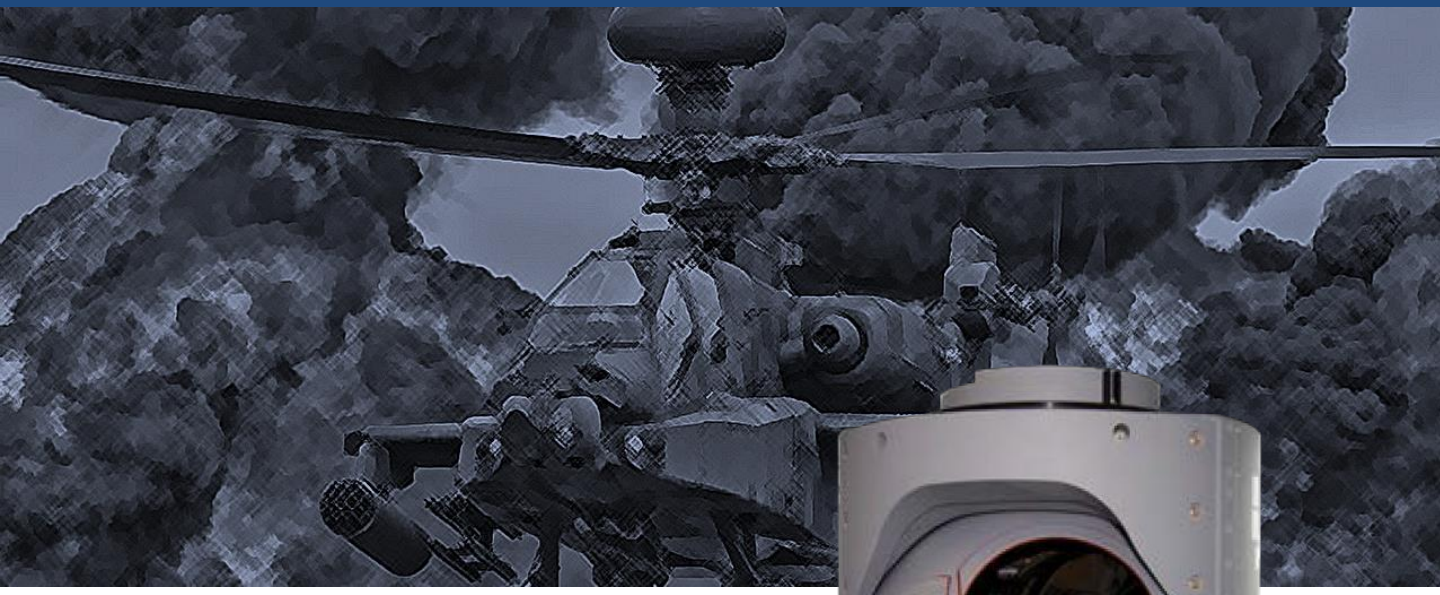
DEFENSE & SECURITY



WESCAM MX™ - 20
FULLY DIGITAL
HIGH DEFINITION

The WESCAM MX-20 is an advanced, industry-leading stabilized multi-sensor, multi-spectral imaging system that is renowned for high performance, operator ease-of-use, and reliability.

It's ideal for a wide range of missions, including high altitude covert intelligence, surveillance, and reconnaissance, armed reconnaissance, search and rescue.

The system provides imagers for optimal performance in a wide range of conditions; bright sunlight, overcast/dusk, smoke, and complete darkness.

That is supported by a suite of advanced image processing algorithms for noise reduction, sharpening, and local area contrast enhancement that aid feature recognition.

Superior stabilization is the key to achieving the maximum target detection, recognition, and identification range performance from the imagers.

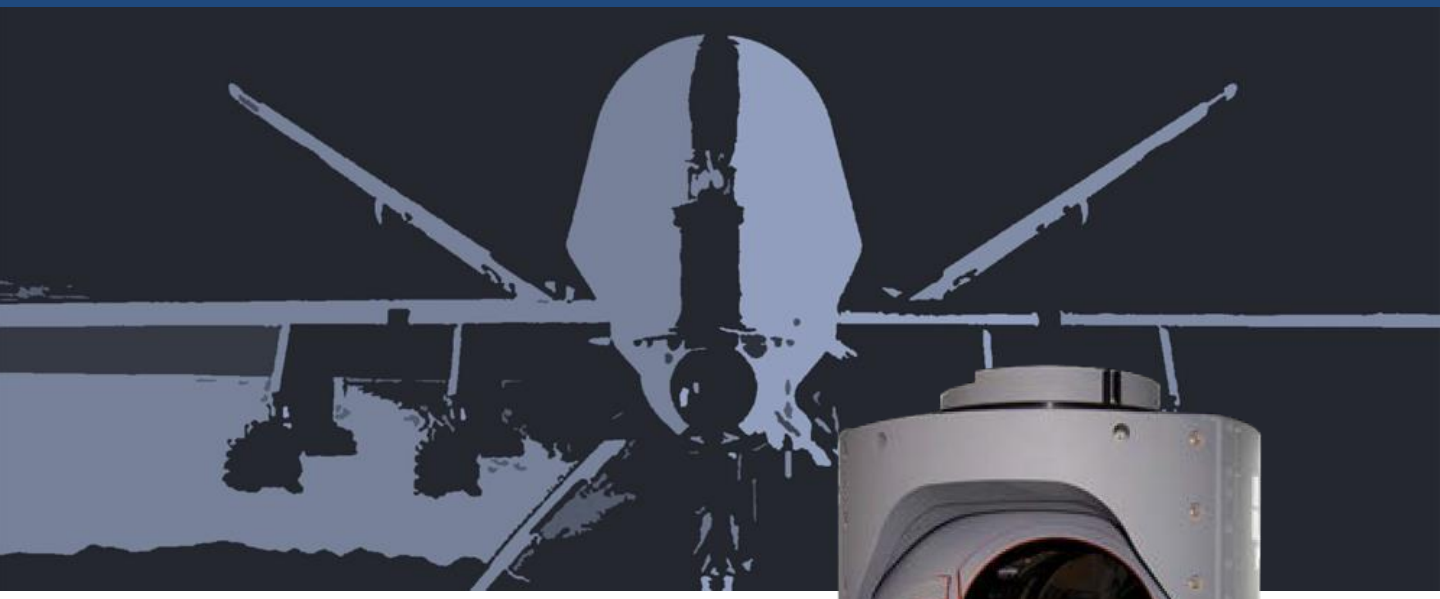
The WESCAM MX-20 achieves this with a hybrid active and passive jitter suppression system.

This proven architecture stabilizes all devices on the optical bench equally. In addition, stable and accurate target geolocation ensures that the crosshairs stay on a stationary target, regardless of changes to aircraft position, attitude, and heading.

This significantly reduces the operator burden in keeping eyes on target.

Advanced processing features such as object tracking, image blending, and moving target indication further serve to automate the search and tracking process, allowing the operator to focus on the target versus the equipment.

To ensure that the WESCAM MX-20 is fit for the mission, it is fully qualified to MIL-STD-810 for environmental withstanding, MILSTD-461 for electromagnetic compatibility, and MIL-STD-704 for power quality.



L3HARRIS™
FAST. FORWARD.

WESCAM MX™ - 20
FULLY DIGITAL / HIGH DEFINITION

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

The WESCAM MX-20 is ideal for high-altitude, long-range maritime patrol and persistent surveillance.

MULTI-SENSOR IMAGING/LASING PAYLOAD OPTIONS

- Supports seven payload items simultaneously
- HD thermal, HD daylight , HD low-light and HD SWIR cameras provide 24/7 imaging
- Continuous wide-angle zoom
- High-magnification step-zoom spotter
- High-sensitivity color imaging
- Eye-safe laser rangefinder[1]
- Laser illuminator in choice of wide, narrow or ultra narrow divergence

L3HARRIS™
FAST. FORWARD.

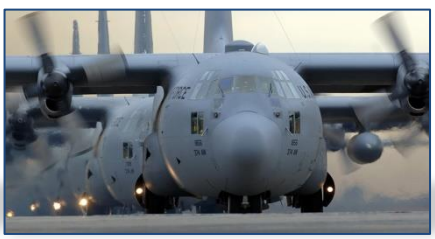
HIGH-PERFORMANCE GIMBAL

- 5-axis stabilized turret with internal passive isolator for excellent stabilization performance
- Sharp optics and superior stabilization performance results in industry leading target detection, recognition and identification range
performance in the large turret class
- Inertial Measurement Unit (IMU) mounted to optical bench for high target location accuracy
- Inertial Navigation System (INS) auto-align to aircraft

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
- Imaging blending
- Embedded Moving Target Indication
- Pseudo-color IR



L3HARRIS™
FAST. FORWARD.

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 WESCAM MX-Series functional interfaces

RUGGEDNESS

> MilSpec environmental, EMC, and power quality qualification
> Built-in vibration isolator protects internal payload components
> 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 Line Replaceable Unit (LRU) swapout

WESCAM MX™ - 20
FULLY DIGITAL / HIGH DEFINITION

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

Standard Version set

> Precision stabilized gimbal With inertial measurement unit (IMU) inside
> HD digital and analog Video output
> Multi sensor payload:
    > Thermal imager, cooled MWIR, SD 640 x 512 pixel, step zoom
    > Color imager. HD 1920 x 1080 pixel, continuous zoom
    > Spotter, High Sensitivity Color daylight imager. HD 1920 x 1080 pixel step zoom
> Digital Master Control Unit (DMCU)
> Advanced image processing on all sensors
> Hand controller unit (HCU). backlit, NVG compatible, with 1.8m (6') cable, bracket and shipping case
> Transit case and stand
> Balun and Mating Connector (Qty 2) to support interface to HD Video Display
> Operator manual
> Default pant color: grey (other color options available)Note: Matching cables or connector kits arc separately priced items. Due to connector lead-time it is recommended that a connector kit be purchased at time of order.

Optional parts

HDIR-MX20: Thermal imager, cooled MWIR, HD 1280 x 1024 pixel, step-zoom (Replaces SD Thermal imager)

Electro Optic N,mow (EON) Sensor DCNS-THD-MX20: Upgrades Spotter to Dual channel spotter, color and low light, step zoom
> High sensitive Color imager, HD 1920 x 1080 pixel
> Lowlight imager, HD 1920 x 1080 pixel

Laser Sensors Available for MX-20
Configuration: (not applicable for MX-200) LRF-MX20
Laser rangefinder, eyesafe

MX-GEO-GPS-INT
MX-GEO With internal GPS
> Enables Auto and Auto-Aid steering modes
> Enables GeoPomting ,Geolocation and GeoFocus
> Includes embedded GPS receiver and antenna
> Supports single or dual band applications

AVT (Advance video tracker)
> Functions on any imaging sensor video
> Note: Includes AVGT mode, when purchased with MX-GEO

MX-RCS: Remote control subsystem (RCS) interface
> Control turret by a host computer / mission system
> Supported on one of RS-422, Ethernet, or MIL-STD-1554b port

WESCAM MX™ - 20
FULLY DIGITAL / HIGH DEFINITION

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PAYLOAD SPECIFICATIONS	
Sensor Options for Thermal Imager (Select #1a or #1b)	
Sensor #1a - Thermal Imager:	
Type:	3-5µm staring array
Resolution:	640 x 512 Pixels
Fields-of-View:	18.2°, 3.7°, 0.73°, 0.37° - 720p & 1080p
Sensor #1b - HD Thermal Imager:	
Type:	3-5µm staring array
Resolution:	1280 x 1024 Pixels
Fields-of-View:	31.5°, 6.4°, 1.3°, 0.86° - 720p & 1080p
Sensor #2 - HD Color Continuous Zoom:	
Type:	2 Megapixel Color
Fields-of-View:	27.7° to 1.8° - 720p, 40.5° to 2.8° - 1080p
Sensor Options for Spotter (Select #4a or #4b)	
Sensor #3 - HD Daylight Spotter:	
Type:	2 Megapixel Color or Mono
Fields-of-View:	0.72°, 0.36°, 0.23°, 0.13° - 720p, 1.07°, 0.54°, 0.34°, 0.2° - 1080p
Sensor #4a - HD Low-Light Spotter: (Requires Sensor #3)	
Fields-of-View:	Matched to daylight
Sensor #4b - HD SWIR Spotter: (Requires Sensor #3)	
Sensor #5 - Laser Rangefinder (LRF)[1]:	
Wavelength:	1540nm
Range:	30km
Sensor #6/7 - Laser Illuminator (LI)[2]:	
Wavelength:	860nm
Beam Divergence:	Wide, Narrow or Ultra Narrow
Notes:	All FOVs are for digital outputs. Consult factory for FOVs for analog outputs.

TURRET SPECIFICATIONS	
Stabilization and Steering	(5) Axis + (6) DoF Isolator Azimuth Range: Continuous 360° Elevation Range: +90° to -120°

SYSTEM SPECIFICATIONS	
WESCAM MX-20 Turret	<200 lbs / 90.9 Kg (all sensors), 21.1”(D) x 26.5”(H), 535.9mm (D) x 673mm (H)
Power	MIL-STD-704E, 320W (Avg.); 1000W (Max.)

VIDEO INTERFACES
Built-in video switch matrix
5 independent HD-SDI output channels available
5 analog video (NTSC or PAL) output channels available

DATA INTERFACES
Interface Types: RS-232/422, Ethernet, MIL-STD-1553B, ARINC 429
Functional Interfaces: Aircraft GPS/INS, Remote Control, Moving Map, Microwave / Data Link, Searchlight, Radar, Metadata / Status
HMI Options: Moving Map, Mission Console
Compatible with WESCAM Microwave Communications Equipment.

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