



# Radio Test Data

Client:	GE MDS LLC	Job Number:	J80799
Model:	Mercury 3650 Base Station and Mercury 3650 Subscriber	T-Log Number:	T80830
		Account Manager:	Susan Pelzl
Contact:	Dennis McCarthy		
Standard:	FCC Part 90, RSS-197	Class:	-

## 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 10/14/2010  
 Test Engineer Mehran Birgani

### General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4 \pi d^2)$$

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

### Summary of Results

Minimum separation distance for 18dBi ant. (in cm):	24.9	(Note - manual states 25cm required)
Minimum separation distance for 13dBi ant. (in cm):	24.6	

### 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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Use: General      Antenna: Panel 18dBi less 6dB cable loss plus 3dB for two chains

Freq. MHz	EUT Total Power*		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>
	dBm	mW						
3653 - 3697	23.9	245.5	6	21	17.9	7762.47	1.544	1.000

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>	Distance where S <= MPE Limit cm
3653 - 3697	1.544	1.000	24.9

Use: General      Antenna: Omni 13dBi less 6dB cable loss plus 3dB for two chains

Freq. MHz	EUT Total Power*		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>
	dBm	mW						
3653 - 3697	28.8	758.6	6	16	22.8	7585.78	1.509	1.000

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>	Distance where S <= MPE Limit cm
3653 - 3697	1.509	1.000	24.6

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