



FCC Test Report

Report No.: ULC-ESH-P21091855B
Product: Remote Control Motorized Full-motion TV Wall Mount
Model: PLB-M06
Received: Sep.26, 2021
ISSUED: Sep.27 to Oct.16, 2021

Applicant: Lumi Legend Corporation
Address: 22/F., Building 1, Lisi Plaza, Huifeng East Road, Ningbo, China
315100

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation
Lab Location: No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)

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Contents

1. TEST PROGRAM	3
2. Summary of Test Procedure and Test Results	4
3. Test Configuration of Equipment under Test	5
3.1 Manufacturer information	5
3.2 Feature of Equipment under Test.....	5
3.3 Measurement Uncertainty	6
4 Test of Conducted Emission	7
4.1 Test Limit	7
4.2 Test Procedures	8
4.3 Typical Test Setup	8
4.4 Measurement Equipment.....	9
4.5 Test Result and Data	10
4.6 Test Photographs	12
5 Test of Radiated Emission	13
5.1 Test Limit.....	13
5.2 Test Procedures	14
5.3 Typical Test Setup	14
5.4 Measurement Equipment.....	15
5.5 Test Result and Data (30MHz ~ 1GHz).....	16
5.6 Test Photographs (30MHz ~ 1000MHz).....	18



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2. Summary of Test Procedure and Test Results

EMISSION (47 CFR FCC Part15, Subpart B)		
Test Item	Normative References	Test Result
Conducted Emission	47 CFR FCC Part15, Subpart B 15.107	Meets the Class B requirements
Radiated Emission	47 CFR FCC Part15, Subpart B 15.109	Meets the Class B requirements

3. Test Configuration of Equipment under Test

3.1 Manufacturer information

Manufacturer : Lumi Legend Corporation

Address : 22/F., Building 1, Lisi Plaza, Huifeng East Road, Ningbo, China 315100

3.2 Feature of Equipment under Test

Product Name:	Remote Control Motorized Full-motion TV Wall Mount
Brand:	--
Test Model:	PLB-M06
Model Discrepancy:	--
EUT Power Rating:	12V $\overline{\text{---}}$, 6W; Powered by adaptor

Note:

1. Please refer to user manual.
2. All EMC tests were performed with adaptor which provided by client.
3. The highest operation frequency is below 108MHz.

3.3 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

This listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Measurement		Value
Conducted emissions		2.55 dB
Radiated emissions	30 MHz ~ 1GHz	3.22 dB
	Above 1GHz	2.89 dB

4 Test of Conducted Emission

4.1 Test Limit

TEST STANDARD:

CFR 47 FCC Part 15, Subpart B (Section: 15.107)

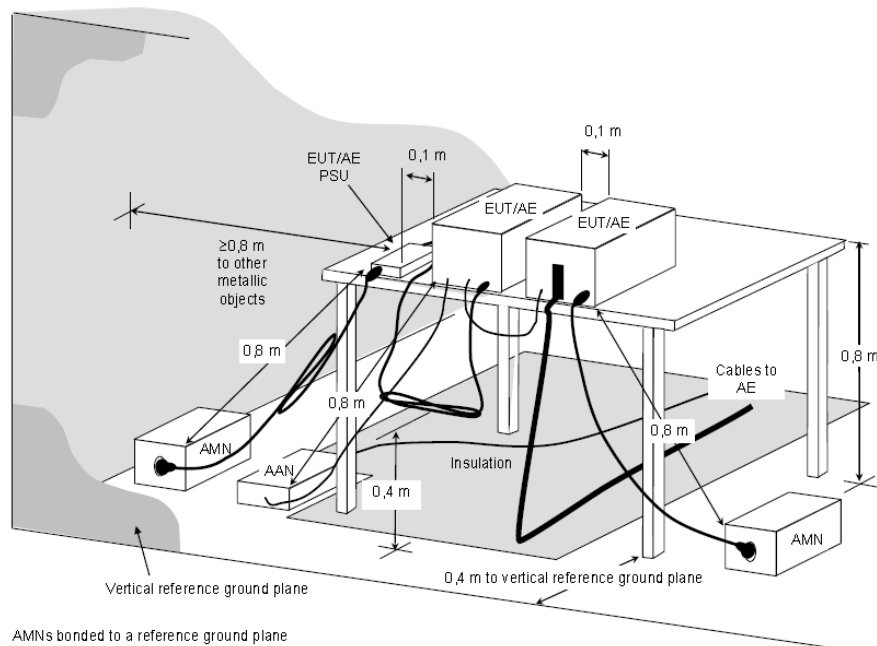
FREQUENCY (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTES:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2 Test Procedures

1. The EUT was placed on a desk 0.8 meter height from the metal ground plane and 0.4 meter from the conducting wall of the shielding room and it was kept at least 0.8 meters from any other grounded conducting surface.
2. Connect EUT to the power mains through a Artificial Mains Network (AMN).
3. All the support units are connecting to the other AMN.
4. The AMN provides 50 ohm coupling impedance for the measuring instrument.
5. The CISPR states that a 50 ohm, 50 micro-Henry AMN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched
8. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

4.3 Typical Test Setup



NOTE The 0,8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be $\geq 0,8$ m.

**Figure D.2 – Example measurement arrangement for table-top EUT
(Conducted emission measurement – alternative 1)**



4.4 Measurement Equipment

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	E1R1001	May.10, 2022
LISN ROHDE & SCHWARZ	ENV216	E1L1011	May.10, 2022
Software ADT	ADT_Cond_V7.3.0	N/A	N/A



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4.5 Test Result and Data

Conducted Emission Test Data

Phase : LINE

Location: Conduction 1

Date: 10/15/2021

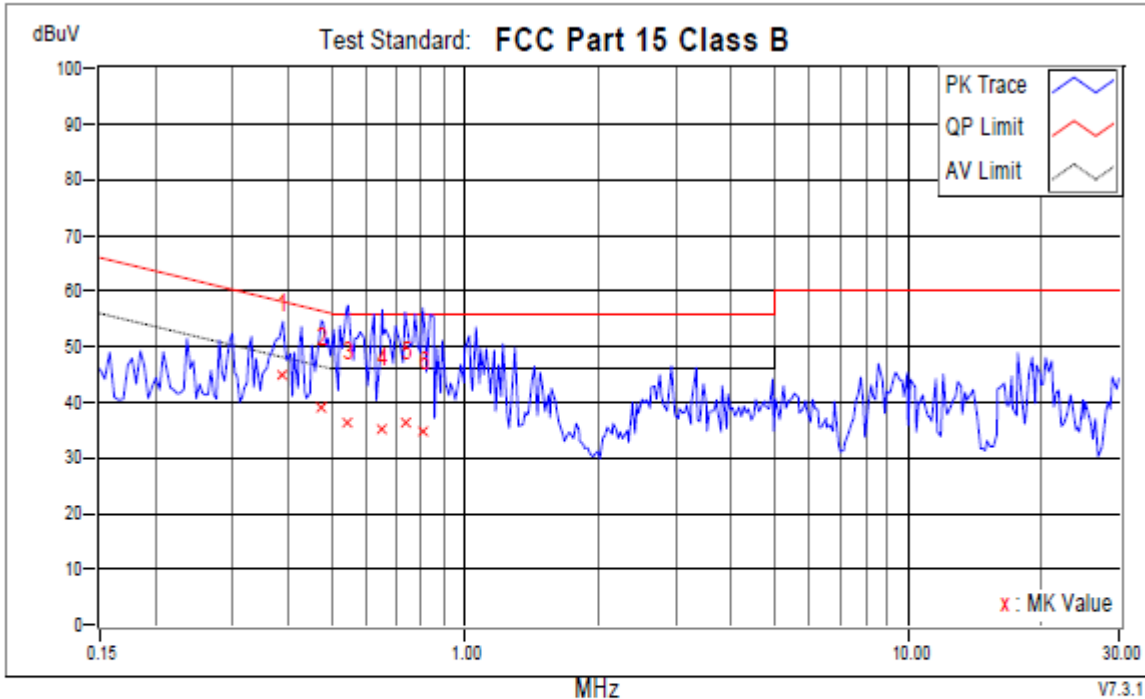
Time: 2:24:22 PM

Phase L1

Temperature (C): 23

Humidity (%): 53

Approved by:



No.	Frequency MHz	Corr. Factor dB	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
			QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.38851	9.86	34.88	24.21	44.74	34.07	58.10	48.10	-13.36	-14.03	
2	0.47453	9.84	29.06	9.79	38.90	19.63	56.43	46.43	-17.54	-26.81	
3	0.54491	9.81	26.66	14.27	36.47	24.08	56.00	46.00	-19.53	-21.92	
4	0.65048	9.75	25.60	10.82	35.35	20.57	56.00	46.00	-20.65	-25.43	
5	0.73259	9.74	26.66	10.85	36.40	20.59	56.00	46.00	-19.60	-25.41	
6	0.80297	9.76	25.10	11.49	34.86	21.25	56.00	46.00	-21.14	-24.75	

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



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Phase : NEUTRAL

Location: Conduction 1

Date: 10/15/2021

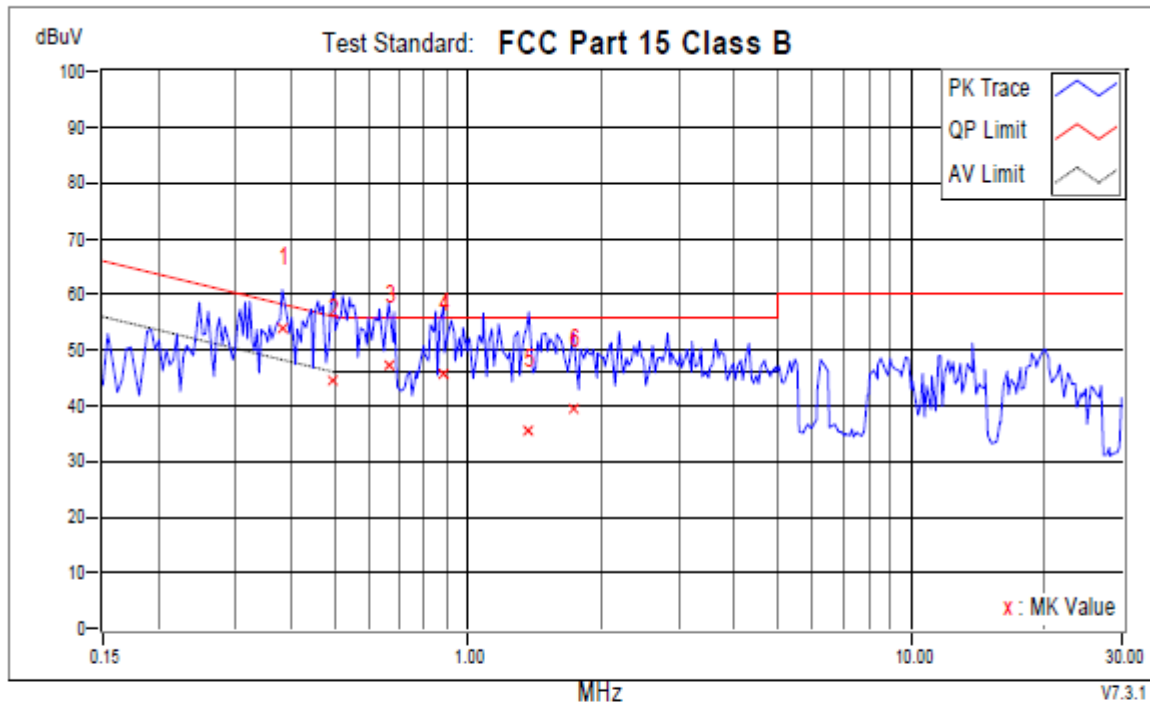
Time: 2:19:31 PM

Phase N

Temperature (C): 23

Humidity (%): 53

Approved by:

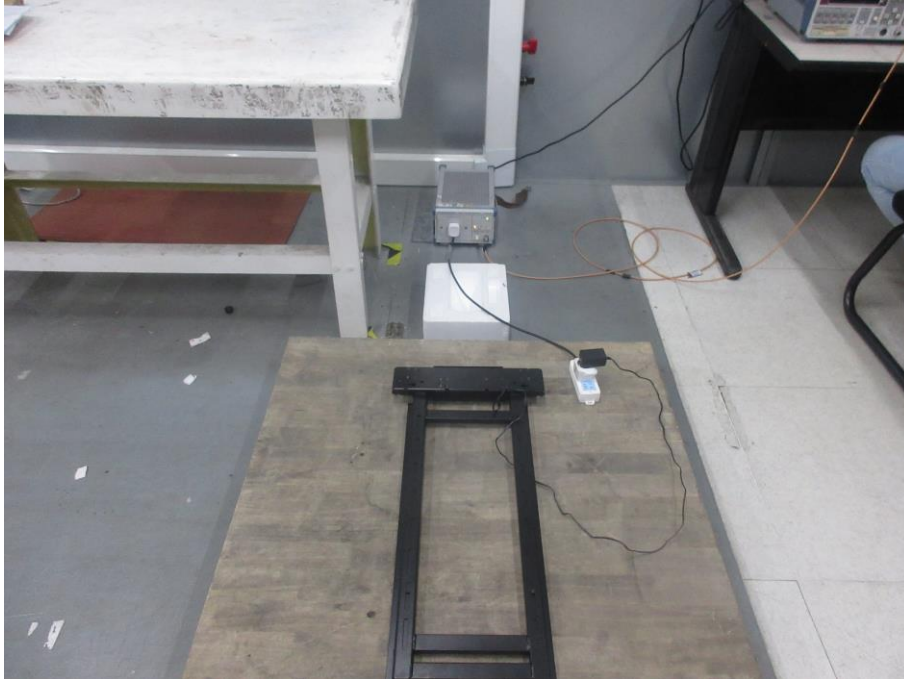


No.	Frequency MHz	Corr. Factor dB	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
			QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.38069	10.18	43.60	33.70	53.78	43.88	58.26	48.26	-4.49	-4.39	
2	0.49799	10.20	34.24	20.23	44.44	30.43	56.03	46.03	-11.59	-15.60	
3	0.66221	10.20	37.14	18.11	47.34	28.31	56.00	46.00	-8.66	-17.69	
4	0.88117	10.13	35.48	19.26	45.61	29.39	56.00	46.00	-10.39	-16.61	
5	1.37145	10.10	25.44	19.42	35.54	29.52	56.00	46.00	-20.46	-16.48	
6	1.73117	10.13	29.40	15.49	39.53	25.62	56.00	46.00	-16.47	-20.38	

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

4.6 Test Photographs



5 Test of Radiated Emission

5.1 Test Limit

TEST STANDARD:

CFR 47 FCC Part 15, Subpart B (Section: 15.109)

FOR FREQUENCY BELOW 1000 MHz

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$	$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 – 88	90	39.1	100	40.0
88 – 216	150	43.5	150	43.5
216 – 960	210	46.4	200	46.0
960 – 1000	300	49.5	500	54.0

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

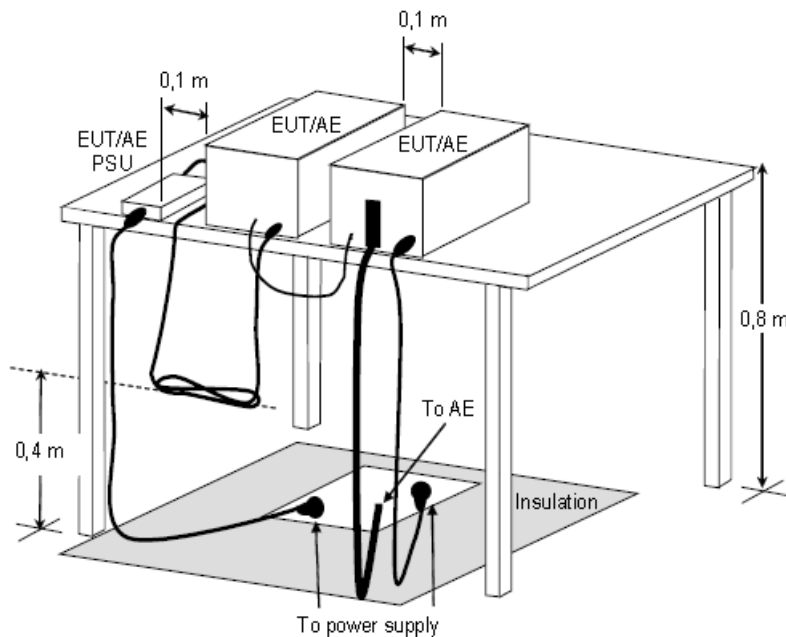
FREQUENCY (MHz)	Class A ($\text{dB}\mu\text{V/m}$) (at 3m)		Class B ($\text{dB}\mu\text{V/m}$) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

- Note:**
1. The lower limit shall apply at the transition frequencies.
 2. Emission level ($\text{dB}\mu\text{V/m}$) = $20 \log$ Emission level ($\mu\text{V/m}$).
 3. All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

5.2 Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3/10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a half wave dipole and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
5. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

5.3 Typical Test Setup



**Figure D.8 – Example measurement arrangement for table-top EUT
(Radiated emission measurement)**



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5.4 Measurement Equipment

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
EMI Test Spectrum ROHDE & SCHWARZ	ESR7	E1R1005	May.10, 2022
Spectrum Analyzer Keysight	N9030B	E1S1003	Aug.02, 2022
Broad-Band Antenna Schwarzbeck	VULB9168	E1A1012	Jul.26, 2022
Double Riaged Vroadband Horn Antenna Schwarzbeck	BBHA9120D	E1A1017	Jan.24, 2022
Preamplifier Agilent	8447D	E1A2001	Apr.18, 2022
Preamplifier Agilent	EMC051845SE	E1A2009	Jul.04, 2022

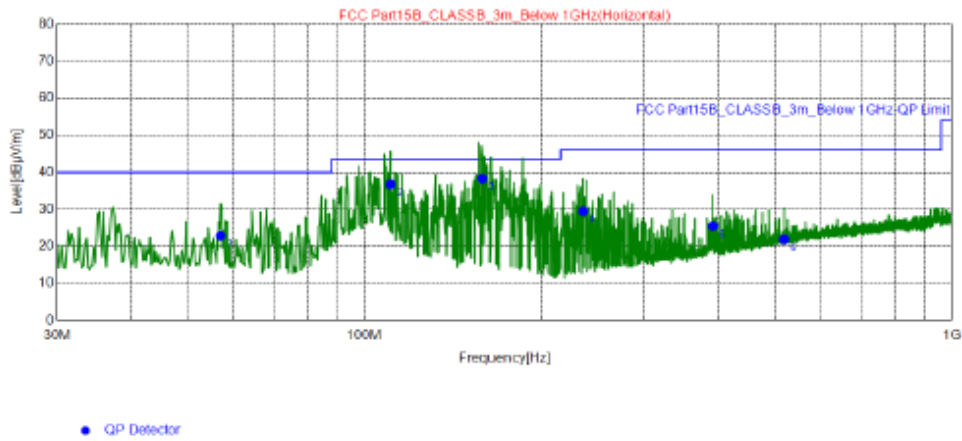


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5.5 Test Result and Data (30MHz ~ 1GHz)

Position: Horizontal

Test Graph



Final Data List

NO.	Freq. [MHz]	QP Reading [dB µV/m]	Factor [dB]	QP Value [dB µV/m]	QP Limit [dB µV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	56.96	33.63	-10.75	22.88	40.00	17.12	200	26	Horizontal
2	110.8	50.76	-14.03	36.73	43.50	6.77	200	12	Horizontal
3	158.8	48.91	-10.58	38.33	43.50	5.17	200	156	Horizontal
4	235.8	41.27	-11.77	29.50	46.00	16.50	200	331	Horizontal
5	392.3	32.59	-7.12	25.47	46.00	20.53	200	85	Horizontal
6	518.2	26.24	-4.32	21.92	46.00	24.08	200	204	Horizontal

REMARKS:

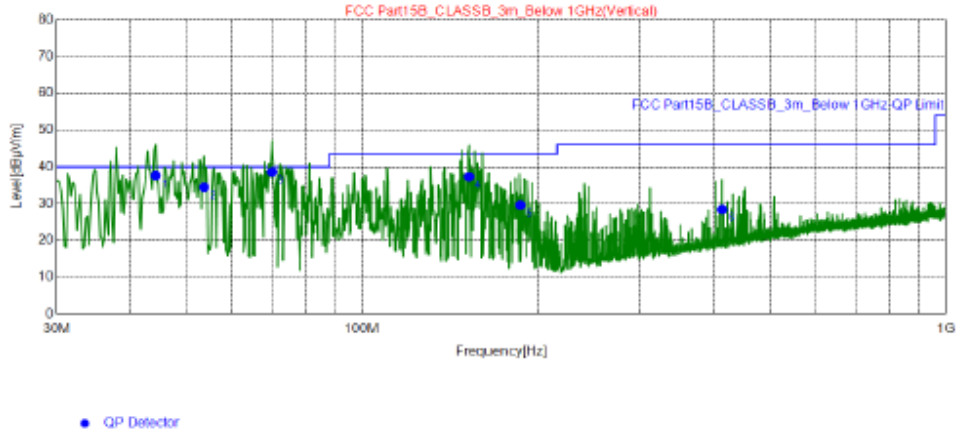
1. Q.P. is abbreviation of quasi-peak individually.
2. The emission levels of other frequencies were very low against the limit.
3. QP Margin value = QP Limit value – QP value.
4. Factor = Antenna Factor + Amplifier Factor + Cable loss.
5. QP value = Factor + Reading Value.



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Position: Vertical

Test Graph

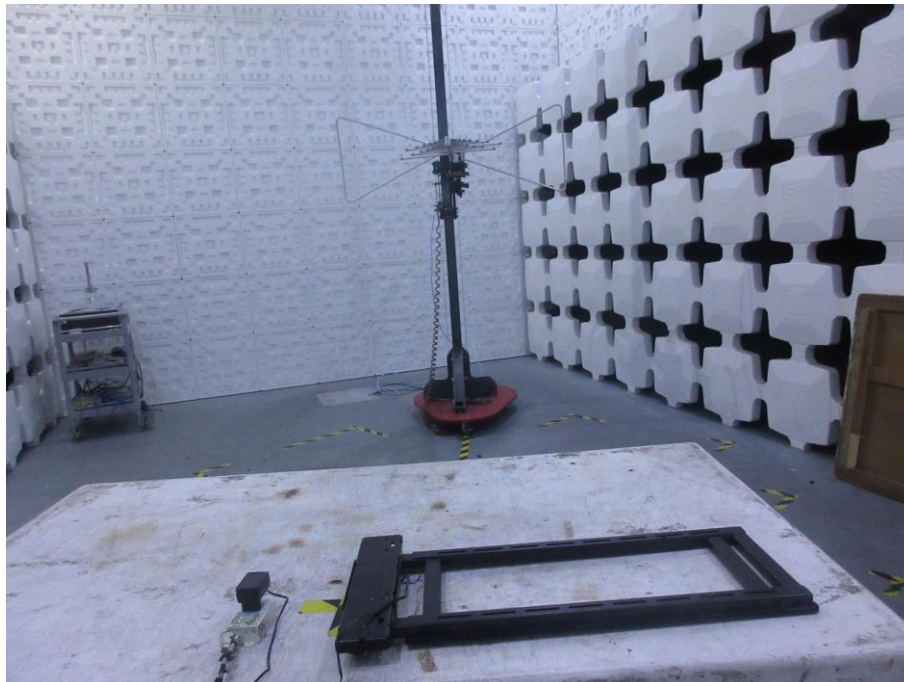


Final Data List									
NO.	Freq. [MHz]	QP Reading [dB μV/m]	Factor [dB]	QP Value [dB μV/m]	QP Limit [dB μV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	44.35	48.42	-10.78	37.64	40.00	2.36	100	145	Vertical
2	53.66	45.1	-10.63	34.47	40.00	5.53	100	164	Vertical
3	70.15	51	-12.39	38.61	40.00	1.39	100	85	Vertical
4	152.6	48.03	-10.70	37.33	43.50	6.17	100	82	Vertical
5	186.7	41.74	-12.16	29.58	43.50	13.92	100	48	Vertical
6	414.3	35.02	-6.63	28.39	46.00	17.61	100	89	Vertical

REMARKS:

1. Q.P. is abbreviation of quasi-peak individually.
2. The emission levels of other frequencies were very low against the limit.
3. QP Margin value = QP Limit value – QP value
4. Factor = Antenna Factor + Amplifier Factor + Cable loss
5. QP value = Factor + Reading Value.

5.6 Test Photographs (30MHz ~ 1000MHz)



--- END ---