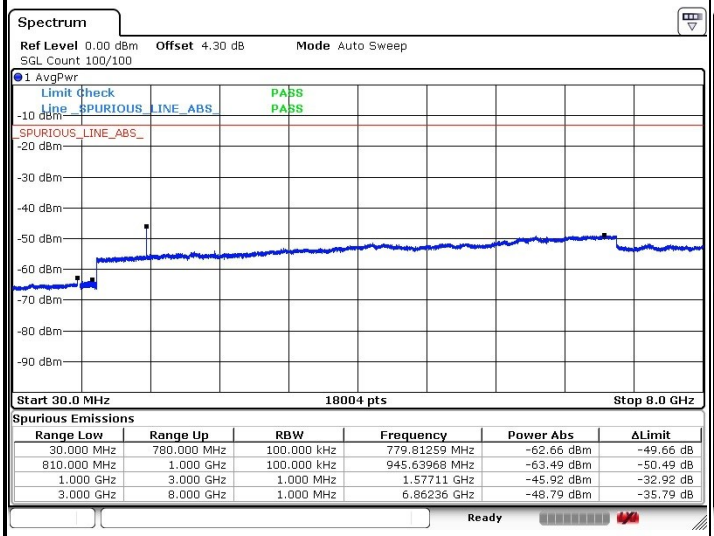
Conducted Spurious Emission

LTE Band 14 / 5MHz

Lowest Channel / QPSK



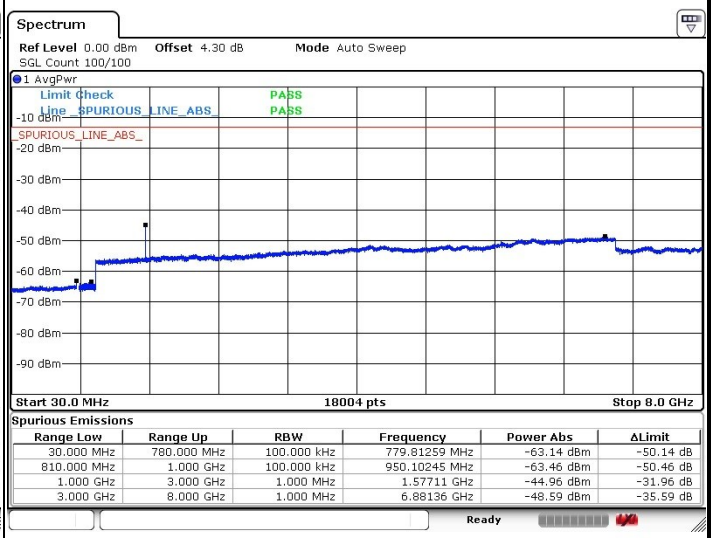
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-62.66 dBm	-49.66 dB
810.000 MHz	1.000 GHz	100.000 kHz	945.63968 MHz	-63.49 dBm	-50.49 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.57711 GHz	-45.92 dBm	-32.92 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.86236 GHz	-48.79 dBm	-35.79 dB

Ready

Date: 4.MAY.2019 15:59:52

Lowest Channel / 16QAM



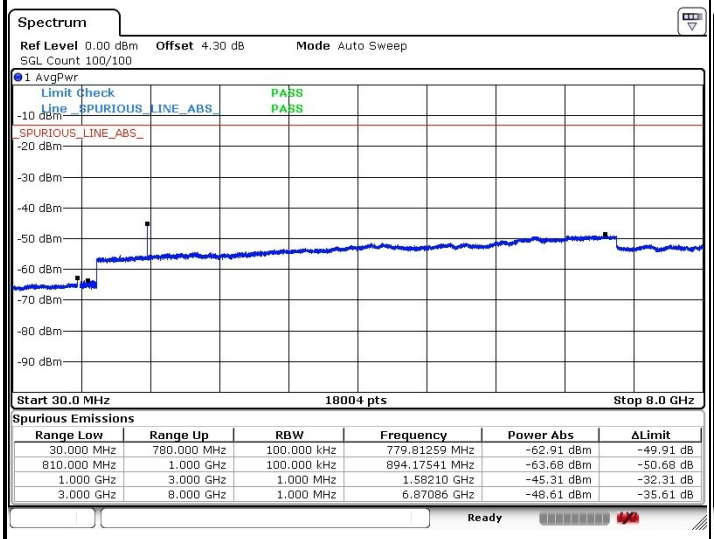
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-63.14 dBm	-50.14 dB
810.000 MHz	1.000 GHz	100.000 kHz	950.10245 MHz	-63.46 dBm	-50.46 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.57711 GHz	-44.96 dBm	-31.96 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.88136 GHz	-48.59 dBm	-35.59 dB

Ready

Date: 4.MAY.2019 16:00:39

Middle Channel / QPSK



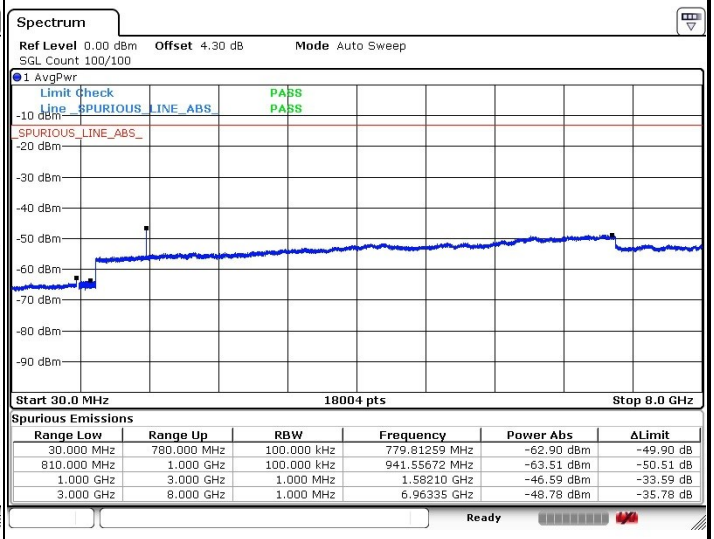
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-62.91 dBm	-49.91 dB
810.000 MHz	1.000 GHz	100.000 kHz	894.17541 MHz	-63.68 dBm	-50.68 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.58210 GHz	-45.31 dBm	-32.31 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.87086 GHz	-48.61 dBm	-35.61 dB

Ready

Date: 4.MAY.2019 15:57:50

Middle Channel / 16QAM



Spurious Emissions

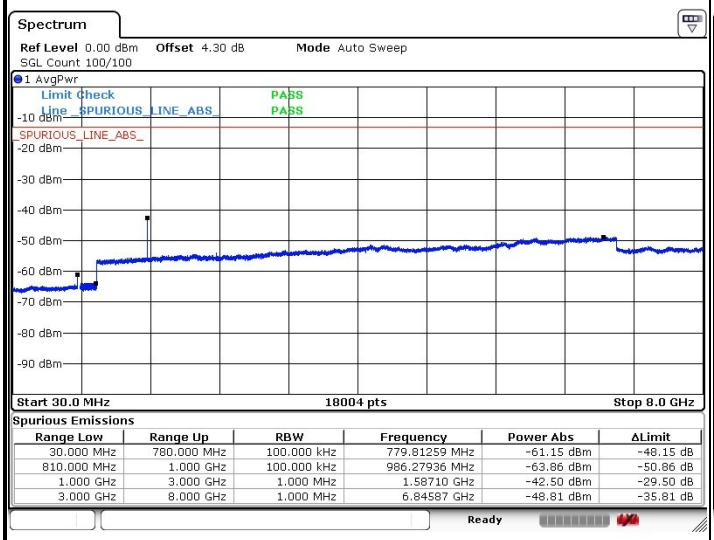
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-62.90 dBm	-49.90 dB
810.000 MHz	1.000 GHz	100.000 kHz	941.55672 MHz	-63.51 dBm	-50.51 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.58210 GHz	-46.59 dBm	-33.59 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.96335 GHz	-48.78 dBm	-35.78 dB

Ready

Date: 4.MAY.2019 15:58:20

LTE Band 14 / 5MHz

Highest Channel / QPSK



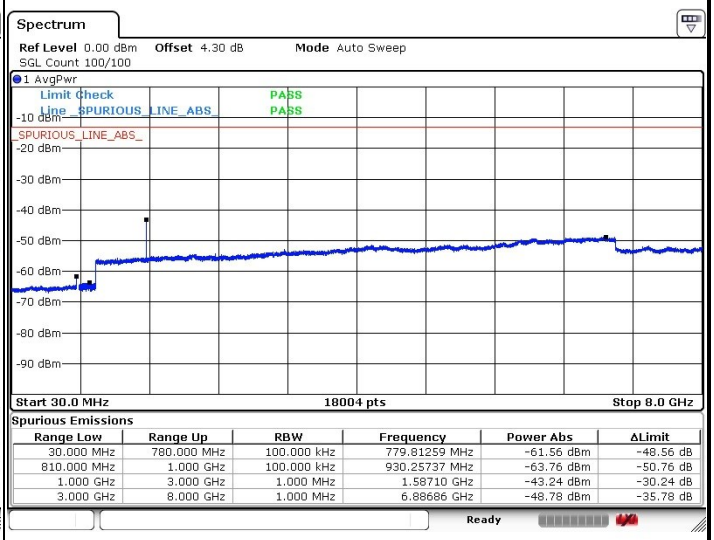
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-61.15 dBm	-48.15 dB
810.000 MHz	1.000 GHz	100.000 kHz	986.27936 MHz	-63.86 dBm	-50.86 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.58710 GHz	-42.50 dBm	-29.50 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.84587 GHz	-48.81 dBm	-35.81 dB

Ready

Date: 4.MAY.2019 16:02:08

Highest Channel / 16QAM



Spurious Emissions

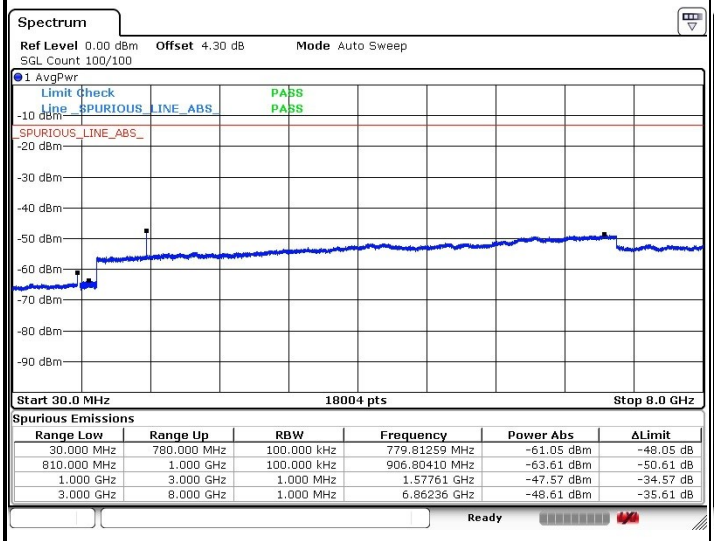
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-61.56 dBm	-48.56 dB
810.000 MHz	1.000 GHz	100.000 kHz	930.25737 MHz	-63.76 dBm	-50.76 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.58710 GHz	-43.24 dBm	-30.24 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.88686 GHz	-48.78 dBm	-35.78 dB

Ready

Date: 4.MAY.2019 16:02:52

LTE Band 14 / 10MHz

Middle Channel / QPSK



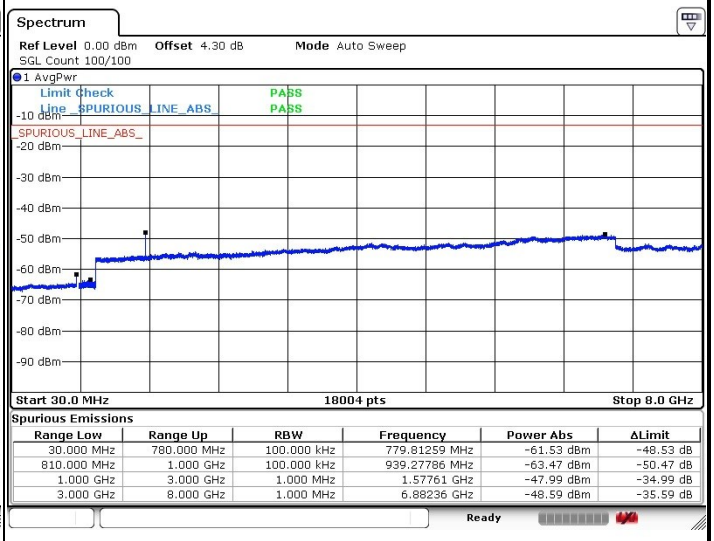
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-61.05 dBm	-48.05 dB
810.000 MHz	1.000 GHz	100.000 kHz	906.80410 MHz	-63.61 dBm	-50.61 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.57761 GHz	-47.57 dBm	-34.57 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.86236 GHz	-48.61 dBm	-35.61 dB

Ready

Date: 4.MAY.2019 15:54:21

Middle Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	780.000 MHz	100.000 kHz	779.81259 MHz	-61.53 dBm	-48.53 dB
810.000 MHz	1.000 GHz	100.000 kHz	939.27786 MHz	-63.47 dBm	-50.47 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.57761 GHz	-47.99 dBm	-34.99 dB
3.000 GHz	8.000 GHz	1.000 MHz	6.88236 GHz	-48.59 dBm	-35.59 dB

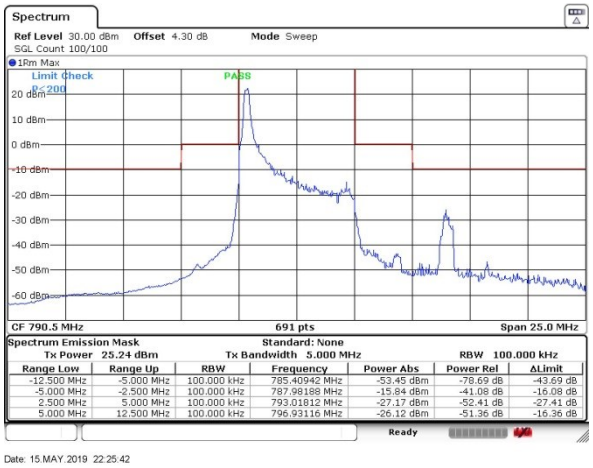
Ready

Date: 4.MAY.2019 15:55:40

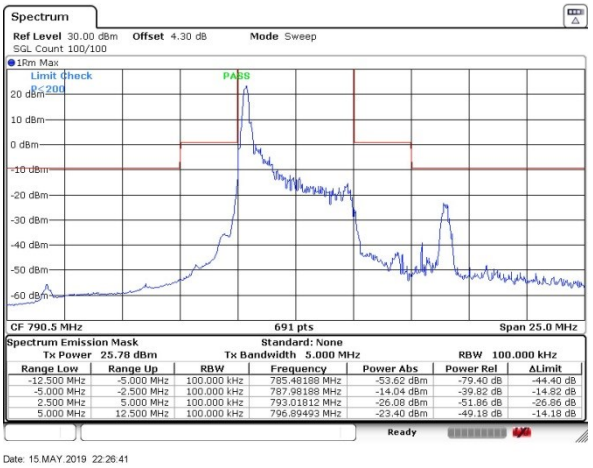
Emission Mask

LTE Band 14/ 5M(1RB0)

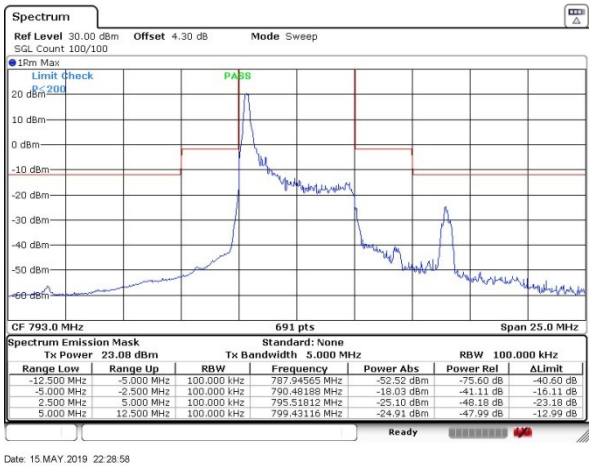
Lowest Channel / 5MHz / QPSK



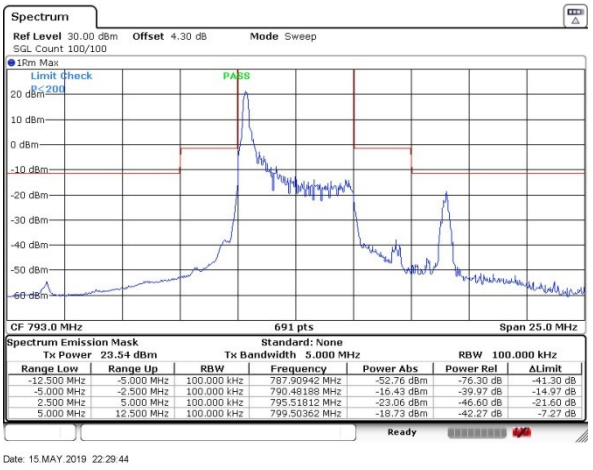
Lowest Channel / 5MHz / 16QAM



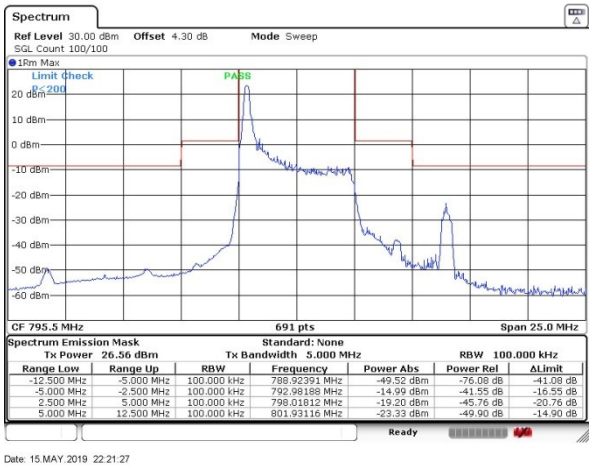
Middle Channel / 5MHz / QPSK



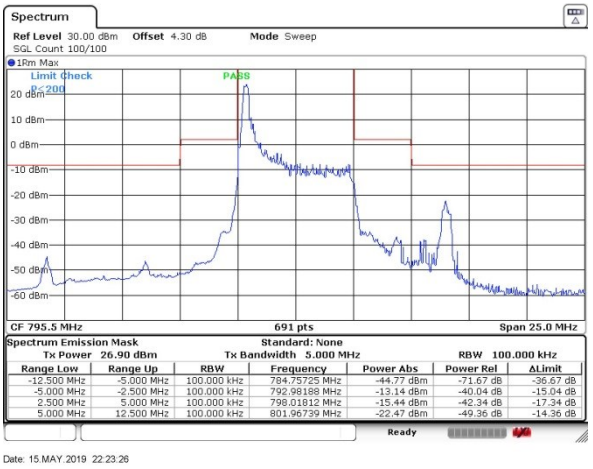
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

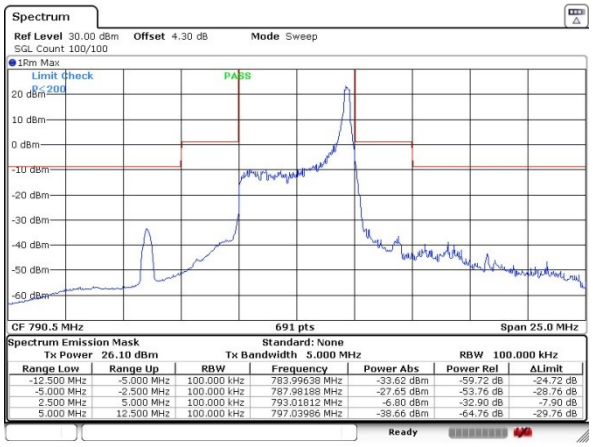


Highest Channel / 5MHz / 16QAM

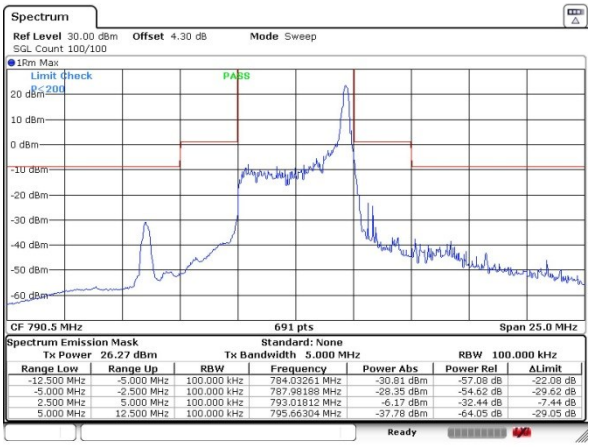


LTE Band 14/ 5M(1RBmax)

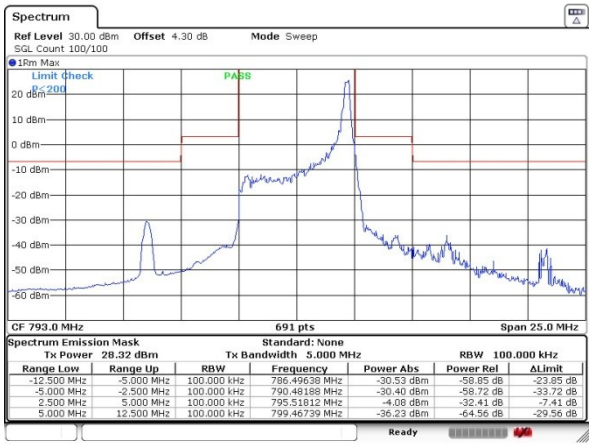
Lowest Channel / 5MHz / QPSK



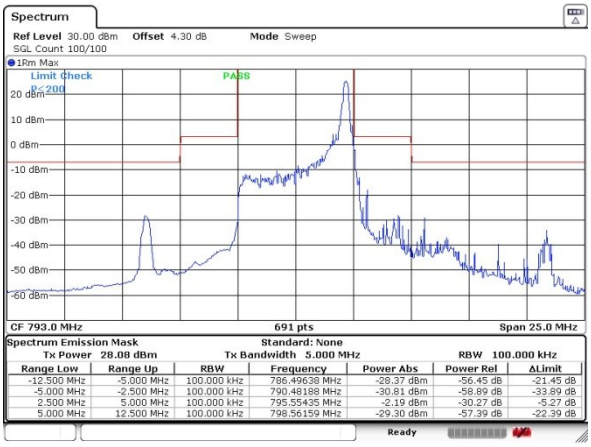
Lowest Channel / 5MHz / 16QAM



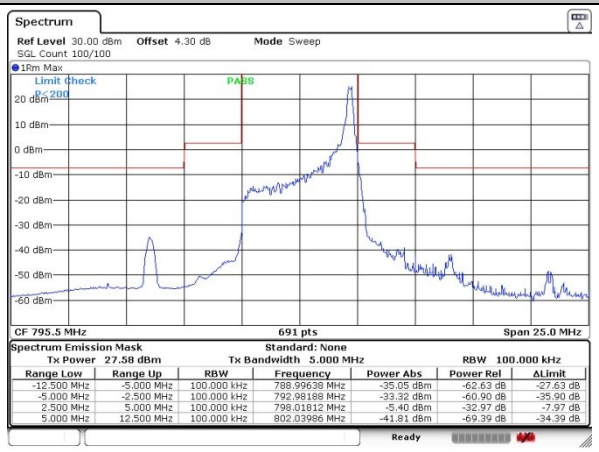
Middle Channel / 5MHz / QPSK



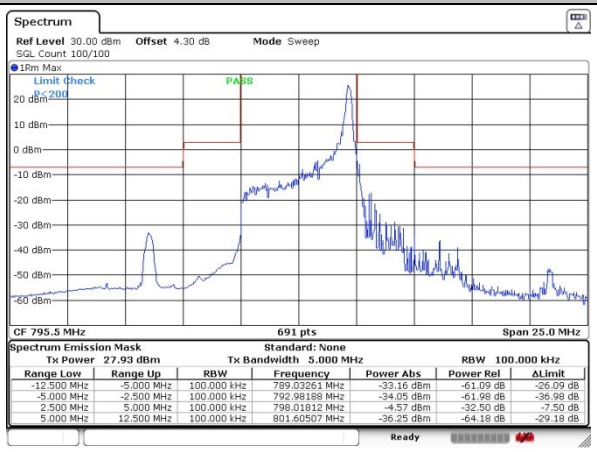
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

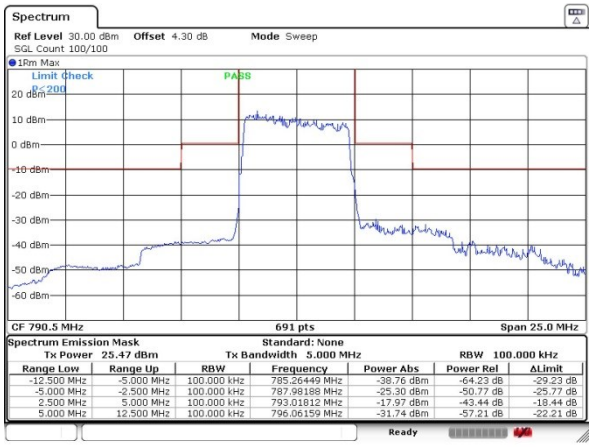


Highest Channel / 5MHz / 16QAM



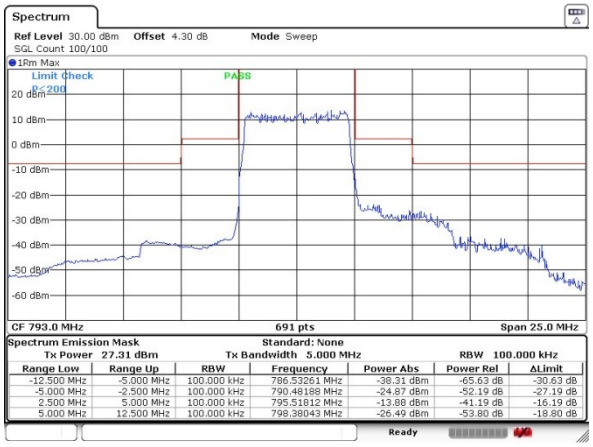
LTE Band 14/ 5M(fullRB0)

Lowest Channel / 5MHz / QPSK

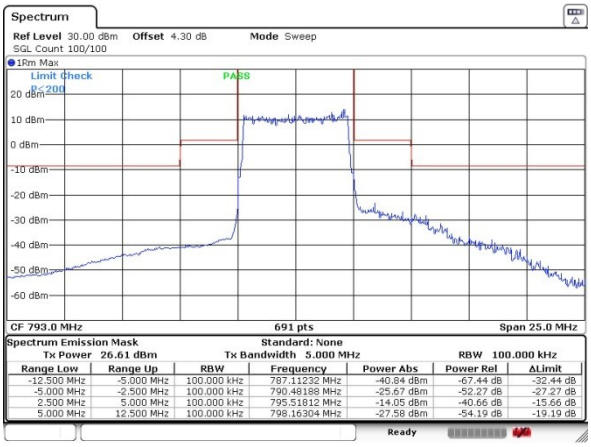


Lowest Channel / 5MHz / 16QAM

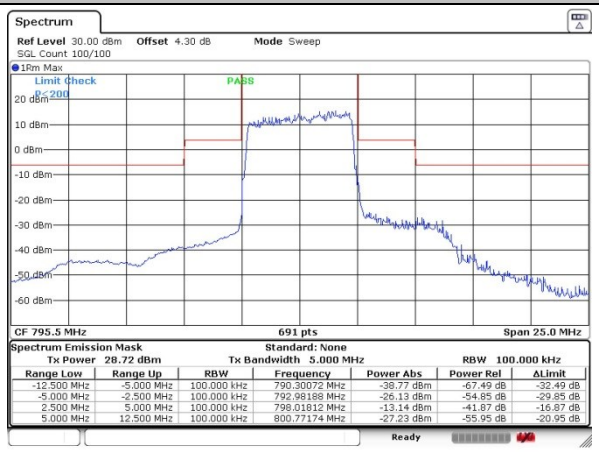
Middle Channel / 5MHz / QPSK



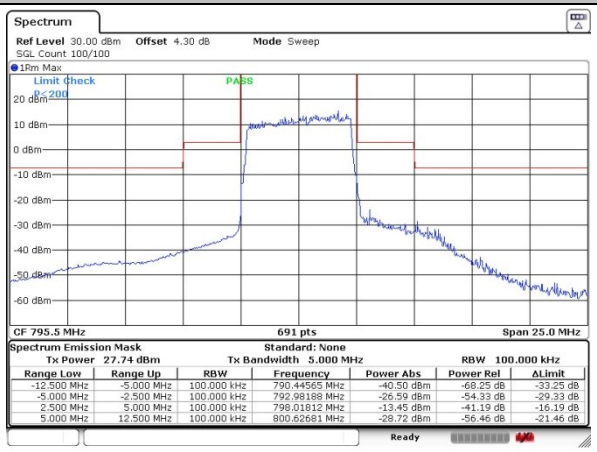
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

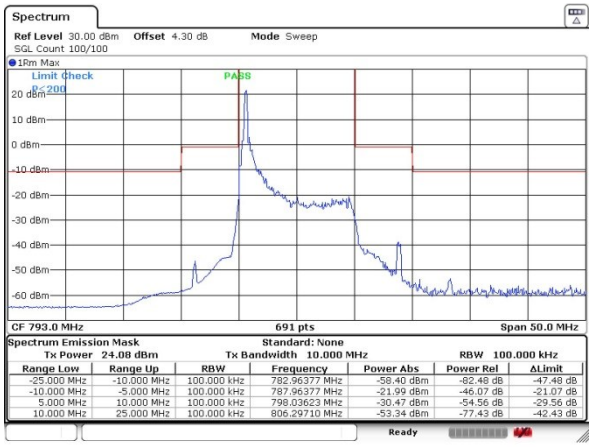


Highest Channel / 5MHz / 16QAM

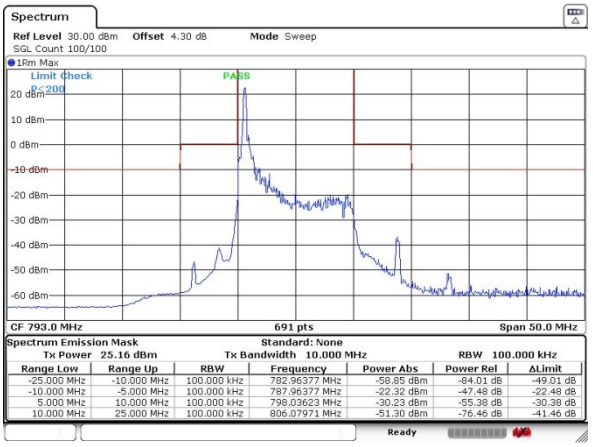


LTE Band 14/ 10MHz

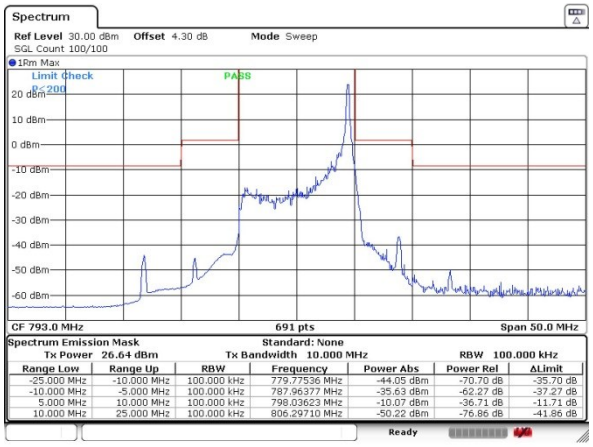
Middle Channel / 1RB0 / QPSK



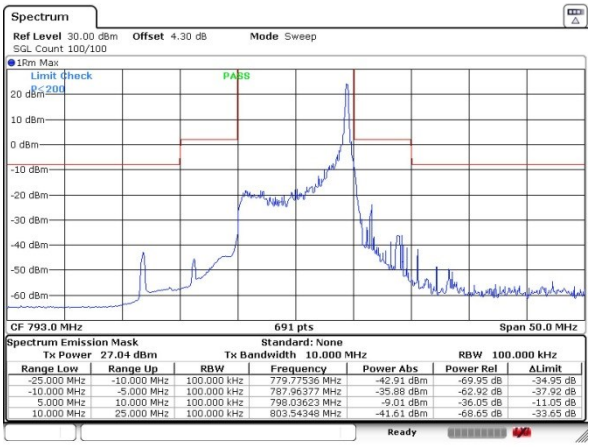
Middle Channel / 1RB0 / 16QAM



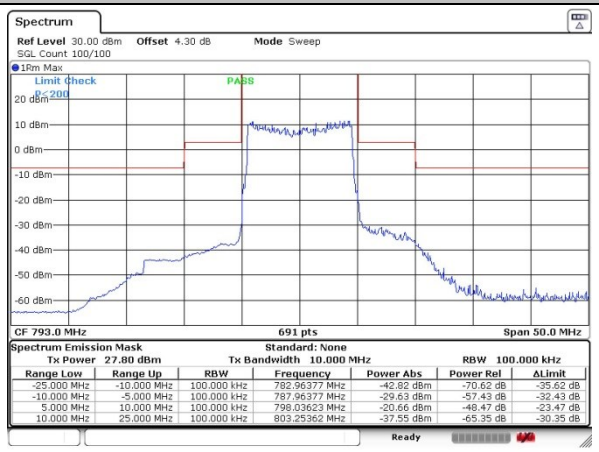
Middle Channel / 1RBmax / QPSK



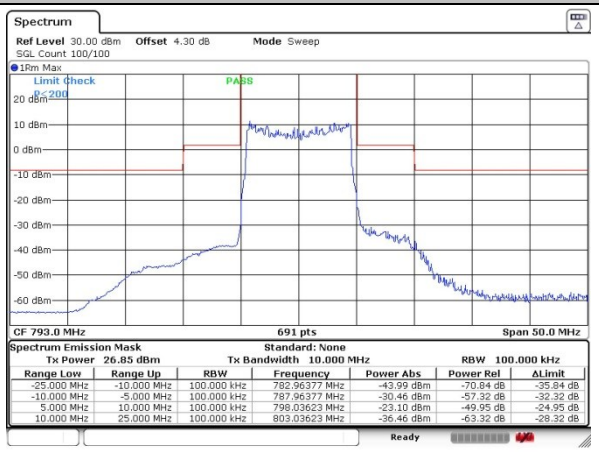
Middle Channel / 1RBmax / 16QAM



Middle Channel / fullRB0 / QPSK



Middle Channel / fullRB0 / 16QAM



Frequency Stability

Test Conditions		LTE Band 14 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0044	PASS
40	Normal Voltage	0.0035	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0040	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0044	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0037	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0026	

Note:

1. Normal Voltage =3.3V.；Battery End Point (BEP) =3V.；Maximum Voltage =3.6V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Field Strength of Spurious Radiated

LTE Band 14 / 5MHz / QPSK / RB Size 1 Offset 0								
Bandwidth	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1576	-53.30	-40	-13.30	-55.01	2.23	6.09	H
	2365.02	-67.80	-13	-54.80	-68.33	2.83	5.51	H
	3153	-57.89	-13	-44.89	-59.83	3.21	7.30	H
	1576	-60.85	-40	-20.85	-62.56	2.23	6.09	V
	2365.02	-67.25	-13	-54.25	-67.78	2.83	5.51	V
	3153	-61.83	-13	-48.83	-63.77	3.21	7.30	V
Middle	1582	-59.09	-40	-19.09	-60.80	2.23	6.09	H
	2372.52	-66.47	-13	-53.47	-67.00	2.83	5.51	H
	3162	-63.36	-13	-50.36	-65.30	3.21	7.30	H
	1582	-55.64	-40	-15.64	-57.35	2.23	6.09	V
	2372	-66.16	-13	-53.16	-66.69	2.83	5.51	V
	3162	-60.31	-13	-47.31	-62.25	3.21	7.30	V
Highest	1586	-53.00	-40	-13.00	-54.71	2.23	6.09	H
	2380	-64.75	-13	-51.75	-65.28	2.83	5.51	H
	3174	-58.23	-13	-45.23	-60.17	3.21	7.30	H
	1586	-60.25	-40	-20.25	-61.96	2.23	6.09	V
	2484	-65.51	-13	-52.51	-66.04	2.83	5.51	V
	3174	-61.22	-13	-48.22	-63.16	3.21	7.30	V
	Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.							
Test Result					PASS			

LTE Band 14 / 10MHz / QPSK / RB Size 1 Offset 0								
Bandwidth	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	1578	-53.78	-40	-13.78	-55.49	2.23	6.09	H
	2365.77	-67.79	-13	-54.79	-68.32	2.83	5.51	H
	3153	-58.67	-13	-45.67	-60.61	3.21	7.30	H
	1578	-61.56	-40	-21.56	-63.27	2.23	6.09	V
	2366	-67.73	-13	-54.73	-68.26	2.83	5.51	V
	3153	-61.52	-13	-48.52	-63.46	3.21	7.30	V
	Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.							
Test Result					PASS			