Dino-Lite
Digital Microscope

AM5216ZTL

Also work with Accessory - N3C-R (Ring Light Cap)

The Dino-Lite AM5216ZTL is one of the latest Edge series D-sub microscopes with long working distance (LWD) feature. When compared to standard magnification models like the AM5216T, this LWD model yields higher magnification and larger depth of field under the same working distance though the highest attainable
magnification is smaller. This feature provides greater clearance between the microscope and the viewing object, which can be helpful for applications such as repairing or assembling.

The AM5216ZTL comes with an adjustable polarizer to help suppress unwanted glare or reflections. It is suitable for a wide range of applications including the inspection, repair and assembly involving reflective or translucent materials, with examples such as soldering, quality inspection, or jewelry fabrication.

The MicroTouch button on this model is configured to quickly freeze video frames with a single tap of a finger, or to control on/off the LEDs. The scroll lock on the magnification dial is able to secure the dial and fix the focus and magnification, which can be helpful to prevent unintentional rotations of the dial in some applications.

The AM5216ZTL does not require a computer or bundled software to operate, but instead functions through

Overview

Adjustable polarizer
This model includes a freely adjustable polarizer that is useful for suppressing unwanted glare or reflection from object surface to any extent, making it ideal for most applications.

High quality optics
This Dino-Lite Edge series microscope maximizes observed details with state-of-the-art lens design and super sharp resolving power.

Largest magnification range with long working distance
The wide magnification range (10x to 140x) is achieved with long working distances greater than 29mm (without front cap), which can be helpful when clearance is required between the microscope and the viewing object.

D-sub Interface
Connect the AM5216ZTL directly into a VGA monitor which supports 720p resolutions through the D-sub interface for absolute convenience. This model operates without the presence of a computer, making it suitable for managing your observations in a simple system configuration.

MicroTouch button
Freeze video frames quickly and conveniently with the MicroTouch button. This small, round, touch-sensitive button allows you to easily freeze and observe photos with a single tap of a finger. To switch on/off the LED lights, simply hold the button for two seconds.

Adaptable cap design
This model features a detachable and interchangeable front cap that extends its range of use, as different caps are available for various applications. Removing the front cap provides greater working distance and access to the full magnification range.

Interchangeable Front Caps

N3C-C / Close Cap
This cap protects the lens and LED lights from contamination of dust, debris, or moisture.

N3C-D / Diffuser Cap
This cap diffuses the LED light.

N3C-D2 / Opal Diffuser Cap
This cap diffuses the LED light.

N3C-E / Extended Open Cap
Dino-Lite Edge (stand type) will focus at approximately 200x when the cap touches surface.

N3C-L / Long Cap
This cap is useful to adjust the working focus of Dino-Lite Edge at lower magnification.

N3C-O / Open Cap
This is the standard cap for normal usage.

N3C-S / Sidelight Cap
This cap creates images with more depth and texture.

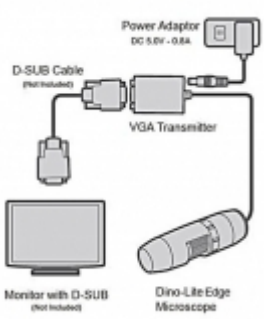
Model : AM5216ZTL Dino-Lite Edge
Interface : D-sub
Product Resolution : 720p
Magnification Rate : 10~140x
Sensor : Color CMOS
Frame Rate : Fix 60fps
Microtouch : LED On/Off – Tap and hold for two seconds
Freeze/unfreeze frame – Tap
Lighting : 8 white LEDs
Polarizer : Yes
Unit Weight : 105g
Unit Dimension : 10.5cm (H) x 3.2cm (D)
Package Dimensions : 16cm(L) x 16cm(W) x 6cm(H)

Information about working distance and field of view

M	WD	FOV (x)	FOV (y)	DOF
10	234.5	39.0	31.2	12
20	112.5	19.5	15.6	4.5
30	72.5	13.0	10.4	3.1
40	54.5	9.8	7.8	1.8
50	43.5	7.8	6.2	1.2
60	37.5	6.5	5.2	0.9
70	33.7	5.6	4.5	0.6
80	31.3	4.9	3.9	0.5
90	29.9	4.3	3.5	0.37
100	29.2	3.9	3.1	0.28
110	29.1	3.5	2.8	0.22
120	29.3	3.3	2.6	0.17
130	29.8	3.0	2.4	0.12
140	30.5	2.8	2.2	0.09

M = magnification rate WD = working distance (without front cap) FOV = field of view DOF= depth

Gallery



System Configuration

AM5216ZTL with RK-10-VX vertical arm extension

N3C-R (Ring Light Cap)
In most macro observation, a ring light may help to reveal more details by generating shadow-less illumination. Working seamlessly with the Dino-Lite Edge series, the N3C-R front cap is a unique and the simplest solution designed to provide ring illumination for a microscope. The 6.5 cm (2.5 inch) diameter N3C-R fully utilizes the Dino-Lite's built-in LEDs by redirecting it to form a focused, diffused, and uniform ring-light. For polarizer model such as AM4115ZT, the polarizer can still be used for suppressing the unwanted glare or reflection when using with N3C-R. Without the clutter of mounting and powering an external ring light, thus no heat and noticeable weight been added, the clip-on N3C-R economically provides alternative illumination and adds more flexibility to Dino-Lite’s applications.

Note: The N3C-R has best working distance in the range of about 2 to 15 cm. It may not be suitable for short working distance operation, and is not compatible with high magnification models such as AM4515T5 or AM4515T8.

Specification

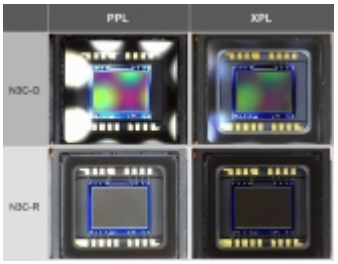
Model : N3C-R Ring Light Cap
Compatible Dino-Lite Models L Dino-Lite Edge LWD models (TL, ZTL)
Unit Dimension : 15.5 mm (H) x 65 mm (D)
Materials : Polycarbonate with sputtered aluminum coated
Unit Weight : approx. 8 g

Gallery

Ring light projected through N3C-R

Dino-Lite EDGE with N3C-R

RK-10 & Dino-Lite EDGE with N3C-R



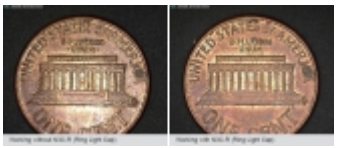
Reflection or glare comparison of using N3C-R, polarizer, and both

Reflection or glare comparison of using N3C-R, polarizer, and both

PCB 1

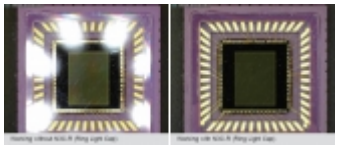
PCB 2

PCB 3



Coin 1

Coin 2



IC

Watch