TOSHIBA

IK-1000 STARLIGHT COLOR VIDEO CAMERA



Lens not included

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Achieves sensitivity and dynamic range in excess of current generation night-vision cameras and provides full color at 30 FPS in near total darkness!

FEATURE	BENEFIT
.00025 Lux Minimum Illumination	Reproduces full color, full motion images in starlight conditions
50 dB S/N Ratio	Provides industry leading sharpness in ALL light conditions
Electron Multiplying CCD (EMCCD)	Generates new electrons dramatically increasing sensitivity at very fast speeds without the common readout noise of traditional CCD
Adaptive Recursive Noise Reduction	Reduces CCD output buffer noise in low light conditions
Peltier Cooled CCD	Maintains constant temperature of CCD to maximize low light performance

IK-1000 **STARLIGHT COLOR VIDEO CAMERA**

Image Sensor	1/2 inch CCD
Active Pixels	658 x 496 Pixel
Effective Picture Element	319 k Pixel
Output	VBS (NTSC:BNC), Y/C
Lens Mount	C Mount (Lens Not Included With Camera)
SYNC System	Internal
Resolution	420 TVL (NTSC OUT)
Min Illumination	0.001 lux (F1.2 CMG x 1000, AGC 12 dB, White 50%)
	0.00025 lux (F1.2 CMG x 1000, AGC 12 dB, White 10%)
S/N(NTSC) Ratio	50 dB
White Balance	ATW/One Push WB/MANUAL
IRIS Control	Auto Iris Lens (EE/DC)
Electric Shutter	Manual (OFF, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000)
GAIN	OFF, 0 dB to 18 dB (1 dB Step Selectable)
CMG (Charge Multiplication GAIN)	x 1000 (Max) approx.
BLC	7-Mode selctable, 16 Area Photometry
Frame Rate	30 Frames Per Second
Camera Control	RS-232C (Dsub-9p)
Power Supply	12 V DC
Power Consumption	At 77° F: 6 W, At 104° F: 12 W
Temperature	14° F to 113° F
Humidity	90% Maximum
Weight	450 g (15.8 oz)
Dimensions	2.28" (W) x 2.3" (H) x 5.24" (D)
Emission Standard	FCC Class A

TECHNOLOGY COMPARISON

noiseless 30 FPS full color in

near total darkness.

	Image Intensifier	IR Illuminated	Thermal Imaging	IK-1000
	Camera	Camera	Camera	EMCCD
Color Image In Low Light	No	No	No	Yes
Compact Design	No	No	No	Yes
Maintenance Free Design	No	No	Yes	Yes
Distance Range	Unlimited	Limited By IR	Unlimited	Unlimited



APPLICATIONS

Suggested applications for the IK-1000 camera include these 24/7/365 high value assets:

- Homeland Security
- Airports
- Military
- Dams, Water Treatment
- Government Buildings
- Mass Transit
- Ports
- Nuclear Power Plants
- Natural Gas Sites
- Pipelines
- National Monuments

WHAT IS EMCCD?		Direct Sunlight	Daylight Overcast	Twilight	Full Moon	Quarter Moon	Moonless (starlight)	Moonless Overcast
Electronic multiplying architecture differs from traditional CCD tech- nology in that a gain register is			1					
inserted between the end of the shift register and the output ampli-			- Car					
fier. The gain register has two phases with independent elec-		10 ² lux	10 ¹ lux	10 lux	10 ⁻¹ lux	10 ⁻² lux	10 ⁻³ lux	10 ⁻⁴ lux
trodes, each holding a different	Conventional CCD							
voltage potential. The resultant intense electric field causes the	Low Light CCD							
electrons to undergo impact	Low Light CCD							
ionization. This generates new electrons that manifest themselves	3rd Generation							
as dramatically increased sensitivi-	Image Intensifier							
ty at very fast speeds without the common readout noise of tradition-	IK-1000							
al CCDs. The result is virtually								

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