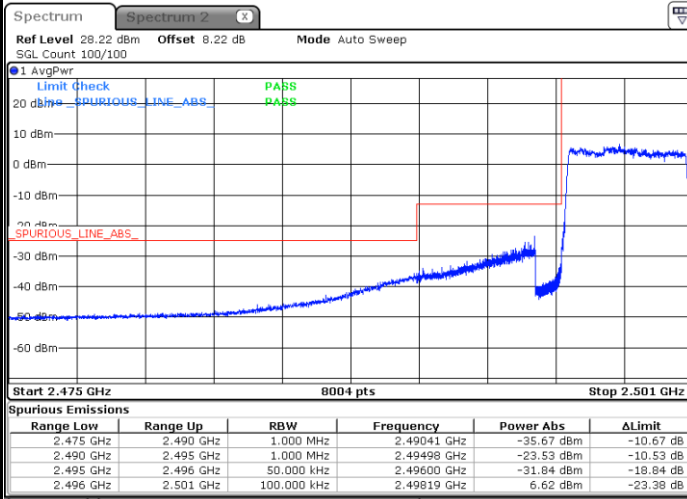
Date: 24.APR.2024 21:05:51

Highest Band Edge / 1 RB



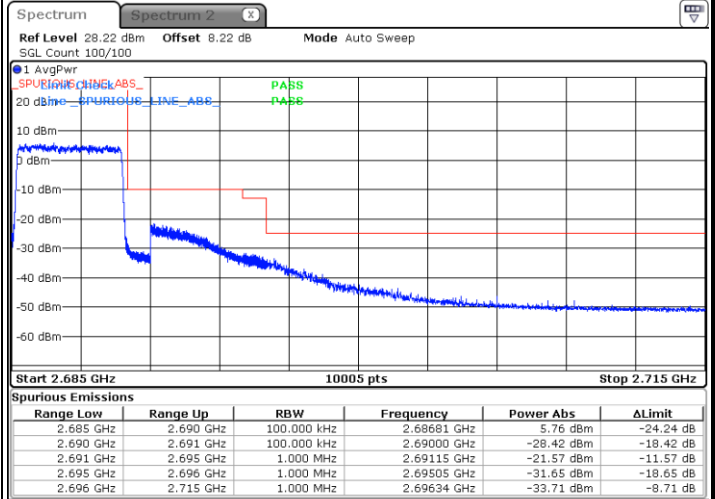
Date: 24.APR.2024 21:13:49

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:07:51

Highest Band Edge / Full RB

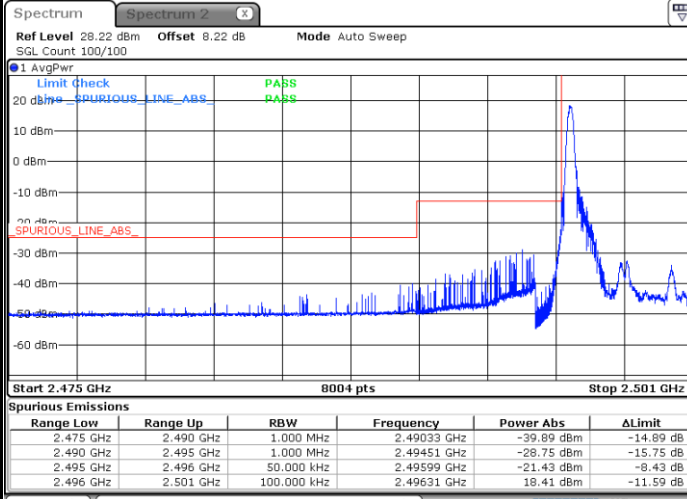


Date: 24.APR.2024 21:15:49



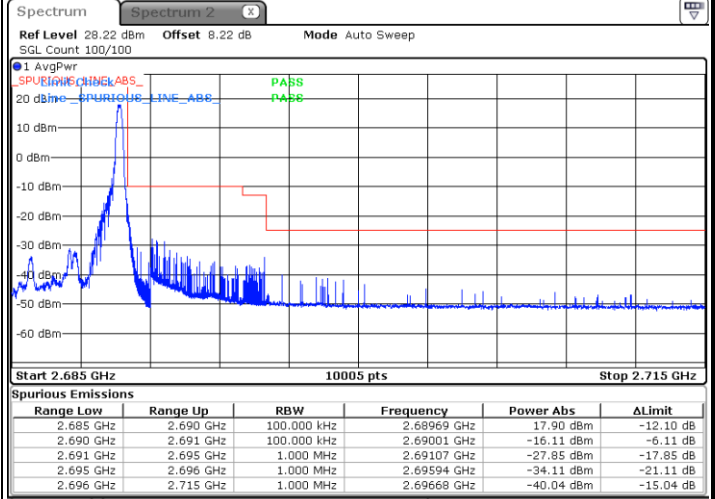
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



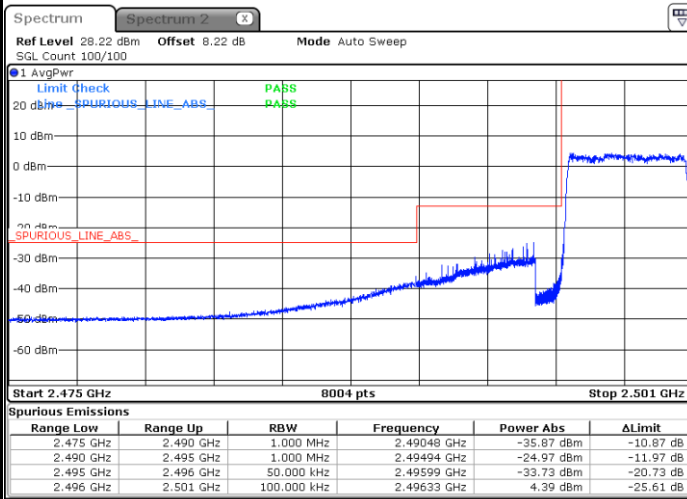
Date: 24.APR.2024 21:06:31

Highest Band Edge / 1 RB



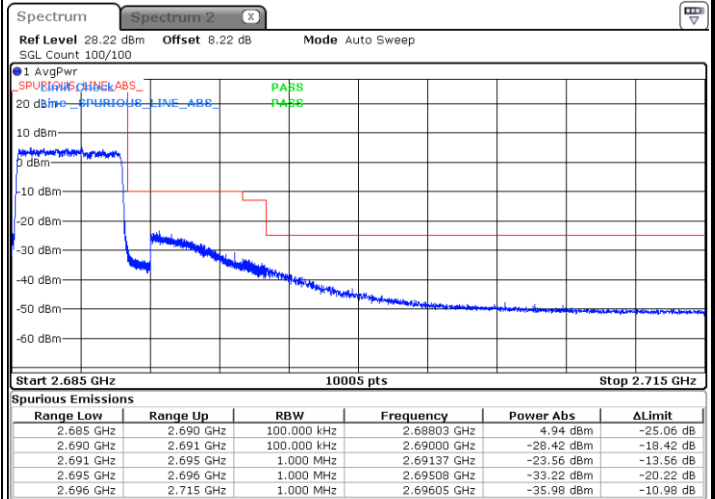
Date: 24.APR.2024 21:14:29

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:07:11

Highest Band Edge / Full RB

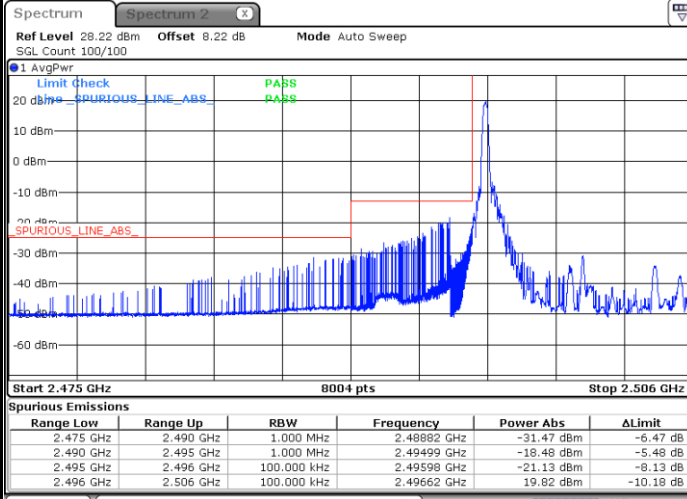


Date: 24.APR.2024 21:15:09



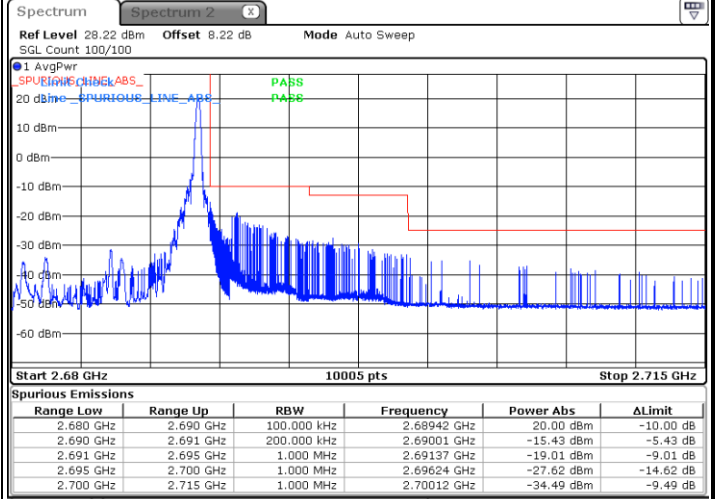
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



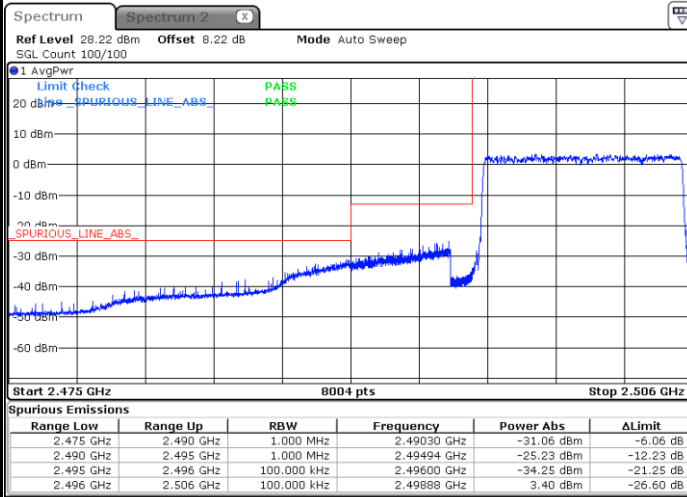
Date: 24.APR.2024 21:19:09

Highest Band Edge / 1 RB



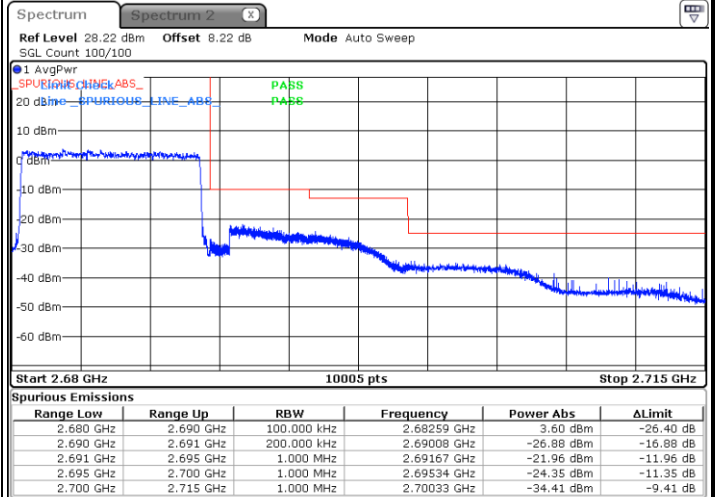
Date: 24.APR.2024 21:27:08

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:22:29

Highest Band Edge / Full RB

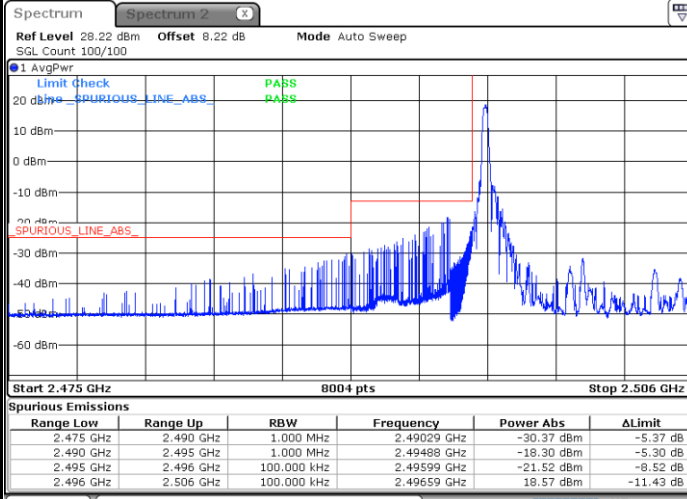


Date: 24.APR.2024 21:30:27



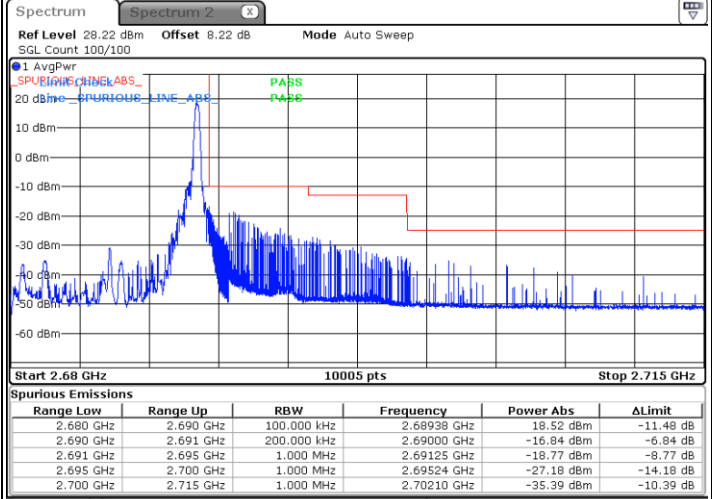
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



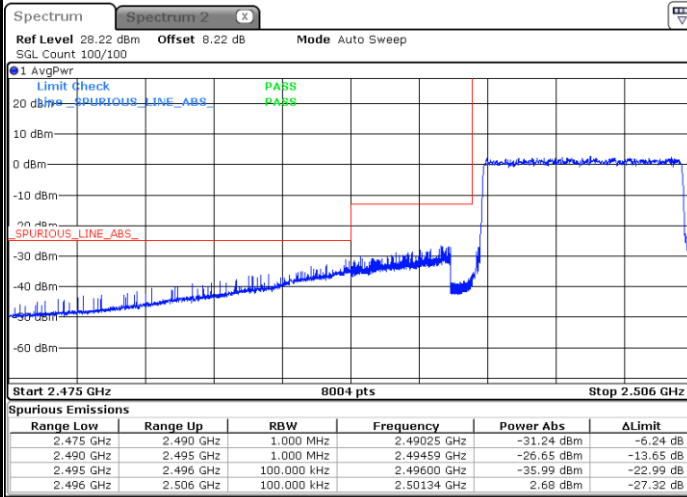
Date: 24.APR.2024 21:19:49

Highest Band Edge / 1 RB



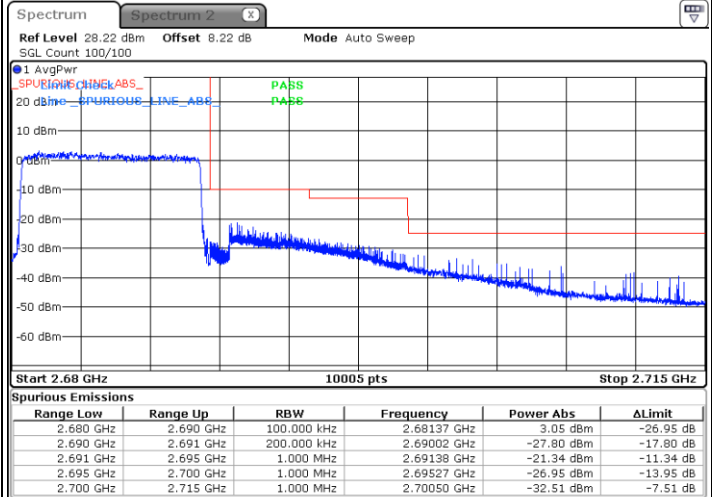
Date: 24.APR.2024 21:27:48

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:21:49

Highest Band Edge / Full RB

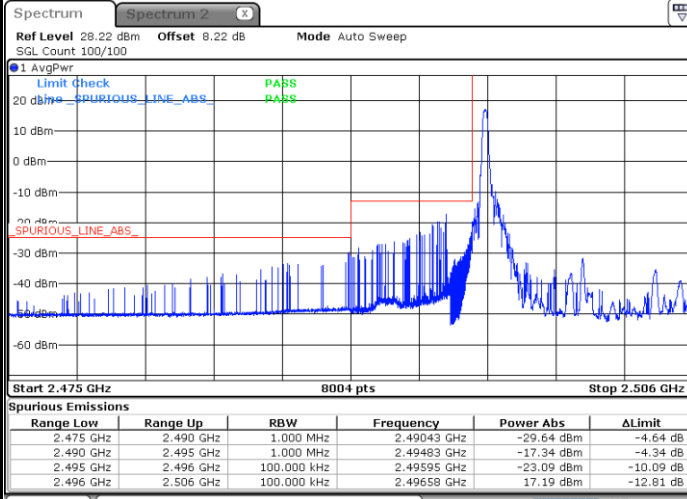


Date: 24.APR.2024 21:29:47



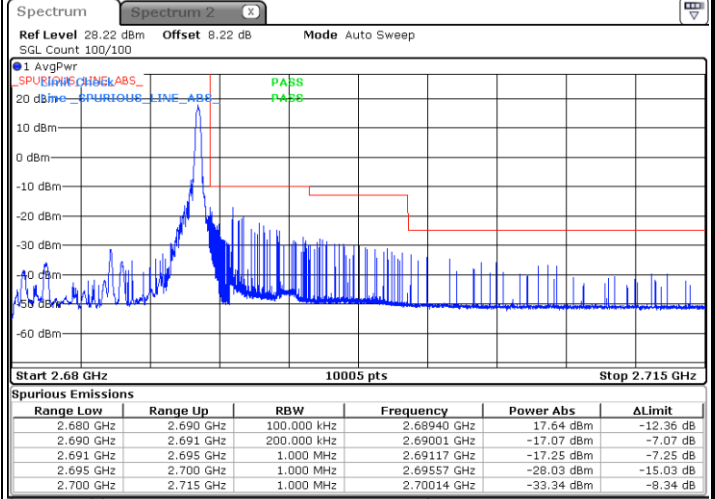
LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



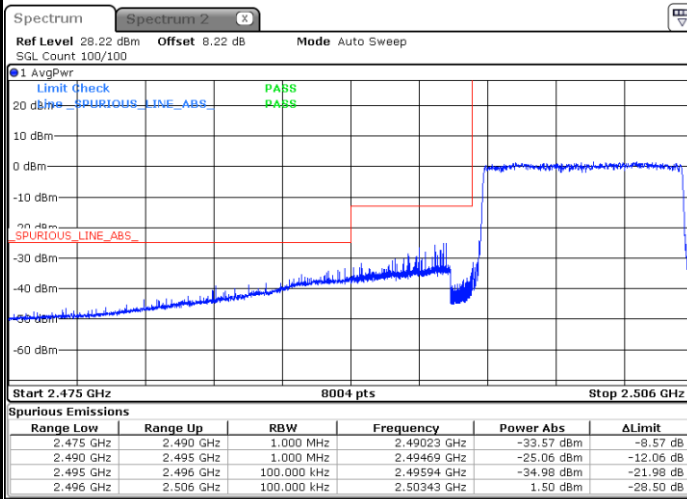
Date: 24.APR.2024 21:20:29

Highest Band Edge / 1 RB



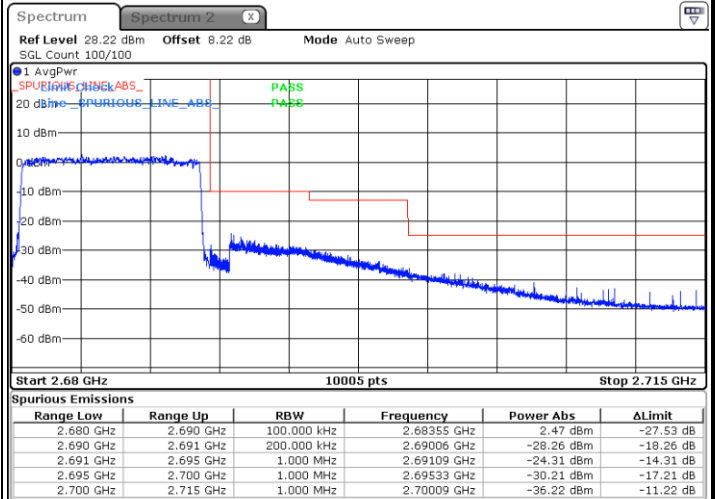
Date: 24.APR.2024 21:28:27

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:21:09

Highest Band Edge / Full RB

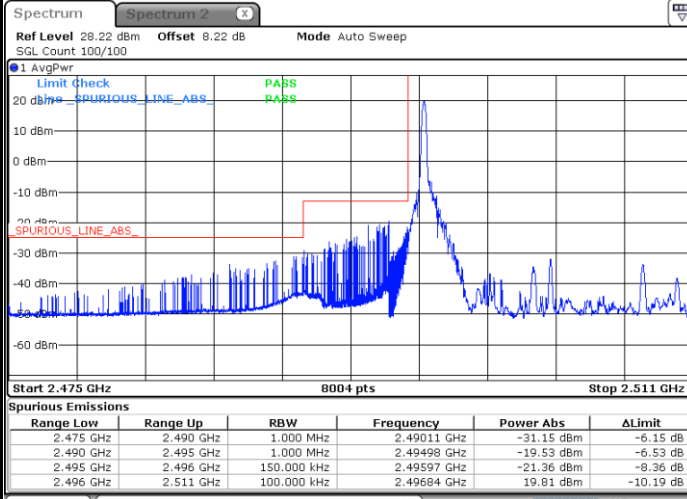


Date: 24.APR.2024 21:29:07



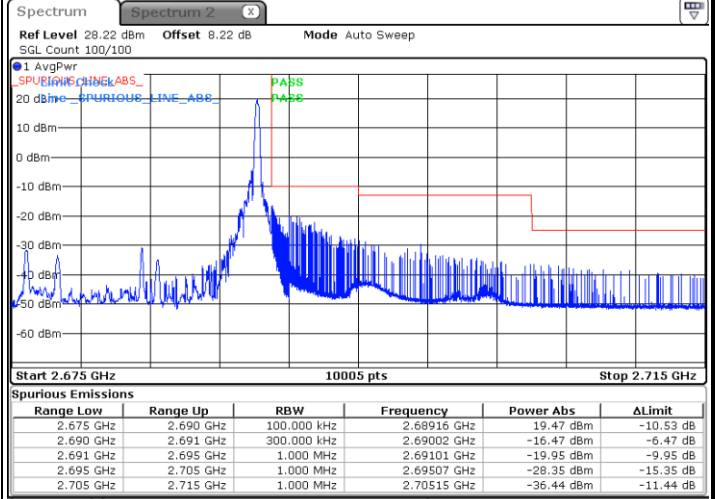
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



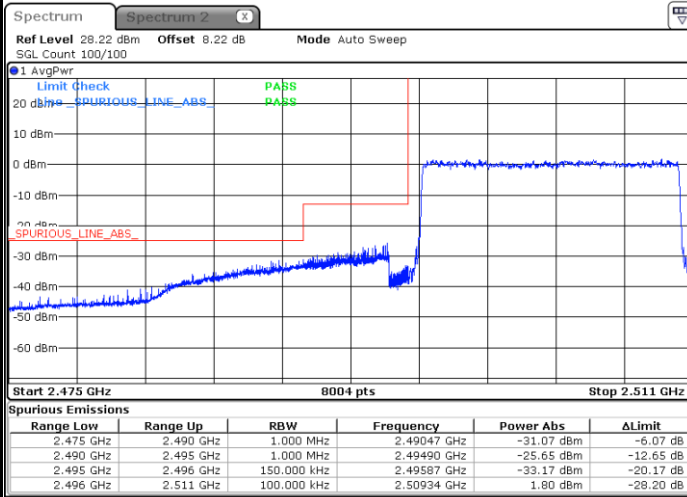
Date: 24.APR.2024 21:33:07

Highest Band Edge / 1 RB



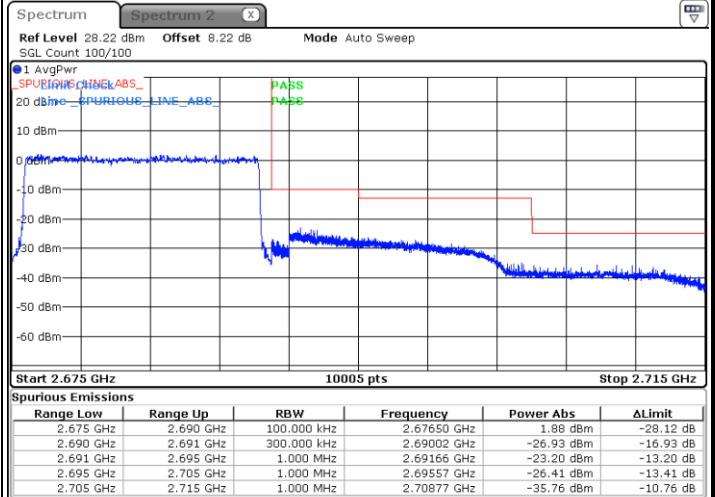
Date: 24.APR.2024 21:41:05

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:36:27

Highest Band Edge / Full RB

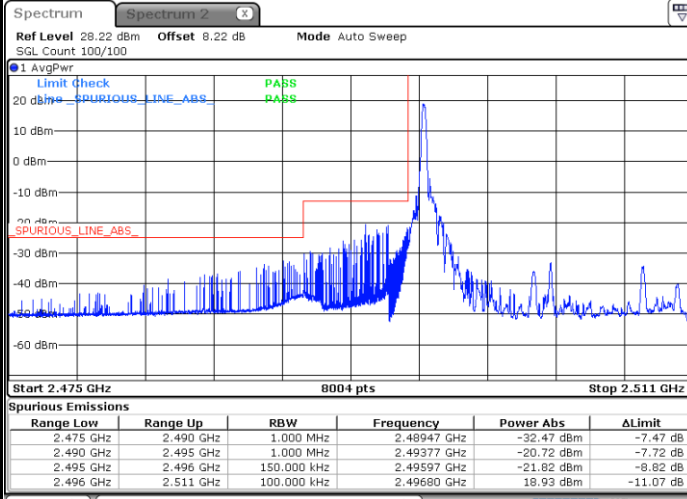


Date: 24.APR.2024 21:44:25



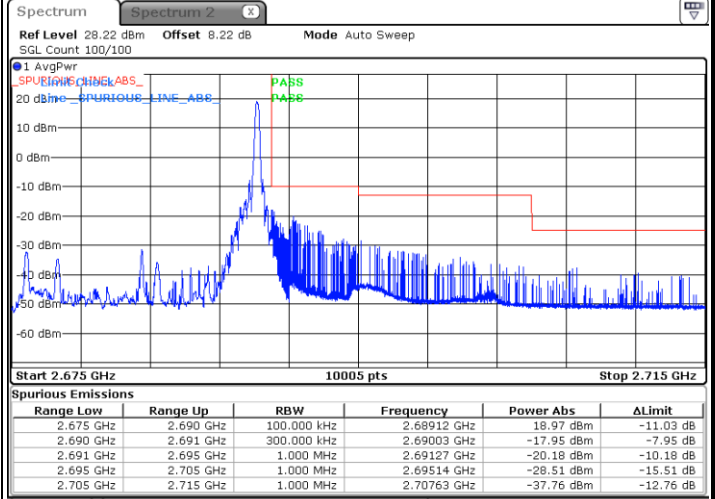
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



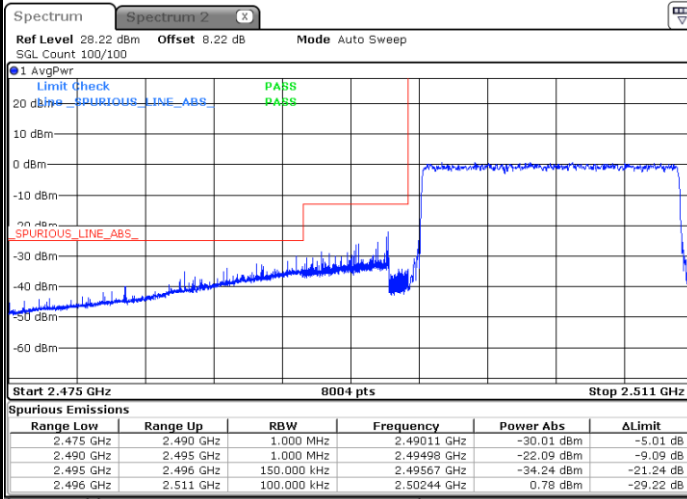
Date: 24.APR.2024 21:33:47

Highest Band Edge / 1 RB



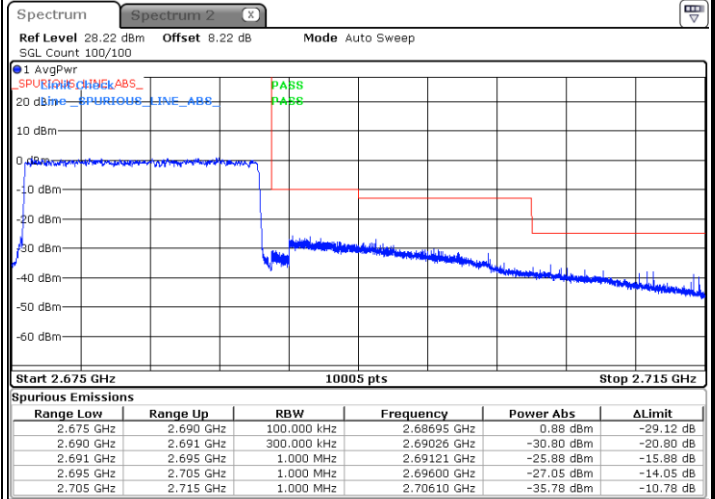
Date: 24.APR.2024 21:41:45

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:35:47

Highest Band Edge / Full RB

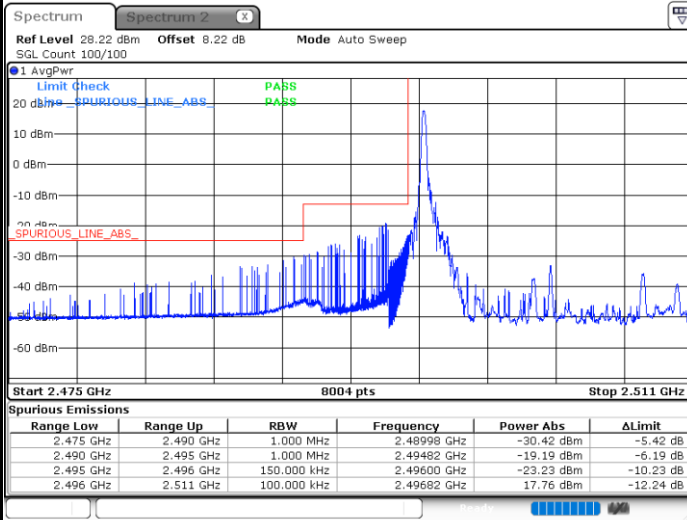


Date: 24.APR.2024 21:43:45



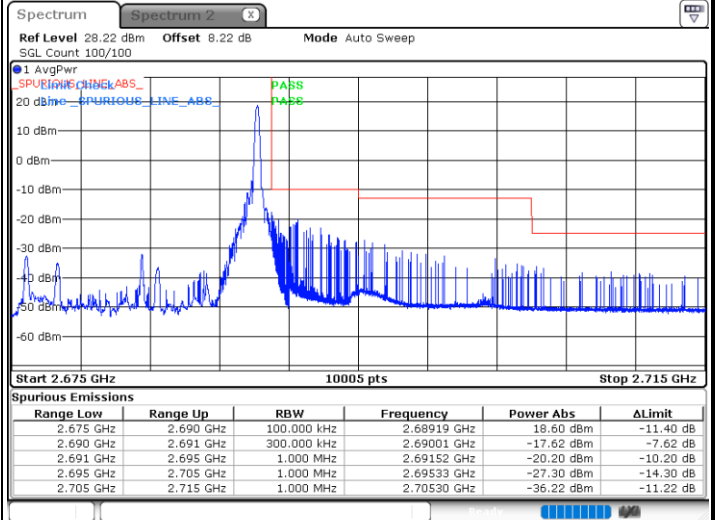
LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



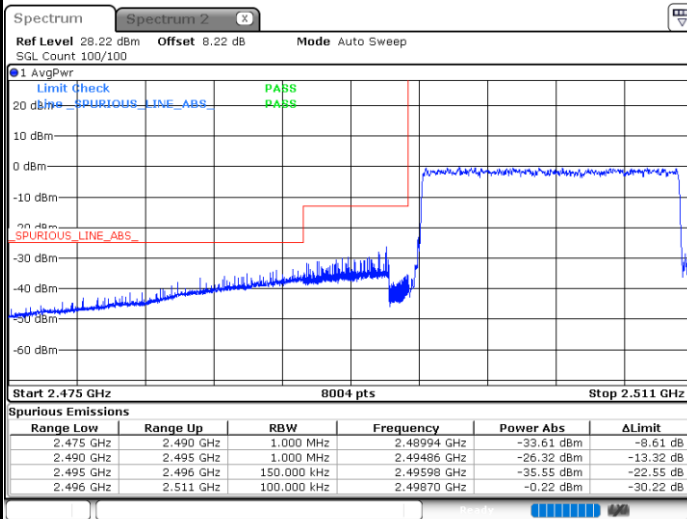
Date: 24.APR.2024 21:34:27

Highest Band Edge / 1 RB



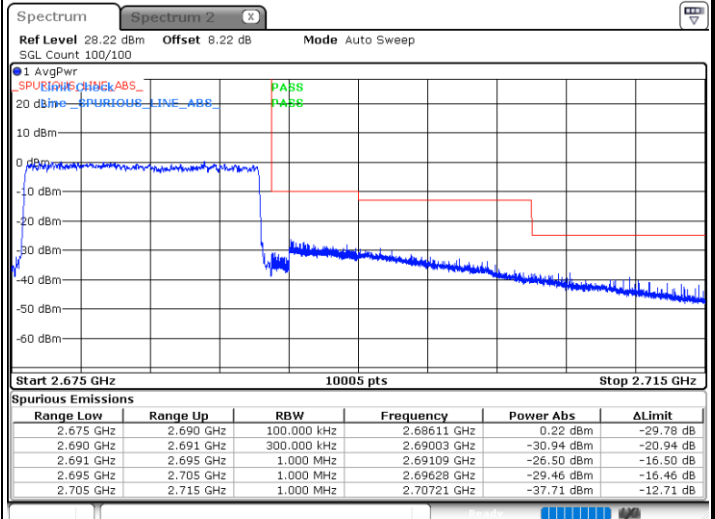
Date: 24.APR.2024 21:42:25

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:35:07

Highest Band Edge / Full RB

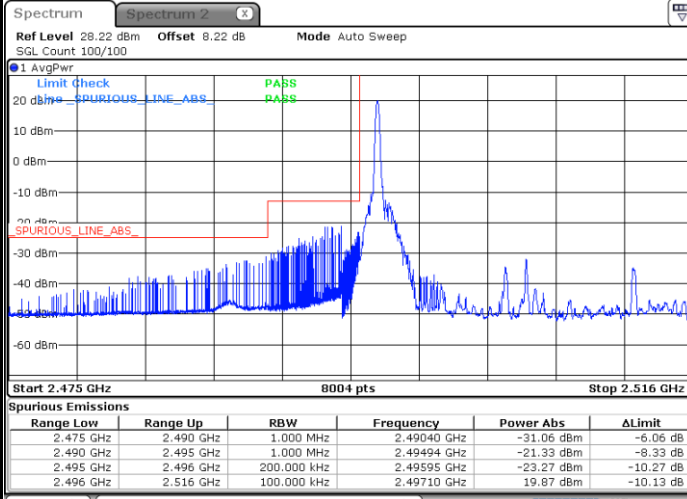


Date: 24.APR.2024 21:43:05



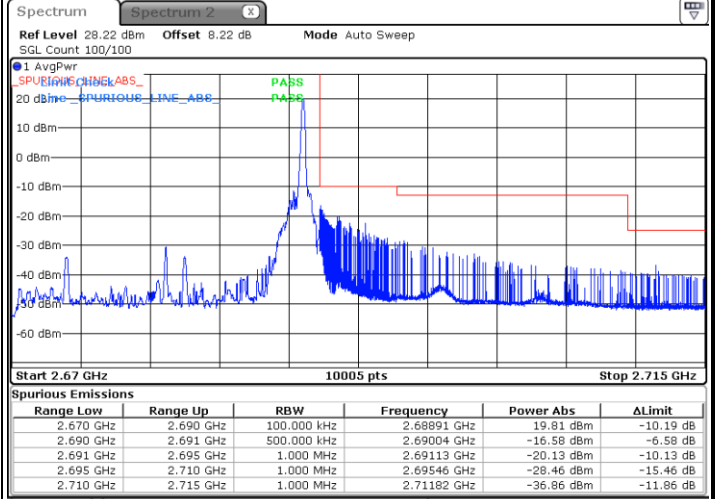
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



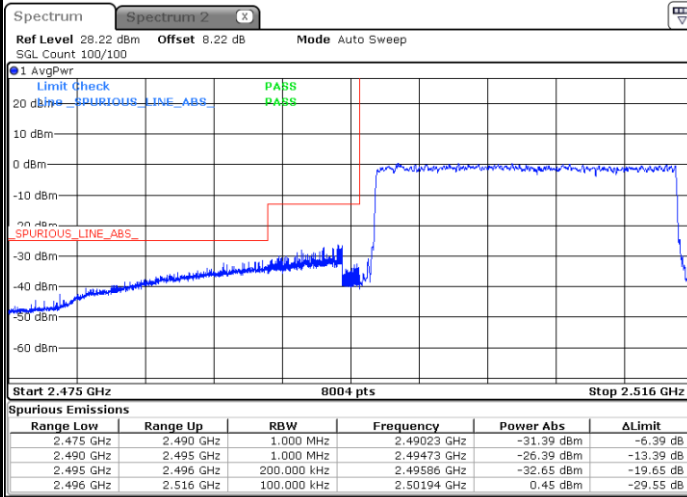
Date: 24.APR.2024 21:47:05

Highest Band Edge / 1 RB



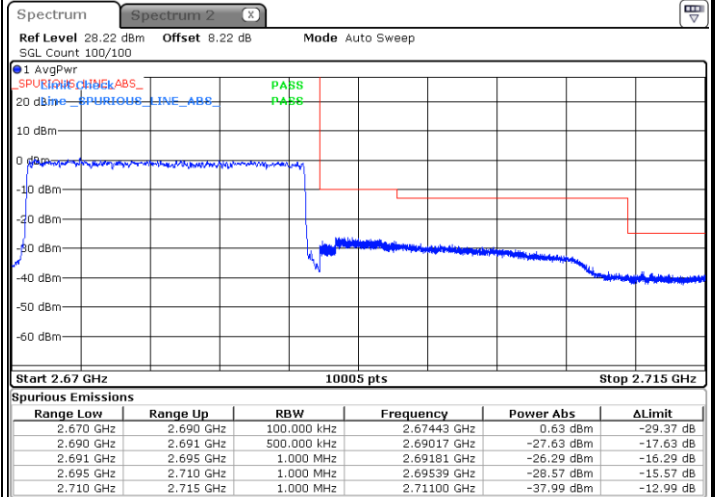
Date: 24.APR.2024 21:55:03

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:50:25

Highest Band Edge / Full RB

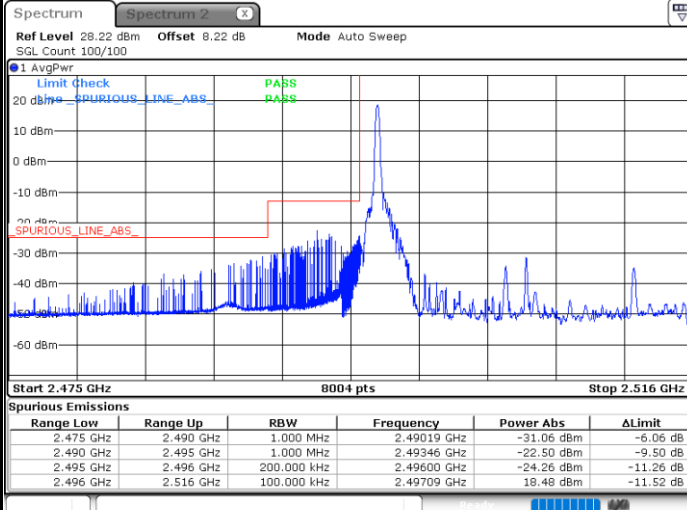


Date: 24.APR.2024 21:58:22



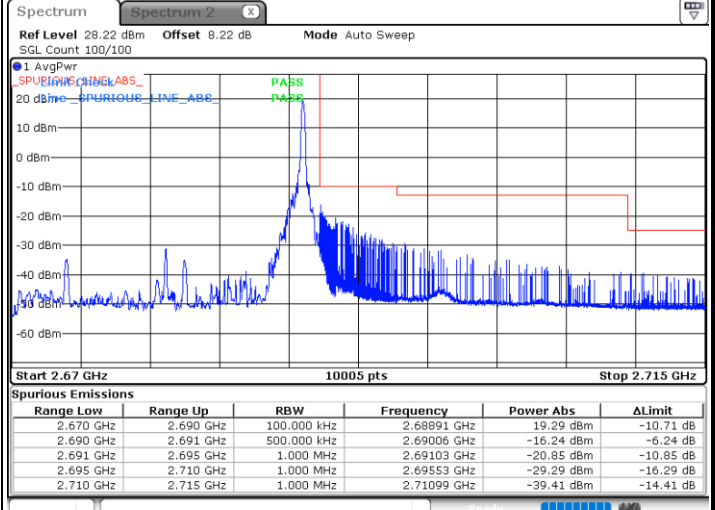
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



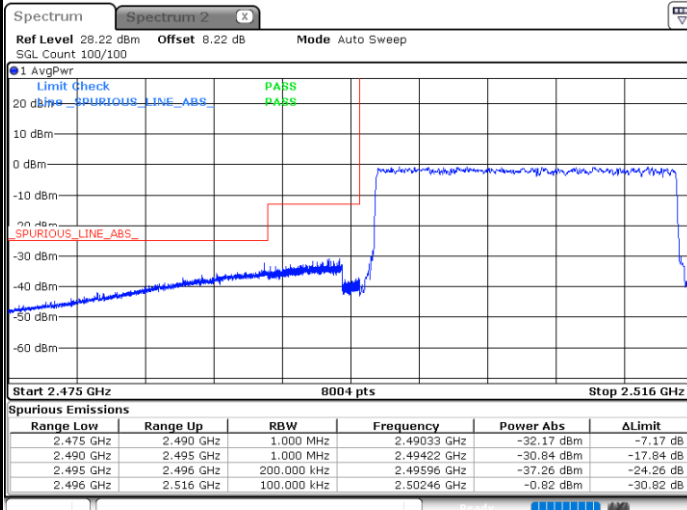
Date: 24.APR.2024 21:47:45

Highest Band Edge / 1 RB



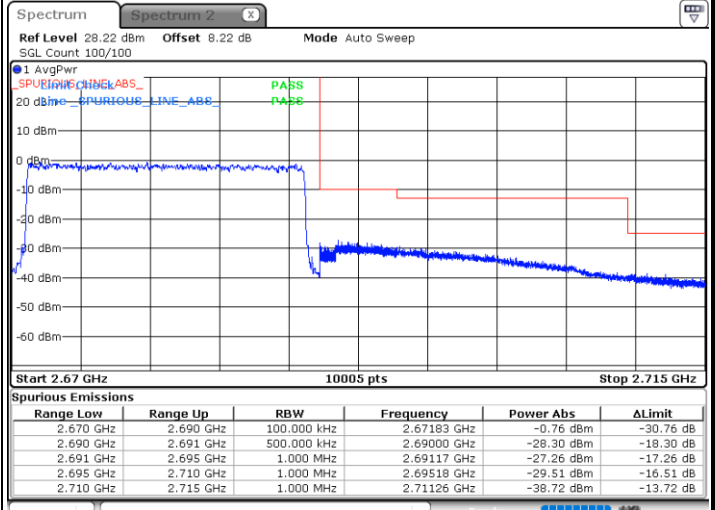
Date: 24.APR.2024 21:55:43

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:49:45

Highest Band Edge / Full RB

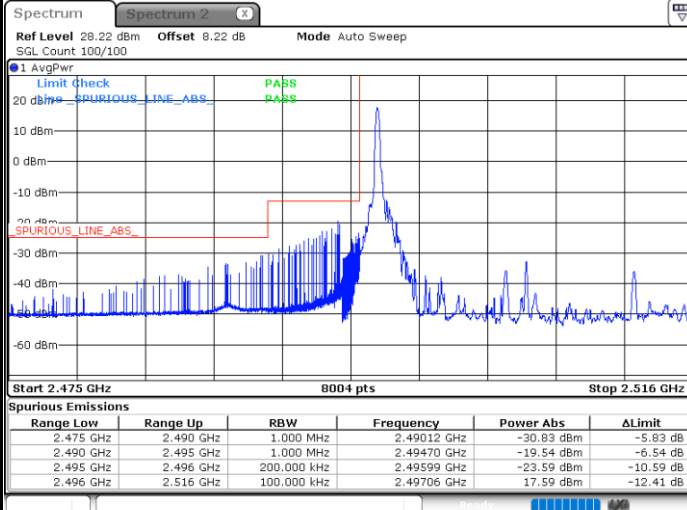


Date: 24.APR.2024 21:57:42



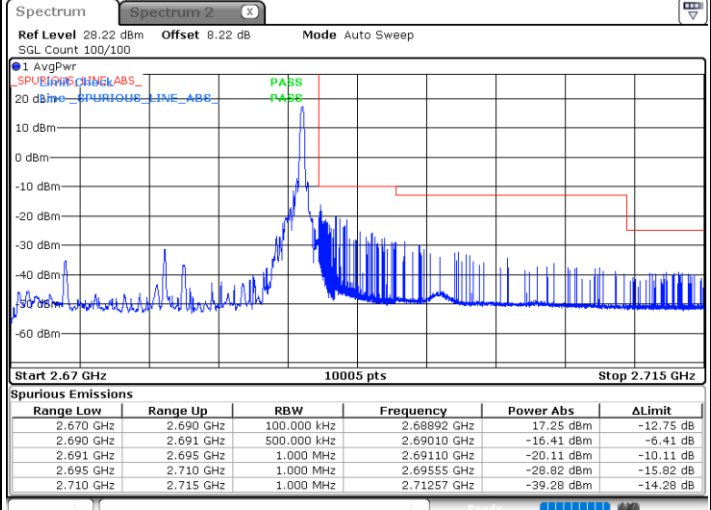
LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



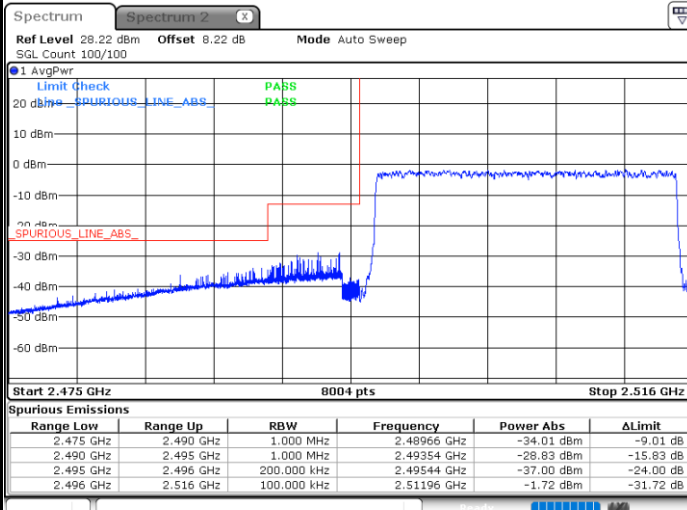
Date: 24.APR.2024 21:48:25

Highest Band Edge / 1 RB



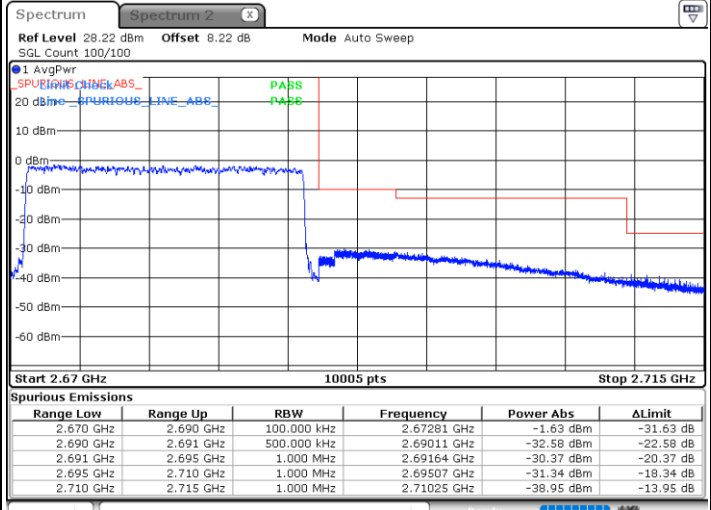
Date: 24.APR.2024 21:56:23

Lowest Band Edge / Full RB



Date: 24.APR.2024 21:49:05

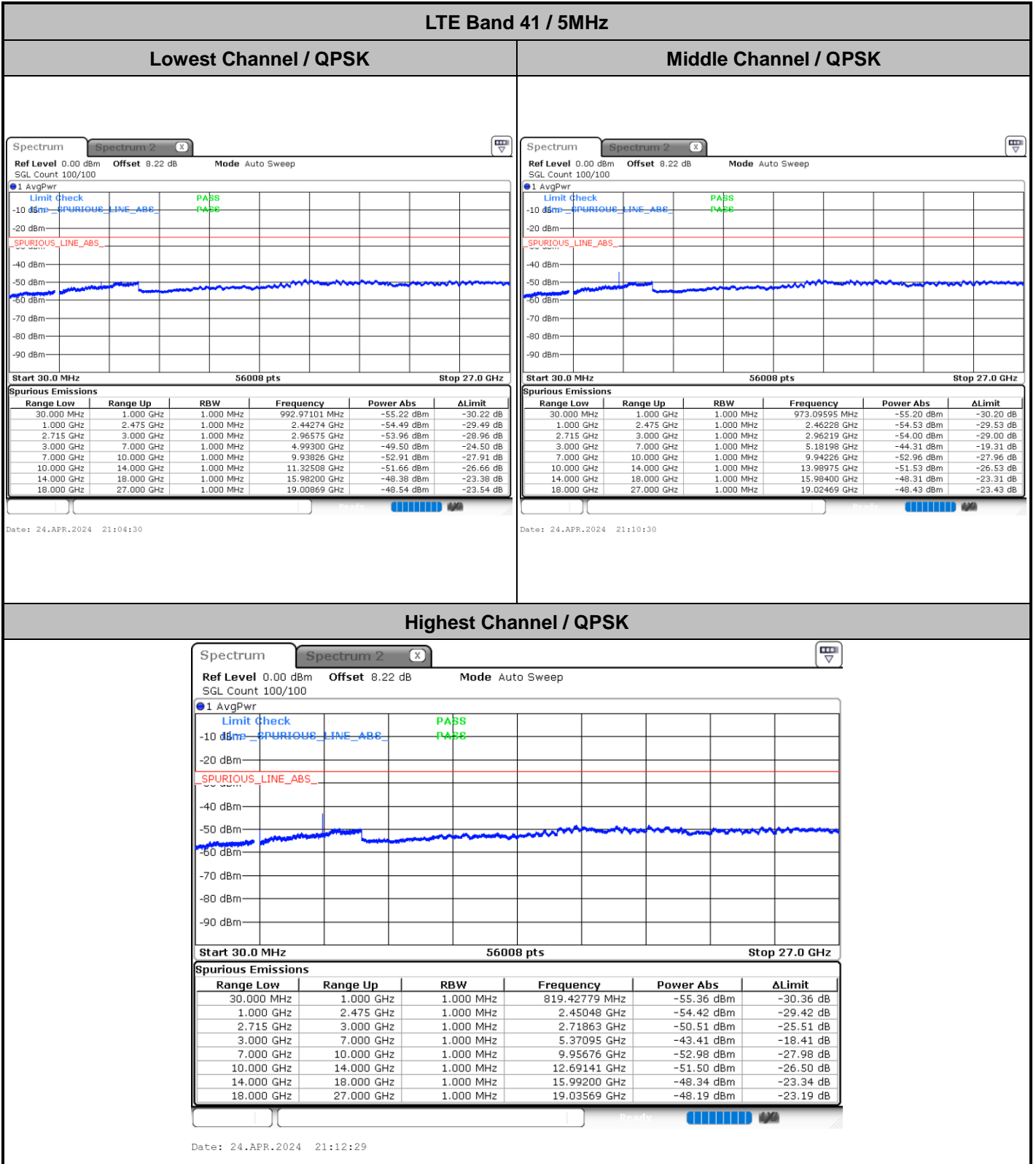
Highest Band Edge / Full RB



Date: 24.APR.2024 21:57:02



Conducted Spurious Emission

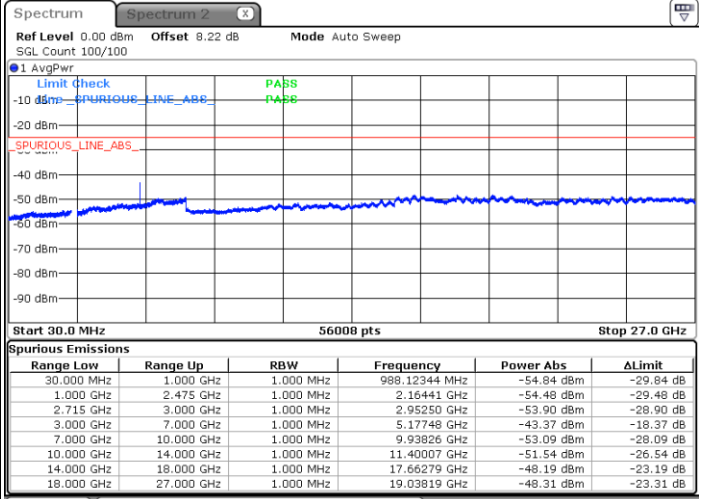
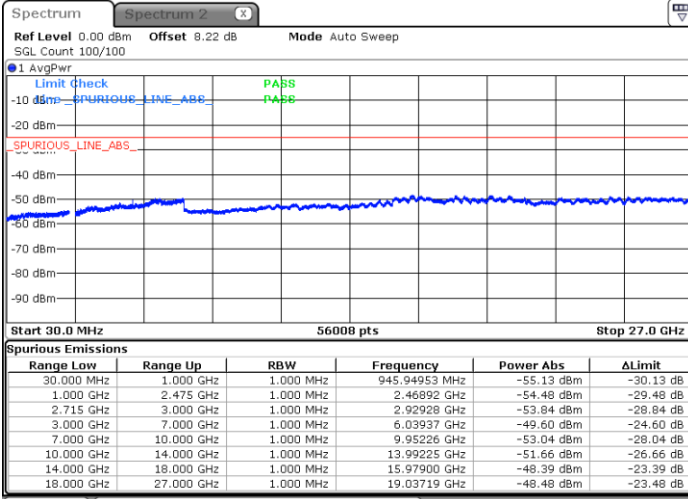




LTE Band 41 / 10MHz

Lowest Channel / QPSK

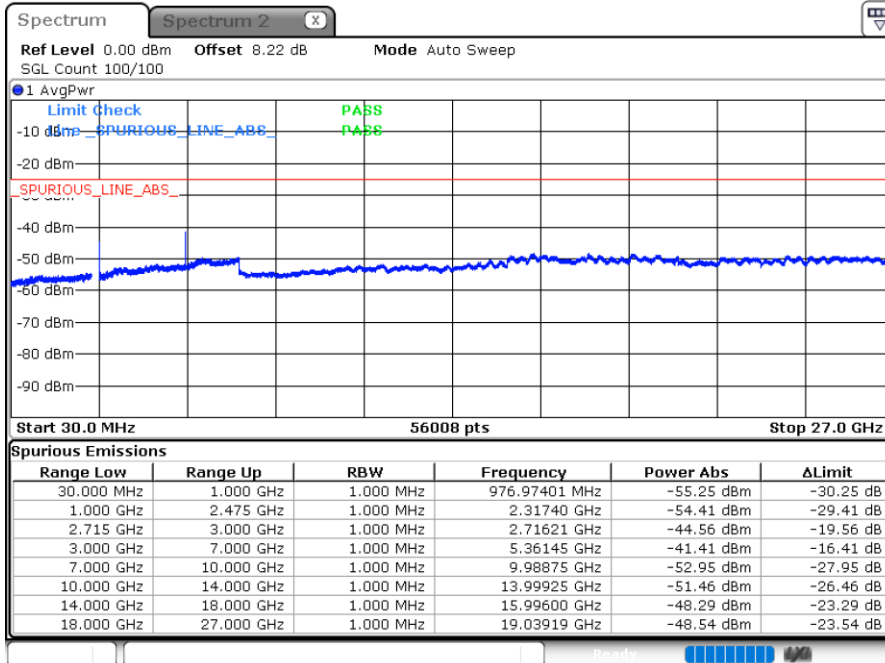
Middle Channel / QPSK



Date: 24.APR.2024 21:18:29

Date: 24.APR.2024 21:24:28

Highest Channel / QPSK



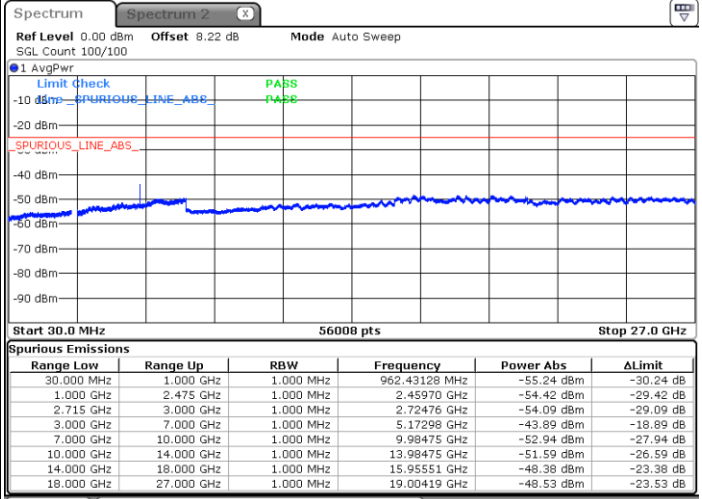
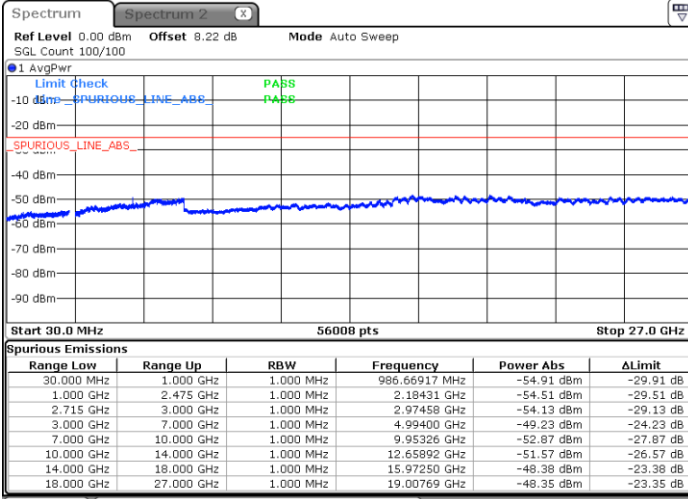
Date: 24.APR.2024 21:26:27



LTE Band 41 / 15MHz

Lowest Channel / QPSK

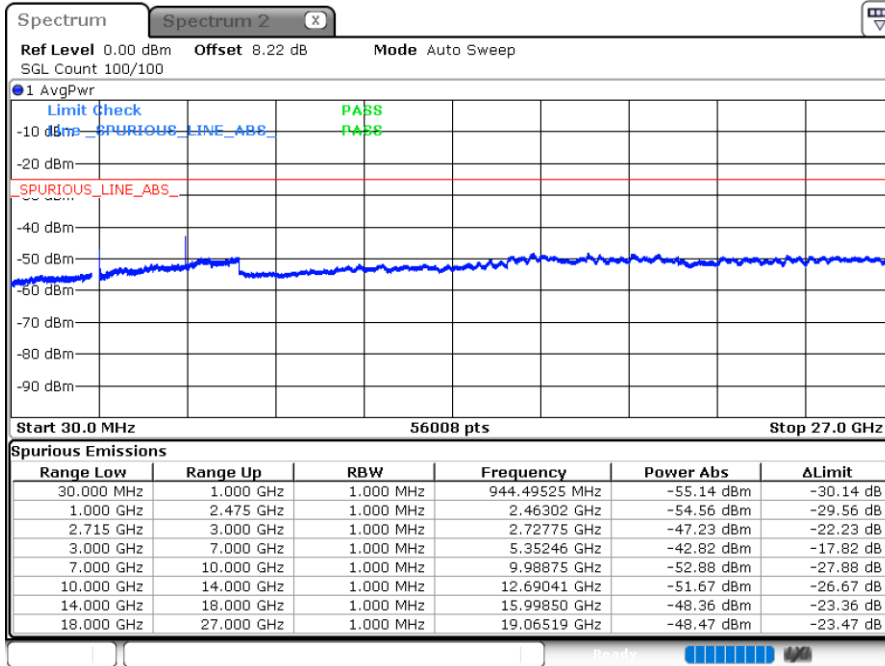
Middle Channel / QPSK



Date: 24.APR.2024 21:32:27

Date: 24.APR.2024 21:38:26

Highest Channel / QPSK



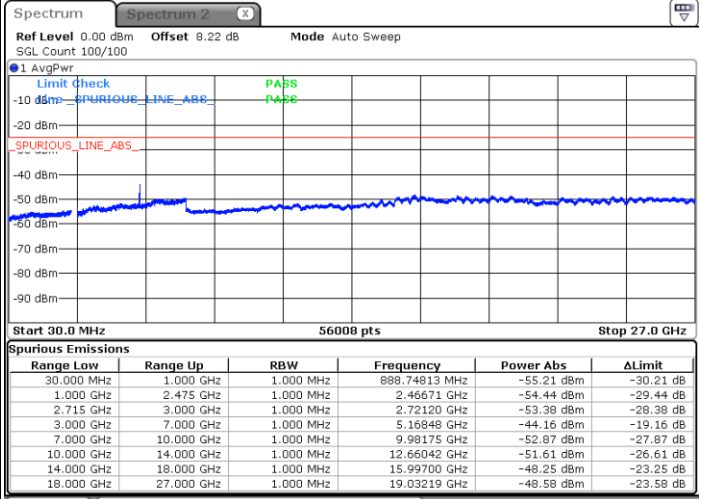
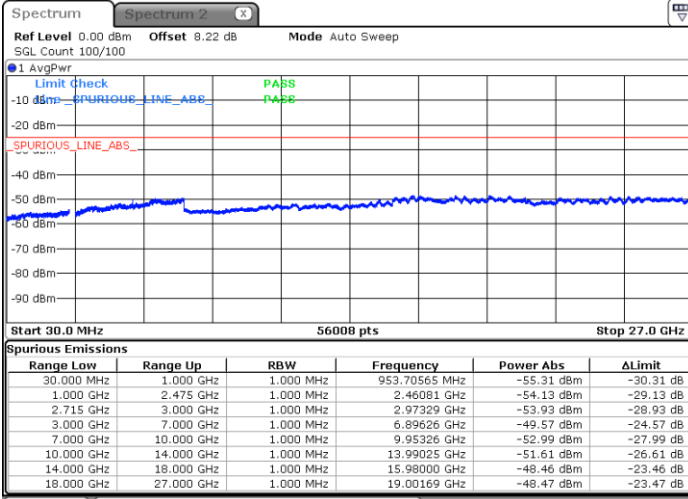
Date: 24.APR.2024 21:40:26



LTE Band 41 / 20MHz

Lowest Channel / QPSK

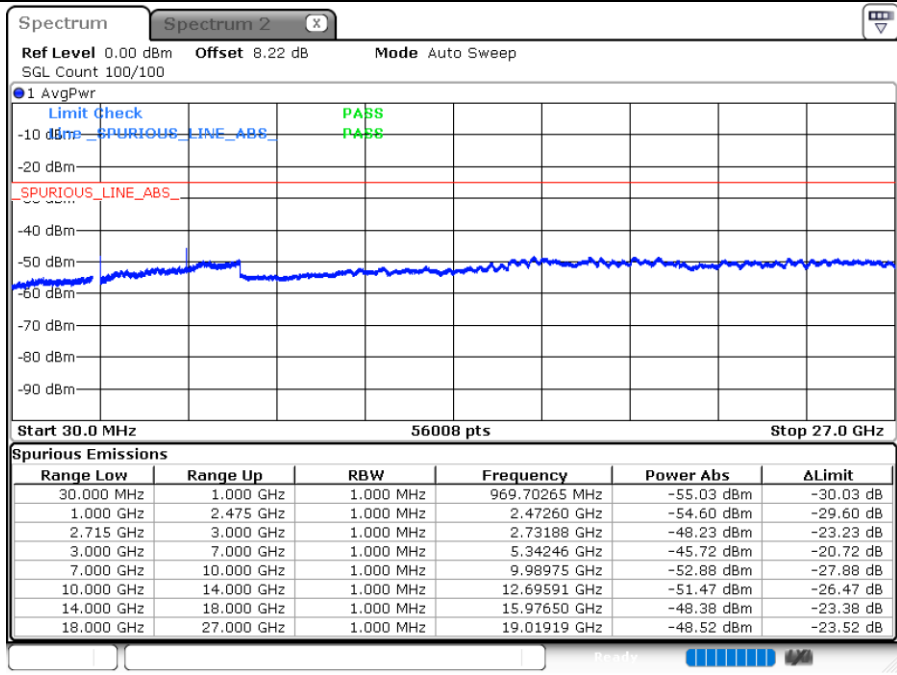
Middle Channel / QPSK



Date: 24.APR.2024 21:46:24

Date: 24.APR.2024 21:52:24

Highest Channel / QPSK



Date: 24.APR.2024 21:54:23



Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0057	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0028	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0044	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0015	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.48V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Reid Huang	Temperature :	22~25°C
		Relative Humidity :	48~52%

LTE Band 2 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3742.18	-55.49	-13	-42.49	-70.12	-62.24	5.85	12.60	H
	5613.27	-59.96	-13	-46.96	-77.68	-65.76	7.30	13.10	H
	7484.36	-56.19	-13	-43.19	-78.60	-59.34	8.35	11.50	H
	3742.18	-54.94	-13	-41.94	-69.78	-61.69	5.85	12.60	V
	5613.27	-60.69	-13	-47.69	-78.32	-66.49	7.30	13.10	V
	7484.36	-55.44	-13	-42.44	-77.78	-58.59	8.35	11.50	V

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

LTE Band 4 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3447.18	-63.70	-13	-50.70	-76.24	-70.54	5.68	12.52	H
	5170.77	-61.69	-13	-48.69	-79.22	-67.36	7.15	12.82	H
	6894.36	-58.16	-13	-45.16	-78.84	-61.59	8.42	11.85	H
	3447.18	-62.68	-13	-49.68	-75.77	-69.52	5.68	12.52	V
	5170.77	-62.13	-13	-49.13	-79.61	-67.80	7.15	12.82	V
	6894.36	-58.31	-13	-45.31	-78.9	-61.74	8.42	11.85	V

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

LTE Band 12 / 10MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1406	-62.68	-13	-49.68	-70.76	-65.93	4.00	9.40	H
	2109	-65.35	-13	-52.35	-75.11	-68.92	4.88	10.60	H
	2812	-63.14	-13	-50.14	-75.16	-68.07	5.52	12.60	H
	1406	-62.28	-13	-49.28	-70.44	-65.53	4.00	9.40	V
	2109	-64.12	-13	-51.12	-74.25	-67.69	4.88	10.60	V
	2812	-63.43	-13	-50.43	-75.69	-68.36	5.52	12.60	V

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



LTE Band 41 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5168.00	-60.16	-25	-35.16	-77.68	-65.72	7.14	12.70	H
	7752.00	-54.77	-25	-29.77	-77.43	-58.07	8.30	11.60	H
	10336.00	-51.02	-25	-26.02	-78.03	-52.54	10.48	12.00	H
	5168.00	-59.13	-25	-34.13	-76.6	-64.69	7.14	12.70	V
	7752.00	-53.86	-25	-28.86	-76.49	-57.16	8.30	11.60	V
	10336.00	-51.23	-25	-26.23	-78.01	-52.75	10.48	12.00	V

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