

NanoSat / MicroSat general purpose motor or valve driver card to support a wide range of applications (e.g. reaction wheels, propulsion systems, control moment gyros). The CORTEX 110 interfaces through a PCI-104 backplane with the other cards in the avionics stack. Card conforms to CubeSat form factor and can be used as standalone avionics element or installed in a CORTEX frame for use in a CORTEX avionics suite. CORTEX frames support integrated, modular avionics architectures to allow for flexibility in assembly stacks.

Features:

- CPLD
- Twelve discrete actuation valve driver circuits, or four brushless DC motor driver circuits (supports either two CMGs or four Reaction Wheels)
- Twelve discrete inputs (0/5V)
- Three D/A Converters (0-3.3V)
- Six A/D Converters (0-3.3 V)

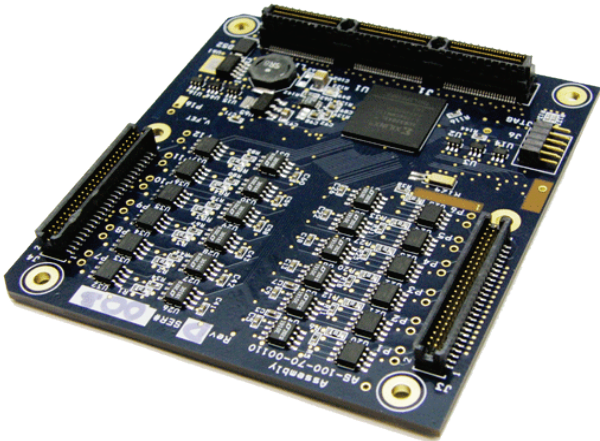
Deliverables:

- Deliverable units come with an aluminum CORTEX frame and flex harness interfacing the card to external MDM connectors
- Deliverable units undergo card level functional testing per Andrews Space test procedures
- Flight Units undergo workmanship Acceptance Testing
 - Random Vibration
 - Thermal Cycling
 - Burn-In
- Documentation
 - Interface Control Document
 - Board Support Package
 - Acceptance Test Report (Flight Units only)



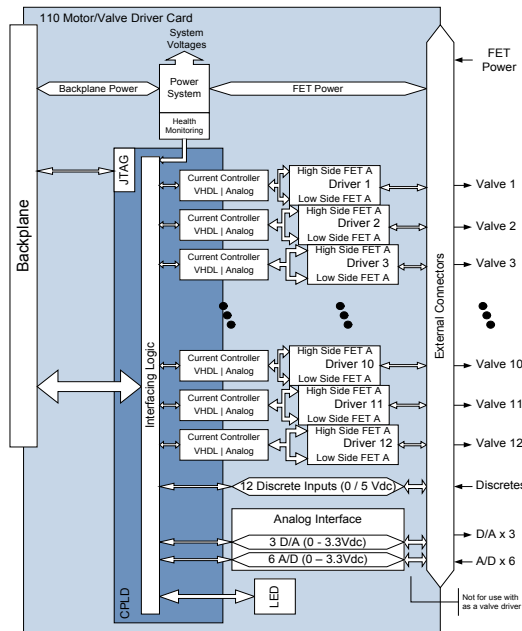
Nominal Specifications	
CORTEX 120 Card Mass	68 g
CORTEX 120 Assembly Mass	275 g
Power Consumption	1.29 W
Design Life	3 years on-orbit
Operating Temperature	-20 to 60°C
Qual. Vibration & Shock	17.9 g _{RMS}
Qual. Shock	>1800 g, peak
Qual. Thermal Vacuum	-40 to 70 °C (2 cycles, survival) -35 to 70 °C (8 cycles, operational)
Acceptance Vibration	12.66 g _{RMS}
Acceptance Thermal Cycle	-40 to 70 °C (1 cycle, survival) -25 to 60 °C (7 cycles, operational)
Radiation	15krad TID, 37 MeV SEE
External Interfaces	100-Position & 31-Position MDM

Nominal specifications reflect general product features and are subject to change.

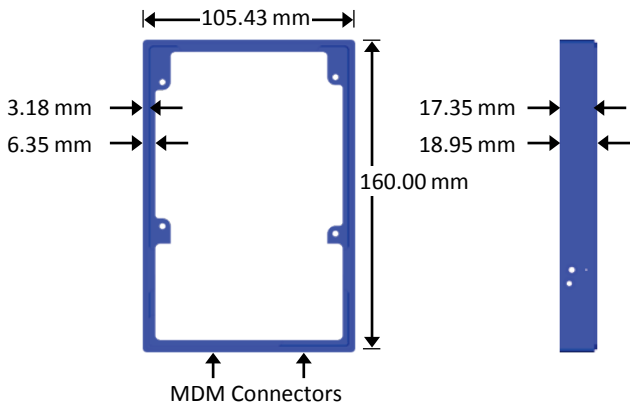


Price: \$20,000 (Flight Unit)
\$15,000 (EDU)

3D CAD models are available for download @ andrews-space.com/cortex-avionics



CORTEX Frame Dimensions



Andrews Space products are built to AS9100C aerospace quality standards using J-STD-001ES for electronics assemblies.

