RF Exposure Report

Report No.	SST240428007EF03
Applicant:	Dongguan Midiplus Electronic Technology Co., LTD
Address of Applicant:	Room 801,Building 2,No. 8 Shuilang Industrial Road, DaLingshan Town, Dongguan City, Guangdong Province, CHINA
Product Name:	Monitor Speakers
Trade Mark:	MIDIPLUS
FCC ID:	2AXTO-MSV2
Test Report Form No:	SST-RD-7.5-02-E01(A/0)

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC KDB 447498 D04. Test results reported herein relate only to the item(s) tested.

2 Contents

3 RF EXPOSURE EVALUATION MAXIMUM PERMISSIBLE EXPOSURE (MPE)

3.1 Introduction

This document is prepared to show compliance with the RF Exposure requirements as required in §1.1310 of the FCC Rules and Regulations and RSS-102 of Industry Canada.

The limit for maximum permissible exposure(MPE), specific in §1.1310, §1.1307(b) of the FCC Rules and KDB 447498 D01 were list in below

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842/f	4.89/f	*($900/f^2$)	<6
30–300	61.4	0.163	1.0	<6
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	<30
1.34–30	824/f	2.19/f	*($180/f^2$)	<30
30–300	27.5	0.073	0.2	<30
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

The procedure used to determine the RF power density was based upon a calculation for determining compliance with the MPE requirements.
The power generated by each transmitter used in this product was initially measured by a spectrum analyzer and the powers were recorded. Through use of the Friis transmission formula and knowledge of the maximum antenna gain to be used, the power density level is calculated at a distance of 20cm.

Friis transmission formula: **$Pd = (P_{out}*G)/(4*\Pi*r^2)$**
Where,
P_d = Power Density (mW/cm^2),
π = 3.1416,
P_{out}= output power to antenna (mW),
r = distance between observation point and center of the radiator (cm),
G = gain of antenna in linear scale

There is no co-location between the electric fields of any two transmitters therefore the power densities are calculated for each individual transmitter by frequency at 20cm spacing

3.2 MPE Calculation

BT mode

Power(dBm), P_{max}=	-3.59
Frequency (MHz), F=	2402
TX antenna Gain(dBi), G=	1.7
Distance(cm), R=	20
Power Density, P_d=	0.00013
Limit(mW/cm^2)	1

4 Conclusion

The device meets the mobile RF exposure limit at a 20cm separation distance as specified in §2.1091 of the FCC Rules and Regulations and Health Canada Safety Code 6. An appropriate RF exposure compliance statement will be placed in the user's manual.

►►► END OF REPORT ◄◄◄