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 and MX-20D

Multi-Sensor Imaging/Lasing Payload Options
- Supports up to 8 payload items simultaneously
- HD thermal, HD daylight and HD low-light cameras provide 24/7 imaging
- Continuous wide-angle zoom
- High-magnification step-zoom spotter
- High-sensitivity color low-light imaging
- Compact, efficient, reliable laser target designator
- SWIR camera images designator spot
- Eyesafe laser rangefinder
- Laser illuminator in choice of wide, narrow or ultra narrow divergence
- Laser spot tracker (designator version only)

High Performance Gimbal
- 5-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 large turret class
- IMU mounted to optical bench for high target location accuracy
- INS auto-align to aircraft
- Full laser stabilization minimizes spot jitter

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

Interface Flexibility
- Built-in video switch matrix provides multiple HD-SDI and analog video outputs
- 720p or 1080p HD video
- Wide range of data ports; RS-232/422, Ethernet, MIL-STD-1553B, ARINC429
- All standard MX-Series functional interfaces

Ruggedness
- MIL spec environmental, EMC, and power quality qualification
- Built-in vibration isolator protects internal payload components and minimizes vibration-induced boresight shifts
- Rigorous environmental stress screening (ESS)
- Designed to minimize maintenance requirements and simplify repair

Simplified Aircraft Integration
- Built-in vibration isolation
- GPS receiver built into electronics unit
- No calibration required for LRU swapout

See our products in action on YouTube
Search:
- MX-20 Product Video
- MX Targeting Family

New for 2017:
- High sensitivity color cameras
- Advanced Video Tracker (AVT)

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

- **Sensor #1b** - HD Thermal Imager:
  - Type: 3-5μm staring array
  - Resolution: 1280 x 1024
  - Fields-of-View: 31.5°, 6.4°, 1.3°, 0.86°
    - 720p & 1080p

**Sensor Options for Spotter**

- **Sensor #3** - Daylight Spotter:
  - Type: 2 Megapixel Color HD or Mono HD
  - Fields-of-View: 1.07°, 0.54°, 0.34°, 0.2° - 1080p
    - 0.72°, 0.36°, 0.23°, 0.13° - 720p

- **Sensor #4a** - HD Low-Light Spotter: (Requires Sensor #3)
  - Fields-of-View: Matched to daylight

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

- **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.
- 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.

Inquiries: 1 800 668 4355
sales.wescam@L3T.com

**PAYLOAD SPECIFICATIONS**

**MX-20D** Select up to 8 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

- **Sensor #1b** - HD Thermal Imager:
  - Type: 3-5μm staring array
  - Resolution: 1280 x 1024
  - Fields-of-View: 31.5°, 6.4°, 1.3°, 0.86°
    - 720p & 1080p

- **Sensor #2** - Color Low-Light Continuous Zoom:
  - Type: 2 Megapixel color low-light HD
  - Fields-of-View: 2.9° to 30.0° - 1080p
    - 1.9° to 30.0° - 720p

**Sensor Options for Spotter**

- **Sensor #3** - Daylight Spotter:
  - Type: 2 Megapixel Color HD or Mono HD
  - Fields-of-View: 1.07°, 0.54°, 0.34°, 0.2° - 1080p
    - 0.72°, 0.36°, 0.23°, 0.13° - 720p

- **Sensor #4a** - HD Low-Light Spotter: (Requires Sensor #3)
  - Fields-of-View: Matched to daylight

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

- **Sensor #5** - Laser Rangefinder (LRF):
  - Laser Type: Diode Pumped Nd:Yag
  - Wavelength: 1064nm
  - Range Resolution: ±2m

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

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**PAYLOAD SPECIFICATIONS**

**MX-20 & MX-20D**

**MX-20 Turret**
- 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)**
- 2.2 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-461E, MIL-STD-810F

**TURRET SPECIFICATIONS**

**Line-of-sight Stabilization**
- Typically <4 radians. 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

- Consult factory for specific environmental and target conditions

WESCAM has a policy of continuous product improvement. Specifications are therefore subject to change without notice.
January 2017