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Report No.: 1607RSU01701
Report Version: V01
Issue Date: 07-28-2016

MEASUREMENT REPORT
FCC Part 15B

FCC ID:	T2C-T42S
APPLICANT:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD
Application Type:	Certification
Product:	Ultra-elegant Gigabit IP Phone
Model No.:	SIP-T42S
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:	July 14 ~ 27, 2016

Reviewed By : Robin Wu
(Robin Wu)

Approved By : Marlin Chen
(Marlin Chen)

Revision History

Report No.	Version	Description	Issue Date	Note
1607RSU01701	Rev. 01	Initial report	07-28-2016	Valid

CONTENTS

§2.1033 General Information

Applicant:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD
Applicant Address:	309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
Manufacturer:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD
Manufacturer Address:	309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT FCC Registration No.:	809388
Model No.:	SIP-T42S
FCC ID:	T2C-T42S
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	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 (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.**

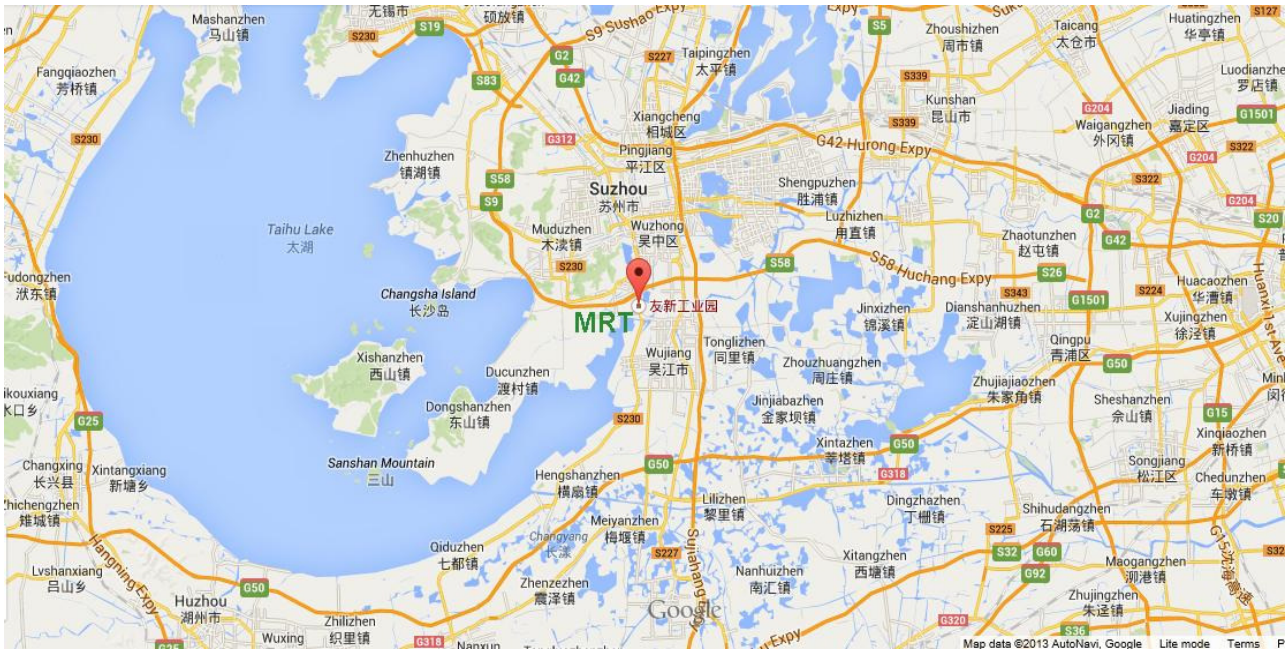
1. INTRODUCTION

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

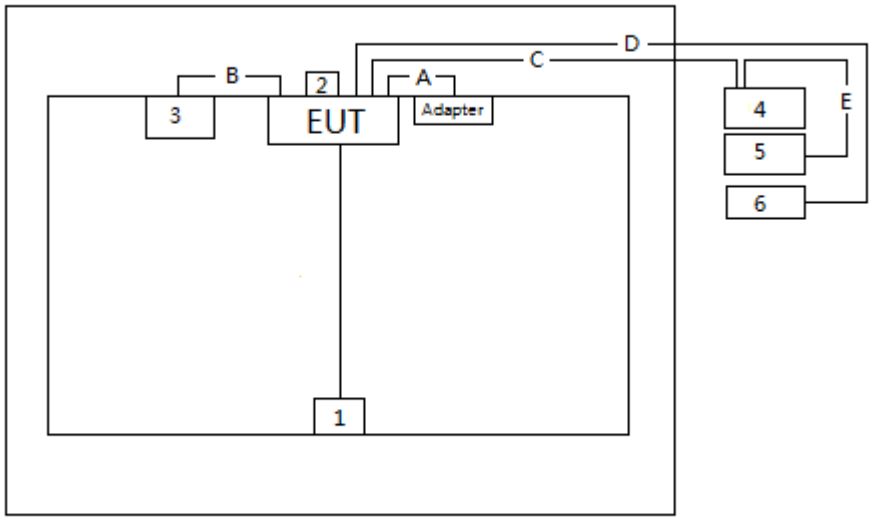
2.1. Equipment Description

Product Name	Ultra-elegant Gigabit IP Phone
Model No.	SIP-T42S
Adapter #1	M/N: YLPS051200C-US INPUT: 100-240V ~ 50/60Hz, 0.2A OUTPUT: 5Vdc, 1.2A
Adapter #2	M/N: YLPS051200B-US INPUT: 100-240V ~ 50/60Hz, 0.2A OUTPUT: 5Vdc, 1.2A

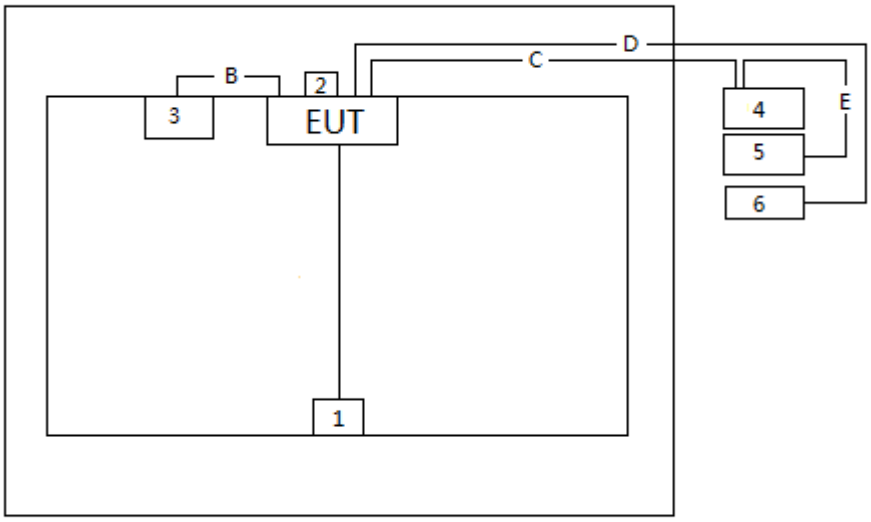
2.2. Test Configuration

The **Ultra-elegant Gigabit IP Phone FCC ID: T2C-T42S** 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	GN9330	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-T42S	MAC 001565AEA4BE	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 Gigabit IP Phone FCC ID: T2C-T42S.**

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	Ouleinuo	N/A	MRTSUE06114	1 year	2016/11/20
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	2016/08/03
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
Digitial 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.

AC Conducted Emission Measurement – SR2
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: 3.5dB
Radiated Emission Measurement – AC2
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 Gigabit IP Phone**

FCC ID: **T2C-T42S**

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

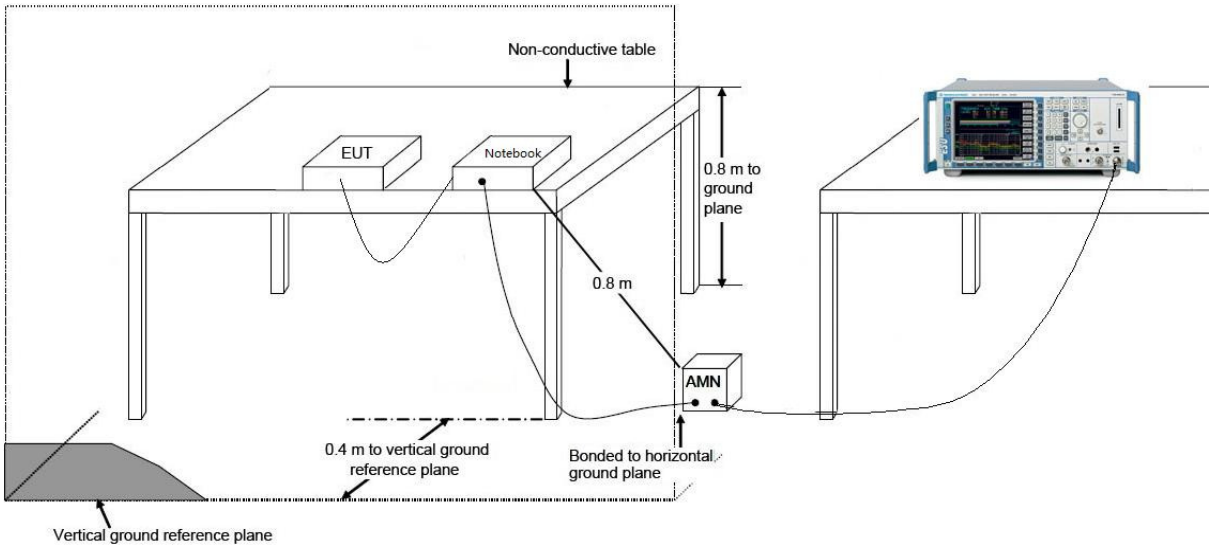
FCC Part Section(s)	Test Description	Test Result
15.107	Conducted Emissions	Pass
15.109	Radiated Emissions	Pass

6.2. Conducted Emission Measurement

6.2.1. Test Limit

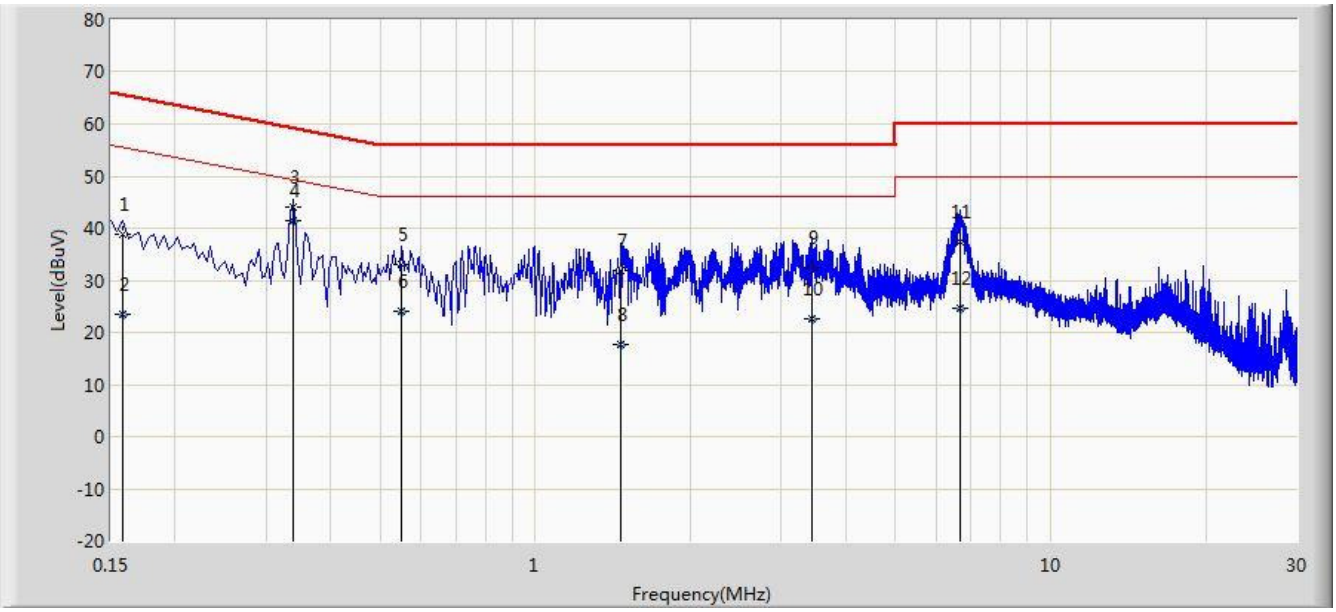
FCC Part 15.107 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.		

6.2.2. Test Setup



6.2.3. Test Result of Conducted Emissions

Site: SR2	Time: 2016/07/15 - 09:59
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

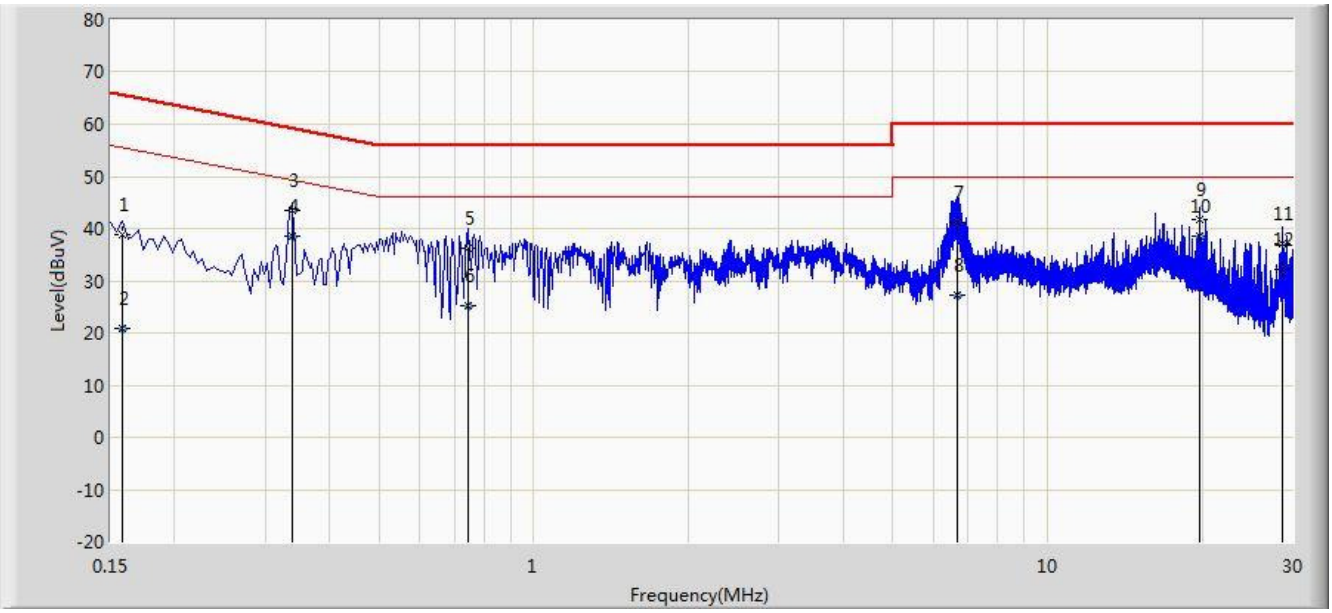


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	38.877	28.566	-26.692	65.568	10.311	QP
2			0.158	23.367	13.056	-32.201	55.568	10.311	AV
3			0.338	44.144	34.109	-15.109	59.252	10.034	QP
4		*	0.338	41.316	31.281	-7.937	49.252	10.034	AV
5			0.550	33.152	23.011	-22.848	56.000	10.141	QP
6			0.550	24.110	13.969	-21.890	46.000	10.141	AV
7			1.466	31.792	21.902	-24.208	56.000	9.890	QP
8			1.466	17.585	7.695	-28.415	46.000	9.890	AV
9			3.446	32.488	22.585	-23.512	56.000	9.903	QP
10			3.446	22.694	12.791	-23.306	46.000	9.903	AV
11			6.682	37.511	27.362	-22.489	60.000	10.149	QP
12			6.682	24.587	14.438	-25.413	50.000	10.149	AV

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

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

Site: SR2	Time: 2016/07/15 - 10:08
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

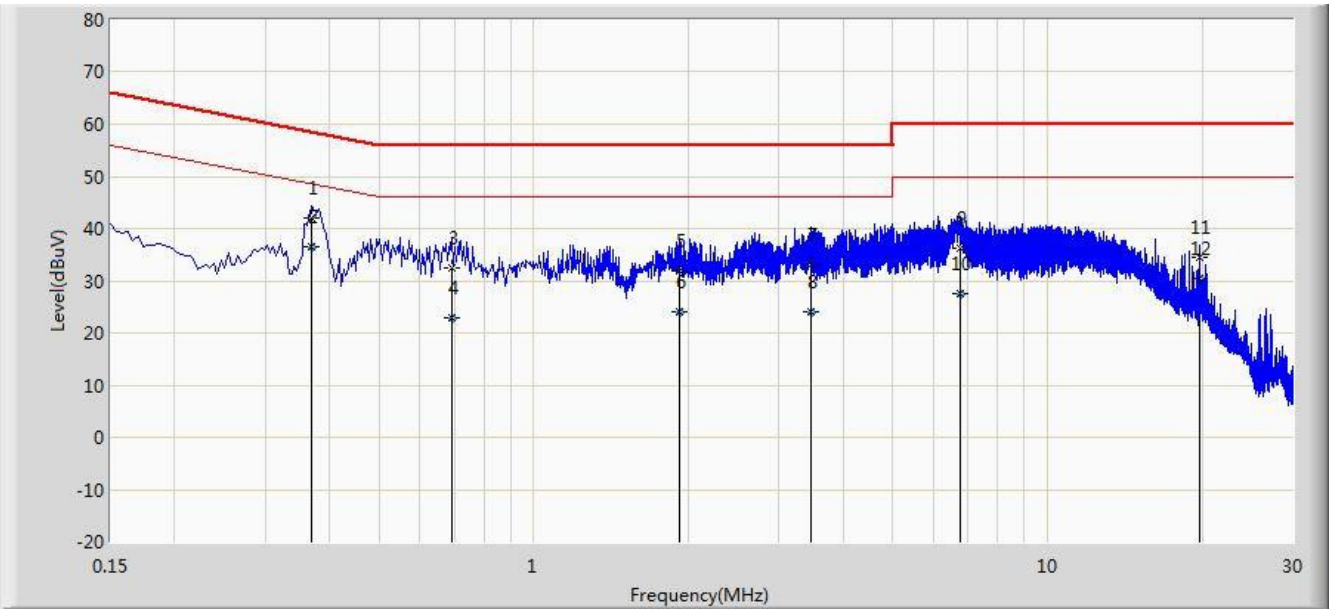


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	38.790	28.500	-26.779	65.568	10.290	QP
2			0.158	20.900	10.610	-34.669	55.568	10.290	AV
3			0.338	43.439	33.373	-15.814	59.252	10.066	QP
4		*	0.338	38.685	28.619	-10.567	49.252	10.066	AV
5			0.746	36.288	26.238	-19.712	56.000	10.049	QP
6			0.746	25.293	15.244	-20.707	46.000	10.049	AV
7			6.658	41.282	31.120	-18.718	60.000	10.162	QP
8			6.658	27.298	17.136	-22.702	50.000	10.162	AV
9			19.710	41.705	31.553	-18.295	60.000	10.153	QP
10			19.710	38.419	28.266	-11.581	50.000	10.153	AV
11			28.686	37.006	26.592	-22.994	60.000	10.414	QP
12			28.686	32.038	21.623	-17.962	50.000	10.414	AV

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

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

Site: SR2	Time: 2016/07/15 - 10:33
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

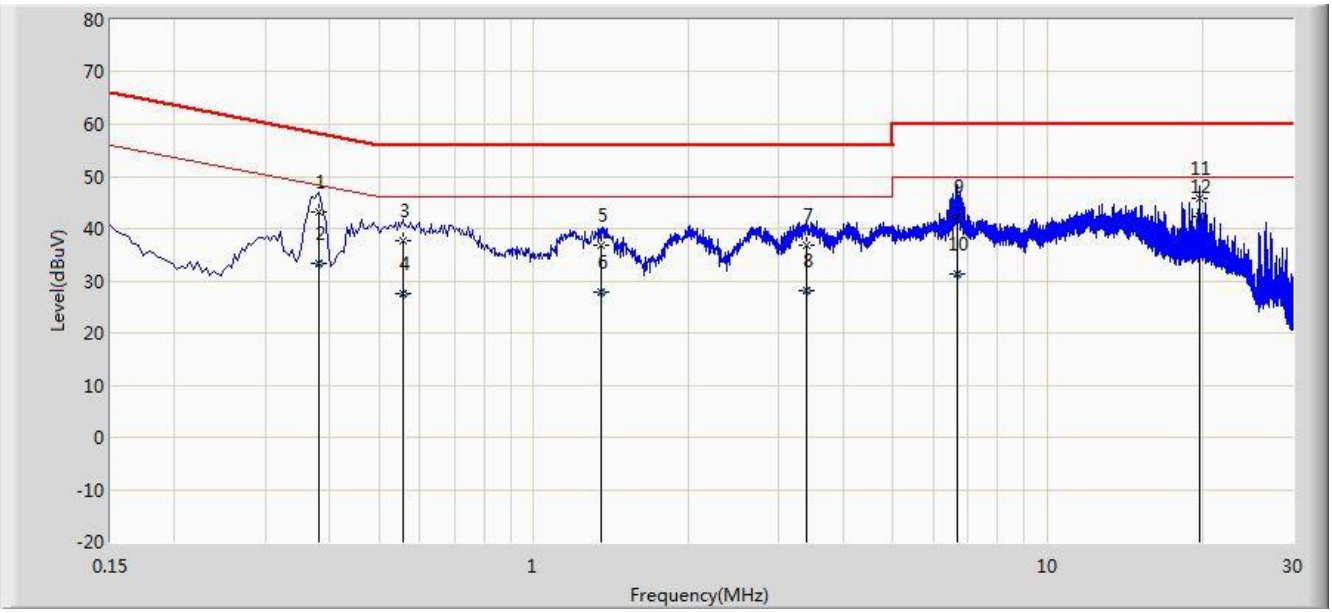


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.370	42.016	31.955	-16.485	58.501	10.061	QP
2		*	0.370	36.431	26.370	-12.070	48.501	10.061	AV
3			0.694	32.464	22.398	-23.536	56.000	10.066	QP
4			0.694	22.831	12.765	-23.169	46.000	10.066	AV
5			1.918	31.873	21.999	-24.127	56.000	9.874	QP
6			1.918	23.985	14.111	-22.015	46.000	9.874	AV
7			3.458	32.982	23.078	-23.018	56.000	9.904	QP
8			3.458	24.024	14.120	-21.976	46.000	9.904	AV
9			6.762	36.186	26.038	-23.814	60.000	10.148	QP
10			6.762	27.651	17.503	-22.349	50.000	10.148	AV
11			19.710	34.478	24.356	-25.522	60.000	10.122	QP
12			19.710	30.470	20.348	-19.530	50.000	10.122	AV

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

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

Site: SR2	Time: 2016/07/15 - 10:37
Limit: FCC_Part15.107_CE_Class B	Engineer: Dandy Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Ultra-elegant Gigabit 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			0.382	43.262	33.163	-14.974	58.236	10.099	QP
2			0.382	33.317	23.218	-14.919	48.236	10.099	AV
3			0.558	37.595	27.440	-18.405	56.000	10.154	QP
4			0.558	27.637	17.482	-18.363	46.000	10.154	AV
5			1.354	36.869	26.973	-19.131	56.000	9.896	QP
6			1.354	27.865	17.969	-18.135	46.000	9.896	AV
7			3.398	36.706	26.799	-19.294	56.000	9.906	QP
8			3.398	28.125	18.219	-17.875	46.000	9.906	AV
9			6.682	42.293	32.130	-17.707	60.000	10.162	QP
10			6.682	31.198	21.036	-18.802	50.000	10.162	AV
11			19.710	45.815	35.663	-14.185	60.000	10.153	QP
12		*	19.710	42.203	32.050	-7.797	50.000	10.153	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 (dBμV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

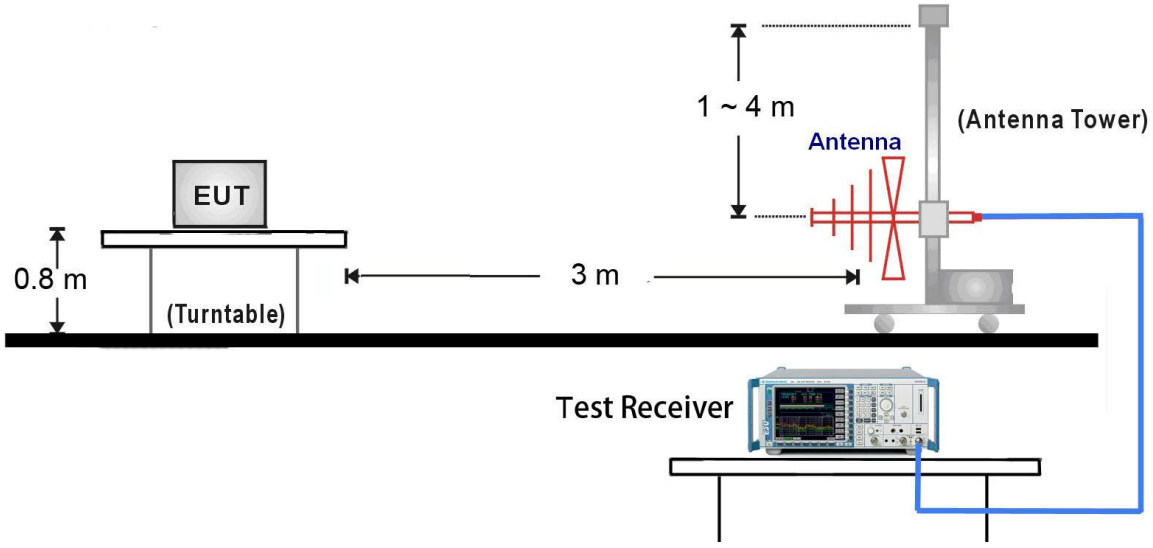
Note 1: The lower limit shall apply at the transition frequency.

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.

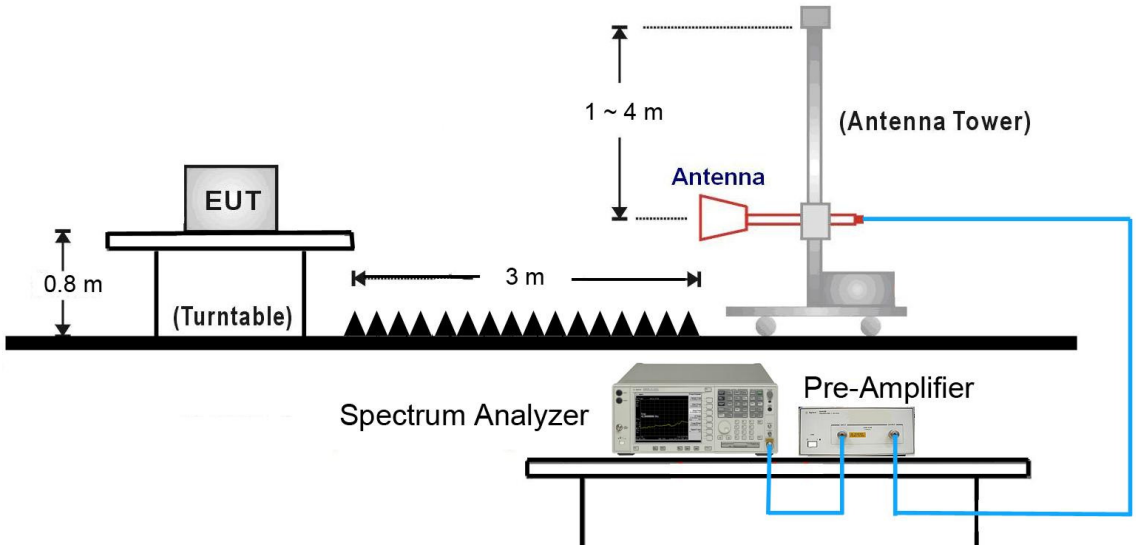
Note 3: E field strength (dBμV/m) = 20 log E field strength (uV/m)

6.3.2. Test Setup

30MHz ~ 1GHz Test Setup:

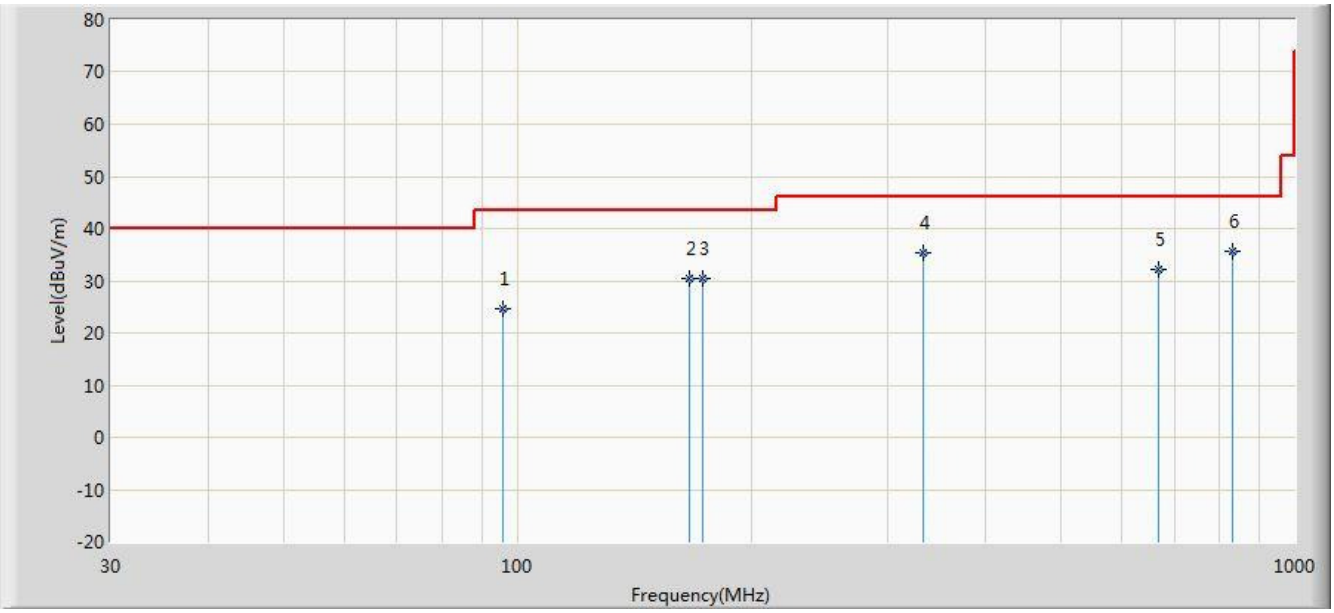


1GHz ~18GHz Test Setup:



6.3.3. Test Result

Site: AC2	Time: 2016/07/28 - 11:26
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

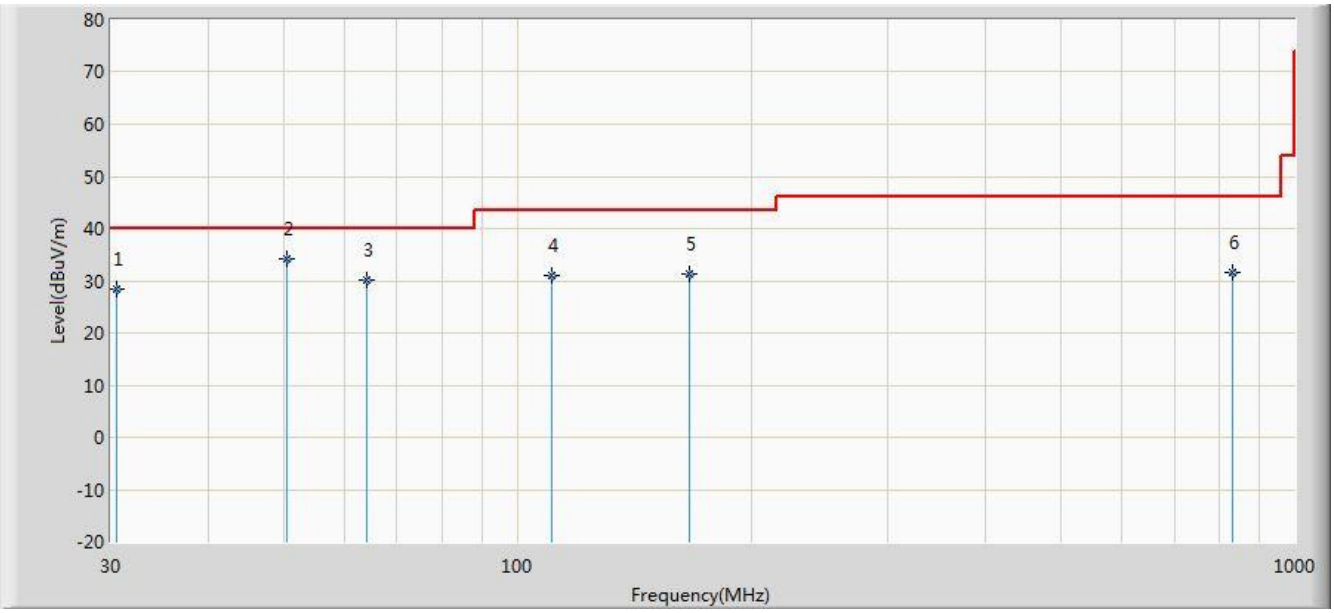


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			95.960	24.640	12.180	-18.860	43.500	12.460	100	332	QP
2			166.285	30.307	20.210	-13.193	43.500	10.097	100	254	QP
3			173.560	30.325	19.880	-13.175	43.500	10.445	100	267	QP
4			333.125	35.462	19.980	-10.538	46.000	15.482	100	175	QP
5			666.805	32.099	11.090	-13.901	46.000	21.009	100	42	QP
6		*	833.645	35.575	12.190	-10.425	46.000	23.385	100	114	QP

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

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

Site: AC2	Time: 2016/07/28 - 11:28
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

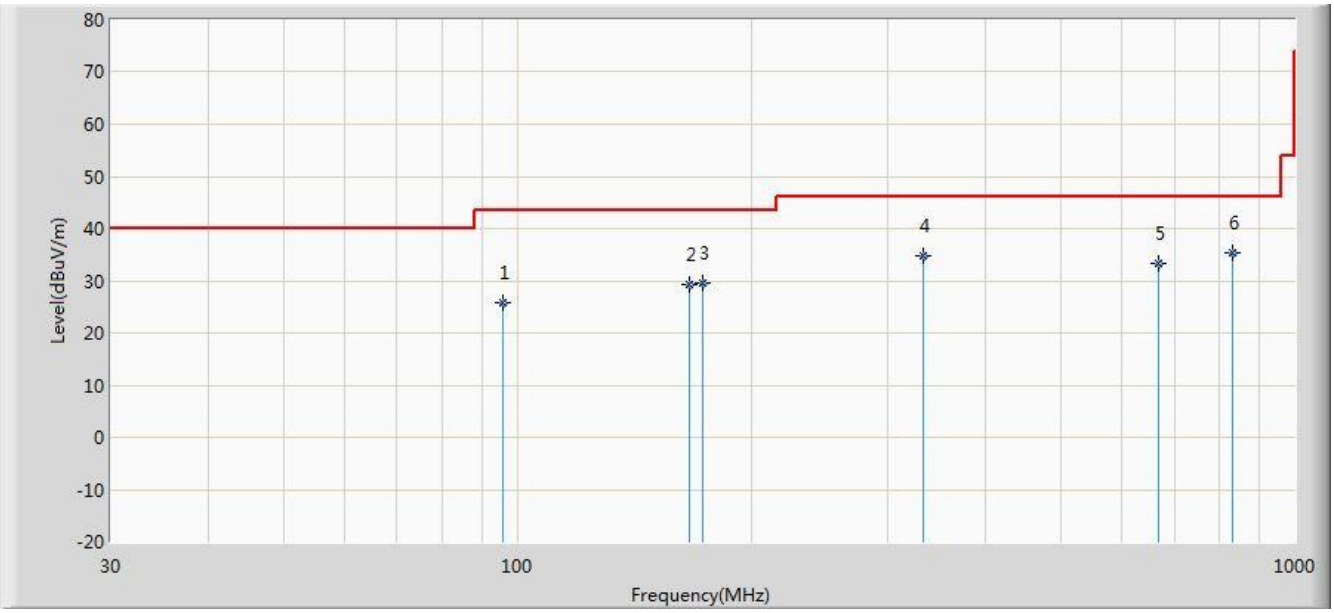


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			30.485	28.440	16.290	-11.560	40.000	12.150	100	175	QP
2		*	50.440	34.288	19.350	-5.712	40.000	14.938	100	39	QP
3			63.950	30.193	17.290	-9.807	40.000	12.903	100	332	QP
4			110.995	30.952	18.200	-12.548	43.500	12.752	100	199	QP
5			166.285	31.387	21.290	-12.113	43.500	10.097	100	251	QP
6			833.645	31.575	8.190	-14.425	46.000	23.385	100	88	QP

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

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

Site: AC2	Time: 2016/07/28 - 11:28
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

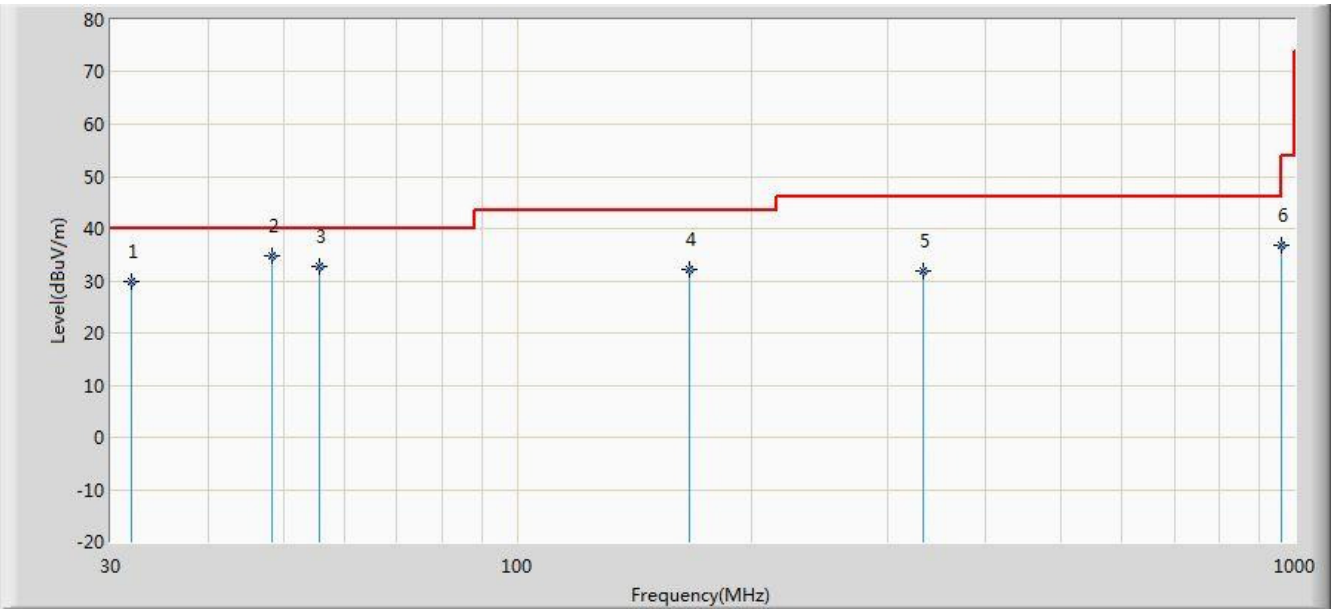


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			95.960	25.660	13.200	-17.840	43.500	12.460	100	29	QP
2			166.285	29.337	19.240	-14.163	43.500	10.097	100	38	QP
3			173.560	29.705	19.260	-13.795	43.500	10.445	100	264	QP
4			333.125	34.762	19.280	-11.238	46.000	15.482	100	331	QP
5			666.805	33.299	12.290	-12.701	46.000	21.009	100	257	QP
6		*	833.645	35.305	11.920	-10.695	46.000	23.385	100	148	QP

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

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

Site: AC2	Time: 2016/07/28 - 11:28
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

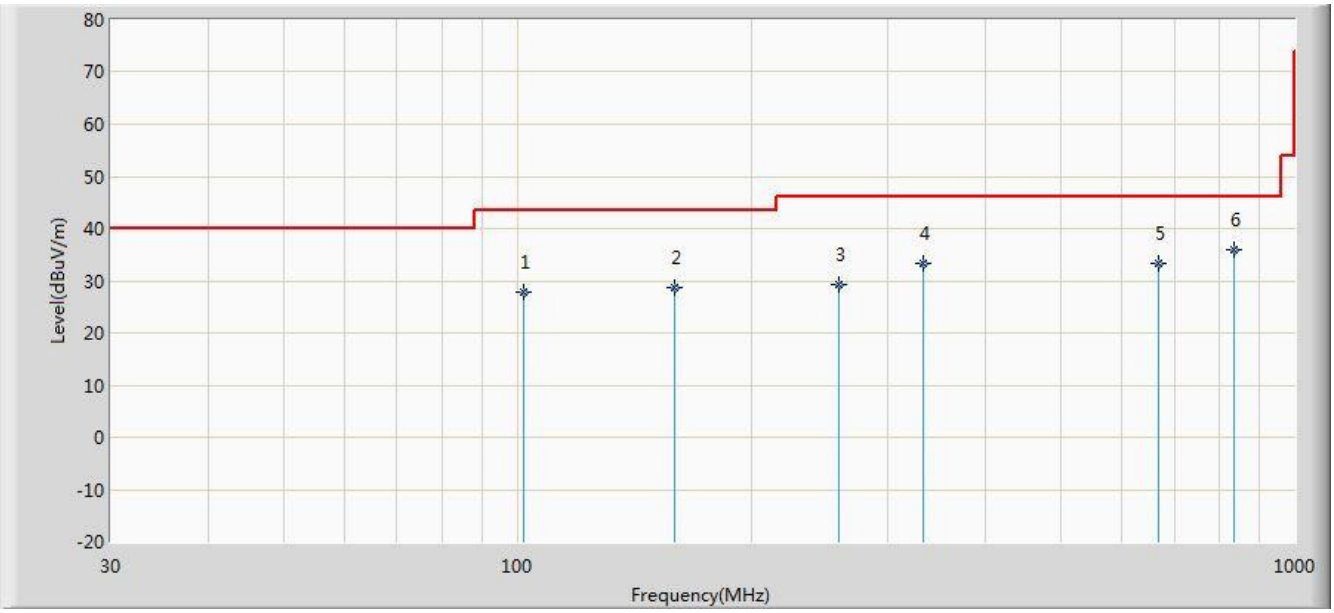


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			31.940	29.873	17.490	-10.127	40.000	12.383	100	12	QP
2		*	48.425	34.768	19.800	-5.232	40.000	14.968	100	256	QP
3			55.705	32.834	18.270	-7.166	40.000	14.564	100	320	QP
4			166.285	32.077	21.980	-11.423	43.500	10.097	100	336	QP
5			333.125	31.772	16.290	-14.228	46.000	15.482	100	167	QP
6			960.230	36.796	12.190	-17.204	54.000	24.606	100	75	QP

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

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

Site: AC2	Time: 2016/07/27 - 18:53
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: By POE
Note: Mode 3	

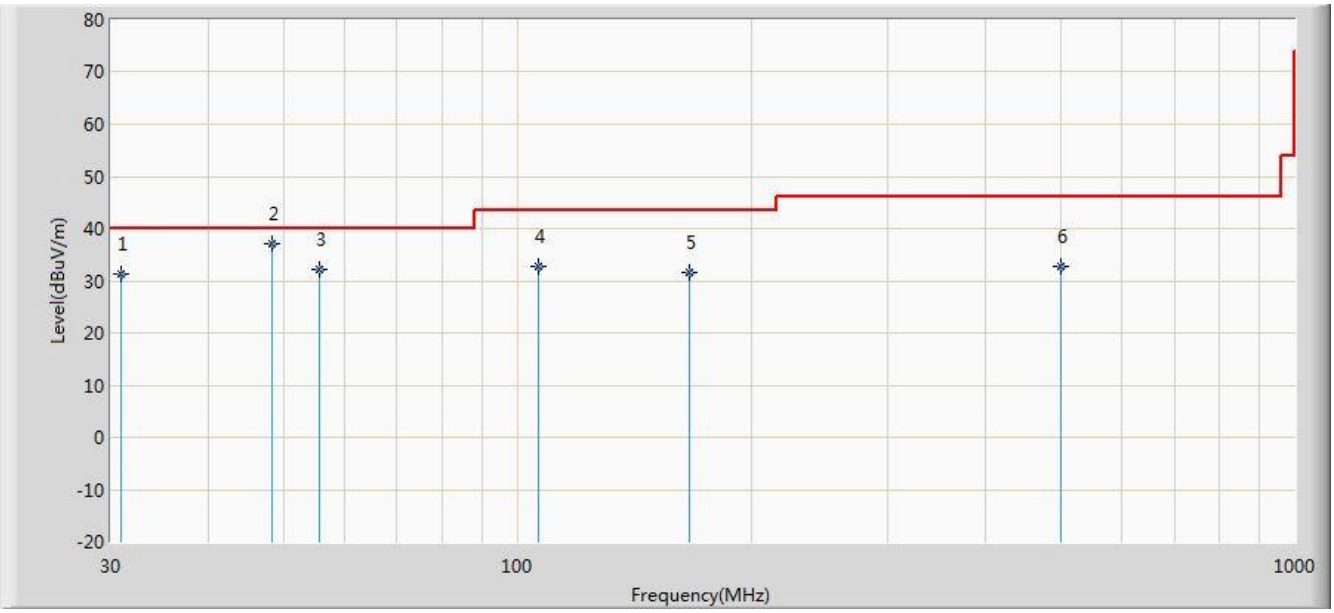


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			101.780	27.724	14.520	-15.776	43.500	13.204	100	117	QP
2			159.495	28.584	18.760	-14.916	43.500	9.824	100	286	QP
3			258.920	29.146	15.270	-16.854	46.000	13.876	100	313	QP
4			333.125	33.322	17.840	-12.678	46.000	15.482	100	29	QP
5			666.805	33.419	12.410	-12.581	46.000	21.009	100	339	QP
6		*	833.845	35.897	12.510	-10.103	46.000	23.387	100	247	QP

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

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

Site: AC2	Time: 2016/07/27 - 18:53
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit IP Phone	Power: By POE
Note: Mode 3	

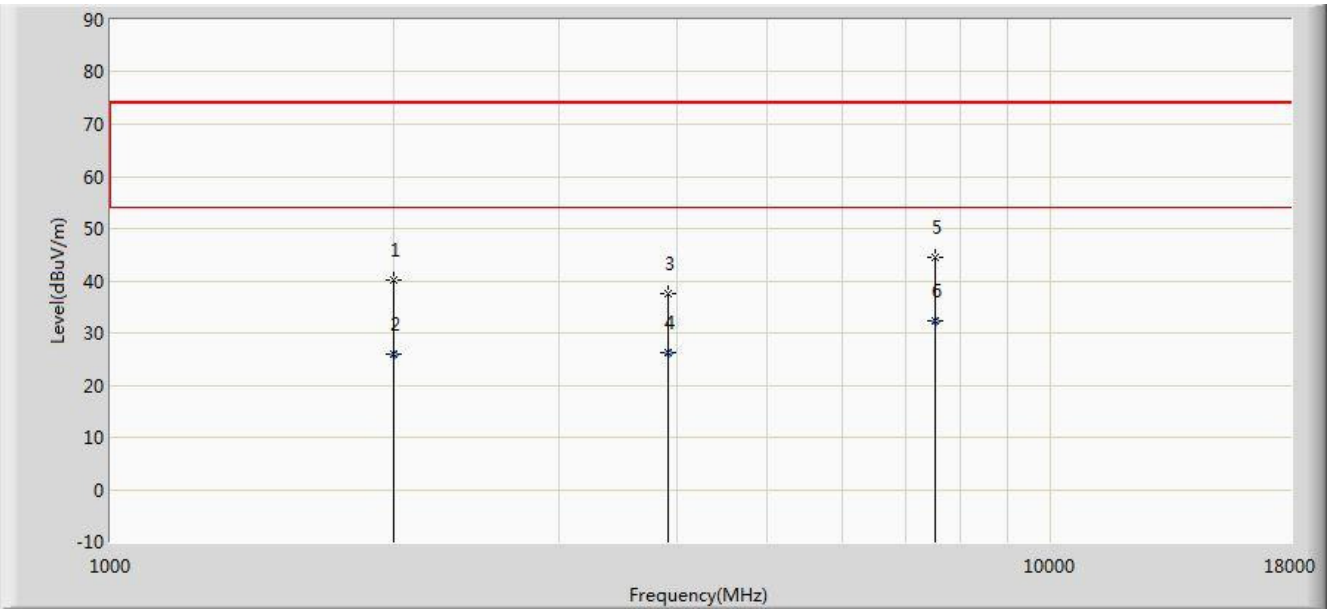


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			30.970	31.190	18.960	-8.810	40.000	12.230	100	19	QP
2		*	48.460	37.168	22.200	-2.832	40.000	14.968	100	247	QP
3			55.705	32.044	17.480	-7.956	40.000	14.564	100	145	QP
4			106.630	32.697	19.640	-10.803	43.500	13.057	100	274	QP
5			166.285	31.557	21.460	-11.943	43.500	10.097	100	53	QP
6			499.965	32.691	14.360	-13.309	46.000	18.331	100	353	QP

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

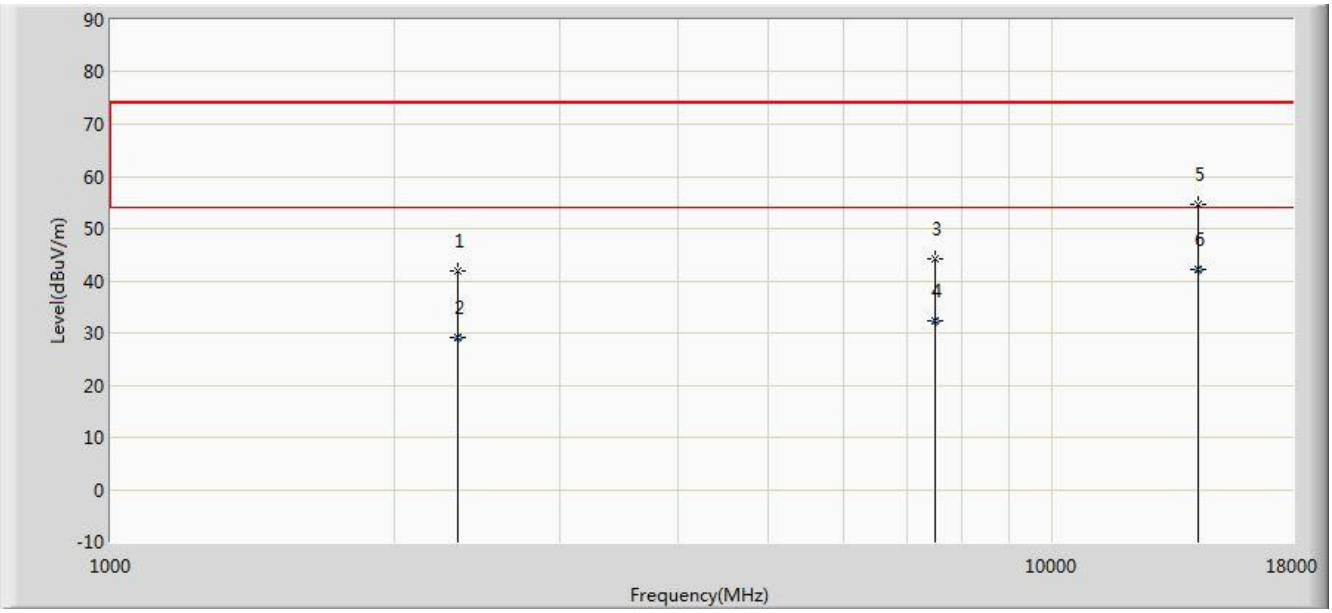


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	40.146	44.631	-33.854	74.000	-4.485	100	32	PK
2			2003.000	25.925	30.410	-28.075	54.000	-4.485	100	35	AV
3			3924.000	37.657	38.307	-36.343	74.000	-0.650	100	256	PK
4			3924.000	26.200	26.850	-27.800	54.000	-0.650	100	261	AV
5			7528.000	44.588	33.611	-29.412	74.000	10.976	100	336	PK
6		*	7528.000	32.437	21.460	-21.563	54.000	10.976	100	338	AV

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 1	

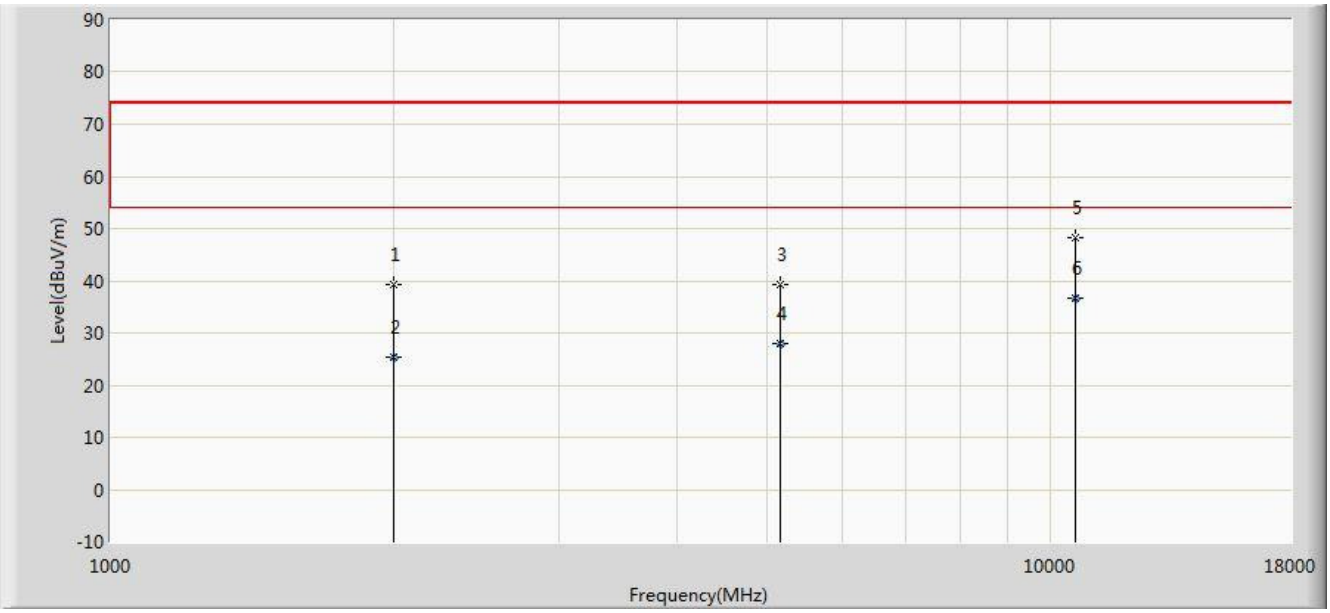


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2334.500	41.997	44.317	-32.003	74.000	-2.319	100	291	PK
2			2334.500	29.160	31.480	-24.840	54.000	-2.319	100	296	AV
3			7519.500	44.231	33.299	-29.769	74.000	10.932	100	172	PK
4			7519.500	32.462	21.530	-21.538	54.000	10.932	100	171	AV
5			14294.000	54.539	33.899	-19.461	74.000	20.640	100	28	PK
6		*	14294.000	42.100	21.460	-11.900	54.000	20.640	100	26	AV

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

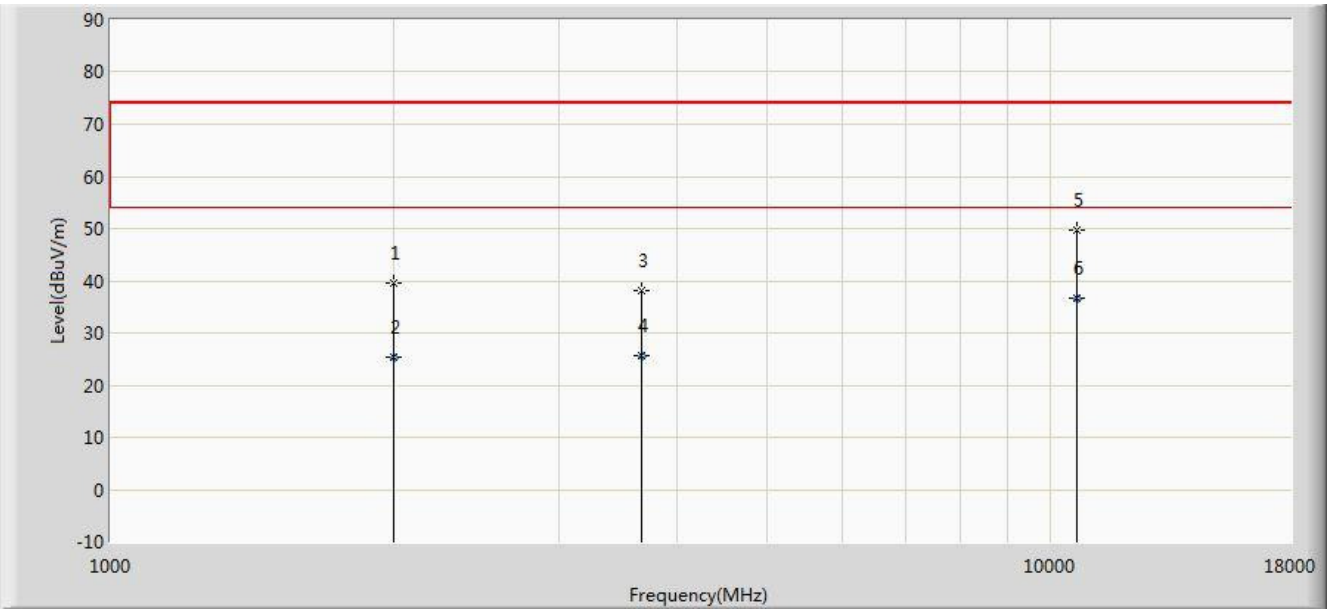


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	39.389	43.874	-34.611	74.000	-4.485	100	125	PK
2			2003.000	25.375	29.860	-28.625	54.000	-4.485	100	127	AV
3			5148.000	39.273	36.199	-34.727	74.000	3.075	100	265	PK
4			5148.000	27.914	24.840	-26.086	54.000	3.075	100	268	AV
5			10630.500	48.306	32.780	-25.694	74.000	15.526	100	314	PK
6		*	10630.500	36.586	21.060	-17.414	54.000	15.526	100	316	AV

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

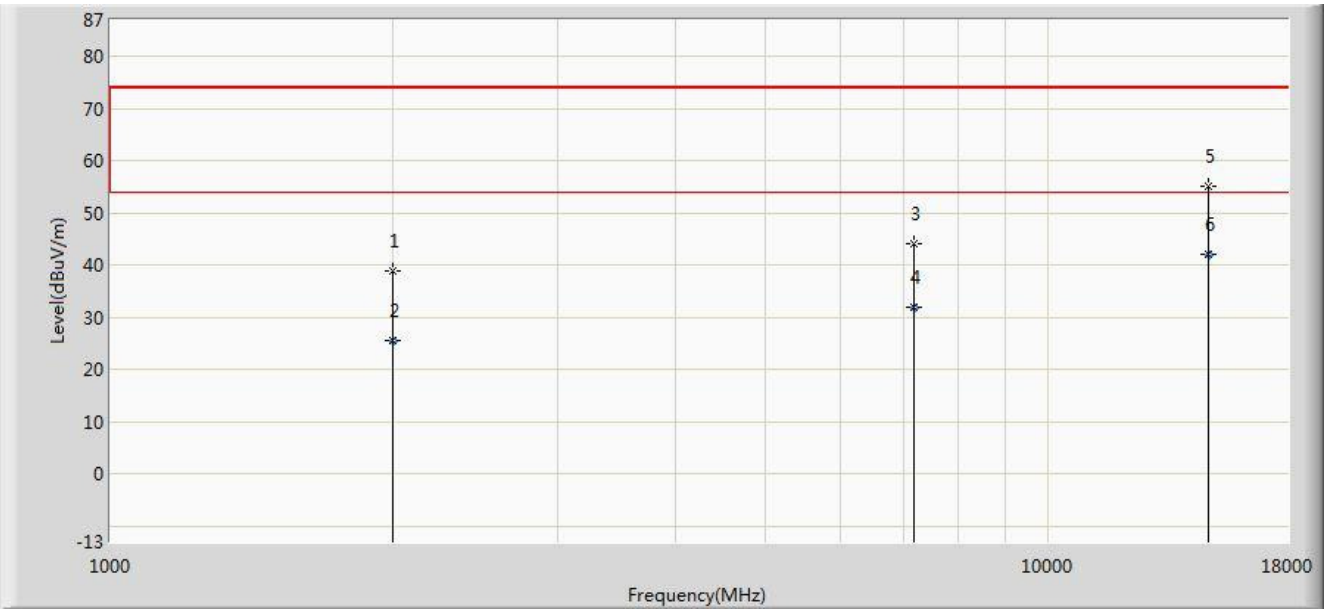


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	39.430	43.915	-34.570	74.000	-4.485	100	243	PK
2			2003.000	25.355	29.840	-28.645	54.000	-4.485	100	247	AV
3			3669.000	37.989	38.792	-36.011	74.000	-0.803	100	118	PK
4			3669.000	25.777	26.580	-28.223	54.000	-0.803	100	116	AV
5			10656.000	49.660	33.901	-24.340	74.000	15.759	100	310	PK
6		*	10656.000	36.789	21.030	-17.211	54.000	15.759	100	312	AV

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Ultra-elegant Gigabit IP Phone	Power: By POE
Note: Mode 3	

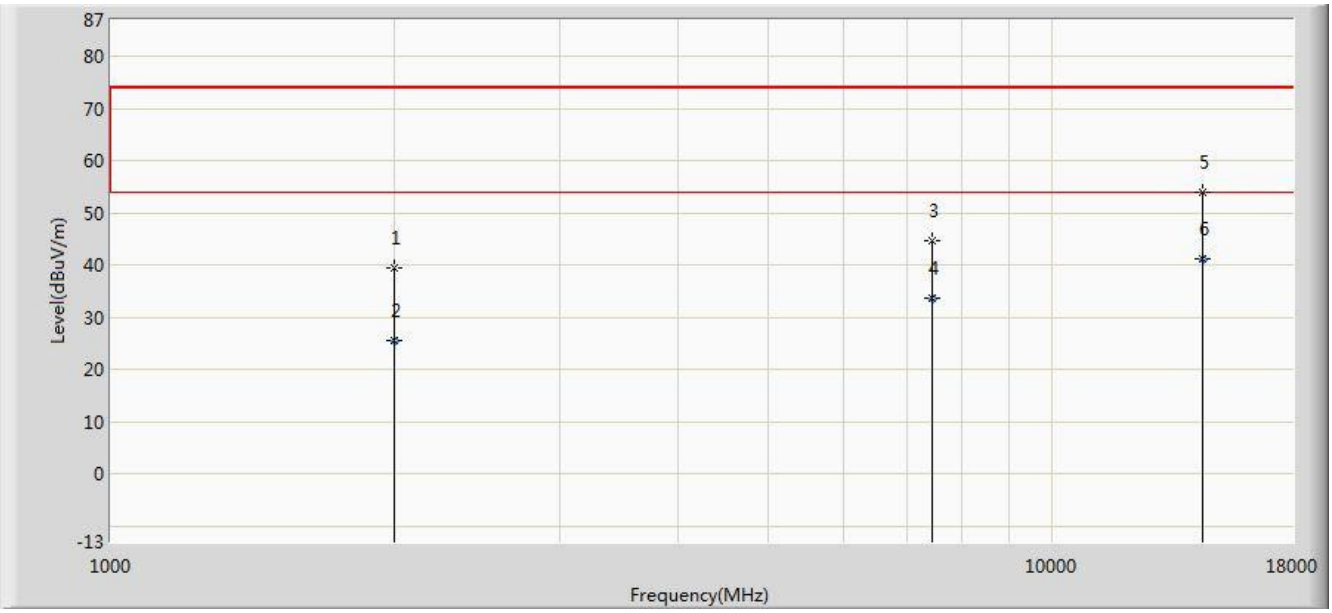


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1			2003.000	38.909	43.394	-35.091	74.000	-4.485	100	32	PK
2			2003.000	25.655	30.140	-28.345	54.000	-4.485	100	31	AV
3			7196.500	44.113	33.567	-29.887	74.000	10.546	100	332	PK
4			7196.500	31.976	21.430	-22.024	54.000	10.546	100	328	AV
5			14821.000	55.084	34.418	-18.916	74.000	20.666	100	132	PK
6		*	14821.000	42.126	21.460	-11.874	54.000	20.666	100	137	AV

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

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

Site: AC2	Time: 2016/07/18 - 16:13
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Ultra-elegant Gigabit 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	39.378	43.863	-34.622	74.000	-4.485	100	124	PK
2			2003.000	25.675	30.160	-28.325	54.000	-4.485	100	129	AV
3			7460.000	44.818	33.749	-29.182	74.000	11.070	100	334	PK
4			7460.000	33.549	22.480	-20.451	54.000	11.070	100	329	AV
5			14464.000	54.100	33.199	-19.900	74.000	20.901	100	222	PK
6		*	14464.000	41.061	20.160	-12.939	54.000	20.901	100	226	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 Gigabit IP Phone FCC ID: T2C-T42S** has been tested to comply with the requirements specified in §15.107 and §15.109 of the FCC Rules.

The End