

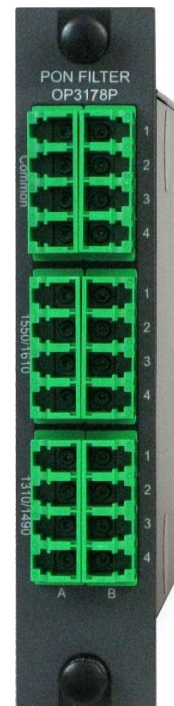
Optical Passives (ISP)

OP3178P

Octal PON Filter

FEATURES

- Enables deployments of RFoG with 1G-10G EPON (RFPON applications)
- Eight PON filters in a single high density module
- One module supports two OR3144H receivers
- Three-port filters to combine or separate 1310/1490 1G EPON and 1270/1577 10G EPON signals from 1550/1610 RFoG wavelengths
- LC/APC connectors provide high density and performance
- Low insertion loss
- Totally passive module
- Simplifies RFPON installation and reduces rack space requirements
- Occupies one half-depth slot in CH3000



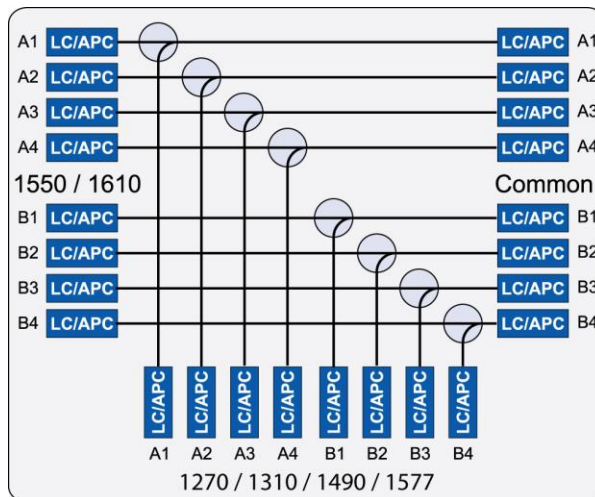
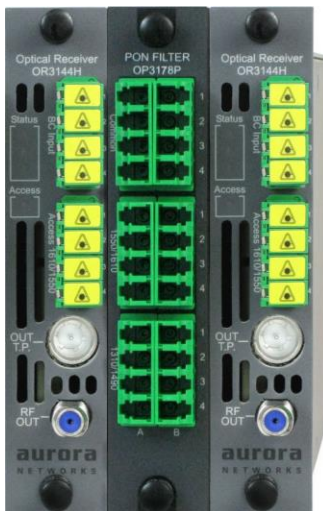
PRODUCT OVERVIEW

The ARRIS OP3178P Octal PON filter module provides eight 3-port combiner/separator filters that combine (or separate) 1310/1490 1G EPON and 1270/1577 10G EPON signals from 1550/1610 RFoG wavelengths. The module is designed to complement two OR3144H RFoG Diplexer/Return Receiver modules (versions supporting a 1610nm return wavelength, model number OR3144H-85-01-02-AL) to readily support up to eight RFPON (RFoG with GEAPON) optical network segments. Having the PON filters in a separate passive module allows the network operator to initially deploy RFoG only using a 1610 nm return, while providing a simple migration path to later add 1310/1490 1G EPON and 1270/1577 10G EPON filters for RFPON support.

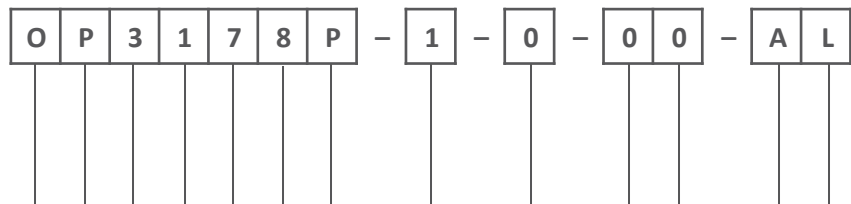
High density packaging enables network operators to install up to nine “groups” (each comprising a single OP3178P Filter side-by-side with two OR3144H modules) in a single 3RU chassis, and thus providing support for up to 72 RFPON network segments per chassis. Assuming 32 CPEs per network segment, a single chassis can thus support deployments to over 2,300 residences.

The filter is packaged in an LGX compatible module and can be mounted in the CH3000 chassis, occupying one half-depth slot. The compact design minimizes rack space requirements in headends or hubs and enhances deployment of fiber-to-the-home (FTTH) networks. Additionally, the compact single-width module design can be plugged in either the front or rear of the CH3000 3RU chassis to optimize equipment installation and operating conditions. It is designed to be used in controlled indoor environments within a temperature range of -20° to +65°C.

SPECIFICATIONS	
Characteristics	Specification
Physical	
Dimensions	6.5" D x 4.3" H x 1.0" W (3RU) (16.5 cm x 11 cm x 2.5 cm)
Weight	1.5 lbs (0.7 kg)
Environmental	
Operating temperature range	-20° to +65°C (-4° to +149°F)
Storage temperature range	-40° to +85°C (-40° to +185°F)
Humidity	5% to 95% non-condensing
General	
Nominal wavelengths	<ul style="list-style-type: none"> Broadcast passthrough: 1550 nm (via 1550/1610 ports) PON downstream: 1490/1577 nm (via 1310/1490 ports) PON upstream: 1270/1310 nm (via Common ports) RFoG upstream: 1610 ± 10 nm (via Common ports)
Optical	
RFoG ports to Common ports	<ul style="list-style-type: none"> Passband: 1525–1565 nm and 1600-1620 nm Insertion loss, max: 1 dB Isolation of 1550 nm to 1310/1490 port, min: 50 dB Isolation of 1610 nm to 1310/1490 port, min: 15 dB
PON ports to Common ports	<ul style="list-style-type: none"> Passband: 1260–1500 nm or 1575-1580 Insertion loss, max: 0.9 dB Isolation of 1270/1310 nm to 1550/1610 port, min: 25 dB Isolation of 1490/1577 nm to 1550/1610 port, min: 50 dB
Return loss, min	45 dB
Power handling, max (any input port)	21.8 dBm
Connectors	
Total 24 LC/APC connectors	<ul style="list-style-type: none"> 8 Common for Access Network (ports A1-A4 and B1-B4) 8 1550/1610 (for BC/RFoG, ports A1-A4 and B1-B4) 8 1270/1310/1490/1577 (for PON OLT, ports A1-A4 and B1-B4)



ORDERING INFORMATION



Order Part Numbers

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	Optical Passives
HPON™	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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