RF Exposure Evaluation

For

Model : **BT-588C, MI-BTE03,8041968, 8041969**

Report number : **FCC15123349**

Equipment Type : **In-ear Bluetooth stereo headphone**

Device Type : **Portable device**

FCC ID : **2AB75-BT588C**

Applicant Name : **WINTOP ELECTRONICS CO., LIMITED**

Standards : **FCC Part 15**

OET Bulletin 65, Supplement C (01-01)

IEEE C95.3

RF Exposure

1   Maximum Permissible exposure (MPE)

For human exposure in controlled environment to electromagnetic energy at radio frequencies from 3 kHz to 300 GHz, the MPE, in terms of rms electric (E) and magnetic (H) field strengths, the equivalent planewave free-space power densities (S) and the induced currents (I) in the body that can be associated with exposure to such fields or contact with objects exposure to such fields, is given in Table 1 as a function of frequency. Exposure associated with a controlled environment includes exposure that may be incurred by persons who are aware of the potential for exposure sa a concomitant of employment, exposure of other cognizant individuals, or exposure that is the incidental result of passage through areas where analysis shows the exposure levels may be above those shown in Table 1.2, but do not exceed those in Table1.1.

1.1 RF Field Strength Limits for Controlled Use Devices (Controlled Environment)

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Averaging Time (minutes)
0.003-1	600	4.9	-	6
1-10	600/f	4.9/f	-	6
10-30	60	4.9/f	-	6
30-300	60	0.163	10*	6
300-1500	3.54 $f^{0.5}$	0.0094 $f^{0.5}$	$f/30$	6
1500-15000	137	0.364	50	6
15000-150000	137	0.364	50	616000/$f^{1.2}$
150000-300000	0.354 $f^{0.5}$	9.4 x 10^{-4} $f^{0.5}$	3.33 x 10^{-4} f	616000/$f^{1.2}$

Note: f is frequency in MHz.
*Power density limit is applicable at frequencies greater than 100 MHz.

1.2 RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Averaging Time (minutes)
0.003-1	280	2.19	-	6
1-10	280/f	2.19/f	-	6
10-30	28	2.19/f	-	6
30-300	28	0.073	2*	6
300-1500	1.585 $f^{0.5}$	0.0042 $f^{0.5}$	$f/150$	6
1500-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000/$f^{1.2}$
150000-300000	0.158 $f^{0.5}$	4.21 x 10^{-4} $f^{0.5}$	6.67 x 10^{-5} f	616000/$f^{1.2}$

Note: f is frequency in MHz.
* Power density limit is applicable at frequencies greater than 100 MHz.

2   Equations for Predicting RF Fields

Calculations can be made to predict RF field strength and power density levels around

typical RF sources. The Formula is as below:

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density (in appropriate units, e.g. mW/cm^2)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

10logG=dBi

3 Calculation Result of Maximum conducted Power

The antenna of this product, under normal use condition, is less 5cm away from the body of the user.

When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to KDB447498 v06.

Item	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Power Density (W/ m^2)	Limit (W/m^2)
BT	2402~2480	2.36	2.0	5	0.0087	0.087	10.0

Due to the power density is less than limitation, therefore, it is not required for SAR

measurements.Reffer to BT Test Report for more details.

——END OF REPORT——