



Quality Manual

Introduction

Aerospace Elite Electronics, Inc. is proud to present its Quality Manual. *Aerospace Elite Electronics* developed and implemented a Quality Management System in order to document Aerospace Elite Electronics' best business practices, better satisfy the requirements and expectations of its customers and improve the overall management of Aerospace Elite Electronics.

Aerospace Elite Electronics is small, veteran-owned independent stocking distributor of integrated circuits, semiconductors and electro-mechanical components. As stated in the Aerospace Elite Electronics Quality Policy, we are dedicated to continuous improvement of our system, from the interaction between employees to our commerce with the marketplace.

The purpose of this manual is to define and describe the quality system, to define authorities and responsibilities of the management personnel involved in the operation of the system, and to provide general procedures for all activities comprising the quality system. Another purpose of this manual is to present the quality system to our customers and other external interested parties, and to inform them what specific controls are implemented at Aerospace Elite Electronics to assure quality.

The manual is divided into eight sections that correlate to the Quality Management System sections of ISO 9001 - 2008. Each section begins with a policy statement expressing *Aerospace Elite Electronics'* obligation to implement the basic requirements of the referenced Quality Management System section. Each policy statement is followed by specific information pertaining to the procedures that describe the methods used to implement the necessary requirements.

Aerospace Elite Electronics has addressed those requirements particular to SAE AS9120 (rev. 2002-10), *Quality Management Systems – Aerospace Requirements for Stocklist Distributors*, are conspicuously defined in text blocks such as this one.

This manual describes the Quality Management System, delineates authorities, inter-relationships and responsibilities of the personnel responsible for performing within the system. The manual also provides procedures or references for all activities comprising the Quality Management System to ensure compliance to the necessary requirements of the ISO 9001:2008 and the SAE AS9120 standards.

This manual is used internally to guide Aerospace Elite Electronics' employees through the various requirements of the ISO standard that must be met and maintained in order to ensure customer satisfaction, continuous improvement and provide the necessary instructions that create an empowered work force.

This manual is used externally to introduce our Quality Management System to our customers and other external organizations or individuals. The manual is used to familiarize them with the controls that have been implemented and to assure them that the integrity of the Quality Management System is maintained and focused on customer satisfaction and continuous improvement.

Chief Executive Officer: _____
 Ryan Esposito

Section 1: Scope

1.1 General

The quality manual outlines the policies, procedures and requirements of the Quality Management System. The system is structured to comply with the conditions set forth in the International Standard ISO 9001:2008. This manual and the systems and processes it describes serve to ensure:

- Implementation of the AEE Quality Policy
- Conformance to customer and product requirements
- Proper execution of AEE procedures and policies
- Continual improvement of the effectiveness of this Quality Management System.

The contents of this manual have been reviewed and accurately reflect the quality system requirements of the AEE

1.2 Application

[Aerospace Elite Electronics](#) has determined that the following requirements are not applicable to the operations at this site and are documented as exclusions:

Clause or Sub-clause	Exclusion	Justification
7.3	Design & Development	Aerospace Elite Electronics is a distributor of electronic components and does not design or develop products. All principal product characteristics are specified by the customers.
7.5.2	Validation of Processes	Aerospace Elite Electronics does not have "special process." Our products are inspected prior to shipment to ensure customer product specifications are met.

Section 2: Normative Reference

2.0 Quality Management System References

The following documents were used as reference during the preparation of the Quality Management System:

- American National Standard ANSI/ISO/ASQ Q9000-2008, Quality Management Systems - Vocabulary.
- American National Standard ANSI/ISO/ASQ Q9001-2008, Quality Management Systems – Requirements
- American National Standard ANSI/ISO/ASQ Q9004-2008, Quality Management Systems – Guidelines for performance Improvements
- SAE AS9120, *Quality Management Systems – Aerospace Requirements for Stocklist Distributors*

Section 3: Definitions

3.0 Quality Management System Definitions

This section is for definitions unique to [Aerospace Elite Electronics](#).

- Customer owned property - Any type of instrumentation, accessories, manuals, or shipping containers that belong to a customer.
- Customer supplied product - Any type of service or material supplied to be utilized in the manufacture, modification or repair of customer-owned property.
- Product – The end item result of meeting all contract terms and conditions. (e.g. : manufactured goods, merchandise, services etc.)
- Quality Records – Documentation of those activities wherein records of said activities must be maintained will be specified in the procedure or work instruction level documents, as applicable

Section 4

Quality Management System

4.1 General requirements

Aerospace Elite Electronics has established, documented and implemented a Quality Management System (QMS) in accordance with the requirements of ISO 9001:2008. The system is maintained and continually improved through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive action and management review.

To design and implement the QMS *Aerospace Elite Electronics* has:

- Determined the processes needed for the QMS and their application throughout the organization and outlined in this Quality Manual and in the Quality Management System (QMS) Process Model (Appendix 2) at the end of the Quality Manual.
- Determined the sequence and interaction of these processes, and illustrated them on the QMS Process Model.
- Determined criteria and methods needed to ensure that the operation and control of the processes are effective, and documented them in procedures, work instructions and the *Product Realization Process Map and accompanying Process Identification Table* (QOP-71-01).
- Ensured the continuing availability of resources and information necessary to achieve planned results and continual improvement of these processes
- Established systems to monitor, measure and analyze these processes, and
- Established processes to identify and implement actions necessary to achieve planned results and continual improvement of these processes.
- Outsourced processes, having impact on the achievement of product or service requirements (e.g., test laboratories, calibration service providers, tape and reel service provider), are controlled in accordance with 'Purchasing,' section 7.4 of this manual.

4.2 Documentation Requirements

4.2.1 General

The QMS documentation includes:

- A documented Quality Policy
- This Quality Manual
- Documented Procedures required by ISO 9001:2008
- Documents identified as needed for the effective planning, operation and control of our processes, and
- Quality Records

The quality management system documentation also includes:

Quality system requirements imposed by the applicable regulatory authorities, such as those contracts imposed through a military subcontractor. AEE ensures that personnel have access to quality management system documentation and are aware of relevant procedure in accordance with *QOP-42-01, Document Control*. Customer and/or regulatory authorities' representatives are granted access to quality management system documentation, in accordance with contract or regulatory requirements. **AS9120**

4.2.2 Quality manual

This Quality Manual has been prepared to describe *Aerospace Elite Electronics'* QMS. The scope and permissible exclusions of the QMS are described in section one of this manual. Each section of the manual references documented QMS procedures relating to the requirements outlined in that section. The QMS Process Model (Appendix 1) provides a description of the interaction between the processes of the QMS system.

- This Quality Manual provides a clear reference of the relationship between the requirements of ISO 9001:2008 and AS 9120 and our documented procedures used to meet applicable requirements.
- *Note: Requirements particular to **AS9120** are conspicuously defined in text blocks such as this one.*

4.2.3 Control of documents

All of the QMS documents are controlled according to the Document Control Procedure (QOP-42-01). This procedure defines the process for:

- Approving documents for adequacy prior to issue
- Reviewing and updating as necessary and re-approving documents
- Ensuring that changes and current revision status of documents are identified
- Ensuring that relevant versions of applicable documents are available at points of use
- Ensuring that documents remain legible and readily identifiable
- Ensuring that documents of external origin that are needed for use in the QMS are identified and their distribution controlled, and

- Preventing the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose.

- AEE maintains appropriate documentation to verify the status of the product (e.g., manufacturer's data, standards, certificates of conformance, etc.) in accordance with QOP-42-02, Quality Records. AEE coordinates document changes with customers and/or regulatory authorities in accordance with contract or regulatory requirements in accordance with QOP-42-01, Document Control. **AS9120**

4.2.4 Control of quality records

Quality records are maintained to provide evidence of conformity to requirements and of the effective operation of the QMS. The records are maintained according to the Control of Quality Records Procedure (QOP-42-02) this procedure requires that quality records remain legible, readily identifiable and retrievable. The procedure defines the controls needed for identification, storage, protection, retrieval, retention time and disposition of quality records.

AEE records include, where applicable:

- a. manufacturer, distributor, repair station, test and inspection reports;
- b. original certificates of conformity (manufacturer, sub-tier distributor), copies of airworthiness certificates (note: original certificates of conformity are generally only available through franchised distributors and Original Equipment Manufacturers, OEMs; airworthiness certificates are generally not applicable to component distributors);
- c. non-conformance, concession and corrective action records;
- d. lot traceability records;
- e. environmental or shelf life condition records.

Where records are stored in an electronic form, the integrity of the system and the back-up procedures is appropriately validated through regular challenges to the system, including challenging archived data. These records, without possibility of change by software, are traceable to the original documentation.

Records of product origin, conformity, and shipment are maintained for a minimum of seven years, or as required by contract.

Records are available for review by customers and regulatory authorities in accordance with contract or regulatory requirements.

AS 9120

Section 5

Management Responsibility

5.1 Management commitment

Our C.E.O. has been actively involved in implementing the quality management system (QMS). It has provided the vision and strategic direction for the growth of the QMS, and established quality objectives and the quality policy.

To continue to provide leadership and show commitment to the improvement of the QMS, management will do the following.

- Communicate the importance of meeting customer, statutory, and regulatory requirements.
- Establish quality objectives
- Establish the quality policy.
- Conduct semi-annual management reviews (see QOP-56-01, Management Review).
- Ensure the availability of resources.

5.2 Customer focus

Our C.E.O. ensures that customer requirements are determined and met with the aim of enhancing customer satisfaction. Customer requirements are determined, converted into internal requirements, and communicated to the appropriate people in our organization (QOP-71-01).

5.3 Quality policy

Our C.E.O. and Operations Manager ensure that the Quality Policy is communicated to all employees. It is included in new employee training and training on the QMS. It is posted in prominent places throughout the facility to maintain high standards within our organization.

Management reviews the Quality Policy at each management review meeting to determine the policy's continuing suitability for our organization. The Quality Policy and Quality Objectives are documented on WA-03, Quality Policy and below:

We will continuously improve the effectiveness of our quality system in order to meet or exceed our customers' requirements and expectations through:

- *distributing the hard to find reliable electronic components, including MIL-Spec components*
- *delivering our products on time, and*
- *ensuring excellent customer service.*

5.4 Planning

5.4.1 Quality objectives

Our CEO has established Quality Objectives. Quality Objectives support our organization's efforts in achieving our Quality Policy. Quality Objectives are measurable, and reviewed against performance goals at each management review meeting. The Quality Objectives are:

- Achieve complete customer satisfaction
- Comply with ISO 9001:2008
- Less than 1% Quality-related Returns for Customers
- 99% on-time delivery of components

Quality Objectives are documented in WA-03 and results for the Quality Objectives are documented in the Management Review meeting minutes.

5.4.2 Quality management system planning

The quality system has been planned and implemented to meet our quality objectives and the requirements of 4.1 of the ISO 9001 standard. Quality planning takes place as changes that affect the quality system are planned and implemented.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

The Responsibility Matrix (Appendix 2 of Quality Manual) has been established to show the interrelation of personnel in the organization, including specific quality management system responsibilities related to fulfillment of ISO9001:2008 requirements. Job descriptions define the responsibilities and authorities of each of the positions. These documents are available throughout the organization to help employees understand responsibilities and authorities.

5.5.2 Management Representative

The Operations Manager has been appointed by the C.E.O. as Management Representative. The Management Representative has been assigned the following responsibility and authority:

- Ensure that processes needed for the quality management system are established and implemented.
 - Report to C.E.O. on the performance of the quality management system, and note needed improvements.
 - Promote awareness of customer requirements throughout the organization.
 - Act as a liaison with external parties such as customers or auditors on matters relating to the QMS.
- Granted the organizational freedom to resolve matters pertaining to quality and maintain product conformity. **AS9120**

5.5.3 Internal communication

Processes are established for communication within the organization. Methods of communicating the effectiveness of the QMS include: department and management meetings, management review, circulation of minutes of management review meetings, Internal Audit closing meetings, and other routine business communication such as daily interactions between management and employees.

5.6 Management review

5.6.1 General

The C.E.O. reviews the QMS *quarterly* at management review meetings in accordance with Management Review, QOP-56-01. This review assesses the continuing QMS suitability, adequacy and effectiveness, identifying opportunities for improvement and needed changes. Records are maintained for each management review meeting.

5.6.2 Review input

Assessment of the QMS is based on a review of information inputs to management review. These inputs include the following:

- Results of audits
- Customer feedback
- Process performance and product conformity
- Company level quality data
- Status of preventive and corrective actions
- Follow-up actions from previous management reviews
- Planned changes that could affect the quality management system
- Recommendations for improvement

5.6.3 Review output

During these review meetings, management will identify appropriate actions to be taken regarding the following issues:

- Improvement of the effectiveness of the quality management system and its processes
- Improvement of product related to customer requirements
- Resource needs

Responsibility for required actions is assigned to members of the management review team. Any decisions made during the meeting, assigned actions, and their due dates are recorded in the minutes of management review.

Uncontrolled Document

Section 6

Resource Management

Uncontrolled

6.1 Provision of resources

Aerospace Elite Electronics has implemented a Quality Management System that complies with the ISO 9001-2008 and AS 9120 standards. This implementation was achieved with management commitment and with sufficient resources for the implementation. To effectively maintain and continually improve the system, management determines and provides necessary resources, including Human Resources, Infrastructure, and the Work Environment.

6.2 Human resources

6.2.1 General

To ensure competence of our personnel, job descriptions have been prepared identifying the qualifications required for each position affecting conformity to product and customer requirements. Qualifications include requirements for education, skills and experience. Appropriate qualifications, along with required training as documented in Training Plans, provide the competence required for each position.

6.2.2 Competence, awareness and training

Qualifications are reviewed upon hire, when an employee changes positions or the requirements for a position change. The Management Representative maintains records of employee qualifications. If any differences between the employee's qualifications and the requirements for the job are found, training or other action is taken to provide the employee with the necessary competence for the job. The results are then evaluated to ensure achievement of competence. Training and evaluation are documented on the job-related Training Plan.

All employees are trained on the relevance and importance of their activities and how they contribute to the achievement of the quality objectives.

6.3 Infrastructure

To meet Quality Objectives and product requirements, *Aerospace Elite Electronics* has determined the infrastructure needed. The infrastructure has been provided, and includes buildings, workspace, utilities, process equipment, the information technology system (phones, computers) and supporting services. As new infrastructure requirements arise, they will be documented in the necessary documents, including procedures and work instructions. External contractors perform maintenance of buildings and facilities. The C.E.O. is responsible for coordinating and managing maintenance contracts

6.4 Work Environment

A work environment suitable for achieving product conformance is maintained. Requirements are determined by management. The work environment is managed for

continuing suitability. For instance, we use Electro Static Discharge (ESD) equipment for handling sensitive electronic components.

Data from the quality system is evaluated to determine if the work environment is sufficient for achieving product conformance, or if preventive or corrective action related to the work environment is required.

- AEE performs routine testing of our ESD controls to ensure the on-going suitability of the work environment. To enhance our ESD control and minimize the possibility of product degradation, our product processing areas (receiving, inspection, warehousing, and shipping) are climate controlled (temperature, humidity). We also control for factors that may affect the conformity of the product, including the use of proper lighting, and cleanliness of the work area. **AS 9120**

Section 7

Product Realization

7.1 Planning of product realization

Our Product Realization and Process Identification Table (QOP-71-01) provides an overview of our current product realization processes and may be considered our “quality plan.” Changes to the “quality plan” are initiated by the C.E.O before new products or processes are implemented. During this planning, management or assigned personnel identify:

- The objectives and requirements for the product,
- Processes, documentation and resources required
- Verification, validation, monitoring, **measurement**, inspection and test requirements, and
- Criteria for product acceptance

The output of quality planning includes documented processes, procedures and changes to QOP-71-01.

7.2 Customer-related processes

7.2.1 Determination of requirements related to the product

Aerospace Elite Electronics determines customer requirements before acceptance of an order. Customer requirements include those:

- Requested by the customer
- Required for delivery activities
- Not stated by the customer but necessary for specified use or known and intended use
- Statutory and regulatory requirements related to the product
- Additional requirements determined by *Aerospace Elite Electronics*

Customer requirements are determined according to *Customer Related Processes, QOP 72-01*.

7.2.2 Review of requirements related to the product

Aerospace Elite Electronics reviews requirements related to the product in accordance with *Customer Related Processes, QOP 72-01*. The review is conducted before the order is accepted. The process ensures that:

- Product requirements are defined,
- Contract or order requirements differing from those previously expressed are resolved,

- *Aerospace Elite Electronics* has the ability to meet the defined requirements, and
 - Accuracy of the customer's orders is maintained by verifying such things as the billing address, shipping address, shipment method, freight account number, manufacturer, part number, quantity, internal customer number, packaging requirements, date code requirements, unit price, and total price.
- risks (e.g., new technology, short delivery time scale) have been evaluated. AS9120

AEE maintains records of the review to confirm that AEE has the capability to meet order requirements and any actions arising from the review. Often the record of confirmation is specified by the customer, which includes confirming the order within their respective Internet sites. At minimum, our invoice generated in QuickBooks provides evidence that the order was reviewed with respect to meeting customer needs.

Where a customer does not provide a documented statement of requirement, the customer requirements are confirmed before acceptance. For instance, customers may verbally enquire about availability of parts, but orders are not accepted without sending a confirming fax or email.

When product requirements are changed, Aerospace Elite Electronics communicates changes to relevant personnel and amends relevant documents.

7.2.3 Customer communication

Aerospace Elite Electronics has implemented processes for communicating with customers in relation to:

- **Product Information:** Our C.E.O. is responsible for developing the content and format for company's brochures, catalogs, Internet site, and other promotional and product information material. Only designated personnel from Sales are authorized to communicate with customers regarding product information
- **Enquiries, contracts and order handling, including amendments:** Sales personnel are responsible for receiving and reviewing customer inquiries and orders. Handling of order amendments is controlled to the same extent as the handling of initial orders. Amendments are reviewed to verify that the new or modified requirements can be met, and a confirmation of acceptance is sent back to the customer.
- **Customer Feedback, including customer complaints:** The Sales department is responsible for receiving and documenting customer feedback and complaints. Complaints may be sent directly through the internet by our customers using the electronic Customer Complaint Form; verbal complaints are recorded on the CPAR form. The Operation Procedure QOP-85-01, Corrective and Prevention Action, provides detailed instructions how to receive, process, and respond to customer feedback and complaints.

7.3 Design and Development

Aerospace Elite Electronics is a distributor of electronic components and does not design or develop products. All principal product characteristics are specified by the customers. Therefore, Aerospace Elite Electronics has taken an exclusion from ISO 9001:2008 Section 7.3, Design and/or Development, including all subsections.

7.4 Purchasing

7.4.1 Purchasing process

QOP-74-01, *Purchasing*, is followed to ensure that purchased product conforms to the specified purchase requirements. The procedure outlines the extent of control required for suppliers. Suppliers are evaluated and selected based on their ability to supply product in accordance with requirements as outlined in the procedure. Criteria for selection, evaluation and re-evaluation are documented in the procedure. Records of the evaluation and any necessary actions are maintained as quality records.

AEE also:

- a) maintains a register of approved sources of supply in the accounting system, including the scope of the approval (e.g., have a supplier rating system, defined in QOP-74-01, *Purchasing*;
- b) periodically reviews source of supply performance as defined in Procedure QOP-74-01, *Purchasing Process*; records of these reviews are be used as a basis for establishing the level of controls to be implemented;
- c) defines the necessary actions to take when dealing with suppliers that do not meet requirements as defined in QOP-74-01, *Purchasing*.
- d) prevents the purchase of counterfeit/suspect unapproved products (QOP-74-02, *Counterfeit Part Prevention Procedure*).

AEE takes responsibility for the quality of all products purchased from suppliers, including customer-designated sources. **AS9120**

7.4.2 Purchasing information

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

- Requirements for approval of product, processes and equipment
- Requirements for qualification of personnel
- Quality management system requirements

- The purchasing documents are reviewed to ensure the adequacy of requirements before orders are placed with the supplier.

- The name/product description or other positive identification, and applicable issues of specifications, drawings, process requirements, inspection instructions and other relevant technical data (e.g., revision level),
- Requirements relative to supplier notification to AEE of nonconforming product,
- Requirements for the supplier to notify the AEE of changes in product definition,
- Right of access by the AEE, our customer, and regulatory authorities to all facilities involved in the order and to all applicable records, and
- Requirements for a certificate of conformity, test reports, and/or airworthiness. **AS9120.**

7.4.3 Verification of purchased product

The Purchasing procedure (QOP-74-01) describes the process used to verify that purchased product meets specified purchase requirements.

The AEE verification activities include:

- obtaining objective evidence of the quality of the product from suppliers and verifying the authenticity of the accompanying documentation, as determined by customer requirements through the contract or order (e.g., certificate of conformity from the manufacturer, airworthiness certificate, test reports, statistical records, process control)
- review of the required documentation, and
- inspection of products upon receipt. **AS9120**

If Aerospace Elite Electronics or the customer performs verification at the supplier's premises, the verification arrangements and method of product release are documented in the purchasing information.

Where specified in the contract, the customer or the customer's representative is afforded the right to verify at the supplier's premises and the AEE's premises that subcontracted product conforms to specified requirements.

Unless specified in our contract with the customer, verification by the customer is not

used by AEE as evidence of effective control of quality by the supplier and does not absolve AEE of the responsibility to provide acceptable product, does preclude subsequent rejection by the customer. **AS9120**

7.5 Production Provision

7.5.1 Control of production provision

Aerospace Elite Electronics plans and carries out production and service provision under controlled conditions according to documented procedure as outlined in Product Realization and Process Identification Table (QOP-71-01)

Controlled conditions include, as applicable:

- The availability of information that describes the characteristics of the product
- The availability of work instructions
- The use of suitable equipment
- The availability and use of monitoring and measuring equipment
- The implementation of monitoring and measurement
- The implementation of release, delivery and post-delivery activities.

7.5.2 Validation of processes for production and service provision

Processes where the resulting output cannot be verified by subsequent measurement or monitoring are designated as special processes. Currently there are no special processes at Aerospace Elite Electronics.

7.5.3 Identification and traceability

Aerospace Elite Electronics identifies and maintains identification and the product status with respect to monitoring and measurement throughout the product realization process in accordance with *Product Identification and Traceability, QOP 75-03*. For example, incoming products are identified with a part number and traceability information (e.g., lot #, date code, etc.) and are recorded on the *ERAI Recommended Top Ten Inspection Report (PR-05)*. All freight carriers provide an internal tracking number to allow us to maintain delivery status through the internet or phone.

When acceptance authority is used (e.g., inspection stamps, electronic signatures, passwords), AEE documents the controls for the media. AS 9120

Detailed instructions on how to identify conforming and nonconforming products are provided in Procedure QOP-83-01, Control of Nonconforming Product.

The *Product Identification & Traceability Procedure*, SOP-75-03 defines our system for identification and traceability of parts (e.g., labels, bar codes, electronically tracking from shippers) from receipt; during separation of lots, storage packaging, and preservation operations; and until delivery (including subcontracted handling or packing operations). SOP-75-03 defines the processes that provide for:

- a) maintaining the manufacturer's identification and batch/lot traceability;
- b) the ability to identify and trace products manufactured from the same lot of raw material or from the same manufacturing lot, as well as the ability to trace the product to the ultimate destination (delivery, scrap);
- c) maintaining the identification of the configuration of the product (e.g., part revision level) in order to identify any differences between the actual configuration and the agreed configuration.

AS 9120

7.5.4 Customer property

Aerospace Elite Electronics Aerospace Elite Electronics takes great care with any customer-supplied products and materials, in accordance with Customer Property, QOP-75-04. If any customer property is lost, damaged or otherwise found to be unsuitable for use, AEE would report the issue to the customer and maintain appropriate records. We also ensure that intellectual property such as drawings or specifications supplied by the customer are properly managed under QOP-42-01.

7.5.5 Preservation of product

Aerospace Elite Electronics preserves product in order to maintain conformity to requirements during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.

- Product handling and preservation

- Receiving & Shipping is responsible for product handling and preservation; and in particular for ensuring that containers holding products are suitable and are in good condition, and that products are adequately protected during storage.
- Storage
 - Stockroom and storage areas are controlled by the Operations Manager.
 - AEE maintains product in a climate controlled environment to ensure proper temperature and humidity is maintained
 - We also have a certified ESD control program.
 - Aerospace Elite Electronics does not stock any products with limited shelf life.
 - Stockroom is controlled using an inventory management system. The system can report available in stock quantities and product location. The system is used to optimize and minimize inventory levels.
- Packaging and labeling
 - Primary packaging is boxes, bags or other packaging in which products are presented to the end users.
 - Additional packaging is used to provide further containment and protection for shipping and transportation.
 - Primary packaging is performed by the part manufacturers and is not controlled by Aerospace Elite Electronics.
- Shipping and delivery
 - Shipping of finished products is initiated by the customer purchase order. The order identifies the shipping consignee address, shipping due date, products to be shipped, labeling requirements, and transportation mode or carrier. Before products are dispatched, the Purchasing Manger verifies that the shipment contains the same products and quantities as specified in the shipping order, and that packaging and labeling conform to customer and/or carrier requirements. Only orders that have been verified and signed off by Operations Manager or designee can be shipped.

AEE's processes for preservation of product also include, where applicable in accordance with product specifications and/or applicable regulations, 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,
- f) special handling for hazardous materials, and

g) environmental controls (e.g., temperature, humidity).

AEE ensures that documents required by the contract/order to accompany the product are present at delivery and are protected against loss and deterioration.

AS9120

7.6 Control of monitoring and measuring equipment

Presently, AEE does not use inspection and testing equipment (or devices) that require calibration for product inspections. However, we do ensure that ESD controls such as wrist straps are working properly and that the ESD tester is periodically calibrated in accordance with the manufacturer's procedures.

AEE maintains a register of devices subject to calibration and/or verification through the Master Device Record; the matrix defines the process employed for their calibration including details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria. **AS9120**

Where necessary, to ensure valid results, the ESD test equipment is:

- Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards;

▪ AEE ensures that environmental conditions are suitable for the calibrations, inspections, measurements and tests being carried out. **AS9120**

- Adjusted or re-adjusted as necessary;
- Have identification to enable their calibration status to be determined (e.g., calibration status label);
- Safeguarded from adjustments that would invalidate the measurement result;
- Protected from damage and deterioration during handling, maintenance and storage.

- be recalled to a defined method when requiring calibration. **AS9120**

In addition, the Operations Manager assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements. Aerospace Elite Electronics takes appropriate action on the equipment and any product affected in accordance with *OOP-85-01, Corrective and Preventive Action*. Records of the results of calibration and verification are maintained

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed. This shall be undertaken prior to initial use and reconfirmed as necessary.

Uncontrolled Document

Section 8

Measurement, Analysis and Improvement

8.1 General

Aerospace Elite Electronics plans and implements the monitoring, measurement, analysis and improvement processes as needed

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

These processes are identified in documented procedures and include determination of applicable methods, including statistical techniques, and the extent of their use.

Examples of the use of statistical techniques at AEE include:

Inspection: Where known, AEE matches the sampling rate to the criticality of the product. As a general rule, AEE uses the *C=0 Sampling Plan* for internal product inspections (used to indicate that a sampling plan only allows acceptance of a lot when zero defects are observed during a given inspection of a sample).

Quality management: use of statistical techniques to determine required improvement activities through our Management Review process (see QM 5.6).

AS 9120

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

Aerospace Elite Electronics monitors information on customer satisfaction as one of the measurements of performance of the quality management system. Methods for obtaining and using this information come directly from our customers through emails and dialogue with our customers, including customer's performance reports. Where appropriate, we may choose other means of monitoring customer perception through such tools as customer satisfaction surveys, analyzing customer complaints and feedback, etc. Specifically, these are:

- Our response time in handling a customer Return Material Authorization (RMA)
- Percentage of customer complaints
- Repeat business

- The use of supplier rating systems from external web-sites, including, but not limited to www.netcomponents.com, www.brokerforum.com, and www.icsource.com.
- Customer satisfaction surveys.

8.2.2 Internal Audit

Aerospace Elite Electronics conducts internal audits at planned intervals to determine whether the quality management system

- Conforms to the planned arrangements (see 7.1), to the requirements of this International Standard and to the quality management system requirements established by the organization
- Is effectively implemented and maintained.

An audit program has been designed and implemented and identifies an audit schedule based on the importance of the areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency, methods, responsibilities and requirements for planning and conducting audits, and for reporting and maintaining results, are defined and documented in the Internal Quality System Audits procedure (QOP-82-01).

The management responsible for the area being audited is responsible for ensuring that 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.

AEE internal audit program is also designed to meet contract and/or regulatory requirements. **AS 9120**

8.2.3 Monitoring and measurement of processes

Quality Objectives are used for monitoring and measurement of the product realization processes (section 7 of this manual). AEE also monitors the overall effectiveness of our quality management system through conducting internal audits (see section 8.2.2), holding management reviews (see section 5.6), and monitoring customer satisfaction (see section 8.2.1). All of these methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken, as appropriate in accordance with Corrective and Preventive Action, QOP-85-01.

In the event of process nonconformity, AEE:

- takes appropriate action to correct the nonconforming process and determines the necessity of initiating Corrective Action (see QOP-85-01).
- evaluates whether the process nonconformity has resulted in product nonconformity, and
- identify and control the nonconforming product in accordance with Procedure 8-04, Control of Nonconforming Product (see 8.3 below).

AS9120

8.2.4 Monitoring and measurement of product

Aerospace Elite Electronics monitors and measures the characteristics of the product to verify that product requirements are fulfilled. This is carried out at appropriate stages of the product realization process identified in *Product Realization Processes* (QOP-85-01).

- AEE uses the "C=0 Sampling Plan" when inspections are performed to verify product status. The plan precludes the acceptance of lots whose samples have known nonconformities. When required, the "C=O Plan" (or an alternative sampling plan) is submitted for customer approval. **AS9120**

Evidence of conformity with the acceptance criteria is maintained. Records indicate the person authorizing release of product. Product release and service delivery does not proceed until all the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority, and where applicable by the customer.

8.2.4.1 Inspection Documentation: Measurement requirements for product acceptance are documented and include:

- a) criteria for acceptance and/or rejection,
- b) a record of the measurement results,

c) type of measurement instruments required and any specific instructions associated with their use

Test records show actual test results data when required by specification or acceptance test plan.

AS9120

8.2.5 Evidence of Conformance - Certificate of Conformity: When required, AEE provides our customers with evidence of the product's conformity to its technical specifications. This may include the manufacturer's conformance documents, the original airworthiness certificate, test analysis, and/or test reports.

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, AEE may deliver a certificate of conformity created by the organization that references the original manufacturer's conformance documents that are retained and traceable by the organization. **AS9120**

8.3 Control of Nonconforming Product

Aerospace Elite Electronics ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Control of Nonconforming Product procedure (QOP-83-01).

* NOTE: The term "nonconforming product" includes nonconforming product returned from a customer and suspected unapproved parts.

AS9120

QOP-83-01, Control of Nonconforming Product defines the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions. **AS9120**

We deal with nonconforming product by one or more of the following ways, as applicable:

- by taking action to eliminate the detected nonconformity;

- by authorizing its use, release or acceptance under concession by the C.E.O. and, where applicable, by the customer (customer concessions are documented on the original purchase order);
- By taking action to preclude its original intended use or application, if relevant.
- Receiving inspector may make the disposition decision for a nonconforming product when it is obvious that the product must be scrapped. In all other cases, MR is responsible for making disposition decisions.

Dispositions by AEE for aerospace clients are limited to:

- scrap;
- rejection for return to the supplier;
- rejection for revalidation by the manufacturer;
- submittal to design authority and customer for "USE AS IS" disposition.

NOTE: AEE recognizes that as a distributor we do not have the authority to rework or repair product unless through permission by our customer.

Product dispositioned for scrap is conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

AEE ensures, with the manufacturer where necessary, that similar supplies are not similarly affected and informs our customer of any nonconformities affecting product already delivered.

AS9120

Detailed rules for nonconformity review, for making the disposition decision, and for recording these activities are provided in Operational Procedure QOP-83-01, Control of Nonconforming Product.

In addition to any contract or regulatory authority reporting requirements, the AEE Return Material Authorization (RMA) process (see QOP-83-01) provides for timely reporting of delivered nonconforming product that may affect reliability or safety. Notification includes a clear description of the nonconformity, which includes as necessary parts affected, customer and/or organization part numbers, quantity, and date(s) delivered.

Note: AEE is cognizant of parties requiring notification of nonconforming product may

include suppliers, internal organizations, customers, distributors, and regulatory authorities.

8.4 Analysis of Data

Aerospace Elite Electronics determines, collects and analyses appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the quality management system can be made. Appropriate data 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
- Conformance to product requirements
- Characteristics and trends of processes and products including opportunities for preventive action
- Suppliers

8.5 Improvement

8.5.1 Continual improvement

Aerospace Elite Electronics continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

8.5.2 Corrective action

Aerospace Elite Electronics takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure (QOP-85-01) 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,
- Records of the results of action taken (see 4.2.4), and
- Reviewing corrective action taken.

- flow down of the corrective action requirement to a supplier and/or the manufacturer, when it is determined that the supplier and/or the manufacturer (if possible) is responsible for the root cause, and
- Specific actions where timely and/or effective corrective actions are not achieved. **AS9120**

8.5.3 Preventive action

Aerospace Elite Electronics 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 (QOP-85-01) defines requirements for:

- Determining potential nonconformities and their causes
- Evaluating the need for action to prevent occurrence of nonconformities
- Determining and implementing action needed
- Records of results of action taken
- Reviewing preventive action taken.

- The withdrawal of product(s) from stock that are suspected of a noncompliance (or returned by a customer), including notification of all customers of the action(s) taken who have purchased the product from the same lot or batch. **AS9120**

QUALITY MANUAL REVISIONS

Issue	DATE	DESCRIPTION OF CHANGE	Approvals	
			Management Rep	CEO
6	06/19/06	Total rewrite to address internal audit findings		
7	03/12/08	Revised manual to define AEE's methods of meeting SAE AS9120.		
8	05/27/09	Removed Customer Product (section 7.5.4) as an exemption. Other minor modifications to meet requirements of ISO 9001:2008. Modifications are shaded in grey.		
9	08/12/09	Revised to reflect use of ERAI Top 10 Inspection instead of Receiving Traveler for Parts.		

Uncontrolled Document