



ADVANCED PHOTONICS



FUSION MULTI-CHANNEL GOGGLES QUADRO-G



The QUADRO-G is the new augmented vision goggles for tactical surveillance and observation at short- and medium-range distances.

Along with selecting between visible/near-infrared and far-infrared (thermal) channels individually, GSCI's Unique Patented technology allows to produce and display real-time, delay-free *fusion* image that superimposes all ranges of the spectrum from its sensors to successfully detect any target and defy poor lighting or weather conditions. Wide field of view allows for better situation awareness.

The unit is small and lightweight, and yet made of a hard-anodized aluminum for added strength and shock resistance. The unit is compatible with most head gears and helmet mounts for hands-free operation.

KEY FEATURES

- ◆ 100% Target Detection Capability
- ◆ Dual-Eye Observation
- ◆ Multi-Mode 24/7 Operation
- ◆ High Situational Awareness
- ◆ Auto-NUC: No Calibration Needed
- ◆ Universal Power Solution

MAIN APPLICATIONS

- ◆ Defence
- ◆ Security
- ◆ Border Patrol
- ◆ Special Forces
- ◆ Surveillance
- ◆ Reconnaissance



Designed, Developed, Manufactured by GENERAL STARLIGHT COMPANY INC.

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DISCLAIMER: Technical description, certain optical-electronic-mechanical features of the product shown herein and/or some of its parts/components may not precisely represent the actual device and are subject to change without prior notice by the sole discretion of General Starlight Company, Inc. Mass of the product represents measurable weight of all components this product consists of, such as optics, mechanics and electronics. Weight of Image Intensifier tubes may vary depending on the type and make of Image Intensifier tube being used and therefore is listed separately. Dimensions of the product represents measurable size of the body, including all optical components attached and in fully folded position. Dimensions of additions such as mounting brackets, eyecups, objective lens covers, and/or battery extensions may vary and therefore are not listed herein. Copyright © 1992-2021 General Starlight Co., Inc. Canada. All rights reserved.



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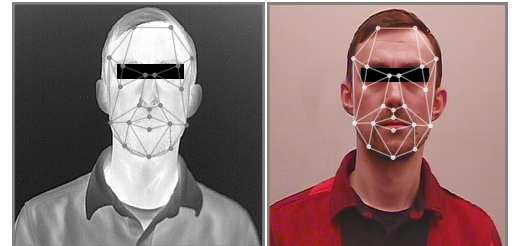
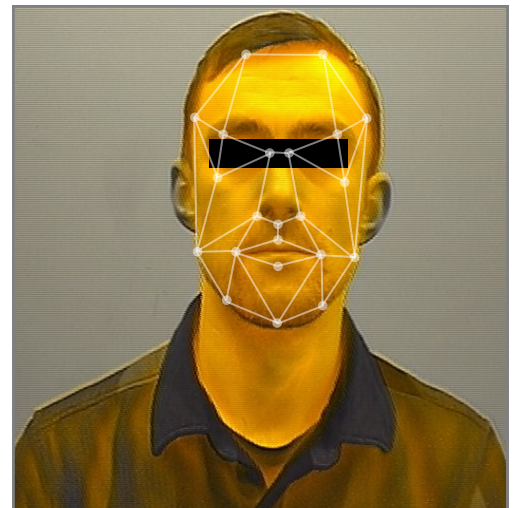
FACE RECOGNITION TECHNOLOGY READY.

The QUADRO lineup is designed utilizing GSCI's patented technology that produces and displays real-time, delay free fusion image that superimposes both spectral ranges covered by its sensors. Besides a number of unique features, this device combines consequential technologies to produce an image allowing for facial recognition in low light or night conditions. The data recorded can be used for enhanced real-time biometrics and post mission forensic analysis for covert nighttime operations. Using this type of technology for recognition at nighttime has revolutionized warfare as it has proven extremely beneficial for informing a soldier that the individual is someone of interest and reducing risk of misidentification.

Fused images can be used in combination with biometric face databases/watch lists that only contain visible face imagery. The fusion technology allows taking advantage of both technologies and combining thermal and visible imagery to jointly preserve the shape of the entire face and appearance of the local identifying details.

Detecting objects that were difficult, or impossible, to see using current state-of-the-art thermal cameras was the main objective behind the design of the QUADRO systems, and all the functions can be done with a simple press of a button.

Additional Features such as Digital Edge Detection and Digital Detail Enhancement make Face Recognition even more effective



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OPTICAL PARAMETERS	Optical Magnification	1X
	Field of View	24.5°x18.5°
	Focusing Range	0.5m .. Infinity
	Eyepiece	Dual
	Eyerelief	Min. 20mm
SYSTEM PARAMETERS: CAPABILITIES AND SPECIAL FEATURES	Digital Passive Stadiametric Rangefinder (SRF)	Yes
	Digital Detail Enhancement Feature (DDE)	Yes
	Digital Edge Detection Feature (DED)	Yes
	Wide Dynamic Range Feature (WDR)	Yes
	Stow Safety Feature (SSF)	Yes
	Integrated 9-Axis Absolute Orientation HUD (Heads-Up Display)	Optional: 3-Axis Sensors - Magnetometer, Accelerometer and Gyroscope
	Integrated Compass	Optional
	Pitch / Roll / Azimuth Indications	Optional
	Power Saving Mode	Yes
	Real-Time Date-Time Stamp	Yes: Simplified, Extended, DTG Formats
	Digital Video Recorder with Real-Time Stamp	Optional: Comes with Removable 32GB microSD Card
	Detection Capability: Man (1.7x0.5m) / NATO Target (2.3x2.3m)	830m / 1130m
	Hand-Held Configuration	Yes
	Tripod-Mountable	Yes
	User Profiles (Configurable)	Yes: 8
	Automatic/Manual Pixel Masking	Yes
	Reset to Factory Defaults	Yes
	External Video Feed Protection	Yes
	Automatic Power Down Control	User-Configurable: 10 .. 60 minutes of inactivity
	THERMAL (LWIR) CHANNEL	FPA Type
FPA Resolution and Pitch		640x480, 17µm
FPA Sensitivity (NETD)		<50mK
FPA Refresh Rate		50Hz
Digital Zoom		1X, 2X, 4X
Imaging Modes		Monochrome (White-Hot / Black-Hot) and 8 Colour Palettes
DAY/NIGHT (VNIR) CHANNEL	Sensor Type	High-Performance CCD
	Sensor Size	1/3"
	Resolution	800x600
	Sensitivity	Up to 0.1 Lux
	Night Boost Mode	Yes
	VNIR Modes	Day/Night

DISPLAY	Internal Display	Full Size: 0.5-Inch Diagonal, Dual-AMOLED, Colour, 800x600
	Internal Display Contrast	>10000:1
IMAGE FUSION	Type	Real-time, Electronic
	Fused Channels	LWIR + VNIR
	Parallax Compensation	Electronic, Adjustable
ELECTRONICS, MECHANICAL, ENVIRONMENTAL FEATURES	Heat Signature Opacity Range	User Adjustable: 0% .. 100%
	Accepted Batteries	4 (Four) AA: Lithium Recommended
	Universal Port	Video-Out, Remote Control and External Power (4VDC .. 15VDC)
	Video Output Signal	CVBS 1Vpp @ 75 Ohm
	Battery Life on 4x AA	Up to 7 Hours
	Environmental Protection	Min. IP67, Nitrogen-Purged Housing
	Dimensions	152x132x59mm
	Weight	650 grams
	Operating Temperature	-40°C .. +50°C
	Storage Temperature	-55°C .. +65°C
Body Material	Hard-Anodized Aluminum	
Warranty	7 Years, Limited	



QUADRO-G is Available for Export Worldwide. *Canadian Export Permit Required. GSCI provides assistance in obtaining the Permit.*



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STANDARD EQUIPMENT: WHAT'S IN THE BOX

1	Fusion Goggles
2	Mounting Bracket (<i>Installed: Bayonet or Adjustable Dovetail</i>)
3	Rubber Eyecups (<i>Installed on the device</i>) + Spares
4	Protective Lens Covers (<i>Installed on the device</i>)
5	USB Power Cable (<i>5-pin to USB</i>)
6	Video-Out Cable (<i>5-pin to RCA</i>)
7	Quick Swap Battery Containers (AA)
8	Neck Cord
9	Soft Carrying Pouch
10	User Manual
11	7-Year Warranty with Activation Form
12	Waterproof Hard Carrying Case
13	Cleaning Kit (3-in-1 Multi-Pen + Cleaning Cloth)

OPTIONAL EQUIPMENT

A	Universal Remote Control Unit TRC-120 (Comes with connection cable)
B	Advanced Low-Profile Flip-Up Helmet Mount HM-714LP-SR-D: Shroud-Ready Mount. Adjustable Dovetail Socket. Comes with Allen Keys Set.
C	Advanced Low-Profile Flip-Up Helmet Mount HM-714LP-SR-P: Shroud-Ready Mount. Adjustable Bayonet Socket. Comes with Allen Keys Set.
D	Non-Flip-Up Head Gear PHG-7 (<i>Bayonet Type only</i>)
E	Advanced Helmet Mount Harness HMH-1
F	Universal Multi-Voltage Battery Pack MVP-240 (Comes with connection cable)
G	Built-In Digital Video Recorder GS-DVR-INT (Comes with 32GB microSD card and SD adapter)
H	External Digital Video Recorder GS-EDVR (Comes with set of cables and 32GB SD card)
I	Portable Head-Mounted Display HMD-800-MOD (streams thermal video directly from the device, comes with connection cable)
J	Integrated 9-Axis Absolute Orientation HUD (Heads-Up Display), 3-Axis Sensors for Compass Reading, Inclinator/Pitch Reading, and Level/Roll Reading
K	Tactical Infrared Illuminator IR-250S. Kit Includes IR-250S Unit (850nm), Remote Control, Picatinny Mount

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