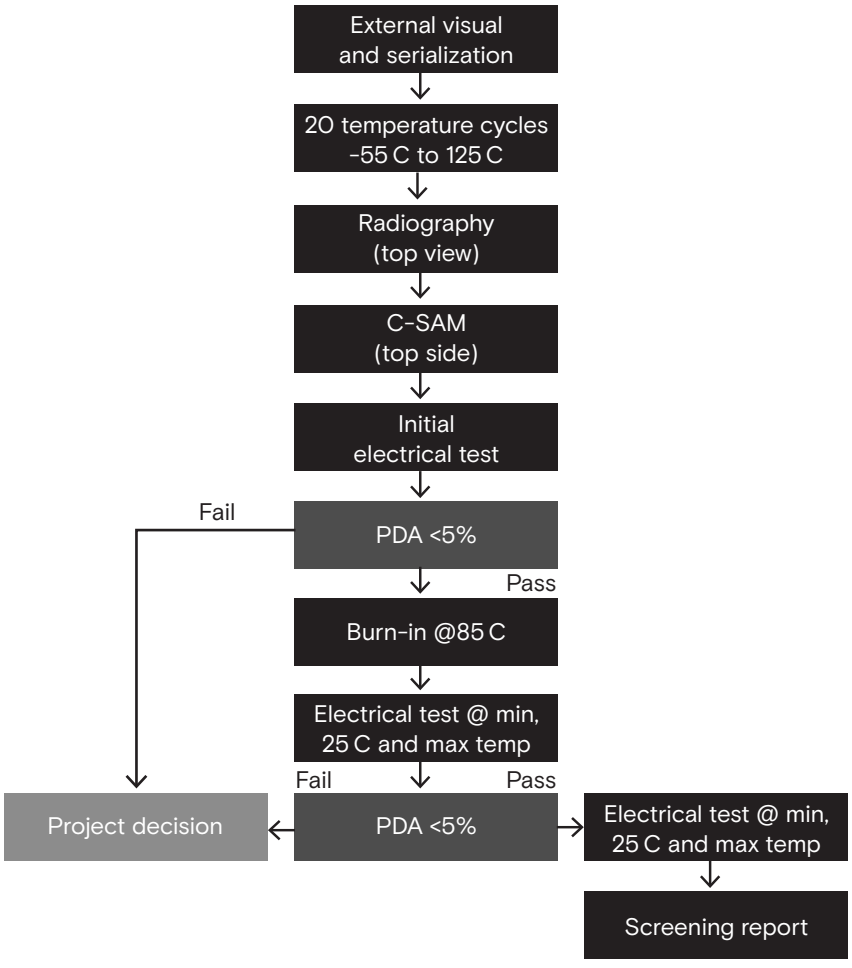
Mission-critical memory, engineered for extremes

Micron, a leader in memory and storage solutions, is expanding its portfolio with products manufactured to meet the stringent demands of aerospace and defense (A&D) platforms. The first offering of this portfolio is a space-qualified 256Gb SLC NAND product. As the largest-density, radiation-tolerant[1] SLC NAND available, this high-reliability solution is optimized for space storage applications, including mission-critical systems, SSDs and data recorders.



[1]Aligned with U.S. military standard MIL-STD-883 TM1019 condition D; aligned with American Society for Testing Materials flow ASTM F1192; aligned with Joint Electronic Device Engineering Council (JEDEC) standard JESD57.

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Key benefits

Radiation tolerant
Our radiation-tolerant 256Gb SLC NAND underwent rigorous testing. Radiation characterization included total ionizing dose (TID) testing at a low dose rate to accurately simulate space conditions. Additionally, single event effect (SEE) testing was performed, enabling customers to confidently match the device's capabilities with their mission requirements.

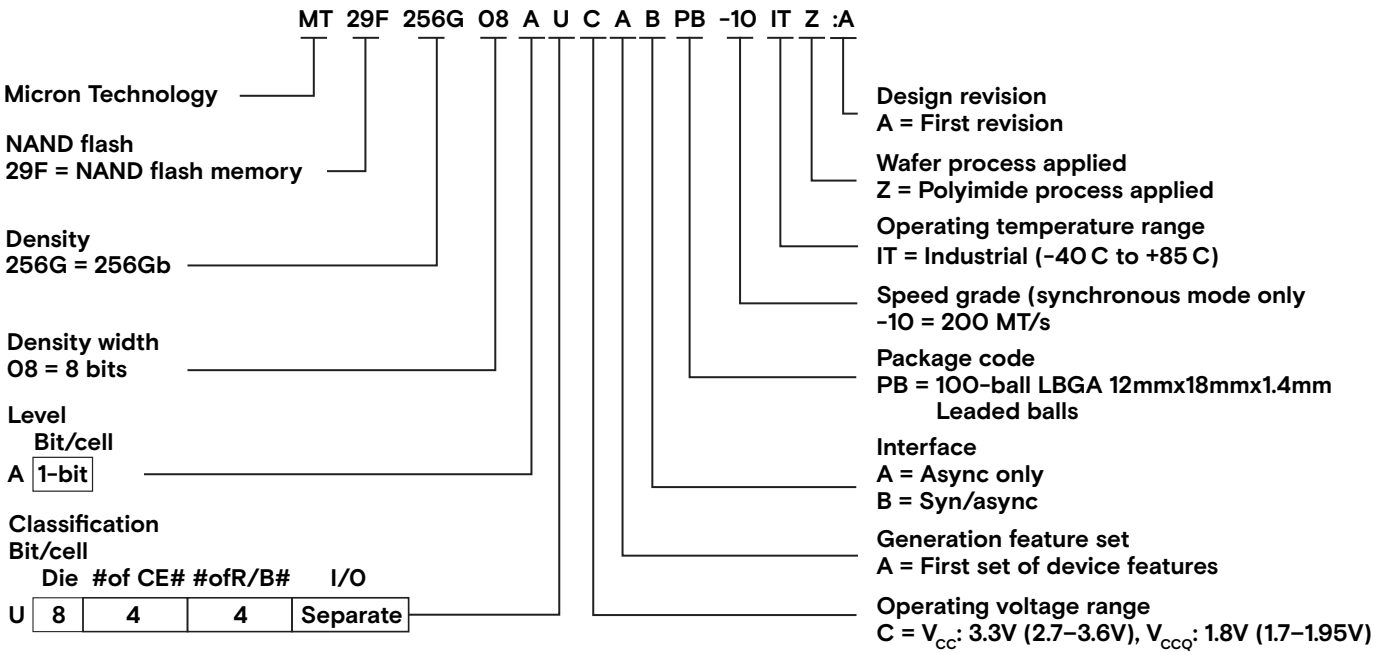
Product and manufacturing leadership
Specifically screened, tested and characterized for space applications, it is aligned with NASA's PEM-INST-001 Level 2 flow. This is the only space-qualified product from a major memory manufacturer. By owning its manufacturing capabilities, Micron drives quality, strengthens security assurance and delivers high-reliability memory solutions tailored to the stringent demands of aerospace and defense platforms.

Reliability and longevity
Built on a mature and stable process with a proven track record, our product delivers dependable results you can count on. It features leaded ball packages and comprehensive product data packages, ensuring seamless integration and sustained performance.

micron SLC NAND

Built on industry-proven NAND technology and supported by Micron's vertically integrated manufacturing, this solution exemplifies our commitment to quality, reliability and long-term availability. As we continue to expand our portfolio, Micron remains a trusted provider of both space-certified and commercial off-the-shelf (COTS) products, delivering targeted solutions that meet the evolving needs of the A&D ecosystem. For over 30 years, Micron has been a leader in revolutionizing automotive and industrial memory and storage solutions. Innovation advances with the launch of the highest-density, radiation-tolerant SLC NAND to date — engineered for space qualification and mission-critical reliability.

Micron NAND flash devices use a high-speed 8-bit bus to transfer commands, addresses and data efficiently. They support both asynchronous and synchronous data interfaces for flexible, high-performance operation. Five main control signals manage the interface, with additional signals for hardware write protection and real-time status monitoring. In synchronous mode, control pins adapt to support a bidirectional data strobe (DQS) for even faster data transfers. The device's standard pinout remains consistent across all storage sizes, making upgrades to higher densities simple, with no board redesign required. With robust error correction and advanced reliability features, these NAND devices are ideal for demanding applications that require dependable, long-term performance.



Synchronous I/O performance
Up to synchronous timing mode 5
Clock rate: 10ns (DDR)
Read/write throughput per pin: 200 MT/s

Array performance
Read page: 35µs (MAX)
Program page: 350µs (TYP)
Erase block: 1.5ms (TYP)

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