



## Fiber Array Units

### V-Groove Assemblies for Coupling to Photonic Integrated Circuits

We design and manufacture precise fiber arrays for data centers and sensing applications. The arrays are widely configurable. Customers can specify many parameters such as number of channels, fiber pitch, fiber type, front face polishing type or outer dimensions. Fiber array units feature minimal fiber core offsets thanks to the use of our own extremely precise v-grooves and lids.

	SM Telcom Version	MM/PM/MCF/SM-SPEC*
Channels	specified by customer	
V-Groove/lid material	borosilicate glass, fused silica, silicon, metal	
V-Groove pitch [µm]	82, 127, 250 or customized	
Front face polishing [°]	0°, 8° or customized	
Operating wavelenght [nm]	1260-1650	400-1950
Connectors	MTP®, MT, MMC®, TMT, FC, LC, SC, E2000	
Anti-reflection / reflection coating	available on request	
Fiber core offset ** µm]	<0,7 (typ. 0,5)	<1 (typ. 0,7)
Extinction ratio [dB]	-	≥25 @ >630nm
Angle misalignment of stress rods [°]	-	±0,5
Operating temperature [°C]	-40 to +85	-20 to +70

W2
H2
H1

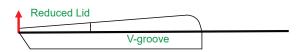
W1

V-groove
L1

# Aligned to Alignment to specific angle Slow axis

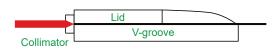
Is populated with different fiber types within a single array according to customers' requests incl. UHNA & PM fiber which is precisely oriented with high PER.

#### Low Profile Fiber Array for vertical Coupling



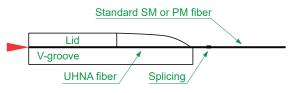
Front face is polished with an angle which provides vertical launch of the beam to a grating coupler on the chip.

#### **Collimating Fiber Array**



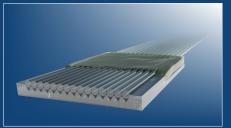
Actively aligned Micro Lens Array (MLA) to provide collimated beams with high pointing accuracy.

#### **MFD Conversion Fiber Array**



Short section of Ultra-High-NA (UHNA) fiber spliced to standard SM or PM fiber ensures low-loss coupling to waveguides with smaller mode field diameters.

#### Lid-Less Fiber Array



#### Fiber Array with Connector Interface



#### Short Fiber Array Jumper



<sup>\*</sup> Fiber type and manufacturer must be approved in advance \*\* Limited by number of channels