

Individual Addressable Laser Diode Array (IALDA)

- 40W CW Diode Bars - QD-C1840-IALDA

DESCRIPTION

The QD-C1840-IALDA product is based upon highly performing 40W Laser Diode Bar Matrix. The Laser Diode structure is multiple emitters spaced on a monolithic 1cm "bar". The bar is mounted with the passive zone (N side) towards a conductively cooled submount.

This type of diode can be used for printing (CTP) or marking application. Other application such as illuminator can also be envisaged.

It is built with an array of few tens of emitters that can be driven individually, in CW mode or in pulse mode (QCW). Typical rise time is few ns with an adapted driver.

The standard wavelength is 830 nm but 808, 9xx nm product can also be delivered.

The emitter width is 60 μm and can be easily collimated. Standard number of emitters is 50 with a pitch of 250 μm . On demand a smaller pitch can be designed.

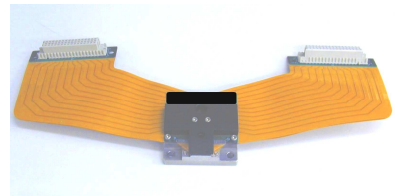
Total average power is 40W and each emitter can provide up to 2W.

The diode can be passively cooled or water cooled (upon average power).

The high performing quantum well structure and the QLD assembly process leads to high electrical to optical conversion efficiency and reliability.

The compact and rugged package allows easy connection to an efficient heat exchanger. So the submount temperature can be adjusted to tune the emission wavelength. With this open package the optical beam can be directly used to achieve efficient coupling.

A fast-axis collimation lens (antireflection coated) can also be assembled to reduce the divergence to 0,5 deg.



MAIN FEATURES

- 40W CW or 100W QCW optical power
- 2W per emitter
- Typically 50 individual emitters with low divergence
- Flexible cable for individual emitter driver
- High reliability
- Water or Conductively cooled package
- Optional Fast-Axis-Collimating lens
- Wavelengths in the 830nm range, other wavelengths on demand
- Detailed specification on demand

Quantel Laser Diodes reserves the right to change specifications without prior notice

ABSOLUTE MAXIMUM RATINGS

PARAMETERS	QD-C1940-IALDA	UNITS
Reverse voltage	3	Volt
Operating temperature	+5°C to +45°C	°C
Storage temperature	-40°C to +85°C	°C

Note: Operation at temperature below dew point requests to use dry N2 environment

PACKAGE SPECIFICATIONS

- dimensions are in mm
- standard tolerances are ± 0.2 mm

