

Gigabit Optical Mux

16xE1 & 8xEthernet

SFP Transceiver

FlexGain FOM16,V3

TDM & Ethernet Gigabit Optical Multiplexer



Features

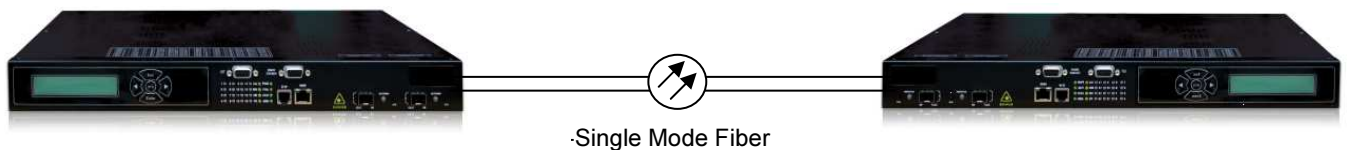
- Up to 16 E1 Interfaces, 120 & 75 Ohm Available
- Up to 8 Ethernet (10/100/1000Base-T/1000Base-X)
- LCD with Buttons for Local Management as well as CLI, Telnet, SNMP for Remote Management
- 2 Slots for SFP Modules. Transceiver for 10, 20 and 40km Available (other distances upon request)
- 1+1 Protection and Automatic Laser Shut Down
- Ethernet with Integrated Layer 2 Managed Switch Supporting VLAN and QoS
- Multiservice Operation
- 19" Robust Metal Enclosure

The FlexGain FOM product family contains a range of compact and cost-effective multiplexer modems, transmitting 4, 8, 12 or 16 E1 streams as well as IP traffic (Ethernet) over two single-mode optical fibers.

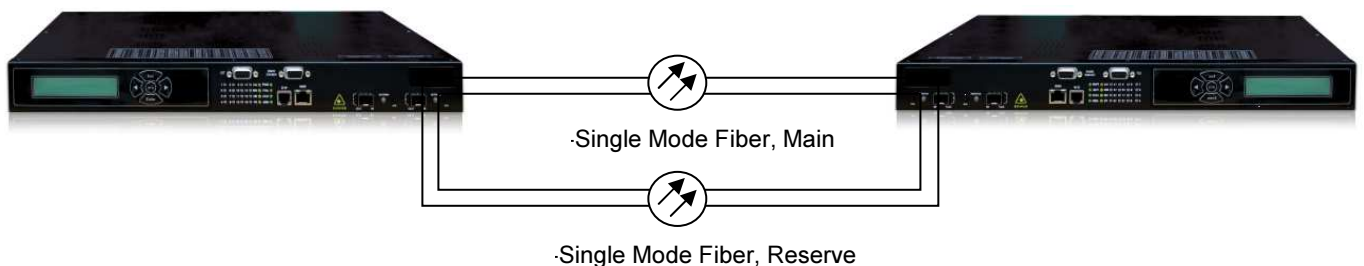
The FlexGain FOM16,V3 Gigabit Optical Multiplexer is the flagship of FlexDSL's FOM product family with capacities of up to 16 E1s, providing 1+1 protection, LCD configuration, built-in SNMP management, performance monitoring and history. For more flexibility it is using state of art SFP transceiver technology that allows user, from one side to select transceiver according to the line budget, and from the other side to save spare parts cost. The up to eight Ethernet interfaces support IEEE 802.1Q VLAN, Q-in-Q, 802.1P QoS, DSCP, 4 priority queues per port and rate limiting. The auto MDIX function is supported by each Ethernet port.

All FlexGain FOM16, V3 products are available in a space saving minirack version (436mm x 44.5mm x 320mm (WxHxD)). Due to its Class 1 Laser Diode (1310nm or 1550nm) as an optical emission source, the FlexGain FOM has an extremely long reach and can be effectively used in both metropolitan and rural area networks. E1 interfaces are available as 120Ohm-balanced or 75Ohm-unbalanced versions and are therefore fully compliant with ITU-T G.703 and G.823 standards.

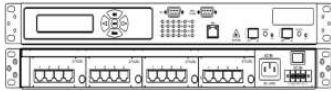
Possible Applications: Point-to-Point



Possible Applications: Point-to-Point with Fiber Protection (1+1)

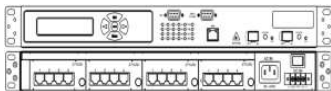


FlexGain FOM16,V3



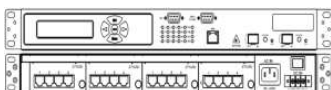
Model: FG-FOM16/16E,V3

Optical Interface:	2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate:	1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface:	16x E1 (120Ohm), 2x Ethernet 10/100/1000BaseT
E1:	ITU-T G.703, G.823, G.824 IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet:	8k MAC Address Entries 256 VLAN ID Maximum Frame Size is 9000 Bytes
Physical Interfaces:	RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Physical Interfaces:	RJ48 (E1), RJ45 (Giga Ethernet)
Back Side:	Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm:	2 Sets of Minor and Major Audible and Visible Alarm
Management:	Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature:	0 to +60°C, 5% to 95% (Non-condensing)
Power:	36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight:	< 4kg



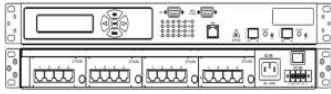
Model: FG-FOM16/12UE,V3

Optical Interface:	2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate:	1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface:	12x E1 (75Ohm), 2x Ethernet 10/100/1000BaseT or 1000BaseX
E1:	ITU-T G.703, G.823, G.824 IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet:	8k MAC Address Entries 256 VLAN ID Maximum Frame Size is 9000 Bytes
Physical Interfaces:	RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Physical Interfaces:	BNC (E1), RJ45 and SFP Cage (Giga Ethernet)
Back Side:	Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm:	2 Sets of Minor and Major Audible and Visible Alarm
Management:	Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature:	0 to +60°C, 5% to 95% (Non-condensing)
Power:	36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight:	< 4kg



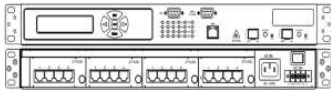
Model: FG-FOM16/8E,V3

Optical Interface:	2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate:	1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface:	8x E1 (120Ohm), 2x Ethernet 10/100/1000BaseT or 1000BaseX
E1:	ITU-T G.703, G.823, G.824 IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet:	8k MAC Address Entries 256 VLAN ID Maximum Frame Size is 9000 Bytes
Physical Interfaces:	RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Physical Interfaces:	RJ48 (E1), RJ45 and SFP Cage (Giga Ethernet)
Back Side:	Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm:	2 Sets of Minor and Major Audible and Visible Alarm
Management:	Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature:	0 to +60°C, 5% to 95% (Non-condensing)
Power:	36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight:	< 4kg



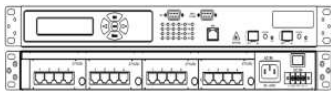
Model: FG-FOM16/8UE,V3

Optical Interface: 2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate: 1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface: 8x E1 (75Ohm), 2x Ethernet 10/100/1000BaseT or 1000BaseX
E1: ITU-T G.703, G.823, G.824
IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet: 8k MAC Address Entries
256 VLAN ID
Maximum Frame Size is 9000 Bytes
Physical Interfaces: RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Front Side:
Physical Interfaces: BNC (E1), RJ45 and SFP Cage (Giga Ethernet)
Back Side: Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm: 2 Sets of Minor and Major Audible and Visible Alarm
Management: Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature: 0 to +60°C, 5% to 95% (Non-condensing)
Power: 36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight: < 4kg



Model: FG-FOM16/4E,V3

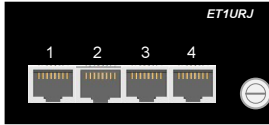
Optical Interface: 2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate: 1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface: 4x E1 (120Ohm), 2x Ethernet 10/100/1000BaseT or 1000BaseX
E1: ITU-T G.703, G.823, G.824
IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet: 8k MAC Address Entries
256 VLAN ID
Maximum Frame Size is 9000 Bytes
Physical Interfaces: RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Front Side:
Physical Interfaces: RJ48 (E1), RJ45 and SFP Cage (Giga Ethernet)
Back Side: Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm: 2 Sets of Minor and Major Audible and Visible Alarm
Management: Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature: 0 to +60°C, 5% to 95% (Non-condensing)
Power: 36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight: < 4kg



Model: FG-FOM16/4UE,V3

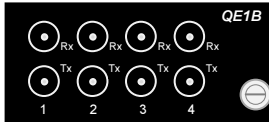
Optical Interface: 2x SFP Module, IEEE 802.3, IEC 825-2 Class 1 Safety
Data Rate: 1.25Gbps with Automatic Laser Shutdown (ALS) protection
Interface: 4x E1 (75Ohm), 2x Ethernet 10/100/1000BaseT or 1000BaseX
E1: ITU-T G.703, G.823, G.824
IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P QoS, DSCP, 4 Priority Queues per Port and Rate Limiting
Ethernet: 8k MAC Address Entries
256 VLAN ID
Maximum Frame Size is 9000 Bytes
Physical Interfaces: RJ45 (Ethernet NMS, SNMP), DB9F (Local Craft Terminal), DB9F (Alarm), SFP Cage (Fiber)
Front Side:
Physical Interfaces: BNC (E1), RJ45 and SFP Cage (Giga Ethernet)
Back Side: Screw Terminal (DC Power), IEC 60320 Appliance Inlet C14 (AC Power)
Alarm: 2 Sets of Minor and Major Audible and Visible Alarm
Management: Local Craft Terminal, Graphical User Interface (GUI), Telnet, SNMP
Temperature: 0 to +60°C, 5% to 95% (Non-condensing)
Power: 36 to 72VDC and 90 to 260VAC, 47 to 63Hz, Less than 30W
Weight: < 4kg

FlexGain FOM16,V3 Tributary Cards and SFP Modules



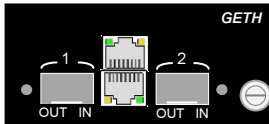
Model: FG-FOM16-Trib4xE1B,V3

Interface: 4x E1 (120Ohm)
 E1: ITU-T G.703, G.823, G.824
 Physical Interfaces: 4x RJ48 (E1)



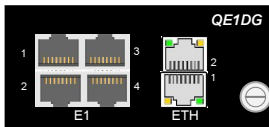
Model: FG-FOM16-Trib4xE1U,V3

Interface: 4x E1 (75Ohm)
 E1: ITU-T G.703, G.823, G.824
 Physical Interfaces: 4x BNC (E1)



Model: FG-FOM16-Trib2xETH,V3

Interface: 2x Ethernet 10/100/1000BaseT or 1000BaseX
 IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P
 Qos, DSCP, 4 priority queues per port and rate limiting
 Ethernet: 8k MAC Address Entries
 256 VLAN ID
 Maximum frame size is 9000 bytes
 Physical Interfaces: 2x RJ45 and 2x SFP Cage



Model: FG-FOM16-Trib4xE1B-2xETH,V3

Interface: 2x Ethernet 10/100/1000BaseT
 4x E1 (120Ohm)
 IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE 802.1Q VLAN, Q in Q, 802.1P
 Qos, DSCP, 4 priority queues per port and rate limiting
 Ethernet: 8k MAC Address Entries
 256 VLAN ID
 Maximum frame size is 9000 bytes
 E1: ITU-T G.703, G.823, G.824
 Physical Interfaces: 4x RJ48 (E1) and 2x RJ45 (Ethernet)



Model: FG-SMF-SFP10

Interface: SingleMode 1310, 1.25Gbps, LC, 10km

Model: FG-SMF-SFP20

Interface: SingleMode 1310, 1.25Gbps, LC, 20km

Model: FG-SMF-SFP40

Interface: SingleMode 1550, 1.25Gbps, LC, 40km