



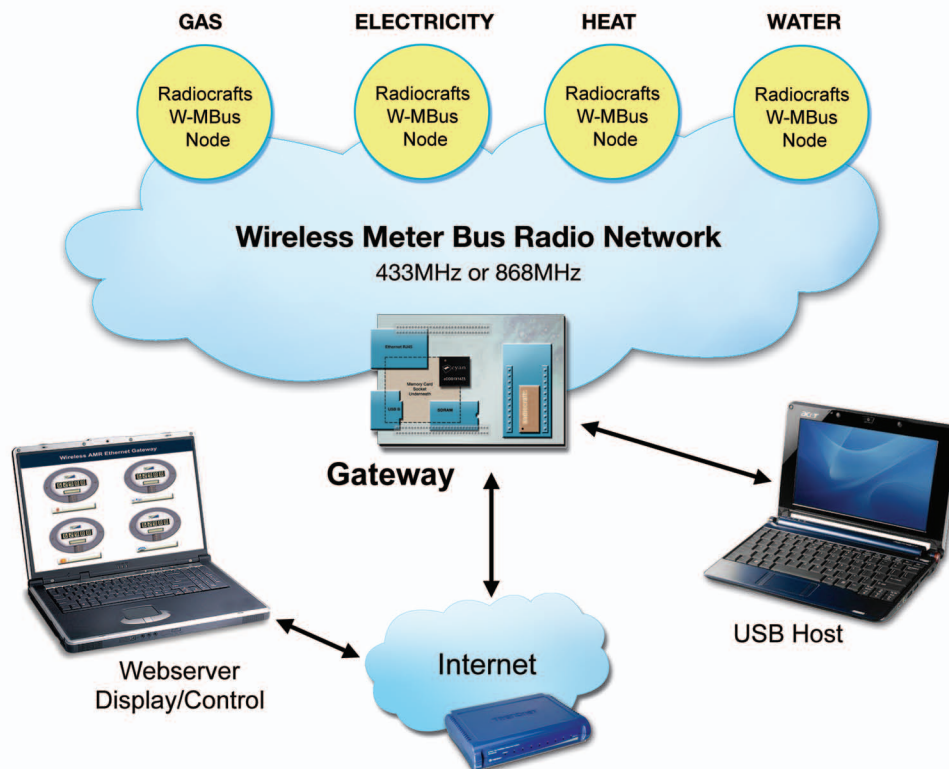
ESSENTIAL TEAMWORK FOR WINNING DESIGNS

USB/Ethernet Gateway Module for Radiocrafts RC11x0 Wireless M-Bus

Supports EN 13757-4:2005 mode S, T and R2

Cyan and Radiocrafts USB/Ethernet Gateway module for Wireless M-Bus provides back channel connectivity, linking the RF network to the utility company via the internet as well as USB peripheral capability and a memory card connector. It has high pin count connectors that allow user access to many of the peripherals of the microcontroller and is footprint compatible with the Cyan USB/Ethernet production-ready module. A development carrier board can be used to provide power and comms / debug interfaces to the module.

The below diagram outlines the philosophy:



Part Number	Description
mCOG-UPE-1X-RCWMB-M1-8	Module 868MHz W M-Bus + Ethernet + USB peripheral
EVALKIT-UPE-1X-RCWMB-M1-8	Module + Base Board + Dongle + Cables
DEVKIT1X-USB/ETHERNET	USB/Ethernet Development Kit

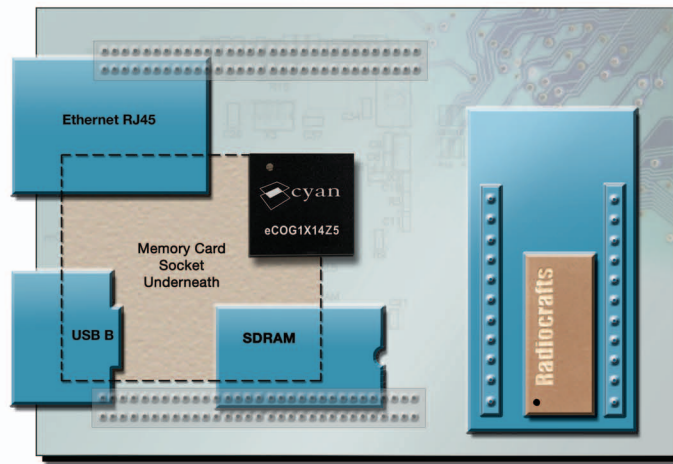



Image for illustrative purposes only

Applications

- Automatic Meter Reading (AMR)
- Advanced Metering Infrastructure (AMI)
- Electricity meters
- Gas and Water meters
- Heat meters, Heat cost allocators
- Readers and concentrator

Radiocrafts RC1180 Wireless M-Bus Multi-Mode RF Transceiver Module Features:

- Embedded Wireless M-Bus protocol supporting EN 13757-4:2005 mode S, T and R2
- 2 channels (868.3, 868.95 MHz) in mode S and T
- 10 channels in mode R2 ($868.03 + n \times 0.06$ MHz)
- Configurable Manufacturer ID and serial number
- Conforms with EU R&TTE directive (EN 300 220, EN 301 489, EN 60950)
- Designed for EX compliance

433MHz is also available please contact:
sales@cyantechnology.com for details

Cyan MCU Features include:

- 70MHz eCOG1X14Z5
- 512KB Flash / 24KB RAM
- 10/100 Ethernet MAC
- USB 2.0 controller
- 5 multi-purpose timers
- Code security feature
- Accessible on module pins:
 - 12-bit ADC (8 I/P) - 12-bit DAC (2 O/P)
 - UART, I2C & SPI serial - Parallel I/O port

Software included with CyanIDE®:

- GNU C Compiler / Debugger, Eclipse IDE
- Wireless M-Bus node to Webserver demo
- Open source TCP/IP stack with support for HTTP, FTP, SMTP, Telnet, DHCP, TFTP, BOOTP, SNTP & SNMP
- FAT16 / FAT32 filing system
- SD / SDHC / MMC low-level device interface
- USB CDC, HID & MSD (mass-storage) device classes

Gateway Module Key Features:

- Small size approx. 2" x 3"
- eCOG1X14Z5 MCU
- RC1180/RC1140-MBUS Wireless M-Bus module
- 16MB external SDRAM
- SD/SDHC/MMC socket
- 100Base-T Ethernet PHY and RJ45 connector
- Preprogrammed MAC address and serial number
- USB 2.0 full-speed peripheral (B socket)
- Two 2x20 pin connectors bring out many MCU pins for customer use – same footprint as Cyan USB/Ethernet module
- Development base board available, providing power and debug
- Connectors arranged for easy panel mounting
- 0-70 deg C operating temperature range
- Single 3.3V supply
- FCC/ETSI/CE approvals pending

Radiocrafts
 Embedded Wireless Solutions

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