**REVISION HISTORY**

| REV | DATE | ORIGIN | REASON FOR CHANGE(S) |
|---|---|---|---|
| A | 27Jun2017 | Rachel Perry, Steve Tijerina | New |
| B | 5/04/18 | Daniel Crouse | Added PCN language |
| C | 19Jun18 | Rachel Perry | Added Date Code Information to Subsequent Shipments |
| D | 18July18 | Rachel Perry | Added Soldermask (LPI) must be color green |
| E | 30Oct18 | Joyce Conn | Added hyper corrosion requirement |

## Q-CODE Q43B QUALITY REQUIREMENTS

The following are the quality requirements for product purchased under Q-code Q43B. These requirements are specific to our customer Lam Research. This includes but is not limited to granting the right of access to the supplier's facilities and all applicable records to Plexus, their customer Lam Research and regulatory authorities with the acceptance of this Purchase Order and flow down of all applicable requirements to sub-tier suppliers including key characteristics. Unless a written waiver is received from Plexus, the supplier agrees to abide by the quality requirements listed below **for Acceptance of Printed Circuit Boards/Printed Wiring Boards**.

NOTE: Solder-mask is to be applied LPI (Liquid Photo Imageable) over bare copper and color **green** matte or semi-gloss.

**1<sup>st</sup> Shipment –** The documentation and quality requirements for the 1<sup>st</sup> shipment are as follows:

    A.   **First Article Inspection Requirement –**  All dimensions must be within print tolerance.  Any dimension which is not within print specification must be approved by Plexus in writing before product can be shipped.  In addition, Supplier **w**ill provide the results to Lam Research and Plexus on Lam Research First Article Inspection Form for each shipment in which the requirement is to be executed.  If there are any questions, Please contact Plexus Buyer for clarification.

    The Lam Research First Article Inspection Form is located as follows:
- Go to https://portal.mylam.com
- Login using your user and password *
- Select **"MyLam"** located below Doc Viewer icon
- Select **"Supplier Doc Viewer"**
- Click **OK** on acknowledge message
- Under "**Part Source:**" select "**General Docs**"
- Enter "1-OQA1919" under "**Material:**"
- Click "**Search**"
- Select "**Curr. Rev**" magnifying glass symbol to obtain latest revision of 1-OQA1919 form.
- * If you do not have mylam portal access, please request latest LAM FIRST ARTICLE INSPECTION REPORT Form from your Plexus Buyer.

    B.   **Cross-Section (with inspection data) per IPC-6012 section 3.6.2**
    C.   **Hyper-corrosion** – For ENIG boards, process controls shall be implemented as per Plexus PCB specification G9000-3. Results and applicable cross-sections shall be retained by the supplier and provided to Plexus on request.
    D.   **Contamination Test Report**
    E.   **PCB for Solderability Sample –** Complete and physically intact PCB or Array as supplied for the Part Number.  This should be segregated and boldly identified.  The box containing the solderability sample must also be identified as

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uch.

**F.** **100% Electrical Testing Certificate or Stamp.** Including an Impedance Report on impedance designs.

**G.** **Certificate of Compliance** – Must include a statement of overall compliance to all the applicable specifications (statement is not required to list, but shall cover all the applicable specifications such as; drawing, PO, customer specifications, Plexus G9000-3, IPC specification, etc). It also must include the following traceability information: The statement of compliance **Must** include the name and location of the facility that manufactured the Printed Circuit Board/Printed Wiring Board.

**H.** All cartons, packing slips, reports and certificates must have Plexus Part Number, EC level or Revision, quantity and PO Number listed on them.

**Subsequent Shipments** – **The documentation and quality requirements for all subsequent shipments will be as follows and need to include all date codes included in shipment, even if previously shipped:**

**A.** **Cross-Section (with inspection data) per IPC-6012 section 3.6.2** (not required for PCB's less than 8 layers.

**B.** **Hyper-corrosion** – For ENIG boards, process controls shall be implemented as per Plexus PCB specification G9000-3. Results and applicable cross-sections shall be retained by the supplier and provided to Plexus on request.

**C.** **Contamination Test Report**

**D.** **PCB for Solderability Sample** – As defined in first shipment above, when a revision is made that affects the physical shape or the outerlayer artwork. The box containing the solderability sample must also be identified as such.

**E.** **100% Electrical Testing Certificate or Stamp.** Including an Impedance Report on impedance designs.

**F.** **Certificate of Compliance** – Must include a statement of overall compliance to all the applicable specifications (statement is not required to list, but shall cover all the applicable specifications such as; drawing, PO, customer specifications, Plexus G9000-3, IPC specification, etc). It also must include the following traceability information: The statement of compliance **Must** include the name and location of the facility that manufactured the Printed Circuit Board/Printed Wiring Board.

**G.** All cartons, packing slips, reports and certificates must have Plexus Part Number, EC level or Revision, quantity and PO Number listed on them.

*When the revision of the product/part changes,* **First Production Run requirements** *Must be completed as a new part Before the shipment of product/part to Plexus.*

The above listed required documentation must be submitted with each shipment. Shipments received without the completion and proper execution of these Quality Requirements is considered non-conforming and Plexus reserves the right to return to the supplier at the supplier's expense.

**Product change notification**

Upon acceptance of conforming product, documentation, and the requirements of this Q-code, the supplier's manufacturing process shall be considered "qualified". All changes require written approval from Plexus prior to implementation. Product or Process change notification requests (PCNs) shall be submitted to pcns@plexus.com.