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

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

Product updates include:
• HD Thermal Imager
• High Sensitivity Color Imagers
• Advanced Video Tracker (AVT)
• Embedded Moving Target Indicator
• Pseudo Color IR
• WAVE Technology
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

**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: (NVG Compatible)**
- **Laser Type:** Diode - (Class 3B)
- **Wavelength:** 852nm

**Sensor #6 - Laser Designator:**
- **Wavelength:** 1064nm

**Additional MX-10 Features:**
- IMU: Mounted on optical bench
- AutoTracker: Embedded (option)
- GPS Receiver: Embedded (option)
- Moving Target Indicator: Embedded (option)

**Notes:**
- 2x, 4x Eyzoom 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)

**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

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

**Other:**
- Autotracker
- Service Stand
- Dovetail Adaptor
- Quick Release Adaptor

- **Controller:** MX Mission Grip

**WESCAM MX-10D**

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.

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