

### LTE Band 25 (Channel Bandwidth 15MHz)



### CH 26115 (1857.5MHz)



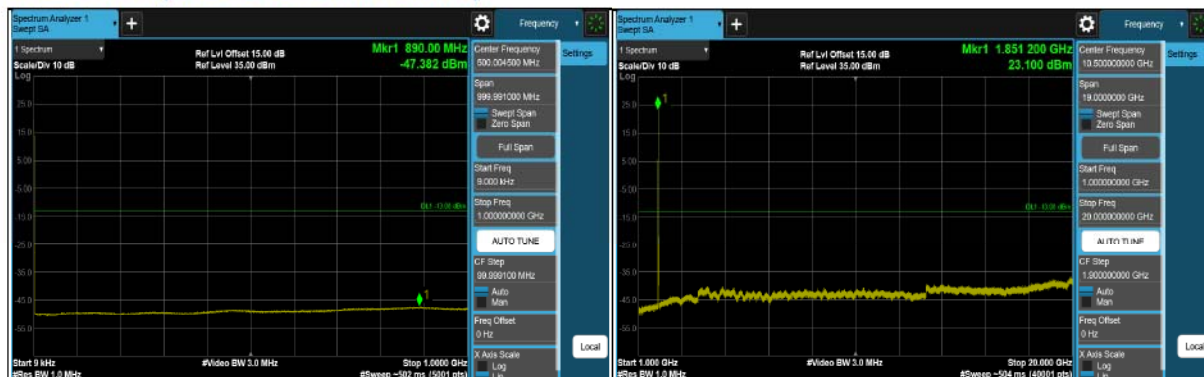
### CH 26365 (1882.5MHz)



### CH 26615 (1907.5MHz)

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

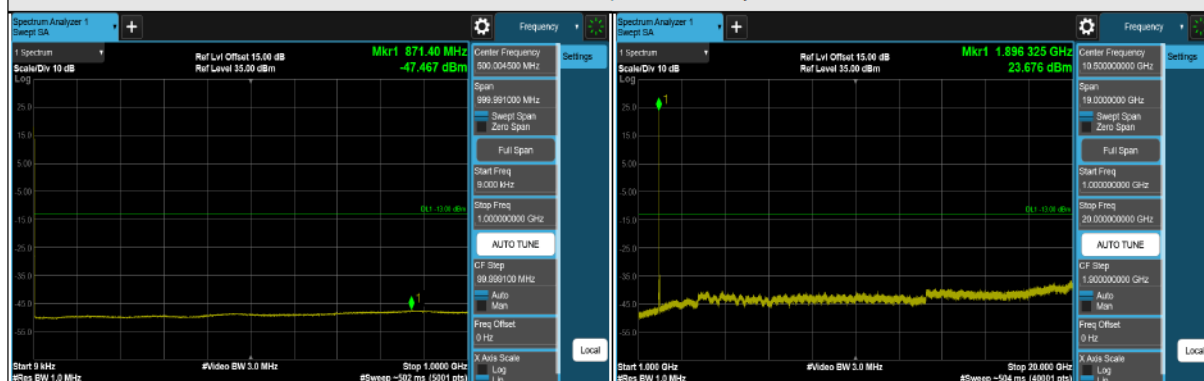
### LTE Band 25 (Channel Bandwidth 20MHz)



### CH 26140 (1860MHz)



### CH 26365 (1882.5MHz)



### CH 26590 (1905MHz)

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

## 4.8 Radiated Emission Measurement

### 4.8.1 Limits of Radiated Emission Measurement

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  $-13$ dBm.

### 4.8.2 Test Procedure

- a. 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
  - $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.
  - $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$ ; where D is the measurement distance (in the far field region) in m.

Note:

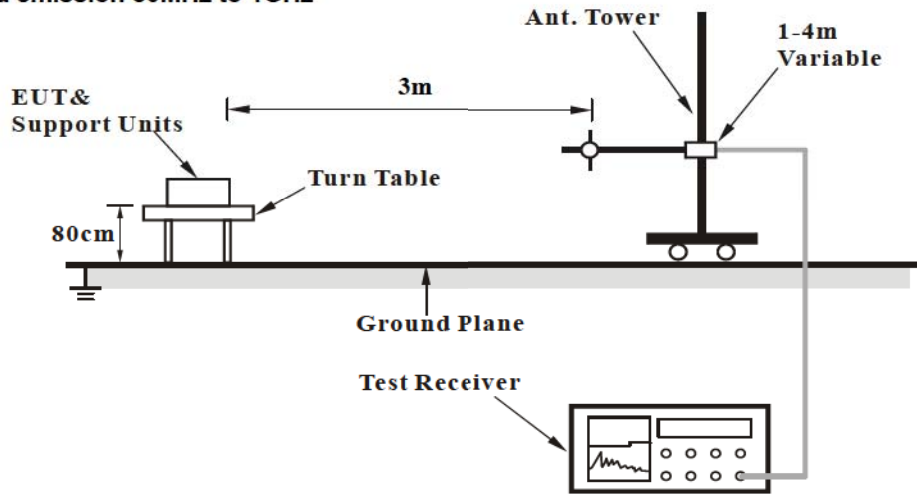
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:  
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

### 4.8.3 Deviation from Test Standard

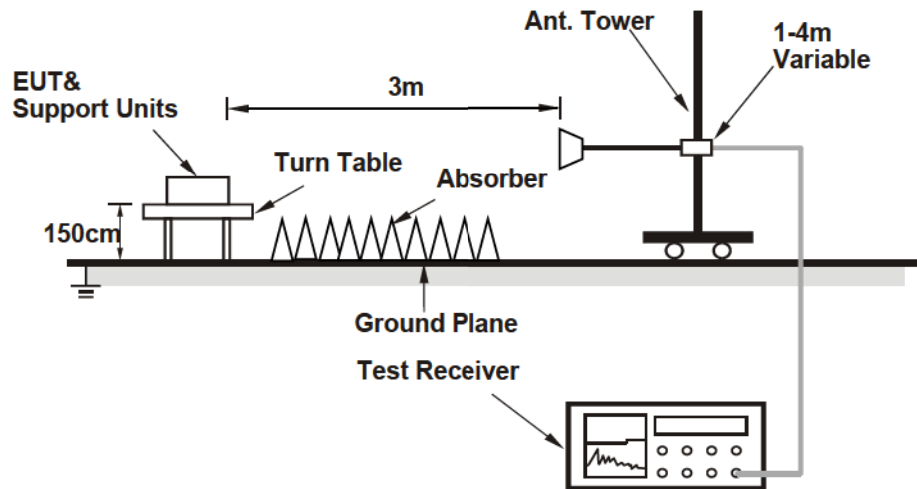
No deviation.

#### 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

Below 1GHz

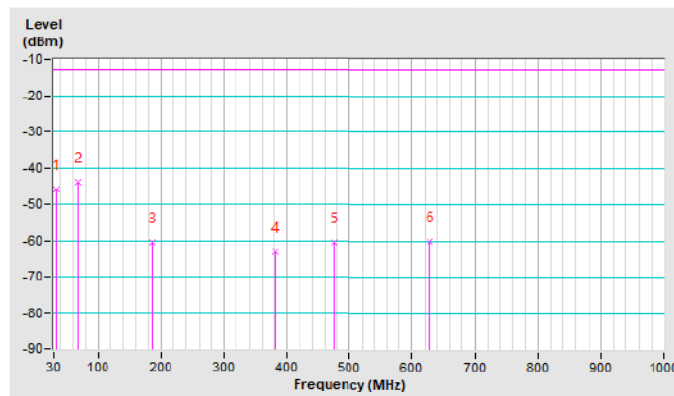
GPRS

Mode	TX channel 810 (1909.8MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	33.88	-45.88	-13.00	-32.88	1.01 H	276	63.78	-109.66
2	69.77	-43.93	-13.00	-30.93	1.01 H	149	66.86	-110.79
3	187.14	-60.61	-13.00	-47.61	1.49 H	274	50.22	-110.83
4	382.11	-63.23	-13.00	-50.23	1.01 H	251	42.88	-106.11
5	476.20	-60.52	-13.00	-47.52	1.49 H	288	43.38	-103.90
6	628.49	-60.27	-13.00	-47.27	1.01 H	196	40.39	-100.66

Remarks:

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

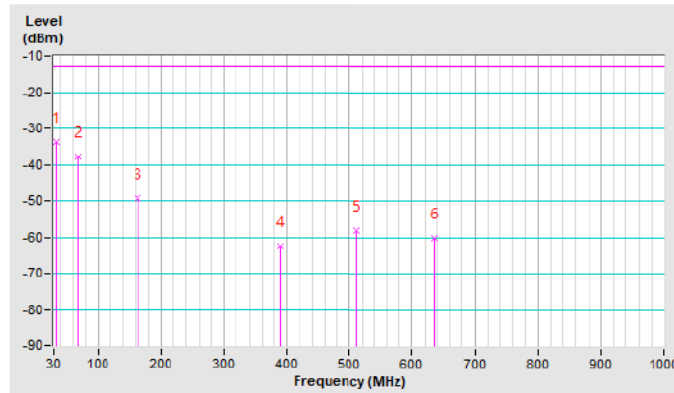


Mode	TX channel 810 (1909.8MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	33.88	-33.89	-13.00	-20.89	2.00 V	2	75.77	-109.66
2	68.80	-37.85	-13.00	-24.85	1.01 V	150	72.90	-110.75
3	162.89	-49.42	-13.00	-36.42	1.01 V	82	59.12	-108.54
4	388.90	-62.51	-13.00	-49.51	1.49 V	43	43.39	-105.90
5	511.12	-58.18	-13.00	-45.18	1.49 V	18	44.98	-103.16
6	635.28	-60.17	-13.00	-47.17	1.01 V	219	40.44	-100.61

Remarks:

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



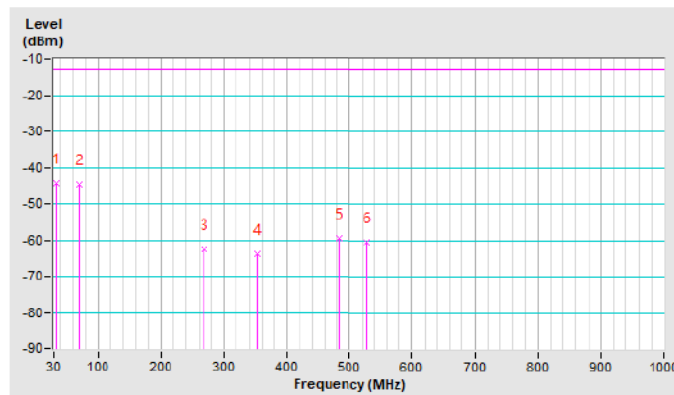
EDGE

Mode	TX channel 810 (1909.8MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	34.85	-44.23	-13.00	-31.23	2.00 H	18	65.24	-109.47
2	70.74	-44.69	-13.00	-31.69	1.49 H	95	66.27	-110.96
3	267.65	-62.45	-13.00	-49.45	1.01 H	253	46.82	-109.27
4	353.01	-63.97	-13.00	-50.97	1.49 H	18	43.02	-106.99
5	482.99	-59.42	-13.00	-46.42	1.49 H	288	44.42	-103.84
6	528.58	-60.65	-13.00	-47.65	1.49 H	22	42.19	-102.84

Remarks:

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

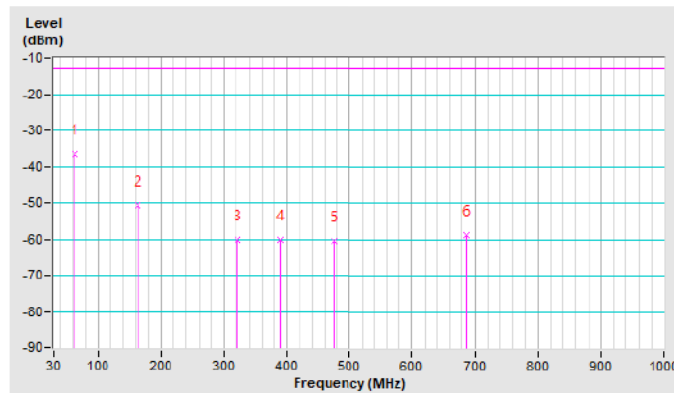


Mode	TX channel 810 (1909.8MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	63.95	-36.42	-13.00	-23.42	1.49 V	268	73.22	-109.64
2	162.89	-50.82	-13.00	-37.82	1.49 V	300	57.72	-108.54
3	321.00	-60.27	-13.00	-47.27	1.01 V	231	47.33	-107.60
4	389.87	-60.30	-13.00	-47.30	1.01 V	249	45.58	-105.88
5	476.20	-60.42	-13.00	-47.42	1.49 V	276	43.48	-103.90
6	687.66	-58.80	-13.00	-45.80	1.01 V	28	41.03	-99.83

Remarks:

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





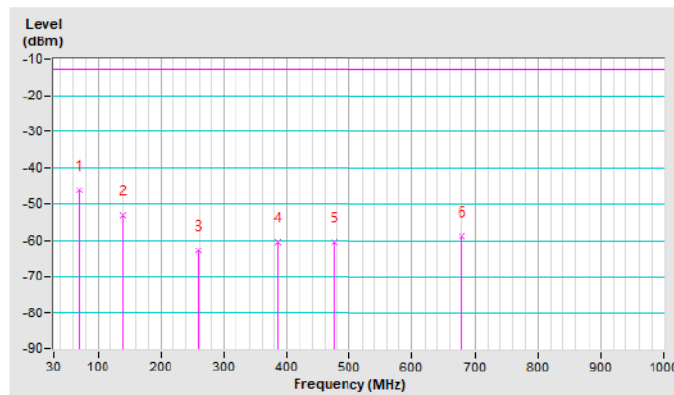
LTE Band 2 (Channel Bandwidth 1.4MHz)

Mode	TX channel 18900 (1880.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	71.71	-46.27	-13.00	-33.27	2.00 H	146	65.01	-111.28
2	138.64	-52.99	-13.00	-39.99	1.49 H	259	55.94	-108.93
3	258.92	-62.79	-13.00	-49.79	1.01 H	199	46.95	-109.74
4	385.02	-60.61	-13.00	-47.61	1.01 H	262	45.38	-105.99
5	476.20	-60.56	-13.00	-47.56	1.49 H	292	43.34	-103.90
6	679.90	-58.86	-13.00	-45.86	1.01 H	121	41.10	-99.96

Remarks:

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

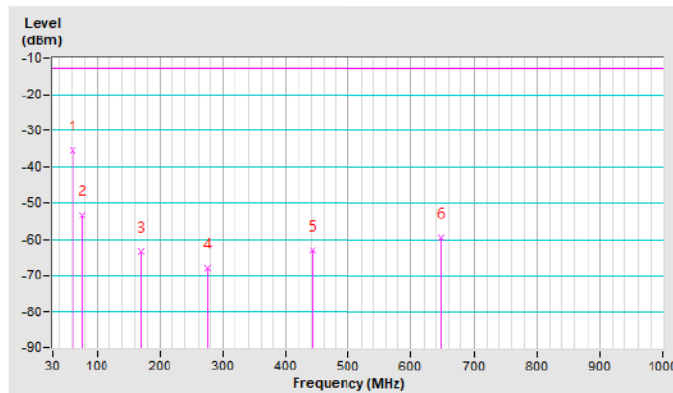


Mode	TX channel 18900 (1880.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	62.01	-35.58	-13.00	-22.58	2.00 V	164	73.94	-109.52
2	77.53	-53.26	-13.00	-40.26	1.01 V	207	59.65	-112.91
3	170.65	-63.39	-13.00	-50.39	1.01 V	130	45.61	-109.00
4	276.38	-68.04	-13.00	-55.04	1.01 V	21	40.79	-108.83
5	442.25	-63.22	-13.00	-50.22	1.49 V	216	41.17	-104.39
6	647.89	-59.49	-13.00	-46.49	1.49 V	2	40.92	-100.41

Remarks:

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



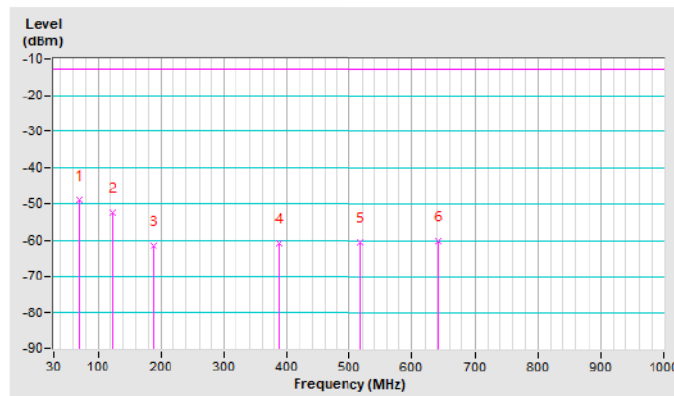
LTE Band 25 (Channel Bandwidth 20MHz)

Mode	TX channel 26365 (1882.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	71.71	-49.03	-13.00	-36.03	1.49 H	309	62.25	-111.28
2	124.09	-52.44	-13.00	-39.44	1.49 H	244	57.96	-110.40
3	189.08	-61.61	-13.00	-48.61	2.00 H	266	49.42	-111.03
4	386.96	-60.72	-13.00	-47.72	1.01 H	236	45.23	-105.95
5	516.94	-60.57	-13.00	-47.57	1.49 H	182	42.49	-103.06
6	643.04	-60.12	-13.00	-47.12	1.01 H	68	40.30	-100.42

Remarks:

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

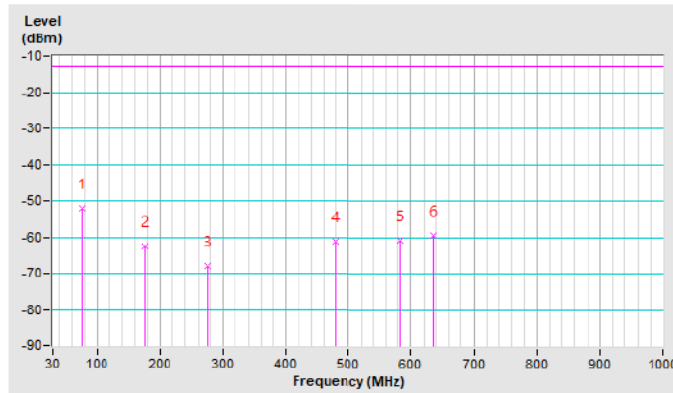


Mode	TX channel 26365 (1882.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	76.56	-51.90	-13.00	-38.90	1.49 V	64	60.81	-112.71
2	177.44	-62.70	-13.00	-49.70	1.01 V	207	47.06	-109.76
3	277.35	-67.88	-13.00	-54.88	1.49 V	111	40.92	-108.80
4	480.08	-61.30	-13.00	-48.30	1.01 V	300	42.59	-103.89
5	582.90	-60.89	-13.00	-47.89	2.00 V	289	40.73	-101.62
6	637.22	-59.35	-13.00	-46.35	1.01 V	138	41.22	-100.57

Remarks:

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



Above 1GHz  
GPRS

Mode	TX channel 512 (1850.2MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3700.40	-51.34	-13.00	-38.34	3.45 H	342	45.82	-97.16
Antenna Polarity & Test Distance : Vertical 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	3700.40	-49.58	-13.00	-36.58	2.13 V	235	47.58	-97.16

Remarks:

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

Mode	TX channel 661 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-50.68	-13.00	-37.68	3.42 H	349	46.10	-96.78
Antenna Polarity & Test Distance : Vertical 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	-48.98	-13.00	-35.98	2.02 V	224	47.80	-96.78

Remarks:

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

Mode	TX channel 810 (1909.8MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3819.60	-50.51	-13.00	-37.51	3.35 H	329	45.92	-96.43
Antenna Polarity & Test Distance : Vertical 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	3819.60	-48.81	-13.00	-35.81	2.11 V	230	47.62	-96.43

Remarks:

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

EDGE

Mode	TX channel 512 (1850.2MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3700.40	-52.02	-13.00	-39.02	3.47 H	332	45.14	-97.16
Antenna Polarity & Test Distance : Vertical 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	3700.40	-50.05	-13.00	-37.05	2.09 V	229	47.11	-97.16

Remarks:

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

Mode	TX channel 661 (1880.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-51.05	-13.00	-38.05	3.50 H	350	45.73	-96.78
Antenna Polarity & Test Distance : Vertical 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	-49.53	-13.00	-36.53	2.08 V	219	47.25	-96.78

Remarks:

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

Mode	TX channel 810 (1909.8MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3819.60	-50.99	-13.00	-37.99	3.44 H	318	45.44	-96.43
Antenna Polarity & Test Distance : Vertical 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	3819.60	-49.04	-13.00	-36.04	2.10 V	228	47.39	-96.43

Remarks:

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



LTE Band 2 (Channel Bandwidth 1.4MHz)

Mode	TX channel 18607 (1850.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-52.14	-13.00	-39.14	1.34 H	308	45.01	-97.15
Antenna Polarity & Test Distance : Vertical 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	-50.91	-13.00	-37.91	1.73 V	260	46.24	-97.15

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-51.46	-13.00	-38.46	2.00 H	313	45.32	-96.78
Antenna Polarity & Test Distance : Vertical 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	-49.84	-13.00	-36.84	1.77 V	210	46.94	-96.78

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-51.06	-13.00	-38.06	1.03 H	335	45.37	-96.43
Antenna Polarity & Test Distance : Vertical 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	-49.91	-13.00	-36.91	1.25 V	253	46.52	-96.43

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-51.47	-13.00	-38.47	1.23 H	305	45.65	-97.12
Antenna Polarity & Test Distance : Vertical 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	-50.11	-13.00	-37.11	1.50 V	259	47.01	-97.12

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-50.76	-13.00	-37.76	1.05 H	309	46.02	-96.78
Antenna Polarity & Test Distance : Vertical 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	-50.74	-13.00	-37.74	1.55 V	231	46.04	-96.78

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-49.88	-13.00	-36.88	1.31 H	305	46.57	-96.45
Antenna Polarity & Test Distance : Vertical 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	-50.91	-13.00	-37.91	2.01 V	113	45.54	-96.45

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-51.46	-13.00	-38.46	2.00 H	209	45.58	-97.04
Antenna Polarity & Test Distance : Vertical 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	-50.91	-13.00	-37.91	1.34 V	200	46.13	-97.04

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-50.65	-13.00	-37.65	2.13 H	100	46.13	-96.78
Antenna Polarity & Test Distance : Vertical 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	-51.14	-13.00	-38.14	1.50 V	199	45.64	-96.78

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-50.71	-13.00	-37.71	1.31 H	134	45.77	-96.48
Antenna Polarity & Test Distance : Vertical 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	-50.07	-13.00	-37.07	2.00 V	209	46.41	-96.48

Remarks:

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

LTE Band 25 (Channel Bandwidth 1.4MHz)

Mode	TX channel 26047 (1850.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-53.98	-13.00	-40.98	1.57 H	151	43.17	-97.15
Antenna Polarity & Test Distance : Vertical 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	-53.09	-13.00	-40.09	1.58 V	108	44.06	-97.15

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 26365 (1882.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3765.00	-53.38	-13.00	-40.38	1.53 H	151	43.37	-96.75
Antenna Polarity & Test Distance : Vertical 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	3765.00	-52.78	-13.00	-39.78	1.53 V	110	43.97	-96.75

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 26683 (1914.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3828.60	-53.17	-13.00	-40.17	1.52 H	151	43.24	-96.41
Antenna Polarity & Test Distance : Vertical 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	3828.60	-52.53	-13.00	-39.53	1.56 V	107	43.88	-96.41

Remarks:

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



LTE Band 25 (Channel Bandwidth 5MHz)

Mode	TX channel 26065 (1852.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	-53.90	-13.00	-40.90	1.54 H	153	43.22	-97.12
Antenna Polarity & Test Distance : Vertical 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	-53.17	-13.00	-40.17	1.58 V	104	43.95	-97.12

Remarks:

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

Mode	TX channel 26365 (1882.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3765.00	-53.45	-13.00	-40.45	1.51 H	156	43.30	-96.75
Antenna Polarity & Test Distance : Vertical 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	3765.00	-52.88	-13.00	-39.88	1.57 V	107	43.87	-96.75

Remarks:

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

Mode	TX channel 26665 (1912.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	23deg. C, 72%RH	Input Power	4.0Vdc
Tested By	Edison Lee		

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	3825.00	-53.03	-13.00	-40.03	1.54 H	154	43.39	-96.42
Antenna Polarity & Test Distance : Vertical 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	3825.00	-52.58	-13.00	-39.58	1.59 V	100	43.84	-96.42

Remarks:

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

LTE Band 25 (Channel Bandwidth 20MHz)

Mode	TX channel 26140 (1860.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	21deg. C, 71%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee		

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	-53.72	-13.00	-40.72	1.53 H	155	43.32	-97.04
Antenna Polarity & Test Distance : Vertical 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	-52.96	-13.00	-39.96	1.57 V	107	44.08	-97.04

Remarks:

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

Mode	TX channel 26365 (1882.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	21deg. C, 71%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee		

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	3765.00	-53.15	-13.00	-40.15	1.60 H	154	43.60	-96.75
Antenna Polarity & Test Distance : Vertical 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	3765.00	-52.35	-13.00	-39.35	1.60 V	107	44.40	-96.75

Remarks:

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

Mode	TX channel 26590 (1905.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	21deg. C, 71%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee		

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	3810.00	-53.12	-13.00	-40.12	1.54 H	159	43.34	-96.46
Antenna Polarity & Test Distance : Vertical 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	3810.00	-52.57	-13.00	-39.57	1.58 V	111	43.89	-96.46

Remarks:

1.  $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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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