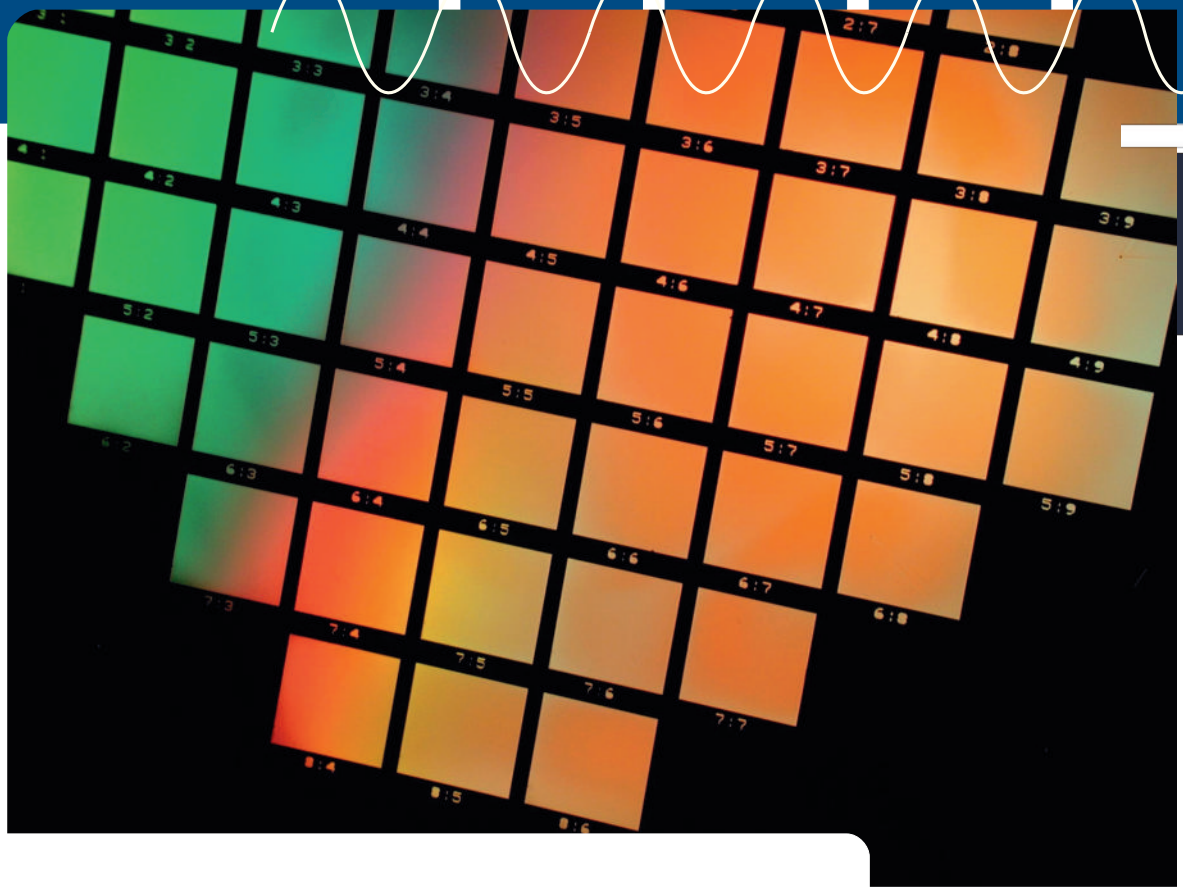


PING-Sample-006

1144 l/mm PING grating for telecom O-band (1310 nm)

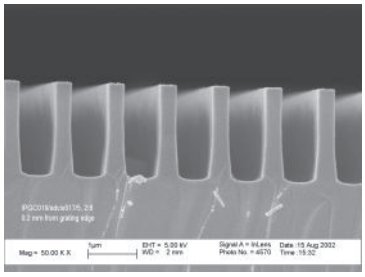
Fused Silica Transmission Grating Technology

PING - Polarization Independent Gratings. 100% dielectric gratings offer unbeatable environmental and thermal stability combined with high-efficiency, low PDL performance.

Polarization independent (PING) telecom gratings from Ibsen are produced by holographic stepper technology in 100% dielectric materials. This leads to unbeatable thermal and environmental stability, with no polymers, epoxies, gelatins or metals in the optical path nor in the grating whatsoever. Advanced etching technology ensures highest diffraction efficiency and lowest PDL over a very broad bandwidth. Low angular sensitivity is an added bonus for module design and assembly.

PING-Sample-006 - 1144 l/mm grating for telecom O-band

PING-Sample-006

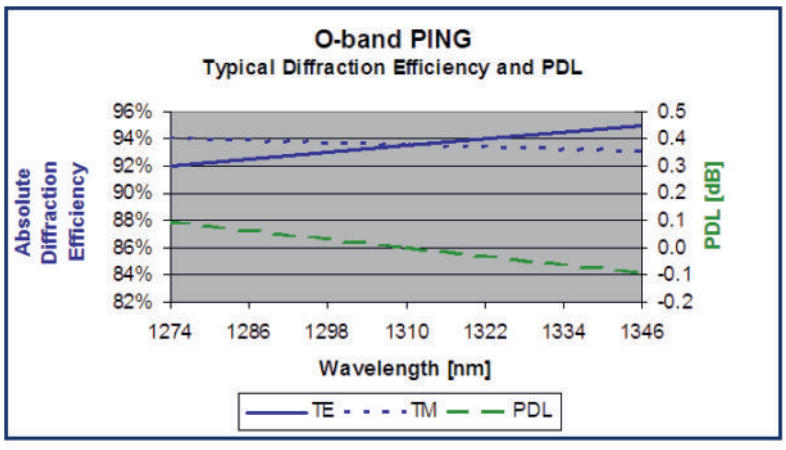


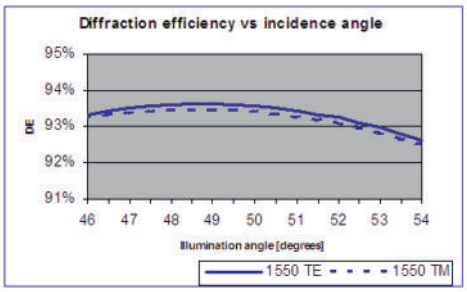
Features
High efficiency, low PDL, broad spectral bandwidth
Transmission gratings give much greater alignment tolerances
Low transmitted wavefront distortion
High tolerance to illumination angle of incidence
2-grating designs are possible, offering compact design possibilities
Unbeatable thermal & environmental stability & lifetime

Specifications

Parameter	Specification	Comments
Production technology	Holographic stepper and RIE etching	Class 10 cleanroom environment
Resolution	1143.9 l/mm	+/- 0.1 line/mm
Bandwidth	1274 nm - 1346 nm	
Incidence angle	49.9 degrees	High angular tolerance (see plot below)
Diffraction efficiency (TE & TM)	> 90%	
PDL	< 0.25 dB	
Materials	100% dielectric materials	No polymers, epoxies, gelatins etc
Grating area	10.2 mm x 5.2 mm	
Chip size	11.2 mm x 10.2 mm	On-chip identification in blank area
Thickness	0.625 mm	
Maximum operating temperature	>500 degrees C	
Packaging and shipment	Gelpack containers	Manufactured and sealed in class 10 cleanroom
Cleaning recommendation	First Contact™	Available from Photonic Cleaning

Typical grating performance





Specifications are subject to change without notice.

Ibsen photonics

For further information you can contact us directly at:

Ibsen Photonics A/S Ryttermarken 15-21 DK-3520 Farum Denmark

Phone +45 4434 7000 Fax +45 4434 7001 www.ibsenphotonics.com E-mail inquiry@ibsen.dk