

# SPECIFICATION

## High Efficiency Switching Power Adapter

**7.5VDC 0.5A Output  
Universal AC Input  
Efficiency Level VI**

**P/N: W075005SKX**

### Specification Approval

This specification (including cover page) is approved in it's entirety by:

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Company Name

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Date



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## 1. Description

This specification apply to Top Microsystems switching power supply P/N: W075005SKX.

## 2. Electrical

### 2.1 Input

<b>Input Voltage Range</b>	<b>90Vac - 264Vac</b>
<b>Rated Voltage Range</b>	<b>100Vac - 240Vac</b>
<b>Input Frequency Range</b>	<b>47Hz-63Hz</b>
<b>Rated Input Frequency</b>	<b>50Hz/60Hz</b>
<b>Input Current</b>	<b>0.2A max. at full load</b>
<b>Inrush Current</b>	<b>20A avg. peak at 220Vac input</b>

### 2.2 Output

#### 2.2.1 Rated Output

<b>Output Voltage (Vdc)</b>	<b>Output Voltage Limit (Vdc)</b>	<b>Output Ripple &amp; Noise (mV)</b>	<b>Output Current (mA)</b>
<b>7.5V</b>	<b>7.125-7.875V</b>	<b>≤120</b>	<b>500mA</b>

Ripple Voltage is measured with oscilloscope with bandwidth 20MHz . A 10uF E-cap and 0.1uF ceramic-cap shall be connected to the connector in parallel.

#### 2.2.2 DC Output Overshoot at Turn On & Turn Off

<b>Output Voltage (V)</b>	<b>Proportion of the output voltage overshoot</b>	
	<b>Turn on</b>	<b>Turn off</b>
<b>7.5V</b>	<b>5%</b>	<b>5%</b>

#### 2.2.3 Combined Load/Line Regulation

<b>Voltage</b>	<b>Min. Load</b>	<b>Rated. Load</b>	<b>Line Regulation</b>	<b>Load Regulation</b>
<b>7.5Vdc</b>	<b>0A</b>	<b>0.5A</b>	<b>±3%</b>	<b>±5%</b>

#### 2.2.4 Turn-on Delay Time

3 seconds max. at 115Vac input and max. load.

#### 2.2.5 Rise time:

40mS max. at 115Vac input and output max. load.

#### 2.2.6 Hold up time:

5mS min. at 115Vac input and output max. load.

**2.2.7 Efficiency:**

Average efficiency reach 75.86% min. at 25%, 50%, 75% & 100% of full-load 230Vac input (after warm up 30 minutes).

No-load input power  $\leq 0.1W$

**3. Protection****3.1 Short Circuit protection:**

The power supply will be auto recovered after short circuit faults remove.

**3.2 Over Current Protection:**

The power supply will auto-recover after over current fault condition is removed.

**4. Reliability****4.1. Burn-in**

The power supply shall be burn-in for 2 hours under normal input and 80% rated load at  $40^{\circ}C \pm 5^{\circ}C$

**4.2. MTBF**

The MTBF shall be at least 50,000 hours at 25C, full load and rated input condition

**5. Environmental****5.1 Operating Temperature:**

$0^{\circ}C$  to  $40^{\circ}C$ , Full load, Normal operation.

**5.2 Storage Temperature:**

$-40^{\circ}C$  to  $85^{\circ}C$

**5.3 Relative Humidity:**

5%~95% relative humidity

**5.4 Vibration:****5.4.1. Operating: IEC 721-3-3 3M3**

5~9Hz, A=1.5mm

9~200Hz, Acceleration 5m / S2

**5.4.2. Transportation:**

IEC 721-3-2 2M2

5~9Hz, A=3.5mm

9~200Hz, Acceleration=5m / S2

200~500Hz, Acceleration=15m / S2

### 5.4.3. Axes, 10 cycles per axis

No permanent damage may occur during testing.

The product can restore to its original situation after power off / on.

### 5.5 Dropping Packed:

1 corner, 3 edges, and 6 surfaces

Height: 76cm

## 6. Safety and EMI

6.1 Certificate	Country	Standards
■UL/CUL	USA	UL60950
■TUV/GS	Europe	EN60950
■FCC	USA	Class B
■CE	Europe	EN60950
■SAA	Australia	AS/NZS60950

### 6.2 EMI

FCC class B rules

EN55022 class B rules

### 6.3 Dielectric Strength

3000Vac/5mA/60s primary to secondary

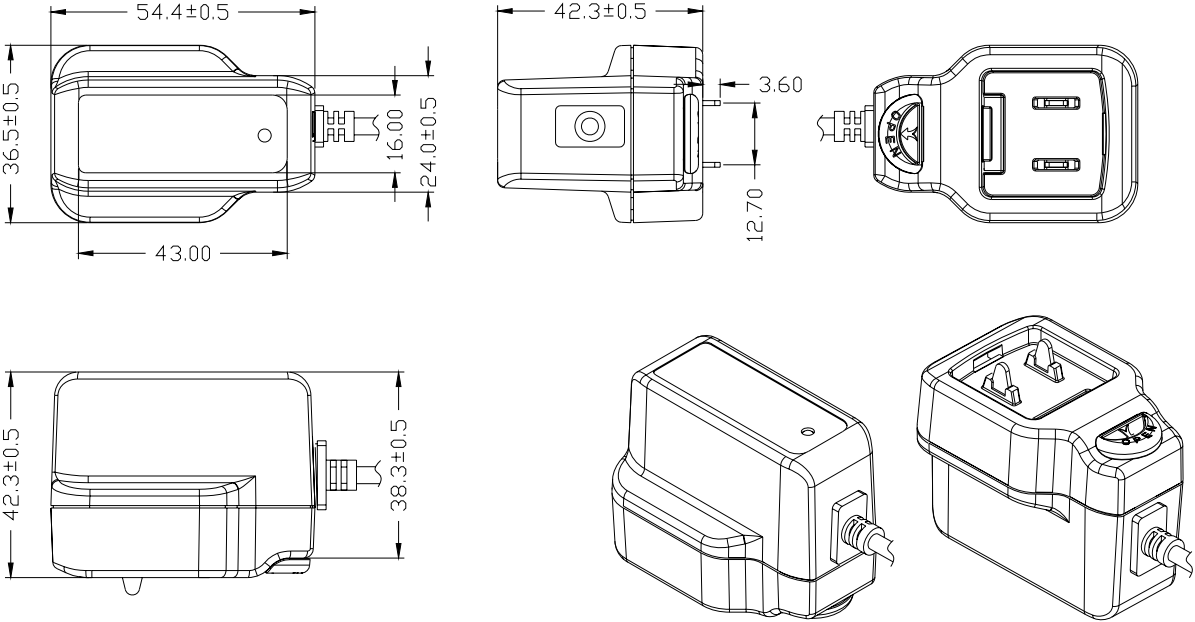
## 7. Mechanical

### 7.1 Enclosure

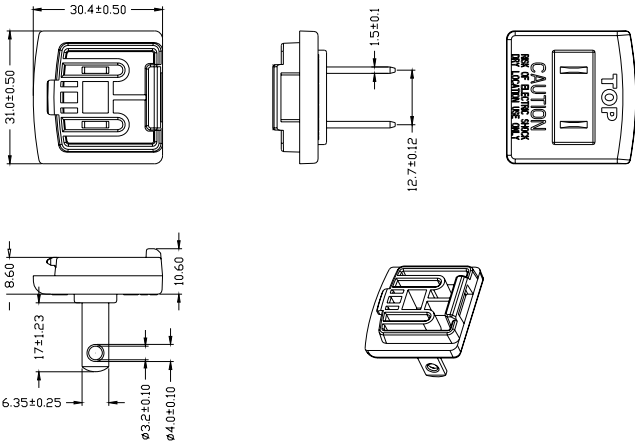
The power supply size: 54.4 x36.5 x42.3 mm;

### 8. Drawings

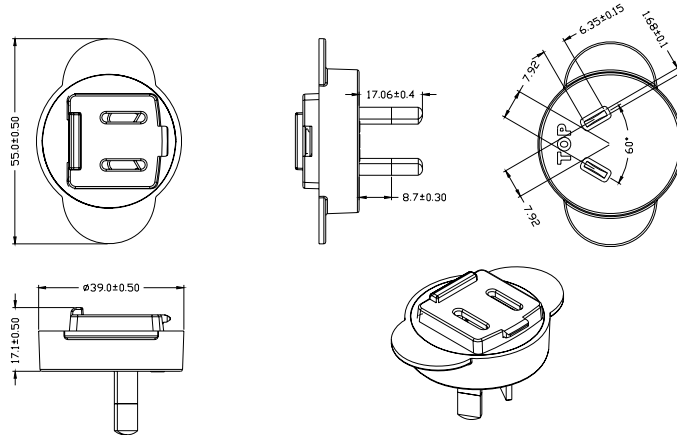
#### 8.1 Enclosure



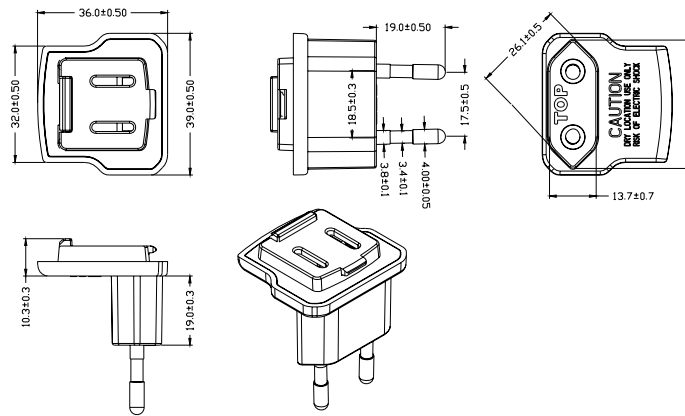
#### 8.2 U.S. AC Plug



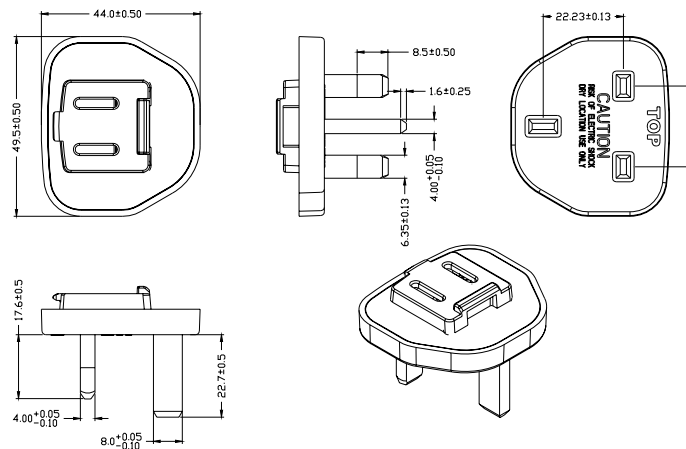
### 8.3 AU AC Plug



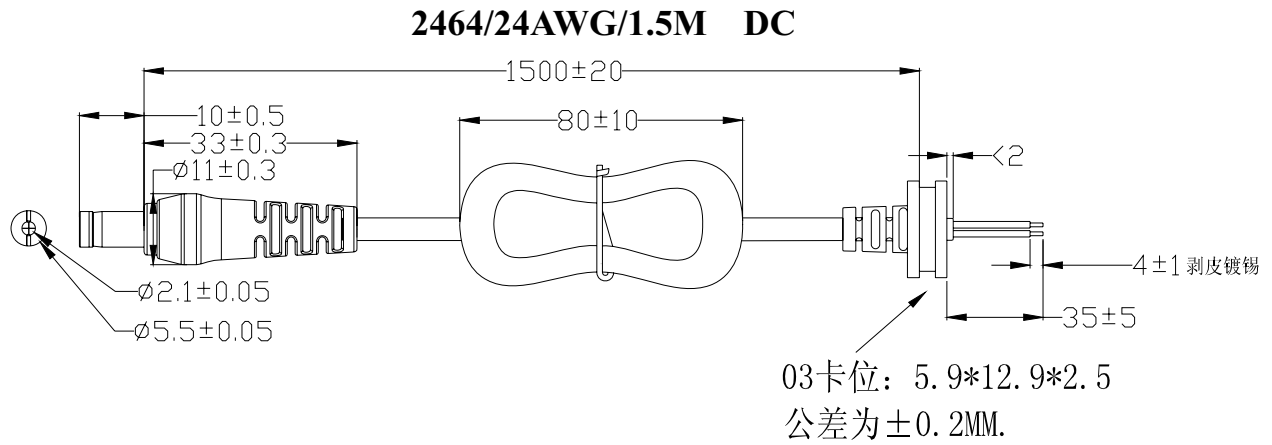
### 8.4 EU AC Plug



### 8.5 U.K. AC Plug



## 9.2 DC Output Cord Drawing



## 11. Label Drawing

