# 仕 様 書

型番 ACA-IP21SBK/W

品名 スマートフォン用 AC アダプタ

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## 1.0 SCOPE

### 1.1 DESCRIPTION

This document details the electrical, mechanical and environmental specifications of the switching power supply.

This is a wall-mounted & foldaway-pin type switching power supply. The correlative specification is shown below.

## 2.0 INPUT REQUIREMENTS

## 2.1 INPUT VOLTAGE & FREQUENCY

The range of input voltage is from 90Vac to 264Vac

	Minimum	Nominal	Maximum
Input Voltage	90Vac	100/240Vac	264Vac
Input Frequency	47Hz	50/60Hz	63Hz

#### 2.2 INPUT CURRENT

The maximum input current is **0.15A** at 100Vac.

## 2.3 INRUSH CURRENT

The inrush current will not exceed 20A at 110Vac input for a cold start at 25℃.

## 3.0 OUTPUT REQUIRMENTS

#### 3.1 STATIC LOAD

3.1.1	Output#	V1	
3.1.2	Output Voltage	5.0-5.4V@no-load	
3.1.3	Load current	1000mA	
3.1.5	Line Regulation:	+/-1%	
3.1.6	Load Regulation:		
3.1.7	Loading Voltage-1	>4.2V@1000mA LOAD	
3.1.8	Loading Voltage-2		
3.1.9	Short current	<2000mA or hiccup	

## 3.2 TURN ON DELAY

During turn on and turn off, no output voltage shall exceed its nominal voltage by more than 10% and no output shall change its polarity with respect to its return line. All outputs shall reach their steady state values within 2 seconds of turn on.

## 3.3 HOLD UP TIME

10mS minimum from loss of 115Vac/60Hz input at maximum load,

#### 3.4 EFFICIENCY

The efficiency (watts out / watts in) shall be higher than <u>60%</u> typical while measuring at nominal line and maximum load.

## 3.5 OUTPUT TRANSIENT RESPONSE AND DEVIATION No requirements.

## 4.0 PROTECTION PARAMETER

4.10VEF	R – VOLTAGE PROTECTION
	The power supply shall be hiccupped when output voltage reaches to its over – voltage protection trigger point $\underline{9Vmax}$ .
	The power supply will never recover.
	☐The power supply will go into latch-off mode, and have to OFF and
	ON the AC input to restart the power supply.

## 4.20VER - CURRENT PROTECTION & SHORT CIRCUIT PROTECTION

The power supply shall be withstand 1 minute of operating any output in overload condition (The over current protection should less than 350% of rated current.), or when operating any output in a short circuit condition, it is no fire and too hot to touch.

The power supply shall be self – recovering when the fault condition is removed.

## 5.0 ENVIRONMENTAL PARAMETER

## 5.1 OPERATING

The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions:

Ambient Temperature: 0°C ~40°C

Relative Humidity: 20%  $\,\sim\,$  90%

Altitude: Sea level to 10,000 feet.

#### 5.2 STORAGE

The power supply shall be capable of withstanding the following environmental conditions extended periods of time, without sustaining electrical or mechanical damage and subsequent operational deficiencies:

Ambient Temperature: -20°C ~ 85°C

Relative Humidity: 20% ~ 90%

Sea level to 10,000 feet Vibration and Shock:

The power supply shall be designed to withstand normal transportation vibration per MIL—STD-810D, method 514 and procedures X, as it is mounted in the chassis assembly and packed for shipping

## 6.0 SAFETY AND INTERNATIONAL STANDARDS

#### 6.1 REGULATORY STANDARD

The power supply shall be certified under the following international regulatory standards

	country	Regulation status	standards
PSE	JAPAN	MEET	Dentori den an

## 6.2 DIELECTRIC STRENGTH (HI-POT)

Input to output: AC1500V, 3.5mA, 1 minute for typical test, 1 second for production.

## 7.0MECHANICAL

## 7.10UTERVIEW OF FINAL PRODUCT

The outer-view of final product is shown in outer-view drawing of page 5.

#### 7.2TOTAL WEIGHT

The weight of the final product is about: 35g.

## 7.3 PACKAGE

TBD.

