FCC 47 CFR

MPE REPORT

For

E-core Audio Limited

WIRELESS DOCKING SPEAKER SYSTEM

Model Number: EAP-850, EAP-851, EAP-851A

Prepared for : E-core Audio Limited

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Maximum Permissible Exposure

1 Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

(a) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm2)	Averaging Times | E | ^{2}, | H | ^{2} or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-10000			5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm2)	Averaging Times | E | ^{2}, | H | ^{2} or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-10000			1.o	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

2 MPE Calculation Method

$E\ (V/m) = (30*P*G)^{0.5}/d$ Power Density: $Pd\ (W/m^2) = E^2/377$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$Pd = (30*P*G) / (377*d^2)$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

3 Calculated Result

3.1 Adapter: GP303U-075-240

Channel	Frequency(MHz)	Peak output power(dB μ V)	Peak output power(dBm)	antenna gain dBi	antenna gain (Linear)
1	2403	110.18	0.92	2	1.58
14	2442	111.55	3.92	2	1.58
26	2478	111.87	3.58	2	1.58

Channel	Frequency(MHz)	Peak output power to antenna (mW)	Power density at 20cm(mW/ cm^2)
1	2403	1.235	0.0038
14	2442	2.466	0.0077
26	2478	2.280	0.0071

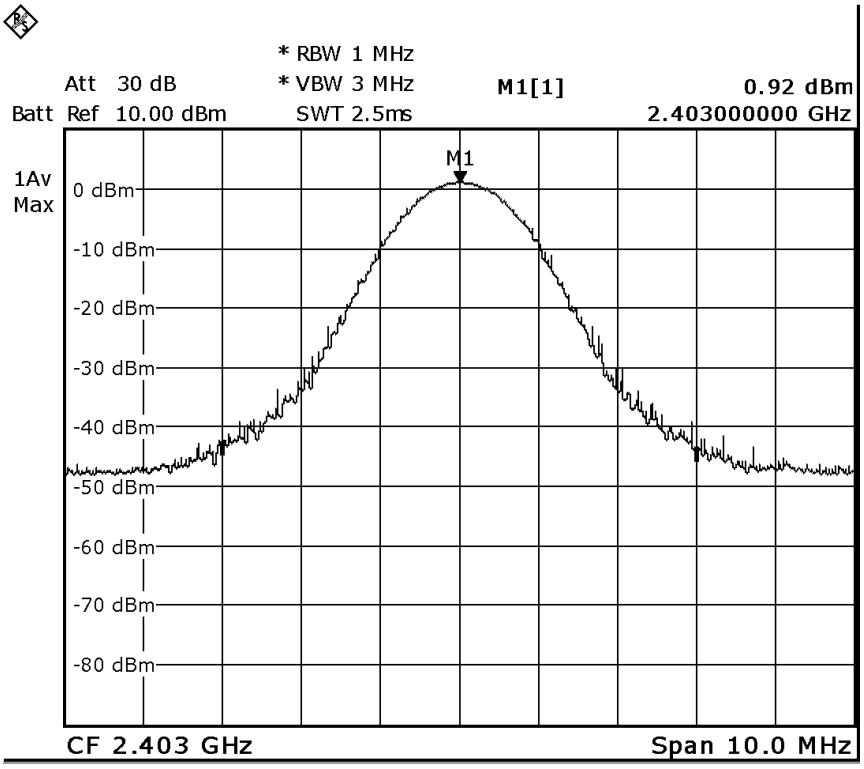
3.2 Adapter:PSEC075240U W

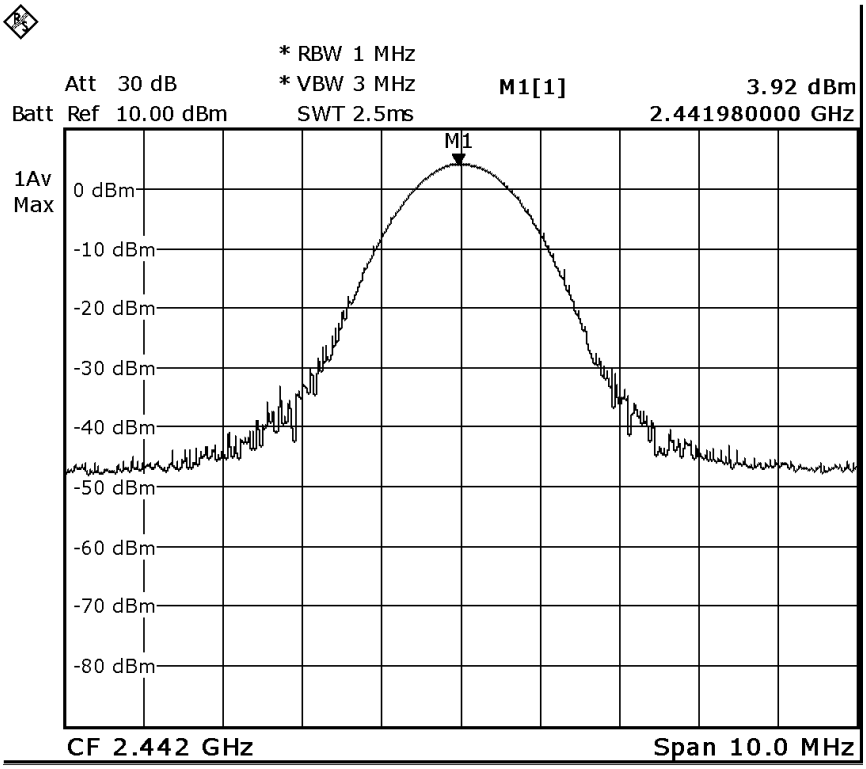
Channel	Frequency(MHz)	Peak output power(dB μ V)	Peak output power(dBm)	antenna gain dBi	antenna gain (Linear)
1	2403	109.72	-0.49	2	1.58
14	2442	111.44	2.81	2	1.58
26	2478	111.96	3.59	2	1.58

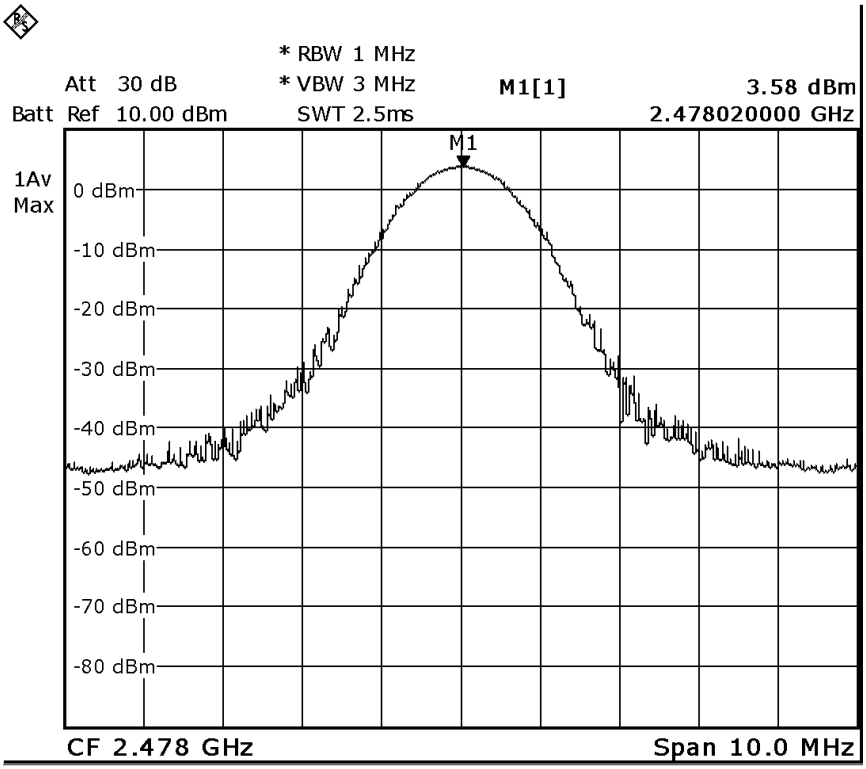
Channel	Frequency(MHz)	Peak output power to antenna (mW)	Power density at 20cm(mW/ cm^2)
1	2403	0.893	0.0028
14	2442	1.909	0.0060
26	2478	2.285	0.0071

Peak RF output Power ,Please refer to the following page.

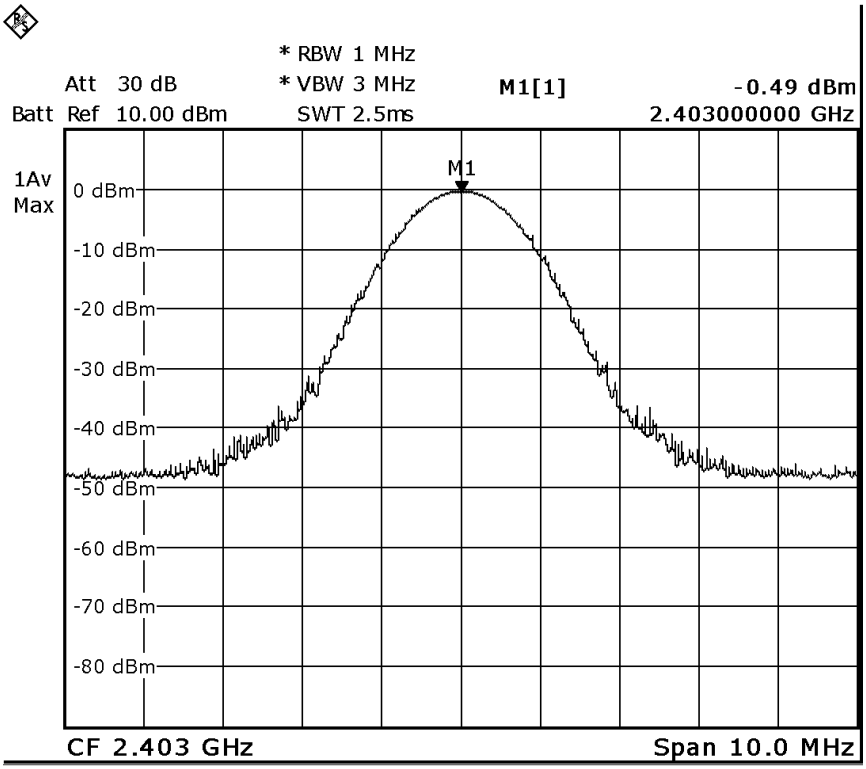
Adapter: GP303U-075-240

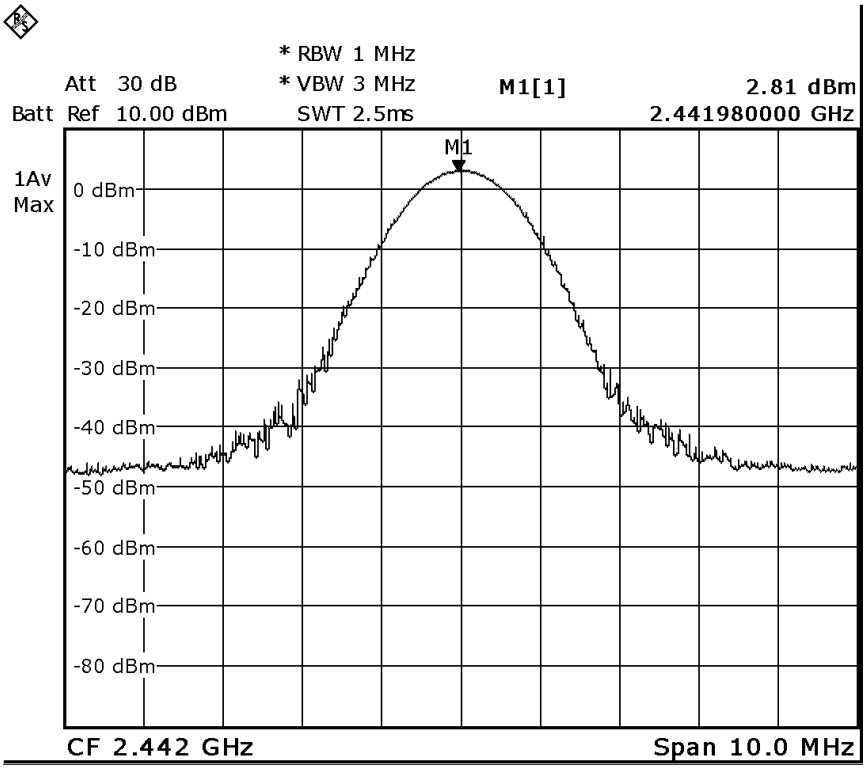


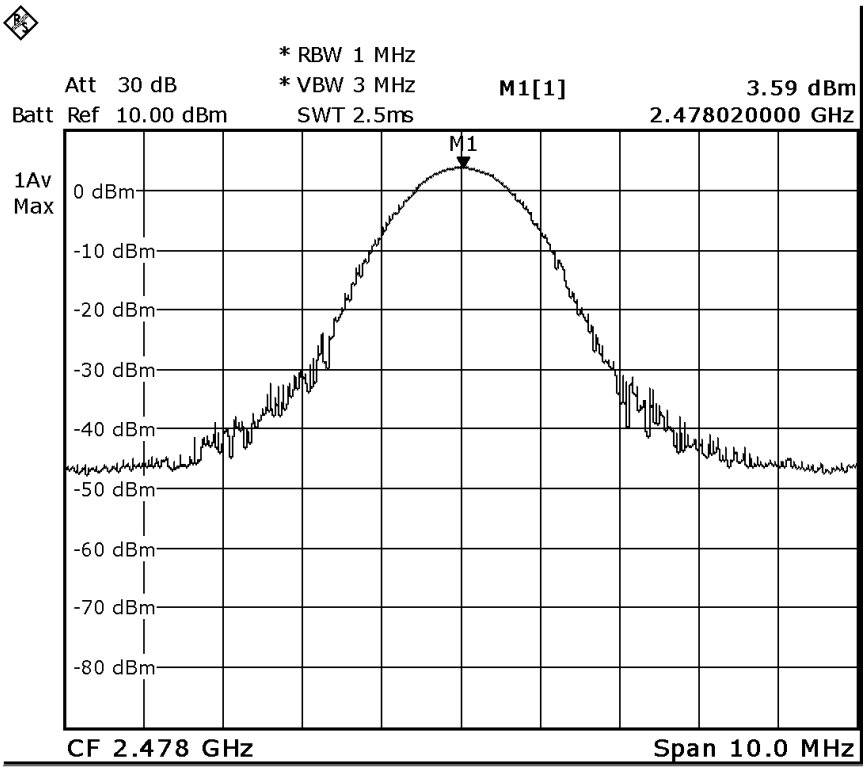



* RBW 1 MHz
Att 30 dB
* VBW 3 MHz
M1[1]
3.58 dBm
Batt Ref 10.00 dBm
SWT 2.5ms
2.478020000 GHz
M1
1Av
Max
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
CF 2.478 GHz
Span 10.0 MHz

Adapter: PSEC075240U W






* RBW 1 MHz
Att 30 dB
* VBW 3 MHz
M1[1]
3.59 dBm
Batt Ref 10.00 dBm
SWT 2.5ms
2.478020000 GHz
M1
1Av
Max
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
CF 2.478 GHz
Span 10.0 MHz

4 PHOTOGRAPHS OF TEST SET-UP