

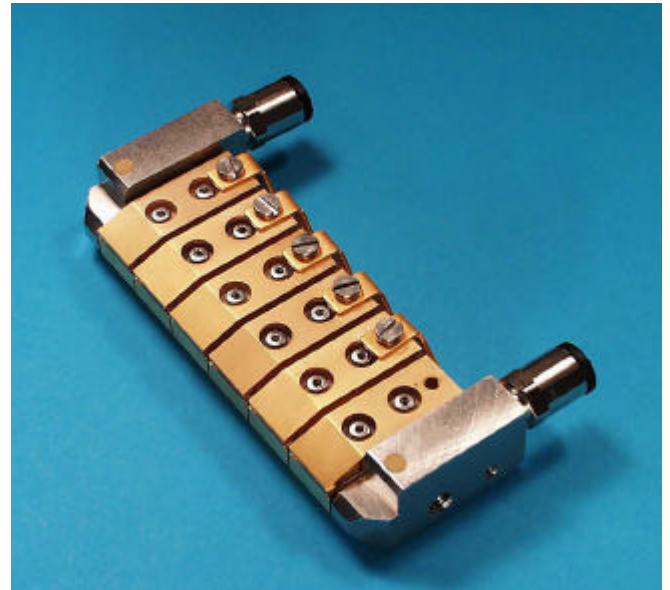
ACTIVELY COOLED 20W CW LINEAR BAR ARRAY

DESCRIPTION

The TH-C1420-R_(n) product is based upon a highly performing 20W CW Laser Diode Bar Array. The Laser Diode structure is multiple emitters spaced on a monolithic 1cm "bar". The bar is mounted with the active zone towards an actively cooled submount (P-side down).

The quality of the epitaxial quantum well structure and of the process leads to high electrical to optical conversion efficiency and reliability.

The actively cooled package has a unique design(*) for easy association in series from n = 2 to 7 TH-C1420-R elements. So, up to 140W CW are emitted over a line of 9cm. This compact association is an ideal solution to implement powerful solid state laser pumping, illuminators...



Series association
TH-C1420-R(6) (6 elements)

MAIN FEATURES

- 20 W CW optical power per element
- Monolithic linear array
- 795 to 860nm wavelength range
- Highly reproducible MOCVD process
- Actively cooled package
- Specific assembly design for high packing density
- Highly reliable product

SPECIFICATIONS

Fluid temperature: 25°C

Flow rate :1 l/mn

PARAMETERS	TH-C1420-R _(n)	UNITS
CW output power	20 x n	Watt
Emitting area	10 n x 0.001	mm x mm
Threshold current	7	Amp.
Operating current	27	Amp.
Operating voltage	1.85 x n	Volt
Total efficiency	42	%
Beam divergence (FWHM)	10 x 35	degree

Note :

- Variation of wavelength is approximately 0.26 to 0.3 nm/°C
- Standard wavelength is 808nm
- Tolerance on wavelength is +/- 3nm
- Spectral width is ≤ 3nm FWHM
- Other wavelength selections are available in the range of 795nm to 860nm

ABSOLUTE MAXIMUM RATINGS

PARAMETERS	TH-C1420-R	UNITS
CW output power	24	Watt
Reverse voltage	3	Volt
Operating temperature	+5 to +35	°C
Storage temperature	-40 to +85	°C

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

PACKAGE SPECIFICATION

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

COOLING

- : Water
- Flow : 0.5 - 1 l/mn
- Pressure : 1 - 4 bar

For further information please contact:

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