MX SERIES ROCK SOLID FLIGHT PROVEN

MX™-15D

L3 WESCAM

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

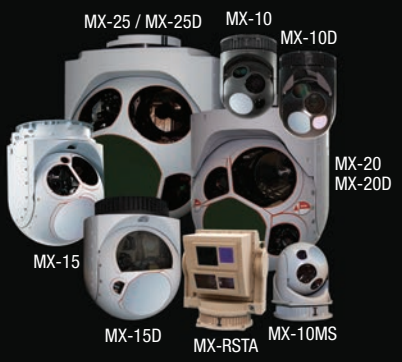
Ruggedness and Reliability
- MIL spec environmental & EMC
- Sealed heat exchanger does not degrade stabilization
- Built-in vibration isolation protects internal payload components
- High fielded reliability for intense op tempo ISRT applications

See our products in action on YouTube Search:
- MX-15D Product Video
- MX-Series Product Video

Product Enhancements:

- **10 Sensor Payload Capability**

LittleBird UAV: MX-15D Installed



WESCAM's EO/IR/Laser Systems

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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
Resolution: 640 x 512 Pixels
Fields of View: 26.7° to 0.54°

or

Sensor #1b - **HD IR:**
Type: 3-5µm staring array
Resolution: 1280 x 1024 Pixels
Fields of View: 35.5° to 1.2°

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)
Wavelenght: 1064nm/1570nm Selectable
Code Compatibility: US & NATO Laser Guided Munitions
Range: Up to 20km
Range Resolution: ±2m

Sensor #6 - **Laser Illuminator (LI)[1]:**
(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.

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.

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 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°

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 Linkz
Aircraft INS/GPS
Metadata

Controller:
MX Mission Grip

Microwave Equipment:
MX-POD, Digital Transmitter
Diversity Rx

ISO 9001 AS 9100 BUREAU VERITAS Certification Nº 217551

[1] DANGER INVISIBLE LASER RADIATION - AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION. 1w AT 860nm CLASS IV (ANSI) CLASS 4) LASER PRODUCT

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

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