

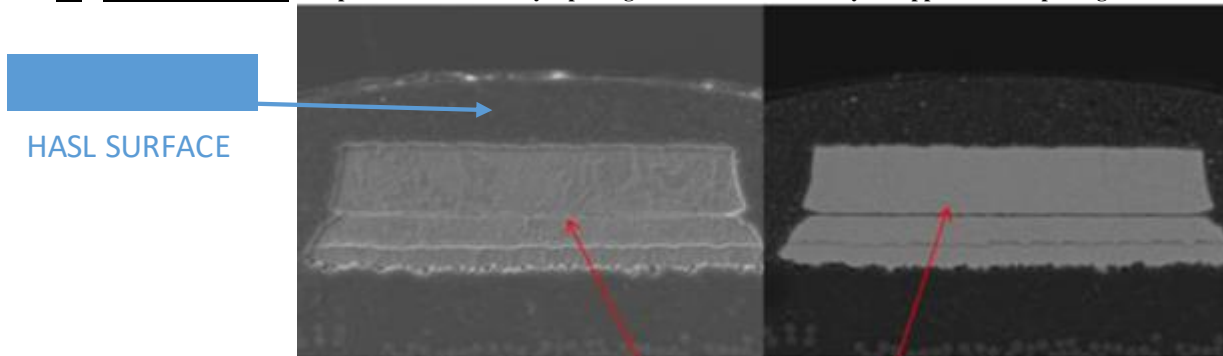


Curtiss-Wright Defense Solutions (PWB SUPPLIER QUALITY COMMUNIQUE) H2 2019

All PWB suppliers

As a valued partner and supplier to Curtiss-Wright Our Procurement and quality teams at Curtiss-Wright engage in partnership to inform our supply and services base whenever we observe trending quality issues that may impact Curtiss-Wright and our customers.

(1) **Failure Modes Seen:** Separation in surface layer plating Electroless and Electrolytic copper on PWB plating:



Recently we have detected a single occurrence at a PWB shop where it is theorized an Oxidation occurred between layers possibly due to a line stop and or poorly defined FRACAS event and a re-plating occurred without sufficient engineering disposition. The cards so delivered to CWDS separated in field applications causing extensive rework and risk to CWDS and our valued customers. The BGA devices failed and the card failed to function due to separation in the net below the device due to the plating failure.

We are requesting you determine internally from your FRACAS/MRB and defective material records if subject defect has been seen to occur and prepare objective evidence during an upcoming audit to be planned at your facility. Please verify if your control plans and PFMEA list this as a significant failure mode and how you mitigate in process. We will be auditing your IPC procedures for coupon verification and preparation during this audit event in 2019.

Our suppliers play a critical and valued role to ensure we achieve Zero Defect Quality. After all Zero Defects and 100% on time performance are required. Let's work collaboratively towards these objectives. If you have questions regarding this Supplier Communique, or have this condition present please contact your CWDS buyer and or the officers noted below. Our suppliers are critical to our success. Openly communicating expectations and working together to meet expectations is pivotal to our ongoing relationships.

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