

# **Micro-Optics**

www.axetris.com/moe



# **Your Application**

LD collimation & coupling to waveguide, fiber or PD

Reach	Switching	Ultra-Long haul > 500 km	Long reach > 10 km	Short reach < 2 km	Others
Form factor / Components	WSS ROADM	Coherent <ul> <li>ICR</li> <li>ACR</li> <li>Modulator</li> <li>μITLA</li> </ul>	CFPS • TOSA • ROSA	QSFP/QSFP28 (CWDM4/PSM4) • TOSA • ROSA	FTTx • OSA
Performance/ CE requirement	Very high	Very high	High	Moderate	Moderate Volume

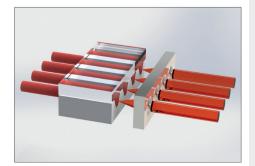
# **Our Solutions**

- Single lenses and lens arrays
- Aspherical or spherical profiles
- Silicon and Fused Silica materials
- Optimized custom designs

# Your Advantages

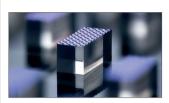
- Precise lens profile and pitch control
- High surface quality for high coupling efficiency
- Ultra compact size for high integration
- Cost effective wafer level manufacturing











## Micro-optics product examples

**TOSA** lenses

Product	Lens diameter [µm]	ROC [µm]	Conic	NA	Focal Length [µm]	Chip Size [mm]	Thickness [mm]
LDC620Si	620	1000.0	-4	0.61	400	0.7x0.93	0.70
LDC520Si	520	524.0	-2.48	0.78	210	0.7x0.93	0.50
LDC500SI	480	700.0	-2.5	0.65	280	0.6x1.0	0.38

#### **ROSA** lens arrays

Product	Lens diameter [µm]	ROC [µm]	Conic	NA	Focal Length [µm]	Chip Size [mm]	Thickness [mm]
FCA750Si/1x4/r4.0	700	4000.0	0	0.21	1600	1.45x3.25	1.00
FCA750Si/1x4/r1.87	700	1870.0	0	0.40	750	1.45x3.25	0.50
FCA750Si/1x4/r1.87	500	1870.0	0	0.32	750	0.95x2.45	0.50

Note: many more designs available, please inquire for details or customization

## About Axetris AG

Axetris AG, a company of the Leister group, is serving OEM customers with micro-optical components used in telecom and industrial applications, and micro-technology based (MEMS) infrared light sources, laser gas sensors, mass flow sensors and controllers.

Axetris supports its customers in many industries with in-depth application know-how. Our engineering and manufacturing teams combine broad experience in simulation, design, manufacturing and metrology from microchip level to advanced electronic and electro-optic modules.

Customers benefit from excellent product value, consistent high product quality and outstanding customer support. OEMs rely on Axetris as a competent partner for a wide range of high-quality off-the shelf products as well as customer specific solutions from concept to volume production. Axetris is ISO 9001 certified and ISO TS 16949 compliant and operates its own 6" to 8" wafer MEMS foundry in Central Switzerland for its own products and external customers.



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Swiss Made Quality. Axetris is an ISO 9001 certified enterprise.