

Intel Celeron B820 specifications

General information

Type	CPU / Microprocessor
Market segment	Mobile
Family	Intel Mobile Celeron Dual-Core
Model number ?	B820
CPU part number	FF8062700848602 is an OEM/tray microprocessor
Frequency ?	1700 MHz
Bus speed ?	5 GT/s DMI
Clock multiplier ?	17
Package	988-pin micro-FCPGA10 (rPGA988B)
Socket	Socket G2 / rPGA988B
Size	1.48" x 1.48" / 3.75cm x 3.75cm
Introduction date	July 29, 2012
End-of-Life date	Last order date for tray processors is January 24, 2014 Last shipment date for tray processors is July 4, 2014
Price at introduction	\$86

S-spec numbers

Part number	Production processors
FF8062700848602	SR0HQ +

Architecture / Microarchitecture

Microarchitecture	Sandy Bridge
Processor core ?	Sandy Bridge
Core stepping ?	Q0 (SR0HQ)
Manufacturing process	0.032 micron High-K metal gate process
Data width	64 bit
The number of cores	2
The number of threads	2
Floating Point Unit	Integrated
Level 1 cache size ?	2 x 32 KB instruction caches 2 x 32 KB data caches
Level 2 cache size ?	2 x 256 KB
Level 3 cache size	2 MB
Physical memory	16 GB
Multiprocessing	Not supported
Features	▪ MMX instructions ▪ SSE / Streaming SIMD Extensions ▪ SSE2 / Streaming SIMD Extensions 2 ▪ SSE3 / Streaming SIMD Extensions 3 ▪ SSSE3 / Supplemental Streaming SIMD Extensions 3 ▪ SSE4 / SSE4.1 + SSE4.2 / Streaming SIMD Extensions 4 ? ▪ EM64T / Extended Memory 64 technology / Intel 64 ? ▪ NX / XD / Execute disable bit ? ▪ VT-x / Virtualization technology ?

Low power features

Enhanced SpeedStep technology ?

Integrated peripherals / components

Integrated graphics	GPU Type: HD (Sandy Bridge) Base frequency (MHz): 650 Maximum frequency (MHz): 1050 The number of supported displays: 2
Memory controller	The number of controllers: 1 Memory channels: 2 Supported memory: DDR3-1066, DDR3-1333 Maximum memory bandwidth (GB/s): 21.3
Other peripherals	▪ Direct Media Interface 2.0 ▪ PCI Express 2.0 interface

Electrical / Thermal parameters

Maximum operating temperature ? 100°C

Thermal Design Power ? 35 Watt

Notes on Intel Celeron B820

- The CPU is compatible with Shader Model 4.1, along with DirectX 10.1 and OpenGL 3.1 APIs. OpenCL API is not supported.