



# AMD Opteron™ 3300 Series processor

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

Quick Reference Guide

## AMD Opteron™ 3300 Series processor

*Entry level, enterprise-class servers at desktop pricing – a single-socket, money-in-pocket server solution*

### What's New?

- Second generation of AMD's modular core architecture – codenamed "Piledriver"
- 13% higher performance expected<sup>1</sup>
- New 25W EE power band offering at 6.25W/core

### Product Specifications

Model Number	Core Count	Base Frequency/ North Bridge	AMD Turbo CORE Frequency P1	AMD Turbo CORE Frequency P0	Power Band	Max DDR3 speed	L2 Cache	L3 Cache
<b>3380</b>	8	2.6 GHz/ 2.0 GHz	2.9 GHz	3.6 GHz	65W	1866 Mhz	4 x 2M	8M
<b>3350 HE</b>	4	2.8 GHz/ 2.0 GHz	3.1 GHz	3.8 GHz	45W	1866 Mhz	2 x 2M	8M
<b>3320 EE</b>	4	1.9 GHz/ 1.4 GHz	2.1 GHz	2.5 GHz	25W	1333 Mhz	2 x 2M	8M

<sup>1</sup> Estimate based on preliminary SPECint®\_rate2006 results in AMD labs as of October 2012 comparing AMD Opteron™ processor Models 3380 and 3280. SVR-310.

### AMD Opteron™ 3300 Series Processor Specifications

<b>Cache Sizes</b>	Total Cache: 16MB (8 core), 12MB (4 core) L2 Cache: up to 8MB total L3 Cache: up to 8MB total
<b>Processor Technology</b>	32nm technology
<b>HyperTransport™ Technology Links</b>	1x HT3 at up to 5.2GT/s* per link
<b>Memory</b>	Integrated DDR3 memory controller with up to 32 GB memory per socket
<b>Number of Channels/ Types of Memory</b>	Dual Channel DDR3 ECC UDIMM, SODIMM support; 1333, 1600, 1866* MHz memory speeds
<b>Die Size</b>	315 mm <sup>2</sup>
<b>Package</b>	AM3+

### AMD SP5100 Southbridge Product Specifications

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

\*1866MHz supported only with a single physical DIMM per memory channel in AMD Opteron processor models 3350 HE and 3380.

### 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
<b>SR5650</b>	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
<b>SR5670</b>	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
<b>SR5690</b>	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

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