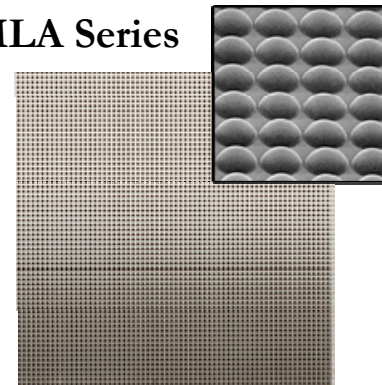


Microlens Arrays

MLA Series



Description

Thorlabs Microlens Arrays are best suited for Shack-Hartmann sensor applications. Both lenslets are made from fused silica for excellent transmission characteristics from the deep UV to IR and have a plano-convex shape that allows nearly refraction limited spots.

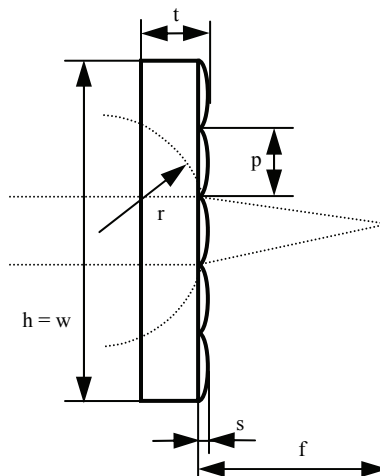
The lenses are formed using photolithographic techniques based on semiconductor processing technology, which allows for excellent uniformity in the shape and position of each microlens, unlike some microlens arrays produced from molded epoxy.

The MLA150-5C has a chrome mask that blocks light from being transmitted unless it goes through a microlens and therefore increases image contrast. The MLA150-7AR and MLA300-14AR have a broadband AR coating to reduce surface reflections in the 400-900nm spectral region to below 1%.

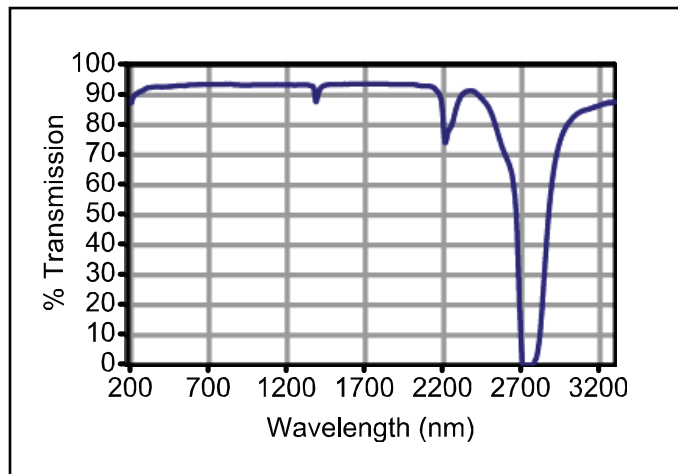
Specifications

Parameters	MLA150-5C	MLA150-7AR	MLA300-14AR
Substrate Material	Fused Silica (Quartz)		
Wavelength Range	From DUV to IR		
Array Size and Type	10 x 10 mm, Square Grid		
Lens Type	Round, Refractive, Plano-Convex		Square, Refractive, Plano-Convex
Lens Pitch / Diameter	150 μm / 146 μm		300 μm square
Focal Length	5.2 mm	6.7 mm	18.6 mm
AR-Coating	no	Yes, Reflectivity < 1% Within 400 ... 900 nm	
Chrome Apertures	Yes, Around Microlenses	no	
Geometric Parameters			
h, w	10 mm	10 mm	10 mm
t	1.24 mm	1.19 mm	1.20 mm
p	150 μm	150 μm	300 μm
s	1.12 μm	0.87 μm	1.31 μm
r	2.380 mm	3.063 mm	8.6 mm
f	5.2 mm	6.7 mm	18.6 mm

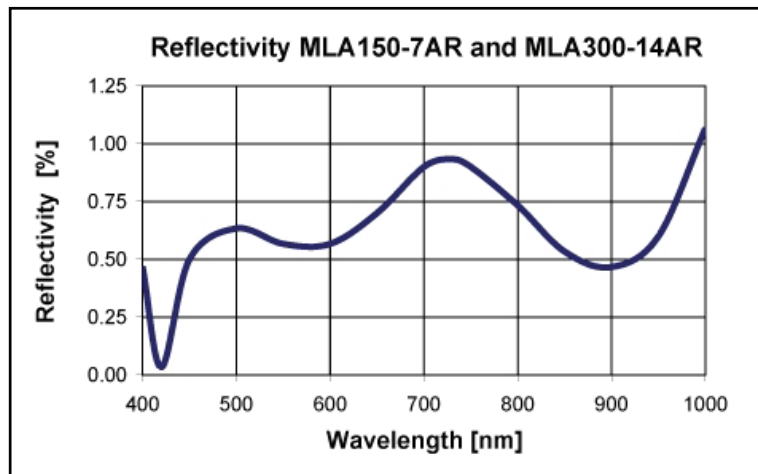
Drawings



Wavelength Characteristics

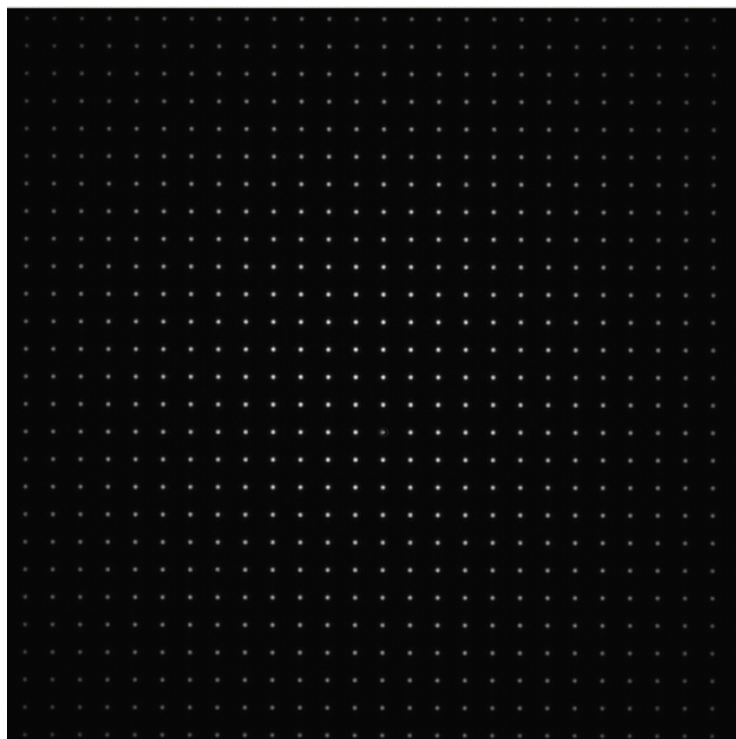


Typ. Transmission of Fused Silica Material



Reflectivity including AR - Coating

Spotfield derived with the MLA150-5C Microlens Array



WEEE

As required by the WEEE (Waste Electrical and Electronic Equipment Directive) of the European Community and the corresponding national laws, Thorlabs offers all end users in the EC the possibility to return "end of life" units without incurring disposal charges.

This offer is valid for Thorlabs electrical and electronic equipment

- sold after August 13th 2005
- marked correspondingly with the crossed out "wheelie bin" logo (see fig. 1)
- sold to a company or institute within the EC
- currently owned by a company or institute within the EC
- still complete, not disassembled and not contaminated

As the WEEE directive applies to self contained operational electrical and electronic products, this "end of life" take back service does not refer to other Thorlabs products, such as

- pure OEM products, that means assemblies to be built into a unit by the user (e. g. OEM laser driver cards)
- components
- mechanics and optics
- left over parts of units disassembled by the user (PCB's, housings etc.).

If you wish to return a Thorlabs unit for waste recovery, please contact Thorlabs or your nearest dealer for further information.

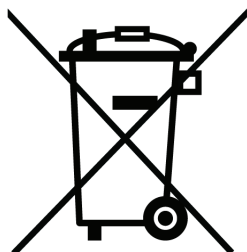
Waste Treatment on Your Own Responsibility

If you do not return an "end of life" unit to Thorlabs, you must hand it to a company specialized in waste recovery. Do not dispose of the unit in a litter bin or at a public waste disposal site.

Ecological Background

It is well known that WEEE pollutes the environment by releasing toxic products during decomposition. The aim of the European RoHS directive is to reduce the content of toxic substances in electronic products in the future.

The intent of the WEEE directive is to enforce the recycling of WEEE. A controlled recycling of end of live products will thereby avoid negative impacts on the environment.



Crossed out "wheelie bin" symbol

USA, Canada, & S. America
Thorlabs, Inc.
56 Sparta Ave
Newton, NJ 07860, USA
Tel: 973-300-3000
Fax: 973-300-3600
www.thorlabs.com
email: sales@thorlabs.com

Europe
Thorlabs GmbH
Hans-Böckler-Str. 6
85221 Dachau, Germany
Tel: +49-(0)8131-5956-0
Fax: +49-(0)8131-5956-99
www.thorlabs.com
email: Europe@thorlabs.com

UK and Ireland
Thorlabs LTD.
1 Saint Thomas Place, Ely
Cambridgeshire CB7 4EX, GB
Tel: +44 (0)1353-654440
Fax: +44 (0)1353-654444
www.thorlabs.com
email: sales.uk@thorlabs.com

Scandinavia
Thorlabs Sweden AB
Bergfotsgatan 7
431 35 Mölndal, Sweden
Tel: +46-31-733-30-00
Fax: +46-31-703-40-45
www.thorlabs.com
email: scandinavia@thorlabs.com

Japan and Asia
Thorlabs Japan, Inc.
3-6-3 Kitamachi
Nerima-ku, Tokyo 179-0081, Japan
Tel: +81-3-6915-7701
Fax: +81-3-6915-7716
www.thorlabs.co.jp
Email: sales@thorlabs.jp

