Optical Passives (ISP)

OP35F1x
Single-channel DWDM Optical Filter

FEATURES

• Low insertion loss
• Selection of supported narrowcast channels on standard 100 GHz DWDM ITU Grid
• High channel isolation to minimize crosstalk
• SC/APC connectors ensure performance repeatability, compatibility and easy installation and maintenance
• Removable adapters for easy cleaning
• Occupies one half-depth slot

PRODUCT OVERVIEW

The ARRIS OP35F1x series Single-channel DWDM Optical Filters have been designed with low insertion and polarization dependent losses. These three-port filters are used to add (or drop) a single DWDM narrowcast wavelength to (or from) a set of DWDM optical wavelengths.

In addition to packages containing a single filter, dual-filter packages are also available in which the same narrowcast wavelength may be added to (or dropped from) two independent sets of DWDM optical wavelengths.

The filter is packaged in an LGX compatible module and can be mounted in the ARRIS CH3000 chassis, occupying one half-depth slot. It is designed to be used in controlled indoor environments within a temperature range of −20° to +65°C.
**SPECIFICATIONS**

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<td>6.5” D x 4.3” H x 3.0” W (3RU) (16.5 cm x 11 cm x 2.5 cm)</td>
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<td><strong>Weight</strong></td>
<td>1.5 lbs (0.68 kg)</td>
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<td><strong>Environmental</strong></td>
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<td>Operating Temperature Range</td>
<td>–20°C to +65°C (–4°F to +149°F)</td>
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<td>Storage Temperature Range</td>
<td>–40°C to +85°C (–40°F to +185°F)</td>
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<td>Humidity</td>
<td>5% to 95% non-condensing</td>
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<td>Ch. xx I/O</td>
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<td>xx add/input channel group</td>
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<td>output to fiber network</td>
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<td>DWDM pass-through input</td>
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<td>DWDM pass-through output</td>
<td>input from fiber network</td>
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**Optical**

- Insertion losses, including connectors (CH. xx I/O to COM):
  - typical: 0.75 dB, max: 0.95 dB
  - DWDM I/O to COM: 0.50 dB, max: 0.70 dB
- Passband @ 0.5 dB: ±0.25 nm
- Ripple within passband: 0.5 dB
- Directivity, min: 55 dB
- Return loss, min: 45 dB
- Polarization dependent loss, max: 0.1 dB (<0.05 dB typ)
- Adjacent channel isolation, min: 35 dB
- Non-adjacent channel isolation, min: 45 dB
- DWDM isolation, min: 13 dB
- Power handling, max (any input port): 21.8 dBm
- Channel spacing: 100 GHz
- Wavelength passthrough: Only 1425–1617 nm (input and output)

**ITU Channel Plans**

ARRIS supports DWDM network architectures with a variety of products having 100 GHz center frequency spacing on the standard DWDM ITU Grid (ITU-T G.694.1) for 40 channels from Channel 20 (1561.42 nm) to Channel 59 (1530.334 nm). For more complete description of available DWDM ITU Grid channels and ARRIS’s partitioning into convenient logical groups of 4, 8 and 16 channels in products for DWDM mux and demux applications, please refer to the ARRIS DWDM ITU Grid Channel Plan data sheet.

When ordering Single-channel DWDM Optical Filters, please note, for network planning purposes, that AT5500 “BC” series broadcast transmitters operate at 1545.3 nm ±0.9 nm, occupying the approximate region of DWDM ITU Grid channels 39 through 41; as a result no channel within ARRIS’s ITU Channel Plan “Group P” (channels 40 through 43) should be used as the narrowcast channel. Similarly, AT5550 “BA” series broadcast transmitters operate at 1563 nm, occupying the approximate region of DWDM ITU Grid channels 17 through 19; as a result no channel within ARRIS’s “Group H” (channels 16 through 19) should be used as the narrowcast channel.

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**Ask us about the complete Access Technologies Solutions portfolio:**

- ISP-OP35F1x
- Fiber-Deep
- DOCSIS® 3.1
- Node Segmentation
- HPON™/RFoG
- FTTx
**ORDERING INFORMATION**

Single-channel DWDM Optical Filter

* = Number of Filters in Module (S = Single, D = Dual)

** = DWDM ITU Grid Channel Number (20, 21, 22, 23, … or 59)
(Reference ARRIS DWDM ITU Grid Channel Plan Data Sheet)

AS = SC/APC Connector

**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

Note: Specifications are subject to change without notice.

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