

# Solid State System SSS5523 SD2.0 Controller

## Overview

SSS5523 is a single-chip controller IC for Secure Digital (SD) memory card and embedded NAND flash application with SD interface. It supports the most widely-adopted SD2.0 specification and is backwards compatible to SD1.1/1.0 specifications.

Thanks to the In System Programming, the firmware of SSS5523 is able to be upgraded effectively and easily. In hardware wise, the 24-bit BCH ECC engine enables SSS5523 to support the advanced NAND technology especially the TLC (3-bit-per-cell) flash. Performance has been proven to achieve up to class 6 and class 10 for the TLC NAND and MLC (2-bit-per-cell) NAND, respectively. In short, SSS5523 provides both application flexibility and performance optimization.



## Feature

- Support SD specification v2.0/v1.x
- Support SPI mode
- Powerful hardware 24-bit BCH ECC
- Exploit In System Programming for firmware upgrade
- Support up to 4 flash chip-enable pins
- Support SDHC up to 32GB
- Support up to 8kB page flash architecture
- Support MLC flash up to Class 10 & Read 22MB/s, Write 20MB/s\*
- Support TLC flash up to Class 6
- Built-in dynamic wear-leveling
- Support CPRM

## Highlights

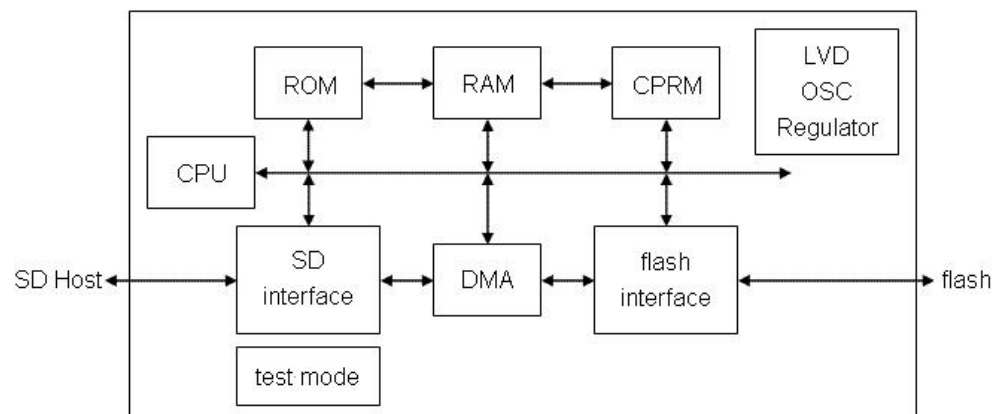
- Built-in 24-bit BCH ECC
- Support up to 4 flash CEs
- Support SDHC up to 32GB
- Support firmware upgrade by In System Programming
- Achieve Class 10 for MLC NAND; Class 6 for TLC NAND

## Application

- SD / miniSD / microSD cards
- Embedded system with SD interface

## Package

- LGA 53-pin package
- LGA 51-pin package
- bare die



\* Read/Write speed on TestMetrix over 20MB/s