

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC145414 1 of 93 Page:

FCC Radio Test Report FCC ID: 2AFXXGG-ABH2

Original Grant

Report No. TB-FCC145414

Applicant M&S Accessory Network

Equipment Under Test (EUT)

EUT Name GabbaGoods NeckBeats Bluetooth Stereo Headsets

GG-ABH2 Model No.

Series Model No. N/A

Brand Name N/A

Receipt Date 2015-09-07

Test Date 2015-09-08 to 2015-09-15

Issue Date 2015-09-17

Standards FCC Part 15: 2014, Subpart C(15.247)

Test Method ANSI C63.10:2013

Conclusions PASS

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC requirements

Test/Witness Engineer

Approved& Authorized

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0

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1. General Information about EUT

1.1 Client Information

Applicant : M&S Accessory Network

Address: 10 West 33rd Street, Suite 718, New York, NY 10001, United States

Manufacturer : Hong Kong Fanco Electronic Company Ltd.

Address : 2F,10 Blk, Zhengzhong Industrial Park, Qiaotou Community,

Fuyong Town, Bao'an, Shenzhen, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	GabbaGoods NeckBeats Bluetooth Stereo Headsets			
Models No.	:	GG-ABH2	THE PARTY OF THE P		
Model Difference	:	N/A			
THE STATE OF THE S		Operation Frequency: Bluetooth:2402~2480MHz			
2		Number of Channel:	Bluetooth:79 Channels see note (2)		
Product Description		Max Peak Output Power:	GFSK:3.66 dBm (Conducted Power)		
Description		Antenna Gain:	0 dBi PCB Antenna		
		Modulation Type:	GFSK 1Mbps(1 Mbps) π /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)		
Power Supply	:	DC Voltage supplied from Host System by USB cable.			
		DC power by Li-ion Battery.			
Power Rating		DC 5.0V by USB cable.			
	V	DC 3.7V 110mAh Li-ion Ba	attery.		
Connecting I/O Port(S)		Please refer to the User's Manual			

Note:

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) This Test Report is FCC Part 15.247 for Bluetooth, and test procedure in accordance with Public Notice: DA 00-705.

(3) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458



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		E III II II			
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

(4) The Antenna information about the equipment is provided by the applicant.

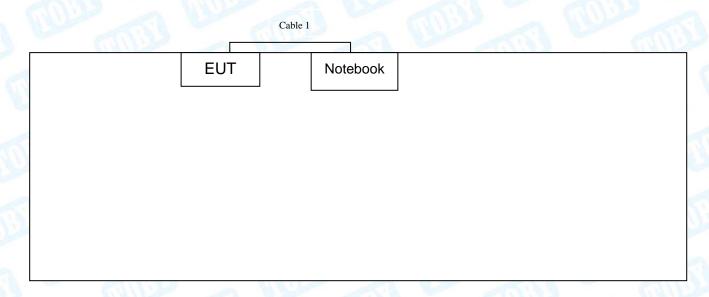
1.3 Block Diagram Showing the Configuration of System Tested

TX Mode	WIII DE		
		EUT	



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USB Charging with TX Mode



1.4 Description of Support Units

	Eq	uipment Informatio	on	
Name	Model	FCC ID/DOC	Manufacturer	Used "√"
Notebook	T60P	DOC	LENOVO	√
LCD Monitor	E170Sc	DOC	DELL	a William
PC	OPTIPLEX380	DOC	DELL	33
Keyboard	L100	DOC	DELL	
Mouse	M-UARDEL7	DOC	DELL	1
		Cable Information		
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	NO	NO	0.8M	010
	COURSE OF THE PROPERTY OF THE	THU DE	a w	

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.



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	For Conducted Test
Final Test Mode	Description
Mode 1	USB Charging with TX GFSK Mode

For Radiated Test			
Final Test Mode	Description		
Mode 1	USB Charging with TX GFSK Mode		
Mode 2 TX Mode(GFSK) Channel 00/39/78			
Mode 3 TX Mode(π /4-DQPSK) Channel 00/39/7			
Mode 4	TX Mode(8-DPSK) Channel 00/39/78		
Mode 5	Hopping Mode(GFSK)		
Mode 6 Hopping Mode(π /4-DQPSK)			
Mode 7 Hopping Mode(8-DPSK)			

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate. We have pretested all the test mode above.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

TX Mode: GFSK (1 Mbps)
TX Mode: #\pi/4-DQPSK (2 Mbps)
TX Mode: 8-DPSK (3 Mbps)

(2) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane as the normal use. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of Bluetooth mode.

Test Software Version	st Software Version BK3256 RF Test_V1.3.exe		
Frequency	2402 MHz	2441MHz	2480 MHz
GFSK	0	0	0
π /4-DQPSK	0	0	0
8-DPSK	0	0	0



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1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
	Level Accuracy:	3 12
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
D. F. L. I.E. C.	Level Accuracy:	±4.60 dB
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy:	±4.40 dB
Radiated Effilssion	30MHz to 1000 MHz	±4.40 db
Redicted Emission	Level Accuracy:	.4.20 dB
Radiated Emission	Above 1000MHz	±4.20 dB

1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.

May 22, 2014 certificated by TUV Rheinland(China) Co., Ltd. with TUV certificate No.: UA 50282953 0001 and report No.: 17026822 002. The certificate is valid until the next scheduled audit or up to 18 months, at the discretion of TUV Rhineland.



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2. Test Summary

FCC Part 15 Subpart C(15.247)/ RSS 247 Issue 1					
Standard Section		Total Manua			
FCC	IC	Test Item	Judgment	Remark	
15.203		Antenna Requirement	PASS	N/A	
15.207	RSS-GEN 7.2.2	Conducted Emission	PASS	N/A	
15.205	RSS-Gen 7.2.3	Restricted Bands	PASS	N/A	
15.247(a)(1)	RSS 247 5.1 (2)	Hopping Channel Separation	PASS	N/A	
15.247(a)(1)	RSS 247 5.1 (4)	Dwell Time	PASS	N/A	
15.247(b)(1)	RSS 247 5.4 (2)	Peak Output Power	PASS	N/A	
15.247(b)(1)	RSS 247 5.1 (4)	Number of Hopping Frequency	PASS	N/A	
15.247(c)	RSS 247 5.5	Radiated Spurious Emission	PASS	N/A	
15.247(a)	RSS 247 5.1 (1)	99% Occupied Bandwidth & 20dB Bandwidth	PASS	99%OBW GFSK:832.1399kHz π/4-DQPSK: 1147.10kHz 8-DPSK: 1127.20kHz	



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3. Test Equipment

Conducte	Conducted Emission Test								
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date				
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Aug. 07, 2015	Aug. 06, 2016				
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Aug. 07, 2015	Aug. 06, 2016				
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Aug. 07, 2015	Aug. 06, 2016				
LISN	Rohde & Schwarz	ENV216	101131	Aug. 07, 2015	Aug. 06, 2016				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.					
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 29, 2015	Aug. 28, 2016				
EMI Test Receiver	Rohde & Schwarz	ESCI	100010/007	Aug. 07, 2015	Aug. 06, 2016				
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 28, 2015	Mar. 27, 2016				
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar. 28, 2015	Mar. 27, 2016				
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 28, 2015	Mar. 27, 2016				
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar. 28, 2015	Mar. 27, 2016				
Pre-amplifier	Sonoma	310N	185903	Mar. 28, 2015	Mar. 27, 2016				
Pre-amplifier	HP	8447B	3008A00849	Mar. 28, 2015	Mar. 27, 2016				
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 28, 2015	Mar. 27, 2016				
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A				



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4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

4.1.2 Test Limit

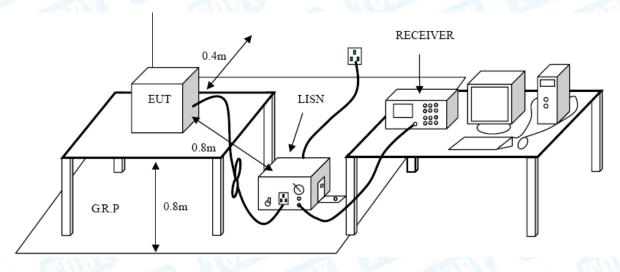
Conducted Emission Test Limit

Eroguanov	Maximum RF Line Voltage (dBμV)			
Frequency	Quasi-peak Level	Average Level		
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *		
500kHz~5MHz	56	46		
5MHz~30MHz	60	50		

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.



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I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

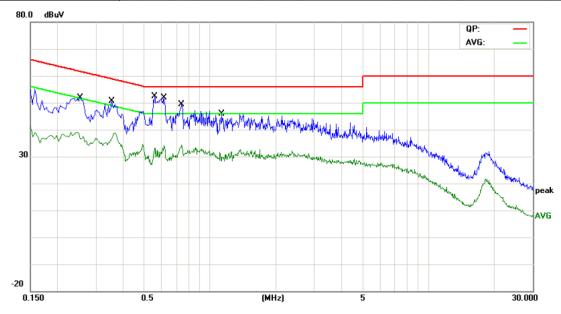
4.5 Test Data

Please see the next page.



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60 Hz	NC 120V/60 Hz						
Terminal:	Line							
Test Mode:	USB Charging with TX GFS	K Mode 2402 MHz	C. C. C.					
Remark:	Only worse case is reported							



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBu∨	dB	dBuV	dBuV	dB	Detector
1	0.2540	35.51	10.02	45.53	61.62	-16.09	QP
2	0.2540	26.81	10.02	36.83	51.62	-14.79	AVG
3	0.3540	33.33	10.02	43.35	58.87	-15.52	QP
4	0.3540	26.09	10.02	36.11	48.87	-12.76	AVG
5 *	0.5580	37.87	10.05	47.92	56.00	-8.08	QP
6	0.5580	21.50	10.05	31.55	46.00	-14.45	AVG
7	0.6140	37.42	10.08	47.50	56.00	-8.50	QP
8	0.6140	23.39	10.08	33.47	46.00	-12.53	AVG
9	0.7420	35.86	10.11	45.97	56.00	-10.03	QP
10	0.7420	23.99	10.11	34.10	46.00	-11.90	AVG
11	1.1300	26.02	10.06	36.08	56.00	-19.92	QP
12	1.1300	18.47	10.06	28.53	46.00	-17.47	AVG



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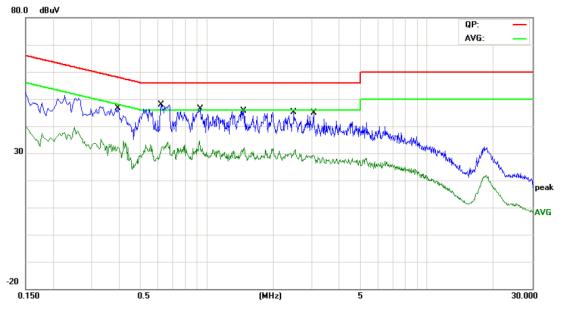
EUT:	GabbaGoods NeckBe Bluetooth Stereo Hea		Model Nan	ne:	GG	G-ABH2
Temperature:	25 ℃	1	Relative H	umidity	: 55	%
Test Voltage:	AC 120V/60 Hz		100	d	13.7	
Terminal:	Neutral	MIN S		11/1		
Test Mode:	USB Charging with	TX GFSK	Mode 2402	MHz		
Remark:	Only worse case is	reported	M	1	80 0	-
30	The state of the s	HANNAN AND STREET	n. h. shi shi shi shi shi na na n	and harpen and here		
30	V. M. M.		and have the first the second for th	har produced by the state of th	Mary Mary Mary Mary Mary Mary Mary Mary	per
-20 0.150	0.5	(MHz)	5	har produced by the second of	The state of the s	North Mary
-20 0.150 No. Mk. F	Reading Level MHz dBuV	(MHz) Correct Factor dB 10.11	Measure- ment dBuV 48.30	Limit dBuV	Over dB -13.86	AVI

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2380	38.19	10.11	48.30	62.16	-13.86	QP
2		0.2380	28.87	10.11	38.98	52.16	-13.18	AVG
3		0.3740	34.38	10.06	44.44	58.41	-13.97	QP
4		0.3740	26.66	10.06	36.72	48.41	-11.69	AVG
5	*	0.5500	37.68	10.02	47.70	56.00	-8.30	QP
6		0.5500	20.73	10.02	30.75	46.00	-15.25	AVG
7		0.7340	35.25	10.04	45.29	56.00	-10.71	QP
8		0.7340	23.63	10.04	33.67	46.00	-12.33	AVG
9		1.0140	28.63	10.16	38.79	56.00	-17.21	QP
10		1.0140	20.82	10.16	30.98	46.00	-15.02	AVG
11		1.6620	27.27	10.09	37.36	56.00	-18.64	QP
12		1.6620	19.83	10.09	29.92	46.00	-16.08	AVG



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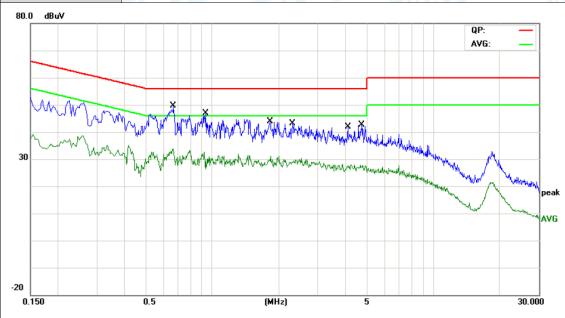
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	GG-ABH2				
Temperature:	25 ℃	Relative Humidity: 55%				
Test Voltage:	AC 240V/60 Hz		2.0			
Terminal:	Line					
Test Mode:	USB Charging with TX GFS	SK Mode 2402 MHz	THE PARTY OF THE P			
Remark:	Only worse case is reported					
80.0 dBuV						
			QP: — AVG: —			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.3940	32.14	10.02	42.16	57.98	-15.82	QP
2		0.3940	21.47	10.02	31.49	47.98	-16.49	AVG
3	*	0.6180	30.35	10.08	40.43	56.00	-15.57	QP
4		0.6180	19.68	10.08	29.76	46.00	-16.24	AVG
5		0.9380	29.64	10.07	39.71	56.00	-16.29	QP
6		0.9380	20.13	10.07	30.20	46.00	-15.80	AVG
7		1.4660	28.86	10.06	38.92	56.00	-17.08	QP
8		1.4660	20.03	10.06	30.09	46.00	-15.91	AVG
9		2.4820	26.12	10.04	36.16	56.00	-19.84	QP
10		2.4820	19.08	10.04	29.12	46.00	-16.88	AVG
11		3.0500	24.93	10.03	34.96	56.00	-21.04	QP
12		3.0500	17.79	10.03	27.82	46.00	-18.18	AVG



GabbaGoods NeckBeats EUT: GG-ABH2 **Model Name:** Bluetooth Stereo Headsets 25 ℃ Temperature: **Relative Humidity:** 55% **Test Voltage:** AC 240V/60 Hz Terminal: Neutral **Test Mode:** USB Charging with TX GFSK Mode 2402 MHz Remark: Only worse case is reported



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.6660	32.79	10.02	42.81	56.00	-13.19	QP
2		0.6660	21.75	10.02	31.77	46.00	-14.23	AVG
3		0.9380	29.55	10.13	39.68	56.00	-16.32	QP
4		0.9380	20.33	10.13	30.46	46.00	-15.54	AVG
5		1.8220	26.38	10.08	36.46	56.00	-19.54	QP
6		1.8220	18.63	10.08	28.71	46.00	-17.29	AVG
7		2.3060	24.78	10.06	34.84	56.00	-21.16	QP
8		2.3060	18.11	10.06	28.17	46.00	-17.83	AVG
9		4.0939	22.52	10.06	32.58	56.00	-23.42	QP
10		4.0939	16.32	10.06	26.38	46.00	-19.62	AVG
11		4.7340	22.10	10.06	32.16	56.00	-23.84	QP
12		4.7340	16.18	10.06	26.24	46.00	-19.76	AVG



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5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limit (9 kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency	Class B (dBuV/m)(at 3m)			
(MHz)	Peak	Average		
Above 1000	74	54		

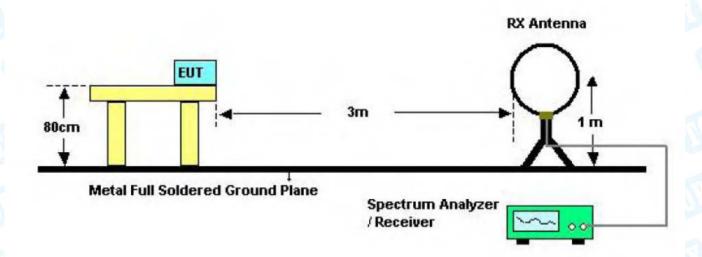
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

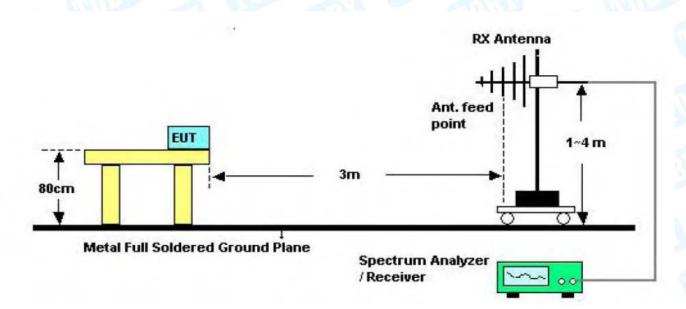


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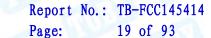
5.2 Test Setup



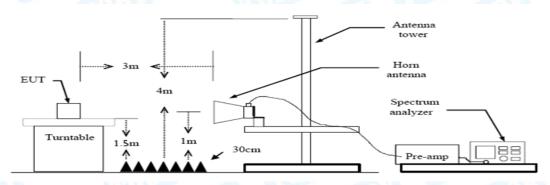
Bellow 30MHz Test Setup



Bellow 1000MHz Test Setup







Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power in TX mode.

5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=1 Kz with Peak Detector for Average Values.

Test data please refer the following pages.



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EUT:	GabbaGoods Neck	GabbaGoods NeckBeats		ame :	GG-AE	RH2
	Bluetooth Stereo He	eadsets			00712	
Temperature:	25 ℃		Relative Humidity: 55%			
Test Voltage:	DC 5V			A HAT		
Ant. Pol.	Horizontal		COL.		THE STATE OF THE S	المعاليا
Test Mode:	TX GFSK Mode	2402MHz	17		10	
Remark:	Only worse case	is reported		MAN		
80.0 dBuV/m						
-20	0 60 70 80	3 X (MHz)	45 6 ×× × 300		3M Radiation Margin -6	dB
No. Mk.	Reading Freq. Level	Correct Factor	Measure- ment	Limit	Over	
	MHz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
	.2764 42.24	-20.70	21.54		-18.46	peak
2 84	.1098 49.01	-23.03	25.98		-14.02	peak
	7.8241 51.59	-21.04	30.55		-12.95	peak
	9.9874 51.60	-18.59	33.01		-12.99	peak
	2.0627 52.19	-18.07	34.12		-11.88	peak
	7.9904 52.15	-17.32	34.83		-11.17	peak
	x:Over limit !:over margin					



Page: 21 of 93

UT:	7 29 3 5	GabbaGoods NeckBeats Bluetooth Stereo Headsets		Model Nam	GG-ABH2		
emperature:	25 ℃		adocto	Relative Hu	ımidity:	55%	
est Voltage:	DC 5\		STILL:	123		0070	
nt. Pol.	Vertic	al	1111111			601	M. D.
est Mode:		SK Mode 2	2402MHz	- Olivina			
emark:	Only	worse case	is reported			a	
80.0 dBuV/m							
					(RF)FCC 15	5C 3M Radiation	n
						Margin -6	dB [
30		2 X	2		5	6	
, M. II. MAT A		AM.	×	4 X	×	×	
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Maryla a 1 Mylly	(Aprilla) Lander	MANANA MANANA		JAMAN JOHN		Hippory Mary Mary Conglisher	ACAMINA BARANA
Mountain a 1 MANN	raphallon tombapapa	Mary Variable		Lyprally Johnson		dispose of the sand when	Yorkilli a use
	raprolated constant when	Mary May Hall		Lyprally Johnson		Harris of Pharmacher	VIVARIA DESERVA
20 30.000 40 50		80	(MHz)	300	400 50		1000.00
20		The state of	(MHz)		MIN.		1000.00
20 30.000 40 50	0 60 70	80 Reading	Correct	Measure-	400 50	00 600 700	1000.00
30.000 40 50 No. Mk. F	o 60 70	Reading Level	Correct Factor	Measure- ment	400 50	00 600 700 Over	
30.000 40 50 No. Mk. F	70 60 70 Freq.	Reading Level	Correct Factor	Measure- ment dBuV/m	400 50 Limit dBuV/m	00 600 700 Over	Detecto
30.000 40 50 No. Mk. F	o 60 70	Reading Level	Correct Factor dB/m -20.33	Measure- ment	400 50	00 600 700 Over	
No. Mk. F	70 60 70 Freq.	Reading Level	Correct Factor	Measure- ment dBuV/m	400 50 Limit dBuV/m	00 600 700 Over	Detecto
No. Mk. F	Freq. MHz .4172	Reading Level dBuV 51.29	Correct Factor dB/m -20.33	Measure- ment dBuV/m 30.96	400 50 Limit dBuV/m 40.00	Over dB -9.04	Detector peak
No. Mk. F 1 40. 2 * 80. 3 167	Freq. MHz .4172	Reading Level dBuV 51.29 54.25	Correct Factor dB/m -20.33 -23.25	Measure- ment dBuV/m 30.96 31.00	400 50 Limit dBuV/m 40.00 40.00	Over dB -9.04 -9.00	Detecto peak
No. Mk. F 1 40. 2 * 80. 3 167 4 252	Freq. MHz 4172 6440 7.8241	Reading Level dBuV 51.29 54.25 47.75	Correct Factor dB/m -20.33 -23.25 -21.04	Measure- ment dBuV/m 30.96 31.00 26.71	400 50 Limit dBuV/m 40.00 40.00 43.50	Over dB -9.04 -9.00 -16.79	Detector peak peak peak
No. Mk. F 1 40. 2 * 80. 3 167 4 252 5 444	Freq. MHz .4172 .6440 7.8241	Reading Level dBuV 51.29 54.25 47.75 43.09	Correct Factor dB/m -20.33 -23.25 -21.04 -18.07	Measure- ment dBuV/m 30.96 31.00 26.71 25.02	400 50 Limit dBuV/m 40.00 40.00 43.50 46.00	Over dB -9.04 -9.00 -16.79 -20.98	Detector peak peak peak peak
No. Mk. F 1 40. 2 * 80. 3 167 4 252 5 444	Freq. MHz .4172 .6440 7.8241 2.0627	Reading Level dBuV 51.29 54.25 47.75 43.09 39.13	Correct Factor dB/m -20.33 -23.25 -21.04 -18.07 -12.55	Measure- ment dBuV/m 30.96 31.00 26.71 25.02 26.58	400 50 Limit dBuV/m 40.00 40.00 43.50 46.00 46.00	Over dB -9.04 -9.00 -16.79 -20.98 -19.42	Detector peak peak peak peak peak



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EUT:	GabbaGoods Bluetooth Ste				Model Name :		GG-ABH2	
Temperat	ure:	25 ℃	2	Mark The Park The Par	Relative H	lumidity:	55%	
est Volta	ige:	DC 5	V			1 8187		1
Ant. Pol.		Horiz	ontal		CITE S	- GV	Mile	
Test Mod	e :	TX G	FSK Mod	de 2441MHz	Miller			
Remark:		Only	worse ca	ase is reported	t	CALL		6
80.0 dBuV/	m							
						(RF)FCC 15	iC 3M Radiation	
							Margin -6	dB
					5 6			
30				3 X	x x			
	1 ×		, žu	X I	ti. Jahlahu	Lidada	. it had morphism	Whate
			fether to	December 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1.171.000.001.11.1		Mary Mary	
LAND AND PARKET	Λ		Part Manual		IM WILL AND A CHANGE	CIMINITAL MARCHET		
handly and the hand	The second	ent was	r, AMAMA	hangharadh la han dan	Traff Anthre attended	LIMINI MANAGEMENT		
hade of the ho	The same of the sa	Salar Market	r. Yalinyaya	harteterrenteller (f. Arter mater er bera	Inchill Walle add as Abstrated	urallift ichervan		
Lister of the Vol	The same of the sa	and the sales of	MANAMAN	h-44/4/2014	treff of the artist are a present	LTANINI MAGAETANO		
		Marin V	MANAGAMAA	handing and the same and be	red for the second of the seco	LradilifTi Workersan		
	40 50	60 70	80	(MHz)	300	400 50	0 600 700	1000.0
-20	Wight of \$7.1					400 50	0 600 700	1000.0
-20	40 50	60 70	Readir	ng Correct	Measure-	400 50	0 600 700 Over	1000.00
-20 30.000	40 50 lk. Fr			ng Correct I Factor				1000.00
-20 30.000	40 50 lk. Fr	60 70 eq.	Readir Level	ng Correct I Factor	Measure- ment	Limit	Over	
-20 30.000 No. M	40 50 lk. Fr	eq. Hz	Readir Level	ng Correct Factor dB/m 4 -20.70	Measure- ment	Limit dBuV/m	Over	Detecti
-20 30.000 No. M	40 50 lk. Fr M 41.2	eq. Hz 1764	Readir Level dBuV 42.24	Correct Factor dB/m -20.70 -23.25	Measure- ment dBuV/m 21.54	Limit dBuV/m 40.00	Over dB -18.46	Detector peal
No. M	40 50 lk. Fr M 41.2 80.6 143.8	eq. Hz 1764	Readir Level dBuV 42.24 48.16	Correct Factor dB/m -20.70 -23.25 -21.67	Measure- ment dBuV/m 21.54 24.91	Limit dBuV/m 40.00 40.00	Over dB -18.46 -15.09	Detector peal
No. M	40 50 lk. Fr M 41.2 80.6 143.8	eq. Hz 764 440 3291	Readir Level dBuV 42.24 48.16 48.46	Correct Factor dB/m 4 -20.70 6 -23.25 6 -21.67 9 -21.04	Measure- ment dBuV/m 21.54 24.91 26.79	Limit dBuV/m 40.00 40.00 43.50	Over dB -18.46 -15.09 -16.71	Detector peal peal peal
No. M	40 50 lk. Fr M 41.2 80.6 143.8 167.8	eq. Hz 764 440 3291 3240 0627	Readir Level dBuV 42.24 48.16 48.46 50.59	Correct Factor dB/m -20.70 -23.25 -21.67 -21.04 -18.07	Measure- ment dBuV/m 21.54 24.91 26.79 29.55	Limit dBuV/m 40.00 40.00 43.50 43.50	Over dB -18.46 -15.09 -16.71 -13.95	Detector peal peal peal



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:UT:	7 14 1 1	GabbaGoods NeckBeats Bluetooth Stereo Headsets			Model Name :		GG-ABH2	
emperature:	25 °C		ricauscis	Relative	Humidity:	55%	1	
Test Voltage:	DC 5		6111	Ttolauro		0070		
Ant. Pol.	Vertic		1 100		1	Cul	117	
Test Mode:			e 2441MHz					
Remark:	Only	worse cas	se is reported	1	(IIII)		a	
80.0 dBuV/m								
					(RF)FCC 15	5C 3M Radiatio Margin -E		
-20 30.000 40	50 60 70	3 M/VVV	4 X X MHz)	5 * * * 30	April 40"	00 600 700	1000.	
-20 30.000 40		Reading	(MHz)	30 Measure-	0 400 50			
-20 30.000 40	50 60 70 Freq. MHz	80	(MHz) g Correct Factor	30	0 400 50	00 600 700		
-20 30.000 40 No. Mk.	Freq.	Reading Level	(MHz)	Measure- ment	0 400 50	00 600 700 Over	1000.6	
-20 30.000 40 No. Mk.	Freq. MHz 5.6240	Reading Level dBuV 47.19	(MHz) g Correct Factor dB/m -17.45	Measure- ment dBuV/m 29.74	0 400 50 Limit dBuV/m 40.00	Over dB -10.26	1000.6	
No. Mk. 1 35 2 39	Freq. MHz 5.6240 9.7146	Reading Level dBuV 47.19 50.01	(MHz) G Correct Factor dB/m -17.45 -19.98	Measure- ment dBuV/m 29.74 30.03	Limit dBuV/m 40.00 40.00	Over dB -10.26 -9.97	Detector peak	
No. Mk. 1 35 2 39 3 * 80	Freq. MHz 5.6240 9.7146 0.6440	Reading Level dBuV 47.19 50.01 54.25	(MHz) G Correct Factor dB/m -17.45 -19.98 -23.25	Measure- ment dBuV/m 29.74 30.03 31.00	Limit dBuV/m 40.00 40.00 40.00	Over dB -10.26 -9.97 -9.00	Detector peak peak peak	
No. Mk. 1 35 2 39 3 * 80 4 16	Freq. MHz 5.6240 9.7146 0.6440 7.8240	Reading Level dBuV 47.19 50.01 54.25 48.75	(MHz) G Correct Factor dB/m -17.45 -19.98 -23.25 -21.04	Measure- ment dBuV/m 29.74 30.03 31.00 27.71	Limit dBuV/m 40.00 40.00 40.00 43.50	Over dB -10.26 -9.97 -9.00 -15.79	Detector peak peak peak	
No. Mk. 1 35 2 39 3 * 80 4 16 5 28	Freq. MHz 5.6240 9.7146 0.6440	Reading Level dBuV 47.19 50.01 54.25	(MHz) G Correct Factor dB/m -17.45 -19.98 -23.25 -21.04 -17.32	Measure- ment dBuV/m 29.74 30.03 31.00	Limit dBuV/m 40.00 40.00 40.00	Over dB -10.26 -9.97 -9.00	Detector peak peak peak	



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EUT:	1411	GabbaGoods NeckBeats Bluetooth Stereo Headsets			GG-AE	3H2
Temperature:	25 ℃		Relative	Humidity:	55%	-
Test Voltage:	DC 5V	THE STATE OF		1 GHA		1
Ant. Pol.	Horizontal	1	ATT I	3		1177
Test Mode:	TX GFSK Mode	2480MHz	M. Comment	The same of the		
Remark:	Only worse case	is reported		GARA		a "
80.0 dBuV/m						
-20 30.000 40	50 60 70 80	3 4 * * */*//////////////////////////////	5 6 X X		C 3M Radiation Margin 6	dB
	Reading	Correct	Measure-	1 : :4	0	
No. Mk.	Freq. Level	Factor	ment	Limit	Over	
	MHz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
	1.2764 43.24	-20.70	22.54	40.00	-17.46	peak
2 8	4.1098 50.01	-23.03	26.98	40.00	-13.02	peak
3 16	37.8240 51.09	-21.04	30.05	43.50	-13.45	peak
4 19	1.7450 49.65	-20.81	28.84	43.50	-14.66	peak
5 25	52.0627 54.69	-18.07	36.62	46.00	-9.38	peak
6 * 28	37.9904 54.65	-17.32	37.33	46.00	-8.67	peak
*:Maximum data	x:Over limit !:over margin					



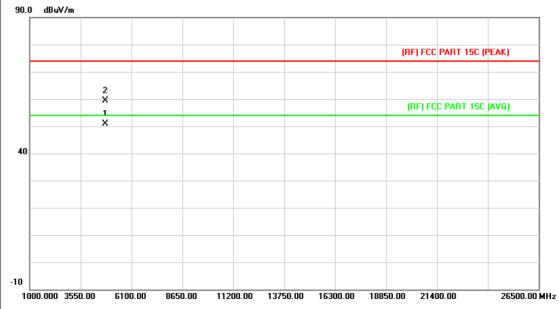
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UT:	7 79 71 7	Goods NeckE oth Stereo He		Model Name :		GG-AE	BH2
emperature:	25 °C			Relative	Humidity:	55%	
est Voltage:	DC 5	V	MILITA		I BAN		
nt. Pol.	Vertic	al	6	ATT A	9		11/1/20
est Mode:	TX G	FSK Mode 2	2480MHz		10		
emark:	Only	worse case	is reported		MAIN		a
30.0 dBuV/m							
		2	2		(RF)FCC 15C	3M Radiation Margin -6	
30	winsy high part of the	Al Than I When the work	h _{app} halphalphalph	ndly de de la companya		to different by	
30.000 40	50 60 70	Million All Millio	(MHz)	300	400 500	600 700	1000.00
30.000 40		80 Reading	(MHz)	Measure-		600 700 Over	1000.00
	Freq.	Reading Level	(MHz) Correct Factor	Measure- ment	Limit	Over	
0 30.000 40 No. Mk.	Freq.	Reading Level	(MHz) Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detecto
No. Mk.	Freq. MHz	Reading Level dBuV 51.29	(MHz) Correct Factor dB/m -20.33	Measure- ment dBuV/m 30.96	Limit dBuV/m 40.00	Over dB -9.04	Detecto peak
No. Mk. 1 * 4 2 8	Freq. MHz -0.4172 -0.6440	Reading Level dBuV 51.29 53.25	(MHz) Correct Factor dB/m -20.33 -23.25	Measure- ment dBuV/m 30.96 30.00	Limit dBuV/m 40.00 40.00	Over dB -9.04 -10.00	Detector peak
No. Mk. 1 * 4 2 8 3 16	Freq. MHz -0.4172 -0.6440 -67.8240	Reading Level dBuV 51.29 53.25 47.75	(MHz) Correct Factor dB/m -20.33 -23.25 -21.04	Measure- ment dBuV/m 30.96 30.00 26.71	Limit dBuV/m 40.00 40.00 43.50	Over dB -9.04 -10.00 -16.79	Detector peak peak peak
No. Mk. 1 * 4 2 8 3 16 4 27	Freq. MHz -0.4172 -0.6440 -67.8240 -76.1235	Reading Level dBuV 51.29 53.25 47.75 43.76	(MHz) Correct Factor dB/m -20.33 -23.25 -21.04 -17.55	Measure- ment dBuV/m 30.96 30.00 26.71 26.21	Limit dBuV/m 40.00 40.00 43.50 46.00	Over dB -9.04 -10.00 -16.79 -19.79	Detector peak peak peak peak
No. Mk. 1 * 4 2 8 3 16 4 27	Freq. MHz -0.4172 -0.6440 -67.8240	Reading Level dBuV 51.29 53.25 47.75	(MHz) Correct Factor dB/m -20.33 -23.25 -21.04	Measure- ment dBuV/m 30.96 30.00 26.71	Limit dBuV/m 40.00 40.00 43.50 46.00	Over dB -9.04 -10.00 -16.79	Detector peak peak peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V						
Ant. Pol.	Horizontal						
Test Mode:	TX GFSK Mode 2402MHz	N. S.	1				
Remark:	No report for the emission was prescribed limit.	No report for the emission which more than 10 dB below the					

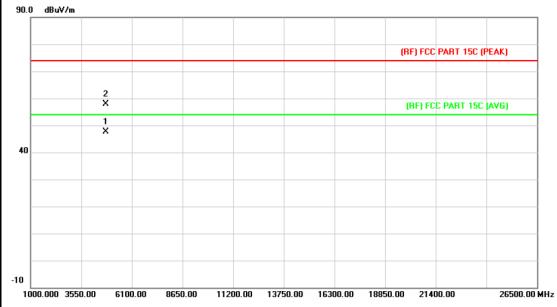


No	. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.411	37.45	13.44	50.89	74.00	-23.11	peak
2	*	4803.441	45.94	13.44	59.38	74.00	-14.62	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX GFSK Mode 2402MHz		
Remark:	No report for the emission which prescribed limit.	h more than 10 dB belo	w the

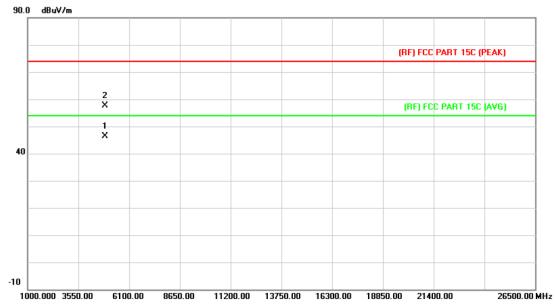


No	o. M	k. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4803.351	34.07	13.44	47.51	54.00	-6.49	AVG
2		4803.581	44.51	13.44	57.95	74.00	-16.05	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX GFSK Mode 2441MHz	100	
Remark:	No report for the emission wh prescribed limit.	ich more than 10 dB b	elow the

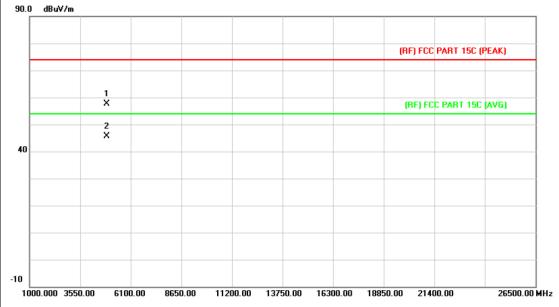


No	. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.654	32.53	13.90	46.43	74.00	-27.57	peak
2	*	4881.844	43.69	13.90	57.59	74.00	-16.41	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V						
Ant. Pol.	Vertical						
Test Mode:	TX GFSK Mode 2441MHz	VIII TO					
Remark:	No report for the emission w prescribed limit.	No report for the emission which more than 10 dB below the					

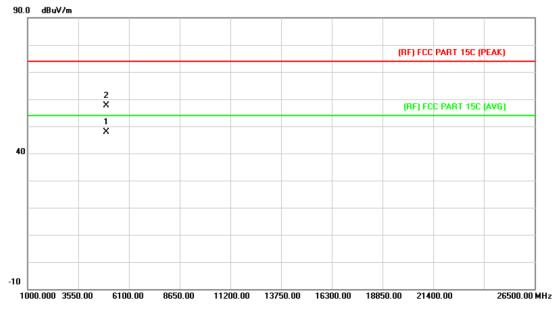


No	. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.764	43.71	13.90	57.61	74.00	-16.39	peak
2	*	4881.847	31.85	13.90	45.75	54.00	-8.25	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets Model Name:		GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V						
Ant. Pol.	Horizontal						
Test Mode:	TX GFSK Mode 2480MHz	A COL	1				
Remark:	No report for the emission wh prescribed limit.	ich more than 10 dB be	low the				

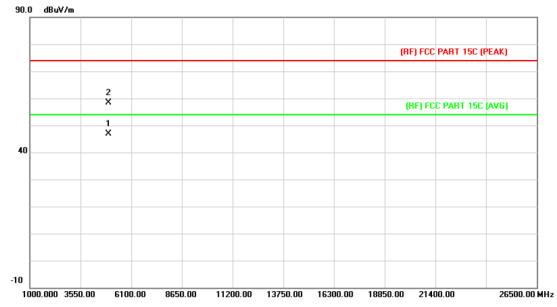


No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4960.324	33.43	14.36	47.79	54.00	-6.21	AVG
2		4960.547	43.28	14.36	57.64	74.00	-16.36	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage: DC 5V					
Ant. Pol.	Vertical				
Test Mode:	TX GFSK Mode 2480MHz	The same	1		
Remark: No report for the emission which more than 10 dB below the prescribed limit.					

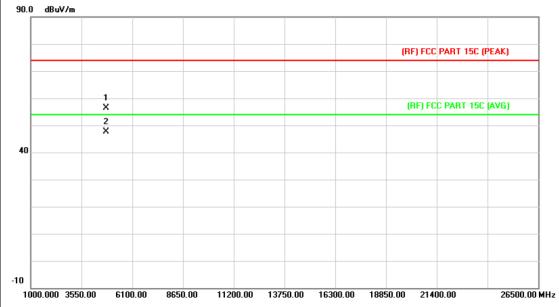


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.624	32.46	14.36	46.82	54.00	-7.18	AVG
2		4959.657	43.95	14.36	58.31	74.00	-15.69	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V						
Ant. Pol.	Horizontal		CHITTE STATE				
Test Mode:	TX 8-DPSK Mode 2402MHz	The same					
Remark: No report for the emission which more than 10 dB below prescribed limit.							

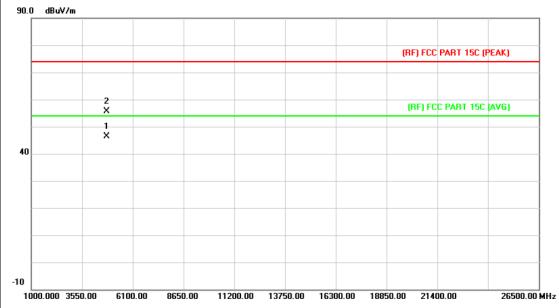


No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.565	42.97	13.44	56.41	74.00	-17.59	peak
2	*	4804.624	34.14	13.44	47.58	54.00	-6.42	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V						
Ant. Pol.	Vertical						
Test Mode:	TX 8-DPSK Mode 2402MHz	The same of the sa					
Remark:	No report for the emission which prescribed limit.	ch more than 10 dB bel	ow the				

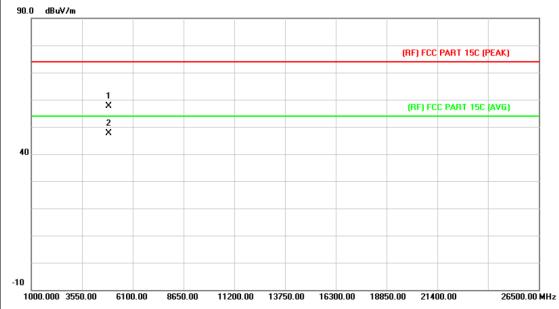


No	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4803.364	32.98	13.44	46.42	54.00	-7.58	AVG
2		4804.514	42.20	13.44	55.64	74.00	-18.36	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets Model Name:		GG-ABH2			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX 8-DPSK Mode 2441MHz		1			
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

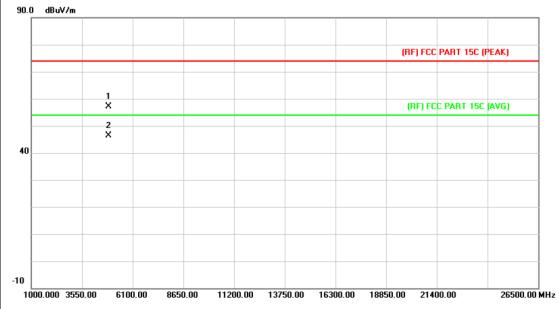


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.654	43.63	13.90	57.53	74.00	-16.47	peak
2	*	4882.367	33.74	13.90	47.64	54.00	-6.36	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets Model Name:		GG-ABH2			
Temperature:	re: 25 °C Relative Humidity:		55%			
Test Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX 8-DPSK Mode 2441MHz	The same				
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

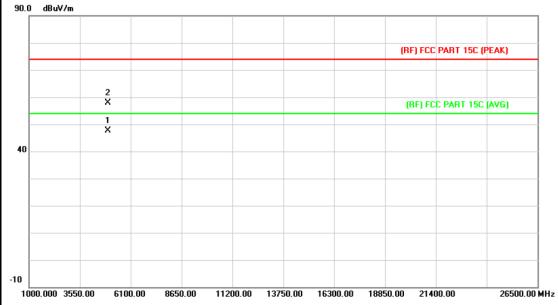


No.	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.634	43.22	13.90	57.12	74.00	-16.88	peak
2	*	4882.578	32.41	13.90	46.31	54.00	-7.69	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets Model Name:		GG-ABH2			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX 8-DPSK Mode 2480MHz					
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					

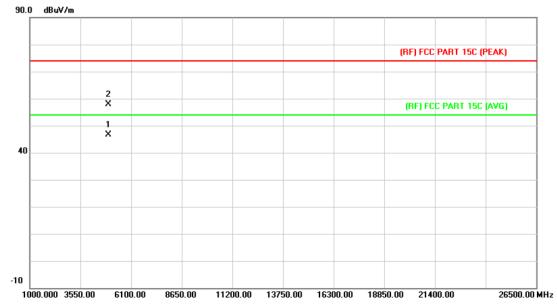


No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.514	33.37	14.36	47.73	54.00	-6.27	AVG
2		4960.847	43.48	14.36	57.84	74.00	-16.16	peak



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2			
Temperature:	25 ℃	Relative Humidity: 55%				
Test Voltage:	DC 5V					
Ant. Pol.	Vertical		CHILL STORY			
Test Mode:	TX 8-DPSK Mode 2480MHz					
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					



No.	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.547	32.37	14.36	46.73	54.00	-7.27	AVG
2		4959.624	43.45	14.36	57.81	74.00	-16.19	peak



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6. Restricted Bands Requirement

6.1 Test Standard and Limit

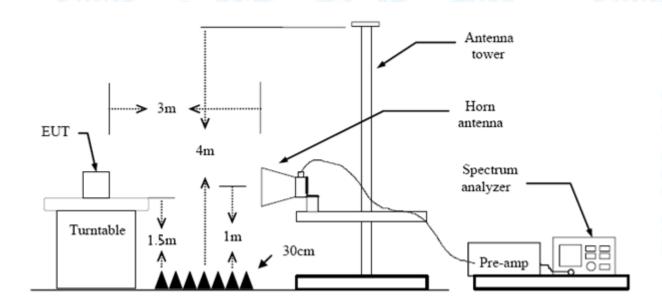
6.1.1 Test Standard FCC Part 15.209 FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Class B (dE	BuV/m)(at 3m)
Band (MHz)	Peak	Average
310 ~2390	74	54
2483.5 ~2500	74	54

Note: All restriction bands have been tested, only the worst case is reported.

6.2 Test Setup



6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.



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(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.4 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=1 KHz with Peak Detector for Average Values.

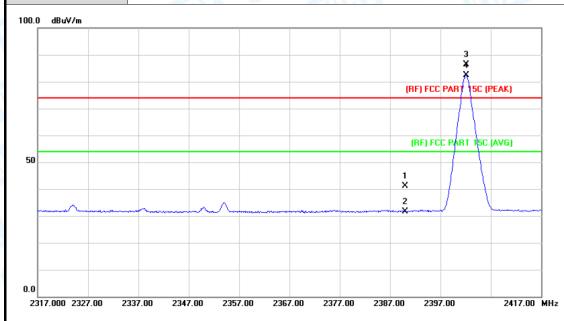
All restriction bands have been tested, only the worst case is reported.



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(1) Radiation Test

EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2					
Temperature:	25 ℃	25 ℃ Relative Humidity: 55						
Test Voltage:	DC 5V							
Ant. Pol.	Horizontal	W.						
Test Mode:	TX GFSK Mode 2402MHz	TX GFSK Mode 2402MHz						
Remark:	N/A	N/A						

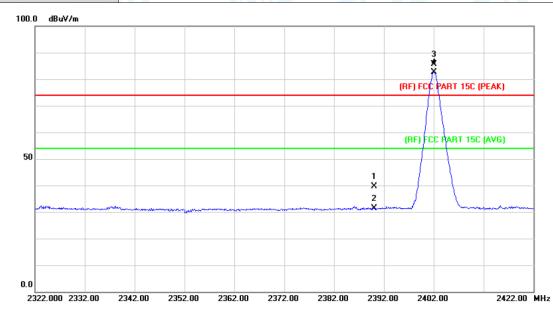


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	40.44	0.77	41.21	74.00	-32.79	peak
2		2390.000	30.93	0.77	31.70	54.00	-22.30	AVG
3	Χ	2402.100	85.62	0.82	86.44	Fundamental Frequency		peak
4	*	2402.100	81.50	0.82	82.32	Fundamental	Frequency	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V	DC 5V					
Ant. Pol.	Vertical						
Test Mode:	TX GFSK Mode 2402MHz	TX GFSK Mode 2402MHz					
Remark:	N/A						

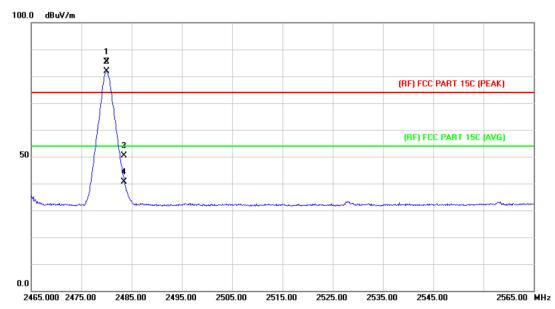


No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	38.91	0.77	39.68	74.00	-34.32	peak
2		2390.000	30.49	0.77	31.26	54.00	-22.74	AVG
3	Χ	2402.000	84.87	0.82	85.69	Fundamental Frequency		peak
4	*	2402.000	81.85	0.82	82.67	Fundamental l	Frequency	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX GFSK Mode 2480 MHz					
Remark:	N/A	THU B	1			

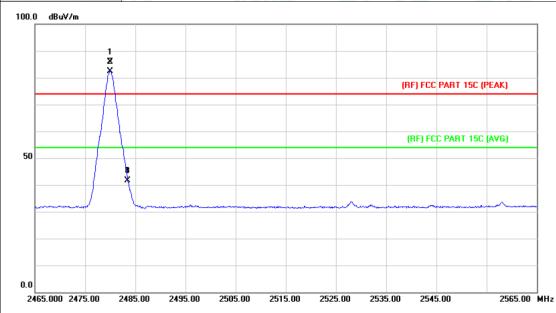


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2480.000	84.16	1.15	85.31	Fundamental Frequency		peak
2	*	2480.000	80.61	1.15	81.76	Fundamental Frequency		AVG
3		2483.500	49.17	1.17	50.34	74.00	-23.66	peak
4		2483.500	39.56	1.17	40.73	54.00	-13.27	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2			
Temperature:	25 ℃ Relative Humidity: 55%					
Test Voltage:	DC 5V					
Ant. Pol.	Vertical		CILL DE			
Test Mode:	TX GFSK Mode 2480 MHz					
Remark:	N/A					

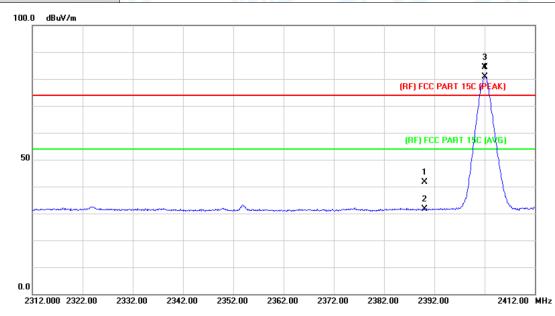


No.	. Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2480.000	84.63	1.15	85.78	Fundamental	Frequency	peak
2	*	2480.000	81.19	1.15	82.34	Fundamental	Frequency	AVG
3		2483.500	40.44	1.17	41.61	74.00	-32.39	peak
4		2483.500	40.44	1.17	41.61	54.00	-12.39	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX 8-DPSK Mode 2402MHz					
Remark:	N/A	The same				

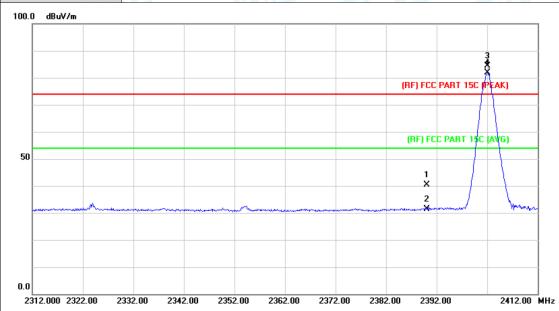


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	40.77	0.77	41.54	74.00	-32.46	peak
2		2390.000	30.78	0.77	31.55	54.00	-22.45	AVG
3	Χ	2402.000	83.51	0.82	84.33	Fundamental	Frequency	peak
4	*	2402.000	79.97	0.82	80.79	Fundamental	Frequency	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V	DC 5V					
Ant. Pol.	Vertical						
Test Mode:	TX 8-DPSK Mode 2402MF	TX 8-DPSK Mode 2402MHz					
Remark:	N/A						
100.0 dBuV/m							

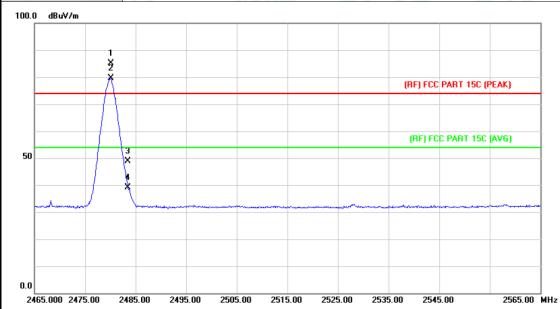


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	39.54	0.77	40.31	74.00	-33.69	peak
2		2390.000	30.53	0.77	31.30	54.00	-22.70	AVG
3	Χ	2402.100	83.47	0.82	84.29	Fundamental	Frequency	peak
4	*	2402.100	81.07	0.82	81.89	Fundamental	Frequency	AVG



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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal		WILL TO SERVICE			
Test Mode:	TX 8-DPSK Mode 2480MHz					
Remark:	N/A					

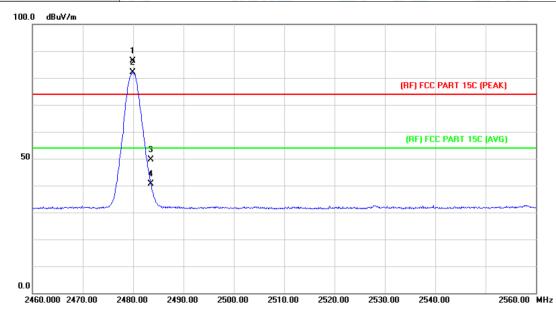


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2480.100	83.99	1.15	85.14	Fundamental	Frequency	peak
2	*	2480.100	78.38	1.15	79.53	Fundamental	Frequency	AVG
3		2483.500	47.78	1.17	48.95	74.00	-25.05	peak
4		2483.500	37.90	1.17	39.07	54.00	-14.93	AVG

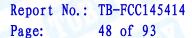


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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	DC 5V	DC 5V					
Ant. Pol.	Vertical						
Test Mode:	TX 8-DPSK Mode 2480MHz						
Remark:	N/A						

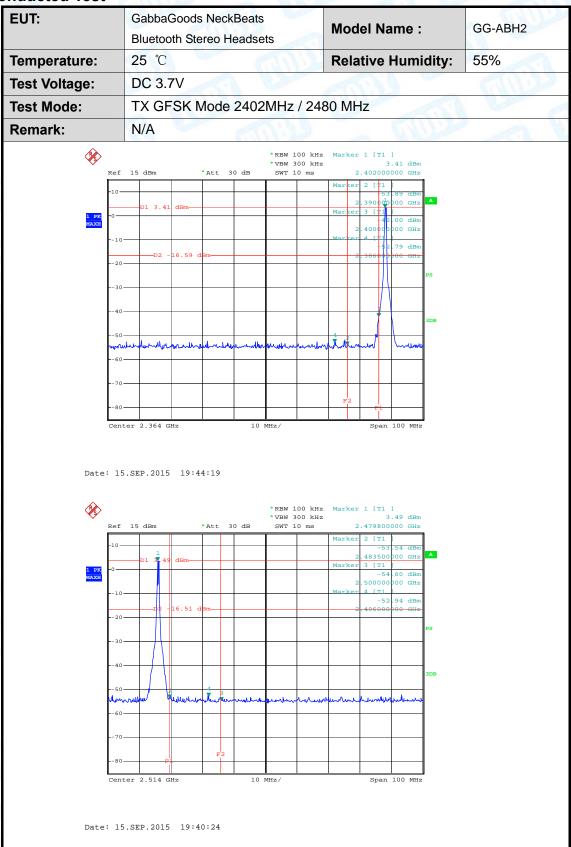


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2479.900	85.17	1.15	86.32	Fundamental	Frequency	peak
2	*	2479.900	81.05	1.15	82.20	Fundamental	Frequency	AVG
3		2483.500	48.45	1.17	49.62	74.00	-24.38	peak
4		2483.500	39.44	1.17	40.61	54.00	-13.39	AVG





(2) Conducted Test





EUT: GabbaGoods NeckBeats **Model Name:** GG-ABH2 Bluetooth Stereo Headsets 25 ℃ Temperature: **Relative Humidity:** 55% DC 3.7V Test Voltage: **Test Mode: GFSK Hopping Mode** Remark: N/A *RBW 100 kHz Marker 1 [T1] *VBW 300 kHz 3.3 SWT 10 ms 2.41291300 **%** 2.412913000 GHz Ref 15 dBm *Att 30 dB Center 2.373 GHz Date: 15.SEP.2015 19:53:23 *RBW 100 kHz Marker 1 [T1]

*VBW 300 kHz 3.10 dBm
SWT 10 ms 2.477763000 GHz

Date: 15.SEP.2015 19:52:02



EUT: GabbaGoods NeckBeats GG-ABH2 **Model Name:** Bluetooth Stereo Headsets 25 ℃ Temperature: **Relative Humidity:** 55% DC 3.7V **Test Voltage: Test Mode:** TX 8-DPSK Mode 2402MHz / 2480 MHz Remark: N/A *RBW 100 kHz Marker 1 [T1] *VBW 300 kHz 1.9 SWT 10 ms 2.40240000 **%** 2.402400000 GHz Ref 15 dBm *Att 30 dB Center 2.364 GHz Span 100 MHz Date: 15.SEP.2015 20:12:52 *RBW 100 kHz Marker 1 [T1]

*VBW 300 kHz 2.04 dBm
SWT 10 ms 2.480200000 GHz *Att 30 dB 483500000 GHz 3 [T1] -55.27 dBm 500000000 GHz 490400000 GHz Date: 15.SEP.2015 20:08:19



EUT: GabbaGoods NeckBeats **Model Name:** GG-ABH2 Bluetooth Stereo Headsets 25 ℃ Temperature: **Relative Humidity:** 55% DC 3.7V Test Voltage: **Test Mode:** 8-DPSK Hopping Mode Remark: N/A *RBW 100 kHz Marker 1 [T1] *VBW 300 kHz 1.7 SWT 10 ms 2.41208000 **%** 2.412080000 GHz Ref 15 dBm *Att 30 dB Center 2.372 GHz Date: 15.SEP.2015 19:57:07 *RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz 1.5
SWT 10 ms 2.47108506 *Att 30 dB Date: 15.SEP.2015 19:58:37



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7. Number of Hopping Channel

7.1 Test Standard and Limit

6.1.1 Test Standard FCC Part 15.247 (a)(1)

6.1.2 Test Limit

Section	Test Item	Limit
15.247	Number of Hopping Channel	>15

7.2 Test Setup



7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting: RBW=100 KHz, VBW=100 KHz, Sweep time= Auto.

7.4 EUT Operating Condition

The EUT was set to the Hopping Mode by the Customer.

7.5 Test Data



Test Voltage:

Report No.: TB-FCC145414 Page: 53 of 93

55%

EUT:

GabbaGoods NeckBeats
Bluetooth Stereo Headsets

Model Name:
GG-ABH2

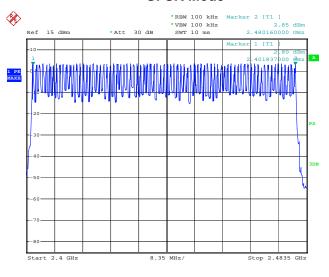
Temperature: 25 ℃ Relative Humidity:

Test Mode: Hopping Mode (GFSK/ 8-DPSK)

DC 3.7V

Frequency Range	Quantity of Hopping Channel	Limit	
2402MHz~2480MHz	79	\1 E	
2402111112~24601111112	79	>15	

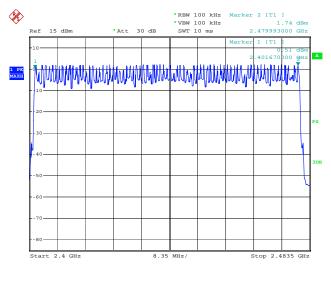
GFSK Mode



Date: 15.SEP.2015 19:47:23

Date: 15.SEP.2015 20:00:48

8-DPSK Mode





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8. Average Time of Occupancy

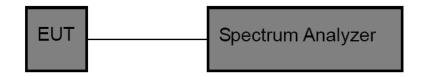
8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (a)(1)

8.1.2 Test Limit

Section	Test Item	Limit
15.247(a)(1)/ RSS-210	Average Time of	0.4.000
Annex 8(A8.1d)	Occupancy	0.4 sec

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting: RBW=1MHz, VBW=1MHz.
- (3) Use video trigger with the trigger level set to enable triggering only on full pulses.
- (4) Sweep Time is more than once pulse time.
- (5) Set the center frequency on any frequency would be measure and set the frequency span to zero.
- (6) Measure the maximum time duration of one single pulse.
- (7) Set the EUT for packet transmitting.
- (8) Measure the maximum time duration of one single pulse.

8.4 EUT Operating Condition

The EUT was set to the Hopping Mode by the Customer.



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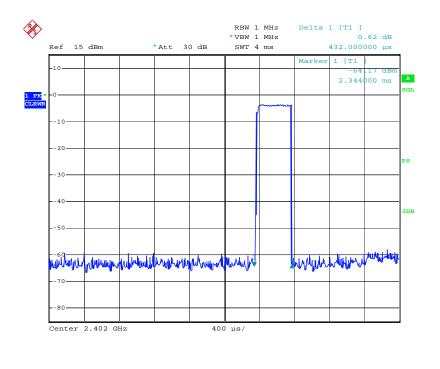
8.5 Test Data

(MHz)	(ms)	(ms)	(s)	(ms)	iveani	
Channel	Pulse Time	Total of Dwell	Period Time	Limit	Result	
Test Mode:	Hopping	Mode (GFSK DH1)				
Test Voltage:	DC 3.7V	DC 3.7V				
Temperature:	25 ℃	Relative Humidity:		55%		
EUT:	0.000.000	ds NeckBeats Stereo Headsets	Model Name	:	GG-ABH2	

Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
((1110)	(1110)	(0)	(
2402	0.432	138.24			
2441	0.432	138.24	31.60	400	PASS
2480	0.424	135.68			

GFSK Hopping Mode DH1

2402 MHz



Date: 16.SEP.2015 09:06:21



GFSK Hopping Mode DH1 2441 MHz RBW 1 MHz 2.10 dB 432.000000 µs *VBW 1 MHz *Att 30 dB SWT 4 ms Marker 1 [T1 " while you will be the work of the rest has you will have only to by the sell mark Center 2.441 GHz 400 μs/ Date: 16.SEP.2015 09:08:28 **GFSK Hopping Mode DH1** 2480 MHz Delta 1 [T1] 0.52 dB RBW 1 MHz *VBW 1 MHz 424.000000 μs Ref 15 dBm *Att 30 dB SWT 4 ms Marker 1 [T1 312.000000 µs infotor war for all war while have the following the forest own for above. Date: 16.SEP.2015 10:50:41



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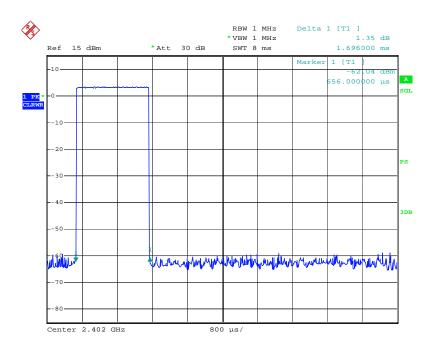
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (GFSK DH3)

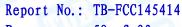
Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	1.696	271.36			
2441	1.696	271.36	31.60	400	PASS
2480	1.696	271.36			

GFSK Hopping Mode DH3

2402 MHz

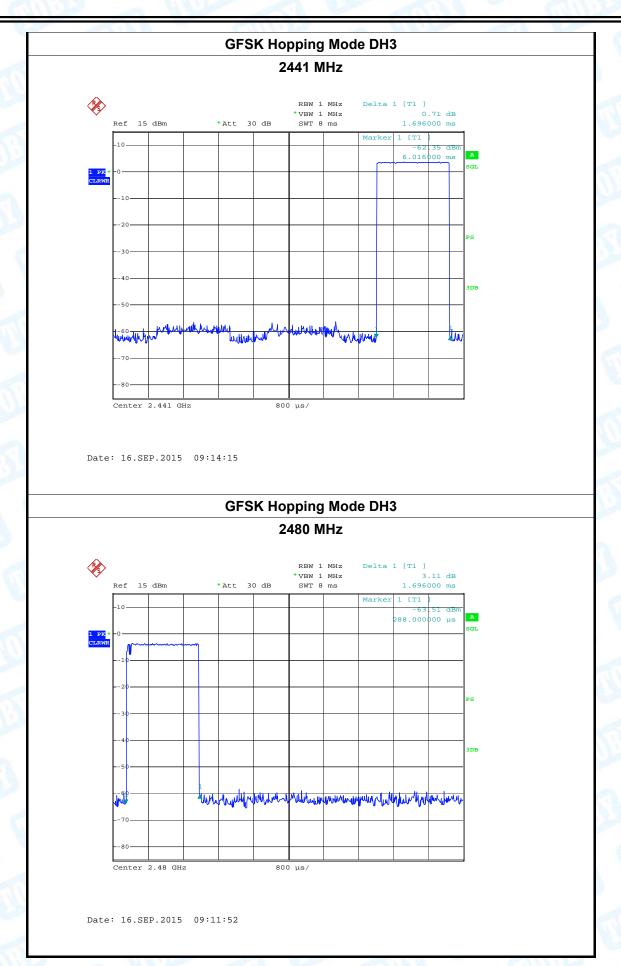


Date: 16.SEP.2015 09:19:13





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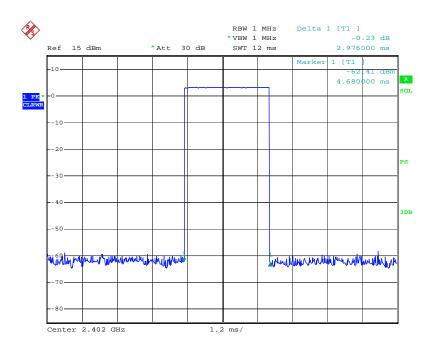
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (GFSK DH5)

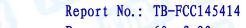
Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	2.976	317.44			
2441	2.976	317.44	31.60	400	PASS
2480	2.976	317.44			

GFSK Hopping Mode DH5

2402 MHz

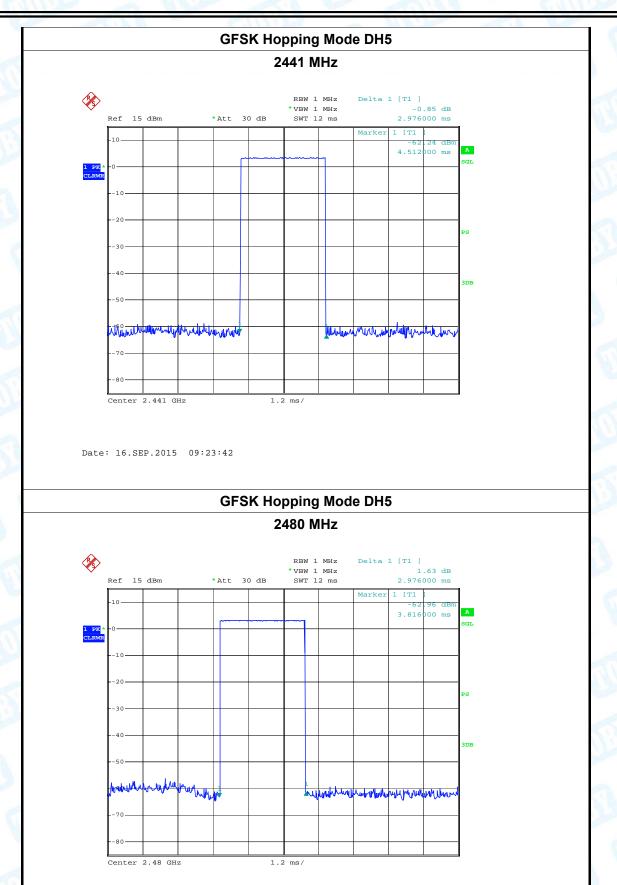


Date: 16.SEP.2015 09:21:37





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Date: 16.SEP.2015 09:25:23



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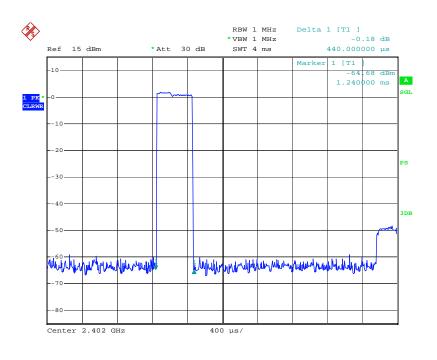
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (π /4-DQPSK DH1)

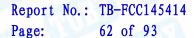
Channel	Pulse Time	Total of Dwell	Period Time	Limit	Pocult
(MHz)	(ms)	(ms)	(s)	(ms)	Result
2402	0.440	140.80			
2441	0.432	138.24	31.60	400	PASS
2480	0.448	143.36			

π /4-DQPSK Hopping Mode DH1

2402 MHz



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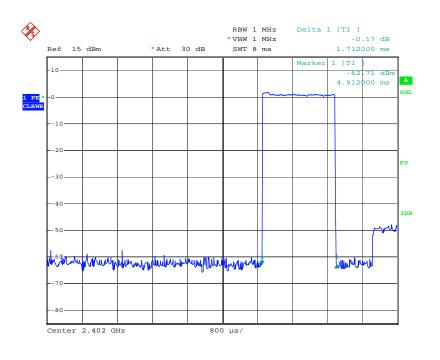
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (π /4-DQPSK DH3)

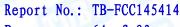
Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	1.712	273.92			
2441	1.712	273.92	31.60	400	PASS
2480	1.712	273.92			

π /4-DQPSK Hopping Mode DH3

2402 MHz

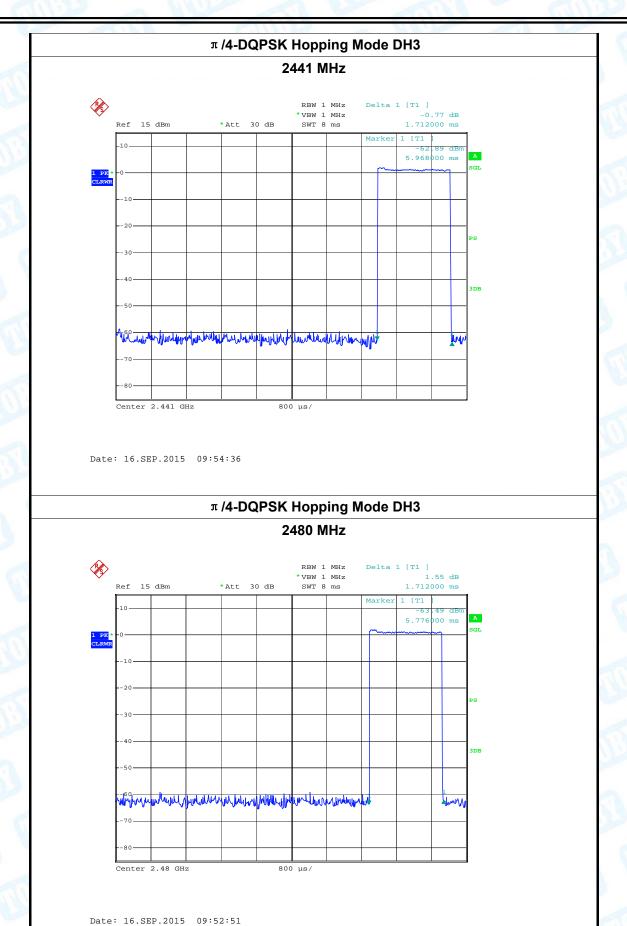


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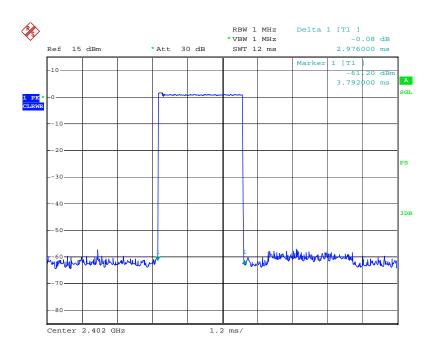
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (π /4-DQPSK DH5)

Channel	Pulse Time	Total of Dwell	Period Time	Limit	Result
(MHz)	(ms)	(ms)	(s)	(ms)	Result
2402	2.976	317.44			
2441	2.976	317.44	31.60	400	PASS
2480	2.976	317.44			

π /4-DQPSK Hopping Mode DH5

2402 MHz

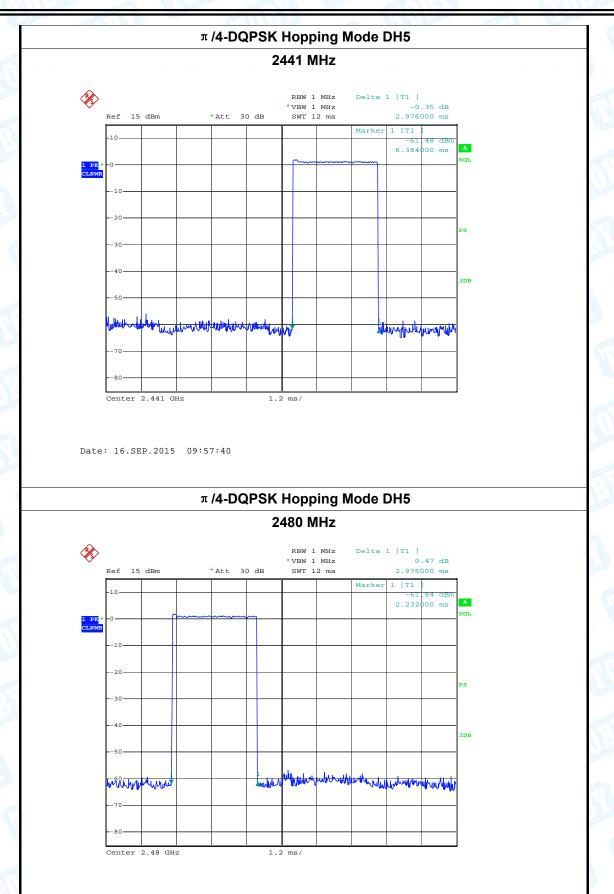


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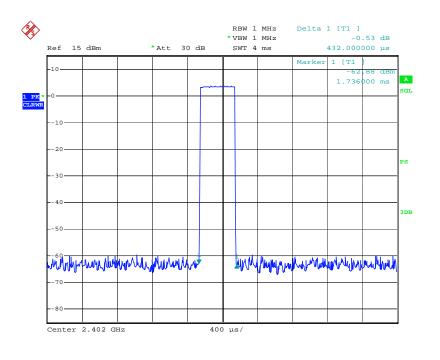
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	THE PERSON NAMED IN	
	11 1 14 1 (0 DD01(D114)		

Test Mode: Hopping Mode (8-DPSK DH1)

Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	0.432	138.24			
2441	0.424	135.68	31.60	400	PASS
2480	0.432	138.24			

8-DPSK Hopping Mode DH1

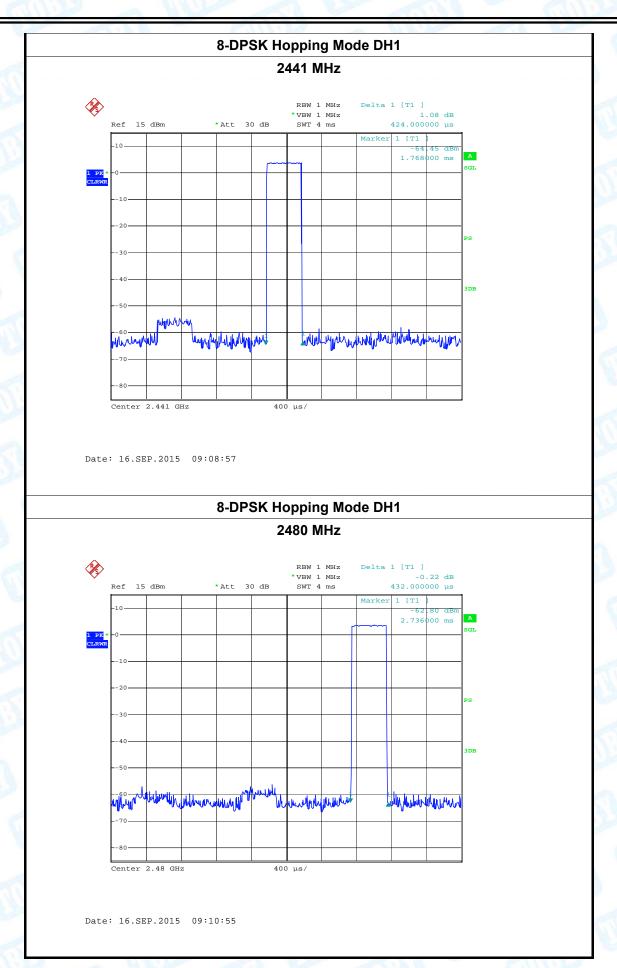
2402 MHz



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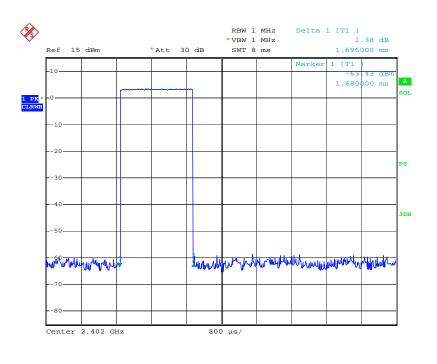
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (8-DPSK DH3)

Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	1.696	271.36			
2441	1.696	271.36	31.60	400	PASS
2480	1.696	271.36			

8-DPSK Hopping Mode DH3

2402 MHz



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8-DPSK Hopping Mode DH3 2441 MHz RBW 1 MHz -1.42 dB 1.696000 ms *VBW 1 MHz SWT 8 ms Ref 15 dBm *Att 30 dB Marker 1 [T1 millementerm murtifly July My War March Million Mill Center 2.441 GHz 800 µs/ Date: 16.SEP.2015 09:15:29 8-DPSK Hopping Mode DH3 2480 MHz Delta 1 [T1] -0.60 dB 1.696000 ms RBW 1 MHz *VBW 1 MHz Ref 15 dBm *Att 30 dB SWT 8 ms Marker 1 [T1 2.512000 ms July July July Land Company Co Date: 16.SEP.2015 09:12:43



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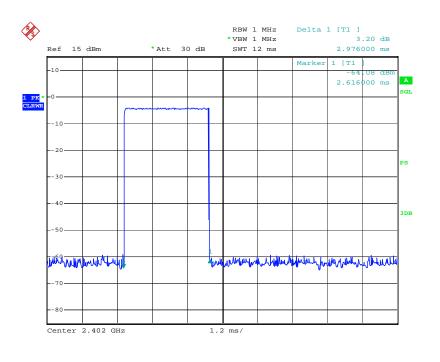
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	The same	

Test Mode: Hopping Mode (8-DPSK DH5)

Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	2.976	317.44			
2441	2.976	317.44	31.60	400	PASS
2480	3.000	320.00			

8-DPSK Hopping Mode DH5

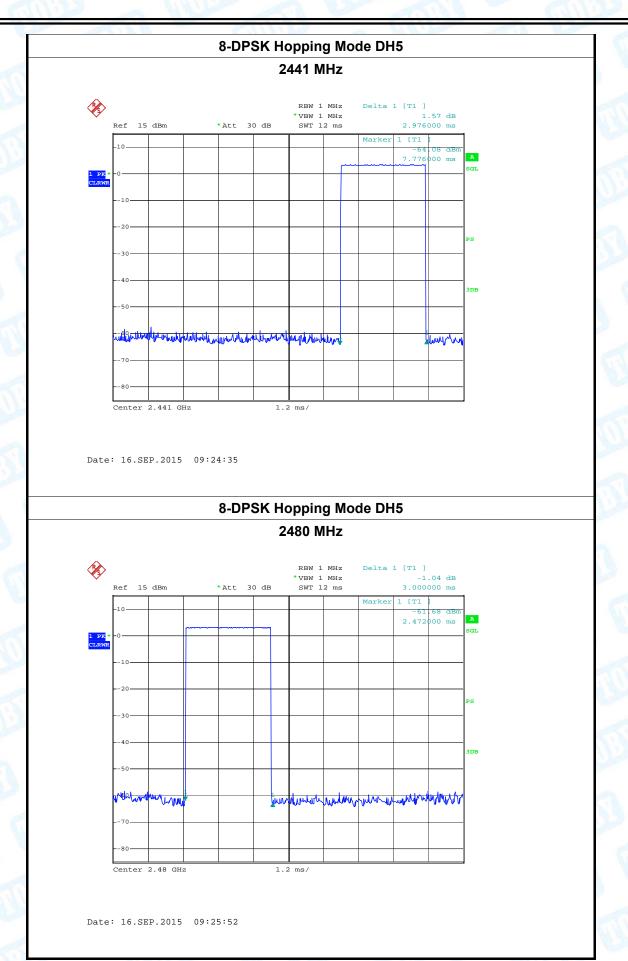
2402 MHz



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9. Channel Separation and Bandwidth Test

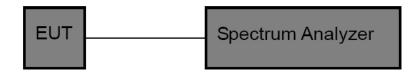
9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Bandwidth	<=1 MHz (20dB bandwidth)	2400~2483.5
Channel Separation	>25KHz or >two-thirds of the 20 dB bandwidth Which is greater	2400~2483.5

9.2 Test Setup



9.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Channel Separation: RBW=30 kHz, VBW=100 kHz.

Bandwidth: RBW=30 kHz, VBW=100 kHz.

- (3) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
 - (4) Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:30 kHz, and Video Bandwidth:100 kHz. Sweep Time set auto.

9.4 EUT Operating Condition

The EUT was set to the Hopping Mode for Channel Separation Test and continuously transmitting for the Bandwidth Test.



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9.5 Test Data

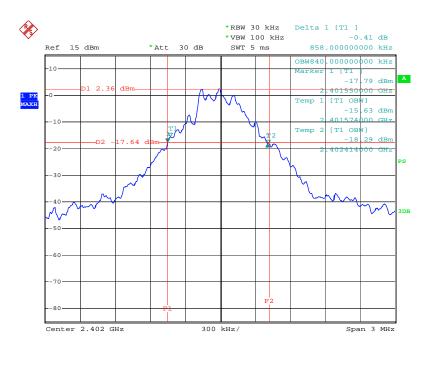
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Tost Modo:	TY Mode (GESK)		

Test Mode: TX Mode (GFSK)

Channel frequency (MHz)	99% OBW (kHz)	20dB Bandwidth (kHz)	20dB Bandwidth *2/3 (kHz)
2402	840.0000	858.000	
2441	840.0000	912.000	
2480	840.0000	912.000	

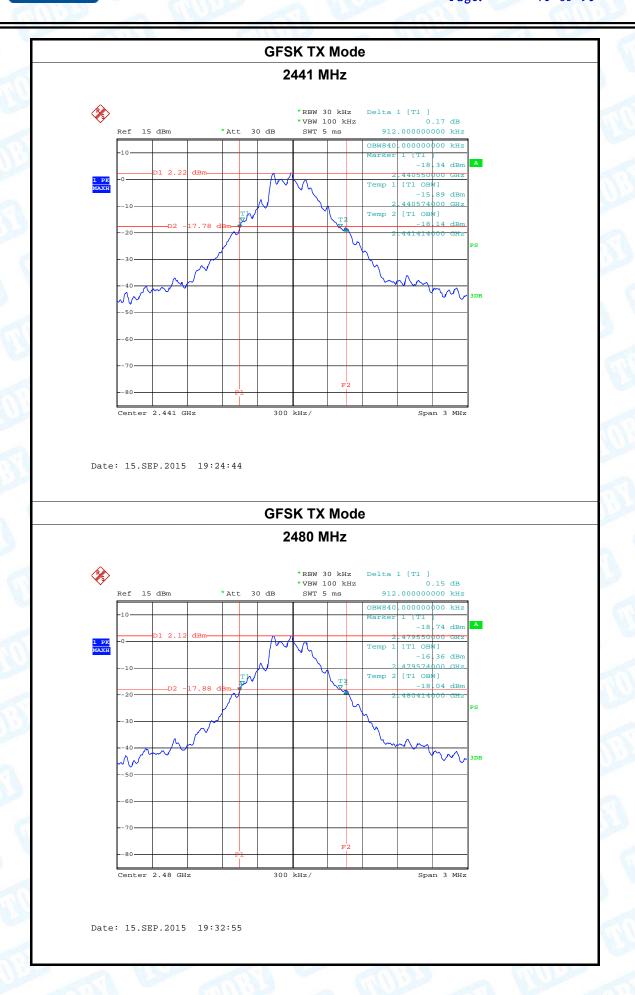
GFSK TX Mode

2402 MHz



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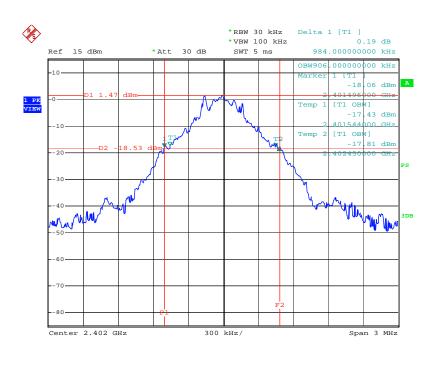
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: ΤΧ Mode (π /4-DQPSK)

Channel frequency (MHz)	99% OBW (kHz)	20dB Bandwidth (kHz)	20dB Bandwidth *2/3 (kHz)
2402	906.00	984.00	
2441	894.00	960.00	
2480	894.00	984.00	

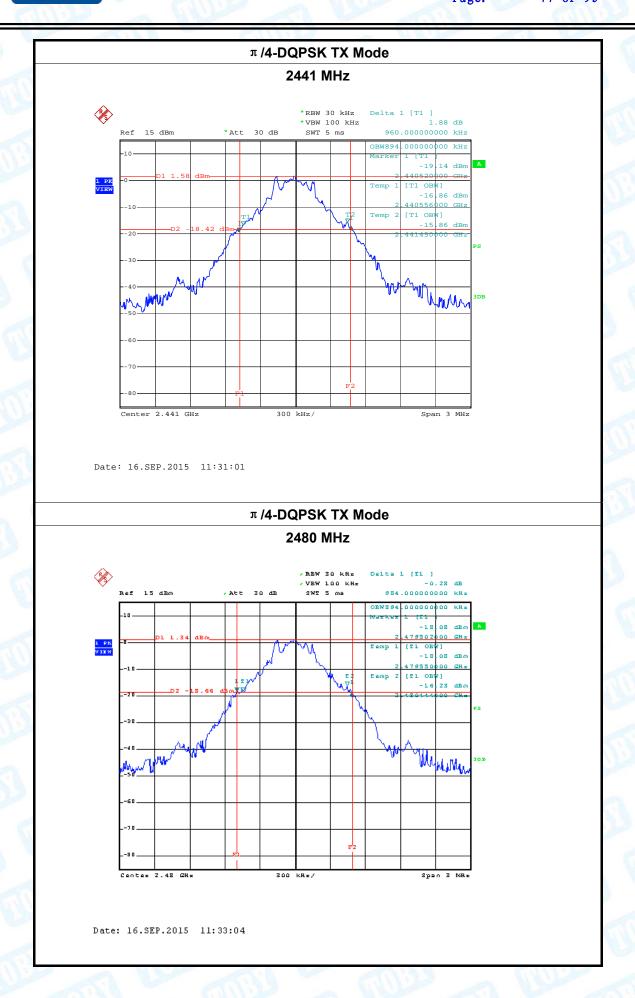
π/4-DQPSK TX Mode

2402 MHz



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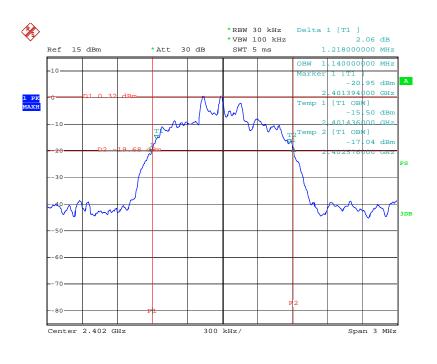
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EUT:		GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Tempera	ture:	25 ℃	Relative Humidity:	55%
Test Volt	age:	DC 3.7V		
		TV.1 (0.77010)		

Test Mode: TX Mode (8-DPSK)

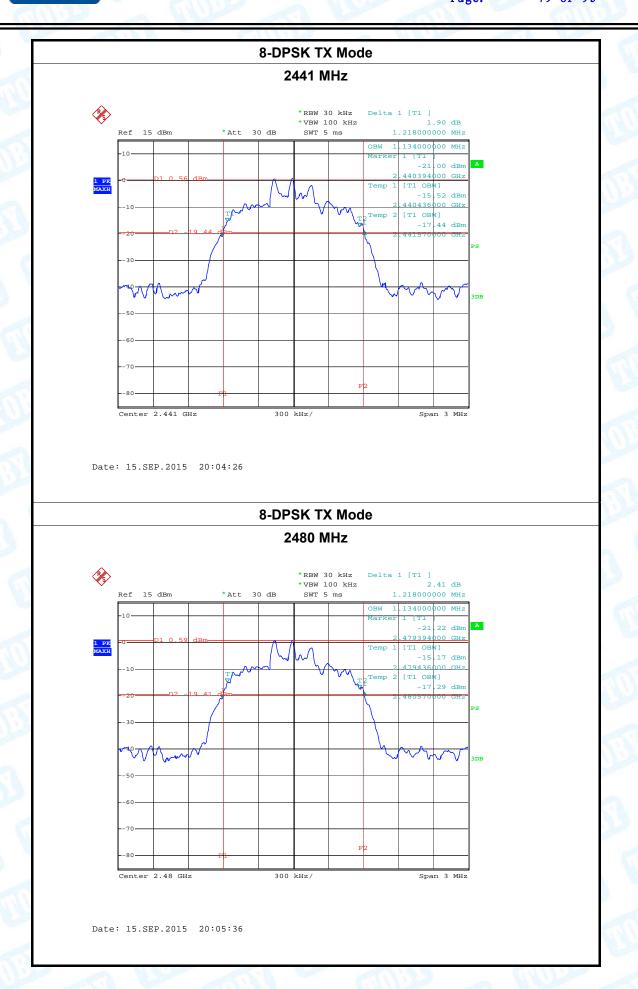
		A COLOR DE LA COLO	
Channel frequency	99% OBW	20dB Bandwidth	20dB
(MHz)	(kHz)	(kHz)	Bandwidth *2/3
			(kHz)
2402	1140.00	1218.00	812.00
2441	1134.00	1218.00	812.00
2480	1134.00	1218.00	812.00

8-DPSK TX Mode 2402 MHz



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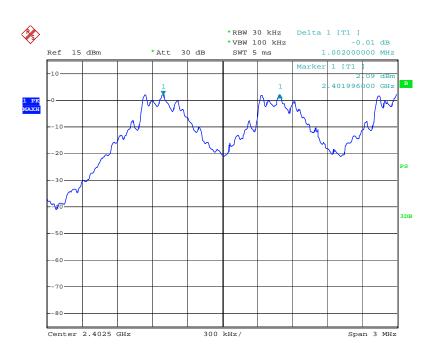
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EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Channel frequency (MHz)	Separation Read Value	Separation Limit (kHz)
	(kHz)	
2402	1002.00	858.000
2441	1002.00	912.000
2480	1002.00	912.000

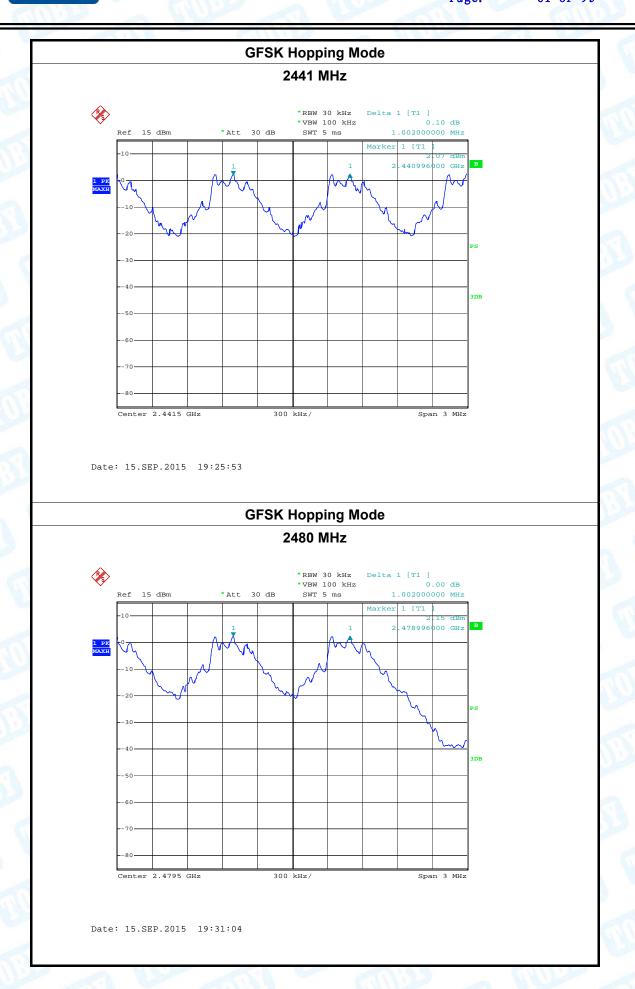
GFSK Hopping Mode

2402 MHz



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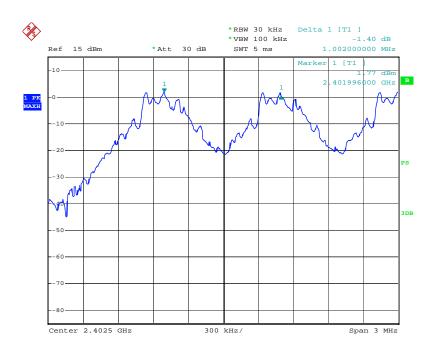
EUT:	GabbaGoods NeckBeats Bluetooth	Model Name :	GG-ABH2
	Stereo Headsets	model italiie .	OO / IDI IZ
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	THE PARTY	

Test Mode: Hopping Mode (π /4-DQPSK)

Channel frequency (MHz)	Separation Read Value	Separation Limit (kHz)	
	(kHz)		
2402	1002.00	984.00	
2441	1002.00	960.00	
2480	1002.00	984.00	

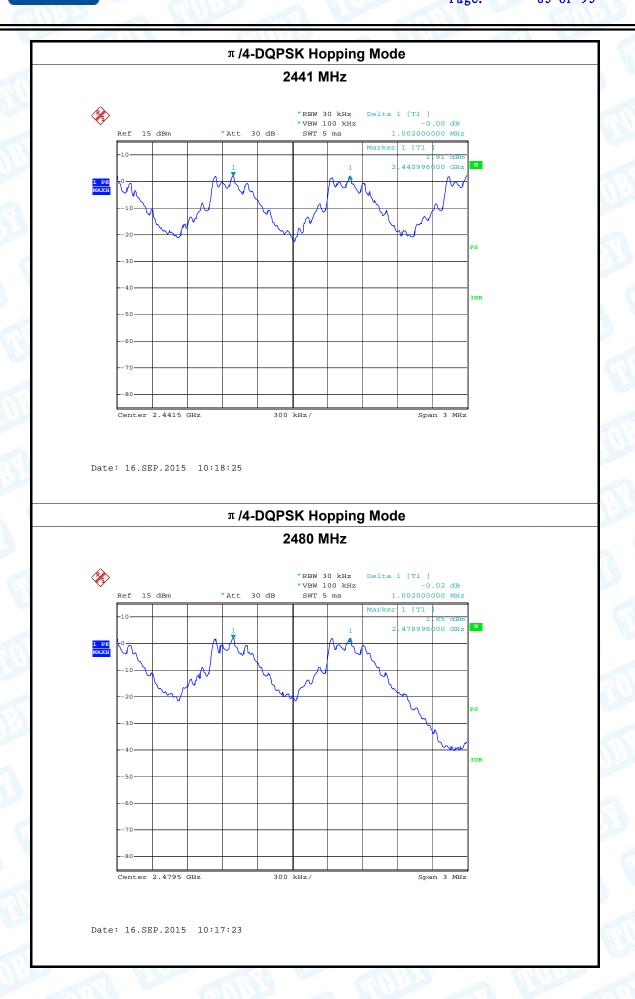
π /4-DQPSK Hopping Mode

2402 MHz



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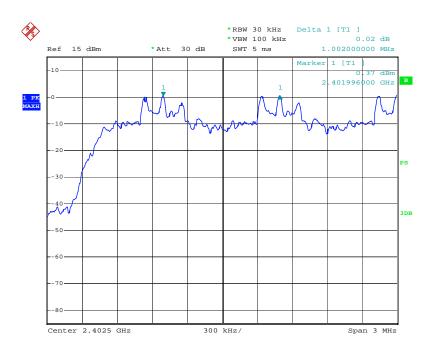
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	ge: DC 3.7V		

Test Mode: Hopping Mode (8-DPSK)

Channel frequency (MHz)	Separation Read Value (kHz)	Separation Limit (kHz)
2402	1002.00	812.00
2441	1002.00	812.00
2480	1002.00	812.00

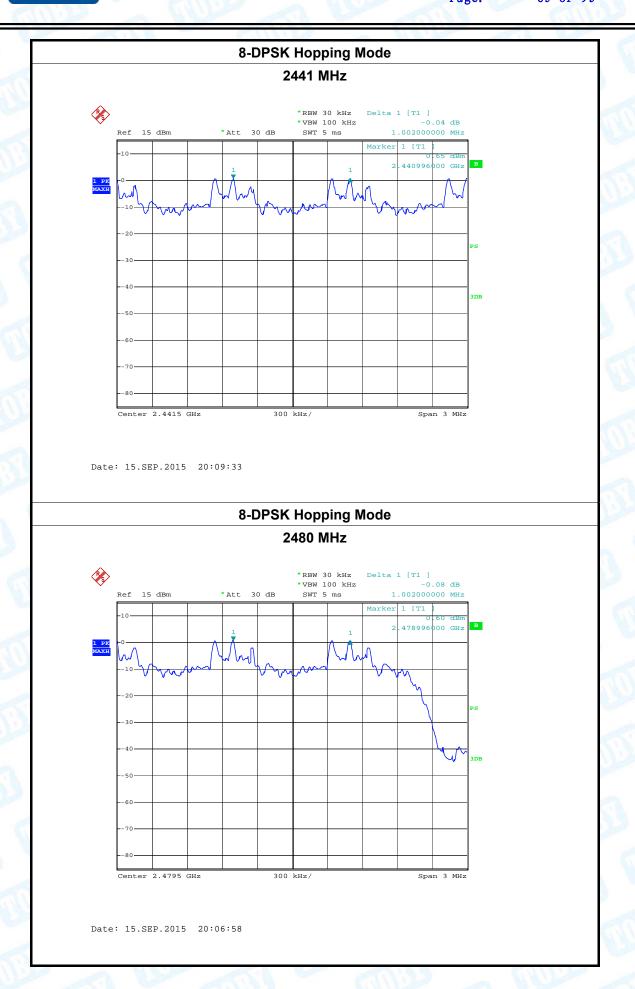
8-DPSK Hopping Mode

2402 MHz



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10. Peak Output Power Test

10.1 Test Standard and Limit

10.1.1 Test Standard FCC Part 15.247 (b) (1)

10.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	Hopping Channels>75 Power<1W(30dBm) Other <125 mW(21dBm)	2400~2483.5

10.2 Test Setup



10.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Peak Detector: RBW=1 MHz, VBW=3 MHz for bandwidth less than 1MHz. RBW=3 MHz, VBW=3 MHz for bandwidth more than 1MHz.

10.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.



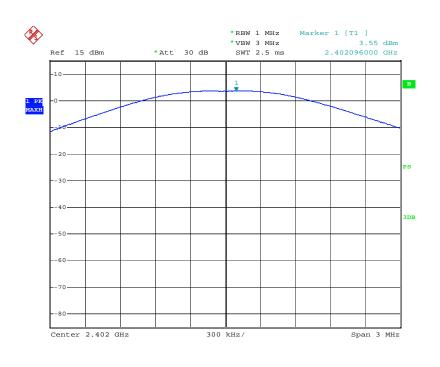
10.5 Test Data

EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		6
Test Mode:	TX Mode (GFSK)	THE STATE OF THE S	1

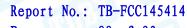
The state of the s		
Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
2402	3.550	
2441	3.660	30
2480	3.580	

GFSK TX Mode

2402 MHz

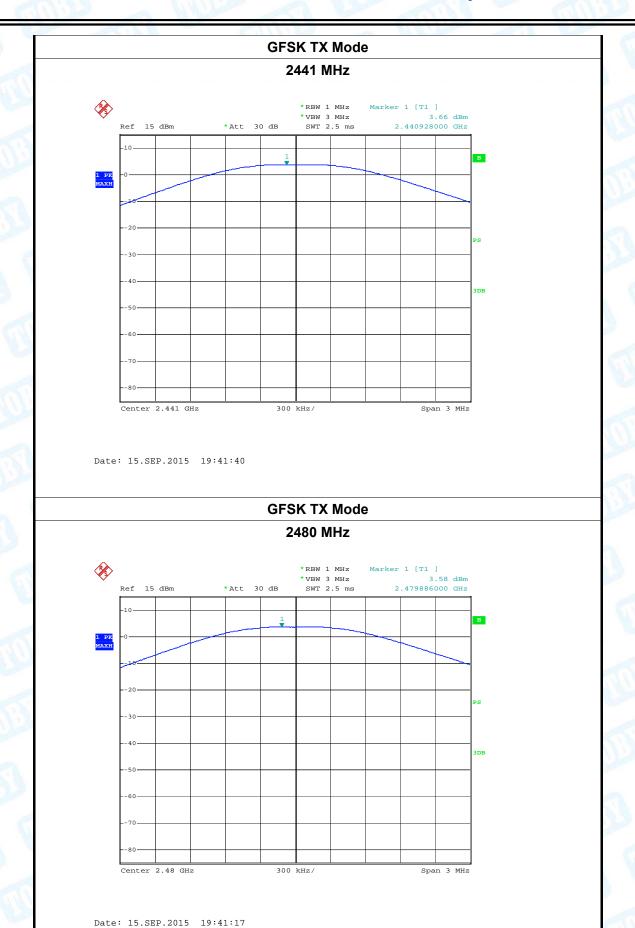


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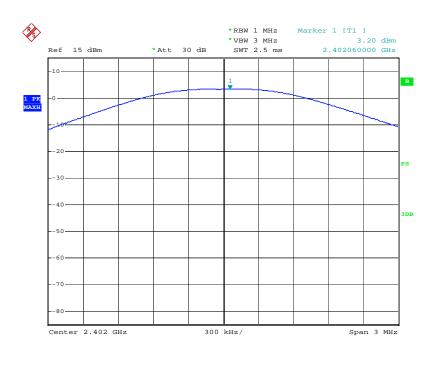
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: TX Mode (π /4-DQPSK)

Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
2402	3.200	
2441	3.080	30
2480	3.220	

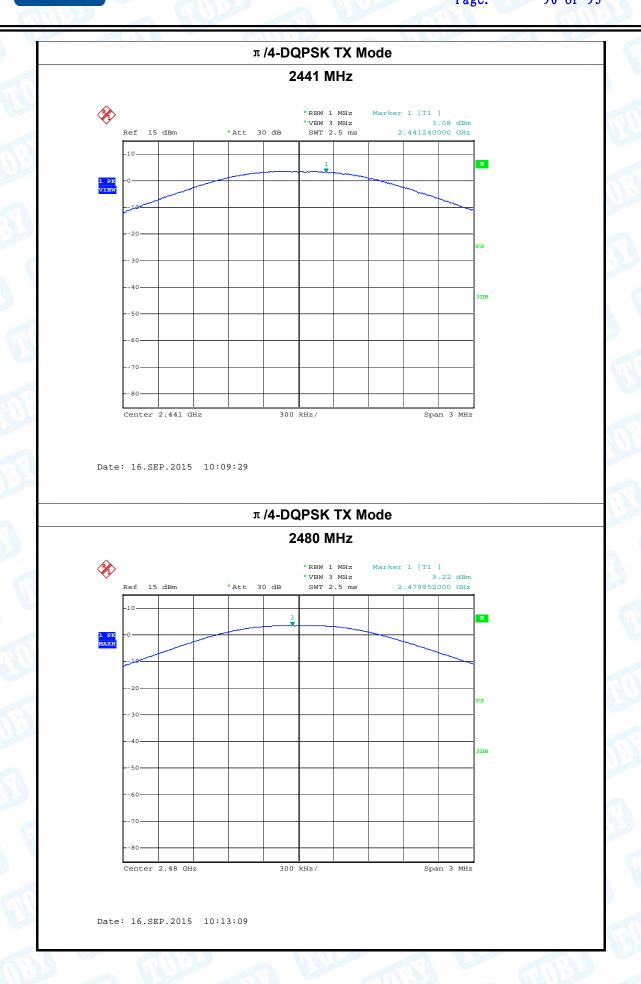
π /4-DQPSK TX Mode

2402 MHz



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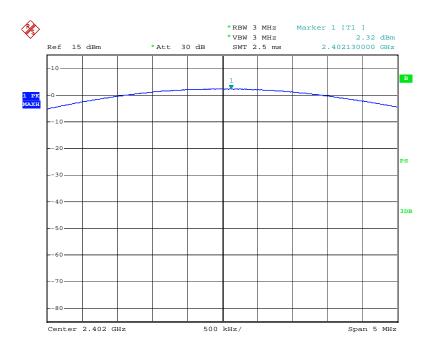
EUT:	GabbaGoods NeckBeats Bluetooth Stereo Headsets	Model Name :	GG-ABH2
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	D THE	

Test Mode: TX Mode (8-DPSK)

Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
2402	2.320	
2441	2.480	21
2480	2.340	

8-DPSK TX Mode

2402 MHz



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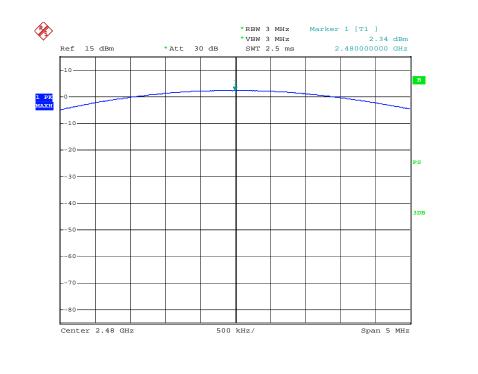


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8-DPSK TX Mode

2480 MHz



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11. Antenna Requirement

11.1 Standard Requirement

11.1.1 Standard FCC Part 15.203

11.1.2 Requirement

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 0 dBi, and the antenna connector is de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

The EUT antenna is a PCB antenna. It complies with the standard requirement.

	Antenna Type
en en	▼ Permanent attached antenna
	□ Unique connector antenna
1	☐ Professional installation antenna