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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	Active
Core Processor	i5-2510E
Number of Cores/Bus Width	2 Core, 64-Bit
Speed	2.5GHz
Co-Processors/DSP	-
RAM Controllers	-
Graphics Acceleration	Yes
Display & Interface Controllers	-
Ethernet	-
SATA	-
USB	-
Voltage - I/O	-
Operating Temperature	-
Security Features	-
Package / Case	988-PGA Module
Supplier Device Package	988-Micro-FCPGA
Purchase URL	<a href="https://www.e-xfl.com/product-detail/advantech/96mpi5m-2-5-3m9t">https://www.e-xfl.com/product-detail/advantech/96mpi5m-2-5-3m9t</a>



# Intel Core i5 Mobile i5-2510E

## General information

Type	CPU / Microprocessor
Market segment	Mobile
Family	Intel Core i5 Mobile
Model number	I5-2510E
CPU part number	FF8062700853304 (SR02U)
<b>Frequency (MHz)</b>	<b>2500</b>
Turbo frequency (MHz)	3100
<b>Clock multiplier</b>	<b>25</b>
Package	988-pin micro-FCPGA10 (rPGA988B)
<b>Socket</b>	<b>Socket G2 (rPGA988B)</b>

## Architecture / Microarchitecture

Microarchitecture	Sandy Bridge
Manufacturing process	0.032 micron High-K metal gate process
<b>Data width</b>	<b>64 bit</b>
<b>Number of cores</b>	<b>2</b>
Floating Point Unit	Integrated
<b>Level 2 cache size</b>	<b>2 x 256 KB</b>
<b>Level 3 cache size</b>	<b>3 MB</b>
Physical memory (GB)	8

## Features

- MMX instruction set
- SSE
- SSE2
- SSE3
- Supplemental SSE3
- SSE4.1
- SSE4.2
- AES instructions
- Advanced Vector Extensions
- Extended Memory 64 technology (EM64T)
- Execute disable bit
- HyperThreading technology
- Turbo Boost technology 2.0
- Virtualization technology (VT-x/VT-d)
- Trusted Execution technology

Low power features	Enhanced SpeedStep technology
On-chip peripherals	<ul style="list-style-type: none"><li>• Integrated dual-channel DDR3 SDRAM Memory controller</li><li>• Graphics controller</li></ul>

## Electrical/Thermal parameters

<b>Thermal Design Power (W)</b>	<b>35</b>
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## Notes on Intel FF8062700853304

- Embedded microprocessor
- Integrated graphics controller runs at 650 MHz, and up to 1.1 GHz in Turbo mode
- Memory controller supports DDR3-1066 and DDR3-1333 memory