ANALYSIS OF NON-IONIZING RADIATION
Exhibit B

Antenna Diameter (D)	D= 2.4 meters		7.874 Feet
Antenna Surface Area (Sa)	$Sa = \pi \cdot \frac{D \cdot D}{4}$	Sa=	4.524 sq meters
Subreflector diameter (Ds)	Ds=0 cm	Ds =	0 inches
Area of Subreflector (As)	$As = \pi \cdot \frac{Ds \cdot Ds}{4}$	As=	0 sq cm
Center Frequency (Cf)	CF = 14.250 GHz		
Wavelength at (Cf), (Lambda)	Lambda = 0.0211 meters	C band=0.049, Ku band=0.0211m	
Transmit Power at HPA or VPC Flange (P1)	P1= 60 watts	$P2 = \log(P1) \cdot 10$ P2=	17.782 db
Path Loss from HPA or VPC to OMT (Loss)	Loss= 0.48 db		
Power at OMT (P)	P3=P2-Loss	P3=	17.302 db
Antenna Gain at (Cf), (Gain)	Gain= 49.2 dBi		
Antenna Gain Converted to Power Ratio, (Ges).	$Ges = 10^{\frac{Gain}{10}}$	Ges= 8.318E+04	Ratio
Antenna Aperature Efficiency (n)	0.6484		
Far Field (Rf)	$Rf = \frac{0.60 \cdot (D \cdot D)}{Lambda}$	Rf=	163.791 meters
Far Field Pwr Density (Wf)	$Wf = \frac{Ges \cdot P}{4 \cdot \pi \cdot (Rf \cdot Rf)} \cdot 0.1$	Wf=	1.325 mw sq cm
Near Field (Rn)	$Rn = \frac{D \cdot D}{4 \cdot Lambda}$	Rn=	68.246 meters
Near Field Pwd Density (Wn)	$Wn = \frac{16 \cdot n \cdot P}{\pi \cdot (D \cdot D)} \cdot 0.1$	Wn=	3.08 mw sq cm
Transition Region (Rt)	$Rt = Wn \cdot 1$	Rt=	3.08 mw sq cm (equal to or less than)
Pwr Density at Sub Reflector (Ws)	(N/A - No subreflector)		
Main Reflector Region Pwr Density (Wm)	$Wm := \frac{2 \cdot P}{Sa} \cdot 0.1$	Wm=	2.375 mw sq cm
Pwr Density between main reflector and ground (Wg)	$Wg := \frac{P}{Sa} \cdot 0.1$	Wg=	1.188 mw sq cm
Far Field Off Axis (WF)	$WF := Wf \cdot 0.01$	WF=	0.013 mw sq cm
Near Field Off Axis (WN)	$WN := Wn \cdot 0.01$	WN=	0.031 mw sq cm