

## **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:

$$S = \text{EIRP} / 4 \pi R^2$$

**Where**      S = Power density  
                  EIRP = Effective Isotropically Radiated Power  
                  R = distance to the centre of radiation of the antenna

**Values**      S = 1.0 mW/cm<sup>2</sup> for General population uncontrolled exposure (FCC Part 1.1310 Radiofrequency radiation exposure limits)  
                  **S = 1.0 mW/cm<sup>2</sup>**  
                  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 x 5.94 = 683.1 mW  
                  S = 683.1 / 12.56 x (20)<sup>2</sup>  
                  S = 683.1 / 5024  
                  **S = 0.136 mW/cm<sup>2</sup>**

**Conclusion**    This confirms compliance to the required FCC Part 1.1310 Radiofrequency radiation exposure limit of 1.0 mW/cm<sup>2</sup> at 20 cm operation.