BATTLE MANAGEMENT SYSTEM

ASH SYSTEMS

The Tactical Command Hub for Modern Combat Vehicles

The Battle Management System (BMS) is the commander's primary interface and the central tactical hub of the vehicle. It delivers a complete battlefield picture by combining the vehicle's position, friendly and hostile forces, and live inputs from sensors and fire control.

Unlike conventional solutions, the ASH BMS is the true tactical brain of the platform — **enabling a seamless workflow from detection to engagement** through deep integration with sensors, weapons, and subsystems.



KEY FEATURES

- **Situational awareness** — own position, friendly, hostile, and neutral units.
- **Direct integration** with the Fire Control System — radar detections, optics, fire control data.
- **Commander-to-gunner workflow** — assign and confirm targets via touchscreen.
- **Multi-layer maps** — topographic, satellite, and tactical overlays.
- **Vehicle data** — speed, fuel, and system health directly on the display.

We build systems that think fast — and act faster.

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TECHNICAL HIGHLIGHTS

Display: 10.4″ (1024×768, 500 nits) or 11.4″ Full HD (1920×1080, 850 nits), resistive touch, EMI filter, AR glass.

Processing: 21 TOPS AI performance, NVIDIA Volta™ GPU (48 Tensor Cores), 6-core Carmel ARM® CPU.

Integration: Direct data exchange with the TAC (radar detections) and FDU (fire control) via CAN bus.

Customization: Connector layout and housing color configurable per customer requirements.

Environment: –32°C to +60°C, 10–95% RH, 30 g shock.

KEY FUNCTIONALITIES

Situational Awareness

- Combines own vehicle position, **friendly and hostile contacts** from the TAC and FDU on the commander's map.
- **Multi-layer maps** — topographic, satellite, tactical overlays.

Target Management

- Commander **selects a target** on the map and assigns it with one touch.
- Gunner receives it instantly on the FDU — **turret automatically slewed** to engage.

Vehicle & Communications

- Real-time **speed, fuel, and system health** direct from the CAN bus.
- Integrated **radio PTT and radio link** for coordination with other units.

Operational Support

- **Error management** — clear warnings with troubleshooting guidance.
- Result: **faster sensor-to-shooter loop**, reduced crew workload.



TECHNICAL SPECIFICATIONS

Battle Management System

DISPLAY	
Size	10.4″ / 11.4″
Weight	5.2 kg
Resolution	1024×768 / 1920×1080 (Full HD)
Brightness	500 / 850 nits
Touch	5-wire resistive, EMI mesh filter
Glass	AR protection glass

COMMUNICATION	
Ethernet	2× 1000BASE-T ports
Serial	4× configurable RS-422 / 485 / 232

DIGITAL INPUTS/OUTPUTS	
Inputs	4× Vin = 3–55V DC/AC
Outputs (low side)	8×, Vcc = 60V max, 1A/ch
Outputs (high side)	4×, Vcc = 7–55V, 2A/ch

ENVIRONMENT	
Operating temp.	−32°C to +60°C
Storage temp.	−32°C to +70°C
Vibration	1.60 / 1.96 / 2.18 g RMS, XYZ, 5–500 Hz
Humidity	10–95% RH
Shock	30 g, 18 ms



Configurable to your platform

Connector layout and housing color are adaptable per customer requirement. The BMS can be offered standalone or connected to the TAC and FDU — speak with our engineering team to configure it for your vehicle.