



## WESCAM's MX-25. Fully Digital. High Definition. Ultra Long-Range Multi-Sensor, Multi-Spectral Imaging and Targeting Systems

**Ideal for:** High-altitude, Long-endurance Intelligence, Surveillance and Reconnaissance, and Target Designation missions (MX-25D)

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



### FEATURES & BENEFITS MX-25:

#### True HD Cameras

- Superior imaging resolution from EO and IR cameras
- 2 mega-pixel EO zoom and spotter cameras
- True HD Digital Imaging
  - Fully digital – easily converts to analog to ease legacy integrations
  - No image degradation due to compression

#### Advanced Image Processing

Real-time image enhancement for EO Day, EO Night & IR

- Increases stand-off range
- Improves feature detection & recognition
- High performance haze penetration

#### Solid-State IMU-Inside technology - 5-axis active stabilization

- All sensors share highest level of stabilization
- No calibration required for LRU swapout
- Auto align to aircraft
- Nav grade IMU
  - Enhanced target location accuracy

#### Short Wave IR Imaging

- Enhanced haze penetration & target contrast
- Laser spot imaging

#### Multi-Format

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

#### Multiple Laser Payloads

- Long Range Target Illumination, Pointing and Range-Finding

#### Laser Target Designator

- Compact, efficient and reliable diode-pumped laser
- Provides exceptional range through a small divergence high quality beam
- IMU Inside technology & exceptional EO/IR sensor range achieves unparalleled designating ranges
- Designator electronics package is incorporated into the turret payload
- Laser spot tracker detects a designator spot of a given code in the system's field of view, and slews the turret's line of sight to track it

#### MX-GEO Gen.3 Software Suite

- Achieves highest target location accuracy
- AVGT marries Video and GEO-Tracking to provide robust target tracking
- Discrete motion scanning for wide-area terrain visualization

#### MX-Series Commonality

The extensive interfacing capability of the MX-25 Family supports a wide range of installations spanning simple, single operator configurations through to complex, multi-operational systems. The software commonality and powerful built-in functionality within the MX-Series product family provides:

- Common operator interfaces and LRU's
  - ease & familiarity of use
  - simplified interchangeability
  - efficiencies in support & technology enhancements

### Product Enhancements:

- **Dual channel EO wide with EMCCD Lowlight**
- **Laser Spot Tracker (MX-25D)**

### System Offerings:

#### MX-25

Base offering with  
1080p HD resolution

#### MX-25D

1080p HD resolution  
with Designating capability



## PAYLOAD SPECIFICATIONS

### MX-25 Select up to 7 Sensors

#### Sensor #1 - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 1280 x 1080  
**Fields of View:** 21.7°, 4.4°, 0.88°, 0.58°

#### Sensor #2 - Daylight Continuous Zoom:

**Type:** 5 Megapixel Color HD  
**Fields of View:** 36.3° to 1.1° - 720p  
27.6° to 1.6° - 1080p

#### Sensor #3 - Lowlight Continuous Zoom: (Requires Sensor #2)

**Type:** Electron Multiplied CCD (Mono)  
**Fields of View:** 40.8° to 2.38°

#### Sensor #4 - Daylight Spotter:

**Type:** 2 Megapixel Color HD  
**Fields of View:** 0.92°, 0.46°, 0.29°, 0.17° - 1080p  
0.61°, 0.31°, 0.19°, 0.11° - 720p

#### Sensor #5 - Lowlight Spotter: (Requires Sensor #4)

**Camera Type:** Electron-Multiplied CCD  
**Fields of View:** 0.73°, 0.37°, 0.23°, 0.14°

#### Sensor #6 - Laser Rangefinder (LRF)<sup>1</sup>:

**Laser Type:** Erbium glass (ANSI Class I), Eyesafe  
**Wavelength:** 1540nm  
**Pulse Rate:** 12 pulses/min.  
**Range:** 30km  
**Range Resolution:** ±5m

#### Sensor #7 - Laser Illuminator (LI)<sup>2</sup>:

**Laser Type:** Diode - (ANSI Class 4)  
**Wavelength:** 860nm  
**Modes:** Continuous or Pulsed  
**Beam Divergence:** Narrow or Very Narrow

#### Notes:

- All FOV's are for Digital outputs. Consult factory for FOV's for Analog Outputs.

## PAYLOAD SPECIFICATIONS

### MX-25D Select up to 9 Sensors

#### Sensor #1 - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 1280 x 1080  
**Fields of View:** 21.7°, 4.4°, 0.88°, 0.58°

#### Sensor #2 - Daylight Continuous Zoom:

**Type:** 5 Megapixel Color HD  
**Fields of View:** 36.3° to 1.1° - 720p  
27.6° to 1.6° - 1080p

#### Sensor #3 - Lowlight Continuous Zoom: (Requires Sensor #2)

**Type:** Electron Multiplied CCD (Mono)  
**Fields of View:** 40.8° to 2.38°

#### Sensor #4 - Daylight Spotter:

**Type:** 2 Megapixel Color HD  
**Fields of View:** 0.92°, 0.46°, 0.29°, 0.17° - 1080p  
0.61°, 0.31°, 0.19°, 0.11° - 720p

#### Sensor #5 - SWIR Spotter (Requires Sensor #4)

#### Sensor #6/7 - Laser Designator/Rangefinder:

**Laser Type:** Diode Pumped - Nd:YAG/OPO (Class 4)  
**Wavelength:** 1064nm/1570nm Selectable  
**Code Compatibility:** US & NATO Laser Guided Munition  
**Rangefinding:** Up to 20km  
**Range Resolution:** ±2m

#### Sensor #8 - Laser Illuminator (LI)<sup>2</sup>:

**Laser Type:** Diode - (ANSI Class 4)  
**Wavelength:** 860nm  
**Modes:** Continuous or Pulsed  
**Beam Divergence:** Narrow or Very Narrow

#### Sensor #9 - Laser Spot Tracker

**Type:** Quadrant Detector  
**Wavelength:** 1064nm  
**Code Compatibility:** US & NATO Laser Guided Munitions

#### Notes:

- All FOV's are for Digital outputs. Consult factory for FOV's for Analog Outputs.

## SYSTEM SPECIFICATIONS

### MX-25 & MX-25D

#### MX-25 Turrets

**MX-25:** ≤ 220lbs (all sensors), 25.7"(D) x 30.2"(H)  
**MX-25D:** ≤ 250lbs (all sensors), 25.7"(D) x 30.2"(H)

#### Power

MIL-STD-704E, 320W (Avg.); 1000W (Max.)

#### Digital Master Control Unit

<20 lb  
7.5"(W) x 12.13"(H) x 16.7"(D)  
50W (Avg.); 100W (Max.)  
Autotracker

#### Hand Controller Unit (HCU)

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

#### TURRET SPECIFICATIONS

##### Line-of-sight Stabilization

Typically <3 µradians. Consult factory for performance under specific vibration conditions

##### Stabilization and Steering

(3) Axis Inner (pitch/yaw/roll)  
(2) Axis Outer (azimuth/elevation)

##### Vibration Isolation

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

**AZ/EL Slew Rate:** 40 degrees / sec maximum

**LOS Pan Range:** Continuous 360°

**LOS Tilt Range:** +90° to -125°

#### STANDARD INTERFACES

5 Simultaneous EO/IR Digital and Analog Video channels; 1080p configurable for 720p, 1080i, 525i & 625i digital options  
MX-Hand Controller

#### OPTIONS AVAILABLE

##### MCU Interfaces:

Moving Map Interface  
Serial Remote Control  
Radar Interface  
MIL STD 1553B  
GPS Time Sync  
GPS Data  
INS Data  
Searchlight  
Microwave  
Metadata

##### Operator Interfaces:

Operator Control Unit & Joystick  
Moving Map system  
GEO-Pointing

##### 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.