ONE SOURCE

for Industrial Multimarket Applications

Micron® Industrial Multimarket Application Memory

The Industrial IoT/Industry 4.0 is transforming the world of manufacturing—extending automation and connectivity beyond traditional factory walls and driving strong demand for more data acquisition, communication, real-time analytics and data-driven decisions across a wide range of industrial verticals.

It is estimated 20 billion+ new smart connected devices will be deployed over the next decade. The best devices will be those that enable businesses to run more efficiently, require the least amount of maintenance and enable the least possible downtime.

Micron memory and storage solutions are the top choice across IIoT verticals like IPC/ factory automation, surveillance, M2M, retail, digital signage, smart grid, transportation/fleet management, healthcare, and aerospace and defense applications.

Micron has been a trusted advisor to our industrial customers for more than 25 years. We understand the unique needs of this market and we bring a mindset to deliver sustainable value to our customers—because we firmly believe that IQ matters to our customers' success in IIoT.

Because IQ Matters
to the success of your
Industrial IoT designs.

What is Micron's Industrial Quotient (IQ)?

We bring to market a mindset and portfolio that delivers sustainable value to our customers with:

- **Application-Specific Tuning**
  Extensive collaboration with global customers to develop in-depth understanding of application use cases and deliver products and features to meet those specific application needs.
- **Ruggedized Products**
  Product enhancements that enable consistent performance across extreme environments: extended temperature, thermal cycling, shock, humidity, etc.
- **High Reliability**
  Design and testing processes that add a high level of endurance and reliability to align with needs of long-lifecycle embedded applications.
- **Extensive Quality Testing**
  Rigorous testing to deliver the consistent performance across products and processes necessary in embedded and mission-critical applications.
- **Product Longevity**
  Extended lifecycle support for eligible products via our Product Longevity Program, which goes a step beyond standard lifecycle support to suit long-life applications.
- **Security by Design**
  Integrating the latest Micron Authenta™ technology solution in memory to provide platform- and solution-level values that translate to reliable, safety conscious solutions with best-in-class time to market.

Micron®

Micron® Memory for Industrial Multimarket Applications

Product Family	Voltage	Bus Width	Performance	Density Range	Temp Range[2]	Package Options
Storage						
SSDs	3V, 5V	x1	SATA III	128–256GB MLC, 64–128GB SLC	IT	2.5-inch, mSATA
Memory cards	3.3V	x4	SD3.0/5.1 UHS-I U1 Class 10	32–256GB microSD	WT	microSD
e.MMC	3V	x1, x4, x8	MMC v5.0	4–128GB MLC	WT, IT	BGA
eMCPs and MCPs						
e.MMC + LPDDR3 MCPs	3.3V	x8 e.MMC, x32 LPDDR3	933 MHz	8GB e.MMC, 8Gb LPDDR3	WT	BGA
NAND + LPDDR4 MCPs	1.8V	x8 NAND, x16 LPDDR4	1866 MHz 8-bit ECC	4Gb 100K SLC NAND, 2–4Gb LPDDR4	IT	BGA
NAND + LPDDR2 MCPs	1.8V	x8 NAND x16, x32 LPDDR2	333–533 MHz 4-bit ECC	1–4Gb 100K SLC NAND 512Mb–4Gb LPDDR2	IT	BGA
DRAM and Modules						
DDR4 SDRAM (MT40)	1.2V	x8, x16	2133–3200 MT/s	4–8Gb; 2–32GB	IT, AT	BGA, ECC SODIMM, ECC UDIMM, RDIMM
DDR3 SDRAM (MT41)	1.35V	x8, x16	1600–2133 MT/s	1–8Gb; 8GB	IT, AT	BGA, SODIMM, ECC SODIMM, UDIMM, ECC UDIMM, RDIMM
DDR2 SDRAM (MT47)	1.8V	x8, x16	800 MT/s	512Mb–2Gb; 512MB–2GB	IT, AT	BGA, SODIMM, UDIMM, RDIMM
SDRAM (MT48)	3.3V	x8, x16, x32	133–167 MT/s	64–256Mb	IT, AT	BGA, TSOP
Mobile DRAM						
LPDDR4 SDRAM (MT53)	1.1V	x16, x32, x64	3200 MT/s	4–32Gb	WT, IT, AT	BGA, PoP
LPDDR2 SDRAM	1.2V	x16, x32	1066 MT/s	512Mb–16Gb	WT, IT, AT	BGA, PoP, KGD
SLC NAND						
Serial SLC NAND LP/VLP	1.8V, 3V	x1, x2, x4	Up to 133 MHz, on die (zero) ECC	1–8Gb 100K SLC NAND	IT	DFN, BGA, wafer
Parallel SLC NAND LP/VLP	1.8V, 3V	x8, x16	8-bit or on-die (zero) ECC	1–8Gb 100K SLC NAND	IT	TSOP, BGA, wafer
Parallel NOR Flash						
MT28EW	3V	x8, x16	Async	128Mb–2Gb	IT	TSOP, BGA
Serial NOR Flash						
MT35X Xccela™ Flash	1.8V, 3V	x1, x8	200 MHz DDR	256Mb–2Gb	IT, AT	BGA, KGD, SOP
MT25Q	1.8V, 3V	x1, x2, x4	108-166 MHz	128Mb–2Gb	IT, AT, UT	BGA, CSP, DFN, KGD, SOP

1. This table contains design-in products only.
2. Typical temperature range: CT = 0°C to 95°C; WT = –25°C to 85°C, IT = –40°C to 85°C; AT = DRAM -40°C to 105°C; Flash = -40°C to 125°C

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