

# MPE CALCULATION

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 / 47 CFR §2.1091

EUT Frequency Band:

824.2-848.8MHz

1850.2-1909.8MHz

Limits for General Population/Uncontrolled Exposure in the band of: 1500 – 100,000 MHz

Power Density Limit: 1.0mW/ cm<sup>2</sup>;

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

High Channel (848.8): Power = 30.2dBm, Antenna Gain = 0.6 dBi, Prediction distance 20 cm

S = 0.23918 mW/cm<sup>2</sup>

Low Channel (1850.2): Power = 32.70dBm, Antenna Gain = 0.6 dBi, Prediction distance 20 cm

S = 0.42533 mW/cm<sup>2</sup>

Result

The Above Result had shown that Device complied with 1.0 mW/cm<sup>2</sup> Power density requirement for distance of 20 cm.

GSM 850MHZ MPE limit is 0.56.

PCS 1900MHZ MPE limit is 1.

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Date :August 20, 2010