

We couple your light — for communication on client and line side

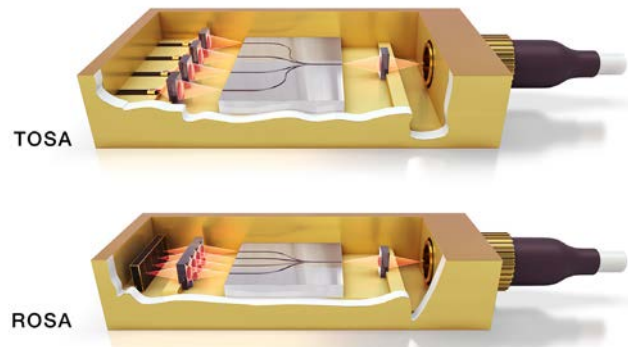
Micro-lenses in data- and telecom applications

In the telecommunications industry, aspherical and spherical microlenses and lens arrays are used in high speed components. Axetris offers micro-lenses and lens arrays for client and line side such as WSS, Coherent - ICRs, ACOs, Modulators, μ ITLAs, FTTx, PON and Silicon Photonics (SIP) and PICs as well as TOSAs & ROSAs for 100G/400G/1T. These components and modules are requiring very high coupling efficiency to convert signals in the fibre optic transceiver.

Axetris manufactures high quality micro-lenses and lens arrays as well as diffractive optical elements, both in silicon and fused silica.

Micro-Optics are used in a variety of telecom applications:

- Fiber coupling array
- Laser diode collimation
- MUX DEMUX
- Optical communication OXC
- ROADM



Your Application

Application	Switching	Telecom	Datacom			Others
Reach	-	$\geq 500k$	$\geq 10km$	$\geq 2km$	Wireless	-
Fiber	-	Single mode				-
Form factors	-	All form factors (e.g., CFP, QSFP, QSFP28)				-
Component keywords	WSS	ICR / ICT	Multiplexing (CWDM)		5G	FTTx
	ROADM	ACO / DCO	Parallel single mode (PSM)			PON
	N by N matrix switch	ACR	TOSA			TO-CAN
		Modulator	ROSA			Connectors
		μ ITLA / nanoITLA	100G / 400G			

Our Solutions

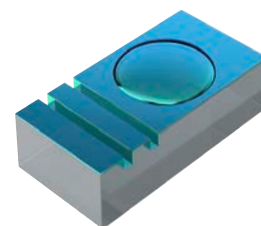
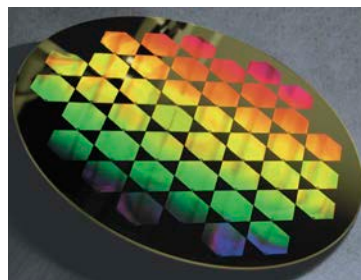
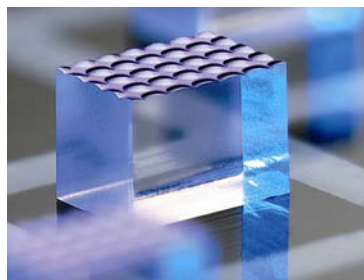
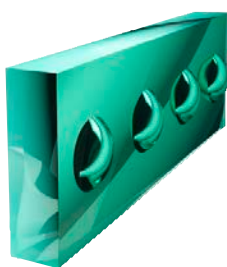
- ✓ Single lenses and lens arrays
- ✓ Aspherical or spherical profiles
- ✓ Silicon and Fused Silica materials
- ✓ Optimized custom designs

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

	Parameter ranges		
	Lens diameter (µm)	ROC (µm)	Conic (k)
TOSA	250–900	200–1000	customized
Rosa (1x4)	250–1000	1000–4000	customized



About Axetris AG

Axetris serves OEM customers worldwide with micro technology based (MEMS) infrared light sources, laser gas sensors, gas flow sensors & controllers and micro-optical components used in industrial, telecom, environmental, medical and automotive applications.

Our multi-disciplinary and highly skilled engineering and manufacturing teams combine broad experience in design, manufacturing and metrology *from* MEMS components to advanced optical and electronic sensor modules. Axetris supports its customers with in-depth application know-how from concept to volume production. Customers benefit from excellent product value, consistent high product quality and outstanding customer support. Axetris is ISO 9001:2015 certified and operates its own 6-inch to 8-inch wafer MEMS foundry for its own products and contract manufacturing for external customers. A wafer back end, a sensor assembly and calibration facility under clean room conditions completes the manufacturing infrastructure of Axetris.



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