



WESCAM's MX-15D. Fully Digital. High Definition. An Extreme Multi-Sensor, Multi-Spectral Targeting System in a single LRU configuration.

Ideal for: Medium-Altitude; Covert Intelligence, Surveillance & Reconnaissance,
Armed Reconnaissance, CSAR, Target Designation

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



New for 2018:

- High sensitivity color zoom
- Step-zoom spotter
- Embedded Moving Target Indication
- Pseudo-color IR
- WAVE Technology



LittleBird UAV: MX-15D Installed



WESCAM's EO/IR/Laser Systems

FEATURES & BENEFITS: MX-15D

Multi-Sensor Imaging/Lasing Payload Options

- Supports up to 9 payload items simultaneously
- HD thermal, HD daylight and HD low-light cameras provide 24/7 imaging
- Continuous wide-angle zoom
- High-magnification step-zoom spotter
- High-sensitivity color low-light imaging
- Compact, efficient, reliable laser target designator
- SWIR camera images designator spot
- Eyesafe laser rangefinder
- Laser illuminator in choice of narrow or ultra narrow divergence
- Laser spot tracker

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 15" class
- IMU mounted to optical bench for high target location accuracy
- INS auto-align to aircraft
- Full laser stabilization minimizes spot jitter

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
 - Embedded Moving Target Indication (EMTI)
 - Pseudo-color IR

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 functional interfaces

Ruggedness

- Rugged aerospace grade aluminum structure
- MIL spec environmental, EMC, and power quality qualification
- Built-in vibration isolator protects internal payload components and minimizes vibration-induced boresight shifts
- Rigorous environmental stress screening (ESS)
- Designed to minimize maintenance requirements and simplify repair
- High fielded reliability for intense op tempo ISRT applications

Simplified Aircraft Integration

- Electronics unit inside the turret
- Built-in vibration isolation
- Built-in GPS receiver
- <20" 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 

Search:

- MX-15D Product Video
- MX Targeting Family

PAYLOAD SPECIFICATIONS

Sensor Options for Thermal Imager

Sensor #1a - Thermal Imager:

Type: MWIR, cooled
Resolution: 640 x 512 Pixels
Fields-of-View: 26.7° to 0.54°

or

Sensor #1b - HD Thermal Imager:

Type: MWIR, cooled
Resolution: 1280 x 1024 Pixels
Fields-of-View: 35.5° to 1.2°

Sensor #2 - Daylight Zoom:

Type: Color
Resolution: 1920 x 1080 Pixels
Fields-of-View: 31.2° to 1.2° - 720p
31.2° to 1.8° - 1080p

Sensor #3 - Low Light Zoom:

Fields-of-View: 40.8° to 2.4°

Sensor #4 - Daylight Spotter:

Type: Color
Resolution: 1920 x 1080 Pixels
Fields-of-View: 0.72° to 0.29° - 720p
1.1° to 0.43° - 1080p

Sensor Options for MX-Day/Night Spotter

Sensor #5a - Low Light Spotter:

(Used with Sensor #4)
Resolution: 1920 x 1080 Pixels
Fields-of-View: 0.72° to 0.29° - 720p
1.1° to 0.43° - 1080p

or

Sensor #5b - SWIR Spotter:

(Used with Sensor #4)

Sensor #6 - Laser Illuminator (LI):

Laser Type: Diode - (ANSI Class IV)
Wavelength: 860nm (near IR)
Modes: Continuous, Pulsed
Beam Power: 350mW or 700mW
Beam Divergence: Narrow, Ultra Narrow

Sensor #7 & #8 - Laser Designator/Rangefinder^{2,3}:

Type: Diode pumped - Nd:YAG/OPO, ANSI Class IV
Wavelength: 1064 / 1570nm selectable
Range: Up to 20 km
Code compatibility: US and NATO laser guided munitions
Range resolution: ±2m

Sensor #9 - Laser Spot Tracker:

Type: Quadrant detector
Wavelength: 1064nm
Code compatibility: US and NATO laser guided munitions

Notes:

- Consult factory for Analog Video specifications.

SYSTEM SPECIFICATIONS

MX-15D Turret

<113 lbs / 51.4 Kg (all sensors)
16.5"(D) x 19.75"(H)
419mm (D) x 495mm (H)

Power

MIL-STD-704F, 280W - 430W (Avg.) 1000W (Max.)

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; 5W (Max.)

Cables

Consult factory for available variants

Environmental

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

TURRET SPECIFICATIONS:

Line-of-sight Stabilization

Typically <5 μradians
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)
AZ/EL Slew Rate: 0-60°/sec
Azimuth Field of Range: Continuous 360°
Elevation Field of Range: +90° to -120°

VIDEO INTERFACES

Built-in video switch matrix
6 independent HD-SDI output channels available
5 analog video (NTSC or PAL) output channels available

DATA INTERFACES

Interface types:	Functional interfaces:
RS-232/422	Aircraft GPS/INS
Ethernet	Remote control
MIL-STD-1553B	Moving map
ARINC 429	Microwave / Data Link
	Searchlight
	Radar
	Metadata / status

HMI OPTIONS

MX Standard Handcontroller
MX Mission grip
Moving map, mission console

Compatible with WESCAM microwave communications equipment.



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.