Intel® Core™ i7-7Y75 Processor (4M Cache, up to 3.60 GHz)

Compare +

Specifications
- Essentials
- Performance
- Supplemental Information
- Memory Specifications
- Graphics Specifications
- Expansion Options
- Package Specifications
- Advanced Technologies
- Intel® Data Protection Technology
- Intel® Platform Protection Technology

Ordering / sSpecs / Steppings

Specifications

Essentials

Processor Number	i7-7Y75
Status	Launched
Launch Date	Q3'16
Lithography	14 nm
Recommended Customer Price	

Performance

# of Cores	2
# of Threads	4
Processor Base Frequency	1.30 GHz
Max Turbo Frequency	3.60 GHz
Cache	4 MB SmartCache
Bus Speed	4 GT/s OPI
TDP	4.5 W
Configurable TDP-up Frequency	1.60 GHz
Configurable TDP-up	7 W
Configurable TDP-down Frequency	600.00 MHz
Configurable TDP-down	3.5 W

Supplemental Information

Embedded Options Available	No
Datasheet	Link
Conflict Free	Yes

Memory Specifications

Max Memory Size (dependent on memory type)	16 GB
Memory Types	LPDDR3-1866, DDR3L-1600
Max # of Memory Channels	2
Max Memory Bandwidth	29.8 GB/s
ECC Memory Supported ‡	No

Graphics Specifications

Processor Graphics ‡	Intel® HD Graphics 615
Graphics Base Frequency	300.00 MHz
Graphics Max Dynamic Frequency	1.05 GHz
Graphics Video Max Memory	16 GB
Graphics Output	eDP/DP/HDMI/DVI
4K Support	Yes, at 60Hz
Max Resolution (Intel® WiDi)‡	1080p
Max Resolution (HDMI 1.4)‡	4096x2304@24Hz
Max Resolution (DP)‡	3840x2160@60Hz

Related Products

7th Generation Intel® Core™ i7 Processors

Intel® Core™ i7-7Y Mobile Processor Series

Products formerly Kaby Lake

Learn how Intel is pursuing conflict-free technology. >

Quick Links

Export Full Specifications >

Support Overview >

Search Distributors >

PCN/MDDS Information

SR2ZT
951956: MDDS
SR2VK
951044: MDDS

Max Resolution (eDP - Integrated Flat Panel)‡	3840x2160@60Hz
DirectX* Support	12
OpenGL* Support	4.4
Intel® Quick Sync Video	Yes
Intel® InTru™ 3D Technology	Yes
Intel® Clear Video HD Technology	Yes
Intel® Clear Video Technology	Yes
Intel® Wireless Display	Yes
# of Displays Supported ‡	3
Device ID	0x591E

Expansion Options

PCI Express Revision	3.0
PCI Express Configurations ‡	1x4, 2x2, 1x2+2x1 and 4x1
Max # of PCI Express Lanes	10

Package Specifications

Sockets Supported	FCBGA1515
Max CPU Configuration	1
$T_{JUNCTION}$	100°C
Package Size	20mm X 16.5mm
Low Halogen Options Available	See MDDS

Advanced Technologies

Intel® Turbo Boost Technology ‡	2.0
Intel® vPro Technology ‡	No
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® TSX-NI	Yes
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2, AVX 2.0
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Intel® Flex Memory Access	Yes
Intel® Stable Image Platform Program (SIPP)	Yes
Intel® Small Business Advantage	Yes
Intel® Smart Response Technology	Yes
Intel® My WiFi Technology	Yes

Intel® Data Protection Technology

Intel® AES New Instructions	Yes
Secure Key	Yes
Intel® Software Guard Extensions (Intel® SGX)	Yes
Intel® Memory Protection Extensions (Intel® MPX)	Yes

Intel® Platform Protection Technology

Trusted Execution Technology ‡	Yes

Execute Disable Bit ‡	Yes
OS Guard	Yes

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" 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 may be the exporter of record, and as such, your company is responsible for determining the correct classification of any item at the time of export.

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 -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.

Send us your feedback!