



BX8070110700K S RH72

INTEL

Buy Now



Looking for a discount?

[Check out our current promotions!](#)

Give us a call

1-855-837-4225

International: 1-415-281-3866

Email Us

Sales and New Orders: sales@verical.com

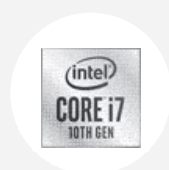
Order Support: support@verical.com

Suppliers: [Visit our seller page](#)

Company Address

Arrow Electronics, Inc
9201 East Dry Creek Road
Centennial, CO 80112

This coversheet was created by Verical, a division of Arrow Electronics, Inc. ("Verical"). The attached document was created by the part supplier, not Verical, and is provided strictly 'as is.' Verical, its subsidiaries, affiliates, employees, and agents make no representations or warranties regarding the attached document and disclaim any liability for the consequences of relying on the information therein. All referenced brands, product names, service names, and trademarks are the property of their respective owners.



Intel® Core™ i7-10700K Processor

16M Cache, up to 5.10 GHz

☐ Add to Compare

Specifications

Essentials

CPU Specifications

Supplemental Information

Memory Specifications

Processor Graphics

Expansion Options

Package Specifications

Advanced Technologies

Security & Reliability

Ordering and Compliance

Product Images

Compatible Products

Technical Documentation

Essentials

Export specifications

Product Collection	10th Generation Intel® Core™ i7 Processors
Code Name	Products formerly Comet Lake
Vertical Segment	Desktop
Processor Number	i7-10700K
Status	Launched
Launch Date	Q2'20
Lithography	14 nm
Use Conditions	PC/Client/Tablet
Recommended Customer Price	-

CPU Specifications

# of Cores	8
# of Threads	16
Processor Base Frequency	3.80 GHz
Max Turbo Frequency	5.10 GHz
Cache	16 MB Intel® Smart Cache
Bus Speed	8 GT/s
Intel® Turbo Boost Max Technology 3.0 Frequency [‡]	5.10 GHz
Intel® Turbo Boost Technology 2.0 Frequency [‡]	5.00 GHz
TDP	125 W
Configurable TDP-down Frequency	3.50 GHz
Configurable TDP-down	95 W

Supplemental Information

Embedded Options Available 	No
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type) 	128 GB
Memory Types 	DDR4-2933
Max # of Memory Channels 	2
Max Memory Bandwidth 	45.8 GB/s
ECC Memory Supported ‡ 	No

Processor Graphics

Processor Graphics ‡ 	Intel® UHD Graphics 630
Graphics Base Frequency 	350 MHz
Graphics Max Dynamic Frequency 	1.20 GHz
Graphics Video Max Memory 	64 GB
4K Support 	Yes, at 60Hz
Max Resolution (HDMI)‡ 	4096 x 2160@30Hz
Max Resolution (DP)‡ 	4096 x 2304@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡ 	4096 x 2304@60Hz
DirectX* Support 	12
OpenGL* Support 	4.5
Intel® Quick Sync Video 	Yes
Intel® InTru™ 3D Technology 	Yes
Intel® Clear Video HD Technology 	Yes
Intel® Clear Video Technology 	Yes
# of Displays Supported ‡	3
Device ID	0x9BC5

Expansion Options

Scalability	1S Only
PCI Express Revision 	3.0
PCI Express Configurations ‡ 	Up to 1x16, 2x8, 1x8+2x4
Max # of PCI Express Lanes 	16

Package Specifications

Sockets Supported 	FCLGA1200
Max CPU Configuration	1
Thermal Solution Specification 	PCG 2015D

T _{JUNCTION} 	100°C
Package Size	37.5mm x 37.5mm

Advanced Technologies

Intel® Optane™ Memory Supported ‡ 	Yes
Intel® Thermal Velocity Boost 	No
Intel® Turbo Boost Max Technology 3.0 ‡ 	Yes
Intel® Turbo Boost Technology ‡ 	2.0
Intel vPro® Platform Eligibility ‡ 	Yes
Intel® Hyper-Threading Technology ‡ 	Yes
Intel® Virtualization Technology (VT-x) ‡ 	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡ 	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡ 	Yes
Intel® Transactional Synchronization Extensions 	No
Intel® 64 ‡ 	Yes
Instruction Set 	64-bit
Instruction Set Extensions 	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Idle States 	Yes
Enhanced Intel SpeedStep® Technology 	Yes
Thermal Monitoring Technologies 	Yes
Intel® Identity Protection Technology ‡ 	Yes
Intel® Stable Image Platform Program (SIPP) 	Yes

Security & Reliability

Intel® AES New Instructions 	Yes
Secure Key 	Yes
Intel® Software Guard Extensions (Intel® SGX) 	Yes with Intel® ME
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡ 	Yes
Execute Disable Bit ‡ 	Yes
Intel® Boot Guard 	Yes

More support options for Intel® Core™ i7-10700K Processor (16M Cache, up to 5.10 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.

‡ 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.

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.

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

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

Check <http://ipt.intel.com/> for systems that support Intel® Identity Protection Technology (Intel® IPT).

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.

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.

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.

[Company Information](#) [Our Commitment](#) [Diversity & Inclusion](#) [Communities](#) [Investor Relations](#)

[Contact Us](#) [Newsroom](#) [Jobs](#)



[© Intel Corporation](#) | [Terms of Use](#) | [*Trademarks](#) | [Privacy](#) | [Cookies](#) | [Supply Chain Transparency](#) | [Site Map](#)

Intel technologies may require enabled hardware, software or service activation. // No product or component can be absolutely secure. // Your costs and results may vary. // Performance varies by use, configuration and other factors. // See our complete legal [Notices and Disclaimers](#). // Intel is committed to respecting human rights and avoiding complicity in human rights abuses. See Intel's [Global Human Rights Principles](#). Intel's products and software are intended only to be used in applications that do not cause or contribute to a violation of an internationally recognized human right.

intel