



**ADVANCED PHOTONICS**

1550nm ADVANCED LASER RANGEFINDER  
UNIT WITH BALLISTIC COMPUTER

# QRF-4500S-BC

**NSN: 1240-20-014-8145**

The QRF-4500™ is the all-in-one eye safe 1550nm Rapid Targeting and Ranging Module unit with enhanced capabilities featuring built-in GPS, Compass, Visible or IR Laser Pointer and IR illuminator. It is the ultimate tool for reconnaissance work, tactical surveillance, and engagement within any visible range. This versatile unit can be installed on any weapon or optical systems, and used for manned or unmanned remote-controlled aiming systems. The QRF-4500S-BC was made to hold zero and provide continuous measurements while used on high caliber .50 BMG 12.7×99mm NATO anti-materiel rifles and machine guns.

The low-profile and compact size of the QRF-4500S-BC allows easy mounting and free access to the controls of the unit without interference with other aiming systems. Aluminum-milled housing provides excellent structural rigidity, outstanding shock protection and IP67 rating.

This system can be used in combination with a wide variety of optical-electronic systems, including daytime sights, night vision, thermal imaging, and fusion devices. It displays ranging information and coordinated on the screen of all GSCI-made thermal and fusion systems. The QRF-4500S-BC performs the function of a ground target designator, which makes it a perfect day/night surveillance and fire control system for a whole unit.

The QRF-4500S-BC is ready to replace all discrete, single-function gadgets: all information is presented on one display to increase operator's efficiency. When combined with professional tools, it increases hit probability on the first attempt and facilitates the correction of next shots. Featuring GSCI Proprietary Integrated 9-Axis Absolute Orientation HUD (Hheads-Up Display) which consists of three 3-Axis Sensors - Magnetometer, Accelerometer, Inclination and Gyroscope. Unit has a capability to use ballistic calculator and weather station with 12 weapon and ammunition presets/profiles.

## KEY FEATURES:

- > For hand-held, optics, and weapon mountable applications
- > Can be paired with various optical-electronic systems
- > 1550nm LRF wavelength
- > 4.5km (2.8mi) maximum ranging capability
- > Rapid and continuous (uninterrupted) accurate measurements
- > 128 x 64 OLED display with brightness adjustment
- > Iron sights for hand-held aiming and ranging
- > Synchronized compass, GPS and rangefinder
- > Provides real-time positioning information for both the user and the target
- > 3 memory slots for target distance measurements
- > Measures distance between two targets
- > Measures speed, heading direction and track angle
- > 12 weapon and ammunition presets/profiles
- > Adjustable IR laser + Red or Green visible laser and focusable IR illuminator
- > Compact and rugged all-aluminum housing
- > Mounts on MIL-STD-1913D "Picatinny" rail
- > Remotely controlled via cable connection
- > Ballistic calculator and weather station.



**Designed, Developed, Manufactured by GSCI Advanced Photonics**

120 WHITMORE ROAD, UNIT 20, WOODBRIDGE, ONTARIO, L4L6A5, CANADA

WWW.GSCI.NET | GSCI@GSCI.NET | +1.905.850.0990

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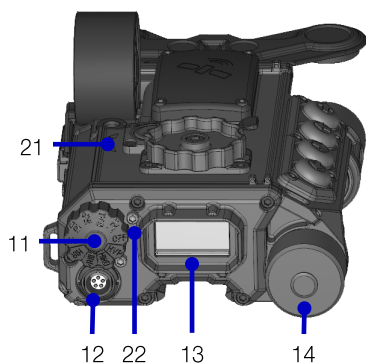
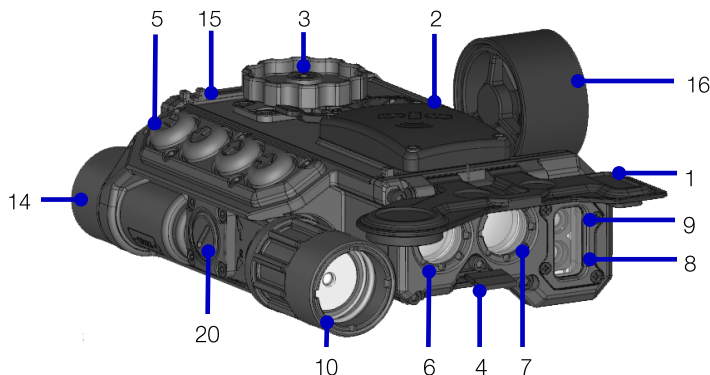
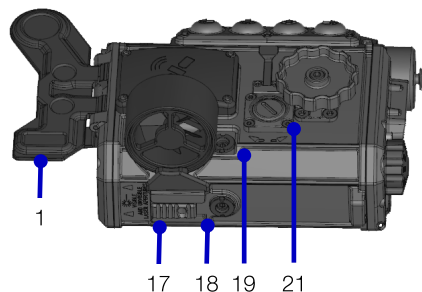


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1. LRF + Laser Safety Front Cover
2. GPS Module and Ballistic Calculator
3. Locking Lever & Latching Knob
4. Front Cover Latching Knob
5. Keypad
6. Laser Rangefinder: Transmitter
7. Laser Rangefinder: Receiver
8. Laser (IR Pointer)
9. Laser (VL Pointer)
10. IR Illuminator
11. Control Knob: Power Switch
12. Universal Port: Power & Connectivity
13. OLED Display
14. Battery Compartment Cap
15. Iron Sights
16. Wind Impeller
17. Weather Station Protection Slide
18. Laser Adjustment: Windage
19. Laser Adjustment: Elevation
20. LRF Adjustment: Windage
21. LRF Adjustment: Elevation
22. High Power Lockout Screws

*QRF-4500™ is a Great Attachment Unit for:*

*Precision Firearms*

*Day Optics*

*Thermal Imagers*

*Night Vision Devices*

*Fusion Systems*



*Each QRF-4500S-BC are made per order; housing type and general appearance may vary based on the ordered configuration.*

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## TECHNICAL SPECIFICATIONS

Ranging Capability	3m .. 4500m (10ft .. 2.8 Mi)
Minimum Measuring Time	0.4s
Distance-To-Target Precision	Better than 1m (3ft)
Distance Units	User-Selectable: Meters, Yards, Kilometers, Miles
Display Type	Integrated, Energy-Efficient, Digital (OLED), 0.96", Glare Protected
Compass	High Accuracy Magnetic and Gyro-Compass
Compatible Global Positioning Systems	GPS, GLONASS, Galileo, EGNOS
Precise GPS Location	Yes: Displayed in Degrees-Minutes-Seconds
LRF Wavelength	1550nm (Eye Safe)
Performance to Human Size Target	1500m (1640 yds)
Performance to NATO Target (2.3x2.3m)	2000m ( 2190 yds) (30% Reflectivity)
Communications	Serial, RS232
Laser Aimer IR	IR + Red or Green Visible Laser
IR Illuminator	IR Illuminator Flood-to-Spot
Ballistic Calculator	Yes: up to 12 profiles
Power Source Options	1 pc CR123 (3V) or External Power Supply (4VDC .. 15VDC)
Ranging Measurements / Battery Life	Up to 4500 Events on 1 pc CR123 (3V)
Weapon Mountable	MIL-STD-1913 (Picatinny), Recoil-Proof
Dimensions	<130x100x60 mm (5.1x3.9x2.3 in)
Weight (with battery and cable)	<450 grams (<15.9 oz)
Environmental Protection	IP67 min.
Operating Temperature	-40°C .. +50°C (-104 F .. +122° F)
Storage Temperature	-50°C .. +60°C (-122°F .. +140° F)
Warranty	7 Years

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## STANDARD EQUIPMENT: WHAT'S IN THE BOX

1	QRF-4500S-BC Unit w/Security Cover (Black or FDE/ Tan Colour)
2	5 Pin to USB Power Connector Cable
3	Multitask Wired Remote Control
4	Maintenance Kit
5	Soft Carrying Pouch
6	Hard Carrying Case
7	User, Maintenance Manuals, Quick Start Guide

## OPTIONAL EQUIPMENT

A	MVP-240 Universal Battery Pack
B	Weather Station Compatible (Kestrel, etc.)

Batteries are not included due to IATA regulations



QRF-4500S-BC



USB Power Cable



Multitask Wired Remote Control



Maintenance Kit



Soft Carrying Pouch



Hard Carrying Case



Users, Maintenance Manuals,



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