

长江存储 EC150

性能卓越 行业典范

eMMC5.1嵌入式存储



产品概况

长江存储EC150专为智能手机、平板电脑、智能电视等智能终端设计，具备长寿命、高可靠性、高性能、兼容性强等特性。该产品可帮助终端设备延长生命周期，提高数据安全性，运行更流畅，帮助客户快速开发更具竞争力的智能终端。EC150采用基于第四代晶栈®Xtacking®技术的高品质闪存颗粒打造，是行业领先的新一代eMMC 5.1嵌入式存储产品。



产品特性

⚡ 寿命超长 持久耐用

EC150采用工艺更先进的长江存储X4-9060闪存芯片打造，写入寿命高达256TBW (256GB)，可延长终端设备使用寿命，降低设备维护成本，增强终端产品市场竞争力。

🚀 性能卓越 行业领先

EC150闪存接口速度达3600IOPS，支持AMPI多Plane并行读取，显著提升4K随机读取性能，最高可达26K IOPS (128GB)，为终端用户带来更流畅的使用体验。

🛡️ 安全可靠 超低功耗

EC150采用LDPC纠错机制，可高效并行校验数据，增强数据完整性；同时该技术可有效降低功耗，延长终端设备续航时长，减少散热设计成本，实现设备小型轻薄化设计，优化用户体验。

🏠 成熟稳定 应用广泛

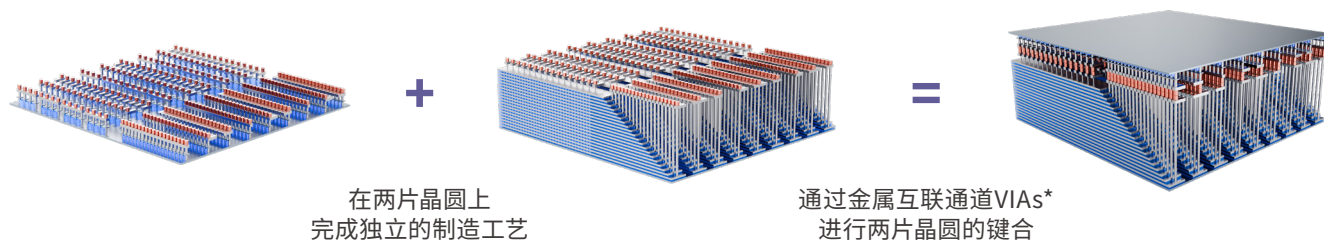
EC150采用成熟产品方案，标准BGA 153封装，提供64GB、128GB、256GB三款主流容量，可快速适配主流SOC平台，帮助智能终端方案灵活选型，缩短开发周期并降低验证成本。

技术规格

型号	EC150		
接口	eMMC 5.1		
容量	64GB	128GB	256GB
时钟模式	SDR/DDR/HS200/HS400		
工作电压 (V)	VCC: 2.7~3.6 VCCQ: 1.7~1.95		
顺序读取 (MB/s)	320	320	320
顺序写入 (MB/s)	280	280	280
随机读取 (IOPS)	28K	28K	28K
随机写入 (IOPS)	26K	26K	26K
工作温度 (°C)	-25 ~ 85		
封装尺寸	BGA-153, 11.5 x 13 (HZ -> 1.0mm)		

注释: 测试数据为长江存储内部测试结果。性能根据测试配置、固件版本的不同可能有所差异。

晶栈® Xtacking® 创新技术



*Vertical Interconnect Accesses, 垂直互联通道

架构特性



更高的I/O速度



更高的存储密度



更高的品质可靠性

YMTC EC150 Embedded Memory

Industry-Recognized

Next-Gen eMMC 5.1 Embedded Memory



Product Overview

Designed for smart devices including smartphones, tablets, and smart TVs, YMTC's EC150 features superior endurance, enhanced reliability, high performance, and wide compatibility. It enables device manufacturers to extend product lifecycles, enhance data security, and optimize system responsiveness, accelerating time-to-market and strengthening competitive advantage. Powered by high-quality NAND flash using Xtacking® 4.0 technology, the EC150 is an industry-leading next-generation eMMC 5.1 embedded storage product.



Key Features

Robust Endurance

Powered by advanced X4-9060 3D NAND technology and offering 256TBW endurance (256GB), EC150 significantly extends device life cycles while reducing maintenance costs, enhancing edge devices competitiveness in high-write workload.

Enhanced Endurance Ultra-Low Power Consumption

LDPC ECC detects and corrects data errors, while its also can reduce power consumption. EC150's slimmer thermal designs and longer battery life in portable devices create better user experience.

Industry-Leading Performance

Leveraging YMTC's Xtacking® 4.0 technology, the EC150 integrates 3D NAND flash with 3600 MT/s high-speed interface and AMPI (Advanced Multi-Plane Interleave) technology delivers up to 26K IOPS 4K random read performance (128GB), providing a smooth experience for users.

Proven Stability Wide Compatibility

With standardized BGA153 package compliant with JEDEC specifications, EC150 is available in 64/128/256GB capacities to support flexible BOM configurations. EC150 adopts a mature product solution, pre-validated on mainstream SoC platforms, the EC150 reduces verification costs and accelerates time to market.

Product Specifications

Product Model	EC150		
eMMC interface	eMMC 5.1		
Capacity	64GB	128GB	256GB
Clock Mode	SDR/DDR/HS200/HS400		
Operating Voltage (V)	VCC: 2.7~3.6 VCCQ: 1.7~1.95		
Sequential Read (MB/s)	320	320	320
Sequential Write (MB/s)	280	280	280
Random Read up to (IOPS)	28K	28K	28K
Random Write up to (IOPS)	26K	26K	26K
Working Temperature(°C)	-25 ~ 85		
Dimension for Encapsulation (Length×Width×Height)	BGA-153, 11.5 x 13 (HZ -> 1.0mm)		

*Note: All performance data is based on internal testing by YMTC

About Xtacking® Technical Architecture



Independent processing on separated wafers

Wafer bonding processing with millions of metal VIAs*(Vertical Interconnect Accesses)

*Vertical Interconnect Accesses

Architecture Features



Celerity
Higher I/O speed



Scalability: Smaller die size and higher bit density



Flexibility: Modular approach to accelerate Time-to-Market