

CUSTOMER: 飛科達

PART NUMBER:



APPROVAL SHEET

FOR

SWITCHING ADAPTER

MODEL NO.

DSA-60W-12 3 12060

ORDER NO: SPS-009534

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CUSTOMER APPROVED SIGNATURE

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DEE VAN ENTERPRISE CO., LTD (Head-Quarter)

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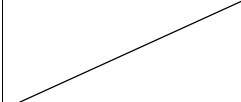
DEE VAN ELECTRONICS (SHEN ZHEN) CO., LTD (Factory)

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APPROVAL BY	SAFETY	DIRECTOR	ENGINEER	PREPARED
	汪東梅 2008/03/19	丁建 2008/03/18	彭金權 2008/03/18	陳艷紅 2008/03/17

0.REVISION CONTROL LIST

DATE	REVISION CONTROL ITEMS							
	CONTENT OF APPROVAL SHEET	SPECIFICAT-ION	RATING LABEL DRAWING	DC OUTPUT CORD DRAWING	PRODUCT OUTLINE DRAWING	PACKING DRAWING	SAFETY LICENSE	CHINA ROHS INSTRUCTIONS
2008,03,17	A	A	A	A	A	A	A	A

REVISION CHANGE DESCRIPTION

ITEM	REV	DESCRIPTION

1. SPECIFICATION

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0. REVISION CHANGE DESCRIPTION

Revision	Description	Date
A	Initial release	2008,03,17

1.GENERAL DESCRIPTION

This specification defines the input, output, performance characteristics, environment, noise and safety requirements for a 60 watts switching type power supply.

The power supply input/output are full range AC input and +12 V DC with 60 watts.

2.INPUT REQUIREMENT

2-1 AC INPUT VOLTAGE

MINIMUM	NOMINAL	MAXIMUM
90 VAC	100 –240 VAC	264 VAC

2-2 AC INPUT FREQUENCY

MINIMUM	NOMINAL	MAXIMUM
47 Hz	50 / 60 Hz	63 Hz

2-3 AC INPUT CURRENT

115VAC VOLTAGE	1.5 A maximum
230VAC VOLTAGE	0.75 A maximum

2-4 AC INRUSH CURRENT

AT FULL LOAD, 25 DEGREE C, COLD START

NOMINAL AC INPUT VOLTAGE	No damage shall be occurred and the input fuse shall not be blown up.
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2-5 CONFIGURATION

Desk-type, 3 Conductors, < Live, Neutral, F.G >

1.SPECIFICATION

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3. OUTPUT REQUIREMENT

3-1	DC OUTPUT VOLTAGE	+12 V
3-2	MINIMUM LOAD CURRENT	0 A
3-3	NOMINAL LOAD CURRENT	5 A
3-4	NOMINAL OUTPUT POWER	60 W
3-5	TOTAL OUTPUT REGULATION	+11.4–12.6 V
3-6	LINE REGULATION	±2%
		At nominal input voltage and full load
3-7	RIPPLE AND NOISE	120 mVp-p maximum
		Noise test frequency at 20 MHz bandwidth Each output bypass a 0.1uF & 10uF capacitors to ground.(connect parallel)
3-8	OUTPUT VOLTAGE REGULATION	The total output voltage regulation shall be $\pm 5\%$, including the effects of line voltage variations, load current, ripple and noise, and the AC component of the load current. The effect of dynamic load changes is not included in this limit
3-9	AVERAGE EFFICIENCY	80% minimum
		At 115VAC input voltage and meet efficiency level:IV
3-10	TURN-ON DELAY	2 seconds maximum.
3-11	PROTECTION	
	OVER-CURRENT PROTECTION	$\leq 10A$ WITH AUTO-RECOVERY FUNCTION
	OVER-VOLTAGE PROTECTION	Protecting with ZENER clamp
	SHORT-CIRCUIT PROTECTION	The power supply shall not be damaged by short between DC output and DC ground.
3-12	POWER CONSUMPTION ON POWER SAVING MODE	LOAD IS "0" VIN=230V(50Hz) Pmax. $\leq 0.75W$
3-13	REMARK	Unless otherwise specification output load Must set at CC mode.

1.SPECIFICATION

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4. MECHANICAL REQUIREMENT

4-1 DIMENSION

122.3 (L) *57 (W) *34.3 (H) mm maximum

4-2 WEIGHT

250g maximum

4-3 INPUT PLUG TYPE

IEC320 C6 AC PIN

4-4 OUTPUT CORD

WIRE: 18AWG/1C+SH, 1200mm

PLUG: JACK PLUG 5.5*2.5*11mm

5. ENVIRONMENTAL REQUIREMENT

5-1 COOLING

Cooling shall be with natural convection cooling

5-2 OPERATING TEMPERATURE

0 °C TO 40 °C

5-3 STORAGE TEMPERATURE

-20 °C TO +70 °C

5-4 OPERATING HUMIDITY

20 ~ 85 % RH. NON-CONDENSING

5-5 STORAGE HUMIDITY

5 ~ 95 % RH. NON-CONDENSING

5-6 VIBRATION TEST REQUIREMENT

(Non-operating, with packing) Reference to IEC. 68-2-6

Test conditions		Acceptance criteria
1.Frequency	10 ~ 300 Hz	NOMINAL functional test should be satisfied after the test
2.Sweep	2hours. For each axis (X, Y, Z)	
3.Acceleration	2G	
4.Displacement	0.4 mm	

1.SPECIFICATION

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6. SAFETY REQUIREMENT

6-1 DIELECTRIC WITHSTANDING VOLTAGE TEST (HI-POT TEST)

Primary To Secondary: 1500VAC 10mA 1 minute or 2121VDC 10mA 1 minute.

Primary To Ground: 1500VAC 10mA 1 minute or 2121VDC 10mA 1 minute

6-2 GND CONTINUITY TEST

Primary inlet F.G to Secondary GND: 25A for 3 seconds, 100m Ω maximum

6-3 LEAKAGE CURRENT

3.5mA maximum, at nominal AC input voltage and frequency

6-4 SAFETY STANDARDS

Designed to meet UL/C-UL(UL60950-1), TUV-GS(EN60950-1), T-license(BS
EN60950-1), SAA(AS/NZS60950)

6-5 EMI STANDARDS

Designed to meet FCC (PART 15 CLASS B),CE(EN55022),C-TICK

7. RELIABILITY

7-1 MEAN TIME BETWEEN FAILURE (MTBF)

The power supply shall be designed and produced to have a mean time between failures (MTBF) of 50000 operating hours minimum conditions: 80% maximum load at 25 °C, nominal input voltage.

Standard: MIL-HDBK-217F

7-2 BURN-IN TEST

4 hours at 40°C maximum, Nominal input voltage, 80% of maximum load

2 .RATING LABEL DRAWING

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FROM NO:1 COMPUTER NO.		DESCRIPTION		DATE	BY
REV	ZONE				

CAUTION: XXXXXXX

Min 3.2 mm

Min 1.6 mm

DVE® Switching Power Supply
MODEL: DSA-60W-12 3 12060
INPUT: 100-240V ~ 50/60Hz 1.5A
OUTPUT: +12V = 5A
LEVEL 3

CAUTION:

For Use With Information Technology Equipment

I.T.E

UL LISTED
81(GJ)
E135856

FC **CE**

GS

Made In China (X)

NOTE:

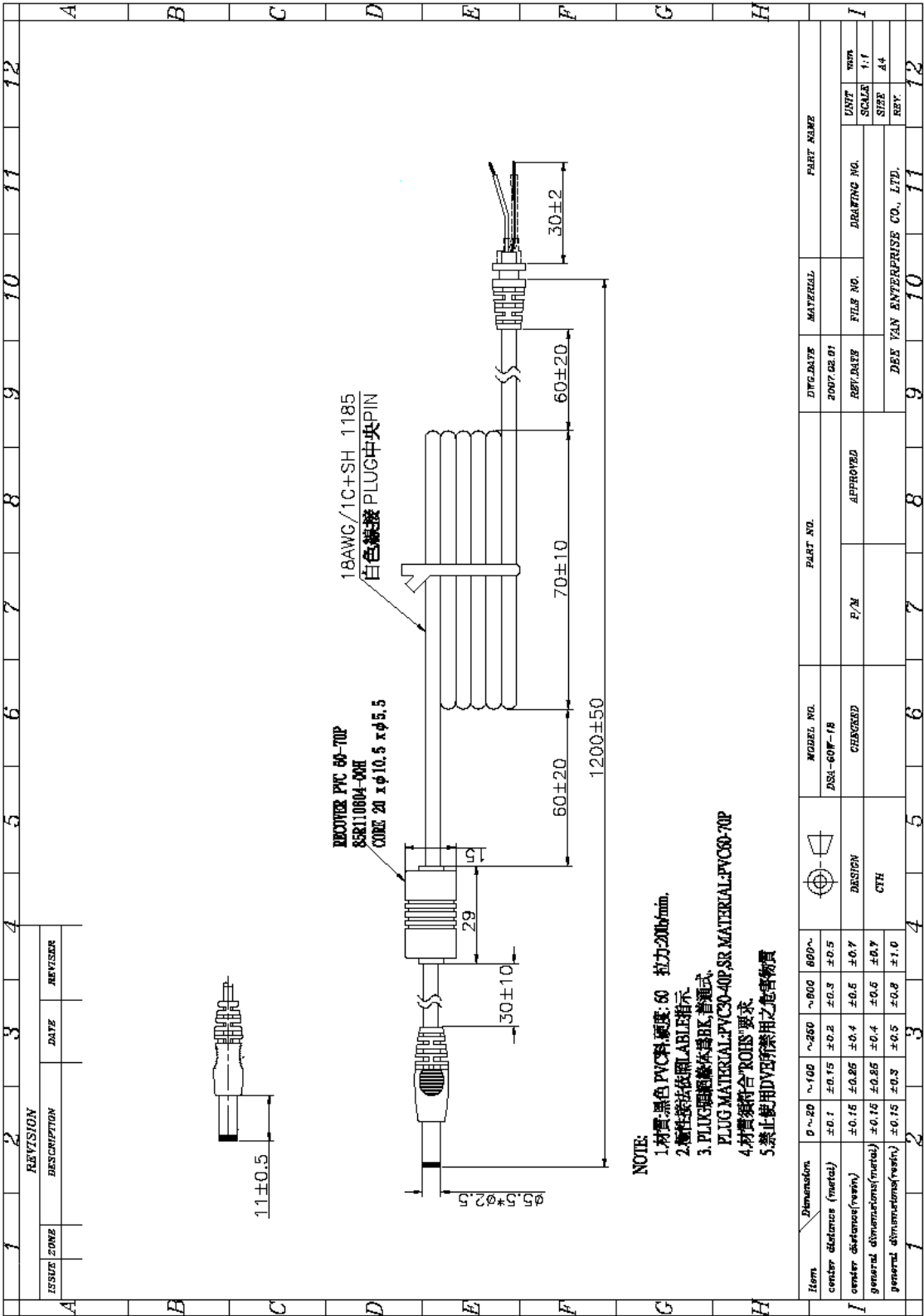
- 顏色: 銀底黑字
- 材質: 消銀龍加亮面 (UL, CSA APPROVAL)
- 處理: 永久背膠
- 須由 UL, CSA 合格廠商承制
- 儲存溫度: -20°C 及 +70°C 之範圍
- 待業務確認安規等各項再行製作生產
- CE logo 高度最小需達到 5mm
- 禁止使用 DVE 所禁用之危害物質

DEPARTMENT	SCALE	UNIT	TOLERANCE	PART NAME	PART NO.	REV
R&D SPS	1.5:1	mm	+0/-0.2	N/P		A
APPD.	DIRECTOR	CND.	SAFETY	DRAWN BY	DRAWING NO.	REV
				CYH	2008/03/17	A

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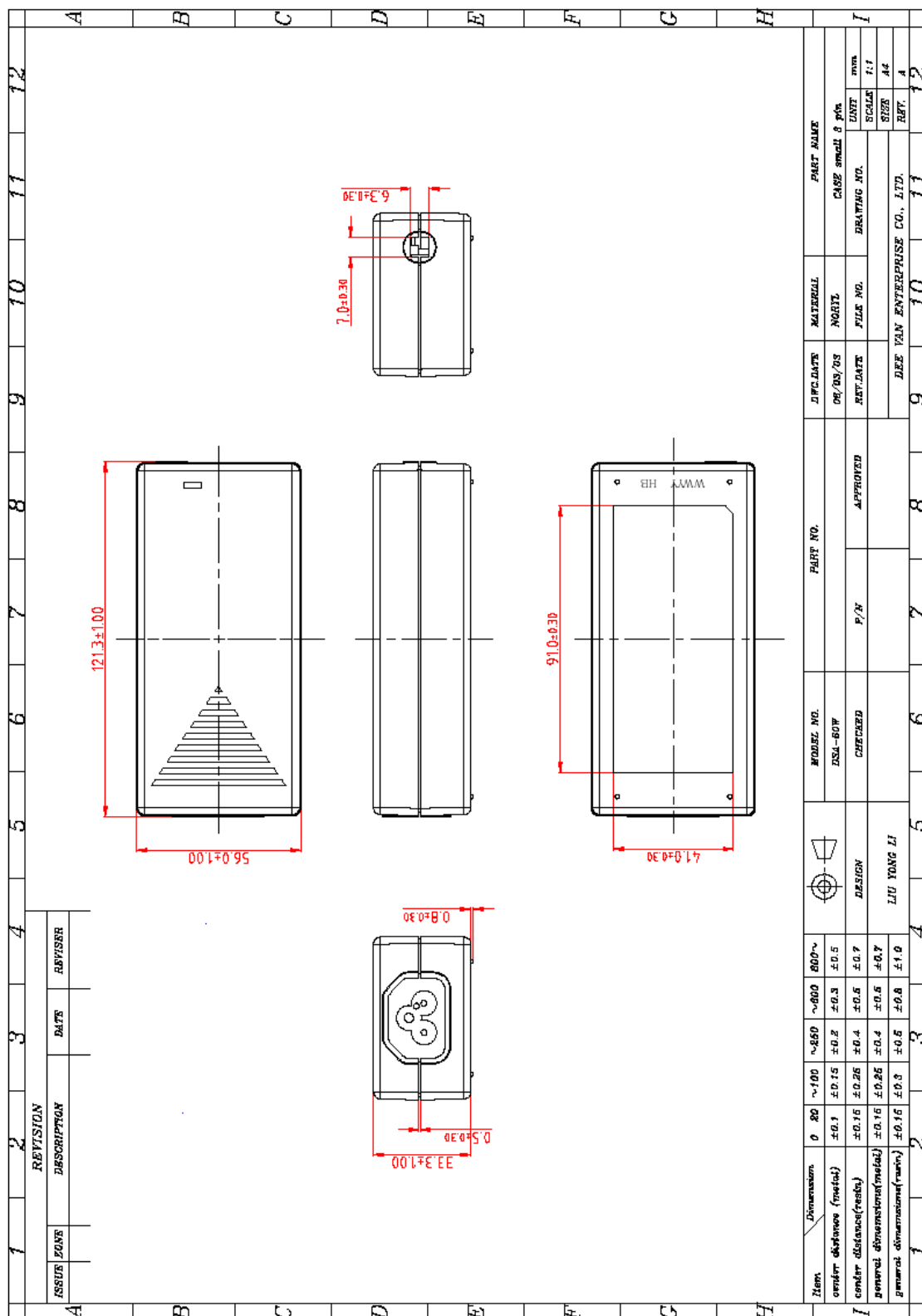
3. DC OUTPUT CORD DRAWING

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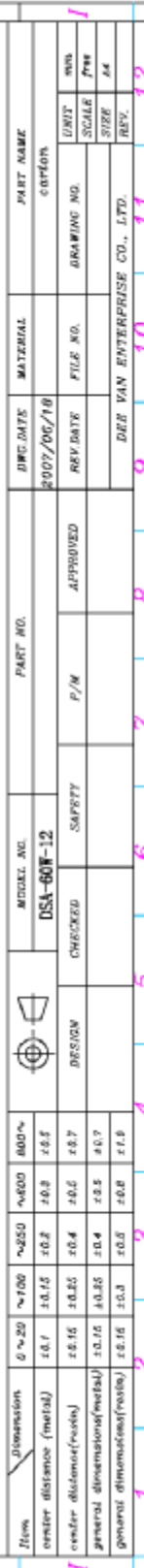


4. PRODUCT OUTLINE DRAWING

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6. SAFETY LICENSE(UL/CUL)

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HSIN-TIEN
TAIPEI, TAIWAN

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AC adapters, Model(s) 403A, AC-CS1-U(FUJIFILM), DSA-0021F-05A, DSA-0072, DSA-0101-05, DSA-0101F-05A, DSA-0131F-033, DSA-0131F-05, DSA-0131F-06, DSA-0131F-09, DSA-0131F-12, DSA-0132, DSA-0151-12, DSA-0151-12S, DSA-0151AD-05, DSA-0151AD-12, DSA-0151D-05, DSA-0151D-12, DSA-0151F-05, DSA-0151F-12, DSA-0182, DSA-0251-05, DSA-0283A, DSA-0301-05, DSA-0301-12, DSA-0301-16, DSA-0301-18, DSA-0301-24, DSA-0302-01, DSA-0303-01, DSA-0303-02, DSA-0303-03, DSA-0303-04, DSA-0303-04A, DSA-1001, DSA0101A-05A, DV-1250, DV-1280, DV-1280-3D, DV-1485AC, DV-1840WAC, DV-51A5R, DV-51A5RD, DV-51AAT, DV-52AR-1, DV-580R, MPA-015-12A(J), TDS-0182A, TDS-051211-I-DT.

Adapter, Model(s) FSP150-AAA, FSP150-AAB, FSP150-ABA, FSP150-ABB, FSP150-ACA, FSP150-ACB, FSP150-AGA, FSP150-AGB, FSP150-AHA, FSP150-AHB.

Direct Plug In Adaptor, Model(s) DSA-30PF-12A.

Direct Plug-In AC/DC Adapters, Model(s) DSA-0201F-12, DV-0555R-1, DVS-xAyFUSz, where x can be 050 to 080, y can be 00 to 28, z can be N or blank., DVS-xAyFUSz, where x can be 081 to 110, y can be 00 to 20, z can be N or blank., DVS-xAyFUSz, where x can be 111 to 140, y can be 00 to 16, z can be N or blank., DVS-xAyFUSz, where x can be 141 to 180, y can be 00 to 14, z can be N or blank., Models DV-095930, DV-0555R.

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Direct plug-in power supplies, Model(s) AAA00131-E-3, AD-071, AD-A95100UI, DSA-0031F-05, DSA-0051-yyC zUS@, DSA-0051-yyCC zUS@, DSA-0051F-033, DSA-006-03A, DSA-006F-03A, DSA-006X-YYA, DSA-009X-YYA, DSA-0121-XXA, DSA-0121F-XX, DSA-0126A, DSA-0126F, DSA-0151A-XX, DSA-0151F-40, DSA-0151F-X, DSA-0161F-09A, DSA-0186A, DSA-0186F, DSA-0301W-12, DSA-12W-05 AUSx yyy zz, where x can be 1 or blank, yyy can be 040 to 060, zz can be 00 to 10., DSA-12W-05 FUS, DSA-12W-10 FUS, DSA-12W-15 FUS, DSA-12W-20 FUS, DSA-151MZ-03, DSA-151MZ-05, DSA-31AUS, DSA31SAUS, DSA-31FUS, DSA-31SFUS, DSA-S15-03, DSA-S15-05, DSx-0051-yy zUS@, DV-0550R, DV-062AX, DV-0935-1, DV-0935S-1, DV-0970R, DV-102AAC, DV-1270R, DV-1280-3, DV-2480AC, DV-3060, DV-751A, DV-751A5, DV-752AX, DV-91A, DV-9210-1, DV-XXXX-B11, DV-XXXXAC-B11, DVR-3508, DVR-3512, DVR-4109, DVR-4114, DVR-4814, DVR-4818, DVR-530, DVR-5716, DVR-5720, DVR-5725, DVR-B11, DVS-xyAzaUSC, where x can be 03 to 06, yz can be 00 to 30, a can be F or blank., DVS-xyAzaUSC, where x can be 07 to 10, yz can be 00 to 18, a can be F or blank., DVS-xyAzaUSC, where x can be 11 to 14, yz can be 00 to 11, a can be F or blank., DVS-xyAzaUSC, where x can be 15 to 18, yz can be 00 to 09, a can be F or blank., EI-3508, EI-3512, EI-4109, EI-4114, EI-4811, EI-4818, MJ-0506, MPA-020-09AJ.

Direct Plug-in Switching Adapter, Model(s) DVS-120A10AUSz, DVS-120A12AUSz, DVS-150A10AUSz.

Linear Direct Plug-In Power supplies, Model(s) DV-1250AC-01.

Linear power supplies, Model(s) DV-121A6ACD, DV-1351AD, MJ-8552US.

Power adapters, Model(s) A1F2BN/OZP, DSA-0421S-XX Y#.

Power supplies, Model(s) DSA-0121D-03, DSA-0151AD-06, DSA-0151D-05, DSA-0151D-06, DSA-0151D-09, DSA-0151D-09.5, DSA-0481-12, DSA-0481-12HA, DSA-0501-12, DSA-1001, DSA-1001-13, DSA-1001-24, DSA-1301-20.

Switching Adaptor, Model(s) DSA-36W-12 xx, DSA-65W-2 xxyy(%), DSA-65W-3 xxyy(%).

Switching Charger, Model(s) DSC-0051-03C, M120201.

Switching power adaptors, Model(s) DSA-0421S-50Y*, DSA-0601S-12 1, DSA-0601S-12 2, DSA-0601S-12 3, DSA-0601S-19 1, DSA-0601S-19 2, DSA-0601S-19 3, DSA-342, DSA-60W-12 1, DSA-60W-12 2, DSA-60W-12 3, DSA-60W-16 1, DSA-60W-16 2, DSA-60W-16 3, DSA-60W-20 1, DSA-60W-20 2, DSA-60W-20 3.

(%) - Where x, y can be any alphanumeric charter or blank.

* - Y= 1, 2, 3

@ - Where x may A or R; yy may 03, 05, 07, 12; z may be A or F denoting rated voltage range, F for 100-240V, A for 100-120V.

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0031F-05, DSA-0051-yyC zUS@, DSA-0051-yyCC zUS@, DSA-0051F-033, DSA-006-03A, DSA-006F-03A, DSA-006X-YYA, DSA-009X-YYA, DSA-0121-XXA, DSA-0121F-XX, DSA-0126A, DSA-0126F, DSA-0151A-XX, DSA-0151F-40, DSA-0151F-X, DSA-0161F-09A, DSA-0186A, DSA-0186F, DSA-0301W-12, DSA-12W-05 AUSx yyy zz, where x can be 1 or blank, yyy can be 040 to 060, zz can be 00 to 10., DSA-12W-05 FUS, DSA-12W-10 FUS, DSA-12W-15 FUS, DSA-12W-20 FUS, DSA-151MZ-03, DSA-151MZ-05, DSA-31AUS, DSA31SAUS, DSA-31FUS, DSA-31SFUS, DSA-S15-03, DSA-S15-05, DSx-0051-yy zUS@, DV-0550R, DV-062AX, DV-0935-1, DV-0935S-1, DV-0970R, DV-1270R, DV-1280-3, DV-751A, DV-751A5, DV-752AX, DV-91A, DV-9210-1, DV-XXXX-B11, DV-XXXXAC-B11, DVR-3508, DVR-3512, DVR-4109, DVR-4114, DVR-4814, DVR-4818, DVR-530, DVR-5716, DVR-5720, DVR-5725, DVR-B11, DVS-xyAzaUSC, where x can be 03 to 06, yz can be 00 to 30, a can be F or blank., DVS-xyAzaUSC, where x can be 07 to 10, yz can be 00 to 18, a can be F or blank., DVS-xyAzaUSC, where x can be 11 to 14, yz can be 00 to 11, a can be F or blank., DVS-xyAzaUSC, where x can be 15 to 18, yz can be 00 to 09, a can be F or blank., EI-3508, EI-3512, EI-4114, MJ-0506, MPA-020-09AJ.

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Power adapters, Model(s) A1F2BN/OZP, DSA-0421S-XX Y#.

Power supplies, Model(s) DSA-0121D-03, DSA-0151AD-06, DSA-0151D-05, DSA-0151D-06, DSA-0151D-09, DSA-0151D-09.5, DSA-0481-12, DSA-0481-12HA, DSA-0501-12, DSA-1001, DSA-1001-13, DSA-1001-24, DSA-1301-20.

Switching Adaptor, Model(s) DSA-36W-12 xx, DSA-65W-2 xxyy(%), DSA-65W-3 xxyy(%).

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Switching power adaptors, Model(s) DSA-0421S-50Y*, DSA-0601S-12 1, DSA-0601S-12 2, DSA-0601S-12 3, DSA-0601S-19 1, DSA-0601S-19 2, DSA-0601S-19 3, DSA-60W-12 1, DSA-60W-12 2, DSA-60W-12 3, DSA-60W-16 1, DSA-60W-16 2, DSA-60W-16 3, DSA-60W-20 1, DSA-60W-20 2, DSA-60W-20 3.

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第 17 頁 , 共 28 頁

6. SAFETY LICENSE(FCC)

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Quality Assurance and Control, Industrial Safety, Consumer Product Safety,
Environmental Protection, Nuclear Safety, Vehicle Safety

TÜV Rheinland (Guangdong) Ltd.

TÜV Rheinland Guangdong Ltd, Guangzhou 510620, China

Dee Van Enterprise Co., Ltd.
No. 5 Pao-Kao Road, Hsin-Tien
Taipei
Taiwan



TÜV Rheinland Group

Your letter dated
Your ref. Mr. Wand Zehong
Our ref. YPT-73010407
Telephone 0086-20-8755 0481
Guangzhou, 24.09.2004

Ref.: FCC Part 15 Verification for Class B External Switching Power Supply

Dear Mr. Huang,

Please be informed that the product

Switching Power Supply DSA-60W-a b xy DSA-60W-a b xyZ
DSA-60W-a b xyA DSA-60W-a b xyAZ
(detail models numbers refer to test report 16002654 001)

has been type- tested for compliance with

Conduct Emissions with limits described at FCC Part 15 Class B per section 15.107 (a)
Radiated Emissions with limits described at FCC Part 15 Class B per section 15.109 (g)

in a Listed test laboratory according to FCC rules section 2.948 for measuring devices under
Parts 15. Enclosed please find the verification test report.

We appreciate your kind support and would like to offer our assistance and continuous
services in future.

Please contact our office for approval of your new products.

Yours sincerely,

TÜV Rheinland (Guangdong) Ltd.
Product Safety Department

Y. A. Richard Fu
Yunxin Huang
Department Manager

24.09.2008

TÜV Rheinland (Guangdong) Ltd.
莱茵技术监督服务(广东)有限公司

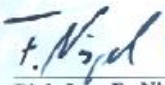
43/F, Metro Plaza,
183 Tianhe Rd. North,
Guangzhou 510620, China

中国广州天河北路183号
大都会广场43楼
邮政编码: 510620

Tel: (8620) 8755 0481
Fax: (8620) 8755 1482
e-mail: info@gz.chn.tuv.com
Internet: http://www.chn.tuv.com

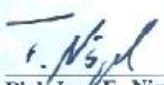
6. SAFETY LICENSE(TUV-GS)

-- 8 / 17

Zertifikat		Certificate			
Zertifikat Nr. <i>Certificate No.</i> S1 50049352		Blatt <i>Page</i> 0001			
Ihr Zeichen <i>Client Reference</i> J.H.	Unser Zeichen <i>Our Reference</i> 05-PX- 16002432 001	Ausstellungsdatum 20.09.2004	<i>Date of Issue</i> (day/mo/yr)		
Genehmigungsinhaber <i>License Holder</i> Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan		Fertigungsstätte <i>Manufacturing Plant</i> Dee Van Electronics (Shenzhen) Co., Ltd. The 5th Industrial District Gongming, Bao An District Shenzhen, Guangdong 518106 P.R. China			
Prüfzeichen <i>Test Mark</i> 		Geprüft nach <i>Tested acc. to</i> EN 60950-1:2001			
Der Anhang I der Richtlinie 73/23/EWG ist eingehalten. Das Zertifikat kann im Rahmen der Konformitätserklärung nach Anhang III verwendet werden. <i>Annex I of the directive 73/23/EEC is complied with. The certificate can be used in connection with the EC declaration of conformity acc. to Annex III.</i>					
Zertifiziertes Produkt (Geräteidentifikation) <i>Certified Product (Product Identification)</i>		Lizenzentgelte - Einheit <i>License Fee - Unit</i>			
Netzgerät (Switching Power Supply)					
Serienbezeichnung : DSA-60W-a b xy (DVE)		15			
(Series Type Designation) DSA-60W-a b xyZ					
Variable a = 12; 16; 20					
Variable b = 1; 3					
x = Ausgangsspannung in Volt nach Teilung der Zahl durch 10 (Output voltage in Volt after dividing the number by 10)					
y = Ausgangsleistung in W (Output power in W)					
Nenneingangswerte : AC 100-240V; 50/60Hz; 1,5A (Rated Input Values)					
Schutzklasse : I (Protection Class)					
Umgebungstemperatur : 40°C (Ambient Temperature)					
Geprüfte Ausgangswerte siehe Blatt 02 (Tested Output Values see page 02)					
		15			
Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde. Das Zertifikat ist max. 5 Jahre gültig, gerechnet jeweils vom Ausstellungsdatum des letzten Blattes. Produkt und Fertigungsstätte erfüllen § 4 (1) bzw. (2) und § 7(1) des Geräte- und Produktsicherheitsgesetzes. <i>This certificate is based on our Testing and Certification Regulation. The certificate is valid for max. 5 years after the date of issue of the latest page. Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.</i>					
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		Zertifizierungsstelle  Dipl.-Ing. F. Nispel 			

6. SAFETY LICENSE(TUV-GS)

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Zertifikat		Certificate			
Zertifikat Nr. Certificate No. S1 50049352		Blatt Page 0002			
Ihr Zeichen Client Reference J.H.	Unser Zeichen Our Reference 05-PX- 16002432 001	Ausstellungsdatum 20.09.2004	Date of Issue (day/mo/yr)		
Genehmigungsinhaber License Holder Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan			Fertigungsstätte Manufacturing Plant Dee Van Electronics (Shenzhen) Co., Ltd. The 5th Industrial District Gongming, Bao An District Shenzhen, Guangdong 518106 P.R. China		
Prüfzeichen Test Mark 		Geprüft nach Tested acc. to EN 60950-1:2001			
Der Anhang I der Richtlinie 73/23/EWG ist eingehalten. Das Zertifikat kann im Rahmen der Konformitätserklärung nach Anhang III verwendet werden. Annex I of the directive 73/23/EEC is complied with. The certificate can be used in connection with the EC declaration of conformity acc. to Annex III.					
Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)				Lizenzentgelte - Einheit License Fee - Unit	
Netzgerät (Switching Power Supply)					
wie Blatt (as page) 01					
Fortsetzung (Continuation)					
Ausgangsspannung (Output Voltage)		Ausgangsstrom (Output Current)		Ausgangsleistung (Output Power)	
DC (V)		Max. (A)		Max. (W)	
12,0 - 14,0		5,00		60	
14,1 - 19,0		4,26		60	
19,1 - 24,0		3,16		60	
Vermerk: Die Ausgangsspannung steigt in Schritten 0,1V an. Der Ausgangsstrom steigt in Schritten 0,01A an. Ausgangsspannung multipliziert mit Ausgangsstrom sind nur bis zur max. Ausgangsleistung geprüft.					
(Remark: The output voltage is rising in steps of 0,1V. The output current is rising in steps of 0,01A. The output voltage multiplied with output current are only tested up to the max. output power.)					
Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde. Das Zertifikat ist max. 5 Jahre gültig, gerechnet jeweils vom Ausstellungsdatum des letzten Blattes. 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. The certificate is valid for max. 5 years after the date of issue of the latest page. Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.					
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				Zertifizierungsstelle  Dipl.-Ing. F. Nispel 	

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TA 50049529 01

Dee Van Electronics (Shenzhen)
Co., Ltd.
The 5th Industrial District
Gongming, Bao An District
Shenzhen, Guangdong 518106
P.R. China

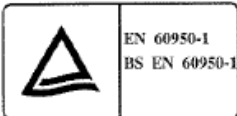
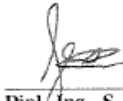
EN 60950-1:2001
BS EN 60950-1:2002

15



6. SAFETY LICENSE(T-license)

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Certificate		
Certificate no. TA 50049529 02		
License Holder: Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan		Manufacturing Plant: Dee Van Electronics (Shenzhen) Co., Ltd. The 5th Industrial District Gongming, Bao An District Shenzhen, Guangdong 518106 P.R. China
Test report no.: PX 16003522 001		Client Reference: J.H.
Tested to: EN 60950-1:2001 BS EN 60950-1:2002		
Certified Product: (Switching Power Supply)		License Fee - Units
as page 01 Continuation		
Output Voltage DC (V)	Output Current Max. (A)	Output Power) Max. (W)
12,0 - 14,0	5,00	60
14,1 - 19,0	4,26	60
19,1 - 24,0	3,16	60
Remark: The output voltage is rising in steps of 0,1V. The output current is rising in steps of 0,01A. The output power is rising in steps of 1W. The output voltage multiplied with output current are only tested up to the max. output power.		
Licensed Test mark: 	Signatures  Dipl.-Ing. S. O. Steinke	Date of Issue (day/mo/yr) 28/10/2004 

6. SAFETY LICENSE(CE)

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C E R T I F I C A T E of Conformity EC Council Directive 89/336/EEC as last amended by EC Directive 93/68/EEC Electromagnetic Compatibility		
Registration No.:		AE 50033059 0001
Report No.:		16002436 001
Holder:	Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan	
Product:	<u>Netzgerät</u> (Switching Power Supply)	
Identification:	DSA-60W-a 1 xy DSA-60W-a 1 xyZ DSA-60W-a 3 xy DSA-60W-a 3 xyZ (DVE) For a detailed listing of the variables a, x, y refer to license CC 50033059. Serial No. : n.a. (Issued in conjunction with above TÜV Rheinland license)	
Tested acc. to:	EN 55022:1998+A1+A2 EN 55024:1998+A1+A2 EN 61000-3-3:1995+A1 EN 61000-3-2:2000	
This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex III of Council Directive 89/336/EEC., in its latest amended version, referred to as the EMC Directive. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Article 10.1 of the Directive.		
Cologne, <u>24.08.2004</u>		 Certification Body  Dipl.-Ing. F. Nispel
TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln		
CE The CE marking may only be used if all relevant and effective EC Directives are complied with. CE		

6. SAFETY LICENSE(SAA)

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OFFICE OF **FAIR TRADING**
NSW Government / Competition Agency
Department of Commerce

The Manager
Dee Van Enterprise Co Ltd
C/- Ms Sharon Chang
PSE Inc Taiwan
6F-4, No 11, Wu-Chuan, 1st Road
HSIN CHUANG TAIPEI TAIWAN R.O.C

File Ref: N20571/1
Contact: Liz Whitehead
Telephone: (02) 9895 0702
Facsimile: (02) 9895 0423

Dear Sir/Madam

CERTIFICATE OF APPROVAL NUMBER: 20571 AND MODIFICATION/S

Power Supply or Charger

Please find enclosed a Certificate of Approval and addendum as sought by your application.

Articles of the approved type/s may now be marketed in any State or Territory of Australia, provided they are marked with-

- (a) the mark (or marks) shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

THE APPROVAL EXPIRES ON THE DATE SHOWN ON THE CERTIFICATE unless it is renewed, extended, suspended or cancelled.

Any sample/s held by the Office should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully

for Commissioner
15 October 2004

Head Office 1Fitzwilliam Street Parramatta PO Box 972 NSW 2124 Australia
Tel (02) 9895 0111 Fax (02) 9895 0222 DX 28437 Parramatta

6. SAFETY LICENSE(SAA)

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OFFICE OF FAIR TRADING
ACTIV Consumer Protection Agency
Department of Commerce

Certificate Number: 20571

CERTIFICATE OF APPROVAL

ISSUED PURSUANT TO SECTION 21C OF THE ELECTRICITY SAFETY ACT 1945

ISSUED TO:

Dee Van Enterprise Co Ltd

CLASS OF ARTICLE:

Power Supply or Charger

DESCRIPTION OF ARTICLE:

Switch mode power supply for IT equipment, and incorporating a C14 inlet socket.

Trade name "DVE"

Input: 100-240V 50/60Hz 1.5A

Output: 12Vdc 5A 60W

Class I

EXAMINED FOR COMPLIANCE WITH: AS/NZS 60950:2000

TYPE REFERENCE CODE: DSA-60W-12 1 12060

APPROVAL MARK:

Each electrical article of the abovementioned type shall be marked with Approval Number N20571

DATE OF APPROVAL: 15 October 2004

This approval expires 15 October 2009 unless suspended, cancelled, renewed or extended.

for Commissioner

6. SAFETY LICENSE(SAA)

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OFFICE OF FAIR TRADING

NSW Consumer Protection Agency
Department of Commerce

Ref: N20571/1

ADDENDUM TO CERTIFICATE OF APPROVAL No 20571

Particulars of Modification(s)

Series DSA-60W-12 b xy similar to original Model DSA-60W-12 1 12060 where:

"b" can be 1 or 3 to denote C14 or C6 inlet socket

"x" is a 3 digit number representing the output voltage from 12.0-14.0V

"y" is a 2 digit number representing the output power (max.60W)

Series DSA-60W-16 b xy similar to Series DSA-60W-12 b xy except for output rating where:

a) output voltage may be 14.1-19V dc

b) Max. output power is 60W

Series DSA-60W-20 b xy similar to Series DSA-60W-16 b xy except for output rating where:

a) output voltage may be 19.1-24.0V dc

b) Max. output power is 60W

General Modification

Use of suffix "Z" to indicate alternative secondary output voltage control method.

Approved: 15 October 2004

for Commissioner

6. SAFETY LICENSE(C-TICK)

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QUALSURE CONSULTANTS

PO Box 9213 Traralgon Vic. 3844 Australia

Phone +61 412 933497 Fax +61 3 51992678

30 August 2004

Ms. Huangxueqing
Dee Van Enterprise Co., Ltd.

Dear Ms. Huangxueqing

LETTER OF AUTHORISATION

This letter authorises Dee Van Enterprise Co., Ltd., to label the product(s) listed below, with the C-Tick compliance mark and supplier number N136, subject to the following conditions:

- The units supplied are identical to those held by and described in the compliance folder held by Qualsure Consultants.
- Qualsure Consultants assumes no responsibility in the retail supply, servicing or repair of the listed product.
- Any modification to the listed product(s) voids this authorisation.
- This authorisation pertains only to the product(s) listed.
- The product(s) listed hold and maintain an Australian electrical safety certificate.
- Dee Van Enterprise Co., Ltd. takes responsibility and agrees to meet all costs in any action relating from a breach of the conditions of this authorisation.
- Dee Van Enterprise Co., Ltd. agrees to supply to Qualsure Consultants the names and addresses of all Australian importers if required by the relevant Australian authority.

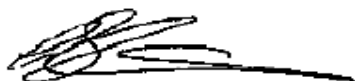
Product
AC Adaptor

Trade Names

Model Numbers

**DSA-60W-12 b xy, DSA-60W-12 b xyZ,
DSA-60W-16 b xy, DSA-60W-16 b xyZ,
DSA-60W-20 b xy, DSA-60W-20 b xyZ**
(b=1,2 or 3(1 or 3 =class I, 2 = classII), x = 3rd digit number
for output voltage, y = 2nd digit number for wattage, Z =
alternate secondary control method)

The labelling and supply of the product with a C-Tick compliance label including the identifier N136 is agreement with the above conditions.



Gordon Slimmon.
Director

6. SAFETY LICENSE (C-TICK)

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QUALSURE CONSULTANTS
PO Box 9213 Traralgon Vic. 3844 Australia
Phone +61412 933497 Fax +61 3 5199 2678

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 Names	Model Numbers
AC Adaptor		DSA-60W-12 b xy, DSA-60W-12 b xyZ, DSA-60W-16 b xy, DSA-60W-16 b xyZ, DSA-60W-20 b xy, DSA-60W-20 b xyZ (b=1,2 or 3(1 or 3 =class I, 2 = class II), x = 3 rd digit number for output voltage, y = 2 nd digit number for wattage, Z = alternate secondary control method)

Australian Standard(s)	Number	Date of issue
Title Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.	AS/NZSCISPR22	2002

Declaration

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



(S I G NATURE OF THE AUTHORIZED PERSON)

Gordon Slimmon
(NAME OF THE AUTHORIZED PERSON)

Director
(POSITION IN COMPANY)

30 Aug 04
(DATE OF ISSUE)

A division of Blulen Pty Ltd (ACN 090 692 354) Registered Office 18 Hood Street Rosedale Vic. 3847
CF0820-1