



Bluetooth Cable Replacement Adapter LM048, LM048DTR and LM048SPA

Approved Manufactures



Features

- Supports Bluetooth Serial Port Profile and Generic Access Profile (SPP & GAP)
- Multiple power supply options, Pin 9 (DB9 connector), AC Mains via USB & Mini USB- USB
- CSR BC04 EDR 2.0 chipset based design
- Supports upto 100 meters (open space)
- Unique Patented Firmware Enabling Serial Printer Functionality

Overview

Data transfer made easy with World's smallest RS232 bluetooth adapter. Mini USB Port can be used to power the unit from a mains adapter or from Mini USB-USB cable. Both power options come with the unit.

Our new patented firmware replicates the RS232 control signal transfer over a bluetooth link. This allows RS232 handshaking to be done in the same way as a physical serial cable. These units are FCC, RoHS and RTTE certified.



2. Package

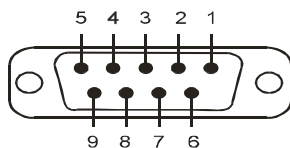
Bluetooth serial adaptor
 DB9 male to female converter
 USB cable for power supply
 DC adaptor
 User manual

3. General Specification

Specification	Description
Baud Rate	1.2/2.4/4.8/9.6/19.2/38.4/57.6/115.2/230.4 Kbps
Coverage	Up to 100 Meters
Connection	Point-to-point (pico net)
Signal	TxD, RxD, GND, DTR, DSR for LM048SPA and DTR TxD, RxD, GND, CTS, RTS for LM048
RS-232 Interface	D_SUB 9-pin female
Standard Bluetooth	Specification version 2.0+EDR
Frequency	2.400 to 2.4835 GHz
Hopping	1,600/sec, 1MHz channel space
Modulation	GFSK-1 Mbps, DQPSK-2 Mbps, and 8-DPSK-3 Mbps
Tx. Power	Max. 18 dBm (Class 1)
Rx. Sensitivity	-86 dBm typical
Antenna	Chip antenna
Antenna Gain	max. 1 to 2 dBi
Power Supply	+5 to +6 V DC
Current Consumption	Max. 90 mA
Operation Temperature	-20°C to +75°C
Dimensions	46.3 mm (W) x 34 mm (D) x 16 mm (H)



Signals



Pin-out for LM048DTR & LM048SPA

LM048DTR & LM048SPA SIGNALS

Pin	DTE Signal	DTE to DCE Direction	DCE to DTE Direction	Description
1	CD	Input	Output	Not connected
2	RxD	Input	Output	Received data
3	TxD	Output	Input	Transmitted 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	Loop to PIN 8
8	CTS	Input	Output	Loop to PIN 7
9	Vcc	Input	Input	Power supply

Pin-out for LM048

LM048 SIGNALS

Pin	DTE Signal	DTE to DCE Direction	DCE to DTE Direction	Description
1	CD	Input	Output	Not connected
2	RxD	Input	Output	Received data
3	TxD	Output	Input	Transmitted data
4	DTR	Output	Input	Loop to PIN 6
5	GND	N/A	N/A	Signal ground
6	DSR	Input	Output	Loop to Pin 4
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 COM port are as follows:

Baud rate: 19200 bps

Data bit: 8

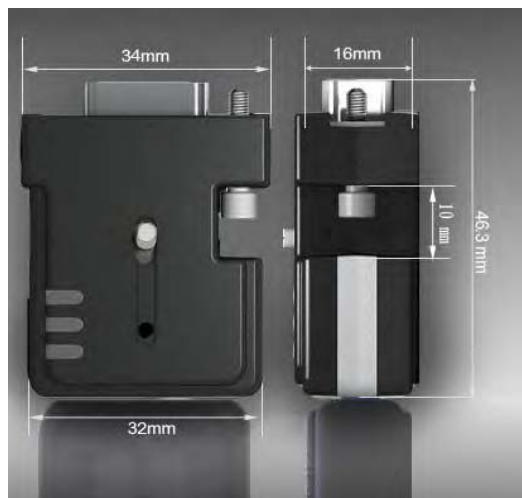
Parity: none

Stop bit: 1

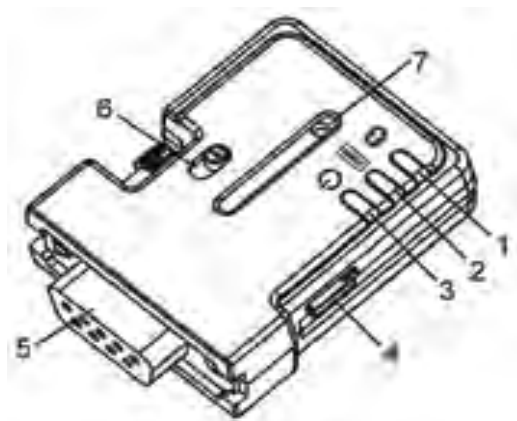
Flow control: H/W



Hardware Dimensions



Hardware Structure



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

Reset Button

By pressing the Reset button, you can:

- Disconnect and reconnect a wireless connection (after a short press).
- Restore the factory settings (after over three seconds' press).

Slide Switch

The slide switch can swap TXD/RXD, RTS/CTS signals (in case of LM048) and DTR/DSR signals (in case of LM048DTR and LM048SPA).

By switching, you can set the adaptor either as a DTE (towards antenna connector) or a DCE (towards RS232 connector).