

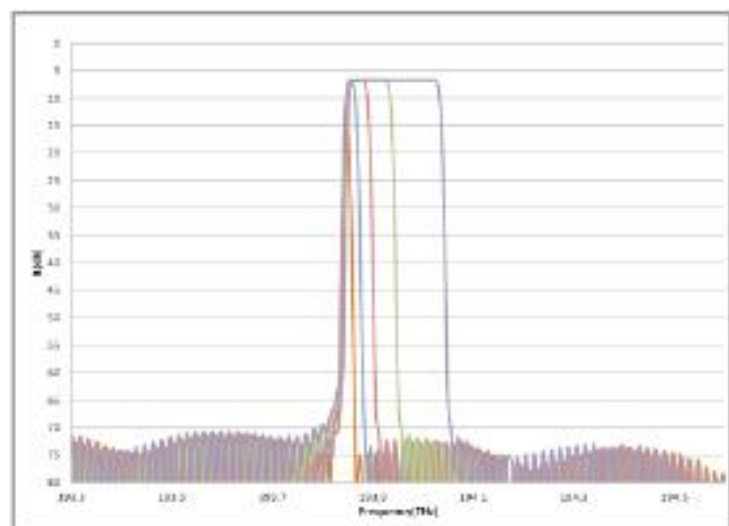
# OSG100 Ultra-High Extinction Programmabl...

OSG100 Ultra-High Extinction Optical Spectrum Generator programmable optical filters exhibit the industry's highest extinction for LC programmable filters and are suitable for the most demanding experimental and test systems. OSG100 filters are controlled by a PC via an intuitive user interface.



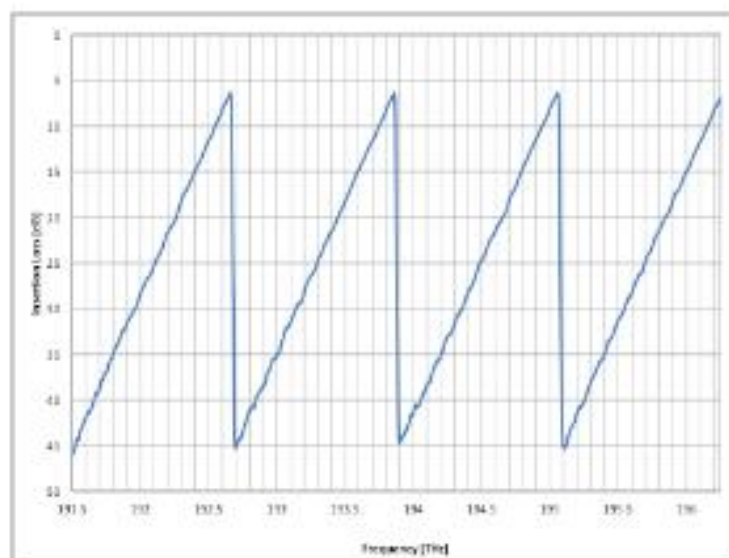
The highest extinction offered in the industry for LC programmable optical filters

- Available in C or L band
- Ultra-high extinction > 60 dB
- Very wide dynamic range of linear attenuation control: 0 to 40 dB
- Low PDL: < 0.3 dB
- Variable passband width from 12.5 GHz to 4800 GHz



Ultra-high extinction programmable optical filter

- Frequency tuning in increments of 12.5 GHz
- Variable passband width from 12.5 GHz to 4800 GHz with no insertion loss ripple



Arbitrary filter shapes can be programmed with ultra-high extinction

- Linear dynamic range of attenuation control from 0 to 40 dB



- Intuitive user interface with sliders, buttons, and drop-down menus
- Direct and instantaneous control of filter slices
- User can control each filter slice independently, in contiguous bands, or in arbitrary groups
- Pre-set filter configurations can also be downloaded from a user-generated file

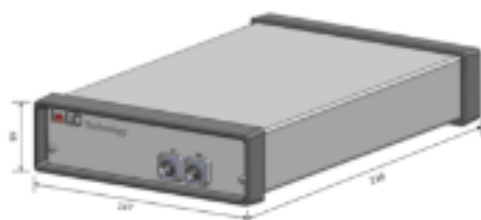
## OSG100 Specifications and Characteristics

Parameter	Specification
Operating Spectral Range	C-band: 1527.60 to 1565.50 nm, 191.50 THz to 196.35 THz L-band: 1571.06 to 1608.76 nm, 186.35 THz to 190.7 THz
Insertion Loss	≤ 7.0 dB, typ. ≤ 8.0 dB, max.
Bandwidth setting range	C-band: ≤ 0.1 nm to 38 nm, 12.5 GHz to 4800 GHz L-band: ≤ 0.1 nm to 37 nm, 12.5 GHz to 4400 GHz
Number of addressable filter slices (Filter slices are centered on ITU-T Grid)	C-band: 384 L-band: 352 Filter slices are centered on ITU-T Grid and can be combined to make arbitrary filter shapes
Bandwidth of each filter slice	0.1 nm, 12.5 GHz
Center frequency accuracy of each filter slice	± 0.02nm, ± 2.5 GHz
Dynamic range of attenuation control for each filter slice	0 to 40 dB
Attenuation step size	0.1 dB
Attenuation accuracy	± 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	≥ 60 dB
Return Loss	≥ 40 dB
Fiber Type	SMF-28 or equivalent
Connector Type	FC/PC Other connector types including FC/APC, SC/PC, 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 × 238 × 44 mm
Power Consumption	≤ 10 W

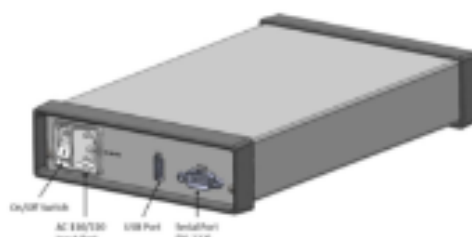
## Dimensions and Layout

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

Front View



Rear View



Rackmount version with mounting flanges is also available upon request

## Ordering Information

Product Code: OSG100-XX-*nn*

OSG100 Options	
OSG100- <b>XX</b> - <i>nn</i>	SM = Single Mode
	PM = Polarization Maintaining
OSG100- <b>XX</b> - <i>nn</i>	01 = C Band
	02 = L Band