



# TEST REPORT

## Applicant: Beijing Wiseasy Technology Co.,Ltd.

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FCC ID:	2AXOJ-P5L
IC:	28320-P5L
HVIN:	P3_xx_1x, P3_xx_0x
FVIN:	P5L_V01.00
<b>Product Name:</b>	Smart Payment Terminal
Model Number:	P5L
Standard(s):	47 CFR Part 15, Subpart C(15.225)
	ANSI C63.10-2013
	RSS-210 Issue 10, December 2019,
	Amendment (April 2020)
	RSS-Gen, Issue 5, February 2021 Amendment 2

The above equipment has been tested and found compliance with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number:CR22050078-00ADate Of Issue:2022-08-20Reviewed By:Sun ZhongTitle:ManagerTitle:ManagerChina Certification ICT Co., Ltd (Dongguan)<br/>No. 113, Pingkang Road, Dalang Town, Dongguan,<br/>Guangdong, China<br/>Tel: +86-769-82016888

#### **Test Facility**

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

#### Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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## **1. GENERAL INFORMATION**

## **1.1 Product Description for Equipment under Test (EUT)**

EUT Name:	Smart Payment Terminal	
EUT Model:	P5L	
<b>Operation Frequency:</b> 13.56 MHz		
Modulation Type:	ASK	
Rated Input Voltage: DC 5V charging from adapter and DC 3.85V by battery		
Serial Number: CR22050078-RF-S1(Type II) CR22050078-RF-S2(Type I)		
EUT Received Date: 2022.05.26		
EUT Received Status: Good		
Note: The EUT model has two configurations that Type II is with scanner and Type I is without scanner.		

## Antenna Information Detail▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	/Frequency Range	Antenna Gain	
ShenZhen Deman Electronics Technology Co., Ltd	FPC	50	13.56MHz	Unknown	
The Method of §15.203 Compliance: ⊠Antenna must be permanently attached to the unit.					
Antenna must use a unique type of connector to attach to the EUT.					

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

## **Accessory Information:**

Accessory Description	Manufacturer	Model	Parameters
Adapter 1#	SHENZHEN AQUILSTAR TECHNOLOGY CO.,LTD	ASSA107w-050200	Input: 100-240V~50/60Hz 0.45A Output: 5.0V 2A
Adapter 2#	Unknown	RD0502000-USBA- 87MG	Input: 100-240V~50/60Hz 300mA Output: 5.0V 2000mA
USB Cable	Unknown	Unknown	Unshielded, 1.2m

## **1.2 Description of Test Configuration**

#### **1.2.1 EUT Operation Condition:**

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.	
<b>Equipment Modifications:</b>	No	
EUT Exercise Software:	No	
Engineering Mode was provided by manufacturar A. The maximum power was configured default		

Engineering Mode was provided by manufacturer  $\blacktriangle$  . The maximum power was configured default setting.

## **1.2.2 Support Equipment List and Details**

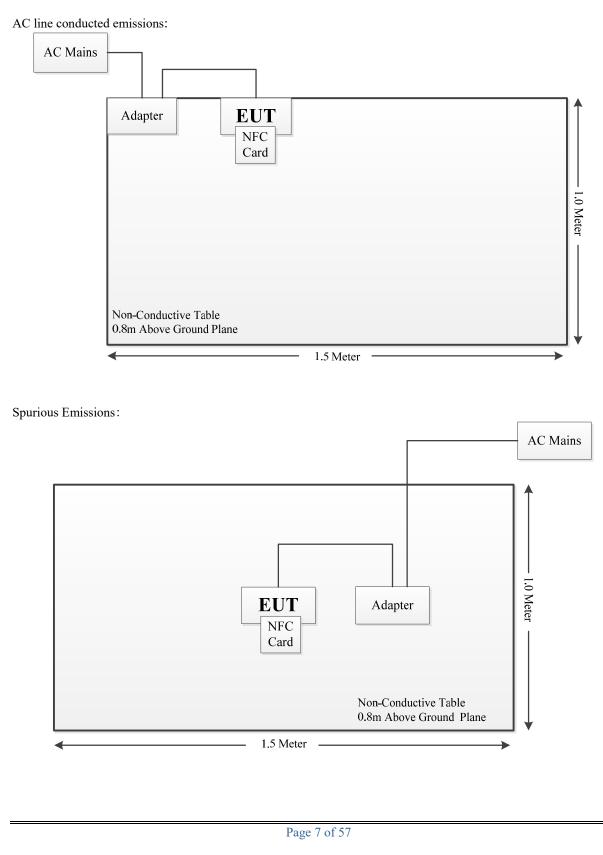
Manufacturer	Description	Model	Serial Number
LANDI	NFC Card	Unknown	Unknown

#### 1.2.3 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	То
/	/	/	/	/	/

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#### 1.2.4 Block Diagram of Test Setup



#### **1.3 Measurement Uncertainty**

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty		
Occupied Channel Bandwidth	$\pm 5\%$		
	9k~30MHz:4.12dB		
Unwanted Emissions, radiated	30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB,		
	6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB		
Temperature	$\pm 1$ °C		
Humidity	$\pm 5\%$		
DC and low frequency voltages	$\pm 0.4\%$		
Duty Cycle	1%		
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)		

## 2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC§15.207 (a) RSS-Gen Clause 8.8	Conducted Emissions	Compliant
§15.225 §15.209 §15.205 RSS-Gen Clause 8.10 RSS-210 Annex B.6 (a)	Radiated Emission Test	Compliant
§15.225(e) RSS-210 Annex B.6 (b)	Frequency Stability	Compliant
§15.215(c)	20 dB Bandwidth	Compliant
RSS-Gen Clause 6.7	99% Occupied Bandwidth	Compliant
§15.203 RSS-GEN Clause 6.8	Antenna Requirement	Compliant

## **3. REQUIREMENTS AND TEST PROCEDURES**

#### 3.1 AC Line Conducted Emissions

#### **3.1.1 Applicable Standard**

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator 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, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

	Conducted limit (dBµV)	
Frequency of emission (MHz)	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.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000  $\mu$ V within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221, §15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

#### RSS-Gen Clause 8.8

Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 4, as measured using a 50  $\mu$ H / 50  $\Omega$  line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

Frequency	Conducted limit (dBµV)				
(MHz)	Quasi-peak	Average			
0.15 - 0.5	66 to 56 <sup>1</sup>	56 to 46 <sup>1</sup>			
0.5 - 5	56	46			
5 - 30	60	50			

## Table 4 - AC power-line conducted emissions limits

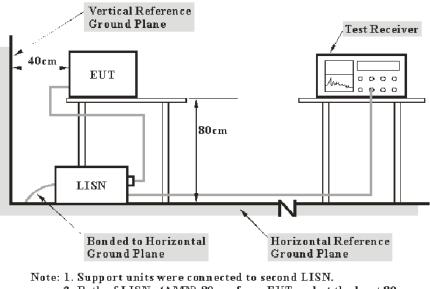
## Note 1: The level decreases linearly with the logarithm of the frequency.

For an EUT with a permanent or detachable antenna operating between 150 kHz and 30 MHz, the AC power-line conducted emissions must be measured using the following configurations:

(a) Perform the AC power-line conducted emissions test with the antenna connected to determine compliance with the limits of table 4 outside the transmitter's fundamental emission band.

(b) Retest with a dummy load instead of the antenna to determine compliance with the limits of table 4 within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network that simulates the antenna in the fundamental frequency band.

## 3.1.2 EUT Setup



2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207,RSS-Gen limits.

The spacing between the peripherals was 10 cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

#### 3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

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

Frequency Range	IF B/W		
150 kHz – 30 MHz	9 kHz		

#### **3.1.4 Test Procedure**

During the conducted emission test, the adapter was connected to the outlet of the LISN.

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground [protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductor, or the six highest emissions may be reported over all the current-carrying conductors.

According FCC publication number 174176, for a device with a permanent antenna operating at or below 30 MHz, the measurements done with a suitable dummy load, in lieu of the permanent antenna under the following conditions: (1) perform the AC line conducted tests with the permanent antenna to determine compliance with the Section 15.207 limits outside the transmitter's fundamental emission band; (2) retest with a dummy load in lieu of the permanent antenna to determine compliance with the transmitter's fundamental emission band; (2) retest with a dummy load in lieu of the permanent antenna to determine compliance with the Section 15.207 limits within the transmitter's fundamental emission band.

#### 3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor Factor = attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

*Margin* = Limit – Result

#### **3.2 Radiated Emissions**

#### **3.2.1 Applicable Standard**

As per FCC Part 15.225

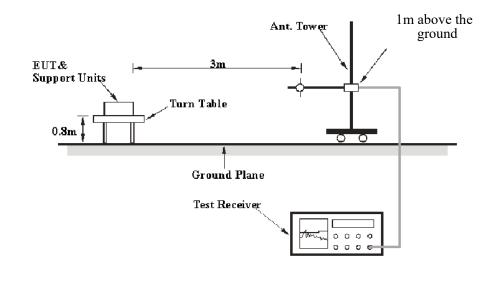
- (a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

As per RSS-210 B.6(a)

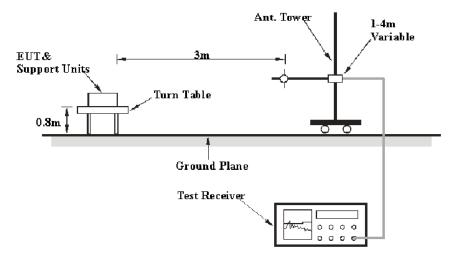
- (a) the field strength of any emission shall not exceed the following limits:
- (i) 15.848 mV/m (84 dB $\mu$ V/m) at 30 m, within the band 13.553-13.567 MHz
- (ii) 334  $\mu$ V/m (50.5 dB $\mu$ V/m) at 30 m, within the bands 13.410-13.553 MHz and 13.567-13.710 MHz
- (iii) 106  $\mu$ V/m (40.5 dB $\mu$ V/m) at 30 m, within the bands 13.110-13.410 MHz and 13.710-14.010 MHz
- (iv) RSS-Gen general field strength limits for frequencies outside the band 13.110-14.010 MHz

#### 3.2.2 EUT Setup

9kHz-30MHz:



#### 30MHz-1GHz:



The radiated emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.10-2013.

For 9kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

#### 3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 1 GHz.

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

Frequency Range	RBW	Video B/W	Detector
9 kHz – 150 kHz	200 Hz	1 kHz	QP
150 kHz – 30 MHz	9 kHz	30 kHz	QP
30 MHz – 1000 MHz	120 kHz	300 kHz	QP

If the maximized peak measured value complies with the limit, then it is unnecessary to perform an QP measurement

#### 3.2.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor Factor = Antenna Factor + Cable Loss- Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

*Margin* = Limit – Result

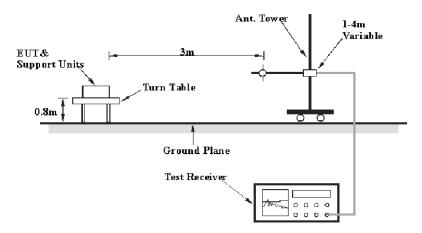
#### **3.3 20 dB Emission Bandwidth:**

#### **3.3.1 Applicable Standard**

#### FCC §15.215

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §15.217 through § 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of band operation.

#### 3.3.2 EUT Setup



#### **3.3.3 Test Procedure**

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- 3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.

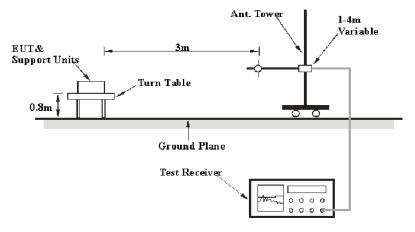
#### 3.4 99% Occupied Bandwidth:

#### 3.4.1 Applicable Standard

RSS-210, Annex A, A.1.3

The occupied bandwidth of momentarily operated devices shall be less than or equal to 0.25% of the centre frequency for devices operating between 70 MHz and 900 MHz. For devices operating above 900 MHz, the occupied bandwidth shall be less than or equal to 0.5% of the centre frequency.

#### 3.4.2 EUT Setup



#### **3.4.3Test Procedure**

a) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, unless otherwise specified by the applicable requirement.

b) Set the video bandwidth (VBW)  $\geq 3 \times RBW$ .

c) Detector = Peak.

d) Trace mode = max hold.

e) Sweep = auto couple.

f) Allow the trace to stabilize.

g) use the 99% Occupied bandwidth function to test the bandwidth.

## **3.5 Frequency Stability**

#### **3.5.1 Applicable Standard**

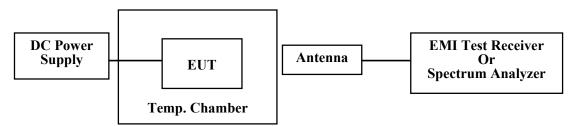
As per FCC Part 15.225:

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

As per RSS-210 B.6(b):

(b) the carrier frequency stability shall not exceed  $\pm 100$  ppm

#### 3.5.2 EUT Setup



#### **3.5.3 Test Procedure**

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power.

The EUT was placed inside the temperature chamber.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the Spectrum Analyzer.

Frequency Stability vs. Voltage: An external variable DC power supply Source. The voltage was set to the end point of the battery. The output frequency was recorded for each voltage.

#### 3.6 Antenna Requirement

#### **3.6.1 Applicable Standard**

#### FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

#### RSS-Gen §6.8

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

#### 3.6.2 Judgment

**Result: Compliant.** Please refer to the Antenna Information detail in Section 1.

## 4. TEST DATA AND RESULTS

#### 4.1 AC Line Conducted Emissions

Serial Number:	CR22050078-RF-S1(Type II) CR22050078-RF-S2(Type I)	Test Date:	2022-07-26
Test Site:		Test Mode:	Transmitting
Tester:	Vic Du	Test Result:	Pass

## **Environmental Conditions:**

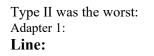
	0 0 0 0 0 1				
Temperature: (℃)	27.5	Relative Humidity: (%)	53	ATM Pressure: (kPa)	100.3

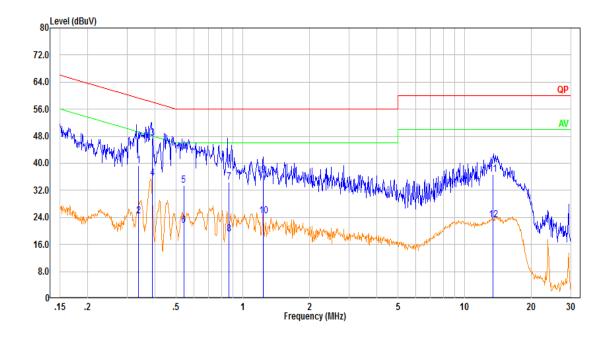
#### Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2022-04-01	2023-03-31
R&S	EMI Test Receiver	ESR3	102726	2022-07-15	2023-07-14
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2021-08-08	2022-08-07
Audix	Test Software	E3	190306 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

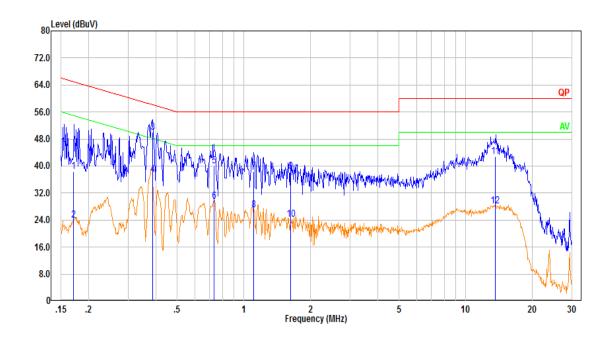
Report No.: CR22050078-00A





No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.338	29.77	9.61	39.38	59.26	19.88	QP
2	0.338	14.86	9.61	24.47	49.26	24.79	Average
3	0.390	37.89	9.61	47.50	58.07	10.57	QP
4	0.390	25.89	9.61	35.50	48.07	12.57	Average
5	0.541	23.87	9.61	33.49	56.00	22.51	QP
6	0.541	12.13	9.61	21.74	46.00	24.26	Average
7	0.864	24.76	9.62	34.38	56.00	21.62	QP
8	0.864	9.36	9.62	18.98	46.00	27.02	Average
9	1.233	26.96	9.62	36.58	56.00	19.42	QP
10	1.233	14.74	9.62	24.37	46.00	21.63	Average
11	13.400	27.16	9.68	36.84	60.00	23.16	QP
12	13.400	13.61	9.68	23.29	50.00	26.71	Average

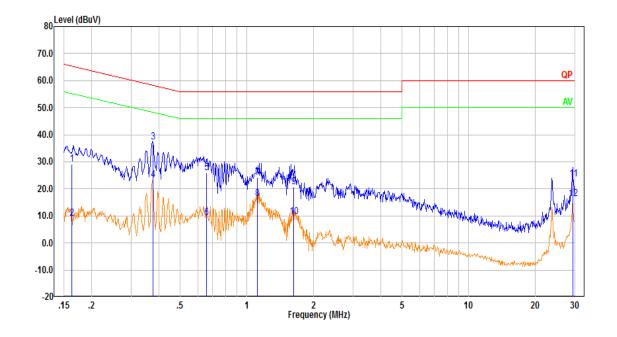
## Neutral:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.171	28.71	9.61	38.32	64.93	26.61	QP
2	0.171	14.25	9.61	23.86	54.93	31.07	Average
3	0.388	40.33	9.61	49.94	58.11	8.17	QP
4	0.388	27.83	9.61	37.44	48.11	10.67	Average
5	0.732	30.47	9.62	40.09	56.00	15.91	QP
6	0.732	19.94	9.62	29.56	46.00	16.44	Average
7	1.108	28.73	9.62	38.36	56.00	17.64	QP
8	1.108	17.39	9.62	27.01	46.00	18.99	Average
9	1.626	28.79	9.63	38.41	56.00	17.59	QP
10	1.626	14.59	9.63	24.22	46.00	21.78	Average
11	13.548	33.08	9.68	42.76	60.00	17.24	QP
12	13.548	18.44	9.68	28.12	50.00	21.88	Average

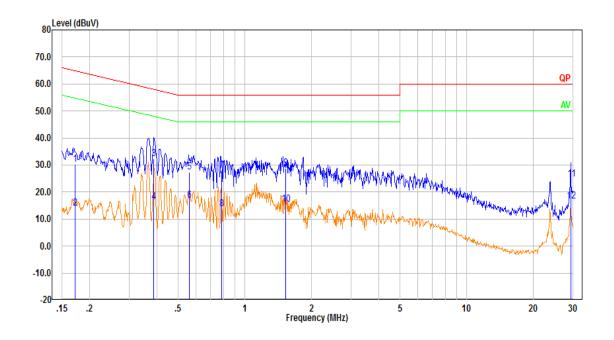


## Adapter 2: Line:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.163	19.64	9.61	29.25	65.31	36.06	QP
2	0.163	-0.44	9.61	9.17	55.31	46.14	Average
3	0.377	27.58	9.61	37.19	58.34	21.15	QP
4	0.377	13.82	9.61	23.43	48.34	24.91	Average
5	0.659	16.20	9.62	25.82	56.00	30.18	QP
6	0.659	-0.12	9.62	9.50	46.00	36.50	Average
7	1.117	14.61	9.62	24.23	56.00	31.77	QP
8	1.117	6.57	9.62	16.19	46.00	29.81	Average
9	1.622	10.94	9.63	20.57	56.00	35.43	QP
10	1.622	0.02	9.63	9.65	46.00	36.35	Average
11	29.554	13.77	9.82	23.59	60.00	36.41	QP
12	29.554	6.58	9.82	16.40	50.00	33.60	Average

## Neutral:



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	
1	0.172	20.77	9.61	30.38	64.88	34.50	QP
2	0.172	4.26	9.61	13.87	54.88	41.01	Average
3	0.387	22.76	9.61	32.37	58.12	25.75	QP
4	0.387	6.73	9.61	16.34	48.12	31.78	Average
5	0.562	17.89	9.62	27.51	56.00	28.49	QP
6	0.562	7.41	9.62	17.02	46.00	28.98	Average
7	0.784	18.35	9.62	27.97	56.00	28.03	QP
8	0.784	4.13	9.62	13.75	46.00	32.25	Average
9	1.523	19.21	9.63	28.84	56.00	27.16	QP
10	1.523	5.84	9.63	15.47	46.00	30.53	Average
11	29.538	14.96	9.82	24.77	60.00	35.23	QP
12	29.538	6.72	9.82	16.54	50.00	33.46	Average

### 4.2 Radiation Spurious Emissions

	CR22050078-RF-S1(Type II) CR22050078-RF-S2(Type I)	Test Date:	2022-08-02~2022-08-16
Test Site:	966-2	Test Mode:	Transmitting
Tester:	Gary Ling	Test Result:	Pass

Environmental Conditions:								
Temperature: (°C)	25.4~29.5	Relative Humidity: (%)	49~58	ATM Pressure: (kPa)	99.8~100.3			

#### **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
TESEQ	HF Loop Antenna	HLA6120	33561	2021-02-03	2024-02-02
Sunol Sciences	Antenna	JB6	A082520-5	2020-10-19	2023-10-18
R&S	EMI Test Receiver	ESR3	102724	2022-07-15	2023-07-14
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0470-02	2022-07-17	2023-07-16
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0780-01	2022-07-17	2023-07-16
Sonoma	Amplifier	310N	186165	2022-07-17	2023-07-16
Audix	Test Software	E3	201021 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data:**

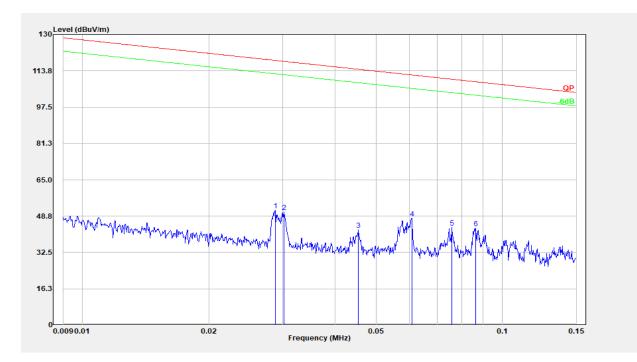
Please refer to the below table and plots.

Note: The device can be mounted in multiple orientations, test was performed with X,Y, Z Axis according to C63.10 Figure 8, the worst orientation was photographed and it's data was recorded.

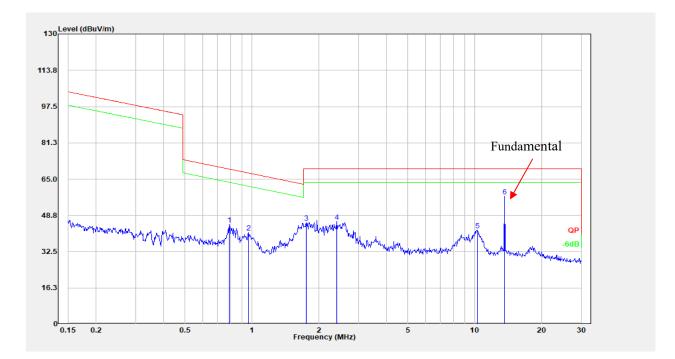
#### 1) 9 kHz~30MHz:

Type II: Adapter 1 was the worst:

#### Parallel:

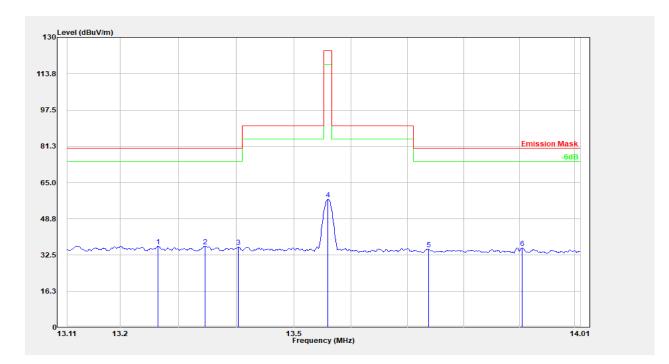


No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.029	30.87	20.41	51.28	118.43	67.15	Peak
2	0.030	30.13	20.41	50.54	118.01	67.48	Peak
3	0.045	22.23	20.41	42.64	114.47	71.83	Peak
4	0.061	27.43	20.41	47.84	111.90	64.06	Peak
5	0.076	23.42	20.38	43.80	110.00	66.19	Peak
6	0.086	23.10	20.31	43.41	108.87	65.47	Peak



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.792	24.62	20.03	44.65	69.54	24.90	Peak
2	0.963	21.00	20.03	41.03	67.80	26.78	Peak
3	1.753	25.56	19.95	45.51	69.54	24.03	Peak
4	2.396	26.13	19.97	46.10	69.54	23.44	Peak
5	10.288	21.73	20.31	42.04	69.54	27.50	Peak
6	13.551	36.87	20.39	57.26	69.54	12.28	Peak

Report No.: CR22050078-00A



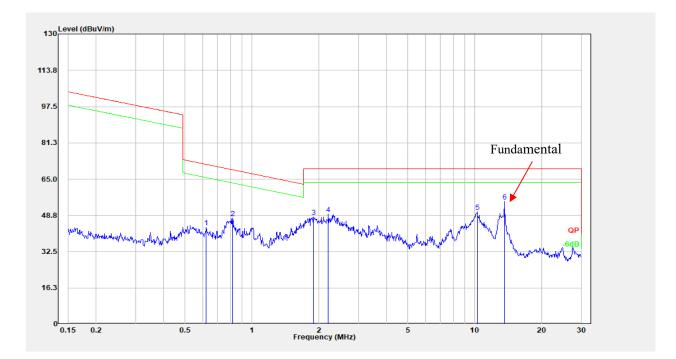
No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.265	16.06	20.38	36.44	80.51	44.07	Peak
2	13.346	16.23	20.38	36.61	80.51	43.90	Peak
3	13.403	15.74	20.38	36.12	80.51	44.39	Peak
4	13.560	37.24	20.39	57.63	124.00	66.37	Peak
5	13.737	14.75	20.39	35.15	80.51	45.36	Peak
6	13.906	15.27	20.40	35.67	80.51	44.84	Peak

Report No.: CR22050078-00A

#### 130 Level (dBuV/m) 113.8 QP -6dB 97.5 81.3 65.0 48.8 And the second and the second s Un Maryon may apart 32.5 16.3 0.0090.01 0.02 0.05 0.1 0.15 Frequency (MHz)

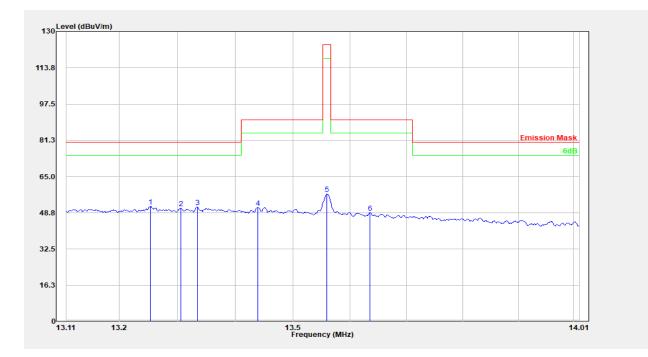
Perpendi	icular:
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No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.029	27.18	20.41	47.59	118.40	70.81	Peak
2	0.030	27.79	20.41	48.20	118.09	69.89	Peak
3	0.046	18.72	20.41	39.13	114.40	75.27	Peak
4	0.057	23.62	20.41	44.03	112.44	68.41	Peak
5	0.076	17.78	20.38	38.16	110.05	71.88	Peak
6	0.086	19.58	20.31	39.89	108.92	69.03	Peak



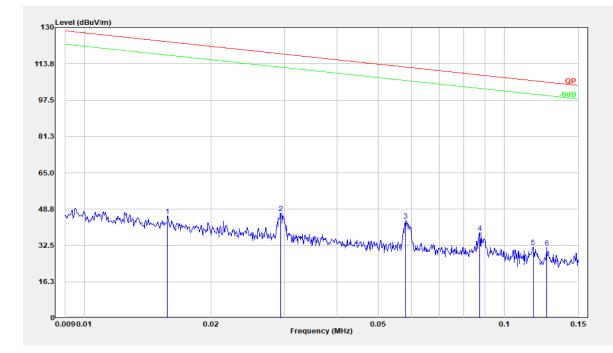
No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.624	23.35	20.02	43.37	71.66	28.29	Peak
2	0.817	27.48	20.03	47.51	69.26	21.75	Peak
3	1.888	27.98	19.96	47.94	69.54	21.60	Peak
4	2.201	29.38	19.96	49.35	69.54	20.19	Peak
5	10.233	30.00	20.30	50.30	69.54	19.24	Peak
6	13.551	34.58	20.39	54.97	69.54	14.57	Peak

Report No.: CR22050078-00A



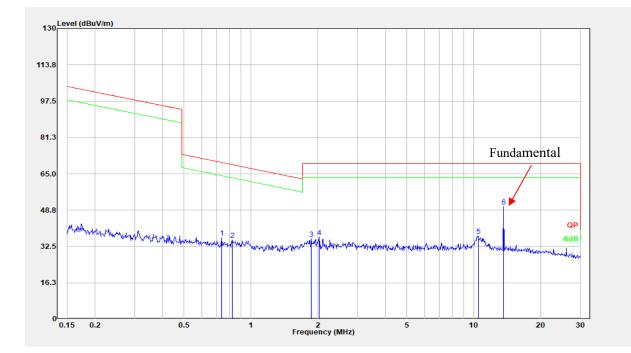
No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.253	31.22	20.38	51.60	80.51	28.91	Peak
2	13.305	30.45	20.38	50.83	80.51	29.68	Peak
3	13.334	30.95	20.38	51.33	80.51	29.18	Peak
4	13.439	30.79	20.38	51.18	90.47	39.29	Peak
5	13.560	36.79	20.39	57.17	124.00	66.83	Peak
6	13.636	28.51	20.39	48.90	90.47	41.57	Peak

Report No.: CR22050078-00A



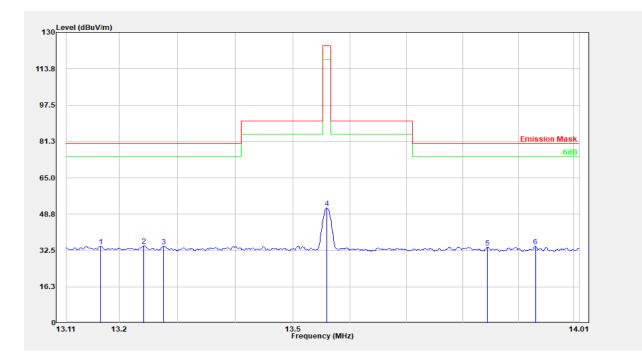
#### Ground-parallel:

No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.016	25.17	20.51	45.68	123.66	77.98	Peak
2	0.029	26.51	20.41	46.92	118.26	71.34	Peak
3	0.058	23.31	20.41	43.72	112.32	68.60	Peak
4	0.087	18.05	20.30	38.36	108.77	70.42	Peak
5	0.117	11.54	20.22	31.76	106.23	74.48	Peak
6	0.126	11.27	20.22	31.49	105.60	74.10	Peak



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.739	16.34	20.03	36.37	70.15	33.79	Peak
2	0.822	15.44	20.03	35.47	69.21	33.74	Peak
3	1.868	16.02	19.96	35.98	69.54	33.56	Peak
4	2.023	16.67	19.96	36.63	69.54	32.91	Peak
5	10.452	16.98	20.31	37.29	69.54	32.25	Peak
6	13.551	29.99	20.39	50.38	69.54	19.16	Peak

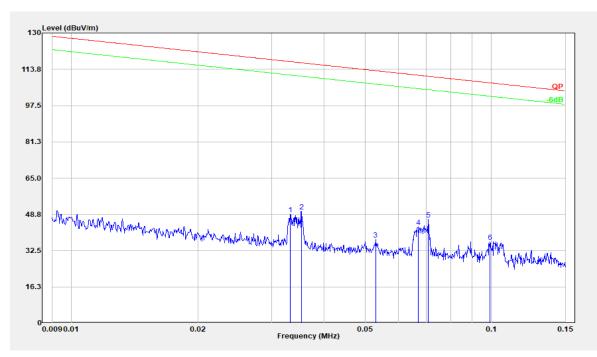
Report No.: CR22050078-00A



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.169	13.99	20.38	34.36	80.51	46.15	Peak
2	13.242	14.30	20.38	34.67	80.51	45.84	Peak
3	13.277	13.98	20.38	34.36	80.51	46.15	Peak
4	13.560	31.16	20.39	51.55	124.00	72.45	Peak
5	13.844	13.62	20.40	34.01	80.51	46.50	Peak
6	13.931	13.99	20.40	34.39	80.51	46.12	Peak

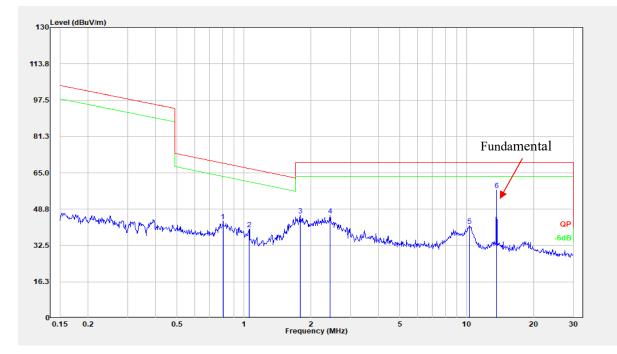
## Type I: Adapter 1 was the worst:

## Parallel: Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.033	28.33	20.41	48.74	117.18	68.45	Peak
2	0.035	29.63	20.41	50.04	116.64	66.60	Peak
3	0.053	17.02	20.41	37.43	113.12	75.70	Peak
4	0.067	22.83	20.42	43.24	111.07	67.83	Peak
5	0.071	26.11	20.41	46.52	110.61	64.08	Peak
6	0.099	16.31	20.23	36.53	107.67	71.14	Peak

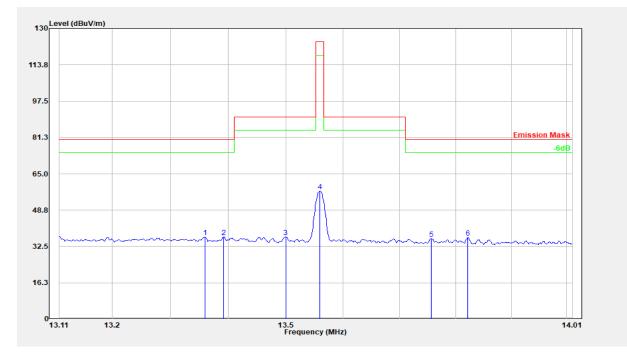
## Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.804	23.30	20.03	43.33	69.40	26.07	Peak
2	1.054	19.91	20.02	39.93	67.01	27.08	Peak
3	1.790	25.95	19.95	45.90	69.54	23.64	Peak
4	2.435	25.90	19.97	45.87	69.54	23.67	Peak
5	10.288	21.03	20.31	41.34	69.54	28.20	Peak
6	13.551	36.79	20.39	57.18	69.54	12.36	Peak

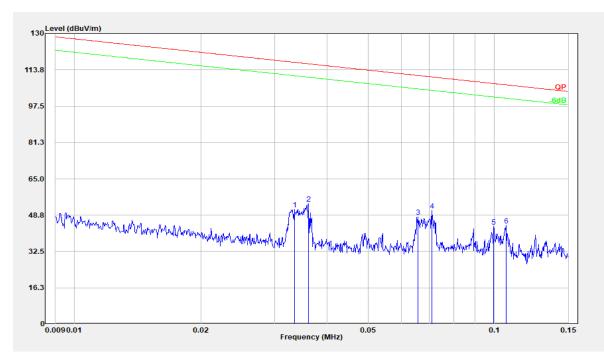
Report No.: CR22050078-00A

## Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.359	16.28	20.38	36.66	80.51	43.85	Peak
2	13.392	16.48	20.38	36.87	80.51	43.64	Peak
3	13.500	16.39	20.38	36.77	90.47	53.70	Peak
4	13.560	36.98	20.39	57.37	124.00	66.63	Peak
5	13.757	15.66	20.39	36.05	80.51	44.46	Peak
6	13.822	15.98	20.39	36.38	80.51	44.13	Peak

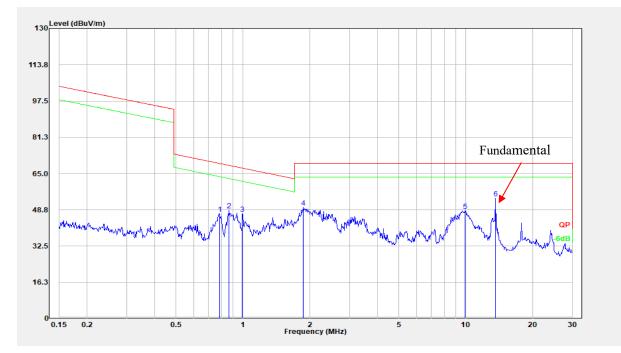
Report No.: CR22050078-00A



#### Perpendicular: Horizontal

No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.033	30.93	20.41	51.34	117.13	65.79	Peak
2	0.036	33.57	20.41	53.98	116.45	62.47	Peak
3	0.066	27.65	20.42	48.06	111.24	63.18	Peak
4	0.071	30.55	20.41	50.96	110.58	59.62	Peak
5	0.100	23.54	20.22	43.77	107.63	63.86	Peak
6	0.107	23.85	20.22	44.07	107.04	62.97	Peak

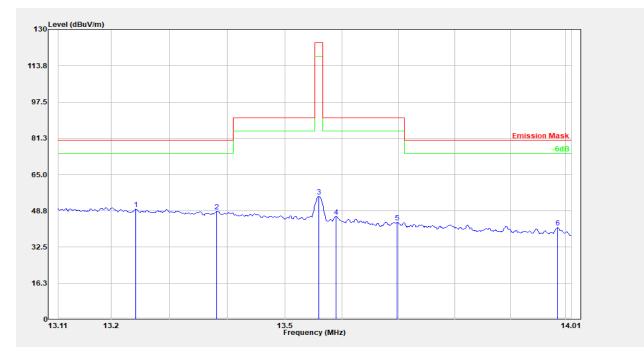
#### Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.783	26.96	20.03	46.99	69.64	22.65	Peak
2	0.866	28.56	20.03	48.59	68.74	20.16	Peak
3	0.994	26.94	20.03	46.97	67.52	20.55	Peak
4	1.858	29.91	19.96	49.87	69.54	19.67	Peak
5	9.913	28.00	20.29	48.30	69.54	21.24	Peak
6	13.551	33.47	20.39	53.85	69.54	15.69	Peak

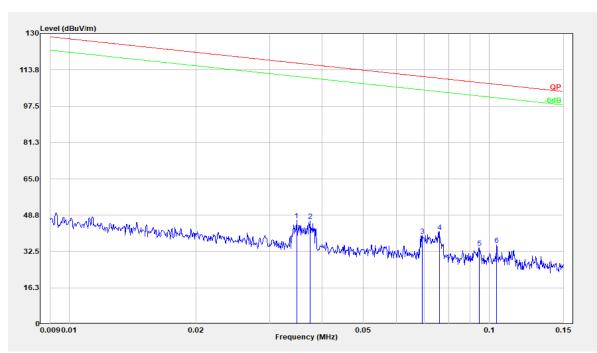
Report No.: CR22050078-00A

#### Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.242	29.15	20.38	49.53	80.51	30.98	Peak
2	13.382	28.28	20.38	48.66	80.51	31.85	Peak
3	13.559	34.85	20.39	55.24	124.00	68.76	Peak
4	13.590	25.92	20.39	46.31	90.47	44.16	Peak
5	13.698	23.18	20.39	43.57	90.47	46.90	Peak
6	13.986	20.85	20.40	41.25	80.51	39.26	Peak

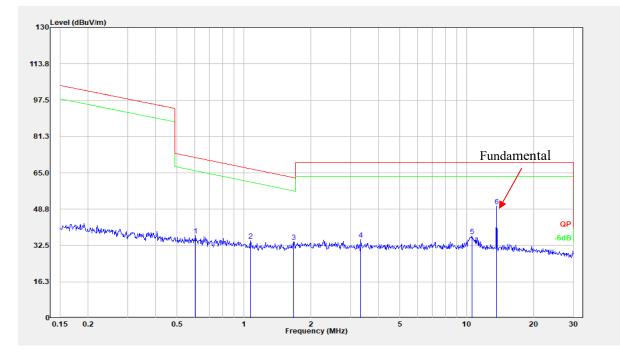
Report No.: CR22050078-00A



#### Ground-parallel: Horizontal

No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.035	26.01	20.41	46.42	116.79	70.37	Peak
2	0.037	25.74	20.41	46.15	116.15	70.00	Peak
3	0.069	19.23	20.42	39.65	110.80	71.15	Peak
4	0.076	20.95	20.38	41.33	109.97	68.65	Peak
5	0.095	14.03	20.26	34.28	108.09	73.81	Peak
6	0.104	15.20	20.22	35.42	107.26	71.84	Peak

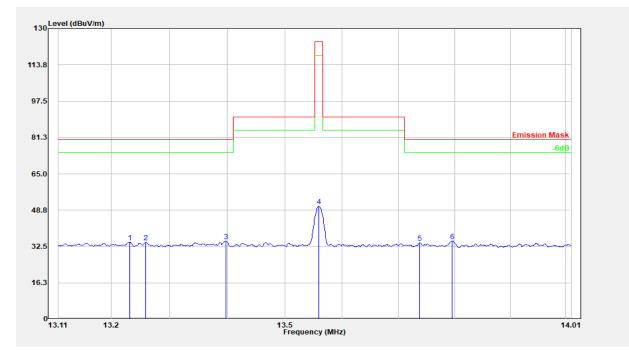
## Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	0.604	17.01	20.02	37.03	71.94	34.91	Peak
2	1.071	14.68	20.02	34.70	66.86	32.17	Peak
3	1.671	14.24	19.95	34.19	62.92	28.73	Peak
4	3.346	15.27	19.99	35.26	69.54	34.28	Peak
5	10.564	16.50	20.31	36.81	69.54	32.73	Peak
6	13.551	29.74	20.39	50.13	69.54	19.41	Peak

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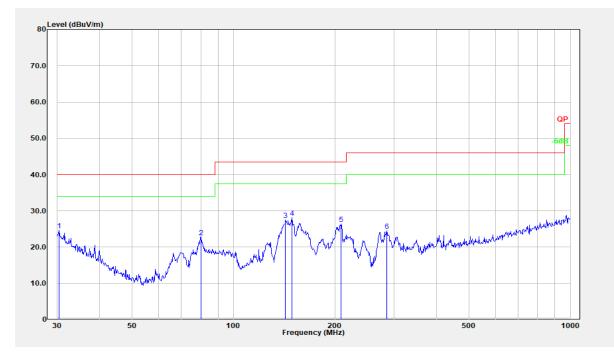
## Horizontal



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	13.232	14.12	20.38	34.50	80.51	46.01	Peak
2	13.259	14.03	20.38	34.41	80.51	46.10	Peak
3	13.397	14.51	20.38	34.89	80.51	45.62	Peak
4	13.560	30.10	20.39	50.49	124.00	73.51	Peak
5	13.738	13.88	20.39	34.27	80.51	46.24	Peak
6	13.796	14.67	20.39	35.07	80.51	45.44	Peak

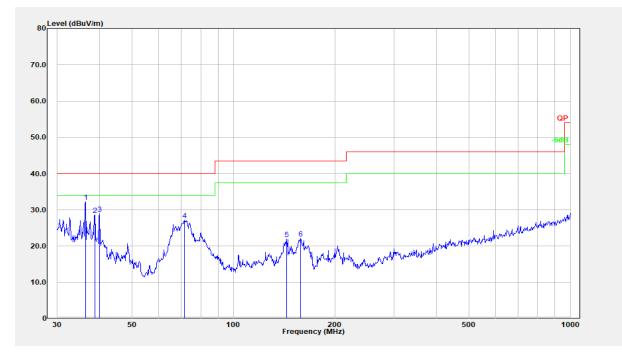
Report No.: CR22050078-00A

#### 2) 30MHz-1GHz Type II: Adapter 1: Horizontal



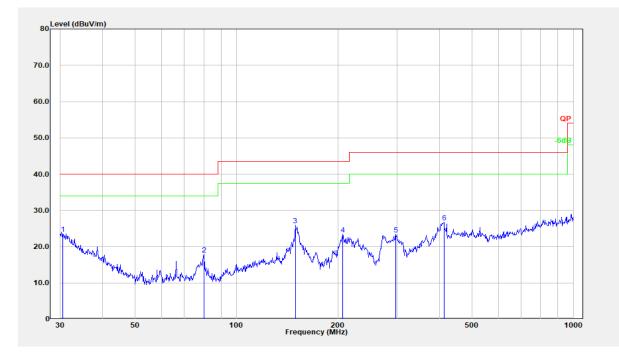
No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	30.317	28.67	-4.03	24.64	40.00	15.36	Peak
2	80.081	40.44	-17.70	22.74	40.00	17.26	Peak
3	142.824	39.65	-12.16	27.49	43.50	16.01	Peak
4	148.963	40.36	-12.26	28.10	43.50	15.40	Peak
5	208.580	39.01	-12.58	26.43	43.50	17.07	Peak
6	284.977	36.12	-11.54	24.58	46.00	21.42	Peak

## Vertical



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	36.381	40.90	-8.71	32.19	40.00	7.81	Peak
2	38.752	39.20	-10.52	28.68	40.00	11.32	Peak
3	39.994	40.38	-11.52	28.87	40.00	11.13	Peak
4	71.581	44.10	-16.89	27.22	40.00	12.78	Peak
5	143.830	34.17	-12.20	21.97	43.50	21.53	Peak
6	158.112	34.37	-12.31	22.06	43.50	21.44	Peak

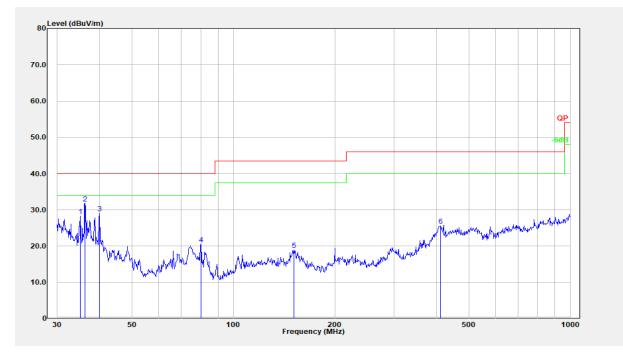
Report No.: CR22050078-00A



#### Adapter 2 Horizontal

No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	30.424	27.66	-4.12	23.54	40.00	16.46	Peak
2	80.081	35.55	-17.70	17.85	40.00	22.15	Peak
3	149.486	38.14	-12.26	25.88	43.50	17.62	Peak
4	207.123	35.89	-12.56	23.33	43.50	20.17	Peak
5	297.224	34.21	-10.88	23.32	46.00	22.68	Peak
6	413.271	35.12	-8.46	26.65	46.00	19.35	Peak

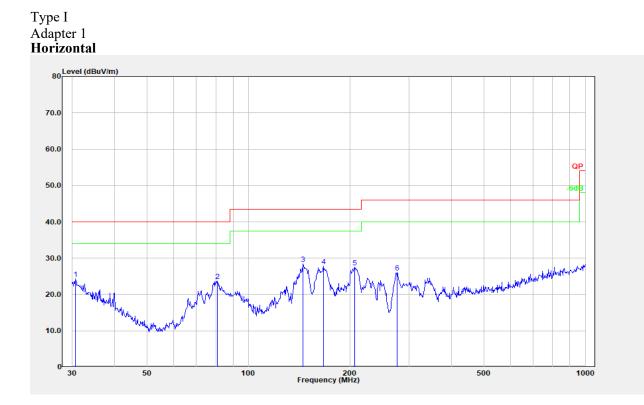
## Vertical



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	35.128	36.11	-7.77	28.34	40.00	11.66	Peak
2	36.254	40.40	-8.62	31.78	40.00	8.22	Peak
3	39.994	40.56	-11.52	29.04	40.00	10.96	Peak
4	80.081	38.18	-17.70	20.48	40.00	19.52	Peak
5	151.067	31.31	-12.31	19.00	43.50	24.50	Peak
6	411.824	34.19	-8.52	25.67	46.00	20.33	Peak

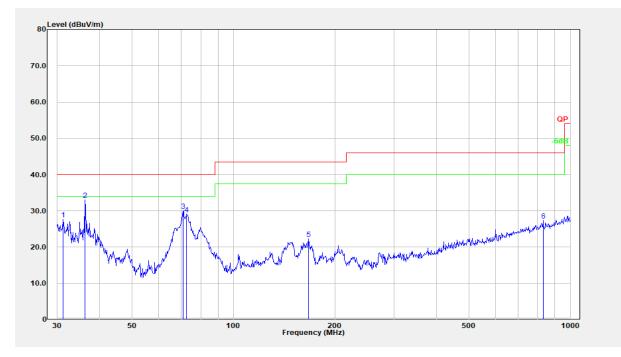
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No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	30.638	28.60	-4.28	24.32	40.00	15.68	Peak
2	80.927	41.35	-17.64	23.71	40.00	16.29	Peak
3	145.351	40.70	-12.20	28.50	43.50	15.00	Peak
4	167.237	40.81	-12.94	27.87	43.50	15.63	Peak
5	207.123	40.09	-12.56	27.53	43.50	15.97	Peak
6	276.124	38.11	-12.04	26.07	46.00	19.93	Peak

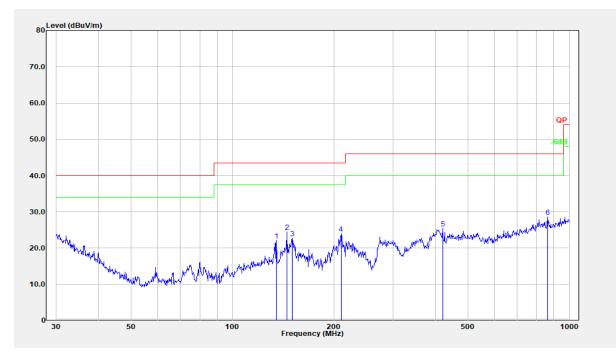
## Vertical



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	31.180	32.40	-4.70	27.70	40.00	12.30	Peak
2	36.254	41.72	-8.62	33.11	40.00	6.89	Peak
3	70.832	46.81	-16.81	30.01	40.00	9.99	Peak
4	72.592	46.04	-16.95	29.09	40.00	10.91	Peak
5	167.237	35.18	-12.94	22.24	43.50	21.26	Peak
6	830.400	29.14	-1.85	27.29	46.00	18.71	Peak

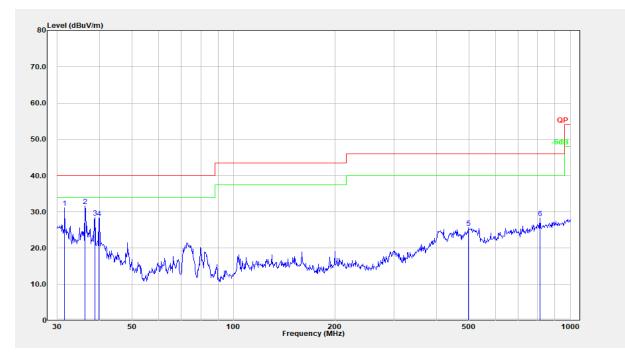


## Adapter 2 **Horizontal**



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	135.032	34.04	-11.85	22.19	43.50	21.31	Peak
2	144.842	36.68	-12.19	24.49	43.50	19.01	Peak
3	150.538	35.07	-12.29	22.79	43.50	20.71	Peak
4	210.048	36.59	-12.60	23.99	43.50	19.51	Peak
5	420.580	33.64	-8.12	25.53	46.00	20.47	Peak
6	863.056	30.05	-1.42	28.62	46.00	17.38	Peak

## Vertical



No.	Frequency	Reading	Factor	Result	Limit	Margin	Detector
	(MHz)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	
1	31.510	36.14	-4.95	31.19	40.00	8.81	Peak
2	36.254	40.20	-8.62	31.58	40.00	8.42	Peak
3	38.752	39.01	-10.52	28.49	40.00	11.51	Peak
4	39.854	39.74	-11.40	28.34	40.00	11.66	Peak
5	497.677	31.93	-6.31	25.62	46.00	20.38	Peak
6	813.112	30.42	-2.15	28.27	46.00	17.73	Peak

#### 4.3 20 dB Emission Bandwidth

Serial Number:	CR22050078-RF-S1	Test Date:	2022-08-02
Test Site:	966-2	Test Mode:	Transmitting
Tester:	Gary Ling	Test Result:	Pass

Environmental Conditions:						
Temperature: (°C)	29.5	Relative Humidity: (%)	49	ATM Pressure: (kPa)	100.3	

#### **Test Equipment List and Details:**

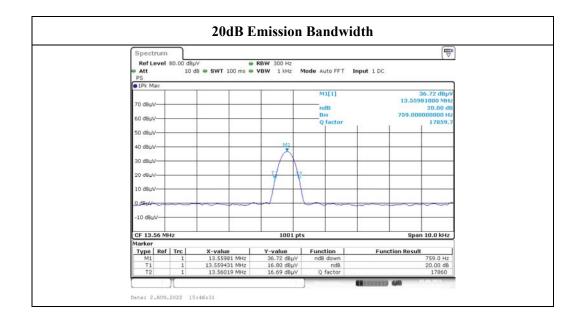
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
TESEQ	HF Loop Antenna	HLA6120	33561	2021-02-03	2024-02-02
R&S	EMI Test Receiver	ESR3	102724	2022-07-15	2023-07-14
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0470-02	2022-07-17	2023-07-16
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0780-01	2022-07-17	2023-07-16
Audix	Test Software	E3	201021 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### Test Data:

Type II

Test Frequency (MHz)	20 dB Bandwidth (kHz)
13.56	0.759



## 4.4 99% Occupied Bandwidth

Serial Number:	CR22050078-RF-S1	Test Date:	2022-08-22
Test Site:	966-2	Test Mode:	Transmitting
Tester:	Gary Ling	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	26.2	Relative Humidity: (%)	55	ATM Pressure: (kPa)	100.1

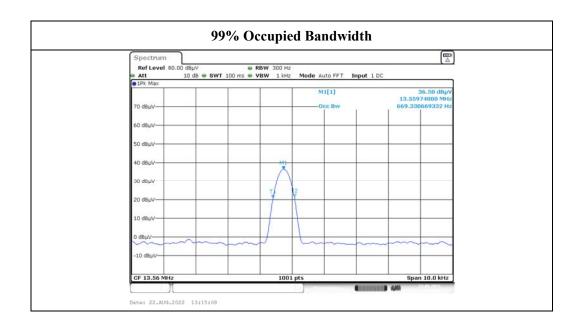
## Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
TESEQ	HF Loop Antenna	HLA6120	33561	2021-02-03	2024-02-02
R&S	EMI Test Receiver	ESR3	102724	2022-07-15	2023-07-14
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0470-02	2022-07-17	2023-07-16
TIMES MICROWAVE	Coaxial Cable	LMR-600- UltraFlex	C-0780-01	2022-07-17	2023-07-16
Audix	Test Software	E3	201021 (V9)	N/A	N/A

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Test Data:**

Test Channel	Test Frequency (MHz)	99% Bandwidth (kHz)
Middle	13.56	0.669



#### 4.5 Frequency Stability

Serial Number:	CR22050078-RF-S1	Test Date:	2022-08-02
Test Site:	RF	Test Mode:	Transmitting
Tester:	Gary Ling	Test Result:	Pass

Environmental Conditions:							
Temperature: $(^{\circ}C)$	28.1	Relative Humidity: (%)	52	ATM Pressure: (kPa)	100.3		

#### **Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
TESEQ	HF Loop Antenna	HLA6120	33561	2021-02-03	2024-02-02
R&S	EMI Test Receiver	ESR3	102724	2022-07-15	2023-07-14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022-04-06	2023-04-05
YINSAIGE	Coaxial Cable	SS402	SJ0300001	Each time	N/A
UNI-T	Multimeter	UT39A+	C210582554	2021-09-30	2022-09-29

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

## With scanning

Test Data:

f <sub>0</sub> = 13.56 MHz							
Temperature	Voltage	Measured frequency	Frequency Error	Limit			
Ĉ	V <sub>DC</sub>	MHz	Hz	Hz			
-30	3.85	13.5597456	-254.4	±1356			
-20		13.5596410	-359.0	±1356			
-10		13.5596850	-315.0	±1356			
0		13.5597640	-236.0	±1356			
10		13.5597980	-202.0	±1356			
20		13.5598100	-190.0	±1356			
25		13.5598740	-126.0	±1356			
30		13.5597856	-214.4	±1356			
40		13.5597841	-215.9	±1356			
50		13.5596230	-377.0	±1356			
20	3.47	13.5597489	-251.1	±1356			
20	4.24	13.5598852	-114.8	±1356			

# **5. RF EXPOSURE EVALUATION**

# **5.1 EXEMPTION LIMITS FOR ROUTINE EVALUATION – RF EXPOSURE EVALUATION**

#### 5.1.1 Applicable Standard

RSS-102 § (2.5.2):

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $4.49/f^{0.5}$  W (adjusted for tune-up tolerance), where *f* is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834}$  W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

#### 5.1.2 Calculated Result

**Result:** Compliance. NFC Transmitter is a very Low power device and compliance exemption from Routine Evaluation Limits –RF exposure Evaluation.

==== END OF REPORT =====