ULTRA MAX®

PRODUCT SPECIFICATION

Ultra Max USB Mains Charger EU

Type Designation: ADPUMXM-1AEU

Prepared by :

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Approved by :

Issued Date : 2017-01-18

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Characteristics

1.1 Input Characteristics:

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

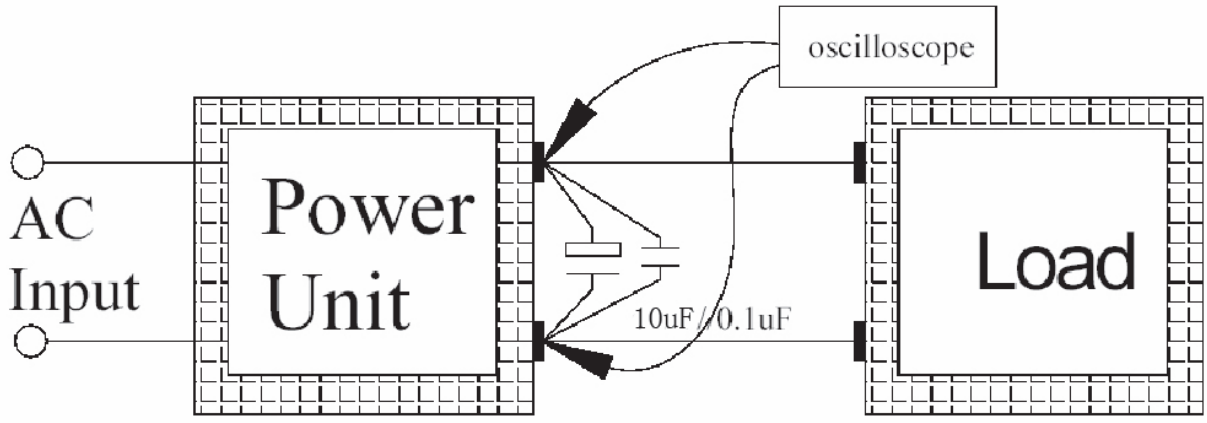
RoHS

1.2 Output Characteristics:

ITEM	CONDITION	SPECIFICATION
1）Output Characteristics:	Measured at the end of DC cable	
2）Output Rated Voltage:		

NO	OUTPUT VOLTAGE	OUTPUT RATED VOLTAGE
NO LOAD	5V	4.75-5.25V
L O A D	5V	4.75-5.25V

3）Output Current:	At constant voltage mod e	0A to 1A
4) Maximum output power:	5W	
4）Output Voltage Ripple and Noise:	100-240Vac in/ 1A load (0.1uf ceramic Cap.and 50V 10uF Aluminum Cap. paralleled between the e nd of output cable)	< 200mVp-p



RoHS

1.3 Protection Characteristics

ITEM	CONDITION	SPECIFICATION
1） Short Circuit Protection:	The adapter can withsta nd 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 t o 230Vac/50Hz, with full load	>69%
2) Any protect condition shall cause no damage and no component fail, Automatic recovery when removal		

RoHS

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 : ±8KV Contact Electrostatic Discharge : ±4KV
2.2 Surge :	It is refer to EN 61000-4-5, EN55024:1998	Common mode Surge Immunity : ±2KV differential mode Surge Immunity : ±1KV

3）Safety standard:

UL			KC	
CE	YES		GS/TUV	
SAA			CB	
BS			CCC	

4） Insulation Resistance: Between AC input and secon dary applied 500Vdc>100M Ω for 1 minute

5） Dielectric Strength(Hi-Pot): Between AC input and secondary AC3000V , test No dama time 1minute,and cut off current shall be less than 10mA, DC 4242V, 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%

RoHS

1.6 Mechanical Characteristics:

ITEM CONDITION
SPECIFICATION

1）Dimension (Length x Width x Height) : 57.4*36.3*23.5 mm

2） Adapter weight: 49g (typical)

Case material PLASTIC ABS

3） Input AC plug Type:

linterchangable plug adapter UK/EUROPE/UL/ AUSTRALIA	---	
DISK TOP IEC320 TYPE 3 PIN	---	
WALL MOUNT US/UL	---	
WALL MOUNT EUROPE/CE	YES	
WALL MOUNT UK	---	
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

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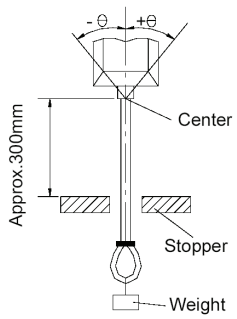
ITEM	CONDITION	SPECIFICATION
5. 5 Flexibility test	Weight: 0g Angle ( ):60 ° Short diameter direction: 2000 cycle Cycles in every minute: 40 Hang the specified weight and swing it to one direction and return to the original position, then swing to the opposite direction and return to the original position. This constitutes one cycle. The d.c. power supply shall be subjected to the specified cycles a specified speed.	Without damage to the cord.
5.6 Strain Relief Test:	Applied a weight of 9KG to output cord SR,for one minutes,there s hall be no broken of other damage result.	



6） Drop Test:

Lift this unit a height of 1M onto 20mm thick hardw ood, surface one time at 6 directions. the shell sh ould be no opened, and can meet the safety of the withdtand 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 ^{2} (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 ^{2} (0.118G)
3) Vibration duration: 20minutes
4) Vibration waveform: Random
5) Force Direction X,Y,Z

Aft er vibration test, the adapter will be t urned on normally

RoHS

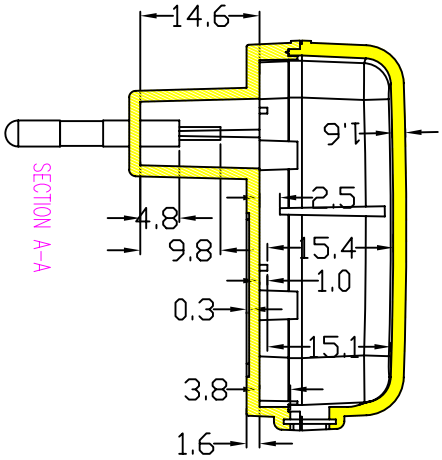
8）Color:

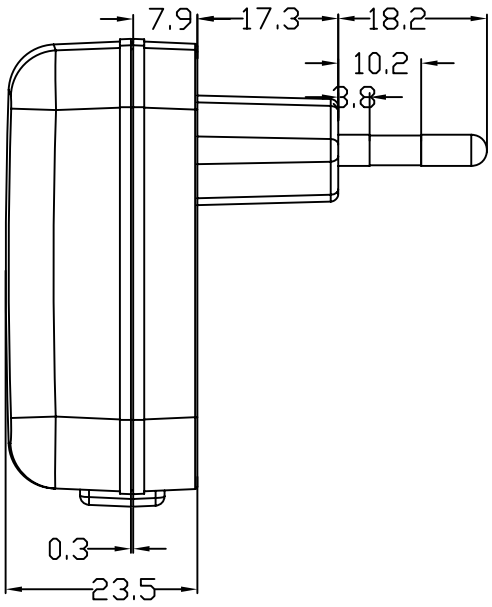
Case	Black
DC Cable	Black

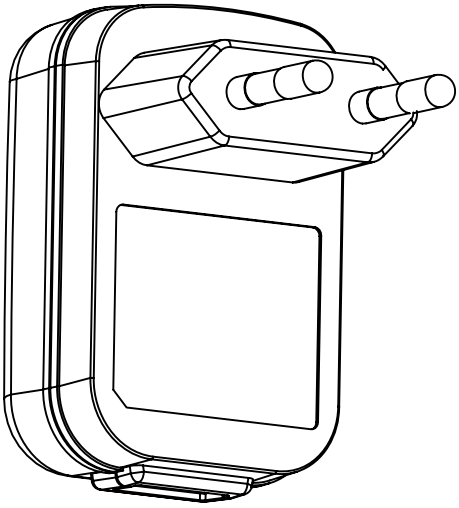
1.7 Reliability

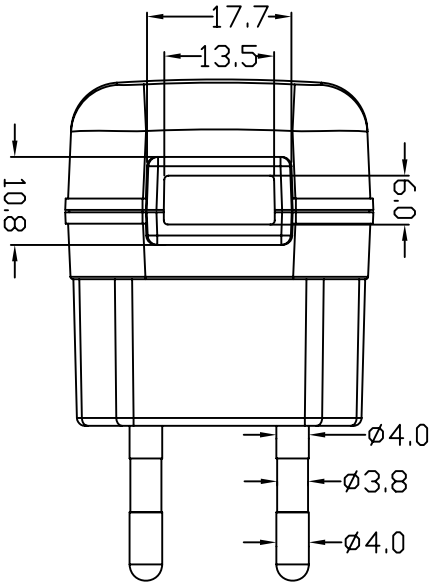
ITEM	CONDITION	SPECIFICATION
1）Heat-resistance: (Storage)	The SMPS shall be stored at a temp erature of 55+/-2 ℃ for 16 hours. Then it shall be subjected to standard astros pheres conditions for 2 hours, after which measurement shall be made.	No distortion and No functi on error
2）Heat resistance: (Operation)	The SMPS shall be placed at a temp erature of 25+/-2 ℃ and operating at full load for 4 hours. Measurement sh all be made. The output voltage	No abnormity
3）Cold-resistance: (Storage)	The SMPS shall be stored at a tem perature of -20+/-2 ℃ for 16 hours. Then it shall be subjected to standard a strospheres conditions for 2 hour, after which measurement shall be made.	No distortion and No function e rror
4）Cold-resistance: (Operation)	The SMPS shall be placed at a temp erature of 0+/-2 ℃ and operating at rate75% full load for 4 hours. Measu rement shall be made. The output voltage	No abnormity
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℃ With 80% Loading	No abnormity

RoHS


14.6
9.1
2.5
4.8
9.8
15.4
1.0
0.3
15.1
3.8
1.6
SECTION A-A


7.9
17.3
18.2
10.2
3.8
0.3
23.5

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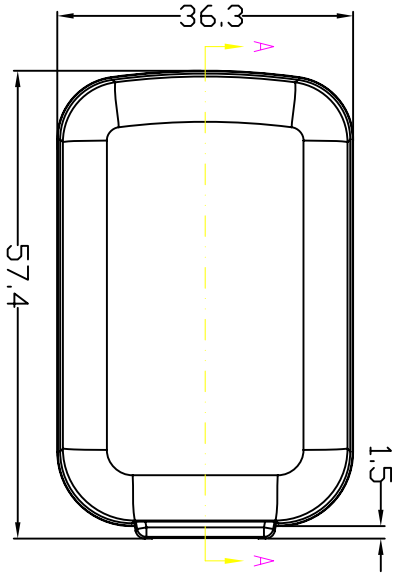
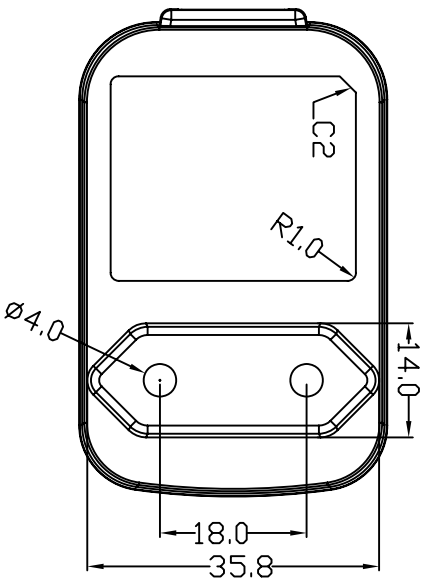
13.5
10.8
6.0
ø4.0
ø3.8
ø4.0


36.3
A
57.4
1.5
A


LC2
R1.0
ø4.0
14.0
18.0
35.8