



New Wearable Rugged Computer System for Dismounted Soldiers Allows Transition from Computer Operation to Direct Combat in Seconds

Black Diamond's new commercial-off-the-shelf MTS integrated kit solves size, weight and power challenges

TEMPE, Ariz. (May 17, 2011) – Black Diamond Advanced Technology introduces its Modular Tactical System (MTS), a lightweight, wearable and rugged computer system that is integrated into the user's uniform and equipment, and optimized for dismounted C4ISR (command, control, communications, computers, intelligence, surveillance, reconnaissance). Designed using end-user input and operationally tested in Operation Enduring Freedom, the MTS is available now as a commercial-off-the-shelf (COTS) system.

Instead of forcing a computer into the gear a warfighter already carries—which results in a bulkier load-out and more weight—the MTS takes a modular approach, deconstructing the computer and communications system to fully integrate it into the warfighter's uniform and common equipment, regardless of the mission. Its design allows optimal integration by modifying elements including the armor plate-carrier while maintaining the integrity of critical elements.

In the MTS vest-based configuration, the Tactical Mission Controller (TMC)—a low-profile processing platform, peripheral controller and power manager—is carried on the rear of the plate-carrier. Cables are routed through an interchangeable cummerbund that integrates body armor and is secured to the standard or custom plate-carriers. A flip-down front pocket opens quickly for access to the removable 6.5-inch, sunlight-viewable, night vision goggle (NVG)-compatible Universal Tactical Display (UTD) and maintains a low profile in the stowed position. A Tactical HUB for interfacing with mission-specific peripherals like rangefinders is routed along the cummerbund to provide easy, non-intrusive access to I/O ports. Power is sourced from a wide range of existing military batteries already carried by the soldier.

The MTS allows a warfighter to transition from computer operation to direct combat engagement in seconds with a wearable system that is incorporated into a compact plate carrier system, without compromising any of the certified ballistics protection. A warfighter never needs to stop, put down gear and lose time in a stationary position while powering up or repacking equipment. The MTS can also be employed in bag or vehicle configurations.

"Black Diamond's goal was to approach the wearable computer solution as a complete system, providing true on-the-move performance and situational awareness for a variety of applications," said Justin Dyster, Black Diamond's vice president of engineering. "By offering the MTS as a COTS system, we're eliminating the cost and developmental delay for applications that may be too small for a full-blown development program and are too complex to employ basic soldier system computers."

The MTS provides interoperability with equipment found on the battlefield today and is highly adaptable for specialized missions requiring application-specific equipment, including targeting (JTACs, TACPs and Forward Observers), combat medics, explosive ordnance disposal, combat weather and military intelligence. It can also be used by platoon and company commanders who need a more complex application suite. The MTS can often reduce the equipment load for these missions by eliminating redundant batteries and displays.

KEY FEATURES

Optimized for Dismounted C4ISR

- Full integration with uniform ensemble
- Compatible with 3-day assault pack
- 6.5-inch sunlight-viewable display and/or helmet-mounted display
- Intuitive software interface consolidates C2/SA information on single display
- Operationally proven by elements of Special Operations groups in Operation Enduring Freedom, Afghanistan

Lightweight and Rugged

- Modular system allows for ultra-light load-out and is scalable for multi-mission support and human-machine interfaces
- IP67, completely sealed against dust and water
- Meets MIL-STD-810G and MIL-STD-461F
- Depending on the modular components deployed, system weighs between 1.8 and 3.5 pounds, with the weight distributed at the body's core to maximize mobility

Interoperable with fielded equipment and software

- Power-source agnostic; works with batteries and alternative power systems already carried by the soldier, as well as vehicle power
- Radios (PRC-152, PRC-117, PRC-148, RT-1922, RF-7800S) and peripherals including rangefinders and video down link receivers (MVR-IV, SIR, RF-7800T)
- Common mapping, CAS and C2/SA applications (FBCB2 JCR-V, TACP CASS, BAO Suite, StrikeLink, Falcon View, PSS-SOF)

PC Specifications

- Intel® Atom™ 1.6 GHz processor
- 2 GB RAM
- 128 GB removable SSD
- SD card

Security

- Trusted platform module (TPM)
- Zerorize capabilities
- Tamper Detection
- UTD produces no detectable light beyond 10 meters when used in NVG mode

Black Diamond's MTS is on display May 17-19, at the FIRES Seminar in Lawton, Okla.

More information: www.bdatech.com/docs/specs/MTS-datasheet.pdf

Photos: <http://www.bdatech.com/media/>

About Black Diamond Advanced Technology

Black Diamond Advanced Technology designs, engineers and manufactures fully rugged computers and accessories primarily for military applications. In addition to the MTS, Black Diamond builds the SwitchBack™ ultra-rugged mobile PC and applies its core technology in custom-engineered hardware solutions. www.bdatech.com.

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Media contact: Corrine Heyeck, 480-241-1280, corrine@heyeck.com