

AMD Ryzen 5 1600 specifications

General information	
Type	CPU / Microprocessor
Market segment	Desktop
Family	AMD Ryzen 5
Model number	1600
CPU part numbers	• YD1600BBM6IAE is an OEM/tray microprocessor • YD1600BBAEBOX is a boxed microprocessor with fan and heatsink
Frequency	3200 MHz
Turbo frequency	3600 MHz
Package	1331-pin lidded micro-PGA package
Socket	Socket AM4
Introduction date	March 15, 2017 (announcement) April 11, 2017 (launch)
Price at introduction	\$219
Architecture / Microarchitecture	
Microarchitecture	Zen
Processor core	Summit Ridge
Core stepping	B1
Manufacturing process	0.014 micron FinFET process 4.8 billion transistors
Data width	64 bit
The number of CPU cores	6
The number of threads	12
Floating Point Unit	Integrated
Level 1 cache size	6 x 64 KB 4-way set associative instruction caches 6 x 32 KB 8-way set associative data caches
Level 2 cache size	6 x 512 KB inclusive 8-way set associative unified caches
Level 3 cache size	2 x 8 MB exclusive 16-way set associative shared caches
Multiprocessing	Uniprocessor

Features	• MMX instructions • Extensions to MMX • 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 • SSE4a • AES / Advanced Encryption Standard instructions • AVX / Advanced Vector Extensions • AVX2 / Advanced Vector Extensions 2.0 • BMI / BMI1 + BMI2 / Bit Manipulation instructions • SHA / Secure Hash Algorithm extensions • F16C / 16-bit Floating-Point conversion instructions • FMA3 / 3-operand Fused Multiply-Add instructions • AMD64 / AMD 64-bit technology • SMT / Simultaneous MultiThreading • EVP / Enhanced Virus Protection • AMD-V / AMD Virtualization technology • SMAP / Supervisor Mode Access Prevention • SMEP / Secure Mode Execution Protection • Precision Boost
Low power features	Pure Power
Integrated peripherals / components	
Integrated graphics	None
Memory controller	The number of controllers: 2 Memory channels per controller: 1 Channel width (bits): 64 Supported memory: DDR4-2666 DIMMs per channel: 2 Maximum memory bandwidth (GB/s): 42.7
Electrical / Thermal parameters	
Thermal Design Power	65 Watt
Notes on AMD Ryzen 5 1600	
• The processor has unlocked clock multiplier • The maximum operating frequency is 3.7 GHz when better than stock cooling is used • The YD1600BBAEBOX boxed processor is shipped with Wraith Spire cooler	