



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

**Ideal for:** Low-Altitude; Tactical Surveillance & SAR missions requiring low-weight installation flexibility

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



### FEATURES & BENEFITS: MX-10

#### Weight-Optimized System

- 37 lb turret
- Electronics unit inside the turret
- Built-in vibration isolation
- Built-in GPS receiver

#### Installation Flexibility

- <14" turret height for better ground clearance
- Compatible with standard quick disconnect mounts
- Side mounted connectors for recessed installations

#### Interface Flexibility

- Simultaneous SMPTE HD digital video and NTSC or PAL analog video outputs
- 720p or 1080p HD video
- All standard MX-Series command and control, moving map, searchlight & radar interfaces
- Wide range of electrical interfaces: MIL-STD-1553B, ARINC 429, RS-232/422, Ethernet

#### Ruggedness

- MIL spec environmental and EMC qualification
- Built-in vibration isolator protects internal payload components
- Rugged aerospace grade cast aluminium structure
- Completely sealed against the environment
- Rigorous environmental stress screening (ESS) programs used
- Designed to minimize maintenance requirements and simplify repair

#### Uncompromised Design

- Fully active MX-Series stabilization with internal vibration isolation for best in class image stability
- Precision optics provide wide angle context through to high magnification

#### Multi Sensor Imaging/Lasing Payload Options

- Currently supports up to 6 sensors simultaneously
- IR, Color HD and Electron-Multiplied CCD imaging sensors
- Eyesafe laser rangefinder, narrow illuminator, wide illuminator
- Inertial Measurement Unit (IMU) standard

#### High Performance IMU & MX-GEO Software Suite

- IMU mounted on the optical bench
- IMU & MX-GEO for accurate target location
- MX-GEO automatically aligns to aircraft
- Robust automatic image focus

#### Digital Sensors/Advanced Image Processing

- Real-time image enhancement on all sensors simultaneously
  - High performance haze penetration
  - Improved feature recognition & ID
  - Automated Video Tracker (AVT)
  - 2x, 4x Ezoom



MX-10 Daylight, Wide



MX-10 Lowlight, Narrow



MX-10 IR



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

### Sensor #1 - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 640 x 512  
**Fields of View:** 30.0°, 7.0°, 1.8°

### Sensor #2 - Daylight Continuous Zoom TV:

**Type:** 5 Megapixel Color HD  
**Fields of View:** 36.3° to 1.0°

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

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

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

**Laser Type:** Erbium glass (Class 1), Eyesafe  
**Wavelength:** 1.54µm  
**Range:** 20km max.

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

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

### Sensor #6 - Laser Illuminator<sup>2</sup> Wide:

**Laser Type:** Diode - (Class 3B)  
**Wavelength:** 860nm

#### Note:

Sensors #5 and #6 - Offered together as one package. Not sold separately.

#### Additional MX-10 Features:

**IMU:** Mounted on optical bench  
**AutoTracker:** Embedded (option)  
**GPS Receiver:** 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-10 Turret

<37 lbs / 16.8 Kg (all sensors)  
10.24"(D) x 13.98"(H)  
260mm (D) x 355mm (H)

### Power

704A & F, MIL-STD-704F, 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-461E, MIL-STD-810F

### TURRET SPECIFICATIONS:

#### Line-of-sight Stabilization

Typically < 20 µrad, fixed wing  
< 25 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:

#### Interfaces Types:

RS-422  
RS-232  
MIL-STD-1553B  
Ethernet

#### Functional Interfaces:

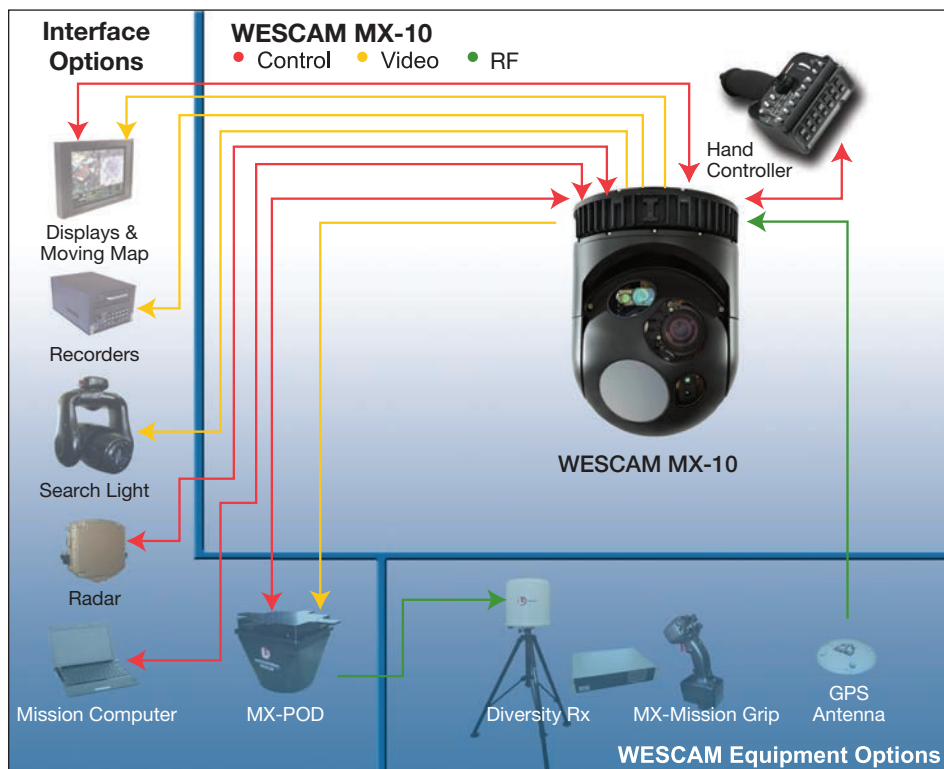
Moving Map  
Remote Control  
Searchlight  
Radar  
Microwave/Data Link  
Aircraft INS/GPS  
Metadata

#### Other:

Autotracker  
Service Stand  
Dovetail Adaptor  
Quick Release Adaptor

#### Controller:

MX Mission Grip



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.