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# (Your Company Name) SUPPLIER AUDIT CHECKLIST



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## APPROVALS

Originator: Date: 5-20-11
CE Consultants

**(Your Company Name)**

## 1.0.0 **(Your Company Name)** CONTACT INFORMATION

| | |
|---|---|
| (Your Company Name) **Contact:** | |
| **Internal Phone:**<br>**External Phone:** | |
| **Internal Fax:** | |
| **Email Address:** | |
| **Address:** | |
| **Dept:** | |

## **2.0.0** (YOUR COMPANY NAME) **CONTACT INFORMATION**

| | |
|---|---|
| **Supplier Name:** | |
| **Address:** | |
| **Street:** | |
| **Post Office Box:** | |
| **City:** | |
| **Province/State:** | |
| **Country:** | |
| **Postal Code:** | |
| **Phone:** | (  )  -  Ext. |
| **FAX:** | |
| **Audit date:** | |
| **Audit conducted with (by)**<br>**Supplier Representative:** | |
| (Your Company Name) **Representative:** | |
| (Your Company Name) **Location:** | |

### 3.0.0 PROCESS CAPABILITIES

| CHARACTERISTIC | YES | NO |
|---|---|---|
| **Documentation** | | |
| Is the following information documented and controlled in this facility: | | |
| Flow charts for Manufacturing processes? (including Quality Control points) | | |
| History of executive level quality reviews? | | |
| Travelers or routing sheets? | | |
| Indexes for all procedures? | | |
| Are the following procedures available: | | |
| - Process introduction/installation | | |
| - Inspection | | |
| - Outgoing quality audit | | |
| - Internal process audits | | |
| - Preventive actions | | |
| - Continuos process improvement | | |
| - Modification & repair | | |
| - Laboratory | | |
| - Statistical Process Control (SPC) | | |
| - Operator training procedures | | |
| - Component substitution | | |
| - Machine operating instructions | | |
| - Implementing a new design change/revision | | |
| - Product tracking (component & material traceability) | | |
| - Equipment maintenance | | |
| - Calibration | | |
| - data collection? | | |
| - Documentation approval | | |
| - Notifying customer of mat. or process changes | | |
| - Electrostatic discharge (ESD) protection | | |
| - Packaging | | |
| - Storage | | |
| - Special processes | | |
| Provide list. | | |
| Scrap and rework controls | | |
| NPI Process required | | |
| Are current procedures available to technicians/operators at this location? | | |
| Are design rules for screen aperture openings documented? | | |

| **CHARACTERISTIC** | **YES** | **NO** |
|---|---|---|
| **Administration** | | |
| Lot Control procedures: | | |
| Are production lots identified? | | |
| Are ECO Breakpoints Identified? | | |
| Is the finished product traceable to prove that **(Your Company Name)** qualified material and components are used? | | |
| Are serialization records kept? | | |
| Are specific PCBA tracked? | | |
| What procedures are in place to accommodate different revision levels of the same assembly on the production floor? | | |
| Are PCBA labeled? | | |
| Are PCBA segregated in process? | | |
| Manufacturer's logo:<br><br>How indicated?<br><br>Where placed? | | |
| **Process Control** | | |
| Is product cleanliness monitored? | | |
| If Yes, give frequency. | | |
| Is product verification/inspection conducted using: | | |
| - **(Your Company Name)** Workmanship Standards? (Document provided by **(Your Company Name)** | | |
| - Internal Workmanship Standards? | | |
| Are deltas between **(Your Company Name)** and internal Workmanship Standards documented? | | |
| Are finished assemblies monitored for: | | |
| - Cosmetic Damage | | |
| - Final packaging Integrity | | |
| - Acceptable Quality Levels established? | | |
| -Counted to verify quantity? | | |
| How is serialization/PCB tracking by unit accomplished? | | |
| **Thermal Profiles** | | |
| Are all thermal profiles, used to manufacture **(Your Company Name)** product, maintained as a Quality Record? | | |
| **In-Process Inspections** | | |
| Are in-process inspections conducted? | | |

| **CHARACTERISTIC** | **YES** | **NO** |
|---|---|---|
| Are inspections performed in compliance with standards or documented procedures? | | |
| Are products held until required inspections/tests are completed? | | |
| Are products found non-conforming during in-process stages identified and held for disposition? | | |
| Are production operations promptly corrected, or shutdown until corrected, when rejections occur? | | |
| Is repaired/reworked product re-inspected in accordance with standards or documented procedures? | | |
| Is suspect product 100% screened for noted deficiencies? | | |
| Are inspection and test records available for review? | | |
| If laboratory tests are conducted to maintain process control, indicate what is done and at what frequency. | | |
| **Statistical Process Control (SPC)** | | |
| Are SPC charts evident? | | |
| If yes, are control charts used at: | | |
| Raw Materials: | | |
| Component Value? | | |
| Manufacture Name? | | |
| Part Number and Date Code | | |
| Other processes: | | |
| Are process capabilities measured at regular intervals? | | |
| **Quality Statistics** | | |
| Is Yield data provided? | | |
| Is quality related statistical data published? | | |
| First pass test yield: | | |
| In-circuit? | | |
| Full functional? | | |
| System Test? | | |
| List other data collected | | |
| Are negative trends analyzed and promptly corrected? | | |
| **Documentation Control** | | |
| Are modification instructions ECO/ECN/CAR verified? | | |
| Have the differences between the current Standard in use and prior been documented?<br><br>Note: Review document for completeness. | | |
| Are **(Your Company Name)** Standards, as well as documented differences, available for use by operators and inspectors? | | |
| New technology introduction (ie component, processes, methods, etc.):<br><br>Are there any special modification/repair requirements that apply due to a new technology in the manufacture of **(Your Company Name)** product? (eg. BGA) | | |

| **CHARACTERISTIC** | **YES** | **NO** |
|---|---|---|
| | | |
| Are these documented? | | |
| Has **(Your Company Name)** approval been obtained?<br>Note: Review document for completeness. | | |
| Has Preliminary Manufacturing Plan been reviewed and approved by **(Your Company Name)** ? | | |
| Has Preliminary CM Quality Plan been reviewed and approved? | | |
| Are outgoing product(s) 100% verified for proper serialization, Software revisions? | | |
| **Procedures** | | |
| Are there documented procedures that describe the steps to be taken when performing the various types of modification/repair operations covering: | | |
| Supplier Corrective Action Request? | | |
| ECO Implementation? | | |
| Temporary Manufacturing Deviations? | | |
| Note: Review document for completeness | | |
| Are operators and procedures audited? | | |
| **Training** | | |
| Is modification/repair done only by trained operators? | | |
| Is there a formal operator-training program? | | |
| Are operators trained for each work related process? | | |
| Are operators certified on each work related process? | | |
| Are outside training courses provided for non internal training capabilities | | |
| Others? | | |
| Provide list. | | |
| Are operators re-trained when new processes or procedures are introduced? | | |
| Is operator certification part of the program? | | |
| Is this documented? | | |
| Is certification done by operation or by technology? | | |
| What tests must the operator pass: | | |
| Written? | | |
| Practical? | | |
| Are test boards, systems used? | | |
| Is re-certification/de-certification part of the program? | | |
| Is it documented? Note: Review training records | | |
| What is frequency of re-certification? | | |
| Is it documented? | | |

| **CHARACTERISTIC** | **YES** | **NO** |
|---|---|---|
| Is refresher training provided for operators who are not part of formal certification process?<br><br>If yes, how often? | | |
| **Equipment** | | |
| Are soldering equipment/irons checked for: | | |
| Temperature accuracy? (Temperature at end of tip) | | |
| Idle temperature stability? (Temperature controller capable of maintaining idle temperature) | | |
| Heating performance under load?<br>i.e what happens when tip is applied to workplace | | |
| Tip-to-ground resistance?<br>(2 ohms maximum per MIL-STD-2000) | | |
| Tip leakage?<br>(2 millivolts RMS maximum per MIL-STD-2000) | | |
| Vacuum performance?<br>(Does vacuum system provide vacuum required?) | | |
| Transient detection?<br>(Internal or external switching does not create transients which can damage components) | | |
| Are established Calibration procedures available and used? | | |
| **Is Test Assembly Equipment Calibrated to Manufacturer's Specifications?**<br><br>**Verify with sample audit every 6 months** | | |
| **ENVIROMENT** | | |
| Is lighting adequate to perform the required operations? | | |
| ESD Controls | | |
| **Electrical Testing** | | |
| Has the total test capacity, and test process, been approved by the applicable **(Your Company Name)** test engineer for each product manufactured with regard to: | | |
| In-circuit testing? | | |
| Functional testing? | | |
| Test fixtures? | | |
| Test equipment? | | |
| Test program? | | |
| ESS testing | | |
| Burn-in testing? | | |
| - Range | | |
| - Manual? | | |
| - Automated? | | |

| **CHARACTERISTIC** | **YES** | **NO** |
|---|---|---|
| Component testing? | | |
| Test documentation? | | |
| Characteristic impedance? | | |
| Do test results correlate with those obtained by **(Your Company Name)** ? | | |
| Is test change, `approval process' documented? | | |
| Is there a signed agreement between this supplier and **(Your Company Name)** to identify responsibility for calibration of test equipment? | | |
| **Packaging Process** | | |
| Are there written specifications showing: | | |
| Method of Packing | | |
| Materials for Packaging | | |
| Sealing operations | | |
| Labeling Operations | | |
| Items to be included in packaging | | |
| Special handling instructions including stack height, orientation, securing | | |
| **Shipping** | | |
| Method of shipment established | | |
| Shipping confirmation provided | | |