Compact optical Transponder Module with 3R and Link/Line Protection
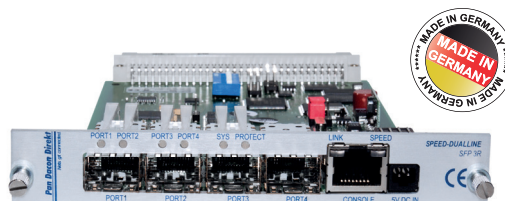
» Protocol and rate transparent (10 Mbps to 2.67 Gbps)
» An extremely flexible and cost-efficient C/DWDM service module (SFP-based)
» 3R function for precise data transmission and amplification
» Intelligent protection functionality
» Ideal for IP, SDH, video and storage applications
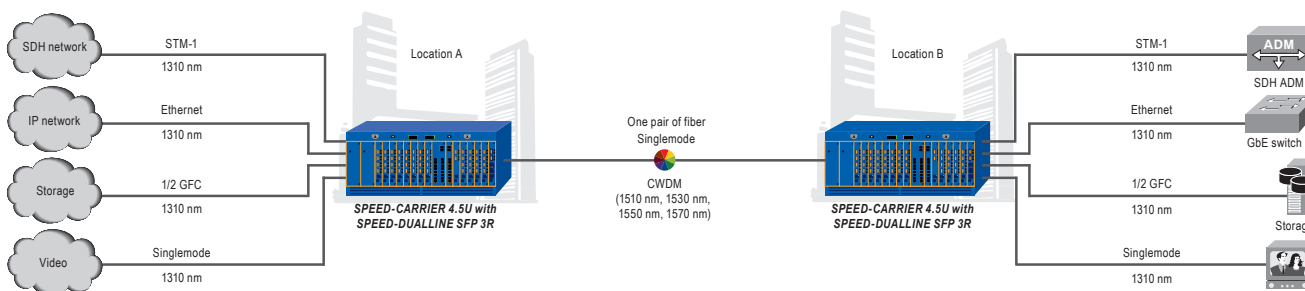» Brocade certified

Brocade Data Center Ready

Inhouse development

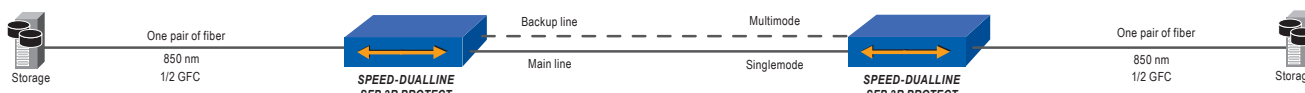## Protocol transparent Transmission in CWDM/DWDM Networks

By using the SPEED-DUALLINE SFP 3R it is possible to increase the capacity of one single pair of fiber with a protocol transparent transmission of up to 96 applications (SDH, IP, Storage, video, etc.).

The SPEED-DUALLINE SFP 3R performance a conversion of the standard wavelength (850 nm, 1310 nm, 1550 nm) to a dedicated CWDM or DWDM wavelength with an actively managed network

termination. By utilizing of the integrated 3R functionality of the module transmission distances up to 120 km can be achieved without additional amplifier modules.
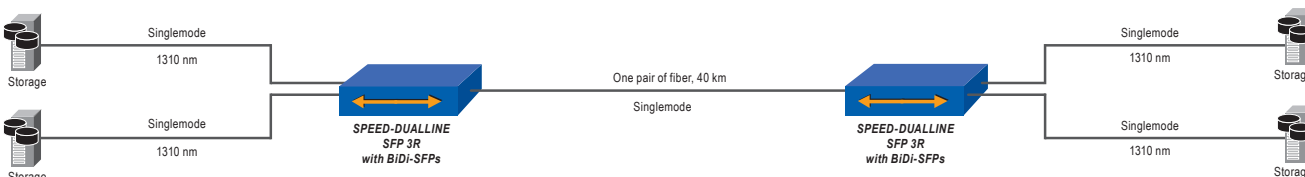
1+1 Line Protection for any Kind of Protocol

By using the optional protection function of the SPEED-DUALLINE SFP 3R, e.g. a Gigabit Ethernet application can be

transfered completely redundant over a backup single-mode or multi-mode fiber optic link. Thus a 1+1 line protection with

automatic switch-over time in <50ms can be realized.

Two Applications without external xWDM Transmission via Single Pair of Fiber

Another field of applications for a SPEED-DUALLINE SFP 3R is the cost-effective concentration of two single-mode applications with four fiber optic uplinks for a

transmission over a single pair of fiber. The fiber optic concentration can be accomplished in a space-saving 1-slot housing without the need of a passive xWDM multip-

lexer. A realization is achieved by just using bi-directional SFPs at the link side.

Specifications

General
• LED indicators: Unit status, optical link, local loops
• Dimensions (H x W x D): 21 x 131 x 190mm
• Power supply via backplane

SFP ports
• 4 SFP slots (2 x line, 2 x client)
• Protocol: Transparent o SFP-specific
• Data rate: 10 Mbps to 2.67 Gbps depending on the SFP type
• Link-Loss-Carry-Forward (LLCF): Shut-down of client SFP if loss of signal occurs at the line SFP

Specification of protection
• Automatic and manual switch-over
• Link prioritization including configurable time to switch back to main link
• Automatic switch-over <50ms
• Configurable hysteresis

SFP types
• Use of SFPs according to MSA standard
• Copper / electrical interfaces:
  • IP: Fast Ethernet, Gigabit Ethernet (RJ45)
  • SDH: STM-1 BNC
• Optical (LC):
  • SDH: STM-1, STM-4, STM-16
  • Video: SDI, DVB ASI
  • Storage: 1 GFC and 2 GFC

Management
• Integrated SNMP agent, Telnet, alarm notification via SNMP traps
• Loops on SFP ports
• SFP management information provided by integrated DMI
  • input/output power (in dB), temperature, wavelength, bit rate, status, supported protocols
• Optional: SNMP and Web management by using a management module (SPEED-NMS OE)

Housing types
• 1-slot stand-alone housing
• SPEED-CARRIER platform

Ordering options
• SDL-2SFP-2SFP-A: SPEED-DUALLINE SFP with 2R
• SDL-2SFPR-2SFPR-A: SPEED-DUALLINE SFP with 3R
• SDLPR-2SFPR-2SFPR-A: SPEED-DUALLINE SFP 3R PROTECT