Digital Camera

1/2" CMOS, 1.3M pixels and USB2.0, 22f/s. The max. resolution: 1280×1024. with cross line and image acquisition functions.

LED lights

Built-in LED lights with adjustable brightness With the area control function, the LED lights can be turned on and off in different sections.

Adjustment Functions of Digital Camera

Adjusting the shutter speed, white balance and exposure in different illumination conditions.

The On/Off switch of laser indicator

Controls laser indicator's on and off.

Zoom Body: 0.7X-4.5X

Continuous zoom range of the body is from 0.7X-4.5X. The measurement and calibration functions can be used conveniently with detents.

35° Rotated Angle View Attachment

35° angle view with motorized control, the rotary speed is adjustable.

Control Box | Control Box Panel | Power Supply and Signal Outlet

Brief Introduction

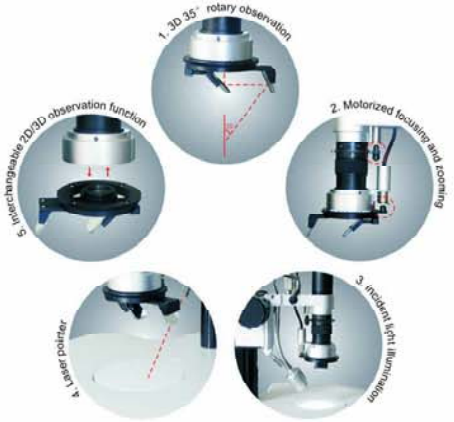
- Quality Optical System, high resolution, large field of view and high zoom ratio.
- Automatic operations include: motorized zooming, motorized observation angle changing and optional motorized focusing. The speed can be adjusted while changing observation angle.
- With the Angle View Attachment, the microscope can realize 3D image effects for observing the components and deep holes. The N3D Microscope can be widely used in micro-electronics, automated monitoring, inspecting and testing industries.
- The LED lights can generate high brightness. Theoretically the service life of LED lights can reach 20,000 hours. The LED lights with area control function can illuminate from different angles for convenient multi-angle inspections.
- By selecting the appropriate objectives and video couplers, different Magnification, field of view and depth of field can be acquired.

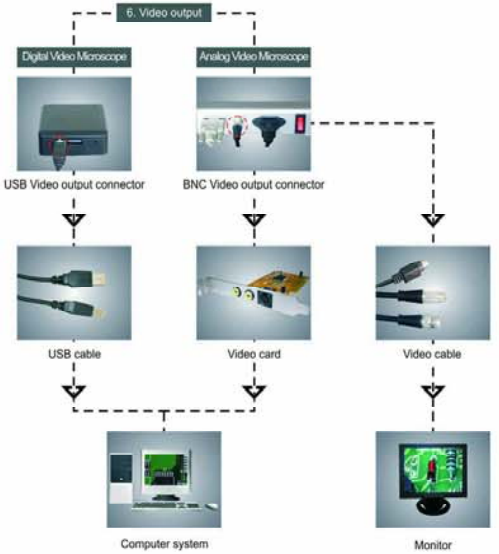
Specifications

Analog Microscope Video System	1/3" color camera, 470 lines scanning, BNC video connector. NTSC/PAL is optional.
Digital Microscope Video System	1/2" CMOS, 1.3M pixels, USB2.0, 22f/s, with cross line and image acquisition functions.
Zoom Range of Zoom Body	0.7X-4.5X
Optical Magnification	4.65X-1080X
Zoom Ratio	1: 6.4
Field of View	0.3mm-77mm
Working Distance	46mm-331mm
Video Couplers	0.35X/0.5X(Standard)/0.75X/1X/1.5X/2X
Semi-plan Achromatic Objectives	0.3X/0.5X/0.75X/1X/1.5X/2X
Infinity Objectives	5X/10X/20X/50X
Rotary Observation	35° Angle View Attachment with 0.75X objective lens(Standard)
Illumination	bright LED lights with area control
Laser Pointer	Wavelength: 650nm
Input Voltage	85-240V, 50/60HZ

Function

- Rotary angle view function realizes the multi-angle observations.
- Easy operation, motorized zoom and rotation for increasing efficiency
- The illumination of the added LED incident light can be adjusted and intensified based on the different requirements.
- Flexible laser pointer locating function
- 2D and 3D observations can be switched by removing and adding 35° Angle View Attachment.
- Image acquisition and display via computer





Can be installed on different stands.(optional per request)

M-N3D-200-A Analog Video Microscope

M-N3D-200-A includes:
- MV400010 Microscope Body
- Track Stand (with M-N3D focusing control)

M-N3D-210-D Digital Video Microscope

M-N3D-210-D includes:
- MV400020 Microscope Body
- Fluorescent Base Track Stand (with M-N3D focusing control)

M-N3D-5000-A Analog Video Microscope

M-N3D-5000-A includes:
- MV400010 Microscope Body
- Pneumatic Arm Stand (with M-N3D focusing control)

M-N3D-1000-DPL-D Digital Video Microscope

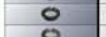
M-N3D-1000-DPL-D includes:
- MV400020 Microscope Body
- Boom Stand (with M-N3D focusing control)
- MA311101 150W Fiber Optic Illuminator
- MA322101 Dual Pipe Light Guide

Note: Above pictures are just for reference

Optical parameter(14" display and 1/3" coupler)

Auxiliary Lens	Working Distance (mm)	Video Couplers											
		0.35X		0.5X(Standard)		0.75X		1X		1.5X		2X	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	331	4.65X-31X	77-12	6X-41X	59-9	9X-61X	39-6	12X-81X	29-4	18X-121X	19.6-3	24X-162X	14.7-2
0.5X	198	7.8X-51X	46-7	10X-68X	35-5	15X-101X	23.5-4	20X-135X	17.6-3	31X-203X	11.8-2	41X-270X	8.8-1.3
0.75X	131	11.6X-77X	31-4.7	15X-101X	23.5-3.6	23X-152X	15.7-2.4	30.6X-202X	12-1.8	46X-304X	7.8-1.2	61X-405X	6-0.9
1X	96	15.5X-102X	23-3	20X-135X	17.6-2.7	30.6X-202X	12-1.8	41X-270X	9-1	61X-405X	6-0.9	81.6X-540X	4-0.7
1.5X	63	23X-154X	15-2.3	31X-203X	11.8-1.8	46X-304X	7.8-1.2	61X-405X	6-0.9	92X-607X	4-0.6	122X-810X	3-0.4
2X	46	31X-205X	11.6-1.7	41X-270X	8.8-1.3	61X-405X	6-0.9	81.6X-540X	4-0.7	122X-810X	3-0.4	163X-1080X	2-0.3
5X	44.5	77.5X-510X	4.8-0.75	100X-660X	3.4-0.53	150X-965X	2.29-0.36	200X-1360X	1.7-0.26	300X-1930X	1.14-0.18	400X-2720X	0.9-0.13
10X	34	155X-1020X	2.4-0.37	200X-1350X	1.7-0.26	300X-1930X	1.14-0.18	400X-2700X	0.9-0.13	600X-3860X	0.57-0.09	800X-5400X	0.4-0.07
20X	31	310X-2050X	1.2-0.19	400X-2700X	0.9-0.13	600X-3860X	0.57-0.09	800X-5400X	0.4-0.07	1200X-7720X	0.28-0.04	1600X-10800X	0.2-0.03
50X	20.5	775X-5100X	0.48-0.07	1000X-6800X	0.34-0.05	1500X-9650X	0.23-0.04	2000X-13600X	0.17-0.03	3000X-19300X	0.12-0.02	4000X-27200X	0.09-0.01

Models and specifications of M-N3D Microscope

Appearance	P/N	Name	Description
	MV400010	Analog microscope head	Zoom range of zoom body:0.7X-4.5X, 470 TV lines horizontal resolution, LED light illuminator with multi-angle functions lighting from different angles to the inspected area, electrically controlled, power supply: 85-265V, 50/60 Hz
	MV400020	Digital microscope head	Zoom range of zoom body:0.7X-4.5X. 1.3M pixel digital camera. LED light illuminator with multi-angle functions lighting from different angles to the inspected area, electrically controlled, power supply: 85-265V, 50/60 Hz
	MV491120	0.3X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 331mm, for MZ Series Micro Zoom Lens
	MV491130	0.5X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 198mm, for MZ Series Micro Zoom Lens
	MV491110	0.75X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 131mm, for MZ Series Micro Zoom Lens
	MV491140	1X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 96mm, for MZ Series Micro Zoom Lens
	MV491150	1.5X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 63mm, for MZ Series Micro Zoom Lens
	MV491160	2X Objective Lens	Semi-plan achromatic design, outside dia. 30mm, working distance 46mm, for MZ Series Micro Zoom Lens
	MA121102	10X Infinity Corrected Long Working Distance Objective	10X Plan achromatic objective, parfocal distance 95mm, working distance 34mm, N.A. 0.28, depth of field: 3.5 μ m, field of view ∮ 2.4mm (∮ 24 Eyepiece), resolution 1 μ m
	MA121201	5X Infinity Corrected Long Working Distance Objective	5X Plan achromatic objective, parfocal distance 95mm, working distance 44.5mm, N.A. 0.13, depth of field: 14 μ m, field of view ∮ 4.8mm (∮ 24 Eyepiece), resolution 2 μ m
	MA121203	20X Infinity Corrected Long Working Distance Objective	20X Plan achromatic objective, parfocal distance 95mm, working distance 31mm, N.A. 0.29, depth of field: 3.5 μ m, field of view ∮ 1.2mm (∮ 24 Eyepiece), resolution 1 μ m
	MA121204	50X Infinity Corrected Long Working Distance Objective	50X Plan achromatic objective, parfocal distance 95mm, working distance 20.5mm, N.A. 0.42, depth of field: 1.6 μ m, field of view ∮ 0.48mm (∮ 24 Eyepiece), resolution 0.7 μ m
	MV491111	35° View Angle Attachment (Standard)	35° View Angle Attachment with a 0.75X Objective Lens, for MV400010 or MV400020 M-N3D Microscope
	MV493101	LED Incident Light	High brightness LED incident light, power consumption:1W
	GP080101	BNC-BNC Video Cable	Length 2M (6.56ft.)
	MV193106	BNC-S-Video Cable	Length:1.5M
	MV193107	Standard BNC-RCA video cable	Length:1.5M

Note: Different stands and illuminators are optional per request

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