



Intel® Core™ i7-7820X X-series Processor

11M Cache, up to 4.30 GHz

Specifications

Compatible Products

Product Images

Ordering and Compliance

Ordering and spec information

Boxed Intel® Core™ i7-7820X X-series Processor (11M Cache, up to 4.30 GHz) FC-LGA14B

Spec Code	SR3L5
Ordering Code	BX80673I77820X
Step	U0
RCP	\$599.00

Boxed Intel® Core™ i7-7820X X-series Processor (11M Cache, up to 4.30 GHz) FC-LGA14B, for China

Spec Code	SR3L5
Ordering Code	BXC80673I77820X
Step	U0

Intel® Core™ i7-7820X X-series Processor (11M Cache, up to 4.30 GHz) FC-LGA14B, Tray

Spec Code	SR3L5
Ordering Code	CD8067303611000
Step	U0
RCP	\$589.00

Trade compliance information

ECCN	5A992C
------	--------

CCATS

G077159

US HTS

8542310001

PCN/MDDS Information**SR3L5**

958963

PCN

959988

PCN | MDDS

959993

PCN | MDDS

Declaration of Conformity

- [BXC80673I77820X](#)

Downloads and Software

All information provided is subject to change at any time, without notice. Intel may make changes to manufacturing life cycle, specifications, and product descriptions at any time, without notice. The information herein is provided "as-is" and Intel does not make any representations or warranties whatsoever regarding accuracy of the information, nor on the product features, availability, functionality, or compatibility of the products listed. Please contact system vendor for more information on specific products or systems.

Intel classifications are for informational purposes only and consist of Export Control Classification Numbers (ECCN) and Harmonized Tariff Schedule (HTS) numbers. Any use made of Intel classifications are without recourse to Intel and shall not be construed as a representation or warranty regarding the proper ECCN or HTS. Your company as an importer and/or exporter is responsible for determining the correct classification of your transaction.

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.

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, typically represent 1,000-unit purchase quantities, 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. If sold in bulk, price represents individual unit. 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 (BFRs/CFRs) and PVC in the final product. Intel components as well as purchased components on the finished 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.



Intel® Core™ i7-7820X X-series Processor

11M Cache, up to 4.30 GHz

Add to Compare

Specifications

Essentials

Performance
Supplemental Information
Memory Specifications
Expansion Options
Package Specifications
Advanced Technologies
Security & Reliability

Ordering and Compliance

Product Images

Compatible Products

Downloads and Software

Essentials

Export specifications

Product Collection	Intel® Core® X-series Processors
Code Name	Products formerly Skylake
Vertical Segment	Desktop
Processor Number	i7-7820X
Status	Launched
Launch Date [?]	Q2'17
Lithography [?]	14 nm
Included Items	Please note: The boxed product does not include a fan or heat sink
Recommended Customer Price [?]	\$589.00 - \$599.00

Performance

# of Cores [?]	8
# of Threads [?]	16
Processor Base Frequency [?]	3.60 GHz
Max Turbo Frequency [?]	4.30 GHz
Cache [?]	11 MB L3
Bus Speed [?]	8 GT/s DMI3
# of QPI Links [?]	0
Intel® Turbo Boost Max Technology 3.0 Frequency ¹ [?]	4.50 GHz
TDP [?]	140 W

Supplemental Information

Embedded Options Available [?]	No
Datasheet	View now
Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type) [?]	128 GB
Memory Types [?]	DDR4-2666
Max # of Memory Channels [?]	4
ECC Memory Supported [?]	No

Expansion Options

Scalability	15 Only
PCI Express Revision [?]	3.0
Max # of PCI Express Lanes [?]	28

Package Specifications

Sockets Supported [?]	FCLGA2066
Max CPU Configuration	1
Thermal Solution Specification [?]	PCG 2017X
T _{JUNCTION} [?]	99°C
Low Halogen Options Available	See MDDS

Advanced Technologies

Intel® Optane™ Memory Supported ¹ [?]	Yes
Intel® Turbo Boost Max Technology 3.0 ¹ [?]	Yes
Intel® Turbo Boost Technology ¹ [?]	2.0
Intel® Hyper-Threading Technology ¹ [?]	Yes
Intel® Virtualization Technology (VT-x) ¹ [?]	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ¹ [?]	Yes
Intel® 64 ¹ [?]	Yes
Instruction Set [?]	64-bit
Instruction Set Extensions [?]	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2, Intel® AVX-512
# of AVX-512 FMA Units [?]	2
Enhanced Intel SpeedStep™ Technology [?]	Yes

Security & Reliability

Intel® AES New Instructions [?]	Yes
Execute Disable Bit ¹ [?]	Yes

More support options for Intel® Core™ i7-7820X X-series Processor (11M Cache, up to 4.30 GHz)

Product Support

Downloads and Software

Support Community

Warranty and Replacement



Need more help?

Contact support

Give Feedback

All information provided is subject to change at any time, without notice. Intel may make changes to manufacturing life cycle, specifications, and product descriptions at any time, without notice. The information herein is provided "as-is" and Intel does not make any representations or warranties whatsoever regarding accuracy of the information, nor on the product features, availability, functionality, or compatibility of the products listed. Please contact system vendor for more information on specific products or systems.

Intel classifications are for informational purposes only and consist of Export Control Classification Numbers (ECCN) and Harmonized Tariff Schedule (HTS) numbers. Any use made of Intel classifications are without recourse to Intel and shall not be construed as a representation or warranty regarding the proper ECCN or HTS. Your company as an importer and/or exporter is responsible for determining the correct classification of your transaction.

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 updates.

¹ 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.

See <http://www.intel.com/content/www/us/en/processors-and-technology/hyper-threading/hyper-threading-technology.html#qpkw=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, typically represent 1,000-unit purchase quantities, 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. If sold in bulk, RCP represents individual unit. 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 (BFRs/CFR) and PVC in the final product. Intel components as well as purchased components on the finished assembly meet JEDEC J-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.



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for CPU - Central Processing Units category:

Click to view products by Intel manufacturer:

Other Similar products are found below :

[AT80612003090AAS LBWJ](#) [B4860NSE7QUMD](#) [NPIXP2855AB-S-LA88](#) [IVPX7225-RTM-1](#) [96MPI5-2.9-6M10T](#) [2SC4646D-AN](#)
[SMBV1061LT1G](#) [2SC4646E-AN](#) [2SJ268-DL-E](#) [CP80617003981AHS LBTQ](#) [MATXM-CORE-411-HTSNK](#) [TEC0193BPF](#) [TND516SS-TL-E](#)
[BGSF 1717MN26 E6327](#) [D8086-2](#) [LF80538GF0282M-S-L8VY](#) [CM8063401293902S R1A4](#) [CM8063501521302S R1B8](#)
[CM8066201919901 SR2L0](#) [CM8066201928505 SR2HT](#) [CPH5855-TL-E](#) [CM8063501293200S R1A0](#) [AV8063801129600S R10F](#) [EMS36-02-](#)
[2H-MDT](#) [EMM04-MDT](#) [NG80386DX33](#) [NHIXP432AC](#) [NK80530MZ866256S-L7XH](#) [P1021NXE2HFB](#) [R0K5ML001SS00BR](#)
[LC87F2608A](#) [LC87FBK08A](#) [PRIXP425BC](#) [PRIXP423BB](#) [CM8066201921712S R2LF](#) [CM8064601467102S R152](#) [CM8063501375800S](#)
[R1AX](#) [CM8063501293506S R1A2](#) [CM8063401293802S R1A3](#) [CM8062107185405S R0KM](#) [LC87F0G08A](#) [CM8067702867061S R374](#) [PB-](#)
[8SMB](#) [COMX-300-HSP](#) [RTM-ATCA-7360](#) [96MPI7-3.4-8M11T](#) [CM8066002023801S R2J1](#) [96MPP-2.3-3M10T](#) [96MPI7-3.4-8M11T1](#)
[96MPXE-2.0-15M20T](#)