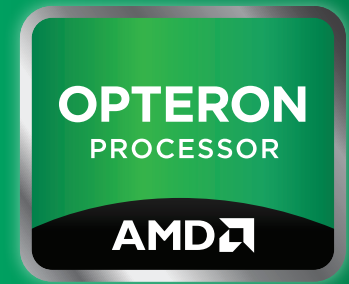


AMD Opteron™ 4300 Series processor Quick Reference Guide

Real-World Performance. Real-World Value. Do the Math.



AMD Opteron™ 4300 Series processor

Competitive TCO with outstanding performance per watt

New Features	Customer Benefits
Second generation of AMD's modular core architecture – codenamed “Piledriver”	Extends TCO savings with outstanding performance/watt.
Same power envelope	Provides enhanced power efficiency by running applications faster while staying within the same power budget.
Socket compatible	Extends life of investment by leveraging current socket platform.

Product Specifications								
Model Number	Core Count	Base Frequency/ North Bridge	AMD Turbo CORE Frequency P1	AMD Turbo CORE Frequency P0	Power Band	Max DDR3	L2 Cache	L3 Cache
4386	8	3.1/2.2 GHz	3.4 GHz	3.8 GHz	95 W	1866Mhz	4x2M	8M
4376 HE	8	2.6/2.0 GHz	2.9 GHz	3.6 GHz	65 W	1866Mhz	4x2M	8M
4340	6	3.5/2.2 GHz	3.7 GHz	3.8 GHz	95 W	1866Mhz	3x2M	8M
4334	6	3.1/2.2 GHz	3.3 GHz	3.5 GHz	95 W	1866Mhz	3x2M	8M
4332 HE	6	3.0/2.0 GHz	3.3 GHz	3.7 GHz	65 W	1866Mhz	3x2M	8M
4310 EE	4	2.2/1.6 GHz	2.4 GHz	3.0 GHz	35 W	1866Mhz	2x2M	8M



Technology Specifications

Processor Technology	32-Naometer SOI (silicon-on-insulator) technology
HyperTransport™ Technology Links	Two x16 links at up to 6.4GT/s per link
Memory	Integrated DDR3 memory controller – Up to 25.6 GB/s memory bandwidth per socket
Number of Channels and Types of Memory	Dual channel support for U/RDDR3 up to DDR3-1866, and ULV (1.25V) RDDR3 up to DDR3-1333
Die Size	315mm ²
Packaging	Socket C32 – 1207 Organic Land Grid Array (OLGA)

AMD SP5100 SouthBridge Product Specifications

USB Ports	12 USB 2.0 + 2 USB 1.1
PCI Bus Support	PCI rev 2.3
Serial ATA	AHCI 1.1 SATA 3.0 GB/s with SW RAID support
SATA Ports	6 (can be independently disabled)
Max TDP/idle	4W/1W
Process Technology	TSMC .13um
Package	528 ball FCBGA, 21x21mm, 0.8mm pitch

AMD SR5650, SR5670, SR5690 I/O Hub Product Specifications

Model Number	Processor Interface	PCI Express®	Number of PCIe® Ports/Engines	Virtualization	Error Detection/Isolation	Max TDP/Idle (w/c1e)	Process Technology	Package
SR5650	HyperTransport™ 3.0 Technology (5.2 GT/s)	v2.0	22 lanes/ 8 engines	AMD-Vi (IOMMU 1.26)	HyperTransport error handling, PCIe® Advanced Error Reporting, PCIe® end-to-end Cycle Redundancy Check	12.6W/ 5.4W	TSMC 65nm	29 x 29 mm FCBGA
SR5670	HyperTransport™ 3.0 Technology (5.2 GT/s)	v2.0	30 lanes/ 9 engines	AMD-Vi (IOMMU 1.26)	HyperTransport error handling, PCIe® Advanced Error Reporting, PCIe® end-to-end Cycle Redundancy Check	15.4W/ 5.75W	TSMC 65nm	29 x 29 mm FCBGA
SR5690	HyperTransport™ 3.0 Technology (5.2 GT/s)	v2.0	42 lanes/ 11 engines	AMD-Vi (IOMMU 1.26)	HyperTransport error handling, PCIe® Advanced Error Reporting, PCIe® end-to-end Cycle Redundancy Check	18W/ 6.15W	TSMC 65nm	29 x 29 mm FCBGA

