



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 [ESD, PCB, 白漆]**

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:

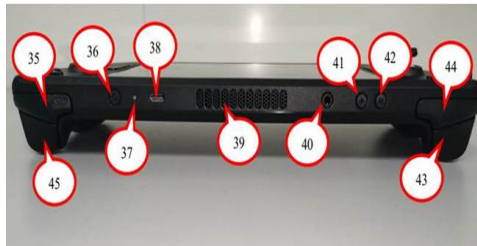
(Note: Use who, what, when, where, why, how, how many to specify the Customer' s problem.)

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

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.

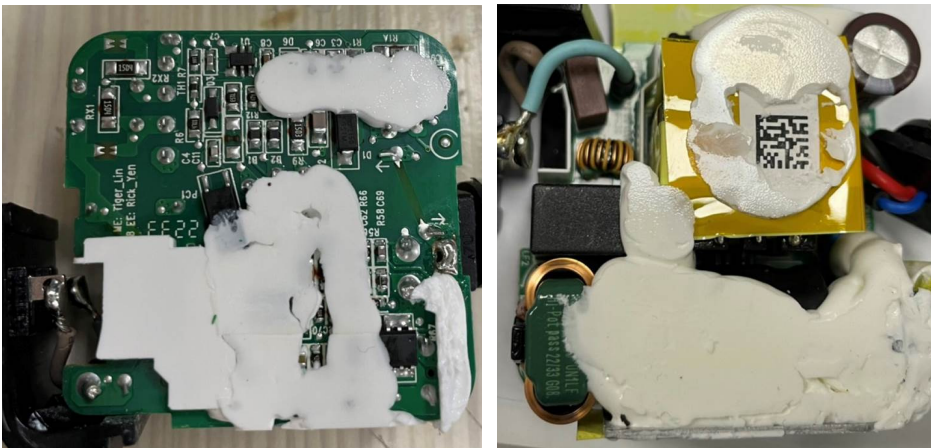
According to the returned adapter S/N, query SFCS record. – no abnormality was found.

出貨序號	242160WU5	<input type="checkbox"/> 欄寬自動調整																																																																																																																						
生產條碼	MBM4231130042	客戶名稱																																																																																																																						
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<table border="1"> <thead> <tr> <th>流程</th> <th>維修</th> <th>抽驗</th> <th>重工</th> <th>物料</th> <th>錫膏</th> <th>鋼板</th> <th>刮刀</th> <th>組裝物料</th> </tr> </thead> <tbody> <tr> <td>生產條碼</td> <td>工單</td> <td>料號</td> <td>客戶</td> <td>生產線</td> <td>制程</td> <td>狀態</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>ICT</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>ACT</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>ASSY</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>PRE-ATE</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>SN CHECK</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>HIPOT/GR...</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>FINAL-ATE1</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>FINAL-ATE2</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>FINAL-ATE3</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>PACKING</td> <td>OK</td> <td></td> <td></td> </tr> <tr> <td>MBM4231130042</td> <td>MBM42311</td> <td>W045RP05PVE0101</td> <td></td> <td>CPCQ...</td> <td>QC</td> <td>OK</td> <td></td> <td></td> </tr> </tbody> </table>				流程	維修	抽驗	重工	物料	錫膏	鋼板	刮刀	組裝物料	生產條碼	工單	料號	客戶	生產線	制程	狀態			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	ICT	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	ACT	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	ASSY	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	PRE-ATE	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	SN CHECK	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	HIPOT/GR...	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	FINAL-ATE1	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	FINAL-ATE2	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	FINAL-ATE3	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	PACKING	OK			MBM4231130042	MBM42311	W045RP05PVE0101		CPCQ...	QC	OK		
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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.



Chicony Power Technology Co., Ltd. 群光電能科技股份有限公司

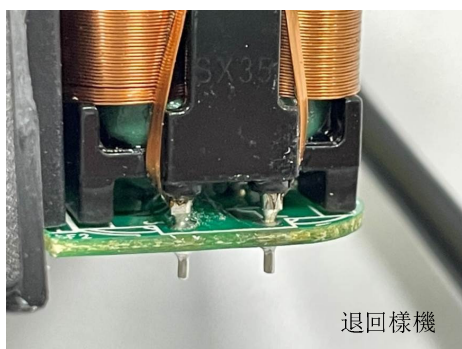
Address: 29F, No.69, Sec. 2, Guangfu Rd., Sanchong Dist., New Taipei City 241, Taiwan

新北市三重區光復路二段 69 號 29 樓

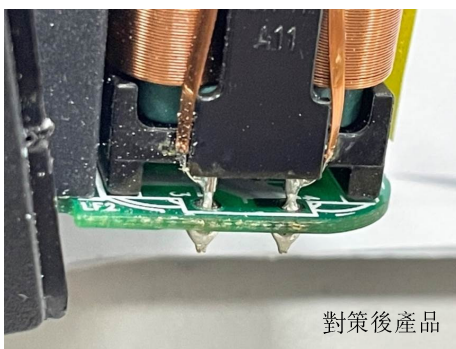
TEL:+886-2-6626 0678

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.



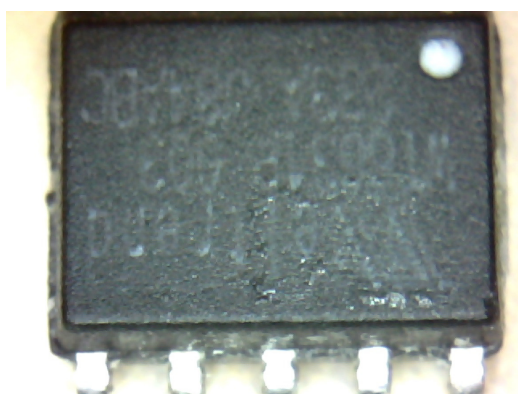
退回樣機



對策後產品

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.



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.)

Thanks to all QIT members.

Signature Team Leader: Henry_Zhang

Name - Title

Signature by Approver: Roy_Tsai

Name-Title