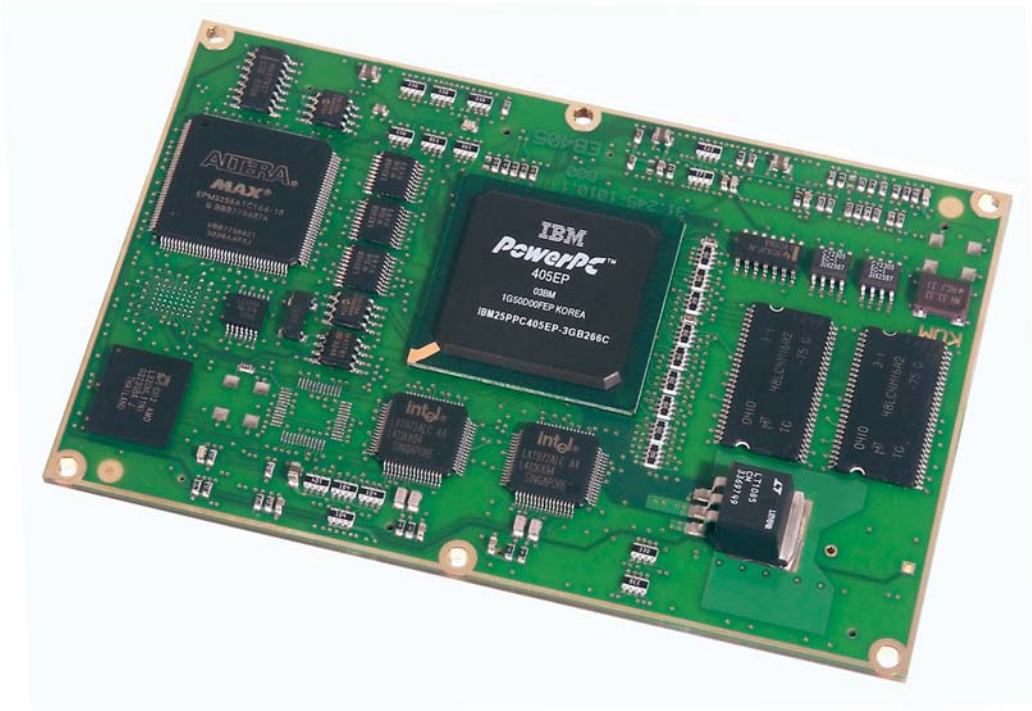


# ➤ **EB405** **405EP PowerPC**



***E<sup>2</sup>BRAIN*** *the intelligent module*

## ➤ **Optimized Balance**

The EB405, built around the AMCC 405EP delivers an optimized balance of performance, low power and features.

## ➤ **Rich Mix Of Features**

Cost optimized to the max, but still a complete E<sup>2</sup>Brain Computer-On-Module, the EB405 provides a comprehensive set of features including Dual Fast Ethernet.

## ➤ **Open Standard**

Take advantage of the open E<sup>2</sup>Brain standard assuring compatibility, upgradability and easy deployment.

## Product Overview

The EB405 is designed to provide a flexible, fast time-to-market solution to satisfy the demands of cost sensitive embedded applications.

### Optimized Balance

Built around the AMCC 405EP PowerPC, the EB405 is a perfect solution for embedded computing appliances with constraints on power consumption and cooling, but still requiring an optimized balance of performance and features.

### Rich Mix Of Features

As a complete E<sup>2</sup>Brain Computer-On-Module, the EB405 provides a comprehensive set of features including PCI, LPC, I<sup>2</sup>C, Dual Fast Ethernet, serial interfaces, RTC, watchdog and GPIO pins, fulfilling the needs of all kinds of embedded computing devices.

### Open Standard

The E<sup>2</sup>Brain Computer-On-Module family based on an open standard offers a bunch of advantages like scalability and upgradability, paving the way for shorter time-to-market for all kind of embedded computing appliances.

Processor	Integrated PowerPC microprocessor AMCC 405EP @ 266 MHz 404 Dhrystone (2.1) MIPS at 266 MHz
Memory	16/64 MB SDRAM (133MHz); (up to 256 MB SDRAM possible) 4/8 MB soldered Flash; (up to 32 MB possible) 64 kBit EEPROM for user settings
Additional onboard devices	Real time clock with backup by auxiliary power supply, watchdog
System interface	PCI Master/Agent interface, 32 Bit address/data, 33/66 MHz, LPC (Low Pin Count) interface (no DMA) for I/O extensions, I <sup>2</sup> C, JTAG/BDM interface, 2 Terminal ports (Rx/Tx only), Utility port (LEDs, Reset, Abort), CompactFlash (IDE) interface
I/O interface	Dual Fast Ethernet Interface 10/100Base-Tx with autosensing and onboard PHY 2/4 high-speed serial ports (16550 compatible) 15 general purpose I/O (GPIO) pins
Software support	Operating system independent boot loader with network support VxWorks board support package Linux board support packages
Power consumption	typ. 4W at 3,3V (266 MHz, 4 MB Flash, 16 MB DDR-SDRAM)
Common	Mechanical Conformance: E <sup>2</sup> Brain Module Specification Rev. 0.2 Dimension: 115 mm x 75 mm (E <sup>2</sup> Brain card size) Temperature Ranges: 0 °C to +70 °C (standard) -40 °C to +85 °C (extended) Operation Humidity Range: 93% RH at 40 °C, non-condensing (acc. to IEC 60068-2-78) Weight: 47 g MTBF: 337,975h (acc. MIL-HDBK-217F)

## Ordering Information

Product	Description	Order No.
EB405	E <sup>2</sup> Brain PowerPC module with AMCC 405EP @ 266MHz, 16MB SDRAM, 4MB Flash, Dual Ethernet, 2 serial ports	28163
EB405	E <sup>2</sup> Brain PowerPC module with AMCC 405EP @ 266MHz, 64MB SDRAM, 8MB Flash, Dual Ethernet, 4 serial ports	28164
EB405-E2	E <sup>2</sup> Brain PowerPC module with AMCC 405EP @ 266MHz, 16MB SDRAM, 4MB Flash, 2 serial ports, ext. temperature range	28391
KIT-EB405	EB405 documentation on CD-R <sup>1</sup>	28392
VXW-BSP-EB405	VxWorks Board Support Package for WindRiver Workbench	28393
LIN-BSP-EB405	Linux Board Support Package, distribution independent package with cross toolchain and root file system	29394
EB405-EVALKIT	Evaluation kit for EB405, contains EB405 (64MB SDRAM, 8MB Flash), evaluation carrier board, power supply, cabling, pre-installed Linux BSP, CD-ROM with documentation and Linux software	28395

1) KIT-EB405 downloadable from the Internet free of charge

## Corporate Offices

### US/ Canada

14118 Stowe Drive  
Poway, CA 92064-7147  
Tel.: +1 (0)888-294-4558  
Fax: +1 (0)858-677-0898

sales@us.kontron.com

### Europe, Middle East and Africa

Oskar-von-Miller-Straße 1  
85386 Eching/Munich Germany  
Tel.: +49 (0)8165-770  
Fax: +49 (0)8165-77219

sales@kontron.com

### Asia Pacific

2F. No.2, Lane 50, Nankang Road,  
Sec. 3, Nankang District  
Taipei, Taiwan  
Tel.: +886-2-2782 0201  
Fax: +886-2-2782 7486

sales@kontron.com.tw

### Kontron Modular Computers GmbH

Sudetenstr. 7  
D-87600 Kaufbeuren  
Tel.: +49 (0) 8341 803 0  
Fax: +49 (0) 8341 803 499

sales@kontron.com

Our worldwide sales representatives and partners can be found on our websites: <http://www.kontron.com>, <http://www.kontron-emea.com>