

Beam Transformation System

BTS(FAC286)-P0.5



Features and Advantages

Beam Transformation System (BTS) for diode laser bars with up to 19 emitters: emitter size up to 150 μm , emitter pitch 500 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 FAC286 fast axis collimation lens, a lens array for 90° rotation of the emitters and a bottom tab.

Product Specifications

Specification Data	Unit	Value
Material		S-TIH53 (Ohara)
Length (L)	mm	11.5 $\pm$ 0.1
Width (W)	mm	1.0 $\pm$ 0.1
Thickness (T)	mm	1.9 $\pm$ 0.1
Clear aperture	mm ²	10.0 $\times$ 0.45
Back focal length BFL @ 808 nm	mm	0.09
Pitch	mm	0.5
Gap	mm	0.05 $\pm$ 0.01
Numerical aperture (NA)		FA: 0.6 SA: 0.1
Transmission	%	> 98

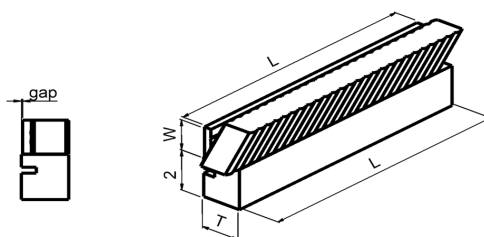
Product Code		MOD000132 ⁽¹⁾	MOD000124	MOD000152 ⁽¹⁾	MOD000115 ⁽¹⁾	MOD000283	MOD000116
Specification Data	Unit						
AR-coating	nm	785 - 810	790 - 990	965 - 990	790 - 990	1000 - 1600	790 - 990
Divergence measured at	nm	808		976		976	
Divergence optimized at	nm		808		808		808
Remaining divergence (FW1/e ²) for fast axis ⁽²⁾	mrad	< 7	< 7	< 7	< 10	< 10	< 13

⁽¹⁾ Example for customization – customized coatings on request.

⁽²⁾ Depending on laser parameters / specification is valid for an emitter-height of 1 μm and no smile of the laser diode.

⁽³⁾ Apart from free beam lasers the BTS with remaining divergence for FA < 7, 10 or 13 mrad can be used for coupling into 200, 400 or 600 μm fibers with NA 0.22, respectively (see also BTS-HOC systems for fiber coupling).

Product Dimensions (mm)



Rev 04 | Updated July 15, 2026 | RoHS compliant 2011/65/EU and 2015/863/EU

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