

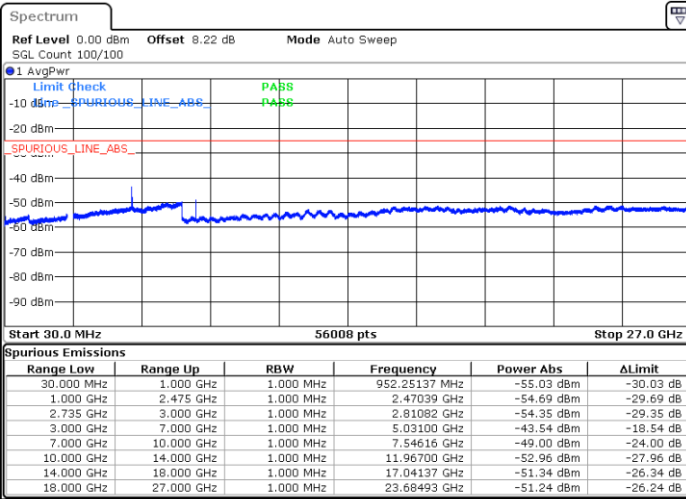


LTE Band 41C / 20MHz+10MHz

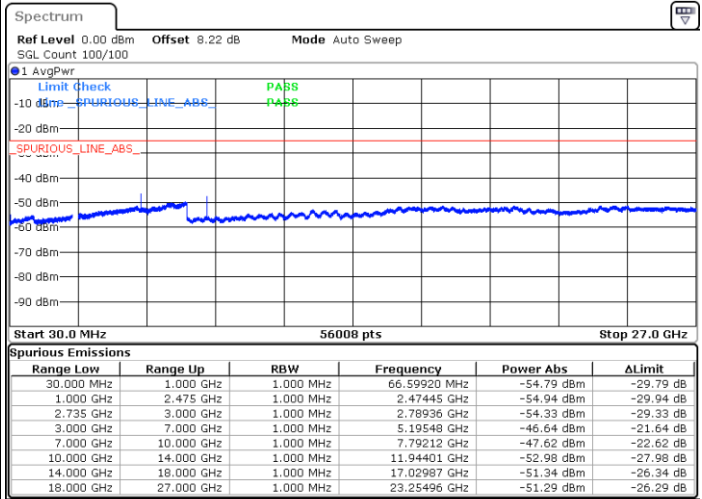
QPSK

Lowest Channel / 1RB99and 1RB0

Middle Channel / 1RB99 and 1RB0



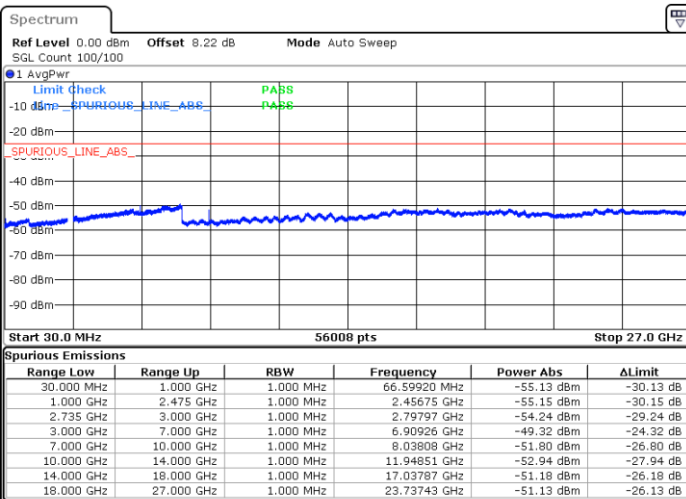
Date: 14 JUN 2022 06:17:41



Date: 14 JUN 2022 06:19:34

Highest Channel / 1RB99and 1RB0

N/A



Date: 14 JUN 2022 06:21:27

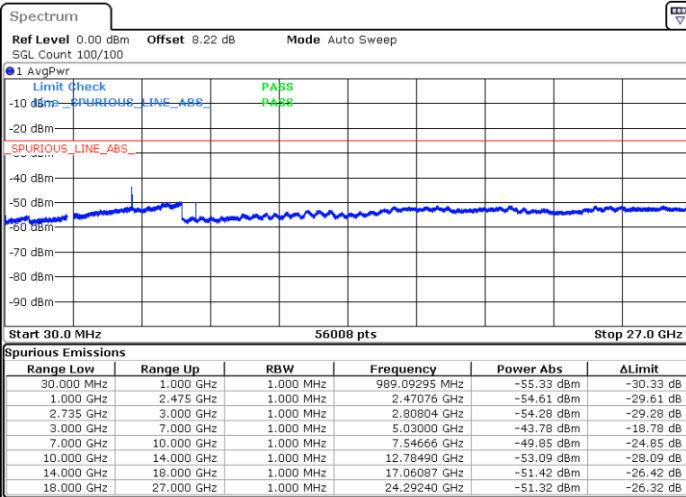


LTE Band 41C / 20MHz+15MHz

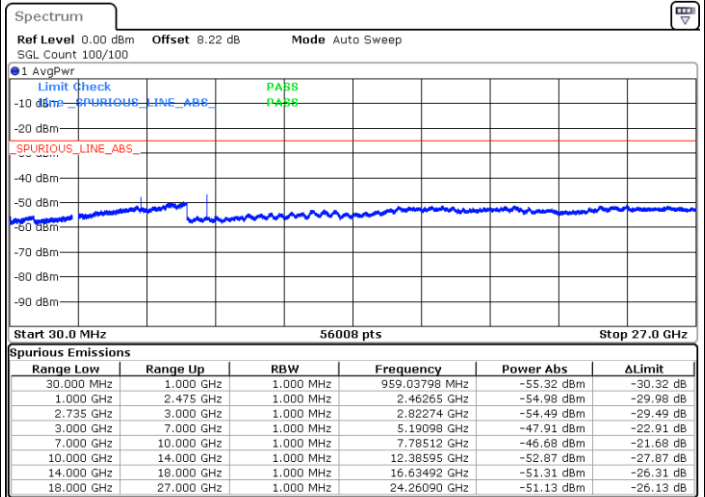
QPSK

Lowest Channel / 1RB99and 1RB0

Middle Channel / 1RB99 and 1RB0



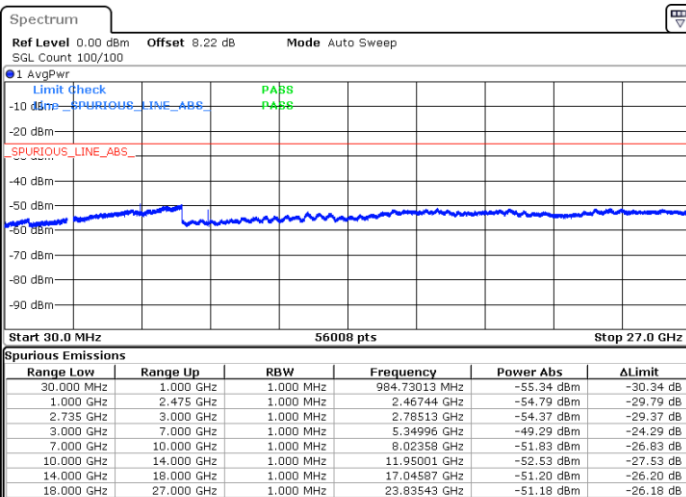
Date: 14 JUN 2022 06:34:42



Date: 14 JUN 2022 06:36:35

Highest Channel / 1RB99and 1RB0

N/A



Date: 14 JUN 2022 06:38:28

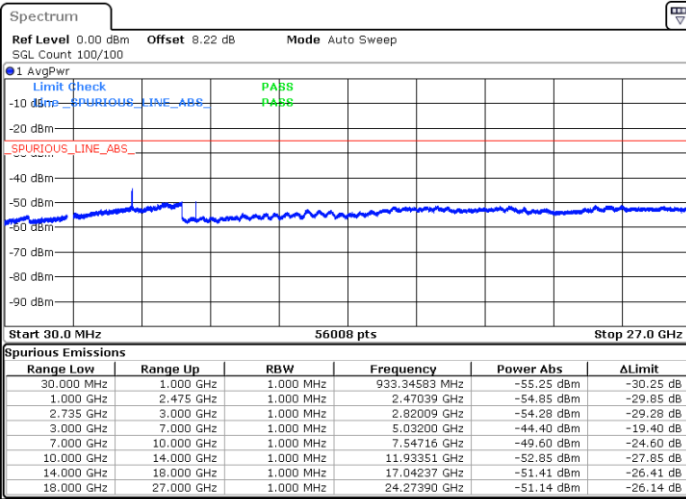


LTE Band 41C / 20MHz+20MHz

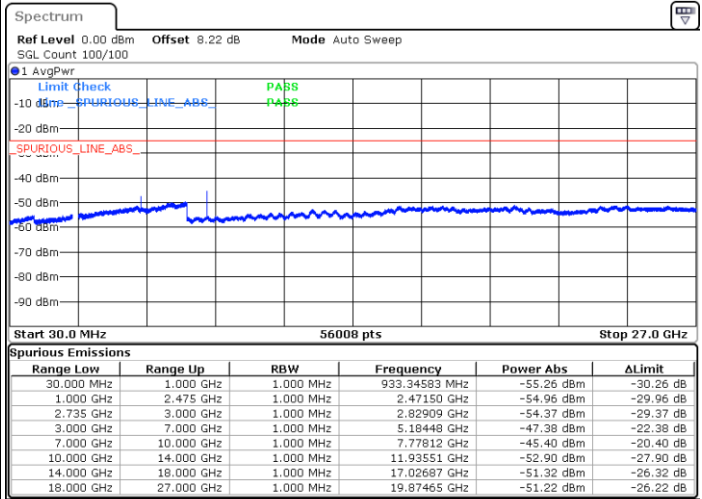
QPSK

Lowest Channel / 1RB99and 1RB0

Middle Channel / 1RB99 and 1RB0



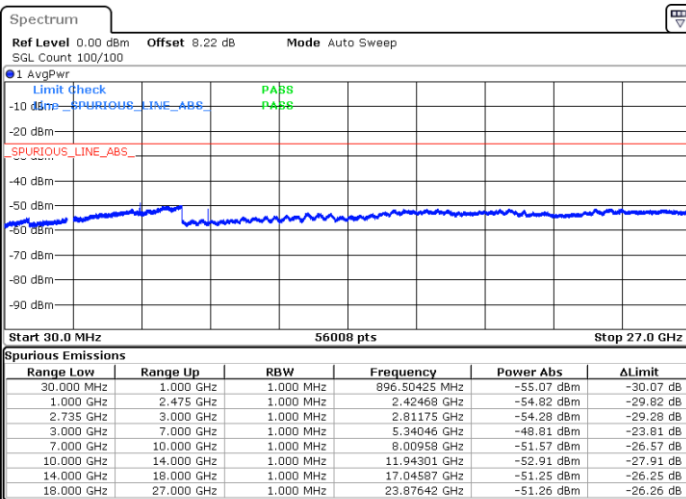
Date: 14 JUN 2022 06:40:22



Date: 14 JUN 2022 06:42:15

Highest Channel / 1RB99and 1RB0

N/A



Date: 14 JUN 2022 06:44:08

Frequency Stability

Test Conditions		LTE Band 41C (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 40MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0025	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Other PA

LTE Band 7

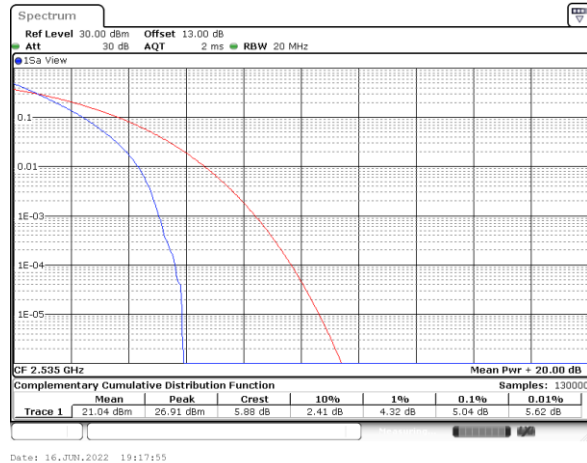
Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.04	6.06	6.67	PASS

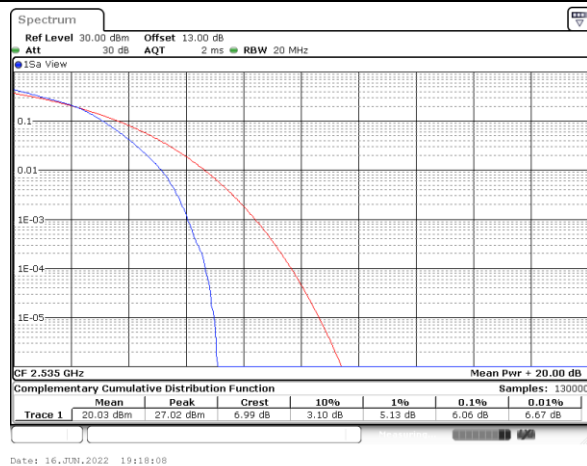


LTE Band 7 / 20MHz

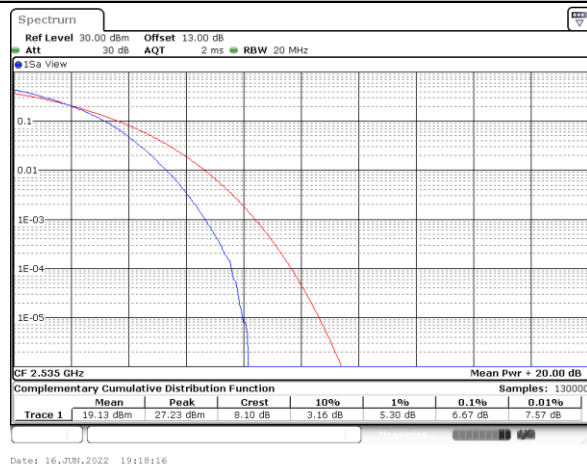
Middle Channel / Full RB/ QPSK



Middle Channel / Full RB/ 16QAM

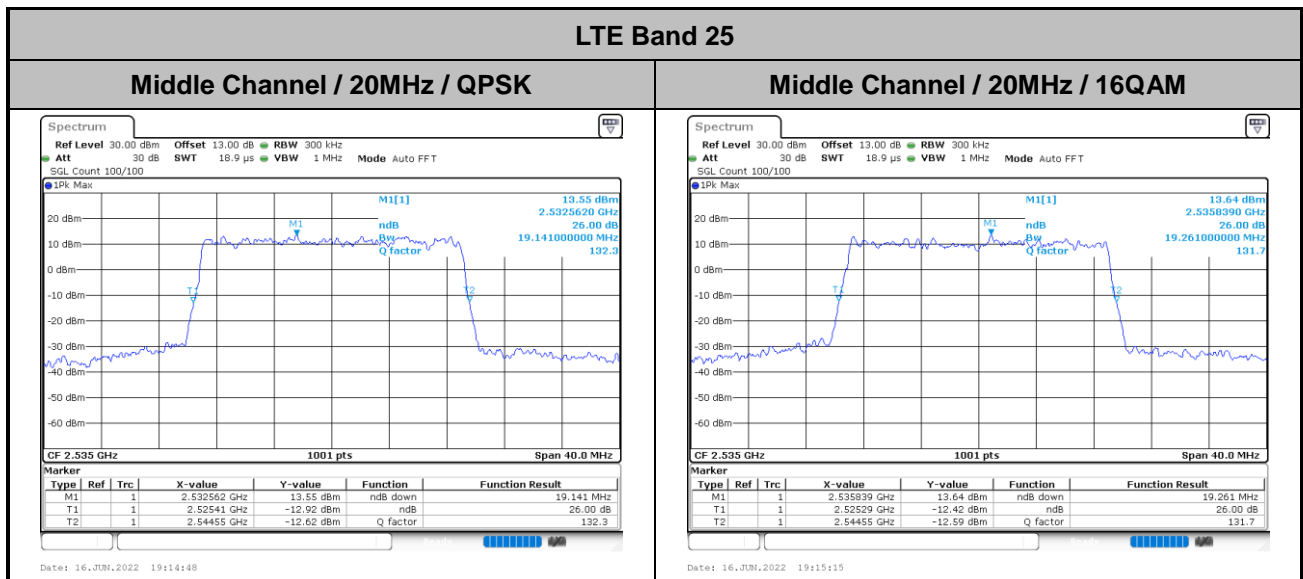


Middle Channel / Full RB/ 64QAM



**26dB Bandwidth**

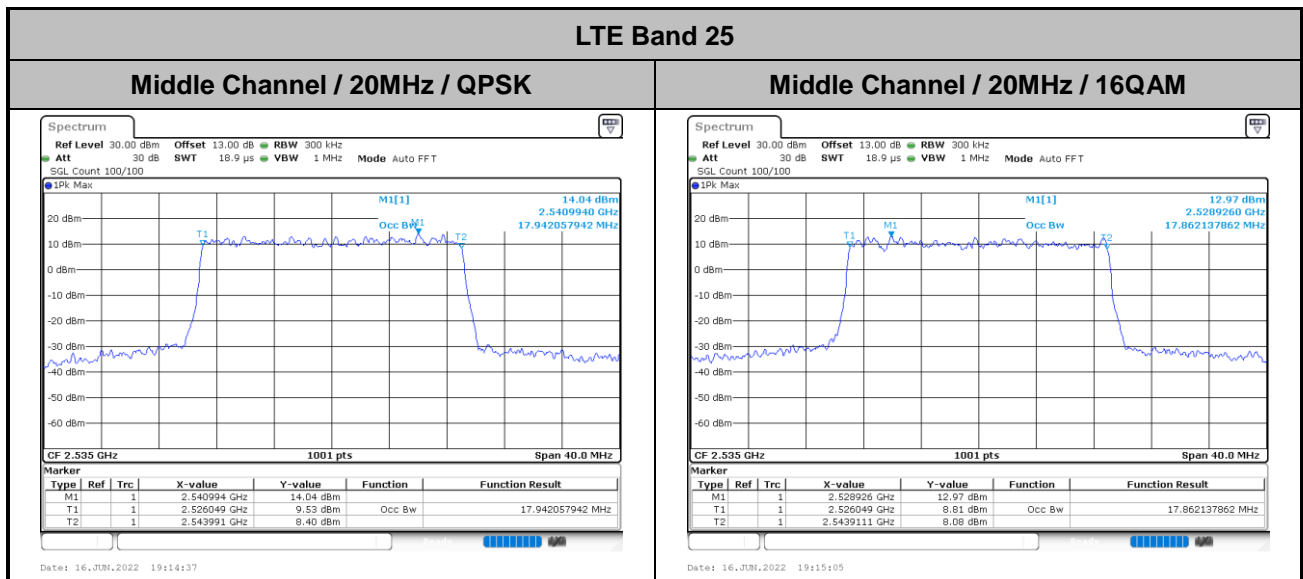
Mode	LTE Band 25 : 26dB BW(MHz)	
BW	20M	
Mod.	QPSK	16QAM
Middle CH	19.14	19.26





Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)	
BW	20M	
Mod.	QPSK	16QAM
Middle CH	17.94	17.86

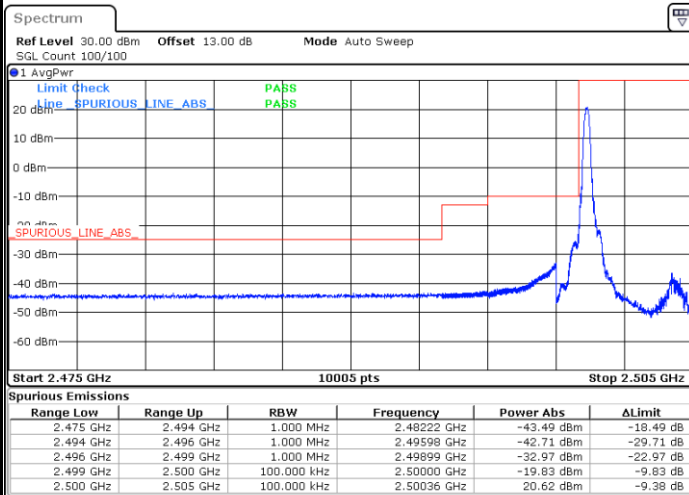




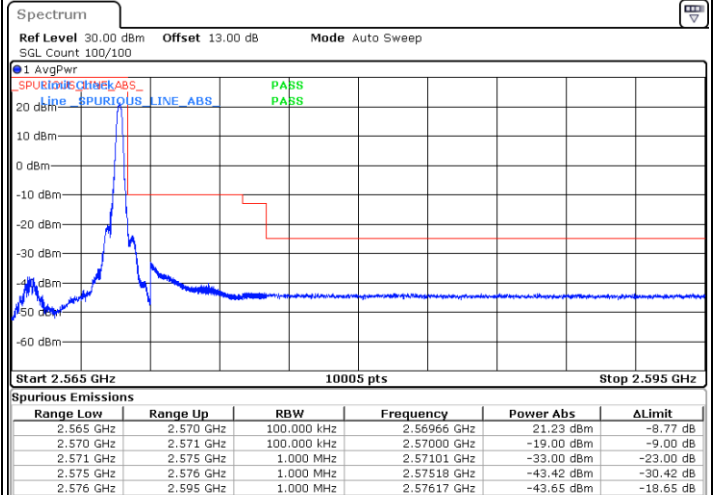
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

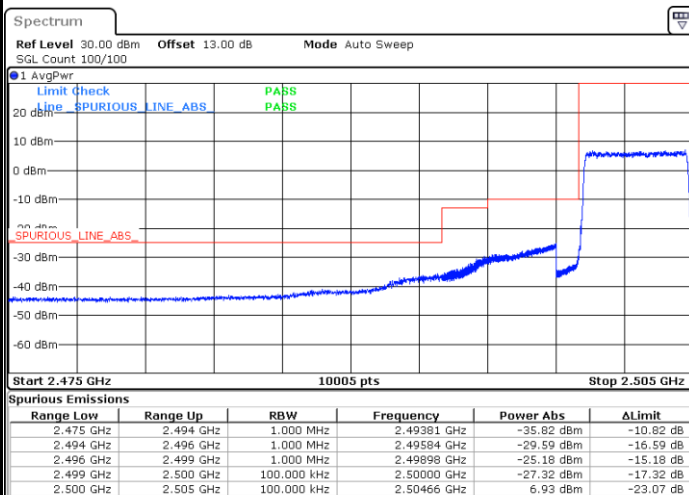
Lowest Band Edge / 1 RB



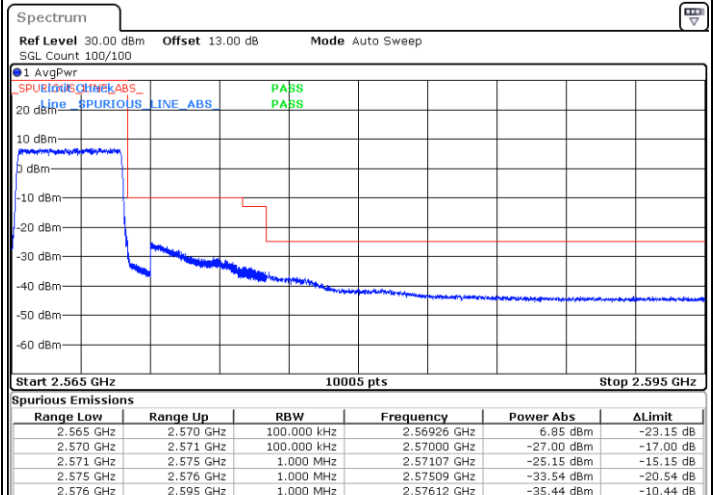
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



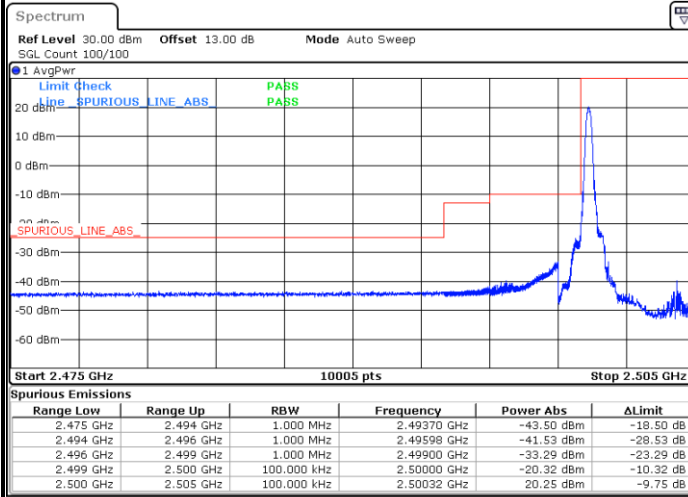
Highest Band Edge / Full RB



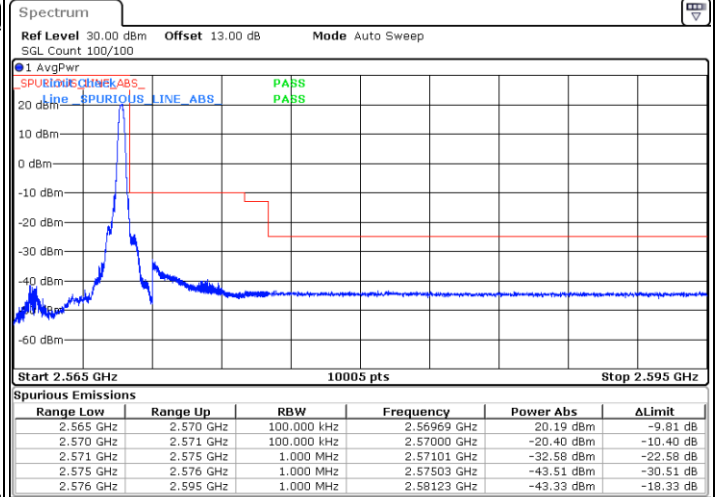


LTE Band 7 / 5MHz / 16QAM

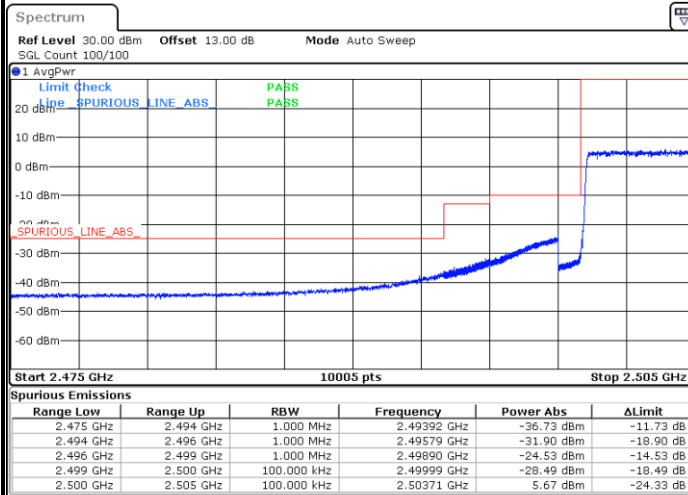
Lowest Band Edge / 1RB



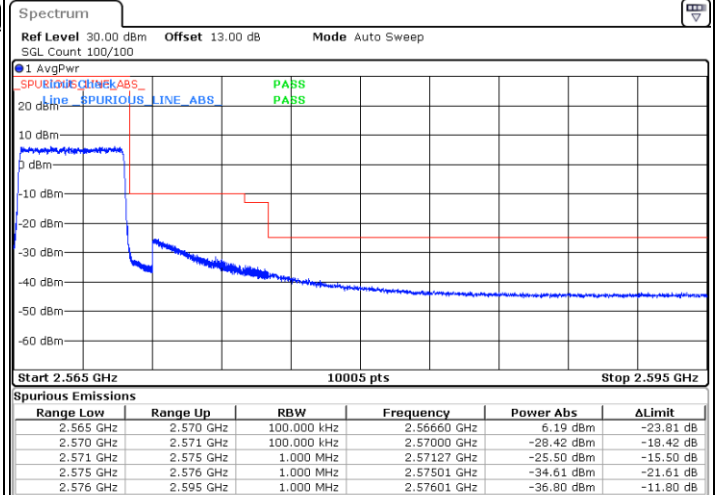
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



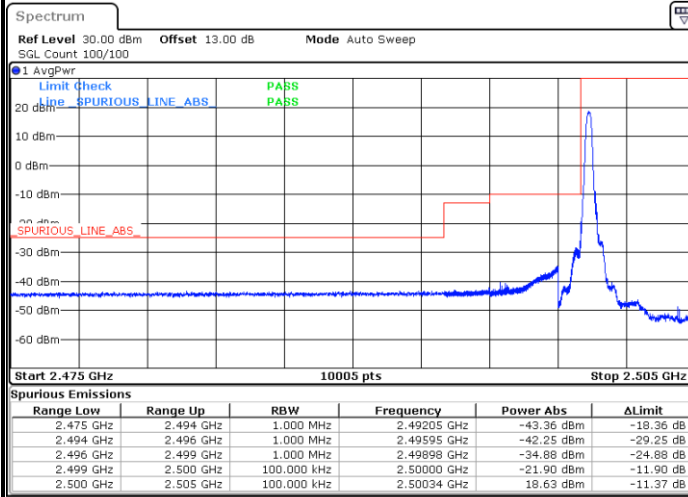
Highest Band Edge / Full RB



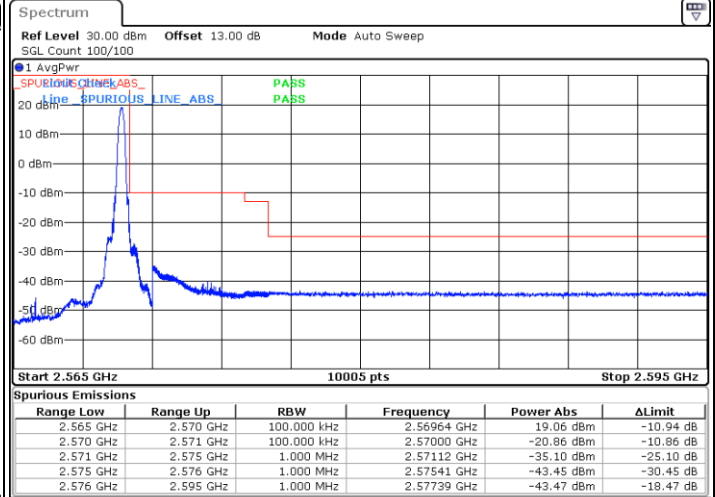


LTE Band 7 / 5MHz / 64QAM

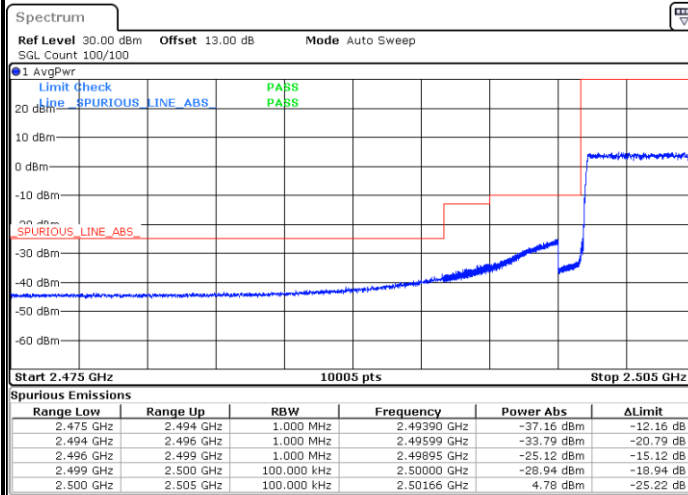
Lowest Band Edge / 1RB



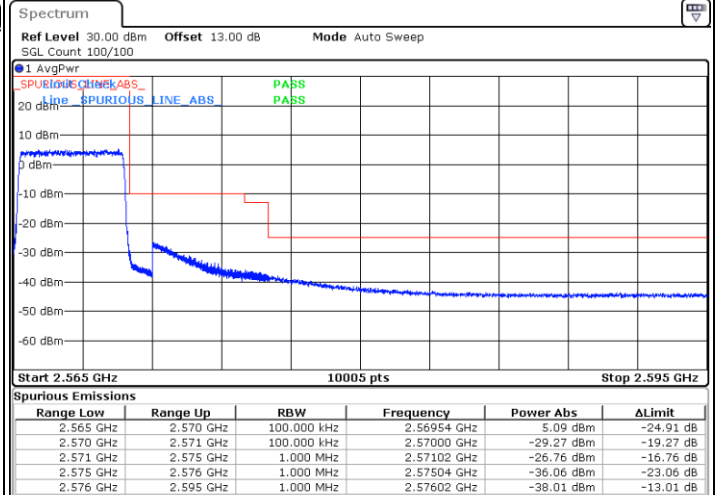
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



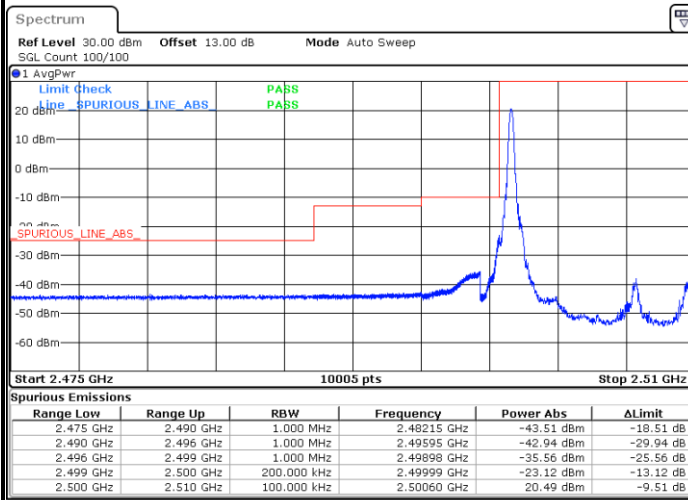
Highest Band Edge / Full RB



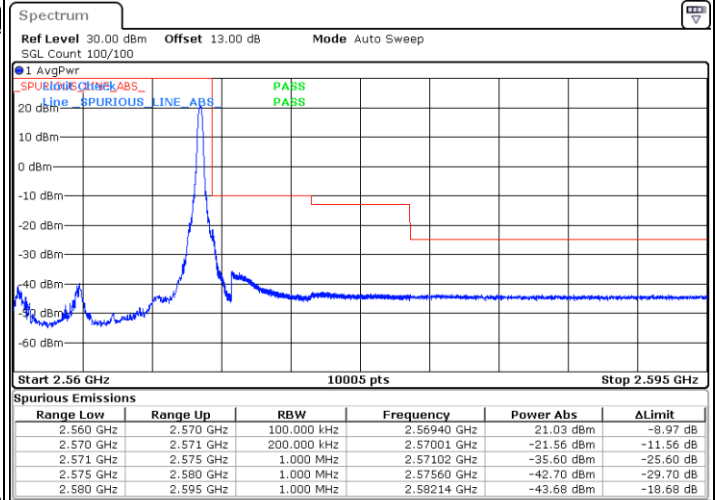


LTE Band 7 / 10MHz / QPSK

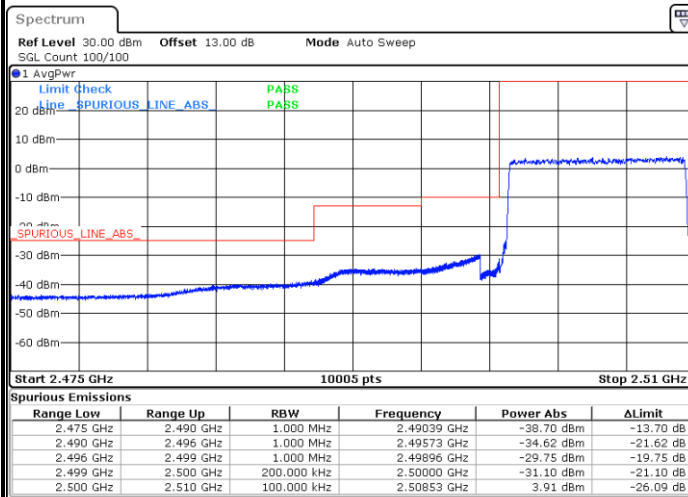
Lowest Band Edge / 1 RB



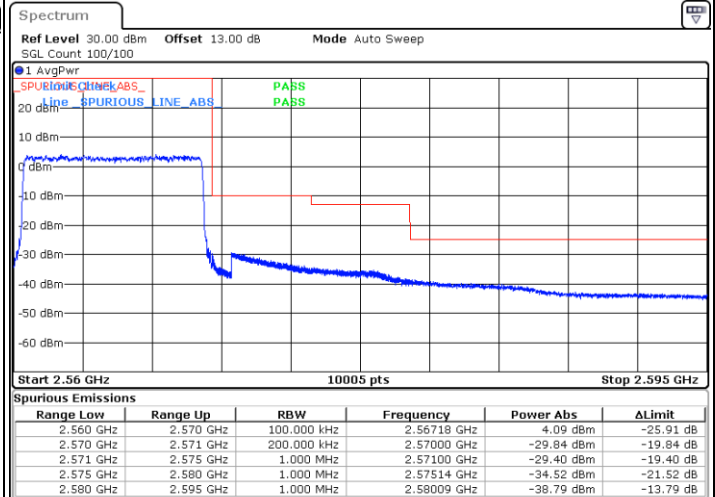
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



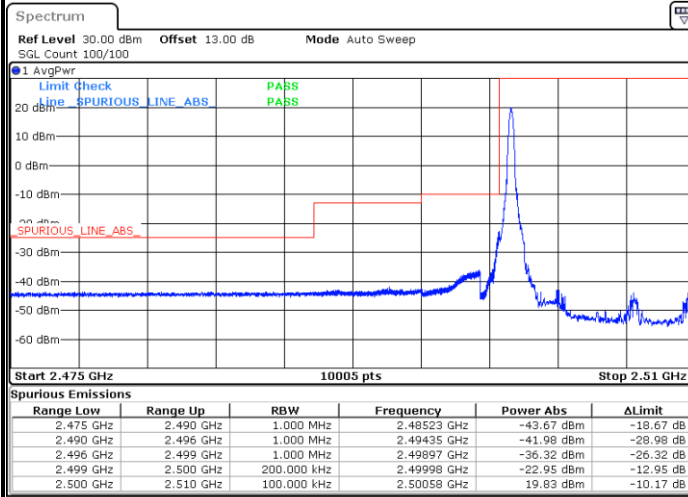
Highest Band Edge / Full RB



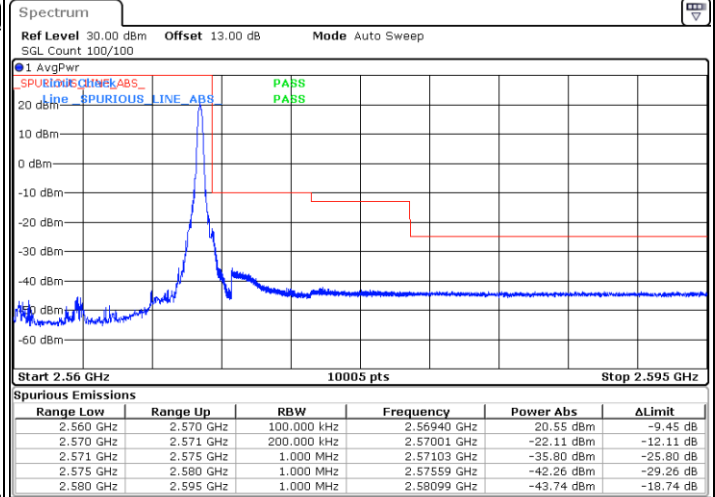


LTE Band 7 / 10MHz / 16QAM

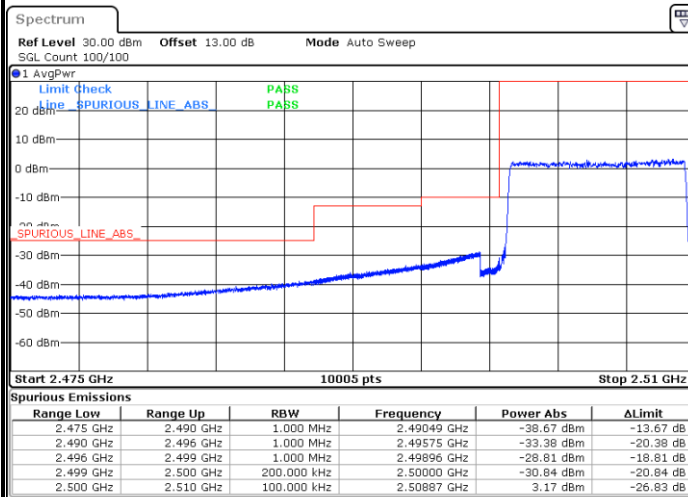
Lowest Band Edge / 1 RB



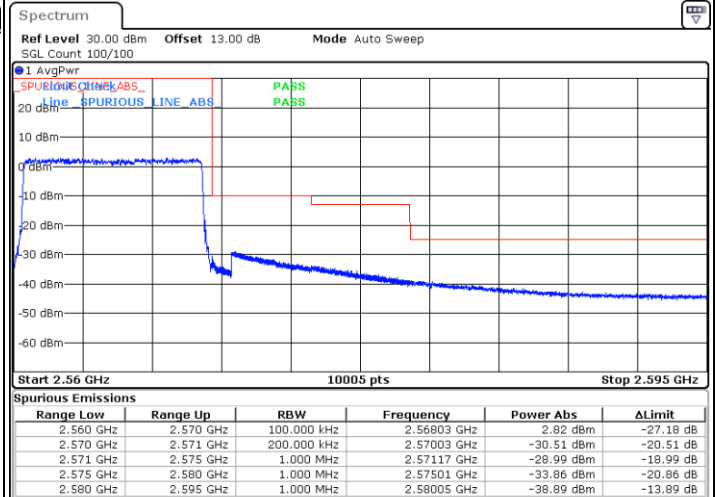
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



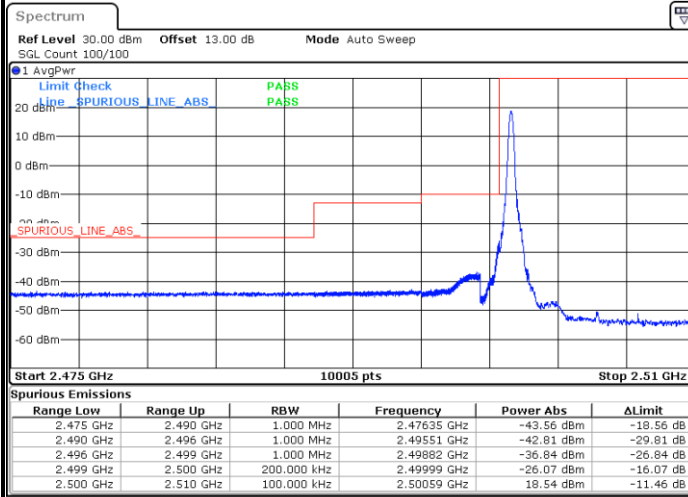
Highest Band Edge / Full RB



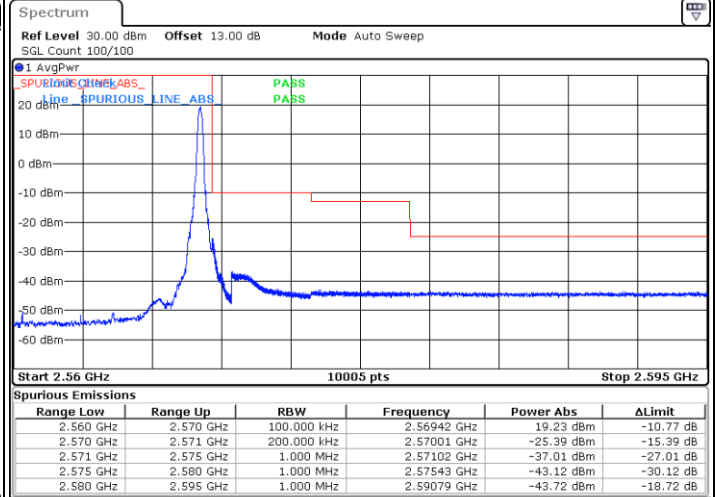


LTE Band 7 / 10MHz / 64QAM

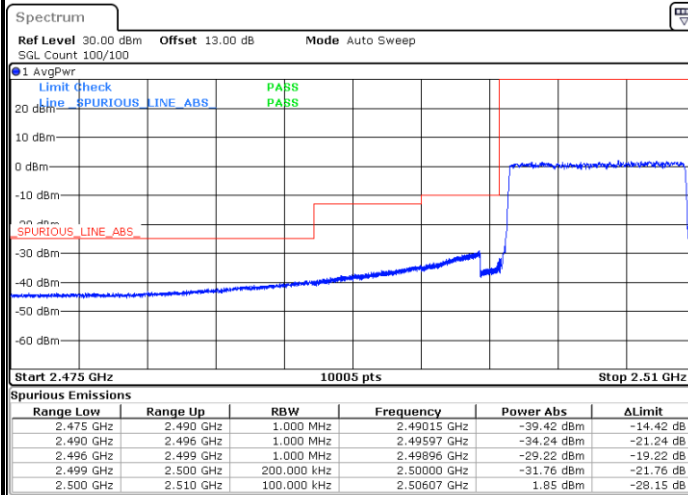
Lowest Band Edge / 1 RB



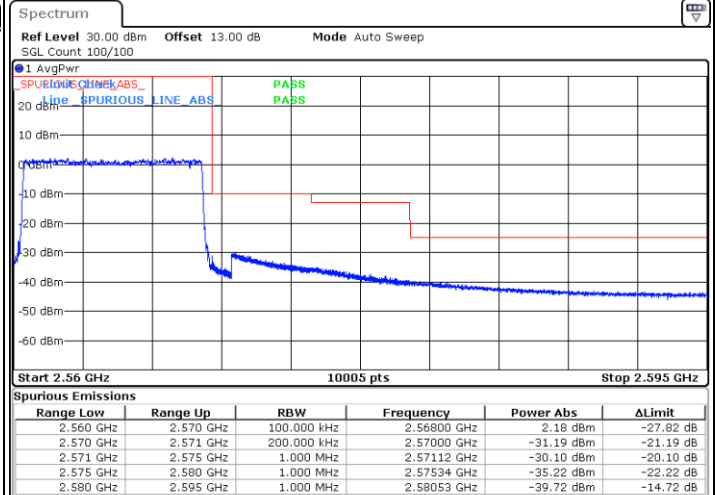
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



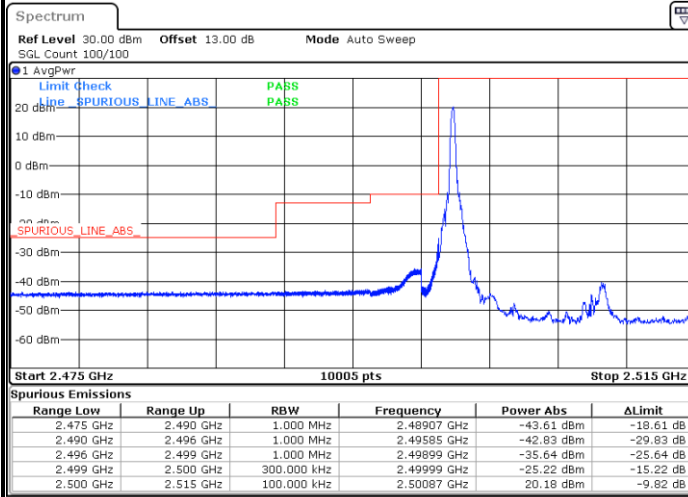
Highest Band Edge / Full RB



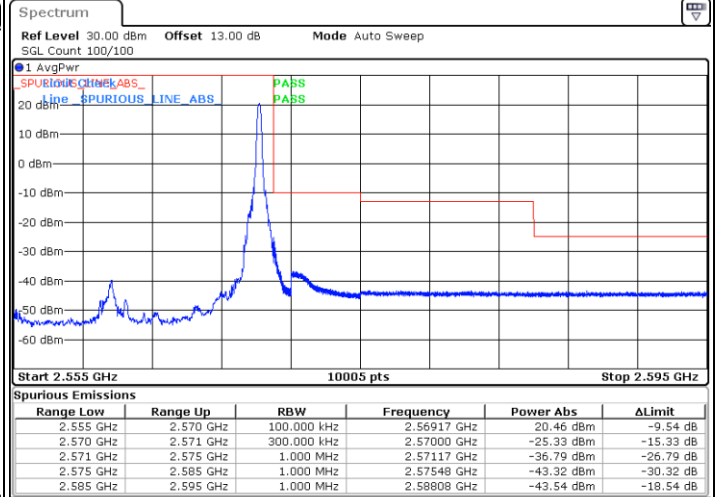


LTE Band 7 / 15MHz / QPSK

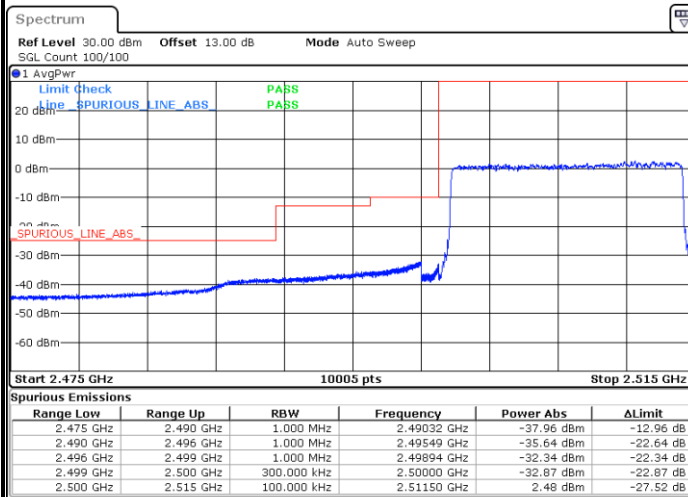
Lowest Band Edge / 1 RB



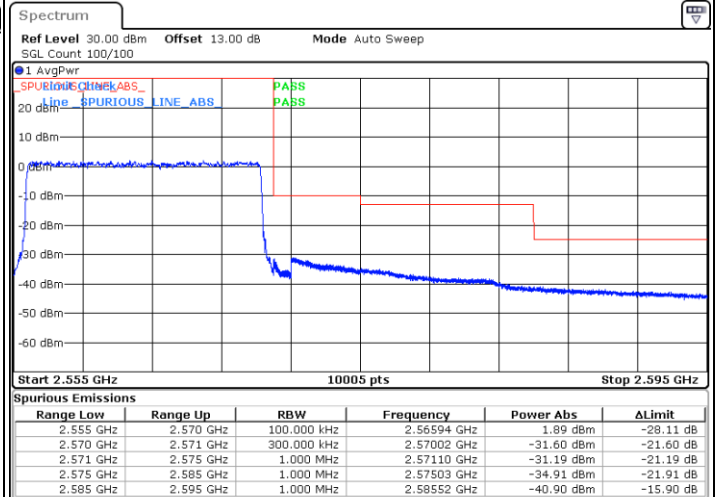
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



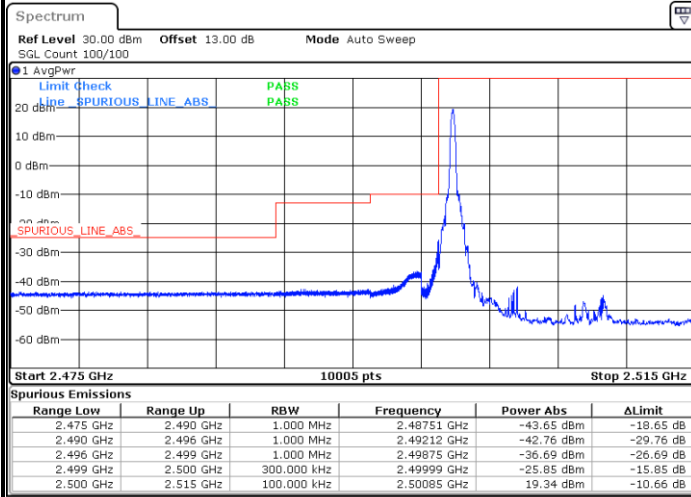
Highest Band Edge / Full RB



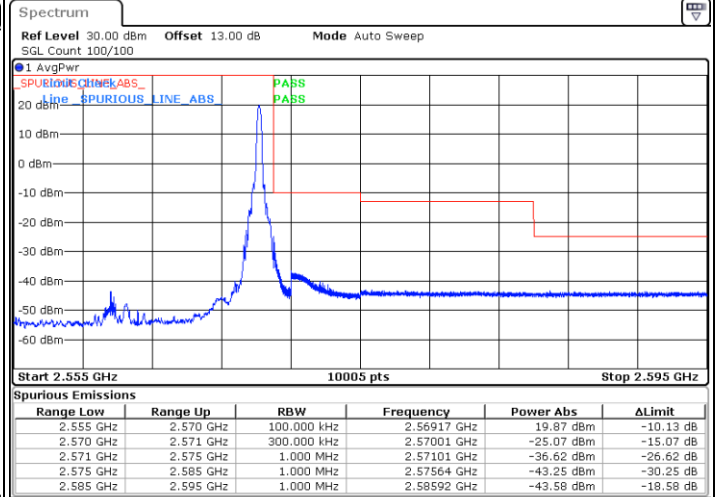


LTE Band 7 / 15MHz / 16QAM

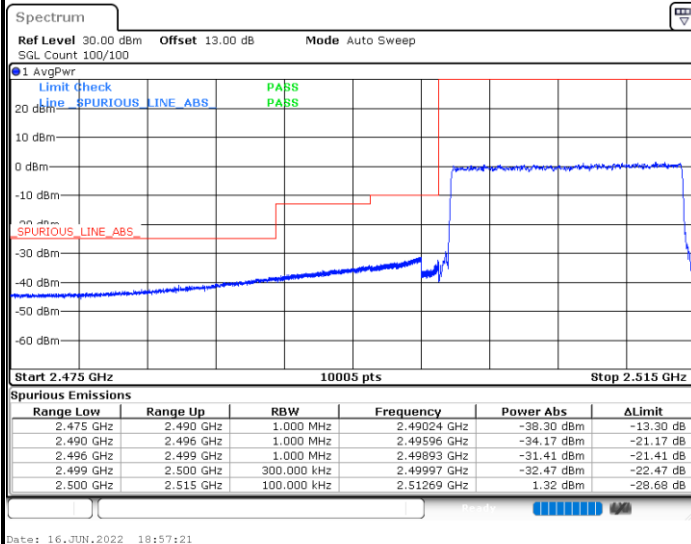
Lowest Band Edge / 1 RB



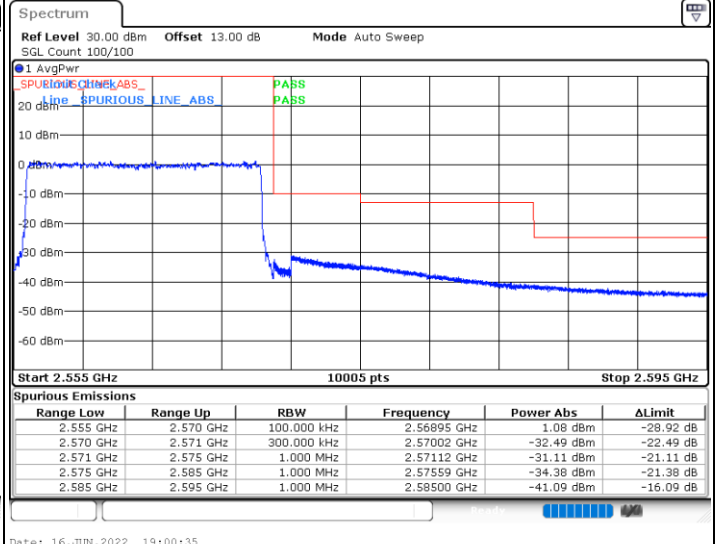
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



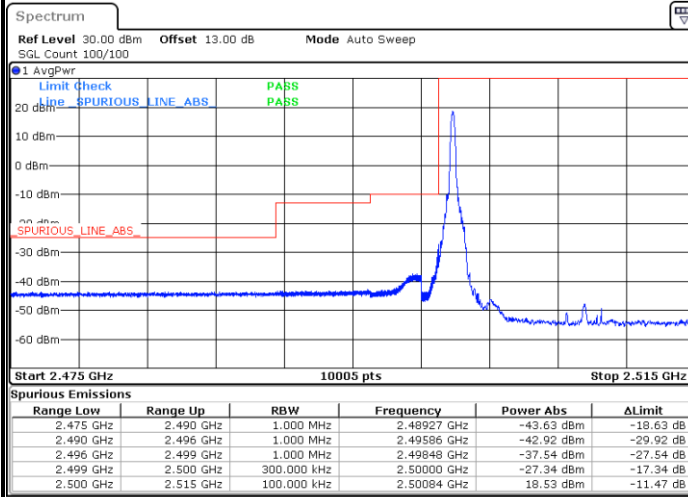
Highest Band Edge / Full RB



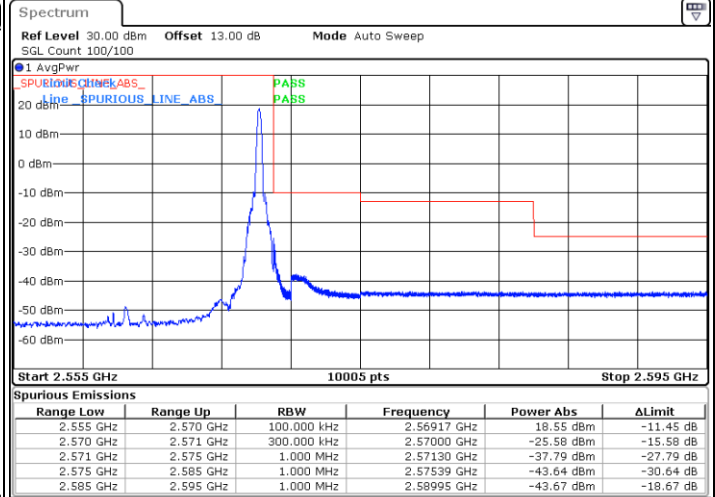


LTE Band 7 / 15MHz / 64QAM

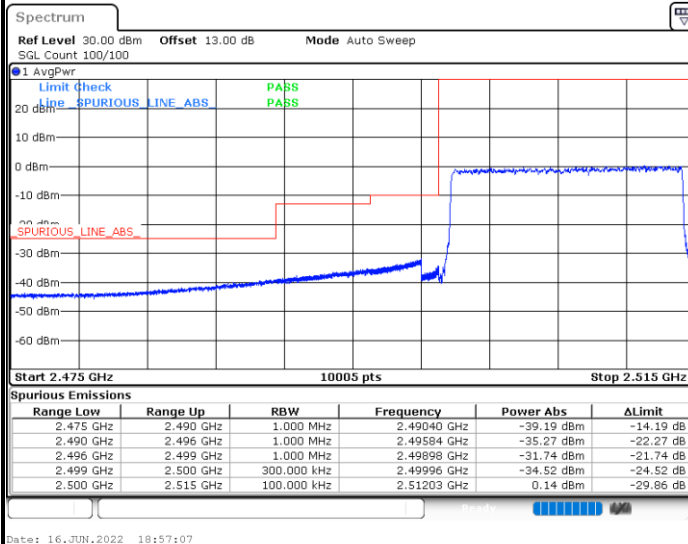
Lowest Band Edge / 1 RB



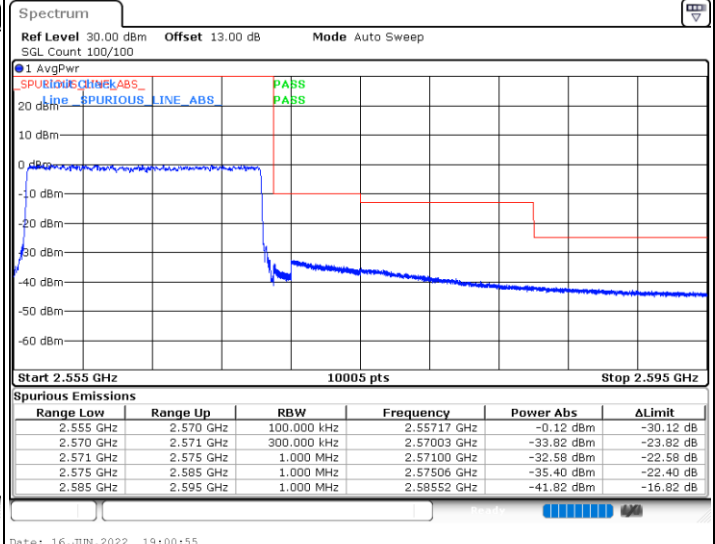
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



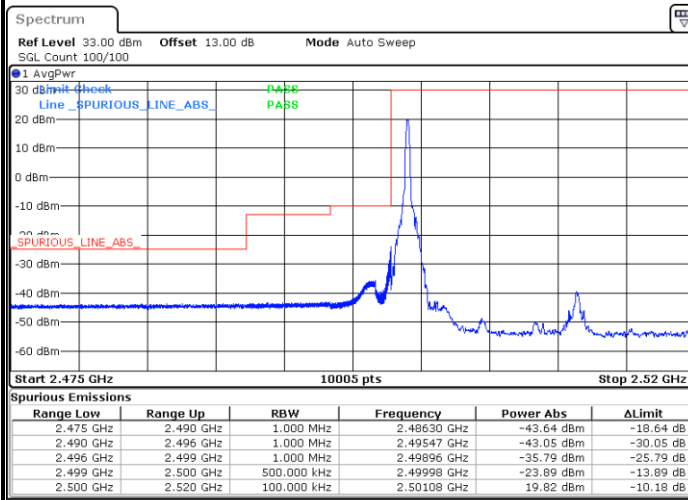
Highest Band Edge / Full RB



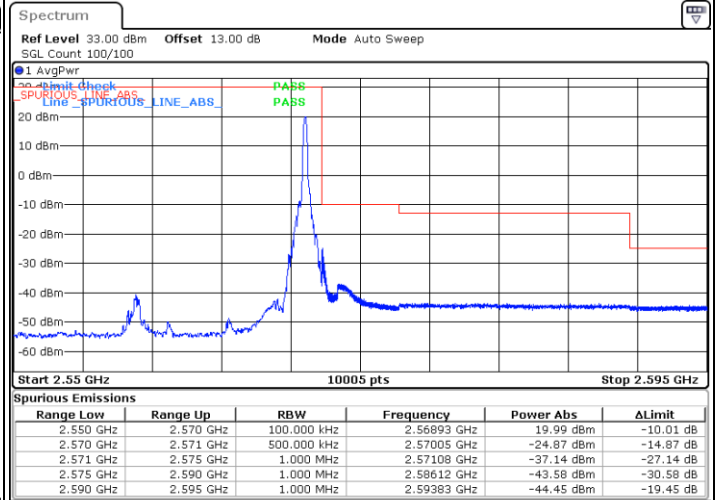


LTE Band 7 / 20MHz / QPSK

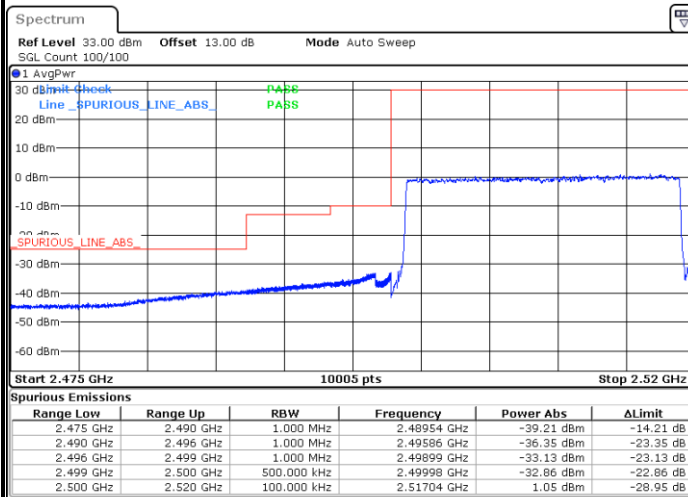
Lowest Band Edge / 1 RB



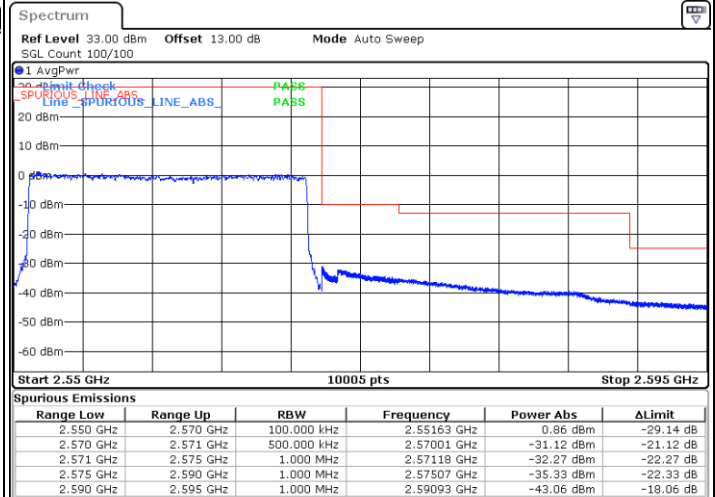
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



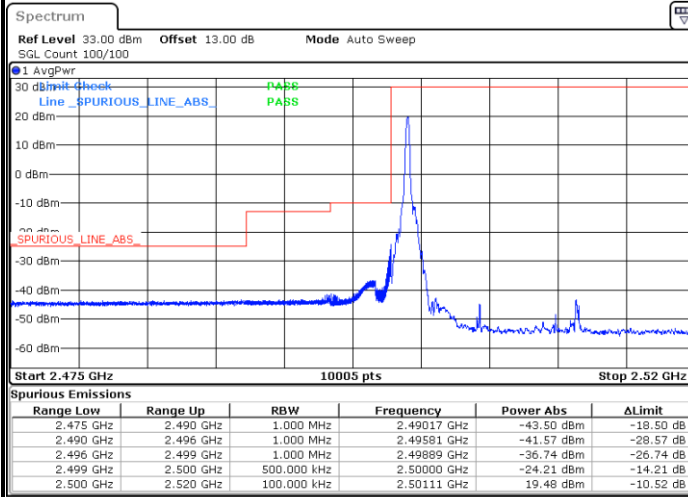
Highest Band Edge / Full RB



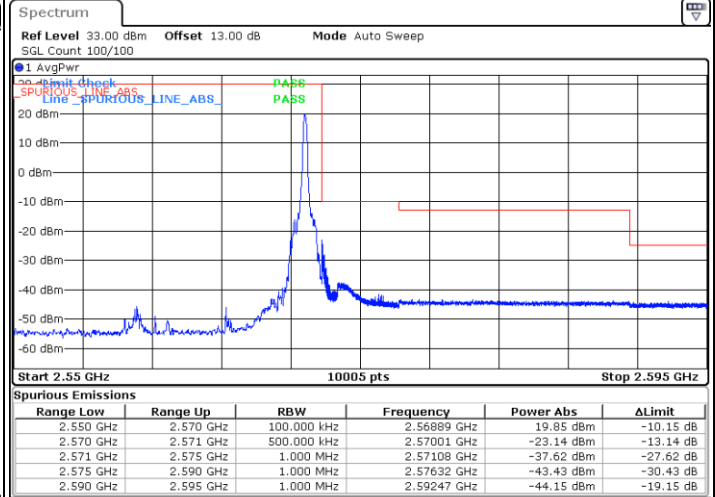


LTE Band 7 / 20MHz / 16QAM

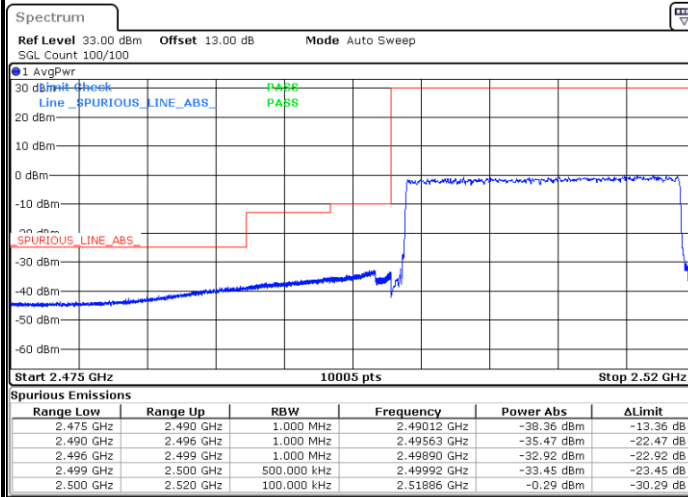
Lowest Band Edge / 1 RB



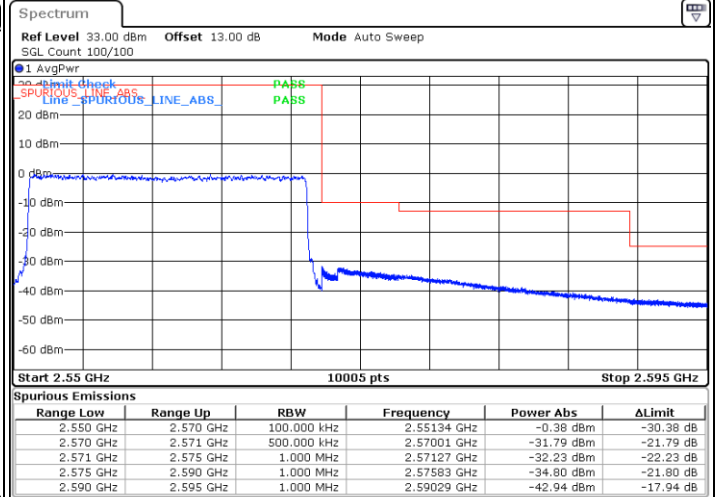
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



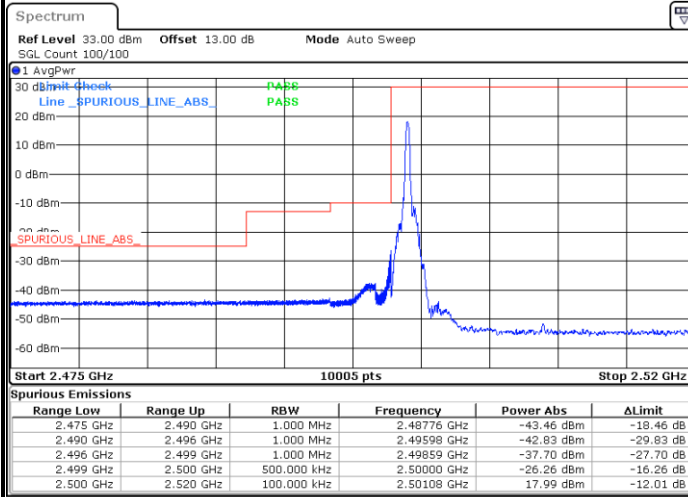
Highest Band Edge / Full RB



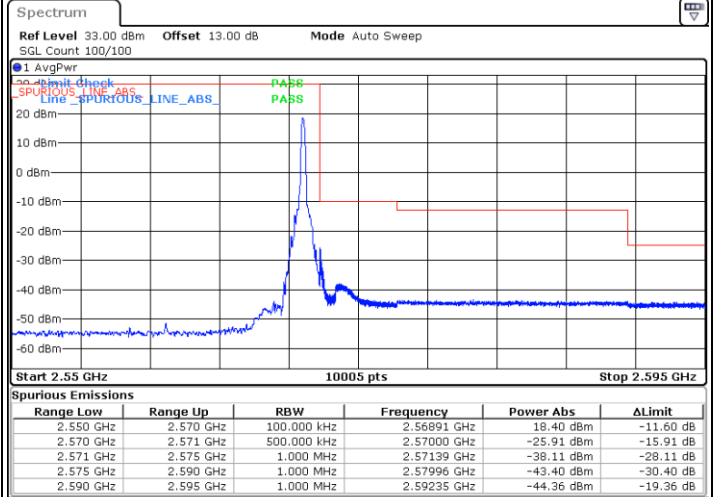


LTE Band 7 / 20MHz / 64QAM

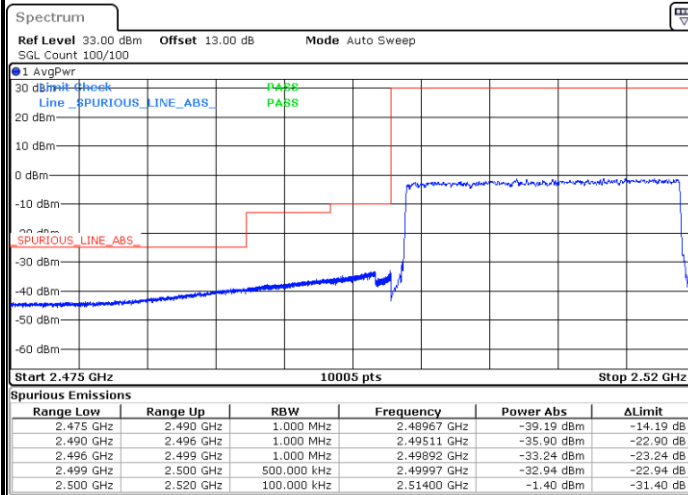
Lowest Band Edge / 1 RB



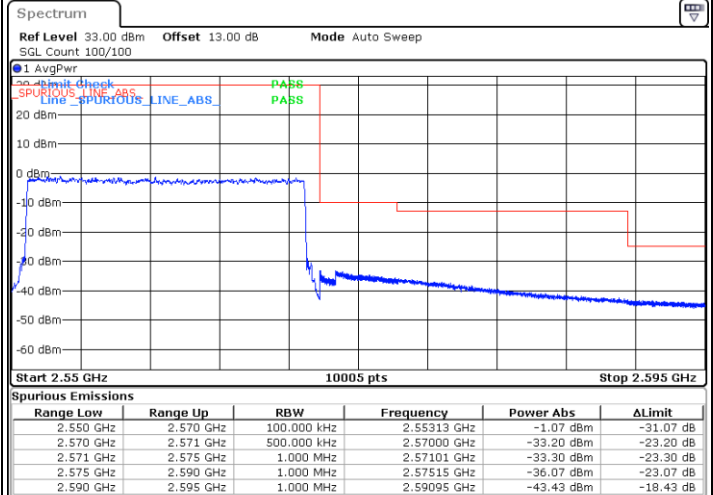
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

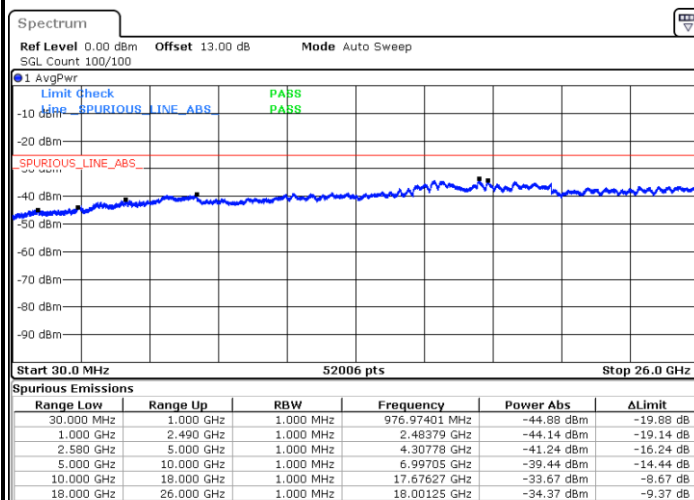




Conducted Spurious Emission

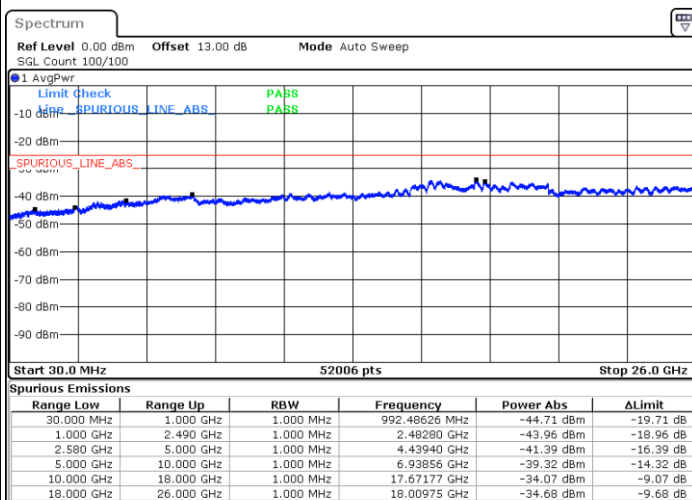
LTE Band 7 / 5MHz

Lowest Channel / QPSK



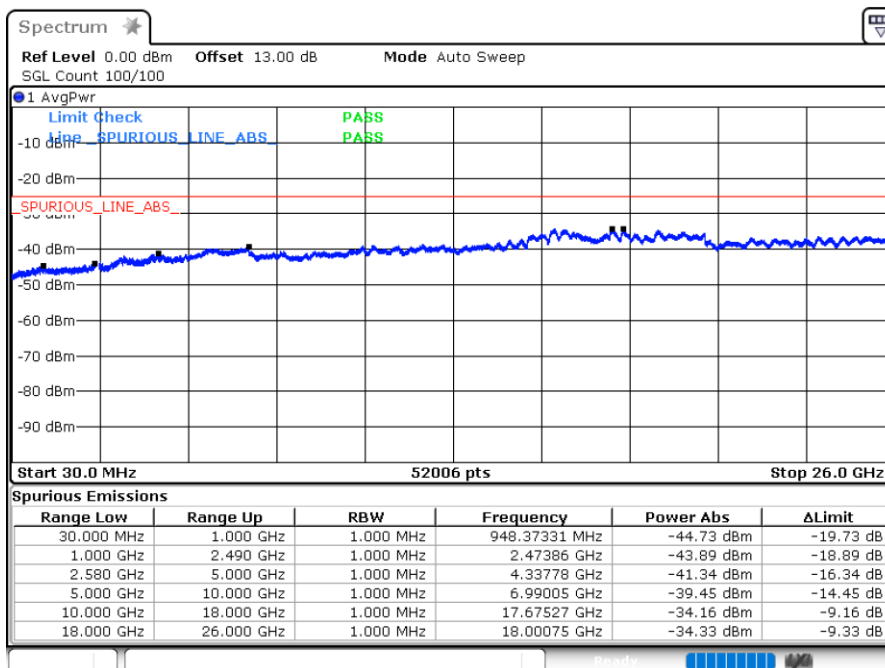
Date: 16 JUN 2022 18:37:40

Middle Channel / QPSK



Date: 16 JUN 2022 18:36:35

Highest Channel / QPSK

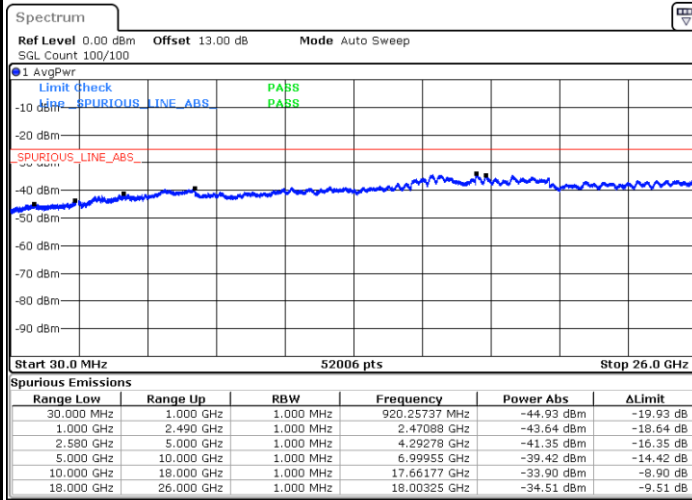


Date: 16 JUN 2022 18:34:37



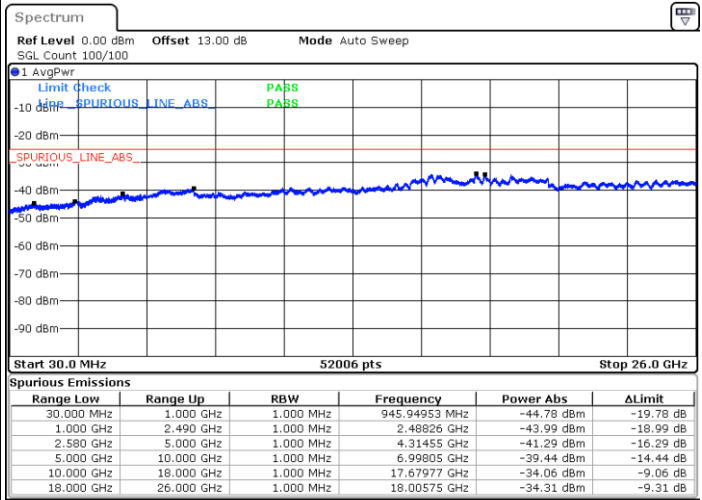
LTE Band 7 / 10MHz

Lowest Channel / QPSK



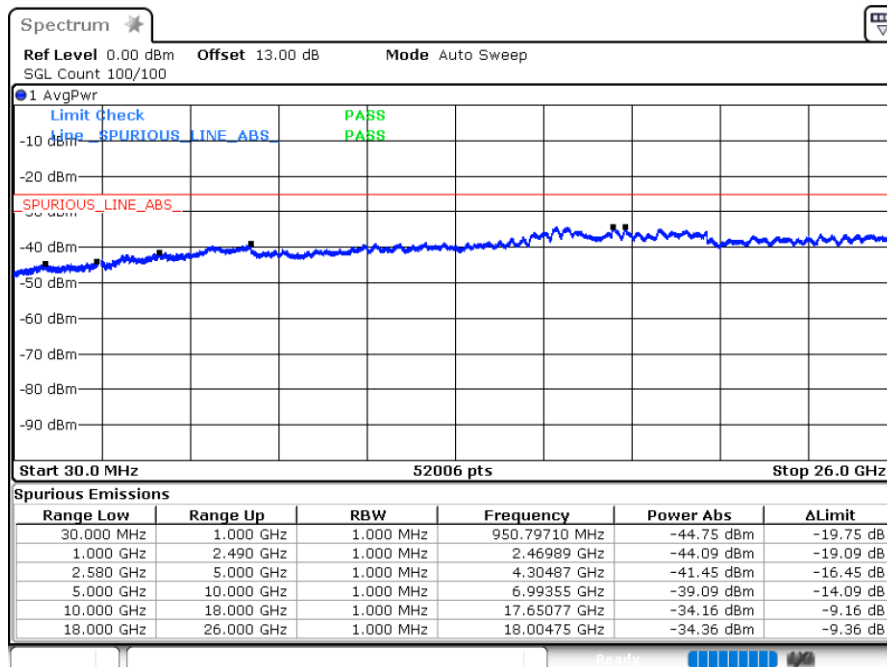
Date: 16.JUN.2022 18:51:02

Middle Channel / QPSK



Date: 16.JUN.2022 18:49:42

Highest Channel / QPSK

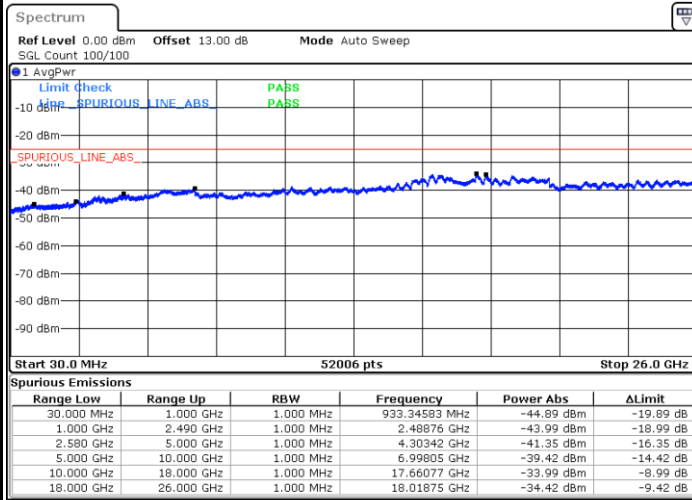


Date: 16.JUN.2022 18:48:52



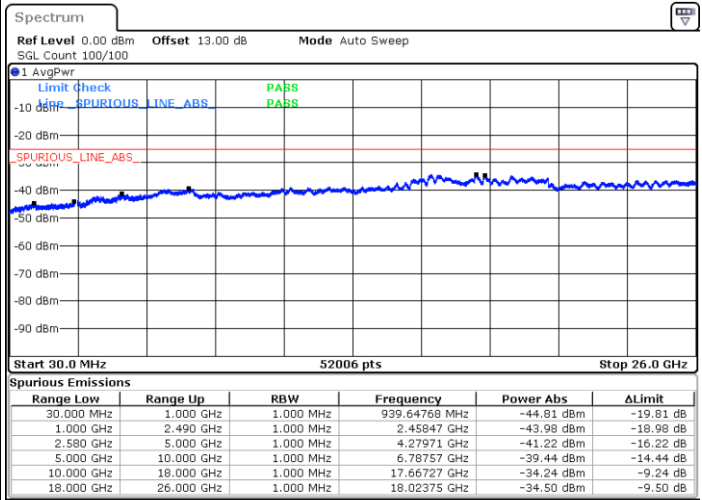
LTE Band 7 / 15MHz

Lowest Channel / QPSK



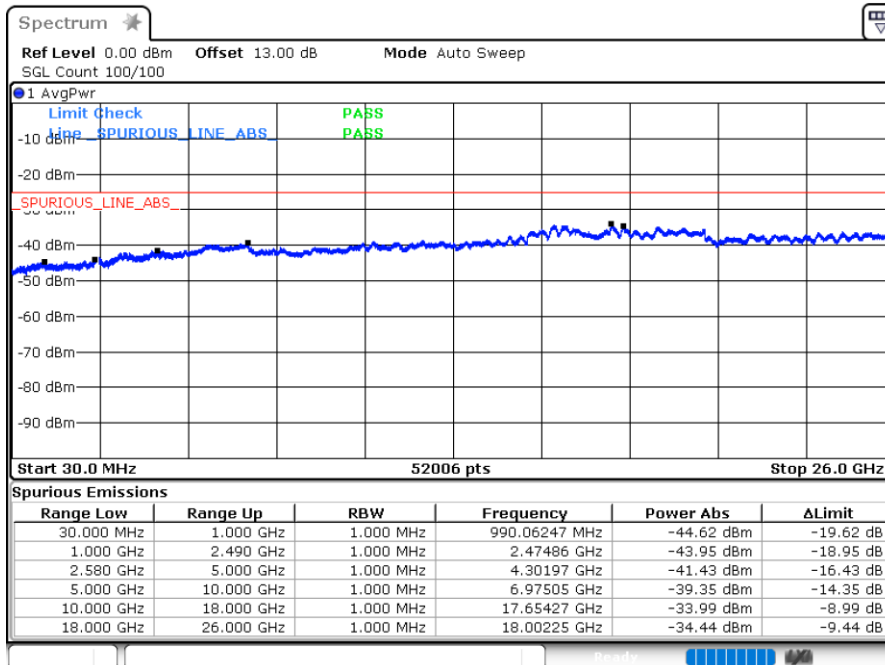
Date: 16.JUN.2022 19:09:10

Middle Channel / QPSK



Date: 16.JUN.2022 19:04:53

Highest Channel / QPSK

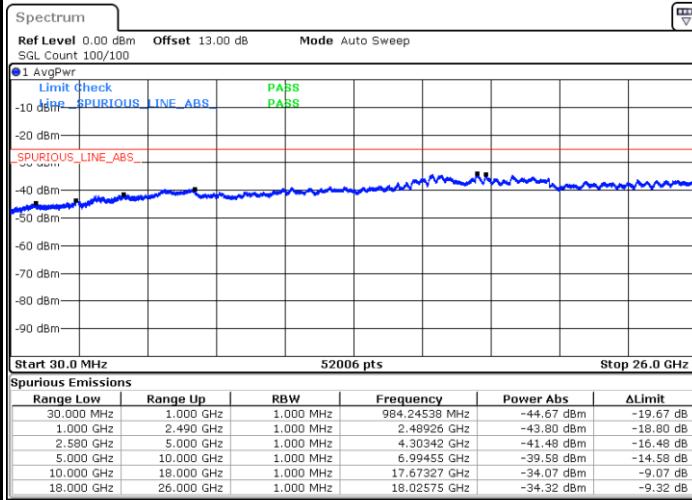


Date: 16.JUN.2022 19:04:04



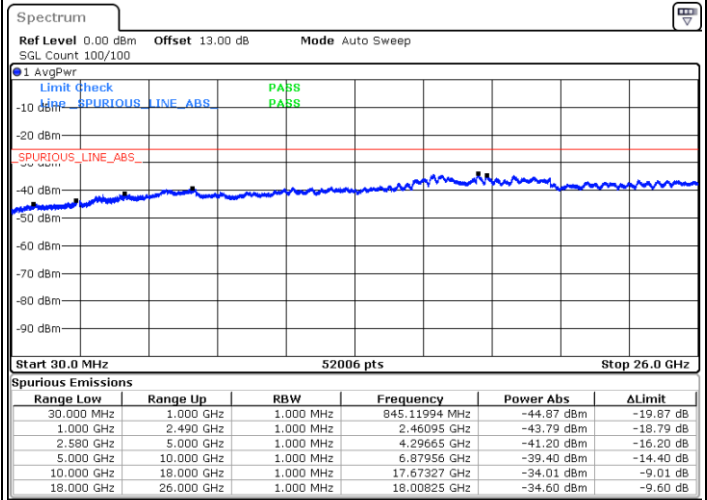
LTE Band 7 / 20MHz

Lowest Channel / QPSK



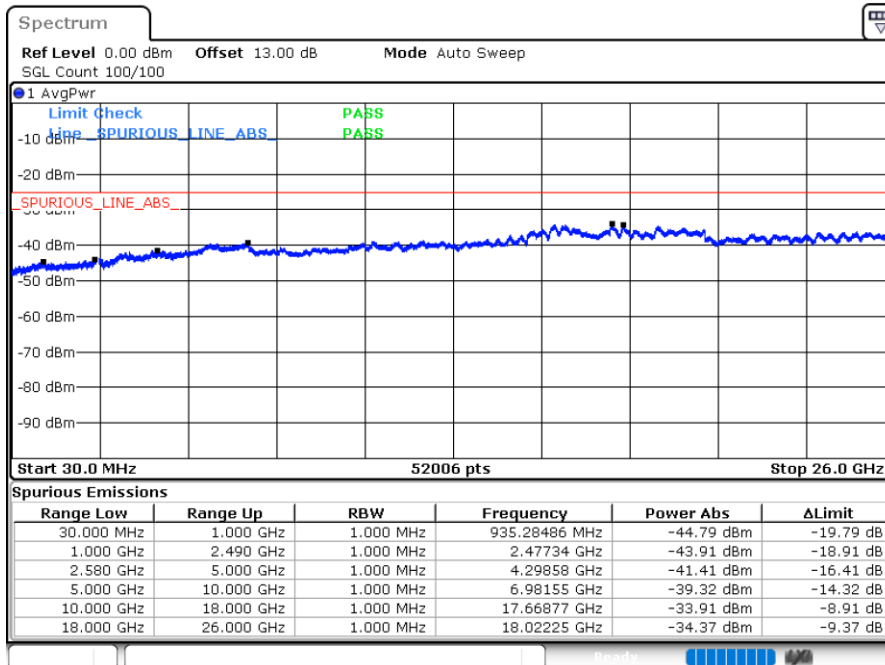
Date: 16.JUN.2022 19:22:22

Middle Channel / QPSK



Date: 16.JUN.2022 19:19:51

Highest Channel / QPSK



Date: 16.JUN.2022 19:21:24

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0018	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0029	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

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

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	5004	-59.17	-25	-34.17	-69.38	3.03	13.24	H
	7504	-58.85	-25	-33.85	-68.30	3.56	13.01	H
	10000	-61.12	-25	-36.12	-70.64	3.92	13.44	H
	5004	-62.87	-25	-37.87	-73.08	3.03	13.24	V
	7504	-56.33	-25	-31.33	-65.78	3.56	13.01	V
	10000	-61.35	-25	-36.35	-70.87	3.92	13.44	V
Middle	5052	-60.51	-25	-35.51	-70.72	3.03	13.24	H
	7580	-58.49	-25	-33.49	-67.94	3.56	13.01	H
	10100	-61.31	-25	-36.31	-70.83	3.92	13.44	H
	5052	-62.24	-25	-37.24	-72.45	3.03	13.24	V
	7580	-56.87	-25	-31.87	-66.32	3.56	13.01	V
	10100	-61.19	-25	-36.19	-70.71	3.92	13.44	V
Highest	5104	-60.08	-25	-35.08	-70.29	3.03	13.24	H
	7652	-52.76	-25	-27.76	-62.21	3.56	13.01	H
	10200	-60.83	-25	-35.83	-70.35	3.92	13.44	H
	5104	-60.94	-25	-35.94	-71.15	3.03	13.24	V
	7652	-57.25	-25	-32.25	-66.70	3.56	13.01	V
	10200	-61.07	-25	-36.07	-70.59	3.92	13.44	V

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



LTE Band 38 / 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	5144	-60.32	-25	-35.32	-70.53	3.03	13.24	H
	7712	-59.98	-25	-34.98	-69.43	3.56	13.01	H
	10280	-59.10	-25	-34.10	-68.62	3.92	13.44	H
	5144	-62.30	-25	-37.30	-72.51	3.03	13.24	V
	7712	-59.85	-25	-34.85	-69.30	3.56	13.01	V
	10280	-59.13	-25	-34.13	-68.65	3.92	13.44	V
Middle	5172	-60.48	-25	-35.48	-70.69	3.03	13.24	H
	7760	-59.94	-25	-34.94	-69.39	3.56	13.01	H
	10340	-58.34	-25	-33.34	-67.86	3.92	13.44	H
	5172	-62.03	-25	-37.03	-72.24	3.03	13.24	V
	7760	-59.64	-25	-34.64	-69.09	3.56	13.01	V
	10340	-58.41	-25	-33.41	-67.93	3.92	13.44	V
Highest	5204	-60.60	-25	-35.60	-70.81	3.03	13.24	H
	7804	-59.90	-25	-34.90	-69.35	3.56	13.01	H
	10400	-58.12	-25	-33.12	-67.64	3.92	13.44	H
	5204	-62.50	-25	-37.50	-72.71	3.03	13.24	V
	7804	-60.08	-25	-35.08	-69.53	3.56	13.01	V
	10400	-58.85	-25	-33.85	-68.37	3.92	13.44	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	4996	-54.10	-25	-29.10	-64.31	3.03	13.24	H
	7492	-50.71	-25	-25.71	-60.16	3.56	13.01	H
	9990	-61.06	-25	-36.06	-70.58	3.92	13.44	H
	4996	-62.40	-25	-37.40	-72.61	3.03	13.24	V
	7492	-56.28	-25	-31.28	-65.73	3.56	13.01	V
	9990	-60.99	-25	-35.99	-70.51	3.92	13.44	V
Middle	5168	-50.39	-25	-25.39	-60.60	3.03	13.24	H
	7752	-48.13	-25	-23.13	-57.58	3.56	13.01	H
	10340	-61.21	-25	-36.21	-70.73	3.92	13.44	H
	5168	-59.38	-25	-34.38	-69.59	3.03	13.24	V
	7752	-56.43	-25	-31.43	-65.88	3.56	13.01	V
	10340	-61.51	-25	-36.51	-71.03	3.92	13.44	V
Highest	5340	-53.99	-25	-28.99	-64.20	3.03	13.24	H
	8015	-49.51	-25	-24.51	-58.96	3.56	13.01	H
	10688	-60.42	-25	-35.42	-69.94	3.92	13.44	H
	5340	-61.84	-25	-36.84	-72.05	3.03	13.24	V
	8015	-53.56	-25	-28.56	-63.01	3.56	13.01	V
	10688	-60.34	-25	-35.34	-69.86	3.92	13.44	V

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



LTE Band 7C_CA / 20MHz+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	5040	-60.67	-25	-35.67	-70.88	3.03	13.24	H
	7560	-57.27	-25	-32.27	-66.72	3.56	13.01	H
	10080	-61.08	-25	-36.08	-70.60	3.92	13.44	H
	5040	-61.24	-25	-36.24	-71.45	3.03	13.24	V
	7560	-56.92	-25	-31.92	-66.37	3.56	13.01	V
	10080	-61.31	-25	-36.31	-70.83	3.92	13.44	V
Middle	5068	-58.89	-25	-33.89	-69.10	3.03	13.24	H
	7604	-57.73	-25	-32.73	-67.18	3.56	13.01	H
	10140	-60.86	-25	-35.86	-70.38	3.92	13.44	H
	5072	-63.00	-25	-38.00	-73.21	3.03	13.24	V
	7604	-58.67	-25	-33.67	-68.12	3.56	13.01	V
	10140	-60.78	-25	-35.78	-70.30	3.92	13.44	V
Highest	5100	-60.09	-25	-35.09	-70.30	3.03	13.24	H
	7648	-55.80	-25	-30.80	-65.25	3.56	13.01	H
	10200	-61.07	-25	-36.07	-70.59	3.92	13.44	H
	12750	-57.65	-25	-32.65	-67.57	4.44	14.36	H
	5100	-59.27	-25	-34.27	-69.48	3.03	13.24	V
	7648	-57.03	-25	-32.03	-66.48	3.56	13.01	V
	10200	-61.16	-25	-36.16	-70.68	3.92	13.44	V
	12750	-57.89	-25	-32.89	-67.81	4.44	14.36	V

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



LTE Band 41C_CA / 20MHz+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	5032	-60.89	-25	-35.89	-71.10	3.03	13.24	H
	7548	-49.53	-25	-24.53	-58.98	3.56	13.01	H
	10060	-61.19	-25	-36.19	-70.71	3.92	13.44	H
	5032	-62.94	-25	-37.94	-73.15	3.03	13.24	V
	7548	-55.34	-25	-30.34	-64.79	3.56	13.01	V
	10060	-61.09	-25	-36.09	-70.61	3.92	13.44	V
Middle	5188	-60.33	-25	-35.33	-70.54	3.03	13.24	H
	7780	-45.26	-25	-20.26	-54.71	3.56	13.01	H
	10380	-61.45	-25	-36.45	-70.97	3.92	13.44	H
	12960	-59.53	-25	-34.53	-69.45	4.44	14.36	H
	5188	-62.01	-25	-37.01	-72.22	3.03	13.24	V
	7780	-55.37	-25	-30.37	-64.82	3.56	13.01	V
	10380	-61.23	-25	-36.23	-70.75	3.92	13.44	V
	12960	-56.87	-25	-31.87	-66.79	4.44	14.36	V
Highest	5340	-61.26	-25	-36.26	-71.47	3.03	13.24	H
	8010	-41.63	-25	-16.63	-51.08	3.56	13.01	H
	10688	-60.02	-25	-35.02	-69.54	3.92	13.44	H
	5340	-63.86	-25	-38.86	-74.07	3.03	13.24	V
	8010	-48.94	-25	-23.94	-58.39	3.56	13.01	V
	10688	-60.49	-25	-35.49	-70.01	3.92	13.44	V

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