# FUSION MULTI-CHANNEL BUNOCULARS
# QUADRO-B75

The QUADRO-B75 is the augmented vision long-range binoculars for tactical surveillance and observation.

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 rugged, lightweight, made of hard-anodized aluminum for added strength and shock resistance.

## KEY FEATURES

♦ 100% Target Detection Capability
♦ Dual-Eye, Long-Range 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

# GSCI
## ADVANCED PHOTONICS
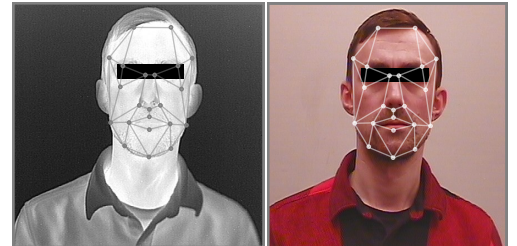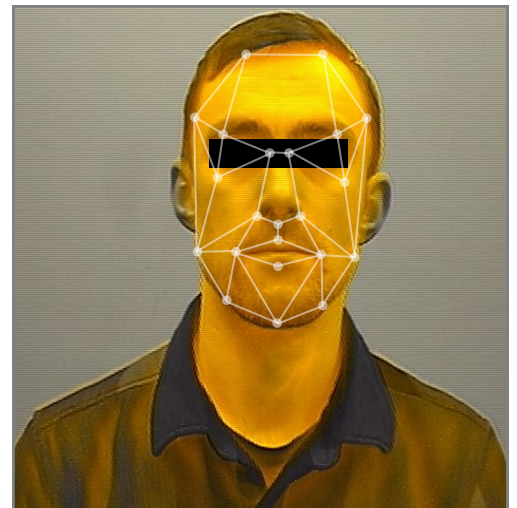
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## FACE RECOGNITION TECHNOLOGY READY.

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*

# GSCI
## ADVANCED PHOTONICS

## FUSION MULTI-CHANNEL BUNOCULARS
# QUADRO-B75

| OPTICAL PARAMETERS | | |
|---|---|---|
| Optical Magnification | 3X |
| Field of View | 8.3°x°x6.2° |
| Focusing Range | 2m .. 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) | 2500m / 3380m |
| 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 | Uncooled, a-Si, Shutterless, Silent, Auto-NUC (Uninterrupted Operation) |
| 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 0.1Lux |
| 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 |
| Heat Signature Opacity Range | User Adjustable: 0% .. 100% |

| ELECTRONICS, MECHANICAL, ENVIRONMENTAL FEATURES | | |
|---|---|---|
| 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 | 187x152x86 mm |
| Weight | 1.1 kg |
| Operating Temperature | -40°C .. +50°C |
| Storage Temperature | -55°C .. +65°C |
| Body Material | Hard-Anodized Aluminum |
| Warranty | 7 Years, Limited |

QUADRO-B75 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 Binoculars |
| 2 | Rubber Eyecups (*Installed on the device*) + Spares |
| 3 | Protective Lens Covers (*Installed on the device*) |
| 4 | USB Power Cable *(5-pin to USB)* |
| 5 | Video-Out Cable *(5-pin to RCA)* |
| 6 | Quick Swap Battery Containers (AA) |
| 7 | Neck Cord |
| 8 | Soft Carrying Pouch |
| 9 | User Manual |
| 10 | 7-Year Warranty with Activation Form |
| 11 | Waterproof Hard Carrying Case |
| 12 | Cleaning Kit (3-in-1 Multi-Pen + Cleaning Cloth) |

## OPTIONAL EQUIPMENT

| | |
|---|---|
| A | Universal Remote Control Unit TRC-120 (Comes with connection cable) |
| B | Advanced Helmet Mount Harness HMH-1 |
| C | Universal Multi-Voltage Battery Pack MVP-240 (Comes with connection cable) |
| D | Built-In Digital Video Recorder GS-DVR-INT (Comes with 32GB microSD card and SD adapter) |
| E | External Digital Video Recorder GS-EDVR (Comes with set of cables and 32GB SD card) |
| F | Portable Head-Mounted Display HMD-800-MOD (streams thermal video directly from the device, comes with connection cable) |
| G | Integrated 9-Axis Absolute Orientation HUD (Heads-Up Display), 3-Axis Sensors for Compass Reading, Inclinometer/Pitch Reading, and Level/Roll Reading |
| H | Tactical Infrared Illuminator IR-250S. Kit Includes IR-250S Unit (850nm), Remote Control, Picatinny Mount |