

दक्षिण मध्य रेलवे

SOUTH CENTRAL RAILWAY

सिगनल व दूर संचार कारखाना,मेट्टूगुडा.

SIGNAL AND TELECOM WORKSHOP, METTUGUDA.

Secunderabad, Telangana.

(ISO 9001:2015 certified unit & Approved by RDSO/LKO)

Auto Change over Switch

For

E1 (OFC) and Copper wire



Designed & Developed by:

**Signal & Telecom Workshop
Mettuguda, Secunderabad.**

Contact:

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Auto Change over Switch helps in interfacing the attached devices with ITU-T V.21/V.23 to connect to E1 or Optical 1+1 channel. It is most suitable for Indian Railway Signaling Applications like Axle Counter Inter-connection. The equipment's auto-change over facility allows automatic diversion of V.21/V.23 traffic to the available stand-by Copper circuit when the E1 or Optical link fails. Critical events reporting enable immediate resolution of the problem. The unit is available in 18 V DC to 72V DC power supply.

System is a modular integrated Access TDM multiplexer with 512 x 512 cross connects ability, which integrates multiple dedicated data, voice and LAN channels over multiple main (network) links. It can provide maximum 2 Electrical and 2 optical E1's and 2W/4W E&M, Quad Cable Ports, RS232/V.24, ETH capacity for accessing and transmission with cross-connect capacity is 512x512 64K. It provides full range of voice and digital data services to subscribers located at different locations require to interconnect and establish a voice and data network over E1 link or optical.

System enables carriers to successfully deploy bundled services and Internet access. The integration of a broad range of services makes **Auto Change over Switch** a cost-effective access device, with reduced deployment and maintenance costs. The equipment conforms to international standards, ensuring compatibility in multi-vendor environments worldwide.

System is designed to work over Various Original Equipment Manufacturer's Digital Axle Circuits over optical fiber (STM).

Key Features

- Automatic Changeover to bypass copper circuit if E1 / Optical link fails or FABIO-2CX unit is powered off.
- Event log Facility is provided E1, V.21 and Optical extra
- The bypass copper circuit is constantly checked for availability as long as the E1 / Optical Link is up
- Potential Free Alarm Relay Contacts for Local and Remote monitoring or These relay contacts may be connected to a Data Logger for centralised monitoring of these alarms.
- Compact 1U high, 19-inch chassis
- Max. E1 channels : 2 Electrical and 2 Optical E1s
- Frame structure : Supports optional CRC-4 and PCM 30/31 settings
- Timing : Internal Crystal Oscillator clock, Clock received from any link (loopback)
- Versatile 64Kbps User interface : E&M 2/4-wire module with adjustable voice gain, Quad Cable Ports and V.24/RS-232 low speed Ports and 4Ethernet
- Optical 1+1 155Mbps Interface
- Max E&M channels : 6 (2W/4W)
- Quad Ports : 6
- Async / V.24 Ports : 2 over optical
- Max FE channels : 4 over optical

- Performance Monitor : Control panel provides ample control and alarm function. When an E1 channel occurs errors, sound alarm will be activated and LOS/LOF warning message of each E1 channel will be displayed. Customer service can be allocated by on-line network operator.
- Flexible network topologies : Point-to-Point , Daisy Chain.
- Local and Remote Telnet support

Technical Specifications

- Chassis(height) : 1U, 19-inch wide
- Console port : 1 (RJ-45), Serial
- Telnet port : 10/100Mbps (RJ-45), Ethernet
- I/O modules : 2 Electrical and 2 optical E1's and 6 E&M 2W/4W, 6 Quad Cable
- Ports : 2/4W, 2 RS232/V.24, 4ETH Ports

Quad Cable Ports

- Number of Ports : Six 2W/4W Selectable
- Connector : R

Voice Interfaces

- Channel sampling rate : 8 KHz
- Companding law : A-law
- Voice Interface : 2W, 4W, Signalling, E&M
- Frequency : 300 to 3400 Hz
- Impedance : 600 Ohms

Data Interfaces

- Low speed data interface : RS232, V.24
- Characteristic Data Format : ITU-T V.24
- Format : Asynchronous
- Asynchronous data : Auto baud upto 115.2 Kbps

Ethernet Data Interface

- Compliance : IEEE 802.3
- Speed : 10/100 Mbps High speed
- Supports Auto MDI / MDIX
- Auto Negotiation as per 802.3x
- Supports Half / Full Duplex Flow control

Uplink Interfaces (E1)

- Supports 512x512 cross connect ability based on 64K with signaling
- Bit rate: 2048 +/- 50 ppm
- Code : HDB3
- Impedance : 120 Ohms Balanced
- Electrical characteristics : ITU-T G.703
- Transfer characteristics : ITU-T G.823
- Jitter performance : ITU-T G.823

Disaster Management Communication (IR)

Auto Change over Switch device are suitable for disaster communication for extending various services to mid-section in Indian Railways.

Power Supply

AC : 100V ~ 240V AC (220V nom) & DC to AC adaptor and DC : -18V ~ -72V (nom : -48V DC)

Environment

Operating Temperature : -5 to +55°C

Operating Humidity : 5% to 99%

*Price: 56,807/-

***Inclusive of all Taxes**