MAGNALYTIX®

MGX QMP Type C Mixed Technology SIR Test Board

Practical Uses

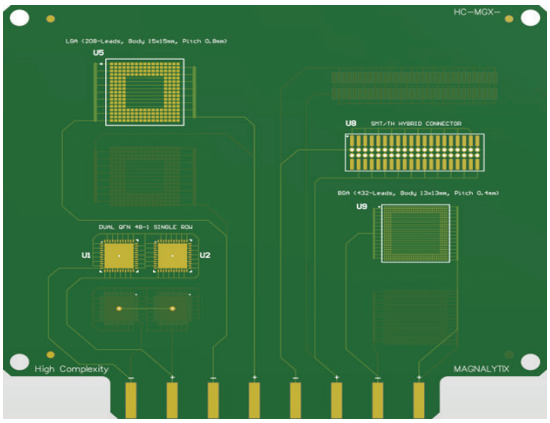
IPC J-STD-001H ~ Section 8: Cleanliness

The electronics industry is rapidly embracing the IPC J-STD-001 cleanliness standard. SIR testing is the preferred method for qualified manufacturing plan certification. This standard has just begun to impact electronics manufacturers as design and production teams work through compliance with their design authority.

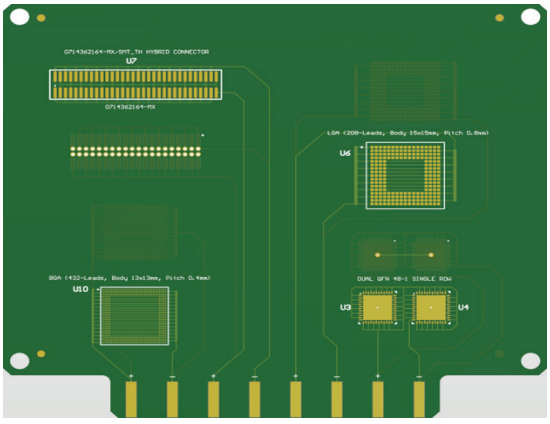
A Qualified Manufacturing Plan requires the CM to qualify (N1D2D3) the soldering and/or the cleaning process that results in acceptable flux levels and other residues. Objective evidence shall (N1D2D3) be available for review.

Using the historical 1.56 µg/NaCl equivalence / cm2 value for ROSE, with no other supporting objective evidence, is not considered an acceptable basis for qualifying a manufacturing process.

COMPONENT SPECS FOR THE TOP SIDE		
Quadrant 1	2 - Components	QFN48 - 48 Leads - 7x7mm body, Pitch 0.5mm
Quadrant 2	1 - Components	LGA - 208 Leads- 15x15mm body, Pitch 0.8mm
Quadrant 3	1 - Components	SMT/TH 40 Pin Connector - Pitch 1.27mm
Quadrant 4	1 - Components	BGA 432 Leads - 13x13 body, Pitch 0.4mm



COMPONENT SPECS FOR THE BOTTOM SIDE		
Quadrant 1	2 - Components	QFN48 - 48 Leads - 7x7mm body, Pitch 0.5mm
Quadrant 2	1 - Components	LGA - 208 Leads- 15x15mm body, Pitch 0.8mm
Quadrant 3	1 - Components	SMT 64 Pin Connector - Pitch 1.00mm
Quadrant 4	1 - Components	BGA 432 Leads - 13x13 body, Pitch 0.4mm



Unless otherwise specified by design or by the User

- Acceptability of the residue condition shall (N1D2D3) be determined at the point of the manufacturing process just prior to the application of conformal coating or on the final assembly if conformal coating is not applied.
- Rework processes shall (N1D2D3) be included in the process qualification

MGX QMP Type C Test Board

The Magnalytix QMP Type C SIR test board is an 8-channel mixed technology SIR Test Assembly. All Magnalytix QMP Test Cards have 4 SIR channels on the top side and 4 SIR channels on the bottom side. The Type C Card has bottom terminated components, LGA, BGA, SM/TH fine pitch connector, and fine pitch BGA. This High complexity test board has challenging components representative of advanced designs. This test board enables the CM to obtain Objective Evidence required by the Design Authority.

MGX Testing Services

Magnalytix offers independent testing at the MGX world-class Laboratory according to IPC Standards. After the testing is completed, MGX offers an In-Depth Report designed to be your Objective Evidence document for submission to your Design Authority.

The Comprehensive Report includes the following:

- Executive Summary
  - o Purpose and Objective
  - o Inferences from the Data Findings
  - o Recommendations
  - o Teams Meeting to go over the Data Findings and Corrective Action Recommendations if Needed
- Technical Summary
  - o Materials and Process Conditions
  - o Experimental Conditions
  - o SIR Test Parameters and Calibration
  - o SIR Data Findings
  - o Statistics
  - o Removal of Components to Correlate the Residue Condition to the SIR Data

Join the Reliability Revolution

Contact Us for your Objective Evidence

Email: info@magnalytix.com

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