

EMC TEST REPORT

Applicant : Shanghai XiaoYi Technology Co., Ltd
Building 18, Lane 55, Chuanhe Road,
Address of Applicant : China(Shanghai) Pilot Free Trade Zone, Shanghai,
China , 201203
Product Name : Kami Doorbell Camera
Model No. : YDS.20120
FCC 47 CFR Part 15 Subpart B (10-1-16 Edition)
Standards : ICES-003(Issue6,January 2016)
ANSI C63.4-2014
Date of Receipt : 2021-03-19
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1. GENERAL INFORMATION

1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298 Pingan Rd, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Details of Application

Applicant Company Name	Shanghai XiaoYi Technology Co., Ltd
Address	Building 18, Lane 55, Chuanhe Road, China(Shanghai) Pilot Free Trade Zone, Shanghai, China , 201203
Contact Person	Jackie Han
Telephone	18017858789
Email	han.guangbao@xiaoyi.com
Manufacturer Company Name	Kami Vision Incorporated
Address	182 South Murphy Ave, Floor #2, Sunnyvale CA 94086, United States

1.3 Product Description for Equipment under Test (EUT)

Product Name	Kami Doorbell Camera
Brand Name	Kami
Test Model No	YDS.20120
Class type	Class B
Working Voltage	High: 4.2V Normal: 3.7V Low:3.7V
Hardware Version	D201_MB_V2.2
Software Version	9.2.00.32
Wireless Description	WIFI 2.4GHz (802.11 b, g, n20,n40) ;WIFI 5GHz (802.11 a, ac20,ac40,ac80, n20,n40) ;
Battery Brand Name	Kami
Battery Model	IBR072GA/AD201-1
Battery Manufacturer	ICON Energy System(shenzhen)Co., Ltd /SiChuan Igreen Technology Co., Ltd
Battery Manufacturer Address	/
Battery Power	Capacitance:6000mAh Rated Voltage:3.7V Charge Limit:4.2V

2. SUMMARY OF TEST RESULTS

FCC Part 15B ICES-003(Issue6,January 2016)		
Rule	Description	Results
§15.107 § ICES-003 6.2	Conducted Emission	Not applicable
§15.109 § ICES-003 6.1	Radiated Emission	Compliance

Note: The product is powered by a battery, so the test case is no applicable. And there is no data transfer mode.

2.1 Test Uncertainty

Measurement	U cispr
Conducted disturbance at mains port (9 kHz to 30 MHz)	1.96 dB
Conducted disturbance at telecommunication port (150 kHz to 30 MHz)	1.84 dB
Radiated disturbance (30 MHz to 1000 MHz)	3.42 dB
Radiated disturbance (1 GHz to18 GHz)	4.20 dB

3. SYSTEM TEST CONFIGURATION

3.1 EUT test Mode

The system was configured for testing in a typical fashion (as normally used by a typical user).

NO.	Test Mode	Description
1	Charge & Working Mode	Camera + 2.4G WIFI Link
2	Charge & Working Mode	Camera + 5G WIFI Link

Note: All operating modes are tested, but only the worst mode are recorded. Mode 1 is the worst mode.

3.2 Laboratory Environment Conditions

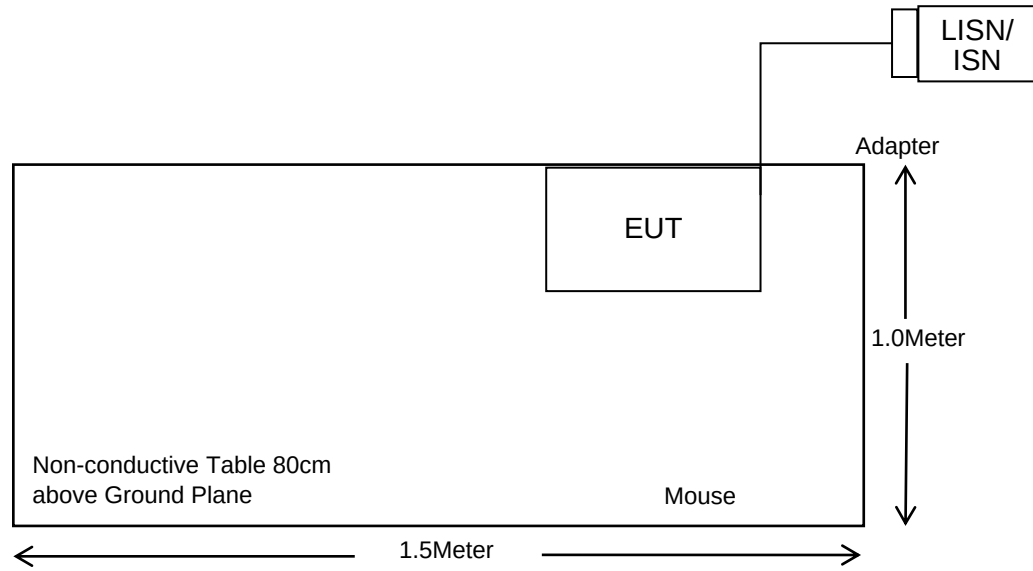
Ambient temperature	16°C~30°C
Ambient humidity	35%~60%
Ambient pressure	100 kPa ~106 kPa

3.3 Support Equipment List and Details of test Equipment

Manufacturer	Description	Model	Serial Number
Lenovo	Computer	TP00083A	PF-0XQQYR
Manufacturer	Description	Length(m)	I/O Port
N/A	N/A	N/A	N/A

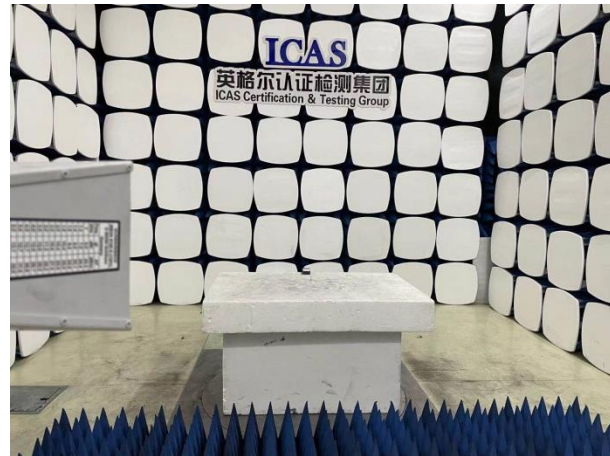
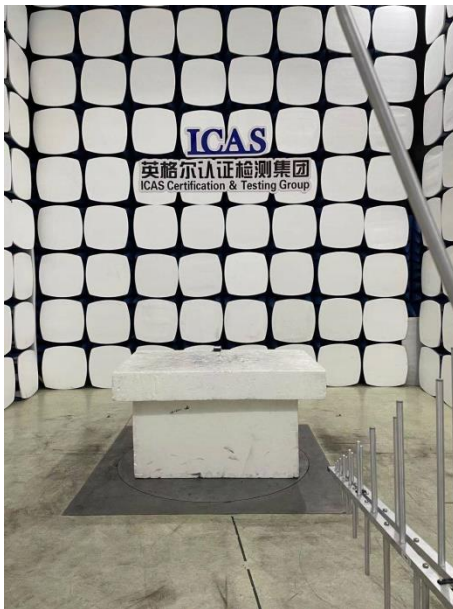
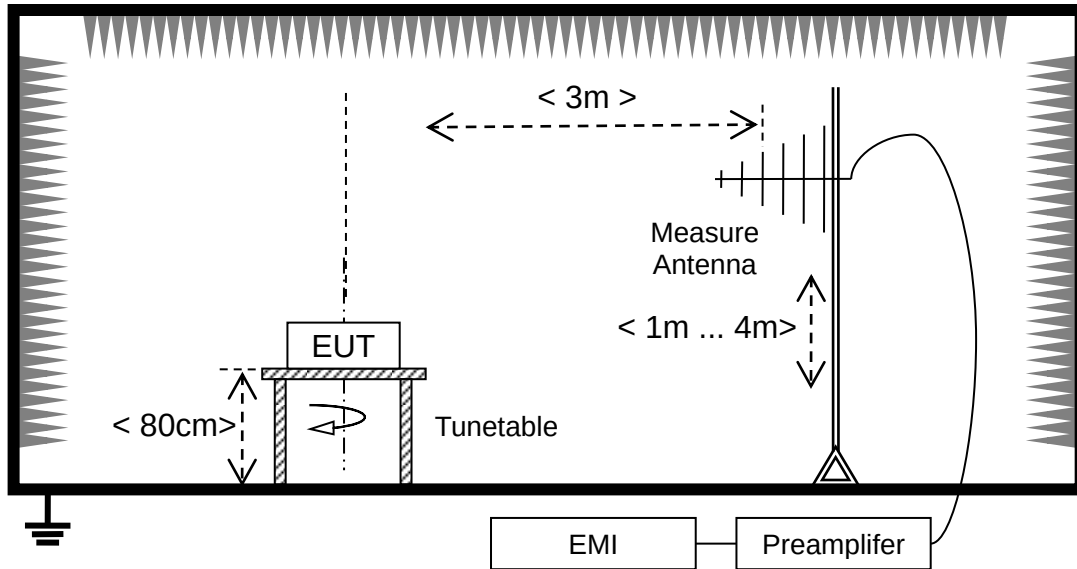
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESPI3	100173	2020/6/9	2021/6/8
SCHWARZBECK	V-network	NSLK 8127	8127-902	2020/7/29	2021/7/28
R&S	EMI Test Receiver	ESR7	101911	2020/6/9	2021/6/8
Schwarzbeck	Antenna	VULB9163	9163-1037	2020/6/8	2021/6/7
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1775	2019/7/29	2021/7/28

3.4 Block Diagram of Test Setup



4. FCC §15.109 §Radiated Emission

4.1 Test System Diagram



Test Setup Photos

4.2 EMI Test Setup

The system was investigated from 30 MHz to 6000 MHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz-1000 MHz	120kHz	300kHz	120kHz	QP
1000MHz-6000MHz	1MHz	3MHz/10Hz	/	PK/AV

4.3 Test Equipment List

Manufacturer	Description	Model	Serial Number	Test use
R&S	EMI Test Receiver	ESR7	101911	☒
Schwarzbeck	Antenna	VULB9163	9163-1037	☒
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1775	☒

4.4 Test Limit

Frequency Range	Limit(3m distance)
	Quasi-peak
30MHz – 88MHz	40 dB μ V/m
88MHz – 216MHz	43.5 dB μ V/m
216 MHz -960 MHz	46 dB μ V/m
Above 960MHz	54 dB μ V/m

Frequency Range	Limit(3m distance)	
	Peak	Average
1000MHz-6000MHz	74 dB μ V/m	54 dB μ V/m

The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B limits.

4.5 Test Procedure

For the radiated emissions test, the adapter was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

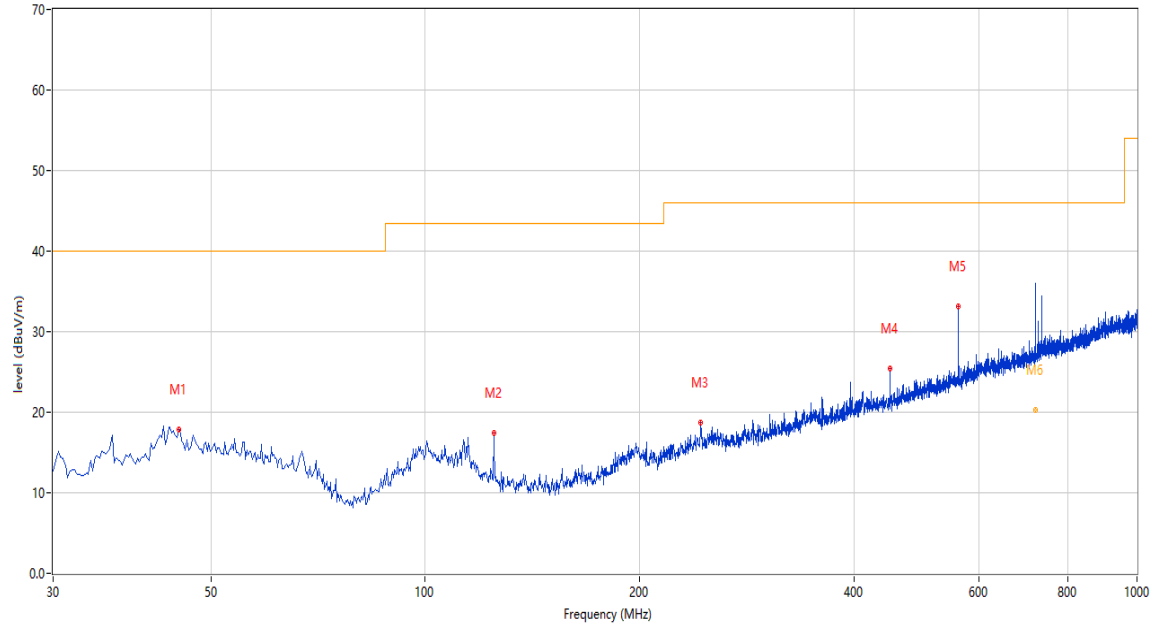
All data was recorded in the Quasi-peak detection mode for Blow 1GHz.

4.6 Test Record Mode 1

30M-1GHz

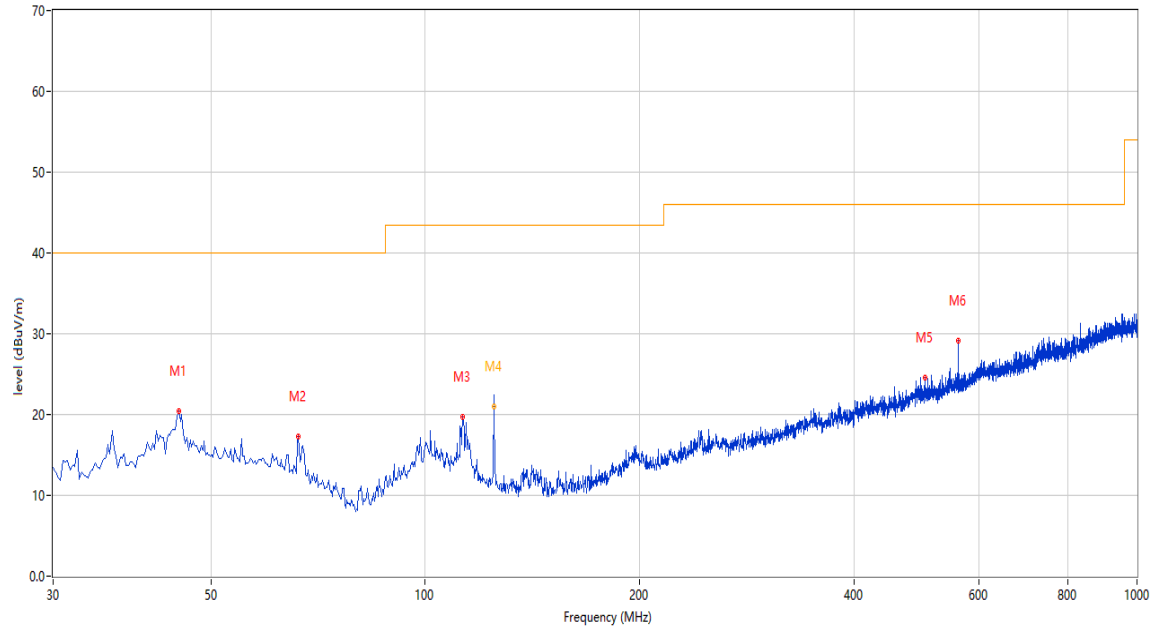
AC port 120V:

REmission Test case_FCC_Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	45.031	17.81	-19.67	40.0	-22.19	Peak	250.10	100	Horizontal	Pass
2	124.794	17.47	-23.36	43.5	-26.03	Peak	0.00	200	Horizontal	Pass
3	243.589	18.76	-18.99	46.0	-27.24	Peak	0.00	200	Horizontal	Pass
4	449.905	25.48	-14.08	46.0	-20.52	Peak	226.50	200	Horizontal	Pass
5	561.427	33.10	-11.23	46.0	-12.90	Peak	276.60	200	Horizontal	Pass
6	720.188	26.63	-7.88	46.0	-19.37	Peak	253.90	299	Horizontal	Pass
6*	720.188	20.23	-7.88	46.0	-25.77	QP	253.90	299	Horizontal	Pass

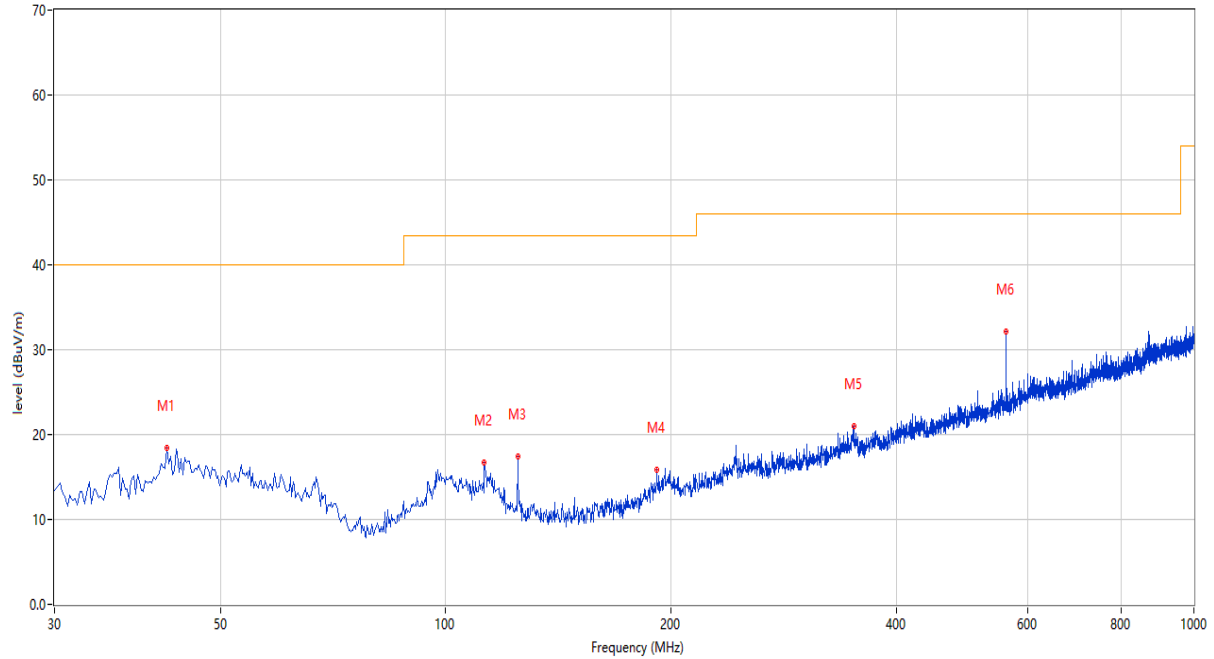
REmission Test case_FCC_Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	45.031	20.39	-19.67	40.0	-19.61	Peak	274.20	100	Horizontal	Pass
2	66.366	17.32	-21.36	40.0	-22.68	Peak	0.00	200	Horizontal	Pass
3	112.914	19.66	-21.59	43.5	-23.84	Peak	193.70	100	Horizontal	Pass
4	124.999	22.76	-23.36	43.5	-20.74	Peak	251.40	108	Horizontal	Pass
4*	124.999	21.02	-23.36	43.5	-22.48	QP	251.40	108	Horizontal	Pass
5	503.484	24.64	-12.48	46.0	-21.36	Peak	360.00	300	Horizontal	Pass
6	561.427	29.09	-11.23	46.0	-16.91	Peak	105.40	100	Horizontal	Pass

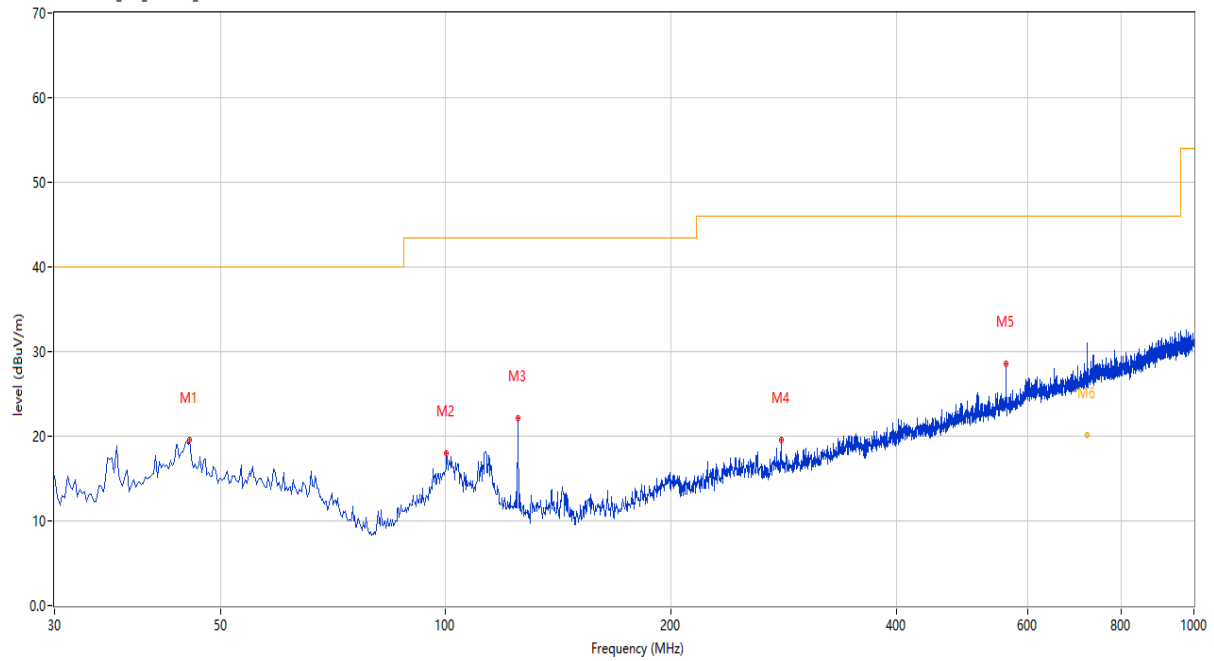
AC port 240V:

REmission Test case_FCC_Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	42.364	18.42	-19.96	40.0	-21.58	Peak	341.60	200	Horizontal	Pass
2	112.672	16.67	-21.56	43.5	-26.83	Peak	303.30	200	Horizontal	Pass
3	124.794	17.43	-23.36	43.5	-26.07	Peak	91.90	100	Horizontal	Pass
4	191.465	15.79	-20.95	43.5	-27.71	Peak	92.40	200	Horizontal	Pass
5	350.990	20.95	-15.65	46.0	-25.05	Peak	360.00	200	Horizontal	Pass
6	561.427	32.11	-11.23	46.0	-13.89	Peak	67.60	200	Horizontal	Pass

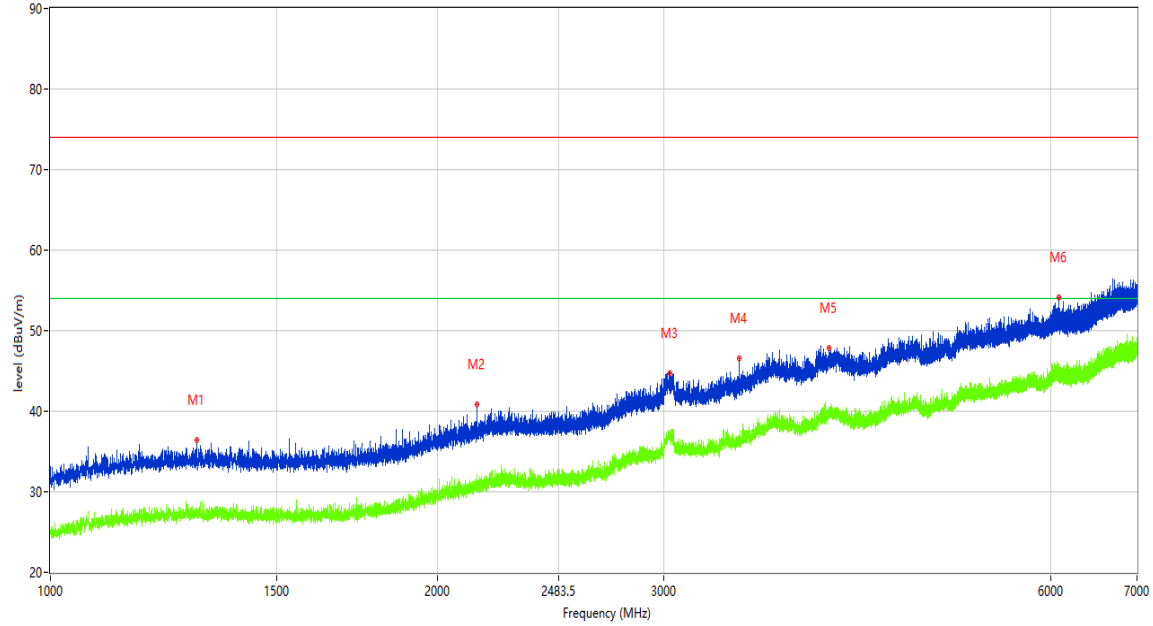
REmission Test case_FCC_Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	45.516	19.51	-19.59	40.0	-20.49	Peak	338.20	100	Vertical	Pass
2	100.307	18.02	-20.67	43.5	-25.48	Peak	72.90	100	Vertical	Pass
3	124.794	22.10	-23.36	43.5	-21.40	Peak	251.30	100	Vertical	Pass
4	280.682	19.52	-18.40	46.0	-26.48	Peak	200.80	200	Vertical	Pass
5	561.427	28.60	-11.23	46.0	-17.40	Peak	136.10	100	Vertical	Pass
6	719.577	26.87	-7.89	46.0	-19.13	Peak	0.00	120	Vertical	Pass
6*	719.577	20.17	-7.89	46.0	-25.83	QP	0.00	120	Vertical	Pass

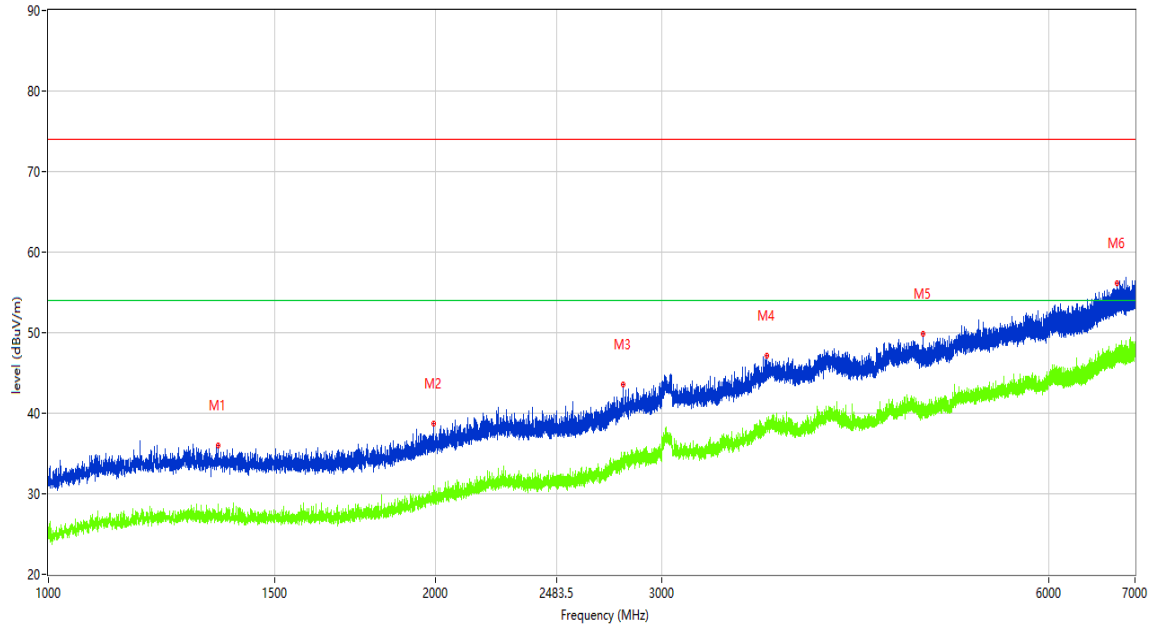
1-7GHz only show the worst case

REmission Test case_FCC_Part 15B_FCC Part 15B Class B 1GHz-7GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1298.713	36.40	-14.48	74.0	-37.60	Peak	71.90	100	Horizontal	Pass
1**	1298.713	27.43	-14.48	54.0	-26.57	AV	71.90	100	Horizontal	Pass
2	2145.107	40.84	-11.28	74.0	-33.16	Peak	58.70	100	Horizontal	Pass
2**	2145.107	31.42	-11.28	54.0	-22.58	AV	58.70	100	Horizontal	Pass
3	3031.121	44.75	-4.61	74.0	-29.25	Peak	47.60	100	Horizontal	Pass
3**	3031.121	36.94	-4.61	54.0	-17.06	AV	47.60	100	Horizontal	Pass
4	3431.571	46.54	-4.78	74.0	-27.46	Peak	40.90	100	Horizontal	Pass
4**	3431.571	36.41	-4.78	54.0	-17.59	AV	40.90	100	Horizontal	Pass
5	4029.246	47.87	-1.54	74.0	-26.13	Peak	216.20	100	Horizontal	Pass
5**	4029.246	40.27	-1.54	54.0	-13.73	AV	216.20	100	Horizontal	Pass
6	6084.364	54.15	2.02	74.0	-19.85	Peak	92.80	100	Horizontal	Pass
6**	6084.364	45.16	2.02	54.0	-8.84	AV	92.80	100	Horizontal	Pass

REmission Test case_FCC_Part 15B_FCC Part 15B Class B 1GHz-7GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1354.206	36.00	-14.64	74.0	-38.00	Peak	93.50	100	Vertical	Pass
1**	1354.206	26.89	-14.64	54.0	-27.11	AV	93.50	100	Vertical	Pass
2	1992.126	38.76	-12.73	74.0	-35.24	Peak	66.00	100	Vertical	Pass
2**	1992.126	31.02	-12.73	54.0	-22.98	AV	66.00	100	Vertical	Pass
3	2796.775	43.59	-7.58	74.0	-30.41	Peak	353.10	100	Vertical	Pass
3**	2796.775	34.73	-7.58	54.0	-19.27	AV	353.10	100	Vertical	Pass
4	3622.422	47.20	-2.35	74.0	-26.80	Peak	152.90	100	Vertical	Pass
4**	3622.422	39.38	-2.35	54.0	-14.62	AV	152.90	100	Vertical	Pass
5	4785.527	49.89	-1.67	74.0	-24.11	Peak	118.00	100	Vertical	Pass
5**	4785.527	41.01	-1.67	54.0	-12.99	AV	118.00	100	Vertical	Pass
6	6774.528	56.13	4.00	74.0	-17.87	Peak	222.30	100	Vertical	Pass
6**	6774.528	47.86	4.00	54.0	-6.14	AV	222.30	100	Vertical	Pass

EXHIBIT A - EUT PHOTOGRAPHS

EUT – All View



END OF REPORT