

The e-Scan2 radio system is a portable system used to acquire data from heating, ventilating and air-conditioning (HVAC) systems for the purpose of determining system deficiencies such as duct leakage, improper refrigerant charge, reduced air flow, etc.

The system is comprised of 2 sensor units; ESCAN2-SX, ESCAN2-LX and a receiver unit ESCAN2-RX. The receiver (RX) unit, under control from a lap-top computer, polls the sensor units once every 30 seconds. After gathering the required system data the LX and SX sensor units, on a timed bus, report their data back to the receiver (RX) unit in a single datastream of 220 mSeconds with a duty cycle of 20%.

The RF sections of all three units have identical schematics, bills-of-material and printed circuit board layouts, and use identical antennas.