

Applicant: PointRed Technologies Inc.
1283 Old Mountain View Alviso Road
Suite B
Sunnyvale, CA 94089

FCC ID: QDU-MCRD-CPE-2R5

The following antennas are recommended by the manufacturer for use with this MMDS CPE station:

CPE:

TSI 15 dB Backfire Model A-S

TSI 12 dB Corner Reflector A-R

TSI 18 dB Yagi

TSI 24 dB Mesh Parabolic

Dorado panel 16 dBi 23 deg beam width PA2.5-02

RF Hazard Distance Calculation

mW/cm2 from Table1:

1.00

Max RF Power P, dBm	TX Antenna G, dBi	MPE Safe Distance, cm	Antenna Type
25.1	24.0	80.5	parabolic dish
25.1	18.0	40.4	yagi
25.1	16.0	32.1	panel
25.1	15.0	28.6	"backfire"
25.1	12.0	20.2	corner refl.

Basis of Calculations:

$$E^2/3770 = S, \text{ mW/cm}^2$$

$$E, \text{ V/m} = (P_{\text{watts}} * G_{\text{gain}} * 30)^{.5} / d, \text{ meters}$$

$$d = ((P_{\text{watts}} * G * 30) / (3770 * S))^{.5}$$

$$P_{\text{watts}} * G_{\text{gain}} = 10^{(P_{\text{dBm}} - 30 + G_{\text{dBi}}) / 10}$$

**NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm,
even if calculations indicate MPE distance is less**