	MODEL NO.	CG2412-E616 IW	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: CG2412-E616(2A0F)IW Phidgets REV:01

AC Input	100-240Vac	DC Output	12V/2.0A	PC /
DC O/P cable	2468 20# 5.5*2.1*9.5mm 180°		Tuning Fork +Kink 5FT BLACK	
AC plug	EU 2PIN	Packaging	PE Bag	
To choose	☐ China Domestic Location		■ Export	

※Remain Updated※

Jentec Technology Co., Ltd.
17F #2 Jian-Ba Rd., Chung-Ho City
Taipei Hsien , Taiwan.
Tel : 886-2-8226-2057
Fax: 886-2-8226-2077
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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

This documents specifies ONE voltage +12 V 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: 0.6 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	+12V	0A	2.0A	------

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	+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 0.01~2.0A with an oscilloscope with at bandwidth of 20MHz.

TABLE 2.2.5

Output	Voltage	Maximum peak to peak ripple and noise
1	+12V	120mV(Vin≧100Vac)

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 was done 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 to meet EPS 2.0 level V and CEC/MEPS test requirement

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 output when short primary feedback component.

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=200% 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

4.1 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: (75*35*55mm)

4.4 Input / Output Connection

AC PLUG	EU 2PIN
DC OUTPUT	2468 2 0# 5.5*2.1*9.5mm 180° Tuning Fork +Kink 5FT BLACK

4.5 Unit Color: BLACK

5.0 RELIABILITY AND QUALITY CONTROL

5.1 Reliability

The design and construction of this power supply shall exhibit a minimum mean time between failure of 300,000 hours full rated load operation at 25.0℃, According to Telcordia SR-332, Issue 2.

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 CISPR22(EN55022) class B

8.0 SAFETY

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

	Certified	Meet
TUV-GS	★	
PSB	★	
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

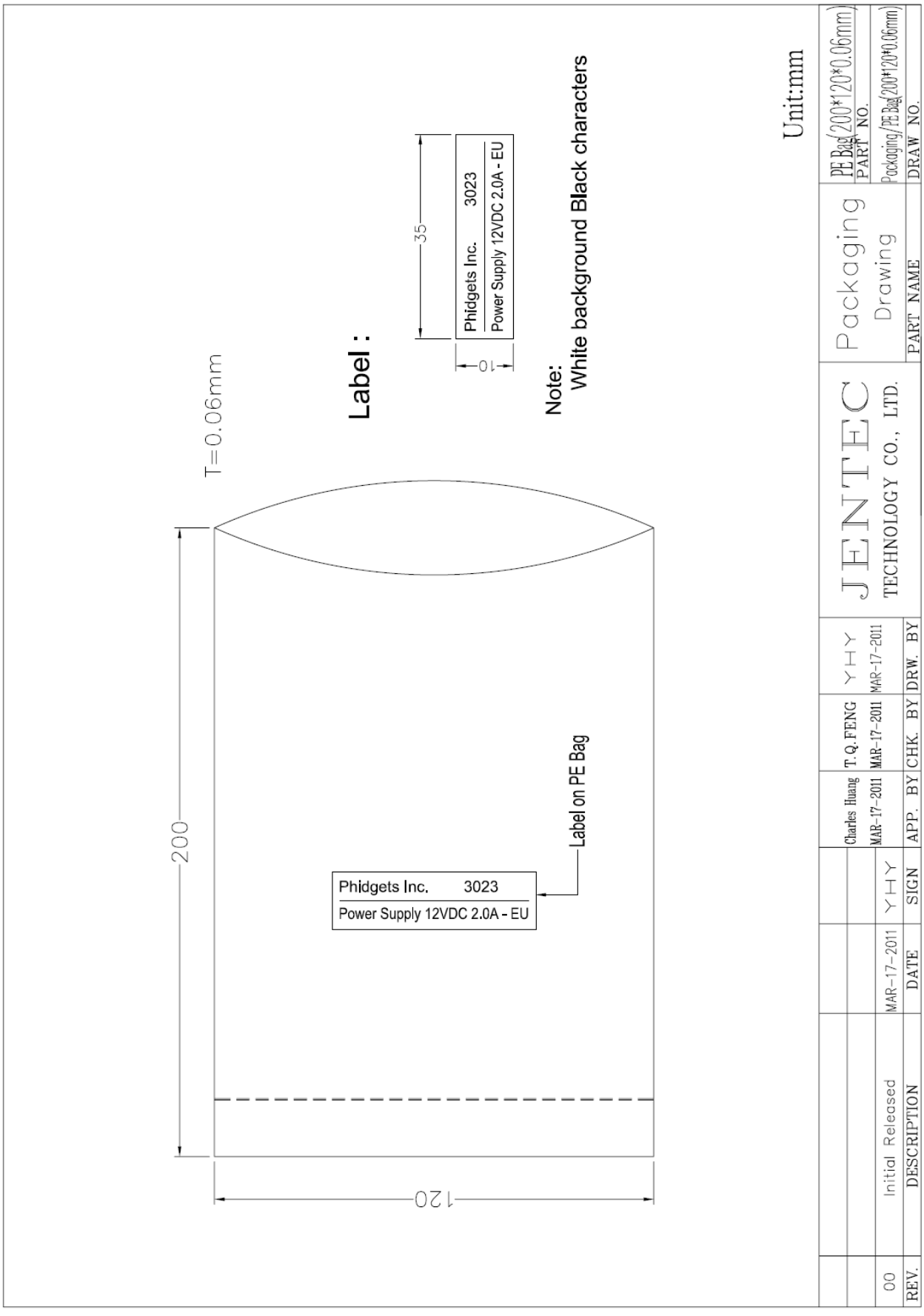
9.1 RoHS and WEEE

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

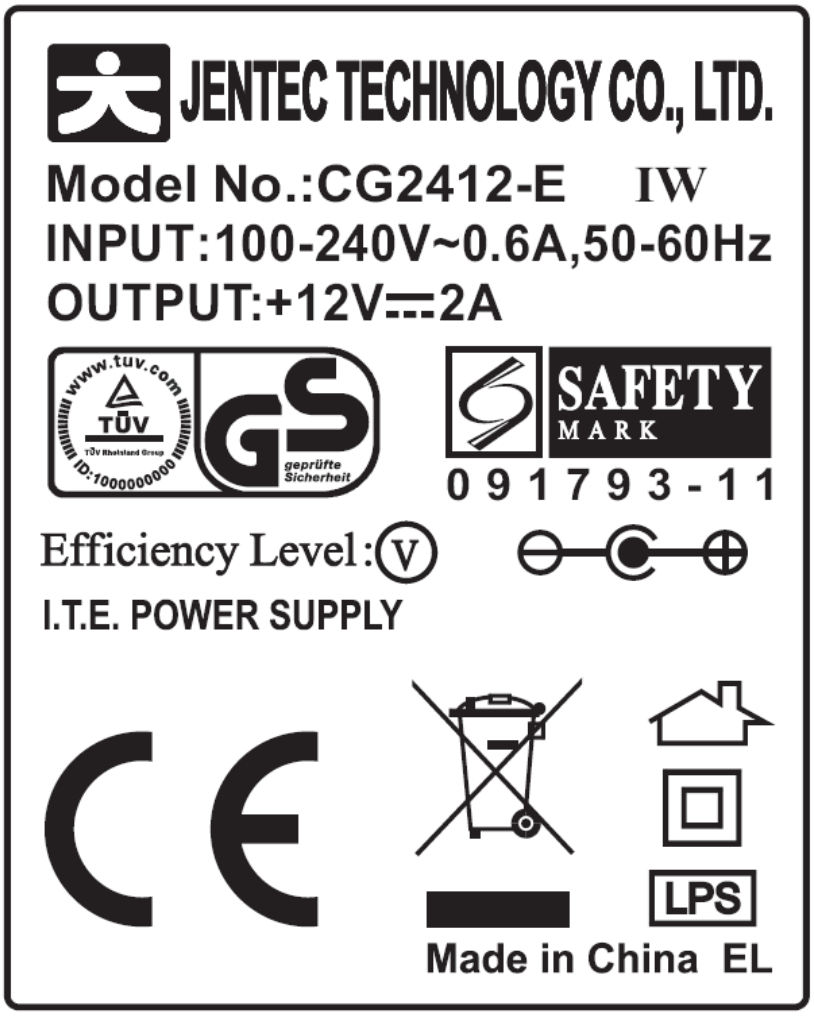
T o meet the energy saving trend, this product has designed to meet the American EPA energy star program for the EPS regulation , or requirement of CEC 400-2006-002, AS/NZS/4665.2.2005 for Australia and New Zealand.

10.0 PACKAGING: PE Bag .



11.0 LABEL/MARKING

White Background with Green wordings and marks



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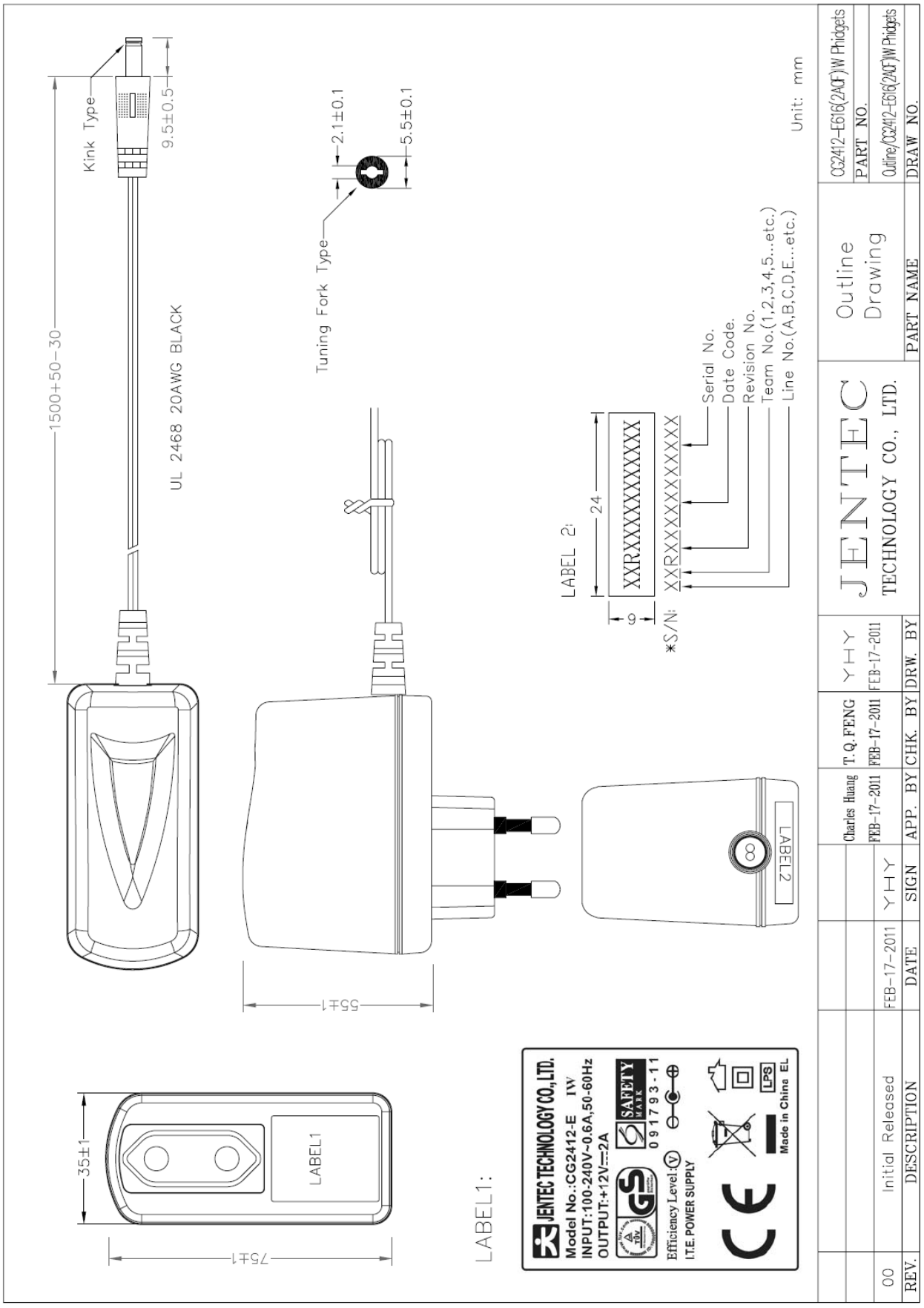
12.0 OUTLOOKING



13.0 SAFETY CERTIFICATES

Zertifikat *Certificate*

TÜVRheinland®

Zertifikat Nr. *Certificate No.* S 50162403

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Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Längstens gültig bis** *Latest expiration date (day/mo/yr)*
C0148f07-A/CSC	ZTW1-HWH- 10026400 001	16.08.2014

Genehmigungsinhaber *License Holder*
Jentec Technology Co., Ltd.
17F., No. 2, Jian-Ba Rd.
Chung-Ho City, Taipei Hsien 235
Taiwan

Fertigungsstätte *Manufacturing Plant*
JENTEK ELECTRONICS FACTORY
NO. 5, Chang-Jin Rd.,Chang-Jiang-Bu
Industries District,Ho Au Chun,
Heng Gang Zhen,Lung Guang Qu,
Shen Zhen City,Guang Dong
P.R. China

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*
EN 60950-1:2006+A11
ZEK 01.2-08/12.08

Zertifiziertes Produkt (Geräteidentifikation) *Certified Product* (*Product Identification*)

Lizenzentgelte - Einheit *License Fee - Unit*

Schaltnetzteil (Switching Power Adapter)

Bezeichnung (Type Designation)	:	CF1805-E IW (JENTEC TECHNOLOGY CO., LTD.)
Nennspannung (Rated Voltage)	:	AC 100-240V oder (or) 220-240V, 50-60Hz
Nennstrom (Rated Current)	:	0.4A oder (or) 0.5A
Ausgang (Output)	:	DC 5V/ 0-3A
max. Umgebungstemperatur (max. Ambient Temperature)	:	40°C
Schutzklasse (Protection Class)	:	II

8

Hinweis: Dieses Netzgerät ist geprüft und erfüllt die Anforderungen nach Abschnitt 2.5 als Stromquelle mit begrenzter Leistung. (Remarks: The equipment is also tested and complies with sub-clause 2.5 as limited power source.)

8

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Produkt und Fertigungsstätte erfüllen § 4 (1) bzw. (2) und § 7(1) des Geräte- und Produktsicherheitsgesetzes.
This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.

Zertifizierungsstelle

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Dipl.-Ing. W. Hsu

Ausstellungsdatum *Date of Issue* : 17.08.2009 **(day/mo/yr)**

Zertifikat *Certificate*

TÜVRheinland®

Zertifikat Nr. *Certificate No.*
S 50162403

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0002

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Längstens gültig bis** *Latest expiration date (day/mo/yr)*
C0148f07-A/CSC	ZTW1-HWH- 10026400 001	16.08.2014

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Industries District,Ho Au Chun,
Heng Gang Zhen,Lung Guang Qu,
Shen Zhen City,Guang Dong
P.R. China

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*
EN 60950-1:2006+A11
ZEK 01.2-08/12.08

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product ***(Product Identification)***

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (Switching Power Adapter)

TÜV Rheinland Product Safety GmbH TÜVRheinland Zertifizierungsstelle

wie Blatt (as page) 01
Ergänzung
(Addition)
Bezeichnung : 1) CH1812-E IW 1
(Type Designation) 2) CG2412-E IW 1
(JENTEC TECHNOLOGY CO., LTD.)

Nennspannung : AC 100-240V oder (or) 220-240V, 50-60Hz
(Rated Voltage)
Nennstrom : 1) 0.4A oder (or) 0.5A
(Rated Current) 2) 0.6A
Ausgang : 1) DC 12V/ 0-1.5A
(Output) 2) DC 12V/ 0-2A

Hinweis: Dieses Netzgerät ist geprüft und erfüllt die Anforderungen nach Abschnitt 2.5 als Stromquelle mit begrenzter Leistung. (Remarks: The equipment is also tested and complies with sub-clause 2.5 as limited power source.)

ANLAGE (Appendix): 1

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Produkt und Fertigungsstätte erfüllen § 4 (1) bzw. (2) und § 7(1) des Geräte- und Produktsicherheitsgesetzes.
This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.

Zertifizierungsstelle

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Dipl.-Ing. W. Hsu

Ausstellungsdatum *Date of Issue* : 17.08.2009 **(day/mo/yr)**

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

PSB Singapore

THE SINGAPORE CONSUMER PROTECTION
(SAFETY REQUIREMENTS) REGISTRATION SCHEME

CERTIFICATE OF CONFORMITY (COC)

TO:

INN (RS Code)
Mr Kenny Mok
Innovis Singapore Enterprise
Tanjong Pagar Post Office PO Box 371
Singapore 910813

Date of Certification : 25 August 2009

Date of Expiry : 24 August 2012

Certificate Number : 091793-11

Dear Sir/Madam,

We certify that the following controlled goods complied with the Mandatory Requirements of the Singapore Consumer Protection (Safety Requirements) Registration Scheme:

Description of controlled goods: AC Adaptor for IT Equipment rated Input: 100-240V~ or 220-240V~, 50-60Hz, 0.6A, Class II, Output: 12VDC, 0-2A

Trade Name: JENTEC TECHNOLOGY CO., LTD.

Model Number: CG2412-E IW

Country where controlled goods are likely to be manufactured: China

Test report number: 11017478 001 (CB Test Certificate No.: JPTUV-028194)

Testing laboratory: Creative Safety & Consultant Co.

Tested according to: IEC 60950-1:2005

Desmond Soh

TÜV SÜD PSB

Important Notice:
No controlled goods can be supplied in Singapore unless they are registered with the Safety Authority. Please access www.spring.gov.sg/safety for registration procedure.

CERTIFICATE OF CONFORMITY

Equipment: Switching Power Adapter
Brand Name: Jentec
Test Model No.: CH1812-E IW, CF1805-E IW, CG2412-E IW
Multiple Listing: CH1812-X IW, CF1805-X IW, CG2412-X IW
(The "X" of Model Name could be B, E, N, K, S, C, D, P)
Applicant: Jentec Technology Co., Ltd.
Test Report No.: CE980615H05

We, **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, declare that the equipment above has been tested in our facility and found compliance with the requirement limits of applicable standards. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

EMISSION	IMMUNITY
EN 55022:2006+A1:2007, Class B	EN 55024:1998+A1:2001+A2:2003
AS/NZS CISPR 22: 2006, Class B	IEC 61000-4-2:2001 ED.1.2
EN 61000-3-2:2006, Class A (see note * below)	IEC 61000-4-3:2006+A1:2007 ED.3.0
EN 61000-3-3:1995+A1:2001+A2:2005	IEC 61000-4-4:2004 ED.2.0
	IEC 61000-4-5:2005 ED.2.0
	IEC 61000-4-6:2006 ED.2.2
	IEC 61000-4-8:2001 ED.1.1
	IEC 61000-4-11:2004 ED.2.0

Note *: The power consumption of EUT is 28.08W, which is less than 75W and no limits apply.
Therefore it is deemed to comply with EN 61000-3-2 without any testing.

In accordance with the council directive 2004/108/EC.

May Chen / Deputy Manager
Aug. 25, 2009

No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien, 30746, Taiwan, R.O.C. Tel: 886-3-5935343 Fax: 886-3-5935342
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