



FCC TEST REPORT

FCC ID: 2A24I-V08G12J1A

For

Smart Sense Asset Monitoring Tag

Model: TUG300

Prepared for: Tag-N-Trac Inc
5015 Shoreham PI, Ste#150, San Diego, California 92122, United States

Prepared by: Shenzhen NTT Testing Technology Co., Ltd.
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Report Number: SZNTT26033743E1-1
Date of Test: Aug. 04, 2026 ~ Aug. 14, 2026
Date of Issue: Aug. 14, 2026

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Cindy Qin

Reviewed By: Ken Wu
Ken Wu

Approved By: Abel Yu
Abel Yu

The results detailed in this test report relate only to the specific sample(s) tested. It is the Application's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced except in full, without written approval from NTT Testing Technology



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1.0 General Information

1.1 Client Information

Application:	Tag-N-Trac Inc
Address of Application:	5015 Shoreham PI, Ste#150, San Diego, California 92122, United States
Manufacturer:	Tag-N-Trac Inc
Address of Manufacturer:	5015 Shoreham PI, Ste#150, San Diego, California 92122, United States

1.2 General Description of E.U.T.

Product Name:	Smart Sense Asset Monitoring Tag
Model:	TUG300
Additional Model:	N/A
Trade Mark:	N/A
Power Supply:	DC 3.6V From Battery (Non-Rechargeable)
Memo:	According client required.
Model Difference:	N/A
Remark:	N/A

1.3 Test Facility:

Site Description:	
EMC Lab.:	Accredited by ANAB, Dec. 19, 2025 The Certificate Registration Number is AT-3446 FCC Designation Number: CN3446 FCC Test Firm Registration Number: 129414 ISED CAB identifier: CN0199 ISED Company Number: 35943
Name of Test Lab:	Shenzhen NTT Testing Technology Co., Ltd..
Address of Test Lab:	1B, Building 2, Factory Building & 103, Building 3, Factory Building, Dayang Industrial Park, No.4, Industrial Avenue, Tangwei Community, Fuhai Sub-district, Bao 'an District, Shenzhen City, Guangdong, China
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1.4 Version:

Report No.	Version	Description	Approved
SZNTT26033743E1-1	Rev.01	Initial issue of report	Aug. 14, 2026



2.0 List of Measurement Equipment

Radiated emission					
Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
EMI Test Receiver	ESPI	101018	RS	2025/9/8	2026/9/7
Spectrum Analyzer	N9020A	MY50510202	Agilent	2025/9/8	2026/9/7
Amplifier	BBV 9718D	00042	SCHWARZBECK	2025/9/9	2026/9/8
Bilog Antenna	VULB9168	1858	SCHWARZBECK	2025/9/9	2026/9/8
Horn antenna	BBHA 9120 D	02622	SCHWARZBECK	2025/9/9	2026/9/8
Software	TS ⁺	V5.0.0	Tonscend	/	/



3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] tests for FCC Requirement.

3.2 Test Standards

FCC Part 15 Subpart B

3.3 Test standards and Results Summary Tables

Emission Results Summary			
Standard	Test Condition	Test Requirement	Test Result
FCC Part 15 Subpart B:	Conducted Emission (Main Port)	FCC Part 15 Subpart B Class B	N/A, DC power supply only
	Radiated Emission (below 1 GHz)	FCC Part 15 Subpart B Class B	Pass
	Radiated Emission (above 1 GHz)	FCC Part 15 Subpart B Class B	Pass

Note: N/A=Not applicable

3.4 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	MU
1.	Temperature	$\pm 1.0^{\circ}\text{C}$
2.	Humidity	$\pm 2.0\%$
3.	Spurious emissions,conducted	$\pm 3.2\text{dB}$
4.	All emissions, radiated	$\pm 5.0\text{dB}$

Remark:When making a conformity declaration based on test results for regulations/standards or specifications,the default is to use Clause 4.2.1of ILAC-G8:09/2019 and the guidelines on decision rules and conformity declaration in IEC Guide 115:2023.

3.5 Test Mode

Test Modes:	Modes Description	Record
Mode 1	Working	/
Note: All test modes were pre-tested, but we only recorded the worst case in this report.		

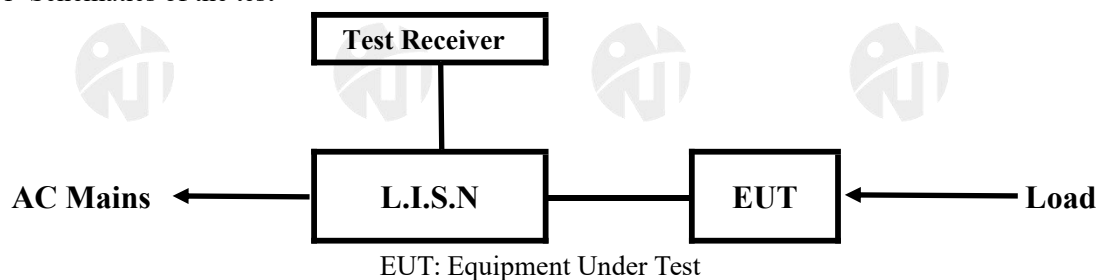
3.6 Description Of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E1	Smart Sense Asset Monitoring Tag	N/A	TUG300	/	EUT

4.0 Power Line Conducted Emission Test

4.1 Schematics of the test

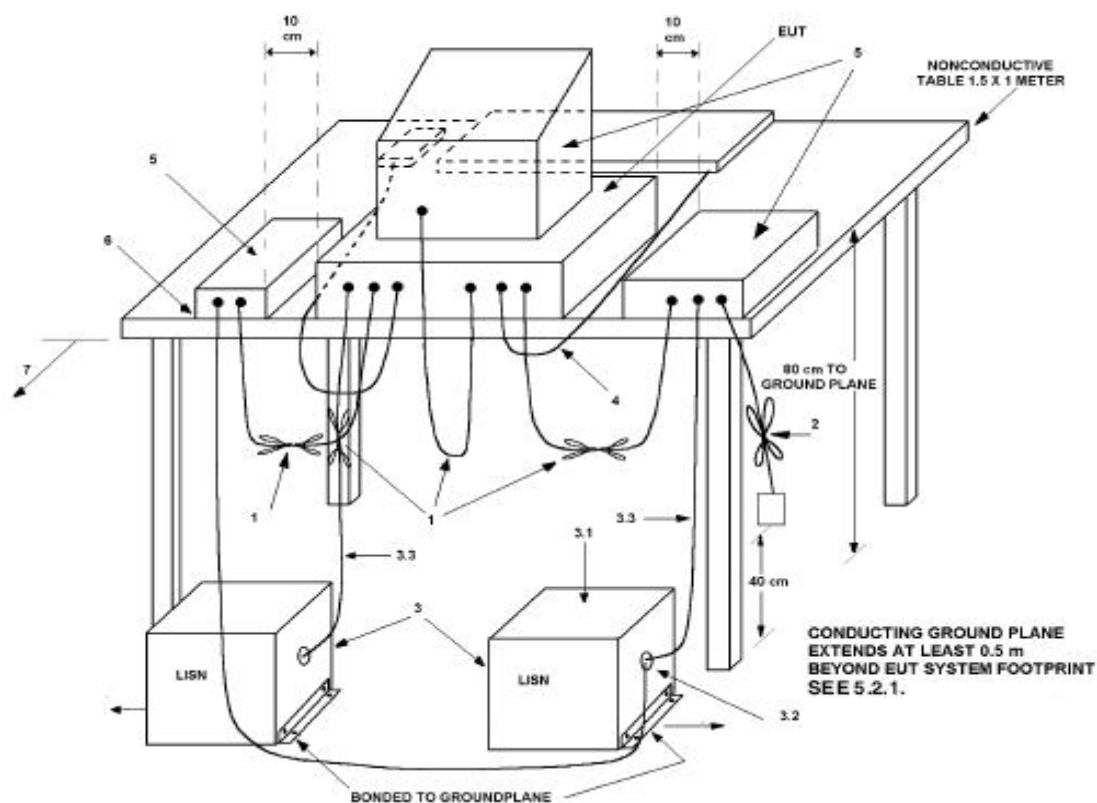


4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014+C63.4a-2017. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2014.

Test Voltage: 120V~, 60HZ

Block diagram of Test setup





4.3 EUT Operating Condition

Operating condition is according to ANSI C63.4-2014+C63.4a-2017

- 1) Setup the EUT and simulators as shown on the following
- 2) Enable AF signal and confirm EUT active to normal condition

4.4 Test Equipment

Please refer to the Section 2

4.5 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	79.0	66.0	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	73.0	60.0	56.0	46.0
5.00 ~ 30.00	73.0	60.0	60.0	50.0

- Notes:
1. *Decreasing linearly with logarithm of frequency.
 2. The tighter limit shall apply at the transition frequencies

4.6 Photo documentation of the test set-up

Please refer to the Section 7

4.7 Test specification:

Environmental conditions: Temperature: 25° C Humidity: 53% Atmospheric pressure: 101.2kPa

Frequency range: 0.15 MHz – 30 MHz

4.8 Test result

N/A

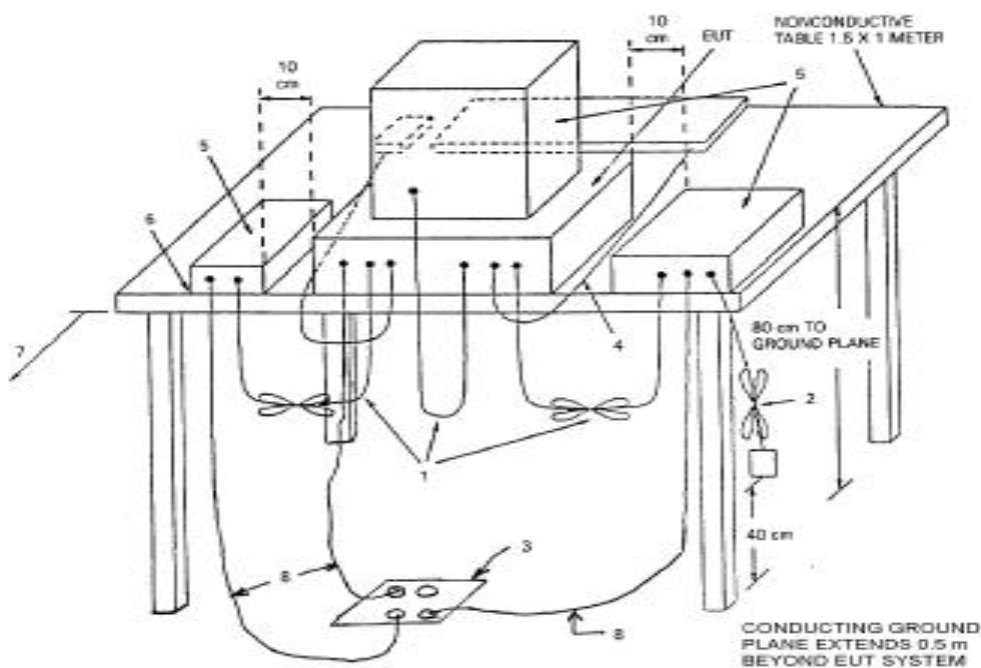
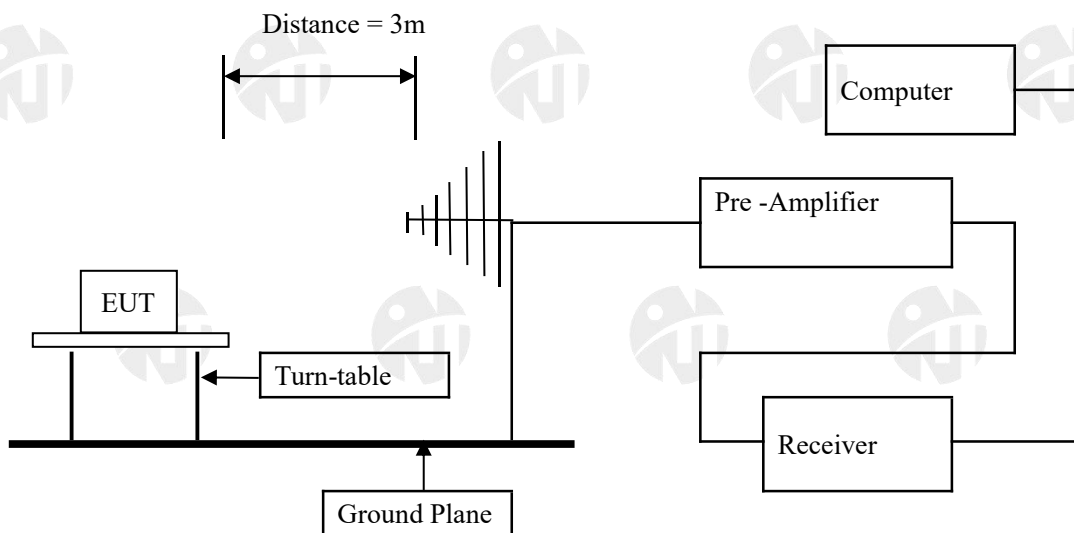
Remarks: Not Applicable, DC power supply only

5.0 Radiated Emission Test(Below 1 GHz)

5.1 Test Method and test Procedure:

- 1) The EUT was tested according to ANSI C63.4-2014+C63.4a-2017.
- 2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2014+C63.4a-2017
- 3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- 4) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup





5.2 EUT Operating Condition

Operating condition is according to ANSI C63.4-2014+C63.4a-2017

5.3 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

FCC Limit:

Frequency Range (MHz)	Distance (m)	Field strength (dBμV/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

- Note:
- 1) The frequency spectrum from 30MHz to 8GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK.
 - 2) Measurements were made at 3 meters.
 - 3) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $Ld1 = Ld2 * (d2/d1)$

5.4 Photo documentation of the test set-up

Please refer to the Section 7

5.5 Test Equipment:

Please refer to the Section 2

5.6 Test specification:

Environmental conditions: Temperature: 24° C Humidity: 57% Atmospheric pressure: 101.3kPa

5.7 Test result

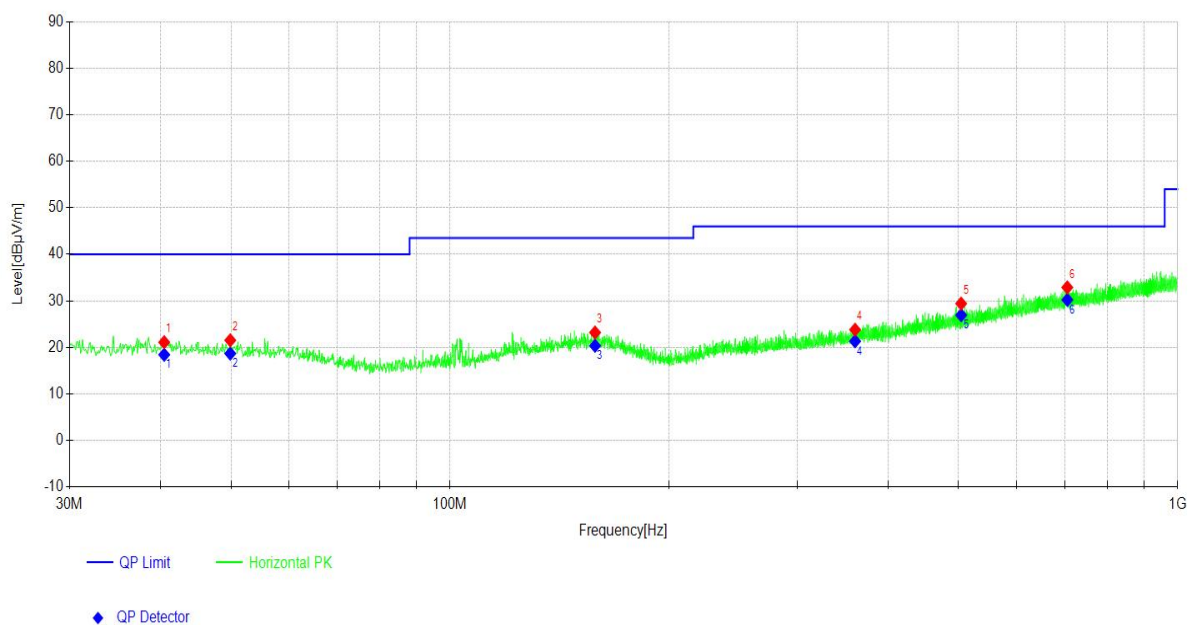
Pass

Remarks: According to the FCC Part 15 Subpart B



A. Radiated Emission In Horizontal (30MHz----1000MHz)

Polarization :	Horizontal
Test Voltage:	DC 3.6V From Battery (Non-Rechargeable)

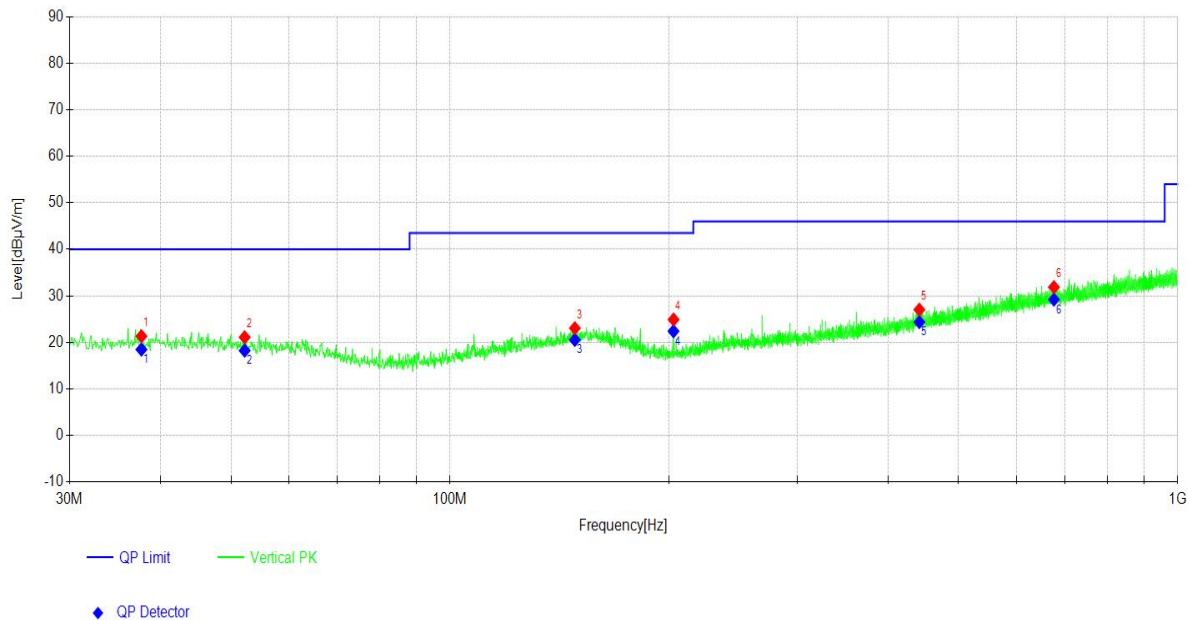


NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	40.477	-2.28	20.71	18.43	40.00	-21.57	QP
2	49.887	-1.62	20.30	18.68	40.00	-21.32	QP
3	158.247	-1.14	21.49	20.35	43.50	-23.15	QP
4	360.318	-0.78	22.11	21.33	46.00	-24.67	QP
5	504.086	1.95	24.99	26.94	46.00	-19.06	QP
6	705.382	1.59	28.64	30.23	46.00	-15.77	QP

Remark: Emission Level = Reading + Cable Loss + ANT Factor



Polarization :	Vertical
Test Voltage:	DC 3.6V From Battery (Non-Rechargeable)



NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	37.664	-1.99	20.46	18.47	40.00	-21.53	QP
2	52.215	-1.96	20.21	18.25	40.00	-21.75	QP
3	148.449	-0.82	21.38	20.56	43.50	-22.94	QP
4	202.871	4.92	17.49	22.41	43.50	-21.09	QP
5	441.612	0.22	24.15	24.37	46.00	-21.63	QP
6	676.085	0.91	28.30	29.21	46.00	-16.79	QP

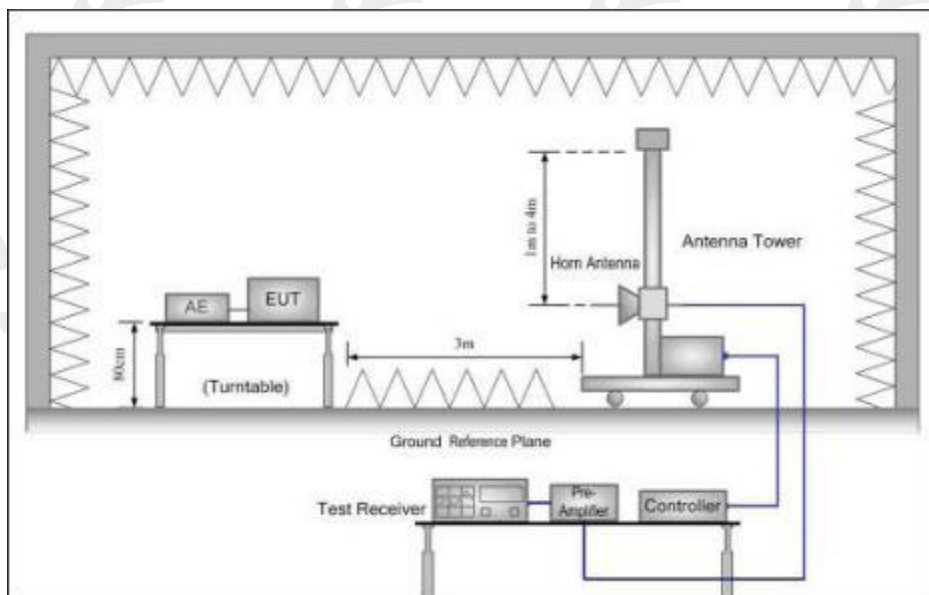
Remark: Emission Level = Reading + Cable Loss + ANT Factor

6.0 Radiated Emission Test(Above 1 GHz)

6.1 Test Method and test Procedure:

- 1) The EUT was tested according to ANSI C63.4-2014+C63.4a-2017.
- 2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m.
All set up is according to ANSI C63.4-2014+C63.4a-2017
- 3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- 4) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup





6.2 EUT Operating Condition

Operating condition is according to ANSI C63.4-2014+C63.4a-2017

6.3 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequency Range (GHz)	Average limit dB(μ V/m)	Peak limit dB(μ V/m)
1-18	54	74
Note: The lower limit applies at the transition frequency		

Note: 1) The frequency spectrum from 30MHz to 8GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK.

2) Measurements were made at 3 meters.

3) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $Ld1 = Ld2 * (d2/d1)$

Emission Level = Antenna Factor + Cable Loss + Meter Reading.

☐ the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz.

☐ the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz.

☒ the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is lower.

6.4 Photo documentation of the test set-up

Please refer to the Section 7

6.5 Test Equipment:

Please refer to the Section 2

6.6 Test specification:

Environmental conditions: Temperature: 24° C Humidity: 57% Atmospheric pressure: 101.3kPa

6.7 Test result

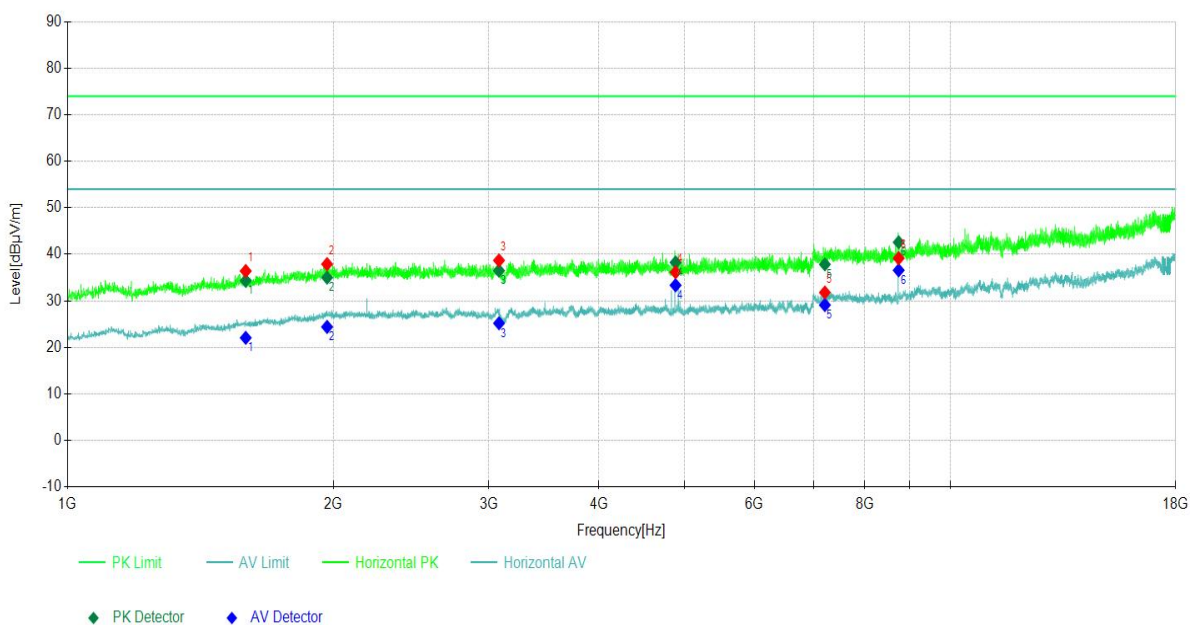
Pass

Remarks: According to the FCC Part 15 Subpart B



A.Radiated Emission In Horizontal (1GHz----18GHz)

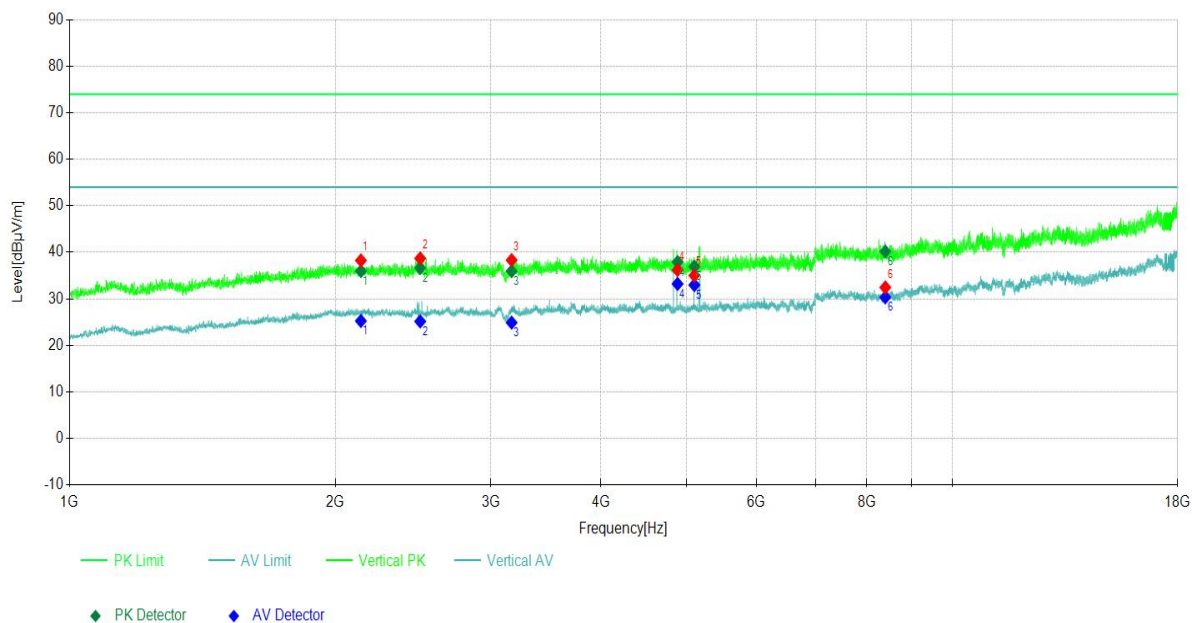
Polarization :	Horizontal
Test Voltage:	DC 3.6V From Battery (Non-Rechargeable)



Remark:Emission Level=Reading+Cable Loss+ANT Factor



Polarization :	Vertical
Test Voltage:	DC 3.6V From Battery (Non-Rechargeable)



NO.	Frequency [MHz]	Factor [dB]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]
1	2138.314	-21.84	35.98	74.00	-38.02	25.26	54.00	-28.74	100	0
2	2495.950	-21.44	36.63	74.00	-37.37	25.16	54.00	-28.84	100	348
3	3168.017	-20.56	35.96	74.00	-38.04	24.91	54.00	-29.09	100	343
4	4884.188	-17.71	37.91	74.00	-36.09	33.22	54.00	-20.78	100	283
5	5102.610	-17.25	36.93	74.00	-37.07	32.98	54.00	-21.02	100	7
6	8397.140	-13.21	40.18	74.00	-33.82	30.34	54.00	-23.66	100	244

Remark:Emission Level=Reading+Cable Loss+ANT Factor

7.0 Photos of testing

Please see the attachment for details.

8.0 Photos of the EUT

Please see the attachment for details.

*******THE END REPORT*******