

Eight Discipline Report (8D Report)

To: 8D report No.: 20191016
From : Chicony Power Technology RMA claim No.: N/A
CC : N/A Chicony P/N: A045R074P-HW01-0A
Customer P/N:
Submit date: 2019/10/21 Product description: 45W adapter
Receive date: 2019/10/17 Defect D/C or Lot No.: 2019/05/25
Subject : Adapter 不良*1pc, intermittent, 無輸出, LF2 開路, 壓件治具, 包焊
磁件, Regulation

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
ME	Lipeng_Liu
TE	Zhaohui_Shen

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.)

2019/10/16, I 反饋我司 HP 45W Adapter 不良*1pc.

Customer P/N:

CPT P/N: A045R074P-HW01-0A

Defect S/N: WHZEQ0AGCC964X

Primary Product	Func Tst - Accessories
Product Version	Accessories - Inventec
Component Type	HW
Sub System	AC Adapter
Component	
Short Description	Module-ACC-NB/IEC/Crescent OOC/RS3: Adapter cannot charge the battery when plug in Adapter to unit.(L6F60AA)

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

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

1. 將產品帶回 CPT,進一步分析.

Owner: FAE Date: 2019.10.17

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. 生產記錄:

根據退回產品 S/N:WHZEQ0AGCC964X,查詢廠內 SFCS 記錄正常.

Travel Card

Customer SN

WHZEQ0AGCC964X

Query

Export

Batch Exp

Work Order

MBJ21408

Serial Number

MBJ2140839295

Part No

A045R074PHW010A

Customer SN

WHZEQ0AGCC964X

Version

N/A

QC LotNo

QCCPCQ_L0419052428756

SPEC1

Pallet No

PMJ2140800001

OutPut Time

2019/5/25 上午 02:13:30

Carton No

CMJ2140800011

Status

Complete

Box No

N/A

Travel

Repair

Quality Control

KeyParts

Rework

Work Order

Current

Burn In

Work Order	Serial Number	Customer SN	Custo	Versi	Route Name	PDLine Nar	Stage Name	Process Name	Terminal Name	A	Current St	Work Flag
MBJ21408	MBJ2140839295	N/A	N/A	N/A	Assy-AutoLin	CPCQ_L04	FINAL ASSEM	ICT	ICT03		Normal	Normal
MBJ21408	MBJ2140839295	N/A	N/A	N/A	Assy-AutoLin	CPCQ_L04	FINAL ASSEM	ACT	ACT04		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L04	FINAL ASSEM	ASSY	ASSY01		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L09	PACKING	SN CHECK	SN CHECK02		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L09	PACKING	HIPOT/GROUN	HIPOT/GROUN		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L09	PACKING	FINAL-ATE1	FINAL-ATE101		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L09	PACKING	FINAL-ATE2	FINAL-ATE201		Normal	Normal
MBJ21408	MBJ2140839295	MI01XXX02137	N/A	N/A	Assy-AutoLin	CPCQ_L09	PACKING	PACKING	PACKING03		Normal	Normal
MBJ21408	MBJ2140839295	WHZEQ0AGCC	N/A	N/A	Assy-AutoLin	CPCQ_L04	QC	QC	QC01		Normal	Normal

2. 不良分析:

2.1 檢查 adapter 外觀無異常,通電測試確認產品無輸出.



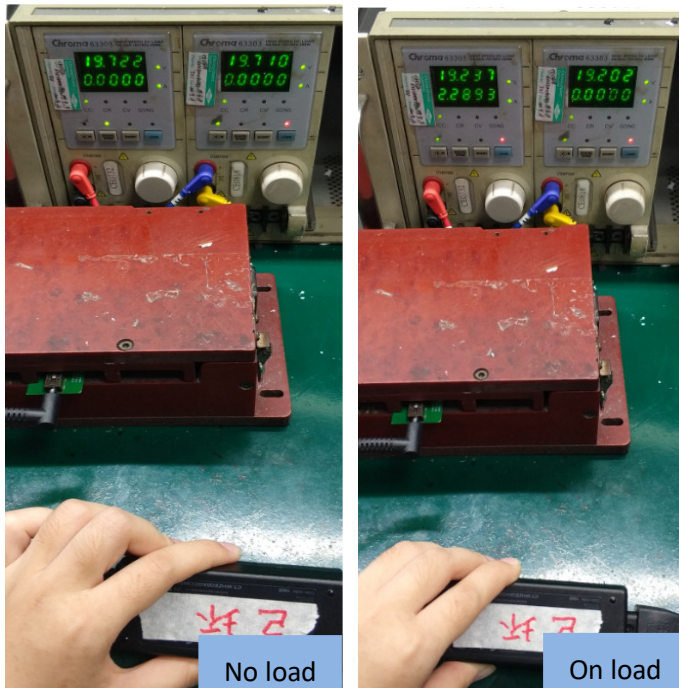
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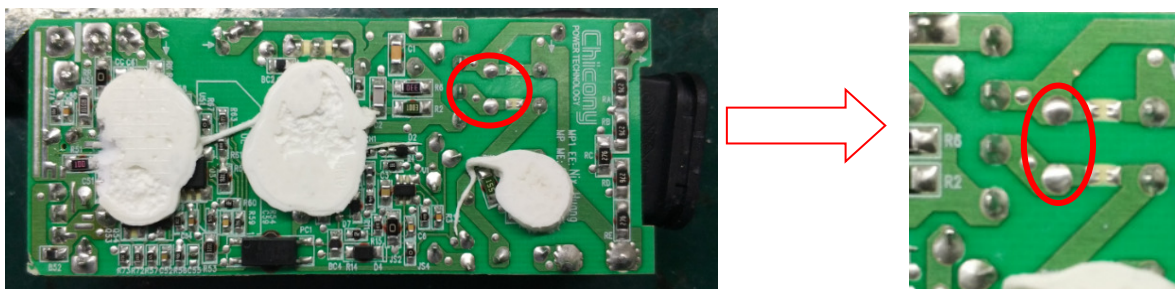
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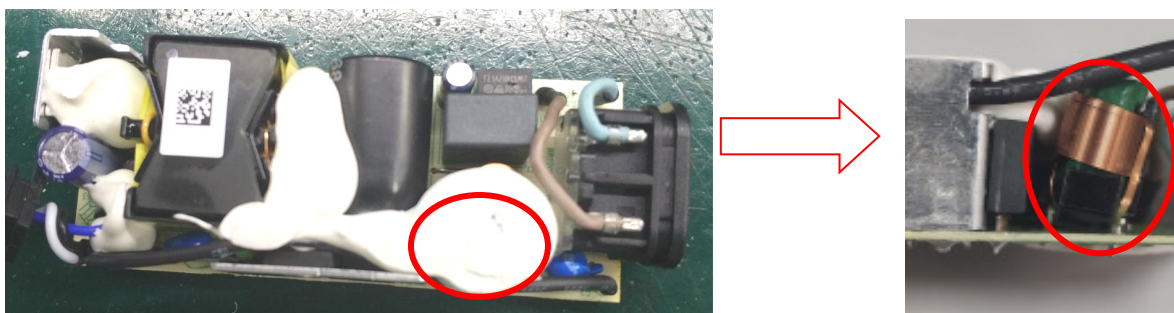
2.2 輕敲產品時,產品有短暫輸出,出現 intermittent 現象.



2.3 PE 開殼檢查錫面.確認 LF2 插件 pin 2、4 腳包焊狀況.



2.4 檢查零件面.確認 LF2 插件傾斜.






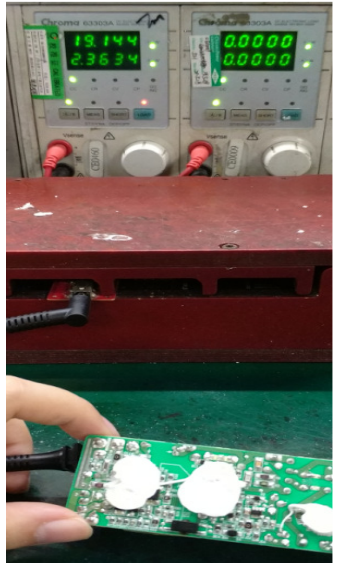
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2.5 將 LF2 重新插定位並吃錫 OK 后,開機測試正常.敲擊產品,輸出無 intermittent 現象.

Status	未敲產品	輕敲產品
No Load		
Output	19.734V	19.735V
On Load		
Output	19.136V	19.144V

2.6 電路圖分析

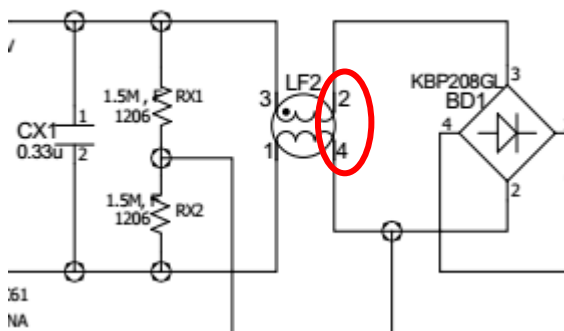
LF2 插件傾斜造成 pin 2、4 腳包焊,電路不導通時導致產品無輸出.

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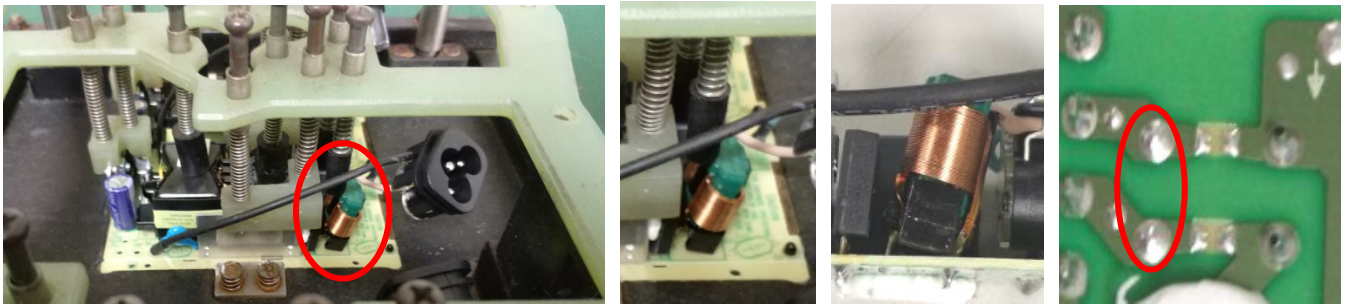
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2.7 發生原因分析

製程調查,LF2 為直筒式壓棒.人員在壓件過程中加上線體抖動時,當 LF2 有偏移時有可能沒有壓到 LF2 正上方,將 LF2 壓傾斜.實際線上進行複製模擬可產生與不良品類似現象.

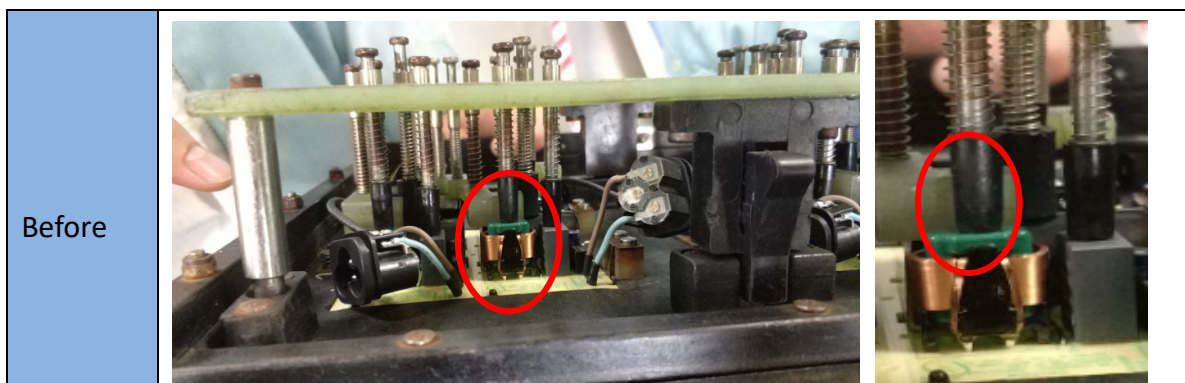


綜上所述:LF2 插件傾斜造成 pin 2、4 腳包焊,廠內測試 pass 經過運輸振動到客戶端出現 intermittent 現象.

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. 修改壓件治具.LF2 對應的壓棒由原來的直筒式,變更為帶側邊擋板的壓塊.當 LF2 傾斜時作業人員壓件壓不到位,當壓件壓到位時側邊擋塊可以避免 LF2 傾斜.



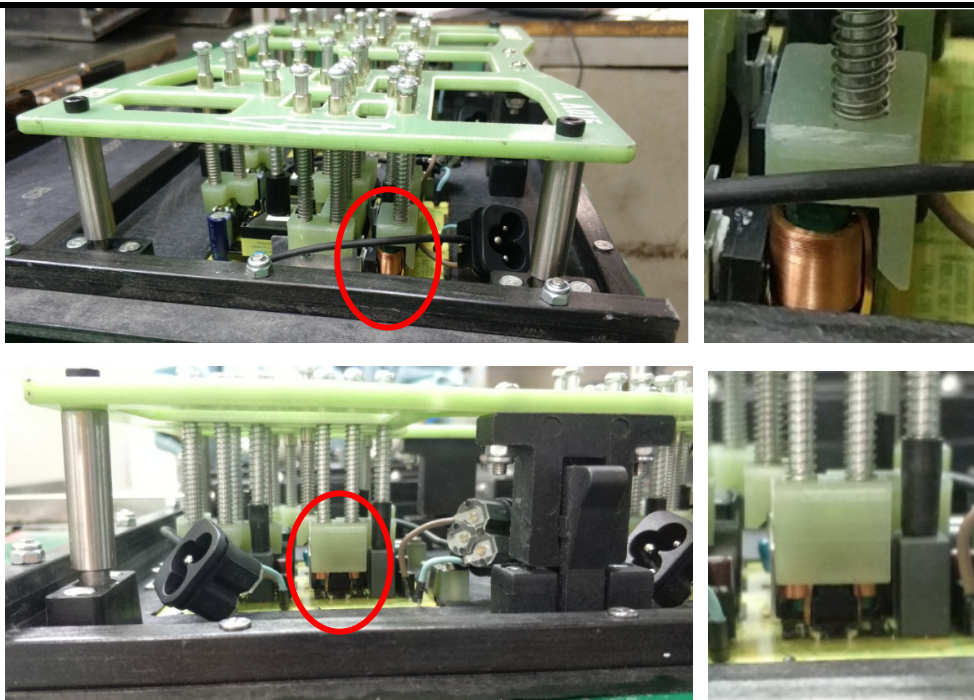
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After



Owner:ME/MFG Due date:2019.10.21

2. 對 AOI 程式進行優化,提高包焊不良的檢出率.

Owner:TE Due date:2019.10.21

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)

Due date : 2019.10.21

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.)

製作 Lesson Learn 水平展開到其他機種.

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

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Signature by Approver:

Name - Title

[Roy_Tsai](#)

Name-Title

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