

Altima™ II M-CaP Mission Data Storage M-Series

Secure, Removable, Portable,
High Performance, High Capacity



BitMICRO® Altima II M-CaP Mission Data Storage Modules provide the extreme security, capacity and performance needed for the most demanding military applications.

For land, air, sea, and space missions where environments can change in seconds, Altima II M-CaP provides an extremely rugged and secure, removable and portable, data storage solution. Armed with time-proven BitMICRO solid state technology, ultra-rugged design, and leading state-of-the-art data encryption, Altima II M-CaP can withstand and overcome any adverse environment.

But toughness is only half the battle. Altima II M-CaP is extremely fast. With nearly 6GBs per second of NVMe read/write performance, it can easily keep pace and even outperform the most demanding data intensive applications. Altima II M-CaP is also very dense, offering up to 8TB of capacity in a compact, hand-held form-factor to capture, reliably store, and secure large data sets.

Altima II M-CaP is 100% removable and portable. When data needs to be physically removed from a system and transported through any environment to another system, Altima II M-CaP provides the perfect solution.

Applications

- Secure NIST ratified and FIPS approved, AES 256 encryption protects sensitive and classified information in remote and unpredictable environments.
- High capacity and high performance to meet the requirements of data intensive applications such as next-generation data recording and information analysis.
- Ultra-rugged and environmentally sealed data storage for systems operating in marine, desert, jungle, polar, or space conditions.
- Removable and portable when conditions, operations, and procedures dictate that data be removed and hand-carried / transported to another location.
- Compact, powerful, and secure for remote, distributed, and mobile applications such as surveillance and reconnaissance systems.

Features

- Secure with embedded NIST ratified and FIPS approved AES 256 encryption. Includes secure and crypto erase to protect sensitive data.
- Up to 8TB capacity to meet a wide range of application requirements.
- Compact, low power, and light weight allows for use on a large variety of systems where SWaP is important.
- Removable, multi-insertion/extraction design, rugged connectors, keyed casing and sturdy pull and lock tab for portable data storage on mobile systems.
- Rugged design can withstand a wide temperature range, high humidity, extreme vibration and shock, and meets most military standards.
- High-speed standards-based NVMe interface and up to 6GBs per second performance.

Product Specification

Model	M-2	M-4	M8
Capacity			
Storage Capacity	2TB	4TB	8TB
Supported NAND Types	SLC, SLC Mode over 3D TLC, MLC Mode over 3D TLC NAND, 3D TLC NAND	SLC Mode over 3D TLC, MLC Mode over 3D TLC NAND, 3D TLC NAND	3D TLC NAND
Performance			
Sequential Read / Write	Up to 2GB/s	Up to 6GB/s	Up to 6GB/s
Random Read / Write	Up to 150K IOPS Read / 130K IOPS Write		
Power			
Power Consumption	17W	29W	53W
Approx. Weight	19oz	22oz	34oz
Voltage	12V DC, 48V DC (POE)		
Security and Data Protection			
AES-256 Encryption	Included - Embedded AES-256, NIST ratified and FIPS approved and key management.		
TCG Opal 2.0 Compliance	Optional		
FIPS 140-2 Level 3 Compliance	Optional		
Crypto Erase	Optional		
Power On Data Erase	Supported		
Manufacturing and Other Military Option			
Ruggedness Level	Verified rugged per M-CaP manufactured – environmentally sealed		
Connectors	Optional Rugged, multi-insertion, and/or environmentally sealed connectors		
Solder	Lead or Lead-free		
Potting / Encapsulation	All methods/types		
Conformal Coating	All methods/types – including Silicon, Acrylic, Urethane		
Physical			
Form Factor	Multi-insertion / extraction – hand-portable- ultra rugged chassis. Chassis is keyed for proper insertion. Optional insertion / extraction / locking / carrying tab		
Interface	NVMe PCIe Gen3 x 4		
Dimensions (L x W x H)	L-140mm (165mm with insertion / extraction / locking tab) x W-66mm x H-35mm		
Environmental (Operational)			
Temperature	Industrial Extended Temp: -40 to 70 °C Industrial Wide Temp: -40 to 85 °C		
Shock	20G, Half-Sine, 11ms		
Vibration	20G (80-2000 Hz)		
Warranty			
Standard	1 Year		
Extended (Optional)	3 Years		