

RTU-810 - All-in-one Radio Modem Solution



The RTU-810 is a state-of-the-art radio modem for SCADA and telemetry applications. The high RF output power of up to 6 Watt combined with an optimized radio protocol for high performance polling makes the RTU-810 ideal for connecting PLC's, RTU's or other SCADA equipment wherever a wired communication is not available.

Up to 150 slave stations (Type DA1) can be polled each minute. Any polling path can use up to 31 stations as repeater in case a station cannot be reached directly. The RTU-810 can communicate with SS20F solar radio stations in the same network.

The TRM-810 version can be used as a

pure serial master station. The RTU master mode can poll up to 4 RTU-810 (and/or RTU-710) and exchange binary and analog I/Os between them.

The RTU-810 is equipped with two completely independent serial interfaces that can be connected to any type of equipment along with an 10/100 Mbit/s Ethernet port, which is used for the webserver based configuration and connection of IP based equipment.

Built-in digital and analog I/Os, which can even be expanded, are building an interface to contacts, sensors, and switches for setting up small to medium substations even without the need of an external PLC's or RTU's.

RTU-810

Along with the PicoLogo application interface the user can build local control and alarm applications in the RTU-810 with the ease of a graphical editor.

All this comes in a single, rugged aluminum enclosure, which will directly fit onto a standard DIN-rail. The wide power supply voltage of 12-24V +/- 20% makes it ideal for automation and solar powered applications.

Basic Device

The RTU-810/TRM-810 basic device is always equipped with the following interfaces:

1. Serial interface "COM", SubD-9 connector female, RS-232 or RS-485/422
2. Serial interface "AUX", SubD-9 connector female, RS-232
3. Ethernet port 10/100 Mbit/s for connecting equipment or to configure the RTU-810 using the embedded webserver

Device with integrated IO (/DA type)

The RTU-810 with integrated I/Os also has an expansion port interface, RJ-45, for connecting up to 16 „PEM“ expansions modules

RF-Option

The RTU-810 can have two different types of radio hardware:

Type "M":

Radio with up to 500mW RF output power

Type "H":

Radio with up to 6W RF output power

RF-Frequencies

The RTU-810 is available in the following frequency ranges:

- 410-430 MHz
- 430-450 MHz
- 450-470 MHz

Other frequencies are available upon request.

Radio network performance:

Polling of up to 150 stations (Type DA1) per Minute

Radio routing:

Any polling path can use up to 31 stations as repeater

I/O Option

These different types of internal I/O are available on the RTU-810

DA1:

16 digital inputs, 8 digital outputs, 4 analog inputs

DA2:

16 digital inputs, 8 digital outputs

DA3:

16 digital inputs, 16 digital outputs

DA4:

16 digital inputs, 8 digital outputs, 2 analog inputs, 2 analog outputs

DA5:

16 digital inputs, 8 digital outputs, 4 analog outputs

Options:

1. PicoLogo Application Platform
2. IEC 60870 and DNP3 option to access the embedded I/O
(Modbus protocol is included as default)