Framed E1 to 4 Ethernet converter with Local Network Management

➢ Features

- Comply with IEEE IEEE 802.3u, IEEE 802.1q, IEEE 802.3x,ITU-T G.703,G.704 and G.823 protocols;
- Support Framed E1 or Unframed E1;
- Support 2 type E1 impedances: 75 Ohm unbalance or 120 Ohm balance;
- The E1 interface uses PCM31 mode, supporting CRC check;
- E1 interface main/ slave clock optional in the framing mode
- The time slots are optional from 1 to 31, rate is N*64k (N=1 to 31);
- Supporting 2.048Mbps transparent transmission in the E1 Unframed 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 32K;
- 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 to ensure high throughput of data transmission;
- Support E1 circuit remote loop and local loop tests;
- Support 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;
- Support DIP switch management;
- Ethernet support half/full duplex adaptive, MDI/MDI-X auto negotiation;
- Support VLAN function;
- Support DC-48V or AC 220V power supply optional;
- Support 0-50°C wide operating temperature range;
- Warranty:3years

➢ Introduction

UPCOM HPC-FE1-4ETH 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.

HPC-FE1-4ETH Converters 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 Framed and Unframed 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 Unframed mode, the E1 channel provides a rate of 2.048Mbps and accomplishes transparent transmission.
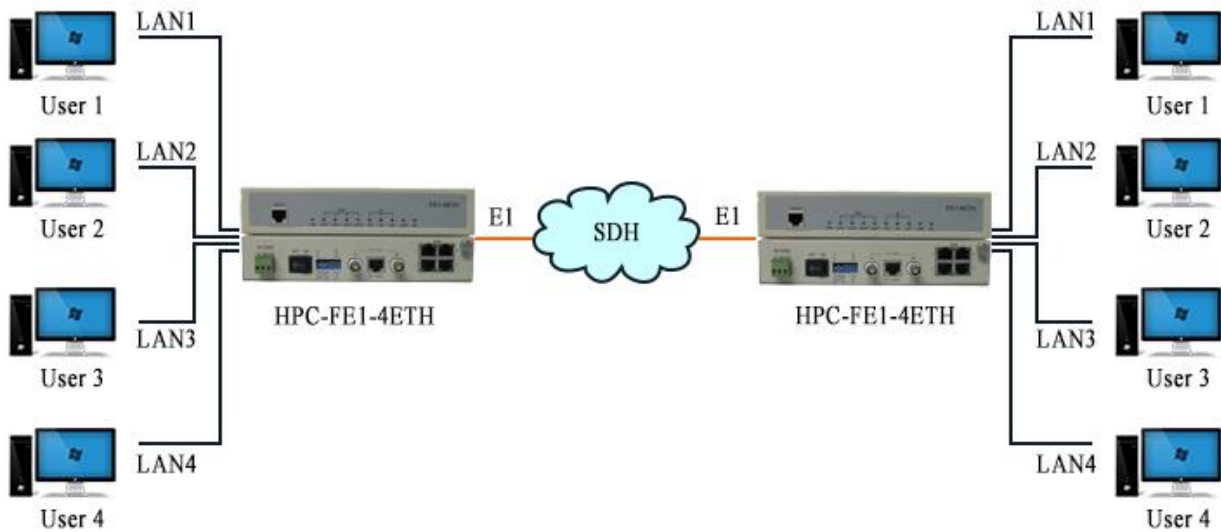
HPC-FE1-4ETH protocol converter is used in the framing mode, the transmission clock can be either provided internally, i.e. using the main clocking timing mode (INT), or extracted from the E1 channel, i.e. using slave clock timing mode.

HPC-FE1-4ETH 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
Framed	N*64Kbps, N=0~31
Unframed	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 adaptive
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	DC-48V or AC96 -260V
Power consumption	3W
Operating temperature	0-50°C
Storage temperature	-20-85°C
Humidity	5%~95% (non-condensing)

➤ Application

➤ Ordering Information

Model NO.	Description
HPC-FE1-4ETH-00	Framed (fractional n*64k bit/s) 2048 Kbps E1 to 4-port Ethernet, 75ohm&120ohm, 220VAC
HPC-FE1-4ETH-01	Framed (fractional nx64k bit/s) 2048 Kbps E1 to 4-port Ethernet, 75ohm&120ohm, -48 VDC

➤ Packing List

- Framed E1 to 4-port Ethernet Converter *1
- User manual * 1
- Certificate of quality * 1
- Power cord*1
- Two plugs for Coaxial Cable
- Warranty card * 1