

FEATURES

- Modular design for ease of maintenance, configuration flexibility and future expansion capability.
- Meets ANSI/IEEE SWC, RFI standards.
- 100% temperature cycled which minimizes infant mortality of components.

APPLICATIONS

The FSCIS common equipment can be applied as a full SONENT/SDH based multiplexer operating at 51.84 Mbps or 155.52 Mbps over fiber optic cables. By adding expansion equipment FSC2E the system can handle up to 672 or 2016 DS0 channels.

Online ordering is available for this product.

See pages
15 - 18.

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TECHNICAL SPECIFICATIONS

MONITORING	
Network Management Capabilities:	
Network visibility at every node	
Remote provisioning (monitor and configure) of the network	
Alarm logging and time stamping	
Manual path switching	
POWER SUPPLY	
POWER REQUIREMENTS:	
24, 48, 125, 250 VDC, or 115 VAC	
OUTPUTS	
ALARMS	
System:	
Major and minor alarms:	
LED indicators (Yellow alarm and AIS) and alarm relay	
Power supply: SSR with one form B contact	
Application Modules: Alarm LED	
Teleprotection modules also provide alarm relay	
Alarm Relays: SSR with one form C contact	
OPTICAL INTERFACE	
System Rate:	
51.84 Mbps (672 DS-0 channels) or 155.52 Mps (2016 DS-0 channels)	
Connector: FCPC	
Wavelength: 1300 or 1550 nm (optional)	
Type of Fiber: SingleMode or MultiMode	
Optical Specs:	
	Tx Power Rx Power Optical Gain Typical Range
51.84 Mbps 1300 nm	-5dBm -37dBm 32 dB 70 km
51.84 Mbps 1550 nm	0dBm -40dBm 40 dB 110 km
155 Mbps 1300 nm	5dBm -36dBm 31 dB 65km
155 Mbps 1550 nm	TBD TBD TBD TBD

ELECTRICAL INTERFACE (STS-1)	
Connector:	BNC
Type of Cable:	Coaxial
Transmit Power:	Per TR-NWT-253 Bellcore standard
SYNCHRONIZATION	
Internal:	Internal clock @ headend node, Stratum 3
	Line timing @ any other node per Bellcore standard
External:	System can be synchronized to an external BITS clock (e.g. Stratum 1)
NODE THROUGH DELAY	
14 μ s	
PROTECTION SWITCHING TIME	
< 3 ms	
CONNECTORS	
Screw type terminal blocks for application (channel) modules, power and alarm relay connections	
CONSUMPTION	
10 W for add/drop node common equipment	
TYPE TESTS	
Diagnostics:	RS232 Craft Interface, front panel RJ11 jack running @ 9600 baud at every node for system diagnostics, monitoring, trouble-shooting and maintenance
EMI/RFI:	Meets ANSI/IEEE C37.90.2 RFI
Surge Withstand:	Meets ANSI/IEEE C37.90.1 SWC

Specifications subject to change without notice.

ORDERING

To order select the basic model and the desired features from the Selection Guide below.

Fiber Optic Multiplexer Common Equipment

FSC1S	*	*	*	*	*	*	*	*
FSC1S	02							FSC1S Shelf with multiplexer, 4 RU high
	04							12 VDC main power supply
	12							48 VDC main power supply
	25							110/125 VDC main power supply
	AC							220/250 VDC main power supply
		02						115 VAC main power supply
		04						12 VDC redundant power supply
		12						48 VDC redundant power supply
		25						110/125 VDC redundant power supply
		AC						220/250 VDC redundant power supply
		99						115 VAC redundant power supply
			M2					None
			M4					Multiplexer / FO unit #1
			M5					51.84 Mbps, 1300 nm laser
			M6					51.84 Mbps, 1550 nm laser (DSF fiber)
			M7					155 Mbps, 1300 nm laser
								155 Mbps, 1550 nm laser (DSF fiber)
								155 Mbps, 1550 nm laser (std. fiber)
				S1				Local node service unit
								Multiplexer / FO unit #2
								51.84 Mbps, 1300 nm laser
								51.84 Mbps, 1550 nm laser (DSF fiber)
								155 Mbps, 1300 nm laser
								155 Mbps, 1550 nm laser (DSF fiber)
								155 Mbps, 1550 nm laser (std. fiber)
								None
								Intermediate format unit #1
								JIF, 3 VT1.5 access
								JIF-TIE, 3 VT1.5 access
								JIF-DS1, 3 DS1 access
								JIF-E1, 3 E1 access
								JIF-FDM, FDM access
								JIF-Ether, 10 Mbps, ethernet access
								JIF-Share, 4 VT1.5 access
								Intermediate format unit #2
								JIF, 3 VT1.5 access
								JIF-TIE, 3 VT1.5 access
								JIF-DS1, 3 DS1 access
								JIF-E1, 3 E1 access
								JIF-FDM, 3 FDM access
								JIF-Ether, 10 Mbps, ethernet access
								JIF-Share, 4 VT1.5 access
								None
								Revision letter

Expansion Equipment

FSC2E	*	*	*
FSC2E	02		FSC2S Shelf with multiplexer, 4 RU high
	04		Main power supply
	12		12 VDC
	25		48 VDC
			110/125 VDC
			220/250 VDC
		02	Redundant power supply
		04	12 VDC
		12	48 VDC
		25	110/125 VDC
		99	220/250 VDC
			None
			Revision letter

FSC2E Nomenclature Guidelines

- the FSC2E shelf has 13 slots available for optional modules
- one CDR or one DRC module can be selected (not both) per shelf
- a redundant power supply is recommended when CDR is selected

FSC1S Nomenclature Guidelines

- one CDR or one DRC module can be selected (not both)
- a redundant power supply is recommended when CDR is selected

Shelf Arrangement

- the nomenclature defines the common modules; the optional modules can be installed into any remaining slot
- the FSC1S shelf has 8 slots available for optional modules

Last updated June 27/00