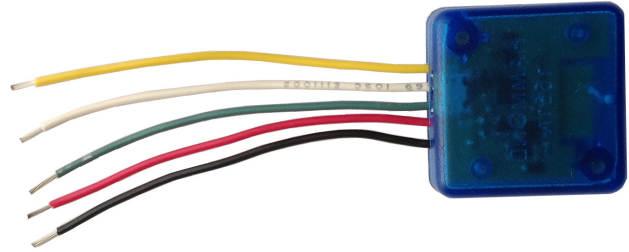# DEVICE FUNCTIONS

A10485E Bluetooth RS485/RS422 Adapters

Features

- RS485/RS422 interface with wire pin terminals
- Half-duplex data communication
- ESD, EFT, and surge protection
- Bluetooth Class 1 Radio
- Integrated antenna
- Data encryption
- Support Microsoft Windows Bluetooth COM port
- LED indicator
- Configuration via USB

Specifications

Bluetooth	Bluetooth v2.1 + EDR
	Class 1 Radio
RS485/RS422	Half-duplex transceiver
	1/8-unit-load receiver input impedance or up to 256 transceivers on one bus
	True fail-safe receiver
	No integral 120Ohm termination resistor
	Wire pin terminals
	Baud rate: 300bps to 115200bps
	Parity: Even, Odd, None, Mark, Space
	Data length: 5-bit, 6-bit, 7-bit, 8-bit
	Stop bits: 1-bit, 2-bit
USB	USB 2.0, USB Micro-B receptacle connector
Software	Microsoft Windows 8, Windows 7, Windows Vista, eeTerminal.
Power	+5v DC power supply via USB or wire pin terminals
Dimensions	35mm x 35mm x15mm

Typical Application - Microsoft Windows Bluetooth COM Port

This application requires install this Bluetooth adapter on Microsoft Windows, and Bluetooth connection to computer is required. A virtual COM port is created for this adapter after installation. User application software can access this adapter's RS485/RS422 interface using the virtual COM port. Here are the steps to install this adapter on Microsoft Windows. The adapter's authentication pin code is 1234.

Method 1 - Install Bluetooth Adapter Using eeTerminal Power on Bluetooth adapter. Starts eeTerminal. Select **File** from menu bar, and select **Open Device**. The software lists all compatible devices in a pop-up window. Select the Bluetooth device from the list and click the **Open** button. Follow the on-screen instructions to install the device if this Windows version supports automatic device installation.

Method 2 - Install Bluetooth Adapter Using Windows Bluetooth Device Manager Power on Bluetooth adapter. Locate Bluetooth icon on Microsoft Windows taskbar. Click on it and select *Add a Bluetooth Device*. Follow Microsoft Windows on-screen instructions to install the device.

After Windows successfully installs the Bluetooth adapter, a virtual COM port (Outgoing direction) with SPP description will be created.

To check the COM port number, click on Windows taskbar and select *Open (Bluetooth) Settings*. Click *COM Ports* in *Bluetooth Settings* window.

LED Indicator - Bluetooth connection

Status	LED Flash Rate
Connected	Solid on
Waiting for connection	Once per second

RS485/RS422 Signal Descriptions

Wire Pin Terminal Color	RS485/RS422 Signal
Green	TxD+/RxD+ (A)
White	TxD-/RxD- (B)
Yellow	Signal GND (C)
Red	+5v Power Input
Black	Power GND Input

NOTE: use separate ground for signal and power when RS485/RS422 signal is transmitted over a long distance.

RS485/RS422 Serial Configuration

The adapter's serial settings are configured using eeTerminal (download from www.devicefunctions.com). If the adapter is powered from wire pin terminals, remove the power. Connect the adapter's USB port to a computer's USB port. Start eeTermianl, click **File** from menu bar, and select **Open Device**. eeTerminal lists all compatible devices in a pop-up window. Select **DEVICE FUNCTIONS UART/RS485** and click the **Configure** button. A device configuration window will pop up. Select the required serial settings and click **Ok** to save the new settings, or click **Cancel** to cancel the configuration.
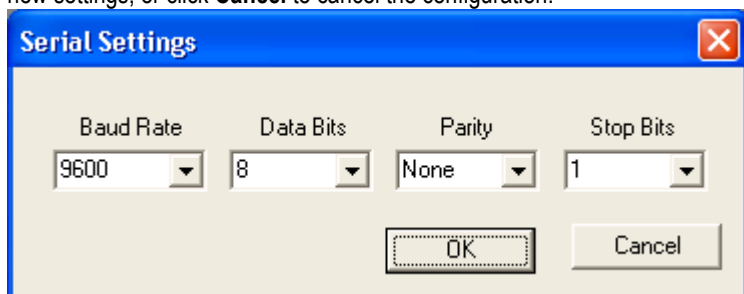
Accessories

eeTerminal
Configure, read, and write Bluetooth adapters. Upload/download files.
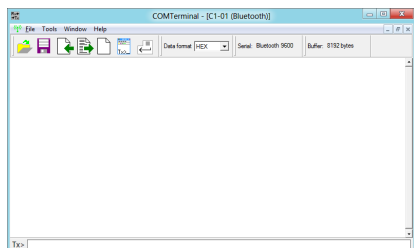
Environmental Conditions

Operating temperature range	-20°C TO +65°C
Storage temperature range	-40°C TO +85°C
Relative humidity	0% to 90%, non-condensing