Spiktel

ETHERNET MULTIPLEXER

4 x E1 G.703 +

4 x Ethernet

4E1 to Fiber multiplexer

ST-2109-FA

Overview

2109-FA series of Multi E1 & Fast Ethernet Optical Terminal is a product combining of a PDH optical transport system and an Ethernet transceiver.

2109-FA can provide up to 4 E1 interfaces and 4 Fast Ethernet interface. The Ethernet interface can be operated in 10M/100M, half duplex or full duplex mode by either auto-negotiation or manual setting.

The 2109-FA is a fiber media transport for 4E1 + 4 x 10/100BaseT transmission. The BNC model provides unbalanced 75 Ohm coaxial connections while the RJ-45 model provides balanced 120 Ohm connections over twisted pair wiring.

All media converters are available with either multi-mode or single-mode optical tranceivers and with connectors for SC, ST, or FC. In single mode they are available in up to 120 km versions reach, which will provide the ability to transmit and receive data using only a single optical fiber pair.

2109-FA possesses complete operation monitoring function. Those indicators include Loss of optical signal, LOF, 10^{-3}, 10^{6} bit error rate, Loss of each E1 tributary signal and Ethernet status. Since some overhead bytes are taken as monitoring channel, all alarm and status of Remote can be display locally.

2109-FA provides RS232 interface for Network Management. Supported by AN-NM-PDH GUI network manager utility, users can observe the status of Local and Remote, as well as other alarm information unable to be displayed by LEDs in the front panel. Also, with AN-NM-PDH, user can make certain E1 loop back for testing purpose

Features

* Provides 4 x E1 G.703 transparent transmission over the fiber;

* Provide 4 x 100 Mbit/s Ethernet channels, Ethernet speed can be set for each port on based on any multiples of n x 32 Kbit/s;

* Provides one RS232 channel for option;

* Provide one hotline channel for option (enginering ordewire);

* Speed of optical port is 155Mbps, transmission range can reach 25KM, 40KM, 60KM, 80KM or 100km,120KM;

* E1 interface code is HDB3; E1 vibration characteristic conforms to ITU-T G.703、 G.823 and G.742;

* Ethernet port supports full/half duplex, 10M/100M auto-ataptable, throughput is full duplex 100 Mubit/s;

* Ethernet port supports dot1Q VLAN setting possibility and port based VLAN's.

* Layer2 intelligent switch possibilities for 4 x Ethernet ports

* Ethernet packet size supports 1916 byte and 4 Ethernet port could be set seperately, jumbo frames are supported;

* Simultaneous 4 E1 & 100 Mbit/s full duplex operation;

* Complete alarm function and can monitor remote device status;

* Supports E1 loop from remote so as to detect and manage device conveniently;

* The combination AC220V and DC-48V for redundant options;

* Broadcast Storm Protection, Port monitoring.

* Current alarm and alarm history database

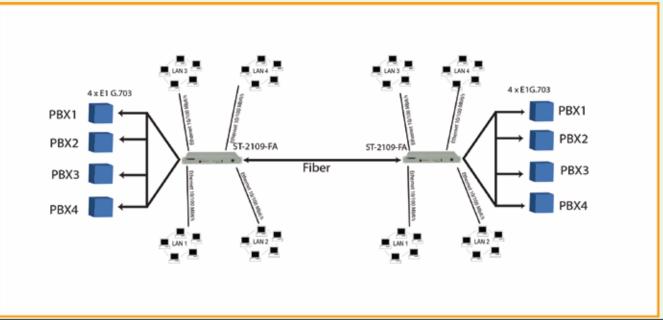* 2109-FA GUI manager for easy and convienent monitoring and managment

Specifications

E1 interface parameter:	Channel capacity: 4 Channels Bit Rate: 2.048 Mb/s ±50 ppm Line Code: HDB3 Line Impedance: 120 Ohm / 75 Ohm Connector: RJ-45 or BNC Pulse Shape: ITU-T G.703 Jitter Performance: ITU-T G.823
Ethernet interface:	Interface Rate: 10/100Mbps Interface characteristic: match IEEE802.3, IEEE802.1 Q Connector: RJ45
Optical interface parameter:	Optical wavelength: 850/1310nm for multi-mode fiber, 1310/1550nm for single-mode fiber Optiical interface: SC/FC/ST (Optional) Transceiver module: > -6dBm Optical receiver sensitivity: <-36(BER<10) Receive range: >-30dB Transmission distance: multi-mode 2 Km, single-mode 20/ 40/ 80 / 120 Km, WDM versions available
Power:	DC: -48V (-36 to -72V); +24 V (Optional) AC: 90 to 260 VAC ; 47 ~ 63Hz Power Interface: DC power terminal/AC socket Power Consumption: 10 W maximum
Working environment:	Operating temperature: 0 to 50°C Storage temperature: -20 to +70°C Relative humidity: 5% to 90% (25°C no condense)

Application Diagram

Ordering Information

Product	Descriptions
2109-FA/4ETH-MM	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1 x orderwire phone, Network Management system, FC/ST/SC Multimode 2 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-S40	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1 x orderwire phone, Network Management system, FC/ST/SC Single Mode Dual Fiber 40 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-S60	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1x orderwire phone, Network Management system, FC/ST/SC Single Mode Dual Fiber 60 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-S80	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1 x torderwire phone, Network Management system, FC/ST/SC Single Mode Dual Fiber 80 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-S100	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1x orderwire phone, Network Management system, FC/ST/SC Single Mode Dual Fiber 100 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-S120	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1x orderwire phone, Network Management system, FC/ST/SC Single Mode Dual Fiber 100 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-WDM20	4xE1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 ,1x orderwire phone, Network Management system, FC/ST/SC Single Mode Single Fiber 20 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-WDM40	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 , 1 x orderwire phone, Network Management system, FC/ST/SC Single Mode Single Fiber 40 km, AC or DC power supply. 1+1 double power supply as ordering option
2109-FA/4ETH-WDM60	4 x E1 G.703 PDH Fiber Multiplexer + 4 x 10/100 Ethernet ports, 19" ,75ohm BNC or 120ohm RJ-45 , 1 x orderwire phone, Network Management system, FC/ST/SC Single Mode Single Fiber 60 km, AC or DC power supply. 1+1 double power supply as ordering option

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* Specs and Pictures of the product can be revised according to R&D
* Products design in UK.

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