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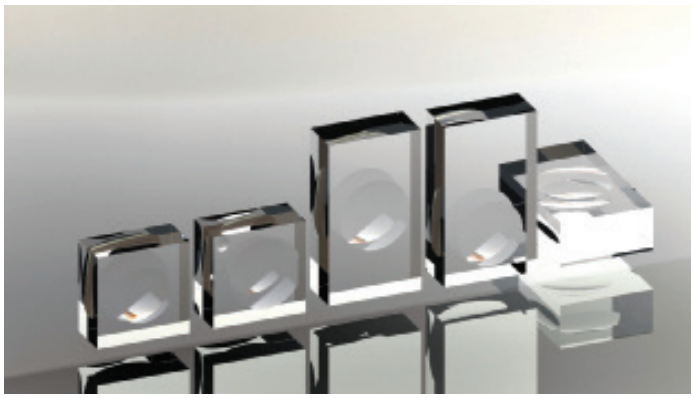
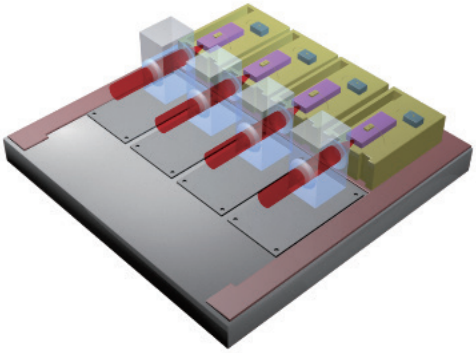


Micro square lenses



Using MPNICS's unique micro molding method, we offer new customized design in shortest lead-time at lowest cost. We offer short turnaround (in a matter of weeks) for new designs and prototypes while keeping development costs among the lowest in the industry.

Specification

- Lens configuration : Aspheric glass lens
- Material : Optical glass (RoHS compliant)
- Coupling Efficiency : -1.0dB over
- Transmission : 99.5% over
- Manufacturing height : 0.4mm over
- Manufacturing tolerance : H±10㎛, CA±5㎛
- Operating temperature : -40°C to 85°C
- Temperature and humidity resistance : +85°C at 85%RH
- Design services for customer's specification

Industries & Applications

- Optical communication Industries
  - · Optical transceiver of CWDM, LAN-WDM
  - · MUX/Demux using AWG
  - · MUX/Demux using Z-block
  - · Silicon-photonics TOSA, ROSA
  - · Tunable optical module
  - · Optical connector
- Laser Industries
  - · High power laser source OSA
  - · White laser source OSA
  - · Beam shaping optical module OSA
- Autonomous car Industries
  - · ADAS(Advanced Driver Assistance System) sensor optics
  - · LIDAR(Light Detection and Ranging) projection optics
  - · Night vision camera
  - · HUD(Head Up Display) projection optics, optical module
- IOT(Internet of Things) Industries
  - · Optical sensor module
  - · Chemical & Environment sensor module
  - · Temperature, Humidity, Weather sensor module
  - · Vision, Image, Identification sensor module
  - · AR glasses optics
  - · VR HUD optics

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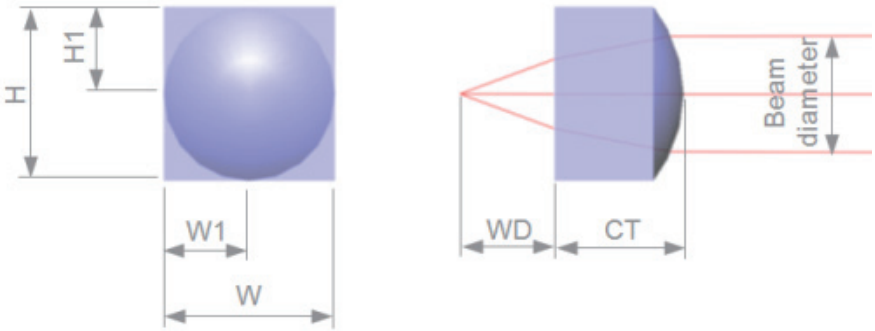
Micro square lenses

Collimator type



Standard Product List

Part number	Type	WL(λnm)	EFL(mm)	WD(mm)	NA	BD(mm)	Dimension W×H×CT (mm)
SGCD-0001-01	Collimator	1,550	0.500	0.160	0.500	0.500	1.0 × 1.0 × T0.7
SGCD-0001-00	Collimator	1,550	0.500	0.160	0.500	0.500	1.0 × 0.7 × T0.7
SGCD-0001-02	Collimator	1,550	0.500	0.160	0.500	0.000	1.0 × 0.6 × T0.7
SGCD-0002-00	Collimator	1,550	0.862	0.300	0.450	0.780	1.0 × 1.0 × T1.0
SGCD-0003-00	Collimator	1,550	2.060	1.500	0.170	0.700	1.0 × 1.0 × T1.0
SGCD-0004-00	Collimator	1,550	0.666	0.200	0.600	0.800	1.0 × 1.0 × T0.83
SGCD-0005-00	Collimator	1,550	2.857	2.380	0.206	1.180	1.6 × 1.6 × T0.85
SGCD-0006-00	Collimator	1,550	2.500	2.300	0.200	1.000	2.0 × 2.0 × T0.95
SGCD-0007-00	Collimator	1,550	0.700	0.280	0.500	0.700	1.5 × 2.47 × T0.84
SGCD-0008-00	Collimator	1,550	1.000	0.380	0.500	1.000	1.5 × 2.47 × T1.25
SGCD-0009-00	Collimator	1,550	0.500	0.160	0.600	0.600	1.0 × 1.0 × T0.82
SGCD-0009-01	Collimator	1,550	0.500	0.160	0.600	0.600	0.6 × 1.5 × T0.82
SGCD-0010-00	Collimator	1,310	0.400	0.180	0.430	0.340	0.6 × 1.0 × T0.6
SGCD-0011-01	Collimator	1,310	0.521	0.377	0.330	0.340	1.3 × 0.6 × T0.6
SGCD-0011-00	Collimator	1,310	0.521	0.377	0.330	0.340	0.6 × 1.0 × T0.6
SGCD-0012-00	Collimator	1,310	0.342	0.220	0.330	0.290	0.6 × 1.0 × T0.6
SGCD-0013-00	Collimator	1,550	1.450	1.150	0.300	0.870	1.3 × 1.4 × T0.535
SGCD-0013-01	Collimator	1,310	1.445	1.145	0.200	0.580	1.4 × 2.0 × T0.535
SGCD-0014-00	Collimator	1,550	5.000	4.812	0.140	1.400	1.5 × 1.997 × T0.335
SGCD-0014-01	Collimator	1,550	5.000	4.812	0.140	1.400	1.5 × 1.5 × T0.335
SGCD-0016-00	Collimator	1,550	2.370	0.000	0.150	0.570	2.3 × 2.3 × T0.92
SGCD-0017-00	Collimator	1,550	2.000	1.590	0.170	0.680	1.0 × 1.0 × T0.73
SGCD-0018-00	Collimator	1,310	0.461	0.150	0.650	0.600	1.0 × 1.0 × T0.73
SGCD-0019-01	Collimator	1,550	1.000	0.450	0.600	1.200	2.0 × 2.0 × T1.115
SGCD-0019-00	Collimator	1,550	1.000	0.450	0.600	1.200	2.0 × 2.0 × T1.115
SGCD-0022-00	Collimator	1,550	0.722	0.360	0.600	0.870	1.2 × 1.2 × T0.65
SGCD-0023-00	Collimator	1,310	0.469	0.397	0.426	0.400	0.62 × 1.5 × T0.6
SGCD-0024-00	Collimator	1,310	0.538	0.342	0.372	0.400	0.62 × 1.5 × T0.6
SGCD-0026-00	Collimator	1,310	2.000	1.620	0.120	0.480	0.6 × 1.0 × T0.67
SGCD-0027-00	Collimator	1,550	0.700	0.300	0.600	0.840	1.0 × 1.0 × T0.84
SGCD-0027-01	Collimator	1,550	0.700	0.290	0.357	0.500	1.0 × 0.6 × T0.84
SGCD-0029-00	Collimator	1,310	0.400	0.180	0.430	0.340	0.6 × 1.0 × T0.6
SGCD-0030-00	Collimator	1,550	1.530	1.334	0.219	0.670	1.5 × 1.5 × T0.35
SGCD-0033-00	Collimator	1,550	1.710	1.317	0.146	0.500	1.0 × 0.7 × T0.7

* WL=Wave Length, EFL=Effective Focal Length, NA=Numerical Aperture, L1=WD, BD=Beam Diameter
▶ Standard and custom designs to suit your systems.

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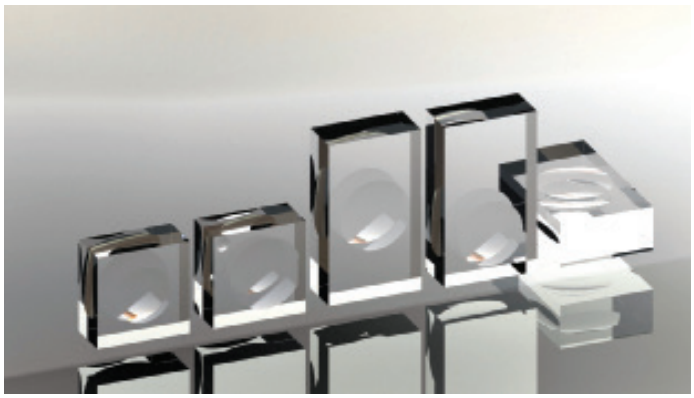
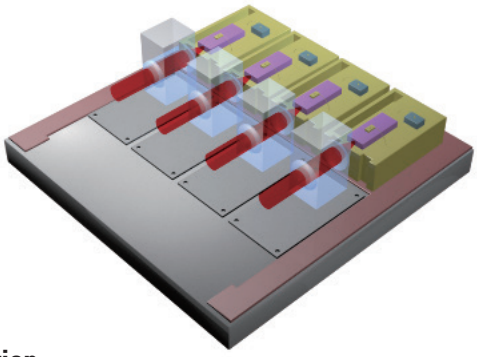


Micro square lenses



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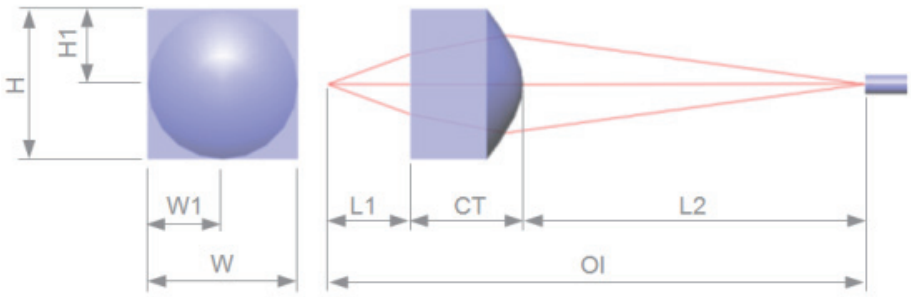
Micro square lenses

Coupling type



Standard Product List

Part number	Type	WL(λnm)	EFL(mm)	L1(mm)	L2(mm)	OI(mm)	M	NAO	NA	Dimension W×H×CT (mm)
SGFD-0001-00	Coupling	1550	0.510	0.368	1.532	2.700	2.658	0.480	0.180	1.0 × 1.0 × 0.8
SGFD-0003-01	Coupling	1310	1.029	2.800	1.250	5.050	2.100	0.146	0.307	1.2 × 1.2 × 1.0
SGFD-0005-00	Coupling	1310	0.425	0.300	1.000	2.000	1.970	0.375	0.190	0.6 × 1.0 × 0.7
SGFD-0006-00	Coupling	1530	0.743	1.800	0.870	3.470	0.776	0.087	0.112	1.0 × 3.0 × 0.8
SGFD-0007-00	Coupling	1310	0.438	0.250	2.280	3.250	5.000	0.500	0.100	0.6 × 1.0 × 0.72
SGFD-0008-00	Coupling	1550	0.527	0.250	2.920	3.970	5.000	0.500	0.100	3.0 × 2.0 × 1.5
SGFD-0009-00	Coupling	1300	0.621	0.273	1.227	0.000	2.161	0.650	0.370	0.6 × 1.12 × 1.10
SGFD-0013-00	Coupling	1310	0.524	0.368	1.532	2.700	2.300	0.480	0.208	1.2 × 1.0 × 0.76
SGFD-0015-00	Coupling	1550	0.158	0.124	1.000	1.624	7.500	0.620	0.083	0.8 × 0.6 × 0.5
SGFD-0016-00	Coupling	520	0.143	0.030	0.455	0.755	2.200	0.330	0.150	0.3 × 0.42 × 0.27
SGFD-0017-00	Coupling	1300	0.512	0.260	1.440	2.600	2.707	0.566	0.209	1.0 × 0.6 × 0.9

* WL=Wave Length, EFL=Effective Focal Length, L1=WD, OI=Object Image, M=Magnification, NAO=Numerical Aperture Object, NA=Numerical Aperture
▶ Standard and custom designs to suit your systems.