

RF Exposure Report

Report No.: SA150608D06

FCC ID: APIJBLCNTROLXWLP

Test Model: CONTROL X WIRELESS P

Received Date: Jun. 8, 2015

Test Date: Aug. 18 ~ Dec. 17, 2015

Issued Date: Dec. 18, 2015

Applicant: Harman International Industries, Inc

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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Release Control Record

Issue No.	Description	Date Issued
SA150608D06	Original release.	Dec. 18, 2015

1 Certificate of Conformity

Product: Wireless Speaker

Brand: JBL

Test Model: CONTROL X WIRELESS P

Sample Status: Engineering sample

Applicant: Harman International Industries, Inc

Test Date: Aug. 18 ~ Dec. 17, 2015

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D03

KDB 447498 D01

IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

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Jessica Cheng / Senior Specialist

Approved by : Rex Lai , **Date:** Dec. 18, 2015
Rex Lai / Assistant Manager

2 RF Exposure

2.1 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 (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Calculation Result Of Maximum Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
GFSK	2403 ~ 2473	0.63	3.3	20	0.0005	1
BT EDR	2402 ~ 2480	1.77	2.12	20	0.0005	1

Conclusion:

The formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$GFSK + BT\ EDR = 0.0005 + 0.0005 = 0.001$

Therefore the maximum calculations of above situations are less than the "1" limit.

FREQUENCY BAND (MHz)	MAX POWER (dBm)		TOTAL POWER (dBm)	POWER LIMIT (dBm)
	GFSK	BT EDR		
2400	0.63	1.77	4.25	30

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