



USB C to Serial RS232 16 Inch Adapter with LED

Gearmo
Version 1.0
November 2017
Model # GM-FTDI2-LED16-C



Product Manual

www.gearmo.com

REVISION HISTORY

| Revision | Date | Author | Comments |
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| 1.0 | 11/20/2017 | Gearmo | Gearmo Manual |

ABOUT THIS DOCUMENT

This product manual outlines installation and features of the GM-FTDI2-LED16-C USB C to Serial RS232 16 Inch Adapter with LED Indicators USB 2.0.

SCOPE

The scope of this manual is to give the user of the product an understanding of its use with detailed diagrams and verbiage. The manual allows the users to apply the product to their application.

INTENDED AUDIENCE

This product is intended for use in RS-232 serial communication applications through laptops or notebooks with an available USB Type-C port.

PRODUCT SUPPORT

support@gearmo.com

TABLE OF CONTENTS

| | |
|---|----------|
| 1. INTRODUCTION..... | 4 |
| 1.1 Features | 4 |
| 1.2 Specifications | 4 |
| 1.3 Diagrams | 5 |
| 1.4 Package Contents..... | 6 |
| 1.5 Installation | 6 |
| 1.6 Notes, Tips, Warnings, Safety, and Troubleshooting..... | 7 |
| 2. DB-9 PIN ILLUSTRATION | 8 |

TABLE OF FIGURES

| | |
|--------------------------------------|---|
| Figure 1 DB-9 Data Pin Diagram..... | 5 |
| Figure 2 USB-C Pin Diagram | 6 |
| Figure 3 Adapter Dimensions | 6 |
| Figure 4 Full DB-9 Pin Diagram | 8 |

1. INTRODUCTION

The Gearmo GM-FTDI2-LED16-C 16 inch USB C serial device is a USB C to RS-232 serial adapter compliant with USB 2.0 specifications, used to easily add a serial port to your computer, even if they are unequipped with COM port. Works with Windows 10 and lower! The GM-FTDI2-LED16-C supports peripherals requiring a serial RS-232 connection through a USB C type host port of your Laptop or Desktop computer. The 16 inch USB C to serial adapter allows you to add a single serial port and monitor the status of your connections by using LED activity flashes.

| | |
|----------|------------------------------|
| WEIGHT | 0.087 lbs. |
| UPC | 045079159051 |
| WARRANTY | 1 year from date of purchase |
| COLOR | Black |
| PORTS | DB-9 RS-232 |
| Length | 16 inches |

1.1 Features

- Fully compliant with USB Spec 2.0 Compliant USB Spec1.1.
- RS-232 – DB9 / M Data rate : Over 1000kbps.
- ESD Protection for RS-232 I/O' +-15KV RS-232 for DTE Mode
- Serial Signals: DCD , RXD, TXD, DTR , GND,DSR ,RTS ,CTS , RI
- Baud rate: 300-921.6Kbps, automatic detection of the transmission rate of the serial interface signal.
- Easy test RS-232 Host to Device link
- Supports USB C reversible port connection ONLY.
- Works with Win XP, 2000, 2003, CE, Vista, 7, 8, and Windows 10, Linux, Mac OS 10.X

1.2 Specifications

| | |
|-----------------------|------------------------|
| Connectors | |
| Serial | DB-9 male with hex nut |
| USB | USB Type-C reversible |
| Physical | |
| Weigh | 0.087 lbs. |
| Length | 16 inches |
| Warranty | |
| Limited Warranty | 1 Year |
| Environmental | |
| Operating Temperature | -40°C to 85°C |

| | |
|------------------------------|---|
| Relative Humidity | 5% to 95% |
| Protections | Protection for RS-232 I/O' +-15KV RS-232 for DTE Mode |
| ESD | |
| Power | |
| USB Type-C | Bus powered |
| Connector and Signals | |
| DB-9 Pin | RS-232C |
| 1 | Protection grounding DCD |
| 2 | Receiving data SIN (RXD) |
| 3 | Sending data SOUT (TXD) |
| 4 | Data terminal preparation DTR |
| 5 | Signal grounding GND |
| 6 | Data equipments preparation DSR |
| 7 | Request sending RTS |
| 8 | Clear sending CTS |
| 9 | Ring indication RI |
| LED's | 1~4, 6~9 PIN Signal 0 : Green / Signal 1 : RED GND – RED – POWER PS. DB9-F PIN / 1,2,6,8,9 NO Input LED no light. |
| Regulatory Approvals | |
| Certifications | FCC,CE |

1.3 Diagrams

DB-9 Data Pin Diagram

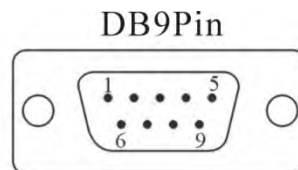


Figure 1

USB-C Pin Diagram

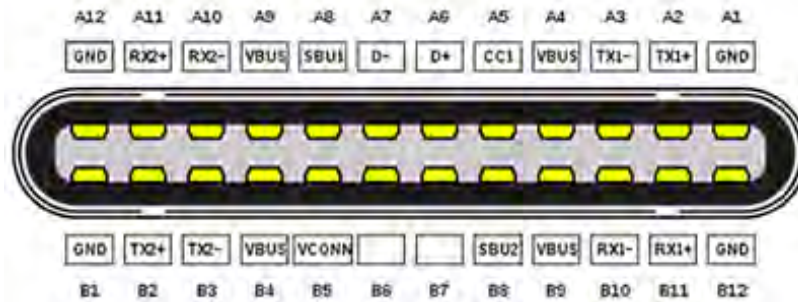


Figure 2

Adapter Dimensions

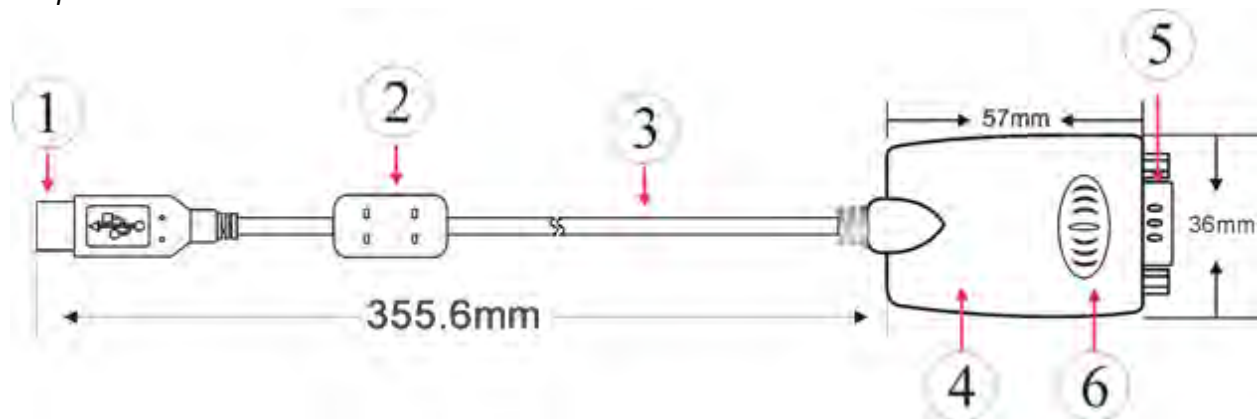


Figure 3

- 1) USB Type-C male connector
- 2) Ferrite Filter magnetic pole
- 3) Transparent and shielded standard 2.0 communication line
- 4) Shell (translucent black)
- 5) DB-9 male connector with hex nut

1.4 Package Contents

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- USB-C to RS-232 16 inch Serial Adapter x1
- Driver Disk x1

1.5 Installation

- 1) Connect the USB-C male connector to the USB-C female port of the laptop or notebook.
- 2) Connect your DB-9 female RS-232 serial device to the male DB-9 male connector.
- 3) If you are using an earlier OS than Windows 10, you may have to use the driver disk included to install drivers.
- 4) After installing the drivers you may need to restart your computer.

5) Test your serial connection and use [troubleshooting techniques](#) listed below if needed.

1.6 Notes, Tips, Warnings, Safety, and Troubleshooting

| | |
|-------------|--|
| Note | The USB C connector on the GM-FTDI2-LED16-C can only be used in a USB Type-C port; it is not compatible with standard USB ports. |
|-------------|--|

| | |
|------------|-----|
| Tip | N/A |
|------------|-----|

| | |
|----------------|-----|
| Warning | N/A |
|----------------|-----|

| | |
|---------------|-----|
| Safety | N/A |
|---------------|-----|

| | |
|------------------------|---|
| Troubleshooting | <ol style="list-style-type: none">1) Data communication failure<ol style="list-style-type: none">a) Check to make sure the USB cable is connected properly.b) Make sure the RS-232 output interface connection is correct.c) Make sure power is supplied to device.d) Make sure the wire terminal connection is secure.e) Make sure the indicator lights flash when receiving.f) Make sure the indicator lights flash when sending.2) Data missing or incorrect<ol style="list-style-type: none">a) Check to see whether the data rate and format at both ends of the communication equipment are consistent. |
|------------------------|---|

2. DB-9 PIN ILLUSTRATION

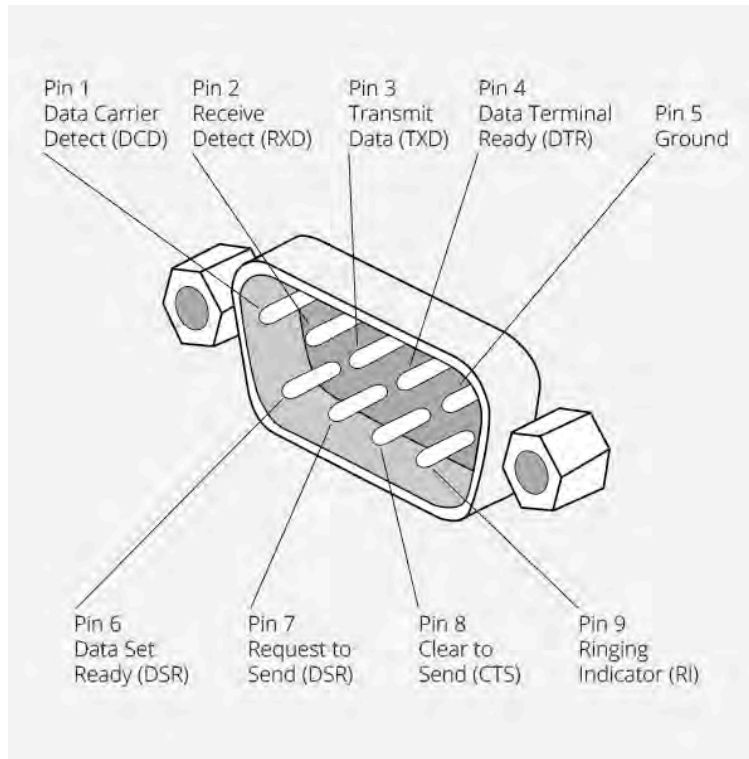


Figure 4