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Report No.: 1601RSU00802 Report V0sion: V03 Issue Date: 02-05-2016

# MEASUREMENT REPORT

# FCC Part 15B

YZZGXP2160 FCC ID:

APPLICANT: Grandstream Networks, Inc.

**Product:** IP Phone

Model No.: **GXP2160** 

**Brand Name:** Grandstream

FCC Classification: FCC Class B Digital Device (JBP)

FCC Rule Part(s): FCC Part 15 Subpart B: 2014

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

**Test Date:** January 12 ~ 16, 2016

Reviewed By

Approved By

(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
1601RSU00802	Rev. 01	Initial report	01-18-2016
1601RSU00802	Rev. 02	Update the test date and delete the radiated emission data above 1GHz	01-20-2016
1601RSU00802	Rev. 03	Update the test setup diagram	02-05-2016

Note: The EUT has been got the FCC certificate (FCC ID: YZZGXP2160). The EUT adds two new adapters now and we have shown the conducted emission data and radiated emission data in this report.

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### §2.1033 General Information

Applicant:	Grandstream Networks, Inc.			
Applicant Address:	4th Floor, Rainbow Technology Building #16 New West Rd, Nanshar			
	Science & Technology Park (North District), Shenzhen, China			
	518057			
Manufacturer:	Grandstream Networks, Inc.			
Manufacturer Address:	4th Floor, Rainbow Technology Building #16 New West Rd, Nanshan			
	Science & Technology Park (North District), Shenzhen, China			
	518057			
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.:	GXP2160			
Test Device Serial No.:	N/A ☐ Production ☐ Pre-Production ☐ Engineering			

### **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.



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### 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.



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# 2. PRODUCT INFORMATION

# 2.1. Equipment Description

Product Name	IP Phone	
Model No.	GXP2160	
Brand Name	Grandstream	
BT Specification	v2.1 + EDR	
Antenna Type	PIFA Antenna	
Antenna Gain	2dBi	
Components		
Adapter #1	M/N: F12US1200100A	
Input: AC 100-240V ~ 50/60Hz, 0.5A max		
	OUTPUT: 12Vdc, 1.0A	
Adapter #2 M/N: PEA-120100VA		
	Input: AC 100-240V ~ 50/60Hz, 0.3A	
	OUTPUT: 12Vdc, 1.0A	

### 2.2. Test Mode

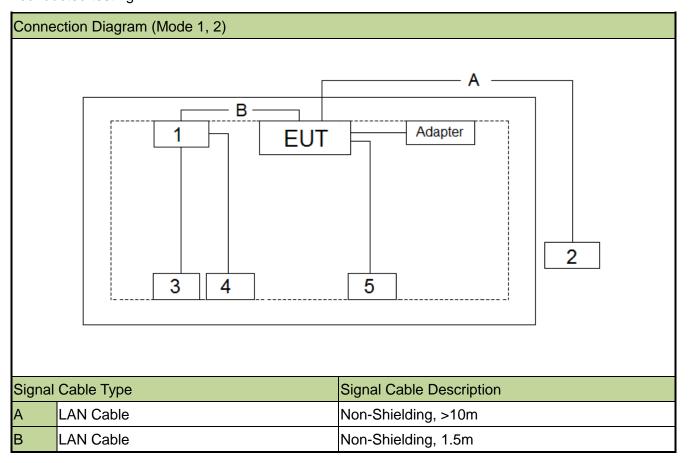
Test Mode	
	Mode 1: Audio Call with another IP Phone and Communicate with PC and Powered
EMI Mode	by Adapter #1
Eivii iviode	Mode 2: Audio Call with another IP Phone and Communicate with PC and Powered
	by Adapter #2

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### 2.3. Test Configuration

The EUT was tested per the guidance FCC Part 15 Subpart B: 2014 and ANSI C63.4: 2014 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.



### 2.4. Test System Details

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

Produ	ct	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	Lenovo	X201	3626AM3	Non-Shielded, 1.8m
2	IP Phone	GRANDSTREAM	GXP2140	N/A	N/A
3	USB Keyboard	Dell	KB212	N/A	N/A
4	USB Mouse	Dell	MS111	N/A	N/A
5	USB Mouse	Dell	MS111	N/A	N/A

Remark: The auxiliary equipment notebook was authorized by FCC Declaration of Confirmation.

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### 2.5. Test Software

1	Setup the EUT and simulators as shown on above.
	(1), Make the EUT set-up as shown above.
2	(2), Power on the EUT and Make a Audio Call with another IP Phone and Communicate with PC.
	(3), Start to test.

# 2.6. EMI Suppression Device(s)/Modifications

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

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### 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 40GHz (ANSI C63.4-2014) was used in the measurement of the **IP Phone** 

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,  $50\Omega/50uH$  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

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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.

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# 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/ Meter Humidity	Yuhuaze	N/A	MRTSUE06180	1 year	2016/12/20

### Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MRTSUE06124	1 year	2016/06/23
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2016/11/03
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2016/03/29
TRILOG Antenna	Schwarzbeck	VULB9168	MRTSUE06172	1 year	2016/12/10
Temperature/ Meter Humidity	Mingao	ETH529	MRTSUE06170	1 year	2016/11/29

Software	Version	Function
e3	V8.3.5	EMI Test Software

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### 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 Vertical: 30MHz~1GHz: 4.18 dB

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## 6. TEST RESULT

6.1. Summary

**Company Name:** Grandstream Networks, Inc.

Audio Call with another IP Phone and Communicate with PC and

Test Mode: Powered by Adapter #1;

Audio Call with another IP Phone and Communicate with PC and

Powered by Adapter #2;

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

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### **6.2. Conducted Emission Measurement**

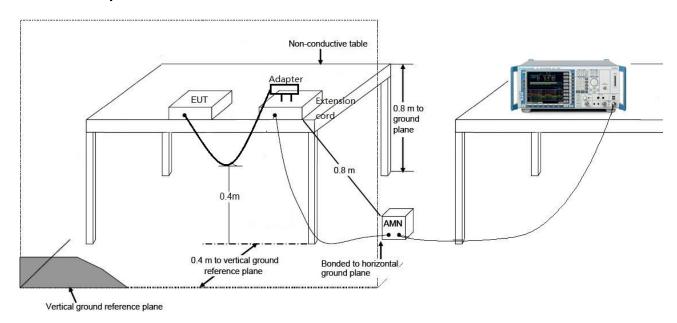
### 6.2.1. Test Limit

FCC Part 15.107 Limits				
Frequency (MHz)	QP (dBµV)	ΑV (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



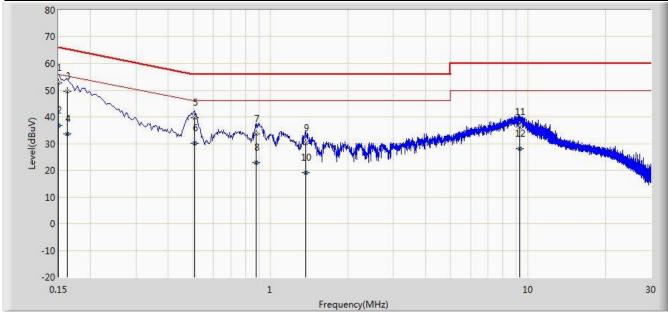
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### 6.2.3. Test Result of Conducted Emissions

Site: SR2	Time: 2016/01/12 - 14:14		
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Vince Yu		
Probe: ENV216_101683_Filter On	Polarity: Line		
EUT: IP Phone	Power: AC 120V/60Hz		
Note: Mode 1			

Note: Mode 1



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1		*	0.150	52.792	41.624	-13.208	66.000	11.168	QP
2			0.150	36.816	25.647	-19.184	56.000	11.168	AV
3			0.162	49.586	39.489	-15.775	65.361	10.097	QP
4			0.162	33.574	23.476	-21.787	55.361	10.097	AV
5			0.506	39.770	29.613	-16.230	56.000	10.157	QP
6			0.506	30.017	19.860	-15.983	46.000	10.157	AV
7			0.878	33.736	23.765	-22.264	56.000	9.972	QP
8			0.878	22.758	12.786	-23.242	46.000	9.972	AV
9			1.366	30.171	20.276	-25.829	56.000	9.895	QP
10			1.366	19.167	9.273	-26.833	46.000	9.895	AV
11			9.278	36.141	25.984	-23.859	60.000	10.157	QP
12			9.278	28.221	18.064	-21.779	50.000	10.157	AV

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

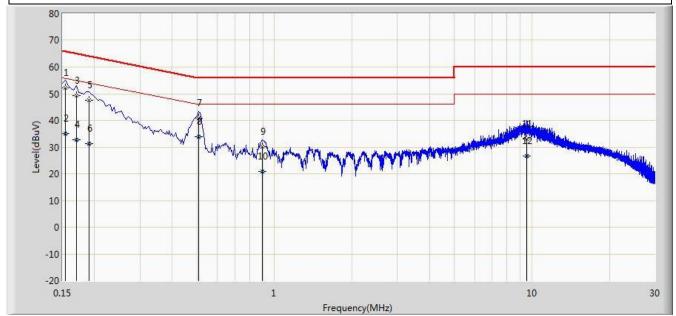
Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

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Site: SR2	Time: 2016/01/12 - 14:22
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: GXP2160	Power: AC 120V/60Hz
Note: Adepter: E40LIC4000400A	

Note: Adapter:F12US1200100A



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.154	52.225	41.509	-13.557	65.781	10.716	QP
2			0.154	35.099	24.383	-20.682	55.781	10.716	AV
3			0.170	49.230	39.167	-15.730	64.960	10.064	QP
4			0.170	32.666	22.602	-22.295	54.960	10.064	AV
5			0.190	47.435	37.407	-16.601	64.037	10.028	QP
6			0.190	31.300	21.272	-22.737	54.037	10.028	AV
7			0.506	40.996	30.819	-15.004	56.000	10.177	QP
8		*	0.506	33.893	23.716	-12.107	46.000	10.177	AV
9			0.894	30.059	20.091	-25.941	56.000	9.967	QP
10			0.894	21.005	11.037	-24.995	46.000	9.967	AV
11			9.570	33.128	22.946	-26.872	60.000	10.182	QP
12			9.570	26.557	16.375	-23.443	50.000	10.182	AV

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

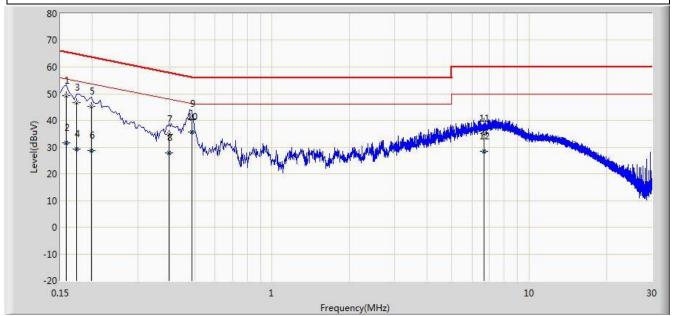
Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

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Site: SR2	Time: 2016/01/12 - 20:01
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: IP Phone	Power: AC 120V/60Hz
Note: Made 0	·

Note: Mode 2



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.158	49.414	39.103	-16.155	65.568	10.311	QP
2			0.158	31.526	21.215	-24.042	55.568	10.311	AV
3			0.174	46.588	36.521	-18.179	64.767	10.068	QP
4			0.174	29.179	19.111	-25.588	54.767	10.068	AV
5			0.198	45.228	35.223	-18.466	63.694	10.005	QP
6			0.198	28.754	18.750	-24.940	53.694	10.005	AV
7			0.398	34.685	24.601	-23.210	57.895	10.084	QP
8			0.398	27.740	17.657	-20.155	47.895	10.084	AV
9			0.486	40.724	30.569	-15.512	56.236	10.155	QP
10		*	0.486	35.793	25.638	-10.443	46.236	10.155	AV
11			6.666	35.118	24.969	-24.882	60.000	10.149	QP
12			6.666	28.314	18.165	-21.686	50.000	10.149	AV

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

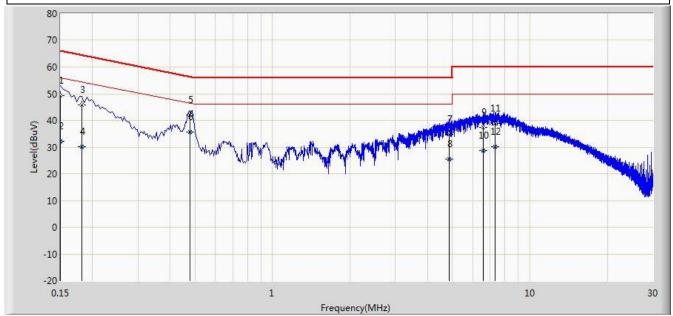
Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

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Site: SR2	Time: 2016/01/12 - 20:05
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: IP Phone	Power: AC 120V/60Hz
Note: Mode 2	

Note: Mode 2



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.150	49.401	38.259	-16.599	66.000	11.142	QP
2			0.150	32.304	21.162	-23.696	56.000	11.142	AV
3			0.182	45.833	35.791	-18.561	64.394	10.042	QP
4			0.182	30.212	20.169	-24.182	54.394	10.042	AV
5			0.478	41.949	31.779	-14.425	56.374	10.170	QP
6		*	0.478	35.570	25.399	-10.804	46.374	10.170	AV
7			4.870	34.745	24.710	-21.255	56.000	10.035	QP
8			4.870	25.411	15.376	-20.589	46.000	10.035	AV
9			6.594	37.439	27.278	-22.561	60.000	10.161	QP
10			6.594	28.829	18.668	-21.171	50.000	10.161	AV
11			7.298	38.808	28.629	-21.192	60.000	10.179	QP
12			7.298	30.007	19.828	-19.993	50.000	10.179	AV

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

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

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

## 6.3.2. Test Frequency selected

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

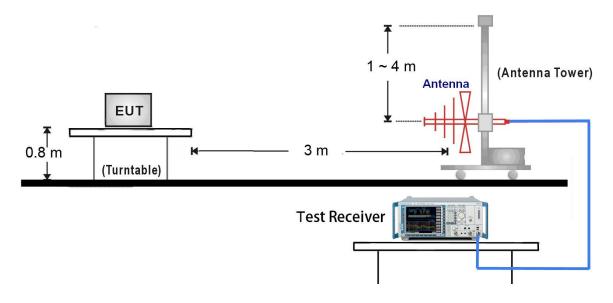
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

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## 6.3.3. Test Setup

# 30MHz ~ 1GHz Test Setup:

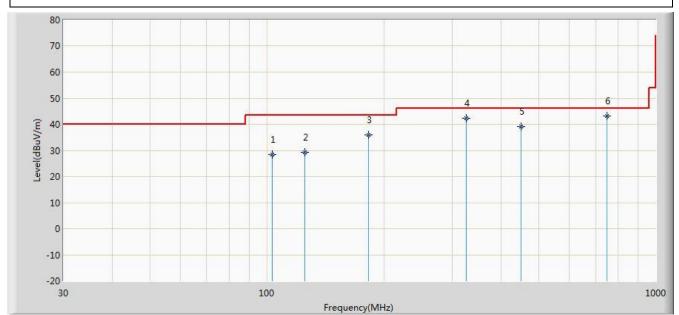


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### 6.3.4. Test Result of Radiated Emissions

Site: AC2	Time: 2016/01/14 - 17:05
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: IP Phone	Power: AC 120V/60Hz
Test Mode: Mode 1	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			103.280	28.459	15.300	-15.041	43.500	13.160	QP
2			125.090	29.284	18.760	-14.216	43.500	10.524	QP
3			182.200	35.855	24.740	-7.645	43.500	11.115	QP
4			325.007	42.353	27.120	-3.647	46.000	15.233	QP
5			450.300	39.055	21.620	-6.945	46.000	17.435	QP
6		*	750.250	43.052	20.790	-2.948	46.000	22.263	QP

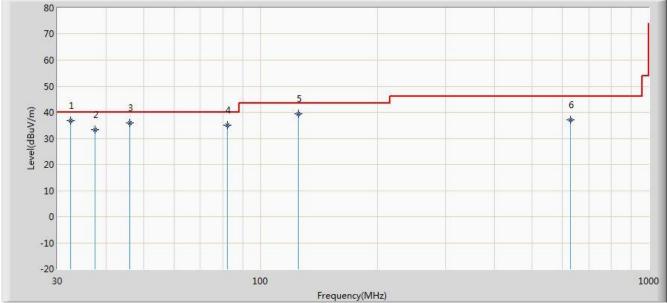
Note: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)

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

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Site: AC2	Time: 2016/01/14 - 17:05
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: IP Phone	Power: AC 120V/60Hz
Test Mode: Mode 1	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	32.425	36.847	24.380	-3.153	40.000	12.467	QP
2			37.469	33.334	19.980	-6.666	40.000	13.354	QP
3			46.150	36.072	21.070	-3.928	40.000	15.001	QP
4			82.350	35.126	25.410	-4.874	40.000	9.716	QP
5			125.020	39.514	28.980	-3.986	43.500	10.534	QP
6			628.100	36.989	16.560	-9.011	46.000	20.429	QP

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

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

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1000



-10 -20

Site: AC2	Time: 2016/01/14 - 17:06
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: IP Phone	Power: AC 120V/60Hz
Test Mode: Mode 2	·

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			250.200	34.206	20.510	-11.794	46.000	13.696	QP
2		*	325.000	43.033	27.800	-2.967	46.000	15.233	QP
3			375.100	39.202	22.980	-6.798	46.000	16.221	QP
4			415.600	38.773	21.800	-7.227	46.000	16.973	QP
5			480.150	39.949	21.950	-6.051	46.000	17.999	QP
6			750.320	41.783	19.520	-4.217	46.000	22.263	QP

Frequency(MHz)

100

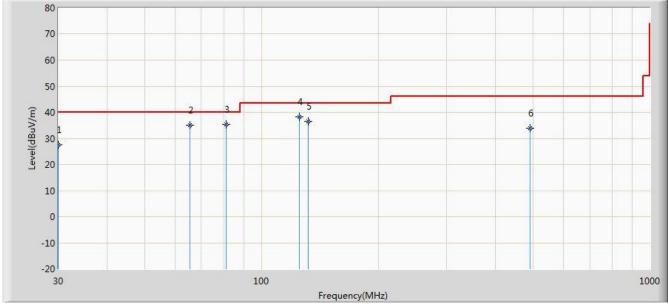
Note: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)

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

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Site: AC2	Time: 2016/01/14 - 17:06
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: IP Phone	Power: AC 120V/60Hz
Test Mode: Mode 2	·



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			30.000	27.657	15.590	-12.343	40.000	12.067	QP
2			65.320	35.051	22.600	-4.949	40.000	12.451	QP
3		*	81.030	35.264	25.730	-4.736	40.000	9.534	QP
4			125.080	38.165	27.640	-5.335	43.500	10.526	QP
5			131.840	36.571	26.640	-6.929	43.500	9.931	QP
6			492.300	33.803	15.600	-12.197	46.000	18.203	QP

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

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

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# 7. CONCLUSION

The data collected relate only the item(s) tested and show that the **IP Phone FCC ID: YZZGXP2160** has been tested to comply with the requirements specified in §15.107 and §15.109 of the FCC Rules.

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The End