E1 to Ethernet Protocol Converter   FE1-4ETH

◆ **Framed E1 to 4 Ethernet converter with Local Network Management System**

➢ Features

- In accordance with the provisions of IEEE 802.3u,IEEE 802.1q, IEEE 802.3x,ITU-T G.703,G.704 and G.823 protocols
- E1 interface framing/unframing optional; 120ohm/ 75ohm optional.
- The E1 interface uses PCM31 mode, supporting CRC check.
- E1 interface main/ slave clock optional in the framing mode.
- In the E1 framing mode, the number of time slots is optional from 1 to 31.
- Supporting 2.048Mbps transparent transmission in the E1 unframing mode.
- The 10/100Base-T Ethernet interface supports 10/100M half/ full duplex modes.
- Each Ethernet port support plug and play of MDI/MDI - X adaptive function.
- Ethernet port support based on port and tag VLAN (16 VLAN).
- The rate of each Ethernet port is measured by the configuration software, bandwidth particles for 32 k.
- Each Ethernet port support broadcast storm protection, PAUSE flow control.
- MAC address self-learning and address filtering functions, reducing the transmission load of the E1 circuit.
- Built-in 64Mbits SDRAM Ethernet data buffer memory, improving the capability of Ethernet side anti-outburst, assuring high throughput of data transmission.
- E1 circuit remote loop and local loop tests.
- Pseudo random sequence test, facilitating the test of E1 circuit.
- Perfect circuit test and alarm indication.
- Support local console network, can be set up on the Ethernet port.
- Can be connect most manufacturers protocol converter.

➢ Introduction

FE1-4*100BASE-TX Protocol converter is an Ethernet bridge of high performance,which accomplishes the convert between the 4*100M Ethernet port and the E1 port. As an extended device of the Ethernet, the FE1-4*100BASE-TX protocol converter realizes interconnection of two Ethernet by using the E1 channel provided by existing networks with low cost.

10/100Base-T(RJ45) interfaces are provided at the end of Ethernet LAN to accomplish various functions including MAC address self-learning, address filtering, address table maintenance and flow control.

E1 interfaces conforming to ITU-T G.703 and G.704 proposals are provided at the end of WAN, supporting RJ45 and BNC connection modes. The E1 ports support both framing and unframing architecture. The user can select an operating mode for the E1 interface according to the connected E1 environment. This provides flexibility of network application. In the framing mode, the E1 interface provides a rate of N*64Kbps（N=1~31）. In the unframing mode, the

E1 channel provides a rate of 2.048Mbps and accomplishes transparent transmission.

FE1-4*100BASE-TX protocol converter is used in the framing mode, the transmission clock can be either provided internally, i.e. using the main clocking timing mode (INT), or extracted from the E1 channel, i.e. using slave clock timing mode.

FE1-4*100BASE-TX protocol converter provides plenty of self-test functions, supporting local loop and remote loop. It also provides pseudo random code test function to test error codes in the circuit.

➢ **Specification**

E1 interface	
Impedance	75Ω, BNC
Impedance	120Ω, RJ45
framing	N*64Kbps，N=0~31
un-framing	2.048Mbps
Code format:	HDB3
Output jitter	< 0.05UI
Pulse Shape	ITU-T G.703, G.704
Jitter Performance	ITU-T G.823
Ethernet interface	
Interface Rate	10/100BaseTx
Duplex	half / full duplex self-adapt.
Interface character	IEEE802.3U, IEEE802.3x, IEEE802.1Q (VLAN)
Connector	RJ45
MAC table	4096
Physical	
Circuit Transmission range	BNC:600m, RJ45: 300m
Data Transmission range	100m
Dimension	140mm(D)*40mm(H)*210mm(W)
Weight	1Kg
Power supply	85V～264V AC input, 5V/1A output
	-36V～-72V DC input，5V/1A output
Power consumption	3W
Operating temperature	0℃～50℃
Storage temperature	-20℃～80℃
Humidity	≤95％，free from condensing

➢ Ordering Information

Model NO.	Description
FE1-4ETH-00	Framed (fractional nx64k bit/s) 2048 Kbps E1 -4 Ethernet, 75ohm&120ohm, 85~264VAC
FE1-4ETH-01	Framed (fractional nx64 kbit/s) 2048 Kbps E1 - 4Ethernet , 75ohm&120ohm, -48 VDC

➢ Application