

ATP Industrial Grade Endura Specification

Revision 1.4



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Revision History

Date	Version	Changes compared to previous issue
Dec. 16 th , 2011	1.0	- 1 st version
Feb. 8 th , 2012	1.1	- Revised dimensions
May. 22 nd , 2012	1.2	- Add 8GB product
Aug. 3 rd , 2012	1.3	- Revised 2GB P/N and Performance
Aug. 20 th , 2012	1.4	- Revised 512MB P/N and Performance

Images



**Laser engraving logo and letters.*

Capacities

ATP UFD P/N	CAPACITY	COLOR
AF512UFEDBK(I)-AABXX	512MB	Black
AF1GUFEDBK(I)-8AAXX	1GB	Black
AF2GUFEDBK(I)-JABXX	2GB	Black
AF4GUFEDBK(I)-JABXX	4GB	Black
AF8GUFEDBK(I)-9AAXX	8GB	Black

Features

USB Interface	UFD Feature
<ul style="list-style-type: none"> High Speed USB 2.0 (480Mbps) compliant and backward compatible with USB1.1 (12Mbps) True “Plug and play” connection support hot swap. 	<ul style="list-style-type: none"> SIP technology with SLC NAND Flash Color - Black

System Support
<ul style="list-style-type: none"> No driver needed for Windows 7 / Vista / 2000 / ME / XP, Mac. OS 9.x or above. Linux Kernel 2.4.0 or above Device driver is needed for Windows 98SE

Your Ultimate Memory Solution!



Electrical Specifications

Symbol	Parameter	Min.	Typ.	Max.	Unit
Vcc	Recommend Supply Voltage	4.5	5.0	5.5	V
Vpeak	Peak Voltage on any pin	-0.3		5.5	V
Icc	Operating Current (read & write)		100		mA
Isb	Standby Current		50		mA

Environment Specifications:

Parameter		Value
Temperature	Operating	-40°C to 85°C
	Non-Operating	-40°C to 85°C
Humidity	Operating	25 °C, 95% RH
	Non-Operating	40 °C, 93% RH
ESD (IEC61000-4-2)	Non contact pads	+/- 15KV (Air discharge)
	Contact pads	+/- 8KV (Coupling plane discharge)
	Contact pads	+/- 4KV
Salt Water Spray	Non-Operating	3%NaCl/35, Over 85%RH, 24hours
Drop Test	Non-Operating	150cm/free fall, total 6 drops
Random Vibration	Non-Operating	10~2000Hz, 6 Grms, 30 mins per axis
UV Light Exposure Test	Non-Operating	254nm, 15Ws/cm2

Reliability:

MTBF@25°C: >5,000,000 hours (Telcordia/Bellcore SR-332)
 Dynamic and Static wear leveling algorithm to improve the endurance
 Endurance : SLC flash block >60,000 Program/Erase cycles

Performance:

Type	Parameter	Value
512MB	Sequential read	up to 18MByte/s
	Sequential write	up to 12MByte/s
1GB	Sequential read	up to 35MByte/s
	Sequential write	up to 17MByte/s
2GB	Sequential read	up to 31MByte/s
	Sequential write	up to 14MByte/s
4GB	Sequential read	up to 33MByte/s
	Sequential write	up to 22MByte/s
8GB	Sequential read	up to 20MByte/s
	Sequential write	up to 19MByte/s

Extra Features:

Type	Value
Water Proof	Yes
Dust Proof	Yes
ESD Proof	Yes
Shock Resistant	Yes

Certifications

- RoHS compliant
- CE certification
- FCC certification

Physical Dimension Specifications (Units in MM):

Type	Value
Length*	33.7mm +/- 0.3mm
Width	17.5mm +/- 0.25mm
Thickness	9.4mm +/- 0.25mm
Weight*	8 g Max.

Mechanical Form Factor (Units in MM)