

**Quality Assurance  
Procedure**

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**QAP006 Rev. B**

Date:

**9/17/02**

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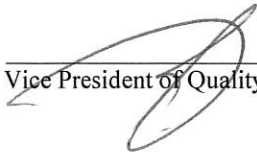
Title:

**Final QA Inspection of Products**

<u>Revision</u>	<u>Description of Change</u>	<u>Date Effective</u>	<u>Author</u>
A	Initial Release	4/27/99	Dior Wu
B	Add "9.6 Unpopulated locations due to shortages" section	9/17/02	Denise Nguyen

**N/A**

Originator

  
Vice President of Quality

Title:

**Final QA Inspection of Products****1.0 Purpose**

- 1.1 The purpose of this procedure is to establish uniform standards for the final acceptance of product.

**2.0 Scope**

- 2.1 This procedure applies to all PC Board and system assemblies manufactured by Meritronics.
- 2.2 Governs all involved Quality, Materials and Manufacturing personnel.
- 2.3 All products produced by Meritronics, before being transacted into finished goods inventories or being shipped to customers, will be subjected to Final Quality Assurance inspection as described in this procedure.

**3.0 References**

- 3.1 IPC-A-610, Acceptability of Electronic Assemblies
- 3.2 Customer Purchase Order (Contract)
- 3.3 Any supplemental attachments which may accompany the Purchase Order.
- 3.4 Assembly drawing notations
- 3.5 BOM
- 3.6 SOP16 In-Process and Final Inspection
- 3.7 SOP23 Control of Non-Conforming Material

**4.0 Definitions**

N/A

**5.0 Responsibilities**

It is the responsibility of Meritronics Quality to oversee acceptance inspection.

**6.0 Equipment**

- 6.1 Magnifier
- 6.2 Microscope

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N/A

**8.0 Records**

- 8.1 The total retention time for all records is reflected on the Master Forms Listing under the column heading Record Retention, in which the record may be kept in an active status. If the status is inactive and the customer specifies a longer period, the records may be forwarded to Document Control and filed / maintained in accordance with SOP 29.
- 8.2 Daily Inspection Report - PQAP156
- 8.3 Final Inspection Log - PQAP004

**9.0 Procedures**

- 9.1 Verification of Paperwork
- 9.1.1 Verify that all process steps indicated on the customer documentation have been completed.
- 9.5.3 Verify product submitted for acceptance is built to customer configuration per documentation including customer drawings, deviations, shortage list, ECO's, and BOM's. If questions should arise concerning documentation or quality refer to the Quality Engineer or Process Engineer.
- 9.2 Random Sample Pull
- Use Mil-Std-105, to determine sample size based on the quantity of boards in the group to be inspected and pull sample. Sampling level as specified in General Sampling, Level II, 1% AQL.
- Note: Meritronics Quality has the option to perform 100% inspection at any time.
- 9.3 Inspection of Product
- 9.3.1 The following characteristics (as a minimum) shall be inspected per IPC Standard and customer requirements:
- 9.3.1.1 Correct Polarity
- 9.3.1.2 Damaged components, traces, laminates
- 9.3.1.3 Correct hardware and mechanical installation
- 9.3.1.4 Component height
- 9.3.1.5 Soldering defects

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9.3.1.6 Cleanliness

9.3.1.7 Marking

9.3.1.8 Wire Routing

9.3.1.9 Coplanarity of component leads

9.3.1.10 Verification of completion of test (presence of test stamp)

9.3.2 Visual inspection for unit marking can be performed with the un-aided eye to the marking requirements of the assembly drawing.

9.3.3 The sample will be inspected and all defect locations will be identified by the use of defect arrows. The Inspector will continue inspecting until the sample has been completely inspected.

9.3.4 FQA Data Entry

All inspection data shall be recorded on Daily Inspection Reports PQAP156 and the Final Inspection Log PQAP004.

## 9.4 Disposition of Accepted Material

9.4.1 If the sample passes the visual inspection, then the entire group will be considered as accepted. All acceptable products will have a Quality Assurance stamp affixed to the product (physical space permitting).

9.4.1.1 It is permissible under specific circumstances to reflect the status of accepted product by marking the product edge in lieu of acceptance stamp placed on the surface of the product.

9.4.1.2 The specific circumstances are when the available space on the board surface is not large enough to accommodate the physical size of the acceptance stamp and the customer has agreed to this method of marking.

9.4.1.3 Mark the board edge with black indelible ink approximately one quarter of an inch in length opposite the gold finger edge. The mark is not to exceed one half inch in length. The mark must withstand the normal wash cycle which the product is subjected to.

9.4.2 The completed group of assemblies will be either placed in the shipping container or staged for final pack.

## 9.5 Disposition of Discrepant Material

9.5.1 Product that can be reworked to meet drawing requirements will be submitted to the appropriate Manufacturing rework area.

9.5.2 Product which is damaged or non-compliant, and requires either; non-standard rework, scrap, or customer waiver will be transferred to MRB and disposition in accordance with SOP23.

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9.5.3 Should any questions arise concerning the appropriate disposition, the Inspector will place the product on hold and notify a Supervisor or the responsible Process Engineer for direction.

9.6 Unpopulated locations due to shortages

9.6.1 Verify unpopulated locations against shortage report.

9.6.2 Place adhesive arrows on the unpopulated locations only if customer is authorized.