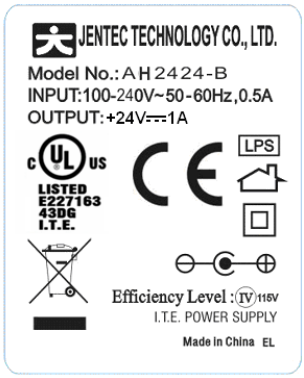
	MODEL NO.	AH2424-B694	SHEET NO	1
	DESCRIPTION	SWITCHING MODE AC ADAPTER	ISSUED DATE:	FEB/17/2011
			REVISED DATE:	MAR/17/2011

APPROVAL SIGNATURE
Michael Shan
DATE: 17-03-2011

CUSTOMER: Phidgets Inc.

Model : AH2424-B694(1A0F)Phidgets REV:01

AC Input	100-240Vac	DC Output	24V/1A	PC /
DC O/P cable	2468 22# 5.5*2.1*9.5mm 180° Tuning Fork+Kink 6FT BLACK			
AC plug	US 2PIN	Packaging	PE Bag	
To choose	☐ China Domestic Location		■ Export	



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Version History:

Date	Version	Description
FEB/17/2011	00	First released
MAR/17/2011	01	TO HAVE LABEL ON THE PE BAG

CONTAINS:

INTRODUCTION

1.0INPUT REQUIREMENTS

1.1 Voltage (VAC)

1.2 Frequency

1.3 In-Rush Current

1.4 Ac Input Current

2.0OUTPUT REQUIREMENTS

2.1 Output Power

2.2 Output Regulation

2.2.1 Input Voltage

2.2.2 Input Frequency

2.2.3 Static Load

2.2.4 Output Voltage

2.2.5 Ripple

2.3 Transient Response and Deviation

2.4 Turn on, Hold up Time

2.5 Efficiency

3.0PROTECTION

3.1 Input Current

3.2 Over Voltage Protection

3.3 Over Current Protection

3.4 Short Circuit Protection

4.0MECHANICAL

4.1 Introduction

4.2 General Requirements

4.3 Power Supply Dimensions

4.4 Input / Output Connection

4.5 Unit Color

5.0RELIABILITY AND QUALITY CONTROL

5.1 MTBF

5.2 Burn-In

6.0ENVIRONMENTAL CONDITIONS

6.1 Non-operating

6.1.1 Ambient Temperature

6.1.2 Relative Humidity

6.2 Operating

6.2.1 Ambient Temperature

6.2.2 Relative Humidity

7.0EMI EMISSIONS

8.0SAFETY

8.1 Dielectric Strength (Hi-Pot) Test

8.2 Insulation Resistance

8.3 Leakage current

9.0ENVIRONMENTAL PROTECTION

9.1 RoHS and WEEE

9.2 EPA /CEC and MEPS

10.0 PACKAGING

11.0 LABEL/MARK

12.0 OUTLOOKING

13.0 SAFETY CERTIFICATES

INTRODUCTION

This documents specifies ONE voltage +24V power supply for electronic data processing equipment. The power supply will provide power to all system components.

1.0 INPUT REQUIREMENTS

1.1 Input Voltage Designing Range: 90~264 VAC.

1.2 Line Frequency Designing Range: 47 HZ to 63 HZ.

1.3 In-Rush Current: 30 A max. less under 115V conditions.

Interruption of the input voltage for duration sufficient to cause the output voltage to drop below the regulation setting shall cause reactivation of in rush limiting capability. (Full-load 25℃ Cold-start)

1.4 Input Current: 0.5 A max. at any line voltage specified in 2.1 at output full load condition.

2.0 OUTPUT REQUIREMENTS

2.1 Output Power (Rated Power)

The unit total output power from all voltage under steady state condition will not exceed 24 watts

2.2 Output Regulation

Label Information per Safety Agencies according to UL1950 and or EN60950 Requirements.

2.2.1 Input Rated Voltage Range: 100~240 VAC.

2.2.2 Line Rated Frequency: 50 HZ to 60 HZ.

2.2.3 Static Load

TABLE 2.2.3

Output	Voltage	Minimum Load	Maximum Load	Surge Current
1	+24V	0A	1.0A	------

2.2.4 Output Voltage

The output voltage shall be statically regulated for all combinations of load (min./ max.), line and environment, including cross regulation (if any)as shown:

TABLE 2.2.4

Output	Voltage	Range	Tolerance
1	+24V	+22.8V~+25.2V	-5%,+5%

NOTE: Test measurement will be made at the output connector on the power Supply output cord and well connected on the mating connector.

2.2.5 Ripple and Noise

Differential ripple and noise at the power supply output shall be as shown below when measured under constant load range of 0.01 ~1.0A with an oscilloscope with at bandwidth of 20MHz.

TABLE 2.2.5

Output	Voltage	Maximum peak to peak ripple and noise
1	+24V	240 mV

NOTE: Test measurement will be made at the output connector on the power Supply output cord. With used an aluminum Electrolytic capacitor of 10uf and ceramic of 0.1uf parallel on output terminal can prevent unknown noise pick up.

2.3 Transient Response and Deviation

The load regulation for +24V is less than +/-10% while the measuring is down by changing the measured output loading from+20% to +80% of rated load .

2.4 Turn on, Hold up Time

During turn on and turn off, no voltage shall exceed its nominal voltage by more than 10% and no output will change its polarity with respect to its return line. All outputs shall reach their steady state values within 2 seconds of turn on and the hold up time for the output must be at least 10 mS tested at 110VAC/50HZ input with 80% maximum load on output.

2.5 Efficiency

The efficiency (watt out/watt in) shall be a minimum of 78.6 % under line input 115Vac/60Hz and full load.

3.0 PROTECTION

3.1 Input Current

An input fuse with a rating of 2A/250V Amps, shall be provided to protect the power supply and the input wiring. Note: The fuse shall be an unchangeable unit.

3.2 Over Voltage Protection (OVP)

The power supply shall shut down all outputs when any output voltage reaches to it’s over voltage protection trigger point.

Note: This is not a repeatable test, when it triggers it is a perennial shut down.

3.3 Over Current Protection (OCP)

Overload conditions shall cause both the output current and the output voltages to decrease. Removal of an output overload conditions shall permit automatic recovery of the output voltage. The over current protection point Maximum=300% for all outputs.

Note: The total output power should not over Rated power to operate, otherwise will caused the power supply to damage.

3.4 Short Circuit Protection (SCP)

The power supply shall be protected from damage of accidentally short on the output terminal.

4.0 MECHANICAL

4.1Introduction

The power supply will provide

Output power connector show as in

Table 4.1

FRONT VIEW OF OUTPUT CONNECTOR

Table 4.1 Pin out for DC Connector

PIN	Output Voltage
	

4.2 General Requirements

The power supply must not exceed an audible noise level of 32 dB while operating under any combination of specified load and input voltages and frequencies. This noise level shall be measured according to IEC standards 651 type 1, with the sound level meter pointed directly at the power supply in a free-field condition, at a distance of 1 meter and by selecting nominal “A” weighting frequency attenuation.

4.3 Power Supply Dimensions

The dimensions of the power supply are shown: (75x35x55 mm)

4.4 Input / Output Connection

AC PLUG	US 2PIN
DC OUTPUT	2468 22# 5.5*2.1*9.5mm 180° Tuning Fork+Kink 6FT BLACK

4.5 Unit Color: BLACK

5.0 RELIABILITY AND QUALITYCONTROL

5.1 Reliability

The design and construction of this power supply shall exhibit a minimum mean time between failure of 50,000 hours full rated load operation at 25.0℃, According to the MIL-HDBK-217F.

5.2 Burn-in

The power supply will be performed 100% burn-in at 40℃(±5℃) under 80%-100% of full load on all power supplies.

6.0 ENVIRONMENTAL CONDITIONS

6.1 Storage

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

6.1.1 Ambient temperature: -25℃ ～ +85℃

6.1.2 Relative Humidity: 10% ～ 95%

6.2 Operation

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

6.2.1 Ambient Temperature: 0℃ ～ 40℃

6.2.2 Relative Humidity: 10% ～95%.

7.0 EMI EMISSIONS

The power supply meets the radiated and conducted emission requirements for a FCC part 15B (class B)(DoC)

8.0 SAFETY

The power supply must be certified or meet of the following safety standards:

	Certified	Meet
UL	★	
CUL or CSA	★	
CE	★	

8.1 Dielectric Strength (Hi-Pot) Test System:

Withstand AC 3 K V/10mA, for 2 sec./ min., primary to secondary.

8.2 Insulation Resistance:

Primary to secondary: 10 M OHM at 500 VDC .

8.3 Leakage current: ≦ 0.25mA

9.0 ENVIRONMENTAL PROTECTION

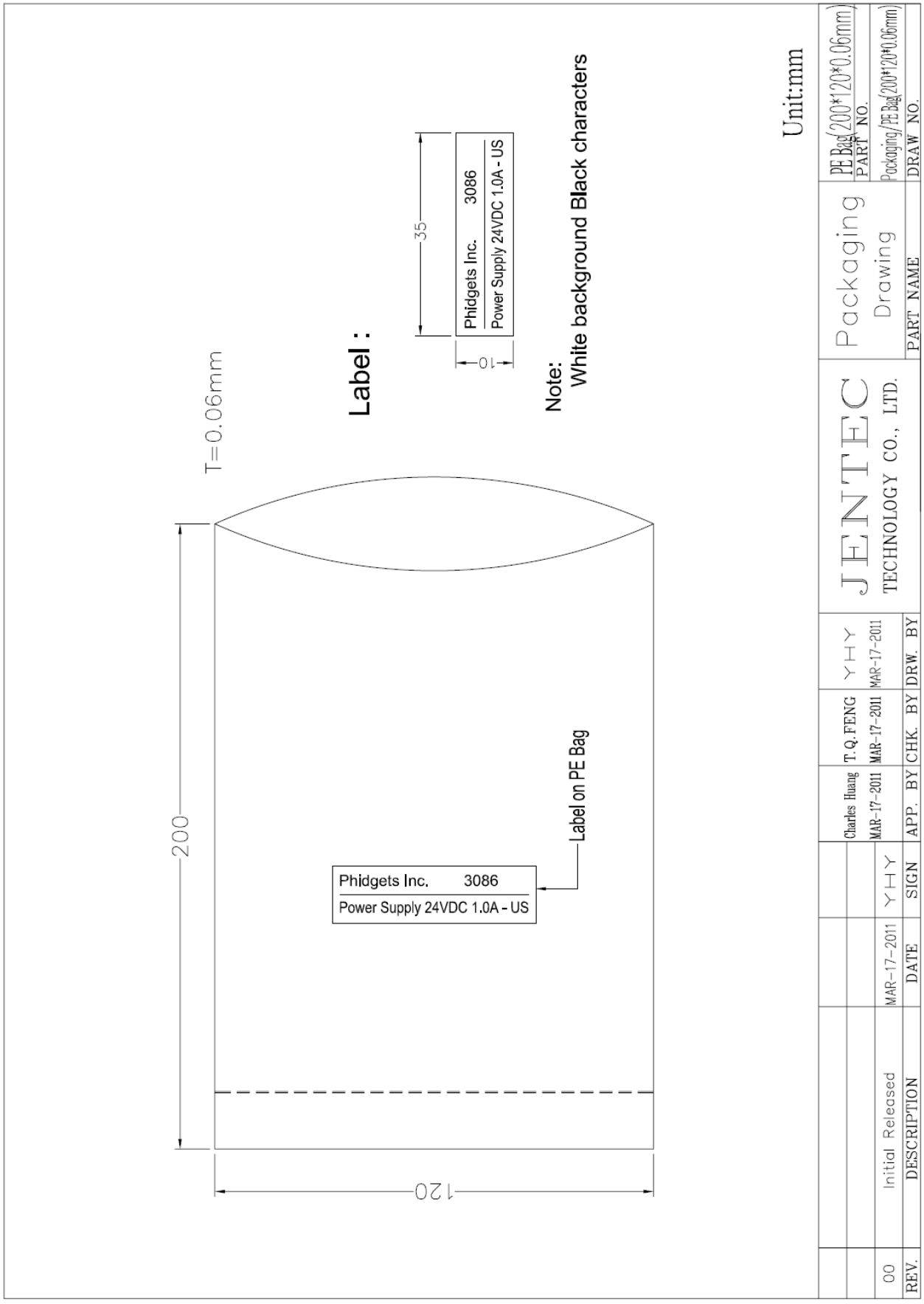
9.1 RoHS and WEEE

This product from design to production all the parts and process should meet the requirement of Restriction of the use of certain hazardous substances in electrical and electronic equipment RoHS directive 2002/95/EC and also meet the directive 2002/96/EC of Waste electrical and electronic equipment (WEEE) .

9.2 EPA/ CEC and MEPS

To meet the energy saving trend, this product has designed to meet the American EPA energy star program for the EPS regulation , or requirement of CEC 400-2006-002, S/NZS/4665.2.2005 for Australia and New Zealand.

10.0 PACKAGING: PE Bag .



11.0 LABEL/MARK

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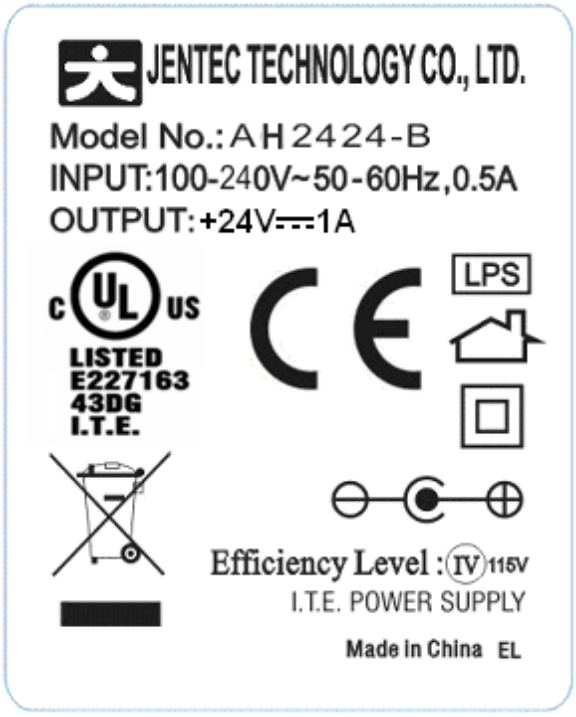

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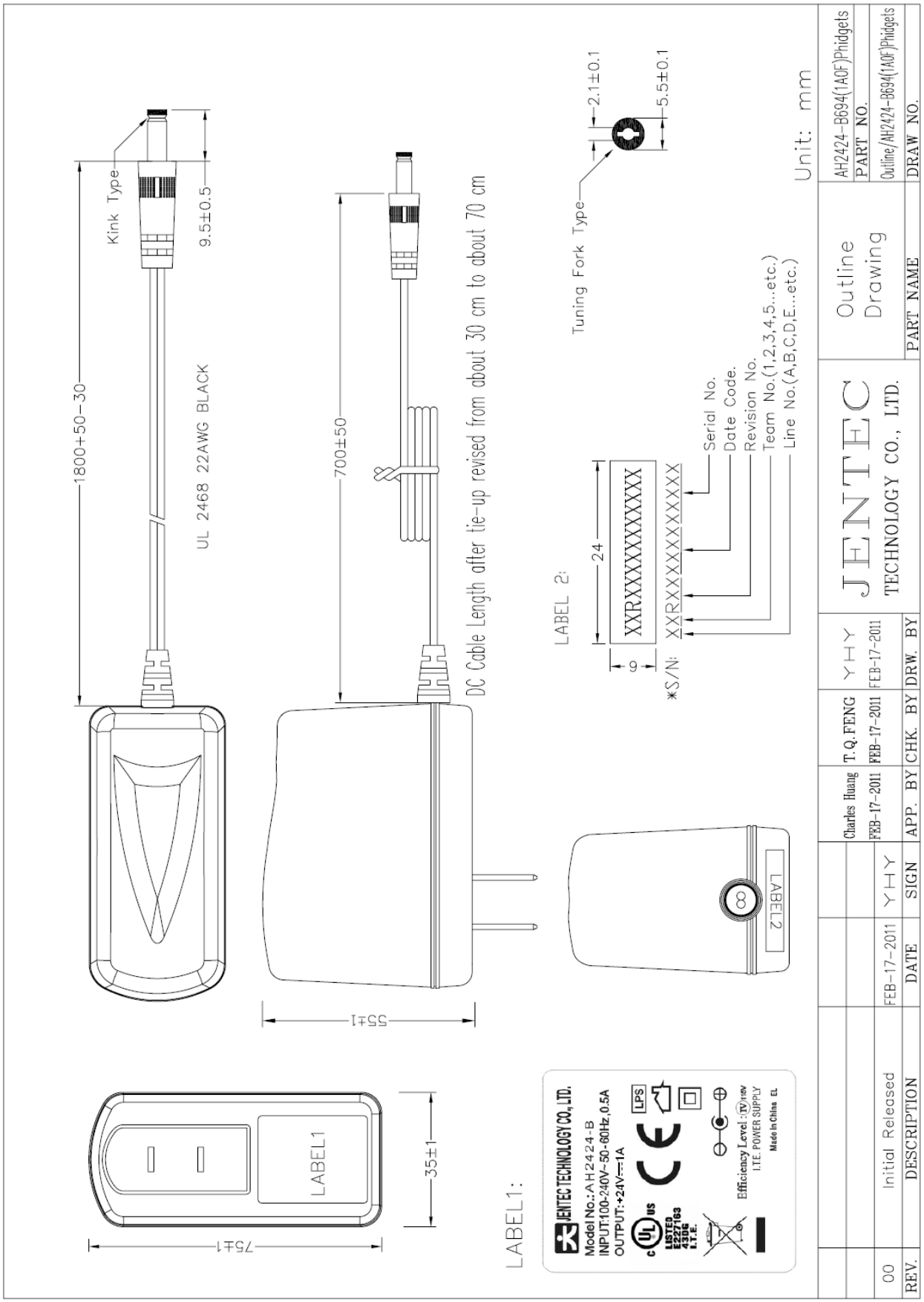
12.0 OUTLOOKING



13.0 SAFETY CERTIFICATES

UL International, L.L.C., Taiwan Branch

美商優力安全認證有限公司台灣分公司
UL International, L.L.C., Taiwan Branch
台北市 112 北投區大業路 260 號 1 樓
1st Fl 260 Da-Yeh Road Peitou Taipei City Taiwan 112
tel: 886-2-2898-7790 fax: 886-2-2891-7644
http://www.ul.com.tw

NOTICE OF AUTHORIZATION TO APPLY THE UL MARK

TAIWAN OFFICE

Date - December 2, 2005

TO: Jentec Technology Co., Ltd.
14th Fl-9 2 Jian-Ba Rd
Chung-Ho City, Taipei Hsien 235, Taiwan
Attention: Mr. Charles Huang
Our Reference: File E227163 Project 05SC05808
Product: UL and C-UL Investigation for Switching Power Adapter, Model AX24YY-B (X may be F, G or H; YY may be 09 to 24)

Dear Mr. Huang:

Any information and documentation provided to you involving UL Mark services are provided on behalf of Underwriters Laboratories Inc.

UL's Investigation of your product has been completed under the above project number and the subject product was determined to comply with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Listing Mark only at the factory under UL's Follow-Up Services Program to the subject product which is constructed as described below:

Identical to switching power adapter, Model AX24YY-B which was submitted to UL for this investigation. The UL records covering the product will be in the Follow-Up Services Procedure, File E227163, Volume X2, Report Reference Number E227163-A14-UL-1.

To provide the manufacturer with the intended authorization to use the UL Mark, the addressee must send a copy of this Notice and all attached material to each manufacturing location as currently authorized in File E227163, Volume X2.

This authorization is effective from the date of this Notice and only for products at the indicated manufacturing locations. Records in the Follow-Up Services Procedure covering the product is now being prepared and will be sent to the indicated manufacturing locations in the near future. Please note that Follow-Up Services Procedures are sent to the manufacturers only unless the Applicant specifically requests this document.

Products that bear the UL Mark shall be identical to those that were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, appropriate action will be taken for products not in conformance with UL's requirements and continued use of the UL Mark may be withdrawn.

Very truly yours,

Nathan Chen /RL.

Nathan Chen (Ext. 62265)
Engineer
Conformity Assessment Services, 3013DTPI

Reviewed by:

Wisely Lin /RL.

Wisely Lin (Ext. 62403)
Associate Project Engineer
Conformity Assessment Services, 3013DTPI

CC: Creative Safety & Consultant Co.
Fax: (02)8753-4152
Attn: Ms. Jennifer Liu

CE

VERIFICATION OF COMPLIANCE

This Verification of Compliance is hereby issued to the product designated below.

Product	ADAPTOR
Model	AX24XX-X (The first X = H, F, G; The other X = 0-9, A-Z)
Trade name	JENTEC
Applicant	Jentec Technology Co., Ltd. 17F, No. 2, Jian-Ba Rd., Chung-Ho City, Taipei Hsien, Taiwan, R.O.C.
Applicable Standard(s)	EN 55022: 1998 + A1: 2000 + A2: 2003 EN 61000-3-2: 2000 EN 61000-3-3: 1995 + A1: 2001 EN 55024: 1998 + A1: 2001 + A2: 2003 IEC 61000-4-2: 1995 + A1: 1998 + A2: 2000; IEC 61000-4-3: 2002 + A1: 2002; IEC 61000-4-4: 1995 + A1: 2000 + A2: 2001; IEC 61000-4-5: 1995 + A1: 2000; IEC 61000-4-6: 1996 + A1: 2000; IEC 61000-4-8: 1993 + A1: 2000; IEC 61000-4-11: 1994 + A1: 2000
Report No.	51027106-E
Test Laboratory	Compliance Certification Services Inc. No. 81-1, Lane 210, Bade Rd., 2, Luchu Hsiang, Taoyuan Hsien, Taiwan, R.O.C. Tel: +886-3-3240332/ Fax: +886-3-3245235

This device has been tested and found to comply with the stated standard(s), which is(are) required by the Council Directive of 89/336/EEC, Amended by 92/31/EEC and 93/68/EEC. The test results are indicated in the test report and are applicable only to the tested sample identified in the report.

Kurt Chen / Director of Linkou Laboratory
Date: November 4, 2005