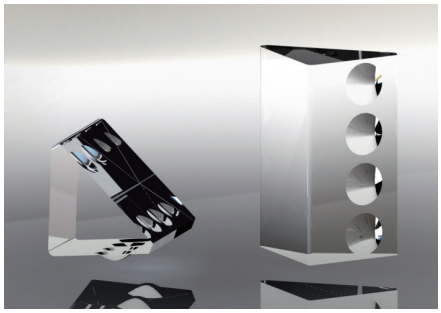
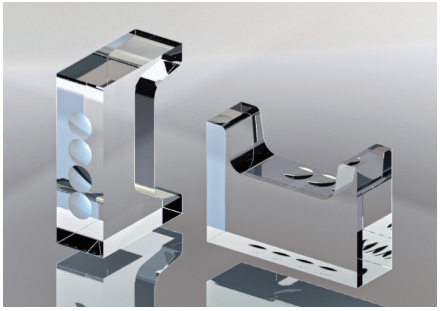
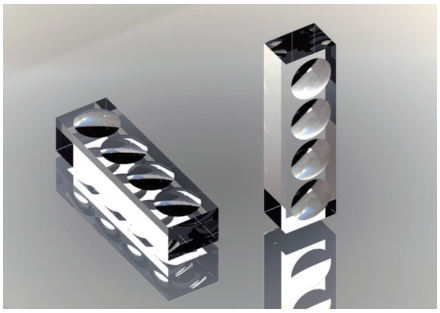
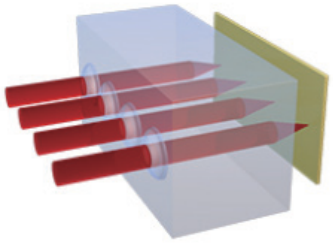
MPNICS







# Micro lens array



Micro lens array is manufactured by the process of high temperature and high-pressure optimal molding or new micro method using optical glass and it is manufactured by MPNICS's optimaized manufacturing technology and clean room environment.

## Specification

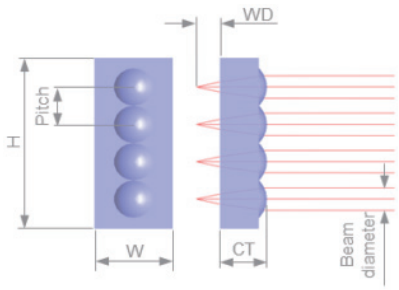
- Configuration : Aspherical glass lens
- Material : Optical glass(RoHS compliant)
- Coupling efficiency : –1.5dB under
- Transmittance : 99.5% over
- Lens channels : up to 16 channels
- Lens pitch : 0.25mm over
- Tolerance : Size @±10㎛, pitch @±1㎛
- Operating temperature : -40°C ~ 85°C
- Reliability specification : +85°C at 85%RH
- Design services for customer's specification

## Industries & Applications

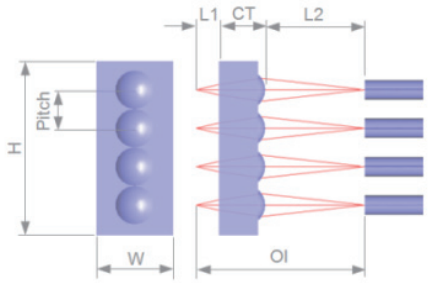
- Optical communication Industries
  - · Optical transceiver of CWDM, LAN-WDM
  - · MUX/Demux using AWG
  - · MUX/Demux using Z-block
  - · Silicon-photonics TOSA, ROSA
  - · Tunable optical module
  - · Optical connector
- IOT(Internet of Things) Industries
  - · Optical sensor module
  - · Chemical & Environment sensor module
  - · Temperature, Humidity, Weather sensor module
  - · Vision, Image, Identification sensor module
  - · AR glasses optics
  - · VR HUD optics

# Micro lens array

## Collimator type




## Coupling type



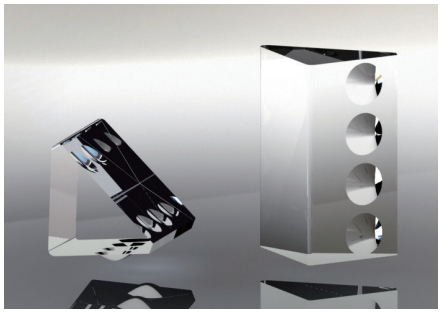

## Standard Product List

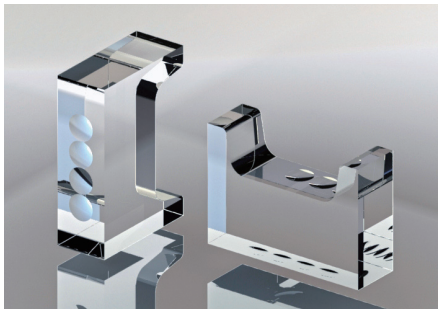
| Part number | Type | WL(λnm) | EFL(mm) | L1(mm) | L2(mm) | OI(mm) | M | NAO | NA | BD(mm) | P(mm) | NOL | Dimension W×H×CT (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGCD-0001-00 | Collimator | 1310 | 0.748 | 0.300 | | | | 0.467 | | 0.700 | 0.990 | 4 | 1.8 × 4.0 × 0.8 |
| AGCD-0003-00 | Collimator | 1300 | 0.314 | 0.000 | | | | 0.400 | | 0.250 | 1.000 | 4 | 4.0 × 1.5 × 0.5 |
| AGCD-0005-00 | Collimator | 1550 | 0.500 | 0.160 | | | | 0.600 | | 0.600 | 1.100 | 3 | 3.2 × 1.0 × 0.82 |
| AGCD-0007-00 | Collimator | 1310 | 0.588 | 0.284 | | | | 0.213 | | 0.250 | 0.500 | 4 | 3.0 × 1.0 × 0.55 |
| AGCD-0012-00 | Collimator | 1310 | 1.700 | 1.300 | | | | 0.177 | | 0.600 | 0.750 | 4 | 3.05 × 1.44 × 0.71 |
| AGFD-0001-00 | Coupling | 1310 | 0.226 | 0.270 | 1.133 | 1.853 | 5.130 | 0.332 | 0.065 | | 0.250 | 4 | 1.75 × 1.0 × 0.45 |
| AGFD-0002-00 | Coupling | 1550 | 0.365 | 0.250 | 0.950 | 1.810 | 1.603 | 0.140 | 0.087 | | 0.250 | 4 | 4.0 × 1.0 × 0.61 |
| AGFD-0003-00 | Coupling | 1310 | 0.290 | 0.000 | 1.112 | 1.797 | 1.753 | 0.150 | 0.085 | | 0.250 | 4 | 1.5 × 0.75 × 0.685 |
| AGFD-0005-00 | Coupling | 1310 | 0.533 | 0.300 | 1.500 | 2.700 | 2.485 | 0.383 | 0.154 | | 0.750 | 4 | 3.5 × 1.5 × 0.9 |
| AGFD-0006-00 | Coupling | 850 | 1.497 | 0.150 | 0.600 | 1.200 | 2.485 | 0.174 | 0.116 | | 0.750 | 4 | 1.22 × 1.16 × 0.45 |
| AGFD-0007-00 | Coupling | 850 | 1.497 | 0.150 | 0.600 | 1.200 | 2.485 | 0.174 | 0.116 | | 0.750 | 4 | 2.1 × 1.16 × 0.45 |
| AGFD-0009-00 | Coupling | 1550 | 0.326 | 0.115 | 0.850 | 1.565 | 3.313 | 0.500 | 0.151 | | 0.250 | 20 | 5.75 × 1.0 × 0.6 |

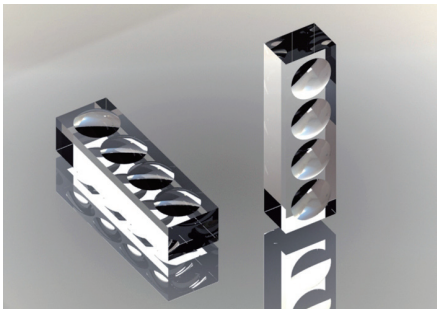
* WL=Wave Length, EFL=Effective Focal Length, L1=WD, OI=Object Image, M=Magnification, NAO=Numerical Aperture Object, NA=Numerical Aperture

▶ Standard and custom designs to suit your systems.

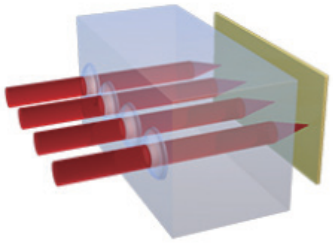
MPNICS







# Micro lens array



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# Micro lens array

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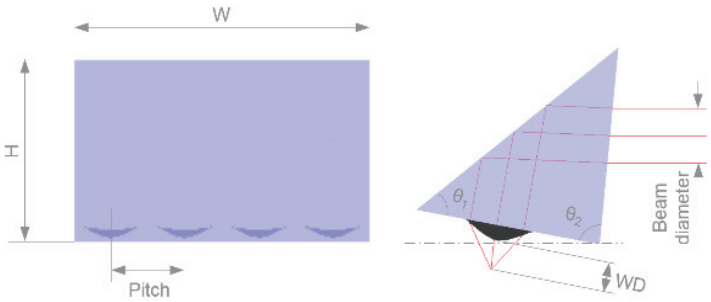


## Standard Product List

| Part number | Type | WL(λnm) | EFL(mm) | L1(mm) | NA | BD(mm) | P(mm) | NOL | Dimension W×H×CT (mm) |
|---|---|---|---|---|---|---|---|---|---|
| PGCD-0001-00 | Collimator | 1550 | 1.154 | 0.400 | 0.267 | 0.640 | | | 1.500 × 1.000 × 1.000 |
| PGCD-0002-00 | Collimator | 1310 | 0.504 | 0.500 | 0.382 | 0.510 | 0.750 | 4 | 4.250 × 1.425 × 1.818 |
| PGCD-0003-00 | Collimator | 1310 | 0.918 | 0.349 | 0.262 | 0.600 | 0.750 | 4 | 4.250 × 1.000 × 1.000 |

* WL=Wave Length, EFL=Effective Focal Length, L1=WD, NA=Numerical Aperture, BD=Beam Diameter, P=Pitch, NOL=Number of Lens

▶ Standard and custom designs to suit your systems.