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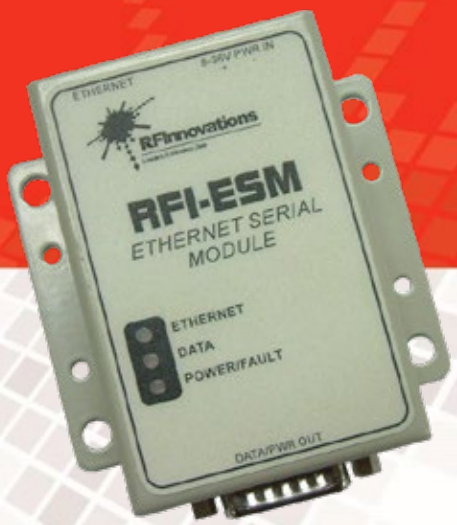
RFInnovations
Leaders in Wireless Data

an STI Engineering product

# Ethernet Serial Module




The RFI-ESM enables Ethernet communication over a wide area data radio network.

The module transparently transfers all protocols at the Ethernet MAC layer including FTP and industry standard TCP/IP Modbus and DNP protocols.

## Features

- IEEE 802.3 MAC layer operation for simple deployment
- Transparently transfers all protocols above Ethernet
- 10/100 BaseT Ethernet
- LED and software diagnostics

## Ethernet Bridge Application

The RFI-ESM is suited for applications in Utilities, Mining, Agriculture and Transport industries where reliable wide area Ethernet data transfer is critical.

The module can be used in small and large scale telemetry systems offering the convenience of Ethernet and the wide area coverage of traditional telemetry systems

The RFI-ESM transparently moves data from end-to-end at speeds of up to 115 kbps and when used with RF Innovations data radio modems can transport Ethernet data up to 50 km*.

## Serial Device Server Application

The RFI-ESM can also be used as a serial device server to provide an RS232 interface on a TCP/IP port. This effectively allows connection of RS232 devices onto an Ethernet network. When used with RF Innovations radios existing Ethernet infrastructure can be utilized as a backbone to provide connectivity to remote RS232 devices.

*Maximum practical point-to-point distance with line of sight and suitable antennas.

# Specifications

| | |
|---|---|
| **Wireless Ready** | Designed specifically for use with RF Innovations wireless wide-area networks |
| **Plug and Play** | No configuration required for common applications |
| **Filtering** | Configurable packet filtering on source or destination address or Ethernet packet type to reduce the bandwidth used for unnecessary traffic |
| **MAC Address Forwarding** | Effectively connect two LAN segments regardless of network layer protocol and IP addressing |
| **Auto MDIX** | The module will automatically detect if the Ethernet data signals are backwards and properly match the connected device without the need for a crossover cable |
| **Industrial Grade** | Built for industrial applications where environmental conditions are more severe than commercial grade equipment |
| **Traffic Statistics** | Ethernet traffic statistics for quantifing data passing through the unit |

PHYSICAL
**Dimensions:** 94mm x 80mm x 26mm
**Weight:** 100g
**Construction:** Powder coated aluminum chasis and cover

WAN
**Serial Data:** RS-232 Asynchronous with handshaking
**Interface Speed:** 300bps to 115200bps software selectable

LAN
**Ethernet:** 10BaseT or 100BaseT auto detect
**Mode:** Half duplex or Full duplex auto detect

GENERAL
**Operating Voltage:** 8V to 36V DC (negative ground)
**Operating Current:** 45mA @12 VDC nominal
**Operating Humidity:** Up to 95% non-condensing relative humidity
**Operating Temperature:** -10 to +60˚C

CONNECTORS
**LAN:** RJ45 socket
**WAN:** Custom DB15 connector
**Power:** Phoenix PH1176508 (mating connector supplied)

Specifications subject to change without notice V161122