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Understanding Embedded - Microprocessors

Embedded microprocessors are specialized computing chips designed to perform specific tasks within an embedded system. Unlike general-purpose microprocessors found in personal computers, embedded microprocessors are tailored for dedicated functions within larger systems, offering optimized performance, efficiency, and reliability. These microprocessors are integral to the operation of countless electronic devices, providing the computational power necessary for controlling processes, handling data, and managing communications.

Applications of Embedded - Microprocessors

Embedded microprocessors are utilized across a broad spectrum of applications, making them indispensable in

Details	
Product Status	Obsolete
Core Processor	Xeon E5504
Number of Cores/Bus Width	4 Core, 64-Bit
Speed	2.0GHz
Co-Processors/DSP	-
RAM Controllers	-
Graphics Acceleration	-
Display & Interface Controllers	-
Ethernet	-
SATA	-
USB	-
Voltage - I/O	-
Operating Temperature	-
Security Features	-
Package / Case	1366-LGA
Supplier Device Package	1366-LGA
Purchase URL	https://www.e-xfl.com/product-detail/advantech/96mpxe-2-0-4m13t

Intel® Xeon® Processor E5504

Processor Specifications:

sSpec Number: SLBF9	Package Type: LGA1366
CPU Speed: 2 GHz	Manufacturing Technology: 45 nm
PCG:	Core Stepping: D0
Bus Speed: 4.8 GT/s	CPUID String: 106A5h
Bus/Core Ratio: 15	Thermal Design Power: 80W
L3 Cache Size: 4 MB	Thermal Specification: 76°C
L3 Cache Speed: 2 GHz	VID Voltage Range: 0.75V –1.35V

Product Documentation:

http://support.intel.com/support/processors/sb/CS-028967.htm

Product Order Codes:

Box Order Code: BX80602E5504   **OEM Order Code:** AT80602000801AA

Supported Features:

- Quad Core
- Enhanced Intel Speedstep® Technology
- Intel® EM64T [1]
- Intel® Virtualization Technology
- Enhanced Halt State (C1E)
- Execute Disable Bit [2]

Notes:

Legal Disclaimers:

1 Intel® EM64T requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. See http://www.intel.com/info/em64t for more information including details on which processors support Intel® EM64T or consult with your system vendor for more information.

2 Enabling Execute Disable Bit functionality requires a PC with a processor with Execute Disable Bit capability and a supporting operating system. Check with your PC manufacturer on whether your system delivers Execute Disable Bit functionality.