

DiskOnModule

Turbo DR Series



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Revision History

Revision	Date	History	Remark
A.0	12/26 '05	First document announced	
A.1	03/31 '06	Modify spec	
A.2	06/29 '06	Modify the format	

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1. Description

PQI's **IDE FLASH DISK** based on NAND flash memory controller technology. This product complies with 44 PIN IDE (ATA) standard interface and is suitable for data storage memory medium for portable system. By using **1.8" IDE FLASH DISK** 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 64MB-16GB
- 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 1.8" IDE FLASH DISK is designed for use in PCs, and their respective compatible computers.

2. What is 1.8" IDE FLASH DISK(1.8 IFD)?

PQI's 1.8 IFD is a storage device based on flash memory technology, which emulates an ordinary magnetic hard disk. The PQI's 1.8" IFD series product needs no moving or spinning parts, and that makes no mechanical noise. Hence PQI's 1.8" IFD is suitable for used in portable or embedded system, which has only limited power consumption.

The PQI's 1.8" IFD products are also free from extra and special algorithm or some firmware driver. Just plug the PQI's 1.8" IFD into the IDE slots and operate it as same as the general Hard Disk Drives, people can easily get a good performance and a reliable data storage.

The PQI's 1.8" IFD family provides the capacities ranging from 64MB up to 16GB. In the future, the capacity will be increased up to 32GB.

4. Specification

Environment Specifications		
Temperature(Industrial)	Operating	0°C to +70°C
	Non-Operating	-40°C to +85°C
Temperature(Wide Temp)	Operating	-40°C to +85°C
	Non-Operating	-55°C to +95°C
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		16.6 Mb/sec (max)
Ultra DMA 2		33 Mb/sec (max)
Reliability		
MTBF(@25°C)		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		70± 0.1mm
Width		60 ± 0.1mm
Thickness		7 ± 0.1mm

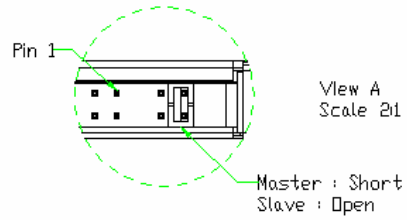
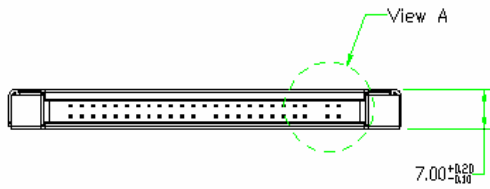
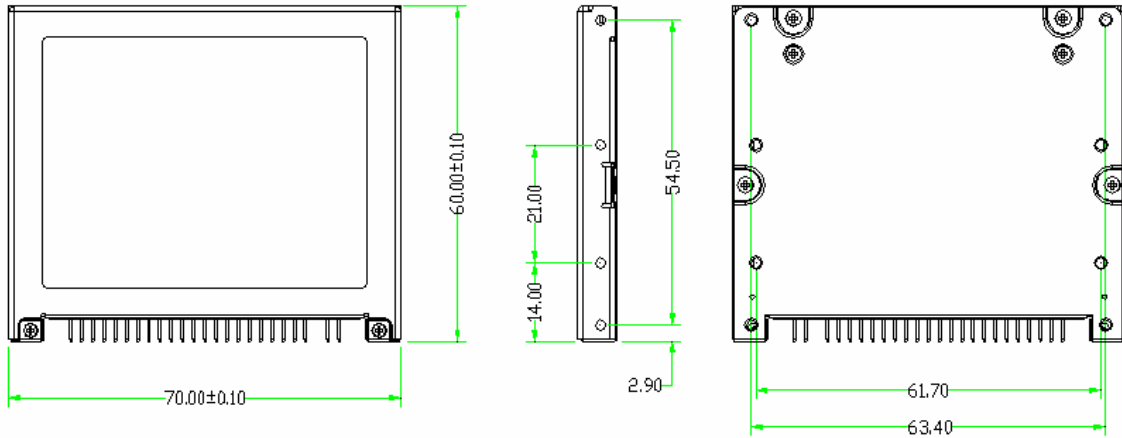
Note1: There will be different figures shown in different platforms

Capacity Specifications

Capacity	Cylinder	Head	Sector
32MB	62	16	63
64MB	125	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
8192MB	16123	16	63
16384MB	32247	16	63

5. Physical Outline

DR0XXX88RX0



UNIT : mm