SN WHISKER / CONFORMAL COATING / RF TASK GROUP

Meeting minutes from 8/18/2025

For lead free conformal coat RF test vehicle designed by AREA Consortium members.

NOTE THAT DESIGN DETAILS ARE TENTATIVE

Test Vehicle Printed Circuit Board Materials per Area Consortium Members:

Rogers RO4835 LoPro Laminate - 0.014 mil
Copper Clad 0.5 IAW IPC 4103 and qual Requirements Mil-S-13949
Epoxy Glass IAW IPC – 4101/26 or /126
Plated with Immersion Ag IAW IPC-4553

Test Vehicle Area Consortium Design requirements:

Board size cannot exceed SEM 3 x 3 size due to constraints of machine (Element will run high humidity temp and inspect)JSM-6010PLUS/LA InTouchScope™ Multiple touch panel scanning electron microscope | Products | JEOL Ltd. | Products | JEOL Ltd.

Layer 1 and 4 with 0.5 oz copper clad and Plate to Max 0.0023 finished weight that includes immersion silver plating. Team requested to restrict thickness for material availability and assembly side risk manufacturing issues.

Printed PWB Edges shall be plated except for edge launch connector area where connector will be assembled so team can test.
The non-plated edges shall be between 0.074 +- 0.010 per our discussions at meeting

Break away tabs will not be located at non-edge plated areas to avoid plating damage.

Breakaway tabs will be located on all other edge plated areas and length and locations shall be determined by manufacture.

PWB IAW IPC-2221 Class 3 IPC-2222, and fabrication IAW IPC-6018 Class 3.

Minimum Wrap requirements IAW IPC-2222 Class 2

No Serialization required

Solder Mask IAW IPC-SM-840 Class H

Workmanship IAW MIL-HDBK-454 Guideline 9

Conductor patterns shall be generated from master only and vendor can process allowances as needed.

Silk screen using Non-Conductive contrasting color ink IAW MIL-STD-13231 Group 11

Hole sizes as defined by team and captured by AREA Consortium:
Diameter: 0.016 +/- .001 QTY 245 PLATED
Diameter: 0.081+/- .003 QTY 22 PLATED

ODB++ will be used so team can use.

Attendees:
Karen Ebner - RTX
Mike Meilunas – UIC AREA Consortium
Twinkle Shah - RTX
John Magnani - RTX
Jeff Kennedy - Zestron
Rob Rowland – FineLine
Cameron Burke - Fineline
Keith Sellers - Element
Eran Navick - Fineline
David Torres – Signal Seal
Luke Ratnasinghe - Cytonix