Gigabit Ethernet - STM-1 - E1 Convergence Protocol Conversion System

SPOTLIGHT:

This GE-STM-1 convergence protocol conversion system converts 63 channels of E1 ports from standard SDH STM-1 optical port to two 1000M Ethernet ports for communication - and every two E1 channels support ring networking.

DESCRIPTION:

This GE-STM-1 convergence protocol conversion system converts 63 channels of E1 ports from standard SDH STM-1 optical port to two 1000M Ethernet ports for communication; and every two E1 channels support ring networking. It can be extensively used in the convergence data comprehensive access system with multiple branch nodes network for operators, power, finance, public security organs, procuratorial organs and people's courts.

Main Features

The 1U and 19 inches structures are available, which can save machine room space greatly, decrease networking wiring, optimize network structure and improve the stability and performance of system.

The two channels of standard STM-1 SFP modular optical ports can work under the 1+1 lower order channel protection mode; both master clock and slave clock modes are supported, and under the slave clock mode, it supports the automatic shifting of clock sources.

The two 1000M Ethernet data converging ports can support GE electrical port (RJ45) and GE optical port (SFP) modes; The Ethernet supports 10/100M/1000M, semi-duplex, full-duplex and adaptive modes with VLAN, QinQ and PAUSE functions.

The CONSOLE interface and standard SNMP network management interface are provided to conduct out-band Ethernet management and in-band E1 management, facilitating the local and remote software upgrade and maintenance of equipment by users.

The internal E1 channel can be set to non-frame and frame modes, and the frame mode supports N*64K sub-rate access; and each E1 supports local/remote loopback, and pseudo-random code testing function; data package receiving, sending and flow statistics functions can be conducted for each individual E1;

Every two E1 channels can support ring networking and ring network protection and switching functions;

It can support SFP modular parameter performance monitoring and management;

It can implement the Trunk function of 1000M Ethernet;

It supports dual-power redundant standby to implement combined AC220V/48V dual-power backup as required.

Specifications

E1 interface
Bit rate:2.048Mb/s±50ppm
Code format: HDB3
Impedance: 75 Ohm is default, Optional 120 Ohm
Jitter transfer, Jitter tolerance comply with ITU-T G.703、G.704、G.823 recommendations

STM-1 Fiber-optical interface
Rate: 155Mb/s
standard: ITU-T G.957/G.958
wavelength: 850、1310、1550nm(optional)
The average light power:
≥-8dBm（single mode、1310、LED）
≥-18dBm（multi-mode、850、LED）
≥-25dBm（multi-mode、1310、LED）
Sensitivity:≤-36dBm
Dynamic range of received optical power: ≥25dB
Optical port type: FC/SC(optional)；Single/multiple mode (optional)

Gigabit Ethernet interface
Connector: RJ-45
Auto-negotiate: Enable
Speed: 10M/100M/1000M
Duplex: Full/half duplex
Bandwidth: 1000Mbps
Standard: IEEE 802.3, IEEE 802.3u, IEEE 802.ab, IEEE 802.3x

Ethernet fiber-optical interface (optional)
Rate: 1.25Gb/s
standard: ITU-T G.957/G.958
wavelength: 1310（optional）
The average light power:
≥-8dBm（single mode、1310、LED）
≥-25dBm（multi-mode、1310、LED）
Sensitivity:≤-36dBm
Dynamic range of received optical power:≥25dB
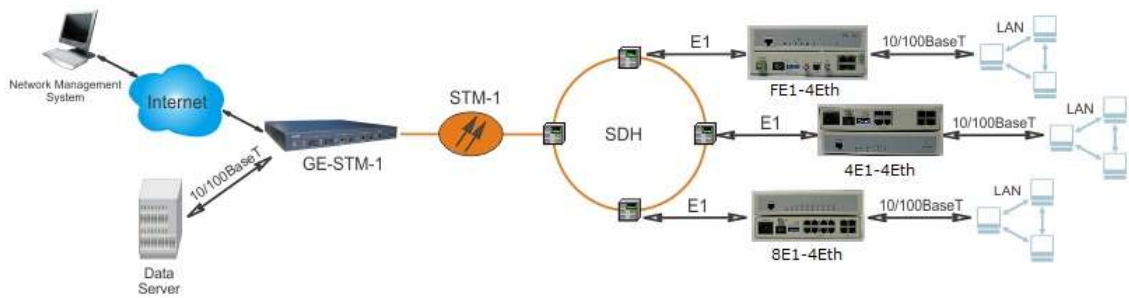Optical port type: SFP；Single/multiple mode (optional)

Voltage: AC220V or DC-48V
Fluctuant voltage:180 VAC~260 VAC Or -38 VDC ～ - 72 VDC
Power consumption: < 20W

Working condition: temperature:-20℃ ～ +70℃, Humidity: 95%
Dimension:448mm*313.5mm*44mm

Typical Application:

Ordering Information:

GE-STM-1

Convert sixty-three channels of E1 ports converged in one channel of STM-1 optical port to two channels of 1000M Ethernet ports for communication; it also provides CONSOLE and SNMP Ethernet mode for management and configuration.

GE-2-STM-1

Convert sixty-three channels of E1 ports converged in two channels of STM-1 optical ports to two channels of 1000M Ethernet ports for communication; two channels of standard STM-1 ports can work in 1+1 lower order channel protection mode; it also provides CONSOLE and SNMP Ethernet mode for management and configuration.