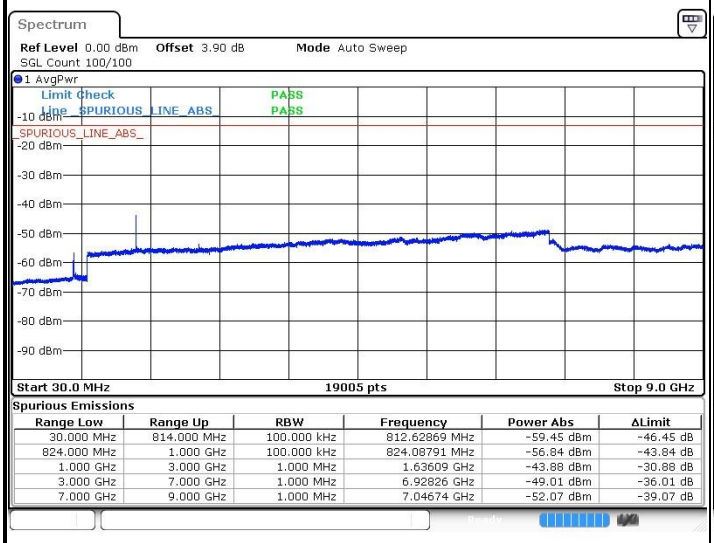
LTE Band 26 / 3MHz

Middle Channel / QPSK

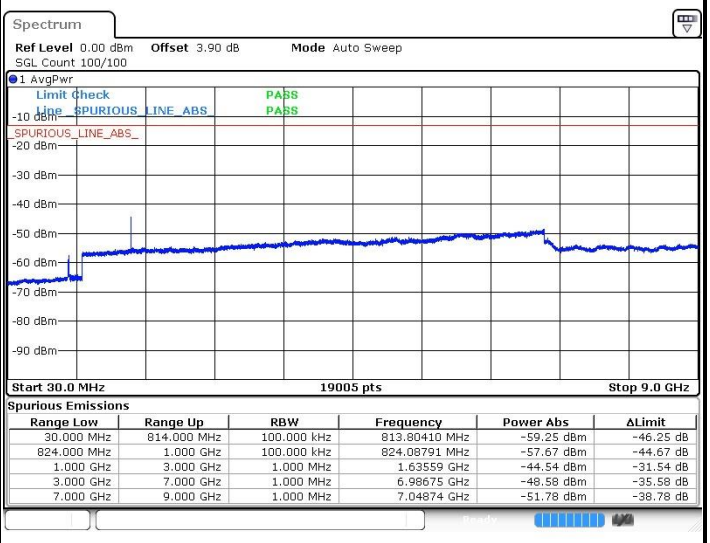


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	812.62869 MHz	-59.45 dBm	-46.45 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.08791 MHz	-56.84 dBm	-43.84 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63609 GHz	-43.88 dBm	-30.88 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92826 GHz	-49.01 dBm	-36.01 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04674 GHz	-52.07 dBm	-39.07 dB

Date: 7.SEP.2019 12:34:38

Middle Channel / 16QAM

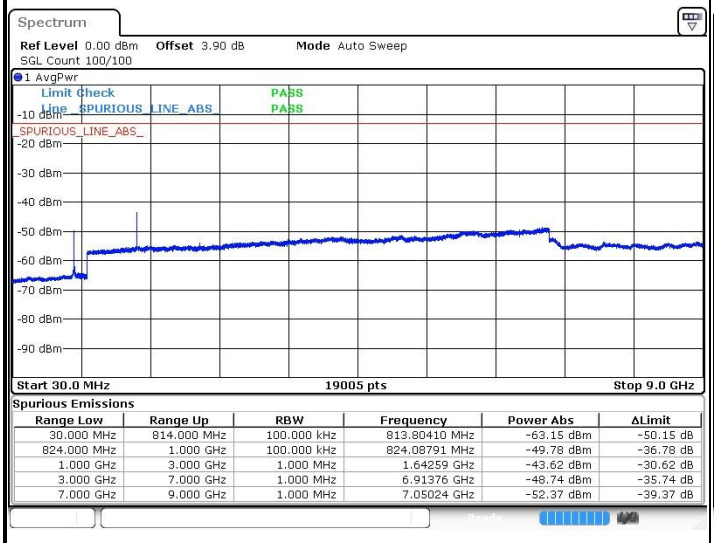


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-59.25 dBm	-46.25 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.08791 MHz	-57.67 dBm	-44.67 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63559 GHz	-44.54 dBm	-31.54 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98675 GHz	-48.58 dBm	-35.58 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04874 GHz	-51.78 dBm	-38.78 dB

Date: 7.SEP.2019 12:35:31

Highest Channel / QPSK

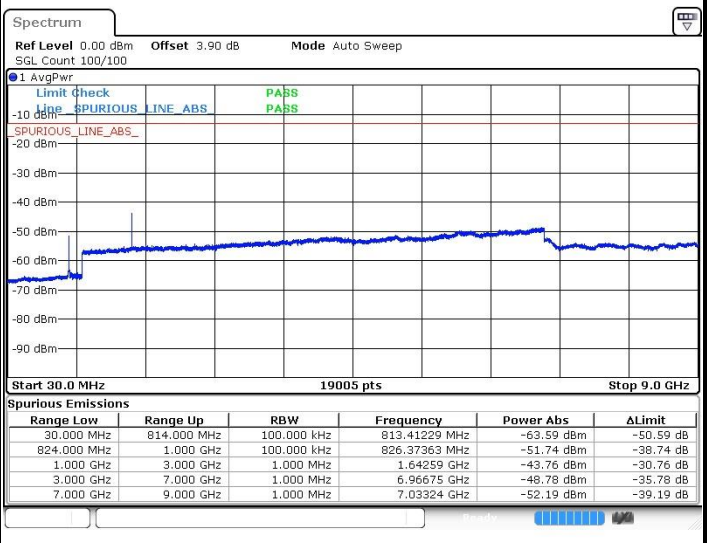


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-63.15 dBm	-50.15 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.08791 MHz	-49.78 dBm	-36.78 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64259 GHz	-43.62 dBm	-30.62 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91376 GHz	-48.74 dBm	-35.74 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05024 GHz	-52.37 dBm	-39.37 dB

Date: 7.SEP.2019 12:37:16

Highest Channel / 16QAM



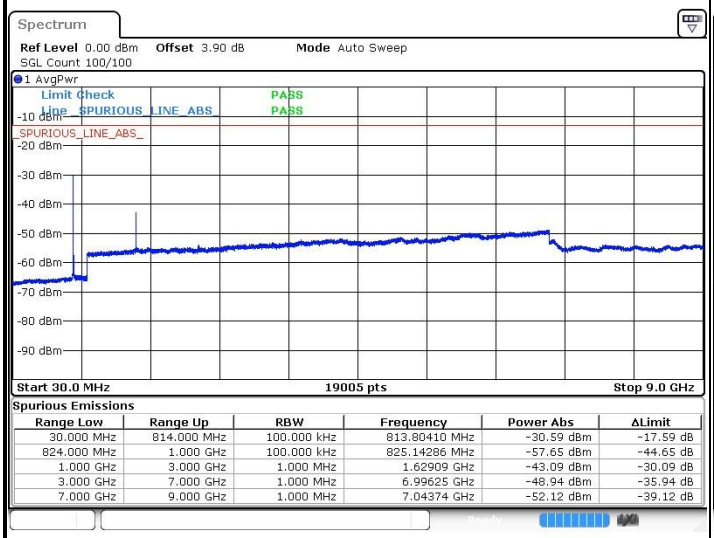
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.41229 MHz	-63.59 dBm	-50.59 dB
824.000 MHz	1.000 GHz	100.000 kHz	826.37363 MHz	-51.74 dBm	-38.74 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64259 GHz	-43.76 dBm	-30.76 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96675 GHz	-48.78 dBm	-35.78 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.03324 GHz	-52.19 dBm	-39.19 dB

Date: 7.SEP.2019 12:38:09

LTE Band 26 / 5MHz

Lowest Channel / QPSK

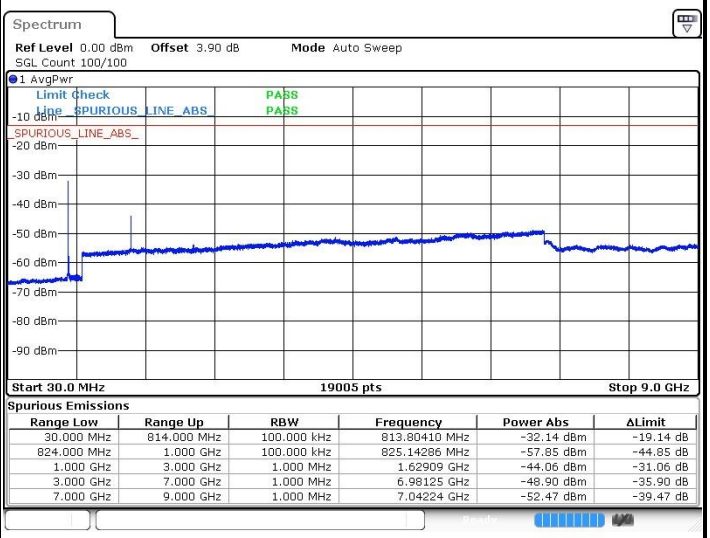


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-30.59 dBm	-17.59 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.14286 MHz	-57.65 dBm	-44.65 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62909 GHz	-43.09 dBm	-30.09 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99625 GHz	-48.94 dBm	-35.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04374 GHz	-52.12 dBm	-39.12 dB

Date: 7.SEP.2019 12:57:12

Lowest Channel / 16QAM

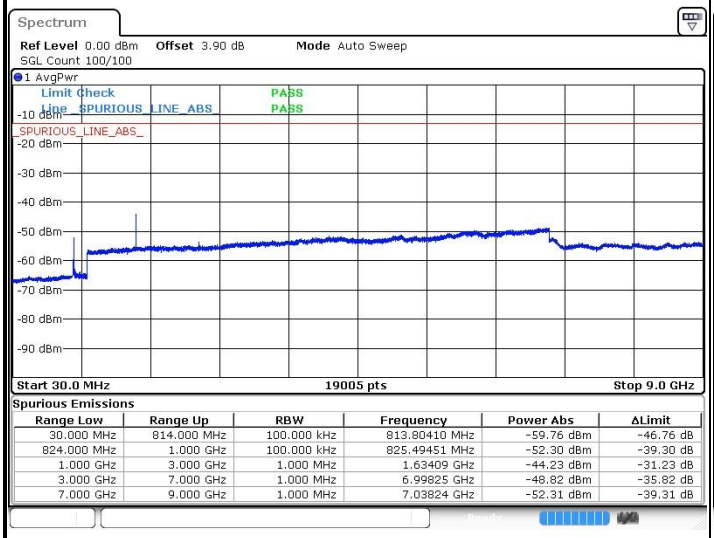


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-32.14 dBm	-19.14 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.14286 MHz	-57.85 dBm	-44.85 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62909 GHz	-44.06 dBm	-31.06 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98125 GHz	-48.90 dBm	-35.90 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04224 GHz	-52.47 dBm	-39.47 dB

Date: 7.SEP.2019 12:58:04

Middle Channel / QPSK

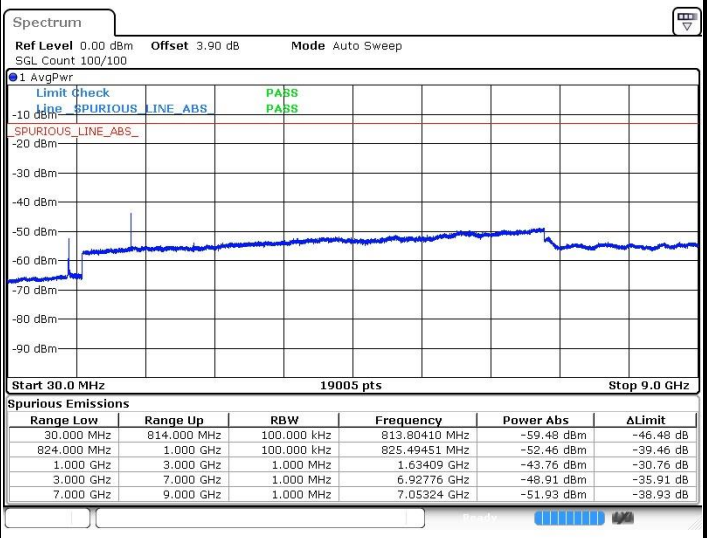


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-59.76 dBm	-46.76 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.49451 MHz	-52.30 dBm	-39.30 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63409 GHz	-44.23 dBm	-31.23 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99825 GHz	-48.82 dBm	-35.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.03824 GHz	-52.31 dBm	-39.31 dB

Date: 7.SEP.2019 12:59:07

Middle Channel / 16QAM



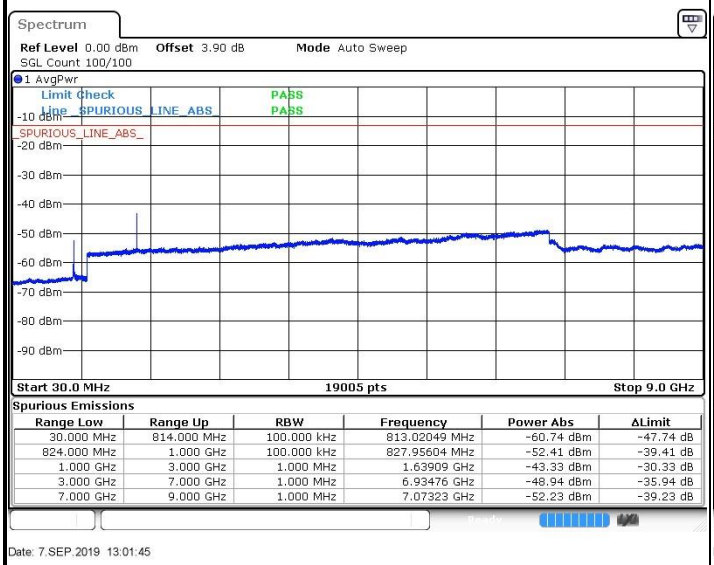
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-59.48 dBm	-46.48 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.49451 MHz	-52.46 dBm	-39.46 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63409 GHz	-43.76 dBm	-30.76 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92776 GHz	-48.91 dBm	-35.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05324 GHz	-51.93 dBm	-38.93 dB

Date: 7.SEP.2019 13:00:00

LTE Band 26 / 5MHz

Highest Channel / QPSK

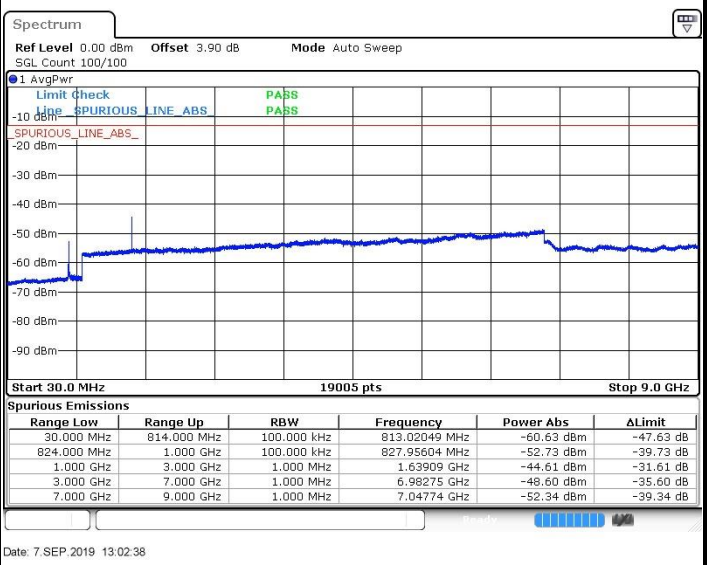


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.02049 MHz	-60.74 dBm	-47.74 dB
824.000 MHz	1.000 GHz	100.000 kHz	827.95604 MHz	-52.41 dBm	-39.41 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63909 GHz	-43.33 dBm	-30.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93476 GHz	-48.94 dBm	-35.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.07323 GHz	-52.23 dBm	-39.23 dB

Date: 7.SEP.2019 13:01:45

Highest Channel / 16QAM



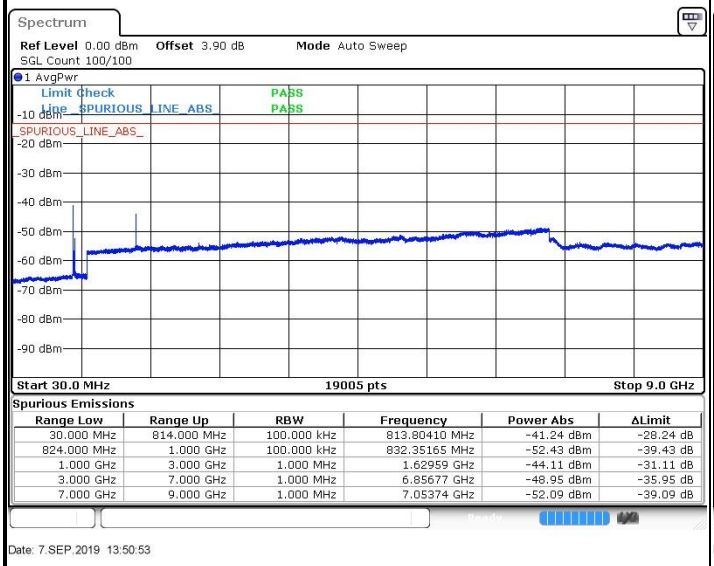
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.02049 MHz	-60.63 dBm	-47.63 dB
824.000 MHz	1.000 GHz	100.000 kHz	827.95604 MHz	-52.73 dBm	-39.73 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63909 GHz	-44.61 dBm	-31.61 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98275 GHz	-48.60 dBm	-35.60 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04774 GHz	-52.34 dBm	-39.34 dB

Date: 7.SEP.2019 13:02:38

LTE Band 26 / 10MHz

Middle Channel / QPSK

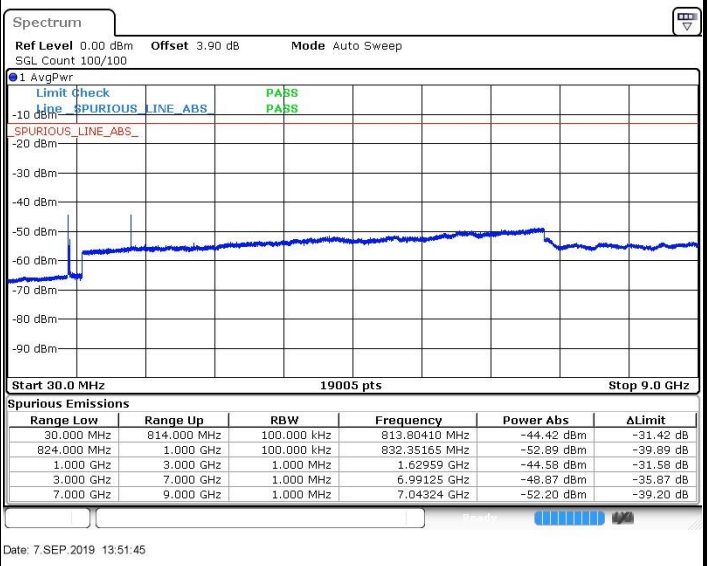


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-41.24 dBm	-28.24 dB
824.000 MHz	1.000 GHz	100.000 kHz	832.35165 MHz	-52.43 dBm	-39.43 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62959 GHz	-44.11 dBm	-31.11 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.85677 GHz	-48.95 dBm	-35.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05374 GHz	-52.09 dBm	-39.09 dB

Date: 7.SEP.2019 13:50:53

Middle Channel / 16QAM

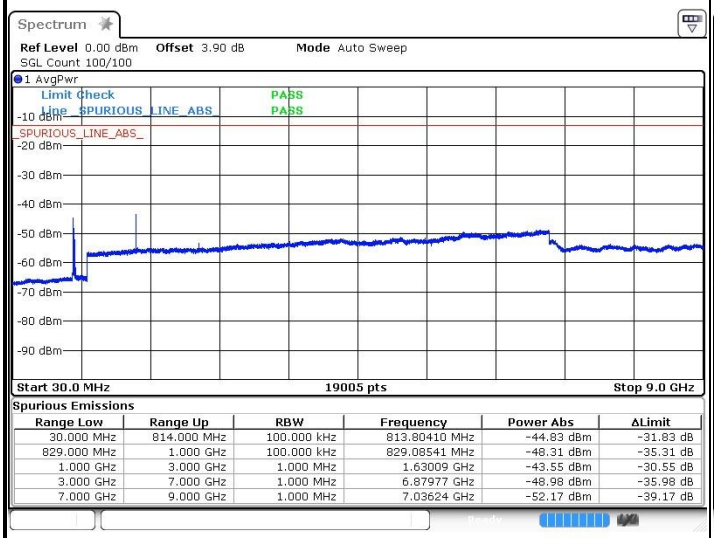


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-44.42 dBm	-31.42 dB
824.000 MHz	1.000 GHz	100.000 kHz	832.35165 MHz	-52.89 dBm	-39.89 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62959 GHz	-44.58 dBm	-31.58 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99125 GHz	-48.87 dBm	-35.87 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04324 GHz	-52.20 dBm	-39.20 dB

Date: 7.SEP.2019 13:51:45

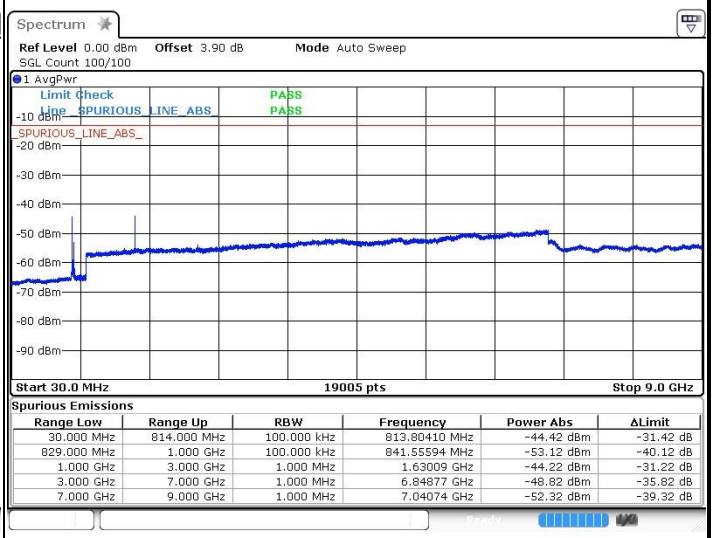
LTE Band 26 / 15MHz	
Lowest Channel / QPSK	**Lowest Channel / 16QAM**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-44.83 dBm	-31.83 dB
829.000 MHz	1.000 GHz	100.000 kHz	829.08541 MHz	-48.31 dBm	-35.31 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63009 GHz	-43.55 dBm	-30.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87977 GHz	-48.98 dBm	-35.98 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.03624 GHz	-52.17 dBm	-39.17 dB

Date: 7.SEP.2019 15:08:23



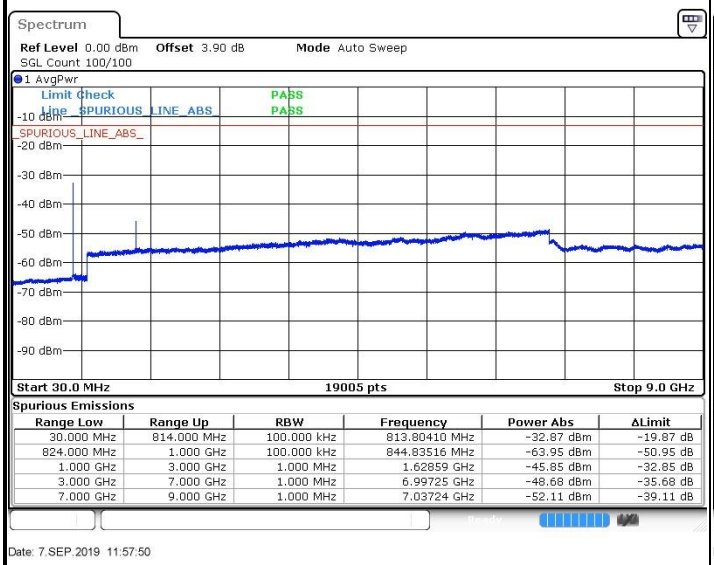
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-44.42 dBm	-31.42 dB
829.000 MHz	1.000 GHz	100.000 kHz	841.55594 MHz	-53.12 dBm	-40.12 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63009 GHz	-44.22 dBm	-31.22 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.84877 GHz	-48.82 dBm	-35.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04074 GHz	-52.32 dBm	-39.32 dB

Date: 7.SEP.2019 15:10:22

LTE Band 26 / 1.4MHz

Lowest Channel / 64QAM

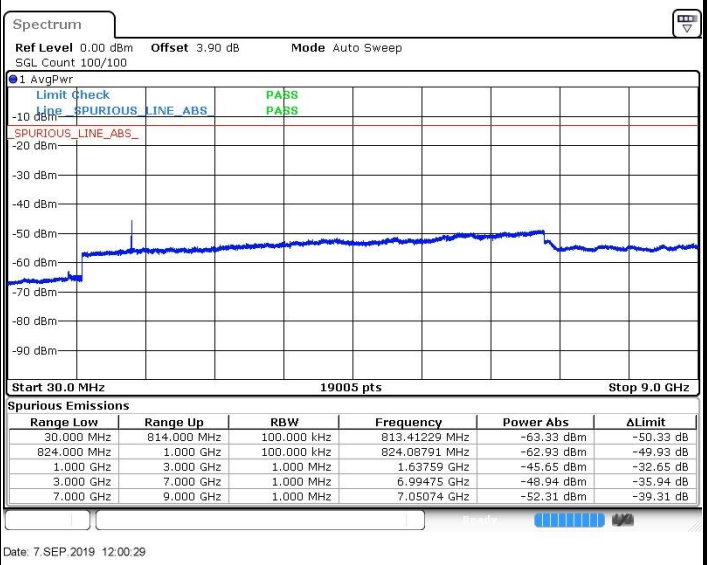


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-32.87 dBm	-19.87 dB
824.000 MHz	1.000 GHz	100.000 kHz	844.83516 MHz	-63.95 dBm	-50.95 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62859 GHz	-45.85 dBm	-32.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99725 GHz	-48.68 dBm	-35.68 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.03724 GHz	-52.11 dBm	-39.11 dB

Date: 7.SEP.2019 11:57:50

Middle Channel / 64QAM

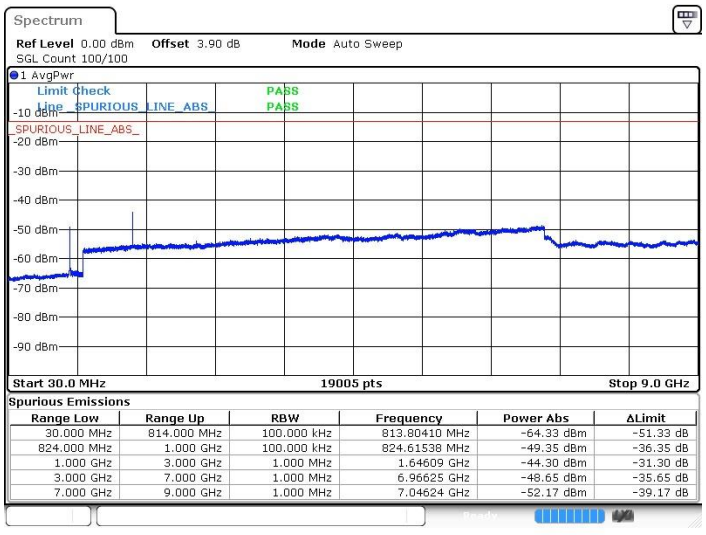


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.41229 MHz	-63.33 dBm	-50.33 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.08791 MHz	-62.93 dBm	-49.93 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63759 GHz	-45.65 dBm	-32.65 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99475 GHz	-48.94 dBm	-35.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05074 GHz	-52.31 dBm	-39.31 dB

Date: 7.SEP.2019 12:00:29

Highest Channel / 64QAM



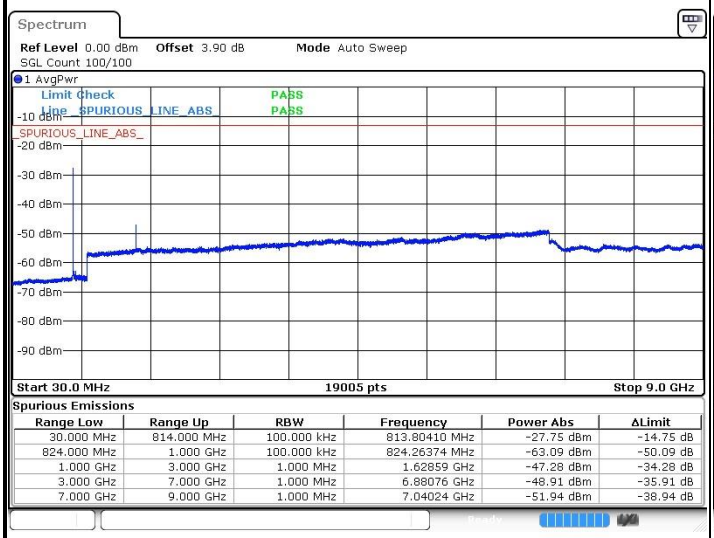
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-64.33 dBm	-51.33 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.61538 MHz	-49.35 dBm	-36.35 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64609 GHz	-44.30 dBm	-31.30 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96625 GHz	-48.65 dBm	-35.65 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04624 GHz	-52.17 dBm	-39.17 dB

Date: 7.SEP.2019 12:03:07

LTE Band 26 / 3MHz

Lowest Channel / 64QAM

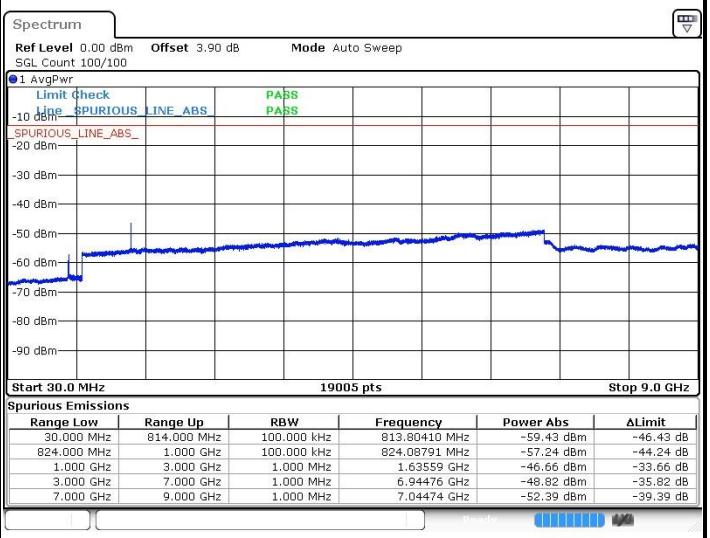


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-27.75 dBm	-14.75 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.26374 MHz	-63.09 dBm	-50.09 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62859 GHz	-47.28 dBm	-34.28 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88076 GHz	-48.91 dBm	-35.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04024 GHz	-51.94 dBm	-38.94 dB

Date: 7.SEP.2019 12:33:45

Middle Channel / 64QAM

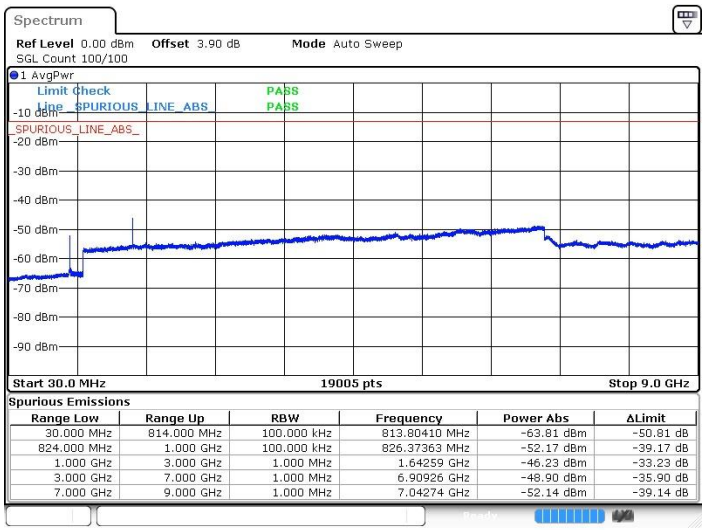


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-59.43 dBm	-46.43 dB
824.000 MHz	1.000 GHz	100.000 kHz	824.08791 MHz	-57.24 dBm	-44.24 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63559 GHz	-46.66 dBm	-33.66 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94476 GHz	-48.82 dBm	-35.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04474 GHz	-52.39 dBm	-39.39 dB

Date: 7.SEP.2019 12:36:23

Highest Channel / 64QAM



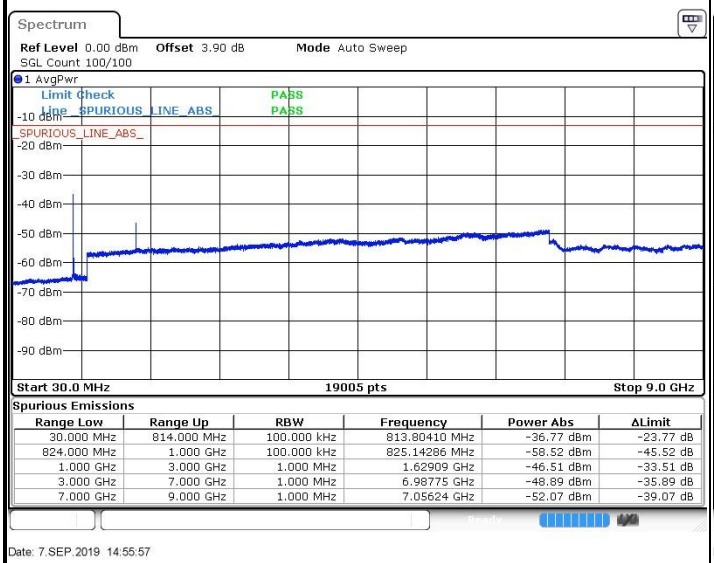
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-63.81 dBm	-50.81 dB
824.000 MHz	1.000 GHz	100.000 kHz	826.37363 MHz	-52.17 dBm	-39.17 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64259 GHz	-46.23 dBm	-33.23 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90926 GHz	-48.90 dBm	-35.90 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04274 GHz	-52.14 dBm	-39.14 dB

Date: 7.SEP.2019 12:39:02

LTE Band 26 / 5MHz

Lowest Channel / 64QAM

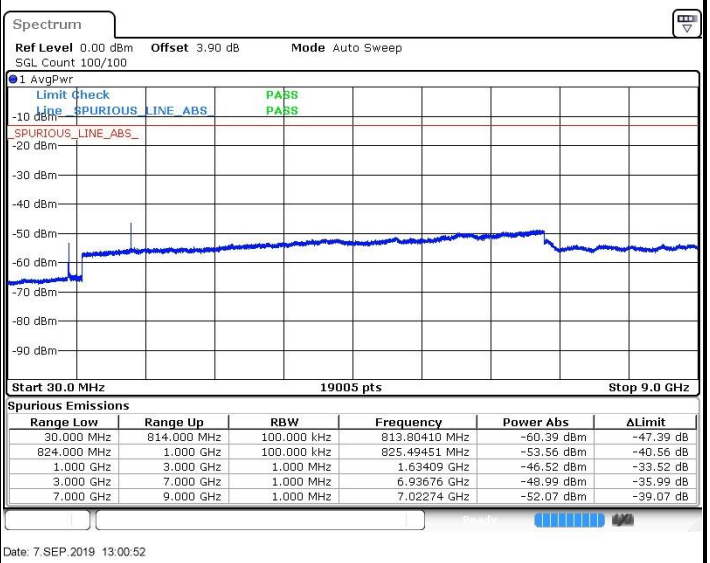


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-36.77 dBm	-23.77 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.14286 MHz	-58.52 dBm	-45.52 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62909 GHz	-46.51 dBm	-33.51 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98775 GHz	-48.89 dBm	-35.89 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05624 GHz	-52.07 dBm	-39.07 dB

Date: 7.SEP.2019 14:55:57

Middle Channel / 64QAM

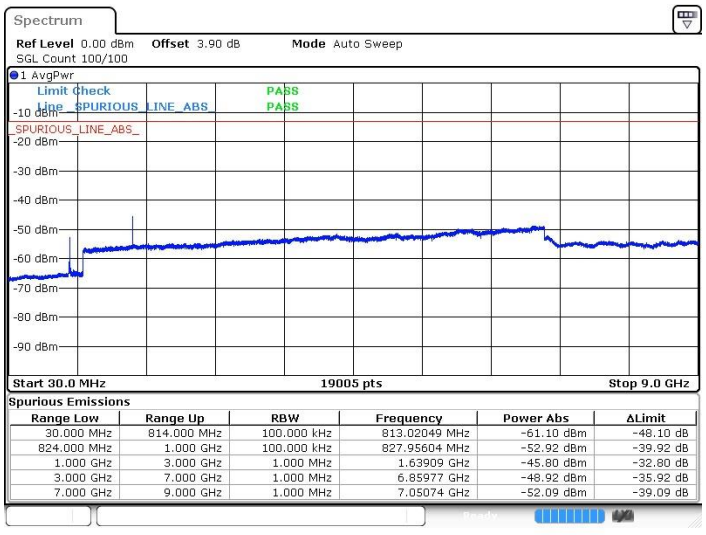


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-60.39 dBm	-47.39 dB
824.000 MHz	1.000 GHz	100.000 kHz	825.49451 MHz	-53.56 dBm	-40.56 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63409 GHz	-46.52 dBm	-33.52 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93676 GHz	-48.99 dBm	-35.99 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.02274 GHz	-52.07 dBm	-39.07 dB

Date: 7.SEP.2019 13:00:52

Highest Channel / 64QAM



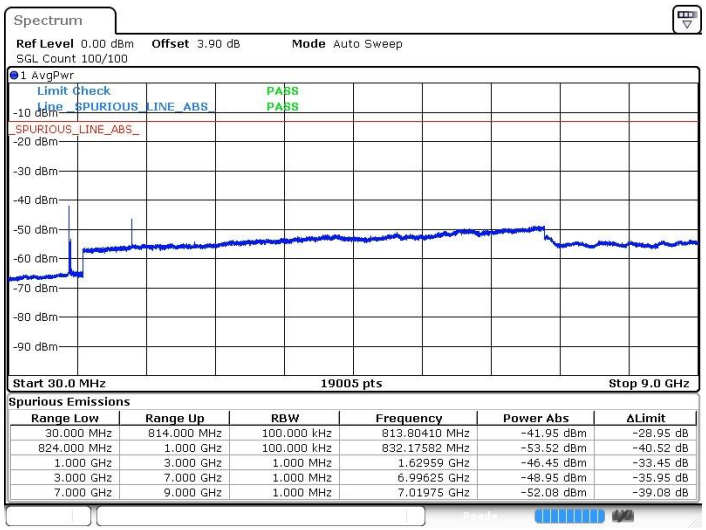
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.02049 MHz	-61.10 dBm	-48.10 dB
824.000 MHz	1.000 GHz	100.000 kHz	827.95604 MHz	-52.92 dBm	-39.92 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63909 GHz	-45.80 dBm	-32.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.85977 GHz	-48.92 dBm	-35.92 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05074 GHz	-52.09 dBm	-39.09 dB

Date: 7.SEP.2019 13:03:31

LTE Band 26 / 10MHz

Middle Channel / 64QAM



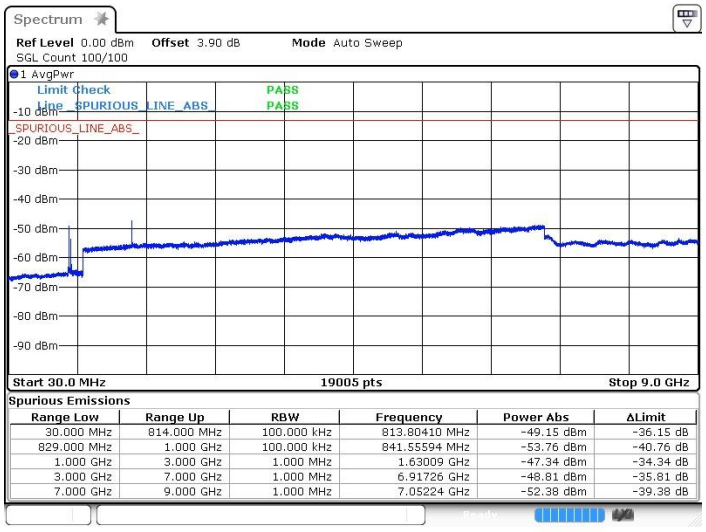
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-41.95 dBm	-28.95 dB
824.000 MHz	1.000 GHz	100.000 kHz	832.17582 MHz	-53.52 dBm	-40.52 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62959 GHz	-46.45 dBm	-33.45 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99625 GHz	-48.95 dBm	-35.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01975 GHz	-52.08 dBm	-39.08 dB

Date: 7.SEP.2019 13:52:38

LTE Band 26 / 15MHz

Lowest Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	814.000 MHz	100.000 kHz	813.80410 MHz	-49.15 dBm	-36.15 dB
829.000 MHz	1.000 GHz	100.000 kHz	841.55594 MHz	-53.76 dBm	-40.76 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63009 GHz	-47.34 dBm	-34.34 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91726 GHz	-48.81 dBm	-35.81 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.05224 GHz	-52.38 dBm	-39.38 dB

Date: 7.SEP.2019 15:11:03

Frequency Stability

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0010	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Pre-scanned in three orthogonal panels, X, Y, Z for WWAN Bottom / Top Antenna. The worse cases (Bottom Antenna) were recorded in this report.

LTE Band 26 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1630	-67.34	-13	-54.34	-74.31	1.58	10.70	H
	2444	-43.90	-13	-30.90	-52.15	2.102	12.50	H
	3258	-63.63	-13	-50.63	-72.52	2.856	13.90	H
	1630	-67.71	-13	-54.71	-74.68	1.58	10.70	V
	2444	-46.50	-13	-33.50	-54.75	2.10	12.50	V
	3258	-63.66	-13	-50.66	-72.55	2.86	13.90	V

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