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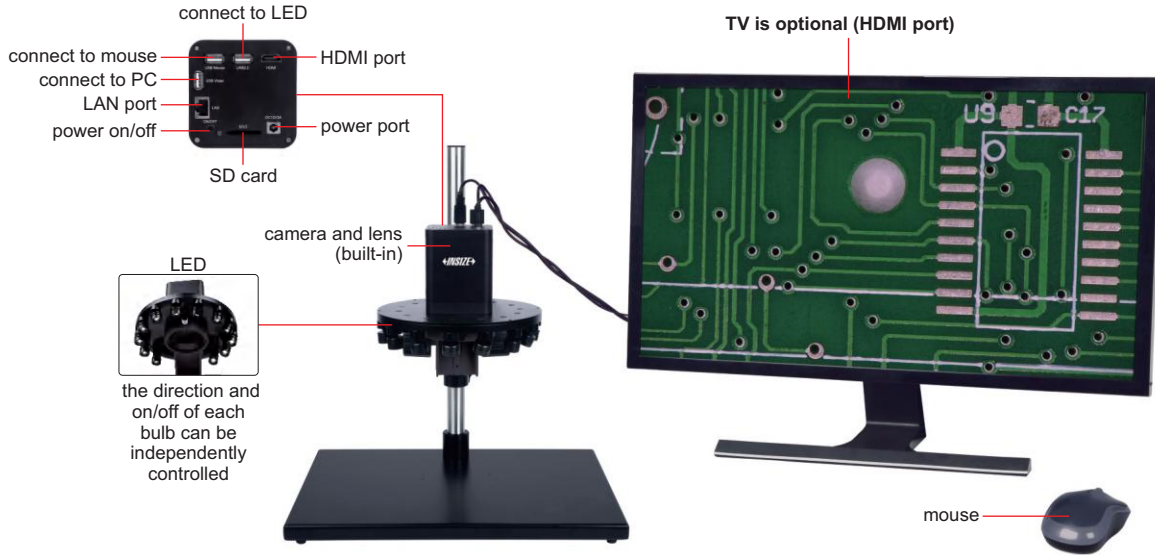
VIDEO

| AUTO FOCUS | MEASUREMENT | TAKE PICTURES AND VIDEOS | LED INDEPENDENT ADJUSTMENT | CAN BE CONNECTED TO PC AND TV AT THE SAME TIME |

connect to LED

connect to mouse
connect to PC
LAN port
power on/off
SD card
HDMI port
power port

TV is optional (HDMI port)

camera and lens (built-in)

LED

the direction and on/off of each bulb can be independently controlled

mouse

computer and TV are optional

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
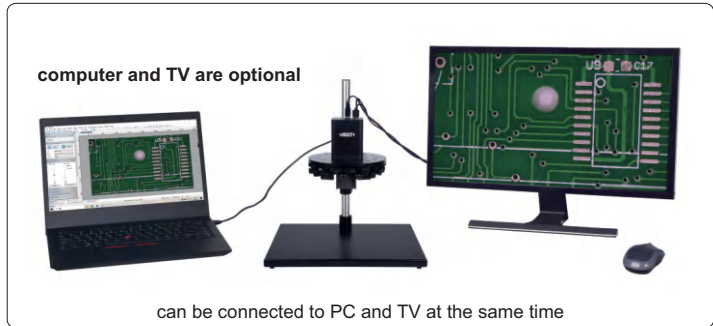
SPECIFICATION

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

24

SOFTWARE FOR TV (INCLUDED)

magnification   measuring tools

control toolbar   auto focus control panel
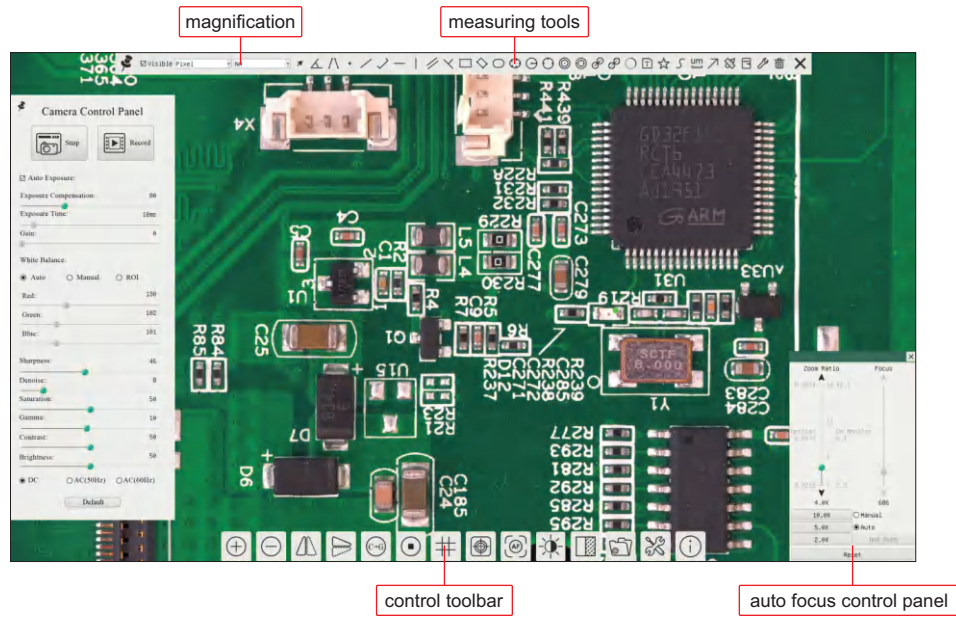
PROFESSIONAL SOFTWARE (INCLUDED, FOR COMPUTER)

measuring items   real-time gray calibration
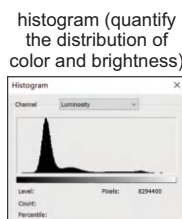
binary
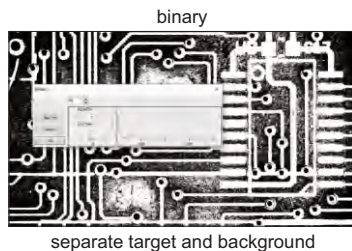
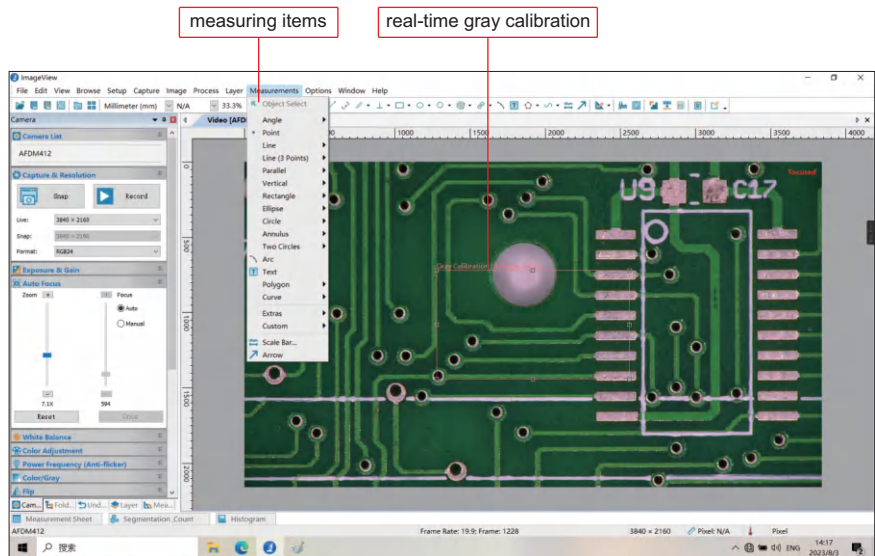separate target and background

3D plot
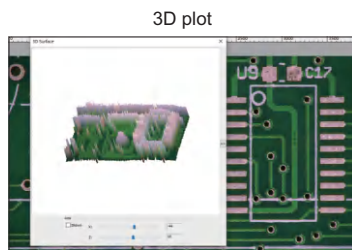
visualize the distribution of
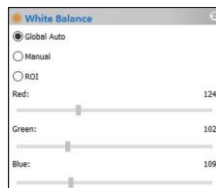image brightness and color
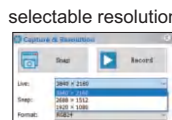
selectable resolution

histogram (quantify
the distribution of
color and brightness)

white balance
(reduce color difference)

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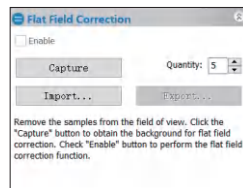
dark field balance
(reduce thermal noise)
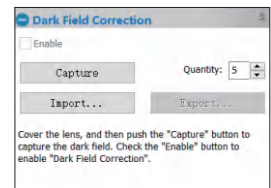
the software can control image completely, including measurement, image stitching, image gray processing, RGB histogram observation, image color sampling, 3D plot (3D representation of image intensity), image exposure, white balance, image bit depth, flat field correction and dark field correction, etc.

24

698

AUTO FOCUS DIGITAL MICROSCOPES (LARGE VIEW FIELD)

TAKE PICTURES AND VIDEOS | **MEASUREMENT** | **CAN BE CONNECTED TO PC AND TV AT THE SAME TIME**
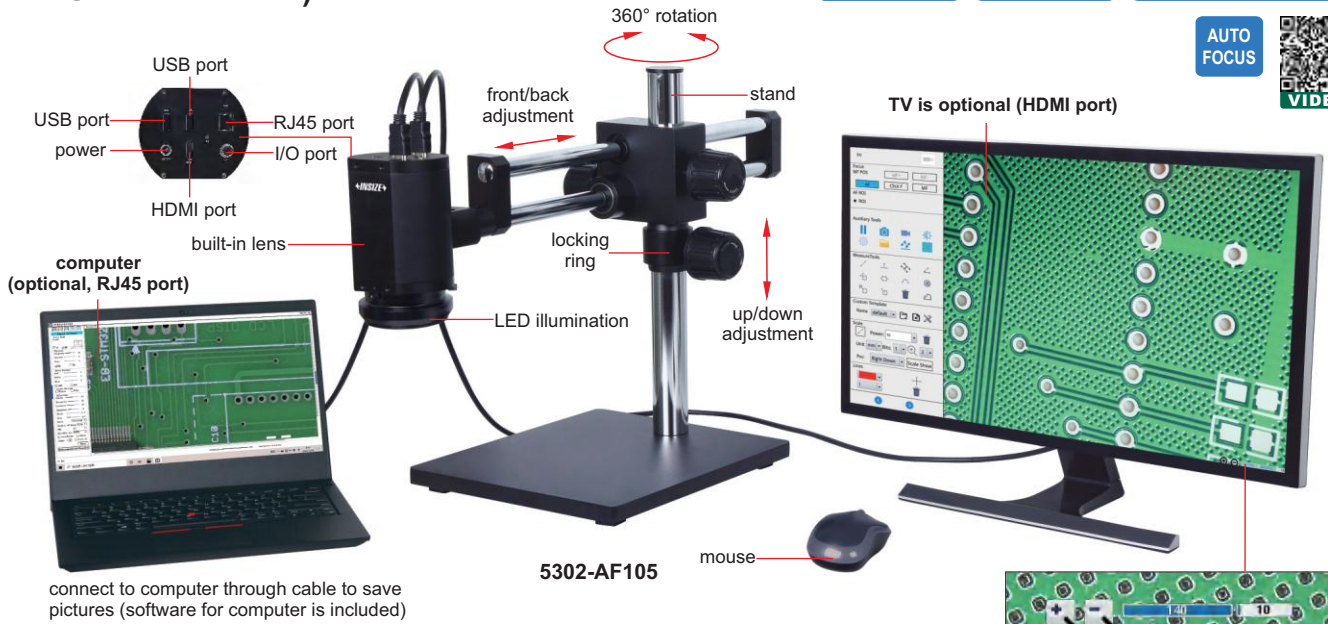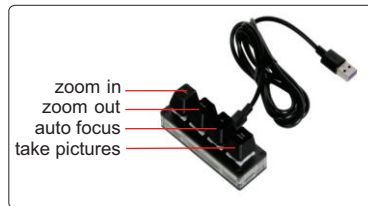
AUTO FOCUS | **VIDEO**

360° rotation

USB port
USB port
power
RJ45 port
I/O port
HDMI port
front/back adjustment
stand
built-in lens
locking ring
up/down adjustment
LED illumination
TV is optional (HDMI port)

computer (optional, RJ45 port)

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

5302-AF105

mouse

optical zoom adjustment

- 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)

controller (**optional**, for TV)

zoom in
zoom out
auto focus
take pictures

TV SOFTWARE (INCLUDED)

focus
auxiliary tools
measuring tools
calibration
cross hair

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
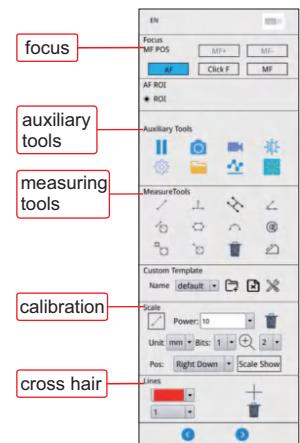
STANDARD DELIVERY

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

699

AUTO FOCUS DIGITAL MICROSCOPE
CODE 5303-AF103

| AUTO FOCUS | TAKE PICTURES AND VIDEOS | MEASUREMENT |

VIDEO

USB port
HDMI port — power
13.3" LCD (included)
focus adjustment
0.75X~5X zoom lens
LED light
mouse
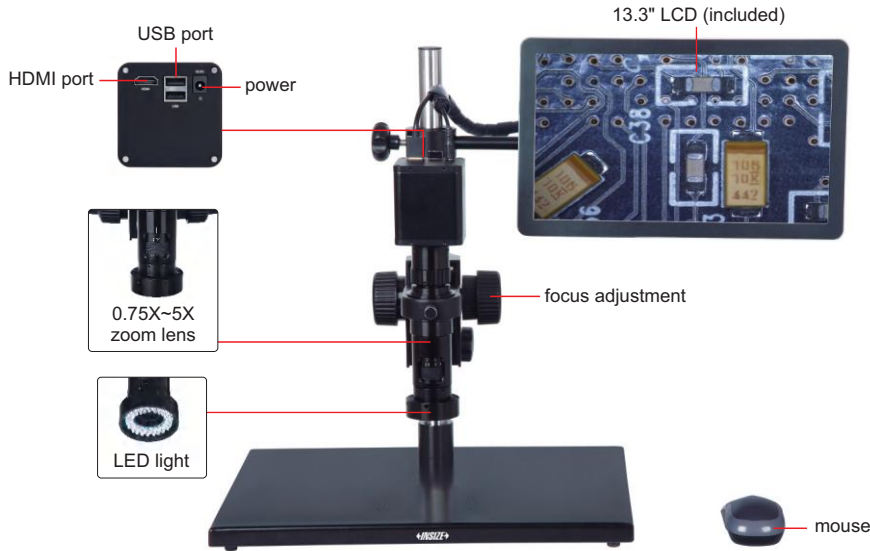
16G USB flash disk (included)

0.5X camera adapter (included)

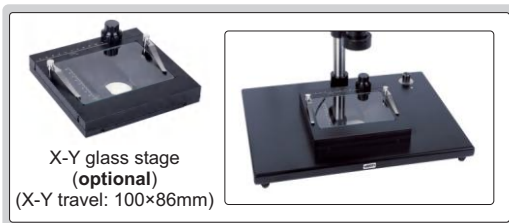1X auxiliary objective
1X auxiliary objective (included)

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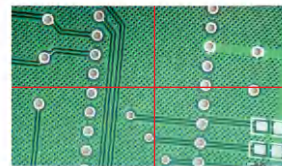
display cross hair (blue/green/red/yellow/ black/brown colors)

1X camera adapter (**optional**)

2X auxiliary objective (**optional**)

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

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

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

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

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

24

4K AUTO FOCUS MEASURING MICROSCOPE
CODE 5315-S710

IMAGE STITCHING **DUAL SCREEN OPERATION** **FOCUS STACKING**

VIDEO

mode switch

USB3.0 port
power
LAN

HDMI port
I/O port

USB2.0 port

15.6" LCD (included)

step-zoom lens
0.75X~5X (zoom)

fine focus knob
(graduation: 2μm)

LED

mouse

focus stacking

focus on the top

+

focus on the bottom

clear image of both
top and bottom
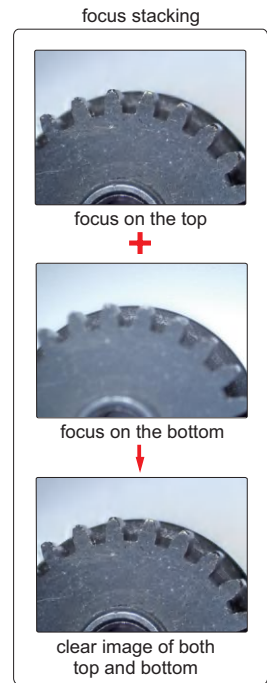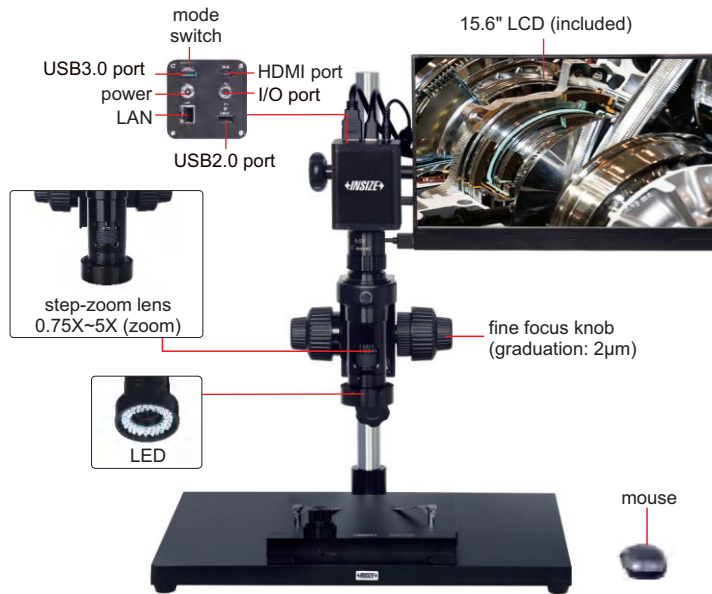
- 4K high-definition image
- Switchable LCD mode and computer mode
- Take pictures or videos, save to memory card
- Measurement results can be sent to Excel
- Auto focus
- Automatic white balance and exposure
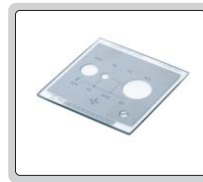
calibration plate
(included)

1X camera adapter
(**optional**)
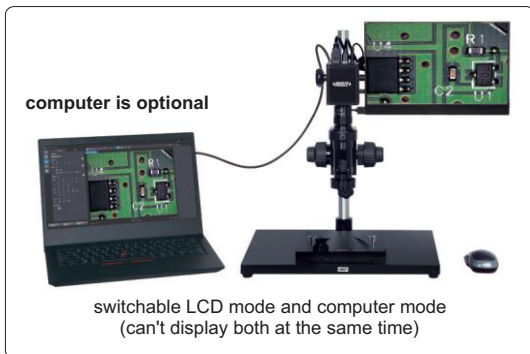
2X auxiliary objective
(**optional**)

computer is optional

switchable LCD mode and computer mode
(can't display both at the same time)

stage moving knob

X-Y metal stage
(included)
(X-Y travel: 100×86mm)

image stitching

+ + →

adjust the X-Y metal stage to move the workpiece slowly to generate a stitched image automatically

To be continued

24

701
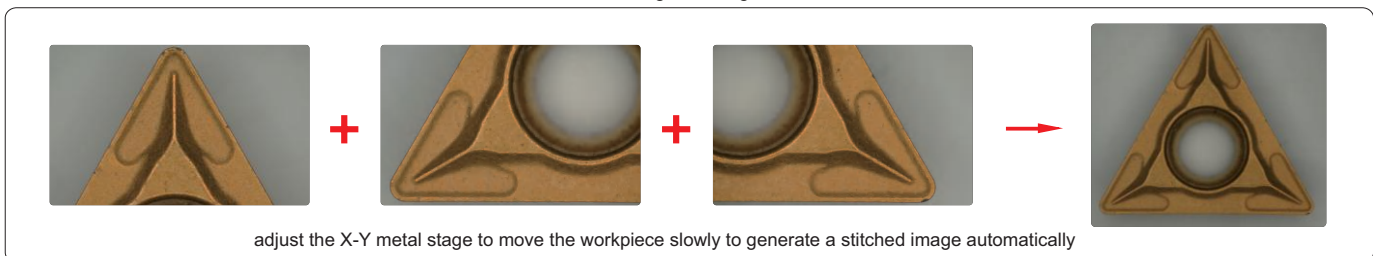
SPECIFICATION

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)

focus
AF ROI
auxiliary tools
AWB
AE
measure tools
calibration

SOFTWARE FOR COMPUTER (INCLUDED)

real-time image
automatic edge detection
calibration
measuring tools
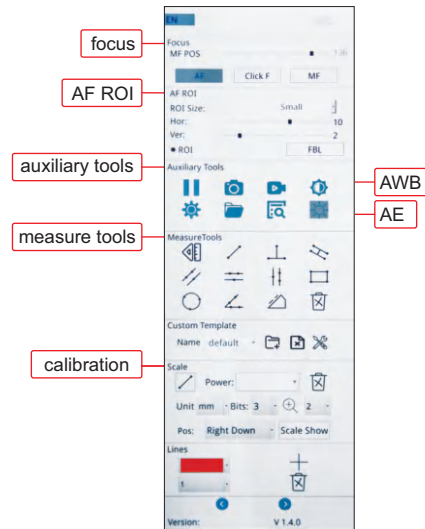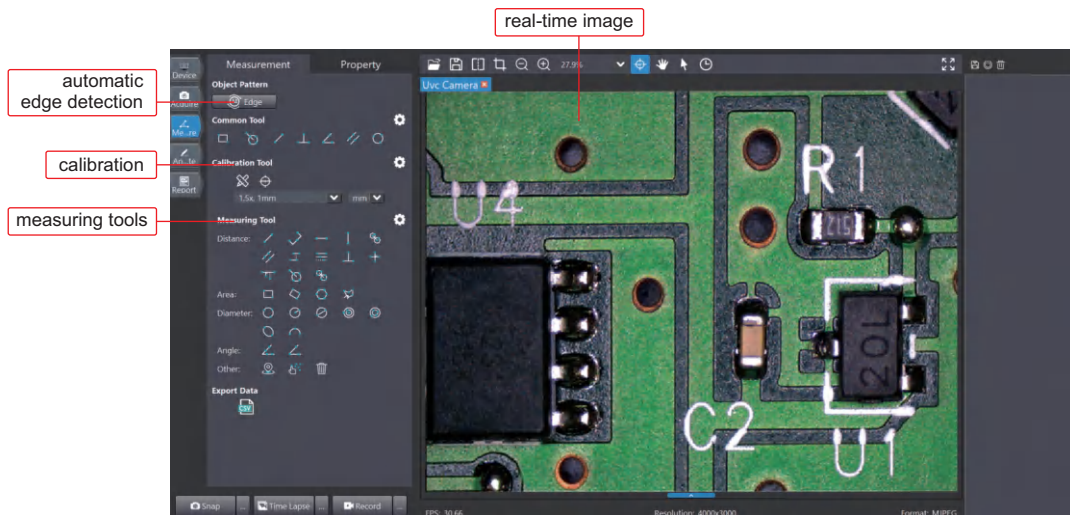
MOTORIZED 3D ROTATION MICROSCOPE
CODE 5301-D400

USB port

HDMI port — power

21.5" LCD (included)

focus adjustment

360° rotation lens with LED

0.7X~4.5X zoom

X-Y metal stage

rotation controller

mouse

illumination on/off

illumination adjustment

rotation switch

zoom

rotation speed adjustment

rotation direction switch

0°

270°

90°

180°

360° rotation observation

working principle

camera

mirror

mirror

45°

workpiece

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

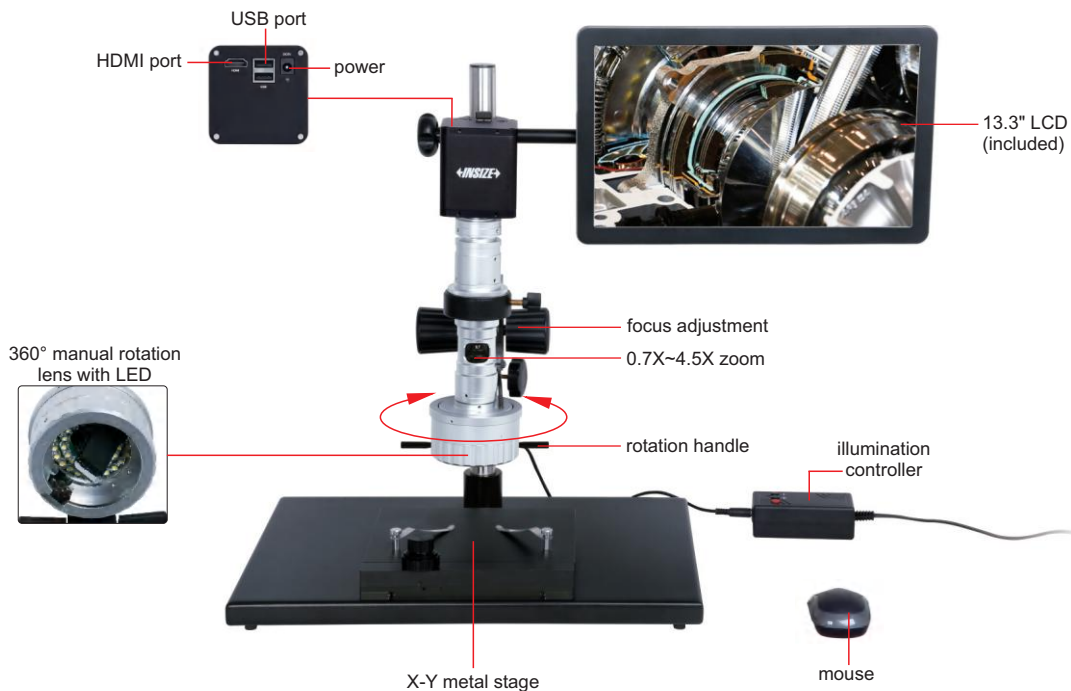| Main unit	1 pc
Rotation controller	1 pc
X-Y metal stage	1 pc
16G USB flash disk	1 pc
White/black plate	1 pc
Mouse	1 pc
Power adapter	2 pcs

24

703

TAKE PICTURES AND VIDEOS

SUITABLE TO CHECK CONVEX OBJECTS AND WALL OF HOLES

MANUAL 3D ROTATION MICROSCOPE
CODE 5313-S407

VIDEO

USB port
HDMI port
power
13.3" LCD (included)
360° manual rotation lens with LED
focus adjustment
0.7X~4.5X zoom
rotation handle
illumination controller
X-Y metal stage
mouse

working principle

camera
mirror
mirror
45°
workpiece

0°
270°
90°
180°
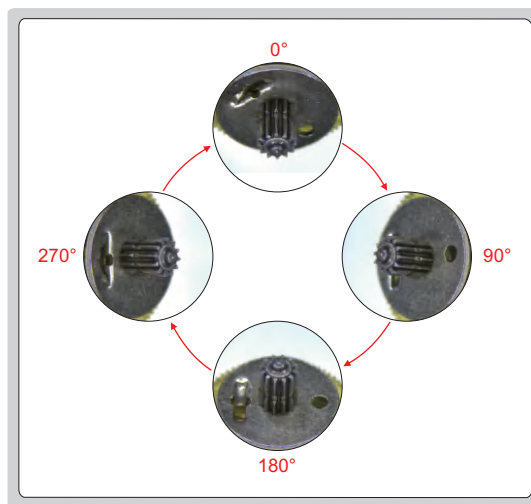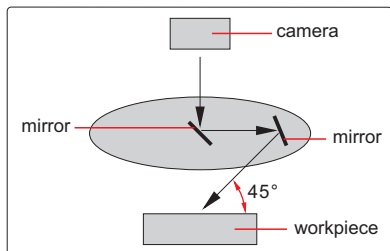
360° rotation observation

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

24

704

DIGITAL MEASURING MICROSCOPES

0.5X camera adapter (included)

1X auxiliary objective (included)

calibration plate (included)

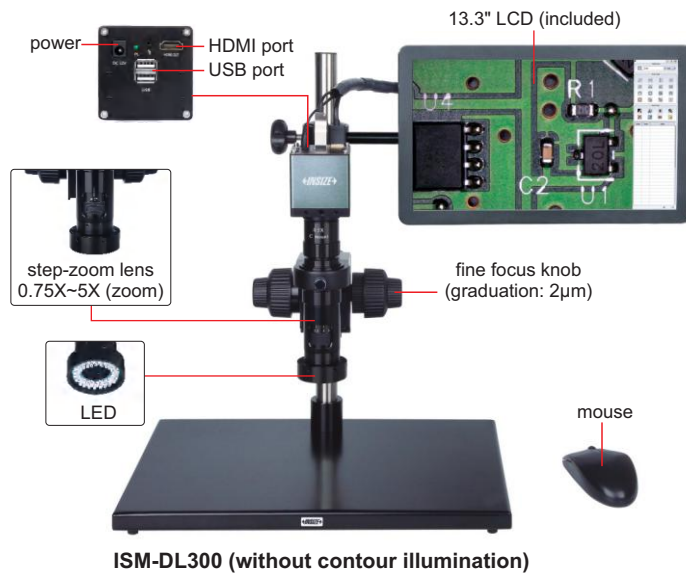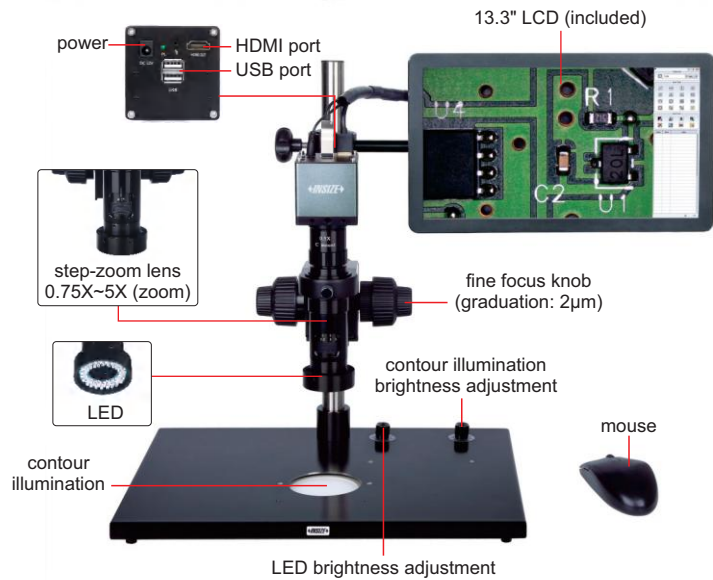16G USB flash disk (included)

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

power — HDMI port / USB port · 13.3" LCD (included) · step-zoom lens 0.75X~5X (zoom) · fine focus knob (graduation: 2μm) · LED · mouse

ISM-DL300 (without contour illumination)

power — HDMI port / USB port · 13.3" LCD (included) · step-zoom lens 0.75X~5X (zoom) · fine focus knob (graduation: 2μm) · contour illumination brightness adjustment · LED · contour illumination · mouse · LED brightness adjustment

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	

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.

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

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

real-time image | measurement | calibration | measuring tools | assist tools | measuring results
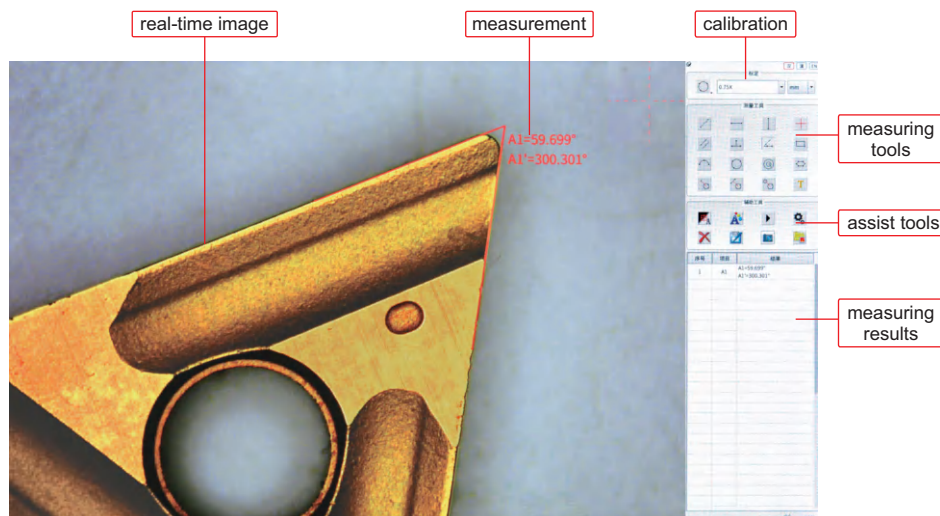
DIGITAL MEASURING MICROSCOPE (BASIC TYPE)

MEASUREMENT

TAKE PICTURES

BUILT-IN SOFTWARE WITHOUT COMPUTER

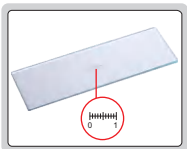POPULAR MODEL

VIDEO

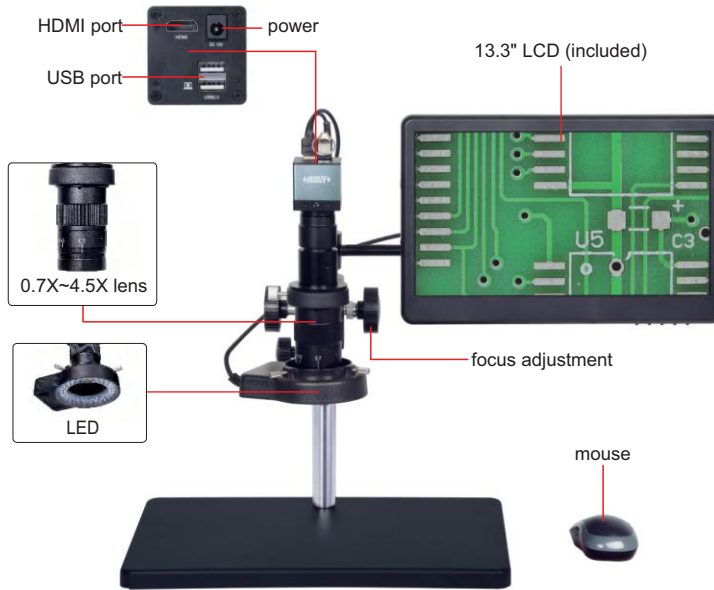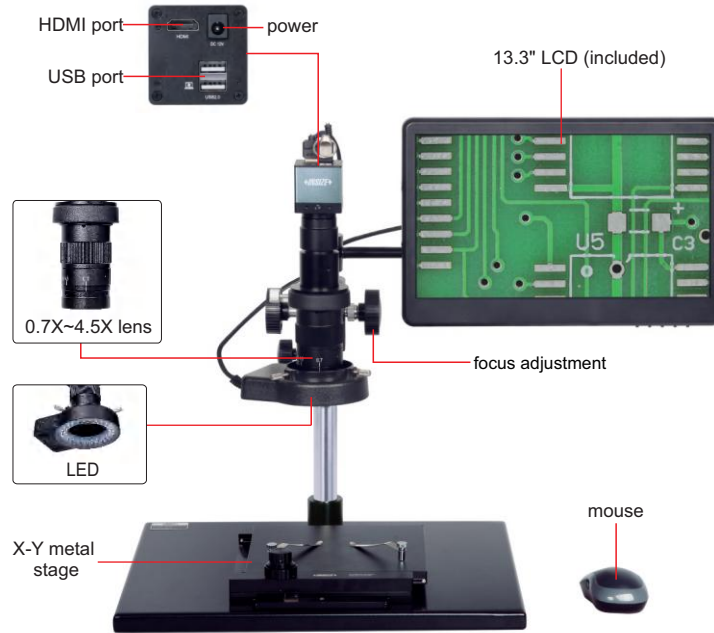16G USB flash disk (included)

white/black plate (included)

glass calibration ruler (graduation 0.1mm, included)

HDMI port
power
USB port
13.3" LCD (included)
0.7X~4.5X lens
focus adjustment
LED
mouse

5318-MD60 (without stage)

HDMI port
power
USB port
13.3" LCD (included)
0.7X~4.5X lens
focus adjustment
LED
X-Y metal stage
mouse

5318-MD60-XY (with stage)

- 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

24

INSIZE Czech | +420 544 500 151 | info@insize.cz | www.insize.cz

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)

auxiliary tools
measuring tools
calibration
lines
real-time image
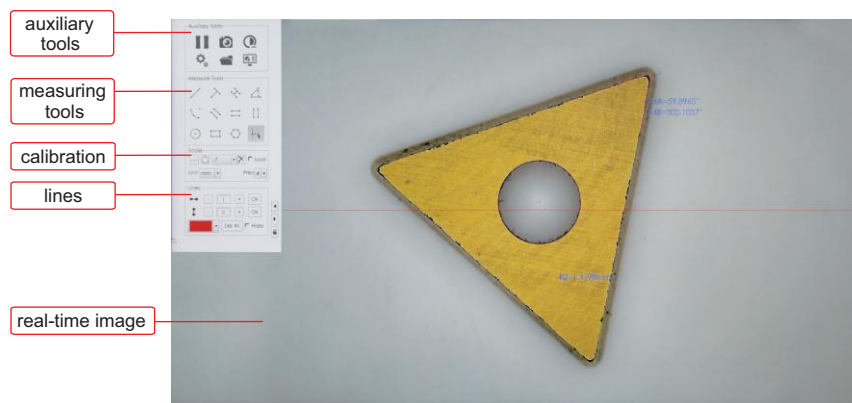
4K DIGITAL MEASURING MICROSCOPE
CODE 5310-DL401

BUILT-IN SOFTWARE WITHOUT COMPUTER   **TAKE PICTURES**   **MEASUREMENT**
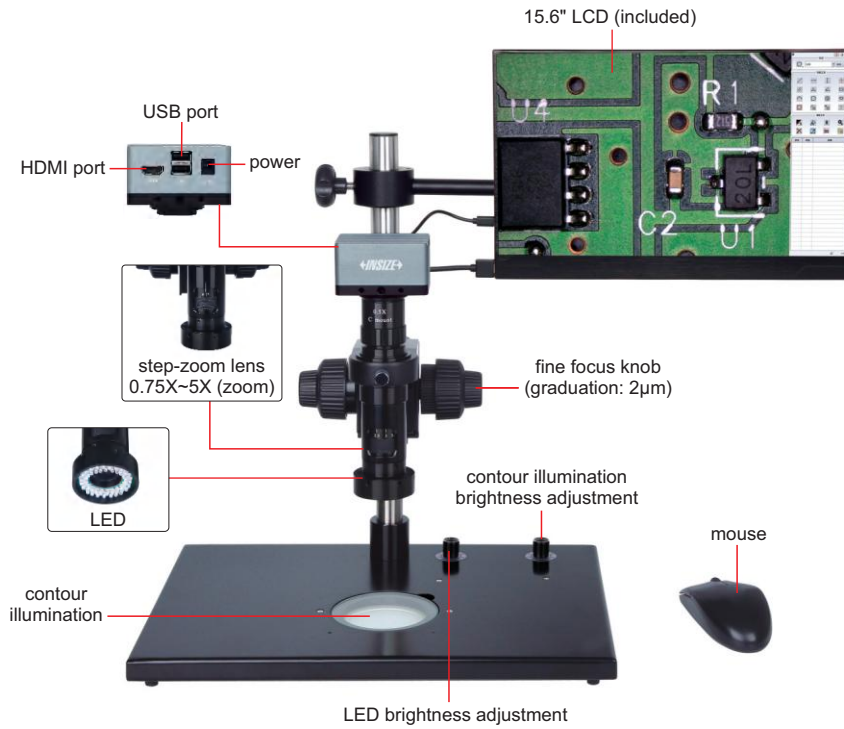
VIDEO

15.6" LCD (included)

USB port

HDMI port — power

step-zoom lens
0.75X~5X (zoom)

fine focus knob
(graduation: 2μm)

LED

contour illumination
brightness adjustment

mouse

contour
illumination

LED brightness adjustment

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

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

calibration plate
(included)

16G USB flash disk
(included)

- 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

0.5X camera adapter
(included)

1X auxiliary
objective

1X auxiliary objective
(included)

1X camera adapter
(**optional**)

2X auxiliary objective
(**optional**)

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

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)

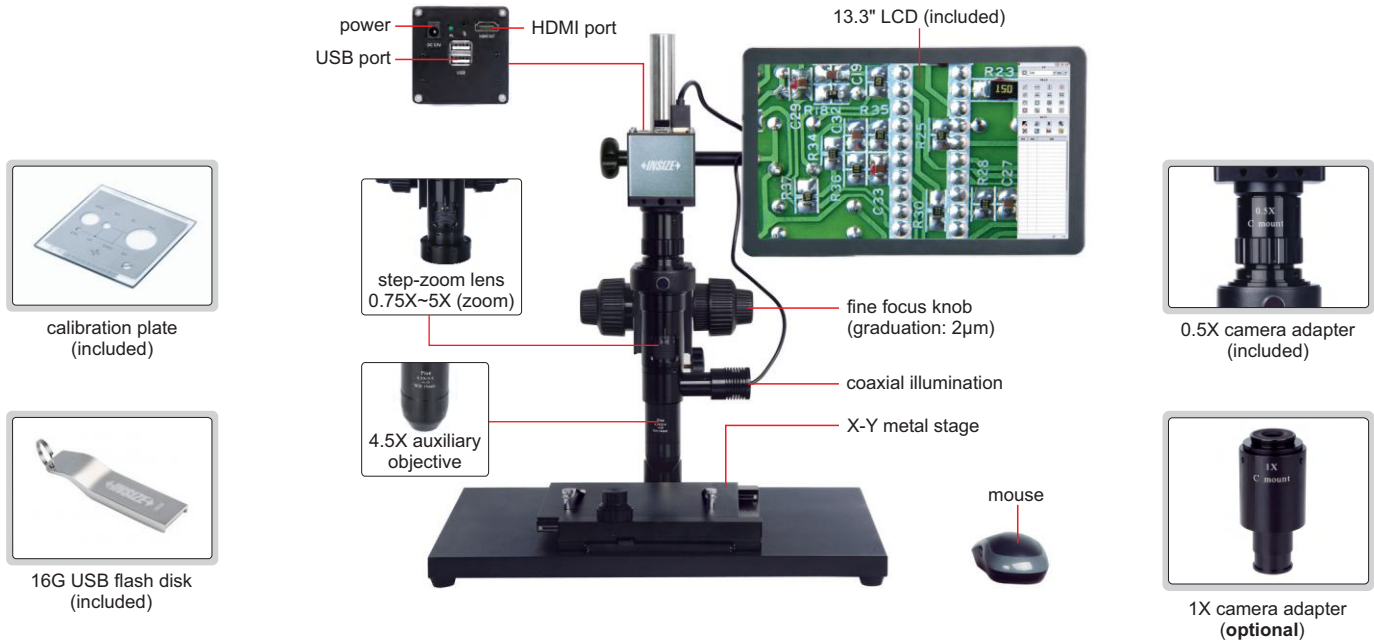■ Refer to page 727 for details

24

710
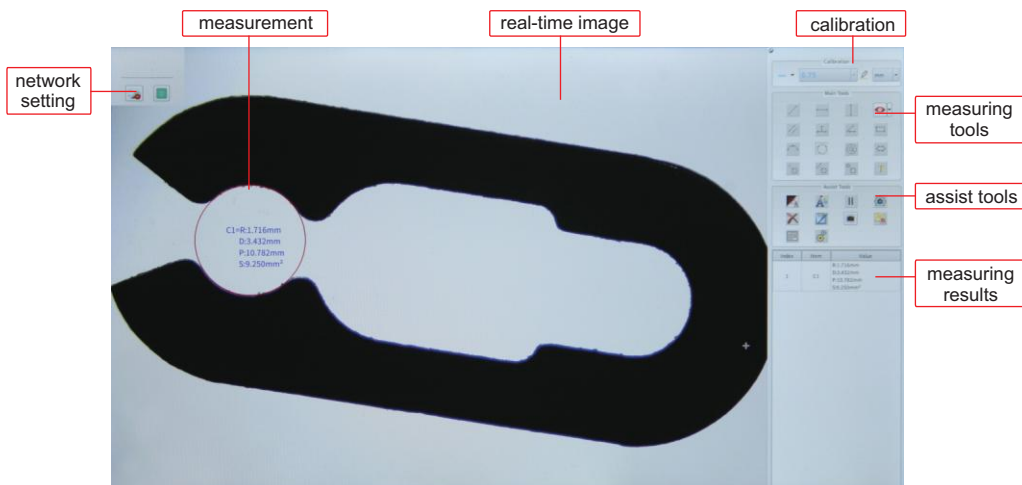
HIGH MAGNIFICATION MEASURING MICROSCOPE
CODE ISM-DL302

VIDEO

SOFTWARE IS INCLUDED, REFER TO PAGE 727 FOR DETAILS

OBSERVATION AND MEASUREMENT AT HIGH MAGNIFICATION

power — HDMI port
USB port

13.3" LCD (included)

step-zoom lens 0.75X~5X (zoom)

fine focus knob (graduation: 2μm)

0.5X camera adapter (included)

coaxial illumination

4.5X auxiliary objective

X-Y metal stage

mouse

calibration plate (included)

16G USB flash disk (included)

1X camera adapter (**optional**)

- 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

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

OPTIONAL ACCESSORY

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

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

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

24

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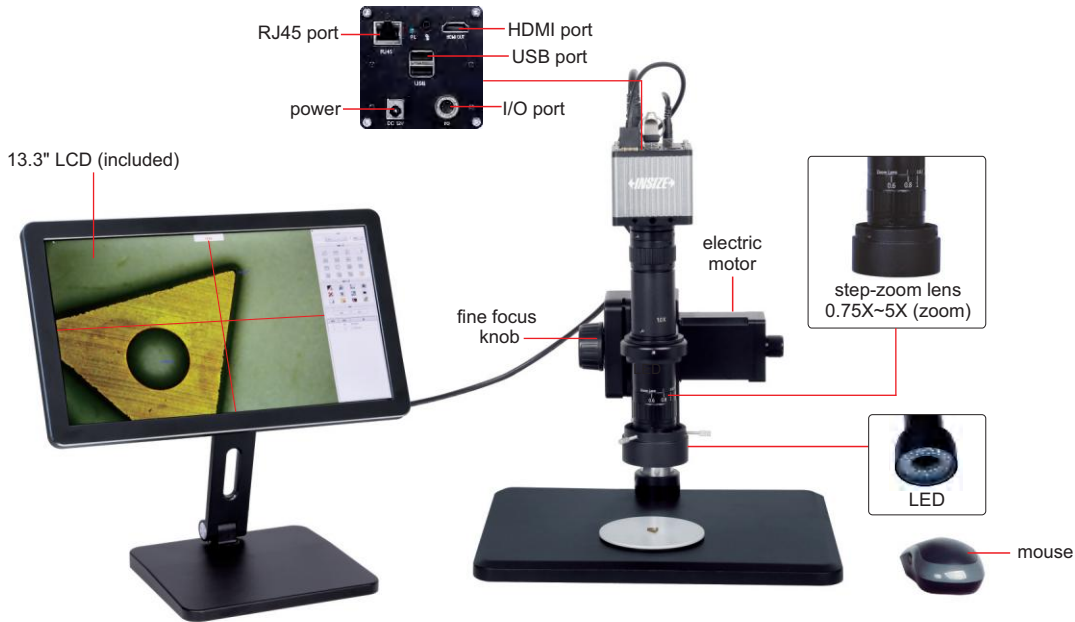
VIDEO

RJ45 port — HDMI port
— USB port
power — I/O port

13.3" LCD (included)

electric motor

step-zoom lens 0.75X~5X (zoom)

fine focus knob

LED

mouse

focus stacking

focus on the top

+

focus on the bottom

clear image of both top and bottom

- 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
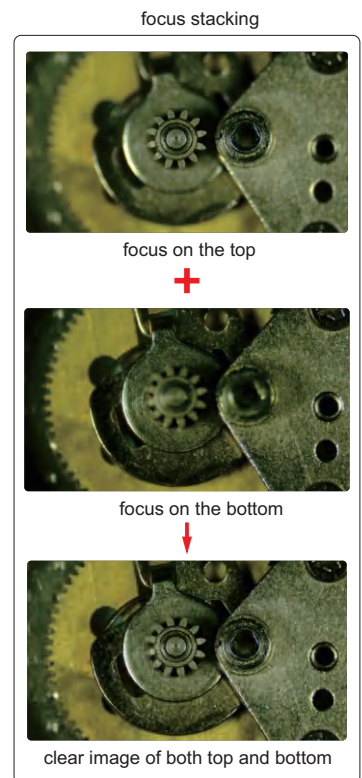
24

computer is optional

send measurement data and photos to computer

calibration plate
(included)

16G USB flash disk
(included)

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
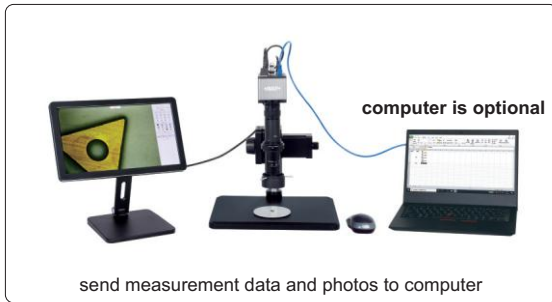
STANDARD DELIVERY

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

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

OPTIONAL ACCESSORY

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

SOFTWARE (INCLUDED)

■ Refer to page 727 for details

real-time image

measurement

calibration

network setting

measuring tools

assist tools

motorized focus stacking tools

measuring results

24

713
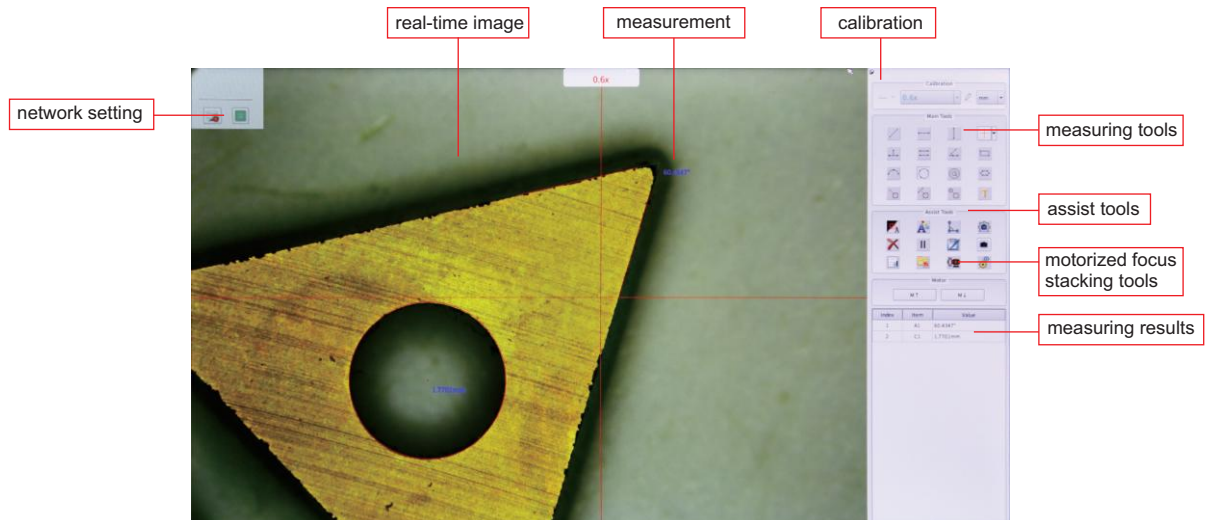
SMART MICROSCOPE
CODE ISM-DL400

VIDEO

13.3" LCD (included)

camera function

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

NG: red light

OK: green light

LED brightness adjustment

contour illumination brightness adjustment

NG: buzzer alarm

sensor switch (triggered when an object passes by within 3cm and a detection is performed, the interval time between triggering and detection is adjustable)

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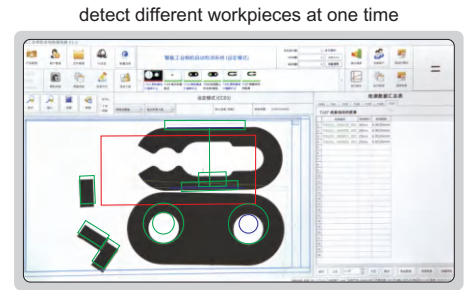
- Automatically identify different workpieces
- Automatically locate workpieces regardless of position and direction
- Built-in software, PLC control input and output interface
- Including multiple detection tools
- Automatically calculate, store the test results and sent to Excel

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

■ **APPLICATION EXAMPLES:**

dimension measurement

OK	out of tolerance, NG

automatically locate and measure, and judge OK or NG

thread measurement

OK	out of tolerance, NG

automatically measure major diameter, minor diameter, thread angle, pitch of thread, and judge OK or NG
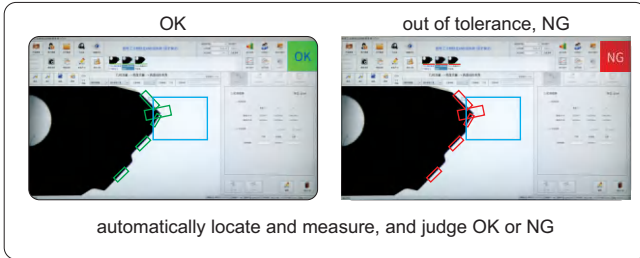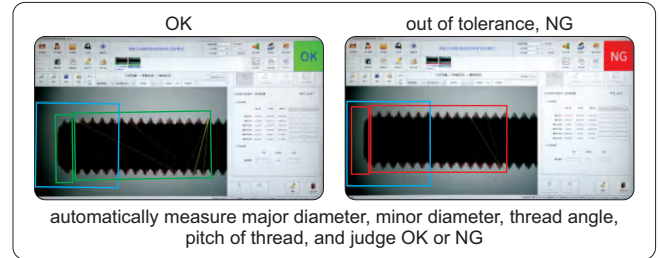
cutting tools measurement

OK	length is too short, NG

measure length and angle

counting

15 pcs holes, OK	12 pcs holes, NG

automatically locate and count, and judge OK or NG

existence or absence

existence, OK	absence, NG

automatically detect the existence or absence of the target

character recognition

character is "EF", OK	character is "E", NG

automatically detect letters or numbers in the area, and judge OK or NG

color detection

OK	sequence error, NG

automatically detect colors, and judge OK or NG

location detection

center line aligned, OK	center line misaligned, NG

automatically detect whether the center line is aligned or not

surface defect detection

no defect, OK	defect, NG

detect missing and burr on the edge of circle, and judge OK or NG

glue detection

complete, OK	broken, NG

automatically detect if there is break of glue, measure width, and judge OK or NG

24

726

MEASURING SOFTWARE OF DIGITAL MICROSCOPES

real-time image | measurement | zoom in | calibration

measuring tools

assist tools

measuring results
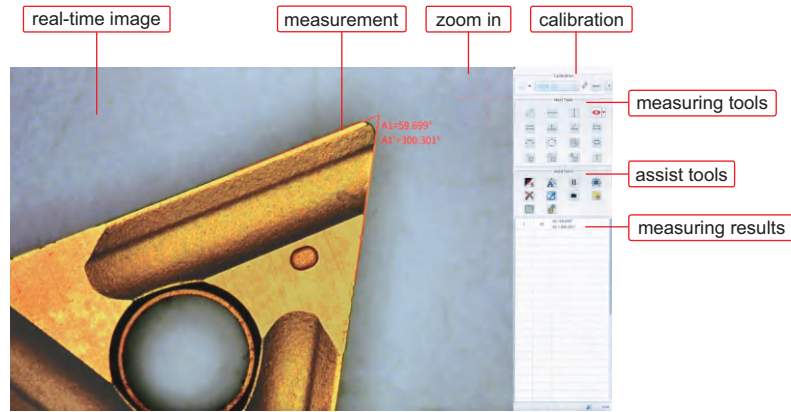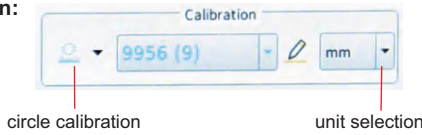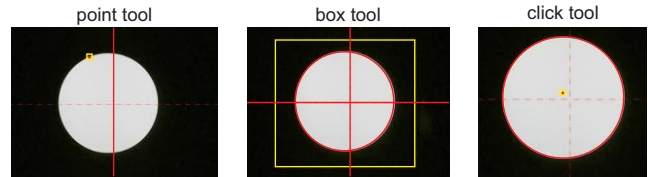
- **Included in digital microscopes (ISM-DL300, ISM-DL301, 5310-DL401, ISM-DL302, ISM-DL510, ISM-DL520, 5307-ID100A, 5322-ID250A)**

- **Language:** Simplified Chinese, Traditional Chinese, English, Korean
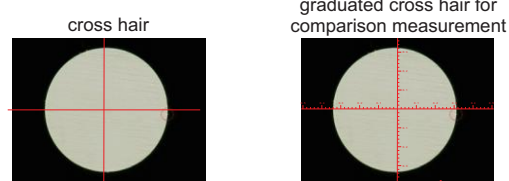
- **Calibration:**

circle calibration   unit selection

- **Edge-detection:**

point tool   box tool   click tool

- **Measurement tools:**

| | measure length of line or distance between two points | | measure length of line or distance between two points in horizontal direction | | measure length of line or distance between two points in vertical direction |

measure angle from horizontal line | measure angle from vertical line | measure angle of two lines

measure distance between two parallel lines | measure distance between two parallel lines | measure distance between multiple parallel lines

measure distance between point and line | measure radius, length and angle of arc | measure girth and area of polygon

measure radius, diameter, girth and area of circle with three points | measure radius, diameter, girth and area concentric of circles | measure length, width, girth and area of rectangle

measure minimum distance between point and circle | measure distance between point and center of circle | measure maximum distance between point and circle

measure minimum distance between line and circle | measure distance between line and center of circle | measure maximum distance between line and circle

measure minimum distance between two circles | measure center distance between two circles | measure maximum distance between two circles

add text | measure radius, diameter, girth and area of circle with two points | cross hair and graduated cross hair

- **Assist tools:**

manual/automatic point selection

line width and color settings

freeze screen

camera parameter settings

layout settings of measurement items

delete images

export measurement data to U disk

take pictures and save

review pictures

system settings

- **Comparison:**

set the standard workpiece as the background image, superimpose the measured workpieces on the image for quick comparison

- **Cross hair:**

cross hair | graduated cross hair for comparison measurement

- **Grid comparison measurement:**

full-screen grid for comparison measurement, adjustable grid number

- **Output to Excel:**

24

MINI DIGITAL MICROSCOPE (ECONOMIC TYPE)
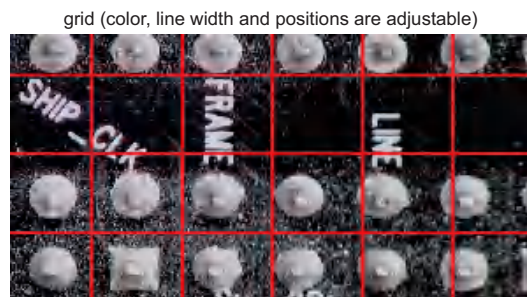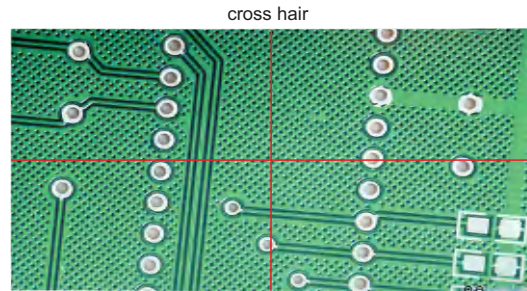# CODE 5311-M710

TAKE PICTURES AND VIDEOS

BUILT-IN LITHIUM BATTERY

VIDEO

10.1" IPS

memory card — USB port

HDMI port

mouse port

buttons

illumination dial wheel control

focus adjustment

auxiliary illumination

adjustment angle

illumination
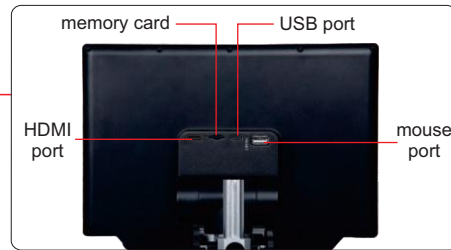
32G memory card and holder (included)

infrared ray remote controller (included)

cross hair

computer is optional

connect to computer with USB cable, take pictures and videos, make measurement

grid (color, line width and positions are adjustable)
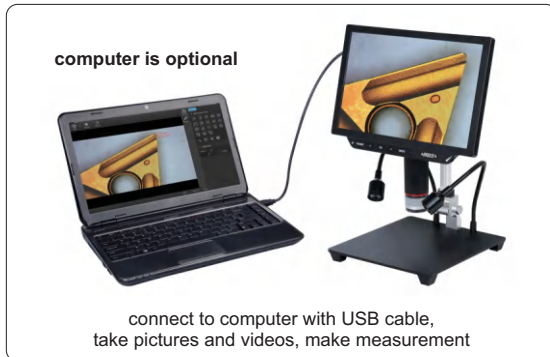
SPECIFICATION

Display resolution	1280×800
Sensor	1/3" CMOS
Pixel	13M
Single pixel size	1.12µm×1.12µm
Frame rate	60fps/30fps
Magnification	6.5X~60X
View field	3.6×2~33×18.5mm
White balance	auto/manual (10 levels RGB)/calibration
Exposure control	AE lock/exposure compensation (10 levels)
Image control	contrast/saturation/sharpness (10 levels)
Record media	memory card (128G Max)
Output	HDMI
Power supply	power adapter
Dimension (LxWxH)	180×200×360mm
Weight	1.3kg

STANDARD DELIVERY

Main unit	1 pc
USB cable	1 pc
HDMI cable	1 pc
IR remote controller	1 pc
32G memory card and holder	1 pc
Plastic calibration ruler	1 pc
Power adapter	1 pc

24

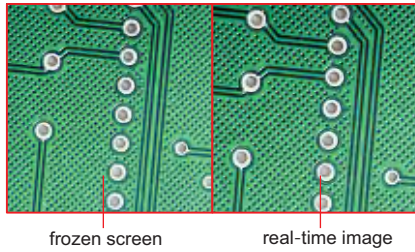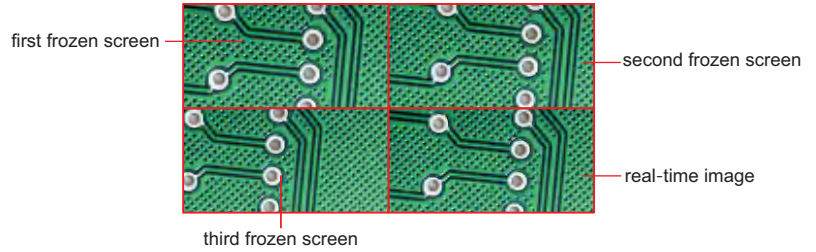Continued from previous page

■ **Screen freezing:**

full screen

frozen screen

up-down split screen

frozen screen

real-time image

left-right split screen

frozen screen   real-time image

1/4 split screen

first frozen screen
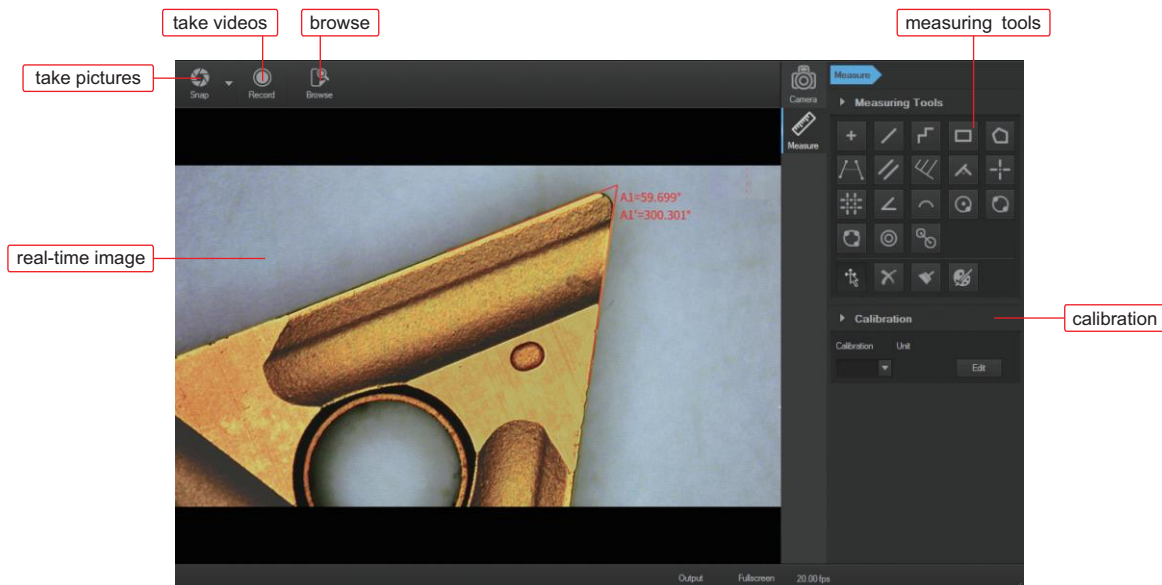

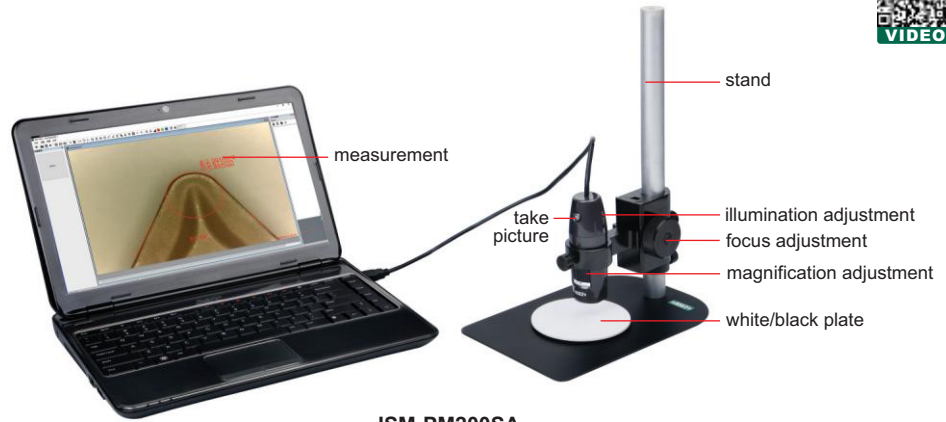second frozen screen
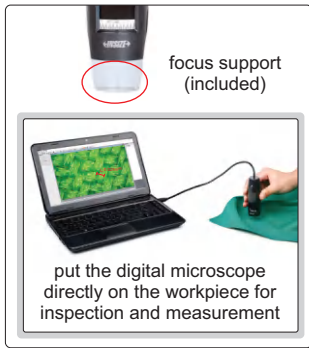
real-time image
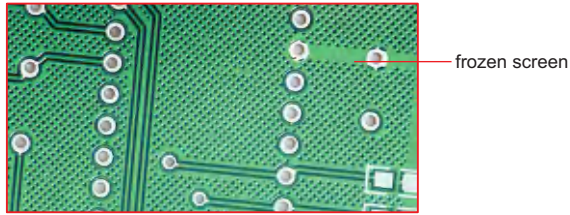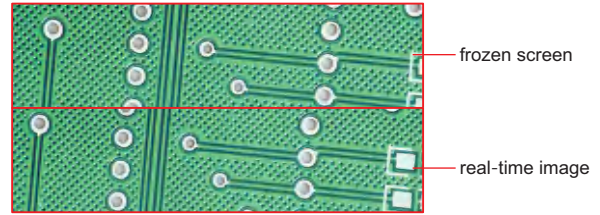
third frozen screen

SOFTWARE FOR COMPUTER (INCLUDED)

■ **Language**: Chinese (Simplified), English
■ **Operation system**: Windows 7/8/8.1/10 (64bit)
■ **Port**: USB2.0 or above
■ **Measuring accuracy**: 0.02mm

point counting	straight line length	continuous line length	area of a rectangle
area of a polygon	distance between 2 lines	distance between parallel lines	distance between line and first parallel line
point-line distance	cross line	double cross line	angle
arc	radius of a circle	radius of a 2-point circle	radius of a 3-point circle
center distance of 2 circles	center distance of concentric circle		

take videos   browse

take pictures

measuring tools

real-time image

calibration

DIGITAL MEASURING MICROSCOPES (ECONOMIC TYPE)

focus support (included)

put the digital microscope directly on the workpiece for inspection and measurement

- Can take pictures and videos
- Supplied with software
- Calibration rulers
  (graduation 0.1 and 1mm) are included
- With focus support

ISM-PM200SA
computer is optional

stand

measurement

take picture

illumination adjustment

focus adjustment

magnification adjustment

white/black plate

filter (**optional**)

software flash disk (included)

universal stand (included in **ISM-PM200SB**)

SPECIFICATION

Code	ISM-PM200SA	ISM-PM200SB
Magnification	10X~200X	10X~200X
Stand	standard	universal
Pixel	2M (resolution: 1920×1080)	
Illumination	built-in adjustable LED	
Power supply	USB 2.0 cable (voltage required: 5±0.1V)	

MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	22mm	9.6×7.1mm	30µm
100X	14mm	4.8×3.6mm	15µm
150X	14mm	3.3×2.5mm	10µm
200X	19mm	2.3×1.8mm	8µm

STANDAER DELIVERY

Main unit	1 pc
USB flash disk	1 pc

OPTIONAL ACCESSORY

| Green filter	ISM-PM-GREEN
Yellow filter	ISM-PM-YELLOW
Blue filter	ISM-PM-BLUE

SOFTWARE

- **Language:** English, Japanese, Ukrainian, German, French, Italian, Spanish, Chinese
- **Operation system:** Windows 7/8/XP/Vista
- **Measuring tools:**

take video

take picture

measuring tools

sent to Excel

calibration

real-time image

measurement

picture taken before

zoom in

- **Data is sent to Excel:**

measure radius, diameter, girth and area of circle with two points

measure area of polygon

measure distance between two circles

measure distance between two parallel lines

measure angle with two lines

measure distance between point and line

measure radius of arc

measure radius of circle

measure length of continuous line

measure angle with three points

measure radius, girth and area of circle

add text
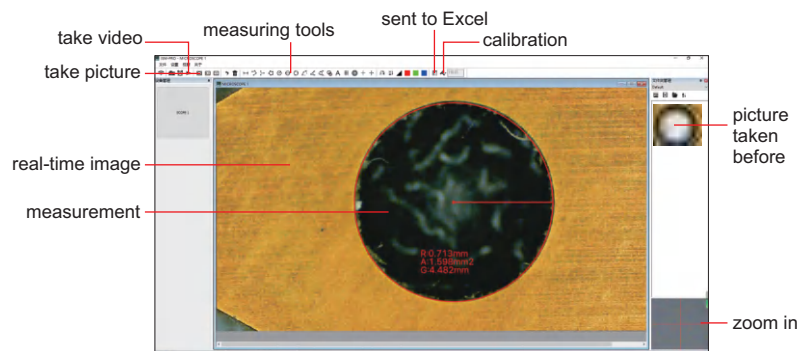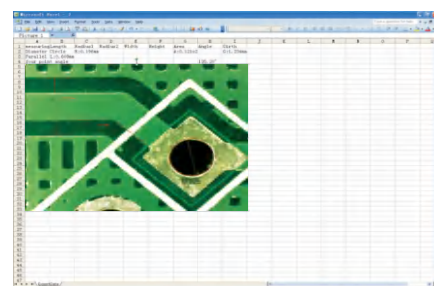
WIFI DIGITAL MEASURING MICROSCOPE (ECONOMIC TYPE)
CODE ISM-WF200

VIDEO

- Maximum working distance is 5m under WIFI mode
- Can be connected to multiple iPads, Android devices or computers together under WIFI mode
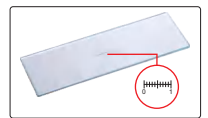- Take pictures and videos
- Supplied with software

take picture
illumination adjustment
USB/WIFI switch
magnification adjustment
focus support

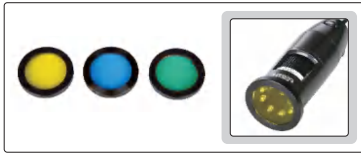stand (code **ISM-PM-STAND**, **optional**)

software flash disk (included)

filter (**optional**)

plastic calibration ruler (graduation 1mm, included)

glass calibration ruler (graduation 0.1mm, included)

SPECIFICATION

Magnification	10X~200X
Pixel	1.3M (resolution: 1280×1024)
Illumination	built-in adjustable LED
Power supply	built-in rechargeable battery

connected to iPad by WIFI

connected to Android device by WIFI

STANDARD DELIVERY

Microscope	1 pc
Focus support ring for 80X/150X	1 pc
Focus support ring for 60X/200X	1 pc
Glass calibration ruler (graduation 0.1mm)	1 pc
Plastic calibration ruler (graduation 1mm)	1 pc
Software and USB cable	1 pc
AC/DC adapter	1 pc

connected to computer by WIFI

connected to computer by USB cable

OPTIONAL ACCESSORY

Stand	**ISM-PM-STAND**
Green filter	**ISM-PM-GREEN**
Yellow filter	**ISM-PM-YELLOW**
Blue filter	**ISM-PM-BLUE**
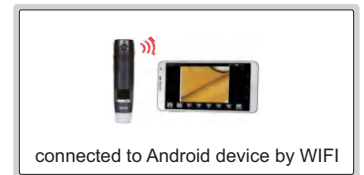
MAGNIFICATION, FOCUS DISTANCE, VIEW FIELD AND ACCURACY

Magnification	Focus distance	View field	Accuracy
50X	21mm	8.1×6.4mm	30µm
100X	13mm	3.9×3.1mm	15µm
150X	16mm	2.6×2.1mm	10µm
200X	19mm	1.8×1.5mm	8µm

1 **Software ISM-WF200** (for iPad by WIFI)

measure length of line or distance between two points

measure radius, girth and area of circle with three points

measure angle

real-time image
measurement
picture taken before
measuring tools and calibration
take picture and video
resolution setting
move measuring piont
take picture/video switch

To be continued

24

734
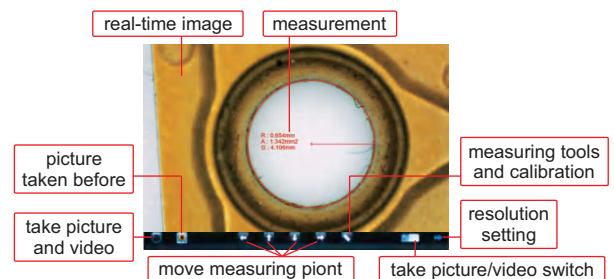
Continued from previous page

❷ Software ISM-APK (for Android devices by WIFI)

measure length of line or distance between two points

measure radius, girth and area of circle with three points

measure angle

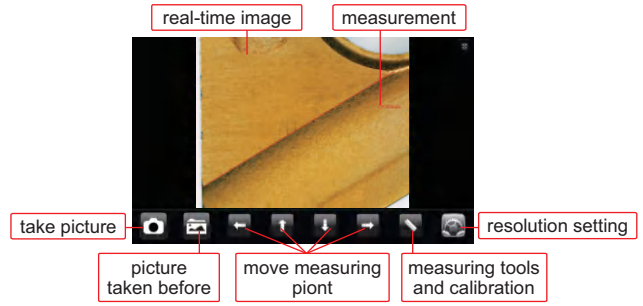real-time image | measurement
take picture | resolution setting
picture taken before | move measuring piont | measuring tools and calibration

❸ Software ISM-WF Partner (for computer by WIFI)

measure length of line or distance between two points

measure area of polygon

measure angle with three points

measure radius, girth and area of circle with center point

measure length of continuous line

measure radius, girth and area of circle with three points

measure angle with two lines

measure radius, girth and area of circle with two points

measure distance between point and line

measure radius, length and angle of arc

measure area of rectangle

take picture and video | image process | measuring tools
preview | calibration
picture taken before | real-time image
measurement

❹ Software ISM-PRO (for computer by USB cable)

■ **Measuring tools:**

measure length of line or distance between two points

measure length of continuous line
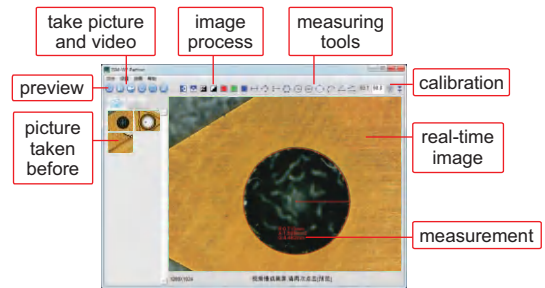
measure radius, length and angle of arc

measure distance between two circles

measure distance between two parallel lines

measure radius, girth and area of circle

measure distance between point and line

measure area of rectangle

measure angle with two lines

add number with circle

measure angle with three points

add text

take picture | measurement | real-time image
take video | measuring tools
sent to Excel | edge detection measurement tools
sent to CAD | comparison tools
calibration
picture taken before | zoom in
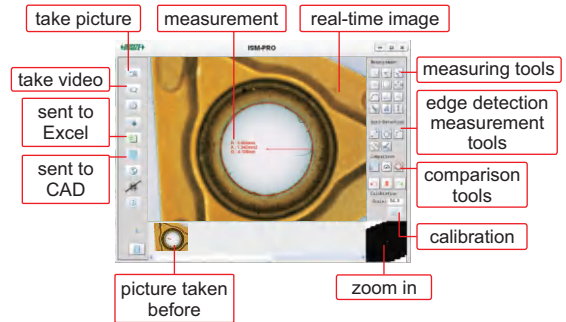
■ **Edge detection measurement tools:**

detect line automatically, and calculate length

detect arc automatically, and calculate radius, angle and arc length

detect circle automatically, and calculate radius, girth and area

detect two lines automatically, and calculate angle

detect two parallel lines automatically and calculate distance

■ **Comparison tools:**
Create line, angle or circle with desired size, to compare with workpieces

create line

create angle

create circle with tolerance

■ **Data is sent to CAD or Excel:**

24
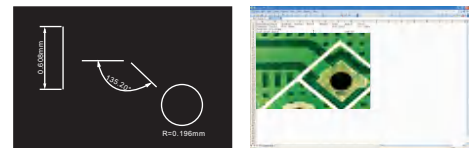
ZOOM STEREO MICROSCOPE (ADVANCED TYPE)
CODE 5107-S70T

10X eyepiece

0.5X camera connector

image to eyepiece/camera switch

objective magnification adjustment

focus adjustment
reflected LED light

objective

working stage
diameter：100mm

LED light adjustment

LED ring light (**optional**)

- Greenough optical system, clear observation, real color
- High working distance is convenient for operation
- Excellent flat image and large depth of field, make observation comfortable
- 6.7:1 large zoom ratio, allow quick observation adjustment

SPECIFICATION

Optical tube	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.67X~4.5X (zoom)
Observation tube	45° trinocular tube inclination angle, built-in 0.5X adapter
Zoom ratio	6.7:1
Pupil distance	50~75mm
Diopter adjustment	-8~+5 diopter (both eyepieces)
Working distance of objective	110mm
Max. workpiece height	106mm
Illumination	adjustable LED light
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	330×300×368mm
Weight	3.5kg

frosted glass filter
(included)

white/black plate
(included)

24

STANDARD DELIVERY

Main unit	1 pc
10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	5107-S70T-OB05X
	1.5X	5107-S70T-OB15X
	2X	5107-S70T-OB20X
Eyepiece	15X (view field: Ø16mm)	5107-S70T-EP15X
	20X (view field: Ø12.5mm)	5107-S70T-EP20X
LED ring light		ISM-ZS-RL
Digital camera		ISM-CM20, ISM-CM63, ISM-ZS70-S

743

PARALLEL LIGHT STEREO MICROSCOPE
CODE ISM-ZS200

PARALLEL LIGHT PATH: REDUCE FATIGUE, ACCESSORIES CAN BE ADDED INTO LIGHT PATH

VIDEO

coaxial illumination (**optional**)

10X eyepiece

objective magnification adjustment

coarse focusing knob

fine focusing knob

1X plan field achromatic objective

reflected illumination adjustment

transmitted illumination adjustment

working stage diameter: 100mm

- Infinity parallel optical system and 20° inclined optical tube reduce fatigue
- Coaxial illumination is optional for deep holes which cannot be observed by ring light
- Aperture diaphragm is optional for large depth of field and high quality image

optical path splitter (**optional**)

iris diaphragm (**optional**)

SPECIFICATION

Optical tube	binocular (20° inclined)
Eyepiece (wide field)	10X (view field: Ø22mm)
Objective	0.8X~8X (zoom)
Zoom ratio	1:10
Pupil distance	55~75mm
Diopter adjustment	±5 diopter (both eyepieces)
Working distance of objective	78mm
Max. workpiece height	72mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	240×280×440mm
Weight	4.3kg

STANDARD DELIVERY

Main unit	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Objective	0.5X achromatic objective (focus distance: 186mm)	ISM-ZS200-OB05X *
	2X plan achromatic objective (focus distance: 32.5mm)	ISM-ZS200-OB2X
	0.5X plan apochromatic objective (focus distance: 126mm)	ISM-ZS200-APO05X *
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS200-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS200-EP20X
	WF30X (view field: Ø20mm)	ISM-ZS200-EP30X
Sleeve for objective		ISM-ZS200-ADAPTER
Iris diaphragm		ISM-ZS200-IRD
Optical path splitter		ISM-ZS200-OBS
Coaxial illumination		ISM-ZS200-COAXIAL
Digital camera **		ISM-CM20, ISM-CM63

***0.5X auxiliary objective must be used with ISM-ZS200-ADAPTER**

****Digital camera must be used with optical path splitter**

24

ZOOM STEREO MICROSCOPES (ADVANCED TYPE)

LARGE ZOOM RATIO

VIDEO

connect to digital camera
(for **ISM-ZS100T**)

10X eyepiece

0.55X camera connector

objective magnification adjustment

objective

focus adjustment

reflected illumination adjustment

transmitted illumination adjustment

working stage diameter: 100mm

ISM-ZS100T

LED ring light (**optional**)

SPECIFICATION

Code	ISM-ZS100	ISM-ZS100T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø23mm)	
Objective	0.6X~5X (zoom)	
Zoom ratio	1 : 8.3	
Pupil distance	55~75mm	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60Hz	
Dimension (L×W×H)	260×310×490mm	
Weight	4.9kg	

24

STANDARD DELIVERY

Main unit	1 pc
Camera connector 0.55X for ISM-ZS100T	1 pc
Digital camera adapter 1X for ISM-ZS100T	1 pc
WF10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X (focus distance: 220mm)	ISM-ZS100-OB05X *
	0.7X (focus distance: 125mm)	ISM-ZS100-OB07X
	2X (focus distance: 45mm)	ISM-ZS100-OB2X
Eyepiece	WF15X (view field: Ø16mm)	ISM-ZS100-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS100-EP20X
	WF30X (view field: Ø8mm)	ISM-ZS100-EP30X
Sleeve for auxiliary objective		ISM-ZS200-ADAPTER
LED ring light		ISM-ZS-RL
Digital camera for ISM-ZS100T		ISM-CM20, ISM-CM63, ISM-ZS70-S

*0.5X auxiliary objective must be used with **ISM-ZS200-ADAPTER**

745

ZOOM STEREO MICROSCOPES (STANDARD TYPE)

WF 10X eyepiece

objective magnification adjustment

reflected LED light

objective

focus adjustment

reflected LED light adjustment

transmitted LED light adjustment

working stage diameter: 100mm

LED ring light (**optional**)

ISM-ZS50

SPECIFICATION

Code	ISM-ZS50	ISM-ZS50T
Optical tube	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)	
Objective	0.8X~5X (zoom)	
Zoom ratio	1: 6.3	
Pupil distance	55~75mm (adjustable)	
Diopter adjustment	±5 diopter (two eyepieces)	
Working distance of objective	115mm	
Max. workpiece height	75mm	
Illumination	adjustable reflected and transmitted LED light	
Power supply	110/220V, 50/60Hz	
Dimension (L×W×H)	290×260×480mm	
Weight	4.9kg	

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø100mm glass plate	1 pc
Ø100mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS200-ADAPTER
Digital camera for ISM-ZS50T		ISM-CM20, ISM-CM63, ISM-ZS70-S, ISM-KM60

*0.5X auxiliary objective must be used with **ISM-ZS200-ADAPTER**

24

ZOOM STEREO MICROSCOPES (WITH UNIVERSAL STAND)

5106-M40 (with stand type A)
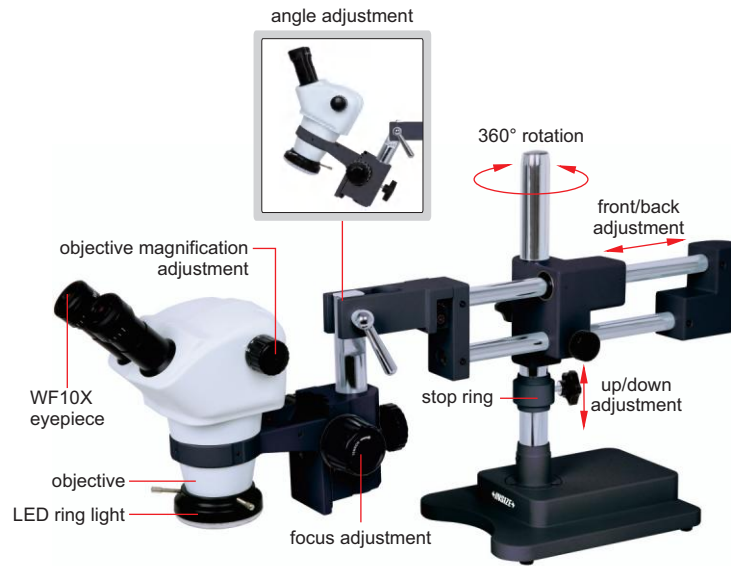
5106-M50 (with stand type B)

SPECIFICATION

Code	5106-M40	5106-M40T	5106-M50	5106-M50T
Stand	type A		type B	
Optical tube	binocular	trinocular	binocular	trinocular
Eyepiece (wide field)	10X (view field: Ø22mm)			
Objective	0.8X~5X (zoom)			
Zoom ratio	1:6.3			
Pupil distance	55~75mm			
Diopter adjustment	±5 diopter (two eyepieces)			
Working distance of objective	115mm			
Max. workpiece height	300mm			
Illumination	adjustable reflected LED ring light			
Power supply	power adapter			
Dimension (L×W×H)	610×220×430mm		790×230×430mm	
Weight	13.7kg		20kg	

STANDARD DELIVERY

Main unit (with stand)	1 pc
WF10X eyepiece	2 pcs
LED ring light	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS50-OB05X*
	2X	ISM-ZS50-OB2X
Eyepiece	10X dividing eyepiece (0.1mm/div.)	ISM-ZS50-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
Adapter sleeve		ISM-ZS30-ADAPTER
0.5X adapter for 5106-M40T/M50T		ISM-MAS-ADAPTER
Digital camera for 5106-M40T/M50T **		ISM-CM20, ISM-CM63

* 0.5X auxiliary objiective must be used with **ISM-ZS30-ADAPTER**

Digital camera must be used with 0.5X adapter **ISM-MAS-ADAPTER

24

ZOOM STEREO MICROSCOPE (BASIC TYPE)
CODE ISM-ZS30

WF 10X eyepiece

objective magnification adjustment

reflected LED light

objective

focus adjustment

reflected LED light adjustment

transmitted LED light adjustment

working stage diameter: 95mm

SPECIFICATION

Optical tube	binocular
Eyepiece (wide field)	10X (view field: Ø20mm)
Objective	1X~4.5X (zoom)
Zoom ratio	1:4.5
Pupil distance	55~75mm (adjustable)
Diopter adjustment	±5 diopter (two eyepieces)
Working distance of objective	97mm
Max. workpiece height	60mm
Illumination	adjustable reflected and transmitted LED light
Power supply	110/220V, 50/60Hz
Dimension (L×W×H)	260×190×400mm
Weight	4.3kg

LED ring light (**optional**)

STANDARD DELIVERY

Main unit	1 pc
WF 10X eyepiece	2 pcs
Ø95mm glass plate	1 pc
Ø95mm white/black plate	1 pc
Anti-dust cover	1 pc

OPTIONAL ACCESSORY

Auxiliary objective	0.5X	ISM-ZS30-OB05X *****
	0.63X	ISM-ZS30-OB06X *****
	0.75X	ISM-ZS30-OB07X *****
	2X	ISM-ZS30-OB2X
Eyepiece	10X dividing eyepiece (graduation 0.1mm/div.)	ISM-ZS30-EPD10X
	WF15X (view field: Ø16mm)	ISM-ZS50-EP15X
	WF20X (view field: Ø12mm)	ISM-ZS50-EP20X
LED ring light		ISM-ZS-RL
Sleeve for auxiliary objective		ISM-ZS30-ADAPTER
Digital camera		ISM-CM63
Camera adapter 0.75X **		ISM-AD-0D75

* 0.5X, 0.63X and 0.75X auxiliary objectives must be used with **ISM-ZS30-ADAPTER**

** Digital camera must be used with camera adapter 0.75X

24

CAMERA ADAPTERS

- Ø23.2/30mm eyepiece adapter is included
- Suitable for digital cameras **ISM-CM20, ISM-CM63, ISM-ZS70-S, ISM-KM60**

0.5X camera adapter (fixed focus distance) ISM-AD-0D5

0.75X camera adapter (fixed focus distance) ISM-AD-0D75

application

inserted into eyepiece tube
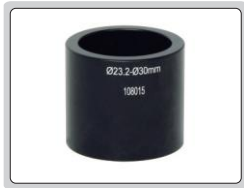
Ø23.2/30mm eyepiece adapter (included)

focus distance adjustment ring

focus distance adjustment ring

inserted into camera connecter

0.5X camera adapter (adjustable focus distance) ISM-AD-A0D5

0.75X camera adapter (adjustable focus distance) ISM-AD-A0D75

SPECIFICATION

Code	ISM-AD-0D5	ISM-AD-A0D5 *	ISM-AD-0D75	ISM-AD-A0D75
Type	fixed focus distance	adjustable focus distance	fixed focus distance	adjustable focus distance
Magnification	0.5X	0.41X~0.58X	0.75X	0.64X~0.86X

* There may be shadows on the edge of image when **ISM-AD-A0D5** is used

PORTABLE MEASURING MICROSCOPES

10X eyepiece with graduation

10X eyepiece

pen light

focus adjustment

10X objective

ISM-PM100

SPECIFICATION

Code	ISM-PM20	ISM-PM40	ISM-PM50	ISM-PM100
Total magnification	20X	40X	50X	100X
Eyepiece	10X with graduation	10X with graduation	10X with graduation	10X with graduation
Objective (achromatic)	2X (numerical aperture: 0.05)	4X (numerical aperture: 0.1)	5X (numerical aperture: 0.12)	10X (numerical aperture: 0.25)
Working distance	17.2mm	18mm	17.6mm	7mm
Graduation	0.05mm	0.025mm	0.02mm	0.01mm
Viewing field	Ø9mm	Ø4.5mm	Ø3.6mm	Ø1.8mm
Focus range	30mm			
Illumination	LED light			
Diameter of base	Ø63mm			
Height	210mm			
Weight	650g			

STANDARD DELIVERY

Main unit	1 pc
Pen light	1 pc
Battery (AAA)	2 pcs