

NanoSat / MicroSat flight computer and payload controller. Significant processing power can support both a small satellite bus and payload simultaneously. The CORTEX 160 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:

- Xilinx Virtex 4FX
- Dual embedded PPC405 (400MHz) processors with Linux RTOS
- 64MB SDRAM
- 16GB Compact Flash Non-Volatile Flash Memory
- Forty-four GPIO
- Five RS-422 interfaces
- Three RS-485 interfaces
- Two SPI interfaces
- Two I2C interfaces
- Ethernet

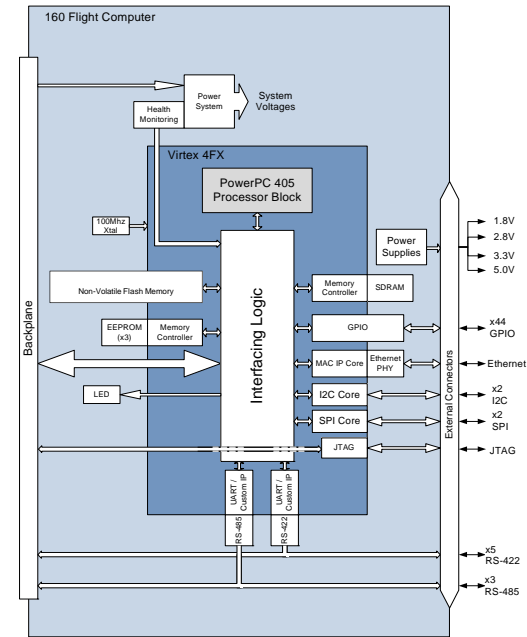
Deliverables:

- Deliverable units come installed in an aluminum CORTEX frame with flex harness interfacing the card to external MDM connectors
- Deliverable units undergo card level functional testing per Andrews Space test procedures
- Flight Units undergo Environmental Acceptance Testing
 - Random Vibration
 - Thermal Cycling
- Documentation
 - Interface Control Document / Interface Description Document
 - Board Support Package
 - Certificate of Conformance

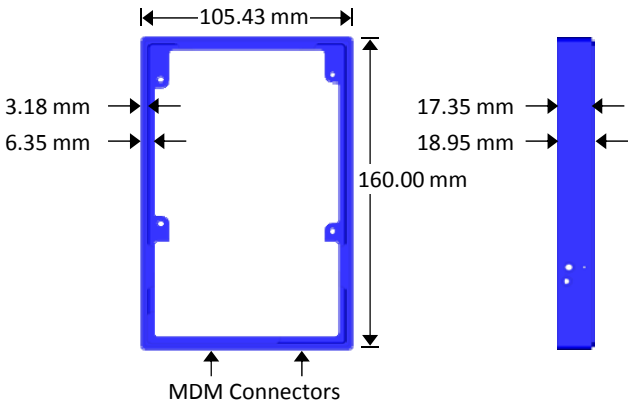


Price: \$77,500 (Flight Unit)
\$47,500 (EDU)

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



CORTEX Frame Dimensions



Nominal Specifications	
CORTEX 160 Card Mass	94 g
CORTEX 160 Assembly Mass	356 g
Power Consumption	5.88 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.

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

