RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	ZUS Universal HD Car Audio Adapter
Model Name	ZUMABKSAV
FCC ID	2AFZB-ZUMABKSAVZ

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)] ·[√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

According to the follow transmitter output power (P_t) formula：
P_t= (E x d)^2/ (30 x g_t)
P_t=transmitter output power in watts
g_t=numeric gain of the transmitting antenna (unitess)
E=electric field strength in V/m
d=measurement distance in meters (m)

BT P_t=2.969dBm=1.98mW

The result for RF exposure evaluation
SAR=(1.98mW /5mm) .[√2.48(GHz)]= 0.62<3.0 for 1-g SAR

FM Pt=0.0000103mW
The result for RF exposure evaluation
SAR=(0.0000103mW /5mm) .[√0.106(GHz)]= 0.00000067<3.0 for 1-g SAR

   Simultaneous transmission between Bluetooth and FM transmitter
   [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] • [√ 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=(0.62+0.00000067)/7.5=0.083W/kg<1.6W/kg

4. CONCLUSION

The SAR evaluation is not required.