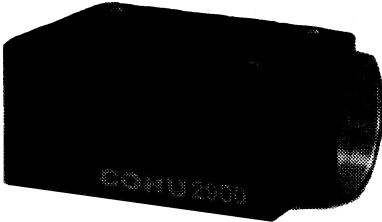
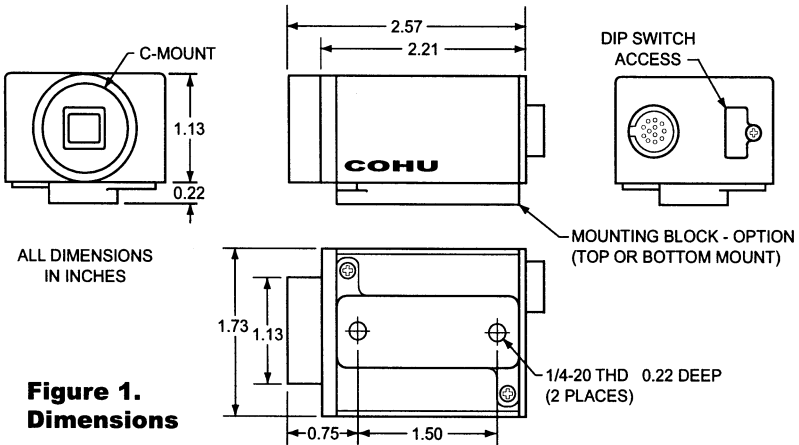


2900 SERIES MACHINE VISION MONOCHROME CAMERAS



**NO-ADJUST C-MOUNT
17.5 MM BACK SPACE**



This camera is intended primarily for operation in the asynchronous reset mode while using a strobe light to illuminate the scene. A 614 μ s strobe window is available — with an output pulse of this window appearing on the rear panel connector. This video must be captured with a frame grabber. Either field or frame mode can be selected with a rear panel switch. The camera will also produce an image from ambient light while in the asynch reset mode.

A rear panel INHIBIT input provides for integration periods longer than the standard RS-170 rate when operating in the conventional RS-170 sync mode.

Three other rear panel switches offer selection of 3, 6, or 9 dB gain increase.

MANUAL NO. 6X-1016

Phone: 858-277-6700

info@cohu.com

FAX: 858-277-0221

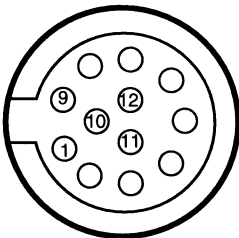
www.cohu-cameras.com

COHU
Cohu Inc., Electronics Division

Cohu Electronics • 3912 Calle Fortunada • San Diego, CA 92123-1827

Table 1
Rear Panel
Connector

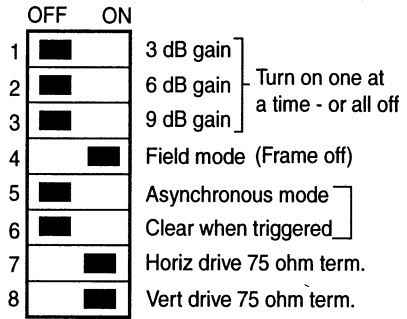
PIN	FUNCTION
1	Power Return
2	+12 V dc
3	Video Ground
4	Video Output
5	Sync Ground
6	External H. Drive Input
7	Asynchronous/ Clear/ VDrive
8	Sync Ground
9	WIN Output
10	Sync Ground
11	$\overline{\text{INHIBIT}}$
12	Sync Ground



REAR PANEL VIEW
(ALSO WIRING VIEW
OF MATING PLUG)

MATING PLUG FOR CABLE

Cohu part no. 1310398-212
Hirose part no. HR10A-10P-12S
(solder-type connections)



Default / as-shipped positions

Figure 2. Rear Panel DIP Switches

When switch 5 is OFF (Asynch mode Off) the camera output can be viewed on any standard RS-170 monitor.

When switch 5 is set to ON (asynch mode On) an output appears only in response to an asynch input pulse at pin 7 on the rear panel. A frame grabber is required to capture this output.

INTEGRATION

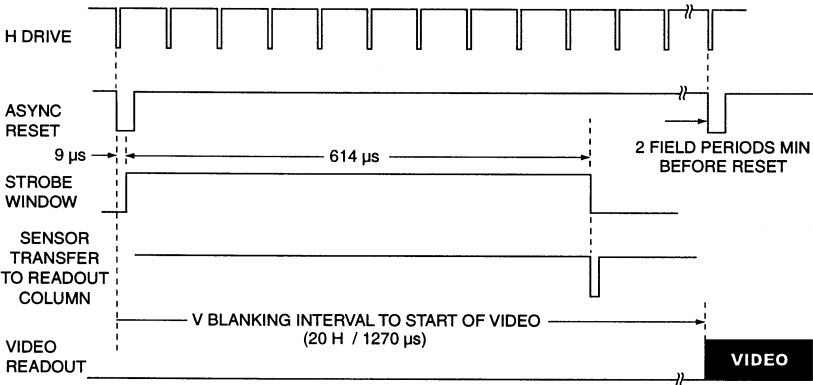
When the $\overline{\text{INHIBIT}}$ input is pulled low the camera sensor continues to integrate the current interval. It stops integrating at the first vertical drive pulse occurring after $\overline{\text{INHIBIT}}$ is taken high again. Video output then begins after the end of vertical blanking.

Table 2. Async Mode Video Output Levels

MODE	ILLUMINATION	ODD FIELD	EVEN FIELD
FIELD	AMBIENT	REDUCED	FULL
	STROBE	FULL	BLACK LEVEL
FRAME	AMBIENT	REDUCED	FULL
	STROBE	FULL	FULL

Notes: Reduced video level will be about 29 dB below the full level.
Primary operating modes shown in gray.

Table 2 shows the relative output levels that are to be expected when asynchronously resetting the camera.



NOTES:

- ASYNC RESET** must be coincident with the **H DRIVE** input signal.
- At least two field periods must occur between **ASYNC RESET** pulses.
- See table 2 for odd and even field levels for ambient and strobe light sources.

Figure 3. Asynchronous Reset Timing Diagram

CLEAR WHEN TRIGGERED INPUT

When switch 6 is set to ON, an asynchronous reset input immediately clears all signals in the sensor so that any image captured after that is a result only of the new input.

WARRANTY

Cohu, Inc., Electronics Division, warrants equipment manufactured to be free from defects of material and workmanship. Any part or parts will be repaired or replaced when proven by Cohu examination to have been defective within two years from date of shipment to the original purchaser for standard CCD cameras and one year from date of shipment to the original purchaser for intensified CCD cameras and all other Cohu manufactured products.

All warranty repairs will be performed at the factory or as otherwise authorized by Cohu in writing. Transportation charges to Cohu shall be prepaid by purchaser.

This warranty does not extend to Cohu equipment subjected to misuse, accident, neglect, or improper application, nor repaired or altered by other than Cohu or those authorized by Cohu in writing. **Television image pickup tubes, image intensifiers, lenses, and products manufactured by companies other than Cohu are warranted by the original manufacturer.** This warranty is in lieu of all other warranties expressed or implied. Cohu shall not be liable for collateral or consequential damages.

A Return Authorization (RA) number must be obtained from Cohu prior to returning any item for warranty repairs or replacement.

This equipment has been tested and found to comply with limits for class A digital devices, pursuant to part 15 of the FCC rules.

CE: CISPR-22, class B; EN55022, class B; EN50082-1
