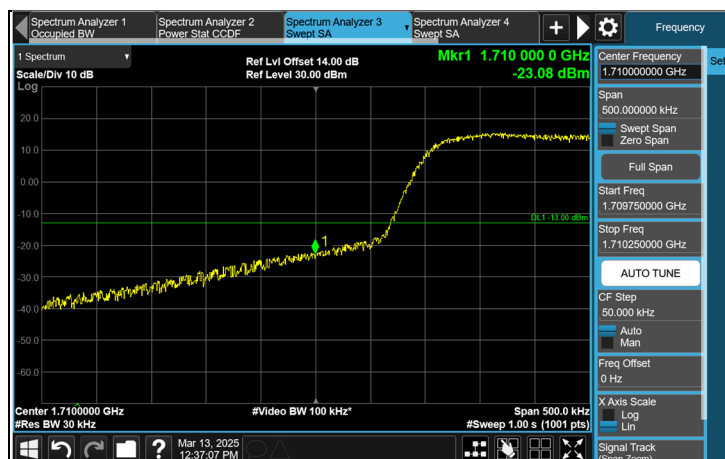
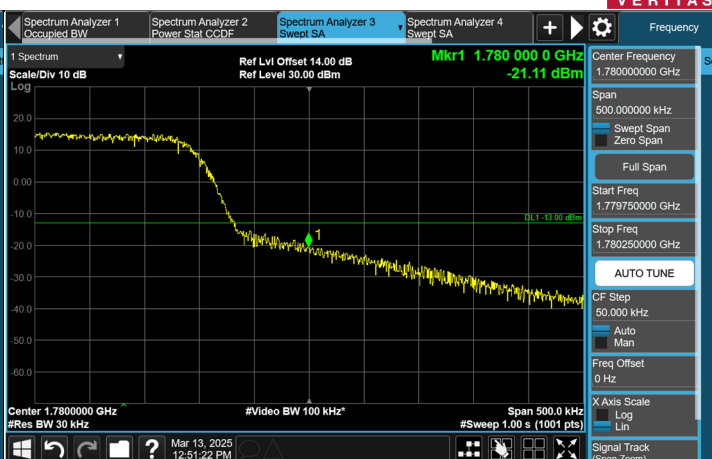
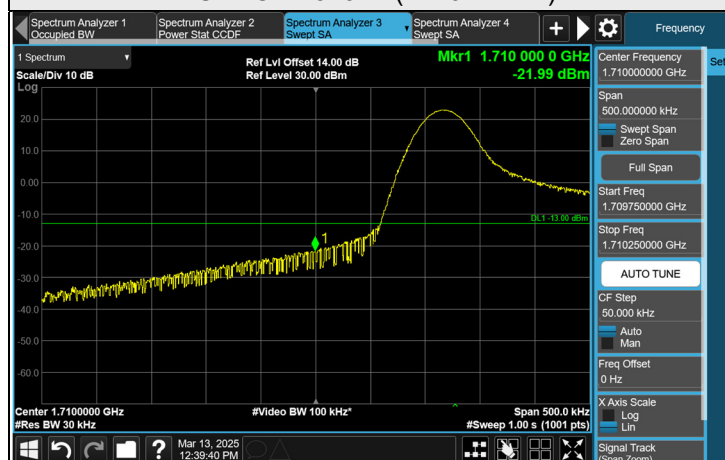




FULL CH 131974 (1710.2 MHz)



FULL CH 132670 (1779.8 MHz)

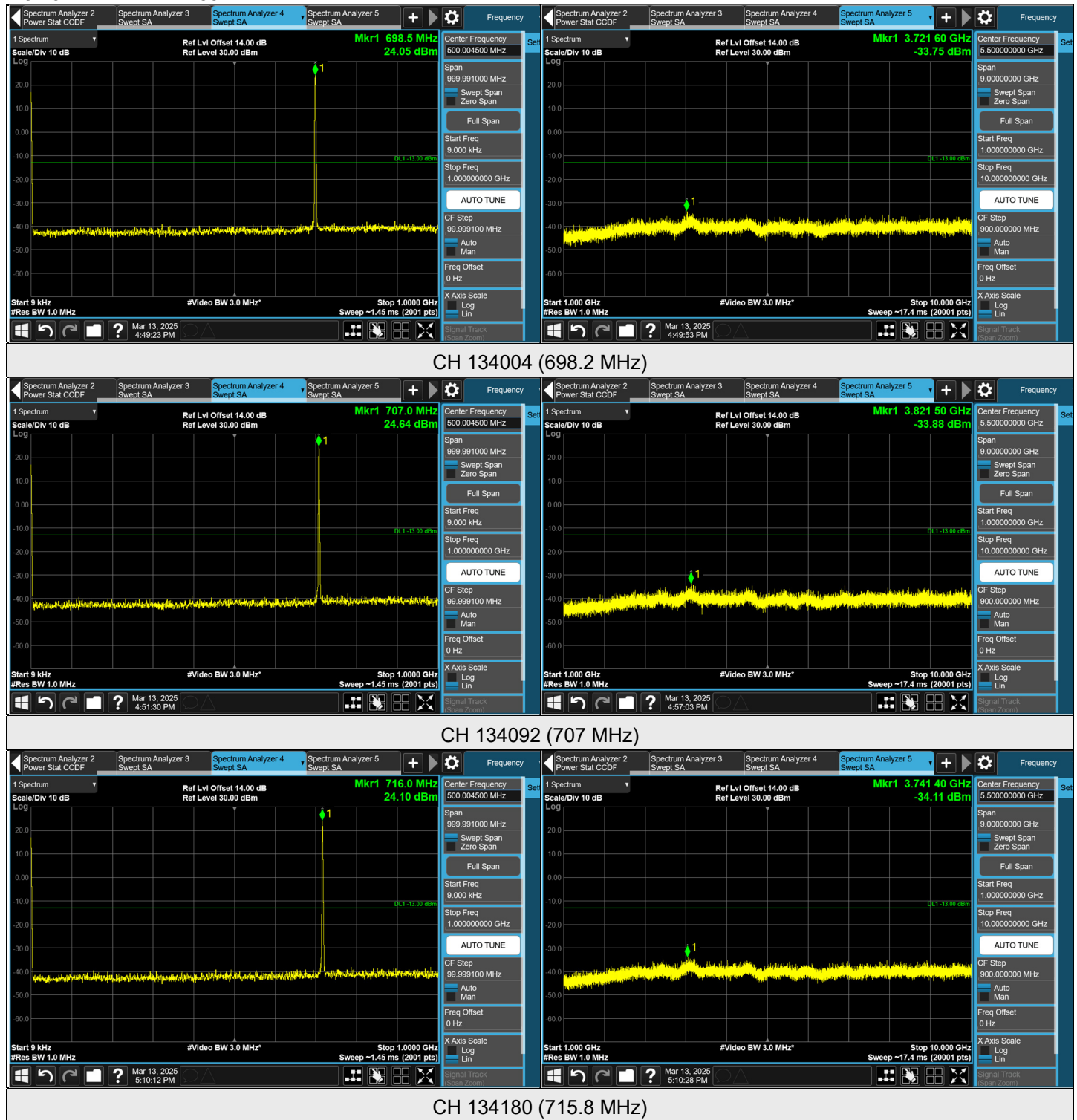


1RB CH 131974 (1710.2 MHz)

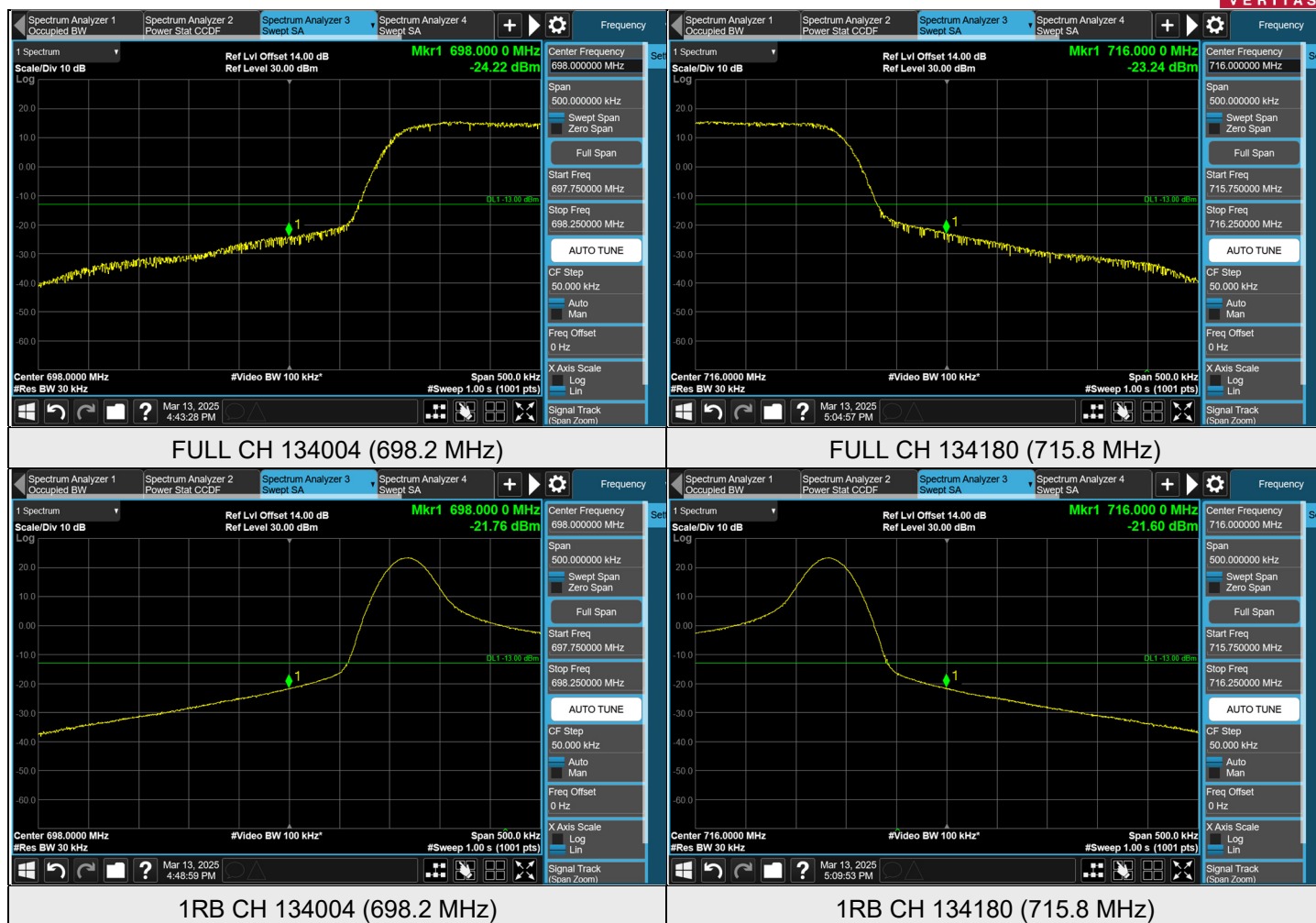


1RB CH 132670 (1779.8 MHz)

7.5.13 NB-IoT Band 85



Note: The signal at 9 kHz is IF signal from spectrum analyzer.



7.6 Radiated Spurious Emissions below 1GHz

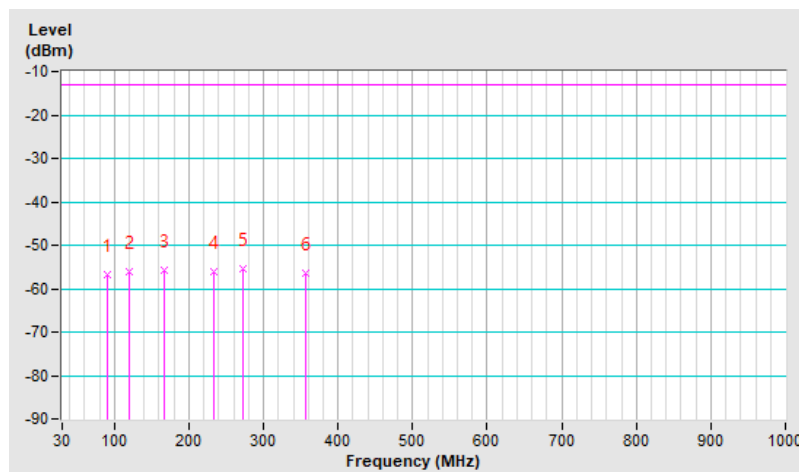
7.6.1 NB-IoT Band 2

RF Mode	NB-IoT Band 2	Channel	CH 18900 : 1880 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl 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	91.11	-56.78	-13.00	-43.78	1.37 H	285	57.26	-114.04
2	119.24	-56.18	-13.00	-43.18	2.29 H	161	54.15	-110.33
3	167.74	-55.62	-13.00	-42.62	1.57 H	251	52.58	-108.20
4	232.73	-56.27	-13.00	-43.27	1.82 H	304	53.85	-110.12
5	273.47	-55.52	-13.00	-42.52	1.66 H	283	52.70	-108.22
6	355.92	-56.37	-13.00	-43.37	1.89 H	25	49.64	-106.01

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

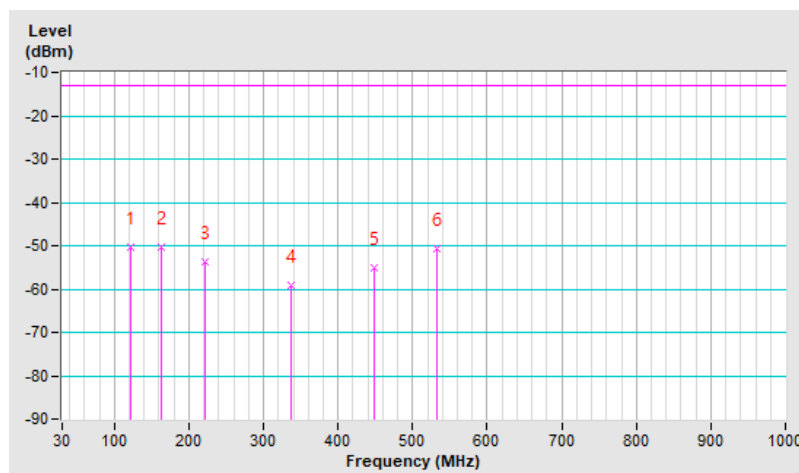


RF Mode	NB-IoT Band 2	Channel	CH 18900 : 1880 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	121.18	-50.22	-13.00	-37.22	2.59 V	151	59.96	-110.18
2	162.89	-50.20	-13.00	-37.20	2.48 V	135	57.72	-107.92
3	221.09	-53.74	-13.00	-40.74	1.83 V	251	57.67	-111.41
4	336.52	-59.16	-13.00	-46.16	1.20 V	170	47.12	-106.28
5	448.07	-55.09	-13.00	-42.09	1.59 V	253	48.12	-103.21
6	533.43	-50.76	-13.00	-37.76	1.84 V	201	51.16	-101.92

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



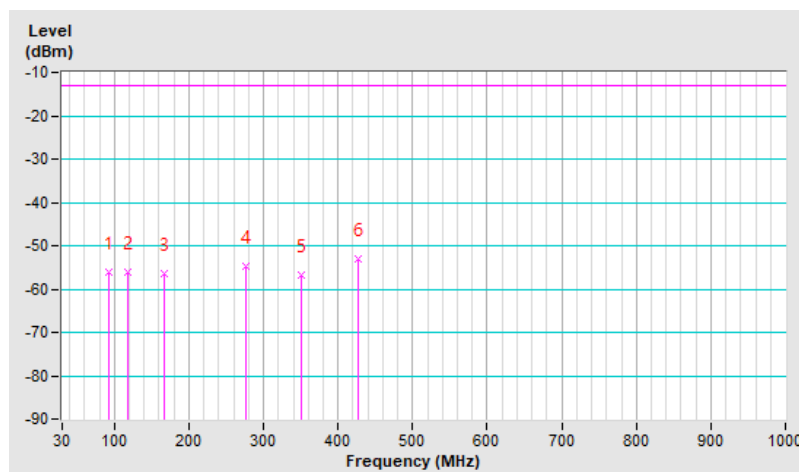
7.6.2 NB-IoT Band 4

RF Mode	NB-IoT Band 4	Channel	CH 20175 : 1732.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl 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	92.08	-56.17	-13.00	-43.17	2.20 H	193	57.68	-113.85
2	117.30	-56.04	-13.00	-43.04	1.75 H	112	54.42	-110.46
3	167.74	-56.46	-13.00	-43.46	1.49 H	203	51.74	-108.20
4	276.38	-54.81	-13.00	-41.81	1.80 H	27	53.24	-108.05
5	351.07	-56.92	-13.00	-43.92	2.36 H	184	49.26	-106.18
6	426.73	-53.19	-13.00	-40.19	1.15 H	72	50.80	-103.99

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

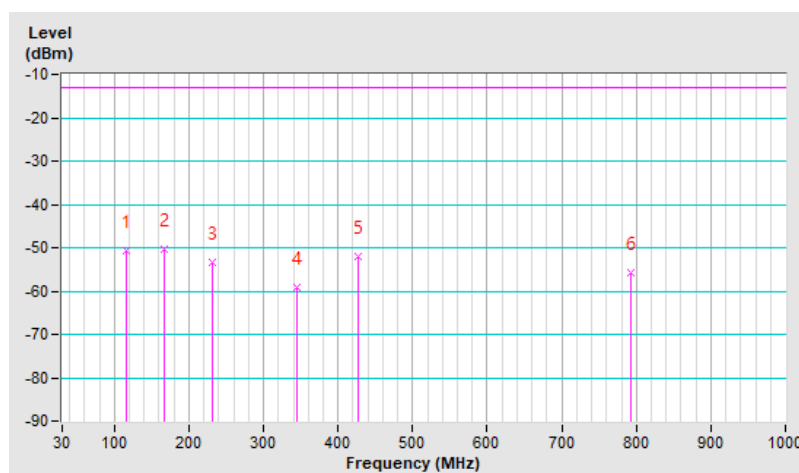


RF Mode	NB-IoT Band 4	Channel	CH 20175 : 1732.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	115.36	-50.77	-13.00	-37.77	2.43 V	101	59.90	-110.67
2	167.74	-50.37	-13.00	-37.37	1.96 V	241	57.83	-108.20
3	231.76	-53.55	-13.00	-40.55	2.28 V	104	56.68	-110.23
4	344.28	-59.00	-13.00	-46.00	1.91 V	204	47.27	-106.27
5	426.73	-52.12	-13.00	-39.12	2.55 V	276	51.87	-103.99
6	793.39	-55.64	-13.00	-42.64	1.88 V	153	41.06	-96.70

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



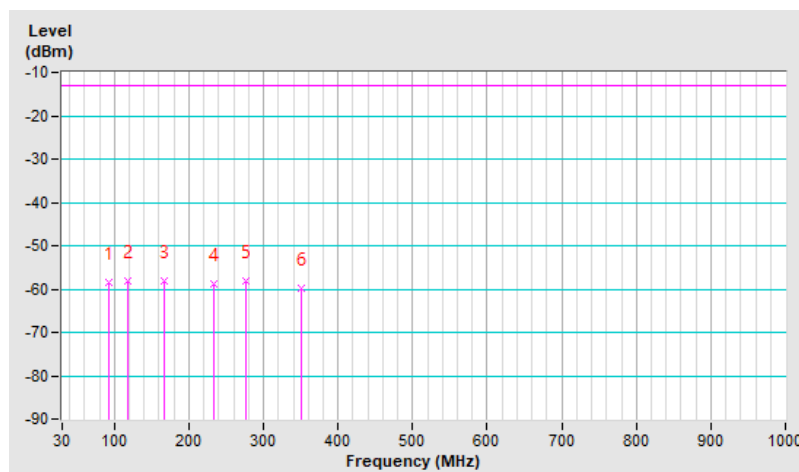
7.6.3 NB-IoT Band 5

RF Mode	NB-IoT Band 5	Channel	CH 20525 : 836.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-58.58	-13.00	-45.58	1.82 H	226	57.42	-116.00
2	117.30	-58.28	-13.00	-45.28	1.74 H	163	54.33	-112.61
3	167.74	-58.26	-13.00	-45.26	2.85 H	214	52.09	-110.35
4	233.70	-58.85	-13.00	-45.85	1.03 H	283	53.31	-112.16
5	277.35	-58.12	-13.00	-45.12	1.85 H	12	52.05	-110.17
6	351.07	-59.85	-13.00	-46.85	2.71 H	183	48.48	-108.33

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

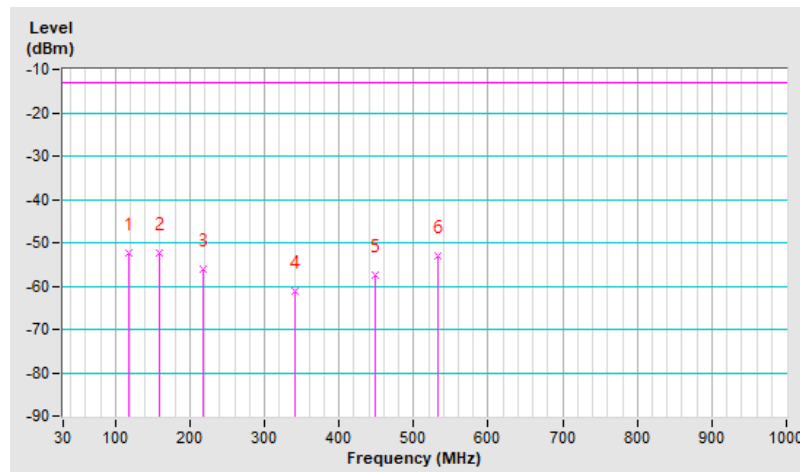


RF Mode	NB-IoT Band 5	Channel	CH 20525 : 836.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	117.30	-52.52	-13.00	-39.52	1.83 V	332	60.09	-112.61
2	159.98	-52.50	-13.00	-39.50	1.94 V	150	57.47	-109.97
3	218.18	-55.98	-13.00	-42.98	1.22 V	258	57.66	-113.64
4	341.37	-61.18	-13.00	-48.18	1.64 V	283	47.26	-108.44
5	448.07	-57.47	-13.00	-44.47	2.22 V	207	47.89	-105.36
6	533.43	-53.14	-13.00	-40.14	1.94 V	287	50.93	-104.07

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



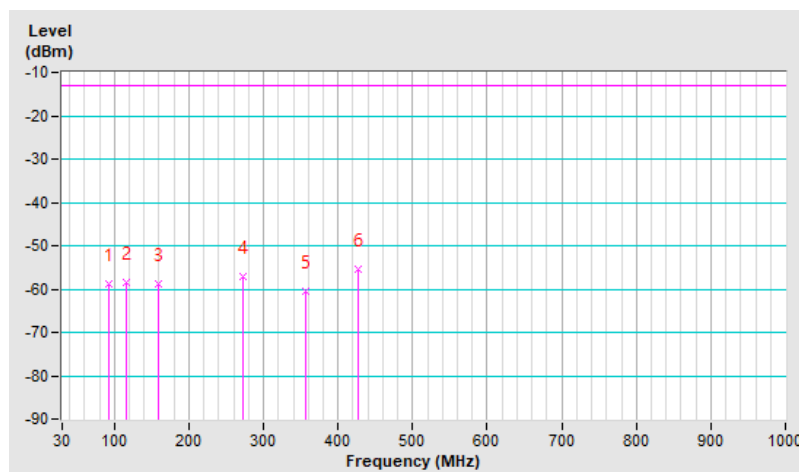
7.6.4 NB-IoT Band 8

RF Mode	NB-IoT Band 8	Channel	CH 21640 : 899 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-58.75	-13.00	-45.75	2.33 H	108	57.25	-116.00
2	116.33	-58.39	-13.00	-45.39	1.40 H	58	54.35	-112.74
3	159.98	-58.66	-13.00	-45.66	2.36 H	209	51.31	-109.97
4	273.47	-57.06	-13.00	-44.06	1.71 H	154	53.31	-110.37
5	355.92	-60.47	-13.00	-47.47	1.88 H	209	47.69	-108.16
6	427.70	-55.36	-13.00	-42.36	2.28 H	161	50.74	-106.10

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

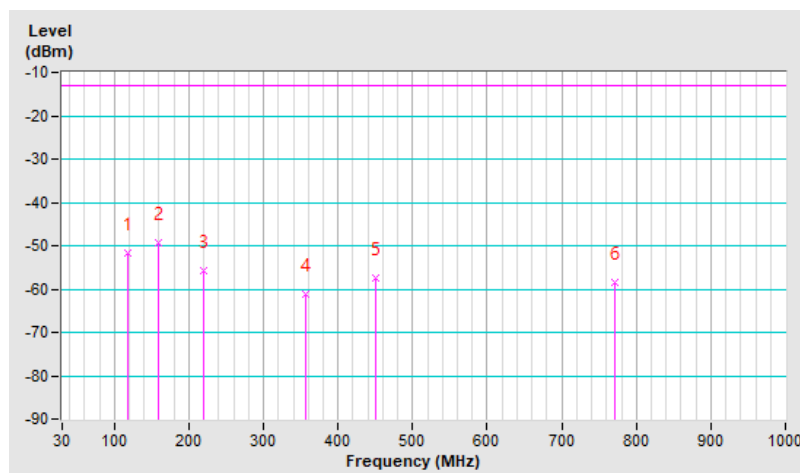


RF Mode	NB-IoT Band 8	Channel	CH 21640 : 899 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	117.30	-51.71	-13.00	-38.71	2.59 V	263	60.90	-112.61
2	159.01	-49.27	-13.00	-36.27	1.44 V	157	60.69	-109.96
3	219.15	-55.62	-13.00	-42.62	1.80 V	265	58.00	-113.62
4	356.89	-61.08	-13.00	-48.08	1.72 V	112	47.06	-108.14
5	450.01	-57.44	-13.00	-44.44	1.94 V	105	47.86	-105.30
6	772.05	-58.58	-13.00	-45.58	2.95 V	163	40.51	-99.09

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



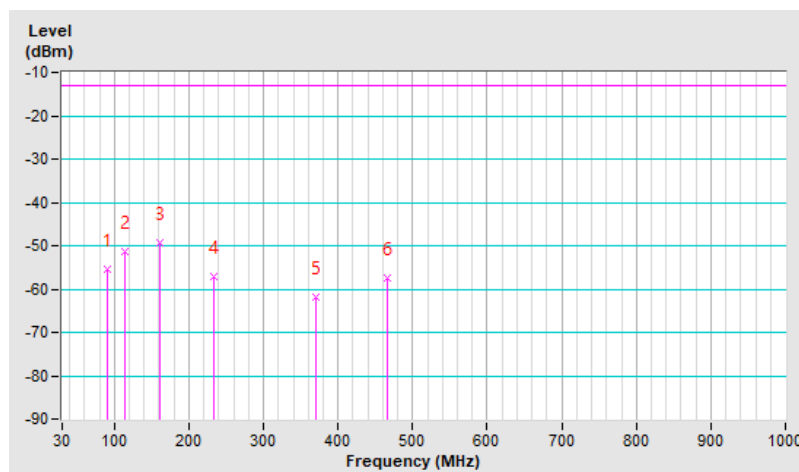
7.6.5 NB-IoT Band 12

RF Mode	NB-IoT Band 12	Channel	CH 23095 : 707.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	91.11	-55.31	-13.00	-42.31	2.35 H	190	60.88	-116.19
2	113.42	-51.38	-13.00	-38.38	2.22 H	148	61.60	-112.98
3	160.95	-49.48	-13.00	-36.48	1.71 H	103	60.61	-110.09
4	232.73	-57.19	-13.00	-44.19	1.68 H	234	55.08	-112.27
5	370.47	-61.79	-13.00	-48.79	1.85 H	176	45.94	-107.73
6	465.53	-57.60	-13.00	-44.60	1.42 H	200	47.46	-105.06

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

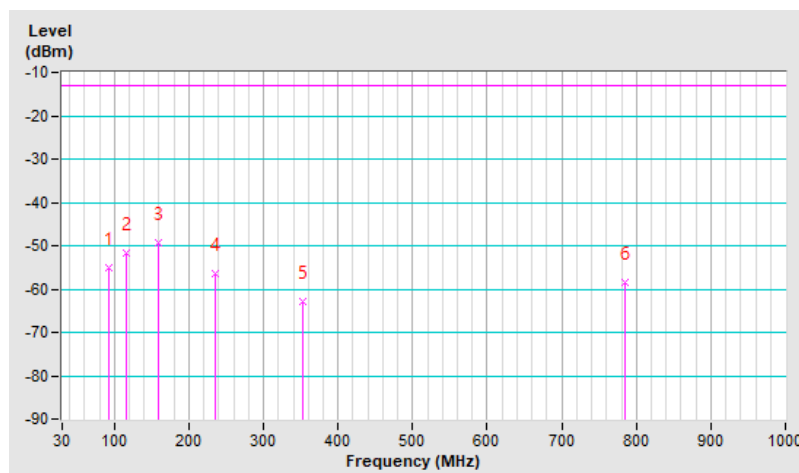


RF Mode	NB-IoT Band 12	Channel	CH 23095 : 707.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-55.04	-13.00	-42.04	1.88 V	24	60.96	-116.00
2	116.33	-51.74	-13.00	-38.74	1.15 V	94	61.00	-112.74
3	159.01	-49.33	-13.00	-36.33	1.92 V	204	60.63	-109.96
4	235.64	-56.55	-13.00	-43.55	2.85 V	110	55.42	-111.97
5	352.04	-62.83	-13.00	-49.83	1.62 V	310	45.45	-108.28
6	784.66	-58.59	-13.00	-45.59	2.22 V	51	40.35	-98.94

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



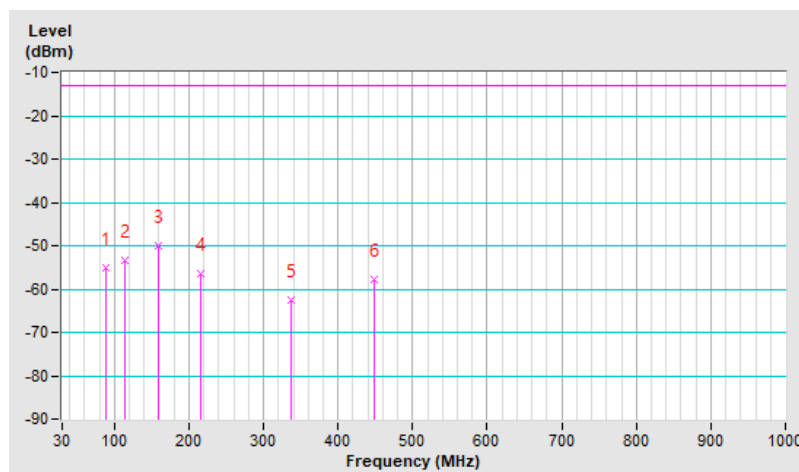
7.6.6 NB-IoT Band 13

RF Mode	NB-IoT Band 13	Channel	CH 23230 : 782 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	88.20	-55.02	-13.00	-42.02	1.82 H	206	61.23	-116.25
2	114.39	-53.44	-13.00	-40.44	1.93 H	336	59.44	-112.88
3	159.01	-49.87	-13.00	-36.87	1.85 H	224	60.09	-109.96
4	216.24	-56.34	-13.00	-43.34	1.79 H	29	57.34	-113.68
5	337.49	-62.61	-13.00	-49.61	1.35 H	283	45.82	-108.43
6	449.04	-57.85	-13.00	-44.85	1.74 H	112	47.47	-105.32

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

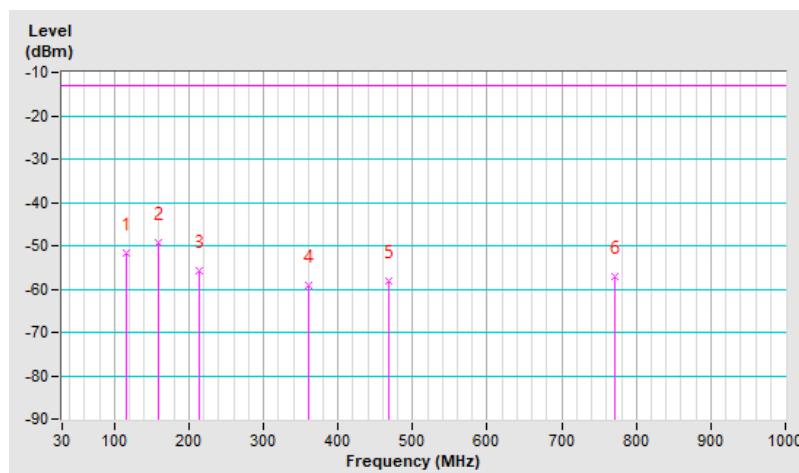


RF Mode	NB-IoT Band 13	Channel	CH 23230 : 782 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	116.33	-51.57	-13.00	-38.57	1.04 V	157	61.17	-112.74
2	159.98	-49.44	-13.00	-36.44	2.47 V	263	60.53	-109.97
3	214.30	-55.91	-13.00	-42.91	1.81 V	234	57.80	-113.71
4	360.77	-59.24	-13.00	-46.24	1.63 V	225	48.78	-108.02
5	467.47	-58.21	-13.00	-45.21	1.48 V	72	46.84	-105.05
6	771.08	-57.21	-13.00	-44.21	1.60 V	231	41.89	-99.10

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



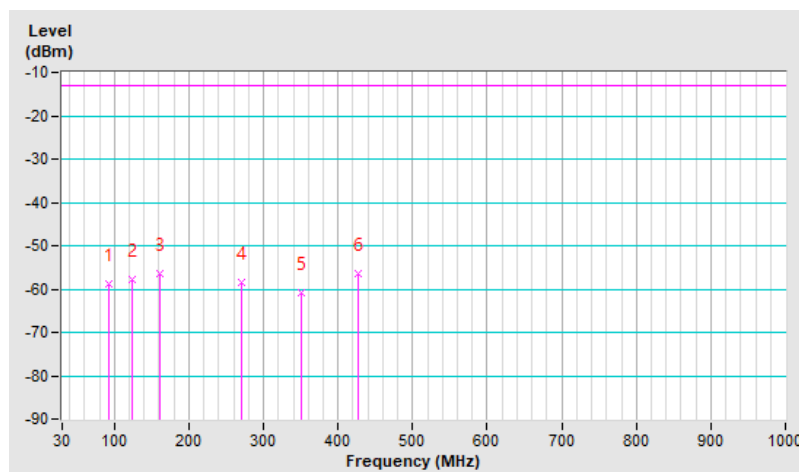
7.6.7 NB-IoT Band 14

RF Mode	NB-IoT Band 14	Channel	CH 23300 : 793 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	93.05	-58.68	-13.00	-45.68	1.45 H	293	57.23	-115.91
2	123.12	-57.77	-13.00	-44.77	1.74 H	150	54.37	-112.14
3	161.92	-56.34	-13.00	-43.34	2.85 H	194	53.71	-110.05
4	269.59	-58.34	-13.00	-45.34	2.21 H	104	52.29	-110.63
5	350.10	-60.95	-13.00	-47.95	2.49 H	263	47.41	-108.36
6	426.73	-56.56	-13.00	-43.56	1.72 H	332	49.58	-106.14

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

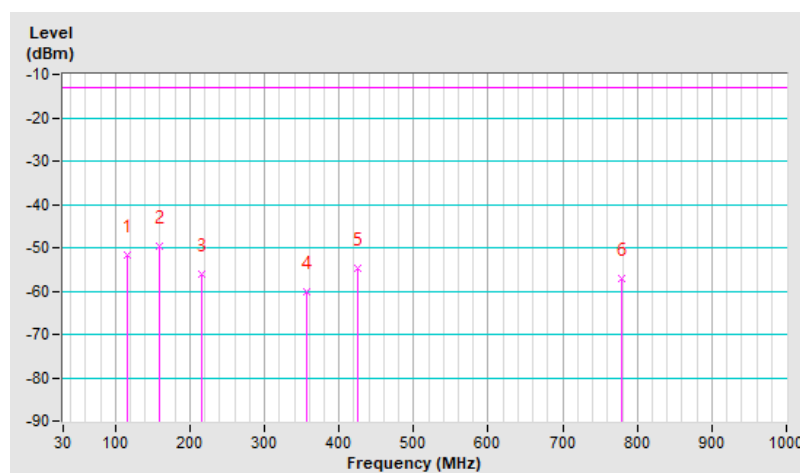


RF Mode	NB-IoT Band 14	Channel	CH 23300 : 793 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	116.33	-51.56	-13.00	-38.56	1.25 V	226	61.18	-112.74
2	159.01	-49.67	-13.00	-36.67	1.73 V	250	60.29	-109.96
3	216.24	-56.17	-13.00	-43.17	1.96 V	331	57.51	-113.68
4	356.89	-60.29	-13.00	-47.29	1.20 V	65	47.85	-108.14
5	425.76	-54.88	-13.00	-41.88	2.48 V	154	51.31	-106.19
6	779.81	-57.08	-13.00	-44.08	1.15 V	206	41.81	-98.89

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



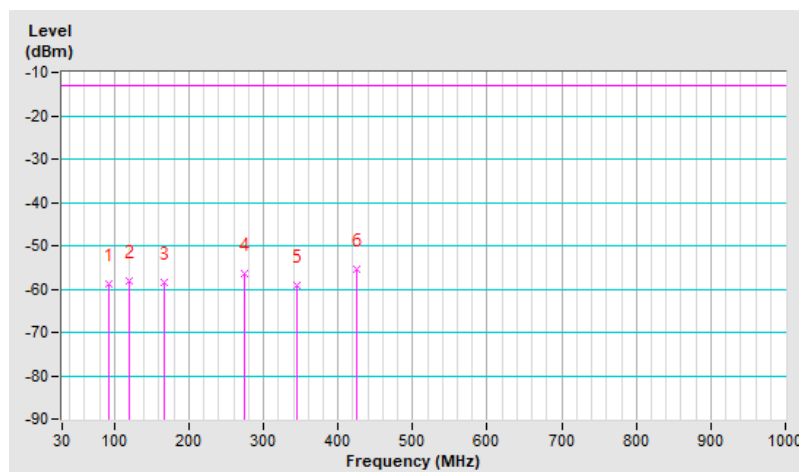
7.6.8 NB-IoT Band 17

RF Mode	NB-IoT Band 17	Channel	CH 23790 : 710 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-58.80	-13.00	-45.80	1.62 H	52	57.30	-116.10
2	119.24	-58.00	-13.00	-45.00	1.84 H	170	54.40	-112.40
3	167.74	-58.50	-13.00	-45.50	1.86 H	335	51.90	-110.40
4	274.44	-56.40	-13.00	-43.40	2.63 H	115	53.90	-110.30
5	345.25	-59.20	-13.00	-46.20	2.98 H	104	49.20	-108.40
6	425.76	-55.30	-13.00	-42.30	1.12 H	108	50.90	-106.20

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

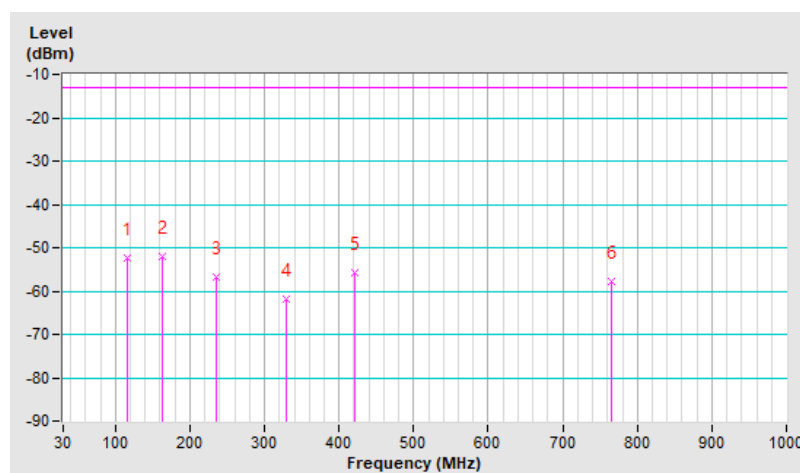


RF Mode	NB-IoT Band 17	Channel	CH 23790 : 710 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	115.36	-52.30	-13.00	-39.30	1.53 V	223	60.40	-112.70
2	162.89	-52.10	-13.00	-39.10	1.96 V	188	58.10	-110.20
3	234.67	-56.70	-13.00	-43.70	2.54 V	208	55.40	-112.10
4	329.73	-61.90	-13.00	-48.90	1.96 V	287	46.70	-108.60
5	421.88	-55.60	-13.00	-42.60	1.04 V	238	50.80	-106.40
6	766.23	-57.70	-13.00	-44.70	2.11 V	180	41.40	-99.10

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



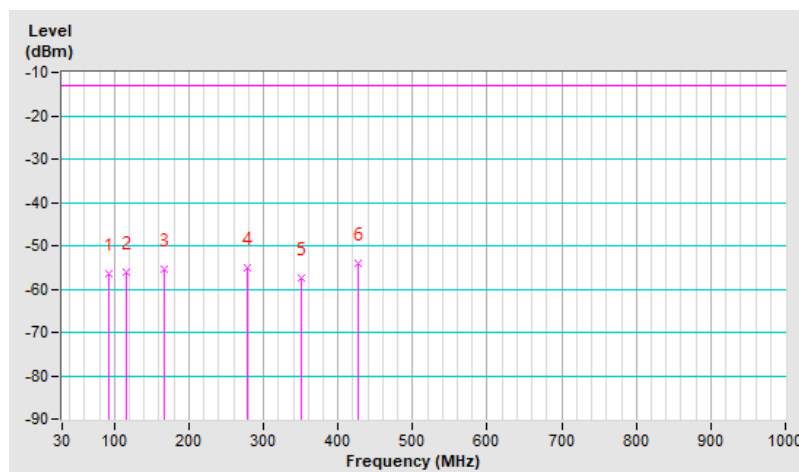
7.6.9 NB-IoT Band 25

RF Mode	NB-IoT Band 25	Channel	CH 26365 : 1882.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl 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	93.05	-56.29	-13.00	-43.29	1.83 H	100	57.47	-113.76
2	116.33	-56.08	-13.00	-43.08	1.74 H	153	54.51	-110.59
3	167.74	-55.39	-13.00	-42.39	2.21 H	169	52.81	-108.20
4	278.32	-55.06	-13.00	-42.06	2.47 H	157	52.92	-107.98
5	350.10	-57.30	-13.00	-44.30	2.26 H	240	48.91	-106.21
6	426.73	-54.16	-13.00	-41.16	1.33 H	82	49.83	-103.99

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

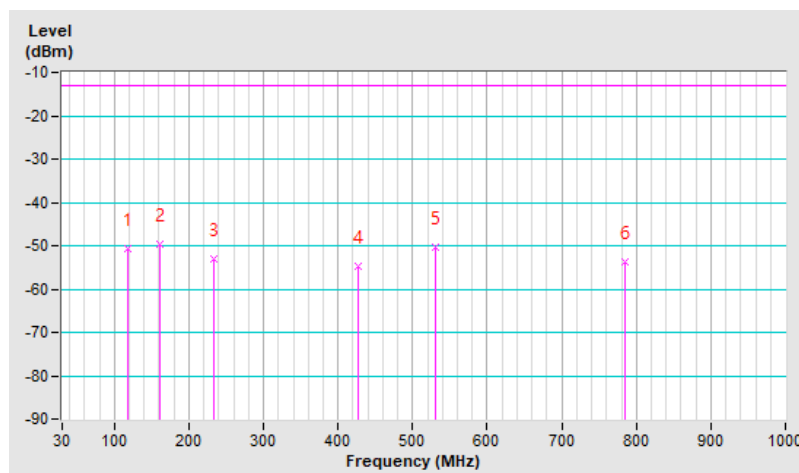


RF Mode	NB-IoT Band 25	Channel	CH 26365 : 1882.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	118.27	-50.72	-13.00	-37.72	1.43 V	283	59.70	-110.42
2	160.95	-49.55	-13.00	-36.55	1.12 V	108	58.39	-107.94
3	233.70	-53.09	-13.00	-40.09	2.56 V	331	56.92	-110.01
4	426.73	-54.85	-13.00	-41.85	1.79 V	24	49.14	-103.99
5	531.49	-50.31	-13.00	-37.31	1.85 V	204	51.64	-101.95
6	785.63	-53.58	-13.00	-40.58	1.72 V	68	43.19	-96.77

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



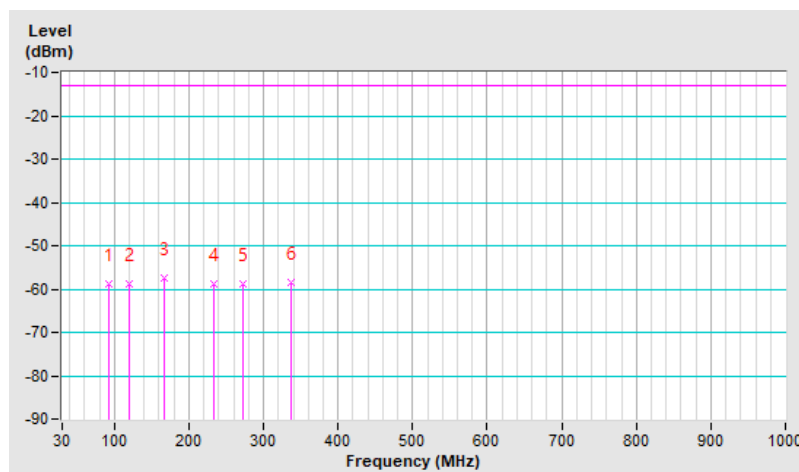
7.6.10 NB-IoT Band 26 (Part 22)

RF Mode	NB-IoT Band 26	Channel	CH 26915 : 836.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-58.66	-13.00	-45.66	2.31 H	142	57.34	-116.00
2	120.21	-58.82	-13.00	-45.82	1.77 H	152	53.55	-112.37
3	167.74	-57.48	-13.00	-44.48	1.93 H	264	52.87	-110.35
4	232.73	-58.81	-13.00	-45.81	2.42 H	93	53.46	-112.27
5	272.50	-58.87	-13.00	-45.87	1.66 H	204	51.57	-110.44
6	336.52	-58.60	-13.00	-45.60	2.13 H	108	49.83	-108.43

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 of frequency range 30 MHz ~ 1 GHz.
- The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

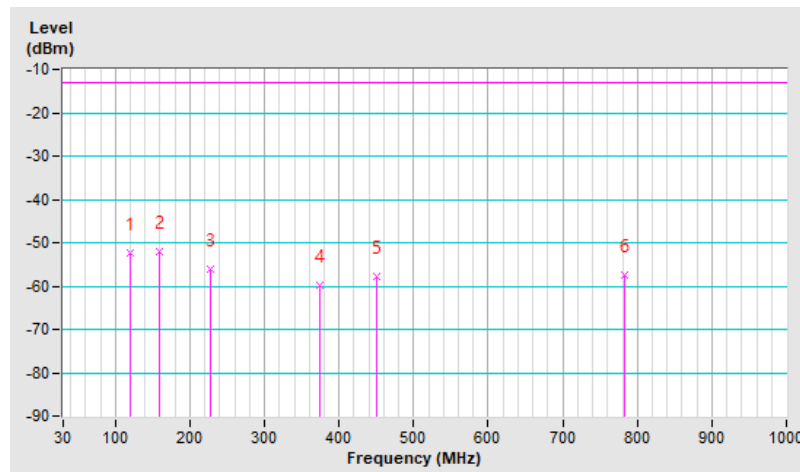


RF Mode	NB-IoT Band 26	Channel	CH 26915 : 836.5 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	119.24	-52.25	-13.00	-39.25	1.53 V	38	60.23	-112.48
2	159.98	-51.95	-13.00	-38.95	2.36 V	181	58.02	-109.97
3	227.88	-55.98	-13.00	-42.98	1.73 V	235	56.94	-112.92
4	374.35	-59.74	-13.00	-46.74	1.96 V	206	47.88	-107.62
5	450.01	-57.65	-13.00	-44.65	1.22 V	248	47.65	-105.30
6	782.72	-57.59	-13.00	-44.59	1.60 V	183	41.33	-98.92

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



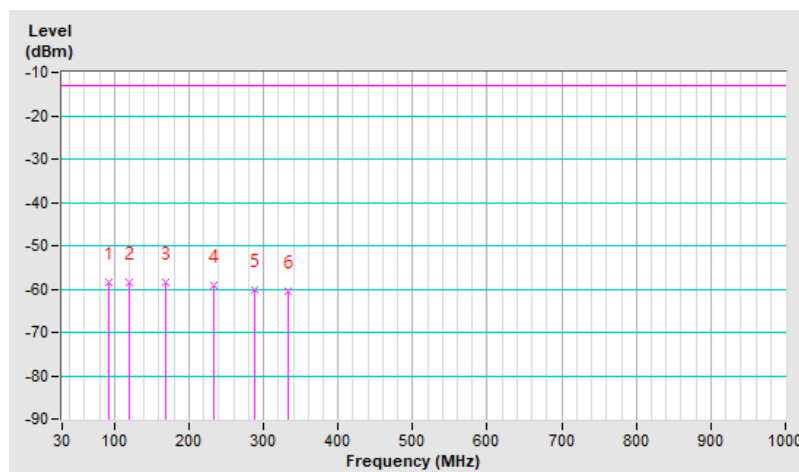
7.6.11 NB-IoT Band 26 (Part 90)

RF Mode	NB-IoT Band 26	Channel	CH 26740 : 819 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	92.08	-58.60	-13.00	-45.60	1.61 H	250	57.40	-116.00
2	119.24	-58.59	-13.00	-45.59	1.94 H	183	53.89	-112.48
3	169.68	-58.35	-13.00	-45.35	2.27 H	159	52.18	-110.53
4	232.73	-59.29	-13.00	-46.29	2.38 H	101	52.98	-112.27
5	288.99	-60.24	-13.00	-47.24	1.72 H	253	49.58	-109.82
6	333.61	-60.50	-13.00	-47.50	1.46 H	92	47.96	-108.46

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

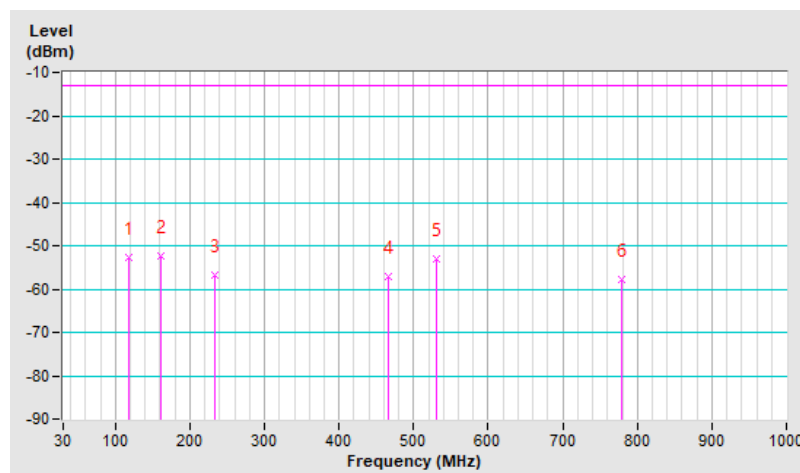


RF Mode	NB-IoT Band 26	Channel	CH 26740 : 819 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	118.27	-52.66	-13.00	-39.66	1.53 V	183	59.91	-112.57
2	160.95	-52.24	-13.00	-39.24	2.89 V	160	57.85	-110.09
3	232.73	-56.70	-13.00	-43.70	1.48 V	51	55.57	-112.27
4	466.50	-56.98	-13.00	-43.98	2.25 V	294	48.08	-105.06
5	531.49	-53.18	-13.00	-40.18	1.08 V	331	50.92	-104.10
6	779.81	-57.96	-13.00	-44.96	1.48 V	21	40.93	-98.89

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



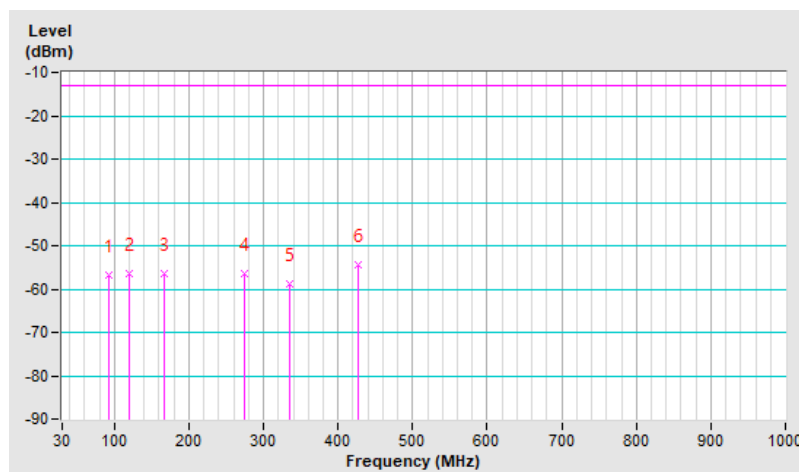
7.6.12 NB-IoT Band 66

RF Mode	NB-IoT Band 66	Channel	CH 132322 : 1745 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl 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	93.05	-56.80	-13.00	-43.80	1.25 H	29	56.96	-113.76
2	119.24	-56.41	-13.00	-43.41	1.00 H	176	53.92	-110.33
3	167.74	-56.54	-13.00	-43.54	2.85 H	143	51.66	-108.20
4	275.41	-56.47	-13.00	-43.47	1.66 H	314	51.63	-108.10
5	334.58	-58.87	-13.00	-45.87	1.95 H	205	47.43	-106.30
6	426.73	-54.45	-13.00	-41.45	1.44 H	169	49.54	-103.99

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

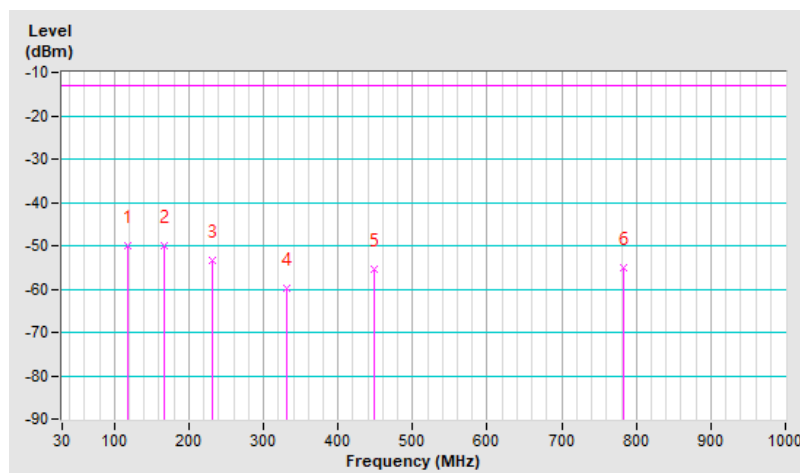


RF Mode	NB-IoT Band 66	Channel	CH 132322 : 1745 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	117.30	-50.09	-13.00	-37.09	1.85 V	236	60.37	-110.46
2	167.74	-50.05	-13.00	-37.05	1.22 V	59	58.15	-108.20
3	231.76	-53.52	-13.00	-40.52	2.63 V	281	56.71	-110.23
4	330.70	-59.88	-13.00	-46.88	1.73 V	204	46.45	-106.33
5	449.04	-55.29	-13.00	-42.29	1.89 V	204	47.88	-103.17
6	783.69	-55.01	-13.00	-42.01	2.69 V	225	41.77	-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 of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



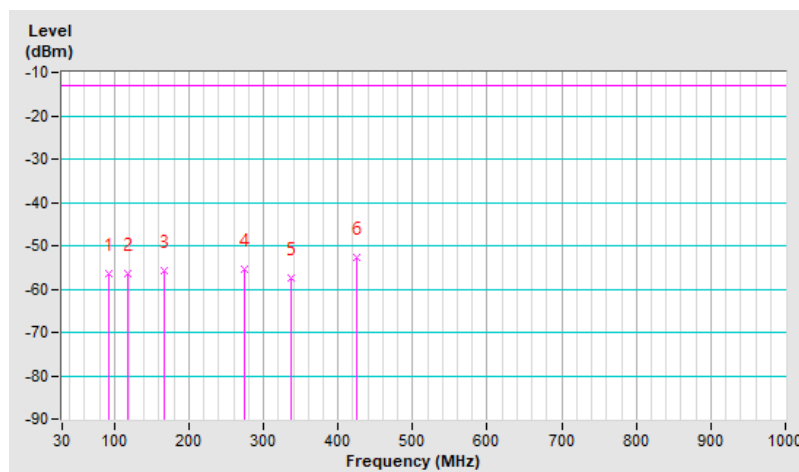
7.6.13 NB-IoT Band 85

RF Mode	NB-IoT Band 85	Channel	CH 134092 : 707 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl 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	92.08	-56.58	-13.00	-43.58	1.25 H	56	57.27	-113.85
2	118.27	-56.56	-13.00	-43.56	1.84 H	293	53.86	-110.42
3	167.74	-55.86	-13.00	-42.86	2.27 H	155	52.34	-108.20
4	274.44	-55.48	-13.00	-42.48	N/A H	N/A	52.67	-108.15
5	336.52	-57.36	-13.00	-44.36	1.83 H	36	48.92	-106.28
6	425.76	-52.55	-13.00	-39.55	2.42 H	104	51.49	-104.04

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 of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

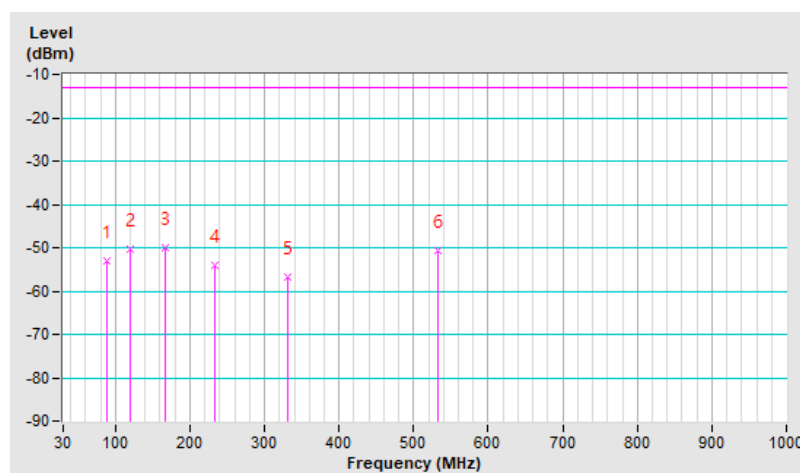


RF Mode	NB-IoT Band 85	Channel	CH 134092 : 707 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Karl Lee		

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	89.17	-52.90	-13.00	-39.90	2.22 V	140	61.23	-114.13
2	120.21	-50.33	-13.00	-37.33	1.96 V	35	59.89	-110.22
3	167.74	-49.99	-13.00	-36.99	2.25 V	81	58.21	-108.20
4	232.73	-53.90	-13.00	-40.90	1.06 V	327	56.22	-110.12
5	331.67	-56.93	-13.00	-43.93	2.63 V	104	49.40	-106.33
6	532.46	-50.63	-13.00	-37.63	2.57 V	114	51.31	-101.94

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 frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.7 Radiated Spurious Emissions above 1GHz

7.7.1 NB-IoT Band 2

RF Mode	NB-IoT Band 2	Channel	CH 18602 : 1850.2 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-33.32	-13.00	-20.32	1.42 H	110	62.13	-95.45
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	3700.40	-27.28	-13.00	-14.28	1.55 V	60	68.17	-95.45

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.

RF Mode	NB-IoT Band 2	Channel	CH 18900 : 1880.0 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-33.03	-13.00	-20.03	1.41 H	111	62.14	-95.17
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	3760.00	-27.17	-13.00	-14.17	1.55 V	59	68.00	-95.17

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.

RF Mode	NB-IoT Band 2	Channel	CH 19198 : 1909.8 MHz
Frequency Range	1 GHz ~ 20 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-33.54	-13.00	-20.54	1.40 H	120	61.38	-94.92
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	-27.81	-13.00	-14.81	1.54 V	55	67.11	-94.92

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.

7.7.2 NB-IoT Band 4

RF Mode	NB-IoT Band 4	Channel	CH 19952 : 1710.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3420.40	-42.05	-13.00	-29.05	3.05 H	99	54.26	-96.31
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	3420.40	-28.90	-13.00	-15.90	2.10 V	108	67.41	-96.31

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.

RF Mode	NB-IoT Band 4	Channel	CH 20175 : 1732.5 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3465.00	-41.99	-13.00	-28.99	3.06 H	90	54.29	-96.28
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	3465.00	-28.24	-13.00	-15.24	2.08 V	108	68.04	-96.28

Remarks:

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

RF Mode	NB-IoT Band 4	Channel	CH 20398 : 1754.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3509.60	-42.06	-13.00	-29.06	3.05 H	88	54.18	-96.24
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	3509.60	-28.88	-13.00	-15.88	2.09 V	111	67.36	-96.24

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.

7.7.3 NB-IoT Band 5

RF Mode	NB-IoT Band 5	Channel	CH 20402 : 824.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1648.40	-40.00	-13.00	-27.00	1.85 H	165	64.07	-104.07
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	1648.40	-37.99	-13.00	-24.99	1.81 V	2	66.08	-104.07

Remarks:

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

RF Mode	NB-IoT Band 5	Channel	CH 20525 : 836.5 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-39.99	-13.00	-26.99	1.84 H	170	64.08	-104.07
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	1673.00	-37.00	-13.00	-24.00	1.81 V	0	67.07	-104.07

Remarks:

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

RF Mode	NB-IoT Band 5	Channel	CH 20648 : 848.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1697.60	-40.05	-13.00	-27.05	1.80 H	177	64.01	-104.06
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	1697.60	-37.11	-13.00	-24.11	1.77 V	5	66.95	-104.06

Remarks:

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

7.7.4 NB-IoT Band 8

RF Mode	NB-IoT Band 8	Channel	CH 21627 : 897.7 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1795.40	-19.64	-13.00	-6.64	1.10 H	194	84.14	-103.78
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	1795.40	-15.02	-13.00	-2.02	1.85 V	170	88.76	-103.78

Remarks:

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

RF Mode	NB-IoT Band 8	Channel	CH 21640 : 899.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1798.00	-19.04	-13.00	-6.04	1.10 H	196	84.73	-103.77
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	1798.00	-14.93	-13.00	-1.93	1.86 V	172	88.84	-103.77

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.

RF Mode	NB-IoT Band 8	Channel	CH 21653 : 900.3 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1697.60	-19.55	-13.00	-6.55	1.05 H	200	84.51	-104.06
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	1697.60	-15.34	-13.00	-2.34	1.80 V	177	88.72	-104.06

Remarks:

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

7.7.5 NB-IoT Band 12

RF Mode	NB-IoT Band 12	Channel	CH 23012 : 699.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1398.40	-22.39	-13.00	-9.39	2.01 H	174	81.92	-104.31
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	1398.40	-18.08	-13.00	-5.08	1.55 V	194	86.23	-104.31

Remarks:

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

RF Mode	NB-IoT Band 12	Channel	CH 23095 : 707.5 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1415.00	-22.11	-13.00	-9.11	2.00 H	174	82.17	-104.28
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	1415.00	-17.80	-13.00	-4.80	1.59 V	192	86.48	-104.28

Remarks:

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

RF Mode	NB-IoT Band 12	Channel	CH 23178 : 715.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1415.00	-22.41	-13.00	-9.41	1.95 H	166	81.87	-104.28
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	1415.00	-17.89	-13.00	-4.89	1.59 V	160	86.39	-104.28

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.

7.7.6 NB-IoT Band 13

RF Mode	NB-IoT Band 13	Channel	CH 23182 : 777.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1554.40	-49.09	-13.00	-36.09	1.70 H	20	55.09	-104.18
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	1554.40	-44.55	-13.00	-31.55	1.18 V	64	59.63	-104.18

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.

RF Mode	NB-IoT Band 13	Channel	CH 23230 : 782.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1564.00	-48.41	-40.00	-8.41	1.75 H	14	53.61	-102.02
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	1564.00	-44.44	-40.00	-4.44	1.17 V	63	57.58	-102.02

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.

RF Mode	NB-IoT Band 13	Channel	CH 23278 : 786.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1573.60	-49.00	-40.00	-9.00	1.69 H	12	53.01	-102.01
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	1573.60	-44.83	-40.00	-4.83	1.15 V	58	57.18	-102.01

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.

7.7.7 NB-IoT Band 14

RF Mode	NB-IoT Band 14	Channel	CH 23282 : 788.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1576.40	-45.39	-40.00	-5.39	1.55 H	112	56.61	-102.00
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	1576.40	-42.07	-40.00	-2.07	1.02 V	69	59.93	-102.00

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.

RF Mode	NB-IoT Band 14	Channel	CH 23300 : 793.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1586.00	-45.26	-40.00	-5.26	1.53 H	114	56.73	-101.99
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	1586.00	-41.85	-40.00	-1.85	1.01 V	65	60.14	-101.99

Remarks:

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

RF Mode	NB-IoT Band 14	Channel	CH 23378 : 797.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1595.60	-46.03	-40.00	-6.03	1.50 H	129	55.95	-101.98
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	1595.60	-41.86	-40.00	-1.86	1.00 V	55	60.12	-101.98

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.

7.7.8 NB-IoT Band 17

RF Mode	NB-IoT Band 17	Channel	CH 23732 : 704.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1408.20	-17.08	-13.00	-4.08	1.41 H	15	87.22	-104.30
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	1408.20	-15.28	-13.00	-2.28	1.60 V	190	89.02	-104.30

Remarks:

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

RF Mode	NB-IoT Band 17	Channel	CH 23790 : 710.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1420.00	-16.82	-13.00	-3.82	1.42 H	19	87.45	-104.27
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	1420.00	-14.16	-13.00	-1.16	1.60 V	191	90.11	-104.27

Remarks:

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

RF Mode	NB-IoT Band 17	Channel	CH 23848 : 715.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1431.80	-17.30	-13.00	-4.30	1.41 H	20	86.95	-104.25
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	1431.80	-14.81	-13.00	-1.81	1.55 V	187	89.44	-104.25

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.

7.7.9 NB-IoT Band 25

RF Mode	NB-IoT Band 25	Channel	CH 26042 : 1850.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-37.28	-13.00	-24.28	1.50 H	167	58.17	-95.45
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	3700.40	-26.27	-13.00	-13.27	1.55 V	189	69.18	-95.45

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.

RF Mode	NB-IoT Band 25	Channel	CH 26365 : 1882.5 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-37.07	-13.00	-24.07	1.55 H	165	58.08	-95.15
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	3765.00	-26.04	-13.00	-13.04	1.52 V	175	69.11	-95.15

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.

RF Mode	NB-IoT Band 25	Channel	CH 26688 : 1914.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3829.60	-37.55	-13.00	-24.55	1.56 H	177	57.34	-94.89
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	3829.60	-27.01	-13.00	-14.01	1.50 V	166	67.88	-94.89

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.

7.7.10 NB-IoT Band 26 (Part 22)

RF Mode	NB-IoT Band 26	Channel	CH 26792 : 824.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1628.20	-43.14	-13.00	-30.14	1.84 H	166	60.95	-104.09
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	1628.20	-38.84	-13.00	-25.84	1.50 V	355	65.25	-104.09

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.

RF Mode	NB-IoT Band 26	Channel	CH 26915 : 836.5 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1638.00	-43.00	-13.00	-30.00	1.80 H	166	61.08	-104.08
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	1638.00	-38.75	-13.00	-25.75	1.51 V	359	65.33	-104.08

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.

RF Mode	NB-IoT Band 26	Channel	CH 27038 : 848.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1647.80	-43.25	-13.00	-30.25	1.77 H	168	60.82	-104.07
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	1647.80	-39.06	-13.00	-26.06	1.50 V	358	65.01	-104.07

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.

7.7.11 NB-IoT Band 26 (Part 90)

RF Mode	NB-IoT Band 26	Channel	CH 26692 : 814.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1648.40	-40.07	-13.00	-27.07	1.84 H	166	64.00	-104.07
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	1648.40	-36.68	-13.00	-23.68	1.55 V	0	67.39	-104.07

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.

RF Mode	NB-IoT Band 26	Channel	CH 26740 : 819.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-39.56	-13.00	-26.56	1.85 H	169	64.51	-104.07
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	1673.00	-36.43	-13.00	-23.43	1.59 V	0	67.64	-104.07

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.

RF Mode	NB-IoT Band 26	Channel	CH 26788 : 823.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1697.60	-39.88	-13.00	-26.88	1.84 H	166	64.18	-104.06
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	1697.60	-37.05	-13.00	-24.05	1.55 V	3	67.01	-104.06

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.

7.7.12 NB-IoT Band 66

RF Mode	NB-IoT Band 66	Channel	CH 131974 : 1710.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3420.40	-39.85	-13.00	-26.85	1.21 H	333	56.46	-96.31
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	3420.40	-28.08	-13.00	-15.08	1.52 V	50	68.23	-96.31

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.

RF Mode	NB-IoT Band 66	Channel	CH132322 : 1745.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	-39.65	-13.00	-26.65	1.20 H	320	56.63	-96.28
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	3490.00	-27.98	-13.00	-14.98	1.51 V	53	68.30	-96.28

Remarks:

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

RF Mode	NB-IoT Band 66	Channel	CH 132670 : 1779.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	3559.60	-39.89	-13.00	-26.89	1.18 H	326	56.20	-96.09
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	3559.60	-28.30	-13.00	-15.30	1.50 V	54	67.79	-96.09

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.

7.7.13 NB-IoT Band 85

RF Mode	NB-IoT Band 85	Channel	CH 134004 : 698.2 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1396.40	-18.06	-13.00	-5.06	1.51 H	41	86.24	-104.30
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	1396.40	-16.10	-13.00	-3.10	1.25 V	188	88.20	-104.30

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.

RF Mode	NB-IoT Band 85	Channel	CH 134092 : 707.0 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1414.00	-17.91	-13.00	-4.91	1.50 H	40	86.37	-104.28
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	1414.00	-15.26	-13.00	-2.26	1.30 V	190	89.02	-104.28

Remarks:

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

RF Mode	NB-IoT Band 85	Channel	CH 134180 : 715.8 MHz
Frequency Range	1 GHz ~ 18 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 67 % RH
Tested By	Charles Hsiao		

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	1431.60	-18.22	-13.00	-5.22	1.52 H	33	86.03	-104.25
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	1431.60	-15.48	-13.00	-2.48	1.32 V	188	88.77	-104.25

Remarks:

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

7.8 Frequency Stability

Environmental Conditions:	22°C, 68% RH	Tested By:	Match Tsui
---------------------------	--------------	------------	------------

7.8.1 NB-IoT Band 2

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18602 (1850.2 MHz)		CH 19198 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	1850.199997	-0.001621	1909.800000	0.000524
2.5	1850.200003	0.001621	1909.799996	-0.002094
4.4	1850.199998	-0.001081	1909.799995	-0.002618

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18602 (1850.2 MHz)		CH 19198 (1909.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1850.199997	-0.001621	1909.800003	0.001571
-30	1850.199998	-0.001081	1909.799997	-0.001571
-20	1850.200001	0.000540	1909.799998	-0.001047
-10	1850.200001	0.000540	1909.799997	-0.001571
0	1850.199996	-0.002162	1909.799997	-0.001571
10	1850.200004	0.002162	1909.800005	0.002618
20	1850.200001	0.000540	1909.800005	0.002618
30	1850.199998	-0.001081	1909.800001	0.000524
40	1850.200003	0.001621	1909.800004	0.002094
50	1850.200004	0.002162	1909.799999	-0.000524
60	1850.199995	-0.002702	1909.800003	0.001571
70	1850.200004	0.002162	1909.800005	0.002618
80	1850.199995	-0.002702	1909.800001	0.000524
85	1850.200002	0.001081	1909.799996	-0.002094

7.8.2 NB-IoT Band 4

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 19952 (1710.2 MHz)		CH 20398 (1754.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	1710.200001	0.000585	1754.799999	-0.000570
2.5	1710.200001	0.000585	1754.799997	-0.001710
4.4	1710.200002	0.001169	1754.800005	0.002849

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 19952 (1710.2 MHz)		CH 20398 (1754.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1710.199997	-0.001754	1754.800003	0.001710
-30	1710.199999	-0.000585	1754.800003	0.001710
-20	1710.199996	-0.002339	1754.800003	0.001710
-10	1710.200004	0.002339	1754.800002	0.001140
0	1710.200005	0.002924	1754.800005	0.002849
10	1710.200005	0.002924	1754.799997	-0.001710
20	1710.199999	-0.000585	1754.800004	0.002279
30	1710.200003	0.001754	1754.800001	0.000570
40	1710.199995	-0.002924	1754.800001	0.000570
50	1710.200004	0.002339	1754.800004	0.002279
60	1710.200003	0.001754	1754.800001	0.000570
70	1710.200003	0.001754	1754.800001	0.000570
80	1710.199999	-0.000585	1754.799997	-0.001710
85	1710.199998	-0.001169	1754.799995	-0.002849

7.8.3 NB-IoT Band 5

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20402 (824.2 MHz)		CH 20648 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	824.200003	0.003640	848.800001	0.001178
2.5	824.200002	0.002427	848.800003	0.003534
4.4	824.199996	-0.004853	848.800004	0.004713

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20402 (824.2 MHz)		CH 20648 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	824.200005	0.006066	848.799995	-0.005891
-30	824.200004	0.004853	848.800002	0.002356
-20	824.199999	-0.001213	848.799999	-0.001178
-10	824.199998	-0.002427	848.800002	0.002356
0	824.199998	-0.002427	848.800005	0.005891
10	824.199997	-0.003640	848.799995	-0.005891
20	824.200002	0.002427	848.799997	-0.003534
30	824.200004	0.004853	848.799999	-0.001178
40	824.200003	0.003640	848.800004	0.004713
50	824.200003	0.003640	848.800003	0.003534
60	824.199997	-0.003640	848.800001	0.001178
70	824.200003	0.003640	848.799996	-0.004713
80	824.199996	-0.004853	848.800002	0.002356
85	824.200001	0.001213	848.799995	-0.005891

7.8.4 NB-IoT Band 8

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 21627 (897.7 MHz)		CH 21653 (900.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	897.700001	0.001114	900.300003	0.003332
2.5	897.700001	0.001114	900.299995	-0.005554
4.4	897.699995	-0.005570	900.299999	-0.001111

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 21627 (897.7 MHz)		CH 21653 (900.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	897.699998	-0.002228	900.300002	0.002221
-30	897.700004	0.004456	900.299996	-0.004443
-20	897.699995	-0.005570	900.299999	-0.001111
-10	897.699998	-0.002228	900.300004	0.004443
0	897.699997	-0.003342	900.299995	-0.005554
10	897.699996	-0.004456	900.300002	0.002221
20	897.700001	0.001114	900.299995	-0.005554
30	897.700002	0.002228	900.300004	0.004443
40	897.700005	0.005570	900.300001	0.001111
50	897.699999	-0.001114	900.300004	0.004443
60	897.700002	0.002228	900.300003	0.003332
70	897.700003	0.003342	900.299997	-0.003332
80	897.699999	-0.001114	900.300004	0.004443
85	897.699997	-0.003342	900.300004	0.004443

7.8.5 NB-IoT Band 12

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23012 (699.2 MHz)		CH 23178 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	699.200001	0.001430	715.799997	-0.004191
2.5	699.200004	0.005721	715.799996	-0.005588
4.4	699.200001	0.001430	715.799998	-0.002794

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23012 (699.2 MHz)		CH 23178 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	699.199996	-0.005721	715.799998	-0.002794
-30	699.199997	-0.004291	715.800004	0.005588
-20	699.200005	0.007151	715.800005	0.006985
-10	699.199996	-0.005721	715.800002	0.002794
0	699.200005	0.007151	715.800001	0.001397
10	699.200002	0.002860	715.800001	0.001397
20	699.200001	0.001430	715.800005	0.006985
30	699.199996	-0.005721	715.800001	0.001397
40	699.199995	-0.007151	715.800001	0.001397
50	699.199999	-0.001430	715.800001	0.001397
60	699.199997	-0.004291	715.799998	-0.002794
70	699.200004	0.005721	715.799998	-0.002794
80	699.200003	0.004291	715.799999	-0.001397
85	699.199998	-0.002860	715.800002	0.002794

7.8.6 NB-IoT Band 13

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23182 (777.2 MHz)		CH 23278 (786.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	777.199998	-0.002573	786.800005	0.006355
2.5	777.199999	-0.001287	786.799995	-0.006355
4.4	777.200001	0.001287	786.799995	-0.006355

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23182 (777.2 MHz)		CH 23278 (786.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	777.199996	-0.005147	786.800005	0.006355
-30	777.199998	-0.002573	786.799997	-0.003813
-20	777.200001	0.001287	786.799998	-0.002542
-10	777.200005	0.006433	786.800005	0.006355
0	777.200003	0.003860	786.800005	0.006355
10	777.199998	-0.002573	786.799996	-0.005084
20	777.199996	-0.005147	786.799996	-0.005084
30	777.199996	-0.005147	786.800001	0.001271
40	777.199996	-0.005147	786.799997	-0.003813
50	777.200005	0.006433	786.800004	0.005084
60	777.199995	-0.006433	786.800005	0.006355
70	777.199995	-0.006433	786.800001	0.001271
80	777.200001	0.001287	786.800002	0.002542
85	777.200001	0.001287	786.800004	0.005084

7.8.7 NB-IoT Band 14

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23282 (788.2 MHz)		CH 23378 (797.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	788.200005	0.006344	797.799997	-0.003760
2.5	788.199996	-0.005075	797.800001	0.001253
4.4	788.200001	0.001269	797.800003	0.003760

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23282 (788.2 MHz)		CH 23378 (797.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	788.199996	-0.005075	797.800002	0.002507
-30	788.199999	-0.001269	797.800001	0.001253
-20	788.199997	-0.003806	797.799996	-0.005014
-10	788.200003	0.003806	797.800005	0.006267
0	788.199999	-0.001269	797.800005	0.006267
10	788.199995	-0.006344	797.799997	-0.003760
20	788.199996	-0.005075	797.799996	-0.005014
30	788.200001	0.001269	797.800001	0.001253
40	788.200001	0.001269	797.800003	0.003760
50	788.200004	0.005075	797.799999	-0.001253
60	788.200005	0.006344	797.800004	0.005014
70	788.200004	0.005075	797.800001	0.001253
80	788.199995	-0.006344	797.799998	-0.002507
85	788.199998	-0.002537	797.800003	0.003760

7.8.8 NB-IoT Band 17

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23732 (704.2 MHz)		CH 23848 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	704.200002	0.002840	715.799995	-0.006985
2.5	704.199996	-0.005680	715.800005	0.006985
4.4	704.199996	-0.005680	715.800003	0.004191

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23732 (704.2 MHz)		CH 23848 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	704.200001	0.001420	715.799998	-0.002794
-30	704.200004	0.005680	715.800004	0.005588
-20	704.200001	0.001420	715.800004	0.005588
-10	704.200003	0.004260	715.799998	-0.002794
0	704.199996	-0.005680	715.800001	0.001397
10	704.199998	-0.002840	715.799995	-0.006985
20	704.200005	0.007100	715.799998	-0.002794
30	704.199999	-0.001420	715.799997	-0.004191
40	704.199998	-0.002840	715.800003	0.004191
50	704.199996	-0.005680	715.800001	0.001397
60	704.200002	0.002840	715.799995	-0.006985
70	704.200003	0.004260	715.799999	-0.001397
80	704.199999	-0.001420	715.800001	0.001397
85	704.200001	0.001420	715.800005	0.006985

7.8.9 NB-IoT Band 25

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 26042 (1850.2 MHz)		CH 26688 (1914.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	1850.200001	0.000540	1914.800001	0.000522
2.5	1850.200002	0.001081	1914.799998	-0.001044
4.4	1850.199995	-0.002702	1914.799997	-0.001567

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 26042 (1850.2 MHz)		CH 26688 (1914.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1850.200001	0.000540	1914.800005	0.002611
-30	1850.199995	-0.002702	1914.800002	0.001044
-20	1850.200001	0.000540	1914.799995	-0.002611
-10	1850.200003	0.001621	1914.799997	-0.001567
0	1850.200004	0.002162	1914.799995	-0.002611
10	1850.200001	0.000540	1914.799999	-0.000522
20	1850.199999	-0.000540	1914.800005	0.002611
30	1850.199995	-0.002702	1914.800004	0.002089
40	1850.200004	0.002162	1914.800002	0.001044
50	1850.200002	0.001081	1914.799995	-0.002611
60	1850.200001	0.000540	1914.799998	-0.001044
70	1850.199996	-0.002162	1914.800003	0.001567
80	1850.199995	-0.002702	1914.800003	0.001567
85	1850.200001	0.000540	1914.799999	-0.000522

7.8.10 NB-IoT Band 26 (Part 22)

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 26792 (824.2 MHz)		CH 27038 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	824.199997	-0.003640	848.799999	-0.001178
2.5	824.200004	0.004853	848.799996	-0.004713
4.4	824.200005	0.006066	848.800001	0.001178

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 26792 (824.2 MHz)		CH 27038 (848.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	824.199997	-0.003640	848.800005	0.005891
-30	824.199998	-0.002427	848.799996	-0.004713
-20	824.200002	0.002427	848.800004	0.004713
-10	824.200003	0.003640	848.799996	-0.004713
0	824.199995	-0.006066	848.800004	0.004713
10	824.199997	-0.003640	848.800004	0.004713
20	824.200003	0.003640	848.800001	0.001178
30	824.200004	0.004853	848.799998	-0.002356
40	824.200005	0.006066	848.800005	0.005891
50	824.199997	-0.003640	848.799995	-0.005891
60	824.199995	-0.006066	848.799995	-0.005891
70	824.200001	0.001213	848.799995	-0.005891
80	824.200002	0.002427	848.799996	-0.004713
85	824.199995	-0.006066	848.800004	0.004713

7.8.11 NB-IoT Band 26 (Part 90)

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 26692 (814.2 MHz)		CH 26788 (823.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	814.200005	0.006141	823.800005	0.006069
2.5	814.200003	0.003685	823.800001	0.001214
4.4	814.200004	0.004913	823.799996	-0.004856

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 26692 (814.2 MHz)		CH 26788 (823.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	814.199998	-0.002456	823.800001	0.001214
-30	814.199999	-0.001228	823.799995	-0.006069
-20	814.199999	-0.001228	823.800001	0.001214
-10	814.199995	-0.006141	823.799998	-0.002428
0	814.199997	-0.003685	823.800002	0.002428
10	814.200003	0.003685	823.800003	0.003642
20	814.200002	0.002456	823.800004	0.004856
30	814.199996	-0.004913	823.800001	0.001214
40	814.199999	-0.001228	823.800002	0.002428
50	814.199997	-0.003685	823.799999	-0.001214
60	814.200004	0.004913	823.800001	0.001214
70	814.200005	0.006141	823.799996	-0.004856
80	814.200001	0.001228	823.800004	0.004856
85	814.199995	-0.006141	823.799995	-0.006069

7.8.12 NB-IoT Band 66

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 131974 (1710.2 MHz)		CH 132670 (1779.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	1710.199995	-0.002924	1779.799997	-0.001686
2.5	1710.200001	0.000585	1779.800004	0.002247
4.4	1710.200005	0.002924	1779.799995	-0.002809

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 131974 (1710.2 MHz)		CH 132670 (1779.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	1710.199997	-0.001754	1779.800001	0.000562
-30	1710.200004	0.002339	1779.800001	0.000562
-20	1710.200003	0.001754	1779.800001	0.000562
-10	1710.200002	0.001169	1779.800002	0.001124
0	1710.200004	0.002339	1779.799996	-0.002247
10	1710.199995	-0.002924	1779.799998	-0.001124
20	1710.200001	0.000585	1779.800003	0.001686
30	1710.200002	0.001169	1779.799996	-0.002247
40	1710.199995	-0.002924	1779.800002	0.001124
50	1710.199997	-0.001754	1779.800003	0.001686
60	1710.199997	-0.001754	1779.800001	0.000562
70	1710.200004	0.002339	1779.800005	0.002809
80	1710.200002	0.001169	1779.799999	-0.000562
85	1710.199999	-0.000585	1779.800002	0.001124

7.8.13 NB-IoT Band 85

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 134004 (698.2 MHz)		CH 13180 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.8	698.200003	0.004297	715.800001	0.001397
2.5	698.200004	0.005729	715.800001	0.001397
4.4	698.200001	0.001432	715.799995	-0.006985

Note: The applicant defined the normal working voltage is from 2.5 to 4.4 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 134004 (698.2 MHz)		CH 13180 (715.8 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-40	698.199996	-0.005729	715.799998	-0.002794
-30	698.200004	0.005729	715.800002	0.002794
-20	698.200002	0.002865	715.800003	0.004191
-10	698.199998	-0.002865	715.799999	-0.001397
0	698.200001	0.001432	715.799999	-0.001397
10	698.199999	-0.001432	715.800003	0.004191
20	698.199997	-0.004297	715.799998	-0.002794
30	698.199999	-0.001432	715.799997	-0.004191
40	698.200003	0.004297	715.800005	0.006985
50	698.200003	0.004297	715.800003	0.004191
60	698.200004	0.005729	715.799995	-0.006985
70	698.200004	0.005729	715.799999	-0.001397
80	698.199997	-0.004297	715.799999	-0.001397
85	698.199999	-0.001432	715.799998	-0.002794

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

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 ---