

Echo Distance Measurement Radio Operational Description



The Multispectral Solutions, Inc. (MSSI) introduces the Echo Distance Measurement Radio (DMR), a revolutionary radio propagation time and distance measurement transceiver using MSSI's unique wideband pulse technology. The Echo DMR measures the roundtrip communication propagation time in a protocol message exchange between transceiver pairs. The range measuring radio provides the flexibility to track radio locations without the need of GPS access at each node or other pre-installed infrastructure. In head-to-head competition,

The range measuring radio is comprised of a single circuit card encased in a shielded modular unit with two interfaces for power and data. The unit supports external power and serial RS232 or power over Universal Serial Bus (USB) data communications. The antenna utilizes a dual dipole in series for a 5 dBi omnidirectional pattern.

Specifications:

Radio Frequency of Operation	FCC ID: QCJECOH108
Pulse Peak Power Output	30 mwatts EIRP
Range Resolution (single measurement)	15 cm
Physical Dimensions	59 x 96 x 13 mm
Module Weight	90 g
Dual Dipole Antenna and Coax Weight	20 g
Operating Voltage	2.7 – 5.0 V DC
Current	150 mA @ 5 V DC (nominal)
Data Comm. Interface	USB, RS232
Supported Driver Operating Systems	Windows XP
Temperature Range	0to 40 deg C
Interface Data Rate (RS232 & USB)	115.2 & 921.6 kbps