

KEY FEATURES

- MOCVD Epitaxy.
- 2/3/4 Inch.
- 2.5G High-Speed.
- High Uniformity & Reliability.

APPLICATIONS

- Telecommunications

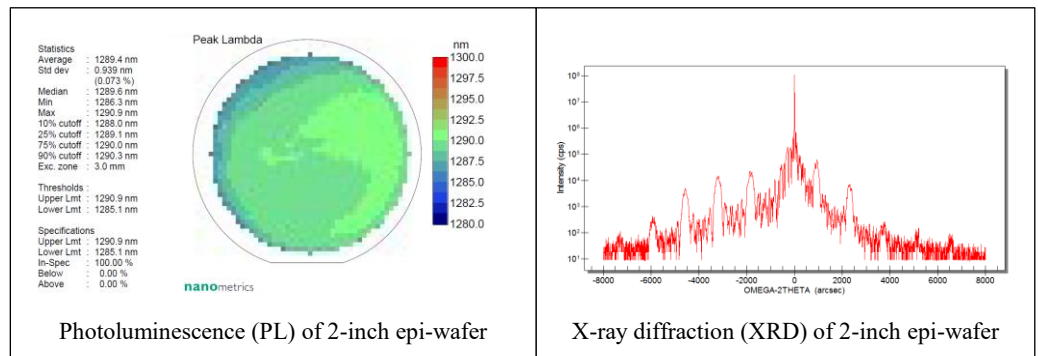
● PRODUCT DESCRIPTION

The 1310 nm Fabry-Perot (FP) laser diode (LD) epi-wafer, designed especially for the high-speed fiber-optic communications, is grown by metal-organic chemical vapor deposition (MOCVD) by Huaxing OPTO, with strained InAlGaAs or InGaAsP multiple quantum wells (MQWs) as the active layer.

● EPITAXY STRUCTURE

p+-InGaAs Contact
p-InP Cladding
Waveguide
MQWs
Waveguide
n-InP Cladding
n-InP Buffer
n-InP Substrate

● WAFER CHARACTERIZATION



● TYPICAL EPITAXY PARAMETERS

Parameters	Typical Values
Thickness control	<±5%
Thickness uniformity	<±3%
PL wavelength uniformity	<±5 nm for 2-inch epiwafer
Doping control	<±30%
p-InP carrier concentration	1E17 cm ⁻³ ~ 2E18 cm ⁻³
n-InP carrier concentration	1E16 cm ⁻³ ~ 5E18 cm ⁻³
p-InGaAs carrier concentration	1E19 cm ⁻³ ~ 2E19 cm ⁻³

● TYPICAL DEVICE PERFORMANCE

Parameters	Typical Values
Threshold current@25°C	< 10mA
Wavelength	1310 nm
Slope efficiency	0.25 W/A per facet
Characteristic temperature	>85 K
Serial resistance	< 10 Ω
Operating temperature	-20°C ~ +85°C
Ridge waveguide	2 μm×250 μm, as cleaved



FOCUSING ON EPITAXIAL WAFER

PRECISE, EFFICIENT AND PROFESSIONAL



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