

Micron[®] DRAM Memory Support for Intel[®] IoT Platforms

Save yourself time and money—Micron memory comes *validated* on Intel IoT platforms

	Form Factor	Density	Memory Configuration
Intel Quark™ Processor			
Quark SoC X1000 – Clanton/Galileo Gen 2	FBGA (memory down)*	2Gb	DDR3–1600
Intel Atom™ Processor			
Atom Processor E3900 series, Intel Celeron™ Processor N3350, and Intel Pentium™ Processor N4200 – Apollo Lake	FBGA (memory down)*	4Gb, 8Gb, 12Gb, 16Gb, 24Gb, 32Gb	LPDDR4-1600 x32
Atom x3-C3230RK Processor – SoFIA 3G-R	VFBGA eMCP*	8GB e.MMC 5.0 + 8Gb LPDDR3	e.MMC v5.0 + LPDDR3-1866 x32
Atom x5-Z8300 Processor – Cherry Trail	FBGA, PoP (memory down)	2GB, 4GB	LPDDR3-1866 x64
Pentium and Celeron Processor N3000 Product Families – Brasswell	FBGA (memory down)*	4GB, 8GB	DDR3L–1600
	ECC/non-ECC SODIMM*	2GB, 4GB, 8GB	DDR3L–1600
Atom Processor E3800 – Bay Trail	FBGA (memory down)*	4Gb	DDR3L–1333/1600
Atom Processor C2000 – Rangeley	ECC SODIMM*	4GB, 8GB	DDR3L–1600
Intel Core™ i5 and Core™ i7 Processors			
6th Generation Intel Core Desktop/Mobile Processor Family with Intel 100 Series Chipsets and Intel Xeon® Processor E3-1200/ E3-1500 v5 Product Family with C230/CM230 Series Chipsets – Skylake S/H/U	FBGA (memory down)*	4Gb, 8Gb	DDR4–2133
	UDIMM, SODIMM*	4Gb, 8Gb, 16GB	DDR4–2133
5th Generation Intel Core Processors with Mobile Intel QM87 and HM86 Chipsets – Broadwell H/U	FBGA (memory down)*	4Gb, 8Gb	DDR3L–1600
	SODIMM*	2GB, 4GB, 8GB	DDR3L–1600
4th Generation Intel Core Processors with Intel Communications Chipset 89xxCC Series – Glen Forest (Haswell Mobile + Cave Creek)	FBGA (memory down)*	4Gb, 8Gb	DDR3L–1600
	SODIMM*	2GB, 4GB, 8GB	DDR3L–1600
Intel Xeon, Intel Core, and Intel Pentium Processors with Intel Communications Chipset 89xx Series – Crystal Forest/ Gladden Refresh	ECC UDIMM*, LRDIMM, RDIMM, VLP RDIMM	2GB, 4GB, 8GB	DDR3/L–1333/1600
4th Generation Intel Core Processors with Intel Q87 Chipset – Shark Bay Desktop (Haswell + Lynx Point)	UDIMM*	4GB, 8GB	DDR4–2133
4th Generation Core Processors with Mobile Intel QM87 and HM86 Chipsets – Shark Bay Mobile (Haswell + Lynx Point)	FBGA (memory down)*	4Gb, 8Gb	DDR3L–1600
	SODIMM*	2GB, 4GB, 8GB	DDR3L–1600
Intel Xeon® Processor			
Intel Xeon Processor E5-2600 v4 Product Family with Intel C612 Chipset – Grantley Refresh (Broadwell-EP + Wellsburg)	RDIMM	8GB, 16GB, 32GB	DDR4–1600/2133/2400
Intel Xeon Processor D-1500 Product Family – Broadwell DE	ECC UDIMM*	8GB, 16GB	DDR4–2133
Intel Xeon Processor E5-2600 v3 Product Family with Intel Communications Chipset 89xx Series – River Forest (Haswell + Coletto Creek) and Intel Xeon Processor E5-2600 v3 Product Family with Intel C612 Chipset – Grantley (Haswell-EP + Wellsburg)	LRDIMM	32GB	DDR4–2133
	RDIMM	4GB, 8GB, 16GB	DDR4–2133/2400
Intel Xeon Processor E5-2600 v2 Product Family with Intel Communications Chipset 89xx Series – Crystal Forest/Server Refresh and Intel Xeon Processor E5-2600 v2 Product Family with Intel C604 Chipset and Intel C602-J Chipset – Romley-EP Refresh	RDIMM	2GB, 4GB, 8GB, 16GB, 32GB	DDR3/L–1066/1333/1600/1866
	LRDIMM	8GB, 16GB, 32GB, 64GB	DDR3/L–1333/1600/1866
	ECC UDIMM*	2GB, 4GB, 8GB	DDR3–1600/1866
Intel Xeon Processor E3-1200 v3 Product Family with Intel HD Graphics P4600 and Intel C226 Chipset – Denlow (Haswell + Lynx Point)	ECC UDIMM*	2GB, 4GB, 8GB	DDR3L–1600
Intel Xeon Processor E3-1200 v2 Series with Intel C216 Chipset – Carlow	ECC UDIMM*	2GB, 4GB, 8GB	DDR3–1600

Please verify exact configuration and specification with your Intel or Micron representative.

* These devices have lifecycles supported for 5 to 10+ years. For more details, go to www.micron.com/lifecycle or contact your Micron representative. For more details on Micron memory for Intel platforms, go to www.micron.com/solutions/micron-valued-partner-program/chipset-partner/intel.



Micron® Flash Memory Support for Intel® IoT Platforms

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Micron Flash		SPI NOR	e.MMC		
	Family	MT25Q	v4.41	v4.51 ²	v5.0 ²
	Density	32–64MB (128Mb–1Gb)	4MB–128GB		
	Voltage	3V/1.8V	3V V _{CC} ; 3V/1.8V I/O		
	Speed	108/133/166 MHz	SDR/DDR 52 MHz	SDR/DDR 52 MHz, HS200	SDR/DDR 52 MHz, HS200 HS400
	Width		x1, x4, x8		
	Temperature/Grade	Industrial, Automotive	Automotive, Industrial, Wireless		
	Packages	SO16, DFN6x8, BGA	100/153/169-ball BGA, 162-ball eMCP BGA		
	Intel® Quark™ Processor				
Quark SoC X1000 – <i>Clanton/Galileo Gen 2</i>			✓	✓	✓
Intel Atom™ Processor					
Atom Processor E3900 series, Intel Celeron™ Processor N3350 and Intel Pentium™ Processor N4200 – <i>Apollo Lake</i>	✓			✓	✓
Atom x3-C3230RK Processor – <i>SoFIA 3G-R</i>				✓	✓
Atom x5-Z8300 Processor – <i>Cherry Trail</i>			✓	✓	✓
Pentium and Celeron Processor N3000 Product Families – <i>Brasswell</i>			✓	✓	✓
Atom E3800 Processor – <i>Bay Trail</i>					
Atom Processor C2000 – <i>Rangeley</i>					
Intel Core™ i5 and Core™ i7					
6th Generation Intel Core Desktop/Mobile Processor Family with Intel 100 Series Chipsets and Intel Xeon Processor E3-1200/E3-1500 v5 Product Family with Intel C230/CM230 Series Chipsets – <i>Skylake S/H/U</i>	✓				
5th Generation Intel Core Processors with Mobile Intel QM87 and HM86 Chipsets – <i>Broadwell H/U</i>	✓				
4th Generation Intel Core Processors with Intel Communications Chipset 89xxCC Series – <i>Glen Forest (Haswell Mobile + Cave Creek)</i>	✓				
Intel Xeon, Intel Core, and Intel Pentium® Processors with Intel Communications Chipset 89xx Series – <i>Crystal Forest/Gladden Refresh</i>	✓				
4th Generation Intel Core Processors with Intel Q87 Chipset – <i>Shark Bay Desktop (Haswell + Lynx Point)</i>	✓				
4th Generation Intel Core Processors with Mobile Intel QM87 and HM86 Chipsets – <i>Shark Bay Mobile (Haswell + Lynx Point)</i>	✓				
Xeon® Processor					
Intel Xeon Processor E5-2600 v4 Product Family with Intel C612 Chipset – <i>Grantley Refresh (Broadwell-EP + Wellsburg)</i>	✓				
Intel Xeon Processor D-1500 Product Family – <i>Broadwell DE</i>	✓				
Intel Xeon Processor E5-2600 v3 Product Family with Intel Communications Chipset 89xx Series – <i>River Forest (Haswell + Coletto Creek)</i> and Intel Xeon Processor E5-2600 v3 Product Family with Intel® C612 Chipset – <i>Grantley (Haswell-EP + Wellsburg)</i>	✓				
Intel Xeon Processor E5-2600 v2 Product Family with Intel Communications Chipset 89xx Series – <i>Crystal Forest/Server Refresh</i> and Intel Xeon Processor E5-2600 v2 Product Family with Intel C604 Chipset and Intel C602-J Chipset – <i>Romley-EP Refresh</i>					
Intel Xeon Processor E3-1200 v3 Product Family with Intel HD Graphics P4600 and Intel C226 Chipset – <i>Denlow (Haswell + Lynx Point)</i>					
Intel Xeon Processor E3-1200 v2 Series with Intel C216 Chipset – <i>Carlow</i>					

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1. EOL pending; please contact your Micron representative for details.
2. These devices have lifecycles supported for 5 to 10+ years. For more details, go to www.micron.com/lifecycle or contact your Micron representative. For more details on Micron memory for Intel platforms, go to www.micron.com/solutions/micron-valued-partner-program/chipset-partner/intel.

