



SSRT-09-RS422 Spread Spectrum RF Data Transceivers **SSRT-09-RS485**

The SSRT-09-RS422/RS485 frequency hopping spread spectrum (FHSS) data transceiver represents state-of-the-art RF communications technology. Suitable for long range and short range applications, the SSRT-09-RS422/RS485 achieves ranges of up to 3 miles open field with 1/2 wave whip antenna at each end, and up to 20 miles with directional Yagi antenna .

The host interface is via a standard DB9-Female connector and is powered via standard dc barrel type socket. The SSRT-09-RS422/RS485 data interface is transparent and therefore suitable for any host operating at 9600bps, 8data bits, no parity and one stop bit (9600,8, N,1). Simply "Connect and Communicate".



In addition to the abovementioned serial protocol the SSRT-09-RS422/RS485 transceivers also support 7 data bits, even (or odd) parity, 1 stop bit or 7 data bits, no parity, 2 stop bits.

Features

- Full or half duplex RS485 or RS422 communications at 9600 bps
- High Noise Immunity Spread Spectrum Architecture, 902-928 MHz FM
- 7.5V to 18Vdc Operation, 170mA transmit mode, 80mA receive mode
- Also available on 2.4GHz
- Network Addressable for multiple unit deployment
- AT command programmable special features and functions
- Transparent "Virtual Wire" operation
- Up to 3 miles open field range with 1/2 wave antenna (part # 1/2-900-SMA)
- Up to 1800 ft in-building range with 1/2 wave antenna (Part # 1/2-900-SMA)
- Up to 20 miles range with gain antenna (Call for Options)
- SMA antenna connector (reverse polarity)
- Durable, Attractive Anodized aluminum enclosure (OEM Custom Labeling Available)
- TX, RX and Power status LED's
- Highly versatile, compact package that delivers outstanding performance
- Power Supply Connector: 2.1mm Center Positive

The table below provides the **RS-422** and **RS-485 (full duplex)** designation for the DB9 connector

DB9 PIN #	RS-422 DESIGNATION	DESCRIPTION	IMPLEMENTATION
2	TX+	One of two differential data Transmission lines	Serial data sent from module
3	TX-	One of two differential data Transmission lines	
6	RX+	One of two differential data Transmission lines	Serial data sent to module
7	RX-	One of two differential data Transmission lines	
5	GND	Ground signal	Ground
9	+V	7.5V-18Vdc Power supply Input	The SSRT may be powered via pins 5 and 9 instead of via the DC socket
1,4,8	Not Used		

The table below provides the **RS-485 half duplex** designation for the DB9 connector.

DB9 PIN #	RS-485 DESIGNATION	DESCRIPTION	IMPLEMENTATION
2	TX+/RX+	Differential data line	Serial data sent to and received from the module
3	TX-/RX-	Differential data line	
5	GND	Signal Ground	Ground
9	+V	7.5V-18Vdc Power supply Input	The SSRT may be powered via pins 5 and 9 instead of via the DC socket
1,4,8	Not Used		



RS-422/RS-485 Line Termination

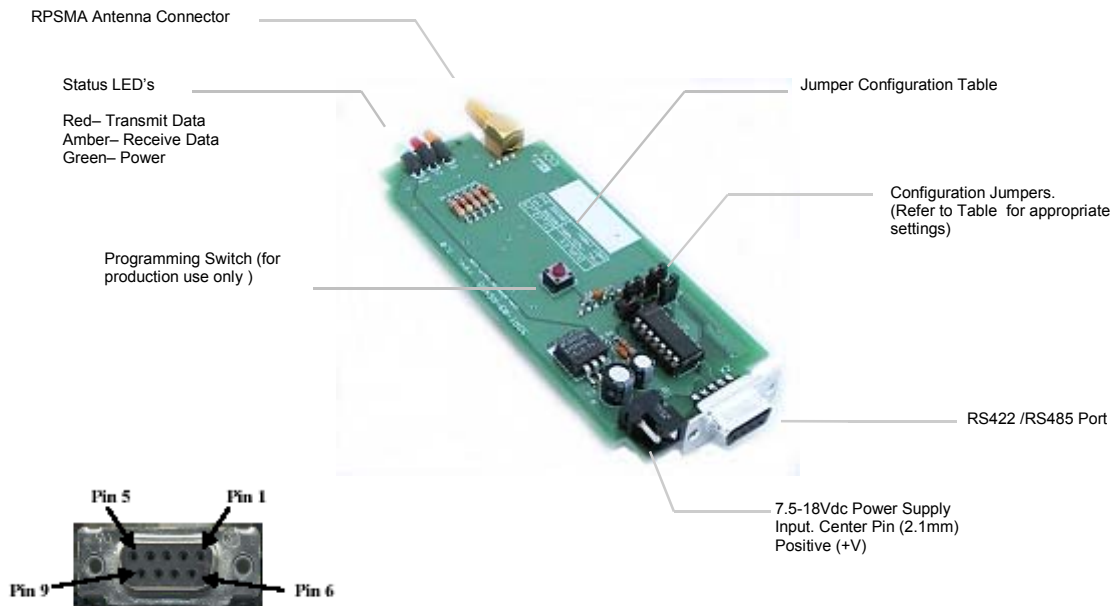
For installations that require 120 ohm line termination, install jumper J3

Power Supply Requirements

The SSRT-09-RS485 requires an external DC power supply with a fixed voltage rating above 7.5Vdc and less than 18Vdc and with a current rating of at least 300mA. A typical power supply may be a wall transformer (DC adapter) of 12Vdc, 300mA. The power supply connector must have center positive polarity.

The SSRT-09-RS485 may be powered either via the DC socket or via pins 5 (0V) and 9 (+V) of the DB9 connector.

The SSRT-09-RS-422/485 is supplied configured for RS-485 half duplex operation.



Jumper Configuration for RS-422 / RS-485 Full Duplex or RS-485 Half Duplex Operation

	J1, J2 & J4	J3
RS-422	Install Jumper across pins 1&2	Jumper Installed inserts terminating resistor Default- Not Installed
RS-485 Full Duplex	Install Jumper across pins 1&2	Jumper Installed inserts terminating resistor Default- Not Installed
RS-485 Half Duplex (Default Configuration)	Install Jumper across pins 2&3	Jumper Installed inserts terminating resistor Default- Not Installed

Disclaimer:

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