FCC REPORT

Applicant:	PAX Technology Limited
Address of Applicant:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong
Equipment Under Test (EUT)	
Product Name:	POS Terminal
Model No.:	IM30
Trade mark:	PAX
FCC ID:	V5PIM30BW
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.225
Date of sample receipt:	11 Jul., 2019
Date of Test:	11 Jul., to 16 Aug., 2019
Date of report issue:	05 Step., 2019
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

2 Version

Version No.	Date	Description
00	*19 Aug., 2019*	*Original*
01	*05 Step., 2019*	*Update page 11~13*

Tested by: Mike.ou ***Date:*** *05 Step., 2019*

Test Engineer

Reviewed by: Winner Zhang ***Date:*** *05 Step., 2019*

Project Engineer

3 Contents

Page

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Field strength of the fundamental signal	15.225 (a)	Pass
Spurious emissions	15.225(d)& 15.209	Pass
20dB Bandwidth	15.215(c)	Pass
Frequency tolerance	15.225 (e)	Pass
Conducted Emission	15.207	Pass

Remarks:

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	PAX Technology Limited
Address:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong
Manufacturer/ Factory:	PAX Computer Technology(Shenzhen) Co. Ltd.
Address:	401-402 No.3 Building, Software Park, Nanshan district, Shenzhen, Guangdong, P.R.C.

5.2 General Description of E.U.T.

Product Name:	POS Terminal
Model No.:	IM30
Operation Frequency:	13.56MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	Induction Coil Antenna
IC Card Type:	Support: Type A, Type B, Type M
Power supply:	DC 12V-48V
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

5.3 Test mode

Transmitting mode:	Keep the EUT in transmitting mode with modulation

Pre-Test Mode:

CCIS has verified the construction and function in typical operation,The EUT was placed on three different polar directions;i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	59.33	59.95	58.21

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup”: Y axis (see the test setup photo).

5.4 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)

5.5 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
HONOR	AC Adapter	ADS-65HI-19A-2 24065E	N/A	N/A

5.6 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao’an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.8 Test Instrumentslist

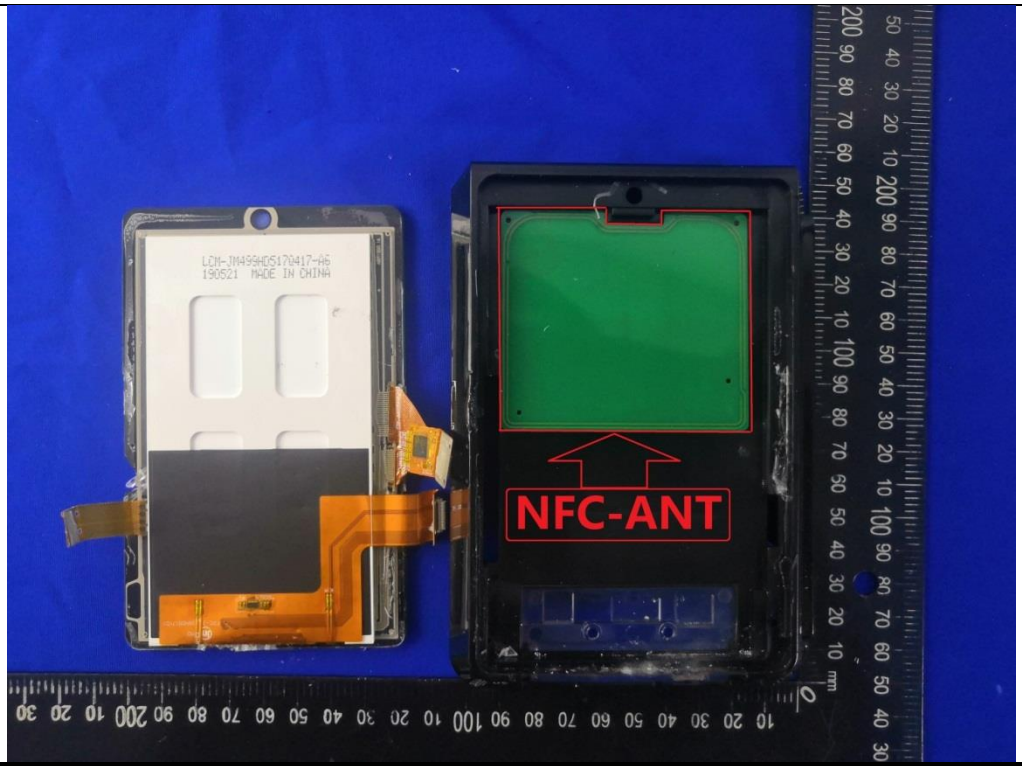
Radiated Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-18-2019	03-17-2020
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-18-2019	03-17-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019
Loop Antenna	SCHWARZBECK	FMZB 1519 B	00044	03-18-2019	03-17-2020
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-18-2019	03-17-2020
Pre-amplifier	CD	PAP-1G18	11804	03-18-2019	03-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-18-2019	03-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-18-2019	03-17-2020
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-18-2019	03-17-2020
Signal Generator	R&S	SMR20	1008100050	03-18-2019	03-17-2020
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-18-2019	03-17-2020
Cable	MICRO-COAX	MFR64639	K10742-5	03-18-2019	03-17-2020
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-18-2019	03-17-2020

Conducted Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	07-22-2017	07-21-2020
EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-18-2019	03-17-2020
LISN	CHASE	MN2050D	CCIS0074	03-18-2019	03-17-2020
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2018	07-20-2021
				07-21-2019	07-20-2020
Coaxial Cable	CCIS	N/A	CCIS0086	03-18-2019	03-17-2020
EMI Test Software	AUDIX	E3	Version: 6.110919b		

6 Test results andMeasurement Data

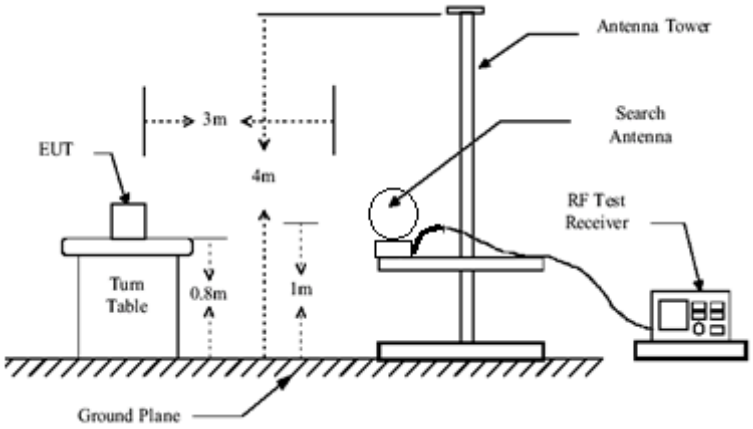
6.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The EUT make use of an Induction coil antenna.	

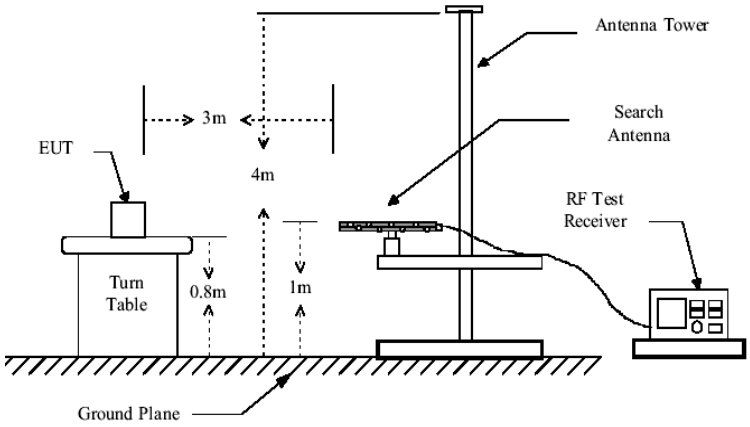


6.2 Radiated Emission

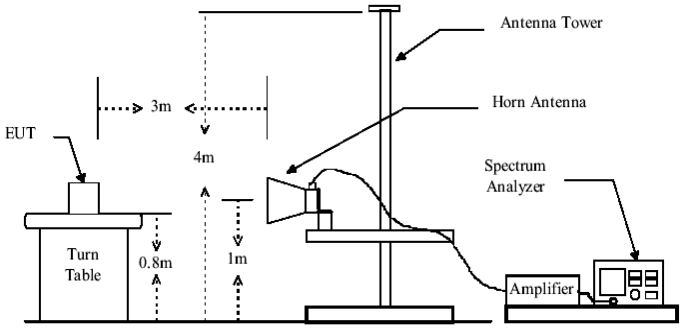
<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.225(a) and 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10: 2013</td></tr>
<tr><td>TestFrequencyRange:</td><td>9 kHz to 1000MHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m(Semi-Anechoic Chamber)</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>9kHz-150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>600Hz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Field strength of the fundamental signal)</td><td>
<table>
<tr><td>Frequency</td><td>Limit (uV/m @30m)</td><td>Limit (dBuV/m @3m)</td></tr>
<tr><td>13.553MHz-13.567MHz</td><td>15848</td><td>124.0</td></tr>
<tr><td>13.410MHz-13.553MHz & 13.567MHz-13.710MHz</td><td>334</td><td>90.5</td></tr>
<tr><td>13.110MHz-13.410MHz & 13.710MHz-14.010MHz</td><td>106</td><td>80.5</td></tr>
<tr><td colspan="3">Remark: Per FCC part 15.31, when performingmeasurements at a closer distancethan specified, the results shallbe extrapolated to the specified distanceby either making measurementsat a minimum of two distances on atleast one radial to determine the properextrapolation factor or by using thesquare of an inverse linear distance extrapolationfactor (40 dB/decade).</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Spurious Emissions)</td><td>
<table>
<tr><td>Frequency (MHz)</td><td>Limit (uV/m @3m)</td><td>Distance (m)</td></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>3</td></tr>
<tr><td>Above 1GHz</td><td>500</td><td>3</td></tr>
</table>
</td></tr>
<tr><td>Test Procedure:</td><td>a. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter semi-anechoic camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
c. The antenna height 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.
d. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatabletable was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.</td></tr>
<tr><td>Test setup:</td><td>9kHz-30MHz</td></tr>
</table>



30MHz-1GHz



Above 1GHz

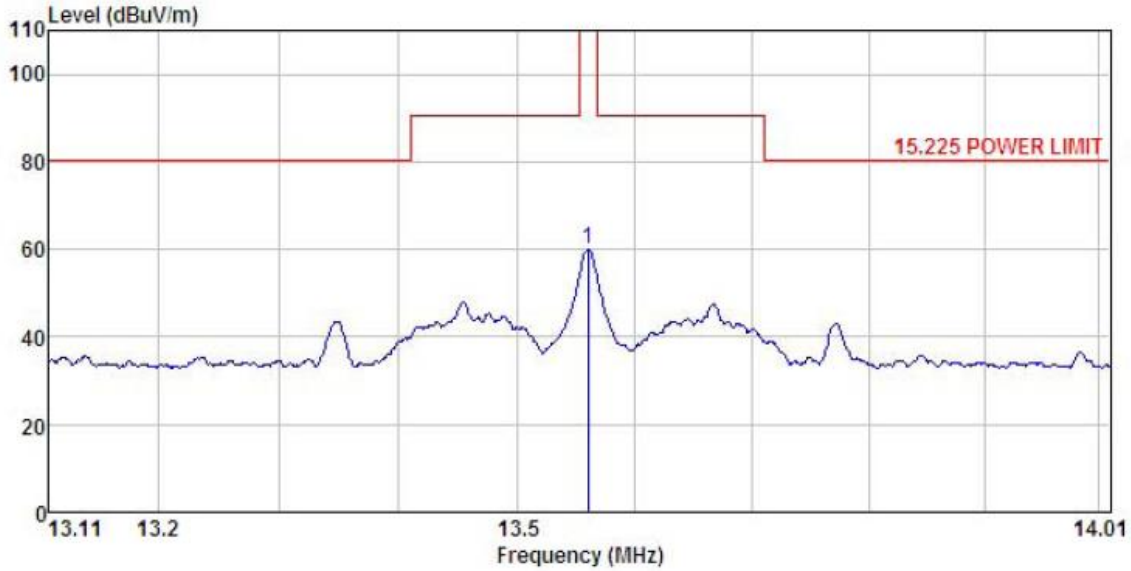


Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Measurement Record:	Uncertainty:±4.88 dB
Test results:	Pass

Measurement Data:

Field Strength of fundamental signal:

Product Name:	POS Terminal	**Product Model:**	IM30
Test By:	Mike	**Test mode:**	NFC Tx mode
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%



	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	13.560	34.28	-26.47	0.64	0.00	59.95	124.00	-64.05	Peak

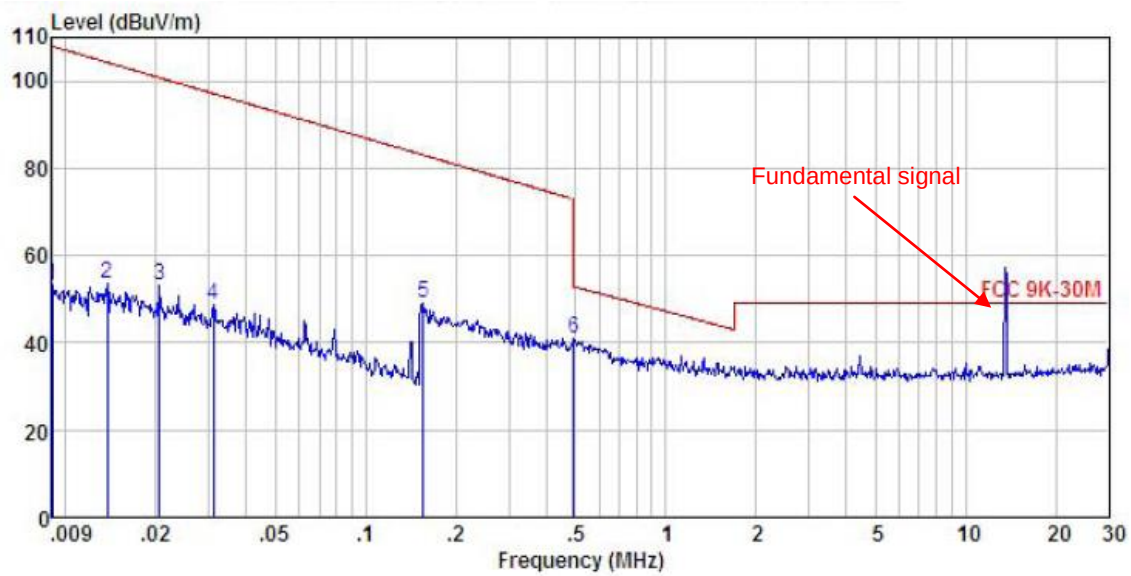
Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

Spurious Emissions:

Test frequency range: 9 kHz- 30 MHz

Product Name:	POS Terminal	**Product Model:**	IM30
Test By:	Mike	**Test mode:**	NCF Tx mode
Test Frequency:	150 kHz ~ 30 MHz	**Polarization:**	Vertical
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%

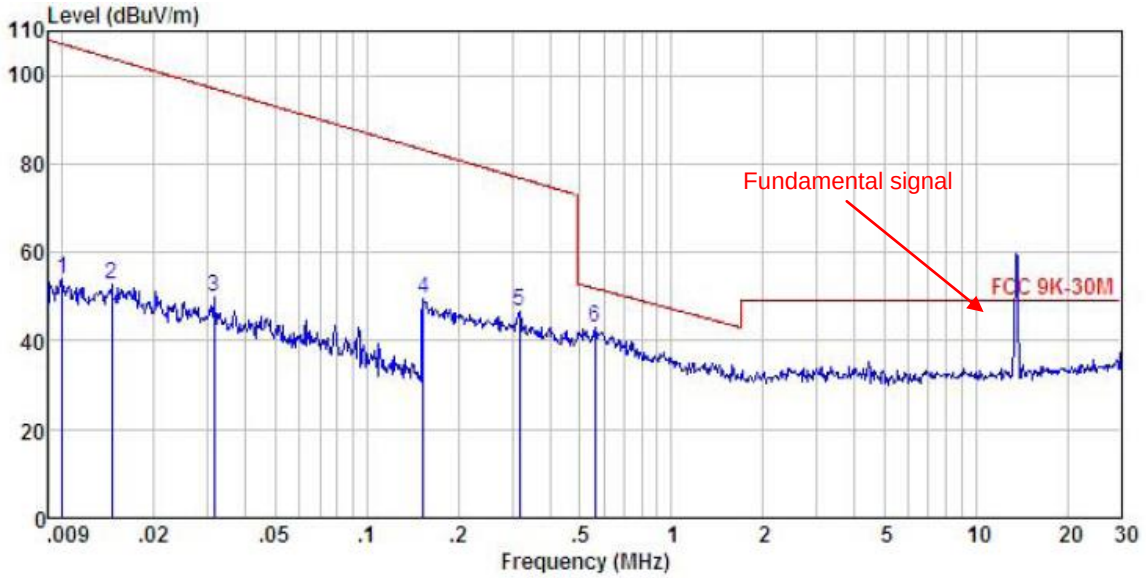


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.009	27.40	-25.60	0.02	0.00	53.32	108.00	-54.68	Peak
2	0.014	28.03	-25.85	0.04	0.00	53.72	104.31	-50.59	Peak
3	0.021	27.53	-25.90	0.06	0.00	53.19	100.76	-47.57	Peak
4	0.031	23.09	-25.95	0.12	0.00	48.76	97.13	-48.37	Peak
5	0.155	23.30	-26.16	0.28	0.00	48.92	83.07	-34.15	Peak
6	0.495	15.24	-26.30	0.45	0.00	40.89	52.92	-12.03	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report.*

Product Name:	POS Terminal	Product Model:	IM30
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	150 kHz ~ 30 MHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



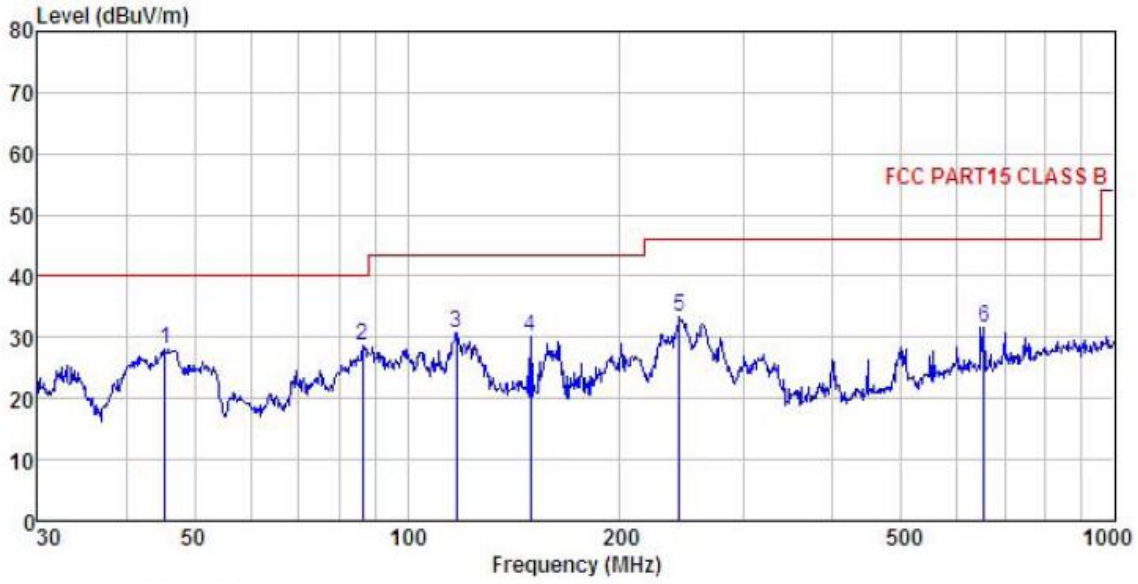
	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	28.36	-25.80	0.03	0.00	54.09	107.08	-52.99	Peak
2	0.015	27.10	-25.85	0.04	0.00	52.79	103.81	-51.02	Peak
3	0.031	24.21	-25.95	0.12	0.00	49.88	97.06	-47.18	Peak
4	0.154	23.87	-26.16	0.27	0.00	49.48	83.14	-33.66	Peak
5	0.317	20.90	-26.25	0.36	0.00	46.51	76.82	-30.31	Peak
6	0.564	17.15	-26.30	0.50	0.00	42.85	51.88	-9.03	Peak

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report.*

Test frequency range: 30MHz-1000MHz

Product Name:	POS Terminal	**Product Model:**	IM30
Test By:	Mike	**Test mode:**	NFC Tx mode
Test Frequency:	30 MHz ~ 1 GHz	**Polarization:**	Vertical
Test Voltage:	AC 120/60Hz	**Environment:**	Temp: 24℃ Huni: 57%

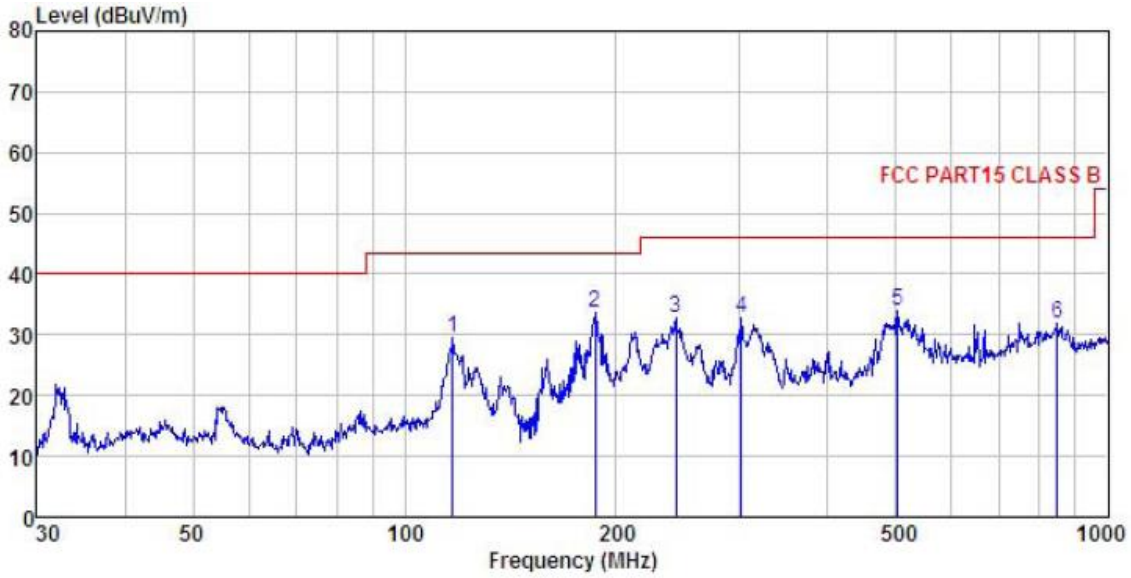


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	45.375	44.42	12.28	1.29	29.86	28.13	40.00	-11.87	QP
2	86.503	47.31	9.07	1.91	29.59	28.70	40.00	-11.30	QP
3	117.360	47.04	11.07	2.13	29.41	30.83	43.50	-12.67	QP
4	149.486	47.90	8.94	2.51	29.22	30.13	43.50	-13.37	QP
5	242.525	46.77	12.42	2.82	28.58	33.43	46.00	-12.57	QP
6	654.232	36.80	19.78	3.89	28.77	31.70	46.00	-14.30	QP

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Product Name:	POS Terminal	Product Model:	IM30
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

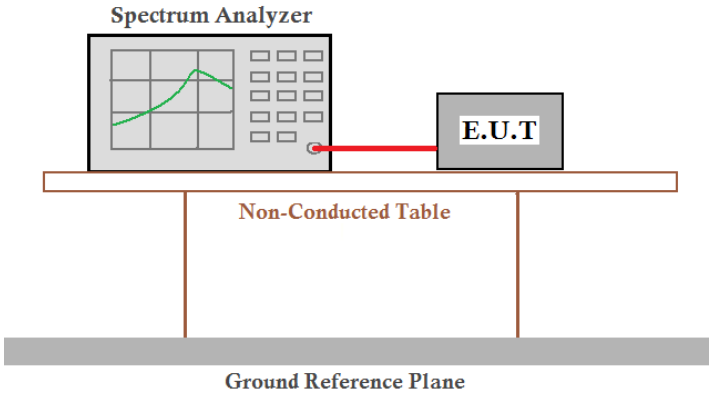


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	116.950	45.60	11.11	2.13	29.41	29.43	43.50	-14.07	QP
2	186.441	49.56	10.18	2.77	28.93	33.58	43.50	-9.92	QP
3	243.377	46.02	12.42	2.82	28.58	32.68	46.00	-13.32	QP
4	301.422	44.51	13.63	2.94	28.45	32.63	46.00	-13.37	QP
5	502.940	41.07	18.21	3.64	28.96	33.96	46.00	-12.04	QP
6	848.056	33.21	22.60	4.20	28.01	32.00	46.00	-14.00	QP

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

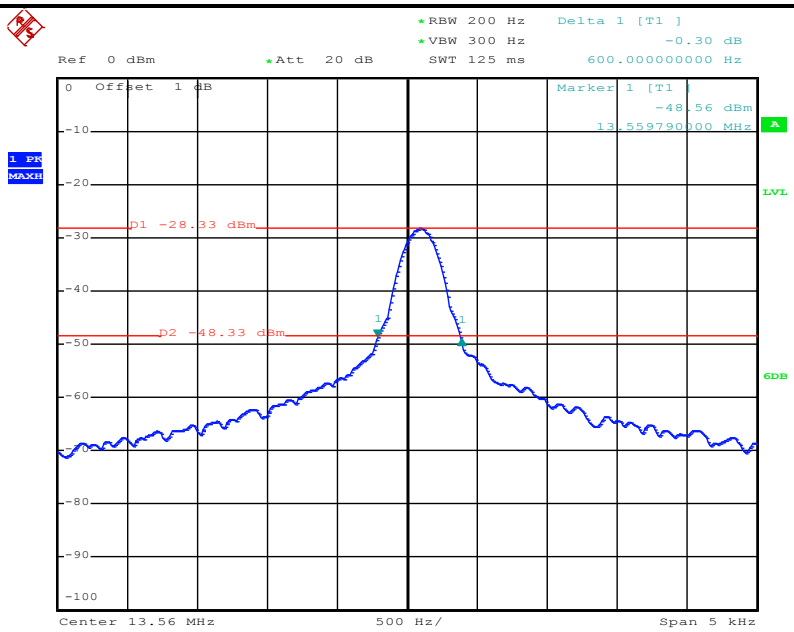
6.3 20dB Bandwidth

Test Requirement:	FCC Part15 C Section 15.215 (c)
Test Method:	ANSI C63.4:2014
Receiver setup:	RBW=200Hz, VBW=300Hz, detector: Peak
Limit:	The fundamental emission be kept within atleast the central 80% of the permitted band
Test Procedure:	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set the EUT to proper test channel. 3. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points. 4. Read 20dB bandwidth.
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

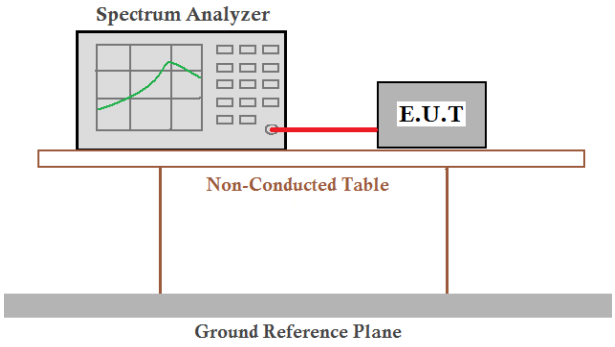
Measurement Data

20dB bandwidth (kHz)	Limit (kHz)	Results
0.600	11.2	Passed
Note: For 13.56MHz, permitted Band is 14 kHz, so the Limit is 11.2 kHz.		

Test plot as follows:



6.4 Frequency Tolerance

Test Requirement:	FCC Part15 C Section 15.225 (e)
Test Method:	ANSI C63.10: 2013
Receiver setup:	RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak
Limit:	±0.01% of the operating frequency
Test mode:	Transmitting mode
Test Procedure:	**Frequency stability V.S. Temperature measurement** 1. The equipment under test was powered by a fresh battery. 2. RF output was connected to spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached **Frequency stability V.S. Voltage measurement** 1. Set chamber temperature to 25℃. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

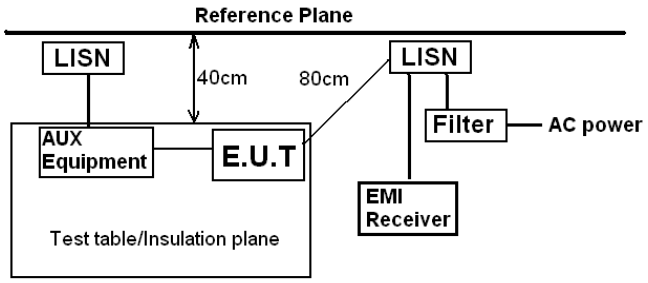
a) Frequency stability V.S. Temperature measurement

Voltage (Vdc)	Temperature (℃)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
24.0	-20	0.082	0.0060	0.01	Pass
	-10	0.076	0.0056	0.01	Pass
	0	-0.075	-0.0055	0.01	Pass
	+10	0.081	0.0060	0.01	Pass
	+20	-0.079	-0.0058	0.01	Pass
	+30	0.062	0.0046	0.01	Pass
	+40	0.079	0.0058	0.01	Pass
	+50	-0.042	-0.003	0.01	Pass

b) Frequency stability V.S. Voltage measurement

Temperature (℃)	Voltage (Vdc)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
25	10.2	-0.085	-0.0068	0.01	Pass
	24.0	0.071	0.0054	0.01	Pass
	55.2	0.092	0.0066	0.01	Pass

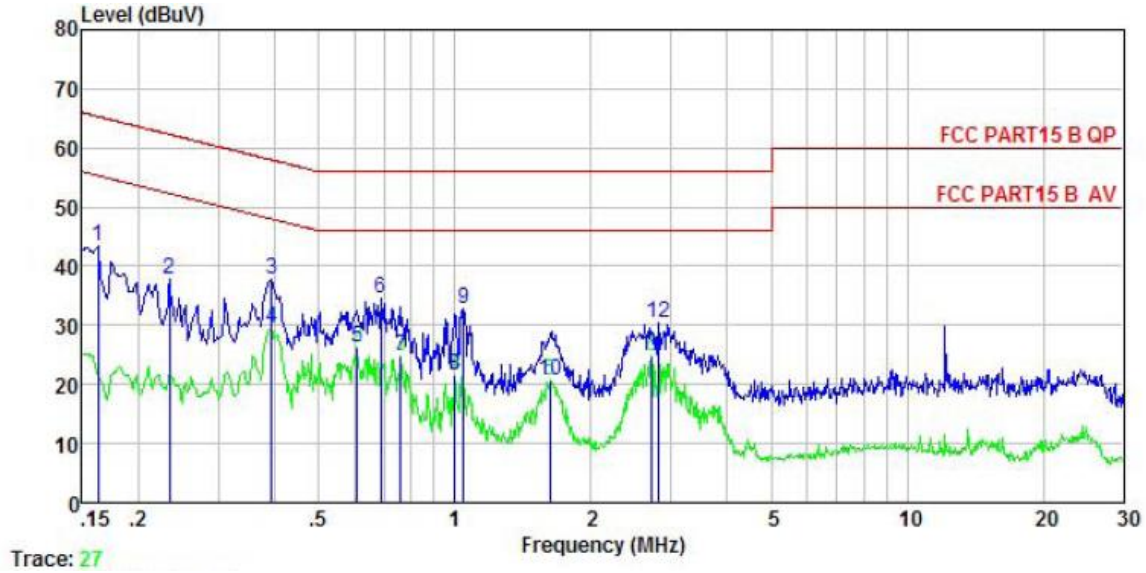
6.5 Conducted Emission

<table>
<tr><td>Test Requirement:</td><td colspan="6">FCC Part15 B Section 15.207</td></tr>
<tr><td>Test Method:</td><td colspan="6">ANSI C63.4:2014</td></tr>
<tr><td>TestFrequencyRange:</td><td colspan="6">150kHz to 30MHz</td></tr>
<tr><td>Class / Severity:</td><td colspan="6">Class B</td></tr>
<tr><td>Receiver setup:</td><td colspan="6">RBW=9kHz, VBW=30kHz</td></tr>
<tr><td>Limit:</td><td colspan="6"><table>
<tr><td rowspan="2">Frequency range (MHz)</td><td colspan="2">Limit (dBµV)</td></tr>
<tr><td>Quasi-peak</td><td>Average</td></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>0.5-30</td><td>60</td><td>50</td></tr>
<tr><td colspan="3">* Decreases with the logarithm of the frequency.</td></tr>
</table></td></tr>
<tr><td>Test setup:</td><td colspan="6"> 

Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m</td></tr>
<tr><td>Test procedure</td><td colspan="6">1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.).It provide a 50ohm/50uH coupling impedance for the measuring equipment.
2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).
3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.</td></tr>
<tr><td>Test environment:</td><td>Temp.:</td><td>23°C</td><td>Humid.:</td><td>56%</td><td>Press.:</td><td>101kPa</td></tr>
<tr><td>Measurement Record:</td><td colspan="6">Uncertainty: 3.28dB</td></tr>
<tr><td>Test Instruments:</td><td colspan="6">Refer to section 5.7 for details</td></tr>
<tr><td>Test mode:</td><td colspan="6">Refer to section 5.3 for details</td></tr>
<tr><td>Test results:</td><td colspan="6">Pass</td></tr>
</table>

Measurement Data:

Product name:	POS Terminal	**Product model:**	IM30
Test by:	Mike	**Test mode:**	NFC Tx mode
Test frequency:	150 kHz ~ 30 MHz	**Phase:**	Line
Test voltage:	AC 120 V/60 Hz	**Environment:**	Temp: 22.5℃ Huni: 55%

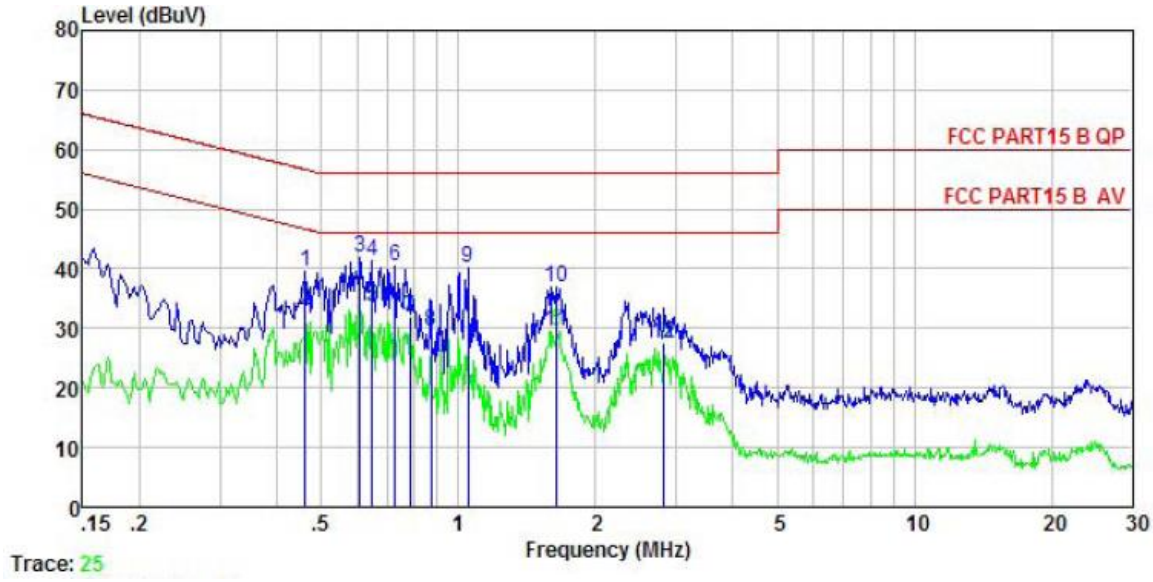


	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.162	33.05	-0.44	10.77	43.38	65.34	-21.96	QP
2	0.234	27.58	-0.40	10.75	37.93	62.30	-24.37	QP
3	0.393	27.40	-0.37	10.72	37.75	57.99	-20.24	QP
4	0.393	19.32	-0.37	10.72	29.67	47.99	-18.32	Average
5	0.608	16.02	-0.38	10.77	26.41	46.00	-19.59	Average
6	0.686	24.17	-0.38	10.77	34.56	56.00	-21.44	QP
7	0.759	14.40	-0.38	10.80	24.82	46.00	-21.18	Average
8	1.000	11.02	-0.38	10.87	21.51	46.00	-24.49	Average
9	1.043	22.32	-0.38	10.88	32.82	56.00	-23.18	QP
10	1.619	10.18	-0.40	10.93	20.71	46.00	-25.29	Average
11	2.721	14.16	-0.43	10.93	24.66	46.00	-21.34	Average
12	2.809	19.94	-0.44	10.93	30.43	56.00	-25.57	QP

Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

Product name:	POS Terminal	Product model:	IM30
Test by:	Mike	Test mode:	NFC Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.461	29.52	-0.65	10.74	39.61	56.67	-17.06	QP
2	0.461	23.11	-0.65	10.74	33.20	46.67	-13.47	Average
3	0.608	31.77	-0.64	10.77	41.90	56.00	-14.10	QP
4	0.647	31.26	-0.64	10.77	41.39	56.00	-14.61	QP
5	0.647	23.42	-0.64	10.77	33.55	46.00	-12.45	Average
6	0.727	30.18	-0.64	10.78	40.32	56.00	-15.68	QP
7	0.783	21.71	-0.64	10.81	31.88	46.00	-14.12	Average
8	0.871	19.34	-0.63	10.83	29.54	46.00	-16.46	Average
9	1.049	29.83	-0.63	10.88	40.08	56.00	-15.92	QP
10	1.645	26.73	-0.66	10.93	37.00	56.00	-19.00	QP
11	1.645	19.27	-0.66	10.93	29.54	46.00	-16.46	Average
12	2.824	17.27	-0.67	10.93	27.53	46.00	-18.47	Average

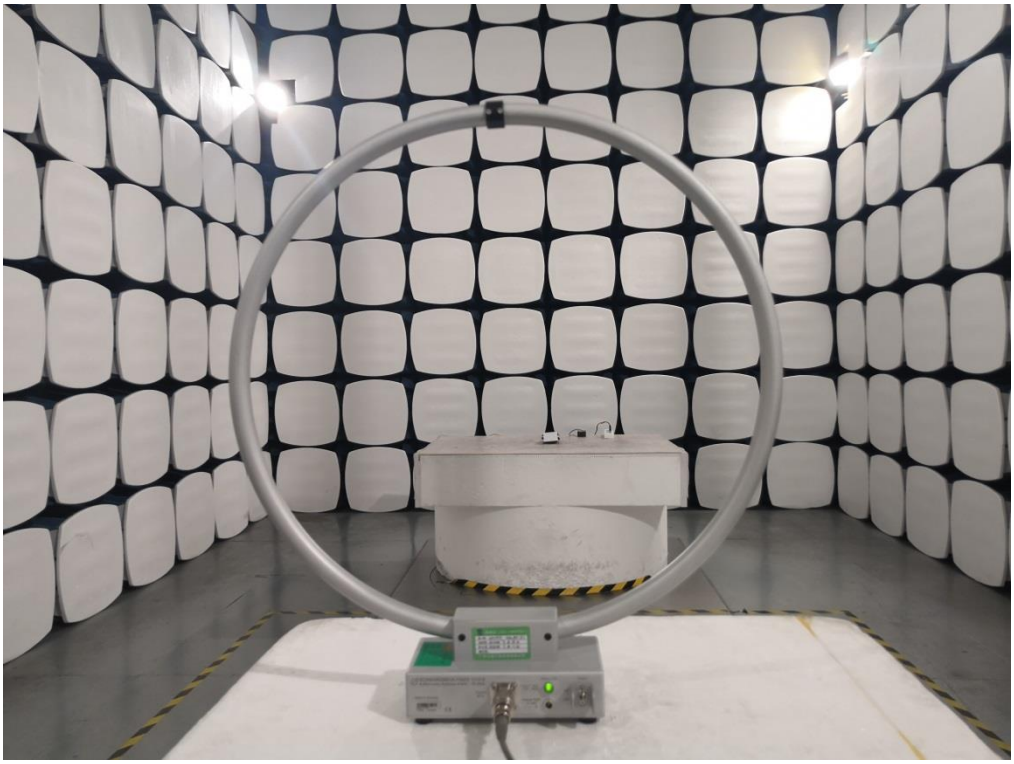
Notes:

1. *An initial pre-scan was performed on the line and neutral lines with peak detector.*
2. *Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.*
3. *Final Level =Receiver Read level + LISN Factor + Cable Loss.*

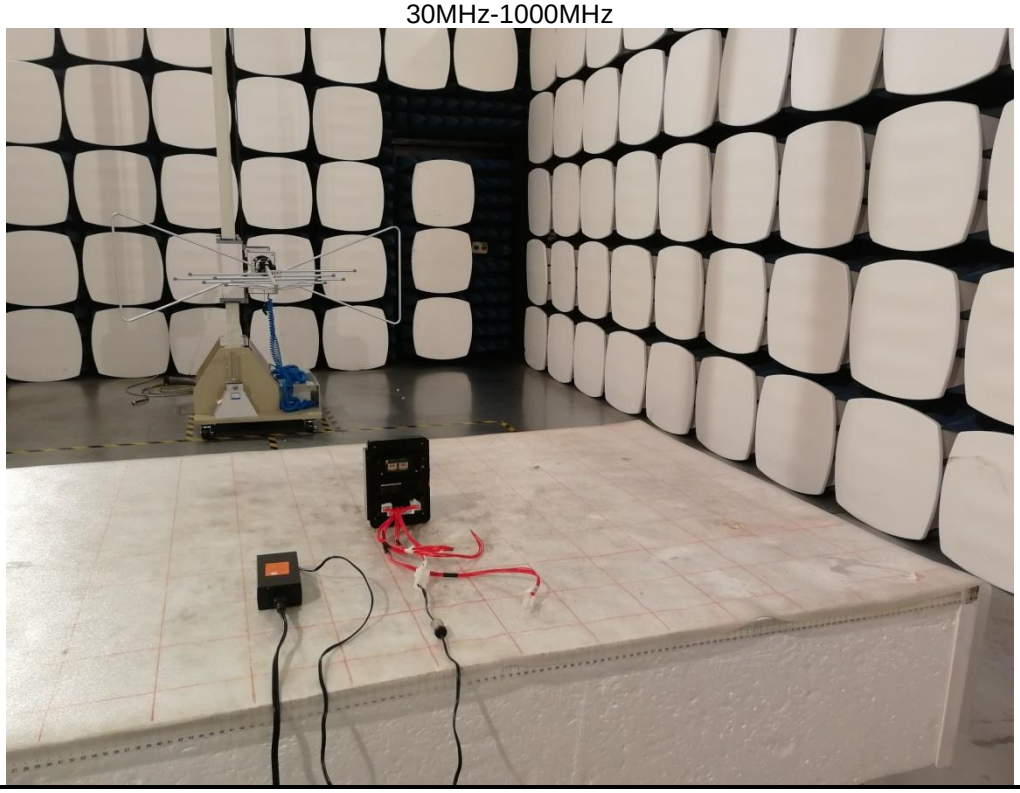
7 Test Setup Photos

Radiated Emission

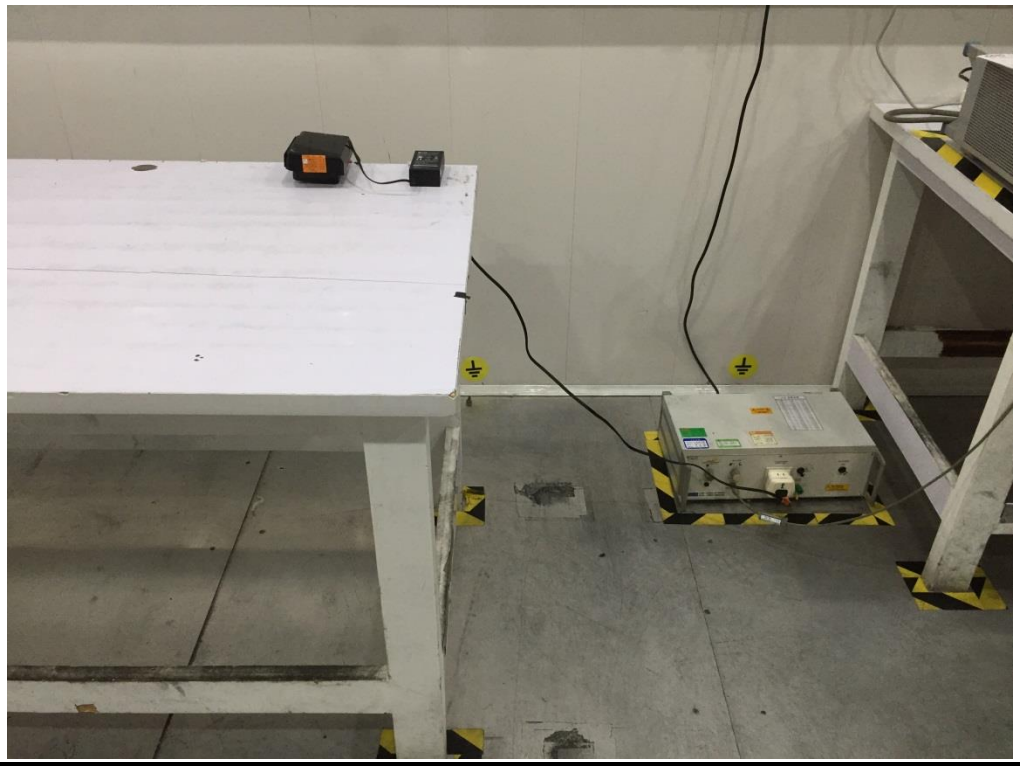
9kHz-30MHz



30MHz-1000MHz



Conducted Emission



8 EUT Constructional Photos

Reference to the test report No. CCISE190704301

------End of report------