

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KONTRON

Kontron CP306 Pentium M Rugged CPU Controller Board

Kontron CP306 3U CompactPCI PentiumMCPU Board The Kontron CP306 is a 3U CompactPCI system-master CPU with Intel Pentium M 745 up to 1.8 GHz (2 MB L2), performance class of a 2.6-2.8 GHz Pentium 4 at much lower power. Chipset Intel 855GME and ICH4. Up to 1 GB soldered DDR-SDRAM/ECC at 333 MHz. Graphics 855GME, 2048 × 1536 × 8 bit / 60 Hz, max 64 MB shared. Ethernet 1× 1000Base-Tx and 1× 100Base-Tx. 4x USB 2.0. 4HP: 2x Ethernet, CRT, 2x USB 2.0, LEDs; COM1/2 as rear I/O. 8HP adds COM3/4 RS232/422/485 front, PS/2, reset, HDD carrier, FDD, LPT, second IDE. Power 22 W at 1.8 GHz, 13 W at 1.4 GHz. E2 minus 40 C to +85 C with dedicated CPU SKUs. Rear-I/O versions put all 4HP interfaces at the back. The Kontron CP306 is a 3U CompactPCI system-master CPU with Intel Pentium M 745 up to 1.8 GHz (2 MB L2), performance class of a 2.6-2.8 GHz Pentium 4 at much lower power. Chipset Intel 855GME and ICH4. Up to 1 GB soldered DDR-SDRAM/ECC at 333 MHz. Graphics 855GME, 2048 × 1536 × 8 bit / 60 Hz, max 64 MB shared. Ethernet 1× 1000Base-Tx and 1× 100Base-Tx. 4x USB 2.0. 4HP: 2x Ethernet, CRT, 2x USB 2.0, LEDs; COM1/2 as rear I/O. 8HP adds COM3/4 RS232/422/485 front, PS/2, reset, HDD carrier, FDD, LPT, second IDE. Power 22 W at 1.8 GHz, 13 W at 1.4 GHz. E2 minus 40 C to +85 C with dedicated CPU SKUs. Rear-I/O versions put all 4HP interfaces at the back. Form Factor: 3U CompactPCI 4HP (8HP I/O ver



MODEL

Kontron CP306

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

CP306

LISTING

<https://aumictechlabs.com/products/cp306-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Kontron CP306 is a 3U CompactPCI CPU board built around the Intel Pentium M processor, engineered for rugged applications demanding efficient performance within constrained power and thermal budgets. The Pentium M delivers performance equivalent to Pentium 4 processors at 2.6–2.8 GHz while consuming substantially less power, making it ideal for mobile and field-deployed systems. The board ships in 4HP and 8HP form factors, with the 8HP variant offering expanded legacy connectivity and onboard storage options.

Technical Specifications

Processor Intel Pentium M processor with clock speeds up to 1.8 GHz (1.1 GHz, 1.4 GHz LV, 1.6 GHz, and 1.8 GHz variants) 2 MB L2 cache (Pentium M 745) or 1 MB on select 1.6 GHz variants 400 MHz processor system bus Intel SpeedStep dynamic voltage and frequency scaling

Memory DDR SDRAM with ECC, 333 MHz Up to 1 GB capacity (soldered configuration); alternate specs cite maximum 512 MB Soldered design enhances shock and vibration resistance

Chipset & Graphics Intel 82855GME GMCH with integrated graphics controller Display resolution up to 2048 × 1536 × 8-bit at 60 Hz 64 MB maximum dynamic video memory allocation Supports 2D, 3D, video, display rotation (90°, 180°, 270°), DirectX and OpenGL compliance Intel 82801DB ICH4 I/O Controller Hub

Storage CompactFlash socket (Type II) supporting Flash or Microdrive HDD 2.5" HDD mounting on 8HP versions Primary IDE ATA/100 (CompactFlash at ATA/33); secondary IDE ATA/100 with 40-pin connector (8HP) 1 MB firmware hub for BIOS; 8 KB EEPROM for CMOS (non-battery-backed)

Connectivity 1× Gigabit Ethernet (1000Base-Tx) 1× Fast Ethernet (100Base-Tx) 4× USB 2.0 channels (480 Mbit/s maximum) Serial: COM1/2 RS232 (4HP rear I/O); COM3/4 RS232/422/485 (8HP front I/O); TTL-level UART with two RS232 ports (rear I/O) VGA/CRT output via 82855GME graphics controller PS/2 keyboard/mouse legacy I/O (8HP)

Key Features Low thermal output paired with Pentium M performance efficiency Soldered processor and memory for enhanced environmental robustness Dual Ethernet interfaces with Gigabit backbone Multiple serial protocols (RS232/422/485) for legacy and industrial integration Front and rear I/O distribution across both form factors

Typical Applications Mobile computing, embedded systems, field instrumentation, rugged military and aerospace platforms, thermal-constrained environments, extended-temperature operation (1.4 GHz LV variant available).

Compatibility & Integration 3U CompactPCI mechanical envelope. Intel processor and chipset ecosystem. DirectX and OpenGL graphics. ATA IDE mass storage. Standard USB and Ethernet integration.

CP306 Characteristics / Specifications

PARAMETER	VALUE
Model	CP306
Manufacturer	Kontron
Instrument Type	3U CompactPCI CPU board
Series	CP306
Alias	CP 306
Form Factor	3U CompactPCI 4HP (8HP I/O version)
CPU	Intel Pentium M 745 up to 1.8 GHz
L2 Cache	2 MB
Chipset	Intel 855GME and ICH4
DRAM	up to 1 GB soldered DDR SDRAM ECC
DRAM Speed	333 MHz
Graphics	855GME internal
Graphics Resolution	2048 × 1536 × 8 bit at 60 Hz
Graphics Shared Memory	max 64 MB
Ethernet	1× 1000Base-Tx, 1× 100Base-Tx
USB	4x USB 2.0
Front IO 4HP	2x Ethernet, CRT, 2x USB 2.0, LEDs
Rear COM 4HP	COM1/2 rear I/O
Front IO 8HP	COM3/4 RS232/422/485, PS/2, reset, HDD carrier
Power 1.8 GHz	22 W
Power 1.4 GHz	13 W
E2 Temperature	minus 40 C to +85 C dedicated CPU
Role	3U cPCI system master
Status	legacy
Compared P	1.8 GHz PM class equals 2.6 to 2.8 GHz P4 compute

PARAMETER	VALUE
Rear IO Version	all 4HP interfaces from rear
HDD	8HP carrier
Not CP60	CP6000 is 6U PICMG 2.16
Not CP3	CP308 is Core 2 Duo GS45 Notes Specs from Kontron CP306 product page. Confirm 1.4 versus 1.8 GHz, 4HP versus 8HP, E2 temperature, and soldered RAM size.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance class of a 2.6-2.8 GHz Pentium 4 at much lower power. Chipset Intel 855GME and ICH4. Up to 1 GB soldered DDR-SDRAM/ECC at 333 MHz. Graphics 855GME, 2048 x 1536 x 8 bit / 60 Hz, max 64 MB shared. Ethernet 1x 1000Base-Tx and 1x 100Base-Tx. 4x USB 2.0. 4HP: 2x Ethernet, CRT, 2x USB 2.0, LEDs; COM1/2 as rear I/O. 8HP adds COM3/4 RS232/422/485 front, PS/2, reset, HDD carrier, FDD, LPT, second IDE. Power 22 W at 1.8 GHz, 13 W at 1.4 GHz. E2 minus 40 C to +85 C with dedicated CPU SKUs. Rear-I/O versions put all 4HP interfaces at the back.

Applications

Low-power 3U cPCI system master

Tight thermal budgets

Extended-temperature E2

Single-slot 4HP PC-class compute

Key Features

Pentium M 1.8 GHz 2 MB L2, 4HP

1 GB soldered DDR ECC 333 MHz

GbE plus Fast Ethernet

E2 minus 40 C to +85 C option

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	CP306
Manufacturer	Kontron
Instrument Type	3U CompactPCI CPU board

Specifications

PARAMETER	VALUE
Series	CP306
Alias	CP 306
Form Factor	3U CompactPCI 4HP (8HP I/O version)

Specifications

PARAMETER	VALUE
CPU	Intel Pentium M 745 up to 1.8 GHz
L2 Cache	2 MB
Chipset	Intel 855GME and ICH4

Specifications

PARAMETER	VALUE
DRAM	up to 1 GB soldered DDR SDRAM ECC
DRAM Speed	333 MHz
Graphics	855GME internal

Specifications

PARAMETER	VALUE
Graphics Resolution	2048 x 1536 x 8 bit at 60 Hz
Graphics Shared Memory	max 64 MB
Ethernet	1x 1000Base-Tx, 1x 100Base-Tx

Specifications

PARAMETER	VALUE
USB	4x USB 2.0
Front IO 4HP	2x Ethernet, CRT, 2x USB 2.0, LEDs
Rear COM 4HP	COM1/2 rear I/O

Specifications

PARAMETER	VALUE
Front IO 8HP	COM3/4 RS232/422/485, PS/2, reset, HDD carrier
Power 1.8 GHz	22 W
Power 1.4 GHz	13 W

Specifications

PARAMETER	VALUE
E2 Temperature	minus 40 C to +85 C dedicated CPU
Role	3U cPCI system master
Status	legacy

Specifications

PARAMETER	VALUE
Compared P4	1.8 GHz PM class equals 2.6 to 2.8 GHz P4 compute
Rear IO Version	all 4HP interfaces from rear
HDD	8HP carrier

Not CP6000: CP6000 is 6U PICMG 2.16

Not CP308: CP308 is Core 2 Duo GS45

Notes

Specs from Kontron CP306 product page. Confirm 1.4 versus 1.8 GHz, 4HP versus 8HP, E2 temperature, and soldered RAM size.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.