



(800) 888-1893  
www.iclinks.com

# ScadaBridge™ Wireless RTU

Integrated RTU and Spread Spectrum Data Radio

## More Functionality ...

- ✓ **Low-cost RTU for small I/O applications**
- ✓ **Built-in license-free high-speed spread spectrum data radio**
- ✓ **Pre-engineered RTU + Radio eliminates system integration headaches**
- ✓ **“Plug-and-play” compatible with popular SCADA/DCS software, PLCs & Process Controllers**
- ✓ **Fast field configuration without special tools or laptop computer**
- ✓ **Easy to use radio link test and troubleshooting software**
- ✓ **Engineered for safety and reliability with fault tolerant I/O, error checking & dual watchdog timers that protect personnel & equipment**
- ✓ **Simple I/O expansion through the built-in RS-232 port**
- ✓ **Wide temperature range – eliminates fans & heaters in outdoor enclosures**
- ✓ **Low current DC power - Ideal for solar, mobile & battery operation**

## Lower Cost ...

- ✓ **Optimized for limited I/O; don't pay for more I/O than you need**
- ✓ **Pre-engineered to lower installation costs; all-in-one RTU & radio solution**
- ✓ **Small “footprint” fits in smaller, lower cost panels**
- ✓ **Easy field setup & maintenance, but with powerful software tools when you need more extensive system testing, analysis & troubleshooting**

ScadaBridge™ RTU



The ScadaBridge™ Wireless RTU is a new generation of Remote Terminal Unit (RTU) that combines the traditional Remote I/O functions of an RTU with a built-in spread spectrum radio, lowering cost and simplifying installation and support.

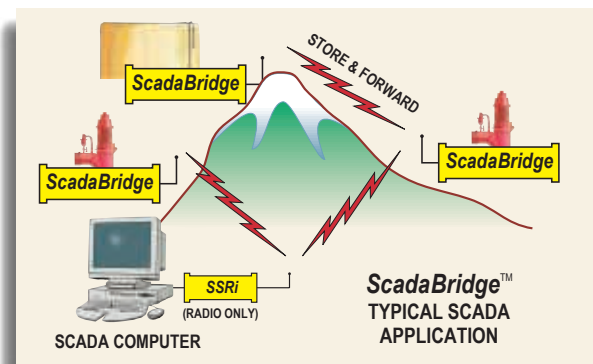
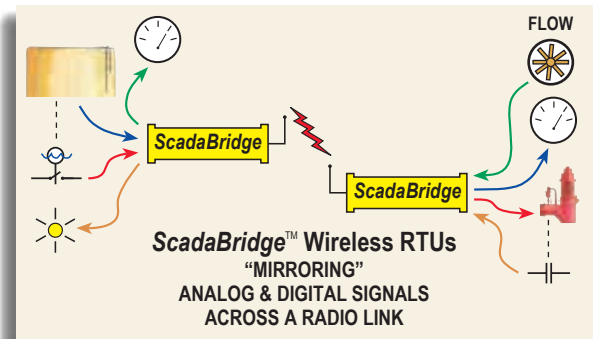
- ✓ **Remote Monitoring**
- ✓ **Remote Control**
- ✓ **Wireless I/O “Bridge”**

Each ScadaBridge™ can serve as a “standard” Modbus Slave RTU in a radio based SCADA system or as a wireless I/O bridge to “mirror” analog and digital signals between two remote locations, providing radio capabilities to non-radio enabled process equipment. The RTU in the ScadaBridge™ is “plug-and-play” compatible with all popular SCADA and DCS software—including Wonderware, FIX, FactoryLink and Labview—and with PLCs and process controllers.

Optimized for small I/O count applications that have often carried a high cost-per-point, each ScadaBridge™ provides 2 analog inputs, 2 analog outputs and 4 digital I/O—an ideal combination for monitoring tanks and lift stations, for remote control and monitoring of well pumps.

ScadaBridge™ Wireless RTUs support “on-exception” reporting and “store-and-forward” message repeating for optimal radio operation. In addition to simple I/O, ScadaBridge™ units include pulse/DI cycles totalization, runtime totalization and rate calculation to simplify billing based on flow or wattage, and maintenance monitoring based on cycles or runtime. The extremely low-power consumption of ScadaBridge™ Wireless RTUs makes them ideal for solar and battery-backed applications.

Easy installation, low cost, wide temperature range and “plug-and-play” compatibility make ScadaBridge™ Wireless RTUs a great choice for small I/O SCADA systems and wireless I/O applications.



**DIGITAL I/O**

<i>Points &amp; Configuration</i>	4 (each I/O point may be used as an input or an output)
<i>Overload Tolerance</i>	Inputs/Outputs clamped at 28Vdc
<i>Digital Input Type</i>	150KΩ with 4.7KΩ pullup to input power
<i>Digital Input Levels</i>	Contact closure to common (max. 2.0mA current source @ 12Vdc in)
<i>Digital Input Pulse Counting</i>	Up to 50Hz
<i>Digital Input Pulse Rate Totalization</i>	Up to 4,294,836,200 counts/gate time period, each channel
<i>Digital Input Pulse Rate Gate Time</i>	1 to 65,535 seconds
<i>Digital Input Runtime Accumulations</i>	Up to 4,294,836,200 seconds (136 years), each channel

<i>Digital Output Type</i>	FET Transistor (ON = Sinking to Common)
<i>Digital Output Levels (Nominal)</i>	0 to 28Vdc, 7.0A peak

**ANALOG I/O**

<i>Analog Input Points / Level</i>	Qty. 2, 0 to 20mA (4 to 20mA)
<i>Resolution</i>	10-bit (1 part in 1024)
<i>Analog Input Configuration</i>	Single-ended w/shared common
<i>Input Overload Protection</i>	Self-resetting Polyfuse & Transorb
<i>Analog Input Overload Tolerance</i>	30Vdc/100mA
<i>Analog Output Points / Level</i>	Qty. 2, 0 to 20mA (4 to 20mA)
<i>Overload Protection</i>	Self-resetting Polyfuse & Transorb
<i>Analog Output Configuration</i>	Single-ended, sourcing from RTU input power, w/shared common, 44mA max.

**SPREAD SPECTRUM RADIO OPTION**

<i>Frequency Range</i>	902 to 928MHz (900MHz) or 2.40 to 2.4835GHz (2.4GHz)
<i>RF Output Power</i>	Up to 1.0W (+30 dBm) (900Mhz), up to 0.5W (+26 dBm) (2.4GHz)
<i>Operating Range</i>	up to 20 mi. (32 km.) line-of-sight w/unity gain antenna (900MHz) up to 20 mi. (32 km.) line-of-sight w/5 dB omni antenna (2.4GHz)
<i>Spreading Method</i>	Frequency hopping
<i>Modulation</i>	Spread Spectrum GFSK, 120kBs - 170kBs
<i>Data rate, Format, Error Checking</i>	Up to 115K baud, RS-232 full duplex asynchronous, 32 bit CRC
<i>Antenna / Data Connectors</i>	TNC female, RS-232 Data: 9-pin "D" Female

**DIRECT CONNECT (Set Up / Diagnostics)**

<i>Interface</i>	RS-232, up to 115K baud, no parity
<i>Protocol</i>	Modbus RTU for RTU section, ASCII text menus for radio setup and diagnostics
<i>Flow Control</i>	CTS optional, user configurable

**GENERAL SPECIFICATIONS**

<i>Power</i>	8 to 28Vdc, regulation not required
<i>Operating Current (excludes AO current)</i>	transmit 200mA typical /650mA maximum receive 60mA typical, 120mA maximum power saver mode 14mA typical, 25mA maximum
<i>Terminations</i>	3.5mm Removable Terminal Blocks 22AWG to 12AWG wiring
<i>Temperature</i>	-40°C to +75°C (operating) -40°C to +100°C (storage)

