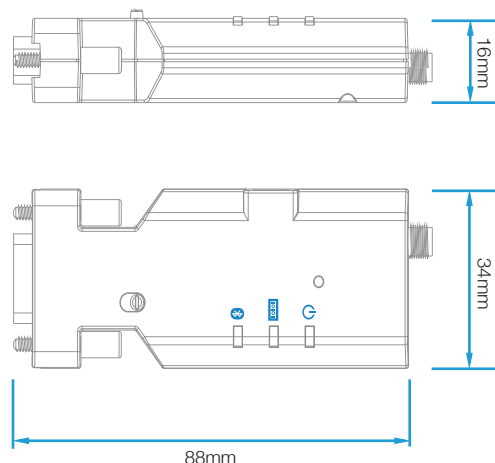# LM Technologies®

LM058 Bluetooth Serial Adapter – SMA Antenna
100m - 1000m Range SPP GAP + Wireless DTR DSR RTS CTS

Product   LM058
Part No   058-0050
Revised   10/SEP/2015

OSX | Linux | Android | Win XP | Win Vista | Win 7 | Win 8 | RaspberryPi

Bluetooth®

16mm
34mm
88mm

Features

- The LM058v2 can communicate with another Bluetooth serial adapter or Bluetooth devices such as laptops, desktops, PDA's or mobile phones.

- Supports Bluetooth Serial Port Profile (SPP) and Bluetooth Generic Access Profile (GAP).

- CSR Bluecore 4 chipset.

- 100m (329 feet) range with standard 2dBi Antenna. Alternative antenna's enable a range up to 1000m.

- Multiple power supply options, AC Mains via Mini USB, USB-Mini USB.

- No mains power cable is needed as the adapter can also be powered from the RS232 Pin 9.

- Unique Patented Firmware enabling Serial Printer funtionality.

- Ability to transfer DTR, DSR, RTS and CTS line status over the air, providing a true Serial Cable replacement solution. This functionality allows serial printers using DSR or CTS line for error reporting, to report errors such as "Out of Paper" or "Printer Offline".

- DTR DSR Handshaking and RTS CTS Flow Control options available, depending on the configuration.

Overview

LM058 Bluetooth Serial Adapter provides RS232 cable replacement for devices which use RTS/CTS flow control or DTR DSR Handshaking.This is a Class 1 Bluetooth adapter with an external antenna and can operate up to a range of 100m with a standard antenna (2 dBi) and up to 1000m with an optional antenna (LM252 5 dBi, LM253 7 dBi, LM254 9 dBi) and also magnetic base (LM242).

LM Technologies Ltd provides a application called LM149 Configuration Software which allows easy configuration of this adapter. Unlike other Bluetooth serial adapters in the market, LM's hardware and firmware combination acts as a true straight or twisted serial cable.

LM Technologies also provide an option to configure the adapter from a console using an in-built menu system.

This option may be required for a device which has just a keyboard and screen, such as cash register.

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LM058 Bluetooth Serial Adapter – SMA Antenna
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Packaging Options

SRP - Single Retail Pack
Part No 058-0054

1 x Bluetooth Serial Adapter.
1 x 2 dBi Antenna.
1 x DB9 male to female connector.
1 x USB - mini USB Cable for power supply.
1 x All in one power supply (UK, EU and US).

Optional
LM025 Slim Line 9 pin to 25 pin Convertor.

TRP - Twin Retail Pack
Part No 058-0055

2 x Bluetooth Serial Adapters.
2 x 2 dBi Antenna's.
1 x DB9 male to female connector.
1 x USB mini USB Cable for power supply.
1 x All in one power supply (UK, EU and US).

Optional
LM025 Slim Line 9 pin to 25 pin Convertor.

Twin Pack Pre-Paired
Part No 058-0059

2 x Bluetooth Serial Adapters.

AO - Adapter Only
Part No 050-0050

1 x Bluetooth Serial Adapter.
1 x 2 dBi Antenna.

- User Guides, Manuals and Widcomm Configuration Software available to download via our website - http://www.lm-technologies.com/support/downloads

General Specification

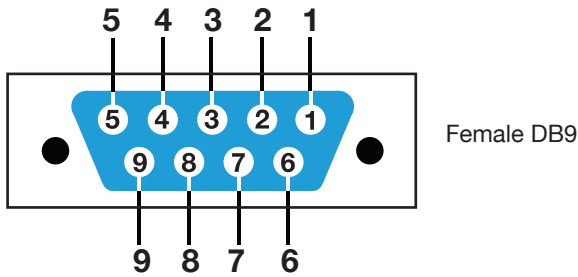|	
Baud Rate	1.2/2.4/4.8/9.6/19.2/38.4/57.6/115.2/230.4/460.8/921.6 Kbps
Coverage	Up to 100m (with default 2 dBi Antenna)
Connection	Point-to-Point
Signal	TxD, RxD, DTR, GND, RTS and CTS.
RS-232 Interface	D_SUB 9 pin female
Standard Bluetooth	Specification 2.0 + EDR
Frequency	2.400 to 2.4835 GHz
Hopping	Adaptive Frequency Hopping rate of 1,600/sec, 1Mhz channel space
Modulation	GFSK-Mbps, DQPSK-2 Mbps, and 8-DPSK-3Mbps
Tx Power	Max 18 dBm (Class 1)
RX Sensitivity	-86 dBm typical
Antenna	External SMA Antenna
Antenna Gain	2 dBi Antenna (default)
Power Supply	+4 to 13V DC
Current Consumption	Max 140 mA
Operation Temperature	-20°C to +75°C
Dimensions	34mm (W) x 88mm (D) x 16mm (H)

Signals

Female DB9

Pin out for LM048v2 Adapter

Pin	RS232 Signal	DTE to DCE Direction	DCE to DTE Direction	Description
1	CD	Input	Output	Not Connected
2	RxD	Input	Output	Receive Data
3	TxD	Output	Input	Transmit Data
4	DTR	Output	Input	Data Terminal Ready
5	GND	n/a	n/a	Signal Ground
6	DSR	Input	Output	Data Set Ready
7	RTS	Output	Input	Request to Send
8	CTS	Input	Output	Clear to Send
9	Vcc	Input	Input	Power Supply

Factory Settings

The factory settings of the COM Port are as follows:

Baud Rate	19200 bps
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

Customised settings are available as factory settings upon special request; Bonding, Pre-Pairing, different Baud Rates, Data Bits, Parity and Flow Control Settings.
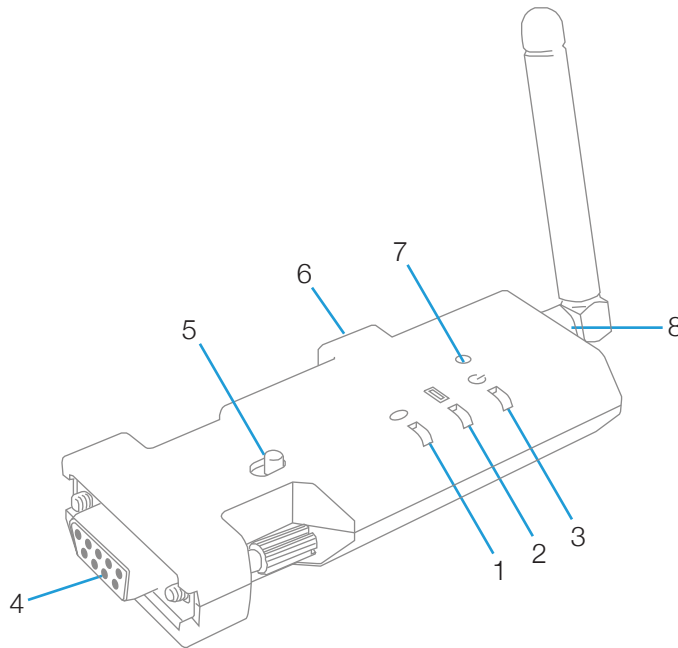
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Hardware Structure

1   Link LED.
2   Data LED.
3   Power LED.
4   RS232 Connector.
5   Slide Switch.
6   Mini USB Connector.
7   Reset Button.
8   Antenna Connector.

Switch Functions

Reset Button

- By pressing the Reset Button you can:

  Disconnect a wireless connection (after a short press).
  Restore the factory settings (after over 3 seconds press).

Slide Switch

- The slide witch can swap TxD/RxD, RTS/CTS signals. By switching, you can set the adapter as a DTE (towards antenna connector) or a DCE (towards RS232 connector).

Additional Dimensions

16mm   34mm   34mm

88mm

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