

New Product Introduction

MC Series Embedded Multi-Media (eMMC) Memory Cards

Built-In MLC NAND Flash Memory Suitable For Industrial Applications Where Embedded Reliability Is Critical



Panasonic, a worldwide leader in Storage Media Products, is pleased to introduce the **NEW MC Series Embedded Multi-Media (eMMC) Memory Cards**. The **New MC Series** models are industrial eMMC cards that adopt built-in MLC NAND flash memory suitable for industrial applications where embedded reliability against mechanical vibration, shock etc. is critical. These 153 Ball BGA package Memory Cards feature a proprietary controller with enhanced ECC and Wear leveling algorithms. pSLC mode can be enabled upon installation. Quality is maintained with 100% product screening before shipment to achieve low failure rate. Available in 8GB, 16GB and 32GB models only.

Features

- Error Detection And Correction Function
- Data Recovery In Case Of Power Failure In Writing
- Automatic Refresh Function
- pSLC Mode Can Be Enabled
- Read Error Log Recording Capabilities
- Enhanced ECC and Wear Leveling
- Available in 8GB, 16GB and 32GB Capacities Only
- Automotive Grade
- RoHS Compliant
- JEDEC 5.0 Specification
- Power failure robustness mode
- Electrical analysis using terminlas

Benefits

- By Reducing The User Area Of NAND, The Total Number Of Program / Erase Cycles Increases 10x. Typical MLC NAND Is Capable Of 2K Program Erase Cycles. pSLC NAND Is Capable Of 20K.
- The Controller Has An Area Used For Logging Read Errors. Typically The Sector Address Of The Read Error Is Hard To Identify. By Recording Where The Error Occurs, The Cause Of The Failure Can Be Quickly Identified By Panasonic.
- Error Correction Capabilities Reduce The Rate Of Bit Errors. Wear Leveling Manages The Data On The NAND Flash Efficiently To Increase The Useable Lifetime Of The Card. This Is Done By Identifying Static And Dynamic Data.
- Failure analysis can be done using a vendor specific tool to access terminals for electrical analysis. Internal signal analysis, such as observing the flash memory bus, can be done without extracting the NAND from the eMMC package. Using these tools and vendor unique commands, Panasonic can also obtain diagnostic data from the eMMC.

Industries

- Automotive
- Telecom
- Oil and Gas
- Aerospace

Applications

- GPS Navigation
- Battery Management Systems For Electric Vehicles
- Data Logging For Geophysical Measurement
- PLC And HMI For Industrial Automation