

FES 1000 Series

1~16E1 over Ethernet

TDMoIP Converter

Datasheet

FOREVER ENGINEERING SYSTEMS PVT. LTD.

1. Overview

FES 1000 Series is E1 over Ethernet TDMoIP Converter, up to 16E1, mainly used to transmit E1 signal over IP network. It has 1E1/4E1/16E1 interface, 2 UTP Ethernet port and 1*fiber Ethernet port (SFP). Which can connect TDM device and user' s low cost wireless or Ethernet/IP configuration, without affecting the quality. assures connecting to physical E1 interface of any device seamlessly, such as PBX, mobile base station, SS7 signaling device and voice mail system. It can be used in the communication system based on E1, such as LAN, WAN, MAN and wireless network.

Providing emulation E1 channel through Ethernet, the difficulty is rebuilding timing information of E1 code stream effectively at the exit of network. The special disadvantages of Ethernet itself, such as random packet delay, without effective timing transmit mechanism, transmission error or collision that brings on packet lose, must be conquered. We solved the difficulties above faultlessly through availing ourselves of technical advantage and adapting advanced clock disposal technology. TDMoIP-E1 encapsulates the date of E1 code stream to the packet and transmits it to the remote device through Ethernet. Also Provide Console and Web management.



1E1 Model



4E1 Model



16E1 Model

2. Feature

- High transmit efficiency, low transmit delay.
- Provide 1~4 E1 channels with 2*10/100Base-TX and 1*100Base-FX SFP interface. and 16E1 with 2*10/100/1000Base-TX and 1*1000Base-FX SFP interface
- The length of Ethernet packet can be set, supporting huge packet.
- User can select IP protocol encapsulation or simplicity Ethernet type.
- Support VLAN setting.
- 1E1 model support both interface 75ohm and 120ohm, 4E1 default is 120ohm, can get 75ohm by Balun, 16E1 support 75ohm or 120ohm
- Support Ethernet ping function.
- Support package loss indicator function for E1 transmission line.
- Local and remote E1 loop
- High efficiency transmission, up to 90% bandwidth utility ratio
- 10/100/1000M Ethernet, full/half duplex auto-adapt, support auto-MDIX.
- The device Support WEB management platform, online software upgrades, the host side can manage all devices at the remote site
- AC 220V / DC -48V Power optional.

3. Specifications

Ethernet interface(10/100/1000M)

Interface rate:	10/100/1000 Mbps, half/full duplex auto-negotiation
Interface Standard:	Compatible with IEEE 802.3, IEEE 802.1Q (VLAN)
MAC Address Capability:	8K
Connector:	RJ45, support Auto-MDIX

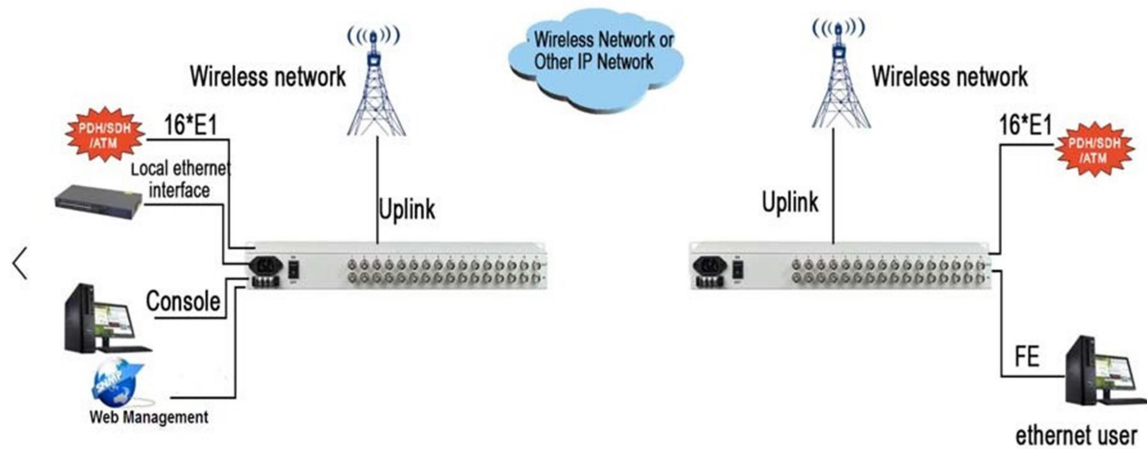
E1 Interface

Standard:	comply to G.703 standard
Code rate:	2.048Mbit/s±50ppm
Code type:	HDB3
Impedence:	75Ω (unbalance) / 120 (balance)
Connector:	BNC (unbalance) / RJ45 (balance)
Jitter tolerance:	comply to G.742 and G.823

Working environment

Working temperature:	-10°C ~ 50°C
Working Humidity:	5%~95 % (no condensation)
Storage temperature:	-40°C ~ 80°C
Storage Humidity:	5%~95 % (no condensation)

4. Typical Application



5. Order Information

FES1001: 1E1 TDMoIP Converter with 2x10/100Mbps Ethernet electrical Ports and 1x10/100Mbps Optical SFP Port, Web Management, Desktop Unit, AC220V/48DC power supply

FES1002: 2E1 TDMoIP Converter with 2x10/100Mbps Ethernet electrical Ports and 1x10/100Mbps Optical SFP Port, Web Management, Desktop Unit, AC220V/48DC power supply

FES1004: 4E1 TDMoIP Converter with 2x10/100Mbps Ethernet electrical Ports and 1x10/100Mbps Optical SFP Port, Web Management, Desktop Unit, AC220V/48DC power supply

FES1016: 16E1 TDMoIP Converter with 2x10/100/1000Mbps Ethernet electrical Ports and 1x1000Mbps Optical SFP Port, Web Management, 1U 19"Rackable Unit, AC220V+ -48DC Dual power supply redundancy