

HIROX
<http://www.hirox.com>

LENS CATALOGUE C961

HIROX
<http://www.hirox.com>



Hirox Co., Ltd. <http://www.hirox.com>
 2-15-17 Koenji Minami, Suginami-ku, Tokyo 166-0003, Japan
 Tel: (+81) 3-3311-9911 Fax: (+81) 3-3311-7722 E-mail: tokyo2@hirox.com

Hirox USA Inc. <http://www.hirox-usa.com>
 1060 Main Street, River Edge, NJ 07661
 Tel: (201) 342-2600 Fax: (201) 342-7322
 Toll-Free: (866) HIROX-US E-mail: info@hirox-usa.com

Hirox China Co., Ltd. <http://www.hirox.com.cn>
 Room 809, 8th Floor, Fortune International Plaza,
 No. 43 Guo-Quan Road, Shanghai 200433, China.
 Tel: +86-21-6564-7772 Fax: +86-21-3362-5017 E-mail: info@hirox.com.cn

Hirox Korea Co., Ltd. <http://www.hiroxkorea.com>
 #719 Metrokhan Bldg, 1115 Bisan-dong, Dongan-ku, Anyang-city,
 Gyeonggi-do, 431-058, Korea
 Tel: +82-31-385-1130 Fax: +82-31-385-9730 E-mail: bgkim@hiroxkorea.com

Hirox Asia Ltd. <http://www.hirox-asia.com>
 Suite 1213, 12/F, Ocean Centre, 5 Canton Road, Tsimshatsui, Kowloon, Hong Kong
 Tel: +852 8198-9679 Fax: +852 3015-7657 E-mail: info@hirox-asia.com

Hirox Europe <http://www.hirox-europe.com>
 Jyfel, 8 Place Bellecour 69002 Lyon, France
 Tel: +33 970 44 59 50 Fax: +33 4 26 23 66 77 E-mail: info@hirox-europe.com

Contact

The products in this catalog may be changed at any time, without notice.

PHPO-0907-C961

HIROX LENS COLLECTION

A Guide to New Discoveries

In order to see things as they are, the first and most important element is the lens. As a lens maker since several generations, HIROX has always been a leader in optical innovation.

Constantly improving the original HIROX lenses, we make sure to deliver the highest quality while keeping the same mounting system to insure a lifelong use and compatibility.

We are proud to have invented some of the most revolutionary optical design, such as the patented 3D Rotary Head or the Variable Light Angle Adapter: the diversity of our unique lenses illustrates HIROX's responses to the highest expectations for countless applications.

HIROX will continue to focus on developing high quality optics that can only be produced by a true lens maker.



SYSTEM CONFIGURATION

SYSTEM CONFIGURATION P04

ADAPTER EFFECT

ADAPTER EFFECT P06

MX-MOUNT LENS

MX MOUNT LENS P08

MX-2016Z	Low-magnification Zoom Lens [20~160x]	P09
MX-5040RZ	Zoom Lens [50~400x]	P10
MX-5040SZ	Zoom Lens [50~400x]	P11
MX-10C	Co-axial 10x Zoom Lens [10x]	P12
MX-MACROZ IV	Macro Lens [0~50x]	P13
MX-MACROZ VI	Macro Zoom Lens [0~50x]	P13
MX-BGAZII	BGA Lens [100~180x]	P14
MX-STZ	Straw-scope Lens [φ 2.8~5.8mm L125~275mm]	P15
MX-180DIL	Differential interference Lens [180~330x]	P15
MT-C16	Macro Lens [0~20x]	P16



ACS Function

ACS Function (Auto Calibration Select) P17

MXG-2016Z	Low-magnification Zoom Lens with ACS Function [20~160x]	P18
MXG-5040RZ	Zoom Lens with ACS Function [50~400x]	P19
MXG-5040SZ	Zoom Lens with ACS Function [50~400x]	P20
MXG-10C	Co-axial 10x Zoom Lens with ACS Function [10x]	P21
MXG-MACROZ VI	Macro Zoom Lens with ACS Function [0~50x]	P22

CX-MOUNT LENS

CX Mount Lens P23

CX-5040RZ	Zoom Lens [50~400x]	P24
CX-5040SZ	Zoom Lens [50~400x]	P25
CX-10C	Co-axial 10x Zoom Lens [10x]	P26
CX-MACROZ VI	Macro Zoom Lens [0~50x]	P27

STAND & STAGE/UNIT

Stand/Stage/Unit P28

MAIN UNIT

Main Unit P31

PAT Patent No. 3113375, Patent No. 3119455, Patent No. 2512300, Patent No. 2512299, Patent No. 1750384

※The color may slightly differ from the actual products.

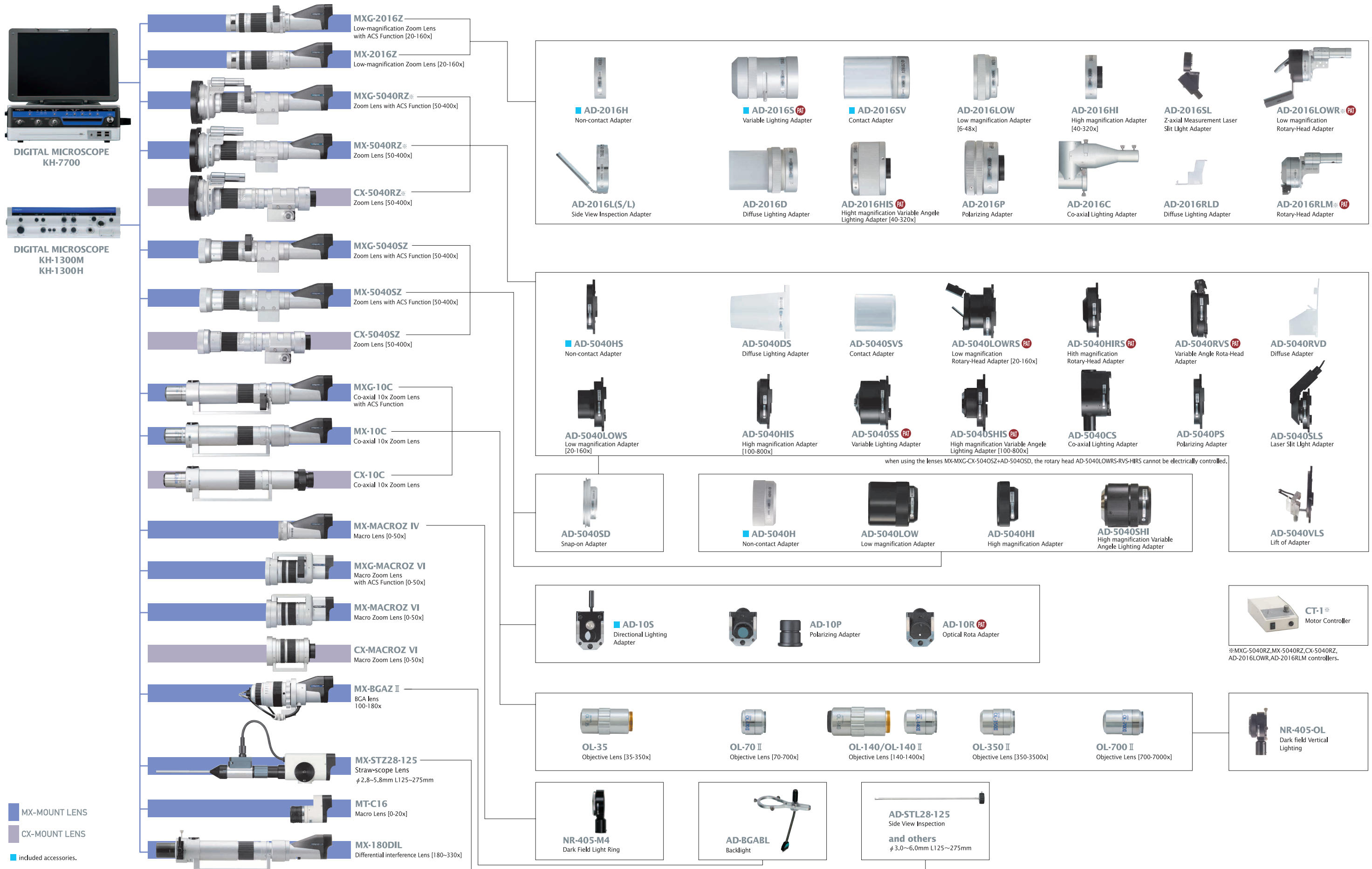
[Environment Protection Measures in Compliance with RoHS Directive]

Since October 2006, all the HIROX products are complying with the RoHS directive, regulating harmful substances that are feared to damage the environment and human bodies. Based on our principles and policies, we do our best to protect the environment.

■Basic Principle: HIROX recognizes that protecting the environment is the most important task of human beings across the globe and intends to give its full efforts to reduce environment burdens.
 ■Policy: HIROX promotes environment management activities in order to reduce the environment impact of digital microscope system manufacturing, sales and all related production and consumer activities as well as the impact of our future products and services so that we can coexist with the environment.

RoHS Directive: Formally called Restriction Of the use of certain Hazardous Substances in electrical and electronic equipment, the directive is implemented in the EU area. It regulates the amounts of Pb(lead), Cd(cadmium), Hg(mercury), hexavalent chrome, PBB(polybrominated biphenyls) and PBDE(polybrominated biphenyl ethers) used in electrical and electronic equipment.

SYSTEM CONFIGURATION

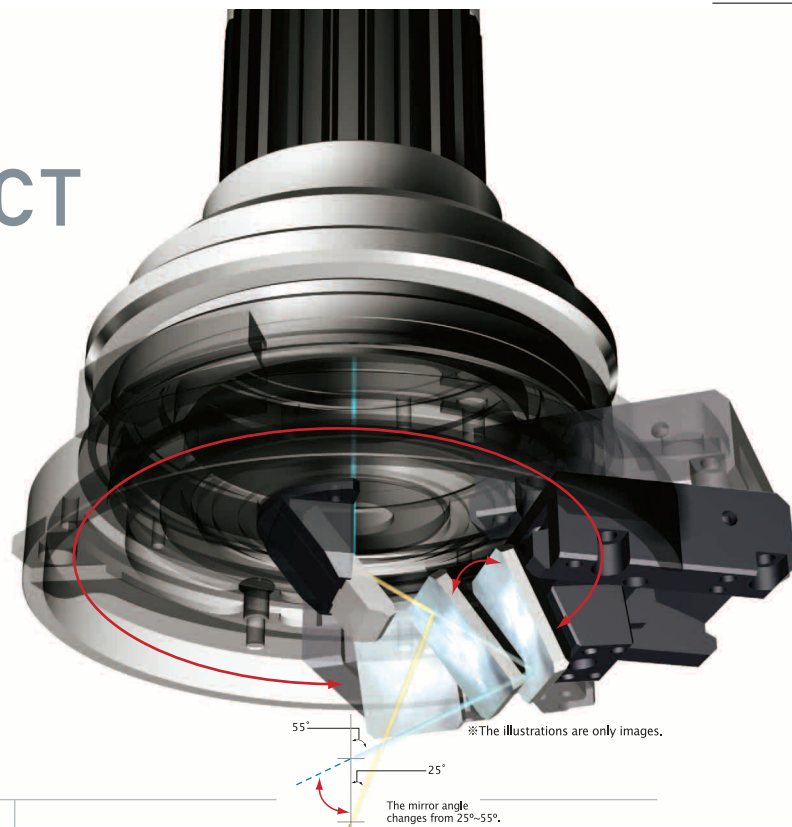


ADAPTER EFFECT

Adapter Effect

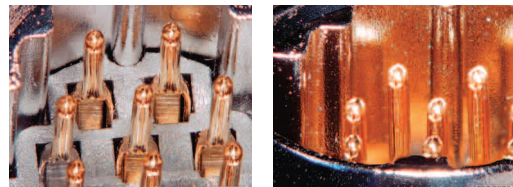
An Eye-Opening Experience

In order to respond to user's demands for more precision and details, we have created unique optical adaptors. By mounting these products, the capabilities of our lenses expand infinitely. Together, we make possible what's usually impossible.



Variable Angle Rotary-Head Adapter PAT

This adaptor enables observations of objects with a 360 degrees rotational inspection. The rotating prism also enables viewing angle adjustments in four stages (25-35-45-55 degrees) with no blind corners. This is an original HIROX design.



connector 50x
[angle: 25 degrees]

[angle: 55 degrees]

Rotary-Head Adapter PAT

This adaptor enables observations of objects with a 360 degrees rotational inspection, with a fixed 45 degrees viewing angle. Through the observation of moving images, it helps to understand shapes. This is an original HIROX design.



Legs soldering inspection of QFP substrates at 60x magnification.

Low magnification Adapter

This adaptor reduces the lens magnification while increasing the working distance enabling the inspection of bigger objects/area.

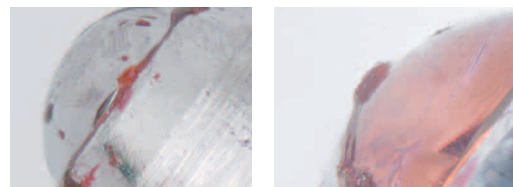


The tip of ball-pointed pen at 50x magnification.

4x

High magnification Adapter

This adaptor doubles the lens magnification, enabling the inspection of smaller objects/area.

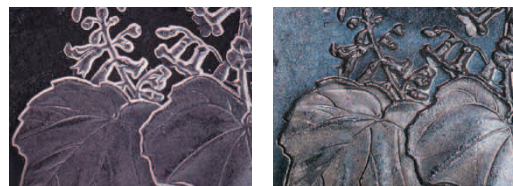


The tip of ball-pointed pen at 400x magnification.

800x

Variable Lighting Adapter PAT

This adaptor allows the illumination angles to change freely from epi-illumination to side illumination. It helps to find the optimal illumination angle for the best observation. This is an original HIROX design.

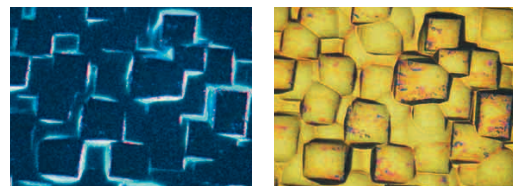


500yen Coin 30x
[Side Lighting(75 degrees)]

[Epi-Illumination (12 degrees)].

Co-axial Lighting Adapter

This adaptor allows observations under regular reflections (whereby light that is projected parallel to the optical axis of a lens are reflected vertically). It is designed for the observation of mirror-finished surfaces, ground surfaces and other surfaces that are flat and highly reflective.

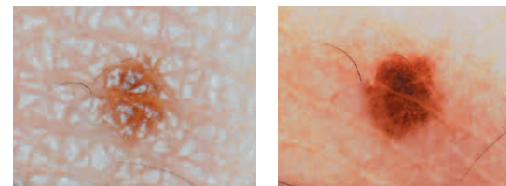


Surface of metal chip at 1700x magnification (side lighting).

Co-axial Lighting

Polarizing Adapter

This adaptor helps to reduce the reflection of the surface from the observed objects through polarizing filters. It is particularly effective for printed matters, substrates, coatings and other objects that are highly reflective.

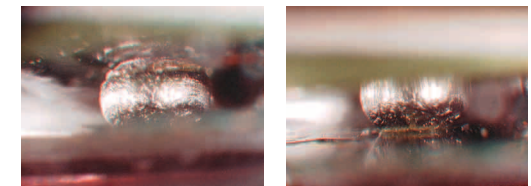


Pigmented skin spots at 50x magnification [Epi-Illumination]

[Polarizing filter Lighting]

Optical Rotary-Adapter PAT

This adaptor allows observation angles to change freely without moving the lens. By rotating the dial, observation angles change and allow observations that are 3-dimensional and full of data. This is an original HIROX design.

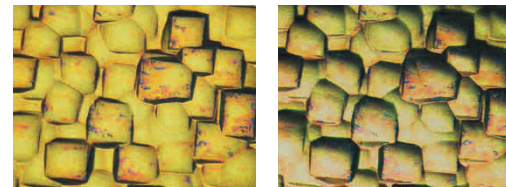


BGA 100x
[Points of contact for BGA upper parts]

[Points of contact for BGA lower parts]

Directional Lighting Adapter

This adaptor helps to highlight microscopic surface shapes that cannot be detected even under the same-axis epi-illumination. By fine-tuning the lever, it helps to accurately grasp fine edges.

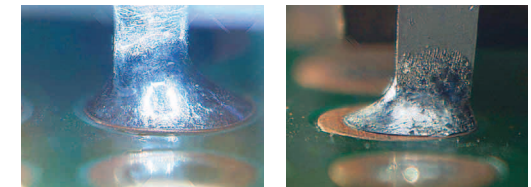


Surface of metal chips at 1700x magnification.

[Directional Lighting]

Lift off Adapter

This adaptor helps observations using near-horizontal viewing angle through the use of a mirror. It is optimal for observing the lift-off phenomenon in lead-free solders, the peel-off phenomenon, and other instances needing observations from the side.

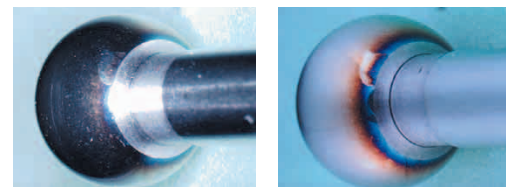


Lift-off phenomenon at 150x magnification.

Peel-off phenomenon at 150x magnification.

Diffuse Lighting Adapter

This adaptor diffuses the light in all directions and creates soft illumination. Thanks to the multi directional lighting, the light is evenly distributed on the objects, reducing strong reflections. It is suitable for observing metal surfaces for example.

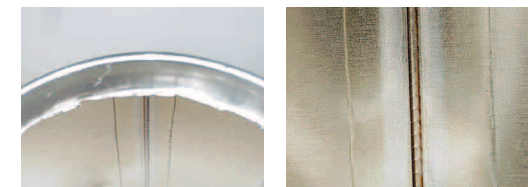


Ball joint at 40x magnification [Epi-Illumination].

[Diffuse lighting]

Side View Inspection

This adaptor allows observations of objects using a 90 degrees angle view with the use of a mirror. It helps inspecting narrow spots on the side of objects that are otherwise unreachable. It is suitable for the observation of cylinder inner walls for example.

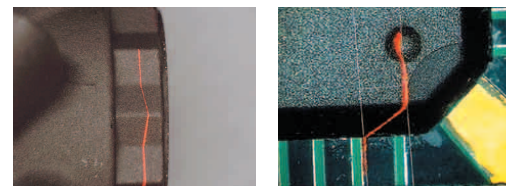


Inner side of a can at 5x magnification.

80x

Z-axial Measurement Laser Slit Light Adapter

This adaptor enables height measurement using laser illumination. It casts a superfine laser slit light with a 45 degrees angle. Measurements can thus be easily made.



Processed metal products at 100x magnification.

Electronic parts at 60x magnification.

Contact Adapter

This adaptor is designed to come in contact with objects for observations. It is suitable for big sized objects or for non destructive inspection.



Observation of painted surfaces.

Non-contact Adapter

This adaptor enables observations without touching the objects. It is suitable for living organisms and liquids for example.



MX-MOUNT LENS


MX-MOUNT LENS




Evolving to Grasp Things As They Are

"MX mount" is HIROX's originally designed optical lens mounting since over 20 years. It has been developed to integrate simultaneously a high quality video CCD and a high level illumination technology to get the best from the Hirox optics. This series is optimized for the Hirox Digital Video microscopes, allowing the user to benefit from decades of research resulting in the most comfortable and powerful observation environment.


Lighting Method —	Magnification 20~160x	Field of View 15.4~2.0mm(H)	Working Distance 44mm	Depth of Field 13.3~0.25mm	ACS —	Weight 322g
----------------------	--------------------------	--------------------------------	--------------------------	-------------------------------	----------	----------------




[Lens Holder]




HS-CH (V7)
Lens Holder



[Holder Mounted]



HS-CH (V4)
Lens Holder



[Holder Mounted]

By using a lens holder, the lens can be stably fixed onto the stand.

*The photo shows AD-2016H being mounted.


MX-2016Z





Low-magnification Zoom Lens [20-160x]

Standard Zoom Lens, Allowing Hand-Held Operations

This zoom lens features a compact body enabling hand-held operations and can be used for various purposes using the different available screw type adaptors. By using low or high magnification adaptors, the lens covers a magnification range from 6x up to 320x.


ADAPTER	 AD-2016H Non-contact Adapter [included]	 AD-2016S Variable Lighting Adapter [included]	 AD-2016SV Contact Adapter [included]	 AD-2016LOW Low-magnification Adapter [6-48x]	 AD-2016HI High-magnification Adapter [40-320x]
Lighting Method	Dark field vertical lighting	Variable Angle lighting	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	44mm	0mm	0mm	132mm	20mm
Weight	8g	49g	17g	29g	9g

ADAPTER	 AD-2016SL Z-Axial Measurement Laser Slit Light Adapter *1	 AD-2016LOWR Low-magnification Rotary-Head Adapter [6-48x]	 AD-2016L(S/L) Side View Inspection	 AD-2016D Diffuse Lighting Adapter	 AD-2016HIS High-magnification Variable Angle Lighting Adapter [40-320x]
Lighting Method	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting	Diffuse Lighting	Variable Angle Lighting
Working Distance	29.6mm	27mm	10.5~15.5mm	0~4mm	1mm
Weight	244g	288g	36g (S), 41g (L)	26g	53g

ADAPTER	 AD-2016P Polarizing Adapter	 AD-2016C Co-axial Lighting Adapter	 AD-2016RLM Rotary-Head Adapter	 AD-2016RLD Diffuse Lighting Adapter *2
Lighting Method	Polarizing filter lighting	Co-axial lighting	Dark field vertical lighting	Diffuse lighting
Working Distance	31mm	10.5mm	12mm	AD-2016RLM Working Distance-1mm
Weight	22g	253g	237g	2g

*1 AC adaptor included. *2 Adaptor is mounted on AD-2016RLM

OPTION



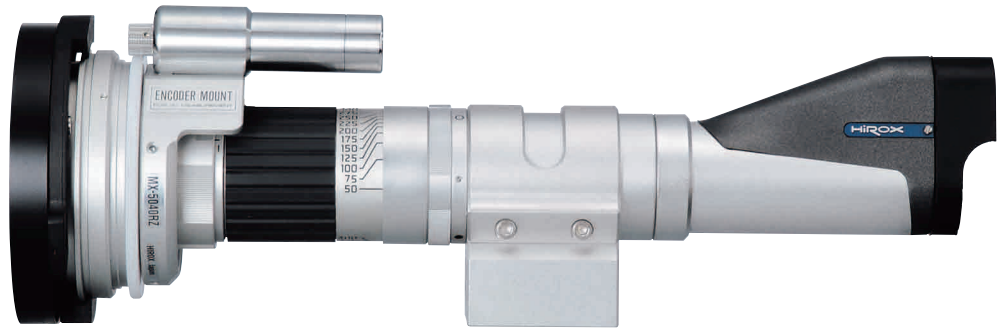
Rotational speed control
Rotational direction control

CT-1
Motor Controller

Weight 935g

*Controllers for AD-2016RLM, AD-2016 LOWR.
*include (AD-2016RLM, AD-2016 LOWR)

Lighting Method —	Magnification 50~400x	Field of View 6.1~0.78mm(H)	Working Distance 54mm	Depth of Field 2.7~0.08mm	ACS —	Weight 710g
----------------------	--------------------------	--------------------------------	--------------------------	------------------------------	----------	----------------








※The photo shows AD-5040H being mounted.



MX-5040RZ

Zoom Lens [50-400x]

All-Purpose Zoom Lens Equipped with Various Adaptors

This multi function zoom lens is equipped with many different optical adaptors. By mounting a rotary head, it enables 3-dimensional observations of images using a 360 degrees rotational view. To improve the operational efficiency, each optical adaptor uses a "snap-on" system and can be replaced in one-touch. This lens covers a magnification range from 20x up to 800x.

ADAPTER	 AD-5040HS Non-contact Adapter [included]	 AD-5040DS Diffuse Lighting Adapter ※1	 AD-5040SVS Contact Adapter ※1	 AD-5040LOWRS Low-magnification Rotary-Head Adapter [20-160x] PAT	 AD-5040HIRS High-magnification Rotary-Head Adapter [100-800x] PAT
Lighting Method	Dark field vertical lighting	Diffuse lighting	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	54mm	4mm	0~1.5mm	28.5mm	3.5mm
Weight	68g	36g	100g	266g	173g

ADAPTER	 AD-5040RVS Variable Angle Rota-Head Adapter PAT	 AD-5040RVD Diffuse Lighting Adapter ※2	 AD-5040LWS Low-magnification Adapter [20-160x]	 AD-5040HIS High-magnification Adapter [100-800x]	 AD-5040SS Variable Lighting Adapter PAT
Lighting Method	Dark field vertical lighting	Diffuse lighting	Dark field vertical lighting	Dark field vertical lighting	Variable Angle lighting
Working Distance	25mm (25°), 19mm (35°), 14mm (45°), 9mm (55°)	AD-5040RVS Working Distance -1mm	80mm	20mm	6~21mm
Weight	124g	2g	180g	108g	285g

ADAPTER	 AD-5040SHIS High-magnification Variable Angle Lighting Adapter [100-800x] PAT	 AD-5040CS Co-axial Lighting Adapter	 AD-5040PS Polarizing Adapter	 AD-5040SLS Z-Axial Measurement Laser Slit Light Adapter ※3	 AD-5040VLS Lift off Adapter
Lighting Method	Dark field vertical lighting	Co-axial lighting	Polarizing filter lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	6.4~1.6mm	21mm	54mm	23mm	3mm
Weight	176g	325g	87g	300g	100g

※1 The lens is mounted on AD-5040HS ※2 Mounting on AD-5040RVS ※3 AC adaptor included.

OPTION

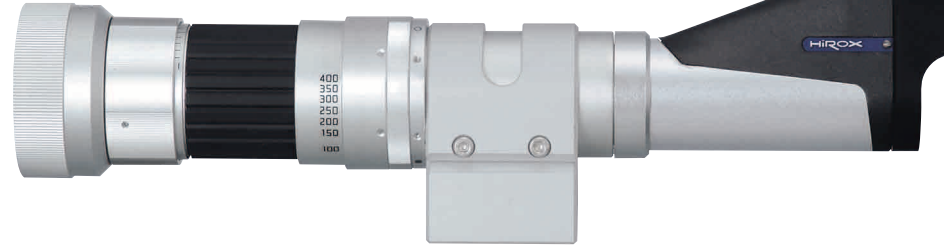


CT-1
Motor Controller

Rotational speed control
Rotational direction control
Weight 935g

※Controllers for AD-5040LOWRS, AD-5040HIRS, AD-5040RVS.
※include (MX-5040RZ)

Lighting method —	Magnification 50~400x	View 6.1~0.78mm(H)	Working Distance 63mm	Depth of Field 2.7~0.08mm	ACS —	Weight 525g
----------------------	--------------------------	-----------------------	--------------------------	------------------------------	----------	----------------



※The photo shows AD-5040H being mounted.


MX-5040SZ

Zoom Lens [50-400x]

Various Functions, Compact Body Come Together





This zoom lens has a compact design and allows hand-held operations. By mounting the snap-on switching adapter, it enables most of MX-5040RZ adaptors to be used (except for the motorized rotary head), responding to various inspection purposes. This lens covers a magnification range from 20x up to 800x.

ADAPTER	 AD-5040H Non-contact Adapter [included]	 AD-5040LOW Low-magnification Adapter [20-160x]	 AD-5040HI High-magnification Adapter [100-800x]	 AD-5040SHI High-magnification Variable Angle Lighting Adapter [100-800x] PAT
Lighting Method	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting	Variable lighting
Working Distance	63mm	80mm	29mm	6.4~1.6mm
Weight	32g	180g	100g	138g


ADAPTER	 AD-5040SD Snap-on adapter
Lighting Method	Depends on Snap-Type Adaptors
Working Distance	Depends on Snap-Type Adaptors
Weight	48g

※By attaching the snap-type switching adaptor, MX-5040RZ adaptors can be applied.

MX-5040RZ ADAPTER

							
			※Please refer to the MX-5040RZ pages for details of the adaptor.				

Lighting Method Co-axial lighting	Magnification ※Magnification, field of view, working distance and depth of field depend on the selected objective lens.	Field of View	Working Distance	Depth of Field	ACS —	Weight 655g
--------------------------------------	--	---------------	------------------	----------------	----------	----------------






※This photo shows OL-700 II being mounted.

MX-10C



Co-axial 10x Zoom Lens

Same-Axis, Epi-Illumination Allows High-Level Optical Observation

This highly scalable zoom lens is based on the same-axis epi-illumination and uses 6 replaceable objective lenses, covering magnification ranges from 35x up to 7000x. Our unique optical design allows the use of side-lighting adapters (rotary angle lighting, directional lighting adapter or polarizer) for the finest detailed observations.

ADAPTER			
	AD-10S Directional Lighting Adapter [Included]	AD-10P Polarizing Adapter	AD-10R Optical Rota Adapter
Weight	10g	11g	8g

LENS						
	OL-35	OL-70 II	OL-140	OL-140 II	OL-350 II	OL-700 II
Lighting Method	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting
Magnification	35~350x	70~700x	140~1400x	140~1400x	350~3500x	700~7000x
View	9.83~1.05mm (H)	4.42~0.47mm (H)	2.46~0.26mm (H)	2.21~0.23mm (H)	0.88~0.09mm (H)	0.44~0.04mm (H)
Working Distance	34mm	21mm	30.5mm	12mm	10.6mm	3.4mm
Depth of Field	0.92~0.1mm	0.44~0.024mm	0.114~0.012mm	0.09~0.0076mm	0.041~0.0024mm	0.01~0.0007mm
Weight	230g	89.5g	257.3g	117.5g	125.4g	145.9g

OPTION		
	NR-405-OL Ring illumination for OL series	[Ring Mounted]
Lighting Method	Ring Lighting	
Main Unit	Compatible with KH-3000-1300-7700 main unit	
Weight	108g	
	Compatible with OL-35, -70 II, -140, -140 II, -350 II Lens.	

Lighting Method Option	Magnification 0~50x	View ∞~6.1 mm(H)	Working Distance ∞~21.4mm(0~50x) / 202.8mm(5x) / 97.5mm(10x) / 49.2mm(20x) / 35.9mm(30x) / 26.8mm(40x) / 21.0mm(50x)	Depth of Field —	ACS —	Weight 129g
---------------------------	------------------------	---------------------	---	---------------------	----------	----------------



[Lens Holder]



HS-CH (V7) Lens holder [Mounted Holder]



By using a lens holder, the lens can be stably fixed onto the stand.

MX-MACROZ IV

Macro Lens [0-50x]

Simple Structure, Suitable for a Wide Field of View

This macro lens can cover a magnification range from 0x up to 50x by changing the working distance. It is simply built, excels in operational efficiency and is perfect for wide field of view. It is also compatible with ring light illumination (NR-405-M4).

OPTION		
	NR-405-M4 MX-MACROZ IV-Use Ring Illumination	[Time of attachment]
Lighting Method	Ring Lighting	
Main Unit	Compatible with KH-3000-1300-7700 main bodies	
Weight	104g	

Lighting Method Dark field vertical lighting	Magnification ∞~5x, 5~50x	View ∞~6.1~61 mm(H)	Working Distance ∞~90mm	Depth of Field —	ACS —	Weight 393g
---	------------------------------	------------------------	----------------------------	---------------------	----------	----------------



[Newly Developed Macro Switch]



By pushing the switch, it allows switching between macro and zoom.


MX-MACROZ VI

Macro Zoom Lens [0-50x]

Optical Design to Allow Shift from Macro to Zoom

This newly developed macro zoom lens covers magnification ranges from 0x up to 50x. By changing the macro switch, the lens can be used as a macro lens under the range of ∞~5x and as a zoom lens under 5~50x thanks to our unique lens design. Lighting is embedded to allow data-taking under various environments.

Prism chip structure Soft spring structure for protecting substrates	Prism adaptation width 0.9mm	Observation angle 90 degrees or higher	Illumination methods Optical multi illumination	magnification 100-180 power※1	Operational distance 0.9-8.0mm ※2	Weight 695g
---	---------------------------------	---	--	----------------------------------	--------------------------------------	----------------



※1: Mode Switch Ring set to 'Normal' magnification.
※2: Distance from the Prism tip to the BGA ball.

MX-BGAZ II

BGA Lens [100-180x]

An Ultimate Shape That Makes What's Invisible Visible
This BGA lens enables non destructive observation of BGA ball connection parts. With a built-in 3D optical rotary ring, it allows 3D observations with angle changes. It combines several illumination sources (prism chips and light fibers), spring structures and other technologies for comfortable observations.

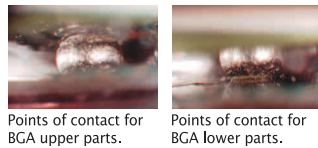
It corresponds to the substrate with a big rotating lens.

When the mounting substrate to which parts are overcrowded remains, too the lens of 270° rotatable is not and catches. Move it a difficult, large-scale BGA mounting substrate also rotates the lens, and it is possible to observe it easily.



Optical rotary Ring

Rotating the ring changes observation angles. Without moving the lens and substrates, it enables detailed analysis of upper and lower joint parts of the BGA ball.

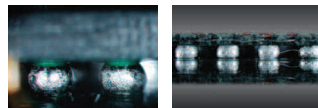


Focus Ring

Rotating the ring facilitates focusing on the BGA.

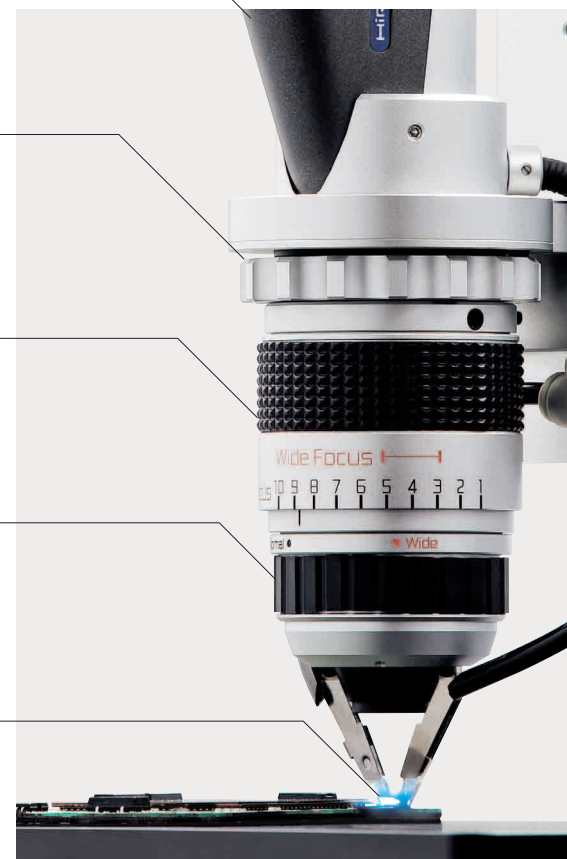
Mode Switch Ring

Rotating the ring switches the observation range without changing the distance from the lens to BGA and allows confirmation of parts warpage and uplift on mounting substrates.



Illumination-attached prism chips

A 45° prism mirror helps view the BGA ball from the side. This prism tip serves the role of a light guide, and enables bright, high-resolution observation even on a concentrated substrate.

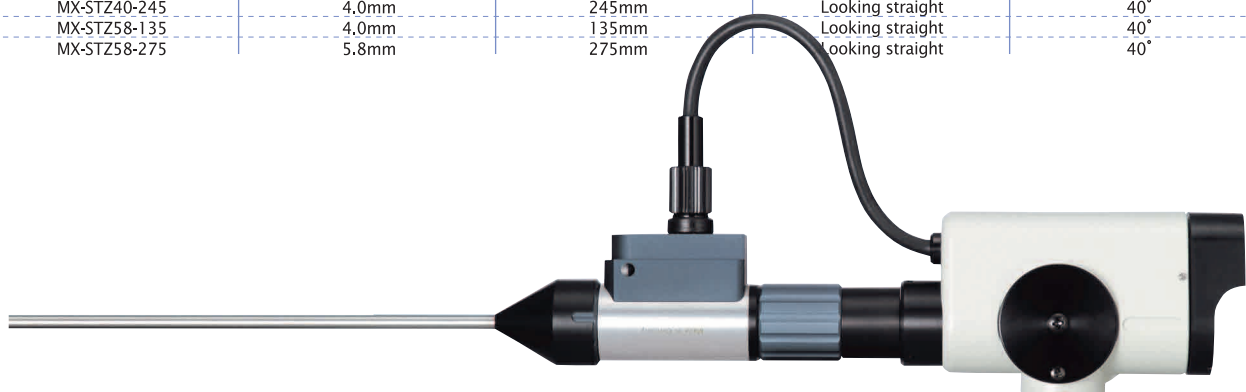


OPTION AD-BGABL Backlight

Lighting Method Backlight
Weight 50g(The AC adaptor is excluded.)

OPTION AD-BGAPC2 Prism Tip 5 pieces per Pack

Lens Number	Outer Diameter	Effective Length	View Direction	View Angle
MX-STZ28-125	2.8mm	125mm	Looking straight	40°
MX-STZ40-120	4.0mm	120mm	Looking straight	40°
MX-STZ40-245	4.0mm	245mm	Looking straight	40°
MX-STZ58-135	4.0mm	135mm	Looking straight	40°
MX-STZ58-275	5.8mm	275mm	Looking straight	40°



※The photo shows MX-STZ25-128.

MX-STZ

Straw-scope Lens [φ 2.8~5.8mm L125~275mm]

Observing Places Only Reachable by Straw Scope
This is a straw-scope lens that allows observations of narrow places and machine interiors. We have designed independent optics and illumination systems for the sleeve part and realized superior resolution that cannot be attained by fiber scopes. The sleeve part excels in water proof capability and is applicable to engine interiors and other various environments.

ADAPTER	AD-STL28-125	AD-STL40-120	AD-STL40-245	AD-STL58-135	AD-STL58-275
	Outer Diameter 3.05mm	4.5mm	4.5mm	6.3mm	6.3mm
	Effective Length 125mm	120mm	245mm	135mm	275mm
	View Direction 90°	90°	90°	90°	90°
	Acceptable Lens MX-STZ28-125	MX-STZ40-120	MX-STZ40-245	MX-STZ58-135	MX-STZ58-275

Lighting Method	Magnification	View	Working Distance	Depth of Field	ACS	Weight
Co-axial lighting	180~330x	1.74~0.87mm(H)	21.5mm	—	—	970g



※The photo shows OLD-1833 being mounted.

MX-180DIL

Differential Interference Lens [180-330x]

Designs That Allow Free Maneuvering of Lights
This differential interference lens is specialized in illumination attached with polarizing adaptors and differential interference sliders. The polarization adaptor controls the reflection of the observed object and is thus suitable for highly reflective objects. The differential interference slider with adjustable angles facilitates observations of differential interference images.

OPTION OLD-7013

Magnification	700~1300x
View	0.44~0.21mm
Working Distance	11mm
Weight	145.6g

By changing the objective lens, it allows the magnification ranges to be set according to the size of observed objects.

Differential Interference Slider 94 g

By adjusting the angles of the prism-embedded differential interference slider, it allows observations of surface shapes.

Lighting Method	Magnification	View	Working Distance	Depth of Field	ACS	Weight
—	0-20x	—	—	—	—	85.4g



MT-C16

Macro Lens [0-20x]

MX-MOUNT LENS

Responding to Wide Field of View with Highly Scalable Designs

This is a macro lens that covers magnification ranges of 0 to 20 times by changing the working distance. With an aperture diaphragm, it excels in operational efficiency and responds smoothly to wide field of view. It creates high-level images and excels in the cost performance at the same time.



ACS Function

ACS Function

MXG-2016Z MXG-5040RZ MXG-5040SZ MXG-10C MXG-MACROZ VI

Unique Functions To Avoid Erroneous Selections


The MXG series is combining the Hirox MX Mount with the newly developed ACS function: Automatic Calibration Select. This original Hirox function detects and sends the magnification data to the main unit by using one of the smallest high-sensitivity sensors embedded into the lens.

The ACS function make sure that calibration values are accurately selected in real time. It allows high-level reproduction while producing efficient and accurate measurement operations. It frees users from mistakes and troublesome operations.




MX-MOUNT LENS


Lighting method —	magnification 20~160x	View 15.4~2.0mm(H)	Working distance 44mm	Depth of Field 13.3~0.25mm	ACS ○	Weight 350g
----------------------	--------------------------	-----------------------	--------------------------	-------------------------------	----------	----------------



[Lens Holder]



HS-CH (V7) Lens holder [Holder Mounted]

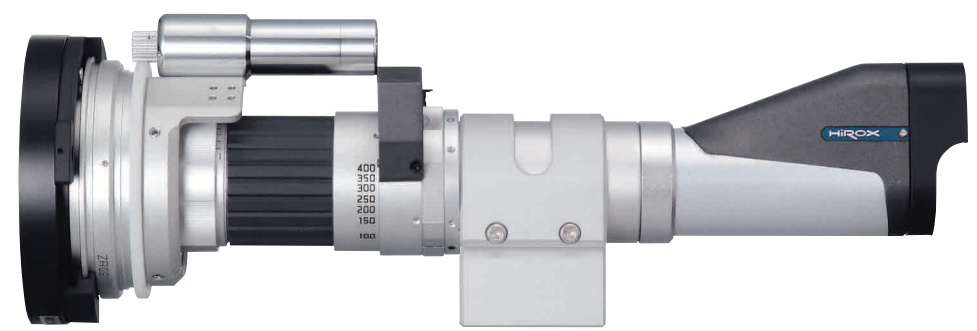


HS-CH (V4) Lens holder [Holder Mounted]


By using a lens holder, the lens can be stably fixed onto the stand.

※ The photo shows AD-2016H being mounted.


Lighting Method —	Magnification 50~400x	View 6.1~0.78mm(H)	Working Distance 54mm	Depth of Field 2.7~0.08mm	ACS ○	Weight 735g
----------------------	--------------------------	-----------------------	--------------------------	------------------------------	----------	----------------



[Lens Holder]



HS-CH (V7) Lens holder [Holder Mounted]



HS-CH (V4) Lens holder [Holder Mounted]

By using a lens holder, the lens can be stably fixed onto the stand.

※ The photo shows AD-5040HS being mounted.

MXG-2016Z

Low-magnification Zoom Lens with ACS Function [20-160x]

Automatic Calibration Select. Evolution of Standard Lens.

This zoom lens features a compact body enabling hand-held operations and can be used for various purposes using the different available screw type adaptors. By applying ACS functions, it prevents erroneous calibration selections. By using low or high magnification adaptors, the lens covers a magnification range from 6x up to 320x.

MXG-5040RZ

Zoom Lens with ACS Function [50-400x]

Evolving All-Purpose Lens To Achieve Further Accuracy, Efficiency


This multi function zoom lens is equipped with many different optical adaptors. By mounting a rotary head, it enables 3-dimensional observations of images using a 360 degrees rotational view. To improve the operational efficiency, each optical adaptor uses a "snap-on" system and can be replaced in one-touch. This lens covers a magnification range from 20x up to 800x. By using the ACS functions, the operational efficiency is further enhanced.

MX-MOUNT LENS





MX-MOUNT LENS






ADAPTER	 AD-2016H Non-Contact Adapter [included]	 AD-2016S Variable Lighting Adapter [included]	 AD-2016SV Contact Adapter [included]	 AD-2016LOW Low-magnification Adapter [6-48x]	 AD-2016HI High-magnification Adapter [40-320x]
Lighting Method	Dark field vertical lighting	Variable lighting	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	44mm	0mm	0mm	132mm	20mm
Weight	8g	49g	17g	29g	9g

ADAPTER	 AD-2016SL Z-Axial Measurement Laser Slit Light Adapter ※1	 AD-2016LOWR Low-magnification Rotary-Head Adapter [6-48x] PAT	 AD-2016L(S/L) Side View Inspection	 AD-2016D Diffuse Lighting Adapter	 AD-2016HIS High-magnification Variable Angle Lighting Adapter [40-320x] PAT
Lighting Method	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting	Diffuse Lighting	Variable Angle Lighting
Working Distance	29.6mm	27mm	10.5~15.5mm	0~4mm	1mm
Weight	244g	288g	36g (S) , 41g (L)	26g	53g

ADAPTER	 AD-2016P Polarizing Adapter	 AD-2016C Co-axial Lighting Adapter	 AD-2016RLM Rotary-Head Adapter PAT	 AD-2016RLD Diffuse Lighting Adapter ※2
Lighting Method	Polarizing filter lighting	Co-axial lighting	Dark field vertical lighting	Diffuse Lighting
Working Distance	31mm	10.5mm	12mm	AD-2016RLM Working distance -1mm
Weight	22g	253	237g	2g

※1 AC adaptor included. ※2 adaptor is mounted on AD-2016RLM


ADAPTER	 AD-5040HS Non-contact Adapter [included]	 AD-5040DS Diffuse Lighting Adapter ※1	 AD-5040SVS Contact Adapter ※1	 AD-5040LOWRS Low-magnification Rotary-Head Adapter [20-160x] PAT	 AD-5040HIRS High-magnification Rotary-Head Adapter [100-800x] PAT
Lighting Method	Dark field vertical lighting	Diffuse lighting	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	54mm	4mm	0~1.5mm	28.5mm	3.5mm
Weight	68g	36g	100g	266g	173g

ADAPTER	 AD-5040RVS Variable Angle Rota-Head Adapter PAT	 AD-5040RVD Diffuse Lighting Adapter ※2	 AD-5040LWS Low-magnification Adapter [20-160x]	 AD-5040HIS High-magnification Adapter [100-800x]	 AD-5040SS Variable Lighting Adapter PAT
Lighting Method	Dark field vertical lighting	Diffuse lighting	Dark field vertical lighting	Dark field vertical lighting	Variable lighting
Working Distance	25mm(25°), 19mm(35°), 14mm(45°), 9mm(55°)	AD-5040RVS Working distance -1mm	80mm	20mm	6~21mm
Weight	124g	2g	180g	108g	285g

ADAPTER	 AD-5040SHIS High-magnification Variable Angle Lighting Adapter [100-800x] PAT	 AD-5040CS Co-axial Lighting Adapter	 AD-5040PS Polarizing Adapter	 AD-5040SLS Z-Axial Measurement Laser Slit Light Adapter ※3	 AD-5040VLS Lift of Adapter
Lighting Method	Dark field vertical lighting	Co-axial lighting	Polarizing filter lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	1.6mm	21mm	54mm	23mm	3mm
Weight	176g	325g	87g	300g	100g

※1 The lens is mounted on AD-5040HS ※2 Mounting on AD-5040RVS ※3 AC adaptor included.

OPTION



CT-1
Motor Controller

Rotational speed control
Rotational direction control

Weight 935g

※Controllers for AD-2016RLM, AD-2016 LOWR.
※include (AD-2016RLM, AD-2016 LOWR)

OPTION



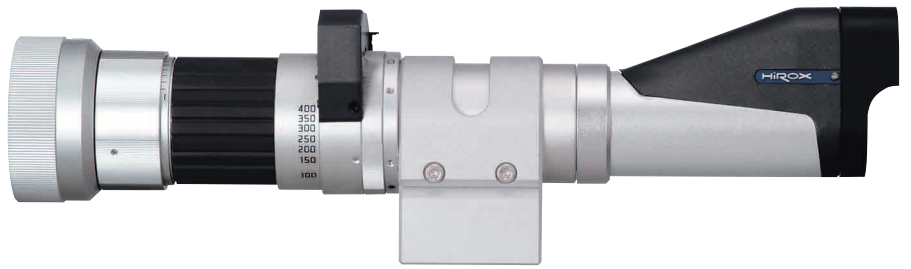
CT-1
Motor Controller

Rotational speed control
Rotational direction control

Weight 935g

※Controllers for AD-5040LOWRS, AD-5040HIRS, AD-5040RVS.
※include (MXG-5040RZ)

Lighting Method —	Magnification 50~400x	View 6.1~0.78mm(H)	Working Distance 63mm	Depth of Field 2.7~0.08mm	ACS ○	Weight 540g
----------------------	--------------------------	-----------------------	--------------------------	------------------------------	----------	----------------



ACS FUNCTION

*The photo shows AD-5040H being mounted.

MXG-5040SZ

Zoom Lens with ACS Function [50-400x]

Adding ACS Functions to Designs We Pride In

This zoom lens has a compact design and allows hand-held operations. By mounting the snap-on switching adapter, it enables most of MX-5040RZ adapters to be used (except for the motorized rotary head), responding to various inspection purposes. This lens covers a magnification range from 20x up to 800x. ACS functions allow more accurate observations.

ADAPTER	AD-5040H Non-contact Adapter	AD-5040LOW Low-magnification Adapter [20-160x]	AD-5040HI High-magnification Adapter [100-800x]	AD-5040SHI High-magnification Variable Angle Lighting Adapter [100-800x]
Lighting Method	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting	Variable lighting
Working Distance	63mm	80mm	29mm	1.6mm
Weight	32g	180g	100g	138g


ADAPTER	AD-5040SD Snap-on adapter
Lighting Method	Counting on Snap-Type Adaptors
Working Distance	Counting on Snap-Type Adaptors
Weight	48g

*By attaching the snap-type switching adaptor, MX-5040RZ-adaptors can be applied.

MX-5040RZ ADAPTER

AD-5040HS	AD-5040DS	AD-5040SVS	AD-5040LWS	AD-5040HIS	AD-5040SS	AD-5040SHIS	AD-5040CS
AD-5040PS	AD-5040SLS	AD-5040VLS	*Please refer to the MX-5040RZ pages for details of the adaptor.				

Lighting method Co-axial lighting	Magnification *Magnification, field of view, working distance and depth of field depend on the selected objective lens.	View	Working Distance	Depth of Field	ACS ○	Weight 670g
--------------------------------------	--	------	------------------	----------------	----------	----------------



ACS FUNCTION

*This photo shows OL-700 II being mounted.

[Contrast Switch]
Solves image contrast issues of low reflective surface observation.

MXG-10C

Co-axial 10x Zoom Lens with ACS Function

ACS Functions Support High-Level Optical Observations

This highly scalable zoom lens is based on the same-axis epi-illumination and uses replaceable objective lenses, covering magnification ranges from 35x up to 7000x. Our unique optical design allows the use of side-lighting adapters (rotary angle lighting, directional lighting adapter or polarizer) for the finest detailed observations. ACS functions support high-level observations.

ADAPTER	AD-10S Directional Lighting Adapter	AD-10P Polarizing Adapter	AD-10R Optical Rota Adapter
Weight	10g	11g	8g

LENS	OL-35	OL-70 II	OL-140	OL-140 II	OL-350 II	OL-700 II
Lighting Method	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting	Co-axial lighting
Magnification	35~350x	70~700x	140~1400x	140~1400x	350~3500x	700~7000x
View	9.83~1.05mm (H)	4.42~0.47mm (H)	2.46~0.26mm (H)	2.21~0.23mm (H)	0.88~0.09mm (H)	0.44~0.04mm (H)
Working Distance	34mm	21mm	30.5mm	12mm	10.6mm	3.4mm
Depth of Field	0.92~0.1mm	0.44~0.024mm	0.114~0.012mm	0.09~0.0076mm	0.041~0.0024mm	0.01~0.0007mm
Weight	230g	89.5g	257.2g	117.5g	125.4g	145.9g

OPTION	NR-405-OL Ring Illumination for OL series
Lighting method	Ring Lighting
Main Unit	Compatible with KH-3000·1300·7700 main bodies
Weight	108g

*Compatible with OL-35, -70 II, -140, -140 II, -350 II Lens. [Ring Mounted]

Lighting Method Dark field vertical lighting	Magnification ∞ ~5x, 5~50x	View ∞ ~6, 1~61mm(H)	Working Distance ∞ ~90mm	Depth of Field —	ACS ○	Weight 440g
---	--------------------------------------	--------------------------------	------------------------------------	---------------------	----------	----------------



[Newly Developed Macro Switch]



By pushing the switch, it allows switching between macro and zoom.

MXG-MACROZ VI

Macro Zoom Lens with ACS Function [0-50x]

Automatic Calibration Select, Macro Zoom Lens
0x-50x, now with integrated Auto Calibration Select (ACS) maintains the magnification calibration while zooming. Constant focus from 5x-50x zoom range and built-in lighting.

MX-MOUNT LENS



CX-Mount Lens


CX-MOUNT LENS

CX-MOUNT LENS


HIROX Lens For Various Observation Situations

CX Mount Lens is a lens series compatible with the standard C-mount cameras. HIROX has created an optical design that is in unity with illumination. This lens series delivers the same quality Hirox is famous for, while making it available for various settings. Welcome to the world of HIROX.

Lighting Method —	Magnification 50~400x	View 6.1~0.78mm(H)	Working Distance 54mm	Depth of Field 2.7~0.08mm	ACS —	Weight 695g
----------------------	--------------------------	-----------------------	--------------------------	------------------------------	----------	----------------



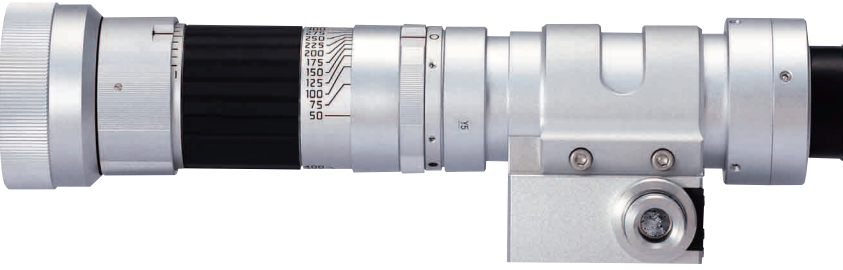
[AD-C]




CX→MX Mount Replacement
By replacing the mount, it can be connected to the main unit of the KH series.

※The photo shows AD-5040HS being mounted.

Lighting Method —	Magnification 50~400x	View 6.1~0.78mm(H)	Working Distance 63mm	Depth of Field 2.7~0.08mm	ACS —	Weight 510g
----------------------	--------------------------	-----------------------	--------------------------	------------------------------	----------	----------------



[AD-C]



CX→MX Mount Replacement
By replacing the mount, it can be connected to the main unit of the KH series.

※The photo shows AD-5040H being mounted.

cx-5040RZ

Zoom Lens [50-400x]

A Full Range Of Adaptors To Suit Every Purpose






This multi function zoom lens is equipped with many different optical adaptors. By mounting a rotary head, it enables 3-dimensional observations of images using a 360 degrees rotational view. To improve the operational efficiency, each optical adaptor uses a "snap-on" system and can be replaced in one-touch. This lens covers a magnification range from 20x up to 800x.






cx-5040SZ

Zoom Lens [50-400x]

Flexible Optical Designs That Help Expand The World

This zoom lens has a compact design and allows hand-held operations. By mounting the snap-on switching adapter, it enables most of MX-5040RZ adaptors to be used (except for the motorized rotary head), responding to various inspection purposes. This lens covers a magnification range from 20x up to 800x.

ADAPTER	 AD-5040HS Non-contact Adapter	 AD-5040DS Diffuse Lighting Adapter	 AD-5040SVS Contact Adapter	 AD-5040LOWRS Low-magnification Rotary-Head Adapter [20-160x]	 AD-5040HIRS High-magnification Rotary-Head Adapter [100-800x]
Lighting Method	Dark field vertical lighting	Diffuse Lighting	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	54mm	4mm	0~1.5mm	28.5mm	3.5mm
Weight	68g	36g	100g	266g	173g

ADAPTER	 AD-5040RVS Variable Angle Rota-Head Adapter	 AD-5040RVD Diffuse Lighting Adapter	 AD-5040LOWS Low-magnification Adapter [20-160x]	 AD-5040HIS High-magnification Adapter [100-800x]	 AD-5040SS Variable Lighting Adapter
Lighting Method	Dark field vertical lighting	Diffuse Lighting	Dark field vertical lighting	Dark field vertical lighting	Variable lighting
Working Distance	25mm (25°), 19mm (35°), 14mm (45°), 9mm (55°)	AD-5040RVS Working distance-1mm	80mm	20mm	6~21mm
Weight	124g	2g	180g	108g	285g

ADAPTER	 AD-5040SHIS High-magnification Variable Angle Lighting Adapter [100-800x]	 AD-5040CS Co-axial Lighting Adapter	 AD-5040PS Polarizing Adapter	 AD-5040SLS Z-Axial Measurement Laser Slit Light Adapter	 AD-5040VLS Lift off Adapter
Lighting Method	Dark field vertical lighting	Co-axial lighting	Polarizing filter lighting	Dark field vertical lighting	Dark field vertical lighting
Working Distance	1.6mm	21mm	54mm	23mm	3mm
Weight	176g	325g	87g	300g	100g

※1 The lens is mounted on AD-5040HS ※2 Mounting on AD-5040RVS ※3 AC adaptor included.

OPTION  **CT-1**
Motor Controller
Rotational speed control
Rotational direction control
Weight 935g


OPTION  **R-476**
Light Guide
Main unit
Weight 450g

OPTION  **KMH-24**
Metal Halide Lamp
Lamp Metal Halide Lamp
Main unit Compatible with R-476
Weight 735g

※Controllers for AD-5040LOWRS, AD-5040HIRS, AD-5040RVS. ※include (CX-5040RZ)










※Please make inquiries when using other lighting sources.

ADAPTER	 AD-5040H Non-contact Adapter	 AD-5040LOW Low-magnification Adapter [20-160x]	 AD-5040HI High-magnification Adapter [100-800x]	 AD-5040SHI High-magnification Variable Angle Lighting Adapter [100-800x]
Lighting Method	Dark field vertical lighting	Dark field vertical lighting	Dark field vertical lighting	Variable lighting
Working Distance	63mm	80mm	29mm	1.6mm
Weight	32g	180g	100g	138g

ADAPTER	 AD-5040SD Snap-on adapter
Lighting Method	Counting on Snap-Type Adaptors
Working Distance	Counting on Snap-Type Adaptors
Weight	48g

※By attaching the snap-type switching adaptor, MX-5040RZ-use adaptors can be applied.

MX-5040RZ ADAPTER


							
			※Please refer to the MX-5040RZ pages for details of the adaptor.				

OPTION  **R-476**
Light Guide
Main unit
Weight 450g


OPTION  **KMH-24**
Metal Halide Lamp
Lamp Metal Halide Lamp
Main unit Compatible with R-476
Weight 735g

※Please make inquiries when using other lighting sources.

Lighting Method Co-axial lighting	Magnification ※Magnification, field of view, working distance and depth of field depend on the selected objective lens.	View	Working Distance	Depth of Field	ACS —	Weight 645g
--------------------------------------	--	------	------------------	----------------	----------	----------------



[AD-C]






CX→MX Mount Replacement
By replacing the mount, it can be connected to the main unit of the KH series.

※This photo shows OL-700 II being mounted.

cx-10C

Co-axial 10x Zoom Lens



By Changing The Objective, 6 Magnification Ranges Are Enabled.
This highly scalable zoom lens is based on the same-axis epi-illumination and uses 6 replaceable objective lenses, covering magnification ranges from 35x up to 7000x. Our unique optical design allows the use of side-lighting adapters (rotary angle lighting, directional lighting adapter or polarizer) for the finest detailed observations.

ADAPTER	 AD-10S Directional Lighting Adapter	 AD-10P Polarizing Adapter	 AD-10R Optical Rota Adapter
	Weight: 10g [included]	Weight: 11g	Weight: 8g

LENS	 OL-35	 OL-70 II	 OL-140	 OL-140 II	 OL-350 II	 OL-700 II
	Lighting Method: Co-axial lighting Magnification: 35~350x View: 9.83~1.05mm (H) Working Distance: 34mm Depth of Field: 0.92~0.1mm Weight: 230g	Lighting Method: Co-axial lighting Magnification: 70~700x View: 4.42~0.47mm (H) Working Distance: 21mm Depth of Field: 0.44~0.024mm Weight: 89.5g	Lighting Method: Co-axial lighting Magnification: 140~1400x View: 2.46~0.26mm (H) Working Distance: 30.5mm Depth of Field: 0.114~0.012mm Weight: 257.2g	Lighting Method: Co-axial lighting Magnification: 140~1400x View: 2.21~0.23mm (H) Working Distance: 12mm Depth of Field: 0.09~0.0076mm Weight: 117.5g	Lighting Method: Co-axial lighting Magnification: 350~3500x View: 0.88~0.09mm (H) Working Distance: 10.6mm Depth of Field: 0.041~0.0024mm Weight: 125.4g	Lighting Method: Co-axial lighting Magnification: 700~7000x View: 0.44~0.04mm (H) Working Distance: 3.4mm Depth of Field: 0.01~0.0007mm Weight: 145.9g

OPTION  R-576 Light Guide	Main unit: KMH-24 Compatible with Metal Halide Lamps Weight: 218g	OPTION  KMH-24 Metal Halide Lamp	Lamp: Metal Halide Lamp Main unit: R-576 Compatible Weight: 735g
--	---	---	--

※Please make inquiries when using other lighting sources.

OPTION  NR-405-OL Ring illumination for OL series	Lighting method: Ring Lighting Main unit: Compatible with KH-3000-1300-7700 main bodies Weight: 108g	
--	--	---

※Compatible with OL-35, -70 II, -140, -140 II, -350 II Lenses. [Light Ring Mounted]

Lighting Method Dark field vertical lighting	Magnification ∞~5x, 5~50x	View ∞~6.1~61mm(H)	Working Distance ∞~96mm	Depth of Field —	ACS —	Weight 286g
---	------------------------------	-----------------------	----------------------------	---------------------	----------	----------------



[AD-C]



CX→MX Mount Replacement
By replacing the mount, it can be connected to the main unit of the KH series.

[Newly Developed Macro Switch]



By pushing the switch, it allows switching between macro and zoom.

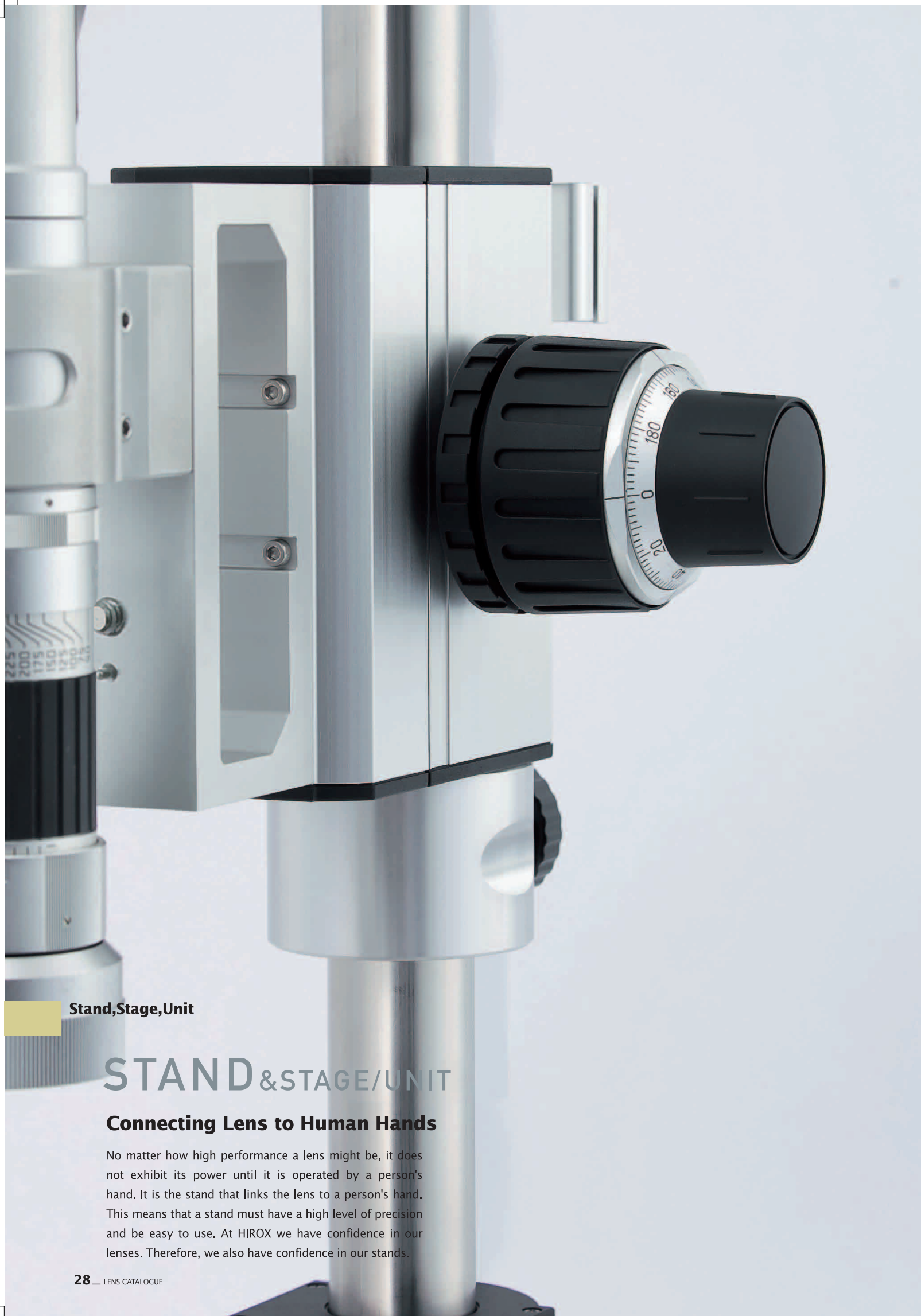
cx-MACROZ VI

Macro Zoom Lens [0-50x]

A New Development For Free Macro and Zoom Operations
This newly developed macro zoom lens covers magnification ranges from 0x up to 50x. By changing the macro switch, the lens can be used as a macro lens under the range of ∞~5x and as a zoom lens under 5~50x thanks to our unique lens design.

CX-MOUNT LENS

CX-MOUNT LENS



Stand, Stage, Unit

STAND & STAGE/UNIT

Connecting Lens to Human Hands

No matter how high performance a lens might be, it does not exhibit its power until it is operated by a person's hand. It is the stand that links the lens to a person's hand. This means that a stand must have a high level of precision and be easy to use. At HIROX we have confidence in our lenses. Therefore, we also have confidence in our stands.

ST-G Stand Series

High Precision Free Angle Stand ST-GA, XY-G, FB-M

180 Degree (+90 Degree) inclination movement and a 360 degree rotational stage.

Working Range	85mm
Size	320×320×36 · 487 · φ 32
Weight	13.7kg
Angle View	±90



Motorized Z-Axis Free Angle Stand ST-GA, XY-G, FB-E

Motorized Z-axis creates 3D profiles and measurements on the free angle observation.

Working Range	Step motor range 30mm / FFB working range / 85mm
Size	320×320×36 · 487 · φ 32
Weight	14.7kg
Angle View	±90



High Precision Straight Stand ST-G, FB-M

85 mm (3.35") travel range focus block with 2um precision.

Working Range	85mm
Size	200×270×46 · 446 · φ 32
Weight	10.0kg



Motorized Z-Axis Straight Stand ST-G, FB-E

Motorized Z-axis provides accurate height measurement within the micron level

Working Range	Step motor range 30mm / FFB working range / 85mm
Size	200×270×46 · 446 · φ 32
Weight	11.0kg



XY Stage Unit XY-G, XY-C

Large working area supports multiple applications and 360° rotation reaches unattainable angles.

Working Range	X-axis ±38mm (1.5") / Y-axis +28mm -23mm
Size	201 X 140 X 74 (XY-G 7.91mm X 5.51mm X 1.34mm (without dial)) (XY-C 48 · φ 100)
Weight	2.0kg (XY-G 1.2kg) (XY-C 750g)



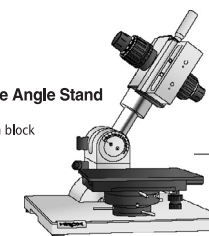
Transmit Lighting XY Stage Unit XY-GB, XY-CB, R-578

This XY stage unit is for transmit lighting applications.

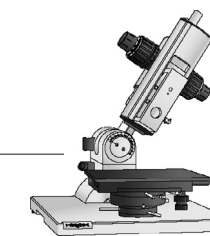
Working Range	X-axis ±38mm / Y-axis +28mm -23mm
Size	201 X 140 X 74 (XY-GB 7.91mm X 5.51mm X 1.34mm (without dial)) (XY-CB 48 · φ 100)
Weight	2.1kg (XY-GB 1.2kg) (XY-CB 785g)



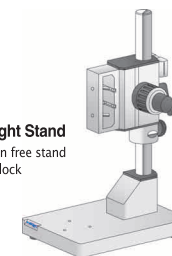
High Precision Free Angle Stand
 • Base board
 • pole part high precision block
 • XY stage block



Motorized Z-Axis Free Angle Stand
 • Base board
 • pole part Electrically operated block
 • XY stage block



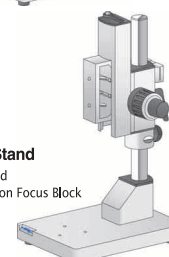
High Precision Straight Stand
 • High precision vibration free stand
 • High Precision Focus Block



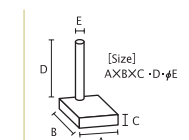
XY Stage Unit
 • XY Stage
 • Rotary XY Stage Base



Motorized Z-Axis Straight Stand
 • High precision vibration free stand
 • Motorize Z-Axis with High Precision Focus Block



Transmit Lighting XY Stage Unit
 • XY Stage with Class Plate
 • Transmit Lighting XY Stage Base
 • Light Source Guide for XY-CB



STAND · STAGE

ST-HE

Standard light-weight stand

This stand is suitable for low-magnification inspection. It is light and easy to carry.

Size	150X230X34 · 444(mm) · φ20
Weight	2.4kg

※Compatible with XY Stage (AS-XY). Separately sold



AS-XY

XY Stage

This stage enables objects to be fixed for observations. It helps improve operational efficiency by facilitating the fixing and removing of objects.

Working Range	X-axis ±39mm/Y-axis+58mm
Size	175X144(mm)
Weight	0.86kg



AS-XYL

Large XY Stage

This large stage enables users to slide its upper part to easily observe large-sized objects.

Working Range	X-axis ±155mm/Y-axis+257mm
Size	390X390(mm)
Weight	7.85kg



ST-HL

Large Size Stand

This stand is suitable for observing large objects. With a stable arm, it facilitates observations of large-size objects.

Size	500X640X37 · 657(mm) · φ29
Weight	12.0kg

※Compatible with the large XY push table (AS-XYL). Sold separately



AS-BH

BGA Substrate holder

This PCB holder helps to stably fix double-face packaging substrates. It is suitable for various substrates including BGA.

Size	175X144(mm)
Weight	2.71 kg

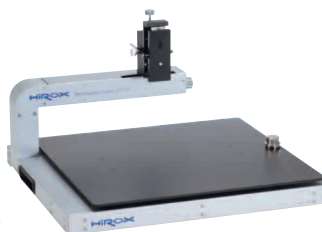


ST-HK

Stand for BGA

This stand has been designed for BGA inspection. Our original design allows the lens to move vertically and the prism chip to be easily attached / removed from the lens.

Size	410X466X75 · 290(mm)
Weight	7.9kg

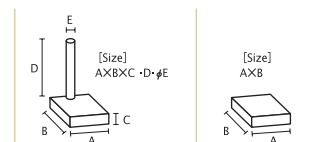


CT-7

Motor Controller

This controller controls electrically operated stages. It allows various setups and operations to suit the purposes.

Size	210X159X63(mm)
Weight	1.355kg



Maximizing Lens Capabilities

HIROX is not only a lens maker but also a pioneer in video microscopy. HIROX's digital microscopes enhance our lens in the best possible way. Our microscopes are equipped with highly advanced functions based on unique optical designs. They allow everyone to make the most optimal observations by maximizing the capability of a lens, while keeping in mind the ease of use. The possibility of our lens thus expands almost infinitely with our digital microscopes, combining the best light sources, the highest quality CCD cameras and much more in a compact system.

KH-7700



The KH-7700 is an all-purpose digital microscope that brings together various functions from observation on a high resolution display to measurement, analysis, recording, management and outputs (6x USB, DVD burner, 160Go Hard Drive, Print, Network Connection, ...). With its 3D measurement functions, it helps accurately grasp the 3-dimensional expressions of the observed objects. Easy to carry and delivered with a complete software package, it is probably the most evolved video microscope.

KH-1300



The KH-1300 digital microscope is specialized for high-resolution images and videos, displayed on external screen or connected to a PC. It is equipped with a Firewire port in an industry's first allowing high-speed transmissions. It can be customized by adding functions as necessary so that observation environments are created freely to suit every purpose.

MAIN UNIT

Main Unit