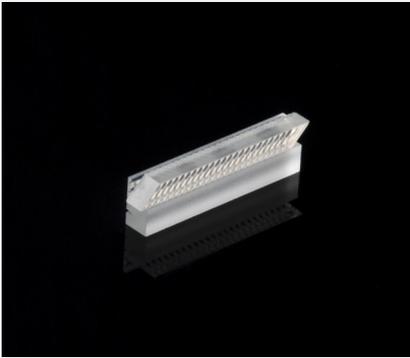


Beam Transformation System

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 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	MOD000562 ⁽¹⁾	MOD000132 ⁽¹⁾	MOD000124	MOD000151 ⁽¹⁾	MOD000152 ⁽¹⁾	MOD000352 ⁽¹⁾	
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/e ²) for fast axis ⁽²⁾	mrad	< 7	< 7	< 7	< 7	< 7	< 8

⁽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 13mrad 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 Specifications

Product Code		MOD000622 ⁽¹⁾	MOD000122 ⁽¹⁾	MOD000115 ⁽¹⁾	MOD000117 ⁽¹⁾	MOD000268 ⁽¹⁾	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/e ²) for fast axis ⁽²⁾	mrad	< 10	< 10	< 10	< 10	< 10	< 10

Product Code		MOD000623 ⁽¹⁾	MOD000548 ⁽¹⁾	MOD000116	MOD000546 ⁽¹⁾	MOD000547 ⁽¹⁾	MOD000284 ⁽¹⁾
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/e ²) for fast axis ⁽²⁾	mrad	< 13	< 13	< 13	< 13	< 13	< 13

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

⁽²⁾ 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).

Product Dimensions (mm)

