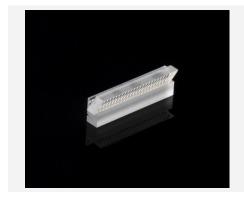


Beam Transformation System BTS(FAC286)-P0.5



Features and Advantages

Beam Transformation System (BTS) for diode laser bars with up to 19 emitters: emitter size up to 150 μ m, emitter pitch 500 μ 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 ± 0.01 |
| Numerical aperture (NA) | | FA: 0.6 SA: 0.1 |
| Transmission | % | > 98 |

| Product Code | I | MOD000562 ⁽¹⁾ | MOD000132 ⁽¹⁾ | MOD000124 | MOD000151 ⁽¹⁾ | MOD000152 ⁽¹⁾ N | AOD000352 ⁽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/e²) 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 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

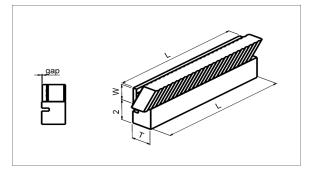
| Product Code | | MOD000622 ⁽¹⁾ | MOD000122 ⁽¹⁾ | MOD000115 ⁽¹⁾ | MOD000117 ⁽¹⁾ | MOD000268 ⁽¹⁾ | MOD000283 |
|---|-------------------|-----------------------------------|--|-------------------------------|--|---|---|
| Specification Data | Unit | Value | | | | | |
| AR-coating | nm | 600 - 700 | 785 - 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/e²) for fast axis ⁽²⁾ | mrad | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| | | | | | | | |
| Product Code | | MOD000623 ⁽¹⁾ | MOD000548 ⁽¹⁾ | MOD000116 | MOD000546 ⁽¹⁾ | MOD000547 ⁽¹⁾ I | MOD000284 ⁽¹⁾ |
| Product Code Specification Data | Unit | MOD000623 ⁽¹⁾ Value | MOD000548 ⁽¹⁾ | MOD000116 | MOD000546 ⁽¹⁾ | MOD000547 ⁽¹⁾ I | MOD000284 ⁽¹⁾ |
| | | | MOD000548 ⁽¹⁾ 785 - 810 | MOD000116 790 - 990 | MOD000546 ⁽¹⁾ 790 - 990 | MOD000547 ⁽¹⁾ I 965 - 990 | MOD000284 ⁽¹⁾ 1000 - 1600 |
| Specification Data | Unit | Value | | | | | |
| Specification Data AR-coating | Unit nm | Value 600 - 700 | 785 - 810 | | | 965 - 990 | 1000 - 1600 |

⁽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)



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Rev 03 | Updated June 8, 2022 | RoHS compliant 2011/65/EU and 2015/863/EU

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