AAC CLYDE SPACE

HIGH PRECISION
HIGH PERFORMANCE

The CP400.85 processing platform is a high computing power, low energy consumption, general purpose processing platform. The Linux-based operating system allows users to run various algorithms as distinct, uploadable applications, enabling almost limitless flexibility. These can be run parallel to each other, in which case the OS takes care of the scheduling. Depending on the carrier board (supplied separately), the module can be used as a powerful payload processor, or as a general purpose on-board computer.

KEY HIGHLIGHTS:

- Ram: 512 MB
- Storage: 512 MB of flash memory
- Plug-and-play design
- Primary components radiation tolerant to over 25 krad (Si) (TBC)
- Low mass: 7 g
- Low power: < 1000 mW peak
- Module dimensions: 20 x 50 x 10 mm
- Processor: ARMv7-A

STORAGE

Using the optional storage module of the same 2x5 cm footprint, users can store up to 7.5 Gb of data in reliable, radiation tolerant storage, and can optionally store over 64 GB of bulk data on two SD-cards.

PERFORMANCE

The platform consists of modified COTS components to withstand up to 25 krad of radiation. The fast boot time ensure maximum system up time for computing tasks. Its small form factor allows integration in the iADCS400, allowing for saving space when it is of the essence.

HERITAGE

The CP400 has been flying in LEO since 2018 on CubeSat missions and is at TRL 9.

TECHNICAL SPECIFICATIONS

Performance		
Processing power	~750	DMIPS
Clock frequency	500	MHz
Main memory	512	MB
Main storage	512	MB

Dimensions		
Outer dimensions	50 x 20 x 10	mm
Mass	7	g

Enviromental		
Operating temperature	-45 to + 85	°C

Electrical specifications	Min.	Typ.	Max.	
Supply voltage	3.1	3.3	5	V

Power consumption		
Idle	<TBD>	mW
Nominal[1]	550	mW

1 When running a Fibonacci algorithm

2 Theoretical limit

To make an enquiry, request a quotation or learn about AAC Clyde Space's other products and services, please contact:
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