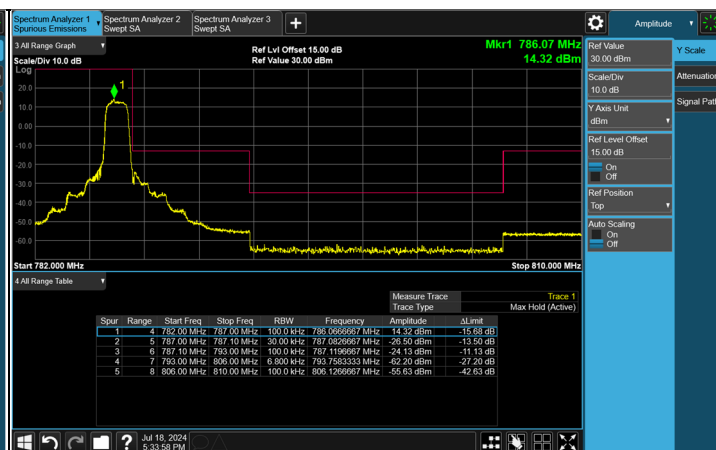
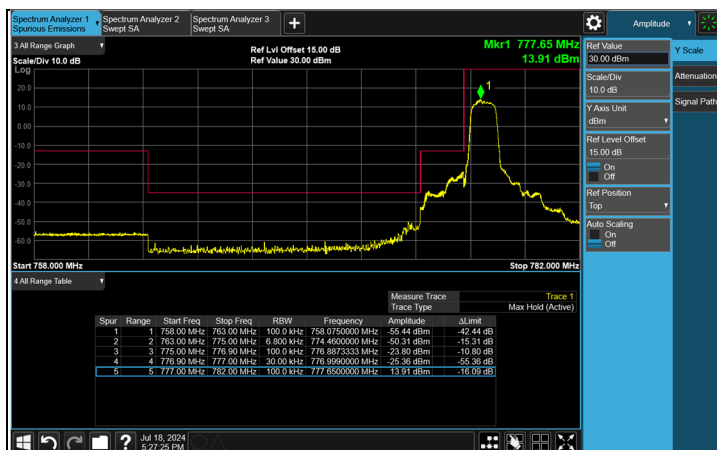
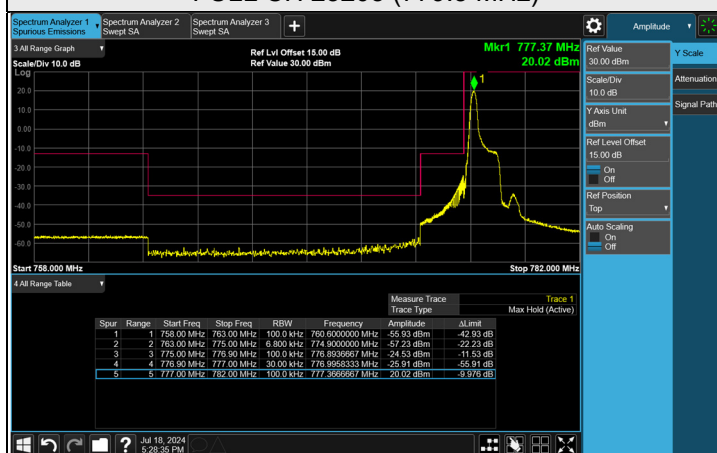


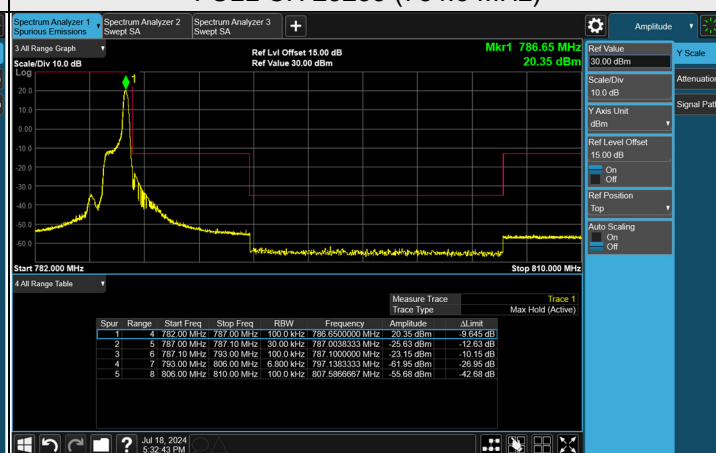


FULL CH 23205 (779.5 MHz)



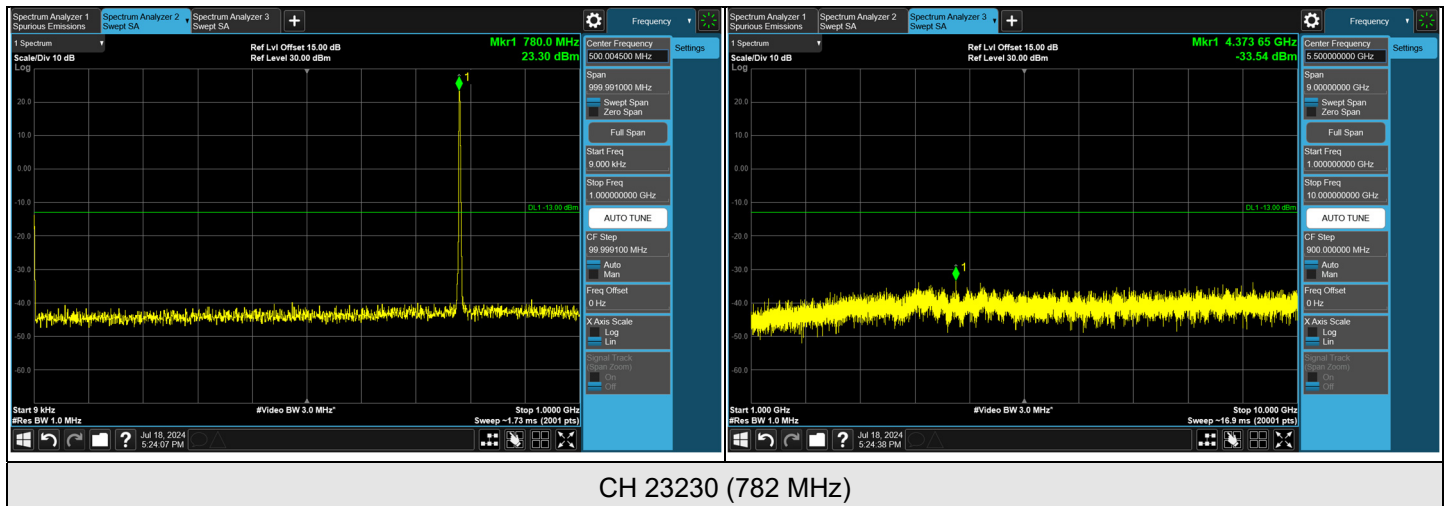
1RB CH 23205 (779.5 MHz)

FULL CH 23255 (784.5 MHz)

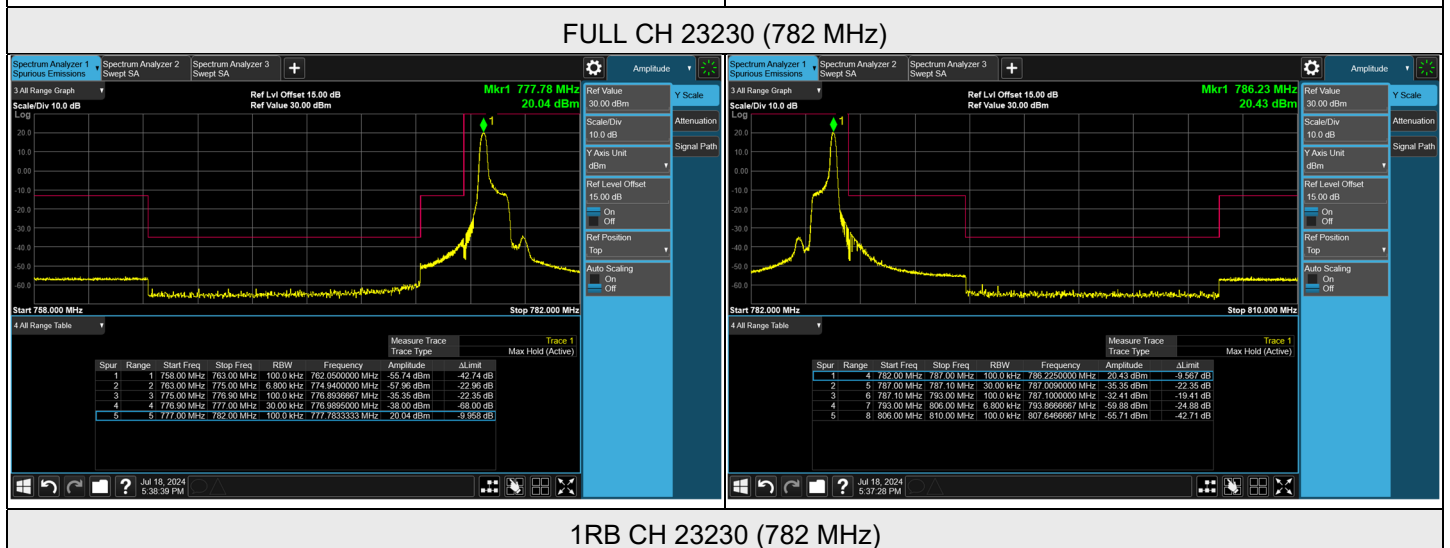


1RB CH 23255 (784.5 MHz)

Cat-M1 Band 13, Channel Bandwidth: 10 MHz



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



7.6 Radiated Spurious Emissions below 1GHz

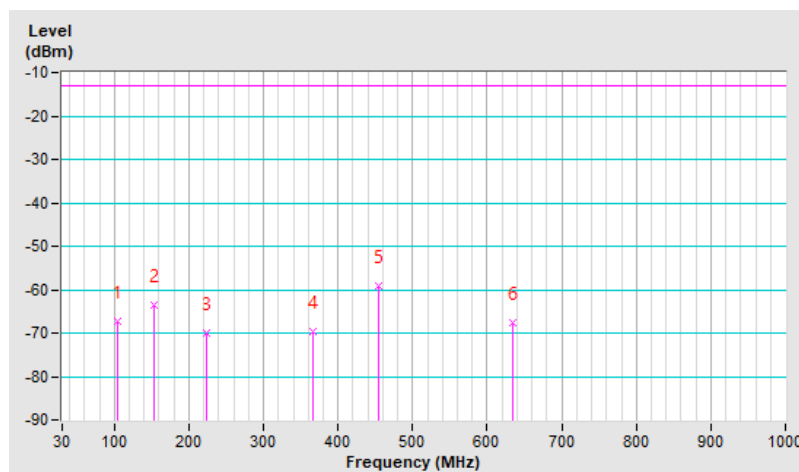
7.6.1 Cat-M1 Band 2

RF Mode	Cat-M1 Band 2 Channel Bandwidth: 1.4MHz	Channel	CH 19193 : 1909.30 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, 65 % 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	104.69	-67.40	-13.00	-54.40	1.63 H	157	44.86	-112.26
2	153.19	-63.70	-13.00	-50.70	2.41 H	188	44.77	-108.47
3	223.03	-70.10	-13.00	-57.10	2.32 H	170	41.74	-111.84
4	365.62	-69.70	-13.00	-56.70	1.63 H	27	36.75	-106.45
5	454.86	-59.30	-13.00	-46.30	1.62 H	274	44.63	-103.93
6	633.34	-67.50	-13.00	-54.50	1.48 H	324	32.61	-100.11

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.

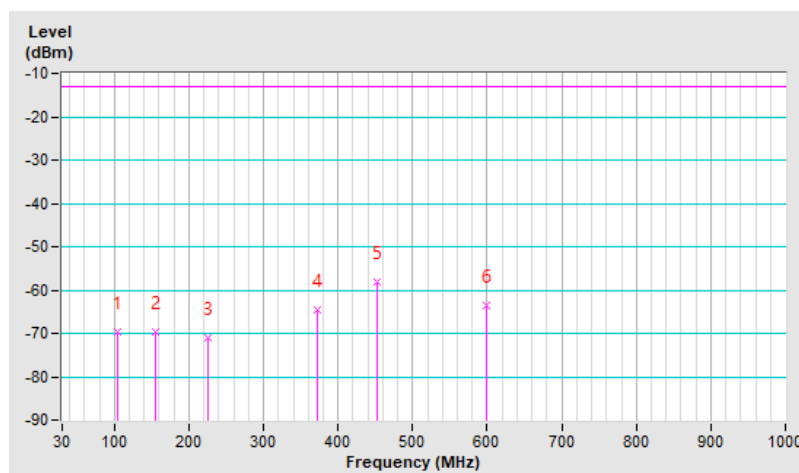


RF Mode	Cat-M1 Band 2 Channel Bandwidth: 1.4MHz	Channel	CH 19193 : 1909.30 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 65 % RH
Tested By	Karl Lee		

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	103.72	-69.80	-13.00	-56.80	1.38 V	226	42.59	-112.39
2	155.13	-69.70	-13.00	-56.70	1.68 V	125	38.74	-108.44
3	225.94	-70.90	-13.00	-57.90	1.72 V	150	40.72	-111.62
4	371.44	-64.50	-13.00	-51.50	1.88 V	341	41.73	-106.23
5	452.92	-58.20	-13.00	-45.20	2.09 V	214	45.77	-103.97
6	599.39	-63.40	-13.00	-50.40	1.59 V	94	37.41	-100.81

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.



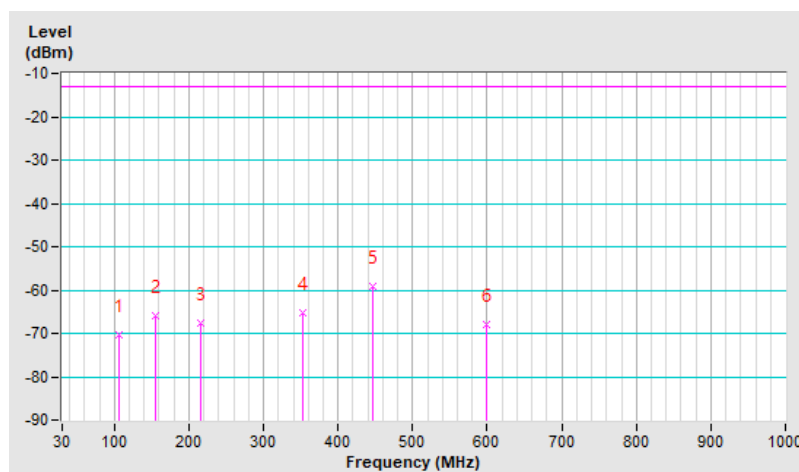
7.6.2 Cat-M1 Band 4

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 20MHz	Channel	CH 20300 : 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, 65 % 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	105.66	-70.20	-13.00	-57.20	1.06 H	242	41.97	-112.17
2	156.10	-65.90	-13.00	-52.90	1.82 H	241	42.58	-108.48
3	215.27	-67.50	-13.00	-54.50	2.36 H	41	44.32	-111.82
4	352.04	-65.10	-13.00	-52.10	1.17 H	21	41.73	-106.83
5	446.13	-59.30	-13.00	-46.30	1.29 H	138	44.85	-104.15
6	599.39	-67.80	-13.00	-54.80	2.28 H	174	33.01	-100.81

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.

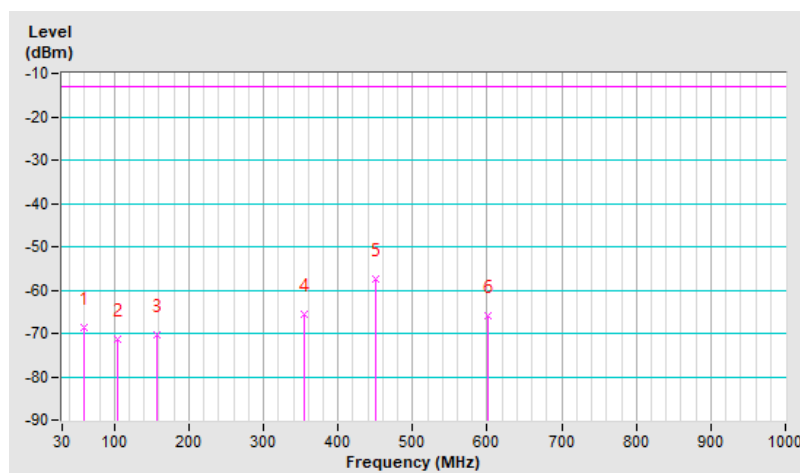


RF Mode	Cat-M1 Band 4 Channel Bandwidth: 20MHz	Channel	CH 20300 : 1745 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 65 % RH
Tested By	Karl Lee		

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	60.07	-68.70	-13.00	-55.70	1.75 V	335	40.44	-109.14
2	103.72	-71.30	-13.00	-58.30	1.96 V	249	41.09	-112.39
3	157.07	-70.50	-13.00	-57.50	1.77 V	156	37.90	-108.40
4	354.95	-65.60	-13.00	-52.60	2.09 V	224	41.16	-106.76
5	450.98	-57.40	-13.00	-44.40	1.31 V	184	46.61	-104.01
6	600.36	-66.00	-13.00	-53.00	1.95 V	152	34.78	-100.78

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.



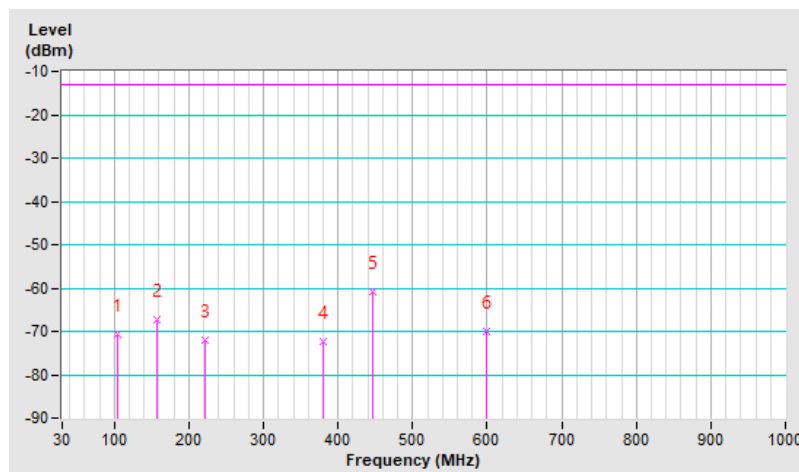
7.6.3 Cat-M1 Band 5

RF Mode	Cat-M1 Band 5 Channel Bandwidth: 10MHz	Channel	CH 20525 : 836.50 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, 65 % 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	103.72	-70.70	-13.00	-57.70	1.43 H	248	43.84	-114.54
2	157.07	-67.40	-13.00	-54.40	1.72 H	162	43.15	-110.55
3	222.06	-72.10	-13.00	-59.10	1.92 H	243	41.93	-114.03
4	380.17	-72.30	-13.00	-59.30	1.05 H	241	35.83	-108.13
5	447.10	-60.80	-13.00	-47.80	2.05 H	17	45.46	-106.26
6	598.42	-70.00	-13.00	-57.00	1.26 H	331	33.00	-103.00

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.

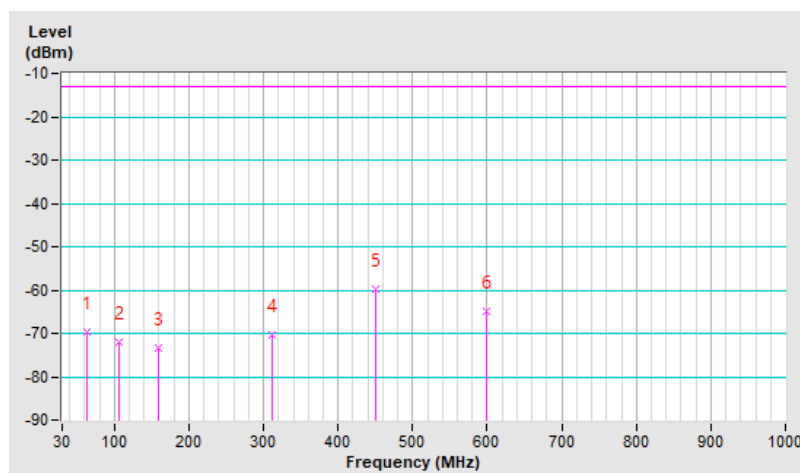


RF Mode	Cat-M1 Band 5 Channel Bandwidth: 10MHz	Channel	CH 20525 : 836.50 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 65 % RH
Tested By	Karl Lee		

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	62.98	-69.50	-13.00	-56.50	2.42 V	185	42.01	-111.51
2	106.63	-72.20	-13.00	-59.20	1.96 V	310	41.96	-114.16
3	159.01	-73.50	-13.00	-60.50	1.25 V	214	37.06	-110.56
4	312.27	-70.30	-13.00	-57.30	1.79 V	94	39.33	-109.63
5	450.98	-59.90	-13.00	-46.90	2.53 V	44	46.26	-106.16
6	599.39	-64.90	-13.00	-51.90	1.72 V	157	38.06	-102.96

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.



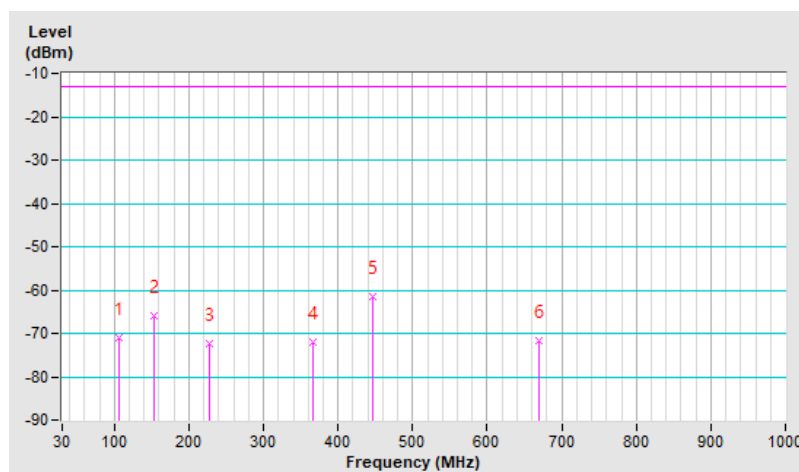
7.6.4 Cat-M1 Band 12

RF Mode	Cat-M1 Band 12 Channel Bandwidth: 5MHz	Channel	CH 23095 : 707.50 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, 65 % 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	105.66	-70.90	-13.00	-57.90	1.09 H	241	43.42	-114.32
2	153.19	-66.00	-13.00	-53.00	2.63 H	221	44.62	-110.62
3	226.91	-72.40	-13.00	-59.40	1.38 H	245	41.20	-113.60
4	365.62	-71.90	-13.00	-58.90	1.38 H	52	36.70	-108.60
5	447.10	-61.50	-13.00	-48.50	1.94 H	38	44.76	-106.26
6	669.23	-71.80	-13.00	-58.80	2.74 H	155	30.35	-102.15

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.

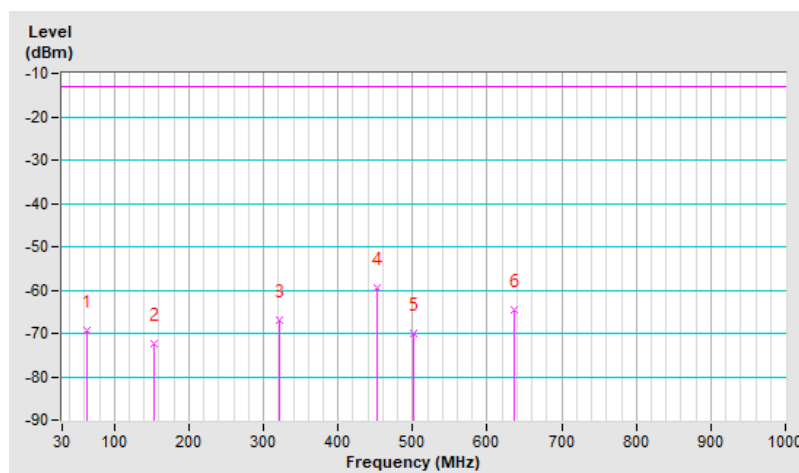


RF Mode	Cat-M1 Band 12 Channel Bandwidth: 5MHz	Channel	CH 23095 : 707.50 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 65 % RH
Tested By	Karl Lee		

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	62.98	-69.30	-13.00	-56.30	1.72 V	242	42.21	-111.51
2	154.16	-72.50	-13.00	-59.50	1.89 V	342	38.02	-110.52
3	321.00	-67.00	-13.00	-54.00	1.35 V	247	42.39	-109.39
4	451.95	-59.60	-13.00	-46.60	1.88 V	57	46.54	-106.14
5	501.42	-69.90	-13.00	-56.90	1.39 V	65	35.39	-105.29
6	635.28	-64.50	-13.00	-51.50	1.72 V	224	37.71	-102.21

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.



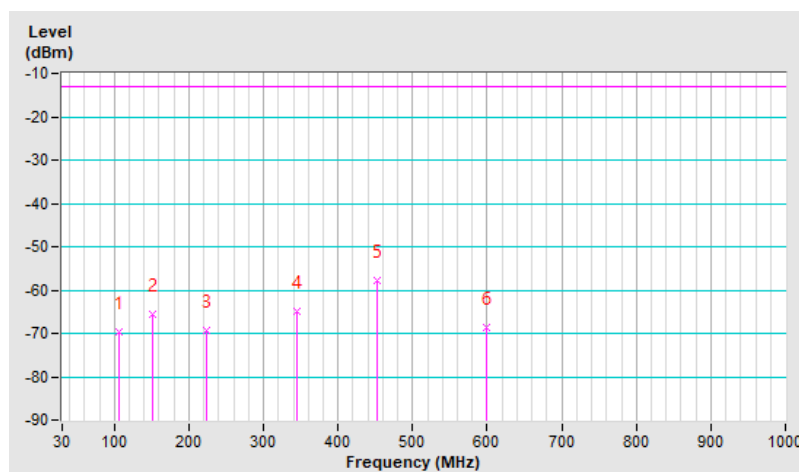
7.6.5 Cat-M1 Band 13

RF Mode	Cat-M1 Band 13 Channel Bandwidth: 5MHz	Channel	CH 23255 : 784.50 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, 65 % 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	105.66	-69.70	-13.00	-56.70	2.13 H	151	44.62	-114.32
2	152.22	-65.50	-13.00	-52.50	3.21 H	124	45.14	-110.64
3	223.03	-69.20	-13.00	-56.20	1.69 H	0	44.79	-113.99
4	344.28	-64.80	-13.00	-51.80	1.77 H	114	44.27	-109.07
5	452.92	-57.80	-13.00	-44.80	1.24 H	327	48.32	-106.12
6	599.39	-68.70	-13.00	-55.70	1.60 H	100	34.26	-102.96

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.

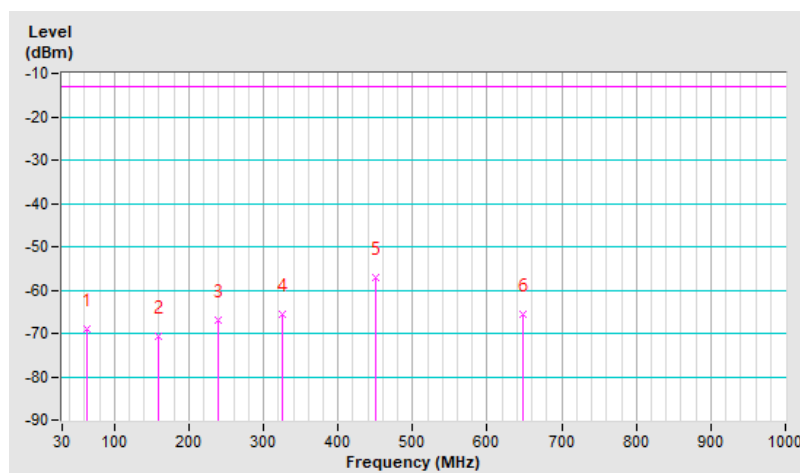


RF Mode	Cat-M1 Band 13 Channel Bandwidth: 5MHz	Channel	CH 23255 : 784.50 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	23 °C, 65 % RH
Tested By	Karl Lee		

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	62.98	-68.90	-13.00	-55.90	1.01 V	274	42.61	-111.51
2	159.98	-70.70	-13.00	-57.70	1.88 V	24	39.92	-110.62
3	238.55	-67.10	-13.00	-54.10	1.59 V	323	45.00	-112.10
4	324.88	-65.60	-13.00	-52.60	1.36 V	274	43.68	-109.28
5	450.98	-57.10	-13.00	-44.10	1.29 V	336	49.06	-106.16
6	648.86	-65.60	-13.00	-52.60	1.75 V	245	36.49	-102.09

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) + $20\log(D)$ – 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.



7.7 Radiated Spurious Emissions above 1GHz

7.7.1 Cat-M1 Band 2

RF Mode	Cat-M1 Band 2 Channel Bandwidth: 1.4MHz	Channel	CH 18607 : 1850.7 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, 65% 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	3701.40	-51.25	-13.00	-38.25	1.36 H	76	38.39	-89.64
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3701.40	-51.14	-13.00	-38.14	1.52 V	235	38.50	-89.64

Remarks:

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

RF Mode	Cat-M1 Band 2 Channel Bandwidth: 1.4MHz	Channel	CH 18900 : 1880 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, 65% 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	3760.00	-50.47	-13.00	-37.47	1.59 H	241	38.85	-89.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-50.70	-13.00	-37.70	1.09 V	214	38.62	-89.32

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	Cat-M1 Band 2 Channel Bandwidth: 1.4MHz	Channel	CH 19193 : 1909.3 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, 65% 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	3818.60	-49.66	-13.00	-36.66	1.38 H	104	39.33	-88.99
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	3818.60	-49.47	-13.00	-36.47	1.28 V	322	39.52	-88.99

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	Cat-M1 Band 2 Channel Bandwidth: 5MHz	Channel	CH 18625 : 1852.5 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, 65% 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	3705.00	-50.76	-13.00	-37.76	2.53 H	271	38.87	-89.63
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3705.00	-50.38	-13.00	-37.38	1.06 V	341	39.25	-89.63

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	Cat-M1 Band 2 Channel Bandwidth: 5MHz	Channel	CH 18900 : 1880 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, 65% 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	3760.00	-50.01	-13.00	-37.01	1.29 H	68	39.31	-89.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-50.69	-13.00	-37.69	1.92 V	127	38.63	-89.32

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	Cat-M1 Band 2 Channel Bandwidth: 5MHz	Channel	CH 19175 : 1907.5 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, 65% 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	3815.00	-50.25	-13.00	-37.25	1.57 H	164	38.77	-89.02
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	3815.00	-49.98	-13.00	-36.98	1.32 V	241	39.04	-89.02

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	Cat-M1 Band 2 Channel Bandwidth: 20MHz	Channel	CH 18700 : 1860 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, 65% 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	3720.00	-50.24	-13.00	-37.24	1.61 H	327	39.30	-89.54
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3720.00	-49.62	-13.00	-36.62	2.34 V	128	39.92	-89.54

Remarks:

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

RF Mode	Cat-M1 Band 2 Channel Bandwidth: 20MHz	Channel	CH 18900 : 1880 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, 65% 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	3760.00	-50.47	-13.00	-37.47	1.33 H	184	38.85	-89.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3760.00	-50.04	-13.00	-37.04	1.61 V	253	39.28	-89.32

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	Cat-M1 Band 2 Channel Bandwidth: 20MHz	Channel	CH 19100 : 1900 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, 65% 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	3800.00	-50.08	-13.00	-37.08	2.76 H	161	39.04	-89.12
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3800.00	-49.70	-13.00	-36.70	1.91 V	234	39.42	-89.12

Remarks:

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

7.7.2 Cat-M1 Band 4

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 1.4MHz	Channel	CH 19957 : 1710.7 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, 65% 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	3421.40	-51.76	-13.00	-38.76	1.58 H	128	39.57	-91.33
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	3421.40	-51.25	-13.00	-38.25	2.41 V	109	40.08	-91.33

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	Cat-M1 Band 4 Channel Bandwidth: 1.4MHz	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, 65% 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	3465.00	-51.82	-13.00	-38.82	1.65 H	293	39.38	-91.20
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	-51.44	-13.00	-38.44	1.04 V	26	39.76	-91.20

Remarks:

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

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 1.4MHz	Channel	CH 20393 : 1754.3 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, 65% 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	3508.60	-50.84	-13.00	-37.84	1.22 H	304	40.09	-90.93
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	3508.60	-50.96	-13.00	-37.96	1.61 V	187	39.97	-90.93

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	Cat-M1 Band 4 Channel Bandwidth: 5MHz	Channel	CH 19975 : 1712.5 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, 65% 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	3425.00	-51.65	-13.00	-38.65	1.68 H	205	39.68	-91.33
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	3425.00	-51.44	-13.00	-38.44	1.64 V	108	39.89	-91.33

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	Cat-M1 Band 4 Channel Bandwidth: 5MHz	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, 65% 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	3465.00	-51.19	-13.00	-38.19	1.69 H	57	40.01	-91.20
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	-50.82	-13.00	-37.82	2.23 V	184	40.38	-91.20

Remarks:

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

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 5MHz	Channel	CH 20375 : 1752.5 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, 65% 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	3505.00	-49.61	-13.00	-36.61	1.94 H	172	41.35	-90.96
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	3505.00	-50.10	-13.00	-37.10	2.46 V	237	40.86	-90.96

Remarks:

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

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 20MHz	Channel	CH 20050 : 1720 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, 65% 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	3440.00	-51.10	-13.00	-38.10	2.84 H	153	40.22	-91.32
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-51.50	-13.00	-38.50	1.94 V	74	39.82	-91.32

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	Cat-M1 Band 4 Channel Bandwidth: 20MHz	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, 65% 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	3465.00	-49.63	-13.00	-36.63	1.63 H	244	41.57	-91.20
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	-50.05	-13.00	-37.05	2.08 V	151	41.15	-91.20

Remarks:

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

RF Mode	Cat-M1 Band 4 Channel Bandwidth: 20MHz	Channel	CH 20300 : 1745 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, 65% 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	3490.00	-49.56	-13.00	-36.56	1.24 H	177	41.48	-91.04
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-49.03	-13.00	-36.03	1.88 V	125	42.01	-91.04

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.

7.7.3 Cat-M1 Band 5

RF Mode	Cat-M1 Band 5 Channel Bandwidth: 1.4MHz	Channel	CH 20407 : 824.7 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, 65% 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	1649.40	-58.88	-13.00	-45.88	1.56 H	244	41.74	-100.62
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	1649.40	-58.58	-13.00	-45.58	2.94 V	153	42.04	-100.62

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	Cat-M1 Band 5 Channel Bandwidth: 1.4MHz	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, 65% 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	1673.00	-59.13	-13.00	-46.13	3.14 H	109	41.42	-100.55
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	-58.85	-13.00	-45.85	1.56 V	229	41.70	-100.55

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	Cat-M1 Band 5 Channel Bandwidth: 1.4MHz	Channel	CH 20643 : 848.3 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, 65% 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	1696.60	-58.46	-13.00	-45.46	1.64 H	280	42.04	-100.50
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	1696.60	-58.18	-13.00	-45.18	1.96 V	150	42.32	-100.50

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	Cat-M1 Band 5 Channel Bandwidth: 5MHz	Channel	CH 20425 : 826.5 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, 65% 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	1653.00	-59.30	-13.00	-46.30	2.15 H	172	41.30	-100.60
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	1653.00	-58.86	-13.00	-45.86	1.24 V	152	41.74	-100.60

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	Cat-M1 Band 5 Channel Bandwidth: 5MHz	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, 65% 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	1673.00	-58.38	-13.00	-45.38	1.88 H	240	42.17	-100.55
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	-59.03	-13.00	-46.03	1.73 V	122	41.52	-100.55

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	Cat-M1 Band 5 Channel Bandwidth: 5MHz	Channel	CH 20625 : 846.5 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, 65% 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	1693.00	-58.87	-13.00	-45.87	1.52 H	323	41.64	-100.51
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	1693.00	-58.62	-13.00	-45.62	1.87 V	115	41.89	-100.51

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	Cat-M1 Band 5 Channel Bandwidth: 10MHz	Channel	CH 20450 : 829 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, 65% 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	1658.00	-58.21	-13.00	-45.21	1.56 H	72	42.38	-100.59
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1658.00	-58.88	-13.00	-45.88	2.66 V	176	41.71	-100.59

Remarks:

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

RF Mode	Cat-M1 Band 5 Channel Bandwidth: 10MHz	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, 65% 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	1673.00	-57.95	-13.00	-44.95	1.83 H	247	42.60	-100.55
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	-58.28	-13.00	-45.28	1.62 V	57	42.27	-100.55

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	Cat-M1 Band 5 Channel Bandwidth: 10MHz	Channel	CH 20600 : 844 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, 65% 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	1688.00	-58.28	-13.00	-45.28	1.45 H	327	42.24	-100.52
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	1688.00	-58.60	-13.00	-45.60	1.93 V	57	41.92	-100.52

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 Cat-M1 Band 12

RF Mode	Cat-M1 Band 12 Channel Bandwidth: 1.4MHz	Channel	CH 23017 : 699.7 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, 65% 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	1399.40	-57.60	-13.00	-44.60	1.58 H	241	43.94	-101.54
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	1399.40	-58.19	-13.00	-45.19	1.72 V	163	43.35	-101.54

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	Cat-M1 Band 12 Channel Bandwidth: 1.4MHz	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, 65% 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	1415.00	-58.34	-13.00	-45.34	2.06 H	122	43.12	-101.46
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	-58.72	-13.00	-45.72	1.08 V	351	42.74	-101.46

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	Cat-M1 Band 12 Channel Bandwidth: 1.4MHz	Channel	CH 23173 : 715.3 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, 65% 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	1430.60	-58.53	-13.00	-45.53	1.52 H	71	42.84	-101.37
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	1430.60	-59.20	-13.00	-46.20	1.25 V	247	42.17	-101.37

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	Cat-M1 Band 12 Channel Bandwidth: 5MHz	Channel	CH 23035 : 701.5 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, 65% 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	1403.00	-58.01	-13.00	-45.01	1.63 H	27	43.52	-101.53
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	1403.00	-58.62	-13.00	-45.62	2.11 V	148	42.91	-101.53

Remarks:

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

RF Mode	Cat-M1 Band 12 Channel Bandwidth: 5MHz	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, 65% 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	1415.00	-58.98	-13.00	-45.98	2.01 H	121	42.48	-101.46
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	-57.39	-13.00	-44.39	1.62 V	345	44.07	-101.46

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	Cat-M1 Band 12 Channel Bandwidth: 5MHz	Channel	CH 23155 : 713.5 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, 65% 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	1427.00	-58.73	-13.00	-45.73	1.10 H	205	42.66	-101.39
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	1427.00	-58.11	-13.00	-45.11	1.96 V	108	43.28	-101.39

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	Cat-M1 Band 12 Channel Bandwidth: 10MHz	Channel	CH 23060 : 704 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, 65% 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	1408.00	-57.96	-13.00	-44.96	2.41 H	193	43.54	-101.50
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	1408.00	-58.54	-13.00	-45.54	1.62 V	224	42.96	-101.50

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	Cat-M1 Band 12 Channel Bandwidth: 10MHz	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, 65% 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	1415.00	-58.64	-13.00	-45.64	1.27 H	232	42.82	-101.46
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	-58.95	-13.00	-45.95	2.28 V	151	42.51	-101.46

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	Cat-M1 Band 12 Channel Bandwidth: 10MHz	Channel	CH 23130 : 711 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, 65% 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	1422.00	-59.24	-13.00	-46.24	1.93 H	225	42.19	-101.43
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1422.00	-58.62	-13.00	-45.62	2.51 V	109	42.81	-101.43

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 Cat-M1 Band 13

RF Mode	Cat-M1 Band 13 Channel Bandwidth: 5MHz	Channel	CH 23205 : 779.5 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, 65% 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	1559.00	-58.68	-40.00	-18.68	1.58 H	123	40.09	-98.77
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	1559.00	-56.88	-40.00	-16.88	2.54 V	150	41.89	-98.77

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.

RF Mode	Cat-M1 Band 13 Channel Bandwidth: 5MHz	Channel	CH 23230 : 782 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, 65% 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	1564.00	-56.27	-40.00	-16.27	1.56 H	328	42.48	-98.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-56.60	-40.00	-16.60	1.93 V	35	42.15	-98.75

Remarks:

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

RF Mode	Cat-M1 Band 13 Channel Bandwidth: 5MHz	Channel	CH 23255 : 784.5 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, 65% 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	1569.00	-56.31	-40.00	-16.31	1.47 H	292	42.44	-98.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1569.00	-55.90	-40.00	-15.90	1.84 V	27	42.85	-98.75

Remarks:

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

RF Mode	Cat-M1 Band 13 Channel Bandwidth: 10MHz	Channel	CH 23230 : 782 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, 65% 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	1564.00	-56.63	-40.00	-16.63	1.56 H	324	42.12	-98.75
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-56.16	-40.00	-16.16	1.93 V	35	42.59	-98.75

Remarks:

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

7.8 Frequency Stability

Environmental Conditions:	22°C, 68% RH	Tested By:	Noah Chang
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7.8.1 Cat-M1 Band 2

Cat-M1 Band 2, Channel Bandwidth: 1.4 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18607 (1850.7 MHz)		CH 19193 (1909.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1850.7000050	0.0027	1909.3000030	0.0016
4.25	1850.6999980	-0.0011	1909.2999950	-0.0026
5.75	1850.6999970	-0.0016	1909.3000010	0.0005

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18607 (1850.7 MHz)		CH 19193 (1909.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1850.6999970	-0.0016	1909.3000050	0.0026
-20	1850.7000050	0.0027	1909.2999990	-0.0005
-10	1850.6999950	-0.0027	1909.2999980	-0.0010
0	1850.7000030	0.0016	1909.3000040	0.0021
10	1850.6999960	-0.0022	1909.3000050	0.0026
20	1850.7000040	0.0022	1909.2999980	-0.0010
30	1850.7000030	0.0016	1909.2999970	-0.0016
40	1850.7000040	0.0022	1909.3000030	0.0016
50	1850.6999950	-0.0027	1909.3000050	0.0026

Cat-M1 Band 2, Channel Bandwidth: 3 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18615 (1851.5 MHz)		CH 19185 (1908.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1851.5000030	0.0016	1908.4999960	-0.0021
4.25	1851.4999980	-0.0011	1908.5000010	0.0005
5.75	1851.4999960	-0.0022	1908.5000040	0.0021

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18615 (1851.5 MHz)		CH 19185 (1908.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1851.5000020	0.0011	1908.4999990	-0.0005
-20	1851.5000030	0.0016	1908.5000020	0.0010
-10	1851.5000050	0.0027	1908.5000010	0.0005
0	1851.5000020	0.0011	1908.5000050	0.0026
10	1851.5000040	0.0022	1908.4999980	-0.0010
20	1851.5000050	0.0027	1908.4999950	-0.0026
30	1851.4999950	-0.0027	1908.4999980	-0.0010
40	1851.5000010	0.0005	1908.5000050	0.0026
50	1851.4999970	-0.0016	1908.5000030	0.0016

Cat-M1 Band 2, Channel Bandwidth: 5 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18625 (1852.5 MHz)		CH 19175 (1907.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1852.5000050	0.0027	1907.4999990	-0.0005
4.25	1852.5000040	0.0022	1907.4999970	-0.0016
5.75	1852.5000030	0.0016	1907.4999980	-0.0010

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18625 (1852.5 MHz)		CH 19175 (1907.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1852.5000040	0.0022	1907.5000020	0.0010
-20	1852.4999960	-0.0022	1907.4999950	-0.0026
-10	1852.4999960	-0.0022	1907.5000040	0.0021
0	1852.5000020	0.0011	1907.4999990	-0.0005
10	1852.4999980	-0.0011	1907.4999960	-0.0021
20	1852.4999980	-0.0011	1907.4999960	-0.0021
30	1852.4999950	-0.0027	1907.4999960	-0.0021
40	1852.4999960	-0.0022	1907.4999980	-0.0010
50	1852.5000020	0.0011	1907.4999970	-0.0016

Cat-M1 Band 2, Channel Bandwidth: 10 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18650 (1855 MHz)		CH 19150 (1905 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1855.0000030	0.0016	1905.0000020	0.0010
4.25	1854.9999960	-0.0022	1904.9999970	-0.0016
5.75	1854.9999980	-0.0011	1904.9999980	-0.0010

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18650 (1855 MHz)		CH 19150 (1905 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1855.0000040	0.0022	1904.9999990	-0.0005
-20	1854.9999950	-0.0027	1904.9999990	-0.0005
-10	1855.0000050	0.0027	1904.9999990	-0.0005
0	1854.9999990	-0.0005	1904.9999960	-0.0021
10	1855.0000040	0.0022	1904.9999950	-0.0026
20	1854.9999990	-0.0005	1905.0000030	0.0016
30	1854.9999970	-0.0016	1904.9999980	-0.0010
40	1854.9999990	-0.0005	1905.0000020	0.0010
50	1855.0000030	0.0016	1905.0000040	0.0021

Cat-M1 Band 2, Channel Bandwidth: 15 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18675 (1857.5 MHz)		CH 19125 (1902.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1857.5000040	0.0022	1902.4999980	-0.0011
4.25	1857.4999960	-0.0022	1902.5000040	0.0021
5.75	1857.5000020	0.0011	1902.5000040	0.0021

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18675 (1857.5 MHz)		CH 19125 (1902.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1857.5000010	0.0005	1902.4999970	-0.0016
-20	1857.4999980	-0.0011	1902.5000020	0.0011
-10	1857.4999950	-0.0027	1902.4999960	-0.0021
0	1857.5000030	0.0016	1902.5000020	0.0011
10	1857.5000020	0.0011	1902.5000050	0.0026
20	1857.5000010	0.0005	1902.4999950	-0.0026
30	1857.4999950	-0.0027	1902.5000020	0.0011
40	1857.4999950	-0.0027	1902.5000050	0.0026
50	1857.4999980	-0.0011	1902.4999960	-0.0021

Cat-M1 Band 2, Channel Bandwidth: 20 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 18700 (1860 MHz)		CH 19100 (1900 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1860.0000040	0.0022	1899.9999960	-0.0021
4.25	1859.9999980	-0.0011	1900.0000050	0.0026
5.75	1860.0000050	0.0027	1899.9999990	-0.0005

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 18700 (1860 MHz)		CH 19100 (1900 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1860.0000050	0.0027	1900.0000040	0.0021
-20	1860.0000030	0.0016	1900.0000040	0.0021
-10	1859.9999980	-0.0011	1900.0000020	0.0011
0	1860.0000050	0.0027	1900.0000040	0.0021
10	1860.0000040	0.0022	1900.0000040	0.0021
20	1860.0000040	0.0022	1900.0000020	0.0011
30	1859.9999960	-0.0022	1899.9999970	-0.0016
40	1860.0000020	0.0011	1899.9999960	-0.0021
50	1860.0000040	0.0022	1899.9999970	-0.0016

7.8.2 Cat-M1 Band 4

Cat-M1 Band 4, Channel Bandwidth: 1.4 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 19957 (1710.7 MHz)		CH 20393 (1754.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1710.7000020	0.0012	1754.2999980	-0.0011
4.25	1710.7000050	0.0029	1754.3000030	0.0017
5.75	1710.7000020	0.0012	1754.3000020	0.0011

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 19957 (1710.7 MHz)		CH 20393 (1754.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1710.7000020	0.0012	1754.3000030	0.0017
-20	1710.7000020	0.0012	1754.3000030	0.0017
-10	1710.7000020	0.0012	1754.3000040	0.0023
0	1710.6999950	-0.0029	1754.3000030	0.0017
10	1710.6999950	-0.0029	1754.2999960	-0.0023
20	1710.7000040	0.0023	1754.2999980	-0.0011
30	1710.6999970	-0.0018	1754.3000020	0.0011
40	1710.7000030	0.0018	1754.3000030	0.0017
50	1710.6999960	-0.0023	1754.3000010	0.0006

Cat-M1 Band 4, Channel Bandwidth: 3 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 19965 (1711.5 MHz)		CH 20385 (1753.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1711.4999960	-0.0023	1753.4999970	-0.0017
4.25	1711.4999950	-0.0029	1753.5000040	0.0023
5.75	1711.4999960	-0.0023	1753.4999980	-0.0011

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 19965 (1711.5 MHz)		CH 20385 (1753.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1711.5000050	0.0029	1753.5000020	0.0011
-20	1711.4999970	-0.0018	1753.4999990	-0.0006
-10	1711.5000020	0.0012	1753.4999960	-0.0023
0	1711.5000020	0.0012	1753.4999990	-0.0006
10	1711.4999950	-0.0029	1753.4999950	-0.0029
20	1711.4999960	-0.0023	1753.4999970	-0.0017
30	1711.5000020	0.0012	1753.5000040	0.0023
40	1711.4999990	-0.0006	1753.5000050	0.0029
50	1711.5000030	0.0018	1753.5000020	0.0011

Cat-M1 Band 4, Channel Bandwidth: 5 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 19975 (1712.5 MHz)		CH 20375 (1752.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1712.5000020	0.0012	1752.5000030	0.0017
4.25	1712.4999990	-0.0006	1752.5000020	0.0011
5.75	1712.5000050	0.0029	1752.4999950	-0.0029

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 19975 (1712.5 MHz)		CH 20375 (1752.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1712.4999960	-0.0023	1752.5000030	0.0017
-20	1712.4999950	-0.0029	1752.4999950	-0.0029
-10	1712.4999990	-0.0006	1752.4999990	-0.0006
0	1712.5000010	0.0006	1752.5000050	0.0029
10	1712.4999950	-0.0029	1752.5000030	0.0017
20	1712.5000050	0.0029	1752.5000010	0.0006
30	1712.4999990	-0.0006	1752.4999970	-0.0017
40	1712.5000040	0.0023	1752.4999980	-0.0011
50	1712.5000020	0.0012	1752.4999950	-0.0029

Cat-M1 Band 4, Channel Bandwidth: 10 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20000 (1715 MHz)		CH 20350 (1750 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1714.9999950	-0.0029	1750.0000010	0.0006
4.25	1714.9999990	-0.0006	1749.9999990	-0.0006
5.75	1714.9999960	-0.0023	1750.0000050	0.0029

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20000 (1715 MHz)		CH 20350 (1750 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1714.9999950	-0.0029	1750.0000010	0.0006
-20	1715.0000030	0.0017	1749.9999960	-0.0023
-10	1714.9999980	-0.0012	1750.0000020	0.0011
0	1715.0000050	0.0029	1749.9999990	-0.0006
10	1714.9999960	-0.0023	1750.0000030	0.0017
20	1714.9999980	-0.0012	1749.9999960	-0.0023
30	1714.9999980	-0.0012	1749.9999980	-0.0011
40	1715.0000010	0.0006	1750.0000050	0.0029
50	1714.9999980	-0.0012	1750.0000020	0.0011

Cat-M1 Band 4, Channel Bandwidth: 15 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20025 (1717.5 MHz)		CH 20325 (1747.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1717.4999990	-0.0006	1747.5000020	0.0011
4.25	1717.4999990	-0.0006	1747.4999970	-0.0017
5.75	1717.5000020	0.0012	1747.4999980	-0.0011

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20025 (1717.5 MHz)		CH 20325 (1747.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1717.4999990	-0.0006	1747.5000030	0.0017
-20	1717.5000010	0.0006	1747.4999990	-0.0006
-10	1717.4999980	-0.0012	1747.4999970	-0.0017
0	1717.5000020	0.0012	1747.5000030	0.0017
10	1717.5000050	0.0029	1747.5000040	0.0023
20	1717.4999990	-0.0006	1747.4999950	-0.0029
30	1717.4999990	-0.0006	1747.4999990	-0.0006
40	1717.4999970	-0.0017	1747.5000050	0.0029
50	1717.5000020	0.0012	1747.4999990	-0.0006

Cat-M1 Band 4, Channel Bandwidth: 20 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20050 (1720 MHz)		CH 20300 (1745 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	1719.9999960	-0.0023	1745.0000030	0.0017
4.25	1719.9999950	-0.0029	1745.0000020	0.0011
5.75	1719.9999960	-0.0023	1744.9999950	-0.0029

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20050 (1720 MHz)		CH 20300 (1745 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1719.9999960	-0.0023	1744.9999990	-0.0006
-20	1719.9999970	-0.0017	1744.9999970	-0.0017
-10	1719.9999960	-0.0023	1745.0000050	0.0029
0	1719.9999960	-0.0023	1745.0000020	0.0011
10	1720.0000050	0.0029	1745.0000020	0.0011
20	1720.0000040	0.0023	1745.0000040	0.0023
30	1720.0000030	0.0017	1745.0000050	0.0029
40	1719.9999990	-0.0006	1744.9999950	-0.0029
50	1719.9999950	-0.0029	1744.9999970	-0.0017

7.8.3 Cat-M1 Band 5

Cat-M1 Band 5, Channel Bandwidth: 1.4 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20407 (824.7 MHz)		CH 20643 (848.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	824.6999970	-0.0036	848.3000050	0.0059
4.25	824.7000030	0.0036	848.3000030	0.0035
5.75	824.6999990	-0.0012	848.2999990	-0.0012

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20407 (824.7 MHz)		CH 20643 (848.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	824.7000020	0.0024	848.3000020	0.0024
-20	824.7000020	0.0024	848.2999980	-0.0024
-10	824.6999990	-0.0012	848.3000010	0.0012
0	824.6999960	-0.0049	848.2999950	-0.0059
10	824.7000020	0.0024	848.3000050	0.0059
20	824.7000010	0.0012	848.3000030	0.0035
30	824.6999970	-0.0036	848.2999950	-0.0059
40	824.6999950	-0.0061	848.2999980	-0.0024
50	824.6999990	-0.0012	848.2999990	-0.0012

Cat-M1 Band 5, Channel Bandwidth: 3 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20415 (825.5 MHz)		CH 20635 (847.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	825.5000030	0.0036	847.5000020	0.0024
4.25	825.5000020	0.0024	847.5000040	0.0047
5.75	825.4999990	-0.0012	847.5000040	0.0047

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20415 (825.5 MHz)		CH 20635 (847.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	825.4999980	-0.0024	847.4999970	-0.0035
-20	825.5000020	0.0024	847.4999970	-0.0035
-10	825.4999980	-0.0024	847.4999980	-0.0024
0	825.5000020	0.0024	847.5000040	0.0047
10	825.4999950	-0.0061	847.5000050	0.0059
20	825.5000020	0.0024	847.5000010	0.0012
30	825.5000040	0.0048	847.4999960	-0.0047
40	825.5000030	0.0036	847.4999950	-0.0059
50	825.4999970	-0.0036	847.5000050	0.0059

Cat-M1 Band 5, Channel Bandwidth: 5 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20425 (826.5 MHz)		CH 20625 (846.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	826.4999970	-0.0036	846.4999990	-0.0012
4.25	826.5000010	0.0012	846.4999980	-0.0024
5.75	826.4999990	-0.0012	846.4999950	-0.0059

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20425 (826.5 MHz)		CH 20625 (846.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	826.4999960	-0.0048	846.4999950	-0.0059
-20	826.4999960	-0.0048	846.5000020	0.0024
-10	826.4999970	-0.0036	846.5000020	0.0024
0	826.5000010	0.0012	846.5000030	0.0035
10	826.4999950	-0.0060	846.4999950	-0.0059
20	826.5000050	0.0060	846.4999990	-0.0012
30	826.4999990	-0.0012	846.4999980	-0.0024
40	826.4999970	-0.0036	846.4999960	-0.0047
50	826.4999990	-0.0012	846.5000010	0.0012

Cat-M1 Band 5, Channel Bandwidth: 10 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 20450 (829 MHz)		CH 20600 (844 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	828.9999970	-0.0036	843.9999960	-0.0047
4.25	828.9999990	-0.0012	844.0000050	0.0059
5.75	828.9999970	-0.0036	843.9999990	-0.0012

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 20450 (829 MHz)		CH 20600 (844 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	828.9999960	-0.0048	844.0000050	0.0059
-20	828.9999960	-0.0048	844.0000050	0.0059
-10	828.9999970	-0.0036	844.0000020	0.0024
0	828.9999960	-0.0048	844.0000020	0.0024
10	829.0000050	0.0060	843.9999980	-0.0024
20	828.9999990	-0.0012	844.0000020	0.0024
30	828.9999980	-0.0024	844.0000040	0.0047
40	829.0000020	0.0024	844.0000050	0.0059
50	828.9999990	-0.0012	844.0000040	0.0047

7.8.4 Cat-M1 Band 12

Cat-M1 Band 12, Channel Bandwidth: 1.4 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23017 (699.7 MHz)		CH 23173 (715.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	699.6999980	-0.0029	715.3000040	0.0056
4.25	699.7000020	0.0029	715.2999990	-0.0014
5.75	699.6999950	-0.0071	715.3000050	0.0070

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23017 (699.7 MHz)		CH 23173 (715.3 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	699.7000000	0.0000	715.2999960	-0.0056
-20	699.6999970	-0.0043	715.3000040	0.0056
-10	699.7000030	0.0043	715.2999980	-0.0028
0	699.7000050	0.0071	715.2999950	-0.0070
10	699.6999970	-0.0043	715.3000040	0.0056
20	699.7000050	0.0071	715.2999980	-0.0028
30	699.6999980	-0.0029	715.2999960	-0.0056
40	699.7000050	0.0071	715.2999990	-0.0014
50	699.6999980	-0.0029	715.3000020	0.0028

Cat-M1 Band 12, Channel Bandwidth: 3 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23025 (700.5 MHz)		CH 23165 (714.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	700.5000010	0.0014	714.4999980	-0.0028
4.25	700.4999970	-0.0043	714.5000050	0.0070
5.75	700.4999990	-0.0014	714.4999990	-0.0014

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23025 (700.5 MHz)		CH 23165 (714.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	700.4999980	-0.0029	714.4999990	-0.0014
-20	700.5000020	0.0029	714.4999990	-0.0014
-10	700.5000020	0.0029	714.5000030	0.0042
0	700.5000010	0.0014	714.5000050	0.0070
10	700.4999950	-0.0071	714.5000010	0.0014
20	700.5000020	0.0029	714.5000040	0.0056
30	700.4999970	-0.0043	714.5000030	0.0042
40	700.5000030	0.0043	714.4999960	-0.0056
50	700.4999960	-0.0057	714.5000020	0.0028

Cat-M1 Band 12, Channel Bandwidth: 5 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23035 (701.5 MHz)		CH 23155 (713.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	701.5000030	0.0043	713.4999950	-0.0070
4.25	701.5000030	0.0043	713.4999990	-0.0014
5.75	701.5000020	0.0029	713.4999960	-0.0056

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23035 (701.5 MHz)		CH 23155 (713.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	701.5000030	0.0043	713.5000020	0.0028
-20	701.4999980	-0.0029	713.4999980	-0.0028
-10	701.4999990	-0.0014	713.4999960	-0.0056
0	701.5000010	0.0014	713.4999980	-0.0028
10	701.4999950	-0.0071	713.5000010	0.0014
20	701.5000030	0.0043	713.4999990	-0.0014
30	701.5000010	0.0014	713.5000050	0.0070
40	701.4999980	-0.0029	713.4999990	-0.0014
50	701.5000050	0.0071	713.5000030	0.0042

Cat-M1 Band 12, Channel Bandwidth: 10 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23060 (704 MHz)		CH 23130 (711 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	703.9999970	-0.0043	711.0000010	0.0014
4.25	704.0000030	0.0043	710.9999960	-0.0056
5.75	703.9999970	-0.0043	711.0000030	0.0042

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23060 (704 MHz)		CH 23130 (711 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	703.9999990	-0.0014	711.0000040	0.0056
-20	704.0000030	0.0043	710.9999990	-0.0014
-10	704.0000020	0.0028	710.9999990	-0.0014
0	704.0000040	0.0057	711.0000020	0.0028
10	703.9999980	-0.0028	711.0000030	0.0042
20	703.9999950	-0.0071	711.0000050	0.0070
30	703.9999950	-0.0071	711.0000030	0.0042
40	703.9999970	-0.0043	710.9999990	-0.0014
50	703.9999980	-0.0028	710.9999970	-0.0042

7.8.5 Cat-M1 Band 13

Cat-M1 Band 13, Channel Bandwidth: 5 MHz

Frequency Stability Versus Voltage				
Voltage (Vdc)	CH 23205 (779.5 MHz)		CH 23255 (784.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
5.00	779.4999950	-0.0064	784.5000050	0.0064
4.25	779.4999970	-0.0038	784.5000040	0.0051
5.75	779.5000040	0.0051	784.5000050	0.0064

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature				
Temperature (°C)	CH 23205 (779.5 MHz)		CH 23255 (784.5 MHz)	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	779.4999970	-0.0038	784.5000030	0.0038
-20	779.4999990	-0.0013	784.4999980	-0.0025
-10	779.5000010	0.0013	784.5000040	0.0051
0	779.5000040	0.0051	784.5000040	0.0051
10	779.4999980	-0.0026	784.5000050	0.0064
20	779.5000020	0.0026	784.5000020	0.0025
30	779.5000020	0.0026	784.4999960	-0.0051
40	779.5000030	0.0038	784.4999980	-0.0025
50	779.5000050	0.0064	784.5000010	0.0013

Cat-M1 Band 13, Channel Bandwidth: 10 MHz

Frequency Stability Versus Voltage		
Voltage (Vdc)	CH 23230 (782 MHz)	
	Frequency (MHz)	Frequency Error (ppm)
5.00	781.9999980	-0.0026
4.25	782.0000020	0.0026
5.75	781.9999950	-0.0064

Note: The applicant defined the normal working voltage is from 4.25 to 5.75 Vdc.

Frequency Stability Versus Temperature		
Temperature (°C)	CH 23230 (782 MHz)	
	Frequency (MHz)	Frequency Error (ppm)
-30	781.9999990	-0.0013
-20	781.9999960	-0.0051
-10	782.0000050	0.0064
0	781.9999960	-0.0051
10	782.0000050	0.0064
20	782.0000020	0.0026
30	781.9999960	-0.0051
40	781.9999960	-0.0051
50	781.9999960	-0.0051

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.

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

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