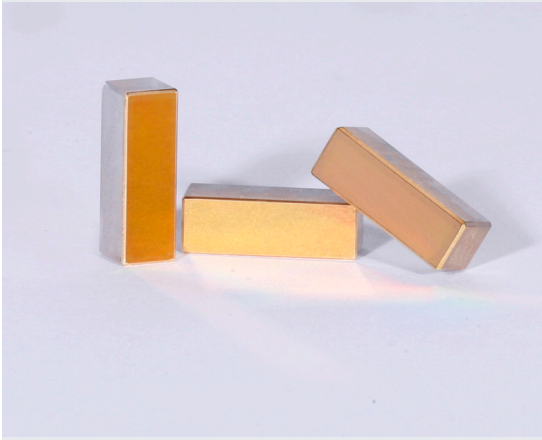
Headwall PHOTONICS

Data Sheet

Low PDL 900 Holographic Gratings

Low PDL 900 Original Holographic Diffraction Gratings



Headwall's Low Polarization Dependent Loss (LPDL) gratings can be optimized or C, L or C+L bands. Typical performance in the C band for the 900 gr/mm grating design has a minimum of 90% efficiency with a PDL of less than 0.25 dB at each channel when used at the Littrow configuration. This performance yields a reduced need for network amplifiers and repeaters resulting in lower cost telecommunications infrastructure deployment.

Targeting demanding telecommunication applications such as reconfigurable optical add-drop multiplexers (ROADMs) and wavelength selectable switching, Headwall's "all-original", non-replicated holographic gratings feature the industry's highest optical efficiency, lowest insertion loss, and very low stray light. These holographic gratings are manufactured on planar ULE glass customized to the OEM application. Surpassing Telcordia GR 1221 environmental specifications, Headwall's planar holographic gratings provide highly reliable performance over an extended product life..

Headwall Photonics is the world's largest manufacturer of "original" holographic gratings for end-users and OEM customers.

Applications:

- ROADMs
- Channel Monitoring/Gain Equalization
- Optical Wavelength Switching
- Tunable Lasers
- DWDM/CWDM
- Optical Spectrum Analyzers

Key Benefits:

- Very high optical efficiency >90%
- Extremely low insertion loss
- Very low PDL, less than 0.25 db
- Very low stray light/noise
- Flat, consistent wavefront
- High energy/laser damage threshold
- Environmentally stable for long deployment life cycle
- Surpasses Telcordia GR1221 standards
- Rapid prototyping with quick ramp to volume

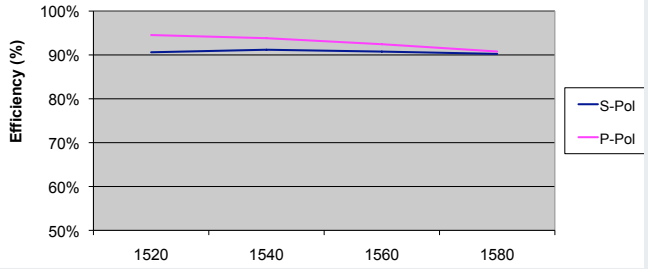
Application-Specific Solutions For Critical Environments

Headwall Photonics manufactures original holographic diffraction gratings and precision spectral modules for wavelength management and spectroscopic measurement for a worldwide base of OEM customers.

With a high volume, Clean Room manufacturing environment, and an ISO 9001:2008 quality certification, Headwall offers a broad portfolio of gratings which are customized for industry-leading, application-specific performance.

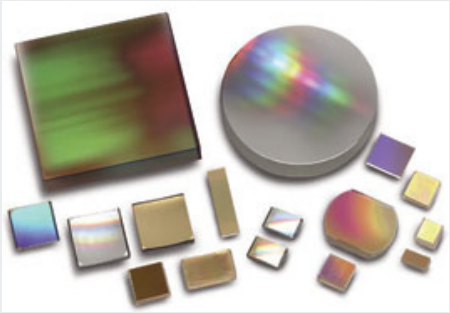
Headwall offers accurate modeling, rapid prototyping, and collaborative product design capabilities.

Representative LPDL 900 gr/mm C-Band Grating Performance



Specification Ranges	
Groove Frequency	900 gr/mm
Wavelength Range	1520 nm to 1570 nm
Wavefront Flatness	Better than λ/4 at 632.8nm
Coating	Gold
Angle of Incidence	Littrow or Custom
Diffraction Order	-1st
Storage	-40 to 100 degrees C
Telcordia GR1221	Compliant

Headwall Photonics is the leading designer and manufacturer of optical components and spectral instrumentation based on diffraction grating technology.



Visit www.HeadwallPhotonics.com for more information on end-user and OEM spectrometer solutions.

About Headwall Photonics:

Headwall Photonics is the leading designer and manufacturer of imaging spectrometers and spectral instrumentation for industrial, commercial, and government markets. Headwall's high performance spectrometers, spectral engines, and holographic diffraction gratings have been selected by OEM and end-user customers around the world for use in critical application environments. As a pioneer in the development of innovative spectrographs and imaging spectrometers based on optical technologies, Headwall enjoys a market leadership position through the design and manufacture of patented spectral instrumentation that is customized for application-specific performance. Headwall Photonics was formed in 2003 as the result of a management buy-out from Agilent Technologies. **For more information please call 978.353.4100 or email us at Information@HeadwallPhotonics.com.**

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