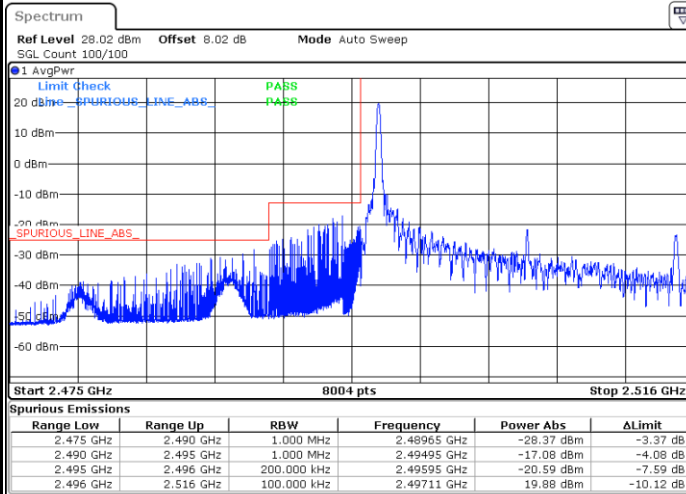


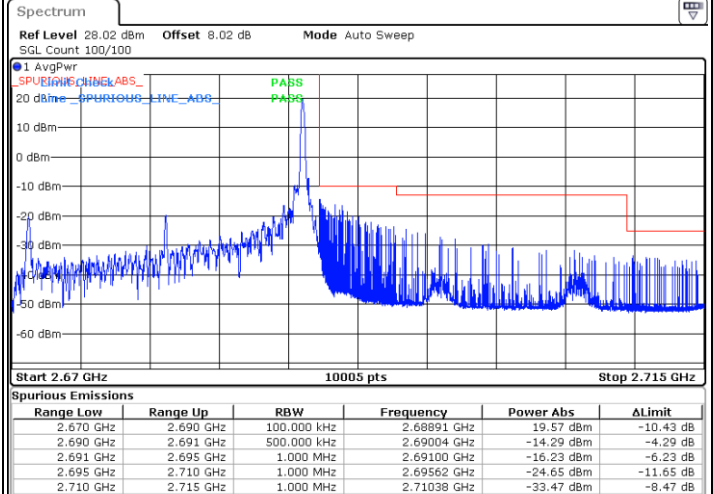


LTE Band 41 / 20MHz / QPSK

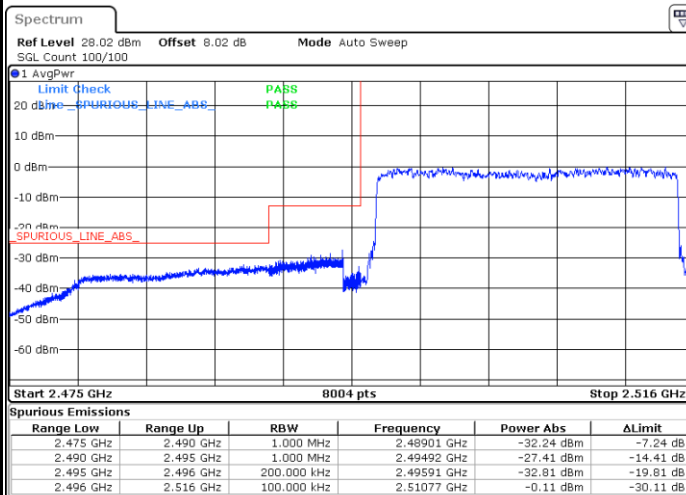
Lowest Band Edge / 1 RB



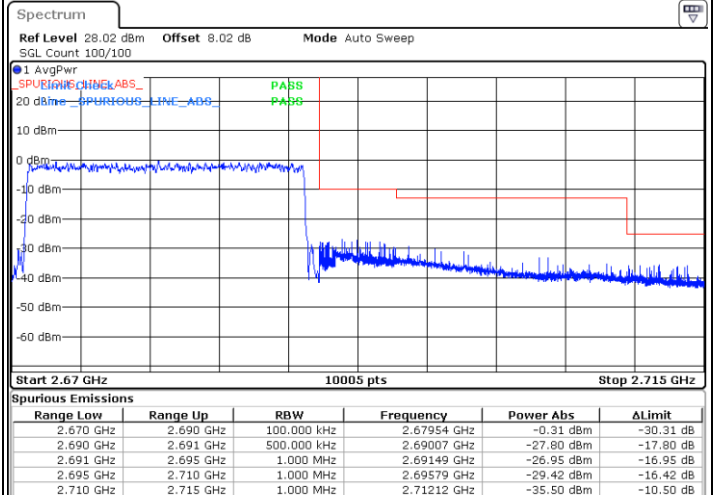
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



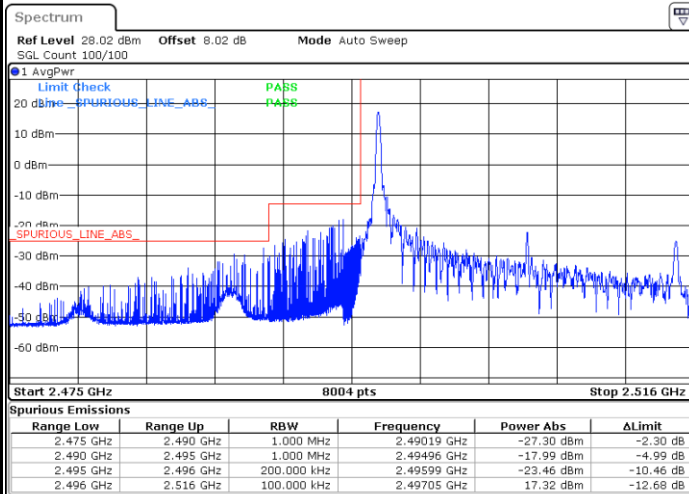
Highest Band Edge / Full RB



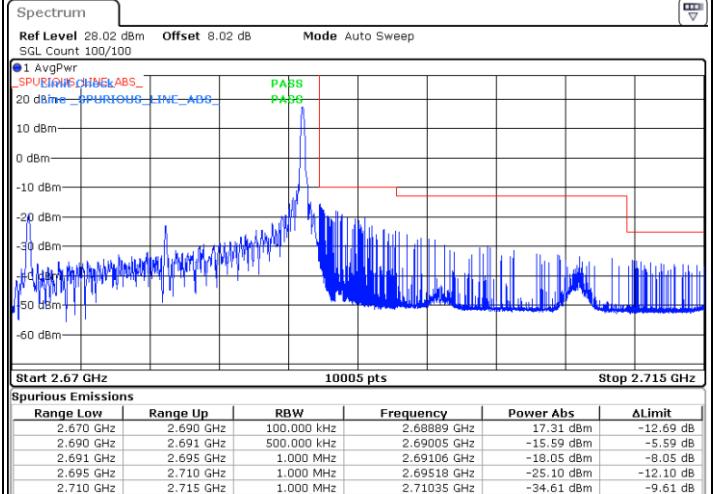


LTE Band 41 / 20MHz / 16QAM

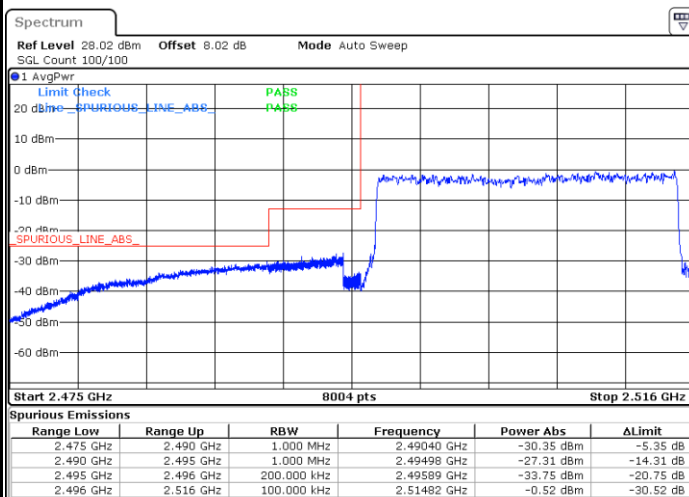
Lowest Band Edge / 1 RB



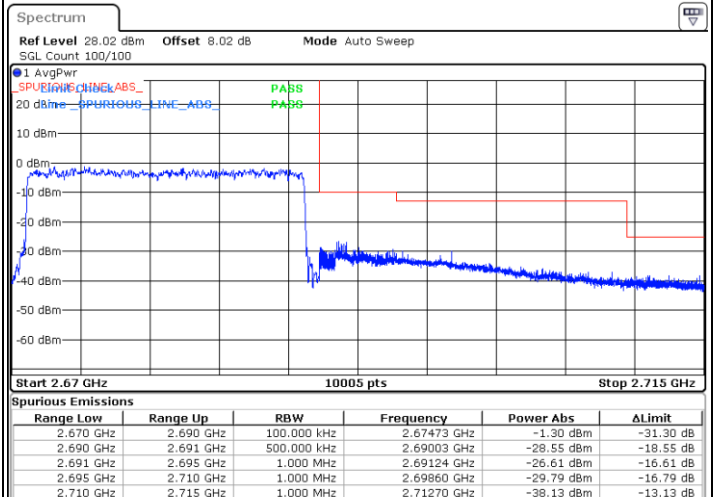
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



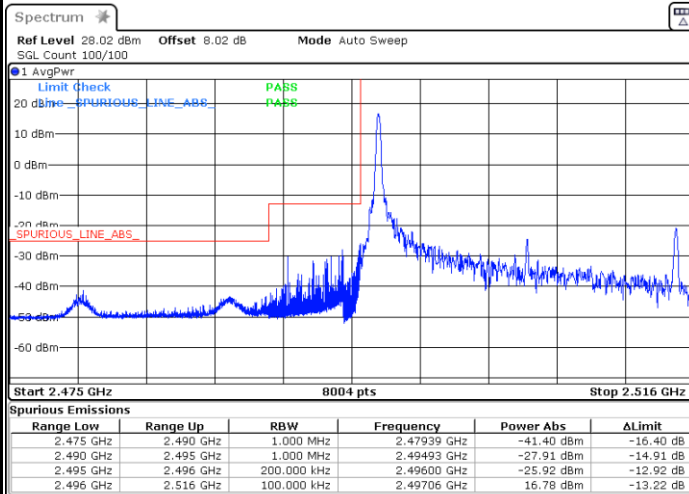
Highest Band Edge / Full RB



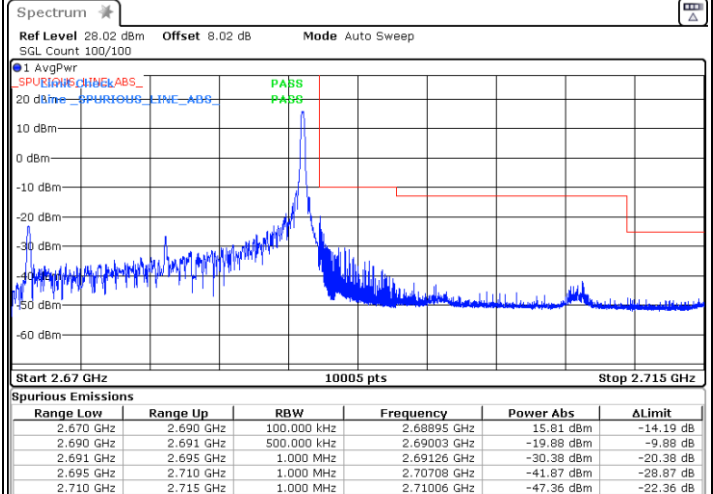


LTE Band 41 / 20MHz / 64QAM

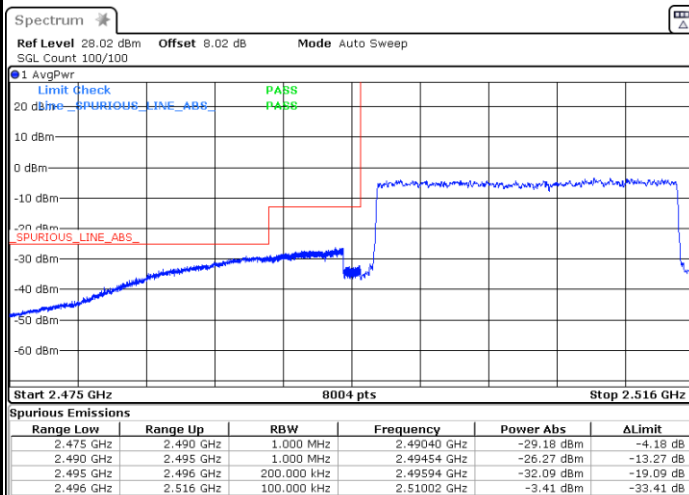
Lowest Band Edge / 1RB



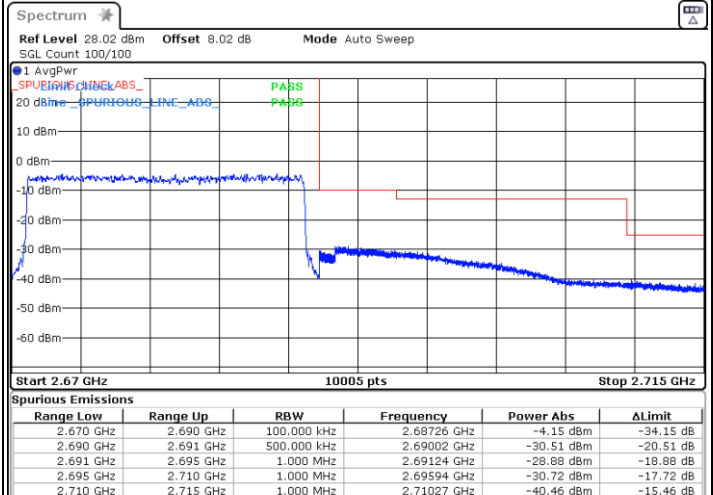
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

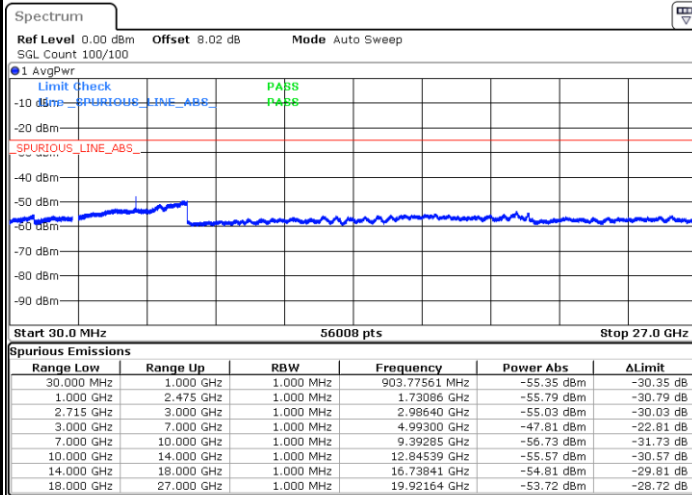




Conducted Spurious Emission

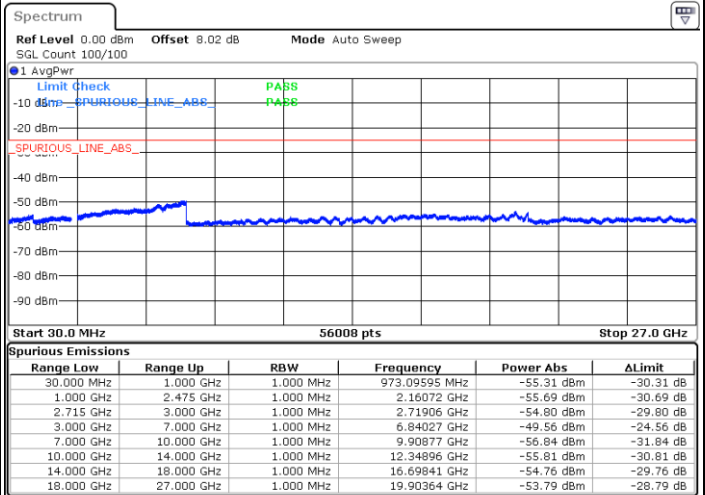
LTE Band 41 / 5MHz

Lowest Channel / QPSK



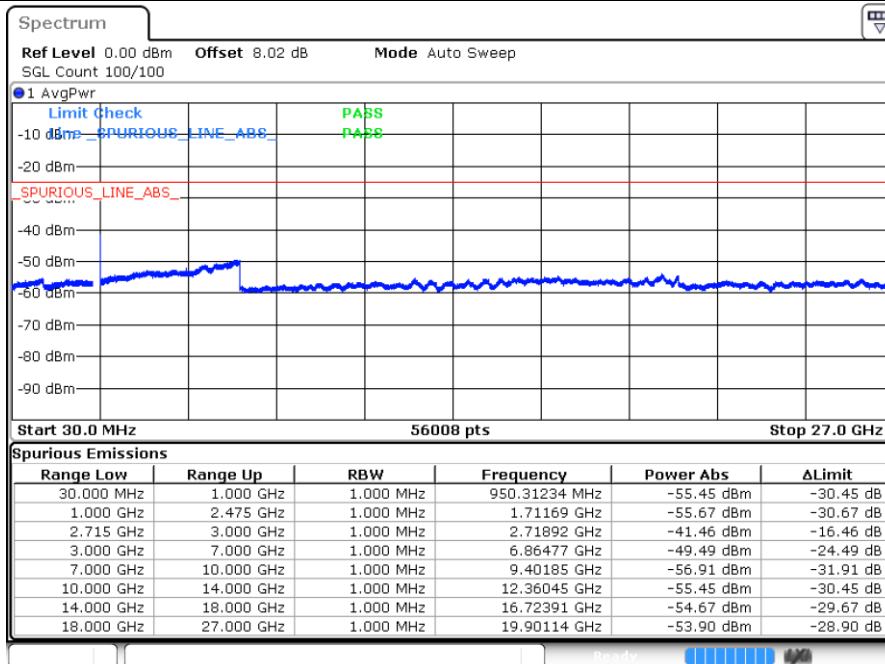
Date: 22.DEC.2021 08:58:53

Middle Channel / QPSK



Date: 22.DEC.2021 09:05:37

Highest Channel / QPSK



Date: 22.DEC.2021 09:06:59

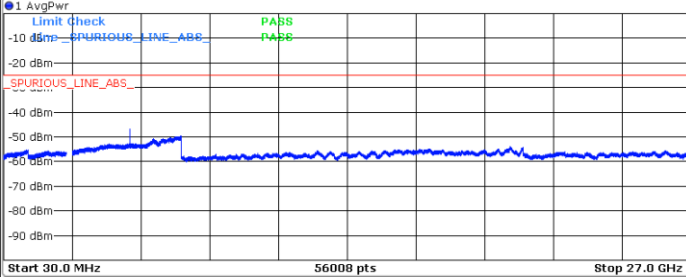


LTE Band 41 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

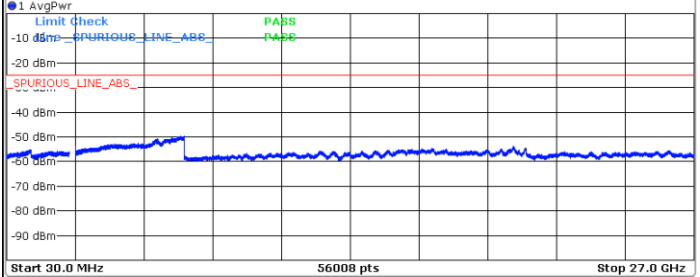
Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Start 30.0 MHz 56008 pts Stop 27.0 GHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	988.12344 MHz	-55.29 dBm	-30.29 dB
1.000 GHz	2.475 GHz	1.000 MHz	1.76183 GHz	-55.80 dBm	-30.80 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.99950 GHz	-55.05 dBm	-30.05 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.99350 GHz	-46.93 dBm	-21.93 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.37335 GHz	-56.93 dBm	-31.93 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.35396 GHz	-55.48 dBm	-30.48 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.70341 GHz	-54.83 dBm	-29.83 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.90064 GHz	-53.73 dBm	-28.73 dB

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Start 30.0 MHz 56008 pts Stop 27.0 GHz

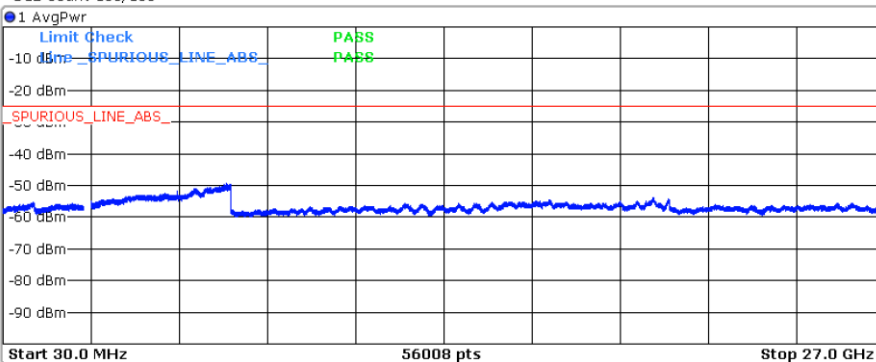
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	951.28186 MHz	-55.38 dBm	-30.38 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.00736 GHz	-55.80 dBm	-30.80 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.71564 GHz	-53.86 dBm	-28.86 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99825 GHz	-49.62 dBm	-24.62 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.43984 GHz	-56.85 dBm	-31.85 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.96825 GHz	-55.73 dBm	-30.73 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.71391 GHz	-54.58 dBm	-29.58 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.91114 GHz	-53.97 dBm	-28.97 dB

Date: 22 DEC. 2021 09:13:52

Date: 22 DEC. 2021 09:20:36

Highest Channel / QPSK

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Start 30.0 MHz 56008 pts Stop 27.0 GHz

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	955.15992 MHz	-55.32 dBm	-30.32 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.15261 GHz	-55.70 dBm	-30.70 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.98383 GHz	-54.95 dBm	-29.95 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86377 GHz	-49.38 dBm	-24.38 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.43234 GHz	-56.86 dBm	-31.86 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.31946 GHz	-55.48 dBm	-30.48 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.73441 GHz	-54.60 dBm	-29.60 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.91614 GHz	-53.88 dBm	-28.88 dB

Date: 22 DEC. 2021 09:21:58

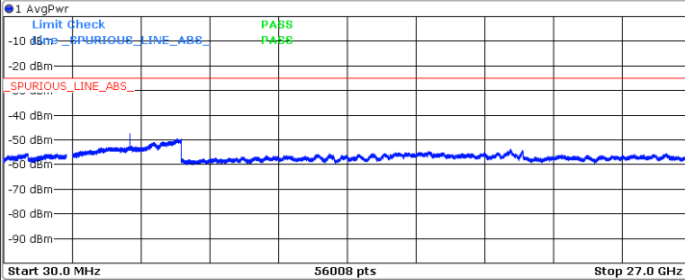


LTE Band 41 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

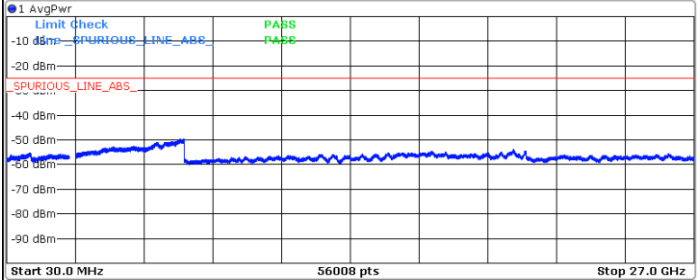
Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	959.03798 MHz	-55.46 dBm	-30.46 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.11611 GHz	-55.66 dBm	-30.66 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.99138 GHz	-54.75 dBm	-29.75 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.99400 GHz	-47.56 dBm	-22.56 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.36086 GHz	-56.87 dBm	-31.87 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.81090 GHz	-55.77 dBm	-30.77 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.70441 GHz	-54.65 dBm	-29.65 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.89914 GHz	-53.94 dBm	-28.94 dB

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

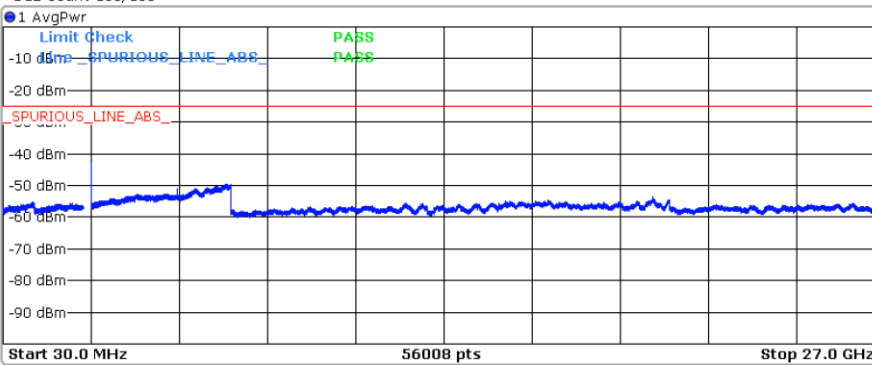
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	914.92504 MHz	-55.22 dBm	-30.22 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.14708 GHz	-55.58 dBm	-30.58 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.98939 GHz	-55.12 dBm	-30.12 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86677 GHz	-49.58 dBm	-24.58 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.39185 GHz	-56.73 dBm	-31.73 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.98325 GHz	-55.66 dBm	-30.66 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.69941 GHz	-54.61 dBm	-29.61 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.92014 GHz	-53.90 dBm	-28.90 dB

Date: 22 DEC. 2021 09:28:53

Date: 22 DEC. 2021 09:35:38

Highest Channel / QPSK

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	968.24838 MHz	-55.22 dBm	-30.22 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.14155 GHz	-55.68 dBm	-30.68 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.71635 GHz	-42.87 dBm	-17.87 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.89876 GHz	-49.50 dBm	-24.50 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.40985 GHz	-56.60 dBm	-31.60 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.36745 GHz	-55.62 dBm	-30.62 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.70191 GHz	-54.73 dBm	-29.73 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.89514 GHz	-53.68 dBm	-28.68 dB

Date: 22 DEC. 2021 09:37:00

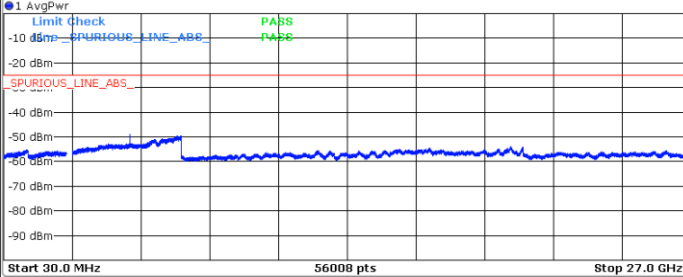


LTE Band 41 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

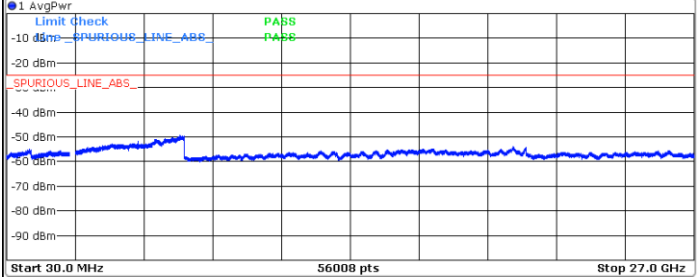
Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	920.74213 MHz	-55.41 dBm	-30.41 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.13012 GHz	-55.76 dBm	-30.76 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.92900 GHz	-54.90 dBm	-29.90 dB
3.000 GHz	7.000 GHz	1.000 MHz	4.99450 GHz	-48.85 dBm	-23.85 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.41585 GHz	-56.91 dBm	-31.91 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.31346 GHz	-55.53 dBm	-30.53 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.75141 GHz	-54.69 dBm	-29.69 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.92114 GHz	-54.03 dBm	-29.03 dB

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

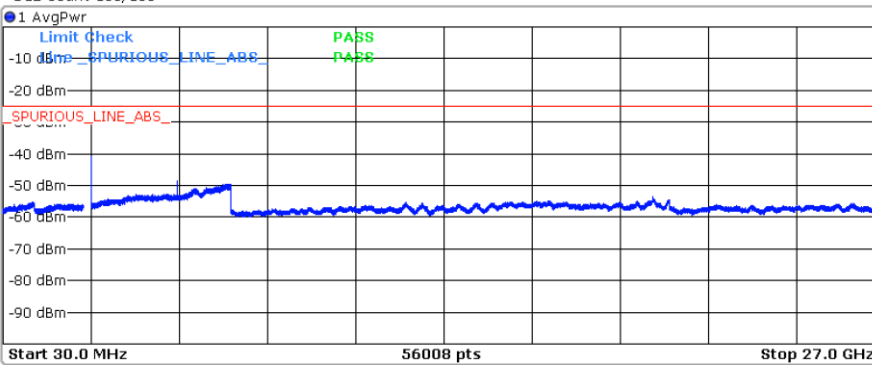
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	920.74213 MHz	-55.03 dBm	-30.03 dB
1.000 GHz	2.475 GHz	1.000 MHz	1.72533 GHz	-55.63 dBm	-30.63 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.91604 GHz	-55.19 dBm	-30.19 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.84077 GHz	-49.36 dBm	-24.36 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.46684 GHz	-56.94 dBm	-31.94 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.34146 GHz	-55.62 dBm	-30.62 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.77890 GHz	-54.75 dBm	-29.75 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.90414 GHz	-53.85 dBm	-28.85 dB

Date: 22 DEC. 2021 09:43:53

Date: 22 DEC. 2021 09:50:37

Highest Channel / QPSK

Spectrum

Ref Level 0.00 dBm Offset 8.02 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	950.79710 MHz	-55.19 dBm	-30.19 dB
1.000 GHz	2.475 GHz	1.000 MHz	1.71538 GHz	-55.86 dBm	-30.86 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.71707 GHz	-40.95 dBm	-15.95 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.34246 GHz	-48.76 dBm	-23.76 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.40485 GHz	-56.99 dBm	-31.99 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.33746 GHz	-55.42 dBm	-30.42 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.70191 GHz	-54.90 dBm	-29.90 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.91464 GHz	-53.66 dBm	-28.66 dB

Date: 22 DEC. 2021 09:51:59

Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0007	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0014	
20	Battery End Point	0.0033	

Note:

1. Normal Voltage =3.86 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.25 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 :	22~23℃
		Relative Humidity :	41~42%

LTE Band 2 / 20MHz / 16QAM								
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	3741	-55.62	-13	-42.62	-67.88	2.64	14.90	H
	5613	-53.91	-13	-40.91	-65.77	2.94	14.80	H
	7488	-51.94	-13	-38.94	-61.71	3.39	13.16	H
	3741	-55.29	-13	-42.29	-67.55	2.64	14.90	V
	5613	-54.53	-13	-41.53	-66.39	2.94	14.80	V
	7488	-52.25	-13	-39.25	-62.02	3.39	13.16	V

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

LTE Band 4 / 20MHz / 16QAM								
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	3450	-56.55	-13	-43.55	-67.29	2.604	13.34	H
	5175	-52.91	-13	-39.91	-63.42	3.011	13.52	H
	6900	-54.11	-13	-41.11	-64.31	3.271	13.47	H
	3450	-54.83	-13	-41.83	-65.57	2.604	13.34	V
	5175	-52.85	-13	-39.85	-63.36	3.011	13.52	V
	6900	-53.93	-13	-40.93	-64.13	3.271	13.47	V

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



LTE Band 5 / 10MHz / 16QAM								
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	1656	-59.34	-13	-46.34	-66.31	1.58	10.70	H
	2482	-33.66	-13	-20.66	-41.91	2.102	12.50	H
	3312	-59.84	-13	-46.84	-68.73	2.856	13.90	H
	1656	-61.61	-13	-48.61	-68.58	1.58	10.70	V
	2482	-33.28	-13	-20.28	-41.53	2.10	12.50	V
	3312	-59.48	-13	-46.48	-68.37	2.86	13.90	V

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

LTE Band 7 / 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)
Middle	5050	-42.58	-25	-17.58	-52.79	3.03	13.24	H
	7584	-61.69	-25	-36.69	-71.14	3.56	13.01	H
	10104	-61.22	-25	-36.22	-70.74	3.92	13.44	H
	5050	-34.84	-25	-9.84	-45.05	3.03	13.24	V
	7584	-62.83	-25	-37.83	-72.28	3.56	13.01	V
	10104	-61.76	-25	-36.76	-71.28	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5168	-33.20	-25	-8.20	-43.41	3.03	13.24	H
	7752	-54.73	-25	-29.73	-64.18	3.56	13.01	H
	10340	-57.04	-25	-32.04	-66.56	3.92	13.44	H
	5168	-28.55	-25	-3.55	-38.76	3.03	13.24	V
	7752	-59.66	-25	-34.66	-69.11	3.56	13.01	V
	10340	-59.21	-25	-34.21	-68.73	3.92	13.44	V

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



Co-location Mode

LTE B41 BW=20MHz Link + BLE CH39 Tx

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
WWAN + BLE		4960	44.37	-29.63	74	59.14	34.81	10.43	60.01	300	0	P	H
		7440	44.47	-29.53	74	55.54	36.59	12.88	60.54	300	0	P	H
		4960	42.98	-31.02	74	57.75	34.81	10.43	60.01	100	0	P	V
		7440	44.84	-29.16	74	55.91	36.59	12.88	60.54	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

LTE B41 BW=20MHz Link + WLAN 2.4GHz 11b CH01 Tx

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
WWAN + WLAN		4830	48.61	-25.39	74	69.54	33.58	10.24	64.75	300	0	P	H
		7230	53.78	-31.68	85.46	69.69	35.39	12.67	63.97	300	0	P	H
		4830	43.75	-30.25	74	64.68	33.58	10.24	64.75	100	0	P	V
		7230	55.92	-25.52	81.44	71.83	35.39	12.67	63.97	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												