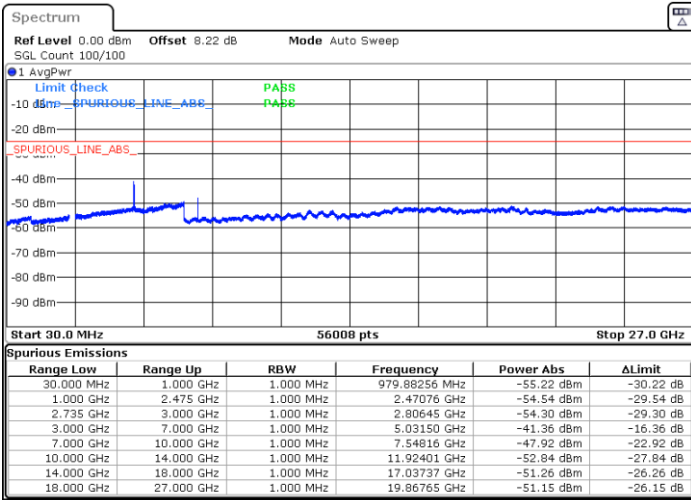




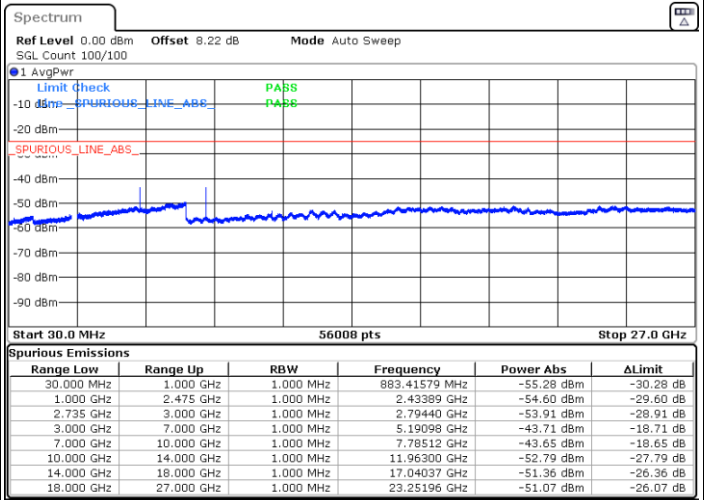
LTE Band 41C / 20MHz+15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

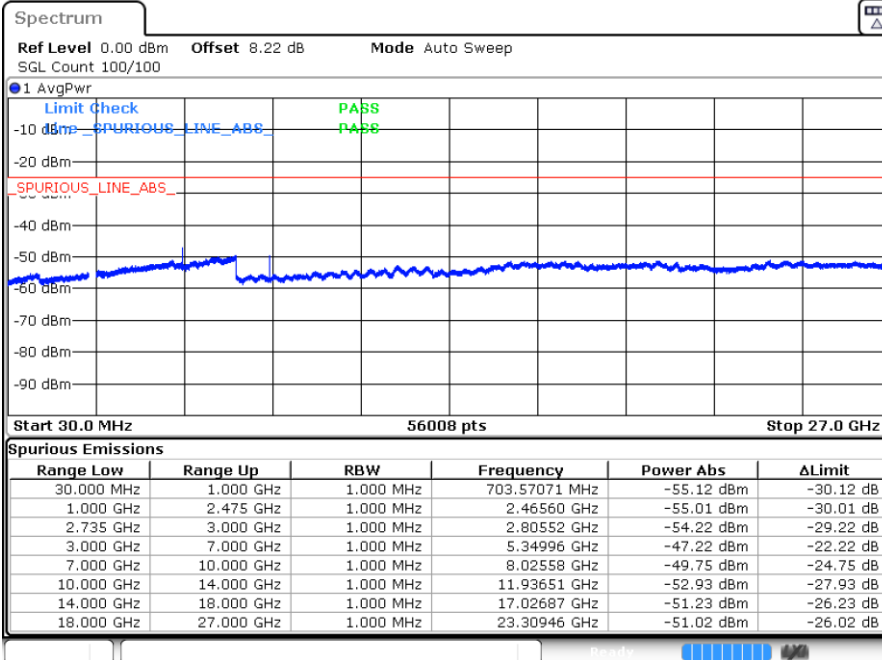


Date: 7 JUN 2022 10:49:26



Date: 7 JUN 2022 10:51:20

Highest Channel / QPSK



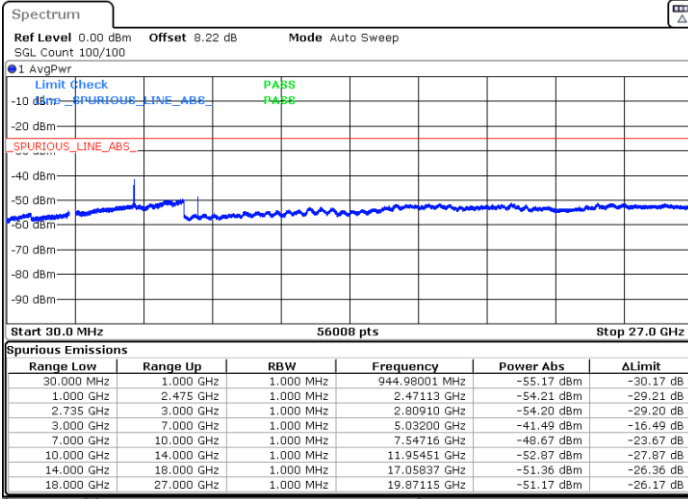
Date: 7 JUN 2022 10:53:13



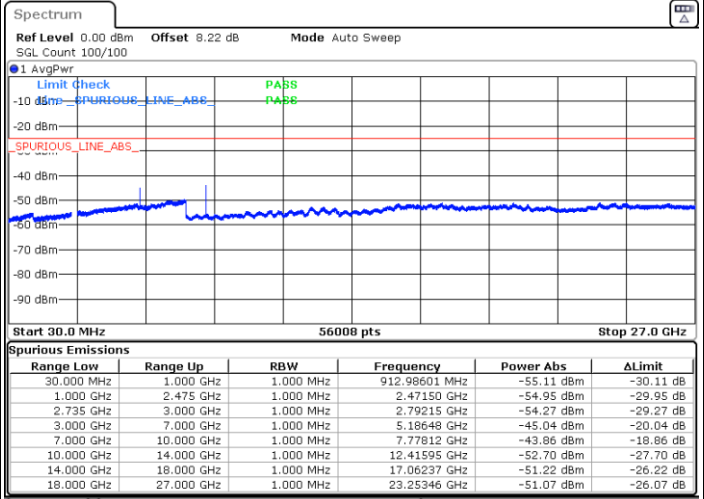
LTE Band 41C / 20MHz+20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

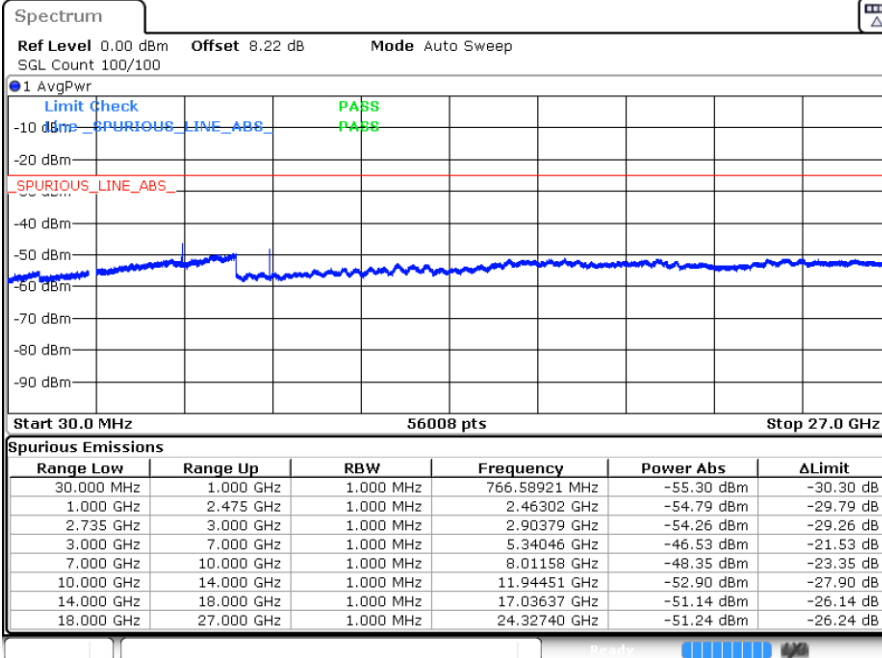


Date: 7 JUN 2022 11:21:32



Date: 7 JUN 2022 11:23:26

Highest Channel / QPSK



Date: 7 JUN 2022 11:25:19



Frequency Stability

Test Conditions		LTE Band 41C (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20+20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0031	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0017	

Note:

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

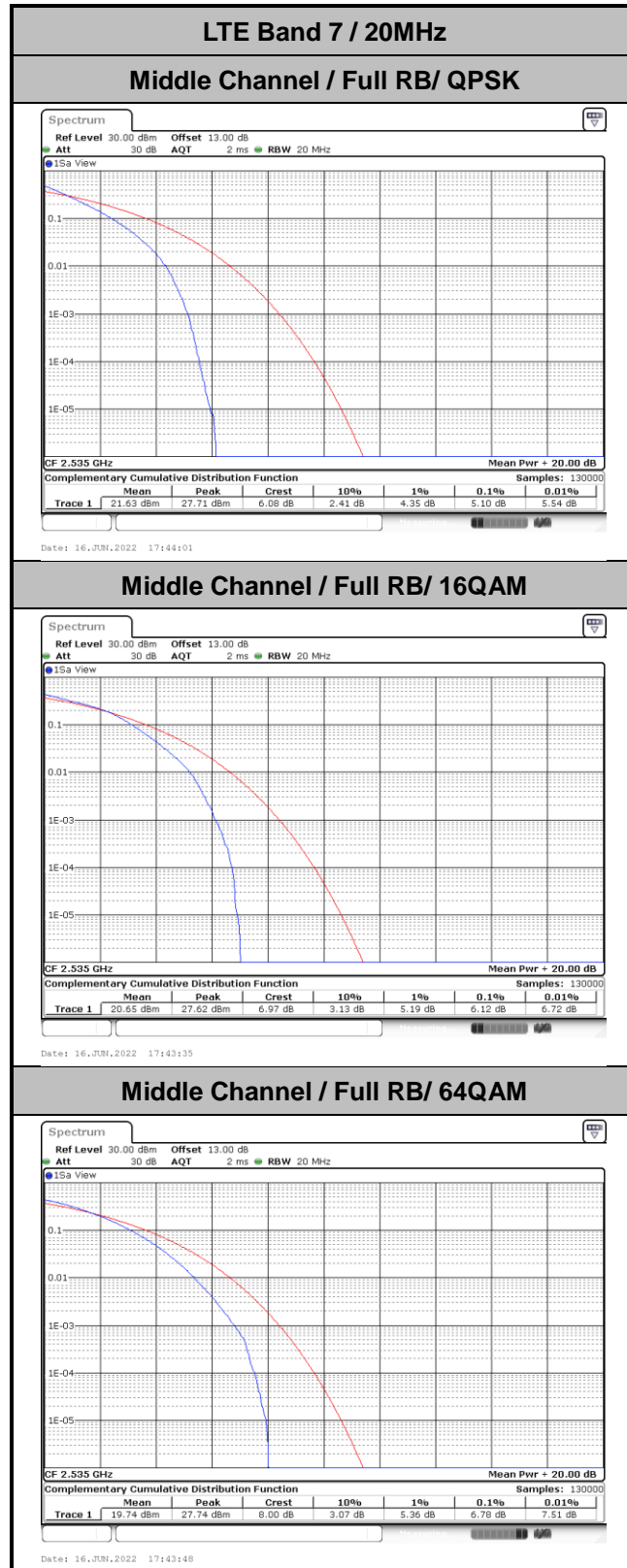


For other PA

LTE Band 7

Peak-to-Average Ratio

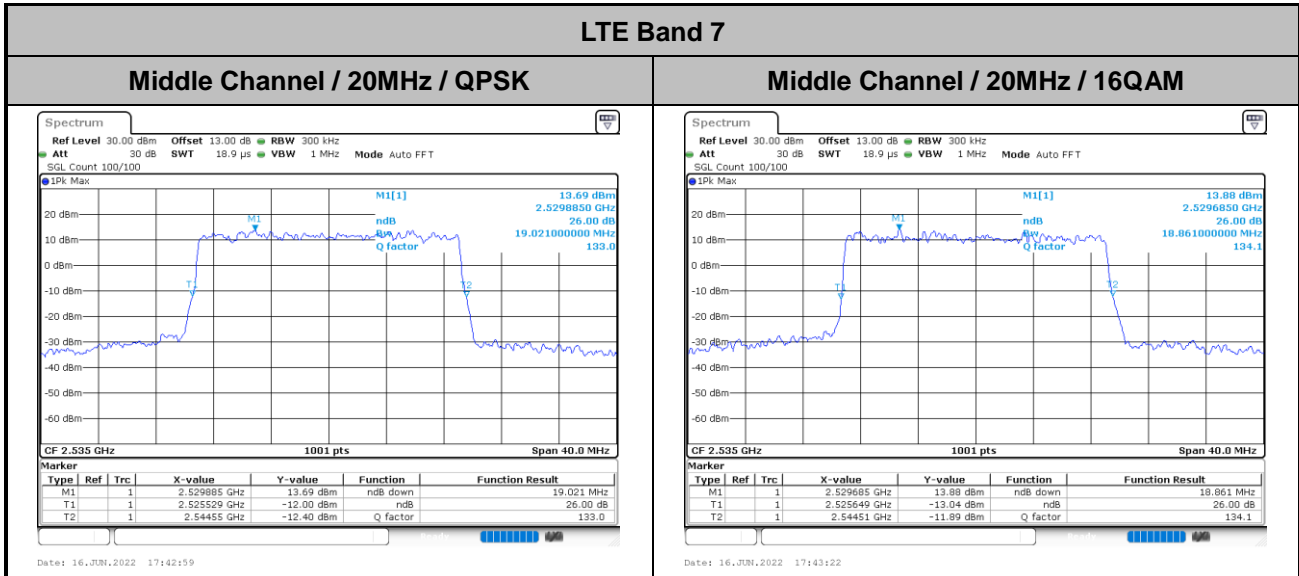
Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.10	6.12	6.78	PASS





26dB Bandwidth

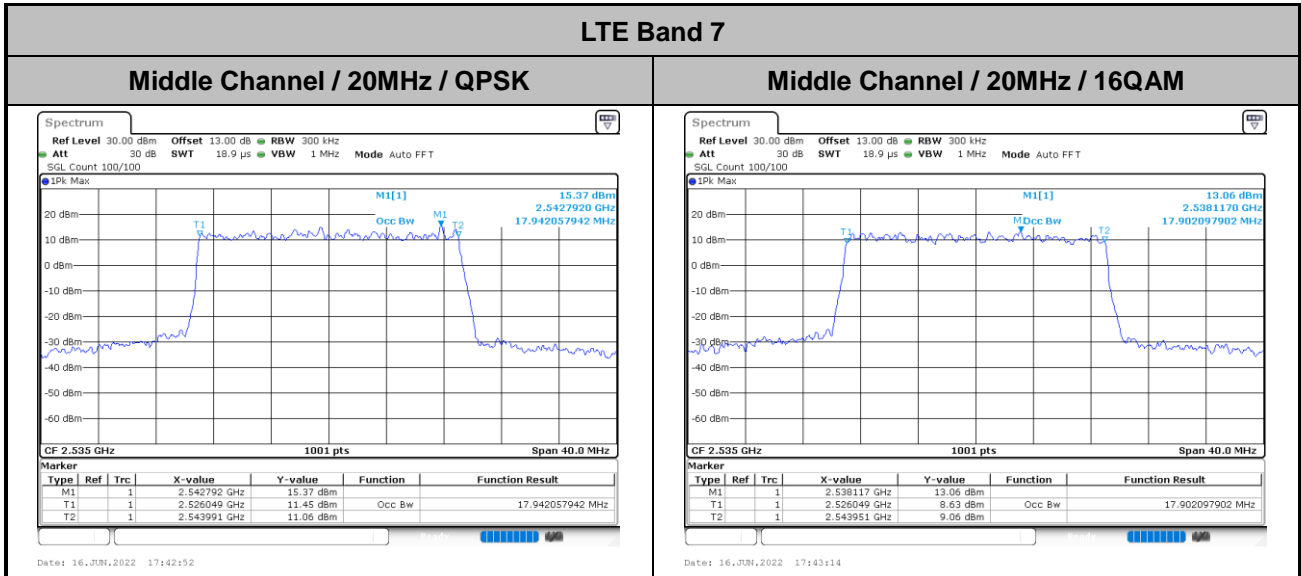
Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	19.02	18.86





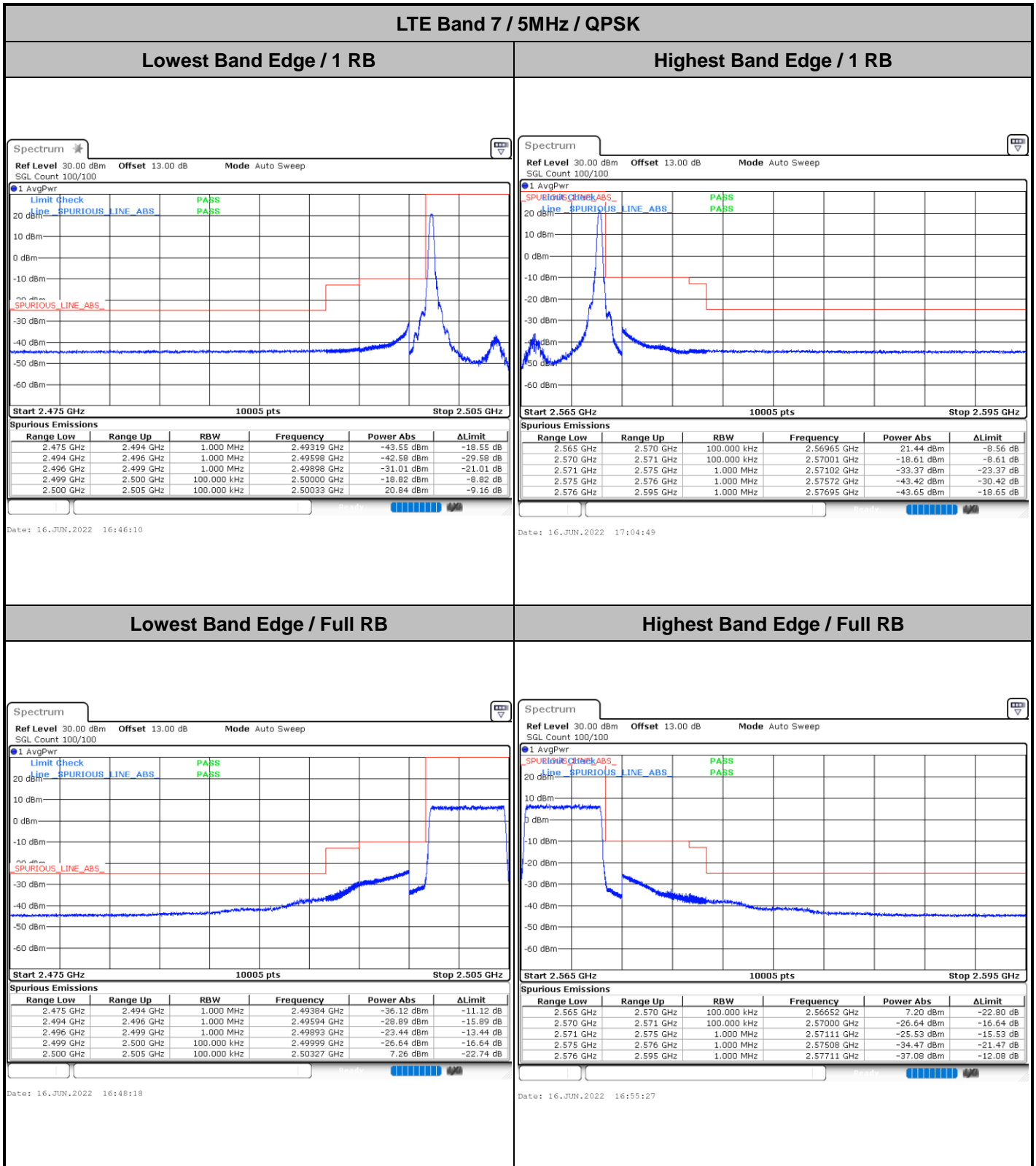
Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.94	17.90





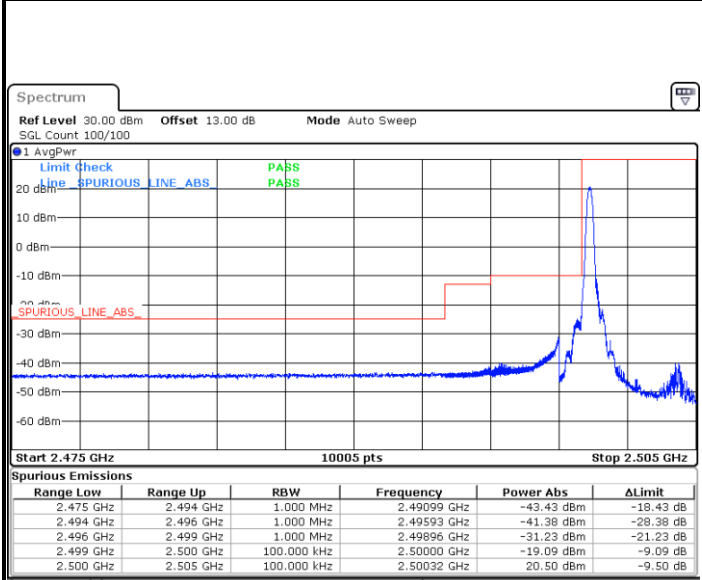
Conducted Band Edge





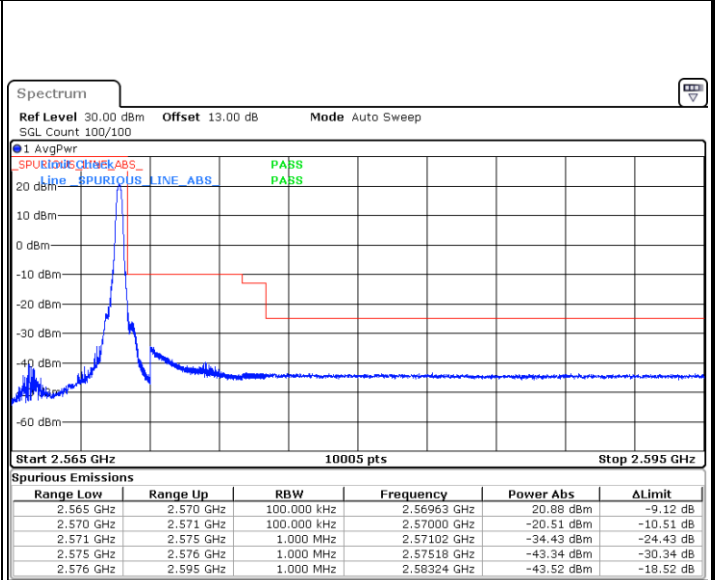
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



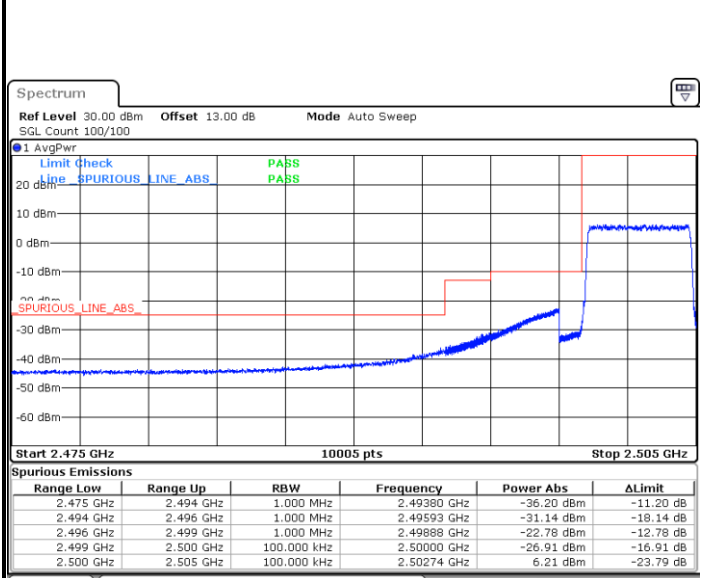
Date: 16.JUN.2022 16:46:29

Highest Band Edge / 1 RB



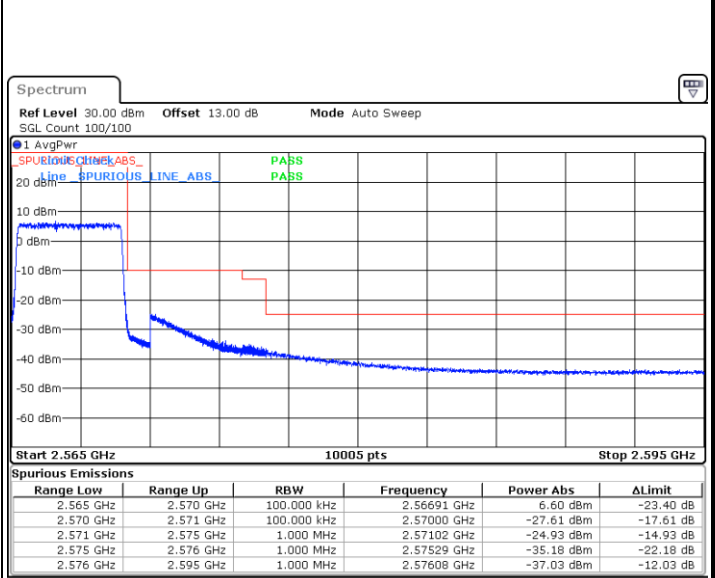
Date: 16.JUN.2022 17:04:27

Lowest Band Edge / Full RB



Date: 16.JUN.2022 16:47:39

Highest Band Edge / Full RB

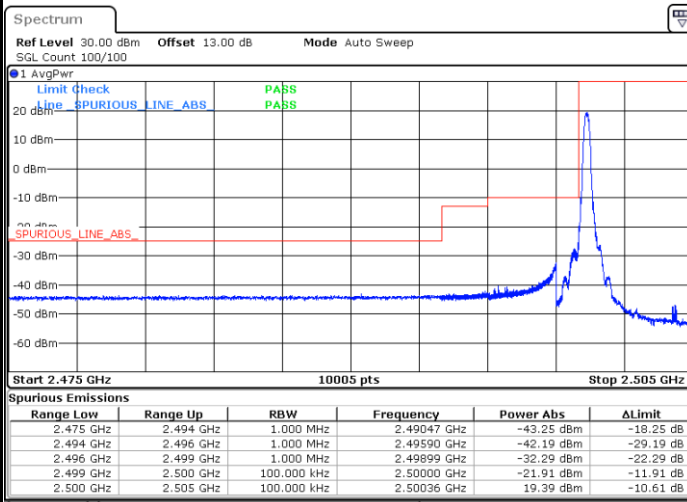


Date: 16.JUN.2022 17:03:00



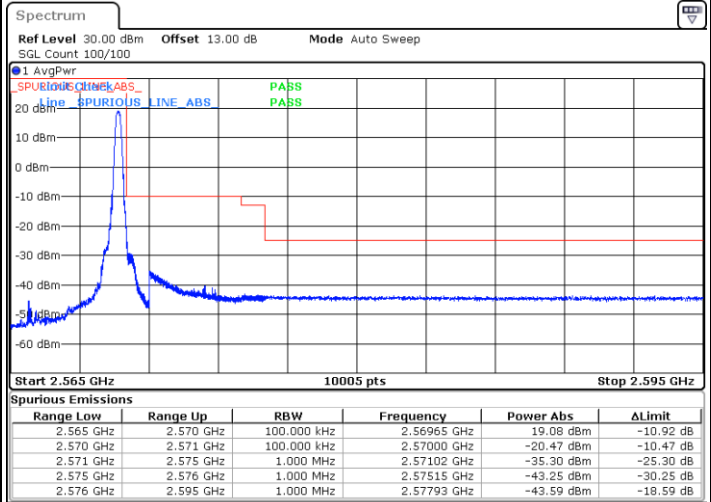
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



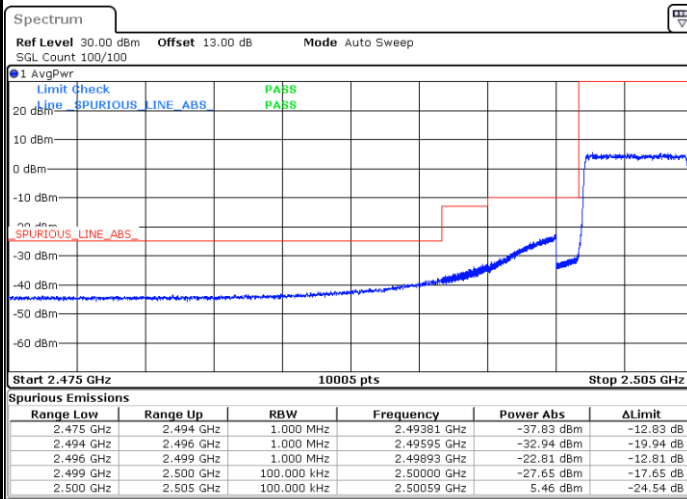
Date: 16.JUN.2022 16:46:49

Highest Band Edge / 1 RB



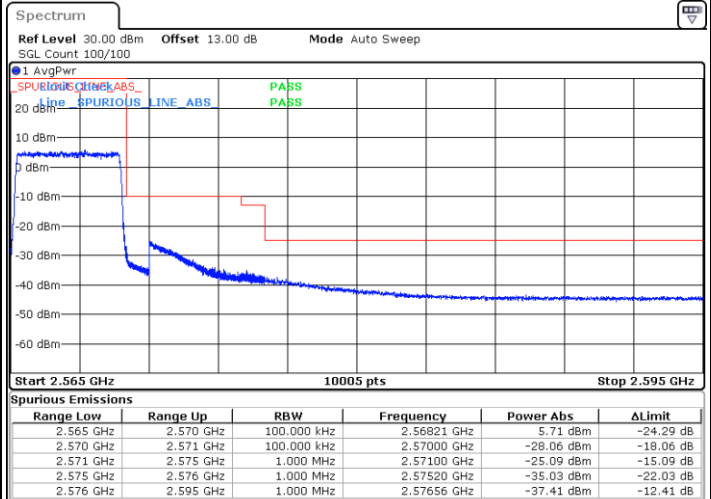
Date: 16.JUN.2022 17:04:06

Lowest Band Edge / Full RB



Date: 16.JUN.2022 16:47:23

Highest Band Edge / Full RB



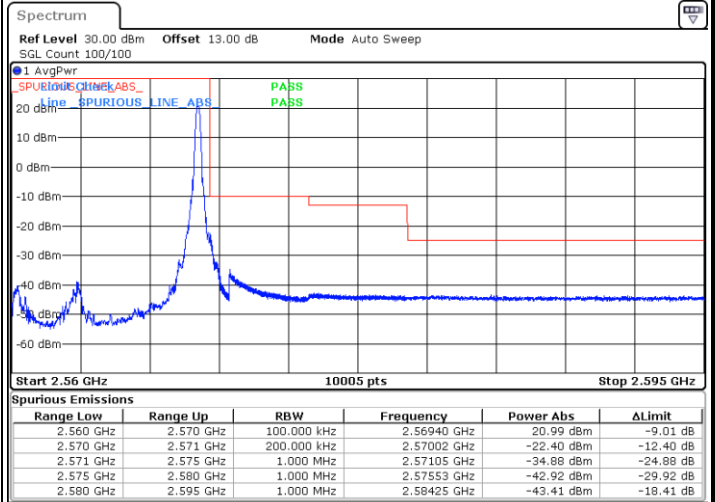
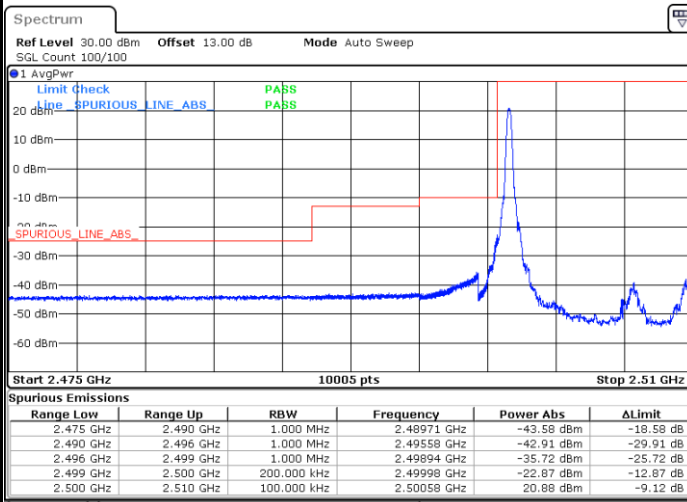
Date: 16.JUN.2022 17:03:29



LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

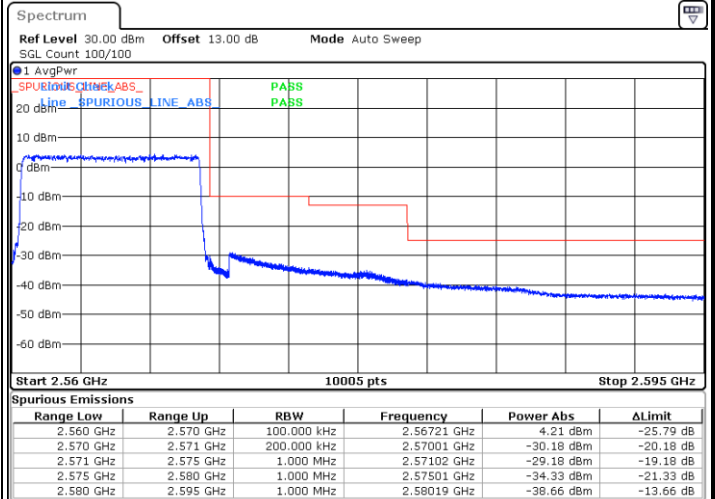
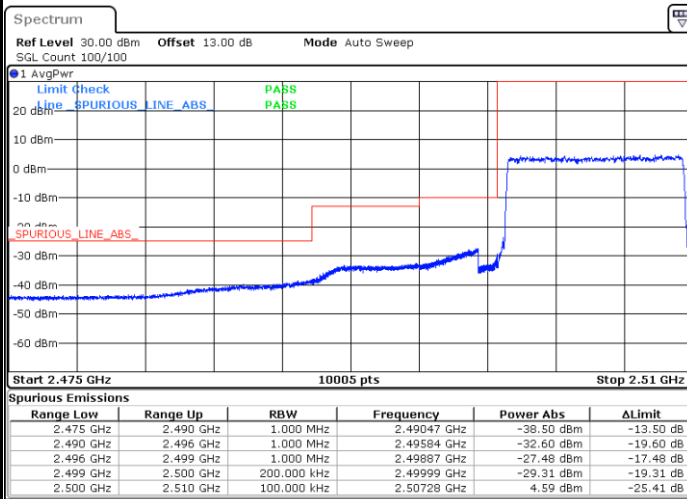


Date: 16.JUN.2022 17:10:18

Date: 16.JUN.2022 17:20:54

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16.JUN.2022 17:13:09

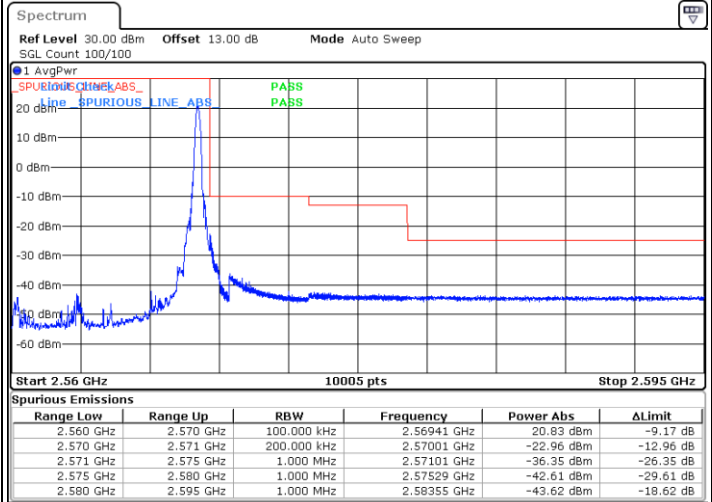
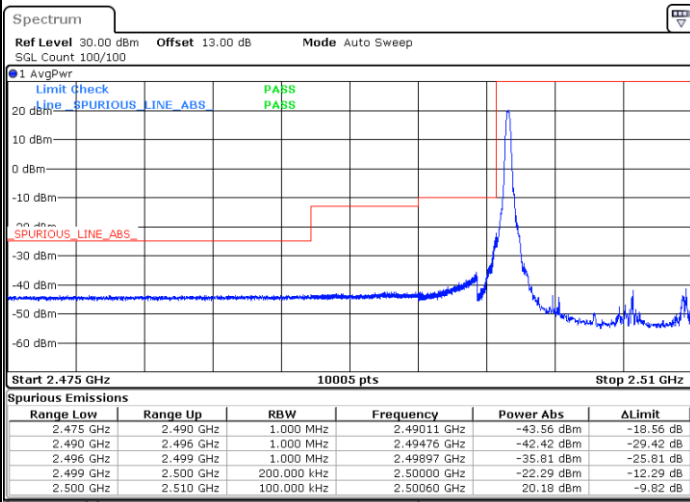
Date: 16.JUN.2022 17:18:45



LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

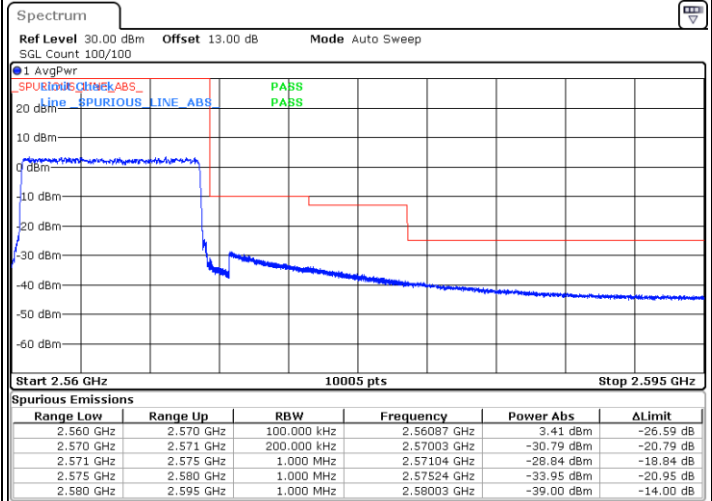
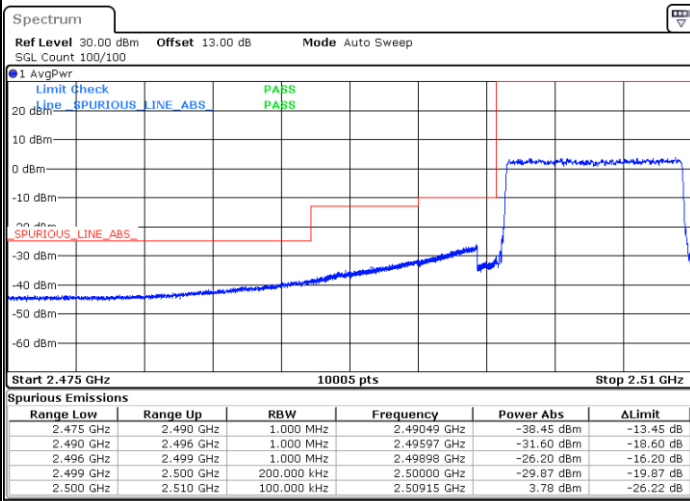


Date: 16.JUN.2022 17:10:40

Date: 16.JUN.2022 17:20:30

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16.JUN.2022 17:12:44

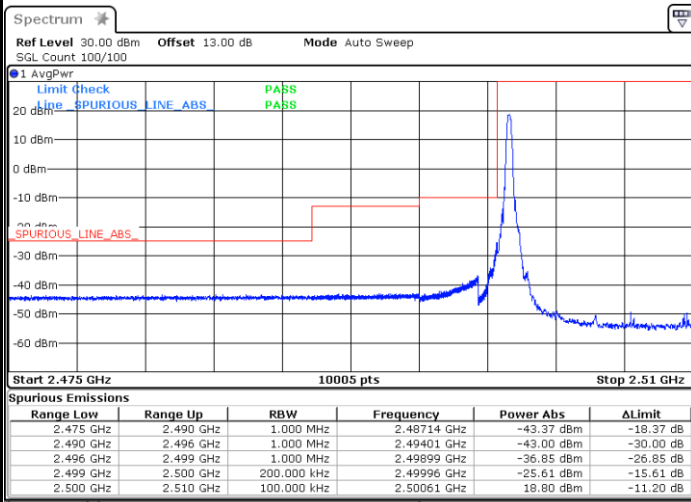
Date: 16.JUN.2022 17:19:01



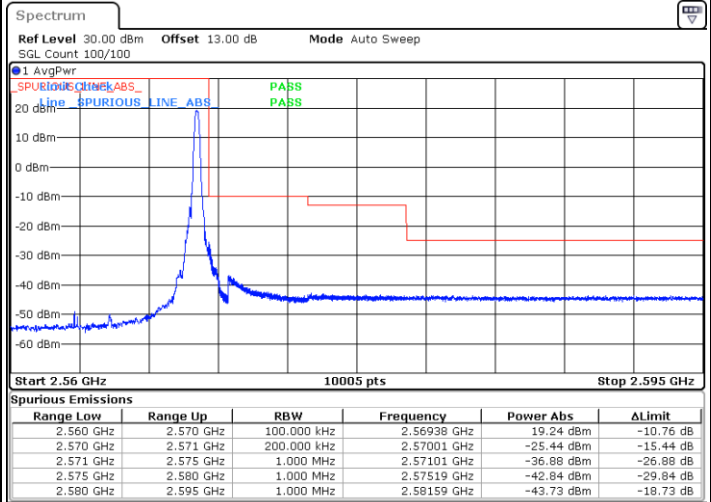
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



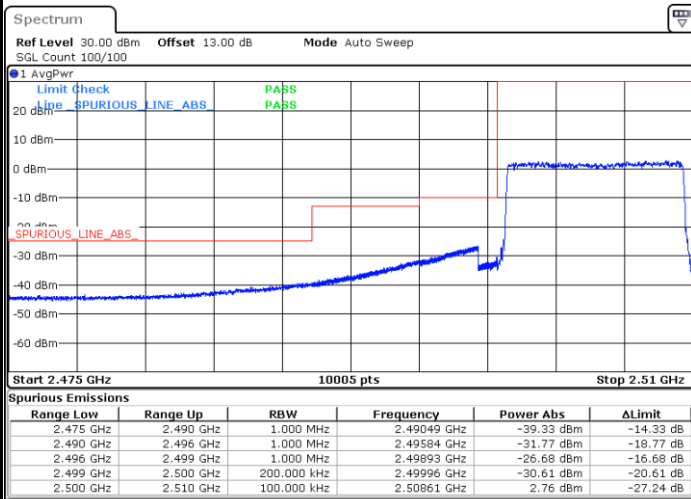
Date: 16.JUN.2022 17:11:36



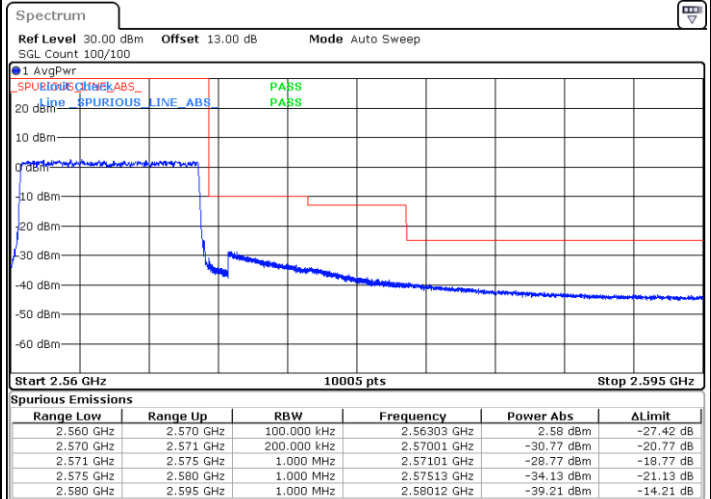
Date: 16.JUN.2022 17:20:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16.JUN.2022 17:12:03

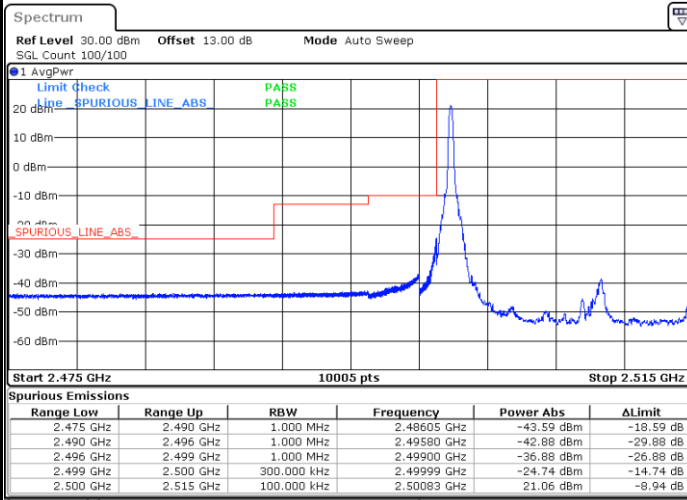


Date: 16.JUN.2022 17:19:30



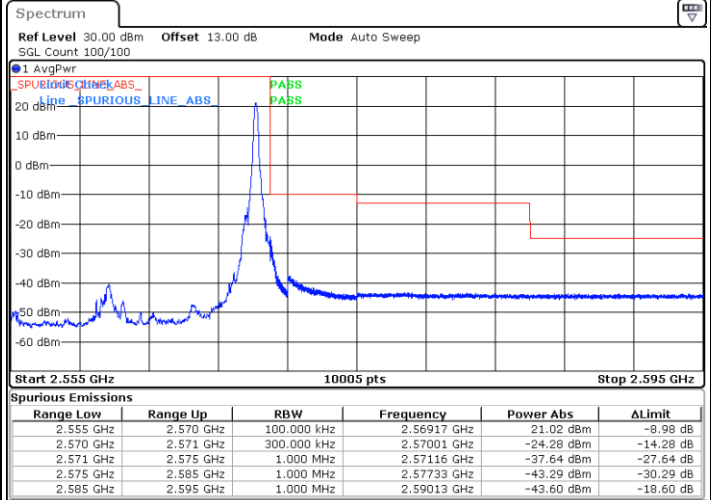
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



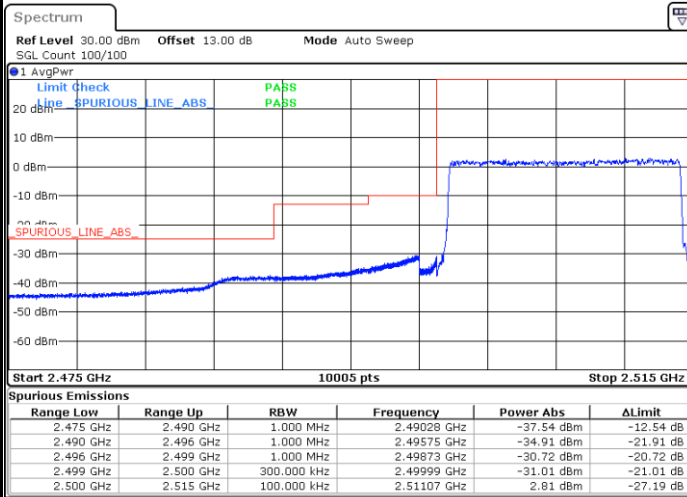
Date: 16 JUN.2022 17:26:49

Highest Band Edge / 1 RB



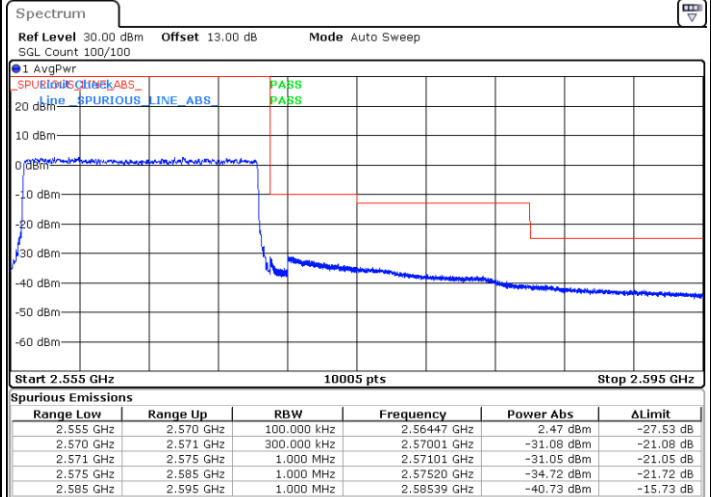
Date: 16 JUN.2022 17:33:52

Lowest Band Edge / Full RB



Date: 16 JUN.2022 17:28:28

Highest Band Edge / Full RB

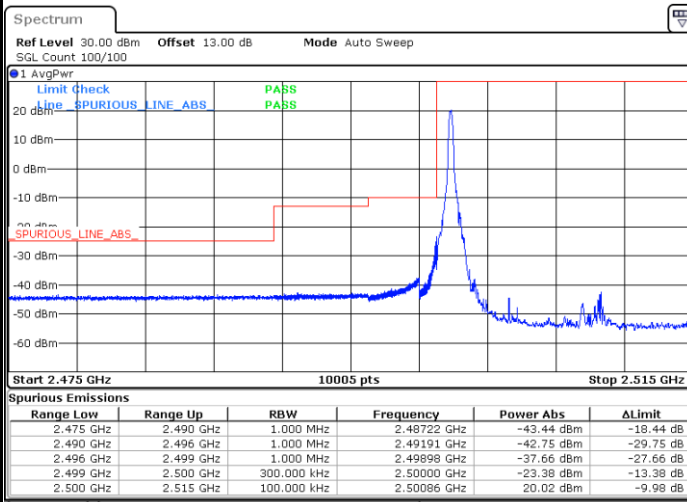


Date: 16 JUN.2022 17:30:29



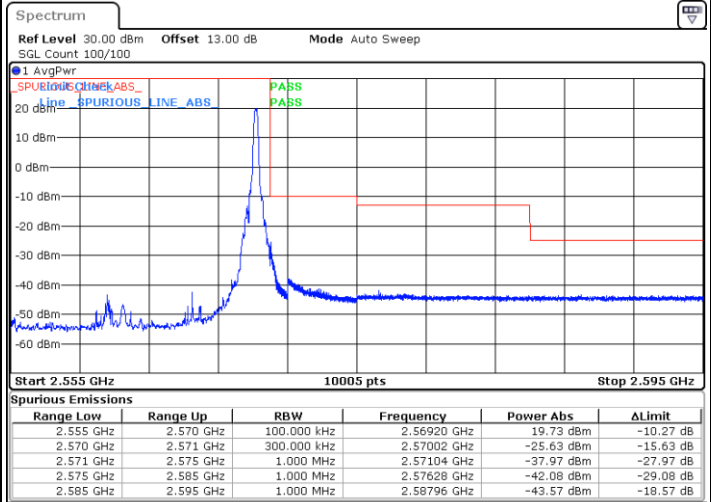
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



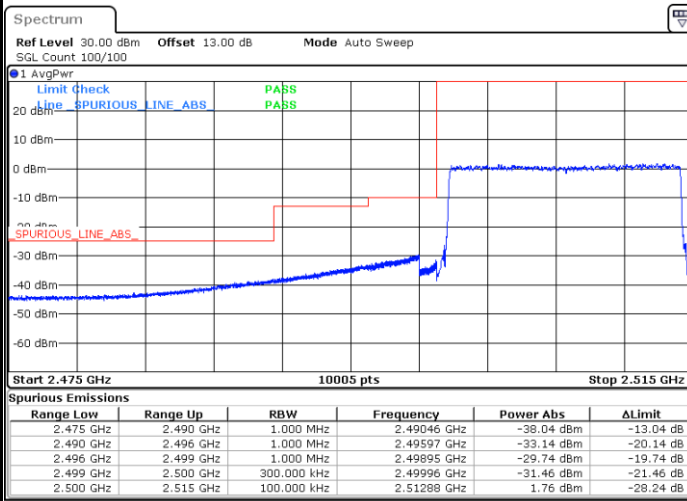
Date: 16 JUN.2022 17:27:30

Highest Band Edge / 1 RB



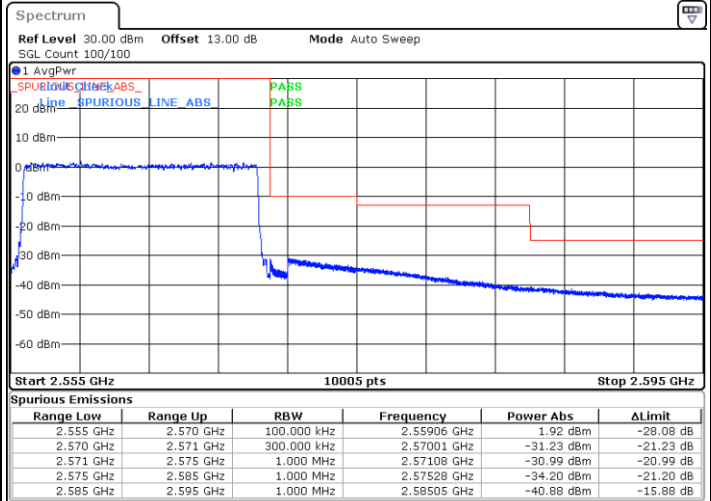
Date: 16 JUN.2022 17:32:48

Lowest Band Edge / Full RB



Date: 16 JUN.2022 17:28:15

Highest Band Edge / Full RB

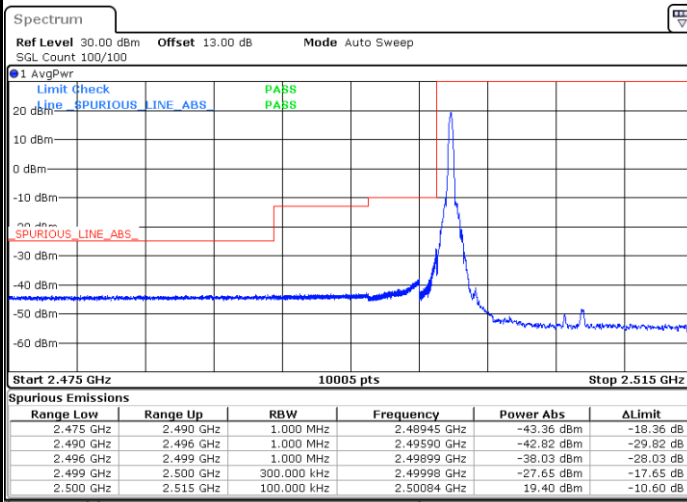


Date: 16 JUN.2022 17:30:57



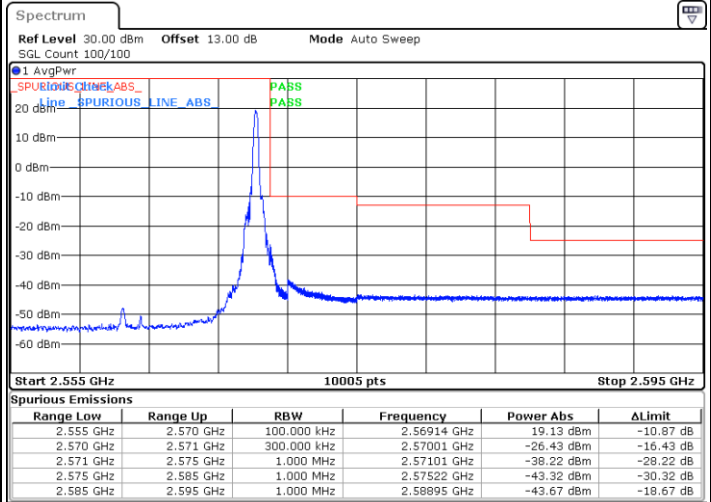
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



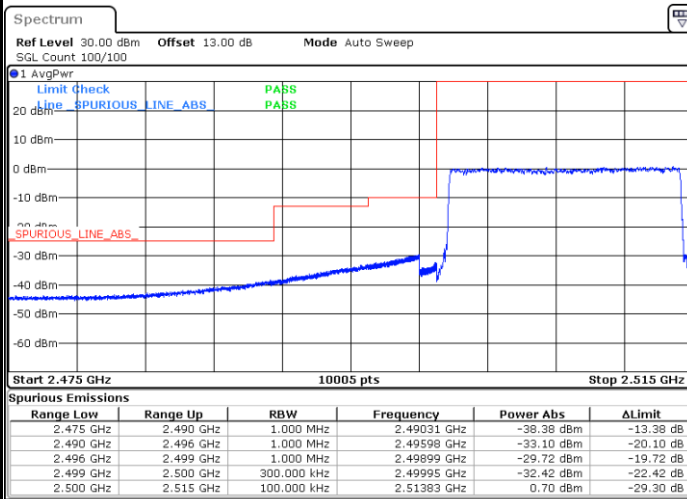
Date: 16.JUN.2022 17:27:45

Highest Band Edge / 1 RB



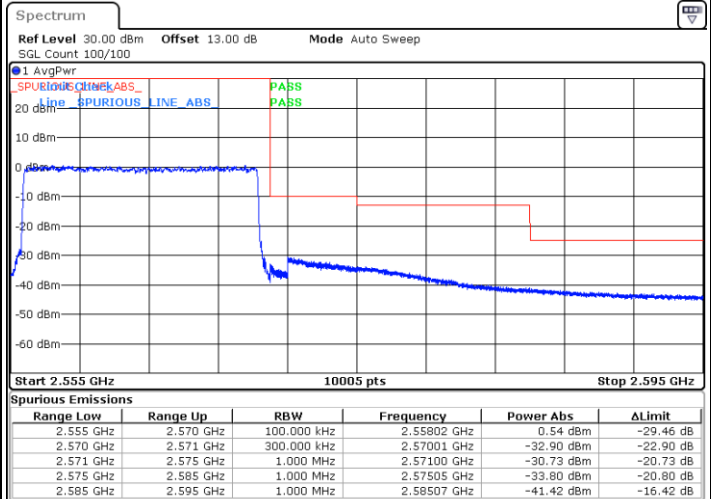
Date: 16.JUN.2022 17:32:10

Lowest Band Edge / Full RB



Date: 16.JUN.2022 17:28:04

Highest Band Edge / Full RB

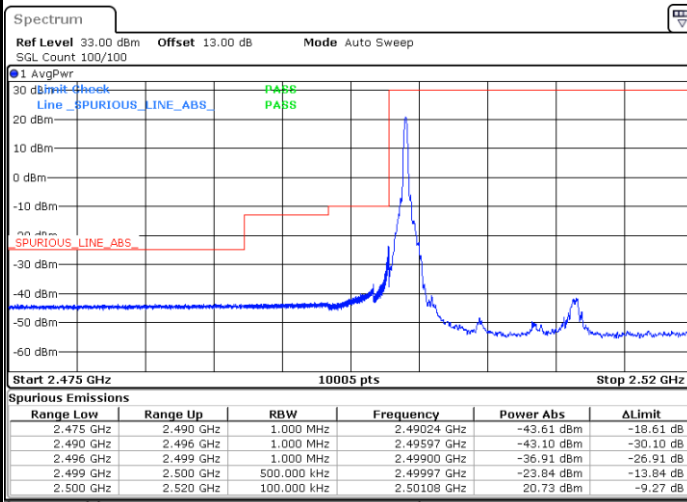


Date: 16.JUN.2022 17:31:29



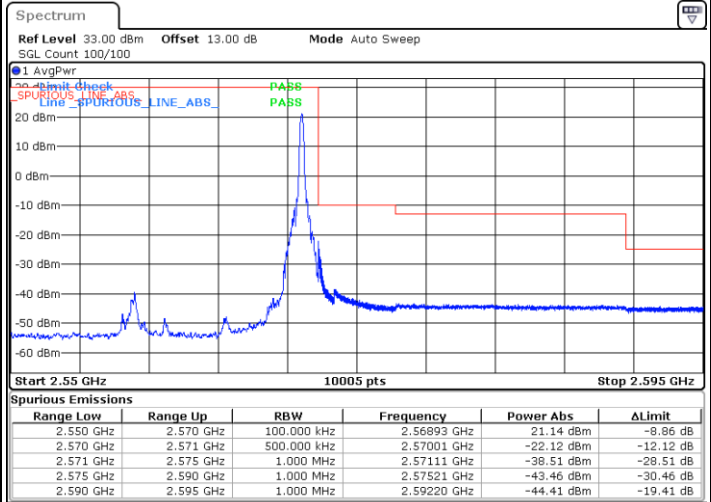
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



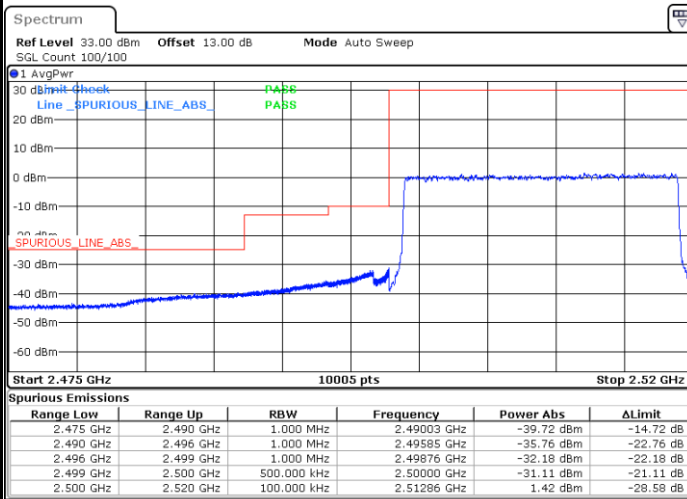
Date: 16.JUN.2022 17:40:58

Highest Band Edge / 1 RB



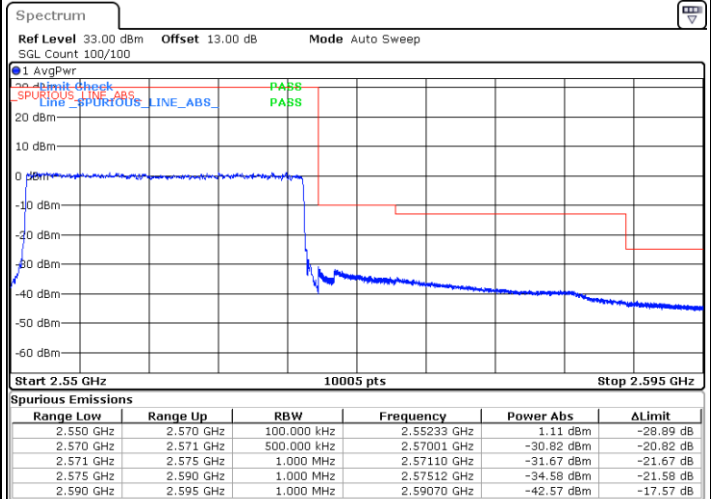
Date: 16.JUN.2022 17:45:49

Lowest Band Edge / Full RB



Date: 16.JUN.2022 17:42:22

Highest Band Edge / Full RB



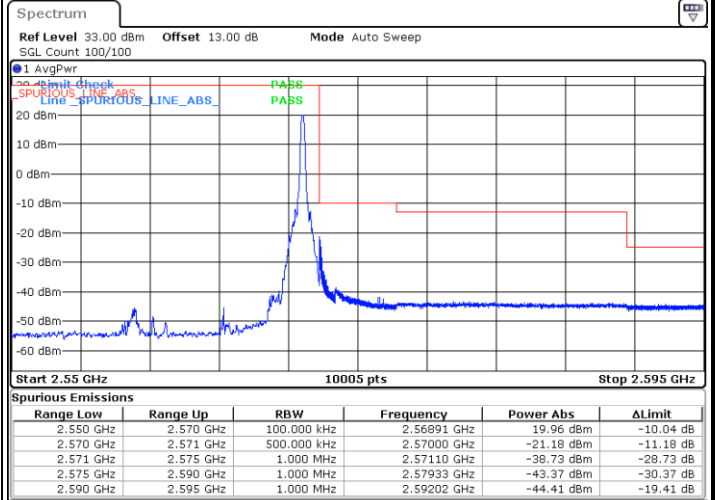
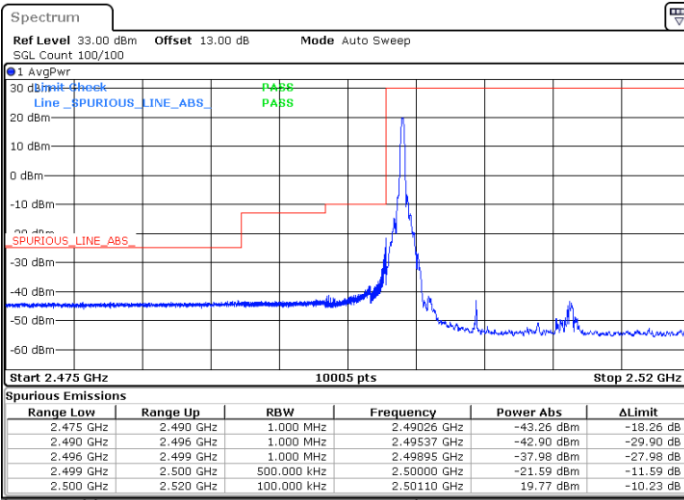
Date: 16.JUN.2022 17:44:36



LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

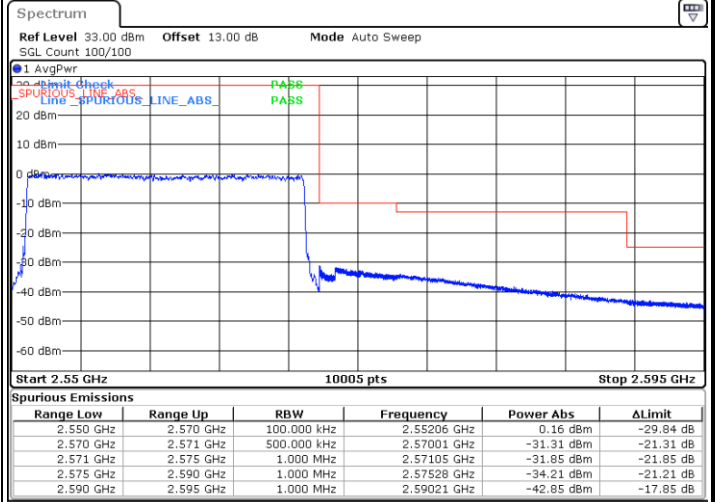
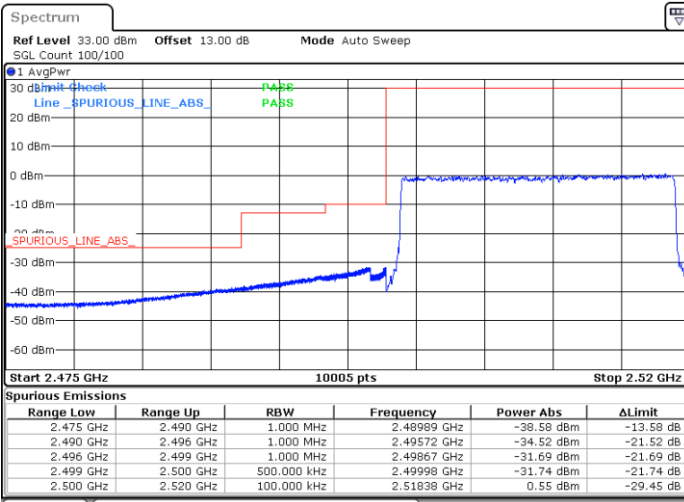


Date: 16.JUN.2022 17:41:19

Date: 16.JUN.2022 17:45:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16.JUN.2022 17:42:08

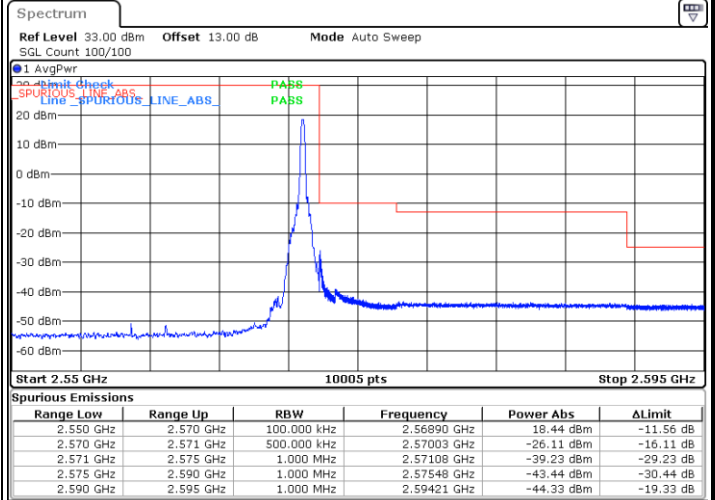
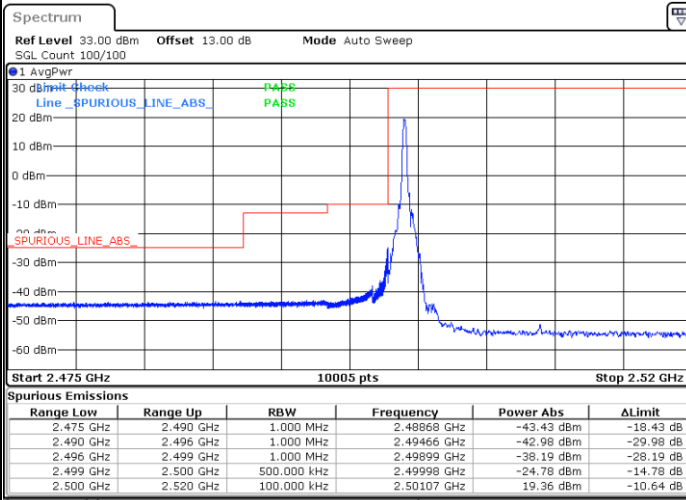
Date: 16.JUN.2022 17:44:48



LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

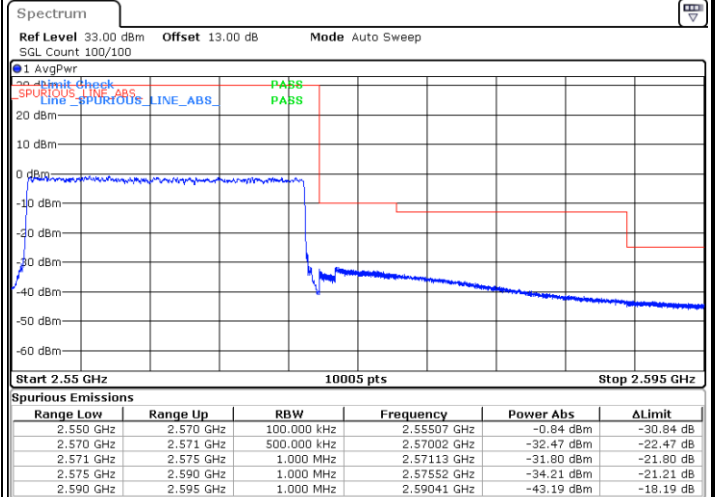
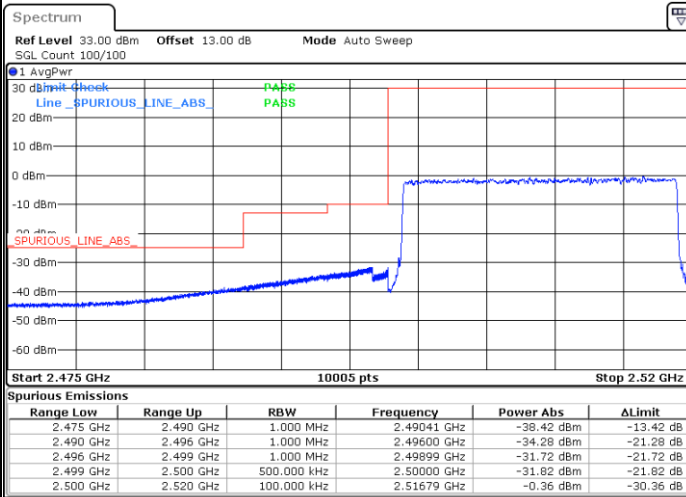


Date: 16.JUN.2022 17:41:37

Date: 16.JUN.2022 17:45:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

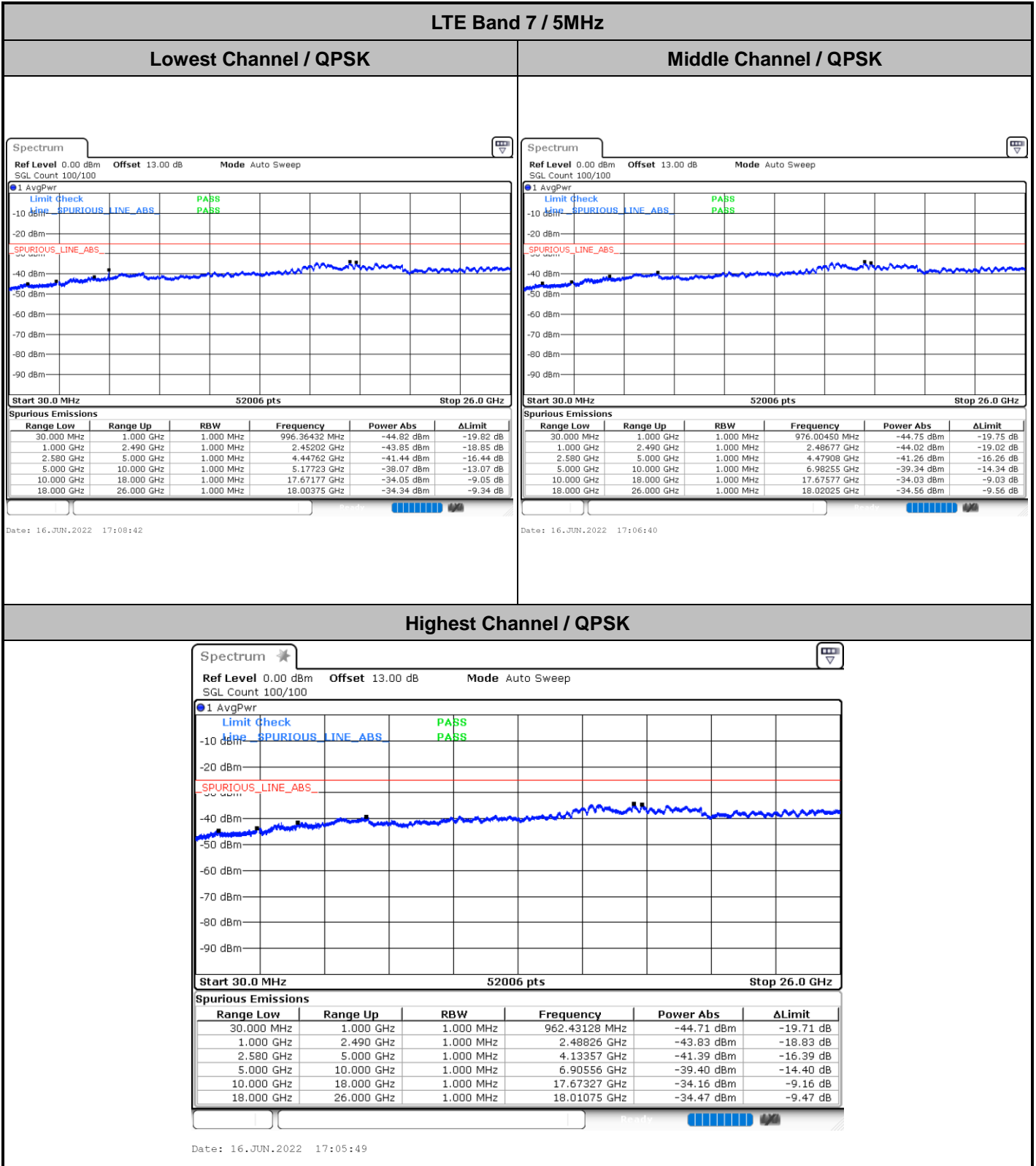


Date: 16.JUN.2022 17:41:56

Date: 16.JUN.2022 17:45:01



Conducted Spurious Emission

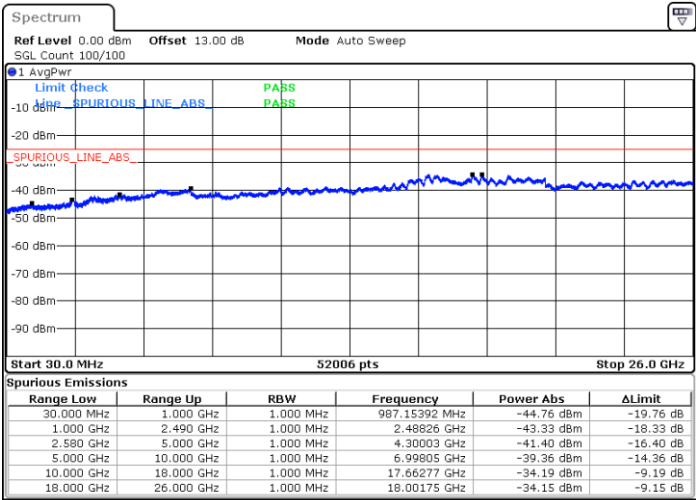




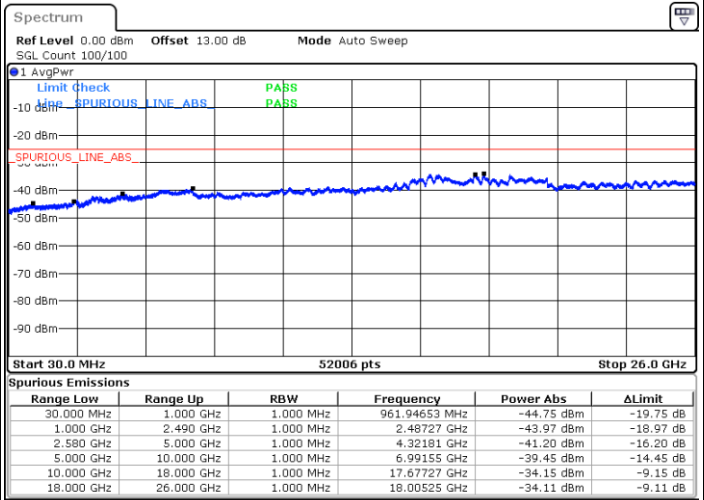
LTE Band 7 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

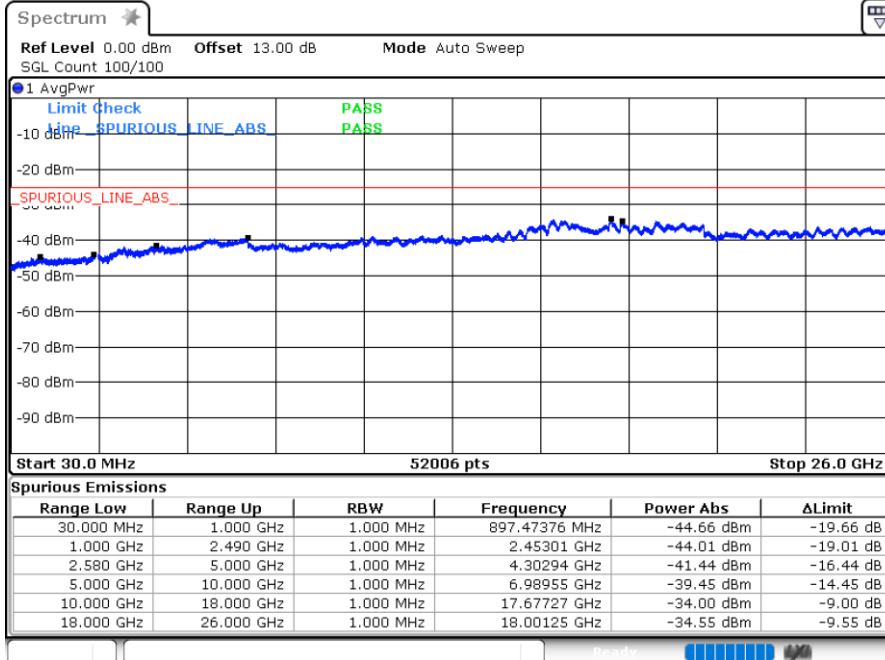


Date: 16.JUN.2022 17:24:32



Date: 16.JUN.2022 17:23:33

Highest Channel / QPSK



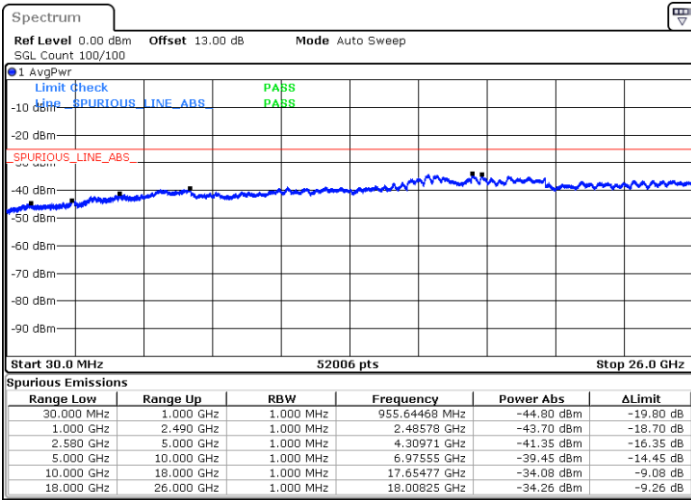
Date: 16.JUN.2022 17:22:27



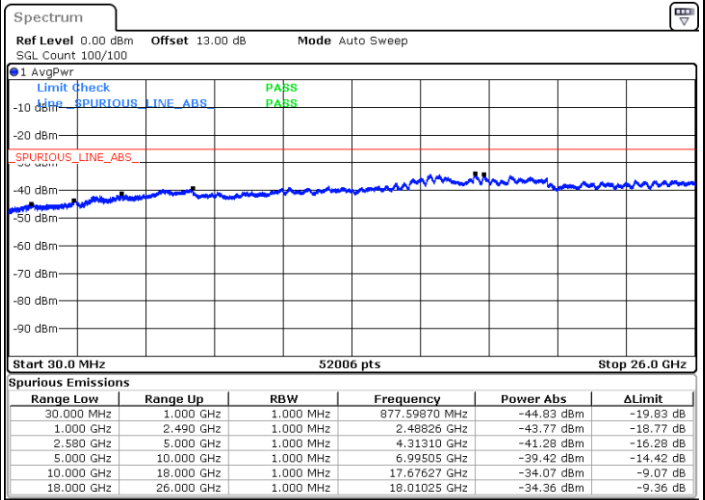
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

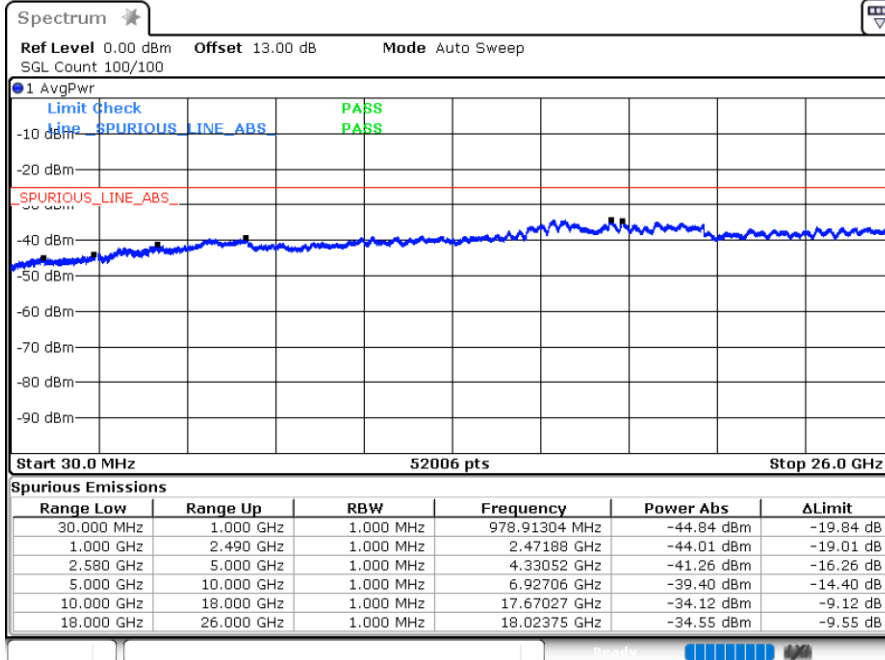


Date: 16.JUN.2022 17:37:46



Date: 16.JUN.2022 17:36:29

Highest Channel / QPSK



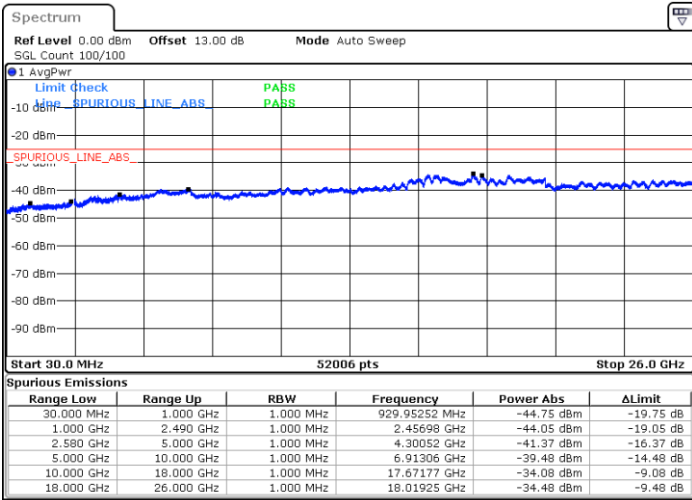
Date: 16.JUN.2022 17:35:26



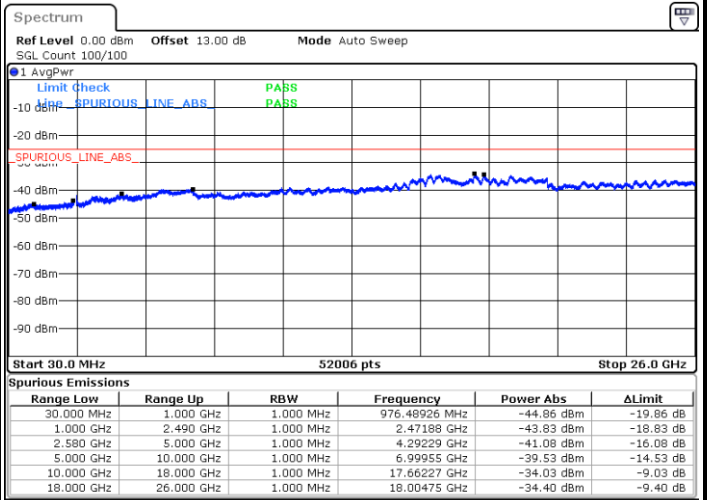
LTE Band 7 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

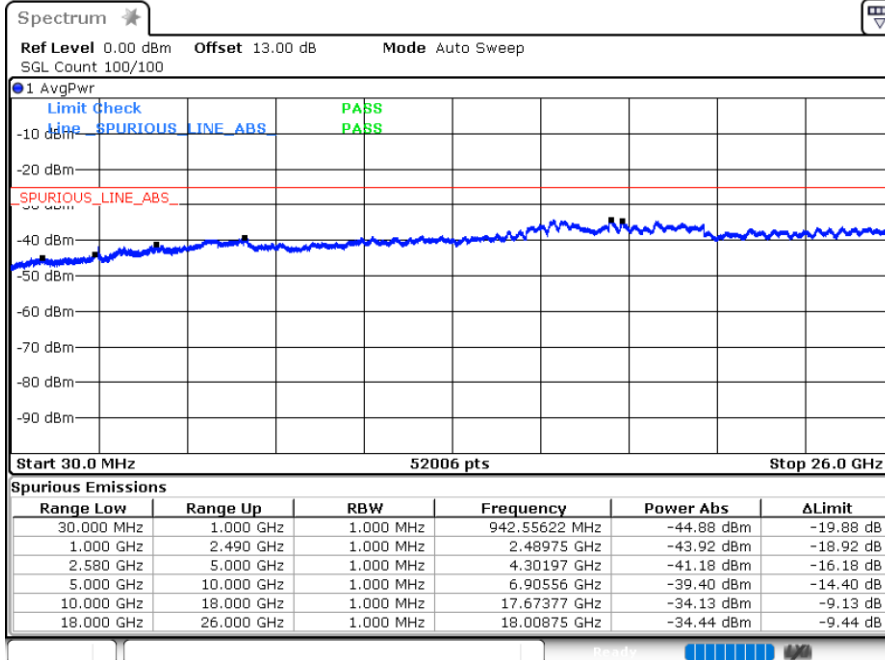


Date: 16.JUN.2022 17:49:40



Date: 16.JUN.2022 17:48:27

Highest Channel / QPSK



Date: 16.JUN.2022 17:47:35



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	0.0019	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0026	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0021	

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	-58.04	-25	-33.04	-68.25	3.03	13.24	H
	7504	-51.43	-25	-26.43	-60.88	3.56	13.01	H
	10000	-60.44	-25	-35.44	-69.96	3.92	13.44	H
	5004	-61.40	-25	-36.40	-71.61	3.03	13.24	V
	7504	-49.45	-25	-24.45	-58.90	3.56	13.01	V
	10000	-60.64	-25	-35.64	-70.16	3.92	13.44	V
Middle	5052	-57.83	-25	-32.83	-68.04	3.03	13.24	H
	7580	-47.36	-25	-22.36	-56.81	3.56	13.01	H
	10100	-60.39	-25	-35.39	-69.91	3.92	13.44	H
	5052	-62.42	-25	-37.42	-72.63	3.03	13.24	V
	7580	-48.66	-25	-23.66	-58.11	3.56	13.01	V
	10100	-60.47	-25	-35.47	-69.99	3.92	13.44	V
Highest	5104	-58.88	-25	-33.88	-69.09	3.03	13.24	H
	7652	-46.64	-25	-21.64	-56.09	3.56	13.01	H
	10200	-60.50	-25	-35.50	-70.02	3.92	13.44	H
	5104	-63.60	-25	-38.60	-73.81	3.03	13.24	V
	7652	-47.61	-25	-22.61	-57.06	3.56	13.01	V
	10200	-60.51	-25	-35.51	-70.03	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	-60.38	-25	-35.38	-70.59	3.03	13.24	H
	7712	-59.98	-25	-34.98	-69.43	3.56	13.01	H
	10280	-59.03	-25	-34.03	-68.55	3.92	13.44	H
	5144	-62.37	-25	-37.37	-72.58	3.03	13.24	V
	7712	-60.07	-25	-35.07	-69.52	3.56	13.01	V
	10280	-59.05	-25	-34.05	-68.57	3.92	13.44	V
Middle	5172	-60.37	-25	-35.37	-70.58	3.03	13.24	H
	7760	-60.23	-25	-35.23	-69.68	3.56	13.01	H
	10340	-58.29	-25	-33.29	-67.81	3.92	13.44	H
	5172	-62.18	-25	-37.18	-72.39	3.03	13.24	V
	7760	-58.88	-25	-33.88	-68.33	3.56	13.01	V
	10340	-58.15	-25	-33.15	-67.67	3.92	13.44	V
Highest	5204	-60.17	-25	-35.17	-70.38	3.03	13.24	H
	7804	-60.24	-25	-35.24	-69.69	3.56	13.01	H
	10400	-58.48	-25	-33.48	-68.00	3.92	13.44	H
	5204	-62.36	-25	-37.36	-72.57	3.03	13.24	V
	7804	-59.75	-25	-34.75	-69.20	3.56	13.01	V
	10400	-58.65	-25	-33.65	-68.17	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	4992	-48.96	-25	-23.96	-59.17	3.03	13.24	H
	7492	-43.22	-25	-18.22	-52.67	3.56	13.01	H
	9990	-60.84	-25	-35.84	-70.36	3.92	13.44	H
	4992	-47.26	-25	-22.26	-57.47	3.03	13.24	V
	7492	-43.40	-25	-18.40	-52.85	3.56	13.01	V
	9990	-60.75	-25	-35.75	-70.27	3.92	13.44	V
Middle	5168	-53.00	-25	-28.00	-63.21	3.03	13.24	H
	7752	-44.67	-25	-19.67	-54.12	3.56	13.01	H
	10340	-61.27	-25	-36.27	-70.79	3.92	13.44	H
	5168	-48.69	-25	-23.69	-58.90	3.03	13.24	V
	7752	-45.04	-25	-20.04	-54.49	3.56	13.01	V
	10340	-61.25	-25	-36.25	-70.77	3.92	13.44	V
Highest	5340	-55.84	-25	-30.84	-66.05	3.03	13.24	H
	8015	-48.50	-25	-23.50	-57.95	3.56	13.01	H
	10688	-59.87	-25	-34.87	-69.39	3.92	13.44	H
	5340	-57.08	-25	-32.08	-67.29	3.03	13.24	V
	8015	-45.58	-25	-20.58	-55.03	3.56	13.01	V
	10688	-59.66	-25	-34.66	-69.18	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	-57.96	-25	-32.96	-68.17	3.03	13.24	H
	7560	-45.26	-25	-20.26	-54.71	3.56	13.01	H
	10080	-60.70	-25	-35.70	-70.22	3.92	13.44	H
	5040	-60.90	-25	-35.90	-71.11	3.03	13.24	V
	7560	-46.40	-25	-21.40	-55.85	3.56	13.01	V
	10080	-59.68	-25	-34.68	-69.20	3.92	13.44	V
Middle	5072	-58.58	-25	-33.58	-68.79	3.03	13.24	H
	7604	-49.66	-25	-24.66	-59.11	3.56	13.01	H
	10140	-60.03	-25	-35.03	-69.55	3.92	13.44	H
	5072	-63.48	-25	-38.48	-73.69	3.03	13.24	V
	7604	-45.97	-25	-20.97	-55.42	3.56	13.01	V
	10140	-59.96	-25	-34.96	-69.48	3.92	13.44	V
Highest	5104	-62.08	-25	-37.08	-72.29	3.03	13.24	H
	7652	-43.70	-25	-18.70	-53.15	3.56	13.01	H
	10200	-60.06	-25	-35.06	-69.58	3.92	13.44	H
	12750	-58.14	-25	-33.14	-68.06	4.44	14.36	H
	5104	-64.09	-25	-39.09	-74.30	3.03	13.24	V
	7652	-44.52	-25	-19.52	-53.97	3.56	13.01	V
	10200	-59.72	-25	-34.72	-69.24	3.92	13.44	V
	12750	-56.60	-25	-31.60	-66.52	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	-48.16	-25	-23.16	-58.37	3.03	13.24	H
	7548	-44.53	-25	-19.53	-53.98	3.56	13.01	H
	10070	-60.46	-25	-35.46	-69.98	3.92	13.44	H
	5032	-47.74	-25	-22.74	-57.95	3.03	13.24	V
	7548	-46.34	-25	-21.34	-55.79	3.56	13.01	V
	10070	-60.74	-25	-35.74	-70.26	3.92	13.44	V
Middle	5184	-53.23	-25	-28.23	-63.44	3.03	13.24	H
	7776	-48.74	-25	-23.74	-58.19	3.56	13.01	H
	10380	-60.79	-25	-35.79	-70.31	3.92	13.44	H
	5184	-49.64	-25	-24.64	-59.85	3.03	13.24	V
	7776	-48.21	-25	-23.21	-57.66	3.56	13.01	V
	10380	-60.91	-25	-35.91	-70.43	3.92	13.44	V
Highest	5340	-59.16	-25	-34.16	-69.37	3.03	13.24	H
	8010	-51.28	-25	-26.28	-60.73	3.56	13.01	H
	10684	-59.60	-25	-34.60	-69.12	3.92	13.44	H
	5340	-55.09	-25	-30.09	-65.30	3.03	13.24	V
	8010	-52.73	-25	-27.73	-62.18	3.56	13.01	V
	10684	-59.80	-25	-34.80	-69.32	3.92	13.44	V

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