

NEW!

CS-10000 Aerial Digital Camera System

Corridor, Infrastructure & Facilities Mapping

Applications

- Railway & road surveys
- Power line & pipeline surveys
- Urban mapping
- Asset management

Advantages

- Efficient imaging workflow
- Cost-effective design & performance
- Reduced downtime
- Configurable with lidar and other sensors

Unique Features

- True FMC for superior image quality
- Field-replaceable shutter
- Interchangeable lenses
- Kinematic mounting
- 80-Mpixel sensor with superior GSD capacity



Standalone or integrated with lidar, the CS-10000 is your complete corridor and small-area mapping solution.

With a footprint of 10,320 pixels across by 7,760 pixels along the flight line, the CS-10000 is the perfect aerial digital camera system for high-resolution engineering surveys and detailed mapping applications. Based on patented technologies and collaboration among Optech lidar and camera experts, the CS-10000 camera system is truly optimized for both standalone imaging and lidar integration.

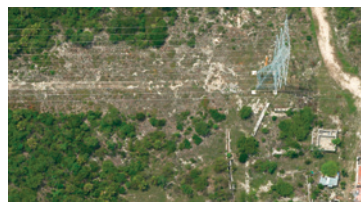
Optech's US and EU camera teams have over a decade of experience in developing true Forward Motion Compensation (FMC), kinematic mounting, field-replaceable shutters, camera electronics and interchangeable lenses, making the CS-10000 easy to configure for all your projects and applications. The result: a camera system that delivers exceptional accuracy and image clarity under wide-ranging conditions, ensuring the full value of your investment.

The CS-10000 uses the same proven sensor technology and image calibration methodology as all Optech camera products, making its imagery perfect for both detailed feature visualization and accurate engineering applications.

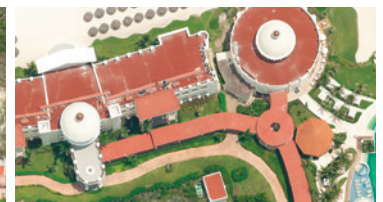
The CS-10000 is a complete solution that delivers business value... every time!



Small Area Survey



Corridor Mapping

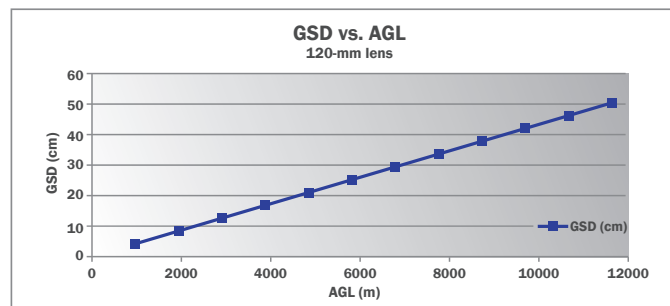
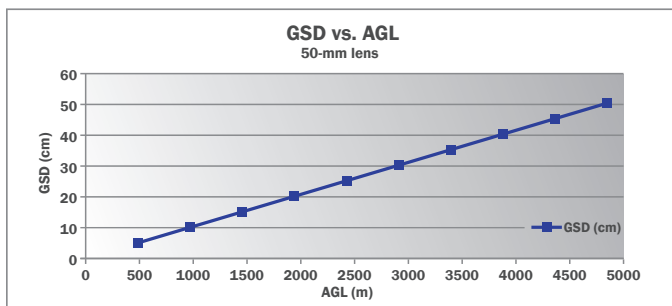


Asset Management

10,320 x 7,760



CS-10000 Aerial Digital Camera System



Parameter	Specification
Camera Module (CM-10000)	
Sensor type	80-Mpix full frame CCD, RGB
Sensor format (H x V)	10320 x 7760 pixels
Pixel size	5.2 x 5.2 μ m
Frame rate (nominal)	2.5 sec ¹
FMC	Electro-mechanical, driven by piezo technology (patented)
Shutter	Field-replaceable focal plane 1/168 to 1/1000 sec (patented)
Aperture	Iris mechanism, f-stops: 4, 5.6, 8, 11, 16
Lens	50 mm/70 mm/120 mm/210 mm
Filter	Visible and color infrared removable filters
Dimensions (H x W x D)	250 x 185 x 130 mm (50 mm lens)
Weight	~6.0 kg
Camera Controller (CC-R)	
Number of supported cameras	Up to 2 Camera Modules
Removable storage unit	Up to 2 solid state drives (300 GB each factory standard, 600 GB optional)
Power consumption	~120 W and 28 VDC input (with one CM-10000)
Dimensions (H x W x D)	2U full rack; 88 x 448 x 493 mm (behind flange)
Weight	~9.5 kg (~15.5 kg with cables)
INS support	Supports a wide variety of INS systems and IMUs
Operator display	12.1" LED backlit touchscreen, 1280 x 800
Operational control software	Camera flight parameter control with real-time tracking, thumbnails, and histograms
Flight management system	Compatible with Optech FMS and third party flight management systems
Image Pre-Processing Software	
PixelPhysics	Radiometric correction and format conversion, TIFF and JPEG
Image output	10320 x 7760 pixels; 8 or 16 bits per channel (229 MB or 458 MB per image)

¹ Faster frame rates possible depending on collection requirements

U.S. Patent No. 7,899,311
U.S. Patent No. 7,365,774 B2
European Patent No. EP 1 570 314 B1

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