

Eight Discipline Report (8D Report)

To: 8D report No.: CPCQ20221214

From: Chicony Power Technology RMA claim No.: N/A

CC: N/A Chicony P/N: W045RP05P-VE01-01

Submit date: 2022/12/15 Product description: 45W adapter

Receive date: 2022/12/13 Defect D/C or Lot No.:2022/10

Subject: Adapter trace 未鋪白漆導致 ESD fail

D1.) 問題解決成員:Use Team Approach 主持者 (Team Leader): Henry_Zhang 內部成員 (Internal Team Members):

CQS	Sunny_Dang
MFG	Ice_Liu
IPQC/QE	BL_Zhang
PE	XP_Zhao
IE	Hunter_Liao
SQE	Yanlan_Qin

外部成員 (External Team Member):

N/A

D2.) 問題說明: Problem Description:

(Note: Use who, what, when, where, why, how, how many to specify the Customer's problem.)

2022/11/30, customer feedback 45W Adapter ESD fail*1pc.

CPT P/N: W045RP05P-VE01-01

Defect S/N: 242160WU5

Defect D/C: 2022/10/28





D3.)內部或客戶的暫時解決辦法及實施日期:Implement and Verify Containment Action:

(Note: Internal / external containment action effectiveness and date.)

Send failed adapter to Chicony Power(ChongQing) for further analysis.

Date: 2022.12.13

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D4.)不良原因確認: Define and Verify Root Causes:

(Note: Identify and verify all suspect causes, which needs explain why the problem occurred.)

1. SFCS record

根據退回產品 S/N,查詢廠內 SFCS 記錄正常.

According to the returned adapter S/N, query SFCS record. – no abnormality was found.

H	貨序號	號 ~ 24	2160WU5		闌寬自重	加調整		
生	産條硫	馬 MBM423	31130042	客戶	名稱			
I	單	MBM42	311	途利	星名稱	Assy-Aut	oLine+ATE3	
I	單類型	型		生產	E線別	CPCQ_L03	3	
料	號	W045RF	P05PVE0101	規格	\$			
機	100			狀態	777	PASS	complete	
版		N/A			扩序			
-0.0		熊1 242166	WU5	客月	⇒序號2			
包	装作業資訊					出	貨作業資訊	
彩	a號 N/A				客	F		
		CMM42311005	600			保	固期	
		PMM42311000 維修 抽驗	145 15	物料 錫膏 鋼板	刮		貨地 数料	
	Z (145 15	物料 錫膏 鋼板料號	(割)			狀態
	生生	維修抽驗	重工			刀 組裝 生產線	物料	狀態 OK
	至 生 MBM	維修 抽驗產條碼	重工	料號		刀 組裝 生產線	物料 制程 ICT	
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2. Failure analysis

2.1.Adapter 收到時已經是開蓋的狀態,檢查確認零件面及錫面.如下圖:

When the adapter is received, the cover is already open. The parts surface and tin surface are shown as follows.





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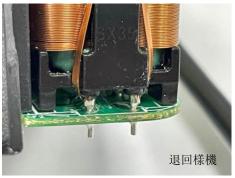
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2.2.觀察退回樣機發現 LF2 底下 PCB 無白漆(為對策前產品).此樣機生產日期 2022/10/28,是對策前產品.ESD Fail 對策 PCB 加白漆於 2022/11 月中導入.

The PCB board under LF2 of the returned unit has no white paint (it is the product before the countermeasure was implemented). The production date of this unit is 2022/10/28. PCB board with white paint has been introduced in the middle of 2022/November.





2.3. 量測錫面各個零件,發現 U52 & PC1 NG.

Each part of the tin surface was measured step by step, and it was found that U52 & PC1 NG.





U52 的 VCC pin(pin 10)與 GND(pin 1) short

PC1 擊穿

2.4.Adapter 更換 U52 & PC1 後滿載燒機無不良現象,B/I 8Hr Pass.

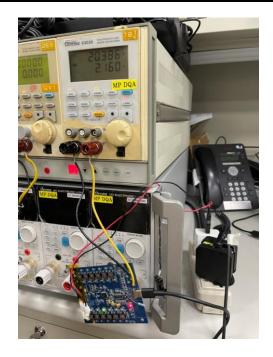
After replacing the failed parts, full load B/I 8Hr, the output of adapter is normal.

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綜上所述:U52 & PC1 NG 造成產品無輸出.

In conclusion: U52 & PC1 NG resulting in the adapter no power.

D5.)改善措施: improvement measure:

(Note: Be make sure the corrective actions is effective in process as well as able to fix the customer complaint problem)

1.將不良 U52 送予廠商分析.

Material:601059241046MGHF Vendor:WELTREND

Owner:WELTREND

D6.)改善措施實施日期:Implement Permanent Corrective Actions:

(Note: Be provide the phase-in date or lot# of corrective actions implementation in process)

2022.12.15

D7.)預防再發生措施:Prevent Recurrence:

(Note: Modified the management, operating systems, practices, and procedures to prevent recurrence for the problems as well as lessons learned cases.)

QIT members and IPQC will continue trace this issue day by day.

D8.)確認並感謝問題解決成員:Check and Congratulate the Team:

(Note: Recognize the collective efforts of the team.)

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Thanks to all QIT members.

Signature Team Leader: Henry_Zhang

Name - Title

Signature by Approver: Roy_Tsai

Name-Title