Wireless Telecom Group

Boonton Microlab Noisecom

Parsippany, NJ

QUALITY ASSURANCE MANUAL

TABLE OF CONTENTS

SECTION	REFERENCE	TITLE	PAGE
0.1		Title Page…….	1
0.2		Table of Contents……	2
0.3		Forward……	5
0.4		Document Control……	6
0.5		Statement of Authority……	7
0.6		Quality Policy…….	8
1.0		SCOPE AND APPLICATION……	9
2.0		DEFINITIONS……..	10
3.0		REFERENCES…….	11
4.0		QUALITY MANAGEMENT SYSTEM…..……	12
	4.1	**General Requirements**……	12
	4.2	**Documentation Requirements**……	12
	4.2.1	General……...	12
	4.2.2	Quality Manual……..	12
	4.2.3	Control of Documents……..	13
	4.2.4	Control of Records……	13
5.0		MANAGEMENT RESPONSIBILITY……	14
	5.1	**Management Commitment**……	14
	5.2	**Customer Focus**……..	14
	5.3	**Quality Policy**…….	15
	5.4	**Planning**……..…	15
	5.4.1	Quality Objectives……	15
	5.4.2	Quality Management System Planning…….	16
	5.5	**Responsibility, Authority and Communication**……..	16
	5.5.1	Responsibility and Authority……	16
	5.5.2	Management Representative……...	16
	5.5.3	Internal Communication……...	16
	5.6	**Management Review**……...	17
	5.6.1	Management Review General……	17
	5.6.2	Review Inputs……	17
	5.6.3	Review Outputs…….	17
6.0		RESOURCE MANAGEMENT…….	18
	6.1	**Provision of Resources**……..	18
	6.2	**Human Resource**s…….	18
	6.2.1	General…….	18
	6.2.2	Competence, Awareness and Training……	18
	6.3	**Infrastructure**……	19
	6.4	**Work Environment**……..	19

TABLE OF CONTENTS

SECTION	REFERENCE	TITLE	PAGE
7.0		PRODUCT REALIZATION……...	20
	7.1	**Planning of Product Realization……...**	20
	7.2	**Customer Related Processes**……	20
	7.2.1	Determination of Requirements Related to Product……	20
	7.2.2	Review of Requirements Related to Product……	21
	7.2.3	Customer Communication……..	21
	7.3	**Design and Development**……..	21
	7.3.1	Design and Development Planning…….	21
	7.3.2	Design and Development Inputs…….	22
	7.3.3	Design and Development Outputs……..	22
	7.3.4	Design and Development Review……	22
	7.3.5	Design and Development Verification…….	22
	7.3.6	Design and Development Validation……	22
	7.3.7	Control of Design and Development Changes…….	23
	7.4	**Purchasing**…….	23
	7.4.1	Purchasing Process……..	23
	7.4.2	Purchasing Information……	23
	7.4.3	Verification of Purchased Product……...	24
	7.5	**Production**…….	24
	7.5.1	Control of Production……..	24
	7.5.2	Validation of Process for Production……..	24
	7.5.3	Identification and Traceability……	24
	7.5.4	Customer Property……..	25
	7.5.5	Preservation of Product……..	25
	7.6	**Control of Monitoring and Measuring Equipment**……..	25
8	MEASUREMENT, ANALYSIS AND IMPROVEMENT……..		26
	8.1	**General**…….	26
	8.2	**Monitoring and Measurement**……	26
	8.2.1	Customer Satisfaction…….	26
	8.2.2	Internal Audit……..	26
	8.2.3	Monitoring and Measuring of Processes…….	27
	8.2.4	Monitoring and Measuring of Product……	27
	8.3	**Control of Nonconforming Product**……	28
	8.4	**Analysis of Data**……	28
	8.5	**Improvement**……	29
	8.5.1	Continual Improvement…….	29
	8.5.2	Corrective Action……..	29
	8.5.3	Preventive Action……...	30

TABLE OF CONTENTS

SECTION	REFERENCE	TITLE	PAGE
9		REVISION HISTORY……..	31
10		APPENDICES	
Appendix A: QMS Documentation			
		Hierarchy……..	32
Appendix B: Organization Chart……			33
Appendix C: Letter of Appointment……			34
	10.4	**Appendix D: Quality System**	
		Process Flowchart……	35-36

INTRODUCTION

FORWARD

Wireless Telecom Group, Inc. is comprised of technology companies serving the global wireless and telecommunications markets. Headquartered in Parsippany, New Jersey, our Company designs and manufactures a variety of products that further technological development in communications.

Wireless Telecom Group, Inc. targets opportunities that allow us to capitalize on our synergies and our talents. Our technological capabilities along with our customer service strategies lead us to success repeatedly.

Wireless Telecom Group (DBA as Boonton, Microlab, and Noise/Com)
is located at:
25 Eastmans Road
Parsippany, NJ 07054

QUALITY MANAGEMENT SYSTEM
DOCUMENT CONTROL

A copy of the Wireless Telecom Group Quality Assurance Manual is used on a controlled basis to the individuals below. The Document Control Manager is responsible for maintaining and updating all copies of the manual as revisions are authorized and implemented. Revisions are released to the document control master copy on line

Assignment of a manual number designates that copy of the manual as a controlled copy.

Uncontrolled copies will be made available on an as needed basis for customers, managers, and employees in order to better understand the Wireless Telecom Group Quality Management System. This distribution of uncontrolled copies of the manual is at the discretion of the ISO Management Rep. or Document Control.

Uncontrolled copies will not be assigned a control number nor will they be signed. Only controlled copies will be stamped “Controlled “in red ink.

History of revisions made to the manual is located at the end of the manual in Section 9.0.

Title	**Department**	**Copy #**
Master Copy	Document Control	On Line
ISO Mgmt. Rep	Operation	01

STATEMENT OF AUTHORITY

This manual is an overview of the documented Quality Management System that is in place at Wireless Telecom Group. The Quality Management System is designed to establish controls throughout the entire business process from Requests for Quote through the final delivery of the product.

The Quality Management System complies with all components of ISO 9001, which are required of Wireless Telecom Group.

Customers, management, and employees of Wireless Telecom Group may use this Quality Assurance Manual as the primary reference for understanding the Quality Management System. In addition to the manual, there are Quality System Procedures, work instructions, quality forms, and records that are part of this documented Quality Management System. The Quality Documentation Hierarchy is found in Appendix A of this document. These documents describe how a given process is performed and who is responsible for each step or action in that process. All personnel are required to receive training pertaining to the appropriate procedures, work instructions and the Quality Manual.

The CEO of Wireless Telecom Group has the overall responsibility for the Quality Management System. Management of this system has been delegated to the ISO Management Representative.

This Quality Assurance manual will be revised as necessary to reflect any changes that are made to the Quality Management System of Wireless Telecom Group products. The Management Rep. formally reviews this manual annually. Any changes or revisions to the manual will follow the Document Control stated on the previous page.

Parsippany, NJ July 2010

Signature on File-
Quality Assurance Manual Approval
Paul Genova
CEO/CFO

Signature on File-
Quality Assurance Manual Approval
Dom A. Lauria
QA Manager / ISO Mgmt Rep

QUALITY POLICY

”At Wireless Telecom Group, Inc. all employees are committed to achieving excellence in products, services and business processes by actively pursuing continuous improvement and sharing the vision of Total Customer Satisfaction.”

QUALITY OBJECTIVES

Once a year at a strategic planning meeting, Wireless Telecom Group management team will meet to establish our quality objectives. These objectives will be used to drive continuous improvement throughout Wireless Telecom Group. The basic requirements of our objectives will be used to:

- Establish quality objectives at relevant functions and departments.
- Make sure the objectives are measurable.
- Include objectives needed to meet product requirements.
- Communicate to all personnel the meaning of the objectives and how each of our employees helps to achieve them.
- At our management review meetings, evaluate the need for changes to our quality objectives.

1.0

SCOPE

The scope of Wireless Telecom Group Quality Assurance Manual, which documents the policies and activities employed at Wireless Telecom Group in Parsippany, New Jersey, is to describe the Quality System required by the applicable elements of the ISO 9001 standard. This manual is the first level of the documented quality system.

Wireless Telecom Group, Inc. doing business as (d/b/a) is also comprised of three wholly owned subsidiaries, Boonton Electronics, Noise Com, and Microlab. These three business groups provide a complementary suite of products, all of which are RF and Microwave based.

Wireless Telecom Group designs, manufactures, assembles, services and supplies RF microwave base electronic test equipment, and passive components for both commercial and military customers

APPLICATION

Wireless Telecom Group Quality Assurance Manual applies to all quality activity performed at Wireless Telecom Group in Parsippany**, New Jersey.** The requirements address ISO 9001.

2.0

DEFINITIONS

In this Quality Assurance Manual, the definitions of ISO 9001 and the following apply:

ISO	The International Organization for Standardization
ANSI	American National Standards Institute
ISO Management Representative	The employee with the defined authority and responsibility to carry out the requirements of ISO 9001.
Management Review Committee	Committee that attends the management review meetings. The Committee consists of the CEO, Microlab President, VP of Sales, DOO, Product Marketing, ISO Management Representative, and any special invitees.

3.0

REFERENCES

ANSI.ASQ 9000-2000	Quality Management Systems- Fundamentals and Vocabulary.
ANSI.ASQ 9001-2008	Quality Management Systems Requirements.
ANSI.ASQ 9004-2000	Quality Management Systems Guidelines for Performance Improvements.
ANSI.ASQ 10013-2001	Guidelines for Quality Management System Documentation.
JEDEC Standard No. 625-A	Requirements for Handling Electrostatic-Discharge-Sensitive (ESDS) Devices
ANSI/ESD S20.20-1999	for the Development of an Electrostatic Discharge Control Program for – Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)
IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies
DIRECTIVE 2002/95/EC OF	THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment

4.0
QUALITY MANAGEMENT SYSTEM

4.1 GENERAL REQUIREMENTS

The management of Wireless Telecom Group has established and implemented a documented Quality Management System. It is maintained and continually improved through internal auditing, corrective and preventive actions, management reviews and procedures written.

The Quality Management System at Wireless Telecom Group is an interrelated process system that can be measured, monitored, and analyzed. (See Appendix D) The system is aligned with corporate strategy and directed by management. Management also established quality objectives and criteria, reviews progress against the objectives and criteria, plans and implements improvements when necessary and widely communicates directions and results. The resources necessary for the system are determined and provided for by management. It is documented, implemented, and maintained according to the requirements of ISO 9001. If Wireless Telecom Group chooses to outsource any process that affects the product conformity to requirements, Wireless Telecom Group shall ensure control over such process. Outsourcing activity will be handled in accordance with established Supplier approval and purchasing procedures.

Wireless Telecom Group Quality Management System defined in this manual satisfies the requirements of the ISO 9001 quality system requirements.

The Quality Assurance Manual covers requirements for quality in manufacturing and customer satisfaction needed to achieve the Wireless Telecom Group policy objectives.

4.2 DOCUMENTATION REQUIREMENTS

4.2.1 GENERAL REQUIREMENTS

The Wireless Telecom Group Quality Management System maintains a documented quality system that consists of; a Quality Assurance Manual; Quality System Procedures; Work Instructions; and Forms and Records. The Quality Management System Documentation Hierarchy is found in Appendix A. The Quality Management System conforms to the requirements of ISO 9001 and ensures that all products supplied by Wireless Telecom Group meet customer specified requirements.

The Quality Assurance Manual is supported by the Quality System Procedures that define the records, procedural requirements, and method used to maintain ISO 9001 compliance and to achieve Wireless Telecom Group objectives for quality.

4.2.2 QUALITY MANUAL

Wireless Telecom Group Quality Assurance Manual is established and authorized by the Statement of Authority (see page 7) and it is maintained by the Quality Assurance Manager and by review from the Management Review Team. This manual includes the scope of the Quality Management System and the exclusions to ISO 9001; references to the Quality System Procedures; and the description of the interaction between the process and the Quality Management System.

4.2.3 CONTROL OF DOCUMENTS

Wireless Telecom Group maintains procedures to control both internal and external origin determined by the organization to be necessary for the planning and operation of the Quality Management System. Refer to QSP-04-002; Document Control Procedure; External Document Control Procedures, which defines the controls over documents, and data that relate to our Quality Management System, and product/service. These controls apply to both internal and documents of external origin.

Product related documents consist of, but are not limited to: Request for Quotes, Purchase Orders, Specifications, Inspection and test reports, Calibration data and external standards.

Documentation required for the effective operation of the Quality Management System consists of, but is not limited to: Quality Assurance Manual, Quality System Procedures, Work Instructions, Forms and Records and the Quality Policy and objectives.

Wireless Telecom Group ensures that all documents used in the Quality Management System are properly identified and controlled. Such documents are reviewed and approved prior to use. The Quality Assurance Manager ensures that the current issues of relevant documents are made available at locations requiring such documents for the achievement of product quality.

All documents will be kept current and up to date as necessary. If any document should be become illegible or irretrievable, a new copy will be issued.

All documents changes are reviewed and approved by the original review and approval authority and obsolete documents are removed from use. If an obsolete document is to be retained in an historical file, it will be appropriately marked to prevent misuse. Quality Assurance Manual revisions are addressed in the Document Control section of this document. (Reference page 12)

4.2.4 CONTROL OF RECORDS

Wireless Telecom Group has established a quality record matrix within each procedure and Work Instruction for the identification, collection, indexing, access, retention, disposition, and storage of quality records.

Records established to provide evidence, indicating conformance to requirements and of the effective operation of the quality management system shall be controlled.

Quality records are to be legible and suitable maintained to prevent damage or loss.

5.0
MANAGEMENT RESPONSIBILITY

5.1 MANAGEMENT COMMITMENT

The top management of Wireless Telecom Group provides evidence of its commitment to the development and implementation of the Quality Management System and continually improving its effectiveness by:

- Communicating to the organization the importance of meeting customer requirements as well as all statutory and regulatory requirements. This communication takes place in organizational meetings, Bulletin board postings, and electronic media.

- The Quality Policy of Wireless Telecom Group authorized by the Chief Executive Officer, is found on page 8 of this document.

- Quality Objectives established by top management are measured to determine their status.

- The Management Review Team on a Quarterly basis conducts management reviews. (QSP-05-003)

- Top management to ensure Resources are sufficient to meet product specifications, customer satisfaction, and the requirements of ISO 9001 continually reviews resource requirements. (Reference QSP-05-003 & QSP-08-001)

5.2 CUSTOMER FOCUS

One of the more important responsibilities of Wireless Telecom Group management is to ensure that a culture of customer focus permeates through the entire organization. In addition to the customer requirements that are expressly determined in the customer Purchase Order, all other customer expectations and need not express stated will be met in order to enhance customer satisfaction. (QSP-05-003, QSP-07-002, QSP-07-003, QSP-08-001, and QSP-08-013)

Therefore, the VP of Sales and Marketing shall require the intimate review of customer documentation such that all requirements are clearly understood by all disciplines involved in any given project.

The review shall include not just the technical aspects of the project, but all contractual requirements, such as delivery dates, quantities, and anything that the Wireless Telecom Group feels should be addressed with the customer but which is not included in the contract at present.

The Sales Order Entry Department has the responsibility to perform this contract review with the enlistment of all other disciplines that are needed.

All confirming purchase orders, order entry forms, e-mail orders, and verbal order log sheet entries will be reviewed by Sales personnel prior to entry into the backlog to assure that contractual requirements have not changed from those originally quoted.

In addition, a means shall be developed by Sales to follow up on the project after delivery of the product to ascertain the customer's impression of the handling of the entire project. The results of these findings shall be included in the review and presented to the Chief Marketing Officer. Any "product specific feedback" shall be recorded in the appropriate manner as defined by Wireless Telecom Group procedures for future reference.

Should negative findings be presented, corrective action may be instituted at the review. At the discretion of the VP of Sales and Marketing and/or the Director of Operations, corrective action may be started earlier than the review. Sales will work with the customer and Wireless Telecom Group disciplines as required to resolve the situation and prevent further occurrence.

The minutes of any meetings shall be considered records and recorded.

5.3 QUALITY POLICY

The responsibility for establishing the Quality Policy as stated in this document (see page 8) lies with Chief Executive Officer of Wireless Telecom Group. Top management has the responsibility for ensuring that the policy is communicated to, known and understood by all employees and that copies of the policy are posted throughout the facility. This responsibility extends through the development, implementation, communication, and maintenance of quality objectives, quality plans and the quality management system.

In implementing this Quality Policy, top management is responsible for:

- Assuring that organizational goals for quality and customer satisfaction are understood.
- Monitoring, improving and effectively managing the processes which deliver quality and customer satisfaction.
- Reviewing the Quality Policy once per year for continually suitability.

5.4 PLANNING

5.4.1 QUALITY OBJECTIVES

The Senior Executive Management plans the following years' Corporate and Quality goals and objectives during the yearly Advance Meeting. These are finalized and then reviewed during the fourth quarter management meeting, with implementation by January of the New Year. The status and progress towards meeting these goals and objectives is reviewed quarterly in conjunction with the Management Review Meetings and is documented in the review meetings. Objectives are measurable and consistent with the quality policy.

5.4.2 QUALITY MANAGEMENT SYSTEM PLANNING

Executive Management ensures that:

a) The planning of the quality management system is carried out to meet the requirements stated in 4.1, as well as the quality objectives.
b) The quality management system remains sound and effective when changes are made within the organization and/or the quality management system.

(Reference QSP-05-003; Management Review procedure and QSP-05-001; Quality Planning procedure)

5.5 RESPONSIBILITY, AUTHORITY, AND COMMUNICATION

5.5.1 RESPONSIBILITY AND AUTHORITY

Quality Management System functions, including responsibilities and authorities are defined, documented, and communicated to the organization through the appropriate Quality System Procedures.

Individual employees are responsible for; ensuring that applicable policies and procedures are followed within their work area; procedures that are undefined or believed inadequate to satisfy customer or business needs are identified for corrective action; and that principles and methods of continual improvement are applied at critical processes.
Interrelations are described in the Organizational Chart in Appendix B.

5.5.2 MANAGEMENT REPRESENTATIVE

The Management Representative has the defined responsibility and authority for ensuring that the quality management system defined by ISO 9001 quality standard is properly established, implemented, and maintained. Periodic reports on the quality system's performance are submitted to the management review team as a basis for improvement. The Management Representative regularly meets with all employees to promote awareness of customer requirements. The appointment letter for the Management Representative is in Appendix C.

Top management shall appoint a member of the organization's management team who irrespective of other responsibilities shall have the responsibility to ensure

a) that process needed for the quality management system are established, implemented and maintained
b) reporting to top management on the performance of the quality management system and any need for improvement and
c) ensuring the promotion of awareness of customer requirements throughout the organization

5.5.3 INTERNAL COMMUNICATION

Communications between levels and functions regarding the processes of the Quality System and their effectiveness are vital to the implementation and improvement of the system. At the top level, all executives with ISO responsibilities attend a minimum of Three (3) per year the Management Reviews (reference QSP-05-003). The Management Representative is responsible for on-going organization wide communication regarding quality system topics and initiatives (reference QSP-05-002).

Several forms and media move information throughout the organization. These forms and media include but are not limited to: Entire organizational meetings, bulletin board postings, e-mail, telephone, mailings, and memos. An individual form or medium may be used or any combination of forms and media may be used depending on the type of information to be disseminated.

5.6 MANAGEMENT REVIEW

5.6.1 GENERAL

The purpose of the quality system management review is to monitor the performance, effectiveness, and continuing suitability of the Quality Management System, discuss and address any need for changes in the system, discuss and address any quality issues and update quality plans as necessary. The Chief Executive Officer is responsible and chairs the Management Review. These reviews are documented and maintained for future reference. (Reference QSP-05-003)

5.6.2 MANAGEMENT REVIEW INPUT

An agenda for the Management Review is prepared prior to the meeting-taking place. This agenda is distributed to the members of the Management Review Team for preparation. This agenda includes;

- Minutes from the previous meetings
- Results from conducted audits
- Customer feedback and/or complaints
- Process performance and product conformity
- The status of preventive and corrective actions taken
- Any follow up actions from previous meetings
- Any corporate changes that may affect the Quality Management System
- The adequacy of allocated resources
- Verify that Quality Objectives are being met. Creation of new objectives as needed.
- Verify that system is effectively implemented
- Review Quality Manual and Quality Policy
- Identification of opportunities to improve

These items on the agenda are inputs to the Management Review.

5.6.3 MANAGEMENT REVIEW OUTPUT

The output of Management Review consists of continual improvement decisions and/or actions affecting the quality of products and processes, and the resources required by the Quality Management System. Minutes of the Management Reviews are documented and maintained for future reference.

6.0
RESOURCE MANAGEMENT

6.1 PROVISION OF RESOURCES

The top management of Wireless Telecom Group continuously reviews, determines, and provides the resources and personnel needed to implement, maintain, and continually improve the Quality Management System.

The resources and personnel are also provided to enhance customer satisfaction by ensuring that customer requirements are being met.

6.2 HUMAN RESOURCES

6.2.1 GENERAL

Management determines the qualifications necessary for personnel performing tasks affecting conformity to product requirements. These determinations are made based on appropriate education, training, skills, and experience.

6.2.2 COMPETENCE, TRAINING, AND AWARENESS

Wireless Telecom Group determines the necessary competence for personnel performing work that affects the conformity to product requirements.

Wireless Telecom Group ensures that training requirements are identified, implemented, and monitored in accordance with documented procedures throughout the organization. Training effectiveness is assessed and records maintained. Management ensures that all personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives. (Reference QSP-06-001)

Each Department shall have “job descriptions” to define the needs of specific positions. These needs may include education, training, acquired skills and experience.

These “job descriptions” are maintained by the Human Resources Department.

If any personnel feel they do not meet the requirements as set forth in their “job descriptions” either they may request training, verbally or in writing, through their Department Managers who will decide relevance.

Based on initial interviews, in-process performance observations, and annual individual employee reviews, Managers may define required training in specific areas. An employee who has completed specific training requirements shall have that information added to their personnel file using the Employee Training Log.

Each Department Manager shall communicate to their subordinates the relevance of the training and how important their functions are to the successful achievement of the quality objectives established under Section 5.4.

Executive Management will perform a yearly review of individual departments with the respective Department Manager. Performance to the previous years training goals and objectives will be discussed and goals and objectives for the forthcoming year will be established.

Individual Department Managers shall be responsible for initiating the defined training, selecting participants, scheduling the training and documenting the training using the employee Training Log for individuals and the Internal Training Record for groups of individuals attending specific training sessions.

The Department Managers shall be responsible for evaluating the effects of Management initiated training and reporting those evaluations to Management prior to the next yearly review.

6.3 INFRASTRUCTURE

Management is responsible for identifying, providing and maintaining the infrastructure needed for conformity of product. Infrastructure may include, but is not limited to; buildings, workspace and associated utilities; process equipment (hardware and software; supporting services (such as transport, information systems and communication) Refer to QSP-06-002 and QSP-06-003. The Management Review Team at an appropriate meeting reviews infrastructure status and needs annually.

6.4 WORK ENVIRONMENT

Management is responsible for identifying and managing the human and physical factors of the work environment needed for conformity of the product (QSP-06-003). The Management Review Team at an appropriate meeting reviews work environment status and needs annually.

The term work environment relates to conditions under which work is performed including physical, environmental, and other factors (such as noise, temperature, humidity, lighting, or weather)

7.0
PRODUCT REALIZATION

7.1 PLANNING OF PRODUCT REALIZATION

In order to achieve product realization, Wireless Telecom Group plans and develops the processes required for this task. In planning for product realization, Wireless Telecom Group remains consistent with the requirements of all other processes in the Quality Management System (QSP-07-001).

The planning for product realization incorporates, where appropriate the following:

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

7.2 CUSTOMER RELATED PROCESSES

7.2.1 DETERMINATION OF REQUIREMENTS RELATED TO THE PRODUCT

Wireless Telecom Group reviews customer orders (including verbal orders and Request for Quote) and communicates with the customer as necessary to ensure that requirements are properly understood and can be met. The requirements may include those for delivery and any post delivery activities specified. Also included are requirements not stated by the customer but known to be necessary for the specified or intended usage. The requirements will always include statutory and/or regulatory requirements, as well as any other requirements considered necessary by Wireless Telecom Group. (Reference QSP-07-001, QSP-07-002, QSP-07-003)
Post delivery activities included for example, warranty provisions, contractual obligations such as maintenance services and supplementary such as recycling or final disposal

7.2.2 REVIEW THE REQUIREMENTS RELATED TO THE PRODUCT

Prior to the commitment to supply, customer orders are reviewed to confirm the following:

- The customer requirements are defined, documented and understood
- That differences between customer requirements and available product are resolved
- That Wireless Telecom Group has the capability to satisfy the requirements

At the completion of the review, appropriate records of the review are maintained in accordance with section 4.2.4 of ISO 9001
Where product requirements are changed, Wireless Telecom Group will ensure that relevant documents are amended and that all relevant personnel are made aware of the change requirements. (Reference QSP-07-003)

7.2.3 CUSTOMER COMMUNICATION

Wireless Telecom Group constantly engages its customers in a proactive two-way dialogue in order to:

- Provide them with general information about its products and processes, as well as, customer specific information about the status of their inquiries or orders.
- Receive from customers their inquiries, contracts or order handling communications. Processes are in place to ensure that such information is accurately received and processed. (Reference QSP-07-002 and QSP-07-003) Sales, Customer Service, and Operational personnel are involved in these communications.
- Receive from customers' product/process ratings, complaints, feedback or any suggestions for improvement. These communications are promptly processed so that both the immediate and long-term issues are addressed and root causes of problems dealt with in a preventive mode. (Reference QSP-07-003, QSP-08-001, QSP-08-012, QSP-08-013, and QSP-08-014)

Wireless Telecom Group elicits such information through various communication means. These communications may include but are not limited to: Customer Surveys; Visits to customer; Telephone; Fax, E-mail; Document Mailings; etc. Top management, Sales, Customer Service and Operational personnel are typically involved in these communications.

7.3 DESIGN AND DEVELOPMENT

7.3.1 DESIGN AND DEVELOPMENT PLANNING

Wireless Telecom Group continually reviews market feedbacks and customer needs for product improvements and new product introductions.

Design and development activities at Wireless Telecom Group are controlled through documented procedures to establish a disciplined and systematic approach to control and verify product design and ensure that all specified requirements are met (reference QSP-07-001; Planning of Product Realization, QSP-07-004; Design Control for Full Design Development, and QSP-07-005; Design Control for Fast Track Design Development).

a) Each design and development activity is performed according to plans defining responsibilities, resource, and stages of the design.
b) The review, verification, and validation appropriate for each design and development stage are defined stages in the process.
c) The CEO has ultimate responsibility for design control and ensures that adequate resources and qualified associates are available for each project. The assigned Project Leader is responsible for the management of the budget and specific activities necessary for the successful completion of the project.

Organizational and technical interfaces as necessary are identified for each design project among the different functional areas that have input into the design process, and pertinent design information is documented, transmitted, and reviewed as necessary. Design and development plans are updated as the design matures.

7.3.2 DESIGN AND DEVELOPMENT INPUTS

Inputs relating to product requirements from Wireless Telecom Group, key customers or other sources are documented and records are maintained per 4.2.4. These inputs shall include:

a) functional and performance requirements
b) applicable statutory and regulatory requirements
c) information derived from previous similar designs (where applicable)
d) other requirements essential for design and development

The Project Team shall review inputs. Any incomplete, ambiguous, or conflicting requirements are addressed and resolved with the appropriate parties.

7.3.3 DESIGN AND DEVELOPMENT OUTPUTS

At the completion of the design, the output is expressed in terms to enable verification against design input requirements to ensure that:

a) the design output meets the design input requirements
b) there is appropriate information to issue purchasing specifications and determine production needs
c) acceptance criteria is defined or reference
d) key or critical characteristics are identified to assure safe and proper functioning of the product, including maintenance, operation, handling , storage and preservation of product information as necessary

The outputs for the design and development shall be provided in a form suitable for the verification against the design and development input and shall be approved prior to release.

7.3.4 DESIGN AND DEVELOPMENT REVIEW

In accordance with planned arrangements, documented reviews are held at suitable stages to:

a) evaluate the results of the in-process design to meet requirements
b) identify any problems and propose necessary actions

Records of design reviews and any necessary actions are kept in accordance with section 4.2.4 of this manual.

7.3.5 DESIGN AND DEVELOPMENT VERIFICATION

The Project Leader performs verification activities in accordance with planned arrangements. Where required, assistance is provided from associates in Engineering, Quality Assurance, Sales, or Operation. Verification is conducted at appropriate stages of the design to assure that the design output meets the design input requirements. These verifications may include activities such as:

a) comparing the design to a similar proven previous design or competitive sample
b) conducting qualification tests
c) prototype testing

Design verification results and any necessary actions are recorded as quality records in the project file in accordance with section 4.2.4 of this manual.

7.3.6 DESIGN AND DEVELOPMENT VALIDATION

Designs are validated in accordance to planned arrangement to ensure that the product meets the requirements defined for its use. If the product is intended for multiple uses, validation of all conditions is performed. Wherever practical, validation is completed prior to delivery and implementation of the product validation activities and any necessary actions are recorded and maintained as defined in section 4.2.4 of this manual.

7.3.7 CONTROL OF DESIGN AND DEVELOPMENT CHANGES

All design changes, whether initiated internally or externally, follow the same review procedures as new products and they are reviewed and approved by the Responsible Owner prior to release. The Responsible Owner has access to the same background information as those involved in the initial design, and they have equivalent qualifications. The review shall include evaluation of the effect of the changes on constituent parts and product already delivered (reference QSP-07-007; Engineering Change Notices). Records of the results of the review of changes and any necessary actions shall be maintained as per 4.2.4.

7.4 PURCHASING

7.4.1 PURCHASING PROCESS

Wireless Telecom Group ensures that the product that it purchases conforms to specified purchase requirements. (Reference QSP-07-010; Purchasing) these purchases are planned and controlled. Close working relationships are established with key suppliers.

Wireless Telecom Group selects suppliers on their ability to meet established criteria. Criteria for the selection, evaluation, and re-evaluation are established. Wireless Telecom Group also maintains an Approved Vendor List of approved suppliers and sub contractors. Their performance is monitored and regularly reviewed for acceptability. (Reference QSP-07-011; Supplier Evaluation and Monitoring)

7.4.2 PURCHASING INFORMATION

It is the responsibility of Purchasing to ensure that Wireless Telecom Group requirements are clearly defined, communicated, and understood by the supplier. Purchasing documents describe the material being ordered. Purchase Orders and specifications are Wireless Telecom Group method of communicating these requirements to the supplier. Purchasing is responsible for reviewing the documentation for accuracy and adequacy of specified requirements prior to release to the supplier. When necessary, outsourcing is controlled under QSP-07-010; Purchasing.

7.4.3 VERIFICATION OF PURCHASED PRODUCT

Wireless Telecom Group shall establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements. The Quality Assurance Manager in conjunction with the Purchasing Manager defines the materials and sub-assemblies that must receive incoming inspection or test.

When specified by contract and with prior coordination with the suppliers, Wireless Telecom Group may perform verification activities at a supplier's premises. It will be specified in the purchasing document the intended arrangements for verification and the method of product release.

If it should become necessary for incoming material to be released without verification, this material will be positively identified and recorded to allow for recall or replacement. (Reference QSP-07-012; Verification of Purchased Product)

7.5 PRODUCTION AND SERVICE PROVISION

7.5.1 CONTROL OF PRODUCTION AND SERVICE PROVISION

Wireless Telecom Group plans all production, packaging, and assembly operations prior to production (reference QSP-07-013; Work Order and Production Records and QSP-07-014; Material Resource Planning). Process controls are approved and maintained to ensure that product characteristics satisfy customer requirements. The customer purchase order and any work instructions are included in the traveler/router used to process product. All information describing the characteristics of the product, any work instructions necessary, equipment needed, the use of monitoring and measuring equipment as appropriate, and any production and inspection requirements are added to the order.

Wireless Telecom Group products are packaged to specified requirements, which preserve the product from damage or loss. (Reference QSP-07-021) Shipping requirements are identified on the customer's Purchase Order. Product is identified and shipped according to these requirements. The material is transported by means of an approval process.

7.5.2 VALIDATION OF PROCESSES FOR PRODUCTION AND SERVICE PROVISIONS

Wireless Telecom Group special processes are those processes where the resulting output cannot be verified by subsequent measurement or monitoring. Engineering and Quality Assurance are responsible for identifying, validating and documenting special processes, as defined in Operational Procedure QSP-07-015; Validation of Processes and QSP-07-016; Work Instructions.

7.5.3 IDENTIFICATION AND TRACEABILITY

Wireless Telecom Group identifies the product status with respect to monitoring and measurement requirements throughout product realization. Wireless Telecom Group establishes and maintains procedures for the marking and identification of material from receipt through production and delivery. (Reference QSP-07-017; Identification and Traceability and Serial Number Designation)

When traceability is a requirement, the product is uniquely identified and controlled by assigning each part with an historical serial number. (Reference QSP-07-017; Identification and Traceability and Serial Number Designation)

Identification is provided to indicate the conformance or nonconformance of the product with regard to test and inspection performed. Inspection and test status is maintained throughout product realization to ensure that only product that has passed the required inspections and tests is processed (Reference QSP-07-013; Work Order and Production Records, QSP-007-016; Work Instructions and QSP-08-008; Control of Non-Conforming Products). Finished products are required to be properly identified prior to storage or shipment. (Reference QSP-07-017; Identification and Traceability and Serial Number Designation)

7.5.4 CUSTOMER PROPERTY

Wireless Telecom Group does not maintain or have any customer property available to them. If they do have any customer property made available to them in the future, which they must control, they will create and maintain procedures to control the items.

7.5.5 PRESERVATION OF PRODUCT

Methods and means of preserving product from damage and/or deterioration are provided and documented. The conformity to all requirements (including its constituent parts) will be preserved during receipt, internal processing and through shipping/delivery. All products will be identified, handled, packaged, stored, and protected so as to prevent damage or deterioration (and in accordance with all other product requirements). (Reference QSP-07-020; Storage, Handling and Preservation, and QSP-07-021; Packaging and Shipping)

7.6 CONTROL OF MONITORING OR MEASURING EQUIPMENT

Wireless Telecom Group will determine the monitoring and measurement that is necessary and the monitoring and measuring equipment needed in order to provide evidence of conformity of the product to requirements.

Wireless Telecom Group has determined the extent and frequency of checking necessary to verify the continuing suitability of all the equipment on the Asset Equipment List. All the equipment on this list is uniquely identified to demonstrate the calibration status of that equipment. The monitoring and measuring equipment are safeguarded from adjustments and protected from damage and/or deterioration during handling, maintenance, and storage. All said equipment is calibrated or verified at defined intervals. Records of all calibrations, including the results obtained, are maintained in accordance with section 4.2.4.

If equipment is ever found to be out of calibration, the validity of previous test and inspections is to be addressed and recorded. (Reference QSP-07-022; Monitoring and Measuring Equipment)

8.0
MEASUREMENT, ANALYSIS AND IMPROVEMENT

8.1 GENERAL

Wireless Telecom Group has established, planned, implemented, and documented the monitoring, measuring and improvement processes needed to: demonstrate conformity to product requirements; ensure conformity of the Quality Management System; continually improve the effectiveness of the Quality Management System.

8.2 MONITORING AND MEASUREMENT

8.2.1 CUSTOMER SATISFACTION

The monitoring of customers' satisfaction is one of the most important measurements as to how the Quality Management System is performing. Wireless Telecom Group proactively elicits customer satisfaction information from its customers by various means. Wireless Telecom Group is in constant communication with its primary customers, continually obtaining information feedback concerning their satisfaction (Reference QSP-08-001; Customer Satisfaction). Wireless Telecom Group formally obtains customer satisfaction information using customer surveys. Wireless Telecom Group also receives, processes, and acts on customer complaints, suggestions and feedback (reference QSP-08-013; Customer Complaints). All customer complaints are handled according to the documented procedures on corrective/preventive actions (Reference QSP-08-013; Customer Complaints, and QSP-08-012; Corrective/Preventive Action).

8.2.2 INTERNAL AUDITS

Wireless Telecom Group plans and conducts comprehensive internal quality audits to verify that the Quality Management System complies with Wireless Telecom Group documented quality procedures and the standard ISO 9001 and to determine the effectiveness of the implementation and maintenance of the quality system. The audit program is also used to identify non-conformances, initiate timely corrective action on deficiencies, and conduct follow-up assessment to verify and document the implementation and effectiveness of the corrective action.

An audit plan is developed and maintained. The scope of the plan ensures that all aspects of the Quality Management System are audited. An audit schedule will determine the frequency of the audits. The scheduling of audits takes into account the status and importance of the processes to be audited and the results of previous audits.

Qualified and independent personnel, in compliance with written procedures, perform audits. The auditors evaluate the quality activities and document their findings. The Corrective Action Request Form (CARFs) is issued for all non-conformances detected during internal audits. Department heads are responsible for ensuring that audit generated CARFs is promptly addressed. All corrective actions taken will be assessed to validate their implementation and effectiveness.

Top management uses quality management system audit reports during Management Review meetings to review the continued effectiveness of the Quality Management System.
(Reference QSP-05-003; Management Review, QSP-08-002; Internal Audits)

8.2.3 MONITORING AND MEASUREMENT OF PROCESS

Wireless Telecom Group has identified the major quality processes that take place. These processes are monitored and, where possible, measured. The results of these monitoring and measurement activities are reviewed to assess the performance of the processes against planned results. When planned results are not attained, the process will be reviewed and analyzed, corrective action proposed, determined and implemented. The results of these corrective actions proposed, determined and implemented. The results of these corrective actions will then be incorporated into the monitoring and measurement of that process. (Reference QSP-07-015; Validation of Processes, QSP07-016; Work Instructions and QSP-08-005; Control of Shelf Life Sensitive Material and FIFO)

8.2.4 MONITORING AND MEASUREMENT OF PRODUCT

Wireless Telecom Group monitors and measures product through all stages of product realization, from incoming receipt, through processing and finally through packaging and shipment.

Incoming material is inspected or tested in accordance with written procedures.
(Reference QSP-07-012; Verification of Purchased Product) Quality Control in conjunction with Engineering is responsible for creating and performing all inspection/testing activities in accordance with accepted criteria. All results of incoming inspections are recorded in accordance with section 7.1. If incoming material is ever released without verification, for emergency production purposes, it is identified and recorded to allow for recall and/or replacement. (Reference QSP-07-010; Identification, Traceability and Serial Number Designation)

In process inspections take place during assembly of the product. These inspections take place in accordance with the work instructions for that product. The results of these in process inspections are documented and recorded in accordance with section 4.2.4. The record will indicate who has authorized the release of the material or product. (Reference QSP-08-006; In-process Inspection)

Final inspection will take place prior to shipment to ensure that the product conforms to the customer's requirements indicated on the Purchase Order (including product identification, markings and shipping instructions). The results of these final inspections are documented and recorded in accordance with section 7.1 The records will indicate who has authorized the release of the material or product.
(Reference QSP-08-007; Final Inspection)

8.3 CONTROL OF NONCONFORMING PRODUCT

Product that that are identified, during any aspect of assembly, inspection or testing and at the time of shipping, as nonconforming to specified requirements are strictly controlled to prevent their unintended use or delivery.

A procedure is in place to identify, segregate, document, and dispose of nonconforming product and/or materials. This procedure also documents how nonconformities will be eliminated and what actions are to be taken to preclude their recurrence. If nonconforming material or product is to be repaired or reworked, it will be re-inspected to verify its conformance. (Reference QSP-08-008; Control of Non-Conforming Product and QSP-08-009; Material Review Board)

When nonconforming product or material is detected after delivery or use of product has started, management immediately notifies the customer or end user that nonconforming material has been sent to them. The Management Team in conjunction with the customer or end user then determines and implements appropriate action required to correct the effects of the delivery or use of the nonconforming product.

All employees of Wireless Telecom Group are responsible for reporting non-conformances and following these documented procedures.

Records of the nature of nonconformities and any subsequent action taken, including any concessions obtained, will be maintained in accordance with documented procedures and section 4.2.4.

8.4 ANALYSIS OF DATA

Data to determine the suitability and effectiveness of the Quality management System and needed improvements are collected by Wireless Telecom Group. These data are analyzed to provide and display information pertaining to customer satisfaction, conformance to product requirements, product/process characteristics and trends (including any opportunities for preventive action) and the performance of Wireless Telecom Group suppliers. (Reference QSP-05-003; Management Review, QSP-07-011; Supplier Evaluation and Monitoring, QSP-07-015; Validation of Processes, QSP-08-001; Customer Satisfaction, QSP-08-002; Internal Auditing, QSP-08-006; In-process Inspection, QSP-08-007; Final Inspection, QSP-08-008; Control of Non-Conforming Product, QSP-08-009; Material Board, QSP-08-011; Continuous Improvement, QSP-08-012; Corrective/Preventive Action, QSP-08-013; Customer Complaints)

8.5 IMPROVEMENT

8.5.1 CONTINUAL IMPROVEMENT

Continual improvement of Wireless Telecom Group products, processes, and the Quality Management System is one of the organization's main goals. Top management has endeavored to create an atmosphere that promotes continual quality improvement through active employee participation and the utilization of measurement data from both internal and external sources. The Management Review Team is one of the driving forces behind continual improvement (Reference QSP-08-011; Continuous Improvement). The main tools that the Management Review team utilizes to continually improve the effectiveness of the Quality Management System are:

- The Quality Policy
- Quality Objectives
- Audit Results
- Analysis of Data
- Corrective Actions
- Preventive Actions
- Management Review

8.5.2 CORRECTIVE ACTION

Wireless Telecom Group has established, implemented and maintains a documented procedure for implementing corrective actions to address nonconformance in either products or processes and to remove their root causes to the extent appropriate to the magnitude of the problems encountered and the risks faced. Corrective action is taken to help ensure that identified problems are quickly resolved to minimize quality issues and to implement permanent solutions. These corrective actions are issued, recorded, and verified in accordance with documented procedures. (Reference QSP-08-012; Corrective/Preventive Action)

The status of corrective actions is discussed at Management Review meetings. All Wireless Telecom Group employees are responsible for initiating Corrective Action Requests Forms (CARF's) upon the detection of a nonconformance.

Wireless Telecom Group has established systems to capture information from customer complaints, suggestions and feedback from customer surveys, returned rejected parts, inspection and test results, and CARF's issued by auditors about non-conformances.

Changes to any existing Quality System Procedures because of a corrective action are recorded and communicated to the appropriate personnel in accordance with documented procedures.
(Reference QSP-04-002; Document Control, QSP-06-001; Competency, Awareness, and Training)

8.5.3 Preventive Action

Wireless Telecom Group initiates preventive action when the analysis of procedures, work instructions, quality records, quality reports, internal audits, and customer complaints detect any sources of potential quality problems. Upon detection of a potential nonconformance or problem, the Management Review Team determines and implements actions to prevent the occurrence of nonconformities. The determination and implementation of preventive actions, the recording of the results of the action taken, and the reviewing of any preventive action taken and its effectiveness are all done in accordance with documented procedure. (Reference QSP-08-012; Corrective/Preventive Action)

Changes to any existing Quality System Procedures because of a preventive action are recorded and communicated to the appropriate personnel in accordance with documented procedures.
(Reference QSP-04-002; Document Control, QSP-06-001; Competency, Awareness, and Training)

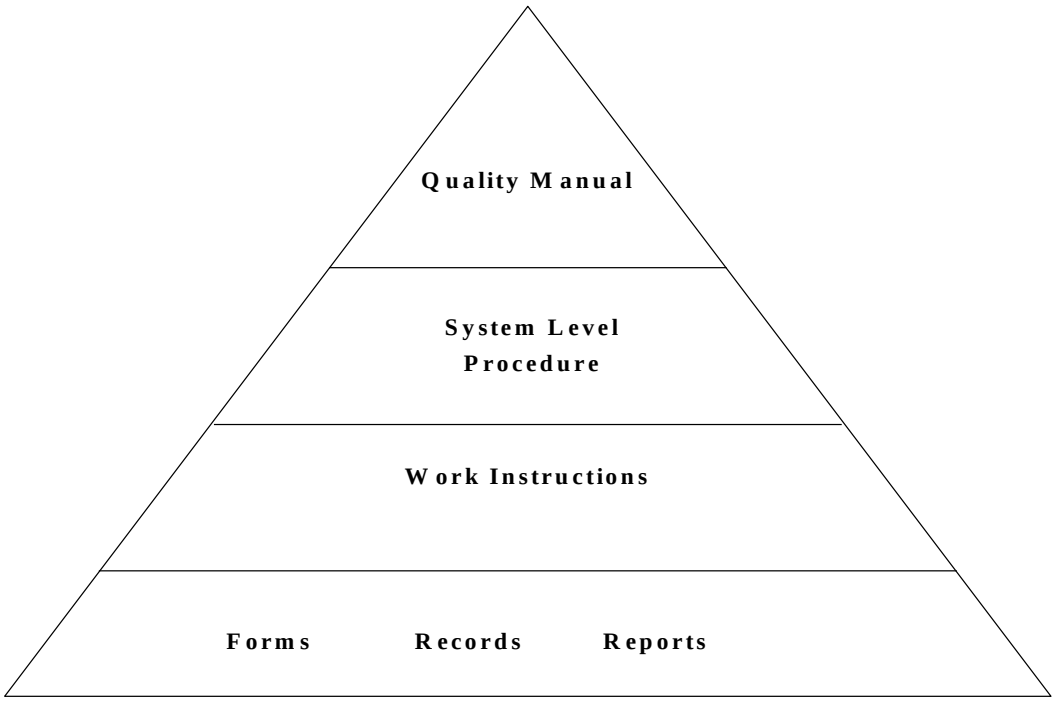
9.0

QUALITY ASSURANCE MANUAL REVISION HISTORY

DATE	SECTION	CHANGE	REVISION
01/15/09		Quality Manual release to Parsippany Organization	1
02/26/09	Various	Changes made to improve the verbiage and to satisfy minor confusion during Stage 1 Audit. In addition the control of external documents was added	2
05/01/09	5.3	The statement in 5.3 was changed from: Reviewing the Quality Policy periodically for continually suitability to: **Reviewing the Quality Policy once per year for continually suitability**	3
09/01/09	Page 7	Changed the Quality Assurance Approval to reflect the changes of the Senior Management	4
08/01/10	Various	The entire Quality Manual was reviewed and the necessary changes were made to meet the requirements and changes of ISO 9001-2008	5

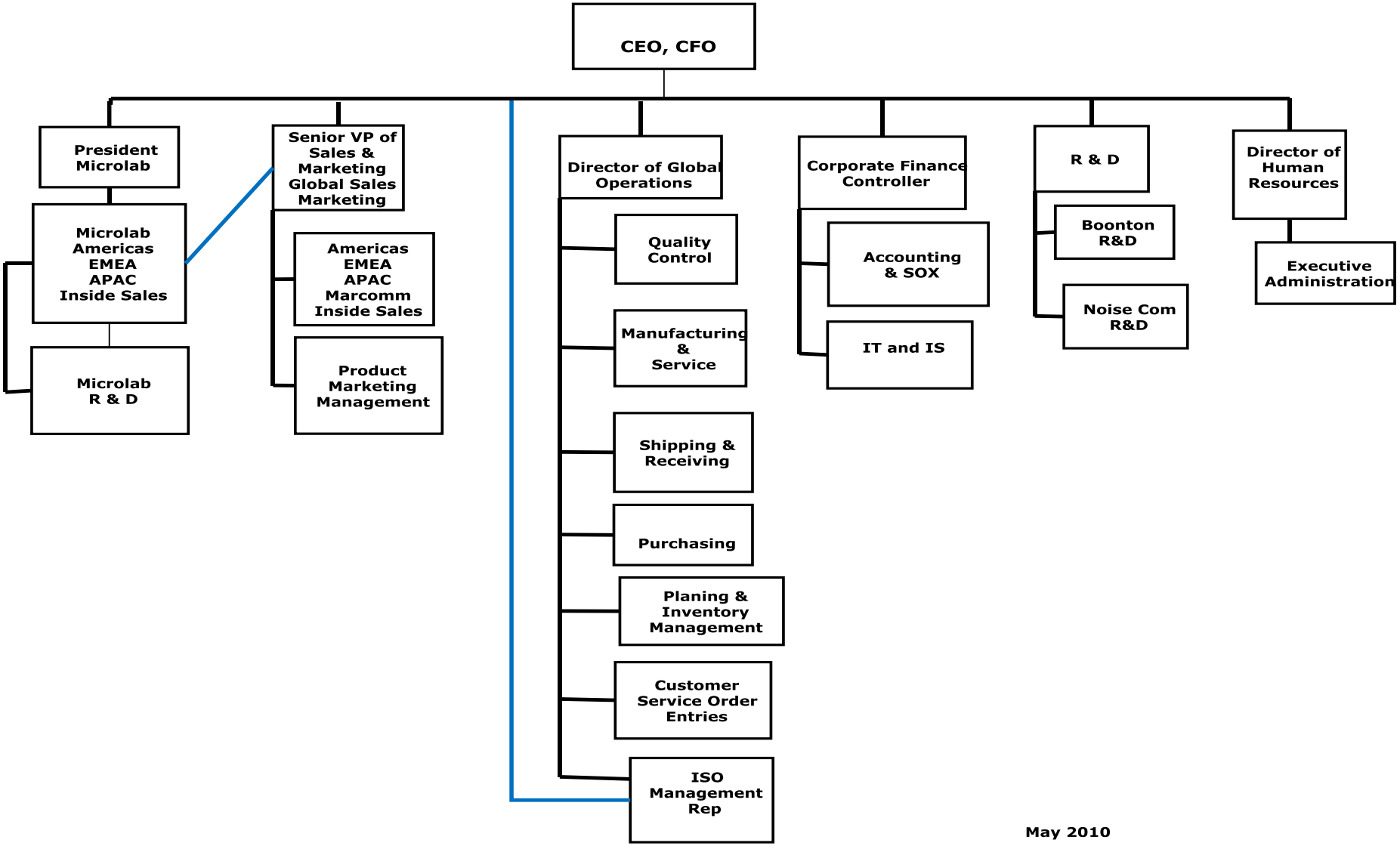
APPENDIX A

QUALITY MANAGEMENT SYSTEM DOCUMENTATION HIERARCHY



LEVEL 1: Quality Assurance Manual defines policy, demonstrates scope and commitment of management and the implementation of Level 2 procedures.
LEVEL 2: Quality System Procedures describe in general and interdepartmentally the who, what, where and when of quality activities.
LEVEL 3: Quality Work Instructions describe specifically and interdepartmentally the quality activities and how to do them.
LEVEL 4: Documents used to collect and report the objective evidence.

WIRELESS TELECOM GROUP, Inc. ORGANIZATION



May 2010

APPENDIX C

LETTER OF APPOINTMENT
MANAGEMENT REPRESENTATIVE

Wireless Telecom Group
Boonton Microlab Noisecom Willtek

25 Eastmans Road
Parsippany, New Jersey 07054

September 01, 2010

This letter is written to document that the role of ISO Quality Management Representative has been delegated to Dom A. Lauria. With this added responsibility Mr. Lauria continues to report to Jeff Roberts, Director of Operations and Quality Manager.

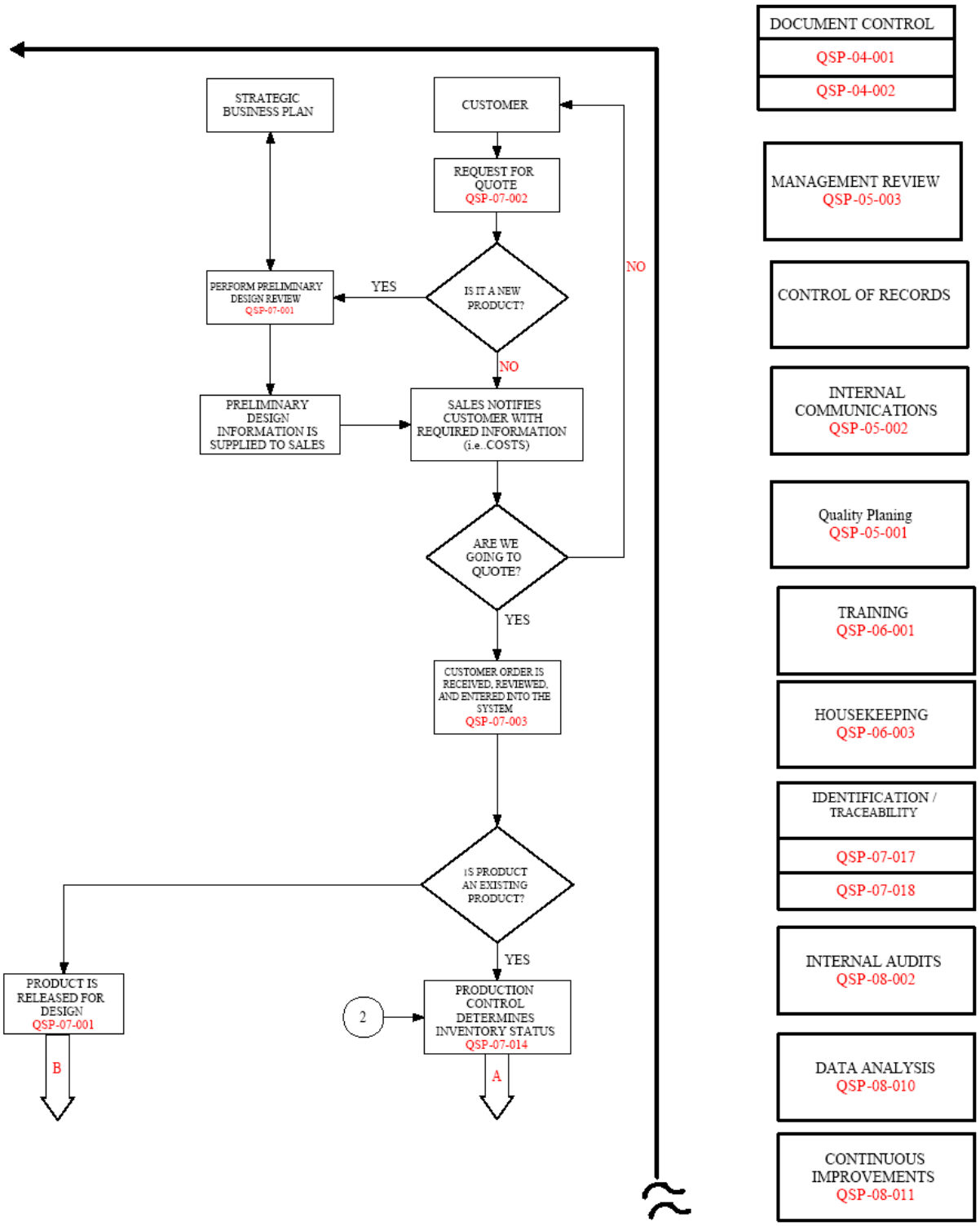
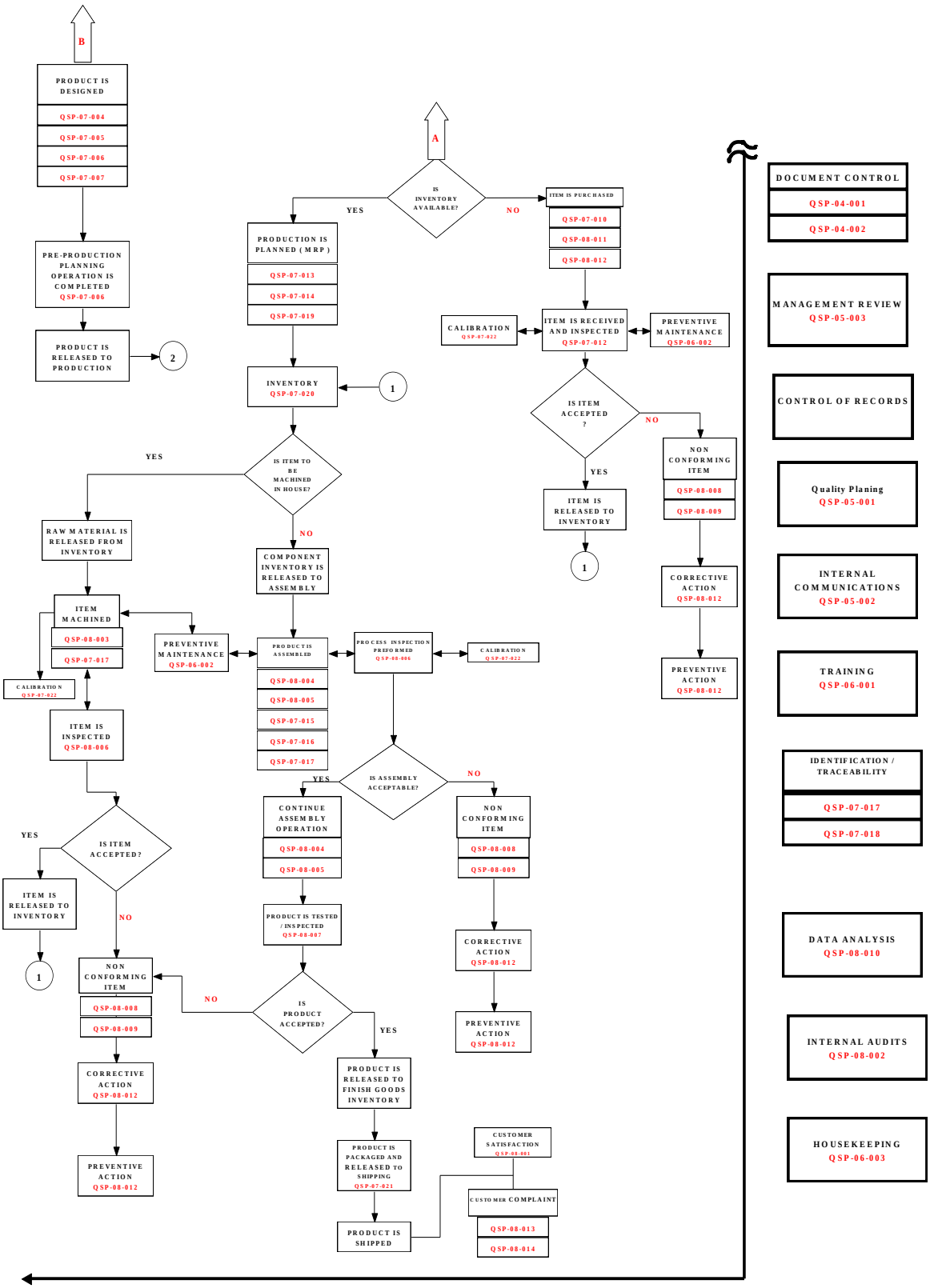
As Management Representative, Mr. Lauria has the overall responsibility for implementation and management of the Wireless Telecom Group, Inc. Quality Management System with full support of the Chief Executive Officer.

Thank you,

Paul Genova
CEO/CFO

APPENDIX D
QUALITY SYSTEM PROCESS FLOWCHART

MACRO FLOW CHART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