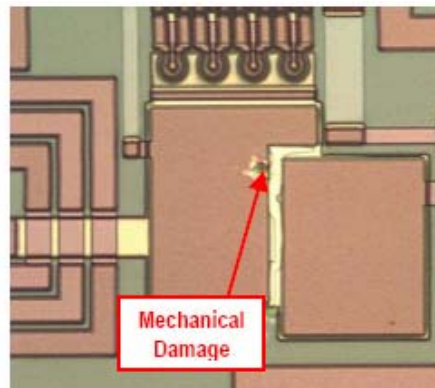


FIELD SERVICE BULLETIN

FSB Number: LVCCFSB2005-139
Author: Tony Bryan
Date: May 12, 2005
Total No. of Pages: 3
Subject: Skyworks Eagle IC – High Current Failure
Model Affected: GSM V300, V303, V400, V400p, V600, V220, E398, C650,
C550, V180, C380, E550/V535, V620/V600i, V3
Level of Repair: 3

Problem

Service is aware of an issue identified during the 1st 200 NPI analysis on several GSM products that use the Skyworks PA P/N 5189818N01. Some units, returned with customer complaints of “Can’t Power on” or “Battery short life”, were found to have a higher than normal current draw. This issue is caused by abnormal high current consumption of Skyworks PA P/N 5189818N01 due to a mechanical scratch across the die surface. Such damage would lead to a short to ground on the die surface after phone assembly and field operation.



Pic.1

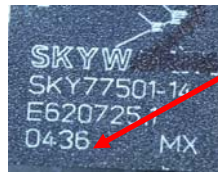
Solution

Skyworks has instituted several corrective actions to reduce the occurrence of mechanical damage failure mode. The actions include:

- 1) Added Cleaning After GaAs Die Scribe and Break Process
- 2) More Frequent Cleaning of the Pick up Tip (After Every Lot), Replacement of Pick up Tip (After Every 17,000 Placements).
- 3) Heightened Wafer Inspection (100X Microscopic Inspection of Panels After Die Attach – for Lot Set-up) Added to Improve Overall Product Quality at all Assembly Sites. – WW52 '04

4) Additional electrical tests were added to the Rev. F High Current Density Test (HCDDT) including a leakage test performed at 4.6VDC to screen out some potentially weaker components. – WW09 '05

All Corrective Actions are in place in part date codes after WW09 '2005.
New date code is 0509



New Date Code = 0509

Field Service Action

Customer Returns:

When servicing the affected GSM phones, returned to Service Center with the Customer Complaint of: "Can't Power on" or "Battery short life", then:

1. Confirm the complaint failure's symptom with abnormal high current consumption. (Standby/backlight on, normal current is around 160mA).
 - a. If the unit does not show these symptoms, then proceed with normal troubleshooting techniques per the customer complaint.
2. Disassemble the unit and measure the resistance on the PA B+ pins to determine if the PA is possibly shorted. (Normal resistance should measure around 2M Ohms).
3. Remove the PA from the PCB and verify that the failure is caused by the PA module itself by replacing the suspect PA with a known good one.
4. Finally, replace the defect PA with date codes after Week 09 of 2005.
 - a. If the unit still displays the original failure symptoms, then troubleshoot the PCB for defects.

Service Inventory:

Existing inventory of the 5189818N01 Skyworks Eagle IC should be purged of Lot Codes prior to 0509.

Call Center Action:

If the customer calls with any call related complaints mentioned above, then have the customer return the unit to an authorized service center for repair.



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US Competency Center
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Libertyville, Illinois 60048
Website: gs.mot.com

Service Entry Code:

Please ensure that repairs of this type are logged on the Service Link database as follows:

Global M-Claims Codes:

Customer Complaint Code:

TON01 (Turn On/Off – No Turn On)

BAT02 (Battery – Battery Life Short)

Problem Found Code:

TON01 (Turn On/Off – No Turn On)

BAT02 (Battery – Battery Life Short)

Reference Designator Code: U (Integrated Circuit/Module)

Repair Code: REP06 (Replace Electrical Part – CSB/FSB)