i-Aware® Tactical (TM-NVG) Fusion

i-Aware® is a family of advanced, multi-purpose night vision products connecting the battlefield user with various applications, as well as command headquarters, to enhance situational awareness. Designed to increase operational effectiveness in both nighttime and daytime missions, i-Aware TM-NVG Fusion provides the commander and user with real-time video access to critical tactical intelligence.

- **Provides** fusion (via optical overlay) of image intensified (I²) and infrared (IR) imagery as well as real-time video inputs
- **Image importing and exporting** capabilities:
  - Enables viewing GPS, mapping, command text message and target information along with thermal video input from weaponsights to "shoot around the corner"
  - Integrates a camera system to capture and export live (I²) video from the user’s viewpoint
- **Enables** covert operation during nighttime operations with light-secure method of viewing key tactical information

**DESCRIPTION**

i-Aware TM-NVG Fusion combines the capabilities of both the Enhanced Night Vision Goggle program and the TM-NVG into a single unified platform. The product offers optical overlay fusion, color imagery display and camera capture export capabilities in a lightweight monocular or binocular configuration with advanced technical features to improve soldier mobility.

**BENEFITS**

i-Aware TM-NVG Fusion is the first night vision goggle to provide fusion (via optical overlay) of I² and IR imagery as well as real-time video export. It provides the following benefits:

- **Greater situational awareness** due to improved threat detection under most battlefield environments
- **Expanded viewing capability** from high-light conditions to total darkness and through battlefield obscurants. Increases capability for urban operations
- **Easy-to-use controls**
- **Used with i-Aware® Connect**, which provides connectivity between the i-Aware family of goggles and data radios such as SpearNet, as well as smartphones. Connect has the video processing capability to support video display on the goggle as well as video export capability for commanders to access the real-time video

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SPECIFICATIONS

**Optical Properties**

- On-Axis Resolution (min) at optimum light level: 1.3 cycles/milliradian
- System Magnification: 1X ± 0.03
- System Distortion: Less than 3%
- Focus Range: 25 cm to infinity
- Diopter Focus: +1 to -2 diopters

**Field-of-View**

- Image Intensified Field-of-View: Greater than 40 degrees
- Thermal Field-of-View (640 x 480 pixels): Greater than or equal to 28 degrees diagonal
- Display Field-of-View: Greater than 33 degrees diagonal

**Data Format**

- Display Format: 800 x 600 pixels, SVGA
- System Brightness Gain: Adjustable from 75 fL/fL to more than 5,000 fL/fL
- LWIR Sensor Resolution: 320 x 240 pixels
- Captured Video Resolution: 640 x 480 pixels up to 10 frames per second
- Video Input Formats: SVGA/VGA, RS-170, CVBS (NTSC or PAL) monochrome
- Video Output Format: USB 2.0 High-speed

**Physical/Operating Properties**

- Exit Pupil and Eye Relief: 14 mm on-axis exit pupil at 25 mm eye relief
- Operating Temperature: -32°C to +40°C full performance, +55°C with some degradation
- Storage Temperature: -40°C to +70°C
- Power Supply (Fusion Only): Battery pack (four 1.5V AA Batteries) greater than 7.5 hours
- Battery Life (Image Intensified Only): Greater than 15 hours with 1 Lithium “AA” battery
- Power Supply: Commercial “AA” battery, external +5V

**System Weight**

Less than 3 lbs (1400 gm) includes primary and secondary monocular, i-Aware Connect without batteries, helmet mount, shroud with strap, and bridge without battery

**Accessories**

- Helmet Mount
- i-Aware® Connect
- Connector Cable

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