**RF Radiation Hazard Calculations**

Calculations are based on OET Bulletin 65 equations 11-18

**Input Values**

| | | |
|---|---|---|
| Frequency of operation | 14393.50 | MHz |
| Wavelength | 0.02 | Meters |
| Reflector Diameter | 0.69 | Meters |
| Reflector Area | 0.37 | |
| Antenna Gain | 38.40 | dBi |
| Input Power | 14.77 | dBW |
| Input Power | 29.99 | W |

| | | |
|---|---|---|
| **Resultant EIRP** | 53.17 | dBW |
| | 207491.35 | W |

**Power Density At Antenna Surface**

| | | |
|---|---|---|
| Maximum Power Density At Antenna Surface | 324.77 | W/m^2 |
| Maximum Power Density At Antenna Surface | 32.48 | mW/cm^2 |
| Maximum Power Density At Antenna Surface | 15.12 | dBW/cm^2 |

| | |
|---|---|
| Is this compliant with limits? | |
| For occupational/ controlled exposure (5 mW/cm^2) | NO |
| For general population/ uncontrolled exposure (1 mW/cm^2) | NO |

**Power Density in the Near-Field Region**

| | | |
|---|---|---|
| Extent of the Near-Field | 5.64 | Meters |
| Aperture Efficiency | 0.65 | |
| On-Axis Near-Field Power Density | 210.28 | W/m^2 |
| | 21.03 | mW/cm^2 |

| | |
|---|---|
| Is this compliant with limits? | |
| For occupational/ controlled exposure (5 mW/cm^2) | NO |
| For general population/ uncontrolled exposure (1 mW/cm^2) | NO |

**Power Density in the Transition Region**

| | | | |
|---|---|---|---|
| Beginning of the Far-Field Region | | | 13.54 Meters |
| Transition Region Power Density | | | |
| Power density (near-field) | 21.03 | mW/cm^2 | 5.64 Meters |
| Power density (far-field) | 8.76 | mW/cm^2 | 13.54 Meters |

| | |
|---|---|
| Is this compliant with limits? | |
| For occupational/ controlled exposure (5 mW/cm^2) | NO |
| For general population/ uncontrolled exposure (1 mW/cm^2) | NO |

**Power Density in the Far-Field Region**

| | | |
|---|---|---|
| Far-Field starts at | 13.54 | Meters |
| Power density at the start of Far-Field Region | 9.01 | mW/cm^2 |

| | | |
|---|---|---|
| At what range is power density compliant with limits? | | |
| For occupational/ controlled exposure (5 mW/cm^2) | 18.17 | Meters |
| For general population/ uncontrolled exposure (1 mW/cm^2) | 40.64 | Meters |