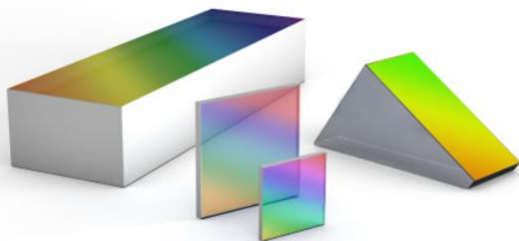


Diffraction Gratings for 5G Communication and in Vehicle LiDAR Systems



- Various substrate materials
- Custom dimension and shapes
- Wafer type: Plano, Concave, Cylindrical or Prism
- Grating type: (Classification based on different application focuses)
 - ◆ Dielectric film transmission grating or Gold-plated reflective grating
 - ◆ Linear or curved grating
 - ◆ Flat or concave grating
 - ◆ Polarization-independent or polarization-correlated grating
 - ◆ One-dimensional raster or two-dimensional grating
- Line density: 940, 966.2, 1200 line/mm
- Typical linear density range of prism grating: 1600-1800 line/mm
- Line density tolerance: ± 0.5 line/mm
- Wavelength range: 1525-1575 nm or 1575-1630 nm
- Diffraction efficiency: $>94.0\%$, up to 98%
- Clear aperture: $\geq 95\%$
- Surface quality: 20-10 S/D

CASTECH uses projection lithography, holographic technology, and ion beam etching technology to process gratings. The substrate material is mainly fused silica or ULE with low absorption and high stability. Other optical glass are also available upon request.

Our high DE reflection and transmission grating is ideal for WSS and other applications in optical communication industries as well as in vehicle LiDAR systems. Grating has the characteristics of high precision, high diffraction efficiency, high reliability, and high cost-effectiveness. Customized solution is available from prototype building to high volume production.



Iron etching equipment

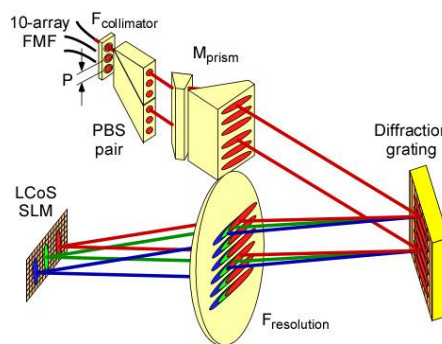


Diagram of WSS