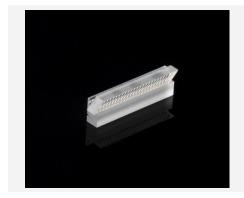


# **Beam Transformation System** BTS(FAC286)-P0.5



### **Features and Advantages**

Beam Transformation System (BTS) for diode laser bars with up to 19 emitters: emitter size up to 150  $\mu\text{m},$  emitter pitch 500  $\mu\text{m}.$  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 ± 0.1
Width (W)	mm	1.0 ± 0.1
Thickness (T)	mm	1.9 ± 0.1
Clear aperture	mm²	10.0 x 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	duct Code MOD000562 <sup>(1)</sup> MOD000132 <sup>(1)</sup>			MOD000124	MOD000151 <sup>(1)</sup>	MOD000152 <sup>(1)</sup> N	10D000352 <sup>(1)</sup>
Specification Data	Unit	Value					
AR-coating	nm	600 - 700	785 - 810	790 - 990	790 - 990	965 - 990	1000 - 1600
Divergence measured at	nm	808	808			976	976
Divergence optimized at	nm			808	976		
Remaining divergence (FW1/e²) for fast axis <sup>(2)</sup>	mrad	< 7	< 7	< 7	< 7	< 7	< 8

<sup>(1)</sup> Example for customization – customized coatings on request.

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

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

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# **Product Specifications**

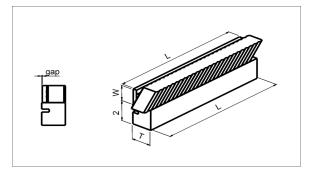
Product Code		MOD000622 <sup>(1)</sup>	MOD000122 <sup>(1)</sup>	MOD000115 <sup>(1)</sup>	MOD000117 <sup>(1)</sup>	MOD000268 <sup>(1)</sup>	MOD000283
Specification Data	Unit	Value					
AR-coating	nm	600 - 700	785 - 810	790 - 990	790 - 990	965 - 990	1000 - 1600
Divergence measured at	nm	808	808			976	976
Divergence optimized at	nm			808	976		
Remaining divergence (FW1/e²) for fast axis <sup>(2)</sup>	mrad	< 10	< 10	< 10	< 10	< 10	< 10
Product Code		MOD000623 <sup>(1)</sup>	MOD000548 <sup>(1)</sup>	MOD000116	MOD000546 <sup>(1)</sup>	MOD000547 <sup>(1)</sup>	MOD000284 <sup>(1)</sup>
Product Code Specification Data	Unit	MOD000623 <sup>(1)</sup> Value	MOD000548 <sup>(1)</sup>	MOD000116	MOD000546 <sup>(1)</sup>	MOD000547 <sup>(1)</sup>	MOD000284 <sup>(1)</sup>
			<b>MOD000548</b> <sup>(1)</sup> 785 - 810	<b>MOD000116</b> 790 - 990	<b>MOD000546</b> <sup>(1)</sup> 790 - 990	<b>MOD000547</b> <sup>(1)</sup> 965 - 990	<b>MOD000284</b> <sup>(1)</sup> 1000 - 1600
Specification Data	Unit	Value					
Specification Data AR-coating	<b>Unit</b> nm	<b>Value</b> 600 - 700	785 - 810			965 - 990	1000 - 1600

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## **Product Dimensions (mm)**



All rights reserved. Product specifications and descriptions are subject to change. All our products are patent pending. Please contact our sales representatives for complete details.

Rev 02 | Updated April 15, 2021 | RoHS compliant 2011/65/EU and 2015/863/EU

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