



## Framed E1-FE+16RS232 Protocol Converter

OP-PC-E1-FE+16RS232



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## Overview

Framed E1-FE+16RS232 Protocol Converter is based on FPGA, providing one framed E1 interface, one Ethernet interface and 16 serial interfaces to achieve 10/100Base-T Ethernet data transmission on the E1 channel. Providing one Ethernet Bridge plus 16 serial interfaces via one E1 interface;

## Product Features

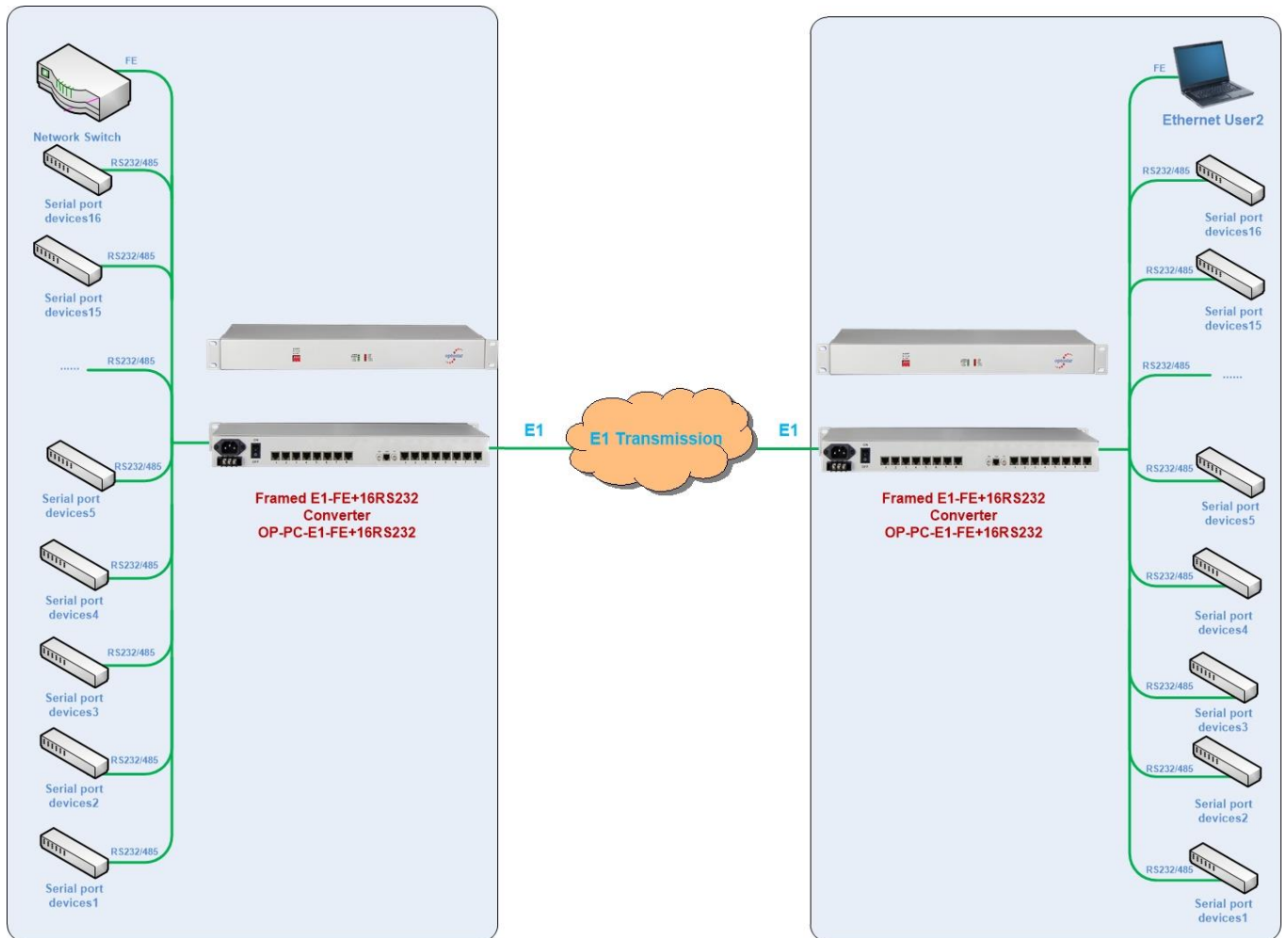
- Based on self -copyright IC
- Can realize monitor and control of remote equipment, OAM management data did not take up user' s timeslot and save E1 bandwidth
- E1 supports any timeslot set, the rate is 64K-2048K
- The local device can forced the remote device rate follow it
- Have indicator when the remote device is power-off or E1 line is broken or lose signal;
- Have the function of E1 interface loop back check, avoid the converter crashed because of interface loop return;
- The Ethernet interface supports jumbo frames (2036 Bytes);
- Inter-set dynamic Ethernet MAC address (4,096) with local data frame filtering function
- Ethernet interface supports 10M/100M, half/full duplex auto- Negotination, support VLAN
- Ethernet interface supports AUTO-MDIX (crossed line and straightly connected line self-adaptable );
- Have Ethernet monitor self-reset function, the equipment will not dead
- Provide 2 clock types: E1 master clock and E1 line clock;
- Provide 2 impedances: 75 Ohm unbalance and 120 Ohm balance;
- Support SNMP Network Management
- Serial Data Interface can be RS232/RS422/RS485/TTL optional
- Serial channel can transmit adaptable serial data asynchronously 300 Kbps-19200Kbps baud rate
- Serial data multiplexing in E1 support ITU-T R.111 jumping coding mode
- The local RS232 serial data can command the remote RS232 serial data loop-back to the local. This loop-back in the outer ring of RS232 data interface, you can test the RS232 interface chip without damage
- Serial port interface lightning-protection reached IEC61000-4-5 (8/20  $\mu$  S) DM(Differential Mode): 6KV, Impedance (2 Ohm),CM(Common Mode): 6KV, Impedance (2 Ohm) standard

**Technical Parameter**

|  |   |
|--|---|
| <b>OP-PC-E1-FE+16RS232 Framed E1-FE+16RS232 Protocol Converter</b> |   |
| <b>Ethernet interface (10/100M)</b>                                |   |
| Interface rate   | 10/100 Mbps, half/full duplex auto-negotiation  |
| Interface Standard   | Compatible with IEEE 802.3, IEEE 802.1Q (VLAN)  |
| MAC Address Capability   | 4096  |
| Connector  | RJ45, support Auto-MDIX   |
| <b>E1 Interface</b>  |   |
| Interface rate   | n*64Kbps±50ppm  |
| Interface Standard   | comply with protocol G.703  |
| Interface Code   | HDB3  |
| E1 Impedance   | 75Ω (unbalance), 120Ω (balance)   |
| Jitter tolerance   | In accord with protocol G.742 and G.823   |
| Allowed Attenuation  | 0~6dBm  |
| <b>Serial Interface</b>  |   |
| Standard   | EIA/TIA-232 RS-232 (ITU-T V.28)<br>EIA/TIA-422 RS-422 (ITU-T V.11)<br>EIA/TIA-485 RS-485 (ISO/IEC8284)  |
| Serial Interface   | RS-422: TXD+, TXD-, RXD+, RXD-, Signal Ground<br>RS-485 4 wires: TXD+, TXD-, RXD+, RXD-, Signal Ground<br>RS-485 2 wires: Data+(Correspond TX+), Data- (Correspond TX-), Signal Ground<br>RS-232: RXD, TXD, Signal Ground |
| <b>Dimension</b>   |   |
| Product Size   | 216X140X31mm(WXDXH)   |
| Simple packaging   | 274X193X84mm(WXDXH)   |
| Piece Weight   | 1.2KG   |
| <b>Operation Environment</b>                                       |   |

|  |  |
|--|--|
| Operating temperature  | 0°C~50°C                               |
| Storing temperature  | -40°C~+70°C                            |
| Relative humidity  | 95 %                                   |
| No causticity and solvent, dust free, and no strong magnetic interference. |  |
| <b>Power</b>   |  |
| Voltage  | AC180V ~ 260V; DC -48V; DC +24V        |
| Consumption  | ≤10W                                   |
| <b>Warranty</b>  | 2 Year Warranty, Life-time Maintenance |

**Application**





**Order Information**

| Model               | Description                             |
|---------------------|---|
| OP-PC-E1-FE+16RS232 | Framed E1-FE+16RS232 Protocol Converter |

**Package include**

| No | Package List                            |
|----|---|
| 1  | Framed E1-FE+16RS232 Protocol Converter |
| 2  | User Guide                              |
| 3  | Warranty Card                           |

**Important Notice**

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