EN 55032:2015/AC:2016-07
EN 55035:2017
EN 61000-3-2:2014
EN 61000-3-3:2013

TEST REPORT

For

XonTel Technology Trd. Co. W.L.L

Kuwait City , Qibla , Aladel Tower , F21 , state of Kuwait .

Tested Model: XT-08P

Report Type:	**Product Type:**
Amended Report	IP Phone

Report Number: RSZ200924007-EM-01A1

Report Date: 2020-09-28

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Note: BACL 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 an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RSZ190923003-01	Original Report	2019-11-06
1	RSZ200924007-EM-01A1	Amended Report	2020-09-28

Note:

This is an amended report application based on original report, the details as below:

1. Changing the applicant to “XonTel Technology Trd. Co. W.L.L”, and changing the address to “Kuwait City , Qibla , Aladel Tower , F21 , state of Kuwait .”.

2. Changing the model name to “XT-08P”, and deleted the EUT Photos of model J1.

3. Changing the trade name to “XonTel”.

Based on the above differences list, the modification will not impact any test item, so in this report, all the test data and EUT photos copied from the original report.

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product		IP Phone
Tested Model		XT-08P
Voltage Range		DC 5.0V from adapter and DC48V from POE
Date of Test		2019-09-27 to 2019-11-04
Sample serial number		RSZ200924007-EM-S1(Assigned by BACL, Shenzhen)
Received date		2019-09-23
Sample/EUT Status		Good condition
Adapter information	EU adapter	Adapter 1 Model: F05L5-050060SPAV. Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5V, 0.6A
	UK adapter	Adapter 2 Model: F05L5-050060SPAB Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5V, 0.6A

Notes: There are two adapters have different factory, which share the same specification, the *detailed information can be referred to the declaration which was stated and guaranteed by the applicant*.

Objective

This test report is prepared in accordance with EN 55032: Electromagnetic compatibility of multimedia equipment -Emission Requirements. EN 55035: Electromagnetic compatibility of multimedia equipment - Immunity requirements. EN 61000-3-2,
Limits – Limits for harmonic current emissions (equipment input current up to and including 16 A per phase), and also in accordance with EN 61000-3-3, Limits Section 3; Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current<16A.

The objective is to determine the compliance of EUT with EN 55032, EN 55035, EN 61000-3-2 and EN 61000-3-3.

Related Submittal(s)/Grant(s)

No related submittal(s).

Performance criterion

Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be

derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion B

During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test. After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed.

Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

Test Methodology

All measurements contained in this report were conducted with CISPR 16-1-1:2010+A1:2010+A2:2014, specification for radio disturbance and immunity measuring apparatus and methods P1-1: radio disturbance and immunity measuring apparatus measuring apparatus. CISPR16-1-4:2010+A1:2012 , Specification for radio disturbance and immunity measuring apparatus and methods-Part 1-4: Radio disturbance and immunity measuring apparatus -Ancillary equipment -Radiated disturbances. CISPR 16-2-1:2014, specification for radio disturbance and immunity measuring apparatus and methods P2-1: methods of measurement of disturbance and immunity conducted disturbance measurements. CISPR 16-2-3:2010+A1:2010+A2:2014, specification for radio disturbance and immunity measuring apparatus and methods P2-3 methods of measurement of disturbances and immunity radiated disturbance measurements. CISPR 16-4-2:2011, Specification for radio disturbance and immunity measuring apparatus and methods-Part 4-2: Uncertainties, statistics and limit modeling-Uncertainty in EMC measurements.

All radiated and conducted emissions measurements were performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 Meters.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will be taken into consideration for the test data recorded in the report

Item		Expanded Measurement uncertainty
Conducted Emissions	AC Mains	1.95 dB (k=2, 95% level of confidence)
Radiated emission	Below 1GHz	4.75 dB (k=2, 95% level of confidence)
	Above 1GHz	4.88 dB (k=2, 95% level of confidence)

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

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in normal mode.

EUT exercise software

No exercise software was made to the EUT tested.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

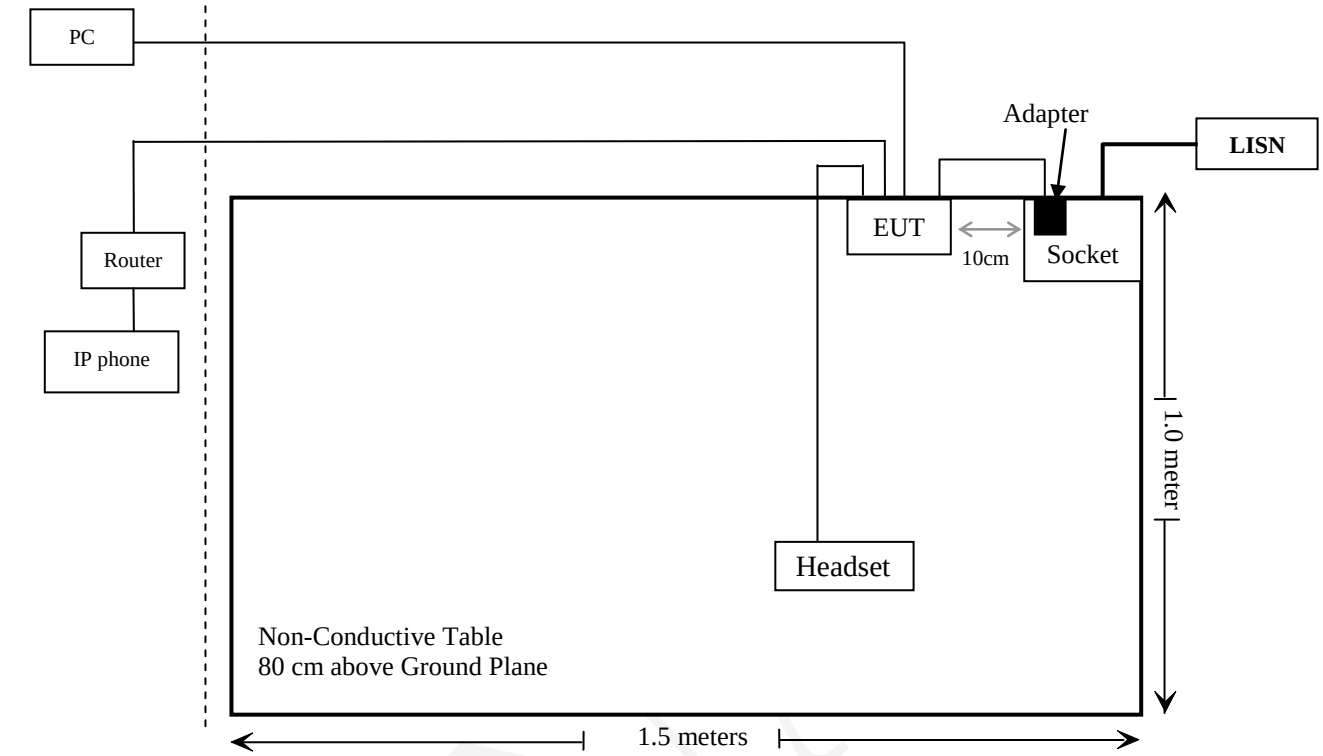
Manufacturer	Description	Model	Serial Number
BULL	Socket	GN-212	A37209315081183
TOSHIBA	PC	TOSHIBA Satellite C600	PSC2NQ-00G006
HUAWEI	Router	WS832	SEJ7S18A10000731
XonTel	IP Phone	X6	N/A
H3C	POE	H3C S1208-PWR	219801A0SYM18C0000H6
HONOTO	POE Adapter	ADS-110DL-52-1	N/A

External I/O Cable

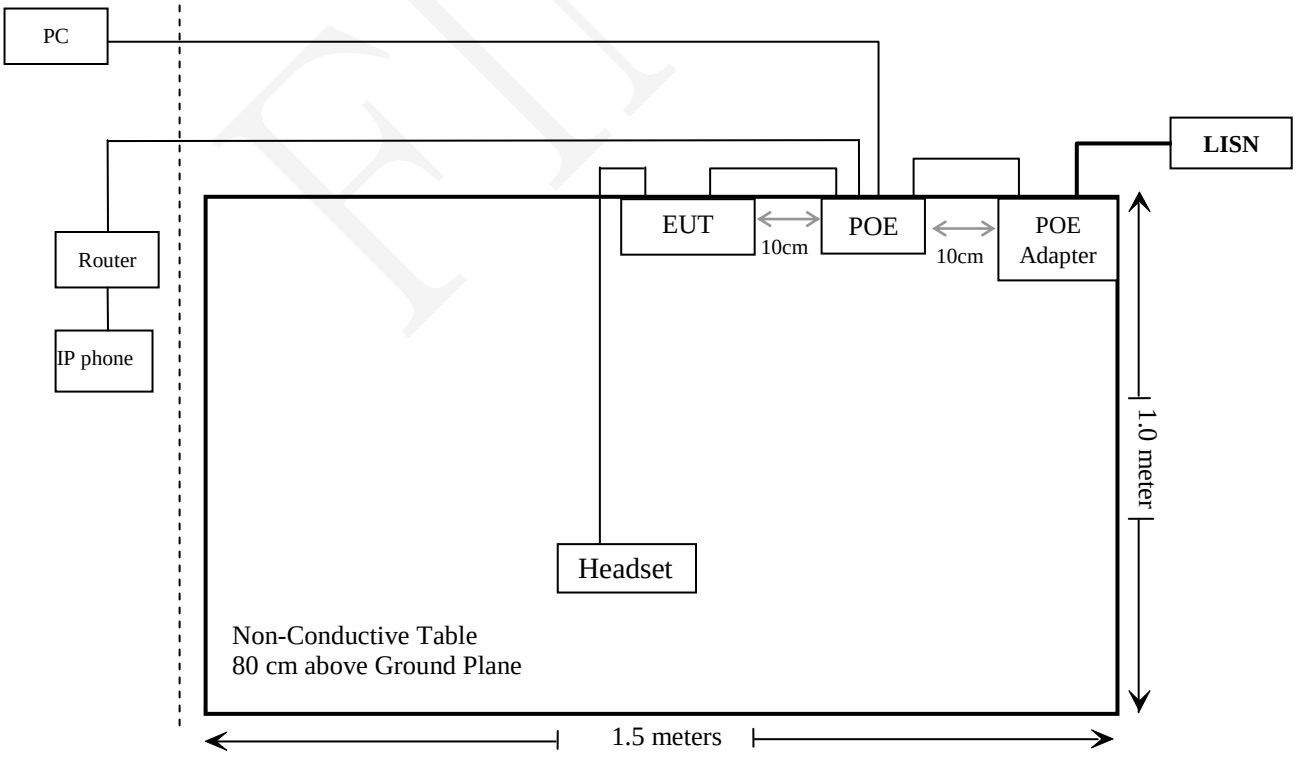
Cable Description	Length (m)	From/Port	To
Un-shielded Un-detachable AC Cable	1.0	Socket	LISN
Un-shielded Un-detachable DC Cable	1.2	Adapter	EUT
Un-shielded Detachable RJ45 Cable	10	EUT	PC
Uns-hielded Detachable RJ45 Cable	10	EUT	Router
Un-shielded Detachable RJ45 Cable	1.0	IP Phone	Router
Un-shielded detachable AC cable	1.0	POE Adapter	LISN
Un-shielded un-detachable DC cable	1.2	POE Adapter	POE
Un-shielded Detachable RJ45 Cable	10	EUT	POE
Un-shielded Detachable RJ45 Cable	1.0	POE	Router
Un-shielded Un-detachable audio Cable	0.8	EUT	Headset

Block Diagram of Test Setup

For conducted emission:
Powered by Adapter:



Powered by POE:



SUMMARY OF TEST REPORT

EN 55032

RULE	DESCRIPTION	RESULTS
§ A.3	Conducted Disturbance at Mains Terminals	Compliance
§ A.3	Conducted Disturbance at Telecommunication Port	Compliance
§ A.2	Radiated Disturbance	Compliance

EN 55035

RULE	DESCRIPTION	RESULTS
§4.2.1	Electrostatic Discharges IEC 61000-4-2	Compliance
§4.2.2.2	Continuous RF Electromagnetic Field Disturbances IEC 61000-4-3	Compliance
§4.2.2.3	Continuous Induced RF Disturbances IEC 61000-4-6	Compliance
§4.2.3	Power Frequency Magnetic Field IEC 61000-4-8	Compliance
§4.2.4	Electrical Fast Transients IEC 61000-4-4	Compliance
§4.2.5	Surges IEC 61000-4-5	Compliance
§4.2.6	Voltage Dips And Interruptions, IEC 61000-4-11	Compliance
§4.2.7	Broadband Impulsive Conducted Disturbances IEC 61000-4-6	Not Applicable

EN 61000-3-2

Rule	Description	Results
§7	Harmonic Current Emissions	Compliance

EN 61000-3-3

Rule	Description	Results
§5	Voltage Fluctuation and Flicker	Compliance

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
EMI					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2019-07-09	2020-07-08
Rohde & Schwarz	LISN	ENV216	3560.6650.12-101613-Yb	2019-01-25	2020-01-25
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2019-03-02	2020-03-01
Schwarzbeck	ISN Cat 5	NTFM 8158	cat 5-8158-0010	2019-01-15	2020-01-15
Rohde & Schwarz	CE Test software	EMC 32	V8.53.0	NCR	NCR
Sonoma Instrument	Amplifier	310N	186238	2018-11-12	2019-11-12
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2019-01-09	2020-01-09
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2017-12-22	2020-12-21
Rohde & Schwarz	Signal Analyzer	FSEM	845987/005	2019-07-22	2020-07-21
COM-POWER	Pre-amplifier	PA-122	181919	2018-11-12	2019-11-12
A.H. System	Horn Antenna	SAS-200/571	135	2018-09-01	2021-08-31
Rohde & Schwarz	Auto test Software	EMC32	V9.10	NCR	NCR
EM Test	Harmonic/Flicker Analyzer	DPA 500N	V0939105176	2019-01-25	2020-01-25
EM Test	AC Source	ACS500	303276	2018-12-25	2019-12-25
EM Test	Test Software	DPA. Control	V5.0.3.0	NCR	NCR
EMS					
TESEQ	ESD Generator	NSG 438	1476	2019-08-13	2020-08-12
EM Test	EMS Combination Tester	UCS 500 N5	V0939105172	2019-03-02	2020-03-01
EM Test	AC Source	MV2616	V0939105173	2019-03-02	2020-03-01
EM TEST	EFT Clamp	HFK	0809/59	2019-03-02	2020-03-01
EM TEST	CDN	CNV 504S1	V0939105175	2018-12-21	2019-12-21
EM Test	Test Software	IEC. Control	V5.0.9.0	NCR	NCR
HP	Signal Generator	8648C	3426A01345	2019-07-10	2020-07-09
A&R	Power Amplifier	500W100B	0348446	NCR	NCR
A&R	Power Amplifier	60S1G6	0348712	NCR	NCR
A&R	Trapezoidal Log Periodic Antenna	ATT700M12G	0349411	NCR	NCR
A&R	Antenna	ATL80M1G	348837	NCR	NCR
Agilent	Signal Generator	8665B	3744A01692	2019-08-13	2020-08-12
A&R	RF Power Amplifier	15A250	13444	NCR	NCR
COM-POWER	CDN	CDN M325E	521145	2019-07-09	2020-07-08
COM-POWER	CDN	CDN T8E	581609	2019-07-09	2020-07-08
WEINSCHEL	6dB Attenuator	50-6	R4376	NCR	NCR
EM TEST	Current Transformer	MC 2630	0309-59	NCR	NCR
EM TEST	Loop Antenna	MS100	0809-05	NCR	NCR
BACL	Test Software	VEE PRO	V2.3 VXE	NCR	NCR

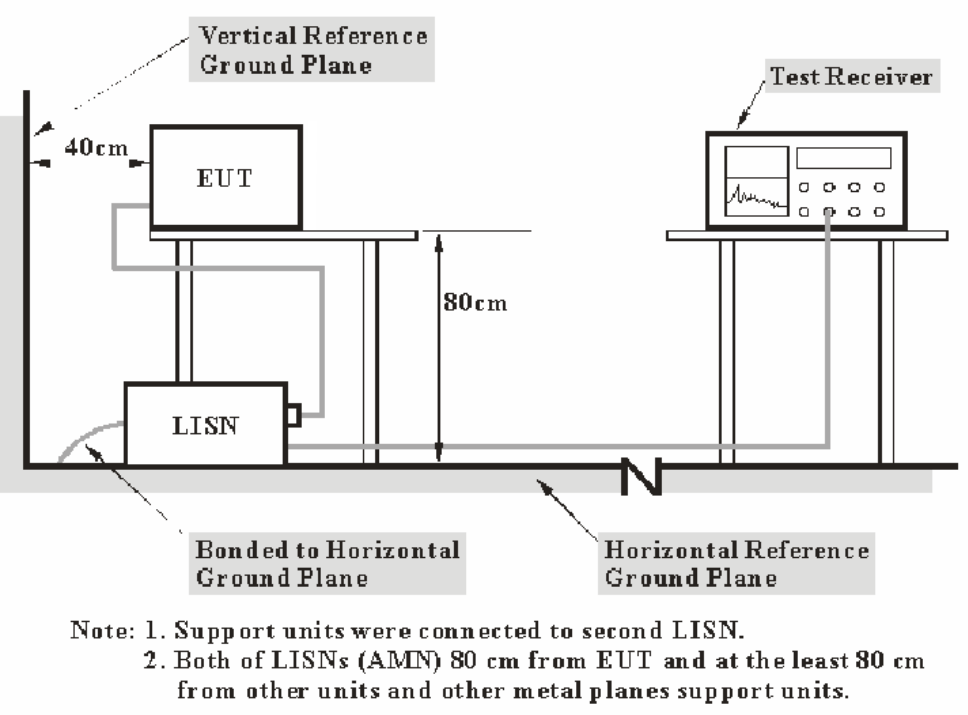
*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

EN 55032 §A.3 - CONDUCTED DISTURBANCE

Applicable Standard

According to EN 55032 §A.3

Test System Setup



Note: 1. Support units were connected to second LISN.
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 measurement procedure of EUT setup is in according with CISPR 16-1-1:2010+A1:2010+A2:2014, CISPR 16-2-1:2014. The related limit was specified in the EN 55032 Class B.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

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

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All final data was recorded in the Quasi-peak and average detection mode.

Corrected Factor & Margin Calculation

The Corrected factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

Correction Factor = LISN/ISN VDF + Cable Loss + Transient Limiter Attenuation

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Results Summary

According to the recorded data in following table, the EUT complied with the limit of EN 55032 Class B

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level complies with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cispr}$$

In BACL, $U_{(Lm)}$ is less than U_{cispr}, if L_m is less than L_{lim}, it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

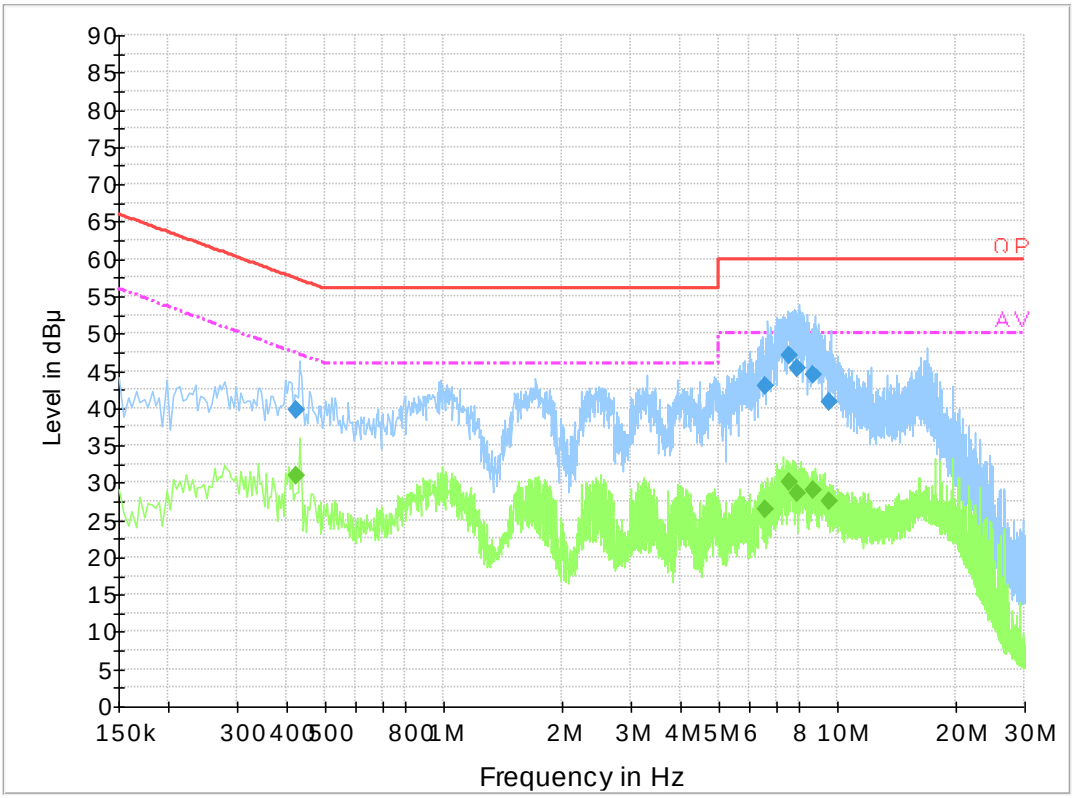
Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Kiki Geng on 2019-11-04.

EUT Operation Mode: TALKING

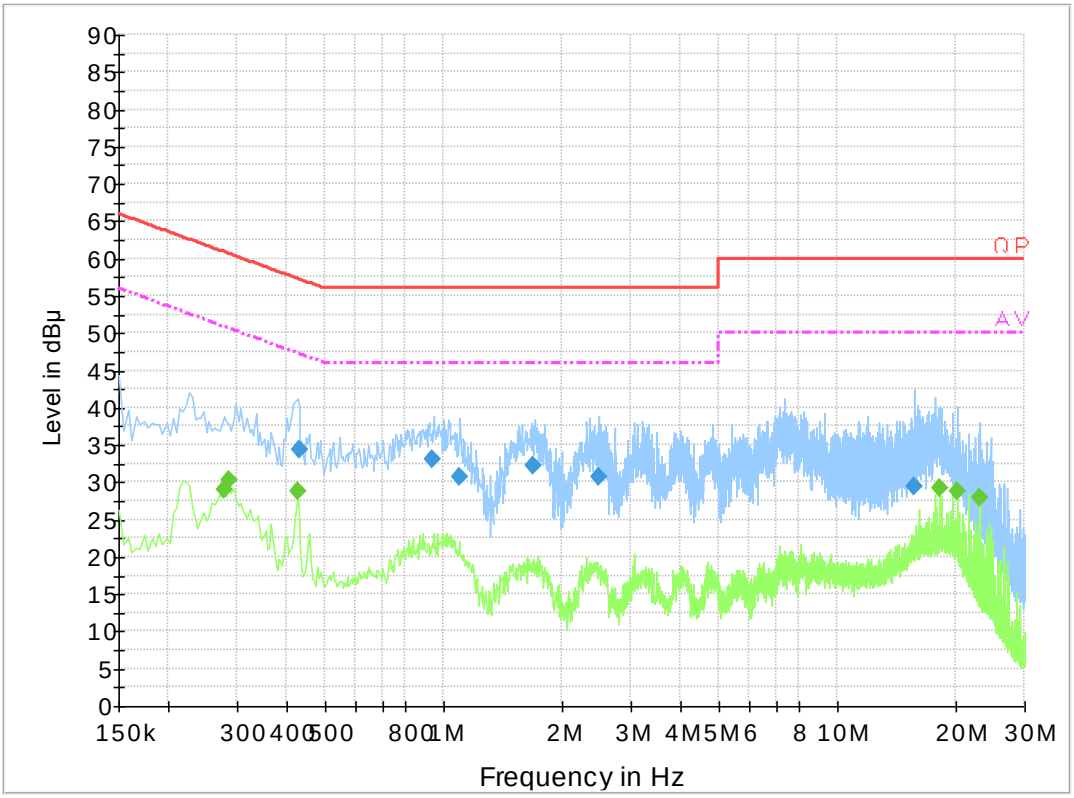
Powered by Adapter:

For Adapter 1
AC 230V/50 Hz, Line



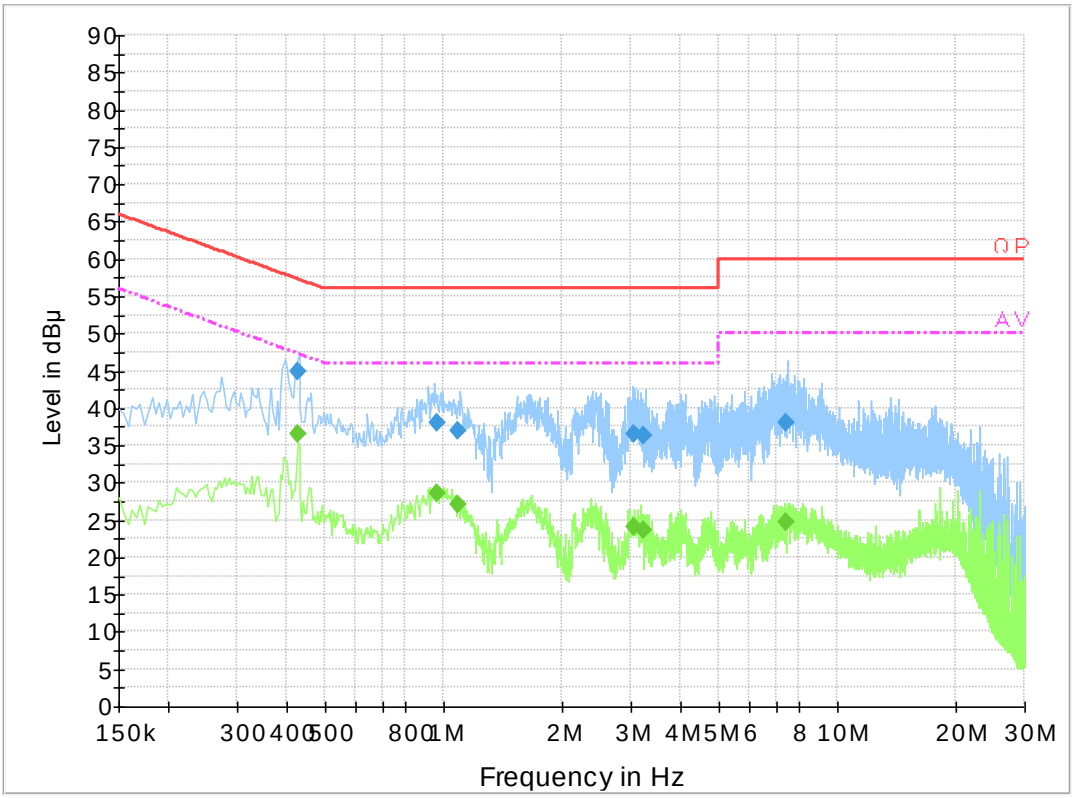
Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.423550	39.8	19.9	57.4	17.6	QP
6.573890	43.0	19.9	60.0	17.0	QP
7.573470	47.0	19.9	60.0	13.0	QP
7.938030	45.4	19.9	60.0	14.6	QP
8.706330	44.4	20.0	60.0	15.6	QP
9.577610	40.9	20.0	60.0	19.1	QP
0.423550	30.9	19.9	47.4	16.5	Ave.
6.573890	26.5	19.9	50.0	23.5	Ave.
7.573470	30.1	19.9	50.0	19.9	Ave.
7.938030	28.6	19.9	50.0	21.4	Ave.
8.706330	28.9	20.0	50.0	21.1	Ave.
9.577610	27.5	20.0	50.0	22.5	Ave.

AC 230V/50 Hz, Neutral:



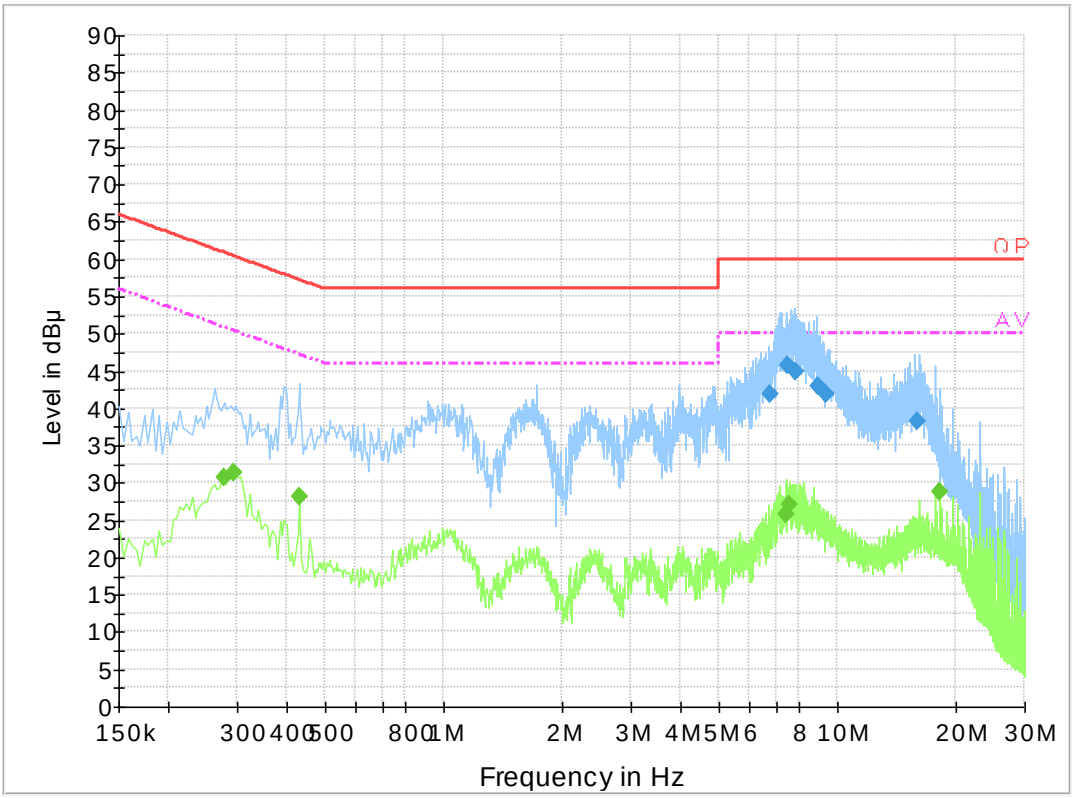
Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.432390	34.4	19.8	57.2	22.8	QP
0.943810	33.2	19.8	56.0	22.8	QP
1.105410	30.7	19.8	56.0	25.3	QP
1.700350	32.3	19.8	56.0	23.7	QP
2.488770	30.7	19.8	56.0	25.3	QP
15.702530	29.5	20.0	60.0	30.5	QP
0.278000	29.1	19.7	50.9	21.8	Ave.
0.286000	30.4	19.7	50.6	20.2	Ave.
0.426000	28.8	19.8	47.3	18.5	Ave.
18.242000	29.2	20.3	50.0	20.8	Ave.
20.258000	28.7	20.4	50.0	21.3	Ave.
23.130000	27.8	20.3	50.0	22.2	Ave.

For Adapter 2
AC 230V/50 Hz, Line



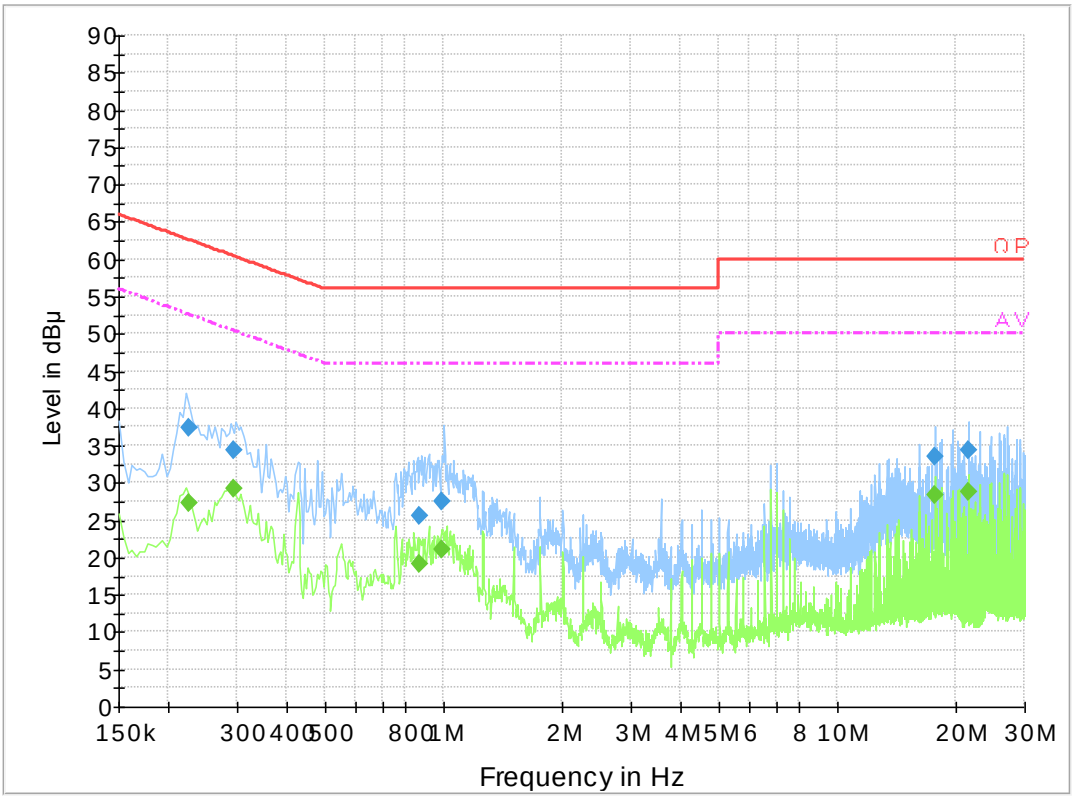
Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.427550	45.0	19.9	57.3	12.3	QP
0.963750	37.9	19.8	56.0	18.1	QP
1.093410	37.0	19.8	56.0	19.0	QP
3.064610	36.6	19.9	56.0	19.4	QP
3.229010	36.3	19.9	56.0	19.7	QP
7.437770	38.0	19.9	60.0	22.0	QP
0.427550	36.6	19.9	47.3	10.7	Ave.
0.963750	28.6	19.8	46.0	17.4	Ave.
1.093410	27.1	19.8	46.0	18.9	Ave.
3.064610	24.0	19.9	46.0	22.0	Ave.
3.229010	23.6	19.9	46.0	22.4	Ave.
7.437770	24.7	19.9	50.0	25.3	Ave.

AC 230V/50 Hz, Neutral:



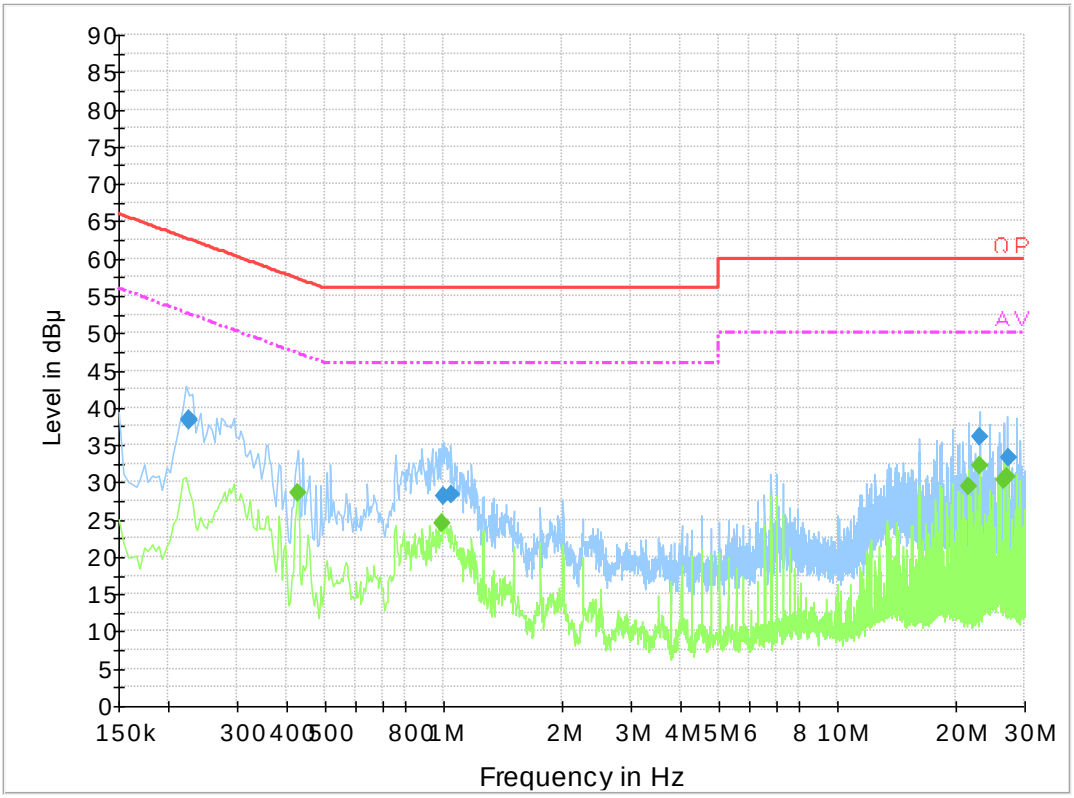
Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
6.785590	41.9	19.9	60.0	18.1	QP
7.486430	45.8	19.9	60.0	14.2	QP
7.857270	45.0	19.9	60.0	15.0	QP
8.928710	43.0	19.9	60.0	17.0	QP
9.412310	41.8	19.9	60.0	18.2	QP
16.038610	38.2	20.0	60.0	21.8	QP
0.278000	30.7	19.7	50.9	20.2	Ave.
0.294000	31.4	19.7	50.4	19.0	Ave.
0.430000	28.2	19.8	47.3	19.1	Ave.
7.466000	25.8	19.9	50.0	24.2	Ave.
7.586000	27.2	19.9	50.0	22.8	Ave.
18.242000	28.7	20.3	50.0	21.3	Ave.

Powered by POE
AC 230V/50 Hz, Line



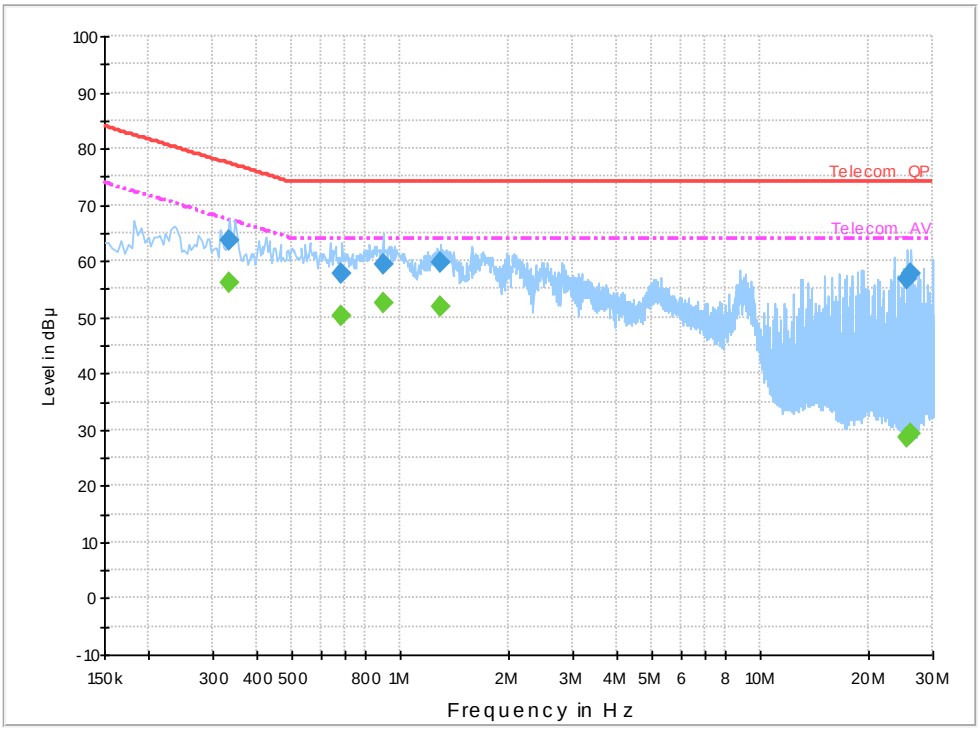
Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.226500	37.3	19.8	62.6	25.3	QP
0.293500	34.4	19.7	60.4	26.0	QP
0.872770	25.5	19.8	56.0	30.5	QP
0.994910	27.4	19.9	56.0	28.6	QP
17.692590	33.5	20.3	60.0	26.5	QP
21.665070	34.3	20.4	60.0	25.7	QP
0.226500	27.3	19.8	52.6	25.3	Ave.
0.293500	29.1	19.7	50.4	21.3	Ave.
0.872770	19.1	19.8	46.0	26.9	Ave.
0.994910	21.0	19.9	46.0	25.0	Ave.
17.692590	28.5	20.3	50.0	21.5	Ave.
21.665070	28.8	20.4	50.0	21.2	Ave.

AC 230V/50 Hz, Neutral:



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.225000	38.4	19.8	62.6	24.2	QP
0.225500	38.2	19.8	62.6	24.4	QP
1.002970	28.1	19.8	56.0	27.9	QP
1.050310	28.4	19.8	56.0	27.6	QP
23.127050	36.1	20.3	60.0	23.9	QP
27.342630	33.4	20.2	60.0	26.6	QP
0.426000	28.5	19.8	47.3	18.8	Ave.
0.998000	24.6	19.8	46.0	21.4	Ave.
21.662000	29.4	20.4	50.0	20.6	Ave.
23.130000	32.2	20.3	50.0	17.8	Ave.
26.486000	30.3	20.2	50.0	19.7	Ave.
27.158000	30.8	20.2	50.0	19.2	Ave.

CAT 5



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.334000	63.7	10.2	77.4	13.7	QP
0.686000	57.8	10.1	74.0	16.2	QP
0.890000	59.6	10.1	74.0	14.4	QP
1.286000	59.6	10.1	74.0	14.4	QP
25.342000	56.8	10.2	74.0	17.2	QP
26.014000	57.8	10.2	74.0	16.2	QP
0.334000	56.1	10.2	67.4	11.3	Ave.
0.686000	50.4	10.1	64.0	13.6	Ave.
0.890000	52.5	10.1	64.0	11.5	Ave.
1.286000	52.0	10.1	64.0	12.0	Ave.
25.342000	28.7	10.2	64.0	35.3	Ave.
26.014000	29.4	10.2	64.0	34.6	Ave.

Note:
1) Correction Factor =LISN/ISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
2) Corrected Amplitude = Reading + Correction Factor
3) Margin = Limit – Corrected Amplitude

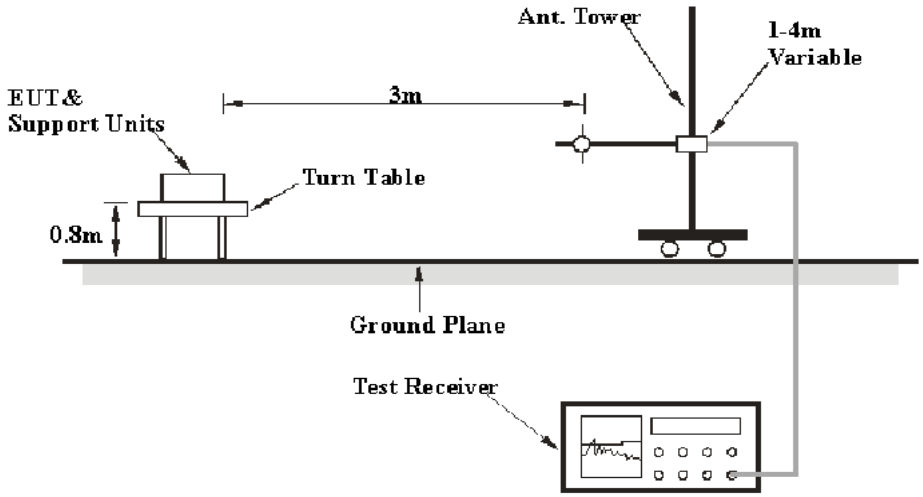
EN 55032 §A.2-RADIATED DISTURBANCE

Applicable Standard

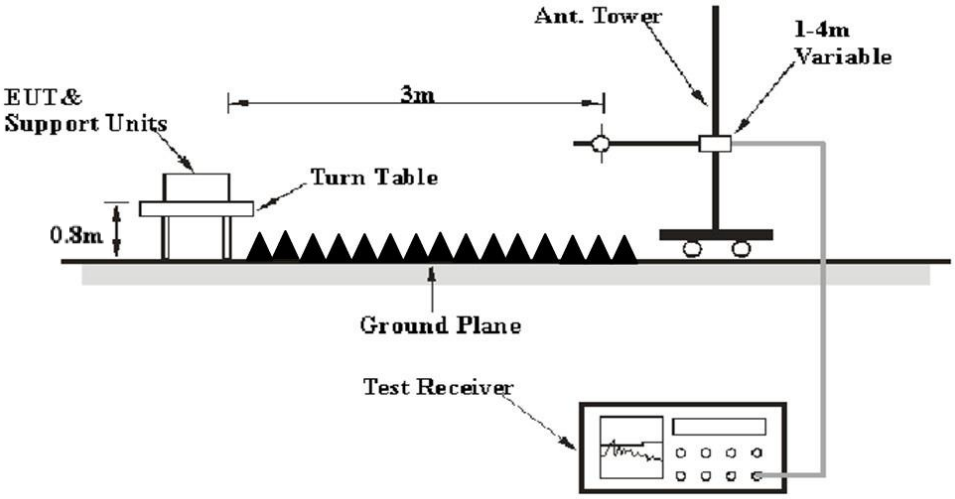
EN 55032 §A.2

Test System Setup

Below 1 GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the CISPR16-1-4:2010+A1:2012, CISPR 16-2-3:2010+A1:2010+A2:2014. The limit was specified in EN 55032 Class B.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 2 GHz.

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

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
1 GHz~2 GHz	1 MHz	3 MHz	/	Peak
1 GHz~2 GHz	1 MHz	10 Hz	/	Average

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All final data was recorded in the Quasi-peak detection mode for below 1 GHz. and peak & Average for above 1GHz

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit for Class B. The equation for margin calculation is as follows:

Margin = Limit –Corrected Amplitude.

Test Results Summary

According to the data in the following table, the EUT complied with the limit of EN 55032 Class B

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level complies with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cispr}$$

In BACL., $U_{(Lm)}$ is less than + U_{cispr}, if L_m is less than L_{lim}, it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

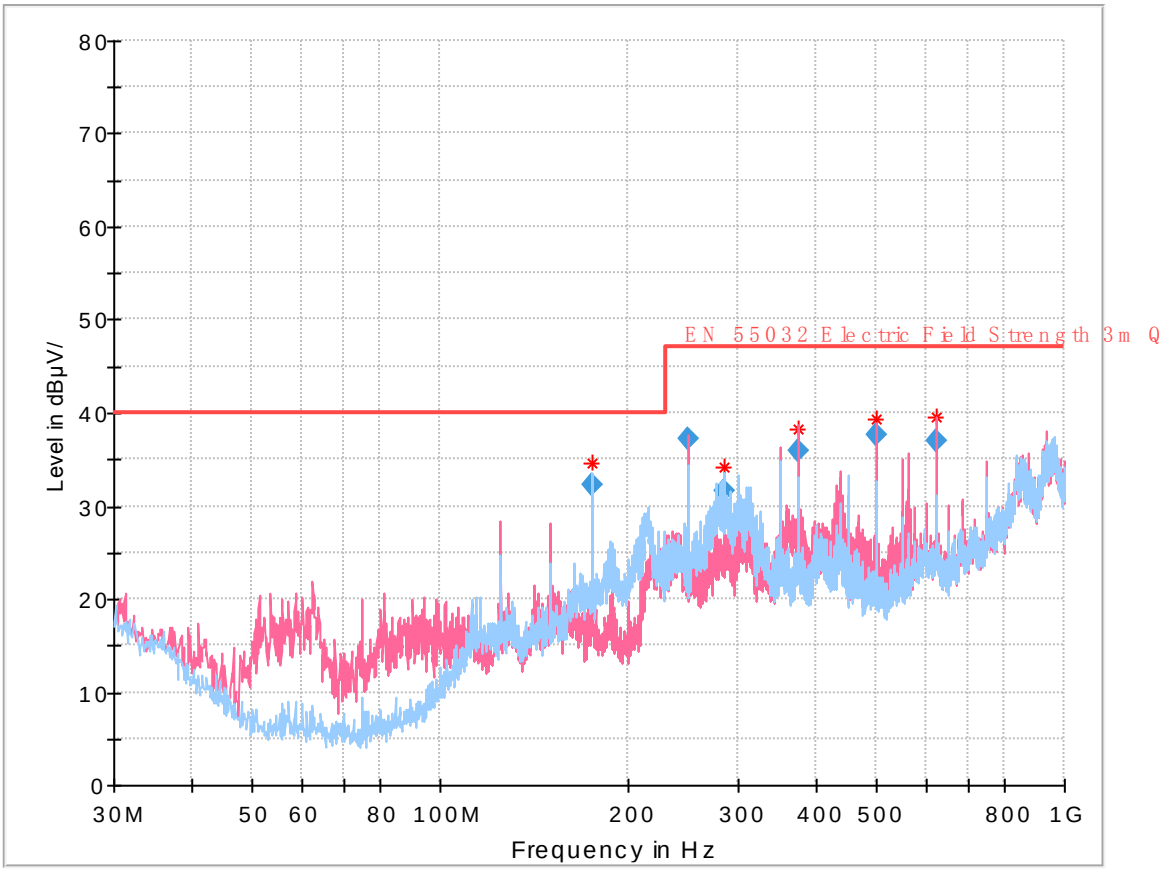
The testing was performed by Steve Lan and Alan He on 2019-09-27.

EUT Operation Mode: Talking

Powered by Adapter

For Adapter1

30 MHz~1 GHz



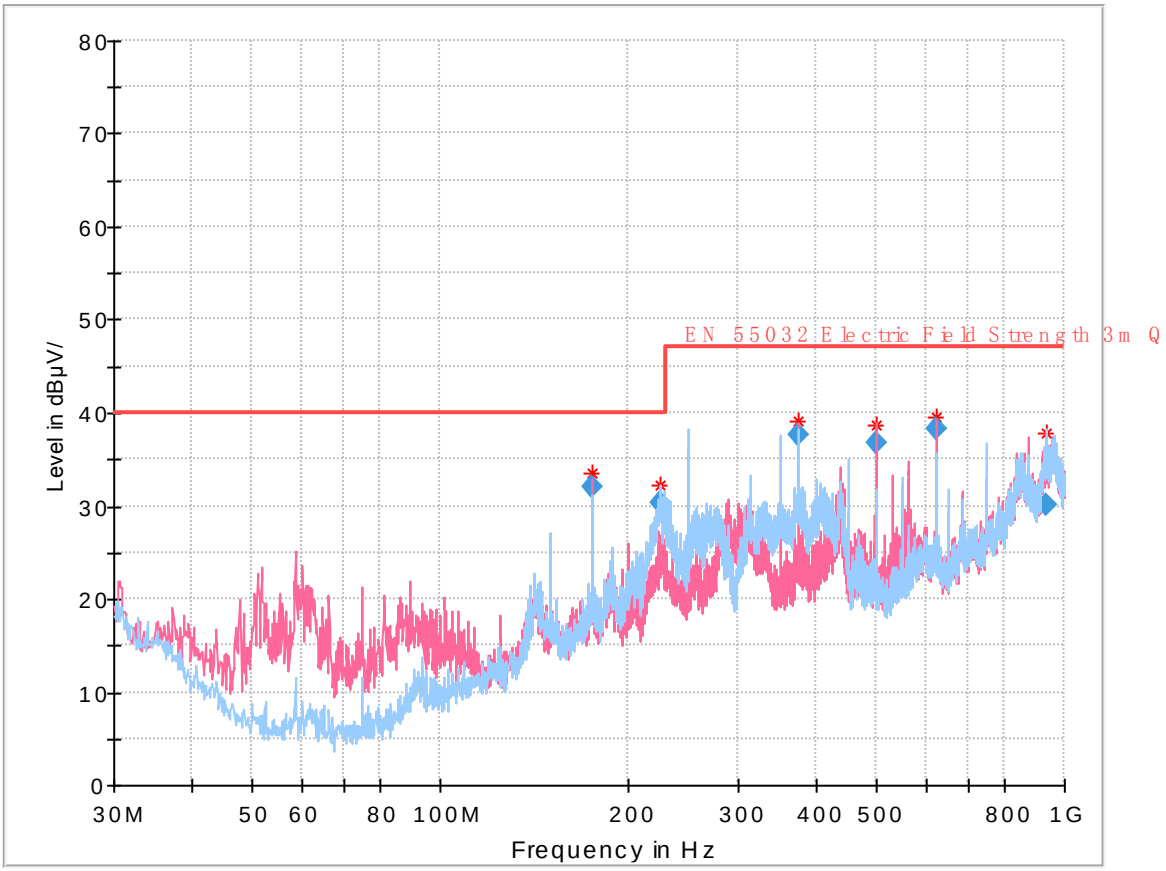
Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna height (cm)	Antenna Polarity	Turntable position (degree)	Correction Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
175.003500	32.20	179.0	H	38.0	-15.1	40.00	7.80
250.010750	37.11	108.0	V	0.0	-14.1	47.00	9.89
285.128750	31.62	124.0	H	89.0	-11.6	47.00	15.38
375.006250	35.95	137.0	V	200.0	-10.6	47.00	11.05
499.985500	37.59	115.0	V	176.0	-7.2	47.00	9.41
625.000375	37.07	108.0	V	70.0	-2.6	47.00	9.93

Above 1 GHz

Frequency (MHz)	Measurement		Turntable Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m)	EN 55032	
	Reading (dBµV)	PK/QP/Ave.		Height (m)	Polar (H / V)			Limit (dBµV/m)	Margin (dB)
1109.93	43.16	PK	273	1.2	H	-5.53	37.63	70	32.37
1109.93	28.46	Ave.	273	1.2	H	-5.53	22.93	50	27.07
1109.93	43.59	PK	251	1.3	V	-5.53	38.06	70	31.94
1109.93	28.77	Ave.	251	1.3	V	-5.53	23.24	50	26.76
1875.08	45.89	PK	331	1.4	H	-1.60	44.29	70	25.71
1875.08	38.23	Ave.	331	1.4	H	-1.60	36.63	50	13.37
1875.08	49.22	PK	18	1.4	V	-1.60	47.62	70	22.38
1875.08	43.56	Ave.	18	1.4	V	-1.60	41.96	50	8.04

For Adapter2

30 MHz~1 GHz



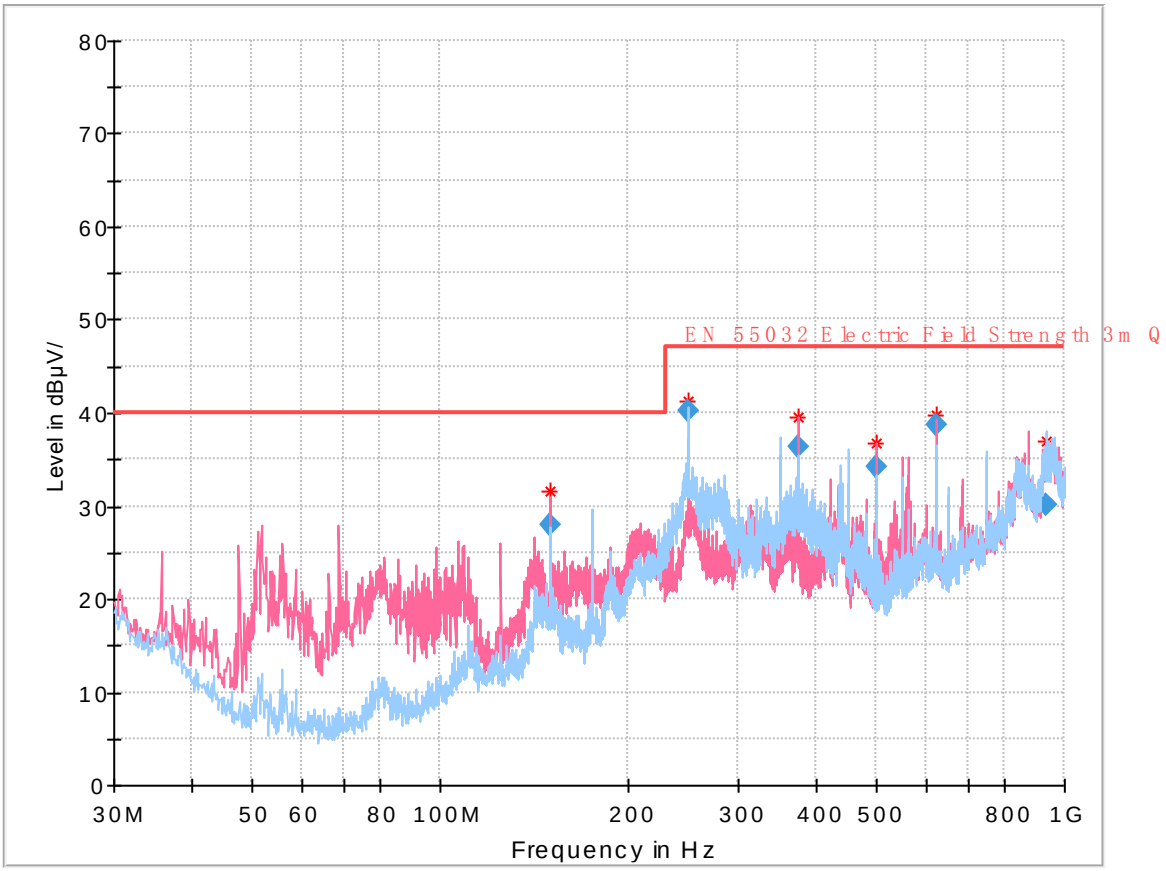
Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna height (cm)	Antenna Polarity	Turntable position (degree)	Correction Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
175.011000	31.96	108.0	V	1.0	-15.1	40.00	8.04
224.970375	30.32	145.0	H	64.0	-14.0	40.00	9.68
374.999125	37.64	157.0	V	207.0	-10.6	47.00	9.36
500.004250	36.85	111.0	V	181.0	-7.2	47.00	10.15
624.987500	38.27	109.0	V	194.0	-2.6	47.00	8.73
937.941375	30.08	209.0	V	21.0	8.6	47.00	16.92

Above 1 GHz

Frequency (MHz)	Measurement		Turntable Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m)	EN 55032	
	Reading (dBµV)	PK/QP/Ave.		Height (m)	Polar (H / V)			Limit (dBµV/m)	Margin (dB)
1235.12	43.28	PK	88	1.4	H	-4.68	38.60	70	31.40
1235.12	28.43	Ave.	88	1.4	H	-4.68	23.75	50	26.25
1235.12	43.61	PK	37	2.0	V	-4.68	38.93	70	31.07
1235.12	28.79	Ave.	37	2.0	V	-4.68	24.11	50	25.89
1874.96	46.32	PK	295	1.8	H	-1.60	44.72	70	25.28
1874.96	38.19	Ave.	295	1.8	H	-1.60	36.59	50	13.41
1874.96	49.35	PK	85	2.4	V	-1.60	47.75	70	22.25
1874.96	43.63	Ave.	85	2.4	V	-1.60	42.03	50	7.97

Powered by POE

30 MHz~1 GHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna height (cm)	Antenna Polarity	Turntable position (degree)	Correction Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
149.989125	28.01	103.0	V	217.0	-14.2	40.00	11.99
250.004000	40.25	122.0	H	58.0	-14.1	47.00	6.75
375.011500	36.31	157.0	V	181.0	-10.6	47.00	10.69
500.010750	34.09	111.0	V	164.0	-7.2	47.00	12.91
624.996875	38.61	102.0	V	227.0	-2.6	47.00	8.39
937.352250	30.20	239.0	H	353.0	8.5	47.00	16.80

Above 1 GHz

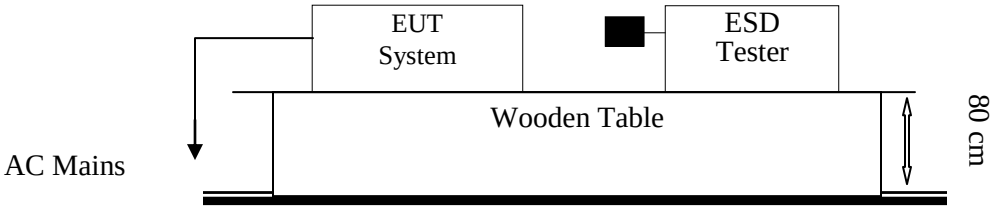
Frequency (MHz)	Measurement		Turntable Degree	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m)	EN 55032	
	Reading (dBµV)	PK/QP/Ave.		Height (m)	Polar (H / V)			Limit (dBµV/m)	Margin (dB)
1125.20	43.15	PK	160	1.8	H	-5.43	37.72	70	32.28
1125.20	28.26	Ave.	160	1.8	H	-5.43	22.83	50	27.17
1125.20	43.76	PK	182	1.6	V	-5.43	38.33	70	31.67
1125.20	28.47	Ave.	182	1.6	V	-5.43	23.04	50	26.96
1624.77	44.84	PK	122	1.3	H	-2.61	42.23	70	27.77
1624.77	35.84	Ave.	122	1.3	H	-2.61	33.23	50	16.77
1624.77	47.56	PK	218	1.9	V	-2.61	44.95	70	25.05
1624.77	41.20	Ave.	218	1.9	V	-2.61	38.59	50	11.41

Note**:**

1) Corrected Amplitude = Meter Reading + Correction Factor
2) Correction Factor = Antenna Factor + Cable Loss - Amplifier Gain
3) Margin = Limit – Corrected Amplitude

EN 55035 §4.2.1-ELECTROSTATIC DISCHARGES (IEC 61000-4-2)

Test System Setup



Remark: ■ is the tip of the electrode

IEC 61000-4-2 specifies that a tabletop EUT shall be placed on a non-conducting table which is 80 centimeters above a ground reference plane and that floor mounted equipment shall be placed on a insulating support approximately 10 centimeters above a ground plane. During the tests, the EUT is positioned over a ground reference plane in conformance with this requirement.

For tabletop equipment, a 1.6 by 0.8-meter metal sheet (HCP) is placed on the table and connected to the ground plane via a metal strap with two 470 k Ohms resistors in series. The EUT and attached cables are isolated from this metal sheet by *0.5-millimeter* thick insulating material. A Vertical Coupling Plane (VCP) grounded on the ground plane through the same configuration as in the HCP is used.

Test Standard

EN 55035:2017 (IEC 61000-4-2:2008)
Air Discharge at ±2 kV; ±4 kV; ±8 kV
Contact Discharge at ±2 kV; ±4 kV

Test Level

Level	Test Voltage Contact Discharge (±kV)	Test Voltage Air Discharge (±kV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X.	Special	Special

Performance criterion: B

Test Procedure

Air Discharge:

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

Contact Discharge:

All the procedure shall be same as Section 8.3.1 of IEC 61000-4-2, except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

Indirect discharge for horizontal coupling plane

At least 50 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1 m from the EUT and with the discharge electrode touching the coupling plane.

Indirect discharge for vertical coupling plane

At least 50 single discharges shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m × 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	57 %
ATM Pressure:	101.0 kPa

The testing was performed by Larry Li on 2019-11-04.

EUT Operation Mode: Talking

Table 1: Electrostatic Discharge Immunity (Air Discharge)

IEC 61000-4-2 Test Points		Test Levels							
		-2 kV	+2 kV	-4 kV	+4 kV	-8 kV	+8 kV	-15 kV	+15 kV
Front	(14 points)	A	A	A	A	A	A	/	/
Rear	(7 points)	A	A	A	A	A	A	/	/
Left	(4 points)	A	A	A	A	A	A	/	/
Right	(4 points)	A	A	A	A	A	A	/	/
Top	(4 points)	A	A	A	A	A	A	/	/
Bottom	(2 points)	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

IEC 61000-4-2 Test Points	Test Levels							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
/	/	/	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

IEC 61000-4-2 Test Points	Test Levels							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

IEC 61000-4-2 Test Points	Test Levels							
	-2 kV	+2 kV	-4 kV	+4 kV	-6 kV	+6 kV	-8 kV	+8 kV
Front Side	A	A	A	A	/	/	/	/
Back Side	A	A	A	A	/	/	/	/
Left Side	A	A	A	A	/	/	/	/
Right Side	A	A	A	A	/	/	/	/






Note: represents air discharge, represents direct contact

Powered by Adapter 1

Powered by Adapter 2

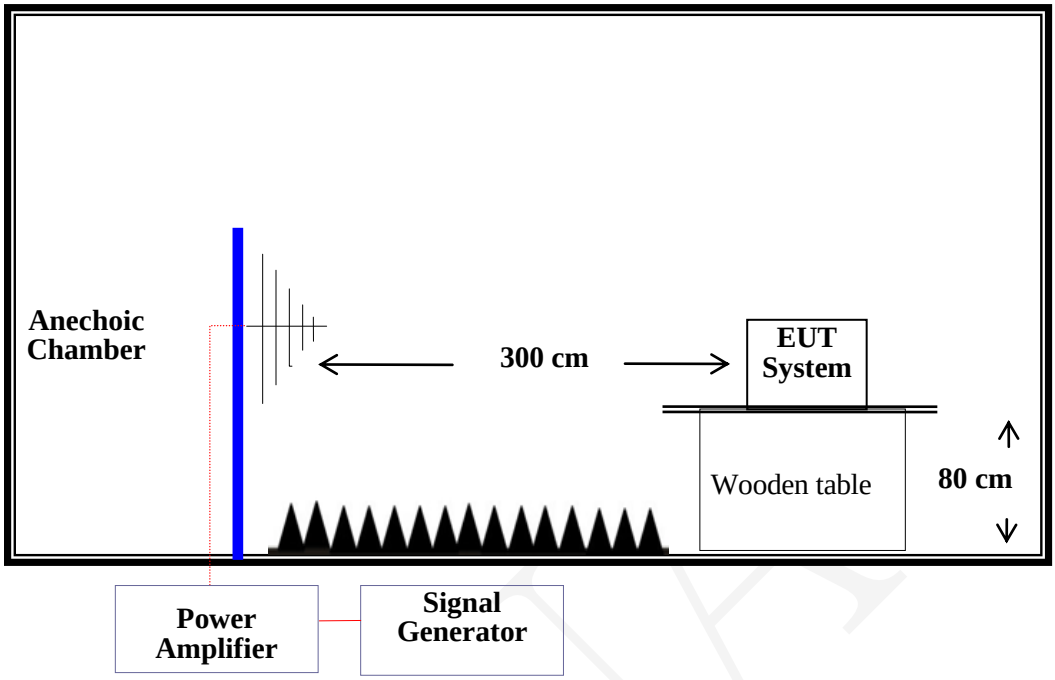
Test Setup Photo

Powered by POE

Test Setup Photos

EN 55035 §4.2.2.2- CONTINUOUS RF ELECTROMAGNETIC FIELD DISTURBANCES (IEC 61000-4-3)

Test System Setup



Test Standard

EN 55035:2017 (IEC 61000-4-3: 2006 + A1:2007 + A2:2010)
Test level 2 at 3V / m

Test Level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X.	Special

Performance Criterion: A

Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above the ground. The EUT is set 3 meters away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarizations of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually.
In order to judge the EUT performance, a CCD camera, PC Sound pressure meter were used to monitor the EUT.

All the scanning conditions are as follows:

	Condition of Test	Remarks
1.	Field Strength	3 V/m (Test level 2)
2.	Radiated Signal	AM 80%, 1 kHz Modulation
3.	Scanning Frequency	80 – 1000 MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz
4.	Sweeping time of radiated	0.0015decade/s
5.	Dwell Time	1 sec.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

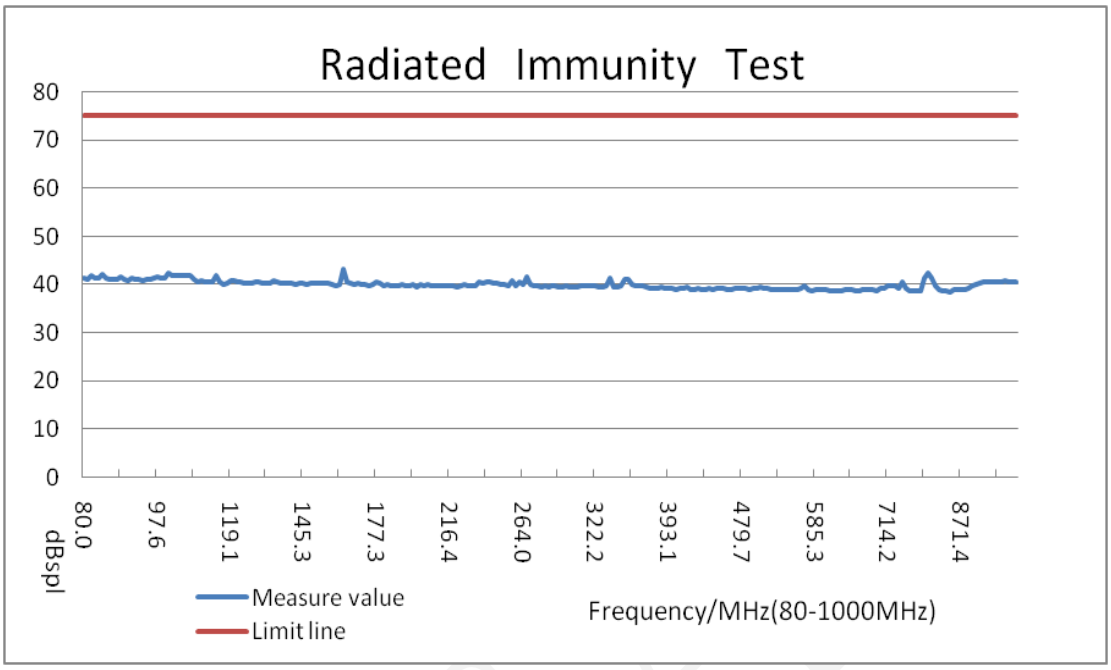
The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

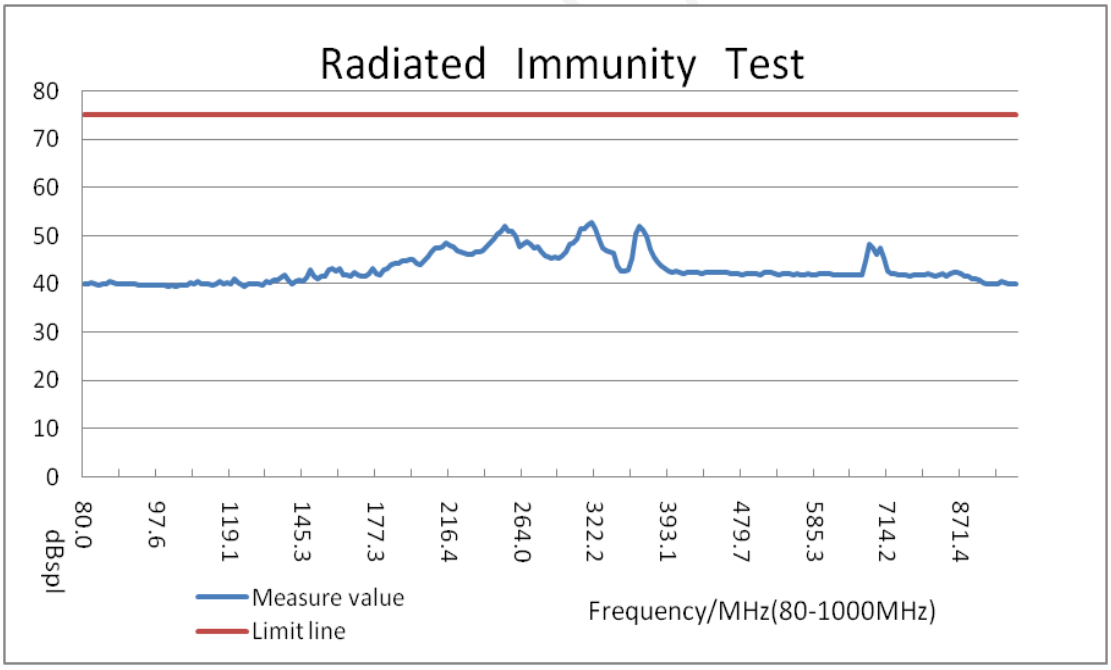
Frequency (MHz)	Front Side (3 V/m)		Rear Side (3 V/m)		Left Side (3 V/m)		Right Side (3 V/m)	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	A	A	A	A	A	A	A	A
1800	A	A	A	A	A	A	A	A
2600	A	A	A	A	A	A	A	A
3500	A	A	A	A	A	A	A	A
5000	A	A	A	A	A	A	A	A

Handset

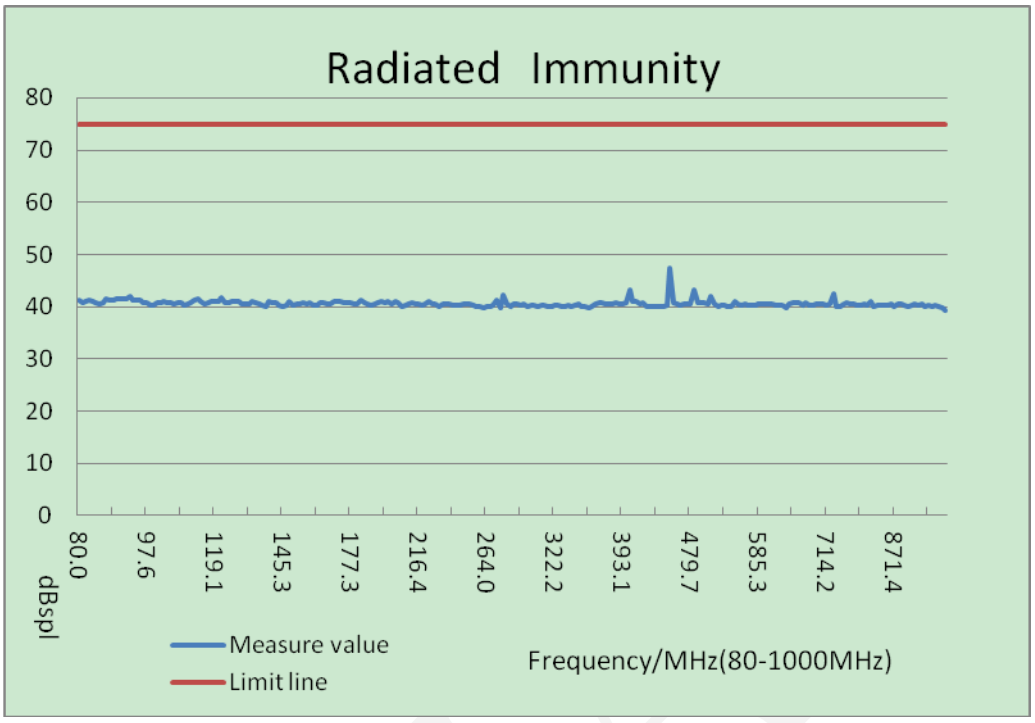
For adapter 1
H-SPL



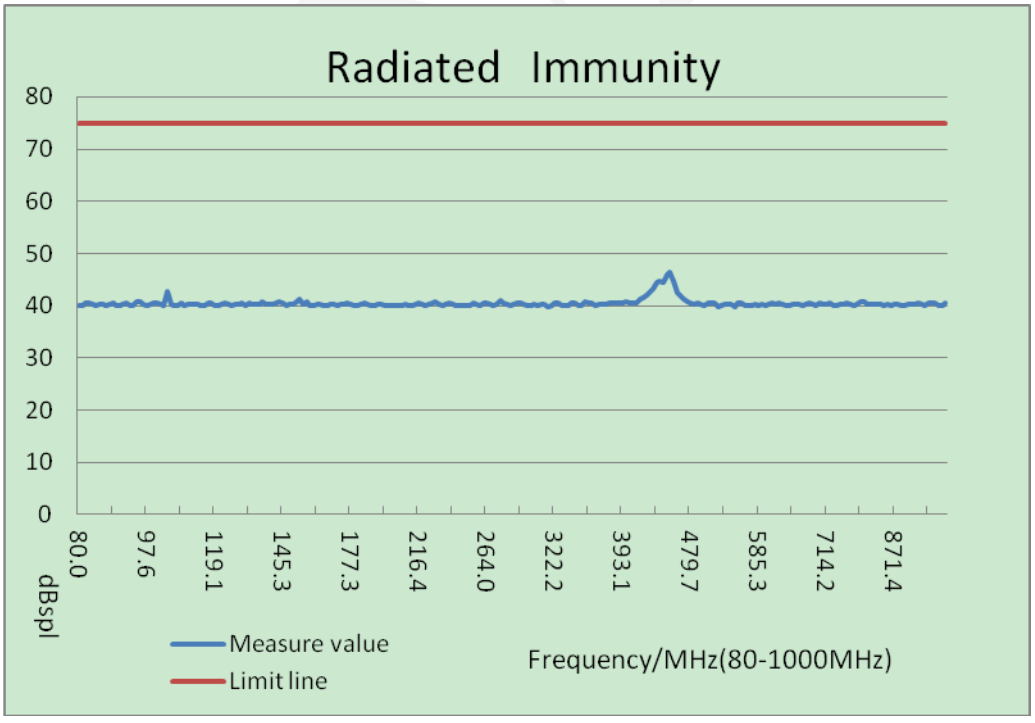
V-SPL



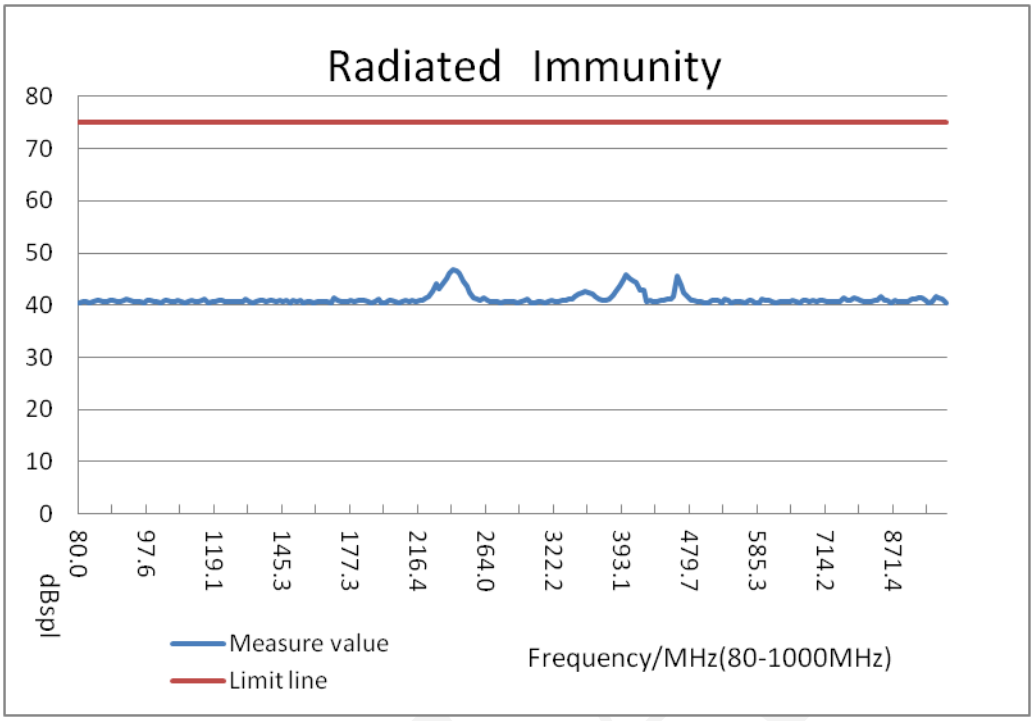
For adapter 2
H-SPL



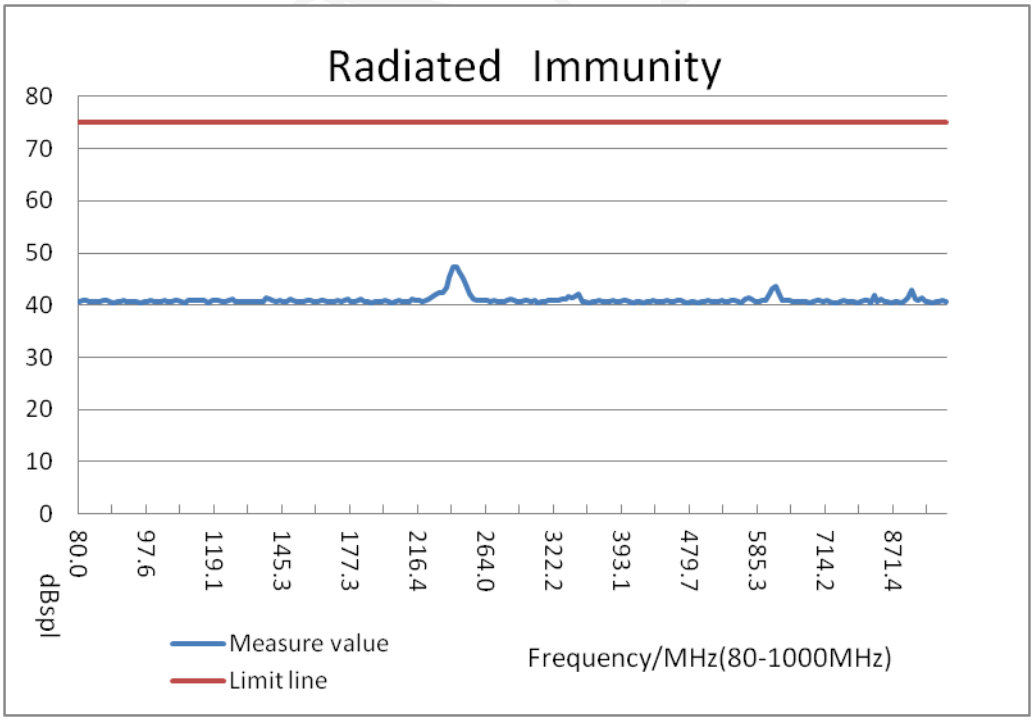
V-SPL



For POE:
H-SPL

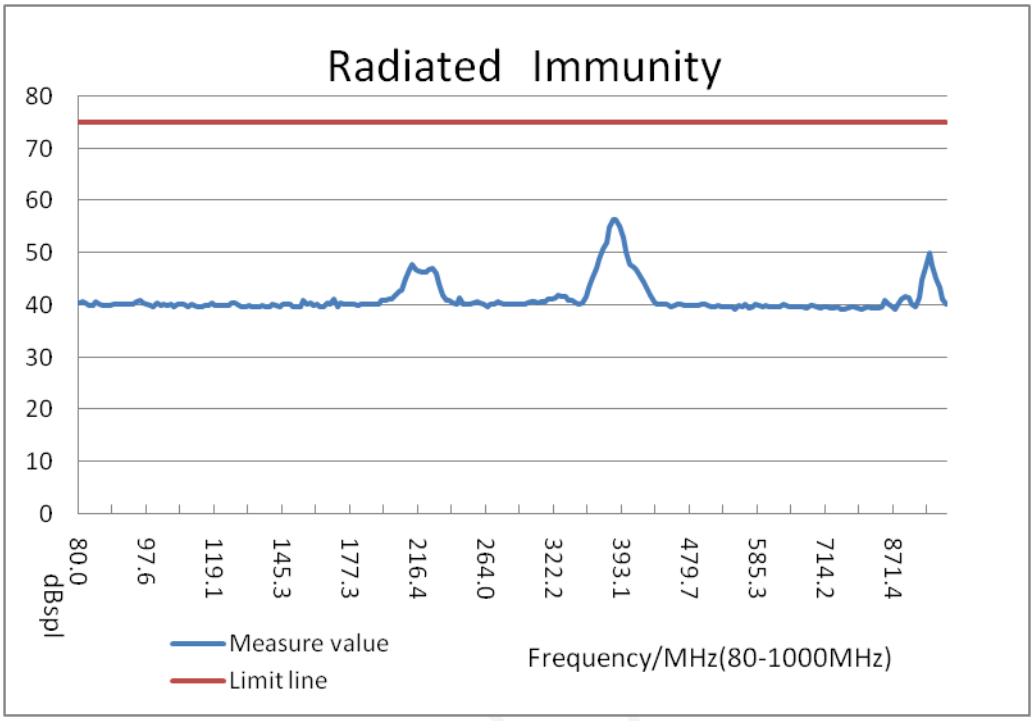


V-SPL

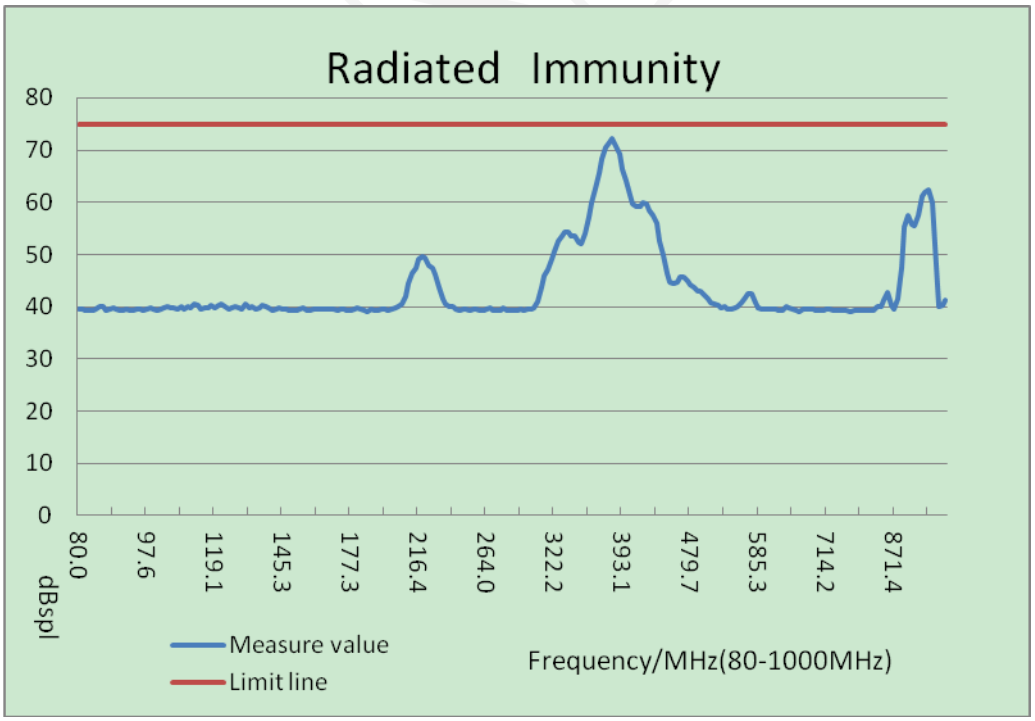


Wired network connection

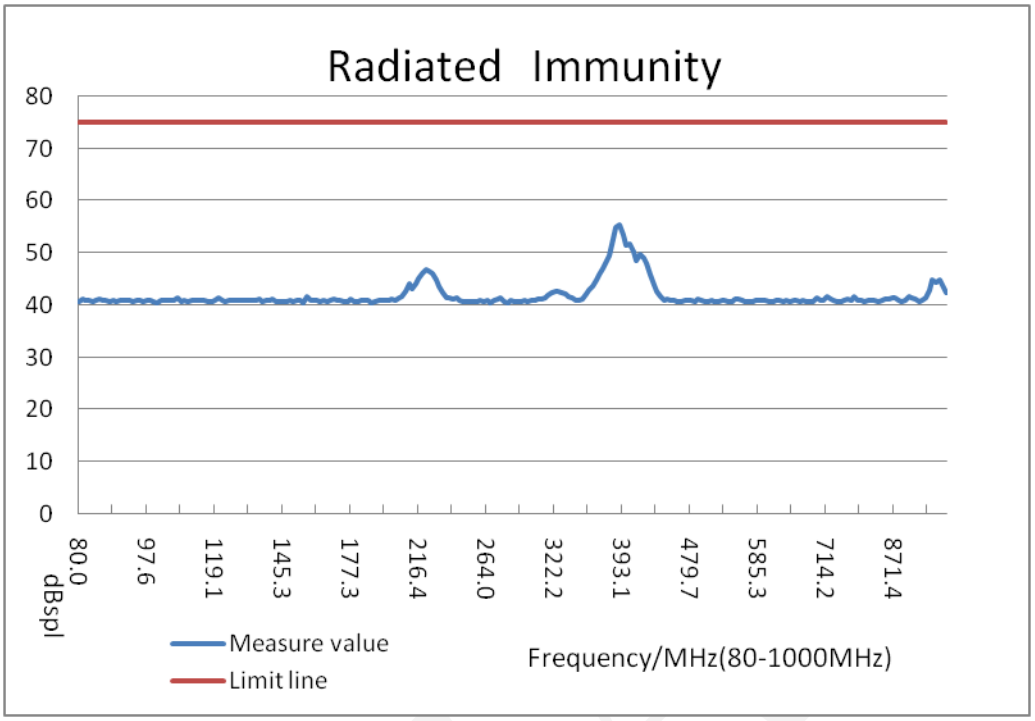
For adapter 1
H-SPL



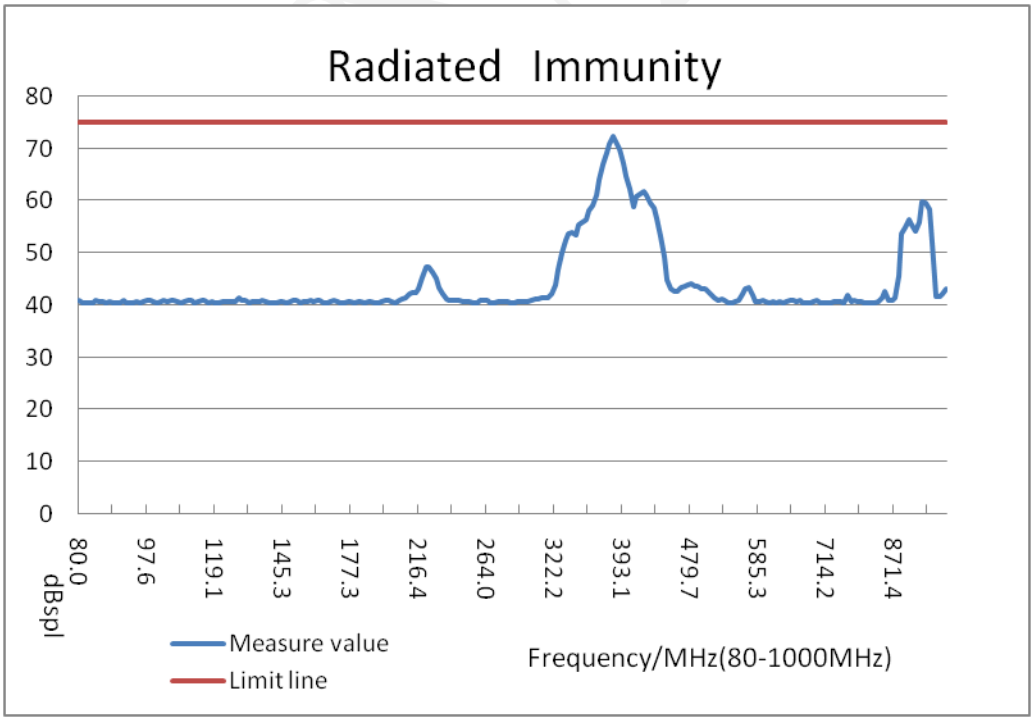
V-SPL



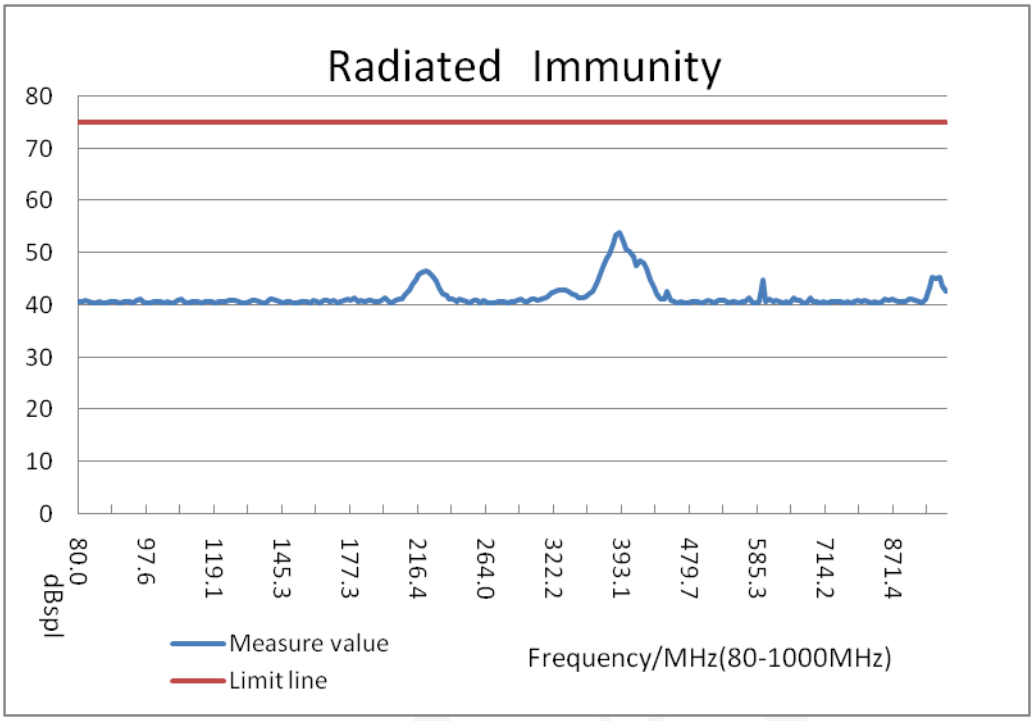
For adapter 2
H-SPL



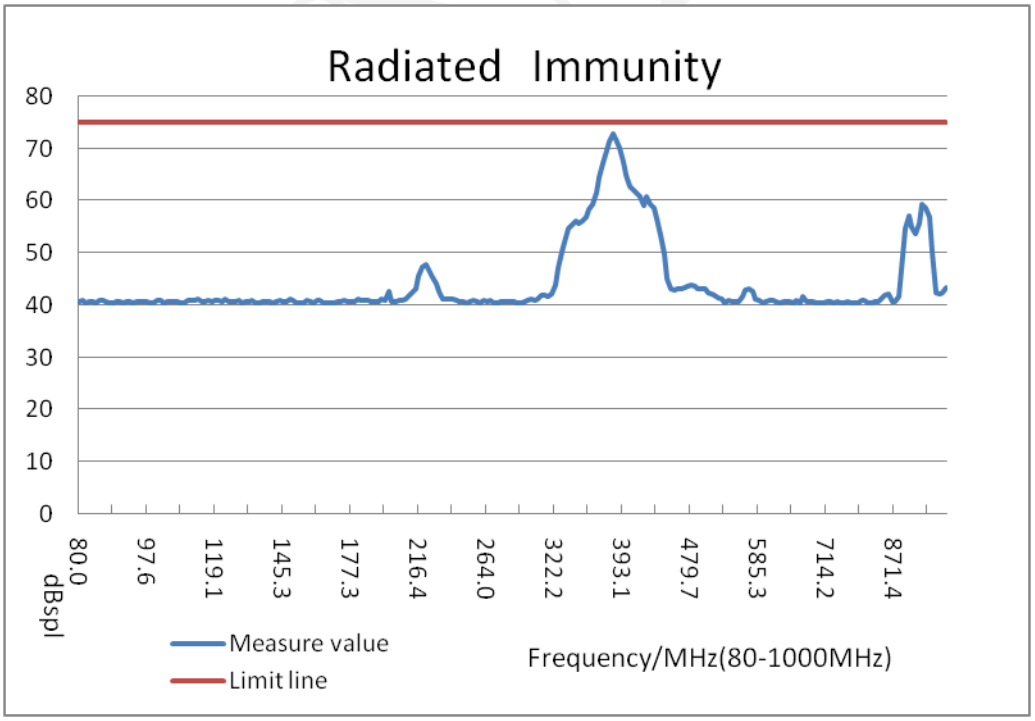
V-SPL



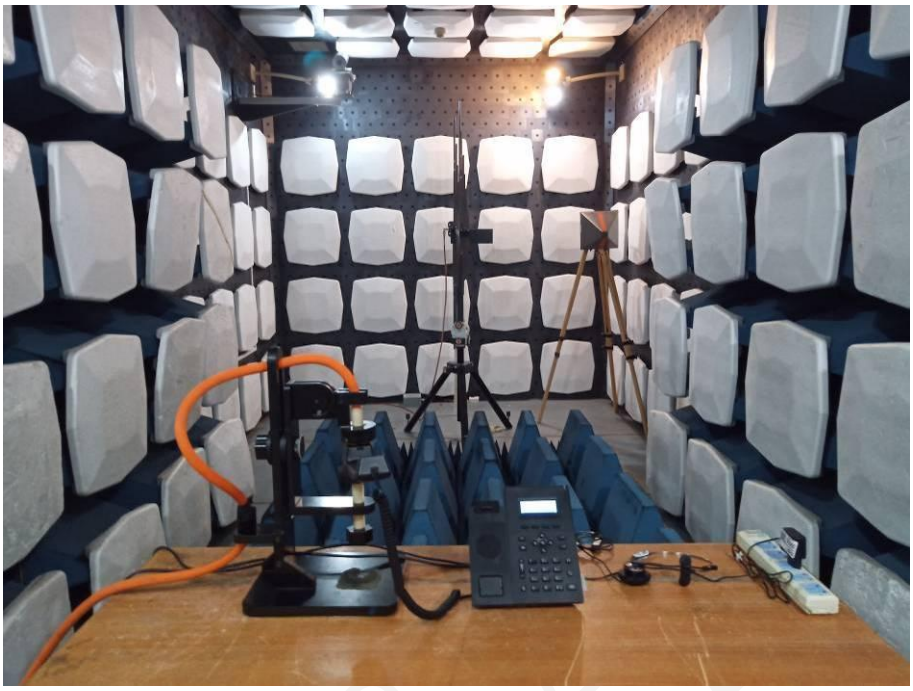
For POE:
H-SPL



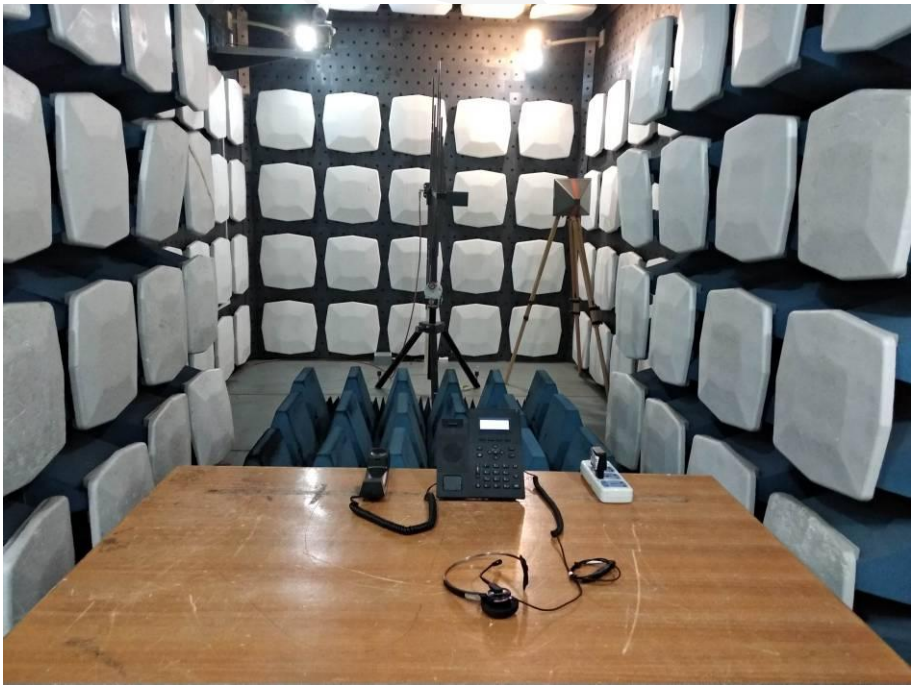
V-SPL



Powered by Adapter 1-Handset

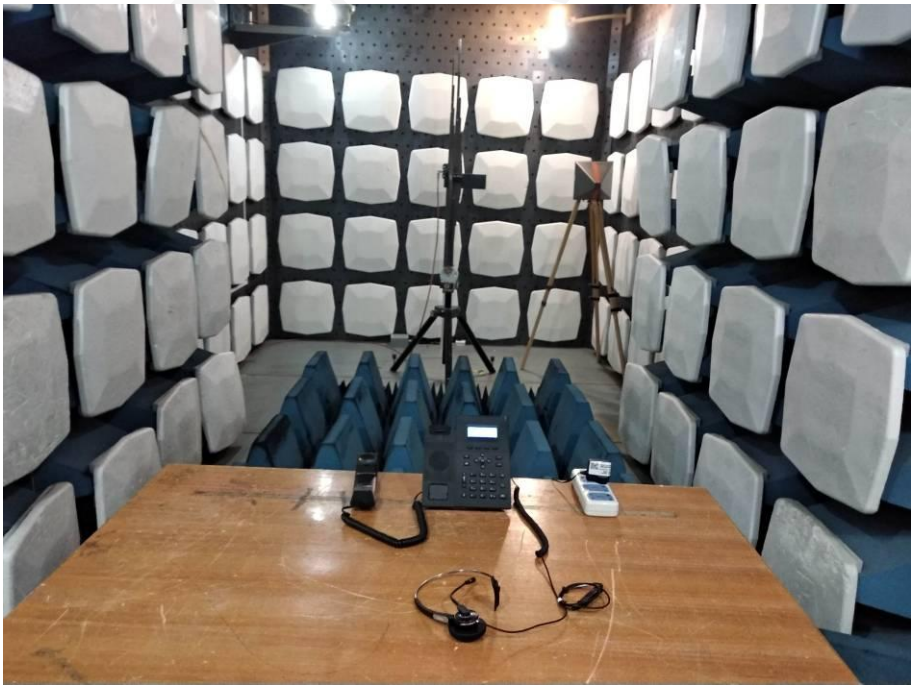


Powered by Adapter 1- Wired Network Connection



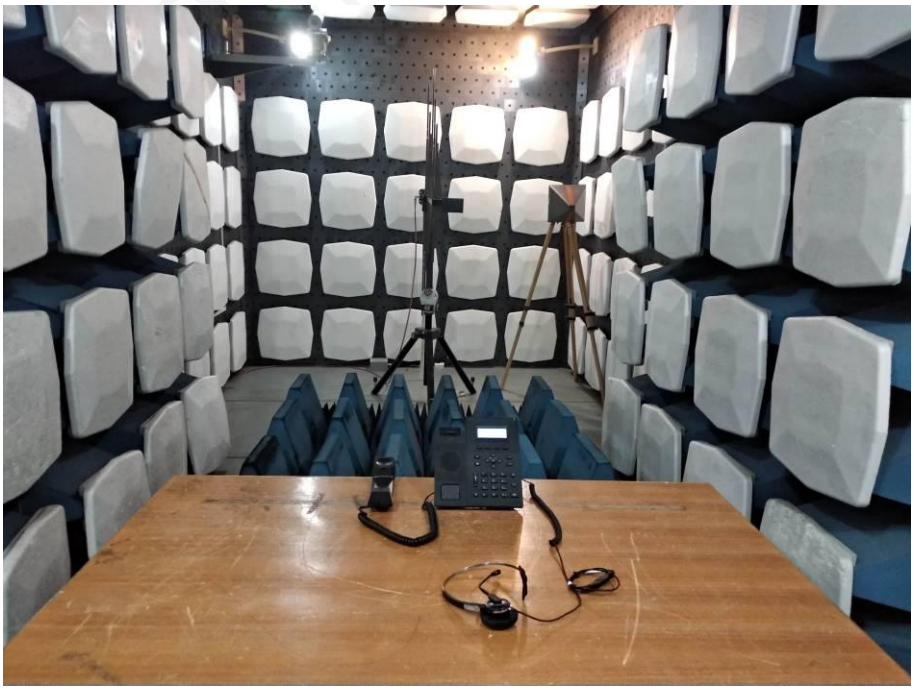
Powered by Adapter 2--- Handset

Powered by Adapter 2- Wired Network Connection



Powered by POE—Handset

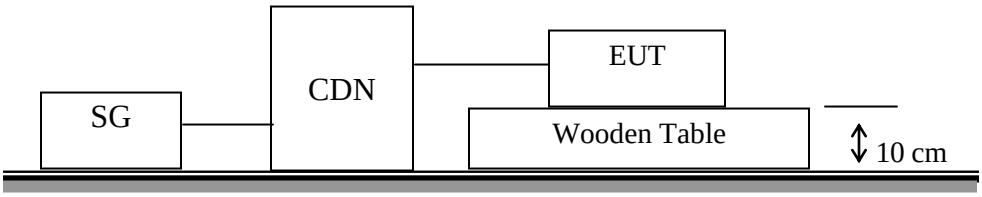
Powered by POE- Wired- Network Connection:



Test Setup Photos

EN 55035 §4.2.2.3- CONTINUOUS INDUCED RF DISTURBANCES (IEC 61000-4-6)

Test Setup



Test Standard

EN 55035:2017 (IEC 61000-4-6:2008)

Test Level

Frequency(MHz)	Voltage Level (r.m.s.) (V)
0.15 to 10	3
10 to 30	3 to 1
30 to 80	1

Performance Criterion: A

Test Procedure

1) Let the EUT work in test mode and test it.
2) The EUT are placed on an insulating support 0.1 m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3 m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
3) The disturbance signal described below is injected to EUT through CDN.
4) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
5) The frequency range is swept from 150 kHz to 80 MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.
6) The rate of sweep shall not exceed 1.5*10-3decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
7) An artificial ear and sound level meter are used to monitor the sound pressure level. RF communication test set is used to monitor the noise level.
8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

AC Mains
Modulation: Amplitude 80%, 1 kHz sine wave
Test Level:

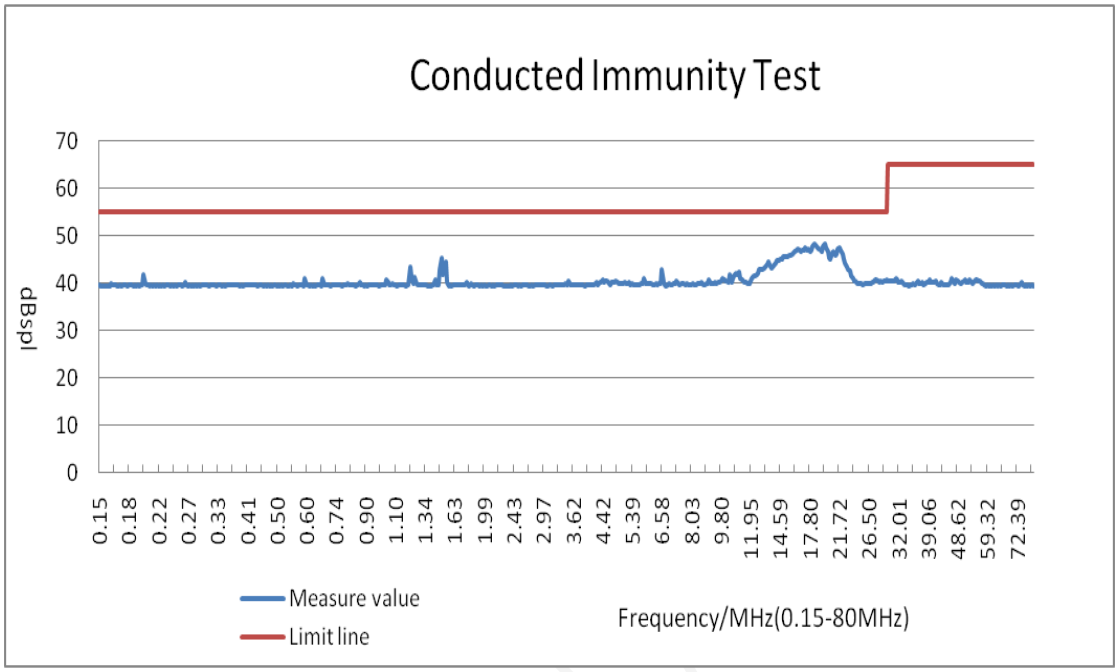
Frequency (MHz)	Voltage Level (r.m.s.) (V)	Pass	Fail
0.15 to 10	3	A	/
10 to 30	3 to 1	A	/
30 to 80	1	A	/
X	Special	/	/

RJ45 Port
Modulation: Amplitude 80%, 1 kHz sine wave
Test Level:

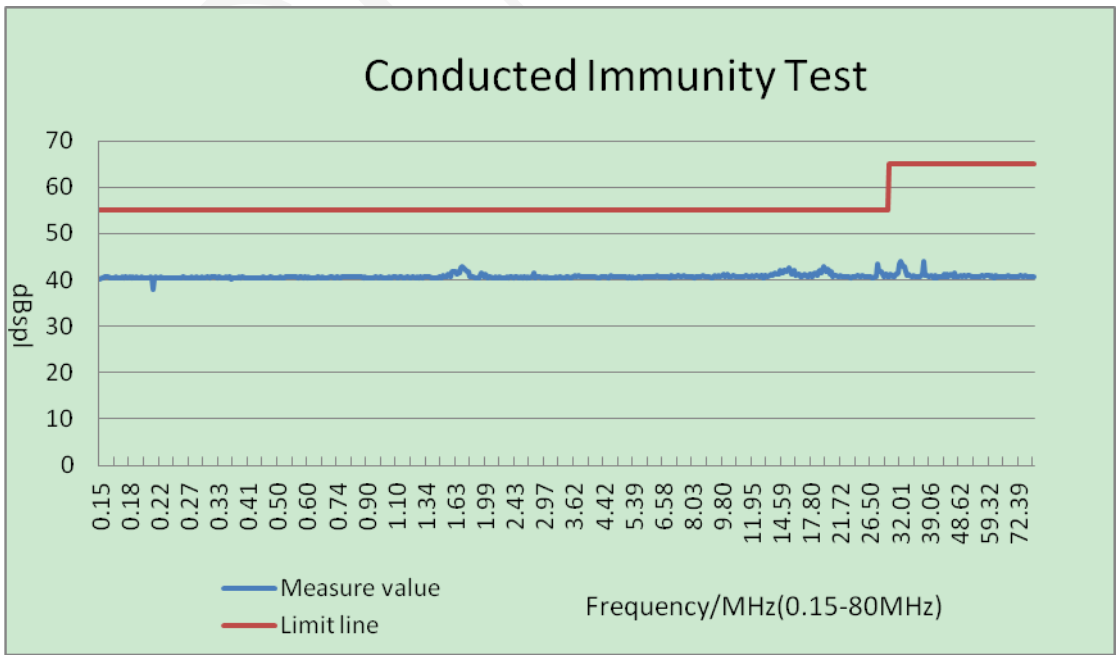
Frequency (MHz)	Voltage Level (r.m.s.) (V)	Pass	Fail
0.15 to 10	3	A	/
10 to 30	3 to 1	A	/
30 to 80	1	A	/
X	Special	/	/

Handset：

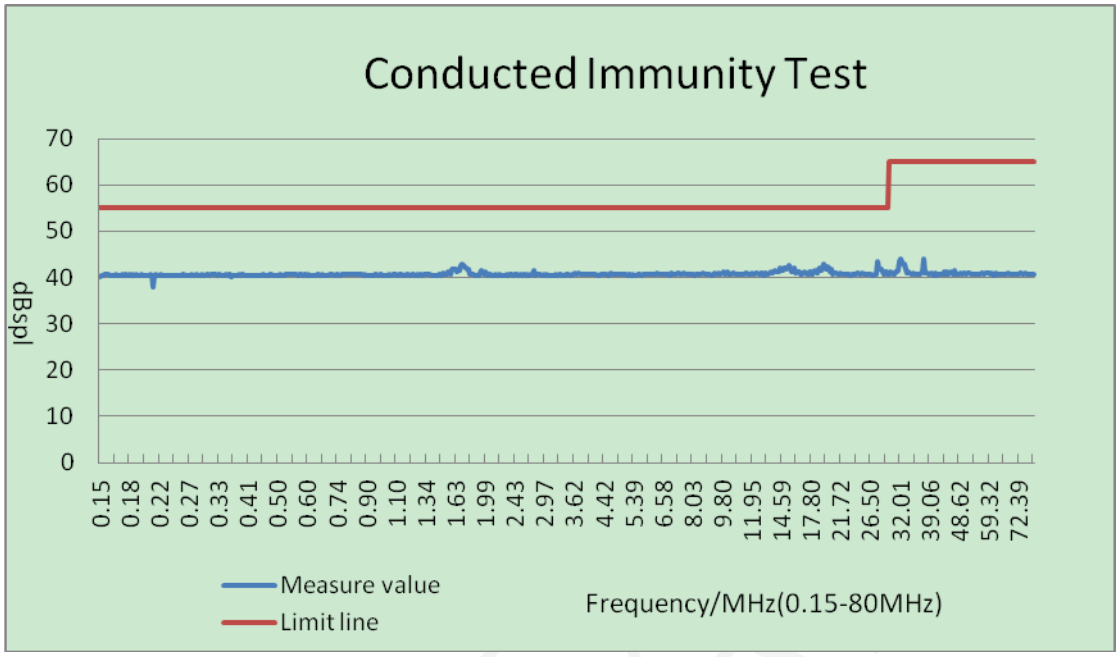
AC power port：
For adapter 1



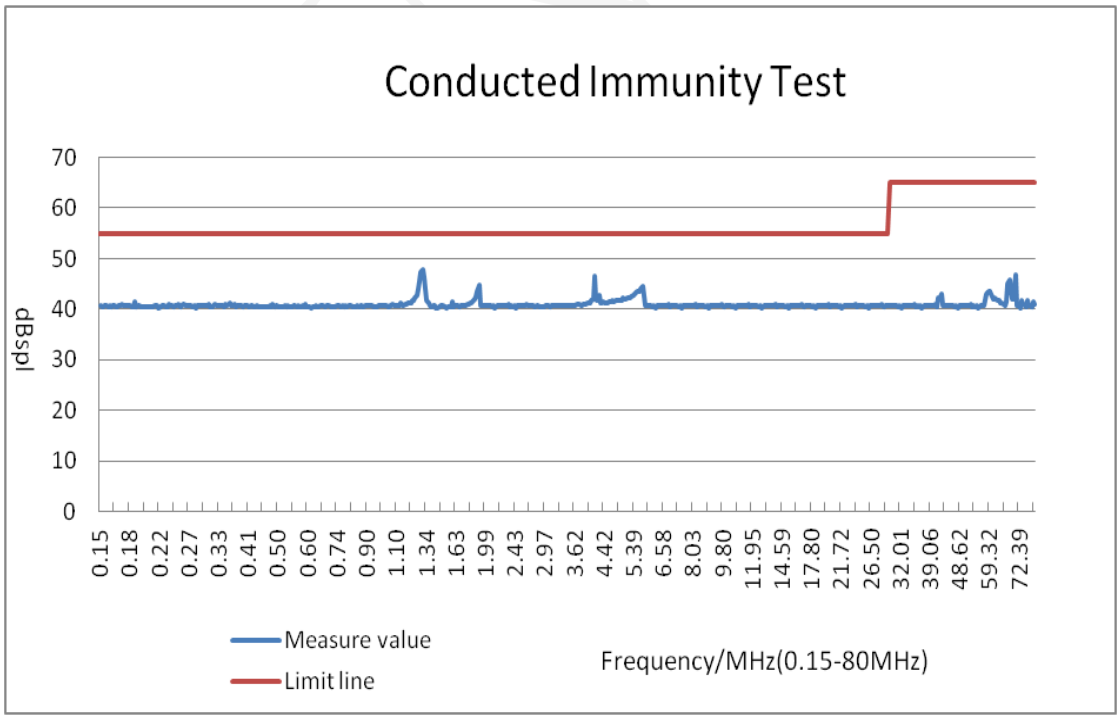
For adapter 2



For POE

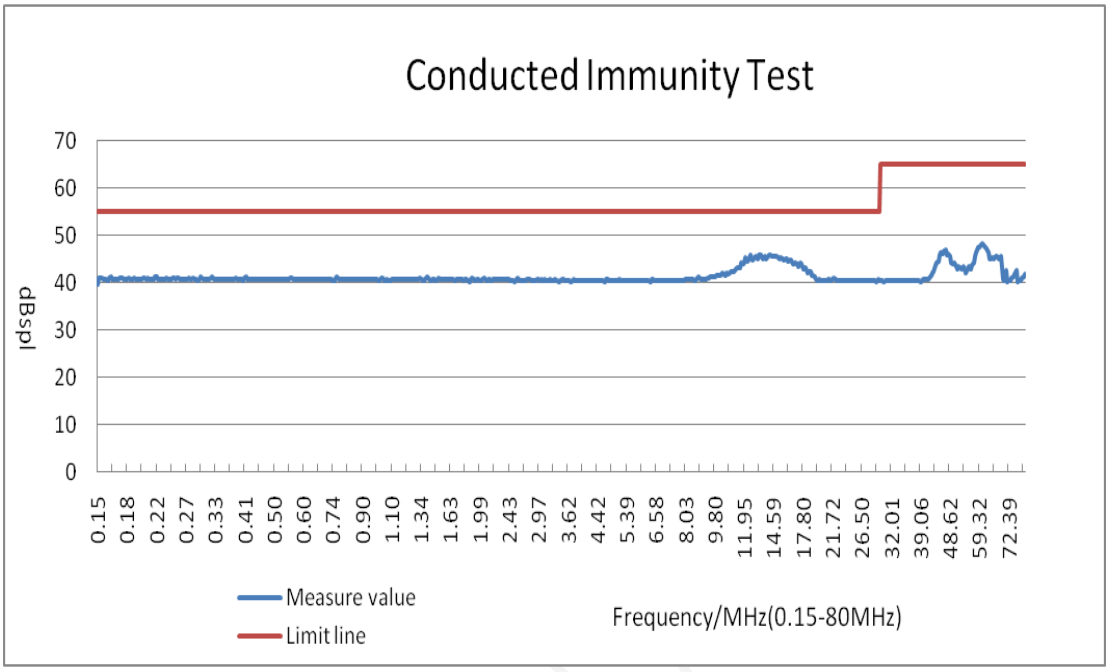


RJ45 Port:

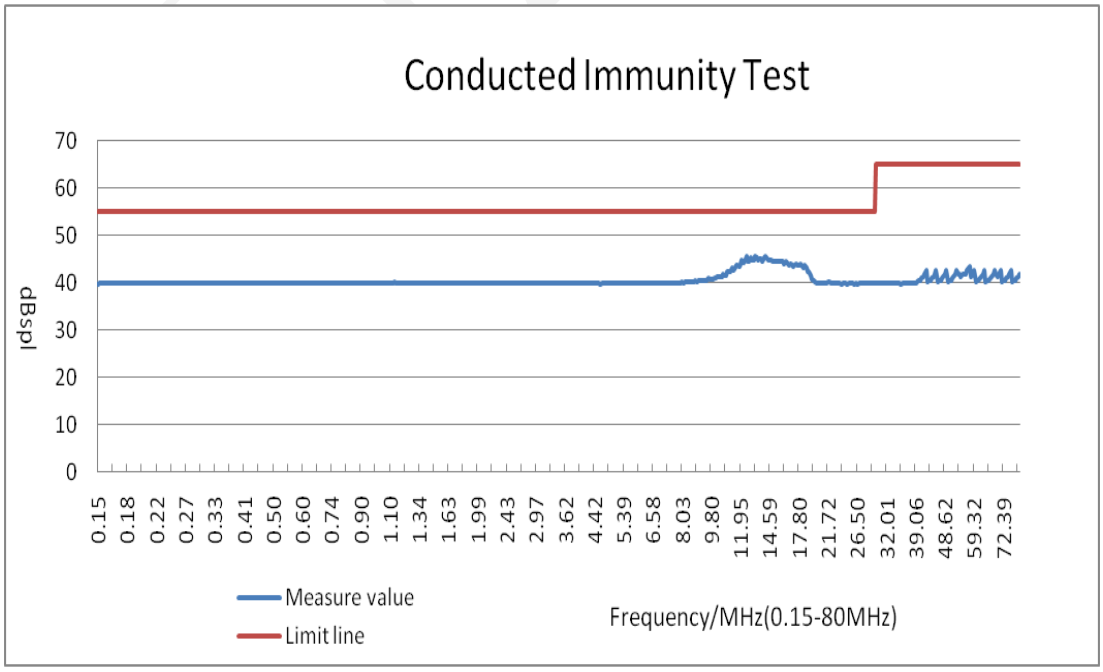


Digtal network connection：

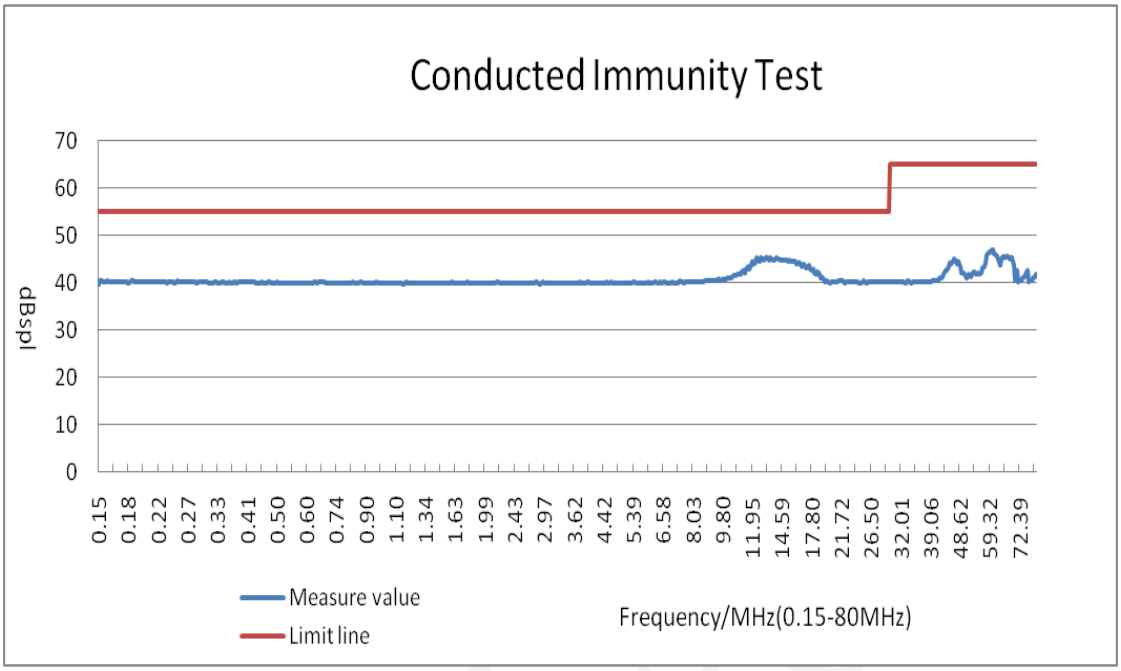
AC power port：
For adapter 1



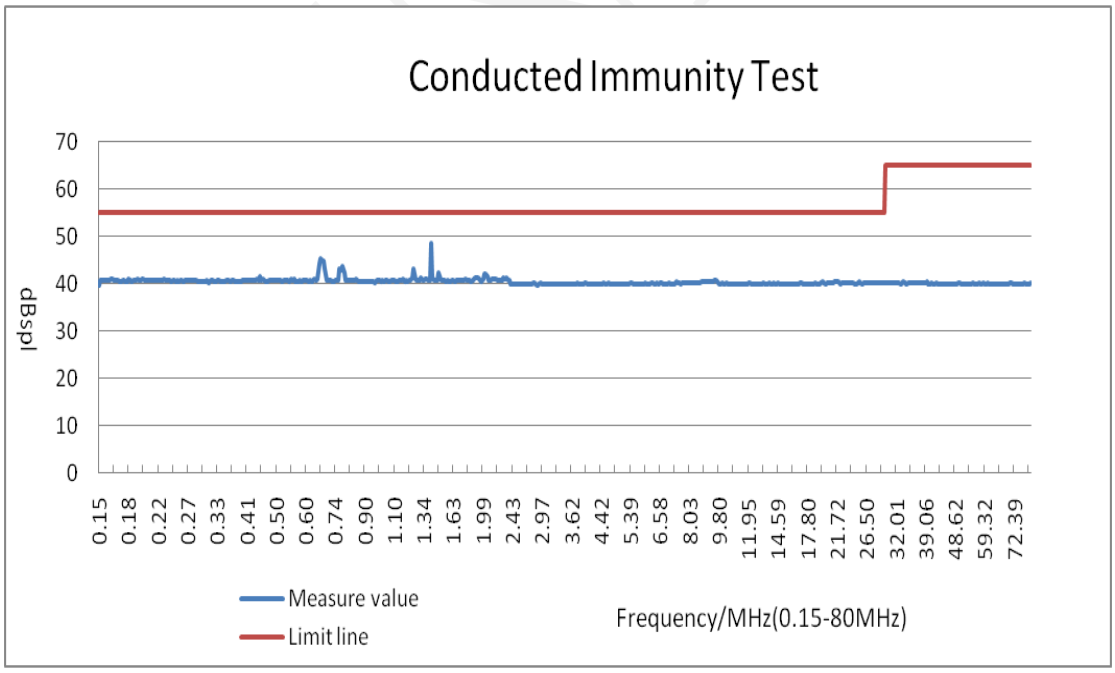
For adapter 2



For POE



RJ45 Port:



AC Mains:

Powered by Adapter 1—Handset

Powered by Adapter 1—Wired Network Connection

Powered by Adapter 2—Handset

Powered by Adapter 2—Wired Network Connection

Powered by POE —Handset

Powered by POE —Wired Network Connection

RJ45 Port

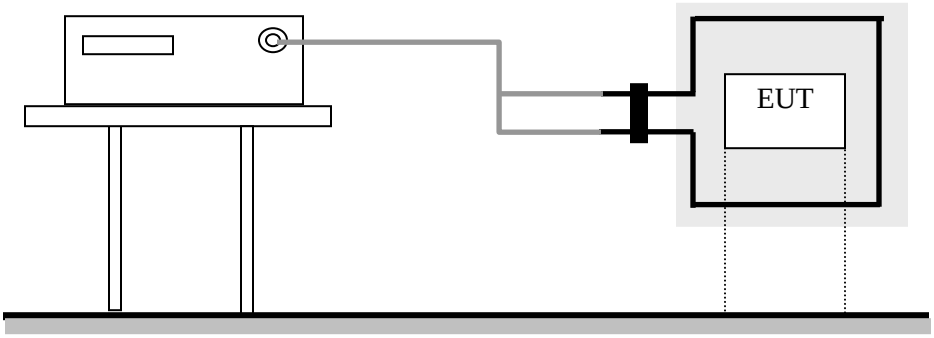
Powered by POE —Handset

Powered by POE —Wired Network Connection

Test Setup Photos

EN 55035 §4.2.3-POWER FREQUENCY MAGNETIC FIELD (IEC 61000-4-8)

Test Setup



Test Standard

EN 55035:2017 (IEC 61000-4-8:2009)
Test level 1 at 1A/m

Test Level

Level	Magnetic Field Strength A/m
1	1
2	3
3	10
4	30
5	100
X.	Special

Performance criterion: A

Test Procedure

The EUT shall be subjected to the test magnetic field by using the induction coil of standard dimensions (1 m*1 m). The induction coil shall then be rotated by 90° in order to expose the EUT to the test field with different orientations.

Test Data and Setup Photo

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

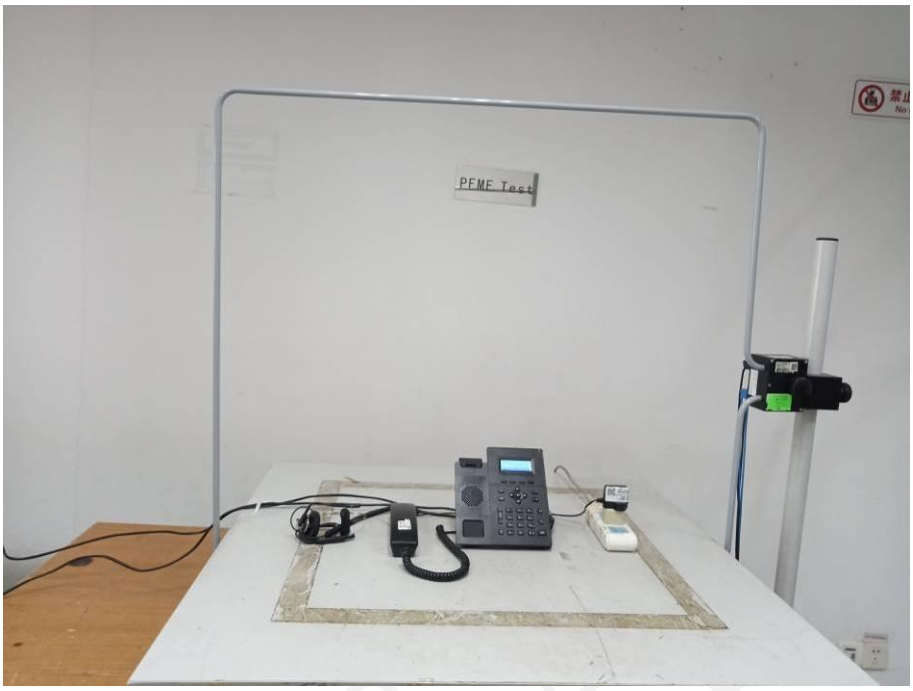
The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

Level	Magnetic Field Strength A/m	X (Horizontal)	Y (Vertical)	Z (Special)
1	1	A	A	A
2	3	/	/	/
3	10	/	/	/
4	30	/	/	/
5	100	/	/	/
X	Special	/	/	/

Powered by Adapter 1

Powered by Adapter 2

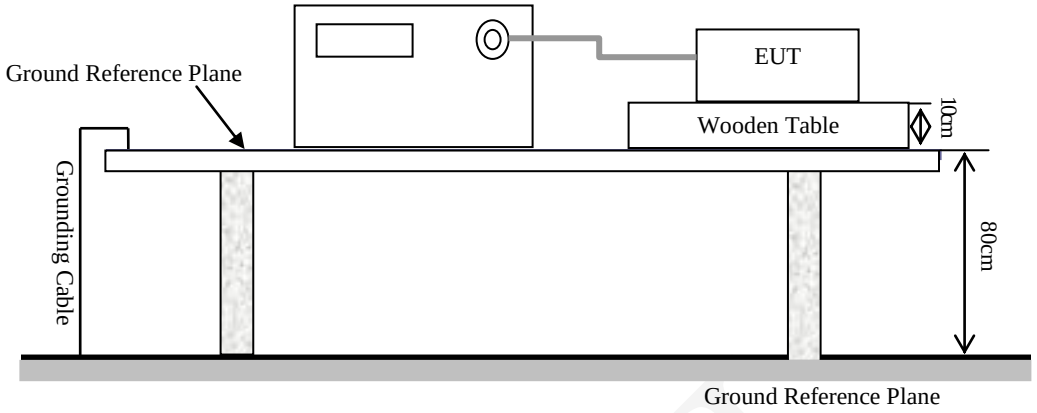


Powered by POE

Test setup photos

EN 55035 §4.2.4-ELECTRICAL FAST TRANSIENTS (IEC 61000-4-4)

Test System Setup



Test Standard

EN 55035:2017 (IEC 61000-4-4:2012)
Test level 2 at ±0.5 kV, ±1 kV for AC mains
Test level 2 at ±0.5 kV for signal port

Test Level

Open Circuit Output Test Voltage ±10%		
Level	**On Power Supply Lines**	**On I/O (Input/Output) Signal data and control lines**
1	0.5 kV	0.25 kV
2	1 kV	0.5 kV
3	2 kV	1 kV
4	4 kV	2 kV
X	Special	Special

Performance Criterion: B

Test Procedure

The EUT was arranged for Power Line Coupling and for I/O Line Coupling through a capacitive clamp, where applicable. (Note: The I/O coupling test using a capacitive clamp is performed on the I/O interface cables that are longer in length than 3 meters.) A metal ground plane 2.4 meter by 2.0 meter was placed between the floor and the table and is connected to the earth by a 2.0 meter ground rod. The ground rod is connected to the test facility's electrical earth.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

IEC 61000-4-4 Test Points		Test Levels (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
AC mains power input ports	L1	/	/	A	A	/	/	/	/
	N	/	/	A	A	/	/	/	/
	PE	/	/	/	/	/	/	/	/
	L1/N	/	/	A	A	/	/	/	/
	L1/PE	/	/	/	/	/	/	/	/
	N/PE	/	/	/	/	/	/	/	/
	L1/N/PE	/	/	/	/	/	/	/	/
Signal Port	RJ45	A	A	/	/	/	/	/	/

AC Mains:

Powered by Adapter 1

Powered by Adapter 2

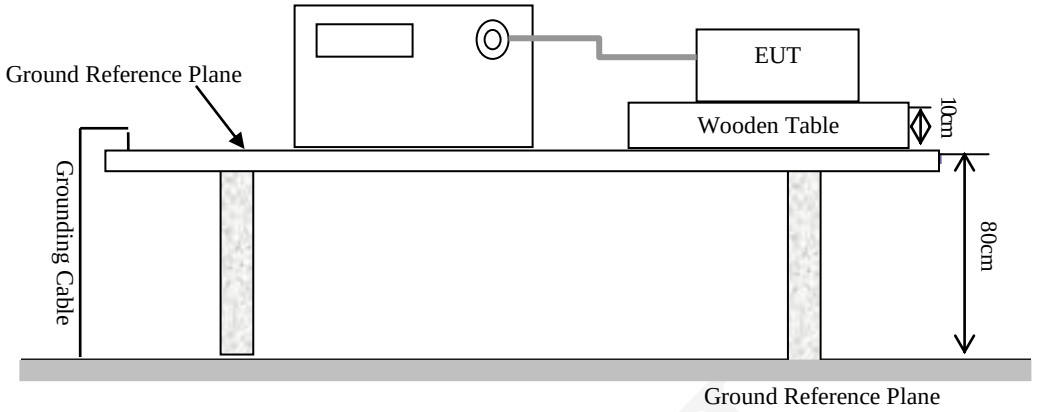
Powered by POE

RJ45 Port

Test setup photos

EN 55035 §4.2.5-SURGES (IEC 61000-4-5)

Test System Setup



Test Standard

EN 55035:2017 (IEC 61000-4-5:2005)
AC mains: Line to Line at ±0.5kV, ±1kV
Signal Port: Line to Ground at ±0.5kV, ±1kV

Test Level

Level	Open Circuit Output Test Voltage ±10%	Performance Criterion	
		AC Mains	Signal Port
1	0.5 kV	B	C
2	1 kV	B	C
3	2 kV	B	C
4	4 kV	B	C
X	Special	/	/

Test Procedure

1) For input a.c. power ports, provide a 1.2/50μs voltage surge (at open-circuit condition) and a 8/20 μs current surge into a short circuit.
2) For telecommunication port, provide a 10/700μs voltage surge (at open-circuit condition) and a 5/320 μs current surge into a short circuit.
3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
4) Different phase angles are done individually.
5) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

AC Mains

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L1/N	A	/
2	1kV	±	L1/N	A	/
3	2kV	±	L1/N, L1/PE, N/PE, L1/N/PE	/	/
4	4kV	±	L1/N, L1/PE, N/PE, L1/N/PE	/	/

RJ45 Port

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	Line-Ground	A	/
2	1kV	±	Line-Ground	A	/
3	2kV	±	Line-Ground	/	/
4	4kV	±	Line-Ground	/	/

AC Mains:

Powered by Adapter 1

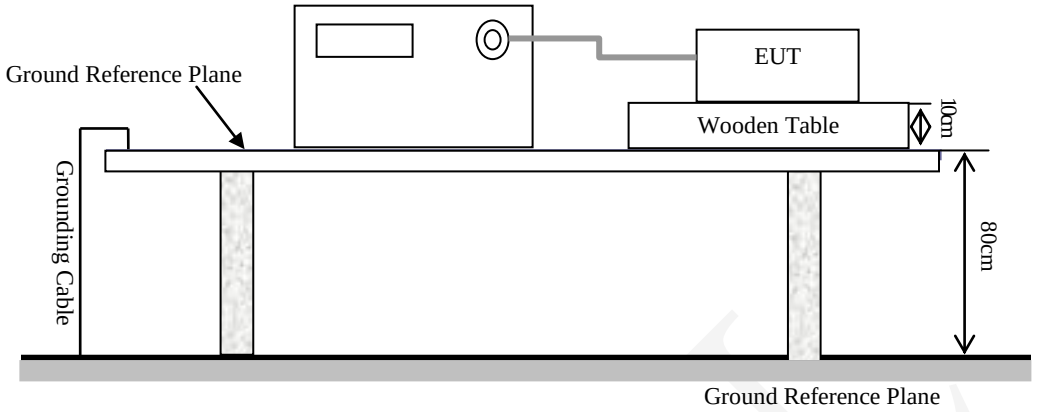
Powered by Adapter 2

Powered by POE

RJ45 Port

EN 55035 §4.2.6-VOLTAGE DIPS AND INTERRUPTIONS (IEC 61000-4-11)

Test Setup



Test Standard

EN 55035:2017 (IEC 61000-4-11:2004)
Test levels and Performance Criterion

Test Level	Voltage dip and short interruptions %UT	Duration (Periods)	Performance Criterion
1	>95	0.5	B
2	30	25	C
3	>95	250	C

Test Procedure

1) The interruption is introduced at selected phase angles with specified duration.
2) Record any degradation of performance.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Larry Li on 2019-11-02.

EUT Operation Mode: Talking

Level	U2 (% Reduction)	Td(Periods)	Phase Angle	N	Pass	Fail
1	100	0.5	0/180	3	A	/
2	30	25	0/180	3	A	/
3	100	250	0/180	3	C	

Note: “B” means talking was interrupted, and need reset by operator.

AC Mains:

Powered by Adapter 1

Powered by Adapter 2

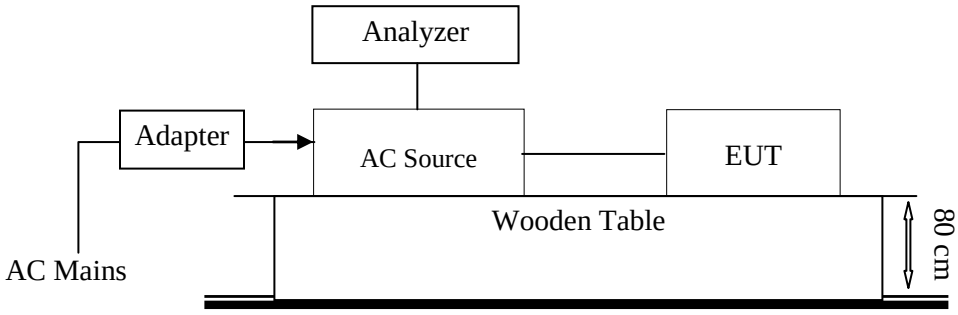
Powered by POE

EN 61000-3-2 – HARMONIC CURRENT EMISSIONS

According to EN 61000-3-2:2014 section 7: Equipment with a rated power of 75 W or less, other than lighting equipment, are not included in this standard.

EN 61000-3-3 – VOLTAGE FLUCTUATION AND FLICKER

Test System Setup



Test Standard

According to EN 61000-3-3:2013

Flicker Test Limits:

The limits shall be applicable to voltage fluctuations and flicker at the supply terminals of the equipment under test, measured or calculated according to clause 4 under test conditions described in clause 6 and annex A. Tests made to prove compliance with the limits are considered to be type tests.
The following limits apply:
– the value of Pst shall not be greater than 1,0;
– the value of Plt shall not be greater than 0,65;
– the value of d(t) during a voltage change shall not exceed 3,3 % for more than 500 ms;
– the relative steady-state voltage change, dc, shall not exceed 3,3 %;
– the maximum relative voltage change dmax, shall not exceed
a) 4 % without additional conditions;
b) 6 % for equipment which is:
– switched manually, or
– switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.
Note: The cycling frequency will be further limited by the Pst and Plt limit. For example: a dmax of 6 % producing a rectangular voltage change characteristic twice per hour will give a Plt of about 0.65.
c) 7 % for equipment which is
– attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
– switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.
In the case of equipment having several separately controlled circuits in accordance with 6.6, limits b) and

c) shall apply only if there is delayed or manual restart after a power supply interruption; for all equipment with automatic switching which is energized immediately on restoration of supply after a power supply interruption, limits a) shall apply; for all equipment with manual switching, limits b) or c) shall apply

depending on the rate of switching. Pst and Plt requirements shall not be applied to voltage changes caused by manual switching. The limits shall not be applied to voltage changes associated with emergency switching or emergency interruptions.

Test Data

Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

Date of test:	15:09 2.Nov 2019
Tester:	Larry Li
Standard used:	EN/IEC 61000-3-3 Flicker
Long time (Pst):	10min
Observation time:	120min (12 Flicker measurement)
Flicker meter:	230V / 50Hz
Customer:	XonTel Technology Trd. Co. W.L.L
E. U. T.:	IP Phone
Model:	XT-08P
EUT operation mode:	Talking(Powered by Adapter 1)

Maximum Flicker results

	EUT values	Limit	Result
Pst	0.028	1.00	Pass
Plt	0.028	0.65	Pass
dc [%]	0.020	3.30	Pass
dmax [%]	0.061	4.00	Pass
dt [s]	0.000	0.50	Pass

Date of test:	17:13 2.Nov 2019
Tester:	Larry Li
Standard used:	EN/IEC 61000-3-3 Flicker
Long time (Pst):	10min
Observation time:	120min (12 Flicker measurement)
Flicker meter:	230V / 50Hz
Customer:	XonTel Technology Trd. Co. W.L.L
E. U. T.:	IP Phone
Model:	XT-08P
EUT operation mode:	Talking(Powered by Adapter 2)

Maximum Flicker results

	EUT values	Limit	Result
Pst	0.028	1.00	Pass
Plt	0.028	0.65	Pass
dc [%]	0.021	3.30	Pass
dmax [%]	0.060	4.00	Pass
dt [s]	0.000	0.50	Pass

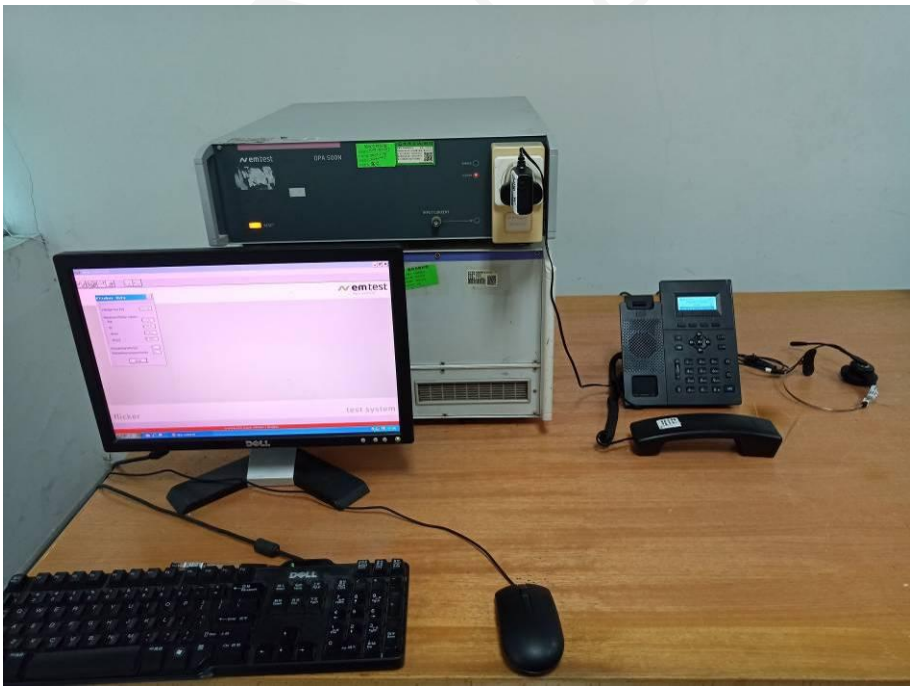
Date of test:	13:06 2.Nov
Tester:	Larry Li
Standard used:	EN/IEC 61000-3-3 Flicker
Long time (Pst):	10min
Observation time:	120min (12 Flicker measurement)
Flicker meter:	230V / 50Hz
Customer:	XonTel Technology Trd. Co. W.L.L
E. U. T.:	IP Phone
Model:	XT-08P
EUT operation mode:	Talking(Powered by POE)

Maximum Flicker results

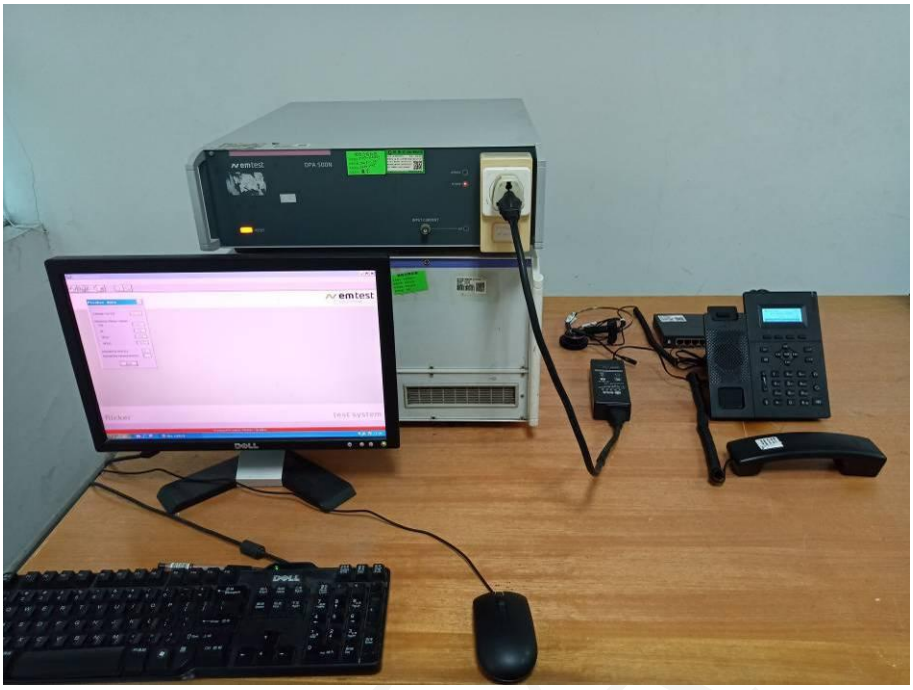
	EUT values	Limit	Result
Pst	0.028	1.00	Pass
Plt	0.028	0.65	Pass
dc [%]	0.021	3.30	Pass
dmax [%]	0.058	4.00	Pass
dt [s]	0.000	0.50	Pass

Powered by Adapter 1

Powered by Adapter 2



Powered by POE



Test Setup Photos

EXHIBIT A - PRODUCT CE LABELING

Proposed CE Label Format

Specification: The CE marking shall be affixed visibly, legibly and indelibly to the apparatus or to its data plate. Where that is not possible or not warranted on account of the nature of the apparatus, it shall be affixed to the packaging and to the accompanying documents.

Proposed Location of Label on EUT

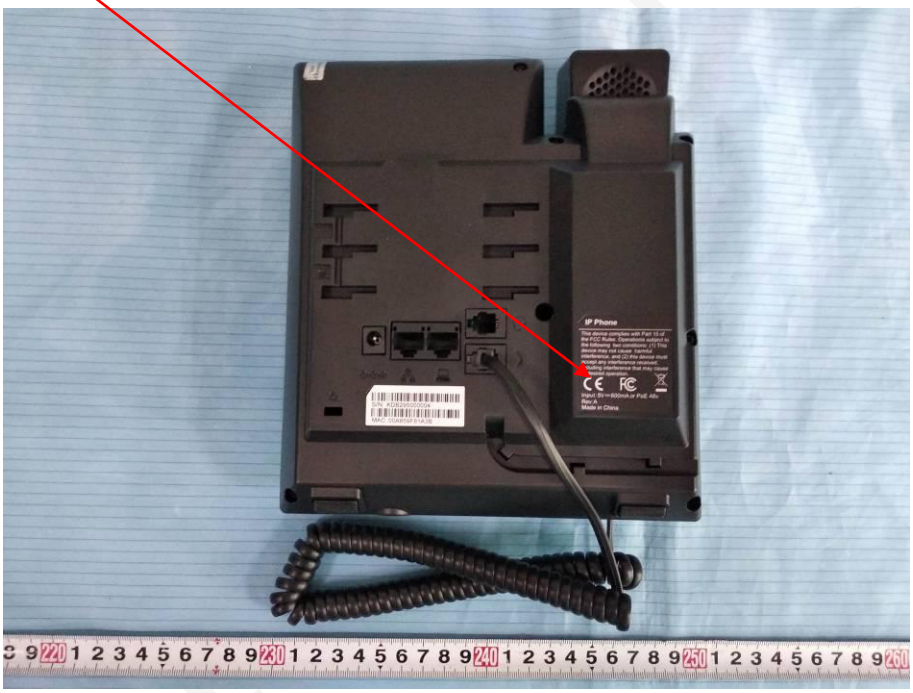


EXHIBIT A - EUT PHOTOGRAPHS

EUT – All View

EUT – Front View

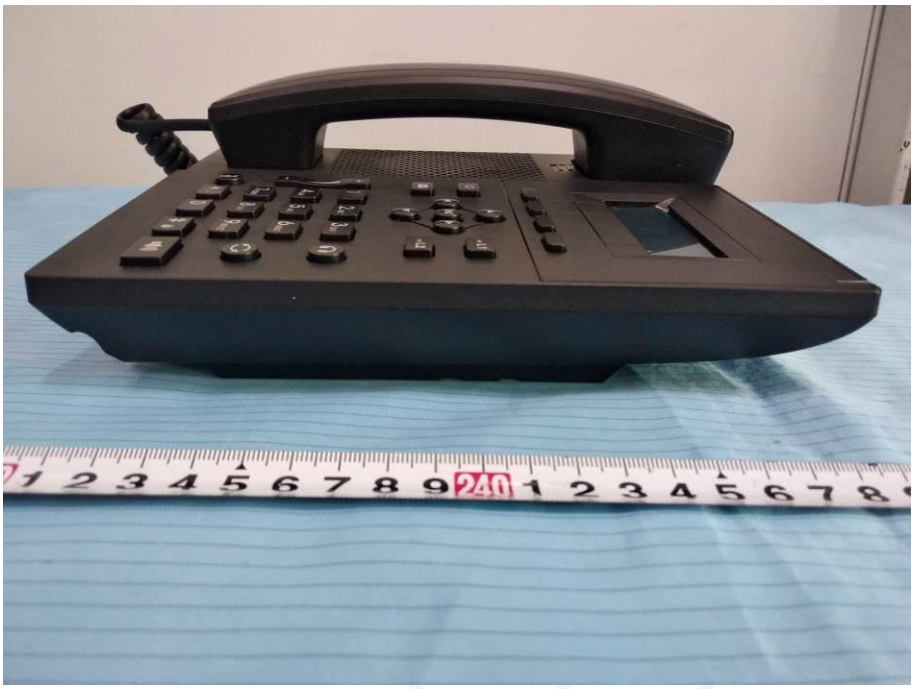
EUT – Rear View

EUT – Top View

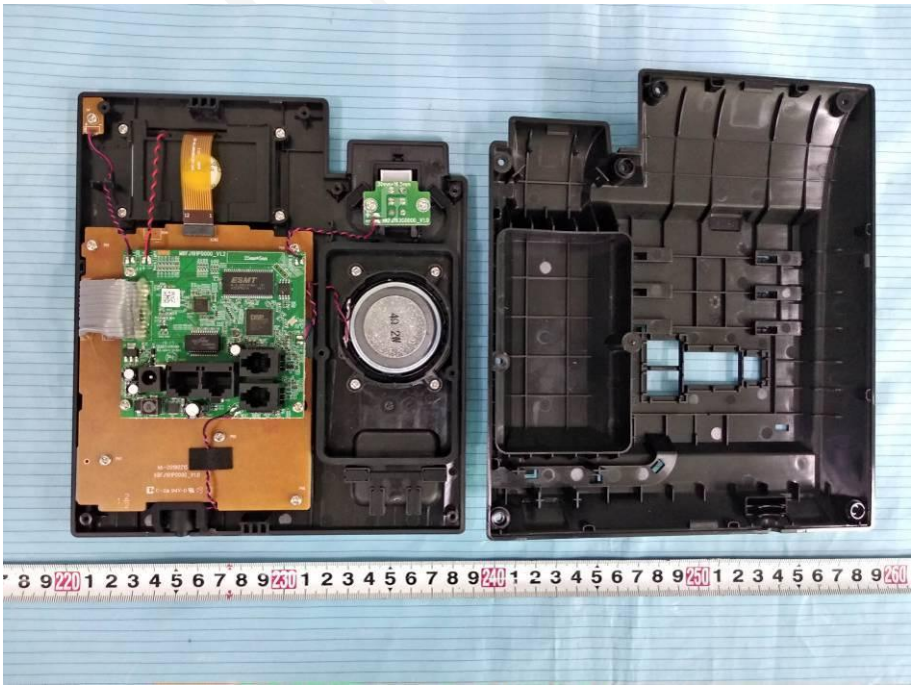
EUT – Bottom View

EUT – Left View

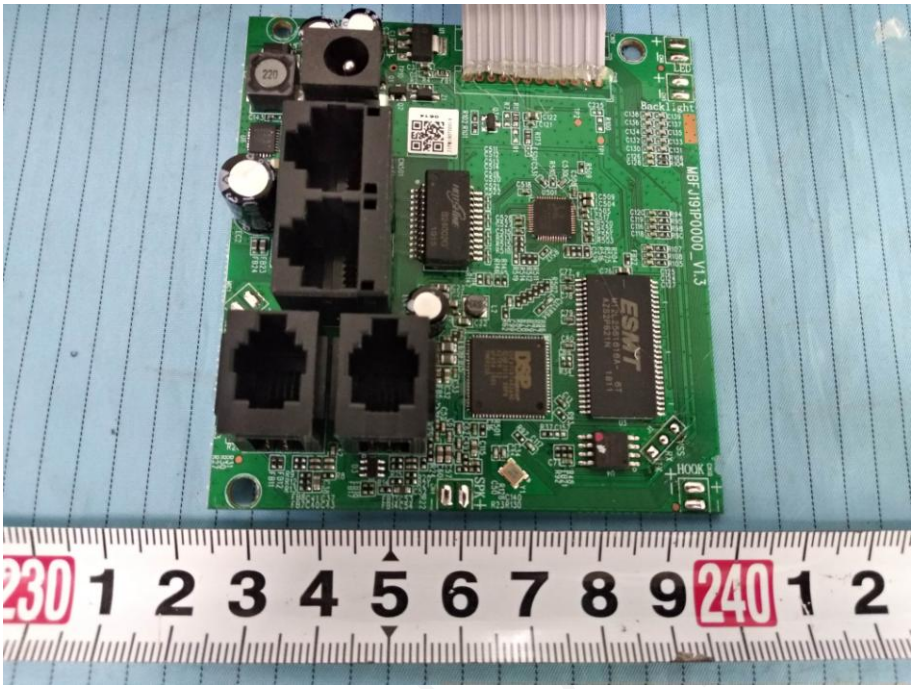
EUT – Right View



EUT – Cover off View

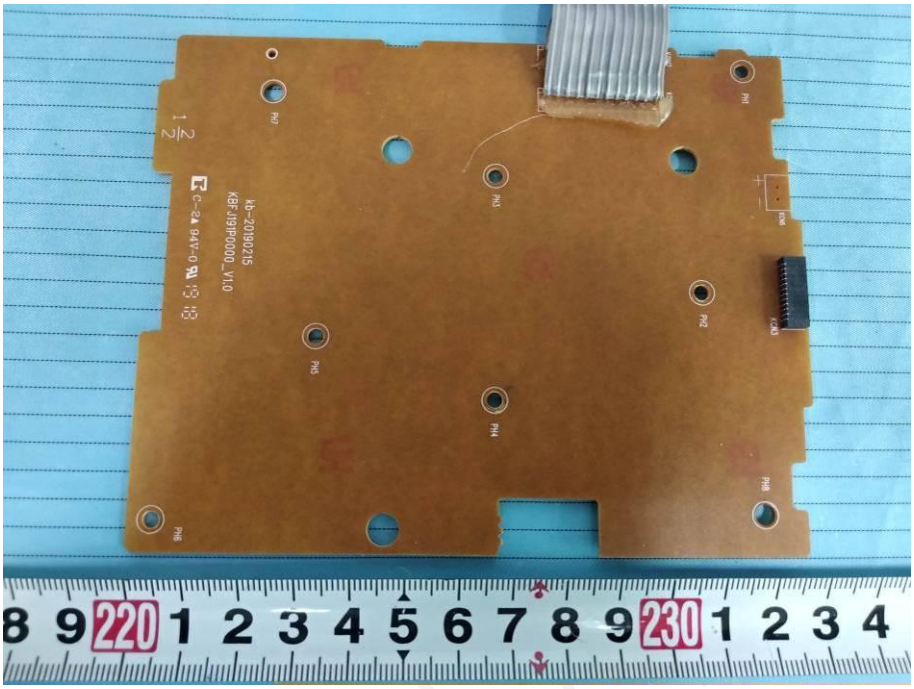


EUT –Main Board Top View

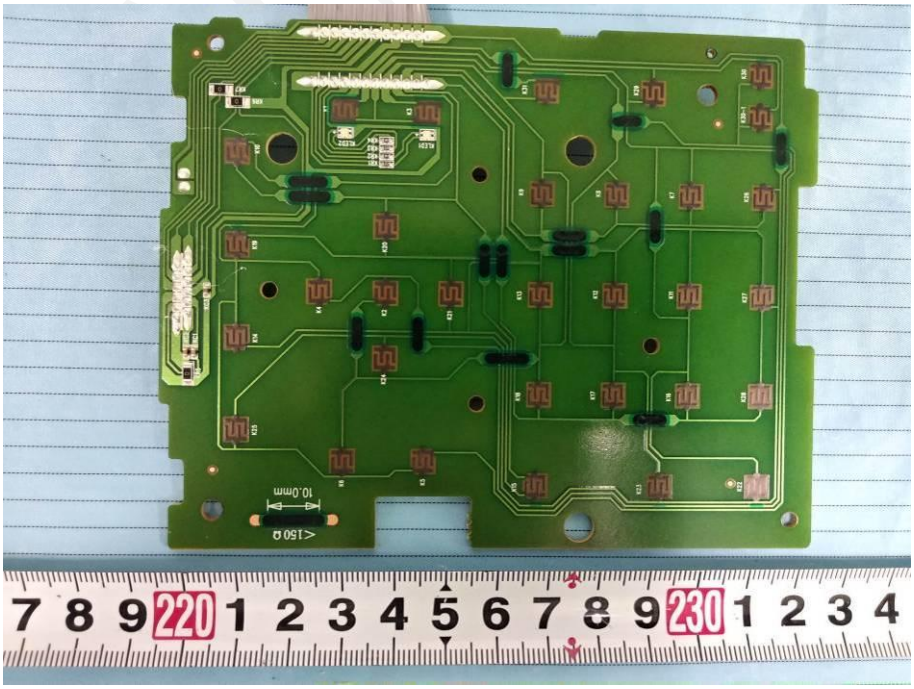


EUT –Main Board Bottom View

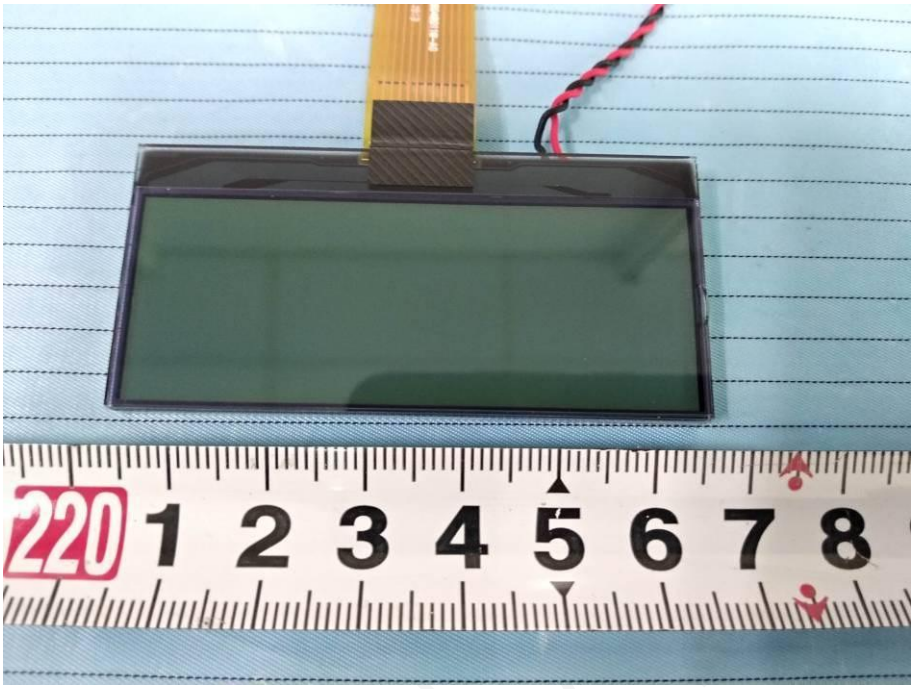
EUT –KeyBoard Top View



EUT –KeyBoard Bottom View

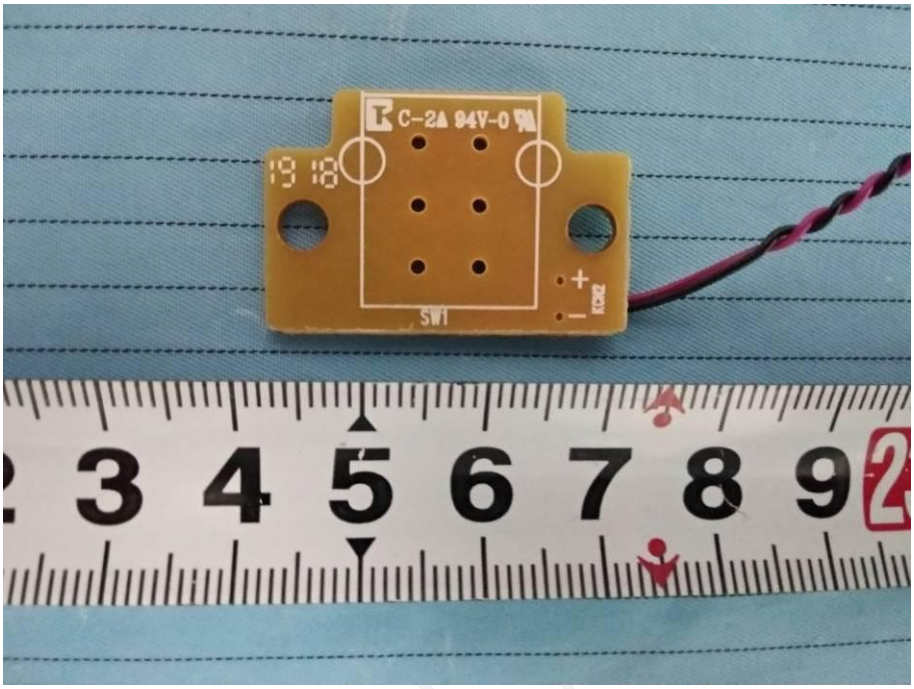


EUT –LCD Board Top View

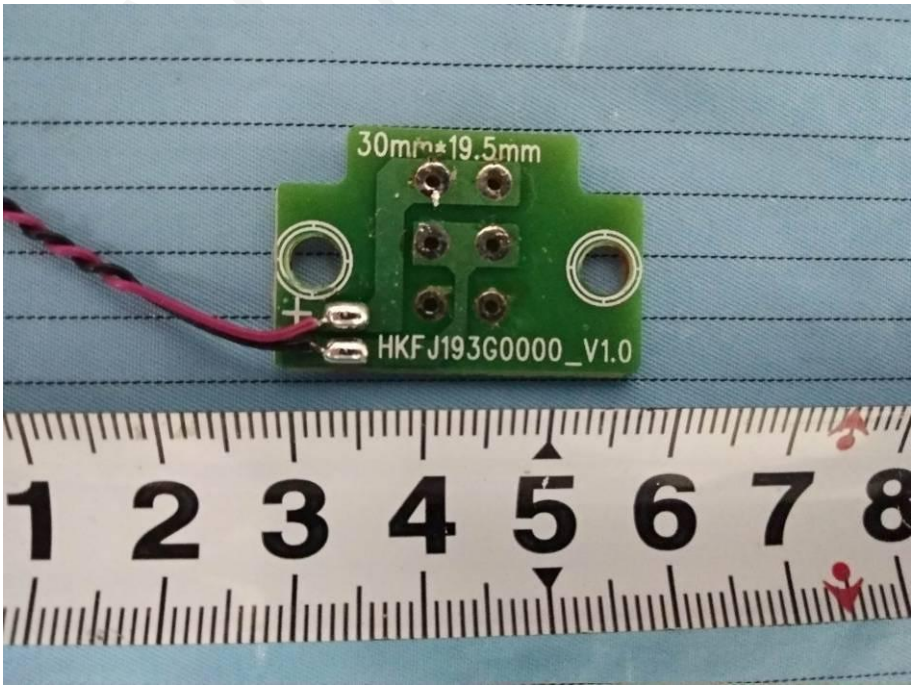


EUT –LCD Board Bottom View

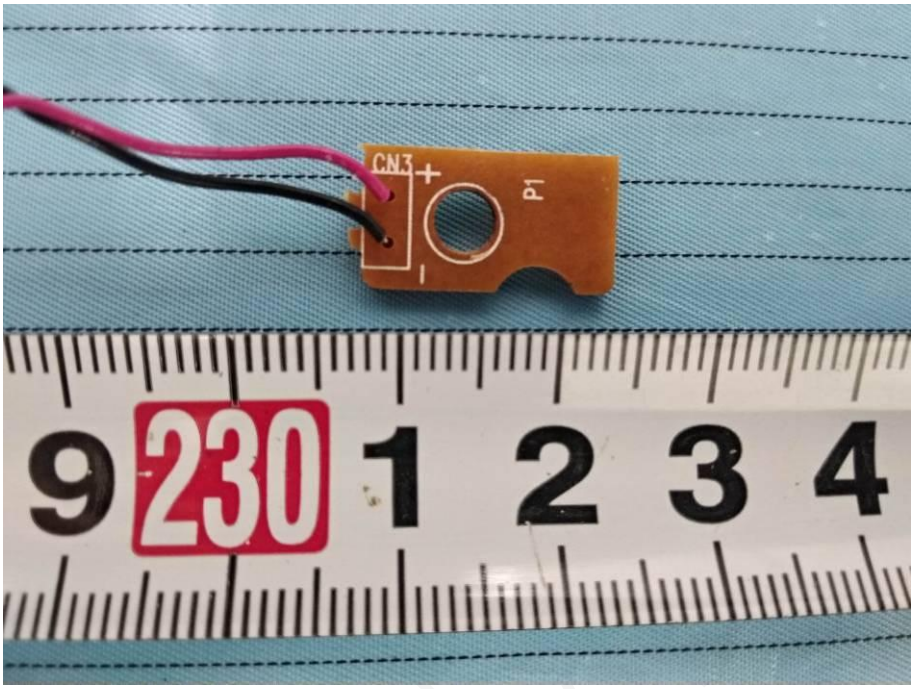
EUT –HookBoard Top View



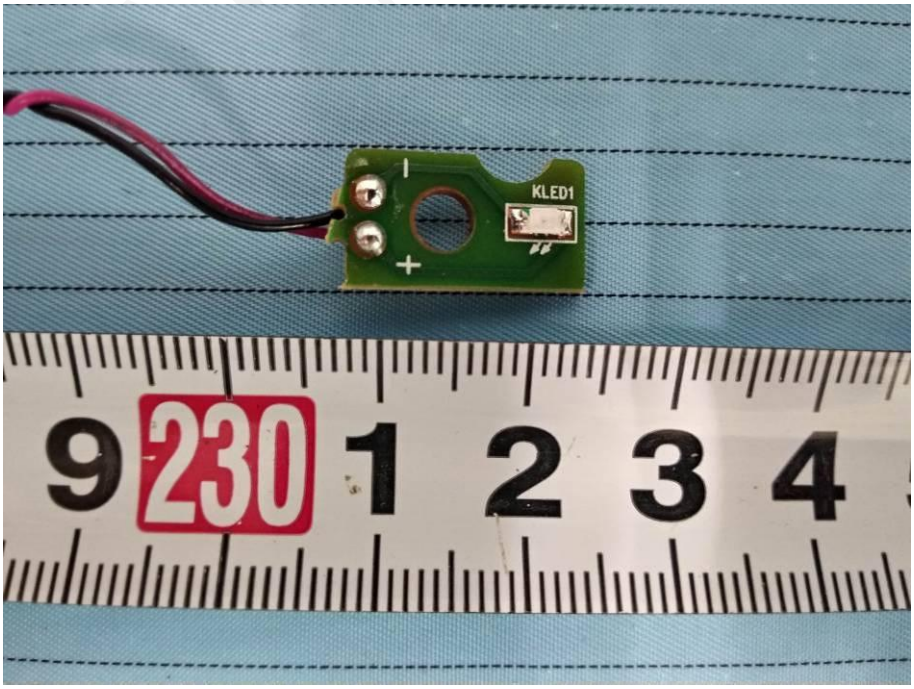
EUT –HookBoard Bottom View



EUT –LED Board Top View

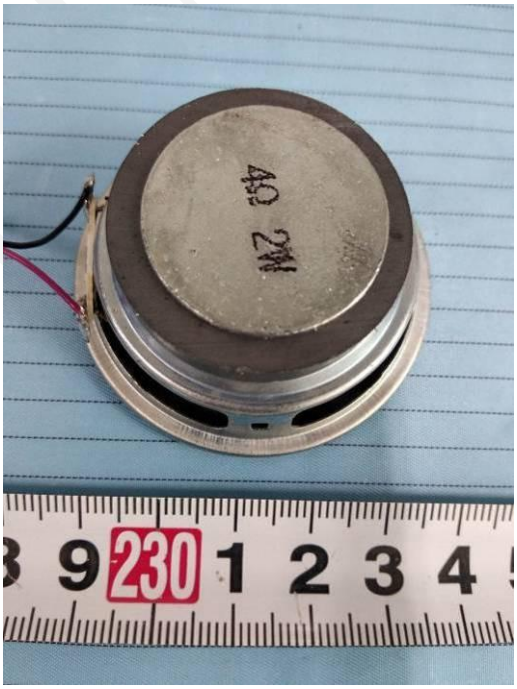


EUT –LED Board Bottom View

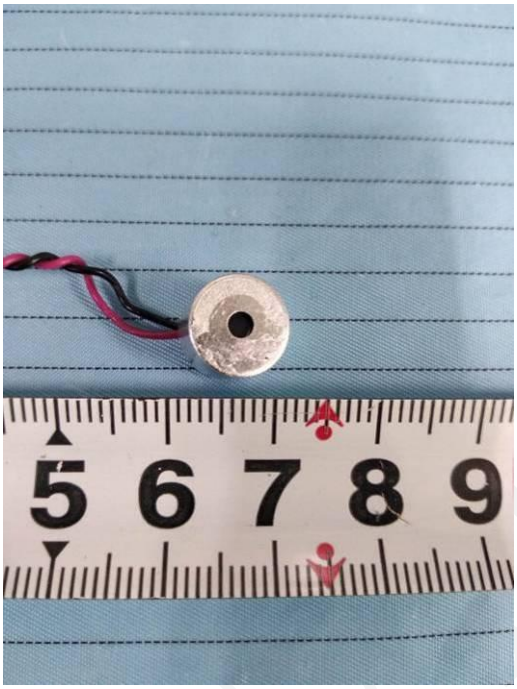


EUT –Loudspeak Top View

EUT –Loudspeak Bottom View



EUT –MIC Top View



EUT –MIC Bottom View

EUT – Adapter 1 View

EUT – Adapter 1 Label 1 View

EUT – Adapter 1 Label 2 View

EUT – Adapter 2 View

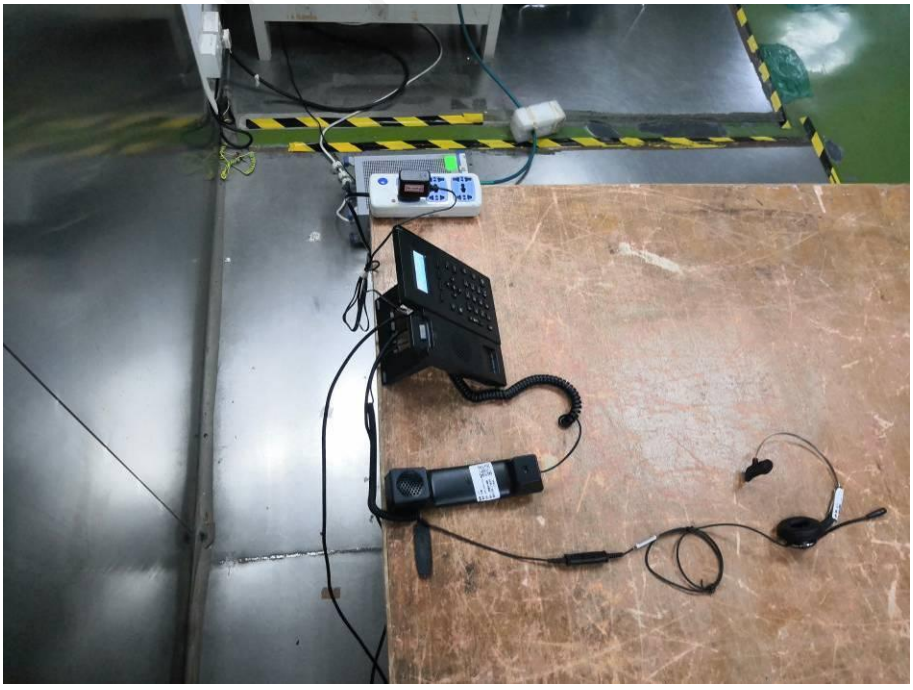
EUT – Adapter 2 Label 1View

EUT – Adapter 2 Label 2 View

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Conducted Emissions - Front View (Powered by Adapter 1)

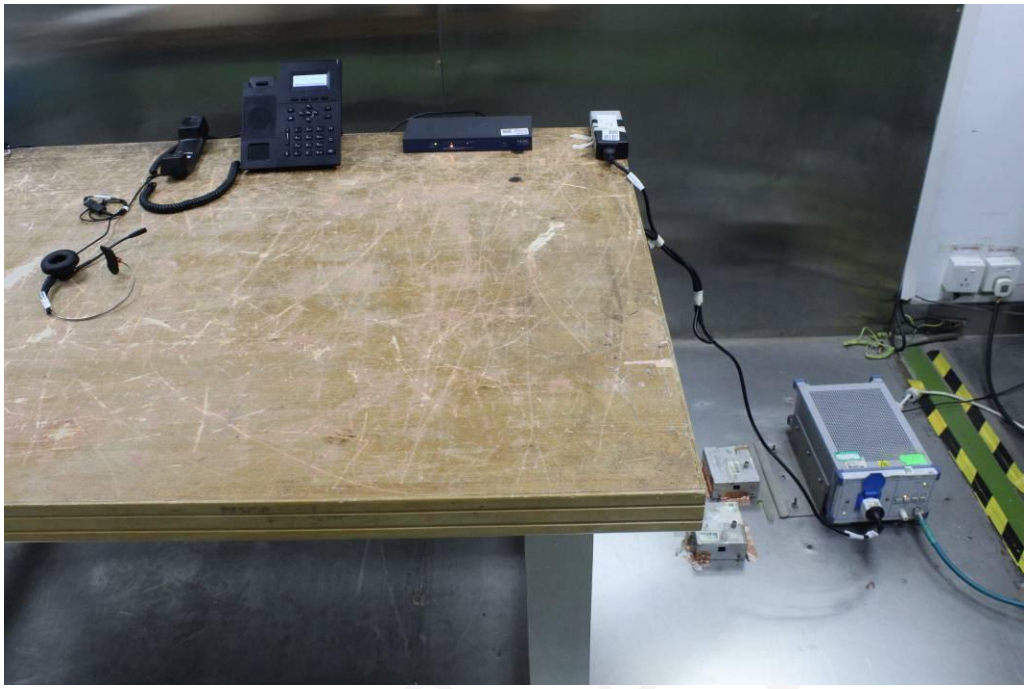
Conducted Emissions - Side View (Powered by Adapter 1)



Conducted Emissions - Front View (Powered by Adapter 2)

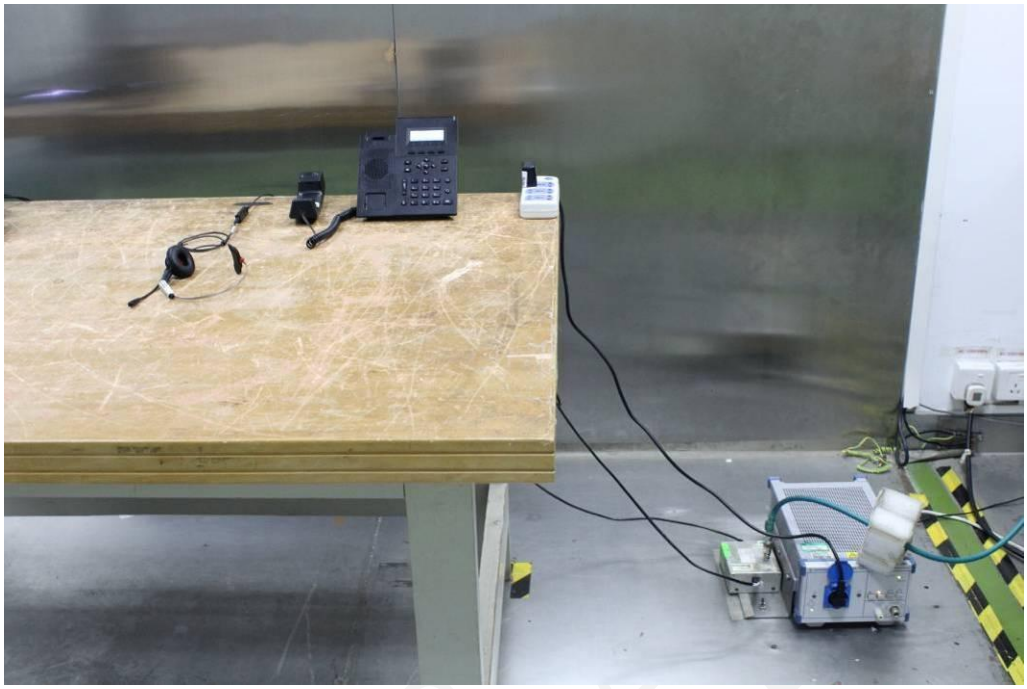
Conducted Emissions - Side View (Powered by Adapter 2)

Conducted Emissions - Front View (Powered by POE)

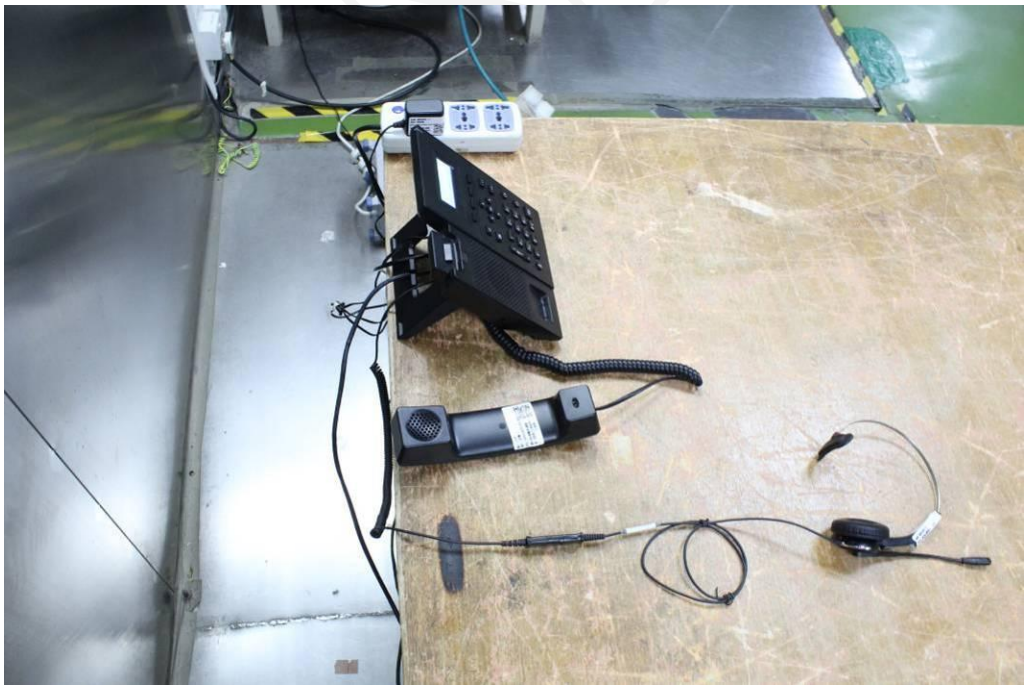


Conducted Emissions - Side View (Powered by POE)

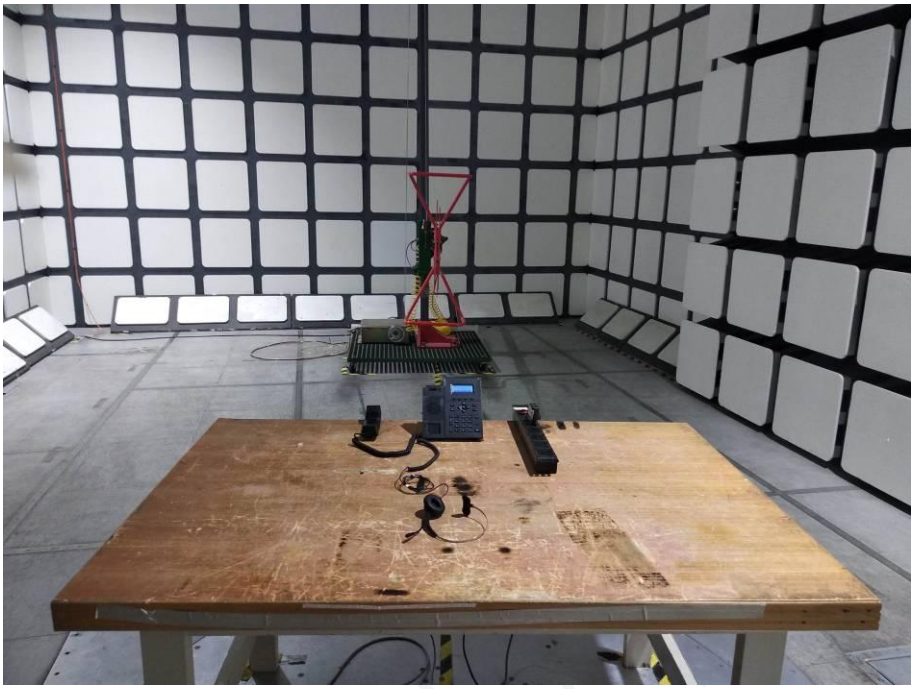
Conducted Emissions - Front View (RJ45 Port)



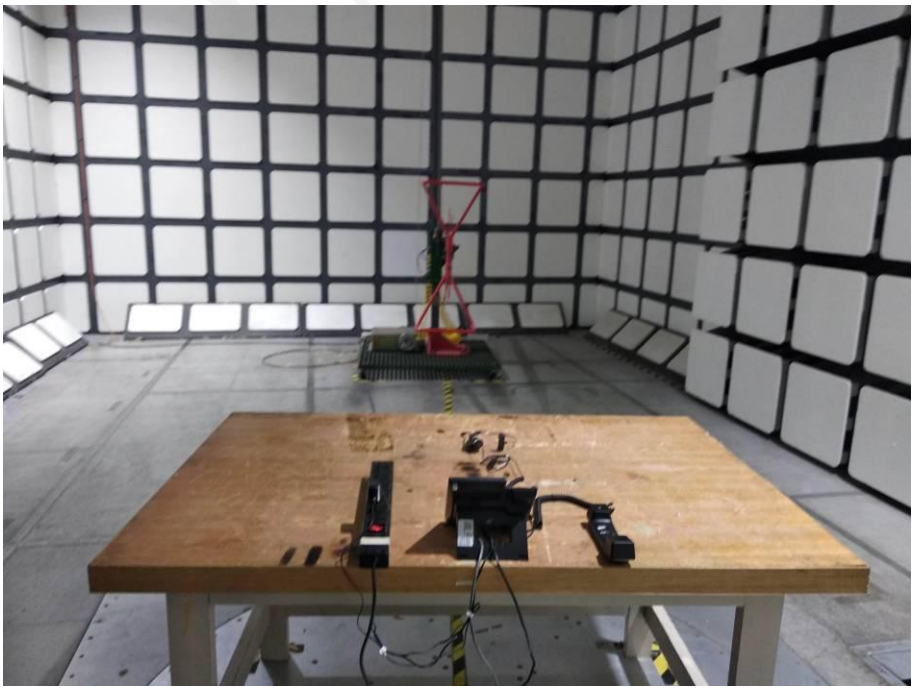
Conducted Emissions - Side View (RJ45 Port)



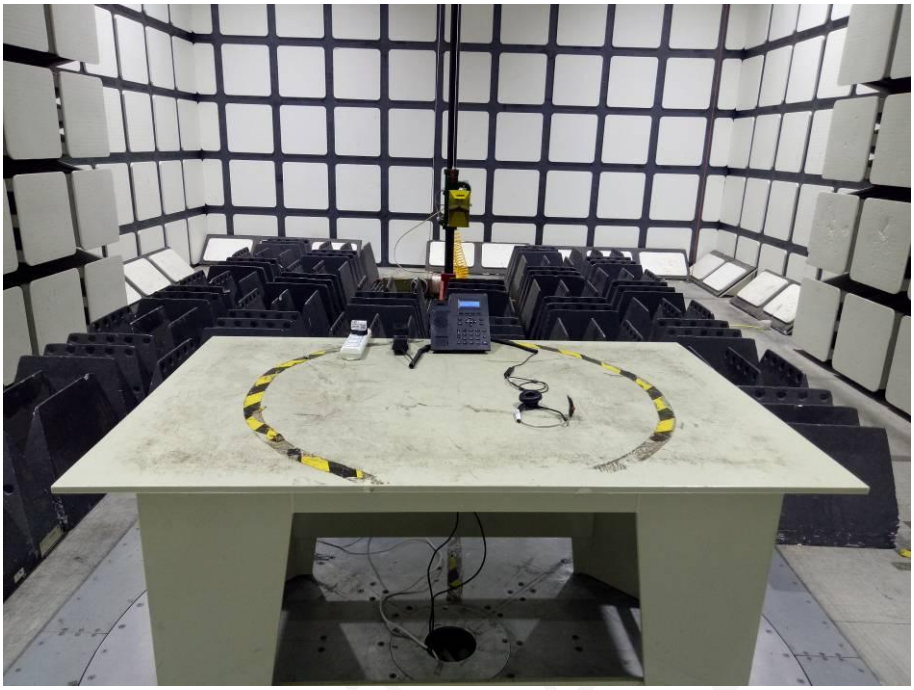
Radiated Emissions – Front View (Below 1 GHz, Powered by Adapter 1)



Radiated Emissions – Rear View (Below 1 GHz, Powered by Adapter 1)

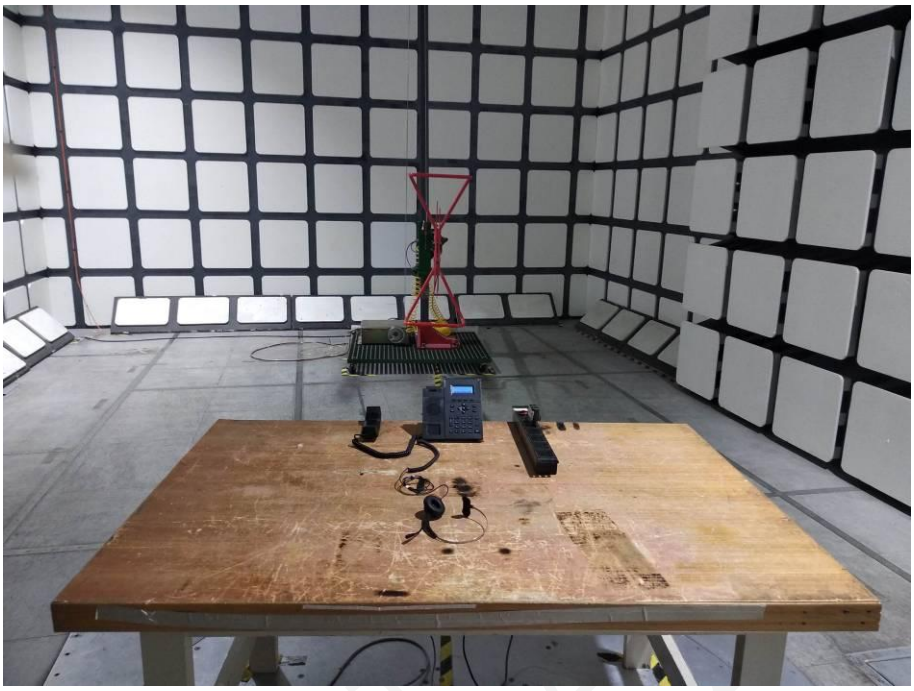


Radiated Emissions – Front View (Above 1 GHz, Powered by Adapter 1)

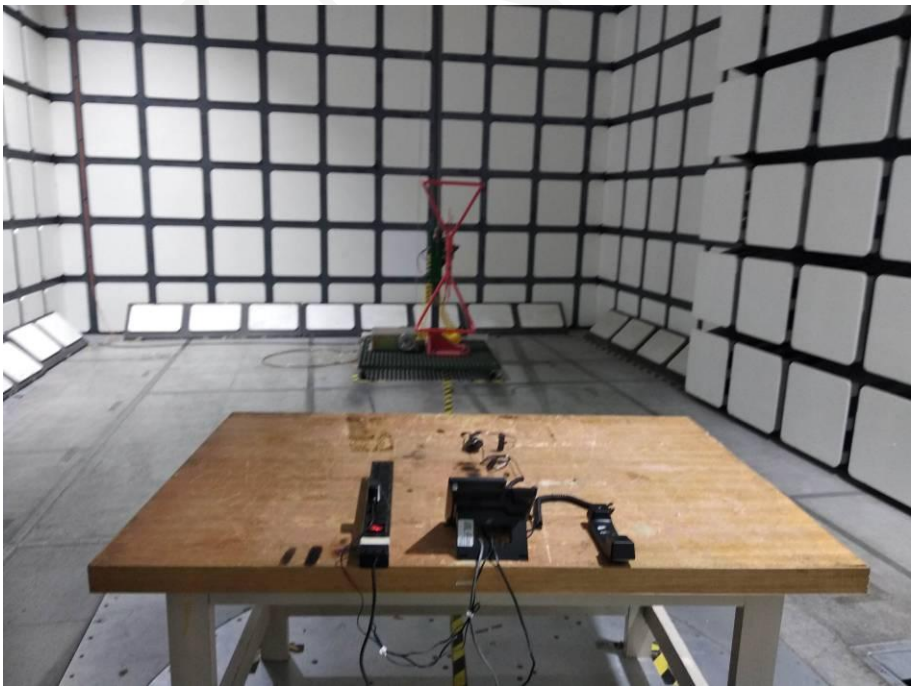


Radiated Emissions – Rear View (Above 1 GHz, Powered by Adapter 1)

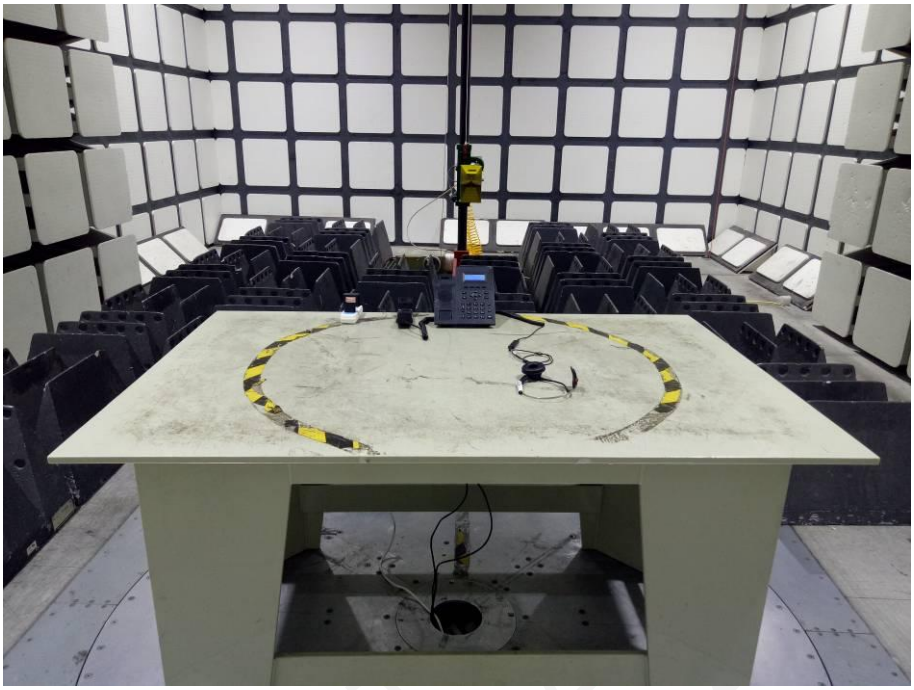
Radiated Emissions – Front View (Below 1 GHz, Powered by Adapter 2)



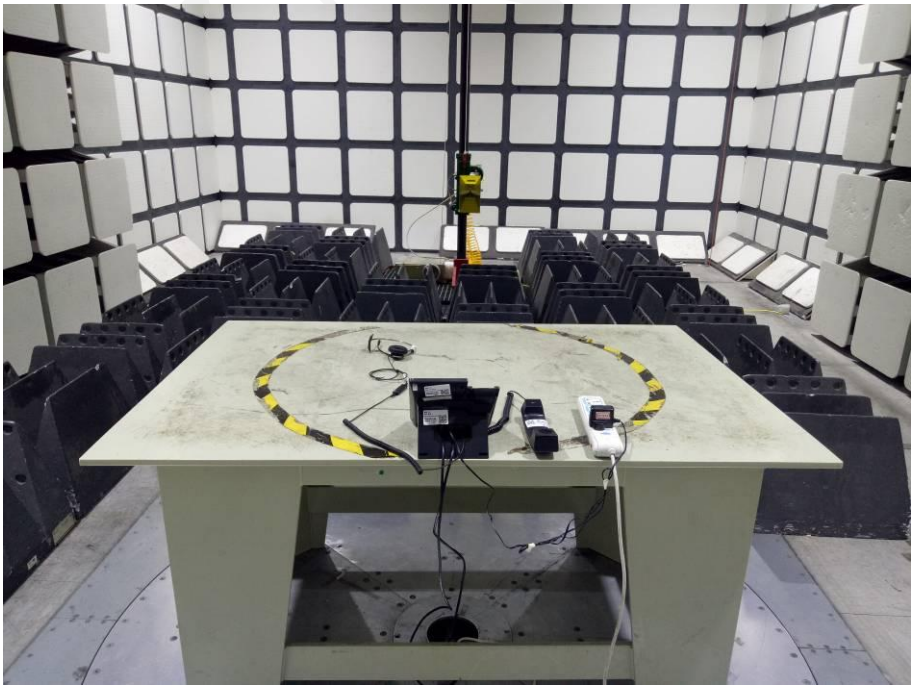
Radiated Emissions – Rear View (Below 1 GHz, Powered by Adapter 2)



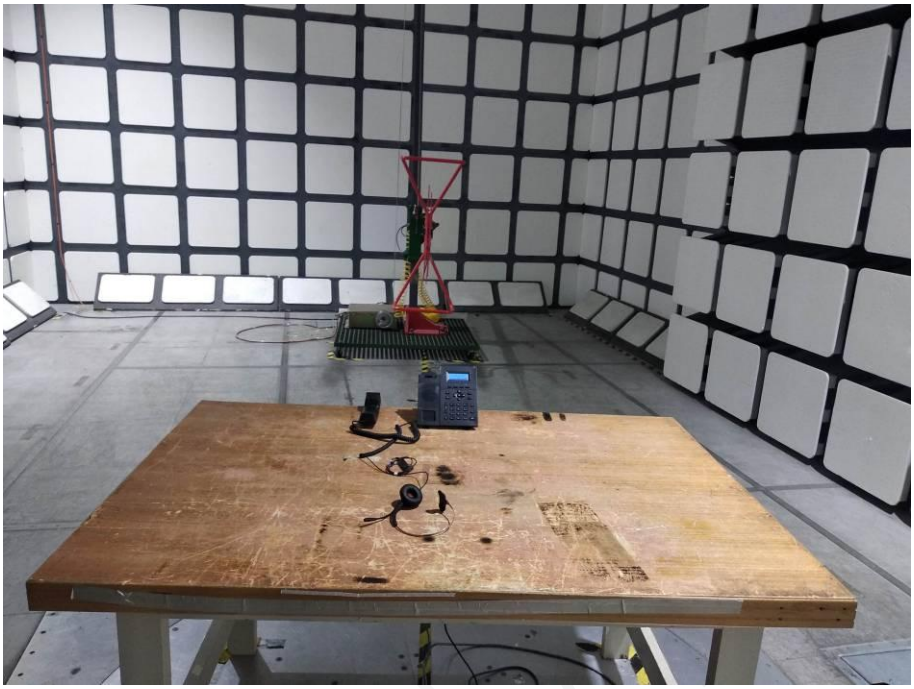
Radiated Emissions – Front View (Above 1 GHz, Powered by Adapter 2)



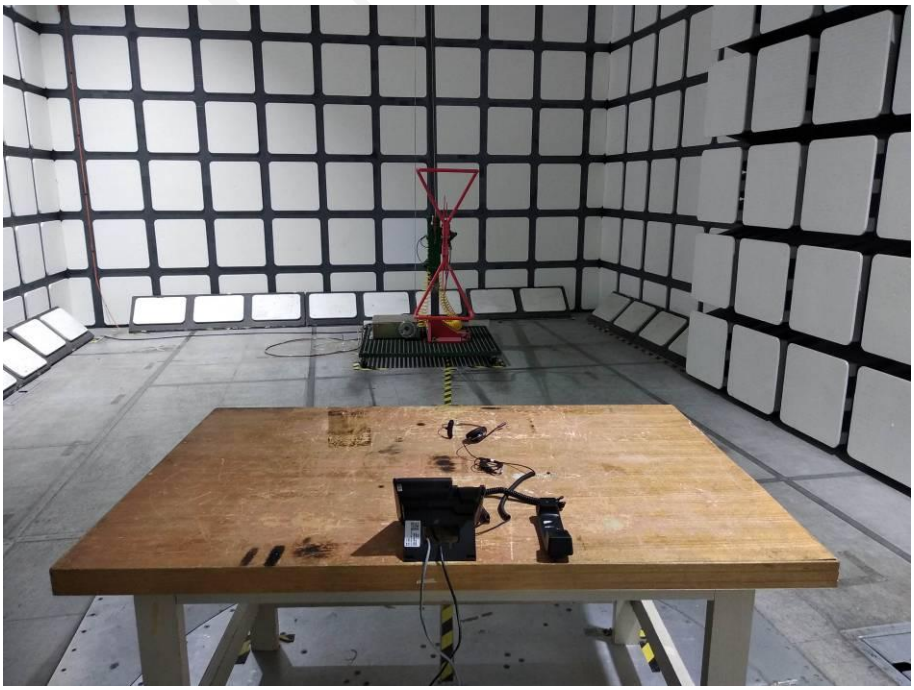
Radiated Emissions – Rear View (Above 1 GHz, Powered by Adapter 2)



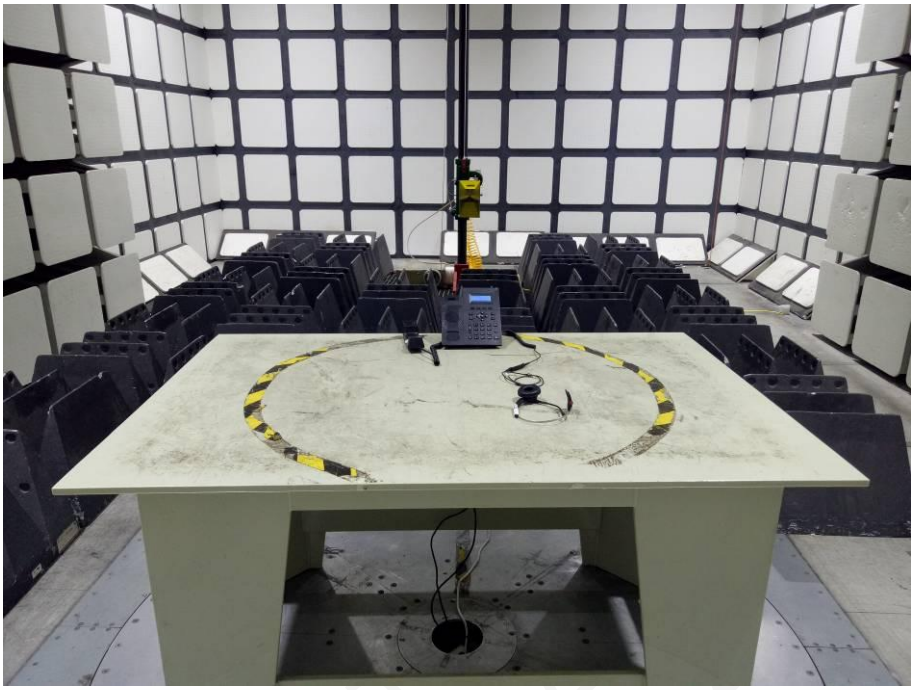
Radiated Emissions – Front View (Below 1 GHz, Powered by POE)



Radiated Emissions – Rear View (Below 1 GHz, Powered by POE)



Radiated Emissions – Front View (Above 1 GHz, Powered by POE)



Radiated Emissions – Rear View (Above 1 GHz, Powered by POE)

ADAPTER PLUG DECLARATION LETTER

XonTel Technology Co.

شركة زونتل تكنولوجي
للتجارة العامة ذ.م.م

XonTel Technology Trd. Co. W.L.L

Address: Kuwait City , Qibla , Aladel Tower , F21 , state of Kuwait .

Tel: 0096599939993

E-mail: Hasan@xontel.com

Attestation Letter

Date: 2020-09-27

To Whom It May Concern,

We, XonTel Technology Trd. Co. W.L.L, declare that the two type adapters used by this product: IP Phone, Model(s): XT-08P are similar. Manufacturer is the same, but there is difference on the place of production as below:

- **Shenzhen** Frecom Electroncs Co., Ltd
- **Chenzhou** Frecom Electroncs Co., Ltd

Sincerely,

Signature: Hasan Al-Rsheedi

******* END OF REPORT *******