

Applicant: 4RF Limited

FCC ID: UIPSQ928M141

## Project: 1675

**Test Report S/N:** 45461997, 1998, 1999

## **EXHIBIT 10 - FCC RF EXPOSURE (MPE) REPORT**

## Prediction of MPE Limit 47 CFR § 2.1091

$$S_{20} = \frac{P_A G_N}{4\pi R_{20}^2}$$

$$S_{C} = \frac{P_{A}G_{N}}{4\pi R_{C}^{2}}$$

$$R_{\rm C} = \sqrt{\frac{P_{\rm A}G_{\rm N}}{4\pi S_{\rm I}}}$$

$$S_L = \frac{f}{1500} (mW/cm^2)$$

 $S_{20}$  = Power Density of the Device at 20cm

**S**<sub>L</sub> = Power Density Limit

 $S_c$  = Power Density of the Device at the Compliance Distance  $R_C$ 

 $R_{20} = 20 \text{cm}$ 

 $R_c$  = Minimum Distance to the Radiating Element to Meet Compliance

 $P_T$  = Power Input to Antenna

P<sub>A</sub> = Adjust Power

 $G_N$  = Numeric Gain of the Antenna

f = Transmit Frequency

Transmit Duty Cycle = 100%

## **Use Group = General Popuation**

Transmit Duty Cycle:	100.00	(%)
Tx Frequency (f):	896.000	(MHz)
RF Power at Antenna Input Port ( $P_T$ ):	5000.00	(mW)
Antenna Gain:	28.00	(dBi)
Numeric Antenna Gain (G <sub>N</sub> ):	630.96	(numeric)
Cable or Other Loss:	0.00	(dB)
Duty Cycle/Loss Adjusted Power (P <sub>A</sub> ):	5000.00	(mW)

S <sub>L</sub> =	0.598	(mW/cm <sup>2</sup> )
S <sub>20</sub> at 20cm =	627.625	(mW/cm <sup>2</sup> )
$R_c =$	648.1	(cm)
s <sub>c</sub> =	0.60	(mW/cm <sup>2</sup> )

User's Manual must indicate a minimum separation distance of:

649cm