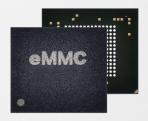
## The Most **Reliable** Storage For Industries

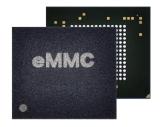
ET150-eMMC



## ET150-eMMC

### Overview

Apacer ET150-eMMC is an embedded, non-volatile memory system that combines triple-level cell TLC NAND flash memory with an onboard eMMC controller, supporting the JEDEC Standard eMMC 5.1 interface. The integrated eMMC controller directly manages NAND flash media, freeing the host processor from various tasks, including ECC, wear-leveling, IOPS optimization, and read sensing.



ET150-eMMC serves as the ideal storage solution for a wide range of commercial applications, including digital TVs, set-top boxes, home automation, camera drones, body-worn cameras, AR/VR systems, wearable gadgets, electronic learning products, and more./ OR industrial applications, including embedded systems, factory automation, networking, transportation, aerospace and defense, surveillance, medical equipment, and more. Its compact BGA package sizes and minimal power consumption render eMMC an affordable and efficient memory solution for mobile and embedded products.

Offering capacities ranging from 128GB within a JEDEC-compatible form factor, ET150-eMMC provides an excellent solution for vendors looking for seamless integration, a quick market entry, and ample storage capacity.

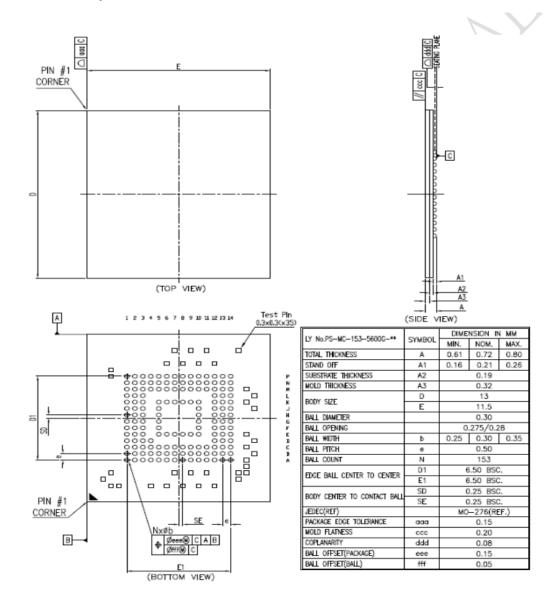
### **Feature**

- Variable clock frequencies of 0-200MHz
- Ten-wire bus interface with a hardware reset
- Supports three different data bus widths: 1 bit (default), 4 bits, and 8 bits
- Internal error correction code (ECC)
- Internal enhanced data management algorithm
- Power-loss data protection during programming operations.
- Secure bad block erase commands
- Enhanced write protection with permanent and partial options.
- Field firmware update (FFU)
- Device Health Report
- Pre EOL (End of Life) information
- Optimal size
- Production state awareness
- Power-off notification for sleep

## Specifications

Model         ET150-eMMC           Interface         eMMC5.1 HS400           Form Factor         153 Ball FBGA           NAND Flash Type         TLC           Capacity         64GB~128GB           Sequential Read Performance (MB/sec)         Up to 315           Sequential Write Performance (MB/sec)         Up to 195           Standard Operating Temperature (°C)         -25 ~ +85           Storage Temperature (°C)         -40 ~ +85           Thermal sensor         No           Operating Voltage         VCCQ=1.8V/3.3V VCC = 3.3V VCC = 3.3		
Form Factor  NAND Flash Type  TLC  Capacity  64GB~128GB  Sequential Read Performance (MB/sec)  Up to 315  Sequential Write Performance (MB/sec)  Standard Operating Temperature (°C)  Storage Temperature (°C)  Thermal sensor  Operating Voltage  VCCQ=1.8V/3.3V VCC = 3.3V  Read: VCCQ(1.8V) = 185mA / VCC(3.3V) = 55mA Write: VCCQ(1.8V) = 110mA / VCC(3.3V) = 0.03mA  Sleep Current: VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA	Model	ET150-eMMC
NAND Flash Type  Capacity  64GB~128GB  Sequential Read Performance (MB/sec)  Up to 315  Sequential Write Performance (MB/sec)  Standard Operating Temperature (°C)  Storage Temperature (°C)  Thermal sensor  Operating Voltage  Power Consumption  TLC  64GB~128GB  Up to 315  Up to 195  Vp	Interface	eMMC5.1 HS400
Capacity  Sequential Read Performance (MB/sec)  Sequential Write Performance (MB/sec)  Standard Operating Temperature (°C)  Storage Temperature (°C)  Thermal sensor  Operating Voltage  Power Consumption  Power Consumption  Operating Voltage  Sequential Read Performance (Up to 315  Up to 195  -25 ~ +85  -25 ~ +85  No  VCCQ=1.8V/3.3V  VCCQ=1.8V/3.3V  VCC = 3.3V  Read: VCCQ(1.8V) = 185mA / VCC(3.3V) = 55mA  Write: VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA  Sleep Current: VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA	Form Factor	153 Ball FBGA
Sequential Read Performance (MB/sec)  Sequential Write Performance (MB/sec)  Standard Operating Temperature (°C)  Storage Temperature (°C)  Thermal sensor  Operating Voltage  Power Consumption  Vicinity (1.8V) = 185mA / VCC(3.3V) = 55mA Vicinity (1.8V) = 110mA / VCC(3.3V) = 0.03mA	NAND Flash Type	TLC
(MB/sec)  Sequential Write Performance (MB/sec)  Up to 195  Standard Operating	Capacity	64GB~128GB
Standard Operating Temperature (°C)  Storage Temperature (°C)  Thermal sensor  Operating Voltage  VCCQ=1.8V/3.3V  VCC = 3.3V  Read: VCCQ(1.8V) = 185mA / VCC(3.3V) = 55mA  Write: VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA  Sleep Current: VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA	-	Up to 315
Temperature ( °C )  Storage Temperature ( °C )  Thermal sensor  No  Operating Voltage  VCCQ=1.8V/3.3V  VCC = 3.3V  Read: VCCQ(1.8V) = 185mA / VCC(3.3V) = 55mA  Write: VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA  Sleep Current: VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA	-	Up to 195
Thermal sensor No	_	-25 ~ +85
	Storage Temperature ( °C )	-40 ~ +85
Power Consumption  Read: $VCCQ(1.8V) = 185mA / VCC(3.3V) = 55mA$ Write: $VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA$ Sleep Current: $VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA$	Thermal sensor	No
Power Consumption Write: $VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA$ Sleep Current: $VCCQ(1.8V) = 0.22mA / VCC(3.3V) = 0.03mA$	Operating Voltage	·
<b>Dimension (L x W x H )</b> 11.50 x 13.00 x 0.80 (mm)	Power Consumption	Write: VCCQ(1.8V) = 110mA / VCC(3.3V) = 65mA
	Dimension (L x W x H )	11.50 x 13.00 x 0.80 (mm)

### **Mechanical Specification**



## For more information, contact your Apacer representative

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