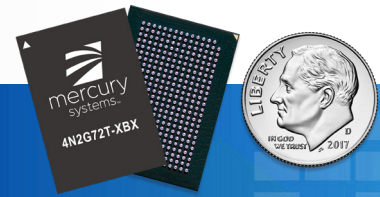


Built**SECURE**[™]



High Density Secure Memory 16GB (1Gx72) DDR4 SDRAM

Model 4N2G72T-XBX



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

ADVANCED*

Mercury Systems' BuiltSECURE technology miniaturizes [DDR4 SDRAM](#) memory in a compact, highly ruggedized package. This 16GB device is ideally suited for military and commercial aerospace applications requiring high-speed DDR4 memory optimized for SWaP.

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

Product Features

- DDR4 Data Rate = 2666, 2400, 2133, 1866, 1600 Mbps
- $V_{CC} = V_{CCQ} = 1.2V$
- $V_{PP} = 2.5V$
- Military and Industrial temperature ranges
- Output driver calibration
- Configured as 1-Rank x72-bit data
- 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
- Read and write 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

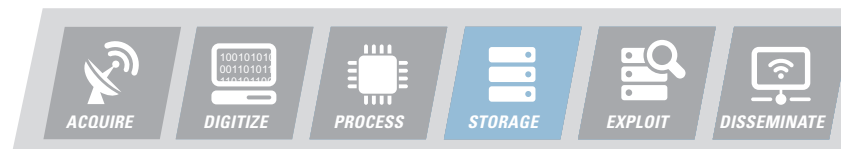
- 83% space-savings vs discrete chip packages
- Military-grade performance without sacrificing the benefits of DDR4 memory
- Eutectic solder balls for superior board-level reliability
- Up to 93% component reduction
- 100% burn-in and electrical test for the highest quality assurance
- Manufactured in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

Plastic Ball Grid Array (PBGA) Package

- 16 x 23 x 3.6 mm package
- 383 pin count
- 0.8 mm pitch
- Moisture Sensitivity Level (MSL) 3

* Advanced Product Development — This product is under development, is 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.



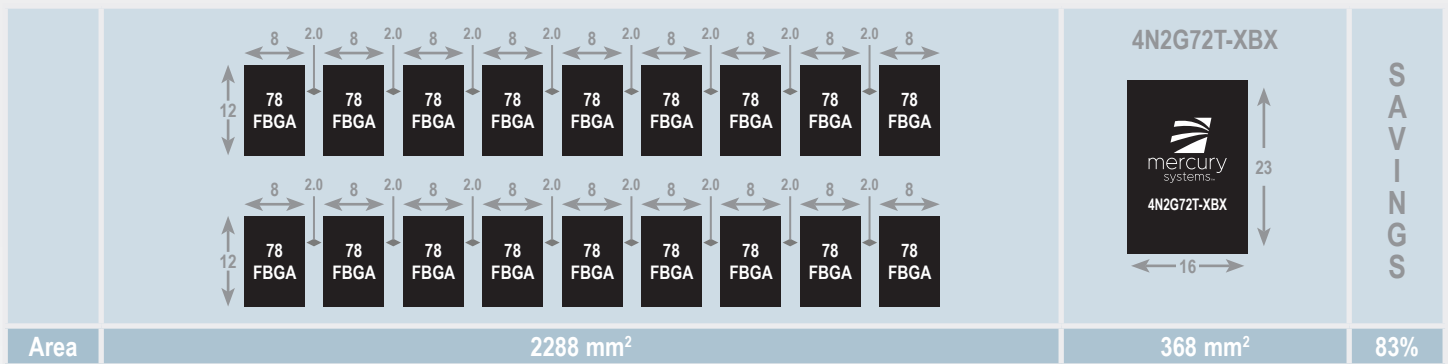


Figure 1 - Density Comparison for x72 Device

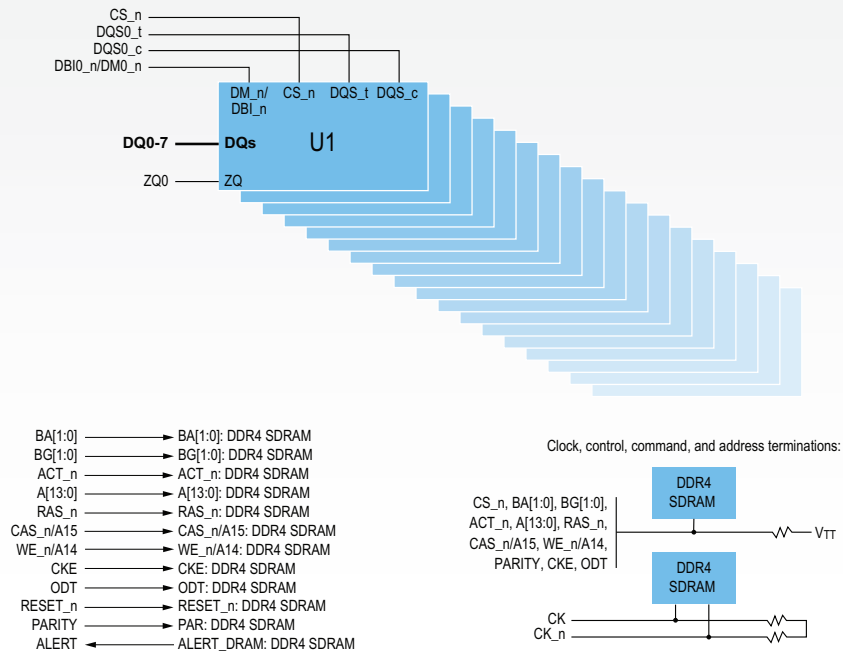
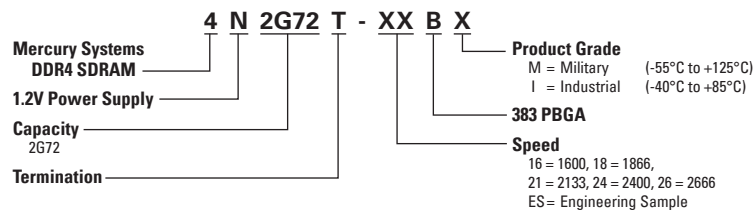


Figure 2 - Block Diagram for the x72 Device



Example Part Number: 4N2G72T-24BM

Figure 3 - Part Numbering Matrix

Need More Help?

Contact Mercury's Secure Memory application engineering team at

secure.memory@mrscy.com

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www.mrcy.com/ddr4

5038.00E 1018 16GB DDR4 1Gx64-x72



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