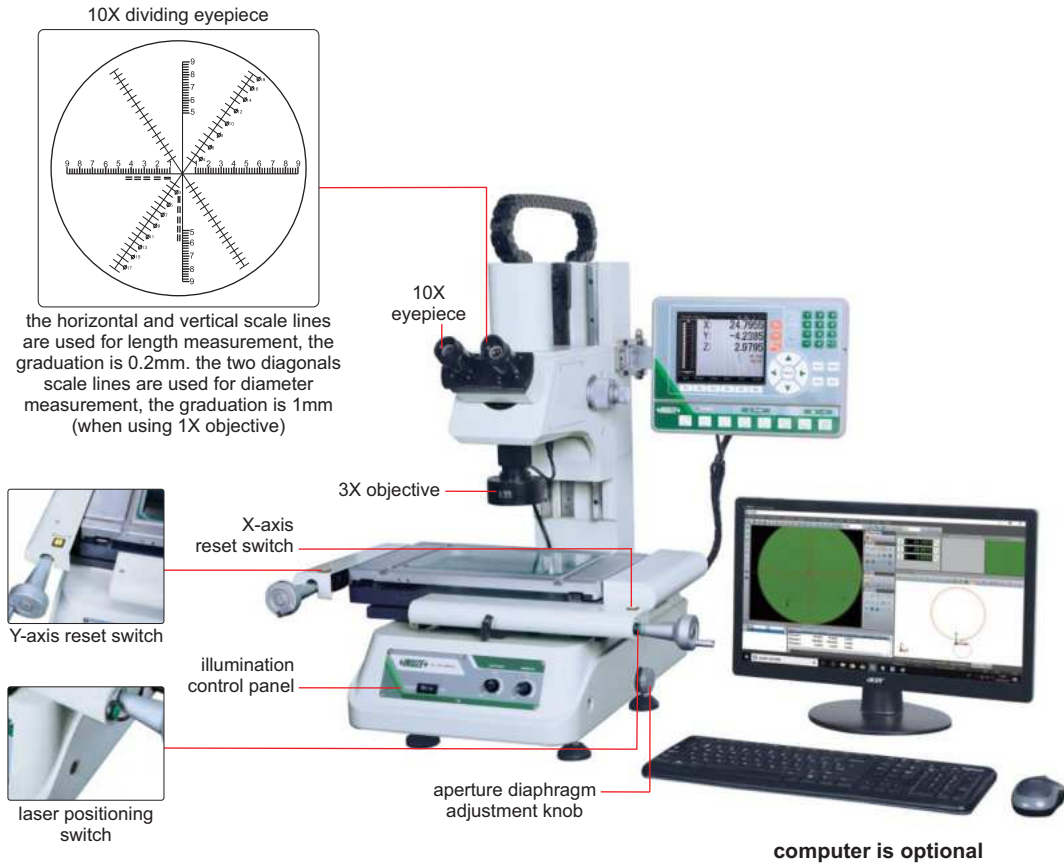


TOOLMAKER MICROSCOPES



ISD-VMM215

SPECIFICATION

Code	binocular	ISD-VMM205	ISD-VMM215	ISD-VMM225	ISD-VMM235
	monocular	ISD-VMM205D	ISD-VMM215D	ISD-VMM225D	ISD-VMM235D
X/Y axis travel		150×100mm	200×100mm	250×150mm	300×200mm
Z axis travel		150mm	150mm	200mm	200mm
Metal stage size		354×228mm	404×228mm	450×280mm	500×330mm
Glass stage size		210×160mm	260×160mm	306×196mm	350×250mm
Resolution of X/Y/Z axis		0.5µm			
Accuracy of X/Y axis		≤(3.5+L/100)µm (L is the measuring length in mm)			
Repeatability		2µm			
Camera		1/3" color CCD, 0.3M pixel			
Optical magnification		30X (with 3X objective)			
Image magnification		114X (on 19" monitor)			
Illumination		surface and contour with adjustable LED			
Max. weight of workpiece		25kg			
Power supply		100V~240V, 50/60Hz			
Operation system		Windows 7/8/10			
Drive method		manual			
Dimension (L×W×H)		540×667×850mm	540×667×850mm	800×675×920mm	800×675×920mm
Weight		100kg	110kg	135kg	140kg

To be continued

HIGH-DEFINITION AUTO FOCUS DIGITAL MICROSCOPE (LARGE VIEW FIELD) CODE 5320-AF410



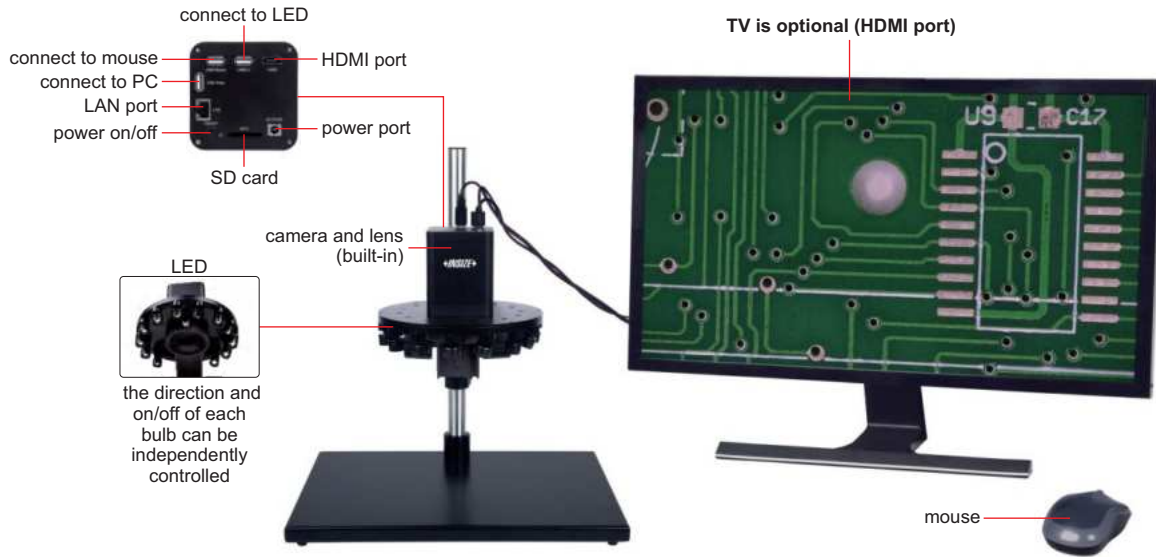
AUTO FOCUS

MEASUREMENT

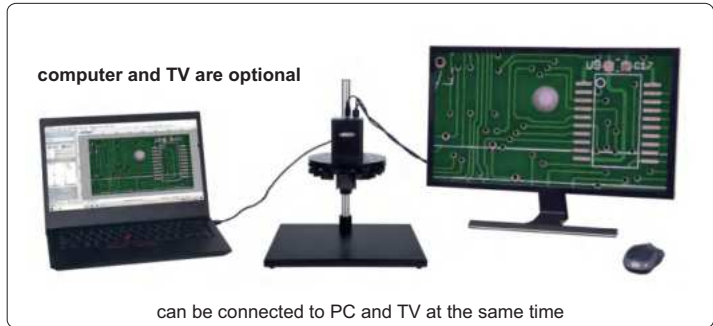
TAKE PICTURES
AND VIDEOS

LED INDEPENDENT
ADJUSTMENT

CAN BE CONNECTED TO PC
AND TV AT THE SAME TIME



- Auto focus camera
- Take pictures and videos
- Built-in measuring software
- Automatic exposure, sharpening, denoising and white balance
- 4K/1080P automatically switched by display resolution
- Display actual magnification
- Digital magnification
- Motorized light control
- Display cross hair and gridline



SPECIFICATION

Magnification (on 28" TV)	2.4X~43.7X
View field	14.2×8~255×145mm
Auto focus distance	200~255mm
Sensor	1/2.8" CMOS
Pixel	8M
Resolution	3840×2160
Frame rate	30fps
Output	HDMI/USB/LAN
Power supply	power adapter
Dimension (L×W×H)	400×300×450mm
Weight	5.8kg

MEASURING ACCURACY (ON 28" TV)

Optical magnification	Measuring accuracy
2X	±0.1mm
4X	±0.1mm
6X	±0.04mm
10X	±0.02mm
14X	±0.02mm
18X	±0.01mm

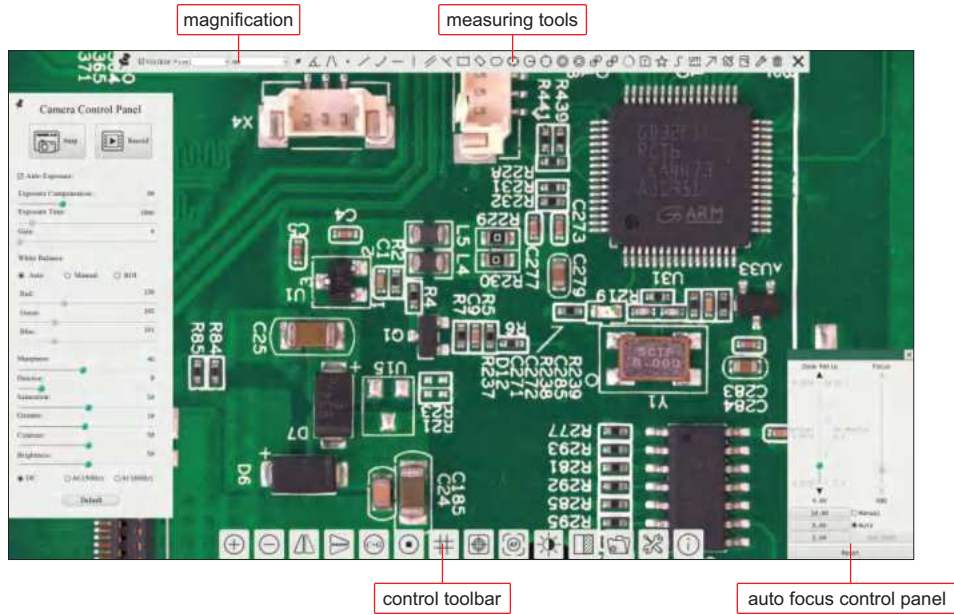
STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
32G memory card and holder	1 pc
Mouse	1 pc
HDMI cable	1 pc
USB 2.0 cable	1 pc
Power adapter	1 pc

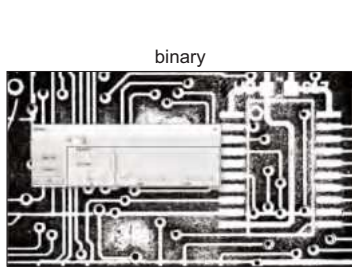
To be continued

Continued from previous page

SOFTWARE FOR TV (INCLUDED)

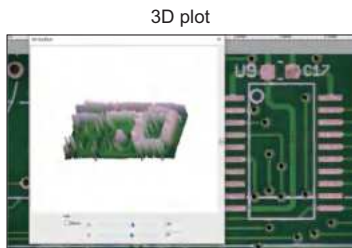


PROFESSIONAL SOFTWARE (INCLUDED, FOR COMPUTER)



binary

separate target and background

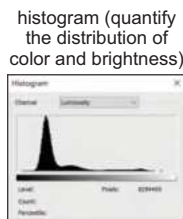


3D plot

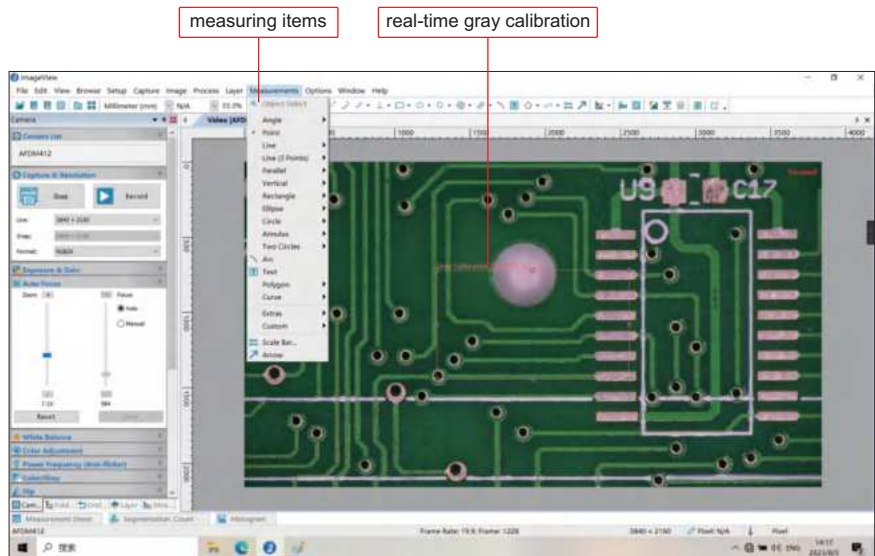
visualize the distribution of image brightness and color



selectable resolution

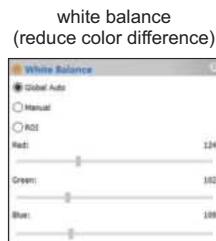


histogram (quantify the distribution of color and brightness)

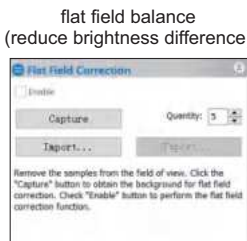


measuring items

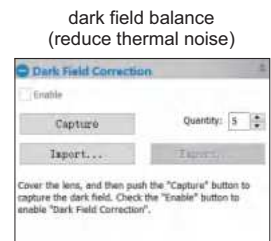
real-time gray calibration



white balance (reduce color difference)



flat field balance (reduce brightness difference)



dark field balance (reduce thermal noise)

the software can control image completely, including measurement, image stitching, image gray processing, RGB histogram observation, image color sampling, 3D plot (3D representation of image intensity), image exposure, white balance, image bit depth, flat field correction and dark field correction, etc.

AUTO FOCUS DIGITAL MICROSCOPES (LARGE VIEW FIELD)

TAKE PICTURES AND VIDEOS

MEASUREMENT

CAN BE CONNECTED TO PC AND TV AT THE SAME TIME

AUTO FOCUS

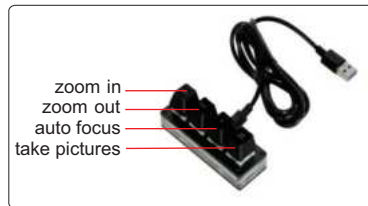


connect to computer through cable to save pictures (software for computer is included)



optical zoom adjustment

controller (optional, for TV)



- Auto focus camera
- Take pictures and videos
- Can be connected to TV (HDMI port) and computer (RJ45 port) at the same time
- Built-in measuring software for TV
- Measuring software for computers is included
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red /yellow/black/brown colors)

SPECIFICATION

Code	5302-AF105 (standard type)	5302-AF108 (high-definition type)
Pixel	2M	8M
Resolution	1920×1080	3840×2160
Magnification	1.4X~25.8X (on 28" TV)	1.4X~51.6X (on 28" TV)
Sensor	1/2.8" CMOS	
Auto focus distance	100mm~∞	
Output	HDMI, RJ45	
Frame rate	HDMI: 60fps, RJ45: 50fps	
Power supply	power adapter	
Dimension (L×W×H)	500×280×410mm	
Weight	17kg	

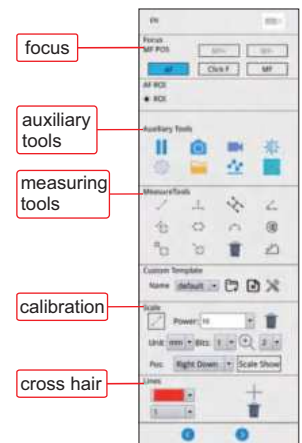
VIEW FIELD

Focus distance	Adjustable magnification (on 28" TV)	View field
100mm	3.9~25.8X	24×14~168×91mm
150mm	2.6~20X	30×17~240×128mm
200mm	2.1~17X	37×20~315×170mm
250mm	1.7~14.7X	42×24~385×210mm
270mm	1.4~14X	43×25~415×225mm

MEASURING ACCURACY

Optical magnification (5302-AF105)	Optical magnification (5302-AF108)	Measuring accuracy
2X	2X	±0.1mm
4X	4X	±0.1mm
6X	6X	±0.04mm
8X	8X	±0.02mm
14X	14X	±0.02mm
/	28X	±0.02mm

TV SOFTWARE (INCLUDED)



STANDARD DELIVERY

Main unit (with stand)	1 pc
LED illumination	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable (for TV)	1 pc
Network cable (for computer)	1 pc
Switch	1 pc
Software for computer	1 pc
Power adapter	2 pcs

OPTIONAL ACCESSORY

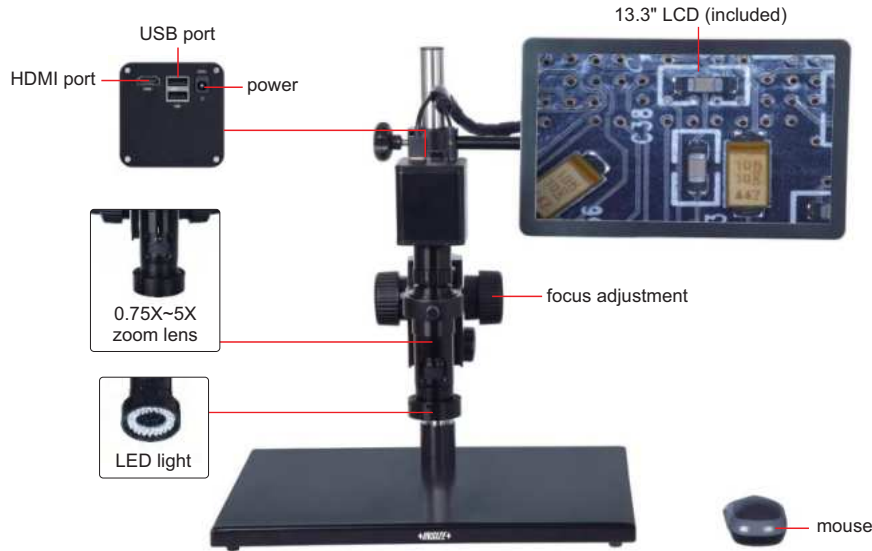
28" 4K TV	5302-AF-TV28
32" 4K TV	5302-AF-TV32
Computer	5302-AF-COMPUTER
Controller	5302-AF-CONTROLLER

AUTO FOCUS

TAKE PICTURES AND VIDEOS

MEASUREMENT

AUTO FOCUS DIGITAL MICROSCOPE CODE 5303-AF103



16G USB flash disk (included)



0.5X camera adapter (included)

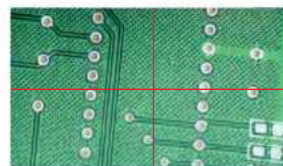


1X auxiliary objective (included)



2X auxiliary objective (optional)

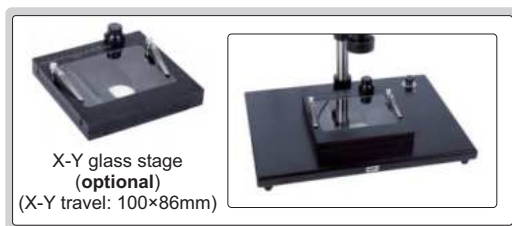
- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse



display cross hair (blue/green/red/yellow/black/brown colors)



1X camera adapter (optional)



X-Y glass stage (optional)
(X-Y travel: 100×86mm)

SPECIFICATION

Magnification	20X~123X
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	20~123X	40~246X
	focus distance	48~84mm	48~84mm
	view field	13×7~2.2×1mm	6.3×3.5~1.1×0.5mm
2X (optional)	magnification	40~246X	80~492X
	focus distance	24~42mm	24~42mm
	view field	6.5×3.5~1.1×0.5mm	3.3×1.8~0.6×0.3mm
	measuring accuracy	±0.02mm	±0.02mm

AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X
Auto focus distance (mm)	48~84	50~78	55~73	62~71	65~70
Zoom objective scale	3X	3.5X	4X	4.5X	5X
Auto focus distance (mm)	66~70	67~70	68~70	68~70	68~70

OPTIONAL ACCESSORY

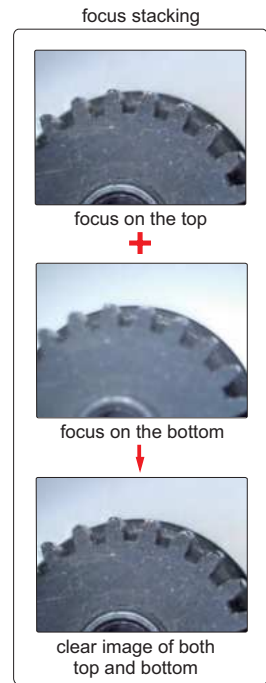
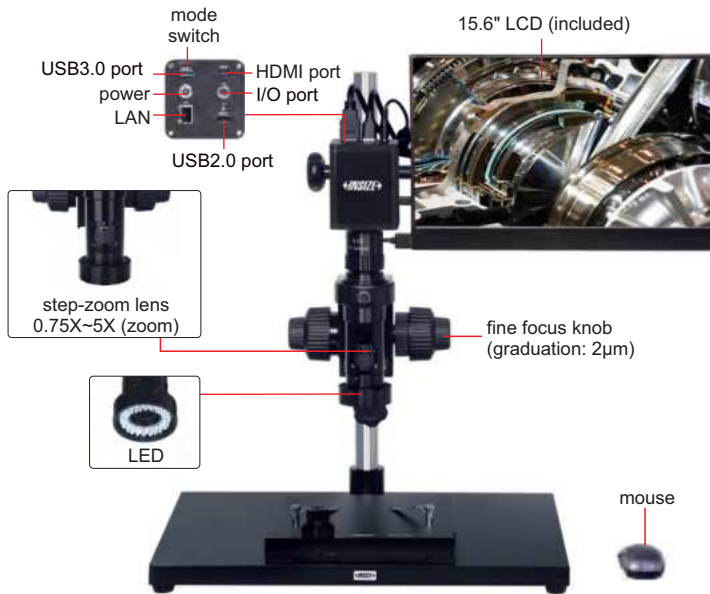
1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	page 728~729
Auxiliary objective	page 730

4K AUTO FOCUS MEASURING MICROSCOPE CODE 5315-S710

IMAGE
STITCHING

DUAL SCREEN
OPERATION

FOCUS
STACKING



- 4K high-definition image
- Switchable LCD mode and computer mode
- Take pictures or videos, save to memory card
- Measurement results can be sent to Excel
- Auto focus
- Automatic white balance and exposure



calibration plate
(included)



1X camera adapter
(optional)



2X auxiliary objective
(optional)

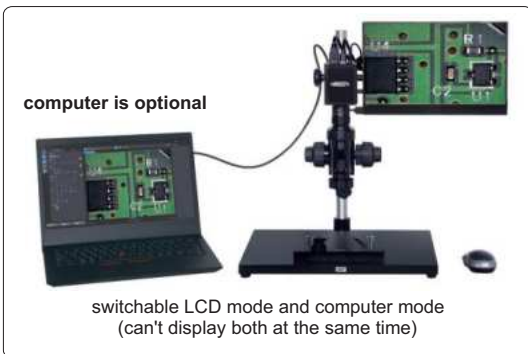
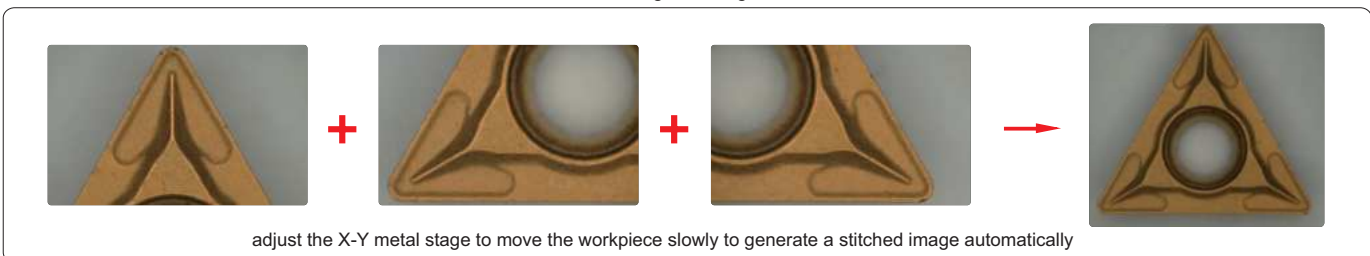


image stitching



To be continued

Continued from previous page

SPECIFICATION

Magnification	17.5X~109X (on 15.6" LCD)
Sensor	1/1.7" CMOS
Pixel	12M
Resolution	4000×3000
Frame rate	30fps
Output	HDMI/USB/LAN
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	15kg

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash drive	1 pc
Mouse	1 pc
X-Y metal stage	1 pc

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD (on 15.6" LCD)

Specification	Camera adapter	
	0.5X (included)	1X (optional)
Magnification	17.5~109X	35~218X
Focus distance	73±2mm	73±2mm
View filed	19.2×11.0~3.2×1.9mm	9.6×5.5~1.6×0.9mm

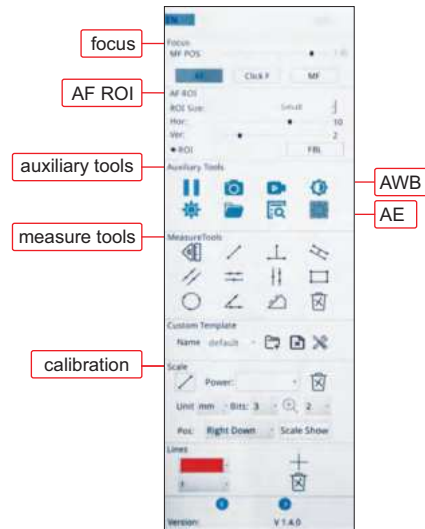
OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
Computer	ISM-DL-COMPUTER
LED light	page 728~729
Auxiliary objective	page 730

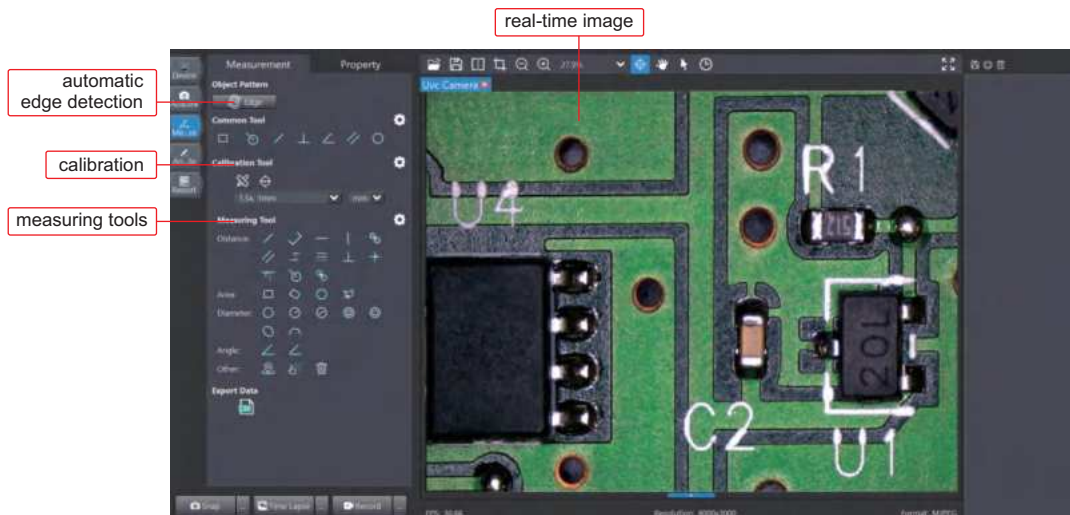
MAGNIFICATION AND MEASURING ACCURACY (on 15.6" LCD)

Objective magnification	Image magnification	Measuring accuracy
0.75X	17.5X	±20µm
1X	23X	±20µm
1.5X	33X	±20µm
2X	45X	±20µm
2.5X	55X	±20µm
3X	65X	±20µm
3.5X	75X	±20µm
4X	85X	±10µm
4.5X	100X	±10µm
5X	109X	±10µm

SOFTWARE FOR LCD (INCLUDED)



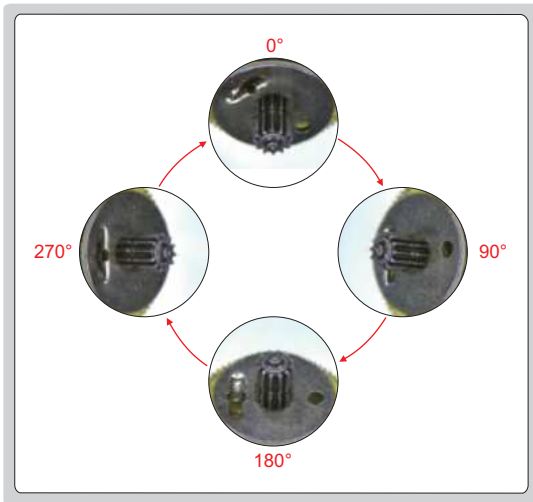
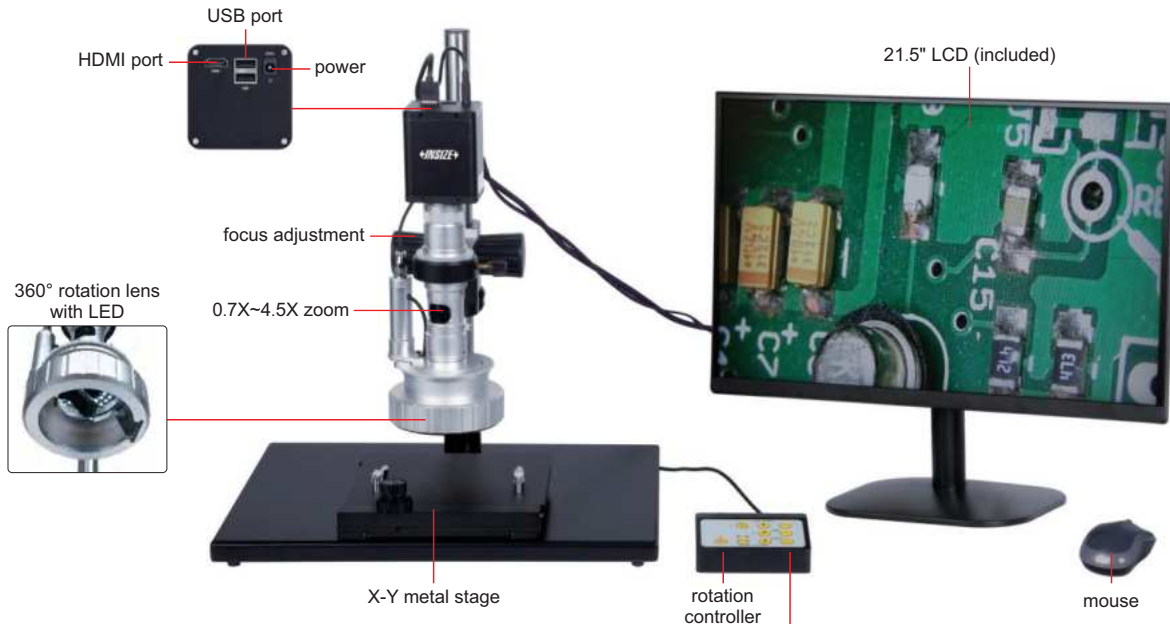
SOFTWARE FOR COMPUTER (INCLUDED)



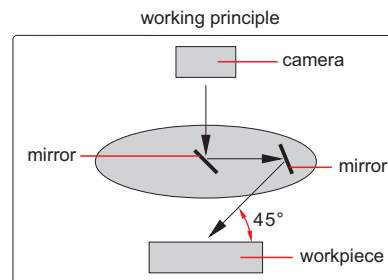
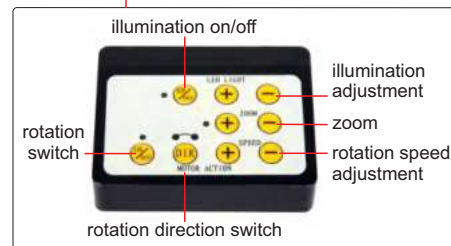
MOTORIZED 3D ROTATION MICROSCOPE CODE 5301-D400

TAKE PICTURES
AND VIDEOS

SUITABLE TO CHECK CONVEX
OBJECTS AND WALL OF HOLE



360° rotation observation



SPECIFICATION

Magnification	15X~100X
View field	4.2×2.7mm~28×18mm
Focus distance	40mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Rotation speed	2~4RPM
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

- 1080P high-definition 3D image
- Take pictures and videos, save to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio and gain are adjustable

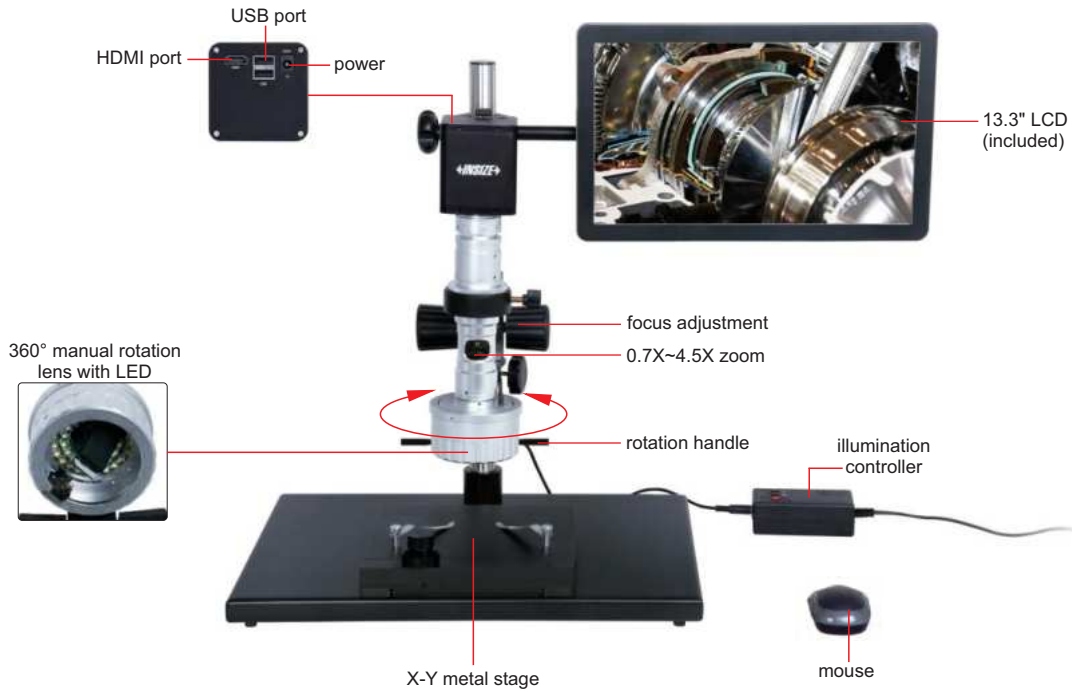
STANDARD DELIVERY

Main unit	1 pc
Rotation controller	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

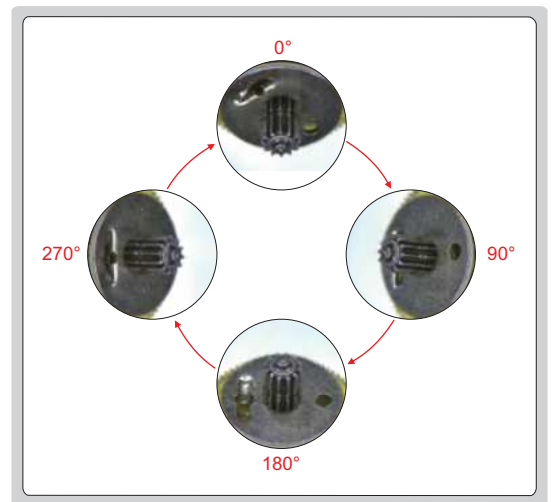
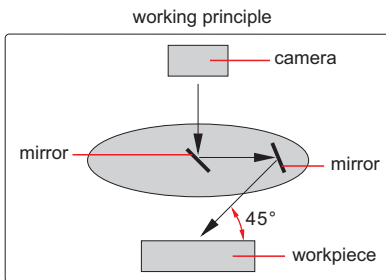
TAKE PICTURES AND VIDEOS

SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLES

MANUAL 3D ROTATION MICROSCOPE CODE 5313-S407



360° manual rotation lens with LED



360° rotation observation

SPECIFICATION

Magnification	18X~120X
View field	2.4×1.5mm~16×9mm
Focus distance	20mm
View angle	45°
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	220V, 50/60Hz
Dimension (L×W×H)	570×300×430mm
Weight	10kg

STANDARD DELIVERY

Main unit	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

DIGITAL MEASURING MICROSCOPES

BUILT-IN SOFTWARE
WITHOUT COMPUTER

MEASUREMENT

TAKE
PICTURES



0.5X camera adapter
(included)



1X auxiliary objective
(included)



calibration plate
(included)



16G USB flash disk
(included)

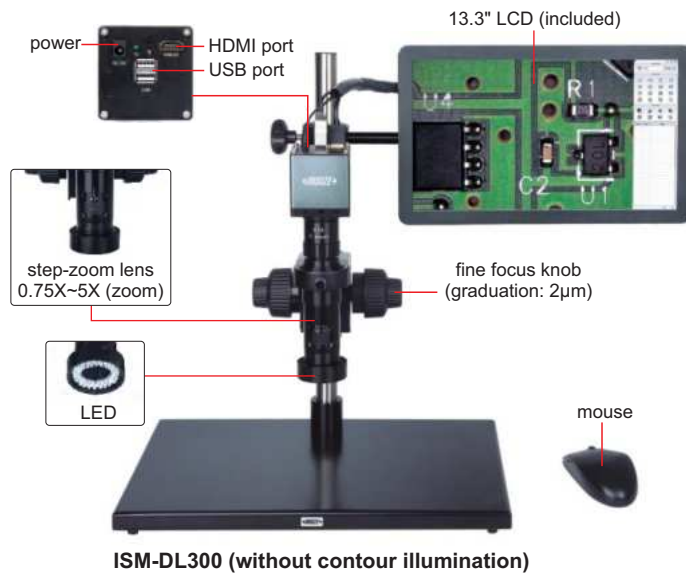


1X camera adapter
(optional)

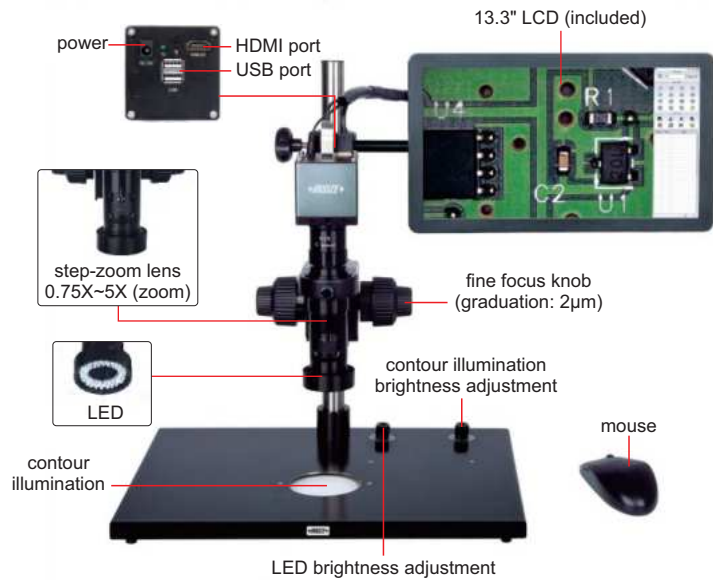


2X auxiliary objective
(optional)

- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable



ISM-DL300 (without contour illumination)



ISM-DL301 (with contour illumination)

SPECIFICATION

Code	ISM-DL300 (without contour illumination)	ISM-DL301 (with contour illumination)
Magnification	15X-100X	
Sensor	1/2" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	
Output	HDMI	
Power supply	power adapter	
Dimension (L×W×H)	570×300×430mm	
Weight	6.5kg	

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage	ISM-DL-STAGE1
LED light	page 728-729
Auxiliary objective	page 730

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy *
0.75X	15X	±8μm
1X	20X	±7μm
1.5X	30X	±6μm
2X	40X	±6μm
2.5X	50X	±6μm
3X	60X	±5μm
3.5X	70X	±5μm
4X	80X	±4μm
4.5X	90X	±4μm
5X	100X	±4μm

* When measuring the contour of workpieces, please use ISM-DL301 to ensure accuracy.

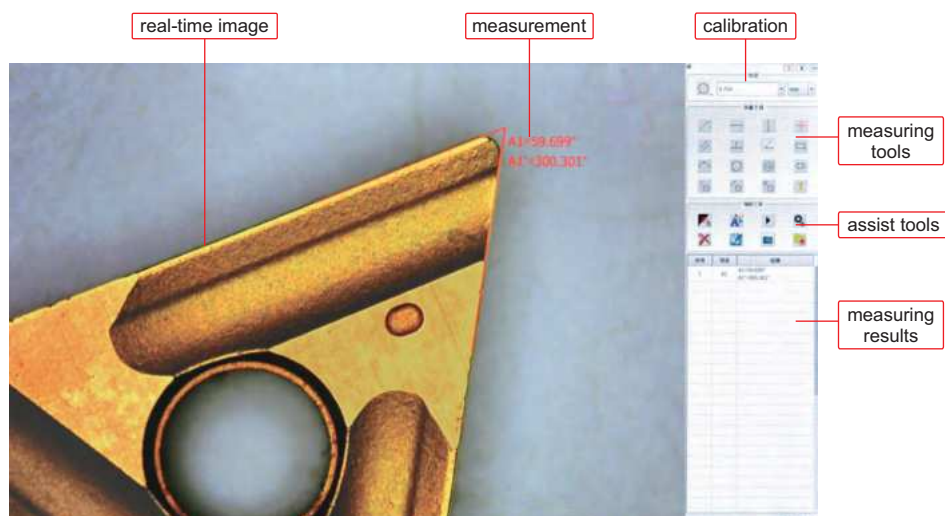


MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

SOFTWARE (INCLUDED)

- Refer to page 727 for details



DIGITAL MEASURING MICROSCOPE (BASIC TYPE)

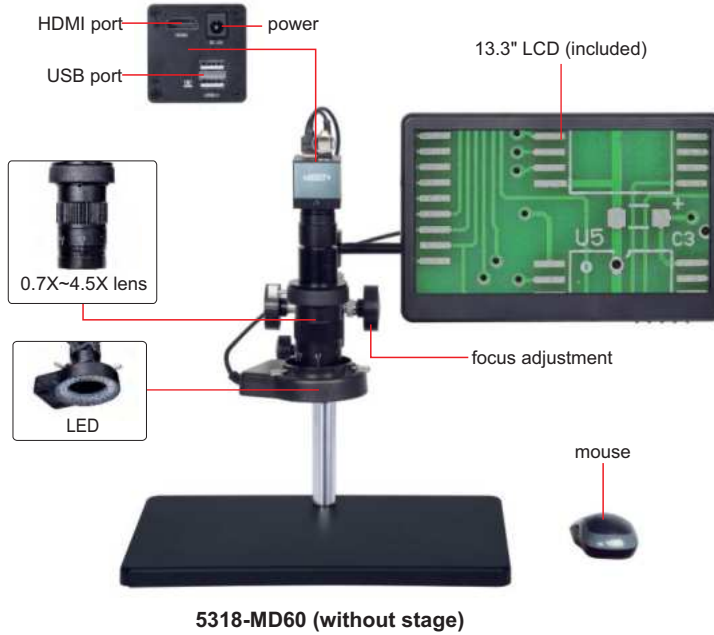


MEASUREMENT

TAKE PICTURES

BUILT-IN SOFTWARE WITHOUT COMPUTER

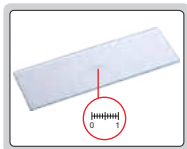
POPULAR MODEL



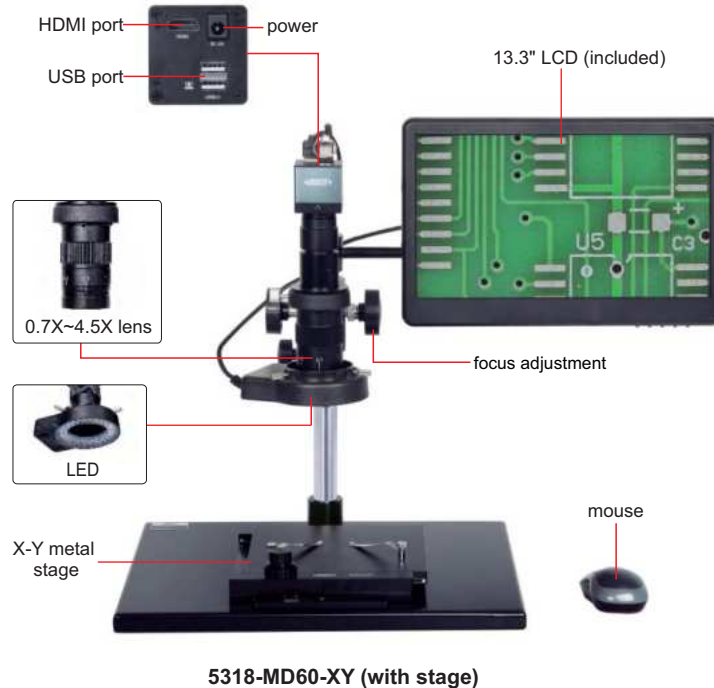
16G USB flash disk (included)



white/black plate (included)



glass calibration ruler (graduation 0.1mm, included)



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Brightness, contrast ratio, gain are adjustable

To be continued

Continued from previous page

SPECIFICATION

Code	5318-MD60 (without stage)	5318-MD60-XY (with stage)
Magnification	12.5X~80X	12.5X~80X
Sensor	1/2.8" CMOS	1/2.8" CMOS
Pixel	2M	2M
Resolution	1920×1080	1920×1080
Frame rate	60fps	60fps
Measuring accuracy	±0.02mm	±0.02mm
Lines	cross lines, scale lines (number, color and position of lines are adjustable)	cross lines, scale lines (number, color and position of lines are adjustable)
Output	HDMI	HDMI
Power supply	power adapter	power adapter
Dimension (L×W×H)	380×260×350mm	570×300×430mm
Weight	4.5kg	10kg

STANDARD DELIVERY

Code	5318-MD60 (without stage)	5318-MD60-XY (with stage)
Main unit	1 pc	1 pc
0.5X camera adapter	1 pc	1 pc
1X auxiliary objective	1 pc	1 pc
White/black plate	1 pc	1 pc
Glass calibration ruler	1 pc	1 pc
16G USB flash disk	1 pc	1 pc
Mouse	1 pc	1 pc
HDMI cable	1 pc	1 pc
Power adapter	3 pcs	3 pcs
X-Y metal stage	/	1 pc

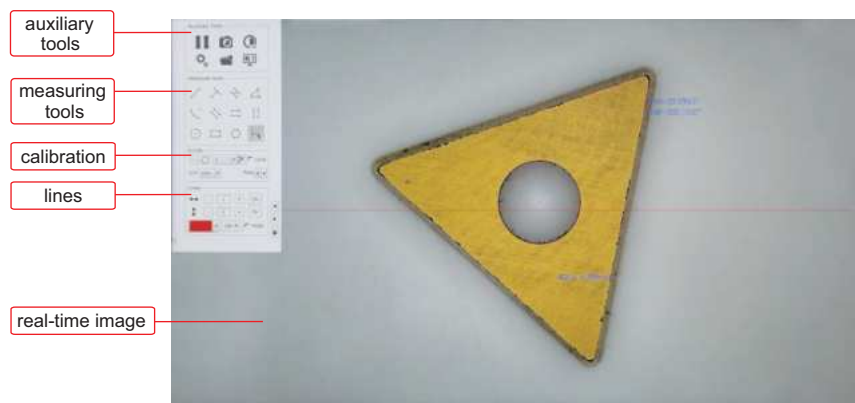
MAGNIFICATION AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter
		0.5X (included)
0.5X (optional)	magnification	6.2~40X
	view field	47×26~7.4×4mm
1X (included)	magnification	12.5~80X
	view field	23.5×13~3.7×2mm
2X (optional)	magnification	25~160X
	view field	11.8×6.5~1.8×1mm

OPTIONAL ACCESSORY

0.5X auxiliary objective	5318-OB05X
2X auxiliary objective	5318-OB2X

MEASURING SOFTWARE (INCLUDED)

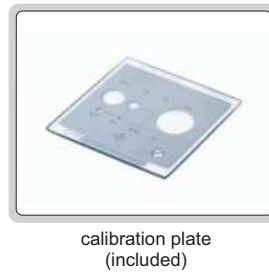
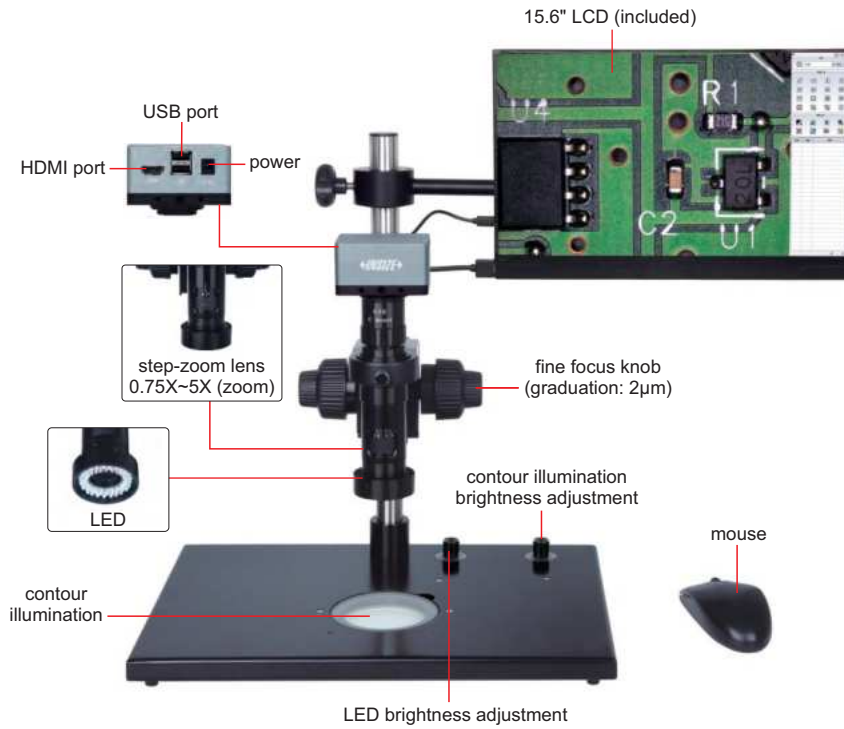


4K DIGITAL MEASURING MICROSCOPE CODE 5310-DL401

BUILT-IN SOFTWARE
WITHOUT COMPUTER

TAKE
PICTURES

MEASUREMENT



- 4K high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

24

SPECIFICATION

Magnification	17.6X~120X
Sensor	1/2.3" CMOS
Pixel	8M
Resolution	3840×2160
Frame rate	4K: 30fps, 1080P: 60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg



To be continued

Continued from previous page

MAGNIFICATION, VIEW FIELD AND MEASURING ACCURACY

Objective magnification	Image magnification	View field	Measuring accuracy
0.75X	17.6X	19.5×11.5mm	±5μm
1X	23.7X	14.0×8.0mm	±5μm
1.5X	36.6X	9.0×5.0mm	±5μm
2X	49X	7.0×4.0mm	±5μm
2.5X	62X	5.5×3.0mm	±4μm
3X	73X	4.5×2.5mm	±4μm
3.5X	85X	4.0×2.2mm	±4μm
4X	97X	3.5×2.0mm	±3μm
4.5X	109X	3.0×1.8mm	±3μm
5X	120X	2.7×1.5mm	±3μm

STANDARD DELIVERY

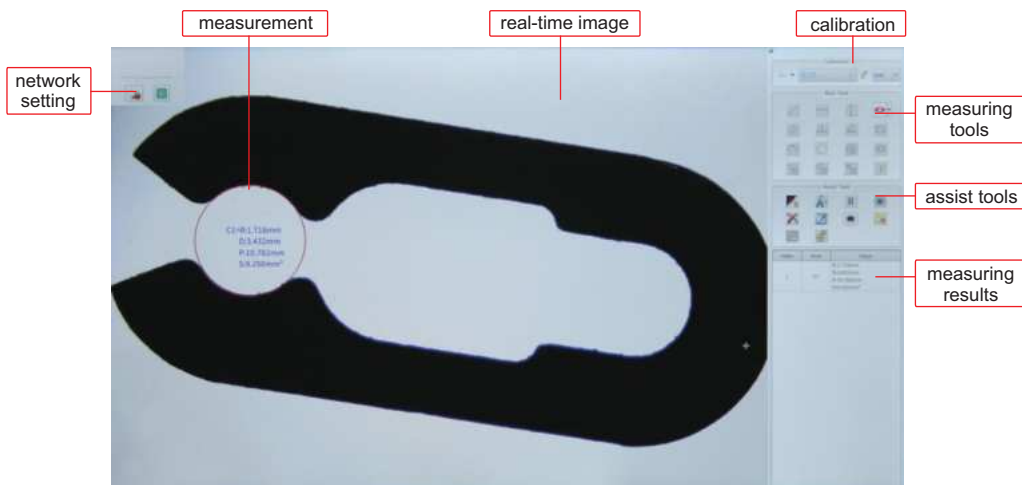
Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
X-Y metal stage (travel: 100×86mm)	ISM-DL-STAGE1
LED light	page 728~729
Auxiliary objective	page 730

SOFTWARE (INCLUDED)

- Refer to page 727 for details

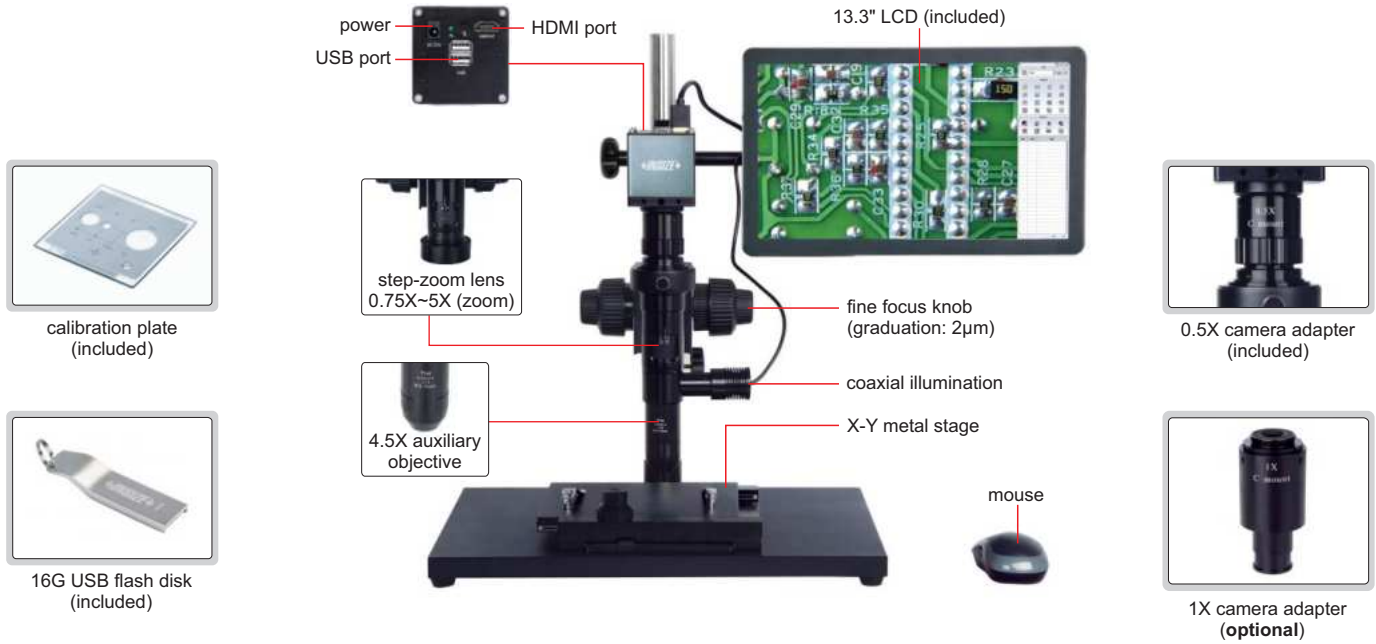


HIGH MAGNIFICATION MEASURING MICROSCOPE CODE ISM-DL302



SOFTWARE IS INCLUDED,
REFER TO PAGE 727 FOR DETAILS

OBSERVATION AND MEASUREMENT
AT HIGH MAGNIFICATION



- 1080P high-definition image
- Maximum 1000X optical magnification (using camera adapter 1X, optional)
- Built-in software without computer, operated by mouse
- Solid base and column to avoid lens shaking during focusing
- Software is included, refer to page 727 for details

SPECIFICATION

Magnification	78X~504X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	15kg

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	78X	±5µm
1X	102X	±4µm
1.5X	153X	±4µm
2X	204X	±4µm
2.5X	255X	±4µm
3X	305X	±4µm
3.5X	356X	±4µm
4X	408X	±4µm
4.5X	458X	±4µm
5X	504X	±4µm

SATNDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
4.5X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
X-Y metal stage	1 pc

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Camera adapter	0.5X (included)	1X (optional)
Magnification	78~504X	156~1008X
Focus distance	14±2mm	14±2mm
View field	2.8×1.7~0.5×0.3mm	1.4×0.9~0.3×0.2mm

OPTIONAL ACCESSORY

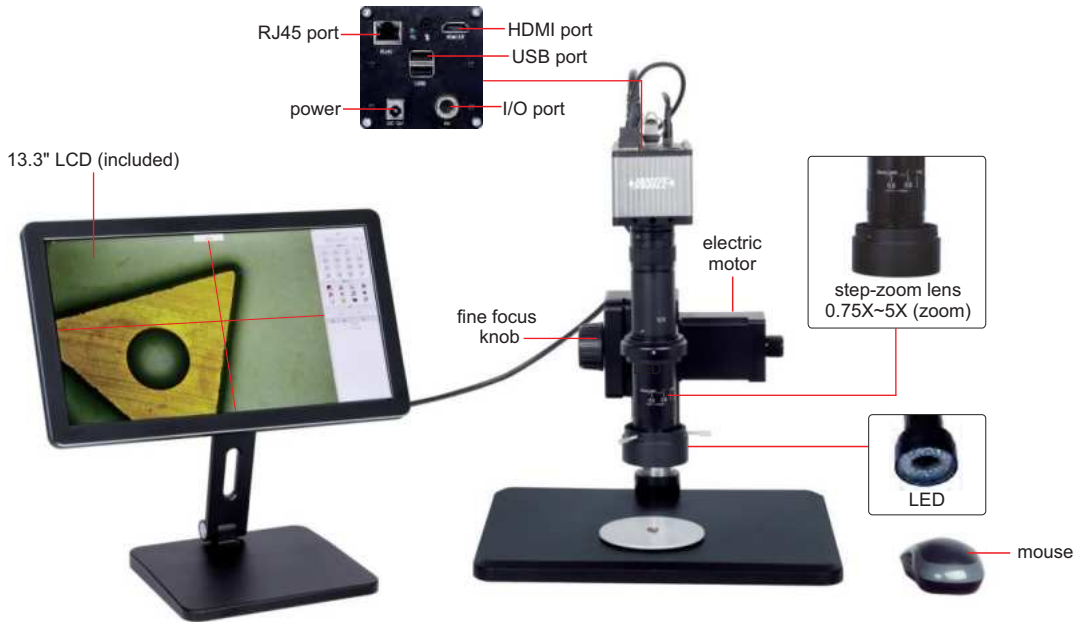
1X camera adapter	ISM-DL-CA1X
LED light	page 728~729

MOTORIZED FOCUS
STACKING

BUILT-IN SOFTWARE
WITHOUT COMPUTER



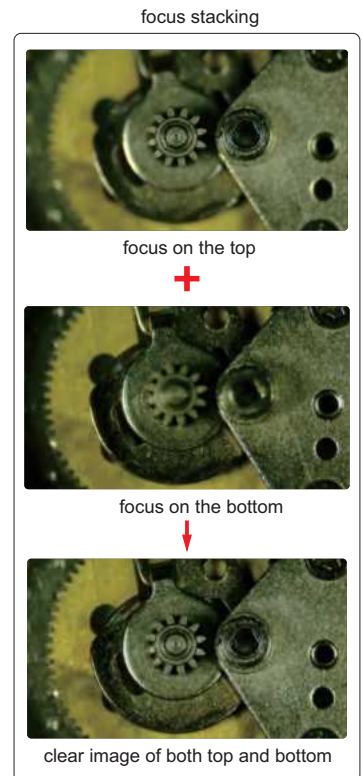
MOTORIZED FOCUS STACKING MICROSCOPE (LARGE DEPTH OF VIEW) CODE ISM-DL520



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Motorized focus stacking
- Send photos and measurement data via ethernet (TCP/IP)
- Name photos and measurement data files with serial number of workpieces read by scanner

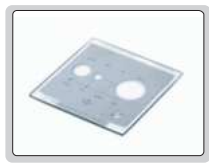
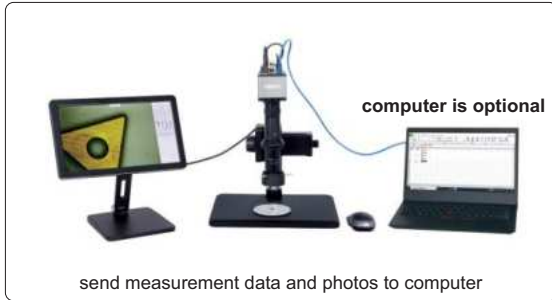
SPECIFICATION

Magnification	24.5X~204.5X
View field	2.8×1.6~18×10mm
Focus distance	65mm
Sensor	1/1.2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	30fps
Output	RJ45
Power supply	power adapter
Dimension (L×W×H)	320×260×500mm
Weight	7kg



To be continued

Continued from previous page



calibration plate
(included)



16G USB flash disk
(included)

STANDARD DELIVERY

Main unit	1 pc
1X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
LED ring light	1 pc
White/black plate	1 pc
Power adapter	3 pcs

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.6X	24.5X	±8µm
0.8X	32.7X	±7µm
1X	40.9X	±6µm
1.5X	61.3X	±6µm
2X	81.8X	±6µm
2.5X	102.2X	±5µm
3X	122.7X	±5µm
3.5X	143.1X	±4µm
4X	163.6X	±4µm
4.5X	184.0X	±4µm
5X	204.5X	±4µm

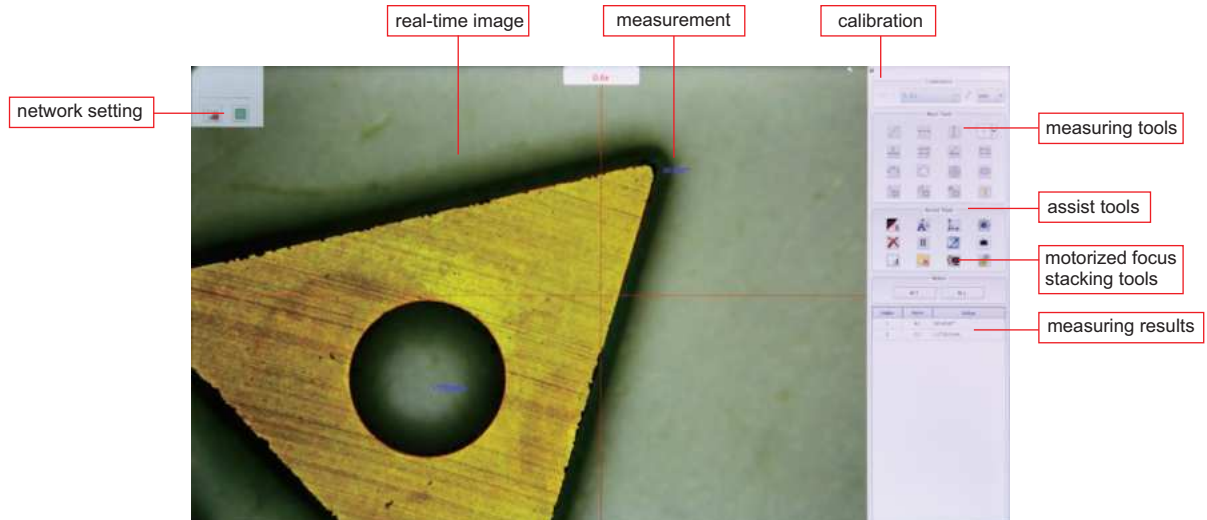


OPTIONAL ACCESSORY

X-Y metal stage (travel: 100×86mm)	ISM-DL-STAGE1
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SOFTWARE (INCLUDED)

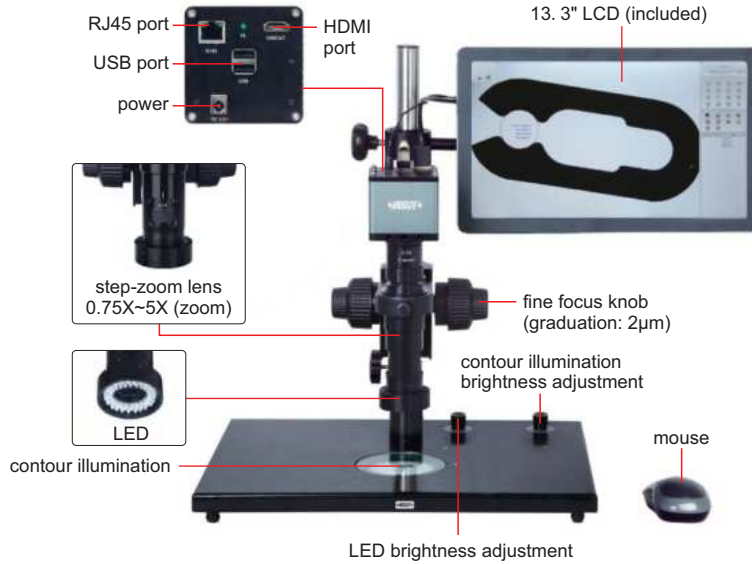
- Refer to page 727 for details



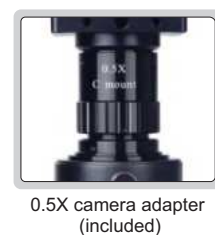
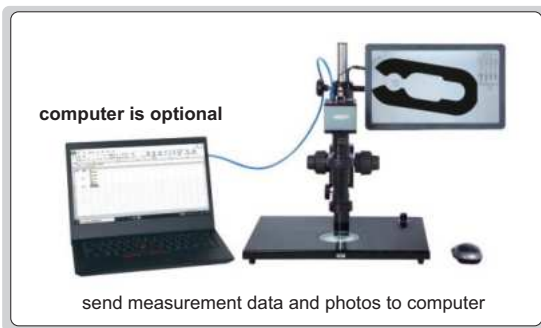
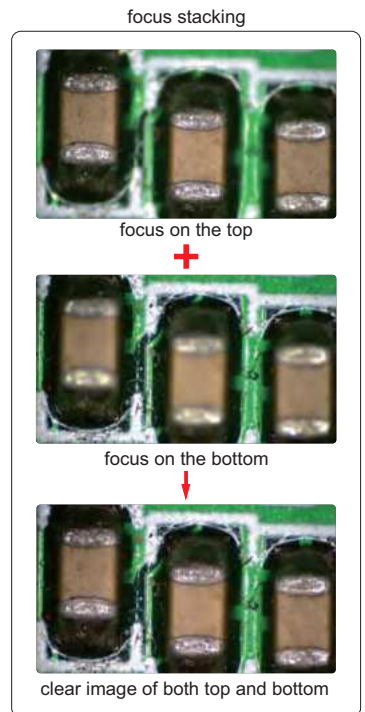
**BUILT-IN SOFTWARE
WITHOUT COMPUTER**

**FOCUS
STACKING**

MANUAL FOCUS STACKING MICROSCOPE (LARGE DEPTH OF VIEW) CODE ISM-DL510



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Focus stacking
- Send photos and measurement data via ethernet (TCP/IP)
- Name photos and measurement data files with serial number of workpieces read by scanner



SPECIFICATION

Magnification	15X~100X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

To be continued

Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	3 pcs

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
X-Y glass stage (travel: 100×86mm)	ISM-DL-STAGE
Scanner and hub	7328-SCAN
LED light	page 728~729
Auxiliary objective	page 730

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Image magnification	Measuring accuracy
0.75X	15X	±8µm
1X	20X	±7µm
1.5X	30X	±6µm
2X	40X	±6µm
2.5X	50X	±6µm
3X	60X	±5µm
3.5X	70X	±5µm
4X	80X	±4µm
4.5X	90X	±4µm
5X	100X	±4µm

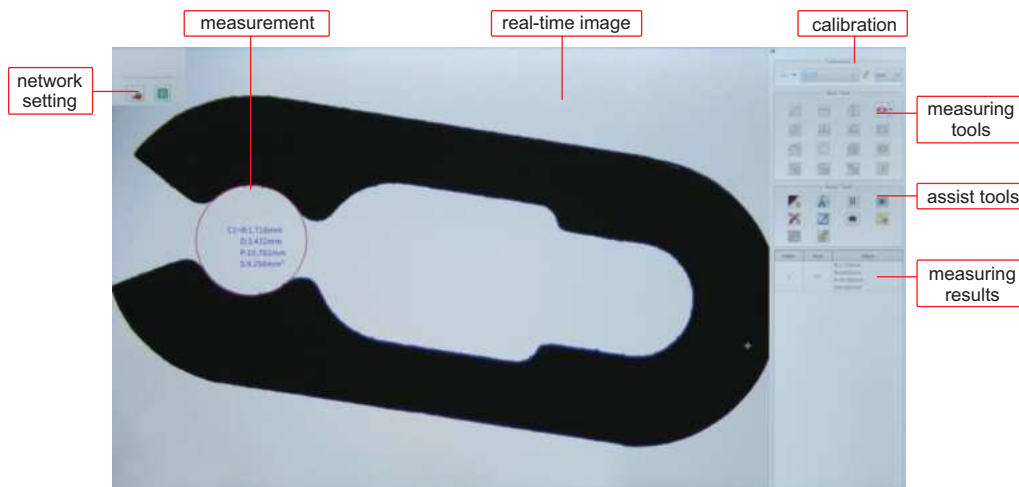


MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

SOFTWARE (INCLUDED)

■ Refer to page 727 for details

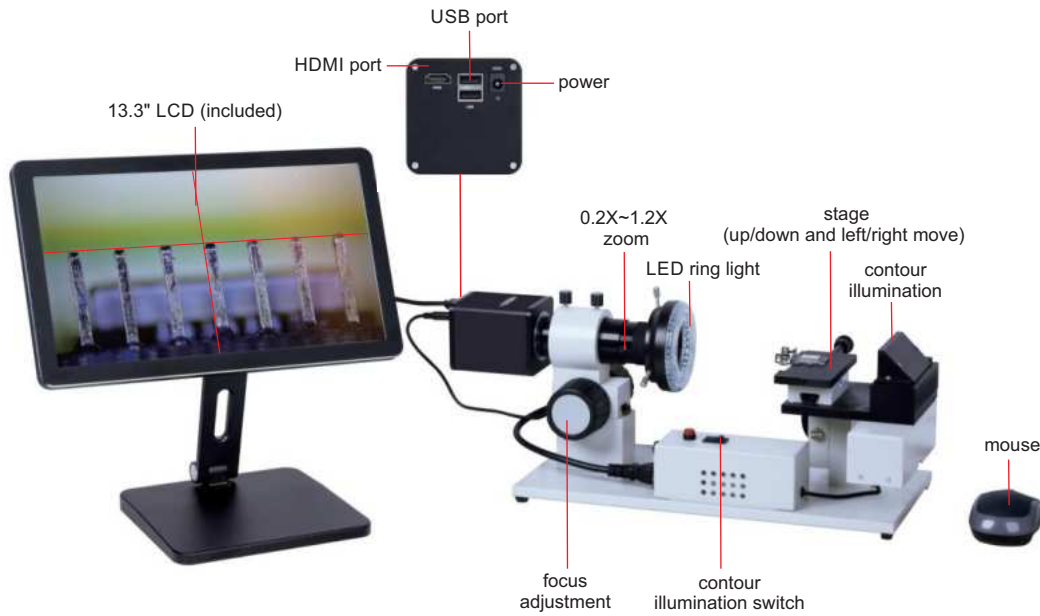




BUILT-IN SOFTWARE
WITHOUT COMPUTER

TAKE
PICTURES

HORIZONTAL MICROSCOPE CODE 5316-HM810



- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)



plastic calibration ruler
(included, graduation 1mm)



16G USB flash disk
(included)

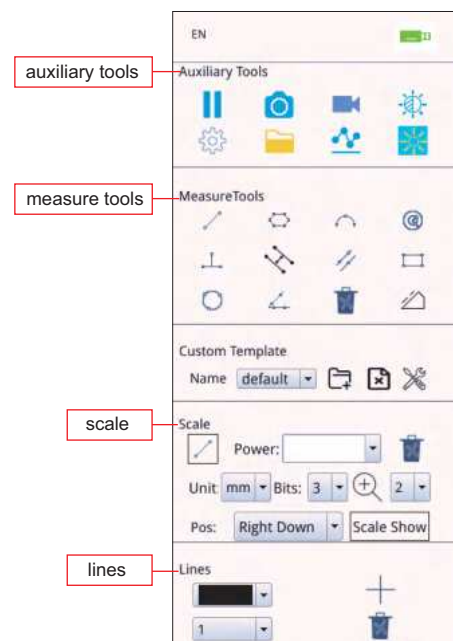
SPECIFICATION

Magnification	10.5X~62.5X
View field	4.5×2.5~28×12.3mm
Focus distance	115mm
Measuring accuracy	±0.02mm
Sensor	1/2.8" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	1080P: 60fps/50fps
Output	HDMI
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	500×200×200mm
Weight	7kg

STANDARD DELIVERY

Main unit	1 pc
1X camera adapter	1 pc
1X auxiliary adapter	1 pc
Plastic calibration ruler	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
LED ring light	1 pc

SOFTWARE (INCLUDED)

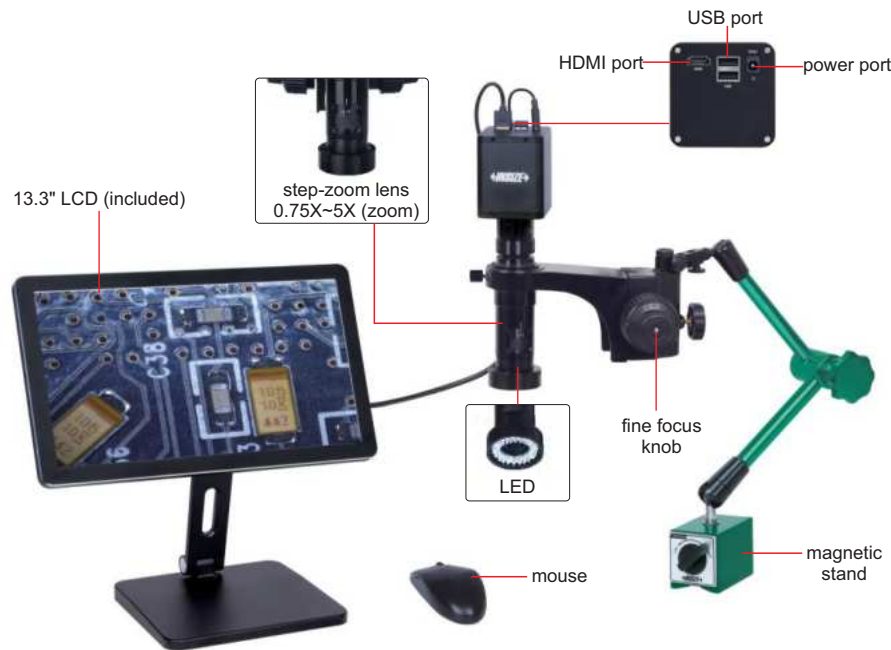


FLEXIBLE ARM AUTO FOCUS DIGITAL MICROSCOPES

AUTO FOCUS

TAKE PICTURES AND VIDEOS

MEASUREMENT

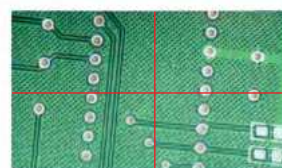


5317-AF109



5317-AF110

- 1080P high-definition image
- Auto focus camera
- Take pictures and videos, saved to USB flash disk
- Picture review, picture compare
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display cross hair (blue/green/red/yellow/black/brown colors)
- Built-in software without computer, operation by mouse
- Flexible arm



display cross hair (blue/green/red/yellow/black/brown colors)

To be continued

Continued from previous page

SPECIFICATION

Code	5317-AF109 (with magnetic stand)	5317-AF110 (with desktop clamp)
Magnification	20X~123X	
Sensor	1/2.8" CMOS	
Pixel	2M	
Resolution	1920×1080	
Frame rate	60fps	
Power supply	power adapter	
Dimension (height)	480mm	600mm
Weight	5.6kg	8.5kg



calibration plate
(included)



16G USB flash disk
(included)



0.5X camera adapter
(included)



1X auxiliary objective
(included)

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	20~123X	40~246X
	focus distance	48~84mm	48~84mm
	view field	13×7~2.2×1mm	6.3×3.5~1.1×0.5mm
	measuring accuracy	±0.02mm	±0.02mm
2X (optional)	magnification	40~246X	80~492X
	focus distance	24~42mm	24~42mm
	view field	6.5×3.5~1.1×0.5mm	3.3×1.8~0.6×0.3mm
	measuring accuracy	±0.02mm	±0.02mm

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
HDMI cable	1 pc
Power adapter	2 pcs

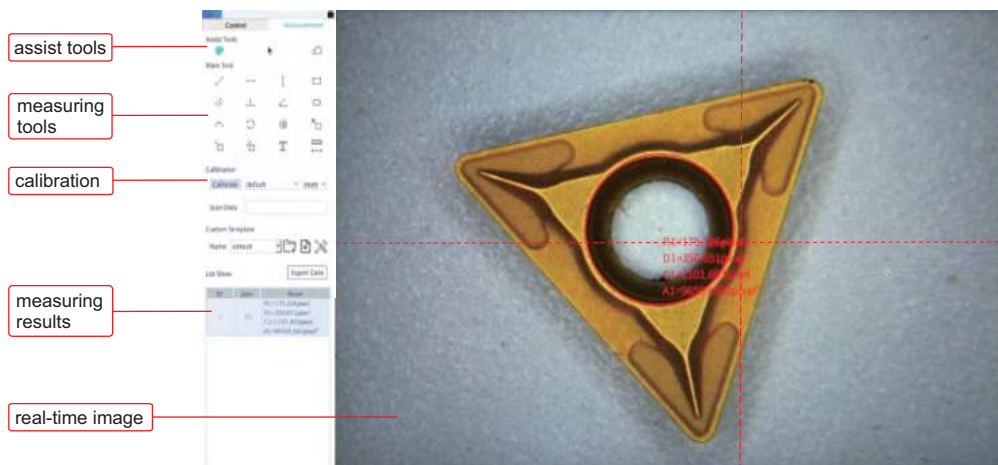
AUTO FOCUS DISTANCE

Zoom objective scale	0.75X	1X	1.5X	2X	2.5X
Auto focus distance	48~84mm	50~78mm	55~73mm	62~71mm	65~70mm
Zoom objective scale	3X	3.5X	4X	4.5X	5X
Auto focus distance	66~70mm	67~70mm	68~70mm	68~70mm	68~70mm

OPTIONAL ACCESSORY

1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
Auxiliary objective	page 730

MEASURING SOFTWARE (INCLUDED)



- assist tools
- measuring tools
- calibration
- measuring results
- real-time image

MOTORIZED ZOOM MICROSCOPE (BASIC TYPE) CODE 5325-VM100

PROGRAMMABLE SEGMENTED
RING LIGHT

DISPLAY ACTUAL
MAGNIFICATION

POPULAR
MODEL

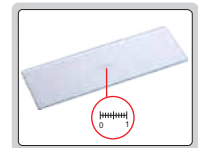


- Built-in software without computer
- Can be connected to display and computer at the same time
- Motorized zoom objective
- Display actual magnification
- Programmable segmented ring light
- Take pictures and videos



SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	10~68.5X
Measuring accuracy	±0.02mm
Max. workpiece height	135mm
Frame rate	60fps
Output	USB/LAN/HDMI
Power supply	power adapter
Dimension (L×W×H)	261×320×480mm
Weight	5.1kg



glass calibration ruler
(graduation 0.1mm,
included)

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD (on 11.6" LCD)

Specification	Objective	
	0.5X (optional)	1X (included)
Magnification	5~34.2X	10~68.5X
Focus distance	180mm	87mm
View filed	7.4×4.2~53×31.2mm	3.7×2.1~26.5×15.6mm



white/black plate
(included)

24

STANDARD DELIVERY

Main unit	1 pc
Glass calibration ruler	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Network cable	1 pc
Shortcut keyboard	1 pc



16G USB flash disk
(included)

OPTIONAL ACCESSORY

0.5X auxiliary objective *	5325-VM100-OB05X
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* Measurement is not recommended with 0.5X auxiliary objective

To be continued


Continued from previous page



shortcut keyboard (included)

Shortcut Keyboard Function

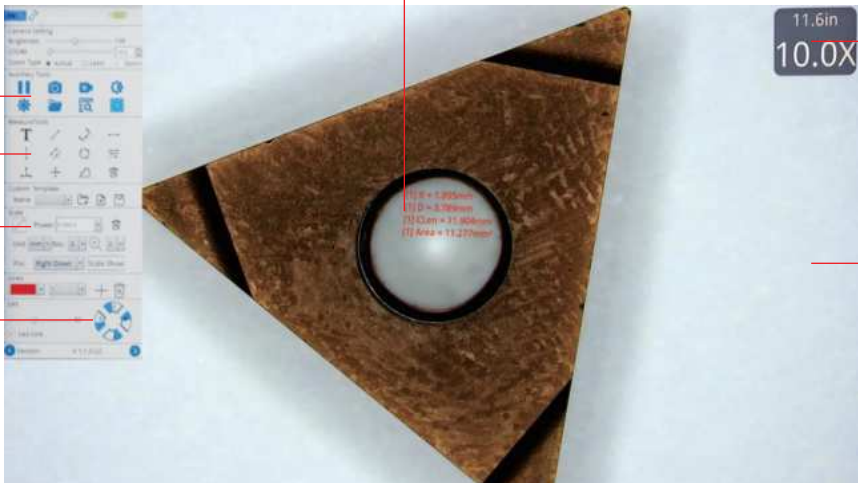
- Take picture: take a picture and save it
- Video: record a video
- Freeze: the image can be frozen
- Zoom+: increase the magnification
- Zoom-: reduce the magnification
- Mirror: image horizontal flip over
- Flip: image vertical flip over
- Zoom 1, 2, 3, 4: save the current magnification
- Brightness+: increase the brightness of the light
- Brightness-: reduce the brightness of the light



computer is optional

can be connected to display and computer at the same time

SOFTWARE FOR LCD (INCLUDED)



measurement

real-time magnification

real-time image

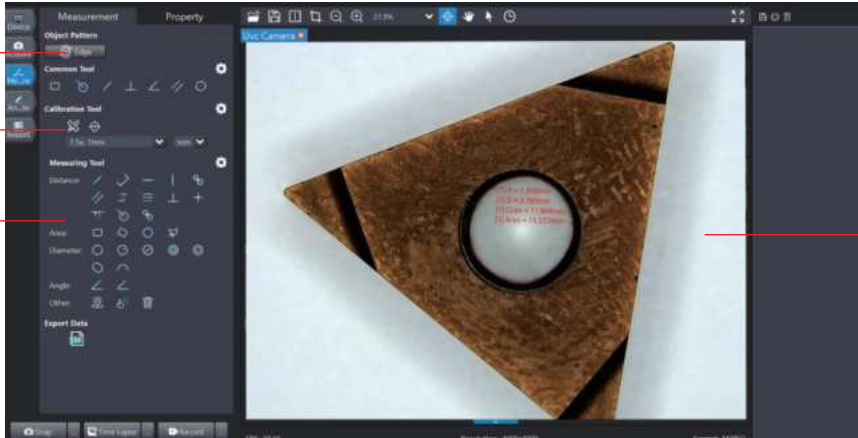
assist tools

measuring tools

calibration

illumination brightness adjustment

SOFTWARE FOR COMPUTER (INCLUDED)



automatic edge detection

calibration

measuring tools

real-time image

LARGE DEPTH OF VIEW DIGITAL MEASURING MICROSCOPE (ADVANCED TYPE) CODE 5322-ID250A

**FOCUS
STACKING**

**ELECTRONIC MAGNIFICATION
FEEDBACK LENS**

**PROGRAMMABLE
SEGMENTED RING LIGHT**



adjustable display angle



eight-zone LED ring light



11.6" LCD (included)

USB ports
objective magnification
adjustment (0.7X~4.5X)

focus adjustment

power on/off

mouse

- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Send photos and measurement data via ethernet (TCP/IP)
- Digital magnification
- Can be connected to display and computer at the same time
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel



16G USB flash disk (included)



calibration plate (included)

SPECIFICATION

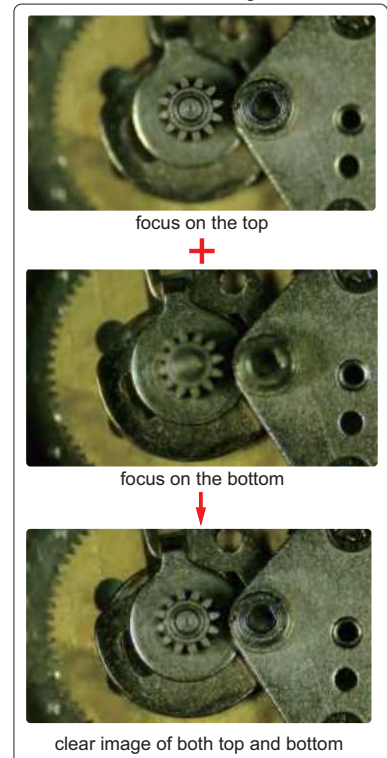
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	60mm
View field	3.2×1.8~20.9×11.7mm
Max. workpiece height	53mm
Frame rate	60fps
Output	USB/HDMI/LAN
Power supply	power adapter
Dimension (L×W×H)	260×320×500mm
Weight	5.2kg

24

MAGNIFICATION AND MEASURING ACCURACY

Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±9µm
1X	17X	±9µm
1.5X	26X	±8µm
2X	35X	±7µm
2.5X	43X	±7µm
3X	51X	±7µm
3.5X	60X	±6µm
4X	68X	±6µm
4.5X	77X	±5µm

focus stacking



To be continued

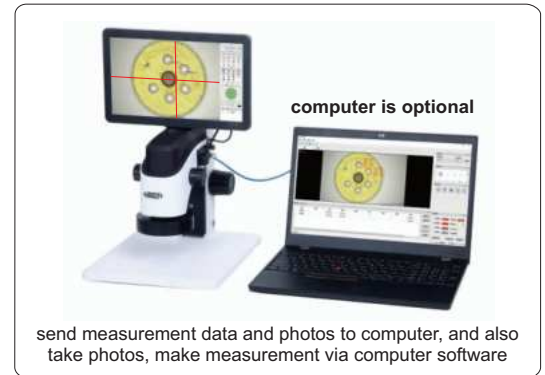
Continued from previous page

STANDARD DELIVERY

Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

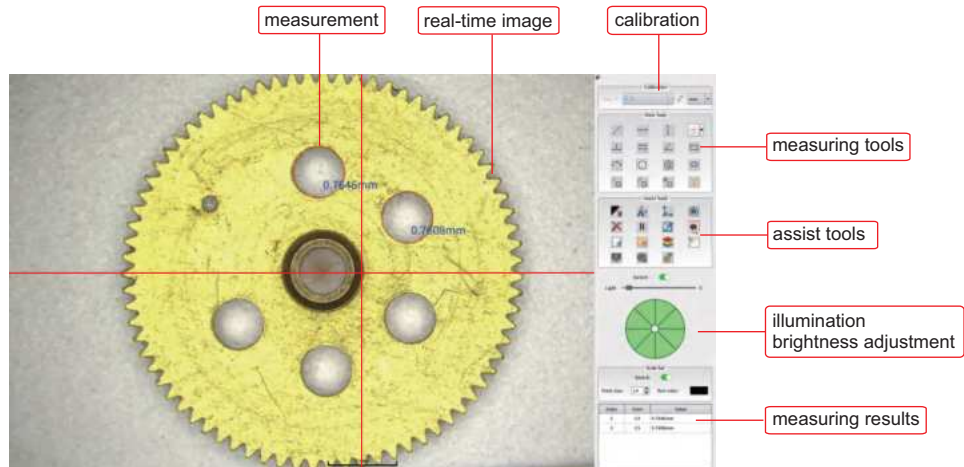
OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

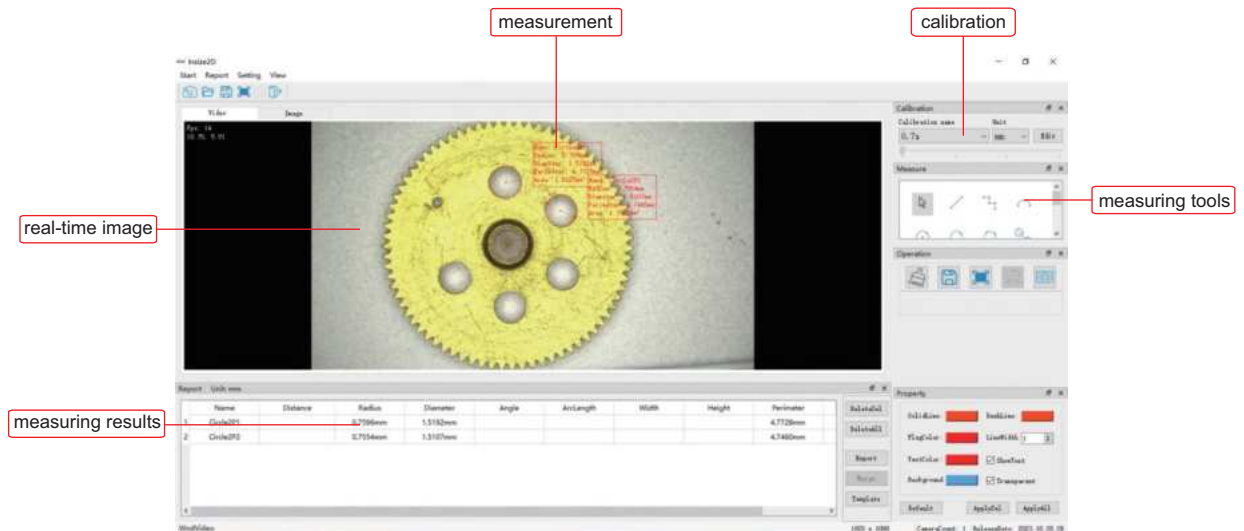


SOFTWARE FOR LCD (INCLUDED)

Refer to page 727 for details



SOFTWARE FOR COMPUTER (INCLUDED)



DIGITAL MEASURING MICROSCOPE (STANDARD TYPE) CODE 5307-ID100A

ELECTRONIC MAGNIFICATION
FEEDBACK LENS

BUILT-IN SOFTWARE
WITHOUT COMPUTER



- Electronic magnification feedback lens: when the objective lens magnification is changed manually, the software automatically selects the corresponding pre-calibration data and calibration is not needed
- Two methods of LED brightness adjustment, knob adjustment and software adjustment
- Built-in software without computer, operated by mouse
- Take pictures, save to USB flash disk
- Measuring results can be sent to Excel

adjustable display angle



LED ring light
1X auxiliary objective



11.6" LCD (included)

USB ports
objective magnification adjustment (0.7X~4.5X)
focus adjustment
illumination brightness adjustment
power on/off

mouse

SPECIFICATION

Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Magnification	12~77X
Focus distance	65mm
View field	3.2×1.8~20.9×11.7mm
Max. workpiece height	60mm
Frame rate	60fps
Output	USB/HDMI
Power supply	power adapter
Dimension (L×W×H)	260×320×500mm
Weight	5.2kg

STANDARD DELIVERY

Main unit	1 pc
Calibration plate	1 pc
Power adapter	1 pc
Mouse	1 pc
16G USB flash disk	1 pc

MAGNIFICATION AND MEASURING ACCURACY

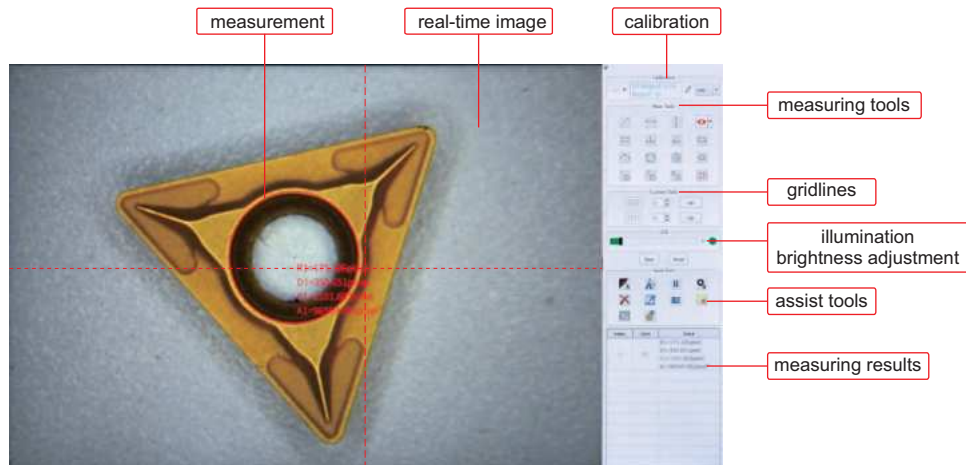
Objective magnification	Magnification	Measuring accuracy
0.7X	12X	±9μm
1X	17X	±9μm
1.5X	26X	±8μm
2X	35X	±7μm
2.5X	43X	±7μm
3X	51X	±7μm
3.5X	60X	±6μm
4X	68X	±6μm
4.5X	77X	±5μm

OPTIONAL ACCESSORY

0.5X auxiliary objective	5307-ID100A-OB05X
0.75X auxiliary objective	5307-ID100A-OB075X
2X auxiliary objective	5307-ID100A-OB2X

SOFTWARE (INCLUDED)

- Refer to page 727 for details



measurement

real-time image

calibration

measuring tools

gridlines

illumination brightness adjustment

assist tools

measuring results

NO CALIBRATION
AFTER ZOOM

TAKE PICTURES
AND VIDEOS

MEASUREMENT

MOTORIZED
ZOOM

AUTO FOCUS DIGITAL MICROSCOPE (ADVANCED TYPE) CODE 5319-AF290



MOTORIZED
LIGHT CONTROL

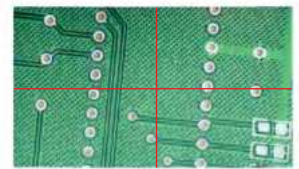
AUTO
FOCUS



16G USB flash disk
(included)



calibration plate
(included)



display cross hair and gridline
(blue/green/red/yellow/
black/white colors)

- Auto focus camera
- Take pictures and videos
- Built-in measuring software
- Automatic exposure and white balance
- Brightness, contrast ratio, gain are adjustable
- Display actual magnification
- Digital magnification
- Shortcut keyboard operation
- Display cross hair and gridline (blue/green/red/yellow/black/white colors)

SPECIFICATION

Magnification	27.4X~163X
Sensor	1/2.8" CMOS
Pixel	2M
Measuring accuracy	±0.02mm
Resolution	1920×1080
Frame rate	50/60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	600×280×390mm
Weight	6.5kg

STANDARD DELIVERY

Main unit (with stand)	1 pc
21.5" LCD	1 pc
16G USB flash disk	1 pc
Mouse	1 pc
HDMI cable	1 pc
Calibration plate	1 pc
White/black plate	1 pc
Shortcut keyboard	1 pc
Power adapter	2 pcs

FOCUS DISTANCE AND VIEW FIELD

Optical magnification*	0.8X	1X	2X	3X	4X	4.76X
Focus distance	88~133mm	88~133mm	98~123mm	103~115mm	108~111mm	108~111mm
View field (mm)	19.4×11~15.8×8.8	15×8.3~12.7×7.2	7.1×4~6.7×3.8	4.8×2.7~4.5×2.5	3.6×2~3.3×1.8	3×1.7~2.8×1.6

* The optical zoom lens can be arbitrarily zoomed between 0.8X and 4.76X

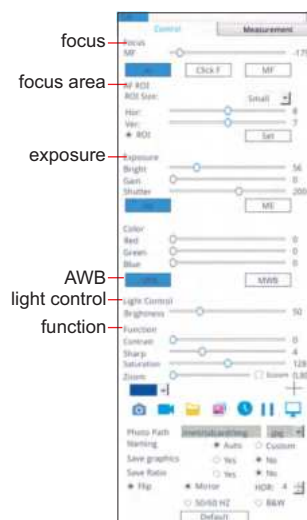


shortcut keyboard
(included)

Shortcut keyboard function

- Take picture: take a picture and save it
- Video: record a video
- Freeze: the image can be frozen
- Manual focus-: reduce the manual focus value
- Manual focus+: increase the manual focus value
- Zoom+: increase the magnification
- Zoom-: reduce the magnification
- AF/MF: switch to auto focus or manual focus
- FBL: center the camera motor
- Mirror: image horizontal flipover
- Flip: image vertical flipover
- Focus: achieve one-key focus
- Zoom 1, 2, 3, 4: save the current magnification
- Brightness+: increase the brightness of the light
- Brightness-: reduce the brightness of the light

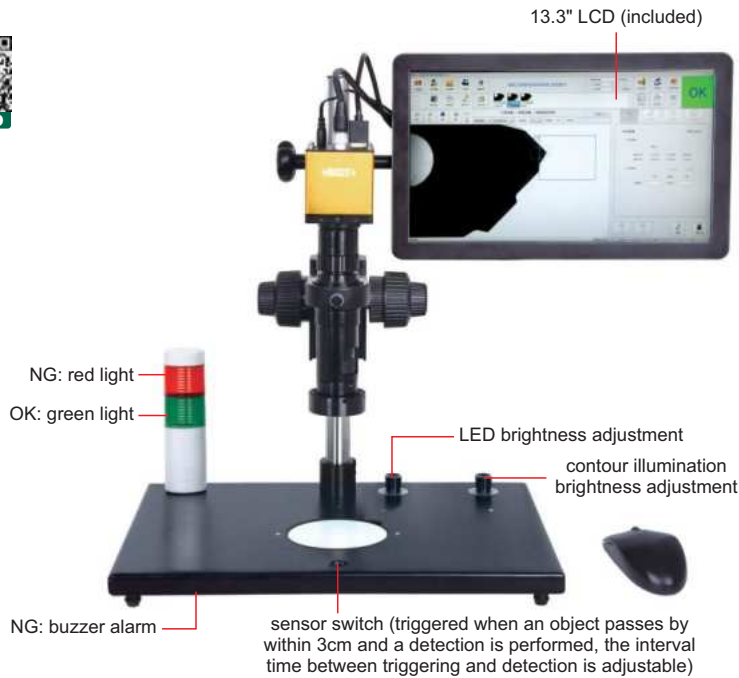
SOFTWARE (INCLUDED)



SMART MICROSCOPE CODE ISM-DL400

**AUTOMATICALLY LOCATE WORKPIECES
REGARDLESS OF POSITION AND DIRECTION**

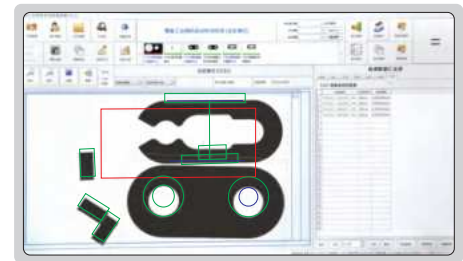
**BUILT-IN SOFTWARE
WITHOUT COMPUTER**



camera function

- surface defect detection
- dimension measurement
- read barcode
- burr detection
- contour matching
- character recognition
- color detection
- read QR code
- object counting
- thread measurement

detect different workpieces at one time



- Automatically identify different workpieces
- Automatically locate workpieces regardless of position and direction
- Built-in software, PLC control input and output interface
- Including multiple detection tools
- Automatically calculate, store the test results and sent to Excel

report showing the perform times of each tool, quantity of OK and NG, the report can be saved

report of each detection is automatically created and saved

SPECIFICATION

Magnification	15X~100X
Resolution	1920×1080
Pixel	2M
Single pixel size	3.75×3.75µm
Frame rate	60fps
Sensor	1/2" CMOS
Chip structure	FPGA+ARM
Operation system	Linux 3.10
Power supply	power adapter
Dimension (L×W×H)	570×300×430mm
Weight	6.5kg

STANDARD DELIVERY

Main unit	1 pc
0.5X camera adapter	1 pc
1X auxiliary objective	1 pc
Calibration plate	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
HDMI cable	1 pc
Power adapter	3 pcs

MAGNIFICATION, FOCUS DISTANCE AND VIEW FIELD

Auxiliary objective	Specification	Camera adapter	
		0.5X (included)	1X (optional)
1X (included)	magnification	15~100X	30~200X
	focus distance	70±2mm	70±2mm
	view filed	16×11~2.5×1.6mm	7.8×5.3~1.2×0.8mm
2X (optional)	magnification	30~200X	60~400X
	focus distance	29±2mm	29±2mm
	view filed	7.8×5.3~1.2×0.8mm	3.8×2.7~0.6×0.4mm

OPTIONAL ACCESSORY

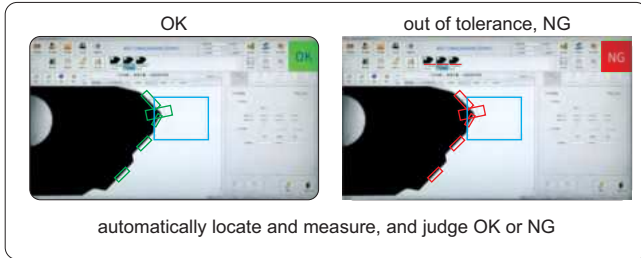
1X camera adapter	ISM-DL-CA1X
2X auxiliary objective	ISM-DL-OB2X
LED light	page 728~729
Auxiliary objective	page 730

To be continued

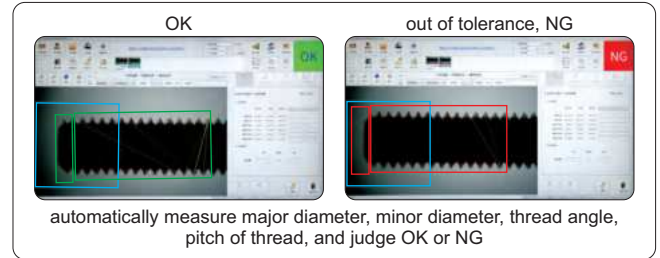
Continued from previous page

■ APPLICATION EXAMPLES:

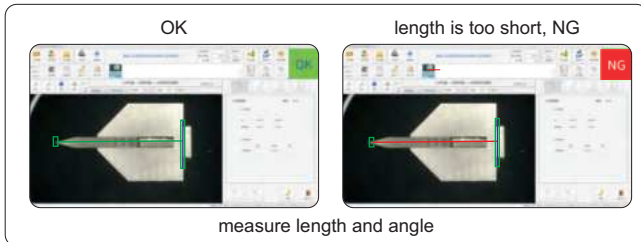
dimension measurement



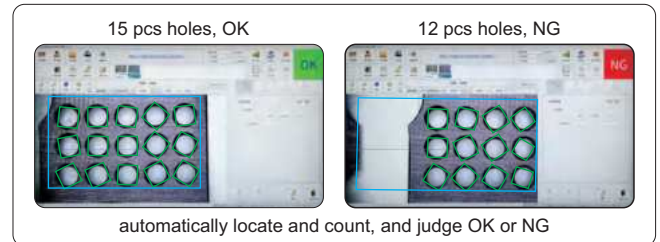
thread measurement



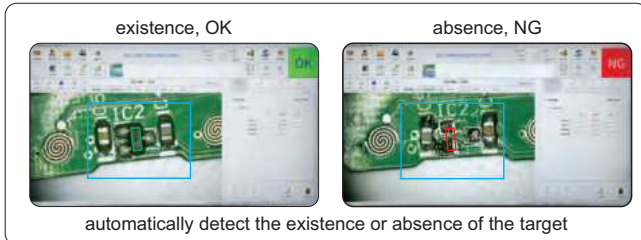
cutting tools measurement



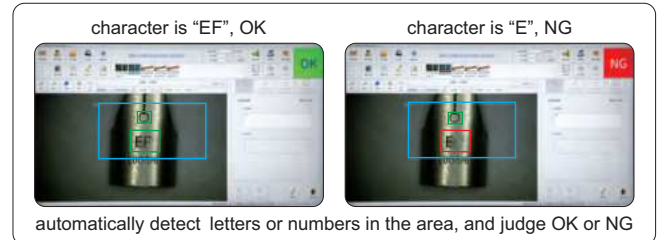
counting



existence or absence



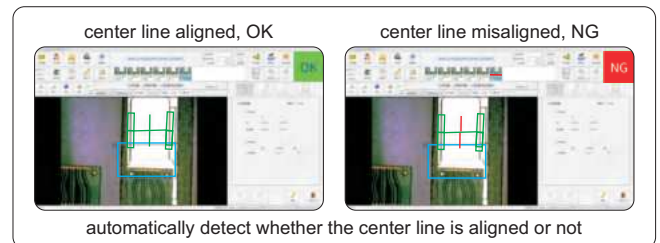
character recognition



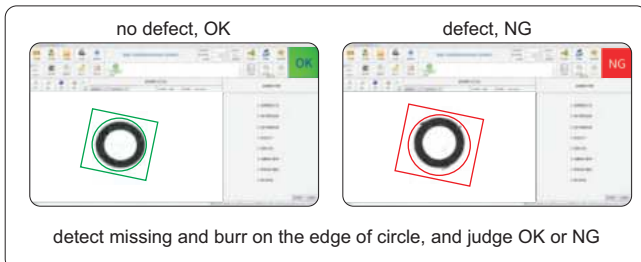
color detection



location detection



surface defect detection



glue detection

