M2 GLOBAL TECHNOLOGY, LTD.

Quality Management System

Quality Manual

Revision 06

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Approved by:
Doug Carlberg, President & CEO

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0   INTRODUCTION TO M2 GLOBAL TECHNOLOGY, LTD.

0.1   Technology Profile and Company History

M2 Global Technology, Ltd., a premier worldwide supplier of RF & Microwave components products and precision manufacturing services, has been serving the aviation, space, defense, satellite communications, broadcast, telecommunications and wireless industries for over 30 years. Prior to its spin-off as a separate company in 1999, M2 Global Technology was part of Harris Corporation Microwave Communications Division (MCD), formerly Farinon Division, a worldwide supplier of high performance, state of the art, point-to-point microwave communication systems.

M2 Global is a service-disabled, veteran owned company, and is ISO 9001 and AS9100 registered. Headquartered in San Antonio, Texas, with sales representatives around the world and manufacturing operations in San Antonio, it is well positioned to service its global markets.

The company's products are used in cellular and personal communication systems, satellite up and down links, line-of-sight communications, wireless, radar, and broadcast equipment. With increasing sales to military contractors, the U.S. Air Force selected M2 Global to participate in its Manufacturing Technical Assistance Production Program (MTAPP).

M2 Global specializes in applying advanced ferrite technologies to provide high-performance radio frequency (RF) microwave products in standard and custom configurations. Our circulators and isolators are offered in coax, waveguide and drop-in package designs, as well as integrated isoadapters and isofilters. In addition, we offer a full line of coax products, including power dividers and combiners, and waveguide products, including filters, diplexers, adapters, couplers, transitions, bends, twists, and integrated assemblies.

M2 Global also offers build-to-print manufacturing services that include high-precision CNC machining, sheet metal fabrication, welding, brazing, assembly and special processing, including the heat treatment of wrought aluminum alloys, chemical finishing of aluminum, brass and copper alloys including anodizing and conversion coating, prime and paint, and fuel tank coating. Capability also includes conductivity and hardness nondestructive test capability to verify material condition.

M2 Global is a qualified Lockheed Martin supplier for the F-16, F-22, and F-35, C-5 and C-130 programs. Key defense customers include: Lockheed Martin, Raytheon, General Dynamics, L-3 Communications, Harris, BAE and Rockwell Collins. M2 Global is a Lockheed Martin Aeronautics DoD Mentor Protégé and was awarded the 2011 Region VI Subcontractor of the Year by the SBA.

M2 Global has a longstanding commitment to on-time delivery, quality, and customer satisfaction through the use of continuous improvement and lean manufacturing practices, and can fulfill prototyping, quick-turn service through full-rate production requirements.

Additional information about M2 Global and its products, services and capabilities can be found at _www.m2global.com_.

0.2   Business Process Overview -- Process Approach

M2 Global uses the process approach in the development, implementation and improvement of its quality management system, to enhance customer satisfaction by meeting customer requirements. The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management to produce the desired outcome, can be referred to as the "process approach".

An advantage of the process approach is the ongoing control that it provides over the linkage between the individual processes within the system of processes, as well as over their combination and interaction.

The model of a process-based quality management system shown below illustrates the process linkages presented in clauses 4 to 8 of ISO 9001 and AS9100. This illustration shows that customers play a significant role in defining requirements as inputs. Monitoring of customer satisfaction requires the evaluation of information relating to customer perception as to whether the organization has met the customer requirements.

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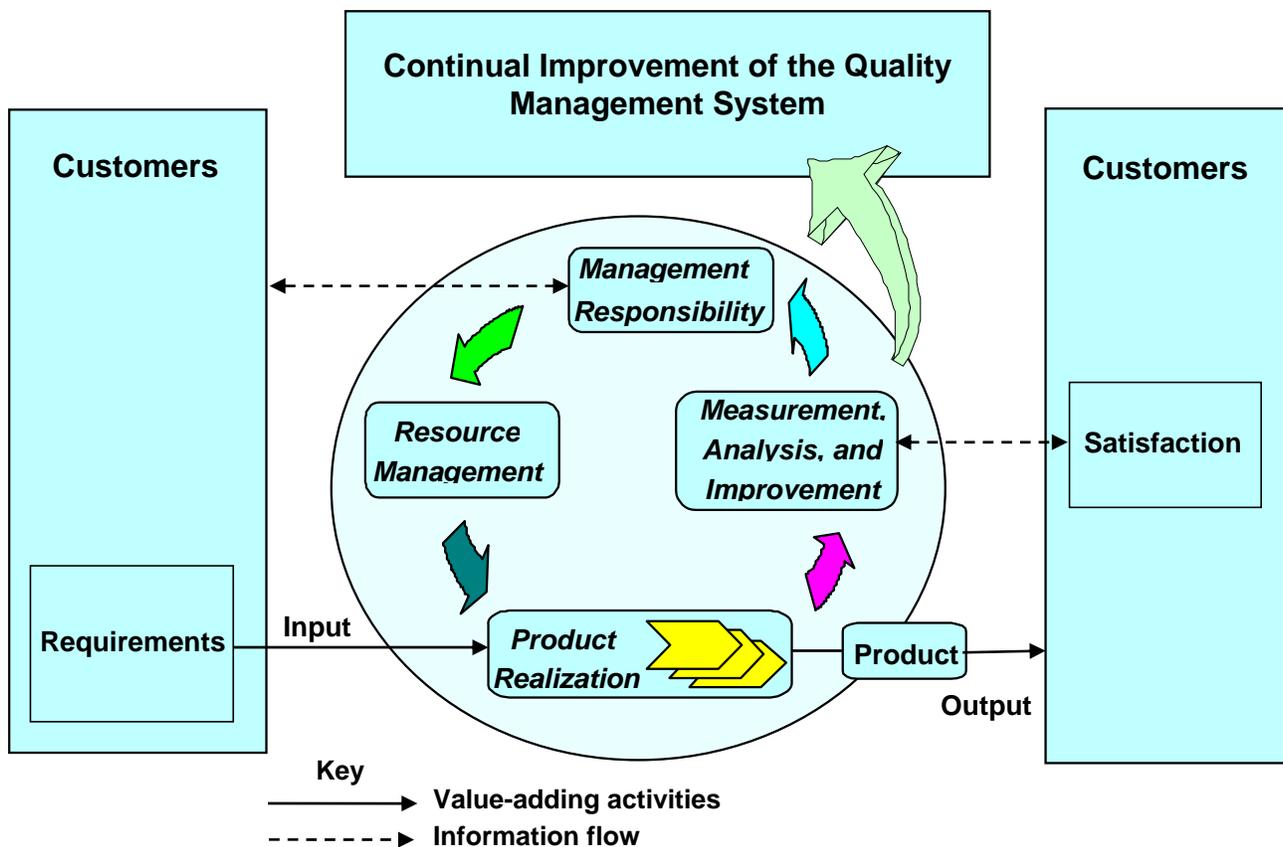
When used within a quality management system, such an approach emphasizes the importance of:

a) Understanding and meeting requirements,

b) The need to consider processes in terms of added value,

c) Obtaining results of process performance and effectiveness, and

d) Continual improvement of processes based on objective measurement.

M2 Global's overall business process flow is illustrated in the figure below. Each of the processes that describe this overall process has inputs (suppliers) and outputs (customers) and may include next-level sub-processes to produce the desired outcome.

M2 Global Business Process Flow

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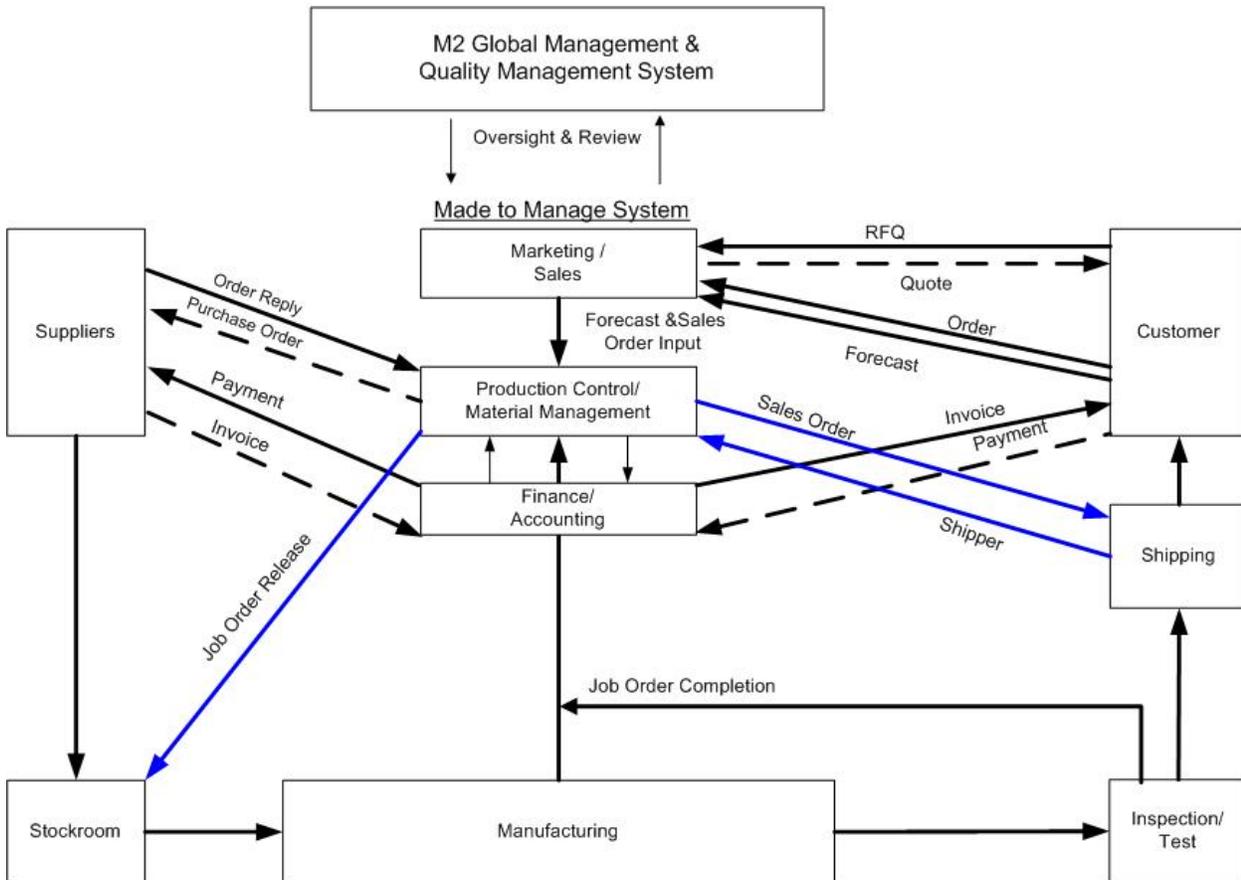
1 M2 GLOBAL'S QUALITY FRAMEWORK

1.1 General

The approach to quality at M2 Global Technology, Ltd. (hereafter known as "M2 Global") is established in its vision, mission, and core values. These are as follows:

VISION

To be the "Knock Your Socks Off" provider of RF Products and Precision Manufacturing Services through innovative ideas and solutions for the customer.

MISSION

To exceed customer expectations by providing unsurpassed value in our products and services.

CORE VALUES

Quality

Customer Focused

Integrity & Ethical Behavior

Engaged & Empowered Teams

Continuous Improvement

Waste Elimination

M2 Global utilizes a Quality Management System (QMS) to direct and control the organization with regard to its ability to consistently provide products and services that satisfy our customers' requirements along with applicable statutory and regulatory requirements. In addition, M2 Global aims to enhance customer satisfaction through the effective use of this system, including processes for the continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

The quality management system implemented at M2 Global is based on the international standards **ISO 9001: 2008** and **AS9100 Rev. C (2009).**

This Quality Manual applies to all M2 Global operations. Modeled directly from the ISO 9001 and the AS9100 standard, it defines and describes the quality management system requirements, defines authorities and responsibilities of the personnel involved in the operation of the system, and describes the interaction between the processes of the QMS. References are provided in this manual to additional documented procedures that further define and describe these requirements.

M2 Global's executive management developed and approved the M2 Global quality policy. The quality policy is tailored to M2 Global's organization, goals, and customers. Successful achievement of the quality policy requires commitment and efforts of all aspects of the business organization. The responsibility for quality rests with each and every M2 Global employee. In the conduct of business, M2 Global's employees are empowered and committed to implement this policy by understanding customer needs and provide products and services to meet these needs. In addition, the effectiveness of the Quality Management System, our processes, products and services are continuously reviewed and improved to enhance their value for our customers, stakeholders, and employees.

M2 Global's quality policy is stated as follows:

> **QUALITY POLICY**
>
> *"Quality" is our legacy and our future. Customer satisfaction and continuous improvement are our focus.*

1.2   Application

The Quality Management System established at M2 Global is intended to be relevant to the nature of the organization, its products, services, customer, and applicable statutory and regulatory requirements. For this reason, those requirements of ISO 9001 and AS9100 that do not apply are excluded from the scope of the QMS. The Quality Manager proposes any potential exclusions to the standard during regularly scheduled management reviews of the QMS. Executive management has the responsibility and authority for evaluating and approving the proposed exclusions. Any such exclusions will be documented in this section of the Quality Manual.

1.2.1 Exclusions

No exclusions apply to the requirements of ISO 9001:2008 and are applicable to all the products and services of M2 Global Technology. In addition, the unique requirements of AS9100 Rev. C (2009) are applicable to Precision Manufacturing excluding the requirements of Section 7.3 Design and Development. Precision Manufacturing only produces aviation, space and defense products from the customer's design and does not design or develop these products.

2   BIBLIOGRAPHY

ISO 9001:2008, Quality Management Systems -- Requirements

ISO 9000:2005, Quality Management Systems -- Fundamentals and Vocabulary

ISO 9004:2009, Managing for the Sustained Success of an Organization -- A Quality
     Management Approach

ISO 10007, Quality Management Systems – Guidelines for Configuration Management

SAE AS9100 Rev. C (2009), Quality Management Systems – Requirements for Aviation, Space
     and Defense Organizations

SAE AS9101 (Rev. D), Quality Management Systems Audit Requirements for Aviation, Space, and
     Defense Organizations

SAE AS9102 (Rev. A), First Article Inspection Requirement – Aerospace

SAE AS9103, Variation Management of Key Characteristics

3   TERMS AND DEFINITIONS

- **Audit** – systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent that the quality management system is operating effectively.

- **Conformity –** fulfillment of requirements in form, fit and function

- **Continual Improvement** – recurring activity to increase the ability to fulfill requirements

- **Contract / Accepted Order** – agreed requirements between a supplier and customer transmitted by any means.

- **Controlled Documents / Data** – documents and data that are part of M2 Global's quality management system. They are uniquely marked and numbered. (Note: photocopies of controlled documents are not quality documents.)

- **Corrective Action** – action to eliminate the cause of a detected nonconformity or other undesirable situation.

- **Critical Items** -- products classified as having critical item characteristics, such as safety critical, fracture critical, mission abort critical or durability critical.

- **Customer Satisfaction** – customer's perception of the degree to which the customer's requirements have been fulfilled.

- **Documents of External Origin** – customer specifications & drawings, national and international specifications, regulatory documents, etc.

- **Executive Management** – includes M2 Global Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, and Directors.

- **Form** – a document that can be used in conjunction with a procedure or work instruction or a stand-alone document used to collect, capture, and/or accumulate information. A completed form may or may not be a quality record.

- **Key Characteristics** – an attribute or feature whose variation has a significant effect on product fit, form, function, performance, service life or producibility that requires controlled actions to minimize variability.

- **Made2Manage** – business enterprise management system software used at M2 Global that supports customer order management, materials management, production management, and financial management processes.

- **Outsourced Process** – a process that the organization needs for its quality management system and which the organization chooses to have performed by an external party.

- **Preventive Action** – action to eliminate the cause of a potential nonconformity of other undesirable potential situation.

- **Procedure** – specified way to carry out an activity or a process. It is a quality document describing the operation of an element of the quality management system. Considered a second tier document in the QMS.

- **Process** – set of interrelated activities that transform inputs into outputs.

- **Process Flow** – a diagram or drawing that shows a set of interrelated activities that transform inputs into outputs.

- **Product** – result of activities or processes. Products may be characterized as a service, software, hardware, or processed material.

- **Quality** – degree to which a set of inherent characteristics fulfills requirements.

- **Quality Manual** – the document stating the quality policy and describing the quality management system of an organization. Considered the first tier document in M2 Global's quality management system.

- **Quality Management System (QMS)** – the organizational structure, responsibilities, procedures, processes, and resources to direct and control an organization with regard to quality.

- **Quality Policy** – overall intentions and direction of an organization related to quality as formally expressed by executive management.

- **Record** – document stating results achieved or providing evidence of activities performed. Includes completed forms that document the output from a procedure or work instruction. Considered the fourth tier document.

- **Risk** -- an environment of an undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.

- **Special Requirements** -- those requirements identified by the customer or alternatively determined by M2 Global.

- **Validation** – confirmation, through the provision of objective evidence, that the requirements for a specific intended use of application have been fulfilled; addresses meeting defined user needs.

- **Verification** – confirmation, through the provision of objective evidence, that specified requirements have been fulfilled; addresses conformance to requirements.

- **Work Instruction** – a document at the user-level that details requirements to successfully complete a task or assignment. Must trace to and comply with the requirements of applicable procedures. Considered a third tier document in the quality management system.

4   QUALITY MANAGEMENT SYSTEM

4.1   General Requirements

M2 Global establishes, documents and maintains a quality management system as a means of ensuring that our products and services meet or exceed our customers' expectations. This system is based on the process approach, where activities and related resources to achieve a desired result are managed as a process, along with a closed-loop system to maintain and continually improve these processes.

The M2 Global quality management system includes the following characteristics:

a.   Processes are determined that are needed for the quality management system and applied throughout M2 Global.

b.   The sequences and interactions of those processes are defined.

c.   The criteria and methods needed to ensure that the processes are effective are defined.

d.   Resources and information are available to support operation of M2 Global's quality processes.

e.   Processes are monitored, measured where applicable, and analyzed.

f.   Actions are performed to ensure the planned results are met and that they are continually improved.

When M2 Global elects to outsource any process that could affect the quality of our customers' products or services, M2 Global ensures our supplier complies with our own quality management system requirements along with conformity to customer, statutory and regulatory requirements.

4.2   Documentation Requirements

4.2.1   General

M2 Global's quality management system includes the following documents:

a.   The quality policy and quality objectives, clearly communicated to all employees.

b.   This Quality Manual that describes the requirements of our quality management system.

c.   Documented operational procedures, work instructions, forms and records that support the requirements of ISO 9001, AS9100 and M2 Global's quality policy.

d.   Other documents and records needed to ensure effective planning, operation and control of our processes.

M2 Global's executive management coordinates and implements M2 Global's quality management system and its documented procedures at all levels of the company through allocated resources and defined responsibilities.   M2 Global's controlled documentation is typically available to personnel as accessed by computer through the M2 Global internal intranet.   Controlled documents may also be referenced by hard copy media and identified and maintained as controlled copies.   QMS documentation may also be made available to customer and/or regulatory authorities representatives as required.

Revisions of all controlled documents are maintained by a master list that can be referenced through the local intranet.   The appointed Document Control Administrator ensures that the most current revision of documentation is available.

The procedures and work instructions that form part of M2 Global's quality management system have a range and detail that depends on the complexity of the work, the methods used, and the skills and training needed by M2 Global personnel carrying out the activity.

The structure of documentation used in M2 Global's quality management system is described in the following table:

TIER ONE Quality Manual	The Quality Manual describes the requirements of M2 Global's quality management system and is organized to be consistent with ISO 9001 and AS9100.
TIER TWO Operational Procedures (OP)	Operational Procedures **(OP)** are referenced in this manual and are created and used to define processes to achieve the requirements described in the quality manual. Tier Two documents supercede Tier Three documents (except documentation of external origin). Forms **(FO)** can be referenced in the procedures and are used as additional guidance for following the procedure and, once completed, as records.

TIER THREE Work Instructions (WI)	Work Instructions **(WI)** are referenced in the Operational Procedures and are specific instructions for performing tasks required by the procedures. May be specific to a product or process. Forms **(FO)** can be referenced in the work instructions and are used as additional guidance for following the work instruction and record keeping. Documents of external origin may be used as work instructions, such as customer drawings and specifications.
TIER FOUR Quality Records	Records are objective evidence to illustrate conformity to M2 Global's procedures and effective operation of the quality management system. Records include completed Forms **(FO).**

4.2.2   Quality Manual

M2 Global Quality Manual covers the requirements of the standards -- ISO 9001:2008 and AS9100 Rev C (2009). It includes the scope of the quality management system and exclusions as applicable, refers to documented procedures that define processes for achieving the requirements of the standards, and describes the interaction between the various processes of the quality management system.

4.2.3   Control of Documents

M2 Global established and maintains procedures to control all documents and data that relate to the requirements of this quality manual, including, to the extent applicable, documents of external origin such as customer standards and drawings, regulations, and product / service requirements that are determined by M2 Global to be necessary for the planning and operation of the QMS. This also includes internally generated quality manuals, procedures, forms, and work instructions.

    a.   The documents and data are reviewed and approved for adequacy by authorized personnel prior to issue. The current revision status of documents are readily available to preclude the use of invalid and/or obsolete documents. This control ensures that:

- The pertinent issues of appropriate documents, including documents of external origin as applicable, are available at all locations where operations essential to M2 Global's quality management system are performed.

- Invalid and/or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use.

- Any obsolete documents that are retained for legal and/or knowledge-preservation purposes are suitability identified.

    b.   Changes to documents and data are reviewed and approved by the same function that performed the original review and approval, unless specifically designated otherwise. The designated function has access to pertinent background information upon which to base their review and approval. Where applicable, the nature of the change is identified in the document, its change notice summary, or appropriate attachment(s).

⊡ **Reference Procedure:** Document Control (OP-4.2-01)

4.2.4 Control of Records

M2 Global has established documented procedures to identify, collect, index, access, protect, store, maintain, control and dispose of quality records. Quality records are maintained to demonstrate conformance to specified requirements and the effective operation of M2 Global's quality management system. Pertinent quality records from suppliers are included.

All quality records are legible, and stored and retained in a manner where they are readily identifiable and retrievable when needed. An integrated document management system, etFile, is typically used for the storage and retrieval of quality records, where documents are permanent, cannot be altered, and easily retrieved.

Reference Procedure: Record Control (OP-4.2-02)

5   MANAGEMENT RESPONSIBILITY

5.1   Management Commitment

M2 Global's executive management is committed to operation of the quality management system. To demonstrate this commitment, executive management:

- Communicates to company employees the importance of meeting customer, statutory, and regulatory requirements.

- Establishes the quality policy.

- Establishes quality objectives and communicates them to employees.

- Conducts periodic management reviews.

- Ensures availability of resources to operate the quality management system.

5.2   Customer Focus

M2 Global's executive management strives to ensure that customer requirements are identified and met with the aim of enhancing customer satisfaction (see paragraphs 7.2.1 and 8.2.1).

For present customers, M2 Global continues to work with customer representatives to verify their satisfaction with our products and services. Through these continuing relationships, M2 Global also seeks to uncover new opportunities to support them.

For potential customers, M2 Global's Sales & Marketing team maintains communication with many potential customers using leads gained from existing customers, marketing, suppliers, and referrals.

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M2 Global's management also ensures that product conformity and on-time delivery performance are measured and that appropriate action is taken if planned results are not, or will not be, achieved.

5.3   Quality Policy

M2 Global's executive management defined and documented M2 Global's policy for quality and its continuing commitment to quality. This policy provides a framework for establishing and reviewing quality objectives. M2 Global ensures that its policy is understood, implemented and maintained at all levels of the organization.

M2 Global's quality policy is stated in paragraph 1.1 of this manual.

5.4   Planning

5.4.1   Quality Objectives

M2 Global's executive management ensures that quality objectives, including those needed to meet requirements for our products, are established at relevant functions and levels within the company and communicated to our employees. The quality objectives are measurable and consistent with our Quality Policy and organization.

5.4.2   Quality Management System Planning

M2 Global has defined and documented the process to meet our quality requirements. M2 Global's quality planning is consistent with the other requirements of our quality management system and documented in a suitable format. Quality management system changes are appropriately documented in the document where the change occurs.

M2 Global considers the following activities, as appropriate, in meeting the specified requirements for products or services where applicable throughout the life cycle of a product or service:

a.   Preparing supplier-specific quality plans.

b.   Identifying and acquiring any controls, processes, equipment (including inspection and test equipment), fixtures, resources and skills that may be needed to achieve the required quality.

c.   Ensuring the compatibility of the production process, installation, servicing inspection and test procedures, and the applicable documentation.

d.   Updating, as necessary, quality control, inspection and testing techniques, including the development of new instrumentation.

e.   Identifying suitable verification at appropriate stages of product realization.

f.   Clarifying standards of acceptability for all features and requirements, including those that contain a subjective element.

g.   Identifying and preparing quality records.

5.5   Responsibility, Authority and Communication

5.5.1   Responsibility and Authority

M2 Global has specified the responsibility, authority and interrelations of personnel who manage, perform and verify work affecting product and service quality.

All M2 Global personnel who are involved in quality activities have the organizational freedom and authority to:

- Initiate action to prevent the occurrence of any nonconformities relating to M2 Global's products, services, processes and quality management system.

- Identify and record any problems relating to the product, process and quality management system.

- Initiate, recommend or provide solutions.

- Verify the implementation of solutions.

- Control further processing, delivery or installation of nonconforming product until the deficiency or unsatisfactory condition has been corrected.

5.5.2   Management Representative

M2 Global executive management has appointed a member of its own management who has the organizational freedom and unrestricted access to top management to resolve issues pertaining to quality management.

Also, irrespective of other responsibilities, has defined responsibility and authority to:

- Ensure that a quality management system is established, implemented and maintained.

- Report on the performance of the quality management system to M2 Global management for review and as a basis for improvement of the quality management system.

- Ensure the promotion of customer requirement awareness throughout the company.

- Serve as liaison to external parties on matters relative to M2 Global's quality management system.

The M2 Global CEO has designated the Quality Manager as the management representative. When the position is vacant or otherwise unable to function in that capacity, the CEO will serve as the management representative or otherwise appoint a temporary Quality Manager.

5.5.3   Internal Communication

M2 Global's executive management ensures that employees are fully aware of the quality management system, its operation, their role in improving its effectiveness, and methods for obtaining and using quality management system information.

Most quality management system information, including copies of the Quality Manual, procedures, work instructions, forms, and information can be accessed by computer on the M2 Global intranet. Any sensitive information will be excluded from this requirement.

5.6   Management Review

5.6.1   General

M2 Global's executive management reviews the effectiveness of its quality management system at regularly planned intervals.   The Quality Manager schedules and conducts the Management Review Meeting. The purpose of the meeting is to review M2 Global's quality management system to ensure its continued suitability, adequacy, and effectiveness. The agenda includes assessing quality management system improvement opportunities and the potential need for changes to the quality management system. Records of the meetings are maintained.

> ⧉   **Reference Procedure:** Business Review (OP-5.6-01)

5.6.2   Review Input

The Management Review Meeting agenda includes at minimum the following items:

- Results of audits.

- Customer feedback.

- Process performance and product conformity.

- Status of preventive and corrective actions.

- Follow-up of action items from previous management review meetings.

- Changes that could affect the quality management system.

- Recommendations for improvement.

5.6.3   Review Output

Minutes of the Management Review Meetings are documented and include all decisions and actions related to:

- Improvement of the effectiveness of the quality management system and its processes.

- Improvement of product related to customer requirements.

- Resource needs.

6   RESOURCE MANAGEMENT

6.1   Provision of Resources

M2 Global's executive management identifies resource requirements (may be with assistance and/or input from appropriate personnel) and provides adequate resources to operate the quality management system. These resources include assignment of trained personnel, implementation of information system and infrastructure components, and provision for the work environment needed to satisfy customer requirements and improvement of effectiveness.

6.2   Human Resources

6.2.1   General

M2 Global ensures that those performing work affecting conformity to product requirements are competent on the basis of appropriate education, training, skills, and experience.

6.2.2   Competence, Training and Awareness

M2 Global established and maintains documented procedures to identify training needs and provide needed training to all personnel performing activities affecting conformity to product requirements. Upon completion of any training, M2 Global evaluates its effectiveness through appropriate means, such as follow-up with trainee, team leaders, managers and other team members. Personnel performing specific assigned tasks are qualified on the basis of appropriate education, training and/or experience. Training records are maintained as specified in the referenced training procedure.

M2 Global's training and internal communications ensures that all employees know how their activities contribute to the quality management system and achievement of the company's quality objectives.

        ⊐   **Reference Procedure:** Human Resources and Training (OP-6.2-01)

6.3   Infrastructure

M2 Global determines, provides, and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable:

- Buildings, workspace, and associated utilities.

- Process equipment (both hardware and software).

- Supporting services (including communications, information systems, transport, equipment maintenance, and environmental health & safety).

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Reference Procedures:

Equipment Preventive Maintenance (OP-6.3-01)

Information Technology (OP-6.3-02)

Environmental, Health & Safety (OP-6.3-03)

6.4 Work Environment

M2 Global determines and manages the work environment needed to achieve conformity to product requirements. This includes, as required, the proper temperature, humidity, lighting, cleanliness, ventilation, noise, etc.

7 PRODUCT REALIZATION

7.1 Planning of Product Realization

M2 Global plans and develops the processes needed for product or service realization as part of our customer development and sales/marketing efforts. Realization planning is consistent with the requirements of other quality management system processes.

In planning product realization, M2 Global determines the following, as appropriate:

- Quality objectives and requirements for the product, including product and personal safety, reliability, availability and maintainability, producibility and inspectability, suitability of parts and materials used in the product, recycling or final disposal of the product at the end of its life.

- The need to establish processes and documents (or change existing ones) and to provide resources specific to the product.

- Required verification, validation, monitoring, measurement, inspection, and test activities specific to the product and the criteria for product acceptance.

- Records needed to provide evidence that the realization processes and resulting product meet requirements.

- Configuration Management as appropriate to the product.

- Identification of resources to support operation, the use and maintenance of the product.

The output of this planning is consistent with M2 Global's standard methods of operation and customer requirements.

7.1.1   Project Management

Product realization at M2 Global is planned and managed in a structured and controlled manner as appropriate to meet requirements at acceptable risk, within resource and schedule constraints.

7.1.2   Risk Management

Risks are managed at M2 Global where risk factors in the product realization process that can impact cost, delivery schedule and conformity to customer requirements are identified and analyzed, and plans are subsequently developed and implemented for the mitigation and control of these risk factors.

M2 Global has established, implemented and maintains a process for managing risk to the achievement of applicable requirements, that includes as appropriate:

- Assignment of responsibilities for risk management.

- Defines the risk criteria, such as likelihood, consequences, and risk acceptance.

- Identification, assessment and communication of risks throughout product realization.

- Identification, implementation and management of actions to mitigate risks that exceed the defined risk acceptance criteria.

- Acceptance of risks remaining after implementation of mitigating actions.

    ⌗   **Reference Procedures:**   Risk Management System (OP-7.1-01)

7.1.3   Configuration Management

From the customers' perspective, configuration management is not typically required for standard products produced at M2 Global due to the nature of the product. These products are considered components and do not contain field replaceable units, or the customer cannot change the configuration of the product. Configuration management for assemblies or material internal to the product and M2 Global, where applicable, is controlled through the Made2Manage system along with processes defined for engineering change control.

As part of the Precision Manufacturing business unit, configuration management may be required depending on the needs of the customer. In this case, where configuration management is required for a particular project or program, a configuration management plan shall be developed that defines the implementation and processes required appropriate to the product. The plan shall consider processes for configuration identification, change control, configuration status accounting, and configuration audit.

7.1.4   Control of Work Transfers

M2 Global has established, implemented and maintains a process to plan and control the

temporary or permanent transfer of work to a location outside of M2 Global's primary facility, which when done would be typically to a supplier, and to verify the conformity of the work to requirements.

This process includes the consideration for using approved suppliers, including customer-approved suppliers, notification to the customer, as required, of the transferred work, audits of the facilities where the work was transferred, and the verification of the product and certifications upon completion of the work,

7.2   Customer-Related Processes

7.2.1   Determination of Requirements Related to the Product

M2 Global determines:

- Requirements specified by the customer, including the requirements for delivery and post-delivery activities. Post-delivery activities may include warranty provisions, contractual obligations such as for maintenance services, and other services such as for recycling and final disposal.

- Requirements not stated by the customer but necessary for specified or intended use, where known.

- Statutory and regulatory requirements applicable to the product or service.

- Any additional requirements considered necessary by M2 Global.

7.2.2   Review of Requirements Related to the Product

M2 Global reviews the requirements related to the product. This review is conducted prior to M2 Global's commitment to supply a product or service to the customer (e.g., submission of proposals & quotes, acceptance of contracts or orders, acceptance of changes to contracts or orders) and ensures that:

- Product requirements are defined.

- Contract or order requirements differing from those previously expressed are resolved.

- The company has the ability to meet the defined requirements.

- Special requirements of the product are determined.

- Risks, such as new technology and short delivery time frame, have been identified.

The Sales/Marketing function is responsible for this review and maintains records of the results and actions of the review. This review may include other functions as appropriate, such as Quality, Operations, Project Management, and Executive Management.

Where the customer provides no documented statement of requirement, M2 Global confirms the customer requirements before acceptance. This is normally accomplished with a documented proposal submitted to and approved by the customer.

Where the product requirements are changed, M2 Global ensures that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

> **Reference Procedures:**
>
> Quote Processing – RF Products (OP-7.2-01)
>
> Quote Processing – Precision Manufacturing (OP-7.2-02)
>
> Order Entry Processing (OP-7.2-03)

7.2.3   Customer Communication

M2 Global proactively communicates with its customers. From the Sales/Marketing team, to Engineering, to executive management, M2 Global cultivates its customers to ensure our products and services meet their expectations. This communications includes topics relating to:

- Product information.

- Inquiries, contracts, or order handling, including amendments.

- Customer feedback, including customer complaints.

- Opportunities for adding value to our services or otherwise expanding our relationships.

7.3   Design and Development (Applies only to RF Products)

7.3.1   Design and Development Planning

M2 Global plans and controls the design and development of its products in order to ensure that the product will ultimately meet its defined requirements.

In planning a design and development project, M2 Global determines the following:

- Design and development stages.

- Review, verification and validation that are appropriate at each stage.

- Responsibilities and authorities for design and development.

In addition, throughout the duration of the project, the interfaces between the personnel involved in the project are managed to ensure effective communication and assignment of responsibility. Updates to the project plan are recorded and maintained.

⊟　**Reference Procedure:**　Design Control (OP-7.3-01)

7.3.2　Design and Development Inputs

Prior to initiating design and development activity, M2 Global determines the product requirements and documents these requirements in a form that is complete, unambiguous, and does not conflict with each other. These input requirements include the following:

- Functional and performance requirements.

- Applicable statutory and regulatory requirements.

- Information derived from previous designs (where applicable).

- Other requirements essential for design and development.

Upon defining input requirements, they are reviewed for adequacy and approved by appropriate functions of the organization. Records are maintained of this activity.

⊟　**Reference Procedure:**　Design Control (OP-7.3-01)

7.3.3　Design and Development Outputs

Design and development outputs conform to the following requirements:

- Meet the input requirements for design and development.

- Provide appropriate information for purchasing, production, and servicing.

- Contain or reference product acceptance criteria.

- Specify the characteristics of the product that are essential for safe and proper use.

These outputs are provided in a form suitable to clearly compare and verify them with the input requirements. Outputs from a design and development project are approved and records maintained prior to product release. This ensures that all aspects of the project have been executed in accordance with documented plans and applicable procedures.

⊟　**Reference Procedure:**　Design Control (OP-7.3-01)

7.3.4 Design and Development Review

At specified stages, or gates, of the design and development process, systematic reviews are performed according to the original planned arrangements. The purpose of these reviews is to evaluate the design and development activity with requirements and to identify any problems along with proposed corrective actions.

Participants in the reviews include representatives of applicable functions. Records of the results of the reviews and any necessary actions are maintained.

Reference Procedure: Design Control (OP-7.3-01)

7.3.5 Design and Development Verification

At appropriate stages of the design and development process, verification is performed as planned to confirm that the design and development outputs have met the design and development input requirements. Verification activities may include the following:

- Performing tests and demonstrations.

- Performing alternative calculations.

- Comparing a new design specification with a similar proven design specification.

- Reviewing documents prior to issue.

Records of the results of the verification and any necessary actions are maintained.

Reference Procedure: Design Control (OP-7.3-01)

7.3.6 Design and Development Validation

Upon completion of the design and development activity and prior to the delivery or implementation of the resulting product, validation is performed as planned to confirm that the product is capable of meeting the requirements for the specified application or intended use, where known. Records of the results of validation and any necessary actions are maintained.

Reference Procedure: Design Control (OP-7.3-01)

7.3.7 Control of Design and Development Changes

M2 Global controls and maintains records of design changes through an engineering change order (ECO) process. Changes are reviewed, verified and validated, as appropriate, and approved before implementation. The review of design and development changes includes evaluation of the effect of the changes on constituent parts and product already delivered. Records of the results of the review or changes and any necessary actions are maintained.

Reference Procedure: Design Control (OP-7.3-01)

7.4   Purchasing

7.4.1 Purchasing Process

M2 Global's purchasing function has the responsibility to develop and maintain documented procedures to ensure that purchased product conforms to specified requirements. The type and extent of control applied is evaluated based on the effect and potential risks that the purchased product has during all stages of production through the delivery of the final product. M2 Global is ultimately responsible for the conformity of all products purchased from suppliers, including product from sources defined by the customer.

M2 Global performs the following:

   a.   Evaluates and selects suppliers on the basis of their ability to meet M2 Global and customer requirements including the quality management system.

   b.   Defines criteria for the selection, evaluation, and re-evaluation of suppliers and maintains records of such evaluations and any follow-up actions.

   c.   Maintains records of the results of supplier evaluations and any necessary actions as a result of the evaluations.

   d.   Maintains a register of approved suppliers that includes the scope of the approval.

   e.   Periodically reviews supplier performance in addition to using this information as a basis for establishing the level of controls to be implemented.

   f.   Defines the necessary actions to take when dealing with suppliers that do not meet requirements.

   g.   Ensures as required that both the organization and all suppliers use customer-approved special process sources.

   h.   Define the process, responsibilities and authority for the approval status decision, changes of the approval status and conditions for a controlled use of suppliers depending on their approved status.

   i.   Determine and manage the risk when selecting and using suppliers.

      ⊡   **Reference Procedures:** Supplier Selection & Evaluation (OP-7.4.01)

                              Supplier Performance Monitoring (OP-7.4-02)

7.4.2 Purchasing Information

Purchasing documents contain data clearly describing the product ordered, including, where applicable:

   a.   Requirements for approval of product, procedures, processes, and equipment.

   b.   Requirements for qualification of personnel.

c.   Quality management system requirements.

d.   Identification and revision status of specifications, drawings, process requirements, inspection / verification instructions and other relevant technical data.

e.   Requirements for design, test, inspection, verification (including production process verification), use of statistical techniques for product acceptance, and related instructions for acceptance.

f.   Requirements for test specimens (e.g., production method, number, storage conditions) for design approval, inspection / verification, investigation or auditing.

g.   Requirements for the supplier to notify M2 Global of nonconforming product and arrangements for the approval of supplier nonconforming material.

h.   Requirements for the supplier to notify M2 Global of changes in product and/or process, changes of suppliers, change of manufacturing facility location and, where required, obtain organization approval.

i.   Requirements for the supplier to flow down to the supply chain the applicable requirements including customer requirements.

j.   Record retention requirements.

k.   Right of access by M2 Global, their customer, and regulatory authorities to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable records.

Purchasing documents are reviewed and approved for adequacy of the specified purchase requirements prior to communication to the supplier.

⌗   **Reference Procedure:**   Purchasing (OP-7.4-03)

7.4.3   Verification of Purchased Product

M2 Global has defined the activities needed to ensure that supplier-provided product meets specified purchase requirements. M2 Global ensures that incoming product is not used or processed until it has been verified as conforming to specified requirements unless it is released under recall procedures. This activity may occur upon receipt of the material and/or prior to use.

Verification activities can include, as follows:

- Obtaining objective evidence of the conformity of the product from the supplier, such as inspection / test records, certificates of compliance, process control records, etc.

- Inspection and audit at the supplier's premises.

- Review of the required documentation.

- Inspection of products upon receipt.

- Delegation of verification to the supplier, or supplier certification, through defined requirements with a register of delegations maintained.

Where specified in the contract or other document, M2 Global's customer or the customer's representative can verify at the supplier's premises and at M2 Global's premises that subcontracted products conform to specified requirements. Verification by the customer does not absolve M2 Global of the responsibility to provide acceptable product, nor does it preclude subsequent rejection by the customer.

> ⊐ **Reference Procedure:**   Receiving Verification (OP-7.4-04)

7.5   Production and Service Provision

7.5.1   Control of Production and Service Provision

M2 Global controls the conditions to carry out its production and service operations. These controls include, as applicable:

a.   The availability of information that describes the characteristics of the product, such as drawings, parts list, materials and process specifications.

b.   The availability of work instructions, as necessary, such as process flow charts, production documents, manufacturing plans, travelers, routers, work orders, process cards and inspection documents.

c.   The use of suitable equipment, such as jigs, fixtures, molds and software programs.

d.   The availability and use of monitoring and measuring equipment.

e.   The implementation of monitoring and measurement.

f.   The implementation of product release, delivery, and post delivery activities.

g.   Accountability for all products during production (e.g., parts quantities, split orders, nonconforming product).

h.   Evidence that all production and inspection / verification operations have been completed as planned, or as otherwise documented and authorized.

i.   Provision for the prevention, detection, and removal of foreign objects.

j.   Monitoring and control of utilities and supplies such as water, compressed air, electricity and chemical products to the extent they affect product quality.

k.   Criteria for workmanship, which shall be stipulated in the clearest practical way (e.g., written standards, representative samples or illustrations).

M2 Global considers the following, as applicable, in planning for its production and service operations:

- Establishing, implementing and maintaining appropriate processes to manage critical items, including process controls where key characteristics have been identified.

- Identifying in-process inspection / verification points when adequate verification of conformance cannot be performed at later stages of realization.

- Designing, manufacturing, and using tooling to measure variable data.

- Special processes (see 7.5.2).

> 🗗 **Reference Procedure:** Production Control (OP-7.5-01)

7.5.1.1 Production Process Verification

Where appropriate, a process is established for the inspection, verification, and documentation of a representative item from the first production run of a new part or assembly. This is to verify that the production process and tooling are capable of producing parts and assemblies that meet requirements. This process occurs each time a new job order is produced, and following any subsequent change that invalidates the original results, such as engineering changes, manufacturing process changes, tooling changes, change of operator and machine setup.

> 🗗 **Reference Procedure:** First Article Inspection (OP-8.2-03)

7.5.1.2 Control of Production Process Changes

Personnel authorized to approve changes to production processes are identified. Changes affecting processes, production equipment, tools or software programs are documented and procedures are available to control their implementation. The results of changes to production processes are assessed to confirm that the desired effect has been achieved without adverse effects to product conformity.

> 🗗 **Reference Procedure:** Production Process Changes (OP-7.5-02)

7.5.1.3 Control of Production Equipment, Tools and Software Programs

Production equipment, tools and software programs used to automate and control / monitor product realization processes are validated prior to use and maintained and inspected periodically according to documented procedures. Validation prior to release for production use includes verification of the first article produced to the design data / specification. Storage requirements, including periodic preservation / condition checks, are defined for production equipment or tooling in storage.

7.5.1.4 Post – Delivery Support

Servicing that is performed typically involves the customer returning the product to M2 Global for repair or return. This occurs as the result of the product not meeting the customer's specifications as delivered, failure during the warranty period, or otherwise a non-warranty repair.

In cases where servicing is performed or is a specified requirement, service operation processes are developed as appropriate to provide for:

- Collection and analysis of in-service data.

- Actions to be taken, including investigation and reporting, when problems are detected after delivery.

- Control and updating of technical documentation.

- Approval, control, and use of repair schemes.

- Controls required for off-site work (e.g., organization's work undertaken at the customer's facilities).

⊡   **Reference Procedure:**   Returned Materials Authorization (OP-7.5-08)

7.5.2   Validation of Processes for Production and Service Provision

Where production and service results cannot be fully verified by subsequent inspection and testing of the product, and as a consequence, deficiencies become apparent only after the product has been delivered, M2 Global will validate the applicable processes to demonstrate the ability of these processes to achieve planned results. These processes are often referred to as special processes.

M2 Global establishes arrangements for special processes as follows:

- Defines criteria for review and approval of the special processes.

- Approves equipment and qualification of personnel.

- Uses specific methods and procedures, including the control of the significant operations and parameters of special processes in accordance with documented process specifications and associated changes.

- Defines requirements for validation records.

- Defines criteria for revalidation.

⊡   **Reference Procedure:**   Special Processes (OP-7.5-03)

7.5.3   Identification and Traceability

M2 Global established and maintains procedures for identifying the product by suitable means from receipt and during all stages of production and delivery. Where appropriate, the identification of the configuration of the product is also maintained to identify any differences between the actual configuration and the agreed configuration.

Product status is identified by suitable means to indicate the conformance or nonconformance of product with regard to monitoring and measurement requirements. This status is maintained throughout production to ensure that only product meeting customer requirements is dispatched, used or installed. Media used for acceptance authority, such as stamps, electronic signatures, and passwords are to have appropriate controls established and documented.

Where and to the extent that traceability is a specified requirement, M2 Global will control the unique identification of individual product or batches along with maintaining records of the identification. In establishing this process, the following are to be considered depending on the level of traceability requirements:

- Identification to be maintained throughout the product life.

- The ability of products manufactured from the same batch of raw material or from the same manufacturing batch to be traced, as well as the destination (delivery, scrap) of all products of the same batch.

- For an assembly, the ability to trace the identity of its components and those of the next higher assembly.

- For a given product, a sequential record of its production (manufacture, assembly, inspection / verification) to be retrievable.

> 🖶   **Reference Procedure:**   Product Identification and Traceability (OP-7.5-04)

7.5.4   Customer Property

M2 Global developed and maintains procedures for the control of customer-owned property provided for use or incorporation into the product. This property is to be identified, verified, protected and safeguarded while it is under the control of M2 Global. Any such product that is lost, damaged, or is otherwise unsuitable for use is reported to the customer and records maintained.

Customer property also includes intellectual property and personal data owned by the customer, including customer furnished data used for design, production and/or inspection. M2 Global will ensure confidentiality and agrees to not disclose this property to any parties outside of the organization. Records of confidentiality agreements are maintained.

> 🖶   **Reference Procedure:**   Customer Property (OP-7.5-05)

7.5.5 Preservation of Product

M2 Global established procedures for identification, handling, packaging, storage, and protection of products and their components in order to maintain conformity to requirements of the product during internal processing and through delivery to the customer.

Preservation of the product includes, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, the following:

- Cleaning.

- Prevention, detection and removal of foreign objects.

- Special handling for sensitive products.

- Marking and labeling including safety warnings.

- Shelf life control and stock rotation.

- Special handling for hazardous materials.

> **Reference Procedures:** Product Handling and Preservation (OP-7.5-06)

7.6 Control of Monitoring and Measuring Equipment

M2 Global identifies the monitoring and measuring required and any equipment needed to provide evidence that the product produced conforms to determined requirements. M2 Global also develops the procedures necessary to ensure that monitoring and measurement processes can be performed that are consistent with requirements.

M2 Global developed and maintains procedures to control, calibrate and maintain monitoring, measuring and test equipment (including test software) used to demonstrate the conformance of product to the specified requirements. This equipment may be company owned, personally owned by an employee, or supplied by the customer. M2 Global establishes the extent of calibration / verification checks and the recall frequency. Records are maintained as evidence of calibration status.

Based on customer requirements, M2 Global performs the following:

a. Determines the measurements to be made and the accuracy required, and select the appropriate monitoring, measuring, and test equipment capable of the necessary accuracy and precision.

b. Identifies inspection, measuring and test equipment that can affect product quality, and calibrate / verify and adjust them at prescribed intervals, or prior to use, against certified equipment having a known valid relationship to internationally or nationally recognized standards. Where no such standards exist, the basis used for calibration is documented.

c. Inspection, measuring and test equipment is recalled to a defined method when requiring calibration.

Unless otherwise specified, a printed copy of this controlled document should be verified for current revision prior to use.

d.   Labels inspection, measuring and test equipment with the calibration status.

e.   Maintains calibration records for inspection, measuring and test equipment. These records are to define the process employed for their calibration including details of the equipment type, unique identification, location, frequency of checks check method, and acceptance criteria.

f.   Assesses and documents the validity of previous inspection and test results when inspection, measuring or test equipment is found to be out of calibration, and will take appropriate action on the equipment and any product affected.

g.   Ensures that environmental conditions are suitable for the calibrations, inspections, measurements and tests being conducted.

h.   Ensures measuring and test equipment is protected from damage and deterioration during handling, preservation and storage such that the accuracy and fitness for use are maintained.

i.   Safeguards from adjustments that would invalidate the calibration setting.

⊟   **Reference Procedure:**
Control of Monitoring and Measurement Devices (OP-7.6-01)

8   MEASUREMENT, ANALYSIS AND IMPROVEMENT

8.1   General

M2 Global plans and implements the monitoring, measurement, analysis, and improvement processes needed to demonstrate conformity to product requirements, ensure application of the quality management system, and continually improve the effectiveness of the quality management system. This includes determination of applicable methods, including statistical techniques, and the extent of their use.

8.2   Monitoring and Measurement

8.2.1   Customer Satisfaction

As one of the measurements of the quality management system's performance, M2 Global monitors information relating to customer perception as to whether we have met customer requirements. M2 Global identifies and develops methods for obtaining and using this information. Customer surveys, direct customer communication, product conformity feedback, on – time delivery performance, customer complaints, corrective action requests, warranty claims and other methods are performed periodically to measure customer satisfaction.

8.2.2   Internal Audit

M2 Global established and maintains documented procedures for planning and implementing internal quality audits to verify whether quality activities and related results comply with planned arrangements

and to determine the effectiveness of M2 Global's quality management system. As applicable, internal audits meet contract and/or regulatory requirements.

M2 Global schedules internal quality audits based on the status and importance of the activity to be audited and results of previous audits. Internal audit personnel are independent of the activity being reviewed, and are to remain objective and impartial to the area and processes audited.

Each functional area of the business that affects product quality and customer satisfaction is audited at least once per year. Managers can request out-of-cycle audits at any time. The results of the audits are an integral part of management reviews and quality management system records. Applicable functional areas include:

- RF Products operations, and associated design and development engineering function.

- Precision Manufacturing operations.

- Common support functions, including customer service, maintenance, information technology, shipping / receiving, human resources and quality.

Audit results are recorded, discussed with the manager having responsibility in the area being reviewed, and reviewed as part of the management review. The appropriate manager responsible for the reviewed area must take timely corrective action on deficiencies found during the audit. Follow-up review activities are to verify and record the implementation and effectiveness of the corrective action taken.

> **Reference Procedure:** Internal Quality Audits (OP-8.2-01)

8.2.3   Monitoring and Measurement of Processes

M2 Global applies suitable methods for monitoring and, where applicable, measure its quality management system processes to demonstrate their ability to achieve planned results. When planned results are not met, corrective action is to be taken to resolve the process nonconformance and ensure conformity of the product.

In the event of process nonconformity, the following actions are performed:

- Take appropriate action to correct the nonconforming process.

- Evaluate whether the process nonconformity has resulted in product nonconformity.

- Determine if the process nonconformity is limited to a specific case or whether it could have affected other processes or products.

- Identify and control any nonconforming product in accordance with **Section 8.3**

8.2.4   Monitoring and Measurement of Product

M2 Global identifies and defines applicable procedures to monitor and, where applicable, measure key product characteristics to verify that product requirements have been met. Such monitoring and

measurement is conducted during various appropriate stages (e.g., in-process, final) of the production process.

Measurement requirements for product or service acceptance are documented, typically as part of the production documentation. These requirements include the following:

- Criteria for acceptance and / or rejection.

- Where in the sequence measurement and testing operations are performed.

- A record of the measurement results.

- Specific type of measurement instruments required and any specific instructions associated with their use.

No product is delivered until it has been inspected or otherwise verified as conforming to specified requirements and the associated data and documentation are available and authorized. If requested by the customer or other relevant authority, product that has not completed all required monitoring and measurement activities may be delivered under recall procedures pending completion of these activities.

M2 Global establishes and maintains records, which provide evidence that the product has been properly monitored and measured and indicates the person(s) authorizing release of product for delivery to the customer. These records show clearly whether the product has passed or failed according to defined acceptance criteria. Test records show actual test results data when required by specification or acceptance test plan. Where required to demonstrate product qualification, records are maintained that provide evidence that the product meets the defined requirements.

When sampling inspection is used as a means of product acceptance, the sampling plan is justified on the basis of recognized statistical principles and appropriate for use, such as matching the sampling plan to the criticality of the product and to the process capability.

When product is released for production use pending completion of all required measurement and monitoring activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements.

In addition, all documents that are required by the contract/order to accompany the product, such as shipping documents, certificates of compliance, test data, etc., are to be present at delivery and are protected against loss and deterioration.

     ⊡   **Reference Procedure:** In-Process Inspection & Test (OP-8.2-02)

8.3   Control of Nonconforming Product

M2 Global established and maintains documented procedures to ensure that product not conforming to specified requirements is prevented from unintended use or delivery. This control provides for identification, evaluation, segregation (when practical), review and disposition of nonconforming product. Documented procedures also include the notification to the functions concerned and the related responsibilities and authorities for dealing with the nonconforming product.

Nonconforming product is handled by the following, as applicable:

a. Eliminate the nonconformity by reworking the product to meet the specified requirements.

b. Authorizing its use as-is or repaired, only if specifically authorized by the customer or a relevant authority.

c. Rejected and scrapped to prevent its original intended use or application.

d. For nonconforming product that is detected after delivery or use has started, actions are taken appropriate to the effects, or potential effects, of the nonconformity, which may include the timely notification to the customer and authorization for return of the material.

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

Unless otherwise restricted in the contract, product may be dispositioned by M2 Global without customer authorization for use-as-is or repair if the product was designed internally and controlled via a customer specification, provided the nonconformity does not result in a departure from customer-specified requirements.

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

Repaired and/or reworked product is re-inspected in accordance with the quality plan and/or documented procedures.

Where required by the contract, the proposed use or repair of product that does not conform to specified requirements is reported for concession to the customer or customer's representative. The description of the nonconformity that has been accepted, and of repairs, is recorded to denote the actual condition.

In addition to any contract or regulatory authority reporting requirements, M2 Global ensures timely reporting of delivered nonconforming product that may affect reliability or safety. Notification shall include a clear description of the nonconformity, which includes as necessary parts affected, customer and/or organization part numbers, quantity, and date(s) delivered.

Reference Procedure: Control of Nonconforming Product (OP-8.3-01)

8.4 Analysis of Data

M2 Global determines, collects, and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data provides information relating to:

a. Customer satisfaction, (ref. 8.2.1).

b. Conformity to product requirements, (ref. 8.2.4).

c. Characteristics and trends of processes and products including opportunities for preventive action, (ref. 8.2.3 and 8.2.4).

d. Suppliers, (ref. 7.4).

8.5 Improvement

8.5.1 Continual Improvement

M2 Global promotes and manages continual improvement in quality, productivity, service, and value. It continuously improves the effectiveness of its quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management reviews. Improvements are measured against goals and objectives and results are evaluated for their effectiveness.

8.5.2 Corrective Action

M2 Global established and maintains documented procedures to eliminate the causes of actual nonconformities to a degree appropriate to the magnitude of problems and commensurate with the risks encountered. Changes to the documented procedures resulting from corrective actions are implemented and recorded.

The corrective action procedure includes the following:

a. Effectively handling customer complaints and reports of product nonconformities.

b. Investigating the causes of nonconformities relating to product, process and quality management system, and recording the results of the investigation.

c. Determining the corrective action needed to eliminate the causes of nonconformities.

d. Applying controls to ensure that corrective action is taken and that it is effective.

e. Reviewing the effectiveness of corrective actions taken.

f. Flowing down of the corrective action requirements to a supplier, when it is determined that the supplier is responsible for the nonconformity.

g. Specific actions where timely and/or effective corrective actions are not achieved.

h. Determining if additional nonconforming product exists based on the causes of nonconformities and taking further action when required.

⊡ **Reference Procedure:** Corrective Action (OP-8.5-01)

8.5.3   Preventive Action

M2 Global established and maintains documented procedures to eliminate the causes of potential nonconformities to a degree appropriate to the magnitude of problems and commensurate with the risks encountered. Changes to the documented procedures resulting from preventive actions are implemented and recorded.

The preventive action procedure includes:

a.   Identifying and investigating potential nonconformities relating to product, process and the quality management system.

b.   Evaluating the action needed to prevent nonconformities.

c.   Determining and implementing the action needed.

d.   Recording the results of actions taken.

e.   Reviewing the effectiveness of the preventive action taken.

Reference Procedure: Preventive Action (OP-8.5-02)

8.5.4   Lean Six Sigma Enterprise

M2 Global promotes the application of Lean and Six Sigma principles across the enterprise to all of its business processes. These principles are a philosophy and ongoing effort to reduce waste and variability throughout every process. Lean manufacturing is a systematic approach to identifying and eliminating non-value added activities through continuous improvement of processes.   Waste elimination equates to increased process speed. Six Sigma involves a disciplined methodology for eliminating variance in processes to eliminate defects from occurring resulting in lower costs and improved customer satisfaction.

Lean consists of the following key principles:

- *Value* – Understanding the value of the work we perform by defining it as something that our customers want to pay for.

- *Value Stream Analysis*– Analyzing the process steps that are performed throughout the product life cycle by identifying those steps that add value and striving to eliminate those that add waste.

- *Pull* – Eliminating the primary sources of waste – overproduction – by only producing what customers want, when they want it. This means starting production only when the customer "pulls."

- *Flow* – Removing other major sources of waste – bloated inventory and waiting – by ensuring that goods flow continuously through the supply chain and never stop.

- *Kaizen / Continuous Improvement* – Striving for the total elimination of waste through a succession of small, action-oriented (kaizen) events within the production process.

The Lean Six Sigma Enterprise at M2 Global provides the framework and tools for managing breakthrough improvements.

9   RECORD OF CHANGES

Revision	Reason for Change	Date
1	Original Issue	1/11/00
2	Add Servicing and Quality Records to TOC	10/22/01
3	Compliance with ISO 9001:2000	7/30/03 Issue C
4	Updated Vision Statement Compliance with AS9100 (Preliminary)	5/31/05 Issue A
4	Updated Quality Policy	2/28/06 Issue B
4	Revised References	5/31/06 Issue C
4	Revised References	7/14/06 Issue D
5	Compliance with ISO 9001:2008	6/01/09
6	Compliance with AS9100 Rev C (2009)	07/07/11