

Counterfeit Parts Prevention Training Procedure

Sigatek LLC

Purpose:

Establish Procedure for training of Fraudulent-Counterfeit Parts prevention. The purpose of this procedure is to train the personnel for necessary avoidance, detection, mitigation, and disposition processes to prevent counterfeit parts, and or materials from entering into our customer's supply stream, thereby enabling the fulfillment of our customers' requirements, and continued customer satisfaction.

COMPONENT - MATERIALS VERIFICATION

All inspection and testing shall be performed to the original manufacturer's specifications and Parameters Steps A, B, C, D, E, F and G should be performed in order. If a nonconformance is found, stop testing, reject the lot, and notify the buyer. Testing shall only Be performed by test house pre-approved by Supplier Quality Engineer.

A: Visual Inspection Each lot to be delivered shall be subjected to a visual inspection at an AQL of 1.0 or tighter with a 40x minimum magnification. 100% of the remaining lot shall be visually inspected without Magnification Visual inspection shall include but is not limited to: verifying lot/date codes against Manufacturer's database, correct English spelling, manufacturer's logo, evidence of component Remarking, damaged bent leads, chip-outs, scratches, cracks, terminal finish inconsistent with Manufacturer's specification for that part number, any discrepancies to the pin one indicating area, And inconsistencies between the upper and lower mold of the component.

B: Authenticity Verification Each lot to be delivered shall be subjected to an inspection at an AQL of 1.0 or tighter. Testing shall Include verification of the component's physical attributes to the original manufacturer's drawing, Swabbing and other applicable testing to verify authenticity. Swabbing shall be performed to The Current revision of MIL-STD-883 testing method 2015 using acetone and the alcohol and Mineral Spirits solution. CAUTION: For all solvents specified in these tests, ensure proper safety precautions are Used, including proper Personal Protective Equipment, a ventilated fume hood and eliminate any ignition sources.

C: X-ray Inspection Each lot to be delivered shall be subjected to an inspection at an AQL of 1.0 or tighter. X-ray Inspection shall include checking for the presence of the die, cracks in the epoxy, checking wire Bonds, product or manufacturing markings that are X-ray detectable and any mixed die Configurations within the same lot/date code. This inspection is done only if is required by the buyer.

D: Electrical Testing Electrical testing of each lot to be delivered shall be completed at an AQL of 1.0 or tighter. Testing Shall include verifying electrical specifications from the original manufacturer's technical data sheets as approved by CRL. Testing must be performed ambient temperatures as identified on the OEM/OCM specification.

E: Destructive Physical Analysis Each lot to be delivered shall be subjected to a DPA inspection of 2% to a maximum of 30 units per Lot code. Inspection shall include verification of authenticity of the die and any other internal features That may be shown on the original manufacturer's technical data.

F: Plating Inspection Each lot shall be verified for lead finish per manufacturer's specification using visual inspection.

G: Mechanical Parts (*Materials*) Verification All visual inspection, mechanical testing and authenticity verification shall be performed to the original manufacturer’s specifications and parameters. If a nonconformance is found, stop testing, reject the lot, and notify the CRL buyer. Inspection and mechanical testing shall only Be performed by test house pre-approved by CRL Supplier Quality Engineer. * Materials are defined as the following: Raw materials, hardware, fasteners, bearings, castings, epoxies, paints, etc.

Testing and analysis Requirements Table-by Component Type

Component Type	Visual Inspection	Authenticity Verification	Plating Inspection	Painting Inspection	Electrical Testing	Packing Inspection	
Connectors							
Screws							
Inductors							
Resistors							
Capacitors							
Transistors							
Diodes							
Materials							
Epoxies							
Paint							
Ferrites							
Solder							
Flux							
Cleaners							

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