

# MX<sup>-</sup>15





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

Medium-Altitude: Covert ISR, SAR missions, Homeland Security Ideal for:

Airborne Installations: Aerostat, Fixed-Wing, Rotary-Wing, UAV

# FEATURES & BENEFITS: MX-15

#### **True HD Cameras**

- · Superior imaging resolution from EO and IR cameras
- · 2 mega-pixel E0 zoom and spotter cameras
- · True HD Digital Imaging
  - No image degradation due to compression

#### Image Blending

- · Multi-spectral imaging blends matched images from multiple sensors - uncovering greater detail in each frame
- Reduces operator burden and improves surveillance efficiency

#### **Enhanced Local Area Processing: (ELAP):**

- · Real-time image enhancement for EO Day. EO Night & IR enhances contrast
- · Increases stand-off range
- Improves feature detection & recognition
- · High performance haze penetration
- · Provides up to 4x electronic zoom

# Solid-State IMU-Inside Technology

- · All sensors share highest level of stabilization
- · No calibration required for LRU swapout
- · Auto align to aircraft

### **Multi-Format**

- Meets the needs of new & legacy platforms through multiple Digital & Analog output formats
- Simultaneous digital & analog outputs

#### **Integrated Electronics**

- · Installed weight reduced by up to 50lbs/22kg
- · Eliminates 1 LRU

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· Reduced install and support costs

# **Lowlight and Short Wave IR Imaging**

- 24/7 E0 imaging
- Lowlight wide and EMCCD spotter options
- · Long range subject ID (ship names, vehicles, faces) in low-light conditions
- Superior resolution to I<sup>2</sup> technology
- · High resolution short wave IR option provides outstanding range performance

#### **Multiple Laser Payloads**

 Long Range Target Illumination, Laser Pointing and Range-Finding

#### **MX-GEO Software Suite**

- · Achieves highest target location accuracy
- · AVGT marries Video and GEO-Tracking to provide robust target tracking

# **MX-Series Commonality**

- · Common operator interfaces and hand controllers (HCL's)
  - ease & familiarity of use
  - simplified interchangeability
  - efficiencies in support & technology enhancements

See our products in action on You Tube Search:



- MX-15 Product Video
- **MX-Series Product Video**

#### Previous Description, MX-15HDi

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# **Product Enhancements:**

- Color low-light zoom
- Step-zoom spotter
- **Short wave IR**



MX-15 1080p EON



MX-15 E0+IR Image Blending



WESCAM's EO/IR/Laser Systems



# **MX-15**



# PAYLOAD SPECIFICATIONS - SELECT UP TO 6 IMAGING & LASER SENSORS

#### **Sensor Options for Thermal Imager**

Sensor #1a - Thermal Imager:

InSb, cooled mid-wave staring array Type:

Fields of View: 26.7° to 0.36°

**Sensor #1b - High Definition Thermal Imager:** 

Type: InSb, cooled mid-wave staring array

Fields of View: 35.5° to 1.2°

Sensor #2 - Color Low-Light Continuous Zoom:

Type: 2 Megapixel color low-light HD

**Fields of View:** 2.9° to 40.0° - 1080p 1.9° to 37.6° - 720p

Sensor #3 - Daylight Step-Zoom Spotter:

Camera Type: 2 Megapixel Color HD

**Fields of View:** 0.92° to 0.37° 1080p

0.61° to 0.24° 720p

#### Sensor Options for MX-Day/Night Spotter

Sensor #4a - Low-Light Spotter:

(Used with Sensor #3)

Camera Type: Electron multiplied CCD

Sensor #4b - SWIR Spotter:

(Used with Sensor #3)

Camera Type: InGaAs

# Sensor #5 - Laser Rangefinder (LRF)1:

Laser Type: Evesafe Wavelength: 1.54µm Pulse Rate: 12 pulses/min.

Range: 20km Range Resolution: ±5m

#### Sensor #6 - Laser Illuminator (LI)2:

Laser Type: Diode - (ANSI Class 4)

Wavelength: 860nm

Modes: Continuous, Pulsed 350mW or 700mW **Beam Power:** 

Beam Divergence: Wide, Narrow, Ultra Narrow

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

# Interface **WESCAM MX-15** • RF **Options** Control Video Hand Controller Displays & Moving Map Recorders WESCAM MX-15 Search Light Radar **GPS** MX Mission Grip Mission Computer MX-POD **WESCAM Equipment Options**





Consult factory for specific environmental and target conditions



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

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### SYSTEM SPECIFICATIONS

#### **MX-15 Turret**

≤100 lbs (all sensors) 15.5"(D) x 18.95"(H)

#### Power

MIL-STD-704E,

MX-15HDi - 280W (Avg), 900W (Max)

#### **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**

MIL-STD-461, MIL-STD-810, RTCA/D0-160

# **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) degree-of-freedom passive isolation

AZ/EL Slew Rate: 0-60°/sec LOS Pan Range: Continuous 360° LOS Tilt Range: +90° to -120°

#### STANDARD INTERFACES

5 independent analog and digital output video channels. Digital channel options are 1080p, 1080i, 720p, 525i, 625i

Hand Controller Interface

#### **OPTIONS AVAILABLE**

#### **MCU Interfaces:**

Moving Map Interface **RS-422 Serial Remote Control** Radar Interface

MIL STD 1553B Interface **GPS Time Sync Interface** 

Microwave Interface

GPS Data Interface

INS Data Interface

Searchlight Interface

Metadata

### Performance Enhancement:

Operator Control Unit & Joystick Autotracker (AVT) Embedded Moving Map system

**GEO-Pointing GPS** Embedded

#### 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.