

TEST REPORT

Product Name : Bluetooth Speaker
Model Number : PPSPG, PPSPW, PPSPZ
FCC ID : GX7-PPSP

Prepared for : Hubbell Incorporated(Delaware) Wiring Device Kellems
Division

Address : 40 Waterview Drive Shelton, CT 06484, USA

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Date of sample receipt : Mar 04, 2025

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1. TEST RESULT CERTIFICATION

Applicant : Hubbell Incorporated(Delaware) Wiring Device Kellems Division
Address : 40 Waterview Drive Shelton, CT 06484, USA
Manufacturer : Dong guan Hubbell Electrical Products Co. Ltd.
Address : Xin cheng Industrial Zone Heng Li Town, Dong guan City Guangdong Province
Factory : Dong guan Hubbell Electrical Products Co. Ltd.
Address : Xin cheng Industrial Zone Heng Li Town, Dong guan City Guangdong Province
EUT : Bluetooth Speaker
Model Name : PPSPG, PPSPW, PPSPZ
Trademark : TAYMAC

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1091	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1091.

The test results of this report relate only to the tested sample identified in this report

Date of Test :

Mar 04, 2025 to Apr 17, 2025

Prepared by :

Galen Xiao /Editor

Reviewer :

Warren Deng /Supervisor

Approve & Authorized Signer :

Sam Lv /Manager



Modified History

Version	Report No.	Revision Date	Summary
	EDG2503040211E00103R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Bluetooth Speaker
Model Number:	PPSPG, PPSPW, PPSPZ All products are identical except the model number and color. Here we selected PPSPG for all the test.
Sample:	1#
Data Rate:	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Operating Frequency Range(s) :	2402-2480MHz 5740MHz-5795MHz
Number of Channels:	79 channels for BT 1 channels for 5.8G SRD
Transmit Power Max:	BT:4.32 dBm(0.002704W) 5.8G:100.68 dBuV@3m
Antenna Gain:	BT ANT:-1.11 dBi 5.8G ANT:2 dBi
Power supply:	AC 120V/60Hz, 0.35A
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

R = distance between observation point and center of the radiator in cm

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

BT:

Antenna gain: -1.11 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
2402	GFSK	1.74	1±1	2	1.585	-1.11	0.77	0.0002	1
2441		1.73	1±1	2	1.585	-1.11	0.77	0.0002	1
2480		1.99	2±1	3	1.995	-1.11	0.77	0.0003	1
2402	π/4-DQPSK	3.7	3±1	4	2.512	-1.11	0.77	0.0004	1
2441		3.72	3±1	4	2.512	-1.11	0.77	0.0004	1
2480		4	4±1	5	3.162	-1.11	0.77	0.0005	1
2402	8-DPSK	3.95	4±1	5	3.162	-1.11	0.77	0.0005	1
2441		4	4±1	5	3.162	-1.11	0.77	0.0005	1
2480		4.32	4±1	5	3.162	-1.11	0.77	0.0005	1

5.8G SRD

Antenna gain: 2 dBi

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm2)	(mW/cm2)
				(dBm)	(mW)	(dBi)	Numeric		
5740	GFSK	5.451	5±1	6	3.981	2.00	1.58	0.0013	1
5767		4.941	5±1	6	3.981	2.00	1.58	0.0013	1
5795		3.401	3±1	4	2.512	2.00	1.58	0.0008	1

According to KDB 447498 D01 V06, no stand-alone required for BT antenna, and no simultaneous SAR measurement is required.

*** End of Report ***