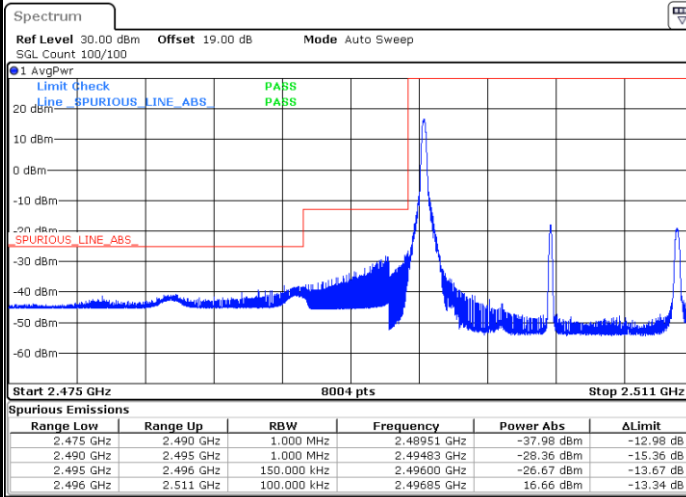




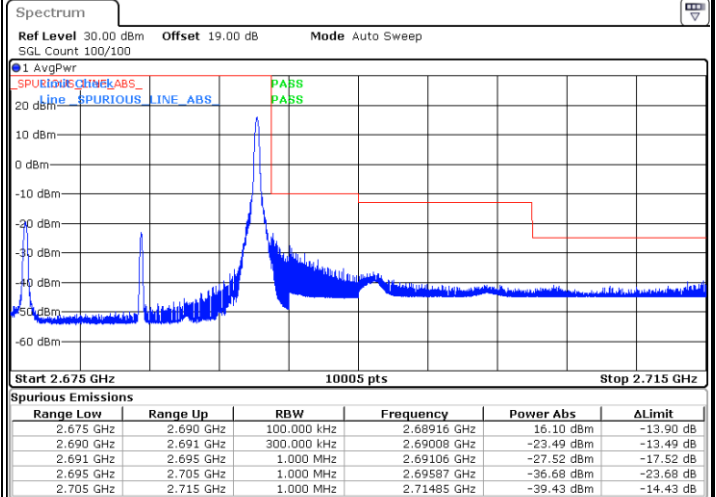
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1RB



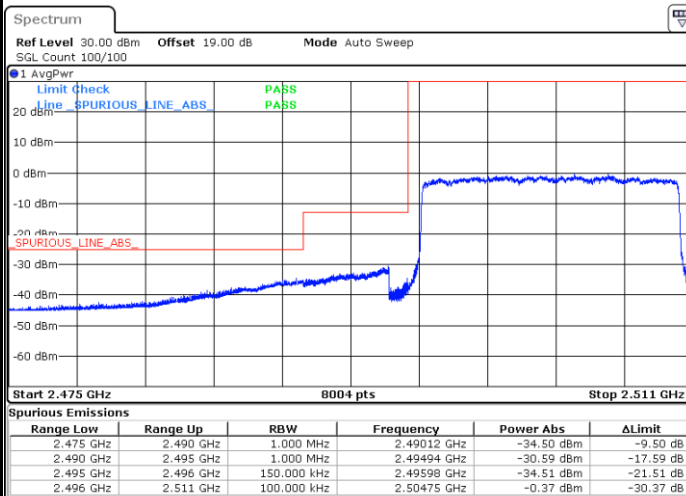
Date: 31.MAR.2025 14:44:09

Highest Band Edge / 1 RB



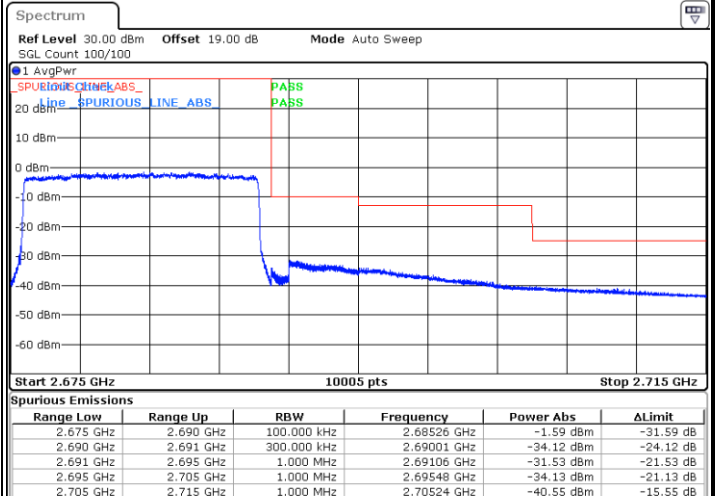
Date: 31.MAR.2025 17:06:09

Lowest Band Edge / Full RB



Date: 31.MAR.2025 14:46:29

Highest Band Edge / Full RB

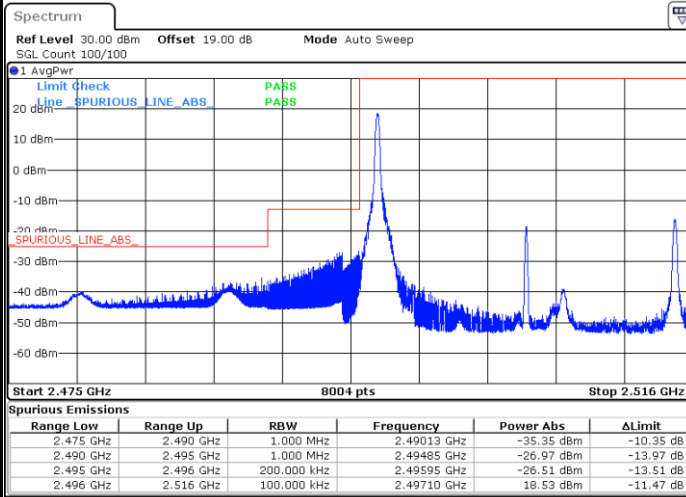


Date: 31.MAR.2025 17:08:55



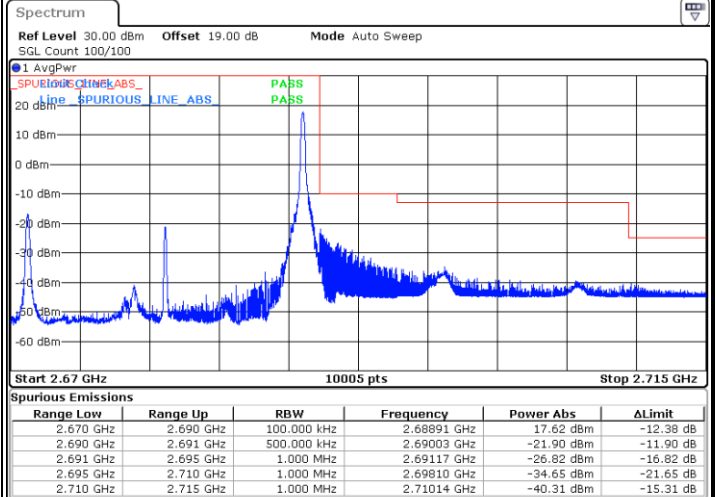
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



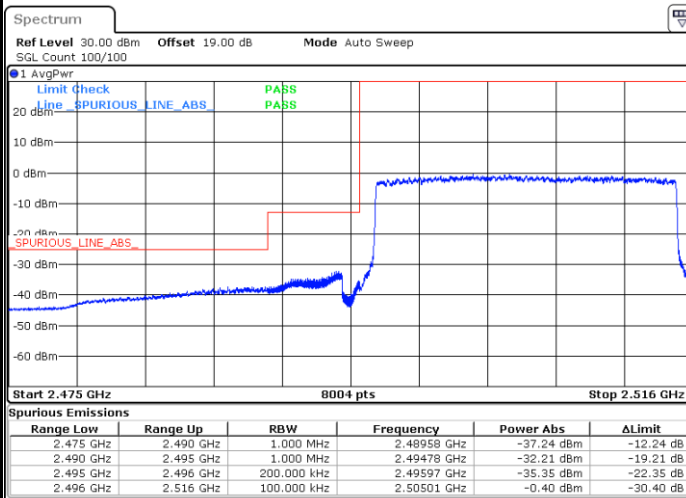
Date: 31.MAR.2025 17:11:29

Highest Band Edge / 1 RB



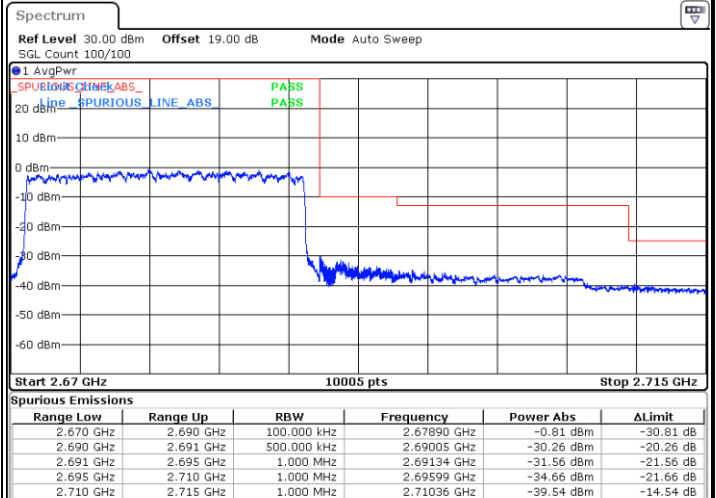
Date: 31.MAR.2025 17:17:02

Lowest Band Edge / Full RB



Date: 31.MAR.2025 17:16:07

Highest Band Edge / Full RB

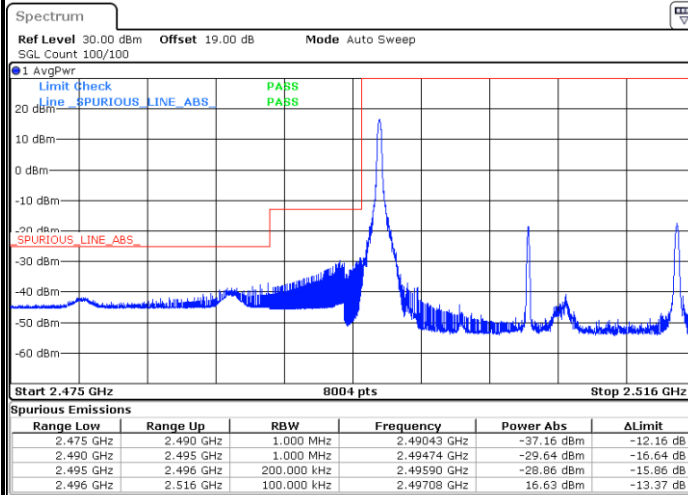


Date: 31.MAR.2025 17:21:39



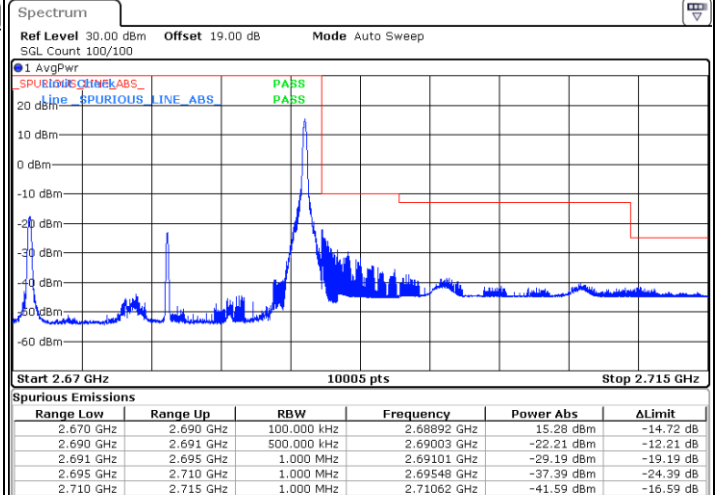
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1RB



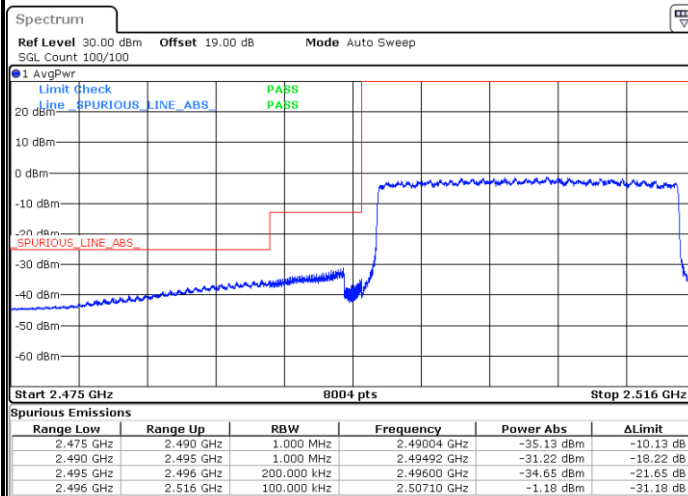
Date: 31.MAR.2025 17:12:24

Highest Band Edge / 1 RB



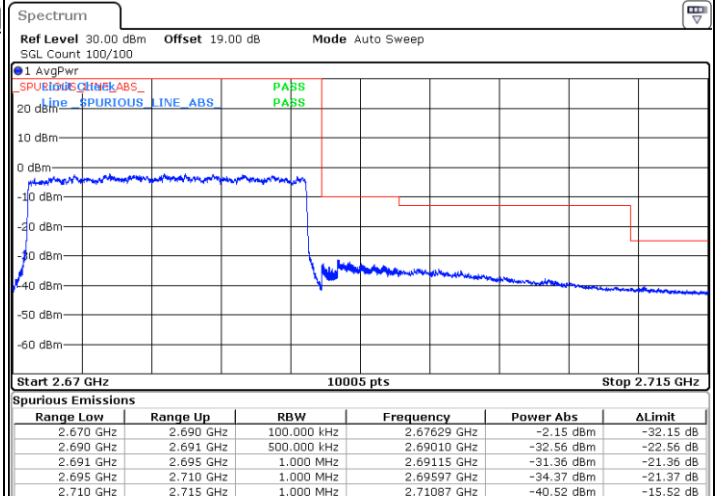
Date: 31.MAR.2025 17:17:57

Lowest Band Edge / Full RB



Date: 31.MAR.2025 17:15:11

Highest Band Edge / Full RB



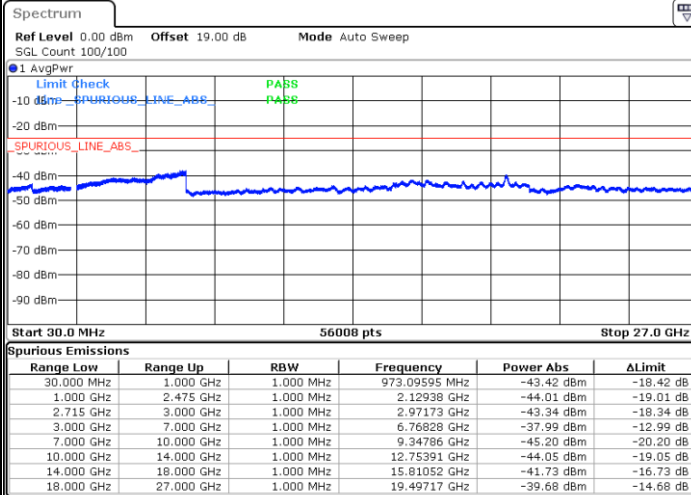
Date: 31.MAR.2025 17:20:44



Conducted Spurious Emission

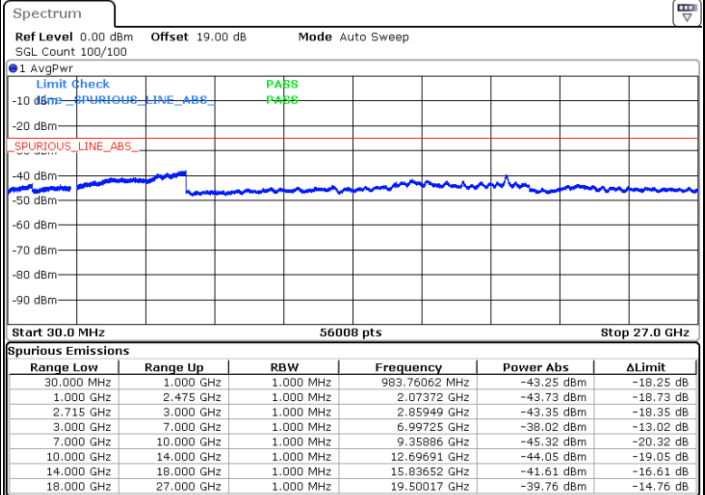
LTE Band 41 / 5MHz

Lowest Channel / QPSK



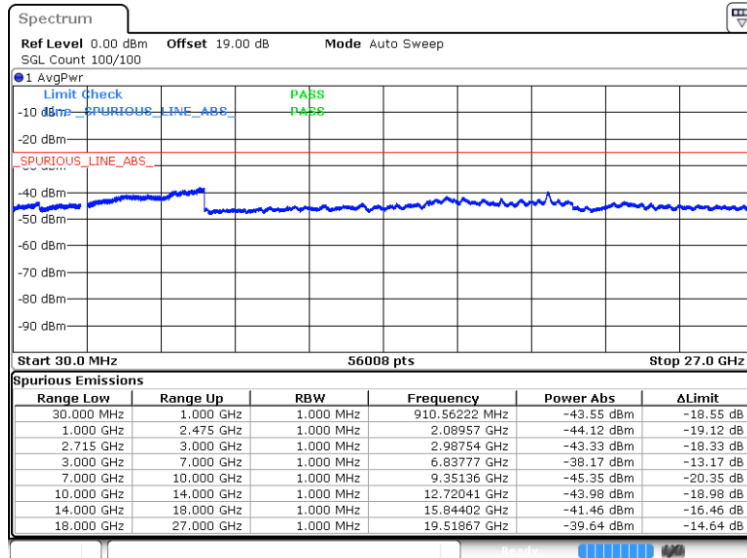
Date: 31.MAR.2025 16:45:33

Middle Channel / QPSK



Date: 31.MAR.2025 16:46:42

Highest Channel / QPSK

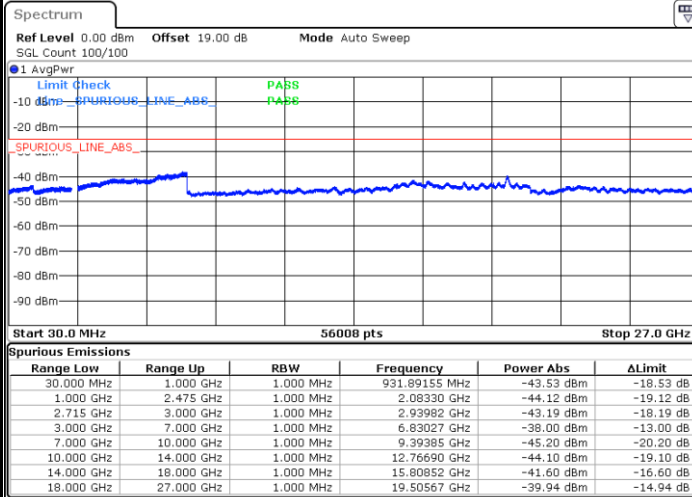


Date: 31.MAR.2025 16:47:52



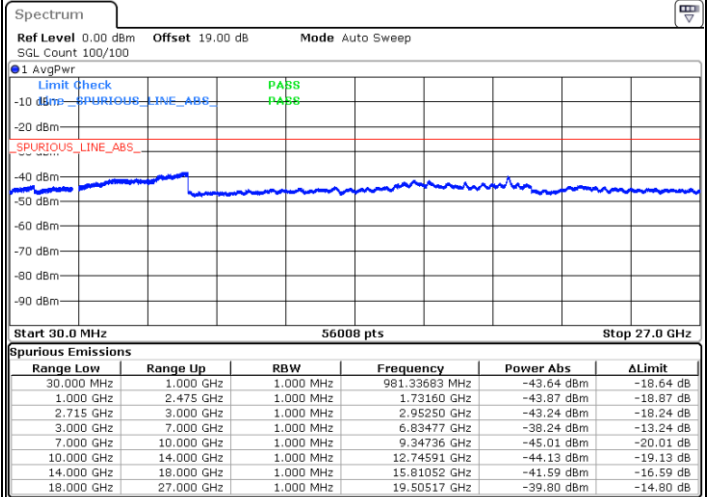
LTE Band 41 / 10MHz

Lowest Channel / QPSK



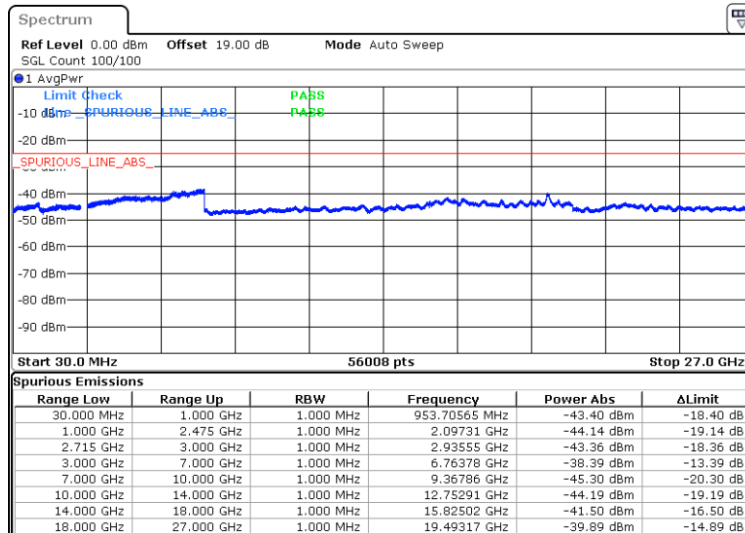
Date: 31.MAR.2025 16:49:45

Middle Channel / QPSK



Date: 31.MAR.2025 16:50:54

Highest Channel / QPSK

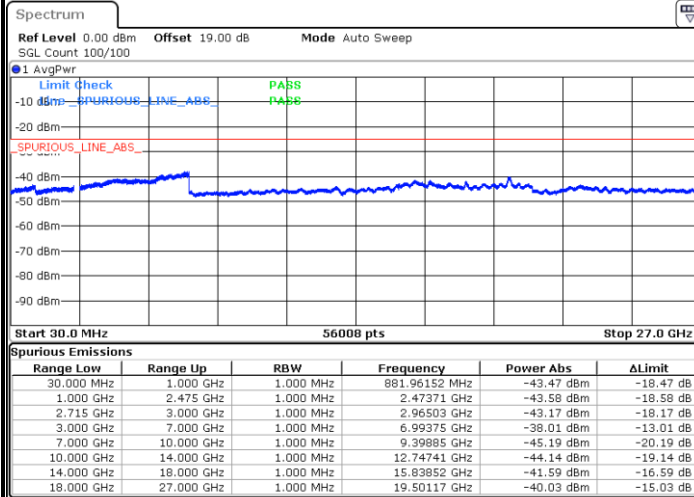


Date: 31.MAR.2025 16:52:03



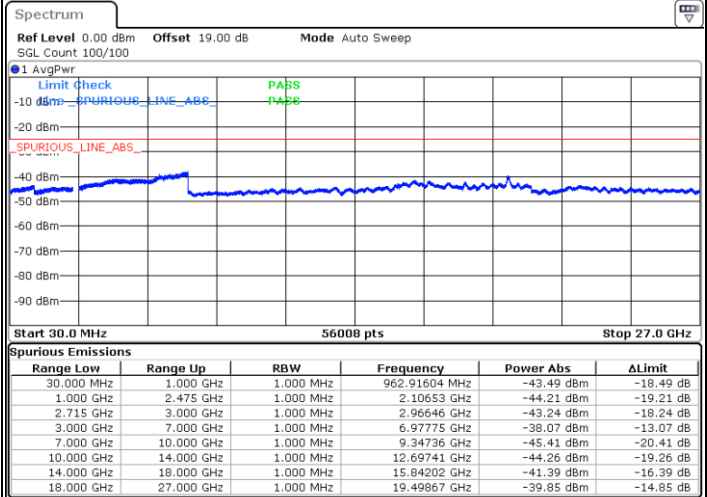
LTE Band 41 / 15MHz

Lowest Channel / QPSK



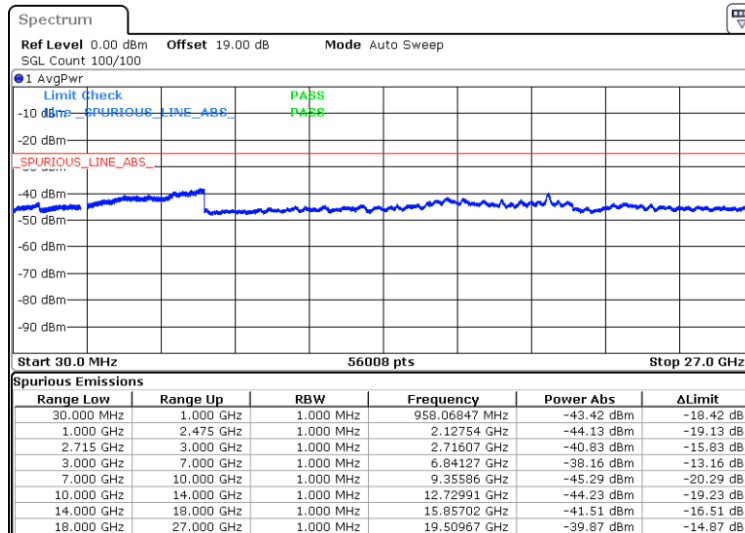
Date: 31.MAR.2025 16:53:56

Middle Channel / QPSK



Date: 31.MAR.2025 16:55:06

Highest Channel / QPSK

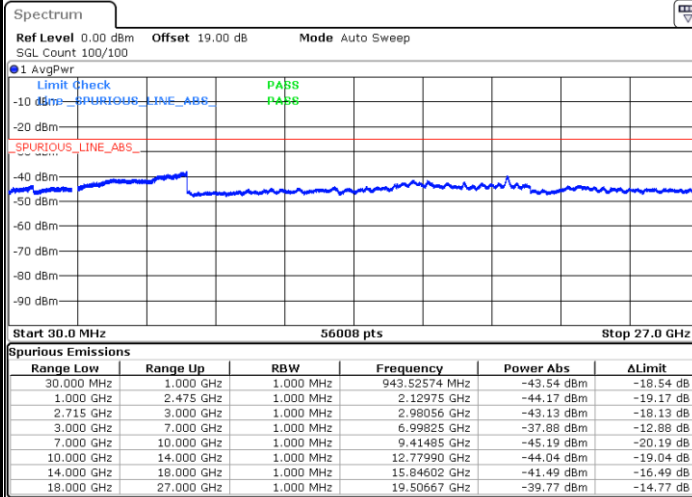


Date: 31.MAR.2025 16:56:15



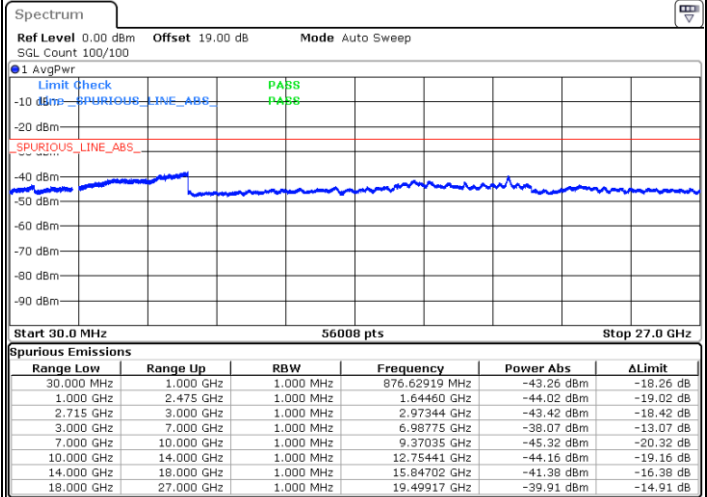
LTE Band 41 / 20MHz

Lowest Channel / QPSK



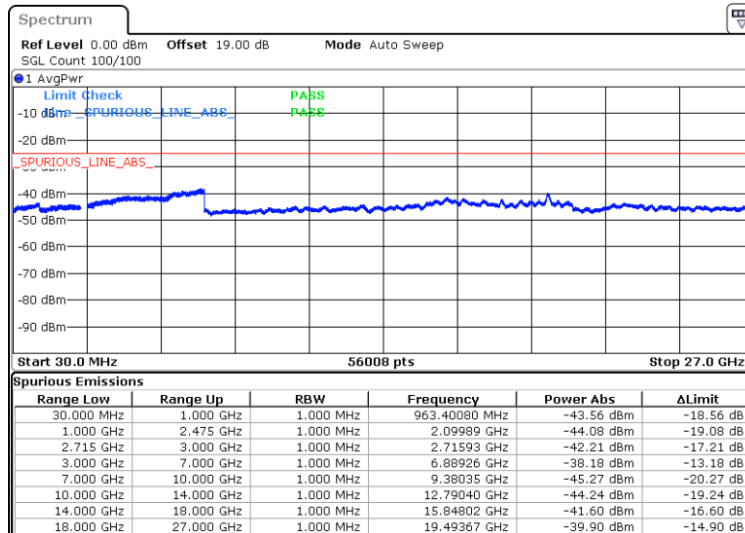
Date: 31.MAR.2025 16:58:08

Middle Channel / QPSK



Date: 31.MAR.2025 16:59:17

Highest Channel / QPSK



Date: 31.MAR.2025 17:00:27

Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Note 2.
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	-1.8	PASS
40	Normal Voltage	2.7	
30	Normal Voltage	2.4	
20(Ref.)	Normal Voltage	2.5	
10	Normal Voltage	2.1	
0	Normal Voltage	2.9	
-10	Normal Voltage	3.3	
-20	Normal Voltage	1.1	
-30	Normal Voltage	1.9	
20	Maximum Voltage	2.3	
20	Normal Voltage	2.5	
20	Minimum Voltage	3.4	

Note:

1. Normal Voltage = 12 V; Minimum Voltage = 9 V; Maximum Voltage = 43 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

$$|\text{MAX}(\Delta f)| = 3.4\text{Hz}$$

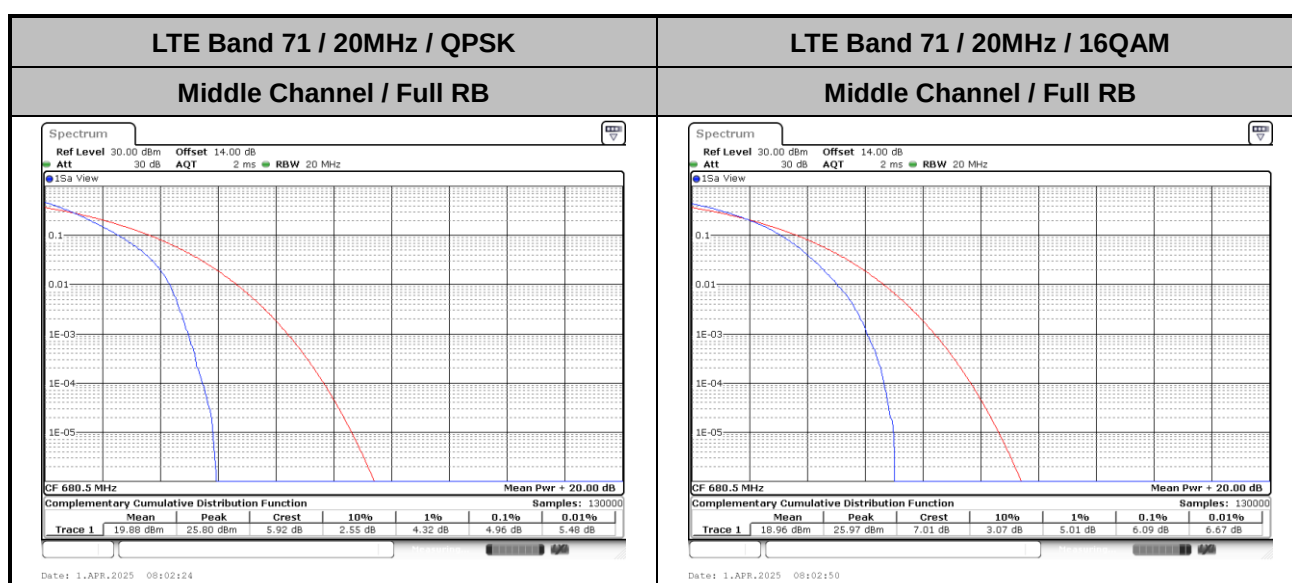
Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	2496.272197	$\geq 2496 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	2689.747803	$\leq 2690 \text{ MHz}$	



LTE Band 71

Peak-to-Average Ratio

Mode	LTE Band 71 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	6.09	-	PASS





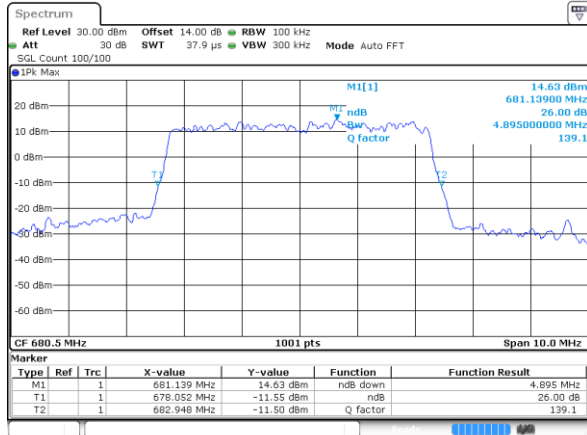
26dB Bandwidth

Mode	LTE Band 71 : 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	9.77	9.69	14.42	14.30	19.06	19.22

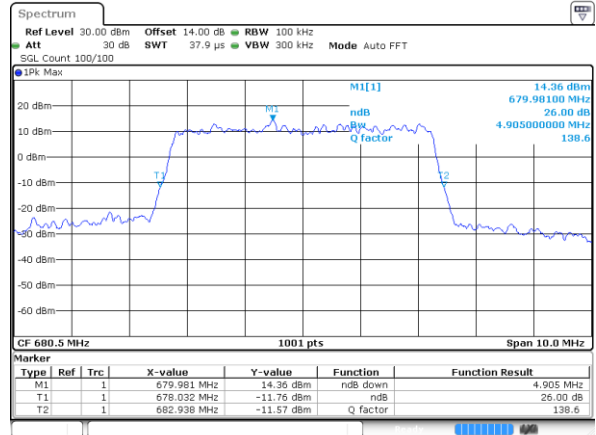


LTE Band 71

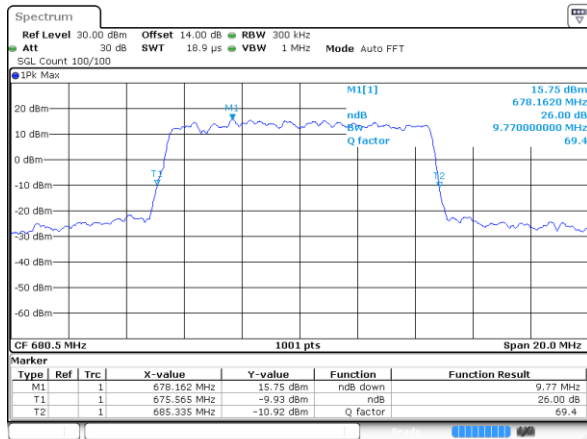
Middle Channel / 5MHz / QPSK



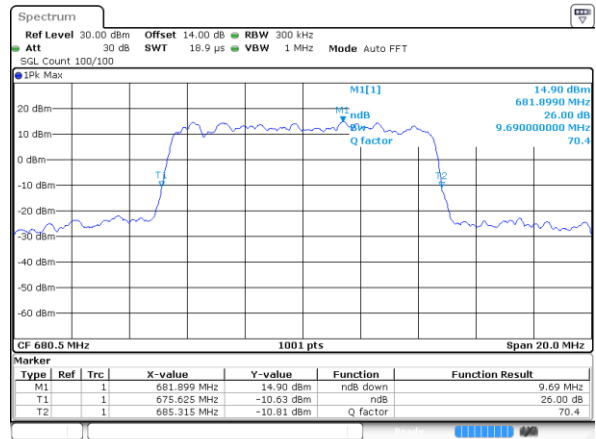
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



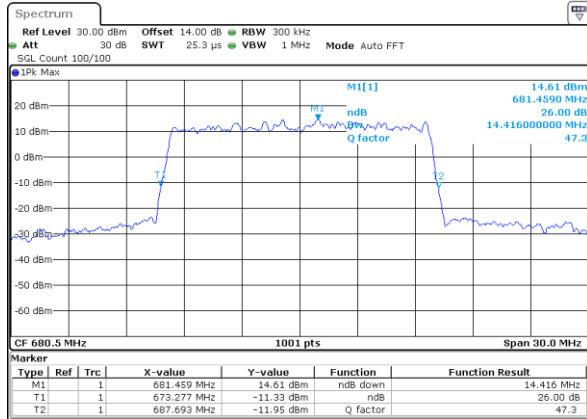
Middle Channel / 10MHz / 16QAM



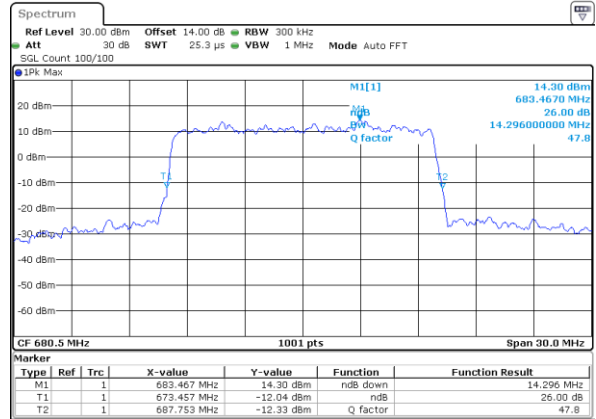


LTE Band 71

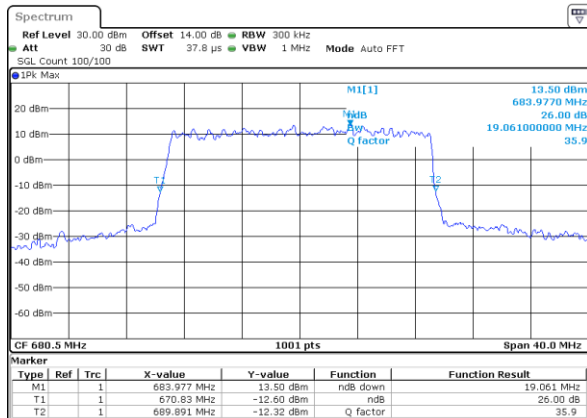
Middle Channel / 15MHz / QPSK



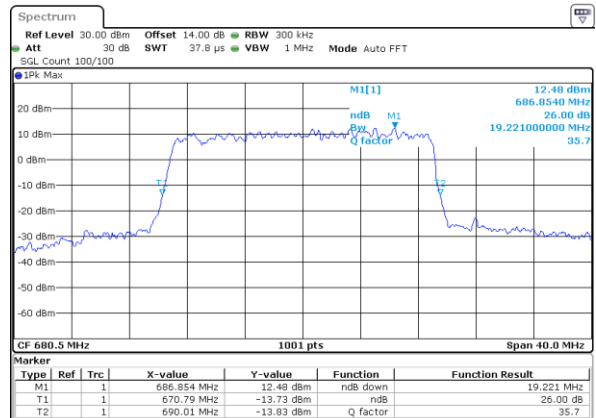
Middle Channel / 15MHz / 16QAM



Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM





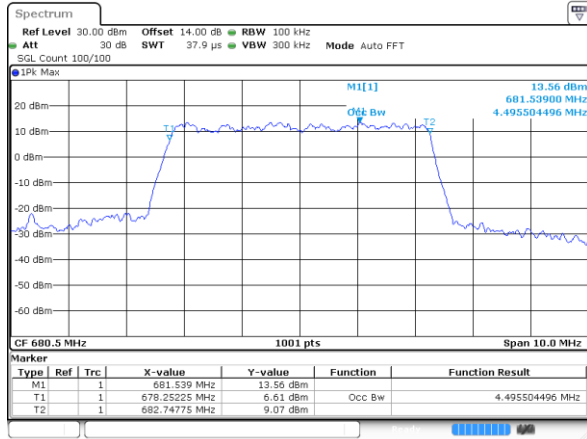
Occupied Bandwidth

Mode	LTE Band 71 : 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	4.47	9.01	8.99	13.40	13.43	17.86	17.82



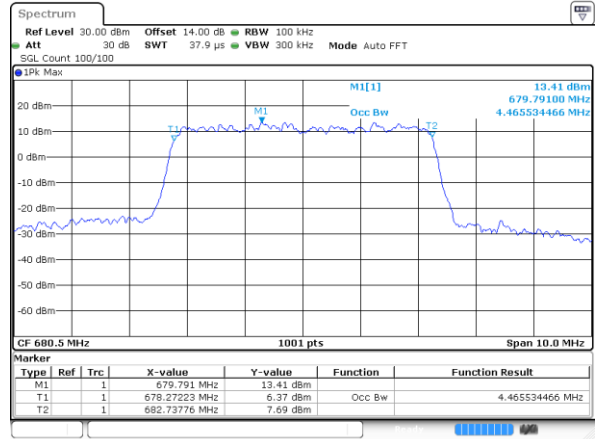
LTE Band 71

Middle Channel / 5MHz / QPSK



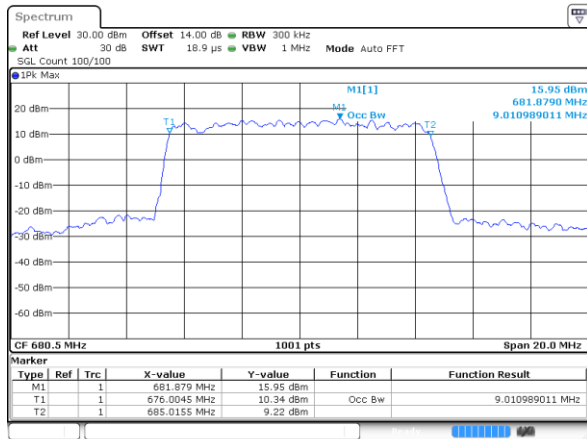
Date: 31 MAR 2025 22:00:28

Middle Channel / 5MHz / 16QAM



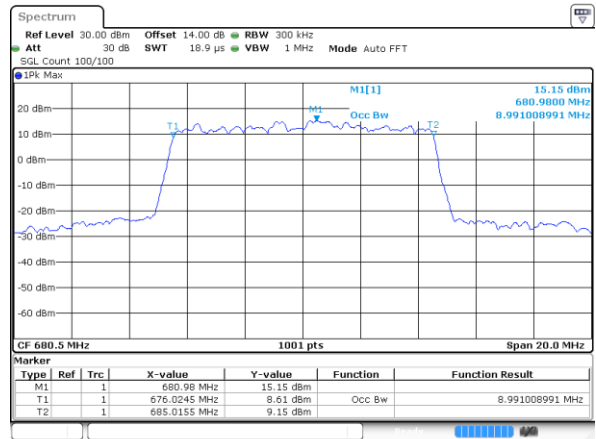
Date: 31 MAR 2025 22:01:07

Middle Channel / 10MHz / QPSK



Date: 31 MAR 2025 22:16:26

Middle Channel / 10MHz / 16QAM

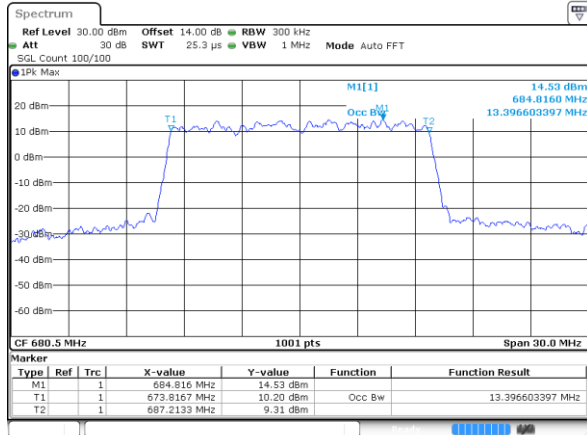


Date: 31 MAR 2025 22:17:05



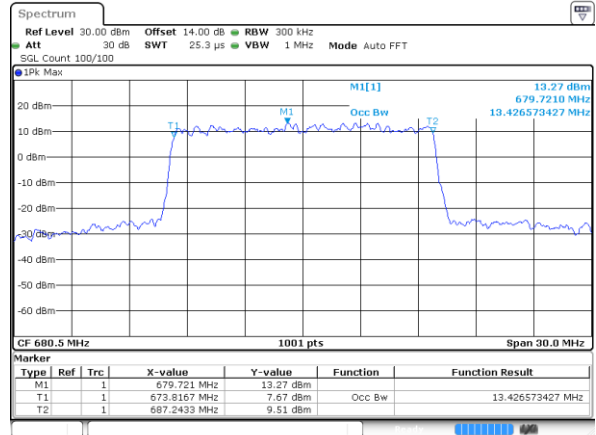
LTE Band 71

Middle Channel / 15MHz / QPSK



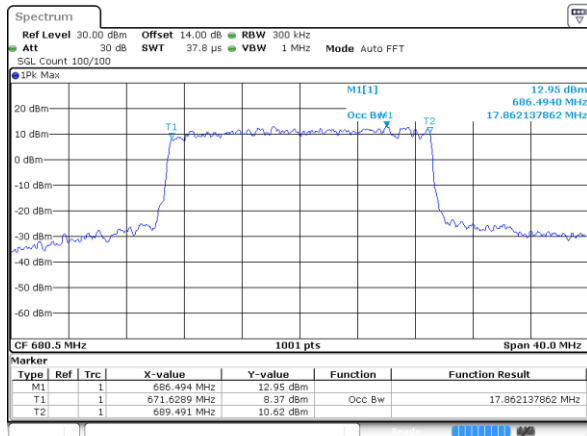
Date: 31 MAR 2025 23:20:25

Middle Channel / 15MHz / 16QAM



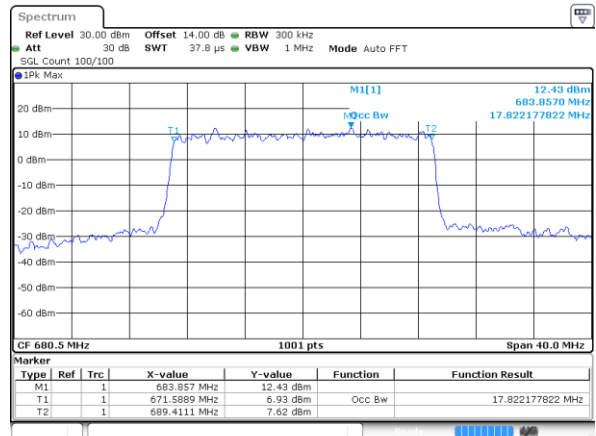
Date: 31 MAR 2025 23:21:04

Middle Channel / 20MHz / QPSK



Date: 31 MAR 2025 23:36:34

Middle Channel / 20MHz / 16QAM



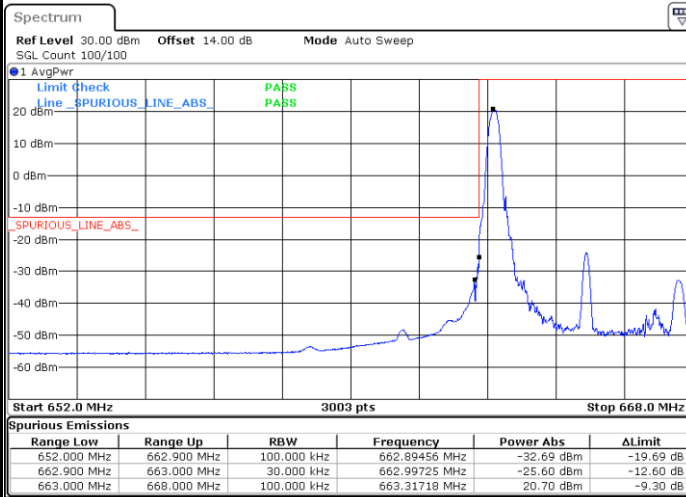
Date: 31 MAR 2025 23:37:14



Conducted Band Edge

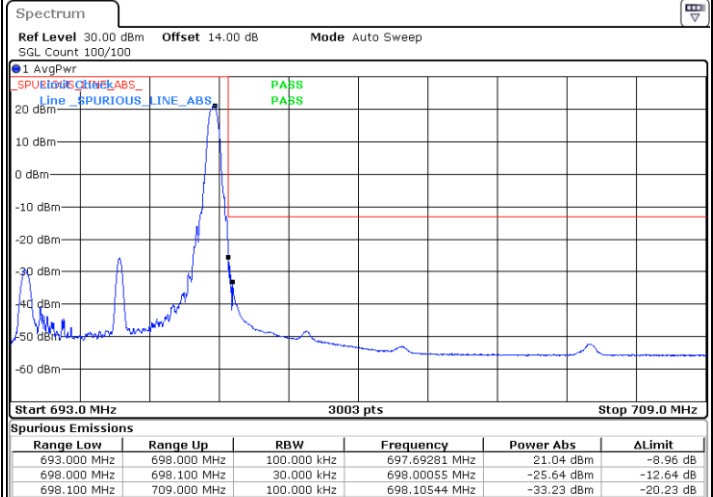
LTE Band 71 / 5MHz / QPSK

Lowest Band Edge / 1 RB



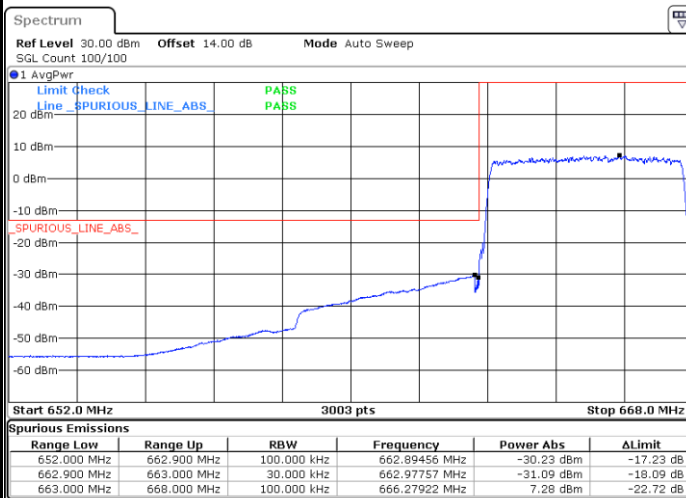
Date: 1 APR 2025 11:36:40

Highest Band Edge / 1 RB



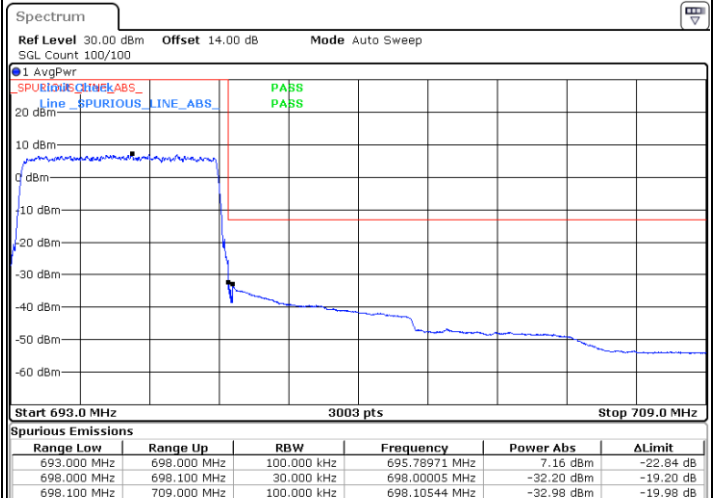
Date: 1 APR 2025 11:41:43

Lowest Band Edge / Full RB



Date: 1 APR 2025 11:39:10

Highest Band Edge / Full RB

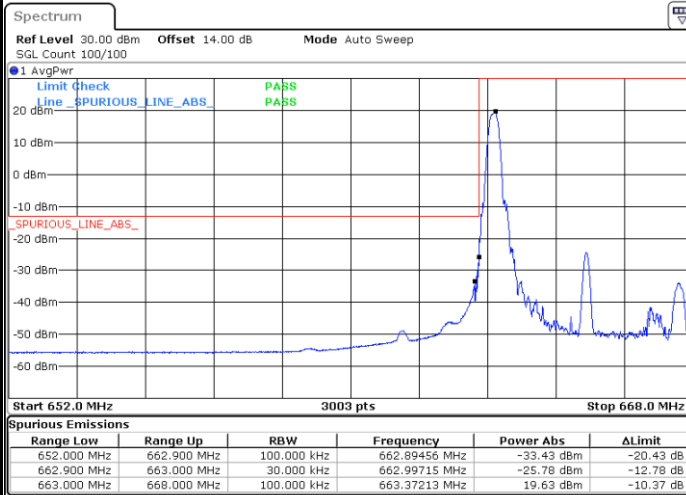


Date: 1 APR 2025 11:44:16

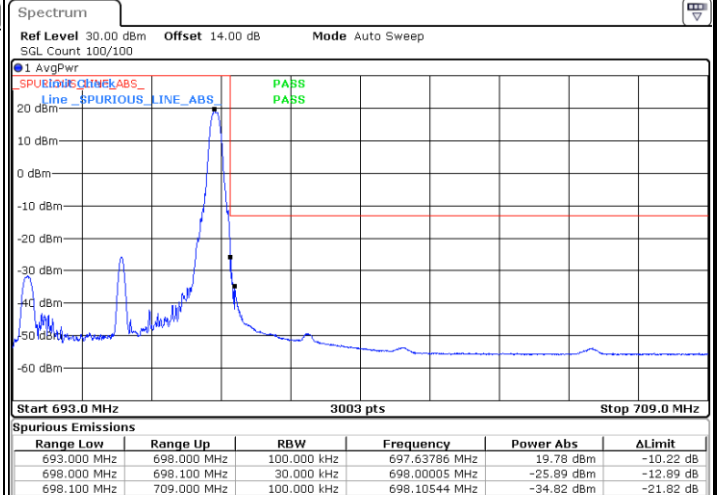


LTE Band 71 / 5MHz / 16QAM

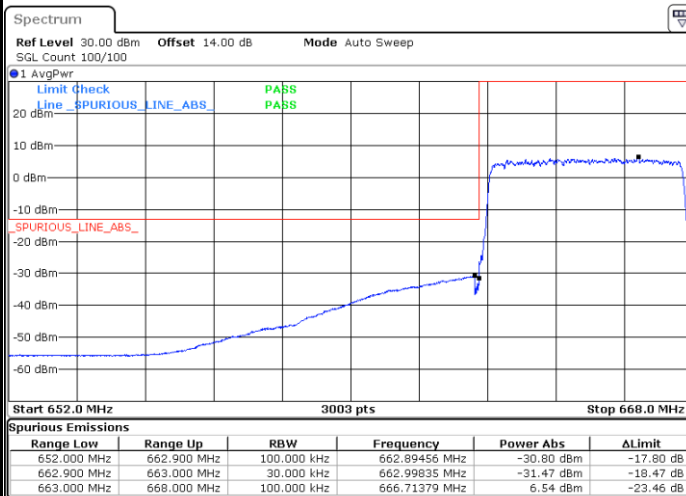
Lowest Band Edge / 1RB



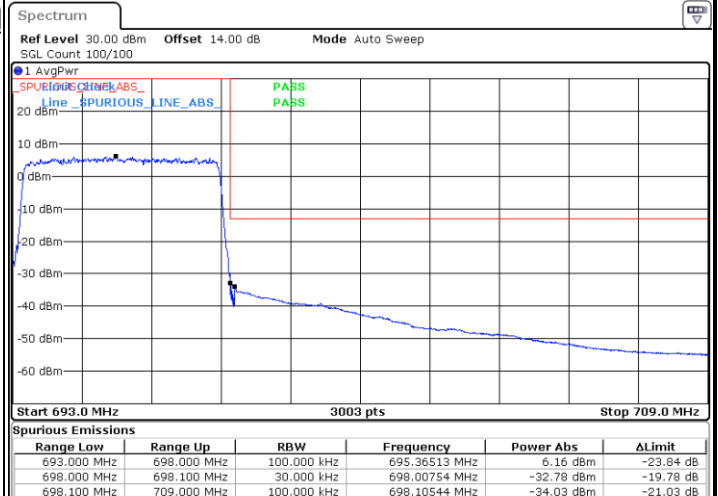
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



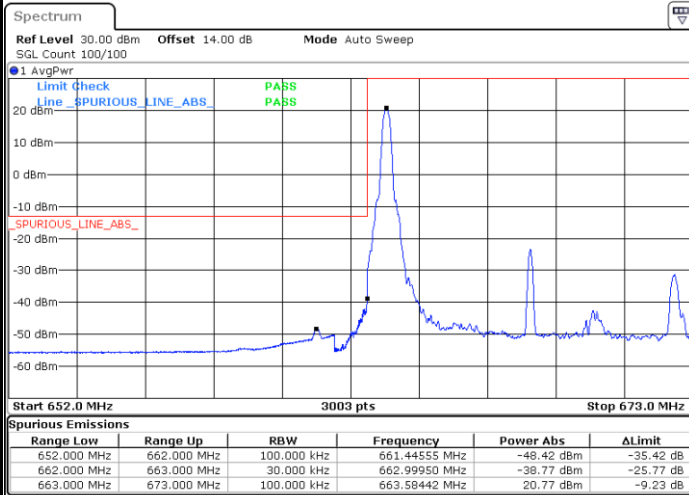
Highest Band Edge / Full RB



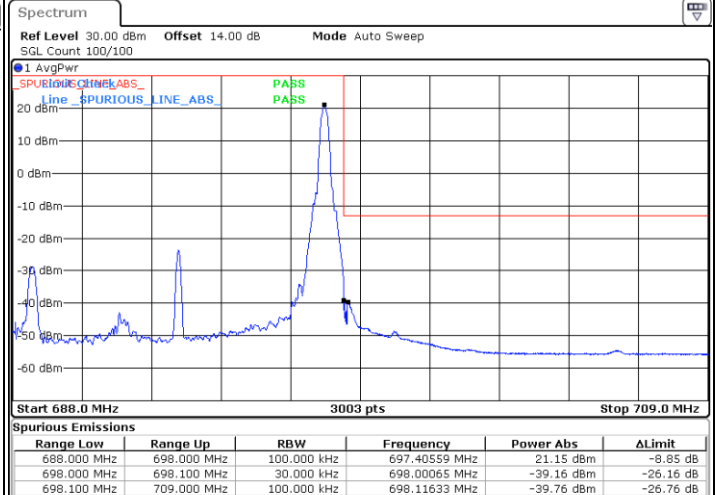


LTE Band 71 / 10MHz / QPSK

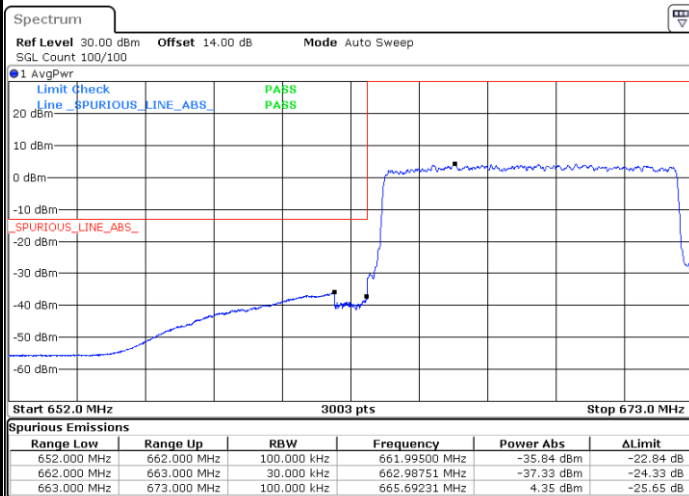
Lowest Band Edge / 1 RB



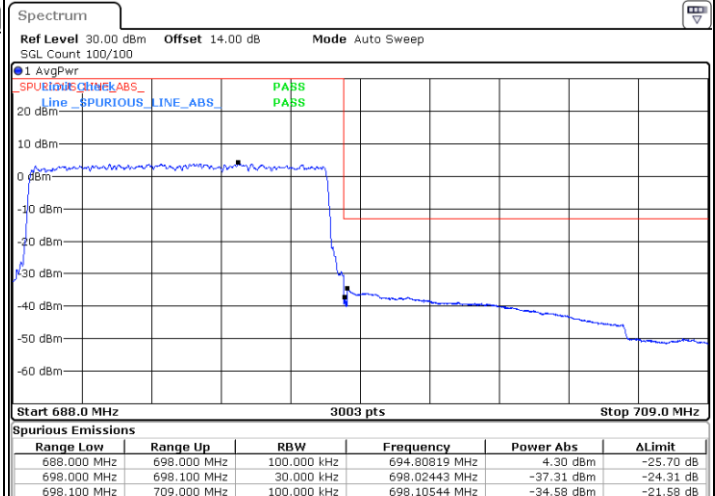
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



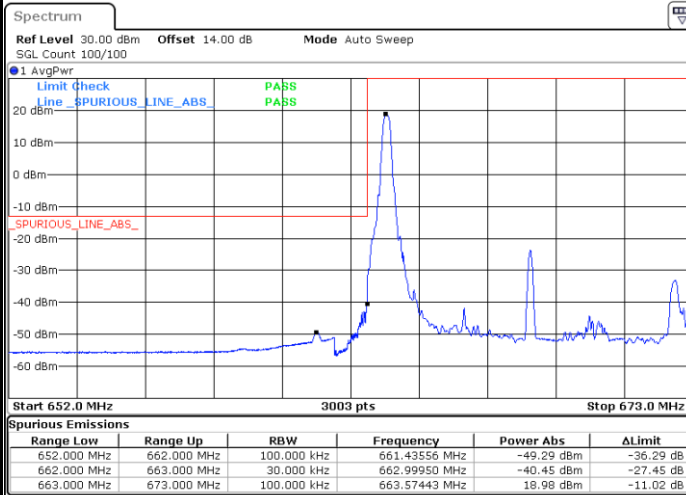
Highest Band Edge / Full RB



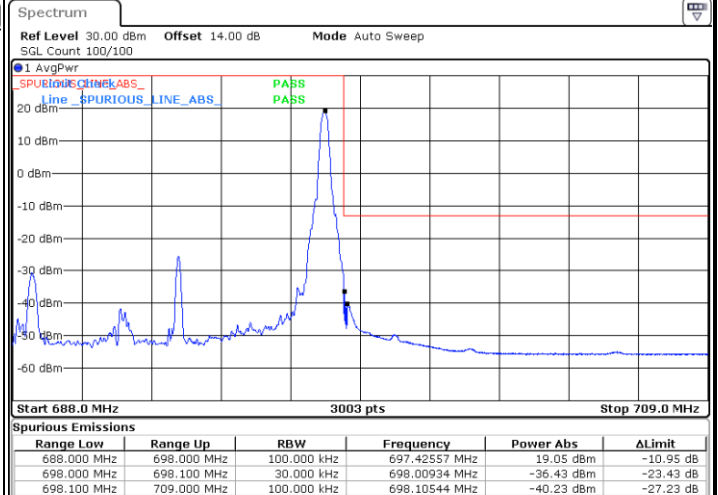


LTE Band 71 / 10MHz / 16QAM

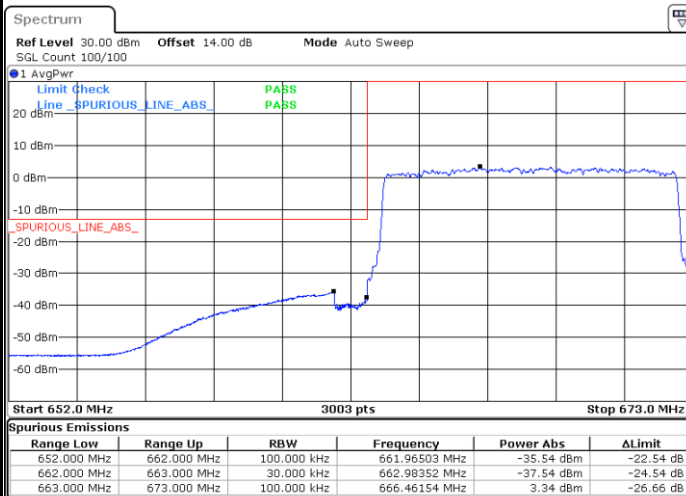
Lowest Band Edge / 1RB



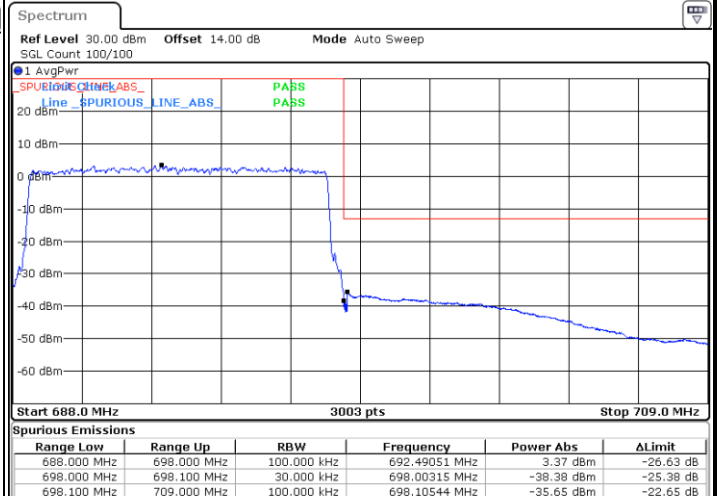
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



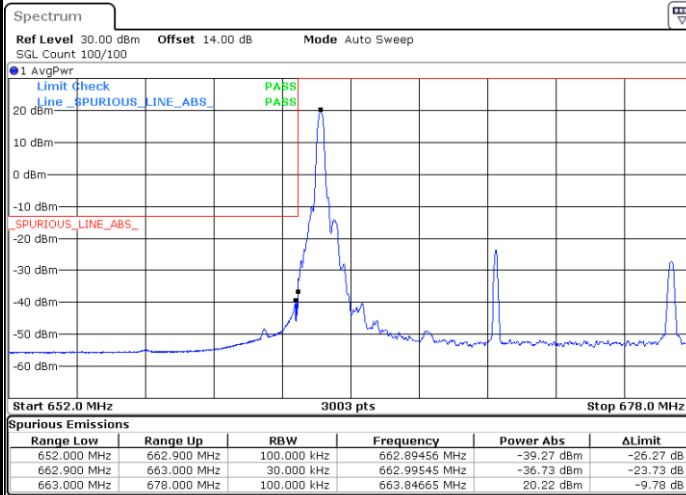
Highest Band Edge / Full RB



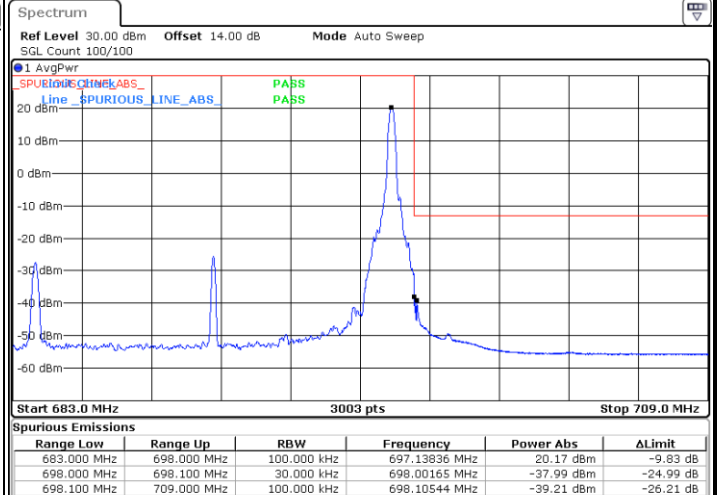


LTE Band 71 / 15MHz / QPSK

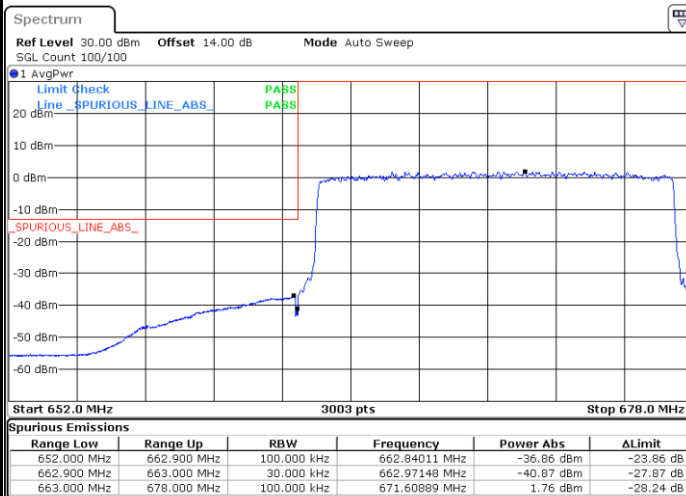
Lowest Band Edge / 1 RB



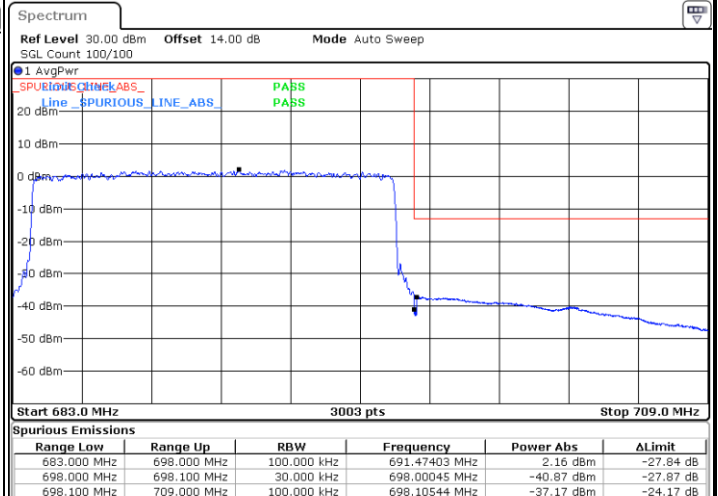
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



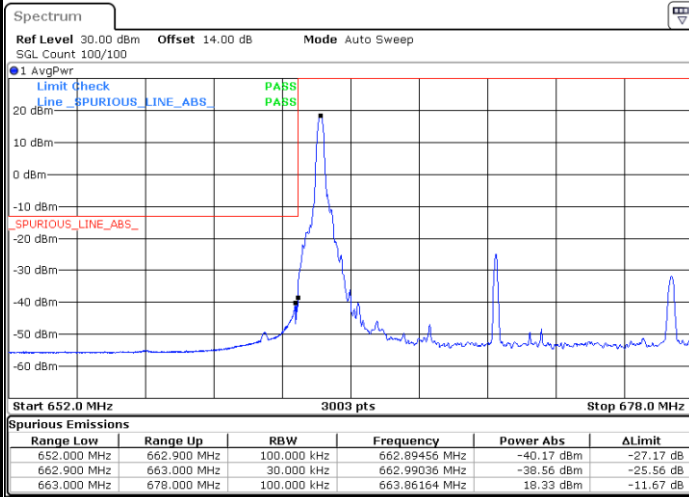
Highest Band Edge / Full RB



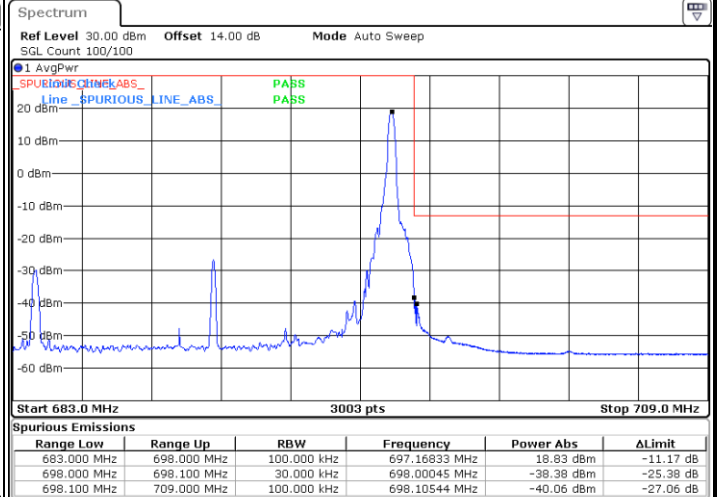


LTE Band 71 / 15MHz / 16QAM

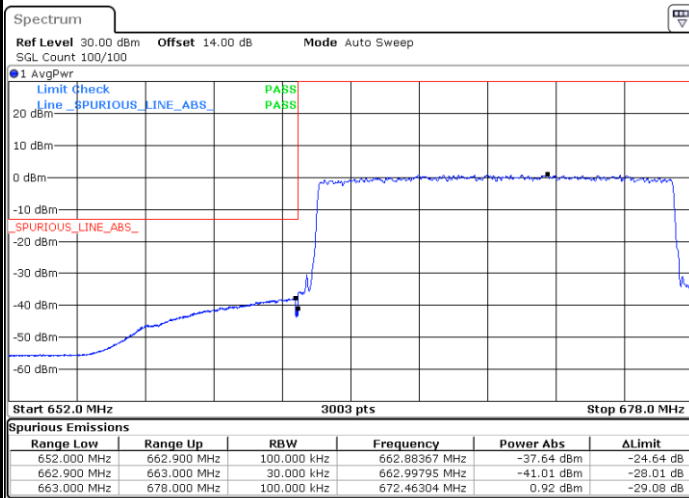
Lowest Band Edge / 1RB



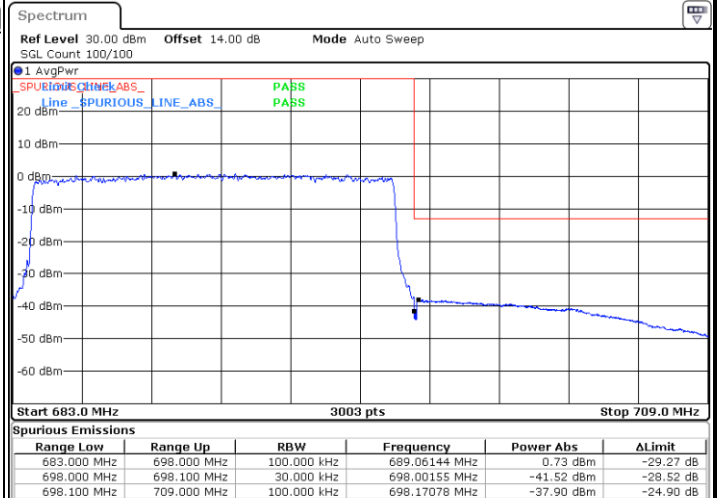
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



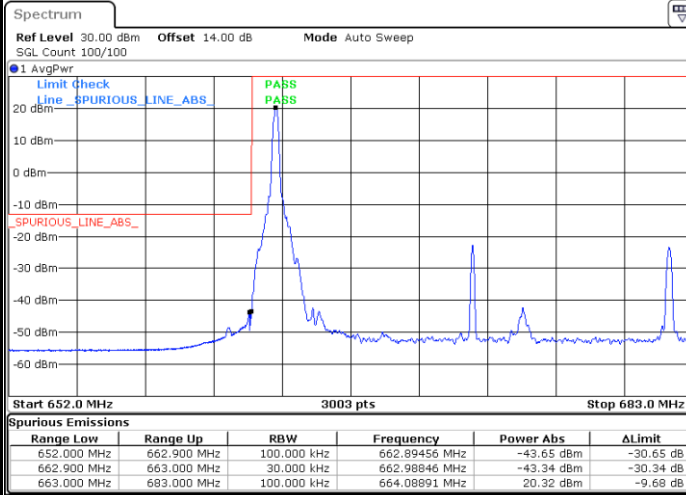
Highest Band Edge / Full RB



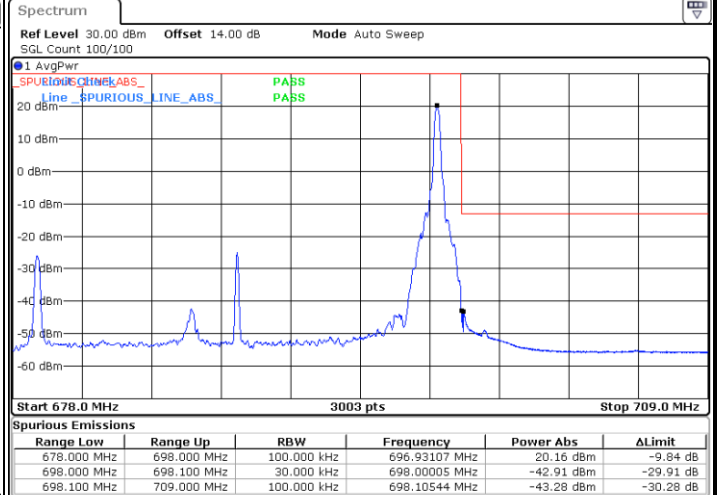


LTE Band 71 / 20MHz / QPSK

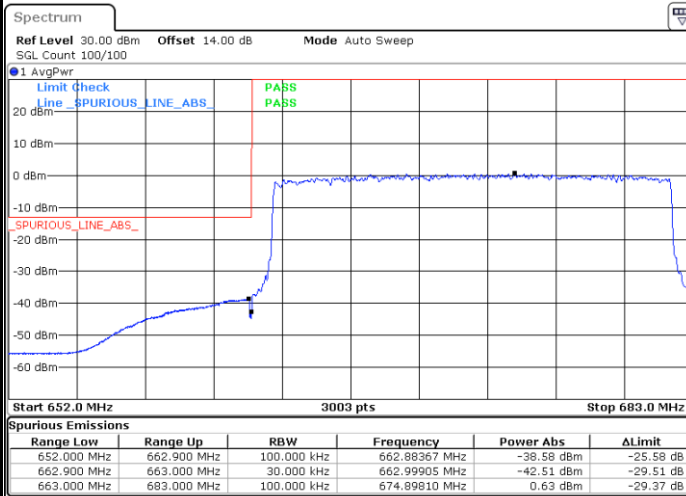
Lowest Band Edge / 1 RB



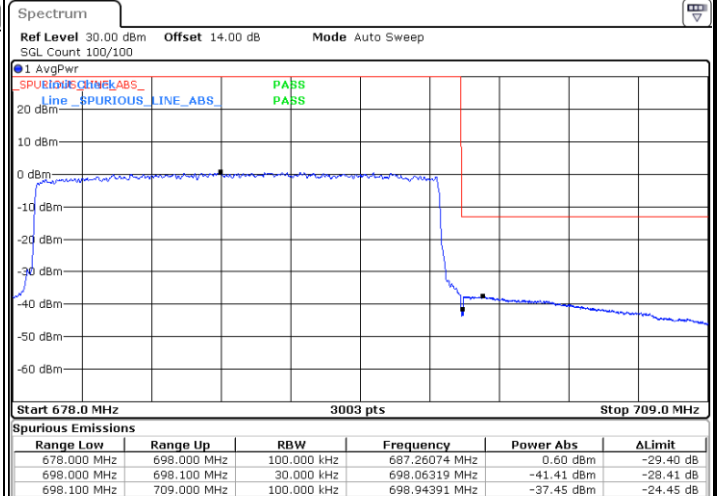
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



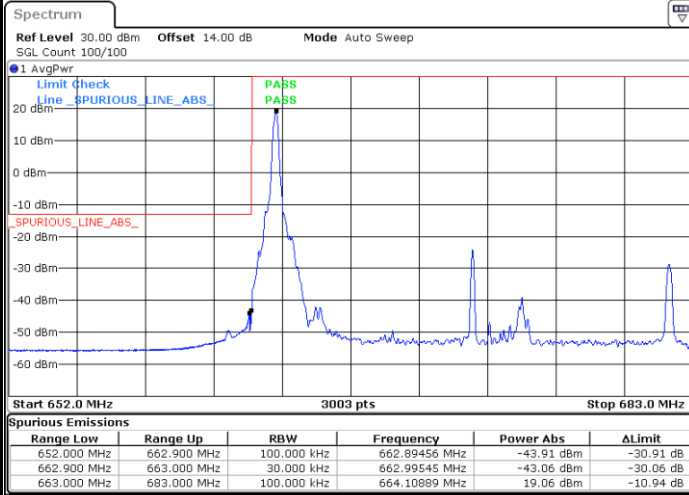
Highest Band Edge / Full RB



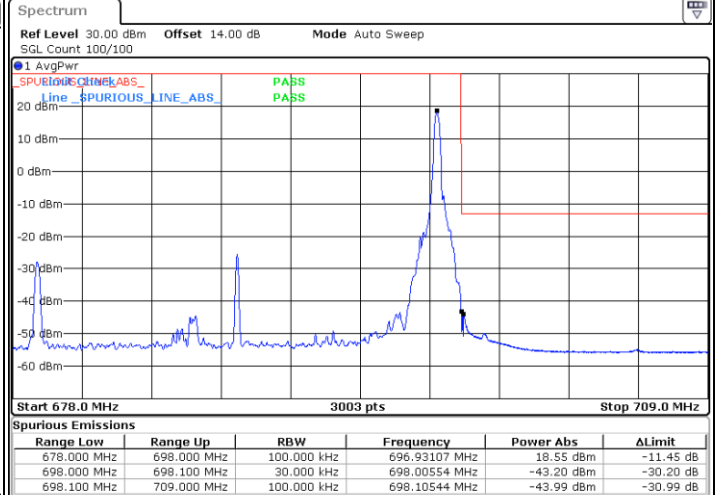


LTE Band 71 / 20MHz / 16QAM

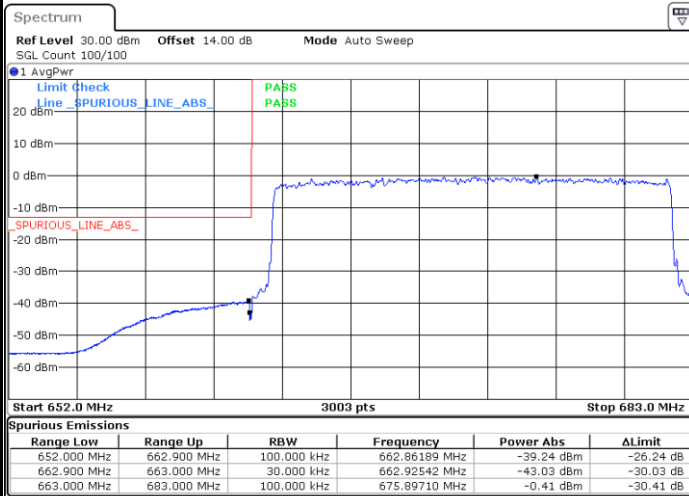
Lowest Band Edge / 1RB



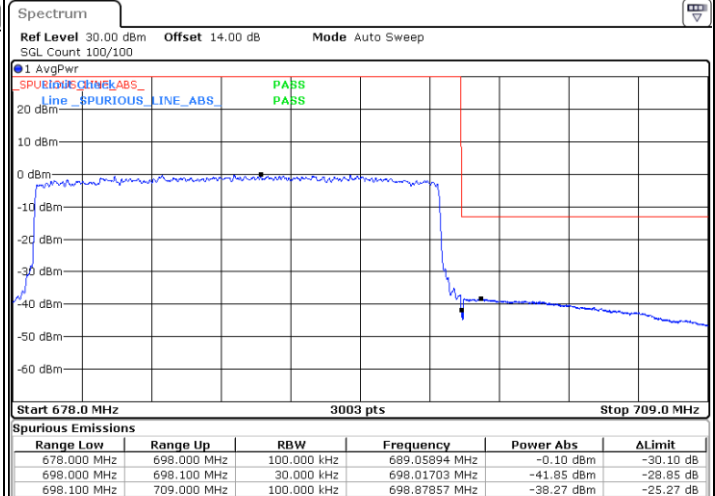
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

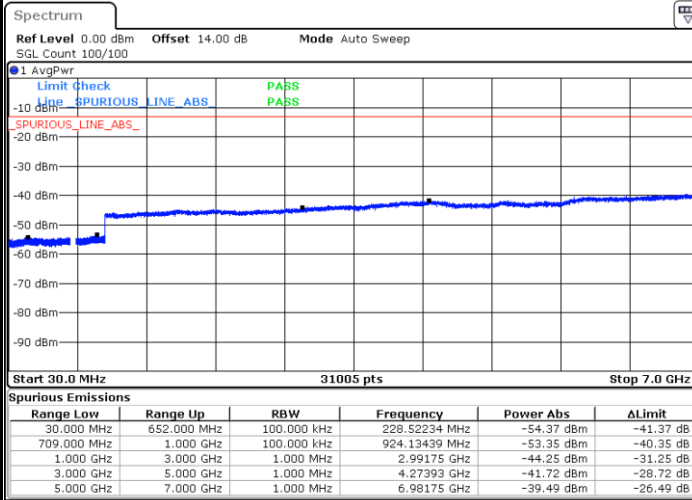




Conducted Spurious Emission

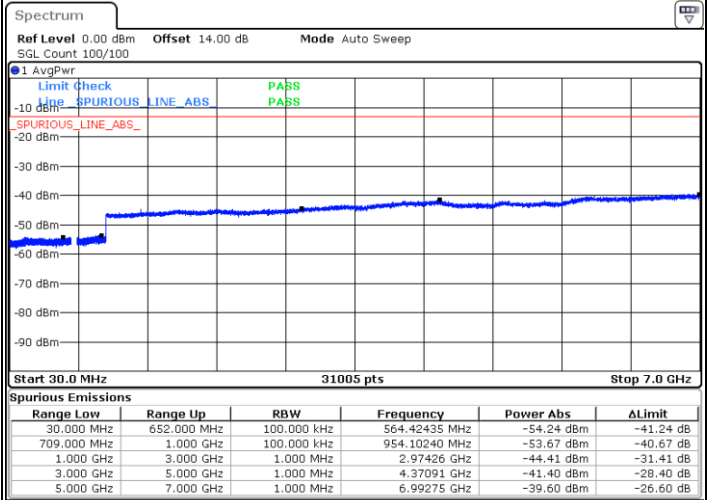
LTE Band 71 / 5MHz

Lowest Channel / QPSK



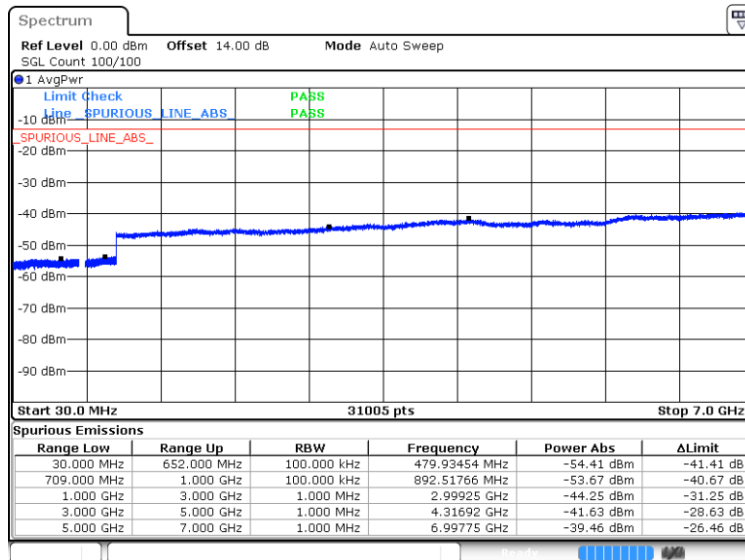
Date: 31.MAR.2025 21:58:53

Middle Channel / QPSK



Date: 31.MAR.2025 22:00:02

Highest Channel / QPSK

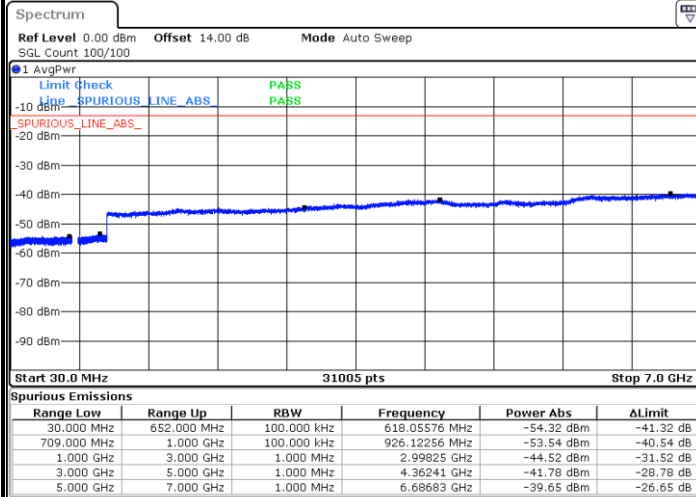


Date: 31.MAR.2025 22:07:44



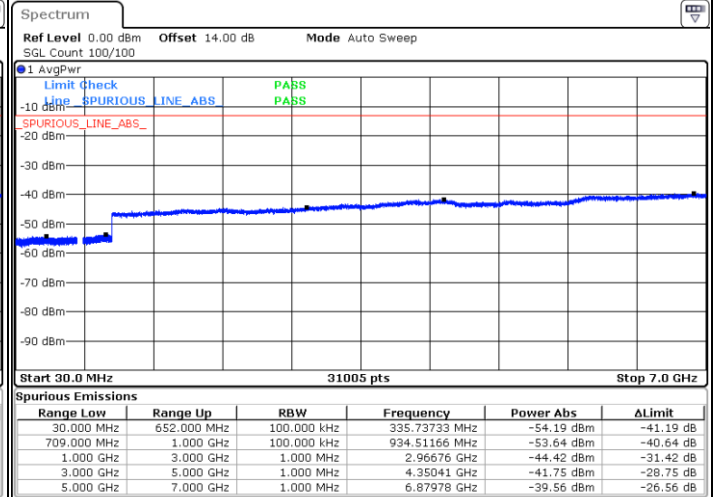
LTE Band 71 / 10MHz

Lowest Channel / QPSK



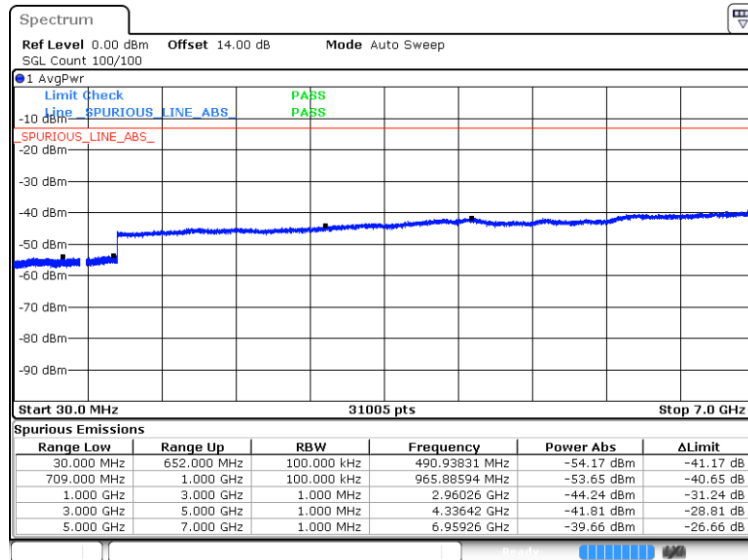
Date: 31.MAR.2025 22:14:51

Middle Channel / QPSK



Date: 31.MAR.2025 22:16:00

Highest Channel / QPSK

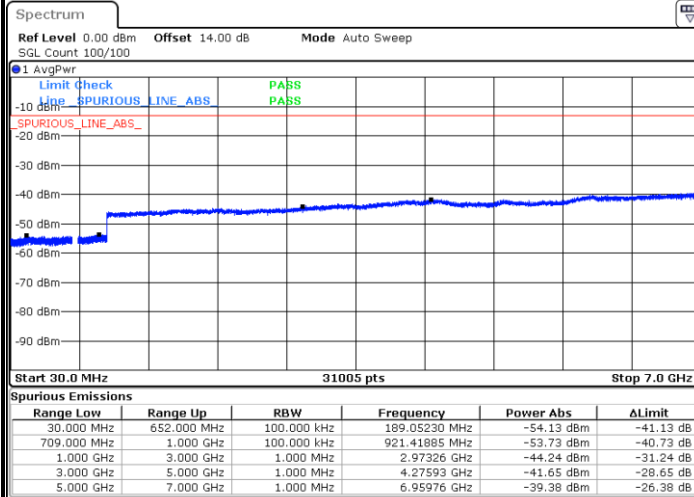


Date: 31.MAR.2025 22:23:48



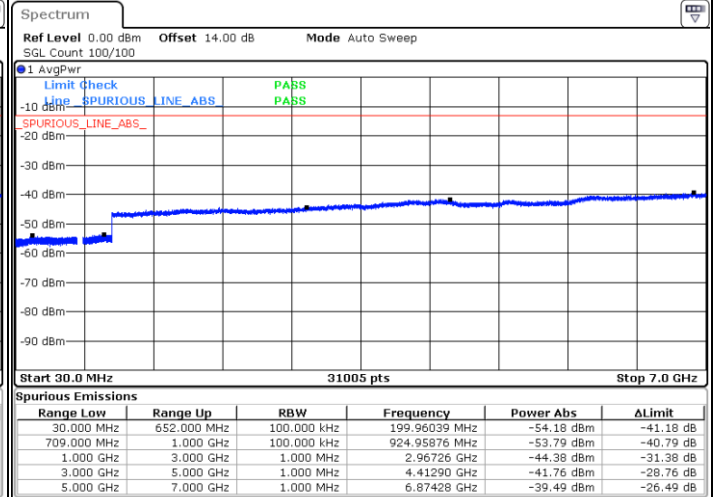
LTE Band 71 / 15MHz

Lowest Channel / QPSK



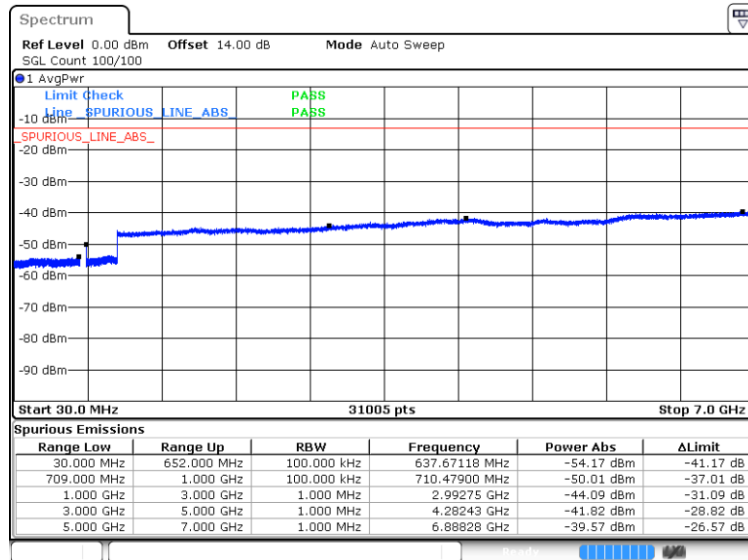
Date: 31.MAR.2025 23:18:51

Middle Channel / QPSK



Date: 31.MAR.2025 23:19:59

Highest Channel / QPSK

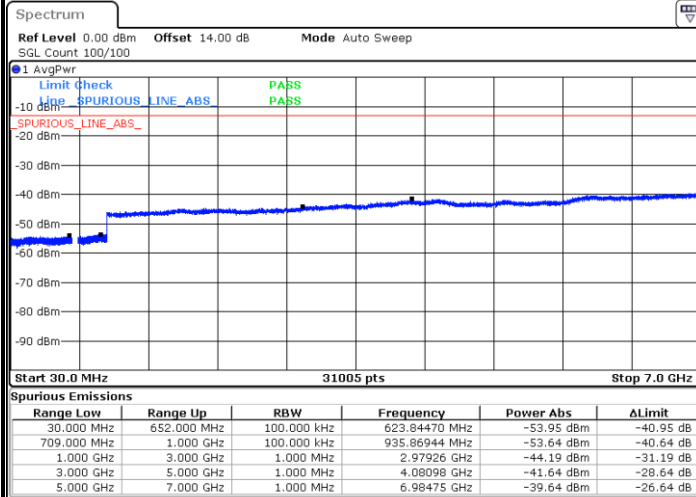


Date: 31.MAR.2025 23:27:47



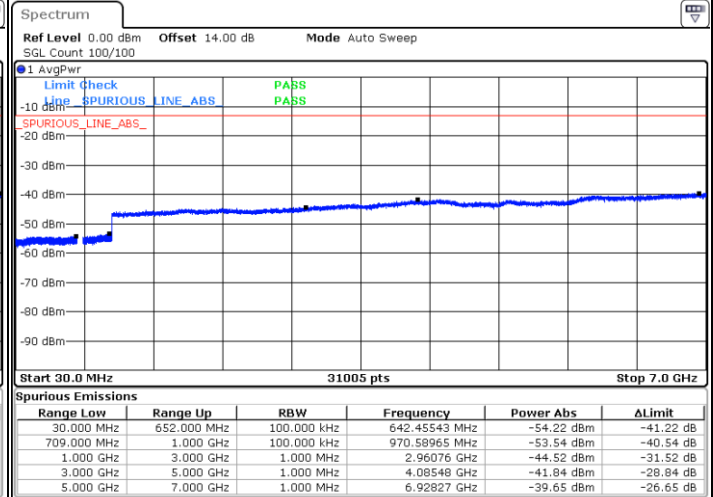
LTE Band 71 / 20MHz

Lowest Channel / QPSK



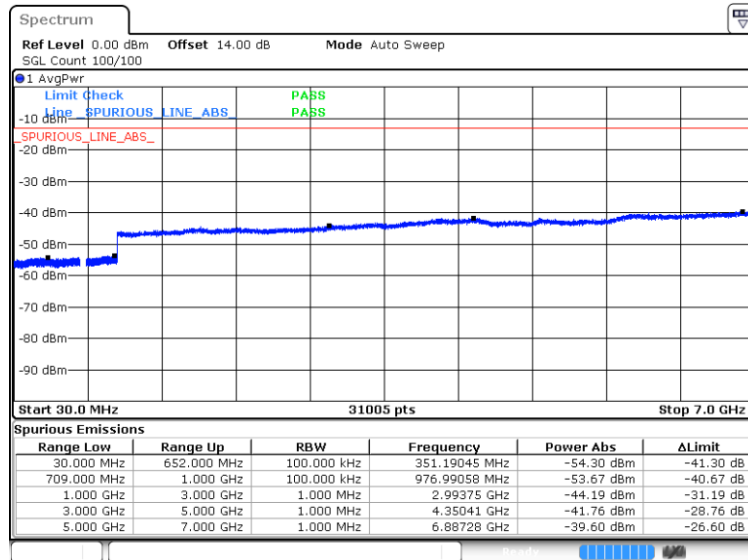
Date: 31.MAR.2025 23:35:00

Middle Channel / QPSK



Date: 31.MAR.2025 23:36:09

Highest Channel / QPSK



Date: 31.MAR.2025 23:43:57

Frequency Stability

Test Conditions		LTE Band 71 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Note 2.
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	3.4	PASS
40	Normal Voltage	3.9	
30	Normal Voltage	4.9	
20(Ref.)	Normal Voltage	2.2	
10	Normal Voltage	-3.7	
0	Normal Voltage	-1.1	
-10	Normal Voltage	-2.3	
-20	Normal Voltage	2	
-30	Normal Voltage	2.9	
20	Maximum Voltage	4.1	
20	Normal Voltage	2.2	
20	Minimum Voltage	-4.4	

Note:

1. Normal Voltage = 12 V.; Minimum Voltage = 9 V.; Maximum Voltage = 43 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

$$|\text{MAX}(\Delta f)| = 4.9\text{Hz}$$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	663.272225	$\geq 663 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	697.747755	$\leq 698 \text{ MHz}$	



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Jake	Temperature :	21~25℃
		Relative Humidity :	51~53%

For Sample 1:

LTE Band 7 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5008	-59.69	-25	-34.69	-69.90	3.03	13.24	H
	7500	-59.86	-25	-34.86	-69.31	3.56	13.01	H
	10006	-59.26	-25	-34.26	-68.78	3.92	13.44	H
	5008	-59.74	-25	-34.74	-69.95	3.03	13.24	V
	7500	-60.75	-25	-35.75	-70.20	3.56	13.01	V
	10006	-60.20	-25	-35.20	-69.72	3.92	13.44	V
Middle	5050	-60.46	-25	-35.46	-70.67	3.03	13.24	H
	7584	-60.68	-25	-35.68	-70.13	3.56	13.01	H
	10104	-60.27	-25	-35.27	-69.79	3.92	13.44	H
	5050	-60.85	-25	-35.85	-71.06	3.03	13.24	V
	7584	-61.01	-25	-36.01	-70.46	3.56	13.01	V
	10104	-60.32	-25	-35.32	-69.84	3.92	13.44	V
Highest	5106	-60.95	-25	-35.95	-71.16	3.03	13.24	H
	7654	-60.02	-25	-35.02	-69.47	3.56	13.01	H
	10202	-58.85	-25	-33.85	-68.37	3.92	13.44	H
	5106	-60.67	-25	-35.67	-70.88	3.03	13.24	V
	7654	-59.36	-25	-34.36	-68.81	3.56	13.01	V
	10202	-59.35	-25	-34.35	-68.87	3.92	13.44	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-66.24	-13	-53.24	-73.21	1.58	10.70	H
	2112	-60.65	-13	-47.65	-68.90	2.102	12.50	H
	2816	-57.88	-13	-44.88	-66.77	2.856	13.90	H
	1408	-64.27	-13	-51.27	-71.24	1.58	10.70	V
	2112	-57.46	-13	-44.46	-65.71	2.10	12.50	V
	2816	-57.36	-13	-44.36	-66.25	2.86	13.90	V
Middle	1408	-65.08	-13	-52.08	-72.05	1.58	10.70	H
	2120	-60.08	-13	-47.08	-68.33	2.102	12.50	H
	2824	-57.50	-13	-44.50	-66.39	2.856	13.90	H
	1408	-62.73	-13	-49.73	-69.70	1.58	10.70	V
	2120	-59.52	-13	-46.52	-67.77	2.10	12.50	V
	2824	-57.17	-13	-44.17	-66.06	2.86	13.90	V
Highest	1416	-64.50	-13	-51.50	-71.47	1.58	10.70	H
	2120	-60.29	-13	-47.29	-68.54	2.102	12.50	H
	2824	-57.46	-13	-44.46	-66.35	2.856	13.90	H
	1416	-63.05	-13	-50.05	-70.02	1.58	10.70	V
	2120	-59.32	-13	-46.32	-67.57	2.10	12.50	V
	2824	-57.26	-13	-44.26	-66.15	2.86	13.90	V

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

LTE Band 13 / 5MHz / QPSK								
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	1552	-58.01	-13	-45.01	-60.64	1.09	5.87	H
	2328	-59.43	-13	-46.43	-61.83	1.37	5.92	H
	3112	-57.64	-13	-44.64	-61.53	1.64	7.68	H
	1552	-61.64	-13	-48.64	-64.27	1.09	5.87	V
	2328	-58.10	-13	-45.10	-60.50	1.37	5.92	V
	3112	-57.44	-13	-44.44	-61.33	1.64	7.68	V
Middle	1560	-59.54	-42.15	-17.39	-62.17	1.09	5.87	H
	2336	-59.80	-13	-46.80	-62.20	1.37	5.92	H
	3120	-57.92	-13	-44.92	-61.81	1.64	7.68	H
	1560	-62.88	-42.15	-20.73	-65.51	1.09	5.87	V
	2336	-58.04	-13	-45.04	-60.44	1.37	5.92	V
	3120	-57.54	-13	-44.54	-61.43	1.64	7.68	V
Highest	1568	-61.08	-42.15	-18.93	-63.71	1.09	5.87	H
	2344	-59.50	-13	-46.50	-61.90	1.37	5.92	H
	3128	-58.35	-13	-45.35	-62.24	1.64	7.68	H
	1568	-63.18	-42.15	-21.03	-65.81	1.09	5.87	V
	2344	-57.96	-13	-44.96	-60.36	1.37	5.92	V
	3128	-57.91	-13	-44.91	-61.80	1.64	7.68	V

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



LTE Band 13 / 10MHz / QPSK								
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	1552	-58.71	-13	-45.71	-61.34	1.09	5.87	H
	2328	-59.44	-13	-46.44	-61.84	1.37	5.92	H
	3112	-57.73	-13	-44.73	-61.62	1.64	7.68	H
	1552	-61.32	-13	-48.32	-63.95	1.09	5.87	V
	2328	-57.70	-13	-44.70	-60.10	1.37	5.92	V
	3112	-57.27	-13	-44.27	-61.16	1.64	7.68	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4994	-59.70	-25	-34.70	-69.91	3.03	13.24	H
	7486	-61.13	-25	-36.13	-70.58	3.56	13.01	H
	9992	-60.00	-25	-35.00	-69.52	3.92	13.44	H
	4994	-59.94	-25	-34.94	-70.15	3.03	13.24	V
	7486	-60.14	-25	-35.14	-69.59	3.56	13.01	V
	9992	-60.03	-25	-35.03	-69.55	3.92	13.44	V
Middle	5162	-61.11	-25	-36.11	-71.32	3.03	13.24	H
	7752	-60.39	-25	-35.39	-69.84	3.56	13.01	H
	10342	-60.11	-25	-35.11	-69.63	3.92	13.44	H
	5162	-61.25	-25	-36.25	-71.46	3.03	13.24	V
	7752	-60.09	-25	-35.09	-69.54	3.56	13.01	V
	10342	-60.34	-25	-35.34	-69.86	3.92	13.44	V
Highest	5344	-62.57	-25	-37.57	-72.78	3.03	13.24	H
	8018	-58.91	-25	-33.91	-68.36	3.56	13.01	H
	10678	-58.28	-25	-33.28	-67.80	3.92	13.44	H
	5344	-62.38	-25	-37.38	-72.59	3.03	13.24	V
	8018	-59.40	-25	-34.40	-68.85	3.56	13.01	V
	10678	-59.11	-25	-34.11	-68.63	3.92	13.44	V

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



LTE Band 71 / 20MHz / QPSK								
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	1328	-65.57	-13	-52.57	-67.32	1.02	4.92	H
	1992	-60.71	-13	-47.71	-62.68	1.27	5.39	H
	2656	-58.51	-13	-45.51	-61.44	1.49	6.57	H
	1328	-63.70	-13	-50.70	-65.45	1.02	4.92	V
	1992	-59.40	-13	-46.40	-61.37	1.27	5.39	V
	2656	-58.05	-13	-45.05	-60.98	1.49	6.57	V
Middle	1344	-64.60	-13	-51.60	-66.35	1.02	4.92	H
	2016	-60.29	-13	-47.29	-62.26	1.27	5.39	H
	2688	-58.52	-13	-45.52	-61.45	1.49	6.57	H
	1344	-60.26	-13	-47.26	-62.01	1.02	4.92	V
	2016	-59.18	-13	-46.18	-61.15	1.27	5.39	V
	2688	-58.14	-13	-45.14	-61.07	1.49	6.57	V
Highest	1360	-66.06	-13	-53.06	-67.81	1.02	4.92	H
	2040	-61.00	-13	-48.00	-62.97	1.27	5.39	H
	2712	-58.59	-13	-45.59	-61.52	1.49	6.57	H
	1360	-65.55	-13	-52.55	-67.30	1.02	4.92	V
	2040	-58.29	-13	-45.29	-60.26	1.27	5.39	V
	2712	-58.26	-13	-45.26	-61.19	1.49	6.57	V

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

For Sample 2:

LTE Band 13 / 5MHz / QPSK								
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	1552	-55.74	-13	-42.74	-58.37	1.09	5.87	H
	2328	-60.10	-13	-47.10	-62.50	1.37	5.92	H
	3112	-57.63	-13	-44.63	-61.52	1.64	7.68	H
	1552	-60.93	-13	-47.93	-63.56	1.09	5.87	V
	2328	-58.50	-13	-45.50	-60.90	1.37	5.92	V
	3112	-57.65	-13	-44.65	-61.54	1.64	7.68	V
Middle	1560	-59.38	-42.15	-17.23	-62.01	1.09	5.87	H
	2336	-59.70	-13	-46.70	-62.10	1.37	5.92	H
	3120	-57.57	-13	-44.57	-61.46	1.64	7.68	H
	1560	-63.37	-42.15	-21.22	-66.00	1.09	5.87	V
	2336	-58.23	-13	-45.23	-60.63	1.37	5.92	V
	3120	-57.56	-13	-44.56	-61.45	1.64	7.68	V
Highest	1560	-64.78	-42.15	-22.63	-67.41	1.09	5.87	H
	2344	-59.61	-13	-46.61	-62.01	1.37	5.92	H
	3128	-57.28	-13	-44.28	-61.17	1.64	7.68	H
	1560	-64.20	-42.15	-22.05	-66.83	1.09	5.87	V
	2344	-58.00	-13	-45.00	-60.40	1.37	5.92	V
	3128	-57.52	-13	-44.52	-61.41	1.64	7.68	V

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