# Dage IR1000

## Infrared CCD Camera

DAGE-MTI

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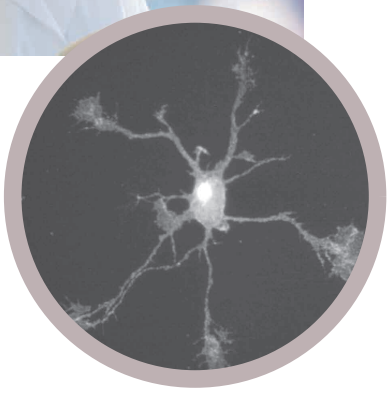

*Sample Image from the IR1000*

## 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.

| | |
|---|---|
| Spectral Response | Excellent sensitivity in near IR and entire visible spectrum<br>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<br>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<br>Can be used with stand-alone Investigater or various computer frame grabbers |

*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


马普科学仪器有限公司 Mapu Scientific ltd.
Tel：020-8767 9617, 8767 9631；Fax：020-8767 9635
http://www.mapusci.com E-mail:info@mapusc.com

DAGE-MTI

# Dage IR1000

## Infrared CCD Camera

## 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<br>1/2" optical coupler |
| WEIGHT | |
| Control Unit | 1.48 lb. (0.67 Kg) |
| Camera Head | 0.25 lb. (.11 Kg) |
| SIZE | |
| 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 |
| Input Voltage | 95 VAC to 250 VAC |


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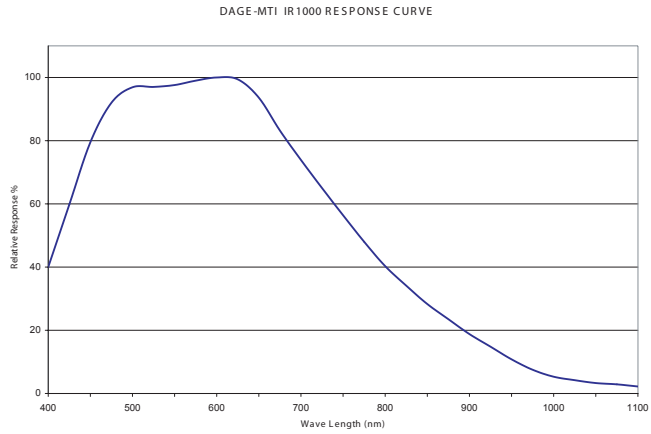
## SPECTRAL RESPONSE



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