



## 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



### 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

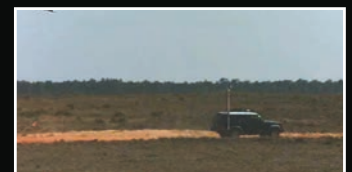
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- MX Targeting Family

### New for 2018:

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



LittleBird UAV: MX-15D Installed



## 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)¹:

**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/Rangefinder²,³:

**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.)

### 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

<b>Interface types:</b>	<b>Functional interfaces:</b>
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.