

Tunisian manufacturer of 1 6T DFB distributed feedback laser



Overview

Distributed Feedback (DFB) Diode Lasers are available at almost any wavelength between 760nm and 2800nm.

Key Takeaways

Currently, there is no publicly listed Tunisian manufacturer of 1.6T DFB lasers; such devices are typically produced by specialized international photonics companies.

Overview of 1.6T DFB Lasers

A distributed feedback (DFB) laser is a semiconductor laser that uses a Bragg grating within the active region to provide wavelength-selective feedback, producing a single-frequency, narrow-linewidth output. These lasers are widely used in telecommunications, high-speed data transmission, gas sensing, and spectroscopy due to their stability and precise wavelength control. The 1.6T designation refers to the laser being part of a 1.6 terabit per second transceiver system, often integrated with Mach-Zehnder modulators (DFB-MZ) for high-speed optical communication. Such lasers are critical for dense wavelength division multiplexing (DWDM) and high-bandwidth cloud or AI/ML data networks.

Global Suppliers

Leading manufacturers of DFB lasers include:

- Coherent Corp. – Demonstrated 1.6T DFB-MZ lasers for high-speed transceivers.

- Frankfurt Laser Company – Produces FP, DFB, and DBR laser diodes across a wide wavelength range .
 - QD Laser Inc. (Japan) – Offers DFB lasers in the NIR and MIR spectrum for research and industrial applications .
 - DenseLight Semiconductors – Provides InGaAsP-based DFB lasers optimized for telecom and sensing . These companies focus on high-performance, narrow-linewidth lasers suitable for integration into optical transceivers and photonic circuits.
- Sourcing in Tunisia

While Tunisia has a growing electronics and photonics sector, no publicly available sources list a domestic manufacturer of 1.6T DFB lasers. Potential approaches for Tunisian users include:

- Importing from international suppliers such as Coherent, DenseLight, or QD Laser.
- Collaborating with regional photonics research centers or universities for custom laser development.
- Engaging local distributors who can provide access to high-speed DFB lasers from global manufacturers.

Conclusion

If your goal is to acquire a 1.6T DFB laser in Tunisia, the most practical route is through international suppliers or distributors, as no Tunisian manufacturer is currently documented for this high-speed laser technology . For specialized applications, contacting global manufacturers directly or exploring partnerships with photonics research labs may provide custom solutions.

Article Content

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Distributed Feedback (DFB) Diode Lasers are available at almost any wavelength between 760nm and 2800nm. All listed DFB

Distributed Feedback Laser Diodes (Semiconductor Lasers ...

This page describes our DFB-LD (Distributed Feedback Laser Diode) products suitable for applications such as fiber sensing, 3D

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Distributed Feedback (DFB): Distributed Feedback (DFB) Diode Lasers are fixed wavelength single mode diode lasers. Typical

Electronically Tunable DFB Laser on Silicon

In both cases wavelength tuning was discrete, without straightforward potential to improve for continuous tuning. The laser structure

Distributed Feedback Laser

A Distributed-Feedback (DFB) laser is defined as a single-wavelength laser that utilizes a Bragg grating for single-wavelength

Distributed Feedback Lasers

Good-quality long-distance optical transmission over fiber needs lasers which emit at a single wavelength. This is almost universally

Advanced distributed feedback lasers based on composite fiber

Distributed feedback (DFB) fiber lasers are known as a versatile source of single-frequency radiation for a wide variety

DFB Lasers | Sensing application website | NTT Innovative Devices

DFB lasers for gas sensing DFB lasers suitable for near infrared molecular absorption. Available wavelength range between 1260 nm

Distributed Feedback Laser (DFB) : Key Specifications and Buying Tips

Selecting the right Distributed Feedback (DFB) laser is a critical step for ensuring superior performance in fiber-optic

Distributed-feedback laser

Distributed-feedback laser A distributed-feedback laser (DFB) is a type of laser diode, quantum-cascade laser or optical-fiber laser

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