Demonstration of 10.3 Gbps 1310 nm InP BTJ-VCSEL for 10GE Applications
VERTILAS’ Unique Technology Offers Major Advantages

VERTILAS’ Advantages – VCSELs from 1.3µm to > 2µm

Cost effective

Very low power dissipation

Very high performance

Very high integration

BTJ – Buried Tunnel Junction – made by VERTILAS

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VCSEL Diodes for Data Communications
LAN, SAN, MAN, FTTx, Interconnect
1310 nm, 1490 nm, 1550 nm, CWDM

High Data Rate Laser Diodes from 1 Gbps to 10 Gbps
Ultra Low Power Consumption of 25 mW (typ.)
Enabling 10 Gbps Optical Modules with $P_{\text{diss}} < 750$ mW
### InP VCSEL 1310 nm in LC TOSA
#### 10.3 Gbps and 12.5 Gbps

**Product Information**

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<table>
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<tr>
<td>Single-Mode VCSEL</td>
<td>10 Gbps</td>
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<tr>
<td>1310 nm</td>
<td>LC TOSA</td>
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<tr>
<td>VL-1310-10G-P2-LC</td>
<td>TO-46</td>
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**Key Features**

- 1310 nm single-mode VCSEL in LC receptacle
- TO-46 form factor
- Operating temperature:
  - -20 to +70 °C,
  - extended –40 to +85°C
- High data-rate modulation:
  - 10.3 Gbps and 12.5 Gbps
- Low power dissipation of typ. 30 mW
- Low drive currents
- Low threshold voltage
- Integrated monitoring diode
Eye Diagram InP VCSEL 1310 nm (10.3 Gbps, ER 5.4 dB)

10.3 Gbps Eye Diagram

BER Measurement SSMF 10 km

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