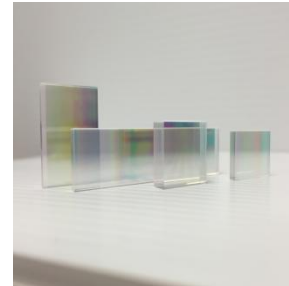


# Transmission Gratings

Transmission gratings operate to angularly disperse incident light into a spectrum. The product line of transmission gratings by II-VI utilizes state-of-the-art design and precise lithographic wafer-scale fabrication to deliver record-breaking optical performance combined with low cost, providing your optical systems with a powerful competitive edge. These gratings offer an attractive combination of excellent optical performance, reliability, and competitive pricing.

High diffraction efficiency (95% typical) allows our customers to minimize optical losses in multipass configurations. High-energy pulsed and CW laser systems will benefit from the high optical damage threshold of our diffraction gratings. They contain no organic materials and can withstand temperatures of up to 500°C with no performance degradation.



Unlike reflection diffraction gratings, transmission diffraction gratings may be polarization-independent and can operate at the optimal Littrow angle with conveniently large angular separation between the input and diffracted beam

Advantages:

Exceptional diffraction efficiency

Ultralow polarization-dependent loss (for applicable designs)

Special design for broad passband and low angular sensitivity

Uses only fused silica and highly robust dielectric materials

No polymers or organics are used; Telcordia-qualified

Each grating is a master; ultralow scatter

Extremely precise line density (line density uniformity, <0.001 lines/mm)

Highly competitive pricing

Applications:

Optical telecommunications (ROADM, WSS, WDM mux/demux)

High-power lasers

Pulse compression of pico- and femtosecond pulses

Spectral beam combining

Remote optical sensors and spectroscopy

(1) Gratings will be highly efficient over a larger range of angles; please inquire,

(2) P-polarization: incident electric-field vector perpendicular to grating lines.

S-polarization: incident electric-field vector parallel to grating lines.

(3) For gratings supporting both S and P polarizations, the diffraction efficiency is the average efficiencies of S and P polarization at any given wavelength over the operation wavelength range.