

The Thermo Scientific CID3710D solid state monochrome video camera features a 2:1 interlace scanned 776(H) x 512(V) Charge Injection Device (CID) array with 12.0 x 13.7 micron (4:3 Aspect Ratio) pixels in a compact remote head connected to a camera control unit via flexible cable supplied to length.

## Thermo Scientific CID3710D



### Designed for Versatility

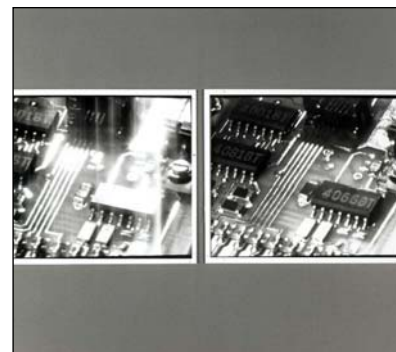
A versatile camera head mounting feature simplifies installation in small spaces, and the standard "C" mount lens adapter provides back-focus adjustments.

In addition the CID3710D features superior Anti-Blooming performance inherent to all CIDs, making it tolerant to highly specular lighting conditions. Command stop motion or PIP (Part in Position) may be used for external control to read Asynchronous high speed events. Frame reset, inject inhibit, and dump functions may be used in combination or independently to capture events in center frame. The camera may be synchronized with an event to precisely locate a part in the field of view, and the use of a strobe allows blur-free images.

### Uniqueness of the CID

The CID structure is inherently Anti-Blooming and tolerant to highly specular lighting conditions. Optical overloads are highly contained within each pixel or the immediately surrounding pixels so charge is not shared with adjacent rows or columns.

The spectral response is from below 200nm to 1100nm, and coatings are available for X-Ray, deep UV, and IR. CID imagers have a contiguous uniform pixel structure where the total sensor is active with virtually no opaque areas which facilitates inter-pixel interpolation for subpixel edge definition.



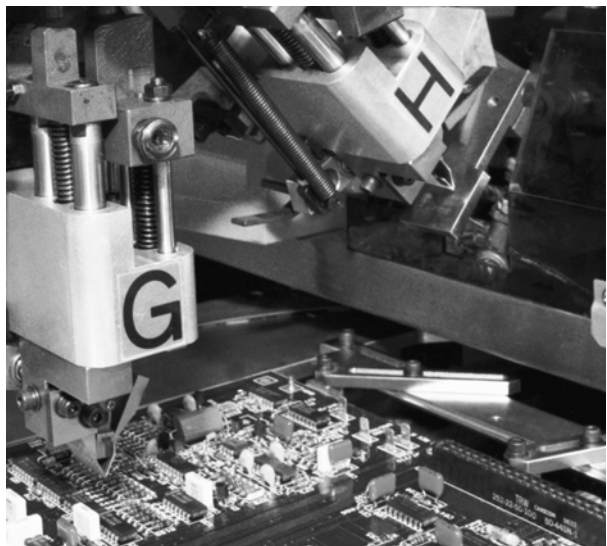
The CID3710D camera features a 2:1 interlace scanned 776(H) x 512(V) CID array with 12.0 x 13.7 micron (4:3) aspect ratio pixels.

### Features:

- . CID (Charge Injection Device) Imager Technology
- . UV through near IR response
- . Interlace RS-170 format
- . Asynchronous full - frame capture
- . 4:3 Aspect ratio pixels
- . Precise edge detection
- . Multiple - frame integration
- . Small size

### Applications:

- . Inspection and measurement
- . Remote gaging, metrology
- . Tracking
- . 3-D Profiling
- . Machine Vision



## Imager

Image Format	776H x 512V
Total Pixels	755H x 484V
Pixel Size	12 x 13.7 micron
Full Well Capacity	>250,000 electrons
Active Area	11 mm diagonal
Optical Format	2/3"

## Electrical

Scanning Format	RS-170, 30FPS, Interlace
Resolution	>500 TVL (horizontal)
S/N Ratio	-52db typ. signal/RMS 10KHz - 4.2MHz
Sensitivity	Full output at .3fc 0db Gain, T=2850K
Composite Video	1V p-p, terminated into 75 ohm
Black Level	+50mV (Auto Clamp)
White Level	+700mV
Sync Level	-300mV
Geometric Distortion	0%
Input Power	8 Watts (max.)
Input Voltage	Camera +15VDC Nominal Line Adapter 110 - 220 VAC +/- 10%, 50/60 Hz
Input Current	Camera 550mA avg.
Spectral Response	See Response Curve
Gain	X2, X4 (internal SW.)

## Interface Signals

Outputs	J1- Video, EOF, EOL, H&V Drive, Blanking, Composite sync. J2- Video, ALC, 14.318MHz ERC Clock BNC- Composite Video
Inputs	J1 +15VDC J2 V Drive, PIP

## Mechanical

Weight	CCU 0.93 kg. (33 oz) Head 0.27 kg. (9.7 oz)
Cable Length	2 Meters
Lens Mount	Standard "C" Mount (1.0" - 32 Thread)
Camera Mount	1/4" - 20 Thread
Connectors	J1 25 Pin D (male) J2 25 Pin D (female) BNC standard

## Environmental

Temperature Range	Operating 0C to 50C case Storage -25C to 85C
Humidity	0-95% noncondensing
Shock	50G (1/2 Sinewave at 10ms duration)

## Thermo Scientific CID3710D Camera

The CID3710D Solid State Monochrome Video Camera is part of a line of machine vision cameras and imagers with applications spanning a full spectrum of industries and applications. Thermo Scientific CIDTEC Cameras & Imagers has been in business for over 25 years with imaging products in scientific, machine vision, aerospace, medical, and radiation hardened markets.

