

# Optical Network Encryption



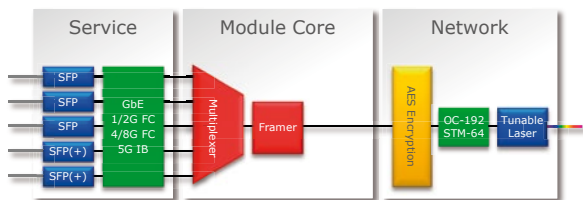
## A New Key to Data Security

Data security is not a single feature, but rather an increasingly important set of technologies used to safeguard private data sent across both public and private networks. The proliferation of data requiring protection means there is more data at risk of being compromised than ever before. This, in conjunction with the increasing cost of a data breach measured in both hard-dollar terms like legal settlements and soft costs such as loss of customer loyalty, makes the intelligent use of data protection technologies increasingly necessary for organizations of all sizes. Our innovative network encryption technology enables you to transport your data securely at highest performance and lowest cost.

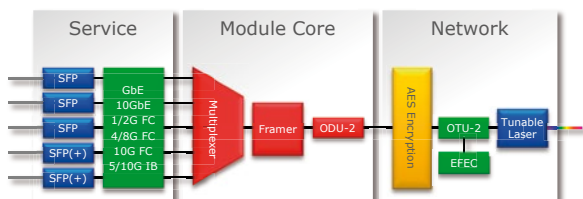
## Safeguarding Your Critical Data

Our network encryption solution integrated into the FSP 3000 is optimized for data center interconnection applications requiring maximum data security on the network connecting your locations. It provides a transparent wire-speed service using the internationally recognized Advanced Encryption Standards (AES) algorithm for securing private information. Dynamic key exchange and a strictly separated encryption domain manager make our solution compliant to the most stringent regulatory requirements. Our flexible multiplexer module implementation lets you carry a wide variety of protocols including Ethernet, Fibre Channel, InfiniBand and Coupling Link. The hardware-based network encryption implementation delivers maximum efficiency at ultra-low latency to address mission-critical applications.

SONET/SDH Network Interface



OTN Network Interface



### Key Benefits

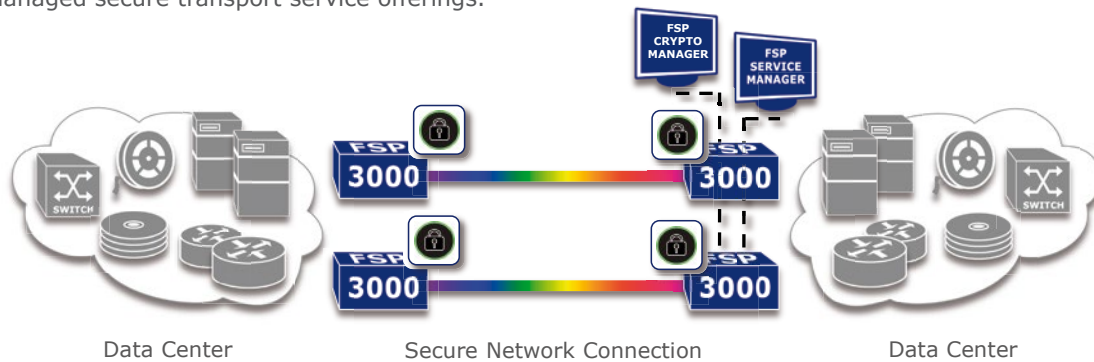
- Lowest cost-per-bit network encryption available today
- Protocol-agnostic, wire speed forwarding performance
- Ultra-low latency for high-performance data mirroring
- Strong authentication and dynamic key exchange
- Strictly separated security domain management platform
- Designed according to FIPS 140-2 Level 2 for regulatory compliance



## Secure and Reliable Network Infrastructure

An increasing number of industry verticals, including the financial sector, healthcare, government agencies and military institutions, require maximum network security when transmitting private information from their primary data center to remote locations established for disaster recovery and business continuity operations. The safest method to protect information and guarantee data integrity is encryption. Network encryption on the physical layer is as powerful as it is reliable to securely connect high-performance data centers and maintain superior application performance for different networking protocols.

Through the addition of high-performance encryption functionality, our FSP 3000 has become a tailored solution allowing enterprises and managed service providers to successfully deploy high-bandwidth managed secure transport services over an optical network. Permanent monitoring of this critical network infrastructure goes without saying if problems need to be identified and eliminated as quickly as possible. Our feature-rich encryption domain manager is strictly separated from the service management domain by means of virtual server technology. It guarantees optimum network security, highest availability and complies with national and international regulatory requirements, also for managed secure transport service offerings.



Item Name	5TCE-PCTN-8GU+AES10GS	5TCE-PCTN-10GU+AES10G
System Requirements	FSP 3000 release 11.1 or later	FSP 3000 release 10.3 or later
Client Formats	GbE, 1/2/4/8G FC, ISC-3	GbE, 10GbE, 1/2/4/8/10G FC, 5/10G IB, ISC-3
Line Interface	OC-192/STM-64	G.709 OTU-2
Wavelength Range	C-Band (50GHz), L-Band (100GHz)	C-Band (50GHz), L-Band (100GHz)
Mapping Process	Proprietary	Proprietary
Performance Monitoring	Physical Layer, SONET/SDH	Physical Layer, FEC, G.709 OTN
Data Encryption	AES 256, Diffie Hellman key exchange, 1536bit key length	AES 256, Diffie Hellman key exchange, 1536bit key length
Power Consumption	48W	45W
Environmental Characteristics	+5°C ... +40°C, 5% ... 85% relative humidity	+5°C ... +40°C, 5% ... 85% relative humidity
Physical Dimensions	1 slot (W) x 5 height units (H)	1 slot (W) x 5 height units (H)



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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