



## **Quality Control Manual**

Minquan Electronics is the manufacturing equity partner for all Sofasco DC axial fans, blowers and accessories. This manufacturing/marketing/distribution partnership has been in place for 25 years. All Sofasco AC axial fans and blowers are made under the same quality specifications in this document at our plant in Kaohsiung, Taiwan.

<b>Minquan Electronics</b>	<b>Chapter: 1.0</b>
<b>Quality Manual</b>	<b>Promulgation Order</b>
	Doc No.: QM-01

## **Chapter 1 Promulgation Order**

This Quality Manual is an outline of the Quality Management System (QMS) developed in accordance with *ISO 9001:2000 Quality Management System-Requirements*. It elaborates on the quality policies and quality objectives of our company, and describes QMS procedures and interaction of various activities within the organization. Providing basic guidelines for implementing the QMS of our company, this manual is also a commitment made by our company to all of our customers. It is the responsibility of every employee in our company to abide by this manual.

**General manager:** Xu Shujue

**Date:** August 1<sup>st</sup> 2003

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### 1.2 Revision Record

Date Revised	Paragraph	Page	Description	Version After Revision	Revised by	Approved by
2003.8.1	1.0~8.5		Initial Release	01	Yang Chunyong	Xu Shujue
2003.11.29	4.0 and 7.5	15-19, 42	Added chapter numbers, document titles, the applicable scope of 1.2, and the outsourcing process.	01-A	Yang Chunyong	Xu Shujue
2003.12.02	4.0	7, 16, 18	Added the applicable scope of section 1.2, and the outsourcing process.	01-A	Yang Chunyong	Xu Shujue
	5.5	Attachment II Attachment I	Revised purchasing responsibility in Diagram of Department Responsibility Under QMS Process. Merged the Plastic Mould Division and Mould Division in Organizational Chart of Minquan.	01-A	Yang Chunyong	Xu Shujue
	6.2	30	Added requirements of competence, awareness and training to section 6.2.2.	01-A	Yang Chunyong	Xu Shujue
	7.3	37, 38	Added requirements of design and development validation to 7.3.6.	01-A	Yang Chunyong	Xu Shujue
	8.5.2, 8.5.3	61-62	Added corrective action requirements to 8.5.2 and preventive action	01-A	Yang Chunyong	Xu Shujue

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			requirements to 8.5.3.			
2004.02.10	5.5	Letter of Attorney	Revised Power of Attorney to Management Delegate.	01-A	Yang Chunyong	Xu Shujue

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<b>Quality Manual</b>	<b>Purpose and Scope</b>	Total Pages: 90
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<p><b>1.3 Purpose and Scope</b></p> <p>1.3.1 Purpose</p> <p>1.3.1.1 This manual provides an overview of the quality policies and quality objectives of Minquan Electronics (Shenzhen) (hereunder referred to as “Minquan”) and describes its organizational structure and roles and responsibilities involved. Providing uniform standards and rules for quality activities within Minquan and coordinating quality activities among departments within the organization, this manual is a regulatory document regarding the quality management and assurance of Minquan.</p> <p>1.3.2 Applicable Scope:</p> <p>This manual is applicable to all quality management activities of Minquan, including design, development, manufacturing, sales and services of cooling fans.</p>		

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<b>Quality Manual</b>	<b>Management Regulations of Quality Manual</b>	Total Pages: 90
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<p>1.0 The Quality Manual is compiled, revised, released and annulled under the leadership of the General Manager, and implemented by the Management Delegate with the cooperation of various functional departments. A practical, simplified and feasible quality manual must be compiled in accordance with ISO 9001:2000 requirements and company policies.</p> <p>1.1 The Quality Manual, after compiled, shall be submitted to the General Manager for release upon approval.</p> <p>1.2 The Quality Manual shall be released, revised and annulled in accordance with the Document Management Procedure.</p> <p>2.0 The documents of Quality Manual shall be numbered and document versions shall be revised in accordance with the Document Management Procedure.</p> <p>3.0 The Quality Manual includes controlled and non-controlled copies. The controlled copies shall be handled in accordance with the Document Management Procedure. The non-controlled copies are only used for reference by their respective holders and fall beyond the scope of control. Non-controlled copies are revised without notification.</p>		

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<p><b>1.0 Company Profile</b></p> <p>Minquan Electronics (Shenzhen) Co., Ltd. (hereunder referred to as “Minquan”) is a China factory of Taiwan Tranyoung Technology Corp. As an integrated electronic products OEM, Minquan delivers a wide variety of mini-cooling fans and solutions with top quality, low cost and high efficiency to our customers.</p> <p>Founded in 1989, Minquan boasts a complete set of modern manufacturing equipment with products marketed in such countries and regions as Japan, America and Taiwan. Minquan is dedicated to setting up a highly integrated cooling fan manufacturing center so as to deliver top-quality integrated product solutions for customers.</p> <p>We aim at making Minquan become a world-class fan industry leader by leveraging enterprise resources to enhance product capacity; establishing international-standard-compliant QMS and importing computerized integrated software system; offering first-rate working, living and entertainment environment to attract and retain high-caliber technical and managerial talents.</p> <p>Factory address: Block 13, Xinyuan Ind. District, Tangwei, Fuyong Town, Baoan District, Shen Zhen, 518103 China.</p> <p>Tel: 0755-27376089                      Fax: 0755-27376066</p> <p>General manager: Xu Shujue</p>		

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<b>Quality Manual</b>	<b>Organizational Structure and Responsibility</b>	Total Pages: 90
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<p><b>1. General</b></p> <p>This section introduces the organizational structure of Minquan Electronics, the roles, responsibilities, authorities and relations of personnel involved in quality-related management, implementation and verification, and the requirements of resource allocation, Management Delegate appointment and management review, in order to establish, implement and maintain the relevant plans and the QMS.</p> <p><b>2. Applicable Scope</b></p> <p>This section is applied to all the departments relevant to the QMS.</p> <p><b>3. Work Content</b></p> <p><b>3.1 Responsibility and Authority</b></p> <p>The following stipulates the responsibilities and authorities of personnel involved in quality-related management, implementation and verification, especially the following personnel, who shall:</p> <ol style="list-style-type: none"> <li>a. Take effective measures to prevent unqualified products, procedures and other QMS-related non-conformities.</li> <li>b. Validate and record the problems regarding products, procedures and other QMS-related issues.</li> <li>c. Adopt, recommend or propose solutions in a regulatory way to solve non-conformities</li> <li>d. Verify the effect of actions taken for solving problems.</li> <li>e. Control the further processing, delivery or installation of non-conforming products till the defect or non-conformity is corrected.</li> </ol> <p><b>3.1.1. General Manager</b></p> <ol style="list-style-type: none"> <li>a. Preside over the company’s overall work, and approve the quality manual.</li> <li>b. Preside over the management review.</li> </ol>		

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<p>c. Determine the company operation policy and objectives, and ensure their accomplishment.</p> <p>d. Establish and release the company quality policy and quality objectives, and appoint the Management Delegate.</p> <p>Allocate adequate resources.</p> <p><b>3.1.2. Associate Director</b></p> <p>a. Assist the General Manager in coordinating and communicating with the R&amp;D Dept., Engineering Dept., Manufacturing Dept., Material and Equipment Management Dept. and Purchasing Dept.</p> <p>b. Handle the affairs arranged by the General Manager through communication with relevant departments, and report conditions to the General Manager.</p> <p><b>3.1.3 Management Delegate</b></p> <p>a. Organize related departments and employees to carry out the quality policies approved by the General Manager.</p> <p>b. Establish, carry out and retain the QMS in accordance with ISO 9001:2000 standards.</p> <p>c. Periodically preside over internal QMS review and report review results to the General Manager as the basis for future QMS improvement.</p> <p>d. Liaison with external parties regarding QMS-related affairs on behalf of Minquan.</p> <p><b>3.1.4 Special Assistant to General Manager</b></p> <p>a. Assist the General Manager in handling daily work of Minquan and report handling results to the General Manager.</p> <p>b. Assist in the establishment/revision of operation plans and management review of Minquan.</p>		

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<p>c. Promote company policies and regulations internally to urge related departments to carry out them so as to realize anticipated operation plans and achieve company goals.</p> <p>d. Handle various affairs arranged by the General Manager and report handling results to the General Manager.</p> <p><b>3.1.5. Administration Department: General Affairs/Customs Clearance/HR/Security &amp; Safety</b></p> <p>a. Establish organizational structure of Minquan and appointment and dismissal of senior employees.</p> <p>b. Organize, plan and coordinate trainings and evaluate training results.</p> <p>c. Take charge of factory canteen, environmental sanitation, company car arrangement, customs clearance as well as factory safety and security work.</p> <p>d. Take charge of HR development, computer maintenance and dormitory management.</p> <p><b>3.1.6 Finance Department</b></p> <p>a. Take charge of cost calculation and accounting.</p> <p>b. Establish cost control plan and supervise its implementation.</p> <p>c. Formulate and carry out accounting and financial systems of Minquan.</p> <p>d. Take charge of the financial operation of Minquan.</p> <p>Note: The Finance falls beyond the certification scope of ISO 9001:2000.</p> <p><b>3.1.7 Purchasing Department</b></p> <p>a. Take charge of supplier development, review, management as well as purchasing.</p> <p>b. Purchase raw materials, related finished products and other auxiliary materials required for manufacturing.</p> <p>c. Establish purchasing procedure, and handle issues regarding the production</p>		

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capacity, date of delivery and quality of manufacturers.

- d. Sort out and audit payment request and payment.
- e. Handle other affairs arranged by superiors.

**3.1.8 Sales Department**

- a. Conduct customer satisfaction investigation and provide customer-related services.
- b. Review contracts/orders.
- c. Understand customer requirements and assist them in making sure about their special requirements for products.
- d. Create customer profile, and collect and take safekeeping of customer-related data.
- e. Collect and analyze market and customer information, and perform management of product quality track records.
- f. Evaluate customer satisfaction.
- g. Control and manage product delivery and feed back delivery information to related departments.
- h. Explore domestic and foreign markets, and participate in product-related exhibitions and invitation for bidding.

**3.1.9 Quality Assurance Department**

- a. Vigorously carry out various relations in the quality assurance system, strengthen quality management, quality inspection and measurement inspection and take charge of the quality of delivered products; for quality issues to be corrected, the manager of the Quality Assurance Dept. or personnel authorized by him/her shall be entitled to demand termination of production.
- b. Perform quality supervision in the whole manufacturing process. The Quality

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<p>Assurance Dept. shall be entitled to veto any quality problem occurring in the manufacturing process.</p> <p>c. Perform inspection and supervision of the raw materials, outsourcing/purchased parts, semi-finished products and finished products in accordance with related standards and inspection specifications; carry out and supervise inspection and test status identification in accordance with document requirements.</p> <p>d. Organize review of non-conforming products and make disposal decisions.</p> <p>e. Collect, sort out and collect statistics of original quality records; create archives and take safekeeping of quality documents, quality records and related materials.</p> <p>f. Lead continual improvement projects, and take corrective and preventive actions.</p> <p>g. Apply statistical techniques and control documents and data.</p> <p>h. Preside over daily Material Review Board (MRB).</p> <p>i. Give guidance to and perform auditing of suppliers, and make an entry of qualified suppliers.</p> <p>j. Carry out and manage reliability testing.</p> <p><b>3.1.10 Engineering Department</b></p> <p>a. Perform verification of packing materials.</p> <p>b. Perform retirement plan and maintenance of manufacturing equipment, and prepare standard operation guide.</p> <p>c. Develop new equipment and tools, and renovate manufacturing equipment &amp; tools.</p> <p>d. Lead pilot-run production of new products/parts as well as engineering change management.</p>		

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e. Perform internal calibration and maintenance of measuring instruments.

#### **3.1.11. R&D Department**

- a. Perform feasibility analysis of new product development plan, project initiation as well as existing product & technology innovation projects.
- b. Design new products and parts.
- c. Take charge of technology transfer of new products as well as new product introduction and mass production.
- d. Fulfill responsibilities related to production part approval procedure.
- e. Establish and output product specifications and standards.
- f. Make and output product drawings.
- g. Verify new products/parts.
- h. Assess new products/technologies and their quality.
- i. Take charge of pilot-run production, examination and improvement of new products and parts; take charge of sample making as well as Bill of Material (BOM) making.
- j. Perform review of new products, and establish new product material usage list and standards.

#### **3.1.12 Material and Equipment Management Department**

- a. Perform warehouse management as well as material control management.
- b. Take charge of product carry, storage, protection and delivery.
- c. Establish Material Requirements Planning (MRP).

#### **Material Control/Production:**

- a. Establish and carry out production plan; establish MRP.
- b. Try to reduce inventory as much as possible and carry out inventory reduction activities under the precondition of ensuring production.
- c. Arrange, coordinate, supervise and manage the production schedule.

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- d. Exercise control over the products offered by customers.
- e. Track production progress and manage gap analysis.
- f. Perform material tracking, and coordinate such matters as date of delivery and quality.
- g. Perform production load analysis and production capacity balance.

**3.3.13 Manufacturing Department**

- a. Establish manning of manufacturing personnel, perform management of manufacturing personnel and carry out production tasks in accordance with production schedule to ensure they are completed in time.
- b. Perform appropriate control and management of production schedule and raw materials.
- c. Take charge of the quality of manufactured products, and assist in handling quality exceptions in the manufacturing process.
- d. Organize and supervise workshops to ensure production safety and perform production in compliance with company rules and regulations. Ensure the facilities in workshops and working environment meet working requirements.
- e. Handle defective products, return products and non-conformity.
- f. Control production schedule, and conduct research on production efficiency so as to improve production efficiency.
- g. Take charge of the use and daily maintenance of manufacturing equipment and assist in handling equipment failures.
- h. Take charge of the on-the-job trainings and trainings for multi-tasking workers.
- i. Take charge of handling of materials, semi-finished products and finished products in the manufacturing process as well as product packaging.

**3.1.14 General Manager Office**

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**A. Auditing:**

- a. Coordinate departments to organize all employees to promote the full-scale operation of ISO 9001(2000) QMS.
- b. Assist in guiding related departments to prepare/revise QMS documents of various levels.
- c. Assist the Management Delegate in organizing and implementing internal review of ISO 9001 (2000).
- d. Track the improvement of non-conformities found during internal and external review and report results to the Management Delegate.
- e. Investigate the applicability, implementation and effectiveness of QMS documents of various levels, and put forward revision proposals.
- f. Track the implementation of matters deliberated in the management review, and report implementation results to the Management Delegate.
- g. Perform auditing of other matters arranged by the Management Delegate, and report auditing results to him/her.

**B. Document Control Center:**

- a. Release and manage all controlled documents of Minquan, and guide related departments to perform document management.
- b. Keep a record of receipt and distribution of external documents.
- c. Take charge of entry, distribution, retrieval and destroy of documents.
- d. Supervise and guide related functional departments to establish document entry system in their respective departments.

**3.1.15 Mould Division**

- a. Design/Manufacture moulds.
- b. Repair moulds.
- c. Apply for mould materials, and purchase and track outsourcing moulds.

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**3.2 Resource:**

Related departments raise their resource requests. The General Manager approves the resource requests and provides sufficient resources, including provision of equipment and assignment of well-trained qualified personnel to manage, implement and verify product and manufacturing process. For the organizational structure diagram of Minquan and department responsibility under QMS process, see Attachment I and Attachment II.

**4. Related documents and data:**

See Post Description.

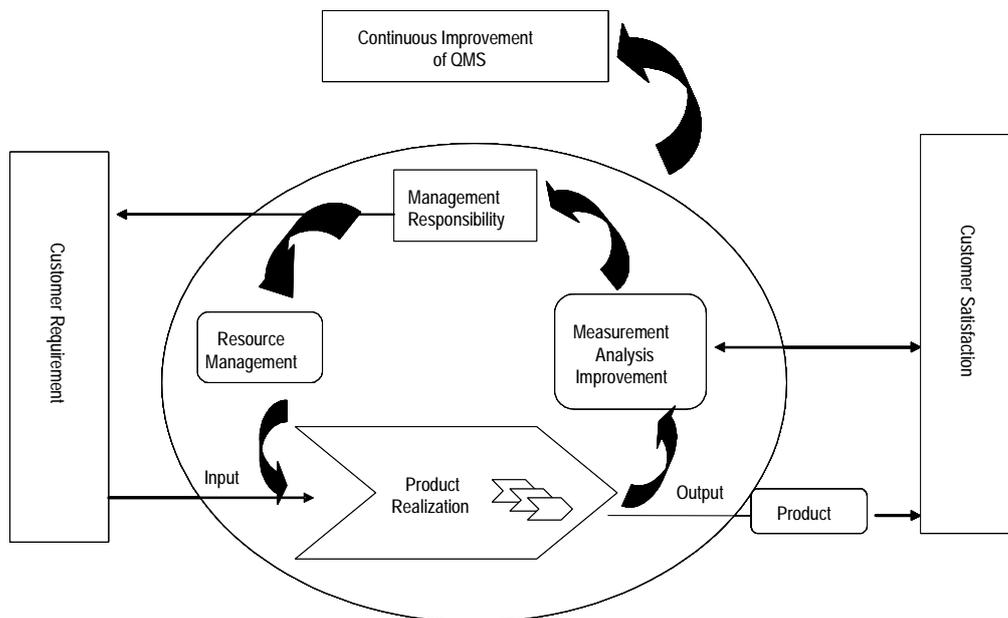
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## 1.0 General Requirements

1.1 Minquan establishes, implements and maintains a documented Quality Management System (QMS) in compliance with the requirements of ISO 9001:2000, and always persists in continual improvement of the QMS processes to ensure the applicability, effectiveness and thoroughness of the QMS

1.2 Minquan manages the QMS using the process approach.

1.3 The process approach applied in the Minquan's QMS is illustrated as follows:



1.4 Minquan generally carries out quality related activities in the following procedures: a. order placing; b. design and development; c. purchasing; d. outsourcing; e. production; f. measurement and monitoring; g. packaging and storage; h. sales; i. customer service.

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1.5 The above procedures are subdivided and stipulated more precisely in Minquan's QMS documentation as follows.

- a. Sequence and correlation of these procedures.
- b. Standards and approaches for effective control over these procedures.
- c. Provide information and resources to support and monitor the effective operation of these procedures.
- d. Monitor, measure and analyze these procedures.
- e. Take necessary actions to meet this manual's requirements and achieve continuous improvement.

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## 2.0 Documentation Requirements

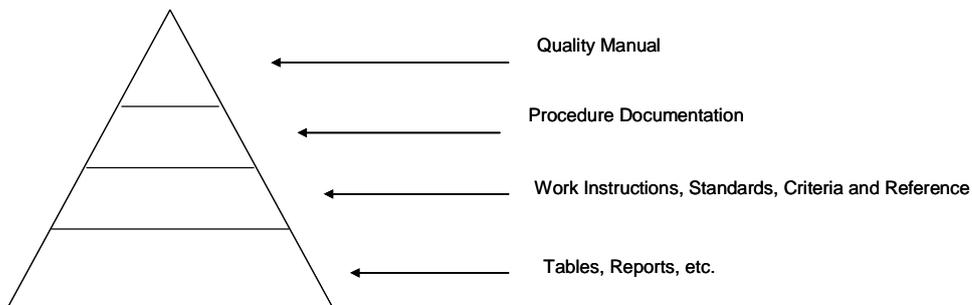
### 2.1 General

2.1.1 To ensure the effective operation of the QMS, Minquan establishes a documented QMS in compliance with the requirements of ISO 9001:2000.

Minquan's QMS documentation includes:

- a. Minquan's Quality Policy (see 5.3) and Quality Objectives (see Attachment IV)
- b. The Quality Manual
- c. Procedure documentation, work instructions, work standards, work specification and criteria.
- d. Tables, reports, records, etc.

Minquan's QMS documentation is classified into four categories:



#### 2.1.2

Layer 1: Quality Manual

Layer 2: Procedure Documentation

Procedure documentation, as an extension and embodiment of the Quality Manual, specifically demonstrates the principles and guidelines in the Manual, including the purpose, scope of quality related activities, that is, what to do and

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how, when, where, with whom to carry out the activities, how to control and record these activities.

**Layer 3 Work Instructions**

Quality cannot be guaranteed without documented regulations. Considering this point, Minquan establishes a series of work instructions, reference, criteria and inspection standards to describe how to carry out work and tasks.

**Layer 4: Tables and Reports**

Tables and reports are used to record activity state and the result achieved.

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## 2. Quality Manual

2.1 This Quality Manual covers all the aspects required by ISO 9001:2000 based on Minquan's actual needs, and introduces Minquan's QMS and operation mode. The Quality Manual includes:

- a. Scope of products covered by the Quality Manual. (see Chapter 14)
- b. Departments covered by the Quality Manual. (see Chapter 5.5)
- c. Procedure documents involved.
- d. The interaction between procedures making up the QMS.

2.2 The Quality Manual shall be approved by the General Manager and must be strictly obeyed by all employees.

## 3 Control of Documents

### 3.1 General

To ensure all the documents in Minquan's QMS are in controlled state, Minquan establishes and implements the Documentation Management Procedure.

### 3.2 Responsibility

3.2.1 The Management Delegate is responsible for establishing a document control procedure, and has the authority and responsibility to supervise and review the procedure. When necessary, he/she also performs coordination for document revision and organizes review of the documents in use.

3.2.2 The Document Control Center is responsible for the distribution and management of all controlled documents.

3.2.3 Relative departments or personnel are responsible for the compilation, review and approval of documents and deliver these documents to the Document Control Center for distribution.

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### **3.3 Document Control Requirements**

3.3.1 Management regulations of Finance and General Affairs Departments fall under the scope of Minquan's management regulations, while other QMS documents in relation with ISO 9001:2000 are controlled based on the Document Management Procedure.

- a. Documents shall be classified and numbered in a uniform manner.
- b. Document release shall be compliant with work procedures and approved by the manager concerned. Necessary information of the released document shall be recorded, including the document category, serial number, distribution amount and the departments receiving the document.
- c. For documentation changes or abolishment, relative department or original compiling department shall submit revision applications.

3.3.2 Nonconforming or obsolete documents must be reported and handled accordingly to ensure that the most current revision of applicable controlled documentation is available where used as work reference.

3.3.3 Originals of QMS documentation are kept and managed by Document Control Center, and related tables and records are kept by various departments.

3.3.4 The management of document approval authority and external and dispatched documents must be carried out in compliance with the Document Management Procedure.

3.3.5 The management of engineering technical data must be carried out in compliance with the Engineering Technical Data Management Procedure.

3.3.6 Documents shall be identified, revised and updated periodically.

3.3.7 In some appropriate cases, obsolete documents deemed worthy of preservation shall be identified and maintained in a history file.

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### **3.4 Related Documentation**

3.4.1 Document Management Procedure

3.4.2 Engineering Technical Data Management Procedure

## **4. Control of Quality Record**

### **4.1 General Principle**

Take a record of various quality-related activities, manage and take safekeeping of the quality record to prove compliance with requirements and provide objective evidence for effective operation of QMS.

### **4.2 Responsibility**

4.2.1 All departments shall prepare, fill, collect, archive, transfer and handle related quality record.

4.2.2 The Management Delegate supervises and audits the implementation of quality record control.

### **4.3 Control Requirements**

4.3.1 The identification, storage, check, protection, retention period and handling of the quality record shall comply with the *Quality Record Management Procedure*.

4.3.2 The Management Delegate formulates regulations regarding the numbering of quality record and compiles quality record list.

4.3.3 The quality record shall be detailed, accurate, complete and legible and the specific product or catalog is identifiable in the quality record.

4.3.4 The quality record must be attached with a specific date and signature, and in some cases, it needs to be countersigned and approved before it comes into effect.

4.3.5 Various types of quality record shall be managed by their respective liable departments.

### **4.4 Related Documentation**

4.4.1. Quality Record Management Procedure

<b>Minquan Electronics</b>	<b>Chapter: 4.0</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Quality Management System</b>	Total Pages: 90
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<p>4.4.2 Document Management Procedure</p> <p>4.4.3 Engineering Data Management Procedure</p>		

<b>Minquan Electronics</b>	<b>Chapter: 5.1</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Management Commitment</b>	Total Pages: 90
	Doc No.: QM-01	
<p>The General Manager of Minquan hereby makes a commitment to establish and implement QMS in accordance with ISO 9001:2000 standards, and to constantly develop and perfect QMS through continual improvement.</p> <p>To accommodate management and operation needs, Minquan has set up a sound organizational structure and established organizational structure diagram (see Attachment I); unambiguously stipulated the roles and responsibilities of quality-related personnel in relevant documents (for post responsibilities and authorities, see Post Description of each department); established the diagram of department responsibility under QMS process in compliance with ISO 9001:2000 standards.</p> <p>The General Manager ensures the above commitment can be fulfilled by taking the following actions:</p> <ol style="list-style-type: none"> <li>a. The General Manager establishes and approves quality policies and objectives in written form, and takes actions to ensure they can be correctly understood and carried out by all employees.</li> <li>b. Convey customer requirements and requirements of laws and regulations to employees at various levels through meetings, review, reports and documents to ensure they are fully understood and implemented in daily work.</li> <li>c. Perform management review regularly to ensure the applicability, effectiveness and thoroughness of the QMS.</li> <li>d. Provide sufficient resources for each quality activity.</li> </ol>		

<b>Minquan Electronics</b>	<b>Chapter: 5.2</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Customer Focus</b>	Total Pages: 90
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Minquan's quality activities are customer-centered, and the management is committed to constantly improve customer satisfaction. Top management (General Manager) of Minquan ensures that:

- a. Carry out market investigation and forecast and face-to-face communication with customers that lead to a full understanding of customer needs and expectations.
- b. Establish and implement the QMS (for example, providing resources, customer-related process, engineering change, customer satisfaction evaluation, continual improvement.) to achieve customer satisfaction.

<b>Minquan Electronics</b>	<b>Chapter: 5.3</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Quality Policy</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1 The Quality Policy of Minquan:</b></p> <p>Customer Oriented all employees' participation, continuous improvement, Pursue excellence.</p> <p><b>2.</b> All employees of Minquan shall be dedicated to the manufacturing of high-tech products abiding by laws and regulations, to provide satisfying products and services for customers and meantime establish and continuously improve the QMS.</p> <p><b>3 Quality Policy Management</b></p> <p>3.1 Top management ensures the quality policy is fully communicated and understood within Minquan through trainings, meetings, notices and other ways.</p> <p>3.2 Top management conducts management reviews to check the quality policy's applicability, and if necessary, updates and revises the quality policy.</p> <p><b>4. Operation Guideline of Minquan:</b></p> <p><b>Promote Total Quality Management (TQM)</b></p> <p><b>Transcend excellence &amp; Technology (T&amp;T)</b></p> <p><b>Provide services and products beyond customer satisfaction.</b></p>		

<b>Minquan Electronics</b>	<b>Chapter: 5.4</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Planning</b>	Total Pages: 90
	Doc No.: QM-01	

## 1. Quality Objectives

Related departments draft annual quality objectives of Minquan in the management review meeting, and break them down into specific goals for relevant liable departments to carry out the QMS. For annual quality objectives of Minquan, see Attachment IV.

1.1 Measure quality objectives regularly in accordance with the Data Analysis and Application Management Procedure, and take corrective actions regarding factors that affect the achievement of quality objectives. Minquan shall annually perform appropriate adjustment of the quality objectives and their values based on measurement result.

## 2 QMS Planning

2.1 To meet the general requirements of ISO 9001:2000 standard for the QMS (see Chapter 4.1):

To achieve the quality objectives, Minquan performs the QMS planning, including:

- a. Establish ISO 9001:2000-compliant QMS, including the Quality Manual, procedure documents and other documents. These documents provide appropriate regulations regarding the process management required by the QMS.
- b. Prepare sufficient resources.

2.2 If existing QMS is to be improved or updated, Minquan will perform QMS re-planning.

2.3 To ensure the integrity of QMS, we assure any change of QMS is performed in controlled state so that the QMS is always appropriate and suitable for the company

context whether before, during or after the change.		
<b>Minquan Electronics</b>	<b>Chapter: 5.5</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Responsibility, Authority and Communication</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1 Responsibility and Authority</b></p> <p>1.1 To accommodate management and operation needs, Minquan has set up a sound organizational structure, and established the organizational structure diagram.</p> <p>1.2 The responsibilities and authorities of all quality-related personnel as well as the relationship among them are stipulated in related documents.</p> <p>1.3 For the organizational structure diagram, and responsibilities and authorities of all departments and management layers, see Chapter 3.0.</p> <p>1.4 For post responsibilities and authorities of Minquan, see the Post Description of each department.</p> <p>1.5 Minquan works out the diagram of department responsibility under QMS process (see Attachment II).</p> <p>1.6 Minquan ensures all employees are aware of their responsibilities, authorities and relation with other departments (posts) through trainings and other ways so that all employees attend to their own duty and cooperate with each other to effective conduct various activities and make contributions for quality improvement.</p> <p><b>2 Management Delegate</b></p> <p>The Management Delegate is appointed by the General Manager. For the responsibilities and authorities of the Management Delegate, see Chapter 3.</p> <p><b>3. Internal Communication</b></p> <p>The General Manager ensures an appropriate communication process is established within the organization to discuss the validity of the QMS. Internal communication is realized in such ways as billboard, procedure document trainings and meetings.</p> <p><b>4 Related Documentation</b></p> <p>Diagram of Department Responsibility under QMS Process</p>		

<b>Minquan Electronics</b>	<b>Chapter: 5.6</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Management Review</b>	Total Pages: 90
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### **1. General**

The QMS shall be reviewed periodically to ensure its applicability, effectiveness and thoroughness.

### **2 Responsibility**

2.1 The General Manager is responsible for presiding over management review meetings and approving management review plans and reports.

2.2 The Management Delegate is responsible for compiling management review plans and tracking and validating various improvement measures proposed in management review reports.

2.3 Department managers shall attend management review meetings, establish and implement all improvement actions associated with respective departments.

### **3 Control Requirements**

3.1 The management review shall be organized by the General Manager at least once a year.

3.2 The management review plan is compiled by the Management Delegate and then distributed to the personnel involved in management review upon the approval of the General Manager.

3.3 After receiving the management review plan, the chief reviewer prepares and submits to-be-input review related materials as follows:

- a. Internal and external quality audit results.
- b. Customer feedback.
- c. Process performance and product conformity.
- d. Status of corrective and preventive actions.
- e. Implementation condition and effect evaluation of the past tracking measures for management review.

<b>Minquan Electronics</b>	<b>Chapter: 5.6</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Management Review</b>	Total Pages: 90
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f. Internal and external environments of Minquan that could affect the QMS.

g. Recommendations for improvement.

3.4 Periodically hold management review meetings to evaluate the QMS and discuss whether to change it based on the quality policy and objectives.

3.5 The Management Delegate is responsible for taking meeting records and compiling management review reports (as a form of review output) with a clear comment including the improvement actions regarding the QMS, processes, products and resources.

3.6 The management review report is distributed to relative departments and personnel after approved by the General Manager.

3.7 The Management Delegate is responsible for tracking and validating the status of improvement measures proposed in management review, and reporting the validation result to the General Manager.

**4. Related Documentation**

4.1 Management Review Procedure

<b>Minquan Electronics</b>	<b>Chapter: 6.1</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Provision of Resources</b>	Total Pages: 90
	Doc No.: QM-01	
<p>1. Minquan management determines and provides the resources needed to:</p> <p>    1.1 Implement and maintain the QMS, and continually improve its effectiveness.</p> <p>    1.2 Enhance customer satisfaction by meeting customer requirements.</p> <p>2. Resources include personnel, capital, equipment, techniques, approaches, work environment, information, etc.</p> <p>3. In case resources fail to meet the demand, Minquan shall identify them and provide needed resources pursuant to such documents as the Manufacturing Equipment Management Procedure and the Human Resource Management Procedure.</p>		

<b>Minquan Electronics</b>	<b>Chapter: 6.2</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Human Resources</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1 General</b></p> <p>Establish a human resource system and clearly define the recruitment, training and evaluation requirements for employees in various posts to ensure appropriate personnel are allocated for different posts.</p> <p><b>2 Responsibility</b></p> <p>2.1 The Administration Dept. is responsible for compiling entry requirements, recruiting new staff, compiling training plans and supervising their implementation, and organizing fundamental trainings and evaluations on training effect.</p> <p>2.2 The department managers are responsible for compiling their respective regulations on entry requirements, organizing trainings within departments and conducting qualification accreditation for special posts.</p> <p><b>3 Control Requirements</b></p> <p><b>3.1 Personnel arrangement</b></p> <p>3.1.1 The Administration Department cooperates with other department managers to allocate appropriate personnel for each post in accordance with the Human Resource Management Procedure.</p> <p>3.1.2 Department managers conduct onsite evaluation on employees' performance in their respective departments at any time. For the unqualified employees, managers need to arrange trainings or transfer them to other posts, and designate other capable ones.</p> <p><b>3.2 Training control</b></p> <p>3.2.1 All employees must take basic and pre-post trainings, and if necessary, on-the-job trainings.</p> <p>3.2.1.1 Basic training</p>		

<b>Minquan Electronics</b>	<b>Chapter: 6.2</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Human Resources</b>	Total Pages: 90
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<p>Fundamental training content covers company profile, regulations, quality policy, quality objectives, quality awareness, ISO 9000:2000, fundamental acknowledge, operation safety, and so on. Minquan hold these trainings to enable employees to:</p> <ol style="list-style-type: none"> <li>a. Realize the significance of their work and the importance of future development.</li> <li>b. Realize the importance of satisfying customer requirements.</li> <li>c. Realize the correlation among different work and the effect of their work on other work and on product quality.</li> <li>d. Master more skills to exert all their powers to achieve quality objectives.</li> </ol> <p>3.2.1.2 Pre-post training</p> <p>Pre-post training content covers the work instructions, reference, operation procedures and related work skills.</p> <p>3.2.1.3 On-the-job training</p> <p>On-the-job training aims at enhancing the capability level and quality awareness required for the job.</p> <p>3.2.2 Training mode</p> <p>3.2.2.1 Attend advanced studies, courses and academic conferences.</p> <p>3.2.2.2 Organize case discussion, operating demonstration, and on-the-job training.</p> <p>3.2.3 Training plan implementation and qualification accreditation.</p> <p>3.2.3.1 The Administration Department defines the competency requirements for personnel at the posts associated with product quality or at special posts, and conducts qualification accreditation based on the QMS process requirements.</p> <p>3.2.3.2 At the end of every year, the Human Resource Department establishes and implements a training plan for the next year according to the opinions of top management and department managers.</p>		

<b>Minquan Electronics</b>	<b>Chapter: 6.2</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Human Resources</b>	Total Pages: 90
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<p>3.2.3.3 The Human Resource Department shall evaluate training effects and take necessary measures for improvement.</p> <p>3.2.3.4 The records regarding employees' education, training, skill and experience are kept by the Human Resource Department.</p> <p><b>3.3 Evaluation on training effect</b></p> <p>The Administration Dept. and Human Resource Dept. sometimes organize department managers to evaluate the overall training effect and collect opinions and suggestions every year, so as to take corresponding actions.</p> <p><b>4 Related Document</b></p> <p>Human Resource Management Procedure</p>		

<b>Minquan Electronics</b>	<b>Chapter: 6.3</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Infrastructure</b>	Total Pages: 90
	Doc No.: QM-01	
<p>1. When performing quality planning and management review and working out corrective actions, identify facilities that need to be replenished or updated. The facilities required to realize product conformity include:</p> <ul style="list-style-type: none"> <li>1.1 Buildings, work areas and related auxiliary facilities (factory premises, workshops, warehouses, offices and testing labs).</li> <li>1.2 Equipment (Tools, manufacturing equipment, testing equipment, hardware, software and so on).</li> <li>1.3 Supportive services (including communication facilities and so on).</li> </ul> <p>2. Provide and maintain facilities in accordance with <i>Manufacturing Equipment Management Procedure</i>.</p> <p><b>3. Related Documentation</b></p> <p>3.1 Manufacturing Equipment Management Procedure</p>		

<b>Minquan Electronics</b>	<b>Chapter: 6.4</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Working Environment</b>	Total Pages: 90
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## 1. Working Environment Control

1.1 When performing quality planning and management review and working out corrective actions, identify work environment factors that can be controlled and improved:

1.1.1 Physical factors: Heat, sanitation, vibration, noise, humidity, pollution, light, cleanliness, and air flow.

1.1.2 Human factors: Working approaches, safety rules and guide, corporate culture construction and so on.

1.2 Control these work environment factors in accordance with the *Work Environment Management Procedure* to ensure product conformity.

## 2. Related Documentation

2.1 Work Environment Management Procedure

<b>Minquan Electronics</b>	<b>Chapter: 7.1</b>	Edition: 01
<b>Quality Manual</b>	<b>Planning of Product Realization</b>	Total Pages: 90
	Doc No.: QM-01	

1. This Quality Manual and related procedure documents stipulate the realization process of existing products of Minquan. Therefore, only some specific products, projects and orders (their specific requirements differ from those of existing products) need to be planned. The planning results shall form the quality plan (control plan).

2. The quality plan may contain the following:

Requirements and quality objectives of products, projects or contracts.

Required process and control method.

Required document and record.

Required resources.

Inspection criteria.

Verification, confirmation, supervision, inspection and test methods and requirements.

3. Supervise the implementation of quality plan in accordance with the regulations in control plan.

#### **4. Related Documentation**

Control Plan

<b>Minquan Electronics</b>	<b>Chapter: 7.2</b>	Edition: 01
<b>Quality Manual</b>	<b>Customer-related Processes</b>	Total Pages: 90
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## **I. Identify Product Requirements**

1. The Sales Dept. organizes the identification of product requirements in accordance with the requirements in the Order Review and Control Procedure.

2. Minquan identifies product requirements through market investigation, reference to legal documents, order review, communication with customers and self-evaluation, and transforms these requirements into related documents, for example, product standards and sales documents.

3. Product requirements include:

- a. Requirements clearly specified by customers, including both product quality requirements, and delivery and post-delivery activities, for example, date of delivery, packaging, shipping and after-sales services.
- b. Requirements that are not clearly specified by customers but are required by an anticipated or specified purpose.
- c. Product-related legal or statutory requirements.
- d. Responsibility of Minquan for customers.

### **4. Related Documentation**

4.1 Order review procedure

## **II. Review of Product Requirements**

### **1. General**

Before making a commitment to provide products, Minquan needs to review the product requirements.

### **2 Responsibility**

2.1 The Sales Dept. shall be responsible for organizing the review of product requirements.

<b>Minquan Electronics</b>	<b>Chapter: 7.2</b>	Edition: 01
<b>Quality Manual</b>	<b>Customer-related Processes</b>	Total Pages: 90
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<p>2.2 The Manufacturing Dept., Purchasing Dept., Quality Assurance Dept. and Engineering Dept. shall assist the Sales Dept. in the review of product requirements.</p> <p><b>3 Control Requirements</b></p> <p>3.1 Prior to accepting a contract/order, the Sales Dept. organizes related departments to review the product requirements in accordance with the Order Audit Procedure, ensuring:</p> <ul style="list-style-type: none"> <li>a. Various product requirements (including specifications, quantity, date of delivery, place of delivery, and settlement mode) are laid down in written documents. For verbal order, the Sales Dept. shall record order requirements in a document which must be confirmed by the customer.</li> <li>b. Requirements of contracts or orders with terms inconsistent with those of previous ones are met.</li> <li>c. Minquan is capable of meeting the specified requirements.</li> </ul> <p>3.2 The reviewers must be eligible in terms of both professional competence and work experience.</p> <p>3.3 The Sales Dept. shall negotiate with the customer to clarify any doubt in the contract/order or matter that needs to be adjusted in the review.</p> <p>3.4 In the case of change of product requirements, the Sales Dept. shall organize review of the change in accordance with the regulations in original review procedure and ensure related documents are changed and related personnel are informed of the change.</p> <p>3.5 After the review, record review results as well as track measures proposed during the review.</p> <p><b>4. Related Documentation</b></p> <p>4.1 Order Review Procedure</p>		

<b>Minquan Electronics</b>	<b>Chapter: 7.2</b>	Edition: 01
<b>Quality Manual</b>	<b>Customer-related Processes</b>	Total Pages: 90
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### **III. Communication with Customers**

1. Communication contents and approaches are stipulated in related documents such as *Customer Complaint Handling Procedure* and so on.

1.1 Communication contents include:

- a. Product information.
- b. Inquiry, contract or order handling, including contract/order revision.
- c. Customer feedback, including complaints.

1.2 Communication approaches include:

- a. Provide customers with the product information of Minquan in such ways as distributing advertising materials in trade fairs and exhibitions, and visiting customers.
- b. Carefully respond to customer inquiries or complaints.
- c. Establish effective contact with customer regarding contract/order handling (including revision).

#### **2. Related Documentation**

2.1. Customer Complaint Handling Procedure

<b>Minquan Electronics</b>	<b>Chapter: 7.3</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Design and Development</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1. General</b></p> <p>Control the product design and development to ensure the product satisfies or even exceeds both contract and customer requirements.</p> <p><b>2. Applicable Scope</b></p> <p>This section is applicable to the control over Minquan’s product design and development.</p> <p><b>3. Work Content</b></p> <p>3.1 Minquan establishes and maintains the Design and Management Procedure, including how to use the procedure documents for obtaining information of existing design projects possessing similar nature with present and future projects, to ensure Minquan products meet requirements.</p> <p>3.2 Planning of design and development:</p> <p>Minquan shall make a plan for each design and development project, listing the activities required and specifying the objectives and responsible people for these activities. Design and development activities shall be assigned to competent personnel who are allocated with sufficient resources.</p> <p>Plans shall change along with the design progress. Minquan shall designate liaisons for the convenience of organizational and technical communication among diversified departments involved in product design, to transfer and periodically review the documents with necessary information around departments.</p> <p>3.4 Design input</p> <p>3.4.1. Minquan management determines and documents the product design input requirements including applicable laws and regulations, and reviews whether these requirements are appropriate. For incomplete, inexplicit or paradoxical</p>		

<b>Minquan Electronics</b>	<b>Chapter: 7.3</b>	Edition: 01-A
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requirements, Minquan management shall solve the problems together with the problem presenter. The contract review result shall be taken into account during design input. When the Computer Aided Design (CAD) or Computer Aided Engineering (CAE) is outsourced, Minquan needs to provide technical guide for outsourcing supplier. If necessary, the CAD/CAE system shall support bidirectional communications with the computer system of customer.

### 3.5 Design output

Design output shall be presented in the form of document that can be verified and validated against the design input requirements.

### 3.5 Design output

- a. Meet the design input requirements.
- b. Contain or cite the acceptance rules.
- c. Mark out the design features having a significant relation with product safety and normal work relation (for example, the requirements for operation, storage, carrying, maintenance and handling). The design documents must be reviewed before distribution.

### 3.6 Design review

3.6.1 The design results shall be formally reviewed at proper stages of design and output in the form of document. Participants involved in review shall consist of the representatives of functional departments involved in design, and when necessary, other experts as well. Review records shall be kept in good custody.

3.6.2 Design review is classified into initial technical design review and technical process plan review.

### 3.7 Design verification

Design verification shall be carried out at proper stages of design to ensure the output in design phase meets the design input requirements, and relevant

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verification information shall be recorded. Design verification may adopt the following approaches:

3.7.1. Design review.

3.7.2. Change the computing method.

3.7.3. Compare the new design with the proved similar ones.

3.7.4. Carry out experiments on the new design for verification.

3.8 Design confirmation

3.8.1 Minquan shall confirm new designs according to the design and development plan to ensure the products satisfy the expected or specified requirements.

3.8.2 Design confirmation includes customer's confirmation of model machine and the authentication of finalized product after small-batch trial production.

3.8.3 The R&D Department records the design confirmation result and necessary tracking actions, and designates technical personnel to check and record the status of tracking action implementation.

3.8.4 Product design also probably needs validations at other stages before it completes. If a design is expected to support different functions, it could be validated several times.

3.9 Design changes

3.9.1 The changes for improving product design must be fully demonstrated and strictly examined to ensure they are appropriate and feasible.

3.9.2 Provide identifications for design changes, and keep smooth communication among departments regarding these changes. Handle the impact of these changes on product features. Ensure related technical documents are consistently updated and changes are consistently implemented.

3.9.2 Perform design review, verification and validation for the products with complicated and great design changes as strictly as new year products.

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3.9.3 The change evaluation result and subsequent change actions shall be recorded in documents and kept in custody.

**4 Related Documentation**

Design Management Procedure

<b>Minquan Electronics</b>	<b>Chapter: 7.4</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Purchasing</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1. General</b></p> <p>Minquan establishes the Supplier Review Procedure and Purchasing Control Procedure to control the purchasing process and ensure the purchased products comply with requirements.</p> <p><b>2 Responsibility</b></p> <p>2.1 The Engineering Department and R&amp;D Department are responsible for compiling the technical requirements for materials needed in manufacturing.</p> <p>2.2 The Purchasing Dept. shall organize and coordinate suppliers (that is, the suppliers in standard; similarly hereinafter) to perform review, make material purchasing plans and implement these plans. The Purchasing Dept. is responsible for the quality of purchased materials and shall communicate and handle the disputes with suppliers about quality problems.</p> <p>2.3 The Quality Assurance Department is responsible for verifying the purchased materials.</p> <p>2.4 The Depute Manager is responsible for the validation and approval of qualified suppliers.</p> <p><b>3 Control Requirements</b></p> <p>3.1 Purchasing control</p> <p>3.1.1 The type and extent of control over suppliers is dependent upon the effect of purchased product on subsequent production realization and the final product.</p> <p>3.1.2 Minquan generally evaluates and selects suppliers based on their capability to supply product in accordance with Minquan requirements. Minquan evaluates suppliers in the following modes:</p> <p>a. Investigation on writing capability.</p>		

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- b. Sample evaluation.
- c. Onsite evaluation.
- d. Performance assessment (including such factors as product quality, product/service provision timeliness, coordination capability, and problem handling capability).

3.1.2 Records of the results of these assessments and any necessary actions arising from the assessment are recorded in the Supplier Assessment Worksheet.

3.1.3 Minquan chooses the suppliers that are recognized as qualified in assessment as cooperation partners, lists them on the qualified supplier roster, creates their profiles and records their provision information. The qualified supplier roster shall be dynamically adjusted according to suppliers' performance.

3.1.4 Minquan re-reviews the qualified suppliers at least once a year from the following aspects: quality, product/service provision timeliness, coordination capability, and price.

### 3.2 Purchasing information

3.2.1 The purchasing document shall clearly describe the product to be purchased, including where appropriate:

#### a. Information of to-be-purchased product

- ◆ Product name, category, model, specification, price, quantity, provision time, and so on.
- ◆ Quality requirement and acceptance requirement of important or special products.

#### b. Other information:

- ◆ Requirement for approval of supplier's products, procedures, processes and equipment.
- ◆ Requirement for qualification of supplier's personnel.

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<p>◆ Requirements for supplier's quality management system.</p> <p>3.2.2 Review the accuracy, integrity and applicability of purchasing documents before they are distributed.</p> <p>3.3 Verification of purchased product</p> <p>3.3.1 Purchased products can be verified in the following ways:</p> <ol style="list-style-type: none"> <li>a. Minquan performs receiving inspection and testing and/or other verification activities.</li> <li>b. The customer performs verification at Minquan's premises.</li> <li>c. Minquan conducts verification at supplier.</li> <li>d. The customer performs verification at the supplier's premises.</li> </ol> <p>3.3.2 When a customer performs verification at Minquan's premises, Minquan will provide assistance and arrangement.</p> <p>3.3.3 Where Minquan or a customer proposes to perform verification activities at the supplier's premises, the Purchasing Department of Minquan shall specify the intended verification arrangements and method of product release in the purchasing document provided to the supplier.</p> <p>3.3.4 Customer's verification shall neither replace Minquan's verification nor exempt Minquan from the responsibility of providing qualified product.</p> <p><b>4 Related Documentation</b></p> <ol style="list-style-type: none"> <li>4.1. Supplier Management Procedure</li> <li>4.2. Purchasing Management Procedure</li> </ol>		

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## **I. Production and Service Provision**

### **1. General**

To ensure customer requirements are met to the greatest extent, strict control must be exercised over such activities as the production process, product release, delivery and after-sales services.

### **2 Responsibility**

2.1 The manager of the Sales Dept. shall be responsible for establishing production plan and supervising implementation of it.

2.2 Workshops of the Manufacturing Dept. shall organize production; coordinate with related departments during production; implement process documents and abide by process regulations to produce qualified products.

2.3 The Process Engineer (PE) of the Engineering Dept. shall make process preparations, ensure the accuracy and applicability of process documents and manage manufacturing equipment, jigs and fixtures, and moulds.

2.4 The Quality Assurance Dept. shall be responsible for process supervision, process quality control and product inspection.

2.5. The Sales Dept. shall be responsible for product delivery and after-sales services.

### **3 Control Requirements**

#### **3.1 Production Process Control**

3.1.1 Supervise production plan in accordance with the *Production Plan Management Procedure*.

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### 3.1.2 Process Preparations

- a. Make process preparations to ensure requirements of design and specifications are met.
- b. Design appropriate process, and compile various process documents and operation guide containing product features.

### 3.1.3 Control production conditions in accordance with the *Production Process Control Procedure, Jig & Fixture Management Procedure, and Manufacturing Equipment Management Procedure*, and ensure:

- a. Drawings, process documents and operation guide used onsite shall be consistent, complete, legible and valid. Documents used onsite shall not be altered at will and white drawings shall by no means be used.
- b. Appropriate manufacturing equipment and tooling shall be equipped onsite, and they shall be periodically maintained and inspected.
- c. Appropriate measuring and monitoring devices shall be equipped onsite and they shall be periodically calibrated.
- d. Purchased raw materials and parts must be inspected before put into use.
- e. Arrange a favorable work environment.
- f. Monitor and measure manufacturing process.
- g. Operators must be appraised and only certified operators are allowed on duty.

### 3.1.4 Critical Process (Critical Process: Refers to the process that plays a critical role in product quality).

- a. PE group determines critical process and provide conspicuous identification of critical process in the process documents.
- b. Quality control requirements of critical process shall be brought into DC FAN production standards or dedicated operation guide shall be written for them.

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- c. The personnel engaged in critical process shall be trained and only allowed on duty when they are qualified.

#### 3.1.5 Special Process

- a. PE group shall determine special process and provide conspicuous identification of special process in process documents.
- b. Perform necessary certification of personnel, process and equipment and keep track of the certification result.
- c. Prepare dedicated process documents for special process and control the equipment & instruments and work environment required by it. The operators shall abide by the process specifications. Perform constant monitoring of process parameters and take a record of the monitoring results according to related regulations.

Note: For definition and confirmation of special process, see Section 2.

#### 3.1.6 Work Sequence Quality Control Point

Establish work sequence quality control point for the work sequence that may have unstable quality and affect critical quality features; perform operations in compliance with control documents and take a record in the whole process.

#### 3.1.7 Fixed Location Management and Safe Production

All production sites shall attach importance to fixed location management.

- a. The production site shall be divided into different zones based on logistics flow. Workshops and equipment shall be kept clean and tidy.
- b. The standard parts, components, or tools used at the production sites shall be kept in good order with a detailed record keeping track of them.

#### 3.2 Product Release Conditions

Only products that pass the inspection can be released or delivered, but an

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<p>exception can be made upon approval by the authorized personnel (customer approval is required if there is related regulation in the contract).</p> <p>3.3 Product Delivery</p> <p>3.3.1 The warehouse shall deliver goods against the "Delivery Note".</p> <p>3.3.2 Take quality protection measures before delivery to customers in accordance with the Product Handling, Packaging and Delivery Management Procedure. Ensure goods are intact during goods handling and loading.</p> <p>3.3.3 If the shipping is entrusted, the responsibility of protecting product quality shall be clearly stipulated in the shipping contract.</p> <p>3.4 Perform after-sales service in accordance with the regulations in the Customer Complaint Handling Procedure.</p> <p>3.4.1 After-sales Service Contents</p> <ol style="list-style-type: none"> <li>a. Handle correspondences, calls and visits regarding product quality.</li> <li>b. Replace or refund products with quality problems.</li> <li>c. Collect and feed back product quality information.</li> </ol> <p>3.4.2 The Sales Dept. shall collect, arrange and analyze customer suggestions, complaints and other information so as to provide reference for quality improvement.</p> <p>3.4.3 The Sales Dept. shall verify service implementation regularly.</p> <p>3.4.4 The Sales Dept. shall create customer profiles, and store service-related record.</p> <p><b>4. Related Documentation</b></p> <ol style="list-style-type: none"> <li>4.1. Production Plan Management Procedure</li> <li>4.2. Production Process Control Procedure</li> </ol>		

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- 4.3. Jig & Fixture Management Procedure
- 4.4 Manufacturing Equipment Management Procedure
- 4.5. Customer Complaint Handling Procedure
- 4.6. Product Handling, Packaging and Delivery Management Procedure

## **II. Validation of the production and service process**

### **1. General**

Validate the capability of special process to meet the requirements.

### **2. Responsibilities**

- 2.1 The Engineering Dept. shall organize the validation of special process.
- 2.2 The Quality Assurance Dept. and Manufacturing Dept. shall participate in the validation of special process.

### **3 Control Requirements**

#### 3.1 Definition of Special Process

If a process cannot be validated through subsequent measurement or monitoring, or the process defect can only manifest itself in subsequent processes or after product use or service delivery, or can only be validated through destructive tests, this process is called a "Special Process".

3.2 The Engineering Dept. shall determine special processes and provide conspicuous identification of them in the process documents.

- a. Establish process review and approval criteria.
- b. Assess equipment and certify personnel.
- c. Operators shall operate in compliance with specified operation method and sequence.
- d. Keep track of equipment assessment, personnel certification, process review and

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approval, and constant monitoring of process parameters.

- e. Perform revalidation when a problem occurs to the process or the factors that affect the process change.

#### **4. Related Documentation**

Process Inspection Management Procedure

### **III. Identification and Traceability**

#### **1. General**

Establish *Product Identification and Traceability Management Procedure* and *Inspection and Test Status Management Procedure* to prevent misuse of products of different types or statuses and delivery of non-conforming products and realize necessary traceability.

#### **2 Responsibility**

2.1 The warehouse shall be responsible for identification of incoming materials and validity of inventory identification.

2.2 The Manufacturing Dept. shall be responsible for identification of in-process products, semi-finished products and finished products, and protection of identification validity in the manufacturing process.

2.3 The Quality Assurance Dept. shall be responsible for inspection and test status identification as well as supervision/management of identification and traceability.

#### **3 Control Requirements**

##### **3.1 Product Identification**

##### **3.1.1 Identification of Incoming Materials**

- a. The qualified materials shall be classified out in different categories and placed in specified locations with clear identifications.
- b. Ensure the card, account and goods are consistent with one another in terms of

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management.

- c. Adhere to the “First in First out” principle when releasing materials.

### 3.1.2 Identification of In-Process Products, Semi-finished Products and Finished Products

- a. Identify products with identification cards or packing cases attached with product identification. The identification contents contain product name/model, and if necessary, the date of operation and operators/group must be clearly indicated.
- b. Only qualified products can be warehoused. The warehoused products shall be consistent with the types/models/specifications/quantities listed on the warehouse entry.

### 3.2 Traceability

Ensure the uniqueness of identifications and keep a record of them in cases where traceability is required in compliance with the requirements in the *Product Identification and Traceability Management Procedure*.

### 3.3 Product Inspection and Test Status Identification.

#### 3.3.1 Product inspection and test status can be classified into:

- a. Passed after inspection and test.
- b. Failed after inspection and test.
- c. Awaiting test results.
- d. Not yet tested.

3.3.2 Related departments including the Quality Assurance Dept. shall identify the inspection and test status of purchasing, outsourcing and product manufacturing and delivery.

3.3.3 The product inspection and test status can be differentiated by a variety of methods including the stamp, physical location of the product, label, tag, mark, and

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inspection record.

3.3.4 The identification of inspection and test status shall be well kept according to related regulations throughout the production to ensure only qualified products (or products released under concession) are released.

3.3.5 The Quality Assurance Dept. shall perform management of the identification of the inspection and test status. If other departments have any doubt about of the identification or find the identification is illegible, they shall report it to the Quality Assurance Dept. for handling.

3.3.6 Make clear identification of unqualified products to avoid product mix-ups or confusion.

#### **4. Related Documentation**

4.1. Product Identification and Traceability Management Procedure

4.2. Inspection and Test Status Management Procedure

### **IV. Customer Properties**

#### **1. General**

Establish *Customer Supplied Product Management Procedure* to control the identification, verification, protection and maintenance of customer properties.

#### **2 Responsibility**

2.1 Customer properties shall be controlled and managed by the Material and Equipment Management Dept. under the cooperation of the Quality Assurance Dept. and Manufacturing Dept.

2.2 The Quality Assurance Dept. shall be responsible for the identification of inspection and test status of parts and components provided by customers.

2.3 The Engineering Dept. shall be responsible for the review and validation of

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materials provided by customers, and formulation of inspection standards, or identification and management of equipment, instruments and jigs & fixtures provided by customers.

### **3 Control Requirements**

#### **3.1 Connotation of Customer Properties**

Customer properties refer to the properties owned by a customer. For Minquan, customer properties include:

- a. Product accessories and packing materials provided by customers.
- b. Technical data and confidential information including drawings provided by customers.

#### **3.2 Control of Instruments and Jigs & Fixtures Provided by Customers**

3.2.1 The IQC of the Quality Assurance Dept. shall perform inspection of the accessories and packing materials provided by customers, and identification of inspection and test status.

3.2.2 The Warehouse shall be responsible for the check of warehouse receipt, identification and safekeeping of goods.

3.2.3 Prepare "Customer Supplied Material Identification Cards" for products provided by customers in accordance with *Customer Supplied Product Management Procedure*, and store and take safekeeping of them in accordance with *Product Handling, Packaging and Delivery Management Procedure*.

3.2.4 Related departments shall take records of unqualified products or products lost, damaged or inapplicable during handling, storage and production, and notify the Sales Dept. The Sales Dept. shall then negotiate with customers about solutions.

3.2.5 Technical data provided by customers, including drawings and technical

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documents, shall be handled in accordance with the *Document Management Procedure*.

3.2.6 For management of other customer supplied products, see *Customer Supplied Product Management Procedure*.

#### **4. Related Documentation**

4.1. Customer Supplied Product Management Procedure

4.2. Product Handling, Packaging and Delivery Management Procedure

### **V. Preservation of Product**

#### **1. General**

The *Product Handling, Packaging and Delivery Management Procedure* is established to make good preservation of products and ensure they are intact.

#### **2 Responsibility**

2.1 The Manufacturing Dept. shall be responsible for management from material processing, assembly of finished products and packaging, and organization of handling of warehouse-in and warehouse-out products.

2.2 The Warehouse shall be responsible for storing and protecting warehouse-in materials and products, and organizing handling of warehouse-in and warehouse-out products.

2.3 All departments shall be responsible for the preservation of products in their respective areas.

#### **3 Control Requirements**

3.1 As applicable, preservation shall include identification, handling, packaging, storage and protection.

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### 3.2 Identification

Perform product protection identification according to customer requirements and company regulations. The protection identification may contain delivery identification, transportation identification and “Do not place upside down” identification.

### 3.3 Handling

Take protective measures while handling products to prevent product damage, and make sure to:

- a. Take measures to avoid collision during handling.
- b. Use and maintain containers and transportation vehicles that suit product features.
- c. Avoid over-height collision, falloff and mix-ups while handling materials and products.
- d. Prevent labels from coming off or being scratched off during handling.
- e. Deliver products to specified site or warehouse correctly.

### 3.4 Packaging

3.4.1 Opt for appropriate packing materials based on product features, and take proper packing methods to protect product quality.

3.4.2 The packaging shall be complete and secure with durable, legible and qualified labels attached on the packaging case.

### 3.5 Storage and Protection

Prior to use and delivery, the products shall be stored in specified location or warehouse, with appropriate protective and isolating measures taken to ensure they are free from damage. These measures include:

- a. The warehouse receipt procedure can only be handled after products pass

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the inspection. Perform inspection of the product type and quantity during warehouse receipt.

- b. Product identifications shall be compliant with regulations to avoid misuse or mix-ups.
- c. The storage areas shall be clean and tidy with favorable environment conditions.
- d. Perform classified storage and isolation of products by adopting appropriate methods to facilitate product access and protection.
- e. Check stored products periodically.
- f. The storage records shall be accurate and complete, and the account, card and goods shall be consistent.
- g. Adhere to the “First in First out” principle when releasing materials.

**4 Related Document**

- 4.1. Product Handling, Packaging and Delivery Management Procedure
- 4.2. Storage Management Procedure

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### 1. General

Minquan establishes the Measuring and Monitoring Device Control Procedure to control the measuring and monitoring devices (hereinafter referred to as "inspection device") and to ensure the measuring capability meets the measurement requirement.

### 2 Responsibility

2.1 The EE Group in Engineering Dept. shall select proper inspection devices according to the inspection object, task and requirement, perform control, calibration and maintenance of inspection devices, and evaluate the effect of unqualified inspection devices on product quality.

2.2 Every department must strictly comply with operation instructions when using inspection devices and perform daily maintenance of these devices.

### 3 Control Requirements

3.1 The EE group in Engineering Department shall determine appropriate inspection devices according to the inspection object and testing requirements. With the Deputy Manager's approval, the EE group needs to purchase inspection devices, book an entry in the account, sign numbers for devices, and create a profile.

3.2 Inspection devices must be calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to national measurement standards; where no such standards exist, the basis used for calibration or verification shall be recorded.

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3.3 Inspection device shall be identified with a calibration or inspection status label, which denotes the serial number, inspection validity and inspector. The identifications shall be maintained and allocated by dedicated personnel to avoid misuse of them.

3.4 Assess and record the validity of the previous measuring results when the inspection device is found out-of-tolerance and take appropriate actions as follows on the device and any product affected.

- a. Recall and re-inspect the products previously measured by out-of-tolerance inspection devices.
- b. Repair and re-calibrate the out-of-tolerance inspection devices.

3.5 Take actions to ensure the accuracy and applicability of inspection devices during carrying, maintenance and storage.

3.6 Ensure the environmental conditions are suitable for calibration and use of inspection devices.

3.7 Prevent adjustments that would invalidate the calibration. All inspection devices shall not be repaired without approval of the EE Group in Engineering Department.

3.8 The inspection devices that cannot be calibrated by Minquan shall be sent to national accredited calibration authorities for calibration.

3.9 Before using software for inspection, ensure it is applicable to verify whether products are qualified throughout production and installation, and if necessary, re-validate the software.

3.10 Minquan shall provide, if required by customer, inspection device data in cases where it is allowed in accordance with Minquan regulations, to prove the

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inspection devices are appropriate.

3.11 Maintain the calibration and verification records of inspection devices.

**4 Related Document**

4.1 Measuring And Monitoring Device Control Procedure

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<p>1. Plan and carry out the monitoring, measurement, analysis, and improvement activities to ensure:</p> <ul style="list-style-type: none"> <li>a. Product meets product requirements.</li> <li>b. The QMS works as planned.</li> <li>c. The QMS effectiveness is continually improved.</li> </ul> <p>2. The methods and application extent of monitoring, measurement, analysis, and improvement activities are precisely stipulated in a series of Minquan documents, including the Customer Service and Satisfaction Management Procedure, Process Control Procedure, IQC Management Procedure, Process Inspection Management Procedure, Internal Auditing Management Procedure, and related quality plans.</p> <p><b>3 Statistical Technology</b></p> <p>3.1 Minquan adopts appropriate statistical technologies in monitoring, measurement, analysis, and improvement activities, and formulates the approaches for using statistical technologies in the Data Analysis and Application Management Procedure.</p> <p>Minquan adopts the following statistical technologies:</p> <ul style="list-style-type: none"> <li>a. GB2828 (equivalent to IL-STD-105E) sampling inspection technology.</li> <li>b. Pareto diagram</li> <li>c. P control diagram (Nonconformity rate control diagram)</li> <li>d. Other descriptive statistical technologies.</li> </ul> <p>3.2 Statistical technologies shall be used in compliance with the following basic requirements:</p> <ul style="list-style-type: none"> <li>a. Application of statistical technologies must comply with the scientific,</li> </ul>		

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applicable and economic rules.

- b. Statistical result must be concluded based on correct and authentic data.
- c. Analyze statistical results to find the major quality problems and provide information for quality improvement.

**4 Related Document**

- 4.1. Customer Service and Satisfaction Management Procedure
- 4.2. Process Control Procedure
- 4.3. IQC Management Procedure
- 4.4. Process Inspection Management Procedure
- 4.5. Internal Audit Management Procedure
- 4.6 Data Analysis and Application Management Procedure

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<p><b>Customer Satisfaction</b></p> <p><b>1. General</b></p> <p>Minquan establishes the Customer Service and Satisfaction Management Procedure to standardize the customer satisfaction evaluation activities and ensure the objectivity and validity of evaluation, thus improving customer satisfaction.</p> <p><b>2 Responsibility</b></p> <p>2.1 The Sales Department is responsible for evaluating customer satisfaction.</p> <p>2.2 The Management Delegate supervises the customer satisfaction evaluation.</p> <p><b>3 Control Requirements</b></p> <p>3.1 Customer satisfaction related information shall be collected in the following ways stipulated in Customer Service and Satisfaction Management Procedure:</p> <ul style="list-style-type: none"> <li>a. Customer complaint</li> <li>b. Face-to-face communication with customer.</li> <li>c. Questionnaire, investigation, etc.</li> </ul> <p>3.2 Information analysis and use:</p> <p>Analyze collected information. If customer satisfaction decreases, the Management Delegate shall require related department to take improvement actions.</p> <p><b>4. Related Documentation</b></p> <p>Customer Service and Satisfaction Management Procedure</p>		

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## **Internal Audit**

### **1. General**

Carry out internal audits regularly to test the effectiveness of the QMS implementation and whether the QMS conforms to the requirements of ISO 9001 standard and Minquan.

### **2 Responsibility**

2.1 The Management Delegate shall establish annual internal audit solutions, organize implementation, and designate audit team leader and auditors.

2.2 The audit team leader is responsible for compiling a plan for every QMS audit and participating in audit.

2.3 Departments cooperate with one another in internal audits of QMS and correct the nonconformities found in audits.

### **3 Control Requirements**

3.1 Minquan establishes and implements the Internal Audit Management Procedure to check whether the QMS:

- a. Conforms to the planning arrangement and the requirements of ISO 9001 standard and Minquan.
- b. Is effectively implemented and maintained.

3.2 The Management Delegate draws audit plans and accordingly establishes internal audit solutions, which include audit criteria, scope, frequency and methods used. The audit process, regional condition, importance and previous audit results shall be taken into account during audit planning.

3.3 Internal audits shall be carried out at least twice a year or more when appropriate with such factors taken into account as the organizational change,

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market feedback, nonconformity report and investigation.

3.4 Internal auditors are only eligible for QMS audit after they are properly trained, certified and appointed by the Management Delegate.

35. Make preparations for each internal audit, including appointing the audit team leader and auditors, establishing dedicated documents (such as audit inspection form, audit implementation plan, nonconformity report form), and preparing reference documentation. The audit team leader is responsible for compiling the implementation plan for every QMS audit.

3.6 Ensure audits are objective and auditors never audit their own work.

3.7 Perform audits according to the stipulated procedure. As for the specific content of each audit, follow the audit checklist.

3.8 Auditors shall communicate with related people, view documents and records, and check the site to collect evidence. If auditors find any problem on site, they shall require the responsible person (or operator) for the work to validate the problem in time and then they need to fill out a "Nonconformity Report Form".

3.9 After every audit ends, an audit report is required for providing the audit conclusion, and needs to be submitted to the General Manager and related department managers.

3.10 After receiving a "Nonconformity Report Form", the audited department shall take corrective actions as soon as possible. Audit team will supervise, trace and verify the implementation of these corrective actions, and report the verification result to the Management Delegate and related departments.

3.11 Records and reports of internal audits shall be maintained by the Management Delegate.

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#### 4. Related Documentation

4.1. Internal Audit Management Procedure

## Monitoring and Measurement of Processes

### 1. General

Monitor and measure the performance of the processes that make up the QMS to ensure the capabilities of processes.

### 2 Responsibility

2.1 The Manufacturing Department is responsible for monitoring and measuring the process parameters of special processes.

2.2 The Quality Assurance Department is responsible for monitoring and measuring the quality control points, and performing cycling monitoring over important processes.

2.3 All departments monitor and measure related processes.

### 3 Control Requirements

3.1 Minquan performs monitoring and measurement of the QMS processes in proper ways, for example, monitoring the processes' capability in plan implementation by conducting statistic collection, internal audit and work inspection of quality objectives in processes.

3.2 Minquan formulates the production process monitoring and measurement methods in the Process Control Procedure, Process Inspection Management Procedure, and Process Specification. These methods can validate that the processes are capable of achieving the planned result. Monitoring and measurement methods include:

- a. Constantly monitor and measure the process parameters of special

<b>Minquan Electronics</b>	<b>Chapter: 8.2</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Monitoring and Measurement</b>	Total Pages: 90
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<p>processes.</p> <p>b. Set up monitoring points and quality control points in proper positions of processes (in most of which quality is usually unstable or the product's key quality features are affected). Monitor and measure the process parameters or product features that can demonstrate the process quality.</p> <p>c. Establish a patrol inspection system for important processes to ensure these processes are operated strictly complying with documents.</p> <p>d. Collect and analyze statistical data such as the throughput of production line, production achievement ratio and equipment readiness rate, and take appropriate actions.</p> <p>3.3 Adopt appropriate statistical techniques in monitoring and measurement of processes.</p> <p>3.4 Analyze the process monitoring and measurement result, and compare the analysis result with the standard to check whether there is any difference between them; if so, take corrective and preventive actions accordingly.</p> <p><b>4. Related Documentation</b></p> <p>4.1. Process Control Procedure</p> <p>4.2. Process Inspection Management Procedure</p> <p><b>Product Monitoring and Measurement</b></p> <p><b>1. General</b></p> <p>Perform monitoring and measurement of purchased materials, semi-finished products and finished products to ensure they meet the specified requirements.</p> <p><b>2. Responsibility</b></p> <p>2.1 The Quality Assurance Dept. shall perform monitoring and measurement of</p>		

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purchased materials, semi-finished products and finished products.

2.2 The Manufacturing Dept. and Material and Equipment Management Dept. shall assist the Quality Assurance Dept. in the product monitoring and measurement.

### **3. Control Requirements**

3.1 Minquan performs product monitoring and measurement at the following three stages:

- a. Incoming Quality Control (IQC).
- b. In-Process Quality Control (IPQC).
- c. Final Quality Control (FQC).

3.2. Incoming Quality Control (IQC).

3.2.1 Strictly comply with the IQC Management Procedure to ensure raw materials and outsourced or purchased parts that are not inspected or fail to pass the inspection shall not be put into use.

3.2.2 Establish inspection or test criteria based on supplier quality control degree, certificate provided by supplier and actual requirements of Minquan.

3.2.3 Perform Accept-on-Deviation (AOD)/selective use/emergency release in accordance with stipulated procedure, and take records of the results so that products can be recalled immediately after any defect is found.

3.2.4 Request the supplier to offer related quality assurance data along with delivery for materials that cannot be inspected due to the restriction of instruments and capabilities.

3.3. In-Process Quality Control (IPQC).

Perform inspection of semi-finished products/in-process products in accordance with the Process Inspection Management Procedure. No product shall proceed to next operation sequence or accepted into warehouse prior to the completion

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of stipulated inspection and test or in the case of inspection failure.

### 3.4. Final Quality Control (FQC).

3.4.1 Perform final inspection and test based on the items stipulated in the inspection criteria so as to offer evidence of compliance with requirements.

3.4.2 The FQC cannot substitute IQC as well as IPQC, and products shall not be released until after all these three types of inspection and test are finished in compliance with requirements and inspection results are approved (excluding special approval by authorized personnel).

3.5 Products judged as “Non-conforming” after inspection and test shall be handled in accordance with the Non-Conforming Product Management Procedure.

### 3.6 Inspection and Test Record

3.6.1 The inspection and test record shall be filled and well kept as evidence of product inspection success pursuant to related regulations.

Signatures of inspectors who are in charge of product release are required in the inspection and test record.

3.6.2 For management of inspection and test record, see *Quality Record Management Procedure*.

## 4 Related Document

- 4.1. IQC Management Procedure
- 4.2. Process Inspection Management Procedure
- 4.3. Finished Product Inspection Management Procedure
- 4.4. Quality Record Management Procedure
- 4.5 Non-conforming Product Control Procedure

<b>Minquan Electronics</b>	<b>Chapter: 8.3</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Control of Non-conforming Product</b>	Total Pages: 90
	Doc No.: QM-01	
<p><b>1. General</b></p> <p>Establish and implement Non-Conforming Product Control Procedure to ensure non-conforming products are disposed in accordance with specified control procedure and avoid use or delivery of non-conforming products due to negligence.</p> <p><b>2. Responsibility</b></p> <p>2.1 The Quality Assurance Dept. shall be responsible for the daily work of control of non-conforming products.</p> <p>2.2 Such departments as the Engineering Dept. and so on shall participate in the disposition review of non-conforming products.</p> <p><b>3. Control Requirements</b></p> <p>3.1 The operator (or inspector) shall make identification and (if possible) isolate any non-conforming product found.</p> <p>3.2 Review non-conforming products in accordance with the Non-Conforming Product Control Procedure to determine ways of dispositions which may include rework, repair, acceptance under concession, scrap or others.</p> <p>3.3 The department liable shall raise a concession request for repair of non-conforming products or use of non-conforming products not repaired, and obtain approval before such repair or use in accordance with specified procedure.</p> <p>3.4 The non-conforming products, after rework or repair, shall be re-inspected to make sure they meet the originally specified or anticipated use requirements.</p> <p>3.5 If non-conformity is found after delivery or use of products, Minquan will perform replacement, repair or compensation in accordance with the regulations in the <i>Customer Complaint Handling Procedure</i>.</p>		

<b>Minquan Electronics</b>	<b>Chapter: 8.3</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Control of Non-conforming Product</b>	Total Pages: 90
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<p>3.6 The records of non-conforming products shall be kept in accordance with the <i>Quality Record Management Procedure</i>.</p> <p><b>4 Related Document</b></p> <p>Non-conforming Product Control Procedure</p> <p>4.2. Quality Record Management Procedure</p> <p>4.3. Customer Complaint Handling Procedure</p>		

<b>Minquan Electronics</b>	<b>Chapter: 8.4</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Analysis of Data</b>	Total Pages: 90
	Doc No.: QM-01	

### 1. General

Establish *Data Analysis and Application Management Procedure* to standardize data collection, analysis and application so as to determine the applicability and effectiveness of QMS and identify opportunities for improvement.

### 2. Responsibility

2.1 The Quality Assurance Dept. shall be responsible for collecting and analyzing product information.

2.2 The Sales Dept. shall be responsible for collecting and analyzing market information and customer requirements information.

2.3 The Management Delegate shall be responsible for collecting and analyzing QMS operation information.

2.4 The Material and Equipment Management Dept. shall be responsible for collecting and analyzing purchase information.

2.5 The Manufacturing Dept., PE of Engineering Dept. and QE of the Quality Assurance Dept. shall be responsible for collecting and analyzing production process information.

### 3 Control Requirements

Related departments shall collect related data through the following information:

- a. Customer satisfaction and dissatisfaction information.
- b. Product quality information.
- c. Process and measurement information.
- d. Purchase information (delivery, price and quality).
- e. Order fulfillment and delivery information.
- f. Market information.
- g. QMS operation information.

<b>Minquan Electronics</b>	<b>Chapter: 8.4</b>	Edition: 01-A
<b>Quality Manual</b>	<b>Analysis of Data</b>	Total Pages: 90
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### 3.2 Analysis of Data

3.2.1 The following information can be obtained after data analysis:

- a. Customer satisfaction.
- b. Compliance with product requirements.
- c. Features and trends of process and products as well as opportunities to take preventive actions.
- d. Supplier.

3.2.2 Compare data analysis results with the objectives or specifications of Minquan to evaluate the effectiveness and efficiency of QMS and identify opportunities for improvement.

## 4. Related Documentation

4.1 Data Analysis and Application Management Procedure.

<b>Minquan Electronics</b>	<b>Chapter: 8.5</b>	Edition: 01
<b>Quality Manual</b>	<b>Improvement</b>	Total Pages: 90
	Doc No.: QM-01	

### 1. General

The Continual Improvement Management Procedure and Corrective and Preventive Action Management Procedure are established and implemented to pursue better effectiveness and efficiency, and perform effective control over the raising, establishment, implementation and effect verification of improvement, corrective and preventive actions.

### 2. Responsibility

2.1 The Management Delegate shall be responsible for the control of improvement actions.

2.2 The organizing department shall raise corrective and preventive actions, urge and assist related departments in carrying out them and verify their implementation effectiveness.

2.3 The liable department shall establish and carry out related improvement, corrective and preventive actions.

### 3. Control Requirements

#### 3.1 Management of Continual Improvement

3.1.1 Minquan shall create a favorable environment for continual improvement, and constantly improve the effectiveness of QMS by such means as quality guidelines, quality objectives, review results, data analysis, corrective and preventive actions and management review.

3.1.2 Continual improvement can either be daily improvement, or improvement of major projects.

- a. Daily improvement activities shall be planned and managed in accordance with the Corrective and Preventive Action Management Procedure.

<b>Minquan Electronics</b>	<b>Chapter: 8.5</b>	Edition: 01
<b>Quality Manual</b>	<b>Improvement</b>	Total Pages: 90
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- b. Major project improvement activities shall be planned and managed in accordance with the Continual Improvement Management Procedure.

Note: Major improvement generally refers to the improvement that makes a breakthrough in current improvement level.

### 3.2 Major Project Improvement Management

3.2.1 Major project improvement include the following items:

- a. Adjustment and optimization of quality objectives.
- b. Customers' anticipation for improving requirements.
- c. Optimization of production process.
- d. Technical innovation of products.
- e. Improvement of material utilization.
- f. Process improvement and enhancement of production efficiency.

3.2.2 Management of major project improvement involves:

- a. Identifying opportunities for improvement.
- b. Establish improvement objectives.
- c. Set up improvement organization.
- d. Work out improvement plans.
- e. Perform cause investigation.
- f. Establish and carry out improvement actions.
- g. Verify improvement effect.

3.2.3 Continual improvement results shall be retained and documented. Document

<b>Minquan Electronics</b>	<b>Chapter: 8.5</b>	Edition: 01
<b>Quality Manual</b>	<b>Improvement</b>	Total Pages: 90
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change arising out of improvement shall be performed in accordance with the Document Management Procedure.

3.2.4 If desired results are not achieved through improvement, select and implement new quality improvement items or activities.

### 3.3. Management of Corrective Actions

Corrective actions are taken to eliminate the cause of non-conformity to prevent recurrence. Corrective actions shall be closely related to the impacts of non-conformity.

3.3.1 The corrective action documents shall define the following steps:

- a. Audit non-conformity (including customer complaints).
- b. Locate the cause of non-conformity.
- c. Evaluate necessary actions used to correct non-conformity and prevent recurrence.
- d. Determine and carry out appropriate corrective actions.
- e. Record implementation results of corrective actions.
- f. Review implemented corrective actions.

### 3.4. Management of Preventive Actions

Preventive actions are taken to eliminate the cause of non-conformity to prevent recurrence. Preventive actions shall be closely related to the impacts of non-conformity.

3.3.1 The preventive action documents shall define the following steps:

- a. Identify potential non-conformity and locate its cause.
- b. Evaluate necessary actions used to prevent recurrence of non-conformity.
- c. Determine and carry out necessary preventive actions.

<b>Minquan Electronics</b>	<b>Chapter: 8.5</b>	Edition: 01
<b>Quality Manual</b>	<b>Improvement</b>	Total Pages: 90
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d. Record implementation results of preventive actions.

e. Review implemented preventive actions.

3.4.2 Effective corrective and preventive actions shall be documented. Document change arising out of correction or prevention shall be performed in accordance with the Document Management Procedure.

3.4.3 If corrective and preventive actions are of no or little effect, perform investigation and analysis again, and adopt new corrective and preventive actions.

3.5 The implementation results of improvement, corrective and preventive actions shall be submitted for management review.

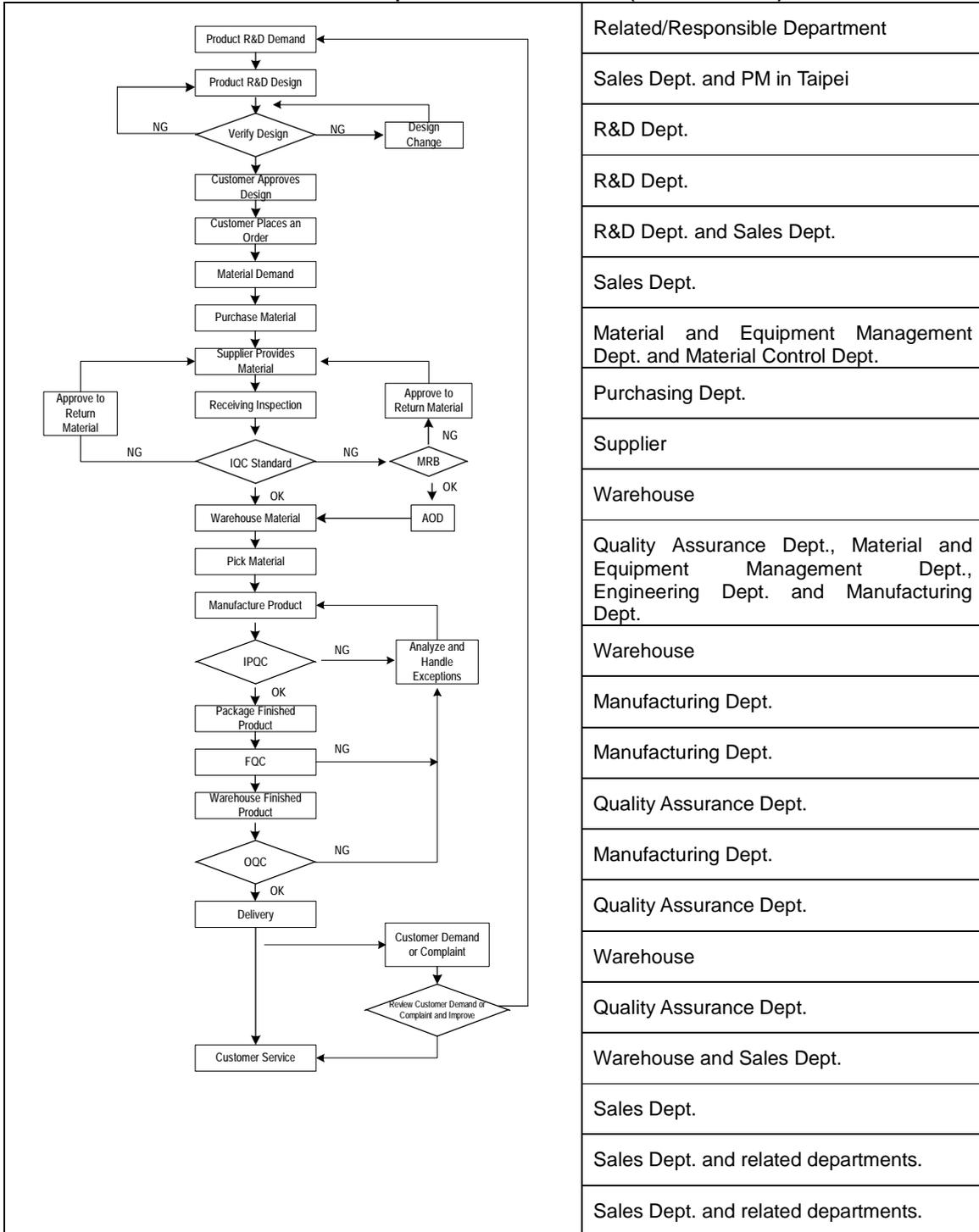
#### **4. Related Documentation**

4.1. Continual Improvement Management Procedure

4.2. Corrective and Preventive Action Management Procedure

Attachment III

QMS Flowchart of Minquan Electronics (Shenzhen) Co., Ltd.



Chapters of Quality Manual	Operation Content	Department												
		GM/AD <sup>(1)</sup>	MD <sup>(1)</sup>	ED	SD	ME MD	QAD	AD <sup>(2)</sup>	MD <sup>(2)</sup>	DC C	PD	MD <sup>(3)</sup>	R&D	
4.0	Document Management	△	△	△	△	△	△	△	△	△	•	△	△	△
	Engineering Data Management	△	△	•	△	△	△	△	△	△	△	△	△	•
	Quality Record Management	△	△	△	△	△	△	△	△	△	•	△	△	△
5.0	Management Review	•	△	△	△	△	△	△	△	△	△	△	△	△
6.0	HR Management	△	△	△	△	△	△	•	△	△	△	△	△	△
	Manufacturing Equipment Management	△	△	•	△	△	△	△	△	△	△	△	△	△
	Work Environment Management	△	△	△	△	△	△	•	△	△	△	△	△	△
7.0	Order Review	△	△	△	•	△	△	△	△	△	△	△	△	△
	Design Management	△	△	△	△	△	△	△	△	△	△	△	△	•
	Purchasing Management	△	△	△	△	△	△	△	△	△	△	•	△	△
	Supplier Management	△	△	△	△	△	•	△	△	△	△	△	△	△
	Production Plan Management	△	△	△	△	•	△	△	△	△	△	△	△	△
	Process Control	△	△	△	△	△	△	△	•	△	△	△	△	△
	Jig & Fixture Management	△	△	•	△	△	△	△	△	△	△	△	△	△
	Engineering Change Management	△	△	•	△	△	△	△	△	△	△	△	△	△
	Product Identification and Traceability Management	△	△	△	△	△	•	△	△	△	△	△	△	△

Chapters of Quality Manual	Operation Content	Department											
		GM/AD <sup>(1)</sup>	MD <sup>(1)</sup>	ED	SD	ME MD	QAD	AD <sup>(2)</sup>	MD <sup>(2)</sup>	DC C	PD	MD <sup>(3)</sup>	R&D
	Inspection and Test Status Management	△	△	△	△	△	●	△	△	△	△	△	△
	Customer Supplied Product Management	△	△	△	△	●	△	△	△	△	△	△	△
	Product Handling, Packaging and Delivery Management	△	△	△	△	●	△	△	△	△	△	△	△
	Warehouse Management	△	△	△	△	●	△	△	△	△	△	△	△
	Control of and Measuring Devices	△	△	●	△	△	△	△	△	△	△	△	△
	Customer Service and Satisfaction Management	△	△	△	●	△	△	△	△	△	△	△	△
8.0	Internal Audit Management	△	●	△	△	△	△	△	△	△	△	△	△
	Incoming Inspection Management	△	△	△	△	△	●	△	△	△	△	△	△
	Process Inspection Management	△	△	△	△	△	●	△	△	△	△	△	△
	Finished Product Inspection Management	△	△	△	△	△	●	△	△	△	△	△	△
	Control of Non-Conforming Product	△	△	△	△	△	●	△	△	△	△	△	△
	Data Analysis and Application	△	△	△	△	△	●	△	△	△	△	△	△
	Corrective and Preventive Action Management	△	△	△	△	△	●	△	△	△	△	△	△
	Customer Complaint Handling	△	△	△	△	△	●	△	△	△	△	△	△
	Continual Improvement Management	△	△	△	△	△	●	△	△	△	△	△	△

● : Organizer

△: Co-organizer

GM: General Manager

AD<sup>(1)</sup>: Associate Director

MD<sup>(1)</sup>: Management Delegate

ED: Engineering Department

SD: Sales Department

MEMD: Material and Equipment Management Department

QAD: Quality Assurance Department

AD<sup>(2)</sup>: Administration Department

MD<sup>(2)</sup>: Manufacturing Department

DCC: Document Control Center

PD: Purchasing Department

MD<sup>(3)</sup>: Mould Division

R&D: Research and Development Department

# Power of Attorney to Management Delegate

To establish QMS and ensure its normal operation in Minquan Electronics (Shenzhen) Co., Ltd. as well as carry out quality guidelines and achieve quality objectives pursuant to ISO9001: 2000 standard, we hereby appoint Mr. Wu Xuankun as the Management Delegate of the QMS and fulfill the following responsibilities:

1. Establish, implement and maintain QMS pursuant to the regulations of ISO9001: 2000 standard.
2. Regularly organize internal QMS review, report QMS operation information to top management for review, and provide reference for QMS improvement.
3. Ensure all employees' capability in understanding customer requirements is improved.
4. Coordinate related departments to implement and maintain QMS, ensure its effective operation and liaison with external sources regarding QMS-related matters

Signature of General Manager:

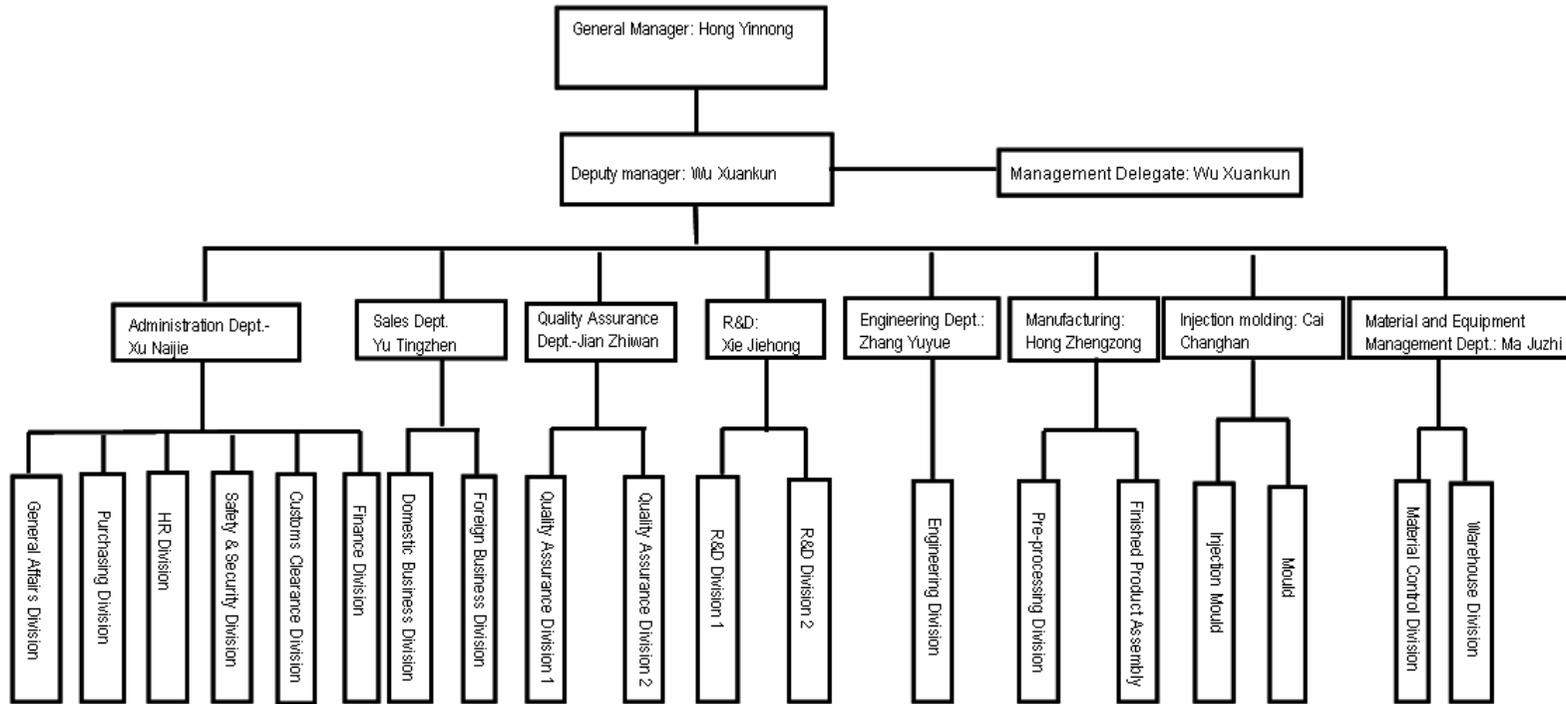


Date: 2008-08-10

# Organizational Chart of Minquan

Attachment I

Version: 03



Signature of General Manager: