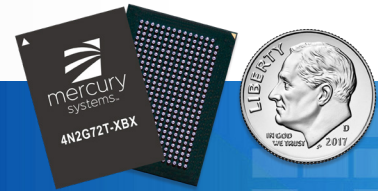


# High Density Secure Memory DDR4 SDRAM

Available From 2GB to 16GB



- **Advanced miniaturization technology**
- **Data transfer speeds up to 2666 Mb/s**
- **-55 to +125°C operating temperatures**
- **Including Decoupling and Terminations**
- **Manufactured in a DMEA-trusted US facility**

Mercury Systems' BuiltSECURE™ technology miniaturizes DDR4 SDRAM memory in a compact, highly ruggedized package. These devices are ideally suited for military and commercial aerospace applications requiring high-speed DDR4 memory optimized for size, weight, and power.

Mercury Systems is currently engaging with customers in design opportunities requiring DDR4 memory performance. To participate in this design program, please contact your Mercury Systems representative or contact us at [Secure.Memory@mrcy.com](mailto:Secure.Memory@mrcy.com)

## Product Features

- DDR4 Data Rate = DDR4-1600, DDR4-1866, DDR4-2133, DDR4 2400 and DDR4-2666\*
- $V_{CC} = V_{CCQ} = 1.2V$
- $V_{PP} = 2.5V$
- Military and Industrial temperature ranges
- Output driver calibration
- Configured as 1-Rank x32, x64 or x72-bit data
- Up to 16 internal banks: 4 groups of 4 banks each
- 8n-bit prefetch architecture
- Programmable data strobe preambles
- Command/Address latency (CAL)
- Multipurpose register READ and WRITE capability

\*Contact factory for availability

- Write and read leveling
- Self refresh mode and Low-Power Auto Self Refresh (LPASR)
- Nominal, park, and dynamic On-Die Termination (ODT)
- Data bus inversion (DBI) for data bus
- Command/Address (CA) parity
- Databus write Cyclic Redundancy Check (CRC)

## Benefits

- Up to 83% space-savings vs discrete chip packages
- Military-grade performance without sacrificing the benefits of DDR4 memory
- Eutectic solder balls for superior board-level reliability
- Up to 93% component reduction
- 100% burn-in and electrical test for the highest quality assurance
- Manufactured in a DMEA-trusted facility
- Available component End of Life management for long-term supply continuity

## Plastic Ball Grid Array (PBGA) Package

- As small as 13 x 20 x 2.36 mm package
- 143, 321, and 383 pin packages
- 0.8 mm pitch
- Moisture Sensitivity Level (MSL) 3

\* These products may or may not be under development, not qualified or characterized and is subject to change or cancellation without notice.

Mercury Systems is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.



ACQUIRE



DIGITIZE



PROCESS



STORAGE



EXPLOIT



DISSEMINATE

Figure 1 - Part Numbers

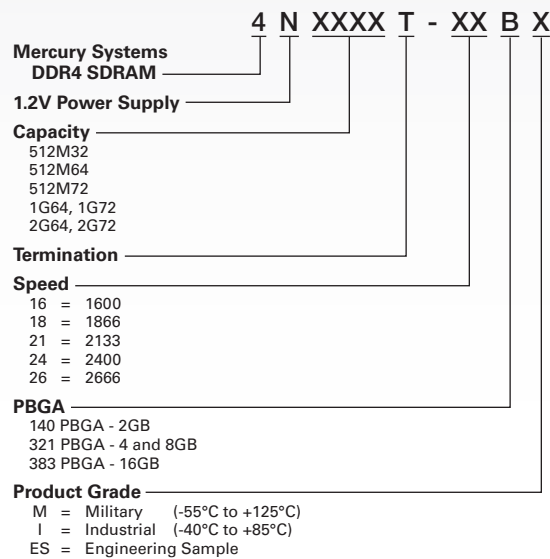
**DDR4 SDRAM MCPs**

Size	Organization	Part Number	Data Rate (Mb/s)**	Voltage (V)	Package	Dimensions	Temperature
2GB***	512M x 32	4N512M32T-XBX	1333-2400	1.2	143 PBGA	8mm x 14mm	I, M
4GB	512M x 64	4N512M64T-XBX	1333-2400	1.2	321 PBGA	13mm x 20mm	I, M
4GB	512M x 72	4N512M72T-XBX	1333-2400	1.2	321 PBGA	13mm x 20mm	I, M
8GB	1G x 64	4N1G64T-XBX	1333-2400	1.2	321 PBGA	13mm x 20mm	I, M
8GB	1G x 72	4N1G72T-XBX	1333-2400	1.2	321 PBGA	13mm x 20mm	I, M
16GB*** ◊	2G x 64	4N2G64T-XBX	1333-2666	1.2	383 PBGA	16mm x 23mm	I, M
16GB*** ◊	2G x 72	4N2G72T-XBX	1333-2666	1.2	383 PBGA	16mm x 23mm	I, M

\*\*\* Contact factory for availability

◊ Contact factory for 2666 MB/s availability

Figure 2 - Part Numbering Matrix



Example Part Number: 4N2G72T-26383M

## Need More Help?

Contact Mercury's Secure Memory application engineering team at  
[secure.memory@mrscy.com](mailto:secure.memory@mrscy.com)

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[www.mrscy.com/ddr4](http://www.mrscy.com/ddr4)

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**CORPORATE HEADQUARTERS**  
 50 Minuteman Road  
 Andover, MA 01810-1008 USA  
 +1 (978) 967-1401  
 +1 (866) 627-6951  
 Fax +1 (978) 256-3599

**MICROELECTRONIC SECURE SOLUTIONS**  
 3601 East University Drive  
 Phoenix, AZ 85034-7217 USA  
 +1 (602) 437-1520  
 Fax +1 (602) 437-1731

