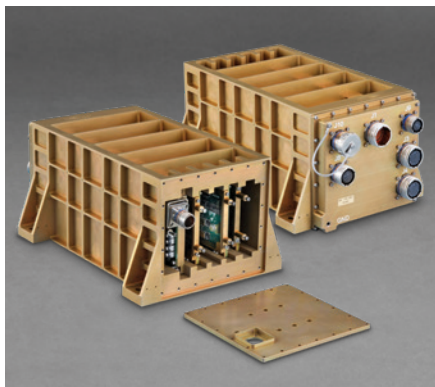


## MODULAR CONTROL ELECTRONICS UNIT



Existing three-card or five-card slot enclosures can be used to accommodate and provide the following controller applications:

- Electromechanical (EM) Actuation
- Electrohydraulic (EH) Actuation
- Electrohydrostatic (EHA) Actuation
- Communication Converter
- Electric Power Subsystem Control
- Hydraulic Power Subsystem Control
- Power Distribution

Based on heritage Moog controllers, the robust architecture of the Control Electronics Unit (CEU) is derived from flight hardware designs with common solutions for multiple applications.

- Battery Management Control
- Main Engine Fluid Control
- Propellant Management System Control
- Roll Control System

The CEU is also extensible to the following with new circuit card assemblies (CCAs):

- Flight Computer
- Data Acquisition Package
- Stage Interface Unit
- Solid Motor Ignition



# MODULAR CONTROL ELECTRONICS UNIT



## LOGIC PROCESSING UNIT CARD

- Large FPGA for logic implementation
- 4 LVDT/RVDT/Resolver Interfaces
- RS-422 Comm. Interface



## FLUID SENSORS AND CONTROLS INTERFACE CARD

- 16 Pressure Sensor Interfaces
- 8 Temperature Sensor Interface
- 2 Solenoid Drivers
- 2 Servovalve Drivers



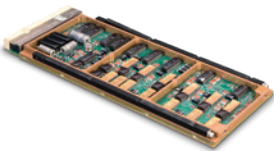
## COMMUNICATION CARD

- 4 RS-422 Comm. Interfaces
- 2 Analog Comm. Interface
- Telemetry Only RS-422
- 3 Cross Channel Data Links
- 1 MIL-STD-1553B Redundant Comm. Interface
- 16 Generic Digital Inputs
- 8 Generic Digital Outputs
- EEPROM for servo-gain storage and other uses



## LOW VOLTAGE POWER SUPPLY

- Filtered 28V Out
- Array of Low Level Voltages to Support other CCAs
- Isolated Voltages as needed to support grounding needs



## POWER STAGE INTERFACE CARD

- 2 Channels of 3-phase motor bridge gate drivers
- 2 Channels of 3-phase motor current sense interface
- Bus voltage and current sense interface
- Power Stage Built-in-Test Interface



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