

UD info Corp.

USB FLASH DISK
UF2- V2UD Series
Product Data Sheet

UD info CORP.

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Revision History

Revision	Draft Date	History	Author
1.0	2015/11/10	New release	Migo.Huang
1.1	2016/8/5	1.2 Up Block Diagram	Migo.Huang



Product Overview

- **Capacity**
 - SLC: 128MB up to 32GB
 - MLC: 4GB up to 128GB
 - pSLC: 2GB up to 64GB
- **USB Interface**
 - High speed up to 480Mbps/sec for USB 2.0
 - Full speed up to 12Mbps/sec for USB 1.1
- **Flash Interface**
 - Flash Type: SLC and MLC
- **Performance**
 - Read: up to 30 MB/s
 - Write: up to 20 MB/s
- **Advanced Flash Management**
 - Bad Block Management
- **Low Power Management**
- **Temperature Range**
 - Operation (Standard): 0°C ~ 70°C
 - Storage: -25°C ~ 85°C
- **Compliant**
 - RoHS
 - CE & FCC

1. INTRODUCTION



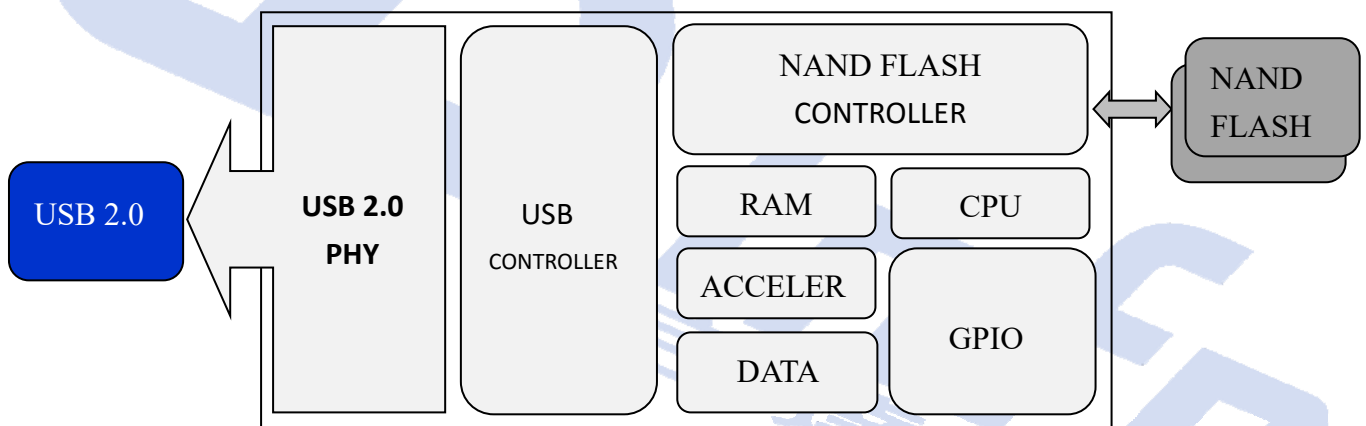
1.1. General Description

The UF2 Drive is a **removable flash disk drive** with USB connection and can support various storage capacities.

UF2 Drive is compatible with both USB 1.1 and USB 2.0 specification. UF2 Drive is a plug and play device, simply plug it into any USB port and it will automatically get detected by the computer as a removable drive. Now you can read, write, copy, delete and move data from your hard disk drive to UF2 Drive or from UF2 Drive to your hard disk drive with the high speed of USB 2.0.

UF2 Drive is so compact that you can take it with you anywhere in your pocket. Now, you don't have to carry a laptop computer with you to work if you have access to a computer. "Bring your data only." Moreover, UF2 Drive **does not require** any battery, cables or software drivers. It is compatible with any desktop or notebook computers with USB port. Experience the light weighted, compact design, high Performance and fast data transfer with UF2 Drive.

1.2. Block Diagram



Block Diagram

2. PRODUCT SPECIFICATIONS



- Compatible with USB specification revision 1.1 and 2.0.
- Capacity available:
 - ◆ SLC: 128MB-32GB
 - ◆ MLC: 4GB-128GB
 - ◆ pSLC: 2GB-64GB
- Support Windows 2000 SP4 and Windows XP **without** device driver.
- Support Windows Vista, Windows 7 and Windows 8 **without** device driver.
- Support Linux Kernel ver 2.4.0 or above **without** device driver. (USB 1.1 speed)
- Support Linux Kernel ver 2.4.10 or above **without** device driver. (USB 2.0 speed)
- Durable solid-state storage – data retention up to 10 years.
- No external power is required - DC 4.5V ~ 5.5V from USB port.
- Transfer rate for USB interface :
 - ◆ High speed up to 480Mbps/sec for USB 2.0
 - ◆ Full speed up to 12Mbps/sec for USB 1.1
- Low Power consumption.
- Hot Plug & Play
- Operating temperature: 0°C to 70°C

3. ENVIRONMENTAL SPECIFICATIONS



3.1. Environmental Conditions

3.1.1. Temperature and Humidity

- Temperature:
 - ◆ Storage: -25°C to 85°C
 - ◆ Operational: 0°C to 70°C
- Humidity:
 - ◆ Standard grade: RH 90% under 40°C (operational)

■ High Temperature Test Condition

	Temperature	Humidity	Test Time
Operation (Standard)	70°C	0% RH	72 hours
Storage (Standard)	85°C	0% RH	72 hours

Result: No any abnormality is detected.

■ Low Temperature Test Condition

	Temperature	Humidity	Test Time
Operation (Standard)	0°C	0% RH	72 hours
Storage (Standard)	-25°C	0% RH	72 hours

Result: No any abnormality is detected.

■ High Humidity Test Condition

	Temperature	Humidity	Test Time
Operation (Standard)	40°C	93% RH	24 hours
Storage (Standard)	40°C	95% RH	72 hours

Result: No any abnormality is detected.

■ Temperature Cycle Test

	Temperature	Test Time	Cycle
Operation (Standard)	0°C	30 min	10 cycles
	70°C	30 min	
Storage (Standard)	-25°C	30 min	10 cycles
	85°C	30 min	

Result: No any abnormality is detected.

3.1.2. Shock

Shock Specification

	Acceleration Force	Half Sin Pulse Duration	Number of Shocks
Non-operational	1500G	0.5ms	6 faces, 5 times each
Operational	1500G	0.5ms	6 faces, 5 times each

Result: No any abnormality is detected when power on.

3.1.3. Vibration

Vibration Specification

	Condition		Vibration Orientation
	Frequency/Displacement	Frequency/Acceleration	
Operational	20Hz~80Hz/1.52mm	80Hz~2000Hz/20G	X, Y, Z axis/60 min for each

Result: No any abnormality is detected when power on.

3.1.4. Drop

Drop Specification

	Height of Drop	Number of Drop
Non-operational	80cm free fall	6 face of each unit, 2 times

Result: No any abnormality is detected when power on.

3.1.5. Bending

Bending Specification

	Force	Action
Non-operational	≥ 50N	Hold 1min/5times

Result: No any abnormality is detected when power on.

3.1.6. Torque

Torque Specification

	Force	Action
Non-operational	0.5 N-m or 10 deg	Hold 5min/5times

Result: No any abnormality is detected when power on.

3.1.7. Electrostatic Discharge (ESD)

Contact ESD Specification

Device	Capacity	Temperature	Relative Humidity	+/- 4KV	Result
UF2	128GB	24.0°C	49% (RH)	No degradation of performance or loss of function.	PASS

3.2. Certification

- RoHS
- CE / FCC

4. ELECTRICAL SPECIFICATIONS



4.1. Absolute Maximum Ratings

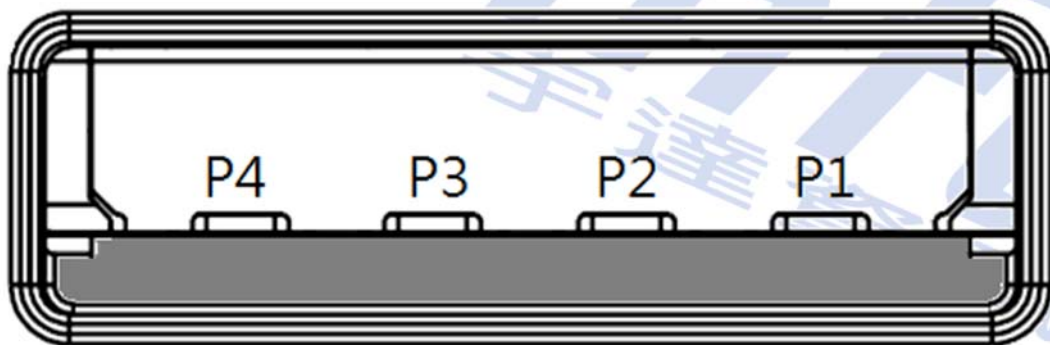
Item	Symbol	Parameter	MIN	MAX	Unit
1	$V_{DD}-V_{SS}$	DC Power Supply	-0.3	+5.5	V
2	V_{IN}	Input Voltage	$V_{SS}-0.3$	$V_{DD}+0.3$	V
3	T_a	Operating Temperature	0	+70	°C
4	T_{st}	Storage Temperature	-25	+85	°C

Parameter	Symbol	Min	Typ	MAX	Unit
Operating Temperature	T_a	0	+25	+70	°C
V_{DD}	V_{DD}	3.0	3.3	3.6	V
Voltage		4.5	5.0	5.5	V

5. INTERFACE



5.1. Pin Assignment and Descriptions



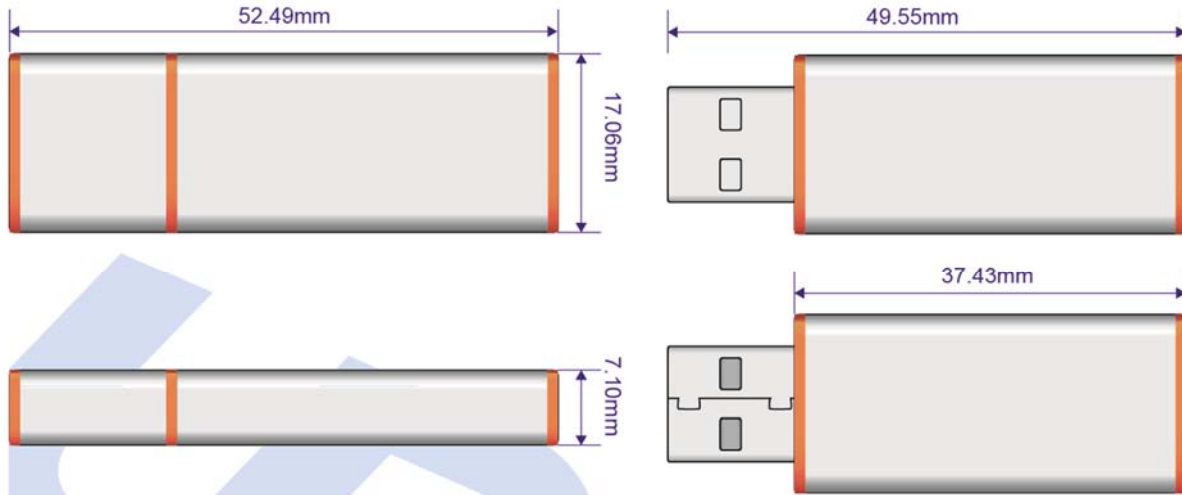
Pin Number	Type	Function
P1	V_{BUS}	Power
P2	D-	USB 2.0 differential pair
P3	D+	USB 2.0 differential pair
P4	GND	Ground

6. PHYSICAL DIMENSION



Dimension:

Type I: UF2-V2



UF2-V2

7. BARCODE DESCRIPTION

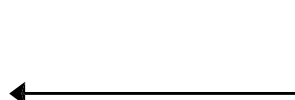


U F 2 V 2 U D 1 2 8 G B P R P

XXXXXXXXXX-YMMDDXX

Part Number

Manufacturing



8. PARTNUMBER DECODER



UF2- BTUD⁸X⁹X¹⁰X¹¹X¹² X¹³ X¹⁴ X¹⁵

X ¹ X ² X ³	X ⁴ X ⁵	X ⁶ X ⁷	X ⁸ X ⁹ X ¹⁰ X ¹¹ X ¹²	X ¹³	X ¹⁴	X ¹⁵
UF2	V2	UD	128MB	C: SLC Standard (0°C ~ +70°C) K: MLC Standard (0°C ~ +70°C) P: pSLC Standard (0°C ~ +70°C)	F: Fixed R: Removable	P
			256MB			
			512MB			
			001GB			
			002GB			
			004GB			
			008GB			
			016GB			
			032GB			
			064GB			
			128GB			

