



DuraFlash™

BGAE340 | eMMC | 153-ball

SMART's DuraFlash BGAE340 eMMC is an embedded memory solution that combines 2D-MLC NAND Flash Memory, an embedded MMC (MultiMediaCard) controller, and advanced firmware in a small BGA (Ball Grid Array) package that provides a stable, yet cost effective high-density embedded storage.

SMART's BGAE340 eMMC is compliant to eMMC v5.1 specifications and is available in the standard JEDEC 0.5mm pitch, 153-ball 11.5mm x 13mm BGA package. eMMC can simplify system design because of the widely adopted JEDEC® eMMC standard interface in host system chipsets and operating system software driver support.



Features & Benefits

- Compliant to JEDEC v5.1 Standard
- Industrial Temp (-40°C to +85°C)
- Supports Write Protect and Secure Write Protection
- Supports eMMC Device Health Report

Product Family Overview

Capacity	Sequential Performance
BGAE340 eMMC 153-ball	
4GB	Up to 170MB/s Read; Up to 10MB/s Write

Applications

- Factory Automation
- IIoT
- Medical Devices
- Networking Appliances
- POS Terminals
- RFID Scanners
- Single-Board Computers
- Telecom Infrastructure

Specifications

	BGAE340 153-ball
NAND Type	MLC
Performance	
Host Interface Rate (maximum)	eMMC v5.1 (HS400)
Capacities	4GB
Sequential Read (maximum)	Up to 170MB/s
Sequential Write (maximum)	Up to 10MB/s
Random Read (maximum)	Up to 5.3K IOPS
Random Write (maximum)	Up to 0.98K IOPS
Reliability	
Endurance (JEDEC Enterprise Workload)	4GB: 1.65 TBW
Data Retention	10 years
Error Correction	BCH
Power	
Input Voltage	3.3V ± 10%
Environmental	
Operating Shock	1500 g half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction
Operating Vibration	20G 80-2000Hz, 1.52mm 20-80Hz, 3 axis
Operating Temperature	Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Physical	
Length	11.5 mm
Width	13 mm
Height	0.8 mm

Ordering Information

Part Number	Density
BGAE340 eMMC 153-ball Industrial Operating Temperature (-40°C to +85°C)	
SP9M4GH1AH101	4GB



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