

Beam Transformation System

BTS(FAC160)-P0.2



Features and Advantages

Beam Transformation System (BTS) for diode laser bars with up to 50 emitters: emitter size up to 100 μm , emitter pitch 200 μm . The BTS is used to make the beam parameter product of diode laser bars symmetrical for free beam lasers or fiber coupling.

The BTS consists of a FAC160 fast axis collimation lens, a lens array for 90° rotation of the emitters and a bottom tab.

Product Specifications

Specification Data	Unit	Value
Material		FL-IR1.9 / S-TIH53 (Ohara)
Length (L)	mm	12 $\pm$ 0.1
Width (W)	mm	0.8 $\pm$ 0.1
Clear aperture	mm ²	10.5 x 0.25
Surface quality @ 633 nm		$\lambda/4$ (typically)
Back focal length BFL @ 980 nm	mm	0.034
Pitch	mm	0.2
Gap	mm	0.0 $\pm$ 0.01
Numerical aperture (NA)		FA: 0.5 SA: 0.09
Transmission	%	> 98
Remaining divergence (FW1/e ²) for fast axis ⁽¹⁾	mrad	< 12

Product Code	MOD000682	MOD000722 ⁽²⁾
Specification Data	Unit	
AR-coating	nm	790 - 990
Thickness (T)	mm	1.5 $\pm$ 0.1
Divergence measured at	nm	
Divergence optimized for	nm	976
Drawing Number	a	b

⁽¹⁾ Depending on laser parameters / specification is valid for an emitter-height of 1 μm and no smile of the laser diode.

⁽²⁾ Example for customization.

Product Dimensions (mm)

