DRAM
PRODUCT FAMILY

Meet selected members of our family. They represent the whole clan - one of the largest in the industry.

IM products are designed to meet the most excruciating requirements for industrial electronic applications, working at just about any temperatures and speeds you can imagine. We provide a unique blend of DRAM components and modules that exceed the standards for commercial reliability and quality. In addition, IM not only offers the first DDR3 8 Gigabit memory IC with single chip select, but also several rare densities, configurations, features and package types across a number of different DRAM product categories.

DDR4 Component Highlights

- Faster data transfer rates and low voltage operation
- Full configurations offered (8Gb and 4Gb with x8 and x16)
- Highest speed up to 3200Mbps
- Working temps in the range of -40C to +95C

DDR4 Modules Highlights

- Offering primary form factors, DIMMs and SO-DIMMs for industrial applications, as well as Mini DIMM (unbuffered and registered) often seen in communication server applications
- Ready to run in PC4-25600 speed and industrial temperature range
- Capacities up to 64GB optionally with Error Code Correction (ECC)

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DDR3 Highlights

- Components with max. 16Gb x16 Dual Chip Select
- Components with max. 8Gb with Single or Dual Chip Select, x4, x8 and x16
- 1Gb components with ECC feature, x8 and x16
- UDIMM and SO-DIMM modules with up to 16GB (optional ECC)

DDR2 Highlights

- Components with max. 2Gb with Single Chip Select x4, x8 and x16
- 1Gb components with ECC feature, x8 and x16
- High density modules: E.g. 8GB RDIMM and 4GB UDIMM

DDR Highlights

- Components with max. 512Mb, both TSOP and BGA
- 1Gb components with ECC feature, TSOP x8 and x16
- RDIMM and UDIMM modules with up to 1GB

SDRAMs Highlights

- 512Mb and 256Mb components with ECC feature, both TSOP and BGA
- UDIMM and SODIMM modules with up to 512MB

DRAM Component Lineup

DRAM Component	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb	4Gb	8Gb	16Gb
SDRAM (3.3V)	✓✓	✓✓	✓✓✓	✓✓✓					
DDR (2.5V)			✓	✓	✓✓				
DDR2 (1.8V)				✓	✓✓	✓✓			
DDR3 (1.35V/1.5V)					✓✓	✓	✓	✓✓	✓
DDR4 (1.2V)							✓	✓	
LPDDR4 (1.1V)							✓	✓	

Features:
- ✓ Commercial & Industrial Temperature Grade, Leaded balls package option is possible
- ✓ x4 configuration available
- ✓ ECC - On-chip ECC option available (AEC-Q100 also available)
- ✓ x32 configuration and/or BGA package available

DRAM Module Lineup

DRAM Module	LRDIMM	RDIMM	UDIMM	RSODIMM	SODIMM	Mini-RDIMM	Mini-UDIMM
FPM/EDO (3.3V/5V, max: 50ns)			✓ Max: 256MB		✓ Max: 128MB		
SDRAM (3.3V, max: PC-166)			✓✓ Max: 512MB		✓✓ Max: 512MB		
DDR (2.5V, max: PC-3200)		✓ Max: 1GB	✓✓ Max: 1GB		✓✓ Max: 1GB		
DDR2 (1.8V, max: PC2-6400)		✓ Max: 8GB	✓✓ Max: 4GB		✓✓ Max: 4GB	✓✓ Max: 512MB	
DDR3 (1.35V/1.5V, max: PC3-12800)	✓ Max: 32GB	✓✓ Max: 32GB	✓✓✓ Max: 16GB	✓ Max: 16GB	✓✓✓ Max: 16GB	✓✓ Max: 16GB	✓✓ Max: 16GB
DDR4 (1.2V, max: PC4-25600)		✓✓ Max: 64GB	✓✓✓ Max: 32GB		✓✓✓ Max: 32GB	✓✓ Max: 16GB	✓✓ Max: 32GB

Features:
- ✓ ECC/NECC is both available
- ✓ VLP/ULP (Very Low Profile / Ultra Low Profile) is available
- ✓ I-temp is available

For more information or to request samples, please visit us at **www.intelligentmemory.com**. You may also contact our sales team directly at **sales@intelligentmemory.com**.