

FCC ID : 2AB4KMETYH8212

1. 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 20cm.

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.

2. EUT TECHNICAL DESCRIPTION

Characteristics	Description
Product	Step Executive BT Shelf System
Model Number	MET8212, PES3515, PES3515-BK, PES3515-WH, PES3515-XXXXX, PES3530, PES3530-BK, PES3530-WH, PES3530-XXXXX, PES3550, PES3550-BK, PES3550-WH, PES3550-XXXXX(where XXXXX denote any printable characters in the ASCII Standard Character Table to represent variances in cosmetics or buyers). (Note: The only difference in models is the model's name, appearance color, silk screen and trademark, all other information is the same. The main test model applied for this report is MET8212)
Device Type	Bluetooth V5.0
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
Number of Channels	79 channels
Antenna Type	PCB Antenna
Antenna Gain	-0.58dBi
Max Transmit Power	1.04dBm
Power Supply	Adapter: Model: OBL-0902000U Input: 100-240V~50/60Hz, 1.0A Max Output: 9V, 2A, 18W
Temperature Range	0°C ~ 45°C

3. Measurement Result

Mode	Max Measured power (dBm)	Antenna gain (dBi)	Antenna Gain Numeric	R (cm)	Evaluation result (mW/cm ²)	Power density Limits (mW/cm ²)
BT	1.04	-0.58	0.88	20	0.0002	1

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