

## 6.5" HIGH BRIGHT/NVIS MILITARY MONITOR

General Digital designed a custom version of our Barracuda environmentally-sealed monitor to meet customer-supplied specifications for fit, form and function. The display system is used as a fire control system (digital sight) for a portable rocket grenade launcher in combat situations. Design of this complex solution required General Digital's mechanical, electrical, optical and software engineering expertise and integration skill sets.

- Ruggedized 6.5" LCD, 1024 x 768 resolution
- Proprietary dual mode NVIS and sunlight readable backlights
- Optically bonded EMI filter and LCD heater
- Configurable video, heater, backlight and keypad controllers
- Field programmable controller firmware
- Wide DC input with intelligent self power monitoring
- Fully submersible (IP67) milled aluminum enclosure
- Designed to meet MIL-STD-810, MIL-STD-901 and MIL-STD-461



Mounted 6.5" Barracuda with optional rubber hood

### LCD PANEL/OVERLAYS

- Wide temperature, 24-bit color LCD panel
- 197 PPI and 16.7 million colors provide excellent image sharpness and detail
- DVI input with scaling support up to 1920 x 1080 @ 60 Hz
- Industrial-grade LCD with long product life-cycle and LTB support
- Optically bonded overlay to enhance display contrast, shock resistance, and eliminate potential for condensation between surfaces
- Micromesh EMI filter blocks incoming and outgoing RF radiation to comply with MIL-STD-461 (Army Ground), while allowing more light output as compared to ITO overlays
- ITO heater overlay extends low temperature operational limits and enables full video motion to be displayed at temperatures as low as -40° C

### LED BACKLIGHTS/CONTROLLER

- Proprietary dual mode backlight system produces:
  - High contrast (Weber Class 5) and brightness mode; ideal for display of moving images in direct sunlight
  - MIL-STD-3009-compliant NVIS mode
- Ultra-wide dimming ratio (>1000:1) works well with extreme ends of ambient light conditions
- Linear, logarithmic or custom PWM dimming
- Excellent uniformity and display quality
- Integrated thermal sensor
- Intelligent and programmable backlight controller
  - Max/Min brightness limits for both backlight modes
  - Max/Min PWM dimming levels
  - Max backlight power consumption
  - LED rail over-temperature auto dimming



Optional rubber hood eliminates glare

### POWER

- Mil-spec power supply features wide operating voltage designed for military DC bus or direct battery operation
- Smart power monitoring allows heater and backlights to run simultaneously without exceeding customer-specified power constraints
- +9 VDC to +20 VDC input with 80 V surge suppression and overcurrent protection

## MECHANICAL

- Milled aluminum enclosure is designed to withstand harsh environments while remaining compact and lightweight
- Designed for full submersion to meet IP67 requirements (no ingress at one meter for 30 minutes)
- Semi-permeable membrane vent allows pressure equalization
- Chemical resistant mil-spec CARC paint over black anodized aluminum resists reflection if paint is compromised
- Watertight, EMI-shielded silicone keypad resists bleach wash
- High-speed Glenair "Mighty Mouse" military-grade connector minimizes cable bulk
- 5.75" (H) x 7.35" (W) x 2.91" maximum (D)
- Weighs less than 3 pounds

## MISCELLANEOUS/CUSTOM FEATURES

- "All-in-One" PCB with integrated controllers for LED backlights, heater, keypad, video and power monitoring and management
- Multiple heater modes (programmable) based on power availability and temperature
- Backlight Override mode allows operators to temporarily increase maximum programmable brightness from 900 nits to 1500 nits
- Programming port for boot loading and/or upgrade any controller firmware in the field
- I<sup>2</sup>C bus slave interface

## OPTIONS

- Alternative LCDs
- Standard, high brightness and/or NVIS LED backlights
- VGA and display port support
- Overlays (heaters, filters, touch sensors, vandal shields, etc.)
- Keypads (backlit, NVIS compatible, custom, etc.)
- Military/industrial-grade connectors
- Custom enclosures and electronics
- Custom or specialty firmware

## SYSTEM HARDWARE

