



## WESCAM's MX-20 and MX-20D.

### Fully Digital. High Definition.

Ultra Long-Range Multi-Sensor, Multi-Spectral Imaging and Targeting Systems

#### MX-20 Ideal for:

High-Altitude; Long-Range MPA and Persistent Surveillance

#### MX-20 Airborne Installations:

Fixed-Wing, Rotary-Wing, UAV, Aerostat

#### MX-20D Ideal for:

High-Altitude; Covert Intelligence, Surveillance & Reconnaissance, Armed Reconnaissance, CSAR, Target Designation

#### MX-20D Airborne Installations:

Fixed-Wing, Rotary-Wing, Aerostat



## FEATURES & BENEFITS: MX-20 / MX-20D

#### True HD Cameras

- Superior imaging resolution
- 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

#### 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

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

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

- 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
- Concurrent digital & analog outputs

#### Multiple Laser Payloads

- Long Range Target Illumination, Pointing and Range-Finding

#### Laser Target Designator (MX-20D)

- 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

#### 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-20 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

See our products in action on [YouTube](#) Search:

- MX-20 Product Video
- MX-Series Product Video

Previous Description, MX-20HD/20D

## System Offerings:

### MX-20

Base offering with 1080p HD resolution

### MX-20D

1080p HD resolution and Designating capability



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International

## PAYLOAD SPECIFICATIONS

### MX-20 Select up to 7 Sensors

#### Sensor Options for Thermal Imager

##### Sensor #1 - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 640 x 512  
**Fields of View:** 18.2°, 3.7°, 0.73°  
720p & 1080p

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

**Type:** 2 Megapixel Color HD  
**Fields of View:** 2.75° to 18.2° - 1080p  
1.83° to 21.3° - 720p

##### Sensor #3 - Daylight Spotter TV:

**Type:** 2 Megapixel Color HD or Mono HD  
**Fields of View:** 0.92°, 0.46°, 0.29°, 0.17° - 1080p  
0.61°, 0.31°, 0.19°, 0.115° - 720p

##### Sensor #4 - Lowlight Spotter TV: (Requires Sensor #3)

**Camera Type:** Charge-multiplying CCD (Mono)  
**Wavelength:** Selectable, 450-1000nm  
**Fields of View:** 0.73°, 0.37°, 0.23°, 0.14° - 720p & 1080p

##### Sensor #5 - 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 #6/7 - Laser Illuminator (LI)<sup>2</sup>:

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

#### Notes:

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

## PAYLOAD SPECIFICATIONS

### MX-20D Select up to 6 Sensors

#### Sensor Options for Thermal Imager

##### Sensor #1 - Thermal Imager:

**Type:** 3-5µm staring array  
**Resolution:** 640 x 512  
**Fields of View:** 18.2°, 3.7°, 0.73°  
720p & 1080p

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

**Type:** 2 Megapixel Color HD  
**Fields of View:** 2.75° to 18.2° - 1080p  
1.83° to 21.3° - 720p

##### Sensor #3 - Daylight Spotter TV:

**Type:** 2 Megapixel Color HD or Mono HD  
**Fields of View:** 0.92°, 0.46°, 0.29°, 0.17° - 1080p  
0.61°, 0.31°, 0.19°, 0.115° - 720p

##### Sensor #4 - Lowlight Spotter TV: (Requires Sensor #3)

**Camera Type:** Charge-multiplying CCD (Mono)  
**Wavelength:** Selectable, 450-1000nm  
**Fields of View:** 0.73°, 0.37°, 0.23°, 0.14° - 720p & 1080p

##### Sensor #5 - Laser Illuminator (LI)<sup>2</sup>:

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

##### Sensor #6/7 - Laser Designator/Rangefinder: (ANSI Class 4)<sup>3</sup>

**Laser Type:** Diode Pumped Nd:Yag  
**Wavelength:** 1064nm/1570nm Selectable  
**Rangefinding:** Up to 20km  
**Range Resolution:** ±2m

#### Notes:

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

## SYSTEM SPECIFICATIONS

### MX-20 & MX-20D

#### MX-20 Turrets

**MX-20:** ≤ 200lbs (all sensors), 21.0"(D) x 26.25"(H)  
**MX-20D:** ≤ 210lbs (all sensors), 21.0"(D) x 26.25"(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

5 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: 0-1rad/s

##### LOS Pan Range: Continuous 360°

##### LOS Tilt Range: +90° to -120°

#### 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.

International



<sup>1</sup> 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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