TARGET ACQUISITION COMPUTER

ASHSYSTEMS

Extending the Vehicle's Eyes Beyond Optics

The ASH TAC is the radar processing and display computer that connects the vehicle's radar sensor to its operator interfaces — turning radar data into a real-time picture of ground and airborne threats.

Working with the connected radar, it extends the crew's awareness beyond optics — identifying, classifying and tracking multiple threats at once, and handing selected targets to the FDU: **from small drones to missiles and larger airborne threats.**



KEY FEATURES

- **Reliable detection and tracking** of ground and aerial targets.
- Identify, classify and **track multiple threats** simultaneously.
- **Automatic target ID** and real-time tracking.
- **Optimized detection modes** — from small drones to missiles and larger airborne threats.
- **Seamless target handover**, extending the vehicle's "eyes" beyond optics.

We build systems that think fast — and act faster.

info@ash-systems.com | www.ash-systems.com

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.

Communication: Dual 1000BASE-T Ethernet, 4× configurable RS-422/485/232.

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

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

KEY FUNCTIONALITIES

Detection & Tracking

- **Reliable detection and tracking** of ground and aerial targets.
- **Automatic target ID** without operator input.
- **Real-time tracking** as targets move and maneuver.

Classification & Threat Types

- Classifies **multiple simultaneous threats** by type, separately from target ID assignment.
- **Three optimized detection modes**, automatically tuned per threat class.

Integration & Handover

- **COVER function:** transfers radar target data to the FDU and BMS, aligning the electro-optical system with the selected target.
- Detected tracks feed the **BMS tactical picture**.

System Configuration

- **Dual HDMI outputs**, modular and adaptable to different radar and vehicle platforms.
- **Configurable:** connector layout and housing color adaptable per customer requirements.



TECHNICAL SPECIFICATIONS

Target Acquisition Computer

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

VIDEO INPUTS/OUTPUTS	
Digital video	Dual HDMI up to 1080p60 (SMPTE 292M/424M)
Expansion	2× dual-lane MIPI CSI ports (option)
Video codec	ITU-T H.264, ITU-T H.265 — full frame rate, all inputs

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 TAC integrates with the platform's specific radar and sensor equipment — speak with our engineering team to configure it for your vehicle.