pqi®

DiskOnModule

Turbo DJ Series

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Revision History

Revision	Date	History	Remark
A.0	08/30 '05	First document announced	
A.1	03/31 '06	Modify spec	
A.2	06/28 '06	Modify the format	

1. Description
PQI's DiskOnModule DJ series based on NAND flash memory controller technology. This product complies with 40 PIN IDE (ATA) standard interface and is suitable for data storage memory medium for portable system. By using DiskOnModule it is possible to operate good performance for the portable system, which have IDE interface slots.

2. Features
- High Performance
- Non-volatile Flash Memory
  The DOM is implemented by using NAND type flash memory, which is a high density, non-volatile read/write device. Flash data retention is guaranteed for at least 10 years, with no battery or other power source required.
- 100% True Mode IDE HDD Compatible
- Broad Operating System and Processors Supports
- Capacities 32MB-4GB
- Low Power Consumption
- Robust Error Correction
- High Reliability

3. Introduction
1.About This Manual
   This manual provides instructions for the installation and specification of PQI's *DiskOnModule; DiskOnModule* is designed for use in PCs, and their respective compatible computers.

2.What is DiskOnModule?
   PQI's DiskOnModule is a storage device based on flash memory technology, which emulates an ordinary magnetic hard disk. The DiskOnModule series products provide an all in one module solution for solid-state flash disk. The DiskOnModule is suitable for use in portable and embedded systems which have limited space and power consumption.
   Unlike standard IDE drives, no signal cable and extra, special space is required. The DiskOnModule is a solid-state solution for IDE Hard Disk drive, which has no moving parts. That provides a good stability in a moving system.The DiskOnModule products are also free from extra and special algorithm or some firmware driver. Just plug the DiskOnModule into the IDE slot and play it,users can play the DiskOnModule as same as the Hard Disk Drives.
   The DiskOnModule family provides the capacities ranging from 32MB up to 4GB. In the future, the capacity will be increased up to 8GB.

4. Specification

Environment Specifications		
Temperature(Industrial)	Operating	0℃ to +70℃
	Non-Operating	-40℃ to +85℃
Temperature(Wide Temp)	Operating	-40℃ to +85℃
	Non-Operating	-55℃ to +95℃
Relative Humidity		8% to 95% (with no condensation)
Vibration	Operating	15G
	Non-operating	15G
Shock	Operating	1000G
	Non-operating	1000G
Sector size		512Bytes
System Performance		
Media transfer rate	Read	Up to 15 Mb/sec(typ.)*
	Write	Up to 13 Mb/sec(typ.)*
Interface burst transfer rate		
PIO mode 4 Ultra DMA 2		16.6 Mb/sec (max) 33 Mb/sec (max)
Reliability		
MTBF(@25℃)		1,000,000 hours
Read/Write Cycle		2,000,000 times
ECC		1 Byte per 128bytes
Power Requirement		
Voltage		DC+3.3V±5%
		DC +5.0V±10%
Power Consumption		
Read		37mA (typ.)
Write		32.5mA (typ.)
Stand by		5mA (typ.)
Dimensions		
Height		27.2± 0.2mm
Width		59.59± 0.3mm
Thickness		7.4 ± 0.15mm

Note1: There will be different figures shown in different platforms

Capacity Specifications

Capacity	Cylinder	Head	Sector
32MB	62	16	63
64MB	123	16	63
128MB	251	16	63
256MB	503	16	63
512MB	1007	16	63
1024MB	2015	16	63
2048MB	4030	16	63
4096MB	8061	16	63

5. Physical Outline
DJ0XXXX88RX0 (40 PIN)