

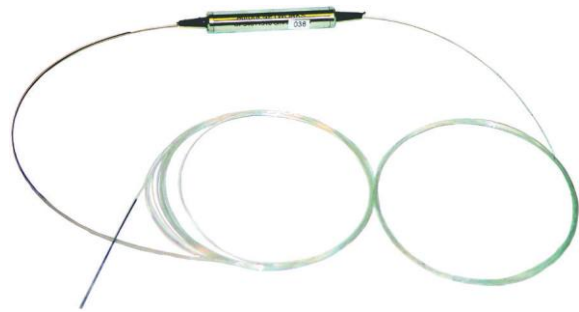
Optical Passives (OSP)

CO9501

BC/NC Combining Filter

FEATURES

- Drops one of several DWDM channels (on 100 GHz-spaced DWDM grid, ITU-T G.694.1) and adds the dropped channel to a 1550 nm broadcast signal (passing through the remaining DWDM channels)
- Low polarization dependent loss (PDL)
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- Variety of options for module body robustness, fiber buffer and connector types
- Epoxy-free on optical path

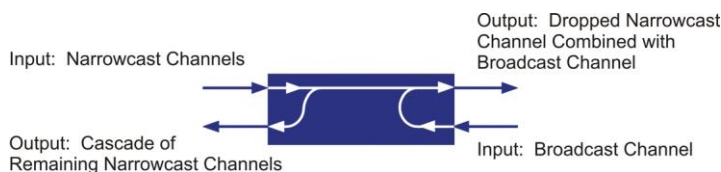


PRODUCT OVERVIEW

The ARRIS CO9501 is a four-port filter that is used to combine a 1550 nm broadcast signal with a DWDM narrowcast optical wavelength.

The CO9501 is ideal for distributed DWDM (D2WDM) architectures and is well suited for delivery of unique services in remote locations. Narrowcast DWDM channels are input to one port while a 1550 nm broadcast signal enters a second port; one of the DWDM channels is dropped and then added to the broadcast signal, and the combined BC+NC signal is output on a third port. Remaining DWDM channels are passed through on a fourth port.

The filter is available in two versions of packaging for outdoor use, one version ruggedized for easy handling and the second version, though not ruggedized, being smaller and easier to fit in a splice enclosure. Both versions are designed for use in an outdoor environment within a temperature range of -40° to +85°C.



SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions (without connectors)	<i>(See Ordering Information)</i>
Weight, max	0.2 lbs (0.09 kg)
Environmental	
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Storage Temperature Range	-40°C to +85°C (-40°F to +185°F)
Humidity	5% to 95% non-condensing
Optical Interface	
Input/output ports	<ul style="list-style-type: none"> • NC INP (input of DWDM narrowcast wavelengths) • BC INP (input of 1550nm broadcast wavelength) • NC OUT (passthrough output of all DWDM narrowcast wavelengths except that one dropped for combining with broadcast signal) • NC + BC OUT (combined output of dropped DWDM channel and 1550 nm)
Optical	
Return loss, min	45 dB
Polarization dependent loss, max	0.07 dB
Directivity, min	50 dB
Narrowcast	
DWDM channel spacing	100 GHz (ITU-T G.694.1)
DWDM channel dropped	20, 21, . . . , or 59
Passband @ 0.5 dB	± 0.125 (centered on ITU grid)
Insertion loss, max, no connectors	<ul style="list-style-type: none"> • NC INP to BC + NC OUT: 1.1 dB • NC INP to NC OUT: 0.3 dB
Transmission port isolation	<ul style="list-style-type: none"> • Adjacent channel, min: 55 dB • Other channels, min: 55 dB
Reflect port isolation, min	15 dB
Ripple within passband	0.3 dB
Broadcast	
Center wavelength	1545.315 nm or 1563.047 nm
Passband @ 0.5 dB	Allows all wavelengths within FA gain band with the exceptions of its added narrowcast channel at the corresponding port
Insertion loss, max, no connectors	<ul style="list-style-type: none"> • BC INP to BC+NC OUT: 0.3 dB
DWDM ITU Channel Plans	
	ARRIS supports DWDM network architectures with a variety of products on the standard DWDM ITU Grid (ITU-T G.694.1). For more complete description of available DWDM ITU Grid channels, please refer to the ARRIS DWDM ITU Grid Channel Plan data sheet.
	When ordering CO9501 filters on the ITU grid please note, for network planning purposes, that AT3550 "BA" series broadcast transmitters operate at 1563.0 nm ± 0.9 nm, occupying the approximate region of DWDM ITU Grid channels 17 through 19. Similarly, AT3550 "BC" series broadcast transmitters operate at 1545.3 ± 0.9 nm, occupying the approximate region of DWDM ITU Grid channels 39 through 41.

PACKAGE OPTIONS

Two examples are shown below approximately full scale. For non-ruggedized tubes, the fiber optic leads are color-coded as shown.

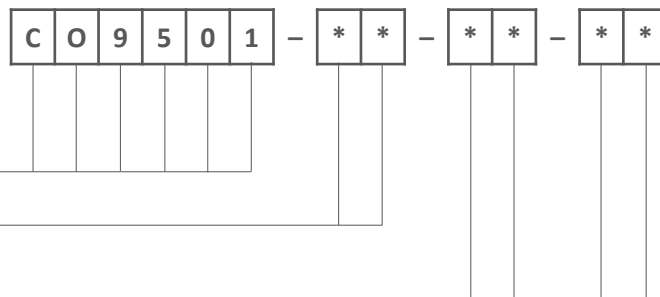


CO9501-xx-R3-00 in Ruggedized Package (8.5 mm x 14 mm x 98 mm)



CO9501-xx-N0-00 in Non-ruggedized Tube (34 mm x 5.5 mm)

ORDERING INFORMATION



- BC/NC Combining Filter**
- ** = DWDM ITU Channel Number (20, 17, 18, ... or 59)
(Reference ARRIS DWDM ITU Channel Plan Data Sheet)
- **.** = Packaging, Fiber and Connector Type
N0-00 = 250 μm bare fiber in 34 x 5.5 mm Non-ruggedized Tube,
R3-00 = 3 mm fiber in 8.5 x 14 x 98 mm Ruggedized Package

Note: Minimum fiber length for all models is 1 ± 0.15 meters.

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

Note: Specifications are subject to change without notice.

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