QUALITY MANAGEMENT SYSTEM MANUAL
Procedure Number: ML-000

Micro Lambda, LLC

Microwave, RF, and Hybrid Microelectronic Products

www.microlambda.com

EFFECTIVE DATE: 4-20-11 **REVISION LEVEL:** 3

ORIGINATING GROUP: Management

APPROVED BY:

ON FILE	4-20-2011	**ON FILE**	4-20-2011
MANAGEMENT	**Date**	**MANAGEMENT**	**DATE**

Revision History

Revision #	Date	Description of changes
1		Revised and updated for Compliance with ISO 9001:2000 Standard
2	4-7-2009	Updated to reflect requirements of ISO 9001:2008 revision and inputs from internal audit
3	4-19-2011	Updated management representative organizational title; Updated section 5.4 to reference business continuity/recover process

( ) Attached is an uncontrolled copy of our Quality Manual.

Updates *will not* be provided upon revision change.

COMPANY OVERVIEW

Micro Lambda operates not only as a manufacturer's representative but also as a distributor of Microwave, RF, and Hybrid Microelectronic products. This dual role allows us to serve our customers more completely, and by extension our principals. Our broad product offering is a valued resource to the increasingly busy engineer and purchasing agent. "One stop shopping" often translates into the first look at an opportunity. These unique assets ensure our principals exposure to many new prospects and the widest possible customer base.

We function far beyond the role of a traditional manufacturer's representative by fulfilling a vital marketing support role. Our goal is to create new opportunities for your products. We cover our accounts vertically, selling to the engineering, purchasing, marketing and management departments. This affords you better market penetration as well as closer relationships with your customers. We customize a sales and marketing plan to each principal. In addition, Micro Lambda personnel are familiar with all the technologies in which our principals are involved.

Distributor for:

EMC Technology and Florida RF Labs Components and Cables	Flange Terminations	DC block
Temperature Variable Attenuators	Coaxial Terminations	Crossover
Fixed Attenuators	Coaxial Equalizer	Stripline Flange
Power Sensing Terminations	CVD Diamond Resistors	Flange Terminations
Terminations	CVD Diamond Chip Termination	Pill Terminations
Equalizers	Attenuators	Coaxial Remote Terminations
Coaxial attenuator	Couplers	Rod Resistor
Coaxial Switch	Power Dividers	
Surface mount terminations	Directional Couplers	

(1) TABLE OF CONTENTS

QUALITY POLICY

Micro Lambda is dedicated to supplying products and services that meet or exceed the expectations of all of our customers.

Our quality system demands continuous improvement through a partnership with our Customers, employees and suppliers to achieve our goal of

Total Customer Satisfaction

(2) INTRODUCTION

2.1 General

This Quality System Manual specifies requirements for Micro Lambda for use to satisfy customer requirements, and meet applicable regulatory requirements and ISO 9001:2008 requirements. This manual is supported by additional procedures.

2.2 Process Approach

This Manual has adopted the process approach to quality management. Figure 2 is a conceptual illustration of the process approach at Micro Lambda

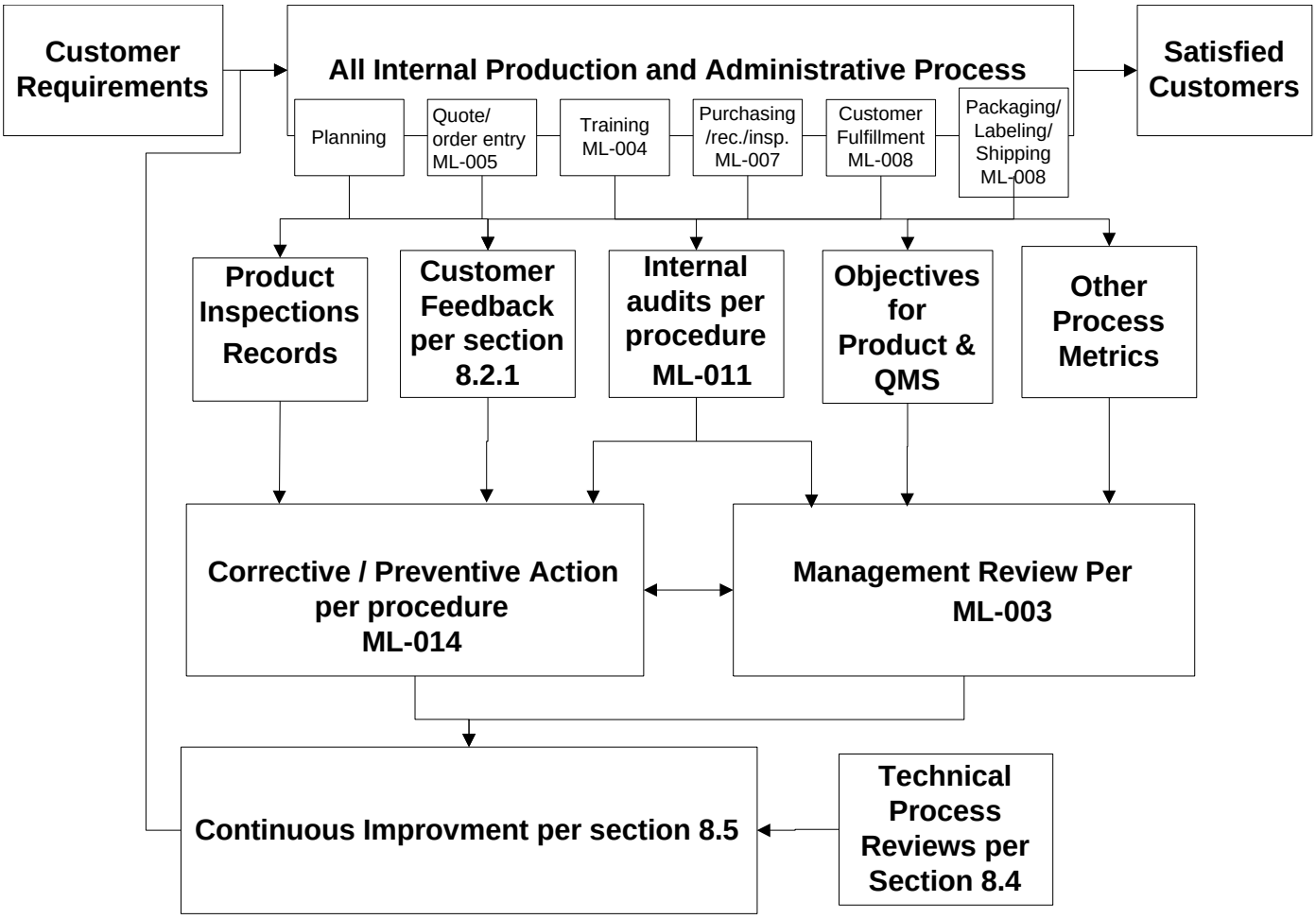

Figure 2 Overview to Micro Lambda's Quality Management System processes

(3) SCOPE

3.1 General

This document specifies requirements for a quality management system where Micro Lambda provides sales and distribution of Microwave, RF and Hybrid Microelectronic products. The companies we distribute for are EMC Technology and Florida RF Labs.

a) Demonstrating its ability to provide consistent product that meets customer and applicable regulatory requirements, and
b) Addressing customer satisfaction through the effective application of the system, including processes for continual improvement and the prevention of nonconformity.

3.2 Permissible Exclusions

Micro Lambda does not perform design development activities, manufacturing activities or ***post delivery*** service activities as defined by the ISO 9001:2008 Standard

(4) QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

Micro Lambda establishes, documents, implements, maintains, and continually improves a quality management system in accordance with the requirements of ISO 9001:2008.

For implementing and maintaining the quality management system, Micro Lambda:

a) Identifies the processes needed for the quality management system;
b) Determines the sequence and interaction of these processes;
c) Determines criteria and methods required to ensure the effective operation and control of these processes;
d) Ensures the availability of information necessary to support the operation and monitoring of these processes;
e) Measures, monitors and analyzes these processes and implements action necessary to achieve planned results and continual improvement.
f) When Micro Lambda chooses to outsource any process at affects product and QMS conformity, The defining of requirements and control over the selected outsourced process is defined within the QMS

Micro Lambda manages all processes contemplated in this Quality System Manual in accordance with the requirements of ISO 9001:2008.

4.2 Documentation Requirements

4.2.1 General

The quality management system documentation includes:

a) Procedures required per ISO 9001:2008;
b) Documents required by Micro Lambda to ensure the effective operation and control of its processes;
c) Records that demonstrate compliance to Quality Management System, *ISO 9001:2008* and product requirements.

The extent of the quality management system documentation at Micro Lambdas dependent on the following;

- The complexity and interactions of the processes
- The competence of personnel.

The levels of documentation and instructions include:

Level 1—Quality System Manual—A description of Micro Lambda method of establishing, implementing, and maintaining a quality program that meets the requirements of the ISO 9001:2008 Standard.

Level 2 —Procedures that describe overall activities corresponding to the major sections of this manual. These are management policy in nature.

Level 3—Instructions in detail of such activities as how to operate equipment, and inspect/test.

Level 4—Forms, tags, labels, stamps, travelers, records.

4.2.2 Quality Manual

This quality system manual has been established and maintained to include:

a) The scope of the quality management system, including details and justification for any exclusion;
b) Reference to documented procedures;
c) A description of the sequence and interaction of the processes included in the quality management system.

This quality manual is maintained as a part of the controlled document program to ensure accuracy of content.

4.2.3 Control of Documents

Documents required for the quality management system are controlled through Micro Lambda document control program. This documented program has been established:

a) To approve documents for adequacy prior to issue;
b) To review, update as necessary, and re-approve documents;
c) To identify the current revision status of documents;
d) To ensure that relevant versions of applicable documents are available at points of use;
e) To ensure that documents remain legible, readily identifiable, and retrievable;
f) To ensure that documents of external origin determined to be required for the effective operation of the QMS are identified and their distribution controlled;
g) To prevent the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose.

The program is defined in procedure ***ML-001 "Document and Data Control"***

4.2.4 Control of Quality Records

All records are kept per procedure **ML-*002 "Quality Records Administration".*** Such records are maintained to provide evidence of conformance to the requirements and of effective operation of the quality management system. Records are also maintained to demonstrate compliance to customer, regulatory, and Micro Lambda requirements.

(5) MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

Micro Lambda's management provides evidence of commitment to the development and improvement of the quality management system by:

a) Communicating to our employees the importance of meeting customer requirements as well as identified regulatory and legal requirements;
b) Establishing the quality policy and quality objectives;
c) Conducting management reviews;
d) Ensuring the availability of necessary resources to sustain the quality management system.

5.2 Customer Focus

Micro Lambda Management ensures that customer needs and expectations are identified, converted into requirements, and fulfilled with the aim of achieving customer satisfaction.

5.3 Quality Policy

Micro Lambda management has defined the Company's quality policy. This policy:

a) Is appropriate to the purpose of Micro Lambda;
b) Includes a commitment to meet requirements and continual improvement;
c) Provides a framework for defining, establishing, documenting, and reviewing quality objectives;
d) Is communicated and understood at appropriate levels within the company; and
e) Is reviewed for continuing suitability

The policy is explained during orientation training so that each employee thoroughly understands the policy.

Micro Lambda Quality Policy can be found on page 5 of this manual

5.4 Planning

5.4.1 Quality Objectives

Micro Lambda management ensures that quality objectives for the whole organization are established and communicated. These quality objectives are measurable and consistent with the quality policy and include the commitment to continual improvement as well as those needed to meet requirements for product. The quality objectives are assessed at least annually to ensure they are still relevant to Micro Lambda plans.

5.4.2 Quality Planning

Micro Lambda management ensures that the resources needed to achieve the quality objectives are identified and planned. The quality plan is documented. The President ensures that organizational changes are conducted in a controlled manner and that the integrity of the quality management system is maintained during any changes.

To ensure the meeting of customer requirements in cases of unforeseen issues, Micro Lambda maintains a documented business continuity/recovery process

5.5 Responsibility, Authority and Communication

The following clauses describe the administration of the quality management system at Micro Lambda

5.5.1 Responsibility and Authority

Micro Lambda management ensures that responsibilities and authorities within the Quality Management System are defined with their interrelations within Micro Lambda. The organization chart is available within the company to communicate and facilitate effective quality management. Micro Lambda has defined and communicated these responsibilities in the form of job descriptions maintained by management.

5.5.2 Management Representative

Micro Lambda management assigned the Vice President of Distribution, a member of the organizational management, with the responsibilities of the management representative and thus:

a) Ensuring that processes of the quality management system are established and maintained;
b) Reporting to top management on the performance of the quality management system, including needs for improvement;
c) Promoting awareness of customer requirements throughout Micro Lambda.
d) Acting as liaison with external parties on matters relating to the quality management system.

5.5.3 Internal Communication

Micro Lambda has created appropriate processes to ensure communication among its various levels and functions regarding the processes of the quality management system and their effectiveness.

5.6 Management Review

5.6.1 General

Micro Lambda management team reviews the quality management system on an ongoing basis to ensure its continuing suitability, adequacy, and effectiveness. This review evaluates any need for changes to Micro Lambda Quality Management System, including its quality policy and quality objectives.

5.6.2 Review Input

Input to management review includes current performance and improvement opportunities related to the following:

a) Audit results;
b) Feedback from internal and external customers;
c) Process performance and product conformance;
d) Vendor performance;
e) Review of resources, training needs
f) Status of preventive and corrective actions;
g) Follow-up actions from earlier management reviews;
h) Changes that could affect the quality management system.

5.6.3 Review Outputs

The Management Review will include actions related to:

a) Improvement of the quality management system and its processes;
b) Improvement of product related to customer requirements;
c) Resource needs.

Results of management reviews are conducted and records maintained according to procedure ***ML-003 "Management Review".***

(6) RESOURCE MANAGEMENT

6.1 Provision of Resources

Micro Lambda's management reviews resources as needed. The organizational resources needed are provided.

6.2 Human Resources

6.2.1 Assignment of Personnel

Personnel who are assigned responsibilities defined in the quality management system and organizational chart and those who work can

directly or indirectly affect conformity to product requirements are deemed competent on the basis of applicable education, training, skills, and experience.

6.2.2 *Competence, Training and Awareness*

Micro Lambda

a) Utilizes job descriptions *contained in the job description table* to Determine necessary competency requirements for personnel performing activities affecting conformity to product and QMS requirements;
b) Provides training or take appropriate actions to achieve the necessary competence;
c) Evaluates the effectiveness of the training provided;
d) Ensures that its employees are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives;
e) Maintains appropriate records of education, experience, training, and qualification.

The management rep. maintains job description table, including the responsibility and authority with respect to ***product and QMS*** requirements for each individual.

The program is defined in procedure ***ML-004 "Competency & Training"***

6.3 Infrastructure

Micro Lambda provides and maintains its facilities to achieve the conformity of product, including:

a) Workspace and associated facilities;
b) Equipment, hardware, and software;
c) Supporting services (such as transport, communication and informational systems).

6.4 Work Environment

Micro Lambda maintains its facilities to identify and manage the human and physical factors of the work environment including safety, working conditions, potential external influences needed to achieve product conformity, as appropriate.

(7) PRODUCT REALIZATION

7.1 Planning of Realization Processes

The sequence of processes and sub-processes required to achieve the product defines product realization. Planning of these realization processes is consistent with the other requirements of Micro Lambda quality management system and is documented in forms suitable for Micro Lambda method and areas of operation. In

planning the processes for realization of product Micro Lambda has determined the following, as appropriate:

a) Quality objectives for the product, project, or contract;
b) The need to establish processes and documentation, and provide resources and facilities specific to the product;
c) Verification, monitoring, measurement and validation activities, and the criteria for *product* acceptability;
d) Records are necessary to provide confidence of conformity of the processes and resulting product.

Documentation that describes how the processes of the quality management system are applied for a specific product, project, or contract can be referred to as a quality plan.

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

Micro Lambda determines customer requirements, including:

a) Product requirements specified by the customer, including the requirements for availability, delivery, and support;
b) Product requirements not specified by the customer but necessary for the intended or specified use;
c) Obligations related to product, including ***applicable*** regulatory, ***statutory*** and legal requirements.

7.2.2 Review of Requirements Related to the Product

Micro Lambda reviews the identified customer requirements together with any additional requirements determined. Contract review is conducted prior to the commitment to supply a product to the customer (e.g. submission of a tender, acceptance of a contract or order) and ensures that:

a) Product requirements are defined;
b) Where the customer provides no documented statement of requirement, the customer requirements are confirmed by Micro Lambda before acceptance;
c) Contract or order requirements differing from those previously expressed (e.g. in a tender or quotation) are resolved;
d) Micro Lambda has the ability to meet defined requirements.

The results of the review and subsequent follow-up actions are recorded. Where product requirements are changed, Micro Lambda ensures that relevant documentation is amended. Micro Lambda communicates any changes to relevant personnel to ensure they are made aware of the changed requirements.

The results of contract reviews are documented and filed. Customer in chronological order organizes individual records.

7.2.3 Customer Communication

Micro Lambda arranges communication with customers relating to:

a) Product information;
b) Inquiries, contracts, or order handling, including amendments;
c) Customer feedback, including customer complaints.

The program is defined in procedure ***ML-005 "Quote and Order Entry Process"***

7.3 Design and Development

Micro Lambda does ***not maintain capability to*** perform design and development activities as defined in the ISO 9001 Standard. Micro Lambda does support customers in defining product requirements.

7.4 Purchasing

7.4.1 Purchasing Control

Micro Lambda has established purchasing processes to ensure purchased product conforms to requirements by:

a) Evaluating and selecting its suppliers based on their ability to supply product in accordance with its requirements;
b) Defines the type and extent of control to be exercised depending upon the type of product, the impact of purchased product on the quality of final product, and previously demonstrated capability and performance of Suppliers;
c) Monitoring suppliers' continuous ability to meet requirements set forth by Micro Lambda.

The results of evaluations and follow-up actions are recorded.

7.4.2 Purchasing Information

Purchasing documents contain information describing the product to be purchased, including where appropriate:

a) Requirements for approval or qualification of
    1. product,
    2. procedures,
    3. processes,
    4. equipment, and
    5. personnel;
b) Quality management system requirements.

Micro Lambda purchasing manager ensures the adequacy of specified requirements contained in the purchasing documents prior to their release.

7.4.3 Verification of Purchased Products

Micro Lambda performs the activities necessary for verification of purchased product to requirements

While uncommon, when Micro Lambda or its customer proposes to perform verification activities at the supplier's premises, Micro Lambda will specify the intended verification arrangements and method of product release in the purchasing information.

The program is defined in procedure ***ML-007 "Purchasing Process"***

7.5 *"Customer Fulfillment Process*

7.5.1 Control of Distribution

Micro Lambda controls distribution operations through:

a) The availability of information that specifies the characteristics of the product;
b) Where necessary, the availability of work instructions;
c) The use and maintenance of suitable equipment for production
d) The availability and use of measuring and monitoring ***equipment***;
e) The implementation of monitoring activities;
f) The implementation of defined processes for ***product*** release and delivery.

7.5.2 Validation of Processes

Validation demonstrates the ability of the processes to achieve planned results. In cases where resulting output cannot be verified by subsequent monitoring or measurement and as a consequence, deficiencies do not become apparent only after the product is put in use

Micro Lambda has defined arrangements for validation that include the following, as applicable:

a) Qualification of processes;
b) Qualification of equipment and personnel;
c) Use of defined methodologies and procedures;
d) Requirements for records;
e) Re-validation.

7.5.3 Identification & Traceability

Micro Lambda identifies, where appropriate, the product by suitable means throughout production. Status is identified with respect to measurement and monitoring requirements. Micro Lambda controls and records the unique identification of the product by use of product name/specification number/distribution specification and lot number.

7.5.4 Customer Property

While not a common practice, Micro Lambda will identify, verify, protect, and maintain customer property (including intellectual property given in confidence) provided for use or incorporation into the product. Occurrence of any customer property that is lost, damaged or otherwise found to be unsuitable for use ***is documented,*** reported to the customer ***and records maintained.***

7.5.5 Preservation of Product

Micro Lambda preserves received raw materials, in-processes, and final product conformity to Micro Lambda and customer requirements during internal processing and delivery to the intended destination. This includes identification, handling, packaging, storage, and protection and applies to the constituent parts of a product.

7.5.6 Counterfeit Product Prevention and Control

Micro lambda works to ensure the authenticity of product by only securing product directly from manufactures that Micro Lambda represents

Micro Lambda does not deal with Brokers, or aftermarket dealers for supplying customers with product.

An overview of ML customer fulfillment process is described in ***ML-008 "Customer Fulfillment Process Overview"***

7.6 Control of Measuring and Monitoring *Equipment*

Micro Lambda identifies the measurements to be made as well as the measuring and monitoring ***equipment*** required to ensure product conformity to specified requirements. Measuring and monitoring ***equipment*** used are controlled to ensure that measurement capability is consistent with the measurement requirements. Where applicable, measuring and monitoring ***equipment*** are:

a) Calibration *status* verified and adjusted when required at established schedule or prior to use. Verification activities are conducted against standards/equipment traceable to international or national standards; where no such standards exist, the basis used for calibration is recorded;
b) Safeguarded from adjustments that would invalidate the calibration;
c) Protected from damage and deterioration during handling, maintenance, and storage;
d) To have the results of the equipment calibration including acceptance criteria recorded
e) To have the validity of previous results re-assessed if they are subsequently found to be out of calibration, and if determined

necessary, corrective action taken. Records of the assessments and any action taken is maintained

Non-commercial or customized software used for measuring and monitoring of specified requirements is validated prior to use.

The program is defined in procedure ***ML-008 " Customer Fulfillment Process Overview"***

(8) MEASUREMENT, ANALYSIS AND IMPROVEMENT

8.1 Planning

Micro Lambda defines, plans, and implements the measurement and monitoring activities needed to demonstrate conformity to product and QMS requirements and achieve continuous improvement. This includes the determination of the need for, and use of, applicable methodologies, including statistical techniques.

8.2 Measurements and Monitoring

8.2.1 Customer Satisfaction

Micro Lambda monitors information on customer satisfaction and/or dissatisfaction as one of the measurements of performance of the quality management system.

8.2.2 Internal Audit

Micro Lambda conducts internal audits to determine whether the quality management system conforms to the requirements of ISO 9001:2008 and has been effectively implemented and maintained.

Micro Lambda develops an annual audit plan, taking into consideration the status and importance of the activities and areas to be audited as well as the results of previous audits. The audit scope, frequency and methodologies are to be re-defined at that time. Personnel other than those who perform the activity being audited conduct audits. Procedure **ML-011** ***"Internal Auditing"*** identifies the responsibilities and requirements for conducting audits, ensuring the auditors independence, audits are conducted in an impartial and objective manner, recording results, and reporting to management. The Manager responsible for the area being audited takes timely ***correction or*** corrective action on deficiencies found during the audit. Follow-up actions include the verification of the implementation of corrective action and the reporting of verification results.

Records of the audits and their results are maintained

8.2.3 Measurement and Monitoring of Processes

Micro Lambda applies suitable methods for measurement and monitoring of those realization processes necessary to meet requirements. These methods confirm the continuing ability of each process to satisfy its intended purpose. ***When planned activities are not achieved, appropriate correction or corrective action is taken***

8.2.4 Measurement and Monitoring of Product

Micro Lambda measures and monitors the characteristics of the product to verify that requirements for the product are met. This is carried out at appropriate stages of the product realization process. Evidence of conformity with the acceptance criteria is documented. Records will indicate the authority responsible for release of product ***to customer***. Product release will not proceed until all the specified activities have been satisfactorily completed, unless otherwise approved by the customer.

8.3 Control of Nonconforming Product

Micro Lambda ensures that product that does not conform to requirements is identified and controlled to prevent unintended use or delivery. These activities are defined in documented procedure***. ML-013 "Nonconforming Material Control"***

Nonconforming product is corrected and subject to re-verification after correction to demonstrate conformity. When nonconforming product is detected after delivery or use has started, Micro Lambda takes appropriate action regarding the consequences of the nonconformity. It may be required that the proposed rectification of nonconforming product be reported for concession to the customer, the end-user, regulatory body, or other body as applicable.

8.4 Analysis of Data

Micro Lambda collects and analyzes appropriate data to determine the suitability and effectiveness of the quality management system and to identify improvements that can be made. This includes data generated by measuring and monitoring activities and other relevant sources.

Micro Lambda analyzes this data to provide information on:

a) Customer satisfaction and/or dissatisfaction;
b) Conformance to customer/product/QMS requirements;
c) Characteristics of processes, product, and their trends including opportunities for corrective actions;
d) Suppliers.

8.5 Improvement

8.5.1 Planning for Continual Improvement

Micro Lambda plans and manages the processes necessary for the continual improvement of the quality management system. Micro Lambda facilitates the

continual improvement of the quality management system through the use of the quality policy, objectives, audit results, analysis of data, corrective and preventive action, and management review.

8.5.2 Corrective Action

Micro Lambda takes corrective action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective action is to be appropriate to the impact of the problems encountered.

Micro Lambda documented procedure for corrective action defines requirements for:

a) Identifying nonconformities (including customer complaints);
b) Determining the causes of nonconformity;
c) Evaluating the need for actions to ensure that nonconformities do not recur;
d) Determining and implementing the corrective action needed;
e) Recording results of action taken;
f) Reviewing and documenting the effectiveness of corrective action taken.

8.5.3 Preventive Action

Micro Lambda identifies preventive action to eliminate the causes of potential nonconformities to prevent occurrence. Preventive actions taken are appropriate to the impact of the potential problems.

Micro Lambda documented procedure for preventive action, defines requirements for:

a) Identifying potential nonconformities and their causes;
b) Determining and ensuring the implementation of preventive action needed;
c) Recording results of action taken;
d) Reviewing and documenting the effectiveness preventive action taken.

Micro Lambda corrective and preventive action processes are defined in procedure **ML-014** ***"Corrective and Preventive Action Program"***