

Micrel Inc., is a leading global manufacturer of IC solutions for the worldwide analog, Ethernet and high bandwidth markets. The Company's products include advanced mixed-signal, analog and power semiconductors; high performance communication, clock management, Ethernet switch and physical layer transceiver ICs.

Company customers include leading manufacturers of enterprise, consumer, industrial, mobile, telecommunications, automotive, and computer products.

Corporation headquarters and state-of-the-art wafer fabrication facilities are located in San Jose, CA with regional sales and support offices and advanced technology design centers situated throughout the Americas, Europe and Asia. In addition, the Company maintains an extensive network of distributors and reps worldwide.

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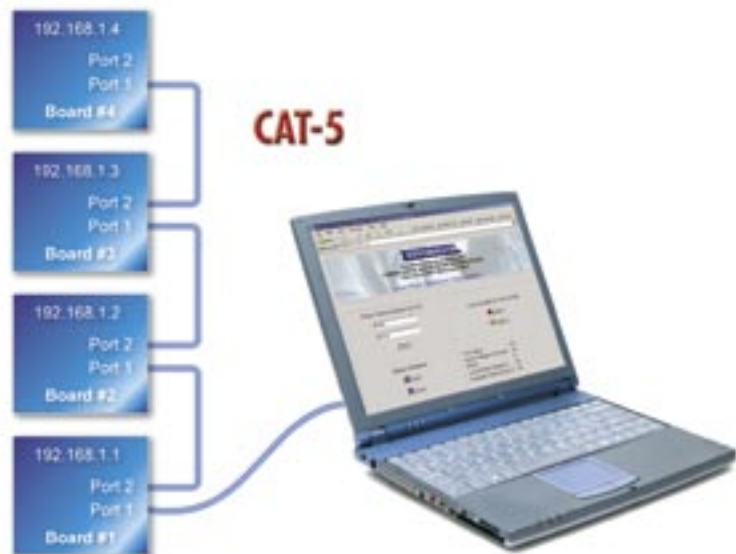
Get on Board

The Power of Micrel's Wireless Gateway Evaluation Board

Micrel's new eval board allows for rapid demonstration of daisy-chained 10/100 Ethernet and networked 915MHz RF communication on a single board. The Ethernet daisy-chaining interface is accomplished by using the KSZ8842-16MQL 2-Port Ethernet switch, which also has an extremely low latency 300nS when placed in the repeater mode. The processor is an 8051 and runs a TCP/IP stack that can quickly be interfaced into industrial networks for basic communication and control. The availability of a 2 x 8 LCD display, potentiometer, digital I/O and serial expansion slots makes this a versatile demonstration platform for many customer needs. Micrel power control ICs, including switchers, LDO's, reset circuits, timer/oscillators, comparators and "SilentSense™" temperature sensors complete the power management and system interface of this advanced evaluation platform.

The RF connection is made using FCC 15.247 compliant digital modulation in the 915MHz band with adjustable output power from -3dBm to +10dBm, resulting in 300 meters open line of site range. One board can serve as master while three associated boards can serve as slaves, each having the ability to send information to and from the master.

The entire evaluation platform can run off of 5-12VDC wall power or from a single 9V battery. Two 8 pin expansion headers allow for additional I/O.

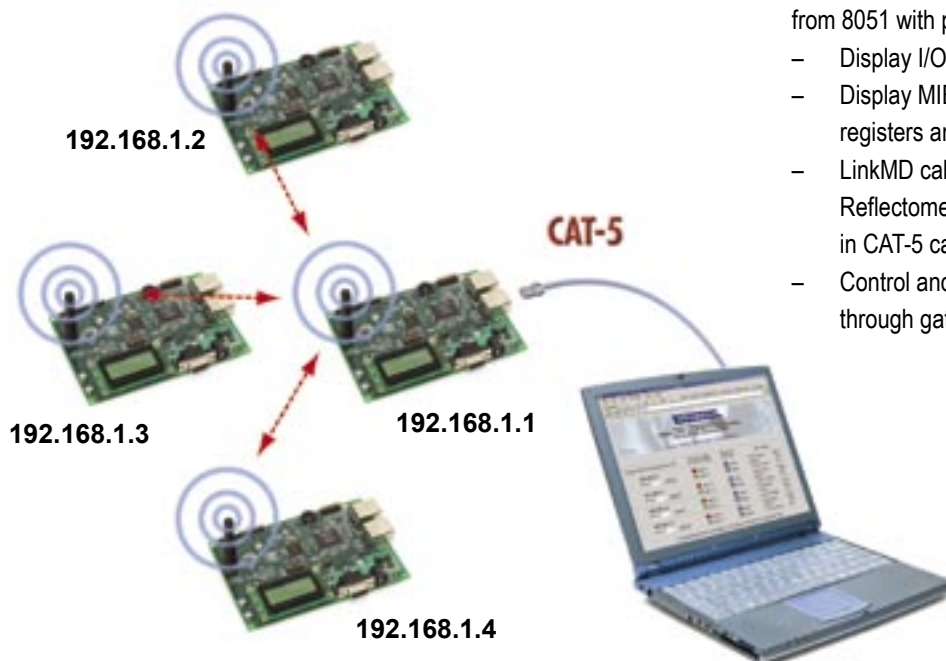


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Highlights:

- KSZ8842-16MQL, featuring LinkMD™ cable diagnostics capability and MIB (Management Information Base) counters
- The MICRF505 is a 850MHz - 950MHz FSK Transceiver with built-in Power Amplifier that can be adjusted from -3dBm to +10dBm.
- Software provided by Micrel as C-Source code.

- The radio section can attain line of sight ranges of up to 300 meters. An LED ("RF") and Piezo Buzzer are located in the area of the MICRF505 and are used as part of demo programs to indicate radio activity or link.
- The MIC280 Thermal Sensor is connected to the 8051 via an I2C interface. The MIC280 monitors its internal temperature and is also capable of monitoring a remote zone via a 1 wire interface.
- Two 8 pin headers allow for expansion of the PCB to other systems.
- Board may also be used in an RF network mode.
- Web page Graphical User Interface (GUI) served up from 8051 with pages to:
 - Display I/O
 - Display MIB (Management Information Base) registers and statistics
 - LinkMD cable diagnostics using Time Domain Reflectometry to determine distance to open or short in CAT-5 cable
 - Control and interface into RF networked environment through gateway



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