

## PRODUCT SPECIFICATION

### Ultra Max USB Mains Charger

Type Designation: ADPUMXM-1A

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## Characteristics

### 1.1 Input Characteristics:

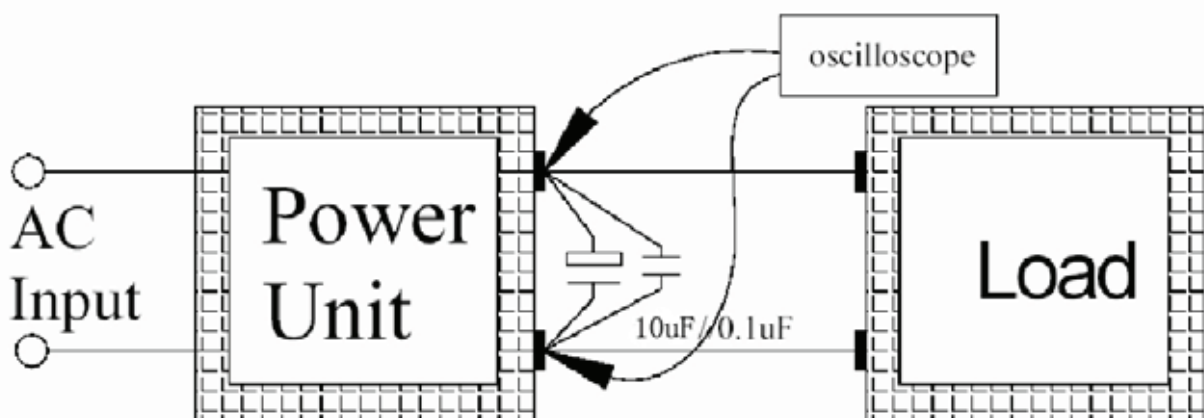
ITEM	CONDITION	SPECIFICATION
1) Input Rated Voltage. Frequency :		<b>100-240V 50/60Hz</b>
2) Input Voltage Range:	Continuously	<b>90VAC to 264VAC</b>
3) Input Frequency Range:	Continuously	<b>50Hz to 60Hz</b>
Vibration Rate input frequency	Continuously	<b>47Hz to 63Hz</b>
4) Input Current:	<b>100Vac in/1A load</b> <b>240Vac in/1A load</b>	<b>0.3A Max.</b> <b>0.2A Max</b>
5) Inrush Current: (Cold start)		<b>30A Max .@100VAC cool start</b> <b>60A Max .@230VAC cool start</b>
6) No Load Power Consumption:	<b>100-240Vac in</b>	<b>&lt; 0.15W</b>
7) Leakage current:	<b>240Vac/50Hz</b>	<b>≤250uA</b>
8) Power Factor:	<b>100-240Vac in Full Load</b>	<b>NC</b>



## 1.2 Output Characteristics:

ITEM	CONDITION	SPECIFICATION
1) Output Characteristics:	Measured at the end of DC cable	
2) Output Rated Voltage:		
<b>NO</b>	<b>OUTPUT VOLTAGE</b>	<b>OUTPUT RATED VOLTAGE</b>
<b>NO LOAD</b>	<b>5V</b>	<b>4.75-5.25V</b>
<b>LOAD</b>	<b>5V</b>	<b>4.75-5.25V</b>
3) Output Current:	At constant voltage mode	0A to 1A
4) Maximum output power:	<b>5W</b>	
4) Output Voltage Ripple and Noise:	100-240Vac in/1A load (0.1uF ceramic Cap.and 50V 10uF Aluminum Cap. paralleled between the end of output cable)	<200mVp-p

<b>NO</b>	<b>OUTPUT VOLTAGE</b>	<b>OUTPUT RATED VOLTAGE</b>
<b>NO LOAD</b>	<b>5V</b>	<b>4.75-5.25V</b>
<b>LOAD</b>	<b>5V</b>	<b>4.75-5.25V</b>



## 1.3 Protection Characteristics

ITEM	CONDITION	SPECIFICATION
1) Short Circuit Protection:	The adapter can withstand continuous short at DC output and no damage, it will enter into normal condition if the fault condition is removed.	No broken, no smoke in
2) Overshoot / Undershoot:		5.25V+10%
3) Over-current protection:	1.1A~1.4A over current protection / With auto-recovery function	

## 1.4 General characteristics

ITEM	CONDITION	SPECIFICATION
1)Efficiency: (Warm up)	Average at 115Vac/60Hz to 230Vac/50Hz, with full load	>69%
2) Any protect condition shall cause no damage and no component fail, Automatic recovery when removal		



## 1.5 Environmental Characteristics

ITEM	CONDITION	SPECIFICATION
1) EMI standard :	CISPR-22 CLASS B, Fcc class B ,	EN55022,PART 15
2) EMS standard :		
2.1 Electrostatic Discharge ESD :	It is refer to EN 61000-4-2, EN55024:1998	Air Electrostatic Discharge : <b>±8KV</b> Contact Electrostatic Discharge : <b>±4KV</b>
2.2 Surge :	It is refer to EN 61000-4-5, EN55024:1998	Common mode Surge Immunity : <b>±2KV</b> differential mode Surge Immunity : <b>±1KV</b>

### 3) Safety standard:

UL			KC	
CE			GS/TUV	
SAA			CB	
BS	YES		CCC	

4) Insulation Resistance:	Between AC input and secondary applied 500Vdc>100M Ω for 1 minute	
5) Dielectric Strength(Hi-Pot):	Between AC input and secondary <b>AC3000V</b> , test No dama time 1minute,and cut off current shall be less than <b>10mA, DC 4242V</b> , test time 1 sec. In production line	
6) Temperature:	Operating	0 to 40°C
	Storage	-20 to +60°C
6) Humidity:	Operating	8%~95%
	Storage	5%~95%



## 1.6 Mechanical Characteristics:

ITEM SPECIFICATION	CONDITION
1) Dimension (Length x Width x Height) :	59.8*49.2*24.5mm
2) Adapter weight:	49g (typical)
Case material	PLASTIC ABS

### 3) Input AC plug Type:

Interchangable plug adapter UK/EUROPE/UL/ AUSTRALIA	---	
DISK TOP IEC320 TYPE 3 PIN	---	
WALL MOUNT US/UL	---	
WALL MOUNT EUROPE/CE	---	
WALL MOUNT UK	YES	
WALL MOUNT JAPAN	---	
WALL MOUNT BRAZIL	---	
WALL MOUNT KOREA	---	
WALL MOUNT AUSTRALIA	---	

### 4) Transformer instruction

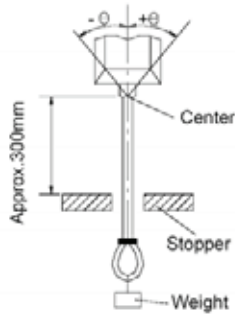
### 5) Output DC Cable

5. 1 Length	NC
5. 2 Wire style	NC
5. 3 Plug	NC
5. 4 Polarity	



## ITEM

### 5.5 Flexibility test



## CONDITION

Weight: **0g**

Angle ( $\theta$ ): **60°**

Short diameter direction: **2000 cycle**

Cycles in every minute: **40**

Hang the specified weight and swing it to one direction and return to the original position, then swing to the opposite direction and return to the original position. This constitutes one cycle. The d.c. power supply shall be subjected to the specified cycles a specified speed.

## SPECIFICATION

Without damage to the cord.

### 5.6 Strain Relief Test:

Applied a weight of **9KG** to output cord SR, for one minutes, there shall be no broken or other damage result.

### 6) Drop Test:

Lift this unit a height of **1M** onto **20mm** thick hardwood, surface one time at **6** directions. the shell should be no opened, and can meet the safety of the withtdand voltage test.  
If drop the Key surface, total **3** times, the shell can't open and need pass the basic function test.

### 7) Random Vibration Storage:

- 1) Frequency: **10 to 55Hz** and return **10Hz**
- 2) Overall Grms: **2.31 m/s<sup>2</sup> (0.236G)**
- 3) Vibration duration: **20minutes**
- 4) Vibration waveform: **Random**
- 5) Force Direction **X,Y,Z**

#### Operation

- 1) Frequency: **10 to 55Hz** and return **10Hz**
- 2) Overall Grms: **1.16 m/s<sup>2</sup> (0.118G)**
- 3) Vibration duration: **20minutes**
- 4) Vibration waveform: **Random**
- 5) Force Direction **X,Y,Z**

After vibration test, the adapter will be turned on normally





8) Color:

Case	Black
DC Cable	Black

1.7 Reliability

ITEM	CONDITION	SPECIFICATION
1) Heat-resistance: (Storage)	The SMPS shall be stored at a temperature of 55+/-2 °C for 16 hours. Then it shall be subjected to standard astrospheres conditions for 2 hours, after which measurement shall be made.	No distortion and No function error
2) Heat resistance: (Operation)	The SMPS shall be placed at a temperature of 25+/-2 °C and operating at full load for 4 hours. Measurement shall be made. The output voltage	No abnormality
3) Cold-resistance: (Storage)	The SMPS shall be stored at a temperature of -20+/-2 °C for 16 hours. Then it shall be subjected to standard astrospheres conditions for 2 hour, after which measurement shall be made.	No distortion and No function error
4) Cold-resistance: (Operation)	The SMPS shall be placed at a temperature of 0+/-2 °C and operating at rate75% full load for 4 hours. Measurement shall be made. The output voltage	No abnormality
5) Body surface temp:	at a entironment temperature of 23+/-2 °C , 100VAC/1A load For 2 hours, measure central section of sueface (thermoelectric couple method)	≤65°C
6) M.T.B.F:	30K Hours At 25°C With 80% Loading	No abnormality



