

FULL CH 132072 (1720.0MHz) + 132270 (1739.8MHz)

FULL CH 132374 (1750.2MHz) + 132572 (1770.0MHz)



1RB CH 132072 (1720.0MHz) + 132270 (1739.8MHz)

1RB CH 132374 (1750.2MHz) + 132572 (1770.0MHz)

## 7.5 Radiated Spurious Emissions below 1GHz

### 7.5.1 LTE Band 2 (CA 2C)

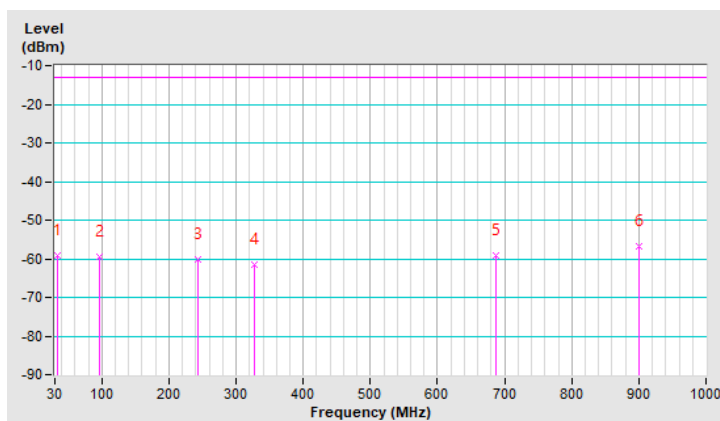
<b>RF Mode</b>	LTE Band 2 (CA 2C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 18801 (1870.1MHz) + 18999 (1889.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

#### 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	-59.31	-13.00	-46.31	1.25 H	161	50.20	-109.51
2	95.96	-59.50	-13.00	-46.50	1.00 H	158	54.08	-113.58
3	242.43	-60.29	-13.00	-47.29	1.50 H	189	49.71	-110.00
4	327.79	-61.37	-13.00	-48.37	1.00 H	264	45.69	-107.06
5	687.66	-59.11	-13.00	-46.11	1.50 H	88	40.51	-99.62
6	901.06	-56.66	-13.00	-43.66	1.00 H	245	39.96	-96.62

#### 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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



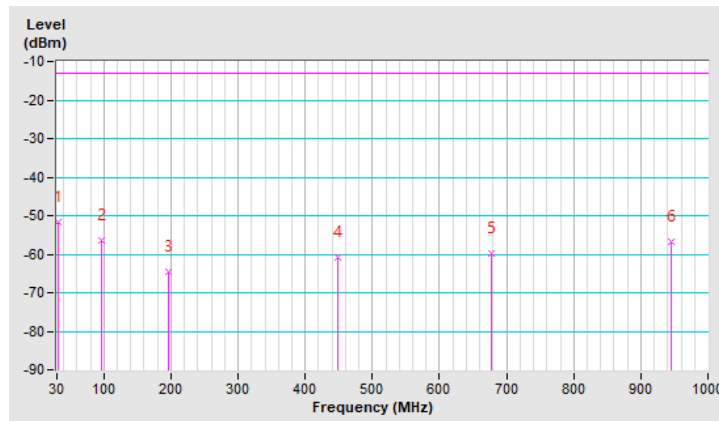


<b>RF Mode</b>	LTE Band 2 (CA 2C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 18801 (1870.1MHz) + 18999 (1889.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	31.94	-51.64	-13.00	-38.64	1.25 V	54	58.01	-109.65
2	95.96	-56.59	-13.00	-43.59	1.00 V	174	56.99	-113.58
3	195.87	-64.58	-13.00	-51.58	1.50 V	116	47.29	-111.87
4	448.07	-60.79	-13.00	-47.79	1.50 V	138	43.21	-104.00
5	677.96	-59.71	-13.00	-46.71	1.00 V	185	40.06	-99.77
6	945.68	-56.88	-13.00	-43.88	1.25 V	164	39.09	-95.97

**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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



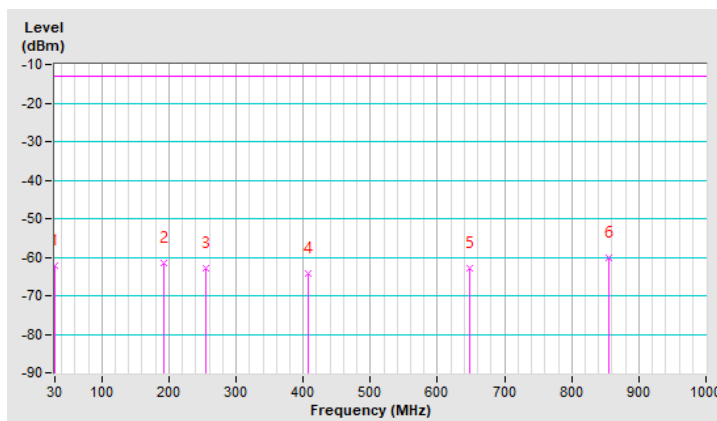
### 7.5.2 LTE Band 5 (CA 5B)

<b>RF Mode</b>	LTE Band 5 (CA 5B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 20476 (831.6MHz) + 20575 (841.5MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	30.97	-62.24	-13.00	-49.24	1.00 H	35	49.80	-112.04
2	191.99	-61.67	-13.00	-48.67	1.25 H	286	51.93	-113.60
3	254.07	-62.85	-13.00	-49.85	1.50 H	184	49.03	-111.88
4	408.30	-64.15	-13.00	-51.15	1.00 H	313	43.35	-107.50
5	648.86	-62.76	-13.00	-49.76	1.25 H	8	39.49	-102.25
6	855.47	-60.24	-13.00	-47.24	1.00 H	186	39.01	-99.25

#### Remarks:

- ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
- Margin value = ERP – Limit value
- The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



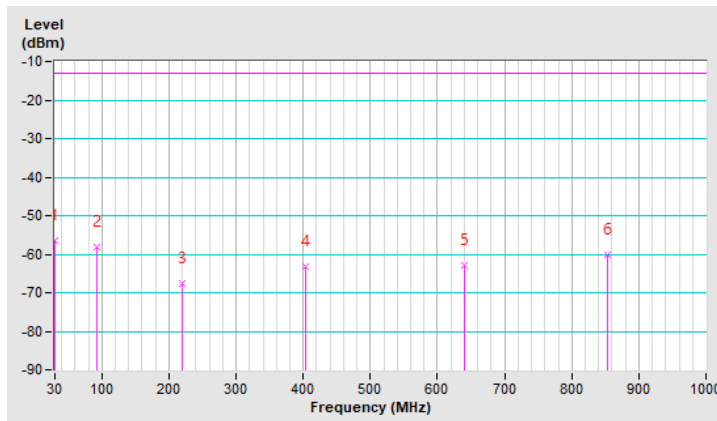


<b>RF Mode</b>	LTE Band 5 (CA 5B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 20476 (831.6MHz) + 20575 (841.5MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

Antenna Polarity & Test Distance : Vertical 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	30.97	-56.56	-13.00	-43.56	1.25 V	33	55.48	-112.04
2	93.05	-58.13	-13.00	-45.13	1.00 V	142	57.98	-116.11
3	220.12	-67.53	-13.00	-54.53	1.00 V	105	46.68	-114.21
4	403.45	-63.21	-13.00	-50.21	1.50 V	282	44.43	-107.64
5	640.13	-62.94	-13.00	-49.94	1.00 V	303	39.33	-102.27
6	852.56	-60.29	-13.00	-47.29	1.25 V	352	38.98	-99.27

**Remarks:**

- ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
- Margin value = ERP – Limit value
- The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- The ERP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



### 7.5.3 LTE Band 41 (CA 41C)

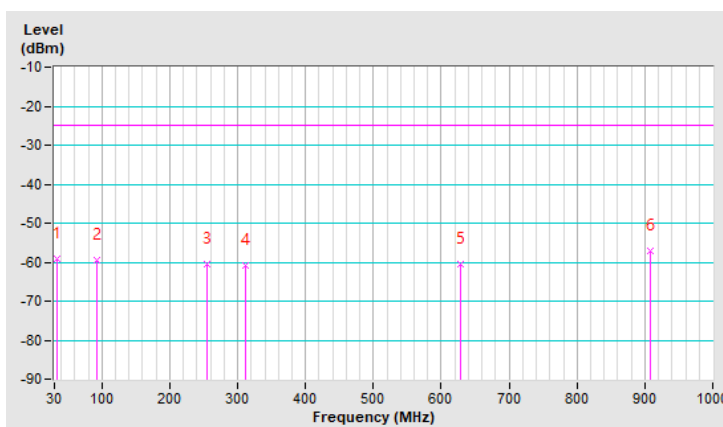
<b>RF Mode</b>	LTE Band 41 (CA 41CB) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 40521 (2583.1MHz) + 40719 (2602.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

#### 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	-59.31	-25.00	-34.31	1.25 H	161	50.20	-109.51
2	93.05	-59.48	-25.00	-34.48	1.00 H	148	54.48	-113.96
3	255.04	-60.39	-25.00	-35.39	1.50 H	201	49.32	-109.71
4	312.27	-60.86	-25.00	-35.86	1.00 H	243	46.70	-107.56
5	628.49	-60.59	-25.00	-35.59	1.00 H	112	39.87	-100.46
6	908.82	-56.99	-25.00	-31.99	1.00 H	343	39.50	-96.49

#### 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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

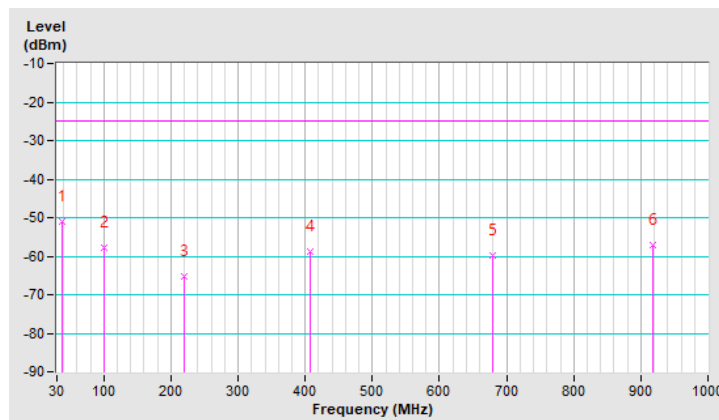


<b>RF Mode</b>	LTE Band 41 (CA 41CB) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 40521 (2583.1MHz) + 40719 (2602.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	37.76	-51.12	-25.00	-26.12	1.50 V	160	57.98	-109.10
2	99.84	-57.85	-25.00	-32.85	1.00 V	160	55.02	-112.87
3	220.12	-65.24	-25.00	-40.24	1.25 V	136	46.82	-112.06
4	407.33	-58.80	-25.00	-33.80	1.50 V	284	46.58	-105.38
5	679.90	-59.77	-25.00	-34.77	1.00 V	176	39.96	-99.73
6	918.52	-57.25	-25.00	-32.25	1.50 V	67	39.10	-96.35

**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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



#### 7.5.4 LTE Band 66 (CA 66B)

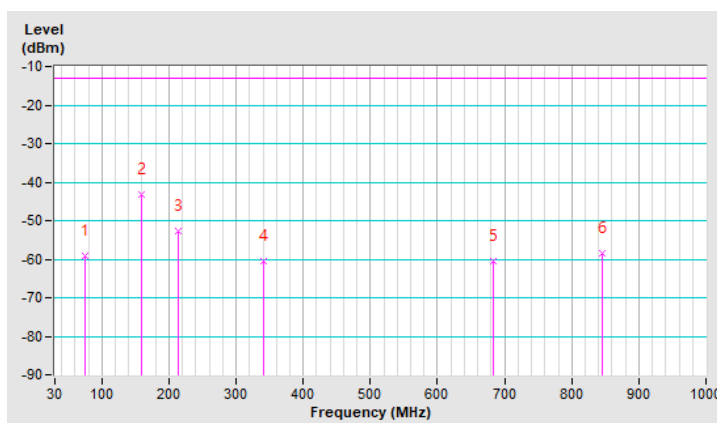
<b>RF Mode</b>	LTE Band 66 (CA 66B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 132373 (1750.1MHz) + 132472 (1760.0MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

#### 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	74.62	-59.06	-13.00	-46.06	1.00 H	74	52.99	-112.05
2	159.98	-43.12	-13.00	-30.12	1.50 H	251	65.25	-108.37
3	214.30	-52.82	-13.00	-39.82	1.25 H	56	59.28	-112.10
4	341.37	-60.39	-13.00	-47.39	1.00 H	2	46.62	-107.01
5	682.81	-60.67	-13.00	-47.67	1.50 H	8	39.02	-99.69
6	845.77	-58.49	-13.00	-45.49	1.00 H	240	38.68	-97.17

#### 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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.





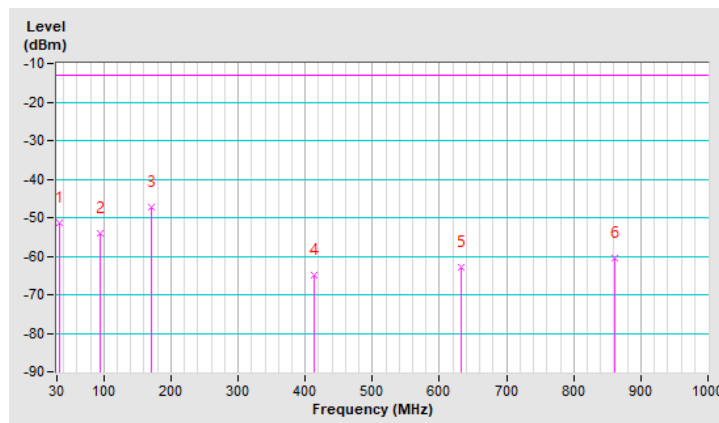


<b>RF Mode</b>	LTE Band 66 (CA 66B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 132373 (1750.1MHz) + 132472 (1760.0MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	22°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	34.85	-51.51	-13.00	-38.51	1.25 V	10	58.00	-109.51
2	94.02	-54.22	-13.00	-41.22	1.00 V	44	59.65	-113.87
3	170.65	-47.13	-13.00	-34.13	1.50 V	336	61.67	-108.80
4	413.15	-64.99	-13.00	-51.99	1.00 V	181	40.28	-105.27
5	632.37	-62.77	-13.00	-49.77	1.25 V	203	37.60	-100.37
6	860.32	-60.63	-13.00	-47.63	1.00 V	174	36.38	-97.01

**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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



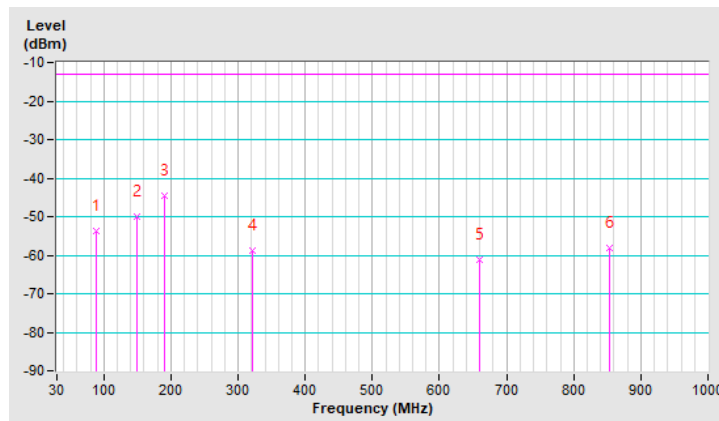
**7.5.5 LTE Band 66 (CA 66C)**

<b>RF Mode</b>	LTE Band 66 (CA 66C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 132323 (1745.1MHz) + 132521 (1764.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 67% RH
<b>Tested By</b>	Greg Lin		

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	89.17	-53.88	-13.00	-40.88	1.00 H	44	60.42	-114.30
2	148.34	-50.00	-13.00	-37.00	1.00 H	20	58.40	-108.40
3	190.05	-44.42	-13.00	-31.42	1.50 H	63	66.79	-111.21
4	321.97	-58.86	-13.00	-45.86	1.25 H	2	48.40	-107.26
5	660.50	-61.13	-13.00	-48.13	1.00 H	5	38.88	-100.01
6	852.56	-58.26	-13.00	-45.26	1.25 H	196	38.86	-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 of frequency range 30 MHz ~ 1 GHz.
5. The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



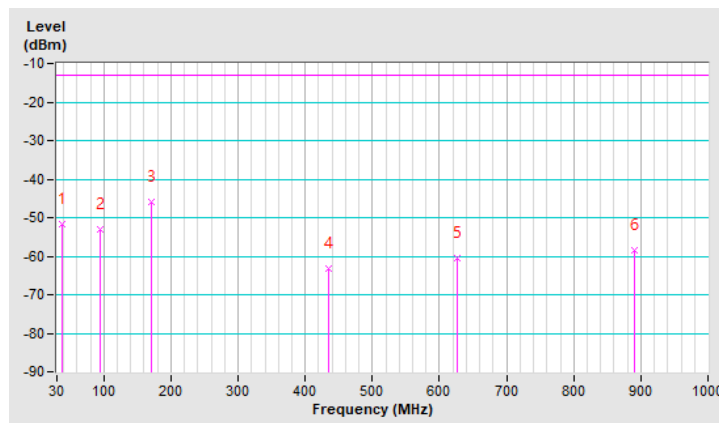


<b>RF Mode</b>	LTE Band 66 (CA 66C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 132323 (1745.1MHz) + 132521 (1764.9MHz)
<b>Frequency Range</b>	30 MHz ~ 1 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	23°C, 67% RH
<b>Tested By</b>	Greg Lin		

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	38.73	-51.60	-13.00	-38.60	1.25 V	123	57.35	-108.95
2	94.99	-53.00	-13.00	-40.00	1.00 V	63	60.72	-113.72
3	171.62	-45.83	-13.00	-32.83	1.50 V	336	63.06	-108.89
4	434.49	-63.29	-13.00	-50.29	1.25 V	181	41.13	-104.42
5	626.55	-60.61	-13.00	-47.61	1.00 V	273	39.89	-100.50
6	890.39	-58.52	-13.00	-45.52	1.00 V	319	38.04	-96.56

**Remarks:**

- EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
- Margin value = EIRP – Limit value
- The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
- The EIRP levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



## 7.6 Radiated Spurious Emissions above 1GHz

### 7.6.1 LTE Band 2 (CA 2C)

<b>RF Mode</b>	LTE Band 2 (CA 2C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 18700 (1860.0MHz) + 18898 (1879.8MHz)
<b>Frequency Range</b>	1 GHz ~ 20 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

#### 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	-49.58	-13.00	-36.58	1.42 H	358	45.42	-95.00
2	3759.60	-49.43	-13.00	-36.43	1.33 H	347	45.39	-94.82

#### 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	-48.44	-13.00	-35.44	1.58 V	317	46.56	-95.00
2	3759.60	-48.21	-13.00	-35.21	1.48 V	323	46.61	-94.82

#### Remarks:

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



<b>RF Mode</b>	LTE Band 2 (CA 2C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 18801 (1870.1MHz) + 18999 (1889.9MHz)
<b>Frequency Range</b>	1 GHz ~ 20 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3740.20	-49.49	-13.00	-36.49	1.45 H	346	45.42	-94.91
2	3779.80	-49.37	-13.00	-36.37	1.38 H	352	45.37	-94.74

**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	3740.20	-48.32	-13.00	-35.32	1.67 V	316	46.59	-94.91
2	3779.80	-48.02	-13.00	-35.02	1.55 V	309	46.72	-94.74

**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.



<b>RF Mode</b>	LTE Band 2 (CA 2C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 18902 (1880.2MHz) + 19100 (1900.0MHz)
<b>Frequency Range</b>	1 GHz ~ 20 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3760.40	-49.43	-13.00	-36.43	1.37 H	352	45.39	-94.82
2	3800.00	-49.31	-13.00	-36.31	1.41 H	357	45.33	-94.64

**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	3760.40	-48.20	-13.00	-35.20	1.58 V	326	46.62	-94.82
2	3800.00	-48.05	-13.00	-35.05	1.47 V	307	46.59	-94.64

**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.

**7.6.2 LTE Band 5 (CA 5B)**

<b>RF Mode</b>	LTE Band 5 (CA 5B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 20450 (829.0MHz) + 20549 (838.9MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	1658.00	-47.17	-13.00	-34.17	1.15 H	58	56.31	-103.48
2	1677.80	-48.27	-13.00	-35.27	2.83 H	225	55.16	-103.43

**Antenna Polarity & Test Distance : Vertical 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	1658.00	-46.78	-13.00	-33.78	1.52 V	159	56.70	-103.48
2	1677.80	-48.13	-13.00	-35.13	2.91 V	244	55.30	-103.43

**Remarks:**

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



<b>RF Mode</b>	LTE Band 5 (CA 5B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 20476 (831.6MHz) + 20575 (841.5MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	1663.20	-47.66	-13.00	-34.66	1.12 H	60	55.80	-103.46
2	1683.00	-48.42	-13.00	-35.42	2.88 H	226	55.00	-103.42

Antenna Polarity & Test Distance : Vertical 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	1663.20	-46.76	-13.00	-33.76	1.57 V	162	56.70	-103.46
2	1683.00	-47.82	-13.00	-34.82	2.94 V	240	55.60	-103.42

**Remarks:**

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





<b>RF Mode</b>	LTE Band 5 (CA 5B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 20501 (834.1MHz) + 20600 (844.0MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	1668.20	-47.65	-13.00	-34.65	1.18 H	60	55.80	-103.45
2	1688.00	-48.21	-13.00	-35.21	2.91 H	232	55.20	-103.41
Antenna Polarity & Test Distance : Vertical 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	1668.20	-46.95	-13.00	-33.95	1.59 V	164	56.50	-103.45
2	1688.00	-47.71	-13.00	-34.71	2.87 V	237	55.70	-103.41

**Remarks:**

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

**7.6.3 LTE Band 41 (CA 41C)**

<b>RF Mode</b>	LTE Band 41 (CA 41C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 39750 (2506.0MHz) + 39948 (2525.8MHz)
<b>Frequency Range</b>	1 GHz ~ 27 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	5012.00	-46.15	-25.00	-21.15	1.38 H	123	45.90	-92.05
2	5051.60	-46.70	-25.00	-21.70	2.34 H	156	45.30	-92.00

**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	5012.00	-44.25	-25.00	-19.25	1.89 V	341	47.80	-92.05
2	5051.60	-44.90	-25.00	-19.90	1.74 V	155	47.10	-92.00

**Remarks:**

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



<b>RF Mode</b>	LTE Band 41 (CA 41C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 40521 (2583.1MHz) + 40719 (2602.9MHz)
<b>Frequency Range</b>	1 GHz ~ 27 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	5166.20	-46.58	-25.00	-21.58	1.33 H	129	45.40	-91.98
2	5205.80	-47.19	-25.00	-22.19	2.31 H	160	44.89	-92.08

**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	5166.20	-44.38	-25.00	-19.38	1.90 V	318	47.60	-91.98
2	5205.80	-45.19	-25.00	-20.19	1.74 V	157	46.89	-92.08

**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.



<b>RF Mode</b>	LTE Band 41 (CA 41C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 41292 (2660.2MHz) + 41490 (2680.0MHz)
<b>Frequency Range</b>	1 GHz ~ 27 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	5320.40	-46.25	-25.00	-21.25	1.35 H	150	46.00	-92.25
2	5360.00	-46.97	-25.00	-21.97	2.30 H	151	45.20	-92.17

**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	5320.40	-44.95	-25.00	-19.95	1.86 V	314	47.30	-92.25
2	5360.00	-45.57	-25.00	-20.57	1.68 V	153	46.60	-92.17

**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.

**7.6.4 LTE Band 66 (CA 66B)**

<b>RF Mode</b>	LTE Band 66 (CA 66B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 132022 (1715.0MHz) + 132121 (1724.9MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3430.00	-50.34	-13.00	-37.34	2.21 H	296	45.69	-96.03
2	3449.80	-50.29	-13.00	-37.29	2.28 H	303	45.74	-96.03

**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	3430.00	-48.59	-13.00	-35.59	2.74 V	79	47.44	-96.03
2	3449.80	-48.64	-13.00	-35.64	2.82 V	80	47.39	-96.03

**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.



<b>RF Mode</b>	LTE Band 66 (CA 66B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 132373 (1750.1MHz) + 132472 (1760.0MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3500.20	-49.98	-13.00	-36.98	2.24 H	306	45.82	-95.80
2	3520.00	-49.95	-13.00	-36.95	2.32 H	301	45.78	-95.73

**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	3500.20	-48.33	-13.00	-35.33	2.77 V	81	47.47	-95.80
2	3520.00	-48.32	-13.00	-35.32	2.69 V	70	47.41	-95.73

**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.



<b>RF Mode</b>	LTE Band 66 (CA 66B) Channel Bandwidth: 10MHz + 10MHz	<b>Channel</b>	CH 132523 (1765.1MHz) + 132622 (1775.0MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

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	3530.20	-49.93	-13.00	-36.93	2.17 H	293	45.76	-95.69
2	3550.00	-49.82	-13.00	-36.82	2.22 H	297	45.79	-95.61
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	3530.20	-48.28	-13.00	-35.28	2.87 V	80	47.41	-95.69
2	3550.00	-48.22	-13.00	-35.22	2.82 V	86	47.39	-95.61

**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.

**7.6.5 LTE Band 66 (CA 66C)**

<b>RF Mode</b>	LTE Band 66 (CA 66C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 132072 (1720.0MHz) + 132270 (1739.8MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	-50.21	-13.00	-37.21	2.37 H	309	45.82	-96.03
2	3479.60	-50.07	-13.00	-37.07	2.33 H	310	45.82	-95.89

**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	3440.00	-48.56	-13.00	-35.56	2.81 V	89	47.47	-96.03
2	3479.60	-48.40	-13.00	-35.40	2.78 V	88	47.49	-95.89

**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.





<b>RF Mode</b>	LTE Band 66 (CA 66C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 132323 (1745.1MHz) + 132521 (1764.9MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3490.20	-50.03	-13.00	-37.03	2.38 H	305	45.82	-95.85
2	3529.80	-49.81	-13.00	-36.81	2.31 H	306	45.88	-95.69

**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	3490.20	-48.28	-13.00	-35.28	2.84 V	86	47.57	-95.85
2	3529.80	-48.13	-13.00	-35.13	2.80 V	81	47.56	-95.69

**Remarks:**

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



<b>RF Mode</b>	LTE Band 66 (CA 66C) Channel Bandwidth: 20MHz + 20MHz	<b>Channel</b>	CH 132374 (1750.2MHz) + 132572 (1770.0MHz)
<b>Frequency Range</b>	1 GHz ~ 18 GHz	<b>Detector Function &amp; Bandwidth</b>	1 MHz/3 MHz (RMS)
<b>Input Power</b>	120 Vac, 60 Hz	<b>Environmental Conditions</b>	21°C, 68% RH
<b>Tested By</b>	Greg Lin		

**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	3500.40	-50.02	-13.00	-37.02	2.26 H	304	45.78	-95.80
2	3540.00	-49.87	-13.00	-36.87	2.21 H	302	45.78	-95.65

**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	3500.40	-48.28	-13.00	-35.28	2.78 V	76	47.52	-95.80
2	3540.00	-48.12	-13.00	-35.12	2.80 V	81	47.53	-95.65

**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.

## 7.7 Frequency Stability

Input Power:	3.87 Vdc	Environmental Conditions:	21°C, 70% RH	Tested By:	Willy Cheng
--------------	----------	---------------------------	--------------	------------	-------------

### 7.7.1 LTE Band 2 (CA 2C)

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18700 (1860.0MHz) + 18898 (1879.8MHz)		CH 18902 (1880.2MHz) + 19100 (1900.0MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.28	1860.000002	0.001	1900.000004	0.002
3.87	1859.999998	-0.001	1899.999997	-0.002
4.46	1860.000004	0.002	1899.999999	-0.001

Note: The applicant defined the normal working voltage is from 3.28 to 4.46 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18700 (1860.0MHz) + 18898 (1879.8MHz)		CH 18902 (1880.2MHz) + 19100 (1900.0MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1860.000001	0.001	1900.000003	0.002
-20	1860.000003	0.002	1900.000003	0.002
-10	1859.999998	-0.001	1899.999998	-0.001
0	1860.000004	0.002	1899.999997	-0.002
10	1860.000001	0.001	1899.999996	-0.002
20	1860.000003	0.002	1899.999999	-0.001
30	1860.000003	0.002	1900.000004	0.002
40	1859.999996	-0.002	1899.999997	-0.002
50	1859.999996	-0.002	1900.000004	0.002
60	1860.000003	0.002	1899.999996	-0.002

**7.7.2 LTE Band 5 (CA 5B)**

<b>Frequency Stability Versus Voltage</b>				
<b>Voltage (Vdc)</b>	<b>CH 20450 (829.0MHz) + 20549 (838.9MHz)</b>		<b>CH 20501 (834.1MHz) + 20600 (844.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
3.28	829.000002	0.002	843.999996	-0.005
3.87	828.999999	-0.001	844.000002	0.002
4.46	828.999996	-0.005	843.999997	-0.004

Note: The applicant defined the normal working voltage is from 3.28 to 4.46 Vdc.

<b>Frequency Stability Versus Temperature</b>				
<b>Temperature (°C)</b>	<b>CH 20450 (829.0MHz) + 20549 (838.9MHz)</b>		<b>CH 20501 (834.1MHz) + 20600 (844.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
-30	828.999998	-0.002	843.999999	-0.001
-20	829.000002	0.002	843.999996	-0.005
-10	828.999996	-0.005	844.000002	0.002
0	829.000002	0.002	843.999999	-0.001
10	828.999997	-0.004	844.000004	0.005
20	829.000002	0.002	843.999999	-0.001
30	828.999998	-0.002	844.000002	0.002
40	828.999999	-0.001	844.000001	0.001
50	829.000003	0.004	843.999997	-0.004
60	829.000003	0.004	843.999998	-0.002

**7.7.3 LTE Band 41 (CA 41C)**

<b>Frequency Stability Versus Voltage</b>				
<b>Voltage (Vdc)</b>	<b>CH 39750 (2506.0MHz) + 39948 (2525.8MHz)</b>		<b>CH 41292 (2660.2MHz) + 41490 (2680.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
3.28	2506.000004	0.002	2679.999997	-0.001
3.87	2505.999999	0.000	2679.999998	-0.001
4.46	2505.999996	-0.002	2680.000002	0.001

Note: The applicant defined the normal working voltage is from 3.28 to 4.46 Vdc.

<b>Frequency Stability Versus Temperature</b>				
<b>Temperature (°C)</b>	<b>CH 39750 (2506.0MHz) + 39948 (2525.8MHz)</b>		<b>CH 41292 (2660.2MHz) + 41490 (2680.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
-30	2506.000002	0.001	2679.999997	-0.001
-20	2505.999996	-0.002	2680.000003	0.001
-10	2506.000001	0.000	2680.000004	0.001
0	2505.999997	-0.001	2680.000003	0.001
10	2506.000001	0.000	2680.000002	0.001
20	2505.999997	-0.001	2680.000004	0.001
30	2506.000004	0.002	2680.000002	0.001
40	2506.000004	0.002	2680.000004	0.001
50	2505.999998	-0.001	2680.000004	0.001
60	2506.000003	0.001	2680.000002	0.001

**7.7.4 LTE Band 66 (CA 66B)**

<b>Frequency Stability Versus Voltage</b>				
<b>Voltage (Vdc)</b>	<b>CH 132022 (1715.0MHz) + 132121 (1724.9MHz)</b>		<b>CH 132523 (1765.1MHz) + 132622 (1775.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
3.28	1714.999996	-0.002	1774.999998	-0.001
3.87	1715.000003	0.002	1774.999999	-0.001
4.46	1715.000002	0.001	1774.999997	-0.002

Note: The applicant defined the normal working voltage is from 3.28 to 4.46 Vdc.

<b>Frequency Stability Versus Temperature</b>				
<b>Temperature (°C)</b>	<b>CH 132022 (1715.0MHz) + 132121 (1724.9MHz)</b>		<b>CH 132523 (1765.1MHz) + 132622 (1775.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
-30	1714.999998	-0.001	1775.000004	0.002
-20	1714.999999	-0.001	1775.000003	0.002
-10	1715.000001	0.001	1774.999999	-0.001
0	1715.000002	0.001	1775.000003	0.002
10	1715.000004	0.002	1774.999998	-0.001
20	1714.999997	-0.002	1774.999996	-0.002
30	1715.000001	0.001	1775.000001	0.001
40	1715.000002	0.001	1774.999998	-0.001
50	1714.999998	-0.001	1775.000001	0.001
60	1715.000002	0.001	1775.000001	0.001

**7.7.5 LTE Band 66 (CA 66C)**

<b>Frequency Stability Versus Voltage</b>				
<b>Voltage (Vdc)</b>	<b>CH 132072 (1720.0MHz) + 132270 (1739.8MHz)</b>		<b>CH 132374 (1750.2MHz) + 132572 (1770.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
3.28	1719.999997	-0.002	1770.000001	0.001
3.87	1720.000004	0.002	1770.000002	0.001
4.46	1720.000001	0.001	1770.000002	0.001

Note: The applicant defined the normal working voltage is from 3.28 to 4.46 Vdc.

<b>Frequency Stability Versus Temperature</b>				
<b>Temperature (°C)</b>	<b>CH 132072 (1720.0MHz) + 132270 (1739.8MHz)</b>		<b>CH 132374 (1750.2MHz) + 132572 (1770.0MHz)</b>	
	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>	<b>Frequency (MHz)</b>	<b>Frequency Error (ppm)</b>
-30	1719.999998	-0.001	1770.000003	0.002
-20	1720.000001	0.001	1770.000001	0.001
-10	1719.999997	-0.002	1769.999997	-0.002
0	1719.999997	-0.002	1770.000004	0.002
10	1720.000001	0.001	1769.999997	-0.002
20	1719.999999	-0.001	1770.000002	0.001
30	1720.000003	0.002	1770.000001	0.001
40	1719.999997	-0.002	1769.999996	-0.002
50	1719.999996	-0.002	1769.999998	-0.001
60	1719.999999	-0.001	1770.000004	0.002

## 8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)





## 9 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 according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

**Lin Kou EMC/RF Lab**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF/Telecom Lab**

Tel: 886-3-6668565

Fax: 886-3-6668323

**Hwa Ya EMC/RF/Safety Lab**

Tel: 886-3-3183232

Fax: 886-3-3270892

**Email:** [service.adt@bureauveritas.com](mailto:service.adt@bureauveritas.com)

**Web Site:** <http://ee.bureauveritas.com.tw>

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

--- END ---