

Micron® Flash Memory Support for Xilinx® Platforms



Save yourself time and money –
Micron memory comes validated on Xilinx platforms

Micron Flash	Product	SPI NOR Flash				BPI NOR Flash				NAND Flash	Managed NAND	
	Family	MT25T	MT25Q	N25Q*	M25P*	MT28GU*	P30/P33*	M29EW*	MT28EW	MT29F Parallel	MTFC	MTFC
	Voltage	1.8V, 3.3V	1.8V, 3.3V	1.8V, 3.3V	3V	1.8V	1.8V, 3.3V	1.8V, 3.3V	3.3V Vcc/ 1.8-3.3V I/O	1.8V, 3V	3V, 1.8V	3V
	Speed ¹	133 MHz/ 108 MHz	133 MHz/ 108 MHz	108 MHz	50 MHz	133 MHz, burst	52 MHz, burst	Asynch	Asynch	30 MB/s	e.MMC 5.0	e.MMC 4.41/4.51
	Width	x8	x1, x2, x4	x1, x2, x4	x1	x16 (non-MUX)	x16	x8, x16	x8, x16	x8, x16	x1, x4, x8	x1, x4, x8
	Density	256Mb–1Gb	128Mb–2Gb	16Mb–1Gb	512Kb–64Mb	256Mb–1Gb	64Mb–2Gb	64Mb–2Gb	128Mb–1Gb	1Gb–128Gb	4GB–64GB	4GB–64GB
Xilinx FPGA Family	MPSoC											
	Zynq® UltraScale+™ MPSoC	P	✓	✓						✓	✓	✓
	SoC											
	Zynq-7000 SoC	P	✓	✓				✓ ⁴	P	✓		✓ ⁸
	Xilinx UltraScale+™ Series FPGAs											
	Virtex®	P	✓	✓ ²		✓	✓ ⁷	✓	✓			
	Kintex®	P	✓	✓ ²		✓	✓	✓	✓			
	Xilinx UltraScale™ Series FPGAs											
	Virtex	P	✓	✓ ²		✓	✓ ⁷	✓	✓			
	Kintex	P	✓	✓ ²		✓	✓	✓	✓			
	Xilinx 7-Series FPGAs											
	Virtex-7 (1.8V only)	P	✓	✓ ²		✓	✓ ⁷	✓	✓			
	Kintex-7	P	✓	✓ ²		✓	✓	✓	✓			
	Artix-7	P	✓	✓ ²		✓	✓	✓	✓			
	Xilinx 6-Series FPGAs											
	Virtex-6 (x1 SPI only)		✓ ⁹	✓ ³	✓		✓ ^{5,7}					
	Spartan®-6		✓ ⁹	✓ ³	✓		✓ ^{5,6}					
Xilinx Legacy FPGAs												
Virtex-5				✓		✓ ^{5,7}						
Spartan-3A				✓								



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Product	DDR4	DDR3L ⁴ /DDR3	DDR2	DDR	RLDRAM ^{®3}	RLDRAM ^{®2}	LPDDR4	LPDDR3	LPDDR2	HMC
Micron DRAM	MT40A	MT41K/MT41J	MT47	MT46	MT44	MT49	MT53	EDF/MT52	MT42	MT43
Family	MT40A	MT41K/MT41J	MT47	MT46	MT44	MT49	MT53	EDF/MT52	MT42	MT43
Voltage (Core)	1.2V	1.35V, 1.5V	1.8V	2.5V	1.35V	1.8V	1.1V	1.2V	1.2V	1.2V
Speed	526–1333 MHz	300–1066 MHz	125–533 MHz	77–200 MHz	200–1066 MHz	175–533 MHz	10–1600 MHz	10–933 MHz	10–533 MHz	15 Gb/s
Width	x4 ¹ , x8, x16	x4 ¹ , x8, x16	x8, x16	x8, x16	x18, x36	x18, x36	x32	x32, x64	x16, x32	x32, x64
Density	4Gb, 8Gb	1Gb, 2Gb, 4Gb, 8Gb	512Mb, 1Gb, 2Gb	256Mb, 512Mb	576Mb, 1.125Gb	288Mb, 576Mb	8Gb, 16Gb	8Gb, 16Gb, 32Gb	512Mb–16Gb	2GB, 4GB
Modules	UDIMM, RDIMM, LRDIMM, SODIMM				–	–	–	–	–	–
Extensible Processing Platforms – Zynq® UltraScale+™ -MPSoC										
Processing System	✓	✓					✓	✓		
Programmable Logic	✓	✓			✓	✓		✓		✓
Extensible Processing Platforms – Zynq-7000 SoC²										
Processing System		✓ ³	✓						✓	
Programmable Logic		✓	✓						✓	
Xilinx UltraScale+ Series FPGAs										
Virtex®	✓	✓			✓					✓
Kintex®	✓	✓			✓					✓
Xilinx UltraScale Series FPGAs										
Virtex	✓	✓			✓					✓
Kintex	✓	✓			✓					✓
Xilinx 7-Series FPGAs										
Virtex-7		✓	✓		✓	✓			✓	
Kintex-7		✓	✓		✓	✓			✓	
Artix®-7		✓	✓						✓	
Xilinx 6-Series FPGAs										
Virtex-6		✓	✓			✓				
Spartan®-6		✓	✓	✓						
Xilinx Legacy FPGAs										
Virtex-5		✓	✓	✓		✓				
Spartan-3A			✓	✓						

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

1. The x4 width applies to UltraScale FPGAs only. 2. DRAM DIMMs not supported on Zynq-7000. 3. Zynq processing system can run up to 667 MHz on DDR3. 4. DDR3L (MT41K) devices are compatible with operation at 1.5V. Note that some density and speed combinations may be available only as 1.35V part numbers, but these meet the specification for operation at 1.5V.



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