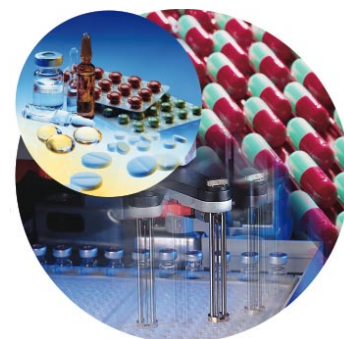
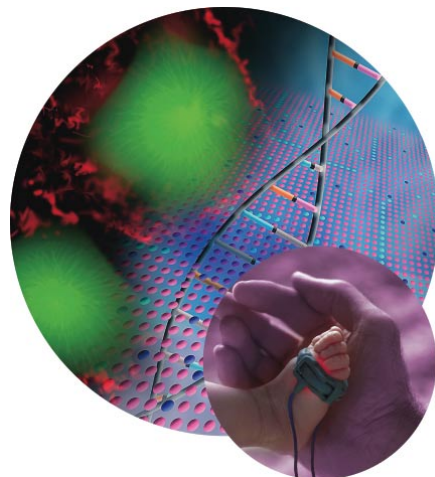
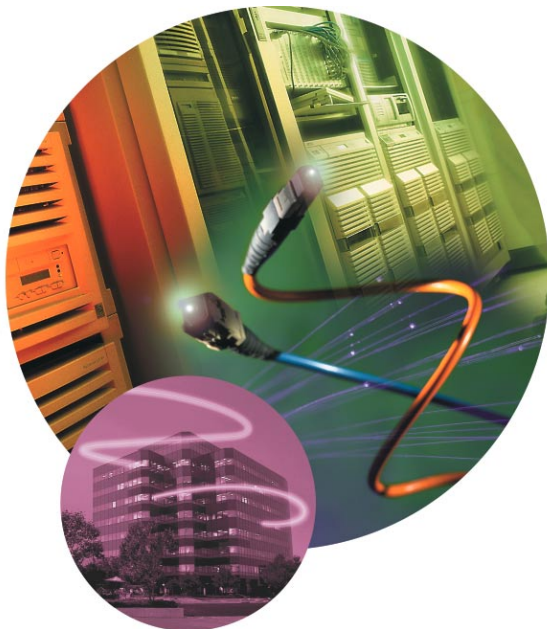


# Headwall Innovative Spectral Solutions for Leaders in Technology

Telecommunications Applications



[www.HeadwallPhotonics.com](http://www.HeadwallPhotonics.com)

Headwall's planar and aberration-corrected convex/concave gratings cover a broad spectral range (UV-IR) for applications in telecommunications, life sciences, and analytical markets. In addition, we specialize in the alignment and packaging of these gratings to enable robust spectral modules and integrated solutions for demanding and/or custom photonic applications.

## Headwall is the world's largest manufacturer of original holographic diffraction gratings.

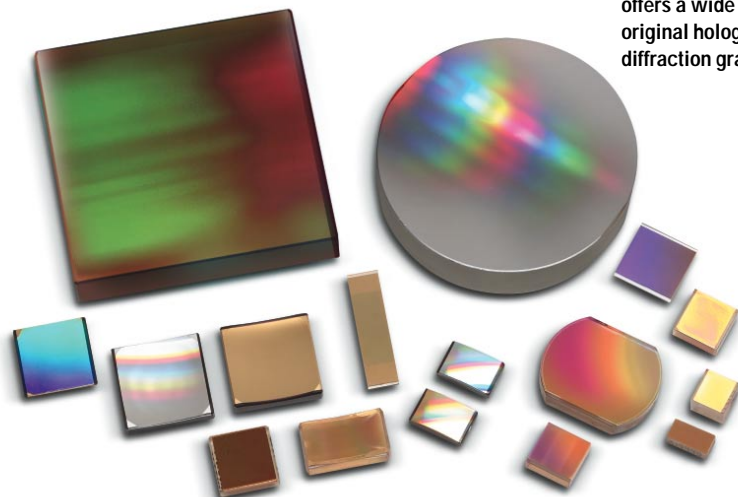
Headwall is a truly unique technology venture. Founded in 2003 as the result of a management buy-out of Agilent Technologies' Holographic Grating Operation, the company is a world leader in the design and high volume manufacture of optical modules and holographic diffraction gratings.

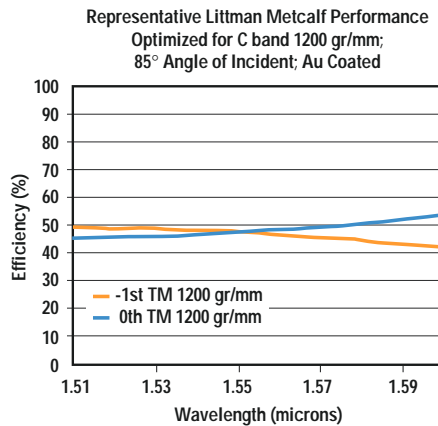
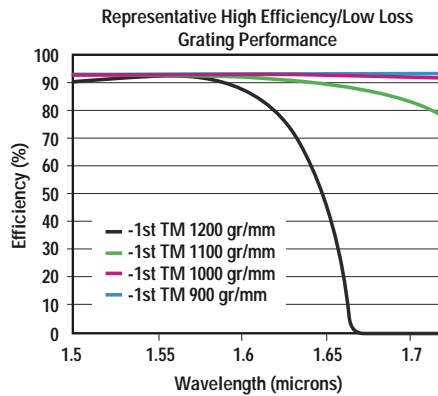
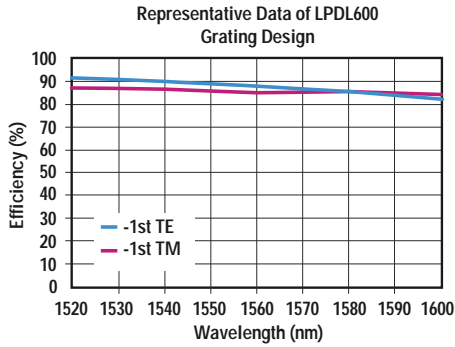
Continuing the rich engineering legacy of American Holographic, Headwall offers our extensive base of worldwide customers a range of integrated optical wavelength solutions with application specific performance.

Headwall Photonics, headquartered in Massachusetts, is managed by established industry veterans from the telecommunications and medical product industries. The company is well funded to capitalize on our world-class, ISO 9001:2000 certified facilities and will continue to maintain our leadership in nanotechnology manufacturing for optical applications.

Our holographic grating operation leverages Headwall's capabilities for high quality, high volume manufacturing. We produce our gratings and spectral modules in a modern 20,000 square foot facility and an expansive production cleanroom outfitted with the latest in automated equipment. Our manufacturing excellence results in higher quality products, and the ability to meet high-volume customer requirements.

Headwall Photonics offers a wide range of original holographic diffraction gratings.





### Innovative Spectral Solutions for Leaders in Technology

- Accurate Modeling of Grating Performance
- Rapid Prototyping Capabilities
- Collaborative Product Design Services
- Optical System Expertise (25+ years)

### Original Holographic Diffraction Gratings

Headwall discovered that the highest performance originates from mastering fabrication techniques. We have refined our process to mass produce and exclusively deliver "original" gratings. Our novel approach and proprietary technologies result in both High Efficiency and Low Polarization Dependent Loss performance in a single component.

Our flexible holographic technique permits the recording of gratings on planar, as well as spherical/aspherical surfaces without limitation to groove density. We have pioneered the development of aberration-corrected concave gratings and continue to enhance our designs to deliver the best optical performance with the fewest components. We believe this technology will continue to enable new designs that are simpler to develop and more cost effective to manufacture.

Headwall Photonics offers a wide range of precision Spectral Modules.



### Key Benefits of "Original" Grating Technology

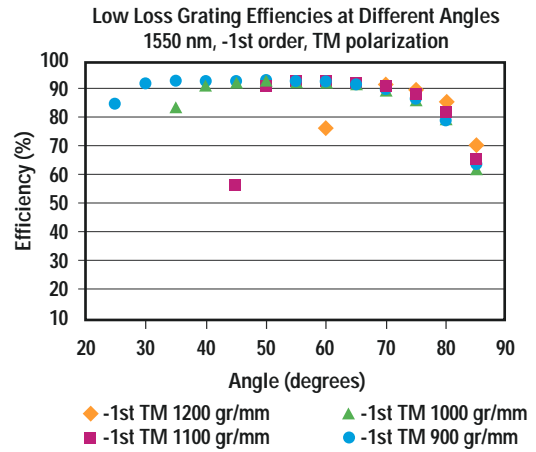
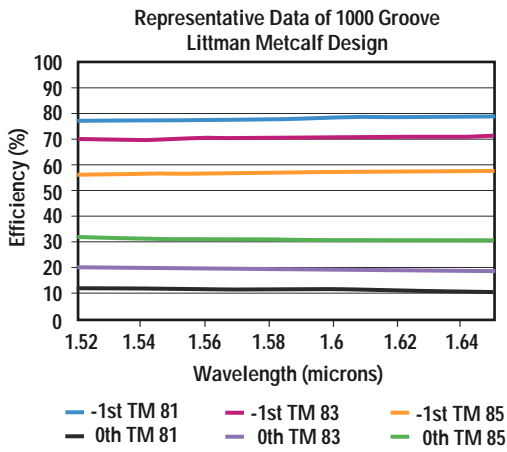
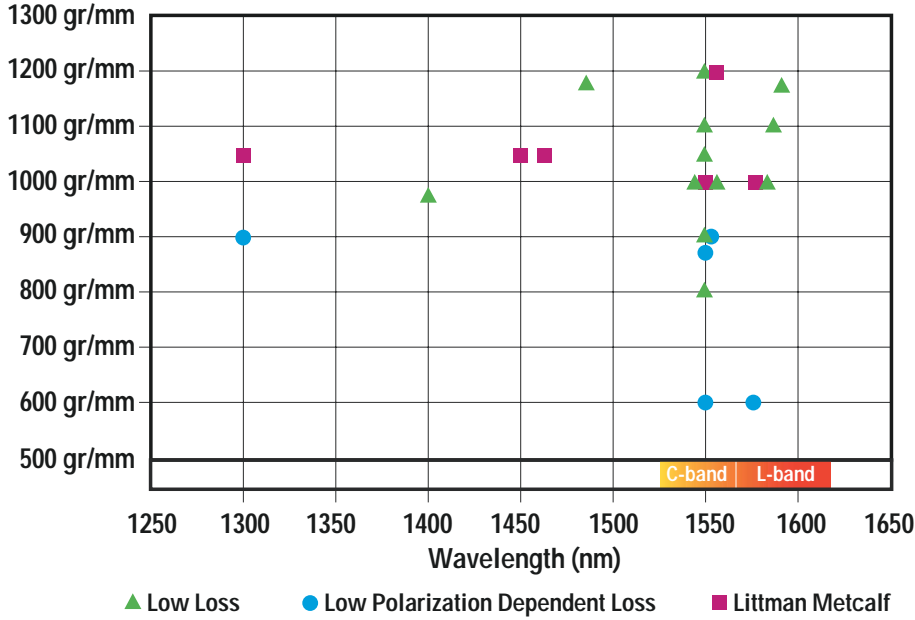
- Accurate Recording
  - High Efficiency and Low PDL
- Environmentally Stable Materials
  - Telcordia compliant
- Very Low Stray Light
  - Enhanced spectral fidelity and low cross-talk

### Precision Spectral Modules

Headwall also supplies high performance spectral modules for OEM photonic applications. Our compact modules are cost-effective, prealigned optical systems that are easily integrated into systems to save development cost and speed time to market. Our HyperSpec VS15 is an unparalleled imaging spectrograph with extremely high spectral/spatial resolution, and we offer spectral models with both single- and dual-beam designs.

Headwall Photonics offers performance and manufacturing in holographic gratings that is second to none. For more information on how we can help you with your next design project, please visit <http://www.HeadwallPhotonics.com> or <http://www.diffraction.com>

Telecommunication Applications Map



Applications

- Dynamic Gain Equalizer
- Multiplexer/Demultiplexer
- Optical Add/Drop Multiplexer
- Optical Spectrum Analyzer
- Tunable Laser Source

For product information please go to our web site.

www.HeadwallPhotonics.com

Data subject to change.

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