

SDH STM-1 Service Platform



1. Overview

F10-155S is a STM-1 optical transmission system, whose technical performances are fully complied with ITU-T and SDH recommendations. This system is benefit of high integration, flexible construction and strong network adaptability, etc. F10-155S provides two 155.52Mb/s aggregate line interfaces of A and B, possessing the network elements timing function of ITU-T G.813 recommendation, and VC-12 full-crossing connection and channel protection function. F10-155S has the following usages:

As an ADM, it can be inserted in STM-1 ring which provide $32 \times E1\lambda$ tributaries;

As a terminal, it can multiplex $32 \times E1$ to a line λ port;

Network element management of F10-155S system is based on unified network management platform Fi-View-SDH. Fi-View-SDH is designed in accordance with related recommendations of ITU-T, so as to realize network resources, equipment configuration, alarm, performance and security management; it can support unified management of multiple optical-route non-interconnected sub-net, and support remote network monitoring by way of Internet.

2. Features

World leading design adopts independent Asics, with 1U single-board structure, compactness, high reliability, low power consumption;

Provides 63 X 63 VC12 non-blocking cross-connect, supports tributaries Add/Drop of 1~63 E1, with capability of unidirectional and bi-directional multiplexing;

Supports network of point to point, chain and ring, providing functions like tributaries 1+1 channel protection, etc.;

Can realize independent service-assignment or mutual protection between two optical interfaces, and can build (connected with F10-155C) various complex networks of STM-1 multi-ring, and multi-branch, etc.;

Provides timing synchronous interface, implements switching of multiple timing sources like 2Mb/s, 2MHz, STM-1, etc., and output of 2Mb/s, 2MHz reference clock.

Provides multiple service interfaces of E1, 10/100M Ethernet, RS232, V.35, etc.

Ethernet access support Link Capacity Adjustment Scheme(LCAS) for dynamic bandwidth management;

Provides Engineer Order Wire (EOW) interface (two-line model), with group call and dial functions;

Provides D1-D3 ECC channel, network management adopting TCP/IP communication protocol;

Provides F (Ethernet) and f (RS232) NMS interface, network management platform Fi-View-SDH can realize ITU-T recommendations five functions of resources, configuration, alarm, performance, and security, etc.;

Network management platform Fi-View-SDH can realize software remote downloading, with software live-upgrading capability, being easy to maintain, can realize remote monitoring;

Through replacing optical devices, supports ultra-long distance ($\leq 80\text{km}$), long distance ($\leq 50\text{km}$) and short distance ($\leq 30\text{km}$) optical transmission;

Equipment adopts natural wind heat emission, with stable and reliable work.

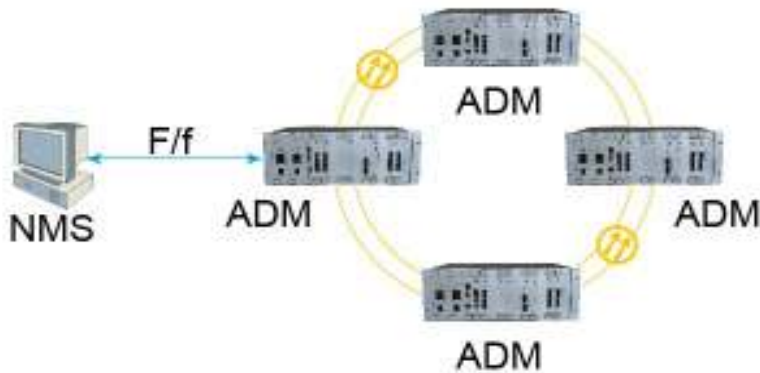
Below is only for Chassis (F10-155C)

4U height Chassis is made up of Element Management Unit(EMU), Cross-Connect and CLK Card, Optical Card, E1 mapping Card and Ethernet mapping card,

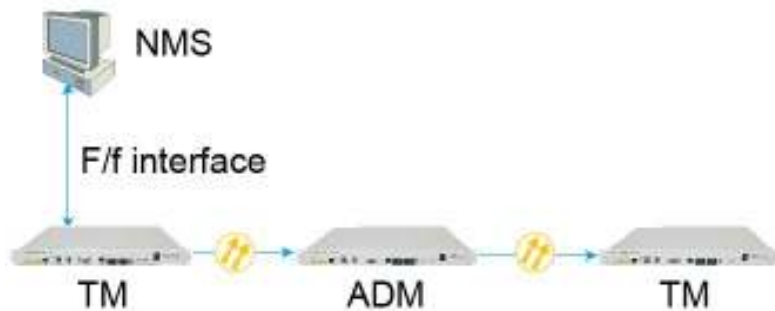
4-optical-port, STM-1 MADM or TM multiplexer;
Support up to 126 E1-circuit add/drop;
Support up to 32 10/100Base-T;
Support cross connection of all VC12 ;

3. Typical Application

Ring Topology



Tree / Chain topology



4. Specification

Mechanical dimensions

Dimensions: 293 (D) x 434 (W) x 44 (H) mm

Weight: 4.0Kg

Environmental requirements

Power supply: -48 VDC \pm 10% or
180-265VAC

Fully equipment power consumption: 25W \pm 10%

Operating temperature: 0 $^{\circ}$ C~45 $^{\circ}$ C

Humidity: \leq 90% (free from condensing)

Atmospheric pressure: 70~106 Kappa

Storage temperature: -20 $^{\circ}$ C ~70 $^{\circ}$ C

STM-1 optical interface

Bit Rate 155.520Mb/s \pm 4.6ppm

Standard ITU-T G.957/G.958

wavelength 1310nm /1550nm

Distance 50Km

Sensitivity Better than -36dB

Connector FC/SC

E1 interface

Bit Rate 2.048Mb/s \pm 50ppm

Encoding HDB3
Standard ITU-T G.703
Connector 2mm high density connector
Impedance 75Ω/120Ω
Jitter performance Comply ITU-T G. 823

Ethernet interface

Compatible with 10/100Base-T
Connector: RJ45

External timing source interface (REF)

Standard ITU-T G.813/783
Input T1, T3
Output T4
Working mode: tracing, holding & free run
Interface Micro-mini coaxial

Engineer Order Wire (EOW) interface

Bit Rate 64Kb/s
Signal mode Dual tone multi-frequency dialing mode
Ring frequency 450Hz
Ring mode Buzzer
NE address range 00~99

Serial NMU (RS-232) interface

Bit Rate 115200b/s
Interface DB9

Ethernet NMU (RJ-45) interface

Bit Rate 10/100M
Mode Full/half duplex auto-negotiation
Interface RJ-45

5.Order Information

Part Number

F10-155S16-S042F43 :16E1, four 10/100Mbps Ethernet, 40km, FC/PC, 1310nm
F10-155S16-S042F :16E1, without Ethernet, 40km, FC/PC, 1310nm
F10-155S24-S042F43A :24E1, four 10/100Mbps Ethernet, 40km, FC/PC, 1310nm, AC220V
F10-155S32-S042FD :32E1, without Ethernet, 40km, FC/PC, 1310nm, DC-48V

F10-155S63 :Standalone STM-1 63E1

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Haberleşme sistemlerinde yüksek performansı yakalayın

