

Picking the Right Diode Laser Manufacturer for 3D Sensing

THE THREE ESSENTIALS

Diode lasers are everywhere: networking systems, telecommunications, even under the ocean. Field failures can immobilize everything, causing communication disruptions, impaired biometric security, and autonomous vehicle malfunctions. Finding the right diode laser manufacturer is crucial in maintaining uninterrupted systems.

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PROVEN RELIABILITY

Lumentum has mastered the art of manufacturing extremely reliable diode lasers.

Through our expert design efforts, vertical integration, and in-depth product data, we have recorded zero, that's right zero failures for undersea cabling and also zero field failures for consumer applications.

DIODE LASERS FOR UNDERSEA COMMUNICATIONS

150,000

TOTAL VOLUME

2 BILLION

ZERO

FIELD FAILURES

ZERO

25yr

LIFE REQUIRED

5yr

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QUALITY AT SCALE

High-volume manufacturing is easy; high-volume manufacturing with high-quality isn't.

Leveraging our manufacturing sites and our partners (who must meet our stringent requirements), we achieve consistently high and predictable yields for our customers—year after year.

INDUSTRIAL APPLICATIONS

50,000/year

TELECOM

500,000/year

CONSUMER ELECTRONICS

>250 million/year

③

EXPERT GUIDANCE

Our broad product portfolio enables us to provide unmatched support to system designers.

It's perplexing: single-mode or multimode? Which wavelength—800 nm, 850 nm, 940 nm, 1400-1550 nm? Is one power level better than another? What about eye safety compliance? We work with you impartially and collaboratively to make the best choice.



VCSELS

- Narrow bandwidth: <1 nm
- Power range: 200 mW – scalable to 100s of watts
- Output beam: circular
- Wavelength locking with temperature



DFB EDGE EMITTERS

- Narrow bandwidth: <1 nm
- Power range: 200 mW – scalable to 10s of watts
- Output beam: elliptical
- Wavelength locking with temperature



FABRY-PEROT EDGE EMITTERS

- Wide bandwidth: >1 nm
- Power range: 200 mW – scalable to 10s of watts
- Output beam: elliptical
- The most efficient solution



For more information, read our in-depth white paper: **Diode Lasers in Next-Generation 3D Sensing Applications: Meeting the Challenges of Reliability and Scale.**