

FCC TEST REPORT

Report No.: ARFR-ESH-P20031102B-3-A1

FCC ID: 2ANDLTY-R8817

Product: Smart Camera

Test Model: SC031-WNG2-V2

Received: Jul.09, 2020

ISSUED: Jul.29, 2020

Applicant: Hangzhou Tuya Information Technology Co., Ltd

Address: Room701, Building3, More Center, No.87 GuDun Road, Hangzhou, Zhejiang, China

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

Lab Location: No. 829, Xinzhuan Road, Shanghai, P.R.China (201612)



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1. TEST PROGRAM

PRODUCT: Smart Camera
TEST MODEL: SC031-WNG2-V2
APPLICANT: Hangzhou Tuya Information Technology Co., Ltd
TESTED: Jul.09 to Jul.29, 2020
STANDARDS: 47 CFR FCC Part15, Subpart B, Class B
ANSI C63.4:2014

We, BUREAU VERITAS ADT (Shanghai) Corporation, declare that the equipment above has been tested and found compliance with the requirement limits of applicable standards. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

PREPARED BY : Scott XU, **DATE:** Jul.29, 2020
Scott XU
Project Engineer

APPROVED BY : Daniel Sun, **DATE:** Jul.29, 2020
Daniel Sun
EMC Lab Manager

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 : Hangzhou Tuya Information Technology Co., Ltd

Address : Room701, Building3, More Center, No.87 GuDun Road, Hangzhou, Zhejiang,
China

3.2 Feature of Equipment under Test

Product Name:	Smart Camera
Test Model:	SC031-WNG2-V2
EUT Power Rating:	5VDC/1A with adaptor 100-240Vac~, 50/60Hz

Note: 1. Please refer to user manual.

Special Comment: This report is updated report based on history report ARFR-ESH-P20031102B-3 for adding new adaptors KA06E-0501000US. So we choose the new adaptors for full tests.

3.3 Description of support units

NO.	PRODUCT	BRAND	MODEL NO.
1	Mobile Phone	Vivo	--
2	Cable	--	--

3.4 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)

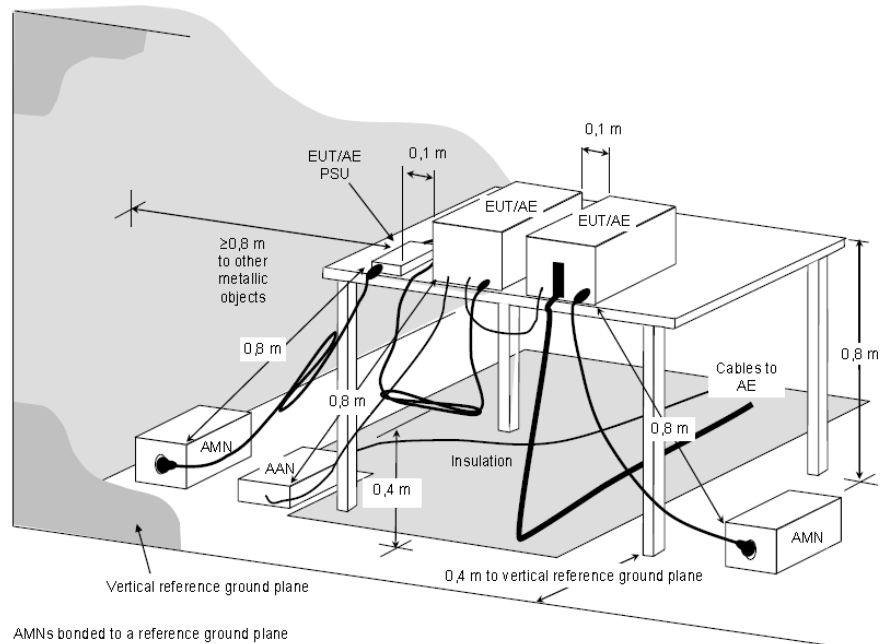
FREQUENCY (MHz)	Class A (dBμV)		Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- 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 ≥ 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	Mar.11, 2021
LISN ROHDE & SCHWARZ	ENV216	E1L1011	Mar.11, 2021
Software ADT	ADT_Cond_V7.3.0	N/A	N/A

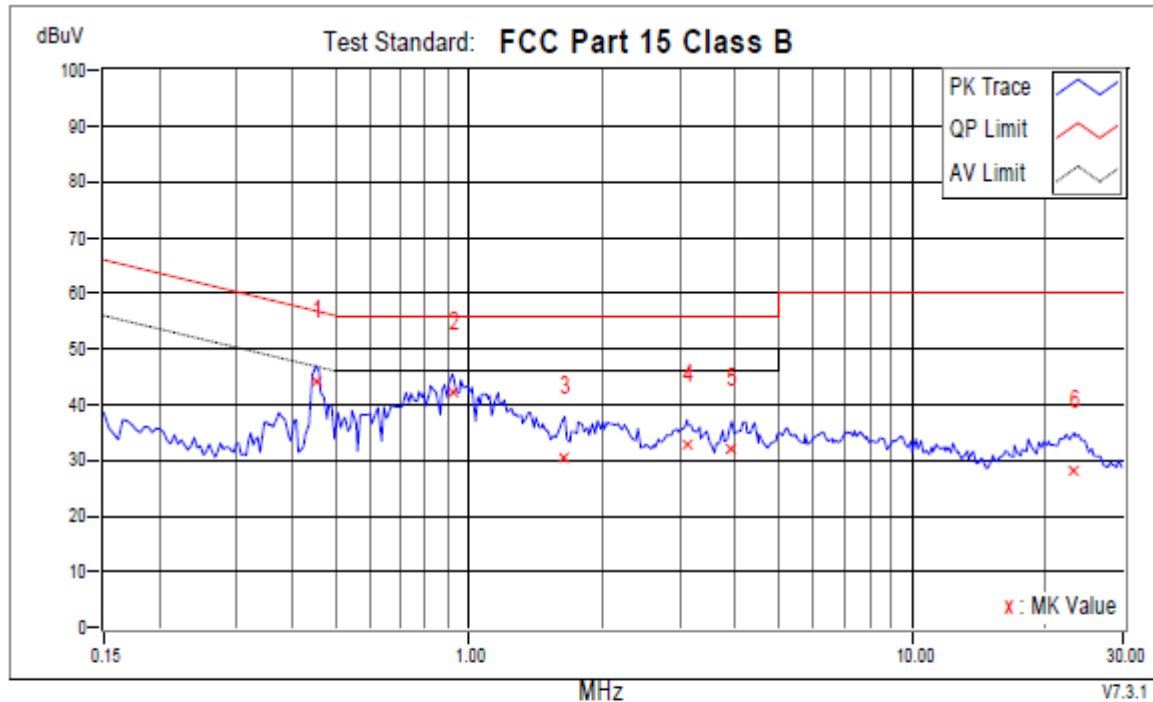
4.5 Test Result and Data

Conducted Emission Test Data

120Vac/60Hz

Mode 1: Wireless

Phase : LINE

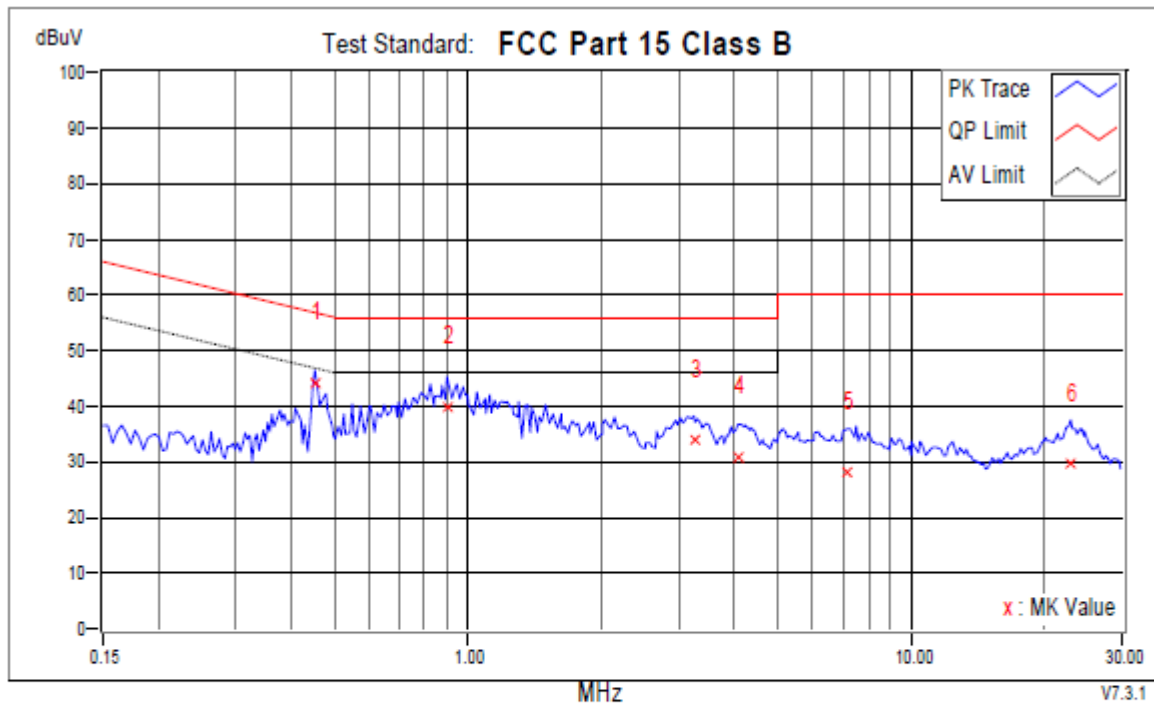


No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.45107	9.71	34.55	24.36	44.26	34.07	56.86	46.86	-12.60	-12.79	
2	0.91636	9.59	32.75	17.93	42.34	27.52	56.00	46.00	-13.66	-18.48	
3	1.64515	9.69	20.79	7.21	30.48	16.90	56.00	46.00	-25.52	-29.10	
4	3.10749	9.78	23.07	10.18	32.85	19.96	56.00	46.00	-23.15	-26.04	
5	3.91686	9.80	22.25	10.23	32.05	20.03	56.00	46.00	-23.95	-25.97	
6	23.22362	10.02	18.03	9.14	28.05	19.16	60.00	50.00	-31.95	-30.84	

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.

Phase : NEUTRAL

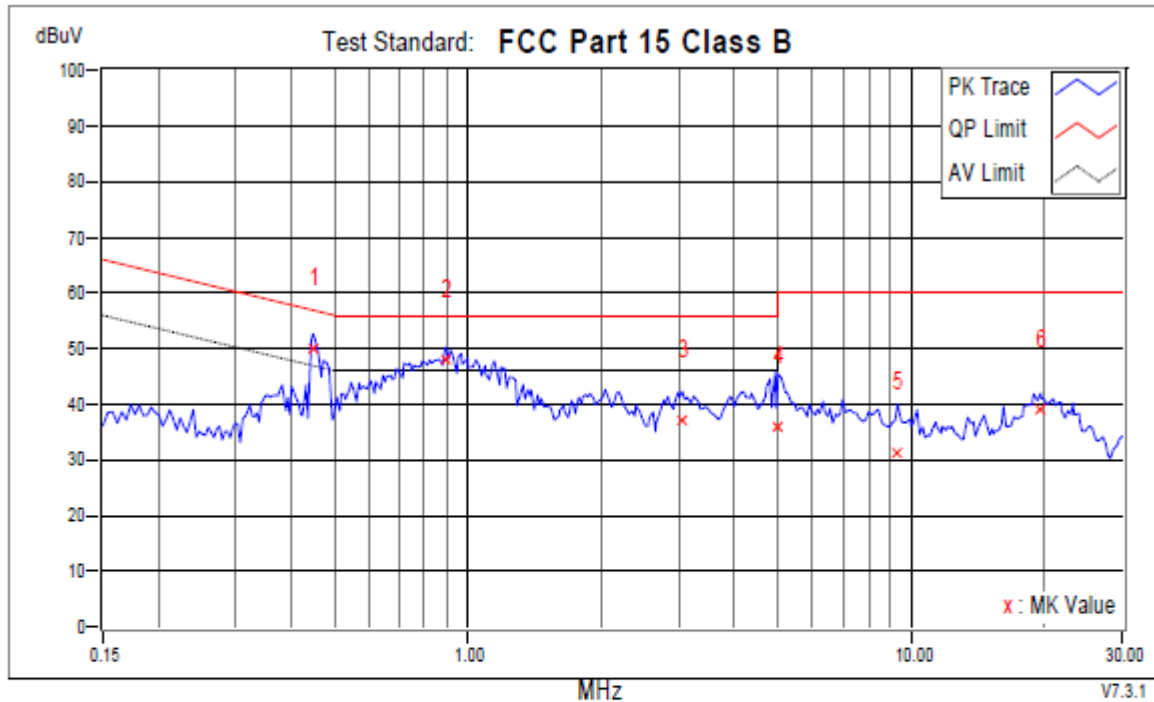


No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.45107	9.84	34.11	27.67	43.95	37.51	56.86	46.86	-12.91	-9.35	
2	0.89681	9.88	29.88	20.51	39.76	30.39	56.00	46.00	-16.24	-15.61	
3	3.24043	9.89	23.98	11.82	33.87	21.71	56.00	46.00	-22.13	-24.29	
4	4.06935	9.70	21.29	10.86	30.99	20.56	56.00	46.00	-25.01	-25.44	
5	7.17780	9.89	18.27	8.27	28.16	18.16	60.00	50.00	-31.84	-31.84	
6	22.91473	10.21	19.36	8.64	29.57	18.85	60.00	50.00	-30.43	-31.15	

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.

Mode 2: Lan
Phase: LINE

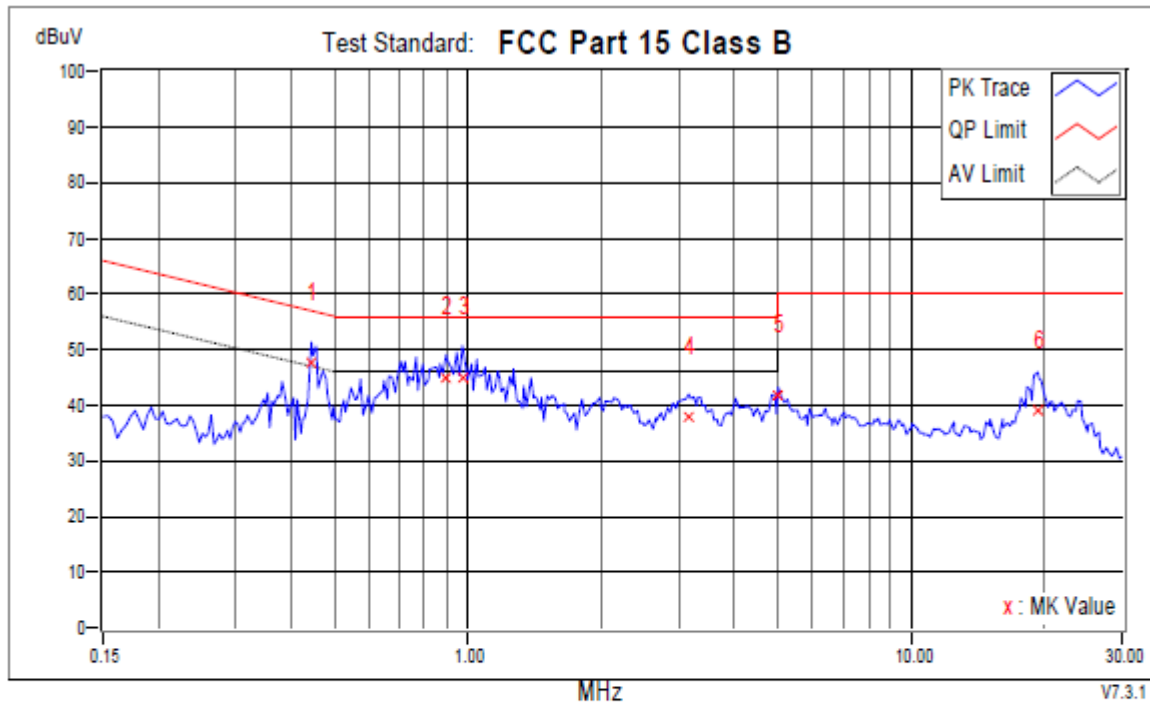


No.	Frequency MHz	Corr. Factor dB	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
			QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.44716	9.70	40.29	30.50	49.99	40.20	56.93	46.93	-6.93	-6.72	
2	0.88899	9.58	38.50	24.12	48.08	33.70	56.00	46.00	-7.92	-12.30	
3	3.04884	9.78	27.42	16.41	37.20	26.19	56.00	46.00	-18.80	-19.81	
4	5.00000	9.83	26.15	15.27	35.98	25.10	56.00	46.00	-20.02	-20.90	
5	9.32048	10.12	21.16	10.83	31.28	20.95	60.00	50.00	-28.72	-29.05	
6	19.58732	10.05	29.01	21.46	39.06	31.51	60.00	50.00	-20.94	-18.49	

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.

Phase: NEUTRAL



No.	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.44325	9.84	37.91	27.21	47.75	37.05	57.00	47.00	-9.25	-9.95	
2	0.89290	9.88	35.23	23.83	45.11	33.71	56.00	46.00	-10.89	-12.29	
3	0.97110	9.89	35.10	23.62	44.99	33.51	56.00	46.00	-11.01	-12.49	
4	3.15050	9.92	27.97	16.26	37.89	26.18	56.00	46.00	-18.11	-19.82	
5	5.01557	9.49	32.16	21.18	41.65	30.67	60.00	50.00	-18.35	-19.33	
6	19.30189	10.17	28.77	18.86	38.94	29.03	60.00	50.00	-21.06	-20.97	

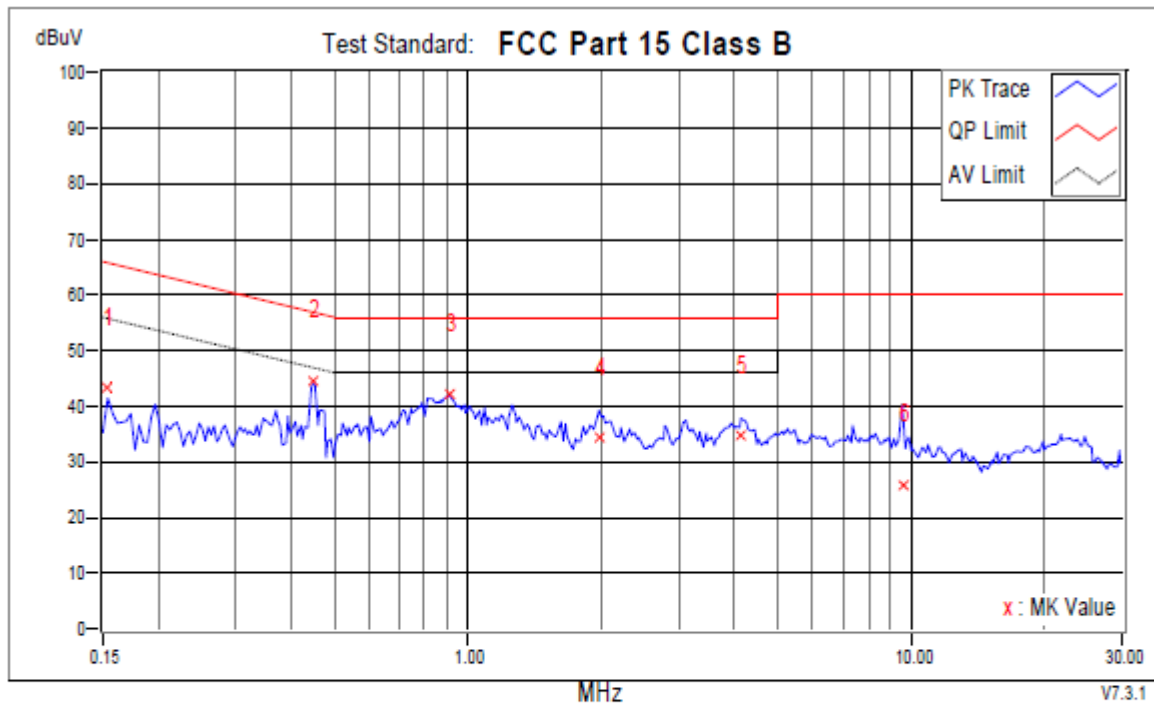
REMARKS:

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.

240Vac/50Hz

Mode 1: Wireless

Phase : LINE

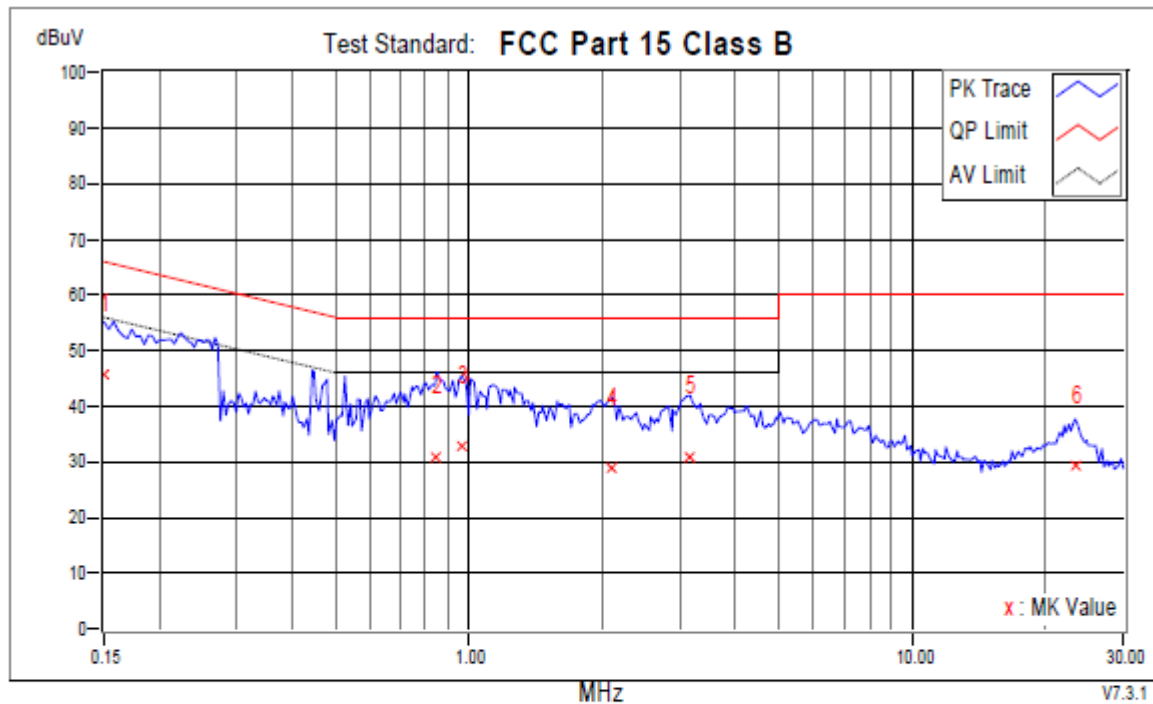


MHz											V7.3.1
	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
No.	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
1	0.15391	9.83	33.66	6.93	43.49	16.76	65.79	55.79	-22.29	-39.02	
+2	0.44716	9.70	34.79	23.75	44.49	33.45	56.93	46.93	-12.43	-13.47	
3	0.90854	9.59	32.76	18.41	42.35	28.00	56.00	46.00	-13.65	-18.00	
4	1.97359	9.75	24.68	11.45	34.43	21.20	56.00	46.00	-21.57	-24.80	
5	4.12800	9.81	24.84	12.26	34.65	22.07	56.00	46.00	-21.35	-23.93	
6	9.55508	10.14	15.45	3.40	25.59	13.54	60.00	50.00	-34.41	-36.46	

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.

Phase : NEUTRAL



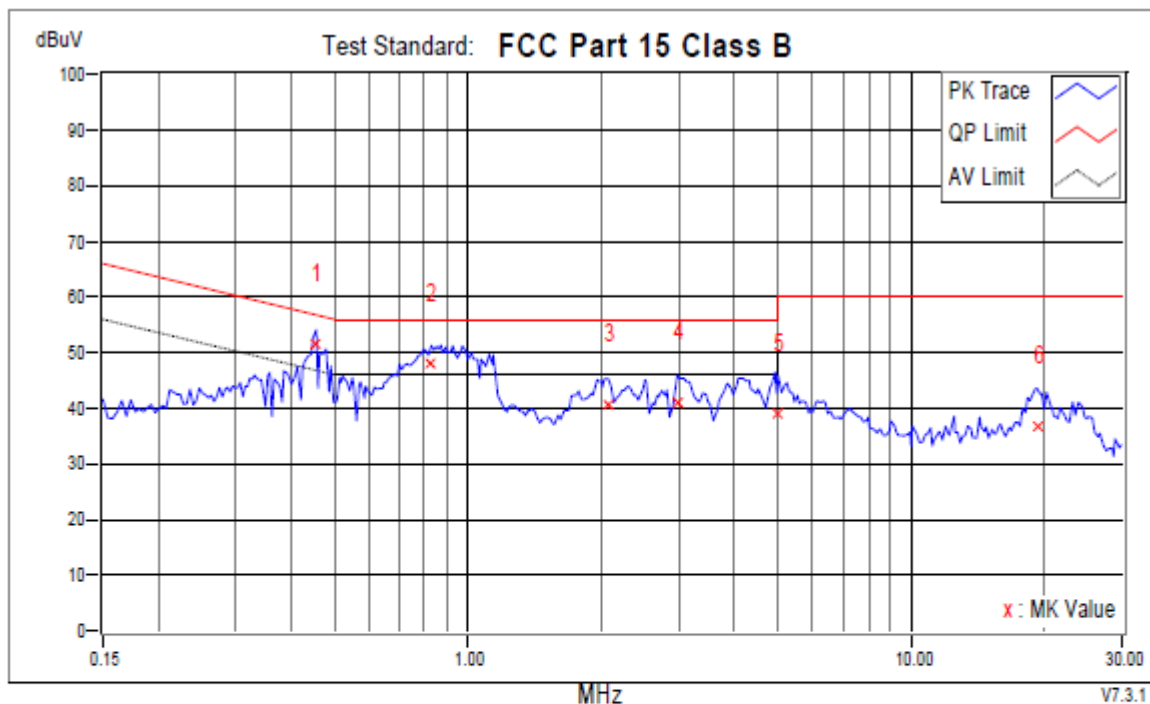
	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
No.	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
1	0.15000	9.84	35.92	12.53	45.76	22.37	66.00	56.00	-20.24	-33.63	
2	0.84598	9.88	21.05	12.66	30.93	22.54	56.00	46.00	-25.07	-23.46	
+3	0.96328	9.89	22.85	16.32	32.74	26.21	56.00	46.00	-23.26	-19.79	
4	2.10653	9.91	19.01	10.00	28.92	19.91	56.00	46.00	-27.08	-26.09	
5	3.15441	9.91	21.11	9.37	31.02	19.28	56.00	46.00	-24.98	-26.72	
6	23.32919	10.22	19.06	6.87	29.28	17.09	60.00	50.00	-30.72	-32.91	

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.

Mode 2: Lan

Phase: LINE

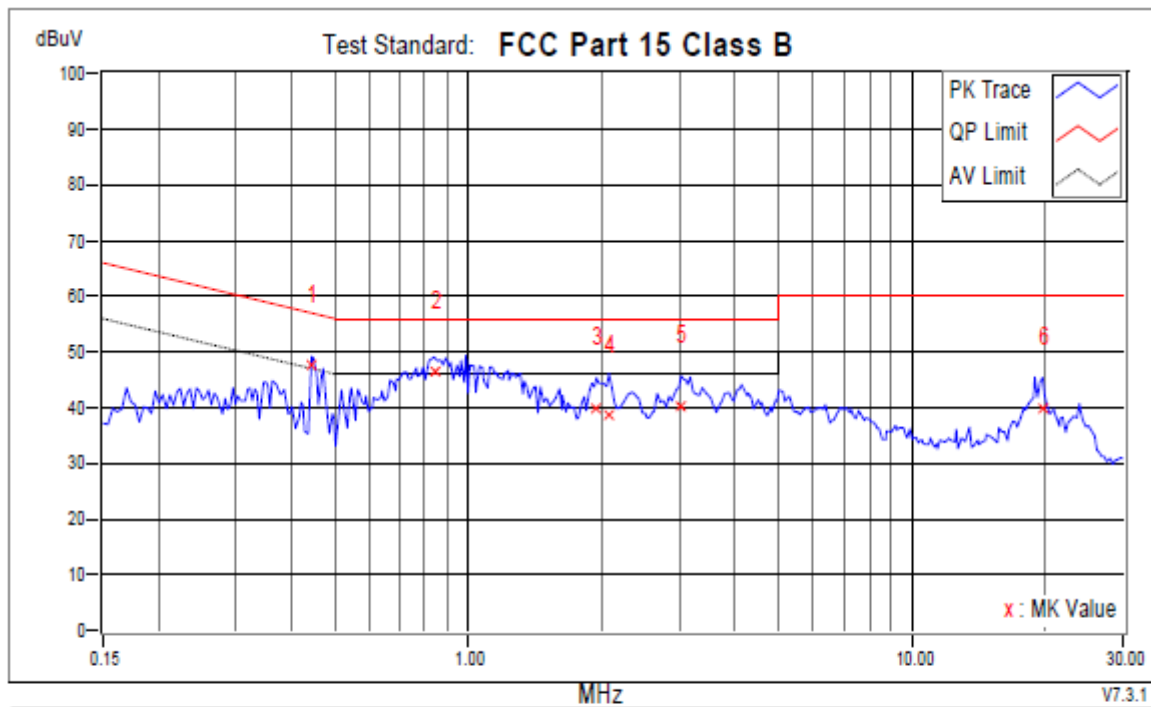


	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes
No.	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV	
+1	0.45498	9.71	41.82	28.53	51.53	38.24	56.78	46.78	-5.26	-8.55	
2	0.82643	9.58	38.54	23.29	48.12	32.87	56.00	46.00	-7.88	-13.13	
3	2.07134	9.75	30.98	18.09	40.73	27.84	56.00	46.00	-15.27	-18.16	
4	2.96673	9.78	31.13	20.33	40.91	30.11	56.00	46.00	-15.09	-15.89	
5	5.00000	9.83	29.29	17.08	39.12	26.91	56.00	46.00	-16.88	-19.09	
6	19.21978	10.06	26.82	18.22	36.88	28.28	60.00	50.00	-23.12	-21.72	

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.

Phase: NEUTRAL



MHz											V7.3.1	
	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB		Notes	
No.	MHz	dB	QP	AV	QP	AV	QP	AV	QP	AV		
+1	0.44325	9.84	37.96	28.46	47.80	38.30	57.00	47.00	-9.20	-8.70		
2	0.83816	9.88	36.47	25.65	46.35	35.53	56.00	46.00	-9.65	-10.47		
3	1.94622	9.91	30.09	17.15	40.00	27.06	56.00	46.00	-16.00	-18.94		
4	2.07525	9.91	28.90	17.30	38.81	27.21	56.00	46.00	-17.19	-18.79		
5	3.01756	9.95	30.09	17.85	40.04	27.80	56.00	46.00	-15.96	-18.20		
6	19.70853	10.18	29.48	19.87	39.66	30.05	60.00	50.00	-20.34	-19.95		

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

Mode 1: Wireless



Mode 2: Lan



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

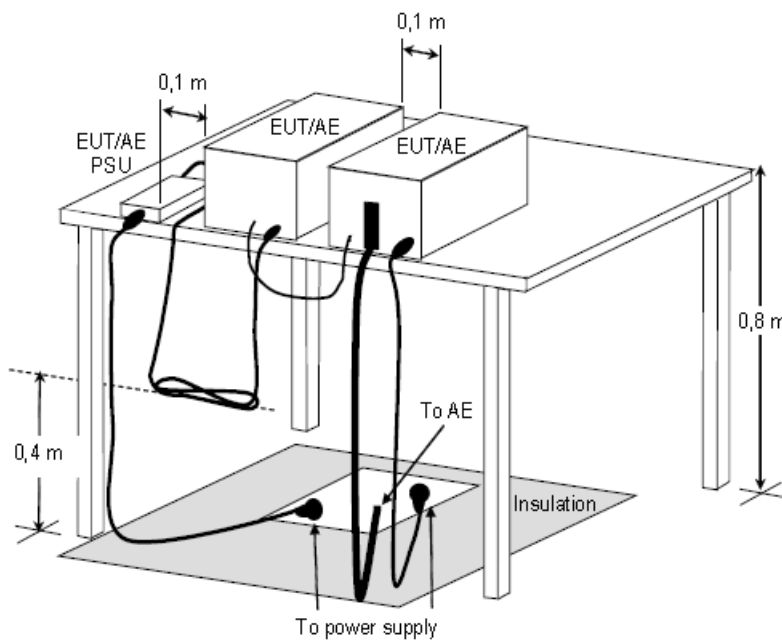
FREQUENCY (MHz)	Class A ($\text{dB}\mu\text{V/m}$) (at 3m)		Class B ($\text{dB}\mu\text{V/m}$) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

- 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)**

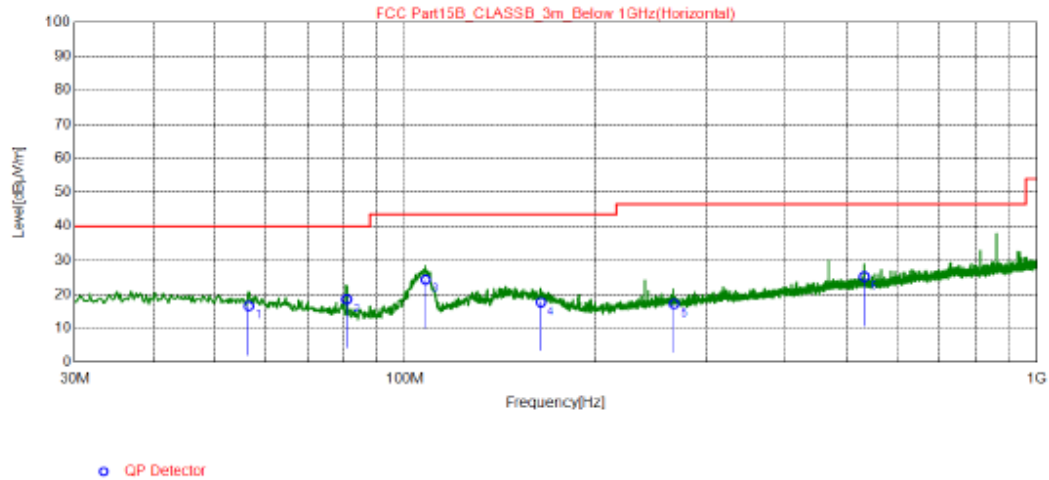
5.4 Measurement Equipment

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
EMI Test Spectrum ROHDE & SCHWARZ	ESR7	E1R1005	May.11, 2021
Spectrum Analyzer Keysight	N9030B	E1S1003	Aug.04, 2020
Broad-Band Antenna Schwarzbeck	VULB9168	E1A1012	Jul.28, 2020
Double Riaged Vroadband Horn Antenna Schwarzbeck	BBHA9120D	E1A1017	Jan.25, 2021
Preamplifier Agilent	8447D	E1A2001	Apr.19, 2021
Preamplifier Agilent	EMC051845SE	E1A2009	Jul.05, 2021

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

Mode 1: Wireless

Position: Horizontal

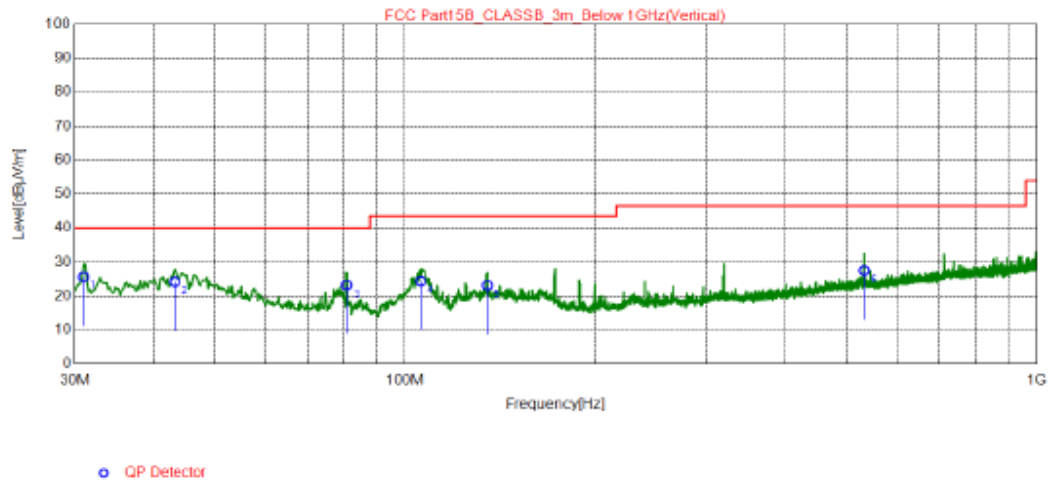


NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	56.57	26.76	-10.26	16.50	40.00	23.50	200	60	Horizontal
2	80.82	32.34	-13.82	18.52	40.00	21.48	200	259	Horizontal
3	107.7	36.71	-12.39	24.32	43.50	19.18	200	286	Horizontal
4	164.0	26.8	-9.11	17.69	43.50	25.81	200	252	Horizontal
5	266.4	27.12	-9.96	17.16	46.50	29.34	200	102	Horizontal
6	533.0	30.44	-5.28	25.16	46.50	21.34	200	229	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.

Position: Vertical



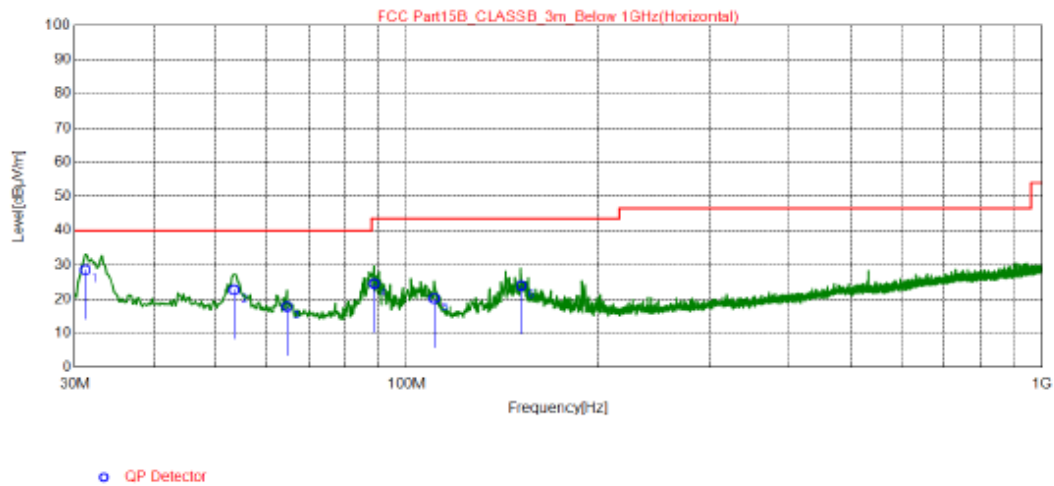
NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.97	36.2	-10.59	25.61	40.00	14.39	100	90	Vertical
2	43.19	33.72	-9.54	24.18	40.00	15.82	100	231	Vertical
3	80.82	37.06	-13.82	23.24	40.00	16.76	100	193	Vertical
4	105.8	37.02	-12.66	24.36	43.50	19.14	100	220	Vertical
5	134.9	33.59	-10.46	23.13	43.50	20.37	100	185	Vertical
6	533.0	32.78	-5.28	27.50	46.50	19.00	100	112	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.

Mode 2: Lan

Position: Horizontal

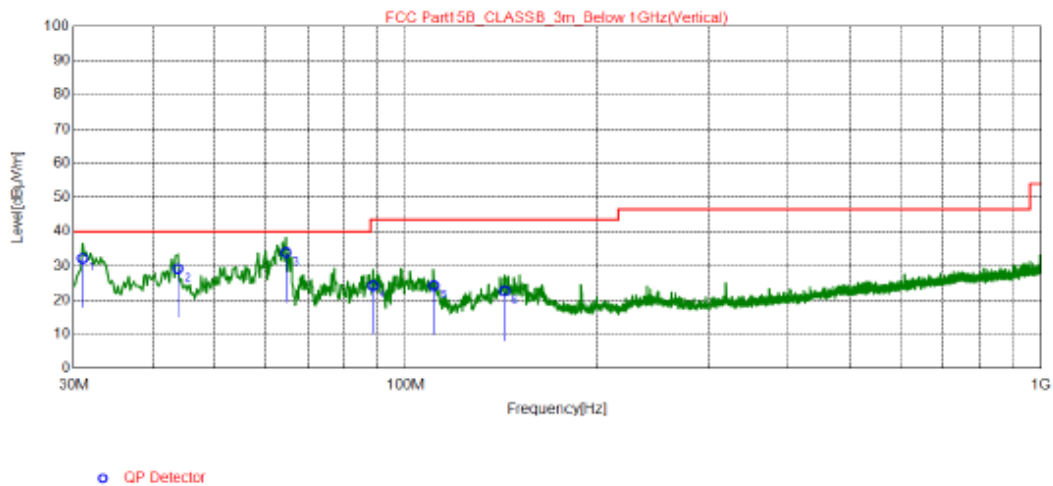


NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	31.16	39.11	-10.57	28.54	40.00	11.46	200	56	Horizontal
2	53.47	32.66	-10.00	22.66	40.00	17.34	200	118	Horizontal
3	64.72	29.15	-11.29	17.86	40.00	22.14	200	91	Horizontal
4	88.78	38.93	-14.42	24.51	43.50	18.99	200	94	Horizontal
5	110.5	32.28	-12.07	20.21	43.50	23.29	200	87	Horizontal
6	151.4	33.2	-9.25	23.95	43.50	19.55	200	91	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.

Position: Vertical



NO.	Freq. [MHz]	QP Reading [dBμV/m]	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	30.97	42.81	-10.59	32.22	40.00	7.78	100	101	Vertical
2	43.77	38.75	-9.55	29.20	40.00	10.80	100	346	Vertical
3	64.72	45.15	-11.29	33.86	40.00	6.14	100	20	Vertical
4	88.78	38.62	-14.42	24.20	43.50	19.30	100	20	Vertical
5	110.7	36.3	-12.06	24.24	43.50	19.26	100	24	Vertical
6	143.1	32.51	-9.90	22.61	43.50	20.89	100	20	Vertical

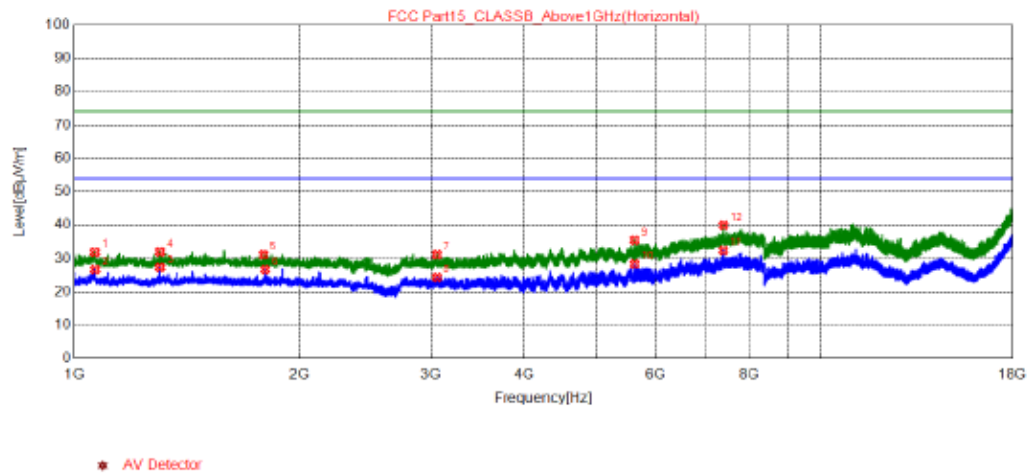
REMARKS:

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 Result and Data (1GHz ~ 18GHz)

Mode 1: Wireless

Position: Horizontal



NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	1066.3000	51.19	31.92	74.00	42.08	100	98	Horizontal	PK
2	1067.1500	45.98	26.71	54.00	27.29	100	59	Horizontal	AV
3	1303.4500	45.87	27.35	54.00	26.65	100	252	Horizontal	AV
4	1303.4500	50.55	32.03	74.00	41.97	100	329	Horizontal	PK
5	1792.2000	48.33	31.10	74.00	42.90	100	59	Horizontal	PK
6	1800.7000	43.93	26.72	54.00	27.28	100	98	Horizontal	AV
7	3056.1500	45.31	31.12	74.00	42.88	100	136	Horizontal	PK
8	3057.0000	38.50	24.31	54.00	29.69	100	98	Horizontal	AV
9	5618.9000	44.11	35.49	74.00	38.51	100	20	Horizontal	PK
10	5619.7500	36.91	28.29	54.00	25.71	100	20	Horizontal	AV
11	7388.6000	36.61	32.44	54.00	21.56	100	329	Horizontal	AV
12	7391.1500	44.05	39.88	74.00	34.12	100	59	Horizontal	PK

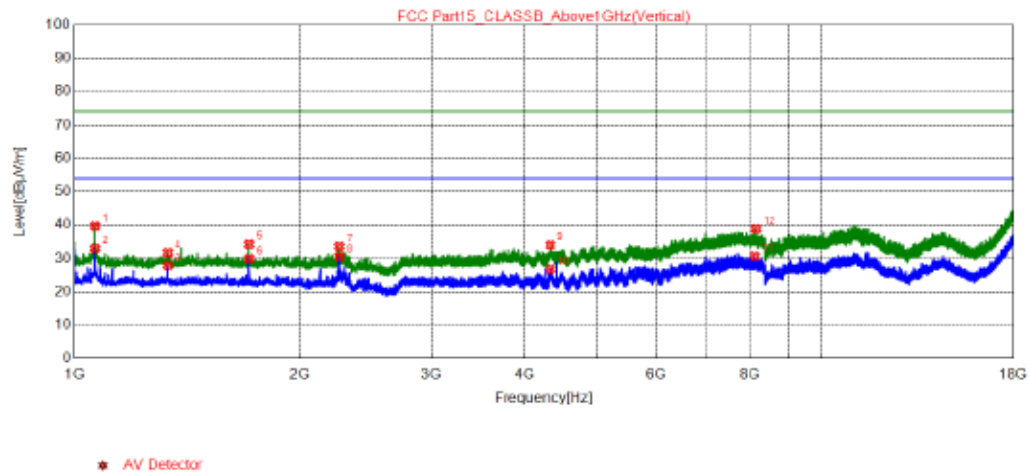
REMARKS:

1. The emission levels of other frequencies were very low against the limit.
2. Margin = Limit –Level



BUREAU
VERITAS

Position: Vertical



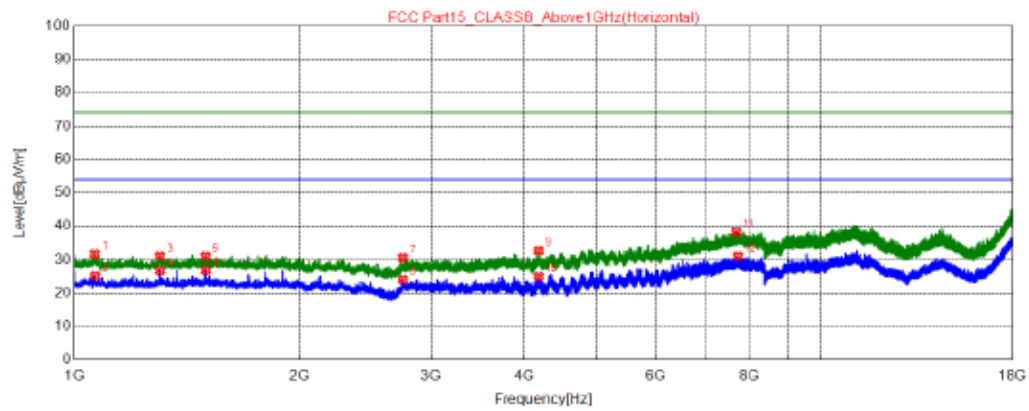
NO.	Freq. [MHz]	Reading [dBV/m]	Level [dBV/m]	Limit [dBV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	1066.3000	58.92	39.65	74.00	34.35	100	31	Vertical	PK
2	1066.3000	52.27	33.00	54.00	21.00	100	69	Vertical	AV
3	1333.2000	46.29	27.86	54.00	26.14	100	262	Vertical	AV
4	1333.2000	50.15	31.72	74.00	42.28	100	262	Vertical	PK
5	1713.1500	51.62	34.21	74.00	39.79	100	185	Vertical	PK
6	1714.0000	47.32	29.92	54.00	24.08	100	185	Vertical	AV
7	2260.5500	49.83	33.59	74.00	40.41	100	69	Vertical	PK
8	2261.4000	46.74	30.51	54.00	23.49	100	108	Vertical	AV
9	4328.6000	44.71	33.97	74.00	40.03	100	108	Vertical	PK
10	4329.4500	37.51	26.78	54.00	27.22	100	108	Vertical	AV
11	8123.8500	33.75	30.60	54.00	23.40	100	301	Vertical	AV
12	8158.7000	42.09	38.87	74.00	35.13	100	31	Vertical	PK

REMARKS:

1. The emission levels of other frequencies were very low against the limit.
2. Margin = Limit –Level

Mode 2: Lan

Position: Horizontal



* AV Detector

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	1065.4500	50.97	31.69	74.00	42.31	100	262	Horizontal	PK
2	1067.1500	44.36	25.09	54.00	28.91	100	262	Horizontal	AV
3	1302.6000	49.52	31.00	74.00	43.00	100	146	Horizontal	PK
4	1303.4500	45.27	26.75	54.00	27.25	100	340	Horizontal	AV
5	1499.8000	48.85	30.94	74.00	43.06	100	185	Horizontal	PK
6	1500.6500	44.74	26.83	54.00	27.17	100	185	Horizontal	AV
7	2752.7000	45.62	30.57	74.00	43.43	100	146	Horizontal	PK
8	2753.5500	39.08	24.03	54.00	29.97	100	146	Horizontal	AV
9	4180.7000	43.86	32.71	74.00	41.29	100	146	Horizontal	PK
10	4181.5500	36.04	24.89	54.00	29.11	100	146	Horizontal	AV
11	7686.1000	41.75	38.26	74.00	35.74	100	185	Horizontal	PK
12	7725.2000	34.38	30.97	54.00	23.03	100	185	Horizontal	AV

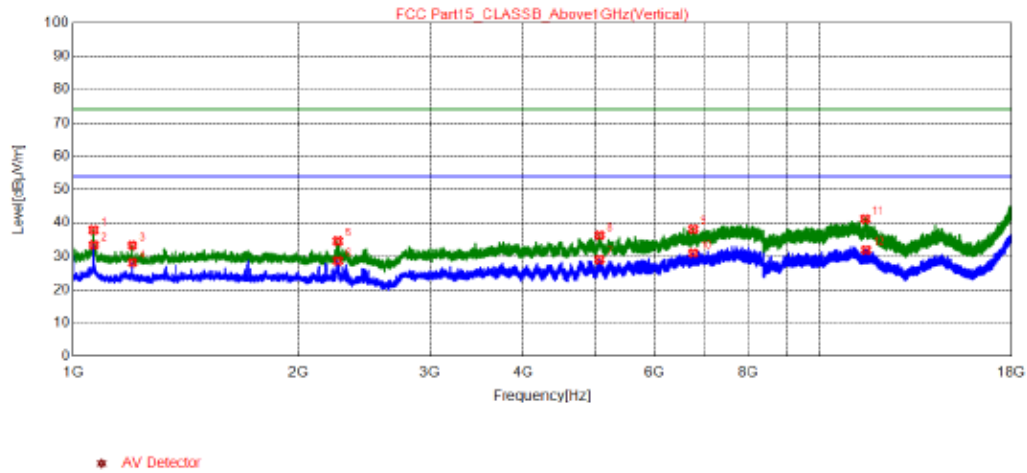
REMARKS:

1. The emission levels of other frequencies were very low against the limit.
2. Margin = Limit – Level



**BUREAU
VERITAS**

Position: Vertical



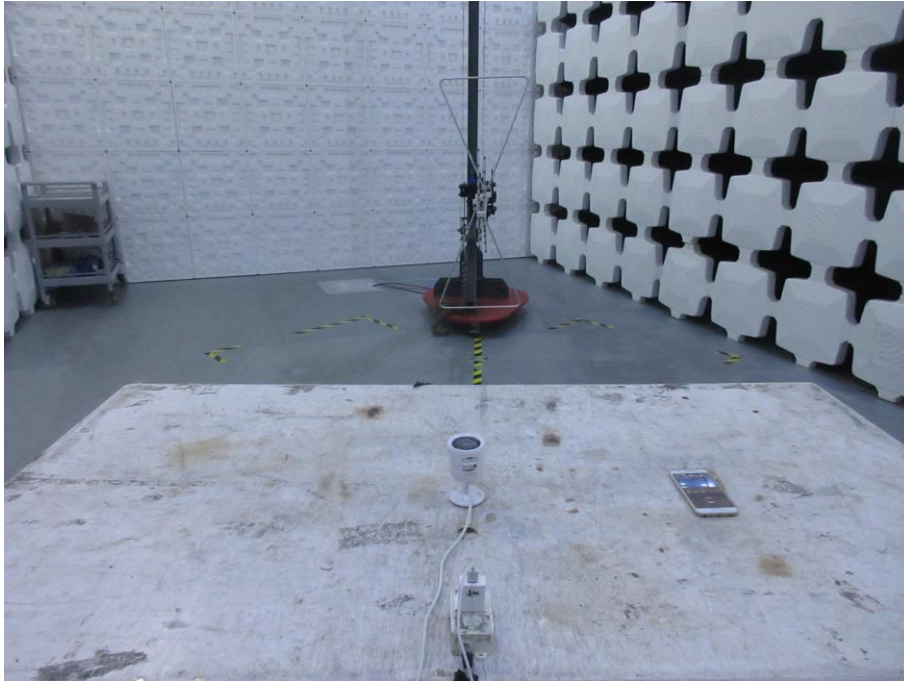
NO.	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Detector
1	1065.4500	57.14	37.86	74.00	36.14	100	175	Vertical	PK
2	1066.3000	52.66	33.39	54.00	20.61	100	136	Vertical	AV
3	1199.7500	52.11	33.28	74.00	40.72	100	98	Vertical	PK
4	1200.6000	46.92	28.09	54.00	25.91	100	98	Vertical	AV
5	2260.5500	50.79	34.55	74.00	39.45	100	20	Vertical	PK
6	2261.4000	44.87	28.64	54.00	25.36	100	20	Vertical	AV
7	5063.0000	38.18	29.07	54.00	24.93	100	252	Vertical	AV
8	5065.5500	45.41	36.30	74.00	37.70	100	214	Vertical	PK
9	6755.3500	44.11	38.14	74.00	35.86	100	98	Vertical	PK
10	6756.2000	36.89	30.92	54.00	23.08	100	59	Vertical	AV
11	11479.6500	39.54	41.23	74.00	32.77	100	214	Vertical	PK
12	11507.7000	30.28	31.95	54.00	22.05	100	98	Vertical	AV

REMARKS:

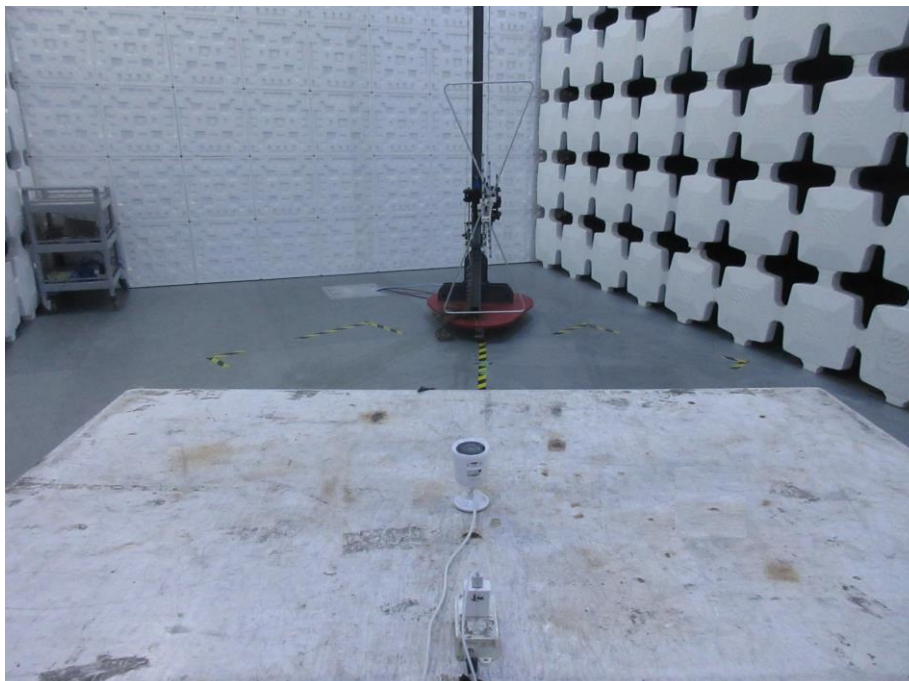
1. The emission levels of other frequencies were very low against the limit.
2. Margin = Limit –Level

5.7 Test Photographs (30MHz ~ 1000MHz)

Mode 1: Wireless

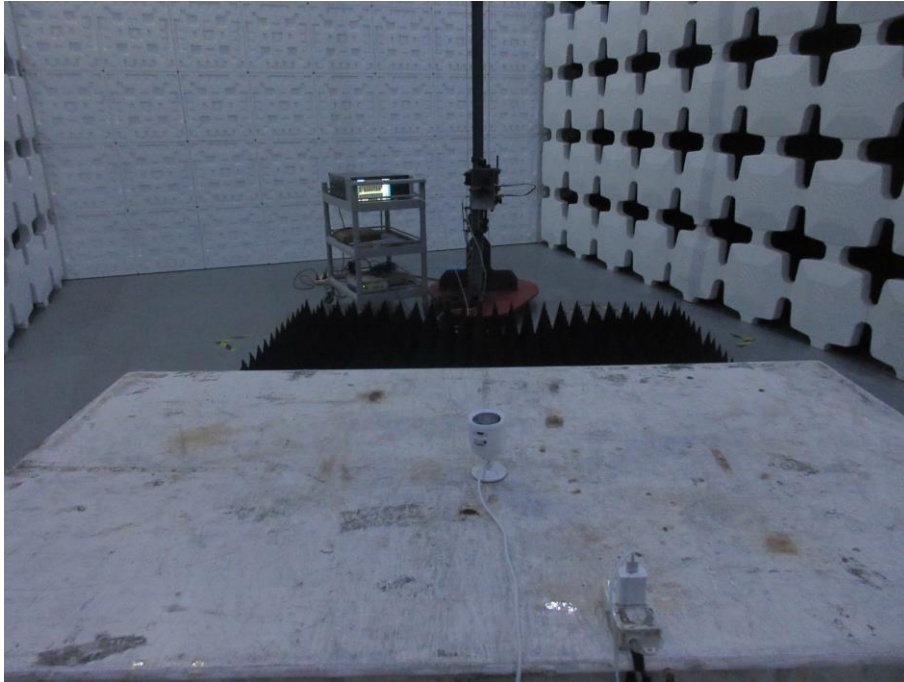


Mode 2: Lan

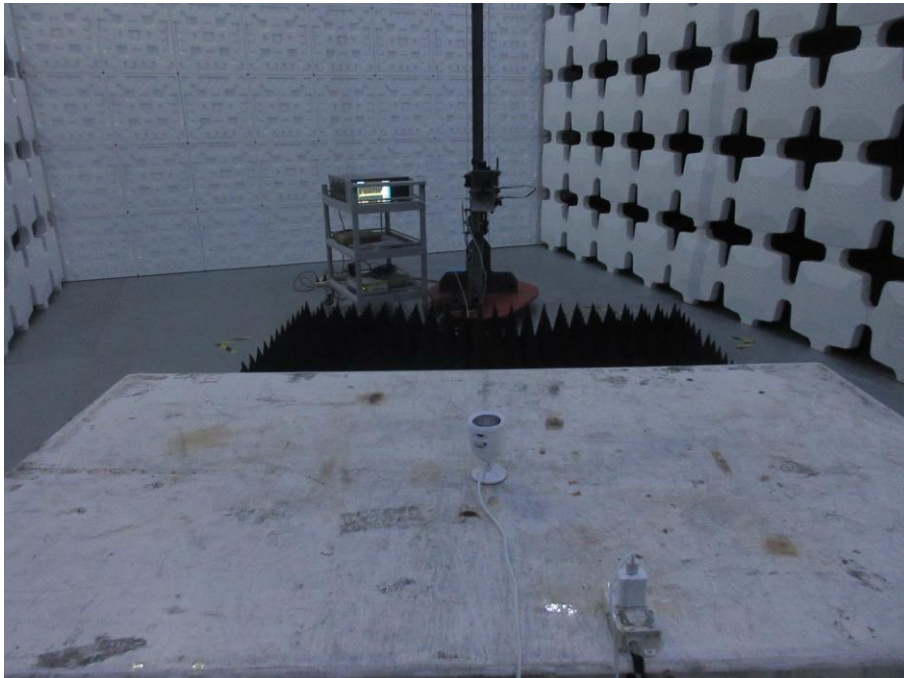


5.8 Test Photographs (1000MHz ~ 18000MHz)

Mode 1: Wireless



Mode 2: Lan



6 Photographs of EUT



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