



Report No: FCC1606110 File reference No: 2016-06-14

Applicant: Obihai Technology, inc.

Product: GFPB VoIP Adapter

Model No: GFPB100

Trademark: N/A

Test Standards: FCC Part 15 Subpart B

Test result: It is herewith confirmed and found to comply with the requirements

set up by ANSI C63.4&FCC Part 15 regulations for the evaluation of

electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: June 14, 2016

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

Report No.: FCC1606110 Page 2 of 28

Date: 2016-06-14



Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

Page 3 of 28

Report No.: FCC1606110

Date: 2016-06-14



Test Report Conclusion

Content

1.0	General Details	4
1.1	Test Lab Details.	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Test Uncertainty.	4
1.5	Submitted Sample	4
1.6	Test Duration.	4
2.0	List of Measurement Equipment.	5
2.1	Conducted Emission Test.	5
2.2	Radiated electromagnetic disturbance test.	5
2.3	Auxiliary Equipment	5
3.0	Technical Details.	6
3.1	Investigations Requested.	6
3.2	Test Standards.	6
4.0	Power line Conducted Emission Test.	7
5.0	Radiated Disturbance Test.	11
6.0	FCC ID Label	18
7.0	Photo of testing	10

Date: 2016-06-14



Page 4 of 28

1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Room 512-519,5/F., East Tower, Building 4, Anhua Industrial Zone, Futian

District, Shenzhen, Guangdong China

Telephone: (755) 83448688 Fax: (755) 83442996

1.2 Applicant Details

Applicant: Obihai Technology, inc.

Address: 2105 S.Bascom Ave, S285, Campbell, CA 95008, USA

Telephone: --Fax: ---

1.3 Description of EUT

Product: GFPB VoIP Adapter

Manufacturer: Hopeful Electric CO.,LTD

Address: 148 Ronggui Road (mid) Ronggui Town Shunde District FoshanCity

Gangdong.Prov, China

Brand Name: N/A

Model Number: GFPB100

Additional Model Number: N/A

Power Adapter Manufacturer: LITEON TECHNOLOGU CORP.

Model No.: PB-1180-29

Input: 100-120V, 50/60Hz, 0.6A; Output: DC12V, 1.5A

Alternative Manufacturer: AcBel Polytech Inc.

Model No.: ADF016

Input: 100-120V, 50/60Hz, 0.6A; Output: DC12V, 1.5A

1.4 Submitted Sample: 2 Samples

1.5 Test Duration: 2016-03-17 to 2016-06-08

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB Radiated Emissions Uncertainty = 4.7dB

The report refers only to the sample tested and does not apply to the bulk.

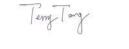
Report No.: FCC1606110 Page 5 of 28

Date: 2016-06-14



1.7 Test Engineer

The sample tested by



Print Name: Terry Tang

2.0 List of Measurement Equipment

2.1 Conducted Emission Test

				Calibration	Calibration
Name	Model No.	Serial No.	Manufacturer	Date	Cycle
EMI Test Receiver	ESH3	860905/006	RS	2015.08.22	1Year
Spectrum Analyzer	ESA-L1500A	US37451154	НР	2015.08.22	1Year
PULSE LIMITER	ESH3-Z2	100281	RS	2015.08.22	1Year
LISN	ESH3-Z5	100294	RS	2015.08.22	1Year
LISN	ESH3-Z5	100253	RS	2015.08.22	1Year

2.2 Radiated electromagnetic disturbance test

				Calibration	Calibration
Name	Model No.	Serial No.	Manufacturer	Date	Cycle
EMI Test Receiver	ESVD	100008	RS	2015.08.22	1Year
Coaxial Switch	MP59B	M70585	ANRITSU	N/A	N/A
Amplifier	8447D	2727A05017	HP	2015.08.22	1Year
Bilog Antenna	VULB9163	9163/340	Schwarebeck	2015.08.23	1Year
Horn Antenna	BBHA 9120D	9120D-631	Schwarebeck	2015.08.24	1Year
Horn Antenna	BBHA 9170	BBHA9170265	Schwarebeck	2015.08.24	1Year
Test Receiver	ESI26	838786/013	RS	2015.08.22	1Year

2.3 Auxiliary Equipment

					FCC DOC/
Name	Model No.	Serial No.	Manufacturer	Cable	ID
Telephone	HCD737TSDL 70		GAOKE		FCC DOC
Passive Earphone					
Mouse	M-F105		L.SEletron		FCC DOC
USB			Kingstone		FCC DOC
PC	R45		IBM		FCC DOC

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Report No.: FCC1606110 Page 6 of 28

Date: 2016-06-14



3.0 Technical Details

3.1 Investigations Requested
Perform Electromagnetic Interference [EMI] tests for FCC Requirement.

3.2 Test Standards

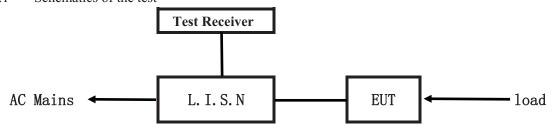
FCC Part 15 Subpart B

Date: 2016-06-14



4.0 Conducted Power line Test

4.1 Schematics of the test



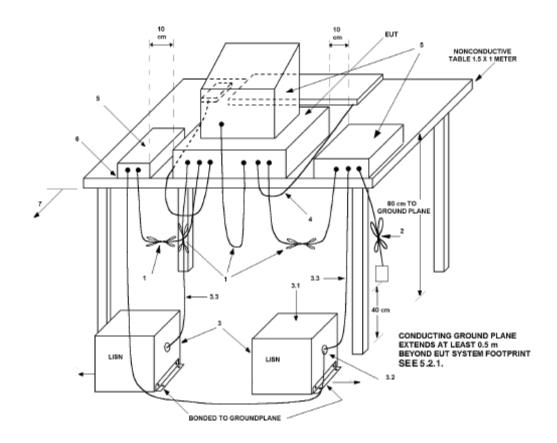
EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2014. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2014. Cables and peripherals were moved to find the maximum emission levels for each frequency.

Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup



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Report No.: FCC1606110 Page 8 of 28

Date: 2016-06-14



4.3 Power line conducted Emission Limit

Eraguanay (MHz)	Class A Li	mits dB(μV)	Class B Limits dB(µV)		
Frequency(MHz)	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level	
0.15 ~ 0.50	79.00	66.00	66.00~56.00*	56.00~46.00*	
$0.50 \sim 5.00$	73.00	60.00	56.00	46.00	
5.00 ~ 30.00	73.00	60.00	60.00	50.00	

Notes: 1. *decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

4.4 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

Date: 2016-06-14



A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

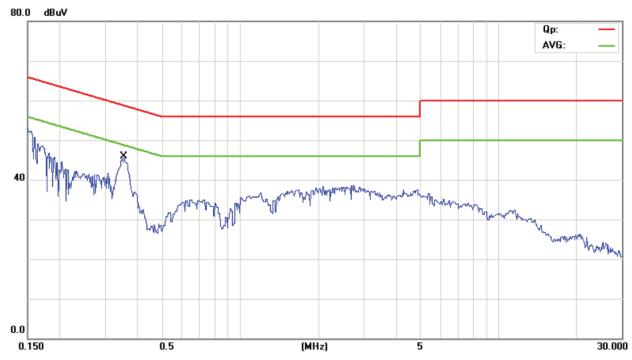
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Communication with PC

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No. Mk.	Freq.			Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.3542	32.20	11.22	43.42	58.86	-15.44	QP	
2	0.3542	16.50	11.22	27.72	48.86	-21.14	AVG	

Date: 2016-06-14



B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

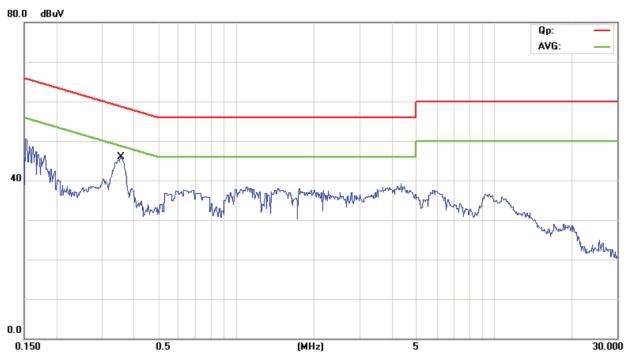
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Communication with PC

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.3550	32.30	11.22	43.52	58.84	-15.32	QP	
2	0.3550	17.20	11.22	28.42	48.84	-20.42	AVG	

Note: Two power supplies were tested and only worse case was recorded.

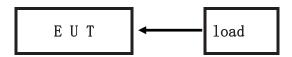
Report No.: FCC1606110 Page 11 of 28

Date: 2016-06-14



5.0 Radiated Disturbance Test

5.1 Schematics of the test

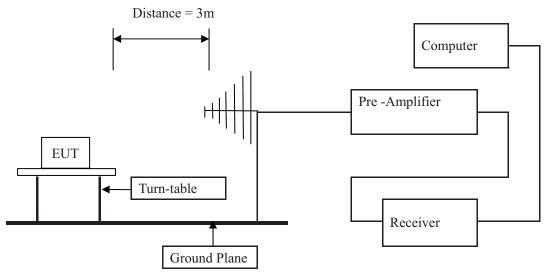


5.2 Test Method and test Procedure:

The EUT was tested according to ANSI C63.4-2014; The frequency spectrum from 30MHz to 18GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. For measurement above 1GHz, peak values with RBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK

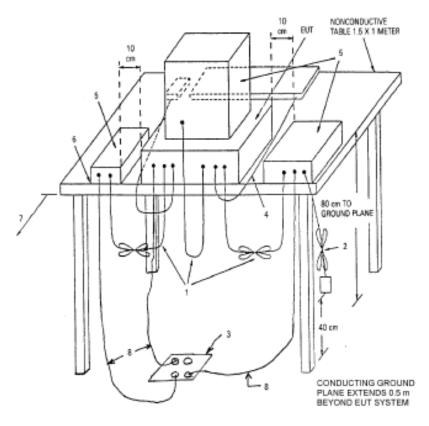
Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup



Date: 2016-06-14





5.3 Radiated Emission Limit

Frequency Range (MHz)	Distance (m)	Field strength (dB µ V/m)				
30-88	3	40.00				
88-216	3	43.50				
216-960	3	46.00				
Above 960	3	54.00				

Note: The lower limit shall apply at the transition frequencies

5.4 Test result

The frequency spectrum from 30MHz to 18GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK. Measurements were made at 3 meters.

Report No.: FCC1606110 Page 13 of 28

Date: 2016-06-14



Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal/ In Vertical (30MHz----1000MHz)

EUT set Condition: Communication with PC

Results: Pass

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \mu V/m)
125.000	32.05	Н	43.50
151.560	32.77	Н	43.50
375.000	38.91	Н	46.00
36.160	35.84	Н	40.00
62.960	28.71	V	40.00
39.480	37.84	V	40.00
34.680	38.67	V	40.00
125.000	33.11	V	43.50

Note: Two power supplies were tested and only worse case was recorded.

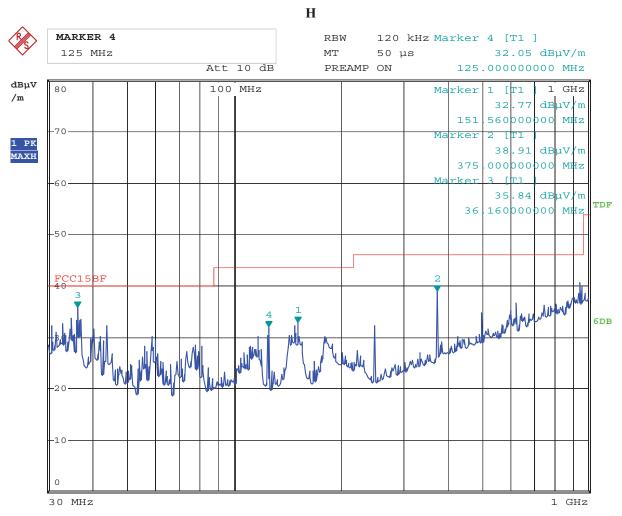
Page 14 of 28

Report No.: FCC1606110

Date: 2016-06-14



Test Figure:



Date: 23.MAR.2016 14:57:28

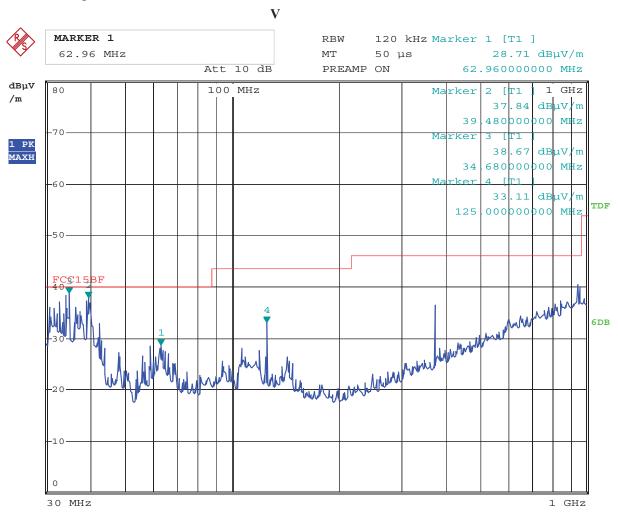
Page 15 of 28

Report No.: FCC1606110

Date: 2016-06-14



Test Figure:



Date: 23.MAR.2016 15:01:51

Date: 2016-06-14



Radiated Disturbance (1000MHz----18000MHz)

EUT Operating Environment

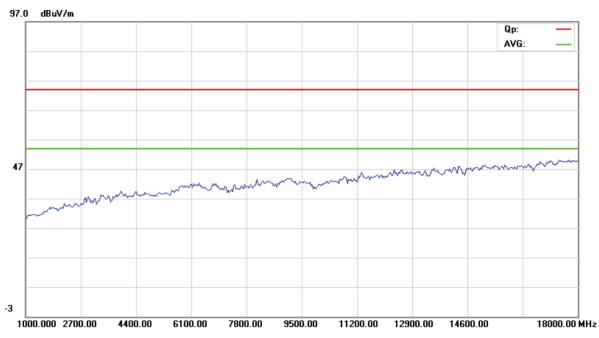
Temperature:25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Communication with PC

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dBµV/m)	Antenna Polarity	Limit@3m (dBµV/m)
		Н	54(AV)

Note: PK scan curve is lower than AV limit

Report No.: FCC1606110 Page 17 of 28

Date: 2016-06-14



Radiated Disturbance (1000MHz----18000MHz)

EUT Operating Environment

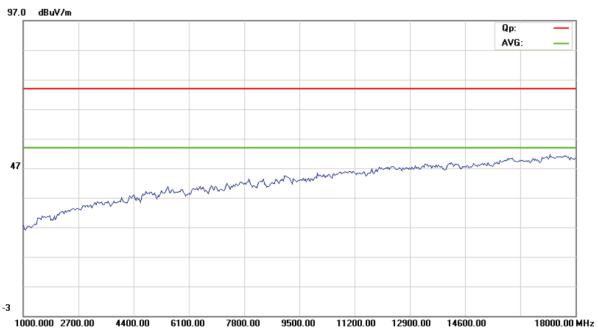
Temperature:25°C Humidity: 75%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Communication with PC

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Level@3m (dBµV/m)	Antenna Polarity	Limit@3m (dBµV/m)
		V	54(AV)

Note: PK scan curve is lower than AV limit

Report No.: FCC1606110 Page 18 of 28

Date: 2016-06-14



6.0 FCC ID Label

FCC ID: 2ADXF1-GFPB100

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



Page 19 of 28

Report No.: FCC1606110

Date: 2016-06-14



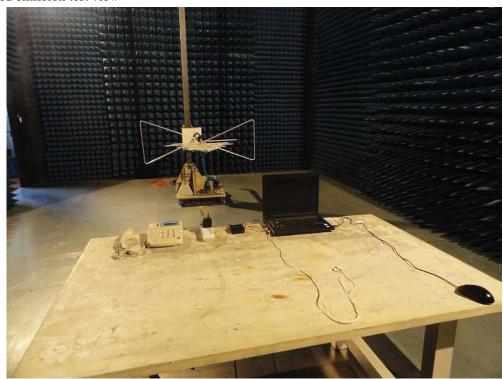
7.0 Photo of testing

7.1 Conducted test View--



Report No.: FCC1606110 Date: 2016-06-14

7.2 Radiated emission test view--





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Date: 2016-06-14



Photographs - EUT

Outside view





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Page 22 of 28

Report No.: FCC1606110

Date: 2016-06-14



Outside view





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Page 23 of 28

Report No.: FCC1606110

Date: 2016-06-14



Outside view



Power Supply



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Page 24 of 28

Report No.: FCC1606110

Date: 2016-06-14



Power Supply





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Page 25 of 28

Report No.: FCC1606110

Date: 2016-06-14



Power Supply





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Page 26 of 28

Report No.: FCC1606110

Date: 2016-06-14



Alternative Power Supply



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Page 27 of 28

Report No.: FCC1606110

Date: 2016-06-14



Inside view





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Page 28 of 28

Report No.: FCC1606110

Date: 2016-06-14



Inside view





End of the report

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