

**UxAB™** an SAE JAUS-compliant autonomy system in a single rugged package that supports advanced navigation capabilities.

**UxAB™** allows a systems integrator to add autonomy into their new or existing small and mid-sized ground vehicle platforms. **UxAB™** has integrated fused GPS and IMU sensing for navigation, and comes with a variety of software configurations. For someone looking for a turnkey solution, we offer integrated autonomy capabilities for navigation and manipulator control. For those with legacy software, we can offer a configuration that comes with JAUS integration libraries (source code provided), to upgrade your existing system to IOP or AEODRS compliance. With full access to the on-board computing stack and Linux OS, you are able to also integrate your own software and external sensor interfaces to enhance **UxAB™** capabilities.

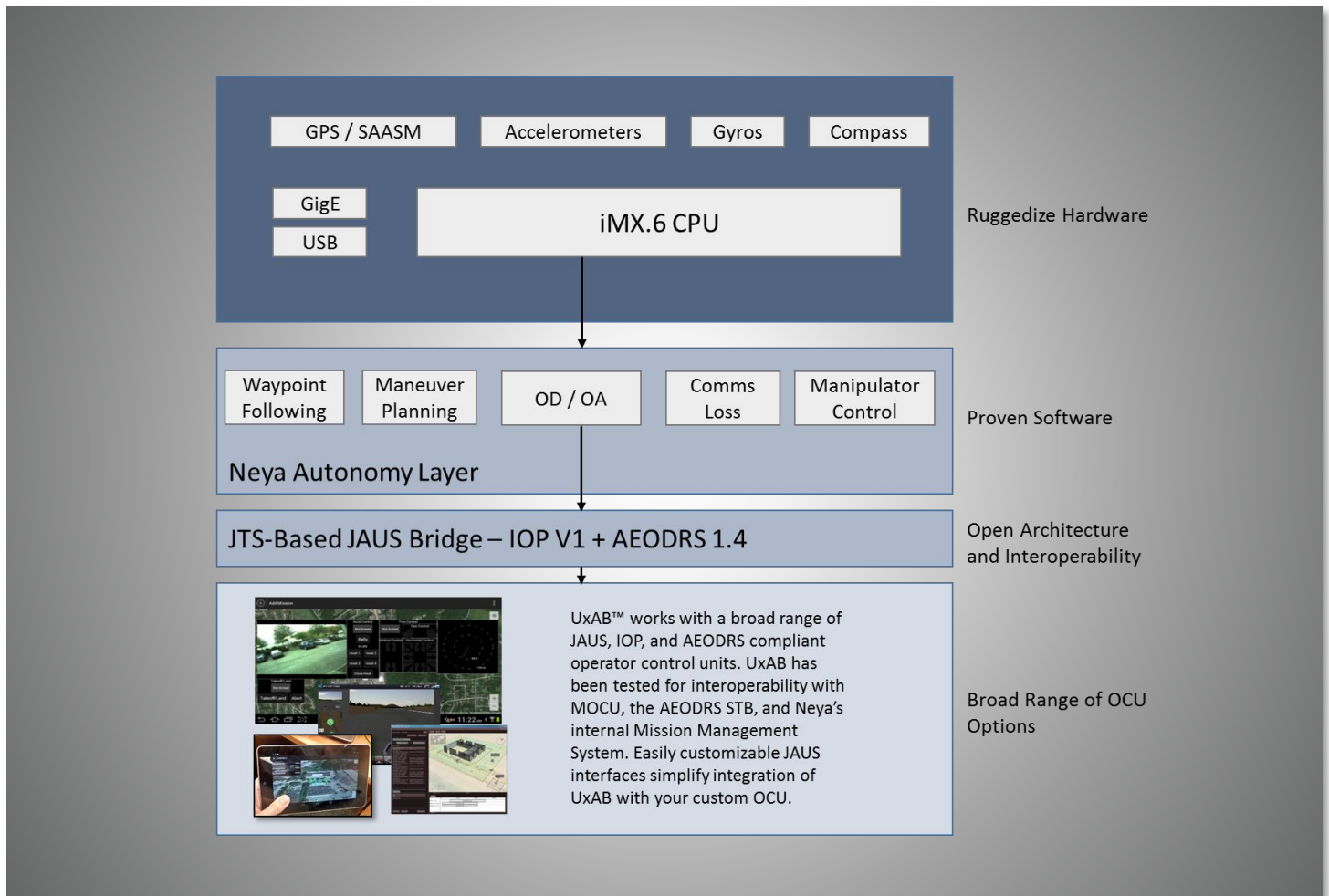
### **UxAB™ Key Features**

- Self-contained, SAE JAUS-compliant autonomy capabilities
- Advanced navigation and comms-loss behaviors
- Optional LIDAR-based OD/OA
- Integrated GPS/IMU, with SAASM option
- Support for dual-manipulator control
- Supports AEODRS and RS-JPO IOP Interfaces
- Less than 9W power consumption
- Designed for easy integration into small unmanned ground vehicles

### **Neya Systems, LLC**

Neya Systems is a leading developer of advanced unmanned systems technologies. Neya works with defense, homeland security, and commercial customers to deliver novel solutions to some of the hardest problems related to autonomy, computer vision, and general unmanned systems development and deployment.

# UxAB™ Architecture & Specifications



## UxAB™ Specifications

<b>Core Capabilities</b>	Platform-independent navigation, OD/OA, manipulator control
<b>Autonomy Options</b>	Neya autonomy, custom integration with JAUS skeleton
<b>Manipulator Control</b>	Open loop, closed loop, "fly-the-end-effector"
<b>Waypoint Performance</b>	Less than 3% distance travelled (depending on platform dynamics)
<b>Dimensions and Weight</b>	145mm x 90mm x 53mm; < 1 lbs.
<b>Power</b>	Less than 9W
<b>Environmental</b>	-20 to 140F operating, IP-67, shock, vibration resistance
<b>Interoperability</b>	JAUS with IOP or AEODRS profiles
<b>CPU</b>	Freescale i.MX6