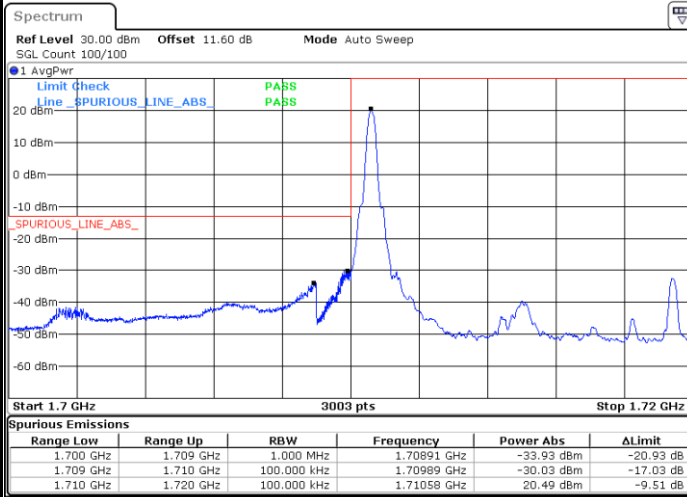




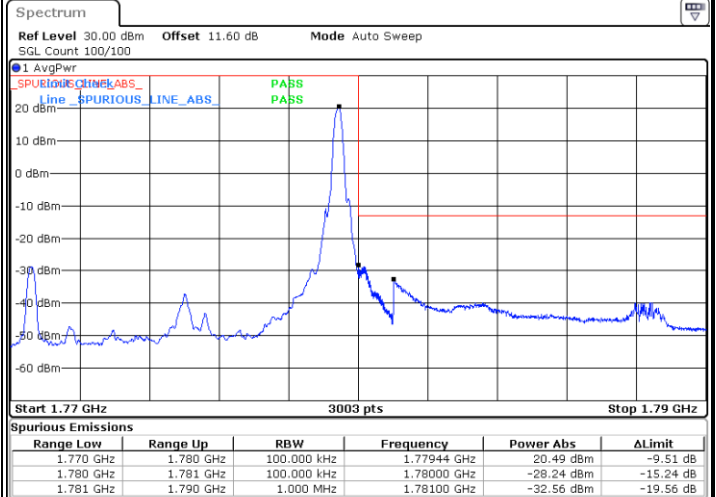
LTE Band 66 / 10MHz / QPSK

Lowest Band Edge / 1 RB



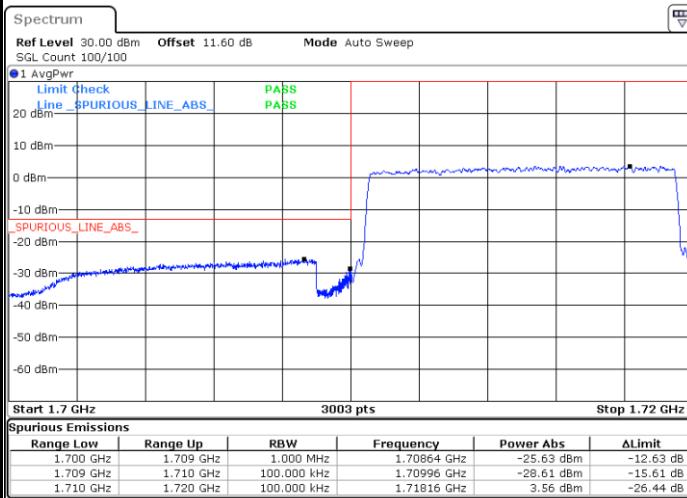
Date: 23.MAY.2021 21:07:00

Highest Band Edge / 1 RB



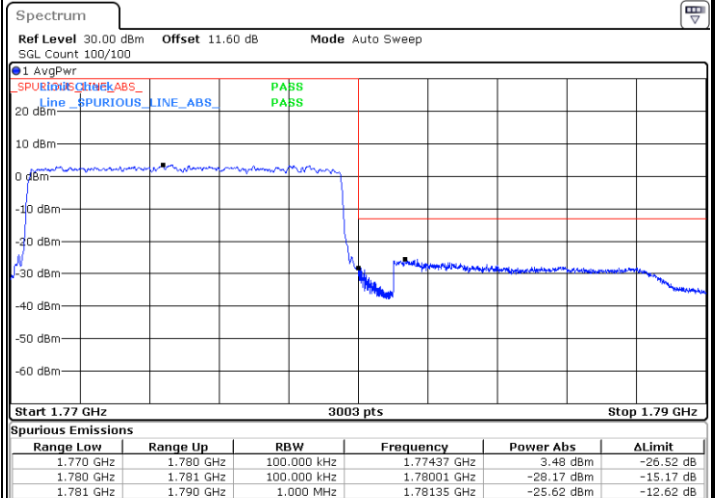
Date: 23.MAY.2021 21:12:03

Lowest Band Edge / Full RB



Date: 23.MAY.2021 21:07:51

Highest Band Edge / Full RB

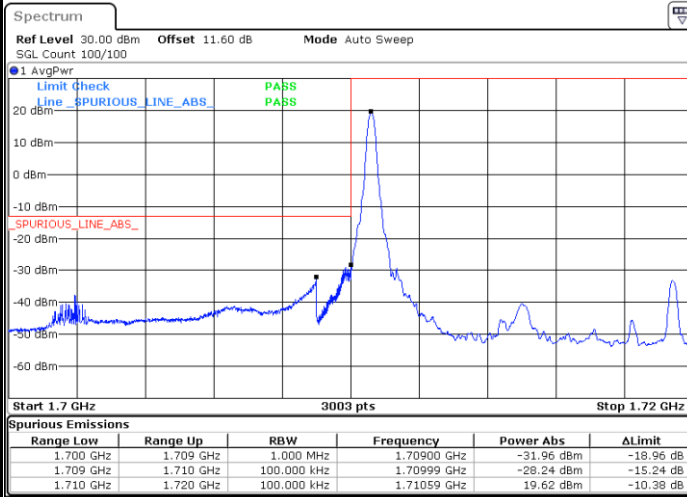


Date: 23.MAY.2021 21:12:54



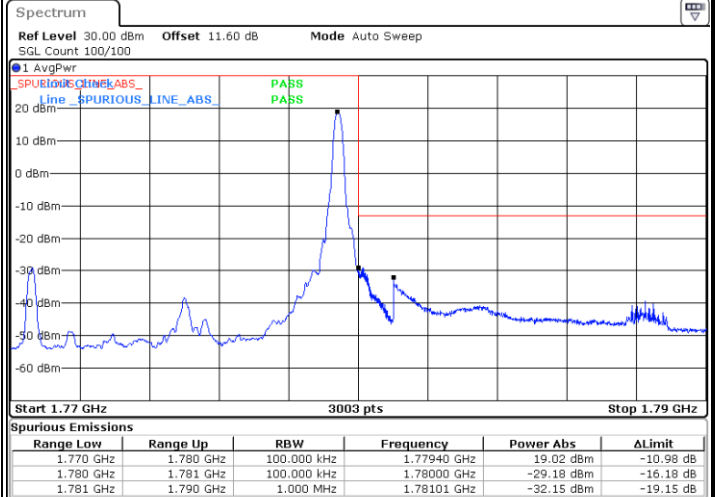
LTE Band 66 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



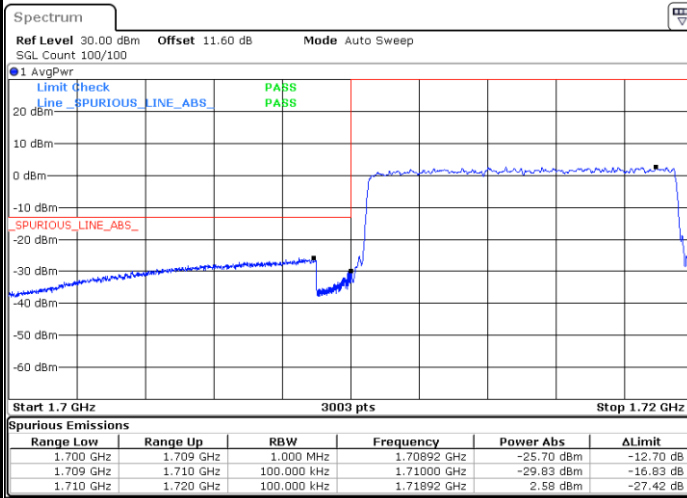
Date: 23.MAY.2021 21:07:25

Highest Band Edge / 1 RB



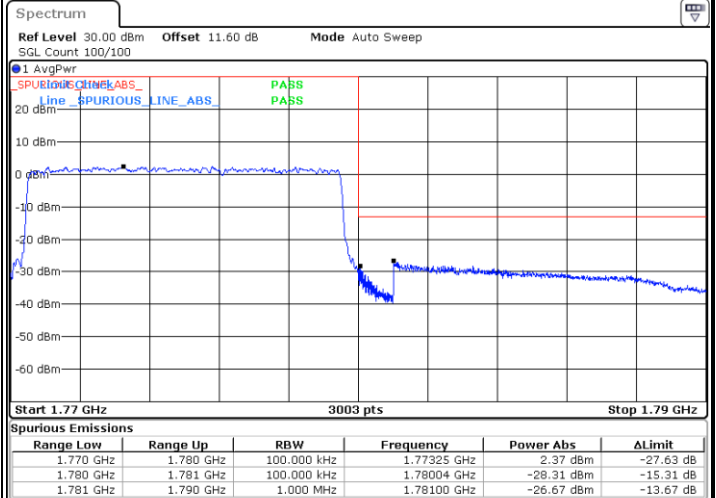
Date: 23.MAY.2021 21:12:28

Lowest Band Edge / Full RB



Date: 23.MAY.2021 21:08:17

Highest Band Edge / Full RB

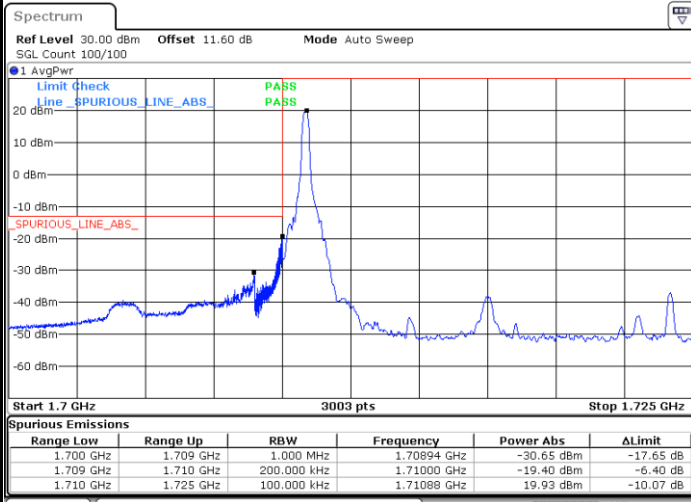


Date: 23.MAY.2021 21:13:20



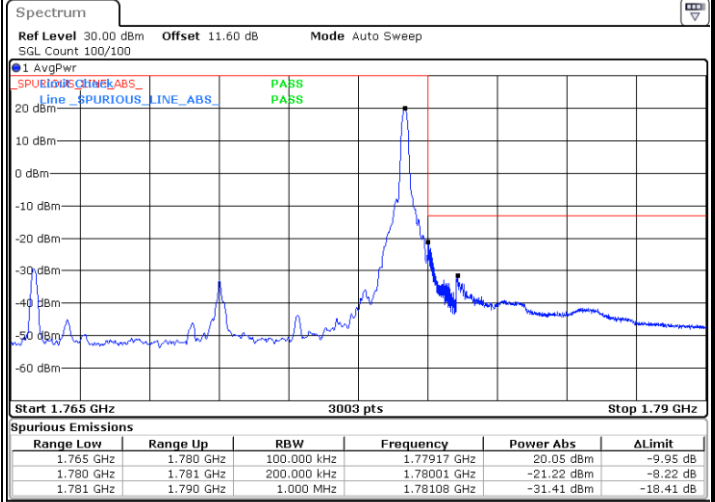
LTE Band 66 / 15MHz / QPSK

Lowest Band Edge / 1 RB



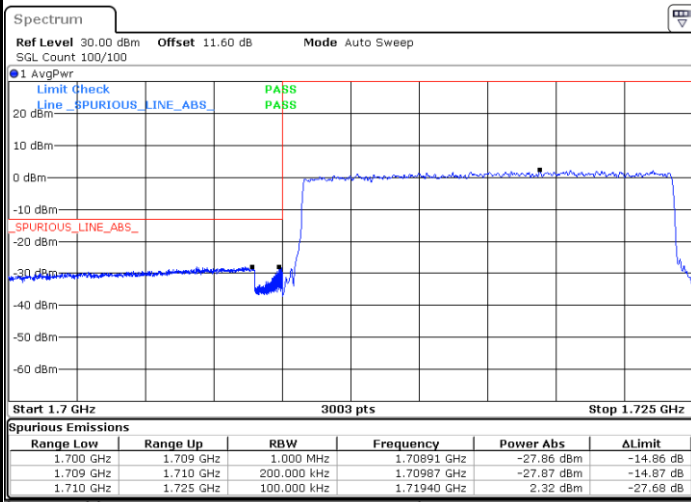
Date: 23.MAY.2021 21:35:47

Highest Band Edge / 1 RB



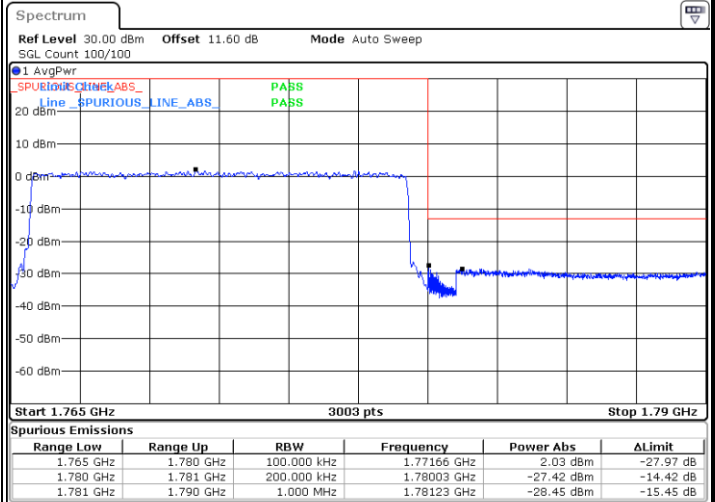
Date: 23.MAY.2021 21:49:30

Lowest Band Edge / Full RB



Date: 23.MAY.2021 21:36:38

Highest Band Edge / Full RB

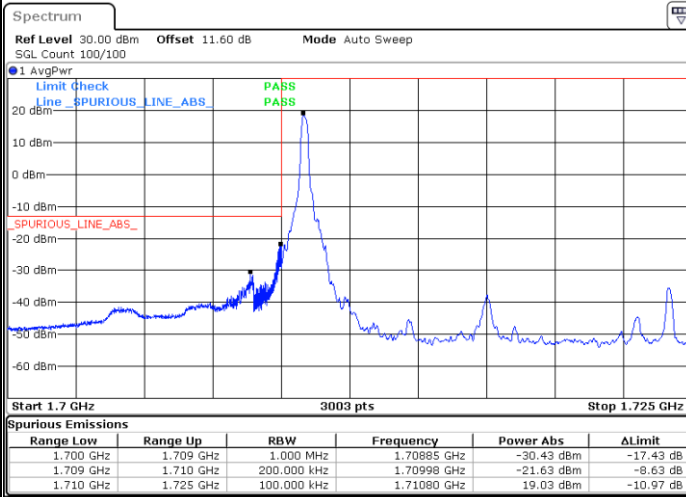


Date: 23.MAY.2021 21:50:22



LTE Band 66 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



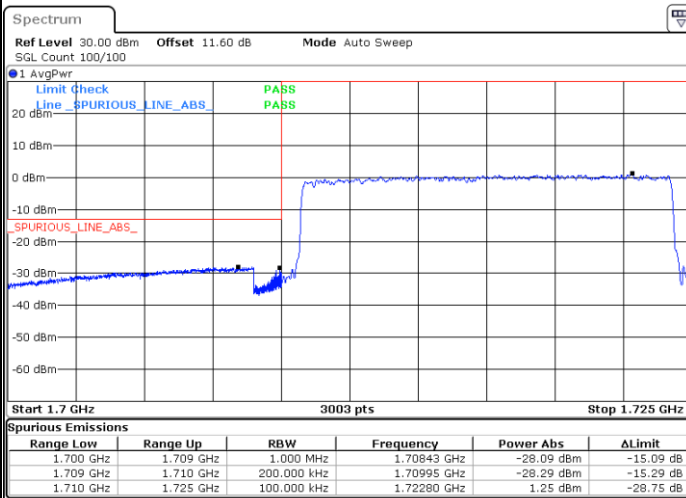
Date: 23.MAY.2021 21:36:13

Highest Band Edge / 1 RB



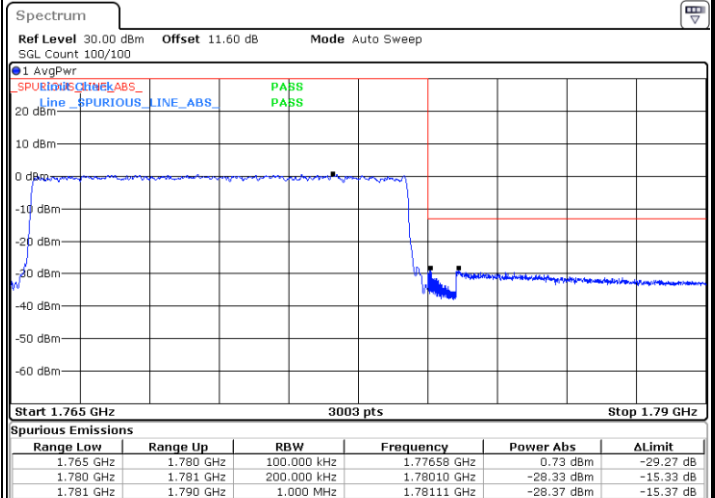
Date: 23.MAY.2021 21:49:56

Lowest Band Edge / Full RB



Date: 23.MAY.2021 21:37:04

Highest Band Edge / Full RB

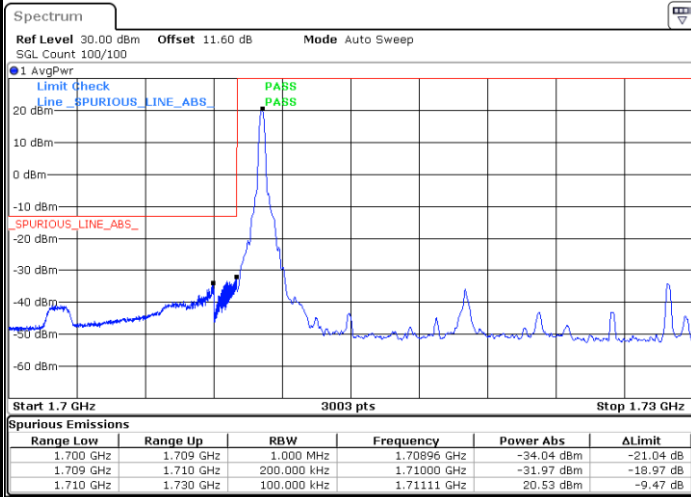


Date: 23.MAY.2021 21:50:47



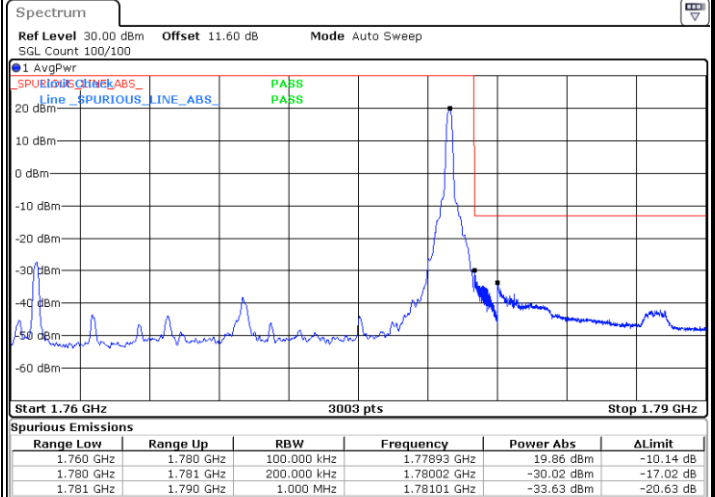
LTE Band 66 / 20MHz / QPSK

Lowest Band Edge / 1 RB



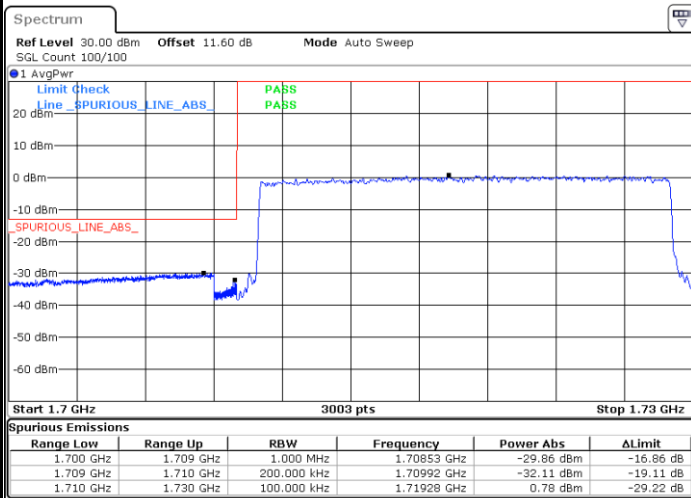
Date: 23.MAY.2021 22:03:32

Highest Band Edge / 1 RB



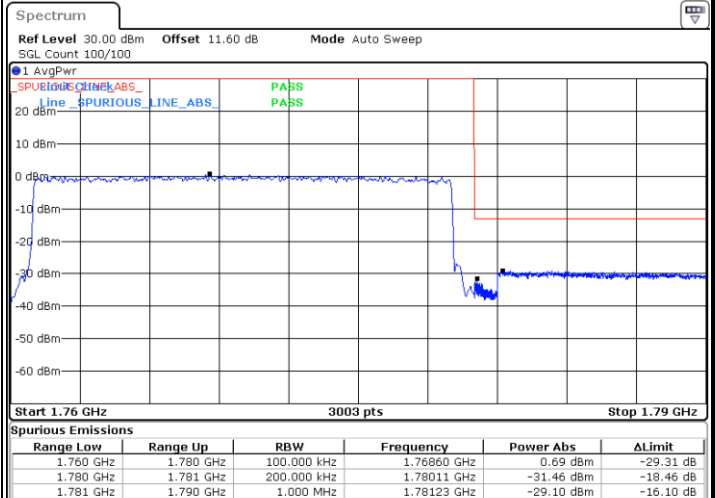
Date: 23.MAY.2021 22:08:36

Lowest Band Edge / Full RB



Date: 23.MAY.2021 22:04:23

Highest Band Edge / Full RB

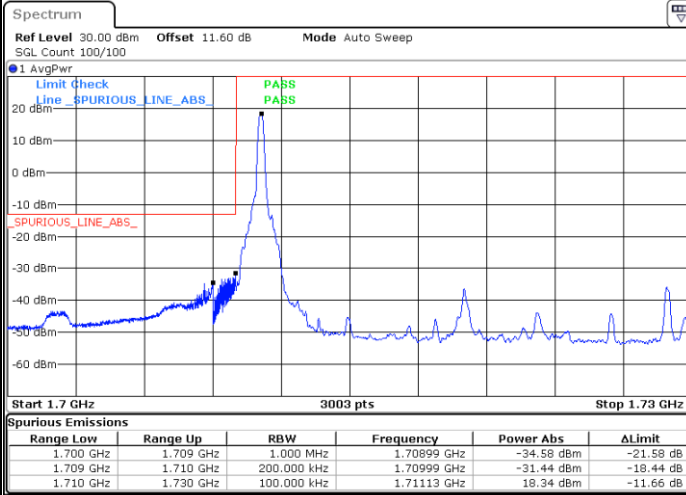


Date: 23.MAY.2021 22:09:27



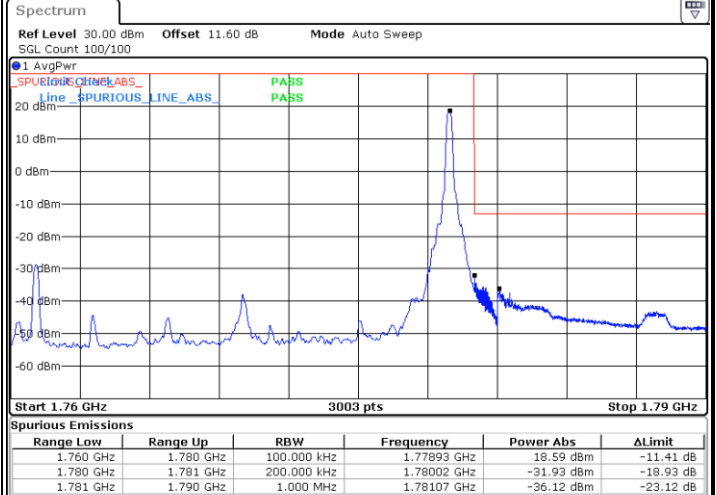
LTE Band 66 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



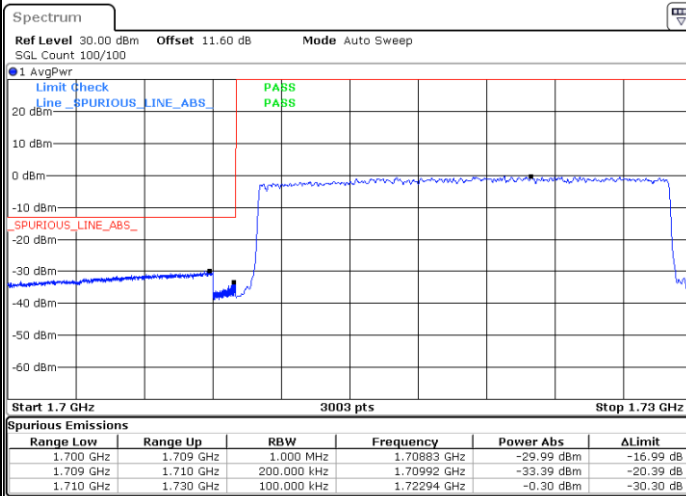
Date: 23.MAY.2021 22:03:58

Highest Band Edge / 1 RB



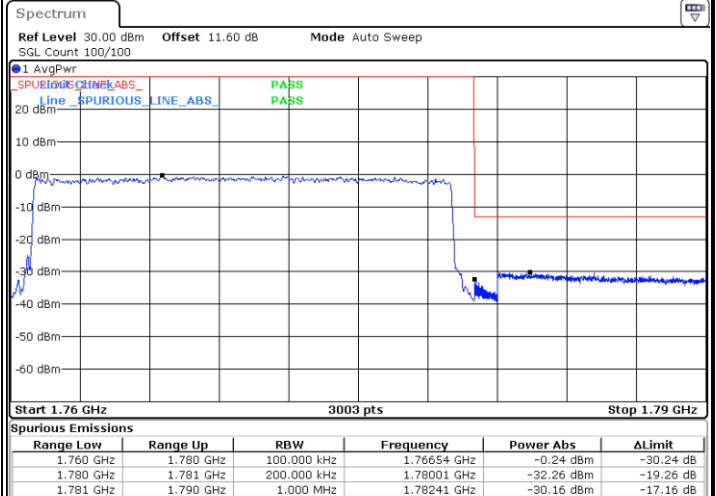
Date: 23.MAY.2021 22:09:01

Lowest Band Edge / Full RB



Date: 23.MAY.2021 22:04:49

Highest Band Edge / Full RB



Date: 23.MAY.2021 22:09:53

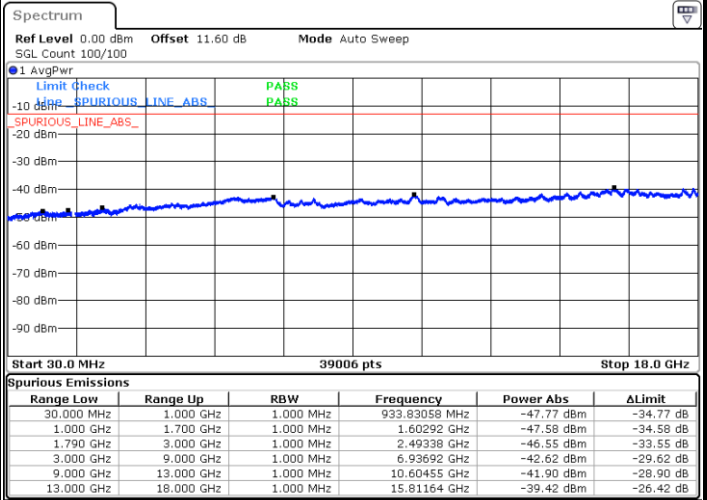
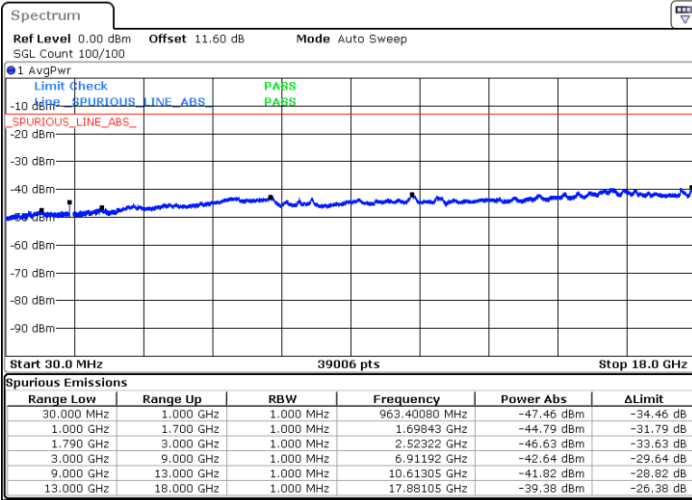


Conducted Spurious Emission

LTE Band 66 / 1.4MHz

Lowest Channel / QPSK

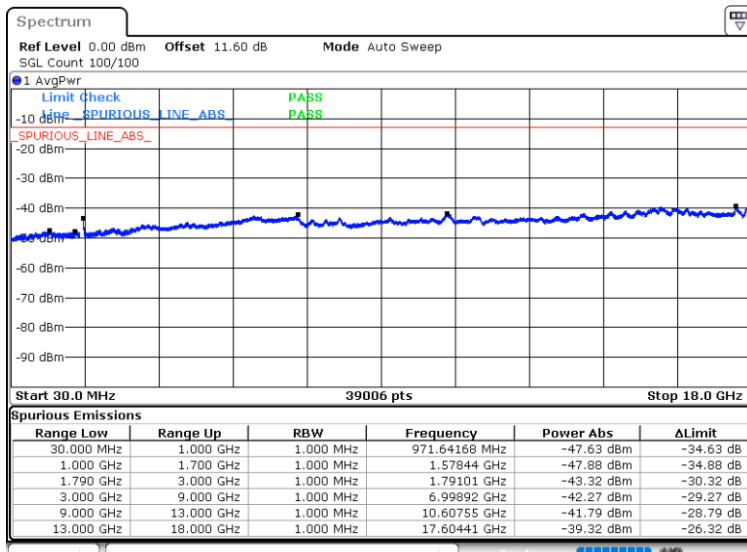
Middle Channel / QPSK



Date: 23.MAY.2021 20:45:14

Date: 23.MAY.2021 20:47:39

Highest Channel / QPSK



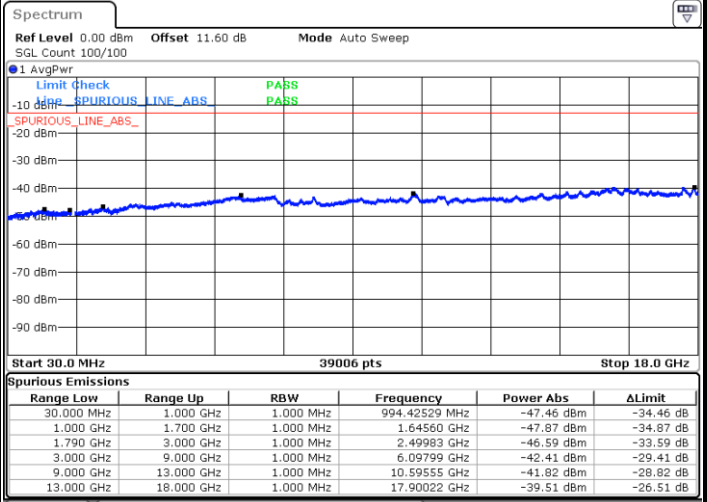
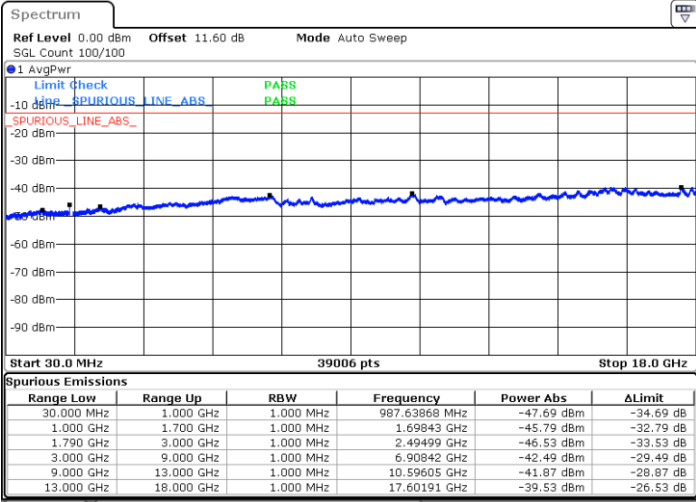
Date: 23.MAY.2021 20:50:17



LTE Band 66 / 3MHz

Lowest Channel / QPSK

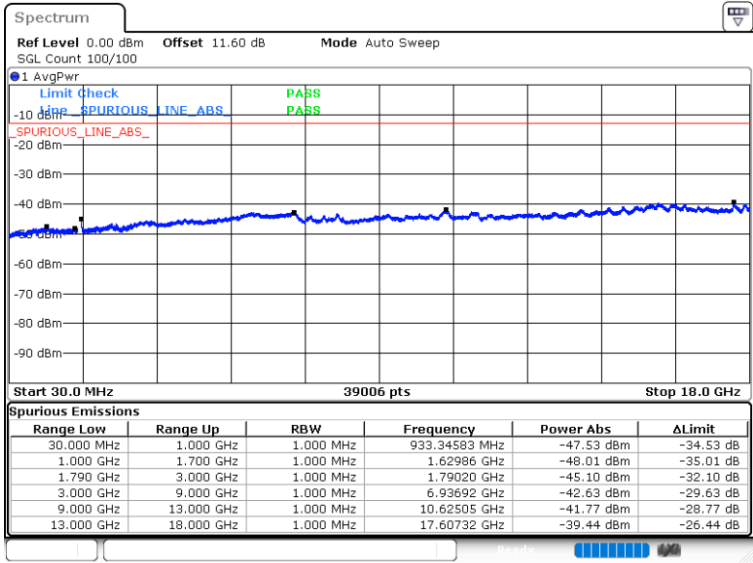
Middle Channel / QPSK



Date: 23.MAY.2021 20:52:58

Date: 23.MAY.2021 20:55:23

Highest Channel / QPSK



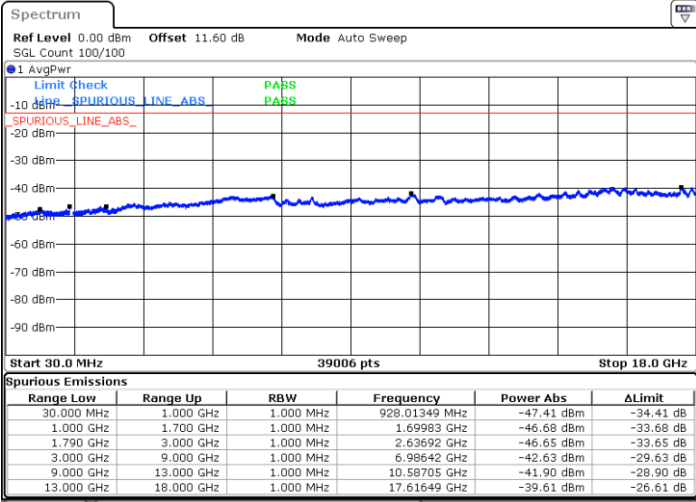
Date: 23.MAY.2021 20:58:17



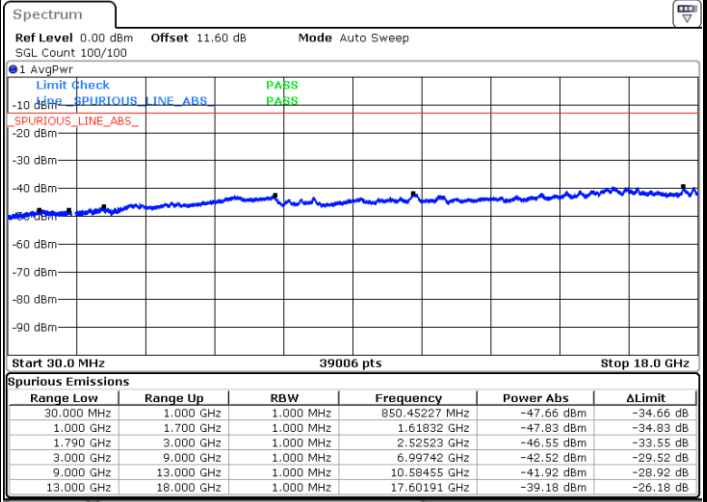
LTE Band 66 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

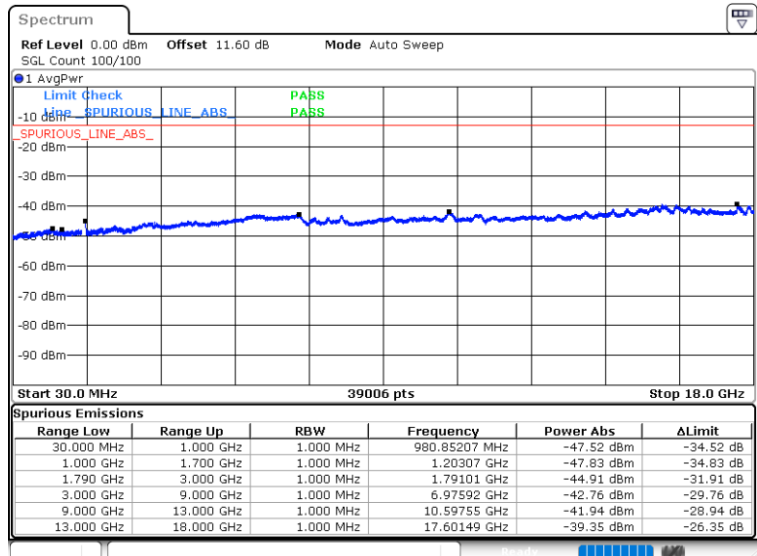


Date: 23.MAY.2021 21:01:05



Date: 23.MAY.2021 22:29:47

Highest Channel / QPSK



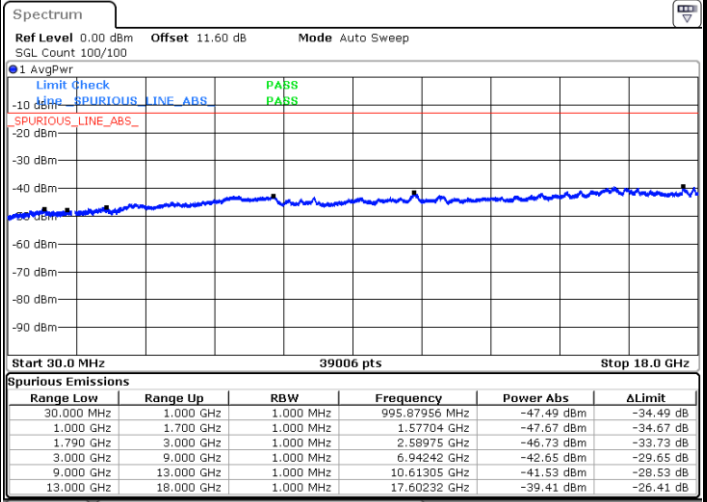
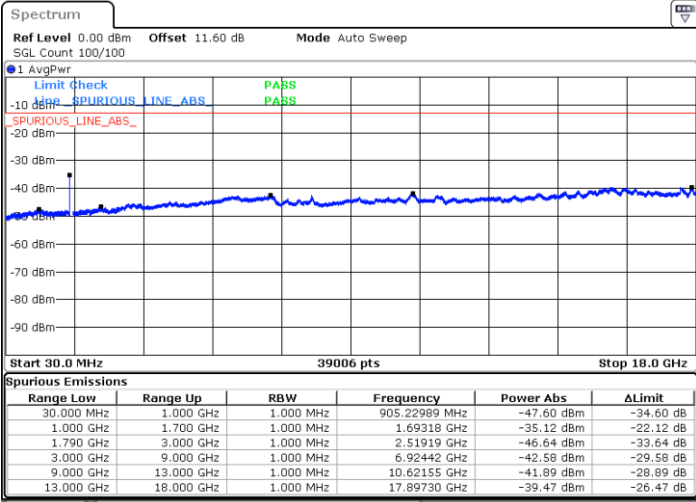
Date: 23.MAY.2021 21:06:09



LTE Band 66 / 10MHz

Lowest Channel / QPSK

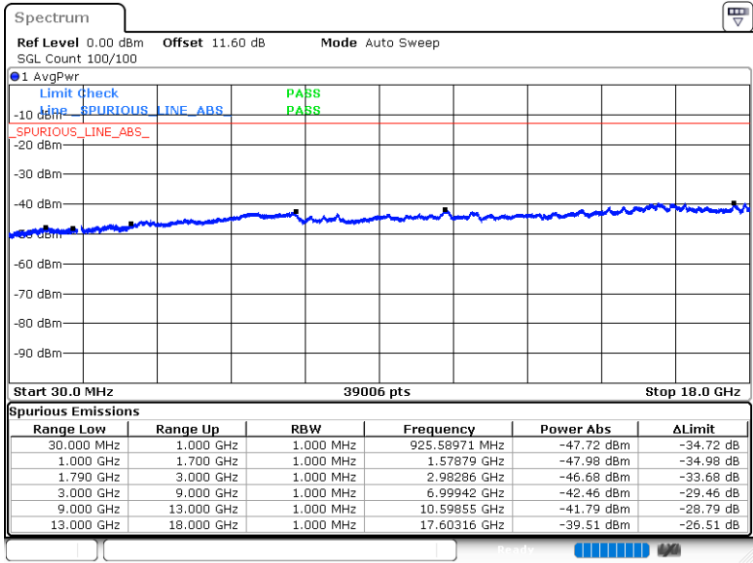
Middle Channel / QPSK



Date: 23.MAY.2021 21:09:12

Date: 23.MAY.2021 21:11:37

Highest Channel / QPSK



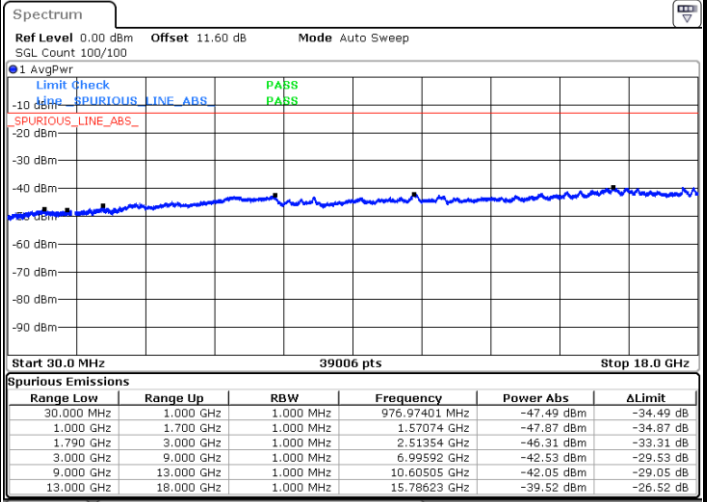
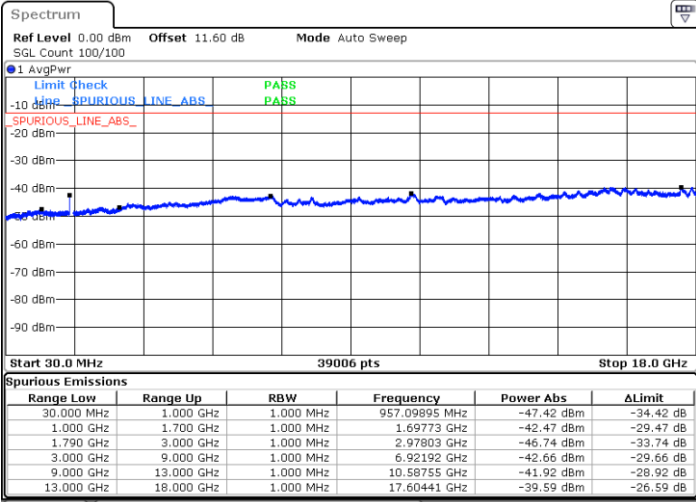
Date: 23.MAY.2021 22:31:00



LTE Band 66 / 15MHz

Lowest Channel / QPSK

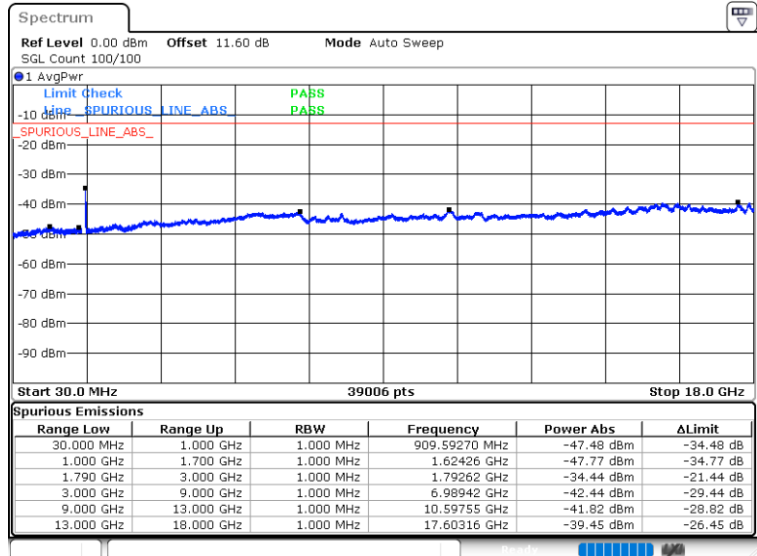
Middle Channel / QPSK



Date: 23.MAY.2021 21:37:59

Date: 23.MAY.2021 22:32:16

Highest Channel / QPSK



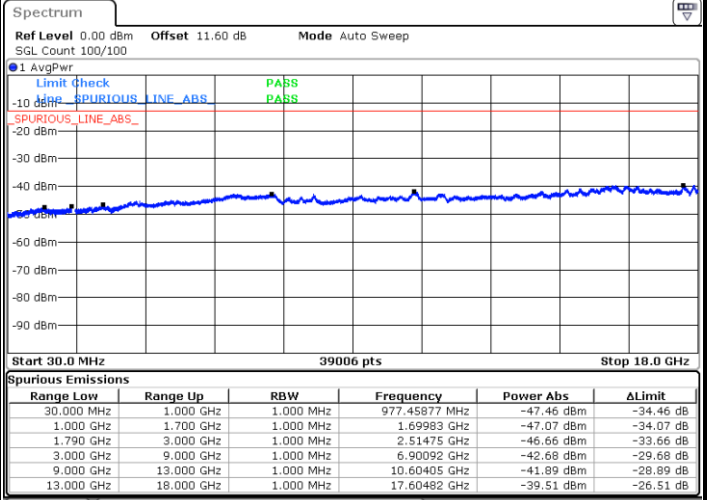
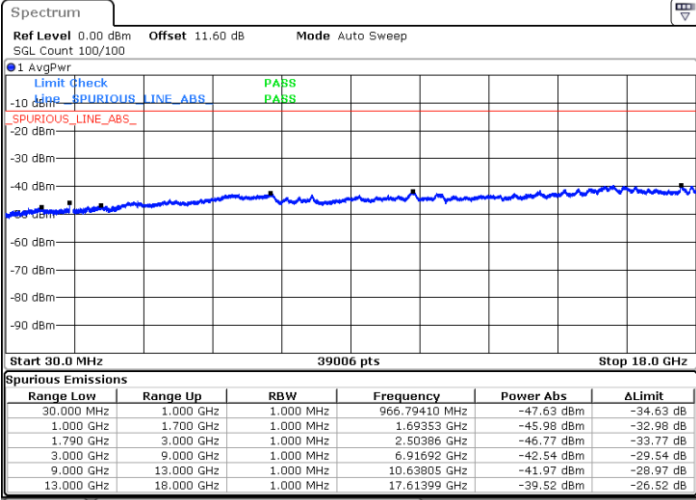
Date: 23.MAY.2021 21:51:42



LTE Band 66 / 20MHz

Lowest Channel / QPSK

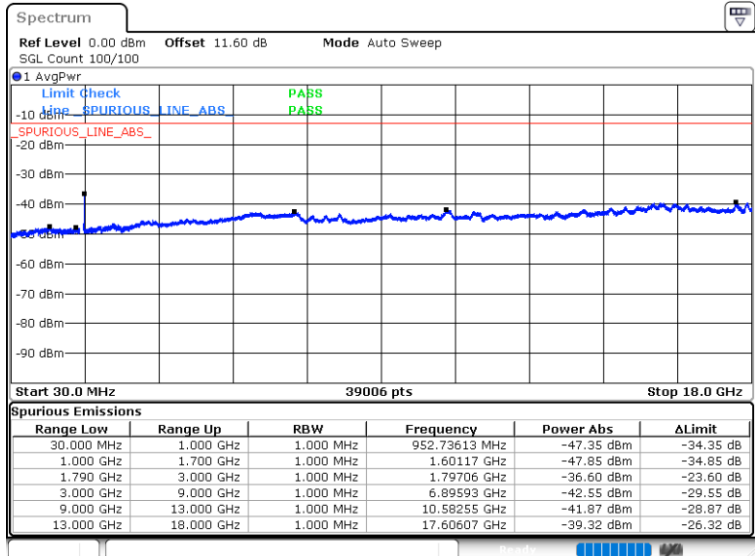
Middle Channel / QPSK



Date: 23.MAY.2021 22:05:44

Date: 23.MAY.2021 22:08:09

Highest Channel / QPSK



Date: 23.MAY.2021 22:10:48



Frequency Stability

Test Conditions		LTE Band 66 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0087	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0071	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0088	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0086	

Note:

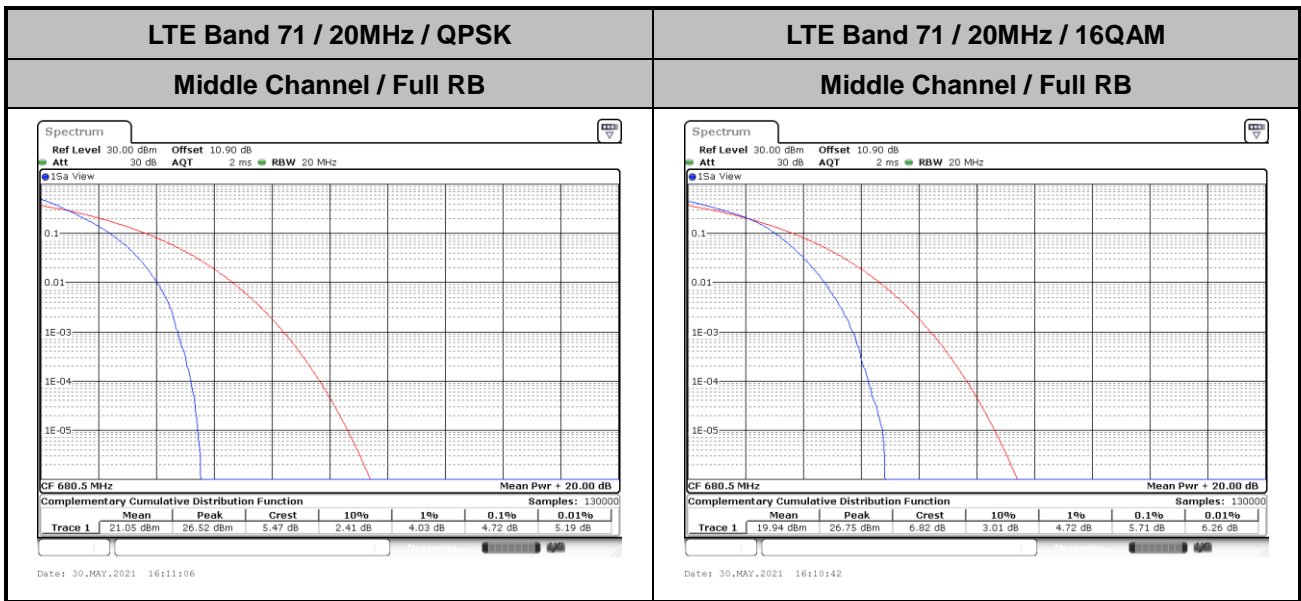
- 1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.3 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 71

Peak-to-Average Ratio

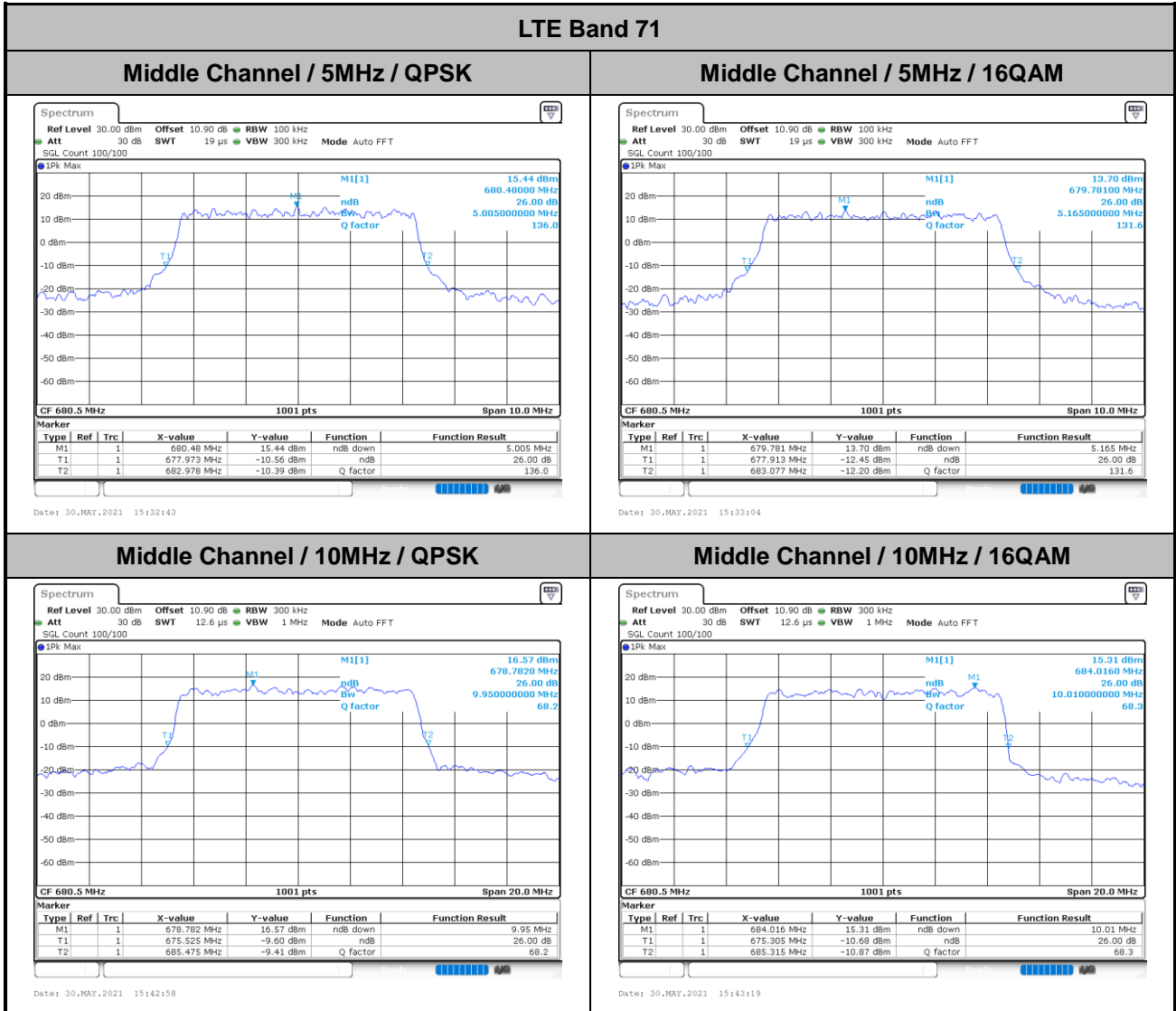
Mode	LTE Band 71 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.72	5.71	-	-	PASS





26dB Bandwidth

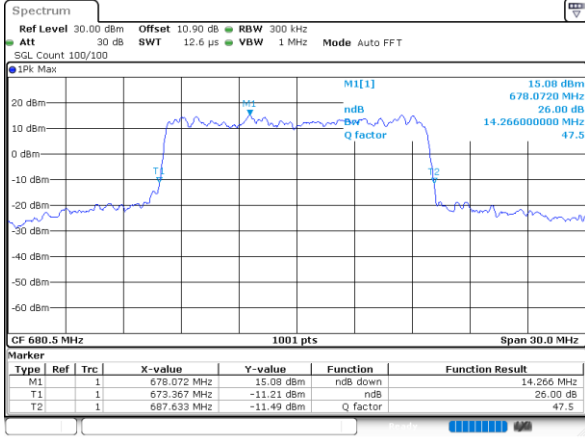
Mode	LTE Band 71 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	5.01	5.17	9.95	10.01	14.27	14.54	19.46	19.34





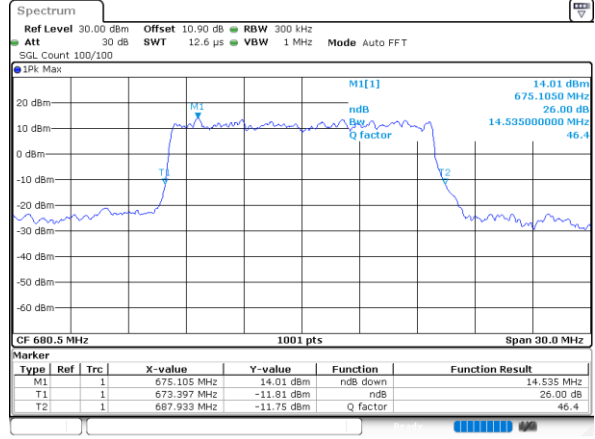
LTE Band 71

Middle Channel / 15MHz / QPSK



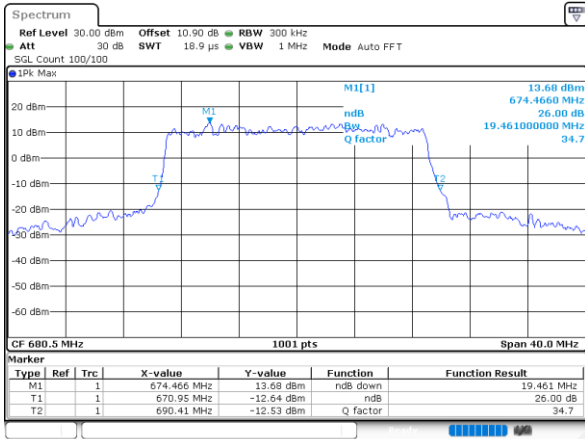
Date: 30.MAY.2021 15:53:10

Middle Channel / 15MHz / 16QAM



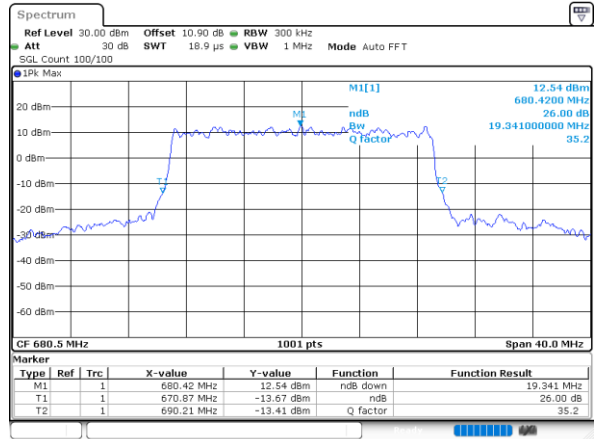
Date: 30.MAY.2021 15:53:31

Middle Channel / 20MHz / QPSK



Date: 30.MAY.2021 16:05:19

Middle Channel / 20MHz / 16QAM

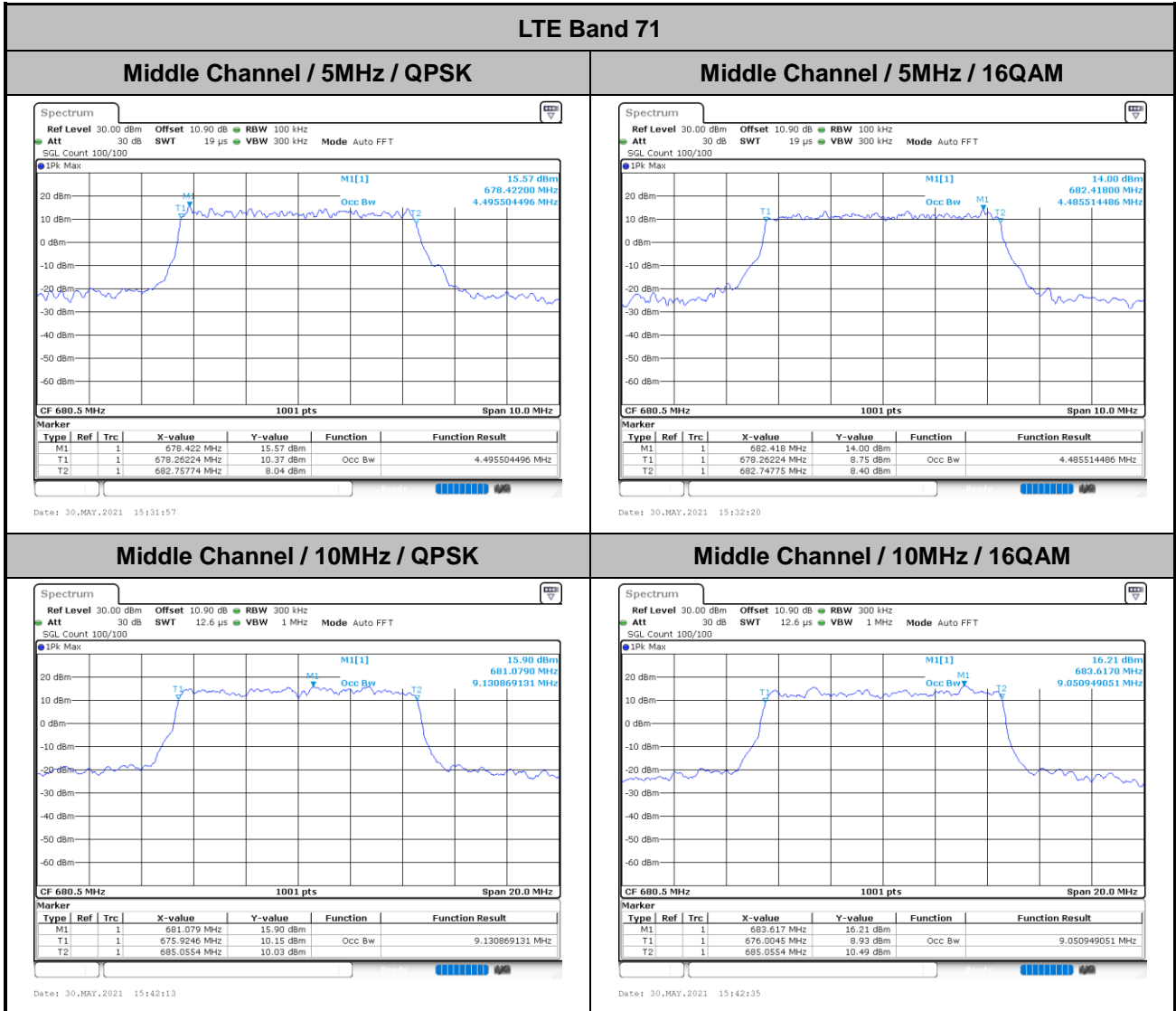


Date: 30.MAY.2021 16:05:40



Occupied Bandwidth

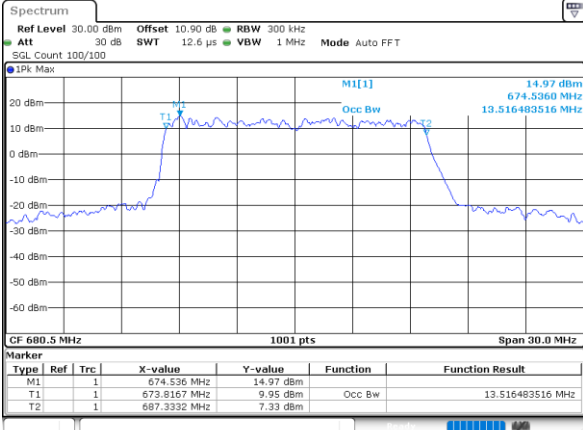
Mode	LTE Band 71 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.49	9.13	9.05	13.52	13.46	17.86	17.86





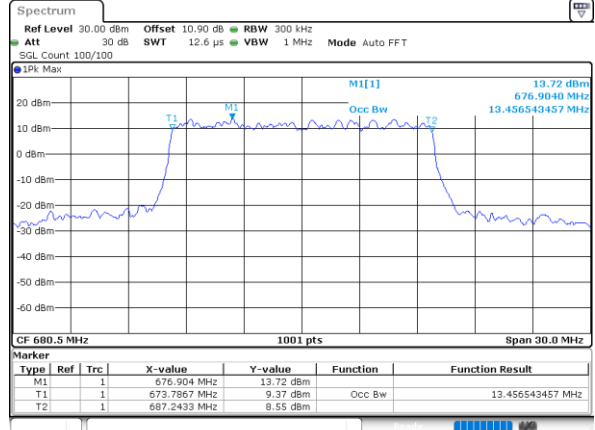
LTE Band 71

Middle Channel / 15MHz / QPSK



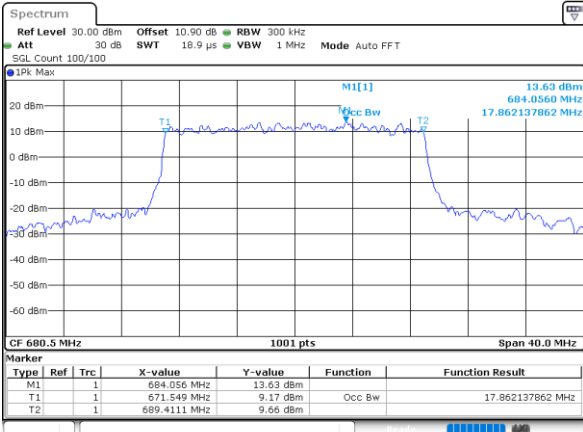
Date: 30_MAY.2021 15:52:25

Middle Channel / 15MHz / 16QAM



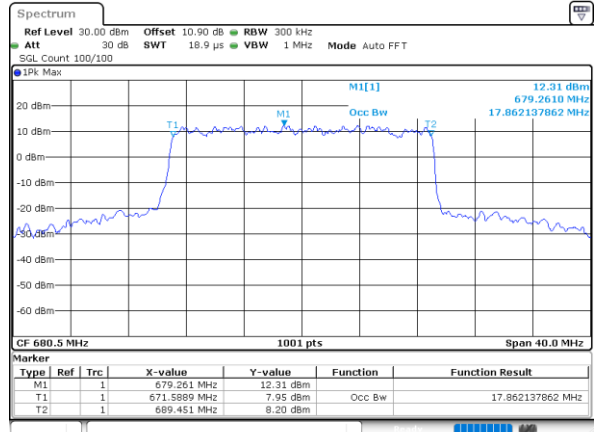
Date: 30_MAY.2021 15:52:47

Middle Channel / 20MHz / QPSK



Date: 30_MAY.2021 16:04:36

Middle Channel / 20MHz / 16QAM



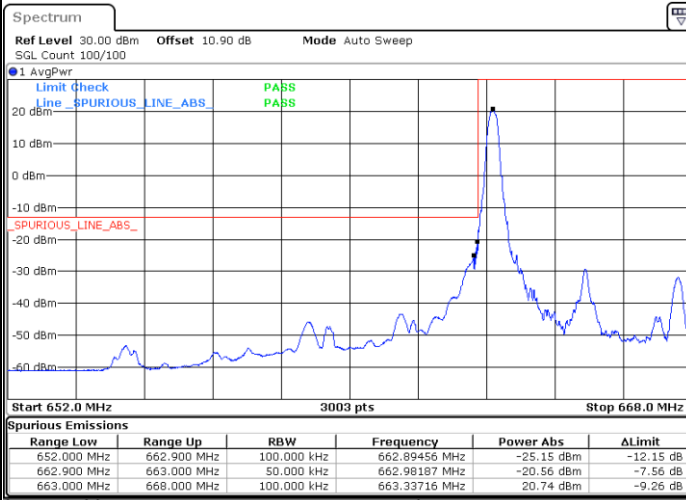
Date: 30_MAY.2021 16:04:57



Conducted Band Edge

LTE Band 71 / 5MHz / QPSK

Lowest Band Edge / 1 RB



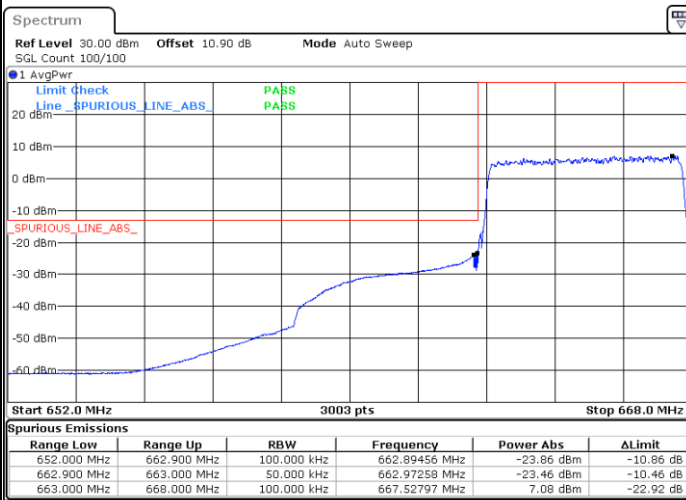
Date: 30.MAY.2021 15:28:28

Highest Band Edge / 1 RB



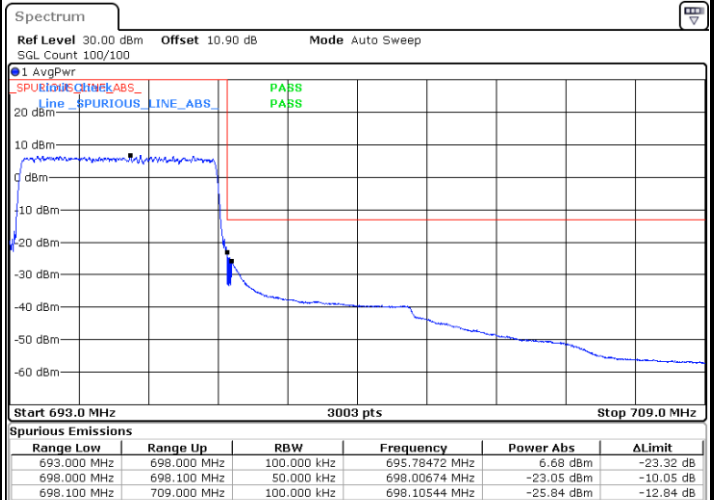
Date: 30.MAY.2021 15:34:28

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:30:10

Highest Band Edge / Full RB

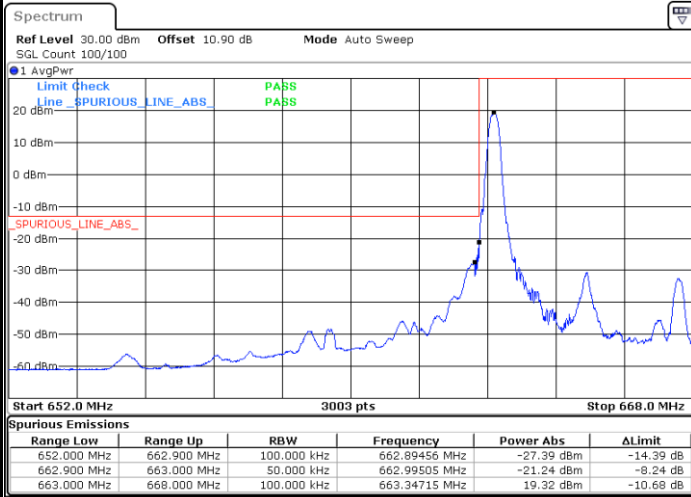


Date: 30.MAY.2021 15:36:10



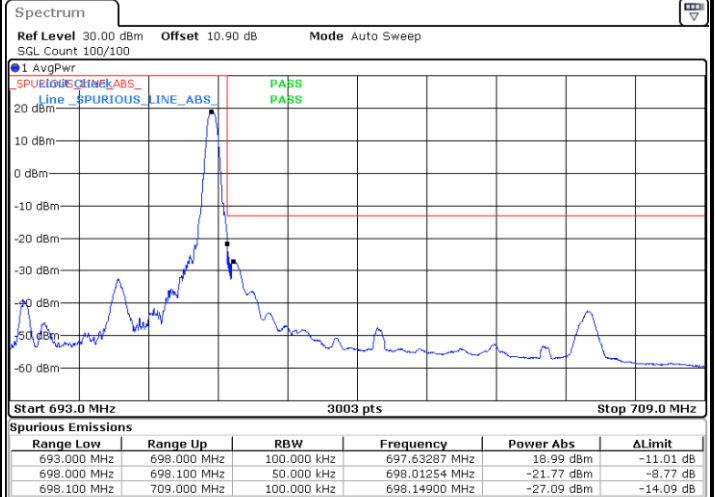
LTE Band 71 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



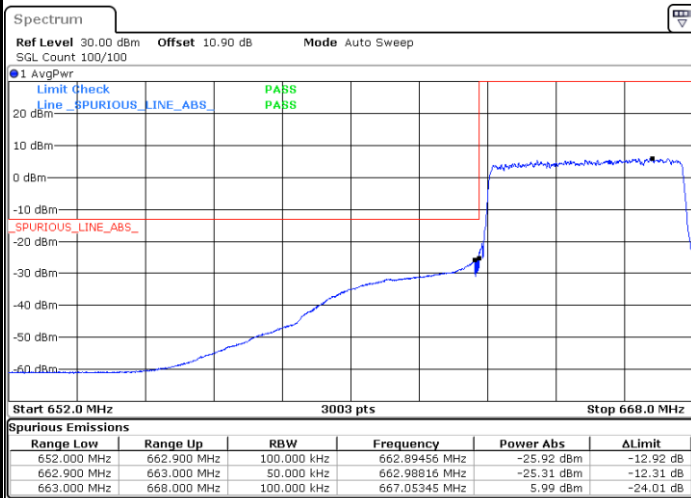
Date: 30.MAY.2021 15:29:20

Highest Band Edge / 1 RB



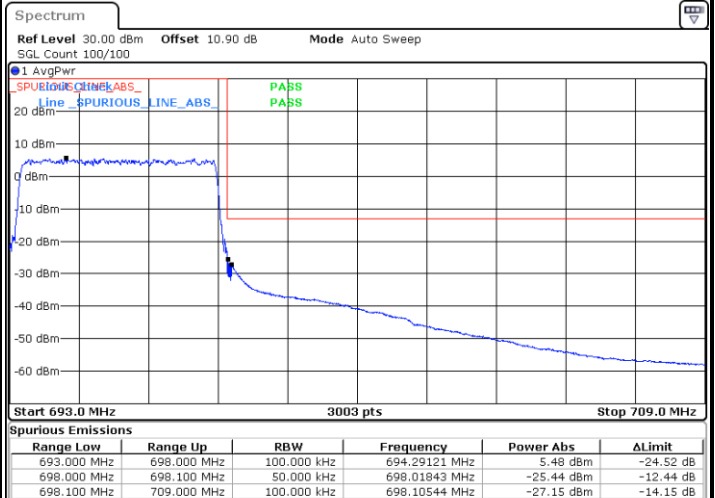
Date: 30.MAY.2021 15:35:19

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:31:01

Highest Band Edge / Full RB

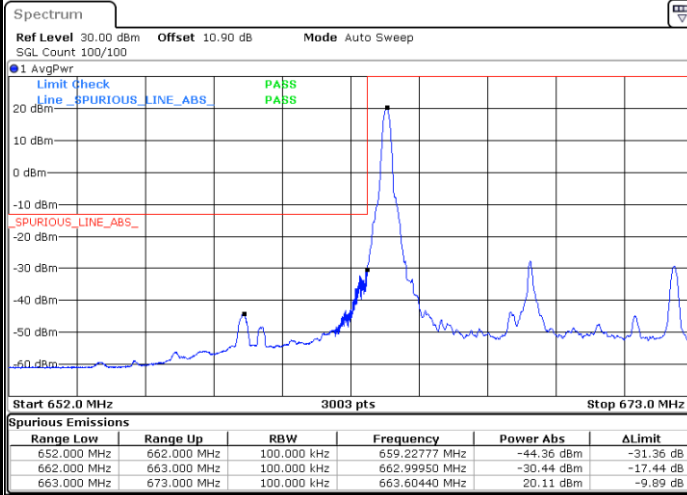


Date: 30.MAY.2021 15:37:00



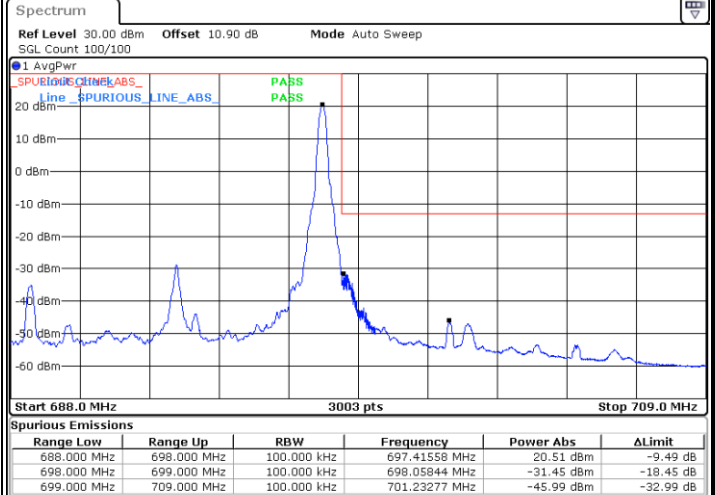
LTE Band 71 / 10MHz / QPSK

Lowest Band Edge / 1 RB



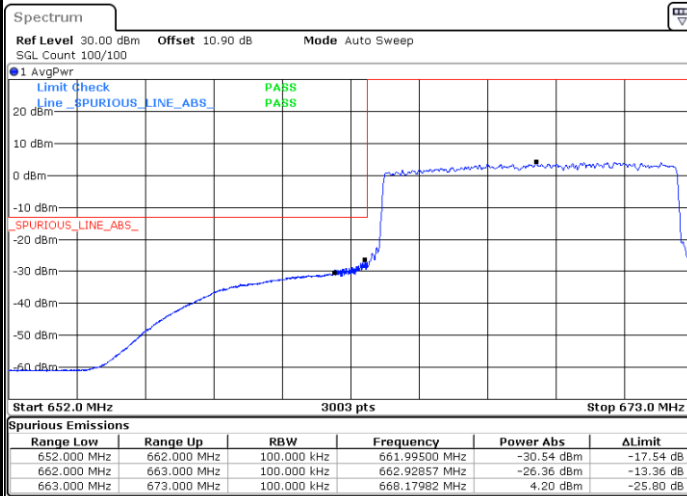
Date: 30.MAY.2021 15:38:44

Highest Band Edge / 1 RB



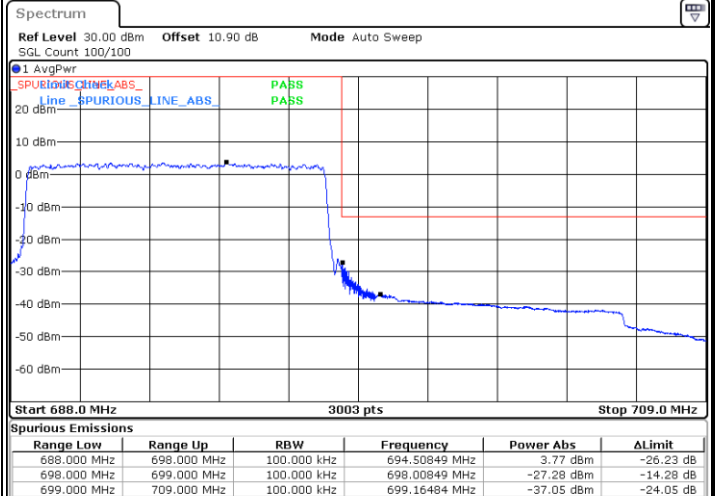
Date: 30.MAY.2021 15:44:43

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:40:26

Highest Band Edge / Full RB

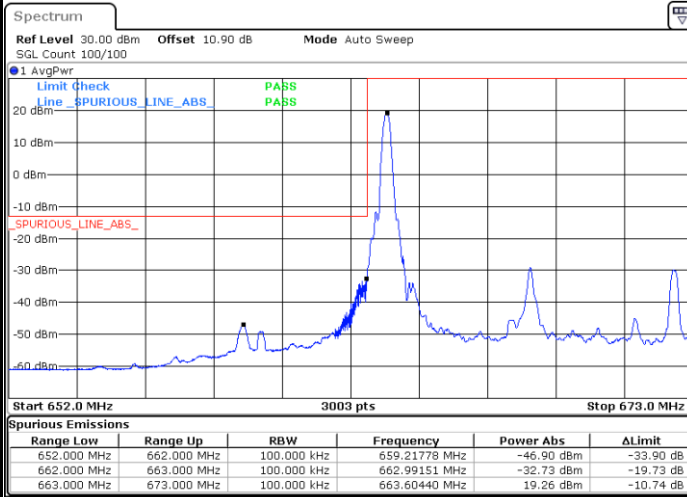


Date: 30.MAY.2021 15:46:25



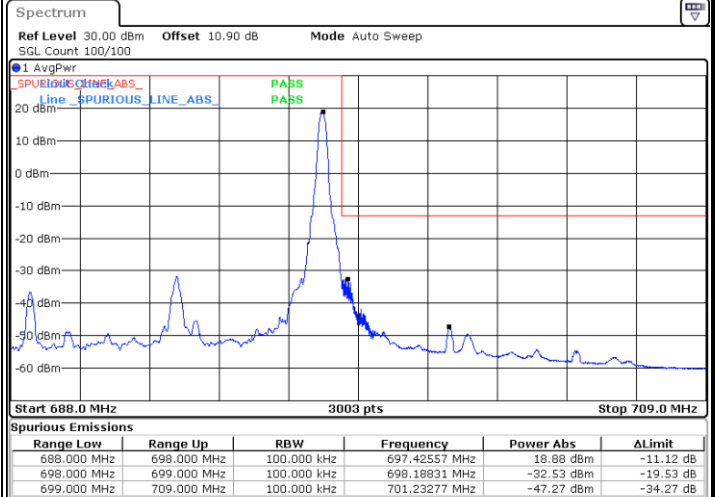
LTE Band 71 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



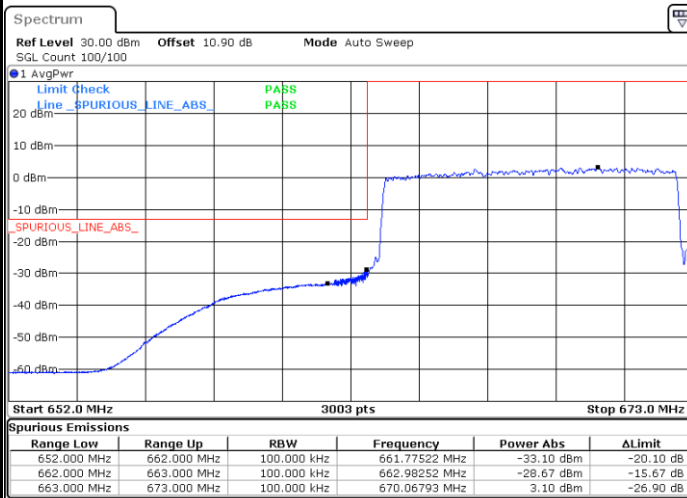
Date: 30.MAY.2021 15:39:35

Highest Band Edge / 1 RB



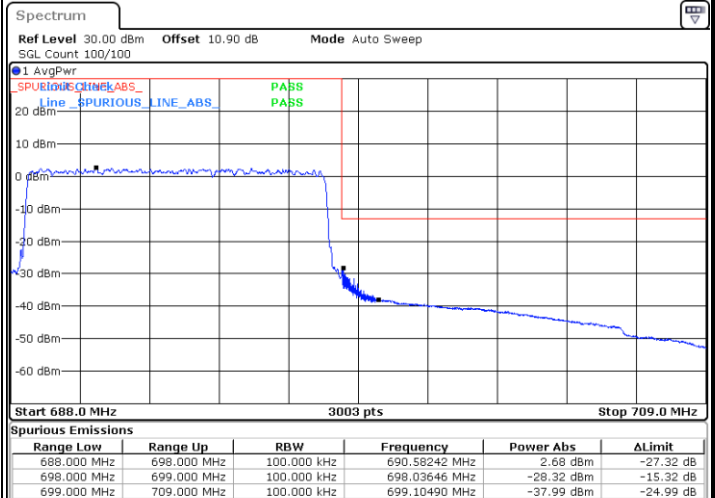
Date: 30.MAY.2021 15:45:34

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:41:16

Highest Band Edge / Full RB

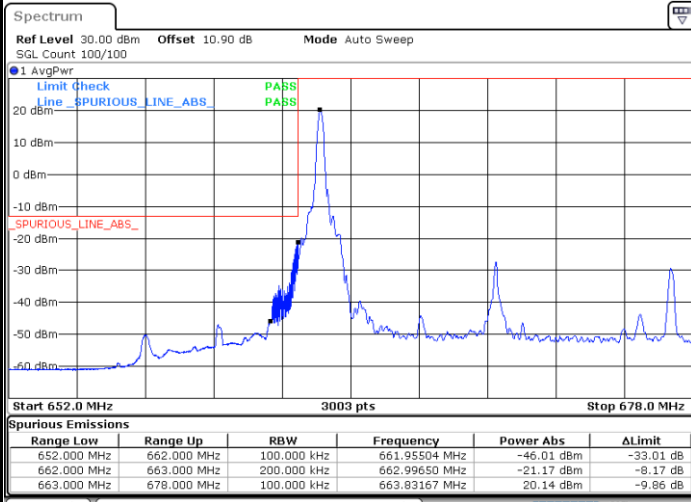


Date: 30.MAY.2021 15:47:15



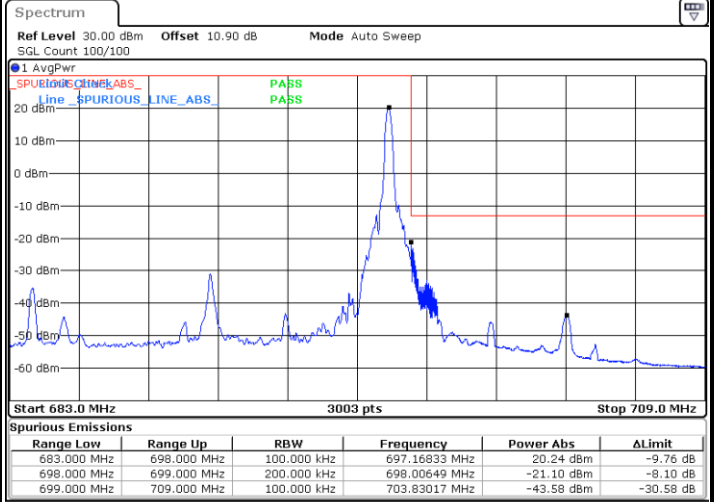
LTE Band 71 / 15MHz / QPSK

Lowest Band Edge / 1 RB



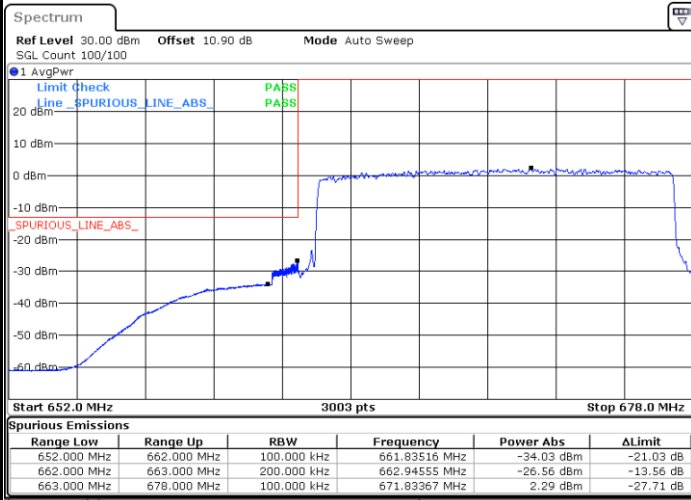
Date: 30.MAY.2021 15:48:55

Highest Band Edge / 1 RB



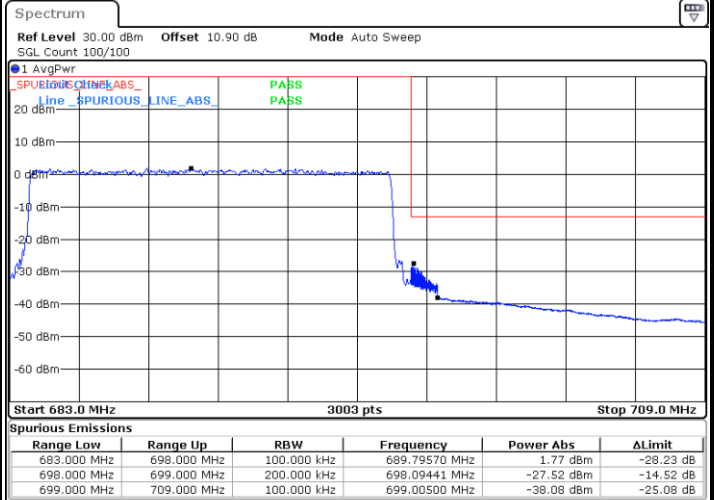
Date: 30.MAY.2021 15:54:56

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:50:37

Highest Band Edge / Full RB

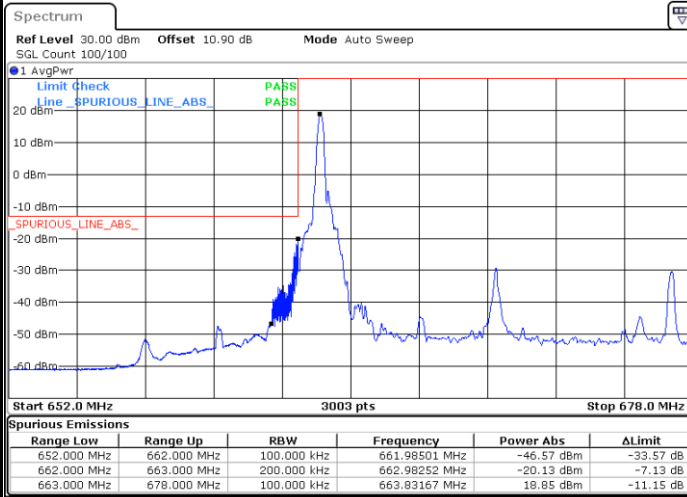


Date: 30.MAY.2021 15:56:37



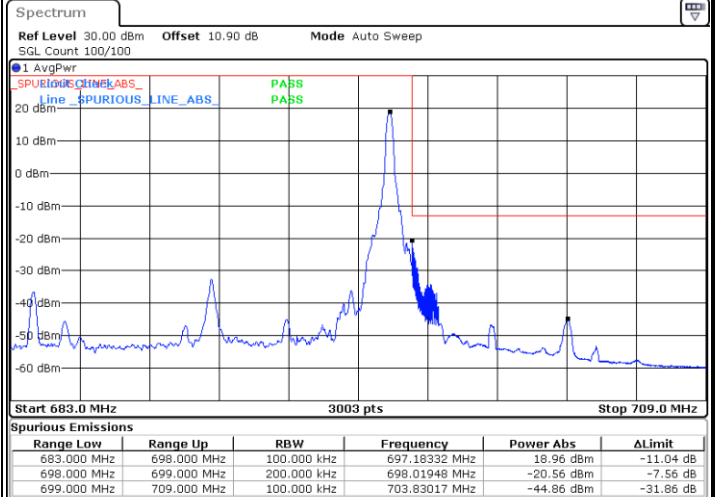
LTE Band 71 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



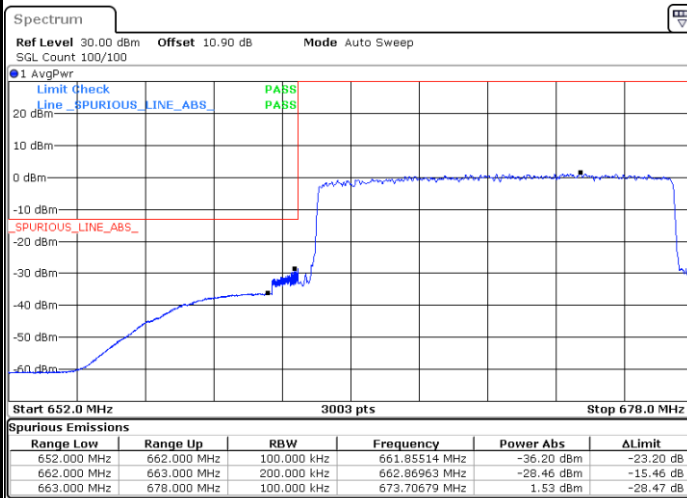
Date: 30.MAY.2021 15:49:46

Highest Band Edge / 1 RB



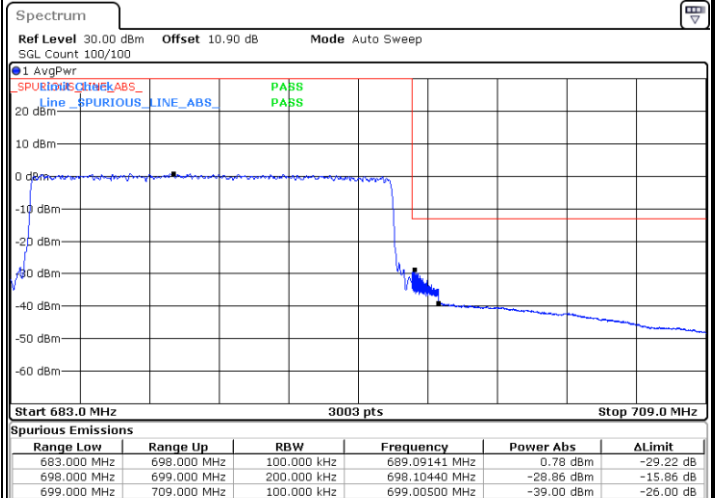
Date: 30.MAY.2021 15:55:47

Lowest Band Edge / Full RB



Date: 30.MAY.2021 15:51:27

Highest Band Edge / Full RB

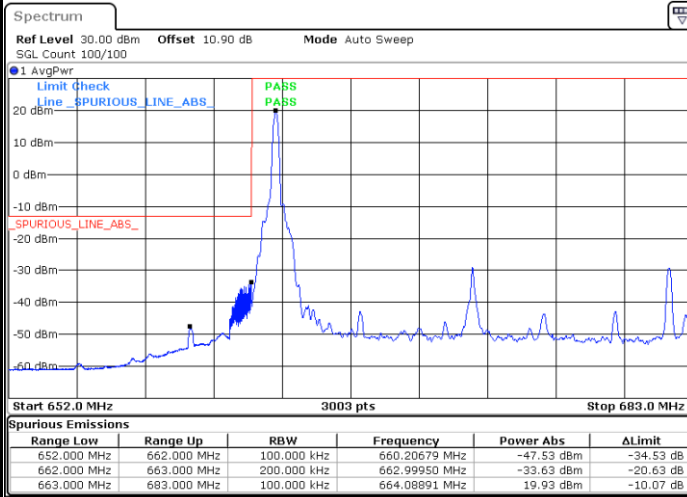


Date: 30.MAY.2021 15:57:28



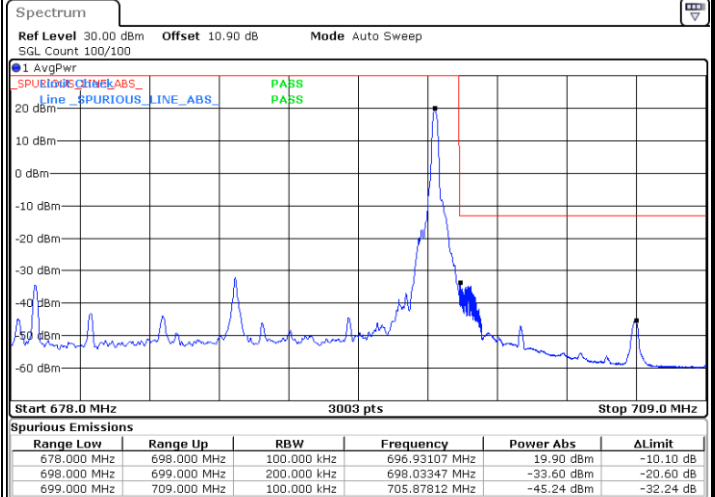
LTE Band 71 / 20MHz / QPSK

Lowest Band Edge / 1 RB



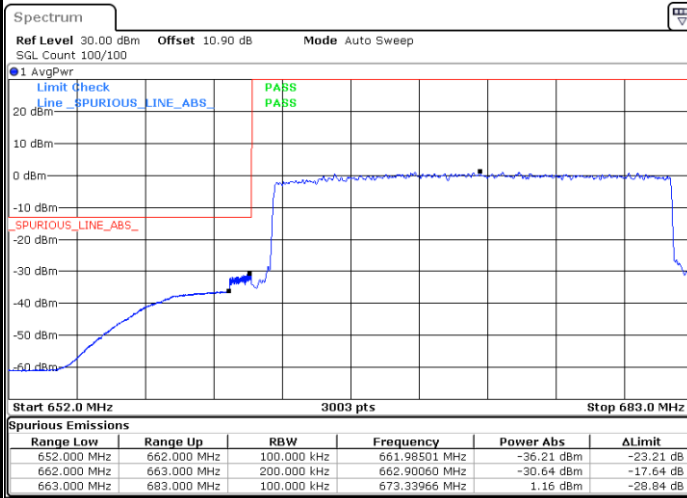
Date: 30.MAY.2021 16:01:04

Highest Band Edge / 1 RB



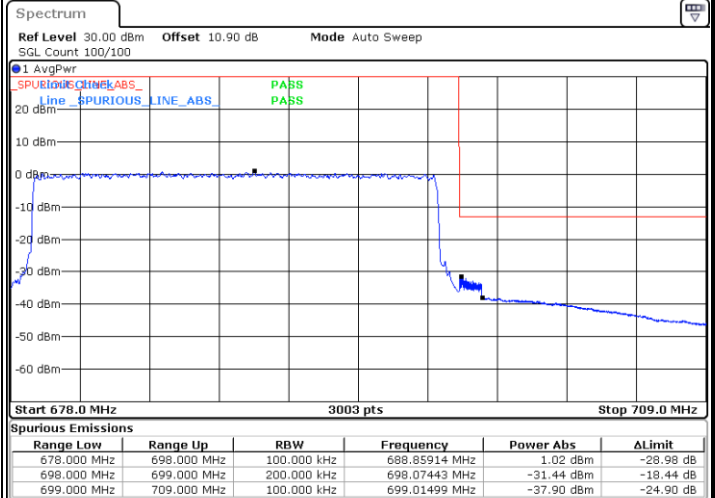
Date: 30.MAY.2021 16:07:06

Lowest Band Edge / Full RB



Date: 30.MAY.2021 16:02:46

Highest Band Edge / Full RB

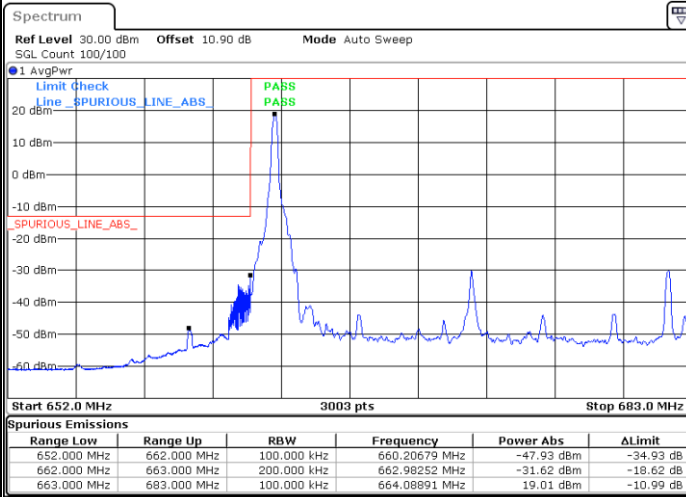


Date: 30.MAY.2021 16:09:42



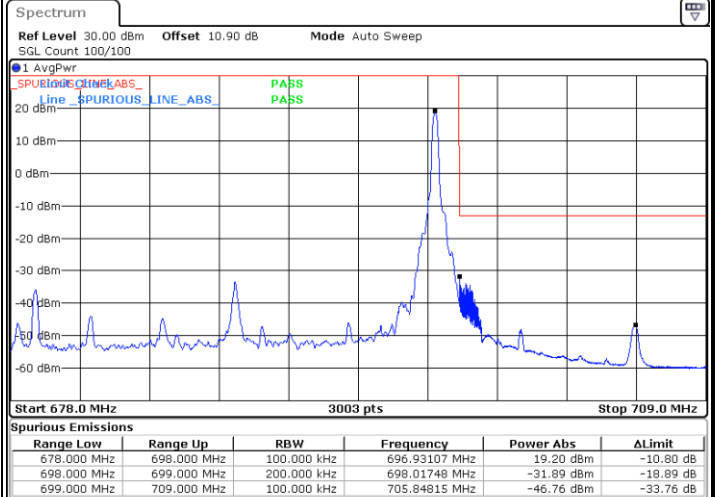
LTE Band 71 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



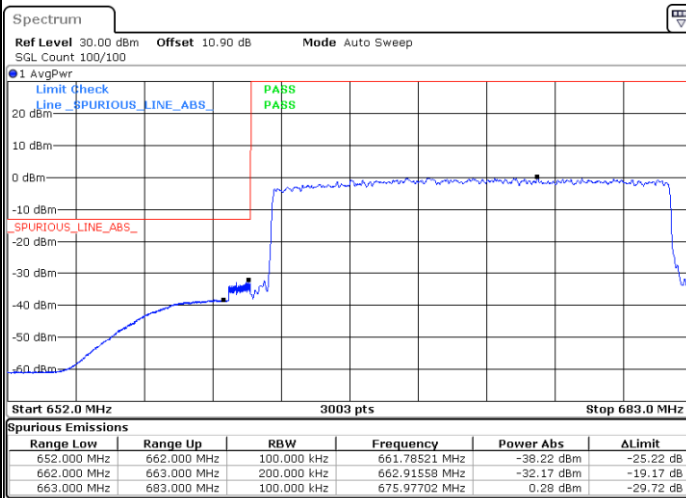
Date: 30.MAY.2021 16:01:56

Highest Band Edge / 1 RB



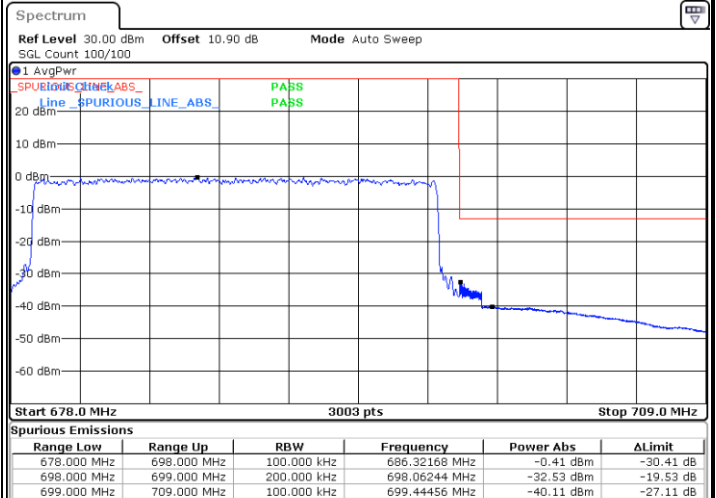
Date: 30.MAY.2021 16:07:57

Lowest Band Edge / Full RB



Date: 30.MAY.2021 16:03:37

Highest Band Edge / Full RB



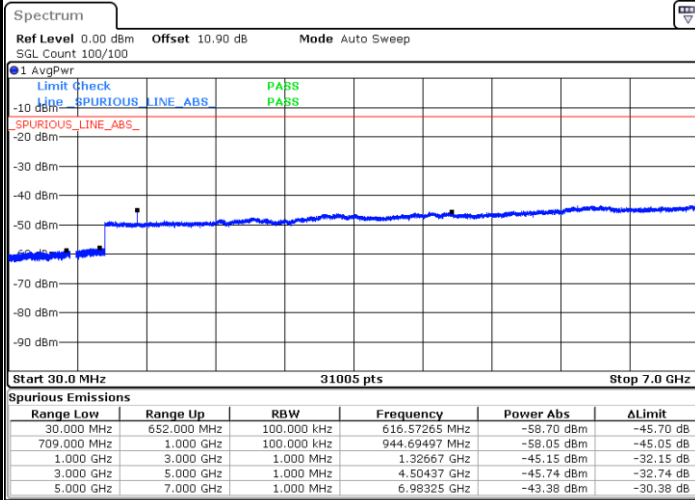
Date: 30.MAY.2021 16:08:52



Conducted Spurious Emission

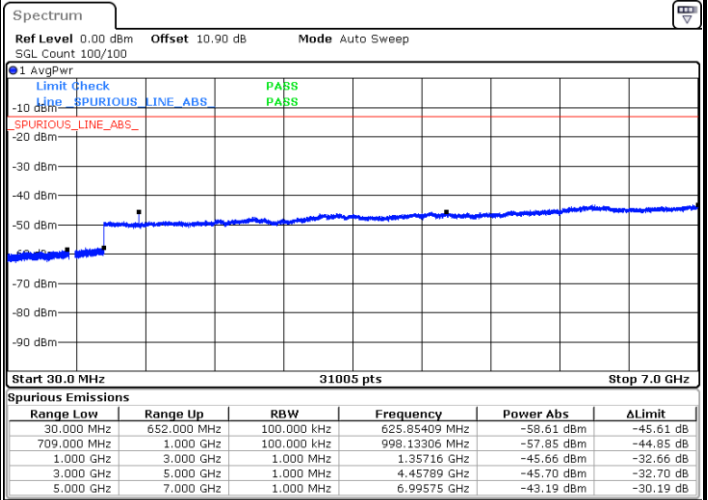
LTE Band 71 / 5MHz

Lowest Channel / QPSK



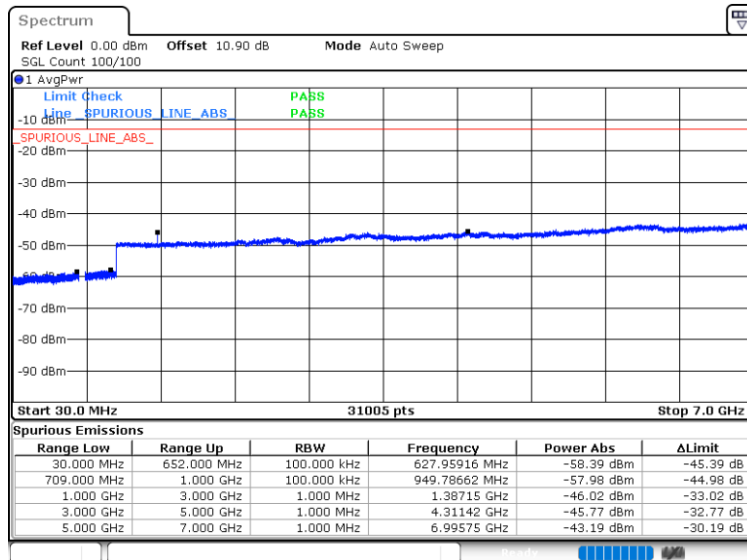
Date: 30.MAY.2021 15:31:36

Middle Channel / QPSK



Date: 30.MAY.2021 15:33:38

Highest Channel / QPSK



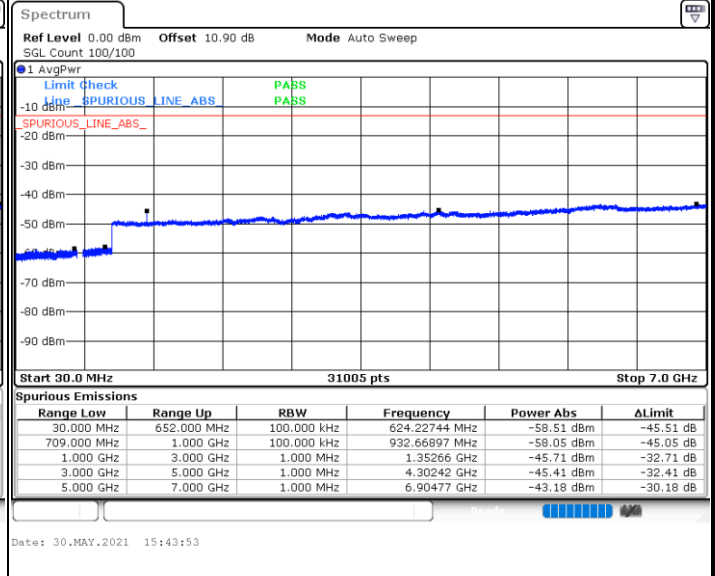
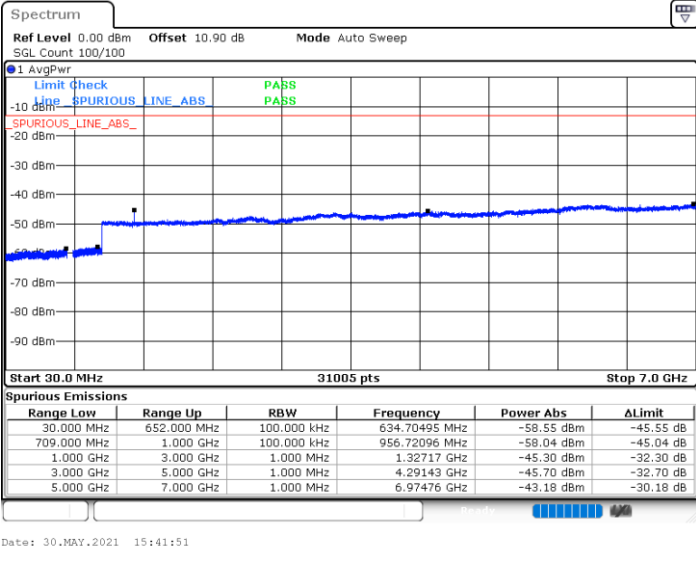
Date: 30.MAY.2021 15:37:35



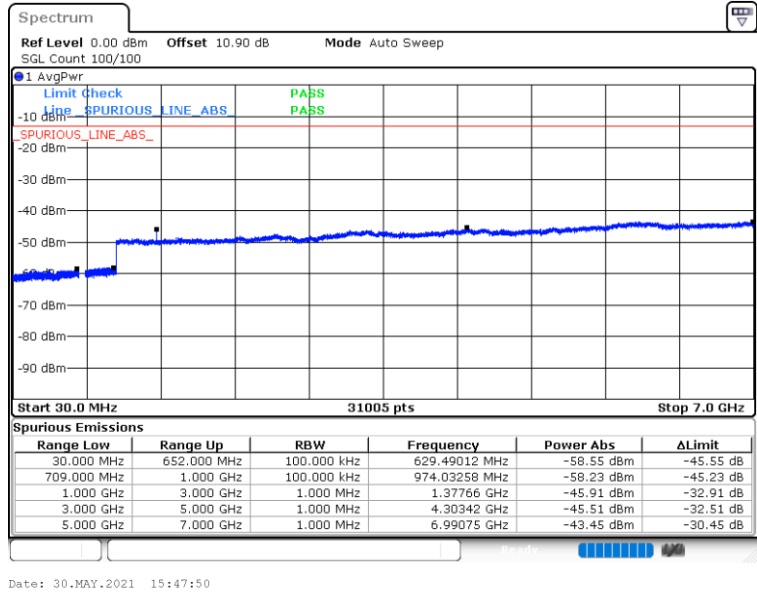
LTE Band 71 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

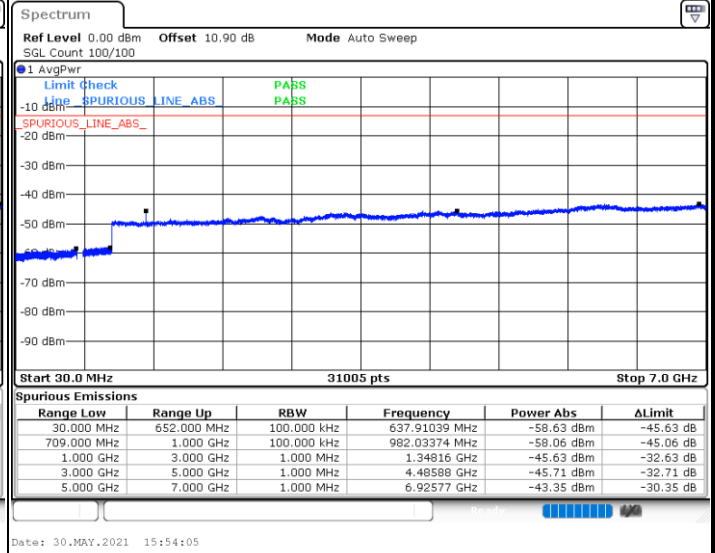
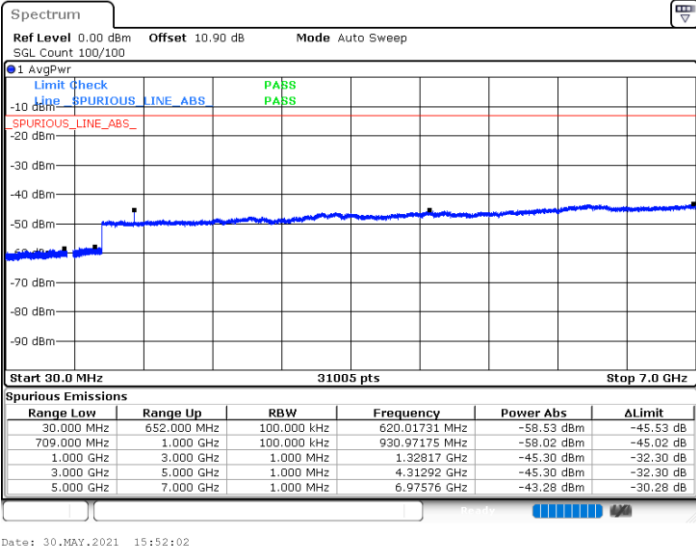




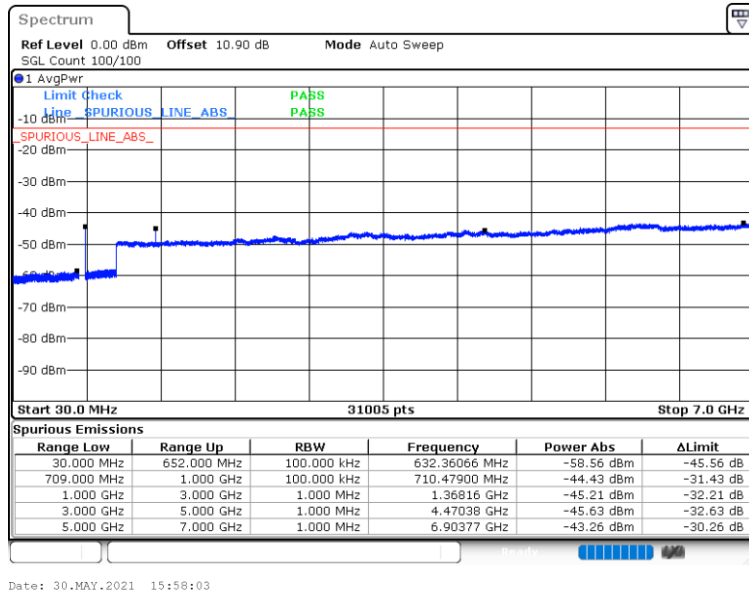
LTE Band 71 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

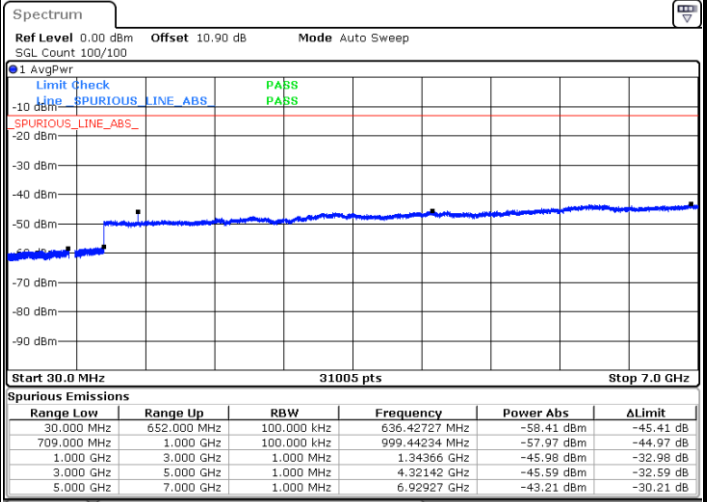
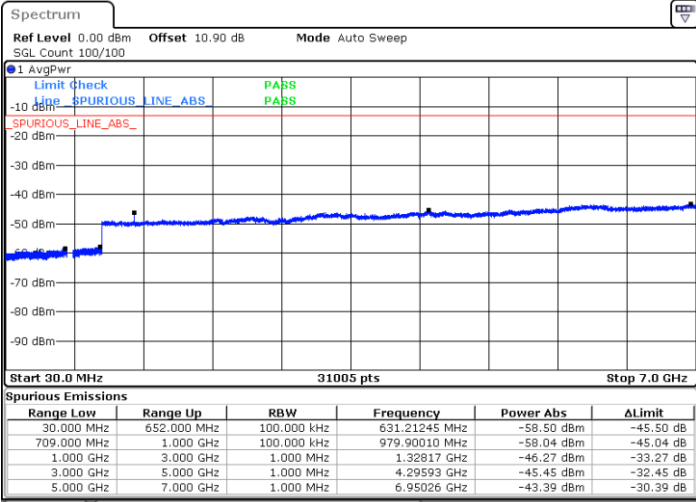




LTE Band 71 / 20MHz

Lowest Channel / QPSK

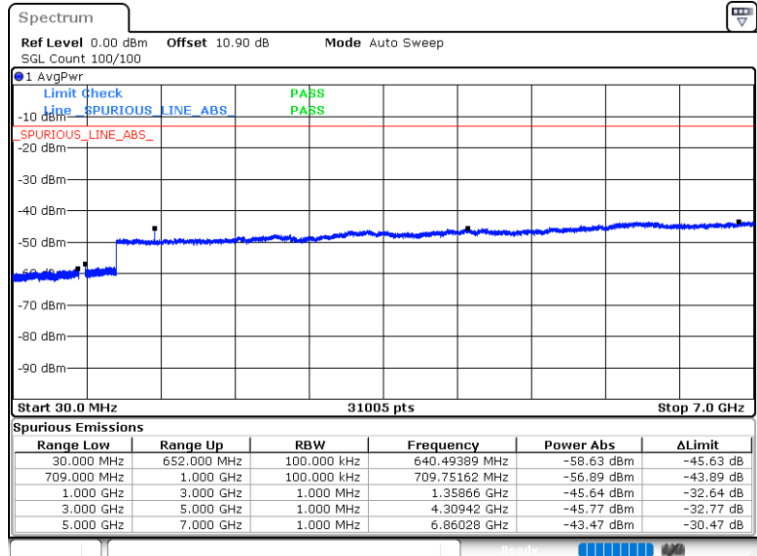
Middle Channel / QPSK



Date: 30.MAY.2021 16:04:12

Date: 30.MAY.2021 16:06:14

Highest Channel / QPSK



Date: 30.MAY.2021 16:10:18



Frequency Stability

Test Conditions		LTE Band 71 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0081	PASS
40	Normal Voltage	0.0053	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0125	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0113	
-20	Normal Voltage	0.0084	
-30	Normal Voltage	0.0125	
20	Maximum Voltage	0.0159	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0123	

Note:

- 1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.3 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

<EUT with Strap 1>

<Top Antenna>

LTE Band 12

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)
Lowest	1480	-50.67	-13	-37.67	-61.67	-57.19	0.51	9.18	H
	2112	-57.99	-13	-44.99	-71.40	-65.74	0.59	10.49	H
	2816	-59.59	-13	-46.59	-74.29	-67.72	0.71	10.99	H
									H
									H
									H
	1480	-51.10	-13	-38.10	-62.20	-57.62	0.51	9.18	V
	2112	-57.40	-13	-44.40	-70.67	-65.15	0.59	10.49	V
	2816	-59.35	-13	-46.35	-74.47	-67.48	0.71	10.99	V
									V
									V
									V
Middle	1416	-49.10	-13	-36.10	-60.22	-55.24	0.50	8.80	H
	2120	-55.96	-13	-42.96	-69.66	-63.71	0.59	10.50	H
	2816	-59.80	-13	-46.80	-74.55	-67.93	0.71	10.99	H
									H
									H
									H
	1416	-52.27	-13	-39.27	-63.27	-58.41	0.50	8.80	V
	2120	-56.56	-13	-43.56	-70.14	-64.31	0.59	10.50	V
	2816	-59.31	-13	-46.31	-74.43	-67.44	0.71	10.99	V
									V
									V
									V



Highest	1424	-59.19	-13	-46.19	-70.34	-65.38	0.50	8.84	H
	2136	-41.92	-13	-28.92	-55.62	-49.69	0.59	10.51	H
	2848	-59.68	-13	-46.68	-74.57	-67.83	0.71	11.01	H
									H
									H
									H
									H
	1424	-56.12	-13	-43.12	-67.08	-62.31	0.50	8.84	V
	2136	-43.53	-13	-30.53	-57.26	-51.30	0.59	10.51	V
	2848	-59.26	-13	-46.26	-74.43	-67.41	0.71	11.01	V
									V
									V
									V
									V

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



LTE Band 13

LTE Band 13 / 5MHz / 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)
Lowest	1563	-62.51	-42.15	-20.36	-73.02	-69.28	0.52	9.44	H
	2344	-59.97	-13	-46.97	-74.24	-67.87	0.62	10.68	H
	3125	-58.52	-13	-45.52	-74.48	-67.10	0.74	11.48	H
									H
									H
									H
									H
	1563	-62.73	-42.15	-20.58	-72.68	-69.50	0.52	9.44	V
	2344	-59.32	-13	-46.32	-74.07	-67.22	0.62	10.68	V
	3125	-58.53	-13	-45.53	-74.67	-67.11	0.74	11.48	V
									V
									V
									V
									V
Middle	1568	-56.28	-42.15	-14.13	-66.78	-63.06	0.52	9.45	H
	2352	-56.37	-13	-43.37	-70.51	-64.28	0.63	10.68	H
	3136	-58.83	-13	-45.83	-74.76	-67.44	0.74	11.51	H
									H
									H
									H
									H
	1568	-60.18	-42.15	-18.03	-70.05	-66.96	0.52	9.45	V
	2352	-45.34	-13	-32.34	-60.07	-53.25	0.63	10.68	V
	3136	-58.88	-13	-45.88	-75.05	-67.49	0.74	11.51	V
									V
									V
									V
									V



Highest	1573	-58.65	-42.15	-16.50	-68.70	-65.44	0.52	9.46	H
	2360	-55.41	-13	-42.41	-69.56	-63.32	0.63	10.69	H
	3146	-58.61	-13	-45.61	-74.65	-67.25	0.74	11.54	H
									H
									H
									H
									H
	1573	-59.95	-42.15	-17.80	-69.83	-66.74	0.52	9.46	V
	2360	-48.01	-13	-35.01	-62.71	-55.92	0.63	10.69	V
	3146	-58.46	-13	-45.46	-74.71	-67.10	0.74	11.54	V
									V
									V
									V
									V

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