

Features

- Class 1 *BLUETOOTH* radio
- Multiple security features
- RS 232 and RS 485 serial cable emulation
- External RF antenna connector for flexible and optimal installation
- Ranges of > 100 meters with alternate antenna configurations
- Internal rechargeable battery
- Optimal power management including serial port control
- AT command set available for advanced operations

Applications

- For industrial, medical, security, environmental monitoring equipment and instruments with a serial cable connection for communications
- For use with data loggers, SCADA, communications relays, control, PCs and other electronic instrumentation



Description

Stevens' Shark serial cable replacement uses *Bluetooth* wireless technology to transmit critical data in industrial, medical, security and environmental monitoring applications. Its robust design handles many extreme environmental conditions. The Shark will communicate with another Shark or with any *Bluetooth*-enabled device.

The Shark is a Class 1 *Bluetooth* radio that provides a 100-meter range of communications. With an external antenna attachment and specific antenna options, the user may increase the communication range between the Shark and other *Bluetooth* wireless-enabled devices. Unlike other RS 232 adapters, the Stevens Shark emulates the behavior of a serial cable connection by controlling the serial port and turning the serial port on only when a *Bluetooth* wireless connection is established.

The Shark includes an internal lithium ion rechargeable battery as an optional power source that provides approximately 4 hours of continuous operation in *Bluetooth* wireless connected mode.

The Shark also incorporates LEDs that indicate various levels of connection and power status. Power management is an integral part of the Shark design, including the serial port control, idle mode, low operating current and a switch that turns off the power LED to conserve standby current.

In addition to built-in durability and flexibility, the Shark RS 232/485 Adapter is designed for ease-of-use. It is pre-configured in slave mode to operate with most applications without any set-up procedures. The Shark Config Utility Software is an easy-to-use Windows application for configuration of the Shark to individual needs, including designating the Shark as a master device to control and discover other *Bluetooth* devices, assigning a unique device name and activating secure communications. Shark Config can be used over a *Bluetooth* wireless link. No installation of drivers is required.

www.stevenswater.com

RS 232 / RS 485 Serial Adapter



Corporate Headquarters

5465 SW Western Avenue

Suite F

Beaverton, Oregon 97005

503.469.8000 Tel

800.452.5272

503.469.8100 Fax

E-mail: info@stevenswater.com

www.stevenswater.com

Branch Office

Austin, Texas

512.267.6559 Tel

512.267.6592 Fax

Stevens is an
Adopter Member
of the
Bluetooth Special
Interest
Group (SIG)

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Technical Specifications

Bluetooth Radio:

Frequency Band 2.4 to 2.483 GHz
Modulation Scheme FHSS, GMSK
Receive Sensitivity -80 dBm type for BER, 0.1%

Baud Rate:

Default 9600 bps
Configurable 1200 to 115.200 bps
Flow Control, Default None

Environmental Conditions:

Operating Temperature -40° to +80° C¹
Storage Temperature -40° to 95° C
Humidity 5% to 95% non-condensing

External Antenna + 2 dBi²

RF Connector Female SMA

Impedance 50 ohm

Serial Connector 9-Pin Male D-SUB

Shark Config.

Utility Software Windows 98, 2000, ME, XP compatible

Enclosure Polycarbonate
48.8 x 85.75 x 20 mm
(W x L x H)

Bluetooth Profiles:

General Access Profile
Service Discovery Profile
Serial Port Profile

Internal Battery:

Battery Type Lithium Ion Rechargeable 4.2 VDC
Battery Life Approx. 4 hours continuous use

Number of Recharge Cycles 500

Power:

External Power Supply 6 to 15 VDC
Transmit Power 20 dBm max.
Operating Current:
master mode 55 mA typical
slave mode 40 mA typical
Standby Current:
master mode 5 mA typical
slave mode 4 mA typical

Certifications:

Bluetooth 1.1 qualified
FCC / CFR 47, part 15
Industry Canada (CSA)
CE Mark: EN 300 328-2 & EN 301 489-17
Safety LVD: EN60950-1

Common Usage Scenarios

Scenario 1:

Set up a CSA pair as serial cable replacement.



Scenario 2:

Set up the CSA pair as a passive serial Bluetooth receiver.



Ordering Information

Part No.	Description	Part No.	Description
80000	The Shark Adapter (includes power plug, antenna and utility software)	92988	Null Modem Cable
80039	90° Adapter UP	80040	90° Adapter DOWN
80042	Desktop Utility Supply	SEE NOTE ²	Optional Antennas
80043	RS 485 4-Wire to RS 485 2-Wire Adapter	80044	RS 232 to RS 485 2-Wire Adapter

¹ Internal Battery operating temperature -20° to +70° C

² For other antenna options contact Stevens or visit Stevens' website at www.stevenswater.com

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