Radio Test Data
Job Number: J81612

| Client: | GE MDS LLC | Job Number: J81612 |
| ---: | ---: | ---: |
| Model: | MERCURY ODU | T-Log Number: |
|  | T81665 |  |
| Contact: | Dennis McCarthy | Account Manager: |
| Susan Pelzl |  |  |
| Standard: | FCC Part 90, RSS-119 |  |

## Maximum Permissible Exposure

## Test Specific Details

Objective:
The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Evaluation 2/2/2011
Test Engineer David Bare

## General Test Configuration

Calculation uses the free space transmission formula:

$$
S=(P G) /\left(4 \pi d^{2}\right)
$$

Where: $S$ is power density $\left(W / m^{2}\right), P$ is output power $(W), G$ is antenna gain relative to isotropic, $d$ is separation distance from the transmitting antenna (m).

## Summary of Results

$$
\text { Minimum separation distance for } 18 \mathrm{dBi} \text { ant. (in } \mathrm{cm} \text { ): } 25.0 \text { (Note - manual states } 25 \mathrm{~cm} \text { required) }
$$

## Modifications Made During Testing

No modifications were made to the EUT during testing
Deviations From The Standard
No deviations were made from the requirements of the standard.

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| Standard: | FCC Part 90, RSS-119 |  |  |  |  |  | Class: | - |
| Use: | General |  | Antenna: Panel 18dBi |  |  |  |  |  |
| Freq. $\mathrm{MHz}$ | Tot dBm | $\begin{gathered} \hline \text { wer* } \\ \mathrm{mW} \\ \hline \end{gathered}$ | Cable Loss <br> Loss <br> dB | Ant <br> Gain <br> dBi | Power at Ant dBm | $\begin{aligned} & \text { EIRP } \\ & \mathrm{mW} \\ & \hline \end{aligned}$ | Power Density (S) at 20 cm $\mathrm{mW} / \mathrm{cm}^{\wedge} 2$ | MPE Limit at 20 cm $\mathrm{mW} / \mathrm{cm}^{\wedge} 2$ |
| $\begin{gathered} 3652- \\ 3673 \\ \hline \end{gathered}$ | 18.0 | 62.4 | 0 | 21 | 18.0 | 7852.36 | 1.562 | 1.000 |

For the cases where $S>$ the MPE Limit

| Freq. <br> MHz | Power Density (S) <br> at 20 cm <br> $\mathrm{~mW} / \mathrm{cm}^{\wedge} 2$ | MPE Limit <br> at 20 cm <br> $\mathrm{~mW} / \mathrm{cm}^{\wedge} 2$ | Distance where <br> $\mathrm{S}<=$ MPE Limit <br> cm |
| :---: | :---: | :---: | :---: |
| $3652-$ <br> 3673 | 1.562 | 1.000 | 25.0 |

* Maximum measured total output power from the radio for this antenna. The total power is integrated over the $99 \%$ bandwidth of the output.

