Optical Node Series (NC)

OP4138
Optical 1550 nm Broadcast Splitter with 1310/1550 Diplex Filters

ARRIS

FEATURES

- Enables deployments of new FTTH applications
- Single compact plug-in module for NC4000 series Optical Nodes
- Totally passive module
- High density fiber interface with MPO connectors
- Low insertion loss


PRODUCT OVERVIEW

Ideally suited for FTTH applications, ARRIS' OP4138 plug-in module for NC4000 series Optical Nodes provides a combined optical splitter for 1550 nm broadcast signals together with 1310/1550 diplex filters. This compact design, with MPO connectors, eliminates most fiber jumpers and associated losses which are normally created by broadcast splitting and/or 1310/1550 mux/demux functions.

A single 1550 nm broadcast signal injected into the "A INP" port can be equally split eight ways, or each of two independent broadcast signals injected into the "B1 INP" and "B2 INP" ports can be split four ways. The 8-way splitter (or dual 4-way splitters) distributes the 1550 nm downstream signal to eight output fibers. The forward/return optical diplexer separates the eight downstream 1550 nm signals from the eight upstream 1310 nm signals.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	4.0" D x 4.5" H x 2.0" W (10.2 cm x 11.4 cm x 5.1 cm)
Weight	1.5 lbs (0.68 kg)
Environmental	
Operating Temperature Range	–40° to +85°C (–40° to 185°F)
Storage Temperature Range	–40° to +85°C (–40° to 185°F)
Humidity	5% to 95% non-condensing
Optical Interface	
Optical connectors	• SC/APC for 1550 nm broadcast inputs • MPO (female) for 8 combined 1550 nm broadcast outputs and 1310 nm inputs • MPO (female) for 8 1310 nm outputs
Inputs	• 1550 nm Broadcast: A, B1, and B2 • 1310 nm: via MPO Connector #1
Outputs	• 1550 nm Broadcast: via MPO Connector #1 • 1310 nm: via MPO Connector #2
Optical	
Optical return loss	45 dB min (> 50 dB typ)
Polarization Dependent Loss (PDL)	0.25 dB max (< 0.2 typ)
Isolation	60 dB min (> 65 dB typ)
Passband @ 0.5 dB	± 20 nm centered on 1310 nm, and ± 20 nm centered on 1550 nm
Ripple within passband	0.5 dB
Insertion loss (including connectors)	• A to #n 1550 OUT: 11.0 dB max (< 10.0 dB typ) • B1 or B2 to #n 1550 OUT: 7.6 dB max (< 7.0 dB typ) • #n 1310 INP to #n 1310 OUT: 1.5 dB max (< 1.1 dB typ)
Uniformity	1.0 dB max *(difference between max and min output power across the eight output ports)*

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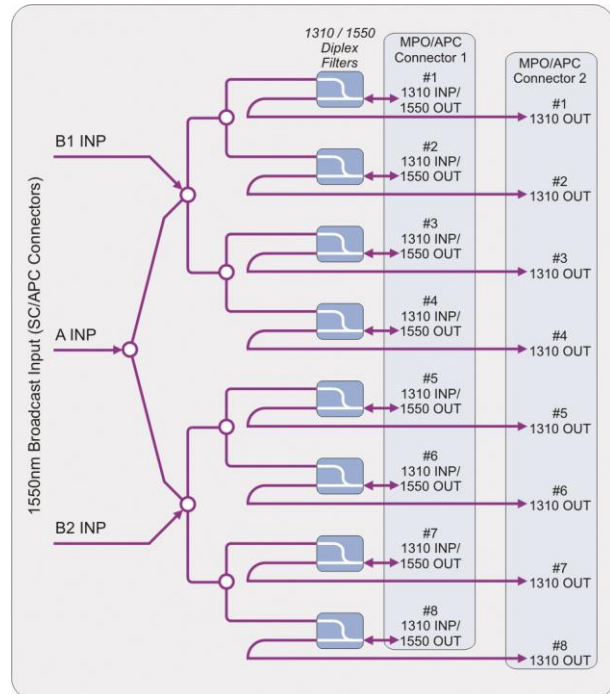
ORDERING INFORMATION

| O | P | 4 | 1 | 3 | 8 | – | 0 | – | 0 | 0 | – | A | S |
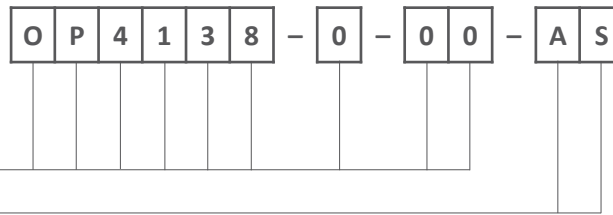
Optical Broadcast Splitter with 1310/1550 Diplexer

AS = SC/APC Connector

RELATED PRODUCTS

NC4000 Optical Node	Optical Patch Cords
SFPs	Optical Passives
EDFA modules	Installation Services

Note: Specifications are subject to change without notice.

Customer Care

Contact Customer Care for product information and sales:
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