## FCC TEST REPORT(Bluetooth)

## for

## GUOGUANG ELECTRIC Co., Ltd.

## 2.0 Sound Bar

## Model Number: ESB204

## FCC ID: 2AAP8ESB204

Prepared for	<ul> <li>GUOGUANG ELECTRIC Co., Ltd.</li> <li>No.8 Jinghu Road, Xinhua Street, Huadu Reg,</li></ul>
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Report No.:15KWE02405FDate of Test:Jan. 26~29, 2015Date of Report:Feb. 02, 2015

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# Keyway Testing Technology Co., Ltd.

Applicant: Address:	GUOGUANG ELECTRIC Co., Ltd. No.8 Jinghu Road, Xinhua Street, Huadu Reg, Guangzhou,China			
Manufacturer: Address:	GUOGUANG ELECT No.8 Jinghu Road, Xii	,	lu Reg, Guangzhou,China	
E.U.T:	2.0 Sound Bar			
Model Number:	ESB204			
Trade Name:	<u> elemen</u>	Serial No.:		
Date of Receipt:	Jan. 25, 2015	Date of Test:	Jan. 26~29, 2015	
Test Specification:	FCC Part 15, Subpart ANSI C63.4:2009	C Section 15.249	: 2014	
Test Result:	The equipment under requirements of the st		be compliance with the	
			Issue Date: Feb. 02, 2015	
Tested by:	Reviewed	d by:	Approved by:	
William	An	dy	Jack Pang	
William Huang / Engine	er Andy Gao /	Supervisor	Jade Yang/Supervisor	
Other Aspects: None	9.			
Abbreviations: OK/P=pa	ssed fail/F=failed n	.a/N=not applicable	E.U.T=equipment under tested	
	on a single evaluation of or ad in extracts without written	•	entioned products. It is not Testing Technology Co., Ltd.	

## 1. TEST SUMMARY

Test Items	Test Requirement	Result
Conducted Emissions	15.207	PASS
Radiated Emissions	15.209 15.249(a)(d)	PASS
20dB Bandwidth	15.249	PASS
Emissions from out of band	15.249(d)	PASS
Antenna Requirement	15.203	PASS

## 2.GENERAL PRODUCT INFORMATION

### 2.1. Product Function

Refer to Technical Construction Form and User Manual.

### 2.2. Description of Device (EUT)

Product Name:	2.0 Sound Bar		
Model No.:	ESB204		
Operation Frequency:	2402~2480MHz		
Channel numbers:	BT:79 Channels		
Channel separation:	BT :1M		
Modulation technology:	BT:GFSK, Pi/4DPSK, 8-DPSK		
Antenna Type:	Integral Antenna		
Antenna gain:	BT:0dBi		
Power supply:	AC 100-240V 50/60Hz		
BT version:	4.0+EDR		
	1:		
	Manufacturer: Dongguan Dongsong Electronic Co., Ltd.		
	M/N: DSP461-210220W		
	I/P: AC 100-240V 50/60Hz 1200mA		
Dowor Supply Linit	O/P:DC 21V 2.2A		
Power Supply Unit	2:		
	Manufacturer: Ten Pao Electronics (Huizhou)) Co., Ltd.		
	M/N:S048JF2100220		
	I/P: AC 100-240V 50/60Hz 1200mA		
	O/P:DC 21V 2.2A		

### 2.3. Difference between Model Numbers

None.

## 2.4. Independent Operation Modes

The basic operation modes are:

2.4.1. EUT work continues TX mode and frequency as below:
---

Modulation	Channel	Frequency
	Low	2402MHz
	Middle	2441MHz
	High	2480MHz

Note: Bluetooth signal has 3 packages DH1, DH3, DH5, DH5 package is largest; we are testing DH5 in the report.

### 2.5. Test Supporting System

None.

### 2.6. Test Facilities

Lab Qualifications :	944 Shielded Room built by ETS-Lindgren, USA Date of completion: March 28, 2011
	966 Chamber built by ETS-Lindgren, USA Date of completion: March 28, 2011
	Certificated by TUV Rheinland, Germany. Registration No.: UA 50207153 Date of registration: July 13, 2011
	Certificated by UL, USA Registration No.: 100567-237 Date of registration: September 1, 2011
	Certificated by Intertek Registration No.: 2011-RTL-L1-31 Date of registration: October 11, 2011
	Certificated by Industry Canada Registration No.: 9868A Date of registration: December 8, 2011
	Certificated by FCC, USA Registration No.: 370994 Date of registration: February 21, 2012
Nous of Firms	Certificated by CNAS China Registration No.: CNAS L5783 Date of registration: August 8, 2012
Name of Firm	Keyway Testing Technology Co., Ltd.
Site Location :	Building1, Baishun Industrial Zone, Zhangmutou Town, Dongguan, Guangdong, China

## 2.7. List of Test and Measurement Instruments

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,14	Apr. 27,15
Artificial Mains Network	Rohde&Schwarz	ENV216	101315	Apr. 27,14	Apr. 27,15
Artificial Mains Network (AUX)	Rohde&Schwarz	ENV216	101314	Apr. 27,14	Apr. 27,15
RF Cable	FUJIKURA	3D-2W	944 Cable	Apr. 27,14	Apr. 27,15

#### 2.7.1. For conducted emission at the mains terminals test

### 2.7.2. For radiated emission test

+	i			i	
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,14	Apr. 26,15
Bilog Antenna	ETS-LINDGREEN	3142D	135452	Apr. 27,14	Apr. 26,15
Loop antenna	teseq	HLA6120	22032	Apr. 30,14	Apr. 29,15
3m Semi-anechoic Chamber	ETS-LINDGREEN	966	KW01	Apr. 27,14	Apr. 26,15
Signal Amplifier	SONOMA	310	187016	Apr. 27,14	Apr. 26,15
Signal Amplifier	Agilent	8449B	3008A00251	Apr. 27,14	Apr. 26,15
RF Cable	IMRO	IMRO-400	966 Cable 1#	Apr. 27,14	Apr. 26,15
MULTI-DEVICE Controller	ETS-LINDGREEN	2090	126913	N/A	N/A
Horn Antenna	DAZE	ZN30701	11003	Apr. 27,14	Apr. 26,15
Horn Antenna	SCHWARZBECK	BBHA9170	9170-068	Apr. 27,14	Apr. 26,15
Spectrum Analyzer	Agilent	8593E	3911A04271	Apr. 27,14	Apr. 26,15
Spectrum Analyzer	Agilent	E4408B	MY44211125	Apr. 30,14	Apr. 29,15
Signal Amplifier	DAZE	ZN3380C	11001	Apr. 27,14	Apr. 26,15

## **3. TEST SET-UP AND OPERATION MODES**

- 3.1. Principle of Configuration Selection
  - **Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.
- 3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators

(EUT: 2.0 Sound Bar)

- 3.3. Test Operation Mode and Test Software None.
- 3.4. Special Accessories and Auxiliary Equipment None.
- 3.5. Countermeasures to Achieve EMC Compliance None.
- 3.6. Test Environment:

Ambient conditions in the test laboratory:

Items	Actual
Temperature (℃)	21~23
Humidity (%RH)	50~65

## **4. EMISSION TEST RESULTS**

### 4.1. Conducted Emission at the Mains Terminals Test

#### 4.1.1. Limit 15.207 limits

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)		
	Quasi-peak	Average	
0.15-0.5 0.5-5 5-30	66 to 56 56 60	56 to 46 46 50	

#### 4.1.2. Test Setup

The EUT was put on a wooden table which was 0.8 m high above the ground and connected to the AC mains through the Artificial Mains Network (AMN). Where the mains cable supplied by the manufacture was longer than 0.8 m, the excess was folded back and forth parallel to the cable at the centre so as to form a bundle no longer than 0.4 m.

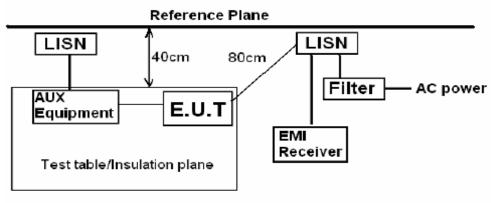
The EUT was kept 0.4 m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during the conducted emission test.

The frequency range from 150 kHz to 30 MHz was investigated.

The bandwidth of the test receiver was set at 9 kHz.

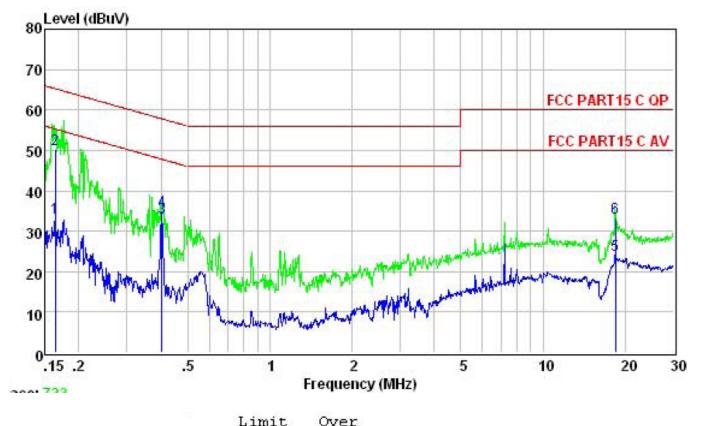
Measurement Uncertainty: ±2.6 dB at a level of confidence of 95%.

Pretest for all Power Supply Unit and mode, the worst case was Power Supply Unit 1, Low channel of GFSK and the data was reported on the following page.



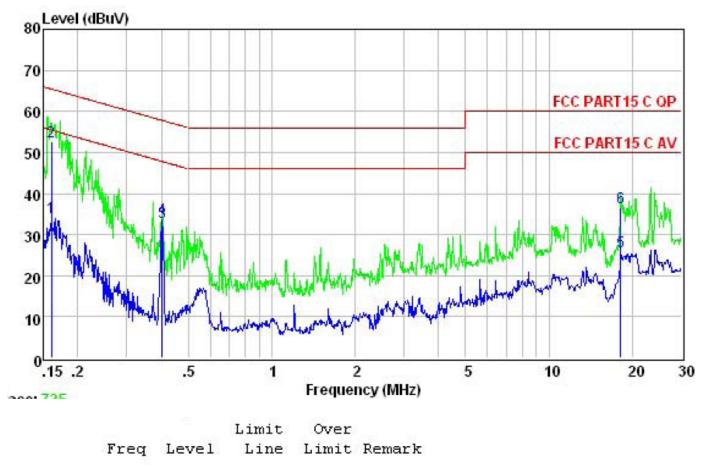
Romark: E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network: Test table height=0.8m

### Line



			TTUTC.	OVEL		
	Freq	Level	Line	Limit	Remark	
5	MHz	dBuV	dBuV	dB	-	-
1	0.164	33.32	55.25	-21.93	Average	
2	0.164	50.12	65.25	-15.13	QP	
3	0.402	33.25	47.81	-14.56	Average	
4	0.402	35.12	57.81	-22.69	QP	
5	18.426	23.97	50.00	-26.03	Average	
6	18.426	33.26	60.00	-26.74	QP	

#### Neutral



3 <del>.</del>	MHz	dBuV	dBuV	dB	
1	0.161	34.33	55.43	-21.10	Average
2	0.161	52.70	65.43	-12.73	QP
3	0.402	32.86	47.81	-14.95	Average
4	0.402	33.80	57.81	-24.01	QP
5	18.135	25.82	50.00	-24.18	Average
6	18.135	36.59	60.00	-23.41	QP

## 4.2. Radiated Emission Test

FREQUENCY	DISTANCE	FIELD STREN	NGTHS LIMIT
MHz	Meters	$\mu V/m$	$dB(\mu V)/m$
$30 \sim 88$	3	100	40.0
88 ~ 216	3	150	43.5
$216 \sim 960$	3	200	46.0
$960 \sim 1000$	3	500	54.0
Above 1000	3	74.0 dB(μV	/)/m (Peak)
		54.0 dB(µV	V)/m (Average)

#### 4.2.1. Limit 15.209 limits

### 4.2.2. Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

#### 4.2.3. Test setup

The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector below 1GHz.

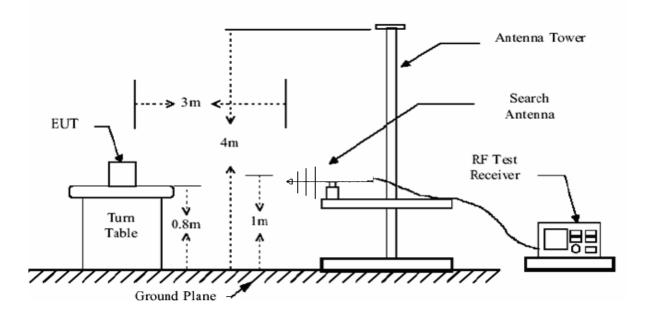
The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz.

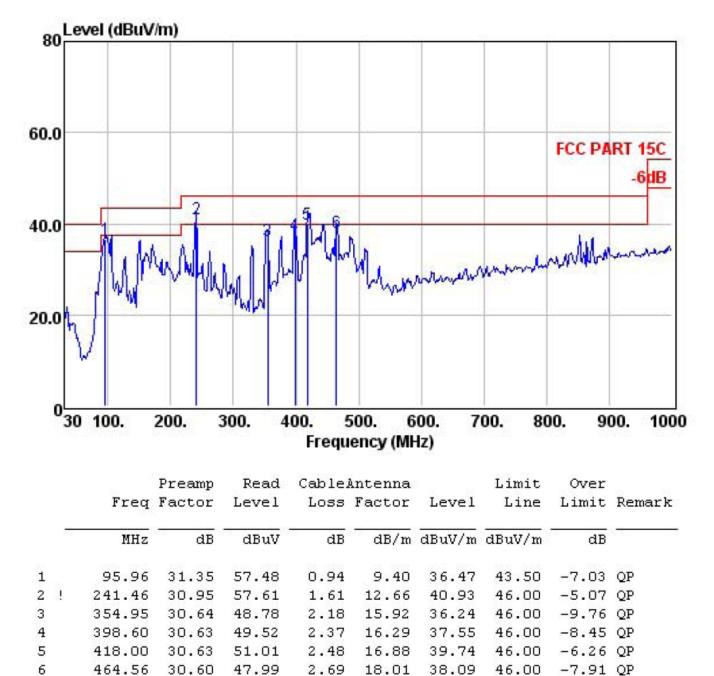
The frequency range from 30MHz to 10<sup>th</sup> harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record. For all test, used peak detector.

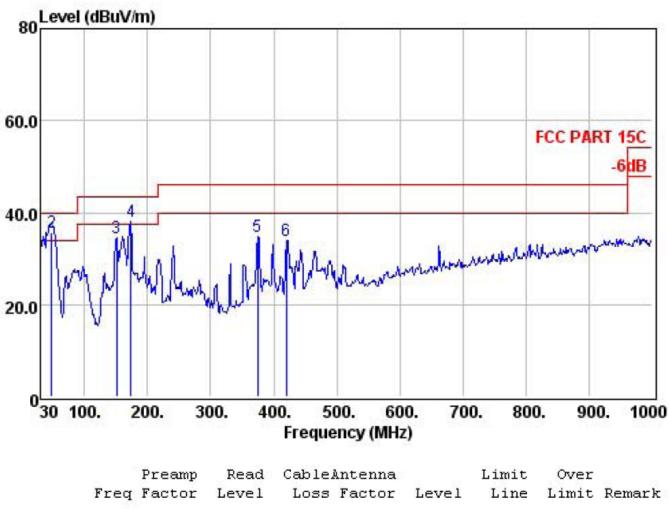
Notes: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading-Preamp Factor.

- 2. Measurement Uncertainty: ±3.2 dB at a level of confidence of 95%.
- 3. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
- 4. For emissions below 1GHz, Pretest for all Power Supply Unit and mode, the worst case was Power Supply Unit 1, Low channel of GFSK and the data was reported on the following page.
- 5. During the test, pre-scan the GFSK, Pi/4DPSK, 8DPSK modulation, and found the GFSK modulation which it is worse case.
- 6. The emission below 30MHz was background, so no data show it.



Below 1GHz GFSK Low channel Horizontal polarizations





#### GFSK Low channel Vertical polarizations

			Preamp	Read	Cablei	Antenna		Limit	Over	
		Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	130	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	!	30.00	31.41	48.50	0.56	18.80	36.45	40.00	-3.55	QP
2	!	47.46	31.39	56.50	0.75	9.84	35.70	40.00	-4.30	QP
3		151.25	31.25	55.38	1.22	9.02	34.37	43.50	-9.13	QP
4	!	173.56	31.18	57.65	1.39	10.21	38.07	43.50	-5.43	QP
5		374.35	30.62	46.98	2.27	16.18	34.81	46.00	-11.19	QP
6		419.94	30.63	45.26	2.48	16.94	34.05	46.00	-11.95	QP

#### Above 1GHz GFSK 2402MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level		Antenna Factor		Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	3 <del>3 - 3</del>
1	2402.00	26.32	79.01	7.34	28.72	88.75	94.00	-5.25	Average
2	2402.00	26.32	88.63	7.34	28.72	98.37	114.00	-15.63	Peak
з	4804.00	27.49	32.44	11.96	32.94	49.85	74.00	-24.15	Peak
4	7018.00	27.90	18.17	16.60	37.21	44.08	74.00	-29.92	Peak
5	10452.00	28.85	14.35	17.06	39.12	41.68	74.00	-32.32	Peak
6	13682.00	29.34	8.66	19.00	43.18	41.50	74.00	-32.50	Peak

#### GFSK 2402MHz Vertical polarizations

		Preamp	Read	Cablei	Antenna		Limit	Over	
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	2402.00	26.32	78.39	7.34	28.72	88.13	94.00	-5.87	Average
2	2402.00	26.32	88.29	7.34	28.72	98.03	114.00	-15.97	Peak
3	4804.00	27.49	32.38	11.96	32.94	49.79	74.00	-24.21	Peak
4	7069.00	27.91	14.65	16.60	37.23	40.57	74.00	-33.43	Peak
5	9568.00	28.63	15.94	16.93	38.06	42.30	74.00	-31.70	Peak
6	12934.00	29.19	15.62	18.15	40.54	45.12	74.00	-28.88	Peak

#### GFSK 2441MHz Horizontal polarizations

		Preamp	Read	Cablei	Antenna		Limit	Over	
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	. <del></del>
1	2441.00	26.33	79.59	7.48	28.76	89.50	94.00	-4.50	Average
2	2441.00	26.33	93.29	7.48	28.76	103.20	114.00	-10.80	Peak
з	4882.00	27.53	31.79	12.14	33.11	49.51	74.00	-24.49	Peak
4	7307.00	27.96	18.23	16.61	37.32	44.20	74.00	-29.80	Peak
5	10962.00	28.90	18.99	17.16	39.48	46.73	74.00	-27.27	Peak
6	14107.00	29.42	15.44	19.43	42.90	48.35	74.00	-25.65	Peak

#### GFSK 2441MHz Vertical polarizations

		Preamp	Read	Cablei	Antenna		Limit	Over	
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	. <del></del>
1	2441.00	26.33	79.24	7.48	28.76	89.15	94.00	-4.85	Average
2	2441.00	26.33	93.19	7.48	28.76	103.10	114.00	-10.90	Peak
3	7103.00	27.92	16.67	16.60	37.24	42.59	74.00	-31.41	Peak
4	9092.00	28.43	19.06	16.89	37.50	45.02	74.00	-28.98	Peak
5	12271.00	29.05	17.26	17.59	39.46	45.26	74.00	-28.74	Peak
6	14974.00	29.55	16.93	19.99	38.64	46.01	74.00	-27.99	Peak

#### GFSK 2480MHz Horizontal polarizations

		Preamp	Read	Cablei	Antenna		Limit	Over	
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	2480.00	26.34	77.10	7.57	28.79	87.12	94.00	-6.88	Average
2	2480.00	26.34	87.62	7.57	28.79	97.64	114.00	-16.36	Peak
3	4960.00	27.58	31.64	12.36	33.32	49.74	74.00	-24.26	Peak
4	6950.00	27.89	15.72	16.60	37.07	41.50	74.00	-32.50	Peak
5	9568.00	28.63	11.53	16.93	38.06	37.89	74.00	-36.11	Peak
6	12458.00	29.09	12.58	17.76	39.49	40.74	74.00	-33.26	Peak

#### GFSK 2480MHz Vertical polarizations

		Preamp	Read	Cablei	Antenna		Limit	Over	
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
;	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	. <del></del>
1	2480.00	26.34	77.14	7.57	28.79	87.16	94.00	-6.84	Average
2	2480.00	26.34	88.61	7.57	28.79	98.63	114.00	-15.37	Peak
3	4960.00	27.58	31.53	12.36	33.32	49.63	74.00	-24.37	Peak
4	7409.00	27.98	17.13	16.62	37.37	43.14	74.00	-30.86	Peak
5	9806.00	28.72	17.11	16.95	38.25	43.59	74.00	-30.41	Peak
6	13767.00	29.35	11.44	19.10	43.27	44.46	74.00	-29.54	Peak

## 5. 20DB OCCUPY BANDWIDTH

### 5.1. Limits

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

### 5.2. Test setup

- 1. Set the RBW =100kHz.
- 2. Set the VBW = 100kHz
- 3. Span=3MHz
- 4. Detector = peak.
- 5. Sweep time = auto couple.
- 6. Allow trace to fully stabilize, and view the plot.
- 7. Measure and record the result in the test report.

Measurement Uncertainty: ±500kHz at a level of confidence of 95%..

	Channel Frequency (MHz)	20dB Bandwidth (MHz)	Result
	2402	0.936	Pass
GFSK	2441	0.930	Pass
	2480	0.881	Pass
	2402	1.178	Pass
pi/4 DPSK	2441	1.234	Pass
	2480	1.182	Pass
	2402	1.267	Pass
8DPSK	2441	1.273	Pass
	2480	1.259	Pass

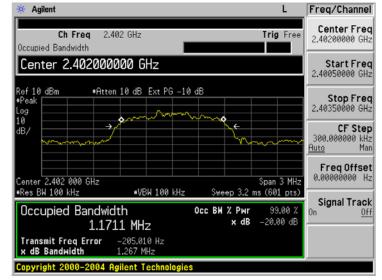
Test data:

Test plot as follows:

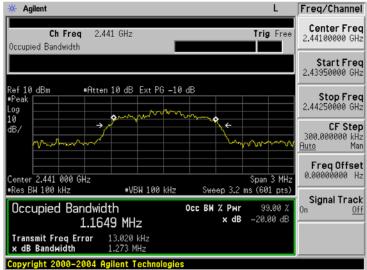
The data only show the worst mode.

#### 8DPSK

2402MHz







Agilent Freq/Channel 1 Center Freq 2.48000000 GHz Ch Freq 2.48 GHz Trig Free Occupied Bandwidth Start Freq 2.47850000 GHz #Atten 10 dB Ext PG -10 dB Ref 10 dBm Stop Freq 2.48150000 GHz Peal .og 10 **CF** Step 4R 300.000000 kHz Auto Man Auto Freq Offset 0.0000000 Hz Center 2.480 000 GHz •Res BW 100 kHz Span 3 MHz ∎VBW 100 kHz Sweep 3.2 ms (601 pts) Signal Track Occupied Bandwidth Occ BW % Pwr 99.00 % Off x dB −20.00 dB 1.1729 MHz 12.880 kHz 1.259 MHz Transmit Freq Error × dB Bandwidth Copyright 2000-2004 Agilent Technologies

#### 2480 MHz

## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Limits

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

### 6.2. Test setup

The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure. For all test, used peak detector.

Measurement Uncertainty: ±3.2 dB at a level of confidence of 95%.

	Frequency (MHz)	Antenna polarization (H/V)	Test Frequency (MHz)	Emission (dBuV/m) PK	Band ed (dBu\ PK	-	Result Pass
Hopping	<2400	Н	2437.89	50.43	74.00	54.00	Pass
	<2400	V	2438.12	50.01	74.00	54.00	Pass
	>2483.5	н	2485.67	50.24	74.00	54.00	Pass
	>2483.5	V	2486.04	49.68	74.00	54.00	Pass
Unhopping	<2400	Н	2438.36	50.11	74.00	54.00	Pass
	<2400	V	2437.94	50.17	74.00	54.00	Pass
	>2483.5	Н	2486.31	50.14	74.00	54.00	Pass
	>2483.5	V	2485.49	50.08	74.00	54.00	Pass

Test data as follows:

If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

We pretest all mode, the worst mode was GFSK.

## 7. ANTENNA REQUIREMENTS

### 7.1. Limits

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

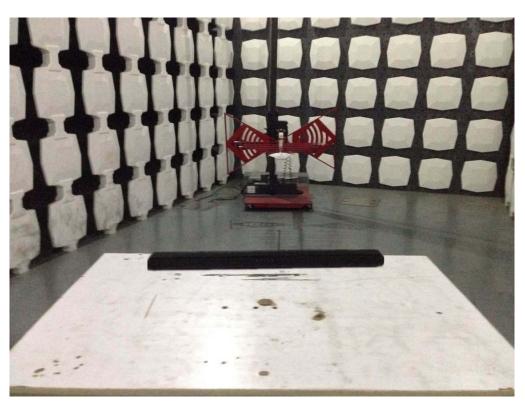
### 7.2. Result

The antennas used for this product are PCB antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 0dBi.

# 8. PHOTOGRAPHS OF TEST SET-UP

### Conducted Emission





Radiated Emission Test



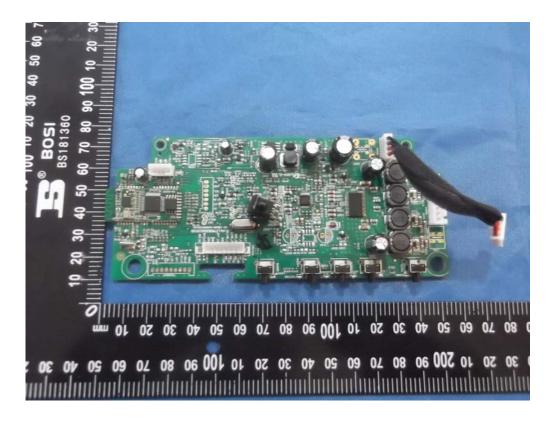
## 9. PHOTOGRAPHS OF THE EUT

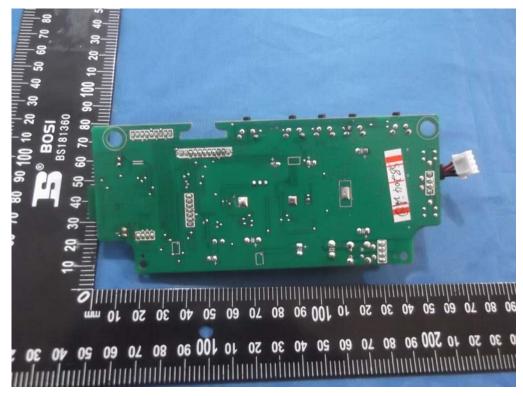




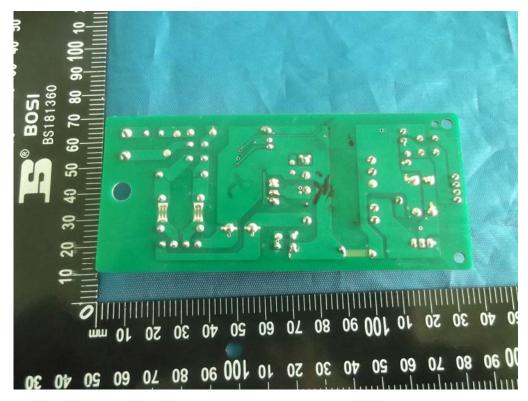


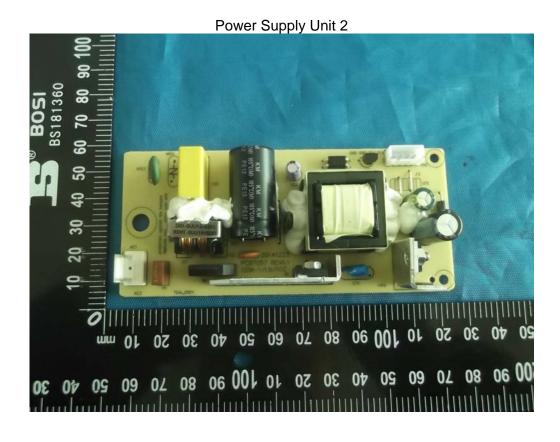














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