



# MEASUREMENT REPORT

## FCC Part 15B

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**FCC ID:** T2C-T41S

**APPLICANT:** YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD

**Application Type:** Certification

**Product:** Ultra-elegant IP Phone

**Model No.:** SIP-T41S

**Brand Name:** YEALINK

**FCC Classification:** FCC Class B Digital Device (JBP)

**FCC Rule Part(s):** FCC Part 15 Subpart B: 2016

**Test Procedure(s):** ANSI C63.4: 2014

**Test Date:** September 01 ~ 18, 2016

Reviewed By : Robin Wu  
( Robin Wu )

Approved By : Marlin Chen  
( Marlin Chen )



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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### Revision History

Report No.	Version	Description	Issue Date	Note
1609ESU01201	Rev. 01	Initial report	10-08-2016	Valid

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## §2.1033 General Information

<b>Applicant:</b>	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD
<b>Applicant Address:</b>	309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
<b>Manufacturer:</b>	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD
<b>Manufacturer Address:</b>	309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
<b>Test Site:</b>	MRT Technology (Suzhou) Co., Ltd
<b>Test Site Address:</b>	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
<b>MRT FCC Registration No.:</b>	809388
<b>Model No.:</b>	SIP-T41S
<b>FCC ID:</b>	T2C-T41S
<b>Test Device Serial No.:</b>	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering
<b>FCC Classification:</b>	FCC Class B Digital Device (JBP)

### Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LACert. No.3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



# 1. INTRODUCTION

## 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

## 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



## 2. PRODUCT INFORMATION

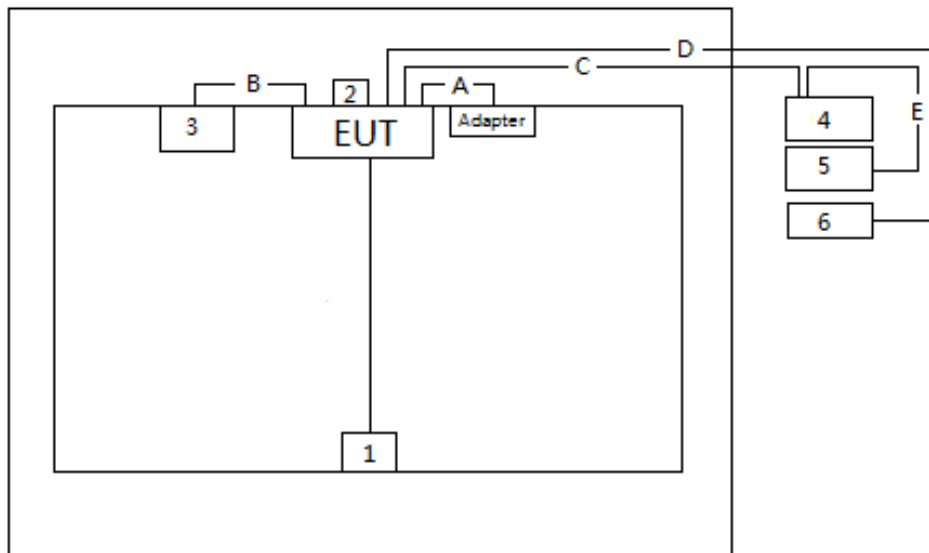
### 2.1. Equipment Description

Product Name	Ultra-elegant IP Phone
Model No.	SIP-T41S
Adapter #1	M/N: YLPS051200B-US INPUT: 100-240V ~ 50/60Hz,250mA OUTPUT: 5Vdc, 1.2A
Adapter #2	M/N: YLPS051200C-US INPUT: 100-240V ~ 50/60Hz, 250mA OUTPUT: 5Vdc, 1.2A

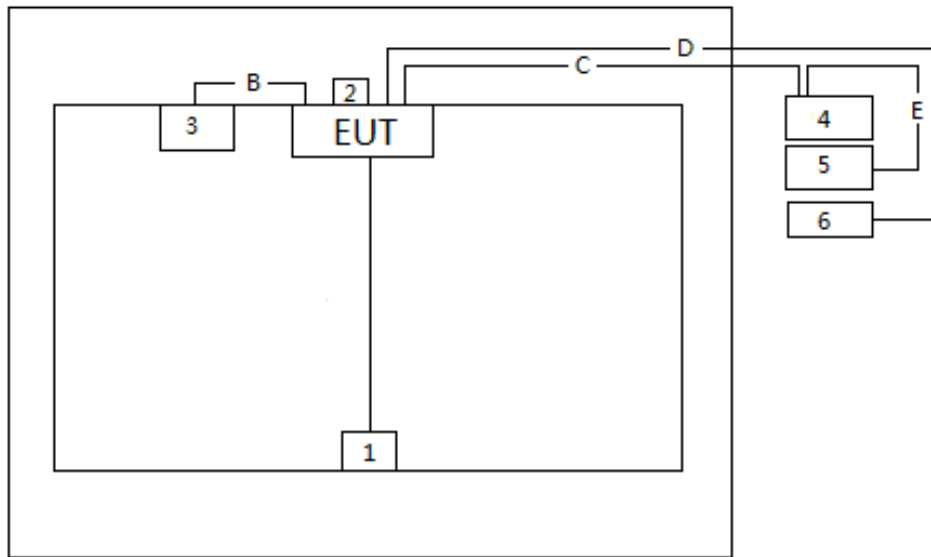
### 2.2. Test Configuration

The **Ultra-elegant IP Phone FCC ID: T2C-T41S** was tested per the guidance FCC Part 15 Subpart B: 2016 and ANSI C63.4: 2014 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

Connection Diagram(Mode 1 & 2)



## Connection Diagram(Mode 3)



Signal Cable Type		Signal Cable Description
A	Power Cable	Non-shielding, 1.8m
B	Telecom Cable	Non-shielding, 0.1m
C	LAN Cable	Non-shielding, > 10m
D	LAN Cable	Non-shielding, > 10m
E	LAN Cable	Non-shielding, 1m

### 2.3. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Headset	Yealink	N/A	N/A	N/A
2	USB Flash disk	HP	X750W	N/A	N/A
3	EHS Box	Yealink	GN9330e	N/A	N/A
4	8-port 10/100 Unmanaged Switch with 4 PoE ports	D-Link	DES-1008P	S0091F7000489	Non-Shielded, 2m
5	IP Phone	Yealink	SIP-T41S	MAC 001565B38ED7	Non-shielding, 1.8m
6	Notebook	Lenovo	E430c	MP-4CFX213/10	Non-Shielded, 1.8m

### 2.4. Test Software

Not applicable.

### 2.5. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

### 2.6. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.



### 3. DESCRIPTION OF TEST

#### 3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical Equipment in the Range of 9kHz to 18GHz (ANSI C63.4-2014) was used in the measurement of the **Ultra-elegant IP Phone FCC ID: T2C-T41S**.

**Deviation from measurement procedure.....None**

#### 3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply line(s) will be connected to the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150 kHz to 30 MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9 kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or resolution, clock or data exchange speed, scrolling H pattern to the EUT and/or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. Line conducted emissions test results are shown in Section 6.2.

### 3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30 MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30 MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, mode of operation, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB beam-width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

#### 4. TEST EQUIPMENT CALIBRATION DATE

##### Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2016/11/03
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2016/11/03
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2016/11/03
Temperature/Humidity Meter	Yuhuaze	HTC-2	MRTSUE06182	1 year	2016/12/20
Shielding Anechoic Chamber	Mikebang	Chamber-SR2	MRTSUE06215	1 year	2017/05/10

##### Radiated Emissions – AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Agilent	N9038A	MRTSUE06125	1 year	2017/08/03
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2017/03/29
TRILOG Antenna	Schwarzbeck	VULB9162	MRTSUE06022	1 year	2016/11/07
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06023	1 year	2016/11/07
Digital Thermometer & Hygromete	MingGao	ETH529	MRTSUE06170	1 year	2016/11/30
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2017/05/10

Software	Version	Function
e3	V8.3.5	EMI Test Software

## 5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

<b>AC Conducted Emission Measurement – SR2</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 150kHz~30MHz: 3.5dB
<b>Radiated Emission Measurement – AC2</b>
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): Horizontal: 30MHz~1GHz: 4.07dB 1GHz~18GHz: 4.16 dB Vertical: 30MHz~1GHz: 4.18 dB 1GHz~18GHz: 4.76 dB

## 6. TEST RESULT

### 6.1. Summary

**Product Name:** Ultra-elegant IP Phone  
**FCC ID:** T2C-T41S  
**FCC Classification:** FCC Class B Digital Device (JBP)  
**Test Mode:** Mode 1: Power by adapter #1 and Communicate with another IP Phone  
Mode 2: Power by adapter #2 and Communicate with another IP Phone  
Mode 3: Power by POE and Communicate with another IP Phone

FCC Part Section(s)	Test Description	Test Result
15.107	Conducted Emissions	Pass
15.109	Radiated Emissions	Pass

## 6.2. Conducted Emission Measurement

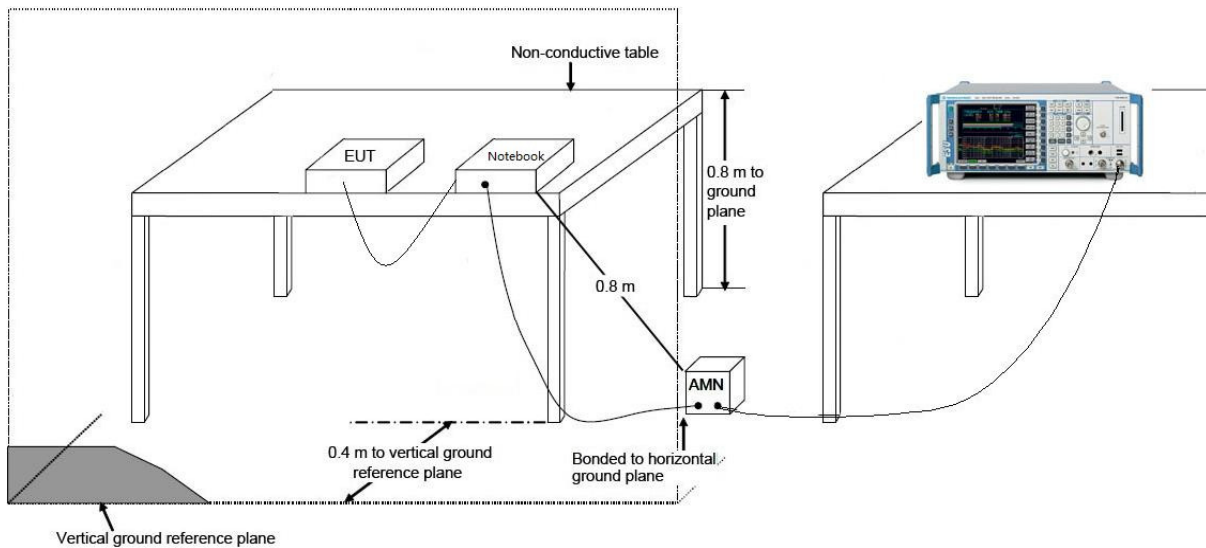
### 6.2.1. Test Limit

FCC Part 15.107 Limits		
Frequency (MHz)	QP (dB $\mu$ V)	AV (dB $\mu$ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

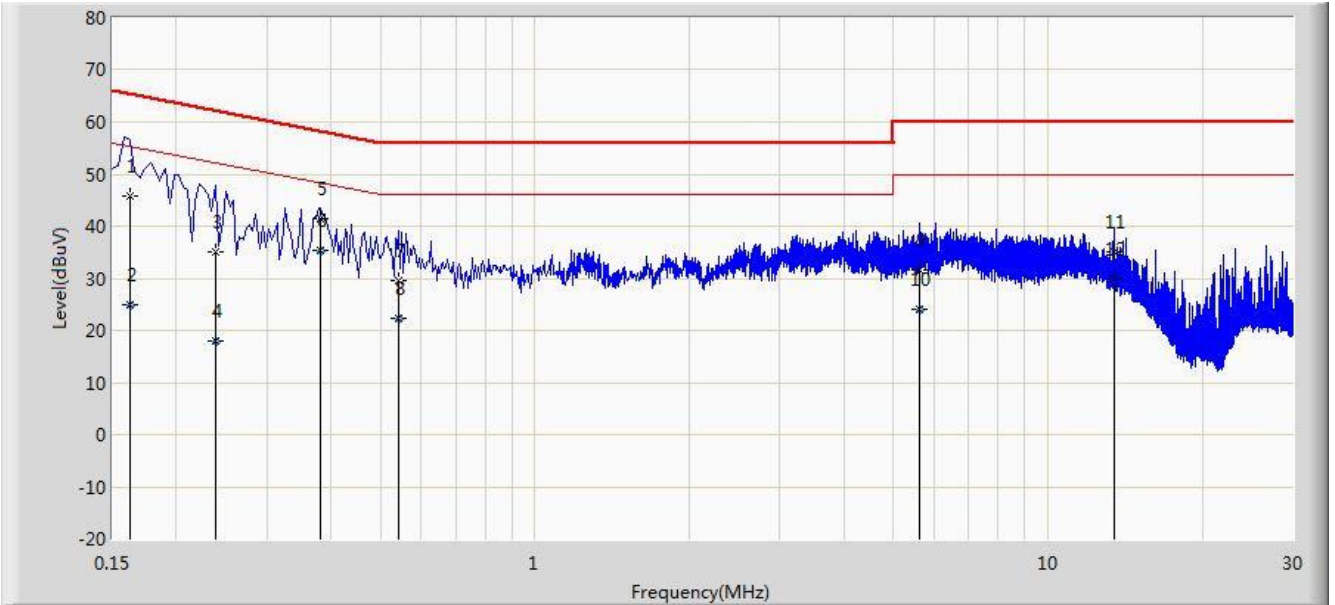
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 6.2.2. Test Setup



### 6.2.3. Test Result of Conducted Emissions

Site: SR2	Time: 2016/09/01 - 20:17
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

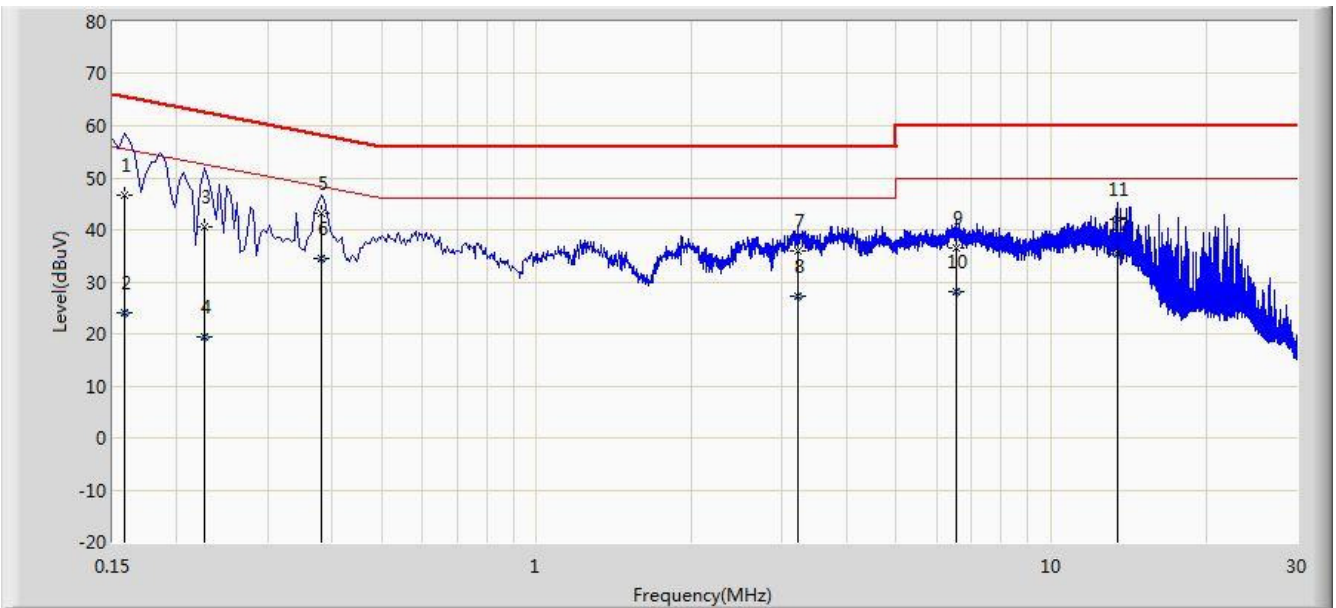


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.162	45.936	35.839	-19.425	65.361	10.097	QP
2			0.162	24.997	14.900	-30.364	55.361	10.097	AV
3			0.238	35.193	25.239	-26.972	62.166	9.954	QP
4			0.238	17.899	7.944	-34.267	52.166	9.954	AV
5			0.382	41.314	31.243	-16.922	58.236	10.071	QP
6		*	0.382	35.506	25.436	-12.729	48.236	10.071	AV
7			0.542	29.656	19.511	-26.344	56.000	10.145	QP
8			0.542	22.391	12.246	-23.609	46.000	10.145	AV
9			5.634	31.486	21.398	-28.514	60.000	10.087	QP
10			5.634	23.948	13.861	-26.052	50.000	10.087	AV
11			13.482	35.138	25.080	-24.862	60.000	10.058	QP
12			13.482	29.815	19.757	-20.185	50.000	10.058	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SR2	Time: 2016/09/01 - 20:21
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	



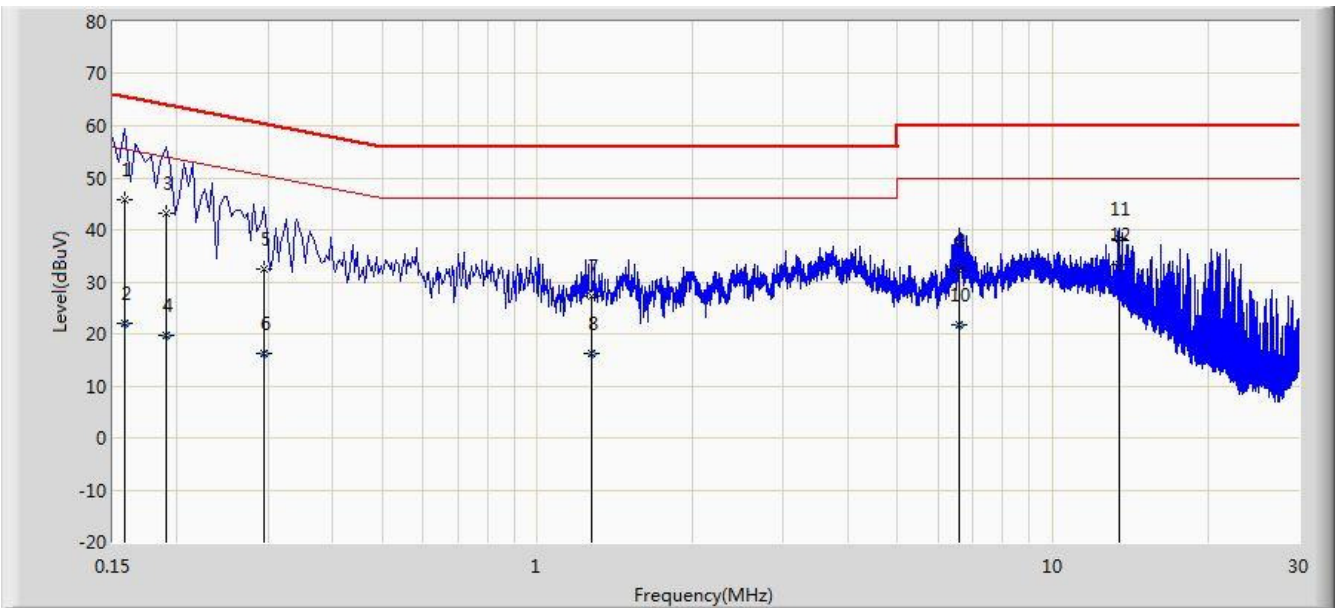
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	46.627	36.337	-18.942	65.568	10.290	QP
2			0.158	24.101	13.811	-31.468	55.568	10.290	AV
3			0.226	40.482	30.499	-22.113	62.595	9.982	QP
4			0.226	19.377	9.394	-33.218	52.595	9.982	AV
5			0.382	43.242	33.144	-14.993	58.236	10.099	QP
6		*	0.382	34.420	24.322	-13.815	48.236	10.099	AV
7			3.222	35.811	25.934	-20.189	56.000	9.877	QP
8			3.222	27.383	17.506	-18.617	46.000	9.877	AV
9			6.558	36.605	26.454	-23.395	60.000	10.152	QP
10			6.558	28.119	17.967	-21.881	50.000	10.152	AV
11			13.482	42.149	32.051	-17.851	60.000	10.099	QP
12			13.482	35.467	25.368	-14.533	50.000	10.099	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).



Site: SR2	Time: 2016/09/01 - 20:31
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

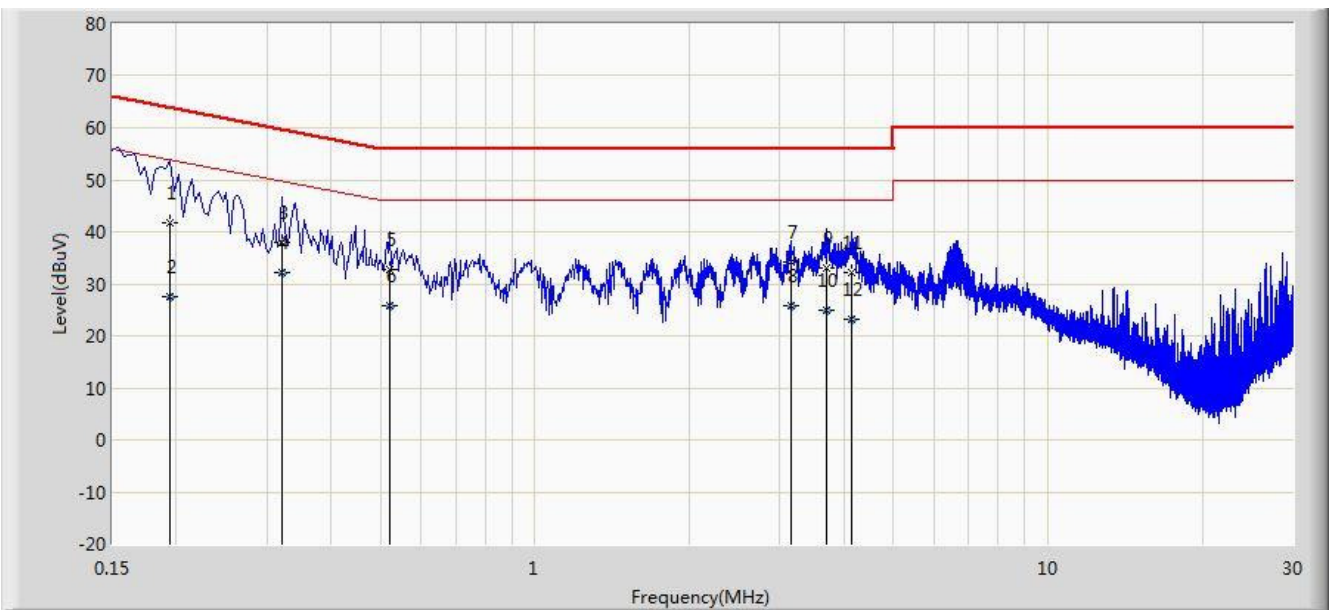


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	45.668	35.357	-19.900	65.568	10.311	QP
2			0.158	21.903	11.592	-33.665	55.568	10.311	AV
3			0.190	43.088	33.059	-20.948	64.037	10.029	QP
4			0.190	19.745	9.716	-34.292	54.037	10.029	AV
5			0.294	32.403	22.404	-28.008	60.411	9.999	QP
6			0.294	16.348	6.348	-34.063	50.411	9.999	AV
7			1.274	27.242	17.344	-28.758	56.000	9.899	QP
8			1.274	16.171	6.272	-29.829	46.000	9.899	AV
9			6.578	32.228	22.084	-27.772	60.000	10.143	QP
10			6.578	21.630	11.487	-28.370	50.000	10.143	AV
11			13.418	38.339	28.271	-21.661	60.000	10.068	QP
12		*	13.418	33.457	23.389	-16.543	50.000	10.068	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SR2	Time: 2016/09/01 - 20:26
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.194	41.868	31.851	-21.995	63.864	10.017	QP
2			0.194	27.536	17.519	-26.328	53.864	10.017	AV
3			0.322	38.093	28.071	-21.562	59.655	10.022	QP
4		*	0.322	32.291	22.269	-17.364	49.655	10.022	AV
5			0.522	32.642	22.487	-23.358	56.000	10.155	QP
6			0.522	25.919	15.764	-20.081	46.000	10.155	AV
7			3.154	34.119	24.262	-21.881	56.000	9.856	QP
8			3.154	25.663	15.806	-20.337	46.000	9.856	AV
9			3.694	33.161	23.219	-22.839	56.000	9.941	QP
10			3.694	25.047	15.106	-20.953	46.000	9.941	AV
11			4.154	32.297	22.324	-23.703	56.000	9.974	QP
12			4.154	23.069	13.096	-22.931	46.000	9.974	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

### 6.3. Radiated Emission Measurement

#### 6.3.1. Test Limit

FCC Part 15.109 Limits		
Frequency (MHz)	Distance (m)	Level (dB $\mu$ V/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

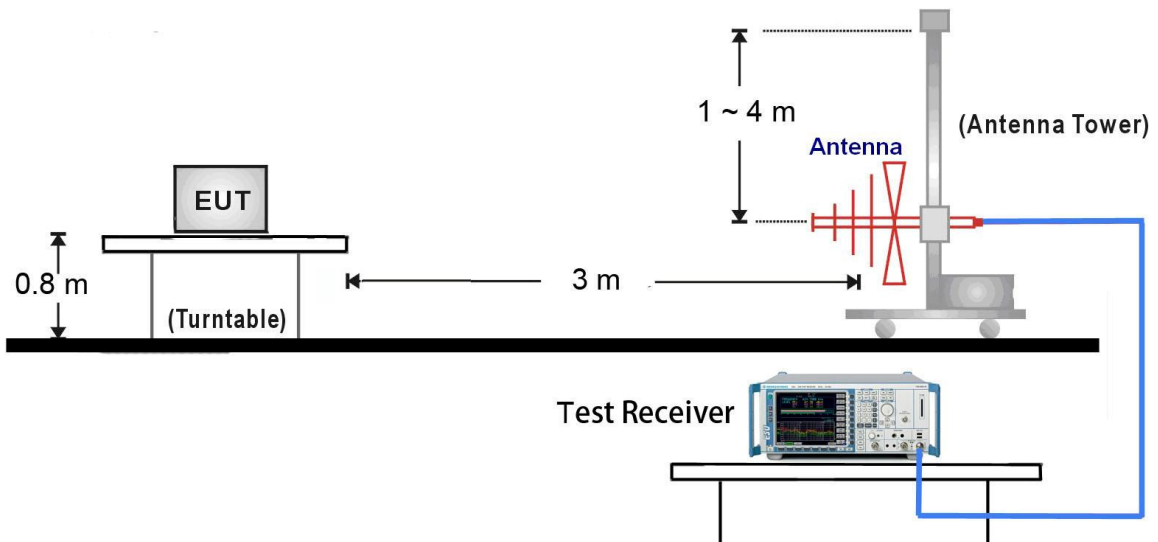
Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

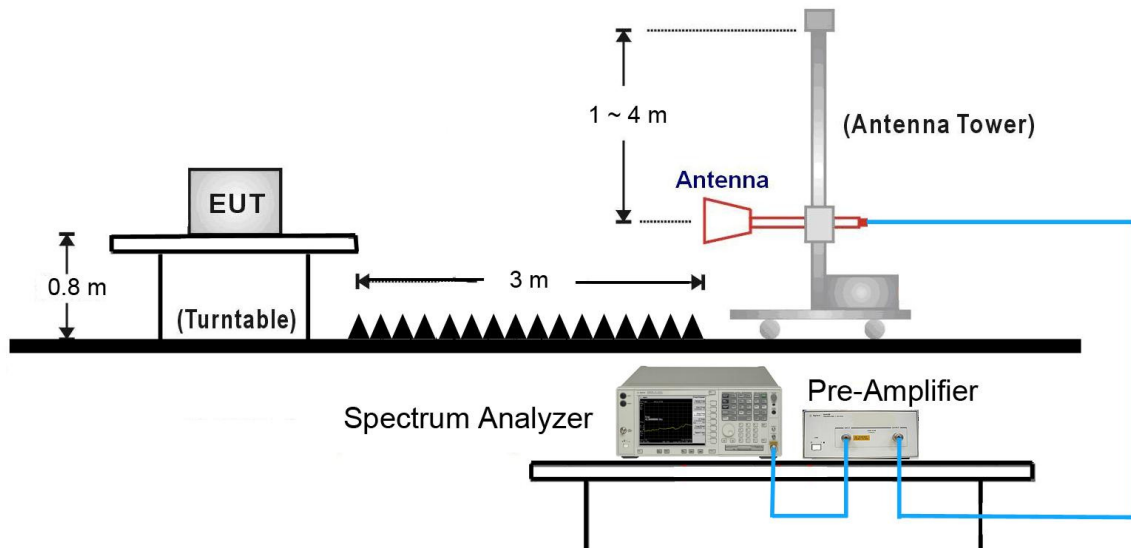
Note 3: E field strength (dB $\mu$ V/m) = 20 log E field strength (uV/m)

#### 6.3.2. Test Setup

##### 30MHz ~ 1GHz Test Setup:

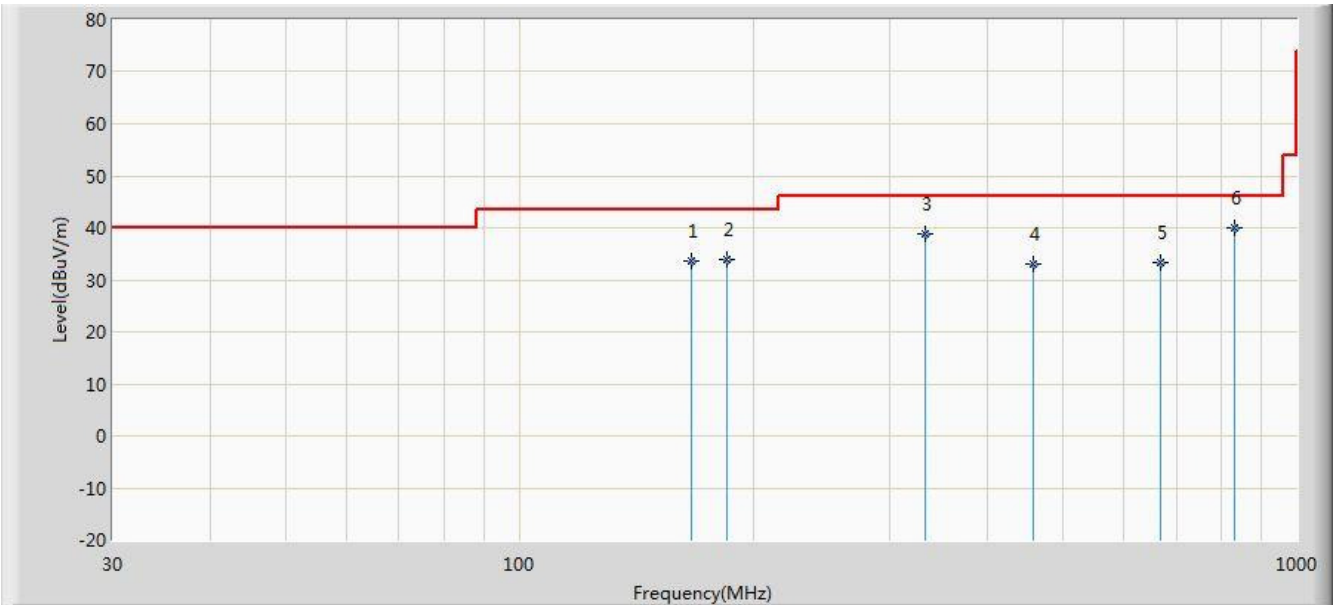


1GHz ~18GHz Test Setup:



### 6.3.3. Test Result

Site: AC2	Time: 2016/09/17 - 18:03
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

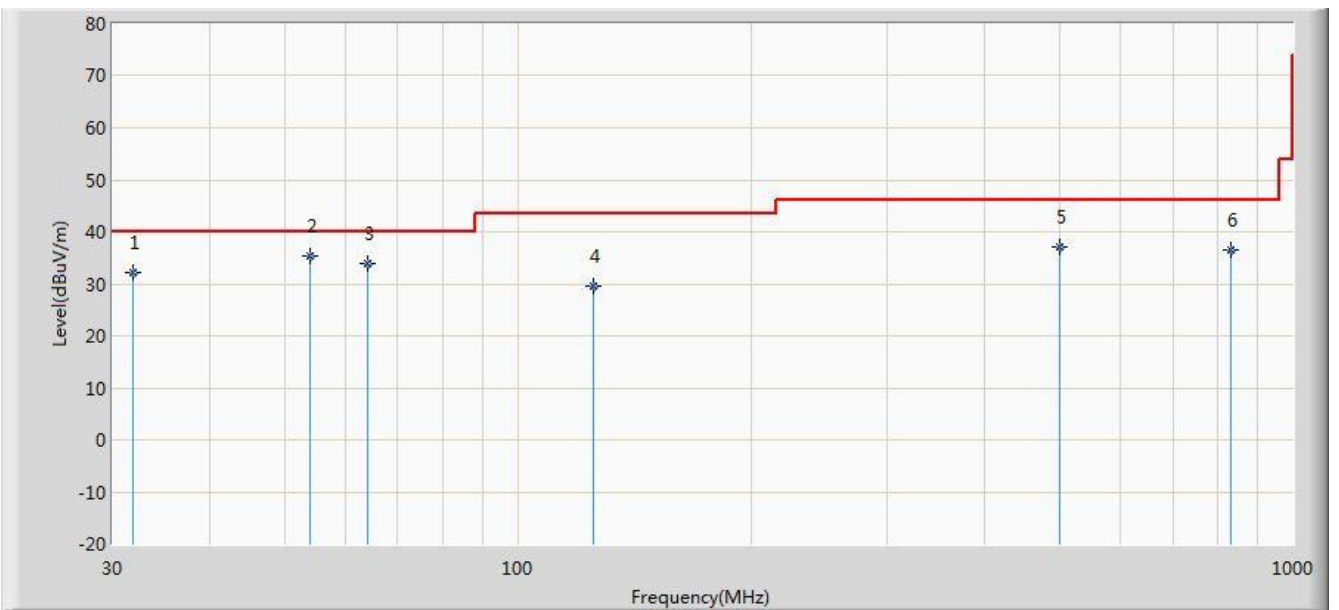


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			166.770	33.640	23.520	-9.860	43.500	10.120	100	235	QP
2			185.200	34.019	22.630	-9.481	43.500	11.389	100	328	QP
3			333.125	38.842	23.360	-7.158	46.000	15.482	100	147	QP
4			457.770	33.030	15.460	-12.970	46.000	17.571	100	52	QP
5			666.805	33.419	12.410	-12.581	46.000	21.009	100	320	QP
6		*	833.160	40.055	16.680	-5.945	46.000	23.375	100	18	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC2	Time: 2016/09/17 - 18:03
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

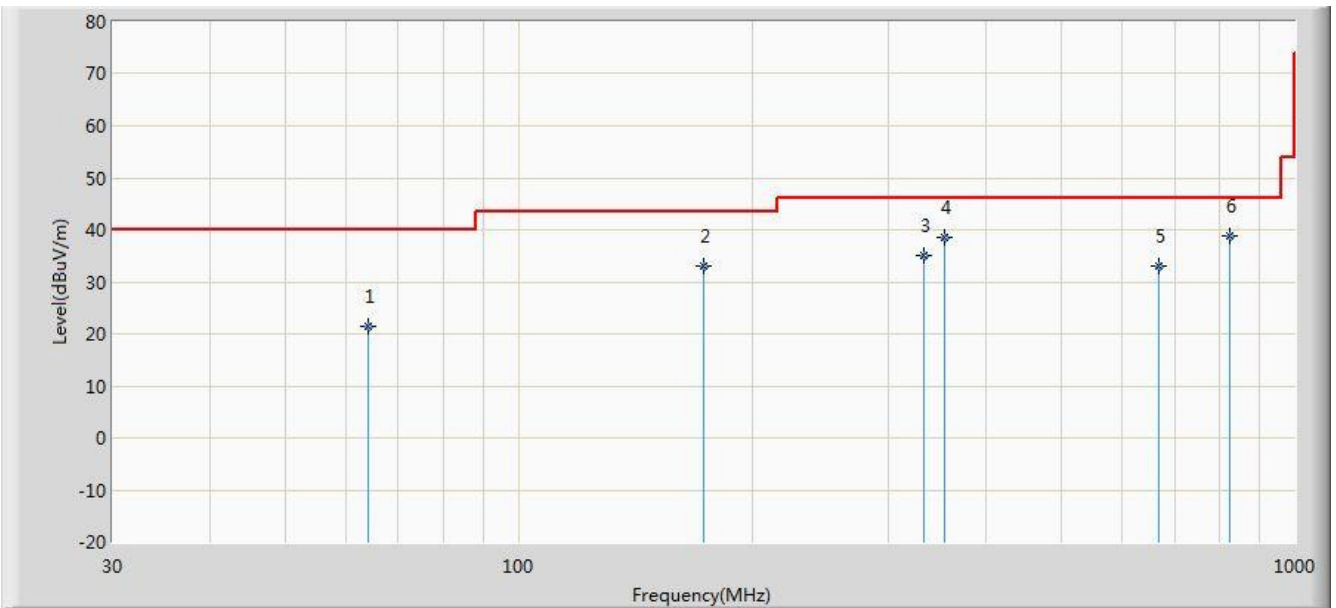


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			31.940	32.063	19.680	-7.937	40.000	12.383	100	56	QP
2		*	53.874	35.288	20.430	-4.712	40.000	14.858	100	169	QP
3			63.950	33.973	21.070	-6.027	40.000	12.903	100	223	QP
4			125.060	29.478	18.950	-14.022	43.500	10.529	100	302	QP
5			499.965	37.021	18.690	-8.979	46.000	18.331	100	268	QP
6			833.160	36.625	13.250	-9.375	46.000	23.375	100	45	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC2	Time: 2016/09/17 - 18:04
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

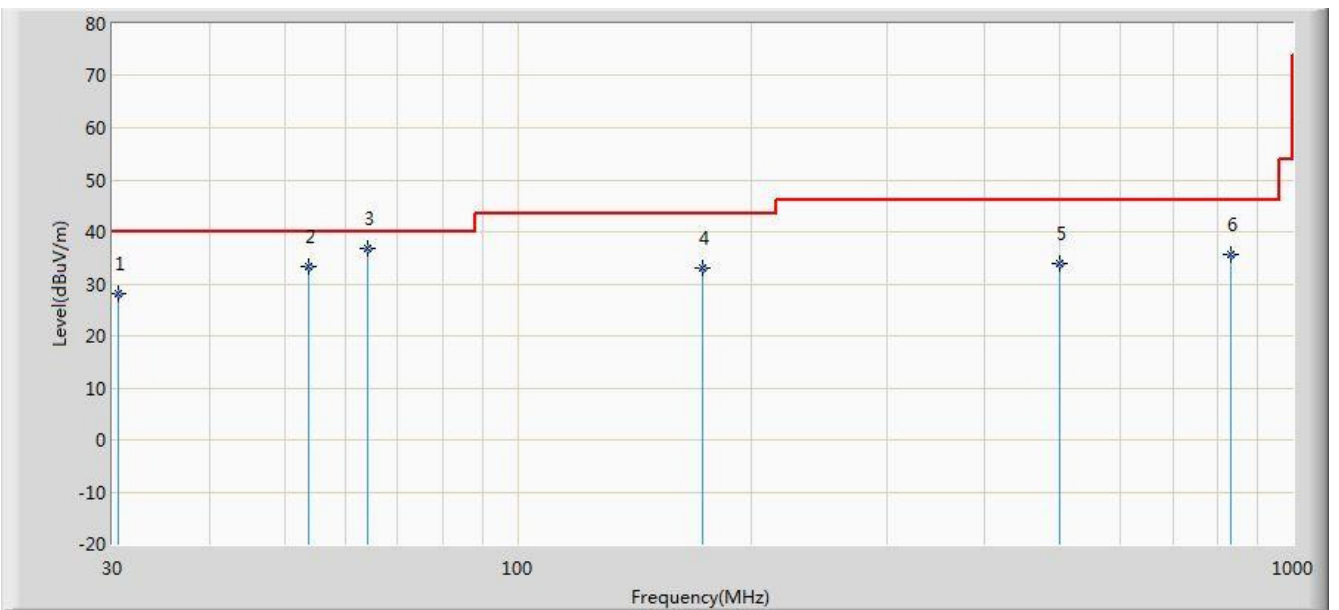


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			63.950	21.483	8.580	-18.517	40.000	12.903	100	311	QP
2			173.560	33.065	22.620	-10.435	43.500	10.445	100	247	QP
3			333.125	35.162	19.680	-10.838	46.000	15.482	100	120	QP
4			354.465	38.444	22.520	-7.556	46.000	15.924	100	274	QP
5			666.805	33.059	12.050	-12.941	46.000	21.009	100	42	QP
6		*	826.370	38.880	15.580	-7.120	46.000	23.300	100	19	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC2	Time: 2016/09/17 - 18:04
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	



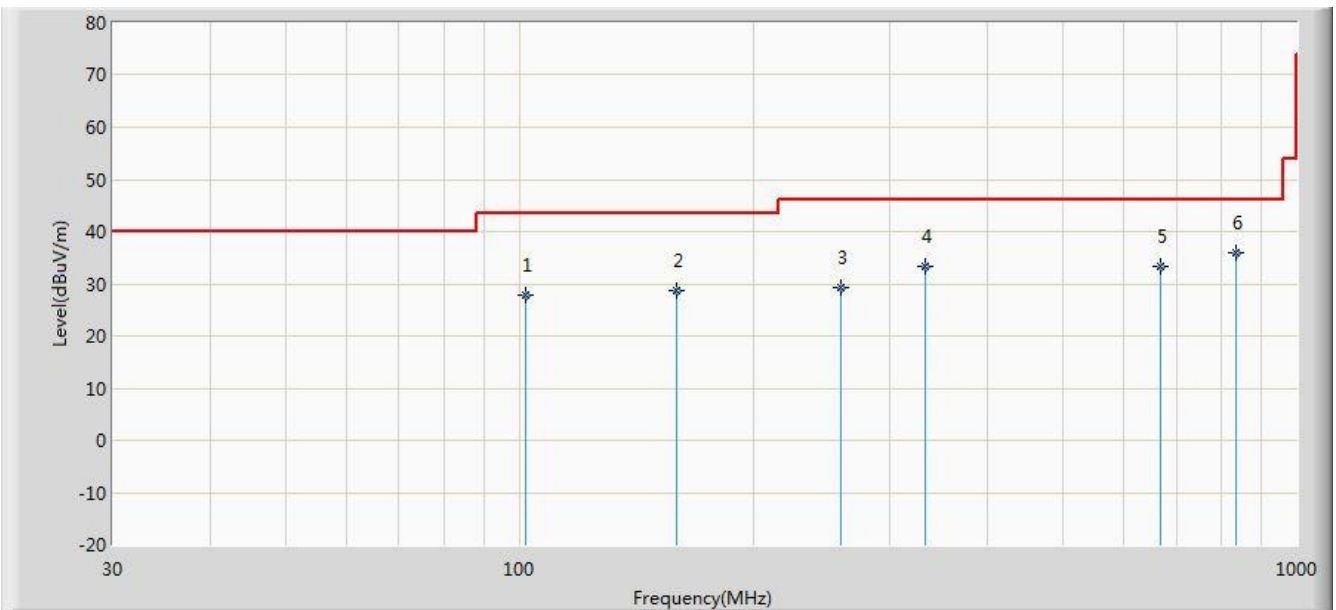
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			30.485	28.100	15.950	-11.900	40.000	12.150	100	32	QP
2			53.765	33.438	18.580	-6.562	40.000	14.858	100	248	QP
3		*	64.004	36.946	24.060	-3.054	40.000	12.886	100	332	QP
4			173.560	33.075	22.630	-10.425	43.500	10.445	100	74	QP
5			499.965	34.021	15.690	-11.979	46.000	18.331	100	184	QP
6			833.645	35.635	12.250	-10.365	46.000	23.385	100	29	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: AC2	Time: 2016/09/17 - 18:00
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: By PoE
Note: Mode 3	

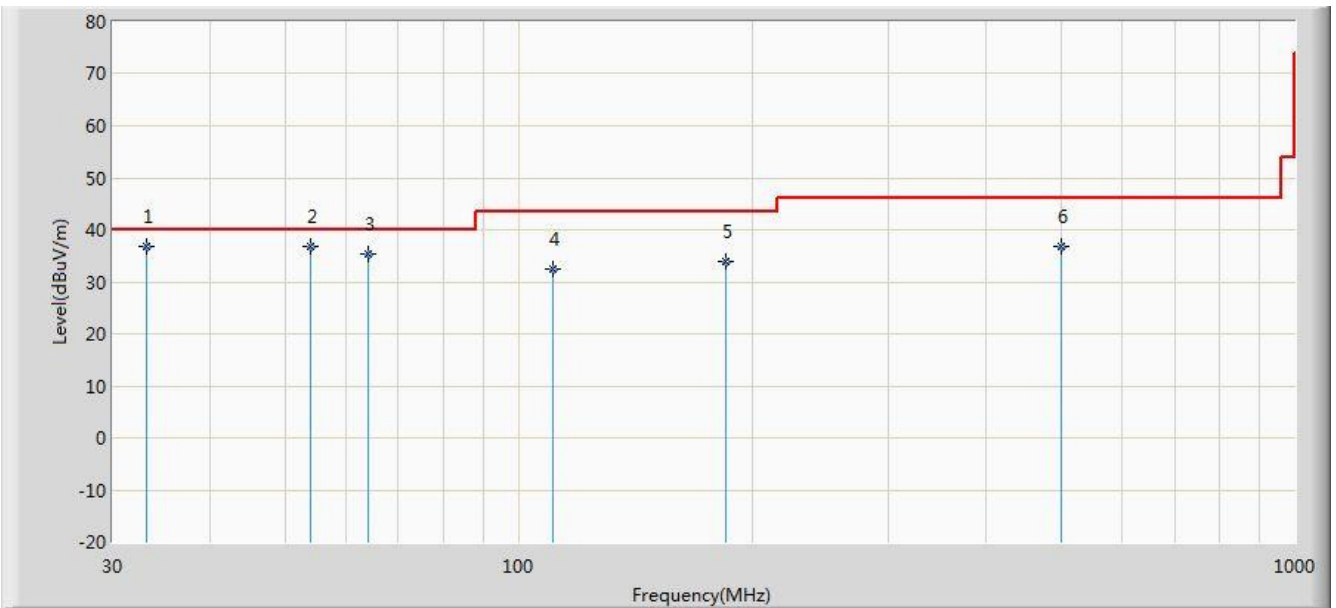


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			53.765	23.548	8.690	-16.452	40.000	14.858	100	224	QP
2			110.995	25.272	12.520	-18.228	43.500	12.752	100	174	QP
3			173.560	32.965	22.520	-10.535	43.500	10.445	100	54	QP
4			185.360	36.353	24.950	-7.147	43.500	11.403	100	63	QP
5			333.125	38.762	23.280	-7.238	46.000	15.482	100	331	QP
6		*	833.160	39.965	16.590	-6.035	46.000	23.375	100	285	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC2	Time: 2016/09/17 - 18:00
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: By PoE
Note: Mode 3	

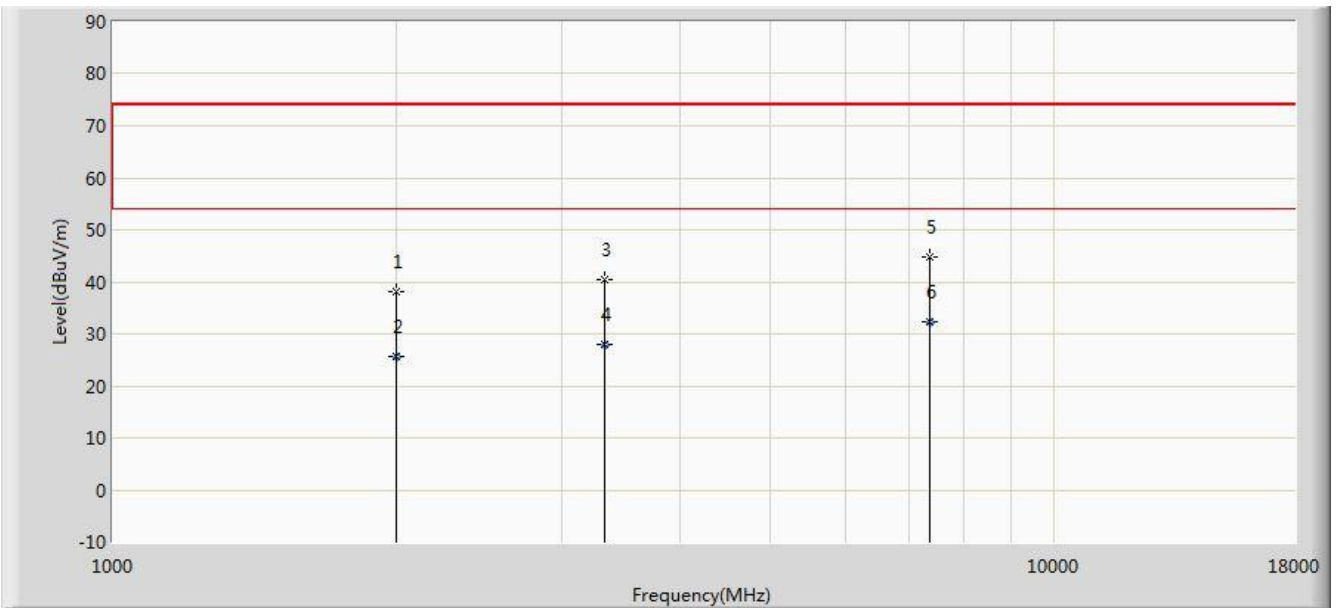


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		*	33.197	36.909	24.300	-3.091	40.000	12.609	100	322	QP
2			53.877	36.848	21.990	-3.152	40.000	14.858	100	228	QP
3			63.950	35.423	22.520	-4.577	40.000	12.903	100	41	QP
4			110.995	32.432	19.680	-11.068	43.500	12.752	100	175	QP
5			185.200	33.909	22.520	-9.591	43.500	11.389	100	98	QP
6			499.965	36.911	18.580	-9.089	46.000	18.331	100	227	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: AC2	Time: 2016/09/17 - 18:09
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

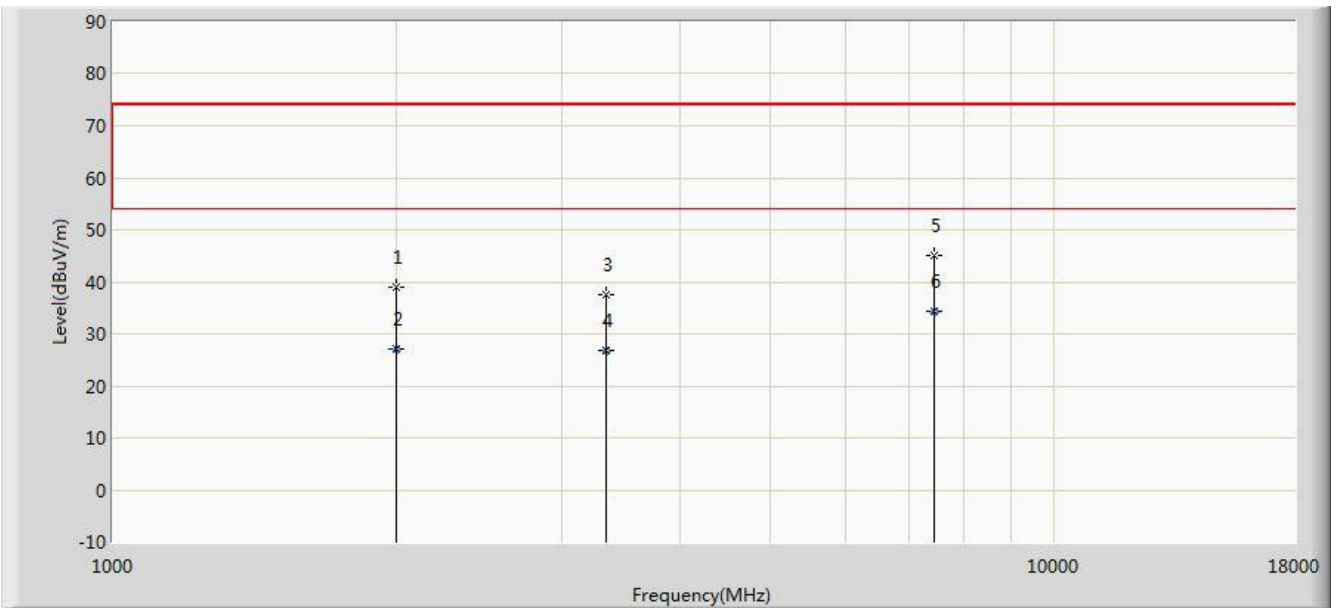


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	38.069	42.554	-35.931	74.000	-4.485	100	74	PK
2			2003.000	25.545	30.030	-28.455	54.000	-4.485	100	186	AV
3			3329.000	40.565	42.751	-33.435	74.000	-2.186	100	229	PK
4			3329.000	27.874	30.060	-26.126	54.000	-2.186	100	305	AV
5			7366.500	44.721	34.044	-29.279	74.000	10.677	100	271	PK
6		*	7366.500	32.267	21.590	-21.733	54.000	10.677	100	19	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2016/09/17 - 18:10
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

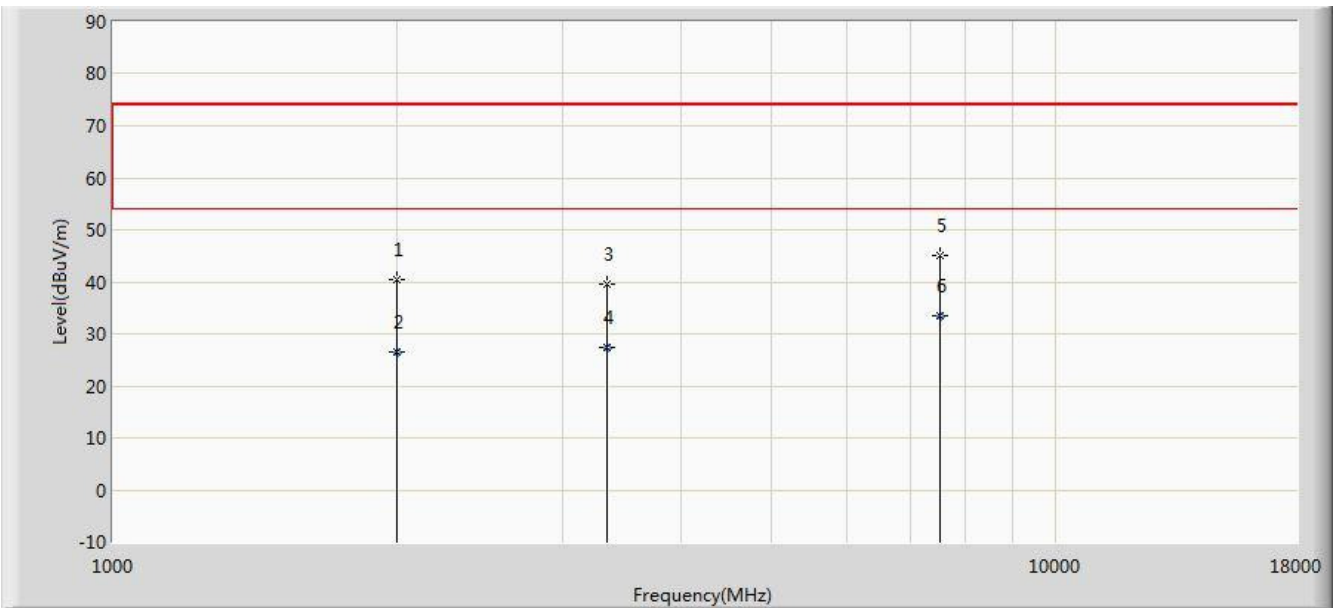


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	39.044	43.529	-34.956	74.000	-4.485	100	186	PK
2			2003.000	27.025	31.510	-26.975	54.000	-4.485	100	306	AV
3			3337.500	37.443	39.634	-36.557	74.000	-2.191	100	296	PK
4			3337.500	26.759	28.950	-27.241	54.000	-2.191	100	29	AV
5			7451.500	44.950	34.029	-29.050	74.000	10.921	100	186	PK
6		*	7451.500	34.281	23.360	-19.719	54.000	10.921	100	74	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2016/09/17 - 18:09
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

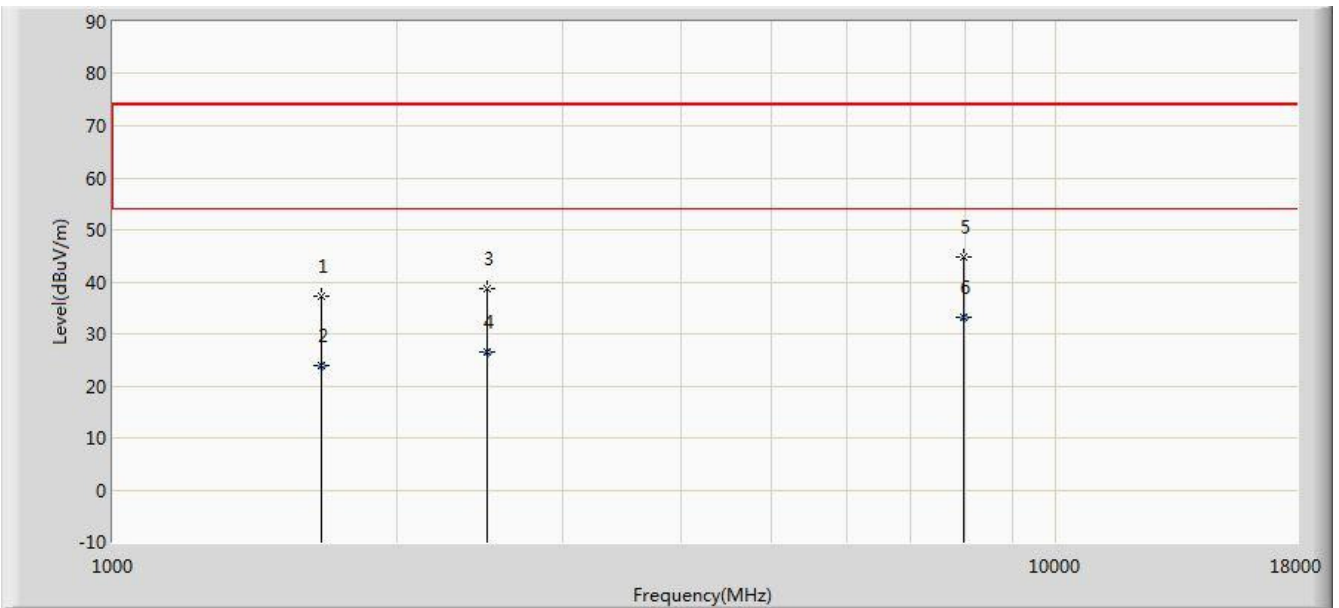


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	40.349	44.834	-33.651	74.000	-4.485	100	338	PK
2			2003.000	26.545	31.030	-27.455	54.000	-4.485	100	168	AV
3			3337.500	39.455	41.646	-34.545	74.000	-2.191	100	27	PK
4			3337.500	27.489	29.680	-26.511	54.000	-2.191	100	59	AV
5			7536.500	45.040	34.063	-28.960	74.000	10.977	100	227	PK
6		*	7536.500	33.497	22.520	-20.503	54.000	10.977	100	10	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2016/09/17 - 18:09
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

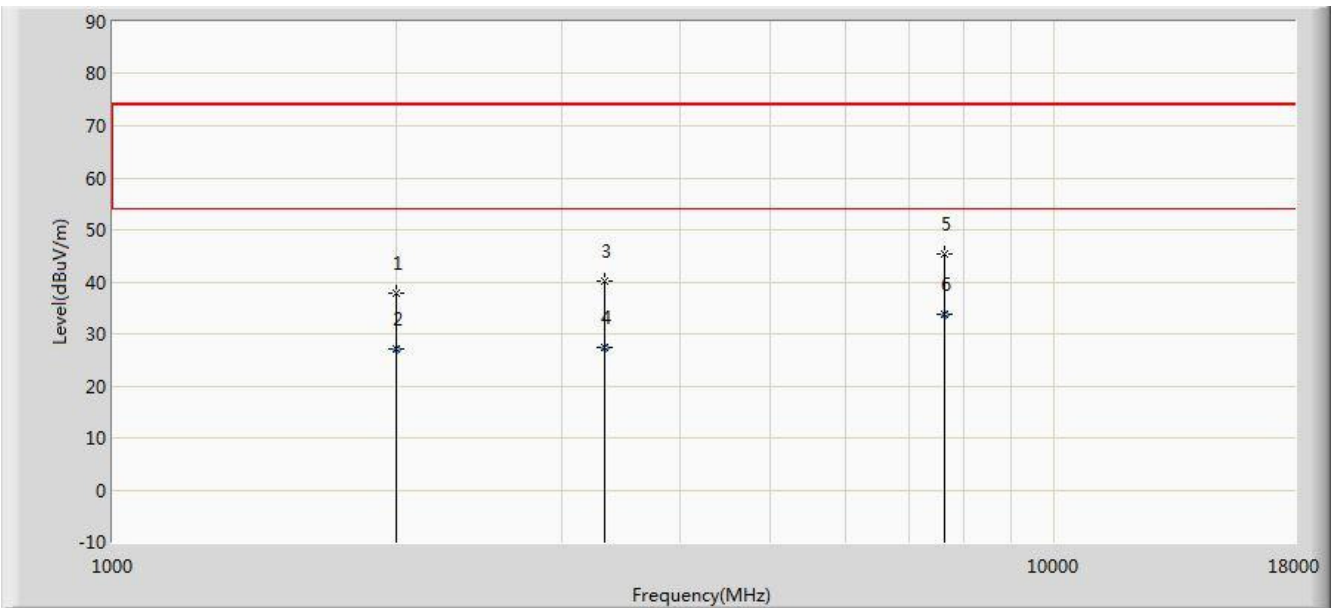


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			1663.000	37.220	43.465	-36.780	74.000	-6.245	100	305	PK
2			1663.000	23.905	30.150	-30.095	54.000	-6.245	100	116	AV
3			2496.000	38.744	41.788	-35.256	74.000	-3.044	100	274	PK
4			2496.000	26.606	29.650	-27.394	54.000	-3.044	100	16	AV
5			7970.000	44.863	34.089	-29.137	74.000	10.773	100	95	PK
6		*	7970.000	33.284	22.510	-20.716	54.000	10.773	100	174	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2016/09/17 - 18:10
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant IP Phone	Power: By PoE
Note: Mode 3	

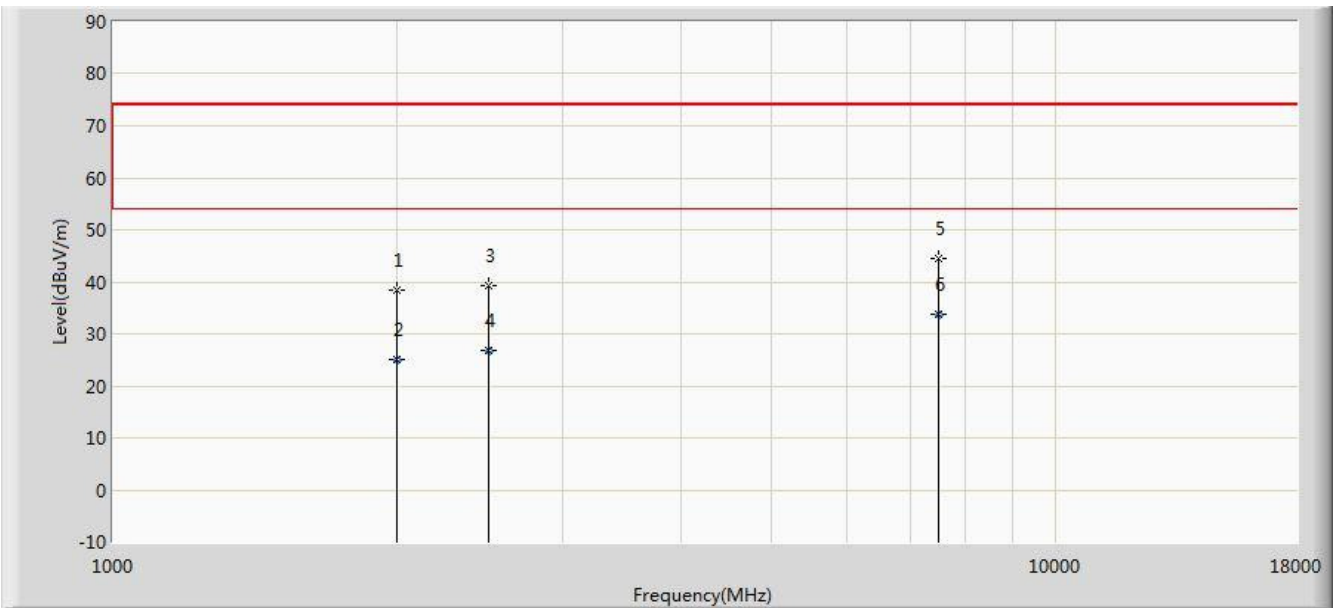


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	37.808	42.293	-36.192	74.000	-4.485	100	28	PK
2			2003.000	27.135	31.620	-26.865	54.000	-4.485	100	77	AV
3			3329.000	40.236	42.422	-33.764	74.000	-2.186	100	344	PK
4			3329.000	27.494	29.680	-26.506	54.000	-2.186	100	286	AV
5			7638.500	45.222	34.726	-28.778	74.000	10.496	100	117	PK
6		*	7638.500	33.746	23.250	-20.254	54.000	10.496	100	68	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).

Site: AC2	Time: 2016/09/17 - 18:11
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant IP Phone	Power: By PoE
Note: Mode 3	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	38.468	42.953	-35.532	74.000	-4.485	100	224	PK
2			2003.000	25.195	29.680	-28.805	54.000	-4.485	100	314	AV
3			2504.500	39.279	42.428	-34.721	74.000	-3.149	100	168	PK
4			2504.500	26.881	30.030	-27.119	54.000	-3.149	100	37	AV
5			7502.500	44.548	33.502	-29.452	74.000	11.046	100	174	PK
6		*	7502.500	33.736	22.690	-20.264	54.000	11.046	100	187	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB).



## 7. CONCLUSION

The data collected relate only the item(s) tested and show that the **Ultra-elegant IP Phone FCC ID: T2C-T41S** has been tested to comply with the requirements specified in §15.107 and §15.109 of the FCC Rules.