

TEST REPORT

REPORT NUMBER:25B02W000008-001

ON

Type of Equipment: Smart POS System

Type of Designation: T6F10

Brand Name: SUNMI

Manufacturer: Shanghai Sunmi Technology Co.,Ltd.

FCC ID: 2AH25T6F10

ACCORDING TO
FCC Part 15, Subpart B
ANSI C63.4-2014

Chongqing Academy of Information and Communications Technology

Month date, year

Jun.10th, 2025

Signature

Zhou Jin

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.



Report No.:25B02W000008-001

Revision Version

Report Number	Revision	Date
25B02W000008-001	00	2025-06-10

Chongqing Academy of Information and Communication Technology

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1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
FCC Registration Number:	CN1239
Address:	No.19 EastRoad,Xiantao Big-data Valley,Yubei District, Chongqing,People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777

1.2. Testing Environment

Normal Temperature:	15-35°C
Relative Humidity:	30-60%RH

1.3. Project data

Testing Start Date:	2025-04-16
Testing End Date:	2025-04-28

1.4. Signature

2025-06-10

Li Runhao
(Prepared this test report)

Date

2025-06-10

Xiao Yu
(Reviewed this test report)

Date

2025-06-10

Zhou Jin
Director of the laboratory
(Approved this test report)

Date

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2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388,Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address /Post:	Room 505, No.388,Song Hu Road, Yang Pu District, Shanghai, China
City:	Shanghai
Country:	China
Telephone:	18826519551
Fax:	N/A
Email:	chenxuanfei@sunmi.com
Contact Person:	chenxuanfei

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3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Smart POS System
Model name	T6F10
Brand name	SUNMI
Power Rating	DC 7.7V form battery, DC 5V form adapter
Highest frequency range	5825 MHz
Supported Radio Technology and Bands	GSM850/GSM900/GSM1800/GSM1900 WCDMA Band I/II/IV/V/VI/VIII/XIX LTE Band 1/2/3/4/5/7/8/18/19/20/26/28/34/38/39/40/41 BT 5.0 BR/EDR/BLE WLAN 802.11b,g,n WLAN 802.11a,n,ac GPS/Galileo/GLONASS/BDS NFC

Note: Photographs of EUT are shown in ANNEX B of this test report.

3.2. Internal Identification of EUT used during the test

EUT ID	SN or IMEI	HW Version	SW Version	Date of receipt
25B02W000008#S1	866413070768997/ 866413070770860	V1.0(LA+EU)	V3.0.0	2025-04-16

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Note
A2	Adapter	Model: TPA-141A050200UU01 INPUT: 100-240V ~ 50/60Hz 0.3A OUTPUT: 5.0V 2.0A
A3	Adapter	Model: UC13US INPUT: 100-240V ~ 50/60Hz 0.35A OUTPUT: 5.0V 2.0A
A1	Adapter	Model: TPA-23A050200UU01 INPUT: 100-240V ~ 50/60Hz 0.3A OUTPUT: 5.0V 2.0A

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C1	USB Cable	N/A
B2	Battery	Model: HPPA 7.7V, 2550mAh
B1	Battery	Model: FHPS 7.74V, 3000mAh

*AE ID: is used to identify the test sample in the lab internally.

AE Information is provided by the customer.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title
FCC Part 15, Subpart B	Unintentional Radiators
ANSI C63.4-2014	Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

5. Test Equipments Utilized

No.	Equipment	Model	SN	HW Version	SW Version	Manufacture	Cal.Due Date
1	Test Receiver	ESR 3	101382	03	3.48 SP2	R&S	2025-06-28
2	Test Receiver	ESW 26	101382	00	1.50 SP1	R&S	2025-06-28
3	Ultra-wideband Log Periodic Antenna	VULB 9163	9163-586	--	--	Schwarzbeck	2026-10-28
4	Double Ridged Guide Antenna	9120D	9120D-1083	--	--	Schwarzbeck	2026-11-08
5	Fully-Anechoic Chamber	FAC5	--	--	--	TDK	2027-11-04
6	Semi-Anechoic Chamber	SAC-10	--	--	--	TDK	2027-11-05
7	2-Line V-Network	ENV216	102368	--	--	R&S	2025-05-16
8	Test Receiver	ESU 40	100350	01	4.43 SP3	R&S	2025-06-28
9	Amplifier1	SCU-08F1	8320027	--	--	R&S	--
10	Amplifier2	SCU-18F	180093	--	--	R&S	--

Test software

No.	Name	version	SN	Manufacture
1	EMC32	V 9.26.01	--	R&S
2	EMC32	V10.20.01	--	R&S
3	EMC32	V10.40.10	--	R&S

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6. Test Results

6.1. Summary of Test Results

FCC Rules	Name of Test	Result
15.109	Radiated Emission	Pass
15.107	AC Conducted Emission	Pass

Note:

The T6F10, manufactured by Shanghai Sunmi Technology Co.,Ltd. is a variant product for testing. This project is a variant project based on the original report 24T04I300102-021 issued by 3in with below changes:

- Modify the NFC antenna.
- PCB changes.
- Add a small screen and Camera.
- Add secondary battery.

According to the product change description, we tested the worst mode of all test items in the original report with secondary battery as shown in Section 7.1&7.2.

7. Test Results

7.1. Radiated Emission

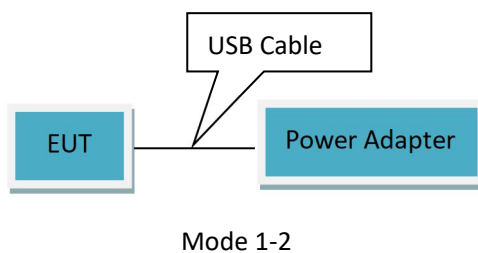
Specifications:	15.109
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60%
Operation Mode	30MHz-18GHz frequency range: Mode 1: GSM 1900 receiver mode+ Back Camera+ A2+ C1+ B1 Mode 2: WCDMA BAND V receiver mode+ Back Camera+ A2+ C1+ B1
Test Results:	Pass
Note: 1. The worst case of radiated emission for 30MHz-1GHz is Mode 1 and for 1GHz -18GHz is Mode 2.	

Limit Level Construction (Except for Class A digital devices):

Frequency Range (MHz)	Quasi-Peak (dB μ V/m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

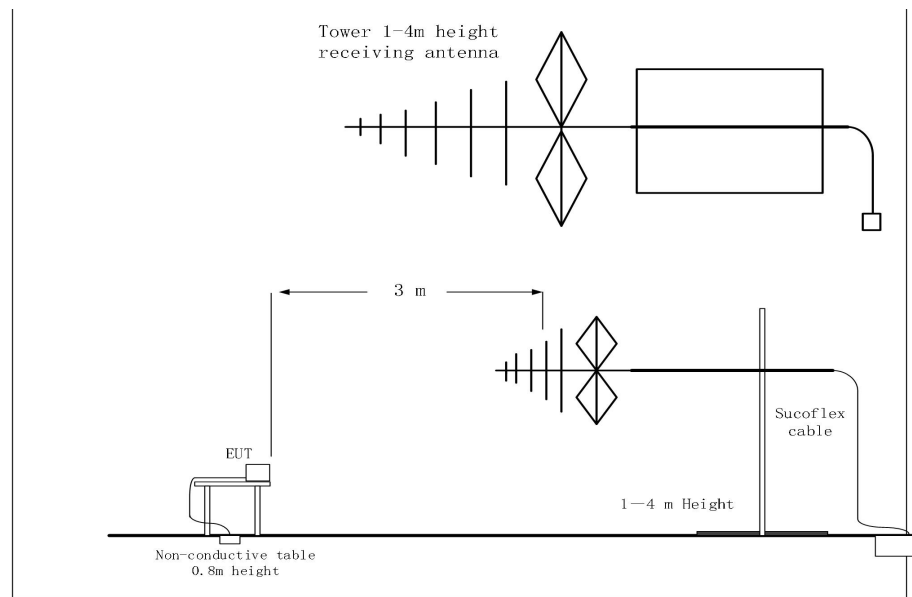
Frequency Range (MHz)	Peak (dB μ V/m)	Average (dB μ V/m)
Above 1000	74	54

EUT Setup:



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Test Method:

For 30-1000MHz, the EUT was placed on the top of a rotating 0.8m table above the ground at a semi-anechoic chamber. The distance between the EUT and the received antenna was 3 meters. The table was rotated 360 degree and the received antenna mounted on a variable-height antenna tower was varied from 1m to 4m to find the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement. Tested in accordance with the procedures of ANSI C63.4-2014, section 8.3.

For 1000-18000MHz, the maximal emission value was acquired by adjusting the antenna height, and the table was rotated 360 degrees to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement.

Test Result:

Test mode: ALL modes, Only the worst case test data was reported.

A “reference path loss” is established and Corr is the attenuation of “reference path loss”, and including the factor of receive antenna, the gain of the preamplifier, the cable loss.

The measurement results are obtained as described below:

$$\text{Corr (dB/m)} = \text{Cable loss (dB)} + \text{Antenna Factor (dB/m)} - \text{Preamplifier gain (dB)}$$

$$\text{Result (dB } \mu \text{ V/m)} = \text{PMea (dB } \mu \text{ V)} + \text{Corr (dB/m)}$$

Uncertainty Measurement:

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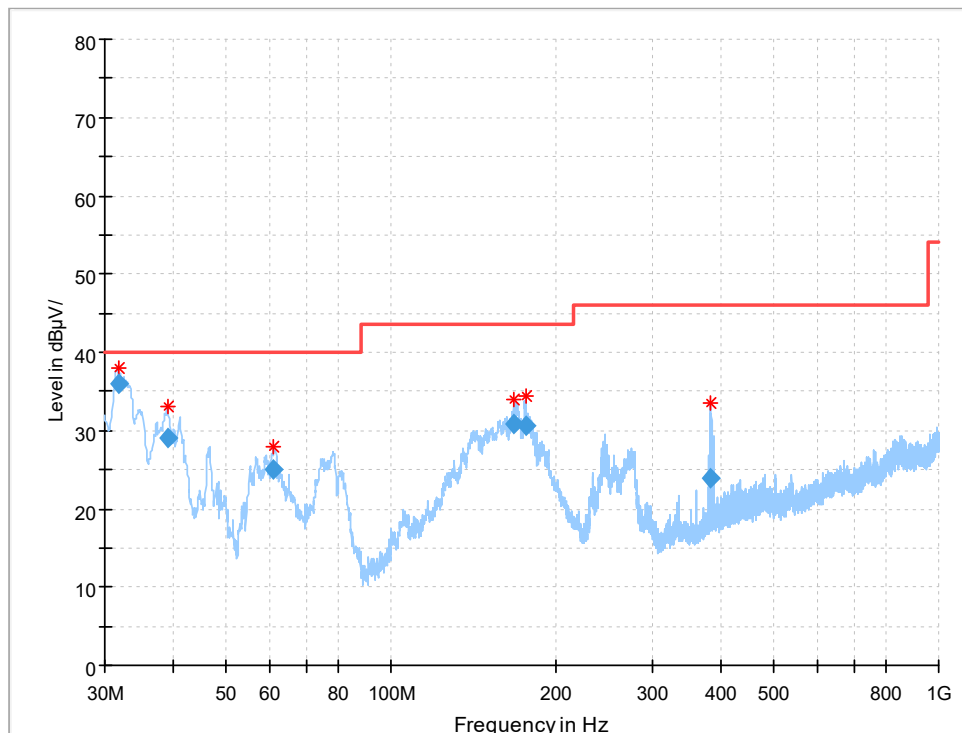
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Item	Uncertainty	
Expanded Uncertainty (30MHz-150MHz)	3.12dB (k=2) (H)	3.38dB (k=2) (V)
Expanded Uncertainty (150MHz-1000MHz)	2.87dB (k=2) (H)	4.09dB (k=2) (V)
Expanded Uncertainty (1GHz-6GHz)	4.84dB (k=2)	
Expanded Uncertainty (6GHz-18GHz)	4.52dB (k=2)	
Expanded Uncertainty (18GHz-26GHz)	6.19dB (k=2)	
Expanded Uncertainty (26GHz-40GHz)	6.03dB (k=2)	

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Test Data



Final_Result

RE 30MHz-1GHz_Mode 1

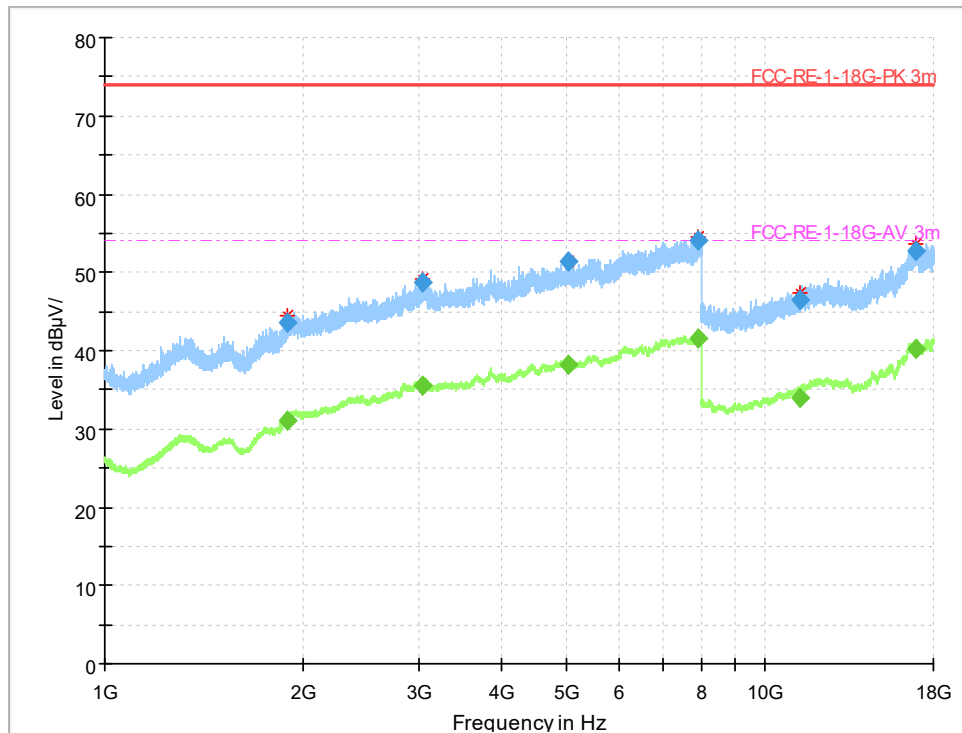
Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
31.796600	35.90	40.00	4.10	100.0	V	334.0	-15.8
39.233880	29.02	40.00	10.98	100.0	V	287.0	-13.4
61.005480	25.14	40.00	14.86	100.0	V	14.0	-13.0
168.043480	30.81	43.50	12.69	100.0	V	322.0	-15.3
176.263320	30.57	43.50	12.93	200.0	H	77.0	-14.7
383.353320	23.94	46.00	22.06	200.0	V	344.0	-7.5

Note:

- Both H polarization and V polarization are tested.

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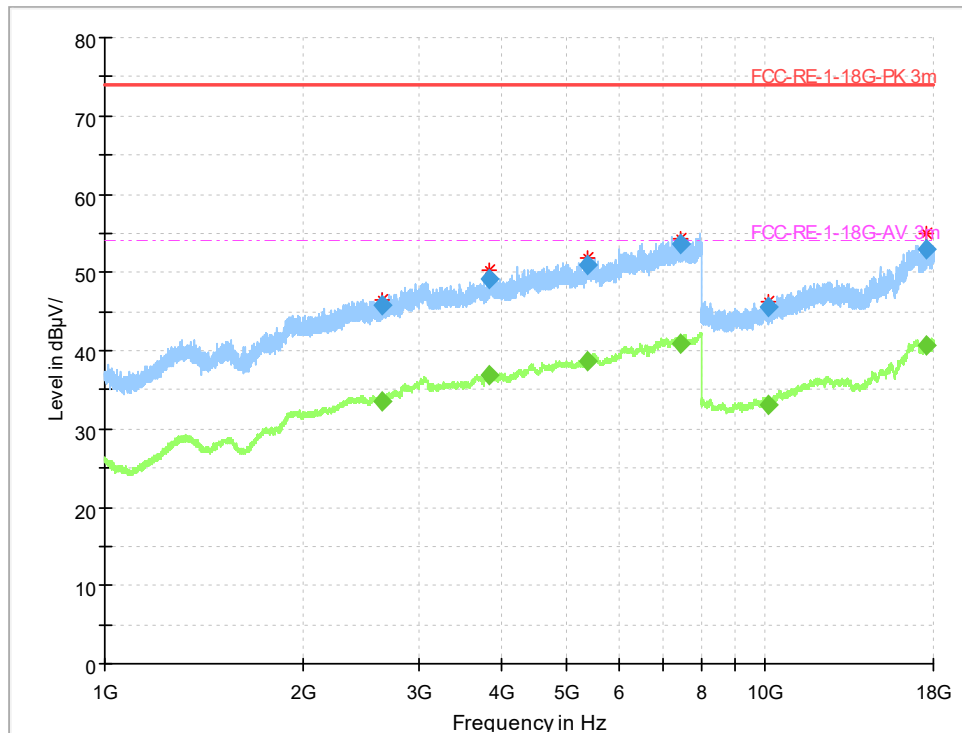
Final_Result

RE 1GHz-18GHz_Mode 2_H

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1887.613750	---	30.96	54.00	23.04	215.0	H	58.0	6.1
1887.613750	43.64	---	74.00	30.36	215.0	H	58.0	6.1
3028.815000	---	35.50	54.00	18.50	188.0	H	63.0	12.3
3028.815000	48.75	---	74.00	25.25	188.0	H	63.0	12.3
5044.626250	51.35	---	74.00	22.65	210.0	H	294.0	15.4
5044.626250	---	38.31	54.00	15.69	210.0	H	294.0	15.4
7934.693750	54.17	---	74.00	19.83	185.0	H	0.0	21.1
7934.693750	---	41.46	54.00	12.54	185.0	H	0.0	21.1
11305.115000	46.47	---	74.00	27.53	100.0	H	267.0	11.9
11305.115000	---	34.06	54.00	19.94	100.0	H	267.0	11.9
16932.586250	52.72	---	74.00	21.28	188.0	H	1.0	21.9
16932.586250	---	40.25	54.00	13.75	188.0	H	1.0	21.9

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Final_Result

RE 1GHz-18GHz_Mode 2_V

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2627.785000	45.90	---	74.00	28.10	115.0	V	46.0	9.1
2627.785000	---	33.56	54.00	20.44	115.0	V	46.0	9.1
3830.947500	---	36.80	54.00	17.20	115.0	V	0.0	13.2
3830.947500	49.10	---	74.00	24.90	115.0	V	0.0	13.2
5398.027500	---	38.56	54.00	15.44	115.0	V	169.0	16.5
5398.027500	51.04	---	74.00	22.96	115.0	V	169.0	16.5
7463.742500	53.57	---	74.00	20.43	204.0	V	104.0	20.6
7463.742500	---	40.93	54.00	13.07	204.0	V	104.0	20.6
10106.038750	---	33.03	54.00	20.97	115.0	V	218.0	9.6
10106.038750	45.59	---	74.00	28.41	115.0	V	218.0	9.6
17598.346250	---	40.67	54.00	13.33	115.0	V	16.0	22.4
17598.346250	53.07	---	74.00	20.93	115.0	V	16.0	22.4

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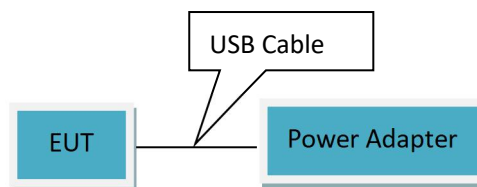
7.2. Conducted Emission

Specifications:	15.107
DUT Serial Number:	25B02W000008#S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60%
Operation Mode	Mode 3: LTE Band 2 receiver mode+ Back Camera+ A1+ C1+ B1
Test Results:	Pass
Note: 1. The worst case of AC conducted emission is Mode 3.	

Limit Level Construction:

Frequency Range (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

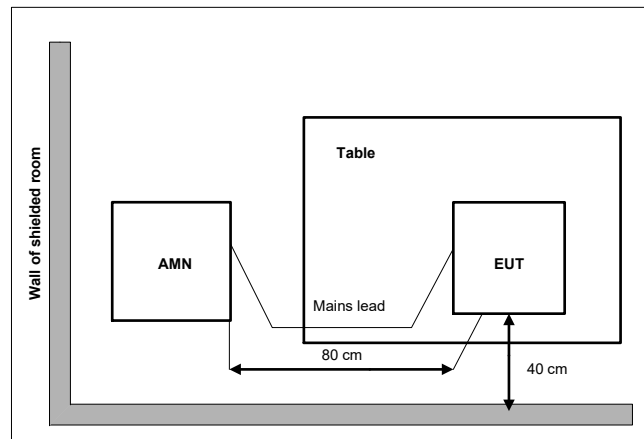
EUT Setup:



Mode 3

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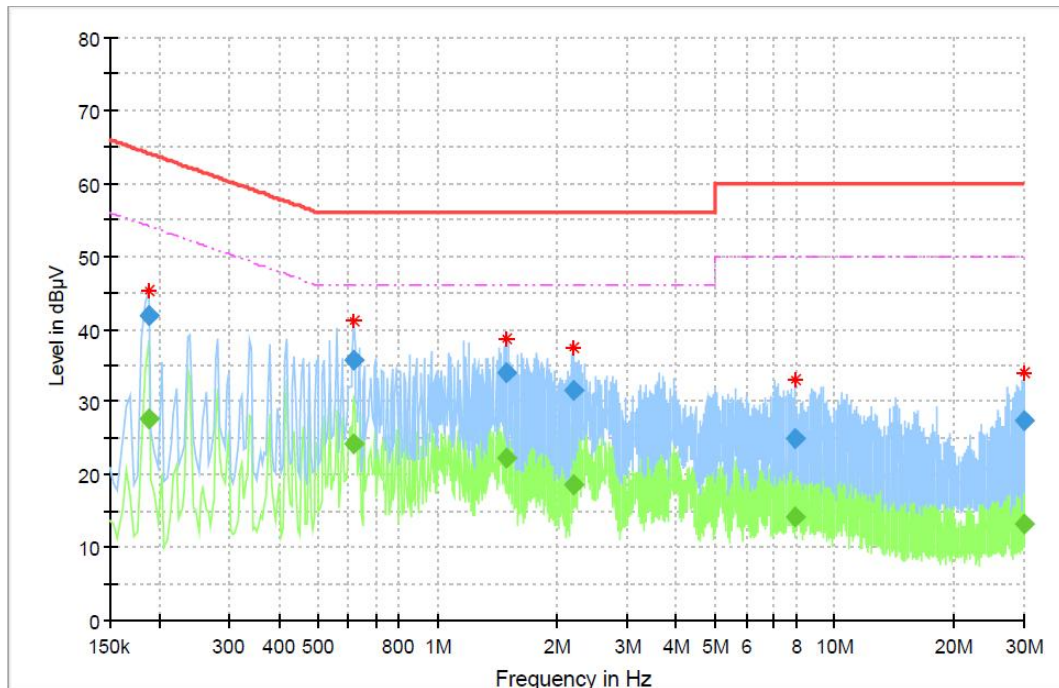
**Test Method:**

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies with the band 150 kHz to 30MHz shall not exceed the limits. Both lines of the power mains connected to the EUT were checked for maximum conducted interference. Tested in accordance with the procedures of ANSI C63.4-2014, section 7.

Uncertainty Measurement:

The measurement uncertainty (150kHz-30MHz) is 1.97 dB (k=2).

Test Data



CE 150kHz-30MHz Mode 3

Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.187313	41.87	---	15000	9.000	N	ON	10.1	22.28	64.16
0.187313	---	27.76	15000	9.000	N	ON	10.1	26.40	54.16
0.616406	---	24.16	15000	9.000	N	ON	10.0	21.84	46.00
0.616406	35.81	---	15000	9.000	N	ON	10.0	20.19	56.00
1.489519	34.01	---	15000	9.000	L1	ON	9.9	22.00	56.00
1.489519	---	22.33	15000	9.000	L1	ON	9.9	23.67	46.00
2.205919	---	18.53	15000	9.000	N	ON	9.9	27.47	46.00
2.205919	31.53	---	15000	9.000	N	ON	9.9	24.47	56.00
7.922194	---	14.14	15000	9.000	N	ON	9.8	35.86	50.00
7.922194	24.85	---	15000	9.000	N	ON	9.8	35.15	60.00
30.000000	---	13.14	15000	9.000	N	ON	9.6	36.86	50.00
30.000000	27.33	---	15000	9.000	N	ON	9.6	32.67	60.00

L1 and N is all have been tested, the result of them is synthesized in the above data diagram.

Emission level(quasi-peak or Average peak) (dBμV) = Raw value by receiver(dBμV) + Corr (Insertion loss+ cable loss) (dB)

The raw value is used to calculate by software which is not shown in the sheet.

Margin (dB) =limit value (dBμV) – emission level (dBμV).

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Annex A EUT Photos

See the document "25B02W000008-External Photos".

See the document "25B02W000008-Internal Photos".

Test photo See the document "25B02W000008_Part 15B Setup Photos".

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Annex B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

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