

Returned Material Analysis Report (Final)

D1) Use Team Approach :

Team Member (Dept./ Name) : CM/SD/Chloe Lin 、 SMC/Tester/Max Lin 、 QM/QES/Wood Lin

D2) Describe The Problem : Specify the problem by identifying in quantifiable terms the **who, what, where, why, how , how many** (5W2H) for the problem °

1. Product Information :

Returned Date : 2025/01/09QM Received Date : 2025/01/16QM Issued Date : 2025/01/23Customer : 弘憶(鴻海網通)Part Number : RTL8211F-CGPackage Type : QFN-40Customer's Model No. : 002.02152.005

Lot No.	Sample No.
<u>O319NC2</u>	<u>#1</u>

2. Problem Description :

Failure Occurs ☐ 1st time☐ Repeat Issue: RMA No. _____ Failure Occurs At ☐ Production Line☐ End Customer' s Production Line☐ Field Return☐ Others

Failure Chip

Sent Date 2025.1.9 Product Application Set top box Customer P/N 002.02152.005

Production Lot In Total NA Failure Q'TY In Total 1pc Failure Rate NA Return Q'TY 1pc

Failure Symptom Product can' t PING at 192.168.100.25 so can' t connect with Ethernet. Then FA, found LED/CFG_LDO1 and CLKOUT voltage & impedance abnormal This issue follow U801_RTL8211F-CG (MPM: RTL8211F-CG, P/N 002.02152.005, DC: O15, Vendor: REALTEK) component

Test Procedure

After replace U801 on NG board, the product could ping and no abnormality found

Test Environment

Room temperature

D3) Implement and Verify Containment Action : Define and implement containment actions to isolate the effect of problem from any internal/external customer until corrective action is implement °

-Lot History Check Result :

After checking the lot history, no abnormality was found. We will perform FA first, then decide which actions should be taken.

No	Item	Who	When
NA	NA	NA	NA

D4) Define and Verify Root Causes : Identify all potential causes which could explain why the problem occurred ° Isolate and verify the root cause by testing each potential cause against the problem description and test data ° Identify alternative corrective actions to eliminate root cause °☒ QA verify ☒ Tester verify ☐ FAE verify ☐ Design verify ☒ SD verify

-Electrical Analysis :

1) QA I-V Curve Measuring :

● Equipment : FB102 Curve Tracer

● Method : Forcing voltage into every pin with IC's GNDs are grounded to check I-V curve if any leakage current existed.

● Results : Please refer to attachment 1 and attachment 2.

2) Tester Verifying :

- Method : Run Test Program
- Results : Please refer to attachment 1.

3) SD Verifying :

- Method : Run Test Program
- Results : Please refer to attachment 1.

- Conclusion and Suggestion :

1) [PASS] [100%] Sample #1 is verified as good.

Suggestion : We suggest customer to check it again.

Attachment 1 、 Test Results

No.	IV curve	Tester Verify	SD Verify
#1	Pass 進行 I-V curve 測試，電壓 -1V~+1V (黑線: Godd IC，紅線: RMA IC)，好壞品無差異	Pass 測試量產 FT 程式的所有測項，其中與 LED/CFG_LDO1、CLKOUT 相關的測項皆是 Pass	Pass, Function Pass. 測試 RMA IC 皆可正常使用，為 Pass IC

Attachment 2 、 I-V Curve

