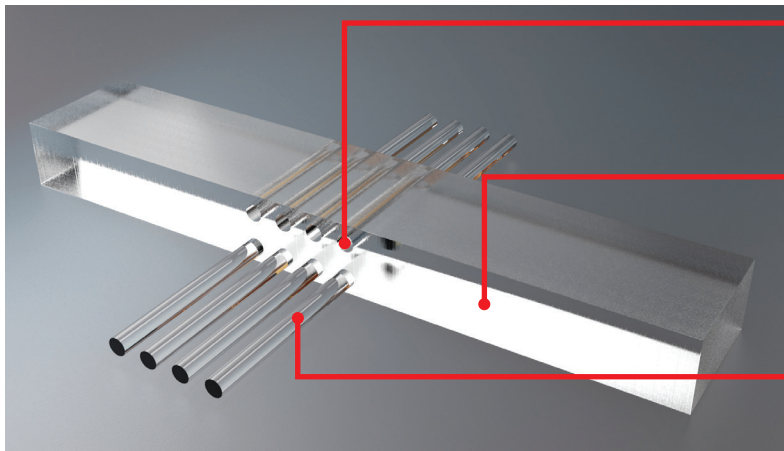


# FIBER ALIGNMENT

## MULTI-FIBER ALIGNERS AND INTEGRATED OE FIBER ALIGNERS

### Improve and Simplify Integration

High-density arrays simplify integration, alignment, and assembly, speeding up manufacturing and reducing BOM.



#### 1) Fiber Alignment Holes

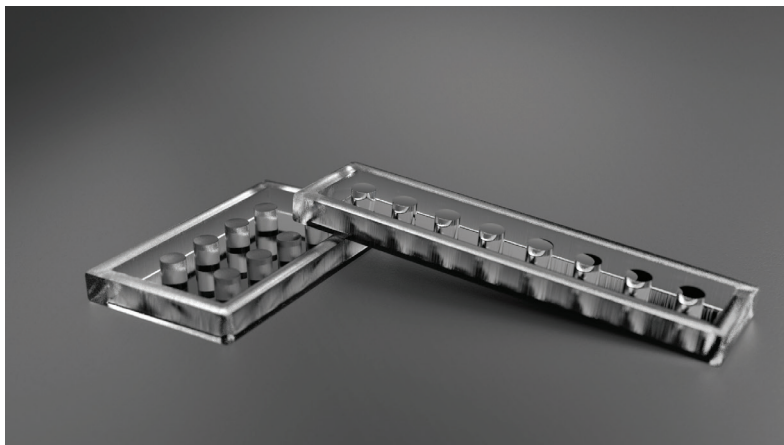
High-density alignment arrays  
(e.g. > 20 fibers)

#### 2) Glass Support Substrate

150 x 15 micron glass substrate supports and maintains structural integrity, spacing and alignment fibers

#### 3) Precise Fiber Alignment

Manufacturing tolerance of through-holes as low as  $\pm 1.5\%$



#### Hole-to-Hole Accuracy

High-accuracy alignments reduce insertion loss between connections.

#### Improve Performance and Reduce Package Size

High-density arrays simplify integration, alignment and assembly.

#### Glass Improves Performance

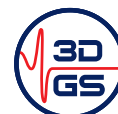
Fiber aligners increase assembly options as the glass is transparent to UV light, enabling UV curing processes.



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# FIBER ALIGNMENT

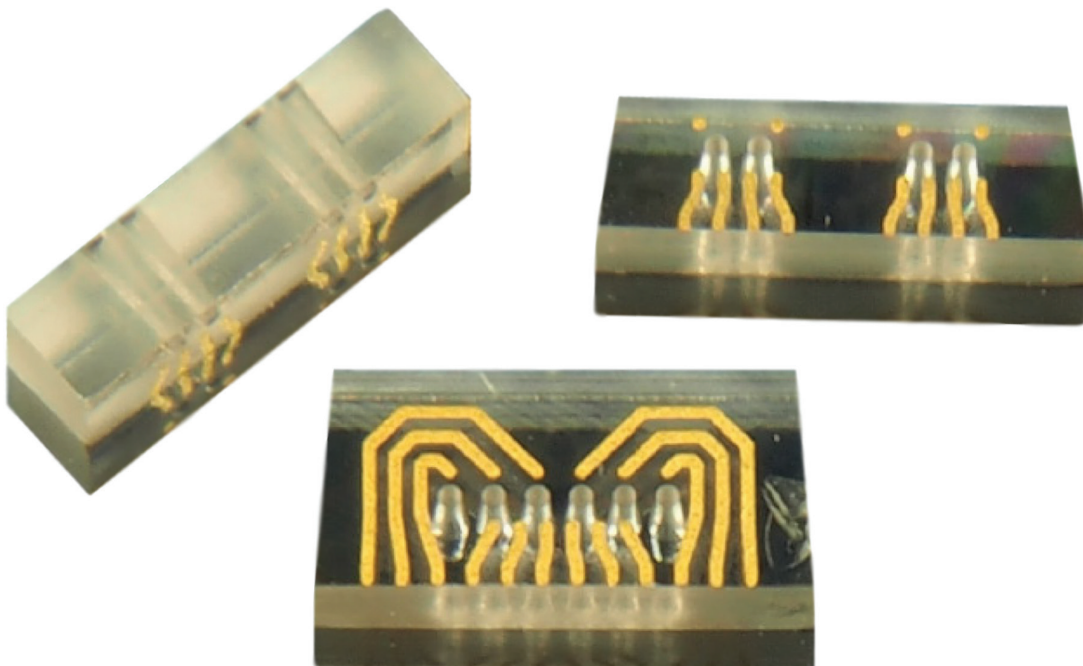
## MULTI-FIBER ALIGNERS AND INTEGRATED OE FIBER ALIGNERS

### Electrical and Optical Integration

Electrical traces can be combined with through-holes to maximize integration possibilities, further reducing package sizes.

### Custom Solutions for Improved Outcomes

Each application is unique in footprint, thermal management requirements, and additional features. Contact us directly with your specific needs.



### Design Limits

PARAMETERS	TYPICAL	PERFORMANCE LIMIT
Size	> 1 mm x 1 mm	< 1 mm x 1 mm
Height	1 mm to 5 mm	0.25 mm to 10 mm
Fiber Diameters	80 $\mu\text{m}$ to 250 $\mu\text{m}$	80 $\mu\text{m}$ to 250 $\mu\text{m}$
Center-to-Center Accuracy	100 nm	50 nm
Diameter Accuracy	$\pm 1.5 \mu\text{m}$	$\pm 1.0 \mu\text{m}$

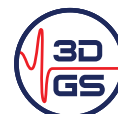


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Enabling the GHz Generation