

LLD-1 VGA Video Camera with Length Measurement Function



- *No computer and software needed*
- *1.3 megapixel, color, high quality CMOS, resolution 1280 x 1024, clarity > 650 TV lines*
- *Up to 8 crosshair markers movable to any location on screen*
- *Length measurement in both H & V directions after calibration*
- *High measurement accuracy up to sub-micron*
- *Live VGA video output to display, projector or digital TV*
- *Easy-to-use by menu operation using keypad with clear & stable image*

Applications

- ▣ Academic teaching
- ▣ Microscopic amplification systems
- ▣ QC/QA in micro IC assembly
- ▣ PCB and SMT production
- ▣ Industrial precision positioning
- ▣ Medical and scientific R&D
- ▣ Jewelry appraisal

Installation

- ▣ Install a proper camera lens onto the CS mount of the camera
- ▣ Connect the VGA OUT terminal to a VGA display using a VGA cable
- ▣ Plug the 5V DC AC adaptor into the 5V DC IN socket of the camera

Menu Operation

- ▣ Press MENU once, main menu pops up; press MENU again, main menu closes.
- ▣ Press ↑/↓ to highlight menu, then press → to select menu.
- ▣ If there is a submenu, press ↑/↓ to highlight submenu, then press ←/→ to change value of the selected submenu.
- ▣ Select Exit to return to main menu.

Method of Measurement

- ▣ Place the sample under test on the specimen stage, while keeping the calibration of the system unchanged.
- ▣ Through keys SEL, \uparrow , \downarrow , \leftarrow and \rightarrow to move lines to measure distance between a pair of lines in H or V direction.
- ▣ Screen freeze: press POWER for one second, screen will freeze for more stable measurements.
- ▣ Press POWER one second again to release freeze function.
- ▣ Press POWER about 3 seconds to turn off power of the camera.

Specifications

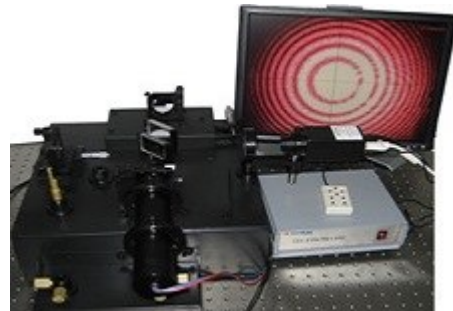
Sensor	1.3 megapixel, color, 1/4" CMOS
Effective pixels	1280 (H) x 1024 (V), pixel size 2.8 μm x 2.8 μm
Data	8 bits
Frame rate	15 frames/s progressive scan, electronic shutter
Clarity	> 650 TV lines
Dynamic range	> 63 dB
S/N	44 dB
Sensitivity	1 V/lux-sec (at 550 nm)
Exposure	10 ms ~ 60 ms, auto/manual
White balance	auto
Lens mount	CS/C
Video output	VGA, resolution selectable 1024 x 768, 1280 x 1024
Menu function	brightness, contrast, sharpness, saturation, blue & red offset, auto exposure H-mirror, V-mirror, negative, crosshair number, length calibration
Working temperature	0~60 °C
Power supply	5 VDC \pm 10%, 400 mA
Dimensions	50 x 50 x 90 (mm)
Package	camera unit (CS), 5 VDC adapter, keypad, manual



Microscopic PCB inspection



Newton's ring experiment



Michelson interferometer