

Intel® Celeron® Processor B810E
(2M Cache, 1.60 GHz)

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Specifications	
Essentials	View
Status	Launched
Launch Date	Q2'11
Processor Number	B810E
Intel® Smart Cache	2 MB
Instruction Set	64-bit
Embedded Options Available	View Yes
Lithography	32 nm
Recommended Customer Price	TRAY: \$81.00
Datasheet	Link
Performance	View
# of Cores	2
# of Threads	2
Processor Base Frequency	1.6 GHz
TDP	35 W
Memory Specifications	View
Max Memory Size (dependent on memory type)	16 GB
Memory Types	DDR3 1066/1333
Max # of Memory Channels	2
Max Memory Bandwidth	21.3 GB/s
ECC Memory Supported *	View Yes
Graphics Specifications	View
Processor Graphics *	Intel® HD Graphics
Graphics Base Frequency	650 MHz
Graphics Max Dynamic Frequency	1 GHz
Graphics Output	eDP/DP/HDMI/SDVO/CRT
Intel® Quick Sync Video	View No
Intel® InTru™ 3D Technology	No
Intel® Wireless Display	View No
Intel® Clear Video HD Technology	No
Intel® Clear Video Technology	No
Macrovision* License Required	No
# of Displays Supported *	2
Expansion Options	View
PCI Express Revision	2.0
PCI Express Configurations *	1x16, 2x8, 1x8 2x4
Max # of PCI Express Lanes	16
Package Specifications	View
TJUNCTION	100
Package Size	31mm x 24mm (FCBGA1023)
Graphics and IMC Lithography	32nm
Sockets Supported	FCBGA1023
Low Halogen Options Available	See MDDS
Advanced Technologies	View
Intel® Turbo Boost Technology *	No
Intel® vPro Technology *	View No
Intel® Hyper-Threading Technology *	View No
Intel® Virtualization Technology (VT-x) *	View Yes
Intel® Virtualization Technology for Directed I/O (VT-d) *	View No
Intel® 64 *	View Yes
Intel® My WiFi Technology	No
4G WiMAX Wireless Technology	No
Idle States	View Yes
Enhanced Intel SpeedStep® Technology	View Yes
Intel® Demand Based Switching	View No
Thermal Monitoring Technologies	View Yes
Intel® Fast Memory Access	View Yes
Intel® Flex Memory Access	View Yes
Intel® Data Protection Technology	View
AES New Instructions	View No
Intel® Platform Protection Technology	View
Trusted Execution Technology *	View No
Anti-Theft Technology	No

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Refer to Datasheet for formal definitions of product properties and features.

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

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

* This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

Conflict free and *conflict-free* means *DRC conflict free*, which is defined by the U.S. Securities and Exchange Commission rules to mean products that do not contain conflict minerals (tin, tantalum, tungsten and/or gold) that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo (DRC) or adjoining countries. Intel also uses the term *conflict-free* in a broader sense to refer to suppliers, supply chains, smelters and refiners whose sources of conflict minerals do not finance conflict in the DRC or adjoining countries. Intel processors manufactured before January 1, 2013 are not confirmed conflict free. The conflict free designation refers only to product manufactured after that date. For Intel Boxed Processors, the conflict free designation refers to the processor only, not to any additional included accessories, such as heatsinks/coolers.

See <http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading> for more information including details on which processors support Intel® HT Technology.

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See www.intel.com/technology/turboboost/ for more information.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers and are subject to change without notice. Taxes and shipping, etc, not included. Prices may vary for other package types and shipment quantities, and special promotional arrangements may apply. Listing of these RCP does not constitute a formal pricing offer from Intel. Please work with your appropriate Intel representative to obtain a formal price quotation.

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

Low Halogen: Applies only to brominated and chlorinated flame retardants (PBFRs/CFRs) and PVC in the final product. Intel components, as well as purchased components on the finished assembly meet IEC 62321 requirements, and the PCB / substrate meet IEC 62321-2-21 requirements. The replacement of halogenated flame retardants and/or PVC may not be better for the environment.

For benchmarking data see <http://www.intel.com/performance>.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See <http://www.intel.com/content/www/us/en/processors/processor-numbers.html> for details.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

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