

# C&DH

COMMAND AND  
DATA-HANDLING



Our C&DH products include Remote Interface Units (RIU) for MIL-STD remote spacecraft command and telemetry, Transmission Data Formatters which allow for common use of a single communication system supporting key missions like SDA, and Command & Telemetry Units (CTU) which provide command validation, execution, and telemetry collection for complex missions.

## \_Remote Interface Unit (RIU)

AV's Remote Interface Unit (RIU) is a key component in distributed spacecraft data systems. The RIU is a MIL-STD-1553 controlled remote command and telemetry system.

- > Command Decoding and Distribution (Serial and Discrete)
- > Telemetry and Status Acquisition (Serial, Discrete, and Analog)
- > Thermal Control
- > Attitude Determination and Control
- > Power Distribution and Control

## \_Mission Control Processor (MCP)

AV's Spacecraft Control Processor (SCP) contains all the features for complete control of the spacecraft, including attitude control, thermal control, power control, and data management.

- > Grade-1 Parts Program
- > Certified 15-year Mission Life
- > Redundant and Fault Tolerant
- > MIL-STD-1553 Data Bus Master (Optional Space Wire Interface)
- > Radiation Hardened
- > Precision Mission Clock
- > ADCS Interfaces

## \_Command and Telemetry Unit (CTU)

The Command and Telemetry Control Unit (CTU) provides command validation, execution, and telemetry collection for complex missions. The CTU is customizable to our customer's needs and requirements

- > Grade-1 Parts Program
- > Certified 15-year Mission Life
- > Redundant Fault Tolerant Design
- > High I/O Quantity Configuration
- > Status Telemetry Acquisition and Formatting
- > MIL-STD-1553 Data Bus Controller (Optional Space Wire Interface)
- > Radiation Hardened and Data Storage

## \_Transmission Data Formatter

Our Transmission Data Formatter is a subsystem that encodes and interleaves multiple data streams, allowing common use of a single communication system. Key mission areas include: Space Domain Awareness (SDA), multi-sensor weather missions, and data collection.

- > Grade-1 Parts Program
- > LEO, MEO, GEO Application Areas
- > Internally Redundant and Fault Tolerant
- > Deployed On-orbit (SBSS)

