



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
- Continuous Zoom IR and EO
- High Magnification Spotter
- 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

New for 2015:

- Continuous Zoom IR
- High Magnification Spotter
- Picture in Picture (PiP)



MX-10 Lowlight



MX-10 IR



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WESCAM's EO/IR/Laser Systems

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° to 1.8°, Continuous Zoom

Sensor #2 - Daylight Continuous Zoom:

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

Sensor #3 - Low Light Continuous Zoom:

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

Sensor #4 - Daylight Spotter:

Type: 5 Megapixel Color HD
Fields of View: 0.81° 1080p
0.54° 720p

Sensor #5 - Laser Rangefinder (LRF):

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

Sensor #6a - Laser Illuminator¹, Narrow: (NVG Compatible)

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

or

Sensor #6b - Laser Illuminator¹ Wide:

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

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.



AS 9100
BUREAU VERITAS
Certification
NF 21751



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

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