



❖ **TM-250NIR / TM-260NIR** Monochrome Interlaced Scan Near-IR CCD



- *1/2" advanced Hyper-HAD™ type interline transfer CCD*
- *768 x 494 resolution @ 30 fps (EIA)*
- *752 x 582 resolution @25 fps (CCIR)*
- *Small size and square shape fits many machine vision applications*
- *8 selectable modes of operation (back panel DIP switches)*
- *Shutter from 1/60 to 1/29,000 sec.*
- *Externally adjustable MGC/AGC, gamma and field/frame select*
- *External sync, async reset, reset-restart, and variable asynchronous shutter*
- *Excellent Near-IR sensitivity*
- *Custom and OEM models available*

Specifications for TM-250NIR/TM-260NIR

Specifications | TM-250NIR (EIA) | TM-260NIR (CCIR)

Sensor	1/2" interlaced scan IT CCD	
	ICX428ALL	ICX429ALL
Active pixels	768 (H) x 494 (V)	752 (H) x 582 (V)
Cell size	8.4 μm x 9.8 μm	8.6 μm x 8.3 μm
Scanning	525 lines EIA	625 lines CCIR
Synchronization	Internal/External auto switch $fH=15.734 \text{ KHz} \pm 5\%$, $fV=59.94 \text{ Hz} \pm 5\%$	
Pixel clock	14.318 MHz	14.188 MHz
TV resolution	570 (H) x 350 (V)	560 (H) x 420 (V)
S/N ratio	>50 dB (AGC off)	
Sensitivity	0.25 lux (F=1.4)	
Video output	1.0 Vp-p composite video, 75 Ω	
AGC	ON/OFF (back panel selectable)	
Gamma	1 or 0.45 (back panel selectable)	
Lens mount	C-mount	
Power	190 mA, 11-15V DC	
Operating temperature	-10° C to 50° C	
Vibration	7 Grms (10 Hz to 2000 Hz) Random	
Shock	70 G, 11 ms, half-sine	
Dimensions (H x W x L)	44 mm x 44 mm x 50 mm	
Weight	120 g	

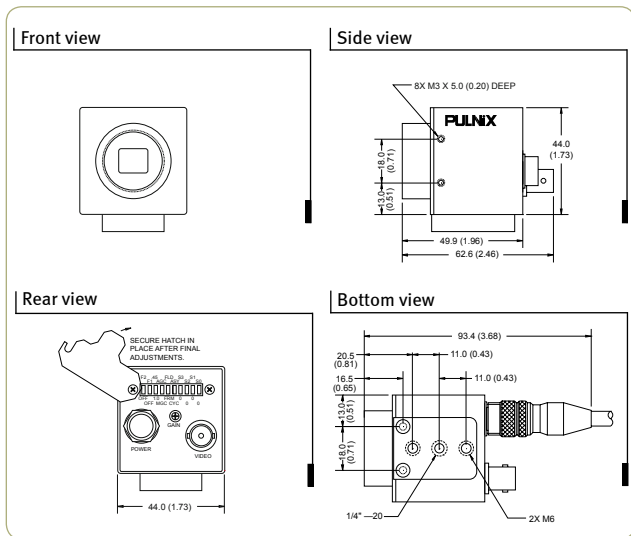
Operating Modes

The TM-250NIR/TM-260NIR operates in the following modes that can be selected by the DIP switches on the rear panel.

1 - Standard Interlace Mode	5 - Asynchronous Reset & Shutter
2 - External Sync Mode	6 - Reset-Restart Mode
3 - Non-Interlace Operation Mode	7 - Reset-Restart w/Electronic Shutter
4 - Cyclic (Continuous)Shutter Mode	8 - Integration Mode

Consult the TM-250/TM-260 manual for a detailed description of each operating mode, along with tables showing the various configuration(s) of the DIP switches for each of the modes.

Dimensions

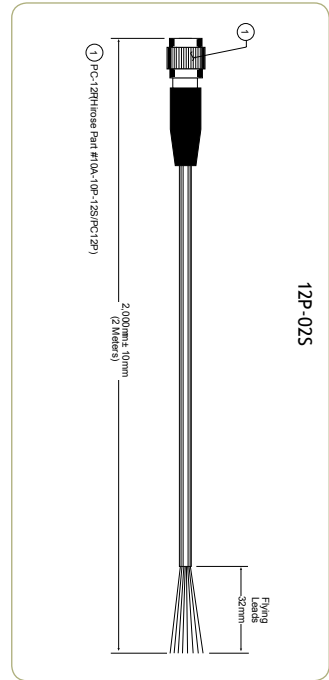


Connector Pin-outs

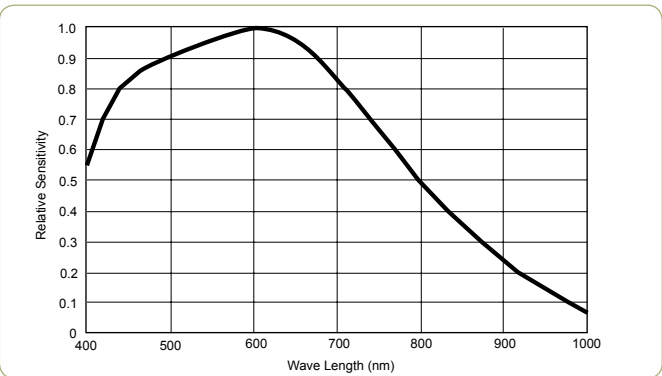
12P-02 Interface Cable

Pin#	Lead Color	Function
1	Gray	GND
2	Yellow	+12VDC
3	Red coax shield	GND
4	Red coax	Video
5	Orange coax shield	GND
6	Orange coax	VINIT/TRIG*
7	Black coax	VD Input
8	White coax shield	GND
9	White coax	HD Input
10	Brown	N/C
11	Blue	N/C
12	Black coax shield	GND

* VINIT is active low.
TRIG is active high.



Spectral Response



Ordering Information

Camera	
Lead Processing	TM-250NIR (EIA), TM-260NIR (CCIR)
RoHS Compliant	RM-250NIR (EIA), RM-260NIR (CCIR)
Optional Functions	
Internal IR Filter Added	OP3-1
Optical Filter Removal	OP3-2
Sony Pinout Compatibility	OP25
200 Ohm Termination	OP84
Auto Iris	OP88
Optional Accessories (MUST BE ORDERED SEPARATELY)	
Power Cable	12P-02S
Power Supply	PD-12UU Series

Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 3252

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300

See the possibilities



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