



## WESCAM's MX-10D. Fully Digital. High Definition. A Small Multi-Sensor, Multi-Spectral Targeting System in a single LRU configuration.

**Ideal for:** Low-Altitude; Tactical Surveillance & Target Designation Missions requiring low-weight, and installation flexibility

**Airborne Installations:** Aerostat, Fixed-Wing, Rotary-Wing, UAV



### Product updates include:

- HD Thermal Imager
- High Sensitivity Color Imagers
- Advanced Video Tracker (AVT)
- Embedded Moving Target Indicator
- Pseudo Color IR
- WAVE Technology



Pseudo Color IR



EO+IR Blending



WESCAM's EO/IR/Laser Systems

## FEATURES & BENEFITS: MX-10D

### Multi-Sensor Imaging/Lasing Payload Options

- Supports up to 6 payload items simultaneously
- HD thermal, HD daylight and low-light cameras provide 24/7 imaging
- Continuous zoom IR and EO
- High-sensitivity color low-light imaging
- Laser target designator
- Eyesafe laser rangefinder
- Laser illuminator in choice of narrow or wide divergence

### High Performance Gimbal

- 4-axis stabilized turret with internal passive isolator for excellent stabilization performance
- Sharp optics and excellent stabilization performance results in industry leading target detection, recognition and identification range performance in the 10" class
- IMU mounted to optical bench for high target location accuracy
- INS auto-align to aircraft

### Advanced Image Processing

- Real-time image enhancement on all sensors
  - High performance haze penetration
  - Improved feature recognition and ID
  - 2x, 4x Ezoom
  - Advanced video tracker with automatic target detection
  - Imaging blending

### WESCAM Advanced Video Engine (WAVE)

- A high-performing embedded computing engine engineered to support advanced image-processing capabilities
- WAVE architecture includes a state-of-the-art graphics processing unit (GPU) - enabling future advancements in image processing & surveillance automation

### Interface Flexibility

- Built-in video switch matrix provides multiple HD SDI and analog video outputs
- 720p or 1080p HD video
- Wide range of data ports; RS-232/422, Ethernet, MIL-STD-1553B, ARINC429
- All standard MX-series command and control, moving map, searchlight, and radar interfaces

### Ruggedness

- Rugged aerospace grade aluminum structure
- MIL spec environmental, EMC, and power quality qualification
- Built-in vibration isolator protects internal payload components
- Rigorous environmental stress screening (ESS)
- Designed to minimize maintenance requirements and simplify repair

### Simplified Aircraft Integration

- 43 lb turret
- Electronics unit inside the turret, reduced cabling
- Built-in vibration isolation, no external isolator
- Built-in GPS receiver
- <15" turret height for better ground clearance
- Compatible with standard quick disconnect mounts
- Side mounted connectors for recessed installations
- No calibration required for LRU swapout

See our products in action on [YouTube](#)

Search:

- MX-10D Trial Flights
- MX Targeting Family

## PAYLOAD SPECIFICATIONS - SELECT UP TO 6 IMAGING & LASER SENSORS

### Sensor #1a - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 640 x 512  
**Fields of View:** 30.0° to 1.8°, Continuous Zoom

or

### Sensor #1b - HD Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 1280 x 720  
**Fields of View:** 30.2° to 2.9°, Continuous Zoom

### Sensor #2 - Daylight Continuous Zoom:

**Type:** High Sensitivity CMOS  
**Resolution:** 1920 x 1080  
**Fields of View:** 31.2° to 1.2°

### Sensor #3 - Low Light Continuous Zoom:

**Type:** Electron-multiplied CCD (Mono)  
**Resolution:** 640 x 480  
**Fields of View:** 40.8° to 2.38°

### Sensor #4 - Laser Rangefinder (LRF):

**Laser Type:** Diode pumped (Class 1) Eyesafe  
**Wavelength:** 1.54µm  
**Range:** 20km max.

### Sensor #5 - Laser Illuminator<sup>1</sup>: (NVG Compatible)

**Laser Type:** Diode - (Class 3B)  
**Modes:** Continuous, Pulsed  
**Wavelength:** 852nm

### Sensor #6 - Laser Designator<sup>2</sup>:

**Wavelength:** 1064 nm  
**Code Compatibility:** US & NATO Laser Guided Munitions

### Additional MX-10 Features:

**IMU:** Mounted on optical bench  
**AutoTracker:** Embedded (option)  
**GPS Receiver:** Embedded (option)  
**Moving Target Indicator:** Embedded (option)

### Notes:

- 2x, 4x Ezoom is available to increase magnification
- 720p FOVs. Consult factory for 1080p and analog FOVs
- All FOVs are horizontal

## SYSTEM SPECIFICATIONS

### MX-10D Turret

43 lbs / 19.5 kg (all sensors)  
10.6"(D) x 14.7"(H)  
270mm (D) x 374mm (H)

### Power

MIL-STD-704E, 28 VDC, 10 Amps max.,  
4 Amp steady state

### Hand Controller Unit (HCU)

2.2 lbs / 1.0 Kg  
4.25"(W) x 8.97"(L) x 3.00"(D)  
108mm (W) x 228mm (L) x 76mm (D)  
Powered by turret, 5 W max.

### Cables

Consult factory for available variants

### Environmental

MIL-STD-461F, MIL-STD-810G

### TURRET SPECIFICATIONS:

#### Line-of-sight Stabilization

Typically < 15 µrad, fixed wing  
< 20 µrad, rotary wing

Consult factory for performance under specific vibration conditions

### Stabilization and Steering

- (2) Axis Inner (pitch/yaw)
- (2) Axis Outer (azimuth/elevation)

### Vibration Isolation

- (6) Axis Passive (x/y/z/pitch/roll/yaw)

**Azimuth Coverage:** Continuous 360°

**Elevation Coverage:** +90° to -120°

### STANDARD INTERFACES:

**Video Outputs:** 3 Digital & 4 Analog simultaneously  
**Digital Video:** SMPTE 292M, 720p or 1080p  
**Analog Video:** NTSC or PAL  
**Communication:** MX-Hand Controller

### OPTIONS:

<b>Interfaces Types:</b>	<b>Functional Interfaces:</b>
RS-422	Moving Map
RS-232	Remote Control
MIL-STD-1553B	Searchlight
Ethernet	Radar
	Microwave/Data Link
	Aircraft INS/GPS
	Metadata

### Other:

Autotracker  
Service Stand  
Dovetail Adaptor  
Quick Release Adaptor

### Controller:

MX Mission Grip



Equipment described herein may require Canadian and/or U.S. Government authorization for export purposes.  
Diversion contrary to Canadian and/or U.S. law is prohibited.



AS 9100

BUREAU VERITAS

Certification



WESCAM has a policy of continuous product improvement.  
Specifications are therefore subject to change without notice.

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