4.7 Conducted Spurious Emissions

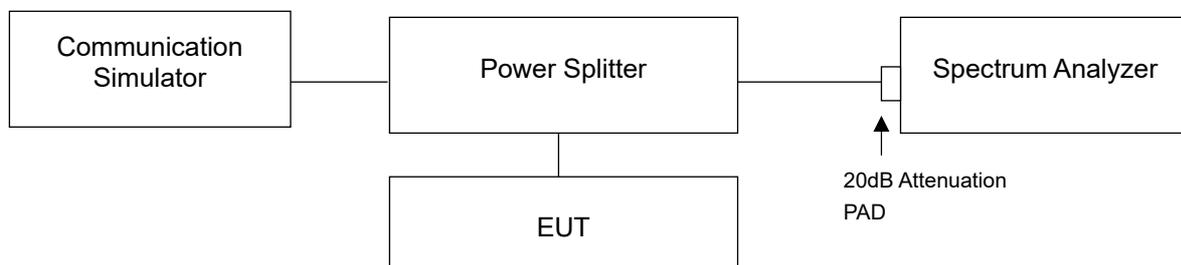### 4.7.1 Limits of Conducted Spurious Emissions Measurement

For n5, LTE Band 2:
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

For LTE Band 66:
In the FCC 27.53(h), On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB. The emission limit equal to –13dBm.

4.7.2 Test Setup

```
┌──────────────┐      ┌──────────────┐      ┌──────────────────┐
│Communication │      │Power Splitter│      │ Spectrum Analyzer│
│  Simulator   │──────│              │──────│                  │
└──────────────┘      └──────────────┘      └──────────────────┘
                            │                      ↑
                      ┌──────────────┐       20dB Attenuation
                      │     EUT      │       PAD
                      └──────────────┘
```

4.7.3 Test Procedure

a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

b. Measuring frequency range is from 9kHz to 10GHz / 18GHz / 20GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.
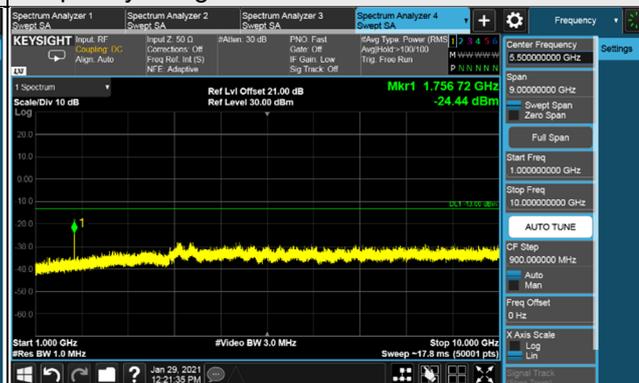
4.7.4 Test Results

n5, Channel Bandwidth 5MHz

Channel 165300 (826.5MHz)
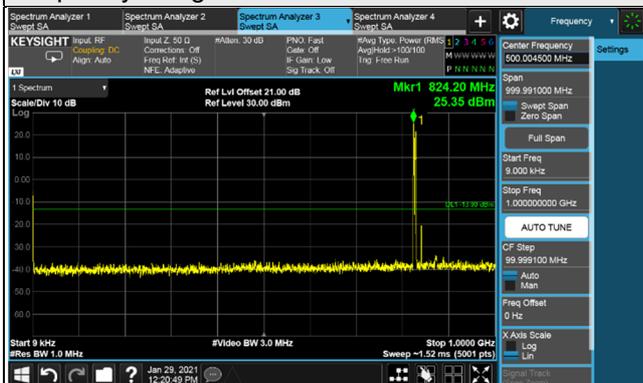
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz

Channel 167300 (836.5MHz)
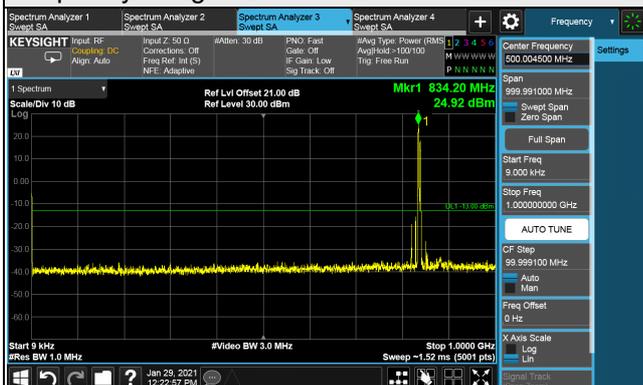
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
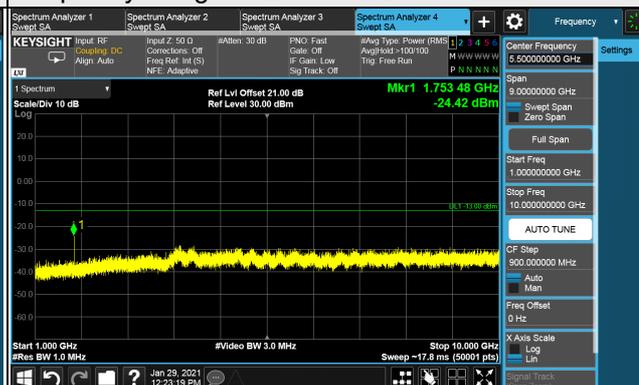
Channel 169300 (846.5MHz)
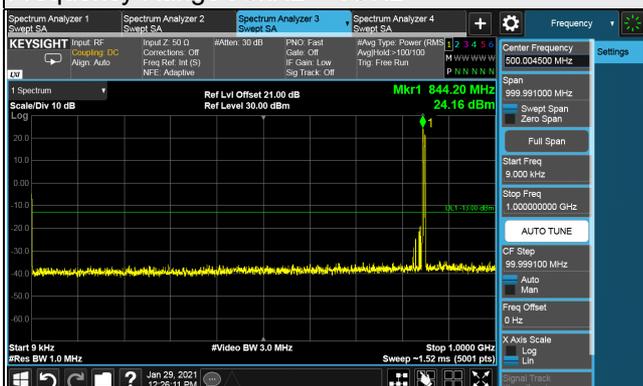
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
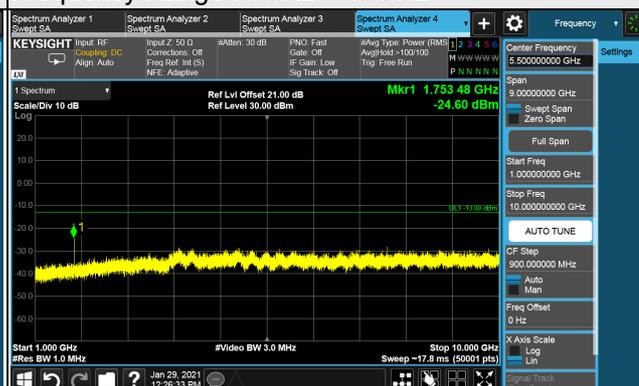
*The 9kHz signal over the limit is from Spectrum.

n5, Channel Bandwidth 10MHz

Channel 165800 (829.0MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
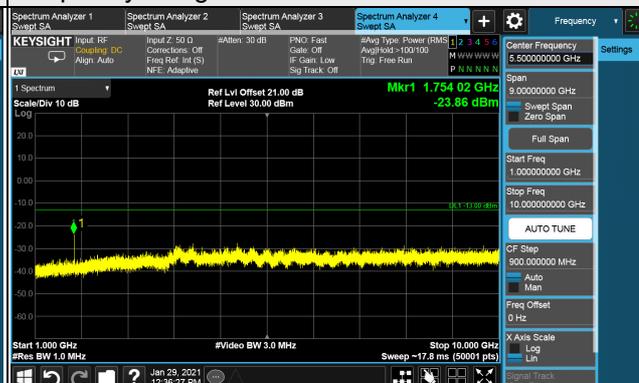
Channel 167300 (836.5MHz)

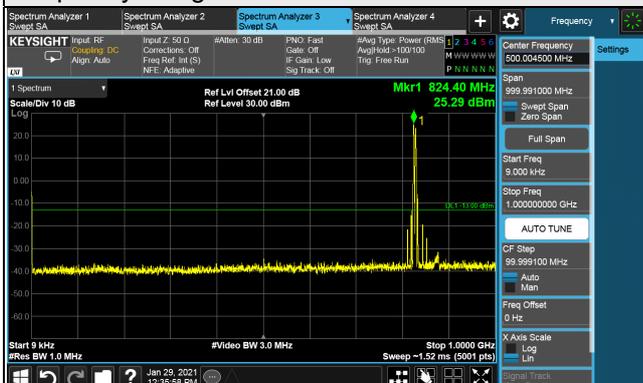| Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz

Channel 168800 (844.0MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
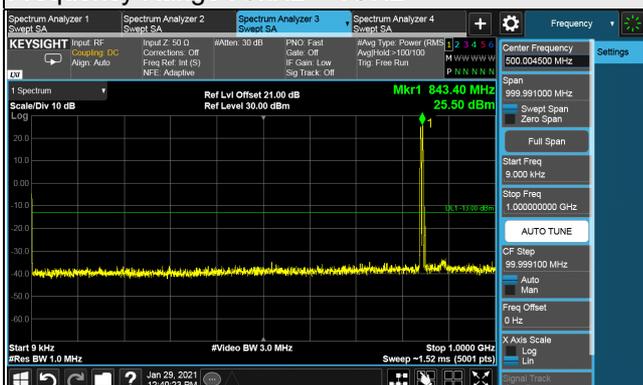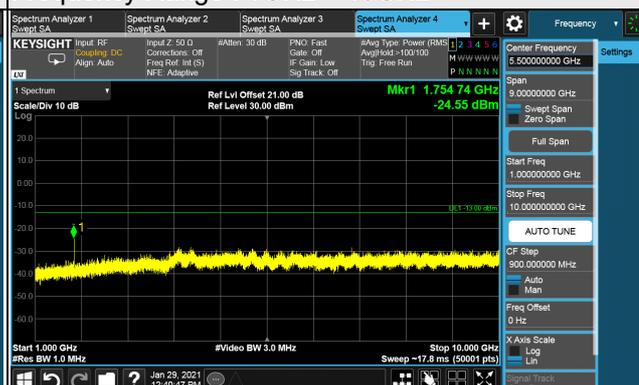
*The 9kHz signal over the limit is from Spectrum.

n5, Channel Bandwidth 15MHz

Channel 166300 (831.5MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
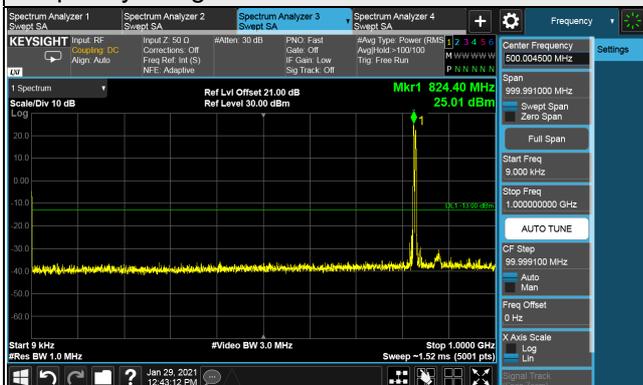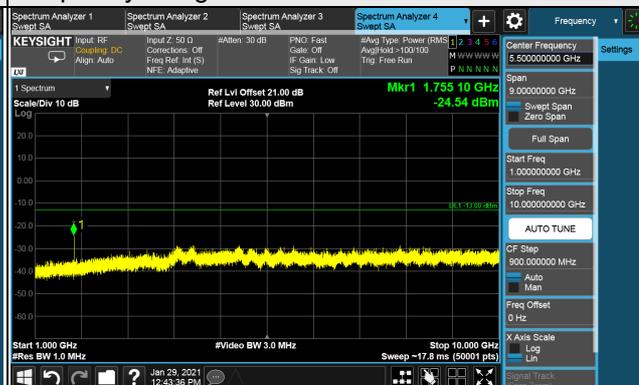
Channel 167300 (836.5MHz)
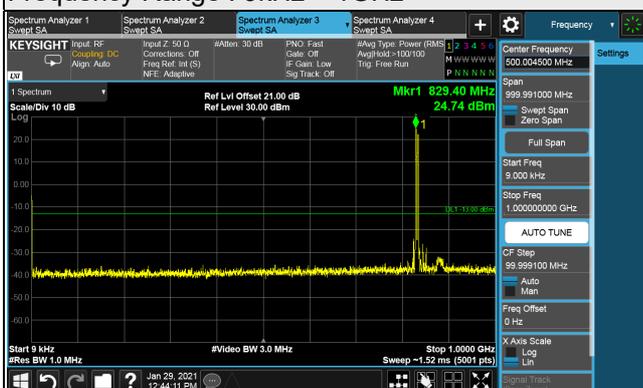
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
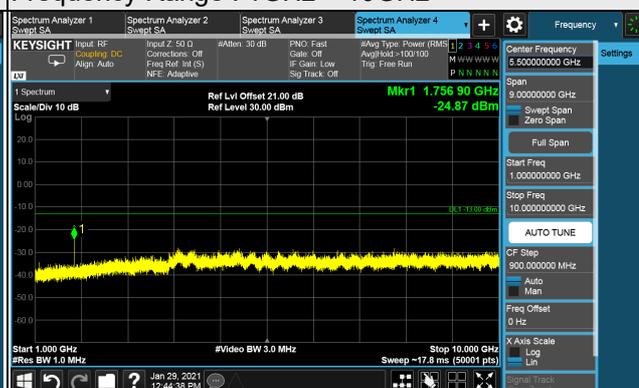
Channel 168300 (841.5MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
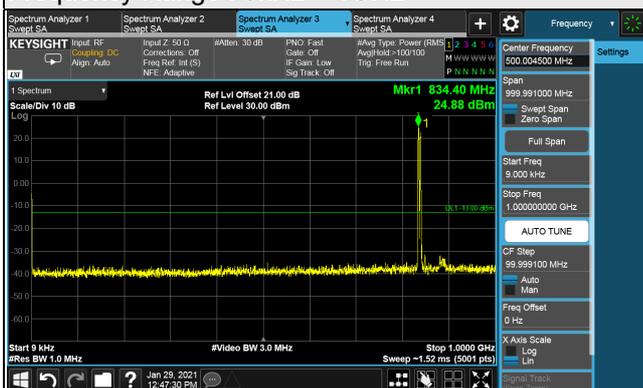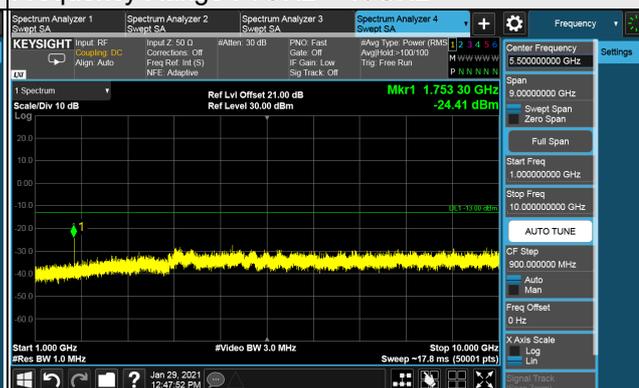
*The 9kHz signal over the limit is from Spectrum.

n5, Channel Bandwidth 20MHz

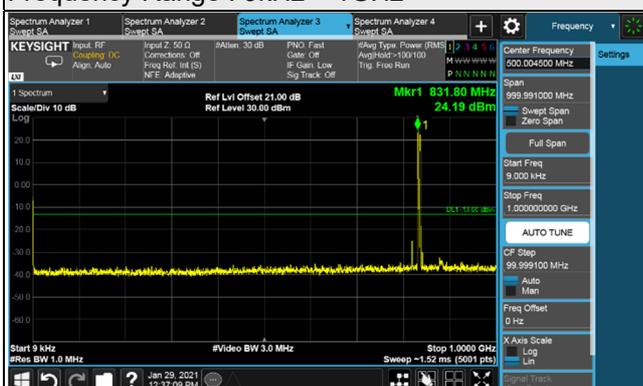### Channel 166800 (834.0MHz)

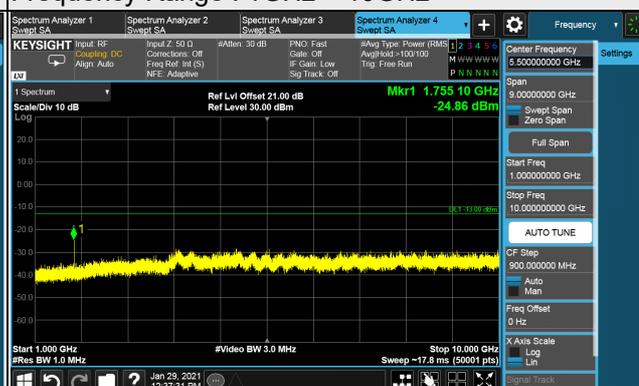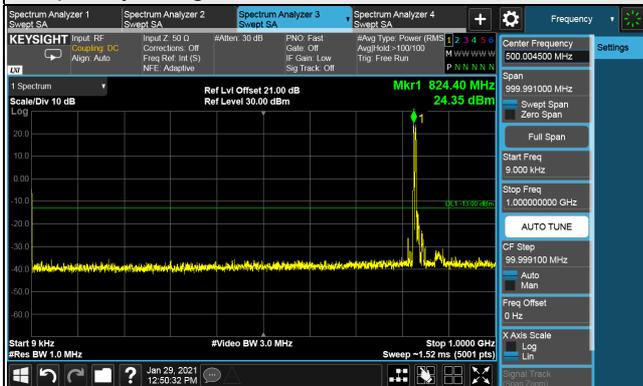| Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
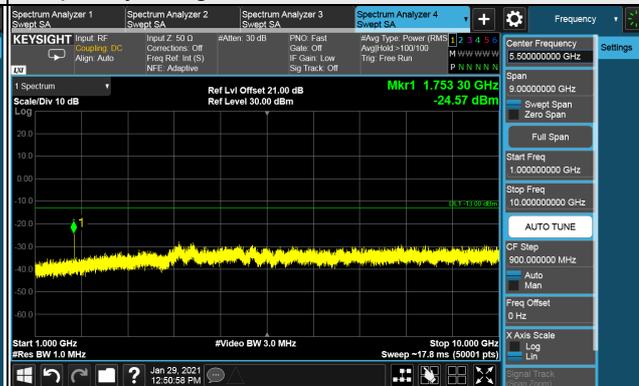
Channel 167300 (836.5MHz)
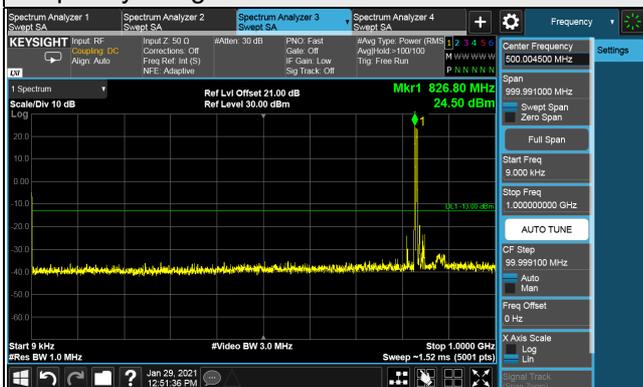
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz
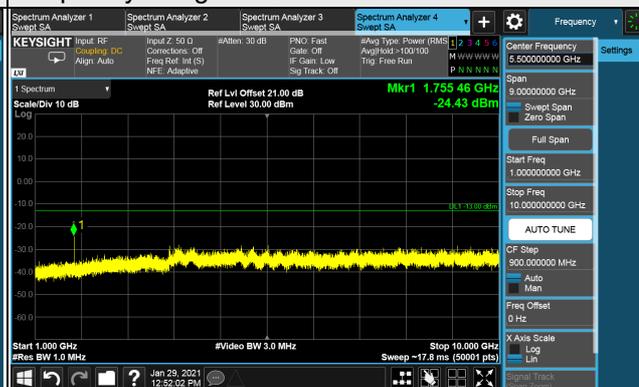
Channel 167800 (839.0MHz)
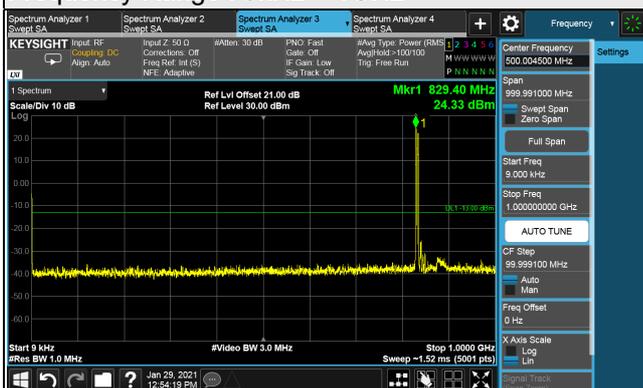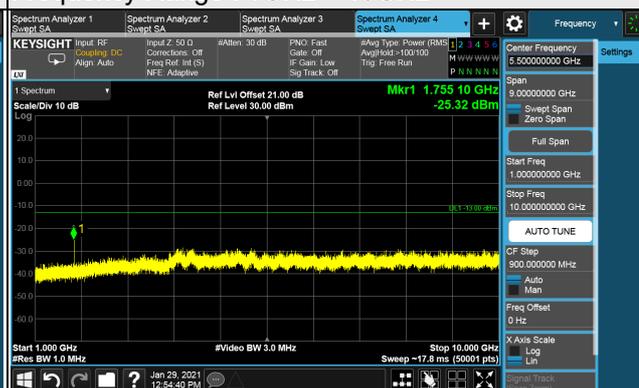
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 10GHz

*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 1.4MHz

Channel 18607 (1850.70MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
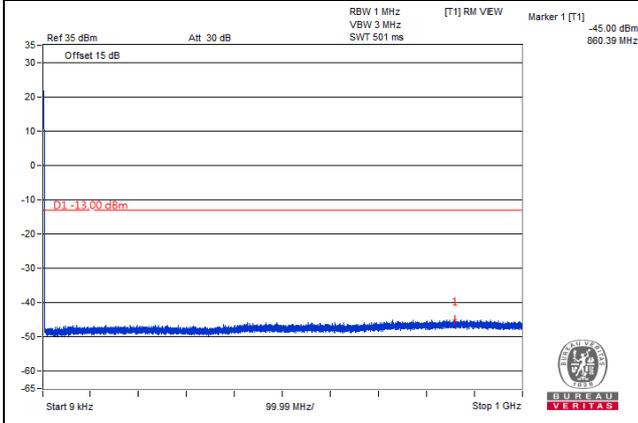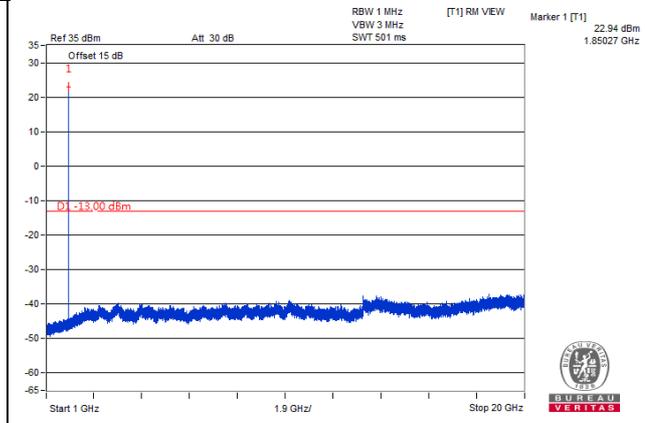
Channel 18900 (1880.00MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz

Channel 19193 (1909.30MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
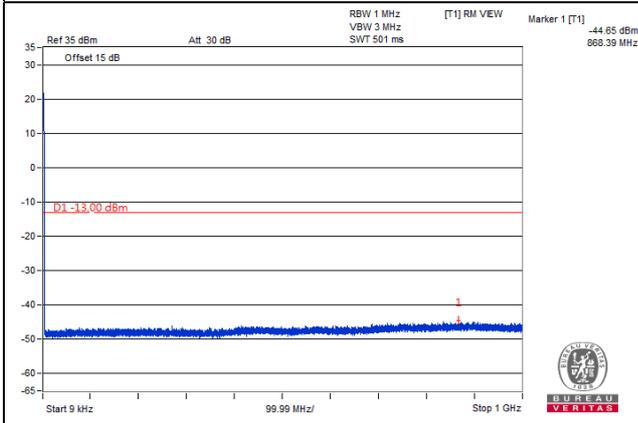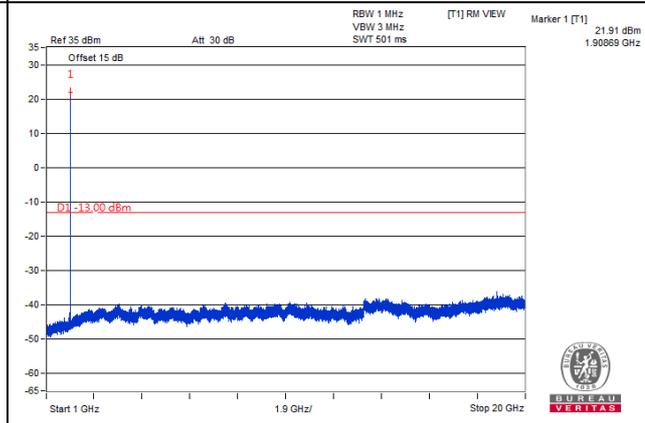
*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 3MHz

Channel 18615 (1851.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
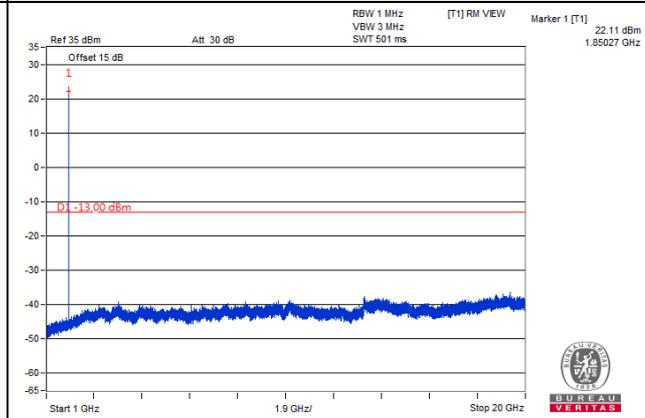
Channel 18900 (1880.00MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
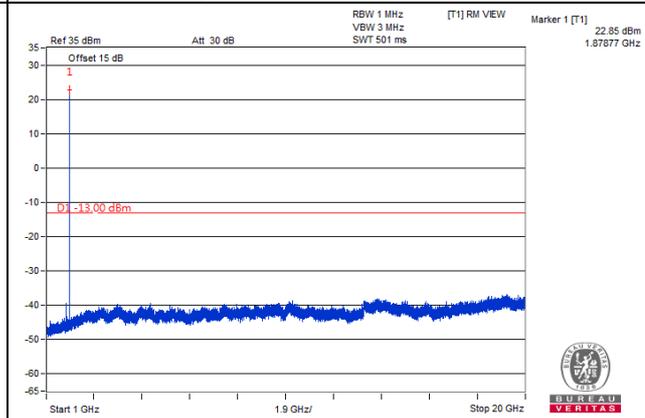
Channel 19185 (1908.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
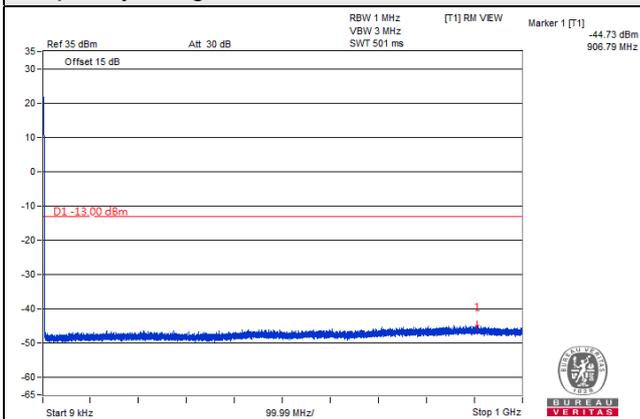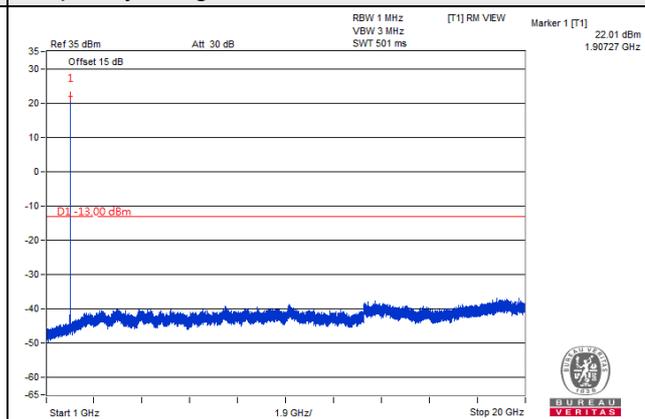
*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 5MHz

Channel 18625 (1852.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
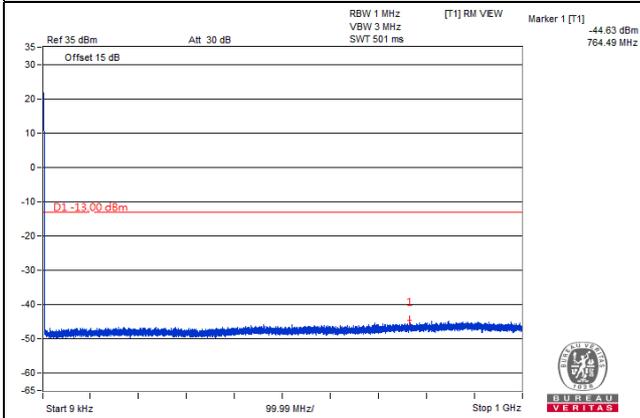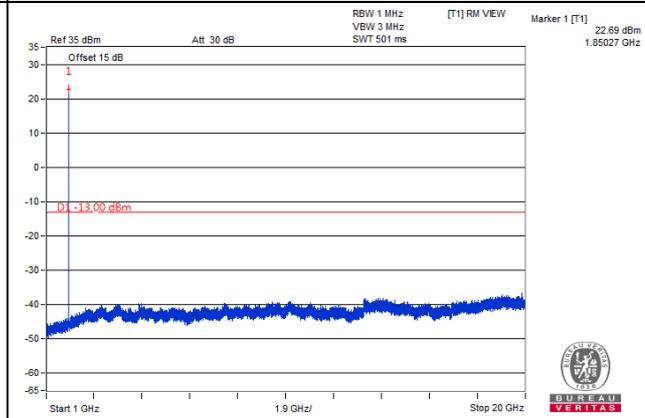
Channel 18900 (1880.00MHz)
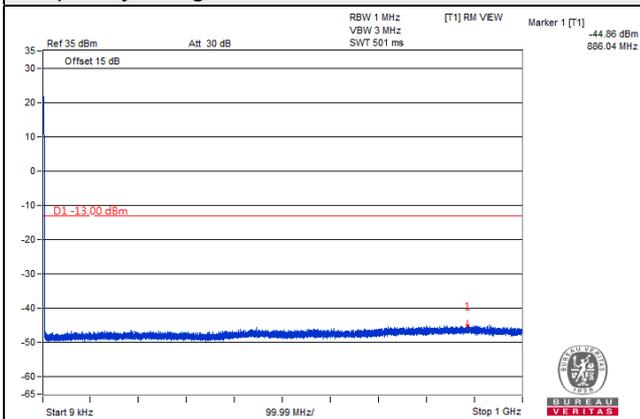
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
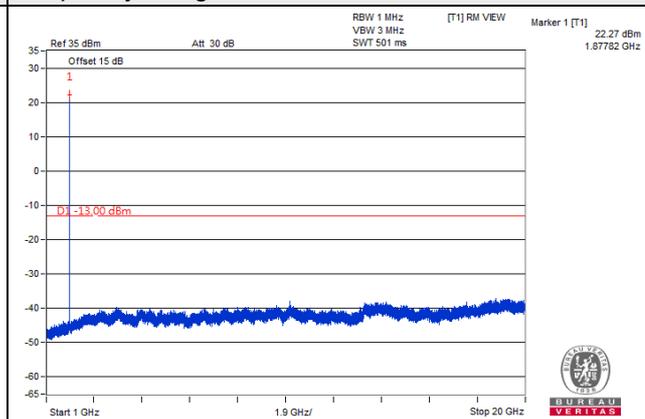
Channel 19175 (1907.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
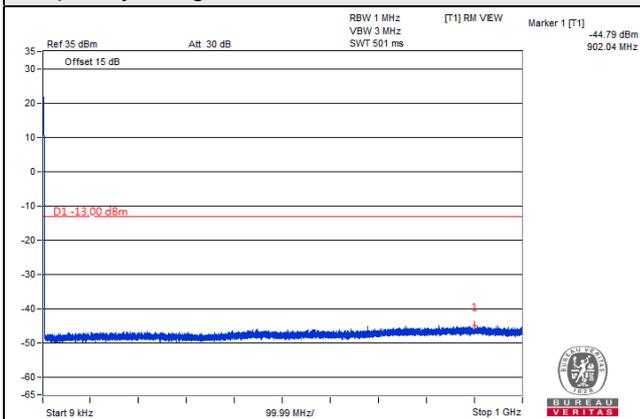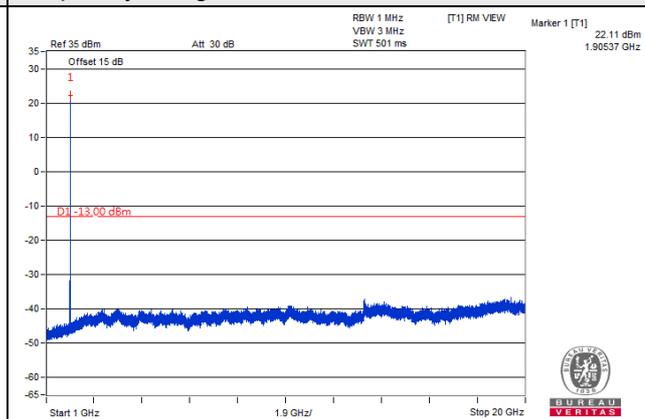
*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 10MHz

Channel 18650 (1855.00MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
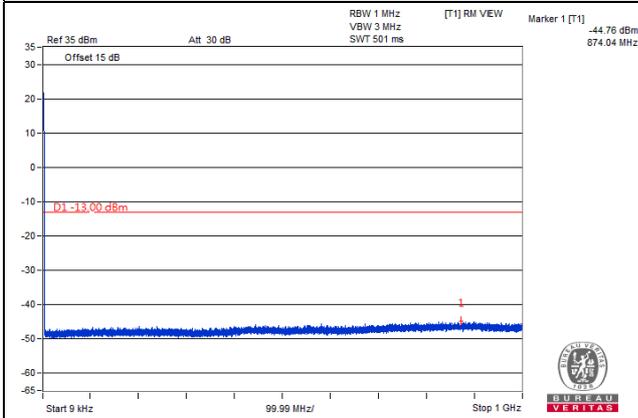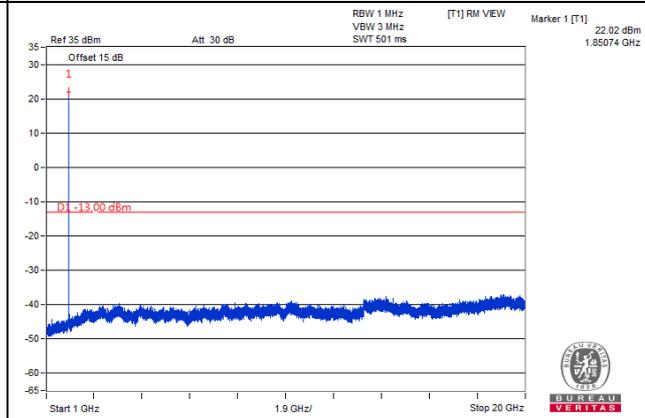
Channel 18900 (1880.00MHz)
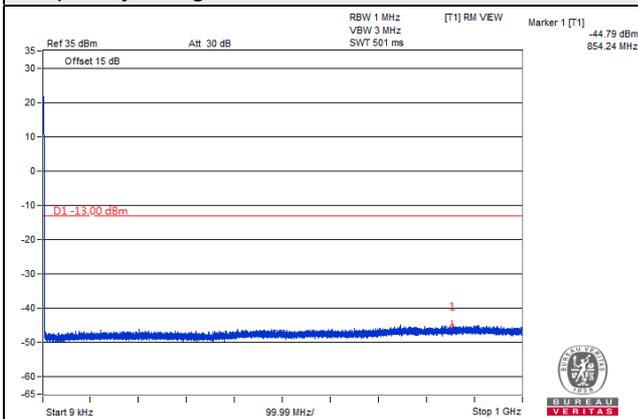
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
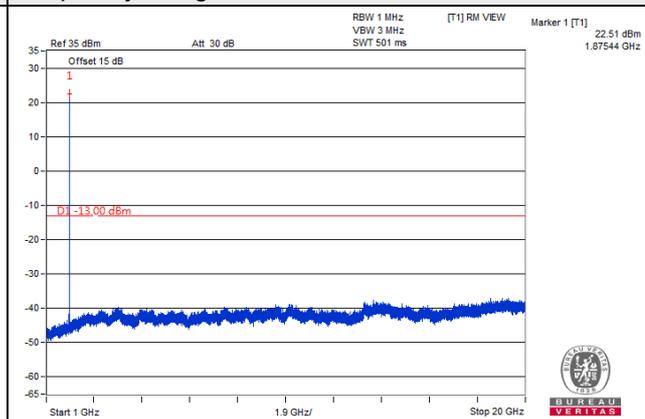
Channel 19150 (1905.00MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
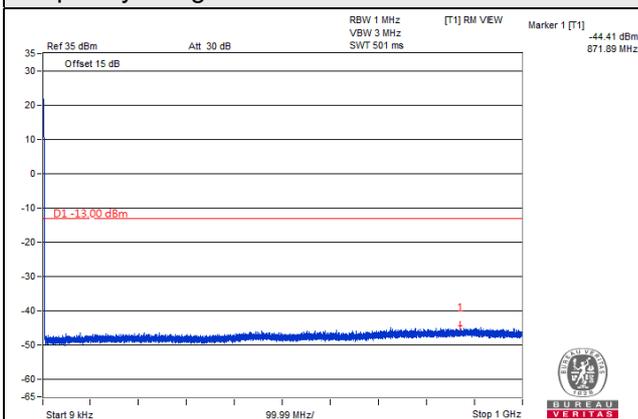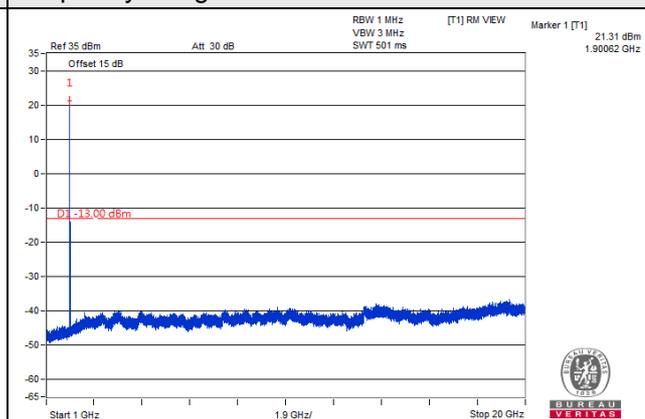
*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 15MHz

Channel 18675 (1857.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
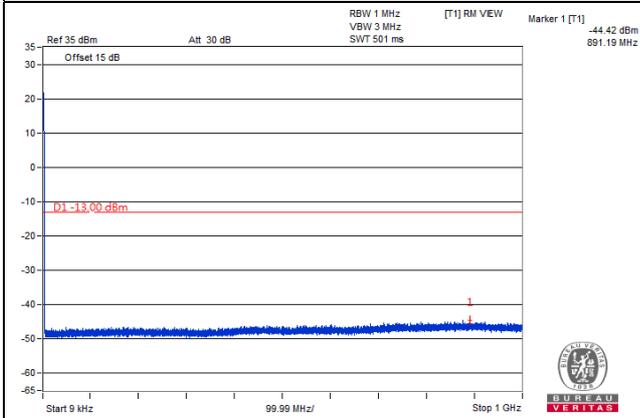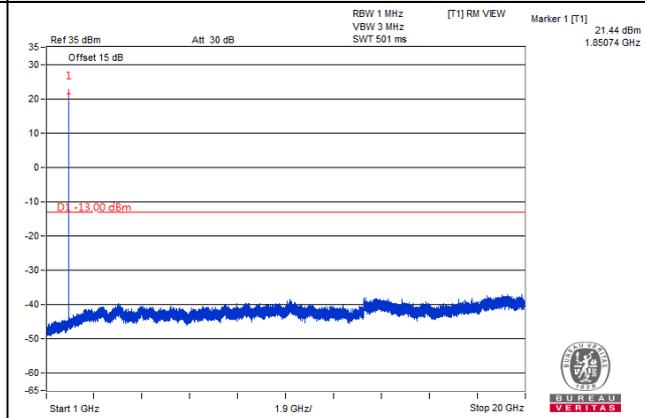
Channel 18900 (1880.00MHz)
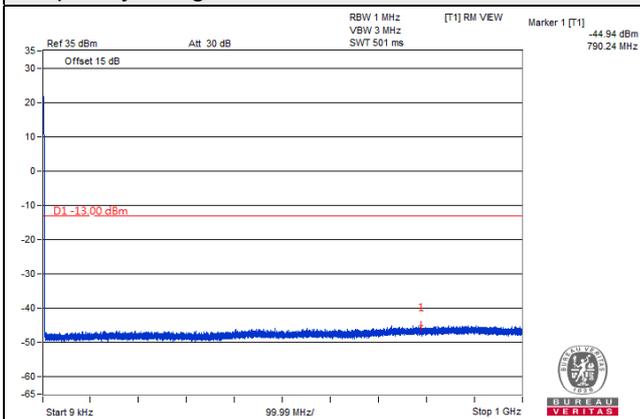
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
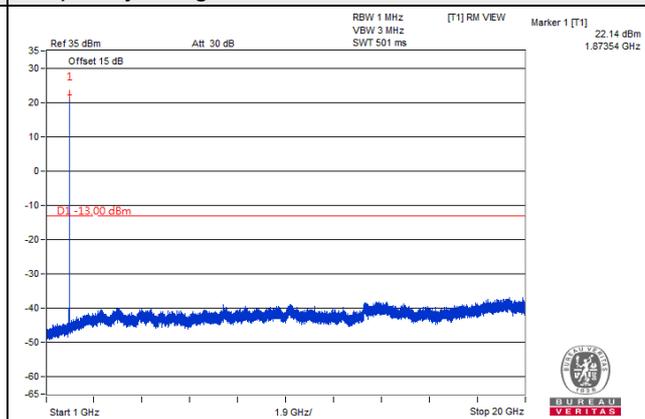
Channel 19125 (1902.50MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
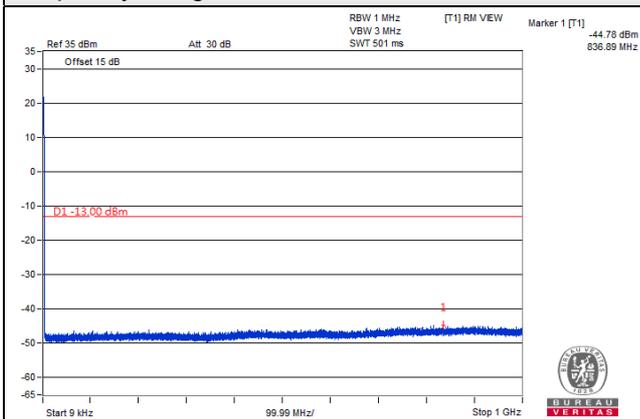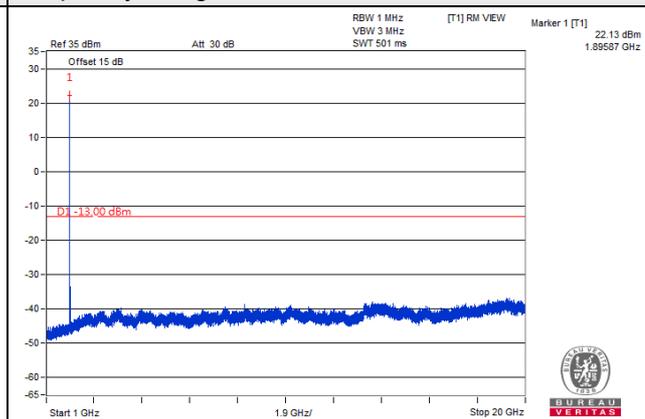
*The 9kHz signal over the limit is from Spectrum.

LTE Band 2, Channel Bandwidth 20MHz	
Channel 18700 (1860.00MHz)	
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
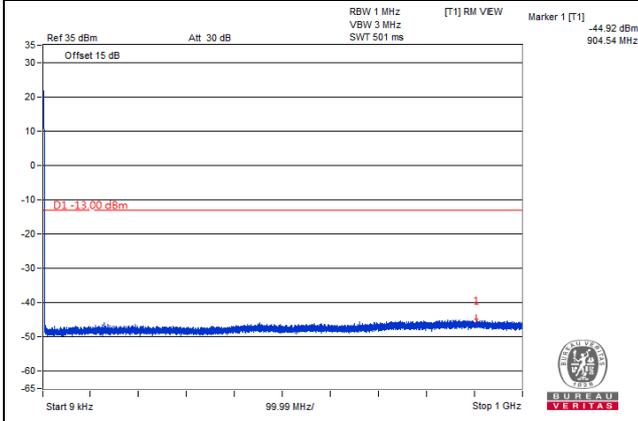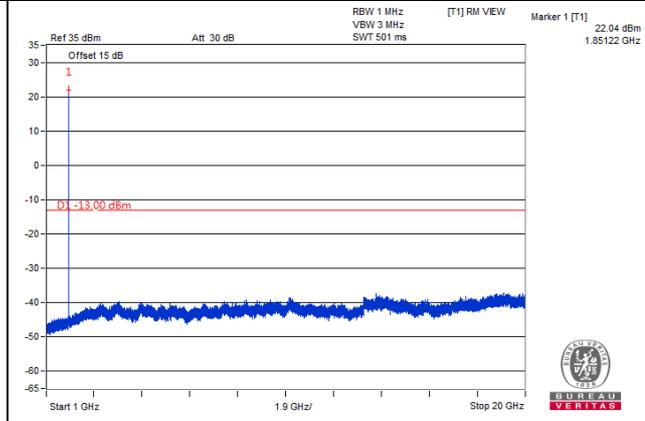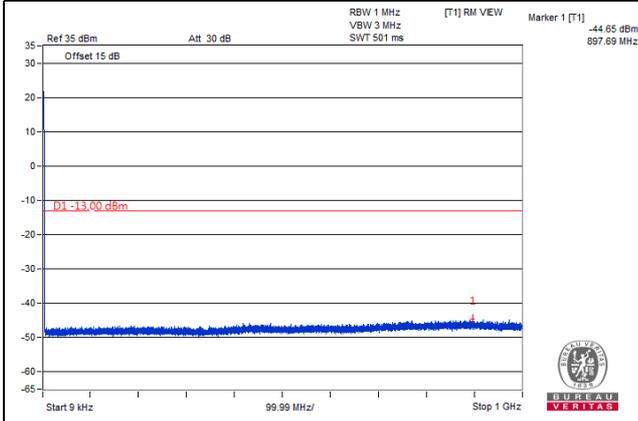
Channel 18900 (1880.00MHz)	
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
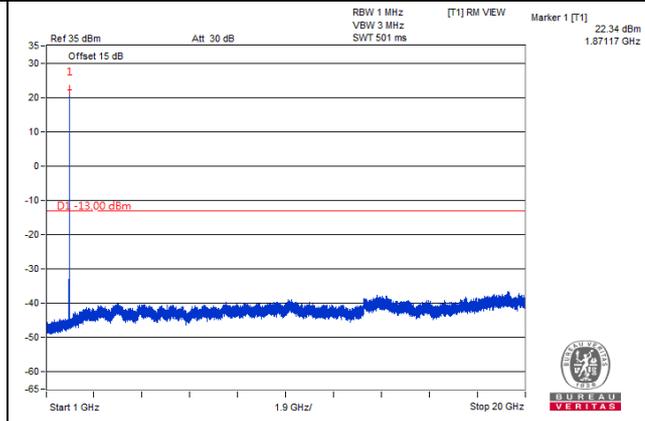
Channel 19100 (1900.00MHz)	
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 20GHz
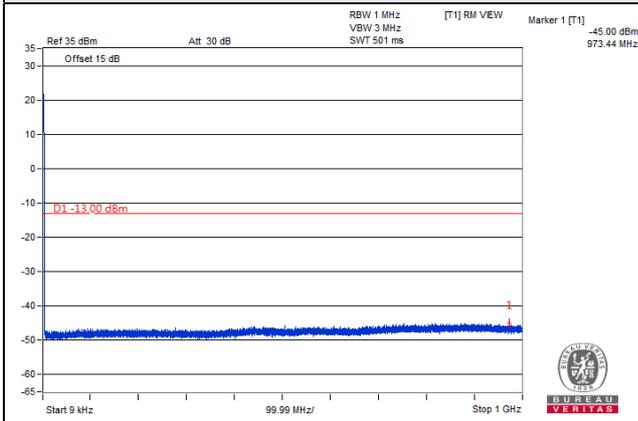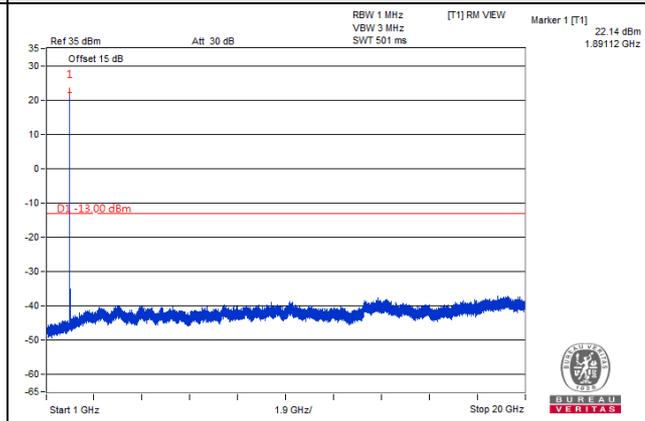
*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 1.4MHz

Channel 131979 (1710.7MHz)
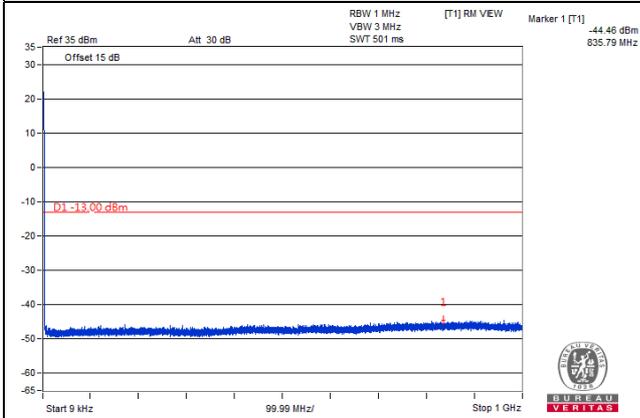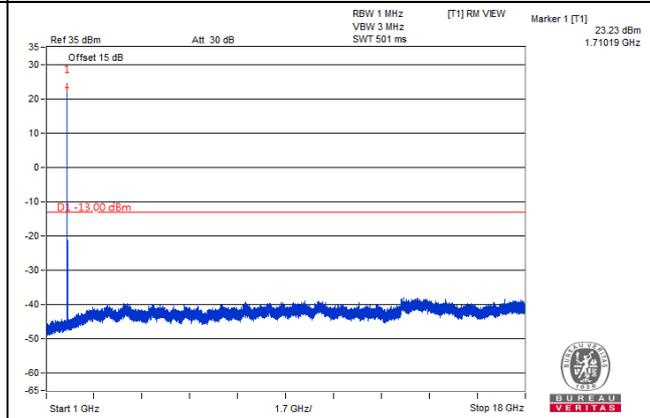
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz

Channel 132322 (1745.0MHz)
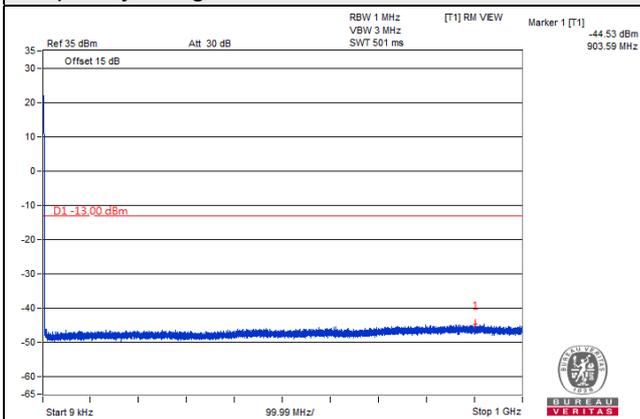
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
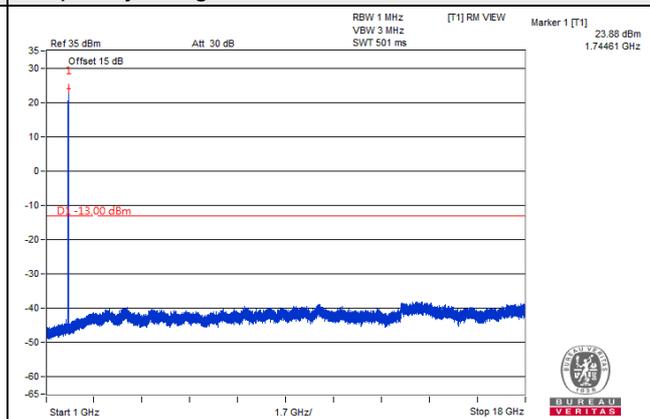
Channel 132665 (1779.3MHz)
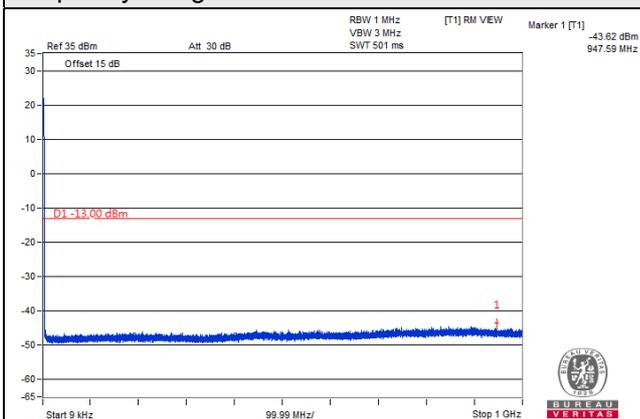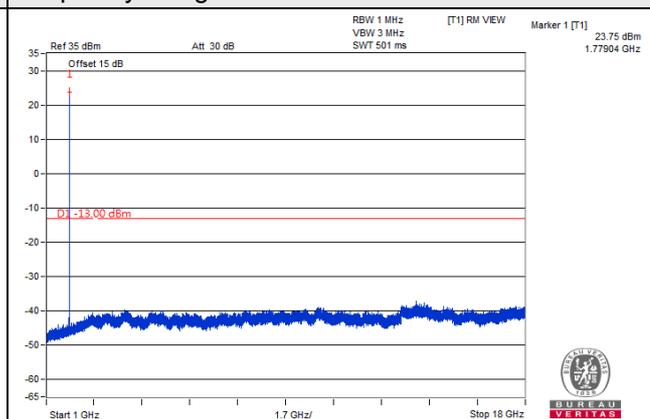
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz

*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 3MHz

Channel 131987 (1711.5MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
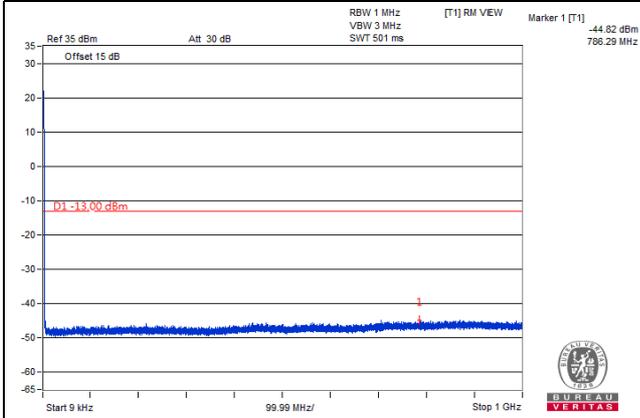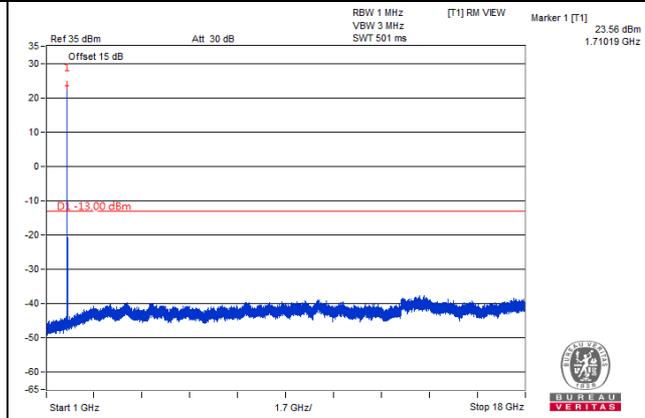
Channel 132322 (1745.0MHz)
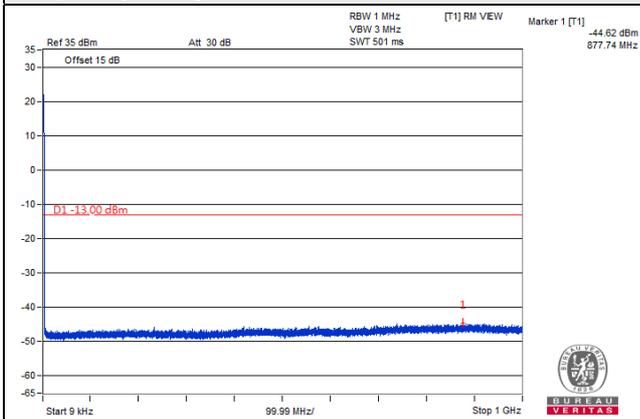
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
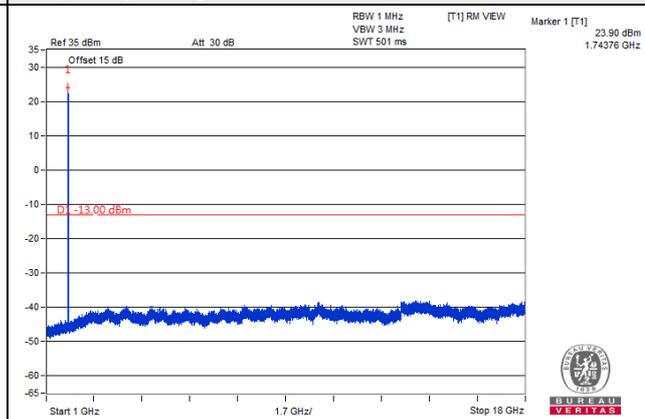
Channel 132657 (1778.5MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
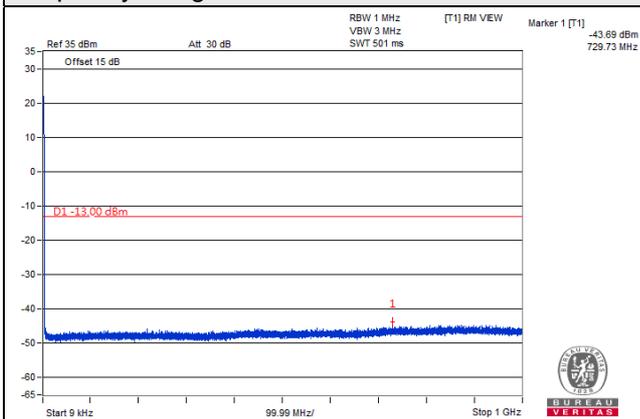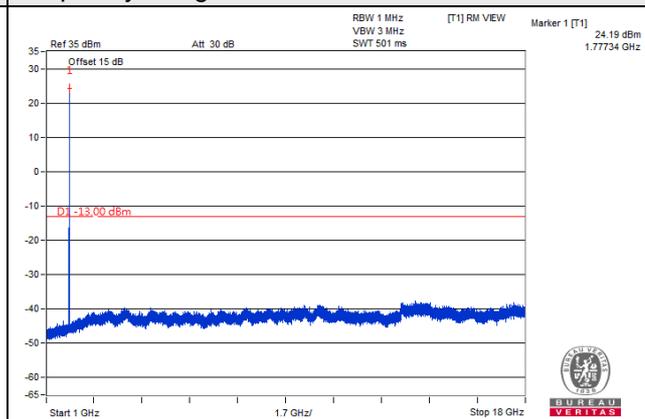
*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 5MHz

Channel 131997 (1712.5MHz)
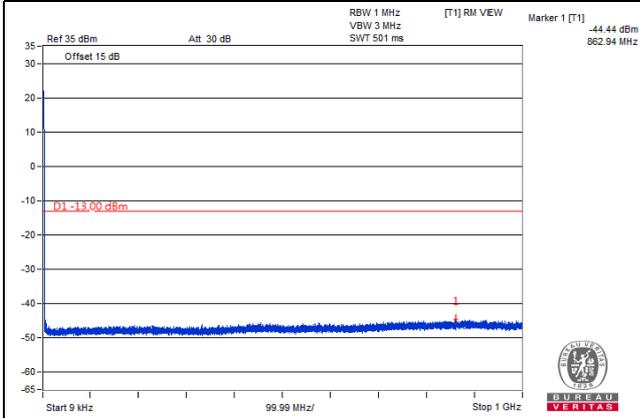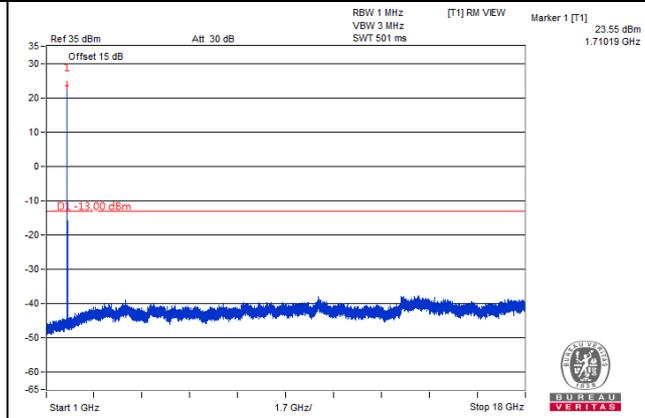
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz

Channel 132322 (1745.0MHz)
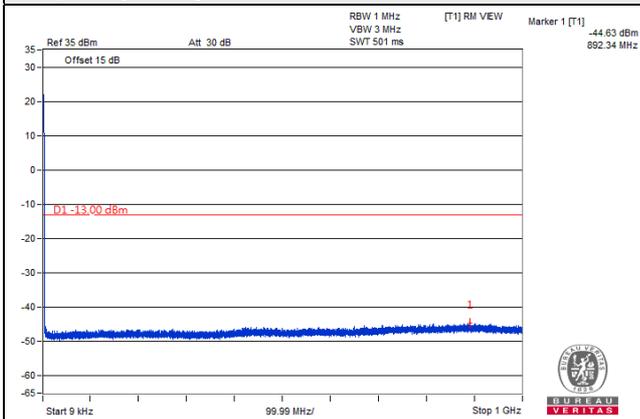
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
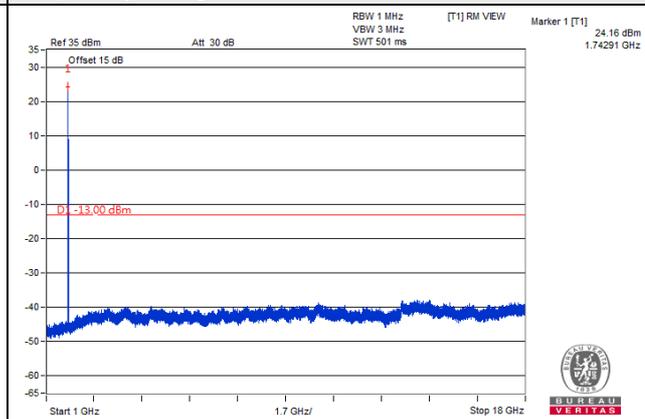
Channel 132647 (1777.5MHz)
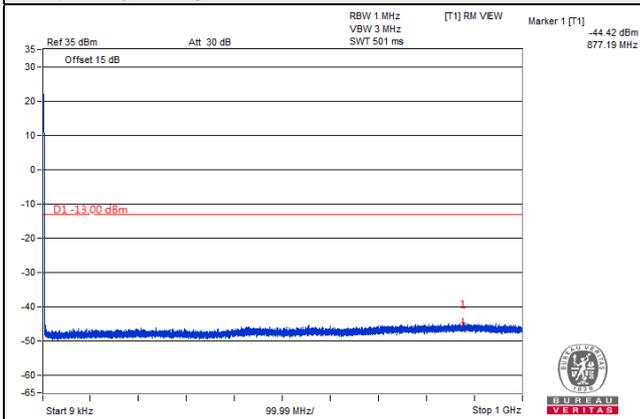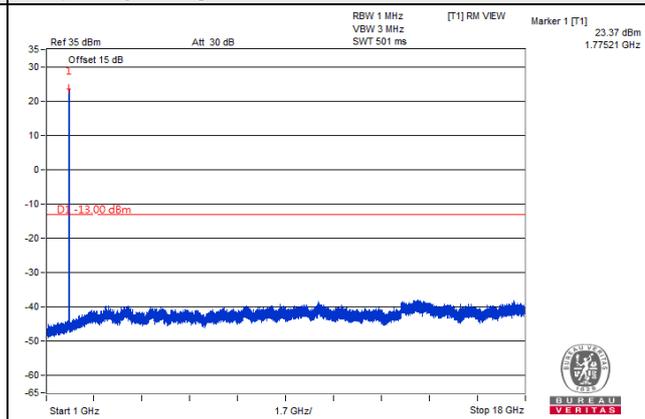
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz

*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 10MHz

Channel 132022 (1715.0MHz)
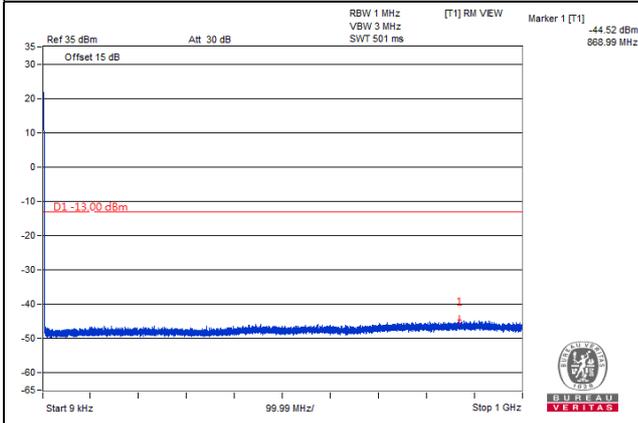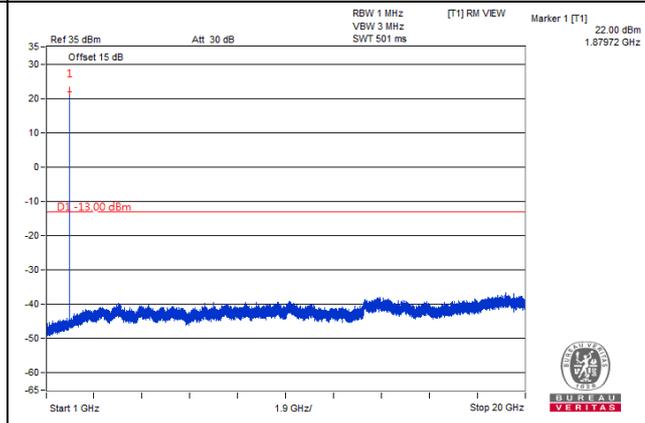
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
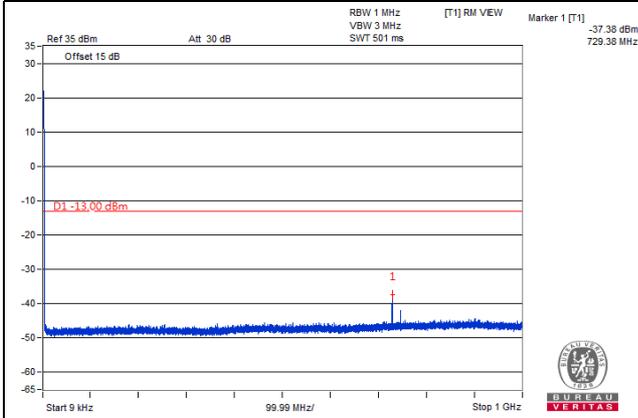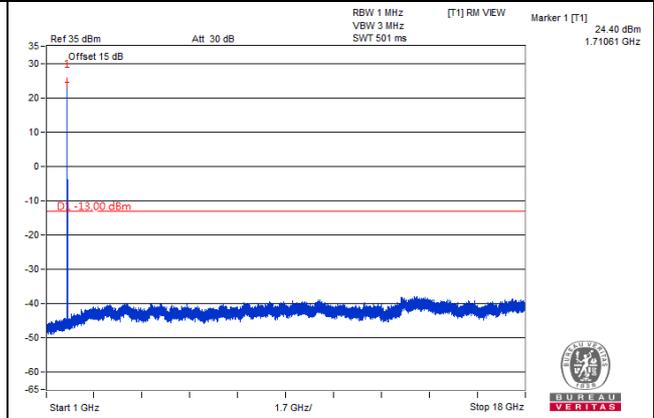
Channel 132322 (1745.0MHz)
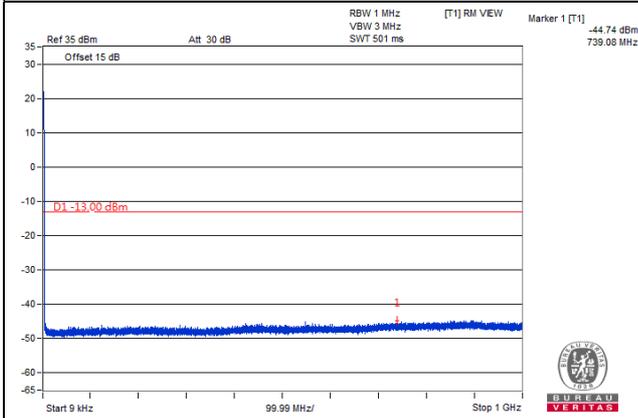
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
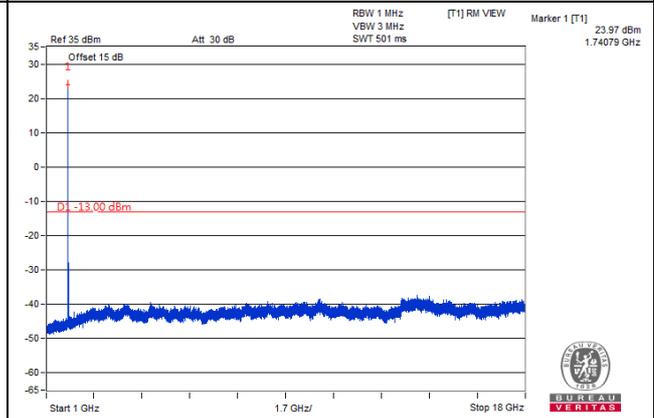
Channel 132622 (1775.0MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
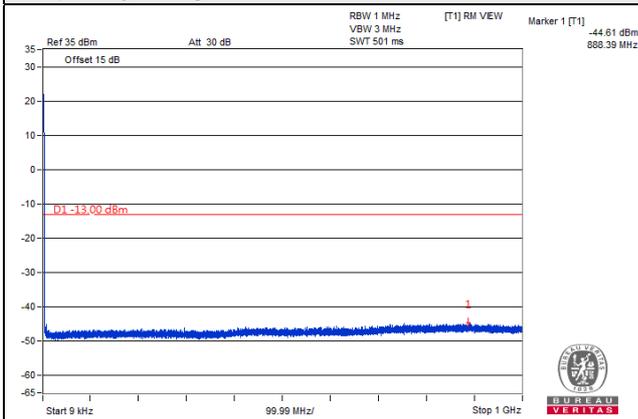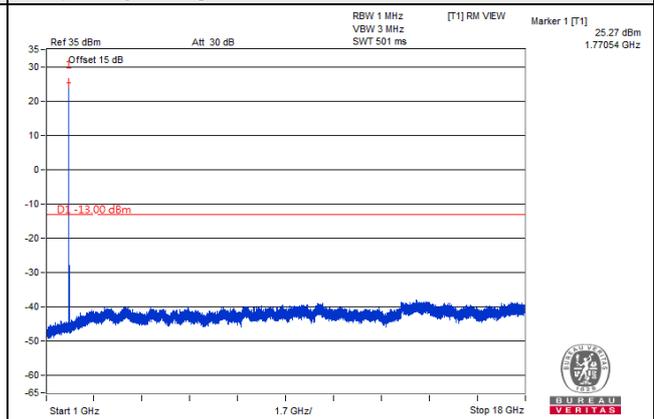
*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 15MHz

Channel 132047 (1717.5MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
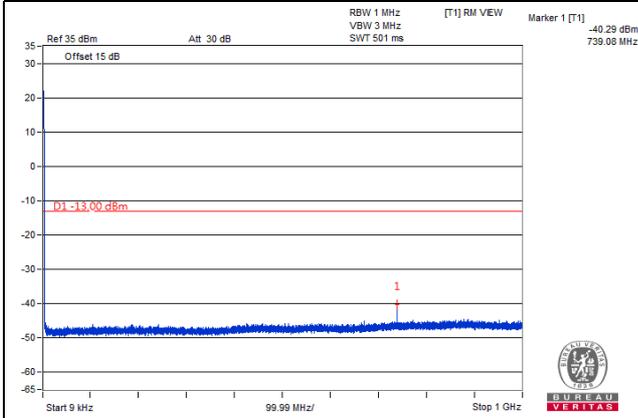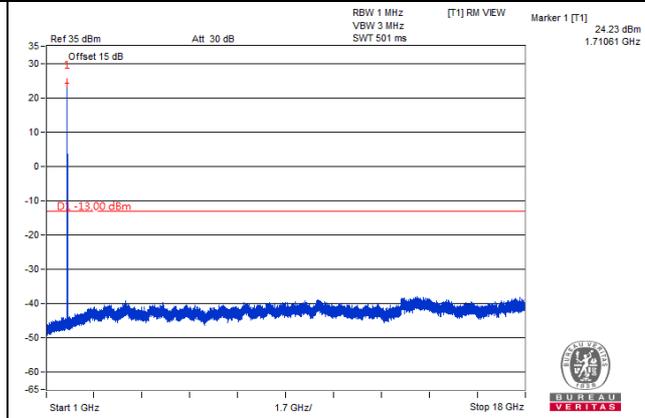
Channel 132322 (1745.0MHz)
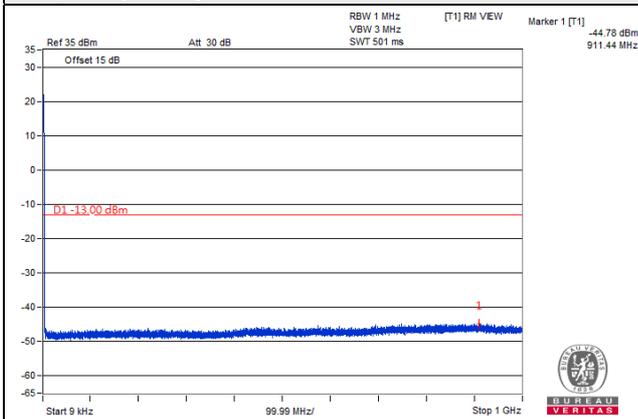
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
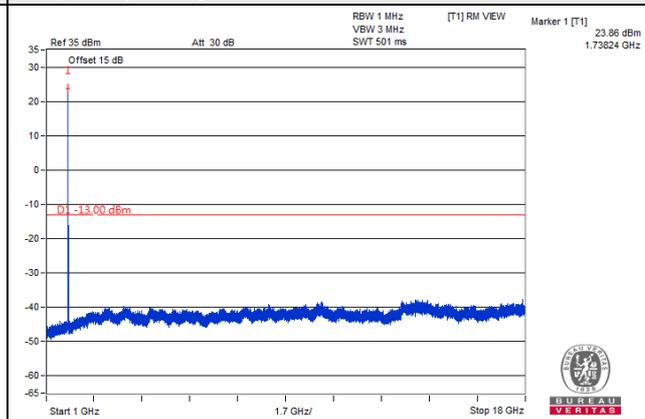
Channel 132597 (1772.5MHz)

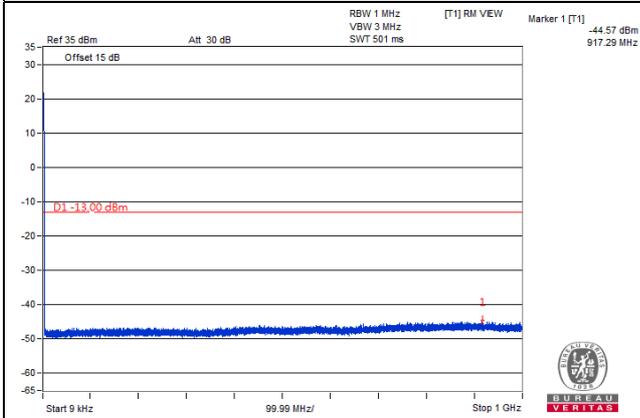| Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
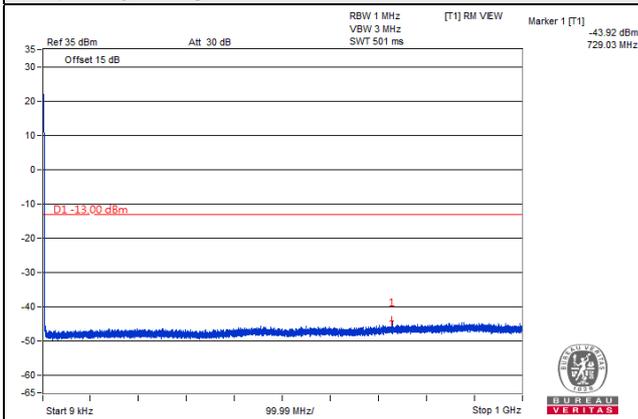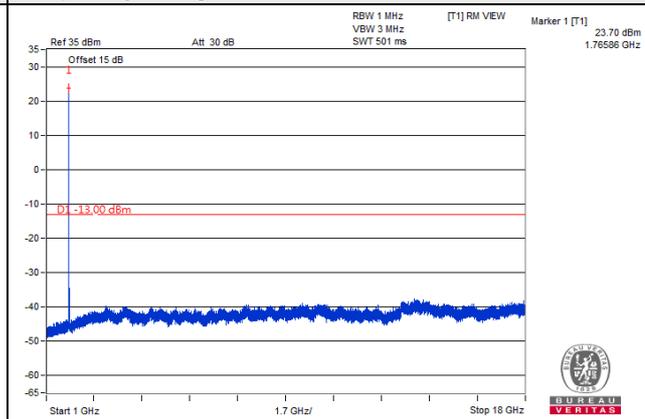
*The 9kHz signal over the limit is from Spectrum.

LTE Band 66, Channel Bandwidth 20MHz

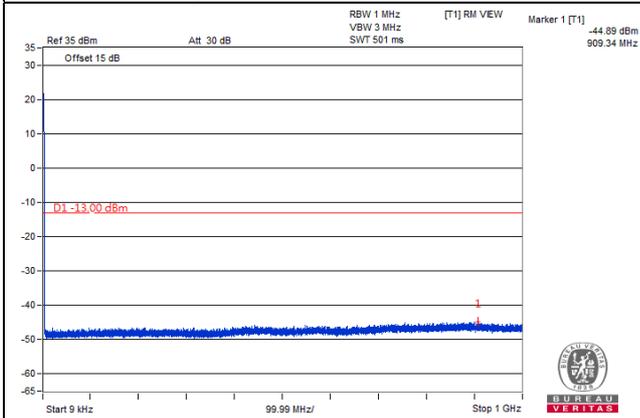### Channel 132072 (1720.0MHz)
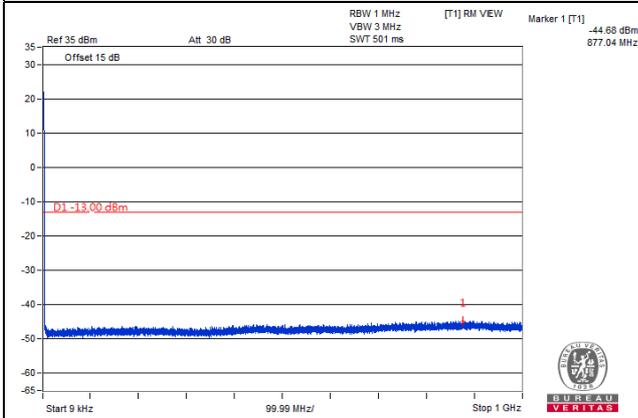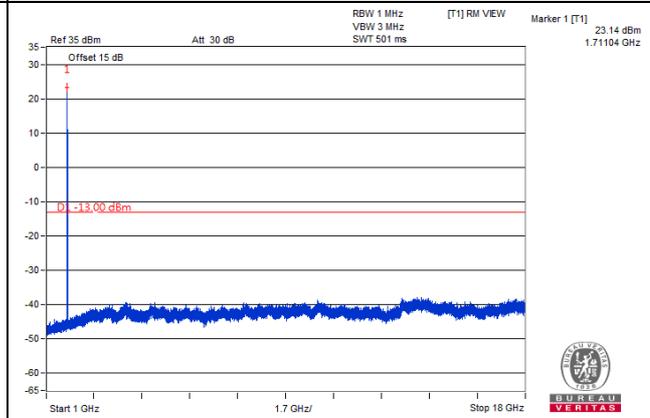
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz

Channel 132322 (1745.0MHz)
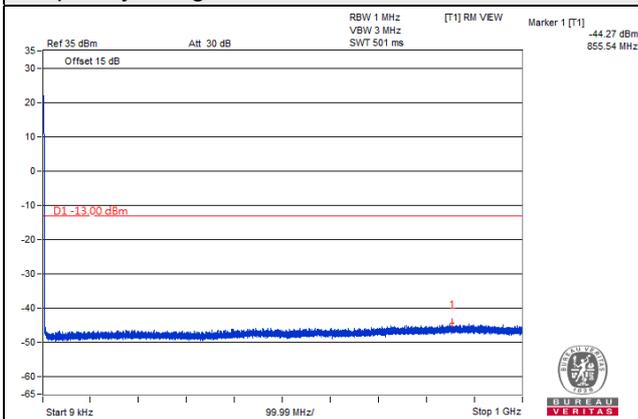
Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
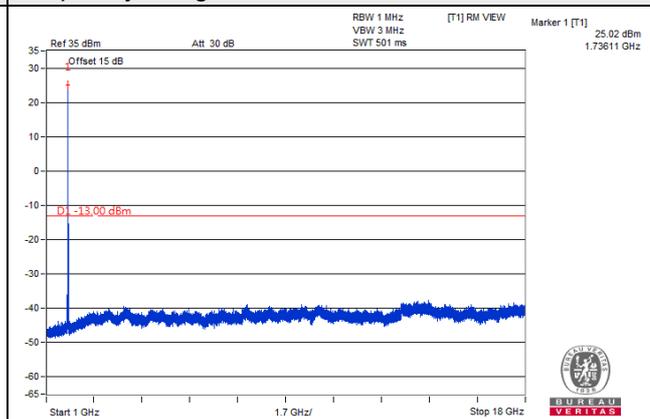
Channel 132572 (1770.0MHz)

Frequency Range : 9kHz ~ 1GHz	Frequency Range : 1GHz ~ 18GHz
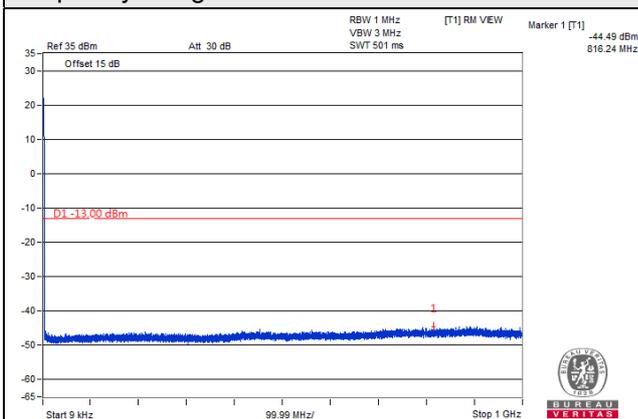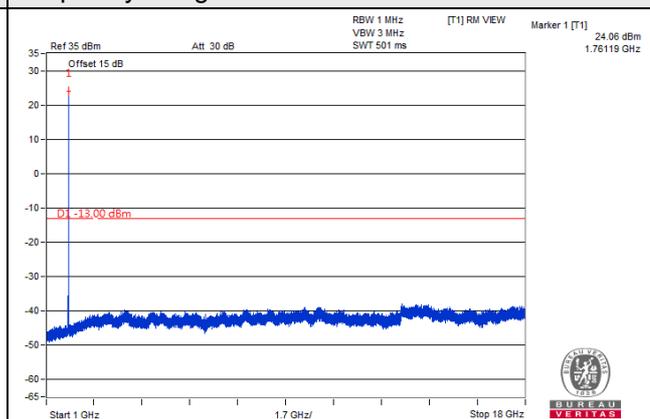
*The 9kHz signal over the limit is from Spectrum.

4.8 Radiated Emission Measurement

4.8.1 Limits of Radiated Emission Measurement

For n5, LTE Band 2:
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

For LTE Band 66:
According to FCC 27.53(h) 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 (P) dB.

4.8.2 Test Procedure

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.

d. Following C63.26 section 5.5 and 5.2.7
   - EIRP (dBm) = E (dBμV/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.
   - ERP (dBm) = E (dBμV/m) + 20log(D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
   The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

4.8.3 Deviation from Test Standard

No deviation.

4.8.4 Test Setup

For radiated emission 30MHz to 1GHz
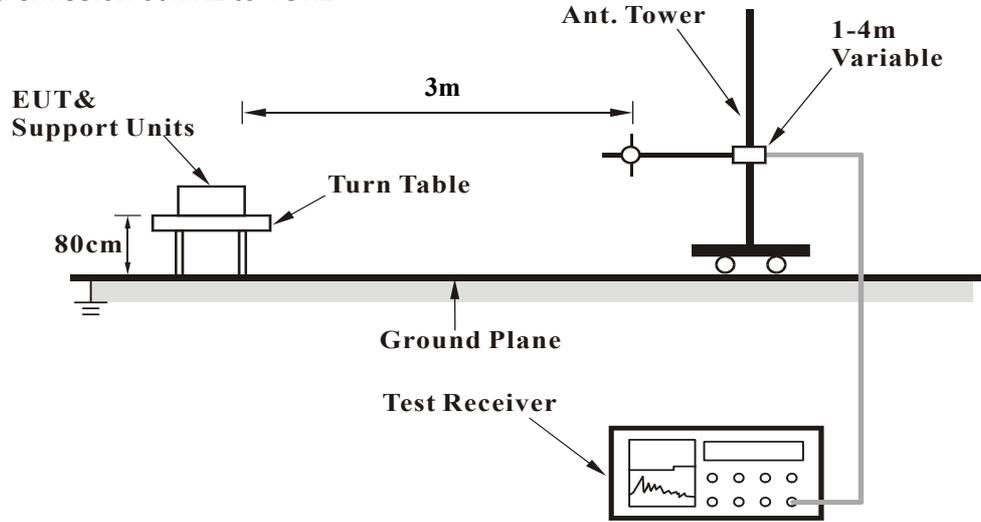
For radiated emission above 1GHz
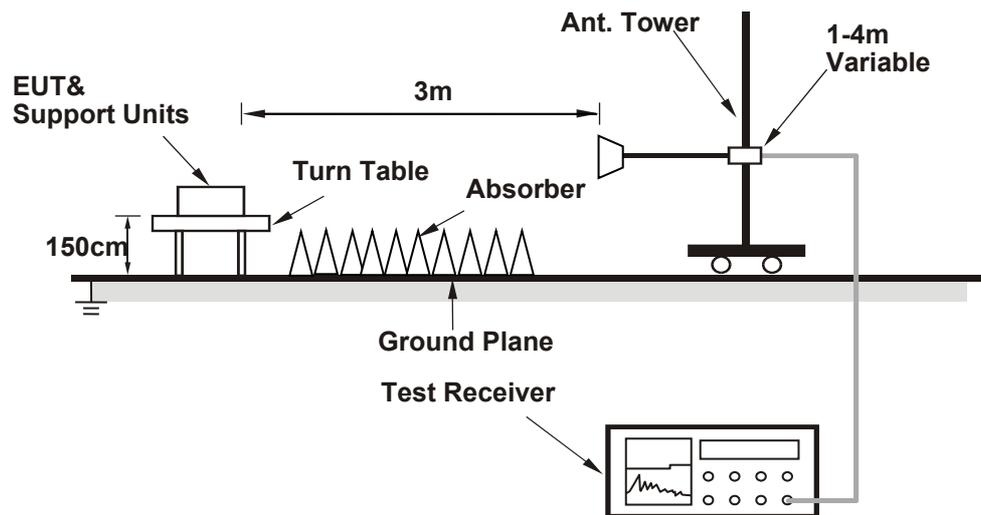
For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.8.5 Test Results

Internal Antenna

Below 1GHz

n5, Channel Bandwidth 20MHz

Mode	TX channel 167800 (839.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

				Antenna Polarity & Test Distance : Horizontal at 3 m			
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	**86.23**	**-42.58**	**-13.00**	**-29.58**	**2.00 H**	**164**	**79.37**	**-121.95**
2	174.80	-52.26	-13.00	-39.26	1.51 H	83	64.15	-116.41
3	236.65	-56.72	-13.00	-43.72	1.01 H	246	60.68	-117.40
4	277.42	-57.88	-13.00	-44.88	1.51 H	71	57.77	-115.65
5	479.86	-56.75	-13.00	-43.75	2.00 H	56	53.81	-110.56
6	658.39	-59.34	-13.00	-46.34	1.51 H	77	47.85	-107.19

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 167800 (839.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
				Antenna Polarity & Test Distance : Vertical at 3m				
1	62.33	-39.82	-13.00	-26.82	1.00 V	96	77.22	-117.04
2	84.83	-41.70	-13.00	-28.70	1.49 V	330	80.07	-121.77
3	167.77	-58.14	-13.00	-45.14	1.99 V	360	57.71	-115.85
4	273.20	-63.28	-13.00	-50.28	1.49 V	223	52.62	-115.90
5	472.83	-58.40	-13.00	-45.40	1.00 V	322	52.21	-110.61
6	576.86	-60.06	-13.00	-47.06	1.00 V	16	48.53	-108.59

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 1.4MHz

Mode	TX channel 19193 (1909.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

			Antenna Polarity & Test Distance : Horizontal at 3 m				
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	62.33	-51.05	-13.00	-38.05	1.50 H	287	63.84	-114.89
2	86.23	-45.82	-13.00	-32.82	1.00 H	186	73.98	-119.80
3	174.80	-51.67	-13.00	-38.67	1.00 H	248	62.59	-114.26
4	235.25	-54.54	-13.00	-41.54	2.00 H	222	60.79	-115.33
5	276.01	-54.09	-13.00	-41.09	1.50 H	90	59.48	-113.57
6	474.23	-54.47	-13.00	-41.47	1.00 H	61	53.97	-108.44

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

Mode	TX channel 19193 (1909.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	35.62	-43.18	-13.00	-30.18	1.00 V	167	71.56	-114.74
2	**62.33**	**-37.22**	**-13.00**	**-24.22**	**1.00 V**	**18**	**77.67**	**-114.89**
3	84.83	-39.03	-13.00	-26.03	1.50 V	294	80.59	-119.62
4	173.39	-57.86	-13.00	-44.86	1.00 V	6	56.26	-114.12
5	434.87	-57.66	-13.00	-44.66	1.50 V	156	51.66	-109.32
6	479.86	-55.66	-13.00	-42.66	1.00 V	317	52.75	-108.41

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	62.33	-51.21	-13.00	-38.21	1.50 H	302	63.68	-114.89
2	84.83	-45.51	-13.00	-32.51	1.00 H	177	74.11	-119.62
3	174.80	-51.23	-13.00	-38.23	1.50 H	98	63.03	-114.26
4	202.91	-54.13	-13.00	-41.13	1.50 H	239	62.95	-117.08
5	277.42	-55.94	-13.00	-42.94	1.00 H	83	57.56	-113.50
6	479.86	-55.06	-13.00	-42.06	1.00 H	63	53.35	-108.41

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	35.62	-42.53	-13.00	-29.53	1.00 V	152	72.21	-114.74
2	**62.33**	**-37.40**	**-13.00**	**-24.40**	**1.00 V**	**35**	**77.49**	**-114.89**
3	84.83	-39.06	-13.00	-26.06	1.50 V	275	80.56	-119.62
4	173.39	-57.76	-13.00	-44.76	1.50 V	9	56.36	-114.12
5	430.65	-58.08	-13.00	-45.08	1.00 V	160	51.46	-109.54
6	477.04	-55.58	-13.00	-42.58	1.00 V	324	52.85	-108.43

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Above 1GHz

n5, Channel Bandwidth 5MHz

Mode	TX channel 165300 (826.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1653.00	-56.22	-13.00	-43.22	1.66 H	325	47.85	-104.07
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1653.00	-55.52	-13.00	-42.52	1.52 V	29	48.55	-104.07

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 167300 (836.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-55.84	-13.00	-42.84	1.65 H	320	48.15	-103.99
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-55.34	-13.00	-42.34	1.49 V	28	48.65	-103.99

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 169300 (846.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

			Antenna Polarity & Test Distance : Horizontal at 3 m				
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.00	-56.07	-13.00	-43.07	1.64 H	326	47.85	-103.92
			Antenna Polarity & Test Distance : Vertical at 3m				
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.00	-55.17	-13.00	-42.17	1.52 V	31	48.75	-103.92

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

n5, Channel Bandwidth 20MHz

Mode	TX channel 166800 (834.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1668.00	-55.86	-13.00	-42.86	1.63 H	327	48.15	-104.01
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1668.00	-55.56	-13.00	-42.56	1.52 V	27	48.45	-104.01

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 167300 (836.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-55.64	-13.00	-42.64	1.66 H	323	48.35	-103.99
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-55.04	-13.00	-42.04	1.46 V	26	48.95	-103.99

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 167800 (839.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

			Antenna Polarity & Test Distance : Horizontal at 3 m					
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1678.00	-55.63	-13.00	-42.63	1.64 H	322	48.35	-103.98
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1678.00	-54.93	-13.00	-41.93	1.53 V	30	49.05	-103.98

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 1.4MHz

Mode	TX channel 18607 (1850.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3701.40	-54.10	-13.00	-41.10	1.37 H	220	42.60	-96.70

No	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3701.40	-56.30	-13.00	-43.30	3.10 V	177	40.40	-96.70

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

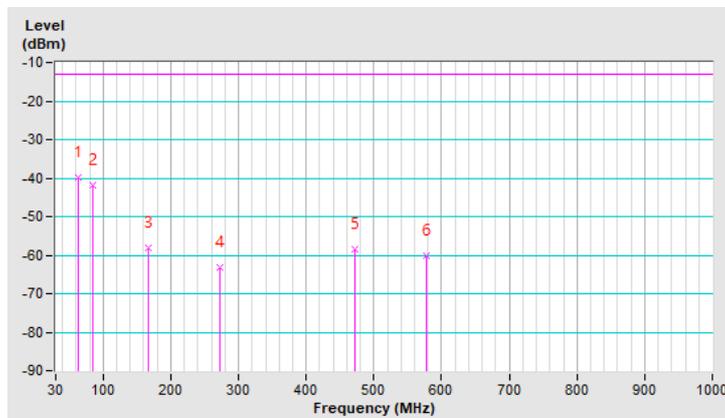| Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-53.89	-13.00	-40.89	1.42 H	219	42.80	-96.69

No	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-56.29	-13.00	-43.29	3.19 V	183	40.40	-96.69

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

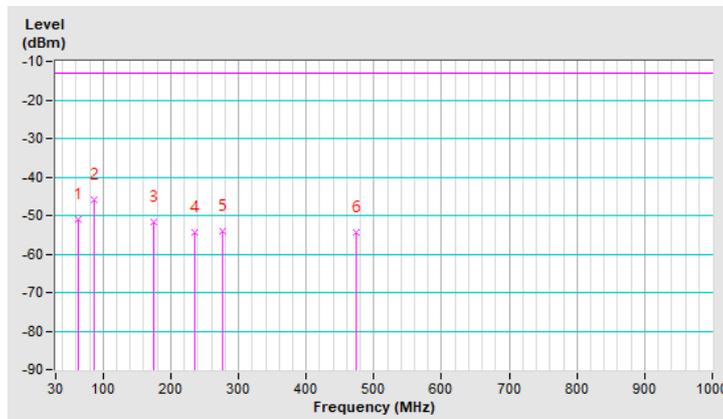| Mode	TX channel 19193 (1909.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3818.60	-53.70	-13.00	-40.70	1.35 H	221	42.80	-96.50
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3818.60	-55.80	-13.00	-42.80	3.11 V	180	40.70	-96.50

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

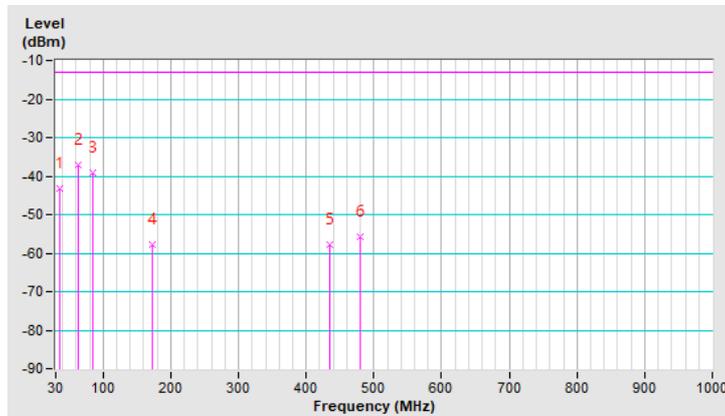LTE Band 2, Channel Bandwidth 5MHz

Mode	TX channel 18625 (1852.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
				Antenna Polarity & Test Distance : Horizontal at 3 m				
1	3705.00	-53.81	-13.00	-40.81	1.43 H	223	42.90	-96.71
				Antenna Polarity & Test Distance : Vertical at 3m				
1	3705.00	-55.81	-13.00	-42.81	3.16 V	180	40.90	-96.71

Remarks:
1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
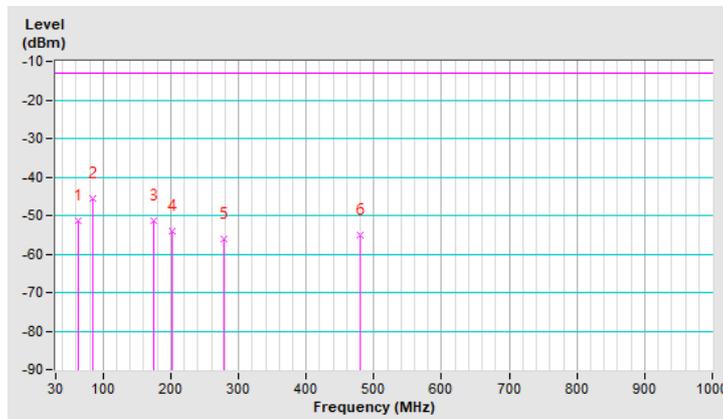4. The other EIRP levels were very low against the limit.

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
				Antenna Polarity & Test Distance : Horizontal at 3 m				
1	3760.00	-54.09	-13.00	-41.09	1.35 H	223	42.60	-96.69
				Antenna Polarity & Test Distance : Vertical at 3m				
1	3760.00	-56.29	-13.00	-43.29	3.16 V	180	40.40	-96.69

Remarks:
1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

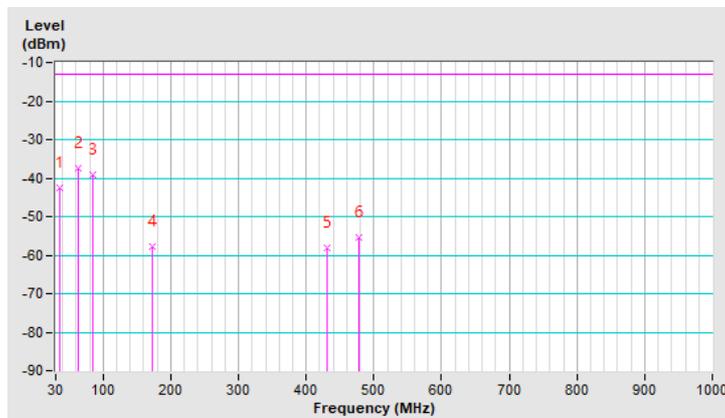| Mode	TX channel 19175 (1907.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3815.00	-53.91	-13.00	-40.91	1.36 H	223	42.60	-96.51
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3815.00	-56.11	-13.00	-43.11	3.19 V	178	40.40	-96.51

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 20MHz

Mode	TX channel 18700 (1860.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3720.00	-53.91	-13.00	-40.91	1.41 H	224	42.80	-96.71

No	Antenna Polarity & Test Distance : Vertical at 3m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3720.00	-56.21	-13.00	-43.21	3.11 V	182	40.50	-96.71

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-54.09	-13.00	-41.09	1.39 H	218	42.60	-96.69

No	Antenna Polarity & Test Distance : Vertical at 3m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-55.79	-13.00	-42.79	3.18 V	178	40.90	-96.69

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 19100 (1900.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
Antenna Polarity & Test Distance : Horizontal at 3 m								
1	3800.00	-53.89	-13.00	-40.89	1.36 H	223	42.65	-96.54
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3800.00	-55.69	-13.00	-42.69	3.20 V	180	40.85	-96.54

Remarks:
1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 131979 (1710.7MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
			Antenna Polarity & Test Distance : Horizontal at 3 m					
1	3421.40	-55.38	-13.00	-42.38	1.64 H	98	41.90	-97.28
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-55.78	-13.00	-42.78	1.51 V	68	41.50	-97.28

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
			Antenna Polarity & Test Distance : Horizontal at 3 m					
1	3490.00	-54.99	-13.00	-41.99	1.65 H	100	42.00	-96.99
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.29	-13.00	-42.29	1.49 V	68	41.70	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-55.18	-13.00	-42.18	1.57 H	103	41.60	-96.78
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-54.88	-13.00	-41.88	1.50 V	66	41.90	-96.78

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 5MHz

Mode	TX channel 131997 (1712.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

				Antenna Polarity & Test Distance : Horizontal at 3 m			
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-55.47	-13.00	-42.47	1.63 H	103	41.80	-97.27
				Antenna Polarity & Test Distance : Vertical at 3m			
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-55.67	-13.00	-42.67	1.52 V	74	41.60	-97.27

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

				Antenna Polarity & Test Distance : Horizontal at 3 m			
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-54.99	-13.00	-41.99	1.59 H	104	42.00	-96.99
				Antenna Polarity & Test Distance : Vertical at 3m			
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.39	-13.00	-42.39	1.48 V	68	41.60	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132647 (1777.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
			Antenna Polarity & Test Distance : Horizontal at 3 m					
1	3555.00	-55.09	-13.00	-42.09	1.61 H	103	41.70	-96.79
			Antenna Polarity & Test Distance : Vertical at 3m					
1	3555.00	-54.99	-13.00	-41.99	1.54 V	70	41.80	-96.79

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 20MHz

Mode	TX channel 132072 (1720.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-55.50	-13.00	-42.50	1.60 H	100	41.70	-97.20

Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-55.70	-13.00	-42.70	1.48 V	74	41.50	-97.20

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.29	-13.00	-42.29	1.57 H	109	41.70	-96.99

Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.59	-13.00	-42.59	1.54 V	69	41.40	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132572 (1770.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-55.12	-13.00	-42.12	1.64 H	102	41.70	-96.82
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-55.32	-13.00	-42.32	1.52 V	69	41.50	-96.82

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

External Antenna

Below 1GHz

n5, Channel Bandwidth 20MHz

Mode	TX channel 167800 (839.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	55.30	-52.28	-13.00	-39.28	1.00 H	160	63.91	-116.19
2	89.04	-50.03	-13.00	-37.03	1.00 H	238	71.89	-121.92
3	170.58	-50.40	-13.00	-37.40	2.00 H	254	65.58	-115.98
4	274.61	-57.89	-13.00	-44.89	1.50 H	199	57.90	-115.79
5	395.51	-57.77	-13.00	-44.77	1.00 H	102	54.91	-112.68
6	479.86	-56.37	-13.00	-43.37	1.00 H	56	54.19	-110.56

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode	TX channel 167800 (839.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	70.77	-47.22	-13.00	-34.22	1.00 V	184	71.35	-118.57
2	86.23	-45.73	-13.00	-32.73	1.00 V	316	76.22	-121.95
3	170.58	-52.64	-13.00	-39.64	1.00 V	14	63.34	-115.98
4	233.84	-60.51	-13.00	-47.51	1.00 V	357	57.13	-117.64
5	426.43	-60.91	-13.00	-47.91	1.00 V	313	50.94	-111.85
6	482.67	-59.38	-13.00	-46.38	1.00 V	304	51.15	-110.53

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 1.4MHz

Mode	TX channel 19193 (1909.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m							
	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	55.30	-49.55	-13.00	-36.55	1.00 H	157	64.49	-114.04
2	89.04	-47.69	-13.00	-34.69	1.00 H	260	72.08	-119.77
3	171.99	-49.62	-13.00	-36.62	2.00 H	254	64.35	-113.97
4	273.20	-56.32	-13.00	-43.32	1.00 H	226	57.43	-113.75
5	401.13	-54.70	-13.00	-41.70	1.50 H	264	55.72	-110.42
6	481.26	-53.87	-13.00	-40.87	1.00 H	59	54.54	-108.41

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 19193 (1909.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	72.17	-44.84	-13.00	-31.84	1.50 V	35	72.03	-116.87
2	86.23	-44.18	-13.00	-31.18	1.00 V	306	75.62	-119.80
3	169.17	-51.24	-13.00	-38.24	1.50 V	6	62.51	-113.75
4	232.43	-59.36	-13.00	-46.36	1.50 V	3	56.31	-115.67
5	425.03	-59.47	-13.00	-46.47	1.00 V	295	50.28	-109.75
6	482.67	-56.90	-13.00	-43.90	1.00 V	306	51.48	-108.38

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.90	-50.83	-13.00	-37.83	1.50 H	133	63.29	-114.12
2	91.86	-47.21	-13.00	-34.21	1.50 H	256	72.38	-119.59
3	174.80	-49.86	-13.00	-36.86	1.00 H	262	64.40	-114.26
4	273.20	-56.21	-13.00	-43.21	1.00 H	201	57.54	-113.75
5	394.10	-54.64	-13.00	-41.64	2.00 H	104	55.91	-110.55
6	484.07	-53.99	-13.00	-40.99	1.00 H	59	54.39	-108.38

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	72.17	-43.86	-13.00	-30.86	1.50 V	231	73.01	-116.87
2	90.45	-44.44	-13.00	-31.44	2.00 V	310	75.35	-119.79
3	169.17	-51.28	-13.00	-38.28	1.00 V	18	62.47	-113.75
4	236.65	-58.76	-13.00	-45.76	1.00 V	358	56.49	-115.25
5	395.51	-60.01	-13.00	-47.01	1.50 V	159	50.52	-110.53
6	481.26	-58.03	-13.00	-45.03	1.00 V	311	50.38	-108.41

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Above 1GHz

n5, Channel Bandwidth 5MHz
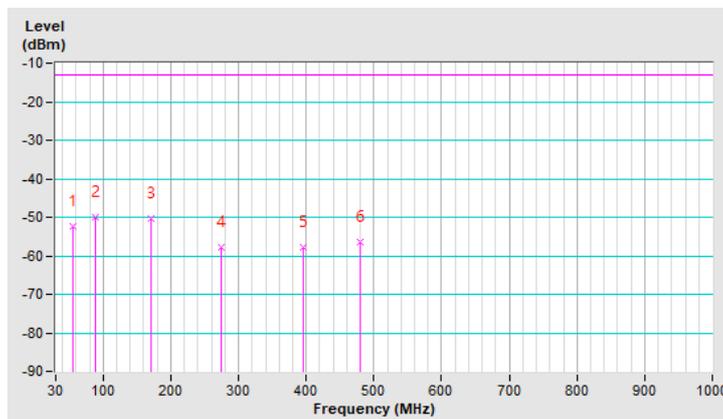
Mode	TX channel 165300 (826.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
			Antenna Polarity & Test Distance : Horizontal at 3 m					
1	1653.00	-56.17	-13.00	-43.17	2.18 H	178	47.90	-104.07
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1653.00	-57.57	-13.00	-44.57	1.74 V	309	46.50	-104.07

Remarks:
1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
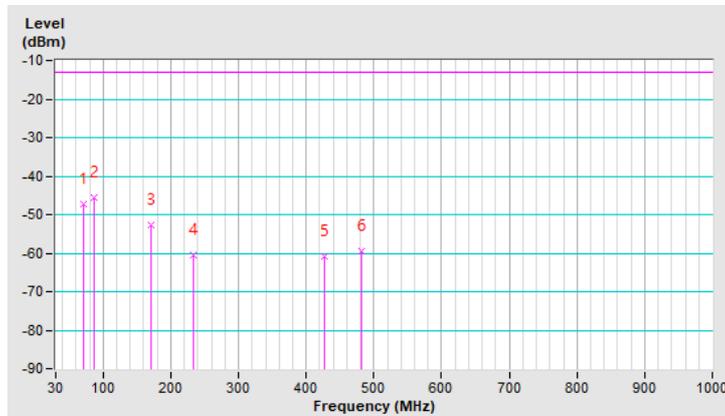4. The other ERP levels were very low against the limit.

Mode	TX channel 167300 (836.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
			Antenna Polarity & Test Distance : Horizontal at 3 m					
1	1673.00	-56.59	-13.00	-43.59	2.15 H	178	47.40	-103.99
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-57.59	-13.00	-44.59	1.78 V	310	46.40	-103.99

Remarks:
1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
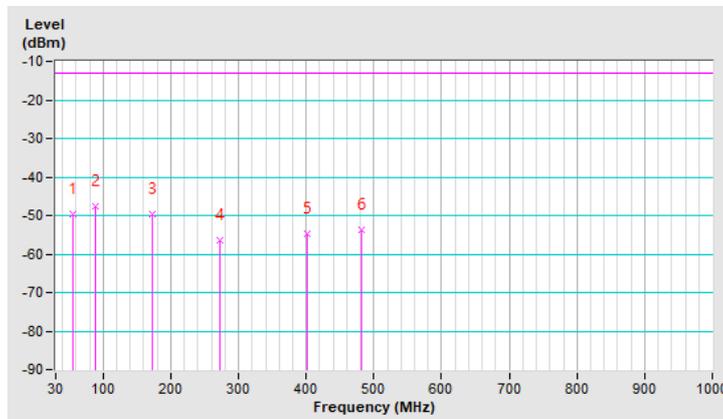4. The other ERP levels were very low against the limit.

Mode	TX channel 169300 (846.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.00	-55.19	-13.00	-42.19	2.25 H	175	48.73	-103.92
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1693.00	-56.49	-13.00	-43.49	1.74 V	311	47.43	-103.92

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15

3. Margin value = ERP – Limit value
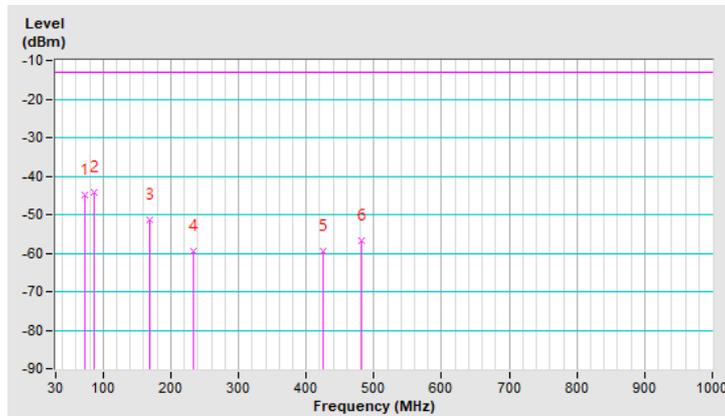
4. The other ERP levels were very low against the limit.

n5, Channel Bandwidth 20MHz

Mode	TX channel 166800 (834.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1668.00	-56.81	-13.00	-43.81	2.15 H	181	47.20	-104.01

	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1668.00	-57.91	-13.00	-44.91	1.78 V	305	46.10	-104.01

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
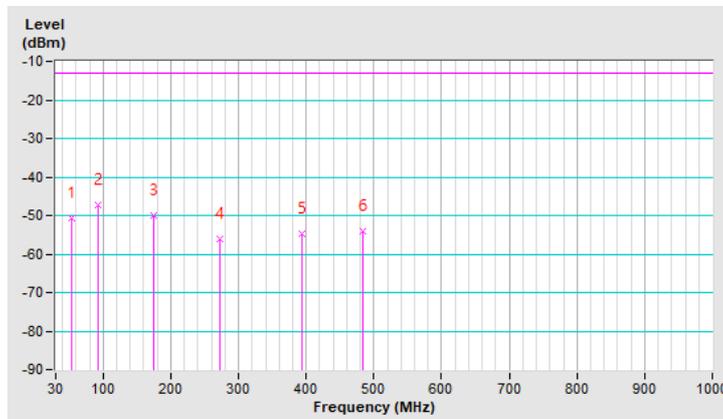4. The other ERP levels were very low against the limit.

Mode	TX channel 167300 (836.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-56.79	-13.00	-43.79	2.23 H	181	47.20	-103.99

	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1673.00	-57.99	-13.00	-44.99	1.79 V	307	46.00	-103.99

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
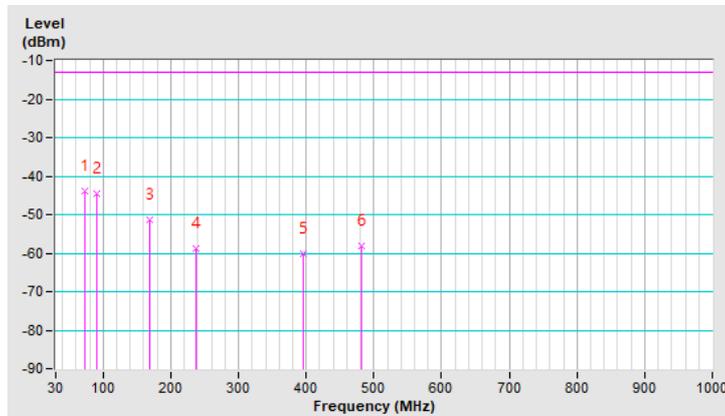4. The other ERP levels were very low against the limit.

Mode	TX channel 167800 (839.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1678.00	-56.34	-13.00	-43.34	2.23 H	178	47.64	-103.98
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1678.00	-57.14	-13.00	-44.14	1.77 V	306	46.84	-103.98

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15

3. Margin value = ERP – Limit value

4. The other ERP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 1.4MHz

Mode	TX channel 18607 (1850.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
Antenna Polarity & Test Distance : Horizontal at 3 m								
1	3701.40	-51.40	-13.00	-38.40	1.21 H	62	45.30	-96.70
Antenna Polarity & Test Distance : Vertical at 3m								
1	3701.40	-52.10	-13.00	-39.10	1.65 V	100	44.60	-96.70

Remarks:

    1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

    2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

    3. Margin value = EIRP – Limit value

    4. The other EIRP levels were very low against the limit.

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
Antenna Polarity & Test Distance : Horizontal at 3 m								
1	3760.00	-51.49	-13.00	-38.49	1.15 H	60	45.20	-96.69
Antenna Polarity & Test Distance : Vertical at 3m								
1	3760.00	-51.19	-13.00	-38.19	1.69 V	102	45.50	-96.69

Remarks:

    1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

    2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

    3. Margin value = EIRP – Limit value

    4. The other EIRP levels were very low against the limit.

Mode	TX channel 19193 (1909.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3818.60	-51.10	-13.00	-38.10	1.18 H	57	45.40	-96.50
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3818.60	-52.30	-13.00	-39.30	1.71 V	104	44.20	-96.50

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 5MHz

Mode	TX channel 18625 (1852.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3705.00	-51.41	-13.00	-38.41	1.17 H	57	45.30	-96.71

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3705.00	-52.11	-13.00	-39.11	1.71 V	97	44.60	-96.71

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-50.99	-13.00	-37.99	1.25 H	60	45.70	-96.69

	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-51.99	-13.00	-38.99	1.68 V	66	44.70	-96.69

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 19175 (1907.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
Antenna Polarity & Test Distance : Horizontal at 3 m							
1	3815.00	-51.11	-13.00	-38.11	1.18 H	59	45.40	-96.51
Antenna Polarity & Test Distance : Vertical at 3m							
1	3815.00	-52.01	-13.00	-39.01	1.72 V	98	44.50	-96.51

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

LTE Band 2, Channel Bandwidth 20MHz

Mode	TX channel 18700 (1860.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3720.00	-51.41	-13.00	-38.41	1.25 H	58	45.30	-96.71

	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3720.00	-52.01	-13.00	-39.01	1.65 V	98	44.70	-96.71

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-51.39	-13.00	-38.39	1.22 H	62	45.30	-96.69

	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-51.99	-13.00	-38.99	1.73 V	102	44.70	-96.69

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 19100 (1900.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

			Antenna Polarity & Test Distance : Horizontal at 3 m					
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3800.00	-51.14	-13.00	-38.14	1.21 H	59	45.40	-96.54
			Antenna Polarity & Test Distance : Vertical at 3m					
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3800.00	-51.84	-13.00	-38.84	1.73 V	100	44.70	-96.54

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 131979 (1710.7MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-55.78	-13.00	-42.78	1.56 H	238	41.50	-97.28

Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-53.08	-13.00	-40.08	1.79 V	222	44.20	-97.28

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.89	-13.00	-42.89	1.62 H	243	41.10	-96.99

Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-52.89	-13.00	-39.89	1.76 V	217	44.10	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-55.18	-13.00	-42.18	1.56 H	238	41.60	-96.78
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3558.60	-53.18	-13.00	-40.18	1.76 V	224	43.60	-96.78

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 5MHz

Mode	TX channel 131997 (1712.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-56.27	-13.00	-43.27	1.61 H	240	41.00	-97.27
	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-52.87	-13.00	-39.87	1.75 V	218	44.40	-97.27

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-55.89	-13.00	-42.89	1.63 H	237	41.10	-96.99
	Antenna Polarity & Test Distance : Vertical at 3m						
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-52.89	-13.00	-39.89	1.81 V	219	44.10	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132647 (1777.5MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

	Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	-55.69	-13.00	-42.69	1.57 H	244	41.10	-96.79
	Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3555.00	-52.99	-13.00	-39.99	1.77 V	223	43.80	-96.79

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)

2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8

3. Margin value = EIRP – Limit value

4. The other EIRP levels were very low against the limit.

LTE Band 66, Channel Bandwidth 20MHz

Mode	TX channel 132072 (1720.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
				Antenna Polarity & Test Distance : Horizontal at 3 m				
1	3440.00	-56.10	-13.00	-43.10	1.61 H	244	41.10	-97.20
				Antenna Polarity & Test Distance : Vertical at 3m				
1	3440.00	-53.50	-13.00	-40.50	1.77 V	223	43.70	-97.20

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
				Antenna Polarity & Test Distance : Horizontal at 3 m				
1	3490.00	-55.39	-13.00	-42.39	1.59 H	244	41.60	-96.99
				Antenna Polarity & Test Distance : Vertical at 3m				
1	3490.00	-53.49	-13.00	-40.49	1.76 V	220	43.50	-96.99

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

Mode	TX channel 132572 (1770.0MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	23deg. C, 67%RH	Input Power	120Vac, 60Hz
Tested By	Adair Peng		

Antenna Polarity & Test Distance : Horizontal at 3 m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-55.42	-13.00	-42.42	1.65 H	242	41.40	-96.82
Antenna Polarity & Test Distance : Vertical at 3m							
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-52.62	-13.00	-39.62	1.76 V	218	44.20	-96.82

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

5   Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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