



## 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

#### Weight-Optimized System

- 113 lb turret
- Electronics unit inside the turret
- Built-in GPS receiver

#### Interface Flexibility

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

#### High Resolution Imaging

- <5 microradian stabilization minimizes platform-induced image degradation
- Individually optimized optics to maximize performance in each sensor
- MX-Series steering eases workload & ensures steady high magnification video

#### Sensor Flexibility

- 10 sensor payload
- Delivers 6 separate digital imaging modes & 4 discrete laser capabilities
- Precision zoom low light & HD color optics for situational awareness
- Long range low light, HD color & short wave IR (SWIR) spotter optics for day and night positive target ID
- Laser illuminator, dual mode rangefinder/designator & spot tracker
- Multi-FOV 640x512 mid-wave IR with option for 1280x1024 High Definition mid-wave IR

#### Short Wave IR Imaging

- Enhanced haze penetration & target contrast
- Laser spot imaging

#### Advanced Image Processing

- 14-bit IR and 12-bit EO digital cameras
- Advanced image processing on all sensors improve haze penetration, feature recognition & identification
- Image blending

#### Consistent Targeting Accuracy

- Simple integration
  - Built-in IMU, GPS & MX-GEO software
  - Connect to GPS antenna
  - Automatic alignment to aircraft
- High target location accuracy
- Automatic video & GEO tracking
- Full laser stabilization minimizes spot jitter
- Internal isolator minimizes vibration-induced boresight shifts
- Operationally proven precision target designation

#### Ruggedness and Reliability

- MIL spec environmental & EMC
- Sealed heat exchanger does not degrade stabilization
- Built-in vibration isolation protects internal payload components
- High fielded reliability for intense op tempo ISRT applications

See our products in action on Search:

- MX-15D Product Video
- MX-Series Product Video

Previous Description, MX-15Di



### Product Enhancements:

- 10 Sensor Payload Capability



LittleBird UAV: MX-15D Installed



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## PAYLOAD SPECIFICATIONS - SELECT UP TO 10 IMAGING & LASER SENSORS

### Sensor Options for Thermal Imager

#### Sensor #1a - Thermal Imager:

**Type:** 3-5µm staring array  
**Fields of View:** 26.7°, 5.4°, 1.1°, 0.36°

or

#### Sensor #1b - HD IR:

**Type:** 3-5µm staring array  
**Fields of View:** 35.5°, 9.4°, 1.9°, 1.3° 720p & 1080p  
**Resolution:** 1280 x 1024

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

**Type:** 5 Megapixel Color HD  
**Fields of View:** 36.3° to 1.1° - 720p  
27.6° to 1.6° - 1080p

#### Sensor #3 - Lowlight Continuous Zoom TV:

**Type:** Electron Multiplied CCD (Mono)  
**Fields of View:** 40.8° to 2.38°

#### Sensors #4 & #5 - Laser Designator/Rangefinder:

**Laser Type:** Diode Pumped - Nd:YAG/OPO (Class 4)  
**Wavelength:** 1064nm/1570nm Selectable  
**Code Compatibility:** US & NATO Laser Guided Munitions  
**Range:** Up to 20km  
**Range Resolution:** ±2m

#### Sensor #6 - Laser Illuminator (LI)<sup>1</sup>:

(Used in conjunction with Sensor 3)

**Laser Type:** Diode - (Class 4)  
**Wavelength:** 860nm  
**Modes:** Continuous, Pulsed  
**Beam Divergence:** Narrow or Ultra Narrow

#### Sensor #7 - Daylight Spotter TV with Triple Channel Spotter Lens:

**Type:** 2 Megapixel Color HD  
**Fields of View:** 0.37° 720p  
0.55° 1080p

#### Sensor #8 - Lowlight Spotter TV:

(Requires Sensor #7)

**Type:** Electron Multiplied CCD (Mono)  
640 x 480  
**Fields of View:** 0.37°

#### Sensor #9 - SWIR Spotter TV:

(Requires Sensor #7)

#### Sensor #10 - Laser Spot Tracker

**Type:** Quadrant Detector  
**Wavelength:** 1064nm  
**Code Compatibility:** US & NATO Laser Guided Munitions

#### Note:

• 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-704E, 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-461, MIL-STD-810

### TURRET SPECIFICATIONS

#### Line-of-sight Stabilization

Typically <5 mradians  
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°

### MCU STANDARD INTERFACES

6 Simultaneous EO/IR Digital and Analog Video channels; 1080p configurable for 720p, 1080i, 525i & 625i digital options  
MX-Hand Controller

### OPTIONS AVAILABLE

#### Interfaces Types:

RS-232  
RS-422  
MIL-STD-1553B  
ARINC 429  
Ethernet

#### Functional Interfaces:

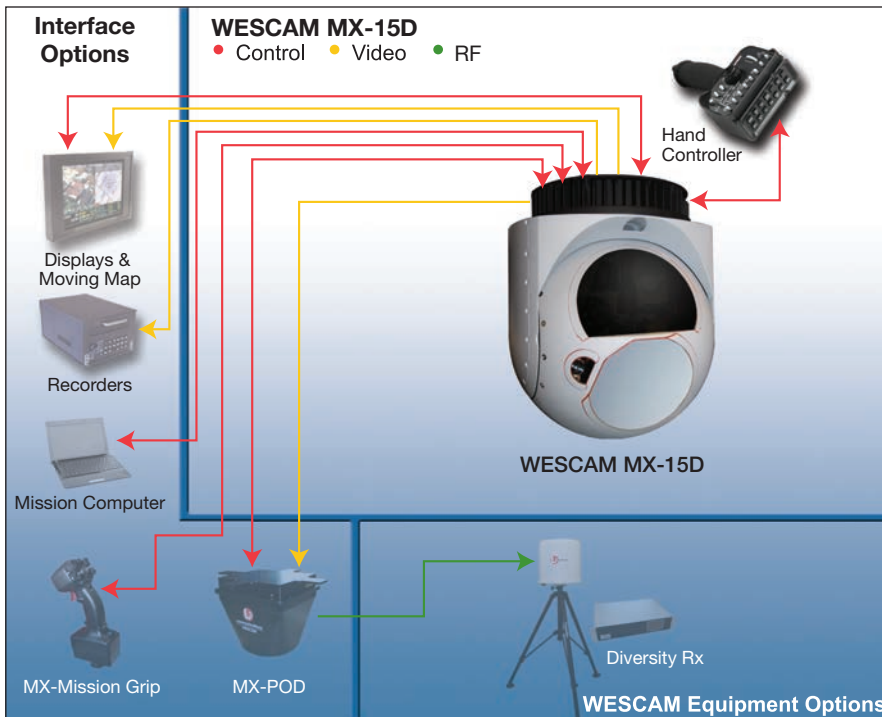
Moving Map  
Remote Control  
Searchlight  
Radar  
Microwave/Data Link  
Aircraft INS/GPS  
Metadata

#### Controller:

MX Mission Grip

#### Microwave Equipment:

MX-POD, Digital Transmitter  
Diversity Rx



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.



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

64299G / July 2012

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