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SUSS MICROOPTICS SA

Hauterive, 2020

Dr. Reinhard Völkel, CEO

SUSS MICROOPTICS – WE SET THE STANDARDS

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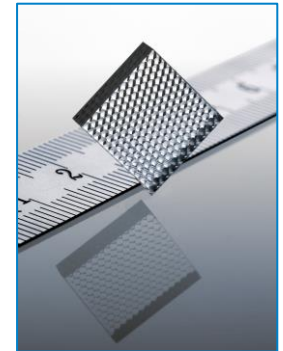
- + World leading supplier of high-quality Micro-Optics
- + More than 180 active customers worldwide
- + CAGR 30% for last 5 years
- + We are part of **SUSS MicroTec** group



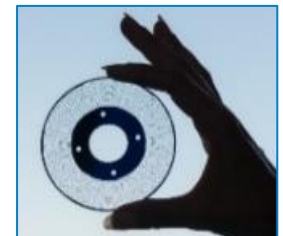
8" Wafer Cleanroom Fab

20 Years
of Micro-Optics FAB Experience

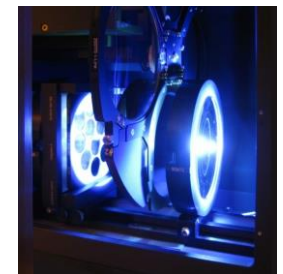
IATF 16949
Automotive Qualified



Microlens Array



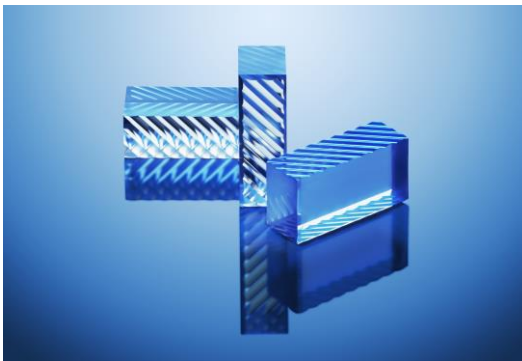
Nipkow Disk



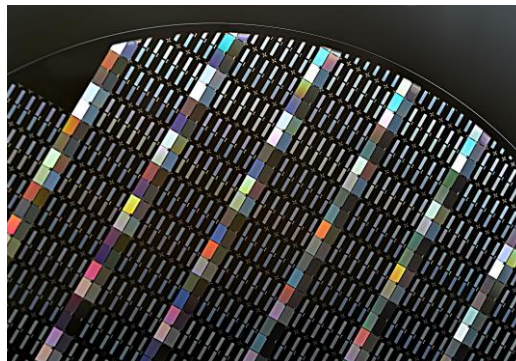
MO Exposure Optics

- + Microlenses or **Refractive Optical Elements (ROE)**: small lenses with lens diameters typically below 2 millimeters
- + **Diffractive Optical Elements (DOE)**: complex pattern of micro- and nano-scale structures to transform light in a predetermined way
- + **Hybrid Micro-Optics**: combination of **refractive (ROE)**, **diffractive optical elements (DOE)** and/or other microstructures, like e.g. pinhole arrays, posts, marks, ..., integrated on one- or both sides of a planar substrate or wafer.

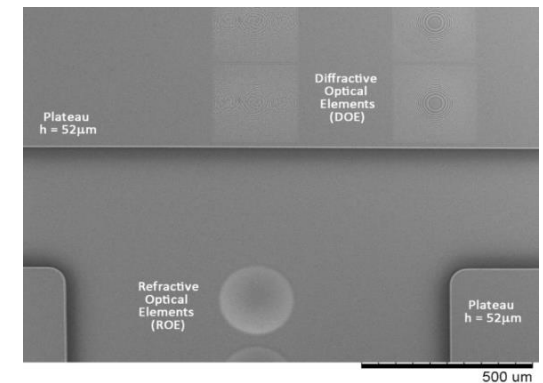
Refractive Microlens Arrays



Diffractive Optical Elements

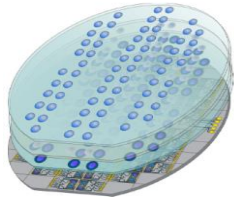


Hybrid Micro-Optics

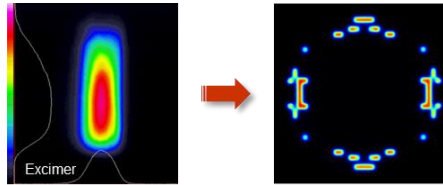


APPLICATIONS & MARKETS FOR PLANAR MICRO-OPTICS

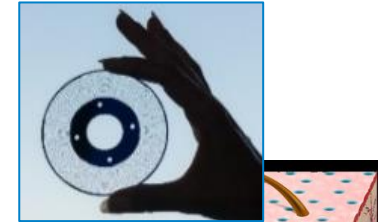
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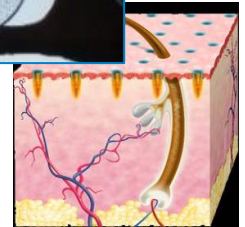
Wafer-Level Optics (WLO)



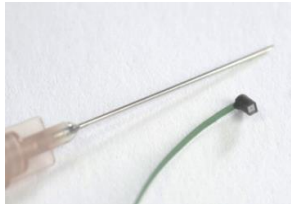
Laser Beam Shaping



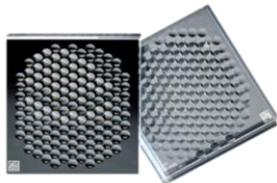
Microscopes



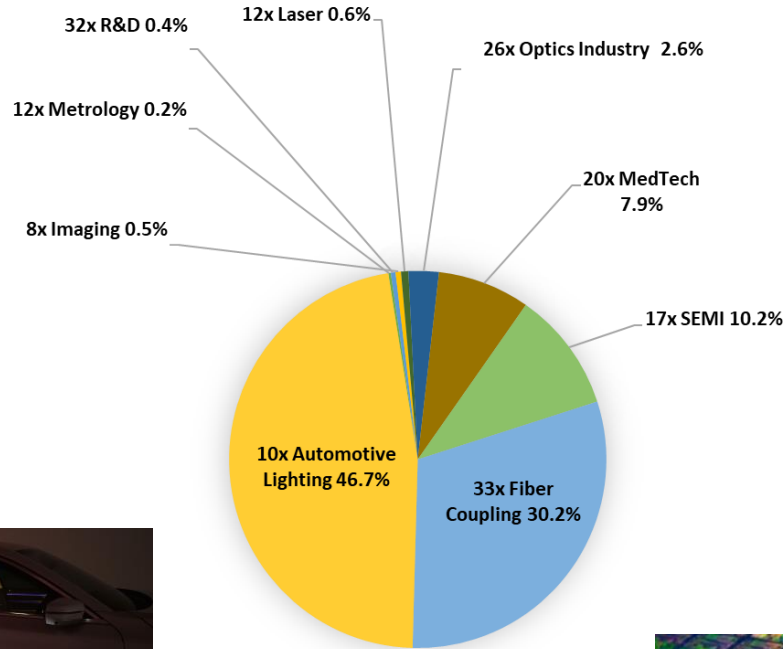
Skin Treatment



NanEye - disposable Endoscope



BMW Welcome Light Carpet



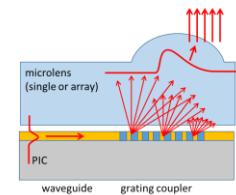
No of Customers, Market, % of Revenue



ASML Twinscan NXT 1970 Ci



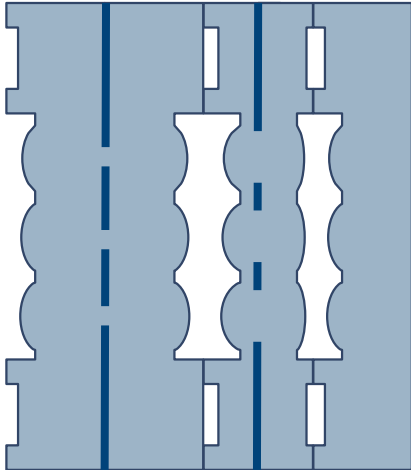
Fiber Coupler for Telecom/Datacom



MICRO-OPTICS FOR AUTOMOTIVE LIGHTING

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- + Light Carpets
- + Front Lights
 - LED Matrix
 - Laser Light
- + Interior
- + Back Lights

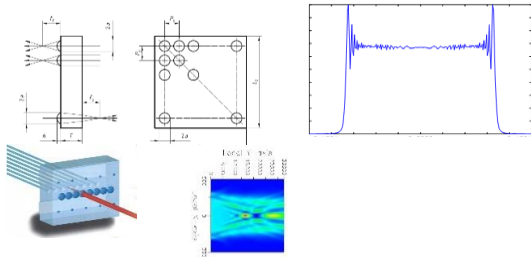


IMPRINT EXCELLENCE CENTER AT SMO

"You can't supply top-notch production equipment without have a production line in place"



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**Optical Design, System Design,
Micro-Optics Simulation**



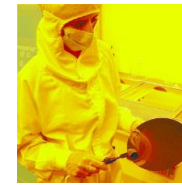
**Fully equipped metrology lab for inspection
and sorting of micro-optical components.
(ISO 9001, IATF 16949, SixSigma)**

**Optical
System
Design**

**Metrology,
Wafer-Level
Packaging,
Inspection**

**8" (6") Wafer
Fab**

**8" & 12"
Process
Development
Demos**



**Production Line high-quality
refractive & diffractive micro-optics
(Fused Silica, Silicon)**



**Production Line for Microlens Imprint (Polymer),
Wafer-Level Packaging, Dicing
Excellence Center for SUSS Customers**

Thank you!

