

M6000 & E6000

Large Format Uncooled Infrared Modules & Engines

The DRS M6000 is a compact 25 μm pitch, 640 x 480 pixel array OEM infrared module. Measuring two inches in diameter, the M6000 is ideally suited for OEM camera integration including handheld, fixed or vehicle mounted applications.

Building on the M6000's core electronics, the E3000 is a 60 Hz, 25 μm pitch 640 x 480 pixel camera engine providing unmatched resolution and sensitivity. Features include analog RS-170 video and optional 12 bit digital RS-422 outputs. Available optics for the E3000 include 22mm, 62mm and 103mm f/1.0 Germanium lenses.

Both the M6000 module and the E6000 camera engine feature DRS' proven 640x480 25 μm pixel microbolometer for superior resolution and thermal sensitivity at a 30 Hz frame rate. Camera level NE Δ T is typically better than 60 mKelvin

Ruggedized packaging make the E6000 engine suitable for a wide variety of OEM and end user applications, including unmanned aerial and ground vehicles, robotics, firefighting, and weapons systems, to name but a few.



Key Product Features

- 25 μm VOx $\mu\text{bolometer}$ technology
- 640 x 480 pixel resolution
- 30 Hz video rate
- Low power operation
- Analog and 12-bit digital video
- Compact rugged design

Applications

- Homeland security
- Public safety
- Unmanned vehicles
- Firefighting
- Process monitoring
- Research & development



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System Specifications

	M6000 Module	M6000 Module With Shutter	E6000 Engine
Focal Plane Array			
Detector Type	Uncooled VOx Microbolometer		
Array Size	640 x 480		
Detector Pitch	25 µm		
Spectral Response	8-12 µm		
Temperature Stabilization	None required		
Video			
Frame Rate	30 Hz		
Format	RS-170 (monochrome), 12-bit Single Ended	RS-170 (monochrome), 12-bit RS-422 Digital (option)	
Gain/Level/ Control	Automatic (manual available)		
Image Polarity	White/Black Selectable		
Communication			
Serial Interface	RS- 232		
Electrical			
Voltage	4.5 to 14 VDC		
Power	<3 W Nominal @ 25°C		
Environmental			
Operating Temperature	-10 to +45° C (+14 to +113°F); -40° to +49° C Optional		
Storage Temperature	-41 to +71° C (+51 to +160°F)		

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Optics					
Lens	NA		22mm	62mm	103mm
FOV	NA		40°H x 30°V	15°H x 11°V	9°H x 6.8°V
f/#	NA		f/1	f/1.1	f/1.1
Mechanical					
Dimensions/Module Configuration	48 x 53 mm (1.89 x 2.1")	53 x 59mm (2.08 x 2.33")	NA		
Dimensions/12-Pin Standard Connector	NA		76 x121	89 x 132	102 x185
Dimensions/LVDS Digital Connector	(above dimensions shown in millimeters)				
Weight	135 g	165g	555g	700g	1000g