CP400.85

Processing platform
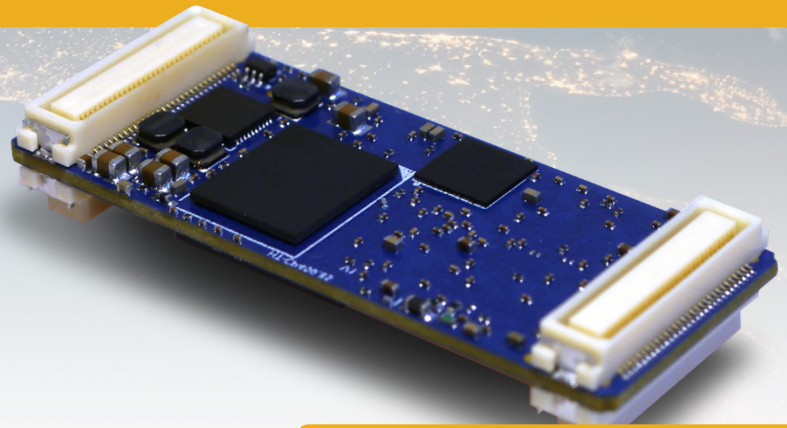
The CP400.85 processing platform is a high computing power, low energy consumption, general purpose processing platform.

Flight heritage since 2016

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.

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.

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.

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.

HIGHLIGHTS

- Processor: ARMv7-A
- Clock frequency: 500 MHz
- Ram: 512 MB
- Storage: 512 MB of flash memory
- Linux-based operating system, with additions for improved radiation tolerance. Other operating systems on request.
- Plug-and-play design
- Primary components radiation tolerant to over 25 krad (Si) (TBC)
- Optional: Companion board with up to 7.5 Gb of radiation tolerant storage and over 64 GB of bulk data storage
- Low mass: 7 g
- Low power: < 1000 mW peak
- Module dimensions: 20 x 50 x 10 mm

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

Environmental		
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
Peak[2]	1000	mW

[1] When running a Fibonacci algorithm
[2] Theoretical limit

MECHANICAL CHARACTERISTICS (IN MM)
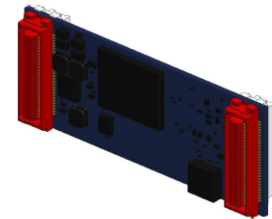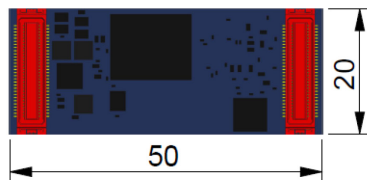
For pricing, delivery, configuration and ordering information please contact us at **sales@hyperion.space** or call us at **+31(0)15-5160905**

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