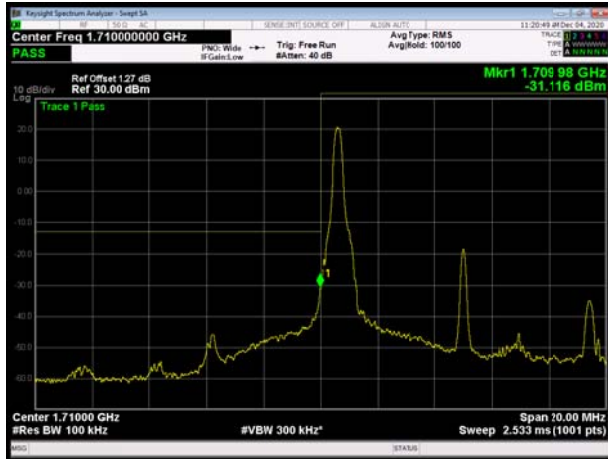
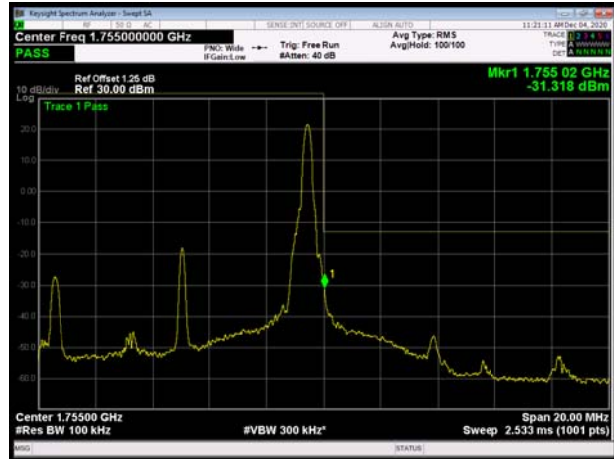




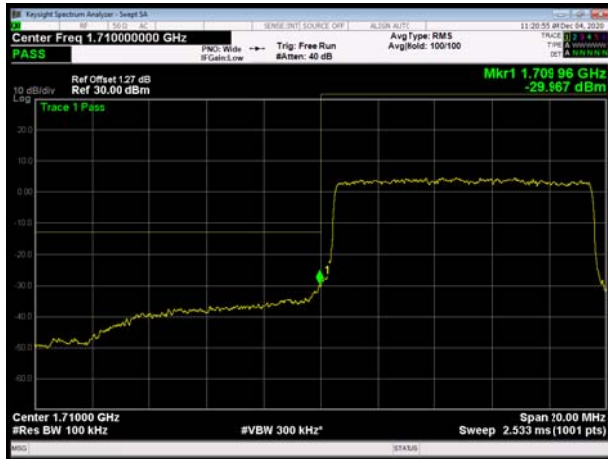
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



LTE Band 4 QPSK 10MHz CH-High, 1 RB



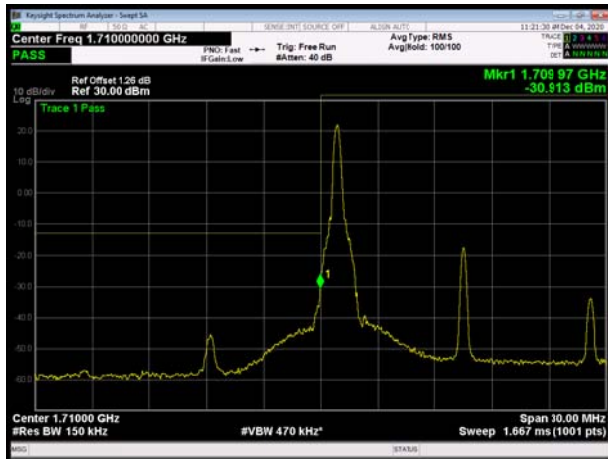
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



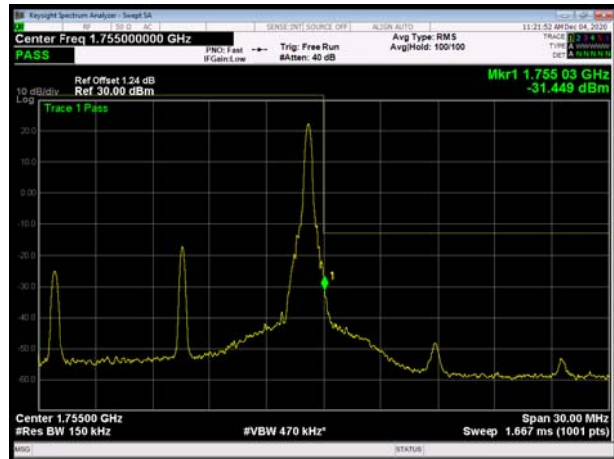
LTE Band 4 QPSK 10MHz CH-High, 100%RB



LTE Band 4 QPSK 15MHz CH-Low, 1 RB

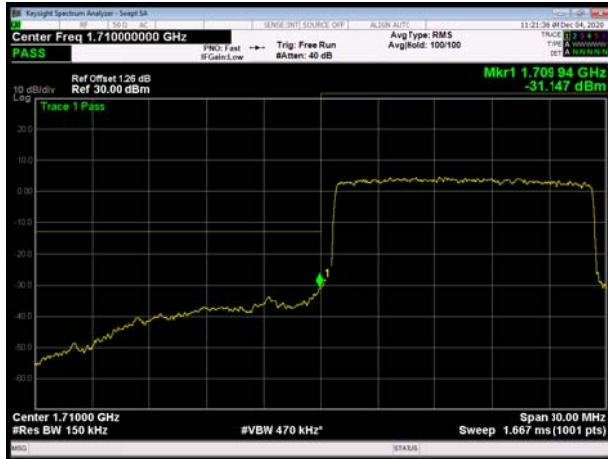


LTE Band 4 QPSK 15MHz CH-High, 1 RB

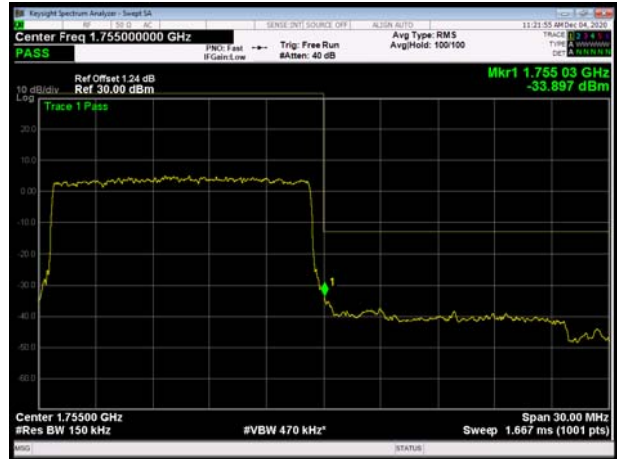




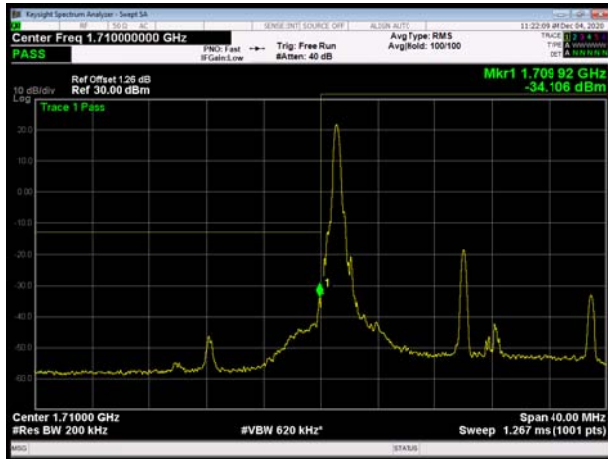
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



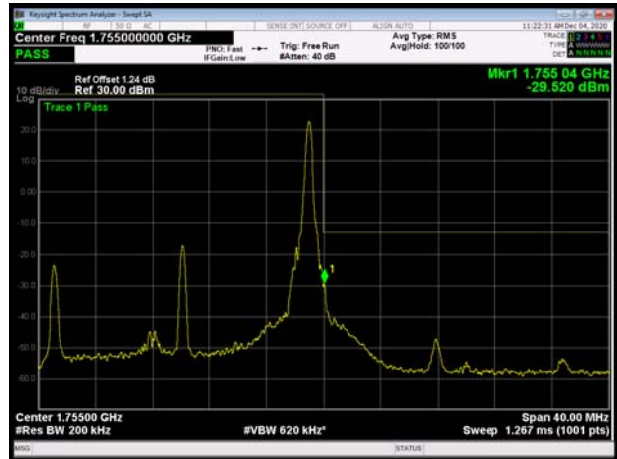
LTE Band 4 QPSK 15MHz CH-High, 100%RB



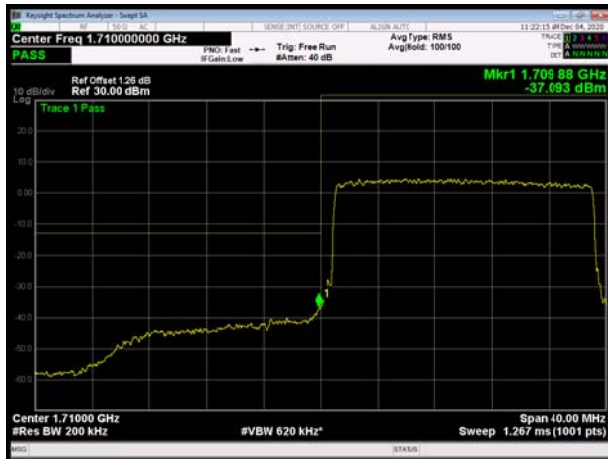
LTE Band 4 QPSK 20MHz CH-Low, 1 RB



LTE Band 4 QPSK 20MHz CH-High, 1 RB



LTE Band 4 QPSK 20MHz CH-Low, 100%RB

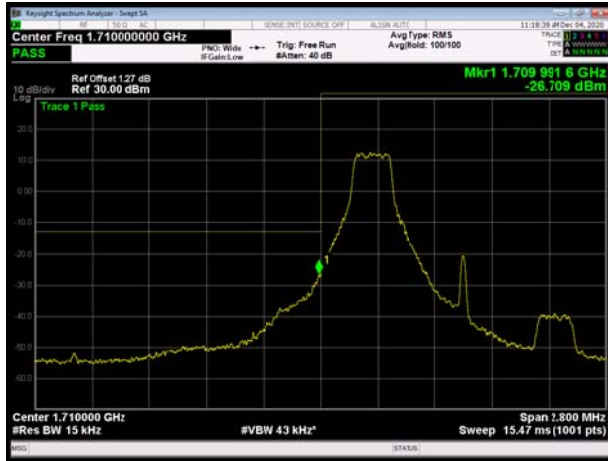


LTE Band 4 QPSK 20MHz CH-High, 100%RB

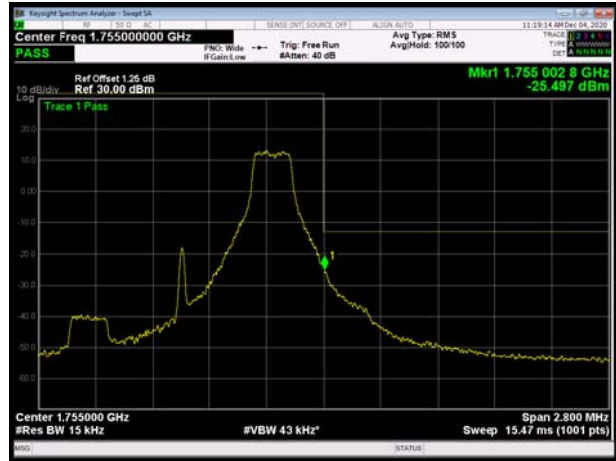




LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 16QAM 1.4MHz CH-High, 1 RB



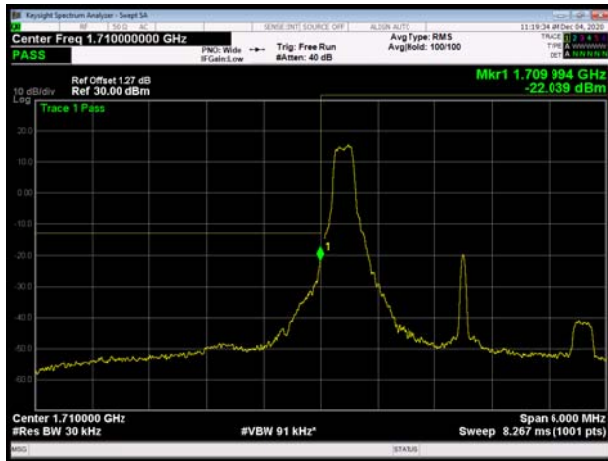
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



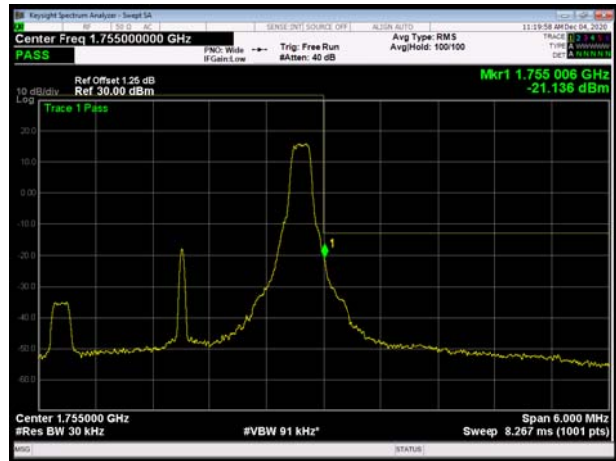
LTE Band 4 16QAM 1.4MHz CH-High, 100%RB



LTE Band 4 16QAM 3MHz CH-Low, 1 RB

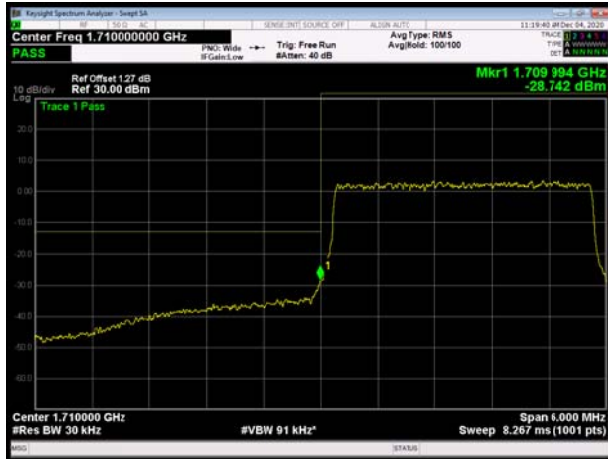


LTE Band 4 16QAM 3MHz CH-High, 1 RB

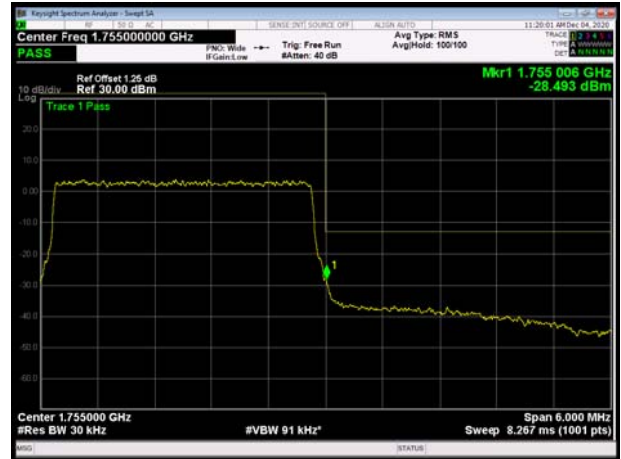




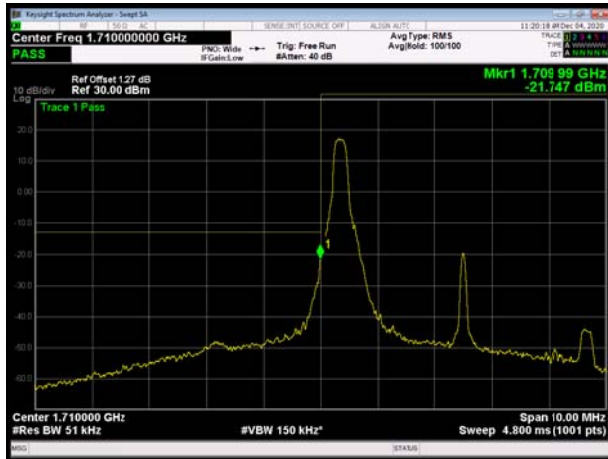
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



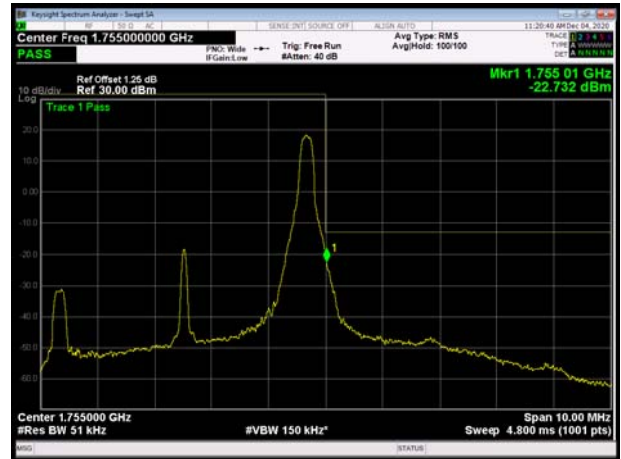
LTE Band 4 16QAM 3MHz CH-High, 100%RB



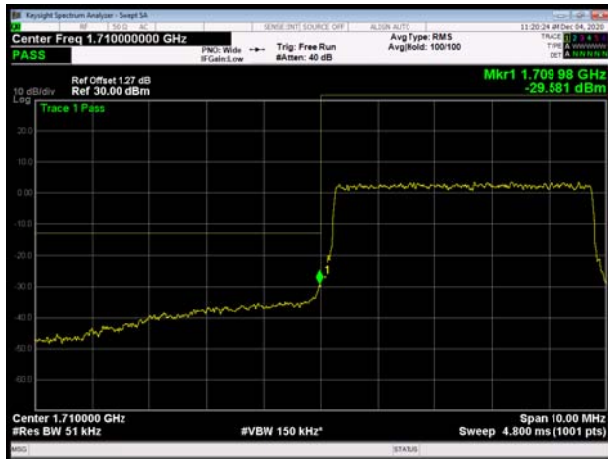
LTE Band 4 16QAM 5MHz CH-Low, 1 RB



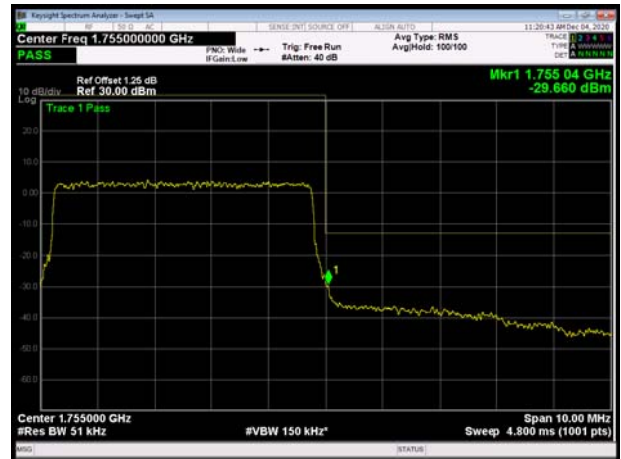
LTE Band 4 16QAM 5MHz CH-High, 1 RB



LTE Band 4 16QAM 5MHz CH-Low, 100%RB

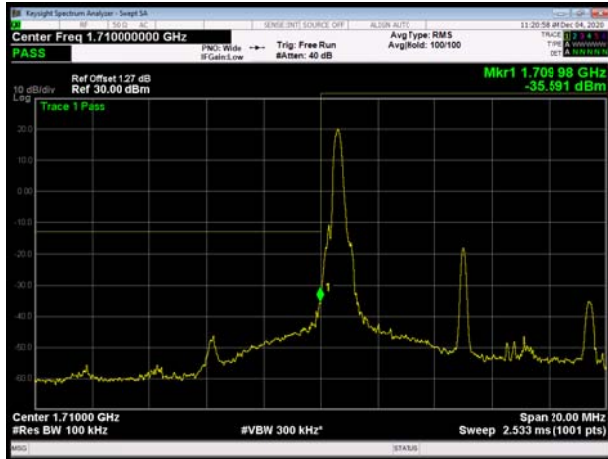


LTE Band 4 16QAM 5MHz CH-High, 100%RB

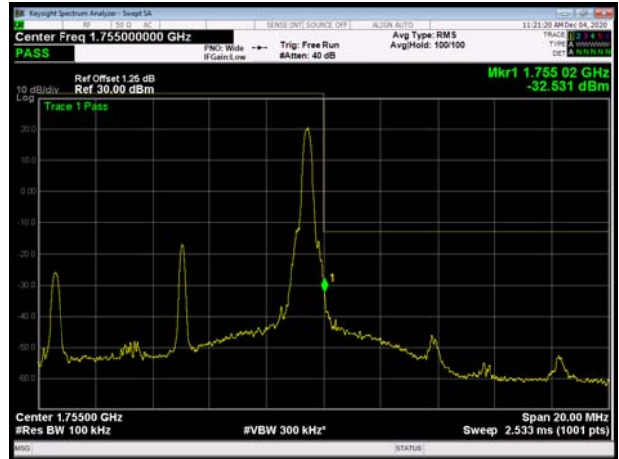




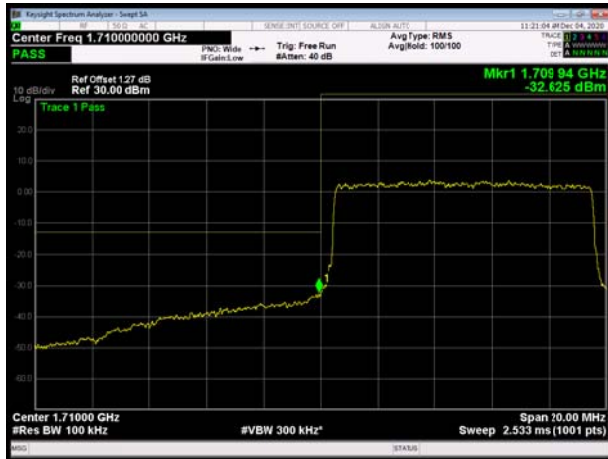
LTE Band 4 16QAM 10MHz CH-Low, 1 RB



LTE Band 4 16QAM 10MHz CH-High, 1 RB



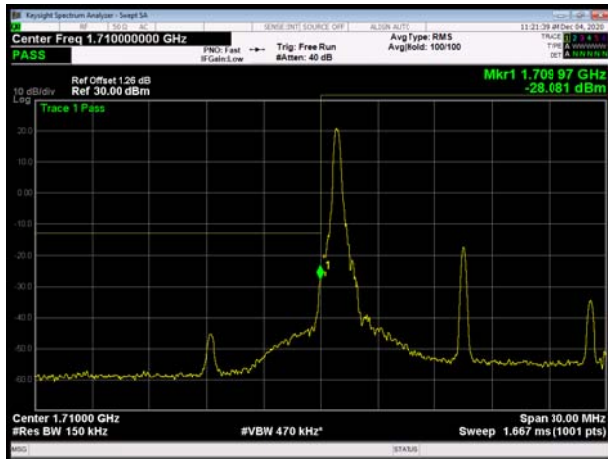
LTE Band 4 16QAM 10MHz CH-Low, 100%RB



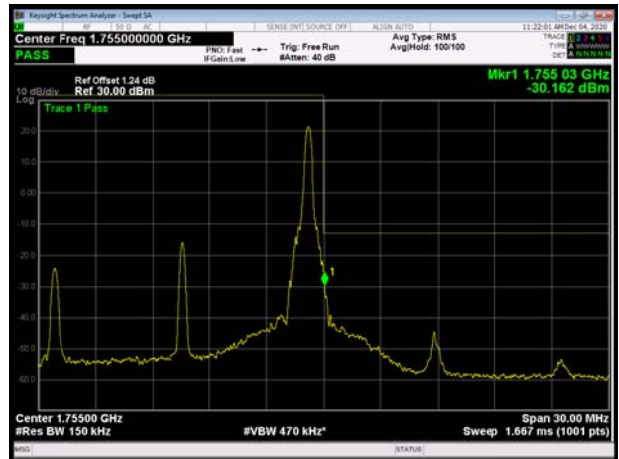
LTE Band 4 16QAM 10MHz CH-High, 100%RB



LTE Band 4 16QAM 15MHz CH-Low, 1 RB

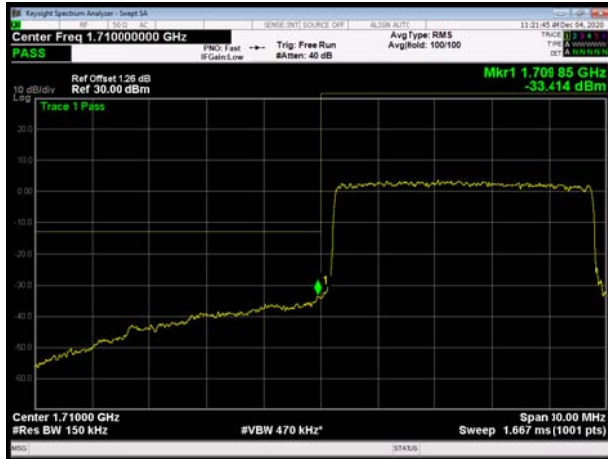


LTE Band 4 16QAM 15MHz CH-High, 1 RB





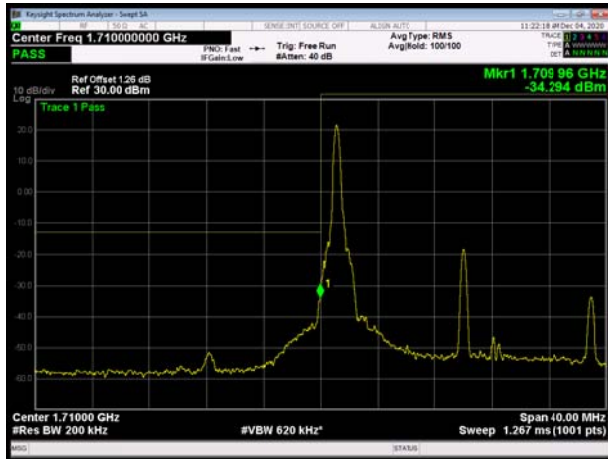
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



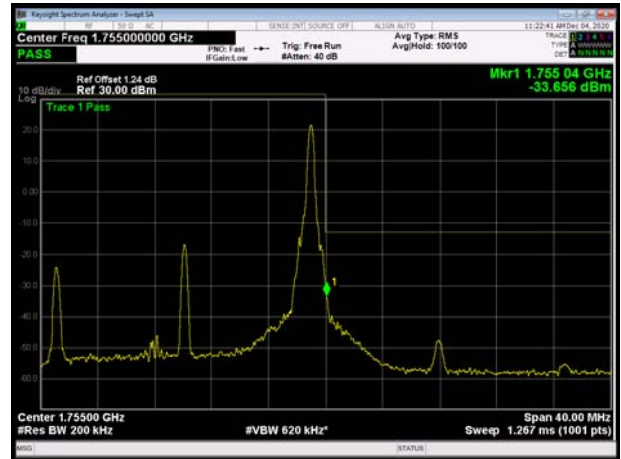
LTE Band 4 16QAM 15MHz CH-High, 100%RB



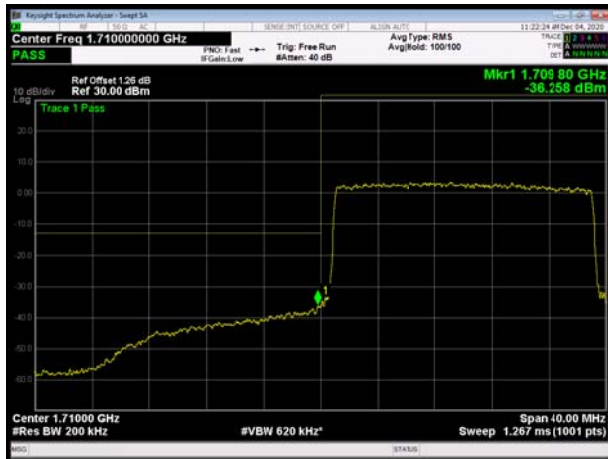
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



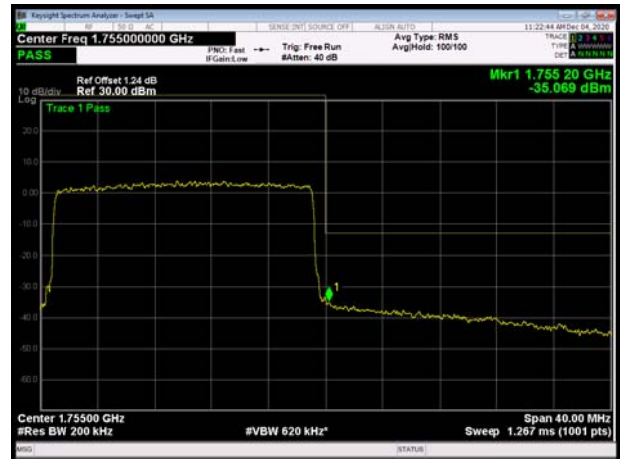
LTE Band 4 16QAM 20MHz CH-High, 1 RB



LTE Band 4 16QAM 20MHz CH-Low, 100%RB

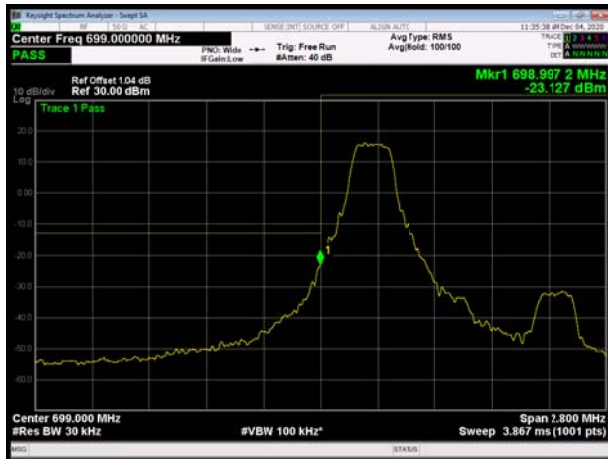


LTE Band 4 16QAM 20MHz CH-High, 100%RB

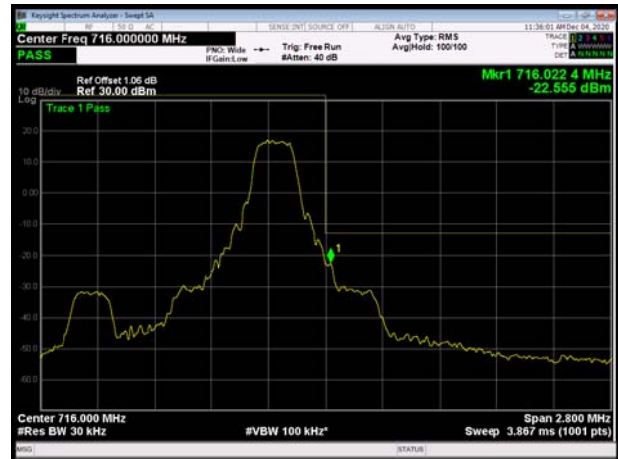




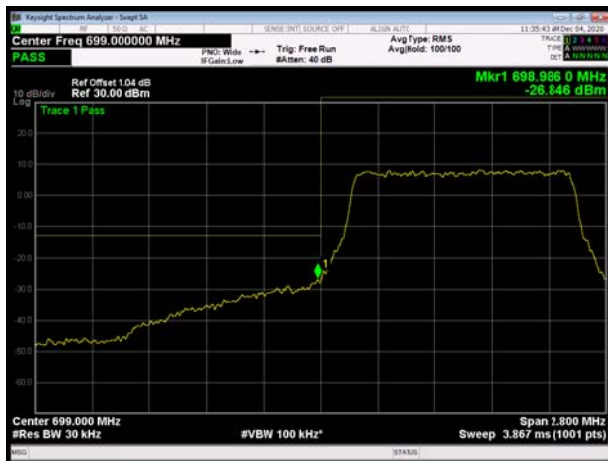
LTE Band 12 QPSK 1.4MHz CH-Low, 1 RB



LTE Band 12 QPSK 1.4MHz CH-High, 1 RB



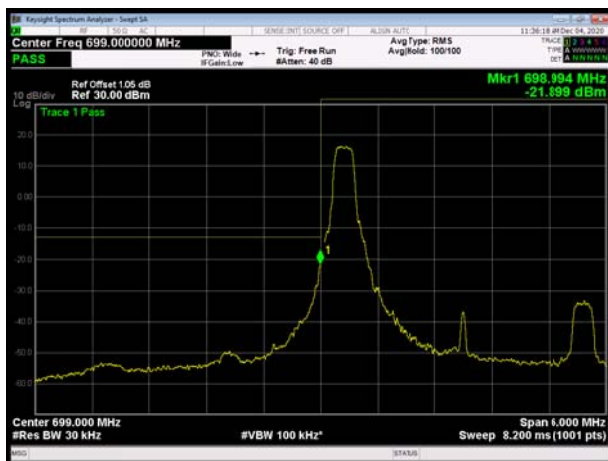
LTE Band 12 QPSK 1.4MHz CH-Low, 100%RB



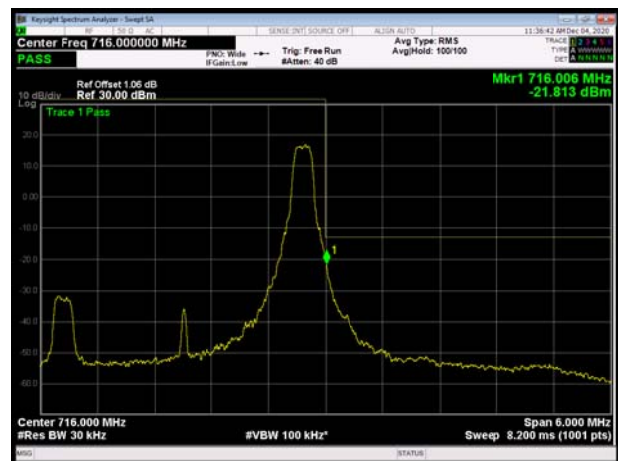
LTE Band 12 QPSK 1.4MHz CH-High, 100%RB



LTE Band 12 QPSK 3MHz CH-Low, 1 RB

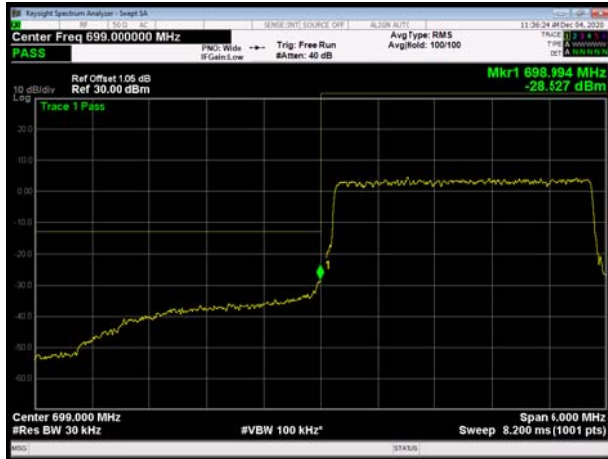


LTE Band 12 QPSK 3MHz CH-High, 1 RB





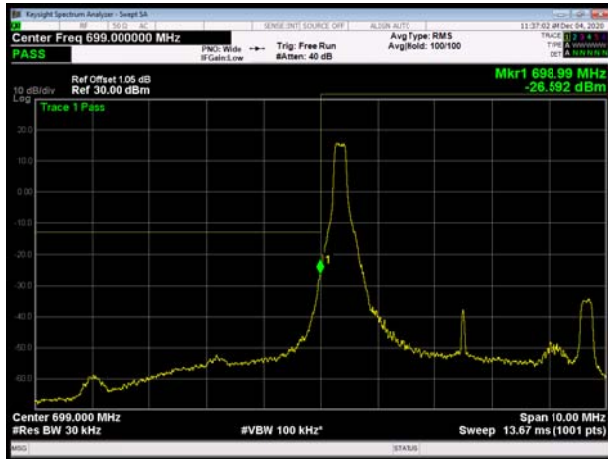
LTE Band 12 QPSK 3MHz CH-Low, 100%RB



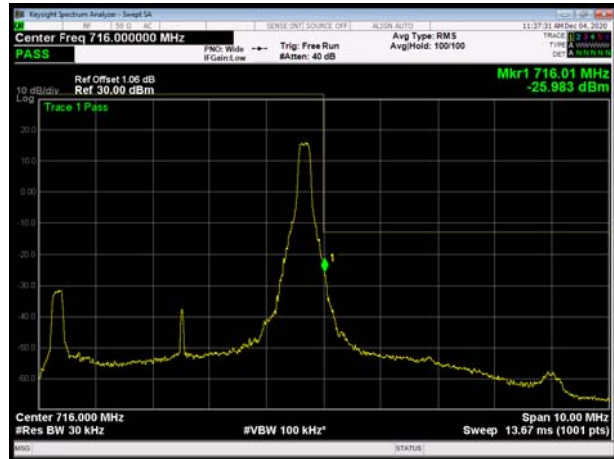
LTE Band 12 QPSK 3MHz CH-High, 100%RB



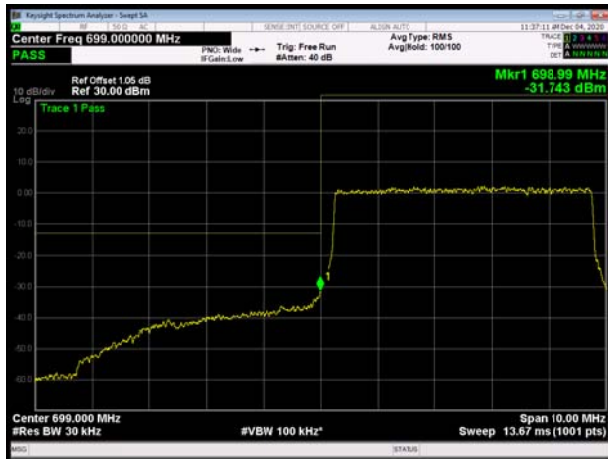
LTE Band 12 QPSK 5MHz CH-Low, 1 RB



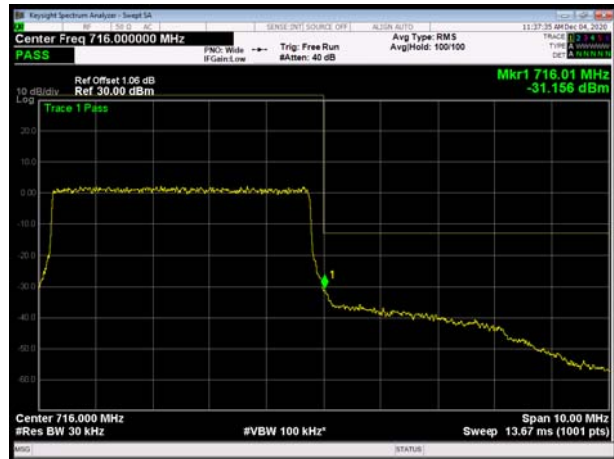
LTE Band 12 QPSK 5MHz CH-High, 1 RB



LTE Band 12 QPSK 5MHz CH-Low, 100%RB

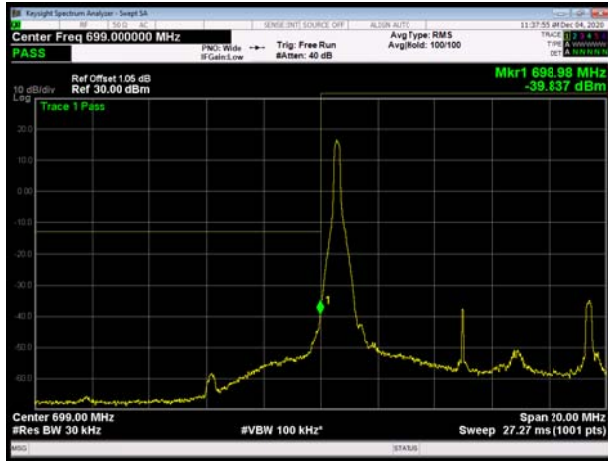


LTE Band 12 QPSK 5MHz CH-High, 100%RB

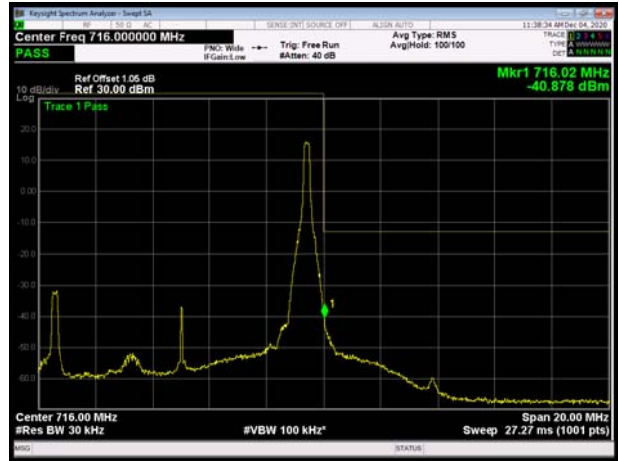




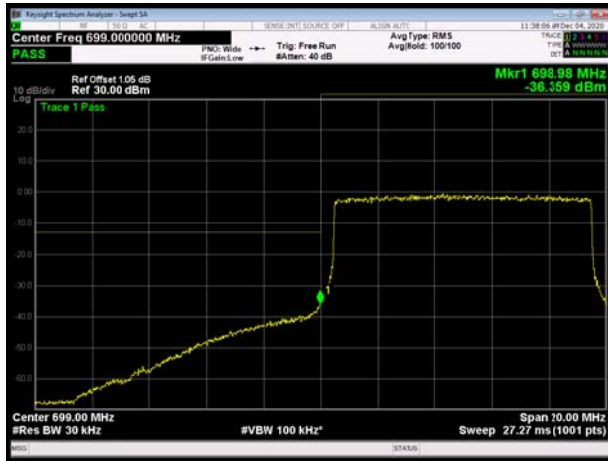
LTE Band 12 QPSK 10MHz CH-Low, 1 RB



LTE Band 12 QPSK 10MHz CH-High, 1 RB



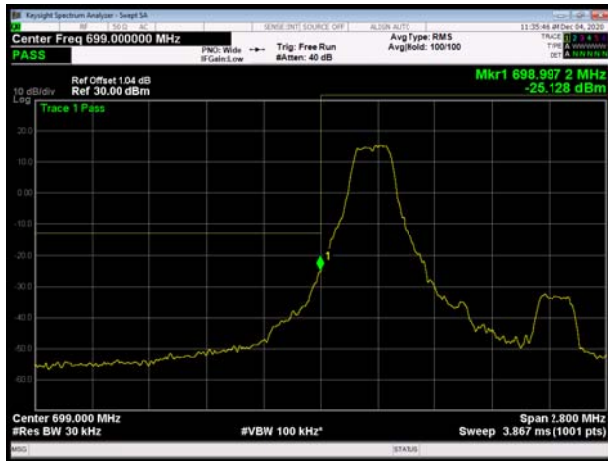
LTE Band 12 QPSK 10MHz CH-Low, 100%RB



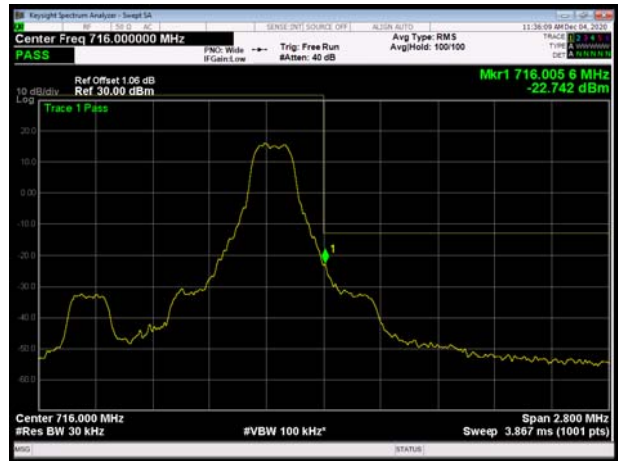
LTE Band 12 QPSK 10MHz CH-High, 100%RB



LTE Band 12 16QAM 1.4MHz CH-Low, 1 RB

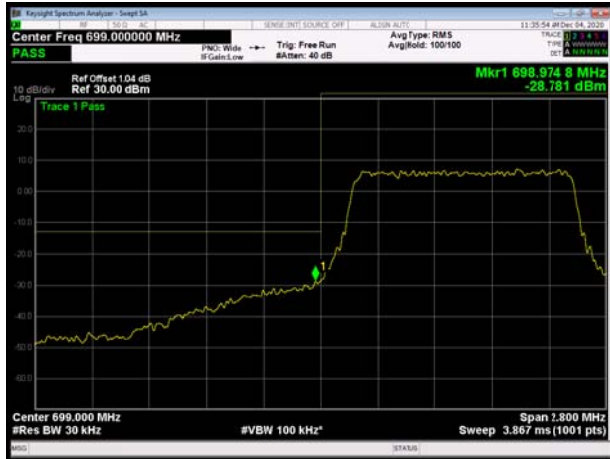


LTE Band 12 16QAM 1.4MHz CH-High, 1 RB





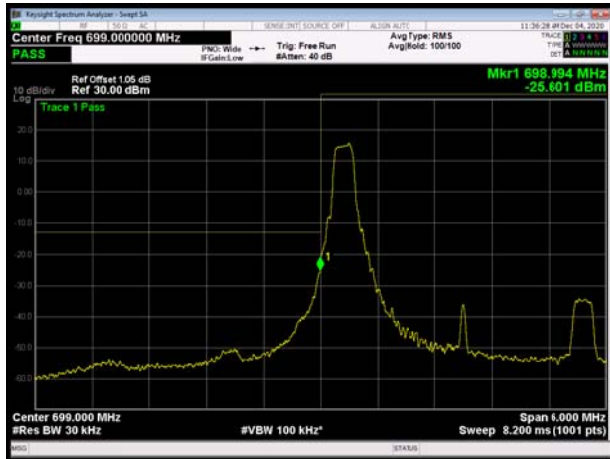
LTE Band 12 16QAM 1.4MHz CH-Low, 100%RB



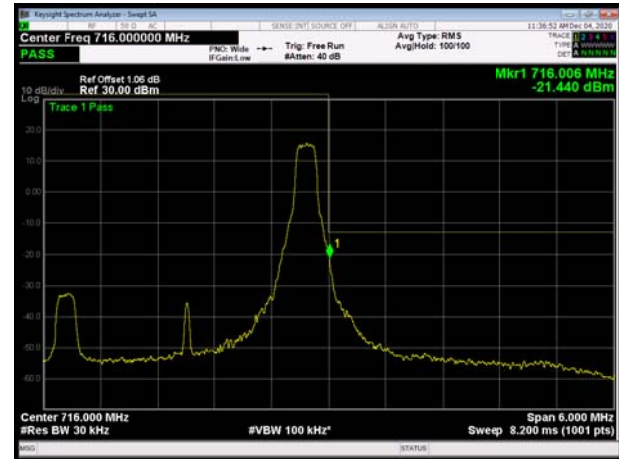
LTE Band 12 16QAM 1.4MHz CH-High, 100%RB



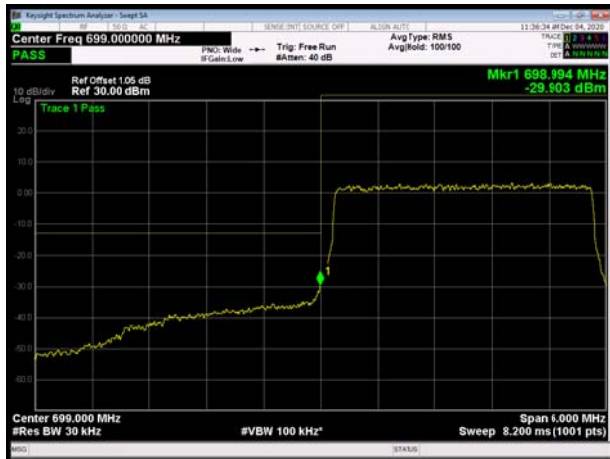
LTE Band 12 16QAM 3MHz CH-Low, 1 RB



LTE Band 12 16QAM 3MHz CH-High, 1 RB



LTE Band 12 16QAM 3MHz CH-Low, 100%RB

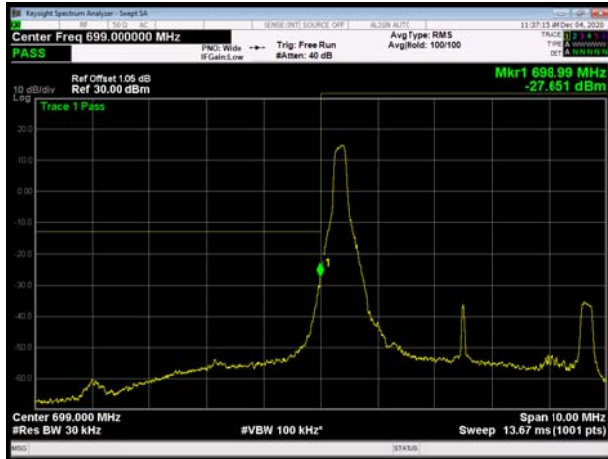


LTE Band 12 16QAM 3MHz CH-High, 100%RB

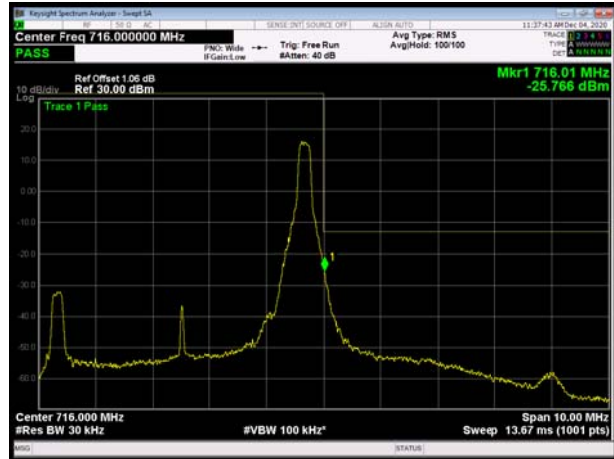




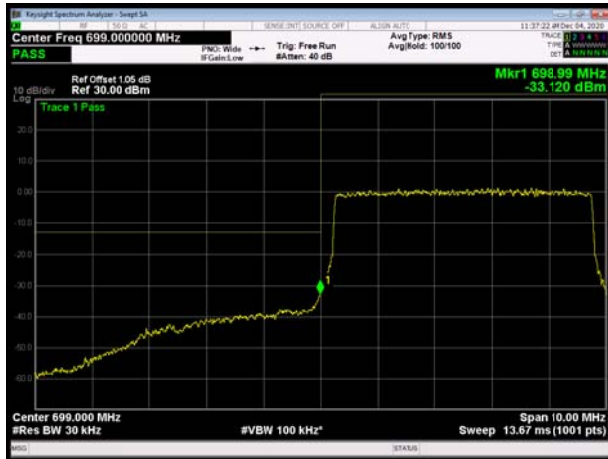
LTE Band 12 16QAM 5MHz CH-Low, 1 RB



LTE Band 12 16QAM 5MHz CH-High, 1 RB



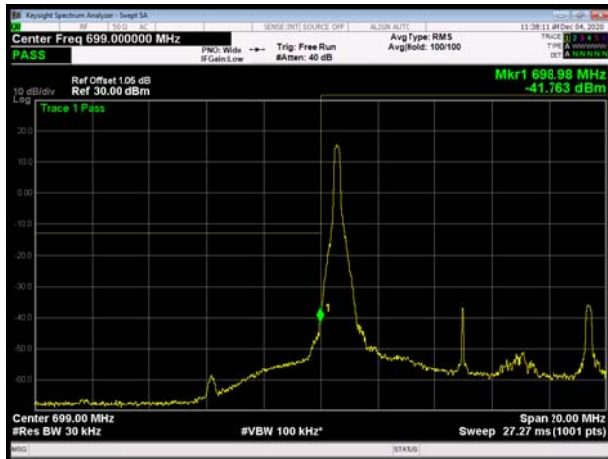
LTE Band 12 16QAM 5MHz CH-Low, 100%RB



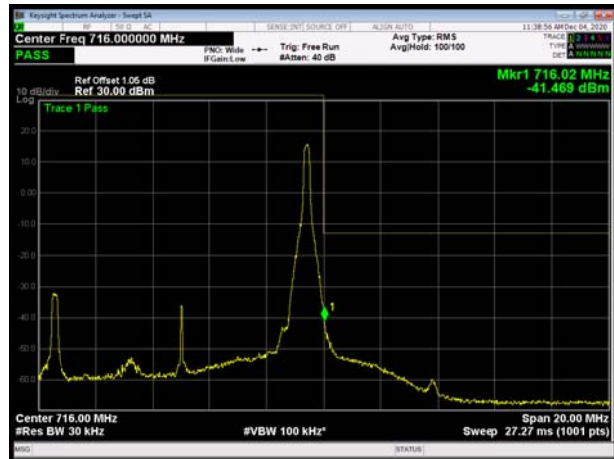
LTE Band 12 16QAM 5MHz CH-High, 100%RB



LTE Band 12 16QAM 10MHz CH-Low, 1 RB



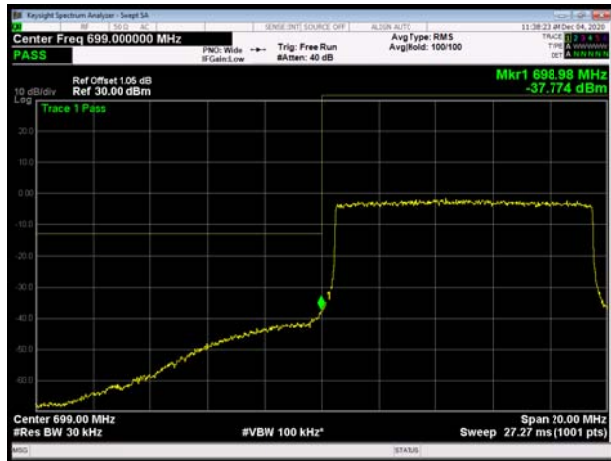
LTE Band 12 16QAM 10MHz CH-High, 1 RB





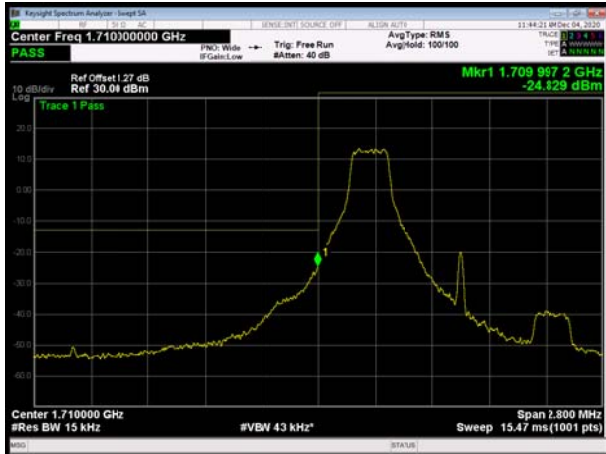
LTE Band 12 16QAM 10MHz CH-Low, 100%RB

LTE Band 12 16QAM 10MHz CH-High, 100%RB

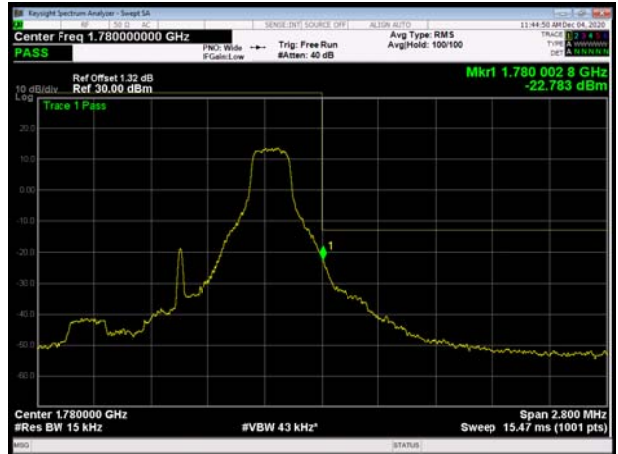




LTE Band 66 QPSK 1.4MHz CH-Low, 1 RB



LTE Band 66 QPSK 1.4MHz CH-High, 1 RB



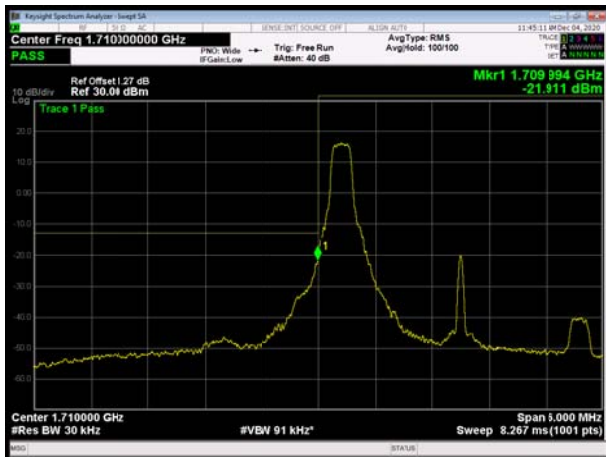
LTE Band 66 QPSK 1.4MHz CH-Low, 100%RB



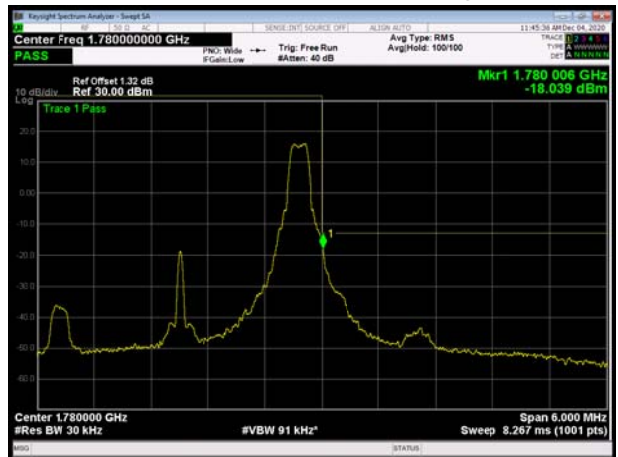
LTE Band 66 QPSK 1.4MHz CH-High, 100%RB



LTE Band 66 QPSK 3MHz CH-Low, 1 RB

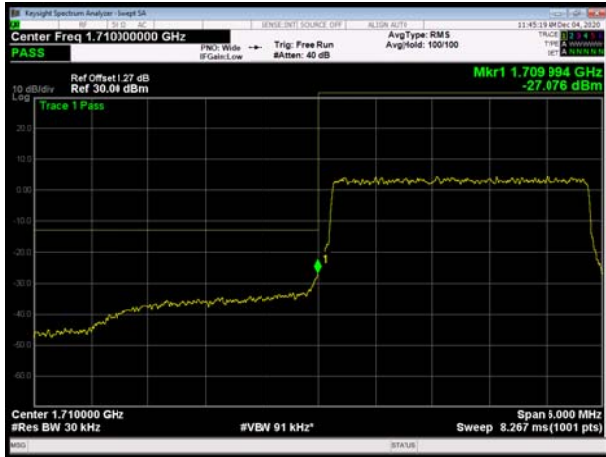


LTE Band 66 QPSK 3MHz CH-High, 1 RB

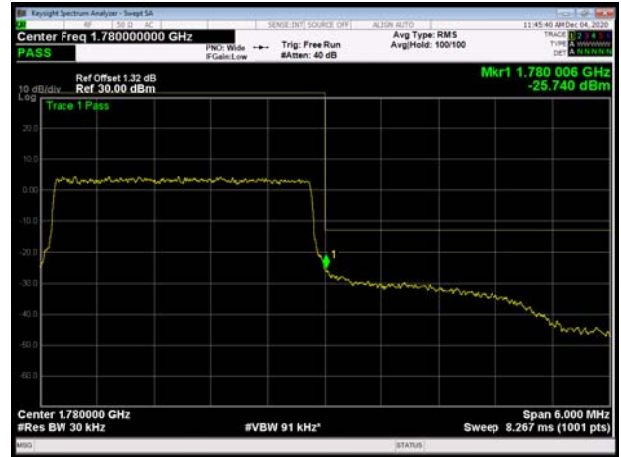




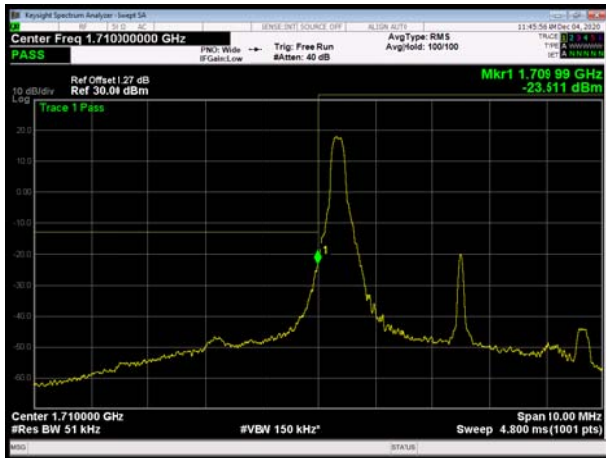
LTE Band 66 QPSK 3MHz CH-Low, 100%RB



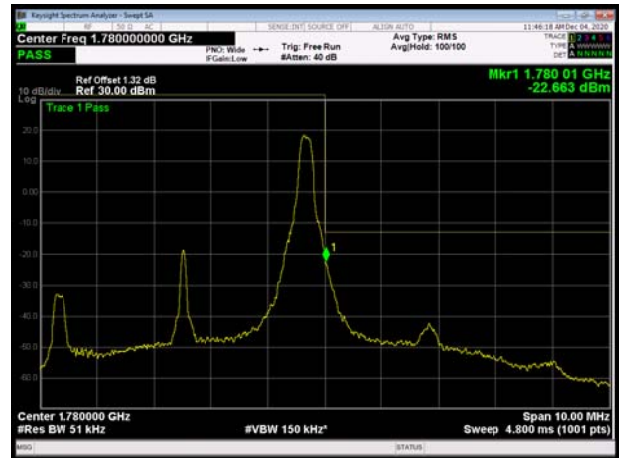
LTE Band 66 QPSK 3MHz CH-High, 100%RB



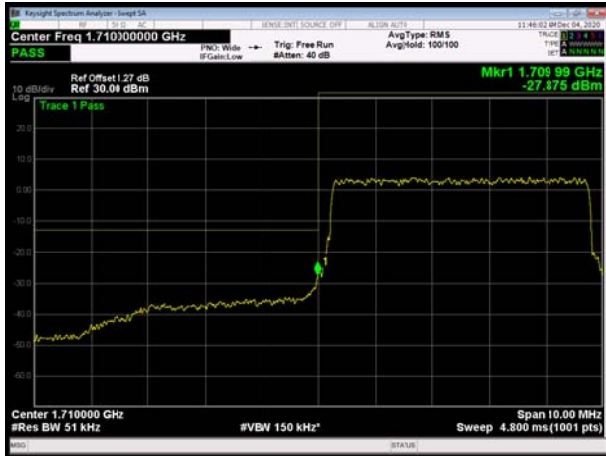
LTE Band 66 QPSK 5MHz CH-Low, 1 RB



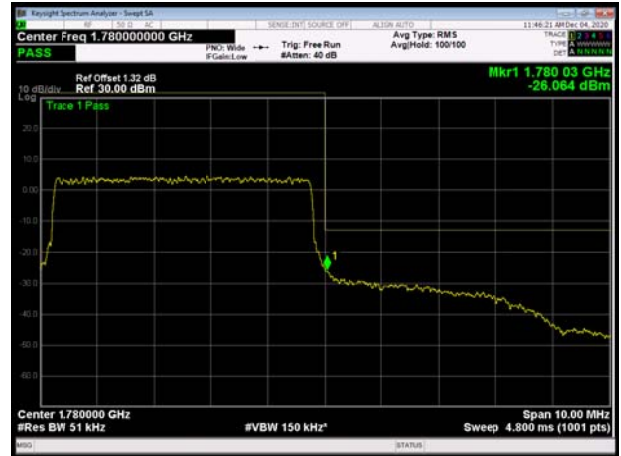
LTE Band 66 QPSK 5MHz CH-High, 1 RB



LTE Band 66 QPSK 5MHz CH-Low, 100%RB

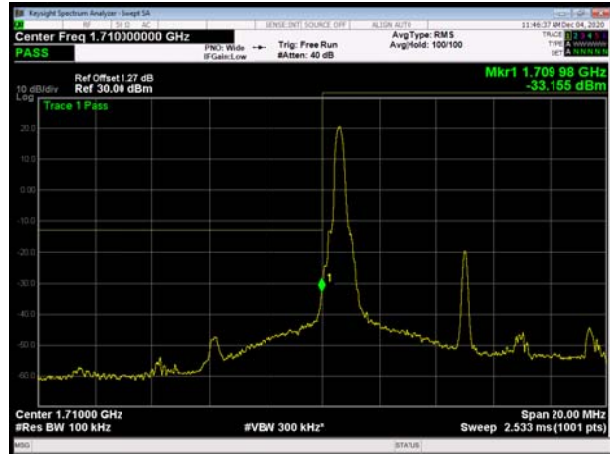


LTE Band 66 QPSK 5MHz CH-High, 100%RB

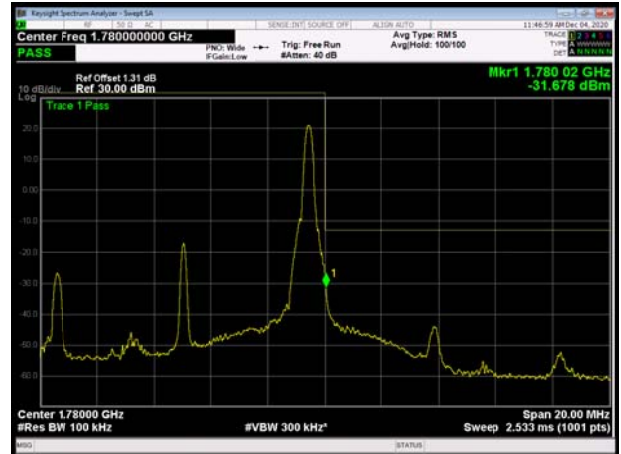




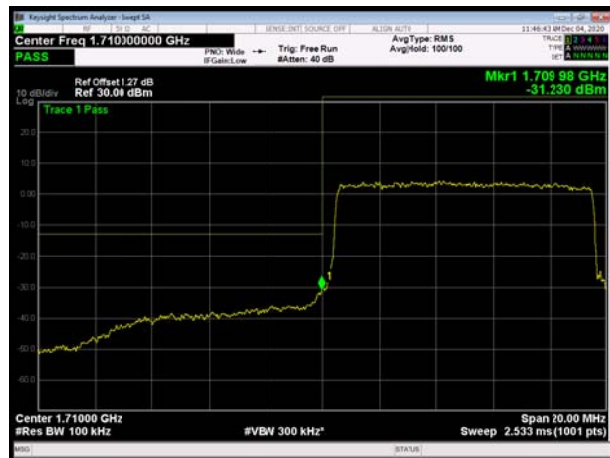
LTE Band 66 QPSK 10MHz CH-Low, 1 RB



LTE Band 66 QPSK 10MHz CH-High, 1 RB



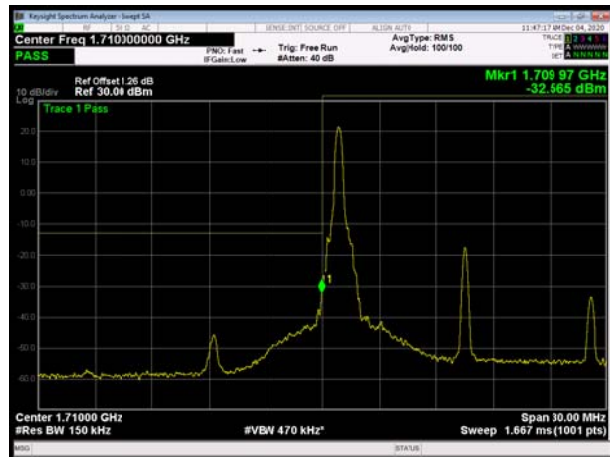
LTE Band 66 QPSK 10MHz CH-Low, 100%RB



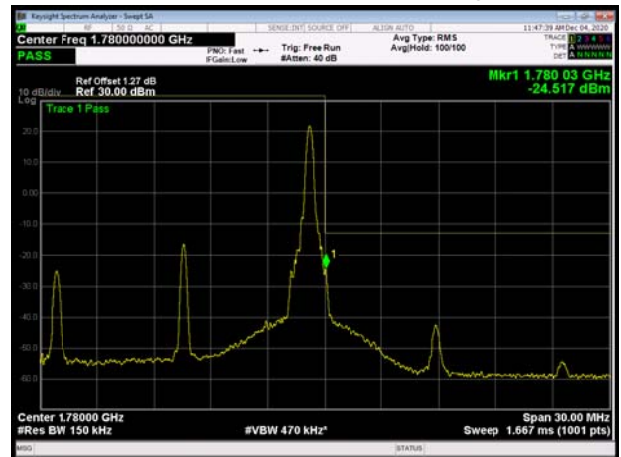
LTE Band 66 QPSK 10MHz CH-High, 100%RB



LTE Band 66 QPSK 15MHz CH-Low, 1 RB

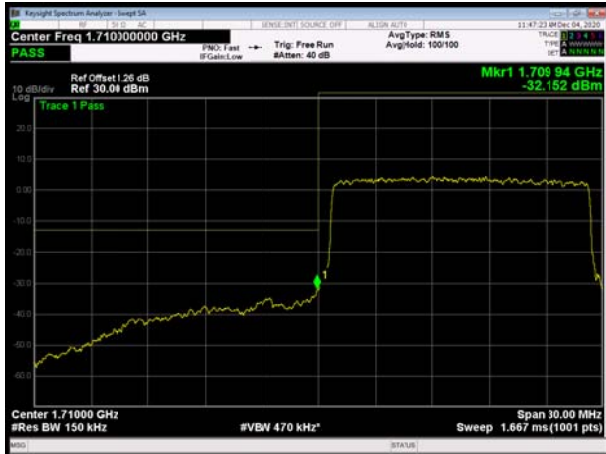


LTE Band 66 QPSK 15MHz CH-High, 1 RB





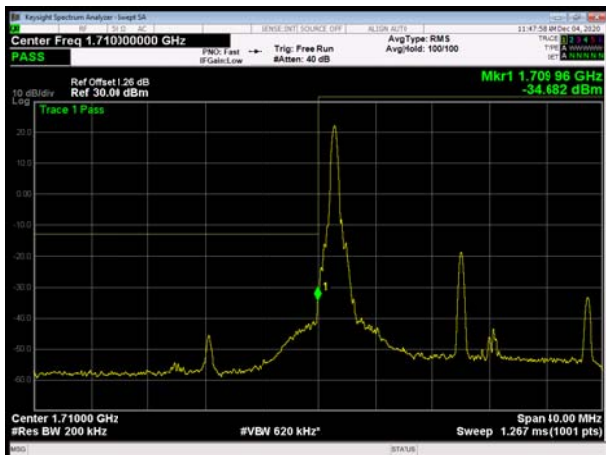
LTE Band 66 QPSK 15MHz CH-Low, 100%RB



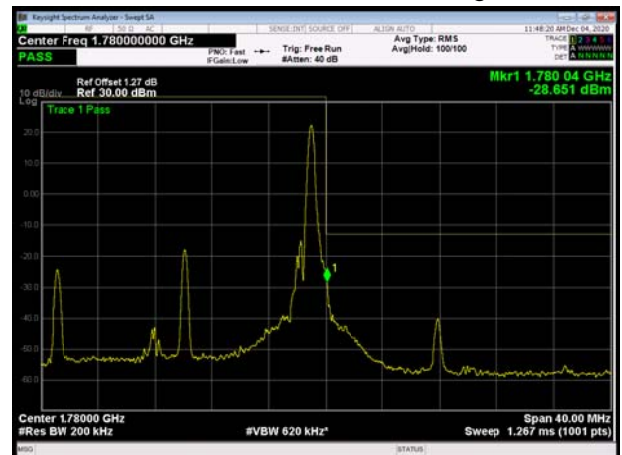
LTE Band 66 QPSK 15MHz CH-High, 100%RB



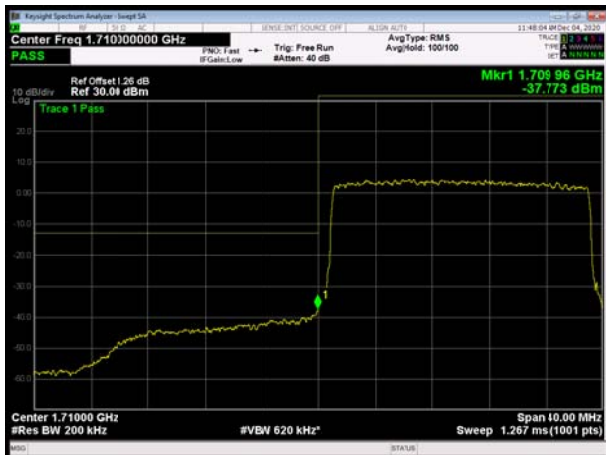
LTE Band 66 QPSK 20MHz CH-Low, 1 RB



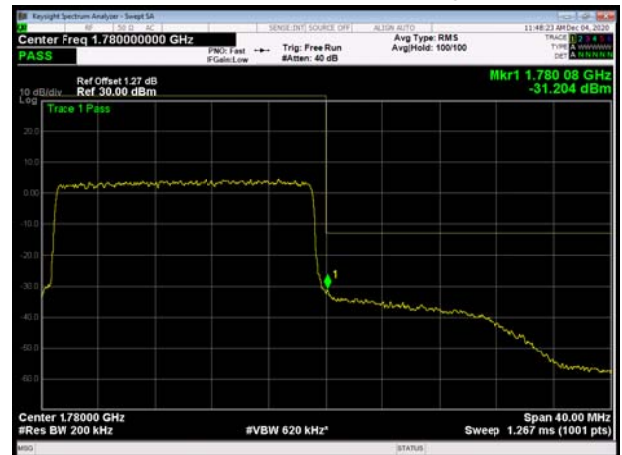
LTE Band 66 QPSK 20MHz CH-High, 1 RB



LTE Band 66 QPSK 20MHz CH-Low, 100%RB

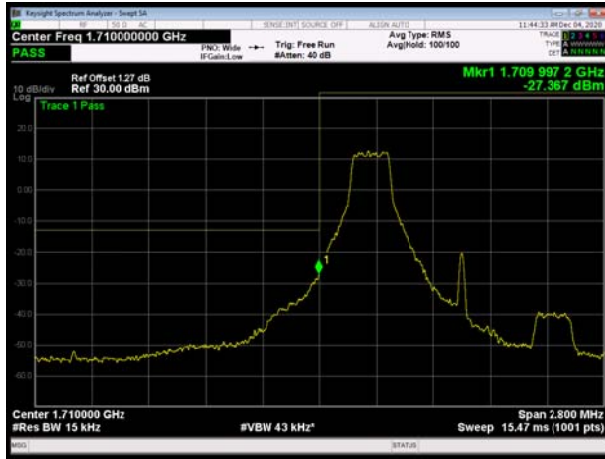


LTE Band 66 QPSK 20MHz CH-High, 100%RB

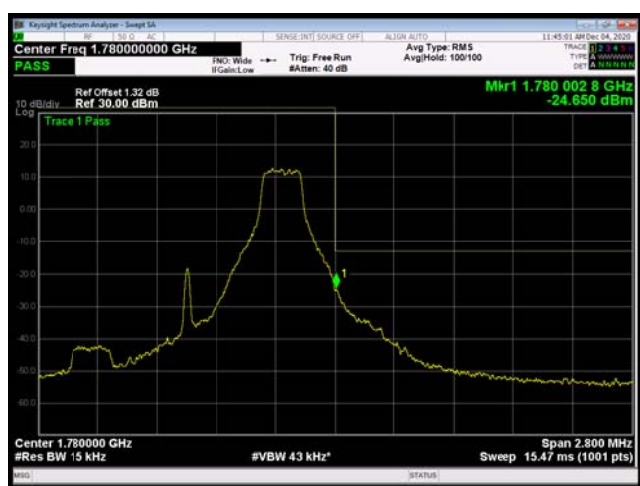




LTE Band 66 16QAM 1.4MHz CH-Low, 1 RB



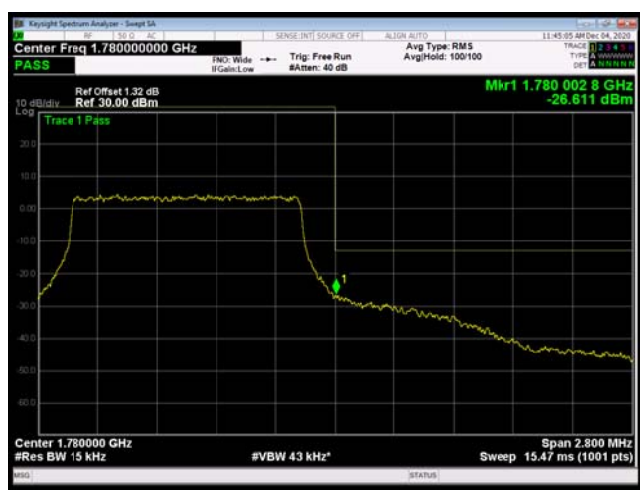
LTE Band 66 16QAM 1.4MHz CH-High, 1 RB



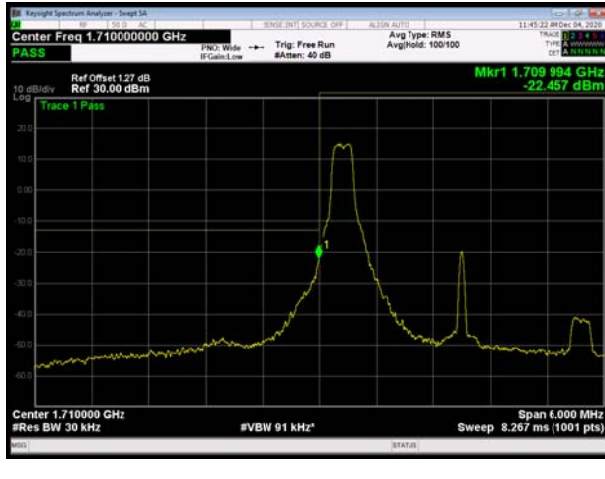
LTE Band 66 16QAM 1.4MHz CH-Low, 100%RB



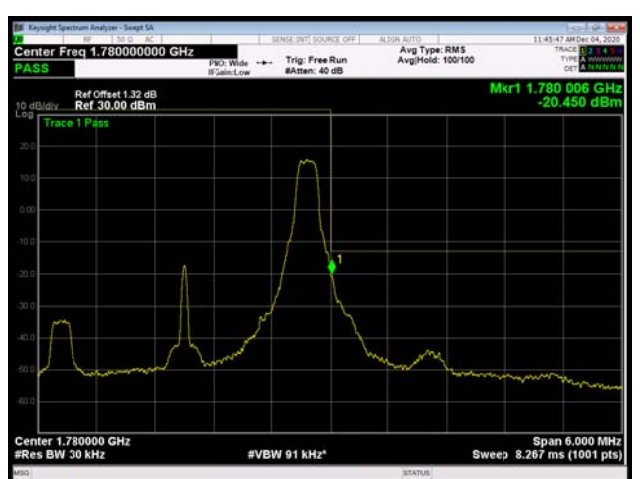
LTE Band 66 16QAM 1.4MHz CH-High, 100%RB



LTE Band 66 16QAM 3MHz CH-Low, 1 RB

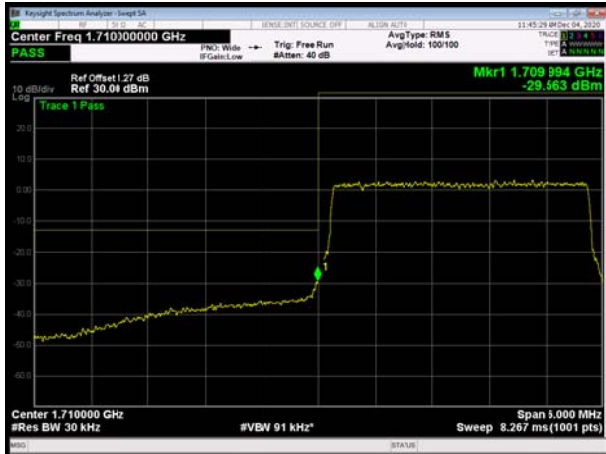


LTE Band 66 16QAM 3MHz CH-High, 1 RB





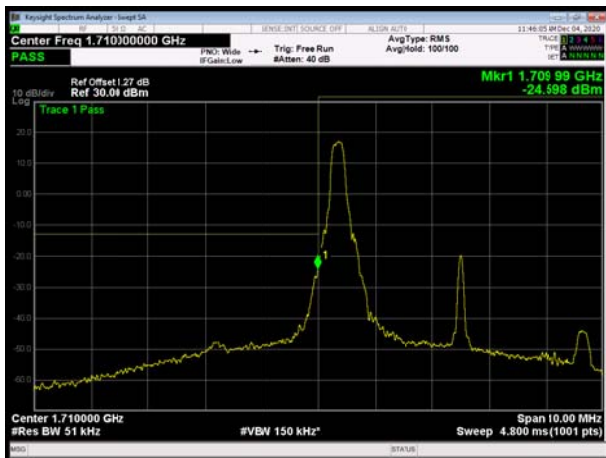
LTE Band 66 16QAM 3MHz CH-Low, 100%RB



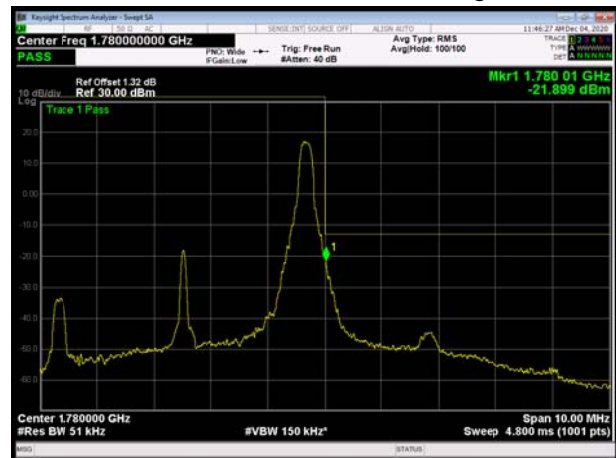
LTE Band 66 16QAM 3MHz CH-High, 100%RB



LTE Band 66 16QAM 5MHz CH-Low, 1 RB



LTE Band 66 16QAM 5MHz CH-High, 1 RB



LTE Band 66 16QAM 5MHz CH-Low, 100%RB

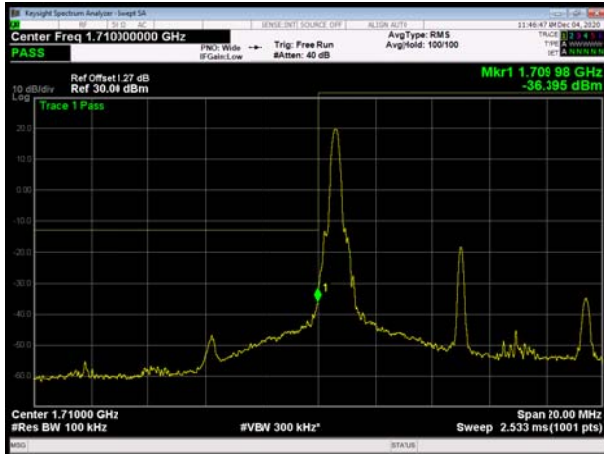


LTE Band 66 16QAM 5MHz CH-High, 100%RB

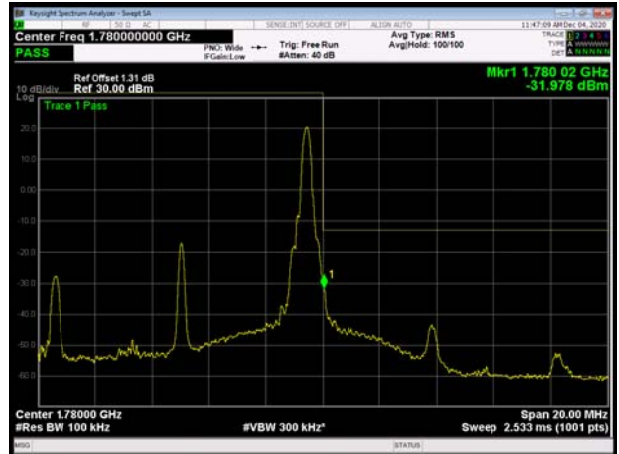




LTE Band 66 16QAM 10MHz CH-Low, 1 RB



LTE Band 66 16QAM 10MHz CH-High, 1 RB



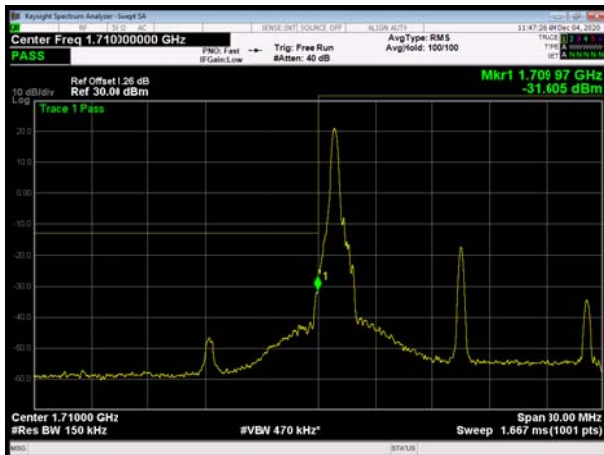
LTE Band 66 16QAM 10MHz CH-Low, 100%RB



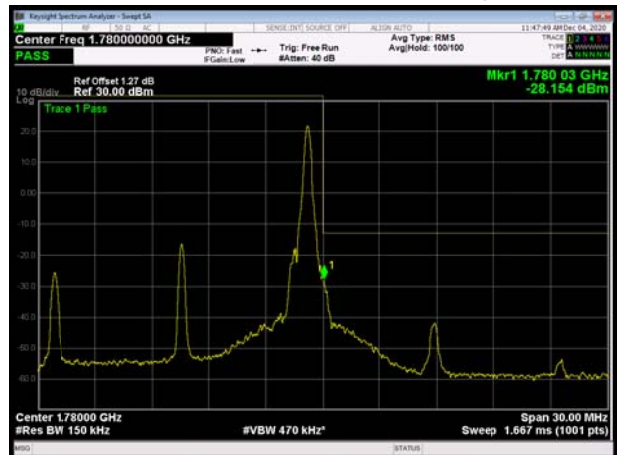
LTE Band 66 16QAM 10MHz CH-High, 100%RB



LTE Band 66 16QAM 15MHz CH-Low, 1 RB

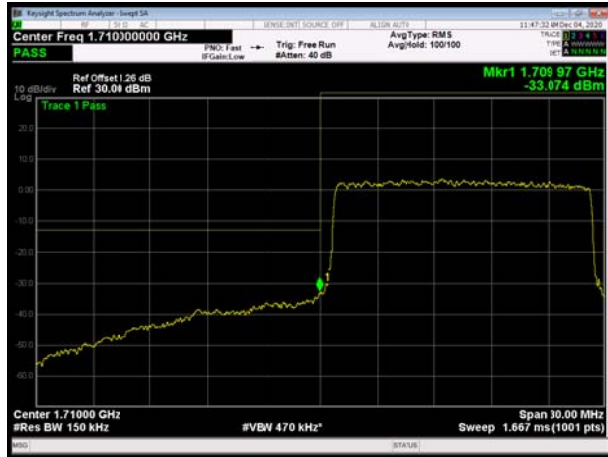


LTE Band 66 16QAM 15MHz CH-High, 1 RB





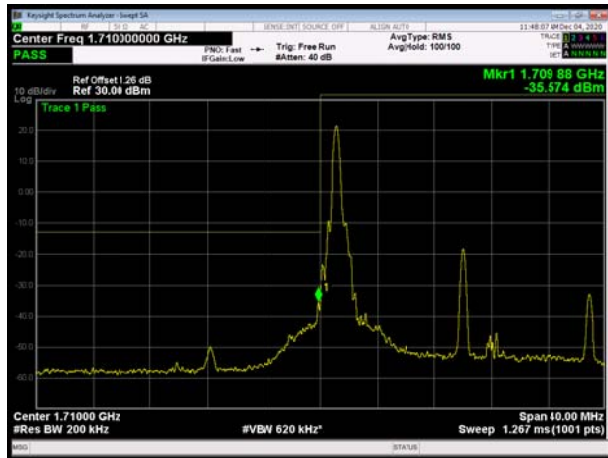
LTE Band 66 16QAM 15MHz CH-Low, 100%RB



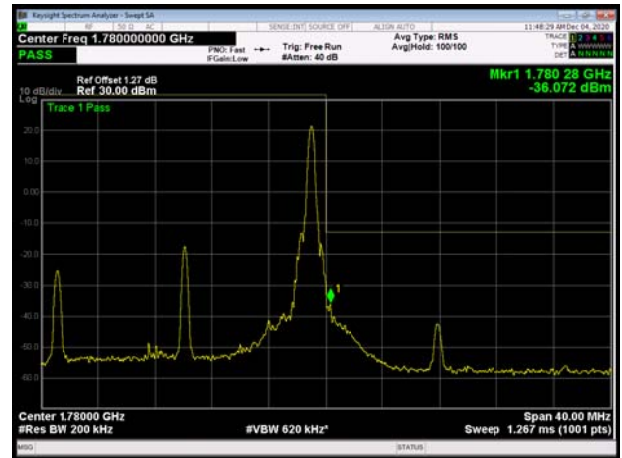
LTE Band 66 16QAM 15MHz CH-High, 100%RB



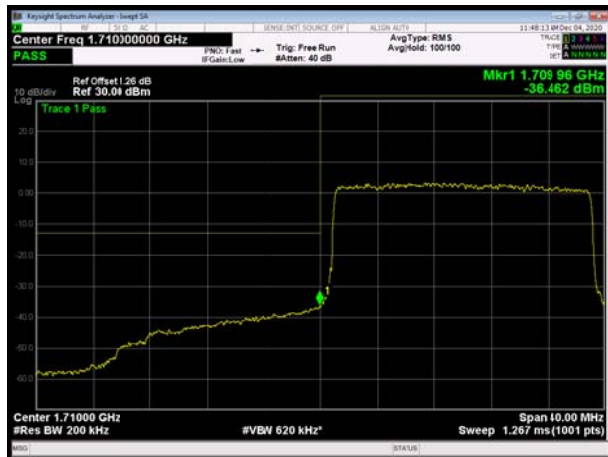
LTE Band 66 16QAM 20MHz CH-Low, 1 RB



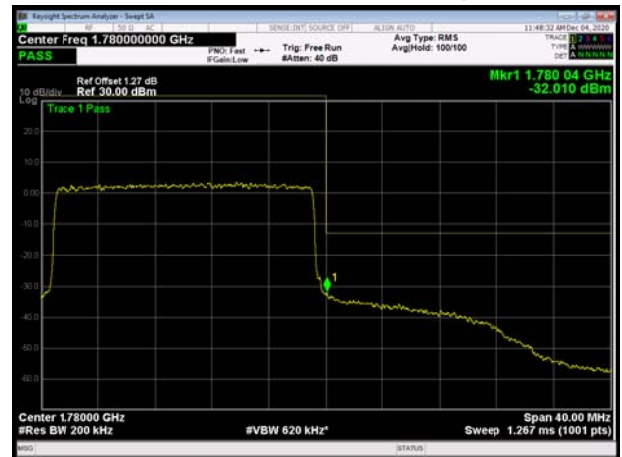
LTE Band 66 16QAM 20MHz CH-High, 1 RB



LTE Band 66 16QAM 20MHz CH-Low, 100%RB

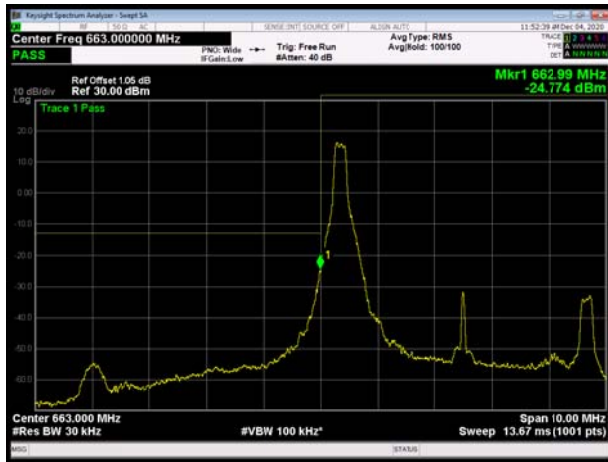


LTE Band 66 16QAM 20MHz CH-High, 100%RB

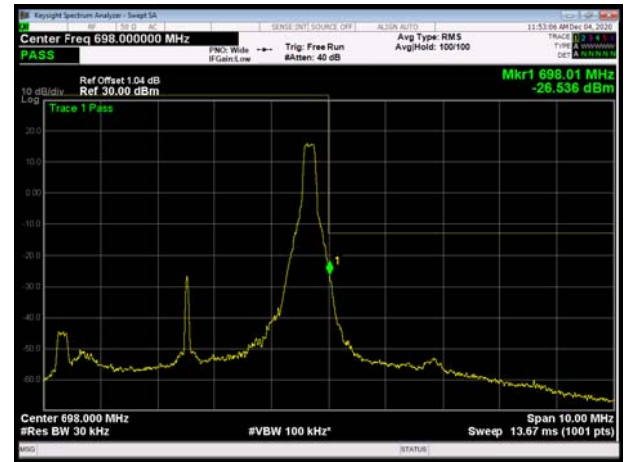




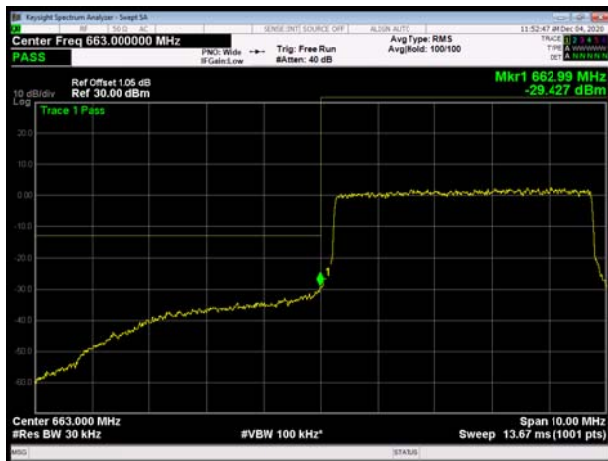
LTE Band 71 QPSK 5MHz CH-Low, 1 RB



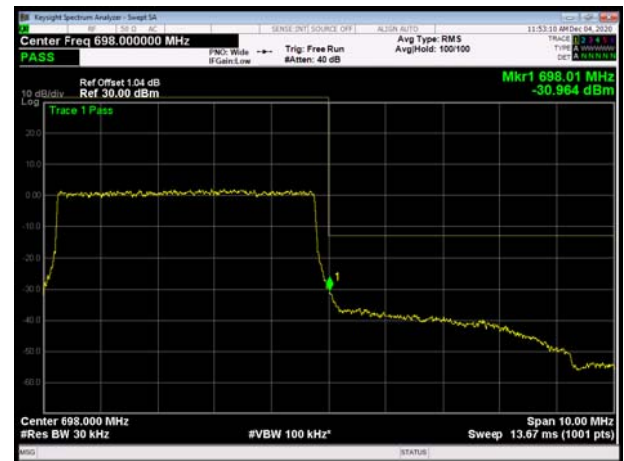
LTE Band 71 QPSK 5MHz CH-High, 1 RB



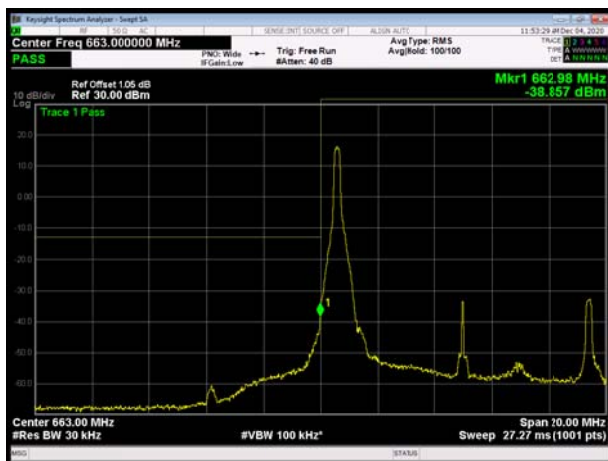
LTE Band 71 QPSK 5MHz CH-Low, 100%RB



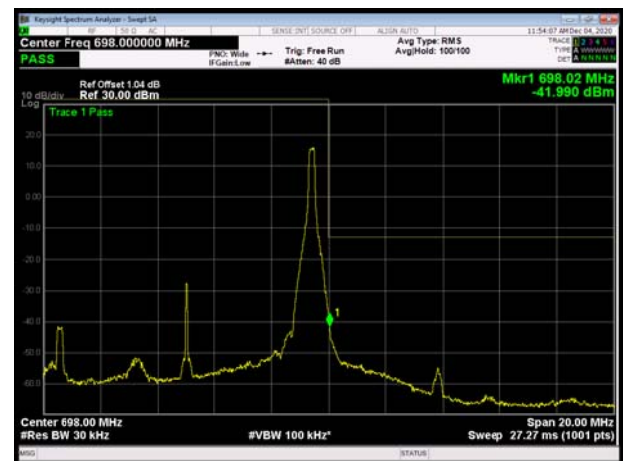
LTE Band 71 QPSK 5MHz CH-High, 100%RB



LTE Band 71 QPSK 10MHz CH-Low, 1 RB

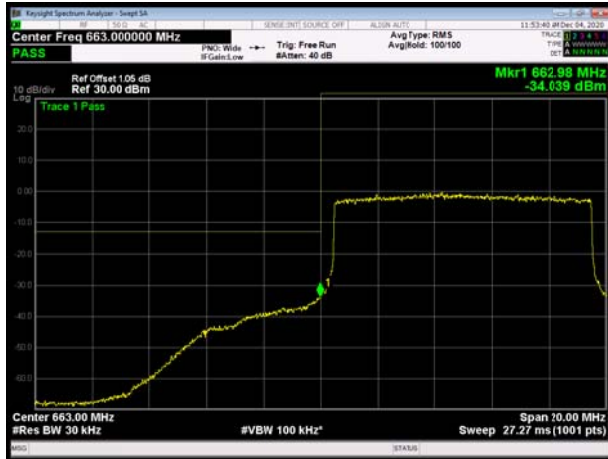


LTE Band 71 QPSK 10MHz CH-High, 1 RB

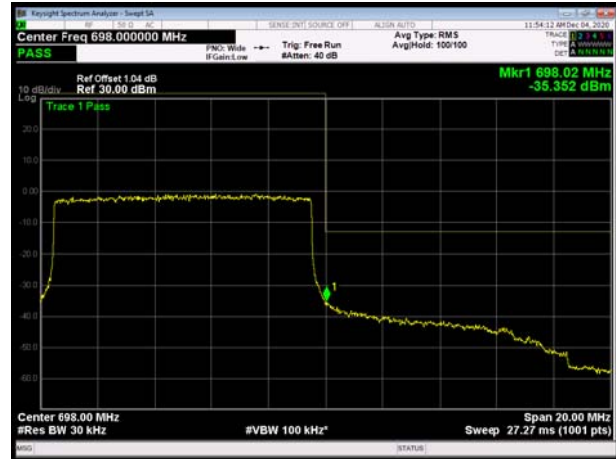




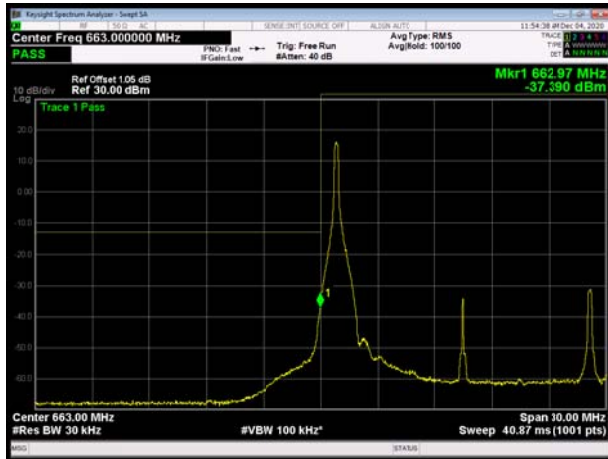
LTE Band 71 QPSK 10MHz CH-Low, 100%RB



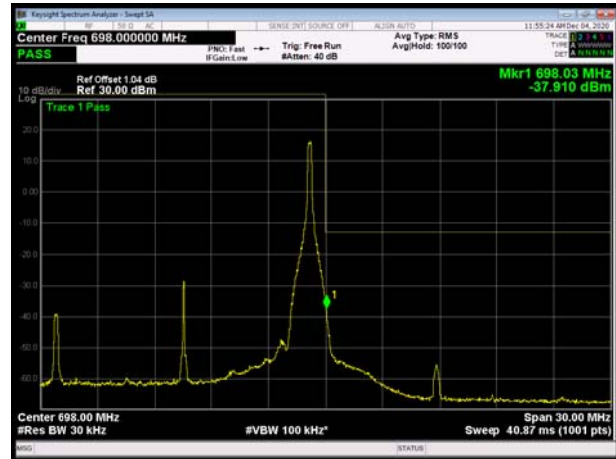
LTE Band 71 QPSK 10MHz CH-High, 100%RB



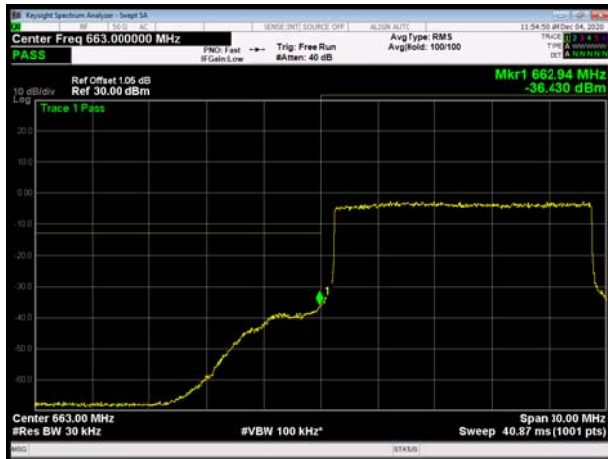
LTE Band 71 QPSK 15MHz CH-Low, 1 RB



LTE Band 71 QPSK 15MHz CH-High, 1 RB



LTE Band 71 QPSK 15MHz CH-Low, 100%RB

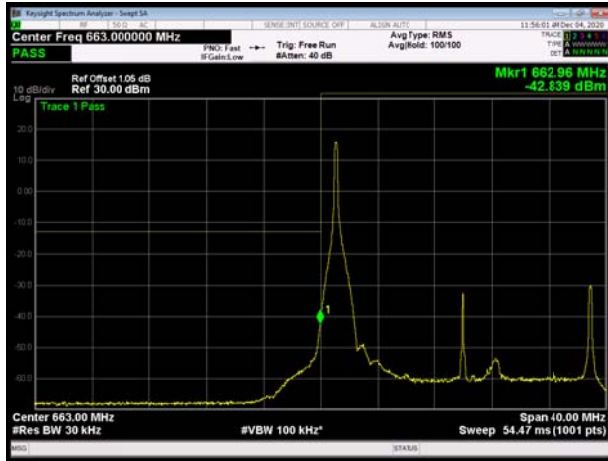


LTE Band 71 QPSK 15MHz CH-High, 100%RB

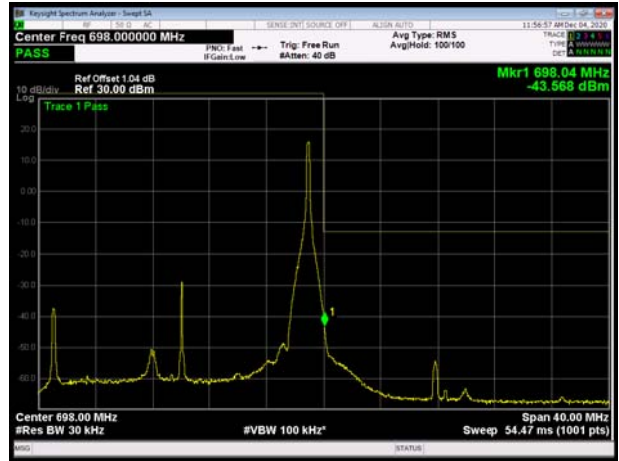




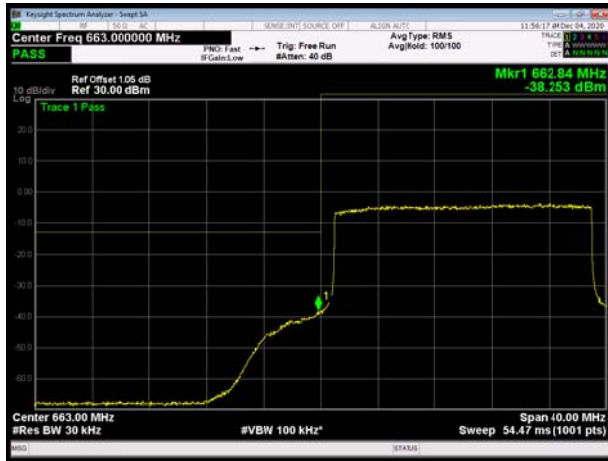
LTE Band 71 QPSK 20MHz CH-Low, 1 RB



LTE Band 71 QPSK 20MHz CH-High, 1 RB



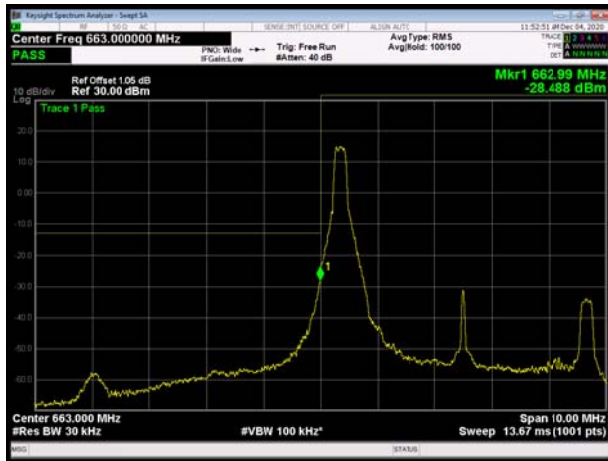
LTE Band 71 QPSK 20MHz CH-Low, 100%RB



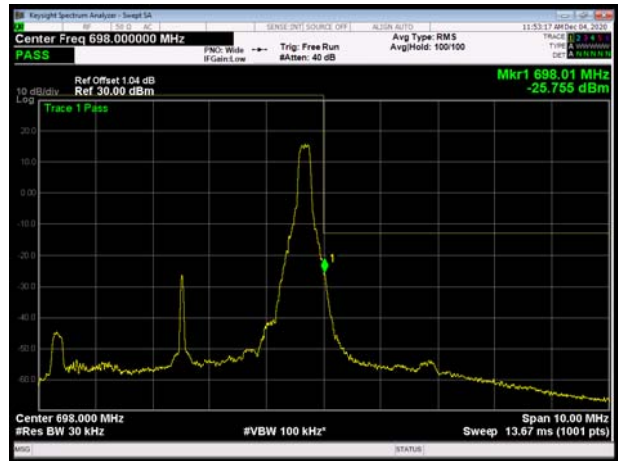
LTE Band 71 QPSK 20MHz CH-High, 100%RB



LTE Band 71 16QAM 5MHz CH-Low, 1 RB

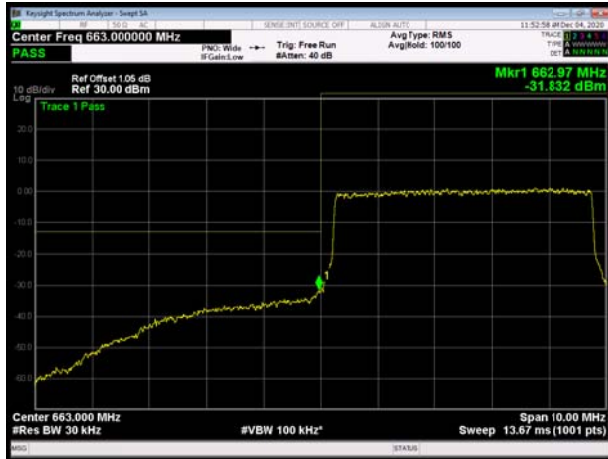


LTE Band 71 16QAM 5MHz CH-High, 1 RB





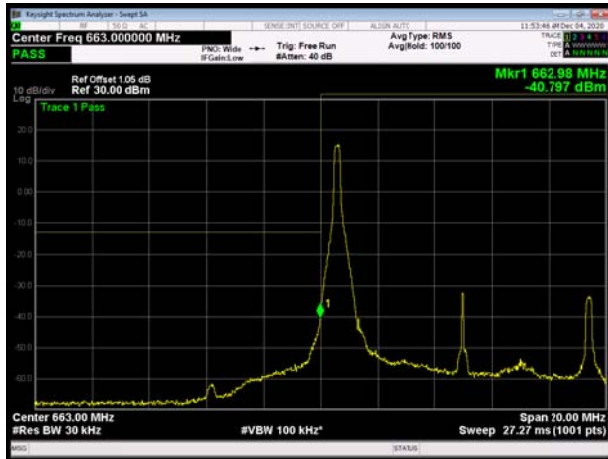
LTE Band 71 16QAM 5MHz CH-Low, 100%RB



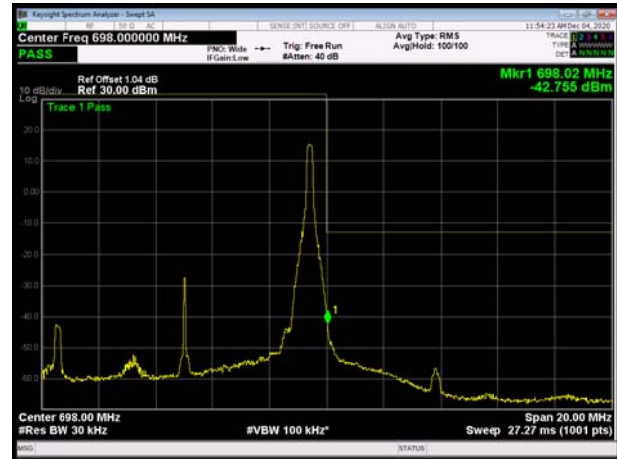
LTE Band 71 16QAM 5MHz CH-High, 100%RB



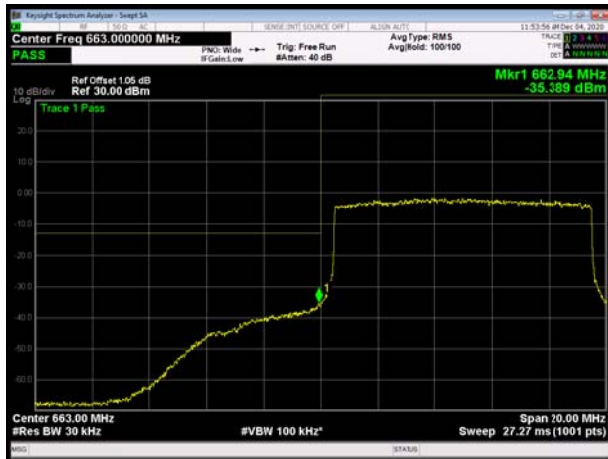
LTE Band 71 16QAM 10MHz CH-Low, 1 RB



LTE Band 71 16QAM 10MHz CH-High, 1 RB



LTE Band 71 16QAM 10MHz CH-Low, 100%RB

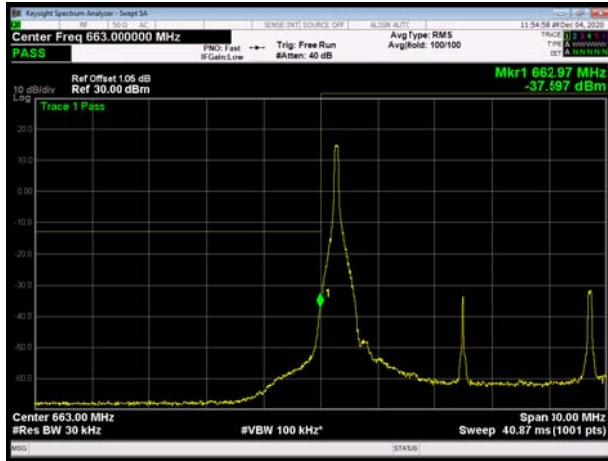


LTE Band 71 16QAM 10MHz CH-High, 100%RB

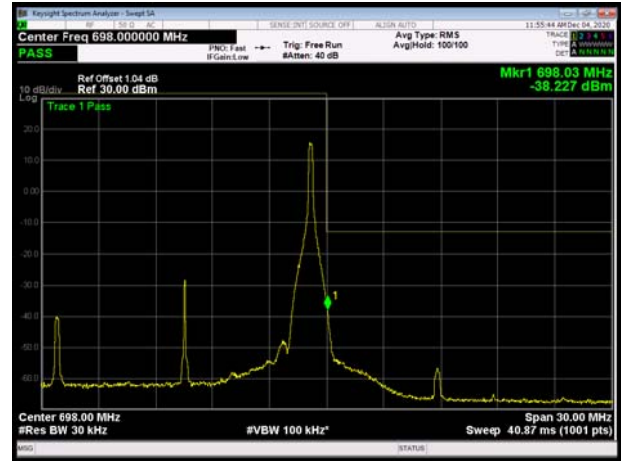




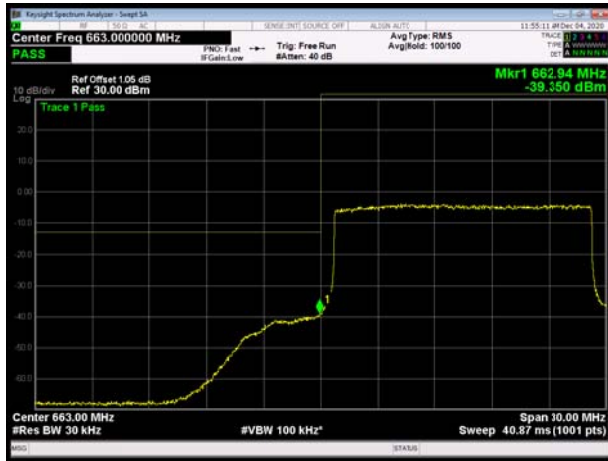
LTE Band 71 16QAM 15MHz CH-Low, 1 RB



LTE Band 71 16QAM 15MHz CH-High, 1 RB



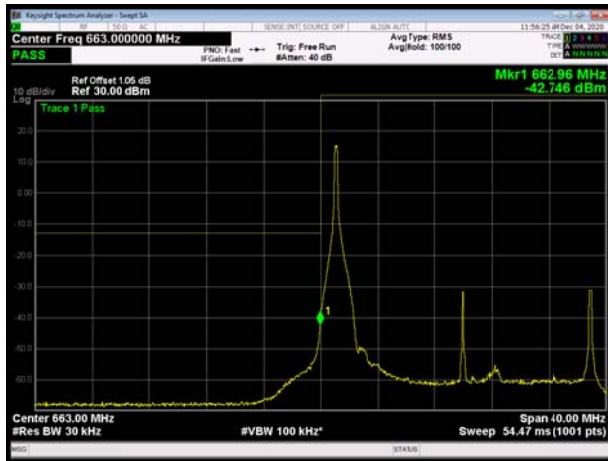
LTE Band 71 16QAM 15MHz CH-Low, 100%RB



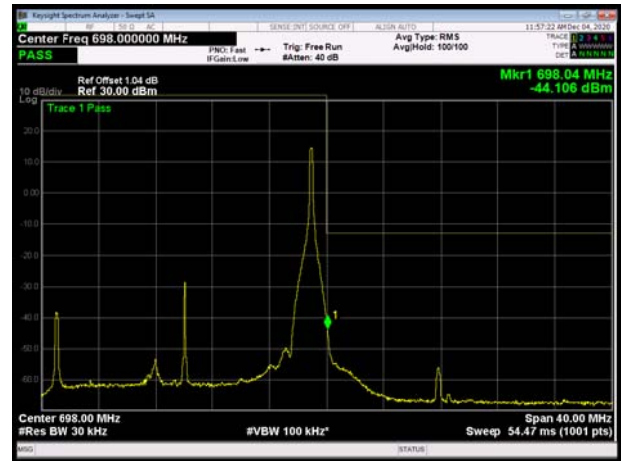
LTE Band 71 16QAM 15MHz CH-High, 100%RB



LTE Band 71 16QAM 20MHz CH-Low, 1 RB



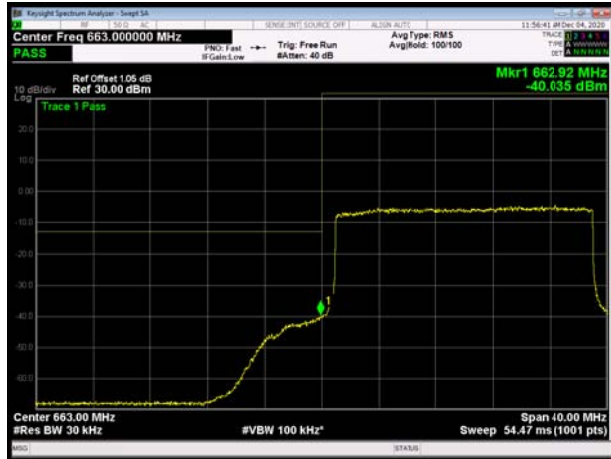
LTE Band 71 16QAM 20MHz CH-High, 1 RB





LTE Band 71 16QAM 20MHz CH-Low, 100%RB

LTE Band 71 16QAM 20MHz CH-High, 100%RB



5.4 Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

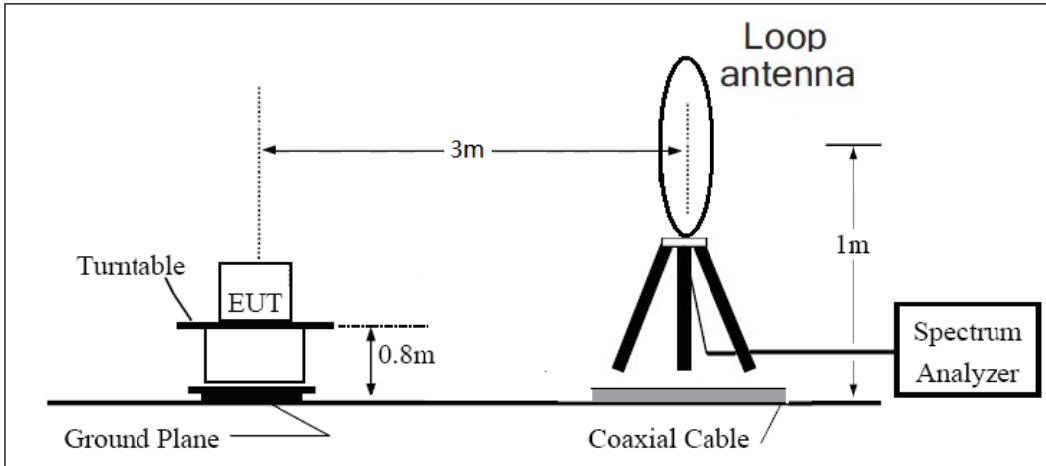
1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=200Hz,VBW=600Hz for 9kHz-150kHz , RBW=10kHz, VBW=30kHz 150kHz-30MHz ,RBW=100kHz,VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz And the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAG) should be recorded after test.
7. The measurement results are obtained as described below:
Power(EIRP)=PMea- PAG - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dBi.

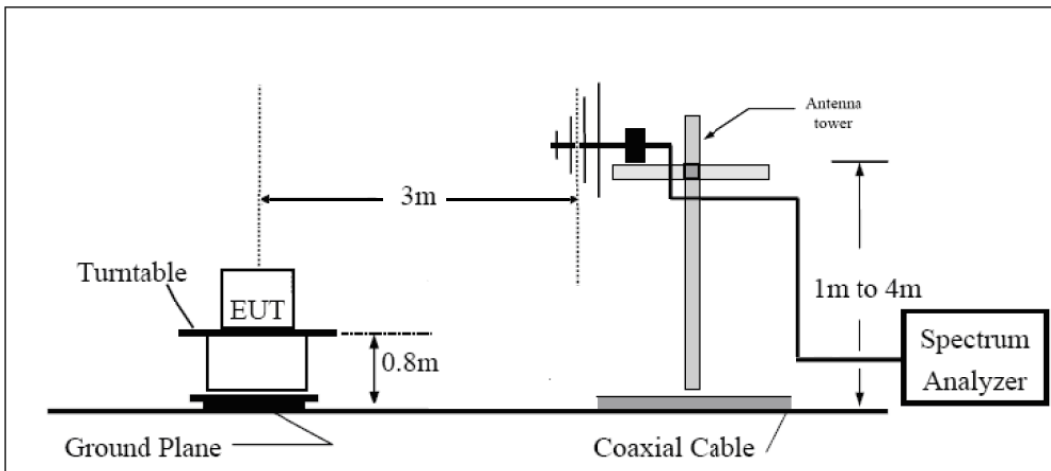
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

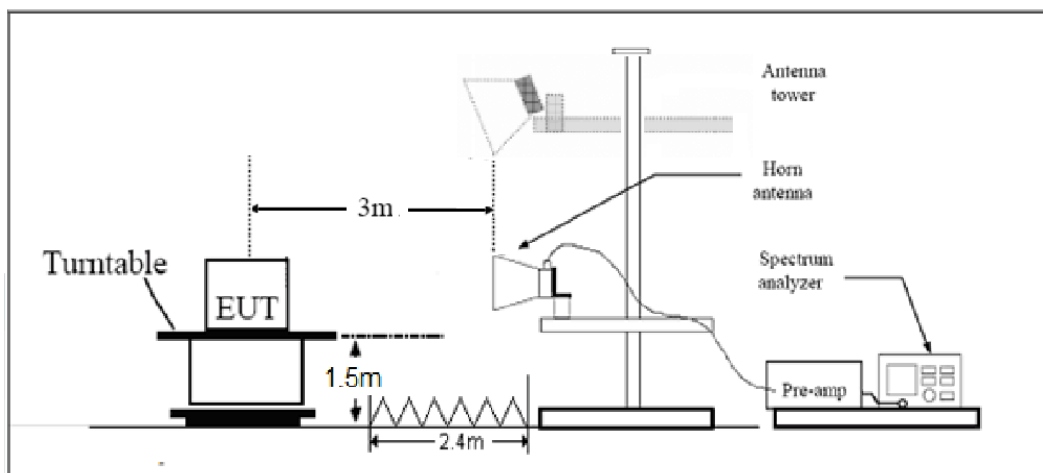
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m



Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.”

Rule Part 27.53 (g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Part 27.53(a)/(h)/(g) Limit	-13 dBm
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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = \pm 1.96$, $U = \pm 3.55$ dB.

**Test Result**

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

EC25-T:

LTE Band 4 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3464.3	-58.12	2.6	10.75	Horizontal	-49.97	-13.00	36.97	180
3	5197.5	-64.38	2.4	11.05	Horizontal	-55.73	-13.00	42.73	0
4	6930.0	-49.62	4.5	11.15	Horizontal	-42.97	-13.00	29.97	180
5	8662.5	-56.73	5.1	11.35	Horizontal	-50.48	-13.00	37.48	225
6	10395.0	-53.42	5.3	11.95	Horizontal	-46.77	-13.00	33.77	45
7	12127.5	-55.16	5.5	13.55	Horizontal	-47.11	-13.00	34.11	315
8	13860.0	-49.76	6.3	13.75	Horizontal	-42.31	-13.00	29.31	270
9	15592.5	-54.65	6.7	13.85	Horizontal	-47.50	-13.00	34.50	0
10	17325.0	-51.68	6.8	14.25	Horizontal	-44.23	-13.00	31.23	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-57.84	2.6	10.75	Horizontal	-49.69	-13.00	36.69	315
3	5191.5	-63.84	2.4	11.05	Horizontal	-55.19	-13.00	42.19	180
4	6930.0	-49.44	4.5	11.15	Horizontal	-42.79	-13.00	29.79	0
5	8662.5	-56.74	5.1	11.35	Horizontal	-50.49	-13.00	37.49	45
6	10395.0	-53.28	5.3	11.95	Horizontal	-46.63	-13.00	33.63	225
7	12127.5	-53.64	5.5	13.55	Horizontal	-45.59	-13.00	32.59	315
8	13860.0	-49.71	6.3	13.75	Horizontal	-42.26	-13.00	29.26	45
9	15592.5	-54.18	6.7	13.85	Horizontal	-47.03	-13.00	34.03	90
10	17325.0	-51.72	6.8	14.25	Horizontal	-44.27	-13.00	31.27	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 4 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3447.8	-56.72	2.6	10.75	Horizontal	-48.57	-13.00	35.57	315
3	5170.9	-61.17	2.4	11.05	Horizontal	-52.52	-13.00	39.52	0
4	6894.0	-49.83	4.5	11.15	Horizontal	-43.18	-13.00	30.18	45
5	8662.5	-56.14	5.1	11.35	Horizontal	-49.89	-13.00	36.89	270
6	10395.0	-50.06	5.3	11.95	Horizontal	-43.41	-13.00	30.41	180
7	12127.5	-54.75	5.5	13.55	Horizontal	-46.70	-13.00	33.70	0
8	13860.0	-50.51	6.3	13.75	Horizontal	-43.06	-13.00	30.06	225
9	15592.5	-53.74	6.7	13.85	Horizontal	-46.59	-13.00	33.59	0
10	17325.0	-51.19	6.8	14.25	Horizontal	-43.74	-13.00	30.74	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-67.46	2.00	10.75	Horizontal	-60.86	-13.00	47.86	0
3	2122.5	-53.68	2.51	11.05	Horizontal	-47.29	-13.00	34.29	90
4	2830.0	-57.99	4.20	11.15	Horizontal	-53.19	-13.00	40.19	90
5	3537.5	-54.97	5.20	11.15	Horizontal	-51.17	-13.00	38.17	315
6	4245.0	-56.44	5.50	11.95	Horizontal	-52.14	-13.00	39.14	270
7	4952.5	-60.93	5.70	13.55	Horizontal	-55.23	-13.00	42.23	180
8	5660.0	-60.50	6.30	13.75	Horizontal	-55.20	-13.00	42.20	0
9	6367.5	-56.97	6.80	13.85	Horizontal	-52.07	-13.00	39.07	45
10	7075.0	-55.45	6.90	14.25	Horizontal	-50.25	-13.00	37.25	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.



LTE Band 12 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-66.74	2.00	10.75	Horizontal	-60.14	-13.00	47.14	45
3	2122.5	-52.10	2.51	11.05	Horizontal	-45.71	-13.00	32.71	270
4	2830.0	-54.47	4.20	11.15	Horizontal	-49.67	-13.00	36.67	0
5	3526.5	-52.75	5.20	11.15	Horizontal	-48.95	-13.00	35.95	45
6	4231.9	-55.72	5.50	11.95	Horizontal	-51.42	-13.00	38.42	270
7	5289.8	-61.76	5.70	13.55	Horizontal	-56.06	-13.00	43.06	180
8	6171.4	-59.81	6.30	13.75	Horizontal	-54.51	-13.00	41.51	0
9	7053.0	-54.92	6.80	13.85	Horizontal	-50.02	-13.00	37.02	45
10	7934.6	-54.61	6.90	14.25	Horizontal	-49.41	-13.00	36.41	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-61.75	2.00	10.75	Horizontal	-55.15	-13.00	42.15	315
3	2122.5	-49.42	2.51	11.05	Horizontal	-43.03	-13.00	30.03	45
4	2830.0	-51.84	4.20	11.15	Horizontal	-47.04	-13.00	34.04	90
5	3516.4	-50.57	5.20	11.15	Horizontal	-46.77	-13.00	33.77	90
6	4218.4	-55.86	5.50	11.95	Horizontal	-51.56	-13.00	38.56	270
7	5274.0	-61.25	5.70	13.55	Horizontal	-55.55	-13.00	42.55	180
8	6153.0	-60.45	6.30	13.75	Horizontal	-55.15	-13.00	42.15	0
9	7032.0	-55.16	6.80	13.85	Horizontal	-50.26	-13.00	37.26	45
10	7911.0	-55.05	6.90	14.25	Horizontal	-49.85	-13.00	36.85	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.



LTE Band 66 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3489.0	-58.65	2.6	10.75	Horizontal	-50.50	-13.00	37.50	0
3	5235.0	-64.67	2.4	11.05	Horizontal	-56.02	-13.00	43.02	180
4	6980.0	-54.84	4.5	11.15	Horizontal	-48.19	-13.00	35.19	225
5	8725.0	-55.96	5.1	11.35	Horizontal	-49.71	-13.00	36.71	45
6	10470.0	-54.60	5.3	11.95	Horizontal	-47.95	-13.00	34.95	270
7	12215.0	-54.77	5.5	13.55	Horizontal	-46.72	-13.00	33.72	180
8	13960.0	-52.07	6.3	13.75	Horizontal	-44.62	-13.00	31.62	0
9	15705.0	-55.22	6.7	13.85	Horizontal	-48.07	-13.00	35.07	45
10	17450.0	-51.62	6.8	14.25	Horizontal	-44.17	-13.00	31.17	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 66 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3486.0	-62.00	2.6	10.75	Horizontal	-53.85	-13.00	40.85	90
3	5229.0	-63.50	2.4	11.05	Horizontal	-54.85	-13.00	41.85	225
4	6972.0	-54.06	4.5	11.15	Horizontal	-47.41	-13.00	34.41	4
5	8715.0	-56.07	5.1	11.35	Horizontal	-49.82	-13.00	36.82	315
6	10458.0	-54.29	5.3	11.95	Horizontal	-47.64	-13.00	34.64	180
7	12201.0	-55.86	5.5	13.55	Horizontal	-47.81	-13.00	34.81	45
8	13944.0	-51.16	6.3	13.75	Horizontal	-43.71	-13.00	30.71	270
9	15687.0	-54.05	6.7	13.85	Horizontal	-46.90	-13.00	33.90	0
10	17430.0	-51.60	6.8	14.25	Horizontal	-44.15	-13.00	31.15	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 66 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3472.5	-59.84	2.6	10.75	Horizontal	-51.69	-13.00	38.69	0
3	5209.0	-63.14	2.4	11.05	Horizontal	-54.49	-13.00	41.49	90
4	6945.8	-50.52	4.5	11.15	Horizontal	-43.87	-13.00	30.87	225
5	8682.0	-55.97	5.1	11.35	Horizontal	-49.72	-13.00	36.72	45
6	10418.6	-53.46	5.3	11.95	Horizontal	-46.81	-13.00	33.81	270
7	12455.0	-55.08	5.5	13.55	Horizontal	-47.03	-13.00	34.03	180
8	13891.5	-52.15	6.3	13.75	Horizontal	-44.70	-13.00	31.70	0
9	15627.0	-55.49	6.7	13.85	Horizontal	-48.34	-13.00	35.34	45
10	17364.4	-53.45	6.8	14.25	Horizontal	-46.00	-13.00	33.00	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 71 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1361.0	-49.54	2.00	10.75	Horizontal	-42.94	-13.00	29.94	45
3	2041.5	-56.99	2.51	11.05	Horizontal	-50.60	-13.00	37.60	225
4	2722.0	-63.59	4.20	11.15	Horizontal	-58.79	-13.00	45.79	0
5	3402.5	-61.89	5.20	11.15	Horizontal	-58.09	-13.00	45.09	180
6	4083.0	-60.28	5.50	11.95	Horizontal	-55.98	-13.00	42.98	0
7	4763.5	-61.55	5.70	13.55	Horizontal	-55.85	-13.00	42.85	45
8	5444.0	-61.66	6.30	13.75	Horizontal	-56.36	-13.00	43.36	315
9	6124.5	-58.43	6.80	13.85	Horizontal	-53.53	-13.00	40.53	45
10	6805.0	-57.29	6.90	14.25	Horizontal	-52.09	-13.00	39.09	0

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 71 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1361.0	-49.60	2.00	10.75	Horizontal	-43.00	-13.00	30.00	225
3	2041.5	-56.99	2.51	11.05	Horizontal	-50.60	-13.00	37.60	315
4	2722.0	-61.80	4.20	11.15	Horizontal	-57.00	-13.00	44.00	45
5	3402.5	-61.61	5.20	11.15	Horizontal	-57.81	-13.00	44.81	180
6	4083.0	-61.10	5.50	11.95	Horizontal	-56.80	-13.00	43.80	0
7	4763.5	-60.76	5.70	13.55	Horizontal	-55.06	-13.00	42.06	90
8	5444.0	-60.75	6.30	13.75	Horizontal	-55.45	-13.00	42.45	225
9	6124.5	-60.05	6.80	13.85	Horizontal	-55.15	-13.00	42.15	45
10	6805.0	-57.50	6.90	14.25	Horizontal	-52.30	-13.00	39.30	315

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

**EC25-T MINIPCIE:**

LTE Band 4 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3464.3	-55.42	2.6	10.75	Horizontal	-47.27	-13.00	34.27	180
3	5197.5	-59.93	2.4	11.05	Horizontal	-51.28	-13.00	38.28	0
4	6930.0	-46.17	4.5	11.15	Horizontal	-39.52	-13.00	26.52	45
5	8662.5	-54.15	5.1	11.35	Horizontal	-47.90	-13.00	34.90	270
6	10395.0	-53.42	5.3	11.95	Horizontal	-46.77	-13.00	33.77	180
7	12127.5	-54.80	5.5	13.55	Horizontal	-46.75	-13.00	33.75	0
8	13860.0	-50.22	6.3	13.75	Horizontal	-42.77	-13.00	29.77	45
9	15592.5	-54.96	6.7	13.85	Horizontal	-47.81	-13.00	34.81	225
10	17325.0	-50.06	6.8	14.25	Horizontal	-42.61	-13.00	29.61	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-55.98	2.6	10.75	Horizontal	-47.83	-13.00	34.83	0
3	5191.5	-60.00	2.4	11.05	Horizontal	-51.35	-13.00	38.35	90
4	6930.0	-47.15	4.5	11.15	Horizontal	-40.50	-13.00	27.50	225
5	8662.5	-55.66	5.1	11.35	Horizontal	-49.41	-13.00	36.41	315
6	10395.0	-53.24	5.3	11.95	Horizontal	-46.59	-13.00	33.59	45
7	12127.5	-54.75	5.5	13.55	Horizontal	-46.70	-13.00	33.70	270
8	13860.0	-50.54	6.3	13.75	Horizontal	-43.09	-13.00	30.09	180
9	15592.5	-54.41	6.7	13.85	Horizontal	-47.26	-13.00	34.26	90
10	17325.0	-50.59	6.8	14.25	Horizontal	-43.14	-13.00	30.14	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.



LTE Band 4 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3447.8	-55.32	2.6	10.75	Horizontal	-47.17	-13.00	34.17	225
3	5170.9	-61.55	2.4	11.05	Horizontal	-52.90	-13.00	39.90	45
4	6894.0	-50.38	4.5	11.15	Horizontal	-43.73	-13.00	30.73	0
5	8662.5	-56.28	5.1	11.35	Horizontal	-50.03	-13.00	37.03	90
6	10395.0	-52.92	5.3	11.95	Horizontal	-46.27	-13.00	33.27	225
7	12127.5	-53.84	5.5	13.55	Horizontal	-45.79	-13.00	32.79	180
8	13860.0	-51.11	6.3	13.75	Horizontal	-43.66	-13.00	30.66	0
9	15592.5	-54.49	6.7	13.85	Horizontal	-47.34	-13.00	34.34	45
10	17325.0	-51.04	6.8	14.25	Horizontal	-43.59	-13.00	30.59	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-58.35	2.00	10.75	Horizontal	-51.75	-13.00	38.75	45
3	2122.5	-54.03	2.51	11.05	Horizontal	-47.64	-13.00	34.64	0
4	2830.0	-55.71	4.20	11.15	Horizontal	-50.91	-13.00	37.91	90
5	3537.5	-55.10	5.20	11.15	Horizontal	-51.30	-13.00	38.30	180
6	4245.0	-54.82	5.50	11.95	Horizontal	-50.52	-13.00	37.52	0
7	4952.5	-60.67	5.70	13.55	Horizontal	-54.97	-13.00	41.97	90
8	5660.0	-58.16	6.30	13.75	Horizontal	-52.86	-13.00	39.86	225
9	6367.5	-57.10	6.80	13.85	Horizontal	-52.20	-13.00	39.20	315
10	7075.0	-54.93	6.90	14.25	Horizontal	-49.73	-13.00	36.73	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 12 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-59.54	2.00	10.75	Horizontal	-52.94	-13.00	39.94	0
3	2122.5	-56.62	2.51	11.05	Horizontal	-50.23	-13.00	37.23	45
4	2830.0	-54.62	4.20	11.15	Horizontal	-49.82	-13.00	36.82	315
5	3526.5	-54.48	5.20	11.15	Horizontal	-50.68	-13.00	37.68	180
6	4231.9	-55.90	5.50	11.95	Horizontal	-51.60	-13.00	38.60	0
7	5289.8	-60.42	5.70	13.55	Horizontal	-54.72	-13.00	41.72	90
8	6171.4	-60.54	6.30	13.75	Horizontal	-55.24	-13.00	42.24	225
9	7053.0	-55.44	6.80	13.85	Horizontal	-50.54	-13.00	37.54	315
10	7934.6	-55.30	6.90	14.25	Horizontal	-50.10	-13.00	37.10	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 12 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1415.0	-60.15	2.00	10.75	Horizontal	-53.55	-13.00	40.55	0
3	2122.5	-53.94	2.51	11.05	Horizontal	-47.55	-13.00	34.55	90
4	2830.0	-50.27	4.20	11.15	Horizontal	-45.47	-13.00	32.47	0
5	3516.4	-52.34	5.20	11.15	Horizontal	-48.54	-13.00	35.54	0
6	4218.4	-55.62	5.50	11.95	Horizontal	-51.32	-13.00	38.32	270
7	5274.0	-61.20	5.70	13.55	Horizontal	-55.50	-13.00	42.50	180
8	6153.0	-58.66	6.30	13.75	Horizontal	-53.36	-13.00	40.36	0
9	7032.0	-54.88	6.80	13.85	Horizontal	-49.98	-13.00	36.98	45
10	7911.0	-54.40	6.90	14.25	Horizontal	-49.20	-13.00	36.20	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 66 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3489.0	-54.61	2.6	10.75	Horizontal	-46.46	-13.00	33.46	180
3	5235.0	-60.62	2.4	11.05	Horizontal	-51.97	-13.00	38.97	0
4	6980.0	-50.36	4.5	11.15	Horizontal	-43.71	-13.00	30.71	270
5	8725.0	-54.92	5.1	11.35	Horizontal	-48.67	-13.00	35.67	315
6	10470.0	-53.60	5.3	11.95	Horizontal	-46.95	-13.00	33.95	45
7	12215.0	-54.48	5.5	13.55	Horizontal	-46.43	-13.00	33.43	90
8	13960.0	-50.60	6.3	13.75	Horizontal	-43.15	-13.00	30.15	225
9	15705.0	-54.34	6.7	13.85	Horizontal	-47.19	-13.00	34.19	0
10	17450.0	-51.49	6.8	14.25	Horizontal	-44.04	-13.00	31.04	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
 2. The worst emission was found in the antenna is Horizontal position.

LTE Band 66 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3486.0	-55.47	2.6	10.75	Horizontal	-47.32	-13.00	34.32	180
3	5229.0	-61.24	2.4	11.05	Horizontal	-52.59	-13.00	39.59	45
4	6972.0	-49.88	4.5	11.15	Horizontal	-43.23	-13.00	30.23	90
5	8715.0	-54.95	5.1	11.35	Horizontal	-48.70	-13.00	35.70	225
6	10458.0	-52.52	5.3	11.95	Horizontal	-45.87	-13.00	32.87	315
7	12201.0	-53.97	5.5	13.55	Horizontal	-45.92	-13.00	32.92	45
8	13944.0	-50.81	6.3	13.75	Horizontal	-43.36	-13.00	30.36	180
9	15687.0	-54.25	6.7	13.85	Horizontal	-47.10	-13.00	34.10	0
10	17430.0	-51.73	6.8	14.25	Horizontal	-44.28	-13.00	31.28	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
 2. The worst emission was found in the antenna is Horizontal position.



LTE Band 66 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3472.5	-55.33	2.6	10.75	Horizontal	-47.18	-13.00	34.18	90
3	5209.0	-61.16	2.4	11.05	Horizontal	-52.51	-13.00	39.51	225
4	6945.8	-49.78	4.5	11.15	Horizontal	-43.13	-13.00	30.13	315
5	8682.0	-54.98	5.1	11.35	Horizontal	-48.73	-13.00	35.73	45
6	10418.6	-53.37	5.3	11.95	Horizontal	-46.72	-13.00	33.72	270
7	12455.0	-55.28	5.5	13.55	Horizontal	-47.23	-13.00	34.23	180
8	13891.5	-50.79	6.3	13.75	Horizontal	-43.34	-13.00	30.34	0
9	15627.0	-55.20	6.7	13.85	Horizontal	-48.05	-13.00	35.05	45
10	17364.4	-52.83	6.8	14.25	Horizontal	-45.38	-13.00	32.38	315

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 71 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1361.0	-46.37	2.00	10.75	Horizontal	-39.77	-13.00	26.77	0
3	2041.5	-61.28	2.51	11.05	Horizontal	-54.89	-13.00	41.89	45
4	2722.0	-61.68	4.20	11.15	Horizontal	-56.88	-13.00	43.88	315
5	3402.5	-62.65	5.20	11.15	Horizontal	-58.85	-13.00	45.85	45
6	4083.0	-60.08	5.50	11.95	Horizontal	-55.78	-13.00	42.78	0
7	4763.5	-61.85	5.70	13.55	Horizontal	-56.15	-13.00	43.15	180
8	5444.0	-60.90	6.30	13.75	Horizontal	-55.60	-13.00	42.60	270
9	6124.5	-59.79	6.80	13.85	Horizontal	-54.89	-13.00	41.89	315
10	6805.0	-56.83	6.90	14.25	Horizontal	-51.63	-13.00	38.63	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.



LTE Band 71 QPSK 10MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1361.0	-55.65	2.00	10.75	Horizontal	-49.05	-13.00	36.05	45
3	2041.5	-55.78	2.51	11.05	Horizontal	-49.39	-13.00	36.39	315
4	2722.0	-63.77	4.20	11.15	Horizontal	-58.97	-13.00	45.97	0
5	3402.5	-61.62	5.20	11.15	Horizontal	-57.82	-13.00	44.82	90
6	4083.0	-61.15	5.50	11.95	Horizontal	-56.85	-13.00	43.85	45
7	4763.5	-61.11	5.70	13.55	Horizontal	-55.41	-13.00	42.41	315
8	5444.0	-60.69	6.30	13.75	Horizontal	-55.39	-13.00	42.39	270
9	6124.5	-59.10	6.80	13.85	Horizontal	-54.20	-13.00	41.20	0
10	6805.0	-55.30	6.90	14.25	Horizontal	-50.10	-13.00	37.10	45

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113824	2020-05-18	2021-05-17
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Key sight	N9010A	MY50210259	2020-05-18	2021-05-17
Signal Analyzer	R&S	FSV30	100815	2019-12-15	2020-12-14
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	391	2019-12-16	2021-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2018-06-20	2021-06-19
Signal generator	R&S	SMB 100A	102594	2020-05-18	2021-05-17
Climatic Chamber	ESPEC	SU-242	93000506	2017-12-17	2020-12-16
Preamplifier	R&S	SCU18	102327	2020-05-18	2021-05-17
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2020-05-18	2021-05-17
RF Cable	Agilent	SMA 15cm	0001	2020-06-12	2020-12-11
Software	R&S	EMC32	9.26.0	/	/



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.

ANNEX C: Statement of Product Change

Quetel Wireless Solutions Co., Ltd

Statement

We Quetel Wireless Solutions Co., Ltd declare the following models.

Product Name: LTE Module
Model Number: EC25-AF, EC25-AF MINIPCIE
Variant Model: EC25-T, EC25-T MINIPCIE
Hardware Version: R1.0

Module	Category	Supported Band
EC25-AF	CAT4	WCDMA: B2/B4/B5
EC25-AF MINIPCIE		LTE: B2/B4/B5/B12/B13/B14/B66/B71
EC25-T	CAT4	LTE: B2/B4/B5/B12/B66/B71
EC25-T MINIPCIE		

EC25-AF&EC25-AF MINIPCIE and EC25-T&EC25-T MINIPCIE share the same HW design, EC25-T&EC25-T MINIPCIE reduce B13and B14 and GPSIC on the basis of EC25-AF&EC25-AF MINIPCIE. The details are shown as following pictures and table.





Quectel Wireless Solutions Co., Ltd

Designator	EC25-AF EC25-AF MINIPCIE (Part Description)	EC25-T EC25-T MINIPCIE (Part Description)
U1102	IC RF Rx filter UNBalance B14 15dBm 1.1x0.9mm H0.5mm RO	NM
U0906	IC RF DPX LTE UNBalance B14 1.8x1.4mm H0.475mm RO	NM
U0908 U0909	IC RF TX LPF 699-960MHz 1.6x0.8mm H0.6mm RO	NM
U0805	IC RF GNSS RECEIVER WGR7640 17- VLNSP 0.4pitch 2.07x1.51mm H0.63mm RO	NM
U0806	IC RF RX filter GPS/ GLONASS /BEIDOU Balance 13dBm 1.1x0.9mm H0.5mm RO	NM
U0907	IC RF DPX LTE Unbalance B13 1.8x1.4mm H0.5mm RO	NM

EC25-T & EC25-T MINIPCIE also disabled WCDMA bands through SW.

These changes will not impact RF performance for other original LTE bands.

Your assistance on this matter is highly appreciated.

Sincerely,

Jean Hu
Name: Jean Hu
Title: Certification Section



ANNEX D: Statement of Model Difference

Quectel Wireless Solutions Co., Ltd

Statement

We Quectel Wireless Solutions Co., Ltd declare the following models as series application.

Name: LTE Module

Parent Model: EC25-T

Variant Model: EC25-T MINIPCIE

EC25-T and EC25-T MINIPCIE are same LTE modules. They have the same frequency and use the same chipset and share the same software & hardware design.

EC25-T MINIPCIE makes up of EC25-T module and PCIe carrier board. The carrier board switches EC25-T module to follow PCI Express Mini Card standard connector protocol. No any other internal changes in EC25-T module. We hereby state that two models are identical in interior structure and components, and just connector interface is different for the marketing requirement.

Your assistance on this matter is highly appreciated.

Sincerely,

Name: Jean Hu

Title: Certification Section

*****END OF REPORT *****