



MOUSER ELECTRONICS QUALITY MANUAL

QS-QM-001 REV L 9/25/09



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1.0 Forward

This manual is issued to describe the Quality Management System of Mouser Electronics (hereafter referenced as Mouser). The manual numbering is structured to match the standard. The Quality Manual is issued and controlled by Mouser's Quality Department.

Mouser's Quality Management System serves to improve customer satisfaction/loyalty, fulfill quality objectives, and facilitate continual improvement.

It is the responsibility of the President and the Director of Quality to ensure that this manual is maintained as a current reflection of the Mouser Quality Management System.

2.0 Introduction

Mouser Electronics believes in providing engineers and buyers of electronic components the best possible service, regardless of the size of the customer or the size of the order. Mouser Electronics' product lines include Semiconductors, Passives, Interconnects, Electromechanical, Power Sources, and Specialty Products.

January 2000, Mouser Electronics, Inc. became a subsidiary of TTI, Inc. The Chairman of Mouser Electronics, Inc. is Paul Andrews; President, Glenn Smith; Vice President of Product Marketing, Barry McConnell.

On March 5th, 2002, we celebrated the Grand Opening of our new 173,000 square foot warehouse and office facility. The new facility allowed Mouser to consolidate operations in Mansfield, Texas, allowing for efficiency as well as growth.

To better serve its customers, Mouser recently (1Q 2007) completed an extensive expansion of its corporate headquarters facility to 432,000 sq. ft. – more than doubling the space for offices, call and data centers, as well as its state-of-the-art warehouse.

The new 3,400 sq. ft. data center features a pre-action fire suppression system, connections to multiple power sources, and a dedicated fiber communications ring to ensure uninterrupted internet operations – a core component of Mouser's global sales operations.

The warehouse expanded by an additional 180,000 sq. ft. (total 280,000 sq. ft.) and includes 27,000 sq. ft. of a new ESD (Electro Static Discharge) area for safe storage of active components.

The combined resources of Mouser Electronics and TTI offer a complete solution for both customers and suppliers. Products can be "prototyped in" at the R & D level through Mouser, then transitioned to global production quantities at TTI. This complete solution is unique in the electronics distribution industry.

3.0 Mission Statement:

Be the source most preferred by engineers and small production buyers for the products to design, prototype, test, and manufacture electronics.

4.0 Quality Management System

4.1 General Requirements

Mouser has established, documented, and implemented a Quality Management System which is continuously maintained for effectiveness and process improvements in accordance with the requirements of ISO 9001:2008.

- a) The processes needed to operate the Quality Management System have been determined and documented.
- b) The sequence and interactions of these processes has been determined.
- c) The criteria and methods needed to ensure the operation and control of these processes is documented and effective. Criterion is defined in the procedures and is in line with the Quality Policy and Quality Objectives. Methods include Internal Audit and Quality Reports.
- d) Information and resources to support the operation and monitoring of these processes is available. Management is committed to properly resource the Quality System and Information Systems of the company.
- e) Mouser monitors, measures where applicable, and analyzes these processes.
- f) Based on these measurements and controls Mouser will implement actions necessary to achieve planned results and continual improvement of these processes.

4.1.1 These processes will be managed by Mouser in accordance with ISO9001:2008.

4.1.2 Outsourced processes will be identified and controlled when outsourcing is required. See procedure QS-PR-017 Outsourced Processes.

4.2 Documentation Requirements

4.2.1 General Mouser's Quality Management System includes the following documentation.

- a) Mouser has defined and documented a Quality Policy and Quality Objectives. See section 5.3 and 5.4.1.
- b) Mouser has prepared a quality manual. See Section 4.2.2
- c) Mouser has documented the procedures and records required by ISO9001:2008 and procedures and records needed for the effective planning, operation, and control of processes.
- d) Mouser keeps records required by ISO9001:2008. See procedure [QS-PR-008 Record Control](#).

4.2.2 Quality Manual

Mouser has established and maintains this Quality Manual. The Quality Manual is approved by the President of Mouser and the Director of Quality. This manual includes a scope and exclusions as defined in Section 4.2.2.1 and 4.2.2.2. In addition to this manual there are procedures required to operate this Quality Management System. In this manual there will be

reference to them as appropriate. A full listing of the procedures is available upon request. A description of the interaction between the processes of the Quality Management System is given in Appendix A.

Quality Manual revision history is maintained in Appendix C of this document.

4.2.2.1 Scope

The scope of the Quality Management System is as follows

Distributor of Electronic Components and Supplies, including Optoelectronics, Embedded Solutions, Semiconductors, Circuit Protection, Passive Components, Interconnects, Wire & Cable, Electromechanical, Sensors, Enclosures, Thermal Management, Power, Test & Measurement and Tools.

And includes the facilities located at the following location.

Mouser Electronics, Inc.
Corporate Headquarters
1000 North Main Street
Mansfield, Texas 76063

4.2.2.2 Exclusions

Mouser has two permissible exclusions from the ISO 9001:2008 standard:

- a. Mouser claims a permissible exclusion from the requirements of element 7.3 Design and Development. Mouser does not design any of the products it sells.
- b. Mouser claims a permissible exclusion from the servicing requirements of sub-element 7.5.1 because it does not service products after delivery.

4.2.3 Control of Documents

Mouser controls the documents required by the Quality Management System. This is performed through a documented Document Control process. See procedure [QS-PR-004 Document Control Process](#) for details on controlling Policies, Manuals, and Procedures.

4.2.3.1 Documents of External Origin

These documents are addressed in procedure [QS-PR-009 External Document Control](#).

4.2.4 Control of Records

Records have been established and are maintained which specifically provide evidence of meeting requirements and the effectiveness of the Quality Management System. These records will remain legible and will be readily identifiable and retrievable. See procedure [QS-PR-008 Record Control](#) for a summary of records and the controls needed for identification, storage, protection, retrieval, retention, and disposition.

5.0 Management Responsibility

5.1 Management Commitment

Senior Management is committed to resourcing, operating, and maintaining an effective Quality Management System. The Quality Policy, Quality Objectives, and Management Review serve as evidence of this commitment. Through company meetings employees learn the importance of meeting customer requirements and having an effective Quality Management System.

Senior Management has established a Quality Council. Members of the Quality Council are as follows:

- President & CEO
- Director of Quality (Management Representative)
- Operations Department Head
- U.S. Sales Department Head
- Products Department Head
- Human Resources Department Head
- Finance Department Head

5.2 Customer Focus

Senior Management employs a number of ways to ensure that customer requirements are identified and properly fulfilled and that customer Loyalty is measured. See procedure [QS-PR-006 Quality Measurements](#) for more detail.

5.3 Quality Policy

Mouser's quality policy was developed by the Quality Council to communicate Mouser's commitment to quality and meeting customer requirements. It is considered appropriate by Senior Management. The Quality Policy is revalidated at each Management Review meeting.

Quality Policy

Mouser Electronics is committed to gratifying and astonishing customers with our customer service excellence, order accuracy and on-time delivery. This is accomplished through our commitment to continual improvement of our processes, services, products and our people.

5.4 Planning

5.4.1 Quality Objectives

The strategic Quality Objectives of Mouser's Quality Policy are as follows and are maintained as part of the Management Review process. These objectives flow down to departments and functions. These same departments and functions develop objectives to support the strategic Quality Objectives. All objectives developed will be measurable.

- Customer Satisfaction
- Customer Service Excellence
- Exceeding Customer First Experience Expectations
- On-Time Delivery
- Order Accuracy
- Continual Improvement of service and processes

5.4.2 Quality Management System Planning

The President and Director of Quality have planned the establishment of the Quality Management System. This planning will show up in Management Review or Corrective or Preventive Action Plans. Changes to the Quality System are planned. Each manager initiating a change will do so only after careful analysis and planning. Major changes will be planned and controlled.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Responsibilities and authorizations are documented in this manual, procedures, and Job Descriptions.

5.5.2 Management Representative

The President has appointed the Director of Quality as Management Representative for Mouser. The Management Representative has the authority and responsibility for:

- a) Ensuring processes needed for the Quality Management System are established, implemented, and maintained.
- b) Reporting on the performance of the Quality Management System to management and any need for improvement. See procedure [QS-PR-006 Quality Measurements](#) for more detail.
- c) Promoting awareness of customer requirements throughout the organization.

5.5.3 Internal Communication

The Quality Council has established the following communication channels to ensure the performance and effectiveness of the Quality Management System are communicated to the employees of Mouser:

Management meetings

Department Meetings

Employee Meetings

Performance Metrics posted on bulletin boards around the company

Performance Metrics posted to the Intranet

5.6 Management Review

5.6.1 General

The Quality Council will meet at least once a year to perform Management Review per procedure [QS-PR-001 Management Review Process](#). Management Review records are maintained.

5.6.2 Review Input

The following are reviewed as part of Management Review to assess the ongoing suitability of Mouser's Quality System:

- a) Follow-up on actions from previous Management Review Meetings
- b) Internal Audit findings
- c) Status of Corrective and Preventive Actions
- d) Customer Satisfaction/Loyalty (Survey, Reports and Comments)
- e) Process Improvement Metrics
- f) On-Time Performance
- g) Order Accuracy (PPM Metrics)
- h) Quality Policy
- i) Planned major changes which affect the Quality System
- j) Proposed improvements

5.6.3 Review Output

Management review meeting notes include any decisions/actions related to the following:

- a) Improvement of the effectiveness of the Quality Management System and/or processes
- b) Improvement of product/service related to customer requirements
- c) Resource needs

6.0 Resource Management

6.1 Provision of Resources

Mouser's management is responsible for identifying and procuring the resources needed to fulfill the requirements of Mouser's Quality Management System, provide for its continual improvement and effectiveness, and the enhancement of Customer Satisfaction/Loyalty.

6.2 Human Resources

6.2.1 General

Mouser's management at all levels is responsible for ensuring personnel under their supervision performing work affecting conformity to product requirements are competent on the basis of education, training, skills, and experience.

6.2.2 Competence, Training and Awareness

- a. Managers and Human Resources determine the required competence for each position. Competence is defined as having the appropriate qualifications for a position or task. Qualifications for each position are documented in the corresponding Job Description. See procedure [HR-PR-003 Performance Review - Non-Management](#) for more detail.
- b. Mouser identifies training requirements during initial hiring and employee performance reviews using qualifications listed in the Job Description. Training requirements will be determined for Corrective/Preventive Actions.
- c. Training is evaluated for effectiveness through employee performance reviews and Corrective/Preventive Action follow-up.
- d. Mouser maintains Training Records on each employee. These records will contain objective evidence of an individual's qualifications. See procedure [HR-PR-002 Training Program](#).
- e. Mouser employees are made aware of the relevance and importance of their work performance and how this supports Mousers' Quality Objectives. Employee bonuses are tied to Quality Metrics.

6.3 Infrastructure

Mouser management determines, provides, and maintains the infrastructure needed to meet product requirements. Infrastructure needs are evaluated and planned during process improvements. Infrastructure needs are also identified in Corrective and Preventive Actions.

6.4 Work Environment

Mouser management determines, provides, and maintains the work environment needed to meet product requirements and employee safety. Managers are responsible for the work environment within their managed work area.

7.0 Product Realization

7.1 Planning of Product Realization

Product realization at Mouser is defined as purchasing electronic components and supplies, warehousing it, and then creating and delivering a Customer Order which meets the customer's requirements. Product realization is a planned process at Mouser. Evidence of this planning are the procedures, records, and measurements currently in place. Product realization records are maintained in the Mouser Business System and Warehouse Control System.

When further planning is needed, Senior Management will set policy which regulates product realization. Departmental managers will plan for product realization within the scope of their position. The planning will include as appropriate:

- a. **Quality objectives** beyond the corporate Quality Objective described in section 5.4.1 of this manual. Quality Objectives must support these corporate objectives.
- b. The **requirements** for the product. This includes the individual components and the customer order.
- c. The need for a **process**. Processes will be developed to support product realization where necessary. These processes will be documented as needed to ensure consistent product realization.
- d. The need for **resources** specific to the product. This includes the order and parts.
- e. The need for **Inspection** specific to the product. This includes the order and parts.
- f. The need for **Records**. Such as records of order processing and inspection.

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

Basic customer requirements, specific manufacturer and part number, quantity, and delivery service are selected by the customer at the time the order is requested. Post-delivery activity consists of product returns and customer-initiated Corrective Actions.

Product specific requirements such as ESD, Packaging, etc. are met through process control even when not stated by the customer.

All applicable statutory and regulatory requirements, such as hazardous material, will be met.

Mouser has an Export Management and Compliance Program modeled after the EMCP Guidelines published by the United States Commerce Department's Bureau of Industry and Security (BIS). See procedure [QS-PR-010 Export Management System and Compliance Program](#).

Any additional requirements considered necessary will be addressed at the time the order is placed by the customer. Customer requirements arising after order placement will be handled on a case-by-case basis.

7.2.2 Review of Requirements Related to the Product

Most orders to Mouser are placed in three distinct ways: by Phone, by Fax and by Internet.

a. By Phone - The requirements are reviewed with the customer while they are on the phone. Inventory status and delivery cut-off times are available to the sales person. The system prompts a warning when a requirement is being entered into the system which cannot be met. Records of the review are on the Mouser Business System.

b. By Fax, Mail or E-mail – The requirements from the document are compared to the system for capacity to meet the requirements. If the requirements can be met, the order is placed on the system same as "By Phone". If the requirements cannot be met, the customer is contacted and handled as "By Phone" above.

c. By Internet – Customers select product from the website. The website carries accurate inventory statuses, product specifications, and appropriate carrier selection. On domestic orders where the customer has an account, the order is directly entered into the system. Additional review is not practical. International orders and new customers are reviewed before release to the system. Website accuracy is evaluated and tracked.

7.2.2.1 If the customer calls back to change the order, provisions are provided to update the Mouser Business System and if the order is in the warehouse, notify the warehouse of the change. See procedure [SASV-PR-071 Order Updates and Cancellations](#).

7.2.3 Customer Communication

- a. Mouser produces a U.S. print catalog four times each year. See procedure [PTCG-PR-003 Catalog Printing](#).
- b. Mouser maintains a comprehensive website. Product specifications in electronic files are available on the website.
- c. Mouser's Business System e-mails customers when an order has shipped and when a new order does not ship on time.
- d. Customers can contact us via phone, e-mail, fax, and mail.
- e. Customers are encouraged to provide feedback to Mouser. Mouser publishes the e-mail addresses of its Managers on Mouser's website. Customer complaints are handled through the Sales Department. See procedure [SASV-PR-002 Customer Correspondence](#).
- f. Surveys are used to measure customer satisfaction/loyalty.

7.3 Design and Development

As a distributor, Mouser does not design any of the products it sells.

(See exclusions listed in section 4.2.2.2)

7.4 Purchasing

7.4.1 Purchasing Process

Mouser is a distributor. Mouser purchases electronic components and supplies for resale from various suppliers. Mouser retains full control over the suppliers it represents. Product Marketing is responsible for the management of the purchasing process.

- a. Suppliers are selected, evaluated and re-evaluated via specified criteria according to Product Marketing Procedures. See procedures [PTOP-PR-046 New Supplier Approval](#) and [PTOP-PR-040 Supplier Re-evaluation](#).
- b. Use of approved suppliers is controlled through the Mouser Business System maintained by Product Marketing.
- c. Mouser maintains a Supplier Performance System. This system maintains performance data and provides such data to the suppliers for improvement. See procedure [QS-PR-006 Quality Measurements](#).
- d. Quality performance is included in the process for re-evaluation and the continued use of a supplier.
- e. Records for Supplier selection, evaluation, re-evaluation, and Quality Performance are maintained by Product Marketing and Quality. See procedure [QS-PR-008 Record Control](#) for a summary of records.
- f. Mouser initiates Corrective Action Requests to suppliers as deemed appropriate by the Director of Quality.

7.4.1.1 Each supplier is assigned a Product Manager who monitors the supplier for quality and on-time delivery.

7.4.1.2 Purchased products and services not directly resold to customers, but having an effect on the final product are placed with reputable companies. These products and services are closely monitored for quality by inspection and supervision.

7.4.2 Purchasing Information

Purchasing information describes the product to be purchased. Normally this requires only an accurate manufacturer or supplier part number. In the absence of a manufacturer or supplier part number, the product will be described to the level needed to assure a correct order.

7.4.2.1 Purchasing information on other supplies and services will describe the supplies or services in terms familiar to the supplier. Employees purchasing these supplies and services will, as needed, document and communicate any requirements for Mouser approval of the product or service, procedures, processes, equipment, and/or qualification of personnel and/or Quality Management System.

7.4.2.2 Purchasing requirements are reviewed prior to being communicated to the supplier. See procedure [PTOP-PR-059 Product Purchasing](#).

7.4.3 Verification of Purchased Product

Mouser performs incoming inspection on product purchased for distribution. Inspection consists of verification of count, kind, and condition against packing list and Mouser's Purchase Order. Mouser has no intentions of verifying product at the supplier's premises. See WHRV (Receiving) procedures for more details.

7.5 Product and Service Provision

7.5.1 Control of Production and Service Provision

Production is defined as the processing of customer orders from Sales to Shipping. Mouser performs no after sales service or maintenance. Production is planned. Planning is performed by managers who approve processes. Production is carried out under controlled conditions. Controlled conditions include documented procedures, manufacturer specification sheets, and approved equipment. See Sales, Products, and Operations procedures for more detail.

7.5.2 Validation of Processes for Production and Service Provision

Mouser has two processes which require validation at Mouser. They are Electro-Static Discharge (ESD) Product Handling and Moisture Sensitive Level (MSL) Product Handling. Validation of these processes is in accordance with [QS-PR-015 ESD Control Program](#) and [WHOD-PR-033 MSL Procedure](#).

7.5.3 Identification and Traceability

- a. The product of a Customer Order is identified and traceable through the Mouser Business System by assigning the order unique numbers generated automatically by the computer system. Operations procedures identify the order status and need for inspection.

- b. The products, which are the parts on the customer order, are identified by the Mouser part number or supplier part number assigned to the product. The part is traceable through the Mouser Business System to the manufacturer. Part identification is controlled by procedure and entering it in the Mouser Business System. This part identification is recorded at the part level with labels on the part or on the packaging which contains the product. See [PTOP-PR-037 Part No. Entry & Update](#) and Operations procedures for details.

7.5.4 Customer Property

Customer Property at Mouser is limited to Personal Data under PCI Compliance.

7.5.5 Preservation of Product

Mouser preserves the conformity of products during internal processing and final delivery. This preservation includes identification, handling, packaging, storage, and protection.

a. Identification - All products Mouser distributes are identified with either Mouser's part number, the manufacturer's part number, or other identifying codes. This identification is recorded at a minimum on the packaging containing the product. When product is repackaged, the package is labeled with the part number.

b. Handling - Product is handled in a manner to prevent physical and electrical damage. Electro-Static Discharge (ESD) and Moisture Sensitive Level (MSL) are taken into consideration as required. Only authorized Warehouse, Product Marketing, Tech Sales and Quality employees handle product.

c. Packaging - Packaging is performed in accordance with written procedures. Whenever possible, material is kept in the manufacturer's original packaging. Standard packaging methods minimize shipping damage to the product while in transit to the customer facility. ESD parts are packaged in ESD protective material. MSL parts are packaged with MSL protection and precautions when required by customers.

d. Storage - Material is stored in individual bin locations. The storage areas are clean, neat, and temperature-controlled to the extent necessary to minimize lead contamination and ESD. The condition of products is assessed during the cycle count process. Receipt and withdrawal of inventory is controlled and maintained to assure effective storage of the inventory. All materials with a specified shelf life are controlled to assure their use within the specified period or disposal outside the specified period.

e. Protection - Where necessary product is protected from ESD and with MSL precautions.

7.6 Control of Monitoring and Measuring Equipment

Monitoring and Measuring Equipment is defined as Test Measurement and Diagnostic Equipment (TMDE), a device used to measure a parameter critical to a decision affecting the meeting of customer requirements. Mouser has determined when and where TMDE is needed based upon the necessary measurements to be made and the amount of accuracy required. The Director of Quality is responsible for administrating the TMDE program. See procedure [QS-PR-012 TMDE Program](#) for more details.

7.6.1 Procedures describe and control the use of TMDE. Employees using TMDE will be trained to use it properly, if necessary.

7.6.2 TMDE is calibrated and re-calibrated at specified intervals. Calibration is performed by external calibration organizations. Calibrations will be traceable to nationally recognized measurement standards. Intervals for re-calibration will be set to ensure in tolerance performance for the duration of the interval. The Director of Quality will select the calibration organization.

7.6.3 TMDE will have a calibration label. The label will identify the equipment, the date

calibrated and the date due calibration. The TMDE will have a calibration certificate which will be kept on file as part of the equipment's calibration record.

7.6.4 TMDE is sealed using void if broken seals to safeguard it from adjustment which invalidate the results of the measurement.

7.6.5 TMDE is stored and used in controlled environments. Preventive maintenance other than re-calibration is performed as needed per OEM procedures.

7.6.6 Personally owned TMDE is not allowed at Mouser.

7.6.7 When TMDE is discovered to be out of tolerance the Logistics Manager will evaluate the validity of previous measurements and take appropriate actions.

7.6.8 TMDE at Mouser is not controlled by separate software

8.0 Measurement, Analysis and Improvement

8.1 General

Mouser plans and implements the monitoring, measurement, analysis, and improvement processes needed to demonstrate meeting product requirements. See section 8.2.4.

8.1.1 Mouser plans and implements the monitoring, measurement, analysis, and improvement processes needed to ensure the Quality Management System meets requirements. See section 8.2.3.

8.1.2 Mouser plans and implements the monitoring, measurement, analysis, and improvement processes needed to continually improve the effectiveness of the Quality Management System. See section 8.4.

8.1.3 Quality System measurements are described procedure [QS-PR-006 Quality Measurements](#).

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction/Loyalty

Mouser utilizes survey results to monitor customer perceptions as to whether Mouser has met customer requirements; and survey and reports to measure customer loyalty. Results are reviewed in Management Review. See [QS-PR-006 Quality Measurements](#) for more detail.

8.2.2 Internal Audit

Mouser has implemented and maintains an Internal Audit Program. The responsibilities and requirements for planning and conducting audits and for reporting results and maintaining records are defined in procedure [QS-PR-005 Audit Procedure](#).

8.2.2.1 The objective of the Internal Audit program is to ensure the Quality Management System:

- conforms to the planned arrangements described in procedures and plans
- conforms to ISO9001:2008
- conforms to the Quality Management System requirements set by Mouser -See section 1.0
- is effectively implemented
- is maintained

8.2.2.2 Internal audits are conducted at planned intervals according to the Internal Audit Schedule. Audits are planned based on the status and importance of the process and area to be audited, as well as previous audit results. The audit criteria, scope, frequency, and methods will be defined.

8.2.2.3 Internal auditors are trained. Internal auditors will be selected by the Director of Quality. The selection of auditors and conducting of audits will ensure objectivity and impartiality of the audit process. Auditors will not audit their own work.

8.2.2.4 Findings found during Internal Audits will have a formal Corrective Action requested. Findings are defined as: A group of non-conformities which indicate a breakdown in a process, function, or element of a standard. The Director of Quality will decide when a Corrective Action is appropriate. Follow-up will be in accordance with the [QS-PR-002 Corrective Action Program](#).

8.2.3 Monitoring and Measurement of Processes

Mouser monitors or measures key processes which indicate the health of the Quality Management System. Key processes include Corrective/Preventives Action Metrics, Internal Audit Metrics and Supplier Performance Metrics. Appropriate corrective action will be taken when planned results are not achieved.

8.2.4 Monitoring and Measurement of Product

Mouser is a distributor and therefore measures the processing of customer orders. Orders are monitored throughout the process via Mouser Business System.

Customer Orders are verified by qualified Order-Pullers or Inspectors for accuracy against the System before final shipment. Acceptance by the qualified Order-Pullers or Inspector is recorded on WCS. Qualified Order-Pullers and Inspectors are authorized to release orders to shipping for processing. Shipping will not process orders unless they have been properly authorized by a qualified Order-Puller or Inspector.

Order accuracy and on-time delivery are measured by Quality on a monthly basis and reported to Management. See procedure [QS-PR-006 Quality Measurements](#) for details.

8.3 Control of Nonconforming Product

Mouser has a number of processes for the identification and control of nonconforming products. They are summarized in procedure [QS-PR-007 Nonconforming Product Control](#). Procedure QS-PR-007 defines the controls and responsibilities for dealing with nonconforming product. Nonconforming product is defined as:

- a. orders which do not meet customer requirements

- b. parts and components not meeting the requirements of Mouser's Purchase Order
- c. parts and components returned from the customer
- d. parts and components incorrectly stocked discovered during inventory activities

8.3.1 Each procedure will describe the corrective action required and how the nonconformity will be recorded. The record will include a description of the nonconformity, any actions taken, and if needed, any concessions obtained. Nonconformity records will be maintained in accordance with the nonconformity procedure and procedure [QS-PR-008 Record Control](#). The nonconformity procedure will also address re-verification, if necessary.

8.3.2 When nonconforming product is discovered by the customer, a Service Order is opened by Sales. The customer is issued an RMA. If the customer wishes replacements, a Correction Order is issued to correct the order. When the defective product is returned the error is recorded in the SDR (Supplier Discrepancy Report) System. Product Management will review the defective products and if necessary send the product to the supplier for evaluation. If the supplier indicates the product is defective, the inventory is pulled. Customers who have purchased this product will be notified by Sales, as needed.

8.3.3 When nonconforming product is identified by the supplier, the Product Recall process will be initiated per procedure by Product Marketing. Customers will be notified. See procedure [PTOP-PR-011 Product Recall](#) for details.

8.4 Analysis of Data

Mouser determines, collects, and analyzes data to demonstrate the continuing suitability and effectiveness of Mouser's Quality Management System. Analysis is performed on measurements previously discussed in this Quality Manual and developed within the Quality Management System. A comprehensive list of these measurements is maintained by the Management Representative. These measurements are also reviewed in Management Review. See procedure [QS-PR-006 Quality Measurement](#) for details.

8.5 Improvement

8.5.1 Continual Improvement Mouser continually improves the effectiveness of the Quality Management System by using the Quality Policy, Quality Objectives, Audit Results, Management Review, Corrective and Preventive Actions, and any other appropriate analysis of data. Mouser will seek out improvement opportunities. The requirement to seek out improvements will be documented in the Management Review Process. Continual process improvement is measured and monitored by the measure of Quality. See procedure [QS-PR-014 Process Improvement and Control Procedure](#) for details.

8.5.2 Corrective Actions Mouser maintains a comprehensive Corrective Action Program for the Quality Management System. Corrective actions will be appropriate for the problem. Corrective actions are classified at Mouser as "Simple" or "Formal".

8.5.2.1 A simple corrective action is single transaction based, such as correcting an error in a document, a line of code in a program, or correcting a single customer order or complaint. The key is a single problem with little or no chance of it happening again. These type of problems are evaluated and handled in local procedures as needed. Employees correcting these

problems should always evaluate the need for formal corrective action and suggest it, if appropriate. The important factor to consider is the cost of performing formal corrective action versus the potential savings from the corrected problem. If unsure, Management will be consulted.

8.5.2.2 A formal corrective action is the documented process for performing corrective action as described in procedure [QS-PR-002 Corrective Action Program](#). Formal corrective actions are performed when problems fail to be simple.

8.5.2.3 Formal Corrective Actions are mandatory for findings on the following processes:

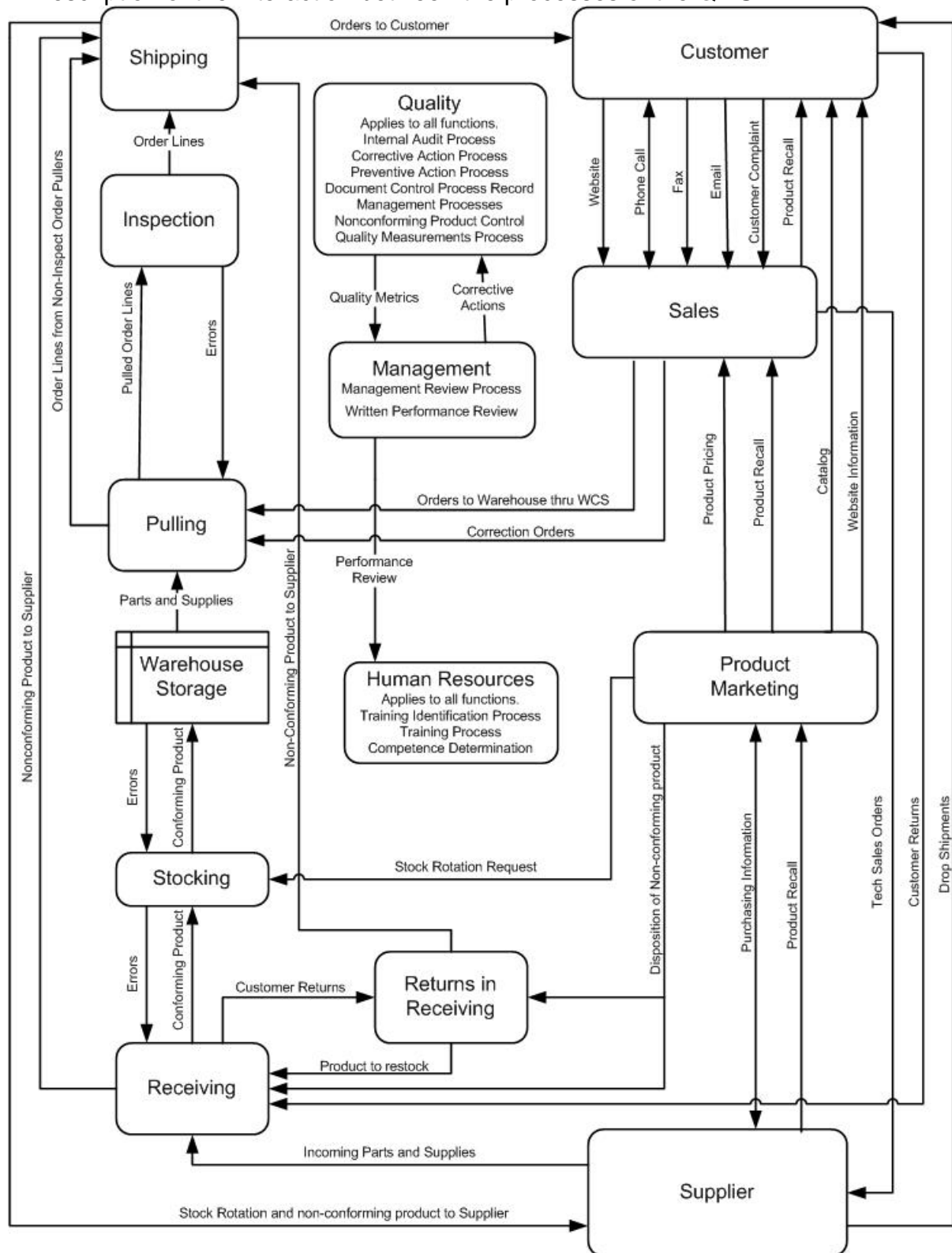
- a. Internal Audit Findings
- b. External Audit Findings
- c. Customer Audit Findings
- d. Customer Corrective Actions

8.5.3 Preventive Action

The Preventive Action program is designed to detect, analyze, and eliminate causes of potential nonconformities. All steps of the Preventative Action will be recorded and all Preventative Action plans will have their effectiveness evaluated in accordance with procedure [QS-PR-003 Preventive Action Program](#).

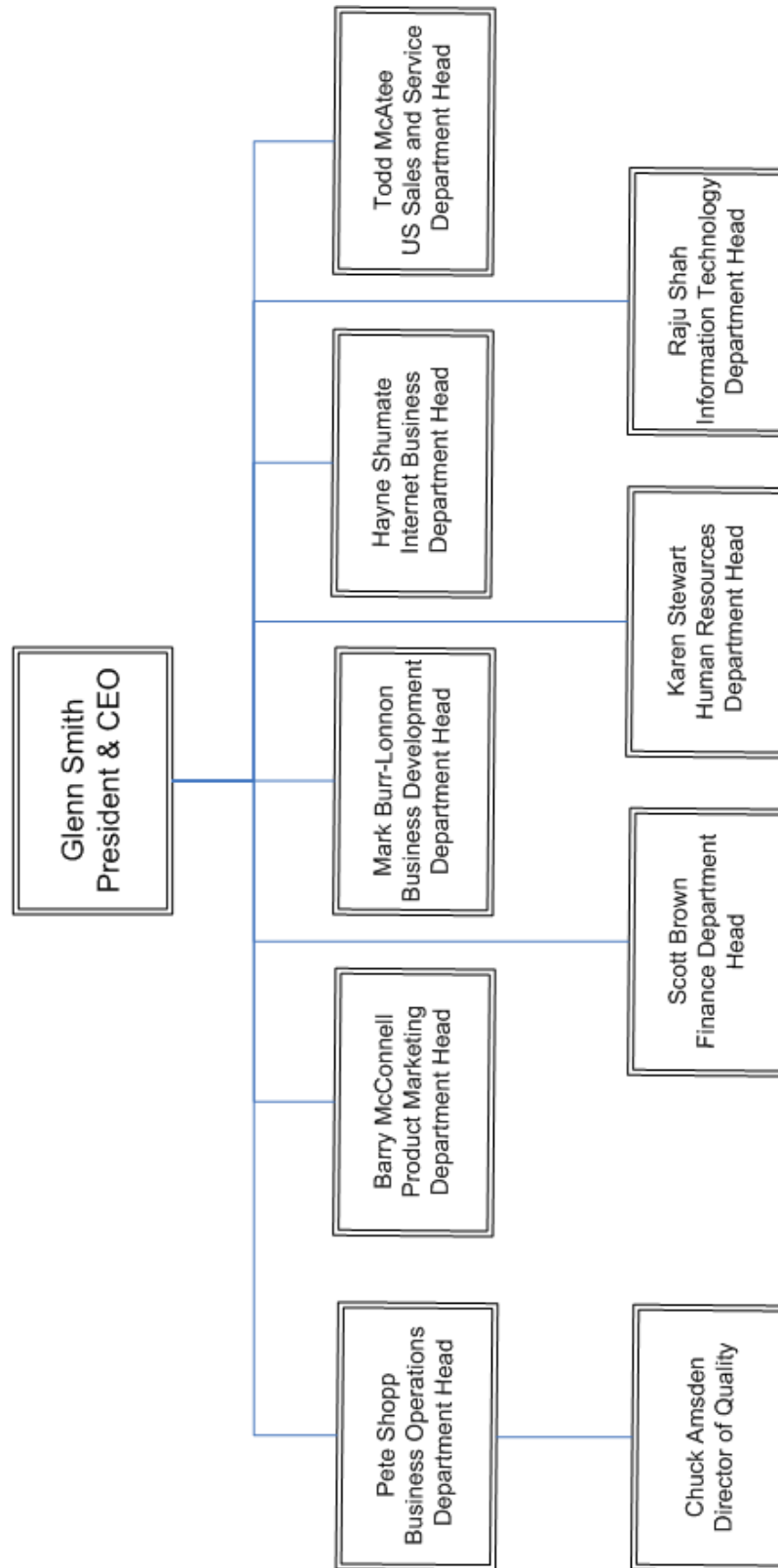
Appendix A: Process Map

A Description of the interaction between the processes of the QMS.



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Appendix B: Organizational Chart



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Appendix C: Quality Manual Revision History

Date	Rev	Description	Approved by:
3/15/04	-	Original	Glenn Smith Chuck Amsden
5/30/04	A	Changes to 1.0 para 2. Added Appendix A. Added when required to 4.1.2, Added procedure ref. 4.2.1d. Added resourcing to 5.1. Revised Quality Objective to "High", 5.4.1, changed frequency of management review, 5.6.1. Total revision of 7.1. Included Mail and email to 7.2.2. Define responsibility, 7.4.1. Added 7.4.2.2. Revised 7.5.3. Added 8.1.3 on Quality Measurement procedure. Expanded 8.2.2.1. Added audit criteria, scope, freq. and methods to 8.2.2.2. Revised 8.2.2.4. Added goals to 8.2.3. Added 2 nd sentence to 8.2.4. Added procedure ref. to 8.5.3. Revised Appendix B to be Product Realization flow	Glenn Smith Chuck Amsden
7/12/04	B	Deleted exclusion for 7.5.2. Revised Appendix A and B for accuracy. Revised to WCS, deleted picklist.	Glenn Smith Chuck Amsden
8/10/04	C	Deleted ref. to appendix A in 4.1 a and b. Removed "general" from last sentence of section 4.2.2. Changed Ref on Appendix. Corrected number error, section 4.2.2.2. Revised Quality Policy, section 5.3. Added records to 7.1. Revised 8.3 to reference single procedure. Added reference to Product Recall process, section 8.3.3. Deleted appendix B. Revised appendix A.	Glenn Smith Chuck Amsden
8/18/04	D	Revised Appendix A to Process Map.	Glenn Smith Chuck Amsden
9/14/04	E	Revised 7.4.1b to remove approved supplier list.	Glenn Smith Chuck Amsden
10/15/04	F	Added detail on out sourcing, section 4.1.2. Added procedure references throughout manual. Removed all ref. to work instructions. Added Org Chart, 4.2.2. Updated Scope of Quality System, 4.2.2.1. Added Mkt&Bis Devlp Dept Head to Quality Council and updated title on two, 5.1. Added 7.6.7 and 7.6.8 on Calibration. Revised 8.2.2.3 to clarify.	Glenn Smith President Chuck Amsden Quality Manager

Appendix C: Quality Manual Revision History (continued)

Date	Rev	Description	Approved by:
11/15/05	G	Revised section 8.3.2 to better align with standard. Revised Org Chart, appendix B, to add Tim Sanghera as Vice President of Marketing Sales.	Glenn Smith President Chuck Amsden Quality Manager
3/21/07	H	Updated Introduction, section 2.0. Revised Mission Statement, section 3.0. Designated Warehouse Manager to review out of tolerance TMDE, Section 7.6.7. Changed Quality Assurance to Returns in Receiving on the Process Map, Appendix A. Added IT Department Head to Organizational Chart Appendix B.	Glenn Smith President Chuck Amsden Quality Manager
9/14/07	J	Updated page numbers for Appendix B and Appendix C in Table of Contents. Changed Position Qualifications to Job Qualifications, section 6.2.2. Changed Warehouse Manager to Logistics Manager, section 7.6.7. Changed Quality Manager to Director of Quality throughout.	Glenn Smith President Chuck Amsden Director of Quality
8/25/08	K	Updated titles on Quality Council, 5.1. Updated title of Export system, 7.2.1. Updated 7.2.3.a for U.S. catalog x4/yr. Updated 7.2.3.e to include managers on website. Deleted procedure reference (last sentence) 7.5.5.d. Updated Appendix B: Organizational Chart.	Glenn Smith President Chuck Amsden Director of Quality
9/25/09	L	Revised to ISO 9001:2008 through out. Revised Quality Policy and Objectives. Removed exclusion for Customer Property. Updated 7.5.5.c and .d to include MSL. Changed "Void If Broken" to void if broken, section 7.6.4. Changed potential causes of non-conformities to causes of potential non-conformities.	Glenn Smith President Chuck Amsden Director of Quality

