

# Dage IR1000

## Infrared CCD Camera

DAGE-MTI

dage technologies

### Features and Benefits

The IR-1000 infrared CCD camera is designed especially for applications requiring high sensitivity in the near infrared. The high gain of the camera enables the user to detect images in real-time (30 frames/sec.) even when energy levels are very low. With wide range gain and black level controls, the IR-1000 enables the user to enhance image contrast and offers the ability to do short-term integration for increased sensitivity.

This camera works extremely well when used to investigate thick tissue sections using infrared DIC, along with fluorescence. It is also ideal for inspecting gallium arsenide wafers in both transmitted light and with epi-illumination.



Sample Image from the IR1000

Well suited for the following applications:

- Near IR
- Brightfield, Phase Contrast, and Darkfield Microscopy
- Flourescence Microscopy
- Electrophysiology
- Semiconductor Inspection
- Manufacturing Quality Control
- Failure Analysis
- Forensic Analysis
- Teaching Environment

#### Spectral Response

Excellent sensitivity in near IR and entire visible spectrum  
Response from 380nm to 1200nm

#### High Sensitivity

Provides 5 times more sensitivity at 900nm

#### Two-Piece Design

Allows for convenient desk-top control of image enhancement features  
Compact head for space limited applications

#### Wide Range Automatic Gain

Minimizes the need to constantly readjust gain under changing light conditions

#### Wide Range Black Level

Increases image contrast by almost 100 times when using automatic gain and manual black level

#### Ten-Step Grey Scale Test Signal

Allows the user to quickly and correct set the contrast and brightness on a monitor

#### On-Chip Integration

Allows for increased sensitivity  
Can be used with stand-alone Investigater or various computer frame grabbers

### SPECIFICATIONS

Pick-Up Device	1/2" interline CCD with microlens
Signal-to-Noise Ratio	56dB
Shading	<5% overall
Sensitivity	.05fc (0.5 lux) on sensing area @ 3200K
Minimum Illumination	.00035 fc (.0035 lux)
Gamma Correction	Gamma set to 1.0 at factory
Gain	Switchable fixed or automatic
Electronic Shutter	Nine-step manual to 1/10,000

	RS-170	CCIR
Active Picture Elements	768 (H) x 494 (V)	752 (H) x 582 (V)
Picture Element Size	8.5um (H) x 9.8um(V)	8.6um (H) x 8.3um(V)
Horizontal Resolution	570 TVL	560 TVL
Pixel Clock Frequency	14,318 mHz	14,1875 mHz
Vertical Rate	59.94 Hz	50 Hz
Horizontal Rate	15,734 Hz	15,625 Hz

Lens Mount	"C" mount
Options	Investigater 1/2" optical coupler

<b>WEIGHT</b>	
Control Unit	1.48 lb. (0.67 Kg)
Camera Head	0.25 lb. (.11 Kg)

<b>SIZE</b>	
Control Unit	5-1/2" (W) x 1-1/2" (H) x 8" (L)
Camera Head	1-3/4" (W) x 1-1/8" (H) x 3-3/4" (L)

Operating Temperature	0°C to +40°C
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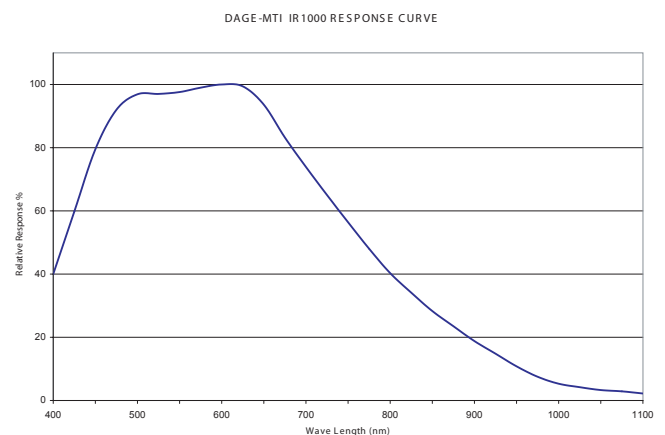
Input Voltage	95 VAC to 250 VAC
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### SPECTRAL RESPONSE



**Dage-MTI 219.872.5514**  
Call for product information or for free product demos