

BATTLE HAWK



Helmet Mounted Display

Data-enabled Personal Role Radio (DEPRR)



Bio Sensor (Under Uniform)



Soldier Interface Unit In Docking Station

Power Management

Weapon System



Look Down



In Hand

BATTLEHAWK INFANTRY SOLDIER GENERATION 2 (BHIS-G2)



The new generation of the BattleHawk Infantry Soldier (BHIS-G2) system provides a flexible, fully-featured solution to the computing and user-interface requirements of the future infantry soldier.

This system addresses issues of weight, load carriage, sensor and radio interfacing, and provides for technology insertion to gain yet further computing performance and power saving gains.

Relative to its predecessor, the BHIS-G2 is less than half of the system weight and uses one fifth of the power. However, it has

Technical specifications — BHIS-G2

Dimensions

User interface module — 91 mm x 155mm x 33mm
Docking station (may vary) — 91 mm x 45mm x 33mm

Weight

User interface module and docking station combined — 810g
(it is anticipated that this will fall to 700g for production equipment).

Power Supply Voltage

Operating power — 5V DC
Main battery — 7.2V DC
Hold up battery — 3.6V DC (alternative solutions available for 12V, 14.4V and 24V if required).

Power Consumption

Mean power consumption — 2.8 Watts (assumes typical system usage over 24 hours, inclusive of DEPRR).

Interfaces

External Video (RGB).
Audio interface microphone and speaker.
Radio #1
Radio #2
External sensor #1 (Serial I/F Rs232/422 configurable).
External sensor #2 (Serial I/F Rs232/422 configurable).
Wireless link (NFC magnetic induction).
Video capture via co-axial input (various video formats).
USB2 (normally located to torso data link).

Graphics

Digital video (drives LCD display).
Analogue video (drives external devices such as HMD) 16 bit VGA.

enhanced features and new functions, as well as integrated navigation sensors, advanced power management and audio alarm and voice logging capabilities.

In collaboration with both battery and radio suppliers, the system takes advantage of improved interfacing to reduce power and manage efficiently the remaining capacity of the batteries.

The system is 'aware' of the soldier's activity and can manage sensor usage and system features appropriately to significantly extend mission time.

Video input

Via a live feed from an external sensor. Can also capture stills.

Display

Transflective TFT (daylight readable) in VGA.

User Interface

Combined tactile hot keys and touchscreen.
Auxiliary keyboard — flexible rubber for easy stowage.

Memory

Reliable solid state memory — 1 Gb as standard 512Mb RAM as standard (partially dedicated to graphics sub-system)

System Management Bus

Supports SM bus data acquisition from both main and hold-up battery (SM Bus V1 .1)

Navigation sensors

GPS — high sensitivity to aid reception in urban canyons.
DMC — two axis device with associated tilt switch, housed in the docking station.

Bio-Sensor

Currently monitors heart rate only, planned additions include body temperature.

Personal Equipment Interface

Near Field Communications wireless link (using magnetic induction) to weapon or other equipment.

Data Transfer Device

Removable, up to 1 Gb, can also act as a system key to prevent unauthorised access. Removal allows casualty reports to be sent, but disables all other functions.

At CHELTON Defence Communications, we have been supplying tactical information and management systems since the 1980's, with dedicated solutions for naval and land forces environments. These solutions have been converging on common hardware and GIS software solutions for a number of years. As a result, we now operate a shared development programme, ensuring that all products are inherently compatible to support amphibious operations. This programme is known as 'Project Hawk'.

