



## WESCAM's MX-RSTA A Multi-Sensor, Multi-Spectral Imaging System

**Ideal for:** Reconnaissance, Surveillance, Target Acquisition, Ground Combat and Force Protection missions

**Ground Installations:** Amphibious, Armored Combat and Reconnaissance Vehicles, including mast-mounted

The MX-RSTA is a highly modular system that can be configured based on your mission, desired capability, and budget. Available solutions for Commander Independent Viewers, above-armor Gunner Sighting Systems, fixed/mobile Border Surveillance, and Mobile Reconnaissance applications.



### FEATURES & BENEFITS: MX-RSTA

#### Multi-Sensor Imaging/Lasing Payload Options

- Supports up to 6 payload items simultaneously
- HD thermal, HD daylight and low-light cameras provide 24/7 imaging
- Continuous zoom IR and EO
- High-magnification spotter
- High-sensitivity color low-light imaging
- Eyesafe laser rangefinder
- Laser illuminator in choice of narrow or wide 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 10" class
- IMU mounted to optical bench for high target location accuracy

#### 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

#### 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
- Flexible data ports; RS-232/422, Ethernet,
- All standard MX-Series command and control, moving map, searchlight, and radar interface

#### Ruggedness

- Ruggedized for ground
- MIL spec environmental and EMC qualified, including humidity, salt, fog and waterproofness
- Built-in vibration isolator protects internal payload components
- Rigorous environmental stress screening (ESS)
- Designed to minimize maintenance requirements and simplify repair

#### Simplified Vehicle Integration

- 43 lb turret
- Electronics unit inside the turret
- Built-in vibration isolation
- Built-in GPS receiver
- Compatible with standard quick disconnect mounts
- Side mounted connectors for recessed installations
- No calibration required for LRU swapout

### Product updates include:

- HD Thermal Imager
- High Sensitivity Color Imagers
- Advanced Video Tracker (AVT)
- Pseudo Color IR
- WAVE Technology



Daylight



IR



WESCAM's EO/IR/Laser Systems

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

### Sensor #1a - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 640 x 512  
**Fields of View:** 30.0° to 1.8°, Continuous Zoom

or

### Sensor #1b - HD Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 1280 x 720  
**Fields of View:** 30.2° to 2.9°, Continuous Zoom

### Sensor #2 - Daylight Continuous Zoom:

**Type:** CMOS  
**Resolution:** 1920 x 1080  
**Fields of View:** 31.2° to 1.2°

### Sensor #3 - Low Light Continuous Zoom:

**Type:** Electron-multiplied CCD (Mono)  
**Resolution:** 640 x 480  
**Fields of View:** 40.8° to 2.38°

### Sensor #4 - Daylight Spotter:

**Type:** CMOS  
**Resolution:** 1920 x 1080  
**Fields of View:** 0.61°

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

**Laser Type:** Diode Pumped (Class 1), Eyesafe  
**Wavelength:** 1.54µm  
**Range:** 20km max.

### Sensor #6a - Laser Illuminator<sup>1</sup>, Narrow: (NVG Compatible)

**Laser Type:** Diode - (Class 3B)  
**Modes:** Continuous, Pulsed  
**Wavelength:** 852nm

or

### Sensor #6b - Laser Illuminator<sup>1</sup> Wide:

**Laser Type:** Diode - (Class 3B)  
**Modes:** Continuous, Pulsed  
**Wavelength:** 852nm

### Additional MX-10 Features:

**IMU:** Mounted on optical bench  
**AutoTracker:** Embedded (option)  
**GPS Receiver:** Embedded (option)  
**Moving Target Indicator:** Embedded (option)

### Notes:

- 2x, 4x Zoom is available to increase magnification
- 720p FOVs. Consult factory for 1080p and analog FOVs
- All FOVs are horizontal

## SYSTEM SPECIFICATIONS

### MX-RSTA

<43.3 lbs / 19.6 Kg (all sensors)  
12.2"(D) x 15.3"(H)  
310mm (D) x 388.5mm (H)

### Power

MIL-STD-704F, 28 VDC, 10 Amps max.

### Hand Controller Unit (HCU)

4.8 lbs / 2.2 Kg  
3.34"(W) x 9.17"(L) x 5.39"(D)  
85mm (W) x 233mm (L) x 137mm (D)  
Powered: 10 W max.

### Cables

Consult factory for available variants

### Environmental

MIL-STD-461E, MIL-STD-810F

### TURRET SPECIFICATIONS:

#### Stabilization and Steering

- (2) Axis Inner (pitch/yaw)
- (2) Axis Outer (azimuth/elevation)

#### Vibration Isolation

- (6) Axis Passive (x/y/z/pitch/roll/yaw)

**Azimuth Coverage:** Continuous 360°

**Elevation Coverage:** +110° to -90°

### STANDARD INTERFACES:

**Video Outputs:** 3 Digital & 4 Analog simultaneously  
**Digital Video:** SMPTE 292M, 720p or 1080p  
**Analog Video:** NTSC or PAL  
**Communication:** MX Mission Grip Hand Controller

### OPTIONS:

Interfaces Types:	Functional Interfaces:
RS-422	Moving Map
RS-232	Remote Control
MIL-STD-1553B	Radar
ARINC 429	Microwave/Data Link
Ethernet	Metadata



Product appearance subject to change.

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.