	MODEL NO.	AG2412-D281	SHEET NO	1
	DESCRIPTION	SWITCHING MODE AC ADAPTER	ISSUED DATE:	JUL/06/2007
			REVISED DATE:	

APPROVAL SIGNATURE
DATE:

CUSTOMER : Phidgets Inc.

Model : AG2412-D281(2A0F) Phidgets REV.00

AC Input	100-240Vac	DC Output	12V/2A	PC / NP
DC O/P cable	2468 20# 2.1X5.5X9.5mm 180° Tuning fork +Kink 6FT			
AC plug	AUG 3Pin	Packaging	PE Bag	

∗Remain Updated∗

Jentec Technology Co., Ltd.
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Version History:

Date	Version	Description
JUL/06/2007	00	First released

CONTAINS:

INTRODUCTION

This documents specifies ONE voltage +12V 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

2.1Output Power (Rated Power)

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

2.2Output 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	+12V	0A	2A	------

2.2.4Output 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	+12V	+11.4V~+12.6V	-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 ~2A with an oscilloscope with at bandwidth of 20MHz.

TABLE 2.2.5

Output #	Voltage	Maximum peak to peak ripple and noise
1	+12V	120 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 +12V 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 Output Voltage (OVP)

The power supply shall shut down all outputs when any output voltage reaches to it’s over voltage protection trigger point. (Maximum=130% output voltage)

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

3.3 Output Current (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

Introduction

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 : (75x 40.5x55 m/m)

4.4 Input / Output Connection

AC PLUG	AUG 3PIN
DC OUTPUT	2468 20# 2.1X5.5X9.5mm 180° Tuning fork +Kink 6FT

4.5Unit Color: BLACK

5.0 RELIABILITY

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 ENVIRONMENT

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 CISPR22(EN55022) class B

8.0 SAFETY

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

	Certified	Meet
C-Tick	★	
DOIR	★	
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 ENVIROMENTAL 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/MEPS regulation

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, AS/NZS/4665.2.2005 for Australia and New Zealand.

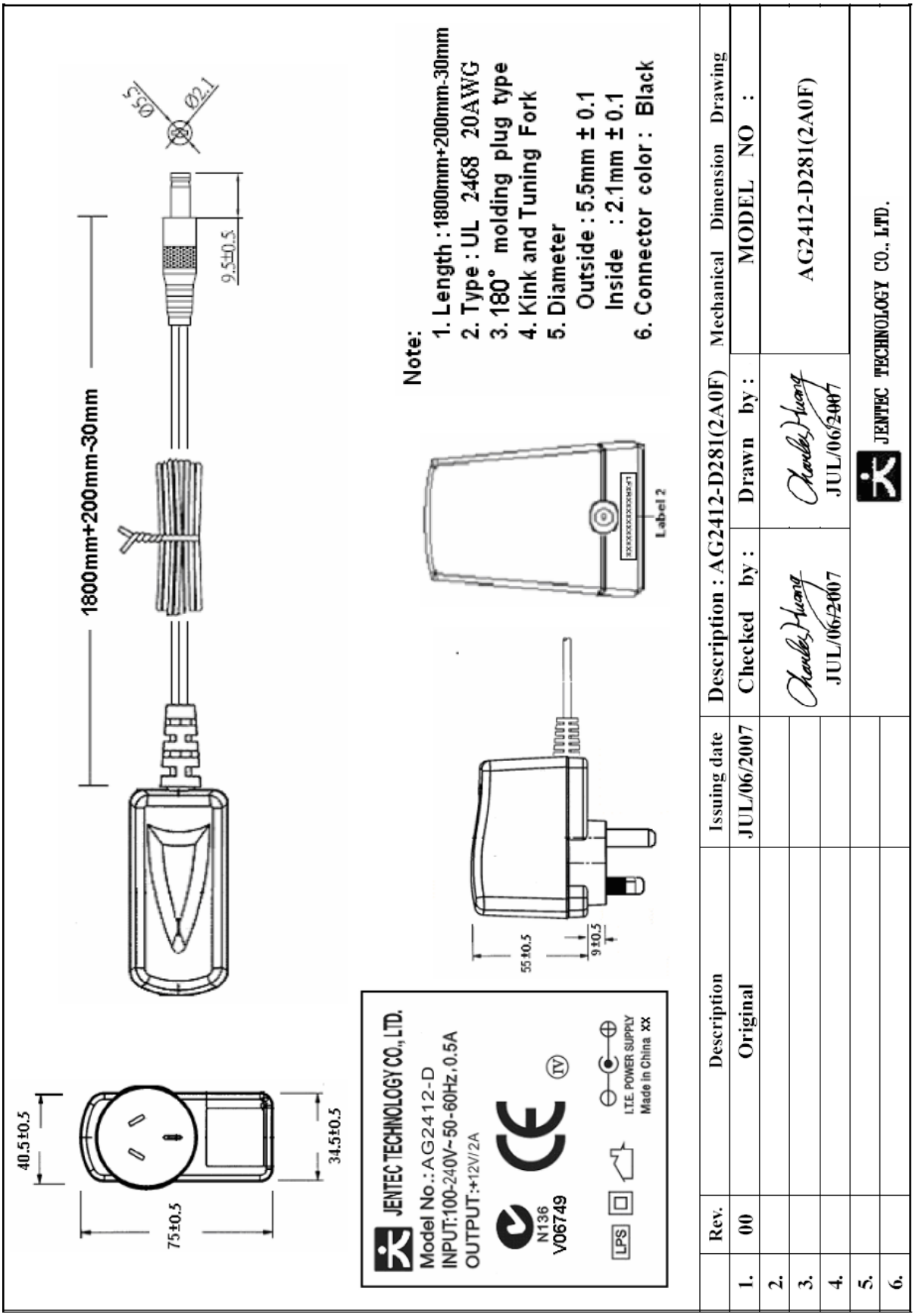
10.0 PACKAGING: PE Bag .

11.0 LABEL/MARKING

White Background with Green wordings and marks

∗Remain Updated∗

12.0 OUTLOOKING



13.0 SAFETY CERTIFICATIONS

QUALSURE CONSULTANTS
PO Box 80 Rosedale Vic. 3847 Australia
Phone +61 412 933497 Fax +61 3 5199 2544

Supplier's Declaration of Conformity

Radiocommunications Act 1992 Section 182

Suppliers Details

Name: **Qualsure Consultants** ACN

o f 18 Hood Street Rosedale Vic. 3847

Supplier Code **N136**

Product Details

Product	*Trade Name*	*Model Numbers*
Switching Power Adapter	JENTEC TECHNOLOGY CO.,LTD	AF24XX-Z (XX=05-08 denotes output voltage; Z=D or Y) D= Australia Plug, Y= Desk-top type
Switching Power Adapter	JENTEC TECHNOLOGY CO.,LTD	AG24XX-Z (XX=09-12 denotes output voltage; Z=D or Y) D= Australia Plug, Y= Desk-top type
Switching Power Adapter	JENTEC TECHNOLOGY CO.,LTD	AH24XX-Z (XX=12-15 denotes output voltage; Z=D or Y) D= Australia Plug, Y= Desk-top type

Australian Standard(s)

Title	Number	Date of issue
Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	AS/NZSCISPR22	2004

Declaration

I hereby declare under sole responsibility that the product mentioned above to which this declaration relates complies with the above mentioned standard(s).

Gordon Slimmon
Director
31 Oct 06

Certificate Number: 06749/0

energysafe VICTORIA

CERTIFICATE OF APPROVAL

This is to certify that Energy Safe Victoria, Australia has, in accordance with the Electricity Safety (Equipment) Regulations 1999, approved the prescribed electrical equipment described hereunder, for which application for approval has been made by-

NAME & ADDRESS: Jantec Technology Co. Ltd
14F -9, No. 2, Jian-Ba Rd.
Chung-Ho City ,
Taipei Hsien, Taiwan 235

DESCRIPTION OF ELECTRICAL EQUIPMENT:

Power Supply or Charger, Power Supply, Trade Name "Jantec Technology Co., Ltd.", Cat No(s).: AF24XX-D, AG24XX-D, AH24XX-D. 100 - 240 V, 0.5 A, 50 - 60Hz AC, Output: 9 - 24 V, 0 - 2.2 A, 24 W Max., DC. Accepted as complying to AS/NZS 60950.1

Required Marking: V06749

Unless withdrawn for any reason, **this approval shall expire on 17/11/2011.**

Electrical equipment covered by this approval must comply in all respects with the approved article, and prior to being supplied or offered for supply, must be clearly and indelibly marked with the required marking indicated above, or the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

Any modifications to the electrical equipment or its place of manufacture must be approved by Energy Safe Victoria prior to the equipment being supplied or offered for supply.

Notification must be given to Energy Safe Victoria of any change to the name or address of the holder of the certificate within 20 business days.

Under mutual recognition provisions this approval permits the abovementioned prescribed electrical equipment to be supplied or offered for supply in all States and Territories of Australia and New Zealand.

N Fraser
Energy Safe Victoria

DATE OF APPROVAL: 17/11/2006

Victoria The Place To Be

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

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