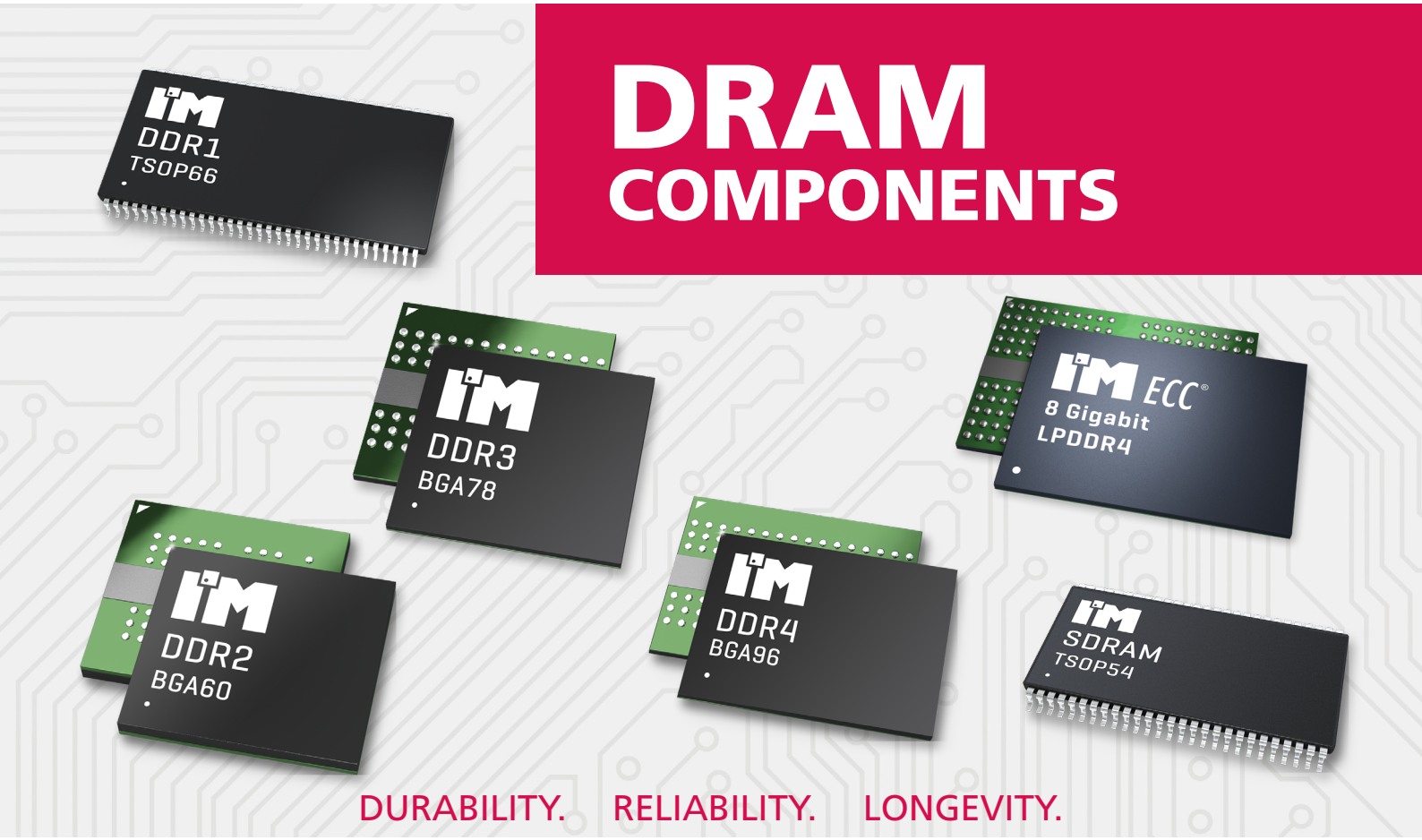
UNLIMITED INGENUITY

INTELLIGENT MEMORY

DRAM COMPONENTS



DURABILITY. RELIABILITY. LONGEVITY.

IM products are designed to meet the most excruciating requirements for industrial electronic applications, working at just about any temperatures and speeds that you can imagine. We provide a unique offering of DRAM components that exceed the standards for commercial reliability and quality.

Intelligent Memory introduced not only the first DDR3 DDP 8Gb memory IC with single chip select, but also several rare densities, configurations, features and package types across a number of different DRAM product categories.

- Providing memory solutions for industrial and embedded applications for over 30 years
- From standard to special, legacy to mainstream
- Long product lifetimes with continued support
- In-house product designs and testing capabilities
- Customizable configurations and feature-rich products across a range of solutions
- ECC and register feature enabled products
- Reliable product change management processes

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**

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DRAM PRODUCT FAMILY

LPDDR4

- Low Voltage Power Supply 1.8V and I/O at 1.1V
- Mobile features for lower power
- ZQ Calibration
- Integrated ECC error correction
- 4Gb x32 and 8Gb x32 are available

DDR4

- Double data rate clocking timing, 1.2V Power Supply
- Supported Data Bus Inversion (DBI)
- Supported Write Cycle Redundancy Check (CRC)
- Supported Dynamic ODT (On-Die Termination)
- Supported Fine Granularity Refresh Mode
- High speed data transfer up to 3200MHz
- 4Gb and 8Gb are available

DDR3

- Double data rate clocking timing, 1.35V or 1.5V Power Supply
- Data masking per byte on write commands
- Programmable burst length and CAS latency
- Auto-refresh and self-refresh
- Supported OCD (Off-Chip Driver impedance)
- Supported ODT (On-Die Termination)
- High speed data transfer up to 1866Mpbs, available with Commercial and Industrial Grades
- 1Gb, 2Gb, 4Gb, 8Gb and 16Gb are available
- Write leveling
- Integrated ECC error correction available for 1Gb

DDR2

- Double data rate clocking timing, 1.8V Power Supply
- SSTL_18 compatible inputs
- Programmable burst length and CAS latency
- Auto-refresh and self-refresh
- Supported OCD (Off-Chip Driver impedance)
- Supported ODT (On-Die Termination)
- High speed data transfer up to 1066MHz
- 512Mb, 1Gb and 2Gb are available
- Integrated ECC error correction available for 1Gb

DDR

- Double data rate clocking timing, 2.5V Power Supply
- SSTL_2 compatible inputs
- Programmable burst length and CAS latency
- Auto-refresh and self-refresh
- High speed data transfer up to 400MHz, available in Commercial, Industrial and Automotive Grades
- 256Mb, 512Mb & 1Gb with TSOP II and BGA packages
- Integrated ECC error correction available for 1Gb

SDRAM

- Full Synchronous DRAM, 3.3V Power Supply
- Auto-refresh and self-refresh
- Programmable burst length:
  - 1, 2, 4, 8 & full page for sequential type
  - 1, 2, 4, 8 for interleave type
- High speed data transfer up to 200MHz, available with Commercial, Industrial and Automotive Grades
- 64Mb, 128Mb, 256Mb & 512Mb with TSOP II and BGA packages
- Integrated ECC error correction available

DRAM Components	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 available**
- ✓ **x4 configuration available**
- ✓ **ECC – On-chip ECC option available (AEC-Q100 also available)**
- ✓ **x32 configuration and/or BGA package available**
- ✓ **under consideration**

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