

# FSP 150M

THE ETHERNET ACCESS PLATFORM



The ADVA FSP 150 family of Ethernet access products provides devices for Ethernet demarcation, extension and aggregation to support delivery of intelligent Ethernet services both in-region and out-of-region.

ADVA Optical Networking's FSP 150M product family provides Ethernet aggregation and extension over available fiber facilities and supports carrier grade transport architectures such as 1+1 and ring/chain topologies. IEEE802.1Q and IEEE802.1ad Q in Q (stacked) VLAN tagging allow the aggregation devices to perform up to 1:1000 port aggregation while providing VLAN separation between services and customers. This highly scalable aggregation ratio allows the FSP 150M to take advantage of the low typical bandwidth fill at the provider edge switch or router and therefore to dramatically reduce port counts and costs.

The FSP 150M family is ideal for a variety of E-Line/LAN business services, high availability (redundant) Ethernet services or DSLAM backhaul/aggregation applications. It can greatly simplify the provisioning and management of VLAN based access architectures and by using Small Form factor Pluggable (SFP) optical devices can address a wide range of optical fibers, reaches, wavelengths and even single fiber (BX) applications.

The FSP 150M units are based on the IEEE802.3ah Ethernet First Mile (EFM) standard and support the lightweight Operations, Administration and Maintenance (OAM) protocol as defined within the standard. ADVA Optical Networking has extended this protocol to offer additional management capabilities and allow full management control of remote customer premises devices without the need for costly management overlay networks. Advanced Performance Monitoring (PM) capabilities are built into the units as a standard feature allowing operators to efficiently monitor and maintain customer service level agreements.

The FSP 150M family supports 10/100Mbit/s and Gigabit Ethernet data rates and can be used to create diverse services such as Emulated Line, Emulated LAN or Virtual Private Networks from a basic set of building blocks. Remote bandwidth management and over-subscription of aggregate ports is also supported allowing flexible network deployment with simple service upgrade.

The extremely low cost of ownership of the FSP 150 family allows mass market deployment of Ethernet as a transport solution for access networks.

The FSP product family provides comprehensive Optical+Ethernet networking solutions for access, metro core and regional networks. ADVA Optical Networking is focused on the needs of enterprise and service provider customers deploying data, storage, voice and video applications.

## FEATURES + BENEFITS

- Carrier class Ethernet aggregation device provides up to 1000:1 aggregation without using spanning tree or MAC switching
- Dramatically reduces provider edge switch port counts and increases port efficiency
- Ideal for E-Line and E-LAN services such as internet access, private line/LAN, VoIP, video, etc.
- Supports redundant 1+1 WAN connections for mission critical carrier grade services
- Interoperates with a wide range of data switching, routing, aggregation and transport products
- In-band and out-of-band management options for remote management (CLI, GUI and SNMP)

# SPECIFICATIONS



## INTERFACES



FSP 150MG

## Service IF

100BaseT/  
1000BaseX SFP (6)

## Network IF

100/1000BaseT (1+1) or  
1000BaseX SFP (1+1)



FSP 150MO

100BaseX SFP (10)

100/1000BaseT (1+1) or  
100/1000BaseX SFP (1+1)



FSP 150ME

10/100BaseT (10)

100/1000BaseT (1+1) or  
100/1000BaseX SFP (1+1)

## TOPOLOGY

- Tandem Node capability for access network protection
- Point-to-point, ring, chain or tree architectures

## ETHERJACK® DEMARCATIION

- NID/NTE for OAM&P
  - Aligned with EFM (802.3ah) and CFM (802.1ag)
  - RMON Etherstats and extensions for monitoring
  - Port and VLAN level loopbacks
  - Ethernet test suite generator and analyzer
  - Fault propagation for remote visibility of failures
  - Dying gasp message for power failure visibility
  - Optical power level monitoring for SFPs
- MEF UNI for advanced service definition
  - CIR/Burstsize on port or priority basis
  - Ingress policing and egress shaping w/64k resolution
  - 9250 byte jumbo frames supported
  - Traffic classification/priority based on TOS/DSCP/802.1P/802.1Q
  - 3 priority queues for traffic management
  - Low latency handling of VoIP/video services
  - 802.1Q VLAN: forwarding, swapping, stacking
  - (802.1Q-in-Q)

## MANAGEMENT & SECURITY

- CLI, HTTP/GUI and SNMPv1 (w/NEMI card)
- Ethernet ports for local management
- Local connectors: 10/100BaseT Ethernet RJ-45
- EFM OAM for remote management
- SNMP to EFM OAM gateway capability for management (manage multiple downstream devices using a single IP address at the root node)
- RADIUS password management (client)
- Database backup and restore
- SSH or Telnet support
- Software download via FTP, HTTP or Xmodem

## ENVIRONMENTAL

- Operating: 0 to +45°C
- Storage: -10 to +70°C
- Humidity: 5 to 95%, non-condensing

## REGULATORY

- NEBS level 3
- UL/cUL/EN 60950
- FCC Part 15, Class B
- Industry Canada CS-03
- VCCI
- CE Mark

## POWER

- 120 to 240VAC, 50 to 60Hz (A+B)
- -36 to 72 VDC (A+B)

## PHYSICAL

- Weight: 3.3kg/7pounds
- Dimensions:  
43mm H x 439mm W x 269mm D  
1.7" H (1 RU high) x 17.3" W x 10.6" D

## ADVA OPTICAL NETWORKING SOLUTIONS

core & regional	<ul style="list-style-type: none"> <li>▶ Long haul transport</li> <li>▶ Metro core transport</li> <li>▶ Packet optical transport</li> </ul>	
metro access	<ul style="list-style-type: none"> <li>▶ Wireline backhaul</li> <li>▶ Wireless backhaul</li> <li>▶ Ethernet access</li> </ul>	
customer premise	<ul style="list-style-type: none"> <li>▶ Grid/Cloud computing</li> <li>▶ SAN connectivity</li> <li>▶ Corporate backbone</li> </ul>	

For more information please contact an ADVA Optical Networking consultant or visit us at [www.advaoptical.com](http://www.advaoptical.com)

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**ADVA™**  
Optical Networking