NSEC Series Embedded Multimedia Card (eMMC) (MLC) - ET

Overview

The eMMC products follow the JEDEC eMMC 5.1 standards. It is an ideal universal storage solution for many electronic devices, including smart phones, tablets, PDAs, eBook readers, digital cameras, recorders, MP3, MP4 players, electronic learning products, digital TVs and set-top boxes. eMMC encloses the MLC NAND and eMMC controller inside as one JEDEC standard package, providing a standard interface to the host. The eMMC controller directly manages NAND flash, including ECC, wear-leveling, IOPS optimization and read sensing.

Features

- Packaged NAND flash memory with eMMC 5.1 interface
- Backward compatible with all prior eMMC specification revisions
- Operating Voltage Support:
  - V_{CC}: (3.3V) 2.7V ~ 3.6V
  - V_{CCQ}: (1.8V) 1.7V ~ 1.95V / (3.3V) 2.7V ~ 3.6V
- Compliant with eMMC 5.1 JEDEC Standard Number JESD84-B51
- Embedded Multi-Media storage in a single Multi-Chip package
- JEDEC/eMMC Standard version 5.1 Compatible (backward compatible to eMMC 4.5)
  - Supports a wide range of power supply voltage: 1.8 and 3.3V
  - Supports HS400 Mode
  - e.MMC production state awareness
  - e.MMC device health report
  - Supports Command Queue
  - Programmable bus width: 1/4/8 bits
  - Supports Boot operation in High Speed and DDR mode
  - Supports Boot mode and Alternative Boot mode
  - Replay Protection Memory Block (RPMB)
  - Enhanced Partition Attributes
  - High Priority Interrupt (HPI)
  - Background operations
  - Enhanced Reliable Write
  - Secure removal types
  - Enhance techniques: Sleep Notification in power off notification, data tagging, packed commands, discard, sanitize, RTC (real time clock)
- eMMC Clock
  - eMMC I/F Clock Frequency : 0 ~ 200MHz
  - eMMC I/F Boot Frequency : 0 ~ 52MHz
- Quality
  - RoHS compliant

- LDPC ECC Engine (8GB part only)
  - Support multiple parity size with 1KB based codeword
  - Support low-power decoding mode and high-correction capability decoding with soft information
- Temperature range:
  - Operating Temperature: TA = -25°C to +85°C
  - Storage without operation: -40°C to +85°C
- JEDEC Standard Package: 153ball 11.5 x 13.0 x 0.95mm FBGA package

How to Order

Operating voltage	Package	NAND	Option	Usable Capacity	NEW Insignis Part Number
VCC=3.3V, VCCQ=1.8V/3.3V	FBGA153	MLC	Extended Test	4GB	NSEC53K004-ET
			Extended Test	8GB	NSEC53K008-ET

Visit: http://insignis-tech.com/how-to-buy

Engineering Specifications are available upon request by emailing info@insignis-tech.com

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