



ISIE11 Sensor

NightVista® M611-05 Low Light Level Camera

The NightVista® M611-05 camera incorporates Intevac's proprietary ISIE11 Electron Bombarded Active Pixel Sensor (EBAPS®) for extreme low light sensitivity. The camera offers a 1600 x 1200 pixel UXGA resolution with a 60 Hz frame rate and can be configured for either rolling or snapshot shutter at the factory.

The M611-05 camera integrates a high voltage power supply (HVPS), temperature sensor, and flash memory to store image correcting parameters, as well as additional supporting electronics. The photons from the scene are focused onto the photocathode and the resulting photoelectrons are accelerated across a vacuum gap and proximity-focused on the back-illuminated CMOS anode to produce digital image intensified (DI²) video with very low noise.

With Intevac's patented low halo technology and automatic gain control (AGC), the NightVista® M611-05 is highly effective operating in extreme low light conditions and in limited day mode without the customary halo associated with analog night vision devices.

APPLICATIONS

- Day or night reconnaissance
- Helmet-mounted
- Ground, maritime and avionics

FEATURES / BENEFITS

- Digital output
- Small size
- Lightweight
- Low power CMOS-based design
- User configurable
- Low halo technology



Standard Halo



Low Halo



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NIGHTVISTA® M611-05 SPECIFICATIONS **

Image Format	1600 x 1200 pixels (UXGA) with ± 20 pixel electronic positioning
Pixel Size	10.8 µm square
Sensor Format	4/3 inch (22.2 mm diagonal)
Spectral Response	Night mode (intensified): 400 nm - 900 nm Day mode* (non-intensified): ~800 nm - ~1050 nm
Minimum Faceplate Illuminance	10 ⁻⁵ lux
Frame Rate	Up to 60 Hz (progressive) full frame. Higher frame rates possible in windowed mode.*
Shutter Type	Snapshot / rolling shutter
Output Signal Format	CameraLink® Base (10-bit digital video)
Communication	RS-232 or CameraLink®
Defective Pixels	< 0.1% with additional grades and a detailed cosmetic specification available upon request.*
Voltage	6 VDC (min) to 15 VDC (max)
Power	2.4 W (nominal)
Dimensions, Weight	1.8" W x 1.8" H x 3.2" D, 271 g (without lens)
Lens Mount	C-mount, 1" optical format
Operating Temperature	-40°C to +60°C
Relative Humidity	0 - 90% non-condensing
Camera Functions	Day mode, night-mode Non-Uniformity Correction (NUC), Bad Pixel Replacement (BPR), AGC, eXtended Dynamic Range (XDR) with enable/disable capability, real-time contrast enhancement, horizontal image orientation/flip, zoom/window/frame rate options, external signal synchronization (Genlock), electronic image centering (1640 x 1240 active pixels)
Included Software	Control Software (GUI)

*Contact factory for further information. **Represents upgraded performance from the M611-03 camera.

NOTE: This product is under the export control of the Office of Defense Trade Controls, U.S. Department of State, and is subject to the International Traffic in Arms Regulations. Transshipment to any destination outside of the United States without the knowledge and consent of the Office of Defense Trade Controls is strictly prohibited.

ORDERING INFORMATION

NightVista® M611-05 Camera	300735
NightVista® M611-05 Accessory Kit (includes accessories below)	300779-02
CameraLink® Cable	1-001035
Serial / Wall Power Supply Cable	447437
Serial / Lab Power Supply Cable	447303
Wall Power Supply	1-002726
PVS-14 Lens	1-001631
PVS-14 Lens Adapter	300061



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