

## MPE Calculation / RF Exposure

Applicant name: TeleAdapt (HK) Ltd

Product name: Wireless LAN Access Point

Model name: TA-6950C

FCC ID : RR5TA-6950C

The FCC requires that the calculated MPE be equal to or less than a given limit dependent on frequency at a distance of 20 cm from the device to the body of the user. The equation for the calculation is given in OET Bulletin 65, page 19 as:

$$S = EIRP/4 \pi R^2$$

**Where**       $S$  = Power density

    EIRP = Effective Isotropically Radiated Power

$R$  = distance to the centre of radiation of the antenna

**Values**       $S = 1.0 \text{ mW/cm}^2$  for General population uncontrolled exposure (FCC Part 1.1310 Radiofrequency radiation exposure limits)

**$S = 1.0 \text{ mW/cm}^2$**

PT = 20.61 dBm (115 mW) : measured maximum peak output power

G = Antenna gain (total array gain) = 7.74 dBi (5.94 in linear terms)

EIRP = PT x G

R = 20 cm

**Calculation**      EIRP =  $115 \times 5.94 = 683.1 \text{ mW}$

$$S = 683.1/12.56 \times (20)^2$$

$$S = 683.1/5024$$

$$\mathbf{S = 0.136 \text{ mW/cm}^2}$$

**Conclusion**      **This confirms compliance to the required FCC Part 1.1310 Radiofrequency radiation exposure limit of  $1.0 \text{ mW/cm}^2$  at 20 cm operation.**