

SPECIFICATIONS

All

Essentials

**Memory Specifications** 

**Graphics Specifications** 

**Expansion Options** 

Package Specifications

**Advanced Technologies** 

COMPATIBLE PRODUCTS

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### SPECIFICATIONS

Essentials		
Status		Launched
Launch Date		Q1'11
Processor Number		B810
# of Cores		2
# of Threads		2
Clock Speed		1.6 GHz
Intel® Smart Cache		2 MB
Bus/Core Ratio		16
Instruction Set		64-bit
Instruction Set Extensions		SSE4.x
Embedded Options Available	P	Yes
Lithography		32 nm
Max TDP		35 W
Recommended Channel Price		\$86.00
Memory Specifications		
Max Memory Size (dependent on memory type)		16 GB
Memory Types		DDR3-1066/1333
# of Memory Channels		2
Max Memory Bandwidth		21.3 GB/s
ECC Memory Supported		No
Graphics Specifications		
Integrated Graphics	A	Yes
Graphics Base Frequency		650 MHz
Graphics Max Dynamic Frequency		950 MHz
Graphics Output		eDP/DP /HDMI/SDVO/CRT
Intel® Quick Sync Video		No
Intel® InTru™ 3D Technology,		No
Intel® Wireless Display		No
Intel® Flexible Display Interface (Intel® FDI)		Yes
Intel® Clear Video HD Technology		No
Dual Display Capable		Yes
Macrovision* License Required		No

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- Products formerly Sandy Bridge
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### ADDITIONAL INFORMATION

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# FF8062700848800

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PCN/MDDS INFORMATION

Expansion Options	
PCI Express Revision	2.0
PCI Express Configurations	1x16, 2x8, 1x8 2x4
# of PCI Express Ports	8
Package Specifications	
Max CPU Configuration	1
TJUNCTION	100C
Package Size	37.5mmx37.5mm (rPGA988B)
Graphics and IMC Lithography	32 nm
Sockets Supported	PGA988
Halogen Free Options Available	Yes

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

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.

64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Consult with your system vendor for more information.

Hyper-Threading Technology (HT Technology) requires a computer system with an Intel® processor supporting HT Technology and an HT Technology enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you see. See www.intel.com/products/ht/hyperthreading\_more.htm for more information including details on which processors support HT Technology.

Intel® Virtualization Technology requires a computer system with a processor, chipset, BIOS, virtual machine monitor (VMM) and for some uses, certain platform software, enabled for it. Functionality, performance or other benefit will vary depending on hardware and software configurations. Intel Virtualization Technology-enabled VMM applications are currently in development.

Note: Prices subject to change without notice. Prices are for direct Intel customers in 1000-unit bulk quantities and, unless specified, represent the latest technology versions of the products. Taxes and shipping, etc. not included. Prices may vary for other package types and shipment quantities, and special promotional arrangements may apply.

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System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

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Halogen Free implies the following:

Bromine and/or chlorine in materials that may be used during processing, but do not remain within the final product are not included in this definition. The halogens fluorine (F), iodine (I), and astatine (At) are not restricted by this standard.

#### "BFR/CFR and PVC-Free" Definition:

All PCB laminates must meet Br and CI requirements for low halogen as defined in IPC-4101B For components other than PCB laminates, all homogeneous materials must contain < 900 ppm (0,09%) of Bromine [if the Bromine (Br) source is from BFRs] and < 900 ppm (0,09%) of Chlorine [if the Chlorine (CI) source is from CFRs or PVC. Higher concentrations of Br and CI are allowed in homogenous materials of components other than PCB laminates as long as their sources are not BFRs, CFRs, PVC.

Although the elemental analysis for Br and Cl in homogeneous materials can be performed by any analytical method with sufficient sensitivity and selectivity, the presence or absence of BFRs, CFRs or PVC must be verified by any acceptable analytical techniques that allow for the unequivocal identification of the specific Br or Cl compounds, or by appropriate material declarations agreed to between customer and supplier.

Max Turbo Frequency refers to the maximum single-core frequency that can be achieved with Intel® Turbo Boost Technology, which requires a PC with a processor with Intel Turbo Boost Technology performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See <a href="https://www.intel.com/technology/turboboost/">www.intel.com/technology/turboboost/</a> for more information.

Advanced Technologies	
Intel® Turbo Boost Technology	No
Intel® Hyper-Threading Technology	No
Intel® Virtualization Technology (VT-x)	Yes
Intel® Virtualization Technology for Directed I/O (VT-d)	No
Intel® Trusted Execution Technology	No
AES New Instructions	No
Intel® 64	Yes
Intel® Anti-Theft Technology	No
Intel® My WiFi Technology	No
4G WiMAX Wireless Technology	No
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Intel® Demand Based Switching	No
Thermal Monitoring Technologies	Yes
Intel® Fast Memory Access	Yes
Intel® Flex Memory Access	Yes
Execute Disable Bit	Yes





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## Intel® Celeron® Processor B810 (2M Cache, 1.60 GHz)

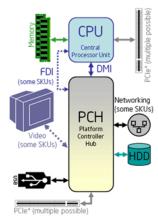
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## Intel® Celeron® Processor B810 (2M Cache, 1.60 GHz)

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### ORDERING AND SPEC INFORMATION

### Ordering and Spec Information

Intel® Celeron® Processor B810 (2M Cache, 1.60 GHz) FC-PGA10, Tray

Socket	Step	Step TDP	Ordering Code	Spec Code	Halogen Free	VT-x
PGA988	Q0	35 Watts	FF8062700848800	SR088	Yes	Yes

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