



The Simple RTU

Automation
Electronics

Overview

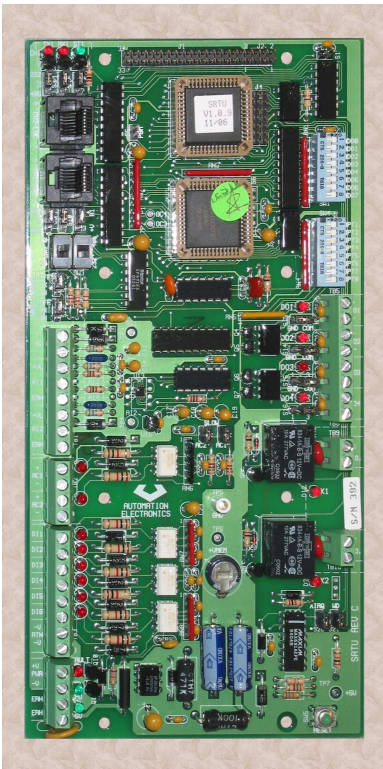


Figure 1: Simple RTU (SRTU)

Features

General

- MODBUS RTU protocol
- On-board address switch (1-255)
- Seven on-board option switches
- Two RS-232 ports

The SRTU is the answer for many low point count point-to-point and point-to-multi-point SCADA applications.

The SRTU has been designed from the ground up to fit small to medium I/O requirements. It is a board level product that can be integrated into new designs, as well as an ideal upgrade for out of date existing RTUs. Designed with simplicity in mind, the SRTU is based on a single chip 8-bit microprocessor, and uses the latest in wafer scale integration technology to minimize the part count, increasing reliability.

The SRTU is designed as an industrial product with industrial temperature rated parts. It has two RS-232 / RS-485 communication ports. One port can be interfaced to virtually any radio, and has configurable baud rates, and key on and key off delays. The other port is for configuration, and simple diagnostics. It has 6 digital inputs, 2 pulse inputs (with built-in 32 bit accumulator), 6 digital outputs, (2 are 12 amp relays), and 2 each 12-bit analog inputs. An optional expansion module adds 16 digital inputs, 16 digital outputs, 4 12-bit analog inputs, and 4 12-bit analog outputs.

- 24-hour parameter backup with on-board capacitor
- Industrial temperature rating
- Expandable with plug-on module

Options

- SRAO-2: Two 12-bit isolated analog out

- EXP-164: 16 digital inputs, 16 digital outputs, 4 analog inputs, 4 analog outputs expansion module
- DIF-16: 16 digital input field terminal board
- PRO-8: 8 relay output board
- Water well monitoring/control
- Lift station monitoring/control
- Pressure reducing valve control
- Point to multi-point SCADA systems
- Pump control systems
- Irrigation monitoring/control
- Wireless 4-20 mA loops
- Waste water plants

Applications

- Wire line replacement

Specifications

Mechanical	
<i>Size:</i>	4-1/2" x 9" PC board
<i>Mounting:</i>	Snap track
Environmental	
<i>Operating temperature:</i>	-40 to 158 °F (-40 to 70 °C)
<i>Relative humidity:</i>	5 to 90% non-condensing
Power requirements	Less than 70 mA minimum; 225 mA maximum @ 12 VDC
Input/Output	
<i>Digital inputs:</i>	Six optically isolated (12 VDC @ 10 mA). All digital inputs can accumulate counts and time on in seconds (32-bit counters). All digital inputs can be used as 30 Hz pulse accumulators (10 mS on/off to recognize state change).
<i>Pulse inputs:</i>	Two pulse inputs (0 to 3 kHz), optically isolated. The high speed pulse inputs can also be used as status.
<i>Digital outputs:</i>	Four optically isolated 100 mA driver outputs
<i>Relay outputs:</i>	Two 12 A resistive @ 120 VAC form A
<i>Analog inputs:</i>	Two 12-bit 4-20 mA
Communications	
<i>Ports:</i>	One RS-232/RS-485 port for communication One RS-232 port for configuration
<i>Protocols:</i>	MODBUS RTU protocol
Programming	Custom applications
