

Key Features

- Instant Bandwidth Increase between Hub and Nodes
- Dramatic Cost Savings Over New Fiber
- Fast and Simple Deployment
- Passive, Athermal Operation
- Optional EDFA Loop Connectors
- Weather Proof, Strand Mount Enclosure

Applications

- Optical Node Segmentation
- Business Services Deployment on Legacy Fiber
- Outside Plant Deployment
- Analog and Digital Transmission



Product Overview

The SNS-16-200 is the industry's first DWDM-based node splitter designed for node segmentation and overlaying new business services on existing dark or traffic bearing fiber. Using the combination of the SNS-16-200 and the Hub Mux/Demux HMD-16-200, MSOs can immediately achieve eight times the bandwidth increase bi-directionally over existing fiber and save up to \$20,000 per mile over new fiber deployment. The Strand Mounted Node Splitter overlays up to eight new narrowcast channels and up to eight new return channels in the DWDM C-band, as well as a 1545 nm broadcast channel, over the legacy 1310 nm fiber plant between the hub and the node. The SNS-16-200 future-proof architecture allows an operator to economically upgrade the network in multiple steps, starting from as low as only two new nodes. After the initial installation subsequent upgrades will not require any service interruption. With the DWDM architecture, the optical signal can be amplified, thus allowing it to travel farther than the legacy 1310 nm signals.

Product Specifications

(NC = Narrowcast, BC = Broadcast)

Channel Count	16 (8 Forward, 8 Return) ¹
Channel Spacing	200 GHz
Wavelengths ² :	
DWDM Narrowcast	1549.32 – 1560.61 nm (ITU 21-35)
DWDM Return	1530.33 – 1541.35 nm (ITU 45-59)
Broadcast Window	1543.55 – 1546.25 nm
Legacy Return Window	1290 – 1330 nm
Typical Insertion Loss ³ :	
DWDM Narrowcast	4.8 dB
DWDM Return	4.8 dB
Broadcast ⁴	2.0 dB
Legacy Return	1.4 dB
Broadcast Splitting Ratio	Customer specified
Optical Isolation (BC to NC/Return)	50 dB

DWDM Channels:

Passband	0.33 nm
Ripple within Passband	0.5 dB
IL Uniformity Across All Channels	≤1.3 dB
Adjacent Isolation	≥27 dB
Non-adjacent Isolation	≥35 dB

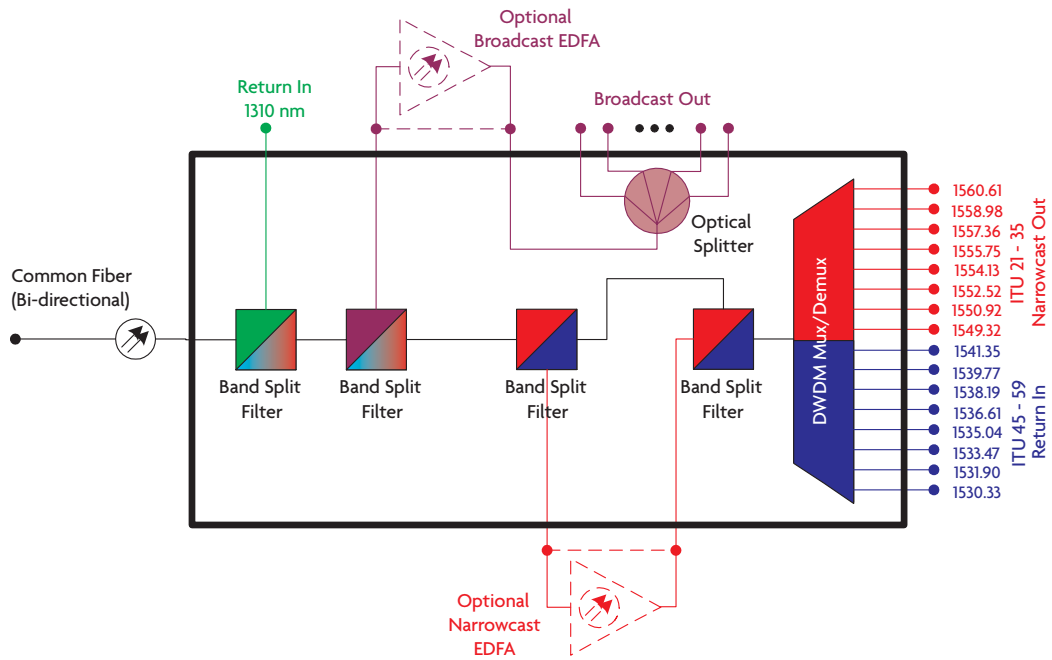
PDL:

DWDM Narrowcast and Return	≤0.5 dB
Broadcast and Legacy Return	≤0.3 dB

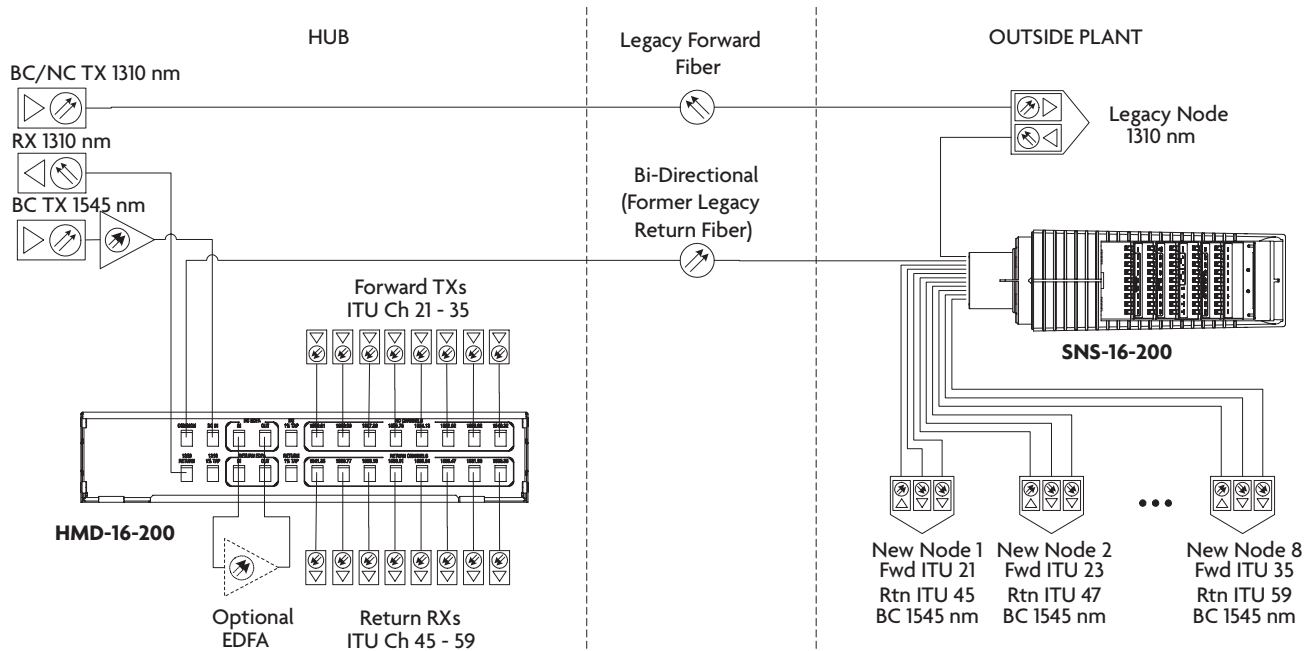
Fiber Connector	SC/APC
Fiber Type	SMF-28
Operating Temperature	-40 to +70 °C
Storage Temperature	-40 to +85 °C
Enclosure	Industry standard FOSC

1. Can be asymmetric
 2. Other wavelength options available
 3. Including connector loss
 4. Before splitter

SNS-16-200 Block Diagram (Patents pending)



Application Example



Specifications subject to change without notice. Rev. 10/04
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