Product Bulletin

Series 2000 Reader System
Reader S251B

Key Features

- Industry standard housing for easy installation.
- Includes automatic antenna tuning
- Standard Serial Communications Interface, RS232 and RS422/485
- 8 inputs/outputs can be customer configured as required
- Several wireless or wired synchronization possibilities

Description

The S251B Reader provides all the RF and control functions to communicate with TIRIS LF transponders. It includes a Dynamic Auto Tuning (DAT) function that automatically tunes a standard antenna to resonance and keeps it tuned during operation.

The reader performs all the tasks necessary according to the commands from the host to send signals to and receive data from a TIRIS transponder. It decodes the received RF signals into the transponder's identification number, checks the validity and handles the conversion to a standard serial interface protocol. In addition, it can hold data of up to 909 reading transactions in a buffer before sending them to the host.

The S251B Reader comes with two different serial interfaces which allow: point-to-point communication via an RS232 interface, and point-to-multipoint communication via an RS422/485 interface. There are two communications protocols available: the TIRIS Bus Protocol that can be used for both point-to-multipoint and point-to-point systems, and the ASCII Protocol for use with point-to-point systems.

The reader has eight configurable digital input/outputs that can be defined by the user, and two open collector outputs. It also includes a wireless synchronization feature and a port to allow wired synchronization in order to avoid interference between readers located close to each other.

TIRIS Technology by Texas Instruments™

Specifications:

Device Name/ Part Number	***RI-STU-251B***
Operating Temperature	-20 to +70 ^{o}C (depending on power consumption)
Storage Temperature	-40 to +85 ^{o}C
Relative Humidity	<97% noncondensing, IEC 68-2-30 Test Db, 21 cycles
RF Transmit Frequency	134.2 kHz
Power Supply	10 to 24 Vdc, regulated
Memory	64 kByte PROM for Firmware 1 kBit EEPROM for Configuration 32 kByte RAM for Data
Data Storage	909 ID Codes (each 64 bit)
Communication Interfaces	RS232, RS422/485
System Architecture	point-to-point and point-to-multipoint
Communications Protocol	ASCII with Xon/Xoff handshake, TIRIS Bus Protocol
Communication Parameters	600 - 57600 Baud, 7/8 data bits, even/odd parity
Inputs Outputs	8 configurable digital I/Os, 2 open collector outputs
Connector Type	Standard plug/screw connectors
Antenna Tuning Range	26 to 27.9 µH
Transponder Type	134.2 kHz HDX/FSK - Read Only (RO), Read/Write (R/W), Multipage (MPT)
Dimensions (LxWxH)	120 x 120 x 200 ± 1.5 mm
Weight	900 g
Mounting	DIN rail TS35

For more information call the Sales & Application Center nearest you, or view our internet home page:
http://www.tiris.com.

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