

CM-11K Aerial Camera Module



New CM-11K medium-format metric camera takes high-speed mapping and in-field reliability to a whole new level.

The CM-11K is purpose-built for high-resolution imaging from airborne platforms and delivers the unique benefits of combining our patented piezoelectric Forward Motion Compensation (FMC) with a fully-electronic shutter for low-maintenance operation. The on-board FMC electronics enable integrators and original equipment manufacturers (OEM) to tailor CM-11K configurations for a full range of applications including asset inspection, high-resolution mapping, tactical ISR, and wide-area surveillance.

Designed to provide superior image quality with a rapid frame rate and high dynamic range, the new CM-11K can do it all, without compromise and with maximum reliability. The CM-11K is available with a range of lens options and implements a unique ruggedized lens mount for metric system performance. In addition, the CM-11K is available with both Bayer Pattern and Mono sensors, enabling RGB, PAN and NIR configurations to support a full range of applications, including lidar augmentation.



APPLICATIONS

- » Corridor Surveying
- » Wide-Area Mapping
- » Asset Management
- » Defense & Security



ADVANTAGES

- » Rapid Frame Rate
- » Compact Design
- » Increased Reliability



UNIQUE FEATURES

- » 86-Mpixel sensor with interchangeable lenses for a wide range of operating requirements
- » Global shutter for maximum reliability and zero maintenance
- » True FMC for superior image quality
- » CMOS sensor with Camera Link HS® for 2 FPS full-frame and 60+ FPS HD ROI

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| Camera Module (CM-11K) | |
|------------------------------------|---|
| Sensor type | 86-Mpix full-frame CMOS, color and monochrome |
| Sensor format (H x V) | 10720 x 8064 pixels |
| Pixel size | 6 μm x 6 μm |
| Capture rate (nominal) | 2 frames per second |
| Forward Motion Compensation (FMC) | Electro-mechanical, driven by patented piezo technology |
| Shutter | Global shutter (electronic) |
| Dynamic range | 58 dB (monochrome) and 50 dB (color) |
| Flat field correction | 2-point linear correction per pixel with 2 factory sets, 3 user sets |
| Output data bit depth | 8, 10, 12 bits |
| Lens | Metric mounted ~28 mm, ~50 mm, ~70 mm, ~90 mm, ~166 mm, ~188 mm |
| Filter | Visible and color infrared (removable, threading for COTS filters) |
| Dimensions (H x W x D) | ~100 x ~100 x ~150 mm (no lens) |
| Weight | ~3.0 - ~4.0 kg with lens |
| Power supply | 24 DC (via Hirose 12-pin circular connector) |
| Power dissipation | < 45W |
| Operating temperature and humidity | 0°C to 50°C, front plate temperature |
| Built-in testing | Test patterns and camera diagnostics |
| Image data formats | Uncompressed TIFF (8 or 16 bits), tiled TIFF or JPEG |
| Control & Processing Options | |
| Data interface (GenICam compliant) | CLHS M-protocol, Teledyne Dalsa Xtium frame grabber with SFP+ fiber optic |
| Acquisition software | Teledyne Dalsa Sopera Vision SDK |

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