

SM3280

SuperSpeed USB3.2 Gen1 Flash Drive Controller

The SM3280 is a USB 3.2 Gen1 Dual-channel flash drive controller designed for high-end application. The controller offers high performance and high compatibility for 2D/3D NAND and high-speed Toggle and ONFI DDR NAND. For USB 3.2 Gen1 Flash Disk applications, this controller supports high capacity of up to 16 NAND flash devices.

The 3280 delivers high data transfer rate, and ensures data accuracy and reliability with the powerful ECC engine which can overcome the read/write disturbances on new generation NAND. By integrating an embedded crystal and other components, the controller can reduce customer overall cost at a system level. The SM3280 is available in QFN-68 green package and die form with manufacturing-ready turnkey solution.

Applications

- Max 350MB/s read performance.
- USB Solid State Disk
- Embedded Application
- High-Speed NAND Storage

Package

- 68-pin QFN
- Die Form
- Lead-free and RoHS Compliant

Key Features

- USB 3.2 Gen1 SuperSpeed (5 Gbps) and USB High-Speed Interface
 - Compliant with USB 3.1 Specification
 - Compliant with USB 2.0 Specification
 - Supports USB3.0 multi-level link power management
- NAND Flash Support
 - Dual-channel flash interface supports up to 16 NAND flash devices
 - Supports up to 4-way interleave
 - Configurable ECC
 - Supports 2D/3D NAND with 8/16KB page
 - Supports Toggle/ONFI DDR NAND flash
 - Supports 3.3V/1.8V/1.2V NAND flash
- Supports the operating systems
 - Windows 10/8/7
 - Mac OS 10.x
 - Linux kernel 2.4
- Supports VID, PID, serial number, and vender information update
- The crystal-less design offers lower BOM cost
- Built-in 3.3V/1.8V/1.2V voltage regulators
- Supports "Write Protect" security function to protect the data in USB Flash Disk
- Supports LED indicator to indicate the access status
- Supports firmware in-system programming (ISP) function for firmware upgrade
- Low power 1.2V core operation