



# TEST REPORT

**Reference No.**..... : WTX22X10201802E001  
**Applicant** ..... : Adapy, inc  
**Address** ..... : 225 S. 700 E., St. George , Utah 84770  
**Manufacturer** ..... : Adapy, inc  
**Address** ..... : 225 S. 700 E., St. George , Utah 84770  
**Product Name** ..... : Smart Mobility System  
**Model No.**..... : SMSV1  
**Standards** ..... : **FCC PART15 SUBPART B**  
**Date of Receipt sample** .... : 2022-10-11  
**Date of Test**..... : 2022-10-11 to 2022-10-28  
**Date of Issue** ..... : 2022-10-28  
**Test Report Form No.** ..... : WTX\_FCC PART15B\_001  
**Test Result**..... : **Pass**

**Remarks:**

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

**Prepared By:**

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## Report version

Version No.	Date of issue	Description
Rev.00	2022-10-28	Original
/	/	/

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## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Smart Mobility System
Trade Name:	/
Model No.:	SMSV1
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Rated Voltage:	DC 12V
Rated Current:	/
Rated Power:	/
Power Adapter Model:	/
Lowest Internal Frequency:	/
Highest Internal Frequency:	Below 108MHz
Classification of ITE:	Class A



## 1.2 Test Standards

The tests were performed according to following standards:

**FCC Rules Part 15 Subpart B:** Unintentional Radiators.

**ANSI C63.4-2014:** American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

**Maintenance of compliance** is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

## 1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

## 1.4 Test Facility

### Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

### FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

### Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.



## 1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List			
Test Mode	Description	Remark	Power Supply Mode
TM1	Working Mode	/	DC 12V(With an adapter input AC120V/60Hz)

EUT Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
/	/	/	/	/

Special Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
/	/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Adapter	/	PA-30360W-ZMX	/



## 1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz $\pm 3.74$ dB
		0.15-30MHz $\pm 3.34$ dB
Radiated Emissions	Radiated	30-200MHz $\pm 4.52$ dB
		0.2-1GHz $\pm 5.56$ dB
		1-6GHz $\pm 3.84$ dB
		6-18GHz $\pm 3.92$ dB

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## 1.7 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
<input type="checkbox"/> Chamber A: Below 1GHz					
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2021-03-20	2023-03-19
Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2023-03-19
Amplifier	HP	8447F	2805A03475	2022-01-07	2023-01-06
<input type="checkbox"/> Chamber A: Above 1GHz					
Amplifier	C&D	PAP-1G18	2002	2022-03-22	2023-03-21
Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
<input checked="" type="checkbox"/> Chamber B: Below 1GHz					
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
Amplifier	Agilent	8447D	2944A10179	2022-03-22	2023-03-21
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2022-03-25	2023-03-24
<input type="checkbox"/> Chamber C: Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2022-01-07	2023-01-06
Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2023-05-27
Amplifier	HP	8447F	2944A03869	2022-03-22	2023-03-21
<input type="checkbox"/> Chamber C: Above 1GHz					
Horn Antenna	POAM	RTF-11A	LP228060221	2022-06-16	2024-06-14
Amplifier	Tonscend	TAP01018050	AP22E806235	2022-06-17	2023-06-16
<input checked="" type="checkbox"/> Conducted Room 1#					
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2022-03-22	2023-03-21
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2022-03-25	2023-03-24
AC LISN	Schwarz beck	NSLK8126	8126-224	2022-03-22	2023-03-21
8-WIRE LISN	Schwarz beck	8158	CAT3-8158-00 59	2022-03-22	2023-03-21
8-WIRE LISN	Schwarz beck	8158	CAT5-8158-011 7	2022-03-22	2023-03-21
<input type="checkbox"/> Conducted Room 2#					
EMI Test Receiver	Rohde & Schwarz	ESPI	10129	2022-03-22	2023-03-21
LISN	Rohde & Schwarz	ENV 216	100097	2022-03-22	2023-03-21





Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission)*	Farad	EZ-EMC	RA-03A1

\*Remark: indicates software version used in the compliance certification testing

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## 2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107(b) Conducted Emission	Compliant
§15.109(b) Radiated Emission	Compliant

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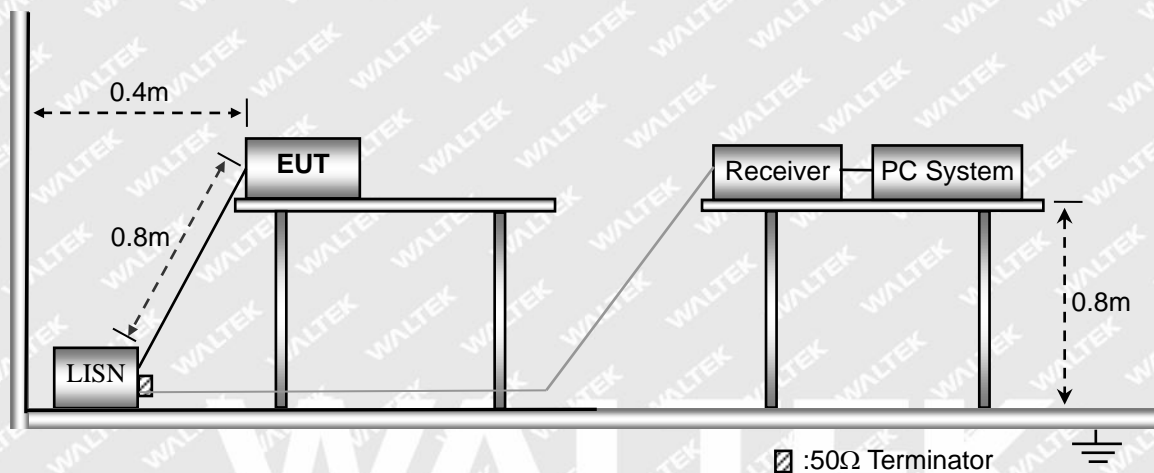


### 3. Conducted Emissions

#### 3.1 Test Procedure

The test is conducted under the description of ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

#### 3.2 Basic Test Setup Block Diagram



#### 3.3 Environmental Conditions

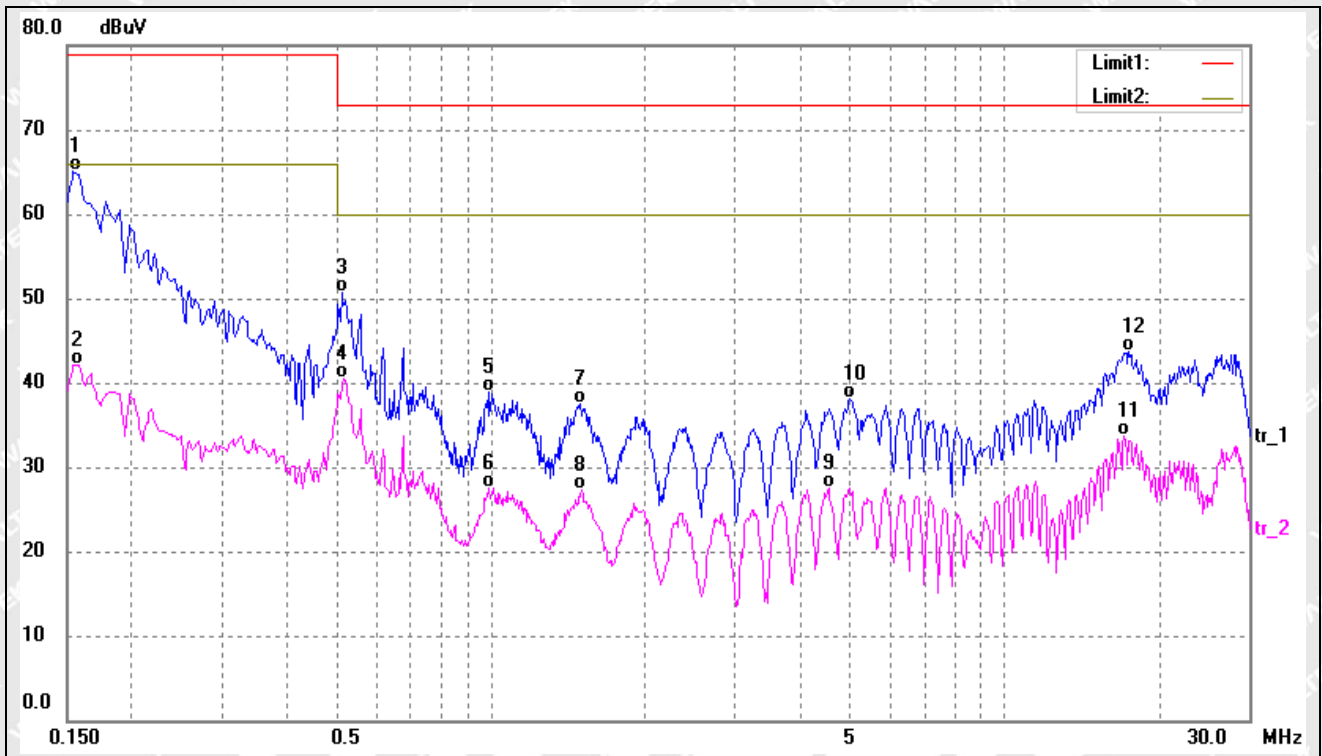
Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	997 mbar

#### 3.4 Summary of Test Results

Please find the results below:



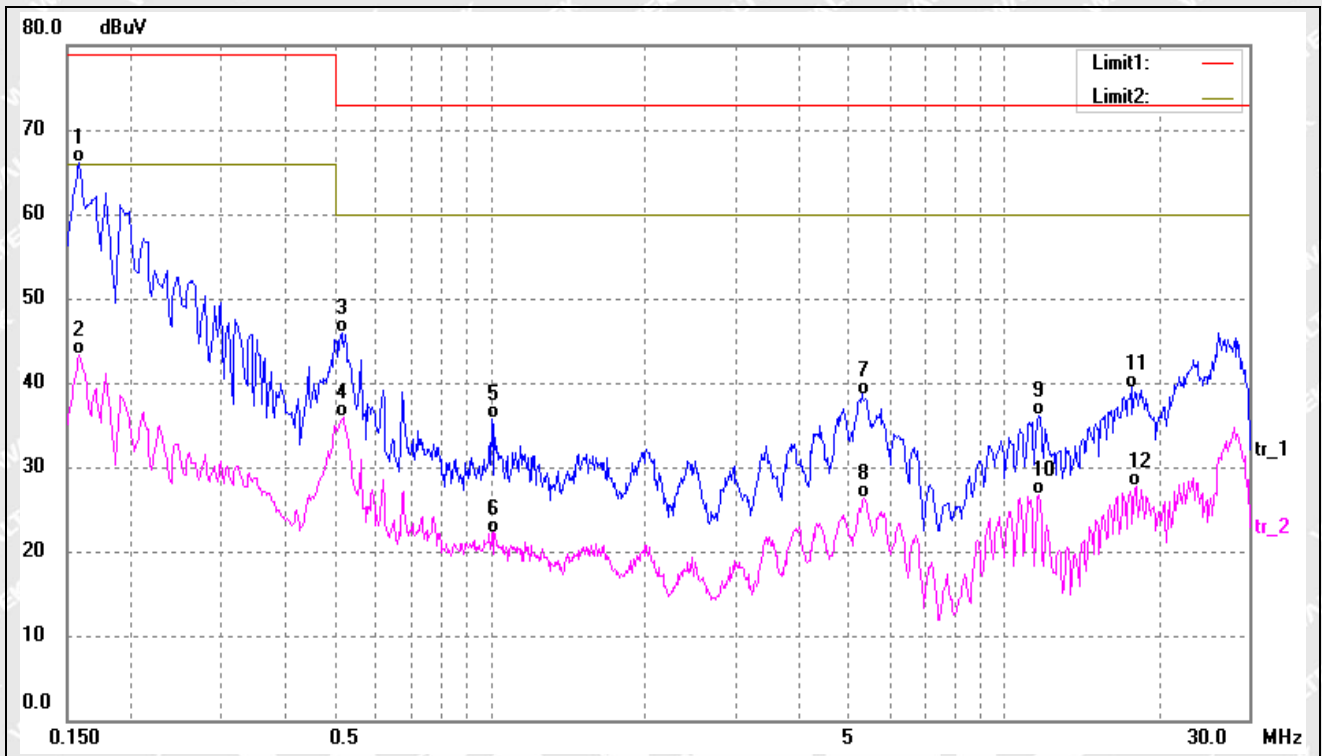
Test mode:	TM1	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1539	54.75	10.32	65.07	79.00	-13.93	QP
2	0.1580	31.87	10.31	42.18	66.00	-23.82	AVG
3	0.5128	40.41	10.22	50.63	73.00	-22.37	QP
4	0.5180	30.33	10.22	40.55	60.00	-19.45	AVG
5	0.9943	28.83	10.14	38.97	73.00	-34.03	QP
6	0.9980	17.45	10.14	27.59	60.00	-32.41	AVG
7	1.4953	27.24	10.19	37.43	73.00	-35.57	QP
8	1.5100	17.05	10.19	27.24	60.00	-32.76	AVG
9	4.5580	17.26	10.32	27.58	60.00	-32.42	AVG
10	5.0045	27.72	10.33	38.05	73.00	-34.95	QP
11	17.1860	23.34	10.29	33.63	60.00	-26.37	AVG
12	17.4750	33.47	10.30	43.77	73.00	-29.23	QP



Test mode:	TM1	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1582	55.72	10.31	66.03	79.00	-12.97	QP
2	0.1582	32.95	10.31	43.26	66.00	-22.74	AVG
3	0.5128	35.59	10.22	45.81	73.00	-27.19	QP
4	0.5181	25.62	10.22	35.84	60.00	-24.16	AVG
5	1.0048	25.66	10.14	35.80	73.00	-37.20	QP
6	1.0157	12.06	10.14	22.20	60.00	-37.80	AVG
7	5.2770	28.27	10.33	38.60	73.00	-34.40	QP
8	5.3330	15.88	10.33	26.21	60.00	-33.79	AVG
9	11.6826	25.79	10.32	36.11	73.00	-36.89	QP
10	11.6826	16.30	10.32	26.62	60.00	-33.38	AVG
11	17.6611	29.09	10.31	39.40	73.00	-33.60	QP
12	18.0393	17.46	10.32	27.78	60.00	-32.22	AVG

## 4. RADIATED EMISSION

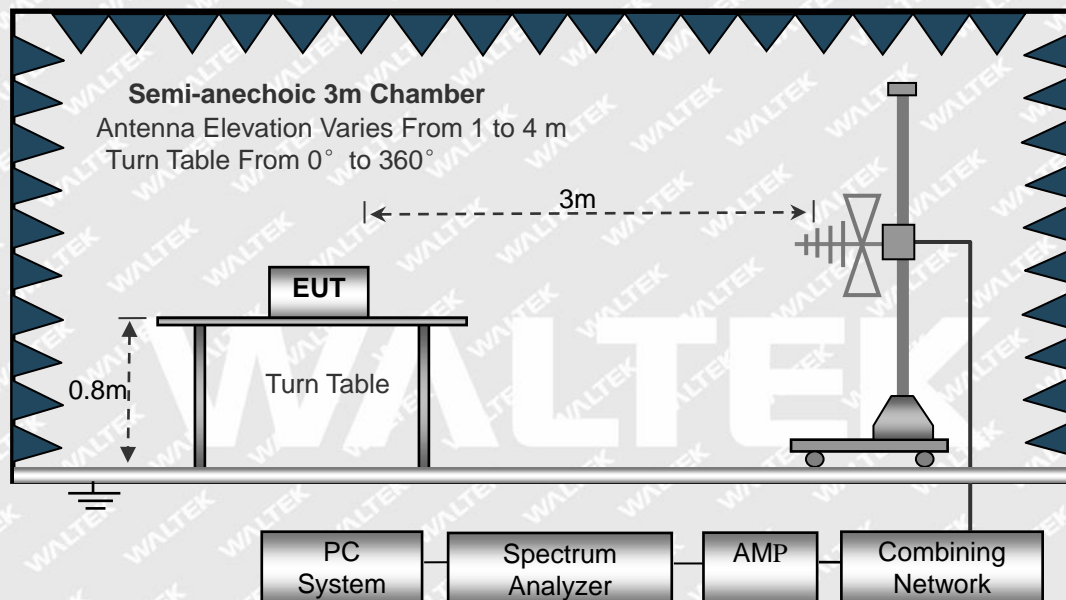
### 4.1 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15.109 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

### 4.2 Block Diagram of Test Setup





### 4.3 Test Receiver Setup

Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

### 4.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\begin{aligned} \text{Corr. Ampl.} &= \text{Indicated Reading} + \text{Correct} \\ \text{Correct} &= \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain} \end{aligned}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB $\mu$ V means the emission is 6dB $\mu$ V below the maximum limit for a Class A device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15.109(b) Limit}$$

### 4.5 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	997 mbar

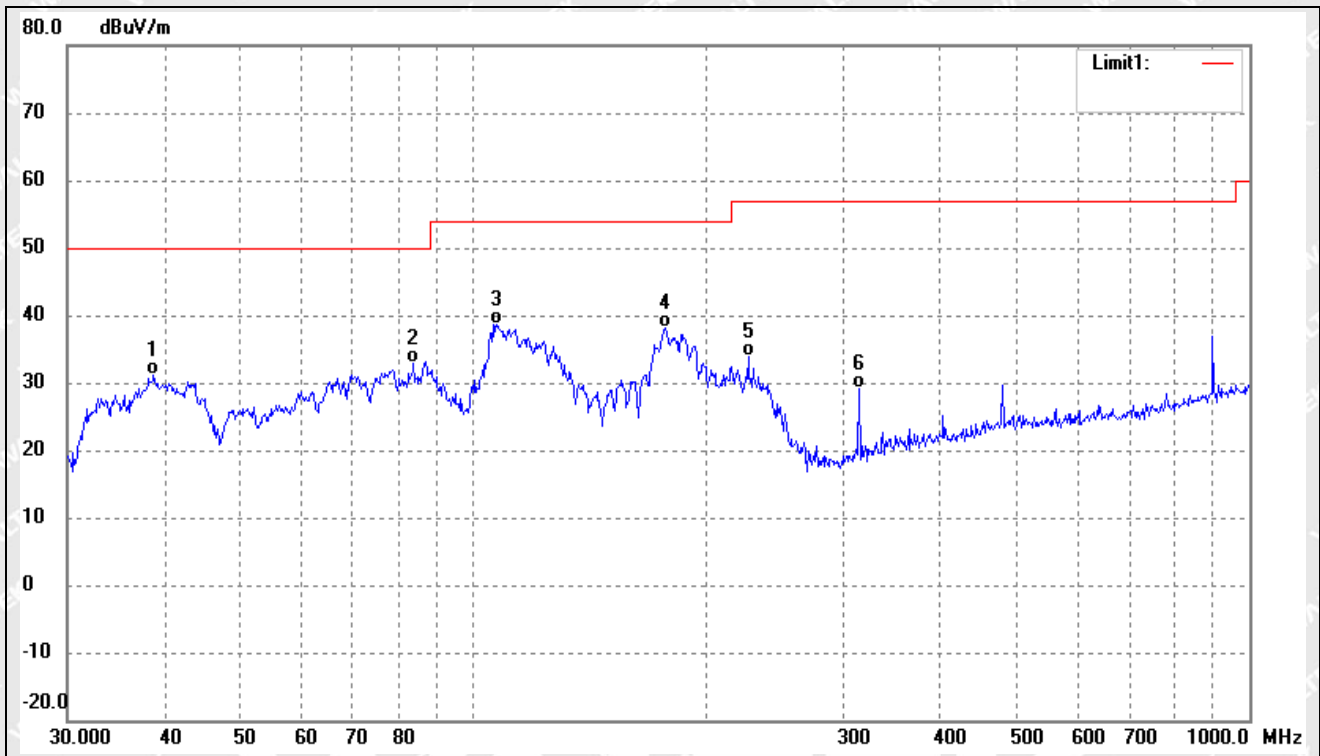
### 4.6 Summary of Test Results

Please find the results below:



30MHz-1GHz

Test mode:	TM1	Polarity:	Horizontal
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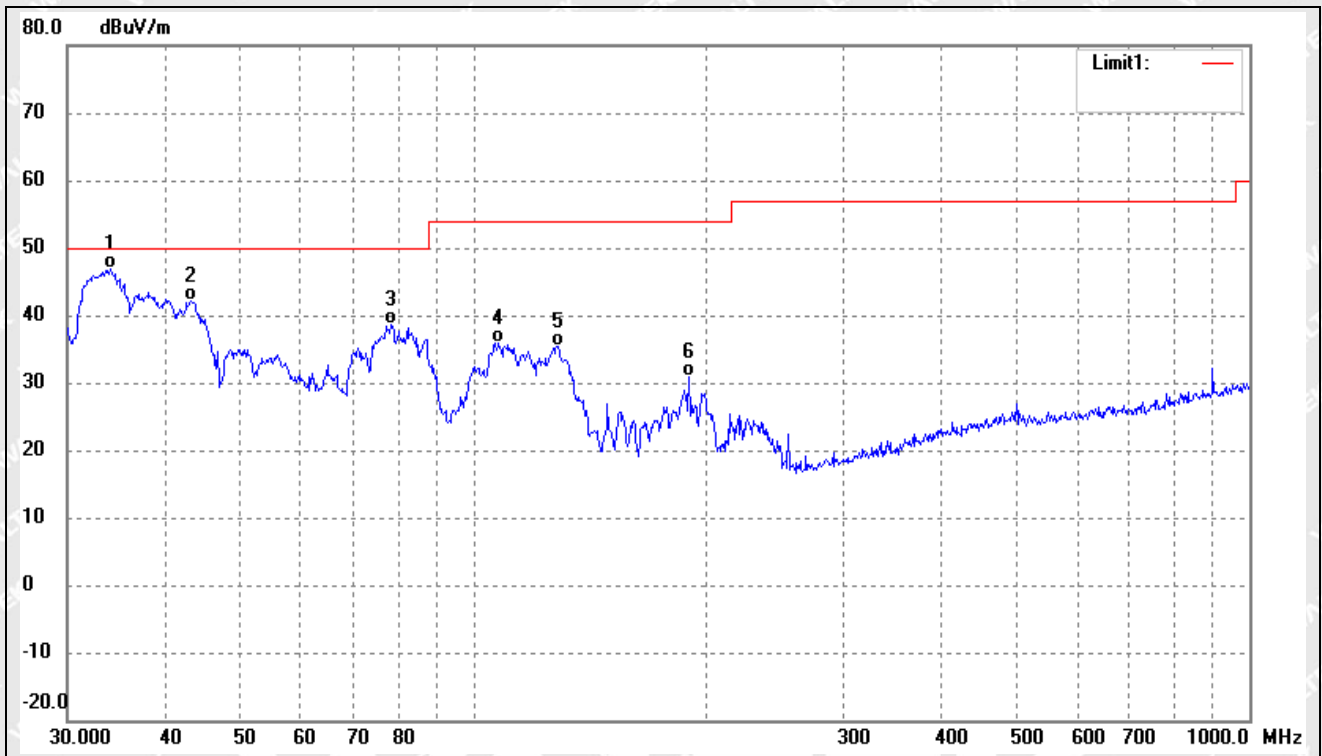


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	38.7518	40.95	-9.84	31.11	50.00	-18.89	113	100	QP
2	83.8156	45.98	-13.06	32.92	50.00	-17.08	233	100	QP
3	107.1337	49.82	-11.24	38.58	54.00	-15.42	57	100	QP
4	176.8878	51.17	-13.01	38.16	54.00	-15.84	300	100	QP
5	226.0994	44.48	-10.53	33.95	56.90	-22.95	273	100	QP
6	314.3765	36.94	-7.76	29.18	56.90	-27.72	174	100	QP





Test mode:	TM1	Polarity:	Vertical
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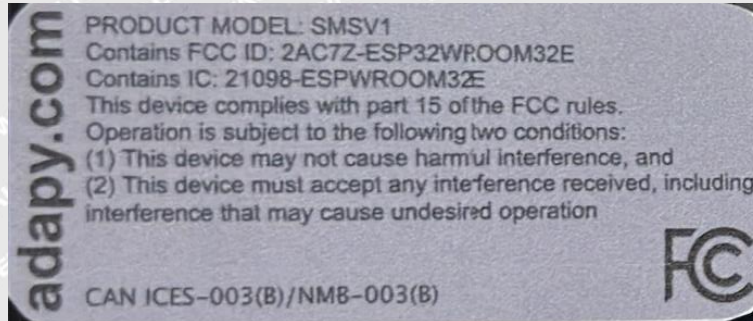


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	34.0363	57.56	-10.63	46.93	50.00	-3.07	150	100	QP
2	43.2017	51.66	-9.64	42.02	50.00	-7.98	189	100	QP
3	78.4133	52.62	-14.01	38.61	50.00	-11.39	86	100	QP
4	107.8877	47.16	-11.28	35.88	54.00	-18.12	228	100	QP
5	128.5630	48.83	-13.50	35.33	54.00	-18.67	184	100	QP
6	189.7385	42.66	-11.73	30.93	54.00	-23.07	346	100	QP



## EXHIBIT 1 - PRODUCT LABELING

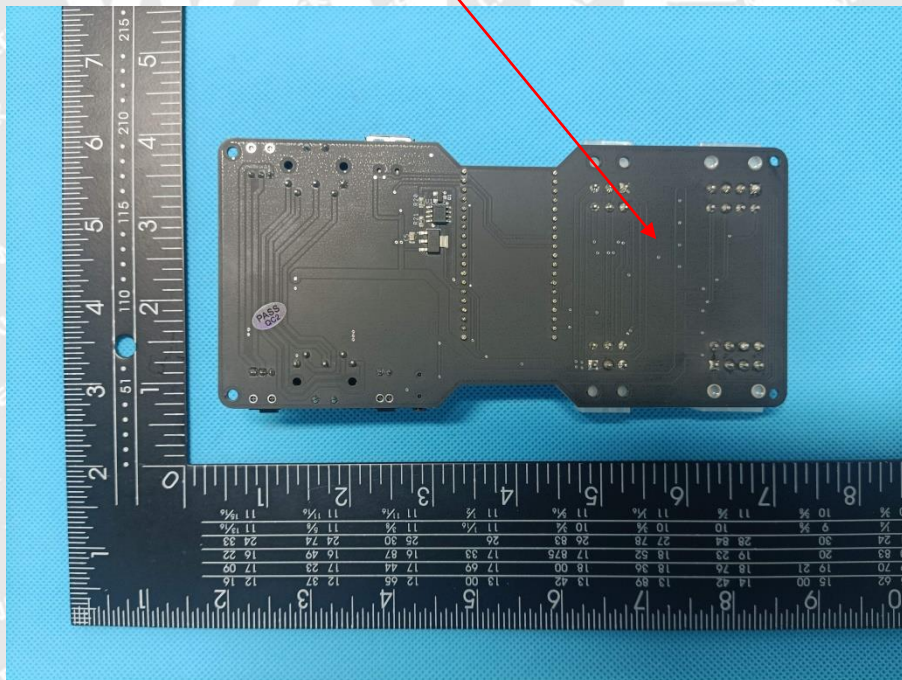
### Proposed FCC Label Format



**Specifications:** Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. Where the EUT is constructed in two or more sections connected by wires and marketed together, the above statement is required to be affixed only to the main control unit. When the EUT is so small or for such use that it is not practicable to place the statement on it, the above information shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed.

### Proposed Label Location on EUT

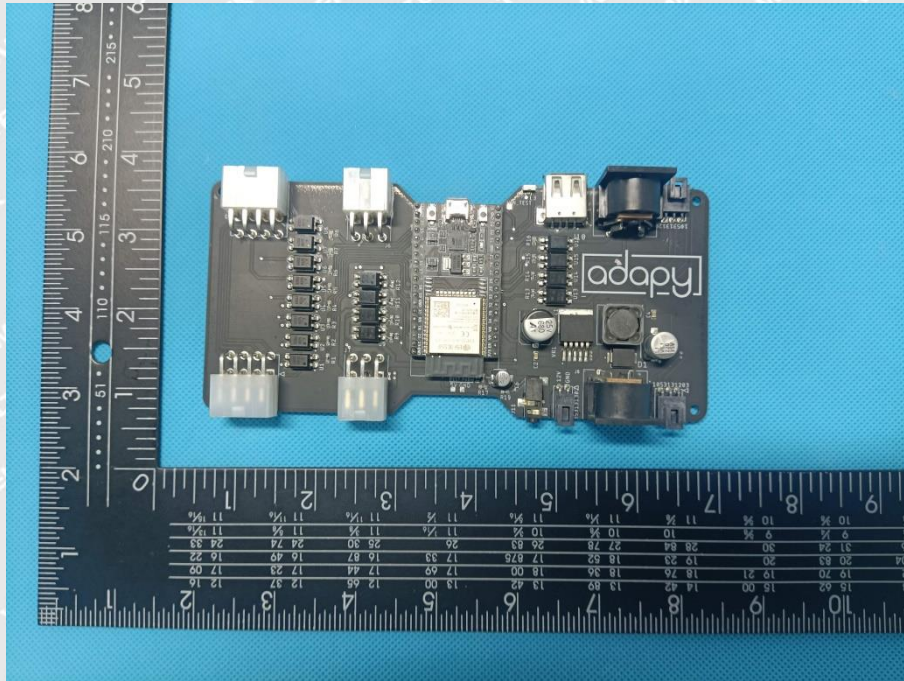
FCC Label Location





## EXHIBIT 2 - EUT PHOTOGRAPHS

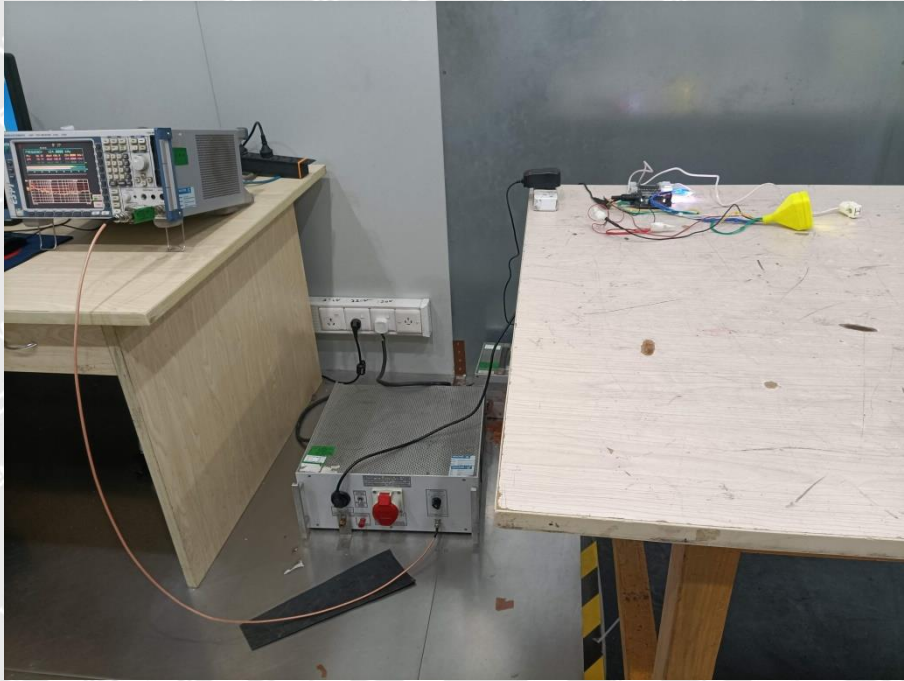
EUT View 1



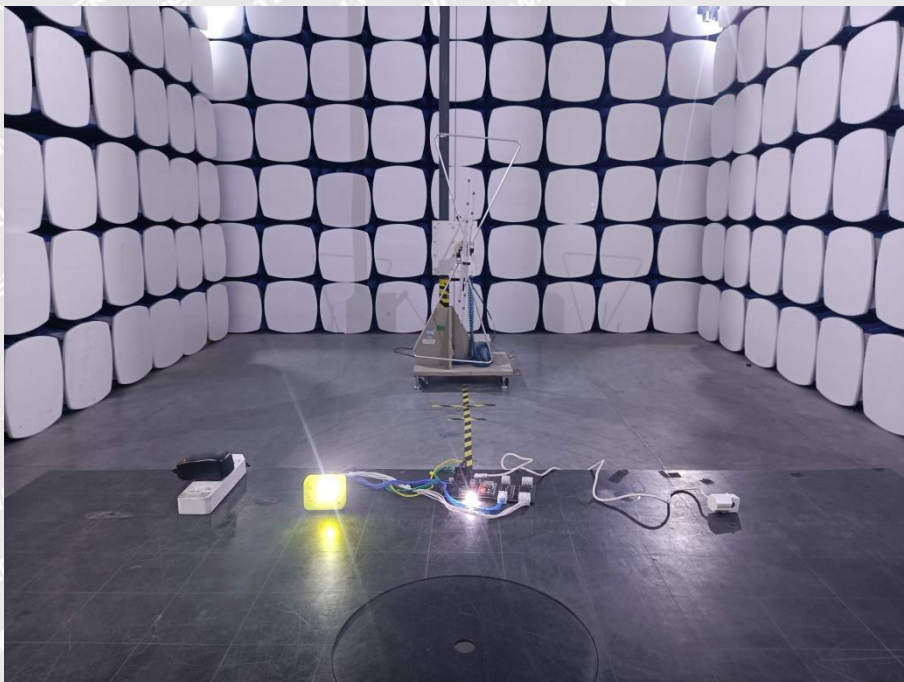


## EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

### Conducted Emission Test Setup



### Radiation Emission Test View (Below 1GHz)





## EXHIBIT 4 - USERS MANUAL

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### Information to Users

According to the FCC Part 15.19, 15.21, and 15.105 rules, for this EUT, the instructions or operation manual furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

### FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

\*\*\*\*\* END OF REPORT \*\*\*\*\*