Intel® Celeron® Processor G1820TE (2M Cache, 2.20 GHz)

Specifications

- Essentials

Status	Launched
Launch Date	Q1'14
Processor Number	G1820TE
Intel® Smart Cache	2 MB
DMI2	5 GT/s
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2
Embedded Options Available	Yes
Lithography	22 nm
Scalability	1S Only
Thermal Solution Specification	PCG 2013A
Recommended Customer Price	
Conflict Free	Yes
Datasheet	Link
Additional Information URL	Link

- Performance

# of Cores	2
# of Threads	2
Processor Base Frequency	2.2 GHz
TDP	35 W

- Memory Specifications

Max Memory Size (dependent on memory type)	32 GB
Memory Types	DDR3 1333
Max # of Memory Channels	2
Max Memory Bandwidth	21.3 GB/s
ECC Memory Supported ‡	Yes

- Graphics Specifications

Processor Graphics ‡	Intel® HD Graphics
Graphics Base Frequency	350 MHz
Graphics Max Dynamic Frequency	1 GHz
Graphics Video Max Memory	1.7 GB
Graphics Output	eDP/DP/HDMI/DVI/VGA

Intel® Quick Sync Video	Yes
Intel® Flexible Display Interface (Intel® FDI)	Yes
# of Displays Supported ‡	3

- Expansion Options

PCI Express Revision	Up to 3.0
PCI Express Configurations ‡	Up to 1x16, 2x8, 1x8/2x4
Max # of PCI Express Lanes	16

- Package Specifications

Max CPU Configuration	1
Package Size	37.5mm x 37.5mm
Graphics and IMC Lithography	22 nm
Sockets Supported	FCLGA1150
Low Halogen Options Available	See MDDS

- Advanced Technologies

Intel® Turbo Boost Technology ‡	No
Intel® vPro Technology ‡	No
Intel® Hyper-Threading Technology ‡	No
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	No
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes
Intel® TSX-NI	No
Intel® 64 ‡	Yes
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Intel® Identity Protection Technology ‡	No
Intel® Stable Image Platform Program (SIPP)	No

- Intel® Data Protection Technology

Intel® AES New Instructions	No
Secure Key	Yes

- Intel® Platform Protection Technology

Trusted Execution Technology ‡	No
Execute Disable Bit ‡	Yes

Compatible Products

- Chipsets

Compare Compare All +	Product Name	Status	Embedded Options Available	TDP	Recommended Customer Price
	Intel® C226 Chipset (Intel® DH82C226 PCH)	Launched	Yes	4.1 W	T&R : $49.00
	Intel® Z87 Chipset (Intel® DH82Z87 PCH)	Launched	No	4.1 W	N/A
	Intel® Q87 Chipset (Intel® DH82Q87 PCH)	Launched	Yes	4.1 W	T&R : $47.00
	Intel® H87 Chipset (Intel® DH82H87 PCH)	Launched	No	4.1 W	T&R : $32.00
	Intel® B85 Chipset (Intel® DH82B85 PCH)	Launched	No	4.1 W	T&R : $28.00
	Intel® Q85 Chipset (Intel® DH82Q85 PCH)	Launched	No	4.1 W	N/A
	Intel® H81 Chipset (Intel® DH82H81 PCH)	Launched	Yes	4.1 W	T&R : $26.00

Ordering and Spec Information

Trade Compliance Information

ECCN	CCATS	US HTS
5A992A	NA	8542310000-HYBRD

Ordering and Spec Information

Spec Code	Ordering Code	Step	RCP	VT-x
Intel® Celeron® Processor G1820TE (2M Cache, 2.20 GHz) FC-LGA12C, Tray				
SR1T6	CM8064601618705	C0	$42.00	Yes

Retired and Discontinued

Spec Code	Ordering Code	Step	RCP	VT-x
Intel® Celeron® Processor G1820TE (3M Cache, 2.20 GHz) FC-LGA12C, Tray				
SR182	CM8064601484601	C0	N/A	

Download Drivers

BIOS Implementation Test Suite (BITS)

BITS provides a bootable pre-OS environment for testing BIOSes and in particular their initialization of Intel® Processors, hardware, and technologies

Version: Build 2073 (Latest) **Date:** 2/10/2016

Operating Systems: OS Independent

Intel® Processor Diagnostic Tool

The Intel® Processor Diagnostic Tool release 3.0.0.25 is compatible with multiprocessor systems.

Version: 3.0.0.25 (Latest) **Date:** 1/25/2016

Operating Systems: Linux*, Windows 7*, Windows 8*, 5 more

Intel® Processor Identification Utility - Windows* Version
Version 5.40 of the Intel® Processor Identification Utility is provided by Intel to identify characteristics of a processor inside a system.
Version: 5.40 (Latest) **Date:** 12/23/2015
Operating Systems: Windows 2000*, Windows 7*, Windows 8*, 8 more

Intel® Processor Identification Utility - Bootable Version
The Intel® Processor Identification Utility is provided by Intel to identify characteristics of a processor inside a system.
Version: 5.30 (Latest) **Date:** 9/11/2015
Operating Systems: OS Independent

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.
Version: 20150121 (Latest) **Date:** 1/27/2015
Operating Systems: Caldera Linux*, Chromium OS*, Debian 3.1 Linux*, 91 more

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.
Version: 20150107 (Latest) **Date:** 1/13/2015
Operating Systems: Caldera Linux*, Chromium OS*, Debian 3.1 Linux*, 89 more

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.
Version: 20140913 (Latest) **Date:** 9/15/2014
Operating Systems: Caldera Linux*, Chromium OS*, Debian 3.1 Linux*, 82 more

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.
Version: 20140122 (Latest) **Date:** 2/24/2014
Operating Systems: Caldera Linux*, Chromium OS*, Debian 3.1 Linux*, 80 more

Intel® Processor Frequency ID Utility Bootable version [BFID_X25.EXE]
The bootable version of Intel® Processor Frequency ID Utility can be used to identify Intel® processors for non-OS dependant systems.
Version: 7.2 (Latest) **Date:** 11/14/2011
Operating Systems: OS Independent

Intel® Processor Frequency ID Utility Windows* version [FIDXX32.MSI]
The Intel® Processor Frequency ID Utility can be used to identify Intel® processors.
Version: 7.2 (Latest) **Date:** 11/14/2011
Operating Systems: Windows 2000*, Windows 98 SE*, Windows Me*, 2 more

Signal Processing Library for Windows* CE 2.12 [SPLCE212.EXE]
Intel® Signal Processing Library for Windows* CE 2.12 Operating System
Version: 0.0 (Current) **Date:** 8/9/2004
Operating Systems: Windows CE 2.x*, Windows CE 3.x (Pocket PC)*, Windows CE*

Signal Processing Library for QNX* Neutrino* 2.0 Operating System [SPLQNX20.EXE]
Intel® Signal Processing Library for QNX* Neutrino* 2.0 Operating System
Version: 0.0 (Current) **Date:** 8/9/2004
Operating Systems: QNX*

JPEG Library for Windows* CE 2.12 [IJLCE212.EXE]
Intel® JPEG Library for Windows* CE 2.12 Operating System
Version: 0.0 (Current) **Date:** 8/9/2004
Operating Systems: Windows CE 2.x*, Windows CE 3.x (Pocket PC)*, Windows CE*

JPEG Library for VxWorks* 5.3.1 [IJLVX531.EXE]
Intel® JPEG Library for VxWorks* 5.3.1

Version: 0.0 (Current) **Date:** 8/9/2004

Operating Systems: VxWorks*

JPEG Library for QNX* Neutrino* 2.0 [IJLQNX20.EXE]
This is the Intel® JPEG Library for QNX* Neutrino* 2.0 operating system.

Version: 0.0 (Current) **Date:** 8/9/2004

Operating Systems: QNX*

Image Processing Library for Windows* CE 2.12 [IPLCE212.EXE]
Intel® Image Processing Library for Windows* CE 2.12 Operating System

Version: 0.0 (Current) **Date:** 8/9/2004

Operating Systems: Windows CE 2.x*, Windows CE 3.x (Pocket PC)*, Windows CE*

Image Processing Library for QNX* Neutrino* 2.0 [IPLQNX20.EXE]
Intel® Image Processing Library for QNX* Neutrino* 2.0 Operating System

Version: 0.0 (Current) **Date:** 8/9/2004

Operating Systems: QNX*

Intel® Iris™, Iris™ Pro, and HD Graphics Production Driver for Windows® 10 64-bit
This driver includes support for the new Microsoft Windows® 10 operating system and adds new Windows 10 features.

Version: 15.40.4.64.4256 (Previously Released) **Date:** 1/30/2016

Operating Systems: Windows® 10, 64-bit

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.

Version: 20140624 (Previously Released) **Date:** 9/17/2014

Operating Systems: Linux*

Linux* Processor Microcode Data File
The microcode data file contains the latest microcode definitions for all Intel processors. Intel periodically releases these microcode updates.

Version: 20140430 (Previously Released) **Date:** 9/15/2014

Operating Systems: Linux*

assembly meet JS-709 requirements, and the PCB / substrate meet IEC 61249-2-21 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.

Send us your feedback!