

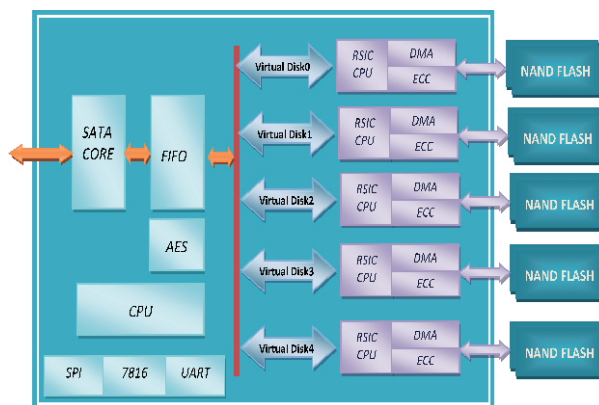
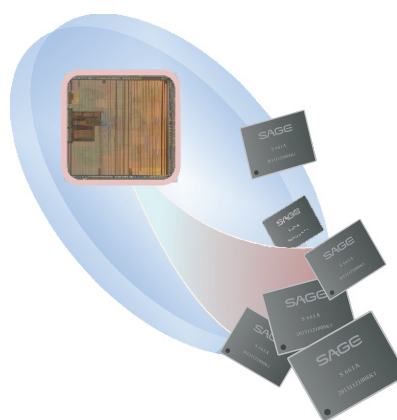
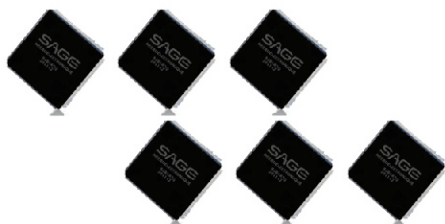
固态硬盘芯片

SATA控制器(iRAID™)

SATA iRAID™ 控制器 S66x 是一系列 SATA I/II/III 接口的固态硬盘 (SSD) 控制器。它提供了采用 NAND FLASH 存储器生产 SSD 的单芯片方案。

S66x 根据华澜微特色的多核架构设计而成。除了一个专门的处理器处理 SATA 协议，另有五个嵌入式精简指令 (RISC) 处理器管理 FLASH 存储器。每个 RISC 处理器和它对应的存储器可以被看作是一个虚拟盘，每个虚拟盘内有两组 FLASH 总线。

从最上层看，如果把数据流分配按 striping 设置的话，整个固态硬盘就好像是一个工作在 Level 0 模式的本征冗余独立硬盘阵列 (RAID) 微系统。多核架构带来了许多好处，比如多分区功能、FLASH 通道中间的隔离等。



S661	- Flash Channel Number: 1,2,4,5,8 and 10 - Max. Read Speed: 260MB/s - Max .Write Speed: 225MB/s - Package: BGA 207
S662	- Flash Channel Number: 1,2,4 and 5 - Max. Read Speed: 180MB/s - Max .Write Speed: 150MB/s - Package: LQFP 128
S663	- Flash Channel Number: 1,2 and 4 - Max. Read Speed: 180MB/s - Max .Write Speed: 150MB/s Embedded Security Algorithms - Package: QFN 88
S666	- Flash Channel Number: 1,2 and 4 - Max. Read Speed: 540MB/s - Max .Write Speed: 450MB/s Embedded Security Algorithms - Package: BGA 302

主要特征 Key Features

- **SATA接口(SATA Interface)**
Compliant with Serial ATA Revision 3.0. Supports 1.5Gb/3.0Gbps, 6.0Gbps auto-negotiation SATA I/II interface
Support Native Command Queuing (NCQ)
Support TRIM, S.M.A.R.T
- **闪存接口(Flash Memory Interface)**
Support both asynchronous and synchronous bus
Support SLC, MLC and TLC types
Error Correction up to 72bit/1KB payload
Intelligent flash memory algorithms, including wear-leveling and bad block management
- **丰富的外围接口(Rich Peripheral Interfaces)**
ISO-7816 Interface (Smart Card Interface)
SPI Interface, UART Interface, PWM Driver
- **工作温度 (Operating Temperature)**
Commercial: 0°C -- +70°C; Industrial: -40°C -- +85°C