



## A safer world

Thermal-Eye™ systems are designed and manufactured for applications in public safety, fire and rescue, industrial, security and transportation. Having pioneered infrared technology decades ago, our products continue to increase the safety of our neighborhoods, help rescue victims of accidents, monitor business facilities and assets and improve the safety of nighttime driving. In fact, with so many positive applications, in so many areas of life, Thermal-Eye products keep us all just a little bit safer. And when you stop to think about it, can any of us afford anything less?

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**Smaller, lighter and requiring minimal power consumption;** the Thermal-Eye™ 3600AS thermal imaging camera series delivers industry leading performance and is the most advanced solution ever.

Nearly 40% smaller than any of its predecessors, the Thermal-Eye 3600AS camera core uses less power and can operate with just two (2) AA batteries. Each camera core has an identical board-footprint, is designed with a common set of innovative and powerful features and provides high performance, flexibility and uncomplicated integration. A variety of fields of view are available to meet the needs of specific applications:

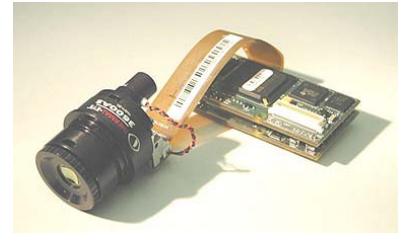
- **Thermal-Eye 3600AS (50°)** - ideal for hazardous and relatively short distance requirements of the fire industry.
- **Thermal-Eye 3620AS (11°, 17°, 32°)** - well suited for the long range, covert needs of surveillance applications.
- **Thermal-Eye 3640AS (25°)** - best for industrial applications such as machine vision and process monitoring.

All use proven amorphous silicon microbolometer technology and are feature and performance rich, including:

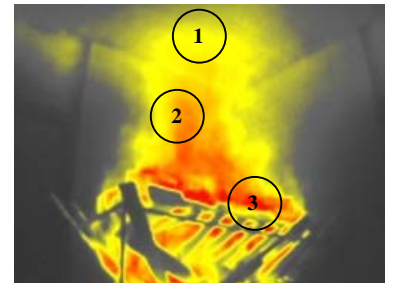
- A 30 micron pitch detector - provides high sensitivity ( $\leq 50$  mK) for increased scene detail.
- Advanced Image Processing - industry leading performance, producing detailed images in a variety of scenes and applications.
- Customizable Absolute Color - allows OEMs to define color set points that correspond to established temperature ranges.
- Electronic Zoom - image magnification can be set to zoom 1.5x to 5.5x.
- GUI Interface - an option available to OEMs for tailoring system parameters for unique product and customer requirements.

The Thermal-Eye 3600AS, 3620AS and 3640AS camera cores offer manufacturers different packaging options, thanks to a flexible interconnect that joins the electronics board to the optics and focal plane array (sensor).

3600AS-Rev B. 051205



Thermal-Eye™ 3600AS. 50° lens shown.



Customizable absolute color with temperature/color set points 1, 2 and 3.



Improve facility security with long-range surveillance.

# See the Unseen™





**THERMAL-EYE™**

		Thermal-Eye™ 3600AS	Thermal-Eye™ 3620AS	Thermal-Eye™ 3640AS
Focal Plane Array	Material, Structure, & Format	Amorphous Silicon Microbolometer (160 x 120 pixel array)		
	Spectral Response	7-14 μm (filter bandwidth)		
	Thermal Sensitivity	<50mK		
	Refresh Rate	Real-time 30Hz		
Thermal Imaging System Performance	Start-up Time	2.4 sec +/-10% (@25°C)		
	Contrast/Brightness	Automatic/Advanced Image Processing		
	Saturation Temperature	1100°F (600°C) +/-10% w/automatic electronic iris		
	Range to Detect Human Activity	Up to 330 Feet (100 meters)	11° FOV: Up to 1500' (475 meters) 17° FOV: Up to 1000' (305 meters) 32° FOV: Up to 550' (170 meters)	Up to 700 Feet (215 meters)
Optics	Focal Length	5.8mm	25mm 16mm 8.5mm	11mm
	Field Of View	~50° x 37°	~11° x 8° ~17° x 12° ~32° x 24°	~25° x 18°
	Focus Method	Manual/Temperature stabilized	Manual	Manual
Video	Analog Output	NTSC (color); Real-Time 30hz Frame Rate PAL (color); Real-time 25hz Frame Rate		
	Digital Output (optional)	Full-resolution, 16-bits (corrected or uncorrected) or 24-bits (RGB color), plus control signals; 30hz Frame Rate (NTSC) or 25hz Frame Rate (PAL)		
	Output Resolution	NTSC: 640 x 480 pixels for higher clarity thermal images & symbology overlay PAL: 768 x 574 pixels for higher clarity thermal images & symbology overlay		
	Absolute Color	3 OEM selectable color points are mapped to absolute temperatures		
Power	Input Voltage	2-3.2 VDC & 8-16 VDC		
	Input Power	~1.2 W @ 25°C ambient, 3VDC		
Controls	Camera Setup & Communication	USB (compatible with the USB 2.0 specification)		
Physical Characteristics	Size	See diagram below.		
	Weight	2.38 oz (67.5 g)		
	Operating Temperature	-4°F to 185°F (-20°C to 85°C)		
	Storage Temperature	-40°F to 221°F (-40°C to 105°C)		
	OEM "Seal-Ready" Design*	No	11° FOV: Yes 17° FOV: Yes 32° FOV: No	No
Ordering Information	Part Number	7070030-1	11° FOV: 7070040-1 17° FOV: 7070040-2 32° FOV: 7070040-3	7070035-1
Additional Camera Functions	<ul style="list-style-type: none"> <li>Expansion port w/ real-time digital video and USB 2.0 compatible controls interface (works with USB and hi-speed USB systems, peripherals and cables)</li> <li>Customizable absolute temperature colorization</li> <li>White-hot or black-hot polarity selectable</li> <li>Electronic Zoom from 2x to 5x and electronic iris</li> <li>Selectable temperature indication of scene at central crosshair</li> <li>Optional GUIs for customization and control (user parameters, symbology overlay, color, real-time control)</li> </ul>			
*Optics/Head is sealed to 3 meter submersion: IEC529, Ipx8				
All specifications are subject to change without notice				
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Thermal-Eye 3600AS, 3320AS, 3640AS rev A2 – 051005				

Units of Measure: inches  
Drawings not actual size.

