

❖ **TM-200NIR/TM-300NIR** Monochrome Interlaced Scan Near-IR CCD



- *1/2" HAD type, advanced micro lens interline transfer CCD*
- *768 x 494 resolution @ 30 fps (EIA)*
- *752 x 582 resolution @25 fps (CCIR)*
- *Input voltage 11-15V, 2.5W*
- *Small size, rugged construction*
- *Excellent Near-IR sensitivity*
- *Shutter from 1/60 to 1/10,000 sec.*
- *Externally adjustable manual gain, AGC, shutter, gamma and field/frame select*
- *External sync*
- *Custom cable (length optional)*
- *Mount positionable on top or bottom of camera*

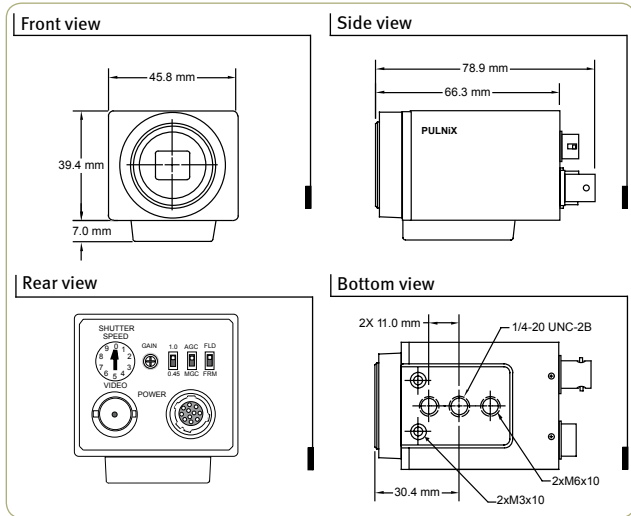


Specifications for TM-200NIR/TM-300NIR

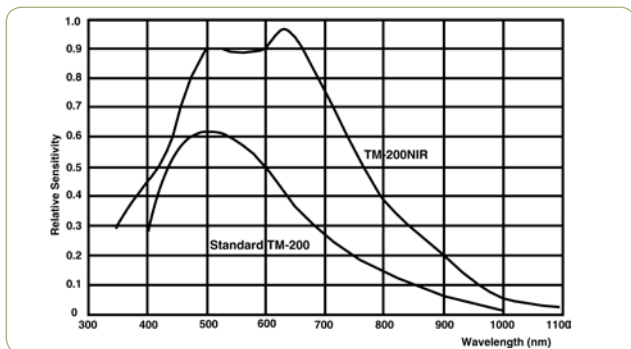
Specifications | TM-200NIR (EIA) | TM-300NIR (CCIR)

Sensor	1/2" interlaced scan IT CCD	
	ICX428ALL-6	ICX429ALL-6
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 KHz ± 5% fH=15.725 KHz ± 5% fV=59.94 Hz ± 5% fV=50 Hz ± 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 min., 56 dB typical	
Sensitivity	0.25 lux (F=1.4)	
Video output	1.0 Vp-p composite video, 75 Ω	
AGC	ON/OFF back panel switch	
Gamma	1 or 0.45 back panel switch	
Lens mount	C-mount, back focus adjustable	
Power	190 mA, 11-15V DC	
Operating temperature	-10° C to 50° C	
Vibration	7 Grms (20 Hz to 2000 Hz) Random	
Shock	70 G, 11 ms, half-sine	
Dimensions (H x W x L)	39 mm x 46 mm x 66 mm	
Weight	157 g	

Dimensions



Spectral Response



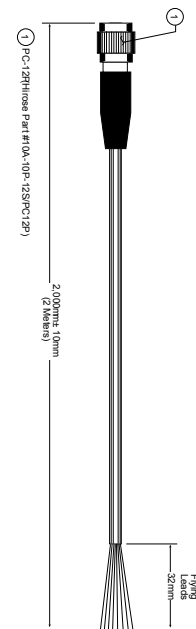
Shutter speeds

Manual Shutter Control				
Mode	TM-200NIR		TM-300NIR	
	Shutter Speed		Shutter Speed	
0	1/60 (field mode) 1/30 (frame mode)	No Shutter	1/50 (field mode) 1/25 (frame mode)	No Shutter
1	1/125	131H	1/120	131H
2	1/250	63H	1/250	63H
3	1/500	31H	1/500	31H
4	1/1,000	16H	1/1,000	16H
5	1/2,000	8H	1/2,000	8H
6	1/4,000	4H	1/4,000	4H
7	1/10,000	1.5H	1/10,000	1.5H
8	Same as shutter position 0		Same as shutter position 0	
9	Same as shutter position 1		Same as shutter position 1	

Note:
Shutter Position 0 = Normal Mode
Shutter Position 1-4 = Fast Mode
Shutter Position 5-7 = Slow Mode
One (1) H = 63.5 μsecs (TM-200NIR only)
One (1) H = 64 μsecs (TM-300NIR only)

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	N/C
7	Black coax	VD Input
8	White coax shield	GND
9	White coax	HD Input
10	Brown	N/C
11	Blue	Integration
12	Black coax shield	N/C



Ordering Information

Camera	
Lead Processing	TM-200NIR (EIA), TM-300NIR (CCIR)
RoHS Compliant	RM-200NIR (EIA), RM-300NIR (CCIR)
Optional Functions	
Internal IR Filter Added	OP3-1
Optical Filter Removal	OP3-2
Extended Temperature	OP22-5
Sony Pinout Compatibility	OP25
200 Ohm Termination	OP84
Auto Iris	OP88
Optional Accessories (MUST BE ORDERED SEPARATELY)	
Power Cable	12P-02S
Power Supply	PD-12UUP series

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See the possibilities