A Multi-Sensor, Multi-Spectral Imaging System
in a single LRU configuration.

Ideal for: Medium-Altitude; Covert ISR, SAR missions, Homeland Security
Airborne Installations: Aerostat, Fixed-Wing, Rotary-Wing, UAV

**FEATURES & 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

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

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)

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): 2
- 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.

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 pradians
- Consult factory for performance under specific vibration conditions.

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:
  - Functional interfaces:
    - RS-232/422
    - Aircraft GPS/INS
    - Ethernet
    - Remote control
    - Moving map
    - MIL-STD-1553B
    - Microwave / Data Link
    - ARINC 429
    - 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.