FEATUES & BENEFITS: MX-15

Multi-Sensor Imaging/Lasing Payload Options
• Supports up to 7 payload items simultaneously
• HD thermal, HD daylight, HD low-light and SWIR cameras provide 24/7 imaging
• Continuous zoom wide angle
• High-magnification step-zoom spotter
• High-sensitivity color low-light imaging
• Eyesafe laser rangefinder
• Laser illuminator in choice of wide, narrow or ultra narrow divergence

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

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 command and control, moving map, searchlight, and radar interfaces

Ruggedness
• Rugged aerospace grade aluminum structure
• MIL spec environmental, EMC, and power quality qualification
• Built-in vibration isolator protects internal payload components
• Rigorous environmental stress screening (ESS)
• Designed to minimize maintenance requirements and simplify repair

Simplified Aircraft Integration
• Electronics unit inside the turret
• Built-in vibration isolation
• Built-in GPS receiver
• <19" turret height for better ground clearance
• Compatible with standard quick disconnect mounts
• Side mounted connectors for recessed installations
• No calibration required for LRU swapout

New for 2018:
• Dual-channel wide zoom
• Embedded Moving Target Indication
• Pseudo-color IR
• WAVE Technology

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

wescam.com
### 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

**Sensor #5b - SWIR 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

**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 - Laser Rangefinder (LRF):**
- **Laser Type:** Eyesafe, ANSI Class I
- **Wavelength:** 1.54µm
- **Pulse Rate:** 12 pulses/min.
- **Range:** 20km
- **Range Resolution:** ±5m

**Notes:**
- All FOV's are for Digital outputs: Consult factory for FOV's for Analog Outputs
- Up to 4x Ezoom available.

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### SYSTEM SPECIFICATIONS

#### MX-15 Turret
- ≤100 lbs (all sensors) 15.5"(D) x 18.95"(H)
- **Power**
  - MIL-STD-704F
  - MX-15HDi - 280W (Avg)
- **Hand Controller Unit (HCU)**
  - 2.2 lbs, 4.25"(W) x 8.97"(L) x 3"(D)
  - 3.5W (Avg.); 5W (Max.)
- **Cables**
  - Consult factory for available variants
- **Environmental**

#### TURRET SPECIFICATIONS:

- **Line-of-sight Stabilization**
  - Typically <5 µradians
- **Stabilization and Steering**
  - (2) Axis Inner (pitch/yaw)
  - (2) Axis Outer (azimuth/elevation)
- **Vibration Isolation**
  - (6) degree-of-freedom passive isolation
- **AZ/EL Slew Rate:** 0-60°/sec
- **LOS Pan Range:** Continuous 360°
- **LOS Tilt 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:**
  - RS-232/422
  - Ethernet
  - MIL-STD-1553B
  - ARINC 429
- **Functional interfaces:**
  - Aircraft GPS/INS
  - Remote control
  - Moving map
  - Microwave / Data Link
  - Searchlight
  - Radar
  - Metadata / status

#### HMI OPTIONS

- MX Standard Handcontroller
- MX Mission grip
- Compatible with WESCAM microwave communications equipment

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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.

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

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