

## Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC146485

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# FCC Radio Test Report FCC ID: 2AGGR-B9

## **Original Grant**

Report No. : TB-FCC146485

Applicant : Shenzhen Rivers Technology Co., Limited

**Equipment Under Test (EUT)** 

**EUT Name** : Bluetooth Glass Keyboard

Model No. : B9

Series Model No. : N/A

Brand Name : Bastron

**Receipt Date** : 2015-12-28

Test Date : 2015-12-29 to 2016-01-06

Issue Date : 2016-01-07

**Standards** : FCC Part 15: 2015, 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**: Shenzhen Rivers Technology Co.,Limited

Address : A#1611, Zhantao Technology Building, Longhua New District,

Shenzhen, China

Manufacturer : Shenzhen Rivers Technology Co., Limited

Address : A#1611, Zhantao Technology Building, Longhua New District,

Shenzhen, China

## 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	di.	Bluetooth Glass Keyboard					
Models No.		B9	B9				
Model Difference	1	N/A					
1000		Operation Frequency: Bluetooth:2402~2480MHz					
Product		Number of Channel:	Bluetooth:79 Channels see Note 3				
Description		Max Peak Output Power: Bluetooth: 1.17 dBm(GFSK)					
		Antenna Gain: 2 dBi PCB Antenna					
		Modulation Type:	GFSK 1Mbps(1 Mbps)				
Power Supply		DC Voltage supplied from DC power by Li-ion Battery	Host System by USB cable.				
Power Rating	:	DC 5.0V by USB cable. DC 3.7V 2*1.92Wh Li-ion Battery.					
Connecting I/O Port(S)	<b>J</b> :	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) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

#### (3) Channel List:

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



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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	MILLER	- 177.
26	2428	53	2455	E.11	1.33

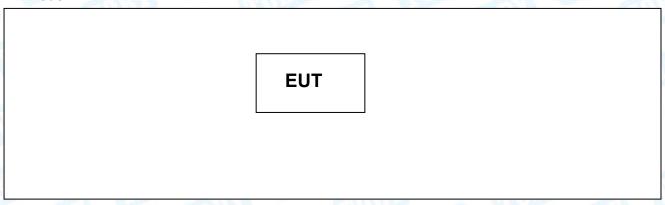
<sup>(4)</sup> The Antenna information about the equipment is provided by the applicant.



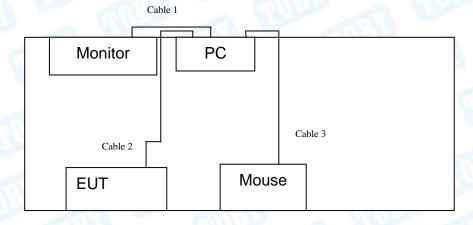
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## 1.3 Block Diagram Showing the Configuration of System Tested

#### **TX Mode**



#### **USB Charging with TX Mode**



## 1.4 Description of Support Units

Equipment Information						
Name	Model	FCC ID/DOC	Manufacturer	Used "√"		
LCD Monitor	E170Sc	DOC	DELL	√ V		
PC	OPTIPLEX380	DOC	DELL	<b>√</b>		
Keyboard	L100	DOC	DELL	<b>√</b>		
Mouse	M-UARDEL7	DOC	DELL	√		
		Cable Informa	tion			
Number	Shielded Type	Ferrite Core	Length	Note		
Cable 1	YES	YES	1.5M			
Cable 2	NO	NO	1.0M	Accessorise		
Cable 3	YES	NO	1.5M	THE PARTY OF		
The same	32	U. T.	600	3		



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#### 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.

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	Hopping Mode(GFSK)				

#### 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)

(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	n Broadcom BlueTool		
Frequency	2402 MHz	2441MHz	2480 MHz
GFSK	DEF	DEF	DEF



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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 <sub>Lab</sub> )
	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Radiated Emission	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
Radiated 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.



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## 2. Test Summary

FCC Part 15 Subpart C(15.247)/ RSS 247 Issue 1					
Standard Section		To ad Maria	l d		
FCC	IC	Test Item	Judgment	Remark	
15.203	3	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:966.00kHz	



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## 3. Test Equipment

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

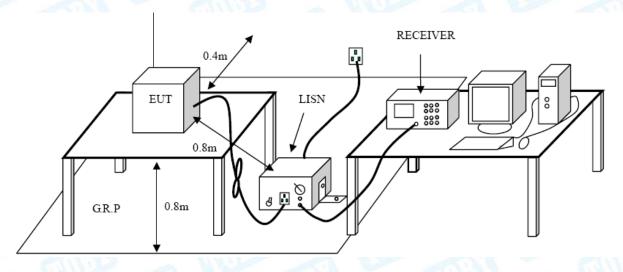
#### **Conducted Emission Test Limit**

Eroguenov	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

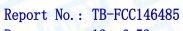
The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

#### 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:	Bluetooth Glass Key	yboard	Model Nam	e:	B9
Temperature:	25 ℃	il)	Relative Hu	midity:	55%
Test Voltage:	AC 120V/60 Hz			MAN DE	
Terminal:	Line	WILL S			
Test Mode:	USB Charging wi	ith TX GFSK	Mode 2402 MHz		Millian
Remark:	Only worse case	is reported			- 6
90.0 dBu∀					
				QP: AVG:	
40	, M	X	, , , , , , , , , , , , , , , , , , ,		Ň.
TO WANTER	Mary Way		VZZVAZYZYZYZYWNIPOJAVOKOK		May your
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Mary Mary Market	$\mathbb{Z}^{n}$		<b>   </b>	Thor.
	, y , , , , , , , , , , , , , , , , , ,	, 17 t	1 ' ' '		peak
					AVG
0.150	0.5	(MHz)	5		30.000
No. Mk. Fr	Reading req. Level	Correct Factor	Measure- ment Limi	t O∨er	
	IHz dBuV	dB	dBuV dBu\		 Detector
	100 37.81	10.02		0 -15.37	
2 0.2	100 34.61	10.02	44.63 53.2	0 -8.57	AVG
	540 35.53	10.05		0 -10.42	
4 0.5	540 28.28	10.05	38.33 46.0	0 -7.67	AVG
5 1.5	339 29.48	10.06	39.54 56.0	0 -16.46	QP
6 1.53	339 23.37	10.06	33.43 46.0	0 -12.57	AVG
7 5.3	100 29.24	9.98	39.22 60.0	0 -20.78	QP
8 5.3	100 24.77	9.98	34.75 50.0	0 -15.25	AVG
9 17.78	860 33.44	10.20	43.64 60.0	0 -16.36	QP
10 17.78	860 31.92	10.20	42.12 50.0	0 -7.88	AVG
11 19.7	700 35.70	10.16	45.86 60.0	0 -14.14	QP
12 * 19.7	700 35.32	10.16	45.48 50.0	0 -4.52	AVG
Emission Level=	Read Level+ Cori	rect Factor			





EUT: Bluetooth Glass Keyboard Model Name: B9

Temperature: 25 °C Relative Humidity: 55%

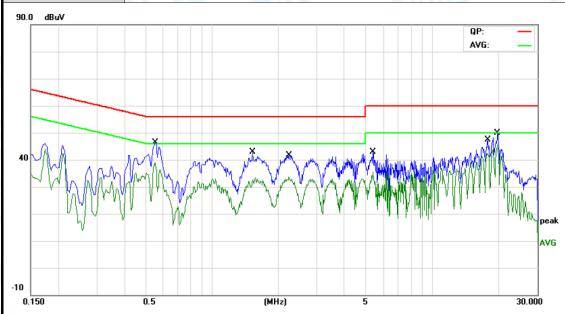
Test Voltage: AC 120V/60 Hz

Terminal: Neutral

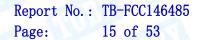
Test Mode: USB Charging with TX GFSK Mode 2402 MHz

rest wode: USB Charging with TA GFSK Wode 2402

Remark: Only worse case is reported

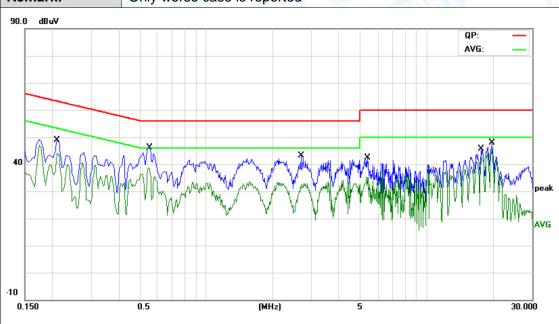


No. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBu∨	dB	dBuV	dBu∀	dB	Detector
1	0.5540	36.05	10.02	46.07	56.00	-9.93	QP
2	0.5540	28.68	10.02	38.70	46.00	-7.30	AVG
3	1.5339	29.08	10.11	39.19	56.00	-16.81	QP
4	1.5339	22.86	10.11	32.97	46.00	-13.03	AVG
5	2.2380	28.15	10.06	38.21	56.00	-17.79	QP
6	2.2380	22.87	10.06	32.93	46.00	-13.07	AVG
7	5.3740	30.33	10.06	40.39	60.00	-19.61	QP
8	5.3740	25.53	10.06	35.59	50.00	-14.41	AVG
9	17.9140	32.99	10.06	43.05	60.00	-16.95	QP
10	17.9140	31.95	10.06	42.01	50.00	-7.99	AVG
11	19.7700	35.97	10.06	46.03	60.00	-13.97	QP
12 *	19.7700	35.46	10.06	45.52	50.00	-4.48	AVG

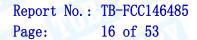




EUT: Bluetooth Glass Keyboard **Model Name:** В9 Temperature: 25 ℃ **Relative Humidity:** 55% **Test Voltage:** AC 240V/60 Hz Terminal: Line **Test Mode:** USB Charging with TX GFSK Mode 2402 MHz Remark: Only worse case is reported



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBu∨	dB	dBuV	dBu∀	dB	Detector
1	0.2100	37.31	10.02	47.33	63.20	-15.87	QP
2	0.2100	34.03	10.02	44.05	53.20	-9.15	AVG
3	0.5540	35.42	10.05	45.47	56.00	-10.53	QP
4	0.5540	28.18	10.05	38.23	46.00	-7.77	AVG
5	2.6860	25.97	10.04	36.01	56.00	-19.99	QP
6	2.6860	21.49	10.04	31.53	46.00	-14.47	AVG
7	5.3740	30.26	9.98	40.24	60.00	-19.76	QP
8	5.3740	25.92	9.98	35.90	50.00	-14.10	AVG
9	17.6580	32.09	10.21	42.30	60.00	-17.70	QP
10	17.6580	31.80	10.21	42.01	50.00	-7.99	AVG
11	19.7700	35.89	10.16	46.05	60.00	-13.95	QP
12 *	19.7700	35.24	10.16	45.40	50.00	-4.60	AVG





EUT: Bluetooth Glass Keyboard Model Name: B9

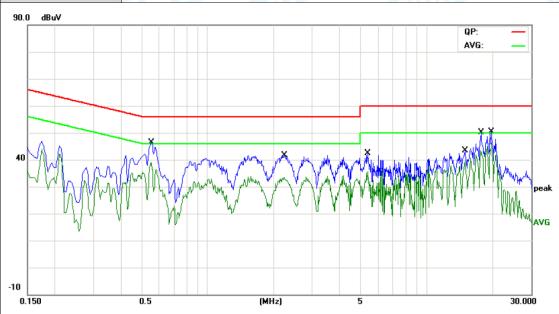
Temperature: 25 °C Relative Humidity: 55%

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	dBu∨	dB	dBu∀	dBu∨	dB	Detector
1		0.5540	36.06	10.02	46.08	56.00	-9.92	QP
2		0.5540	28.66	10.02	38.68	46.00	-7.32	AVG
3		2.2380	28.28	10.06	38.34	56.00	-17.66	QP
4		2.2380	23.01	10.06	33.07	46.00	-12.93	AVG
5		5.3740	30.02	10.06	40.08	60.00	-19.92	QP
6		5.3740	25.58	10.06	35.64	50.00	-14.36	AVG
7		14.9700	31.08	10.06	41.14	60.00	-18.86	QP
8		14.9700	29.37	10.06	39.43	50.00	-10.57	AVG
9		17.7220	35.35	10.06	45.41	60.00	-14.59	QP
10		17.7220	32.54	10.06	42.60	50.00	-7.40	AVG
11		19.7060	36.07	10.06	46.13	60.00	-13.87	QP
12	*	19.7060	35.02	10.06	45.08	50.00	-4.92	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)

	luiateu Elliission Elliit (9 Kii	,
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		

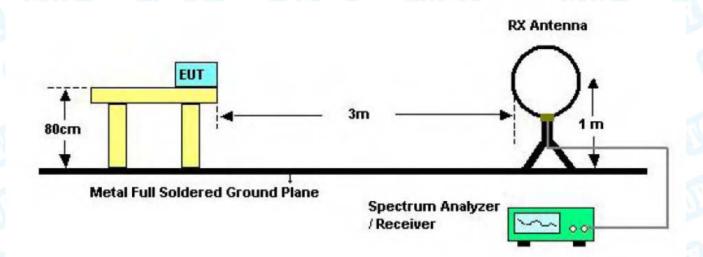
#### Note:

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

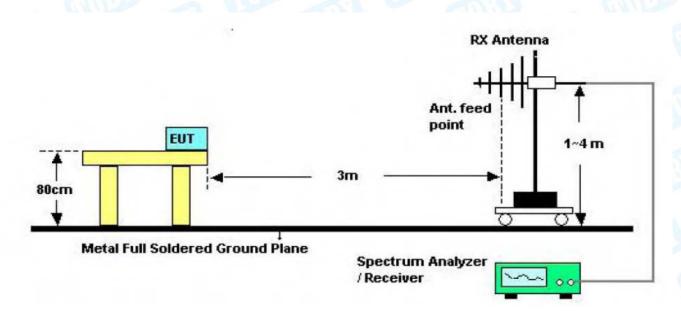


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## 5.2 Test Setup



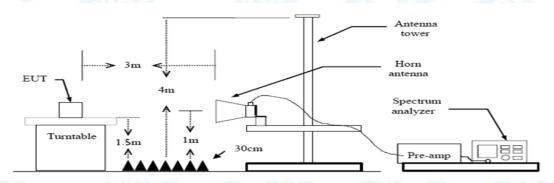
Bellow 30MHz Test Setup



**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

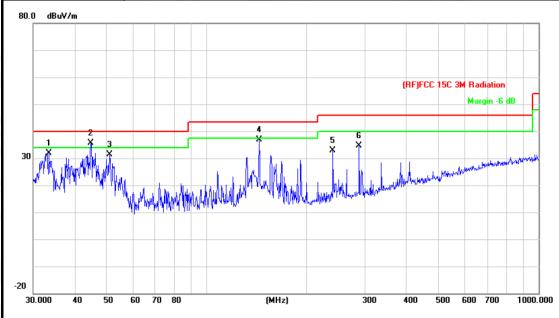
Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=1 Kz with Peak Detector for Average Values.

Test data please refer the following pages.



Page: 20 of 53

EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		13
Ant. Pol.	Horizontal		
Test Mode:	TX GFSK Mode 2402MHz		DIO.
Remark:	Only worse case is reported	The state of the s	



N	o. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		33.4448	48.05	-16.10	31.95	40.00	-8.05	peak
2	*	44.7433	57.87	-22.16	35.71	40.00	-4.29	peak
3		50.9420	55.83	-24.41	31.42	40.00	-8.58	peak
4		143.8294	58.61	-21.67	36.94	43.50	-6.56	peak
5		239.9874	51.46	-18.59	32.87	46.00	-13.13	peak
6		287.9904	52.06	-17.32	34.74	46.00	-11.26	peak

<sup>\*:</sup>Maximum data x:Over limit !:over margin



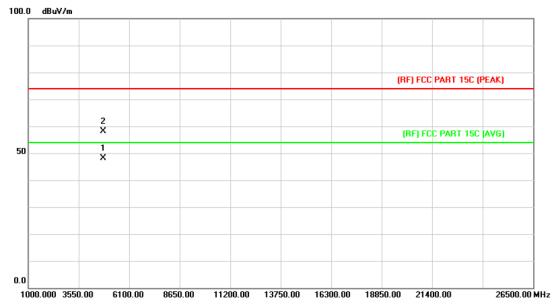
Page: 21 of 53

<b>-</b>		oth Glass Key	board	Model Na	ame :	B9	
Temperature:	25 ℃		13	Relative	Humidity:	55%	MA
Гest Voltage:	DC 5	V				10	
Ant. Pol.	Vertic	al	4/1/10		All the		
Test Mode:	TX G	FSK Mode 2	2402MHz		3	- GI	1
Remark:	Only	worse case	is reported	Charles	1000		
80.0 dBuV/m							
1 23 4 5	M. A. A.		6 *		(RF)FCC 15C :	Margin -6 d	B
		Whiteham	d Mahala	Almost Boles & Anna American Marie	and the way of a second	Secular Control of Con	
	60 70	80	(MHz)	Magail Mark Langer Mark	400 500	600 700	1000.00
20 30.000 40 50				Appendix of the second			1000.00
20 30.000 40 50 No. Mk. F	60 70	80 Reading	Correct	300 Measure-	400 500	600 700	1000.00
20 30.000 40 50 No. Mk. F	60 70 req.	Reading Level	Correct Factor	300 Measure- ment	400 500 Limit	600 700 Over	
No. Mk. F	60 70 req.	Reading Level	Correct Factor	Measure- ment dBuV/m	400 500  Limit  dBuV/m	600 700  Over	Detect
No. Mk. F  1 * 32.8 2 ! 39.0	req. 1Hz	Reading Level dBuV 53.31	Correct Factor dB/m -15.73	Measure- ment dBuV/m 37.58	400 500  Limit  dBuV/m  40.00	600 700  Over  dB  -2.42	Detect
No. Mk. F  1 * 32.8 2 ! 39.0 3 ! 41.6	req.  1Hz 3637	Reading Level dBuV 53.31 56.37	Correct Factor dB/m -15.73 -19.56	Measure- ment dBuV/m 37.58 36.81	400 500  Limit  dBuV/m  40.00  40.00	Over  dB  -2.42  -3.19	Detection peal peal peal
No. Mk. F  No. Mk. F  1 * 32.8  2 ! 39.0  3 ! 41.1  4 ! 44.9	req.  1Hz 3637 0245	Reading Level dBuV 53.31 56.37 57.02	Correct Factor dB/m -15.73 -19.56 -20.64	300  Measurement  dBuV/m  37.58  36.81  36.38	400 500  Limit  dBuV/m  40.00  40.00  40.00	Over dB -2.42 -3.19 -3.62	Detection peal



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		13.0
Ant. Pol.	Horizontal		
Test Mode:	TX GFSK Mode 2402MHz	COURS OF THE PARTY	THE PARTY OF THE P
Remark:	No report for the emission wh prescribed limit.	ich more than 10 dB b	elow the

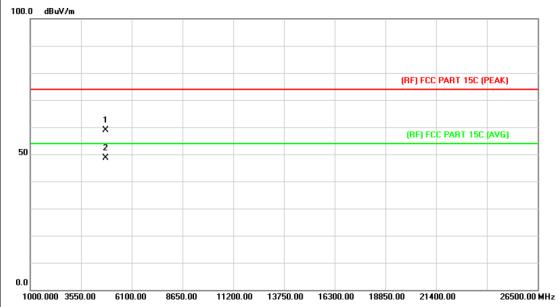


N	o. Mł	κ. Freq.	Reading Level		Measure- ment	Limit	O∨er	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4803.748	34.77	13.44	48.21	54.00	-5.79	AVG
2		4804.240	44.81	13.44	58.25	74.00	-15.75	peak



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX GFSK Mode 2402MHz		LINE .			
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					

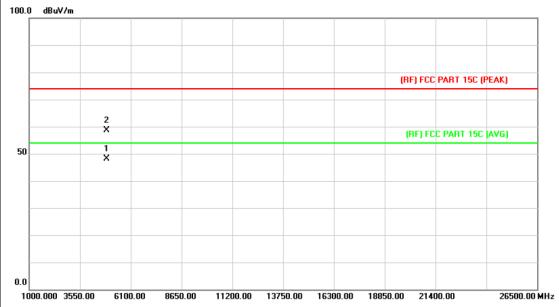


No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.523	45.52	13.44	58.96	74.00	-15.04	peak
2	*	4804.009	35.09	13.44	48.53	54.00	-5.47	AVG



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9			
Temperature:	<b>25</b> ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX GFSK Mode 2441MHz		LINE TO SERVICE			
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					



No	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	O∨er	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4882.159	34.16	13.90	48.06	54.00	-5.94	AVG
2		4882.441	44.83	13.90	58.73	74.00	-15.27	peak



Page: 25 of 53

Bluetooth Glass Keyboard	Model Name :	B9			
25 ℃	Relative Humidity:	55%			
DC 5V					
Vertical					
TX GFSK Mode 2441MHz		- DILLE			
No report for the emission which more than 10 dB below the prescribed limit.					
	25 ℃ DC 5V Vertical TX GFSK Mode 2441MHz No report for the emission wh	25 °C Relative Humidity:  DC 5V  Vertical  TX GFSK Mode 2441MHz  No report for the emission which more than 10 dB be			

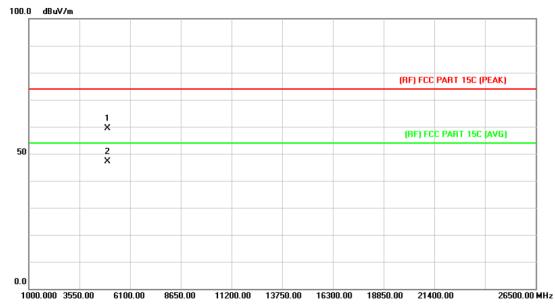


No	. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.913	45.14	13.90	59.04	74.00	-14.96	peak
2	*	4882.054	34.67	13.90	48.57	54.00	-5.43	AVG



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9			
Temperature:	25 ℃ Relative Humidity: 55%					
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX GFSK Mode 2480MHz		LIII.			
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					

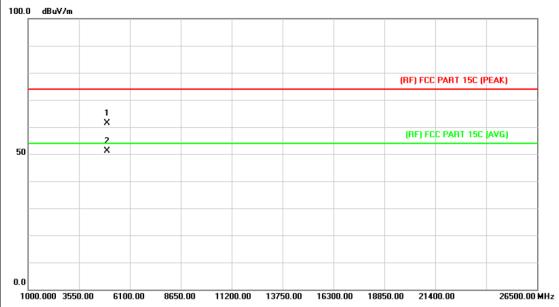


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	O∨er	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4959.853	45.02	14.36	59.38	74.00	-14.62	peak
2	*	4959.907	32.65	14.36	47.01	54.00	-6.99	AVG



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9			
Temperature:	25 ℃ Relative Humidity: 55%					
Test Voltage:	DC 5V					
Ant. Pol.	Vertical					
Test Mode:	TX GFSK Mode 2480MHz		D. C.			
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					



No	. Mk	. Freq.	_		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4959.421	47.00	14.36	61.36	74.00	-12.64	peak
2	*	4959.958	36.74	14.36	51.10	54.00	-2.90	AVG



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## 6. Restricted Bands Requirement

#### 6.1 Test Standard and Limit

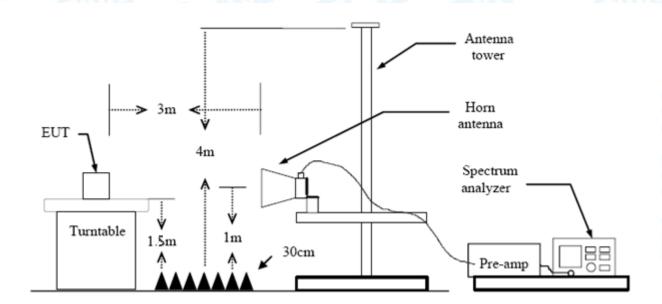
6.1.1 Test Standard FCC Part 15.209 FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Class B (dE	BuV/m)(at 3m)
Band (MHz)	Peak	Average
2310 ~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.

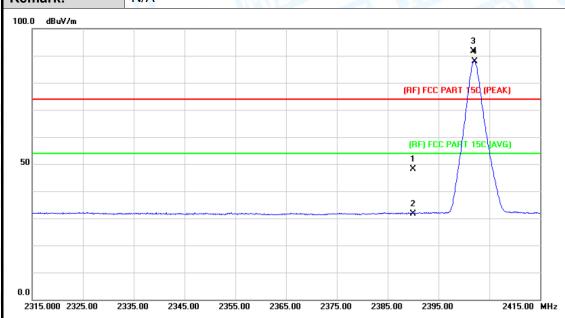
All restriction bands have been tested, only the worst case is reported.



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### (1) Radiation Test

EUT:	Bluetooth Glass Keyboard	Model Name :	В9			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	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	47.45	0.77	48.22	74.00	-25.78	peak
2		2390.000	30.98	0.77	31.75	54.00	-22.25	AVG
3	Х	2401.800	90.92	0.82	91.74	Fundamental	Frequency	peak
4	*	2402.100	87.16	0.82	87.98	Fundamental	Frequency	AVG



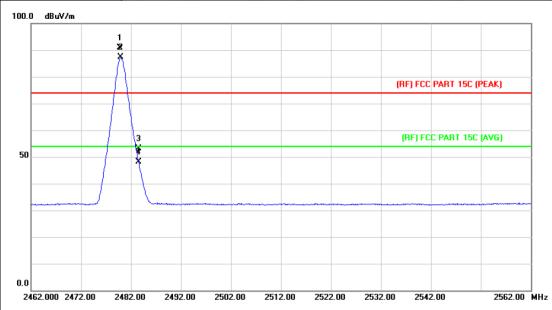
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		Bluet	ooth G	Blass Ke	yboard	1/1	Mod	lel Nan	ne :		В9	1	
Temperature:			C		33		Rela	ative H	umid	ity:	55%	PI	انزو
Test Voltage:			5V			1	W.	13		-10	130		
Ant. Pol.			cal		01				a	N.S			3/4
Test Mode:			SFSK	Mode	2402MH	Ηz	6	The state of			4	M	
rk:		N/A	MA	منزل		<b>(1)</b>	, N			1	13		6
dBuV/m											3		_
.000 232	7.00 2	337.00	2347.	00 235	i7.00 230	67.00	2377	7.00 23	87.00	2397.	00	2417.00	MHz
. Mk.	Fre	∋q.		_					Lin	nit	Over		
	MH	łz	d	BuV	dB/m	1	dB	uV/m	dBı	uV/m	dB	Dete	ector
	2390.	000	49	€.90	0.77	,	50	0.67	74	.00	-23.3	3 ре	ak
	2390.	000	30	).57	0.77	7	3	1.34	54	.00	-22.6	6 A	۷G
Х	2402.	100	96	3.18	0.82		9	7.00	Fund	aments	ental Frequency		ak
			_ `			_		<b></b>	. and			· , I	
	/oltage Pol. Mode: ark: dBuV/m	/oltage: Pol. Mode: Irk: dBuV/m 0000 2327.00 2: b. Mk. Fre MH 2390. 2390.	/oltage: DC 5 Pol. Verti /lode: TX G Irk: N/A  dBuV/m  000 2327.00 2337.00  o. Mk. Freq. MHz 2390.000 2390.000	/oltage: DC 5V Vertical Mode: TX GFSK Irk: N/A  dBuV/m  0000 2327.00 2337.00 2347.0  Rea MHz dl 2390.000 48 2390.000 30	/oltage: DC 5V /ol. Vertical //ode: TX GFSK Mode irk: N/A  dBuV/m  000 2327.00 2337.00 2347.00 235  Reading Level MHz dBuV  2390.000 49.90  2390.000 30.57	/oltage: DC 5V /ol. Vertical //ode: TX GFSK Mode 2402MF /ork: N/A  dBuV/m	### DC 5V   Vertical   Vertical   TX GFSK Mode 2402MHz	### Pol. Vertical ### Mode: TX GFSK Mode 2402MHz ### N/A ####################################	### Pol. Vertical ### Voltage: DC 5V  Pol. Vertical ### Voltage: TX GFSK Mode 2402MHz  ### N/A  ### ### ### Voltage: N/A  ### Reading Correct Measure— ### MHz ### ### ### ### #### #### ##########	### DC 5V   Vertical   TX GFSK Mode 2402MHz   TX GFSK Mode 2402MHz	### ### ##############################	### DC 5V   Vertical   TX GFSK Mode 2402MHz	### DC 5V   Vertical   Vertical



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EUT:	Bluetooth Glass Keyboard	Model Name :	B9			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 5V					
Ant. Pol.	Horizontal					
Test Mode:	TX GFSK Mode 2480 MHz	COLUMN TO THE PARTY OF THE PART	L. C. L.			
Remark:	N/A					



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	O∨er	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2479.800	89.84	1.15	90.99	Fundamental	Frequency	peak
2	*	2479.900	86.11	1.15	87.26	Fundamental	Frequency	AVG
3		2483.500	51.96	1.17	53.13	74.00	-20.87	peak
4		2483.500	47.08	1.17	48.25	54.00	-5.75	AVG



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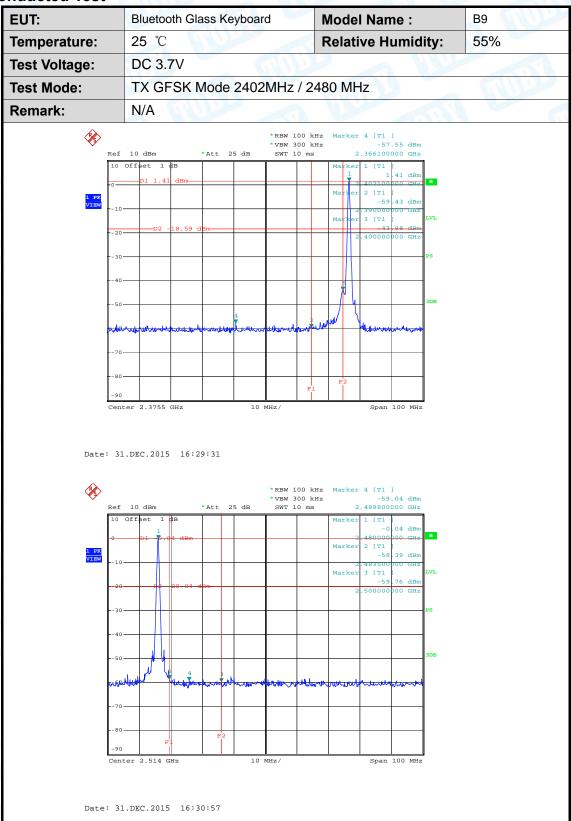
EUT	•		Bluet	ooth Glass	Keyboard	Model N	Name :	B9	B9		
Temperature:			25 °	C	W. C.	Relative	Humidity:	MATE			
Test Voltage:			DC 5	5V			-6				
Ant.	Pol.		Verti	cal		المتلاز			6		
Test	t Mode	:	TX	SFSK Mo	de 2480 MHz	The second	ענו	- EA	صفيال		
Ren	nark:		N/A	ART		I W			. (		
110.0	dBuV/m										
60			3 × ×					PART 15C (PEAK			
10.0	62.000 247										
	lo. Mk		482.00 eq.	Readir	-	Measur		Over	:562.00 MH;		
		MH	Hz	dBu∀	dB/m	dBuV/n	n dBuV/m	dB	Detecto		
		2479.	.800	96.18	1.15	97.33	3 Fundamenta	al Frequency	peak		
1	Х						,		AVG		
1 2	X *	2480.	.000	91.68	1.15	92.83	5 Fundamenta	II Frequency			
		2480. 2483.		91.68 58.03		92.83 59.20		-14.80	peak		



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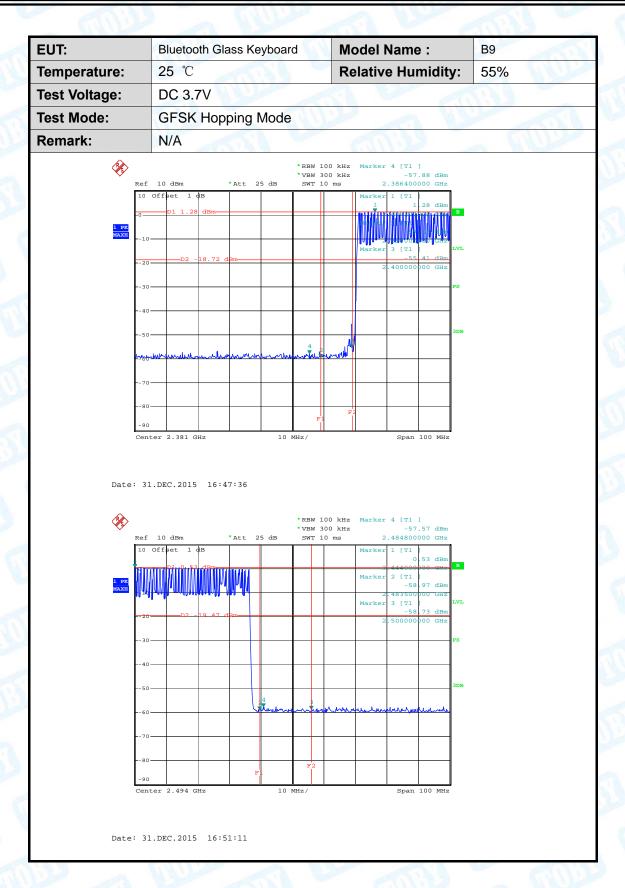
#### (2) Conducted Test

TOBY





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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



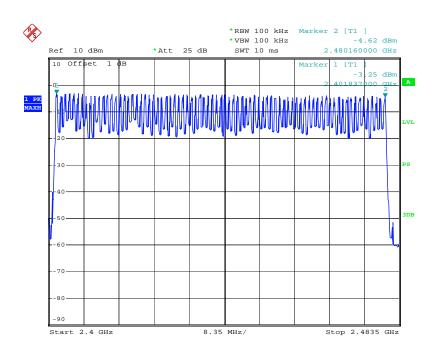
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EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		13.0

Test Mode: Hopping Mode (GFSK)

Frequency Range	Quantity of Hopping Channel	Limit
2402MHz~2480MHz	79	>15

### **GFSK Mode**



Date: 31.DEC.2015 16:15:50



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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

EUT:	Bluetooth	Glass Keyboard	<b>Model Name</b>		B9
Temperature	: 25 ℃	The same	Relative Humidity:		55%
Test Voltage:	DC 3.7V	- MILL		130	
Test Mode:	Hopping	Mode (GFSK DH	)		A WILL
Channel	Pulse Time	Total of Dwell	Period Time	Limit	Result
(MHz)	(ms)	(ms)	(s)	(ms)	Result
2402	0.496	158.72			
2441	0.464	148.48	31.60	400	PASS
2480	0.464	148.48			
		GFSK Hopping	Mode DH1		
		RBW 1		84 dB	
Re		*VBW 1 *Att 25 dB SWT 4			
1	0 Offset 1 dB		Marker 1 [T1 -68	] 3.08 dBm 3.000 ms A	
1 PK MAXH	10	Jun		SGL	
	20			LVL	
	30			PS	
-	40				
<b> -</b>  -	50	<del>                                      </del>		3DB	

the hours of the same of the s

Date: 31.DEC.2015 16:32:18

Center 2.402 GHz





**GFSK Hopping Mode DH1** 2441 MHz RBW 1 MHz -1.44 dB 464.000000 µs \*VBW 1 MHz SWT 4 ms Ref 10 dBm \*Att 25 dB 10 Offset 1 dB 1 jobs fenominger referred regioner for from the restriction Center 2.441 GHz 400 μs/ Date: 31.DEC.2015 16:33:25 **GFSK Hopping Mode DH1** 2480 MHz Delta 1 [T1 ] RBW 1 MHz \*VBW 1 MHz 464.000000 μs \*Att 25 dB Ref 10 dBm SWT 4 ms Marker 1 [T1 | -66 18 dBr

warania a shartara formana pranama afanta pranji lan

Center 2.48 GHz

Date: 31.DEC.2015 16:34:21



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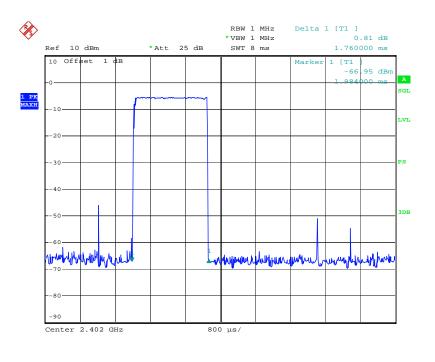
EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	THE STATE OF THE S	

Test Mode: Hopping Mode (GFSK DH3)

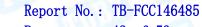
Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	1.760	281.60			
2441	1.792	286.72	31.60	400	PASS
2480	1.792	286.72			

### **GFSK Hopping Mode DH3**

### 2402 MHz

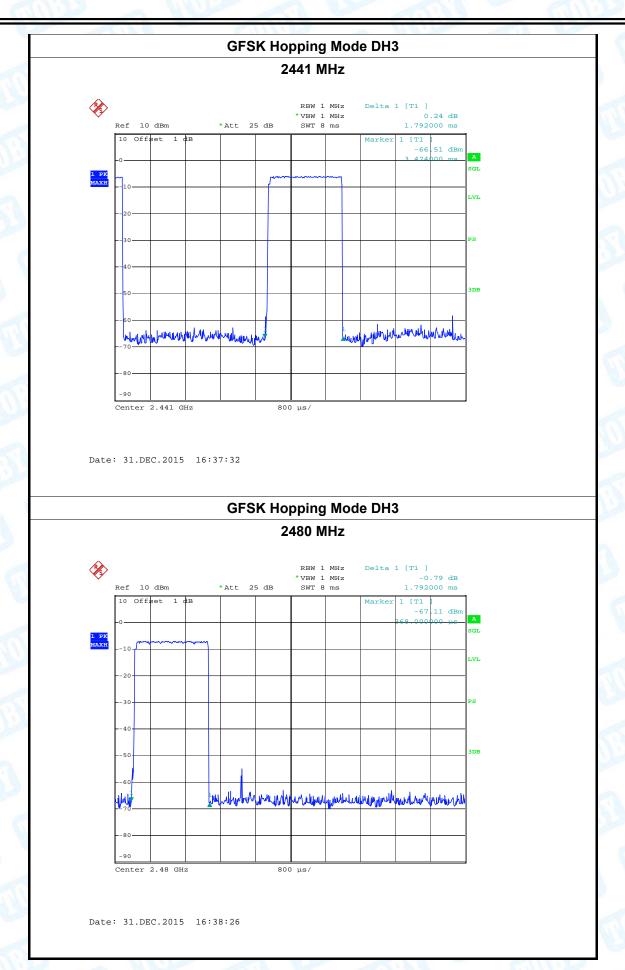


Date: 31.DEC.2015 16:36:23





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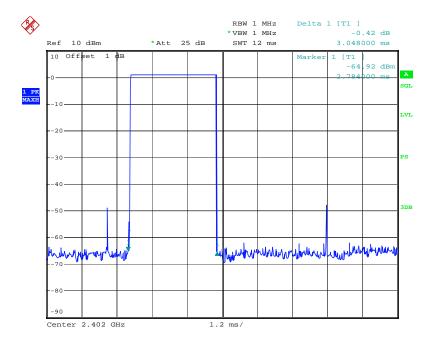
EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		

Test Mode: Hopping Mode (GFSK DH5)

Channel (MHz)	Pulse Time (ms)	Total of Dwell (ms)	Period Time (s)	Limit (ms)	Result
2402	3.048	325.12			
2441	3.048	325.12	31.60	400	PASS
2480	3.048	325.12			

### **GFSK Hopping Mode DH5**

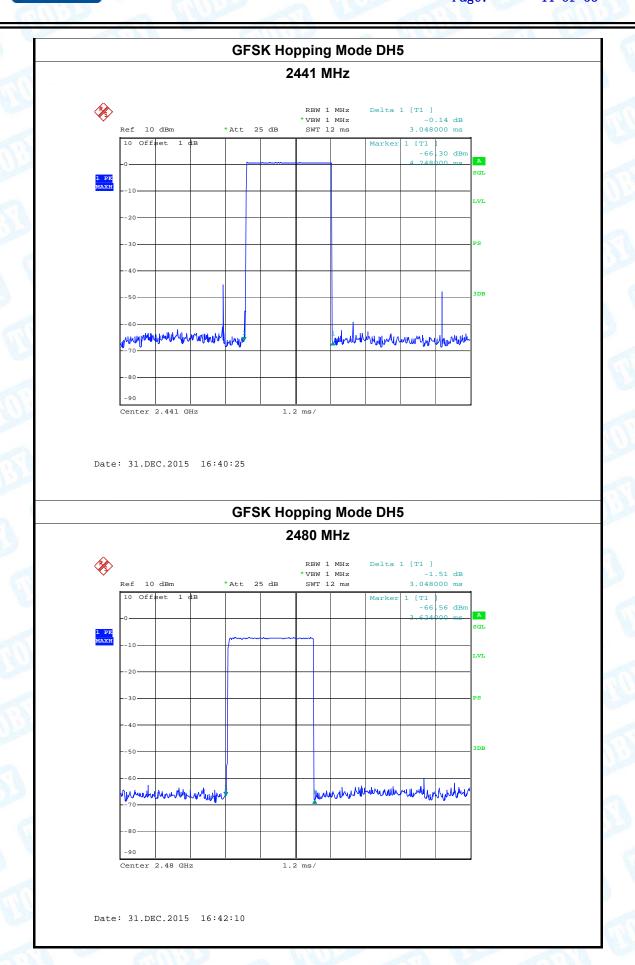
### 2402 MHz



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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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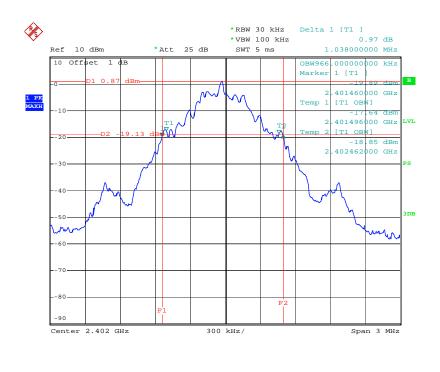
## 9.5 Test Data

EUT:	Bluetooth Glass Keyboard	Model Name :	B9	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	DC 3.7V			
Test Mode:	TX Mode (GFSK)	CHILD ST.	2 100	
			00-10	

Channel frequency (MHz)	99% OBW (kHz)	20dB Bandwidth (kHz)	20dB Bandwidth *2/3 (kHz)
2402	966.00	1038.00	692.00
2441	966.00	1038.00	692.00
2480	960.00	1038.00	692.00

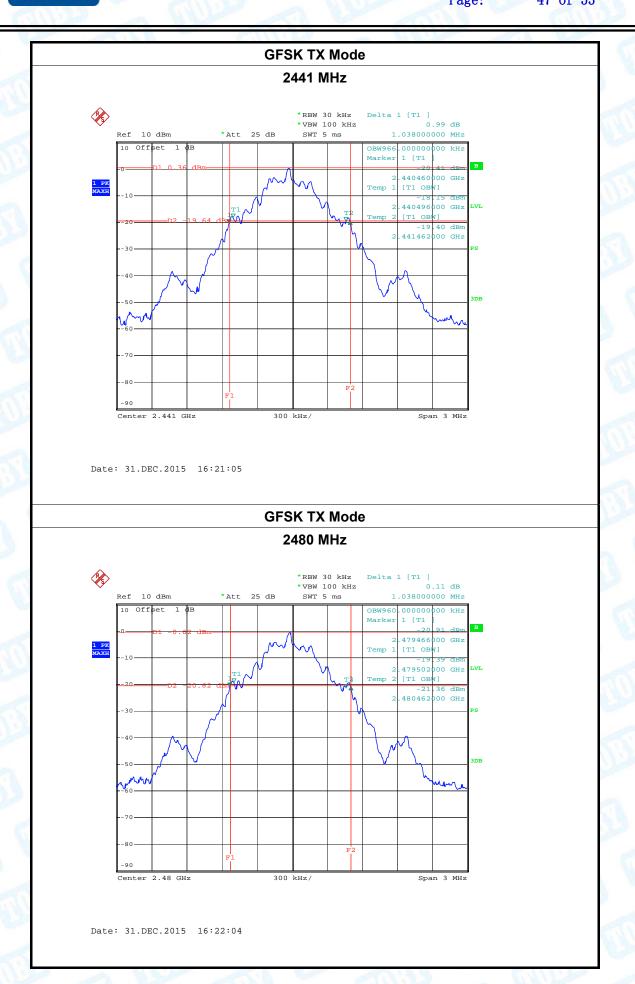
#### **GFSK TX Mode**

### 2402 MHz



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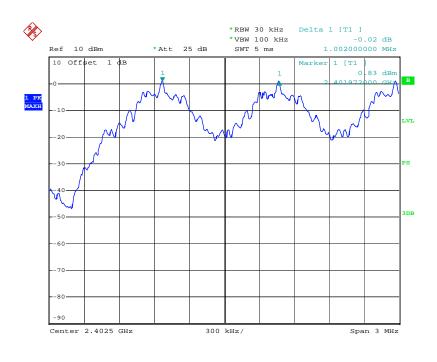
EUT:	Bluetooth Glass Keyboard	Model Name :	B9
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		3

Test Mode: Hopping Mode (GFSK)

riepping	riopping made (et ett)						
Channel frequency (MHz)	Separation Read Value	Separation Limit					
	(kHz)	(kHz)					
2402	1002.00	692.00					
2441	1002.00	692.00					
2480	1002.00	692.00					

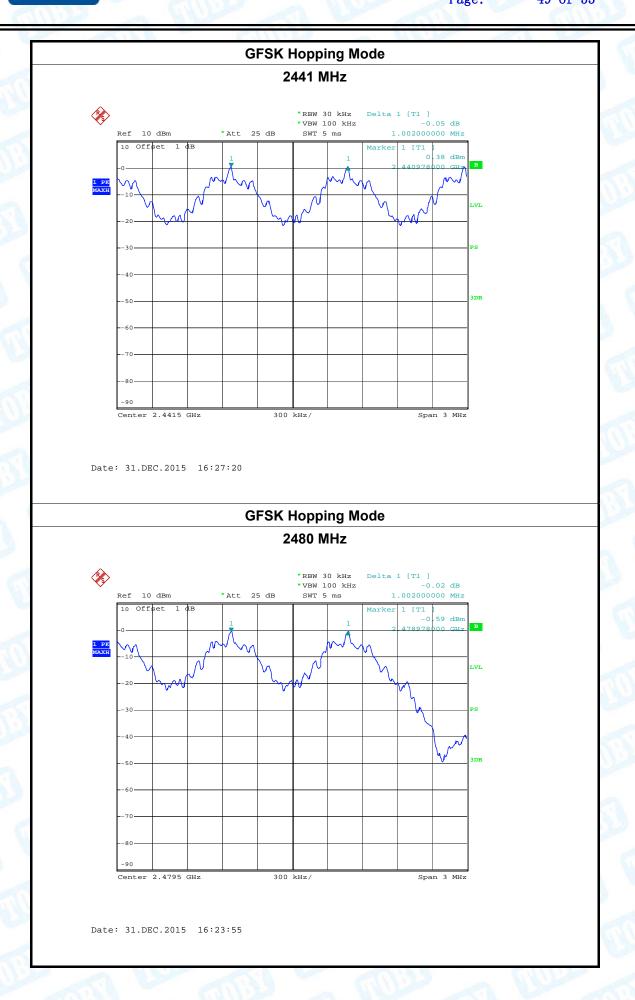
### **GFSK Hopping Mode**

### 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)	2400~2483.5
THE OWNER OF THE OWNER OWN	Other <125 mW(21dBm)	

## 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.



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10.5 Test Data

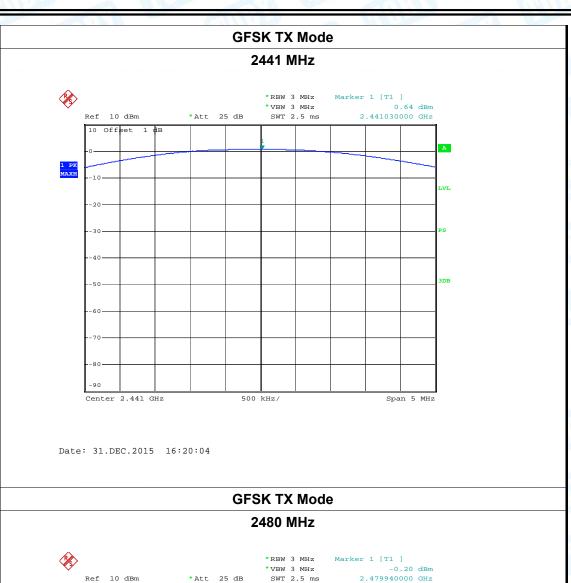
EUT:		Blueto	oth Gla	ass Key	ss Keyboard		Model Name :			B9	
Temperatur	e:	25 ℃	3		UNI		Relat	ive Ηι	ımidity	:	55%
Test Voltage	<b>e</b> :	DC 3.	7V	100			GU	1333			AMO
Test Mode:		TX Mo	ode (0	GFSK)	-		10		ANV	10	
Channel fre	equen	ncy (MHz) Test			st Resu	Result (dBm)				Limit (dBm)	
2	2402				1.1	7					
2	2441				0.6	4				2	:1
2	2480				-0.2	20					
			I	C	SFSK TX	( Mo	de	1			
						3 MHz	Mark	er 1 [T]			
<b>*</b>	Ref 10	dBm set 1 dB		Att 25 d	*RBW *VBW B SWT				. ] 1.17 dBm 00000 GHz		
<b>\$</b>				Att 25 d	* RBW * VBW	3 MHz			1.17 dBm	A	
1 PR MAXH				Att 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm	<b>A</b>	
1 PK MAXH	10 Off:			Att 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm		
1 PK MAXE	10 Off:			ALL 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm		
1 PK MAXH	10 Off:			Att 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm	LVL	
1 PR MAXH	-10 Off:			Att 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm	LVL	
1 PK	10 Off:			ALL 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm	LVL	
1 PK MAXH	-10 Off:			Att 25 d	*RBW *VBW B SWT	3 MHz			1.17 dBm	LVL	

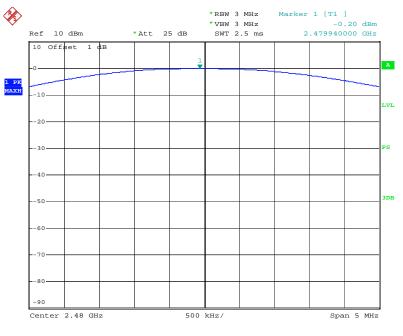
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Center 2.402 GHz



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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 2 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
a En	▼ Permanent attached antenna
	□ Unique connector antenna
	☐ Professional installation antenna