

OSG12 High-Resolution Programmable Filter

OSG12 High-Resolution Programmable Filters allow the user to create arbitrary filter shapes with control over amplitude/ power level, and center frequency in spectrum slices as narrow as 6.25 GHz. The OSG12 can be controlled by a PC via an intuitive, menu-driven interface to facilitate testing, measurement, and optical characterization.



- High resolution programmable optical filter
- Up to 768 filter slices, with 6.25 GHz bandwidth aligned to ITU-T grid
 - Amplitude for each 6.25 GHz slice can be controlled independently
 - Low insertion loss: 3 dB, typical

OSG12 Specifications and Characteristics

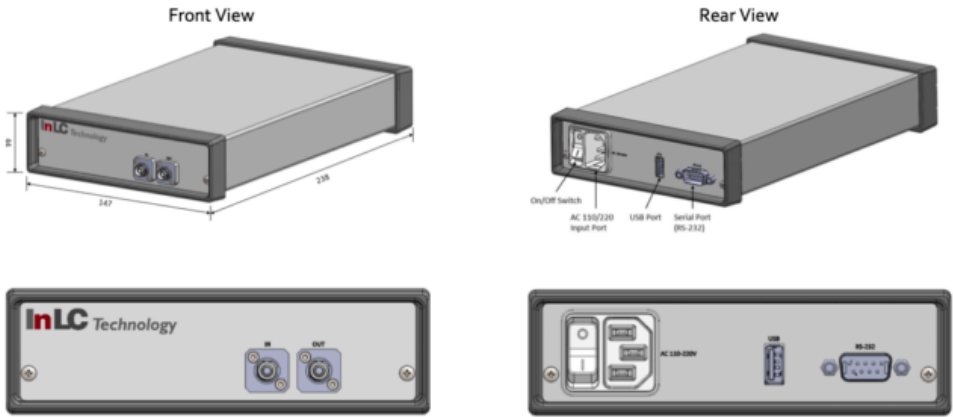
| Parameter | Specification | |
|---|---|--|
| Operating Spectral Range | C-band: 1527.60 to 1565.50 nm, 191.50 THz to 196.25 THz | |
| | L-band: 1572.06 to 1608.76 nm, 186.35 THz to 190.7 THz | |
| Insertion Loss | ≤ 3.5 dB, typ. ≤ 4.5 dB, max. | |
| Bandwidth setting range | C-band: ≤ 0.05 nm to 38 nm, 6.25 GHz to 4800 GHz | |
| | L-band: ≤ 0.05 nm to 37 nm, 6.25 GHz to 4400 GHz | |
| Number of addressable filter slices (Filter slices are centered on ITU-T Grid) | C-band: 768 | Filter slices are centered on ITU-T Grid and can be combined to make arbitrary filter shapes |
| | L-band: 704 | |
| Bandwidth of each filter slice | 0.05 nm, 6.25 GHz | |
| Center frequency accuracy of each filter slice | ± 0.02 nm, ± 2.5 GHz | |
| Dynamic range of attenuation control for each filter slice ¹ (OSG12-SM-nn and OSG12-PM-nn only) | 0 to 20 dB | |
| Attenuation step size ¹ (OSG12-SM-nn and OSG12-PM-nn only) | 0.1 dB | |
| Attenuation accuracy ¹ (OSG12-SM-nn and OSG12-PM-nn only) | ≤ 0.5 dB or 5% of attenuation, whichever is greater | |
| Polarization Dependent Loss (PDL) | ≤ 0.15 dB, typ. ≤ 0.3 dB, max. up to 10 dB attenuation | |
| Extinction | ≥ 40 dB | |
| Return Loss | ≥ 40 dB | |
| Fiber Type | G.652 single mode fiber | |
| Connector Type | FC/SPC | |
| | Other connector types including FC/APC, SC/SPC, SC/APC available upon request | |
| Maximum Input Power | ≤ 27 dBm | |
| Response Time | ≤ 50 ms | |
| Operating Temperature | 15 to 45 °C Extended temperature range available upon request | |
| Dimensions | 147 x 238 x 44 mm | |
| Power Consumption | ≤ 10 W | |

Notes:

1. Parameters related to attenuation and/or amplitude are applicable to OSG12-SM-nn and OSG12-PM-nn only.

Dimensions and Layout

Dimensions (W x L x H): 147 x 238 x 44 mm



Rackmount version with mounting flanges is also available upon request

Ordering Information

Product Code: OSG12-XX-nn

| OSG12 Options | |
|----------------------|-------------------------------|
| OSG12- XX -nn | SM = Single Mode |
| | PM = Polarization Maintaining |
| OSG12-XX- nn | 01 = C Band |
| | 02 = L Band |
| | 03...99 = Custom options |

All OSG units are configured with FC/SPC connectors by default. Other connectors including FC/APC, SC/SPC, and SC/APC are available upon request.

Ordering Examples:

- OSG12-SM-01 = Single mode fiber, C-band spectral range
- OSG12-PM-02 = Polarization maintaining fiber, L-band spectral range

All units are shipped with the OSG Control Interface software and a User Manual

[Please contact us regarding orders and inquiries](#)

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