

NSN: 1240-99-984-0230

**Miniature Advanced Rangefinder System** 







## **OVERVIEW**

**Proudly the Smallest and Lightest LRF System in its Class.** The Miniature Advanced Rangefinder System (MARS) brings precision weapon-mounted laser rangefinding capability to the user in an exceptionally small form factor. With an integrated Applied Ballistics solver, visible and Near Infrared (NIR) pointers, NIR illuminator, and Bluetooth interface to external peripherals such as the Kestrel weather meter, the MARS delivers >2,000m range performance in a compact package weighing less than 8 oz.

## **USER BENEFITS**

- **Ultra-compact with full-power capability:** Weighs under 8 oz and ranges targets >2,000m with a 1550nm laser.
- Built-in Applied Ballistics® solver: Calculates real-time windage and elevation using gun profiles and environmental data.
- Included Environmental Sensors: Temperature and pressure to eliminate guesswork and increases long-range lethality.
- Speed, Precision, and Scan modes: Adapt to fast movers, long shots, or target discrimination.
- First / Last / Best return logic: Confirms target in cluttered environments.
- Haptic feedback: Vibration confirms ranging without needing to look away.
- Integrated Bluetooth: Interfaces to external devices such as the Kestrel Weather Meter and/or external displays
- **Display:** Auto-rotating display stays level mounted at 12, 3, 6, or 9 o'clock and adjustable LED brightness for day or night operation.
- Glove-friendly 3-button interface: Simple, intuitive control under pressure.
- Remote switch compatible: Comes with 12" or 20" cable options.
- Built for combat: Waterproof up to 1meter, recoil-rated, and reliable from 4°F (-20°C) to + 140°F (60°C).
- Mounting: MIL-STD-1913 rail interface to mount to a wide variety of weapon platforms.
- Units of Measure: Imperial, Metric, or Mixed units
- Single CR123A powered: >2,000 range activations per battery.

## MARS FEATURES

LRF	~1550nm, Class 1 >1,500m on 10% reflective man-size target >2,000m on 30% reflective NATO target
Weight	Without Battery: 6.6oz (187g) With Battery: 7.2oz (204g)
Dimensions	L: 3.7" (96mm) with lens cover deployed W: 2.7" (68mm) with lens cover stowed H: 1.4" (35mm) above rail
Power	Single CR123A Battery
Mounting Interface	MIL-STD-1913 Rail Grabber
Wireless Interface	2 Way Bluetooth
Ballistic Computer	Applied Ballistics, Integrated
Modes	Speed, Precision, Scan (rapid)
User Interfaces	Three-button remote, rotary switch
Visible Pointer	
	2 FmW (love) Class 3D
Output Power	3.5mW (low) Class 3R 38mW (high) Class 3B, +/-20%
Output Power  Divergence	
	38mW (high) Class 3B, +/-20%
Divergence	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)
Divergence	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  ~640nm (at 20°C)
Divergence Wavelength	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  -640nm (at 20°C)  NIR Pointer  0.45mW (low) Class 1
Divergence  Wavelength  Output Power	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  -640nm (at 20°C)  NIR Pointer  0.45mW (low) Class 1 25mW (high) Class 3B, +/-20%
Divergence  Wavelength  Output Power  Divergence	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  ~640nm (at 20°C)  NIR Pointer  0.45mW (low) Class 1 25mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)
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Divergence  Wavelength  Output Power  Divergence  Wavelength	38mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  ~640nm (at 20°C)  NIR Pointer  0.45mW (low) Class 1 25mW (high) Class 3B, +/-20%  0.5mR (+/- 0.3mR)  ~850nm (at 20°C)  NIR Illuminator  5.0mW (low) Class 1

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Available Accessories & Spares
MARS Fix It Stick
3-Button Remote, 12" / 20"
Mode Select Switch Assembly and Bezel, Spare
Lens Cover Assembly, Spare
Battery Cap Assembly, O-Ring & Strap, Spare
Protective Case, Spare
Mode Select Switch Assembly and Bezel, VIS Only, Spare



LRF Receiver LRF Transmit

Window





Illuminator
Divergence Knob

Azimuth
Adjuster

Window

Input/Output Connector (Wired Remote Interface)



Aiming/Illumination

Laser Window

LASER APERTURES

AVOID EXPOSURE-LASER RADIATION
IS EMITTED FROM THESE APERTURES
VISIBLE AND INVISIBLE LASER RADIATION

DANGER: LASER RADIATION AVOID DIRECT VIS NIR
WAVELENGTH (nm): 1550 ~638 840-870 OUTPUT POWER 250nJ <50mW <150mW