



## Ethernet to 4 E1 Protocol Converter

OP-PC-4E1-FE



Shenzhen Optostar Optoelectronics Co., Ltd

2013. 09(Version 2)

## Overview

OP-PC-4E1-FE Ethernet to 4 E1 Protocol Converter is based on FPGA, using reverse direction multiplexing technology to bundle for multiple E1 circuits to transmit the Ethernet data of 4Channel 100BASE-TX. It can realize 1~4 E1 channel to convert between Ethernet optical interface. This device can transmit the transceiver signal point to point to Ethernet optical interface to make E1 channels interconnected with Ethernet optical interface. Unlike general remote network bridge, this device can support 1-4Channel E1 channel configuration, can automatically detect the number of E1 and select the E1 available. It allows E1 lines transmission time delay difference.

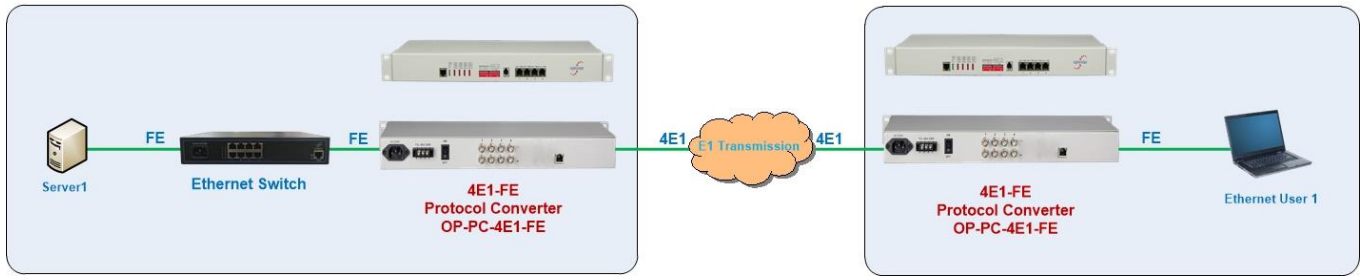
## Product Features

- Based on self -copyright IC
- To achieve Ethernet data transparent transmission in 1-4E1 circuits
- Can realize the local and the remote device reset
- Ethernet Interface is 100BASE-FX, support VLAN protocol
- Inter-set dynamic Ethernet MAC address (4,096) with local data frame filtering function
- Single Channel lines rate is 1984Kbit/s, 4Channel Bandwidth is up to 7936Kbit/s
- Support all set of Ethernet Work Mode
- CRC automatic alarm threshold can be set to isolate the poor quality transmission lines and cut off a single-direction. When 2M branch circuit one direction error rate exceeds threshold, cutting off this direction the other direction is not affected; that is to say, both of the Ethernetdirection transmission can be asymmetric
- Allow 4Channel E1 transmission time delay difference 100ms. When the margin exceed the allowed range, the system can automatically stop on the E1 that time delay is too large to send data
- E1 interface conform to ITU-T G.703, G.704 and G.823, not support the use of signal timeslot
- E1 interface module with inter-set clock recovery circuit and HDB3 code circuit
- Support E1 channel hot-plug in the device, and automatically detects the effective E1 channel and will not interrupt data transmission
- Can support 1-4Channel E1 channel configuration, can automatically detect the number of E1 and select the E1 available;

**Technical Parameter**

<b>OP-PC-4E1-FE Ethernet to 4 E1 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>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-4E1-FE	Ethernet to 4 E1 Protocol Converter

### Package include

No	Package List
1	Ethernet to 4 E1 Protocol Converter
2	User Guide
3	Warranty Card

### Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTOSTAR before they become applicable to any particular order or contract. In accordance with the OPTOSTAR policy of continuous improvement specifications may change without notice.

The publication of information in this data sheet does not imply freedom from patent or other protective rights of OPTOSTAR or others. Further details are available from any OPTOSTAR sales representative.

## Contact OPTOSTAR

### Shenzhen Optostar Optoelectronics Co., Ltd

Address:A-14,Haide Building,the Intersection of Nanxin Road and Haide Second Road Nanshan District Shenzhen,China .

Tel: +86-755-26400198 +86-755-26400288 Fax: +86-755-26411001



Email: [info@optostar.com.cn](mailto:info@optostar.com.cn)

Skype: ouyangroya

Web: [www.optostar.com.cn](http://www.optostar.com.cn)