

## **APPLICATION STORY**

#### United Electronic Industries & Piaggio Aerospace

#### WORKING TOGETHER TO FIND SOLUTIONS

The Piaggio Aerospace P.1HH HammerHead is a state-of-theart Unmanned Aerial System (UAS) designed for Intelligence, Surveillance and Reconnaissance (ISR) missions. The UAS comes equipped with a variety of impressive features that must be remotely monitored and controlled, including a smart fuel system to minimize movement of the aircraft's center of gravity, a triple redundant 28 VDC electrical generator to power all onboard equipment, and a hydraulic dual pressure system for landing gear/ braking. To simplify and manage the complexities of operating this smart UAS, Piaggo needed a rugged and flexible control and monitoring system solution.



#### THE IMMEDIATE CHALLENGES

- Increasingly complex UAS systems facilitated Piaggio's need for a more sophisticated, flexible and reliable I/O system to control and monitor HammerHead operations.
- Hardware must be capable of withstanding **extreme conditions**, including up to 45,000 ft of altitude, up to 395 KTAs (Knots True Airspeed), and an extended flight time of up to 16 hours.

#### UEI'S PATHWAY TO SUCCESS FOR PIAGGIO AEROSPACE

The HammerHead UAS contains 3 **rugged and compact** UEIPAC Cubes running in tandem as the main embedded control system, managing relays between sensors and the flight computer.

<sup>\*</sup> The UEIPACs provide debugging tests, including take-off and landing monitoring and control.

UEI avionics I/O with multiple channels allow for the control of certain flight features as well as monitoring conditions onboard the aircraft during missions.

### **END RESULT** UEI PROVIDED THE HAMMERHEAD WITH A RUGGED, RELIABLE, AND FLEXIBLE UAS CONTROL AND MONITORING SYSTEM SOLUTION.

- [WIN] UEI hardware allowed for simple, rugged and efficient embedded operational solution, perfect for this UAS.
- [WIN] Breadth of I/O, including Avionics, covered all the control and monitoring tasks needed for successful inflight operation.
- [WIN] UEI built-in test capabilities removed the need for additional system complexity and hardware.

# ASK US HOW UEI CAN DO THE SAME FOR YOUR COMPANY!

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