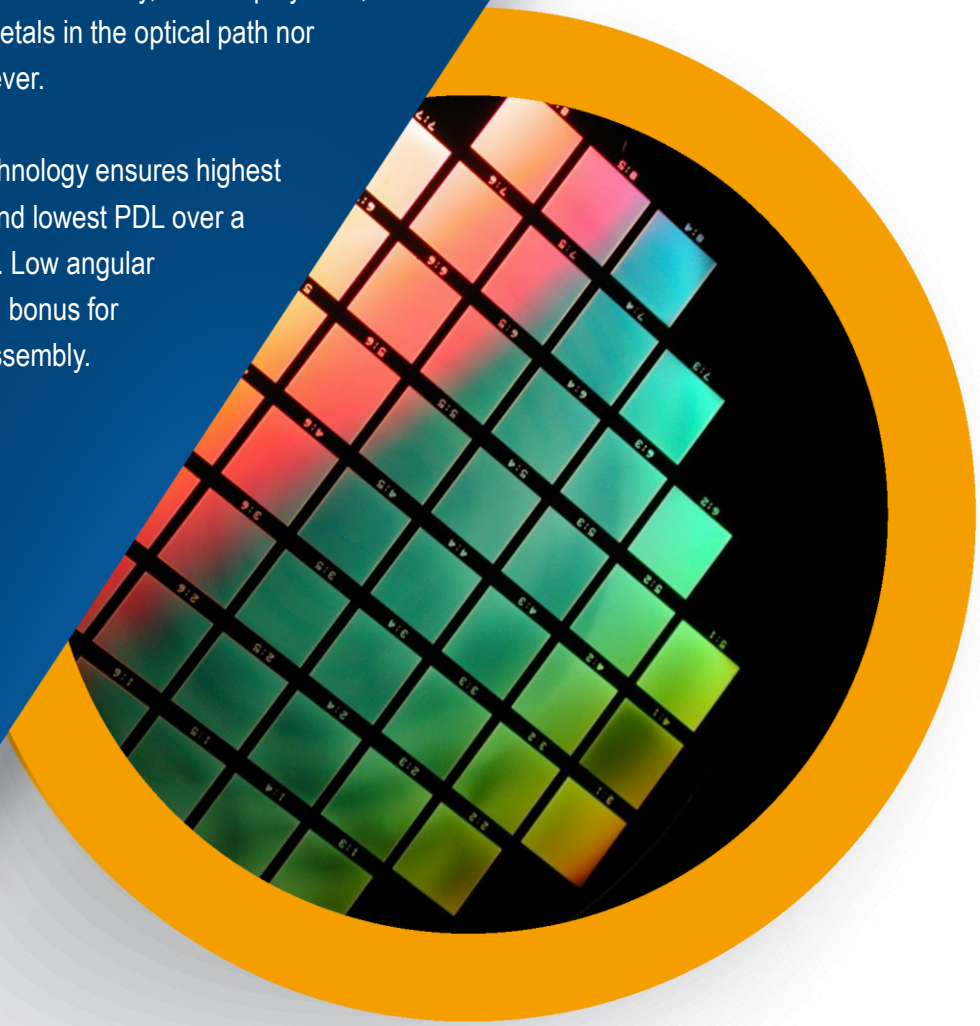
100% dielectric gratings offer unbeatable environmental and thermal stability combined with high efficiency, low PDL performance

Ibsen photonics

Polarization independent (PING) telecom gratings from Ibsen are produced by holographic/lithographic 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 Grating

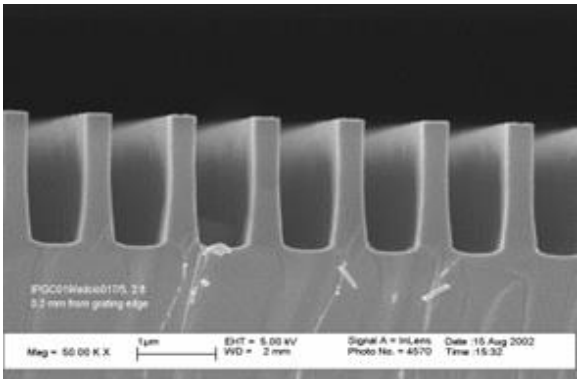
1765 l/mm PING for 850 nm band

PING-Sample-020

1765 l/mm PING for 850 nm band

PING-Sample-020

Benefits
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
Two grating designs are possible, offering compact design possibilities
Unbeatable thermal & environmental stability & lifetime



Parameter	Specification
Materials	100% dielectric materials
Grating area	12.5 mm x 8 mm
Chip size	15 mm x 12 mm
Chip thickness	0.625 mm
Grating resolution	1764.7 l/mm
PDL	<0.25 dB
Angle of incidence (AOI)	49.9 degrees
Diffraction efficiency (TE & TM)	>90%
Bandwidth	795 nm – 885 nm
Production technology	Holographic/lithographic stepper and RIE etching
Maximum operating temperature	>500 degrees C
Pagkaging and shipment	Gelpak containers. Manufactured and sealed in class 10 cleanroom
Cleaning recommendation	First contact. Available from Photonic Cleaning

Ibsen photonics

For further information you can contact us directly at:

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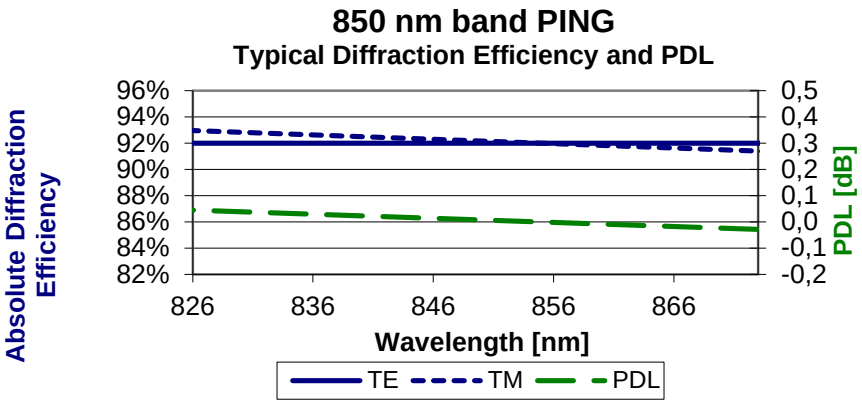
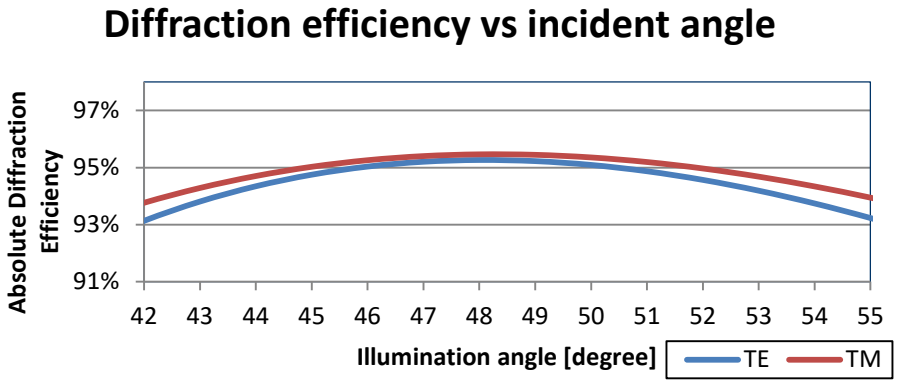
Typical grating performance





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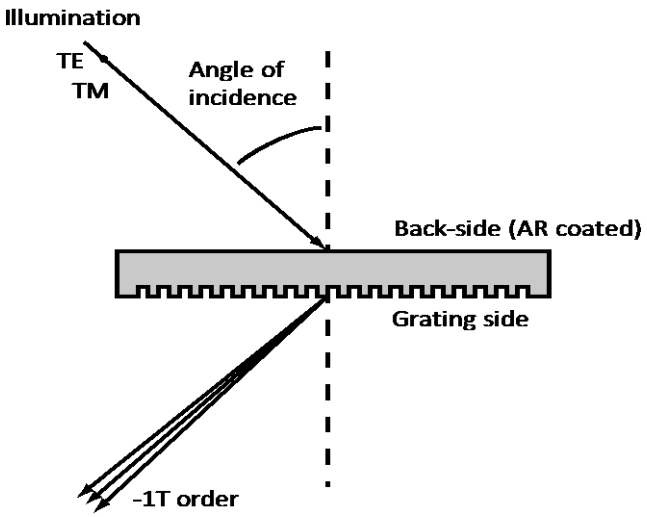
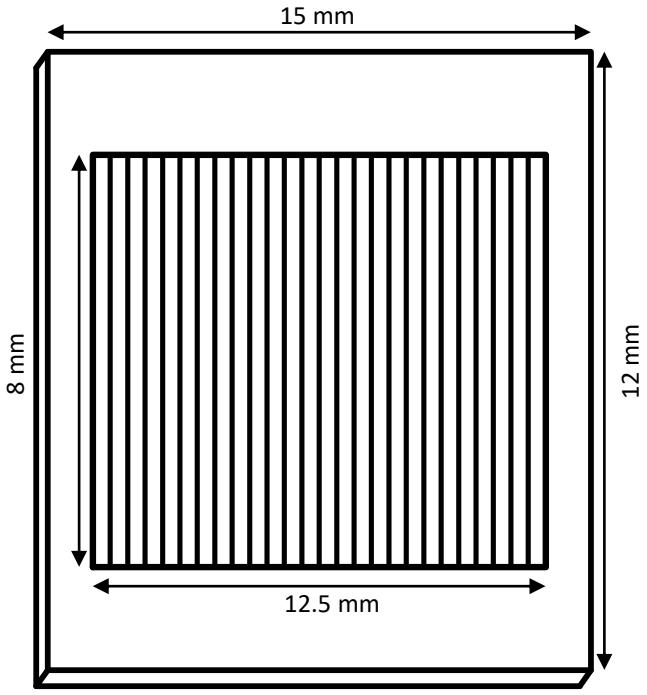
Configuration/Definitions



Drawing



Specifications are subject to change without notice.

The above grating is an example of Ibsen's capabilities. Ibsen operates as grating partner for our customers, from being an integrated part of the grating and device / instrument design phase, to the manufacturing of prototypes, to volume manufacturing of OEM gratings.

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