

Modular Control Electronics Unit

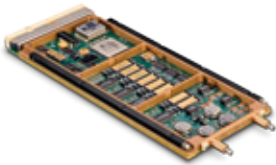
Based on heritage Moog controllers, the robust architecture of the Control Electronics Unit (CEU) is derived from flight hardware designs with common solutions for multiple applications. Existing three-card or five-card slot enclosures can be used to accommodate and provide the following controller applications:

- Electromechanical (EM) Actuation
- Electrohydraulic (EH) Actuation
- Electrohydrostatic (EHA) Actuation
- Communication Converter
- Electric Power Subsystem Control
- Hydraulic Power Subsystem Control
- Power Distribution
- Battery Management Control
- Main Engine Fluid Control
- Propellant Management System Control
- Roll Control System Control

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

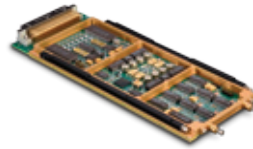
- Flight Computer
- Data Acquisition Package
- Stage Interface Unit
- Solid Motor Ignition and Staging Control

Modular Control Electronics Unit



Logic Processing Unit Card

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



Fluid Sensors and Controls Interface Card

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



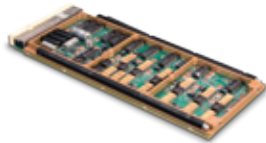
Communication Card

- 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 Channel of 3-phase motor current sense interface
- Bus voltage and current sense interface
- Power Stage Built-in-Test Interface



All Modular Control Electronics Units are compatible with the Moog Modular Linear Electromechanical Actuators and Remote Power Stage packages.

MOOG
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