



WESCAM's MX-10MS.

Fully Digital. High Definition.

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

Ideal for:

- Shipboard surveillance
- Low visibility and night navigation
- Covert operations
- Maritime interception
- Coastal surveillance
- Search and rescue
- Identify friend or foe
- Threat detection
- Deck activity on vessels of interest
- Remote weapon station
- Man overboard



Product updates include:

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

FEATURES & BENEFITS: MX-10MS

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 interfaces

Ruggedness

- Ruggedized for shipboard use
- 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 Vessel Integration

- 43 lb turret
- Electronics unit inside the turret
- Built-in vibration isolation
- Built-in GPS receiver
- No calibration required for LRU swapout



MX-10MS installed on a Piranha



MX-10MS installed on the Austal Cape Class Patrol Boat



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 Illuminator¹, Narrow: (NVG Compatible)

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

or

Sensor #6b - Laser Illuminator¹ 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-10MS Turret

<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.
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