



安勤科技股份有限公司

APPROVAL SHEET

NO.APP-15-02167

QD4-015 Rev.B4

申請種類: 正式承認

料號	BCC-ADP-065N-01R
品名	DELTA 19V/ 3.4A/ 65W Adapter

製造商	仁寶(Compal)
廠商型號	PK100015U0H



Update 原因說明	
庫存說明	
其它	

安勤科技 測試報告

測試日期	2015-12-28 10:37:23		測試樣品數	1 PCS
測試項目	項目	測試條件		結果
	外觀	核對實物與照片是否相符		Pass
	材質	依承認圖面所標示的接線圖實際量測		Pass
	電氣特性			
	機械強度			
	實裝動作	實際安裝以確認是否與承認書相符		Pass
	破壞實驗			
	顏色	依照片或圖面標示之顏色為檢驗準		Pass
	尺寸	依照片或承認圖面所標示之尺寸為檢驗標準		Pass
	沾錫性			
	壽命實驗			
	安規			
	其它測試			
	使用儀器	尺		
備註				
測試結果	符合測試條件及規格			

備註:

1. 申請人需先至GPM/管理/物料MCD設定/料號-審核狀態為通過，查詢此料已完成GREEN的承認，再

辦理規格等承認。

2. 本單不能代替採購單及其它用途。

3. 如涉及專利及法律之問題, 應由送樣廠商負全責。

4. 以下內容所註記, 已經檢驗過並給予承認。

5. 申請承認需依料階符合「承認應備文件和檔案」

Workflow

Workflow Status	Action	Signoff User	Local Client Time	Signoff Comments
Initial (填表人)		ARM Austin Yang (楊孟翰)	2015-12-28 18:39:06	
Manager Review	Approved	ARM Dennis Hsieh (謝政遠)	2015-12-28 18:42:14	
QA	Approved	QA Head Edward hu (胡俊忠)	2016-01-01 12:08:54	
EMC Head	Approved	DQV Daniel Chou (周志興)	2016-01-04 09:43:38	
PDC & QC	Approved	PDC Joy Lu (盧昶卉)	2016-01-05 11:46:27	
PDC & QC	Approved	QA Manager jansin lee (李建興)	2016-01-04 14:48:19	
PDC Head	Approved	PDC Mandy Huang (黃意婷)	2016-01-05 14:30:14	



DELTA ELECTRONICS, INC.
台达电子工业股份有限公司
台達電子工業股份有限公司
AC/DC ADAPTER
(电源适配器/交直流电源转换器)

MODEL (型号): ADP-65JH HB LPS
INPUT (输入/输入): 100-240V ~ 1.5A 50-60 Hz
OUTPUT (输出/输出): 19V = 3.42A @ =
Apparatus must kun liioitella joiden stikontakt.
Laitte on liitettävä suojamaadoituskoskettimilla
varustettuun pistorasiaan.

Efficiency Level: VI
UL LISTED
ITE POWER SUPPLY
R33030
TUV RT
Avalue ジャパン株式会社
DCWP MMC
C.C.: AJ REV: 00
S/N: 6DPW59X00VP
PK100015U0H-A00-F9U-00947



CAUTION
For use with power adapter. Do not use for other purposes.
注意
本製品は電源アダプタ専用です。他の目的で使用しないでください。
警告
本製品は電源アダプタ専用です。他の目的で使用しないでください。
警告
本製品は電源アダプタ専用です。他の目的で使用しないでください。



Caution ! May become hot.

Attention ! Peut devenir chaud.

温度が高くなる場合がありますのでご注意ください。

AC适配器可能发热！请注意。





COMPAL ELECTRONIC, INC.

仁寶電腦

Approval Sheet Check List For Adapter and SMPS

是	否	Item	項 目	內 容
☒	☐	1	Adapter	☐ Adapter ☐ Others
☒	☐	2	Switching Power Supply	☐ SMPS
☒	☐	3	Electrical Characteristics	~~~對該各零件之電氣規格依設計需要明訂之~~~ ☐ *. Input Voltage Range And Input Current ☐ *. Output Rate Voltage ,Output Current and Output Voltage Setting ☐ *. Short Circuit Protection And Over Current Protection
☒	☐	4-1	Reliability Test (Non Pb Free)	~~~對該各零件之信賴性格需要明訂之(With Vendor Test Reprt)~~~ ☐ *.AC Cable Pulling Removal Strength ☐ *.Vibration Test ☐ *.Shock Test ☐ *.Plug Insert Withdraw Force ☐ *.Drop Test For Package
☐	☒	4-2	Reliability Test (Pb Free)	~~~對該各零件之信賴性格需要明訂之(With Vendor Test Reprt)~~~ ☐ *.AC Cable Pulling Removal Strength ☐ *.Vibration Test ☐ *.Shock Test ☐ *.Plug Insert Withdraw Force ☐ *.Drop Test For Package
☒	☐	5	Mechanical Characteristics	☐ *. Dimension(LXWXH)/Drawing ☐ *. Input AC Socket Type ☐ *. Output DC Cable Length, Wire Style, Plug
☒	☐	6	Environmental Test	☐ *. EMI :Adapter Comply With The Following National Standards ☐ *. EMI Conducted Emission ,EMI Radiated Emission ☐ *. ESD ☐ *. Safety Cerifications, Leakage Current, Insulation Resistance, Dielectric Strength
☒	☐	7	MARKING (標示)	*. Material's Marking must be have clarify description. *. (元件上之Marking需有適當的說明)
essential		8	*Outline Dimensions & Structural drawing (外觀尺寸&結構圖)	*. Physical Dimensions&Tolerance, Detailed Specifications (外型尺寸、公差、規格需標示清楚公差)。 *. Components perspective drawing (零件透視圖)。
essential		9	*Physical weight (本體重量)	*. Must be described by Weight with Graphic or Vendor's P/N . *. (註明重量及以圖示&廠商編號P/N說明。)
essential		10	Packaging (出貨包裝方式)	*. Must be described by Graphic 、 Vendor's P/N and the typing (as Disk、Tube、Box...) *. (以圖示及廠商編號註明)
essential		11	Safety Recognized (安規認證文件)	*. Adapter vendors must provide rating label with regulatory logo and certificates per Compal requested. (such as UL/CSA/TUV/Nemko/PSB/T-mark (or PSE) /CCIB/CCEE/BSMI/NOM/K-mark/CE/C-Tick/RCM/IRAM...etc. *. (廠商需提供Label及其上所有標示logo之證書)
essential		12	Plastics Material (塑膠材質)	*. Vendor must list material source, UL file no., and follow ISO11469 *. (廠商須列出各使用零件之Source, UL File No., 及ISO11469所規定之材質符號)
essential		13	Record (記錄)	*. Vendor's approval sheet's cover must be have Revision . *. (廠商承認書SPEC封面需有Revision註明。)

Please fill with this check list very careful and return with approval sheet.

980217 REV.2

本Check List請確實勾選,同承認書一起擲回.(廠商請確認簽名)

廠商主管: . Yevon Cheng 廠商工程師: Robert Ko 確認廠商: Delta 日期: 104/11/06



SPECIFICATION FOR APPROVAL

Customer : Compal

Part No : PK100015U0H Rev :

Description : ADAPTER

Delta Model No : ADP-65JH HBAJ Rev : 00

Issue Date : Nov. 06, 2015

DELTA ELECTRONICS, INC.

3, Tung Yuan Road

Chungli Industrial Zone.

Taoyuan Hsien 320, Taiwan, R.O.C

Internet : <http://www.deltaww.com>

TEL : 886-3-4526107 FAX : 886-3-4343617

TABLE OF CONTENTS

1. Revision History
2. Electrical Specification
3. Schematics
4. PCB Artwork
5. Physical Dimension
6. Label Drawing
7. Packing
8. BOM (Part List)
9. Safety License

Please send one copy of this specification back after you signed approval for production pre-arrangement.

Approved By : _____

Date : _____

Engineer By: Robert Ko M.Engineer By: Aaron Yang Approved By: Yevon Cheng

1. Revision History



DELTA P/N	ADP-65JH HBAJ	SHEET 1 OF 1
CONTENT	Revision History	DATE Nov / 06 / 2015
1.Revision History		
NO.	DESCRIPTION	ENGINEER DATE
00	ISSUE	Robert Ko 11/06/2015

2. Electrical Specification



Table Of Contents

1. Electrical

	PAGE
1.1 Input Characteristics	
1.1.1 Nominal Voltage.....	4
1.1.2 Input Voltage Range.....	4
1.1.3 Rated Frequency.....	4
1.1.4 Frequency Range.....	4
1.1.5 Input current	4
1.1.6 Inrush Current Limit(cold start).....	4
1.1.7 Efficiency	4
1.1.8 No Load Power Consumption.....	4
1.1.9 Small Load Power Consumption.....	5
1.2 Output Characteristics	
1.2.1 Rated Voltage.....	5
1.2.2 Voltage Range	5
1.2.3 Current.....	5
1.2.4 Output Ripple and Noise.....	5
1.2.5 Turn On delay time.....	6
1.2.6 Hold – up Time	6
1.2.7 Rise time.....	6
1.2.8 Surge load:.....	6
1.2.9 Load transient response.....	7
1.2.10 Over-Shoot.....	7
1.2.11 Protection.....	7
1.2.11.1 Over Voltage Protection.....	7
1.2.11.2 Over Current Protection.....	7
1.2.11.3 Short Circuit Protection.....	7
1.2.11.4 Over Temperature Protection.....	8



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. : ES-65JH HBXX SERIES	REV. 02
08/18'15	王玉玲	柯祈佑	楊基祥		

1.2.12 Capacitance load.....	8
------------------------------	---

2. Environmental

2.1 Temperature.....	8
2.2 Humidity	8
2.3 Immunity.....	9
2.3.1 Lightning Surge Immunity.....	9
2.3.2 Electric Fast Transients (EFT).....	9
2.4 Electrostatic Discharge (ESD).....	9
2.5 Surface Temperature rise.....	9
2.6 Dielectric Withstand Voltage (HI-POT).....	9
2.7 Leakage Current.....	9
2.8 Insulation Resistance.....	10
2.9 Electromagnetic Interference (EMI).....	10
2.10 MTBF.....	10

3. Mechanical

3.1 Outline Dimension.....	10
3.2 AC Inlet Type.....	10
3.3 DC Cable Length.....	10
3.4 DC Connector Dimension.....	10



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

FOR MODEL: ADP-65JH HBAC/HBAD/HBAE/HBAF/HBAG/HBAH/HBAJ/HBAK

1. ELECTRICAL

1.1 Input Characteristics:

1.1.1 Nominal Voltage

It is normal for **100 ~ 240Vac** input AC voltage.

1.1.2 Input Voltage Range

The Adapter shall operate from **90 ~ 264Vac**.

1.1.3 Rated Frequency

It is normal for **50Hz** or **60Hz** and single phase.

1.1.4 Frequency Range

The Adapter shall operate with an input frequency from **47 Hz** to **63 Hz**.

1.1.5 Input Current

1.5A Max at **100Vac** input voltage.

1.1.6 Inrush Current Limit (cold start)

No damage; meet fuse and bridge diode I²t de-rating specified

1.1.7 Efficiency

1.1.7.1 **84 %** min. at nominal input voltage, maximum load and measured at the end of DC cable.

1.1.7.2 Active mode efficiency:

More than **87%** of average efficiency of **25%,50%,75%** and **100%** load tested at **115Vac** and **230Vac**. (Warm up after 30 minutes)

1.1.8 No Load Power Consumption

Maximum non-load power consumption is less than **0.3W** at **115Vac/60Hz** and **230Vac/50HZ**



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

1.1.9 Small Load Power Consumption

Vin=100Vac/50Hz and 100Vac/60Hz and 115Vac/60Hz and 230Vac/50Hz

Output load(W)	Input power (max)
0.25W	0.5W
0.5W	1.0W
1.0W	1.7W
1.5W	2.4W
11.5W	14W
18W	22W

1.2 Output Characteristics:

1.2.1 Rated Voltage

The rated output voltage is specified at **19V**.

1.2.2 Voltage Range

The output voltage will be performed **18.05V~ 19.95V** when the load is **0A ~ 3.42A** steadily.

1.2.3 Current

This Adapter can work from **0A** to **3.42A** and output voltage is in section 1.2.2 specified range.

1.2.4 Output Ripple and Noise

Output ripple voltage is **300 mV** peak to peak or less.

Measured methods:

T1. Performed by **20M** Hz bandwidth in oscilloscope.

T2. Applied **0.1uF** high frequency capacitor and **47uF** electrolytic capacitor across output connector terminals.

T3. Measured at the end of DC cable.



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

1.2.5 Turn On delay time

The Adapter shall switch on in less than **2 seconds** at input voltage is 100Vac and 240Vac

1.2.6 Hold –up time

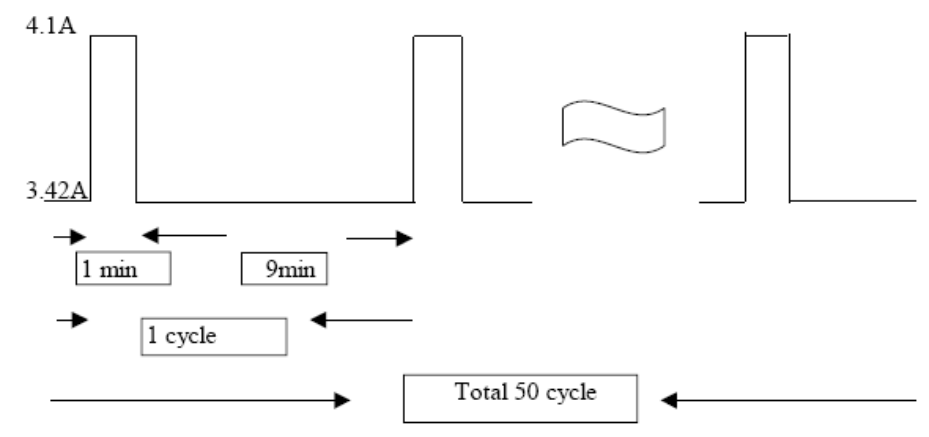
The output voltage shall be sustained **5mS** within regulation requirement after loss 100Vac and maximum load.

1.2.7 Rise time

DC output rise time from 10% to 90% of output voltage shall be less than **100ms** at nominal line and maximum load

1.2.8 Surge load:

A :



The adapter shall support a surge load with 120% of maximum load for 1min , maximum load for 9min and Output Voltage more than 18.05V at input voltage is 100-240Vac

B :

The adapter shall support a surge load with 130% of maximum load for 10ms , maximum load for 10ms and Output Voltage more than 18.05V at input voltage is 100-240Vac.



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

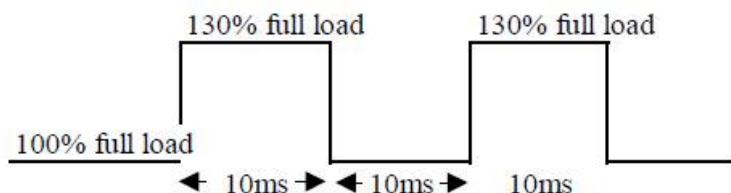
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

If the adapter operate in surge load mode and burn-in more than 30min , it might be OTP trigger and shutdown .



1.2.9 Load transient response

The adapter must within regulation when applied a step load from 0.1A to 100% load at **2.5A/us** slew rate and frequency is 10Hz to 10KHz

The output voltage will be performed **18.05V~ 19.95V**.

1.2.10 Over-shoot

The output overshoot shall be less than **19.95V**

1.2.11 Protection

1.2.11.1 Over Voltage Protection

The output shall be protected to latch off at over-voltage condition, maximum value can't be over **27V** .
That might be return to normal state by AC reset . .

1.2.11.2 Over Current Protection

The maximum constant current shall be more than 4.1A . The adapter shall be Autorecovery .
That might be return to normal state by AC reset .

1.2.11.3 Short Circuit protection

Output can be shorted without damage. The adaptor shall be Autorecovery .
That might be return to normal state by AC reset . .



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

DESCRIPTION :
電氣規格 (Electrical Specification)

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

1.2.11.4 Over Temperature Protection

No deformation and no discoloration on case and will be shut down.

That might be return to normal state by AC reset

1.2.12 Capacitance load

Plugging a 1000uF capacitance to a live adapter, adapter can not shut down.

2. Environmental

2.1 Temperature

2.1.1 Operating

The AC Adapter shall be capable of operating at full load with an ambient temperature range of 0 °C to +40°C.

2.1.2 Shipping/Storage

The AC Adapter shall be capable of withstanding ambient temperature from -30°C to +80°C.

2.2 Humidity

2.2.1 Operating

The AC Adapter shall be capable of operation in relative humidity of 8% to 90% relative humidity, non-condensing.

2.2.2 Shipping/storage

The AC Adapter shall be capable of withstanding ambient relative humidity of 5% to 95% relative humidity, non-condensing.



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

2.3 Immunity

2.3.1 Lightning Surge Immunity

This is to follow the norm of IEC-61000-4-5 Level 3 requirements

L-N +/-1KV/1.2 * 50uS 5 times No function error.

L-FG +/-2KV/1.2 * 50uS 5 times No damage.

2.3.2 Electric Fast Transients (EFT)

This is to follow the norm of IEC-61000-4-4/1995

(EN 61000-4-4) Level 2(1KV) requirements

2.4 Electrostatic Discharge (ESD)

This Adapter is capable to withstand ESD test voltage at any point around the enclosure as below.

(Refer to IEC61000-4-2)

±15KV air discharge No damage.

±8KV contact discharge No damage.

2.5 Surface Temperature rise

A :

Output 65W and ambient **25°C**;input voltage Input: 100Vac/ 50Hz; 240Vdc/ 50Hz Iout=3.42A
case temperature rise ≤ **45°C**

B :

Output 65W and ambient **25°C**;input voltage Input: 90Vac/ 50Hz; 264Vdc/ 50Hz Iout=3.42A
case temperature rise ≤ **50°C**

2.6 Dielectric Withstand Voltage (HI – POT)

Between AC input and secondary AC 3KV test time 1 minute; 100% of line products of this Adapter shall be applied 3000Vac for 2 seconds between AC input terminals and output terminals. Cut off current 10mA.

2.7 Leakage Current :

The AC leakage current is less than **50 μA** when adapter is connected to **240Vac/50Hz** at normal condition

 台達電子工業股份有限公司 DELTA ELECTRONICS, INC.				DESCRIPTION : 電氣規格 (Electrical Specification)	
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.				MODEL NO. : ADP-65JH HBXX SERIES	
Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

2.8 Insulation Resistance

The insulation resistance shall be not less than **30M** ohms after application of **500Vdc/10mA** for **1 second**.

2.9 Electromagnetic Interference (EMI)

2.9.1 The adapter shall comply with the following national standards.

- (a) CISPR 22 Class B
- (b) VCCI Class B
- (c) FCC

2.10 MTBF

2.10.1 MTBF(Mean-Time-Between-Failures)Calculation

The calculated MTBF shall be **100,000** hours of continuous operation at **25°C**, maximum load and normal voltage.

3. Mechanical

3.1 Outline Dimension: 108.0 * 46.0 * 29.5 mm,

color: Black (For ADP-65JH HBAC/HBAD/HBAE/HBAG/HBAH/HBAJ/HBAK)

color: White (For ADP-65JH HBAF)

3.2 AC Inlet Type: Socket C6 type

3.3 DC Cable, UL1571 #AWG18, 1800mm

3.4 DC Connector Dimension:

MODEL NAME	O.D.	I.D.	PLUG LENGTH
ADP-65JH HBAC	4.0 mm	1.7 mm	9.5 mm
ADP-65JH HBAD	4.0 mm	1.7 mm	10.5 mm



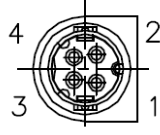
台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

DESCRIPTION :
電氣規格 (Electrical Specification)

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

MODEL NO. :
ADP-65JH HBXX SERIES

Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

ADP-65JH HBAE	5.5 mm	2.5 mm	11.5 mm									
ADP-65JH HBAF	4.0 mm	1.7 mm	10.5 mm									
ADP-65JH HBAG	5.5 mm	2.5 mm	11.0 mm									
ADP-65JH HBAH		<table><tr><td>DIN PLUG</td><td>POLARITY OR</td></tr><tr><td>P1</td><td rowspan="3">GND (-)</td></tr><tr><td>P3</td></tr><tr><td>SHIELD</td></tr><tr><td>P2</td><td rowspan="2">VO (+)</td></tr><tr><td>P4</td></tr></table>	DIN PLUG	POLARITY OR	P1	GND (-)	P3	SHIELD	P2	VO (+)	P4	
DIN PLUG	POLARITY OR											
P1	GND (-)											
P3												
SHIELD												
P2	VO (+)											
P4												
4 PIN DIN TYPE												
ADP-65JH HBAJ	5.5 mm	2.5 mm	12.0 mm									
ADP-65JH HBAK	5.5 mm	2.5 mm	11.0 mm									



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.

DESCRIPTION :
電氣規格 (Electrical Specification)

MODEL NO. :
ADP-65JH HBXX SERIES

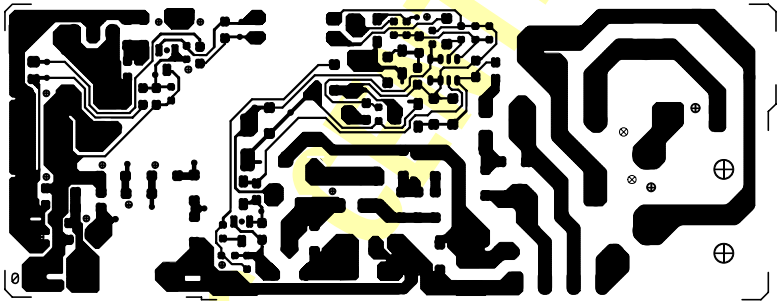
Date	Drawn	Design (EE)	Design (ME)	DOCUMENT NAME. :	REV.
08/18'15	王玉玲	柯祈佑	楊基祥	ES-65JH HBXX SERIES	02

3. Schematic

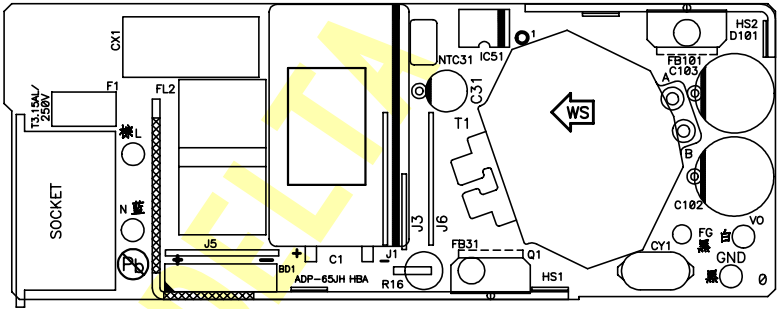


4. PCB Track



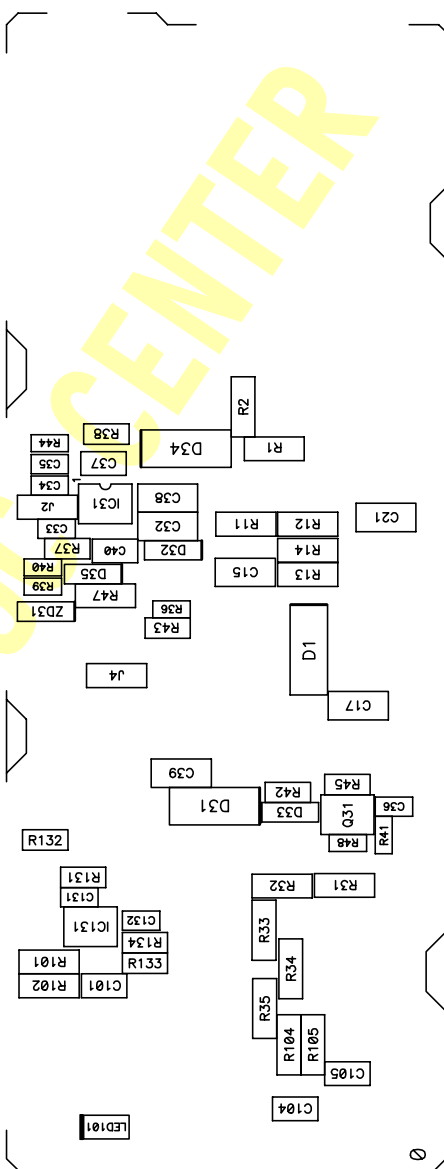


DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE
PROPERTY OF DELTA ELECTRONICS, INC. AND
SHALL NOT BE REPRODUCED OR USED AS THE
BASE FOR THE MANUFACTURE OR SELL OF
APPARATUS OR DEVICES WITHOUT PERMISSION
DRAWING NO: P.T.: 65JH HBA REV: 2
USED ON: ADP-65JH HBA CODE: 0
MADE BY: RACHEL DATE: 06/24/13
P/N: 2940136502
SOLDER SIDE SIZE: 1=1



DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE
PROPERTY OF DELTA ELECTRONICS, INC. AND
SHALL NOT BE REPRODUCED OR USED AS THE
BASE FOR THE MANUFACTURE OR SELL OF
APPARATUS OR DEVICES WITHOUT PERMISSION
DRAWING NO: PW-1: 65JH HBA REV: 2
USED ON: ADP-65JH HBA CODE: 0
MADE BY: RACHEL DATE: 06/24/13
P/N: 2940136502
COMPONENT SIDE SIZE: 1=1

ADP-65JH HBA REV:2 CODE:0 2940136502

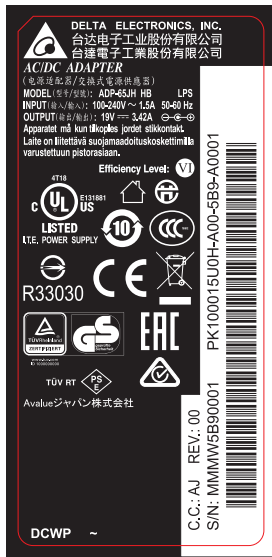


5. Physical Dimension



6. Label Drawing





SCALE 1:1



SCALE 2:1

The mark "~" is the label vendor code of DELTA who registered at CSA or UL :
CM-2 : CymMetrik
MMC : Yongta



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

Drawn:

ligi

09/18/15

Design:

Aaron

09/18/15

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSSES OR DEVICES WITHOUT PERMISSION.



Description:

LABEL

DIMENSIONAL TOLERANCES

()	(V)	()	HOLES : ± 0.05	ANGLES : $\pm 0.5^\circ$
<30 : ± 0.25	DECIMALS	UP~100 : ± 0.2	250~300 : ± 0.4	UP~600 : ± 1.5
>30~100 : ± 0.35	X : ± 0.3	100~150 : ± 0.25	300~350 : ± 0.45	600~900 : ± 2.4
>100~300 : ± 0.5	X.X : ± 0.2	150~200 : ± 0.3	350~400 : ± 0.5	900~OVER : ± 3.1
ABOVE 300 : ± 0.6	X.XX : ± 0.1	200~250 : ± 0.35		

A4
SIZE

Part No.

3268630650

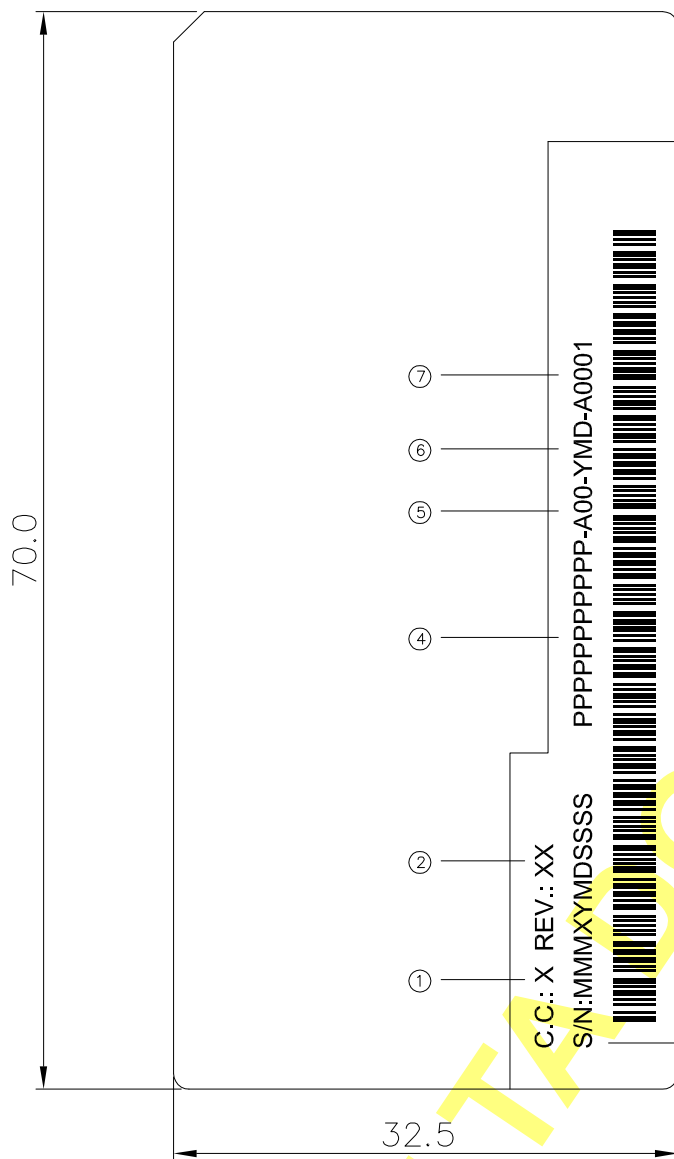
REV.

01

SCALE -- UNIT mm USED ON ADP-65JH HBAJ

SHEET 4 OF 4 ISSUE DATE: 09/18/15

Barcode printing information for spec label



- ① C.C. CODE.: REFER TO SN
- ② REV.: REFER TO SN
- ③ S/N: REFER TO DOCUMENT
10000-0173-2L
- ④ P/P/P/P/P/P/P/P/P/P:
COMPAL P/N, PROVIDED
BY SALES
- ⑤ A00: CUSTOMER REV.,
REFER TO SN
- ⑥ YMD: Y FOR YEAR, Ex. 2010
MEANS A, 2011 MEANS B ...;
M FOR MONTH, Ex. JANUARY
MEANS 1, SEPTEMBER MEANS
9, OCTOBER MEANS A,
DECEMBER MEANS C;
D FOR DATE, Ex. 1st ~ 9th
MEANS 1 ~ 9, 10th ~ 31th
MEANS A ~ V
- ⑦ A0001: SERIAL NUMBER,
0~9 & A~Z FOR 1st CODE,
③ 0~9 FOR 2nd, 3rd, 4th, 5th
CODE

NOTES:

1. Barcode content:PPPPPPPPPPPA00YMDA0001, 22 digits, 128 code, height 4.0 mm
2. Text content:PPPPPPPPPPPP-A00-YMD-A0001, 25 digits, font: Arial, height 1.5 mm
3. Text content: S/N & REV & C.C.
font: Arial, height 1.5 mm

TITLE	REV.	USED ON:	DATE	(FIG. 8)
生產注意事項	00	ADP-65JH Series	08/18' 15	



SCALE 1:1



SCALE 2:1

NOTE: 1. UNIT : MM

2. TEXT HEIGHT : 2.00 MM.

TEXT WIDTH : AS THE FIGURE.

FONT STYLE : ARIAL-REGULAR FOR ENGLISH AND FRENCH.

FONT STYLE : AS THE FIGURE FOR CHINESE AND JAPANESE.



台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

Drawn:

ligi

02/09/12

Design:

Bddy

02/09/12

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSSES OR DEVICES WITHOUT PERMISSION.



THIRD ANGLE
PROJECTION

Description:

LABEL

DIMENSIONAL TOLERANCES

()	(V)	()	HOLES : ± 0.05		ANGLES : $\pm 0.5^\circ$	
<30	: ± 0.25	DECIMALS	UP~100 : ± 0.2	250~300 : ± 0.4	UP~600	: ± 1.5
>30~100	: ± 0.35	X : ± 0.3	100~150 : ± 0.25	300~350 : ± 0.45	600~900	: ± 2.4
>100~300	: ± 0.5	X.X : ± 0.2	150~200 : ± 0.3	350~400 : ± 0.5	900~OVER	: ± 3.1
ABOVE 300	: ± 0.6	X.XX : ± 0.1	200~250 : ± 0.35			

A4

SIZE

Part No.

3261030801

REV.

01

SCALE — UNIT mm USED ON SADP-65KB CBDF

SHEET 3 OF 3 ISSUE DATE: 02/09/12

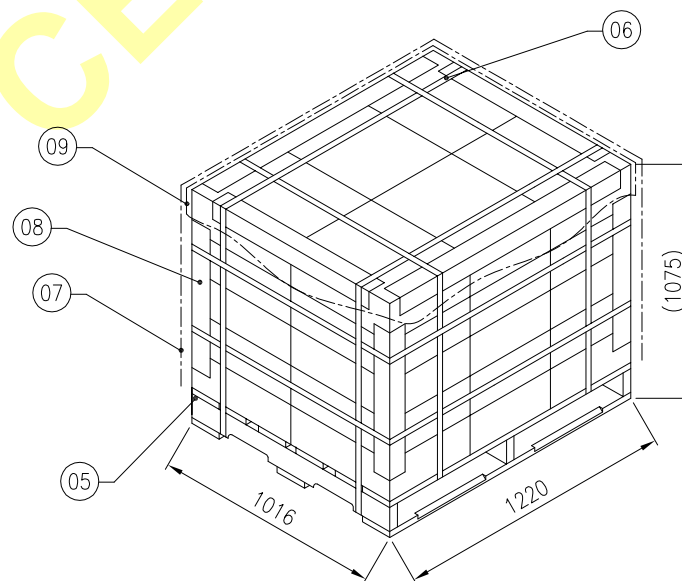
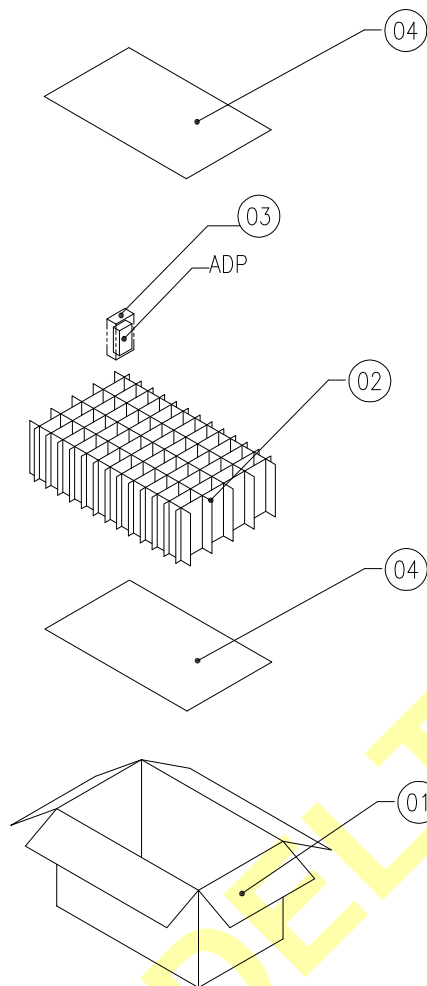
7. Packing



NOTES:

- 48PCS/CARTON*2*3CARTONS/LAYER*5LAYERS=1440PCS/PALLET
- ALL THE PACKING MATERIAL SHOULD MEET DELTA 10000-0162 SPEC.

ITEM	PART NO.	NAME	OUTSIDE DIM.(mm)	Q'TY		UNIT
01	35137459XX	CARTON	506X406X191	1/48	20.834	TP
02	35141293XX	PARTITION	488X388X157	1/48	20.834	TP
03	35020632XX	PE BAG	500X150X0.06	1/1	1.000	PCE
04	35108969XX	PAD PAPER	480X380X3	2/48	41.667	TP
05	3524029200	PALLET	1220X1016X120	1/1440	0.695	TP
06	35201427XX	PLASTIC STRIP	12X0.5	27M/1440	18.750	MM
07	35200824XX	PE FILM	t=0.02mm	150g/1440	0.105	GRM
08	35101802XX	ANGLE PAPER	900X55X55	8/1440	5.556	TP
09	35200899XX	PE SHEET	1500x1300	1/1440	0.695	TP



 台達電子工業股份有限公司
DELTA ELECTRONICS, INC.

Drawn: Randy
11/07'14

Design: Randy
11/07'14

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUS OR DEVICES WITHOUT PERMISSION.



Description:

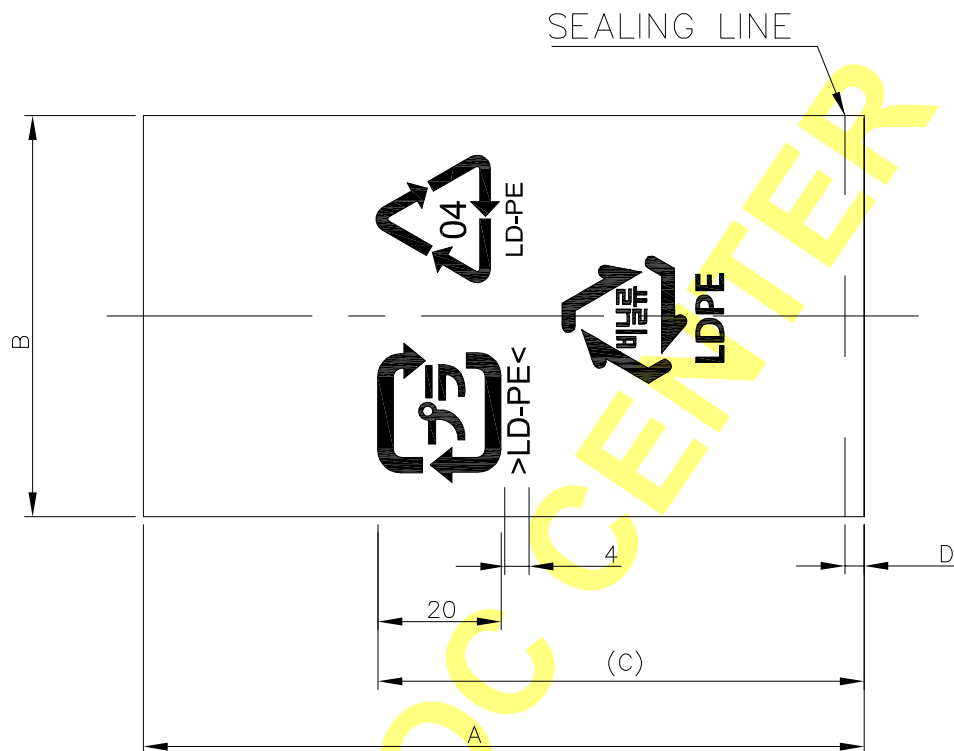
PML

DIMENSIONAL TOLERANCES				HOLES: ±0.05 ANGLES: ±0.5°	
()	(V)	()	()	()	()
<30	: ±0.25	DECIMALS	UP~100 : ±0.2	250~300 : ±0.4	UP~600 : ±1.5
>30~100	: ±0.35	X	100~150 : ±0.25	300~350 : ±0.45	600~900 : ±2.4
>100~300	: ±0.5	XXX	150~200 : ±0.3	350~400 : ±0.5	900~OVER : ±3.1
ABOVE 300	: ±0.6		200~250 : ±0.35		

A3
SIZE

Part No.	REV.
3526652802	02
SHEET 2 OF 2	ISSUE DATE: 11/07'14

SCALE: -- UNIT: mm USED ON: ADP-65JH BBF



DIMENSION					MATERIAL	RECYCLED MARK
A	B	C	D	T	COLOR	COLOR
500	150	120	12	0.06	CLEAR	BLACK

1. MATERIAL: PE POLYETHYLENE. (LOW DENSITY)
2. PRINTING COLOR: BLACK
3. ALL DIM. TOLERANCE SHALL BE ± 1.5 mm

8. BOM (Part List)



ADP-65JH HBAJ CUSTOMER BOM PART LIST

DATE: 2015/11/06							CUSTOMER: COMPAL
REV: 00							
DESCRIPTION	MFG NAME	MFG PART	%	QPA	UNIT	DESIGN NO	Item text 1
RES MOF 2W 240mohm J SMALL FR TVDK P5	TY-OHM ELECTRONIC WORKS CO.,LTD.	RSS2W 0.240HM JPA	0	1.000	PCE	R16	
RES MOF 2W 240mohm J SMALL FR TVDK P5	FUTABA ELECTRIC CO.,LTD.	RSS02JR240FT00NH	100	1.000	PCE	R16	
FUSE T S 3.15A 250V L TP	CONQUER ELECTRONICS CO.,LTD	MST3.15A250V	100	1.000	PCE	F1	
FUSE T S 3.15A 250V L TP	Hollyland(china) electronics techno	5ET-032HA					
FUSE T S 3.15A 250V L TP	Walter Electronic Co Ltd	2010T3.15A	0	1.000	PCE	F1	
RES NTC 470Kohm J 5200K +/-5% TAO5 CTU	THINKING ELECTRONIC INDUSTRIAL CO.,	TTC05474JIYDA1		1.000	PCE	NTC31	
RES NTC 470Kohm J 5200K +/-5% TAO	SEMITEC Corporation	MF11C474JT3C					
CAP Y1/X1 CD 250VAC 470pF K B TP V110	MURATA MANUFACTURING CO.LTD	DE1B3KX471KNHAN99F	100	1.000	PCE	CY1	
CAP Y1/X1 CD 250VAC 470pF K B TP V110	TDK Corporation	CD85-B2GA471KYVK					
CAP Y1/X1 CD 250VAC 470pF K B TP V110	KUNSHAN WANSHENG ELECTRONICS CO.,LT	CT7-Y1-250V-08E-B-471K10UH					
CAP Y1/X1 CD 250VAC 470pF K B TP V110	WALSIN TECHNOLOGY CORPORATION	YP0AH471K071DASRAB	0	1.000	PCE	CY1	
CAP AL LD 25V 680uF M 10*16 TP P5	LUMINOUS TOWN ELECTRIC CO., LTD.	XYD1EM681G16B	0	1.000	PCE	C102	
CAP AL LD 25V 680uF M 10*16 TP P5	TAICON CORPORATION	THD1E681MK10160RC3					
CAP AL LD 25V 680uF M 10*16 TP P5	NIPPON CHEMI-CON CORPORATION	EKZE250ETD681MJ16S					
CAP AL LD 25V 680uF M 10*16 TP P5	RUBYCON CORPORATION	25ZL680MEFCT810*16					
CAP AL LD 25V 680uF M 10*16 TP P5	NICHICON CORPORATION	UHD1E681MPD6TD					
CAP AL LD 25V 680uF M 10*16 TP P5	LUMINOUS TOWN ELECTRIC CO., LTD.	XYD1EM681G16B	0	1.000	PCE	C103	
CAP AL LD 25V 680uF M 10*16 TP P5	TAICON CORPORATION	THD1E681MK10160RC3					
CAP AL LD 25V 680uF M 10*16 TP P5	NIPPON CHEMI-CON CORPORATION	EKZE250ETD681MJ16S					
CAP AL LD 25V 680uF M 10*16 TP P5	RUBYCON CORPORATION	25ZL680MEFCT810*16					
CAP AL LD 25V 680uF M 10*16 TP P5	NICHICON CORPORATION	UHD1E681MPD6TD					
CAP AL LD 25V 680uF M 10*16 TP P5	RUBYCON CORPORATION	25ZLH680MEFCT810*16	100	1.000	PCE	C102	
CAP AL LD 25V 680uF M 10*16 TP P5	TAICON CORPORATION	THH1E681MK10160RC5					
CAP AL LD 25V 680uF M 10*16 TP P5	NIPPON CHEMI-CON CORPORATION	EKZM250ETD681MJ16S					
CAP AL LD 25V 680uF M 10*16 TP P5	RUBYCON CORPORATION	25ZLH680MEFCT810*16	100	1.000	PCE	C103	
CAP AL LD 25V 680uF M 10*16 TP P5	TAICON CORPORATION	THH1E681MK10160RC5					
CAP AL LD 25V 680uF M 10*16 TP P5	NIPPON CHEMI-CON CORPORATION	EKZM250ETD681MJ16S					
CAP AL LD 25V 680uF M 10*16 TP P5	NICHICON CORPORATION	UHD1E681MPD5TD	0	1.000	PCE	C102	
CAP AL LD 25V 680uF M 10*16 TP P5	NICHICON CORPORATION	UHD1E681MPD5TD	0	1.000	PCE	C103	
CAP AL LD 50V 10uF M 5*11 TP K15	NICHICON CORPORATION	UPW1H100MDD1TA	0	1.000	PCE	C31	
CAP AL LD 50V 10uF M 5*11 TP K15	RUBYCON CORPORATION	50YXG10MEFCTA5*11					
CAP AL LD 50V 10uF M 5*11 TP K15	NIPPON CHEMI-CON CORPORATION	EKY-500ETC100ME11D					
CAP AL LD 50V 10uF M 5*11 TP K15	TAICON CORPORATION	TPW1H100MK05110TC1	0	1.000	PCE	C31	
CAP AL LD 50V 10uF M 5*11 TP K15	LUMINOUS TOWN ELECTRIC CO., LTD.	ZGD1HM100D11A	100	1.000	PCE	C31	
CAP AL 400V 120uF M 18*30 P7.5	LUMINOUS TOWN ELECTRIC CO., LTD.	TYL2GM121L300	100	1.000	PCE	C1	
CAP AL 400V 120uF M 18*30 P7.5	NICHICON CORPORATION	UPZ2G121MNDADT					
CAP AL 400V 120uF M 18*30 P7.5	NIPPON CHEMI-CON CORPORATION	EKM0401ELL121MM30S	0	1.000	PCE	C1	
CAP X2 MP PC 275VAC 0.33uF K S15	HUA JUNG COMPONENTS CO., LTD.	MKP-334K0275AB115S	100	1.000	PCE	CX1	
CAP X2 MP PC 305VAC 0.33uF M S15	EPCOS Pte, Ltd.	B32922-C3334-M003					
CAP X2 MP PC 275VAC 0.33uF M S15	KEMET ELECTRONICS CORPORATION	R46K1330JHH2M					
CAP X2 MP PC 310VAC 0.33uF K S15	Sungho Electronics Corp.	CMPPAC310V334K15C7					
CAP X2 MP PC 305VAC 0.33uF K S15	EUROPTRONIC (SINGAPORE) PTE LTD	MPX2334K30B15LX-D43	0	1.000	PCE	CX1	
DIO BRD 2A 800V D3K-4P	GULF SEMICONDUCTOR LIMITED	UG2KB80-47L		1.000	PCE	BD1	
DIO SBD 20A 100V TO-220AB-3P C.C.	STMicroelectronics Asia Pacific Pte	STPS20S100CT	100	1.000	PCE	D101	
PHOTO TR 50mA 80V DIP-4P 150%-300%	EVERLIGHT ELECTRONICS CO., LTD.	EL816M(Y)	100	1.000	PCE	IC51	
PHOTO TR 50mA 70V DIP-4P 160%-300%	SHARP ELECTRONIC COMPONENTS(TAIWAN)	PC123Y92F20F	0	1.000	PCE	IC51	
FET 600V 10A 750mohm TO-220SIS-3P	TOSHIBA CORP.	TK10A60DR(STA4.X)		1.000	PCE	Q1	
FET 620V 8.4A 750mohm TO-220FP-3P	STMicroelectronics Asia Pacific Pte	STF10N62K3					
FET 600V 10A 730mohm TO-220IS-3P	KEC ELECTRONICS CO.,LTD	KF10N60F-U/H					
FET 600V 10A 750mohm TO-220F-3P	AUK CORPORATION	SMK1060F					
TRANSFORMER MAIN RM10 570uH +/-5%	DELTA ELECTRONICS,INC.	MV-MP12574		1.000	PCE	T1	
LINE FILTER T16 7.2mH MIN	DELTA ELECTRONICS,INC.	HFV-MP12171		1.000	PCE	FL2	
EOL CORE BEAD 3.5*1.6*3.25*3.5*3.5 30ohm	TAI-TECH ADVANCED ELECTRONICS CO,LT	W5 RH 3.5*3.25*1.6	100	1.000	PCE	FB101	
CORE BEAD 3.5*1.6*3.25 30ohm F7D	FENGHERYIN CORPORATION	F7D RH 3.5*1.6*3.25					
CORE BEAD 3.5*1.6*3.25 30ohm B29	BEAD AND FERRITE ELECTRONICS (HK)	B29 T 3.5*3.25*1.6					
EOL CORE BEAD 3.5*1.6*3.25*3.5*3.5 30ohm	TAI-TECH ADVANCED ELECTRONICS CO,LT	W5 RH 3.5*3.25*1.6	100	1.000	PCE	FB31	
CORE BEAD 3.5*1.6*3.25 30ohm F7D	FENGHERYIN CORPORATION	F7D RH 3.5*1.6*3.25					
CORE BEAD 3.5*1.6*3.25 30ohm B29	BEAD AND FERRITE ELECTRONICS (HK)	B29 T 3.5*3.25*1.6					
EOL CORE BEAD 3.5*1.6*3.25 30ohm EM2	HORNG YIH ELECTRONICS CO.,LTD	EM2 RH 3.5*3.2*1.6	0	1.000	PCE	FB101	
EOL CORE BEAD 3.5*1.6*3.25 30ohm EM2	HORNG YIH ELECTRONICS CO.,LTD	EM2 RH 3.5*3.2*1.6	0	1.000	PCE	FB31	
JUMP WIRE CU 0.6*10*4				1.000	PCE	J3	
JUMP WIRE CU 0.6*17.5*4				1.000	PCE	J1	
JUMP WIRE CU 0.6*17.5*4				1.000	PCE	J6	
JUMP WIRE CU 0.8*15*4				1.000	PCE	J5	
RES SMD 1/4W 1.5Kohm F 0805	YAGEO CORPORATION	RC0805FR-7W 1K5L	0	1.000	PCE	R43	
RES SMD 1/4W 1.5Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WF08P1501FTL	100	1.000	PCE	R43	
RES SMD 1/4W 0ohm J 1206	YAGEO CORPORATION	RC1206JR-07 0RL	0	1.000	PCE	J2	
RES SMD 1/4W 0ohm J 1206	YAGEO CORPORATION	RC1206JR-07 0RL	0	1.000	PCE	J4	
RES SMD 1/4W 0ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN0R	0	1.000	PCE	J2	
RES SMD 1/4W 0ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN0R	0	1.000	PCE	J4	
RES SMD 1/4W 0ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0000T5E	0	1.000	PCE	J2	
RES SMD 1/4W 0ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0000T5E	0	1.000	PCE	J4	
RES SMD 1/4W 0ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X000 PTL	100	1.000	PCE	J2	
RES SMD 1/4W 0ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X000 PTL	100	1.000	PCE	J4	
RES SMD 1/4W 1.2Mohm J 1206	YAGEO CORPORATION	RC1206JR-07 1M2L	0	1.000	PCE	R1	
RES SMD 1/4W 1.2Mohm J 1206	YAGEO CORPORATION	RC1206JR-07 1M2L	0	1.000	PCE	R2	
RES SMD 1/4W 1.2Mohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN125	0	1.000	PCE	R1	
RES SMD 1/4W 1.2Mohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN125	0	1.000	PCE	R2	
RES SMD 1/4W 1.2Mohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0125T5E	100	1.000	PCE	R1	
RES SMD 1/4W 1.2Mohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0125T5E	100	1.000	PCE	R2	
RES SMD 1/4W 1.2Mohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X125 JTL	0	1.000	PCE	R1	
RES SMD 1/4W 1.2Mohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X125 JTL	0	1.000	PCE	R2	
RES SMD 1/4W 20ohm J 1206	YAGEO CORPORATION	RC1206JR-07 20RL	0	1.000	PCE	R13	
RES SMD 1/4W 20ohm J 1206	YAGEO CORPORATION	RC1206JR-07 20RL	0	1.000	PCE	R14	
RES SMD 1/4W 20ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN200	0	1.000	PCE	R13	
RES SMD 1/4W 20ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN200	0	1.000	PCE	R14	
RES SMD 1/4W 20ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0200T5E	100	1.000	PCE	R13	
RES SMD 1/4W 20ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	1206W4J0200T5E	100	1.000	PCE	R14	
RES SMD 1/4W 20ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X200 JTL	0	1.000	PCE	R13	
RES SMD 1/4W 20ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X200 JTL	0	1.000	PCE	R14	

RES SMD 1/4W 220ohm J 1206	YAGEO CORPORATION	RC1206JR-07 220RL	0	1.000	PCE	R47	
RES SMD 1/4W 220ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN221	0	1.000	PCE	R47	
RES SMD 1/4W 220ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	I206W4J0221T5E	0	1.000	PCE	R47	
RES SMD 1/4W 220ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X221 JTL	100	1.000	PCE	R47	
RES SMD 1/4W 43ohm J 1206	YAGEO CORPORATION	RC1206JR-07 43RL	0	1.000	PCE	R101	
RES SMD 1/4W 43ohm J 1206	YAGEO CORPORATION	RC1206JR-07 43RL	0	1.000	PCE	R102	
RES SMD 1/4W 43ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN430	0	1.000	PCE	R101	
RES SMD 1/4W 43ohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN430	0	1.000	PCE	R102	
RES SMD 1/4W 43ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	I206W4J0430T5E	100	1.000	PCE	R101	
RES SMD 1/4W 43ohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	I206W4J0430T5E	100	1.000	PCE	R102	
RES SMD 1/4W 43ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X430 JTL	0	1.000	PCE	R101	
RES SMD 1/4W 43ohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X430 JTL	0	1.000	PCE	R102	
RES SMD 1/4W 62Kohm J 1206	YAGEO CORPORATION	RC1206JR-07 62KL	0	1.000	PCE	R11	
RES SMD 1/4W 62Kohm J 1206	YAGEO CORPORATION	RC1206JR-07 62KL	0	1.000	PCE	R12	
RES SMD 1/4W 62Kohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN623	0	1.000	PCE	R11	
RES SMD 1/4W 62Kohm J 1206	TA-I TECHNOLOGY CO.,LTD.	RM12JTN623	0	1.000	PCE	R12	
RES SMD 1/4W 62Kohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	I206W4J0623T5E	100	1.000	PCE	R11	
RES SMD 1/4W 62Kohm J 1206	ROYAL ELECTRONIC FTY.CO.,LTD.	I206W4J0623T5E	100	1.000	PCE	R12	
RES SMD 1/4W 62Kohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X623 JTL	0	1.000	PCE	R11	
RES SMD 1/4W 62Kohm J 1206	WALSIN TECHNOLOGY CORPORATION	WR12X623 JTL	0	1.000	PCE	R12	
RES SMD 1/8W 1Kohm F 0805	YAGEO CORPORATION	RC0805FR-07 1KL	0	1.000	PCE	R131	
RES SMD 1/8W 1Kohm F 0805	YAGEO CORPORATION	RC0805FR-07 1KL	0	1.000	PCE	R132	
RES SMD 1/8W 1Kohm F 0805	TA-I TECHNOLOGY CO.,LTD.	RM10FTN1001	0	1.000	PCE	R131	
RES SMD 1/8W 1Kohm F 0805	TA-I TECHNOLOGY CO.,LTD.	RM10FTN1001	0	1.000	PCE	R132	
RES SMD 1/8W 1Kohm F 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8F1001T5E	100	1.000	PCE	R131	
RES SMD 1/8W 1Kohm F 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8F1001T5E	100	1.000	PCE	R132	
RES SMD 1/8W 1Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WR08X1001FTL	0	1.000	PCE	R131	
RES SMD 1/8W 1Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WR08X1001FTL	0	1.000	PCE	R132	
RES SMD 1/8W 3.3Kohm F 0805	YAGEO CORPORATION	RC0805FR-07 3K3L	100	1.000	PCE	R134	
RES SMD 1/8W 3.3Kohm F 0805	TA-I TECHNOLOGY CO.,LTD.	RM10FTN3301	0	1.000	PCE	R134	
RES SMD 1/8W 3.3Kohm F 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8F3301T5E	0	1.000	PCE	R134	
RES SMD 1/8W 3.3Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WR08X3301FTL	0	1.000	PCE	R134	
RES SMD 1/10W 2Kohm F 0603	YAGEO CORPORATION	RC0603FR-07 2KL	0	1.000	PCE	R44	
RES SMD 1/10W 2Kohm F 0603	TA-I TECHNOLOGY CO.,LTD.	RM06FTN2001	0	1.000	PCE	R44	
RES SMD 1/10W 2Kohm F 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAF2001T5E	100	1.000	PCE	R44	
RES SMD 1/10W 2Kohm F 0603	WALSIN TECHNOLOGY CORPORATION	WR06X2001FTL	0	1.000	PCE	R44	
RES SMD 1/8W 22.1Kohm F 0805	YAGEO CORPORATION	RC0805FR-07 22K1L	0	1.000	PCE	R133	
RES SMD 1/8W 22.1Kohm F 0805	TA-I TECHNOLOGY CO.,LTD.	RM10FTN2212	0	1.000	PCE	R133	
RES SMD 1/8W 22.1Kohm F 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8F2212T5E	100	1.000	PCE	R133	
RES SMD 1/8W 22.1Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WR08X2212FTL	0	1.000	PCE	R133	
RES SMD 1/10W 243Kohm F 0603	YAGEO CORPORATION	RC0603FR-07 243KL	0	1.000	PCE	R36	
RES SMD 1/10W 243Kohm F 0603	TA-I TECHNOLOGY CO.,LTD.	RM06FTN2433	100	1.000	PCE	R36	
RES SMD 1/10W 243Kohm F 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAF2433T5E	0	1.000	PCE	R36	
RES SMD 1/10W 243Kohm F 0603	WALSIN TECHNOLOGY CORPORATION	WR06X2433FTL	0	1.000	PCE	R36	
RES SMD 1/8W 510Kohm F 0805	YAGEO CORPORATION	RC0805FR-07 510KL	100	1.000	PCE	R37	
RES SMD 1/8W 510Kohm F 0805	TA-I TECHNOLOGY CO.,LTD.	RM10FTN5103	0	1.000	PCE	R37	
*RES SMD 1/8W 510Kohm F 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8F5103T5E	0	1.000	PCE	R37	
RES SMD 1/8W 510Kohm F 0805	WALSIN TECHNOLOGY CORPORATION	WR08X5103FTL	0	1.000	PCE	R37	
RES SMD 1/10W 0ohm J 0603	YAGEO CORPORATION	RC0603JR-07 0RL	0	1.000	PCE	R40	
RES SMD 1/10W 0ohm J 0603	TA-I TECHNOLOGY CO.,LTD.	RM06JTN0R	0	1.000	PCE	R40	
RES SMD 1/10W 0ohm J 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAJ0000T5E	100	1.000	PCE	R40	
RES SMD 1/10W 0ohm J 0603	WALSIN TECHNOLOGY CORPORATION	WR06X000 PTL	0	1.000	PCE	R40	
RES SMD 1/10W 10ohm J 0603	YAGEO CORPORATION	RC0603JR-07 10RL	0	1.000	PCE	R48	
RES SMD 1/10W 10ohm J 0603	TA-I TECHNOLOGY CO.,LTD.	RM06JTN100	0	1.000	PCE	R48	
RES SMD 1/10W 10ohm J 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAJ0100T5E	100	1.000	PCE	R48	
RES SMD 1/10W 10ohm J 0603	WALSIN TECHNOLOGY CORPORATION	WR06X100 JTL	0	1.000	PCE	R48	
RES SMD 1/8W 10Kohm J 0805	YAGEO CORPORATION	RC0805JR-07 10KL	0	1.000	PCE	R38	
RES SMD 1/8W 10Kohm J 0805	TA-I TECHNOLOGY CO.,LTD.	RM10JTN103	0	1.000	PCE	R38	
RES SMD 1/8W 10Kohm J 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8J0103T5E	100	1.000	PCE	R38	
RES SMD 1/8W 10Kohm J 0805	WALSIN TECHNOLOGY CORPORATION	WR08X103 JTL	0	1.000	PCE	R38	
RES SMD 1/10W 100Kohm J 0603	YAGEO CORPORATION	RC0603JR-07 100KL	0	1.000	PCE	R41	
RES SMD 1/10W 100Kohm J 0603	TA-I TECHNOLOGY CO.,LTD.	RM06JTN104	0	1.000	PCE	R41	
RES SMD 1/10W 100Kohm J 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAJ0104T5E	100	1.000	PCE	R41	
RES SMD 1/10W 100Kohm J 0603	WALSIN TECHNOLOGY CORPORATION	WR06X104 JTL	0	1.000	PCE	R41	
RES SMD 1/10W 3Kohm J 0603	YAGEO CORPORATION	RC0603JR-07 3KL	0	1.000	PCE	R39	
RES SMD 1/10W 3Kohm J 0603	TA-I TECHNOLOGY CO.,LTD.	RM06JTN302	0	1.000	PCE	R39	
RES SMD 1/10W 3Kohm J 0603	ROYAL ELECTRONIC FTY.CO.,LTD.	0603WAJ0302T5E	100	1.000	PCE	R39	
RES SMD 1/10W 3Kohm J 0603	WALSIN TECHNOLOGY CORPORATION	WR06X302 JTL	0	1.000	PCE	R39	
RES SMD 1/8W 33ohm J 0805	YAGEO CORPORATION	RC0805JR-07 33RL	0	1.000	PCE	R42	
RES SMD 1/8W 33ohm J 0805	YAGEO CORPORATION	RC0805JR-07 33RL	0	1.000	PCE	R45	
RES SMD 1/8W 33ohm J 0805	TA-I TECHNOLOGY CO.,LTD.	RM10JTN330	0	1.000	PCE	R42	
RES SMD 1/8W 33ohm J 0805	TA-I TECHNOLOGY CO.,LTD.	RM10JTN330	0	1.000	PCE	R45	
RES SMD 1/8W 33ohm J 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8J0330T5E	100	1.000	PCE	R42	
RES SMD 1/8W 33ohm J 0805	ROYAL ELECTRONIC FTY.CO.,LTD.	0805W8J0330T5E	100	1.000	PCE	R45	
RES SMD 1/8W 33ohm J 0805	WALSIN TECHNOLOGY CORPORATION	WR08X330 JTL	0	1.000	PCE	R42	
RES SMD 1/8W 33ohm J 0805	WALSIN TECHNOLOGY CORPORATION	WR08X330 JTL	0	1.000	PCE	R45	
RES SMD SURGE 1/4W 1Mohm J 1206	TAIWAN KAMAYA ELECTRIC CO.,LTD.	RPC32 105 J TP	100	1.000	PCE	R104	
RES SMD SURGE 1/4W 1Mohm J 1206	WALSIN TECHNOLOGY CORPORATION	WF12S105JTL	0	1.000	PCE	R104	
RES SMD SURGE 1/4W 100ohm J 1206	TAIWAN KAMAYA ELECTRIC CO.,LTD.	RPC32 101 JTP	100	1.000	PCE	R105	
RES SMD SURGE 1/4W 100ohm J 1206	PHYCOMP TAIWAN LTD.	2350 550 10101L	0	1.000	PCE	R105	
CAP MC SMD 50V 22pF J C0G 0603	PHYCOMP TAIWAN LTD.	2238 867 15229	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	TDK Corporation	C1608C0G1H220JT	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	MURATA MANUFACTURING CO.LTD	GRM1885C1H220J	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	AVX/KYOCERA PTE.LTD.	06035A220JAT2A	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	KEMET ELECTRONICS CORPORATION	C0603C220J5GAC	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10C220JB8NFNC	0	1.000	PCE	C35	
CAP MC SMD 50V 22pF J C0G 0603	WALSIN TECHNOLOGY CORPORATION	0603N220J500CT	100	1.000	PCE	C35	
CAP MC SMD 50V 100pF J C0G 0603	PHYCOMP TAIWAN LTD.	2238 867 15101	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	TDK Corporation	C1608C0G1H101JT	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	MURATA MANUFACTURING CO.LTD	GRM1885C1H101J	100	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	AVX/KYOCERA PTE.LTD.	06035A101JAT2A	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	KEMET ELECTRONICS CORPORATION	C0603C101J5GAC	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10C101JB8NFNC	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	HOLY STONE ENTERPRISE CO LTD	C0603N101J050T	0	1.000	PCE	C33	
CAP MC SMD 50V 100pF J C0G 0603	WALSIN TECHNOLOGY CORPORATION	0603N101J500CT	0	1.000	PCE	C33	
CAP MC SMD 50V 220pF J C0G 0603	PHYCOMP TAIWAN LTD.	2238 867 15221	0	1.000	PCE	C36	
CAP MC SMD 50V 220pF J C0G 0603	TDK Corporation	C1608C0G1H221JT	0	1.000	PCE	C36	
CAP MC SMD 50V 220pF J C0G 0603	MURATA MANUFACTURING CO.LTD	GRM1885C1H221J	0	1.000	PCE	C36	
CAP MC SMD 50V 220pF J C0G 0603	AVX/KYOCERA PTE.LTD.	06035A221JAT2A	0	1.000	PCE	C36	
CAP MC SMD 50V 220pF J C0G 0603	KEMET ELECTRONICS CORPORATION	C0603C221J5GAC	0	1.000	PCE	C36	
CAP MC SMD 50V 220pF J C0G 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10C221JB8NFNC	0	1.000	PCE	C36	

CAP MC SMD 50V 220pF J C0G 0603	WALSIN TECHNOLOGY CORPORATION	0603N221J500CT	100	1.000	PCE	C36	
CAP MC SMD 50V 470pF J C0G 0603	PHYCOMP TAIWAN LTD.	2238 867 15471	0	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	TDK Corporation	C1608C0G1H471JT	0	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	MURATA MANUFACTURING CO.LTD	GRM1885C1H471J	0	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	AVX/KYOCERA PTE.LTD.	06035A471JAT2A	0	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	KEMET ELECTRONICS CORPORATION	C0603C471J5GAC	0	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10C471JB8NFNC	100	1.000	PCE	C132	
CAP MC SMD 50V 470pF J C0G 0603	WALSIN TECHNOLOGY CORPORATION	0603N471J500CT	0	1.000	PCE	C132	
CAP MC SMD 50V 0.01uF K X7R 0805	PHYCOMP TAIWAN LTD.	2238 580 15636	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	TDK Corporation	C2012X7R1H103KT	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	MURATA MANUFACTURING CO.LTD	GRM216R71H103K	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	AVX/KYOCERA PTE.LTD.	08055C103KAT2A	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	KEMET ELECTRONICS CORPORATION	C0805C103K5RAC	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL21B103KBANFNC	0	1.000	PCE	C37	
CAP MC SMD 50V 0.01uF K X7R 0805	WALSIN TECHNOLOGY CORPORATION	0805B103K500CT	100	1.000	PCE	C37	
CAP MC SMD 50V 0.1uF K X7R 0603	TDK Corporation	C1608X7R1H104KT	0	1.000	PCE	C131	
CAP MC SMD 50V 0.1uF K X7R 0603	PHYCOMP TAIWAN LTD.	2238 586 15649					
CAP MC SMD 50V 0.1uF K X7R 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10B104KB8NFNC					
CAP MC SMD 50V 0.1uF K X7R 0603	WALSIN TECHNOLOGY CORPORATION	0603B104K500CT					
CAP MC SMD 50V 0.1uF K X7R 0603	MURATA MANUFACTURING CO.LTD	GRM188R71H104K	100	1.000	PCE	C131	
CAP MC SMD 50V 0.1uF K X7R 0805	TDK Corporation	C2012X7R1H104KT	0	1.000	PCE	C104	
CAP MC SMD 50V 0.1uF K X7R 0805	TDK Corporation	C2012X7R1H104KT	0	1.000	PCE	C105	
CAP MC SMD 50V 0.1uF K X7R 0805	MURATA MANUFACTURING CO.LTD	GRM21BR71H104K	100	1.000	PCE	C104	
CAP MC SMD 50V 0.1uF K X7R 0805	MURATA MANUFACTURING CO.LTD	GRM21BR71H104K	100	1.000	PCE	C105	
CAP MC SMD 50V 0.1uF K X7R 0805	KEMET ELECTRONICS CORPORATION	C0805C104K5RAC	0	1.000	PCE	C104	
CAP MC SMD 50V 0.1uF K X7R 0805	KEMET ELECTRONICS CORPORATION	C0805C104K5RAC	0	1.000	PCE	C105	
CAP MC SMD 100V 330pF J C0G 0805	PHYCOMP TAIWAN LTD.	2238 600 11543	0	1.000	PCE	C40	
CAP MC SMD 100V 330pF J C0G 0805	TDK Corporation	C2012C0G2A331JT	0	1.000	PCE	C40	
EOL CAP MC SMD 100V 330pF J C0G 0805	MURATA MANUFACTURING CO.LTD	GRM219S2A331J	0	1.000	PCE	C40	
CAP MC SMD 100V 330pF J C0G 0805	AVX/KYOCERA PTE.LTD.	08051A331JAT2A	0	1.000	PCE	C40	
CAP MC SMD 100V 330pF J C0G 0805	KEMET ELECTRONICS CORPORATION	C0805C331J1GAC	0	1.000	PCE	C40	
CAP MC SMD 100V 330pF J C0G 0805	WALSIN TECHNOLOGY CORPORATION	0805N331J101CT	100	1.000	PCE	C40	
CAP MC SMD 200V 680pF K X7R 0805	PHYCOMP TAIWAN LTD.	2238 930 15621	0	1.000	PCE	C101	
CAP MC SMD 200V 680pF K X7R 0805	TDK Corporation	C2012X7R2D681KT	0	1.000	PCE	C101	
EOL CAP MC SMD 200V 680pF K X7R 0805	MURATA MANUFACTURING CO.LTD	GRM219R72D681K	0	1.000	PCE	C101	
CAP MC SMD 200V 680pF K X7R 0805	AVX/KYOCERA PTE.LTD.	08052C681KAT2A	0	1.000	PCE	C101	
CAP MC SMD 200V 680pF K X7R 0805	KEMET ELECTRONICS CORPORATION	C0805C681K2RAC	0	1.000	PCE	C101	
CAP MC SMD 200V 680pF K X7R 0805	WALSIN TECHNOLOGY CORPORATION	0805B681K201CT	100	1.000	PCE	C101	
CAP MC SMD 25V 1000pF J C0G 0603	PHYCOMP TAIWAN LTD.	2238 916 11549	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	TDK Corporation	C1608C0G1E102JT	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	MURATA MANUFACTURING CO.LTD	GRM1885C1E102J	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	AVX/KYOCERA PTE.LTD.	06033A102JAT2A	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	KEMET ELECTRONICS CORPORATION	C0603C102J3GAC	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL10C102JA8NFNC	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	HOLY STONE ENTERPRISE CO LTD	C0603N102J025T	0	1.000	PCE	C34	
CAP MC SMD 25V 1000pF J C0G 0603	WALSIN TECHNOLOGY CORPORATION	0603N102J250CT	100	1.000	PCE	C34	
CAP MC SMD 25V 1uF K X7R 1206	TDK Corporation	C3216X7R1E105KT	0	1.000	PCE	C38	
CAP MC SMD 25V 1uF K X7R 1206	MURATA MANUFACTURING CO.LTD	GRM31MR71E105K	0	1.000	PCE	C38	
CAP MC SMD 25V 1uF K X7R 1206	AVX/KYOCERA PTE.LTD.	12063C105KAT2A	0	1.000	PCE	C38	
CAP MC SMD 25V 1uF K X7R 1206	KEMET ELECTRONICS CORPORATION	C1206C105K3RAC	0	1.000	PCE	C38	
CAP MC SMD 25V 1uF K X7R 1206	TAIWAN TAIYO YUDEN CO.,LTD.	TMK316B7105KL-T	0	1.000	PCE	C38	
CAP MC SMD 25V 1uF K X7R 1206	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL31B105KAHNFNE	100	1.000	PCE	C38	
CAP MC SMD 25V 4.7uF K X7R 1206	TDK Corporation	C3216X7R1E475KT	0	1.000	PCE	C32	
CAP MC SMD 25V 4.7uF K X7R 1206	TAIWAN TAIYO YUDEN CO.,LTD.	TMK316B7475KL-T					
CAP MC SMD 25V 4.7uF K X7R 1206	MURATA MANUFACTURING CO.LTD	GRM31CR71E475K	0	1.000	PCE	C32	
CAP MC SMD 25V 4.7uF K X7R 1206	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL31B475KAHNFNE	100	1.000	PCE	C32	
CAP MC SMD 1KV 56pF J C0G 1206 1.25	PHYCOMP TAIWAN LTD.	2250 001 11533	0	1.000	PCE	C17	
CAP MC SMD 1KV 56pF J C0G 1206	MURATA MANUFACTURING CO.LTD	GRM31A5C3A560J	100	1.000	PCE	C17	
CAP MC SMD 1KV 56pF J C0G 1206	KEMET ELECTRONICS CORPORATION	C1206C560JDGAC	0	1.000	PCE	C17	
CAP MC SMD 1KV 56pF J C0G 1206	Johanson Dielectrics International	102R18N560JV4E	0	1.000	PCE	C17	
CAP MC SMD 1KV 56pF J C0G 1206	HOLY STONE ENTERPRISE CO LTD	C1206N560J102T	0	1.000	PCE	C17	
CAP MC SMD 1KV 56pF J C0G 1206	WALSIN TECHNOLOGY CORPORATION	1206N560J102CT	0	1.000	PCE	C17	
CAP MC SMD 630V 220pF J C0G 1206 1.25	PHYCOMP TAIWAN LTD.	2222 981 11541	0	1.000	PCE	C39	
CAP MC SMD 630V 220pF J C0G 1206	TDK Corporation	C3216C0G2J221JT	0	1.000	PCE	C39	
CAP MC SMD 630V 220pF J C0G 1206	MURATA MANUFACTURING CO.LTD	GRM31A5C2J221J	0	1.000	PCE	C39	
CAP MC SMD 630V 220pF J C0G 1206	Johanson Dielectrics International	631R18N221JV4E	0	1.000	PCE	C39	
CAP MC SMD 630V 220pF J C0G 1206	HOLY STONE ENTERPRISE CO LTD	C1206N221J631T	0	1.000	PCE	C39	
CAP MC SMD 630V 220pF J C0G 1206	WALSIN TECHNOLOGY CORPORATION	1206N221J631CT	100	1.000	PCE	C39	
CAP MC SMD 630V 3300pF J C0G 1206	TDK Corporation	C3216C0G2J332JT	0	1.000	PCE	C15	
CAP MC SMD 630V 3300pF J C0G 1206	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL31C332JHHNFNE	100	1.000	PCE	C15	
CAP MC SMD 630V 3300pF J C0G 1206	HOLY STONE ENTERPRISE CO LTD	C1206N332J631T	0	1.000	PCE	C15	
CAP MC SMD 630V 0.022uF K X7R 1206	TDK Corporation	C3216X7R2J223KT	0	1.000	PCE	C21	
CAP MC SMD 630V 0.022uF K X7R 1206	PHYCOMP TAIWAN LTD.	2222 981 15641					
CAP MC SMD 630V 0.022uF K X7R 1206	WALSIN TECHNOLOGY CORPORATION	1206B223K631CT					
CAP MC SMD 630V 0.022uF K X7R 1206	SAMSUNG ELECTRO-MECHANICS CO., LTD.	CL31B223KHHNFNE	100	1.000	PCE	C21	
DIO ZEN 0.4W 15.85-16.51V SOD-323-2P SMD	NXP Semiconductors	PDZ16B	100	1.000	PCE	ZD31	
DIO ZEN 0.4W 15.85-16.51V SOD-323F-2P	DIODES INC.	D3Z16BF-7					
DIO ZEN 0.4W 15.85-16.51V SOD-323-2P SMD	LITE-ON SEMICONDUCTOR CORP.	UDZS16B					
DIO ZEN 0.4W 15.85-16.51V SOD-323-2P SMD	PAN JIT INTERNATIONAL INC.	PDZ16B	0	1.000	PCE	ZD31	
DIO SW 250mA 100V SOD-323-2P SMD	NXP Semiconductors	BAS316	100	1.000	PCE	D32	
DIO SW 200mA 100V SOD-323-2P SMD	ON Semiconductor Corporation	MMDL914T1G					
DIO SW 150mA 100V SOD-323-2P SMD	VISHAY SEMICONDUCTOR	1N4148WS-E3-08					
DIO SW 250mA 100V SOD-323-2P SMD	NXP Semiconductors	BAS316	100	1.000	PCE	D35	
DIO SW 150mA 100V SOD-323-2P SMD	VISHAY SEMICONDUCTOR	1N4148WS-E3-08					
DIO SW 200mA 100V SOD-323-2P SMD	PAN JIT INTERNATIONAL INC.	1N4148WS T/R	0	1.000	PCE	D32	
DIO SW 200mA 100V SOD-323-2P SMD	PAN JIT INTERNATIONAL INC.	1N4148WS T/R	0	1.000	PCE	D35	
DIO SW 100mA 90V UMD2-2P SMD	ROHM CO.,LTD.	1SS355VM TE-17	0	1.000	PCE	D32	
DIO SW 100mA 90V UMD2-2P SMD	ROHM CO.,LTD.	1SS355VM TE-17	0	1.000	PCE	D35	
DIO SW 200mA 100V SOD-323-2P SMD	ON Semiconductor Corporation	MMDL914T1G	0	1.000	PCE	D35	
DIO SI 1A 1KV SMA-2P SMD	PAN JIT INTERNATIONAL INC.	GS1MH T/R		1.000	PCE	D1	
DIO SI 1A 1KV SMA-2P SMD	FAGOR ELECTRONICA, S. COOP	FS1M					
DIO SI 1A 1KV SMA-2P SMD	DIODES INC.	FS1M-13-F					
DIO SI 1A 1KV SMA-2P SMD	GULF SEMICONDUCTOR LIMITED	GS1M-E-47L					
DIO SI 1A 1KV SMA-2P 1000 ≤Trr ≤2000ns SMD	LITE-ON SEMICONDUCTOR CORP.	S1M					
DIO SI 1A 1KV SMA-2P SMD	VISHAY SEMICONDUCTOR	S1M-E361T	0	1.000	PCE	D31	
DIO SI 1A 1KV SMA-2P SMD	VISHAY SEMICONDUCTOR	S1M-E361T	0	1.000	PCE	D34	
DIO SI 1A 1KV SMA-2P SMD	PAN JIT INTERNATIONAL INC.	GS1MH T/R	100	1.000	PCE	D31	
DIO SI 1A 1KV SMA-2P SMD	FAGOR ELECTRONICA, S. COOP	FS1M					
DIO SI 1A 1KV SMA-2P SMD	DIODES INC.	S1M-13-F					
DIO SI 1A 1KV SMA-2P SMD	GULF SEMICONDUCTOR LIMITED	GS1M-E-47L					
DIO SI 1A 1KV SMA-2P 1000 ≤Trr ≤2000ns SMD	LITE-ON SEMICONDUCTOR CORP.	S1M					

DIO SI 1A 1KV SMA-2P SMD	PAN JIT INTERNATIONAL INC.	GS1MH T/R	100	1.000	PCE	D34	
DIO SI 1A 1KV SMA-2P SMD	FAGOR ELECTRONICA, S. COOP	FS1M					
DIO SI 1A 1KV SMA-2P SMD	DIODES INC.	S1M-13-F					
DIO SI 1A 1KV SMA-2P SMD	GULF SEMICONDUCTOR LIMITED	GS1M-E-47L					
DIO SI 1A 1KV SMA-2P 1000 ≤Trr≤2000ns SMD	LITE-ON SEMICONDUCTOR CORP.	S1M					
TR -40V -600mA SOT-23-3P 100 SMD	ON Semiconductor Corporation	MMBT4403LT1G		1.000	PCE	Q31	
TR -40V -600mA SOT-23-3P 100-300 SMD	KEC ELECTRONICS CO.,LTD	KN4403S RTK/P					
TR -40V -600mA SOT-23-3P 100-300 SMD	DIODES INC.	MMBT4403-7-F					
LED GRN 2012 SMD WC RECT	KINGBRIGHT ELECTRONIC CO., LTD.	KPT-2012CGCK-AT		1.000	PCE	LED101	
IC VOL REF ADJ 2.495V 100mA 0.5%	TEXAS INSTRUMENTS	TL432BIDBZR	0	1.000	PCE	IC131	
IC REGU ADJ 2.495V 100mA 0.4% SOT-23R-3P	LITE-ON SEMICONDUCTOR CORP.	LA431OCRPA					
IC VOL REF ADJ 2.495V 100mA 0.5%	NXP Semiconductors	TL431BMFDT					
IC VOL REF ADJ 2.5V 100mA 0.5% SOT-23-3P	DIODES INC.	AS431ANTR-G1	100	1.000	PCE	IC131	
IC ASIC PWM CURRENT MODE TSOP-6P SMD	DELTA	DAP022ASN65T1G		1.000	PCE	IC31	
IC ASIC PWM CURRENT MODE SOT-26-6P SMD	DELTA	DAP022AE					
PWB S 0 E2 FR-1 102*39.1*1.2	SHYE FENG			1.000	PCE	PWB	
	KEEN RICH						
	WANNIENFU						
	HSIANG KUO						
	GLORY FAITH						
	DRACO						
	KUNSHAN WANYUANTONG						
	CHIN POON						
	WINGLUNG						
DC POWER CORD PLUG L1800 BLK ADP-65WH	CAROL			1.000	PCE		
	CHIANGYU						
	EVERFULL						
	FONG MA(2012/07/30)						
	FOXCONN						
	HONG LIN(2013/10/1)						
	JI-HAW						
	LCH (2009/03/11)						
	LIU YUANE (2009/03/11)						
	PRIMAX(2013/10/1)						
	WENTAI						
	WORLDTEC (2010/04/15)						
SCREW M M3*0.5*7 FLAT C S18C ZN NL	DURABLE (2008/04/26)			1.000	PCE		FOR Q1
	GREAT STAR						
	GREAT-GOLD						
	KIM KUAO LENG						
	KUAO LENG						
	LIAN SHUENN						
	LIANYING						
	SCREWTECH (2009/03/11)						
SCREW M M3*0.5*6 FLAT C S18C ZN NL	DURABLE (2008/04/26)			1.000	PCE		FOR D101
	GREAT STAR						
	GREAT-GOLD						
	KIM KUAO LENG						
	KUAO LENG						
	LIAN SHUENN						
	LIANYING						
	SCREWTECH (2009/03/11)						
NUT HEXH M3*2.4 S17C ZN	DURABLE (2008/04/26)			2.000	PCE		FOR Q1,D101
	GREAT STAR						
	GREAT-GOLD						
	KIM KUAO LENG						
	KUAO LENG						
	LIAN SHUENN						
	LIANYING						
	SCREWTECH (2009/03/11)						
TAPE PAPER 6mm CM3XK WHT	Symbio,Inc.	CM3XK W=6		60.000	MMT		
TAPE PP 76mm PP47 CLEAR	DONGGUAN CITY SHIJIE JINHUI PACKING	BOPP W=72		29.000	MMT		
TAPE PLE 26mm 3L #1350F-1 YEL	Minnesota Mining Manufacture Co.,	#1350F-1 W=26 3L		35.000	MMT		FOR T1
TAPE PAPER 6mm GTN9 YEL	Symbio,Inc.	GTN9 W=6		60.000	MMT		
PAD SIRUB V-0 8*3*2.5 BLK				2.000	PCE		
PAD PC V-0 7.4*3.8*2.5 BLK				1.000	PCE		FOR HSK2
LABEL PACKING PLE 30*20 T0.15 SADP-65KB	BAE YI			1.000	PCE		FOR CAUTION LABEL
	CYMMETRIK						
	FAN JA (HONG YANG)						
	HINSITSU(2013/02/01)						
	MAE MAE						
	SUNWAY						
	WINGEN-TECH (2012/03/15)						
	YONGTA						
LABEL PACKING ART PAPER 152*101 T0.125	BAE YI			20.834	TP		FOR CARTON LABEL
	CYMMETRIK						
	FAN JA (HONG YANG)						
	HINSITSU(2013/02/01)						
	MAE MAE						
	SUNWAY						
	WINGEN-TECH (2012/03/15)						
	YONGTA						
LABEL BARCODE ART PAPER 80*12 T0.01	BAE YI			20.834	TP		FOR COMPAL CCC CARTON LABEL
	CYMMETRIK						
	FAN JA (HONG YANG)						
	HINSITSU(2013/02/01)						
	MAE MAE						
	SUNWAY						
	WINGEN-TECH (2012/03/15)						
	YONGTA						
LABEL SPEC PLE 70*32.5 T0.175 ADP-65JH	BAE YI			1.000	PCE		FOR SPEC LABEL
	CYMMETRIK						
	FAN JA (HONG YANG)						
	HINSITSU(2013/02/01)						
	MAE MAE						
	SUNWAY						
	WINGEN-TECH (2012/03/15)						
	YONGTA						

CASE COVER PC V-0 108*46*14.8 BLK	BAYER	MAKROLON 6485	0	1.000	PCE	SABIC 945
	CHEIL (SAMSUNG) (2012/09/01)	INFINO HN-1064				
	CHEIL (SAMSUNG)(2009/10/30)	INFINO HN-1064I				
	IDEMITSU (2014/4/24)	AZ2201				
	SABIC	LEXAN 945				
	TEIJIN	PANLITE MN-3600H				
	TEIJIN (2007/12/18)	PANLITE LN-2520HB				
	TRINSEO (2015/02/02)	CELEX 3600				
	TRINSEO (2015/02/02)	EMERGE 8600				
CASE COVER PC V-0 108*46*14.8 BLK	BAYER	MAKROLON 6485	100	1.000	PCE	STYRON 3600
	CHEIL (SAMSUNG) (2012/09/01)	INFINO HN-1064				
	CHEIL (SAMSUNG)(2009/10/30)	INFINO HN-1064I				
	IDEMITSU (2014/4/24)	AZ2201				
	SABIC	LEXAN 945				
	TEIJIN	PANLITE MN-3600H				
	TEIJIN (2007/12/18)	PANLITE LN-2520HB				
	TRINSEO (2015/02/02)	CELEX 3600				
	TRINSEO (2015/02/02)	EMERGE 8600				
CASE CHASSIS PC V-0 108*46*14 BLK	BAYER	MAKROLON 6485	0	1.000	PCE	SABIC 945
	CHEIL (SAMSUNG) (2012/09/01)	INFINO HN-1064				
	CHEIL (SAMSUNG)(2009/10/30)	INFINO HN-1064I				
	IDEMITSU (2014/4/24)	AZ2201				
	SABIC	LEXAN 945				
	TEIJIN	PANLITE MN-3600H				
	TEIJIN (2007/12/18)	PANLITE LN-2520HB				
	TRINSEO (2015/02/02)	CELEX 3600				
	TRINSEO (2015/02/02)	EMERGE 8600				
CASE CHASSIS PC V-0 108*46*14 BLK	BAYER	MAKROLON 6485	100	1.000	PCE	STYRON 3600
	CHEIL (SAMSUNG) (2012/09/01)	INFINO HN-1064				
	CHEIL (SAMSUNG)(2009/10/30)	INFINO HN-1064I				
	IDEMITSU (2014/4/24)	AZ2201				
	SABIC	LEXAN 945				
	TEIJIN	PANLITE MN-3600H				
	TEIJIN (2007/12/18)	PANLITE LN-2520HB				
	TRINSEO (2015/02/02)	CELEX 3600				
	TRINSEO (2015/02/02)	EMERGE 8600				
HSK STAMP AL1100F 33.1*7*20.5 T1 AS	BO YI XING			1.000	PCE	FOR HSK2
	CHIN I					
	COMMUWELL					
	DA-LIXING					
	DATANG (2009/03/11)					
	FANG KAI (2009/03/11)					
	FENGDE (2014/08/15)					
	HENG YU					
	HOO THAI					
	JIANG TONG					
	LEMAY (2012/03/15)					
	SHEUSHENG (2014/03/20)					
	SPRING (2009/10/30)					
	WAN CHENG (2008/01/10)					
	WEISHENG					
	YUYANG (2010/10/06)					
	ADVANCE					
	BONTECK (2015/02/25)					
	CHUANGXING					
	CSP					
	FOUN YU					
	FUCHIA					
	GATETECH (2012/07/30)					
	HENGDA (2012/07/30)					
	HONGPIN (2015/02/25)					
	LEMAY(2012/03/15)					
	SINCHI					
	TONG YU (2015/02/25)					
	TONGSHI					
	WAN CHENG (2012/07/30)					
HSK STAMP AL1100F 55*26.5*20.5 T1	BO YI XING			1.000	PCE	
	CHIN I					
	COMMUWELL					
	DA-LIXING					
	DATANG (2009/03/11)					
	FANG KAI (2009/03/11)					
	FENGDE (2014/08/15)					
	HENG YU					
	HOO THAI					
	JIANG TONG					
	LEMAY (2012/03/15)					
	SHEUSHENG (2014/03/20)					
	SPRING (2009/10/30)					
	WAN CHENG (2008/01/10)					
	WEISHENG					
	YUYANG (2010/10/06)					
	ADVANCE					
	BONTECK (2015/02/25)					
	CHUANGXING					
	CSP					
	FOUN YU					
	FUCHIA					
	GATETECH (2012/07/30)					
	HENGDA (2012/07/30)					
	HONGPIN (2015/02/25)					
	LEMAY(2012/03/15)					
	SINCHI					
	TONG YU (2015/02/25)					
	TONGSHI					
	WAN CHENG (2012/07/30)					
SHIELD AL 84.7*41*25.5*0.3 PICKLING	CGC (2013/02/01)			1.000	PCE	
	CHIN I (2013/02/01)					
	CHON YANG					
	COMMUWELL					
	HENG YU					
	HOO THAI					
	KOSUN (2013/02/01)					
	U-MORE (2011/10/25)					
	WAN CHENG (2009/03/11)					
SOCKET ASSY 30304095XX ADP-65JH BBF				1.000	PCE	

WIRE+TERM 1430 #22 BLK L95	CAROL			1.000	PCE		FOR FG WIRE
	CHEAR MINE (2008/03/13)						
	DENKA KOGYO (2008/12/01)						
	EVERFULL (2008/12/01)						
	FOXCONN (2008/05/30)						
	HOO CHIN (2008/12/01)						
	JIANN TAY						
	MOLEX (2008/12/01)						
	OULY(2011/02/08)						
	SUHUA(2011/02/08)						
	WALEX (2009/4/23)						
	YI YI (2008/05/30)						
SHIELD ASSY ADP-65JH HBA	CGC (2013/02/01)		100	1.000	PCE		
	CHIN I (2013/02/01)						
	CHON YANG						
	COMMUWELL						
	HENG YU						
	HOO THAI						
	KOSUN (2013/02/01)						
	U-MORE (2011/10/25)						
	WAN CHENG (2009/03/11)						
SHIELD ASSY ADP-65JH HBA	CGC (2013/02/01)		0	1.000	PCE		
	CHIN I (2013/02/01)						
	CHON YANG						
	COMMUWELL						
	HENG YU						
	HOO THAI						
	KOSUN (2013/02/01)						
	U-MORE (2011/10/25)						
	WAN CHENG (2009/03/11)						

9. Safety License





СЕРТИФИКАТ СООТВЕТСТВИЯ

№ TC RU C-TW.AG21.B.00858

Серия RU № 0087372

ОРГАН ПО СЕРТИФИКАЦИИ продукции "ГОСТ-АЗИЯ РУС" АНО "Центр "ГОСТ АЗИЯ РУС" по подтверждению соответствия продукции и иных объектов, процессов, работ и услуг стандартам, регламентам, правилам и договорам", Адрес: 115191, Россия, г. Москва, ул. 2-ая Рощинская, д. 10; Телефон: +7 (495) 6400914, +7 (499) 2530157; Факс: +7 (495) 6400914, +7 (499) 2530155, E-mail: gostasia@umail.ru, standard@umail.ru, Аттестат рег. № РОСС RU.0001.11AG21, выдан 16.03.2011 Федеральным агентством по техническому регулированию и метрологии

ЗАЯВИТЕЛЬ

Delta Electronics, Inc., Адрес: 3 Tungyuan Road, Chungli Industrial Zone, Taoyuan County 32063, Taiwan (Тайвань)
Телефон: +886-3-4526107, доб. 6488, Факс: +886-3-4527314, E-mail: tom.jw.chen@delta.com.tw

ИЗГОТОВИТЕЛЬ

Delta Electronics, Inc., Адрес: 3 Tungyuan Road, Chungli Industrial Zone, Taoyuan County 32063, Taiwan (Тайвань)
(фабрики-изготовители согласно приложению, бланк № 0069015)

ПРОДУКЦИЯ

Блоки питания для информационной техники Delta Electronics, Inc. модель ADP-65JH HB, изготовлены в соответствии с TP TC 004/2011, TP TC 020/2011
Серийный выпуск

КОД ТН ВЭД ТС 8504 40 900 8

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ

Технического регламента Таможенного союза TP TC 004/2011 "О безопасности низковольтного оборудования";
Технического регламента Таможенного союза TP TC 020/2011 "Электромагнитная совместимость технических средств"

СЕРТИФИКАТ ВЫДАН НА ОСНОВАНИИ

- протокола испытаний № 9/39I04G от 16.04.2014, выданного "Испытательной лабораторией электротехнических изделий" (ИЛ ЭТИ ТЕСТ РПЭМ), аттестат аккредитации № РОСС RU.0001.21MO54 (срок действия 27.07.2011 по 27.07.2016);
- отчета по результатам анализа состояния производства № ОАП-94 от 22.10.2013, выданного органом по сертификации продукции "ГОСТ-АЗИЯ РУС", аттестат аккредитации № РОСС RU.0001.11AG21 (срок действия с 16.03.2011 по 16.03.2016).

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

Срок службы продукции 5 лет.
Мощность устройства: 65 Вт.

СРОК ДЕЙСТВИЯ С

18.04.2014

ПО

17.04.2019

ВКЛЮЧИТЕЛЬНО



Руководитель (уполномоченное
лицо) органа по сертификации

Эксперт (эксперт-аудитор)
(эксперты (эксперты-аудиторы))

(подпись)
(подпись)

В. Ф. Воробьев

(инициалы, фамилия)

С. А. Злобина

(инициалы, фамилия)

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ТС RU C-TW.AG21.B.00858

Серия RU № 0069015

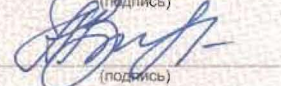
Перечень фабрик-изготовителей продукции, на которую распространяется действие
сертификата соответствия

Полное наименование фабрики-изготовителя	Адрес (место нахождения)
1. Delta Electronics (Jiangsu) Ltd.	No. 1688, Jiangxing East Road, Wujiang Economic Development Zone, Wujiang City, Jiangsu Province 215200, P.R. China (Китай)
2. Delta Electronics (Thailand) Public Co., Ltd.	909 Soi 9 Moo 4, Bangpoo Industrial Estate (E.P.Z.), Pattana 1 Rd., Tambol Phraksa, Amphur Muang, Samutprakarn 10280, Thailand (Таиланд)



Руководитель (уполномоченное
лицо) органа по сертификации

Эксперт (эксперт-аудитор)
(эксперты (эксперты-аудиторы))

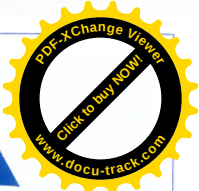

(подпись)

(подпись)

В. Ф. Воробьев

(инициалы, фамилия)

С. А. Злобина

(инициалы, фамилия)

**Zertifikat****Certificate****Zertifikat Nr. Certificate No.**
S 50241590**Blatt Page**
0001

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis	Latest expiration date
113162858	ZTW1-WLE- 10024160 022	18.11.2017	(day/mo/yr)

Genehmigungsinhaber License Holder
 Delta Electronics, Inc.
 3 Tungyuan Road
 Chungli Industrial Zone
 Taoyuan County 32063
 Taiwan

Fertigungsstätte Manufacturing Plant
 Delta Electronics (Jiangsu) Ltd.
 No. 1688, Jiangxing East Road
 Wujiang Economic Development Zone
 Wujiang City, Jiangsu Province 215200
 P.R. China
Prüfzeichen Test Mark
Geprüft nach Tested acc. to
 EN 60950-1:2006+A11+A1+A12
 ZEK 01.4-08/11.11

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)
Lizenzentgelte - Einheit
License Fee - Unit
Schaltnetzteil (AC/DC Adapter (AC adapter))

Bezeichnung (Type Designation)	: ADP-65JH BX	8
X steht für (stands for)	: B, C oder (or) D	1
Nennspannung (Rated Voltage)	: AC 100-240V, 50-60Hz	
Nennstrom (Rated Current)	: 1.5A	
Ausgang (Output)	: DC 19V / 3.42A (X=B) DC 19.5V / 3.33A (X=C) DC 20V / 3.25A (X=D)	
max. Umgebungstemperatur (max. Ambient Temperature)	: 40°C	
Schutzklasse (Protection Class)	: I	
max. Betrieshöhe (max. Operating Altitude)	: 10,000ft/3048m	

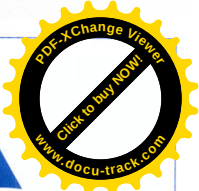
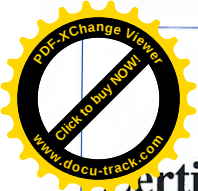
Hinweis: Dieses Netzgerät ist geprüft und erfüllt die Anforderungen nach Abschnitt 2.5 als Stromquelle mit begrenzter Leistung. (Remark: The equipment is also tested and complies with sub-clause 2.5 as limited power source.)

9

ANLAGE (Appendix): 1.1
 Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
 Produkt und Fertigungsstätte erfüllen § 20 und § 21 des
 Produktsicherheitsgesetzes.

 This certificate is based on our Testing and Certification Regulation.
 Product and production fulfill par § 20 and § 21 of the
 Product Safety Law.

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
 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
Ausstellungsdatum Date of Issue : 19.11.2012 (day/mo/yr)**Zertifizierungsstelle****Dipl.-Ing. F. Stoelzel**



Zertifikat Certificate



Zertifikat Nr. Certificate No.
S 50241590

Blatt Page
0002

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis Latest expiration date (day/mo/yr)
113162858	ZTW1-WLE- 10024160 022	18.11.2017

Genehmigungsinhaber License Holder
Delta Electronics, Inc.
3 Tungyuan Road
Chungli Industrial Zone
Taoyuan County 32063
Taiwan

Fertigungsstätte Manufacturing Plant
Delta Electronics (Jiangsu) Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiangsu Province 215200
P.R. China

Prüfzeichen Test Mark

Geprüft nach Tested acc. to
EN 60950-1:2006+A11+A1+A12
ZEK 01.4-08/11.11



Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter (AC adapter))

wie Blatt (as page) 01, Ergänzung (Addition)

Bezeichnung (Type Designation)	1) ADP-65JH DX	1
	2) ADP-65MH B	1
	3) ADP-60ZH D	1
	4) ADP-65JH BA	1
	5) ADP-65JH T	1
	6) PA3714E-1AC3 (TOSHIBA)	1
	7) ADP-65JH BB (ASUS)	1

X steht für (stands for): B, C oder (or) D

Ausgang : 1), 2), 5), 6), 7) DC 19V/3.42A (X=B);

(Output) 3) DC 19V/3.16A; 1) DC 19.5V/3.33A (X=C);

1) DC 20V/3.25A (X=D); 4) DC 18.5V/3.51A

max. Umgebungstemperatur : 40°C (except for ADP-65JH T)

(max. Ambient Temperature) 35°C (ADP-65JH T)

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): 1.1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Produkt und Fertigungsstätte erfüllen § 20 und § 21 des Produktsicherheitsgesetzes.

This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par § 20 and § 21 of the Product Safety Law.

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com

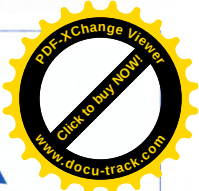
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Ausstellungsdatum Date of Issue : 19.11.2012 (day/mo/yr)

Zertifizierungsstelle



Dipl.-Ing. F. Stöelzel



Zertifikat

Certificate



Zertifikat Nr. Certificate No.
S 50241590

Blatt Page
0003

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis	Latest expiration date
113162858	ZTW1-WLE- 10024160 022	18.11.2017	(day/mo/yr)

Genehmigungsinhaber License Holder
Delta Electronics, Inc.
3 Tungyuan Road
Chungli Industrial Zone
Taoyuan County 32063
Taiwan

Fertigungsstätte Manufacturing Plant
Delta Electronics (Thailand) Public
Co., Ltd.
909 Soi 9 Moo 4, Bangpoo Industrial
Estate (E.P.Z.), Pattana 1 Rd.
Tambol Phraksa, Amphur Muang,
Samutprakarn 10280
Thailand

Prüfzeichen Test Mark



Geprüft nach Tested acc. to
EN 60950-1:2006+A11+A1+A12
ZEK 01.4-08/11.11

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter (AC adapter))

wie Blatt (as page) 01

Ergänzung
(Addition)

Fertigungsstätte: siehe oben
(Factory) (see above)

ANLAGE (Appendix): 1.1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Produkt und Fertigungsstätte erfüllen § 20 und § 21 des
Produktsicherheitsgesetzes.
This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par § 20 and § 21 of the
Product Safety Law.

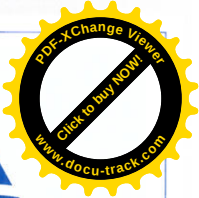
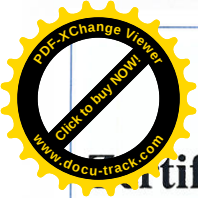
TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Ausstellungsdatum Date of Issue : 19.11.2012 (day/mo/yr)

Zertifizierungsstelle



Dipl.-Ing. R. Stoezel



Zertifikat

Certificate



TÜVRheinland

Zertifikat Nr. Certificate No.
S 50241590

Blatt Page
0004

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis Latest expiration date
MPBU-TW-201303020	ZTW1-MAL- 10024160 023	18.11.2017 (day/mo/yr)

Genehmigungsinhaber License Holder
Delta Electronics, Inc.
3 Tungyuan Road
Chungli Industrial Zone
Taoyuan County 32063
Taiwan

Fertigungsstätte Manufacturing Plant
Delta Electronics (Jiangsu) Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiangsu Province 215200
P.R. China

Prüfzeichen Test Mark



www.tuv.com
ID 1000000000

Geprüft nach Tested acc. to
EN 60950-1:2006+A11+A1+A12
ZEK 01.4-08/11.11

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter (AC adapter))

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH DB
(Addition for Type Designation)

Bezeichnung : ADP-65JH HB
(Type Designation)

1

max. Betriebshöhe : 5000m
(max. Operating Altitude)

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

1

ANLAGE (Appendix): 1.1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Produkt und Fertigungsstätte erfüllen § 20 und § 21 des Produktsicherheitsgesetzes.
*This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par § 20 and § 21 of the Product Safety Law.*

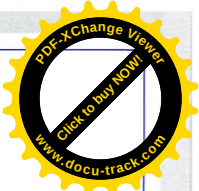
TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Ausstellungsdatum Date of Issue : 12.04.2013 (day/mo/yr)

Zertifizierungsstelle



Dipl.-Ing. F. Stözel



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50241590

Blatt *Page*
0005

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
MPBU-TW-201403035	ZTW1-WLE- 10024160 025	18.11.2017 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3 Tungyuan Road
Chungli Industrial Zone
Taoyuan County 32063
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiangsu) Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiangsu Province 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2006+A11+A1+A12
ZEK 01.4-08/11.11

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

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter (AC adapter))

wie Blatt (as page) 01

Ergänzung
(Addition)

Bezeichnung : ADP-65JH HB (hp)
(Type Designation)

1

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

1

ANLAGE (Appendix): 1.1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Produkt und Fertigungsstätte erfüllen § 20 und § 21 des Produktsicherheitsgesetzes.
*This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par § 20 and § 21 of the Product Safety Law.*

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
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

Ausstellungsdatum *Date of Issue* : 15.04.2014 (day/mo/yr)

Zertifizierungsstelle

Dipl.-Ing. F. Staelzel



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0001

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
SE48111205	ZTW1-AKN- 10024160 001	18.11.2013 (day/mo/yr)

Genehmigungsinhaber *License Holder*

Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*

Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01-08/01.08

Zertifiziertes Produkt <i>(Geräteidentifikation)</i>	Lizenzentgelte - Einheit <i>License Fee - Unit</i>
Certified Product <i>(Product Identification)</i>	

Schaltnetzteil (AC/DC Adapter)

Bezeichnung (Type Designation)	: ADP-65JH BX	8
X steht für (stands for)	: B, C oder (or) D	1
Nennspannung (Rated Voltage)	: AC 100-240V, 50-60Hz	
Nennstrom (Rated Current)	: 1.5A	
Ausgang (Output)	: DC 19V / 3.42A (X=B) DC 19.5V / 3.33A (X=C) DC 20V / 3.25A (X=D)	
max. Umgebungstemperatur (max. Ambient Temperature)	: 40°C	
Schutzklasse (Protection Class)	: I	



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

9

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. F. Stöelzel

Ausstellungsdatum *Date of Issue* : 19.11.2008 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0002

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
SE48111205	ZTW1-AKN- 10024160 001	18.11.2013 (day/mo/yr)

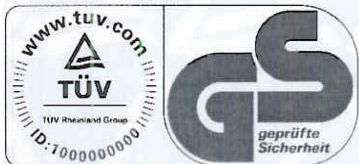
Genehmigungsinhaber *License Holder*

Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*

Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01-08/01.08

Zertifiziertes Produkt <i>(Geräteidentifikation)</i>	Lizenzentgelte - Einheit <i>License Fee - Unit</i>
<i>Certified Product (Product Identification)</i>	

Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung
(Addition)

Bezeichnung : ADP-65JH DX
(Type Designation)

X steht für : B, C oder (or) D
(stands for)



1

1

2

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.*

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. Stoelzel

Ausstellungsdatum *Date of Issue* : 19.11.2008 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0003

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
SE48111205	ZTW1-AKN- 10024160 001	18.11.2013 (day/mo/yr)

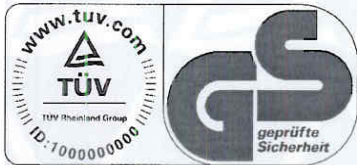
Genehmigungsinhaber *License Holder*

Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*

Delta Electronics (Thailand) Public
Co., Ltd.
909 Soi 9, Moo 4, Bangpoo Ind.
Estate (E.P.Z.), Pattana 1 Road
Tambol Phraksa, Amphur Muang
Samutprakarn 10280
Thailand

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01-08/01.08

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung
(Addition)

Fertigungsstätte: siehe oben
(Factory) (see above)



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.*

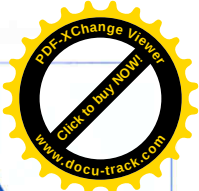
TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln

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. Stoezel

Ausstellungsdatum *Date of Issue* : 19.11.2008 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0004

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i> (day/mo/yr)
SE49020405	ZTW1-KKC- 10024160 002	18.11.2013

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01.1-08/06.08

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH BB
(Addition for Type Designation)

Bezeichnung : PA3714E-1AC3 (TOSHIBA)
(Type Designation)



1

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

1

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.

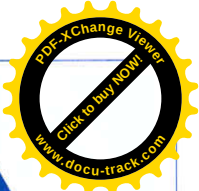
*This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the
German Equipment and Product Safety Law.*

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. Stöelzel

Ausstellungsdatum *Date of Issue* : 09.02.2009 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

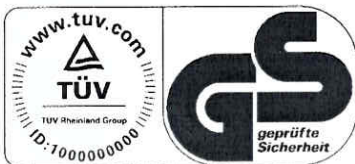
Blatt *Page*
0005

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i> (day/mo/yr)
SE49031209	ZTW1-AKN- 10024160 003	18.11.2013

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01.2-08/12.08

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

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH BB
(Addition for Type Designation)

Bezeichnung : ADP-65MH B
(Type Designation)



1

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

1

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.

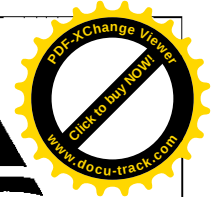
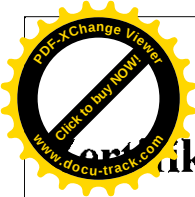
*This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the
German Equipment and Product Safety Law.*

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. Stöelzel

Ausstellungsdatum *Date of Issue* : 16.03.2009 (day/mo/yr)



Zertifikat



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0006

Ihr Zeichen *Client Reference*
SE49041001

Unser Zeichen *Our Reference*
ZTW1-YFR- 10024160 004

Längstens gültig bis *Latest expiration date*
18.11.2013 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60950-1:2001+A11
ZEK 01.2-08/12.08

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

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH DB
(Addition for Type Designation)

Bezeichnung : ADP-60ZH D
(Type Designation)

Ausgang : DC 19V/3.16A
(Output)



1

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

1

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.

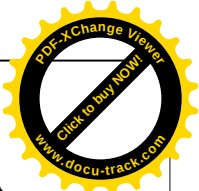
This certificate is based on our Testing and Certification Regulation. Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.

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. Stölzel

Ausstellungsdatum *Date of Issue* : 14.04.2009 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0007

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i> (day/mo/yr)
NBBU-TW-200907003-TU	ZTW1-AKN- 10024160 006	18.11.2013

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
P.R. China

Prüfzeichen *Test Mark*

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



Zertifiziertes Produkt <i>(Geräteidentifikation)</i> <i>Certified Product (Product Identification)</i>	Lizenzentgelte - Einheit <i>License Fee - Unit</i>
Schaltnetzteil (AC/DC Adapter)	

wie Blatt (as page) 01

Änderung
(Change)

Prüfgrundlage : siehe oben
(Test Requirement) (see above)



Ergänzung
(Addition)

Max. Betriebshöhe : 10,000ft/3048m
(Max. Operating Altitude)

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.

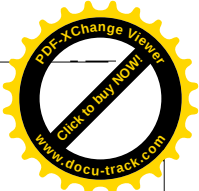
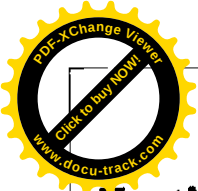
*This certificate is based on our Testing and Certification Regulation.
Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the
German Equipment and Product Safety Law.*

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. Stöelzel

Ausstellungsdatum *Date of Issue* : 10.08.2009 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0008

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
NBBU-TW-200907003-TU	ZTW1-AKN- 10024160 006	18.11.2013 (day/mo/yr)

Genehmigungsinhaber *License Holder*
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
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

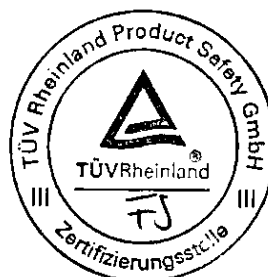
Schaltnetzteil (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH DB
(Addition for Type Designation)

Bezeichnung : ADP-65JH BA
(Type Designation)

Ausgang : DC 18.5V/3.51A
(Output)



1

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

1

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.

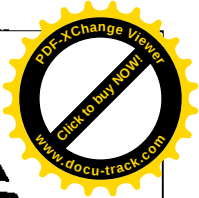
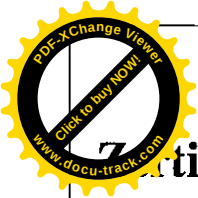
This certificate is based on our Testing and Certification Regulation. Product and production fulfill par 4 Art. 1 or Art. 2 and Par 7 Art. 1 of the German Equipment and Product Safety Law.

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. Stölzel

Ausstellungsdatum *Date of Issue* : 10.08.2009 (day/mo/yr)



Zertifikat

Certificate



TÜVRheinland®

Zertifikat Nr. *Certificate No.*
S 50142004

Blatt *Page*
0009

Ihr Zeichen <i>Client Reference</i>	Unser Zeichen <i>Our Reference</i>	Längstens gültig bis <i>Latest expiration date</i>
NBBU-TW-201001022-TU	ZTW1-AKN- 10024160 010	18.11.2013

Genehmigungsinhaber *License Holder*

Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte *Manufacturing Plant*

Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
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 (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung
(Addition)

Bezeichnung : ADP-65JH BB (ASUS)
(Type Designation)



1

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

1

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.

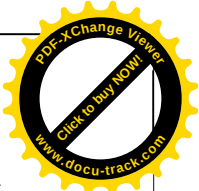
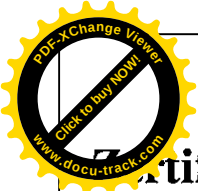
TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

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. Stözel

Ausstellungsdatum *Date of Issue* : 09.03.2010 (day/mo/yr)



Zertifikat

Certificate



Zertifikat Nr. Certificate No.
S 50142004

Blatt Page
0010

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis Latest expiration date (day/mo/yr)
NBBU-TW-201005011	ZTW1-CCO- 10024160 012	18.11.2013

Genehmigungsinhaber License Holder
Delta Electronics, Inc.
3, Tung Yuan Road
Chungli Ind. Zone
Taoyuan Hsien 320
Taiwan

Fertigungsstätte Manufacturing Plant
Delta Electronics (Jiang Su), Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiang Su 215200
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 (AC/DC Adapter)

wie Blatt (as page) 01

Ergänzung für Bezeichnung : ADP-65JH BB
(Addition for Type Designation)

Bezeichnung : ADP-65JH T
(Type Designation)
max. Umgebungstemperatur : 35°C
(max. Ambient Temperature)



1

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

1

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.*

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
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

W. Hsu

Dipl.-Ing. W. Hsu

Ausstellungsdatum Date of Issue : 04.06.2010 (day/mo/yr)



Zertifikat

Certificate



TÜVRheinland®

Zertifikat Nr. Certificate No.
S 50142004

Blatt Page
0011

Ihr Zeichen Client Reference	Unser Zeichen Our Reference	Längstens gültig bis Latest expiration date
NBBU-TW-201101006	ZTW2-HCY- 10024160 017	18.11.2013 (day/mo/yr)

Genehmigungsinhaber License Holder
Delta Electronics, Inc.
3 Tungyuan Road
Chungli Industrial Zone
Taoyuan County 32063
Taiwan, R.O.C.

Fertigungsstätte Manufacturing Plant
Delta Electronics (Jiangsu) Ltd.
No. 1688, Jiangxing East Road
Wujiang Economic Development Zone
Wujiang City, Jiangsu Province 215200
P.R. China

Prüfzeichen Test Mark



Geprüft nach Tested acc. to
EN 60950-1:2006+A11+A1
ZEK 01.2-08/12.08

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schaltnetzteil (AC/DC Adapter)

Wie Blatt (As Page) 01

Änderung (Change)

Prüfgrundlage : siehe oben
(Test Requirement) (see above)



ANLAGE (Appendix): 1.1

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.*

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

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. M. Kröger

Ausstellungsdatum Date of Issue : 01.04.2011 (day/mo/yr)



經濟部標準檢驗局

BUREAU OF STANDARDS METROLOGY AND INSPECTION
MINISTRY OF ECONOMIC AFFAIRS



商品驗證登錄證書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI33206030G052 號 00

Certificate No.

茲據

台達電子工業股份有限公司

申請驗證登錄，經審查結果符合規

定，准予登錄並使用商品安全標章及識別號碼：

R33030

。其登錄事項如下：

The application made by

for Registration of Product

Certification has been reviewed and found to be in compliance with related regulations. Therefore, registration is granted with the

Product Safety Mark and the Identification No.

R33030

. Details of the registration are follows :

申請人：台達電子工業股份有限公司

統一編號：63021561

Applicant

Uniform No.

地址：臺北市內湖區瑞光路 186號

Address

生產廠場：詳如附表

Factory

廠址：詳如附表

Factory Address

商品種類名稱：

Type/name of product

商品分類號列：8504.40.91.00.7

C. C. C Code

中文名稱：交換式電源供應器(不可在市場上單獨銷售)

Chinese name

英文名稱：AC/DC ADAPTER

English name

型式：ADP-65JH HB

Type

系列型式：空白

Series of the type

依據標準：CNS14336-1 (99年版)、CNS13438 (95年完整版)

Standards

標準檢驗局或所屬分局發證

(本證書經驗證機關使用鋼印後生效)

This certificate shall be issued by the BSMI or its branches.

(This certificate will become effective only when stamped with the BSMI seal.)

登錄日期：中華民國	102	年	04	月	29	日
Registration Date	2013	(year)	04	(month)	29	(day)
本證書有效期限至	105	年	04	月	28	日
Expiration Date	2016	(year)	04	(month)	28	(day)
發證日期：中華民國	102	年	04	月	29	日
Date of issue	2013	(year)	04	(month)	29	(day)

註1：持本證書進口驗證登錄商品時，進口人須與本證書名義人相同。

註2：次年度商品驗證登錄年費繳納期限為當年11月30日，逾期未繳納者，經限期繳納屆期未繳納，即依商品檢驗法第42條第7款規定廢止驗證登錄，並自次年度1月1日起生效。

經濟部標準檢驗局

BUREAU OF STANDARDS METROLOGY AND INSPECTION
MINISTRY OF ECONOMIC AFFAIRS

商品驗證登錄證書

CERTIFICATE OF THE REGISTRATION OF PRODUCT CERTIFICATION

證書號碼： CI33206030G052 號 00

Certificate No.

- 生產廠場： 1. DELTA ELECTRONICS(WUHU) LTD.
Factory : The Wuhu Export Processing Zone, No.68 Jiuhua North
Road, Wuhu City, Anhui Province, P.R.China
2. Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone, Taoyuan
County 32063, Taiwan, R.O.C.
3. Delta Electronics, Inc.
186 Ruey Kuang Road, 114 Neihu, Taipei, Taiwan
4. Delta Electronics (Thailand) Public Co., Ltd.
909 Soi 9 Moo 4, Bangpoo Industrial Estate (E.P.Z.),
Pattana 1 Rd., Tambol Phraksa, Amphur Muang,
Samutprakarn 10280, THAILAND.
5. Delta Electronics Power (Dongguan) Co., Ltd.
Delta Industrial Estate, Shijie Town, Dongguan City,
Guangdong Province 523308, P.R.China
6. DELTA ELECTRONICS (DONGGUAN) CO., LTD.
He Tian Xia High-Tech Industrial Park, Shijie Town,
Dongguan, Guangdong Province, P.R.C 523308
7. Delta Electronics (Jiangsu) Ltd.
No. 1688, Jiangxing East Road, Wujiang Economic
Development Zone, Wujiang City, Jiangsu Province,
215200, P.R.C.

(以下空白)



中国节能产品认证证书

证书编号: CQC15701124317

申请人名称及地址: 台达电子工业股份有限公司
台湾省 桃园县 中坜市 中坜工业区东园路 3 号

品 牌: Delta 图形商标 (商标注册号: 542601)

制造商名称及地址: 台达电子工业股份有限公司
台湾省 桃园县 中坜市 中坜工业区东园路 3 号

生产企业名称及地址: 中达电子(江苏)有限公司
中国 江苏省吴江经济技术开发区江兴东路 1688 号

产品名称: 电源适配器

系列/规格/型号: ADP-65JH HB; 输入: 100-240Vac 50-60Hz, 1.5A; 输出: 19Vdc 3.42A.

认证模式: 产品检验+初始工厂检查+获证后监督

产品标准/技术标准: GB20943-2013 《单路输出式交流-直流和交流-交流外部电源能效限定值及节能评价价值》

上述产品符合CQC31-461236-2014 《单路输出式交流-直流和交流-交流外部电源节能认证规则》认证规则的要求。

证书有效期: 2015年04月21日 至 2018年04月21日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。



主任:



中国质量认证中心

中国·北京·南四环西路 188 号 9 区 100070

<http://www.cqc.com.cn>

T 20150422121422448



CHINA CERTIFICATE For ENERGY CONSERVATION PRODUCT

Certificate No: CQC15701124317

**NAME AND ADDRESS
OF THE APPLICANT:**

Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone,
Taoyuan County 32063, Taiwan, R.O.C.

BRAND NAME:

Delta 图形商标 (商标注册号: 542601)

**NAME AND ADDRESS
OF THE MANUFACTURER:**

Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone,
Taoyuan County 32063, Taiwan, R.O.C.

**NAME AND ADDRESS
OF THE FACTORY:**

Delta Electronics (Jiangsu) Ltd.
215200, No. 1688 East Jiangxing Road Economic
and Technology Development Zone, Wujiang
, Jiangsu Province, P.R. China.

PRODUCT NAME:

AC/DC ADAPTER

**PRODUCT MODEL
AND SPECIFICATION:**

MODEL: ADP-65JH HB; Specification: INPUT: 100-240Vac
50-60Hz, 1.5A; OUTPUT: 19Vdc 3.42A.

CERTIFICATION MODEL:

Product Testing + Initial Factory Inspection +
Follow up Factory Inspection

**THE STANDARD/TECHNICAL
REQUIREMENTS FOR THE PRODUCTS:**

GB20943-2013 "Minimum allowable values of energy
efficiency and evaluating values of energy
conservation for single voltage external AC-DC
and AC-AC power supplies"

This is to certify that the above-mentioned product meets the requirements of
CQC31-461236-2014 "Energy conservation certification rules for single voltage
external AC-DC and AC-AC power supplies".

Valid dates of this Certificate: From Apr.21,2015 to Apr.21,2018

The validity of the certificate depend on the follow up inspection by the certification body at regular intervals.



President:

Wang Kejiao



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P. R. China

<http://www.cqc.com.cn>

T 20150422121422448

Statement for PSE Certificate of Conformity

Issued date: 2015/09/17

This equipment has been evaluated and complied with Japan DENAN Technical Requirements Ministerial Ordinance Clause 2 ; the relevant information of applied model stated as following.

Model name: ADP-65JH HB(ADP-65JH HBAJ)

Customer: Avalue Technology

Importer: Avalueジャパン株式会社

Certificate of Conformity Number: JD 50248118

Date of Issue: 2013/02/07

Validity of certificate: 2018/02/06

Factory: Delta Electronics (Jiang Su), Ltd.

Prepared by:

(Signature) Albert Huang

Print Name: Albert Huang

Title: Engineer

Division: Regulatory & Reliability Engineering

Power System Business Group

Email: Safety@delta.com.tw

Reviewed by:

(Signature) Liya Lin

Print Name: Liya Lin

Title: Project Reviewer

Division: Regulatory & Reliability Engineering

Power System Business Group

Email: Safety@delta.com.tw

☒ Provide Certificate of Conformity via Delta Sales

Signed by Delta Sales:		Date	
Signed by Customer:		Date	

適合証明書

Certificate of Conformity



証明書番号 Certificate No.

ページ Page

JD 50248118

1

申請者照会番号 Applicant Reference

検査機関照会番号 Our Reference

発行年月日 Date of Issue

Lais-114006167

ZTW1-FS-11032224 001

2013 年 02 月 07 日

申請者 Applicant

製造工場 Factory

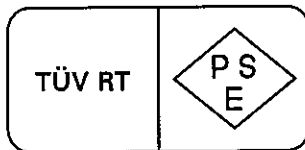
Delta Electronics (Jiangsu), Ltd.

Delta Electronics (Jiangsu), Ltd.

No. 1688, Jiangxing East Road, Wujiang Economy
Development Zone Wujiang City, Jiangsu Province
215200, P.R.China

No. 1688, Jiangxing East Road, Wujiang Economy
Development Zone Wujiang City, Jiangsu Province
215200, P.R.China

検査の方法 Inspection Method



- ・ 技術基準 省令第 2 項 : J60950-1(H22), J55022(H22), J3000(H21)
Technical Requirements Clause 2: J60950-1 (H22): 2010, J55022 (H22): 2010, J3000 (H21): 2009
- ・ 施行規則別表第四 (交流用電気機械器具)
Appendix 4 of the Enforcement Regulations (AC Electric Appliances)

特定電気用品名

: 直流電源装置

Name of Specified Electrical
Appliance and Material

DC Power Supply Unit

型式の区分

: (「添付 1.0」参照)

Type Classification

(Refer to "Attachment 1.0")

海外製造事業者

Delta Electronics (Jiangsu), Ltd.

Overseas Manufacturer

: No. 1688, Jiangxing East Road, Wujiang Economy Development Zone Wujiang City,
Jiangsu Province 215200, P.R.China

客先名

Delta Electronics, Inc.

Client

: 3 Tungyuan Road Chungli Industrial Zone Taoyuan County 32063 Taiwan

証明書の有効期間

: 本証明書は、施行令で規定された期間である 2018 年 02 月 06 日まで有効です。

Validity of Certificate

This certificate is effective until 06 February, 2018, being the period stipulated by the Enforcement Ordinance.

これは、上記申請者より申請のあった上記特定電気用品及び製造工場が、電気用品安全法第八条第一項に規定する技術基準及び同法第九条第二項の経済産業省令で定める基準に適合していることを証明するものです。

This is to certify that the above-mentioned Specified Electrical Appliances and Materials and the factory which the above-mentioned applicant applied for have been complied with the Technical Requirements stipulated by Article 8, Paragraph 1 of the Electrical Appliance and Material Safety Law and the requirements stipulated by the METI Ordinance specified in Article 9, Paragraph 2 of the said law.

テュフ ラインランド 台湾リミテッド

発行者 Issued by

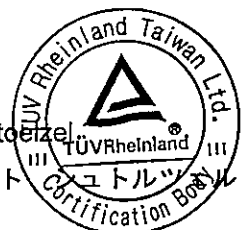
TÜV Rheinland Taiwan Ltd.

氏名 Name

Dipl.-Ing. F. Stoezel

11 階、758、パートウロード、セクション 4、ショウサン区、台北 105、台湾
11F, No. 758, Bade Rd., Sec. 4, Songshan Dist., Taipei 105, Taiwan, R.O.C.

フリーストリット



添付 Attachment : 1.0

発行日 Date of Issue : 2013 年 02 月 07 日

【型式の区分 Type Classification】

型式区分管理 No: (Type Classification Control No.) : CL-01

証明書番号 (Certificate No.) : JD 50248118

特定電気用品名 : 直流電源装置
 (Name of Specified Electrical Appliance and Material) : DC Power Supply Unit

申請者 (Applicant) : Delta Electronics (Jiangsu), Ltd.

海外製造事業者 : Delta Electronics (Jiangsu), Ltd.
 (Overseas Manufacturer/factory)

客先名 (client) : Delta Electronics, Inc.

要素 Factor	区分 Classification
定格入力電圧 (Rated input voltage)	125V 以下のもの及び 125V を超えるもの (125V or less, and exceeding 125V)
入力側の定格容量 (Rated capacity on input side)	100VA を超え 200VA 以下のもの (Exceeding 100VA, and less than or equal to 200VA)
定格周波数 (変圧器を有するものの場合に限る。) (Rated frequency (limited to those with transformer))	50Hz のもの及び 60Hz のもの (50Hz, and 60Hz)
交流用端子 (AC terminal)	ないもの (Without AC terminal)
直流定格電圧 (Rated DC voltage)	15V を超え 30V 以下のもの (Exceeding 15V, and less than or equal to 30V)
変圧器 (Transformer)	あるもの (With transformer)
変圧器の巻線の絶縁の種類 (Transformer winding insulation class)	B 種のもの (Class B)
直流電圧の調整装置 (DC voltage adjusting mechanism)	ないもの (Without adjusting mechanism)
回路の保護機構 (Circuit protection device)	あるもの (With circuit protection device)
器体スイッチ (Body switch)	ないもの (Without body switch)
外郭の材料 (Outer case material)	合成樹脂のもの (Plastic)
用途 (Application)	その他のもの (Others)
電源電線と器体との接続の方式 (Method of attaching power supply cord)	接続器利用のもの (Coupling device)
二重絶縁 (Double insulation)	施してないもの (Without double insulation)

テュフ ラインランド 台湾リミテッド
 TÜV Rheinland Taiwan Ltd.

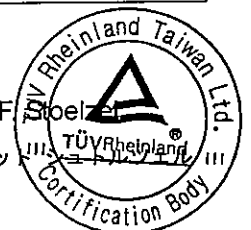
11 階、758、パートウロード、セクション4、ショウサン区、台北105、台湾
 11F, No. 758, Bade Rd., Sec. 4, Songshan Dist., Taipei 105, Taiwan, R.O.C.

発行者 Issued by

氏名 Name

Dipl.-Ing. F. Stölzel

フリードリッヒ



添付 Attachment : 1.0

発行日 Date of Issue : 2013 年 02 月 07 日

【型式の区分 Type Classification】

型式区分管理 No: (Type Classification Control No.) : CL-02

証明書番号 (Certificate No.) : JD 50248118

特定電気用品名 : 直流電源装置
 (Name of Specified Electrical Appliance and Material) : DC Power Supply Unit

申請者 (Applicant) : Delta Electronics (Jiangsu), Ltd.

海外製造事業者 : Delta Electronics (Jiangsu), Ltd.
 (Overseas Manufacturer/factory)

客先名 (client) : Delta Electronics, Inc.

要素 Factor	区分 Classification
定格入力電圧 (Rated input voltage)	125V 以下のもの及び 125V を超えるもの (125V or less, and exceeding 125V)
入力側の定格容量 (Rated capacity on input side)	100VA を超え 200VA 以下のもの (Exceeding 100VA, and less than or equal to 200VA)
定格周波数 (変圧器を有するものの場合に限る。) (Rated frequency (limited to those with transformer))	50Hz のもの及び 60Hz のもの (50Hz, and 60Hz)
交流用端子 (AC terminal)	ないもの (Without AC terminal)
直流定格電圧 (Rated DC voltage)	15V を超え 30V 以下のもの (Exceeding 15V, and less than or equal to 30V)
変圧器 (Transformer)	あるもの (With transformer)
変圧器の巻線の絶縁の種類 (Transformer winding insulation class)	B 種のもの (Class B)
直流電圧の調整装置 (DC voltage adjusting mechanism)	ないもの (Without adjusting mechanism)
回路の保護機構 (Circuit protection device)	あるもの (With circuit protection device)
器体スイッチ (Body switch)	ないもの (Without body switch)
外郭の材料 (Outer case material)	合成樹脂のもの (Plastic)
用途 (Application)	電池充電用のもの及びその他のもの (For battery charging, and Others)
電源電線と器体との接続の方式 (Method of attaching power supply cord)	接続器利用のもの (Coupling device)
二重絶縁 (Double insulation)	施していないもの (Without double insulation)

テュフ ラインランド 台湾リミテッド
 TÜV Rheinland Taiwan Ltd.

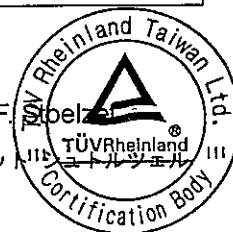
11 階、758、パートウロード、セクション4、ショウサン区、台北105、台湾
 11F, No. 758, Bade Rd., Sec. 4, Songshan Dist., Taipei 105, Taiwan, R.O.C.

発行者 Issued by

氏名 Name

Dipl.-Ing. F. Stelzel

フリードリッヒ





中国国家强制性产品认证证书

证书编号: 2013010907612789

委托人名称、地址

台达电子工业股份有限公司
台湾省桃园县中坜市中坜工业区东园路3号

生产者(制造商)名称、地址

台达电子工业股份有限公司
台湾省桃园县中坜市中坜工业区东园路3号

生产企业名称、地址

中达电子(江苏)有限公司
中国 江苏省吴江经济技术开发区江兴东路1688号

产品名称和系列、规格、型号

电源适配器

ADP-65JH HB 输入: 100-240VAC 50-60Hz 1.5A 输出: 19VDC 3.42A, 不带电线组件销售, 仅适用于
海拔5000米及以下

产品标准和技术要求

GB4943.1-2011 GB9254-2008 GB17625.1-2012

上述产品符合强制性产品认证实施规则
CNCA-01C-020:2010的要求, 特发此证。

发证日期: 2014年05月08日

有效期至: 2018年05月03日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书为变更证书, 证书首次颁发日期: 2013年05月03日

本证书的相关信息可通过国家认监委网站www.cnca.gov.cn查询。



主任: _____



中国质量认证中心

中国·北京·南四环西路188号9区 100070
<http://www.cqc.com.cn>

T 20140509095606781



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No.:2013010907612789

NAME AND ADDRESS OF THE APPLICANT

Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone, Taoyuan County 32063, Taiwan

NAME AND ADDRESS OF THE MANUFACTURER

Delta Electronics, Inc.
3 Tungyuan Road, Chungli Industrial Zone, Taoyuan County 32063, Taiwan

NAME AND ADDRESS OF THE FACTORY

Delta Electronics (Jiangsu) Ltd.
215200, No. 1688 East Jiangxing Road Economic and Technology Development Zone, Wujiang, Jiangsu
Province, P.R.China.

NAME, MODEL AND SPECIFICATION

AC/DC Adapter
ADP-65JH HB Input: 100-240VAC 50-60Hz 1.5A Output: 19VDC 3.42A, Sale without cord set, Altitude
up to 5000m

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB4943.1-2011 GB9254-2008 GB17625.1-2012

This is to certify that the above mentioned products have met the requirements of implementation rules
for compulsory certification(REF NO. CNCA-01C-020:2010).

Date of issue: May.08,2014

Date of expiry: May.03,2018

Validity of this certificate is subject to positive result of the regular follow up inspection by issuing
certification body until the expiry date.

Date of original certification: May.03,2013

This certificate can be verified through CNCA' s website: www.cnca.gov.cn



President:

Wang Kejiao



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No. 188, Nansihuan Xilu, Beijing 100070 P. R. China
<http://www.cqc.com.cn>

T 20140509095606781

20 November 2013

3, Tung Yuan Road
Chungli Industrial Zone
Taoyuan Shien 320
TAIWAN, ROC

Delta Electronics Inc.

Attention: Delta Electronics Inc.
Dear Sir / Madam,

APPROVAL OF PRESCRIBED EQUIPMENT

Enclosed is the Certificate(s) in respect to your recent application received by Energy Safe Victoria.

Please take time to check the certificate to ensure that all details are correct in accordance with your application, and that you understand all of the conditions imposed on the approval.

Should you have any queries, please contact Naveen Kapoor on telephone 92039774, or email nkapoor@esv.vic.gov.au

Any samples that accompanied your application are available for collection, and if not collected within 20 business days of the date hereon may be disposed of.

Notification must be given to Energy Safe Victoria of any change of registered Address within 20 business days.

Yours faithfully

A handwritten signature in black ink, appearing to read "P. J. Flewison".

DIRECTOR OF ENERGY SAFETY

Ref: ESV130845/00

Certificate Number: ESV130845/00



Certificate of Approval

This is to certify that the Director of Energy Safety has approved the electrical equipment described hereunder.

Registered Declarant: Delta Electronics Inc.
3, Tung Yuan Road
Chungli Industrial Zone
Taoyuan Shien 320
TAIWAN, ROC

Required Marking: ESV130845

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.

ARTICLE DETAILS

Electrical Equipment:	Prescribed Power Supply or Charger - Power Supply Adapter
Relevant Standards:	AS/NZS 60950-1:2011 +A1
Expiry Date:	23/11/2018
Conditions of Approval:	Alternate approval marking V080802 Alternate approval mark V85

A handwritten signature in black ink, appearing to read "J. J. Lee", written over a horizontal line.

DATE OF APPROVAL: 20/11/2013

Page: (2/ 6)

Director of Energy Safety



Certificate Number: ESV130845/00

Approval details

Model	PA3714E-1AC3
Rated at	Input: 100-240AC, 1.5 A, 50-60 Hz Output: +19 V, 3.42 A
Trade Name	TOSHIBA
Comments	

Model	ADP-65JH DB
Rated at	Input: AC 100-240V, 1.5A Output: DC 19V, 3.42A
Trade Name	PHILIPS
Comments	

Model	ADP-65JH BA
Rated at	Input: 100-240V, 1.5A, 50-60Hz Output: +18.5V, 3.51A
Trade Name	DELTA ELECTRONICS, INC.
Comments	

Model	PA3714E-1AC3
Rated at	Input: 100-240V, 1.5A, 50-60Hz Output: +19V, 3.42A
Trade Name	TOSHIBA
Comments	

Model	ADP-65JH BB
Rated at	Input: 100-240V, 1.5A, 50-60 Hz Output: +19V , 3.42A, DC
Trade Name	Delta Electronics, Inc.
Comments	

A handwritten signature in black ink, appearing to read "J. J. Flewcon".

Certificate Number: ESV130845/00

Model	ADP-65JH BC
Rated at	Input: 100-240V, 1.5A, 50-60 Hz Output: +19.5V, 3.33A , DC
Trade Name	Delta Electronics, Inc.
Comments	

Model	ADP-65JH BD
Rated at	Input: 100-240V, 50-60 Hz, 1.5A Output: +20V , 3.25A , DC
Trade Name	Delta Electronics, Inc.
Comments	

Model	ADP-65JH DB
Rated at	Input: 100-240V, 1.5A, 50-60 Hz Output: +19V , 3.42A, DC
Trade Name	Delta Electronics, Inc.
Comments	

Model	ADP-65JH DC
Rated at	Input: 100-240V, 1.5A, 50-60 Hz Output: +19.5V , 3.33A , DC
Trade Name	Delta Electronics, Inc.
Comments	

Model	ADP-65JH DD
Rated at	Input: 100-240V, 1.5A, 50-60 Hz Output: +20V , 3.25A , DC
Trade Name	Delta Electronics, Inc.
Comments	

Model	ADP-65MH B
Rated at	Input: 100-240V, 1.5A, 50-60Hz Output: +19V, 3.42A
Trade Name	DELTA ELECTRONICS, INC.



Certificate Number: ESV130845/00

Comments	
----------	--

Model	ADP-65JH BB
Rated at	Input: 100-240V, 1.5A, 50-60Hz Output: +19V, 3.42A
Trade Name	BenQ
Comments	

Model	ADP-60ZH D
Rated at	Input: 100-240VAC, 1.5A, 50-60Hz Output: 19VDC, 3.16A
Trade Name	DELTA ELECTRONICS, INC.
Comments	

Model	ADP-65JH BB
Rated at	Input: AC 100-240V, , 1.5A, Output: DC 19V, , 3.42A
Trade Name	ASUS
Comments	

Model	ADP-65JH DB
Rated at	Input: AC 100-240V, , 1.5A Output: DC 19V, , 3.42A
Trade Name	PHILIPS
Comments	

Model	ADP-65JH T
Rated at	Input: 100-240VAC, , 1.5A, 50-60Hz Output: 19VDC, , 3.42A
Trade Name	DELTA ELECTRONICS, INC.
Comments	

Model	ADP-65JH HB
-------	-------------



Certificate Number: ESV130845/00



Rated at	Input: 100-240Vac, 1.5A , 50-60Hz Output: 19Vdc, 3.42A
Trade Name	DELTA ELECTRONICS, INC.
Comments	

A handwritten signature in black ink, appearing to read "J. J. Flewcon".

CERTIFICATE OF CONFORMITY



A D T

Equipment : AC/DC ADAPTER
Test Model No. : ADP-65JH HB
Applicant : DELTA ELECTRONICS, INC.
Test Report No. : CE130402D03



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.

EN 55022:2010 + AC:2011, Class B

CISPR 22:2008, Class B

AS/NZS CISPR 22:2009 +A1:2010, Class B

EN 61000-3-2:2006 +A1:2009 +A2:2009

EN 61000-3-3:2008

EN 55024:2010

IEC 61000-4-2:2008 ED.2.0

IEC 61000-4-3:2010 ED.3.2

IEC 61000-4-4:2012 ED.3.0

IEC 61000-4-5:2005 ED.2.0

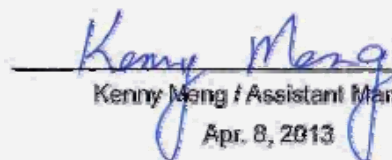
IEC 61000-4-6:2008 ED.3.0

IEC 61000-4-8:2009 ED.2.0

IEC 61000-4-11:2004 ED.2.0

Notes: The above IEC basic standards are applied with latest version if customer has no special requirement

In accordance with the council directive 2004/108/EC


Kenny Meng / Assistant Manager
Apr. 8, 2013



No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Tel: 886-2-26052180 Fax: 886-2-26051924

<http://www.bureauveritas-adt.com> E-Mail: service.adt@tw.bureauveritas.com

CE EMC TEST REPORT

REPORT NO.: CE130402D03

MODEL NO.: ADP-65JH HB

RECEIVED: Apr. 2, 2013

TESTED: Apr. 2 ~ 3, 2013

ISSUED: Apr. 8, 2013

APPLICANT: DELTA ELECTRONICS, INC.

ADDRESS: 3, TUNG YUAN ROAD, CHUNGLI INDUSTRIAL ZONE
TAOYUAN SHIEN, TAIWAN, R.O.C.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd.,
Taoyuan Branch

LAB LOCATION: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New
Taipei City, Taiwan (R.O.C.)

This report should not be used by the client to claim product certification, approval, or endorsement by TAF, NVLAP, NIST or any government agencies.



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification

Table of Contents

RELEASE CONTROL RECORD	5
1 CERTIFICATION.....	6
2 SUMMARY OF TEST RESULTS	7
2.1 MEASUREMENT UNCERTAINTY	8
3 GENERAL INFORMATION	9
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 GENERAL DESCRIPTION OF APPLIED STANDARDS.....	10
3.3 DESCRIPTION OF SUPPORT UNITS	11
3.3.1 FOR EMISSION TEST	11
3.3.2 FOR HARMONIC/ FLICKER & IMMUNITY TEST	12
4 EMISSION TEST	13
4.1 CONDUCTED EMISSION MEASUREMENT.....	13
4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	13
4.1.2 TEST INSTRUMENTS	13
4.1.3 TEST PROCEDURE	14
4.1.4 DEVIATION FROM TEST STANDARD	14
4.1.5 TEST SETUP	14
4.1.6 EUT OPERATING CONDITIONS.....	14
4.1.7 TEST RESULTS.....	15
4.2 RADIATED EMISSION MEASUREMENT.....	17
4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	17
4.2.2 TEST INSTRUMENTS	18
4.2.3 TEST PROCEDURE	18
4.2.4 DEVIATION FROM TEST STANDARD	18
4.2.5 TEST SETUP	19
4.2.6 EUT OPERATING CONDITIONS.....	19
4.2.7 TEST RESULTS.....	20
4.3 HARMONICS CURRENT MEASUREMENT.....	22
4.3.1 LIMITS OF HARMONICS CURRENT MEASUREMENT.....	22
4.3.2 TEST INSTRUMENTS	22
4.3.3 TEST PROCEDURE	23
4.3.4 DEVIATION FROM TEST STANDARD	23
4.3.5 TEST SETUP	24
4.3.6 EUT OPERATING CONDITIONS.....	24
4.3.7 TEST RESULTS.....	25
4.4 VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT	26
4.4.1 LIMITS OF VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT	26
4.4.2 TEST INSTRUMENTS	26
4.4.3 TEST PROCEDURE	26
4.4.4 DEVIATION FROM TEST STANDARD	27
4.4.5 TEST SETUP	27
4.4.6 EUT OPERATING CONDITIONS.....	27
4.4.7 TEST RESULTS.....	28



5	IMMUNITY TEST	29
5.1	GENERAL DESCRIPTION	29
5.2	GENERAL PERFORMANCE CRITERIA DESCRIPTION	30
5.3	EUT OPERATING CONDITION	30
5.4	ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)	31
5.4.1	TEST SPECIFICATION	31
5.4.2	TEST INSTRUMENTS	31
5.4.3	TEST PROCEDURE	31
5.4.4	DEVIATION FROM TEST STANDARD	32
5.4.5	TEST SETUP	33
5.4.6	TEST RESULTS	34
5.5	RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)	35
5.5.1	TEST SPECIFICATION	35
5.5.2	TEST INSTRUMENTS	36
5.5.3	TEST PROCEDURE	37
5.5.4	DEVIATION FROM TEST STANDARD	37
5.5.5	TEST SETUP	37
5.5.6	TEST RESULTS	38
5.6	ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST (EFT)	39
5.6.1	TEST SPECIFICATION	39
5.6.2	TEST INSTRUMENTS	39
5.6.3	TEST PROCEDURE	40
5.6.4	DEVIATION FROM TEST STANDARD	40
5.6.5	TEST SETUP	40
5.6.6	TEST RESULTS	41
5.7	SURGE IMMUNITY TEST	42
5.7.1	TEST SPECIFICATION	42
5.7.2	TEST INSTRUMENTS	42
5.7.3	TEST PROCEDURE	43
5.7.4	DEVIATION FROM TEST STANDARD	43
5.7.5	TEST SETUP	43
5.7.6	TEST RESULTS	44
5.8	IMMUNITY TO CONDUCTED DISTURBANCES INDUCED BY RF FIELDS (CS)	45
5.8.1	TEST SPECIFICATION	45
5.8.2	TEST INSTRUMENTS	45
5.8.3	TEST PROCEDURE	46
5.8.4	DEVIATION FROM TEST STANDARD	46
5.8.5	TEST SETUP	47
5.8.6	TEST RESULTS	48
5.9	POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST	49
5.9.1	TEST SPECIFICATION	49
5.9.2	TEST INSTRUMENTS	49
5.9.3	TEST PROCEDURE	49
5.9.4	DEVIATION FROM TEST STANDARD	49
5.9.5	TEST SETUP	50
5.9.6	TEST RESULTS	51
5.10	VOLTAGE DIP/SHORT INTERRUPTIONS (DIP) IMMUNITY TEST	52



A D T

5.10.1	TEST SPECIFICATION	52
5.10.2	TEST INSTRUMENTS	52
5.10.3	TEST PROCEDURE	52
5.10.4	DEVIATION FROM TEST STANDARD	52
5.10.5	TEST SETUP	53
5.10.6	TEST RESULTS	54
6	PHOTOGRAPHS OF THE TEST CONFIGURATION	55
7	APPENDIX - INFORMATION ON THE TESTING LABORATORIES	64



A D T

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
CE130402D03	Original release	Apr. 8, 2013

1 CERTIFICATION

PRODUCT: AC/DC ADAPTER

MODEL NO: ADP-65JH HB

APPLICANT: DELTA ELECTRONICS, INC.

TEST ITEM: ENGINEERING SAMPLE

TESTED: Apr. 2 ~ 3, 2013

STANDARDS: EN 55022:2010 +AC:2011, Class B

CISPR 22:2008, Class B

AS/NZS CISPR 22:2009 +A1:2010, Class B

EN 61000-3-2:2006 +A1: 2009 +A2:2009

EN 61000-3-3:2008

EN 55024:2010

IEC 61000-4-2:2008 ED.2.0

IEC 61000-4-3:2010 ED.3.2

IEC 61000-4-4:2012 ED.3.0

IEC 61000-4-5:2005 ED.2.0

IEC 61000-4-6:2008 ED.3.0

IEC 61000-4-8:2009 ED.2.0

IEC 61000-4-11:2004 ED.2.0

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Sandra Lin , **DATE:** Apr. 8, 2013
(Sandra Lin / Specialist)

APPROVED BY : Kenny Meng , **DATE:** Apr. 8, 2013
(Kenny Meng / Assistant Manager)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

EMISSION			
Standard	Test Type	Result	Remarks
EN 55022:2010 +AC:2011, Class B	Conducted Test	PASS	Meets Class B Limit Minimum passing margin is –14.93 dB at 0.19297 MHz
CISPR 22:2008, Class B	Conducted Test (Telecom port)	N/A	The EUT has no telecom port.
AS/NZS CISPR 22:2009 +A1:2010, Class B	Radiated Test (30MHz ~1GHz)	PASS	Meets Class B Limit Minimum passing margin is –4.27 dB at 34.64 MHz
EN 61000-3-2:2006 +A1: 2009+A2: 2009	Harmonic current emissions	PASS	The power consumption of EUT is less than 75W and no limits apply
EN 61000-3-3:2008	Voltage fluctuations & flicker	PASS	Meets the requirements.

Note: The EUT highest frequency generated **45-125kHz** and therefore the test frequency range was performed up to 1GHz for radiated emission test.

IMMUNITY (EN55024:2010)			
Standard	Test Type	Result	Remarks
IEC 61000-4-2:2008 ED.2.0	Electrostatic discharge immunity test	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-3:2010 ED.3.2	Radiated, radio-frequency, electromagnetic field immunity test	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-4:2012 ED.3.0	Electrical fast transient / burst immunity test.	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-5:2005 ED.2.0	Surge immunity test	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-6:2008 ED.3.0	Immunity to conducted disturbances, induced by radio-frequency fields	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-8:2009 ED.2.0	Power frequency magnetic field immunity test.	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-11:2004 ED.2.0	Voltage dips, short interruptions and voltage variations immunity tests	PASS	Meets the requirements of Voltage Dips: i) >95% reduction – Performance Criterion A ii) 30% reduction – Performance Criterion A Voltage Interruptions: i) >95% reduction – Performance Criterion B

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

MEASUREMENT	UNCERTAINTY
Conducted emissions	± 3.43 dB
Radiated emissions	± 3.86 dB

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	AC/DC ADAPTER
MODEL NO.	ADP-65JH HB
POWER SUPPLY	Switching Rating: refer to Note below Power Cord: Non-shielded DC (1.8m) with one ferrite core.
DATA CABLE SUPPLIED	N/A

NOTE:

1. The EUT is an AC/DC ADAPTER (AC 3-Pin) with the rating as below:
 - ♦ AC I/P: 100-240V, 1.5A, 50-60Hz
 - ♦ DC O/P: 19V, 3.42A
2. The EUT is designed with AC power supply of rating 100-240Vac, 50-60Hz. For radiated emission evaluation, 230Vac/50Hz (for EN 55022), 110Vac/60Hz & 220Vac/60Hz (for BSMI CNS 13438) had been covered during the pre-test. The worst radiated emission data was founded at **110Vac/60Hz** and recorded in the applied test report.
3. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a kind of ITE equipment and, according to the specifications of the manufacturers, must comply with the requirements of the following standards:

EN 55022:2010 +AC:2011, Class B

CISPR 22:2008, Class B

AS/NZS CISPR 22:2009 +A1:2010, Class B

EN 61000-3-2:2006 +A1:2009 +A2:2009

EN 61000-3-3:2008

EN 55024:2010

IEC 61000-4-2:2008 ED.2.0

IEC 61000-4-3:2010 ED.3.2

IEC 61000-4-4:2012 ED.3.0

IEC 61000-4-5:2005 ED.2.0

IEC 61000-4-6:2008 ED.3.0

IEC 61000-4-8:2009 ED.2.0

IEC 61000-4-11:2004 ED.2.0

Notes: The above IEC basic standards are applied with latest version if customer has no special requirement

3.3 DESCRIPTION OF SUPPORT UNITS

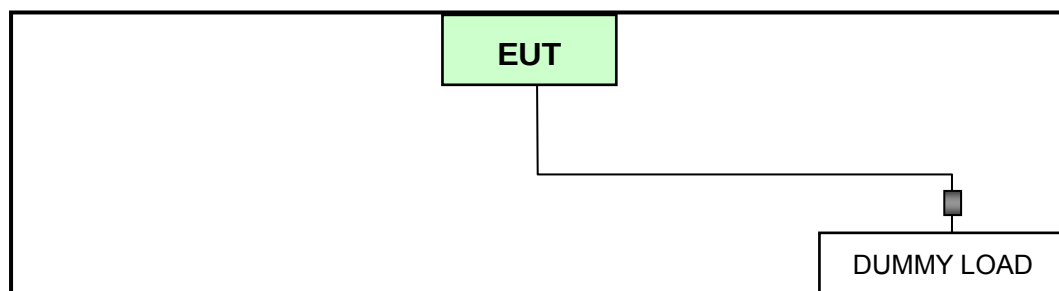
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

3.3.1 FOR EMISSION TEST

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DUMMY LOAD	BVADT	L19B	L2-010029	N/A

NOTE: All power cords of the above support units are non shielded (1.8m).

TEST CONFIGURATION

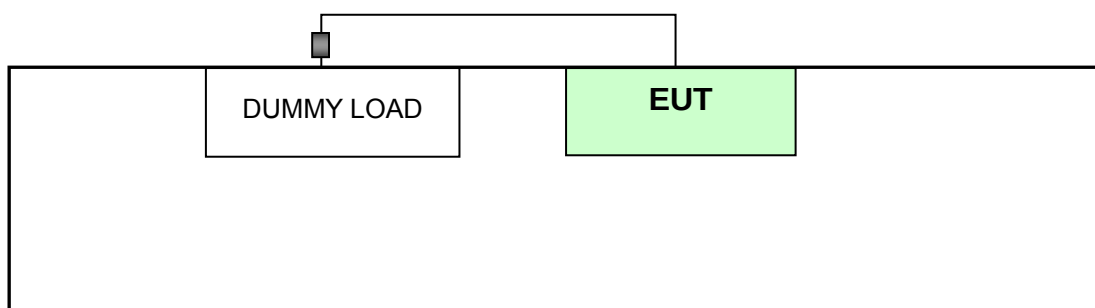


3.3.2 FOR HARMONIC/ FLICKER & IMMUNITY TEST

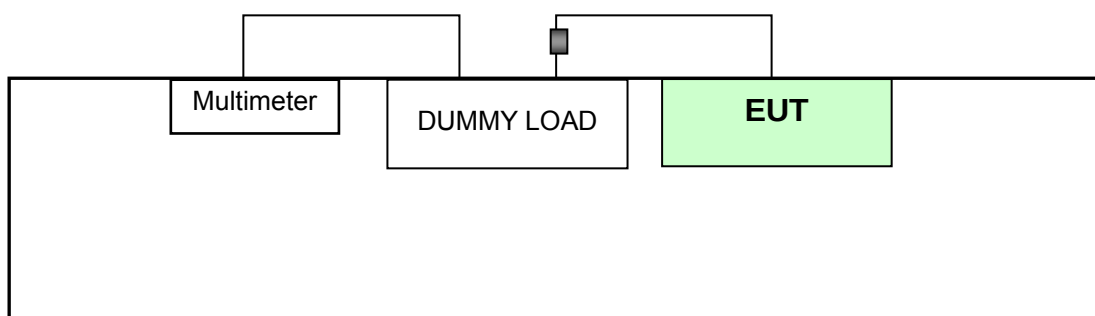
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DUMMY LOAD	BVADT	L19B	L2-010025	N/A
2	Multimeter	YFE	YF-370A	N/A	N/A

NOTE: All power cords of the above support units are non shielded (1.8m).

TEST CONFIGURATION – For Harmonic/ Flicker Test



TEST CONFIGURATION – For Immunity Test



4 EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: EN 55022

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTE:** (1) The lower limit shall apply at the transition frequencies.
 (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	100290	Dec. 24, 2012	Dec. 23, 2013
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	839135/006	Sep. 24, 2012	Sep. 23, 2013
LISN With Adapter (for EUT)	AD10	C00Ada-001	Sep. 24, 2012	Sep. 23, 2013
EMCO-L.I.S.N. (for peripheral)	3825/2	9204-1964	May 28, 2012	May 27, 2013
Software	ADT_Cond_V7.3.7	NA	NA	NA
Software	ADT_ISN_V7.3.7	NA	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C02.01	Jan. 04, 2013	Jan. 03, 2014
LYNICS Terminator (For EMCO LISN)	0900510	E1-011284	Sep. 24, 2012	Sep. 23, 2013
LYNICS Terminator (For EMCO LISN)	0900510	E1-011285	Sep. 24, 2012	Sep. 23, 2013

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in Shielded Room No. 2.
 3. The VCCI Site Registration No. C-240.
 4. Tested Date: Apr. 2, 2013.

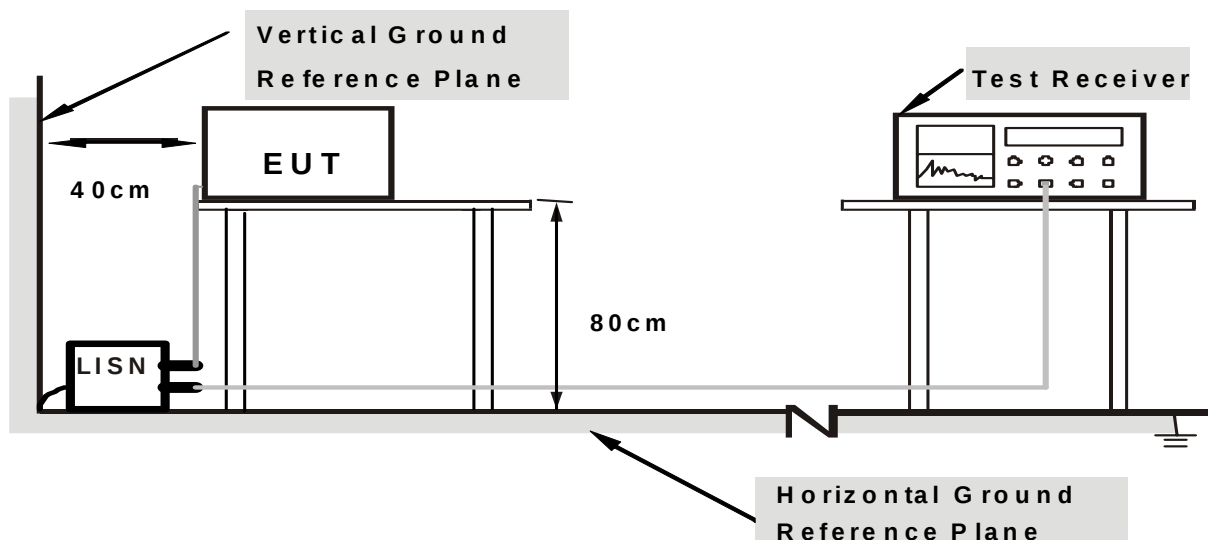
4.1.3 TEST PROCEDURE

- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20dB) were not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: Support units were connected to second LISN.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

Set the EUT under full resistor load.

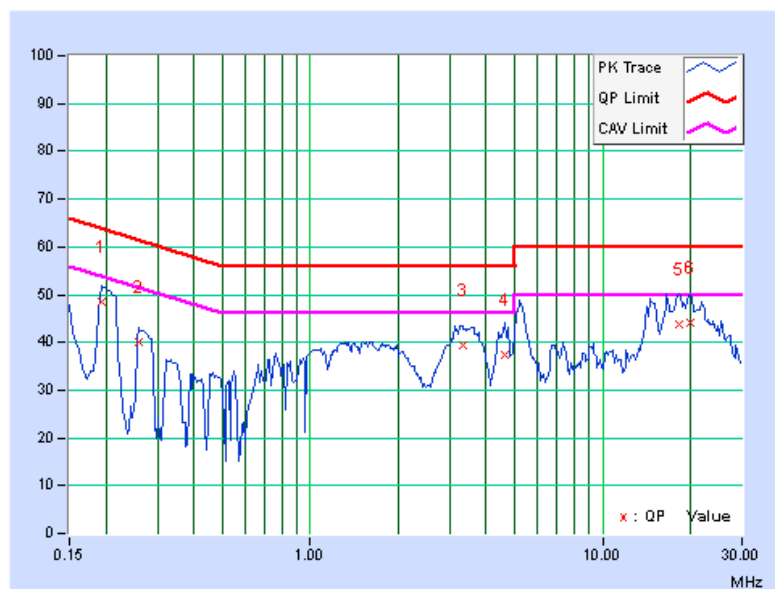
4.1.7 TEST RESULTS

TEST MODE	Full Load	6dB BANDWIDTH	9 kHz
INPUT POWER	230Vac, 50 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	19deg. C, 80% RH	TESTED BY: Bruce Liao	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	0.24	48.41	29.09	48.65	29.33	63.91	53.91	-15.25	-24.57
2	0.25938	0.28	39.80	21.78	40.08	22.06	61.45	51.45	-21.37	-29.39
3	3.32422	0.64	38.81	29.92	39.45	30.56	56.00	46.00	-16.55	-15.44
4	4.63281	0.72	36.51	27.43	37.23	28.15	56.00	46.00	-18.77	-17.85
5	18.19141	1.51	42.13	32.94	43.64	34.45	60.00	50.00	-16.36	-15.55
6	19.99219	1.60	42.40	32.17	44.00	33.77	60.00	50.00	-16.00	-16.23

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

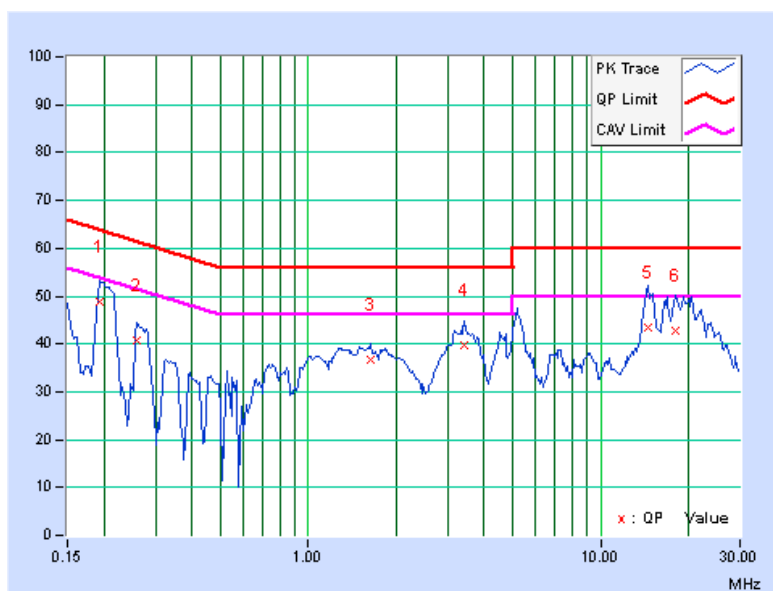


TEST MODE	Full Load	6dB BANDWIDTH	9 kHz
INPUT POWER	230Vac, 50 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	19deg. C, 80% RH	TESTED BY: Bruce Liao	

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
	[MHz]	(dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	0.11	48.87	29.15	48.98	29.26	63.91	53.91	-14.93	-24.65
2	0.25938	0.12	40.48	21.43	40.60	21.55	61.45	51.45	-20.85	-29.90
3	1.64063	0.23	36.32	23.82	36.55	24.05	56.00	46.00	-19.45	-21.95
4	3.42578	0.40	39.24	30.08	39.64	30.48	56.00	46.00	-16.36	-15.52
5	14.55469	1.14	42.22	31.99	43.36	33.13	60.00	50.00	-16.64	-16.87
6	18.04297	1.28	41.64	32.57	42.92	33.85	60.00	50.00	-17.08	-16.15

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: EN 55022

FOR FREQUENCY BELOW 1000 MHz

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 10m)
	dBuV/m	dBuV/m
30 – 230	40	30
230 – 1000	47	37

FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (GHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
1 to 3	76	56	70	50
3 to 6	80	60	74	54

- NOTE:** (1) The lower limit shall apply at the transition frequencies.
 (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
 (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement Range (MHz)
Below 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	Up to 5 times of the highest frequency or 6 GHz, whichever is less

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ TEST RECEIVER	ESCS30	847793/022	May. 28, 2012	May. 27, 2013
CHASE BILOG Antenna	CBL6111D	21872	Mar. 20, 2013	Mar. 19, 2014
CT Turn Table	TT100	CT-0055	NA	NA
CT Tower	AT100	CT-0055	NA	NA
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
ADT RF Switches BOX	EMH-011	08005	Jun. 21, 2012	Jun. 20, 2013
WOKEN RF cable	8D	CABLE-ST6-01	Jun. 21, 2012	Jun. 20, 2013

NOTE: 1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Open Site No. 6.
3. The VCCI Site Registration No. R-728.
4. The FCC Site Registration No. 90427.
5. Tested Date: Apr. 2, 2013.

4.2.3 TEST PROCEDURE

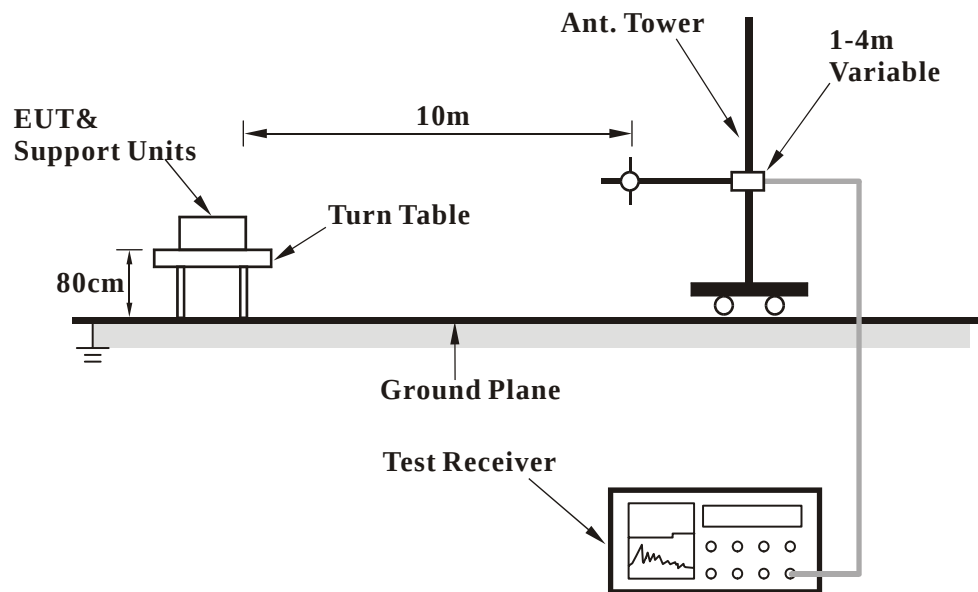
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as item 4.1.6

4.2.7 TEST RESULTS

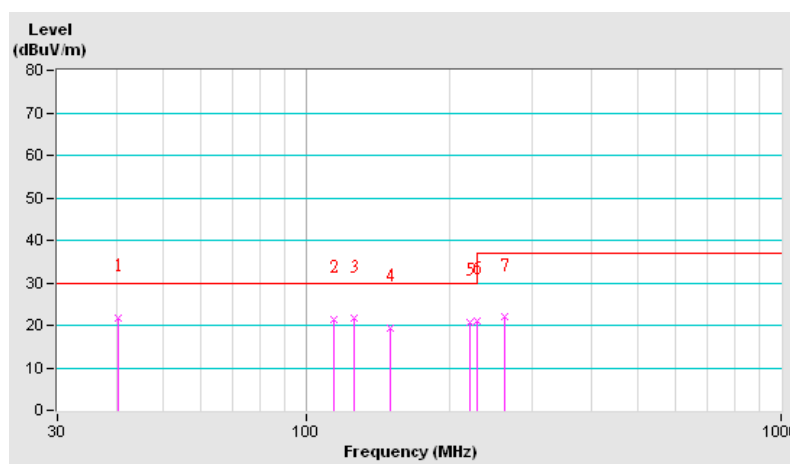
TEST MODE	Full Load	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Vincent Lin		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	40.15	21.82 QP	30.00	-8.18	4.00 H	312	7.23	14.59
2	114.46	21.30 QP	30.00	-8.70	4.00 H	287	8.27	13.03
3	126.76	21.59 QP	30.00	-8.41	4.00 H	173	7.85	13.74
4	151.05	19.24 QP	30.00	-10.76	4.00 H	113	6.14	13.10
5	221.16	20.72 QP	30.00	-9.28	4.00 H	17	8.61	12.11
6	229.16	21.07 QP	30.00	-8.93	4.00 H	114	8.19	12.88
7	261.75	21.88 QP	37.00	-15.12	4.00 H	265	5.35	16.53

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB) if use.
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

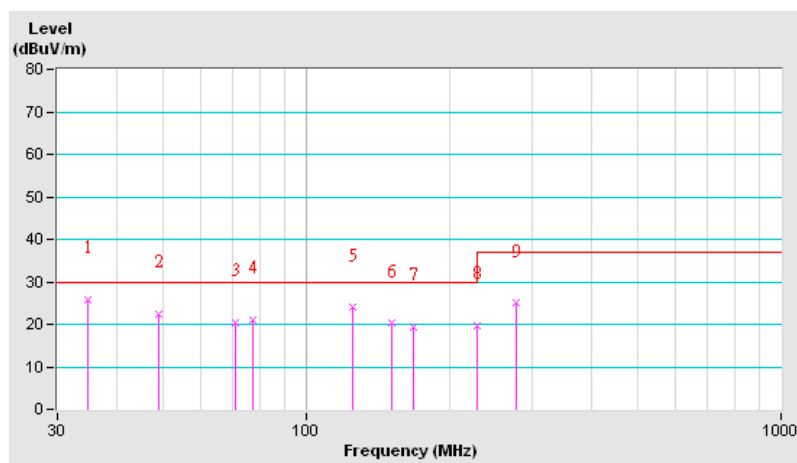


TEST MODE	Full Load	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Vincent Lin		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	34.64	25.73 QP	30.00	-4.27	1.00 V	350	9.06	16.67
2	49.14	22.45 QP	30.00	-7.55	1.00 V	132	12.83	9.62
3	71.33	20.46 QP	30.00	-9.54	1.86 V	169	12.36	8.10
4	77.27	21.16 QP	30.00	-8.84	1.86 V	118	12.57	8.59
5	125.22	23.98 QP	30.00	-6.02	1.00 V	204	10.52	13.46
6	151.97	20.24 QP	30.00	-9.76	1.00 V	292	7.28	12.96
7	168.58	19.26 QP	30.00	-10.74	1.00 V	6	7.38	11.88
8	229.77	19.67 QP	30.00	-10.33	1.00 V	322	6.74	12.93
9	276.98	24.99 QP	37.00	-12.01	1.00 V	70	9.13	15.86

REMARKS:

1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
– Pre-Amplifier Factor (dB) if use.
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



4.3 HARMONICS CURRENT MEASUREMENT

4.3.1 LIMITS OF HARMONICS CURRENT MEASUREMENT

TEST STANDARD: EN 61000-3-2

Limits for Class A equipment		Limits for Class D equipment		
Harmonics Order n	Max. permissible harmonics current A	Harmonics Order n	Max. permissible harmonics current per watt mA/W	Max. permissible harmonics current A
Odd harmonics		Odd Harmonics only		
3	2.30	3	3.4	2.30
5	1.14	5	1.9	1.14
7	0.77	7	1.0	0.77
9	0.40	9	0.5	0.40
11	0.33	11	0.35	0.33
13	0.21	13	0.30	0.21
15<=n<=39	0.15x15/n	15<=n<=39	3.85/n	0.15x15/n
Even harmonics				
2	1.08			
4	0.43			
6	0.30			
8<=n<=40	0.23x8/n			

NOTE: 1. Class A and Class D are classified according to section 5 of EN 61000-3-2:2006.

2. According to section 7 of EN 61000-3-2: 2006, the above limits for all equipment except for lighting equipment are for all applications having an active input power > 75 W and no limits apply for equipment with an active input power up to and including 75 W.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
EMC PARTNER EMC Emission Tester	HAR1000-1P	084	Apr. 10, 2012	Apr. 09, 2013
Software	HARCS	NA	NA	NA

NOTE: 1. The test was performed in EMS Room No. 1.

2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

3. According to IEC 61000-4-7: 2002, the time window shall be synchronized with each group of 10 or 12 cycles (200 ms) for power frequency of 50 or 60Hz.

4. Tested Date: Apr. 3, 2013.

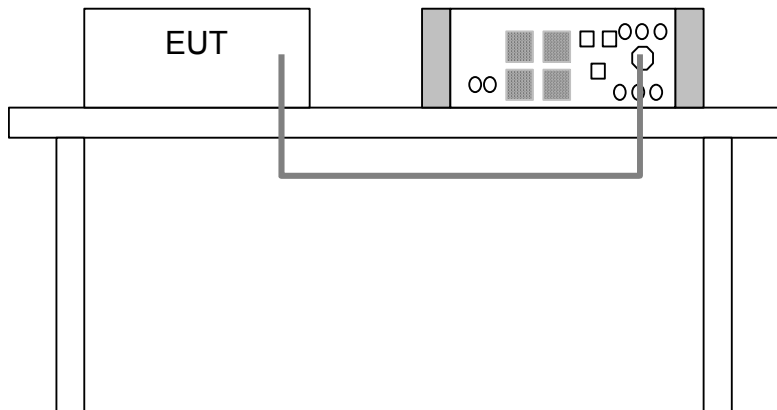
4.3.3 TEST PROCEDURE

- a. The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn.
- b. The classification of EUT is according to section 5 of EN 61000-3-2: 2006.
The EUT is classified as follows:
 - Class A: Balanced three-phase equipment, Household appliances excluding equipment as Class D, Tools excluding portable tools, Dimmers for incandescent lamps, audio equipment, equipment not specified in one of the three other classes.
 - Class B: Portable tools. ; Arc welding equipment which is not professional equipment
 - Class C: Lighting equipment.
 - Class D: Equipment having a specified power less than or equal to 600 W of the following types: Personal computers and personal computer monitors and television receivers.
- c. The correspondent test program of test instrument to measure the current harmonics emanated from EUT is chosen. The measure time shall be not less than the time necessary for the EUT to be exercised.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.3.6 EUT OPERATING CONDITIONS

Connected a resistor load to DC output port of EUT to make EUT have maximum power consumption.

4.3.7 TEST RESULTS

TEST MODE	Full Load		
FUNDAMENTAL VOLTAGE/AMPERE	230.3Vrms/ 0.757Arms	POWER FREQUENCY	50.000Hz
POWER CONSUMPTION	70.07W	POWER FACTOR	0.402
ENVIRONMENTAL CONDITIONS	22deg. C, 76%RH	TESTED BY: Andy Hook Cheng	

NOTE :

1. Limits are not specified for equipment with a rated power of 75W or less (other than lighting equipment).
2. According to EN 61000-3-2 the manufacturer shall specify the power of the apparatus. This value shall be used for establishing limits. The specified power shall be within +/-10% of the measured power.

4.4 VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

4.4.1 LIMITS OF VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

TEST STANDARD: EN 61000-3-3

TEST ITEM	LIMIT	NOTE
P_{st}	1.0	P_{st} means short-term flicker indicator.
P_{lt}	0.65	P_{lt} means long-term flicker indicator.
$T_{d(t)}$ (ms)	500	$T_{d(t)}$ means maximum time that $d(t)$ exceeds 3.3%
d_{max} (%)	4	d_{max} means maximum relative voltage change.
dc (%)	3.3	dc means relative steady-state voltage change

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
EMC PARTNER EMC Emission Tester	HAR1000-1P	084	Apr. 10, 2012	Apr. 09, 2013
Software	HARCS	NA	NA	NA

NOTE: 1. The test was performed in EMS Room No. 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 3, 2013.

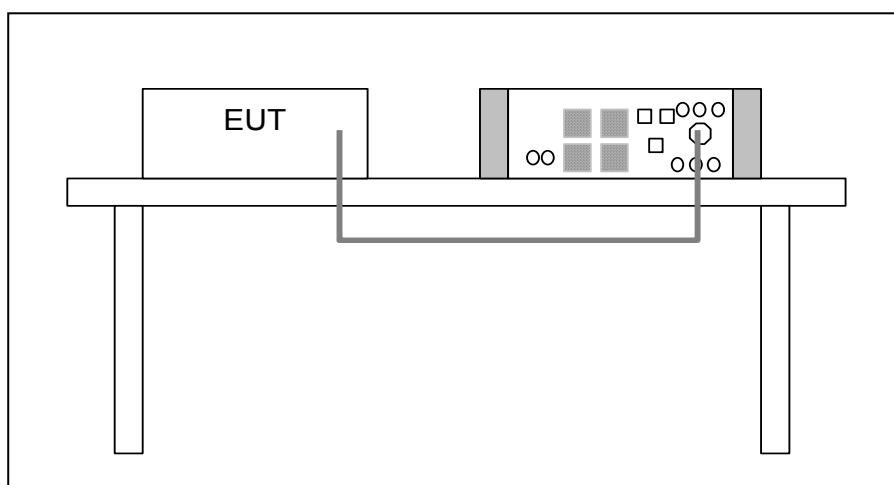
4.4.3 TEST PROCEDURE

- The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal operating conditions.
- During the flick measurement, the measure time shall include that part of whole operation cycle in which the EUT produce the most unfavorable sequence of voltage changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.4.6 EUT OPERATING CONDITIONS

Same as item 4.3.6.

4.4.7 TEST RESULTS

TEST MODE	Full Load		
FUNDAMENTAL VOLTAGE/AMPERE	230.3 Vrms / 0.757 Arms	POWER FREQUENCY	50.000 Hz
OBSERVATION PERIOD (Tp)	10 minutes	POWER FACTOR	0.402
ENVIRONMENTAL CONDITIONS	22deg. C, 76%RH	TESTED BY: Andy Hook Cheng	

TEST PARAMETER	MEASUREMENT VALUE	LIMIT	REMARKS
P_{st}	0.072	1.0	Pass
P_{lt}	0.072	0.65	Pass
$T_{d(t)}$ (ms)	0	500	Pass
d_{max} (%)	0	4	Pass
dc (%)	0.020	3.3	Pass

NOTE:

- (1) P_{st} means short-term flicker indicator.
- (2) P_{lt} means long-term flicker indicator.
- (3) $T_{d(t)}$ means maximum time that $d(t)$ exceeds 3.3%.
- (4) d_{max} means maximum relative voltage change.
- (5) dc means relative steady-state voltage change.

5 IMMUNITY TEST

5.1 GENERAL DESCRIPTION

Product Standard:	EN 55024:2010	
Basic Standard, specification requirement, and Performance Criteria:	IEC 61000-4-2	Electrostatic Discharge – ESD: 8kV air discharge, 4kV Contact discharge, Performance Criterion B
	IEC 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test – RS: 80-1000 MHz, 3V/m, 80% AM (1kHz), Performance Criterion A
	IEC 61000-4-4	Electrical Fast Transient/Burst - EFT AC Power line: 1kV, DC Power line: 0.5kV Signal line: 0.5kV Performance Criterion B
	IEC 61000-4-5	Surge Immunity Test: AC Power Line: line to line 1 kV, line to earth 2kV DC Power Line: line to earth 0.5kV Performance Criterion B Outdoor Signal line: i) 1 kV without primary protectors, Performance Criteria C ii) 4 kV with primary protectors, Performance Criterion C
	IEC 61000-4-6	Conducted Radio Frequency Disturbances Test – CS: 0.15-80 MHz, 3Vrms, 80% AM, 1kHz, Performance Criterion A
	IEC 61000-4-8	Power Frequency Magnetic Field Test, 50 Hz, 1A/m, Performance Criterion A
	IEC 61000-4-11	Voltage Dips: i). >95% reduction -0.5 period, Performance Criterion B ii). 30% reduction – 25 period, Performance Criterion C Voltage Interruptions: i). >95% reduction – 250 period, Performance Criterion C

5.2 GENERAL PERFORMANCE CRITERIA DESCRIPTION

According to Clause 7 of EN 55024 standard, the following describes.

General performance criteria

CRITERION A	The equipment shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the client/customer, when the equipment is used as intended. If the minimum performance level or the permissible performance loss is not specified by the client/customer, then either of these may be derived from the product description and documentation, or from what the user may reasonably expect from the apparatus is used as intended.
CRITERION B	The equipment shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the client/customer, when the equipment is used as intended. During the test, degradation of performance is allowed, however, no change of actual; operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the client/customer, then either of these may be derived from the product description and documentation, or from what the user may reasonably expect from the equipment if used as intended.
CRITERION C	Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

Particular performance criteria

The particular performance criteria which are specified in the normative annexes of EN 55024 take precedence over the corresponding parts of the general performance criteria.

Where particular performance criteria for specific functions are not given, then the general performance criteria shall apply.

5.3 EUT OPERATING CONDITION

Connected a resistor load to DC output port of EUT to make EUT have maximum power consumption and a multimeter was used to monitor voltage of output.

5.4 ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

5.4.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-2
Discharge Impedance:	330 ohm / 150 pF
Discharge Voltage:	Air Discharge : 2, 4, 8kV (Direct) Contact Discharge : 2, 4kV (Indirect)
Polarity:	Positive & Negative
Number of Discharge:	Air Discharge: min. 20 times at each test point Contact Discharge: min. 200 times in total
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum

5.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
EM Test ESD Simulator	Dito	V0707102251	Apr. 13, 2012	Apr. 12, 2013

- NOTE:** 1. The test was performed in ESD Room No. 3.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 3, 2013.

5.4.3 TEST PROCEDURE

The discharges shall be applied in two ways:

a. Contact discharges to the conductive surfaces and coupling planes:

The EUT shall be exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points. One of the test points shall be subjected to at least 50 indirect discharges to the center of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges. If no direct contact test points are available, then at least 200 indirect discharges shall be applied in the indirect mode. Test shall be performed at a maximum repetition rate of one discharge per second.

b. Air discharges at slots and apertures and insulating surfaces:

On those parts of the EUT where it is not possible to perform contact discharge testing, the equipment should be investigated to identify user accessible points where breakdown may occur. Such points are tested using the air discharge method. This investigation should be restricted to those area normally handled by the user. A minimum of 10 single air discharges shall be applied to the selected

test point for each such area.

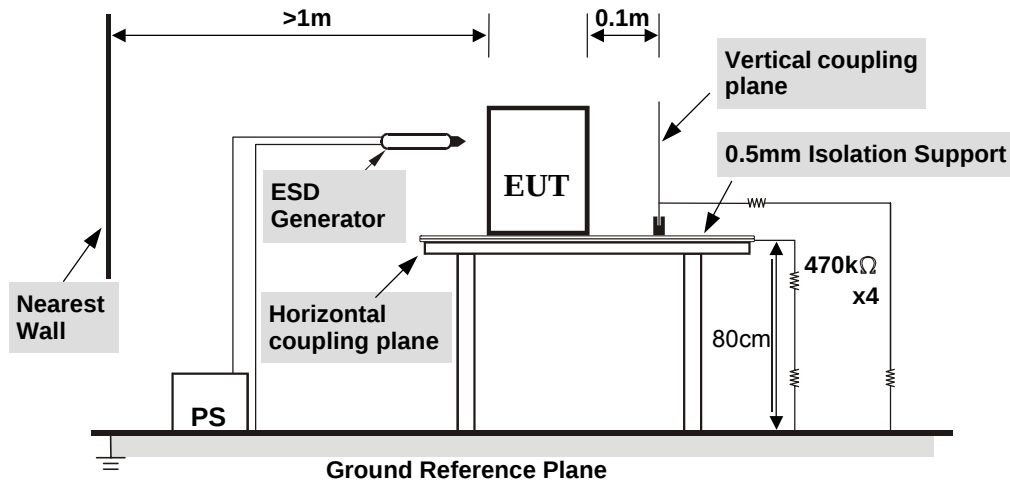
The basic test procedure was in accordance with IEC 61000-4-2:

- a. Electrostatic discharges were applied only to those points and surfaces of the EUT that are accessible to users during normal operation.
- b. The test was performed with at least ten single discharges on the pre-selected points in the most sensitive polarity.
- c. The time interval between two successive single discharges was at least 1 second.
- d. The ESD generator was held perpendicularly to the surface to which the discharge was applied and the return cable was at least 0.2 meters from the EUT.
- e. Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.
- f. Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were complete.
- g. At least ten single discharges (in the most sensitive polarity) were applied to the **Horizontal Coupling Plane** at points on each side of the EUT. The ESD generator was positioned horizontally at a distance of 0.1 meters from the EUT with the discharge electrode touching the **HCP**.
- h. At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the **Vertical Coupling Plane** in sufficiently different positions that the four faces of the EUT were completely illuminated. The **VCP** (dimensions 0.5m x 0.5m) was placed vertically to and 0.1 meters from the EUT.

5.4.4 DEVIATION FROM TEST STANDARD

No deviation.

5.4.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

NOTE:

TABLE-TOP EQUIPMENT

The configuration consisted of a wooden table 0.8 meters high standing on the **Ground Reference Plane**. The **GRP** consisted of a sheet of aluminum at least 0.25mm thick, and 2.5 meters square connected to the protective grounding system. A **Horizontal Coupling Plane** (1.6m x 0.8m) was placed on the table and attached to the **GRP** by means of a cable with 940kΩ total impedance. The equipment under test, was installed in a representative system as described in section 7 of IEC 61000-4-2, and its cables were placed on the **HCP** and isolated by an insulating support of 0.5mm thickness. A distance of 1-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

FLOOR-STANDING EQUIPMENT

The equipment under test was installed in a representative system as described in section 7 of IEC 61000-4-2, and its cables were isolated from the Ground Reference Plane by an insulating support of 0.1-meter thickness. The GRP consisted of a sheet of aluminum that is at least 0.25mm thick, and 2.5 meters square connected to the protective grounding system and extended at least 0.5 meters from the EUT on all sides.

5.4.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	22deg. C, 48%RH, 1001 hPa	TESTED BY: Andy Hook Cheng	

TEST RESULTS OF DIRECT APPLICATION					
Discharge Level (kV)	Polarity	Test Point	Contact Discharge	Air Discharge	Performance Criterion
2, 4, 8	+/-	1 ~ 5	N/A	Note	A

Description of test point: Please refer to ESD test photo for representative mark only.

TEST RESULTS OF INDIRECT APPLICATION					
Discharge Level (kV)	Polarity	Test Point	Horizontal Coupling Plane	Vertical Coupling Plane	Performance Criterion
2, 4	+/-	1 ~ 4	Note	Note	A

Description of test point:

1. Left side
2. Right side
3. Front side
4. Rear side

NOTE: There was no change compared with the initial operation during the test.

5.5 RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST (RS)

5.5.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-3
Frequency Range:	80 MHz - 1000 MHz
Field Strength:	3 V/m
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of fundamental
Polarity of Antenna:	Horizontal and Vertical
Antenna Height:	1.5m
Dwell Time:	3 seconds

5.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Signal Generator	E8257D	MY48050465	Jul. 11, 2012	Jul. 10, 2013
PRANA RF Amplifier	AP32DP280	0811-894	NA	NA
AR RF Amplifier	150W1000M3	306601	NA	NA
AR RF Amplifier	35S4G8AM4	0326094	NA	NA
AR RF Amplifier	100S1G4M3	0329249	NA	NA
AR Controller	SC1000M3	305910	NA	NA
Radisense Electric Field Sensor	CTR1002A	08D00057SN O-07	Nov. 06, 2012	Nov. 05, 2013
BOONTON RF Voltage Meter	4232A	10180	Jun. 14, 2012	Jun. 13, 2013
BOONTON Power Sensor	51011-EMC	34152	Jun. 14, 2012	Jun. 13, 2013
BOONTON Power Sensor	51011-EMC	34153	Jun. 14, 2012	Jun. 13, 2013
AR Log-Periodic Antenna	AT6080	0329465	NA	NA
EMCO BiconiLog Antenna	3141	1001	NA	NA
AR High Gain Antenna	AT4002A	306533	NA	NA
AR High Gain Horn Antenna	AT4010	0329800	NA	NA
CHANCE MOST Full Anechoic Chamber (9x5x3m)	Chance Most	RS-002	Feb. 07, 2013	Feb. 06, 2014
Software	ADT_RS_V7.6	NA	NA	NA

- NOTE:** 1. The test was performed in RS Room No.2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The transmit antenna was located at a distance of 3 meters from the EUT.
4. Tested Date: Apr. 3, 2013

5.5.3 TEST PROCEDURE

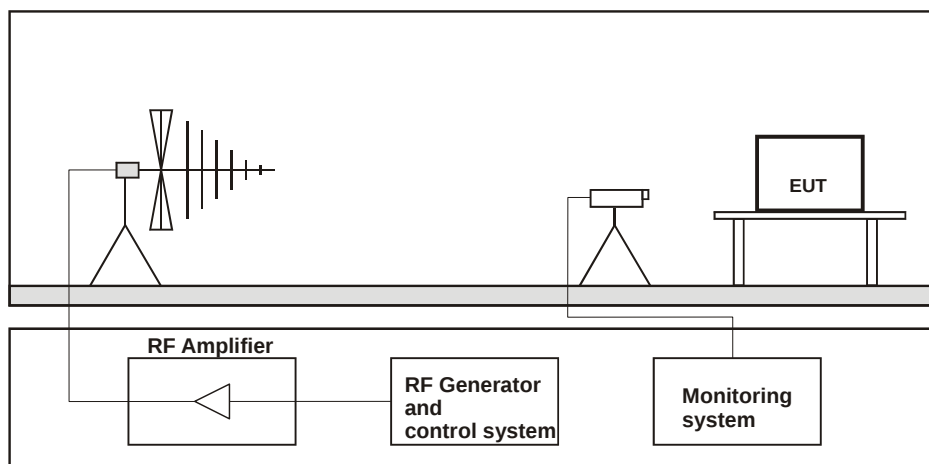
The test procedure was in accordance with IEC 61000-4-3

- The testing was performed in a fully-anechoic chamber.
- The frequency range is swept from 80 MHz to 1000 MHz, with the signal 80% amplitude modulated with a 1 kHz sinewave.
- The dwell time at each frequency shall not be less than the time necessary for the EUT to be exercised and to respond, but shall in no case be less than 0,5s.
- The field strength level was 3V/m.
- The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

5.5.4 DEVIATION FROM TEST STANDARD

No deviation

5.5.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

NOTE:

TABLETOP EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

FLOOR STANDING EQUIPMENT

The EUT installed in a representative system as described in section 7 of IEC 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

5.5.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH	TESTED BY: Andy Hook Cheng	

Frequency (MHz)	Polarity	Azimuth	Field Strength (V/m)	Observation	Performance Criterion
80 – 1000	V & H	0	3	Note	A
80 – 1000	V & H	90	3		
80 – 1000	V & H	180	3		
80 – 1000	V & H	270	3		

NOTE: There was no change compared with the initial operation during the test.

5.6 ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST (EFT)

5.6.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-4
Test Voltage:	Power Line : 1kV Signal Line : N/A
Polarity:	Positive/Negative
Impulse Frequency:	100 kHz: only for signal lines of xDSL equipment 5 kHz: except for xDSL equipment
Impulse Waveshape:	5/50 ns
Burst Duration:	15 ms
Burst Period:	300 ms
Test Duration:	1 min.

5.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Haefely, EFT Generator	PEFT 4010	154954	Apr. 26, 2012	Apr. 25, 2013
Haefely,Capacitive Clamp	IP4A	155173	NA	NA

- NOTE:** 1. The test was performed in EFT Room
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: Apr. 3, 2013.

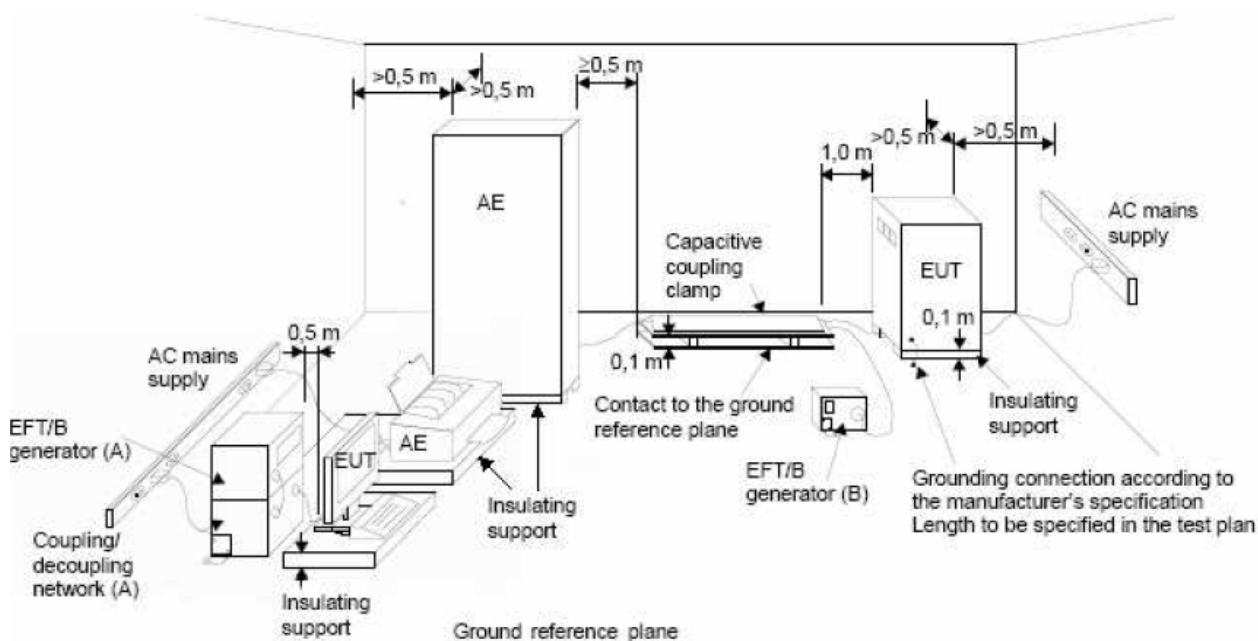
5.6.3 TEST PROCEDURE

- Both positive and negative polarity discharges were applied.
- The distance between any coupling devices and the EUT should be $(0.5 - 0/+0.1)$ m for table-top equipment testing, and (1.0 ± 0.1) m for floor standing equipment.
- The duration time of each test sequential was 1 minute.
- The transient/burst waveform was in accordance with IEC 61000-4-4, 5/50ns.

5.6.4 DEVIATION FROM TEST STANDARD

No deviation

5.6.5 TEST SETUP



NOTE:

(A) location for supply line coupling

(B) location for signal lines coupling

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.6.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	23deg. C, 72%RH	TESTED BY: Andy Hook Cheng	

Test Point	Polarity	Test Level (kV)	Observation	Performance Criterion
L1	+/-	1	Note	A
L2	+/-	1	Note	A
PE	+/-	1	Note	A
L1–L2–PE	+/-	1	Note	A

NOTE: There was no change compared with initial operation during the test.

5.7 SURGE IMMUNITY TEST

5.7.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-5
Wave-Shape:	Combination Wave for power lines 1.2/50 us Open Circuit Voltage 8 /20 us Short Circuit Current 10/700 us Wave for signal lines 10/700 us Open Circuit Voltage
Test Voltage:	Power Line : 0.5, 1, 2kV
Generator Source	2 ohm between networks
Impedance:	12 ohm between network and ground
Polarity:	Positive/Negative
Phase Angle:	0° /90°/180°/270°
Pulse Repetition Rate:	1 time / 20 sec.
Number of Tests:	5 positive and 5 negative at selected points

5.7.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DATE	CALIBRATION UNTIL
KeyTek, EMS Simulator	EMC Pro	9902207	Apr. 18, 2012	Apr. 17, 2013
Surge Cable	WE-4	SU2Cab-001	NA	NA
Surge Adapter WONPRO	WA-9	SU2ADA-002	NA	NA
Coupling Decoupling Network	CDN-UTP8	028	Jul. 18, 2012	Jul. 17, 2013
Software	CEWare32	NA	NA	NA

- NOTE:** 1. The test was performed in Surge Room.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 3, 2013.

5.7.3 TEST PROCEDURE

a. For EUT power supply:

The surge is to be applied to the EUT power supply terminals via the capacitive coupling network. Decoupling networks are required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines, and to provide sufficient decoupling impedance to the surge wave. The power cord between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

b. For test applied to unshielded unsymmetrically operated interconnection lines of EUT:

The surge is applied to the lines via the capacitive coupling. The coupling / decoupling networks shall not influence the specified functional conditions of the EUT. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

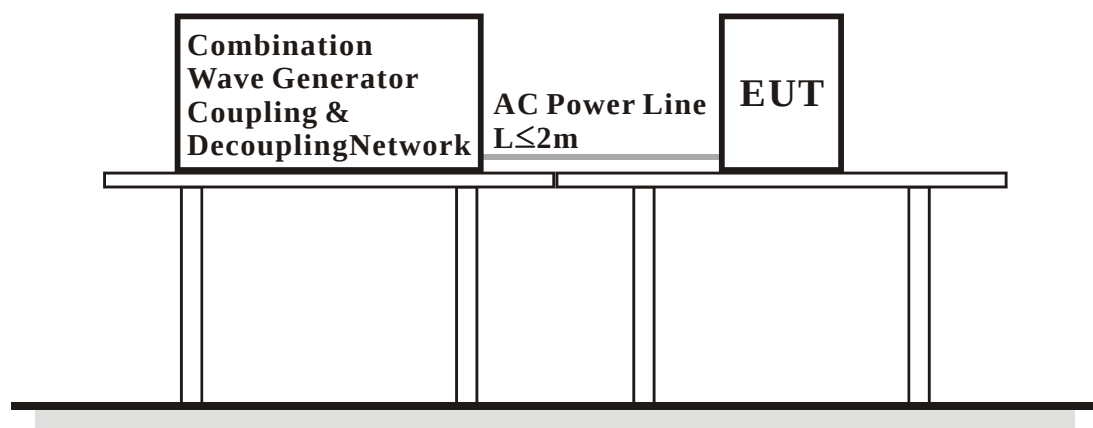
c. For test applied to unshielded symmetrically operated interconnection / telecommunication lines of EUT:

The surge is applied to the lines via gas arrestors coupling. Test levels below the ignition point of the coupling arrestor cannot be specified. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

5.7.4 DEVIATION FROM TEST STANDARD

No deviation

5.7.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.7.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH	TESTED BY: Andy Hook Cheng	

VOLTAGE (kV)	TEST POINT	POLARITY	OBSERVATION	PERFORMANCE CRITERION
0.5, 1	L1-L2	+/-	Note	A
0.5, 1, 2	L1-PE	+/-	Note	A
	L2-PE	+/-	Note	A

NOTE: There was no change compared with the initial operation during the test.

5.8 IMMUNITY TO CONDUCTED DISTURBANCES INDUCED BY RF FIELDS (CS)

5.8.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-6
Frequency Range:	0.15 MHz - 80 MHz
Field Strength:	3 V _{r.m.s}
Modulation:	1 kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of fundamental
Coupling Device:	CDN-M3

5.8.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Signal Generator	SMY01	841104/033	Nov. 20, 2012	Nov. 19, 2013
Digital Sweep Function Generator	8120	984801	NA	NA
AR Power Amplifier	75A250AM1	312196	NA	NA
FCC Coupling Decoupling Network	FCC-801-M3-25A	48	Aug. 17, 2012	Aug. 16, 2013
FCC Coupling Decoupling Network	FCC-801-M3-25A	01022	Feb. 21, 2013	Feb. 20, 2014
FCC Coupling Decoupling Network	FCC-801-M2-16A	01047	Aug. 17, 2012	Aug. 16, 2013
FISCHER CUSTOM COMMUNICATIONS EM Injection Clamp	FCC-203I	50	NA	NA
FISCHER CUSTOM COMMUNICATIONS Current Injection Clamp	F-120-9A	361	NA	NA
EM TEST Coupling Decoupling Network	CDN M1/32A	306508	Feb. 21, 2013	Feb. 20, 2014
FCC Coupling Decoupling Network	FCC-801-T8	02038	Feb. 21, 2013	Feb. 20, 2014
FCC Coupling Decoupling Network	FCC-801-T4	02031	Feb. 21, 2013	Feb. 20, 2014
FCC Coupling Decoupling Network	FCC-801-T2	02021	Feb. 21, 2013	Feb. 20, 2014
R&S Power Sensor	NRV-Z5	837878/038	Nov. 02, 2012	Nov. 01, 2013
R&S Power Sensor	NRV-Z5	837878/039	Nov. 02, 2012	Nov. 01, 2013
R&S Power Meter	NRVD	837794/040	Nov. 02, 2012	Nov. 01, 2013
Software	ADT_CS_V7.4.2	NA	NA	NA

- NOTE:**
1. The test was performed in CS Room No. 1.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: Apr. 3, 2013.

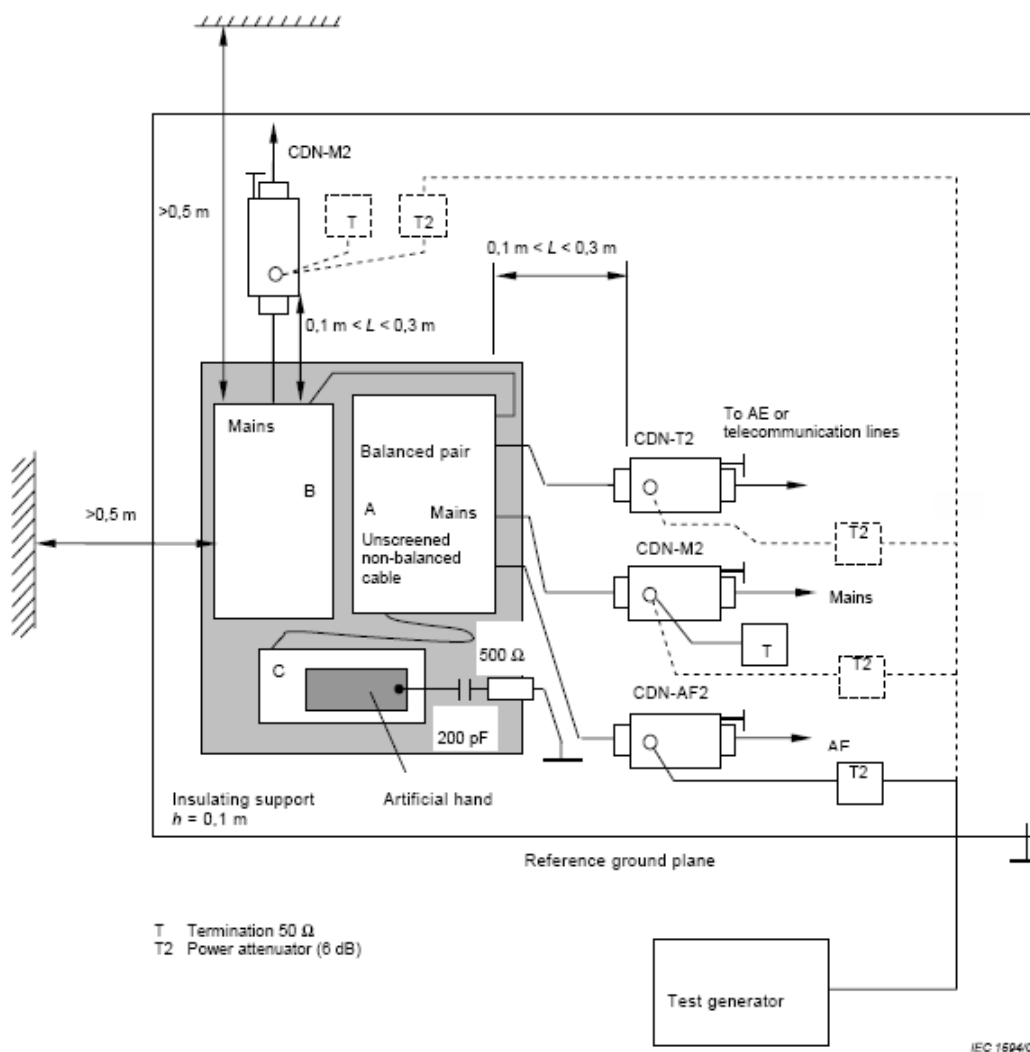
5.8.3 TEST PROCEDURE

- a. The EUT shall be tested within its intended operating and climatic conditions.
- b. An artificial hand was placed on the hand-held accessory and connected to the ground reference plane.
- c. One of the CDNs not used for injection was terminated with 50Ω , providing only one return path. All other CDNs were coupled as decoupling networks.
- d. The frequency range is swept from 150 kHz to 80 MHz, using the signal level established during the setting process and with a disturbance signal of 80 % amplitude. The signal is modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or the switch coupling devices as necessary. Where the frequency is swept incrementally, the step size shall not exceed 1 % of the preceding frequency value.
- e. The dwell time of the amplitude modulated carrier at each frequency shall not be less than the time necessary for the EUT to be exercised and to respond, but shall in no case be less than 0,5 s. The sensitive frequencies (e.g. clock frequencies) shall be analyzed separately.
- f. Attempts should be made to fully exercise the EUT during testing, and to fully interrogate all exercise modes selected for susceptibility.

5.8.4 DEVIATION FROM TEST STANDARD

No deviation

5.8.5 TEST SETUP



- Note:**
1. The EUT clearance from any metallic obstacles shall be at least $0,5 \text{ m}$.
 2. Interconnecting cables ($\leq 1 \text{ m}$) belonging to the EUT shall remain on the insulating support.
 3. The equipment to be tested is placed on an insulating support of $0,1 \text{ m}$ height above a ground reference plane. All relevant cables shall be provided with the appropriate coupling and decoupling devices at a distance between $0,1 \text{ m}$ and $0,3 \text{ m}$ from the projected geometry of the EUT on the ground reference plane.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.8.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH	TESTED BY: Andy Hook Cheng	

FREQUENCY (MHz)	FIELD STRENGTH (V_{r.m.s.})	CABLE	INJECTION METHOD	RETURN PATH	OBSER- VATION	PERFORMANC E CRITERION
0.15 – 80	3	AC power line	CDN-M3	N/A	Note	A

NOTE: There was no change compared with the initial operation during the test.

5.9 POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST

5.9.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-8
Frequency Range:	50 Hz
Field Strength:	1 A/m
Observation Time:	1 minute
Inductance Coil:	Rectangular type, 1 m x 1 m

5.9.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HAEFELY Magnetic Field Tester	MAG 100.1	083794-06	NA	NA
COMBINOVA Magnetic Field Meter	MFM10	224	Apr. 12, 2012	Apr. 11, 2013

NOTE: 1. The test was performed in EMS Room No. 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 3, 2013.

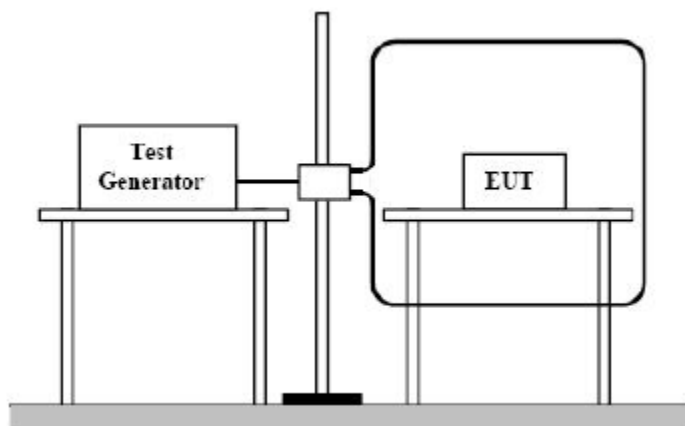
5.9.3 TEST PROCEDURE

- The equipment is configured and connected to satisfy its functional requirements.
- The power supply, input and output circuits shall be connected to the sources of power supply, control and signal.
- The cables supplied or recommended by the equipment manufacturer shall be used. 1 meter of all cables used shall be exposed to the magnetic field.

5.9.4 DEVIATION FROM TEST STANDARD

No deviation

5.9.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

NOTE:

TABLETOP EQUIPMENT

The equipment shall be subjected to the test magnetic field by using the induction coil of standard dimension (1 m x 1 m). The induction coil shall then be rotated by 90 degrees in order to expose the EUT to the test field with different orientations.

FLOOR-STANDING EQUIPMENT

The equipment shall be subjected to the test magnetic field by using induction coils of suitable dimensions. The test shall be repeated by moving and shifting the induction coils, in order to test the whole volume of the EUT for each orthogonal direction. The test shall be repeated with the coil shifted to different positions along the side of the EUT, in steps corresponding to 50 % of the shortest side of the coil. The induction coil shall then be rotated by 90 degrees in order to expose the EUT to the test field with different orientations.

5.9.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 72%RH	TESTED BY: Andy Hook Cheng	

Direction	FIELD STRENGTH (A/m)	Observation	Performance Criterion
X - Axis	1	Note	A
Y - Axis	1	Note	A
Z - Axis	1	Note	A

NOTE: There was no change compared with the initial operation during the test.

5.10 VOLTAGE DIP/SHORT INTERRUPTIONS (DIP) IMMUNITY TEST

5.10.1 TEST SPECIFICATION

Basic Standard:	IEC 61000-4-11
Test Duration Time:	Minimum three test events in sequence
Interval between Event:	Minimum ten seconds
Phase Angle:	0°/180°
Test Cycle:	3 times

5.10.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
KeyTek EMS Simulator	EMCPro	9902207	Apr. 18, 2012	Apr. 17, 2013

- NOTE:** 1. The test was performed in EMS Room No. 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 3, 2013.

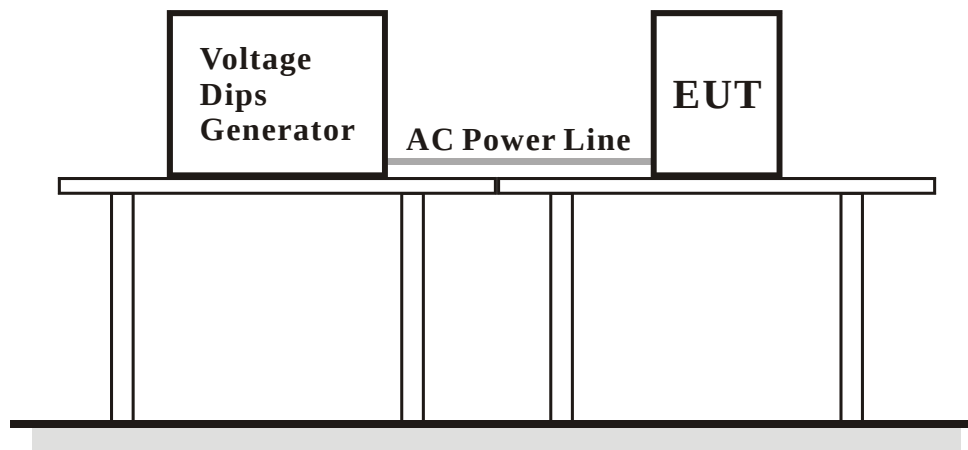
5.10.3 TEST PROCEDURE

The EUT shall be tested for each selected combination of test levels and duration with a sequence of three dips/interruptions with intervals of 10 s minimum (between each test event). Each representative mode of operation shall be tested. Abrupt changes in supply voltage shall occur at zero crossings of the voltage waveform.

5.10.4 DEVIATION FROM TEST STANDARD

No deviation

5.10.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

5.10.6 TEST RESULTS

TEST MODE	Full Load	INPUT POWER	230Vac, 50Hz & 100Vac, 50Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 74%RH	TESTED BY: Andy Hook Cheng	

Input Power for testing: 230Vac, 50Hz			
VOLTAGE % REDUCTION	PERIOD	OBSERVATION	PERFORMANCE CRITERION
>95	0.5	Note (1)	A
30	25	Note (1)	A
>95	250	Note (2)	B

Input Power for testing: 100Vac, 50Hz			
VOLTAGE % REDUCTION	PERIOD	OBSERVATION	PERFORMANCE CRITERION
>95	0.5	Note (1)	A
30	25	Note (1)	A
>95	250	Note (2)	B

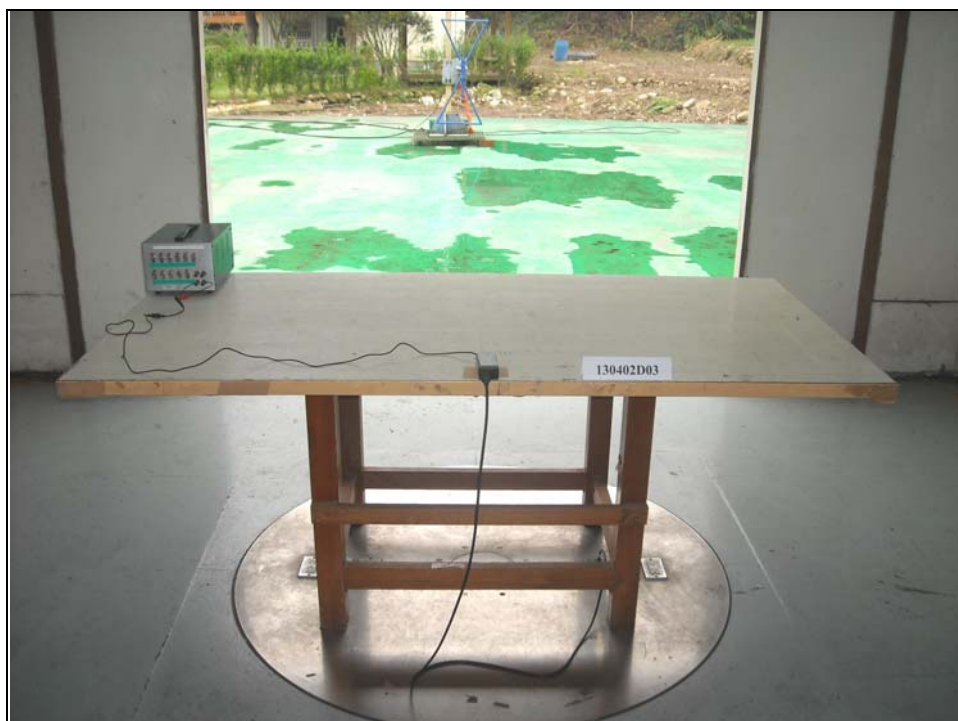
NOTE: (1) There was no change compared with the initial operation during the test.
(2) The EUT reset during the test.

6 PHOTOGRAPHS OF THE TEST CONFIGURATION

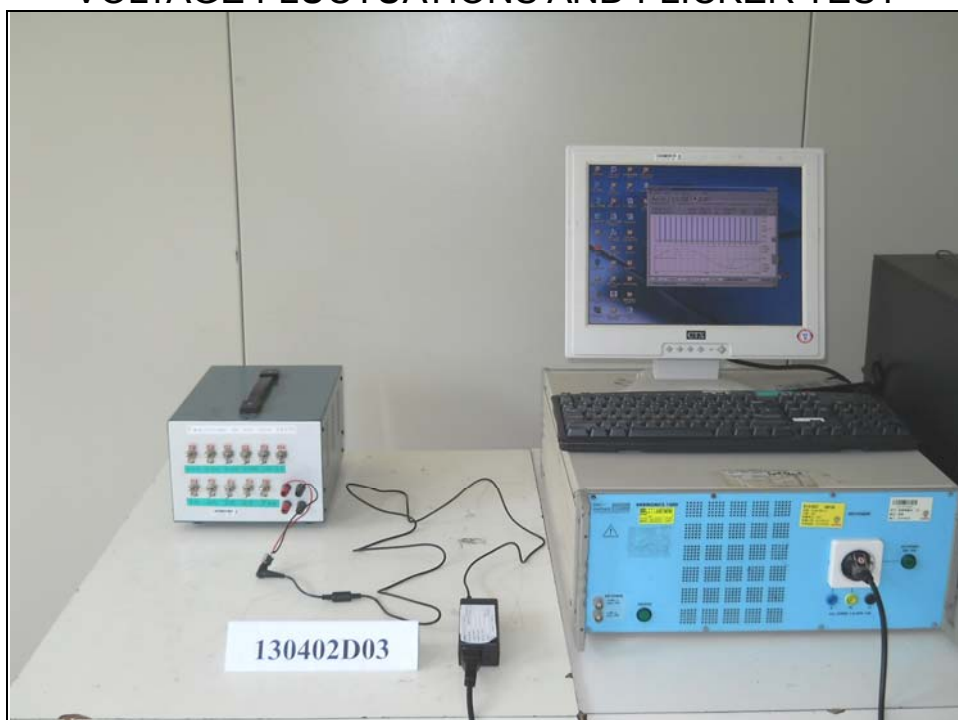
CONDUCTED EMISSION TEST



RADIATED EMISSION TEST



HARMONICS EMISSION TEST & VOLTAGE FLUCTUATIONS AND FLICKER TEST



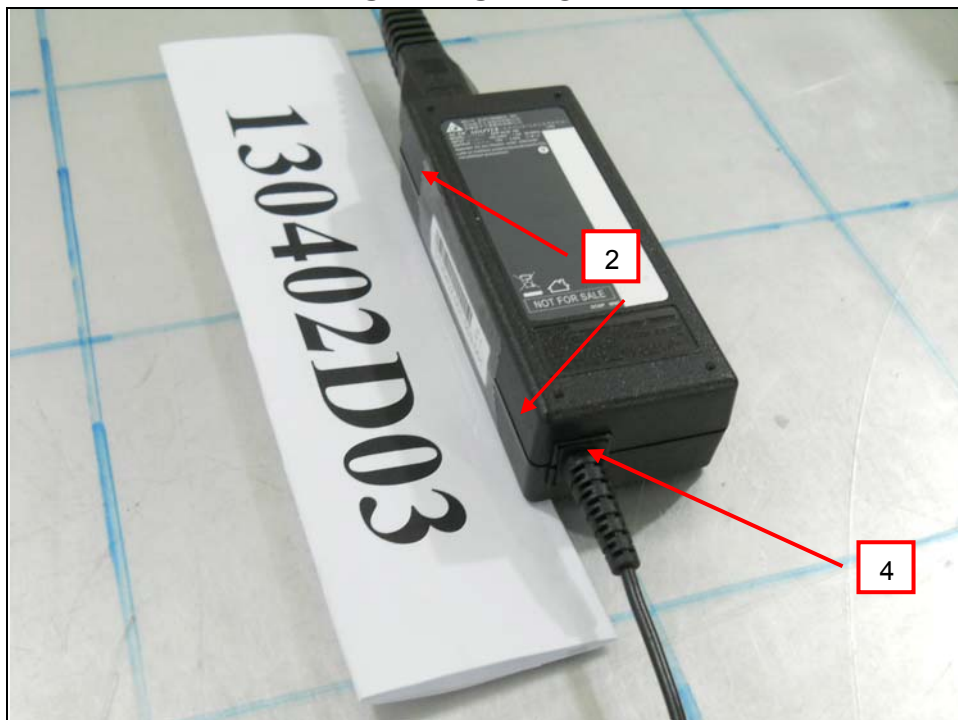
ESD TEST



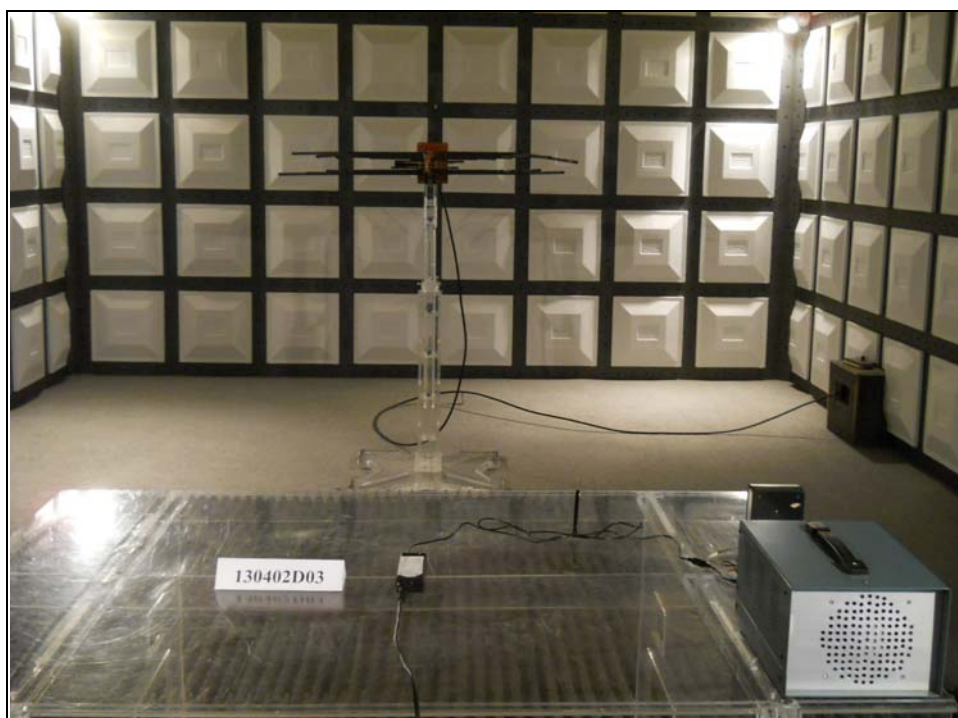
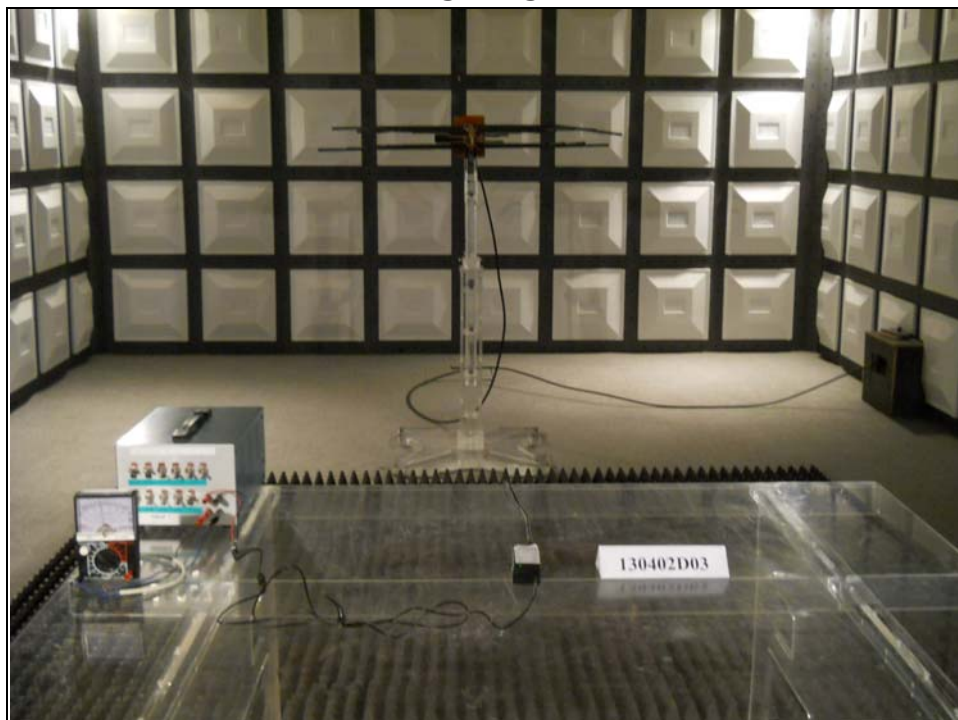
ESD TEST POINT



ESD TEST POINT



RS TEST



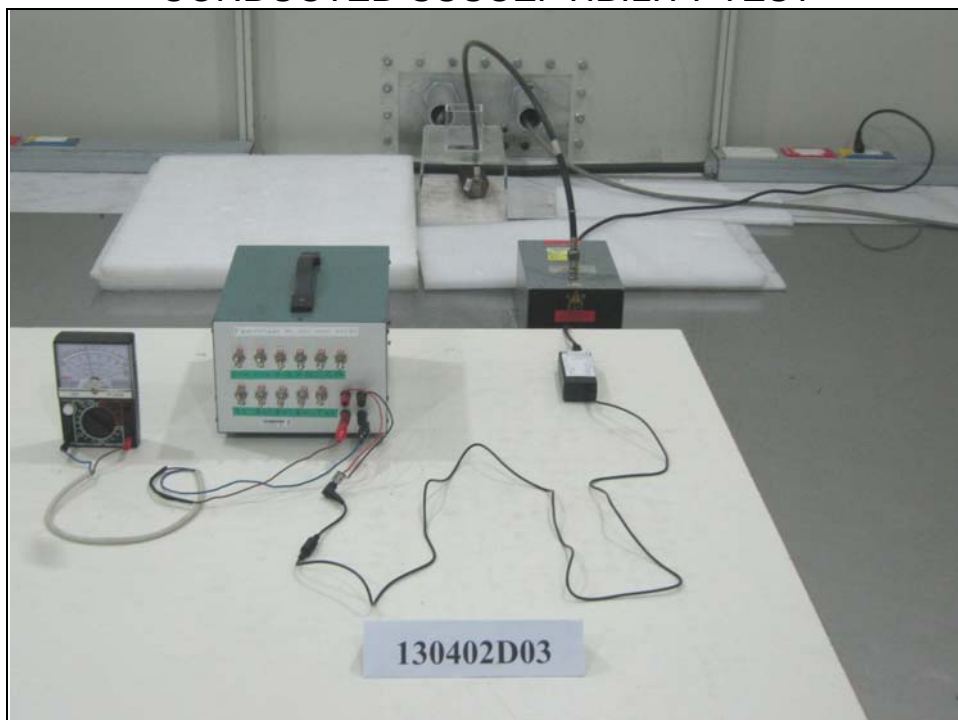
EFT TEST



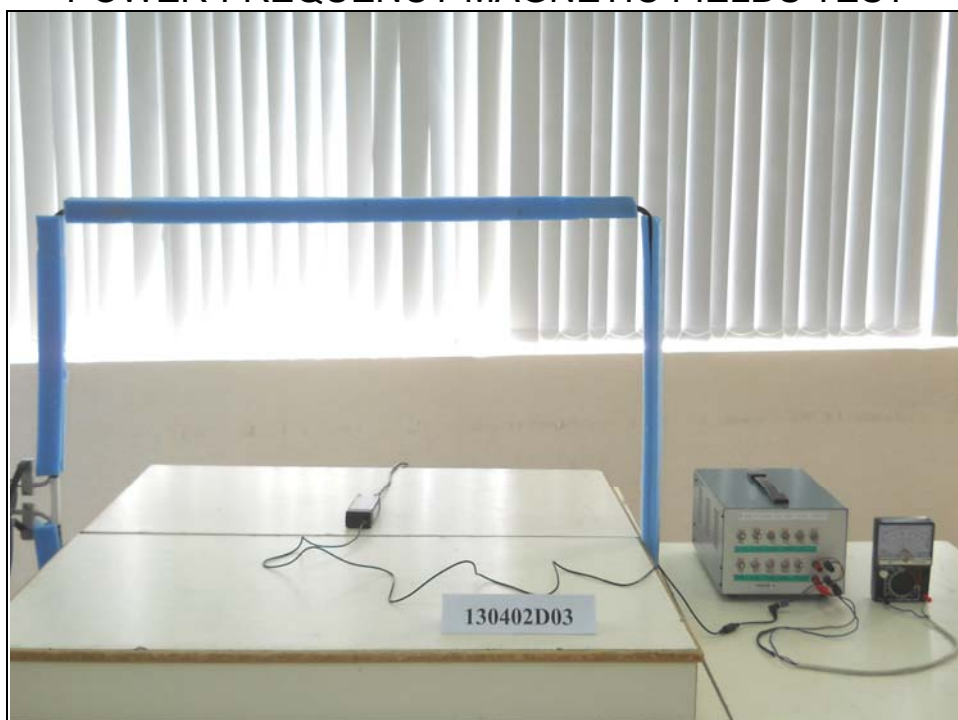
SURGE TEST



CONDUCTED SUSCEPTIBILITY TEST



POWER-FREQUENCY MAGNETIC FIELDS TEST



VOLTAGE DIPS AND INTERRUPTIONS TEST



7 APPENDIX - INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---

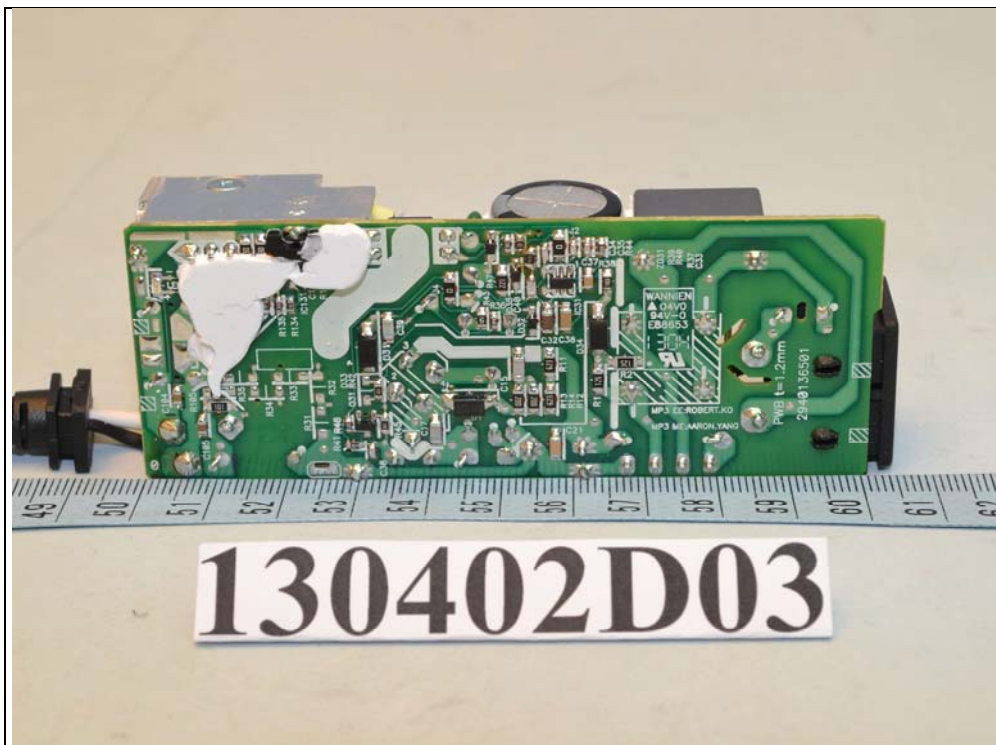
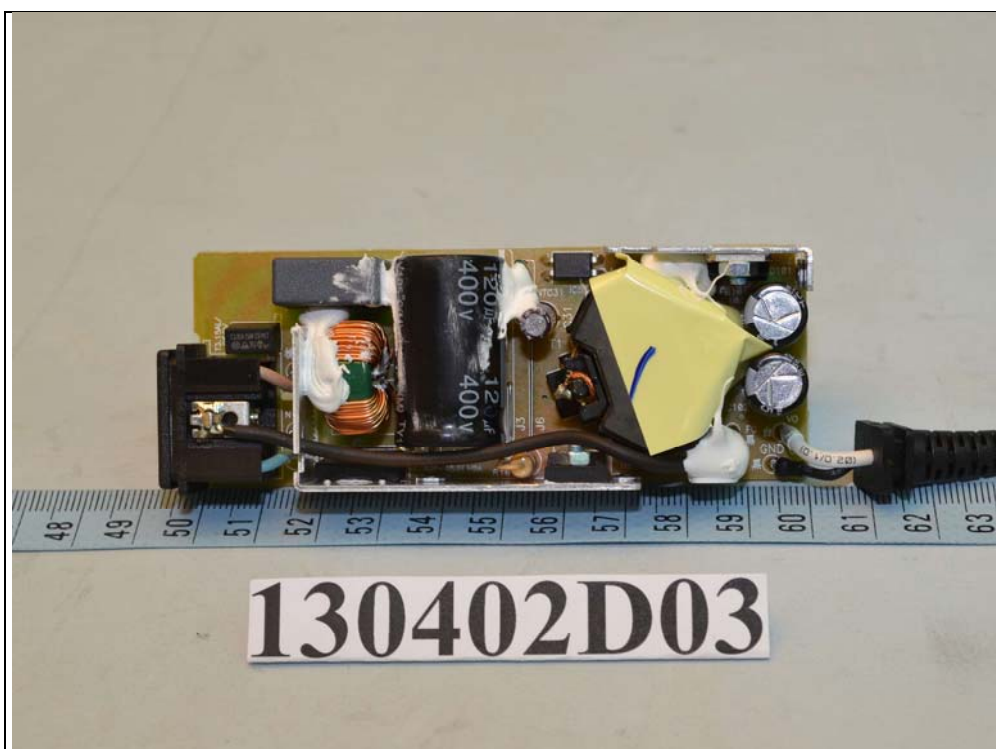
CONSTRUCTION PHOTOS OF EUT



A D T







CERTIFICATE OF COMPLIANCE

Certificate Number 20130417-E131881
Report Reference E131881-A1632-UL
Issue Date 2013-APRIL-17

Issued to: DELTA ELECTRONICS INC
3 TUNGYUAN RD, CHUNGLI INDUSTRIAL ZONE,
TAOYUAN COUNTY, 32063 TAIWAN

**This is to certify that
representative samples of**

POWER SUPPLIES, INFORMATION TECHNOLOGY
EQUIPMENT INCLUDING ELECTRICAL BUSINESS
EQUIPMENT

AC/DC ADAPTER, ADP-65JH HB

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 60950-1 & CSA C22.2 No. 60950-1-07 - Information
Technology Equipment - Safety - Part 1: General
Requirements

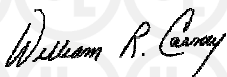
Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Listing Mark for the US and Canada should be considered as
being covered by UL's Listing and Follow-Up Service meeting the appropriate requirements for US
and Canada.

The UL Listing Mark for the US and Canada generally includes: the UL in a circle symbol with "C" and

"US" identifiers:  the word "LISTED"; a control number (may be alphanumeric) assigned by UL;
and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



William R. Carney, Director, North American Certification Programs
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please
contact a local UL Customer Service Representative at www.ul.com/contactus



UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	AC/DC ADAPTER
Model:	ADP-65JH HB
Rating:	Input: 100-240V~, 1.5A, 50-60Hz Output: 19Vdc, 3.42A
Applicant Name and Address:	DELTA ELECTRONICS INC 3 TUNGYUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN COUNTY 32063 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Patrick Tsai

Reviewed by: Brian Hsu

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Electronic components mounted on PWB and housed with a plastic enclosure.

Model Differences

N/A

Technical Considerations

- Equipment mobility : movable/ transportable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class I (Functional Earthing)
- Considered current rating of protective device as part of the building installation (A) : 20
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : UP to 5000m
- Altitude of test laboratory (m) : Up to 2000m
- Mass of equipment (kg) : Approx. 0.16
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 degree C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The product was investigated to the following additional standards: The equipment is operated up to

5000 m (16404 feet) above sea level as declared by manufacturer. Clearances have been evaluated according to IEC 60664-1: table A.2 with a multiplication factor of 1.48 throughout this report.

- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): 19Vdc output
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The equipment employs Functional Earthing per 2.6.2. As anticipated by the NOTE for 1.2.4, it does not conform to one of the common Classes (I, II, or III). The following insulation is provided between the primary and accessible dead metal parts and circuits: Double/Reinforced
- LEDs provided in the product are considered low power devices: Yes

Additional Information

N/A

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Model	Model Number
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.
Operating/Instruction/Safety Manual	- Shall be provided with each unit or bulk shipment; - If units are to be shipped to original equipment manufacturers (OEM) for repackaging with end-use product, only one operation/safety instruction manual may be provided per shipment box with instructions to reproduce the operation/safety instructions in the end-use user's manual.

Special Instructions to UL Representative

- Inspect the transformer(s) listed in Production-Line Testing Requirements per AA1.1- (C).
- When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer.
- Verify the specification sheet indicates 100% routine test specified in Production-Line Testing Requirements be conducted at the component manufacturer.

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
ADP-65JH HB	Transformer (T1)	N/A	Primary to Secondary	3000	4242	1

Earthing Continuity Test Exemptions - This test is not required for the following models:

ADP-65JH HB

Electric Strength Test Exemptions - This test is not required for the following models:

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
1. Plastic Enclosure	SABIC INNOVATIVE PLASTICS B V	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1a. Plastic Enclosure (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1b. Plastic Enclosure (Alternate)	SABIC INNOVATIVE PLASTICS US L L C	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1d. Plastic Enclosure (Alternate)	BAYER MATERIALSCIENCE AG	6485	V-0, 115 degree C, 1.5 mm min thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1d. Plastic Enclosure (Alternate)	STYRON (HONG KONG) LTD	CELEX 3600	V-0, 125 degree C, 1.5 mm min thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1e. Plastic Enclosure (Alternate)	CHEIL INDUSTRIES INC CHEMICALS DIV	HN-1064	V-0, 130 degree C, 1.5 mm min. thickness, sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
2. Appliance Inlet	DELTA ELECTRONICS, INC.	SK-1024M	AC 250V, 2.5A, 70 degree C	AXUT2	UL	
2a. Appliance Inlet (Alternate)	Solteam Electronics Co., Ltd.	ST-03	AC 250V, 2.5A, 70 degree C	AXUT2	UL	
3. Internal Wiring (Primary)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 300 V, 105 degree	AVLV2	UL	

			C min.			
4. PWB	Interchangeable	Interchangeable	min. V-0, 130 degree C min.	ZPMV2	UL	
5. Fuse (F1)	LITTELFUSE WICKMANN WERKE (for UL); Littelfuse, Inc. (for VDE); LITTELFUSE PHILIPPINES INC. (for CQC)	392	T3.15AL, AC 250V	JDYX2, JDYX8	UL	
5a. Fuse (F1) (Alternate)	EVER ISLAND ELECTRIC CO LTD & WALTER ELECTRIC(for UL); Ever Island Electric Co., Ltd. and Walter Electric(for VDE); (1)Dongguan Walter Electric Co., Ltd(for CCC) (2)Suzhou Walter Electronic Co., Ltd. (for CQC)	2010 (for UL, CCC); 2010 Serie(s) (for VDE)	T3.15AL, AC 250V	JDYX2, JDYX8	UL	
5b. Fuse (F1) (Alternate)	BEL FUSE INC (for UL); Bel Fuse Ltd. (for VDE and CCC)	RST (for UL, CCC); RST- Serie(s) (for VDE)	T3.15AL, AC 250V (CCC and VDE), AC 277 V (for UL)	JDYX2, JDYX8	UL	
5c. Fuse (F1) (Alternate)	CONQUER ELECTRONICS CO LTD(for UL); Conquer Electronics Co., Ltd.(for VDE,CCC)	MST(for UL, CCC); MST series (for VDE)	T3.15AL, AC250V (for VDE, CQC, UL), 300V (for UL)	JDYX2, JDYX8	UL	
6. Bleeder Resistors (R1, R2)	Interchangeable	Interchangeable	1.2M Ohm, 1/4W.	--	--	
7. X-Capacitor (CX1)	KEMET ELECTRONICS ITALIA SRL (for UL), KEMET ELECTRONICS	R.46	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384- 14	FOWX2	UL	

	CORPORATION (for IMQ) or Acrotronics					
7a. X-Capacitor (CX1) (Alternate)	OKAYA ELECTRIC INDUSTRIES CO LTD. (for ENEC and UL)	LE(-*) (for ENEC), LE+++ (for UL), LE Series (for UL), LE (for CQC)	CX1=0.33uF max., 250Vac min., 100 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7b. X-Capacitor (CX1) (Alternate)	HUA JUNG COMPONENTS CO LTD (for UL, ENEC)	MKP	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7c. X-Capacitor (CX1) (Alternate)	Euoptronic (Taiwan) Ind. Corp. (for ENEC, VDE); EUROPTRONIC (TAIWAN) INDUSTRIAL CORP (for UL)	MPX Series (for UL), MPX (for VDE, CQC)	CX1=0.33uF max., 250Vac min., 105 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7d. X-Capacitor (CX1) (Alternate)	PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA (for UL) or Matsushita	ECQUL	CX1=0.33uF max., 250Vac min., 100 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7e. X-Capacitor (CX1) (Alternate)	Euoptronic (Taiwan) Ind. Corp. (for ENEC, VDE); EUROPTRONIC (TAIWAN) INDUSTRIAL CORP (for UL)	MPX2	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7f. X-Capacitor (CX1) (Alternate)	PILKOR ELECTRONICS CO LTD (for UL, ENEC)	PCX2 339	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7g. X-Capacitor (CX1) (Alternate)	EPCOS Electronic Components S.A.(for	B3292# (for VDE, CQC); B3292x-	CX1=0.33uF max., 250Vac min., 105 degree C min., X2	FOWX2	UL	

	UL,VDE)	x2xxx* (for UL); B3292x-x3xxx* (for UL)	type. Comply with IEC 60384-14			
7h. X-Capacitor (CX1) (Alternate)	ISKRA SISTEMI, D D (or ISKRA)	KNB1560	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7i. X-Capacitor (CX1) (Alternate)	XIAMEN FARATRONIC CO LTD (for UL), Xianmen Faratronic Co.Ltd (for VDE)	MKP62	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
8. Y-Capacitors (CY1)	Murata Mfg. Co., Ltd. (for VDE); MURATA MFG CO LTD(for UL); Murata Manufacturing Co., Ltd. (for CQC)	KX	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
8a. Y-Capacitors (CY1) (Alternate)	Walsin Technology Corp. (for VDE); WALSIN TECHNOLOGY CORP (for UL); Walsin Technology Corporation (for CQC)	AH	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
8b. Y-Capacitors (CY1) (Alternate)	TDK-EPC Corporation or TDK Corporation (for VDE), TDK-EPC CORPORATION (for UL)	CD	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
9. Line Filter (FL2)	Interchangeable	Interchangeable	Open type construction, min. 130 degree C. See Enclosure 4-02 for details.	--	--	
10. Isolating Transformer	Delta Electronics	MV-MP12574	Open type construction with	--	--	

(T1)	(Wuhu) Co., Ltd.; Delta Electronics (Chen Zhou) Co., Ltd.; Delta Electronics (Thailand) Public Co., Ltd.; Delta Electronics (Jiangsu) Co., Ltd.		ferrite core, see Enclosure 4-03 for construction and material list.			
10-1. Insulation System	DELTA ELECTRONICS, INC.	MP-130I	Class B	OBJY2	UL	
11. Bridge Rectifier (BD1)	Interchangeable	Interchangeable	800V min., 2A	--	--	
12. Thermistor (NTC31)	SEMITEC Corporation	MF11C474J	470K ohm at 25 degree C	XGPU2	UL	
12a. Thermistor (NTC31) (Alternate)	THINKING	TTC-474	470K ohm at 25 degree C	XGPU2	UL	
13. Electrolytic Capacitor (C1)	Interchangeable	Interchangeable	120uF, 400V min., 105 degree C min.	--	--	
14. Transistors (Q1)	Interchangeable	Interchangeable	600V min., 10A-11A or 620V min., 8.4A	--	--	
15. Optocoupler (IC51)	LITE-ON TECHNOLOGY CORP	LTV-816M (for UL, N, CQC); LTV-816 (for VDE)	dti>0.6 mm, ext. cr.>7.0mm, int cr.>5.2mm, thermal cycling tested, isolation: min. AC 4800V, 110 degree C	FPQU2, FPQU8	UL	
15a. Optocoupler (IC51) (Alternate)	Renesas Electronics Corporation (for UL, VDE, S)	PS2561DL1-1(for UL, VDE), PS2561DL1-1xx (for CCC)	dti.>0.4 mm, ext. cr.>8.0mm, Int.cr.>4.0mm, thermal cycling test, 110 degree C, isolation: AC 4800V min. Humidity 120h.	FPQU2	UL	
15b. Optocoupler (IC51) (Alternate)	EVERLIGHT ELECTRONICS CO LTD (for UL), Everlight Electronics Co., Ltd (for VDE, FI)	EL816 (for UL and CQC) EL816 V (for VDE) EL816." "=A-Z or blank or number) (for N)	dti.>0.5mm, ext. cr.≥7.6mm, int. cr.≥6.0mm,thermal cycling test ,110 degree C, isolation: AC 4800V min. Humidity test 120h,	FPQU2	UL	
15c. Optocoupler (IC51)	SHARP CORP	PC123	dti>0.4mm, ext>8.0mm, int	FPQU2	UL	

(Alternate)	ELECTRONIC COMPONENTS AND DEVICES GROUP (for UL); Sharp Corporation (for VDE, S)		cr.>4.0mm, thermal cycling test, isolation: AC 5000V Min, 110 degree C, Humidity 120h.			
15d. Optocoupler (IC51) (Alternate)	TOSHIBA CORP, SEMICONDUCTOR CO DISCRETE SEMICONDUCTOR DIV (for UL); Toshiba Corporation Semicon. Co. Discrete Div (for VDE); Toshiba Corporation Semiconductor Company (for S); Toshiba Corporation Semiconductor & Storage Products Company (for CQC)	TLP781/TLP781F	dti>0.4 mm, ext. cr. > 8.0 mm, int cr. > 5.0 mm, thermal cycling tested, isolation: AC 4800V Min, 115 degree C.	FPQU2, FPQU8	UL	
16. Insulating Tubing/Sleeving	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1 or FT-1; 125 degree C, 300 V.	UZFT2, YDPU2, YDTU2	UL	
17. Internal plastic part	Interchangeable	Interchangeable	Min. V-2.	QMFZ2	UL	
18. Glue	Interchangeable	Interchangeable	Rated V-2 min. See Enclosure 4-09 for details.	QMFZ2	UL	
19. Internal Wiring (FG wires)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 30 V min., 80 degree C min.	AVLV2	UL	
20. Heat sink (HS1)	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-04 for dimension details.	--	--	
21. Heat sink (HS2)	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-05 for dimension details.	--	--	

22. Insulation Tape (between C102, C103 and T1)	3M	1350F-1	130 degree C, 3 Layers, dimension 26*35mm	OANZ2	UL	
23. Output Cord	Interchangeable	Interchangeable	Min. 80 degree C, 30 V, max 3.05m long, VW-1 or FT-1, had been evaluated for external use	AVLV2	UL	
24. Strain Relief Means	Interchangeable	Interchangeable	PVC plastic bushing integrally molded on Output Cord. See Enclosure 4-06 for details.	--	--	
25. Tubing (covered FG wiring)	Sumitomo Electric Fine Polymer Inc	Sumitube F32	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25a.Tubing (covered FG wiring) (Alternate)	DONGGUAN SALIPT CO LTD	SALIPT S-901-600	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25b.Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	Versafit	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25c.Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	Versafit V2	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25d. Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	ZH2	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25e. Tubing (covered FG wiring) (Alternate)	WELL ONE CO LTD	GT-2	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.44 mm thickness	YDPU2	UL	
26. Top Shield	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-07 for dimension details.	--	--	
26-1. Insulation tape	3M	1350T-3	130 degree C, 3 Layers composite. see Enclosure 4-07 for dimension details.	OANZ2	UL	
27. Bottom Shield	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-08 for dimension details.	--	--	
27-1. Insulator	SABIC INNOVATIVE PLASTICS US L L C	FR25A	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for	QMFZ2	UL	

			details			
27-1a. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	FR25A	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1b. Insulator (Alternate)	Sabic Innovative Plastics US L L C	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1c. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1d. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS B V	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1e. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	EFR95	V-0, 130 degree C, Min. 0.43 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1f. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS US L L C	EFR95	V-0, 130 degree C, Min. 0.43 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1g. Insulator (Alternate)	FORMEX,DIV OF IL TOOL WORKS INC,FRMRLY FASTEX,DIV OF IL TOOL WORKS INC	FORMEX GK-17	V-0, 115 degree C, Min. 0.43mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1h. Insulator (Alternate)	SUN DELTA CORP	VS120	V-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1i. Insulator (Alternate)	SUN DELTA CORP	VS520	V-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1j. Insulator (Alternate)	SUMITOMO BAKELITE CO LTD	PHF150MAB	Min. VTM-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1k. Insulator (Alternate)	SUMITOMO BAKELITE CO LTD	PHF150MA	Min. VTM-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	

Issue Date: 2013-04-17
2013-10-11

Page 13 of 14

Report Reference #

E131881-A1632-UL

27-1l. Insulator (Alternate)	Shenzhen Bornsun Industrial Co Ltd	BN-ZD16	V-0, 115 degree C, Min. 0.43mm thick. See Enclosure 4-08 for details	QMFZ2	UL	
27-1m. Insulator (Alternate)	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117ECO	V-0, 130 degree C, Min. 0.43 mm thick. See Enclosure 4-08 for details	QMFZ2	UL	
28. Label	Interchangeable	Interchangeable	Min. 80 degree C if max. surface temperature not specified	PGDQ2 or PGJ12	UL	
29. Power Supply Cord (optional)	--	--	Type SVT or SPT-2, min 125Vac, 15A with NEMA 5-15P or 250Vac, 15A with NEMA 6- 15P. Min. 18AWG. Other end connected to unit with cord- connected body, suitable for cord size, rating not less than that of attachment plug. The length of power supply cord shall be between 1.5m and 4.5m.	ELBZ	UL	

Enclosures

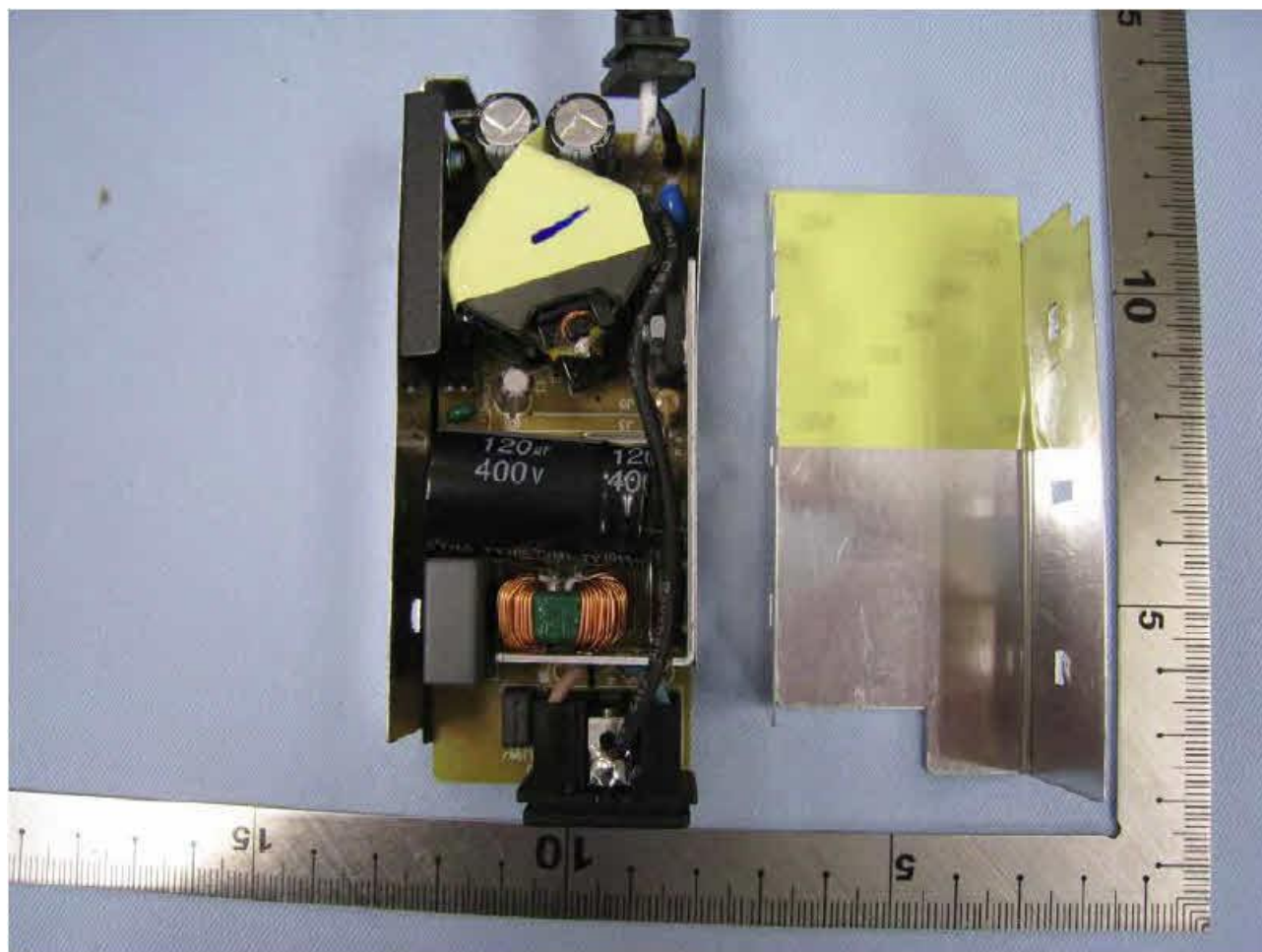
<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	External View - AC Inlet Side
Photographs	3-02	External View - Output Side
Photographs	3-03	Open Cover
Photographs	3-04	Open Chassis
Photographs	3-05	Open Top Shield
Photographs	3-06	Open Bottom Shield
Photographs	3-07	PWB Component Side
Photographs	3-08	PWB Trace Side
Diagrams	4-01	Enclosure dimension
Diagrams	4-02	FL2 spec.
Diagrams	4-03	T1 spec.
Diagrams	4-04	HS1
Diagrams	4-05	HS2
Diagrams	4-06	Output Cord
Diagrams	4-07	Top Shield + Insulation Tape
Diagrams	4-08	Bottom Shield + Insulator
Diagrams	4-09	Glue Location
Schematics + PWB	5-01	PWB layout
Manuals		
Miscellaneous		

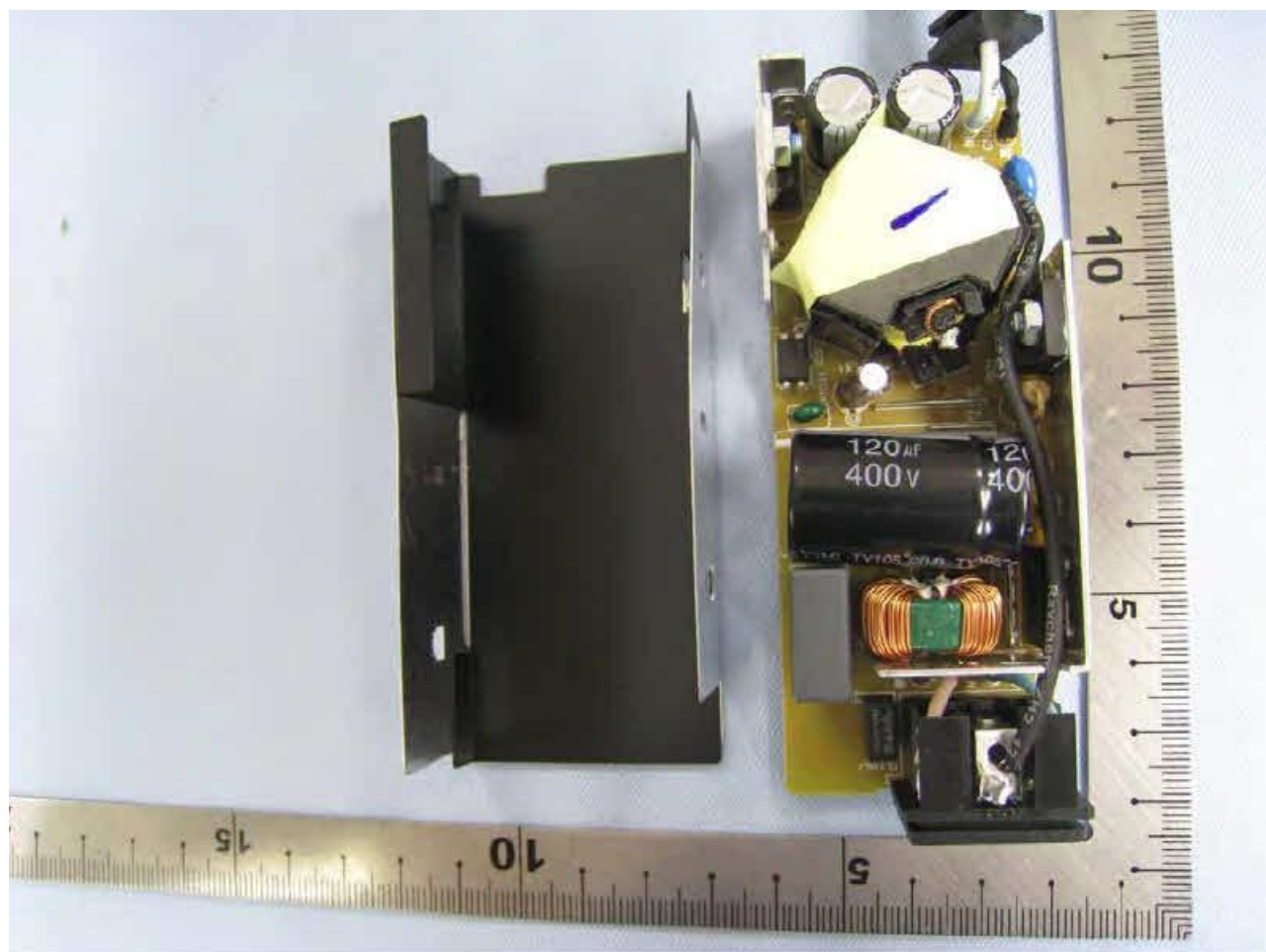


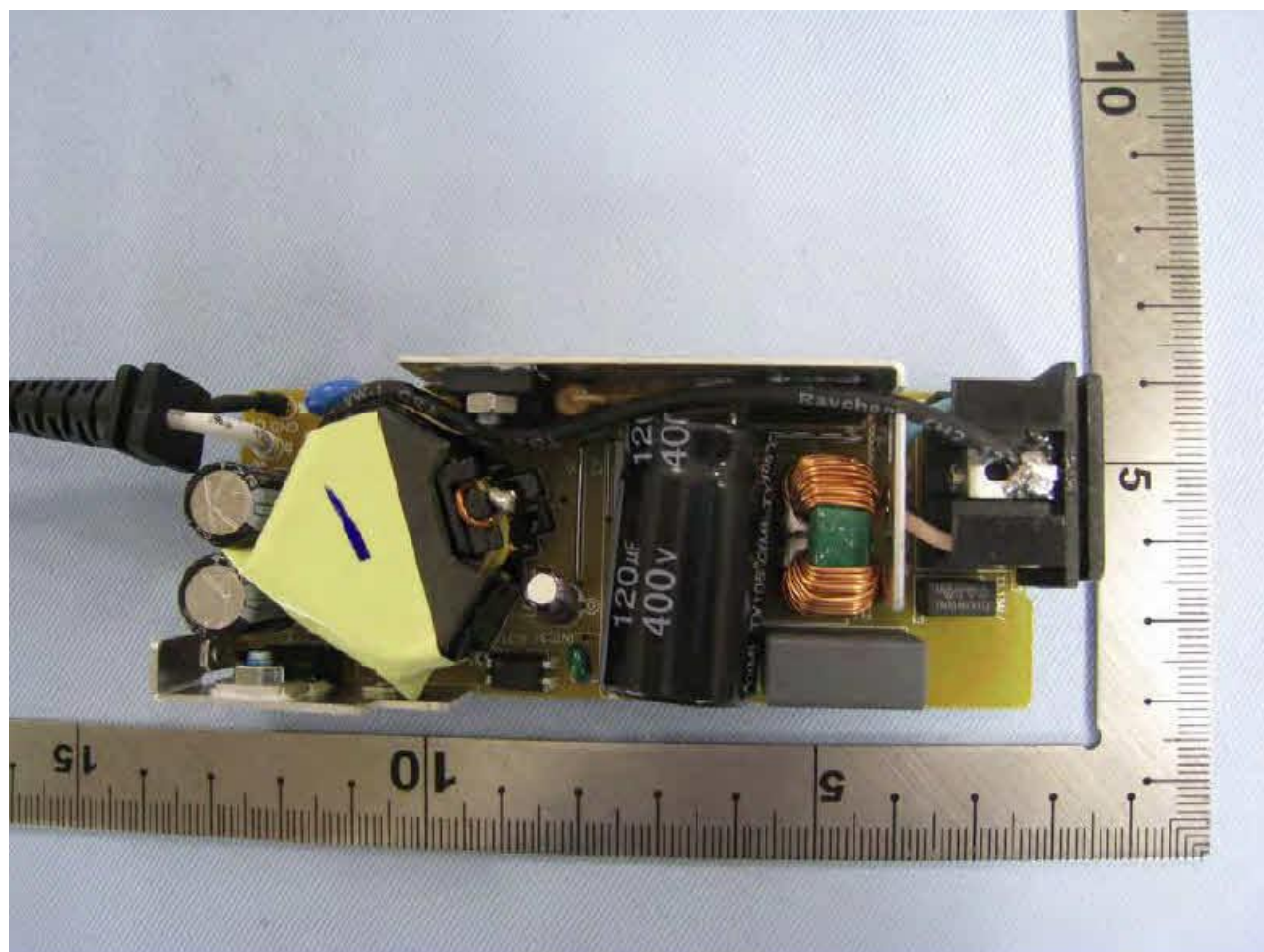


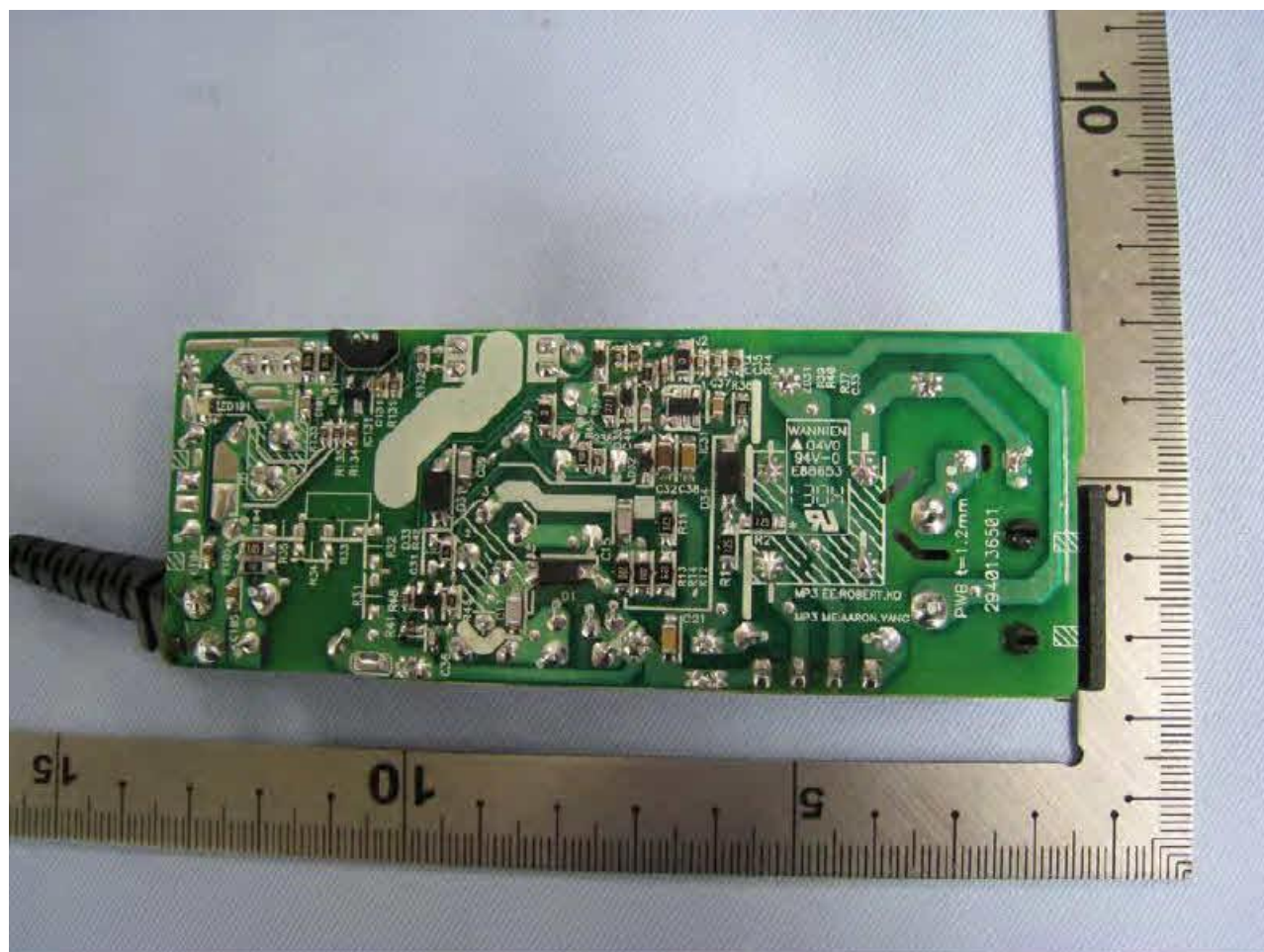


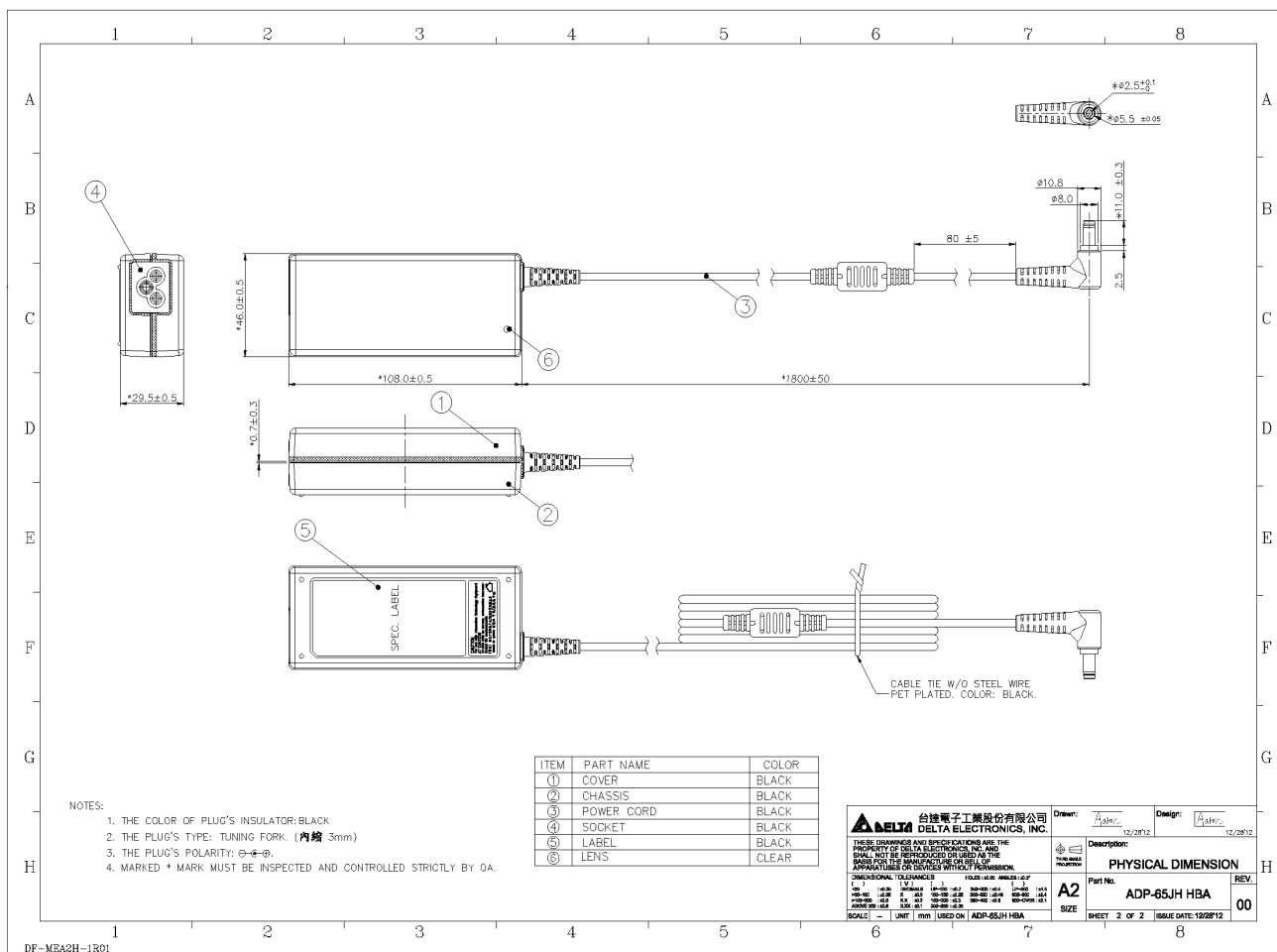


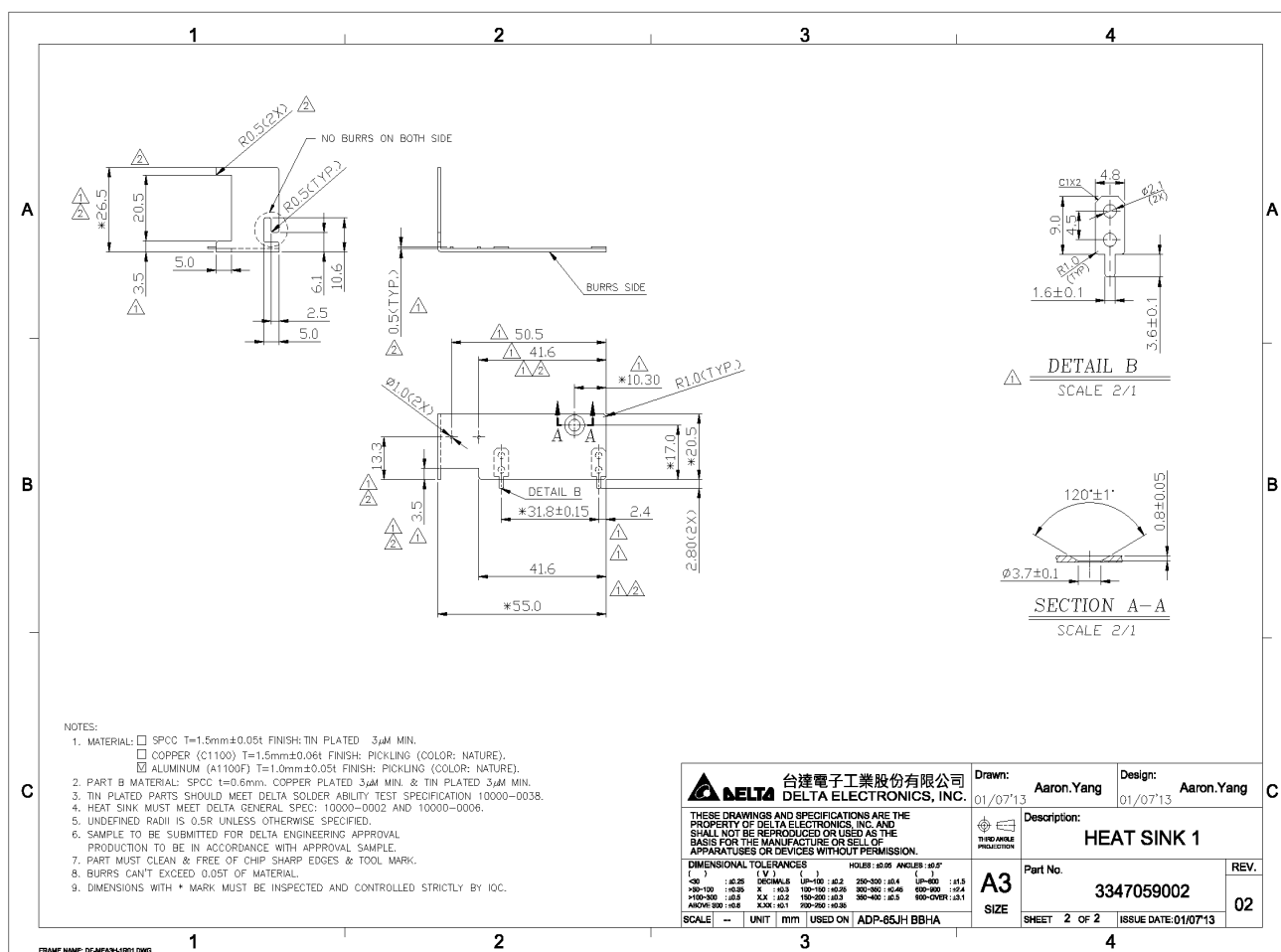


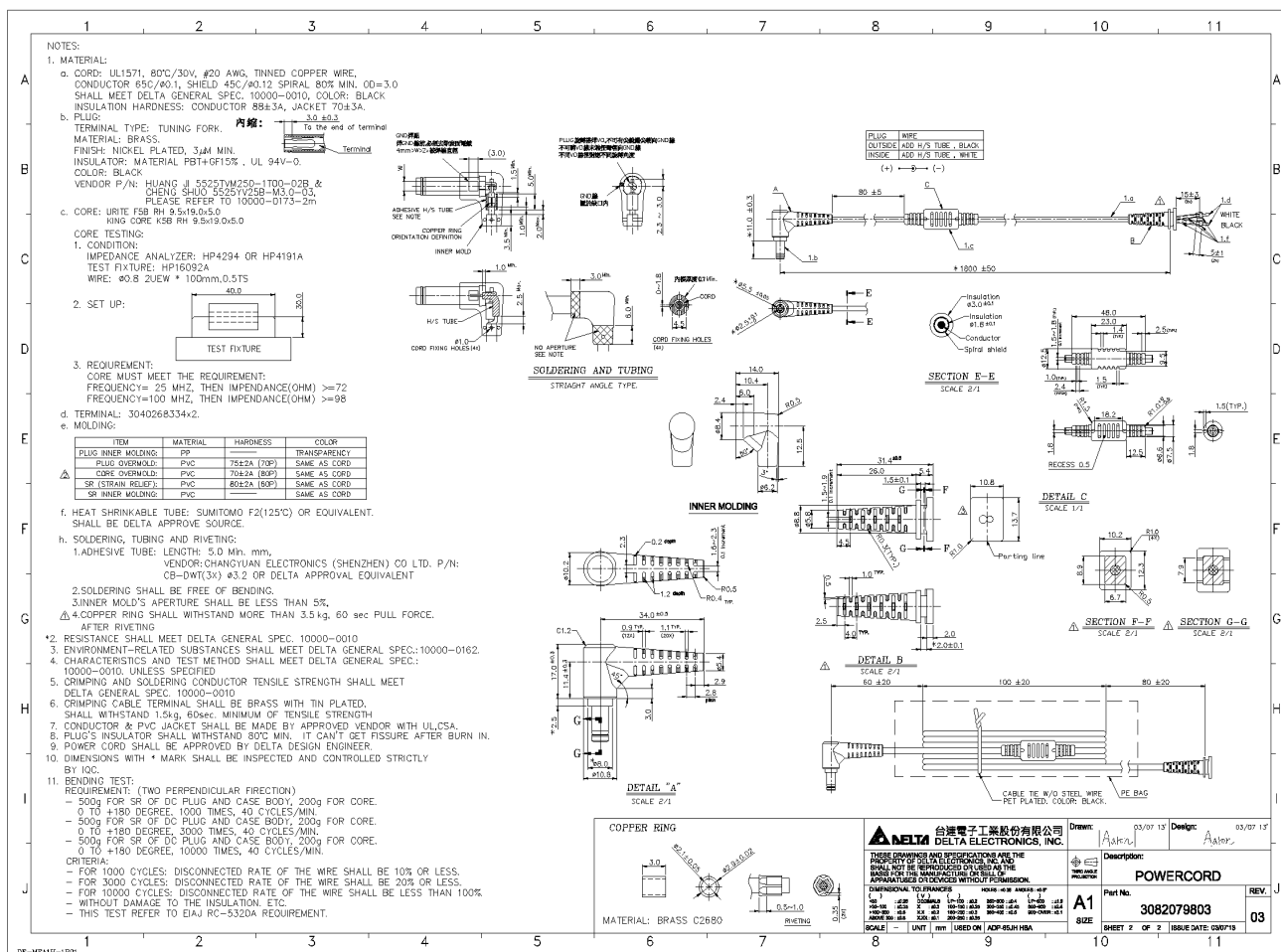


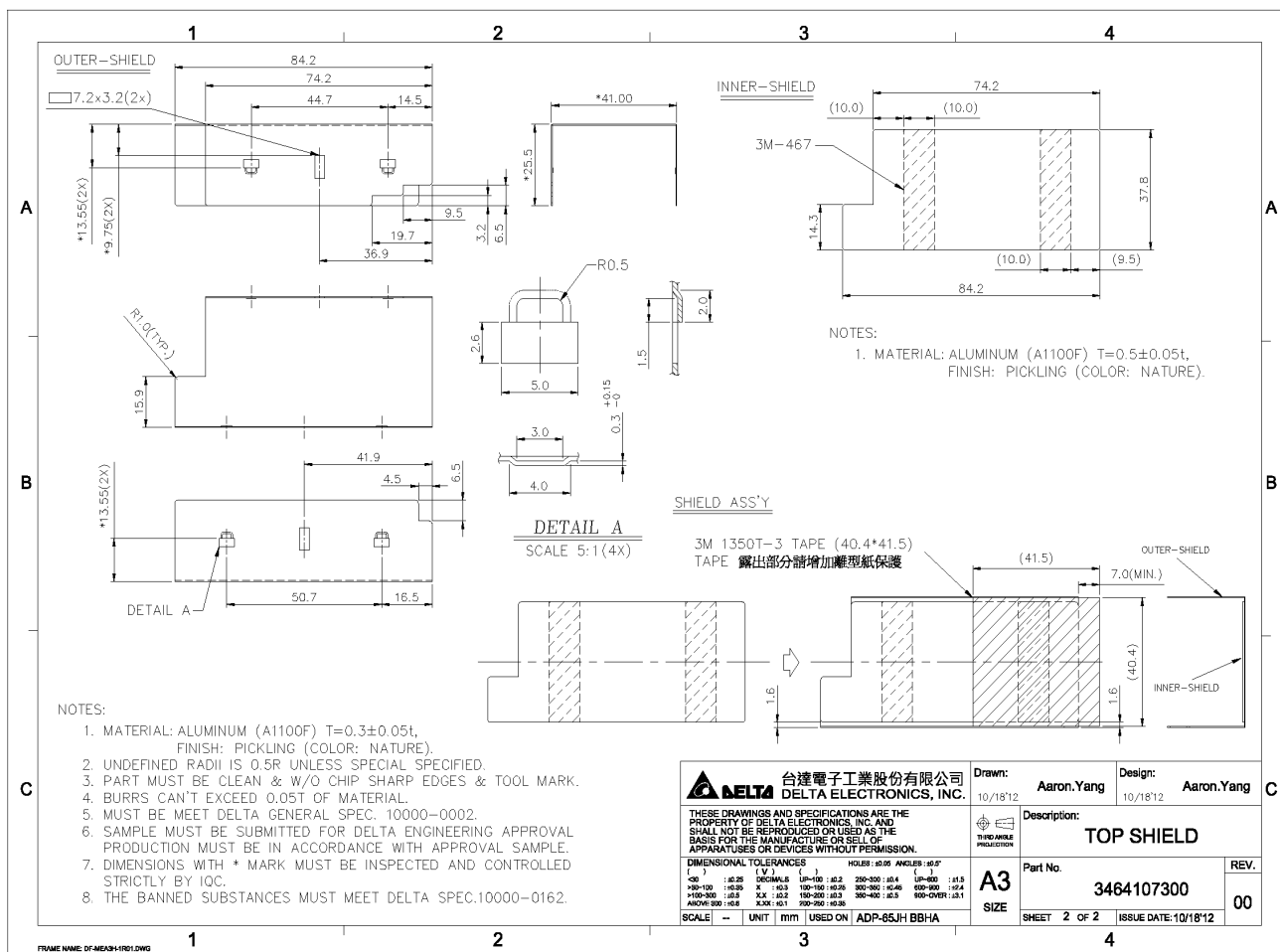


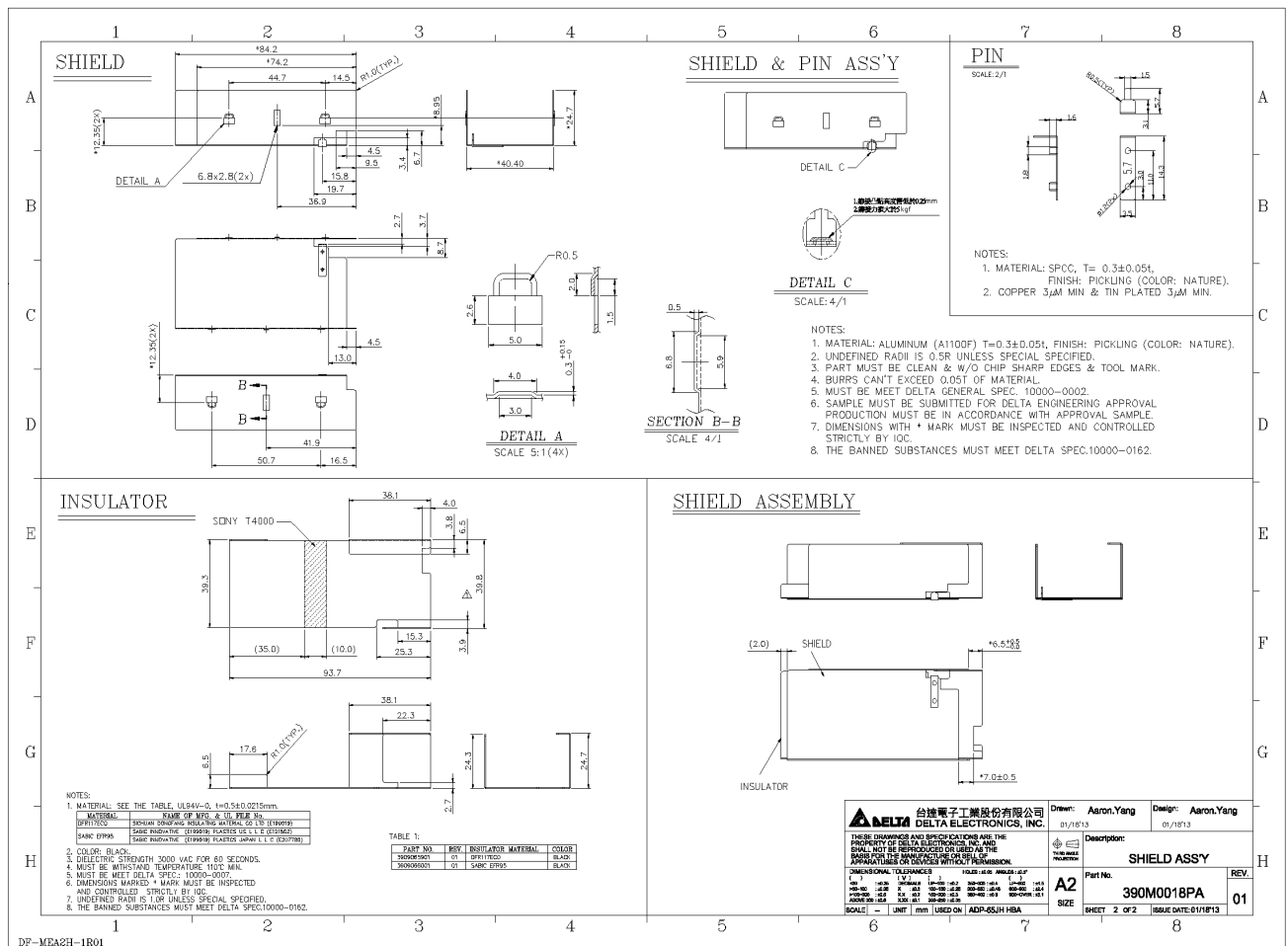


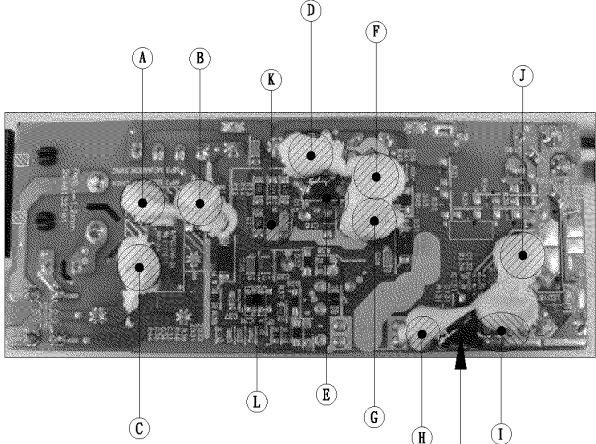










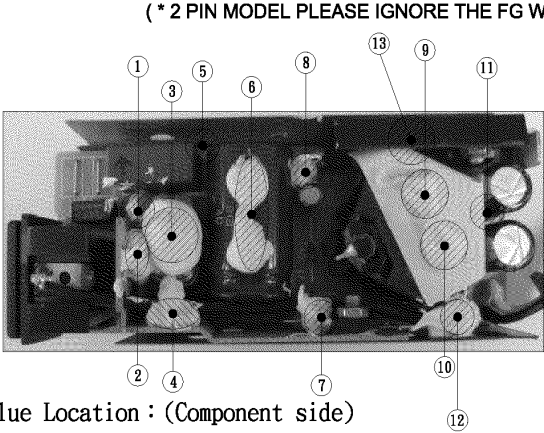


Glue Location : (Lead side)
Total amount : 3.25 g

C-PAD (P/N:324334320X)
stuck on lead of HSK2

- A : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- B : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- C : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- D : Glue on lead of R16 , amount: 0.5 g (FOR THERMAL)
- E : Glue on D1 body , amount: 0.25 g (FOR THERMAL)
- F : Glue on primary side of T1 lead , amount: 0.25 g (FOR THERMAL)
- G : Glue on primary side of T1 lead , amount: 0.25 g (FOR THERMAL)
- H : Glue on secondary side of IC51 lead nearby the C-pad , amount: 0.25 g (FOR IMPACT)
- I : Glue on the first / second lead of D101 , amount: 0.25 g (FOR IMPACT)
- J : Glue on secondary side of T1 lead , amount 0.25 g (FOR THERMAL)
- K : Glue on IC51 , amount 0.25 g (FOR THERMAL)
- L : Glue on IC31 , amount 0.25 g (FOR THERMAL)

(* 2 PIN MODEL PLEASE IGNORE THE FG WIRE)

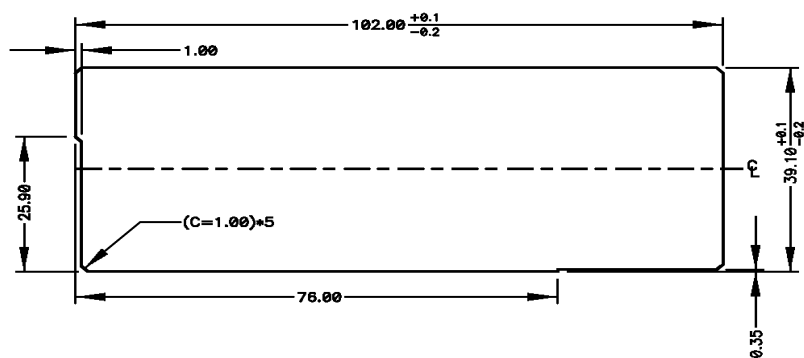


Glue Location : (Component side)
Total amount : 6.70 g

- 1 : Glue on CX1 & PWB & FL2 body , amount 1.0 g (FOR THERMAL)
- 2 : Glue on the side of FL2 & HSK1 , amount 0.5 g (FOR THERMAL)
- 3 : Glue on the top of FL2 & SHIELD , amount 0.75 g (FOR THERMAL)
- 4 : Glue on the top of BD1 & HSK1 , amount 0.25 g (FOR THERMAL)
- 5 : Glue on C1 & CX1 & SHIELD , amount 0.5 g (FOR THERMAL)
- 6 : Glue on the top of C1 & SHIELD , amount 0.75 g (FOR THERMAL)
- 7 : Glue on the top of R16 , amount 0.5 g (FOR THERMAL)
- 8 : Glue on NTC31 & C31 , amount 0.25 g (FOR SAFETY/IMPACT)
- 9 : Glue on the top of T1 & SHIELD , amount 0.25 g (FOR THERMAL)
- 10 : Glue on the top of T1 & SHIELD , amount 0.25 g (FOR THERMAL)
- 11 : Glue on C102 & C103 & T1 body , amount 0.25 g (FOR THERMAL)
- 12 : Glue on CV1 & T1 , amount 0.5 g (FOR IMPACT)
- 13 : Glue on the shield pin close to T1 & HSK2 body, amount 0.75g and need to glue on PWB (FOR IMPACT)
- * Glue on Q1 BEAD CORE & D101 BEAD CORE each 0.1g (FOR FIXED)

TITLE	REV.	USED ON:	DATE	
生産注意事項	02	ADP-65JH_SERIES	03/11' 13	(FIG. 2)

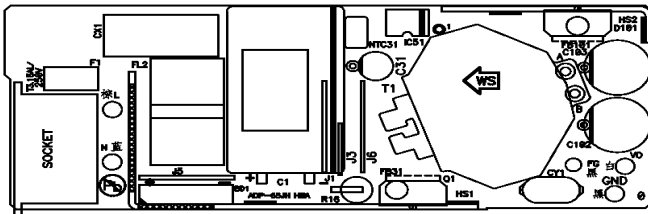
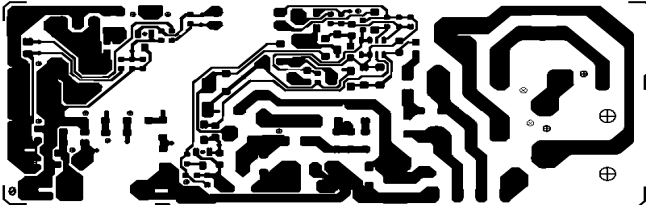
 DELTA DELTA ELECTRONICS, INC. THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASE FOR THE MANUFACTURE OR SELL OF APPARATUS OR DEVICES WITHOUT PERMISSION	DRAWING NO: PD-85JH HBA REV: 1	
	USED ON: ADP-85JH HBA CODE: 0	
	MADE BY: YANNIE DATE: 01/21/13	
	P/N: 2949136501	
	COMPONENT SIDE SIZE: 1=1	



DELTA DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF ANY PRODUCT WITHOUT THE WRITTEN PERMISSION OF DELTA ELECTRONICS, INC.

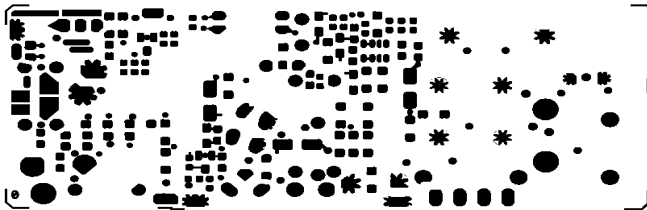
DRAWING NO. P.T. - 65311 HBA REV. 1
USED ON: ABS-65311 HBA CORP. 1
MADE BY: VANCE DATE: 8/12/13
PAC BY: 2048136531
SHEET SIZE: SIZE: 1-1



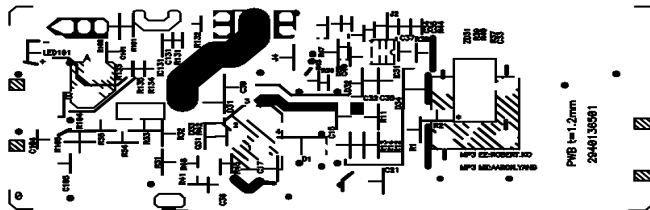
DELTA DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF ANY PRODUCT WITHOUT THE WRITTEN PERMISSION OF DELTA ELECTRONICS, INC.

DRAWING NO. P.T. - 65311 HBA REV. 1
USED ON: ABS-65311 HBA CORP. 1
MADE BY: VANCE DATE: 8/12/13
PAC BY: 2048136531
SHEET SIZE: SIZE: 1-1

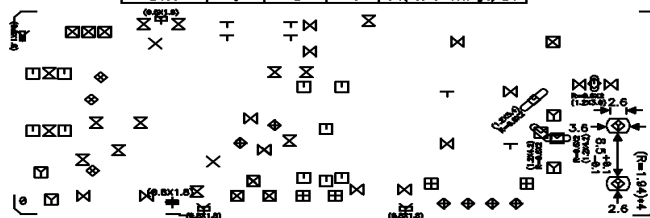


DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OF ANY EQUIPMENT OR DEVICES WITHOUT PERMISSION.
DRAWING NO. P.H. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1



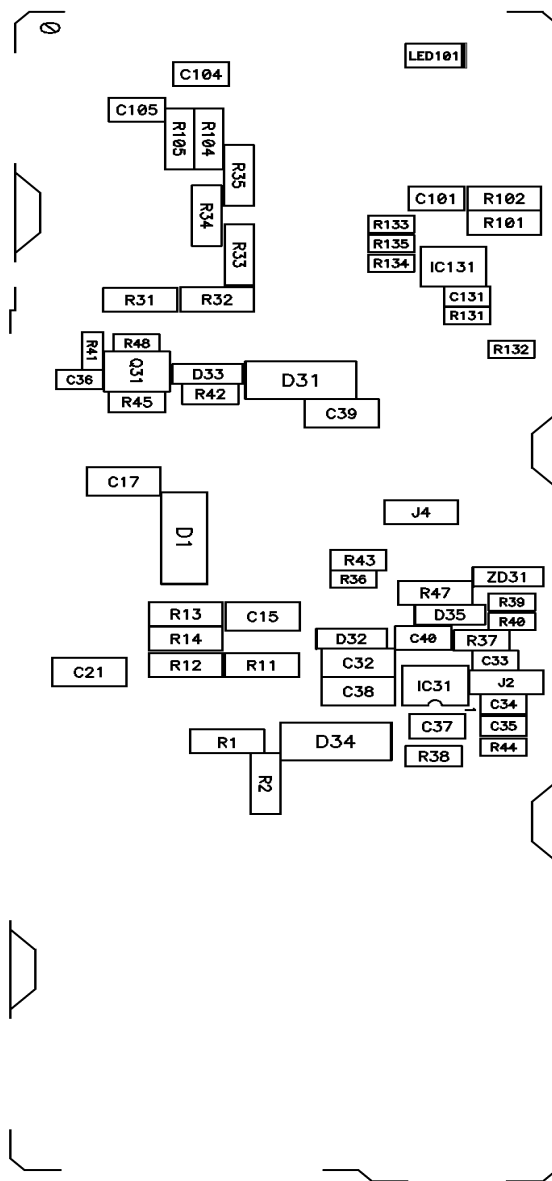
DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OF ANY EQUIPMENT OR DEVICES WITHOUT PERMISSION.
DRAWING NO. P.W. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1

DRILL TABLE				
Hole Dia (mm)	Symbol	Quantity	Plotted	Slot
0.600	+	1	No	0.5X1.5
0.700	X	2	No	
0.700	X	4	No	0.5X1.5
0.800	-	6	No	
0.900	+	13	No	
1.000	+	10	No	
1.000	+	13	No	
1.031	+	1	No	1.2X3.8 (Oval)
1.032	+	2	No	1.2X4.2 (Oval)
1.033	+	1	No	1.2X5.4 (Oval)
1.100	+	7	No	
1.200	+	6	No	
1.200	+	4	No	
1.700	+	3	No	
2.000	+	4	No	
2.500	+	2	No	3.6 (Round Rectangle) X2.6



DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OF ANY EQUIPMENT OR DEVICES WITHOUT PERMISSION.
DRAWING NO. P.H. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1

ADP-65JH HBA REV:1 CODE:0 2940136501



Test Record No. 1

- The manufacturer submitted representative production sample of AC/DC ADAPTER, Model ADP-65JH HB.

- Unless otherwise noted in the above list of tests, all tests were conducted by TUV Rheinland under the CB Scheme as detailed under CB certificate NO.: JPTUV-043543-M1, CB Report reference No.: 11028524 002 and CB certificate NO.: JPTUV-043543, JPTUV-043544, JPTUV-043545, JPTUV-043546, JPTUV-043547 CB Report reference No.: 11028524 001.

- Waived tests were collected with referred report number as attached in the supplements

The following tests were waived:

Test	Rationale for Waiving
Input: Single-Phase (1.6.2)	refer to CB report
Durability of Marking (1.7.11)	UL recognized label is used.
Energy Hazard Measurements (2.1.1.5, 2.1.2, 1.2.8.10)	refer to CB report
Capacitance Discharge (2.1.1.7)	refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	refer to CB report
Limited Current Circuit Measurement (2.4.1, 2.4.2)	refer to CB report
Limited Power Source Measurements (2.5)	refer to CB report
Humidity (2.9.1, 2.9.2, 5.2.2)	refer to CB report
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	refer to CB report
Thin Sheet Material (2.10.5.9, 2.10.5.10, 2.10.5.6)	refer to CB report
Transformer and Wire /Insulation Electric Strength (2.10.5.13)	refer to CB report
Steady Force (4.2.1 - 4.2.4)	refer to CB report
Impact (4.2.5, 4.2.1, Part 22 10.2)	refer to CB report
Drop (4.2.6, 4.2.1)	refer to CB report
Stress Relief (4.2.7, 4.2.1)	refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	refer to CB report
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)	refer to CB report
Electric Strength (5.2.2)	refer to CB report
Component Failure (5.3.1, 5.3.4, 5.3.7)	refer to CB report
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	Refer to Power Supply Output Short-Circuit/Overload test
Power Supply Output Short-Circuit/Overload (5.3.7)	refer to CB report

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Attachment	2-01	Delta's previous test data

Test Record No. 2

The manufacturer submitted a sample representing production of AC/DC ADAPTER, Model ADP-65JH HB employing for the following changes,

- 1) Alternated Tubing for covering FG wiring, Well One Co., Ltd., Type GT-2.

Waived tests were collected with referred report number as attached in the supplements

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, CAN/CSA-C22.2 No. 60950-1-07, Second Edition and UL 60950-1, Second Edition issued March 27, 2007, including revisions through revision dated December 19, 2011. Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

No tests were considered necessary.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Attachment	2-02	CRD

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	AC/DC ADAPTER
Model:	ADP-65JH HB
Rating:	Input: 100-240V~, 1.5A, 50-60Hz Output: 19Vdc, 3.42A
Applicant Name and Address:	DELTA ELECTRONICS INC 3 TUNGYUAN RD CHUNGLI INDUSTRIAL ZONE TAOYUAN COUNTY 32063 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Albert Kuo

Reviewed by: Neilson Chou

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Electronic components mounted on PWB and housed with a plastic enclosure.

Model Differences

N/A

Technical Considerations

- Equipment mobility : movable/ transportable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10%
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class I (Functional Earthing)
- Considered current rating of protective device as part of the building installation (A) : 20
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : UP to 5000m
- Altitude of test laboratory (m) : Up to 2000m
- Mass of equipment (kg) : Approx. 0.16
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 degree C
- The means of connection to the mains supply is: Pluggable A, Detachable power cord
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The product was investigated to the following additional standards: The equipment is operated up to

5000 m (16404 feet) above sea level as declared by manufacturer. Clearances have been evaluated according to IEC 60664-1: table A.2 with a multiplication factor of 1.48 throughout this report.

- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): 19Vdc output
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- The equipment employs Functional Earthing per 2.6.2. As anticipated by the NOTE for 1.2.4, it does not conform to one of the common Classes (I, II, or III). The following insulation is provided between the primary and accessible dead metal parts and circuits: Double/Reinforced
- LEDs provided in the product are considered low power devices: Yes

Additional Information

N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Model	Model Number
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.
Operating/Instruction/Safety Manual	- Shall be provided with each unit or bulk shipment; - If units are to be shipped to original equipment manufacturers (OEM) for repackaging with end-use product, only one operation/safety instruction manual may be provided per shipment box with instructions to reproduce the operation/safety instructions in the end-use user's manual.

Special Instructions to UL Representative

- Inspect the transformer(s) listed in Production-Line Testing Requirements per AA1.1- (C).
- When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer.
- Verify the specification sheet indicates 100% routine test specified in Production-Line Testing Requirements be conducted at the component manufacturer.

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
ADP-65JH HB	Transformer (T1)	N/A	Primary to Secondary	3000	4242	1

Earthing Continuity Test Exemptions - This test is not required for the following models:

ADP-65JH HB

Electric Strength Test Exemptions - This test is not required for the following models:

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
1. Plastic Enclosure	SABIC INNOVATIVE PLASTICS B V	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1a. Plastic Enclosure (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1b. Plastic Enclosure (Alternate)	SABIC INNOVATIVE PLASTICS US L L C	945	V-0, 120 degree C, 1.5mm min. thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1d. Plastic Enclosure (Alternate)	BAYER MATERIALSCIENCE AG	6485	V-0, 115 degree C, 1.5 mm min thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1d. Plastic Enclosure (Alternate)	STYRON (HONG KONG) LTD	CELEX 3600	V-0, 125 degree C, 1.5 mm min thickness. sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
1e. Plastic Enclosure (Alternate)	CHEIL INDUSTRIES INC CHEMICALS DIV	HN-1064	V-0, 130 degree C, 1.5 mm min. thickness, sealed by ultra-sonic construction, See Enclosure 4-01 for details.	QMFZ2	UL	
2. Appliance Inlet	DELTA ELECTRONICS, INC.	SK-1024M	AC 250V, 2.5A, 70 degree C	AXUT2	UL	
2a. Appliance Inlet (Alternate)	Solteam Electronics Co., Ltd.	ST-03	AC 250V, 2.5A, 70 degree C	AXUT2	UL	
3. Internal Wiring (Primary)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 300 V, 105 degree	AVLV2	UL	

			C min.			
4. PWB	Interchangeable	Interchangeable	min. V-0, 130 degree C min.	ZPMV2	UL	
5. Fuse (F1)	LITTELFUSE WICKMANN WERKE (for UL); Littelfuse, Inc. (for VDE); LITTELFUSE PHILIPPINES INC. (for CQC)	392	T3.15AL, AC 250V	JDYX2, JDYX8	UL	
5a. Fuse (F1) (Alternate)	EVER ISLAND ELECTRIC CO LTD & WALTER ELECTRIC(for UL); Ever Island Electric Co., Ltd. and Walter Electric(for VDE); (1)Dongguan Walter Electric Co., Ltd(for CCC) (2)Suzhou Walter Electronic Co., Ltd. (for CQC)	2010 (for UL, CCC); 2010 Serie(s) (for VDE)	T3.15AL, AC 250V	JDYX2, JDYX8	UL	
5b. Fuse (F1) (Alternate)	BEL FUSE INC (for UL); Bel Fuse Ltd. (for VDE and CCC)	RST (for UL, CCC); RST- Serie(s) (for VDE)	T3.15AL, AC 250V (CCC and VDE), AC 277 V (for UL)	JDYX2, JDYX8	UL	
5c. Fuse (F1) (Alternate)	CONQUER ELECTRONICS CO LTD(for UL); Conquer Electronics Co., Ltd.(for VDE,CCC)	MST(for UL, CCC); MST series (for VDE)	T3.15AL, AC250V (for VDE, CQC, UL), 300V (for UL)	JDYX2, JDYX8	UL	
6. Bleeder Resistors (R1, R2)	Interchangeable	Interchangeable	1.2M Ohm, 1/4W.	--	--	
7. X-Capacitor (CX1)	KEMET ELECTRONICS ITALIA SRL (for UL), KEMET ELECTRONICS	R.46	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384- 14	FOWX2	UL	

	CORPORATION (for IMQ) or Acrotronics					
7a. X-Capacitor (CX1) (Alternate)	OKAYA ELECTRIC INDUSTRIES CO LTD. (for ENEC and UL)	LE(-*) (for ENEC), LE+++ (for UL), LE Series (for UL), LE (for CQC)	CX1=0.33uF max., 250Vac min., 100 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7b. X-Capacitor (CX1) (Alternate)	HUA JUNG COMPONENTS CO LTD (for UL, ENEC)	MKP	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7c. X-Capacitor (CX1) (Alternate)	Europtronic (Taiwan) Ind. Corp. (for ENEC, VDE); EUROPTRONIC (TAIWAN) INDUSTRIAL CORP (for UL)	MPX Series (for UL), MPX (for VDE, CQC)	CX1=0.33uF max., 250Vac min., 105 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7d. X-Capacitor (CX1) (Alternate)	PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA (for UL) or Matsushita	ECQUL	CX1=0.33uF max., 250Vac min., 100 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7e. X-Capacitor (CX1) (Alternate)	Europtronic (Taiwan) Ind. Corp. (for ENEC, VDE); EUROPTRONIC (TAIWAN) INDUSTRIAL CORP (for UL)	MPX2	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7f. X-Capacitor (CX1) (Alternate)	PILKOR ELECTRONICS CO LTD (for UL, ENEC)	PCX2 339	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7g. X-Capacitor (CX1) (Alternate)	EPCOS Electronic Components S.A.(for	B3292# (for VDE, CQC); B3292x-	CX1=0.33uF max., 250Vac min., 105 degree C min., X2	FOWX2	UL	

	UL,VDE)	x2xxx* (for UL); B3292x-x3xxx* (for UL)	type. Comply with IEC 60384-14			
7h. X-Capacitor (CX1) (Alternate)	ISKRA SISTEMI, D D (or ISKRA)	KNB1560	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
7i. X-Capacitor (CX1) (Alternate)	XIAMEN FARATRONIC CO LTD (for UL), Xianmen Faratronic Co.Ltd (for VDE)	MKP62	CX1=0.33uF max., 250Vac min., 110 degree C min., X2 type. Comply with IEC 60384-14	FOWX2	UL	
8. Y-Capacitors (CY1)	Murata Mfg. Co., Ltd. (for VDE); MURATA MFG CO LTD(for UL); Murata Manufacturing Co., Ltd. (for CQC)	KX	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
8a. Y-Capacitors (CY1) (Alternate)	Walsin Technology Corp. (for VDE); WALSIN TECHNOLOGY CORP (for UL); Walsin Technology Corporation (for CQC)	AH	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
8b. Y-Capacitors (CY1) (Alternate)	TDK-EPC Corporation or TDK Corporation (for VDE), TDK-EPC CORPORATION (for UL)	CD	CY1= 470pF max., 250Vac min., Y1 type, 125 degree C min., Comply with IEC 60384-14	FOWX2	UL	
9. Line Filter (FL2)	Interchangeable	Interchangeable	Open type construction, min. 130 degree C. See Enclosure 4-02 for details.	--	--	
10. Isolating Transformer	Delta Electronics	MV-MP12574	Open type construction with	--	--	

(T1)	(Wuhu) Co., Ltd.; Delta Electronics (Chen Zhou) Co., Ltd.; Delta Electronics (Thailand) Public Co., Ltd.; Delta Electronics (Jiangsu) Co., Ltd.		ferrite core, see Enclosure 4-03 for construction and material list.			
10-1. Insulation System	DELTA ELECTRONICS, INC.	MP-130I	Class B	OBJY2	UL	
11. Bridge Rectifier (BD1)	Interchangeable	Interchangeable	800V min., 2A	--	--	
12. Thermistor (NTC31)	SEMITEC Corporation	MF11C474J	470K ohm at 25 degree C	XGPU2	UL	
12a. Thermistor (NTC31) (Alternate)	THINKING	TTC-474	470K ohm at 25 degree C	XGPU2	UL	
13. Electrolytic Capacitor (C1)	Interchangeable	Interchangeable	120uF, 400V min., 105 degree C min.	--	--	
14. Transistors (Q1)	Interchangeable	Interchangeable	600V min., 10A-11A or 620V min., 8.4A	--	--	
15. Optocoupler (IC51)	LITE-ON TECHNOLOGY CORP	LTV-816M (for UL, N, CQC); LTV-816 (for VDE)	dti>0.6 mm, ext. cr.>7.0mm, int cr.>5.2mm, thermal cycling tested, isolation: min. AC 4800V, 110 degree C	FPQU2, FPQU8	UL	
15a. Optocoupler (IC51) (Alternate)	Renesas Electronics Corporation (for UL, VDE, S)	PS2561DL1-1(for UL, VDE), PS2561DL1-1xx (for CCC)	dti.>0.4 mm, ext. cr.>8.0mm, Int.cr.>4.0mm, thermal cycling test, 110 degree C, isolation: AC 4800V min. Humidity 120h.	FPQU2	UL	
15b. Optocoupler (IC51) (Alternate)	EVERLIGHT ELECTRONICS CO LTD (for UL), Everlight Electronics Co., Ltd (for VDE, FI)	EL816 (for UL and CQC) EL816 V (for VDE) EL816."="=A-Z or blank or number) (for N)	dti.>0.5mm, ext. cr.≥7.6mm, int. cr.≥6.0mm,thermal cycling test ,110 degree C, isolation: AC 4800V min. Humidity test 120h,	FPQU2	UL	
15c. Optocoupler (IC51)	SHARP CORP	PC123	dti>0.4mm, ext>8.0mm, int	FPQU2	UL	

(Alternate)	ELECTRONIC COMPONENTS AND DEVICES GROUP (for UL); Sharp Corporation (for VDE, S)		cr.>4.0mm, thermal cycling test, isolation: AC 5000V Min, 110 degree C, Humidity 120h.			
15d. Optocoupler (IC51) (Alternate)	TOSHIBA CORP, SEMICONDUCTOR CO DISCRETE SEMICONDUCTOR DIV (for UL); Toshiba Corporation Semicon. Co. Discrete Div (for VDE); Toshiba Corporation Semiconductor Company (for S); Toshiba Corporation Semiconductor & Storage Products Company (for CQC)	TLP781/TLP781F	dti>0.4 mm, ext. cr. > 8.0 mm, int cr. > 5.0 mm, thermal cycling tested, isolation: AC 4800V Min, 115 degree C.	FPQU2, FPQU8	UL	
16. Insulating Tubing/Sleeving	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1 or FT-1; 125 degree C, 300 V.	UZFT2, YDPU2, YDTU2	UL	
17. Internal plastic part	Interchangeable	Interchangeable	Min. V-2.	QMFZ2	UL	
18. Glue	Interchangeable	Interchangeable	Rated V-2 min. See Enclosure 4-09 for details.	QMFZ2	UL	
19. Internal Wiring (FG wires)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 30 V min., 80 degree C min.	AVLV2	UL	
20. Heat sink (HS1)	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-04 for dimension details.	--	--	
21. Heat sink (HS2)	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-05 for dimension details.	--	--	

22. Insulation Tape (between C102, C103 and T1)	3M	1350F-1	130 degree C, 3 Layers, dimension 26*35mm	OANZ2	UL	
23. Output Cord	Interchangeable	Interchangeable	Min. 80 degree C, 30 V, max 3.05m long, VW-1 or FT-1, had been evaluated for external use	AVLV2	UL	
24. Strain Relief Means	Interchangeable	Interchangeable	PVC plastic bushing integrally molded on Output Cord. See Enclosure 4-06 for details.	--	--	
25. Tubing (covered FG wiring)	Sumitomo Electric Fine Polymer Inc	Sumitube F32	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25a.Tubing (covered FG wiring) (Alternate)	DONGGUAN SALIPT CO LTD	SALIPT S-901-600	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25b.Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	Versafit	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25c.Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	Versafit V2	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
25d.Tubing (covered FG wiring) (Alternate)	Tyco Electronics Corp (RAYCHEM)	ZH2	Rating 125 degree C, VW-1, isolation: AC 3000V, min. 0.40 mm thickness	YDPU2	UL	
26. Top Shield	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-07 for dimension details.	--	--	
26-1. Insulation tape	3M	1350T-3	130 degree C, 3 Layers composite. see Enclosure 4-07 for dimension details.	OANZ2	UL	
27. Bottom Shield	Interchangeable	Interchangeable	Aluminum, see Enclosure 4-08 for dimension details.	--	--	
27-1. Insulator	SABIC INNOVATIVE PLASTICS US L L C	FR25A	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1a. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L	FR25A	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for	QMFZ2	UL	

	L C		details			
27-1b. Insulator (Alternate)	Sabic Innovative Plastics US L L C	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1c. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1d. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS B V	FR700	V-0, 130 degree C, Min. 0.4 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1e. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS JAPAN L L C	EFR95	V-0, 130 degree C, Min. 0.43 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1f. Insulator (Alternate)	SABIC INNOVATIVE PLASTICS US L L C	EFR95	V-0, 130 degree C, Min. 0.43 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1g. Insulator (Alternate)	FORMEX,DIV OF IL TOOL WORKS INC,FRMRLY FASTEX,DIV OF IL TOOL WORKS INC	FORMEX GK-17	V-0, 115 degree C, Min. 0.43mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1h. Insulator (Alternate)	SUN DELTA CORP	VS120	V-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1i. Insulator (Alternate)	SUN DELTA CORP	VS520	V-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1j. Insulator (Alternate)	SUMITOMO BAKELITE CO LTD	PHF150MAB	Min. VTM-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1k. Insulator (Alternate)	SUMITOMO BAKELITE CO LTD	PHF150MA	Min. VTM-0, 130 degree C, Min. 0.40 mm. See Enclosure 4-08 for details	QMFZ2	UL	
27-1l. Insulator (Alternate)	Shenzhen Bornsun Industrial Co Ltd	BN-ZD16	V-0, 115 degree C, Min. 0.43mm thick. See Enclosure 4-08 for details	QMFZ2	UL	

27-1m. Insulator (Alternate)	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117ECO	V-0, 130 degree C, Min. 0.43 mm thick. See Enclosure 4-08 for details	QMFZ2	UL	
28. Label	Interchangeable	Interchangeable	Min. 80 degree C if max. surface temperature not specified	PGDQ2 or PGJ12	UL	
29. Power Supply Cord (optional)	--	--	Type SVT or SPT-2, min 125Vac, 15A with NEMA 5-15P or 250Vac, 15A with NEMA 6- 15P. Min. 18AWG. Other end connected to unit with cord- connected body, suitable for cord size, rating not less than that of attachment plug. The length of power supply cord shall be between 1.5m and 4.5m.	ELBZ	UL	

Enclosures

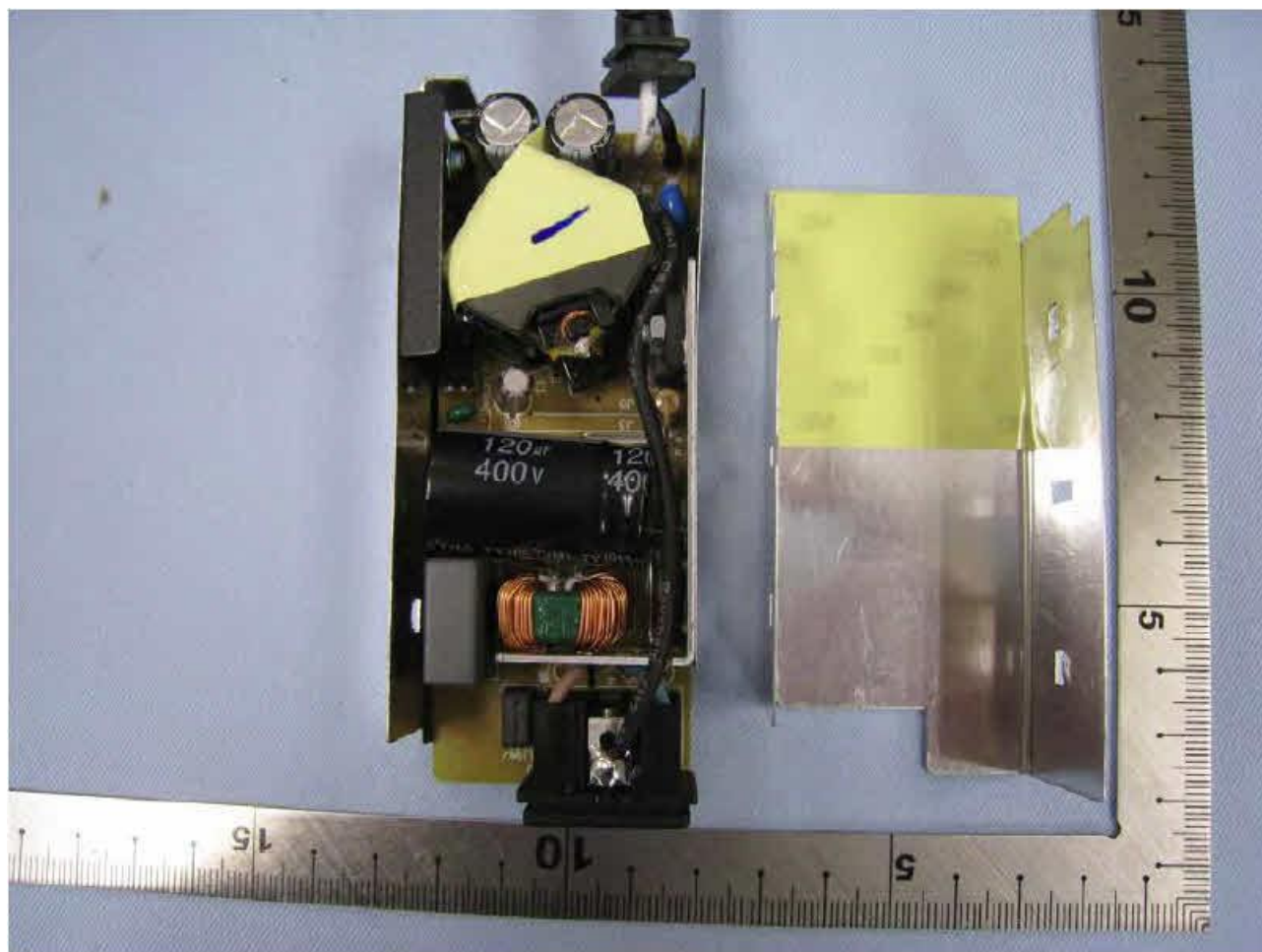
<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	External View - AC Inlet Side
Photographs	3-02	External View - Output Side
Photographs	3-03	Open Cover
Photographs	3-04	Open Chassis
Photographs	3-05	Open Top Shield
Photographs	3-06	Open Bottom Shield
Photographs	3-07	PWB Component Side
Photographs	3-08	PWB Trace Side
Diagrams	4-01	Enclosure dimension
Diagrams	4-02	FL2 spec.
Diagrams	4-03	T1 spec.
Diagrams	4-04	HS1
Diagrams	4-05	HS2
Diagrams	4-06	Output Cord
Diagrams	4-07	Top Shield + Insulation Tape
Diagrams	4-08	Bottom Shield + Insulator
Diagrams	4-09	Glue Location
Schematics + PWB	5-01	PWB layout
Manuals		
Miscellaneous		

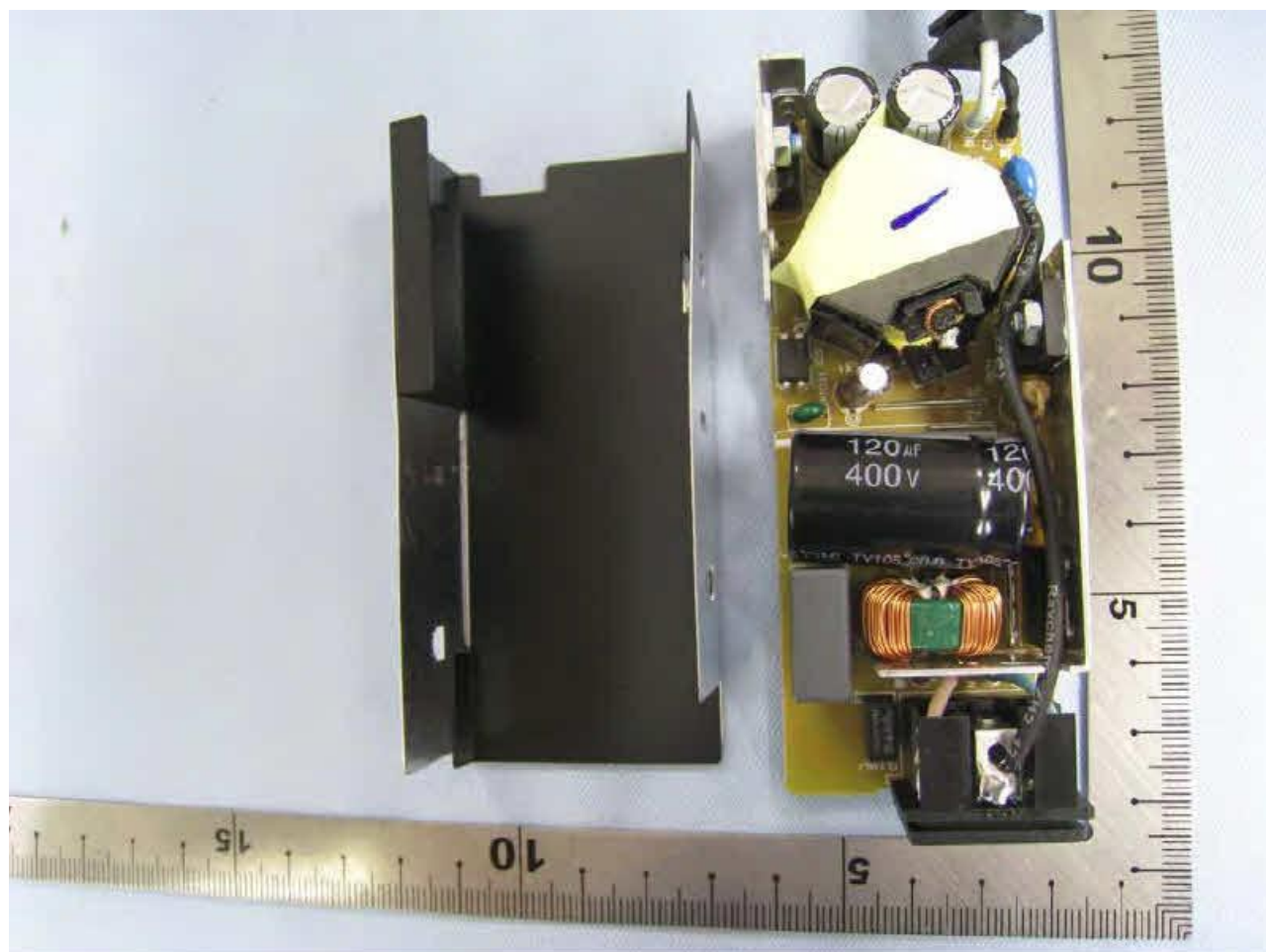


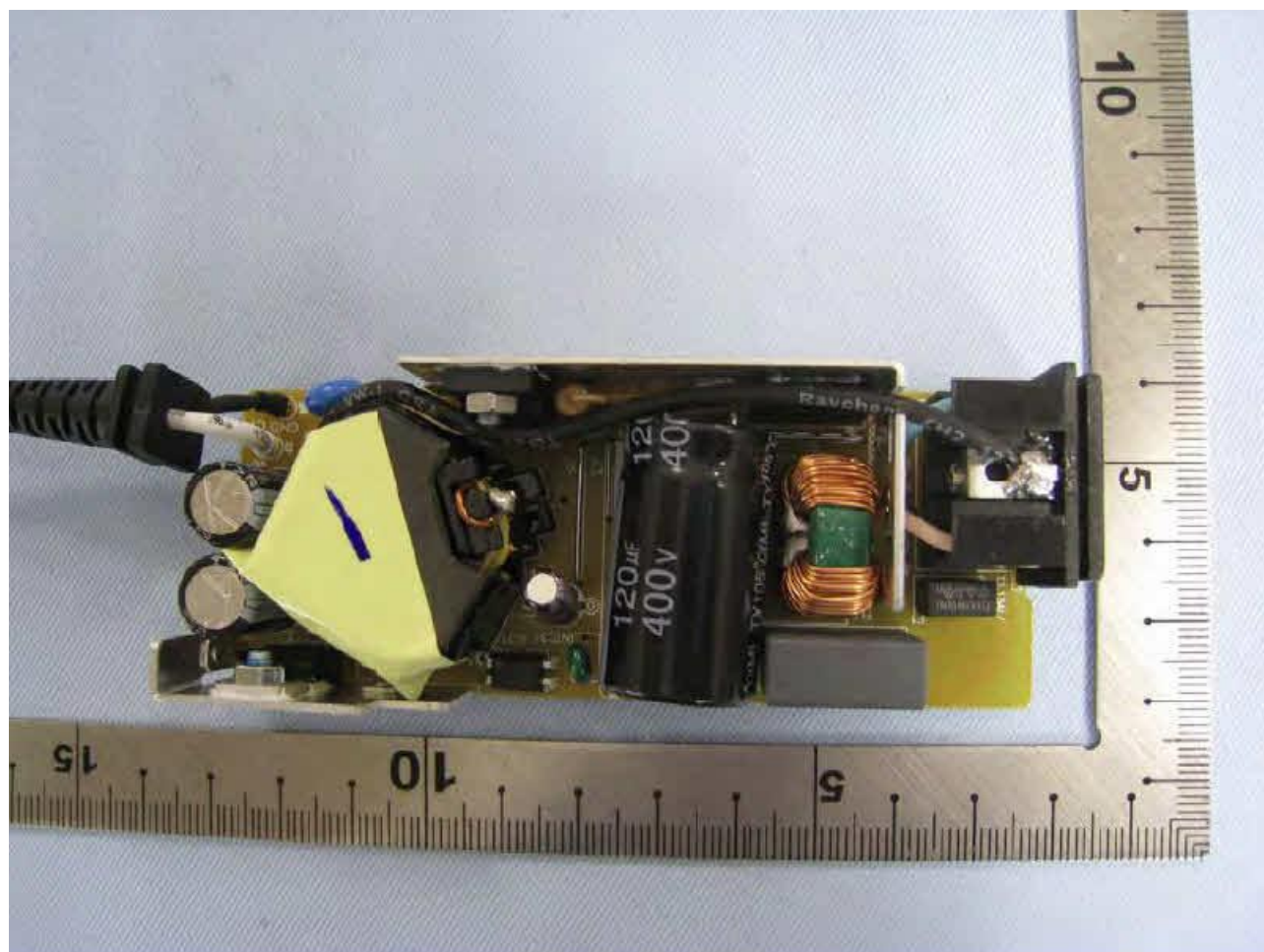


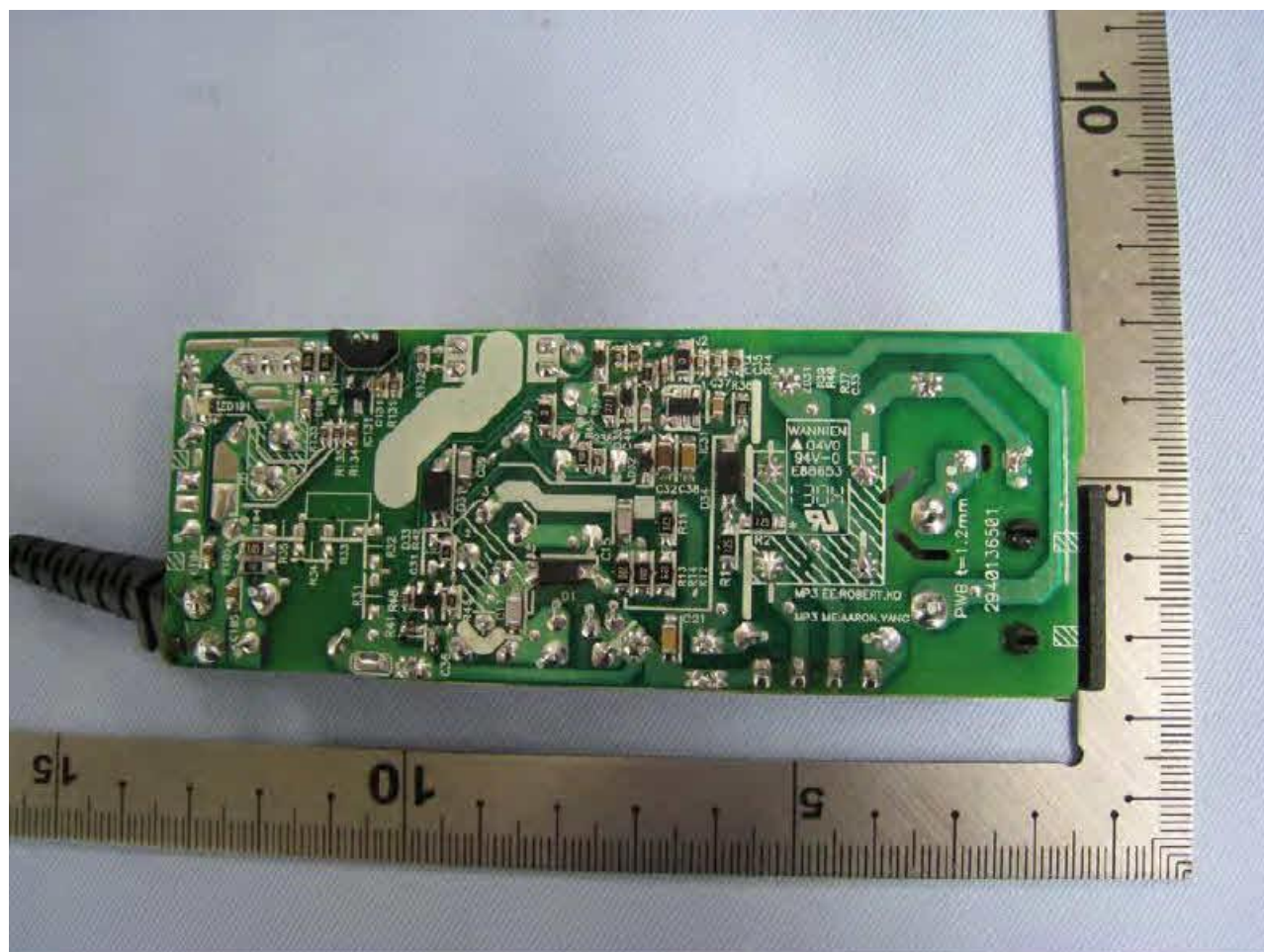


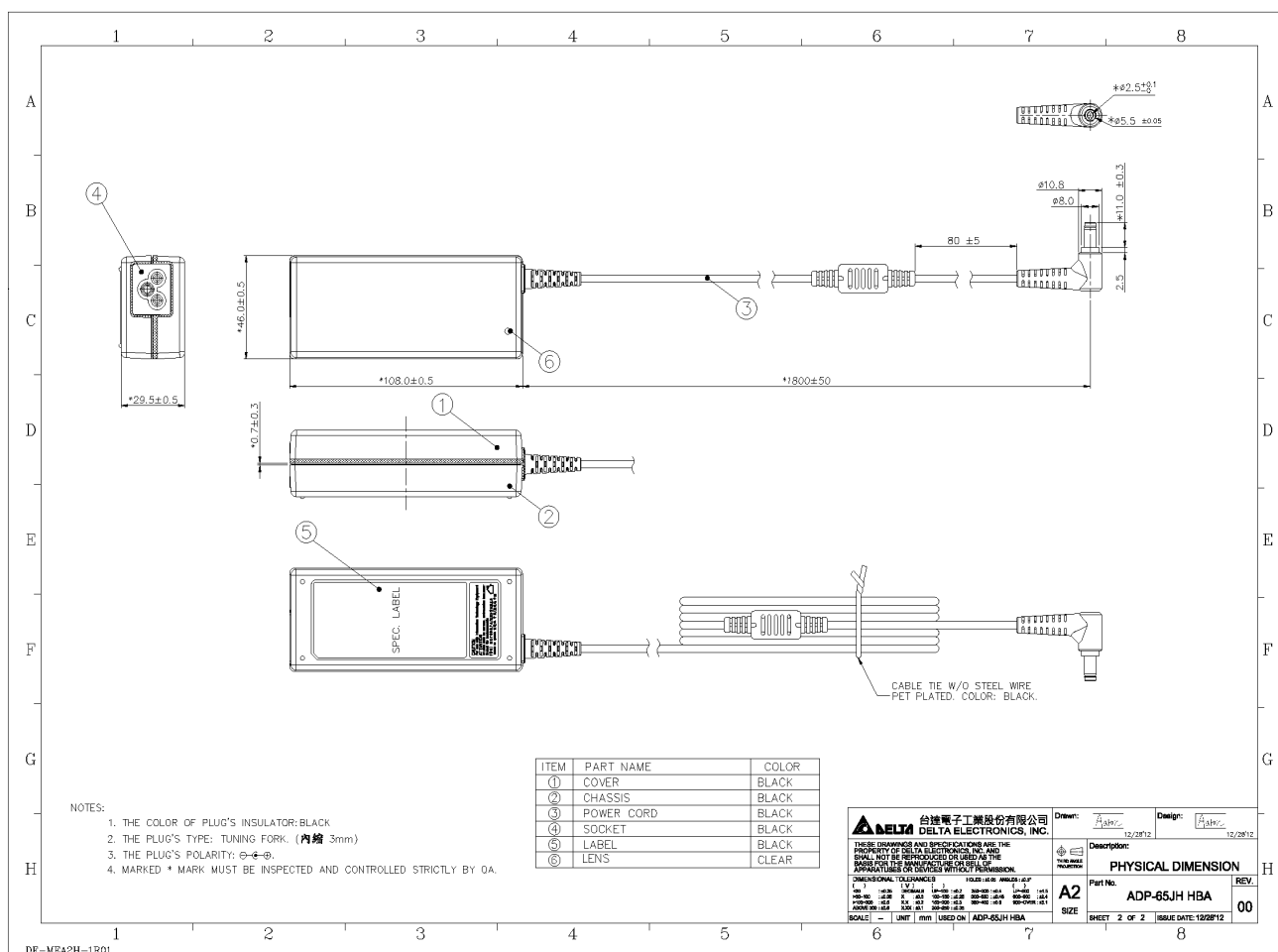


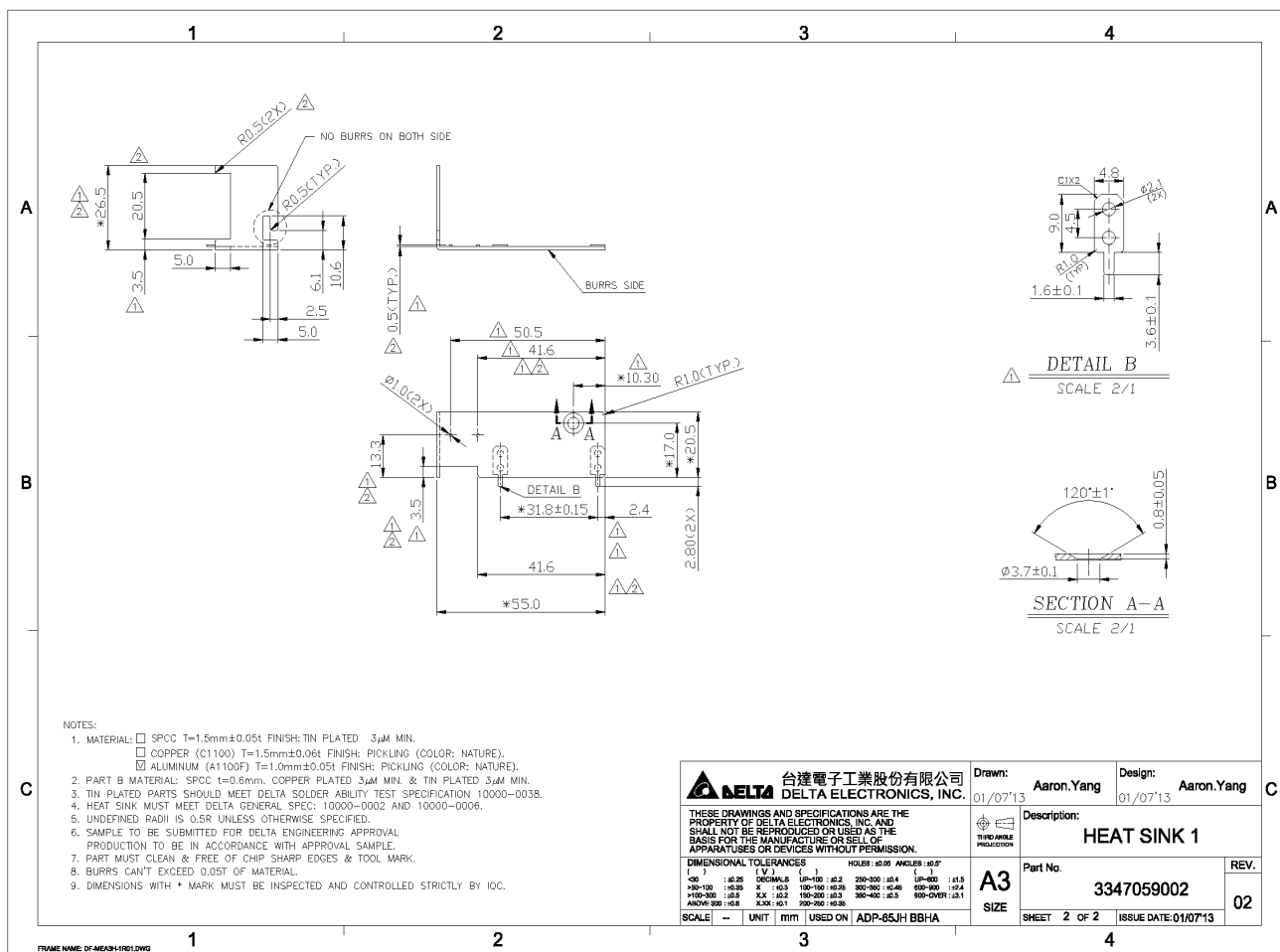


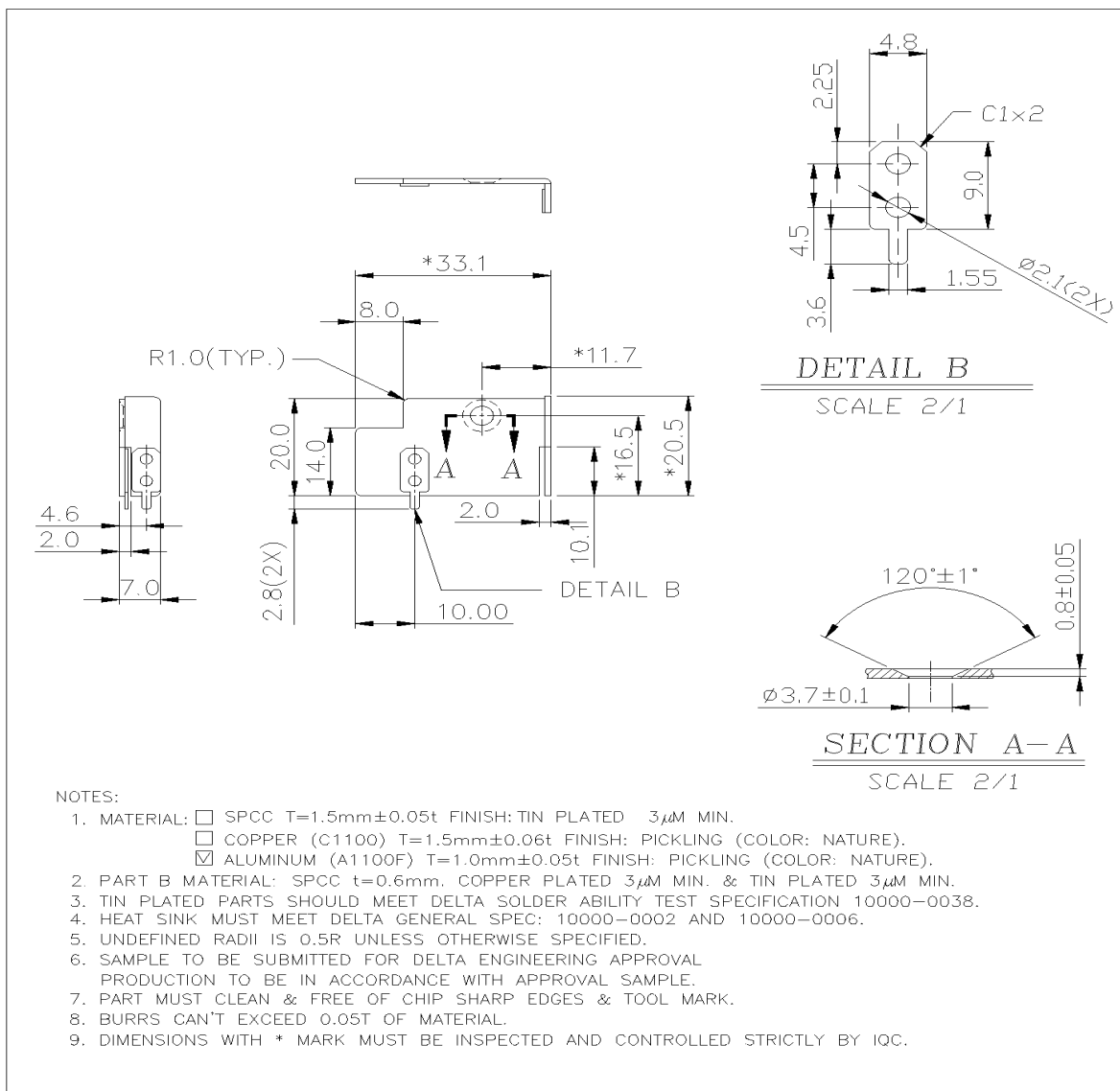




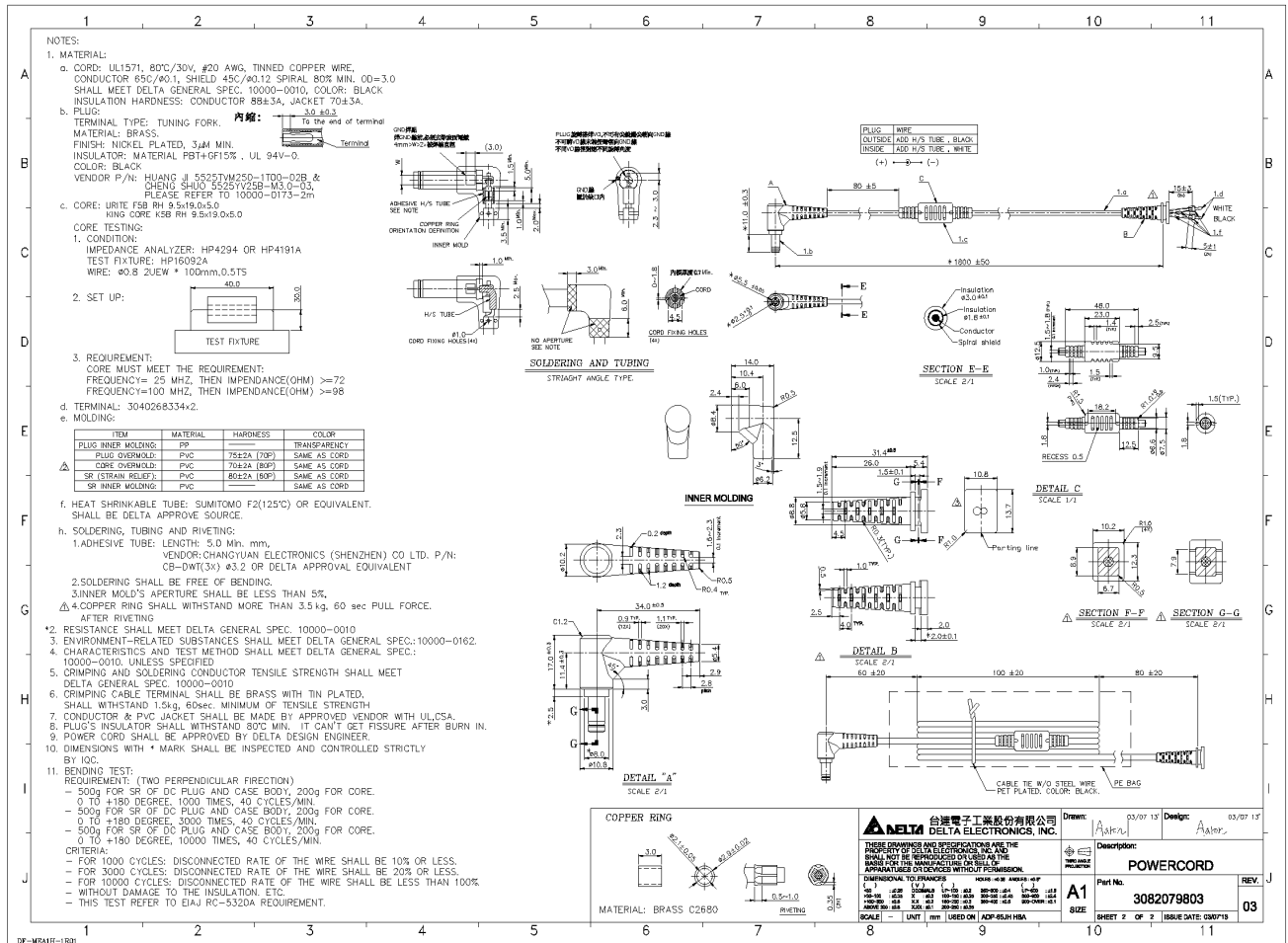


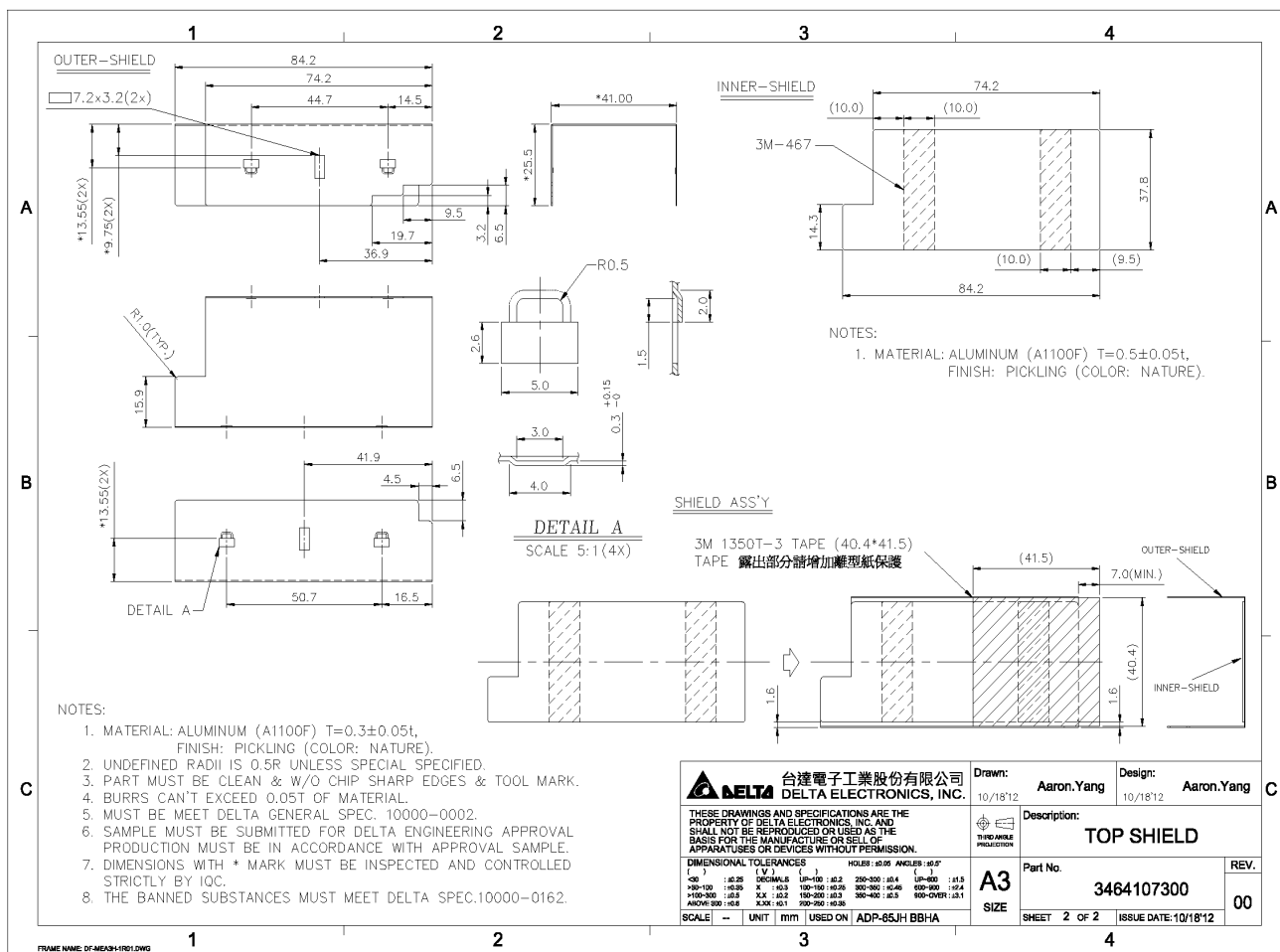


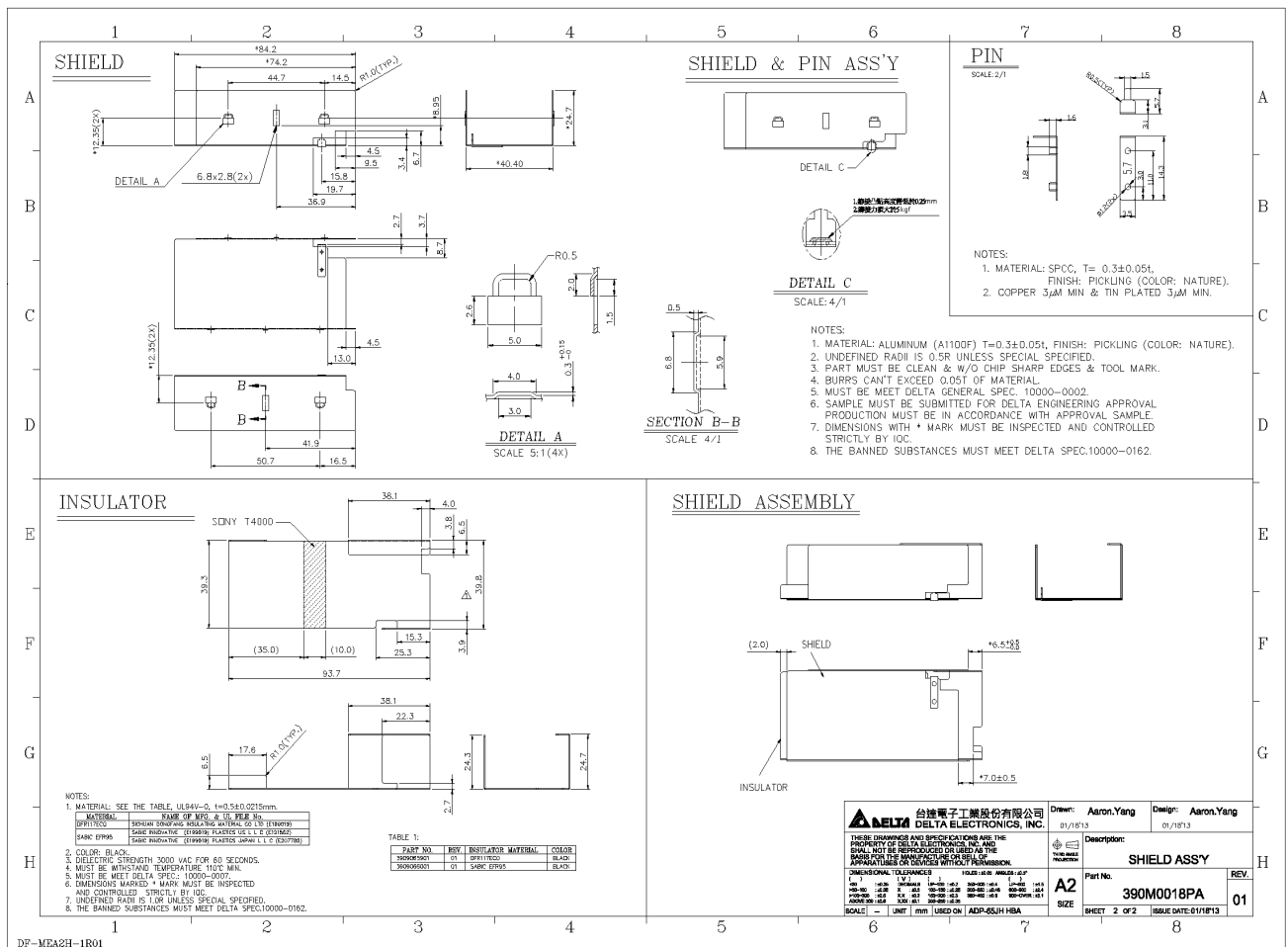


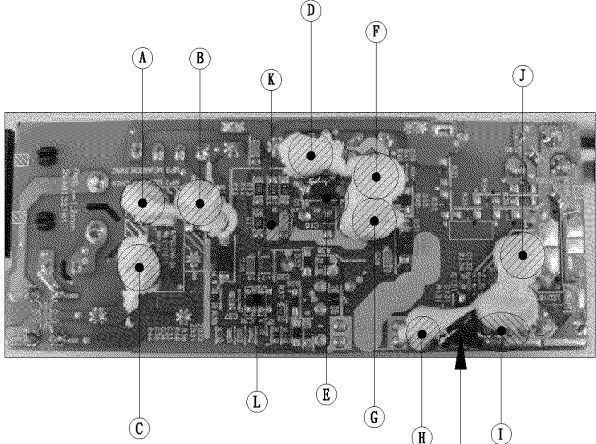


 台達電子工業股份有限公司 DELTA ELECTRONICS, INC.		Drawn: Aaton 07/07'11	Design: Aaton 07/07'11
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SELL OF APPARATUSES OR DEVICES WITHOUT PERMISSION.		Description: HEAT SINK 2	
DIMENSIONAL TOLERANCES () (V) () <30 ±0.25 DECIMALS UP~100 ±0.2 250~300 ±0.4 UP~600 ±1.5 >30~100 ±0.35 X ±0.3 100~150 ±0.25 300~350 ±0.45 600~900 ±2.4 >100~300 ±0.5 X.X ±0.2 150~200 ±0.3 350~400 ±0.5 900~OVER ±3.1 ABOVE 300 ±0.6 X.XX ±0.1 200~250 ±0.35		Part No. 3346911800	
SCALE -- UNIT mm USED ON ADP-65BD TA		SHEET 2_QF_2 ISSUE DATE: 07/07'11	
		REV. 00	







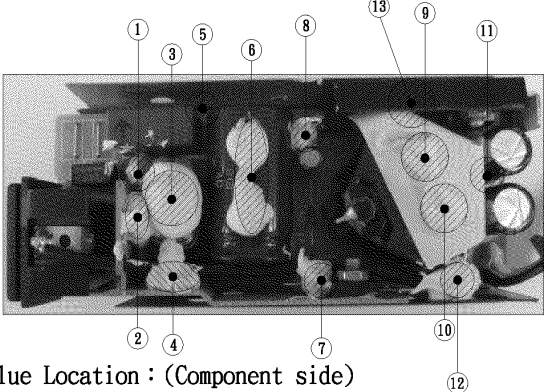


Glue Location : (Lead side)
Total amount : 3.25 g

C-PAD (P/N:324334320X)
stuck on lead of HSK2

- A : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- B : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- C : Glue on lead of FL2 , amount: 0.25 g (FOR ACOUSTIC NOISE)
- D : Glue on lead of R16 , amount: 0.5 g (FOR THERMAL)
- E : Glue on D1 body , amount: 0.25 g (FOR THERMAL)
- F : Glue on primary side of T1 lead , amount: 0.25 g (FOR THERMAL)
- G : Glue on primary side of T1 lead , amount: 0.25 g (FOR THERMAL)
- H : Glue on secondary side of IC51 lead nearby the C-pad , amount: 0.25 g (FOR IMPACT)
- I : Glue on the first / second lead of D101 , amount: 0.25 g (FOR IMPACT)
- J : Glue on secondary side of T1 lead , amount 0.25 g (FOR THERMAL)
- K : Glue on IC51 , amount 0.25 g (FOR THERMAL)
- L : Glue on IC31 , amount 0.25 g (FOR THERMAL)

(* 2 PIN MODEL PLEASE IGNORE THE FG WIRE)

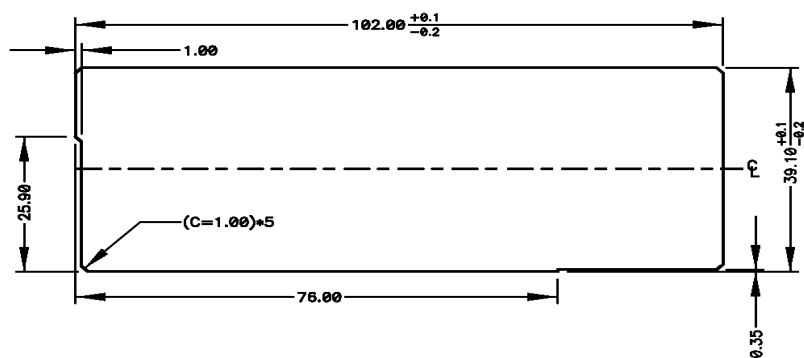


Glue Location : (Component side)
Total amount : 6.70 g

- 1 : Glue on CX1 & PWB & FL2 body , amount 1.0 g (FOR THERMAL)
- 2 : Glue on the side of FL2 & HSK1 , amount 0.5 g (FOR THERMAL)
- 3 : Glue on the top of FL2 & SHIELD , amount 0.75 g (FOR THERMAL)
- 4 : Glue on the top of BD1 & HSK1 , amount 0.25 g (FOR THERMAL)
- 5 : Glue on C1 & CX1 & SHIELD , amount 0.5 g (FOR THERMAL)
- 6 : Glue on the top of C1 & SHIELD , amount 0.75 g (FOR THERMAL)
- 7 : Glue on the top of R16 , amount 0.5 g (FOR THERMAL)
- 8 : Glue on NTC31 & C31 , amount 0.25 g (FOR SAFETY/IMPACT)
- 9 : Glue on the top of T1 & SHIELD , amount 0.25 g (FOR THERMAL)
- 10 : Glue on the top of T1 & SHIELD , amount 0.25 g (FOR THERMAL)
- 11 : Glue on C102 & C103 & T1 body , amount 0.25 g (FOR THERMAL)
- 12 : Glue on CV1 & T1 , amount 0.5 g (FOR IMPACT)
- 13 : Glue on the shield pin close to T1 & HSK2 body, amount 0.75g and need to glue on PWB (FOR IMPACT)
- * Glue on Q1 BEAD CORE & D101 BEAD CORE each 0.1g (FOR FIXED)

TITLE	REV.	USED ON:	DATE	
生産注意事項	02	ADP-65JH_SERIES	03/11' 13	(FIG. 2)

 DELTA ELECTRONICS, INC. THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASE FOR THE MANUFACTURE OR SELL OF APPARATUS OR DEVICES WITHOUT PERMISSION	DRAWING NO: PD-85JH HBA	REV: 1
	USED ON: ADP-85JH HBA	CODE: 0
	MADE BY: VANNIE	DATE: 01/21/13
	P/N: 2949136501	COMPONENT SIDE SIZE: 1=1



**DELTA** DELTA ELECTRONICS, INC.

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF ANY COMPONENTS WITHOUT WRITTEN PERMISSION.

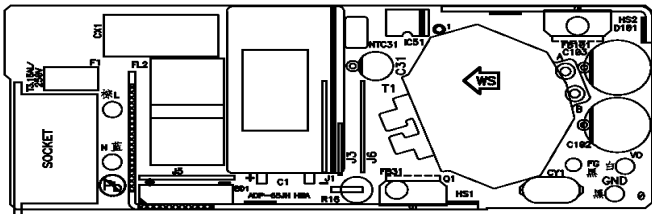
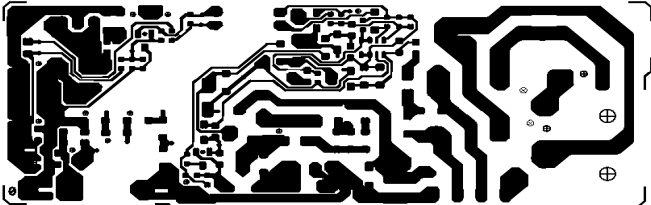
DRAWING NO. P.T. - 65311-HA REV. 1

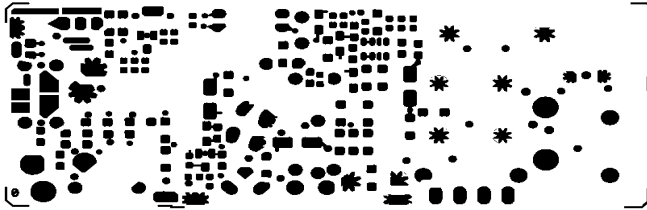
USED ON: APE-65311-HA CORP. 1

MADE BY: YUNNITE DATE: 01/21/13

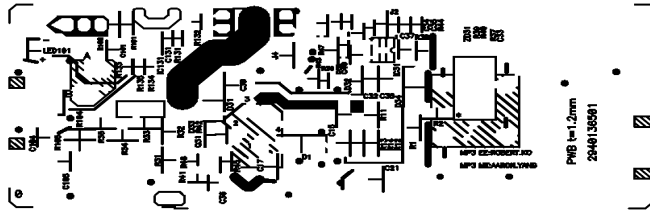
PAGE: 01 2040136531

SHEET SIZE: SIZE: 1=1



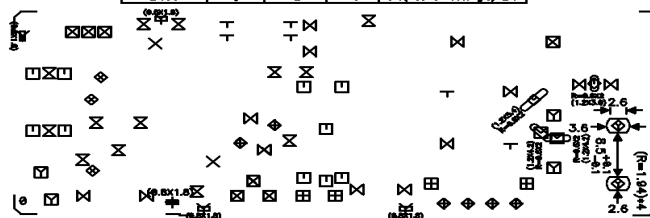


DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR ANY OTHER DESIGN OR CONSTRUCTION WITHOUT PERMISSION.
DRAWING NO. P.H. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1



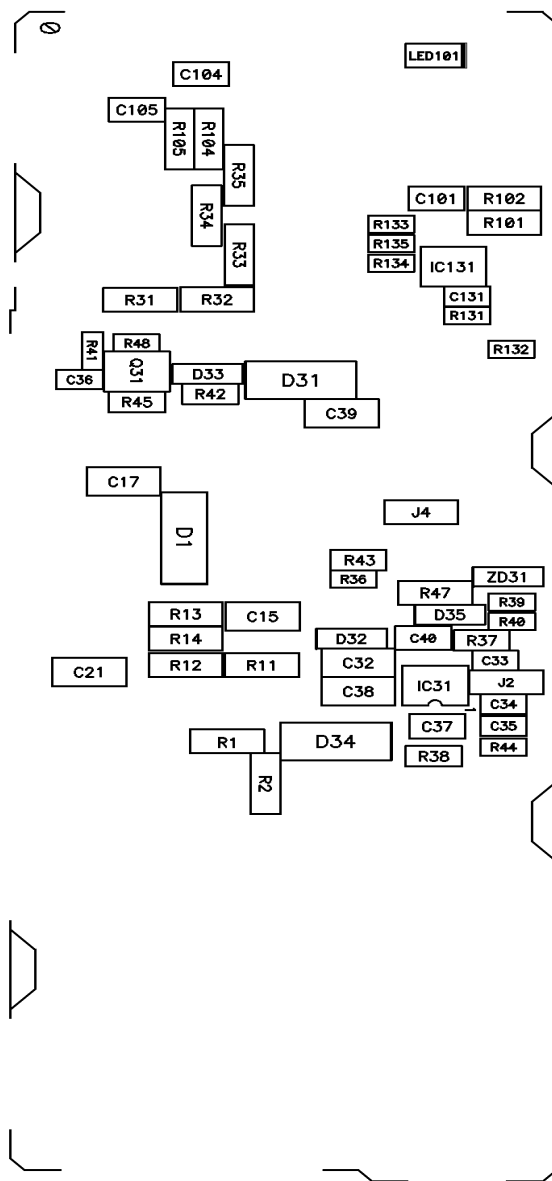
DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR ANY OTHER DESIGN OR CONSTRUCTION WITHOUT PERMISSION.
DRAWING NO. P.W. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1

DRILL TABLE				
Hole/Dia.(mm)	Symbol	Quantity	Plotted	Slot
0.600	+	1	No	0.5X1.5
0.700	X	2	No	
0.700	X	4	No	0.5X1.5
0.800	T	6	No	
0.900	X	13	No	
1.000	X	10	No	
1.000	X	13	No	
1.031	X	1	No	1.2X3.8 (Oval)
1.032	X	2	No	1.2X4.2 (Oval)
1.033	X	1	No	1.2X5.4 (Oval)
1.100	X	7	No	
1.200	X	6	No	
1.200	X	4	No	
1.700	X	3	No	
2.000	X	4	No	
2.500	X	2	No	3.6 (Round Rectangle) X2.6



DELTA DELTA ELECTRONICS, INC.
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DELTA ELECTRONICS, INC. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR ANY OTHER DESIGN OR CONSTRUCTION WITHOUT PERMISSION.
DRAWING NO. P.H. - 65JH HBA REV. 1
USED ON: ADP-65JH HBA CODE: 8
MADE BY: VANNE DATE: 8/21/73
P/N: 2948136581
SOLDER SIDE SIZE: 1=1

ADP-65JH HBA REV:1 CODE:0 2940136501



Test Record

Test Record No. 1

- The manufacturer submitted representative production sample of AC/DC ADAPTER, Model ADP-65JH HB.

- Unless otherwise noted in the above list of tests, all tests were conducted by TUV Rheinland under the CB Scheme as detailed under CB certificate NO.: JPTUV-043543-M1, CB Report reference No.: 11028524 002 and CB certificate NO.: JPTUV-043543, JPTUV-043544, JPTUV-043545, JPTUV-043546, JPTUV-043547 CB Report reference No.: 11028524 001.

- Waived tests were collected with referred report number as attached in the supplements

The following tests were waived:

Test	Rationale for Waiving
Input: Single-Phase (1.6.2)	refer to CB report
Durability of Marking (1.7.11)	UL recognized label is used.
Energy Hazard Measurements (2.1.1.5, 2.1.2, 1.2.8.10)	refer to CB report
Capacitance Discharge (2.1.1.7)	refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	refer to CB report
Limited Current Circuit Measurement (2.4.1, 2.4.2)	refer to CB report
Limited Power Source Measurements (2.5)	refer to CB report
Humidity (2.9.1, 2.9.2, 5.2.2)	refer to CB report
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	refer to CB report
Thin Sheet Material (2.10.5.9, 2.10.5.10, 2.10.5.6)	refer to CB report
Transformer and Wire /Insulation Electric Strength (2.10.5.13)	refer to CB report
Steady Force (4.2.1 - 4.2.4)	refer to CB report
Impact (4.2.5, 4.2.1, Part 22 10.2)	refer to CB report
Drop (4.2.6, 4.2.1)	refer to CB report
Stress Relief (4.2.7, 4.2.1)	refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	refer to CB report
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)	refer to CB report
Electric Strength (5.2.2)	refer to CB report
Component Failure (5.3.1, 5.3.4, 5.3.7)	refer to CB report
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	Refer to Power Supply Output Short-Circuit/Overload test
Power Supply Output Short-Circuit/Overload (5.3.7)	refer to CB report

Test Record

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Attachment	2-01	Delta's previous test data