Spiktel

INTERFACE CONVERTER

ST-2102-FA

Framed E1 G.703/ G.704 fiber modem

2E1 Port FE Version

ST-2102-FA

Overview

As it is widely known, G.703 is typically transported over balanced 120 ohm twisted pair cables terminated in RJ48C jacks. However, some telephone companies use unbalanced (dual 75 ohm coaxial cables) wires, also allowed by G.703. Distance in this cases does not exceeds 100 m, and that is serious drawback. One way is use the GSHDSL modems, what can help extend the distance for several kilometers, but this usually are not stable, copper pairs due to high copper cost got stolen, and this way is not stable against interference.

And most important - the distance - 2102-FA E1 media converter makes possible reach not only 20 or 40 km, but also 120 km with most power version, what uses DFB lasers for optical electrical E1 signal conversion.

2102-FA E1 is a fiber media transport for 1 x G.703 E1 framed/fractional transmission. The BNC model provides unbalanced 75 Ohm coaxial connections while the RJ-45 model provides balanced 120 Ohm connections over twisted pair wiring. The most biggest distance from 2102-FA E1 media converter unframed E1 G.703 fiber model, is n x 64 time slot selection feature, also called as fractional E1.

All E1 media converter are available with either multi-mode or single-mode optical transceivers 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. WDM single fiber version allows safe on fiber costs - instead of fiber pair, it is using just 1 fiber, by means of WDM bidi technology.

When the 2102-FA E1 is linked to the AN-CH03 with 2102-FA E1 card, it allows network engineers to get greater functionality through advanced SNMP features, the network administrator can manage any converter module from anywhere on the network, detect any link loss and maintain each loop.

IEEE Complied   ACS REGISTRARS ISO 9001   RoHS   CE

Features

* Having two row of LEDs, upper row indicate local status, lower row indicate remote status and alarm status.
* Based on self -Copyright IC, high software content (kernel chip based on software
* Realize take out specified time-slots to compose Nx 64K (N=1 to 32) data channel.
* Provide 3 loop functions: local loop (ANA), to remote loop (DIG), order remote loop (REM).
* Have pseudo random code test function, easy the installation and maintenance.
* Realize rate setting of remote equipment (in slave clock status) when local equipment is in master clock status.
* Power supply option: AC220V, DC-48V. The positive and negative terminal can be exchanged for DC-48V, easy for installation and maintenance.
* Network manager interface for SNMP.
* Two types of E1 media converter: Standalone, desktop, 19inch;Card,usually be inserted in our rack 19 inch.
* Want to see it as SNMP managed modular platform in your 19' rack? Check here...

Specifications

E1 interface parameter
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

Optical interface parameter:
Optical wavelength: 850/1310nm for multi-mode fiber, 1310/1550nm for single-mode fiber.
Optical 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 /60/ 80 / 120 Km, WDM available
for different distances

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: 5 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)

Ordering Information

Product	Descriptions
2102-FA/AC-MM	Framed / Fractional E1 G.703/704 over multi-mode fiber 2 km SC/ST,FC 220V/110V
2102-FA/AC-S20	Framed / Fractional E1 G.703/704 signal over single-mode fiber 20km SC/ST,FC 220V/110V
2102-FA/AC-S40	Framed / Fractional E1 G.703/704 signal over single-mode fiber 40km SC/ST,FC 220V/110V
2102-FA/AC-S60	Framed / Fractional E1 G.703/704 over single-mode fiber 60km SC/ST,FC 220V/110V
2102-FA/AC-S80	Framed / Fractional E1 G.703/704 signal over single-mode fiber 80km SC/ST,FC 220V/110V
2102-FA/AC-S100	Framed / Fractional E1 G.703/704 over single-mode fiber 100km SC/ST,FC 220V/110V
2102-FA/AC-S120	Framed / Fractional E1 G.703/704 over single-mode fiber 120km SC/ST,FC 220V/110V
2102-FA/48-MM	Framed / Fractional E1 G.703/704 over multi-mode fiber 2 km SC/ST,FC DC-48V
2102-FA/48-S20	Framed / Fractional E1 G.703/704 over single-mode fiber 20km SC/ST,FC DC-48V
2102-FA/48-S40	Framed / Fractional E1 G.703/704 signal over single-mode fiber 40km SC/ST,FC DC-48V
2102-FA/48-S60	Framed / Fractional E1 G.703/704 signal over single-mode fiber 60km SC/ST,FC DC-48V
2102-FA/48-S80	Framed / Fractional E1 G.703/704 signal over single-mode fiber 80km SC/ST,FC DC-48V
2102-FA/48-S100	Framed / Fractional E1 G.703/704 signal over single-mode fiber 100km SC/ST,FC DC-48V
2102-FA/48-S120	Framed / Fractional E1 G.703/704 signal over single-mode fiber 120km SC/ST,FC DC-48V
2102-FA/AC-WDM20	Framed / Fractional E1 G.703/704 signal over single-mode single fiber WDM (BiDi - Single strand) 20km SC/ST,220V/110V
2102-FA/AC-WDM40	Framed / Fractional E1 G.703/704 signal over single-mode fiber fiber WDM (BiDi - Single strand) 40km SC/ST,220V/110V
2102-FA/AC-WDM60	Framed / Fractional E1 G.703/704 signal over single-mode fiber fiber WDM (BiDi - Single strand) 60km SC/ST,220V/110V
2102-FA/48-WDM20	Framed / Fractional E1 G.703/704 signal over single-mode fiber fiber WDM (BiDi - Single strand) 20km SC/ST,DC-48V
2102-FA/48-WDM40	Framed / Fractional E1 G.703/704 signal over single-mode fiber fiber WDM (BiDi - Single strand) 40km SC/ST,DC-48V
2102-FA/48-WDM60	Framed / Fractional E1 G.703/704 signal over single-mode fiber fiber WDM (BiDi - Single strand) 60km SC/ST,DC-48V

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