

Radiated Power (ERP) Measurements and Data

Data for the radiated power measurements is taken in a tapered, fully anechoic chamber located at Motorola.

Path loss for the anechoic chamber is measured using a standard gain dipole antenna substituted for the EUT and performing a field strength calibration.

The path loss at the frequency under test was measured and determined to be 45.1 dBi

The calculations for the ERP are shown below:

Received power envelope : -19.6 dBm*

Path Loss / Antenna Gain : 45.1 dB**

$-19.6 \text{ dBm} + 45.1 \text{ dB} = 25.5 \text{ dBm} = \underline{\underline{\mathbf{354.8 \text{ mW ERP}}}}$

*Measured by putting the EUT in transmit mode in the quiet zone of the chamber, then measuring the power received at the receive end of the chamber using a Hewlett Packard 8563E spectrum analyzer.

**Path loss in the chamber is defined as the measured loss in dB from the point of test in the quiet zone in the chamber to the input of the spectrum analyzer in the control room. All cabling and antenna factors used during the measurement of the EUT is characterized during the path loss measurements.