SiliconMotion

SM3280

SuperSpeed USB3.2 Gen1 Flash Drive Controller

Overview

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. The SM3280 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. The SM3280 is available in QFN-68 green package and die form with manufacturing-ready turnkey solution.

Applications

- **USB Solid State Disk**
- **Embedded Application**
- **High-Speed NAND Storage**

Key Features

- **Max 350MB/s read performance**
- **USB 3.2 Gen1 SuperSpeed (5 Gbps) and USB High-Speed Interface**
  - ・Compliant with USB 3.2 Gen1 Specification
  - ・Compliant with USB 2.0 Specification
  - ・Supports USB3.0 multi-level link power management
- **NAND Flash Support**
  - ・Supports dual-channel up to 16 NAND flash
  - ・Configurable BCH ECC
  - ・Supports 2D MLC/TLC
  - ・Supports 3D TLC/QLC
  - ・Supports Toggle/ONFI DDR NAND flash
  - ・Supports 3.3V/1.8V/1.2V NAND flash
  - ・Support VCCQ1.8V/1.2V or 3.3V/1.8V
  - ・Support VCC3.3V or 2.5V
- **Operation System Support**
  - ・Windows 10/8/7
  - ・Mac OS 10.x
  - ・Linux kernel 2.4
- **Package**
  - ・68-pin QFN
  - ・Die Form
  - ・Lead-free and RoHS Compliant