

Intel® Xeon® E3-1200v5 Platform Guide

Silicon Mechanics Platform Guides provide a high-level overview of server platforms including CPU details and memory population guidelines.

If you have questions about the information in this Platform Guide, please [contact us](#).

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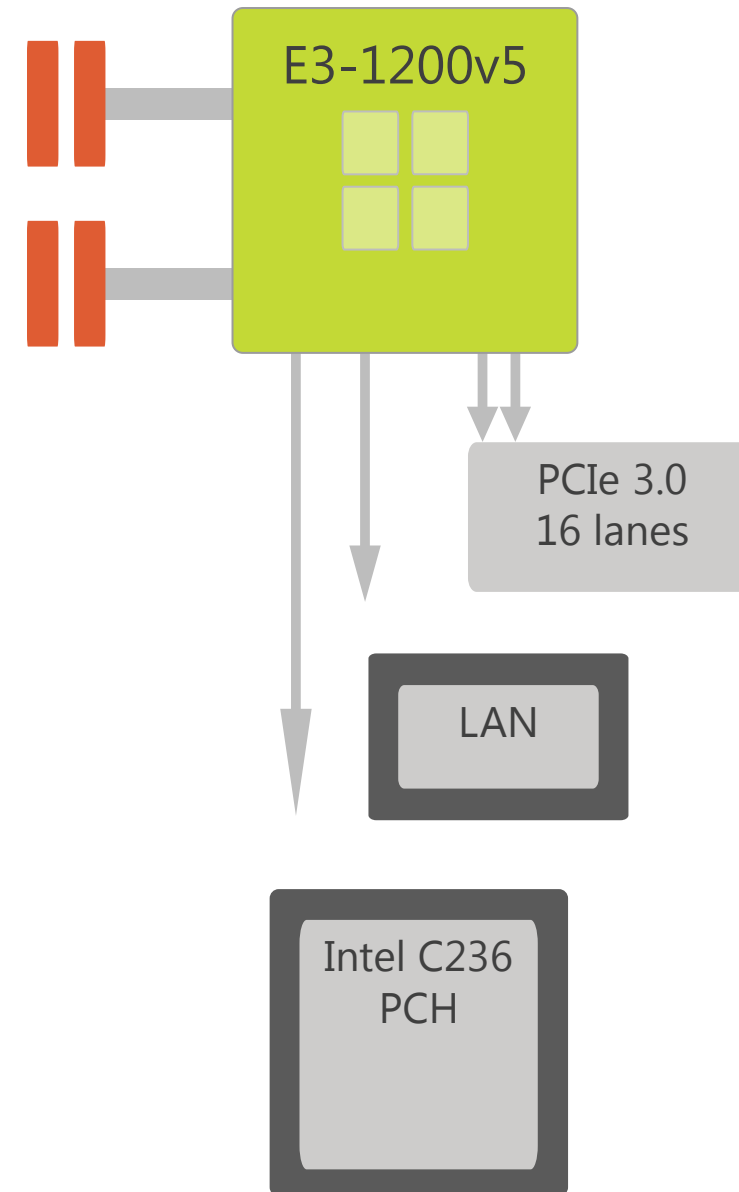


Expert included.

E3-1200v5 Platform Overview

Formerly Known as "Greenlow"

E3-1200v5 CPU (Skylake)	4 cores Up to 8MB LLC Up to 80 W TDP
Socket	LGA 1151
Memory	2 x DDR4 channels 2133 (2 DPC) Up to 64GB capacity
	Unbuffered DIMM
PCIe	PCIe 3.0 (8, 5, 2.5 GT/s)
	16 x PCIe 3.0
C236 PCH (Wellsburg)	8 x SATA3 ports
LAN	40GbE (Fortville), 1GbE (Springville)



Comparing E3-1200v3 and E3-1200v5

Denlow and Greenlow

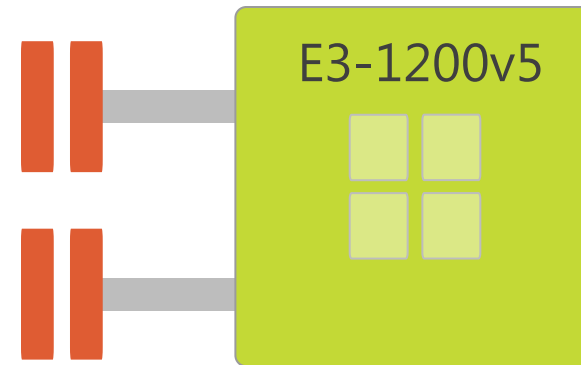
Feature	Denlow Platform	Greenlow Platform	Notes
Architecture	Haswell	Skylake	Faster, better power management
TDP	65W	80W	
Max Core Count	Up to 4	4	
Max LL Cache	Up to 8 MB	8 MB	
Memory Channels	2 DDR3 channels	2 DDR4 channels	Higher bandwidth, lower power
Max Memory Speed	1866 MT/s	2133 MT/s	Increased responsiveness
Max DIMM Slots / Capacity	4 / 32 GB	4 / 64 GB	Twice the memory capacity
PCI	16 lanes PCIe 3.0	16 lanes PCIe 3.0	
Chipset	Intel® C220 series (Lynx PointPCH)	Intel® C230 series (Skylake PCH)	Significant I/O enhancements
Onboard SATA Ports	6 SATA	8 SATA	Increased throughput

E3-1200v5 Models

Max Memory Speed	TDP	Model	Speed	Cores	Turbo Boost Frequency	Hyper-threading	Last-Level Cache
2133 MT/s	80 W	E3-1280v5	3.7 GHz	4	4.0 GHz	Yes	8 MB
		E3-1270v5	3.6 GHz	4	4.0 GHz		
		E3-1240v5	3.5 GHz	4	3.9 GHz		
		E3-1230v5	3.4 GHz	4	3.8 GHz		
		E3-1220v5	3.0 GHz	4	3.5 GHz	No	
		E3-1275v5	3.6 GHz	4	4.0 GHz	Yes	
		E3-1245v5	3.5 GHz	4	3.9 GHz		
		E3-1225v5	3.3 GHz	4	3.7 GHz	No	
	45 W	E3-1260Lv5	2.9 GHz	4	3.9 GHz	Yes	
	25 W	E3-1240Lv5	2.1 GHz	4	3.2 GHz		
25 W	E3-1235Lv5	2.0 GHz	4	3.0 GHz	No		

Memory Population Guidelines

4-DIMM Mainboards



Mainboards with 2 DIMMs per Channel (4 DIMM Slots)

	Ranks	Max MT/s, 1.2V DIMMs	
		1 DPC	2 DPC
UDIMM DDR4	1R or 2R	2133	2133

Platforms Based on E3-1200v5

4 Rackform Servers



	CPU	DIMMs	RAM Cap	HDD	PCIe	Power Supply
R101.v6	1 x Intel Xeon E3-1200v5	4 Unbuffered DIMMs	Up to 64 GB	2 x 3.5-Inch Fixed	PCIe 3.0 x16	Single
R133.v6				4 x 3.5-Inch HS		Redundant Option
R135.v6				4 x 2.5-Inch HS	Single	
R137.v6				4 x 3.5-Inch HS	PCIe 3.0 x16, PCIe 3.0 x4	Redundant Option