RADIATED (ERP)

Measurement Procedure

The phone was tested in a 16' anechoic chamber with a 2-axis position system that permits taking complete spherical scans of the EUT's radiation patterns. For all tests, the phone was supported in a free space type environment, vertically oriented in the chamber. Tests were done for AMPS 800 three frequencies (824.04, 836.52 and 848.97MHz) CDMA 800 three frequencies (824.70, 836.52 and 848.31 MHz) and CDMA 1900 (1851.25, 1880.00, 1908.75).

CDMA measurements were made with the phone placed in a call using the HP8922M mobile station test set. The phone was weakly coupled to the test set and configured to transmit in full data rate mode. Radiated power was measured at each 15 degree step. The radiated power was measured using a Gigatronics 8542C power meter in "Mod Avg" mode. From these measurements, the software calculates the angle at which maximum radiated power occurs for each case, and the radiated power at this angle was extracted from the data. The max radiated power results for the IHDT56ET1 follows, as EIRP in dBm. To get ERP (effective radiated power referenced to a half-wave dipole), subtract 2.1 dB from these numbers.

Measurement Results

* Data not supplied by EMC Lab

AMPS 800
824.70 MHz: 22.73 dBm
836.52 MHz: 22.73 dBm
848.31 MHz: 22.99 dBm

CDMA 800
824.70 MHz: 22.31 dBm
836.52 MHz: 22.47 dBm
848.31 MHz: 22.64 dBm

CDMA 1900
1851.25 MHz: 25.43 dBm
1880.00 MHz: 25.41 dBm
1908.75 MHz: 24.78 dBm

For all measurements, calibration was performed via gain substitution with a half-wave dipole.

Max EIRP in AMPS 800 is 22.99 dBm **(max ERP is 20.89 dBm)**.
Max EIRP in CDMA 800 is 22.64 dBm **(max ERP is 20.54 dBm)**.
Max EIRP in CDMA 1900 is 25.43 dBm (max ERP is 23.33 dBm).