RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Bluetooth FM transmitter
Model Name	FM38, KM29, KM29Pro, FM38P, FM39, FM39P, FM40, FM43LP, FM46P, FM36, FM41, FM45, FM46, FM47, FM50, FM51, FM52, FM53, FM44, KM28, KM34, KM35
FCC ID	2AFMDKM29KM29PROF38

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)] $\cdot [\sqrt{f(GHz)}]$ ≤ 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= -0.175dBm=0.96mW

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=(0.96mW /5mm) .$[\sqrt{2.441GHz})]$= 0.30<3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

  FM P_t=-49.23dBm=0.0000119mW

The value of the Maximum output power P_t is referred to the test report of the CFR39

§15.239

The result for RF exposure evaluation SAR=(0.0000119mW /5mm) .$[\sqrt{0.0881(GHz)}]$= 0.000000706<3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

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=(0.3+0.000000706)/7.5=0.04W/kg<1.6W/kg

4. CONCLUSION

The SAR evaluation is not required.