

# IP-QELK40B31C

SFP 1.25Gb/s 1310nm Single-mode 40km DDM

## PRODUCT FEATURES

- Up to 1.25Gb/s data links
- 1310nm DFB laser transmitter and PIN/TIA receiver
- Up to 40km on 9/125µm SMF
- Hot-pluggable SFP footprint
- Duplex LC/UPC type pluggable optical interface
- Low power dissipation
- Metal enclosure, for lower EMI
- RoHS compliant and lead-free
- Support Digital Diagnostic Monitor interface
- Single +3.3V power supply
- Compliant with SFF-8472
- Case operating temperature

Commercial: 0°C to +70°



## APPLICATIONS

- Switch to Switch Interface
- Fast Ethernet
- Switched Backplane Applications
- Router/Server Interface
- Other Optical Links

## Compliance

- SFP MSA
- SFF-8472
- IEEE802.3z
- RoHS

## PRODUCT DESCRIPTION

IP-QELK40B31C Small Form Factor Pluggable (SFP) transceivers are compatible with the Small Form Factor Pluggable Multi-Sourcing Agreement (MSA). The transceiver consists of five sections: the LD driver, the limiting amplifier, the digital diagnostic monitor, the 1310nm DFB laser and the PIN/TIA. The module data link up to 40km in 9/125umSingle-mode fiber.

This transceiver meets the Small Form Pluggable (SFP) industry standard package utilizing an integral LC-Duplex optical interface connector. An enhanced Digital Diagnostic Monitoring Interface compliant with SFF-8472 has been incorporated into the transceiver. It allows real time access to the transceiver operating parameters such as transceiver temperature, laser bias current, transmitted optical power, received optical power and transceiver supply voltage by reading a built-in memory with I<sup>2</sup>C interface.

The optical output can be disabled by a LVTTTL logic high-level input of Tx Disable, and the system also can disable the module via I<sup>2</sup>C. Tx Fault is provided to indicate that degradation of the laser. Loss of signal (LOS) output is provided to indicate the loss of an input optical signal of receiver or the link status with partner. The system can also get the LOS (or Link)/Disable/Fault information via I<sup>2</sup>C register access.

## I. Contact Information

InphilightCo., Ltd

Building 5, Zone E, Guangguxin Center, No.52, Road liufang, Jiangxia district, Wuhan, Hubei, China

If you need more details about datasheet, please contact sales

[sales@inphilight.com](mailto:sales@inphilight.com)

## Revision History

Version No.	Date	Description
1.0	June 24, 2019	Preliminary datasheet