

MPE CALCULATION

For Qualcomm Incorporated – Trailer Tracking Device

FCC ID: J9CTT210Q1WW2

RF Exposure Requirements:	47 CFR §1.1307(b)
RF Radiation Exposure Limits:	47 CFR §1.1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	300 ~ 1500 MHz, 1500 ~100,000MHz
Limits for General Population/Uncontrolled Exposure in the band of:	30MHz – 300MHz
Power Density Limit:	0.2 mW/ cm ²

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$
Where, S = Power Density
P = Power Input to Antenna
G = Antenna Gain
R = distance to the center of radiated antenna

Cellular

ERP Power = 2356.55mW, MPE limit = 0.566mW/cm²

By using equation $R = \sqrt{PG / 4\pi S}$

R= 20cm

Result

The Above Result had shown that the minimum separation distance in order to meet MPE requirement is 0.468mW/cm².

PCS

EIRP Power = 1258.930mW, MPE limit = 1mW/cm²

By using equation $R = \sqrt{PG / 4\pi S}$

R= 20cm

Result

The Above Result had shown that the minimum separation distance in order to meet MPE requirement is 0.250mW/cm².

Bluetooth

This equipment uses less than 0.5 W of output power with a high signal transmitting duty factor (section 3 from Oet 65c). This device is categorically excluded from routine environmental, because it operates at very low power level. The equipment is deemed to comply with SAR or MPE limits without testing due to its very low power level (EIRP <25mW).

Completed By: Dan Corona

Date: January 24, 2012