



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 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

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
- Nav grade IMU
 - Enhanced target location accuracy

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

Short Wave IR Imaging

- Enhanced haze penetration & target contrast
- Laser spot imaging

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
- 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-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

Product Enhancements:

- HD IR
- Navigation Grade IMU
- SWIR Spotter

System Offerings:

MX-20

Base offering with
1080p HD resolution

MX-20D

1080p HD resolution
and Designating capability



PAYLOAD SPECIFICATIONS

MX-20 Select up to 7 Sensors

Sensor Options for Thermal Imager

Sensor #1a - Thermal Imager:

Type: 3-5µm staring array
Resolution: 640 x 512
Fields of View: 18.2°, 3.7°, 0.73°, 0.24°
720p & 1080p

or

Sensor #1b - HD IR:

Type: 3-5µm staring array
Resolution: 1280 x 1024
Fields of View: 31.5°, 6.4°, 1.3°, 0.86°
720p & 1080p

Sensor #2 - Daylight Continuous Zoom:

Type: 2 Megapixel Color HD
Fields of View: 2.8° to 40.5° - 1080p
1.8° to 27.7° - 720p

Sensor Options for Daylight Spotter

Sensor #3 - Daylight Spotter:

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: (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):

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):

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 #1a - Thermal Imager:

Type: 3-5µm staring array
Resolution: 640 x 512
Fields of View: 18.2°, 3.7°, 0.73°, 0.24°
720p & 1080p

or

Sensor #1b - HD IR:

Type: 3-5µm staring array
Resolution: 1280 x 1024
Fields of View: 31.5°, 6.4°, 1.3°, 0.86°
720p & 1080p

Sensor #2 - Daylight Continuous Zoom:

Type: 2 Megapixel Color HD
Fields of View: 2.8° to 40.5° - 1080p
1.8° to 27.7° - 720p

Sensor Options for Daylight Spotter

Sensor #3 - Daylight Spotter:

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 #4a - Lowlight Spotter: (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

or

Sensor #4b - SWIR Spotter: (Requires Sensor #3)

Sensor #5 - Laser Illuminator (LI):

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)³

Laser Type: Diode Pumped Nd:Yag
Wavelength: 1064nm/1570nm Selectable
Code Compatibility: US & NATO Laser Guided Munition
Rangefinding: Up to 20km
Range Resolution: ±2m

Sensor #8 - Laser Spot Tracker

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

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

Typically <4 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