

cPI - Single Board Computer



Type	SOC with embedded Flash/Ram/MPU
Market Price	< \$80
RAM	512M (DDR3/DDR4)
Flash	8G
MPU	64 bits RISC-V 1.0 GHz single core
Ethernet	2 x 100 M
Connectivity	2 x USB, 1 x MicroSD
OS Support	BSD/Linux/FreeRTOS
Power supply	7-30Vdc
Consumption	3 to 5W
GPIO	20
Analog inputs	2
Serial ports	I2C, SPI

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Applications

Local NAS / Web Server	<picture>
Router/Firewall/NAT box	<picture>
PulseView Logic Analyser	<picture>
3D Printers mother board	<picture>
CNC Machine mother board	<picture>
Etc ...	<picture>

Potential inclusions (may be options on the board) :

PIC32 Co-Processor SOC for real time works aside from main proc

- Programmable ia the main proc, running 200 MHz
- 128k Flash / 16k DRam
- 64 pins 49 GPIO 22 ADC channels
- Estimated BOM Cost about +2 to +3 USD
- Adds controls such as Motor real time control for printer, cnc, or analog inputs for instrumentation

Versions

V1.0 4/5/25 JFS Initial

V1.1 4/5/25 JFS Co-Processor option