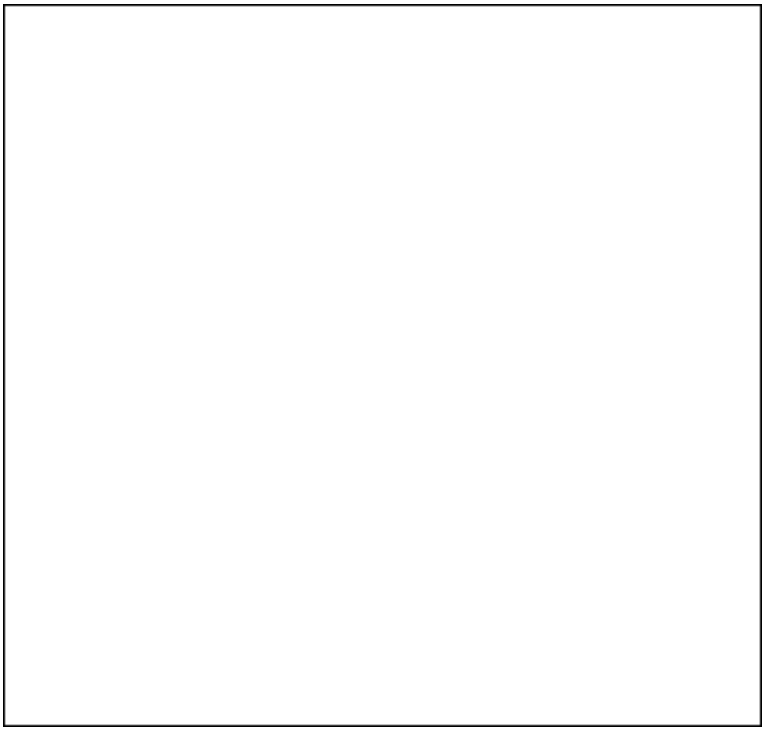

INTRODUCTION

Milestone model IP-2535U is a ETHERNET to RS422/RS485/RS232 converter and is designed for high-speed isolated data transmission between computer system through its ETHERNET 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	**:**	ETHERNET (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

IP-2535U KIT CONTENTS

The Converter kit contains

1. IP-2535U Converter Unit
2. ETHERNET CABLE.
3. For downloading the firmware, please visit or web site www.milestone.co.in & download IP25U Driver. This contains the Milestone Device Server Toolkit driver for the Convertor.

INSTALLATION INSTRUCTIONS

Installation of IP-2535U:

1. Insert the driver CD
2. Go to IP 2535U folder.
3. Start installing the driver.
4. All the drivers will be installed.
5. Connects IP-2535U device using RJ45 to RJ45 cable provided with the equipment to the Ethernet port of the PC.
6. Go to start-Programs-Mile.
7. Click on DS Manager
8. Check whether the device is recognized or not.
9. The device will be recognized faint indication with IP address of factory setting.
10. Select the recognized device by clicking on it.
11. Go to change IP & set IP according to your system.
12. When the IP is set according to your system the faint indication become normal.
13. Close DS Manager and run Connection wizard. Follow the steps to create virtual serial port (VSP). In it specify the device server by selecting IP-2535U, IP address double clicking on it.
14. Continue to install till finish.
15. Now Virtual Serial Port is created and ready to use.

16. Run your application program through the installed virtual serial port (eg. Com 1, 2, 3 and so on).

CONNECTORS & LED INDICATOR

TABLE I: RS422/RS485/RS232Output port-7 Pin Phonex

7 Pin Phonex	RS422/RS485 Signal – 4 Wire	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