

# TEST REPORT

## CERTIFICATE OF CONFORMITY

**Standard:** 47 CFR FCC Part 15, Subpart C (Section 15.247)  
47 CFR FCC Part 15, Subpart E (Section 15.407)

**Report No.:** RFBCMA-WTW-P25030859-4

**FCC ID:** RAXWE8214443

**Product:** Wi-Fi Extender

**Brand:** T-Mobile

**Model No.:** T-MOBILE V2 Wi-Fi MESH ACCESS POINT

**Received Date:** 2025/3/25

**Test Date:** 2025/5/26 ~ 2025/6/19

**Issued Date:** 2025/7/9

**Applicant:** Arcadyan Technology Corporation

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

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**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

**FCC Registration /** 723255 / TW2022

**Designation Number:**

**Approved by:**  , **Date:** 2025/7/9

Wen Yu / Assistant Manager

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Prepared by : Phoenix Huang / Specialist



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## Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P25030859-4	Original release.	2025/7/9

## 1 Certificate

**Product:** Wi-Fi Extender

**Brand:** T-Mobile

**Test Model:** T-MOBILE V2 Wi-Fi MESH ACCESS POINT

**Sample Status:** Engineering sample

**Applicant:** Arcadyan Technology Corporation

**Test Date:** 2025/5/26 ~ 2025/6/19

**Standard:** 47 CFR FCC Part 15, Subpart C (Section 15.247)

47 CFR FCC Part 15, Subpart E (Section 15.407)

**Measurement procedure:** ANSI C63.10-2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

## 2 Summary of Test Results

Standard / Clause	Test Item	Result	Remark
15.205 /15.209 /15.247(d) 15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Meet the requirement of limit.
15.205 /15.209 /15.247(d) 15.407(b) (1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Meet the requirement of limit.
15.247(d)	Conducted Out of Band Emissions	Pass	Meet the requirement of limit.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Specification	Uncertainty ( $\pm$ )
Radiated Spurious Emissions below 1GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Radiated Spurious Emissions above 1GHz	1 GHz ~ 18 GHz	5.1 dB
	18 GHz ~ 40 GHz	5.3 dB
Conducted Out of Band Emissions	9 kHz ~ 40 GHz	2.6 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

### 2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	Wi-Fi Extender
Brand	T-Mobile
Test Model	T-MOBILE V2 Wi-Fi MESH ACCESS POINT
Modulation Technology	<b>WLAN:</b> DSSS, OFDM, OFDMA <b>BT-LE, IEEE 802.15.4:</b> DTS
Operating Frequency	<b>WLAN:</b> 2.412 GHz ~ 2.462 GHz 5.18 GHz ~ 5.25 GHz 5.25 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz 5.745 GHz ~ 5.825 GHz <b>BT-LE:</b> 2.402 GHz ~ 2.48 GHz <b>IEEE 802.15.4:</b> 2.405 GHz ~ 2.48 GHz

Note:

1. The EUT uses following accessories.

Item	Brand	Model	Specification
AC Adapter 1	Mass power	PD030E-A1C0AVU	AC Input: 100-240 Vac, 0.8 A, 50-60 Hz DC Output: 15 Vdc, 2 A DC Output Cable: 1.8 m, unshielded cable, w/o ferrite core
AC Adapter 2	MOSO	P40-V1500R200-030CC0-US	AC Input: 100-240 Vac, 0.8 A, 50-60 Hz DC Output: 15 Vdc, 2 A DC Output Cable: 1.8 m, unshielded cable, w/o ferrite core
RJ45 Cable	-	-	Signal Line: 2 meter, unshielded, w/o ferrite core

2. The EUT has below radios as following table:

Radio 1	Radio 2	Radio 3	Radio 4
WLAN (2.4GHz)	WLAN (5GHz)	BT-LE	BT-LE / 802.15.4 (Zigbee/Open Thread/Matter)

3. Simultaneously transmission combination.

Combination	Technology
1	WLAN (2.4 GHz) + WLAN (5 GHz) + 802.15.4 (Zigbee/Open Thread/Matter) + BT-LE

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

### 3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
1_DB	0	HONGBO	290-70562	3.6	2.4 ~ 2.4835	Monopole	ipex(MHF)
				3.8	5.15 ~ 5.25		
				3.5	5.25 ~ 5.35		
				3.4	5.47 ~ 5.725		
				3.5	5.725 ~ 5.85		
2_DB	1	HONGBO	290-70563	2.8	2.4 ~ 2.4835	Monopole	ipex(MHF)
				1.7	5.15 ~ 5.25		
				1.8	5.25 ~ 5.35		
				2	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
3_DB	2	HONGBO	290-70564	3.1	2.4 ~ 2.4835	Monopole	ipex(MHF)
				1.5	5.15 ~ 5.25		
				1.3	5.25 ~ 5.35		
				1.5	5.47 ~ 5.725		
				1.3	5.725 ~ 5.85		
4_DB	3	HONGBO	290-70565	2.8	2.4 ~ 2.4835	Monopole	ipex(MHF)
				2.5	5.15 ~ 5.25		
				2	5.25 ~ 5.35		
				1.8	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
5_RX	0	HONGBO	290-70566	3.2	5.15 ~ 5.25	Monopole	ipex(MHF)
				3	5.25 ~ 5.35		
				2.7	5.47 ~ 5.725		
				2.2	5.725 ~ 5.85		
6_BT	BJ1	HONGBO	290-70567	4.1	2.4 ~ 2.4835	Monopole	ipex(MHF)
7_iOT	ZJ1	HONGBO	290-70568	5.1	2.4 ~ 2.4835	Monopole	ipex(MHF)

\* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

### 3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The AC Adapter has the following models: AC Adapter 1 (MASS power)/ AC Adapter 2 (MOSO). Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
Worst Case:	1. AC Adapter worst condition: AC Adapter 2 (MOSO)

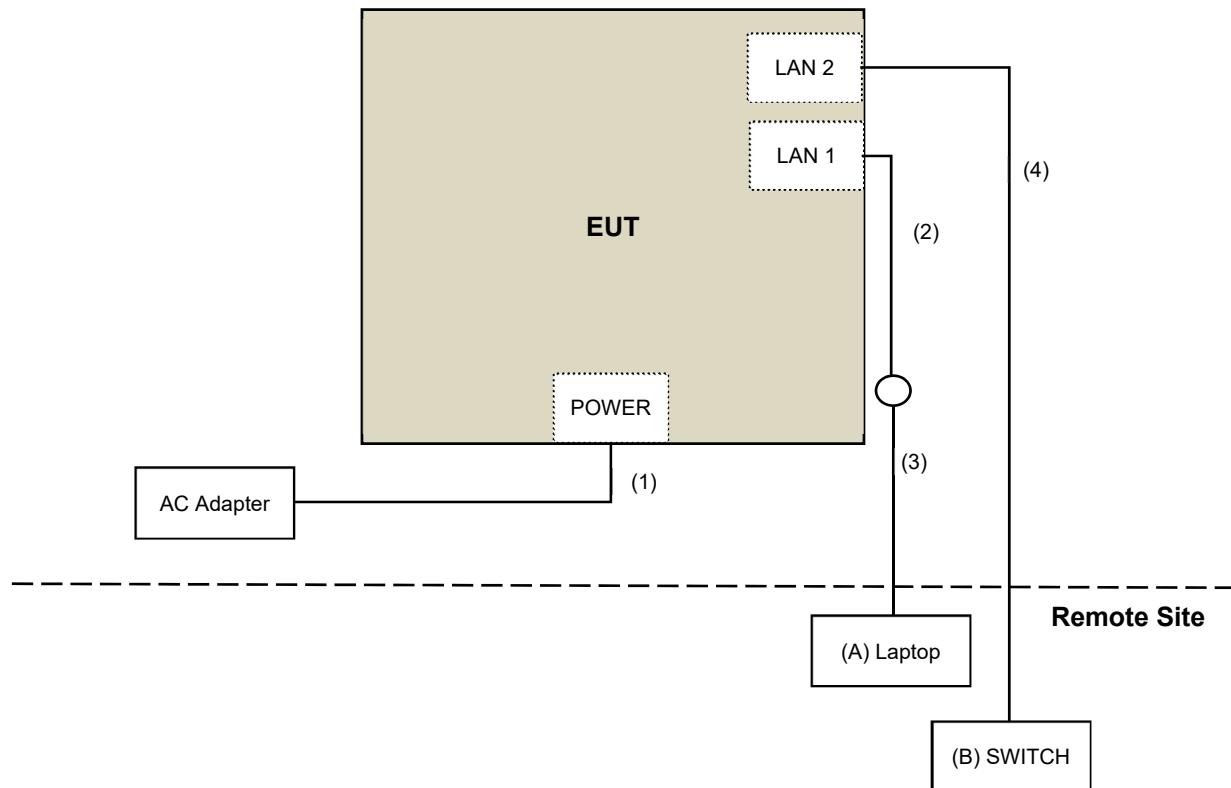
Following channel(s) was (were) selected for the final test as listed below:

Test Item	Combination	Mode	Tested Channel
Unwanted Emissions below 1 GHz	1	802.11b	6
		802.11be (EHT20)	48
		802.15.4	11
		BT-LE 2M	0
Unwanted Emissions above 1 GHz	1	802.11b	6
		802.11be (EHT20)	48
		802.15.4	11
		BT-LE 2M	0
Conducted Out of Band Emissions	1	802.11b	6
		802.11be (EHT20)	48

### 3.4 Test Program Used and Operation Descriptions

Controlling software (**WLAN**: QATool\_20240327\_External (MT7992 V0.0.2.106) / **BT-LE and 802.15.4**: Telnet paste WE8214443-T0\_command.txt) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

### 3.5 Connection Diagram of EUT and Peripheral Devices



### 3.6 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	DELL	E6420	H62T3R1	DoC	Provided by Lab
B	SWITCH	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Supplied by applicant
2	RJ-45 Cable	1	2	No	0	Supplied by applicant
3	RJ-45 Cable	1	10	No	0	Provided by Lab
4	RJ-45 Cable	1	10	No	0	Provided by Lab

## 4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

### 4.1 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0842	2024/10/8	2025/10/7
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	2025/3/29	2026/3/28
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
Preamplifier EMCI	EMC330N	980538	2025/3/29	2026/3/28
PXA Signal Analyzer Keysight	N9030B	MY57141948	2025/5/20	2026/5/19
RF Coaxial Cable PEWC	8D	966-5-1	2025/3/29	2026/3/28
		966-5-2	2025/3/29	2026/3/28
		966-5-3	2025/3/29	2026/3/28
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/5/26 ~ 2025/6/3

#### 4.2 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
EMI Test Receiver R&S	ESR7	102026	2025/3/25	2026/3/24
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-1819	2024/11/10	2025/11/9
	BBHA 9170	9170-739	2024/11/10	2025/11/9
Preamplifier EMCI	EMC12630SE	980509	2025/1/18	2026/1/17
	EMC184045SE	980387	2024/8/8	2025/8/7
PXA Signal Analyzer Keysight	N9030B	MY57141948	2025/5/20	2026/5/19
RF Coaxial Cable EMCI	EMC102-KM-KM-1200	160924	2025/1/24	2026/1/23
	EMC102-KM-KM-4000	200214	2025/1/24	2026/1/23
	EMC104-SM-SM-1500	180503	2025/3/8	2026/3/7
	EMC104-SM-SM-2000	180501	2025/3/8	2026/3/7
	EMC104-SM-SM-6000	180506	2025/3/8	2026/3/7
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 5.
2. Tested Date: 2025/6/19

#### 4.3 Conducted Out of Band Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
PXA Signal Analyzer Keysight	N9030A	MY55330160	2025/1/16	2026/1/15
Software	ADT_RF Test Software V8	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2025/6/10

## 5 Limits of Test Items

### 5.1 Unwanted Emissions below 1 GHz

For FCC 15.247:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dB<sub>UV</sub>/m) = 20 log Emission level (uV/m).

For FCC 15.407:

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dB<sub>UV</sub>/m) = 20 log Emission level (uV/m).

## 5.2 Unwanted Emissions above 1 GHz

For FCC 15.247:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dB $\mu$ V/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

For FCC 15.407 transmitters operating in the 5.150-5.850 GHz band:

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dB $\mu$ V/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v02r01	Field Strength at 3 m	
	PK: 74 (dB $\mu$ V/m)	AV: 54 (dB $\mu$ V/m)

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dB $\mu$ V/m) *
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.2 (dB $\mu$ V/m) *
15.407(b)(3)	PK: -27 (dBm/MHz)	PK: 68.2 (dB $\mu$ V/m) *
15.407(b)(4)(i)	PK: -27 (dBm/MHz) * <sup>1</sup> PK: 10 (dBm/MHz) * <sup>2</sup> PK: 15.6 (dBm/MHz) * <sup>3</sup> PK: 27 (dBm/MHz) * <sup>4</sup>	PK: 68.2 (dB $\mu$ V/m) * <sup>1</sup> PK: 105.2 (dB $\mu$ V/m) * <sup>2</sup> PK: 110.8 (dB $\mu$ V/m) * <sup>3</sup> PK: 122.2 (dB $\mu$ V/m) * <sup>4</sup>

\*<sup>1</sup> beyond 75 MHz or more above of the band edge.

\*<sup>2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

\*<sup>3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

\*<sup>4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000 \sqrt{30P}}{3} \text{ } \mu\text{V/m, where P is the eirp (Watts).}$$

## 5.3 Conducted Out of Band Emissions

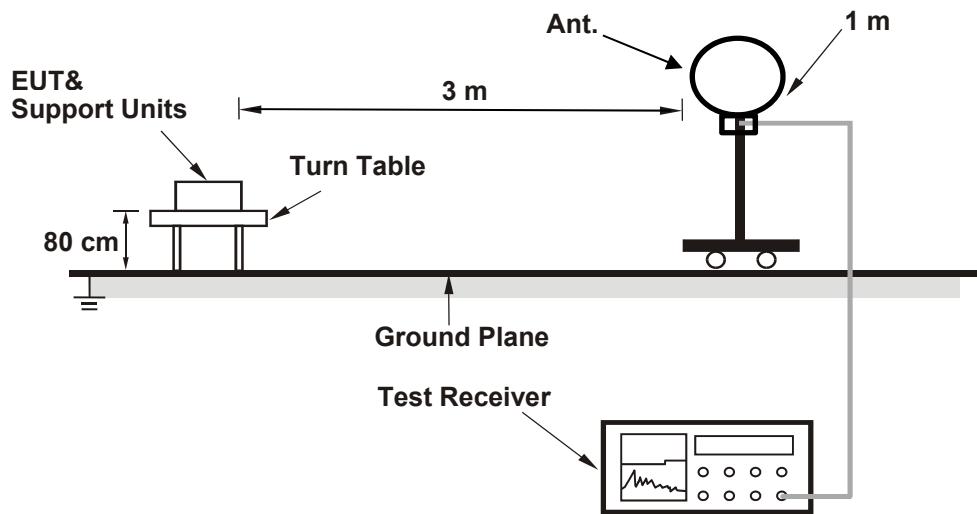
Below 30 dB of the highest emission level of operating band (in 100 kHz Resolution Bandwidth).

## 6 Test Arrangements

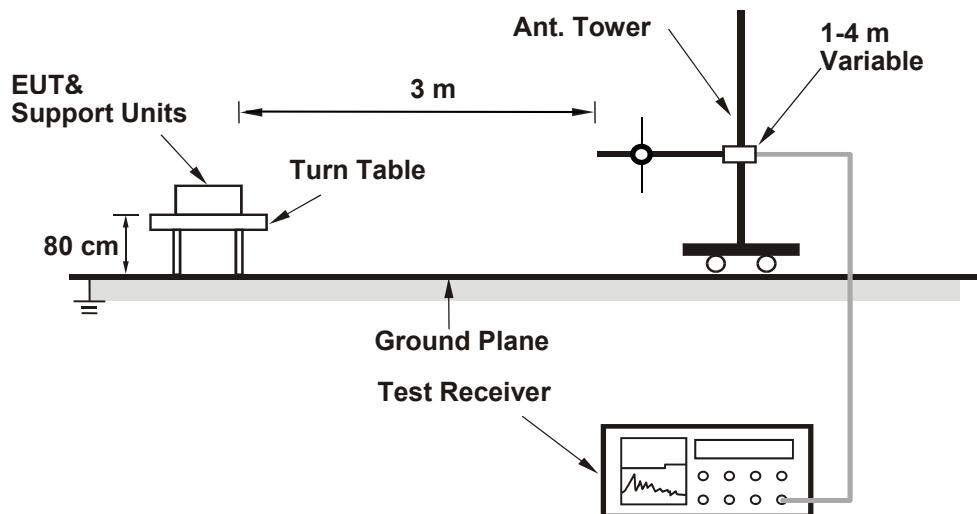
### 6.1 Unwanted Emissions below 1 GHz

#### 6.1.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 6.1.2 Test Procedure

### For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

### For Radiated emission above 30 MHz

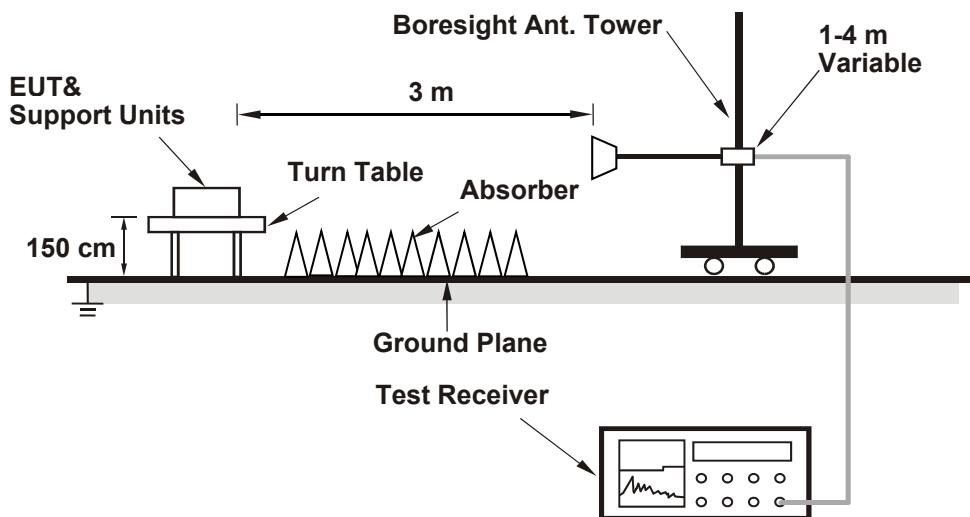
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

## 6.2 Unwanted Emissions above 1 GHz

### 6.2.1 Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

### 6.2.2 Test Procedure

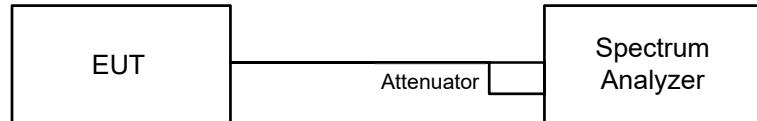
- a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10 Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

## 6.3 Conducted Out of Band Emissions

### 6.3.1 Test Setup



### 6.3.2 Test Procedure

#### MEASUREMENT PROCEDURE REF

- a. Set the RBW = 100 kHz.
- b. Set the VBW  $\geq$  300 kHz.
- c. Detector = peak.
- d. Sweep time = auto couple.
- e. Trace mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

#### MEASUREMENT PROCEDURE OOB

- a. Set RBW = 100 kHz.
- b. Set VBW  $\geq$  300 kHz.
- c. Detector = peak.
- d. Sweep = auto couple.
- e. Trace Mode = max hold.
- f. Allow trace to fully stabilize.
- g. Use the peak marker function to determine the maximum amplitude level.

## 7 Test Results of Test Item

### 7.1 Unwanted Emissions below 1 GHz

FCC 15.247

FCC 15.407

Combination	1						
Frequency Range	30 MHz ~ 1 GHz		Detector Function & Bandwidth	QP: RB=120 kHz, DET=Quasi-Peak			
Input Power	120 Vac, 60 Hz		Environmental Conditions	23 °C, 68 % RH			
Tested By	Louis Yang						

#### Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	62.01	20.7 QP	40.0	-19.3	3.00 H	221	34.3	-13.6
2	113.09	23.1 QP	43.5	-20.4	2.00 H	102	38.3	-15.2
3	181.91	24.0 QP	43.5	-19.5	1.50 H	271	38.4	-14.4
4	314.13	25.6 QP	46.0	-20.4	1.00 H	305	36.7	-11.1
5	483.88	29.9 QP	46.0	-16.1	1.00 H	358	36.9	-7.0
6	621.85	30.1 QP	46.0	-15.9	1.50 H	173	33.8	-3.7

#### Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	62.86	31.2 QP	40.0	-8.8	2.00 V	60	44.8	-13.6
2	114.07	20.9 QP	43.5	-22.6	1.00 V	207	36.0	-15.1
3	228.25	22.0 QP	46.0	-24.0	1.00 V	238	37.1	-15.1
4	387.21	27.2 QP	46.0	-18.8	1.00 V	77	36.4	-9.2
5	484.1	30.9 QP	46.0	-15.1	1.00 V	107	37.9	-7.0
6	608.01	30.0 QP	46.0	-16.0	1.00 V	155	34.0	-4.0

#### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission 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.

## 7.2 Unwanted Emissions above 1 GHz

FCC 15.247

FCC 15.407

Combination	1						
Frequency Range	1 GHz ~ 40 GHz		Detector Function & Bandwidth		PK: RB=1 MHz, VB=3 MHz, DET=Peak AV: RB=1 MHz, VB=3k Hz, DET=Peak		
Input Power	120 Vac, 60 Hz		Environmental Conditions		22 °C, 73 % RH		
Tested By	Louis Yang						

### Antenna Polarity & Test Distance : Horizontal at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4804	34.9 PK	74.0	-39.1	2.37 H	133	32.7	2.2
2	4804	22.8 AV	54.0	-31.2	2.37 H	133	20.6	2.2
3	4810	35.7 PK	74.0	-38.3	1.25 H	53	33.6	2.1
4	4810	24.1 AV	54.0	-29.9	1.25 H	53	22.0	2.1
5	4874	48.3 PK	74.0	-25.7	2.73 H	159	46.3	2.0
6	4874	46.9 AV	54.0	-7.1	2.73 H	159	44.9	2.0
7	7311	53.6 PK	74.0	-20.4	1.84 H	272	46.1	7.5
8	7311	50.3 AV	54.0	-3.7	1.84 H	272	42.8	7.5
9	#10480	47.9 PK	68.2	-20.3	1.49 H	233	35.5	12.4
10	15720	44.7 PK	74.0	-29.3	1.32 H	218	32.4	12.3
11	15720	32.0 AV	54.0	-22.0	1.32 H	218	19.7	12.3

### Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4804	33.3 PK	74.0	-40.7	1.56 V	87	31.1	2.2
2	4804	22.0 AV	54.0	-32.0	1.56 V	87	19.8	2.2
3	4810	34.0 PK	74.0	-40.0	2.51 V	115	31.9	2.1
4	4810	23.3 AV	54.0	-30.7	2.51 V	115	21.2	2.1
5	4874	44.3 PK	74.0	-29.7	1.54 V	53	42.3	2.0
6	4874	40.4 AV	54.0	-13.6	1.54 V	53	38.4	2.0
7	7311	45.3 PK	74.0	-28.7	3.02 V	276	37.8	7.5
8	7311	36.8 AV	54.0	-17.2	3.02 V	276	29.3	7.5
9	#10480	45.0 PK	68.2	-23.2	1.38 V	11	32.6	12.4
10	15720	45.1 PK	74.0	-28.9	1.47 V	55	32.8	12.3
11	15720	33.5 AV	54.0	-20.5	1.47 V	55	21.2	12.3

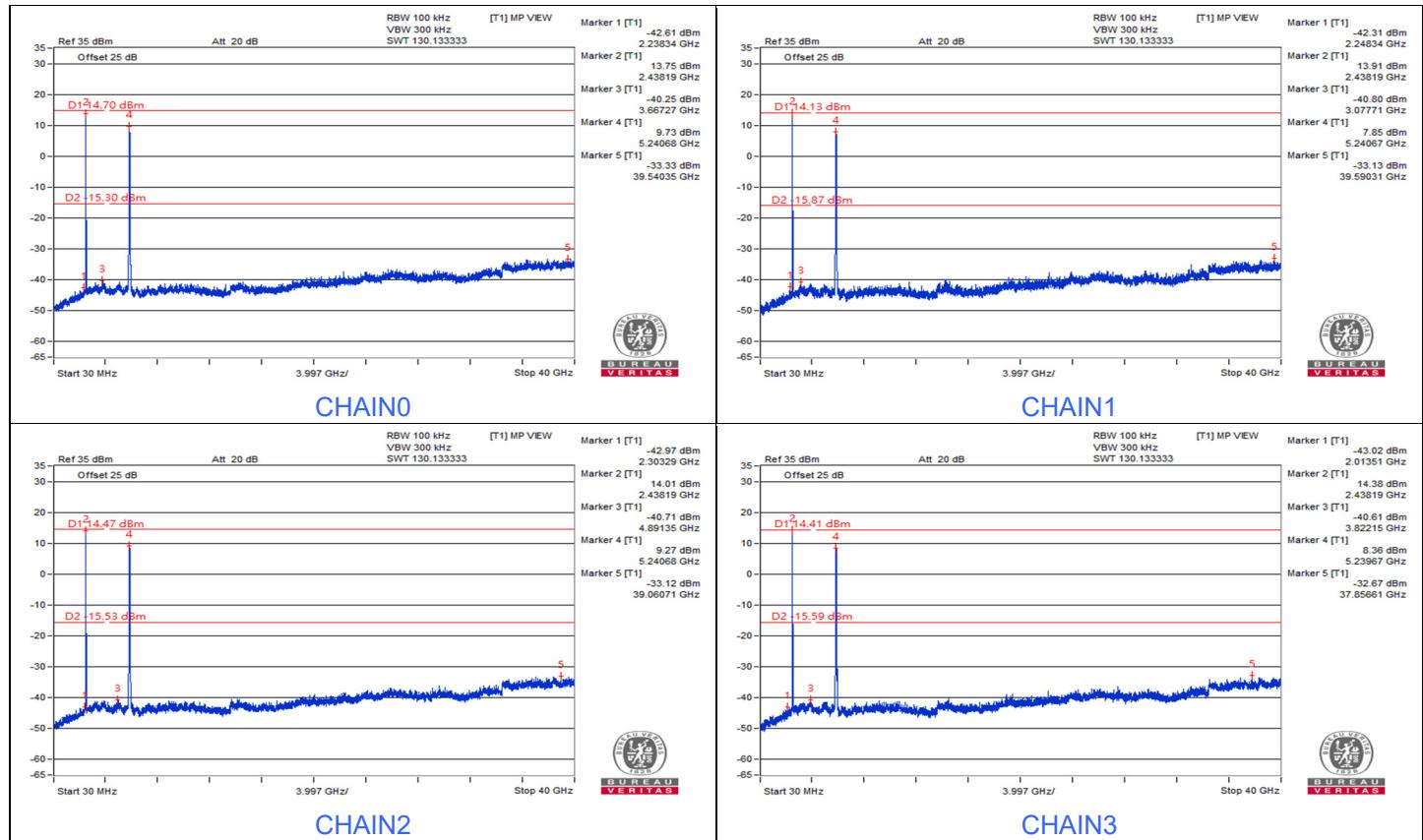
#### Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " # ": The radiated frequency is out of the restricted band.

### 7.3 Conducted Out of Band Emissions

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	26°C, 66% RH	Tested By:	Dolly Chung
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#### Combination 1



## 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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