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EMI TEST REPORT

On Model Name: IP Multimedia Phone

Model Number: GXV3140

Brand Name: Grandstream

Prepared for Grandstream Networks, INC

FCC ID Number: YZZGXV3140

According to FCC 47 CFR Part 15, Subpart B

Test Report #: SHE-1203-10801-FCC

Tested by: Daomen Galanz
Engineer Company Name

Reviewed by: ECMG
Senior Engineer Company Name

QC Manager: Swall Zhang ECMG
QC Manageer Company Name

Test Report Released by: Swall Zhang April 12, 2012
Swall Zhang Date

Test Location

Tests performed in a Certified ANSI Semi-Anechoic Chamber and Shielded Room.

Test Site Location	*: Galanz*
	25 South Ronggui Rd.,Shunde, Foshan,Guangdong, China
Tel	*: (86)-757-23612785*
Fax	*: (86)-757-23612537*

Test Facility

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

- *CNAL – LAB Code: L2244*

Galanz EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements)for the Competence of Testing Laboratories.

- *FCC – Registration No.: 580210*

Galanz EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC was maintained in our files.

Table of Contents

List Attached Files

Exhibit Type	File Description	File Name
Test Report	Test Report	YZZGXV3140 _Test report_rev01.pdf
Operation Description	Technical Description	YZZGXV3140_operation description.pdf
External Photos	External Photos	YZZGXV3140_External Photos.pdf
Internal Photos	Internal Photos	YZZGXV3140_Internal Photos_rev01.pdf
Block Diagram	Block Diagram	YZZGXV3140_Block Diagram.pdf
Schematics	Circuit Diagram	YZZGXV3140 _Schematics.pdf
ID Label/Location	Label and Location	YZZGXV3140 _Label & Location.pdf
User Manual	User Manual	YZZGXV3140 _User Manual.pdf
Test setup photos	Test setup photos	YZZGXV3140 _Test Setup Photos.pdf

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Opinions and Interpretations

This test report relates to the abovementioned equipment under test (EUT).Without the permission of ECMG Electronic Technical Testing Corp (Shenzhen) Test Lab this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark on this or similar products. The manufacturer has sole responsibility of continued compliance of the device.

Statement of Measurement Uncertainty

The data and results referenced in the document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error. Furthermore, component and process variability of devices similar to that tested may result in additional deviation.

Administrative Data

Test Sample	*: IP Multimedia Phone*
Model Numbers	*: GXV3140*
Model Tested	*: GXV3140*
Receipt Date	*: March 23, 2012*
Date Tested	*: March 26, 2012*
Applicant	*: Grandstream Networks, INC*
Address	*5F, Bldg #1, No.2 Kefa Rd., Science & Technology Park, Shenzhen, China*
Telephone	*: (86)-755-26014600*
Fax	*: (86)-755-26014601*
Manufacturer	*: Grandstream Networks, INC*
Address	*5F, Bldg #1, No.2 Kefa Rd., Science & Technology Park, Shenzhen, China*
Telephone	*: (86)-755-26014600*
Fax	*: (86)-755-26014601*
Factory	*: Grandstream Networks, INC*
Address	*5F, Bldg #1, No.2 Kefa Rd., Science & Technology Park, Shenzhen, China*
Telephone	*: (86)-755-26014600*
Fax	*: (86)-755-26014601*

EUT Description

Grandstream Networks, INC., model tested GXV3140 (referred to as the EUT in this report) is an IP Multimedia Phone.

Technical specifications of the EUT are as below:

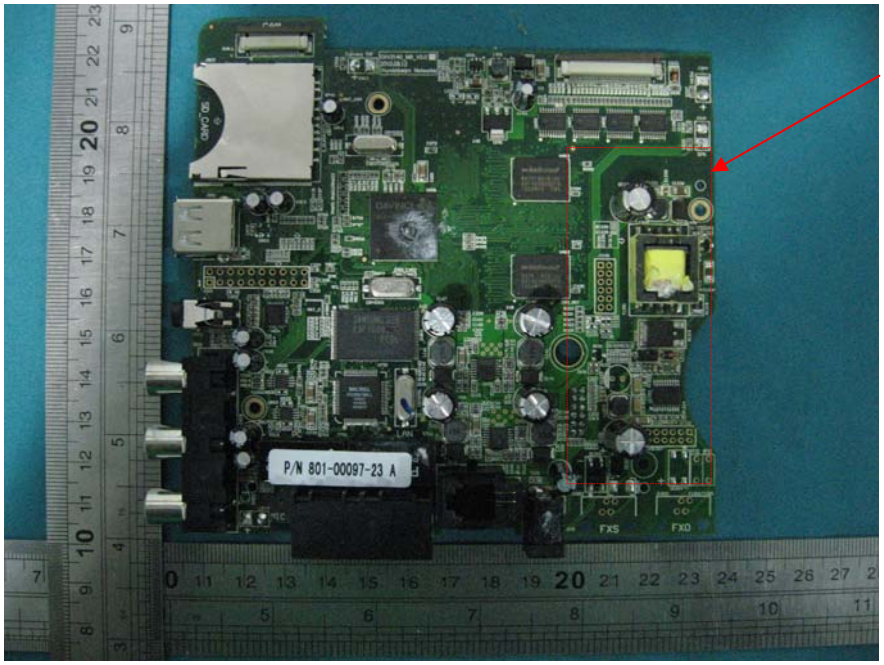
Parameter		***Range***
Basic parameters	*Rated voltage*	*12VDC*
	Rated Current	*1.0A*
I/O Ports	*SD Card Slot*	*SD Card Slot*
	USB Port	*USB devices may be connected via the USB port. For example, you can connect a USB flash drive to save captured pictures or use a USB keyboard or mouse for the built-in web browser.*
	Headset Jack	*3.5mm headset connector port*
	RCA Video/Audio Jacks	*Voice/video output port which can be connected to external peripherals (e.g. TV).*
	RJ11 Jack	*Phone handset connector port*
	PC Ethernet Port	*10/100Mbps RJ-45 port connecting to PC*
	Network Ethernet Port	*10/100Mbps RJ-45 port connecting to Ethernet*
	Power Jack	*12V DC Power connector port*
Power Adapter	*Input*	*100-240VAC 50/60Hz 0.3A*
	Output	*12VDC,1.0A,*
	Model	*SEF1200100A1BB*
	Brand name	*Mass*

NOTE: For more detailed informations or features please refer to user's manual of EUT.

EUT model derived

Model of GXV3140 has two versions,one version which does not include PoE circuit was named for GXV3140V2.1,the other one which includes PoE circuit was named for GXV3140V2.2, Anythings else are the same.

So,GXV3140V 2.2 was chosen for the final testing.



GXV3140V 2.2 has PoE circuit.

GXV3140V 2.1 has not PoE circuit

Test Summary

The Electromagnetic Compatibility requirements on model GXV3140 for this test are stated below. All results listed in this report relate exclusively to this above-mentioned model as the Equipment under Test. This report confers no approval or endorsement upon any other component, host or subsystem used in the test set-up.

Emission Tests				
Specifications	***Description***	***Test Results***	***Test Point***	***Remark***
FCC Part 15.107 ANSI C63.4 -2003	*Conducted Emission*	*Passed*	*AC Input Port*	*Attachment 1*
FCC Part 15.109 ANSI C63.4 -2003	*Radiated Emission*	*Passed*	*Enclosure*	*Attachment 2*

Test Mode Justification

Pre-scan has been conducted to determine the worst-case modes from all possible combinations between available operating modes, IP call mode and PoE mode were chosen for the final test as described below.

IP Call mode:
Connected the EUT to another an IP Phone by an RJ-45 cable and established a video call communication between them. Then connected a notebook PC to PC port of the EUT by an RJ-45 cable and ping "192.168.1.60 –t" to EUT and measured it.

For PoE Mode:
Removed AC Adaptor of the EUT, Let the EUT powered by PoE mode and measured it.

EUT Exercise Software

No test sofware support this test.

Equipment Modification

Any modifications installed previous to testing by Grandstream Networks, INC. will be incorporated in each production model sold or leased in United States.

There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen). test personnel.

EUT Sample Photos

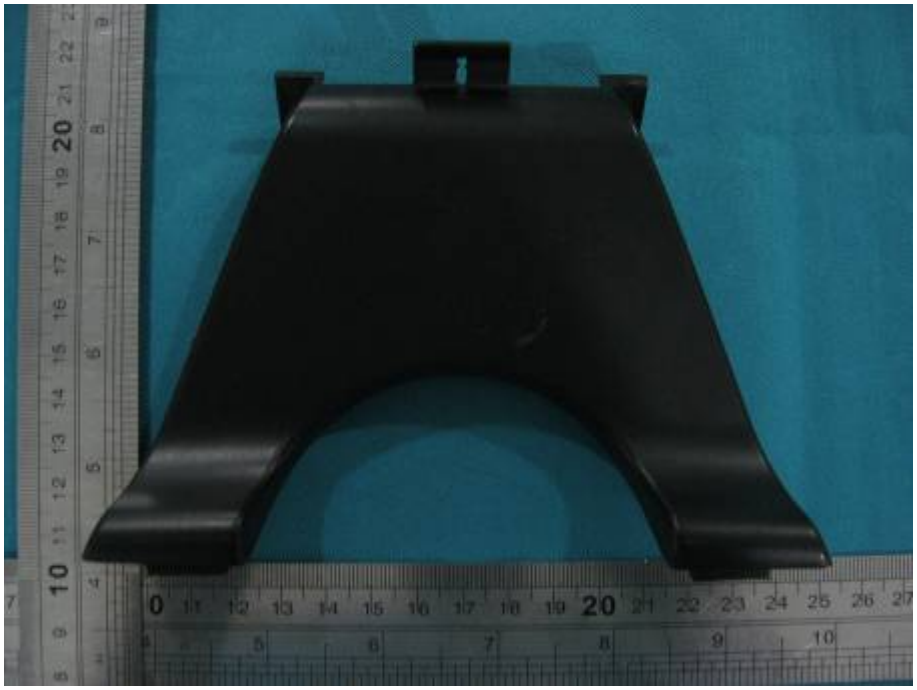
EUT Model: GXV3140

EUT- Front View

EUT -Rear View

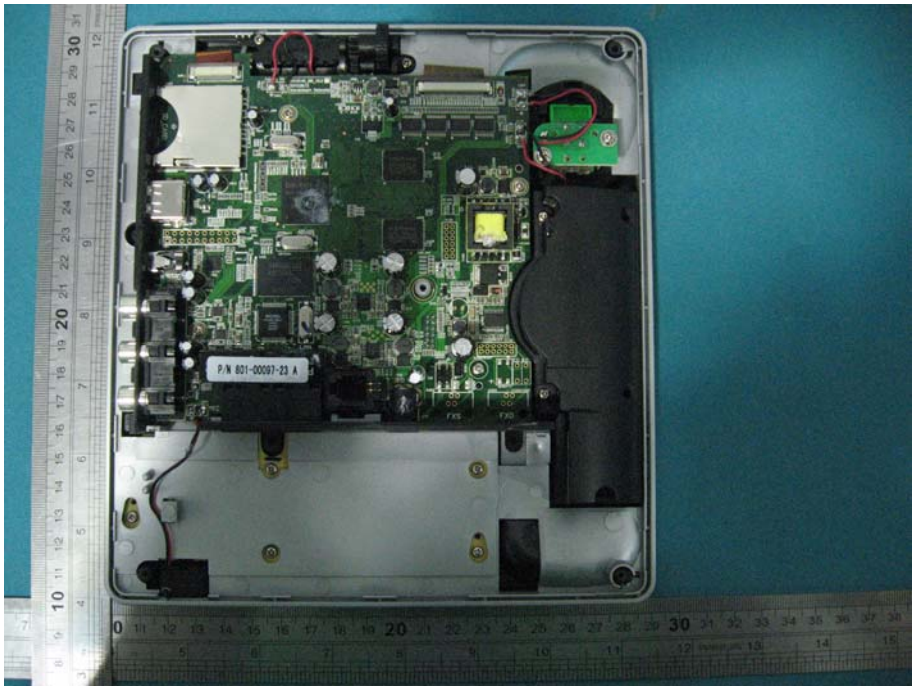
Left Side I/O Ports View

Right Side I/O Ports View



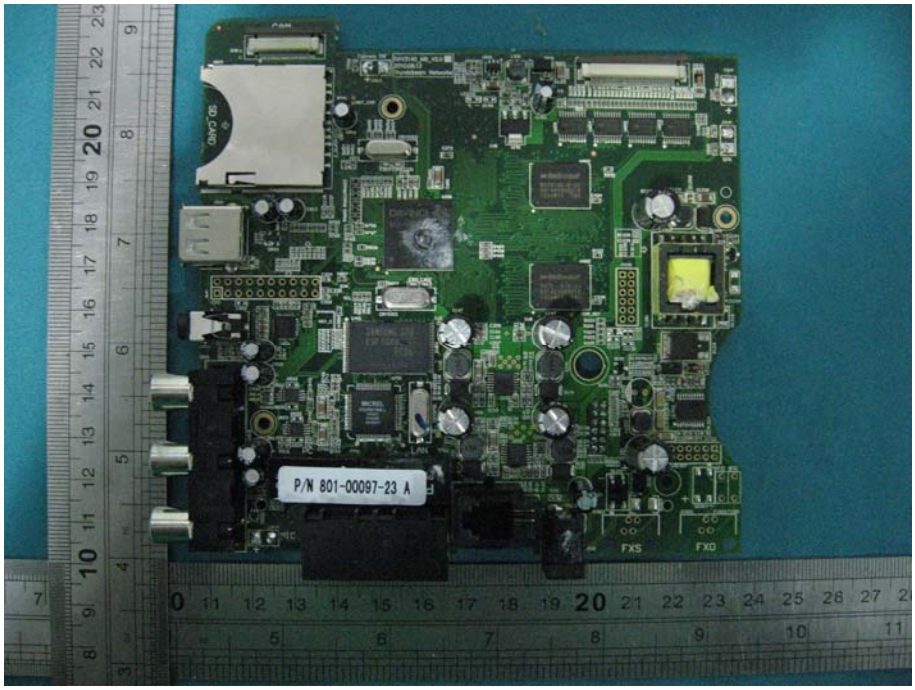
Support View

Power Adaptor View (Manufacturer: Mass Power)

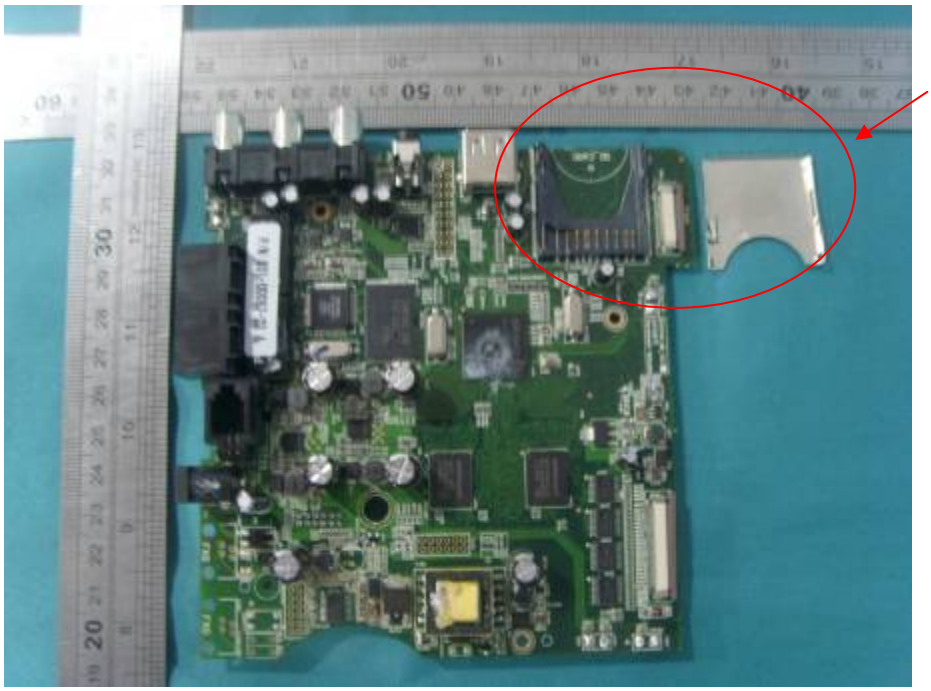


Inside View #1

Inside View #2

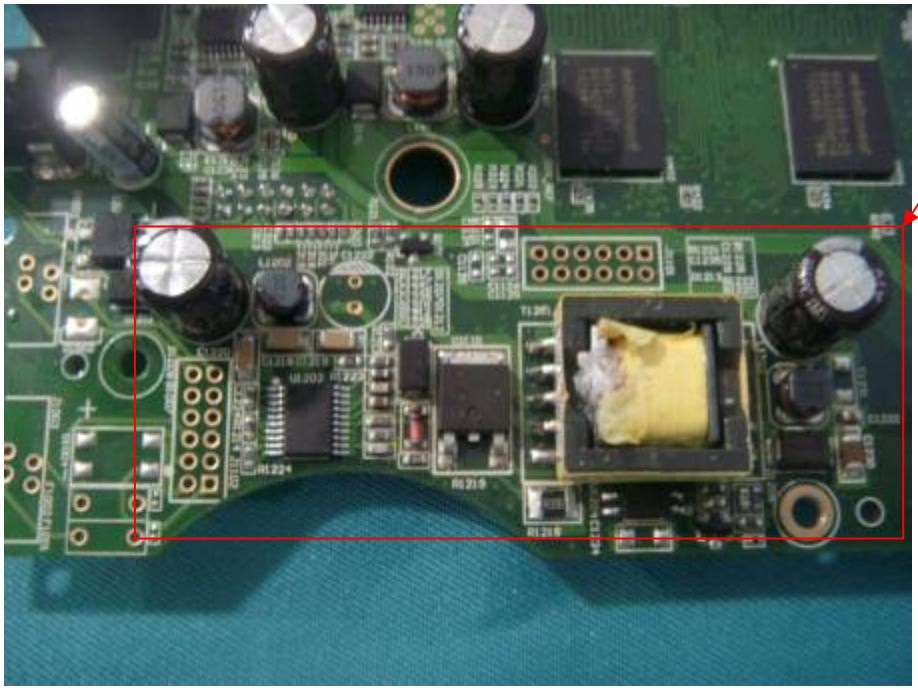


Mainboard –Front View #1

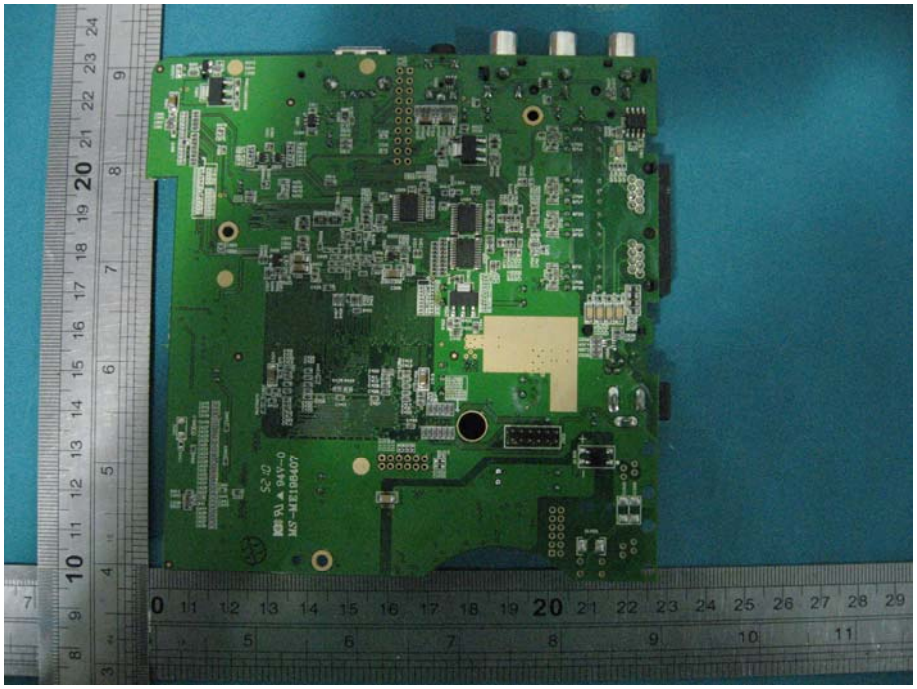


SD Card removed shield cover view

Mainboard –Front View #2



Mainboard –Front View #3



Mainboard –Rear View

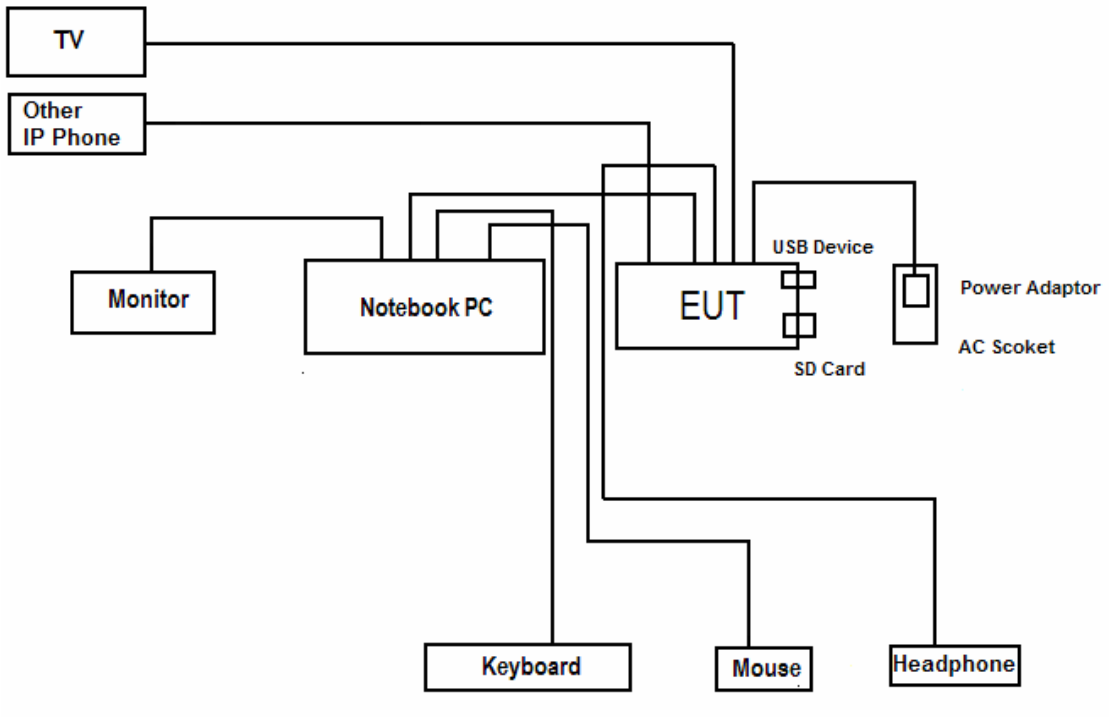
Test System Details

EUT			
Model Number:	GXV3140		
Model Tested:	GXV3140		
Description:	IP Multimedia Phone		
Input:	AC 120V/60Hz		
Manufacturer:	Grandstream Networks, INC		
Measurement Support Equipment			
Description	**Model Number**	**Serial Number**	**Manufacturer**
Notebook PC	NC4000	CNU4122BCL	HP
Power Adapter Of Notebook PC	PPP009H	239427-003	HP
Mouse	MO32B0	23-033131	HP
Keyboard	SK-1788	N/A	LENOVO
Monitor	177V+	N/A	AOC
TV	KLV-32BX320	N/A	SONY
IP Phone	GXV3175	N/A	Grandstream Networks, INC

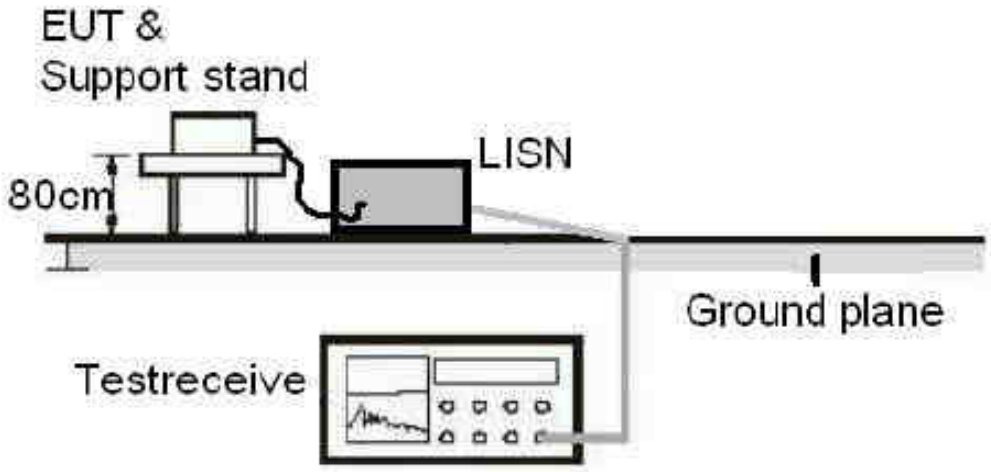
Cable Description					
Description	**From**	**To**	**Length (Meters)**	**Shielded (Y/N)**	**Ferrite (Y/N)**
Adapter Cord Of Notebook	Adapter	Notebook PC	1.6	N	Y
	Adapter	Plug	1.2	N	Y
Mouse cord	Mouse	Plug	1.2	N	Y
Keyboard cord	keyboard	Plug	1.2	N	Y
RJ-45 Cord #1	EUT	Notebook PC	1.5	N	N
RJ-45 Cord #2	EUT	IP Phone	>3.0	N	N
AV Cable	EUT	TV	1.2	N	N
VGA Cable	Notebook PC	Monitor	1.2	Y	Y
Headphone Cable	Headphone	EUT	1.2	N	N
Power Adapter cord of EUT	EUT	Plug	2.4	N	N
Note:The "EUT" means "IP Multimedia Phone".					

NOTE:The EUT has been tested as an independent unit together with other necessary accessories or support units. The above support units or accessories were used to form a representative test configuration during the test tests.

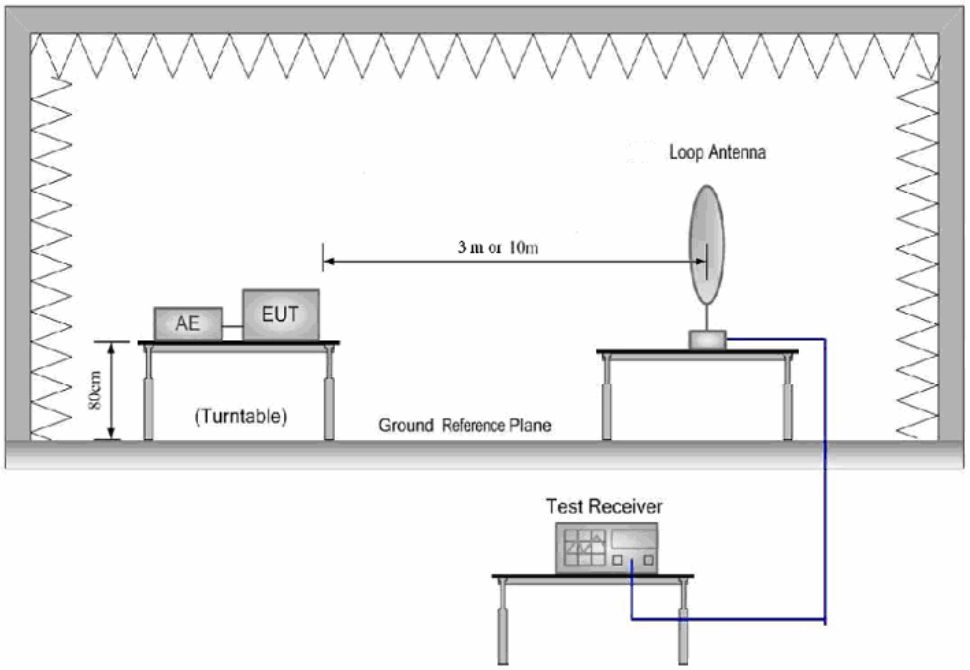
Configuration of Tested System



Note : For PoE mode,the same configuration shall still be appllied when removed by power adaptor of the EUT.



Conducted Emission Test Set-up Photograph



Radiated Emission Test Set-up Photograph (9 KHz to 30MHz)

Figure 1 : Frequencies measured below 1 GHz configuration

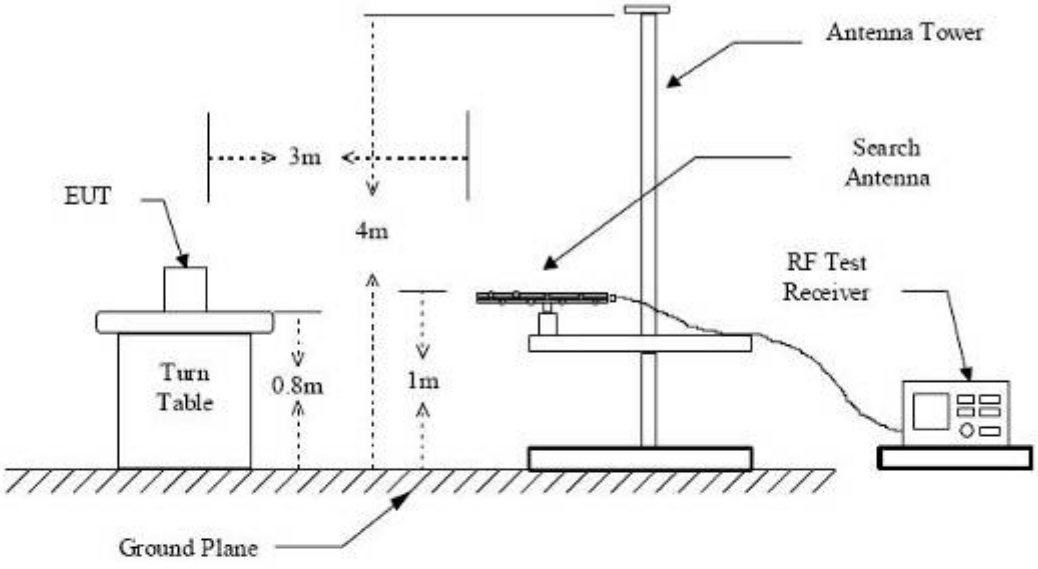
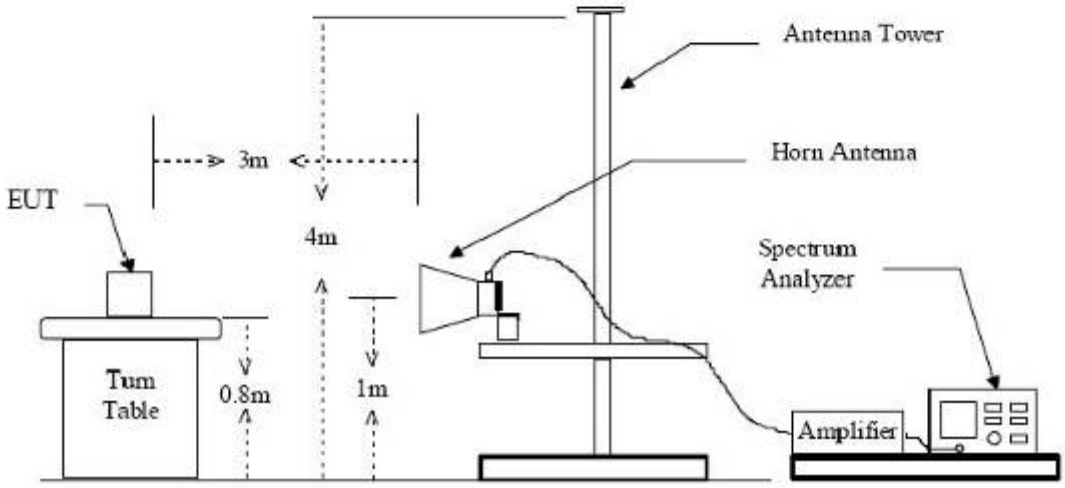


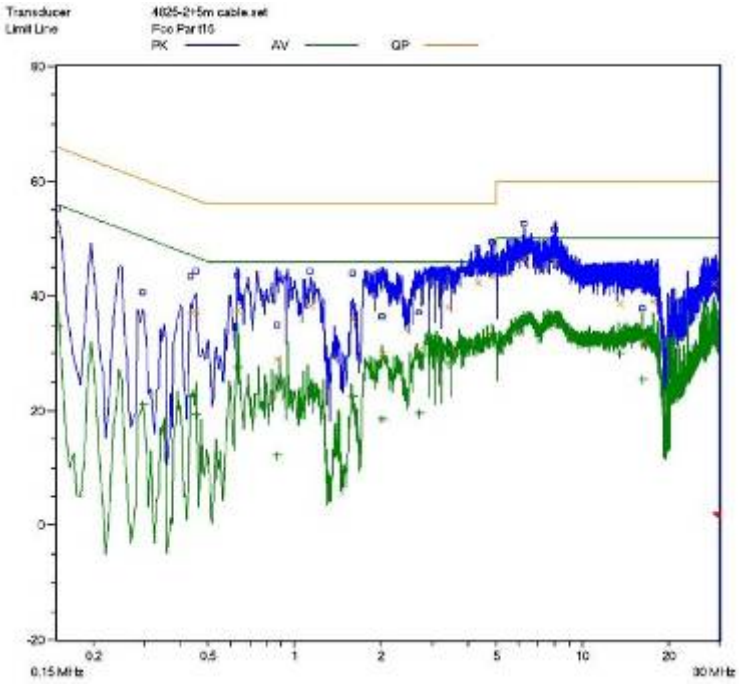
Figure 2 : Frequencies measured above 1 GHz configuration



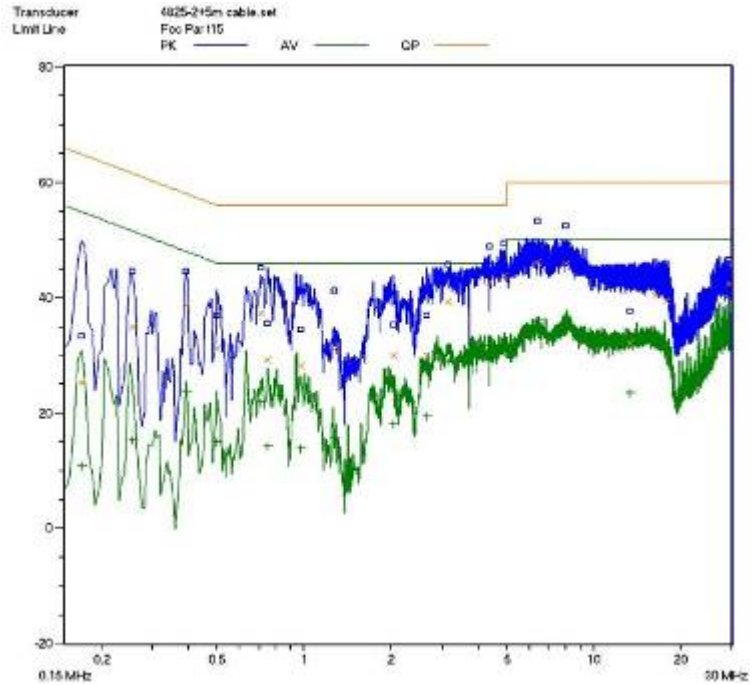
ATTACHMENT 1 - CONDUCTED EMISSION TEST RESULTS

CLIENT:	Grandstream Networks, INC	**TEST STANDERD:**	FCC Part 15, Subpart B, Section 15.107
MODEL NUMBERS:	GXV3140	**PRODUCT:**	IP Multimedia Phone
MODEL TESTED:	GXV3140	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	23°C	**HUMIDITY:**	51%
ATM PRESSURE:	103kPa	**GROUNDING:**	None
TESTED BY:	Daomen Guan	**DATE OF TEST:**	March 26, 2012
TEST REFERENCE:	ANSI C63.4- 2003		
TEST PROCEDURE:	The EUT was set up according to the guidelines of ANSI C63.4- 2003 for condu -cted emissions. The measurement was using a AMN on each line and an EMI recei ver peak scan was made at the frequency measurement range. The six highest significant peaks were then marked, and these signals were then quasi-peaked and averaged. The frequency range investigated was from 150KHz to 30MHz.		
DESCRIPTION OF TEST MODE	IP Call mode		
TESTED RANGE:	150kHz to 30MHz		
TEST VOLTAGE:	AC 120V/60Hz		
RESULTS:	The EUT meets the requirements of test reference for Conducted Emissions. The test results relate only to the equipment under test provided by client.		
Changes or Modifications:	There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen). test personnel.		
M. UNCERTAINTY:	Freq. $\pm$ 2x10^{-7} x Center Freq., Amp $\pm$ 2.6 dB		

IP Call Mode:



Line L Conducted Emission Graph



Line N Conducted Emission Graph

Test Data:

Lines (L/N)	*Frequency (MHz)*	*Corrected QP Level (dBuV)*	*Limits QP (dBuV)*	*Margin QP (dB)*	*Frequency (MHz)*	*Corrected AV Level (dBuV)*	*Limits AV (dBuV)*	*Margin QP (dB)*
IP Call Mode								
L	*0.150*	*51.2*	*65.9*	*-14.7*	*0.150*	*34.9*	*55.9*	*-21.0*
L	*6.280*	*46.6*	*60*	*-13.4*	*6.280*	*36.4*	*50*	*-13.6*
L	*8.005*	*46.0*	*60*	*-14.0*	*8.005*	*36.7*	*50*	*-13.3*
N	*4.910*	*43.7*	*56*	*-12.3*	*4.910*	*33.0*	*46*	*-13.0*
N	*6.390*	*46.2*	*60*	*-13.8*	*6.390*	*36.2*	*50*	*-13.8*
N	*7.985*	*45.9*	*60*	*-14.1*	*7.985*	*36.7*	*50*	*-13.3*

Note :
1) All readings are using a bandwidth of 9 kHz, with a 500 ms sweep time. A video filter was not use.
2) "QP" means "Quasi-Peak" values, "AV" means "Average" values.
3) The other readings are too low against official limits that are not be recorded.

Test Equipment List:

Test Equipment	*Model No.*	*Manufacturer*	*Serial No.*	*Last Cal.*	*Cal. Interval*
Receiver	*SMR4503*	*SCHAFFNER*	*11725*	*2011.07.08*	*2012.07.08*
Line impedance stabilization network	*4825/2*	*ETS*	*1161*	*2011.07.08*	*2012.07.08*
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

TESTED BY: Daomen ***GALANZ***

ENGINEER ***COMPANY NAME***

REVIEWED BY : ***ECMG***

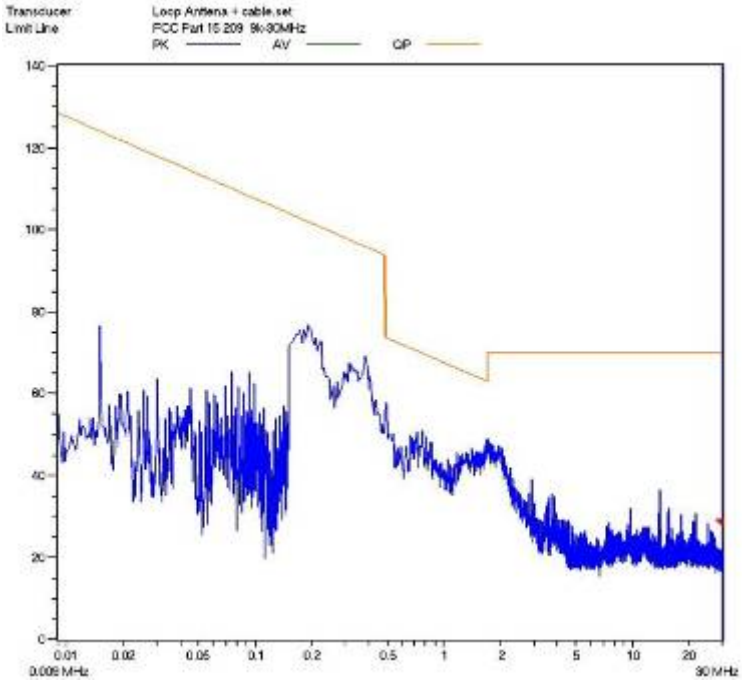
SENIOR ENGINEER ***COMPANY NAME***

Conducted Emission Test Set-up

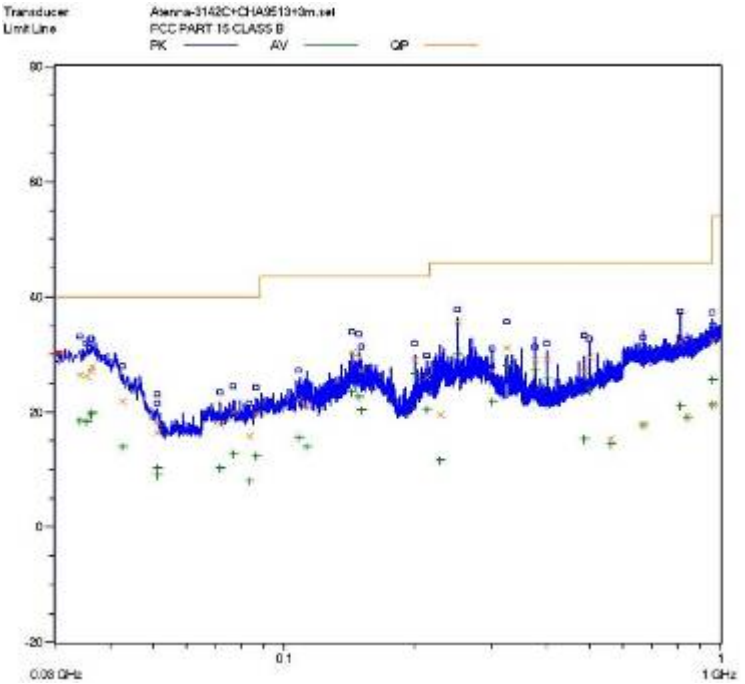
ATTACHMENT 2 – RADIATED EMISSION MEASUREMENT

CLIENT:	Grandstream Networks, INC	**TEST STANDERD:**	FCC Part 15,Subpart B, Section 15.109
MODEL NUMBERS:	GXV3140	**PRODUCT:**	IP Multimedia Phone
EUT MODEL:	GXV3140	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	23°C	**HUMIDITY:**	49%RH
ATM PRESSURE:	103.0kPa	**GROUNDING:**	None
TESTED BY:	Daomen Guan	**DATE OF TEST:**	March 26, 2012
TEST REFERENCE:	ANSI C63.4- 2003		
TEST PROCEDURE:	The EUT was set up according to the guidelines of ANSI C63.4- 2003 for radiated emissions. An EMI receiver peak scan was made at the frequency measurement range (pre-scan) in an Anechoic chamber.signal discrimination was then performed and the significant peaks marked.these peaks were then quasi-peaked in the frequency range of 30 MHz to 1GHz and average and peak in the frequency range of 1GHz to 3GHz at an anechoic chamber. The following data lists the significant emission frequencies, measured levels, correction factors (including cable and antenna correction factors), and the corrected readings against the limits. Explanation of the Correction Factor are given as follows: FS= RA + AF + CF - AG Where: FS = Field Strength RA = Receiver Amplitude AF = Antenna Factor CF = Cable Attenuation Factor AG = Amplifier Gain		
TEST MODE	IP Call mode,PoE mode		
TESTED RANGE:	9K-30MHz and 30MHz to 5GHz		
TEST VOLTAGE:	AC 120V/60Hz		
RESULTS:	The EUT meet the requirements of test reference for radiated emissions. The test results relate only to the equipment under test provided by client.		
CHANGES OR MODIFICATIONS:	There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen). Test personnel.		
M. UNCERTAINTY:	Freq. $\pm$ 2x10^{-7} x Center Freq., Amp $\pm$ 2.6 dB		

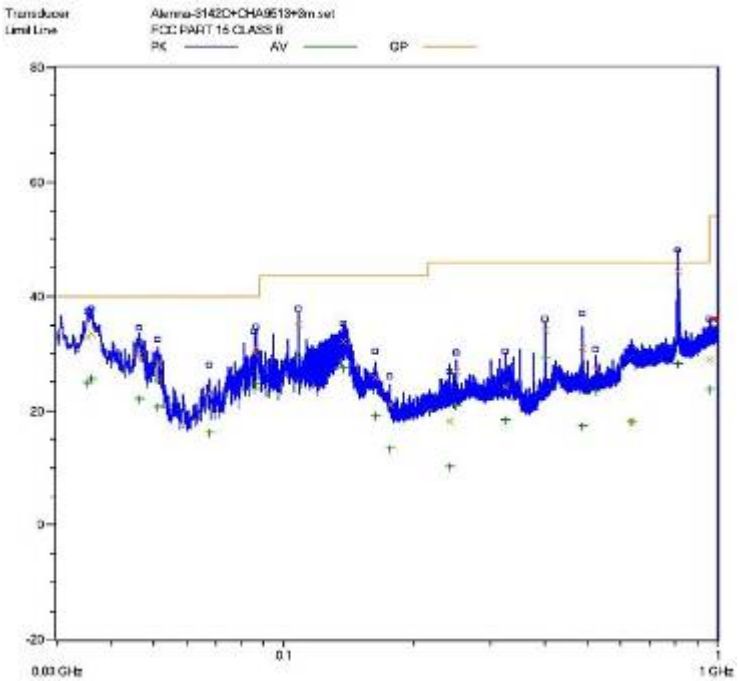
For IP Call Mode:



Radiated Filed Strength Emission Test Plot (9KHz-30MHz)

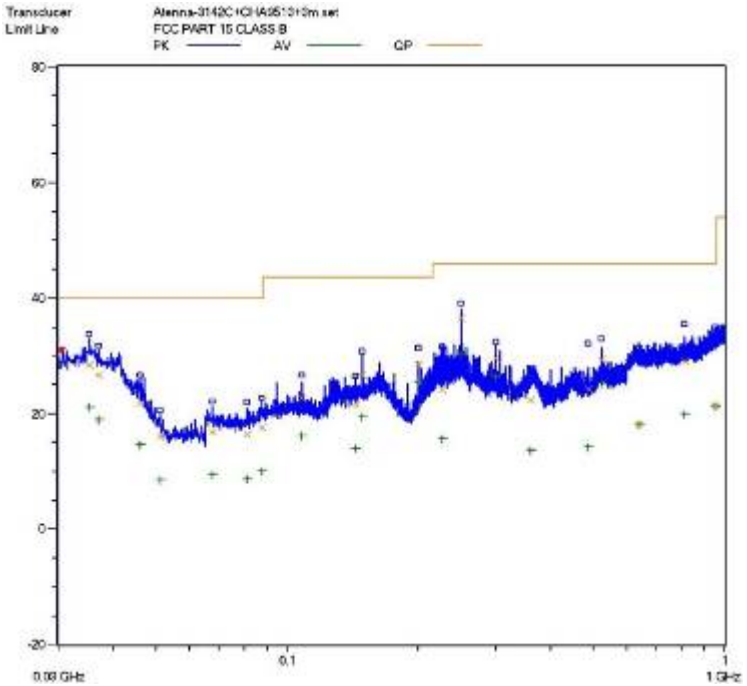


Horizontal: Radiated Emission Test Plot (30MHz-1000MHz)

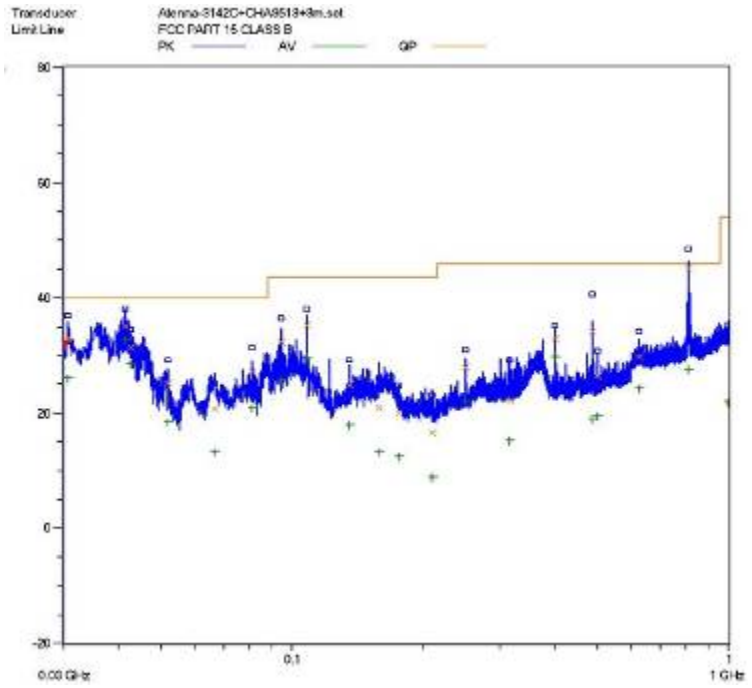


Vertical: Radiated Emission Test Plot (30MHz-1000MHz)

For PoE Mode:



Horizontal: Radiated Emission Test Plot (30MHz-1000MHz)



Vertical: Radiated Emission Test Plot (30MHz-1000MHz)

Test Data:

IP Call mode/9KHz to 30MHz:

Test No.#:	Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Reading Level QP (dBuV/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/
3	/	/	/	/	/	/	/
4	/	/	/	/	/	/	/
5	/	/	/	/	/	/	/
6	/	/	/	/	/	/	/

Note:

a) The field strength is calculated by adding the antenna factor, cable factor. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss.

b) The limits shown are based on quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz. the bandwidth of Test Receiver was set at 200Hz in frequency range of 9KHz to 150KHz, 9kHz in the frequency range of 150KHz to 30MHz.

c) All emission levels in the frequency range of 9KHz to 30MHz are 20dB below the official limits that are not reported.

Test Data:

IP Call Mode/Below 1GHz:

Frequency (MHz)	*Cable Loss (dB)*	*Antenna Factor (dB)*	*Preamp Factor (dB)*	*Reading Level QP (dBuV/m)*	*Emission Level (dBuV/m)*	*Limit (dBuV/m)*	*Margin (dB)*
Horizontal							
36.080	*0.02*	*18.0*	*/*	*9.28*	*27.3*	*40*	*-12.7*
143.280	*0.02*	*8.1*	*/*	*22.28*	*30.4*	*43.5*	*-13.1*
148.080	*0.02*	*8.8*	*/*	*20.88*	*29.7*	*43.5*	*-13.8*
150.000	*0.02*	*8.8*	*/*	*18.48*	*27.3*	*43.5*	*-16.2*
200.000	*0.1*	*6.8*	*/*	*22.2*	*29.1*	*43.5*	*-14.4*
250.000	*0.12*	*11.8*	*/*	*23.78*	*35.7*	*46*	*-10.3*
Vertical							
35.200	*0.02*	*18.2*	*/*	*14.68*	*32.9*	*40*	*-7.1*
36.080	*0.02*	*18.4*	*/*	*15.18*	*33.6*	*40*	*-6.4*
108.000	*0.02*	*7.5*	*/*	*27.58*	*35.1*	*43.5*	*-8.4*
400.000	*0.16*	*14.7*	*/*	*19.24*	*34.1*	*46*	*-11.9*
486.000	*0.2*	*17.4*	*/*	*13.4*	*31.0*	*46*	*-15.0*
810.080	*0.42*	*22.1*	*/*	*21.78*	*44.3*	*46*	*-1.7*

Note:

a) All readings are quasi-peak unless stated otherwise, using a QPA bandwidth of 120kHz, with a 60 s sweep time. A video filter was not used.

b) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss –Preamplifier Factor.

c) The other emission levels are 20dB below the official limits that are not reported.

IP Call Mode/Above 1GHz:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Preamp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Polarization (H/V)
Peak Measurement								
1.070	1.39	23.9	-33.6	-13.29	45.6	74	-28.4	H
1.190	1.41	24.2	-33.6	-13.51	45.7	74	-28.3	H
1.330	1.58	24.5	-33.6	-12.88	46.8	74	-27.2	H
1.060	1.39	23.9	-33.6	-9.99	48.9	74	-25.1	V
1.190	1.41	24.2	-33.6	-4.11	55.1	74	-18.9	V
1.330	1.58	24.5	-33.6	-10.28	49.4	74	-24.6	V
Average Measurement								
1.130	1.41	24.0	-33.6	-27.61	31.4	54	-22.6	H
1.330	1.58	24.5	-33.6	-29.68	30.0	54	-24	H
1.670	1.82	27.1	-33	-29.22	32.7	54	-21.3	H
1.130	1.41	24.0	-33.6	-25.41	33.6	54	-20.4	V
1.400	1.61	25.1	-33.6	-24.81	35.5	54	-18.5	V
1.580	1.76	26.7	-33.6	-28.46	33.6	54	-20.4	V

Note:

a) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss –Preamplifier Factor.

b) The limits shown are based on Peak value and Average value detector above 1GHz,the bandwidth of Test Receiver was set at 1MHz above 1GHz.

c) The other emission levels are 20dB below the official limits that are not reported.

PoE Mode /Below 1GHz:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Preamp Factor (dB)	Reading Level QP (dBuV/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
Horizontal							
35.280	0.02	18.2	/	10.28	28.5	40	-11.5
37.120	0.02	18.4	/	8.28	26.7	40	-13.3
200.000	0.1	6.8	/	21.6	28.5	43.5	-15.0
250.000	0.12	11.8	/	24.48	36.4	46	-9.6
300.000	0.16	13.3	/	16.14	29.6	46	-16.4
525.040	0.3	18.1	/	10.6	29.0	46	-17.0
Vertical							
30.640	0.02	16.7	/	16.28	33.0	40	-7.0
41.360	0.02	16.5	/	18.58	35.1	40	-4.9
94.480	0.02	7.5	/	24.78	32.3	43.5	-11.2
108.000	0.02	7.5	/	27.88	35.4	43.5	-8.1
486.000	0.2	17.4	/	16.6	34.2	46	-11.8
810.080	0.42	22.1	/	22.58	45.1	46	-0.9

Note:

a) All readings are quasi-peak unless stated otherwise, using a QPA bandwidth of 120kHz, with a 60 s sweep time. A video filter was not used.

b) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss –Preamplifier Factor.

c) The other emission levels are 20dB below the official limits that are not reported.

PoE Mode /Above 1GHz:

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Preamp Factor (dB)	Reading Level (dBuV/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Polarization (H/V)
Peak Measurement								
1.070	1.39	23.9	-33.6	-12.99	45.9	74	-28.1	H
1.130	1.41	24.0	-33.6	-12.41	46.6	74	-27.4	H
1.520	1.71	26.1	-33.6	-20.91	40.5	74	-33.5	H
1.200	1.46	24.7	-33.6	-6.16	53.6	74	-20.4	V
1.330	1.58	24.5	-33.6	1.92	61.6	74	-12.4	V
2.130	2.01	28	-33	-11.61	51.4	74	-22.6	V
Average Measurement								
1.130	1.41	24.0	-33.6	-25.31	33.7	54	-20.3	H
1.370	1.60	24.8	-33.6	-28.9	31.1	54	-22.9	H
1.630	1.82	27.1	-33	-29.32	32.6	54	-21.4	H
1.300	1.52	24.2	-33.6	-24.32	35.0	54	-19.0	V
1.360	1.60	24.8	-33.6	-24.1	35.9	54	-18.1	V
1.730	1.87	26.8	-33	-25.77	35.9	54	-18.1	V

Note:

a) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows: Emission Level =Reading Level + Antenna Factor + Cable Loss –Preamplifier Factor.

b) The limits shown are based on Peak value and Average value detector above 1GHz,the bandwidth of Test Receiver was set at 1MHz above 1GHz.

c) The other emission levels are 20dB below the official limits that are not reported.

Test Equipment List:

Test Equipment	*Model No.*	*Manufacturer*	*Serial No.*	*Last Cal.*	*Cal. Due*
Receiver	*SMR4503*	*SCHAFFNER*	*11725*	*2011.07.08*	*2012.07.07*
HF Loop Antenna	*HLA6120*	*TESEQ*	*26348*	*2011.09.27*	*2012.09.26*
Double-ridged Wave guide horn	*3115*	*ETS*	*6587*	*2011.08.02*	*2012.08.01*
Microwave system amplifier	*83017A*	*Agilent*	*MY39500438*	*2011.07.11*	*2012.07.10*
Biconilog Antenna	*3142C*	*ETS*	*00042672*	*2011.09.28*	*2012.09.27*
Band-pass Filter	*BRM50702*	*Micro-Tronic*	*S/N-030*	*2011.11.30*	*2012.11.29*
Spectrum Analyzer	*FSP30*	*R&S*	*100755*	*2011.11.30*	*2012.11.29*
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated.					

TESTED BY: Daomen _____ ***GALANZ***

ENGINEER ***COMPANY NAME***

REVIEWED BY : _____ ***ECMG***

SENIOR ENGINEER ***COMPANY NAME***

Radiated Emission Test Set-up (9KHz-30MHz)

Radiated Emission Test Set-up(Below 1GHz)

Radiated Emission Test Set-up (Above 1GHz)