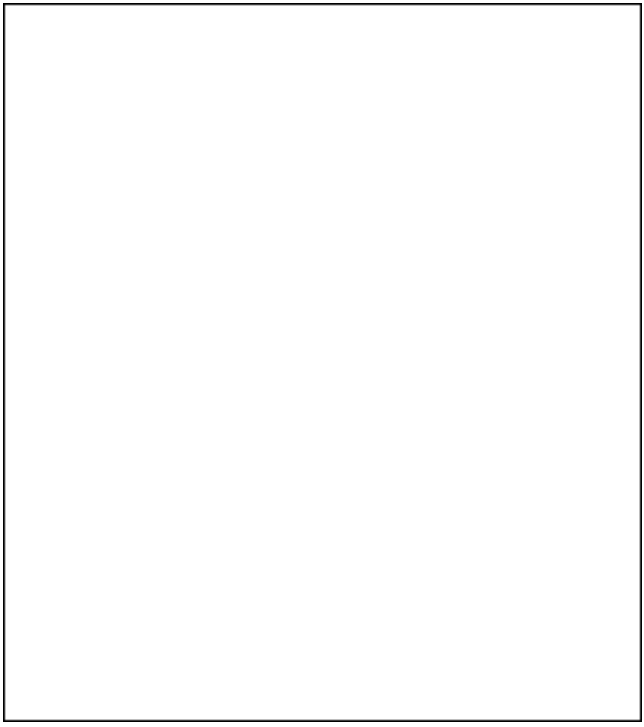

INTRODUCTION

Milestone model LD-2535U is a RS232 to RS422/RS485/RS232 converter and is designed for high-speed isolated data transmission between computer system through its RS232 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	**:**	RS232 (RJ45)
Output	**:**	RS485 Interface- Tx+, Tx-, Rx+, Rx- (for RS422/RS485) & Tx, Rx, GND(for RS 232). Spike suppressor and opto isolation protects each signal.
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	**:**	5V/.6A Adaptor
Size	**:**	105mm X 75mm X 32mm

LD-2535U KIT CONTENTS

The Converter kit contains

1. LD-2535U Converter Unit
2. RS232 RJ45 CABLE.

CONNECTORS & LED INDICATOR

TABLE I: RS422/RS485/RS232Output 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

RS232 CABLE

RJ45	D9F
TX 2	2 RX
RX 3	3 TX
GND 5	5 GND

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