L-3 Sonoma EO

MX-12D SKYBALL II™

Small, Lightweight Designating Turret

SONOMA MX-12D SERIES STABILIZED IMAGING SYSTEMS

The Sonoma MX-12D Skyball II sets the performance and value standard in low-weight turrets with laser designation capability. At 55 lbs, the Sonoma MX-12D is half the weight of competitive mid-sized turrets. The Sonoma MX-12D delivers exceptional mission performance through advanced stabilization, magnification and laser integration. The Sonoma MX-12D has:

- Longest EO/IR recognition and identification stand off ranges in its weight class with:
  - Larger aperture optics that are specifically optimized for resolution
  - Highest line-of-sight stability, preserving resolution and pointing accuracy in the aircraft flight environment
  - Real time, Local Area Contrast Enhancement (LACE) imagery processing
- Versatile, efficient, dual channel, laser rangefinder/designator
  - Performs target acquisition for on-board or remotely fired laser guided weapons such as the HELLFIRE missile
  - Powerful, low divergence targeting capability with mission selectable symbology
  - Supports all tri-service and NATO qualified laser-guided munitions
- Onboard high-performance Inertial Measurement Unit (IMU) for more accurate target GEO-Location
  - Turret provides coordinates of the image being viewed
  - Superior to turrets that use an offboard IMU
- Designed for optimum balance of cost and mission performance
  - Engineered to military environmental and EMI/EMC requirements

KEY FEATURES

- Precision day/night/adverse weather target acquisition
- MX GEO technology with IMU-Inside technology that delivers maximum location accuracy facilitating GEO-Pointing, GEO-Location, GEO-Focus, and GEO targeting
- Reliable, small divergence diode pumped laser designation
- Designates stationary or moving targets at extended ranges
- Large-format IR FPA with step zoom magnification
- Continuous zoom color camera

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When the Mission Matters

SENSOR #1 - HIGH MAGNIFICATION IR THERMAL IMAGER

Type	3rd generation, 3–5 µm InSb staring array

FIELDS OF VIEW

Format	Resolution	Wide	Medium	Narrow	Very Narrow
Large	640 x 512 FLIR	27.60°	6.0°	1.1°	0.55° (digital)

SENSOR #2 - COLOR DAYLIGHT WITH ZOOM LENS

Type	1 CCD color
Resolution	470 TVL
Fields of View	2.00° to 27.60° (optical) 0.65° to 2.00° (digital)

OR — LASER ILLUMINATOR

Laser Type	Erbium glass
Wavelength	860 nm
Modes	Continuous or pulsed
Output Power	Up to 800 mW (continuous)

SENSOR #3 - LASER RANGEFINDER–DESIGNATOR

2–channel, allows ranging while designating

RANGEFINDER (EYE–SAFE)

Laser Type	Erbium glass (ANSI Class 1)
Wavelength	1.535 µm
Pulse Rate	60 PPM
Range	15 km min.
Range Accuracy	±5 m
Range Resolution	2 m

DESIGNATOR

Laser Type	Nd:YAG (ANSI Class 4)
Wavelength	1.064 µm
Pulse Rate	10 Hz & 20 Hz
Pulse Width	11 ns min. (FWHM)
Beam Divergence	210 µrad max.
Range	20 km based on environmental and target conditions

nsai ISO 9001:2000 QUALITY

ADVANTAGES

- Less than 55 lbs
- IMU-Inside
- Direct replacement of mid-sized turrets
- MX-GEO
- Modular payload
- Premium range performance

BENEFITS

- Best performance per pound
  - Mid-sized range performance in a small turret
- IMU-Inside
  - High accuracy GEO-Location and rock-solid stabilization using IMU-Inside technology
- MIL STD engineering
  - Designed to meet MIL-STD-810, MIL-STD-704 and MIL-STD-461 standards
- Flexible installation
  - Incorporates mounting and cable adapters to facilitate replacement of legacy mid-sized turrets

Local Area Contrast Enhancement (LACE)

Without LACE processing

With LACE processing

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L3 communications
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L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.