

Micron® Memory Support for NXP Platforms

i.MX Processor Memory Support Matrix							
Micron Solutions Offered for i.MX Processors		i.MX 6Quad/i.MX 6Dual/DualLite/Solo			i.MX 6SoloLite		i.MX 6SoloX
		i.MX 6QuadPlus/i.MX 6DualPlus			Evaluation Kit	WaRP (Wearable Reference Design)	SABRE SDB
		SABRE for Automotive Infotainment	SABRE Platform for Smart Devices	Quick Start Board			
DRAM	Type	DDR3	DDR3	DDR3	LPDDR2	eMCP (LPDDR2 with e.MMC)	DDR3
	Density	4Gb	2Gb	2Gb	8Gb	4Gb	4Gb
	Configuration	256 Meg x 16	128 Meg x 16	128 Meg x 16	256 Meg x 32	256 Meg X 16	256 Meg x 16
	Package	96-ball FBGA	96-ball FBGA	96-ball FBGA	168-ball VFBGA	162-ball VFBGA	96-ball FBGA
	Validated PN	MT41J256M16RE	MT41J128M16HA	MT41J128M16HA	MT42L256M32D2LG	MT29PZZ4D4BKESK	MT41K256M16HA-125:E
	Recommended PN	MT41K family*	MT41K family*	MT41K family*	MT42L family	MT29P family**	MT41K family*
	Qty/Board	4	4	4	1	1	2
NAND/e.MMC	Type	Raw	e.MMC	e.MMC	e.MMC	eMCP (LPDDR2 with e.MMC)	e.MMC
	Density	64Gb	8GB	8GB	8GB	4GB	8GB
	Package	48-pin TSOP	169-ball FBGA	169-ball FBGA	169-ball FBGA	162-ball VFBGA	153-ball TFBGA
	Validated PN	MT29F64G08AFAAA				MT29PZZ4D4BKESK	MTFC8GLCDM
	Recommended PN	MT29F/MTFC families	MTFC family	MTFC family	MTFC family	MT29P family**	MTFC family
NOR	Type	Parallel					Parallel
	Density	256Mb					1Gb
	Package	56-pin TSOP					64-ball TBGA
	Validated PN	M29W256GL7AN6E‡					MT28GU01GAAA2EGC‡
	Recommended PN	M29W family‡					MT28GU‡
SPI NOR	Type	Serial	Serial		Serial		Serial
	Density	32Mb	32Mb		32Mb		256Mb
	Package	SO8W	SO8W		SO8W		SO8W
	Validated PN	M25P32-VMW3TGB‡	M25P32-VMW6TG‡		M25P32-VMW6TG‡		N25Q256A13EF840‡
	Recommended PN	MT25Q family	MT25Q family		MT25Q family		MT25Q family

*MT41K family supports both 1.5V and 1.35V power supply and is backward-compatible with MT41J family.
 **Micron's MT29PZZ4D4BKESK is a multichip package that integrates a 4Gb LPDDR2 and a 4GB e.MMC v4.51 in a single package.
 ‡EOL pending, contact Micron for availability.

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Micron Solutions Offered for i.MX Processors		<i>i.MX 6Dual/Quad</i>	<i>i.MX 6Solo</i>	<i>i.MX 6UL (Ultra Lite)</i>		<i>Quick Start Board for SCM-i.MX6DQ</i>
		MX6Q PoP Third-Party Reference Modules	RiOTBoard.ORG	Validation Module		Single Chip Module
DRAM	Type	LPDDR2 PoP	DDR3L	DDR3/L		LPDDR2 (Package on Package [POP])
	Density	8Gb	4Gb	4Gb		8Gb
	Configuration	128 Meg x 64	256 Meg x 16	512 Meg x 8		128M x 64
	Package	216-ball PoP	96-ball VFBGA	96-ball FBGA		216 b PoP
	Validated PN	MT42L128M64D2LL-25 AT:A	MT41K256M16HA	MT41K512M8RH		EDB8164B4PT-1DAT-F-D
	Recommended PN	MT42L family	MT41K family*	MT41K family*		EDB8164B4PT-1DAT-F-D
	Qty/Board	1	2	2		1
NAND/e.MMC	Type	e.MMC	e.MMC	e.MMC	MLC NAND	
	Density	4GB	4GB	8GB	32Gb (4Gb)	
	Package	153-ball VFBGA	153-ball WFBGA	153-ball WFBGA	48-pin TSOP	
	Validated PN	MTFC4GACAAAM-4M IT	MTFC4GMVEA-1M WT	MTFC8GACAAAM-4M IT	MT29F32G08CBADAWP	
	Recommended PN	MTFC family	MTFC family	MTFC family	MT29F family	
SPI NOR	Type			Quad SPI		Quad SPI
	Density			256Mb		128Mb
	Package			V-PDFN-8 (8mm x 6mm)		Die integrated in SCM package
	Validated PN			N25Q256A13EF840*		N25Q128‡
	Recommended PN			MT25Q, MT25T families		MT25Q family

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 **Micron's MT29PZZZ4D48KESK is a multichip package that integrates a 4Gb LPDDR2 and a 4GB e.MMC v4.51 in a single package.
 ‡EOL pending, contact Micron for availability.

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Micron Solutions Offered for i.MX Processors		i.MX 7				i.MX 8
		SABRE for Smart Devices		Validation Platform		DV Platform
DRAM	Type	DDR3L		LPDDR3		LPDDR3
	Density	4Gb		16Gb		32Gb
	Configuration	256 Meg x 16		512 Meg x 32 (2 rank)		512M x 64
	Package	96-ball VFBGA		168-ball PoP (soldered on board)		253-ball FBGA
	Validated PN	MT41K256M16HA		EDFA232A2PF-GD-F-D		EDFB164A1MA-JD-F-D
	Recommended PN	MT41K family*		EDFA family		None, consider LPDDR4 for new designs
	Qty/Board	2		2		2
NAND/e.MMC	Type	e.MMC	MLC NAND	e.MMC	SLC NAND	e.MMC (5.0)
	Density	8GB		8GB		32GB
	Package	153-ball WFBGA	48-pin TSOP	153-ball WFBGA	48-pin TSOP	153-ball VFBGA
	Validated PN	MTFC8GACAEAM-1M WT	MT29F32G08CBADB	MTFC8GACAEAM-1M WT	MT29F32G08ABCDB14	MTFC32GAKAEAF-AIT
	Recommended PN	MTFC family	MT29F family	MTFC family	MT29F family	MTFC family
NOR	Type			Parallel		Parallel NOR
	Density			1Gb		256Mb
	Package			64-ball TBGA		64b TBGA
	Validated PN			MT28GU01GAAA1EG-OSIT [‡]		MT28GU256AAA2EGC-OSIT [‡]
	Recommended PN			MT28GU family [‡]		MT28GU family [‡]
SPI NOR	Type	Serial		Serial (Quad SPI)	Serial (Twin Quad)	Quad SPI, Twin Quad
	Density	256Mb		256Mb	512Mb	512Mb
	Package	SO8W		SO8W	SO16	V-PDFN-8 (8mm x 6mm)
	Validated PN	N25Q256A13E1240E [‡]		N25Q256A13E1240E [‡]	M25TL512HAA1ESF0AAT	MT25TL512HBA8E12-0AATES
	Recommended PN			MT25Q family	MT25TL family	MT25Q, MT25T families

*MT41K family supports both 1.5V and 1.35V power supply and is backward compatible with MT41J family.
[‡]EOL pending, contact Micron for availability.

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Kinetic K Family Processors											
Micron Solutions for Kinetic K Processors			K80	K70	K60	K50	K40	K30	K20	K10	E, L, M, W
DRAM	Type	DDR									
	Density	256Mb–1Gb									
	Configuration	x4, x8, x16		✓	✓						
	Package	TSOP, FBGA									
NAND	Type	Raw (host ECC required)									
	Density	128Mb–512Gb		✓	✓						
	Package	48-pin TSOP							✓		
	Family	MT29F									
SPI NOR	Type	Serial									
	Density	8Mb–1Gb		✓	✓	✓	✓	✓	✓	✓	✓
	Package	Many									
	Family	MT25Q									
Octal SPI NOR Xccela™ Flash	Type	Octal SPI NOR	✓								
	Density	256Mb–2Gb									
	Package	24-ball T-PBGA									
	Family	MT35X									

✓ Indicates the interface is compatible with the memory device.

Vybrid Processors						
Micron Solutions for Vybrid Processors				VF6XX	VF5XX	VF3XX
DRAM	Type	DDR3	LPDDR2			
	Density	4Gb, 8Gb	4Gb	✓	✓	
	Configuration	x4, x8, x16	x32, x64	DDR3 and LPDDR2	DDR3 and LPDDR2	
	Package	78-, 96-ball	134-, 253-ball			
NAND	Type	Raw NAND				
	Density	128–512Gb		✓	✓	✓
	Package	48-pin TSOP				
	Family	MT29F				
QUAD SPI NOR	Type	Serial (Quad SPI) NOR				
	Density	128Mb–2Gb		✓	✓	✓
	Package	Many				
	Family	MT25Q				

✓ Indicates the interface is compatible with the memory device.
*MT41K family supports both 1.5V and 1.35V power supply and is backward-compatible with MT41J family.

Automotive Processors			
Micron Solutions for NXP Automotive Processors		ADAS Vision Processor S32V234	Instrument Cluster MAC57D
DRAM	Type	LPDDR2	DDR2
	Density	2Gb	1Gb
	Configuration	64M x 32	64M x 16
	Package	134-ball FBGA	84-ball FBGA
	Validated PN	MT42L64M32D1TK-18 AA	MT47H64M16NF-25E
	Recommended PN	MT42L family	MT47H family
SPI NOR	Type	Twin Quad SPI NOR	Quad SPI NOR
	Density	256-1024Mb	128-2048Mb
	Package	SOIC-16, 24-ball T-PBGA	SOIC-16
	Validated PN		
	Recommended PN	MT25TL	MT25Q family
	Octal SPI NOR Xccela™ Flash	Type	Octal SPI NOR
Density		512Mb	512Mb
Package		24-ball T-PBGA	24-ball T-PBGA
Validated PN		MT35XL512ABA1G120A-AT	MT35XL512ABA1G120A-AT
Recommended PN		MT35X family	MT35X family
NAND/ e.MMC		Type	e.MMC
	Density	8GB	
	Package	153-ball VFBGA	
	Validated PN	MTFC8GACAAAM-4M-IT	
	Recommended PN	MTFC family	

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QorIQ Processor Memory Support Matrix								
Micron Solutions for QorIQ Processors		Value Tier	Mid-Range Tier			High-Performance Tier		
		P1010/P1014	P2022/P2021E	P2041/P2031	T2080/T2081	P408X	P5020/P5040	T4240
DRAM	Type	DDR3/DDR3L	DDR3	DDR3/DDR3L	DDR3/DDR3L	DDR3	DDR3/DDR3L	DDR3/DDR4L
	Density	4Gb	4Gb	4Gb	4Gb	4Gb	4Gb	4Gb
	Configuration	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16	512 Meg x 8, 256 Meg x 16
	Package	78-ball, 96-ball	78-ball, 96-ball	78-ball, 96-ball	78-ball, 96-ball	78-ball, 96-ball	78-ball, 96-ball	78-ball, 96-ball
	Base PN	MT41J256M	MT41J256M	MT41J256M	MT41J256M	MT41J256M	MT41J256M	MT41J256M
NAND	Type	Raw (host ECC required)	Raw (host ECC required)	Raw (host ECC required)	Raw (host ECC required)		Raw (host ECC required)	Raw (host ECC required)
	Density	128Mb–512Gb	128Mb–512Gb	128Mb–512Gb	128Mb–512Gb		128Mb–512Gb	128Mb–512Gb
	Package	48-pin TSOP	48-pin TSOP	48-pin TSOP	48-pin TSOP		48-pin TSOP	48-pin TSOP
	Family	MT29F	MT29F	MT29F	MT29F		MT29F	MT29F
NOR	Type	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel	Parallel
	Density	64Mb–2Gb	64Mb–2Gb	64Mb–2Gb	64Mb–2Gb	64Mb–2Gb	64Mb–2Gb	64Mb–2Gb
	Package	56-pin TSOP	56-pin TSOP	56-pin TSOP	56-pin TSOP	56-pin TSOP	56-pin TSOP	56-pin TSOP
	Family	M29W [‡]	M29W [‡]	M29W [‡]	M29W [‡]	M29W [‡]	M29W [‡]	M29W [‡]
NOR	Type	Serial	Serial	Serial	Serial	Serial	Serial	Serial
	Density	128Mb–2Gb	128Mb–2Gb	128Mb–2Gb	128Mb–2Gb	128Mb–2Gb	128Mb–2Gb	128Mb–2Gb
	Package	Many	Many	Many	Many	Many	Many	Many
	Family	MT25Q	MT25Q	MT25Q	MT25Q	MT25Q	MT25Q	MT25Q
e.MMC	Type	Managed (JEDEC STD)	Managed (JEDEC STD)	Managed (JEDEC STD)	Managed (JEDEC STD)	Managed (JEDEC STD)	Managed (JEDEC STD)	Managed (JEDEC STD)
	Density	4GB–64GB	4GB–64GB	4GB–64GB	4GB–64GB	4GB–64GB	4GB–64GB	4GB–64GB
	Package	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA
	Family	MTFC	MTFC	MTFC	MTFC	MTFC	MTFC	MTFC
eUSB	Type	Managed (USB)	Managed (USB)	Managed (USB)	Managed (USB)	Managed (USB)	Managed (USB)	Managed (USB)
	Density	2GB–16GB	2GB–16GB	2GB–16GB	2GB–16GB	2GB–16GB	2GB–16GB	2GB–16GB
	Package	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm
	Family	MTEDC	MTEDC	MTEDC	MTEDC	MTEDC	MTEDC	MTEDC
SATA SSD	Type	Managed (SATA)		Managed (SATA)	Managed (SATA)		Managed (SATA)	Managed (SATA)
	Density	100GB–960GB		100GB–960GB	100GB–960GB		100GB–960GB	100GB–960GB
	Package	2.5" drive, 7mm height		2.5" drive, 7mm height	2.5" drive, 7mm height		2.5" drive, 7mm height	2.5" drive, 7mm height
	Family	MTFDD		MTFDD	MTFDD		MTFDD	MTFDD

[‡]EOL pending, contact Micron for availability.

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QorIQ Processor Memory Support Matrix					
Micron Solutions for QorIQ Processors		Value Tier			Mid-Range Tier
		LS1020/LS1021/LS1022	T1023/T1024	T1020, T1022, T1040, T1042	LS2085
DRAM	Type	DDR3L	DDR3L UDIMM	DDR3L UDIMM	DDR4 UDIMM
	Density	4Gb	4GB (x72, ECC, DR)	4GB (x72, ECC, DR)	8GB (x72, ECC, DR)
	Configuration	256 Meg x 16	4GB (512 Meg x 72)	4GB (512 Meg x 72)	1 Gig x 72
	Package	96-ball VFBGA	UDIMM (Dual Rank)	UDIMM (Dual Rank)	UDIMM (Dual Rank)
	Part Number	MT41K256M16HA-125:E	MT18KSF51272AZ-1G6	MT18KSF51272AZ-1G6	MTA18ASF1G72AZ-2G1A1
NAND	Type		Raw (host ECC required)	Raw (host ECC required)	Raw (host ECC required)
	Density		8Gb	8Gb	16Gb
	Package		48-pin TSOP	48-pin TSOP	48-pin TSOP
	Family		MT29F8G08ABBCAH4	MT29F8G08ABABAWP-ITX:B	MT29F16G08ABABA
NOR	Type	Parallel	Parallel	Parallel	Parallel
	Density	128MB (1Gb) 16-bit NOR	128MB (1Gb) 16-bit NOR	128MB (1Gb) 16-bit NOR	128MB (1Gb) 16-bit NOR
	Package	56-pin TSOP	56-pin TSOP	56-pin TSOP	56-pin TSOP
	Part Number	MT28EW01GABA1HJS-0SIT [‡]	JS28F00AM29EWHA [‡]	JS28F00AM29EWHA [‡]	M29EW [‡]
NOR	Type	Serial	Serial	Serial	Serial
	Density	128Mb	512Mb	512Mb	512Mb
	Package	24-ball TBGA	SO8, SO16, 24-ball TBGA	SO8, SO16, 24-ball TBGA	SOP2-16/300 mils
	Part Number	N25Q128A13E1240F [‡]	MT25QL512ABA1ESF [‡]	N25Q512A13GSF40F [‡]	N25Q512A11GSF40F [‡]
e.MMC	Type	Managed (JEDEC STD)		Managed (JEDEC STD)	Managed (JEDEC STD)
	Density	4GB–64GB		4GB–64GB	4GB–64GB
	Package	VFBGA, TFBGA, LFBGA		VFBGA, TFBGA, LFBGA	VFBGA, TFBGA, LFBGA
	Part Number	MTFC		MTFC	MTFC
eUSB	Type	Managed (USB)	Managed (USB)	Managed (USB)	Managed (USB)
	Density	2GB–16GB	2GB–16GB	2GB–16GB	2GB–16GB
	Package	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm	36.9mm x 26.6mm
	Part Number	MTEDC	MTEDC	MTEDC	MTEDC
SATA SSD	Type	Managed (SATA)		Managed (SATA)	Managed (SATA)
	Density	100GB–960GB		100GB–960GB	100GB–960GB
	Package	2.5" drive, 7mm height		2.5" drive, 7mm height	2.5" drive, 7mm height
	Part Number	MTFDD		MTFDD	MTFDD

[‡]EOL pending, contact Micron for availability.

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