



Football Disk

Product Specification

Version 1.0

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Change History

Version	Date	Description
1.0	2006/5/18	New Release



A. Product Outline

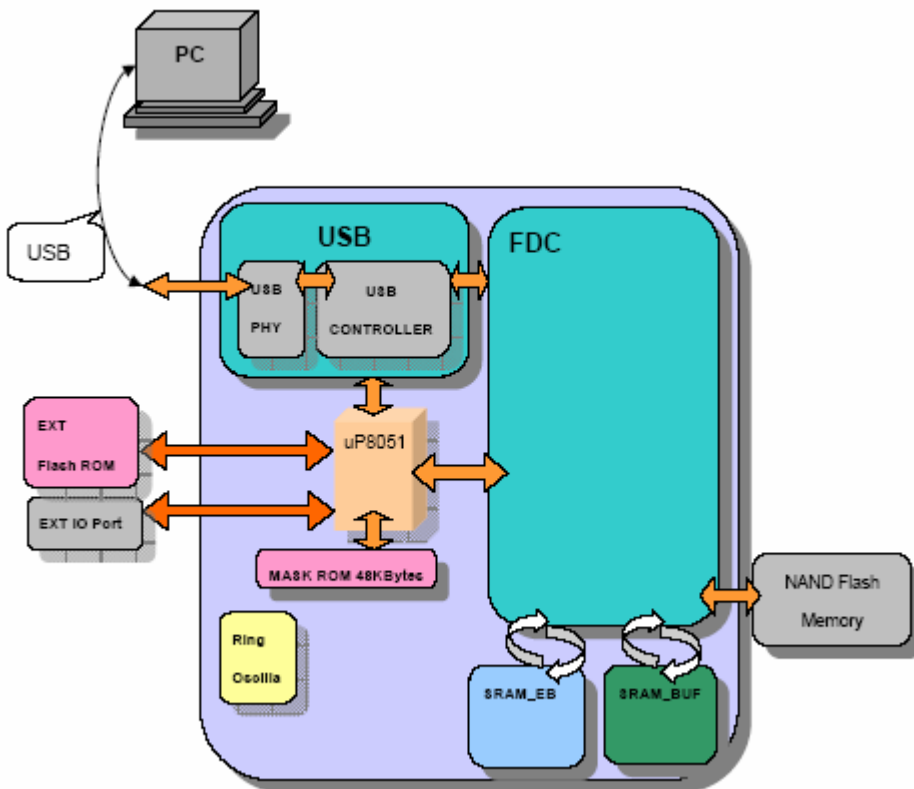
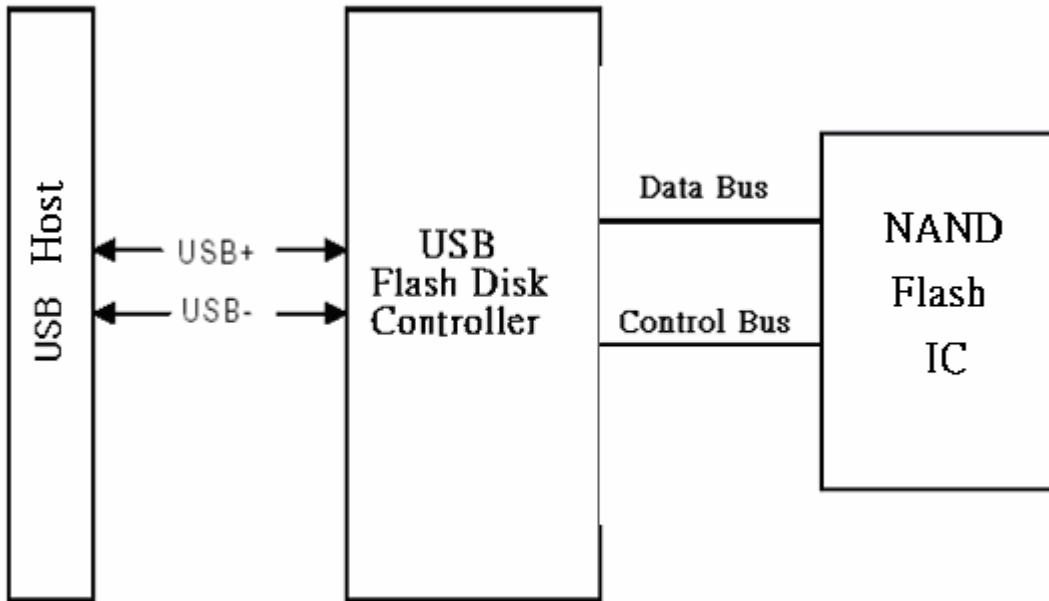
PC based mass storage product with the capability of file & directory read & write function through USB connection. Easy carry and transport final product. Mobile Disk can be partitioned into public and/or security area by the application software. Only one partition (public or security area) can be seen at one time with a predefined password to switch areas.



B. Features

1. Mass storage class controller with Universal Serial Bus interface
2. USB Specification Compliance
 - Conforms to high-speed (480Mb/s) USB Specification, Version 2.0
 - Meet bus power specification
3. Higher reliability: ECC on the fly
4. Automatic bad block management
5. Supported OS:
 - Win XP, Win2000, Windows ME, Linux 2.4 above, and MAC OS 9.0 & Higher
 - Win 98/Win98SE driver available
 - Mac 8.6 mass storage driver available from Apple
6. Multiple LUN Windows driver is available
7. LED indication: Suspend, Active, Idle modes.
8. Recommended operating temperature : -10 – 85
9. Connector durability: Testing to 10000 cycles.

C. Block Diagram



D. Electrical Specifications

D.1. Absolute Maximum Ratings:

Symbol	Parameter	Min	Max	Unit	Notes
Vdd-Vss	DC Power supply	-0.3	+5.5	V	
Vin	Input Voltage	Vss-0.3	VDD+0.3	V	
Tst	Storage Temperature	-25	85	°C	
Ta	Ambient Operating Temperature	0	75	°C	
VDD	Operating Temperature	3.0	3.6	V	
Voltage	Operating Temperature	4.5	5.5	V	
Vcc3	3.3V Supply Voltage	-0.3	3.6	V	
Vcc18	1.8V Supply Voltage	-0.3	2	V	
Vin3.3	3.3V Buffer Input Voltage	-0.3	3.6	V	
Vin3/5	3.3V/5V Buffer Input Voltage	-0.3	5	V	
Vin1.8	1.8V Buffer Input Voltage	-0.3	2	V	

D.2. DC Characteristics

Unless otherwise noted, all test conditions are as follows:

Gnd=0V, Vcc33=3.3V±5%, Vcc18=1.8V±5%

Symbol	Parameter	Min	Max	Unit	Notes
VIH_TTL	TTL Input High Voltage	2	Vcc3+0.3	V	1
VIL_TTL	TTL Input Low Voltage	-0.3	0.8	V	1
VOH_TTL	TTL Output High Voltage	0.9Vcc3		V	1
VOL_TTL	TTL Output Low Voltage		0.45	V	1

IOH_TTL	TTL Output High Current	-4		mA	1
IOL_TTL	TTL Output Low Current		4	mA	1
VIH_USB	USB Input High Voltage for Low-/full-speed	2.0		V	2
VIL_USB	USB Input Low Voltage for Low-/full-speed		0.8	V	2
VI_USB_DIFF	Differential Input Sensitivity for Low-/full-speed	TBD		V	2
VI_USB_CM	Differential Common Mode Input Range for Low-/full-speed	0.8	2.5	V	2
VI_USB_HSSQ	USB High-speed squelch Input detection threshold	0.1	0.15	V	2
VI_USB_HSDSC	USB High-speed disconnect Input detection threshold	0.525	0.625	V	2
VI_USB_HSCM	USB High-speed Signaling Common Mode Range	-0.05	0.5	V	2
VOH_USB	USB Output High Voltage for Low-/full-speed	2.8	3.6	V	2
VOL_USB	USB Output Low Voltage for Low-/full-speed	0	0.3	V	2
VOH_USB_HS	USB Output High Voltage for High-speed	0.36	0.44	V	2
VOL_USB_HS	USB Output Low Voltage for High-speed	-0.01	0.01	V	2
IOH_USB	USB Output High Current for Low-/full-speed	-10		mA	2
IOL_USB	USB Output Low Current for Low-/full-speed		10	mA	2
IOH_USB_HS	USB Output High Current for High-speed	-40		mA	2
IOL_USB_HS	USB Output Low Current for High-speed		40	mA	2

NOTES:

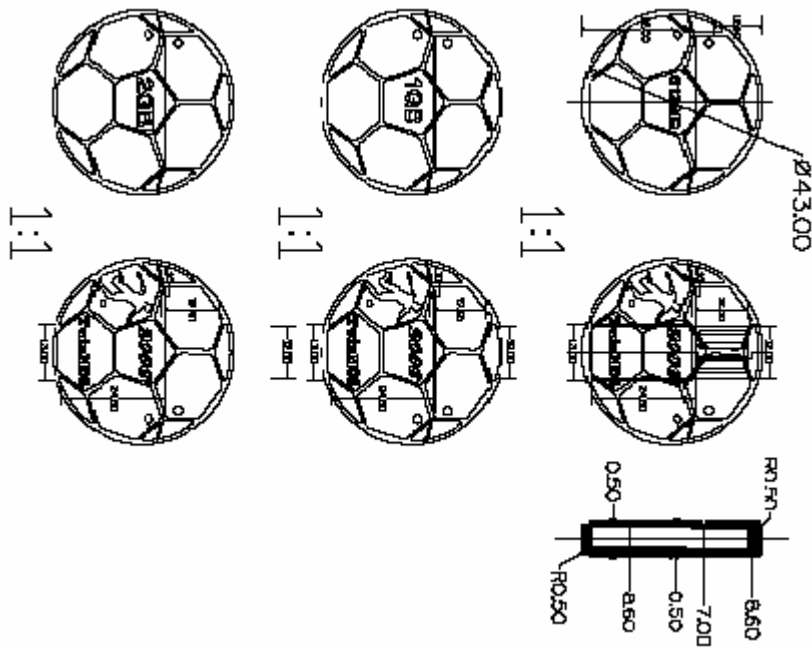
1. Parameter applies to following pins: TBD.
2. Parameter applies to following pins: TBD

D.3. AC Characteristics

Symbol	Parameter	Min.	Typ.	Max.	Unit
TPILH	Input Rising Delay	0.61 (0.8pF)	0.72 (2.4pF)	0.92 (4.8pF)	ns
TPIHL	Input falling Delay	0.88 (0.8pF)	1.03 (2.4pF)	1.24 (4.8pF)	ns
TPOLH	Output Rising Delay	2.40 (10pF)	3.42 (30pF)	4.88 (60pF)	ns
TPOHL	Output falling Delay	2.61 (10pF)	3.62 (30pF)	5.03 (60pF)	ns
TR	Output Rising Time	2.26 (10pF)	4.45 (30pF)	7.83 (60pF)	ns
TF	Output falling Time	1.90 (10pF)	3.63 (30pF)	6.23 (60pF)	ns



E.Physical Specifications



E.1 The Mobile Disk with F6-2D shall have the following dimensions

MD Length	43.0 mm
MD Width	43.0 mm
MD Height	2.5 mm

E.2 MD Weight

MD Weight	15g
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E.3 Frame Material

The housing of the Mobile Disk with F6-2D shall be constructed of rubber.