

## FCC - TEST REPORT

Report Number : **68.950.21.0256.01** Date of Issue: **2021-04-30**

Model : 511286

Product Type : QuickBooks Power Stand

Applicant : Intuit, Inc.

Address : 2700 Coast Avenue, Mountain View, CA

Manufacturer : Intuit, Inc.

Address : Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok,  
: Kowloon, Hongkong

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : **18**

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

#### Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
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FCC Registration No.: 514049

### 3 Description of the Equipment Under Test

Product:	QuickBooks Power Stand
Model no.:	511286
FCC ID:	2AZU4-286
Rating:	Input : DC5V3A USB port output : 7.5W Wireless output : 3.6W Max Battery: 4800mAh, 3.7V
RF Transmission Frequency:	110.09KHz - 175.22KHz
Antenna Type:	Integrated coil antenna
Antenna Gain:	0dBi
Description of the EUT:	The Equipment Under Test (EUT) is a QuickBooks Power Stand which operated at 110.09KHz - 175.22KHz

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2019 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to ANSI C63.10 (2013).

## 5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C					
Test Condition		Test Site	Test Result		
			Pass	Fail	N/A
§15.207	Conducted emission AC power port	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	20dB bandwidth	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.205	Restricted bands of operation	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.209	Radiated emission	Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.203	Antenna requirement	See note 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note 1: The EUT uses an Integrated coil antenna, which gain is 0dBi. In accordance to §15.203, it is considered sufficiently to comply with the provisions of this section.

## 6 General Remarks

### Remarks

This submittal(s) (test report) complies with Section 15.207, 15.209, 15.205 of the FCC Part 15, Subpart C rules.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

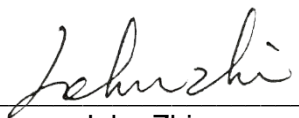
Sample Received Date: 2021-04-09

Testing Start Date: 2021-04-09

Testing End Date: 2021-04-25

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

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Prepared by:



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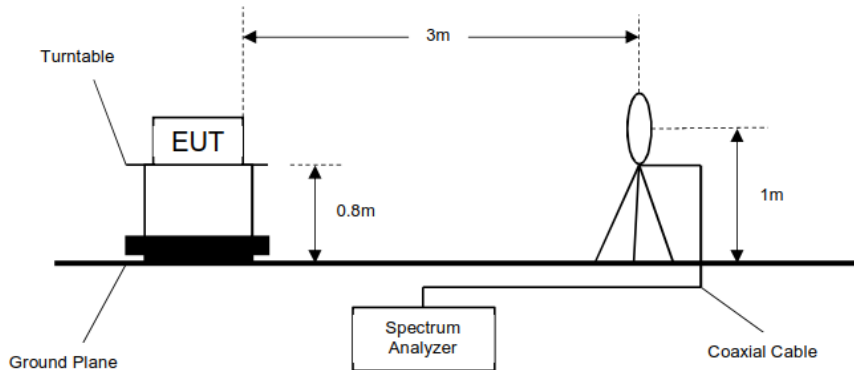


Carry Cai  
Test Engineer

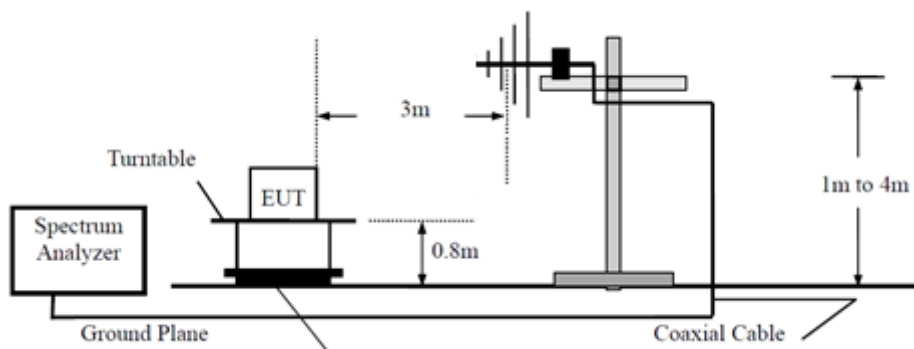
## 7 Test Setups

### 7.1 Radiated test setups

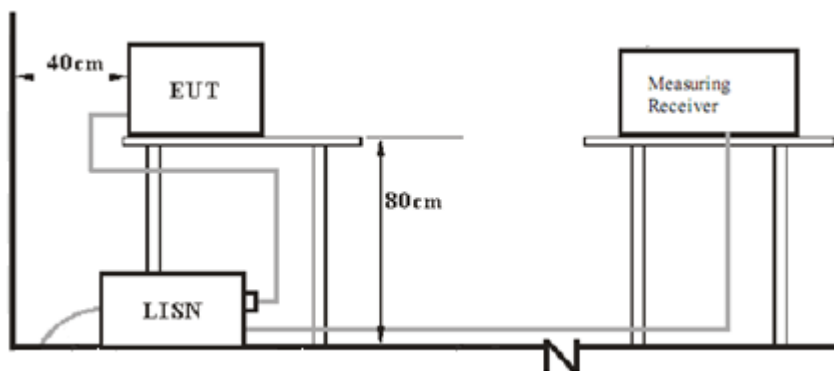
Below 30MHz



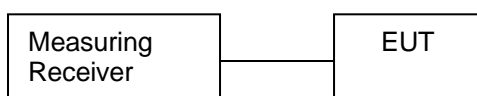
30MHz-1GHz



### 7.2 AC Power Conducted test setups



### 7.3 Conducted RF test setups





## 8 Technical Requirement

### 8.1 Conducted Emission Test

#### Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

#### Limit

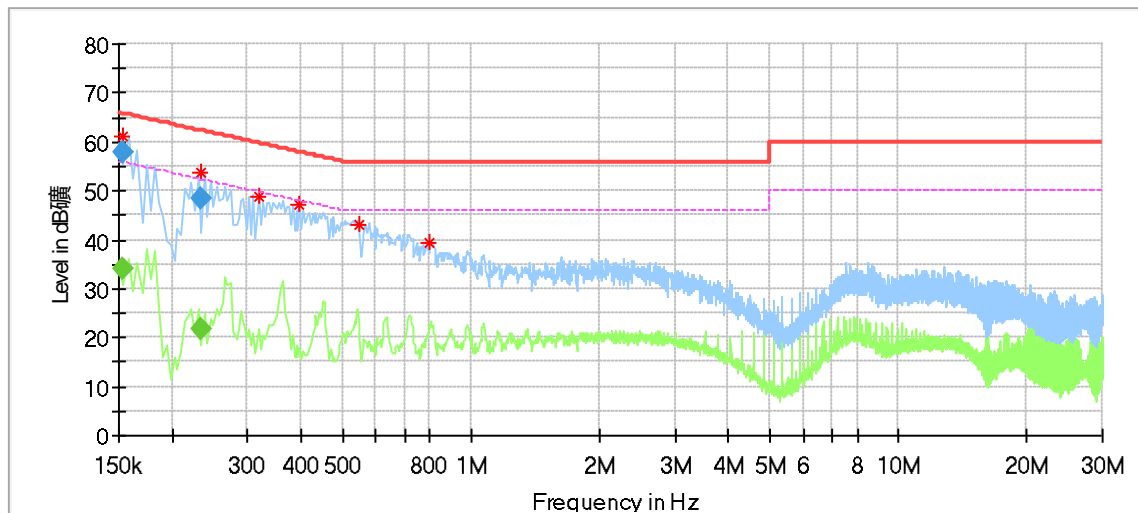
According to §15.207, conducted emissions limit as below:

Frequency	QP Limit	AV Limit
MHz	dB $\mu$ V	dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

\*Decreasing linearly with logarithm of the frequency

## Conducted Emission

Model: 511286  
 Test mode: Wireless charging+ charger  
 Test Voltage: AC 120V/60Hz  
 Test Site: Shielding Room #4  
 Remark:



## Critical Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.153500	61.29	---	65.57	4.28	L1	9.64
0.233500	53.69	---	62.17	8.47	L1	9.64
0.318000	48.88	---	59.76	10.87	L1	9.64
0.398000	46.99	---	57.90	10.91	L1	9.64
0.546000	43.01	---	56.00	12.99	L1	9.65
0.802000	39.54	---	56.00	16.46	L1	9.66

## Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.153500	---	34.03	55.81	21.78	L1	9.63
0.153500	57.77	---	65.81	8.04	L1	9.63
0.233500	---	21.76	52.32	30.56	L1	9.64
0.233500	48.28	---	62.32	14.04	L1	9.64

Remark:

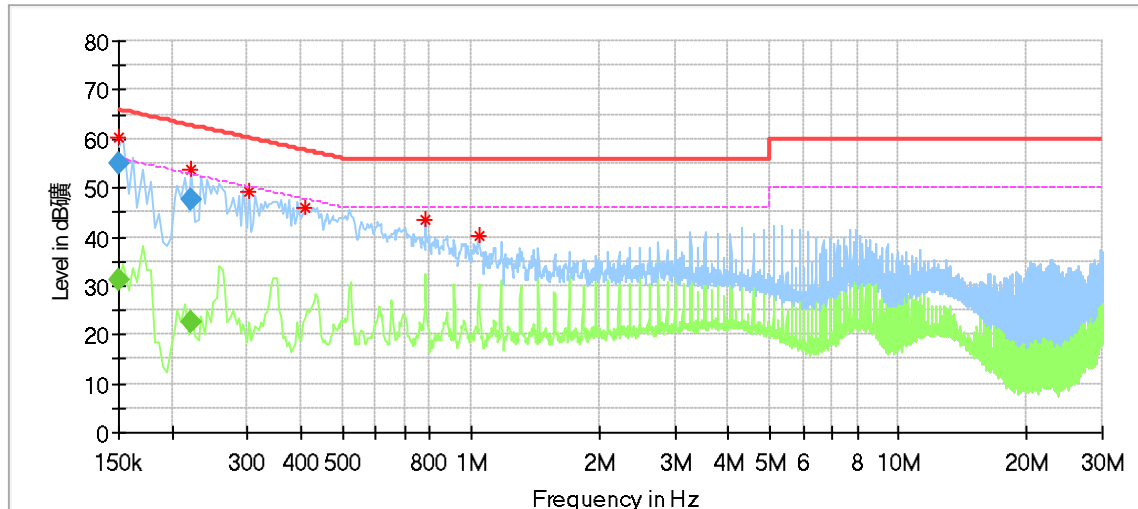
Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## Conducted Emission

Model: 511286  
 Test mode: Wireless charging+ charger  
 Test Voltage: AC 120V/60Hz  
 Test Site: Shielding Room #4  
 Remark:



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150000	60.40	---	65.78	5.38	N	9.61
0.221500	53.66	---	62.74	9.09	N	9.63
0.302000	49.42	---	60.19	10.77	N	9.63
0.410000	46.08	---	57.65	11.57	N	9.63
0.782000	43.59	---	56.00	12.41	N	9.65
1.042000	40.27	---	56.00	15.73	N	9.65

## Final\_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	31.07	56.00	24.93	N	9.61
0.150000	54.87	---	66.00	11.13	N	9.61
0.221500	---	22.63	52.76	30.14	N	9.63
0.221500	47.71	---	62.76	15.05	N	9.63

Remark:

Level=Reading Level + Correction Factor

Correction Factor=Cable Loss + LISN Factor

(The Reading Level is recorded by software which is not shown in the sheet)

## 8.2 20 dB Bandwidth

### Test Method

1. Use the following spectrum analyzer settings:  
RBW=200Hz, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 20 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 20 dB.
3. Allow the trace to stabilize, record the X dB Bandwidth value.

### Limit

#### Limit [kHz]

No Limit

### Test result

Frequency KHz	20dB bandwidth KHz	Result		Result
		F <sub>L</sub> (KHz)	F <sub>H</sub> (KHz)	
110.09KHz	2.85	109.44	--	Pass
175.22KHz	3.46	--	176.13	Pass

The fundamental frequency is outside the restricted bands of 15.205 section.

### 8.3 Radiated Emission Test

#### Test Method

- 1: The EUT was placed on a turn table which is 0.8m above ground for below 1GHz at 3 meters chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
- 3: The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4: For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5: Use the following spectrum analyzer settings According to C63.10:

#### Limit

the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	QP	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

Note 1:  $\text{Limit } 3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 300\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(300\text{m}/3\text{m})$  (Below 30MHz)

Note 2:  $\text{Limit } 3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 30\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(30\text{m}/3\text{m})$  (Below 30MHz)

### Radiated emissions test (9KHz-30MHz)

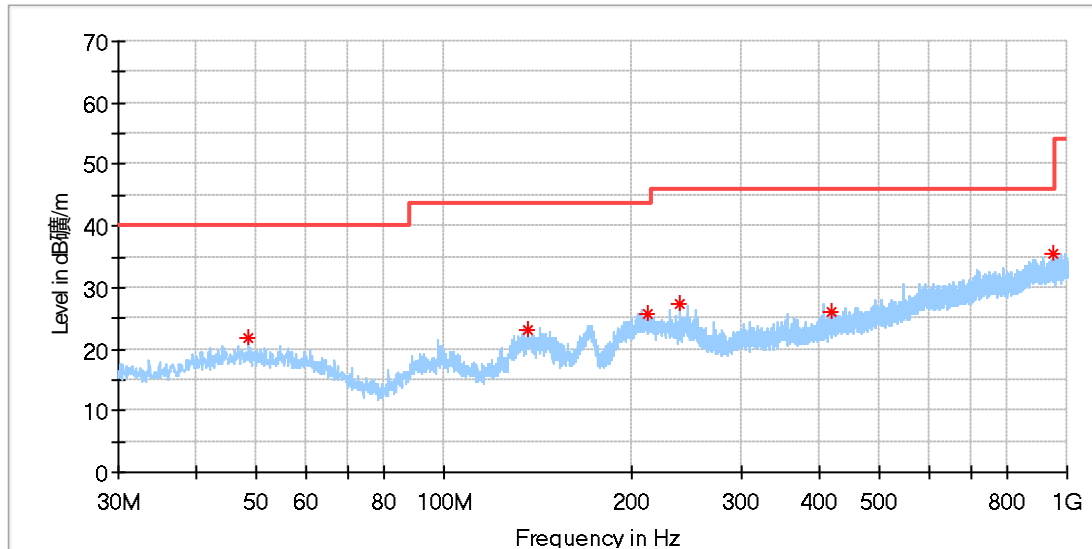
Frequency Band	Frequency MHz	Emission Level dBμV/m	Polarization	Limit dBμV/m	Detector	Margin dBμV/m	Correct factor (dB)	Result
9KHz-30MHz	0.023993	61.00	H	93.8	QP	32.80	19.73	Pass
	0.039973	56.81	H	93.8	QP	36.99	19.70	Pass
	0.111977	52.84	H	63.0	QP	10.16	19.71	Pass
	0.174875	62.31	H	69.5	QP	7.19	19.72	Pass
	0.468400	41.00	H	69.5	QP	28.50	19.73	Pass
	0.518150	41.30	H	69.5	QP	28.20	19.73	Pass
	0.523125	43.27	H	69.5	QP	26.23	19.73	Pass
	Other frequency	--	H	--	QP	--	--	Pass
	0.027659	60.61	V	93.8	QP	33.19	19.72	Pass
	0.130119	55.47	V	93.8	QP	38.33	19.69	Pass
	0.388800	42.22	V	93.8	QP	51.58	19.70	Pass
	0.518150	42.02	V	63.0	QP	20.98	19.70	Pass
	0.523125	40.89	V	63.0	QP	22.11	19.82	Pass
	0.647500	36.45	V	63.0	QP	26.55	19.61	Pass
	3.000675	35.14	V	69.5	QP	34.36	19.66	Pass
	Other frequency	--	V	--	QP	--	--	Pass

#### Remark:

- (1) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.
- (2) Data of measurement within this frequency range shown “--” in the table above means the reading of emissions are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain  
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss
- (4) 0.009-0.490MHz comply for the strictest limit (93.8dBμV/m), 0.490-1.705MHz comply for the strictest limit (63.0dBμV/m), so the test result can be considered as Pass.

## Radiated emissions test (30MHz-1000MHz)

Model: 511286  
 Test Mode: Wireless charging+ charger  
 Test Voltage: AC 120V/60Hz  
 Project No./Sample ID: 68.950.21.0256.01  
 Remark



Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.551250	21.83	40.00	18.17	200.0	H	0.0	17.87
136.639375	23.11	43.50	20.39	200.0	H	61.0	13.01
212.299375	25.86	43.50	17.64	200.0	H	163.0	16.61
238.731875	27.32	46.00	18.68	200.0	H	163.0	17.20
416.969375	26.18	46.00	19.82	200.0	H	141.0	21.78
952.833750	35.49	46.00	10.51	200.0	H	36.0	29.70

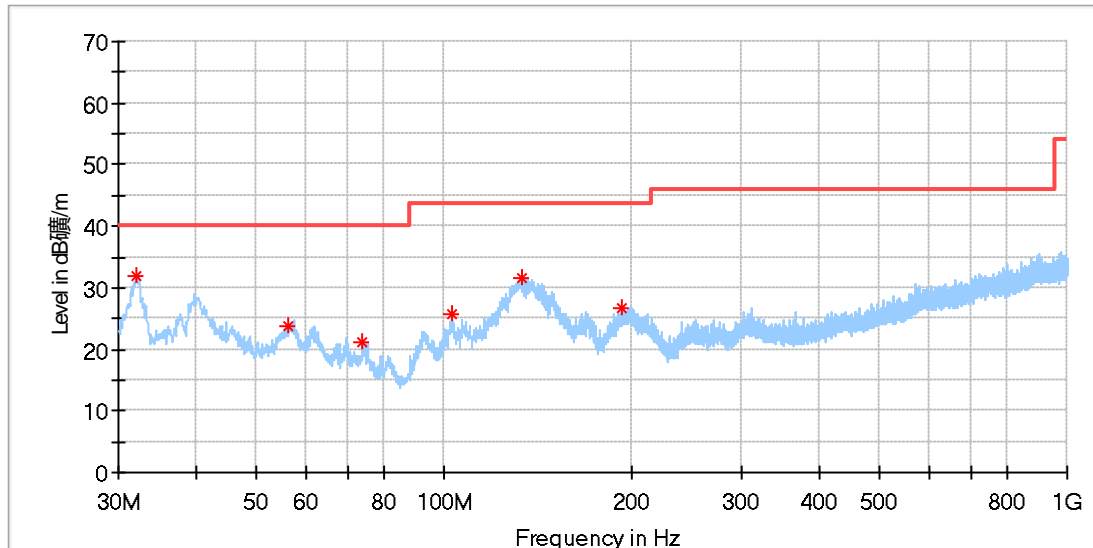
Remark:

Level=Reading Level + Correction Factor

Correction Factor=Antenna Factor + Cable Loss

(The Reading Level is recorded by software which is not shown in the sheet)

Model: 511286  
 Test Mode: Wireless charging+ charger  
 Test Voltage: AC 120V/50Hz  
 Project No./Sample ID: 68.950.21.0256.01  
 Remark



Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Corr. (dB)
32.061250	32.05	40.00	7.95	100.0	V	0.0	14.49	---
56.371875	23.81	40.00	16.19	100.0	V	325.0	17.39	---
73.710625	21.04	40.00	18.96	100.0	V	335.0	12.61	---
102.871250	25.70	43.50	17.80	100.0	V	0.0	15.88	---
133.244375	31.42	43.50	12.08	100.0	V	0.0	13.10	---
193.263125	26.84	43.50	16.66	100.0	V	0.0	15.89	---

Remark:

Level=Reading Level + Correction Factor

Correction Factor=Antenna Factor + Cable Loss

(The Reading Level is recorded by software which is not shown in the sheet)

### Radiated emissions test (Above 1000MHz)

Remark: The highest transmission frequency of product is 175.22KHz, not required for radiated emissions test which above 1000MHz



## 9 Test Equipment List

### List of Test Instruments

#### Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2021-6-29
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	68-4-80-14-002	707	1	2021-8-4
Horn Antenna	Rohde & Schwarz	HF907	68-4-80-14-005	102294	1	2021-7-14
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2021-9-2
Pre-amplifier	Rohde & Schwarz	SCU 18	68-4-29-14-001	102230	1	2021-6-21
Attenuator	Agilent	8491A	68-4-81-16-001	MY39264334	1	2021-6-21
3m Semi-anechoic chamber	TDK	9X6X6	68-4-90-14-001	----	3	2022-10-28
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

#### Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-14-001	101782	1	2021-6-29
LISN	Rohde & Schwarz	ENV4200	68-4-87-14-001	100249	1	2021-6-12
LISN	Rohde & Schwarz	ENV432	68-4-87-16-001	101318	1	2021-6-12
LISN	Rohde & Schwarz	ENV216	68-4-87-14-002	100326	1	2021-6-12
ISN	Rohde & Schwarz	ENY81	68-4-87-14-003	100177	1	2021-6-12
ISN	Rohde & Schwarz	ENY81-CA6	68-4-87-14-004	101664	1	2021-6-12
High Voltage Probe	Schwarzbeck	TK9420(VT9420)	68-4-27-14-001	9420-584	1	2021-6-23
RF Current Probe	Rohde & Schwarz	EZ-17	68-4-27-14-002	100816	1	2021-6-28
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2021-6-21
Test software	Rohde & Schwarz	EMC32	68-4-90-14-003-A10	Version9.15.00	N/A	N/A

## 10 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission 150kHz-30MHz (for test using AMN ENV432 or ENV4200)	3.62dB
Uncertainty for Radiated Emission in 3m chamber 9KHz-30MHz	4.60 dB
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.63dB; Vertical: 4.61dB;