



INTRODUCTION

Milestone model UD-2535U is a USB to RS422/RS485/RS232 converter and is designed for high-speed isolated data transmission between computer system through its USB port and peripherals or other devices having RS422/RS485/RS232 interface over long distance under high noise conditions.

APPLICATIONS

Application for these converters can be for factory automation, programmable logic controllers, attendance recording systems, Barcode Readers, remote data transmission, remote terminals, EPABX etc.

SPECIFICATIONS

- Input** : USB 2.0 Compliant
- Output** : RS485 Interface Tx+, Tx-, Rx+, Rx- (for RS422/RS485) & Tx, Rx, GND(for RS 232). Spike suppressor and opto isolation protects each signal. (7 Pin Phenox Connector)
- Selection Switch: (4 Wire/2 Wire)** : Left side has **2-way Slide ‘4 WIRE 2’ switch** for selecting 4-Wire (Full Duplex) or 2-Wire (Half Duplex) mode in RS422/485 application.
- Output Cable** : Shielded twisted pair cable-CAT5 on RS422/RS485 Side.
- Front Panel Indications** : Power, TD, RD
- Power Supply** : Through USB Cable (Powerless) 5V/1Amp Adaptor (Optional)
- Size** : 105mm X 75mm X 32mm

UD-2535U KIT CONTENTS

The Converter kit contains

1. UD-2535U Converter Unit
2. USB Cable.
3. For downloading the firmware, please visit or web site www.milestone.co.in & download UD25 Driver. This contains Virtual COM Port Driver & USB Bridge for the Converter.

INSTALLATION INSTRUCTIONS

Installation of UD-2535U:

1. Plug in the UD-2535U using USB A-A cable to PC USB port. As soon as it is plugged in, it will start to install the driver automatically.
2. Insert ‘CD’ provided along with the kit.
3. Follow the instructions till you get displayed message “MLU485 installed successfully” click “OK”. Now the drivers are installed and the unit is ready to use .

Note: - This installation is required only once or after uninstallation.

4. Check in the device manager whether VIRTUAL COM PORT has been installed and also check the properties of the port. (Such as Baud rate, Buffer size etc.)
5. Connect RS232 or RS422 or RS485 port through appropriate cable. Now you are ready for communication between PC and external 485 device using Virtual COM Port .

Uninstall the Drivers:

To uninstall the “Driver” run “CYG_UNINSTALL” from the CD provided along with the kit, you will get a display message screen, which will guide you through the uninstallation of the Drivers.

CONNECTORS & LED INDICATOR**TABLE I: RS422/RS485/RS232 Output port-7 Pin Phonex**

7 Pin Phonex	RS422/RS485 Signal – 4 Wire	RS422/RS485 Signal – 2 Wire	RS232
1 (-Tx)	-Tx	-Tx/-Rx (-Tx)	
2 (+Tx)	+Tx	+Tx/+Rx (+Tx)	
3 (GND)	GND	GND	GND
4 (-Rx)	-Rx		
5 (+Rx)	+Rx		
6 (Tx)			Tx OUT
7 (Rx)			Rx IN

LED Indication:

- A. Power - Power to the Unit
- B. TD - Tx Data on RS485/RS232
- C. RD - Rx Data on RS485/RS232

LONG DISTANCE CABLE LAYING

Long distance cable between two RS422/RS485/RS232 interfaces must be a twisted pair cable (You can use standard CAT5 cable). The pair should be used for each signal type + and – signal. This gives high common mode noise rejection. While laying the cable, care should be taken not to lay this cable parallel to power line cables. The cable resistance should not be more than 90 ohms/1000 meters. The cable should run through conduit pipe for physical protection.

TABLE II OUTPUT CABLE – 4 Wire

7 Pin Phonex	Instrument
-Rx	-Tx
+Rx	+Tx
+Tx	+Rx
-Tx	-Rx

TABLE III: OUTPUT CABLE – 2 Wires

7 Pin Phonex	Instrument
+Tx/+Rx (+Tx)	+Tx/+Rx
-Tx/-Rx (-Tx)	-Tx/-Rx

