



**eEP-M-CPU i.MX6 & E3800**  
**ARM OR X86? DECIDE LATER!**

## 2 SCALABLE PROCESSOR ARCHITECTURES – PIN COMPATIBLE!

For use with the exceet Embedded Platform (eEP) and customer-specific solutions, we provide two microprocessor families featuring different pin-compatible architectures: The i.MX6 (ARM Cortex-A9) and the E3800 (x86 Atom). All modules were designed for extreme long-term availability (>10 years) and are optimally scalable from single to quad-core variants, with memory capacity as per customer requirements. Pin compatibility permits extremely late decision-making regarding desired processor architecture, as well as performance upgrades years down the road.

Add-on interfaces like CAN, UART, 2xLVDS as well as the onboard Ethernet and USB ports (incl. USB device) reduce baseboard and time-to-market costs. The eEP-M CPU E3800 also supports the Microsoft Windows desktop operating systems Windows 7 and 8.



### FEATURES

- highly scalable data processing
- 2 pin compatible processor architectures
- scalable memory expansion
- Windows or Linux
- supports CODESYS V2.3 and V3.x
- Ethernet, USB 3.0 and USB Device interfaces onboard
- CAN and UART on connector strip
- expandable via WLAN/HDMI module

### CUSTOMER BENEFITS

- pin- and software-compatible single, dual & quad core versions available
- simple, low-cost baseboard
- standard, customer-specific or customer-side expansion modules
- complete touch panels and top-hat data processors also available
- soft-SPS CODESYS
- short time-to-market
- long-term availability

### APPLICATIONS

- embedded control
- machine control
- plant control
- medical technology
- suitable for device and machine families of different performance classes



# TECHNICAL DATA

Product	eEP-M-CPU iMX6	eEP-M-CPU E3800
FUNCTION	Standard [options]	
<b>MICROPROCESSOR</b>		
CPU	Freescale i.MX6 1-4 core	Intel Atom E3800 1-4 core
Clock	1 GHz [1.2 GHz]	1.46 GHz [1 core] - 1.91 GHz [4 core]
<b>MEMORY</b>		
Flash	8 GB [up to 32 GB]	8 GB [up to 64 GB]
DRAM DDR3L	1 GB [2 GB]	1 GB [up to 8 GB]
NOR Flash	8 MB [4-64MB]	8 MB [16 MB, redundant BIOS]
SD-Card	insert for MMC/SD card up to 32 GB	-
<b>EXTERNAL INTERFACES</b>		
USB	2x Host, 1x OTG (USB 2.0)	2x Host (USB 2.0/3.0) , 1x device (USB 2.0)
Ethernet	1x 10/100/1000 MBit	
<b>INTERNAL INTERFACES (SYSTEM CONNECTOR STRIPS)</b>		
USB	USB 2.0 host	USB 2.0/3.0 host
LVDS	Dual LVDS up to 1920x1200	Dual Channel LVDS up to 1920x1200
Display	HDMI	HDMI, DP/eDP up to 2560x1600
Audio	AC97	HDA
Additional	CAN, PCIe, SATA, I2C, SPI, SDI, PWM, GPIO, Ethernet, USB, UART	
<b>OTHER</b>		
RTC	battery-buffered	
Power supply	5 VDC	
Power consumption	typ. 4/5/7W	typ. 7/8/12W
External dimensions WxHxD	100x98x17 mm	
Protection class	IP20	
Operating temperature	0..+55°C, [expanded range]	
<b>SOFTWARE</b>		
Operating system	WEC7, [Embedded Linux]	WEC7, [WES7, Windows 7&8, Embedded Linux]
Soft-SPS	CODESYS V2.3 / V3.x [Web-, HMI-, Target visualization]	
Various	HTML5 browser, Java Virtual Machine	
<b>FURTHER OPTIONS</b>		
Protocols (master functions)	EtherCAT, Modbus TCP, Profinet, BACnet, CANopen, others upon request	
Housing/Features	customer-specific OEM versions, open-frame	



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