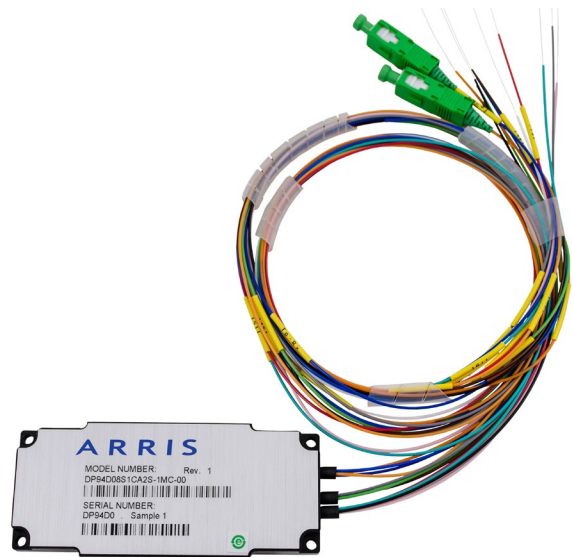# Optical Passives (OSP)
DP94M08/DP94D08 (C-Series)
8-channel OSP CWDM Mux/Demux

FEATURES

- 8-channel optical multiplexer and demultiplexer cassettes
- Temperature hardened (–40° to +85°C) M-case Field Enclosures for OSP outside plant mounting in existing splice trays like Tyco FOSC, etc.
- Wide operating passband on CWDM ITU grid (20 nm spacing)
- EXP express port for future services expansion via DWDM
- Separate TP -20 dB line monitoring taps (SC/APC) for Tx and Rx signal paths
- LC/APC or LC/UPC connectors or no connectors options for all other optical ports
- Epoxy-free on optical path for higher reliability
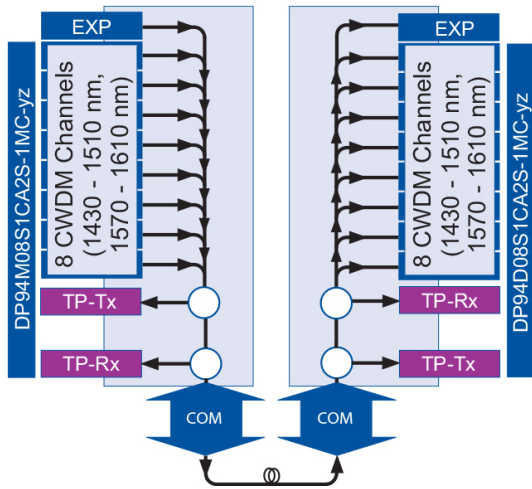- Pigtails are "C-series" color-coded and individually labeled

PRODUCT OVERVIEW

ARRIS's DP94M08 and DP94D08 eight-channel CWDM optical mux and demux cassettes are intended for applications in non-controlled outdoor environments.

DP94M08 and DP94D08 are respectively designed to multiplex and demultiplex 8 of 10 CWDM ITU-grid optical wavelengths, with individual wavelengths ranging from 1430 to 1610 nm, and 20 nm spacing between channels. Two separate -20 dB TP test ports monitor Tx path and Rx path signals.

Ask us about the complete Access Technologies Solutions portfolio: OSP-DP94M08/D08

Fiber-Deep   DOCSIS® 3.1   Node Segmentation   HPON™/RFoG   FTTx

It also has an EXP express port where traditional 1531 nm and 1551 nm CWDM wavelengths are "skipped" through the Mux/Demux pair for future deployment of DWDM filters to accommodate up to 40 additional DWDM ITU wavelengths for commercial services expansion.

These ruggedized, anodized aluminum cassettes have been designed for use in an OSP outside plant environment, with a temperature range of –40° to +85°C, for mounting into existing splice trays, like the Tyco FOSC-series. All pigtail fibers are "C-series" color-coded and individually labeled to ensure proper installation and wavelength management.

FIBER PIGTAIL COLOR CODES

Port	Fiber Color Codes	Color
COM	Black Stripe	Blue with black stripe
EXP	Black Stripe	Orange with black stripe
TP Rx		Blue
TP Tx		Orange
1431		Green
1451		Brown
1471		Slate
1491		White
1511		Red
1571		Violet
1591		Rose
1611		Aqua

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	3.5" L x 1.6" W x 0.3" H (8.9 cm x 4.1 cm x 0.8 cm)
Weight	0.8 lbs (0.36 kg)
Environmental	
Operating Temperature Range (outdoor)	–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 ports (Mux/Demux Input/Output)	xxxx: 8 CWDM channel I/O ports (Skip 1531 and 1551 nm) (1431, 1451, 1471, 1491, 1511, 1571, 1591, and 1611 nm) COM: Output/Input to/from fiber network EXP: Express or bypass channel I/O from previous MUX/DEMUX TP Tx: Unidirectional -20 dB tap off COM from xxxx channels TP Rx: Unidirectional -20 dB tap off COM from fiber network
Optical Connectors	TP "Tx" and TP "Rx": SC/APC All other optical ports: LC/APC or no-connector
Fiber length	For models with no optical connectors: 1.5-meter on all ports except test ports; 0.75-meter on test ports; For DP94D08S1CA2S-1MC-AL and DP94M08S1CA2S-1MC-AL with LC/APC connectors: 0.75-meter on all ports
Fiber labels	COM fiber: RED labels All other fibers: YELLOW labels

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SPECIFICATIONS (CONTINUED)

Characteristics	Specification
Optical	
Channel Spacing	20 nm
Channel Passband	COM to xxxx: Center wavelength +/- 6.5 nm COM to EXP: 1260-1421 nm; 1521-1561 nm; 1621-1635 nm
Insertion Loss, max (not including/including connectors)	COM to xxxx: 3.1/3.4 dB COM to EXP: 2.9/3.2 dB COM to TP: 20.2/20.4 dB Paired: 3.9/4.2 dB (Paired IL is from DP95M08 input xxxx to DP95D08 output xxxx)
Module Uniformity, max	2 dB
Paired Uniformity, max	1 dB
Return loss, min	45 dB
Polarization dependent loss, max	0.15 dB (< 0.1 dB typ)
Polarization mode dispersion, max	0.1 ps
Ripple within passband	0.15 dB
Adjacent channel isolation, min	35 dB
Non-adjacent channel isolation, min	45 dB
Directivity, min	xxxx CWDM port: 55 dB EXP express port: 65 dB
Power handling, max (any port)	21.8 dBm

ORDERING INFORMATION

Model Name	Description
DP94v08S1CA2S-1MC-yz	v = Module type (M = Mux; D = Demux) yz = Connector options (00 = no connectors; AL = LC/APC;)

RELATED PRODUCTS

Optical Transmitters	Optical Passives
Digital Return	Optical Patch Cords
Optical Nodes	Installation Services

Customer Care

Contact Customer Care for product information and sales:
- United States: 866-36-ARRIS
- International: +1-678-473-5656

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