RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Bluetooth Handsfree Car Kit
Model Name	C57M, BTFMEMIS, BT87, BT22, BT23, BT201D
FCC ID	2AJ5B-C57M

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=3.507dBm=2.24mW

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=(2.24mW /5mm) * [$\sqrt{2.441GHz}$)]= 0.70<3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

§15.239

FM Pt=-53.97dBm=0.00000401mW

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=(0.70+0.0000002634)/7.5=0.093W/kg<1.6W/kg

4. CONCLUSION

The SAR evaluation is not required.