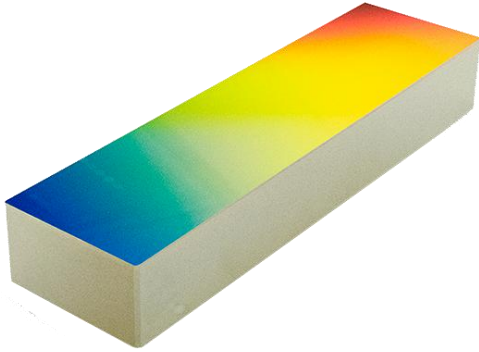


# Diffraction Gratings for Pulse Compression



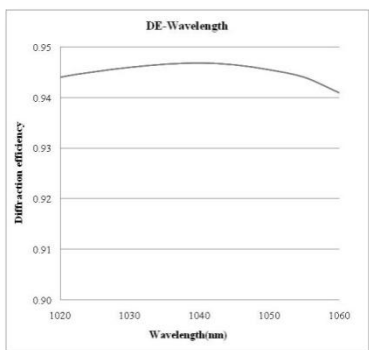
- Material from DUV to IR
- Custom dimension and shapes
- Grating type: Plano grating
- Line density: 1700line/mm
- Line density tolerance:  $\pm 0.5$  line/mm
- Wavelength range: 1020-1050nm
- Central wavelength: 1040 nm
- Angle of incidence(AOI): Littrow incidence
- Optical polarization: TM
- Diffraction efficiency: >94.0%
- Clear aperture: >90%
- Wavefront distortion:  $\lambda/4@632.8\text{nm}$
- Surface quality: 40-20 S/D
- Parallelism:  $< 0.1^\circ$
- Coating: Au layer

CPA technique is widely used for generation of ultra-short and high energy pulse of lasers. Grating is one of the most critical components in the pulse stretch and compression system to determine their performance.

CASTECH's reflection grating has been successfully applied on pulse compression, which is created by our unique holographic, iron etching and replication technique. The grating delivers low scattering, high diffraction efficiency and features in extreme competitive pricing as well.

Customized solution is available from prototype building to high volume production.

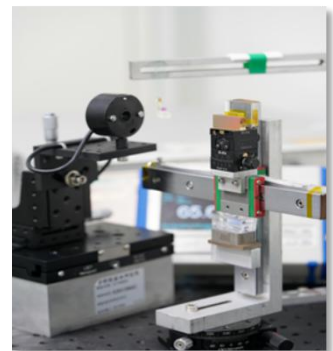
## Metrology



DE of Pulse Compressed Grating



Agilent Tunable Laser



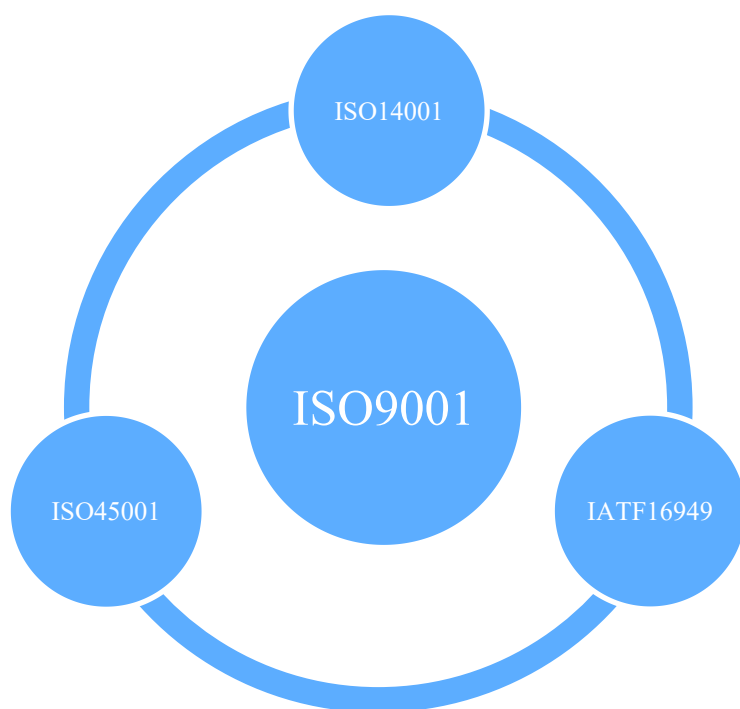
Diffraction Efficiency Testing System



# CASTECH®

福晶科技

- CASTECH was founded in 1990 by FIRSM (Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, a world famous institute on material research).
- A public company (2008, Shenzhen, China, Stock Code: 002222)
- Sales Revenue US\$80 Millions
- More than 1000 Employees
- 40,000 M<sup>2</sup> Facility
- Sales 50% China and 50% International



CASTECH is a pioneer and global leader in nonlinear optical crystals, laser crystals, precision optics and laser components for laser, optical communication, biomedical and LiDAR applications. Based on more than 30 years of worldwide known expertise and unique technologies of crystal growing, precision polishing and high LIDT coating, CASTECH has built a wide selection of high performance precision optics category and solutions including Aspherical/Spherical Lenses, Flats, Prisms, Waveplates, Gratings, polarization components, as well as featured products for most commanding applications like ultrafast lasers, to assist with our customers from prototype to mass production stage.