High Density Secure Memory
1GB (4x128Mx16) NOR Flash Module

Model FV4128M16X-XSBX

- Advanced miniaturization technology
- -55°C to +125°C operating temperature
- Manufactured in a DMEA-trusted US facility

Mercury Systems’ advanced design and packaging techniques miniaturize NOR Flash memory in a compact, highly ruggedized package. This device is ideally suited for military and commercial aerospace applications requiring high-speed NOR Flash memory optimized for size, weight, and power.

Product Features
- 3V read/program/erase (2.7V - 3.6V)
- Military and Industrial temperature ranges
- Single supply (V\text{CC}) for read/program/erase (2.7V to 3.6V)
- x16 data bus
- Asynchronous 32-byte Page read per chip select
- 512-byte Programming Buffer per chip select
  - Programming in Page multiples, up to a maximum of 512 bytes
- Sector Erase
  - Uniform 128-kbyte sectors
- Suspend and Resume commands for Program and Erase operations
- Status Register, Data Polling, and Ready/Busy pin methods to determine device status
- Separate 1024-byte One Time Program (OTP) array with two lockable regions per chip select
- Common Flash Interface (CFI) parameter table
- Advanced Sector Protection (ASP)
- Automatic Error Checking and Correction (ECC) – Internal hardware ECC with single but error correction

Benefits
- Military-grade performance without sacrificing the benefits of Flash memory
- Eutectic solder balls for superior board-level reliability
- 70% 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
- 14mm x 17mm x 2.9mm PBGA, 107 lead, 1 mm pitch
- Area: 238mm²
- Moisture Sensitivity Level (MSL): 3

* 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 - Block Diagram

Figure 2 - Part Numbering Matrix

Example Part Number: FV4128M16-10SBM