Quality Manual

QM-01
Rev 008
Direct Components, Inc.
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1.0 Company

1.1 Company Overview

Direct Components, Inc. is a Broad line Independent Stocking Distributor of Obsolete and Hard to Find Board Level Components. Since our inception in 1998, we have built an extensive global network of approved and trusted suppliers. This advantage over our competition has allowed us to procure high quality, allocated, obsolete, and hard to find parts at rock bottom prices and pass this savings on to our clients. As a company dedicated to customer satisfaction, we pride ourselves on the ability to not only successfully fulfill your electronic component requirements, but your expectations as well. If franchise gives you a long lead time, you find yourself short on a part you need for production, a manufacturer obsoletes a part you use, or you just want to save money, give us a try, we love a good challenge.

1.1 Quality Policy

Direct Components is committed to providing superior customer satisfaction by supplying the highest quality products and services while maintaining unsurpassed levels of ethical standards. Our quality goals are achieved through continual process improvement, innovation, ongoing training, teamwork, and the spirit and willingness to change and move forward.

It is the responsibility of Top Management to ensure that this policy is understood, implemented, and maintained at all levels within Direct.

1.2 Quality Objectives

Quality Objectives and Targets are identified on the Process Map **(Appendix B)**

2.0 Scope

2.1 Scope

Direct Components Inc. is a distributor of electronic components.

This Quality Manual pertains to processes relating to the independent stocking and distribution of electronic components and describes the policies, requirements and the processes, including their interactions that that have been implemented at Direct Components, Inc. This manual and its supporting procedures are structured along a process model approach.
Direct does not exclude any additional requirements of AS9120:2009.

The manual is divided into sections that correlate directly to elements of the ISO 9001:2008 and AS9120:2009 standards. Each section references the relevant procedures.

Throughout this Quality Manual, the term "organization" refers to Direct Components, Inc.

Quality Management System (QMS) refers to a system that considers the three main components: quality control, quality assurance and quality improvement. Quality management is focused not only on product or service quality, but also the means to achieve it. A QMS, therefore, uses quality assurance and control of processes, as well as products/services to achieve more consistent quality.

3.0 Terms and Definitions

3.1 Definitions

a. **Audit:** Systematic, an independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

b. **Certificate of Conformity:** A document that certifies product conformity to process, design and/or specification requirements; commonly referred to as a "Certificate of Conformance'.

c. **Conformity:** Fulfillment of a requirement.

d. **Corrective Action:** Action taken to eliminate the cause of a detected nonconformity or other undesirable situation.

e. **Counterfeit Part:** A product produced or altered to imitate or resemble a product without authority or right to do so, with the intent to mislead or defraud by passing the imitation as original or genuine.

f. **Distributor:** Organization carrying out the purchase, storage, splitting or sale of products without affecting product conformity. The term organization in the context of this standard means a distributor.

g. **Management System:** System to establish policy and objectives, and to achieve those objectives.

h. **Nonconformity:** Non-fulfillment of a requirement.

i. **Preventive Action:** Action taken to eliminate the cause of a potential nonconformity or other undesirable potential situation.

j. **Procedure:** Specified way to carry out an activity or a process.

k. **Process:** Set of interrelated or interacting activities, which transforms inputs into outputs.

l. **Product:** The result of a process (there are four generic product categories: services, software, hardware, and processed materials).

m. **Quality:** The degree to which a set of inherent characteristics (i.e., of a product, system or process) fulfills requirements.

n. **Quality Characteristic:** Inherent characteristic of a product, process or system related to a requirement.

o. **Quality Management:** Coordinated activities to direct and control an organization with regard to quality.

p. **Quality Management System:** To direct and control an organization with regard to quality.

q. **Quality Planning:** Part of quality management focused on setting quality objectives and specifying necessary operational processes and related resources to fulfill the quality objectives.

r. **Quality Policy**: Overall intentions and direction of an organization related to quality as formally expressed by top management.

s. **Risk:** An undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.

t. **Splitting:** The division of product either physically or by batch quantity without affecting the product characteristics.

u. **Suspected Unapproved Part:** A product that might not have been or is suspected of not having been produced in accordance with applicable laws and regulations.

v. **Test Report:** Objective evidence provided by either the manufacturer or a certified testing facility that the product conforms with specific design requirements or properties.

4.0 Quality Management System

4.1 General requirements

Direct Components, Inc. (herein referred to as Direct) has established, documented, implemented and is maintained in order to meet all ISO 9001:2008 and AS9120:2009 standard requirements and customer specified requirements. It clearly defines how Direct controls their processes. **Our QMS addresses customer and applicable statutory and regulatory requirements.**

The organization:

a) has determined the processes needed for the quality management system and their application throughout the organization,
b) determined the sequence and interaction of these processes, (See Appendix B).
c) determined criteria and methods needed to ensure that both the operation and control of these processes are effective,
d) ensures the availability of resources and information necessary to support the operation and monitoring of these processes,
e) monitors, measures where applicable, and analyzes these processes, and
f) implements actions necessary to achieve planned results and continual improvement of these processes.

Direct Components management ensures that our system established and defined in this Quality Manual effectively manages its processes in accordance with the requirements of AS9120:2009.

When Direct Components chooses to out-source any process that affects product conformity to requirements, the organization shall ensure control over such processes. The type and extent of control to be applied to these outsourced processes shall be defined within the QMS.

Note 1: Processes needed for the QMS referred to above Include processes for management activities, provision of resources, product realization, measurement, analysis and improvement.

Note 2: An "outsourced process" is a process that the organization needs for its QMS and which the organization chooses to have performed by an external party.

Note 3: Ensuring control over outsourced processes does not absolve the organization of the responsibility of conformity to all customer, statutory, and regulatory requirements. The type and extent of control to be applied to the outsourced process can be influenced by factors such as

- The potential impact of the outsourced process on the organization's capability to provide product that conforms to requirements,
- The degree to which the control for the process is shared,
- The capability of achieving the necessary control through the application of 7.4.

Business Processes of the organization are: See Appendix B

- Quality Management
- Customer Service/Sales
- Purchasing and Receiving
- Order Fulfillment/Shipping

Where the organization chooses to outsource any process that affects product conformity to requirements, the organization ensures control over such processes. The type and extent of control to be applied to these outsourced processes are defined within the quality management system.

4.1.1 Outsourced Processes

Outsourced Process	Provider	Controls
IT Services	Various	Invoices
Testing	Various	Test Reports
Consulting	Various	Invoices
Component Services	Various	Invoices/Receipts
Calibration	Various	Certificates of Calibration

4.2 Documentation Requirements

4.2.1 General

The quality management system documentation includes:

- documented statements of a quality policy and quality objectives, **Ref section 1.1 & Appendix B**
- a quality manual,
- documented procedures per AS9120:2009 requirements. Ref Appendix A
- documents, including records, determined by the organization to be necessary to ensure the effective planning, operation and control of its processes.
- supporting records as required per AS9120:2009.
- QMS requirements imposed by the applicable regulatory authorities, when required.

Direct ensures that personnel have access to, and are aware of, relevant QMS documentation and changes.

Note 1: Where the term "documented procedure" appears with the AS9120
Standard this means that the procedure is established, documented, implemented and maintained.

4.2.2 Quality Manual

The organization has established and currently maintains a quality manual that includes:

- the scope of the quality management system, including details of and justification for any exclusions, Ref section 2.1.
- the documented procedures established for the quality management system, or reference to them. Ref Appendix A
- a description of the interaction between the processes of the quality management system. Ref Appendix B

4.2.3 Document Control

Documents required by the quality management system are controlled. Records are a special type of document and are controlled according to the requirements given in section 4.2.4.

A documented procedure has been established (see Procedure 4.2.3 Control of Documents) to define the controls needed:

- to approve documents for adequacy prior to issue,
- to review and update as necessary and re-approve documents,
- to ensure that changes and the current revision status of documents are identified,
- to ensure that relevant versions of applicable documents are available at points of use,
- to ensure that documents remain legible and readily identifiable,
- to ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the quality management system are identified and their distribution controlled, and
- to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

4.2.4 Control of Records

Records are established and maintained per AS9120:2009 requirements in order to provide evidence of conformity and also effective operation of the quality management system.

A documented procedure has been established (see Procedure 4.2.4 Control of Records) to define the controls needed for the identification, storage, protection, retrieval, retention and disposition of records.

Records are legible, readily identifiable and retrievable.

Records of product origin, conformity and shipment are maintained in accordance with customer, statutory and regulatory requirements.

Records include but are not limited to:

a. **manufacturer, distributor, repair station, test and inspection reports;**
b. **certificates of conformity (manufacturer, sub-tier distributor), copies of airworthiness certificates;**
c. **nonconformance, concession and corrective action records;**
d. **lot or batch traceability records;**
e. **environmental or shelf life condition records.**

Where records are stored in an electronic form, back-up procedures are defined. Electronic records shall be secured to prevent unauthorized alteration or change and shall not be corrupted due to software or system changes. (See Procedure 4.2.4 Control of Records)

5.0 Management Responsibility

5.1 Management Commitment

Top management provides evidence of its commitment to the development and implementation of the quality management system and continually improve its effectiveness by:

- communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements,
- establishing the quality policy,
- ensuring that quality objectives are established,
- conducting management reviews per requirements in Section 5.6, and
- ensuring the availability of resources.

Top management includes the following members: President and General Manager.

5.2 Customer Focus

Top management ensures that customer requirements are determined and are met with the aim of enhancing customer satisfaction, reference section 7.2.1 and 8.2.1.

Top management ensures that product conformity and on-time delivery performance are measured and that appropriate action is taken if planned results are not, or will not be, achieved.

5.3 Quality Policy

Top management ensures that the quality policy:

- is appropriate to the purpose and goals of the organization, reference section 1.2
- includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system,
- provides a framework for establishing and reviewing quality objectives,
- is communicated and understood within the organization, and
- is reviewed for continuing suitability.

5.4 Planning

5.4.1 Quality Objectives

Top management ensures that quality objectives, including those needed to meet requirements for product, are established at relevant functions and levels within the organization. The quality objectives are measurable and consistent with the quality policy with a focus set for continual improvement**. See Appendix B.**

If targets for Quality Objectives are not being met during the Review of Analysis of Data, a CAPA will be initiated per Procedure 8.5 Improvement-Corrective/Preventive Action

5.4.2 Quality management system planning

Top management ensures that:

- the planning of the quality management system is carried out in order to meet the requirements given in section 4.1, as well as the quality objectives, and
- the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and authority

Top management ensures that responsibilities and authorities are defined and communicated within the organization. This is achieved through the organizational chart, job descriptions, and job duties.

5.5.2 Management Representative

Top management has appointed a member of management who, irrespective of other responsibilities, has responsibility and authority that includes:

- ensuring that processes needed for the quality management system are established, implemented and maintained,
- reporting to top management on the performance of the quality management system and any need for improvement, and
- ensuring the promotion of awareness of customer requirements throughout the organization.
- **organizational freedom and unrestricted access to top management to resolve quality management issues**.

The appointed management representative (MR) is the Quality Systems Manager who also serves as the liaison to external parties on matters relating to the quality system.

5.5.3 Internal communication

Top management ensures that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the quality management system. This is achieved by emails, scheduled meetings, and management reviews.

5.6 Management Review

Top management reviews the organization's quality management system at a minimum, once annually, to ensure its continuing suitability, adequacy, and effectiveness. This review can be conducted more often if management deems necessary. This review includes assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. These Reviews are documented and records of the reviews are maintained in accordance with the requirements in Procedure 4.2.4.

The input to management review includes information on:

- results of audits,
- customer feedback,
- process performance and product conformity,
- status of preventive and corrective actions,
- follow-up actions from previous management reviews,
- changes that could affect the quality management system, and
- recommendations for improvement.

The output from the management review includes:

- any decisions and actions related to improvement of the effectiveness of the quality management system and its processes,
- improvement of product related to customer requirements, and resource needs.

6.0 Resources Management

6.1 Provision of Resources

The organization determines and provides the resources needed to implement and maintain the quality management system and continually improve its effectiveness and to enhance customer satisfaction by meeting customer requirements.

6.2 Human Resources

6.2.1 General

Personnel performing work affecting conformity to product requirements are deemed competent on the basis of appropriate education, training, skills and experience and are hereby authorized and empowered to be free from any pressure that might affect the quality of their work. Competency requirements are defined in job descriptions and the Employee Competency Matrix. Ref Procedure 6.2 Human Resources

6.2.2 Competence, training and awareness

The organization:

- determines the necessary competence for personnel performing work affecting conformity to product requirements,
- where applicable, provides training or takes other actions to achieve the necessary competence,
- evaluates the effectiveness of the actions taken,
- ensures that personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and
- maintains appropriate records of education, training, skills and experience.

As of the release of this document, all current employees are considered to be competent.

6.3 Infrastructure

The organization determines, provides and maintains the infrastructure needed to achieve conformity to product requirements.

Infrastructure includes, as applicable:

- buildings, workspace and associated utilities,
- process equipment (both hardware and software), and
- supporting services (such as transport, communication or information systems).

6.4 Work Environment

The organization determines and manages the work environment needed to achieve conformity to product requirements. The QC Manager is responsible to identify and control work environment requirements. Work environment controls include the following:

Condition	Control
Disposal of Chemicals	Receipt of Disposal
Electro-static Discharge (ESD)	Grounded ESD Controls
Temperature	Thermostat
Humidity	Humidity Reader
FOD Protection	Signs/Training
Hazmat	Signs

7.0 Product Realization

7.1 Planning of Product Realization

The organization plans and develops the processes needed for product realization.

Planning of product realization is consistent with the requirements of the other processes of the quality management system. Product realization at Direct Components is defined as purchasing electronic components, warehousing components, and then creating and delivering a Customer Order which meets the customer's requirements.

Product realization is a planned process at Direct Components. Evidence of this planning are the procedures, records, and measurements currently in place. Product realization records are maintained (see Procedure 4.2.4)

In planning product realization, the organization determines the following, as appropriate:

- quality objectives and requirements for the product,
- the need to establish processes and documents, and to provide resources specific to the product,
- required verification, validation, monitoring, measurement, inspection and test activities, specific to the product and the criteria for product acceptance,
- records needed to provide evidence that the realization processes and resulting product meet requirements.
- **configuration management appropriate to the product.**

The output of this planning is in a form suitable for the organization's method of operations. Planning output includes contracts and outgoing order reports.

7.1.1 Configuration Management

Direct has established, implemented, and maintains a configuration management process, (See Procedure 7.2 Customer Related Processes), that Includes, as appropriate to the product

a. **Configuration management planning.**
b. **Configuration identification.**
c. **Change control.**
d. **Configuration status accounting.**
e. **Configuration audit.**

7.1.2 Control of Work Transfers

Direct has established, implemented and maintains a process to plan and control the temporary or permanent transfer of work (e.g., from one organization facility to another, from the organization to a supplier, from one supplier to another supplier) and to verify the conformity of the work to requirements. (Ref Procedure 7.4 Purchasing & Receiving)

7.2 Customer-related Processes

7.2.1 Determination of requirements related to the product

The organization determines:

- requirements specified by the customer, including the requirements for delivery and post-delivery activities,
- requirements not stated by the customer but necessary for specified or intended use, where known,
- statutory and regulatory requirements applicable to the product, and
- any additional requirements considered necessary by the organization.

7.2.2 Review of requirements related to the product

The organization reviews the requirements related to the product. This review is conducted prior to the organization's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and ensures that:

- product requirements are defined,
- contract or order requirements differing from those previously expressed are resolved, and
- the organization has the ability to meet the defined requirements.
- **risks (e.g., new technology, short delivery time scale) have been identified.**

Records of the results of the review and actions arising from the review are maintained. (See 4.2.4)

Where the customer provides no documented statement of requirement, the customer requirements are confirmed by the organization before acceptance. Confirmation of verbal orders is done by emailing a sales order confirmation.

7.2.3 Customer communication

The organization determines and implements effective arrangements for communicating with customers in relation to:

- product information,
- enquiries, contracts or order handling, including amendments, and
- customer feedback, including customer complaints.

Product information is communicated via quotes, line card, verbal, website, datasheet, email, pictures, and inspection reports.

Customer inquiries, contracts, orders, etc. are received by phone, email, or fax.

7.4 Purchasing

7.4.1 Purchasing process

The organization ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product. (Ref Procedure 7.4 Purchasing & Receiving)

The organization shall be responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer.

The organization evaluates and selects suppliers based on their ability to supply product in accordance with the organization's requirements. Criteria for selection, evaluation and re-evaluation are established. See work instructions Vendor Approval & Evaluation. Records of the results of evaluations and any necessary actions arising from the evaluation are maintained. See 4.2.4

NOTE: One factor that can be used during supplier selection and evaluation is supplier quality data from objective and reliable external sources, as evaluated by the organization (e.g., information from accredited quality management system or process certification bodies, organization approvals from government authorities). Use of such data would be only one component of an organization's supplier control process and the organization remains responsible for verifying that purchased product meets specified purchase requirements.

All active vendors are considered approved as of the date of this manual and do not require approval by one of this listed criteria in Procedure 7.4. Suppliers falling into the Grandfather criteria still have to be re-evaluated per the Procedure.

The organization shall:

- **maintain a register of its suppliers that includes approval status (e.g., approved, conditional, disapproved)**
- **and the scope of the approval (e.g., product type, process family),**
- **periodically review supplier performance; the results of these reviews shall be used as a basis for establishing the level of controls to be implemented,**
- **define the necessary actions to take when dealing with suppliers that do not meet requirements,**
- **ensure where required that both the organization and all suppliers use customer-approved special process sources,**
- **define the process, responsibilities and authority for the approval status decision, changes of the approval**
- **status and conditions for a controlled use of suppliers depending on the supplier's approval status,**
- **determine and manage the risk when selecting and using suppliers, and**
- **implement controls to prevent the purchase of counterfeit and suspected unapproved parts**.

7.4.2 Purchasing information

Purchasing information describes the product to be purchased, including where appropriate:

a. requirements for approval of product, procedures, processes and equipment,
b. requirements for qualification of personnel, and
c. quality management system requirements.
d. The identification and revision status of specifications, drawings, process requirements, inspection/verification instructions and other relevant technical data.
e. requirements for design, test, inspection, verification, use of statistical techniques for product acceptance and related instructions for acceptance by the organization.
f. requirements regarding the need for the supplier to:
  - **notify the organization of nonconforming product**
  - **obtain organization approval for nonconforming product disposition**
  - **notify the organization of changes in product and/or process definition, changes of suppliers, change of manufacturing facility location and, where required, obtain organization approval**
  - **flow down to the supply chain the applicable requirements Including customer requirements**

g. record retention requirements.
h. right of access by the organization, their customer, and regulatory authorities to all facilities involved in the order and to all applicable records.
i. requirements for a certificate of conformity, test reports, and/or airworthiness certificate.

The organization ensures the adequacy of specified purchase requirements prior to communication to the supplier.

7.4.3 Verification of purchased product

The organization establishes and implements the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements. Purchased product is verified by receiving inspections.

Customer verification activities performed at any level of the supply chain shall not be used by the organization or the supplier as evidence of effective control of quality and does not absolve

the organization of its responsibility to provide acceptable product and comply with all requirements.

Verification activities may include:

- **Obtaining objective evidence of the quality of the product from suppliers and verifying the authenticity of the accompanying documentation (e.g., certificate of conformity from the manufacturer, airworthiness certificate, test reports, statistical records, and process control).**
- **Review of the required documentation.**
- **Inspection of products upon receipt.**

Where the organization or its customer intends to perform verification at the supplier's premises, the organization states the intended verification arrangements and method of product release in the purchasing information.

7.5 Production and service provision

7.5.1 Control of production and service provision

The organization plans and carries out production and service provision under controlled conditions. Controlled conditions include, as applicable:

- the availability of information that describes the characteristics of the product. **This information can include drawings, parts lists, materials and process specifications.**
- the availability of work instructions, as necessary. **Work instructions can include process flow charts, production documents (travelers, work orders, process checklists) and inspection documents.**
- the use of suitable equipment. **Suitable equipment can include product specific tools (e.g., jigs, fixtures, molds) and software programs.**
- the availability and use of monitoring and measuring equipment,
- the implementation of monitoring and measurement, and
- the implementation of product release, delivery and post-delivery activities.
- **accountability for all product (e.g., parts quantities, split orders, nonconforming product),**
- **evidence that all operations have been completed as planned, or as otherwise documented and authorized,**
- **provision for the prevention, detection and removal of foreign objects,**
- **monitoring and control of utilities and supplies (e.g., water, compressed air, electricity, chemical products) to the extent they affect conformity to product requirements, and**
- **criteria for workmanship, specified in the clearest practical way (e.g., written standards, representative samples, illustrations).**

7.5.2 Validation of processes for production and service provision

The organization validates any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement and, consequently, deficiencies become apparent only after the product is in use or the service has been delivered.

Validation demonstrates the ability of these processes to achieve planned results.

The organization establishes arrangements for these processes including, as applicable:

- defined criteria for review and approval of the processes,
- approval of equipment and qualification of personnel,
- use of specific methods and procedures,
- requirements for records, and
- revalidation.

Process	Control/Validation
Decapsulation	Inspection Report

7.5.3 Identification and traceability

Where appropriate, the organization identifies the product by suitable means throughout product realization. Products are identified by means of labels.

The organization shall maintain the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration.

The organization identifies the product status with respect to monitoring and measurement requirements throughout product realization.

When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), the organization shall establish appropriate controls for the media.

The organization shall maintain product identification and traceability by suitable means (e.g., labels, bar codes) from receipt; during splitting, storage, packaging, and preservation operations; and until delivery (including subcontracted handling or packing operations).

Note: Traceability requirements can include

- **identification to be maintained throughout the product life,**
- **the ability to trace all products manufactured from the same batch of raw material, or from the same manufacturing batch, to the destination (e.g., delivery, scrap),**
- **for an assembly, the ability to trace its components to the assembly and then to the next higher assembly, and**
- **the identification of condition (e.g., new, repaired, altered or rebuilt) product in inventory.**

Note : In some industry sectors, configuration management is a means by which identification and traceability are maintained (see 7.1.1).

7.5.4 Customer property

Direct Components exercises care with customer property while it is under the organization's control or being used. Direct Components provides Identification, verification, protection and safeguarding of customer property provided for use. If any customer property is lost, damaged or otherwise found to be unsuitable for use, this is reported to the customer and records maintained. (4.2.4)

7.5.5 Preservation of product

The organization shall preserve the product during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, this preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.

Preservation of product shall also include, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, provisions for

a. **cleaning,**
b. **prevention, detection and removal of foreign objects,**
c. **special handling for sensitive products,**
d. **marking and labeling including safety warnings,**
e. **shelf life control and stock rotation, and**
f. **special handling for hazardous materials.**

Serviceable parts shall be physically segregated from unserviceable parts.

7.6 Control of monitoring and measuring equipment

Direct determines the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements.

Direct maintains a register of monitoring and measuring equipment and defines the process employed for their calibration/verification Including details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria.

Direct establishes processes to ensure that monitoring and measurement can be carried out in a manner that is consistent with the monitoring and measurement requirements. See Procedure 7.6 Control of Monitoring & Measuring Equipment.

Direct ensures that environmental conditions are suitable for the calibrations, inspections, measurements and tests being carried out. Where necessary to ensure valid results, measuring equipment shall:

a. Be calibrated at specific intervals, or prior to use, against measurement standards traceable to the National International Standards Testing laboratories (NIST). When no such standards exist, the basis used for calibration or verification shall be recorded.
b. Be adjusted or re-adjusted as necessary.
c. Be properly identified so that the calibration status can be easily verified.
d. Be safeguarded from adjustments that may invalidate the measurement result.
e. Be protected from damage and deterioration during handling, maintenance and storage.

When measuring or monitoring equipment is found to be out of calibration, Direct Components re-assess previous measurement results to assess whether or not processed product is non-conforming to customer requirements. Then appropriate action is taken on the equipment and affected product. Procedure 8.3 Control of Nonconforming Product. Records of the results of calibration and verification are maintained, see 4.2.4

When used in the monitoring and measurement of specific requirements, the ability of computer software used to perform inspection and or measurements shall be verified to conform. This is performed as necessary prior to any measuring or monitoring of processes.

8.0 Measurement, analysis and improvement

8.1 General

The organization plans and implements the monitoring, measurement, analysis and improvement processes needed:

- to demonstrate conformity to product requirements,
- to ensure conformity of the quality management system, and
- to continually improve the effectiveness of the quality management system.

This includes determination of applicable methods, including statistical techniques, and the extent of their use.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

As one of the measurements of the performance of the quality management system, the organization monitors information relating to customer perception as to whether the organization has met customer requirements.

Information to be monitored and used for the evaluation of customer satisfaction includes, but is not limited to, product conformity, on-time delivery performance, customer complaints, and corrective action requests. Direct develops and implements plans for customer satisfaction improvement that address deficiencies identified by these evaluations, and assess the effectiveness of the results. See Procedure 8.2 Monitoring & Measuring of Processes & Product.

Customer satisfaction is by feedback collected during sales visits to customer's facilities, visits by the customers, and information received verbally by phone, email, & reviews on industry sites. This feedback is documented on Customer Feedback Log Form in order to gather data that will enable Direct to determine the customer's perception of whether or not we have met the requirements. Customer Satisfaction Surveys are also used. Methods and Records of this information/data collection is being documented and maintained. Ref. 4.2.4

8.2.2 Internal audit

The organization conducts internal audits at planned intervals to determine whether the quality management system:

- conforms to the planned arrangements, to the requirements of AS9120 and to the quality management system requirements established by the organization, and
- is effectively implemented and maintained.

Internal audits shall also meet contract and/or regulatory requirements.

An audit program has been planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined. This selection of auditors and conduct of audits ensures objectivity and impartiality of the audit process. Auditors do not audit their own work.

A documented procedure has been established (see Procedure 8.2 Monitoring and Measurement of Processes and Product) to define the responsibilities and requirements for planning and conducting audits, establishing records and for reporting results. Records of the audits and their results are maintained. See 4.2.4

The management responsible for the area being audited ensures that any necessary corrections and corrective actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results. See 4.2.4

8.2.3 Monitoring and measurement of processes

The organization applies suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken by the appropriate personnel, to ensure conformity of the product.

In the event of process nonconformity, Direct Components, Inc.

a. **Takes appropriate action to correct the nonconforming process.**
b. **Evaluates whether the process nonconformity has resulted in product nonconformity.**
c. **Determines if the process nonconformity is limited to a specific case or whether it could have affected other processes or products.**
d. **Identifies and control the nonconforming product in accordance with Procedure 8.3 Control of Nonconforming Product**

8.2.4 Monitoring and measurement of product

The organization monitors and measures the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with the planned arrangements. Ref section 7.1. Evidence of conformity with the acceptance criteria is maintained.

Measurement requirements for product acceptance shall be documented and shall include

a. **criteria for acceptance and/or rejection,**
b. **where in the sequence measurement and testing operations are to be performed,**
c. **required records of the measurement results (at a minimum, indication of acceptance or rejection), and**
d. **any specific measurement instruments required and any specific instructions associated with their use.**

When the organization uses sampling inspection as a means of product acceptance, the sampling plan shall be justified on the basis of recognized statistical principles and appropriate for use (i.e., matching the sampling plan to the criticality of the product and to the process capability).

Records shall indicate the person(s) authorizing release of product for delivery to the customer (see 4.2.4).

Where required to demonstrate product qualification, the organization shall ensure that records provide evidence that the product meets the defined requirements.

The release of product and delivery of service to the customer does not proceed until the planned arrangements (see 7.1) have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

The organization shall ensure that all documents required to accompany the product are present at delivery.

8.2.5 Evidence of Conformity

When required, Direct provides the customer with evidence of the product's conformity to its technical specifications.

When splitting product, copies of original documents shall be annotated with the following information; amount delivered relative to amount received, purchase order number, customer's name, and supplier's name.

Where there is a formal agreement with the customer, Direct may deliver a certifying statement created by the organization that references the original manufacturer's certificate of conformity and documents that are retained and traceable by the organization; and, if applicable, that defined requirements have been met throughout the organization's processes.

8.3 Control of Nonconforming Product

The organization ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. A documented procedure has been established (see Procedure 8.3 Control of Nonconforming Product) to define the controls and related responsibilities and authorities for dealing with nonconforming product.

The term "nonconforming product" includes nonconforming product returned by a customer, and counterfeit and/or suspected unapproved parts.

The organization's documented procedure defines the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions

Where applicable, the organization deals with nonconforming product by one or more of the following ways:

a. by taking action to eliminate the detected nonconformity;
b. by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
c. by taking action to preclude its original intended use or application;
d. by taking action appropriate to the effects, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started.

Direct notifies the customer within the next business day of delivered nonconforming product unless it is related to safety or an airworthiness issue, then the customer is immediately notified. Parties requiring notification of nonconforming product can include suppliers, internal organizations, customers, distributors and regulatory authorities.

e. by taking actions necessary to contain the effect of the nonconformity on other processes or products.

Direct has no authority to rework or repair product.

Dispositions shall be limited to:

- **Scrap**
- **Rejection for return to the supplier**
- **Rejection for revalidation by the manufacturer;**
- **Submittal to customer and/or design authority and customer for "USE AS IS" disposition**

Product disposition for scrap shall be conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

When nonconforming product is corrected, it is subject to re-verification to demonstrate conformity to the requirements.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained. (See 4.2.4)

8.4 Analysis of data

The organization determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data provides information relating to:

- customer satisfaction,(reference section 8.2.1)
- conformity to product requirements,(reference section 7.2.1)
- characteristics and trends of processes and products including opportunities for preventive action, (reference sections 8.2.3 and 8.2.4)
- suppliers, (reference section 7.4).

Data analysis is conducted by means of management review.

8.5 Improvement

8.5.1 Continual improvement

The organization continually improves the effectiveness of the quality management system using the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

The organization shall monitor the implementation of improvement activities and evaluate the effectiveness of the results.

8.5.2 Corrective Action

The organization takes action to eliminate the cause of nonconformities in order to prevent their recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure has been established (see Procedure 8.5 Improvement-Corrective/Preventive Action) that defines requirements for:

- reviewing nonconformities (including customer complaints),
- determining the causes of nonconformities,
- evaluating the need for action to ensure that nonconformities do not recur,
- determining and implementing action needed,
- recording and maintaining records of the results of action taken, and
- reviewing the effectiveness of the corrective action taken.
- **flowing down corrective action requirements to a supplier when it is determined that the supplier is responsible for the nonconformity,**
- **specific actions where timely and/or effective corrective actions are not achieved, and**
- **determining if additional nonconforming product exists based on the causes of the nonconformities and taking further action when required.**

8.5.3 Preventive Action

The organization determines action to eliminate the causes of potential nonconformities in order to prevent their occurrence.

Preventive actions are appropriate to the effects of the potential problems

A documented procedure has been established (see Procedure 8.5 Improvement-Corrective/Preventive Action) to define requirements for:

- determining potential nonconformities and their causes,
- evaluating the need for action to prevent occurrence of nonconformities,
- determining and implementing action needed,
- recording and maintaining the results of action taken, and
- reviewing the effectiveness of the preventive action taken.

Examples of preventive action opportunities include risk management, error proofing, failure mode and effect analysis (FMEA), and information on product problems reported by external sources.

Appendix A

Procedure Number	Procedure Title	Department/ Owner	Clause Number
QM-01	Quality Manual	All	All
4.2.3	Control of Documents	Quality Management/ Quality Systems Manager	4.2.3
4.2.4	Control of Records	Quality Management/ Quality Systems Manager	4.2.4
6.2	Human Resources	Quality Management/ Quality Systems Manager	6.1, 6.2
7.2	Customer Related Processes	Customer Service-Sales/ General Manager	7.1,7.2, 7.5
7.4	Purchasing & Receiving	Purchasing-Receiving/ Purchasing Manager	7.4, 7.5, 8.2.4, 8.3, 8.5.2
7.6	Control of Monitoring and Measurement Equipment	Purchasing-Receiving/ Quality Control Manager	7.6, 8.3, 4.2.3, 4.2.4
8.2	Monitoring and Measurement of Processes and Product	Quality Management/ Quality Systems Manager	8.1, 8.2.1, 8.2.2, 8.2.3, 8.4, 8.5.2, 4.2.3, 4.2.4
		Order Fulfillment-Shipping/ Quality Control Manager	8.2.4, 8.2.5
8.3	Control of Nonconforming Product	Order Fulfillment-Shipping/ Quality Control Manager	8.3, 4.2.3. 4.2.4
8.5	Improvement- Corrective/Preventive Action	Quality Management/ Quality Systems Manager	8.5.2, 8.5.3, 4.2.3,4.2.4

Appendix B

Process Map

Legend: Processes are numbered e.g. 1-4 (Key Processes 2-4)

1. Quality Management

Key Processes and Quality Objectives → Document and Records Control → Manage Resources → Data Analysis and Improvement → Internal Audit → Corrective/ Preventive Action → Management Review

Objectives A,B

OUTPUTS:
Internal Audits
CAPAs
Management Review
Controlled Docs & Records

2. Customer Service/Sales

INPUTS:
Customer RFQ
Customer Order

Contract review → Order Entry Order Authorized SOC confirmed → If complaint, initiate resolution

Objectives A,B,C

OUTPUTS:
Customer Orders
Resolved Customer Complaints

3. Purchasing and Receiving

INPUTS:
Purchasing Specs
Approved Vendor List (AVL)

Purchase order issued based on requirements → Materials received and compared to P.O. → Incoming materials inspected → Contact vendor with any discrepancies

Outsourced Processes/ Calibration

Objectives A,B,D

OUTPUTS:
Received materials
Supplier POs

4. Order Fulfillment/Shipping

INPUTS:
Customer Orders, Specs, product

Schedule / plan → Fill Order → Complete final inspection → Ship to customer

Control non-conforming product

Objectives A,B,E

OUTPUTS:
Shipped products

KEY

---------- only continue **if necessary**

QUALITY OBJECTIVES

Objective A – On Time Delivery: Goal 95%
Objective B – Product Quality: Goal 97%
Objective C – Order Entry Error* <1%
Objective D – Purchasing Error* <1%
Objective E – Shipping Error* <1%
***When error affects customer**