



FCC PART 15B TEST REPORT
for
Grandstream Networks, Inc.

Product : Wireless Bluetooth Headset
Model No. : GUV3050
FCC ID : YZZGUV3050V20

Prepared for : Grandstream Networks, Inc.
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Report No. : RSZ210302001-00A
Date of Test : Mar. 06, 2021
Date of Report : Mar. 08, 2021

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Test Report Declaration

Applicant : Grandstream Networks, Inc.
Manufacturer : Grandstream Networks, Inc.
Product : Wireless Bluetooth Headset
Model No. : GUV3050
Trade Mark : GRANDSTREAM

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B ANSI C63.4: 2014

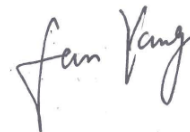
The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : Mar. 06, 2021

Date of Report: Mar. 08, 2021

Prepared by :



(Fan Yang, Engineer)

Approved & Authorized Signer :



(Martin Lü, Manager)

1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission (0.15-30MHz)	FCC Part 15 Subpart B	Pass
Radiated Emission (30-1000MHz)	FCC Part 15 Subpart B	Pass
Radiated Emission (1-18GHz)	FCC Part 15 Subpart B	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product	: Wireless Bluetooth Headset
Model No.	: GUV3050
Rating	: AC 120V/60Hz for charging mode and operation mode with rechargeable battery 3.7 V
Trade Mark	: GRANDSTREAM
Remark(s)	: The EUT's highest operating frequency is 2480MHz, the radiated emission measurement shall be made up to 13GHz.
Applicant	: Grandstream Networks, Inc.
Address	: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Manufacturer	: Grandstream Networks, Inc.
Address	: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA
Date of sample received	: Feb. 25, 2021
Date of Test	: Mar. 06, 2021
Sample Number	: RSZ210302001-EM-S1

2.2. Test Mode

- Mode 1. USB charging
- Mode 2. Base charging

2.3. Accessory and Auxiliary Equipment

AC/DC Power Adapter	: Model: HW-050200C01 Input: 120V/60Hz 0.5A Output: DC 5V/2A
---------------------	--------------------------------------------------------------------

2.4. Description of Test Facility

- EMC Lab : Accredited by American Association for Laboratory Accreditation (A2LA)
The Certificate Number is 4297.01
- Listed by Innovation, Science and Economic Development Canada (ISED)
The Registration Number is 5077A-2
- Accredited by China National Accreditation Service for Conformity Assessment (CNAS)
The Registration Number is CNAS L3193
- Name of Firm : Shenzhen Accurate Technology Co., Ltd.
- Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

2.5. Measurement Uncertainty

- Radiated emission expanded uncertainty (30MHz-1000MHz) : $U=4.28dB, k=2$
- Radiated emission expanded uncertainty (1GHz -18GHz) : $U=4.28dB, k=2$
- Conduction Emission Expanded Uncertainty (0.15kHz-30MHz) : $U=2.72dB, k=2$

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Dec. 25, 2020	1 Year
2.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Dec. 25, 2020	1 Year
3.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Dec. 25, 2020	1 Year
4.	50Ω Coaxial Switch	Anritsu Corp	MP59B	620050647 4	Dec. 25, 2020	1 Year
5	RF Coaxial Cable	Unknown	N-2m	No.2	Dec. 25, 2020	1 Year
6.	Conducted Emission Test Software: ES-K1 V1.71					

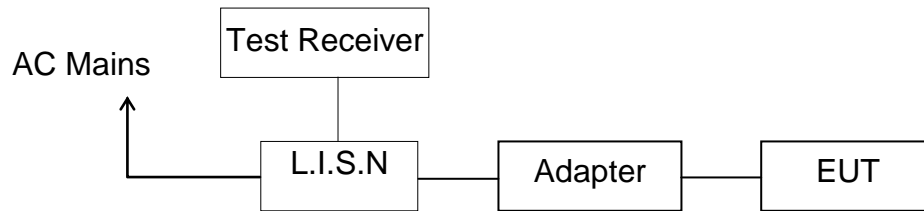
3.2. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESR	101817	Dec. 24, 2020	1 Year
2.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 05, 2020	3 Year
3.	Amplifier	SONOMA INSTRUMENT	310 N	186131	Dec. 25, 2020	1 Year
4.	50 Coaxial Switch	Anritsu Corp	MP59B	620023724 8	Dec. 24, 2020	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-106 7	Jan. 05, 2020	3 Year
6.	Preamplifier	A.H. Systems, inc.	PAM-0118P	531	Jul. 08, 2020	1 Year
7.	Spectrum Analyzer	Rohde & Schwarz	FSV40	101495	Dec. 24, 2020	1 Year
8.	RF Coaxial Cable	Unknown	N-5m	No.3	Dec. 25, 2020	1 Year
9.	RF Coaxial Cable	Unknown	N-5m	No.4	Dec. 25, 2020	1 Year
10.	RF Coaxial Cable	Unknown	N-1m	No.5	Dec. 25, 2020	1 Year
11.	RF Coaxial Cable	Unknown	N-1m	No.6	Dec. 25, 2020	1 Year
12.	Radiated Emission Test Software: EZ_EMC V					

4. POWER LINE CONDUCTED MEASUREMENT

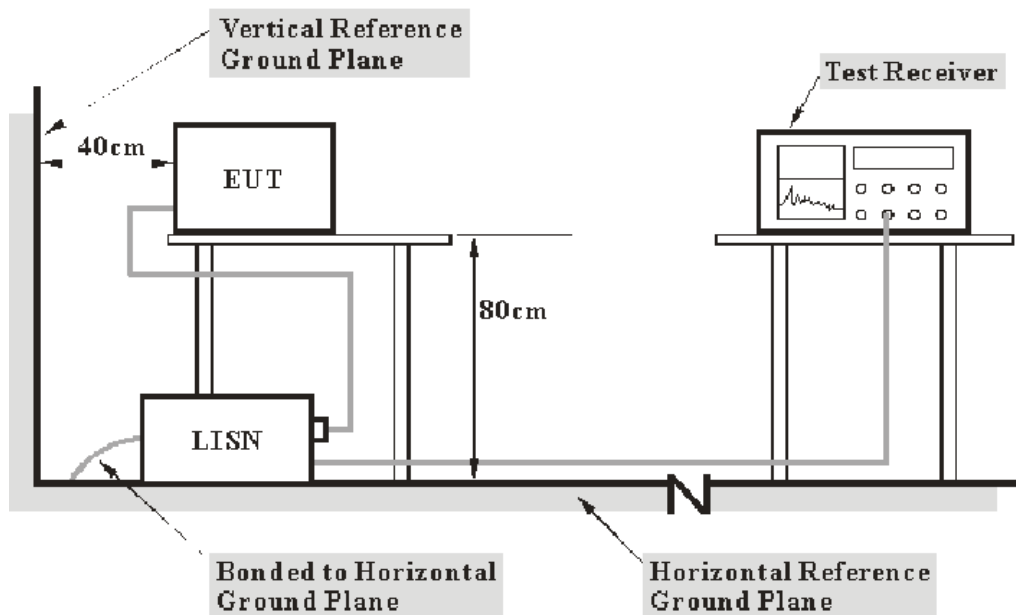
4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



(EUT: Wireless Bluetooth Headset)

4.1.2. Test System Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

4.2. Power Line Conducted Emission Measurement Limits (Class B)

Frequency (MHz)	Limit dB(μ V)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.3. Test mode description

- Mode 1. USB charging
- Mode 2. Base charging

4.4. Manufacturer

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

4.4.1. Wireless Bluetooth Headset

- Model Number : GUV3050
- Manufacturer : Grandstream Networks, Inc.

4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.1.
- 4.5.2. Turn on the power of all equipment.
- 4.5.3. Let the EUT work in test mode and measure it.

4.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2014 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

4.7. Data Explain

Margin = Limit (dB μ V) - Level (dB μ V)

4.8. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Maximizing procedure was performed on the six (6) highest emissions of the EUT. Emissions attenuated more than 20 dB below the permissible value are not reported.

All data was recorded in the Quasi-peak and average detection mode.

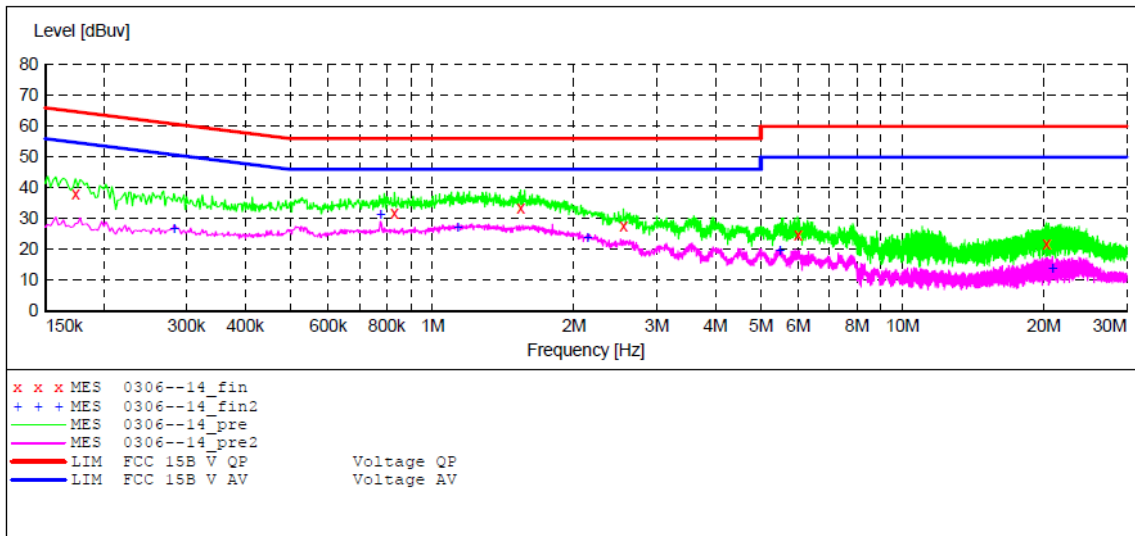
The spectral diagrams are attached as below.

CONDUCTED EMISSION STANDARD FCC Part 15B

EUT: Wireless Bluetooth Headset M/N:GUV3050
 Manufacturer: Grandstream Networks, Inc.
 Operating Condition: USB Charging
 Test Site: 2#Shielding Room
 Operator: Fan
 Test Specification: L 120V/60Hz
 Comment: Report No.: RSZ210302001-00A
 Start of Test: 2021-3-6 / 14:38:36

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "0306--14_fin"

2021-3-6 14:40

Frequency MHz	Level dBu	Transd dB	Limit dBu	Margin dB	Detector	Line	PE
0.174000	37.90	10.8	65	27.1	QP	L1	GND
0.830000	32.00	11.1	56	24.0	QP	L1	GND
1.540000	33.40	11.2	56	22.6	QP	L1	GND
2.550000	27.80	11.3	56	28.2	QP	L1	GND
5.990000	24.60	11.5	60	35.4	QP	L1	GND
20.255000	21.80	11.7	60	38.2	QP	L1	GND

MEASUREMENT RESULT: "0306--14_fin2"

2021-3-6 14:40

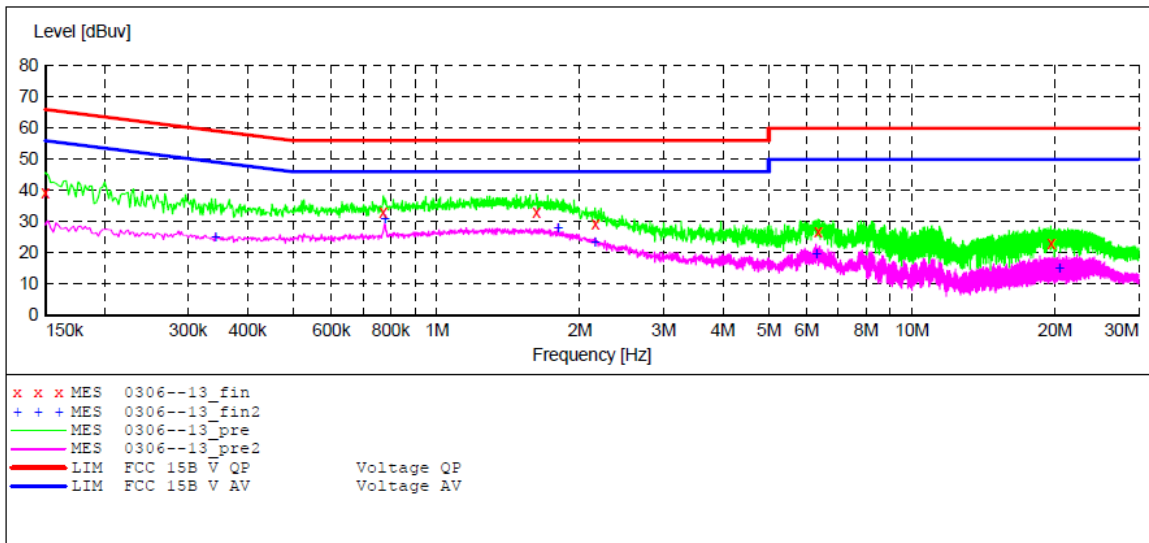
Frequency MHz	Level dBu	Transd dB	Limit dBu	Margin dB	Detector	Line	PE
0.282000	26.80	10.9	51	24.2	AV	L1	GND
0.776000	31.50	11.1	46	14.5	AV	L1	GND
1.132000	27.40	11.2	46	18.6	AV	L1	GND
2.140000	24.00	11.3	46	22.0	AV	L1	GND
5.485000	19.60	11.5	50	30.4	AV	L1	GND
20.855000	13.80	11.7	50	36.2	AV	L1	GND

CONDUCTED EMISSION STANDARD FCC Part 15B

EUT: Wireless Bluetooth Headset M/N:GUV3050
 Manufacturer: Grandstream Networks, Inc.
 Operating Condition: USB Charging
 Test Site: 2#Shielding Room
 Operator: Fan
 Test Specification: N 120V/60Hz
 Comment: Report No.: RSZ210302001-00A
 Start of Test: 2021-3-6 / 14:36:01

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "0306--13_fin"

2021-3-6 14:37

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	39.40	10.8	66	26.6	QP	N	GND
0.772000	32.90	11.1	56	23.1	QP	N	GND
1.620000	33.00	11.2	56	23.0	QP	N	GND
2.155000	29.50	11.3	56	26.5	QP	N	GND
6.350000	27.00	11.5	60	33.0	QP	N	GND
19.605000	23.20	11.7	60	36.8	QP	N	GND

MEASUREMENT RESULT: "0306--13_fin2"

2021-3-6 14:37

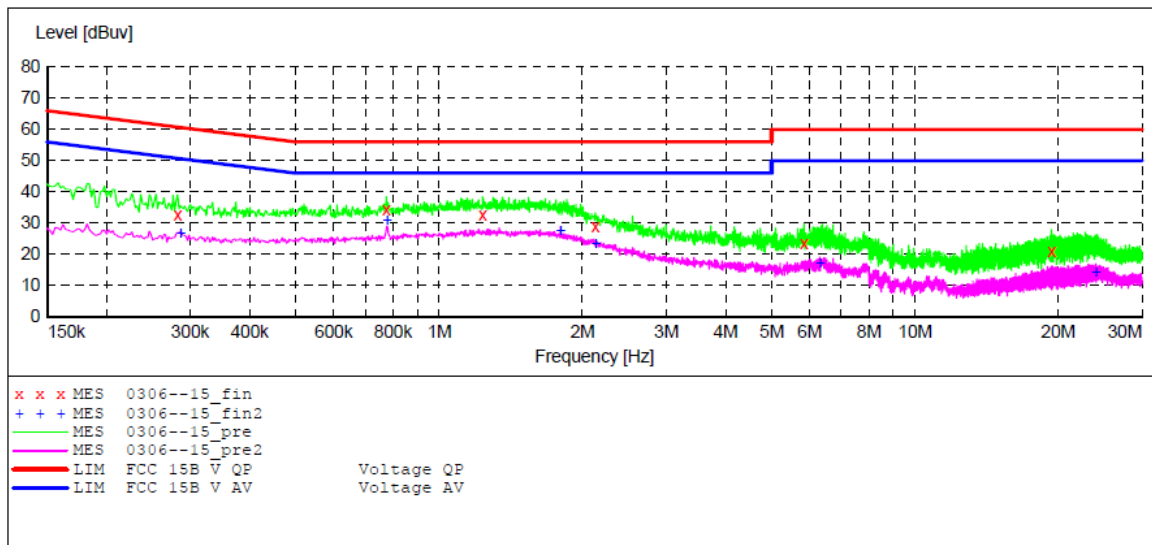
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.342000	25.00	10.9	49	24.0	AV	N	GND
0.778000	31.10	11.1	46	14.9	AV	N	GND
1.800000	28.00	11.2	46	18.0	AV	N	GND
2.155000	23.60	11.3	46	22.4	AV	N	GND
6.285000	19.90	11.5	50	30.1	AV	N	GND
20.410000	15.30	11.7	50	34.7	AV	N	GND

CONDUCTED EMISSION STANDARD FCC Part 15B

EUT: Wireless Bluetooth Headset M/N:GUV3050
 Manufacturer: Grandstream Networks, Inc.
 Operating Condition: Base Charging
 Test Site: 2#Shielding Room
 Operator: Fan
 Test Specification: L 120V/60Hz
 Comment: Report No.: RSZ210302001-00A
 Start of Test: 2021-3-6 / 14:42:45

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "0306--15_fin"

2021-3-6 14:44

Frequency MHz	Level dBu	Transd dB	Limit dBu	Margin dB	Detector	Line	PE
0.282000	32.50	10.9	61	28.5	QP	L1	GND
0.774000	34.30	11.1	56	21.7	QP	L1	GND
1.234000	32.50	11.2	56	23.5	QP	L1	GND
2.130000	29.00	11.3	56	27.0	QP	L1	GND
5.840000	23.40	11.5	60	36.6	QP	L1	GND
19.355000	20.90	11.7	60	39.1	QP	L1	GND

MEASUREMENT RESULT: "0306--15_fin2"

2021-3-6 14:44

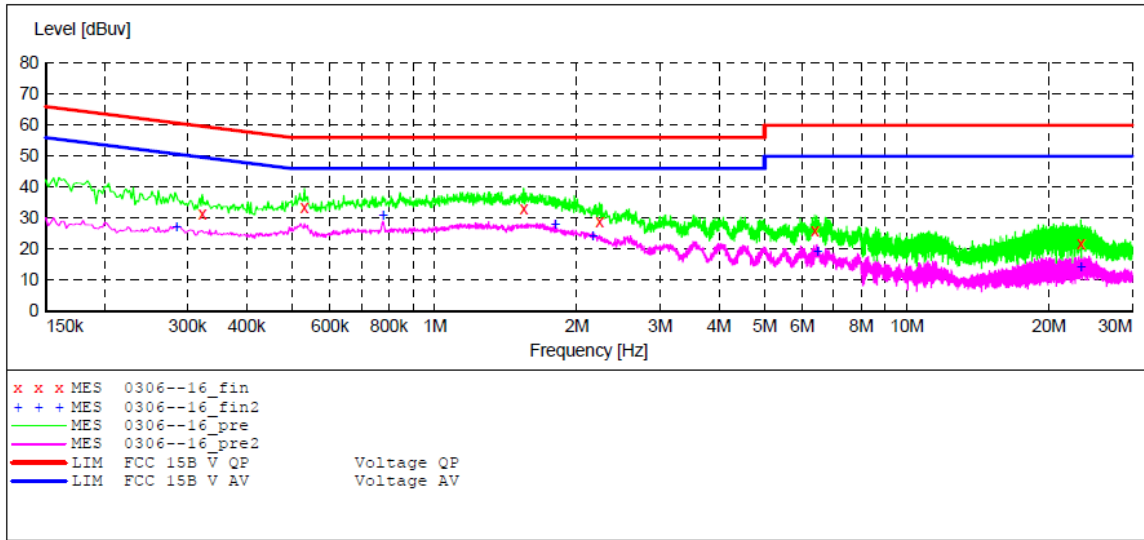
Frequency MHz	Level dBu	Transd dB	Limit dBu	Margin dB	Detector	Line	PE
0.286000	27.40	10.9	51	23.6	AV	L1	GND
0.778000	31.10	11.1	46	14.9	AV	L1	GND
1.800000	27.60	11.2	46	18.4	AV	L1	GND
2.135000	23.60	11.3	46	22.4	AV	L1	GND
6.315000	17.40	11.5	50	32.6	AV	L1	GND
24.025000	14.40	11.7	50	35.6	AV	L1	GND

CONDUCTED EMISSION STANDARD FCC Part 15B

EUT: Wireless Bluetooth Headset M/N:GUV3050
 Manufacturer: Grandstream Networks, Inc.
 Operating Condition: Base Charging
 Test Site: 2#Shielding Room
 Operator: Fan
 Test Specification: N 120V/60Hz
 Comment: Report No.: RSZ210302001-00A
 Start of Test: 2021-3-6 / 14:45:32

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "0306--16_fin"

2021-3-6 14:47

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.322000	31.40	10.9	60	28.6	QP	N	GND
0.530000	33.30	11.0	56	22.7	QP	N	GND
1.544000	33.20	11.2	56	22.8	QP	N	GND
2.235000	29.00	11.3	56	27.0	QP	N	GND
6.380000	25.90	11.5	60	34.1	QP	N	GND
23.360000	22.00	11.7	60	38.0	QP	N	GND

MEASUREMENT RESULT: "0306--16_fin2"

2021-3-6 14:47

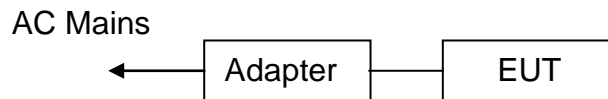
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.284000	27.50	10.9	51	23.5	AV	N	GND
0.778000	31.10	11.1	46	14.9	AV	N	GND
1.800000	28.20	11.2	46	17.8	AV	N	GND
2.160000	24.50	11.3	46	21.5	AV	N	GND
6.460000	19.50	11.5	50	30.5	AV	N	GND
23.375000	14.20	11.7	50	35.8	AV	N	GND

5. RADIATED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators

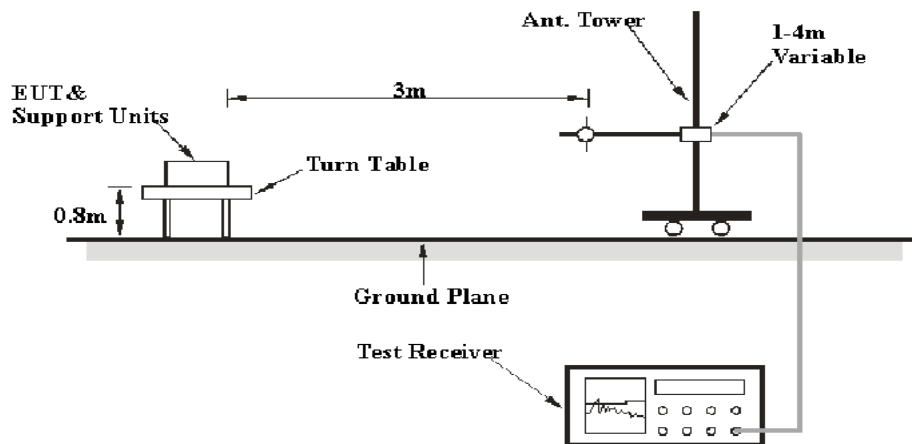
Charging mode:



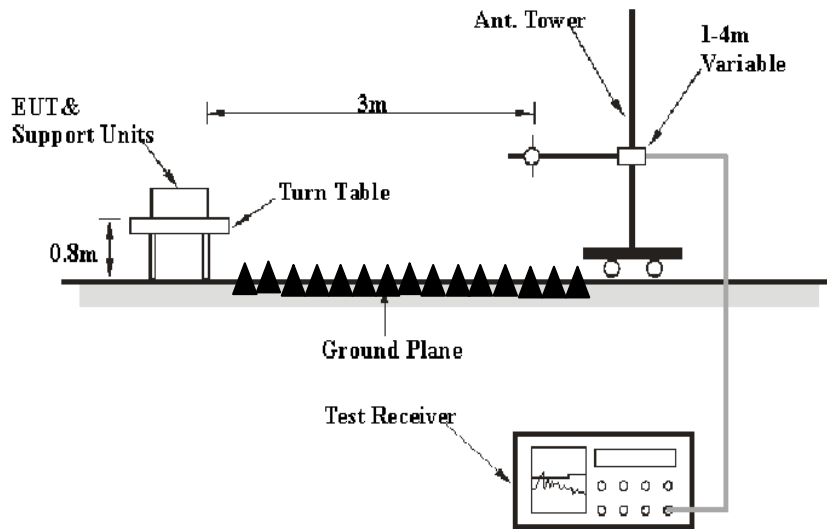
(EUT: Wireless Bluetooth Headset)

5.1.2. Test System Setup

Below 1GHz:



Above 1GHz:



5.2. Radiated Emission Limit (Class B)

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency MHz	Distance Meters	Field Strengths QP Limit	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V}/\text{m})$
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

Remark:

- (1) Emission level $\text{dB}(\mu\text{V}) = 20 \log$ Emission level $\mu\text{V}/\text{m}$.
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument antenna and the closest point of any part of the device or system.

Frequency MHz	Distance Meters	Field Strengths Limit	
		Peak $\text{dB}(\mu\text{V}/\text{m})$	AVG $\text{dB}(\mu\text{V}/\text{m})$
1000-18000	3	74	54

5.3. Test Mode Description

- Mode 1. USB charging
- Mode 2. Base charging

5.4. Manufacturer

The following equipments are installed on Radiated Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.5. Operating Condition of EUT

5.5.1. Setup the EUT and simulator as shown as Section 5.1.

5.5.2. Turn on the power of all equipment.

5.5.3. Let the EUT work in test mode and measure it.

5.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

The bandwidth of the Receiver (ESR) is set at 9kHz in 9kHz-30MHz, 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

Note: The EUT's highest operating frequency provided by Manufacturer is less than 108MHz, the radiated emission measurement shall be made up to 1GHz.

The frequency range from 30MHz to 1000MHz is investigated.

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.

5.7.Data Sample

Margin (dB) = Result(dB μ v/m) - Limit (dB μ v/m)
QP = Quasi-peak Reading

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

5.8.Radiated Emission Measurement Result

PASS.

The frequency range from 30M Hz to 13GHz is investigated.

The spectral diagrams are attached as below.

30MHz~1GHz



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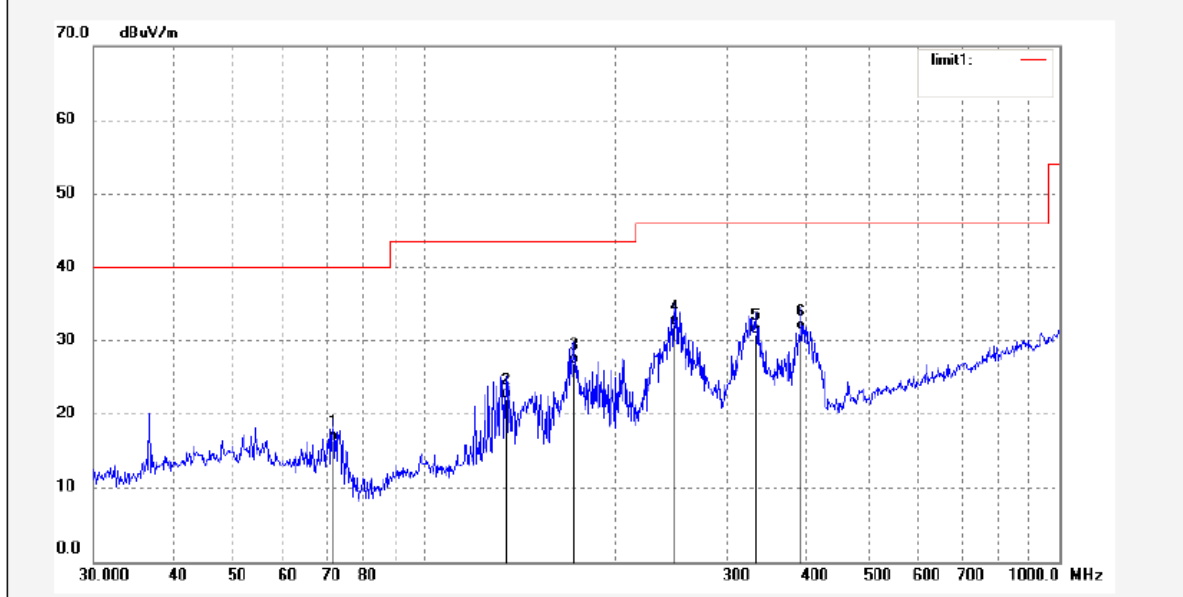
Site: 2# Chamber

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Job No.: FAN #451	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 15/27/52
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: USB charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	71.8320	31.88	-15.52	16.36	40.00	-23.64	QP			
2	134.0882	35.14	-12.94	22.20	43.50	-21.30	QP			
3	171.9946	39.56	-12.66	26.90	43.50	-16.60	QP			
4	247.6819	42.26	-10.15	32.11	46.00	-13.89	QP			
5	332.5187	38.23	-7.40	30.83	46.00	-15.17	QP			
6	392.0951	37.56	-6.07	31.49	46.00	-14.51	QP			



ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

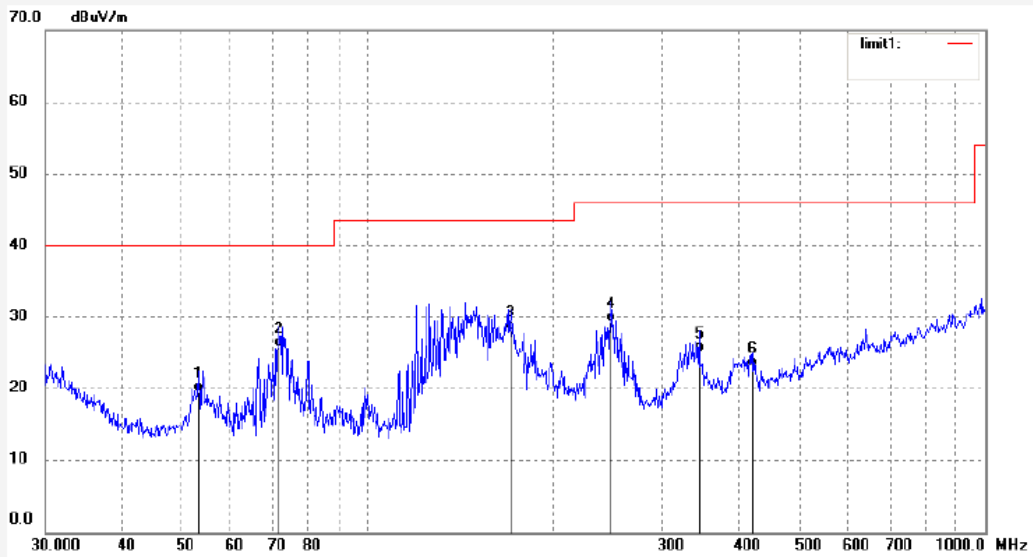
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: FAN #450	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 15/26/26
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: USB charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	53.1313	31.06	-11.49	19.57	40.00	-20.43	QP			
2	71.8320	40.83	-15.00	25.83	40.00	-14.17	QP			
3	170.1948	40.74	-12.67	28.07	43.50	-15.43	QP			
4	247.6819	39.40	-10.15	29.25	46.00	-16.75	QP			
5	344.3855	32.03	-6.90	25.13	46.00	-20.87	QP			
6	420.5803	28.24	-5.24	23.00	46.00	-23.00	QP			



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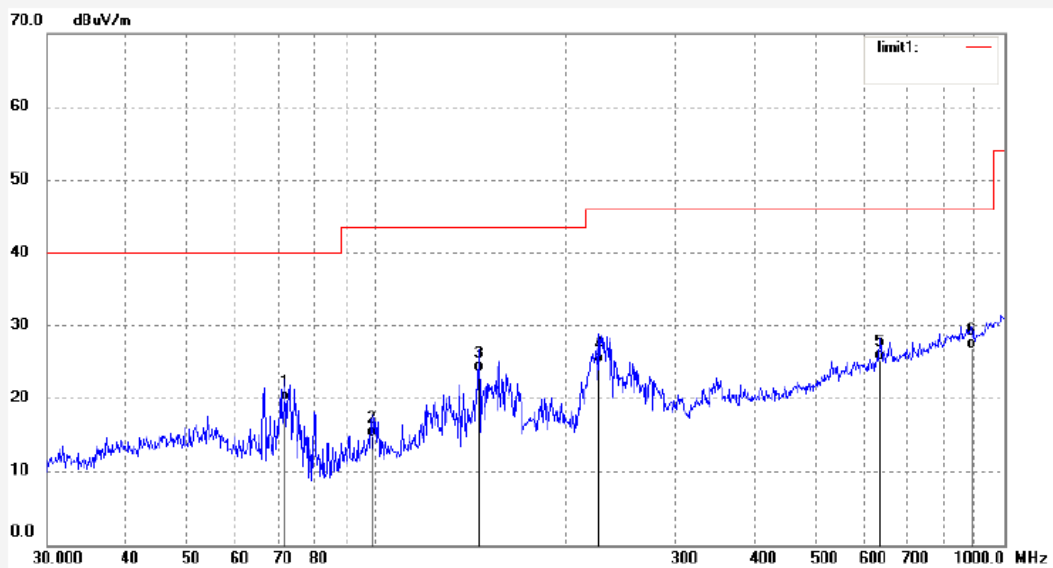
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: FAN #455	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 15/34/07
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: Base charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	71.8320	35.22	-15.52	19.70	40.00	-20.30	QP			
2	98.4866	27.09	-12.29	14.80	43.50	-28.70	QP			
3	145.8611	37.90	-14.20	23.70	43.50	-19.80	QP			
4	226.0994	35.53	-10.59	24.94	46.00	-21.06	QP			
5	633.9073	26.69	-1.44	25.25	46.00	-20.75	QP			
6	887.6099	24.39	2.49	26.88	46.00	-19.12	QP			



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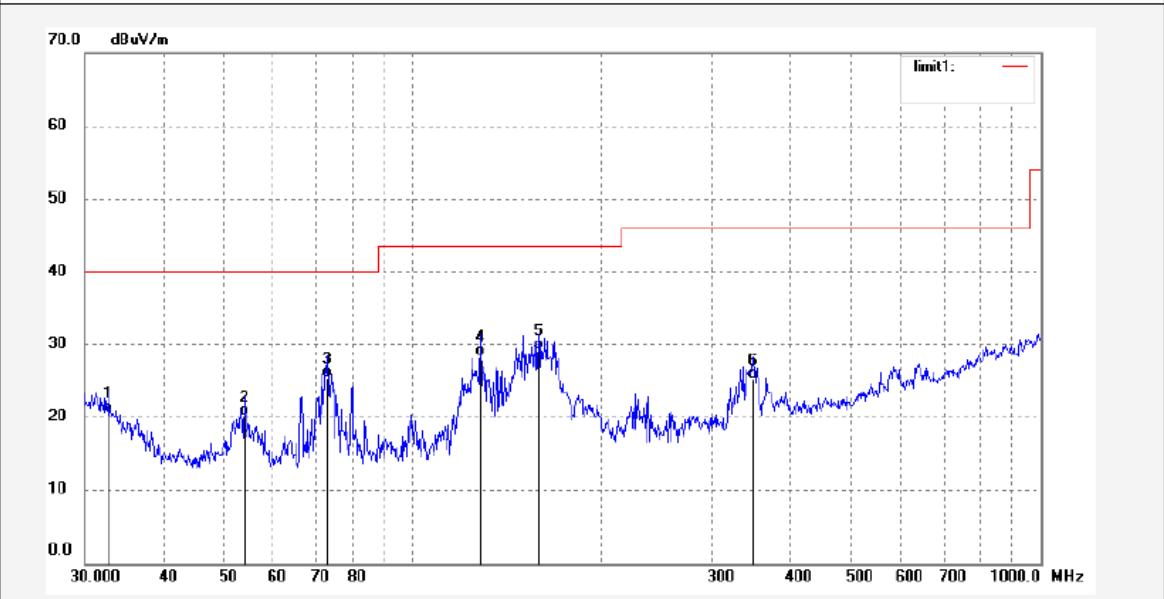
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: FAN #454	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 15/32/57
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: Base charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	32.7486	28.96	-8.25	20.71	40.00	-19.29	QP			
2	53.8818	31.74	-11.55	20.19	40.00	-19.81	QP			
3	73.1025	40.67	-15.18	25.49	40.00	-14.51	QP			
4	128.1130	41.05	-12.67	28.38	43.50	-15.12	QP			
5	158.6677	43.02	-13.69	29.33	43.50	-14.17	QP			
6	348.0274	31.99	-6.78	25.21	46.00	-20.79	QP			

1GHz ~18GHz

Note: Pre-test mode 1/2 , only the worst case(mode 1) was recorded



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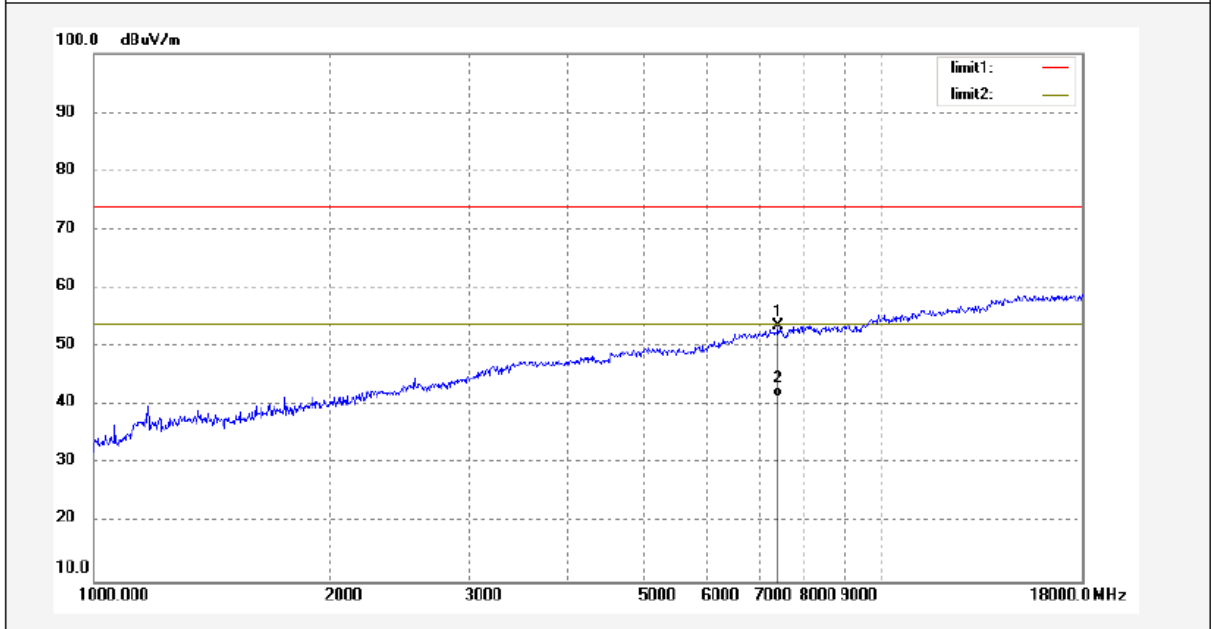
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: FAN #461	Polarization: Horizontal
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 15/59/23
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: USB charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	7390.070	44.66	8.78	53.44	74.00	-20.56	peak			
2	7390.070	32.66	8.78	41.44	54.00	-12.56	AVG			



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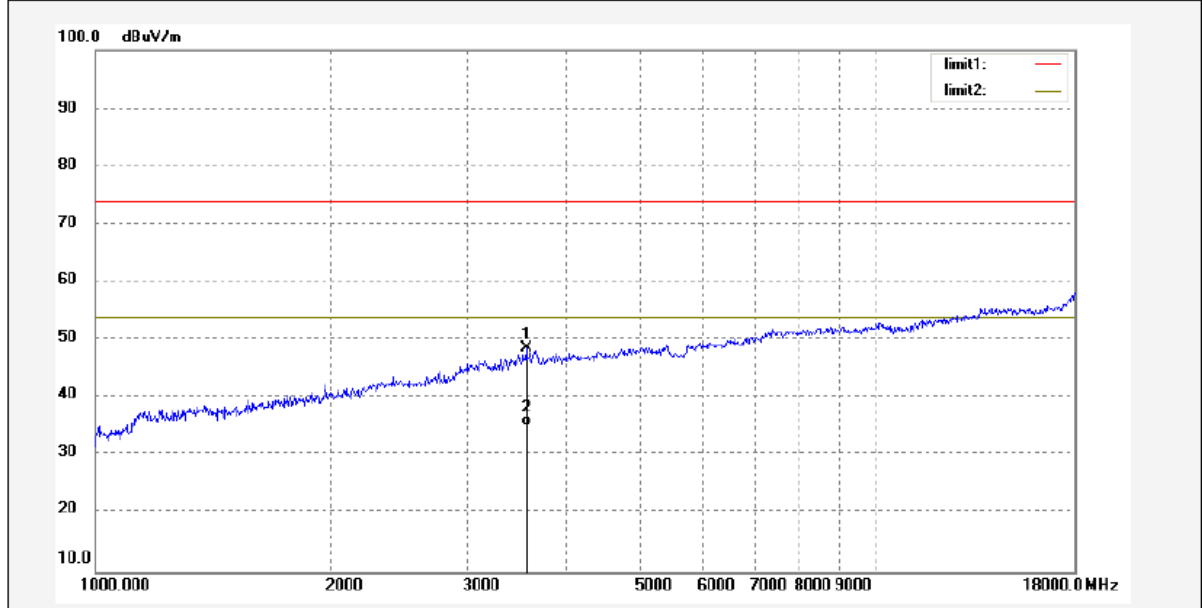
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: FAN #462	Polarization: Vertical
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 21/03/06/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 16/00/47
EUT: Wireless Bluetooth Headset	Engineer Signature: Fan
Mode: USB charging	Distance: 3m
Model: GUV3050	
Manufacturer: Grandstream Networks, Inc.	

Note: Report No.: RSZ210302001-00A



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	3567.138	48.24	0.34	48.58	74.00	-25.42	peak			
2	3567.138	34.78	0.34	35.12	54.00	-18.88	AVG			

----- THE END OF TEST REPORT -----