



FSP 3000

Overview and Highlights

February 2016

FSP 3000 Overview

Main Applications

- Agile transport solutions from access to core
- Enterprise SAN connectivity
- Mega data center interconnection
- Secure connectivity



FSP 3000

Key Features

- Application-optimized 100G solutions
- Network hypervisor for SDN networking
- Lowest footprint and power consumption

Scalable and secure optical transport for all applications

FSP 3000 Solutions Overview



Optical Network Infrastructure

- Agile, open and scalable transport solutions from access to core
- Application-optimized 100G solutions
- Mobile backhaul and fronthaul solutions
- MicroConnect™ next-generation metro solutions

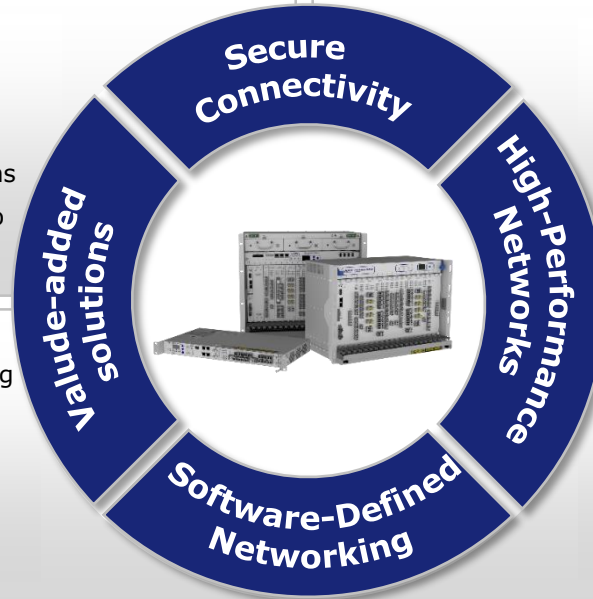
Secure Data Center Interconnect

- In-flight encryption for all data center protocols
- Complete storage & server certifications
- High-density & multi-service cards
- Lowest latency



- FSP 3000 Network Hypervisor providing a SDN-programmable northbound interface and optical network abstraction
- Successful Juniper partnership
- Proven open optical line system

- Uncompressed video transmission with highest availability and no signal degradation
- Extensive protocol support
- Up to 20 services per ADM video card
- Ultra-low latency for real time broadcasting



Packet Optical Transport

Native Video & Audio Transport

Why FSP 3000?



Value-Added Transport Solutions



ConnectGuard™ encryption for highest data security

- Approved by the German Federal Office for Information Security



Open and scalable data center interconnect

- First qualified solution for IBM GDPS® clusters



Native transport of high-quality video and audio

- Uncompressed video transport for guaranteed highest quality

Innovative feature set for value-added optical services

Metro Access Network Innovation



MicroConnect™ next-generation metro solutions

- Configurable optical layer at metro price levels



Mobile backhaul and fronthaul connectivity

- Seamless RAN evolution to LTE-Advanced



Optical Link Monitoring

- Increased value and simplified monitoring of fiber infrastructure

Flexible and cost-effective fiber-based metro access infrastructure

Software Defined Networking



ADVA Network Hypervisor

- Providing optical network abstraction and enabling multi-tenancy



Open Optical Line System

- Disaggregation verified in international SDN proof-of-concept projects



Juniper Partnership

- Flexible, dynamic and integrated packet-optical solutions

Demonstrating the real value of transport SDN

Market-Leading Footprint & Power Consumption



High-density access and core transponder modules

- Up to 50% space and energy savings



Multi-service channel cards with pluggable interfaces

- Highest flexibility and lowest amount of spares



Multiple chassis options

- Space efficiency for all carrier and enterprise applications

Lowest footprint solution from the access to the core

Simple and Efficient Operation & Management



Guided user interface for ultimate ease of use

- User's workflow guided by target-oriented wizard



Service-based network management

- Automated management across the entire network



Flexible north-bound interface

- Simple and seamless integration into any OSS

Manage services – not network elements!

What's Hot?



ConnectGuard™ Network Security



Scalable

- 10G and 100G line speed solutions

Secure

- AES-256 encryption
- Diffie-Hellman key exchange



5TCE-PCN
10G Encryption



10TCE-PCN
100G Encryption

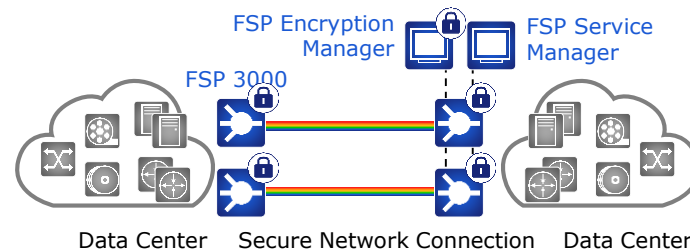
Fast

- Data protection at lowest possible latency

Approved

- Certified by the German Federal Office for Information Security (BSI)

Secure Data Transmission



Unprecedented security for data in motion

MicroConnect™ Metro Solution

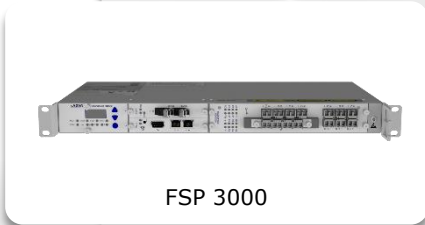
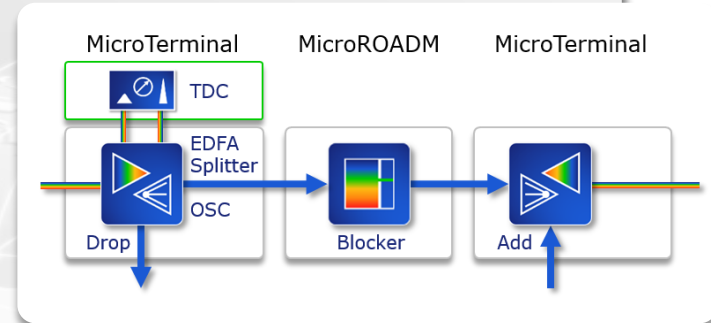


Highest flexibility

- Full access to the entire optical spectrum
- Flexible bandwidth allocation

Cost-efficient

- Highly integrated for lowest footprint and power consumption



FSP 3000

Operational simplicity

- Automated provisioning and dispersion compensation
- Automated power levelling and span equalization

Flexibility and automated operation for next-generation metro networks

High-Density Core Transponder



Flexible

- SFP+ for all client and network ports

Ultra-high density

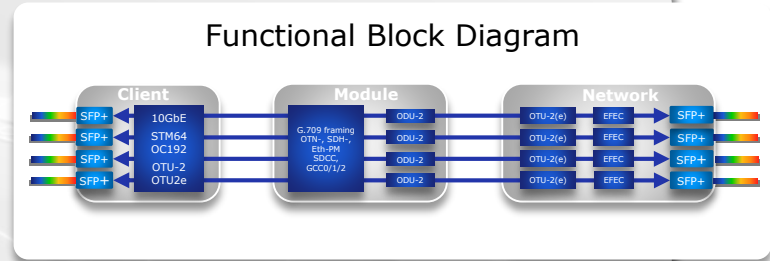
- Four transponders occupying one slot

Transparent

- Fully OTN-compliant framing

High service availability

- On-board protection



Market-leading compactness at lowest cost per bit

High-Density Access Transponder



Flexible

- 8/16G FC, 5G IB, 10/40GbE, CPRI, OBSAI

Ultra-compact

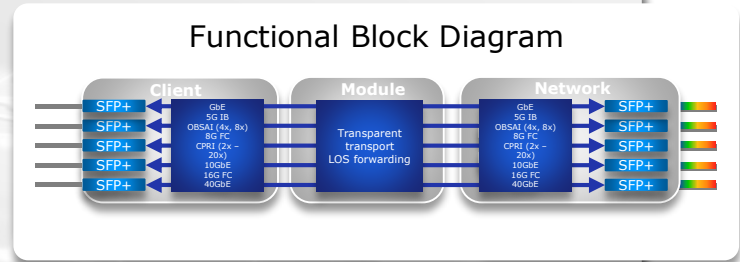
- Five transponder instances occupying one slot

Transparent

- Ultra-low latency – optimized for SAN connectivity and mobile fronthaul

High service availability

- Client channel card protection



Market-leading compactness at lowest cost per bit

Ethernet Service Network Termination



Complete

- Full CE 2.0 Ethernet service and OAM support

Flexible

- Applicable for service demarcation and aggregation

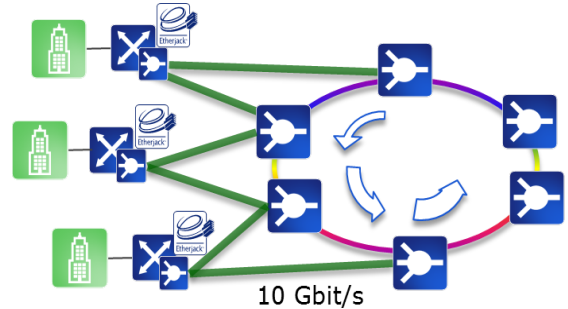
Scalable

- Optional port expansion modules

Integrated

- Remote management integration via in-band DCC

Intelligent Ethernet Service Demarcation



FSP 3000 SH1PCS



Enhancing your WDM infrastructure with intelligent Ethernet service capabilities

Native Video Transport

Flexible

- Supporting SD-SDI, HD-SDI, 3G-SDI, DVB-ASI, MADI audio and GbE

Efficient

- Up to 20 services multiplexed per card



10TCC-PCN-3GSDI+10G

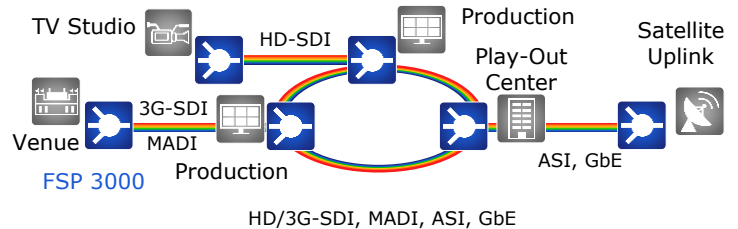
High-Quality

- Native video transmission with no signal degradation
- MADI AES-10 for professional audio

Fast

- Ultra-low latency for real-time broadcasting

Broadcast Contribution and Distribution Network



Uncompressed video for guaranteed highest quality



Thank You

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