RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Bluetooth FM Transmitter
Model Name	C73, MCC9-1035-BLK
FCC ID	2AHASC73

2. EVALUATION METHOD

According to 447498 D01 General RF Exposure Guidance v05

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[$\sqrt{f(GHz)}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Where f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

3. CALCULATION

P_t=-6.969dBm=0.20mW

The value of the Maximum output power P_t is referred to the test report of the CFR47 §15.247.

The result for RF exposure evaluation SAR=(0.20mW /5mm) .[$\sqrt{2.480(GHz)}$]=0.06<3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

§15.239

FM Pt= -53.14dBm=0.0000049mW

The value of the Maximum output power P_t is referred to the test report of the CFR47

For frequencies below 100 MHz and test separation distances ≤ 50 mm , the power threshold determined by the following:

P_{max} =0.5 * 474 * [1+log(100/f)] mW, where f is MHz

For 88.1MHz, P_{max}=250mW. Pt< $P_{max.}$

For 107.9MHz, P = 3 x 5 / 0.1079^0.5 = 45.7 mW
P_{max}=45.7mW. Pt< $P_{max.}$
Simultaneous transmission between Bluetooth and FM transmitter:
    [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[$\sqrt{f(GHz)/x}$] W/kg, for test separation distances ≤ 50 mm;
    where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.
    SAR=(0.06+0. 0000049)/7.5=0.008W/kg<1.6W/kg

4. CONCLUSION

The SAR evaluation is not required.