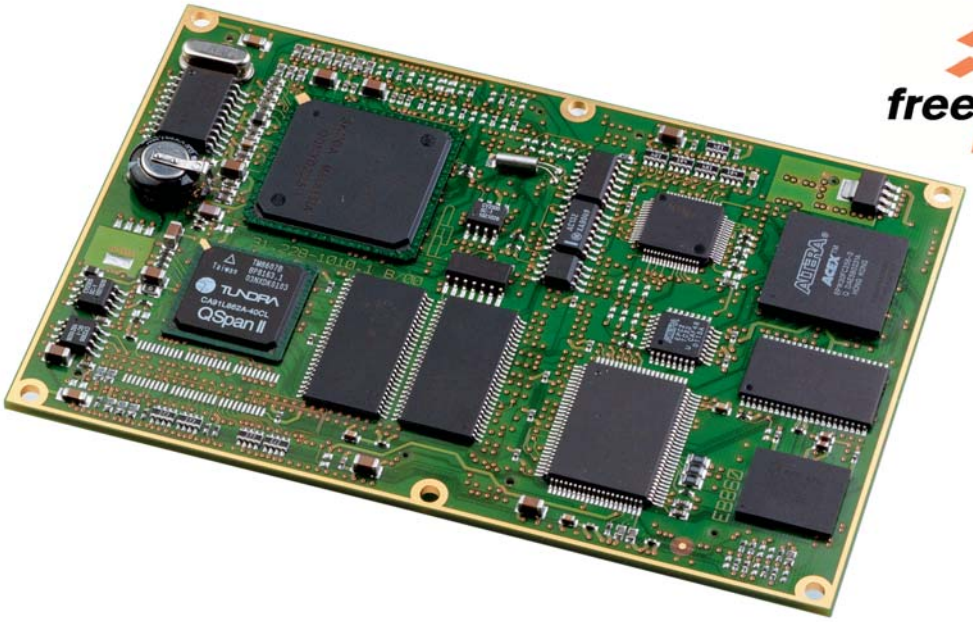
EB860
MPC860 PowerPC



freescale™ Enabled

E²BRAIN *the intelligent module*

Communication oriented
The EB860 provides comprehensive communication performance for embedded applications.

Rich Mix Of Features
Targeted to mid range performance communication systems, the EB860 provides a comprehensive set of interfaces including UTOPIA.

Open Standard
Take advantage of the open E²Brain standard assuring compatibility, upgradability and easy deployment.

kontron

Product Overview

As a communication oriented E²Brain Computer-on-Module, the EB860 is a perfect platform for mid-range performance, cost-sensitive embedded communication appliances.

Communication Oriented

The EB860 provides a comprehensive set of interfaces suited for embedded communication applications. Built around the Motorola PowerPC MPC860T (PowerQUICC), it delivers an excellent combination of CPU and communication performance. The feature set comprises four serial interfaces (two T1/E1 channels, up to 64 HDLC channels), two terminal ports, one Fast Ethernet port or optional an 8bit UTOPIA 1 interface. RTC, watchdog and a PCI interface (optional) complete the extensive functionality.

Rich Mix of Features

Six multi-protocol capable serial interfaces and Ethernet make the EB860 an ideal base for all kind of protocol converter or data concentrator applications. PCI and LPC can be used to interface to additional I/O devices.

Open Standard

The open E²Brain Computer-on-Module standard assures compatibility, upgradability and easy deployment.

Processor

Integrated PowerPC microprocessor Freescale MPC860T (PowerQUICC) @ 80MHz with internal RISC communication processor (CPM)
106 Dhrystone (2.1) MIPS
Other MPC8xx derivates on request (857T/859T/862/866)

Memory

Up to 128MB soldered SDRAM (32bit data bus with burst support)
Up to 16MB soldered Flash
1MB SRAM with backup by auxiliary power 64kBit EEPROM for user settings

Additional onboard devices

Real time clock w. backup by goldcap capacitor
Watchdog

System Interface

PCI Master/Agent interface (optional), 32 Bit address/data/33 MHz, Universal signaling voltage (3,3V, to fit in 3,3V or 5V bus), LPC (Low Pin Count) interface (no DMA) for I/O extensions, I²C, JTAG/BDM interface, 2 Terminal ports (Rx/Tx), Utility port (LEDs, Reset, Abort), SPI port

I/O Interface

FastEthernet (MDI/MII) or 8bit UTOPIA 1 interface
4 (MPC855: 1) serial ports with multiprotocol support (E1/T1, HDLC) or 4 10MBit Ethernet ports

Software Support

Operating system independent boot loader with network support
VxWorks board support package
Linux board support packages

Power Consumption

typ. 2W at 3,3V (80MHz, 16MB Flash, 128MB SDRAM)

Common

Mechanical Conformance:	E²Brain Module Specification Rev. 0.2
Dimension:	115 mm x 75 mm (E²Brain 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:	50 g
MTBF:	ca. 221,700 h (acc. MIL-HDBK-217F)

Ordering Information

Product	Description	Order No.
EB860	Freescale MPC860T@80MHz, 64MB SDRAM, 16MB Flash, 1MB SRAM, PCI, Fast Ethernet, 6 serial interfaces	25932
EB855	Freescale MPC855T@80MHz, 16MB SDRAM, 8MB Flash, 3 serial interfaces	26020
EB860-EVALKIT	Evaluation kit for EB860, contains EB860 (64MB SDRAM, 8MB Flash), evaluation carrier board, power supply, cabling, pre-installed Linux BSP, CD-ROM with documentation and Linux software	26868
KIT-EB860	EB860 documentation on CD-R [1]	26024
KIT-EB855	EB855 documentation on CD-R [1]	
VXW-BSP-EB860	VxWorks Board Support Package for EB860/EB855, for WindRiver Workbench	26022
LIN-BSP-EB860	Linux Board Support Package for EB860/EB855, distribution independent package with cross toolchain and root file system	26023
Note:	1) Kits downloadable free of charge from the Internet	

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