Quality Management System Manual

SQ01-0001

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Scope and purpose

1.1 Purpose

This manual defines the Skyworks Solutions, Inc. (Skyworks) approach to and assignment of responsibilities for, the company quality system. This quality system manual is the foundation of the Skyworks Quality Management System (QMS). This manual is based on ISO 9001:2015 *and IATF 16949:2016* and follows the same section numbering format.

The Skyworks quality system strives to:

- consistently provide product that meets customer and applicable statutory and regulatory requirements
- enhance customer satisfaction through the effective application of this system
- continually improve this system
- assure conformity to customer requirements
- assure conformity to applicable statutory and regulatory requirements

Changes to this manual are approved by the President / CEO, and Vice President of Quality (backup to the President / CEO)

1.2 Scope

References: SQ04-0275 Skyworks QMS Scope

This manual applies to all Skyworks locations. Sections in *italic* apply to the IATF 16949 Automotive Quality Management System only. Exclusion to element 8.3 is taken when design and development activities are not performed by a particular site.

This level I quality manual defines the scope of the Skyworks Quality Management System (SQMS), establishes the documented procedures that are part of the SQMS, and describes the interaction between the processes of the SQMS. There is only one Level I document in the SQMS, and applicable lower level quality system documents are referenced in this manual.

The scope within the manual covers product manufactured by Skyworks that comply with the identified quality management system requirements below. This list provides a high level summary; however, additional details can be found in SQ04-0275 document:

- AIS Artificial Intelligence Solutions ISO 9001:2015
- DAS Diversified Analog Solutions ISO 9001:2015 & IATF 16949:2016
- MSB Mobile Solutions Business ISO 9001: 2015
- MSS Mixed Signal Solutions ISO 9001:2015
- Filters: SFS Skyworks Filter Solutions (OSAKA, BEDOK-CHAI CHEE) ISO 9001:2015 & IATF 16949:2016
- Wafer Fabrication: Internal Fabs (NEWBURY PARK, WOBURN) ISO 9001:2015 & IATF 16949:2016
- Assembly: Internal Assembly (MEXICALI) ISO 9001:2015 & IATF 16949:2016

2 Associated documents

The following documents contain provisions which, through reference in this document, constitute provisions of this manual. The listed editions of the documents referred to apply.

External Documents

ISO 9001	2015	International Organization for Standardization	Quality management systems - Requirements
ISO 9000	2015	International Organization for Standardization	Quality management systems – Fundamentals and vocabulary

IATF 16949	*2016*	*International Automotive Task Force*	*Automotive Quality Management System Standard – Quality Management System Requirements for automotive production and relevant service parts organizations*
ISO/IEC 17025	*2017*	*International Organization for Standardization International Electronical Commission*	*General requirements for the competence of testing and calibration laboratories*
ISO 19011	*2018*	*International Organization for Standardization*	*Guidelines for auditing management systems auditing*
APQP	*2nd Edition*	*Automotive Industry Action Group*	*Advanced Product Quality Planning and Control Plan*
PPAP	*4th Edition*	*Automotive Industry Action Group*	*Production Part Approval Process*
FMEA	*4th Edition*	*Automotive Industry Action Group*	*Potential Failure Mode Effects Analysis*
MSA	*4th Edition*	*Automotive Industry Action Group*	*Measurement Systems Analysis*
SPC	*2nd Edition*	*Automotive Industry Action Group*	*Statistical Process Control*
JESD46	D	JEDEC Solid State Technology Association	Customer Notification of Product / Process Changes by Semiconductor Suppliers
CSR	*-*	*Automotive Customers*	*Customer Specific Requirements (i.e. that have been accepted and mutually agreed upon by Skyworks)*

Internal Documents

SQ01-0002	Sustainability Systems Manual
SQ02-0001	Change Management
SQ02-0003	Supply Chain Management
SQ02-0008	Product Realization Process - PRP
SQ02-0010	Human Resources
SQ02-0012	Quality Systems Compliance
SQ02-0013	Qualification Standard
SQ02-0018	Customer Management
SQ02-0020	Supplier Quality Manual
SQ02-0043	Wafer Fabrication
SQ02-0044	Assembly
SQ02-0045	Test, Tape & Reel

SQ02-0054	Supplier Management
SQ02-0058	Information Technology
SQ02-0059	Failure Analysis Process
SQ02-0060	New Technology Introduction

3 Acronyms, terminology, description, and definition

For the purposes of this manual, the terms and definitions given in ISO 9001 *and IATF 16949* apply. In addition to these definitions, the following terms have been defined:

5s
Methodology used to help a workplace remove items that are no longer needed (sort), organize the items to optimize efficiency and flow (straighten), clean the area to identify problems (shine), implement color coding and labels to stay consistent with other areas (standardize) and develop behaviors that keep the workplace organized over the long term (sustain) more easily. Note: 6s or 5s+s adds Safety or Security

Process Interaction
A process linkage whereas the output of one process becomes the input of the next process.

Communication Interaction
A process interaction where no process output and input linkages exist but where information is exchanged on an ad hoc basis.

Automotive products
Devices that are classified as automotive and are sold directly to active automotive customers

accessory part
customer-specified additional component(s) that are either mechanically or electrically connected to the vehicle or powertrain before (or after) delivery to the final customer (e.g., customer floor mats, truck bed liners, wheel covers, sound system enhancements, sunroofs, spoilers, super-chargers, etc.)

advanced product quality planning (APQP)
product quality planning process that supports development of a product or service that will satisfy customer requirements; APQP serves as a guide in the development process and also a standard way to share results between organizations and their customers; APQP covers design robustness, design testing and specification compliance, production process design, quality inspections standards, process capability, production capability, product packaging, product testing and operator training plan, among other items.

aftermarket part
replacement part(s) not procured or released by an OEM for service part applications, which may or may not be produced to original equipment specifications

authorization
documented permission for a person(s) specifying rights and responsibilities related to giving or denying permissions or sanctions within an organization

challenge (master) part
part(s) of known specification, calibrated and traceable to standards, with expected results (pass or fail) that are used to validate the functionality of an error proofing device or check fixtures (e.g., go/ no-go gauging)

control plan
documented description of the systems and processes required for controlling the manufacturing of product

customer requirements
all requirements specified by the customer (e.g., technical, commercial, product and manufacturing process-related requirements, general terms and conditions, customer-specific requirements, etc.)
Where the audited organization is a vehicle manufacturer, vehicle manufacturer subsidiary, or joint venture with a vehicle manufacturer, the relevant customer is specified by the vehicle manufacturer, their subsidiaries, or joint ventures.

customer-specific requirements (CSRs)
interpretations of or supplemental requirements linked to a specific clause(s) of this Automotive QMS standard

design for assembly (DFA)
process by which products are designed with ease of assembly considerations. (e.g., if a product contains fewer parts it will take less time to assemble, thereby reducing assembly cost)

design for manufacturing (DFM)
integration of product design and process planning to design a product that is easily and economically manufactured.

design for manufacturing and assembly (DFMA)
combination of two methodologies: Design for Manufacture (DFM), which is the process of optimizing the design to be easier to produce, have a higher throughput, and improved quality; and Design for Assembly (DFA), which is the optimization of the design to reduce risk of error, lowering cost, and making it easier to assemble

design for six sigma (DFSS)
systematic methodology, tools, and techniques with the aim of being a robust design of products or processes that meet customer expectations and can be produced at a six sigma quality level

design-responsible organization
organization with authority to establish a new or change and existing, product specification
NOTE This responsibility includes testing and verification of design performance within the customer's specified application

embedded software
Embedded software is a specialized program stored in an automotive component (typically computer chip or other non-volatile memory storage) specified by the customer, or as part of the system design, to control its function(s). To be relevant in the scope of IATF 16949 certification, the part that is controlled by embedded software must be developed for an automotive application (i.e., passenger cars, light commercial vehicles, heavy trucks, buses, and motorcycles; see Rules for achieving and maintaining IATF Recognition, 5th Edition, Section 1.0 Eligibility for Certification to IATF 16949, for what is eligible for "Automotive").
NOTE: Software to control any aspect of the manufacturing process (e.g., machine to manufacture a component or material) is not included in the definition of embedded software

error proofing
product and manufacturing process design and development to prevent manufacture of nonconforming products

escalation process
process used to highlight or flag certain issues within an organization so that the appropriate personnel can respond to these situations and monitor the resolutions.

fault tree analysis (FTA)
deductive failure analysis methodology in which an undesired state of a system is analyzed; fault tree analysis maps the relationship between faults, subsystems, and redundant design elements by creating a logic diagram of the overall system

laboratory
facility for inspection, test, or calibration that may include but is not limited to the following: chemical, metallurgical, dimensional, physical, electrical, or reliability testing

laboratory scope
controlled document containing
- specific tests, evaluations, and calibrations that a laboratory is qualified to perform;
- a list of the equipment
- a list of methods and standards to which the laboratory performs the above

manufacturing
process of making or fabrication
- production materials;
- production parts or service parts;
- assemblies; or
- heat treating, welding, painting, plating, or other finishing services

manufacturing feasibility
an analysis and evaluation of a proposed project to determine if it is technically feasible to manufacture the product to met customer requirements. This includes but is not limited to the following (as applicable): within the estimated costs, and if the necessary resources, facilities, tooling, capacity, software, and personnel with required skills, including support functions, are or are planned to be available.

manufacturing services
companies that test, manufacture, distribute, and provide repair services for components and assemblies

multi-disciplinary approach
method to capture input from all interested parties who may influence how a process is administered by a team whose members include personnel from the organization and may include customer and supplier representatives; team members may be internal or external to the organization; either existing teams or ad hoc teams may be used as circumstances warrant; input to the team may include both organization and customer inputs

no trouble found (NTF)
designation applied to a part replaced during a service event that, when analyzed by the vehicle or parts manufacturer, meets all the requirements of a "good part" (also referred to as "No Fault Found" or "Trouble Not Found")

outsourced process
portion of an organization's function (or processes) that is performed by an external organization

periodic overhaul
maintenance methodology to prevent a major unplanned breakdown where, based on fault or interruption history, a piece of equipment, or subsystem of the equipment, is proactively taken out of service and disassembled, repaired, parts replaced, reassembled, and then returned to service

predictive maintenance
and approach and set of techniques to evaluate the condition of in-service equipment by performing periodic or continuous monitoring of equipment conditions, in order to predict when maintenance should be performed

premium freight
extra costs or charges incurred in addition to contracted delivery
NOTE This can be caused by method, quantity, unscheduled or late deliveries, etc.

preventive maintenance
planned activities at regular intervals (time-based, periodic inspection, and overhaul) to eliminate causes of equipment failure and unscheduled interruptions to production, as an output of the manufacturing process design

product
applies to any intended output resulting from the product realization process

product safety
standards relating to the design and manufacturing of products to ensure they do no represent harm or hazards to customers

production shutdown
condition where manufacturing process are idle; time span may be a few hours to a few months

reaction plan
action or series of steps prescribed in a control plan in the event abnormal or nonconforming events are detected

remote location
location that supports manufacturing sites and at which non-production processes occur

SDS
Specially Designated Supplier

service part
replacement part(s) manufactured to OEM specifications that are procured or released by the OEM for service part applications, including remanufactured parts

site
location at which value-added manufacturing processes occur

special characteristic
classification of a product characteristic or manufacturing process parameter that can affect safety or compliance with regulations, fit, function, performance, requirements, or subsequent processing of product

special status
notification of a customer-identified classification assigned to an organization where one or more customer requirements are not being satisfied due to a significant quality or delivery issue

support function
non-production activity (conducted on site or at a remote location) that supports one (or more) manufacturing sites of the same organization

total productive maintenance
a system of maintaining and improving the integrity of production and quality systems through machines, equipment, processes, and employees that add value to the organization

trade-off curves
tool to understand and communicate the relationship of various design characteristics of a product to each other, a product's performance on one characteristic is mapped on the Y-axis and another on the x-axis, then a curve is plotted to illustrate product performance relative to the two characteristics.

trade-off process
methodology of developing and using trade-off curves for products and their performance characteristics that establish the customer, technical, and economic relationship between design alternatives

TRB
Technical Review Board

4 Context of the organization

4.1 General requirements

Skyworks has determined external and internal issues that are relevant to its purpose and its strategic direction. Skyworks Top Management conducts a Strategic Planning which reflects a 3-year period and is supported by an Annual Operating Plan. Internal and External issues are monitored and captured through KPIs.

4.2 Understanding the needs and expectation of interested parties

References: SQ01-0002 Skyworks Sustainability Systems Manual; SQ03-0544 Business Risks and Opportunities

Interested Parties and related Requirements (i.e., needs and expectations) that are relevant to the Quality Management System, have been identified by the Process Owners within the applicable Skyworks' Standard Operating Procedures, referenced in this manual.

Skyworks monitors and reviews information about the identified interested parties through KPIs or established programs in the organization

4.3 Determining the scope of the quality management system

References: SQ01-0002 Skyworks Sustainability Systems Manual; SQ04-0275 Skyworks QMS Scope

Skyworks has determined the boundaries and applicability of its quality management system to establish the scope described under section 1.2 of this manual. The following aspects were taken into considerations when the QMS Scope is determined:

a) The external and internal issues referenced in 4.1
b) The requirements of relevant interested parties referred to in 4.2
c) The products provided by Skyworks

Skyworks has applied all the requirements of ISO 9001:2015 and *IATF16949:2016* standards as applicable, to identify its QMS scope.

Skyworks QMS Scope is documented and maintained in SQ04-0275 Skyworks QMS Scope.

4.3.1 *Determining the scope of the quality management system – Supplemental*

References: SQ04-0275 Skyworks QMS Scope

Supporting functions whether on-site or remote (such as design centers, and corporate headquarters) were included in the IATF scope of the Quality Management System

Skyworks takes no exclusions in its automotive quality management system.

4.3.2 *Customer Specific Requirements*

References: SQ03-0639 Managing Customer Specific Requirements, SQ04-0275 Skyworks QMS Scope

Skyworks evaluates automotive customer specific requirements using its program to manage customer quality expectations data. After customer specific requirements (CSRs) are accepted and mutually agreed between the customer and Skyworks, these CSRs are included in the scope of our Automotive Quality Management System

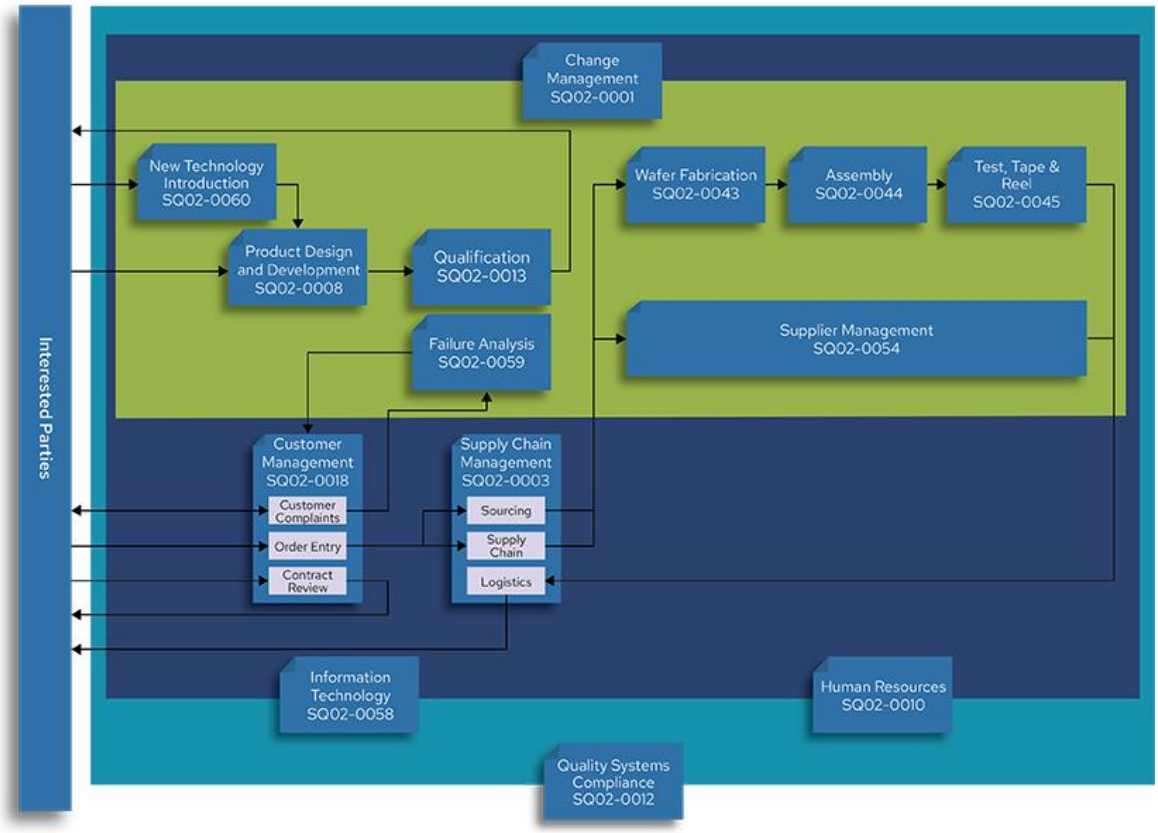
4.4 Quality Management System and Its Processes

4.4.1 General

References: SQ04-0275 USA Wafer Fabrication Quality Management System Scope

Skyworks has established, implemented, maintained and continually improve a Quality Management System, including the processes needed and their interactions, in accordance with the requirements of ISO 9001:2015 *and IATF 16949*.

Skyworks has identified 14 core business processes that represent the main activities of the organization.



Standard Operating Procedures have been created to identify:

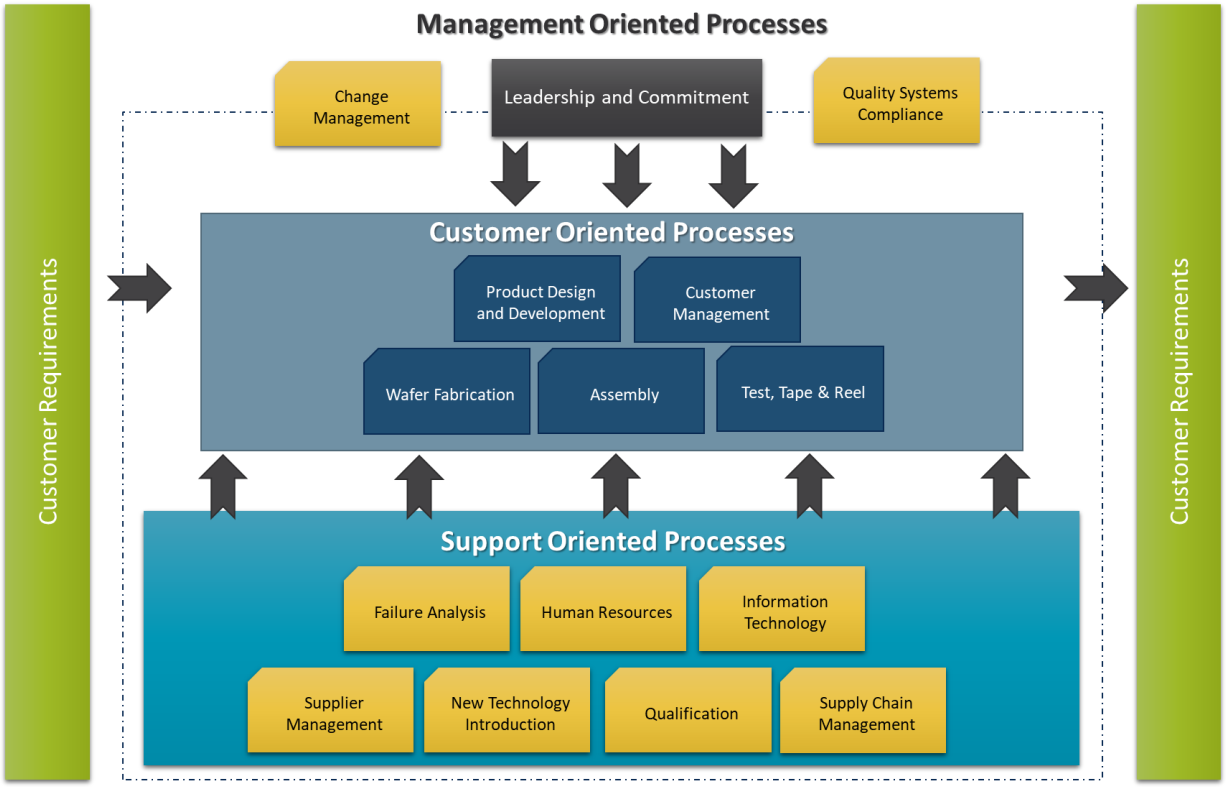
a) Inputs required and expected outputs from these processes
b) Determine the sequence and interaction of these processes and/or corresponding subprocesses
c) Determine and apply the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes and/or subprocesses as applicable
d) Determine the resources needed for these processes and/or subprocesses and ensure their availability
e) Assign the responsibilities and authorities for these processes and/or subprocesses
f) Address the risks and opportunities as determined in accordance with the requirements or 6.1
g) Evaluate these processes and/or subprocesses and implement any changes needed to ensure that these processes and/or subprocesses achieve their intended results
h) Improve the processes and/or subprocesses and the Quality Management System

Skyworks key core business processes are classified in the following categories

Customer Oriented Processes (COPS): Those processes which have a direct line of sight from and to the customer. They receive an input directly from the customer and provide an output to the customer

Support Oriented Processes (SOPS): Those processes within Skyworks that provide the provisions needed to allow the COPS to be effective.

Management Oriented Processes (MOPS): Those processes that help Skyworks analyze performance trends, or serve as the customer interface in our organization



The processes, interactions, and sub-processes needed to operate Skyworks Automotive Quality Management System have been identified and are documented in SQ04-0275.

4.4.1.1 *Conformance of Products and Processes*

References: SQ02-0054 Supplier Management

Skyworks ensures conformance of all products and processes including those that are outsourced to applicable customer, statutory and regulatory requirements, including conformance to material requirements

4.4.1.2 *Product Safety*

References: SQ03-0680 Automotive Product Safety Policy

Skyworks has a documented process for the management of product-safety related products and manufacturing processes, which includes the following, where applicable:

a. *Identification by the organization of statutory and regulatory product-safety requirements*
b. *Customer notification of requirements in item a.*
c. *Special approvals of design FMEA*
d. *Identification of product-safety-related characteristics*
e. *Identification and controls of safety-related characteristics of product and at the point of manufacture*
f. *Special approval of controls plans and process FMEA's*
g. *Reaction plans (see section 9.1.1.1)*
h. *Defined responsibilities, definition of escalation process and flow of information, including top management, and customer notification*
i. *Training identified by Skyworks or customer for personnel involved in product-safety-related products and associated manufacturing processes*
j. *Changes of product or process shall be approved prior to implementation including evaluation of potential effects on product safety from process and product changes (see section 8.3.6)*

k. Transfer of requirements with regard to product safety throughout the supply chain, including customer-designated sources (see 8.4.3.1)
l. Product traceability by manufactured lot throughout the supply chain (see 8.5.2.1)
m. Lessons learned for new product introduction

Note: Special approval of safety related requirements or documents required by the customer will be processes as a CSR. Internal protocol set by the organization dictates the approvals required in the event a product safety application is identified by the organization. Reference SQ03-0680 Automotive Product Safety Protocol for details.

4.4.2 Documented Information

References: SQ03-0003 Skyworks Document Control General Requirements and Practices

Skyworks maintains documented information to support the operation of its processes and retains records to have confidence that the processes are being carried out as planned.

5 Leadership

5.1 Leadership and Commitment

5.1.1 General

References: SQ03-0691 Management Process

Skyworks Top management demonstrates leadership and commitment with respect to the Quality Management System by:

a. Taking accountability for the effectiveness of the Quality Management System
b. Ensuring that the Quality Policy and Quality Objectives are established for Skyworks' Quality Management System and are compatible with the context and strategic direction of the organization
c. Ensuring the integration of the Quality Management System requirements into the organization's business processes
d. Promoting the use of the process approach and risk based thinking
e. Ensuring that resources needed for the Quality Management System are available
f. Communicating the importance of effective Quality Management and of conforming to the Quality Management System requirements
g. Ensuring that the Quality Management System achieves its intended results
h. Engaging, directing, and supporting persons to contribute to the effectiveness of the Quality Management System
i. Promoting improvement
j. Supporting other relevant management roles to demonstrate leadership as it applies to their areas of responsibility
k. Allocating resources to manage escalation protocols in the event of a customer complaint or product safety impact
Understanding the needs and expectation of interested parties

5.1.1.1 *Corporate Responsibility*

References: SQ03-0691 Management Process

Skyworks has defined and implemented corporate responsibility policies, including anti-bribery policy, employee code of conduct, and an ethics escalation policy ("whistle-blowing policy"). Employees are required to acknowledge these policies at the frequency set by the organization using the organization's Learning Management System.

5.1.1.2 *Process Effectiveness and Efficiency*

References: SQ03-0691 Management Process

Skyworks Top management reviews the effectiveness and efficiency of the quality management system to evaluate and improve the organization's quality management system. The results of the process review activities are included as an input during management reviews

5.1.1.3 *Process Owners*

References: SQ03-0691 Management Process

Skyworks Top management has identified process owners who are responsible for managing the organization's processes and related outputs. Top management has ensured that these owners understand their roles and are competent to perform the assigned roles. Standard Operating Procedures contain a comprehensive list of process owners at Skyworks, these roles are review and updated as organizational changes occur to maintain the integrity of the QMS.

5.1.2 Customer Focus

References: SQ01-0002 Skyworks Sustainability Systems Manual; SQ02-0018 Customer Management; SQ03-0691 Management Process

Skyworks Top management demonstrates leadership and commitment with respect to customer focus by ensuring that:

a) Customer and applicable statutory and regulatory requirements are determined, understood, and consistently met. Skyworks has allocated resources such us but not limited to a Sustainability Management System organization to drive compliance require to operate its business under a sustainable model and support customer requirements
b) The risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are determined and addressed by ensuring product requirements are determined during the Design and Development process, non product-specific requirements are determined during contract review and specification reviews.
c) The focus on enhancing customer satisfaction is maintained by conducting regular reviews of customer scorecards and monitoring customer dissatisfaction through customer complaints.

5.2 Policy

5.2.1 Establishing the Policy

References: SQ03-0691 Management Process

Skyworks Top management has established, implemented and maintains a Quality Policy that:

a) Is appropriate to the purpose and context of the organization and supports its strategic direction (i.e., We are committed to the never ending quest for perfect quality);
b) Provides a framework for setting quality objectives (i.e., no field failures, no customer returns, no reliability failures, no yield loss);
c) Includes a commitment to satisfy applicable requirements (i.e., no field failures, no customer returns, no reliability failures, no yield loss);
d) Includes a commitment to continual improvement of the Quality Management System (i.e., the never ending quest for perfect quality).

Skyworks Quality Policy

We are committed to the never ending quest for perfect quality.

- No field failures
- No customer returns
- No reliability failures
- No yield loss

Note: Skyworks sites whose primary language is other than English, have translated the Skyworks Quality Policy accordingly.

5.2.2 Communicating the Quality Policy

References: SQ03-0691 Management Process

The Quality Policy is:

a) Available and maintained as documented information (i.e., through the approval and documentation of this quality manual, reference section 5.2.1);
b) Communicated, understood, and applied within the Skyworks. Skyworks uses one or more of the following communication vehicles to ensure communication and understanding of the quality policy throughout its organization
   a. Quality Policy is available at Skyworks internal website (i.e., Skylink),
   b. Quality is Communicated during management reviews
   c. Posters are distributed across different locations
   d. Quality Policy badges are available and distributed to personnel in different languages
   e. Internal Audits are conducted to ensure personnel understands their contribution to the quality policy
c) Available to relevant interested parties. Skyworks has published its Quality Policy to ensure available to interested parties in its external website (i.e., https://www.skyworksinc.com/en/Quality)

5.3 Organizational Roles, Responsibilities and Authorities

References: SQ03-0691 Management Process

Skyworks' Top management has ensured that responsibilities and authorities for relevant roles are assigned, communicated, and understood within its organization.

Skyworks' Top management has assigned responsibility and authority for:
a) Ensuring the Quality Management System conforms to the requirements of this International Standard; (VP of Quality)
b) Ensuring that the processes are delivering their intended outputs; (Appointed Process Owners – Reference SOPs for details)
c) Reporting on the performance of the Quality Management System and on opportunities for improvement, to top management; (Appointed Process Owners – Reference SOPs for details)
d) Ensuring the promotion of customer focus throughout the organization; (VP of Quality)
e) Ensuring that the integrity of the Quality Management System is maintained when changes to the Quality Management System are planned and implemented. (Appointed Process Owners – Reference SOPs and Skyworks Change Management Process for details)

5.3.1 Organizational Roles and Responsibilities - Supplemental

References: SQ03-0691 Management Process

Top management has assigned personnel with responsibility and authority to ensure that:
- Customer requirements are met (i.e., VP of Quality)
- Selection of special characteristics (i.e., Designated Design Engineer)

- Setting quality objectives and related training (i.e., Core Business Process Owners)
- Corrective and preventive actions (i.e., VP of Quality)
- Product design and development (i.e., Assigned Business Unit VP)
- Capacity analysis (i.e., VP Operations)
- Logistics information (i.e., VP Supply Chain)
- Customer scorecards, and customer portals (i.e., VP of Quality)

5.3.2 Responsibility and Authority for Product Requirements and Corrective Actions

References: SQ03-0691 Management Process; SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks' Top management has ensured that:

a) Personnel responsible for conformity to product requirements have the authority to stop shipment and stop production to correct quality problems. In the event is not possible to stop production immediately (i.e., Director of Operations/Manufacturing and/or Director of Process Engineering)

b) Personnel with authority and responsibility for corrective action are promptly informed of products or processes that do not conform to requirements to ensure that nonconforming product is not shipped to the customer and that all potential nonconforming product is identified and contained (Reference SQ03-0685)

c) Production operations across all shifts are staffed with personnel in charge of, or delegated responsibility for ensuring conformity to product requirements (i.e., Appointed Shift Supervisor and/or Process Engineering representative)

6 Planning

6.1 Actions to Address Risks and Opportunities

References: SQ03-0544 Business Risks and Opportunities

6.1.1 When Skyworks plans for the Quality Management System, the following aspects are considered,

1. Issues (i.e., 4.1)
2. Risks and Opportunities (i.e., 4.2) that need to be addressed to:
    a. Give assurance that the Quality Management System can achieve its intended result(s);
    b. Enhance desirable effects.
    c. Prevent, or reduce, undesired effects.
    d. Achieve improvement.

6.1.2 Skyworks plans,

a. Actions to address these risks and opportunities (i.e., documented through management reviews, or related staff meetings)
b. How to:
    1. Integrate and implement the actions into its Quality Management System processes (i.e., 4.4.)
    2. Evaluate the effectiveness of these actions (i.e., through Management Reviews or Staff follow up meetings)

The actions taken by Skyworks are proportionate to the potential impact on the conformity of products and services

6.1.2.1 *Risk Analysis*

References: SQ02-0008 Product Design and Development; SQ02-0018 Customer Management; SQ02-0012 Quality Systems Compliance; SQ02-0001 Change Management; SQ02-0058 Information Technology; SQ03-0534 Business Continuity Management System

Skyworks includes in its risk analysis process the following:

a. Lessons learned from product recalls, product audits, field returns and repairs, complaints, scrap, and rework
b. Cyber-attack threats to information technology systems.

Skyworks retains records as evidence of the results of risk analysis such as but not limited to design records, process validation records, customer complaint records, corrective/preventive action records, cyber security program records

6.1.2.2 *Preventive Action*

References: SQ02-0012 Quality Systems Compliance; SQ03-0258 Corrective/Preventive Action Processing

Skyworks has determined and implemented a preventive action program to eliminate the causes of potential nonconformities to prevent their occurrence. Preventive actions taken are appropriate to the severity of the potential issues.

Skyworks uses Preventive Action Request form (i.e., PAR) to address or lessen the impact of negative effects of risk systematically which including the following:

a) Determining potential nonconformities and their causes (i.e., using 5 why approach);

b) Evaluating the need for action to prevent occurrence of nonconformities (i.e., list of actions based on 5 why analysis);

c) Determining and implementing action needed (i.e., monitoring of deployment of preventive actions, though ECDs);

d) Documented information of action taken (i.e., capturing evidence of completion in PAR form);

e) Reviewing effectiveness of the preventive action taken (i.e., sponsor validates if potential risk as mitigated or eliminated);

f.) Utilizing lessons learned to prevent recurrence in similar processes (i.e., sponsor confirms lessons learned are properly deployed)

6.1.2.3 *Contingency Plans*

References: SQ03-0534 Business Continuity Management System; SQ02-0058 Information Technology; WB-W0223 Shutdown / Start Up Procedures; NPF-0653 Short and Long term lot hold procedures for Fab Shutdowns; JP-0017 Site Business Continuity Management System; MXP-0092 Procedure for Shut Down of Operations and Equipment

Skyworks has developed a Business Continuity Management System which includes:

a) Identification and evaluation of internal and external risks to all manufacturing processes and infrastructure equipment essential to maintain Skyworks production output and to ensure that customer requirements are met.

b) A process to define contingency plans according to risk and impact to the customer;

c.) A process to prepare contingency plans for continuity of supply in the event of any of the following but not limited to: Key equipment failures (also see 8.5.6.1.1); interruption from externally provided products, processes, and services; recurring natural disasters; fire; utility interruptions; cyber-attacks on information technology systems; labor shortages; or infrastructure disruptions;

d) A supplement to the contingency plans, a notification process to the customer and other interested parties for the extent and duration of any situation impacting customer operations;

e) Periodic test the contingency plans for effectiveness (e.g., simulations, as appropriate); for cybersecurity: testing may include a simulation of a cyber-attack, regular monitoring for specific threats, identification of dependencies and prioritization of vulnerabilities. The testing is appropriate to the risk of associated customer disruption;

Note: Skyworks cybersecurity program and testing is managed internally

f) Regular contingency plan reviews (at a minimum annually) using a multidisciplinary team including top management, and update as required;

g) A formal controlled document along with records related to contingency plans describing any revision(s), including the person(s) who authorized the change(s).

h) An awareness and training program as appropriate.

Skyworks contingency plans include provisions to validate that the manufactured product continues to meet customer specifications after the re-start of production following an emergency in which production was stopped and if the regular shutdown processes were not followed.

6.2 Quality objectives and planning to achieve them

References: SQ03-0544 Business Risks and Opportunities

6.2.1 Skyworks has established Quality Objectives at relevant functions, levels and processes needed for the Quality Management System,

Skyworks Quality Objectives are identified in corresponding Standard Operating Procedures and are:

a. Consistent with the Quality Policy
b. Measurable
c. Take into account applicable requirements
d. Relevant to conformity of products and services and to enhancement of customer satisfaction
e. Monitored
f. Communicated
g. Updated as appropriate

Skyworks maintains records on Quality Objectives (i.e., KPIs)

6.2.2 When Skyworks plans how to achieve Quality Objectives, the following is determined:

a) What will be done
b) What resources will be required
c) Who will be responsible
d) When it will be completed
e) How the results will be evaluated

6.2.2.1 *Quality objectives and planning to achieve them - supplemental*

References: SQ03-0691 Management Process

Skyworks' top management has ensured that quality objectives to meet customer requirements are defined, established, and maintained for relevant functions, processes, and levels throughout the organization.

The results of the organization's review regarding interested parties and the relevant requirements are considered when the organization establishes its annual quality objectives and related performance targets (internal and external).

6.3 Planning and changes

References: SQ02-0001 Change Management, SQ03-0003 Document Control Process;

When Skyworks determines the need for changes to the Quality Management System, the changes are carried out in a planned manner (see 4.4)

The organization has established Quality Systems TRBs as well as a document control program that allows owners to consider:

a) The purpose of the changes and their potential consequences;
b) The integrity of the Quality Management System;
c) The availability of resources;
d) The allocation or reallocation of responsibilities and authorities.

7 Support

7.1 Resources

7.1.1 General

References: SQ02-0010 Human Resources; SQ02-0003 Supply Chain Management; SQ02-0058 Information Technology; SQ03-0542 Skyworks Worldwide Facilities

Skyworks has determined and provided resources needed for the establishment, implementation, maintenance and continual improvement of the Quality Management System.

Skyworks has considered:

a) The capabilities of, and constraints on, existing internal resources;
b) What needs to be obtained from external providers.

7.1.2 People

References: SQ02-0010 Human Resources

Skyworks has determined and provided the persons necessary for the effective implementation of its Quality Management System and for the operations and control of its processes.

7.1.3 Infrastructure

SQ02-0003 Supply Chain Management; SQ02-0058 Information Technology; SQ03-0542 Skyworks Worldwide Facilities

Skyworks determined, provided, and maintained the infrastructure necessary for the operation of its processes and to achieve conformity of products and services.

Note: Infrastructure includes:

a) Buildings and associated utilities;

b) Equipment, including hardware and software;

c) Transportation resources;

d) Information and communication technology.

7.1.3.1 *Plant, Facility, and Equipment Planning*

References: SQ02-0060 New Technology Introductions; SQ02-0001 Change Management; SQ02-0054 Supplier Management; WB-W0318 WB Industrial Engineering Business Process

Skyworks uses a multidisciplinary approach including risk identification and risk mitigation methods for developing and improving plant, facility and equipment plans. In designing plant layouts, the organization has:

a) Optimize material flow, material handling and valued added use of floor space including control of nonconforming product,

b) Facilitate synchronous material flow, as applicable; and

c) Implement cyber protection of equipment and systems supporting manufacturing.

Methods have been developed and implemented to evaluate manufacturing feasibility for new product or new operations. Manufacturing feasibility assessments shall include capacity planning. These methods shall also be applicable for evaluating proposed changes to existing operations.

Skyworks maintains process effectiveness, including periodic re-evaluation relative to risk, to incorporate any changes made during process approval, control plan maintenance (see Section 8.5.1.1), and verification of job set-ups (see Section 8.5.1.3).

Assessments of manufacturing feasibility and evaluation of capacity planning are inputs to management review (see Section 9.3).

7.1.4 Environment for the Operation of Processes

References: SQ02-0010 Human Resources; SQ03-0062 ESD Control Policy

Skyworks has determined, provided, and maintained an environment necessary for the operation of its processes and to achieve conformity of products and services.

Note: Skyworks considers a suitable environment as a combination of human and physical factors, such as:

a) Social (e.g. non-discriminatory);

b) Psychological (e.g. emotionally protective);

c) Physical (e.g. temperature, humidity, airflow);

7.1.4.1 *Environment for the Operation of Processes - Supplemental*

References: SQ02-0060 New Technology Introductions; SQ02-0001 Change Management; SQ02-0054 Supplier Management; WB-W0318 WB Industrial Engineering Business Process

Skyworks maintains its premises in a state of order, cleanliness and repair that is consistent with the product and manufacturing process needs (e.g., Internal Laboratory scopes provide a description of cleanliness needed in these areas, and 5s program is being managed at manufacturing locations).

7.1.5 Monitoring and Measurement Resources

References: SQ03-0145 Measurement System Analysis, SQ03-0406 Calibration Protocol

7.1.5.1 General

Skyworks has determined and provided resources needed to ensure valid and reliable results when monitoring and measuring is used to verify the conformity of products to requirements.

Skyworks ensures that the resources provided:

a) Are suitable for the specific type of monitoring and measurement activities being undertaken.
b) Are maintained to ensure their continuing fitness for their purpose.

Skyworks retains calibration and verification records; as appropriate, to demonstrate evidence of fitness for purpose of the monitoring and measurement resources*.*

7.1.5.1.1. *Measurement System Analysis*

References: SQ03-0145 Measurement System Analysis

Statistical studies have been conducted to analyze the variation present in the results of each type of inspection, measurement, and test equipment identified in the control plan. The analytical methods and acceptance criteria used conform to those in AIAG Measurement Systems Analysis. Other analytical methods and acceptance criteria may be used if approved by the customer.

Records of customer acceptance of alternative methods will be retained along with results from alternative Measurement Systems Analysis as applicable

Note: Prioritization of MSA studies is focus on critical or special product or process characteristics.

7.1.5.2 General Measurement Traceability

References: SQ03-0406 Calibration Protocol

When measurement traceability is a requirement, or is considered by Skyworks to be an essential part of providing confidence in the validity of measurement results, measuring equipment has been:

a) Calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standard exists, the basis used for calibration or verification is retained as documented information.

b) Identified in order to determine their status.

c) Safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.

Skyworks determines if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose and takes appropriate action as necessary. Reference Calibration program work instruction for details.

7.1.5.2.1. *Calibration/Verification Records*

References: SQ03-0406 Calibration Protocol

Skyworks has developed a documented process for managing calibration/verification records. Reference SQ03-0406 for details. Records of the calibration/verification activity for all gauges and measuring and test equipment (including employee owned equipment relevant for measuring, customer owned equipment, or on-site supplier owned equipment) evidence of conformity to internal requirements, legislative and regulatory requirements, and customer defined requirements are retained as specified in SQ03-0406.

Skyworks ensures that calibration/verification activities and records include the following details:

a) Revisions following engineering changes that impact measurement systems;

b) Any out-of-specification readings as received for calibration/verification;

c) An assessment of the risk of the intended use of the product caused by the out-of-specification condition;

d) When a piece of inspection measuring and test equipment is found to be out of calibration or defective during its planned verification or calibration or during its use, documented information on the validity of previous measurement results obtained with this piece of inspection measurement and test equipment is retained, including the associated standard's last calibration date and the next due date on the calibration report.

e) Notification to the customer if suspect product or material has been shipped;

f) Statements of conformity to specifications after calibration/verification;

g) *Verification that the software version used for product and process control is as specified;*

h) Records of the calibration and maintenance activities for all gauging (including employee-owned equipment, customer owned equipment, or on-site supplier owned equipment);

i) Production-related software verification used for product and process control (including software installed on employee-owned equipment, customer owned equipment, or on-site supplier owned equipment).

7.1.5.3 Laboratory Requirements

7.1.5.3.1. *Internal Laboratory*

References: CD-F-0187 Internal Laboratory Scope Template, SQ03-0639 Managing Customer Specific Requirements

Skyworks internal laboratory facilities have a defined scope that includes its capability to perform the required inspection, test or calibration services as applicable. This laboratory scope is included in the Quality Management System documentation. The laboratories have specified and implemented requirements for:

a) Adequacy of the laboratory's technical procedures;

b) Competence of the laboratory personnel;

c) Testing of the product;

d) Capability to perform these services correctly, traceable to the relevant process standard (such as ASTM, EN, etc.); when no national or international standard(s) is available, the organization shall define and implement a methodology to verify measurement system capability;

e) Customer requirements, if any;

f) Review of the related records.

7.1.5.3.2. *External Laboratory*

References: SQ03-0406 Calibration Protocol, SQ03-0138 Supplier Qualification and Monitoring; SQ04-0408 Non-accredited Calibration Supplier Investigation Form

External/commercial/independent laboratory facilities used for inspection, test or calibration services by Skyworks have a defined laboratory scope that includes the capability to perform the required inspection, test, or calibration, and either:

-The laboratory is accredited to ISO/IEC 17025 or its national equivalent (e.g., CNAS-CL01 in China) by an accreditation body (Signatory) of the ILAC MRA (International Laboratory Accreditation Forum Mutual Recognition Arrangement – www.ilac.org) and includes the relevant inspection, test or calibration service in the scope of the accreditation (certificate); the certificate of calibration or test report are conducted by a laboratory that includes the mark of a national accreditation body; or

— where a non accredited laboratory is utilized (for example, but not limited to: specialist or integrated equipment, parameters with no international traceable standard reference, or original equipment manufacturers) Skyworks ensures that there is evidence that the laboratory has been evaluated and meets the requirements of Section 7.1.5.3.1 of IATF 16949

Due to the nature of Skyworks Business, In the event a non 17025 vendor can't be located, protocol described within Skyworks Supplier Qualification and Monitoring program must be followed.

7.1.6 Organizational Knowledge

References: SQ02-0010 Human Resources

Skyworks has determined the knowledge necessary for the operation of its processes and to achieve conformity of products.

This knowledge is maintained and is made available to the extent necessary.

When addressing changing needs and trends, Skyworks considers its current knowledge and determine how to acquire or access any necessary additional knowledge and required updates.

7.2 Competence

References: SQ02-0010 Human Resources

Skyworks:

a) Determines the necessary competence of person(s) doing work under its control that affects performance and effectiveness of the Quality Management System.

b) Ensures that these persons are competent on the basis of appropriate education, training or experience;

c) Where applicable, actions are taken to acquire the necessary competence, and evaluate the effectiveness of the actions taken;

d) Retains appropriate documented information as evidence of competence.

7.2.1 *Competence - Supplemental*

References: SQ02-0010 Human Resources; SQ02-0058 Information Technology; SQ03-0534 Business Continuity Management System

Skyworks has established and maintains a documented process(es) for identifying training needs including awareness and achieving competence of personnel performing activities affecting conformity to product and process requirements. Personnel performing specific assigned tasks are qualified, as required, with particular attention to the satisfaction of customer requirements.

To reduce or eliminate risks to the organization, the training and awareness also include information about prevention relevant for the organization's working environments and employees' responsibilities, such as recognizing the symptoms of pending equipment failure and/or attempted cyber-attacks.

7.2.2 *Competence – On the Job Training*

References: SQ02-0010 Human Resources

Skyworks provides on-the-job training (which includes customer requirements training, as applicable) for personnel in any new or modified responsibilities affecting conformity to quality requirements, internal requirements, regulatory or legislative requirements; this also includes contract or agency personnel. The level of detail required for on-the-job training is commensurate with the level of education the personnel possess and the complexity of the task(s) they are required to perform for their daily work. Persons whose work can affect quality are informed about the consequences of nonconformity to customer requirements.

7.2.3 *Internal Auditor Competence*

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management

Skyworks has a documented process(es) to verify that internal auditors are competent, taking into account any requirements defined by the organization and/or customer-specific requirements. Skyworks maintains a list of qualified internal auditors.

Quality Management System auditors, are required to demonstrate the following minimum competencies:

a) Understand the automotive process approach for auditing, including risk-based thinking;

b) Understanding of applicable customer-specific requirements;

c) Understanding of applicable ISO 9001 and IATF 16949 requirements related to the scope of the audit;

d) Understanding of applicable core tool requirements related to the scope of the audit;

e) Understanding how to plan, conduct, report, and close out audit findings.

At a minimum, manufacturing process auditors are required to demonstrate technical understanding of the relevant manufacturing process(es) to be audited, including process risk analysis (such as PFMEA) and Control Plan.

At a minimum, product auditors shall demonstrate competence in understanding product requirements and use of relevant measuring and test equipment to verify product conformity.

When training to achieve competency is provided by Skyworks personnel, documented information will be retained to demonstrate the trainer's competency with the above requirements. Currently Skyworks uses external providers to ensure competency of their Internal Auditors.

Maintenance of and improvement in internal auditor competence is demonstrated through:

f. Executing a minimum number of audits per year, as defined by the organization; and

g. Maintaining knowledge on relevant requirements based on internal changes (e.g., process technology, product technology) and external changes (e.g., ISO 9001; IATF 16949, core tools, and customer specific requirements)

7.2.4 *Second Party Auditor Competency*

References: SQ02-0054 Supplier Management; SQ03-0218 Supplier Audit Protocol; SQ03-0639 Managing Customer Specific Requirements

Skyworks has defined the competency of the auditors undertaking the second-party audits. When additional qualification requirements for Second-party auditors are identified through Customer Specific Requirements, Skyworks will ensure

these requirements are incorporated into its process. The minimum core competencies and understanding for second party auditors include the following:

a) The automotive process approach to auditing, including risk based thinking;

b) Applicable customer and organization specific requirements;

c) Applicable ISO 9001 and IATF 16949 requirements related to the scope of the audit;

d) Applicable manufacturing process(es) to be audited, including PFMEA and Control Plan;

e) Applicable core tool requirements related to the scope of the audit;

f) How to plan, conduct, prepare audit reports, and close out audit findings.

7.3 Awareness

References: SQ02-0010 Human Resources

Skyworks ensures that persons doing work under the organization's control are aware of:

a) The Quality Policy
b) Relevant Quality Objectives
c) Their contribution to the effectiveness of the Quality Management System, including the benefits of improved performance;
d) The implications of not conforming with the Quality Management System requirements.

7.3.1 *Awareness - Supplemental*

References: SQ02-0010 Human Resources; SQ04-0412 Quality and Technological Awareness Training

Skyworks maintains documented information that demonstrates that all employees are aware of their impact on product quality and the importance of their activities in achieving, maintaining and improving quality, including customer requirements and the risks involved for the customer with non-conforming product.

7.3.2 *Employee Motivation and Empowerment*

References: SQ02-0010 Human Resources; SQ04-0412 Quality and Technological Awareness Training

Skyworks maintains documented process(es) to motivate employees to achieve quality objectives, to make continual improvements, and to create an environment that promotes innovation. This process includes the promotion of quality and technological awareness throughout the whole organization.

7.4 Communication

References: SQ02-0010 Human Resources

Skyworks has determined the internal and external communications relevant to the Quality Management System, including:

a) On what it will communicate; process owners are responsible to determine the communication needed within the organization and they will work with the corporate communicates department when global or external announcements are required
b) When to communicate; project plans and timelines will be used to identify when communication will be needed for the organization
c) With whom to communicate; process owners will work with key affected functions to determine who shall be aware of the announcements needed to be made by the business
d) How to communicate; process owners will work with key affected functions to determine the best vehicle to use to communicate with the organization. Here are some vehicles that have been enable by Skyworks: Skylink-Skyworks internal website, e-mail, meetings, mail, teams, etc.)

e) Who communicates. depending on the audience needed to receive announcements, the process owners will either work with corporate communications department (i.e., when global communication is needed), or they will work directly with key affected functions to determine who will be responsible to communicate to the organization

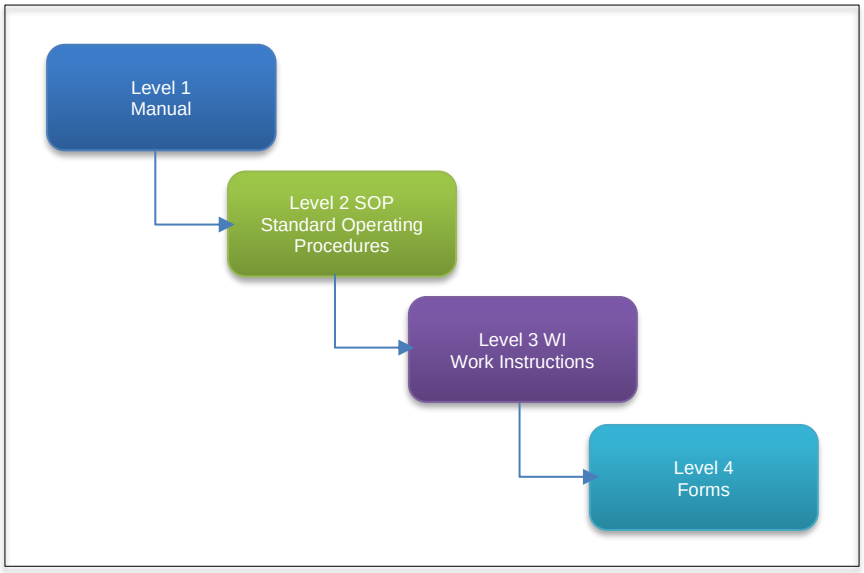
7.5 Documented Information

7.5.1 General

References: SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices

Skyworks Quality Management System includes:
a) Documented information required by this International Standard (i.e., ISO 9001 and *IATF 16949*);
b) Documented information determined by Skyworks as being necessary for the effectiveness of the Quality Management System.

The following aspects are taken into consideration to determine Skyworks documented information required to operate its business:
a) The amount of individuals responsible to manage a type of activities, processes, and products;
b) The complexity of processes and their interactions;
c) The competence of persons.



Document Hierarchy Diagram

7.5.1.1 *Quality Management System Documentation*

References: SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices; SQ04-0275 Quality Management System Scope

Skyworks' Quality Management System is documented and includes a Quality Manual.

References to additional documentation has been incorporated to this document to allow the organization navigate through the different components of the Quality Management System.

This quality manual includes the following:

a) The scope of the Quality Management System, including details and justification for any exclusions;
b) Documented processes established for the Quality Management System, or reference to them;

c) Skyworks core business processes and their sequence and interactions (inputs and outputs) including type and extent of control of any outsourced processes;
d) A reference to CSR and how Skyworks QMS addresses these requirements.

The sequence and interaction of the quality management system processes is outlined in **SQ04-0275 QMS Scope**

This manual is comprised of the main explanation and expectations to explain Skyworks personnel the requirements related to both ISO and *IATF* requirements respectively; however, lower level documentation Level II, Level III, and Level IV, contain the details required to demonstrate how these requirements are met. Skyworks determined that due to the size of its organization and the dynamic environment in which operates, there was a need to reinstitute a quality management system manual that compasses the totality of its QMS to allow new generations to understand the holistic approach required to ensure the integrity of the quality management system is maintained.

Level II - Standard Operating Procedures (SOP)
Skyworks policies and procedures that define the different tasks that make up the processes needed to meet the requirements in this Quality Systems Manual, the ISO 9001 *and ISO/TS 16949*. The scope of Standard Operating Procedures impacts all sites, business units, and organizations. Every core business process identified by Skyworks has a corresponding SOP (i.e., SQ02-XXXX). When required; site specific SOPs will be enabled to support business practices to be conducted in the expected manner (NP-XXXX

Level III - Work Instructions (WI)
Site, business unit or organizational procedures that define how the tasks referenced in the Level II documents are performed. Work instructions can be administrative or manufacturing related and can be global (SQ03-XXXX), business (SQ03-XXXX or DC-WI, etc), or site specific (ex., JP-W; YNG-W; SG-W; NP-T or NP-W; MX-WI or MXVA; WB-W, etc.)

Level IV - Forms
Site, business unit or organizational document that provides a means to record results achieved or evidence of activities performed. Forms can be global (SQ04-XXXX), business (SQ04-XXXX or DC-F, etc.), or site specific (ex., JP-F; YNG-F; SG-F; NPF-; MXF-; WB-F, etc.). When applicable, a form could become a record after information has been recorded onto it.

7.5.2 Creating and Updating

References: SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices

When creating and updating documented information, Skyworks ensures appropriate:
a) Identification and description (i.e., title, date, author, and reference number);
b) Format (i.e., language, software version, graphics) and media (i.e., paper, electronic);
c) Review and approval of suitability and adequacy.

7.5.3 Control of Documented Information

References: SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices

7.5.3.1 *Documented information*

Documented information required by the Quality Management System and by this International Standard is controlled to ensure:
a) It is available and suitable for use, where and when it is needed;
b) It is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

7.5.3.2 *Control of documented information*

For the control of documented information, addresses the following activities, as applicable:

a) Distribution, access, retrieval and use;
b) Storage and preservation, including preservation of legibility;
c) Control changes (version control);
d) Retention and disposition.

Documented information of external origin determined by the organization to be necessary for the planning and operation of the Quality Management System has been identified as appropriate and controlled.

Documented information retained as evidence of conformity is protected from unintended alterations.

7.5.3.2.1. *Record Retention*

References: SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices; SQ03-0687 Skyworks Automotive Flow Requirements; SQ03-0639 Managing Customer Specific Requirements

Skyworks has defined, documented, and implemented a record retention policy. The control of records satisfies statutory, regulatory, organizational and customer requirements.

Production part approvals, tooling records (including maintenance and ownership), product process design records, purchase orders (when applicable), or contracts and amendments are retained for the length of time that the product is active for production and service requirements, plus one calendar year, unless otherwise specified by customer or regulatory agency.

7.5.3.2.2. *Engineering Specifications*

References: SQ02-0001 Change Management process; SQ02-0008 Product Design and Development; SQ02-0012 Quality Systems Compliance; SQ03-0003 Skyworks Document Control General Requirements and Practices; SQ03-0517 DAS Product Design and Development; SQ03-0639 Managing Customer Specific Requirements.

Skyworks has documented a process describing the review, distribution, and implementation of all customer engineering standards/specifications and related revisions based on customer schedules, as required (i.e., SQ03-0003).

When an engineering standard/specification change results in a product design change, refer to the requirements in SQ02-0008. When an engineering standard/specification change results in a product realization process change, refer to the requirements in SQ02-0001. The organization shall retain a record of the date on which each change is implemented in production. Implementation shall include updated documents.

Review should be completed within 10 working days of receipt of notification of engineering standards/specification changes.

8 Operation

8.1 Operational Planning and Control

References: SQ02-0008 Product Design and Development; SQ02-0001 Change Management process; SQ02-0054 Supplier Management

Skyworks plans, implements and controls the processes needed to meet the requirements for the provision of products and to implement the actions determined during planning, by;

a) Determining the requirements for products;

b) Establishing criteria for:

   1) the processes

   2) the acceptance of products and services

c) Determining the resources needed to achieve conformity to the product and service requirements;

d) Implementing control of the processes in accordance with the criteria;

e) Determining and keeping documented information to the extent necessary:

   1) to have confidence that the process has been carried out as planned;

   2) to demonstrate conformity of products and services to their requirements.

Skyworks ensures that the output of this planning is suitable for the organization's operations.

Skyworks controls planned changes and reviews the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary. Reference SQ02-0001

Skyworks ensures that outsourced processes are controlled. Reference SQ02-0054

8.1.1 *Operational Planning and Control-Supplemental*

References: SQ02-0008 Product Design and Development; SQ03-0517 DAS Product Design and Development

When planning for product realization, the following topics are included:

a) Customer product requirements and technical specifications;

b) Logistics requirements;

c) Manufacturing feasibility;

d) Project planning (refer to Section 8.3.2);

e) Acceptance criteria.

The resources identified in Section 8.1.c), refer to the required verification, validation, monitoring, measurement, inspection, and test activities specific to the product and the criteria for product acceptance.

8.1.2 *Operational Planning and Control-Supplemental*

References: SQ02-0008 Product Design and Development; SQ02-0010 Human Resources

Skyworks ensure the confidentiality of customer-contracted products and projects under development, including related product information.

8.2 Requirements for Products and Services

8.2.1 Customer Communication

References: SQ02-0018 Customer Management

Communications with customers includes the following:

a) Providing information related to products and services;

b) Handling enquiries, contracts or orders, including changes;

c) Obtaining customer feedback relating to products and services, including customer complaints;

d) Handling or controlling customer property;

e) Establishing specific requirements for contingency actions, when relevant

8.2.1.1 *Customer Communication – Supplemental*

References: SQ02-0018 Customer Management

Written or verbal communication is in the language agreed with the customer (e.g., English). Skyworks has allocated resources that can communicate necessary information, including data in a customer-specified computer language and format (e.g., computer-aided design data, electronic data interchange.)

8.2.2 Determining the Requirements Related to Products

References: SQ01-0002 Sustainability Systems Manual; SQ02-0018 Customer Management; SQ02-0008 Product Design and Development; SQ03-0185 Material and Part Compliance; SQ03-0517 DAS Product Design and Development

When determining the requirements for the products to be offered to the customers, Skyworks ensures that:

a) The requirements for the products and services are defined, including:

   1) Any applicable statutory and regulatory requirements;

   2) Those considered necessary by the Skyworks;

b) We can meet the claims for the products we offer.

8.2.2.1 *Determining the Requirements Related to Products – Supplemental*

References: SQ01-0002 Sustainability Systems Manual; SQ02-0018 Customer Management; SQ02-0008 Product Design and Development; SQ03-0185 Material and Part Compliance; SQ03-0517 DAS Product Design and Development

These requirements include recycling, environmental impact, and characteristics identified as a result of Skyworks' knowledge of the product and manufacturing processes.

Compliance to ISO 9001, Section 8.2.2 item a) 1) includes but is not limited to the following: All applicable government, safety, and environmental regulations related to acquisition, storage, handling, recycling, elimination, or disposal of material.

8.2.3 Review of the Requirements Related to Products

8.2.3.1 Ability to meet product requirements

References: SQ01-0002 Sustainability Systems Manual; SQ02-0018 Customer Management; SQ03-0093 Order Entry Process; SQ03-0185 Material and Part Compliance

Skyworks ensures that it has the ability meet the requirements for products to be offered to customers. Skyworks conducts a review before committing to supply products to a customer, that includes:

a) Requirements specified by the customer, including the requirements for delivery and post-delivery activities;

b) Requirements not stated by the customer, but necessary for the specified or intended use, when known;

c) Requirements specified by the Skyworks;

d) Statutory and regulatory requirements applicable to the products;

e) Contract or order requirements differing from those previously expressed.

Skyworks ensures that contract or order requirements differing from those previously defined are resolved.

The customer's requirements are confirmed by Skyworks before acceptance, when the customer does not provide a documented statement of their requirements.

8.2.3.1.1. *Review of the Requirements Related to Products - Supplemental*

References: SQ02-0018 Customer Management; SQ03-0093 Order Entry Process; SQ03-0174 Waiver Policy

Skyworks retains documented evidence of a customer-authorized waiver for the requirements stated in section 8.2.3.1, for a formal review.

8.2.3.1.2. *Customer – Designated Special Characteristics*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0703 Management of Special Characteristics

Skyworks conforms to customer requirements for designation, approval documentation, and control of special characteristics, when required by the customer.

8.2.3.1.3. *Organizational Manufacturing Feasibility*

References: SQ02-0001 Change Management Process; SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ02-0060 New Technology Introduction

Skyworks uses a multidisciplinary approach to conduct an analysis to determine if it is feasible that the organization's manufacturing processes are capable of consistently producing product that meets all the engineering and capacity requirements specified by the customer. Skyworks conducts this feasibility analysis for any manufacturing or product technology new to the organization and any changed manufacturing process or product design.

Additionally, Skyworks validates through production runs, benchmarking studies, or other appropriate methods, its ability to make product to specifications at the required rate.

8.2.3.2 Record retention on Reviews of requirements related to product

References: SQ02-0018 Customer Management; SQ03-0093 Order Entry Process

Skyworks retains documented information, as applicable:

a) On the results of the review;

b) On any new requirements for the products and services.

8.2.4 Changes to Requirements for Products and Services

References: SQ02-0018 Customer Management; SQ03-0093 Order Entry Process

Skyworks ensures that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when the requirements for products and services are changed.

8.3 Design and Development of Products and Services

8.3.1 General

References: SQ02-0008 Product Design and Development; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

Skyworks has established, implemented, and maintains a design and development process that is appropriate to ensure the subsequent provision of products and services.

8.3.1.1 *Design and Development of Products - Supplemental*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

The requirements in section 8.3.1, apply to product and manufacturing process design and development and focus on error prevention rather than detection.

Skyworks has documented its design and development process in SQ02-0008 and SQ03-0517 respectively

8.3.2 Design and Development Planning

References: SQ02-0008 Product Design and Development; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

In determining the stages and controls for design and development, Skyworks considers:

a) The nature, duration and complexity of the design and development activities;

b) The required process stages, including applicable design and development reviews;

c) The required design and development verification and validation activities;

d) The responsibilities and authorities involved in the design and development process;

e) The internal and external resource needs for the design and development of products and services;

f) The need to control interfaces between persons involved in the design and development process;

g) The need for involvement of customers and users in the design and development process;

h) The requirements for subsequent provision of products and services;

i) The level of control expected for the design and development process by customers and other relevant interested parties;

j) The documented information needed to demonstrate that design and development requirements have been met.

8.3.2.1 *Design and Development Planning –Supplemental*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks ensures that design and development planning includes all affected stakeholders within the organization and, as appropriate, its supply chain. Examples of areas for using such a multidisciplinary approach include but are not limited to the following:

a) Project management (i.e., APQP);

b) Product and manufacturing process design activities (i.e., DFM and DFA), such as consideration of the use of alternative designs and manufacturing processes;

c) Development and review of product design risk analysis (FMEA's), including actions to reduce potential risks;

d) Development and review of manufacturing process risk analysis (i.e., FMEA's. Process Flows, Control Plans and Standard Work Instructions).

8.3.2.2 *Product Design Skills*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks ensures that personnel with product design responsibilities are competent to achieve design requirements and are skilled in applicable product design tools and techniques. Applicable tools and techniques are identified by the process owners.

8.3.2.3 *Development of Products with Embedded Software*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks does not have any automotive products in its portfolio that required embedded software at this time. As such, this element of the manual will only become applicable of this position evolves over time.

In the future if automotive products are developed that required embedded software Skyworks will use a process for Quality Assurance for these products with internally developed embedded software. A software development assessment methodology will be utilized to assess the Skyworks' software development process. Using prioritization based on risk and potential impact to the customer, Skyworks will retain documented information of a software development capability self-assessment.

Skyworks will include software development within the scope of their internal audit program, see section 9.2.2.1

8.3.3 Design and Development Inputs

References: SQ02-0008 Product Design and Development; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

Skyworks has determined the requirements essential for the specific types of products to be designed and developed. Skyworks considers:

a) Functional and performance requirements;

b) Information derived from previous similar design and development activities;

c) Statutory and regulatory requirements;

d) Standard or codes of practice that the organization has committed to implement.

e) Potential consequences of failure due to the nature of the products and services.

Inputs shall be adequate for design and development purposes, complete and unambiguous.

Conflicting design and development inputs are resolved and approved using a phase gate approach.

Skyworks retains document information on design and development inputs.

8.3.3.1 *Product Design and Development - Supplemental*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks identifies, documents, and reviews product design input requirements as a result of contract review. Product design input requirements include but are not limited to the following:

a) Product specifications including but not limited to special characteristics (see Section 8.3.3.3);

b) Boundary and interface requirements;

c) Identification, Traceability and Packaging;

d) Consideration of design alternatives;

e) Assessment of risks with the input requirements and the organization's ability to mitigate/manage the risks, including from the feasibility analysis;

f) Targets for conformity to product requirements including preservation, reliability, durability, serviceability, health, safety, environmental, development timing, and cost;

g) Applicable statutory and regulatory requirements of the customer-identified country of destination, if provided;

h) Embedded software requirements.

Skyworks has a process to deploy information gained from previous design projects, competitive product analysis (benchmarking), supplier feedback, internal input, field data, and other relevant sources for current and future projects of a similar nature.

8.3.3.2 *Manufacturing Process Design Inputs*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0703 Management of Special Characteristics; SQ03-0639 Management of Customer Specific Requirements; SQ03-0676 Skyworks Error Proofing Methodology

Skyworks identifies, documents, and reviews manufacturing process design input requirements including but not limited to the following:

a) Product design output data including special characteristics;

b) Targets for productivity, process capability, timing, and cost;

c) Manufacturing technology alternatives;

d) Customer requirements, if any;

e) Experience from previous developments;

f) New materials;

g) Product handling and ergonomic requirements, and

h) Design For Manufacturing and Design For Assembly.

Manufacturing process design includes the use of error-proofing methods to a degree appropriate to the magnitude of the problem(s) and commensurate with the risks encountered.

8.3.3.3 *Manufacturing Process Design Inputs*

References: SQ03-0703 Management of Special Characteristics

Skyworks use a multidisciplinary approach to establish, document, and implement its process to identify Special Characteristics, including those determined by the customer and the risk analysis performed by the Skyworks, and include the following:

a. Documentation of all Special Characteristics in the product and/or manufacturing documents (as required), relevant risk analysis (such as Process FMEA), control plans, and standard work/operator instructions; special characteristics are identified with special markings and are documented in the manufacturing documents which show the creation of, or the controls required, for these special characteristics
b. Development of control and monitoring strategies for Special Characteristics of products and production processes;
c. Customer-specific approvals, when required;
d. Compliance with customer-specific definitions and symbols or the organization's equivalent symbols or notations, as defined in a symbol conversion table. The symbol conversion table is submitted to the customer, if required.

8.3.4 Design and Development Controls

References: SQ02-0008 Product Design and Development; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

Skyworks has apply the controls to the design and development process to ensure that;

a) The results to be achieved are defined;
b) Reviews are conducted to evaluate the ability of the design and development to meet requirements;
c) Verification activities are conducted to ensure that design and development outputs meet the input requirements;
d) Validation activities are conducted to ensure that the resulting products and services meet the requirements for the specified application or intended use;
e) Any necessary actions are taken on problems determined during the reviews, or verification and validation activities;
f) Documented information of these activities is retained.

8.3.4.1 *Monitoring*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Measurements at specified stages during the design and development of products and processes are defined, analyzed, and reported with summary results as an input to management review, see section 9.3.2.1

When required by the customer, measurements of the product and process development activity are reported to the customer at stages specified, or agreed to, by the customer.

8.3.4.2 *Design and Development Validation*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Design and development validation is performed in accordance with customer requirements, including any applicable industry and government agency-issued regulatory standards. The timing of design and development validation is planned in alignment with customer-specified timing, as applicable.

Current Skyworks automotive portfolio does not require the use of embedded software. In the event this position evolves, where contractually agreed with the customer, this will include the evaluation of the interaction of the organization's product, including embedded software, within the system of the final customer's product.

8.3.4.3 *Prototype Program*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Automotive Customers have not required Skyworks to have a control plan for its prototype programs. Prototype lines will use, whenever possible, the same suppliers, tooling, and manufacturing processes as will be used in production.

All performance-testing activities are monitored for timely completion and conformity to requirements.

When services are outsourced, Skyworks includes the type and extent of control in the scope of its Quality Management System to ensure the outsourced services conforms to requirements, see section 8.4

Skyworks has enabled Engineering Builds Laboratories in early phases of design to verify functionality of the initial parts being built. This activity is conducted at designated design centers and internal laboratory requirements, see section 7.1.5.3.1 are applied.

After functionality is verified, Skyworks will utilize prototype environment at manufacturing locations to drive production awareness in the organization. At this stage, prototype control plans will be used to exercise preliminary production controls.

8.3.4.4 *Product Part Approval*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0139 Production Part Approval Process

Skyworks has established, implemented, and maintains a product and manufacturing approval process conforming to requirements defined by automotive customer(s).

Skyworks has approved externally provided products and services per section 8.4.3, prior to submission of their part approval to the customer.

When required by the customer Skyworks will obtain documented product approval prior to shipment. Records of such approval are retained per protocol documented in SQ03-0139.

8.3.5 Design and Development Output

References: SQ02-0008 Product Design and Development; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

Skyworks ensures that design and development outputs;

a) Meet the input requirements;

b) Are adequate for the subsequent processes for the provision of products and services;

c) Include or reference monitoring and measurement requirements, as appropriate, and acceptance criteria;

d) Specify the characteristics of the products and services that are essential for their intended purpose and their safe and proper provision.

Skyworks retains documented information on design and development outputs.

8.3.5.1 *Design and Development Output – Supplemental*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Design outputs are expressed in terms that can be verified and validated against product design input requirements. The product design output includes, but is not be limited to the following, as applicable:

a) Design risk analysis (FMEA);

b) Reliability study results;

c) Product Special Characteristics;

d) Results of product design error-proofing;

e) Product definition including technical data packages;

f) Drawings, product manufacturing information, and geometric dimensioning and tolerancing (GD&T);

g) Product design review results;

h) Packaging and labeling requirements for shipping.

8.3.5.2 *Manufacturing Process Design Outputs*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks documents the manufacturing process design output in a manner that enables verification against the manufacturing process design inputs. Skyworks verifies the outputs against manufacturing process design input requirements. The manufacturing process design output include but are not limited to the following:

a) Specifications and drawings;

b) Special characteristics for product and manufacturing processes;

c) Identification of process input variables that impact characteristics;

d) Tooling and equipment for production and control, including capability studies of equipment and process(es);

e) Manufacturing process flow chart/layout, including linkage of product, process, and tooling;

f) Capacity analysis;

g) Manufacturing process FMEA;

h) Maintenance plans and instructions;

i) Control Plan;

j) Standard work and work instructions;

k) Process approval acceptance criteria;

l) Data for quality, reliability, maintainability, and measurability;

m) Results of error-proofing identification and verification, as appropriate;

n) Methods of rapid detection, feedback, and correction of product/manufacturing process nonconformities.

8.3.6 Design and Development Changes

References: SQ02-0008 Product Design and Development; SQ02-0001 Change Management; SQ03-0516 Mobile Solutions Business (MSS) Product Realization Process (MSB PRP); SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0521 Artificial Intelligence Solutions Product Realization Process (AIS PRP)

Skyworks has identified, reviewed and controls changes made during, or subsequent to, the design and development of products and services, to the extent necessary to ensure that there is no adverse impact on product conformity to requirements.

Skyworks retains documented information on:

a) Design and development changes;

b) The results of reviews;

c) The authorization of changes;

d) The actions taken to prevent adverse impacts.

8.3.6.1 *Manufacturing Process Changes - Supplemental*

References: SQ02-0008 Product Design and Development; SQ02-001 Change Management; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ03-0174 Waiver Policy

Skyworks evaluates all design changes after initial product approval, including those proposed by the organization or its suppliers, for potential impact on, fit, form, function, performance, and/or durability. These changes are validated against customer requirements and approved internally, prior to production implementation.

If required by the customer, Skyworks obtain documented approval, or a documented waiver, from the customer prior to production implementation.

Embedded software is not used in Skyworks automotive product portfolio. In the event this position evolves over time, Skyworks will ensure the revision level of software and hardware is retained as part of the change record.

8.4 Control of Externally Provided Processes, Products and Services

8.4.1 General

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks ensures that externally provided processes, products and services conform to requirements.

Skyworks has determined the controls to be applied to externally provided processes, products, and services when:

a) Products and services from external providers are intended for incorporation into the organization's own products and services.
b) Products and services are provided directly to the customer(s) by external providers on behalf of the organization.
c) A process or part of a process is provided by an external provider as a result of a decision by the organization.

Skyworks has determined and apply criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements. Skyworks retains documented information on these activities and any necessary actions arising from the evaluations.

8.4.1.1 *General - Supplemental*

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks has included all products and services that affect customer requirements such as sub-assembly, sequencing, sorting, rework, and calibration services in the scope of their definition of externally provided products, and processes.

8.4.1.2 *Supplier Selection Process*

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring; SQ04-0404 New Supplier Request Form

Skyworks has a documented supplier selection process. The selection process includes:

a) An assessment of the selected supplier's risk to product conformity and uninterrupted supply of the organization's product to their customers;
b) Relevant quality and delivery performance;
c) An evaluation of the supplier's Quality Management System;
d) Multidisciplinary decision making; and
e) An assessment of software development capabilities, if applicable.

Other supplier selection criteria that is taken into consideration as applicable:
-Volume of automotive business (absolute and as a percentage of total business);
-Financial stability;
-Purchased product, material, or service complexity;
-Required technology (product or process);
-Adequacy of available resources (e.g., people, infrastructure);
-Design and development capabilities (including project management);
-Manufacturing capability;
-Change management process;
-Business continuity planning (e.g., disaster preparedness, contingency planning);
-Logistics process;
-Customer service.

8.4.1.3 *Customer – directed sources (also known as "Directed-Buy")*

References: SQ02-0018 Customer Management; SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Currently Skyworks automotive customers have not requested directed sources to be used in the manufacturing of their products. As the customer needs continue to evolve, if this state changes, Skyworks will purchase products, materials, or services from customer directed sources.

All requirements of section 8.4 (except the requirements in section 8.4.1.2) will be applicable to the organization's control of customer-designated sources unless specific agreements are otherwise defined by the contract between the organization and the customer.

8.4.2 Type and extent of control

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks has ensured that externally provided processes, products and services do not adversely affect the organization's ability to consistently deliver conforming products and services to its customers.

Skyworks has:

a) Ensure that externally provided processes remain within the control of its Quality Management System;
b) Define both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output;

c) Taken into consideration;
    1) The potential impact of the externally provided processes, products and services on Skyworks' ability to consistently meet customer and applicable statutory and regulatory requirements;
    2) The effectiveness of the controls applied to the external provider;
d) Determine the verification, or other activities necessary to ensure that the externally provided processes, products and services meet requirements.

8.4.2.1 *Type and Extent of Control - Supplemental*

References: SQ02-0018 Customer Management; SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring; SQ03-0639 Managing Customer Specific Requirements

Skyworks has a documented process to identify outsourced processes and to select the types and extent of controls used to verify conformity of externally provided products, processes, and services to internal (organizational) and external customer requirements.

The process includes the criteria and actions to escalate or reduce the types and extent of controls and development activities based on supplier performance and assessment of product, material or service risks.

Where characteristics or components "pass through" the organization's quality management system without validation or controls, the organization will ensure that the appropriate controls are in place at the point of manufacture.

8.4.2.2 *Statutory and Regulatory Requirements*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring; SQ03-0132 Green Procurement Supplier Specification; SQ03-0337 Supplier Sustainability Selection; SQ03-0639 Managing Customer Specific Requirements

Skyworks has documented its process to ensure that purchased products, processes and services conform to the current applicable statutory and regulatory requirements in the country of receipt, the country of shipment, and the customer-identified country of destination, if provided.

If the customer defines special controls for certain products with statutory and regulatory requirements, the organization shall ensure they are implemented and maintained as defined, including at suppliers.

8.4.2.3 *Supplier Quality Management System Development*

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks requires its suppliers of automotive products and services to develop, implement, and improve a Quality Management System (QMS) with the ultimate objective of eligible organizations becoming certified to IATF16949 Automotive Quality Management System Standard.

Using a risk-based model, the organization has defined a minimum acceptable level of QMS development and a target QMS development level for each supplier.

Unless otherwise authorized by the customer, a QMS certified to ISO 9001 is the initial minimum acceptable level of development. Based on current performance and the potential risk to the customer, the objective is to move suppliers through the following QMS development progression:

b) Certification to ISO 9001 through third-party audits, unless otherwise specified (i.e., SDS), Skyworks suppliers shall demonstrate conformity to ISO 9001 by maintaining a third-party certification, issued by a certification body bearing the accreditation mark of a recognized IAF MLA (International Accreditation Forum Multilateral Recognition Arrangement) member and where the accreditation body's main scope includes management system certification to ISO/IEC 17021.

c) Certification to ISO 9001 with compliance to other customer-defined QMS requirements, (such as Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers (MAQMSR) or equivalent) through second-party audits;

d) Certification to ISO 9001 with compliance to IATF 16949 through second-party audits;

e) Certification to IATF 16949 through third-party audits (valid third-party certification of the supplier to IATF 16949 by an IATF-recognized certification body.

8.4.2.3.1. *Automotive Product – Related Software or Automotive Products with Embedded Software*

References: SQ02-0008 Product Design and Development; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP); SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Currently, Skyworks automotive portfolio does not require embedded software. If this motion evolves over time, Skyworks will require their suppliers of automotive product-related software, or automotive products with embedded software, to implement and maintain a process for software quality assurance for their products.

A software development assessment methodology will be utilized to assess the supplier's software development process. Using prioritization based on risk and potential impact to the customer, the organization will require the supplier to retain documented information of a software development capability self-assessment.

8.4.2.4 *Supplier Monitoring*

References: SQ02-0008 Product Design and Development; SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks has a documented process and criteria to evaluate supplier performance in order to ensure conformity of externally provided products, processes and services to internal and external customer requirements.

The following supplier performance indicators are monitored:

a) Delivered product conformity to requirements;

b) Customer disruptions at the receiving plant, including yard holds and stop ships;

c) Delivery schedule performance;

If provided by the customer, the organization shall also include the following, as appropriate, in their supplier performance monitoring:

e) Special status customer notifications related to quality or delivery issues;

f) Dealer returns, warranty, field actions, and recalls.

8.4.2.4.1. *Second Party Audits*

References: SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks includes second-party audit process in its supplier management approach. Second-party audits may be used for the following:

a) Supplier risk assessment;
b) Supplier monitoring;
c) Supplier QMS development;
d) Product audits;
e) Process audits.
Based on a risk analysis, including product safety/regulatory requirements, performance of the supplier and QMS certification level, at a minimum, the organization has documented the criteria for determining the need, type, frequency, and scope of second-party audits.

Skyworks retains records of the second-party audit reports.

If the scope of the second-party audit is to assess the supplier's Quality Management System, then the approach is consistent with the automotive process approach.

8.4.2.5 *Supplier Development*

References: SQ02-0008 Product Design and Development; SQ02-0054 Supplier Management; SQ03-0138 Supplier Qualification and Monitoring

Skyworks has determined the priority, type, extent, and timing of required supplier development actions for its active suppliers. Determination inputs include but are not limited to the following:

a) Performance issues identified through supplier monitoring (see section 8.2.2.4);

b) Second-party audit findings (see section 8.4.2.4.1)

c) Third-party Quality Management System certification status;

d) Risk analysis

Skyworks implements actions necessary to resolve open (unsatisfactory) performance issues and pursue opportunities for continual improvement.

8.4.3 Information for External Providers

References: SQ02-0020 Supplier Quality Manual

Skyworks has ensured the adequacy of requirements prior to their communication to the external provider.

Skyworks communicates to external providers its requirements for:

a) The processes, products and services to be provided;
b) The approval of:
    1. Products and services;
    2. Methods, processes and equipment;
    3. The release of products and services;
c) Competence, including any requirements for qualification of persons;
d) The external providers' interactions with the organization;
e) Control and monitoring of external providers' performance to be applied by the organization;
f) Verification or validation activities that the organization, or its customer, intends to perform at the external providers' premises.

8.4.3.1 *Information for External Providers - Supplemental*

References: SQ02-0020 Supplier Quality Manual; SQ03-0639 Managing Customer Specific Requirements

Skyworks passes down all applicable statutory and regulatory requirements and special product and process characteristics to their suppliers and require the suppliers to cascade all applicable requirements down the supply chain to the point of manufacture.

8.5 Production and Service Provision

8.5.1 Control of Production and Service Provision

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks has implemented production under controlled conditions.

Controlled conditions include, as applicable:

a) The availability of documented information that defines:
    1) The characteristics of the products to be produced, the services to be provided, or the activities to be performed;
    2) The results to be achieved;
b) The availability and use of suitable monitoring and measuring resources;
c) The implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services, have been met;
d) The use of suitable infrastructure and environment of the operation of processes;
e) The appointment of competent persons, including any required qualification;
f) The validation, and periodic revalidation, of the ability to achieve planned results of the process for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement;
g) The implementation of actions to prevent human errors;
h) The implementation of release, delivery and post-delivery activities.

8.5.1.1 *Control Plan*

References: SQ02-0001 Change Management, SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0150 Control Plan; SQ03-0258 Internal Corrective/Preventive Actions Processing; SQ03-0639 Managing Customer Specific Requirements

Skyworks has developed control plans (in accordance with Annex A if the IATF16949 Automotive Quality Management System Standard) at the system, subsystem, component and/or material level for the relevant manufacturing site and all product supplied, including those for processes producing bulk materials as well as parts. Technology, process, and/or package control plans are acceptable for similar parts using a common manufacturing process.

Skyworks has a control plan for pre-launch (e.g., Lead Lot) and production that shows linkage and incorporates information from the design risk analysis (if provided by the customer), process flow diagram, and manufacturing process risk analysis outputs (such as FMEA).

Skyworks will, if required by the customer, provide measurement and conformity data collected during execution of either the pre-launch (e.g., Lead Lot) or production control plans. Skyworks includes in the control plan:

a) Controls used for the manufacturing process control, including verification of job set-ups;

b) First-off/last-off validation, as applicable;

c) Methods for monitoring of control exercised over special characteristics defined by both the customer and Skyworks;

c) The customer required information, if any;

e) Specified reaction plan; when nonconforming product is detected, the process becomes statistically unstable or not statistically capable.

Skyworks reviews control plans, and update as required, for any of the following:

f) When Skyworks determines it has shipped nonconforming product to the customer (e.g., Corrective Action Request);

g) When any change occurs affecting product, manufacturing process, measurement, logistics, supply sources, production volume changes, or risk analysis (FMEA) (e.g., Change Management Process/TRBs)

h) After a customer complaint and implementation of the associated corrective action, when applicable;

i) At a set frequency based on risk analysis.

Skyworks currently doesn't have any customers requiring approval after review or revision of control plans. In the event this changes Skyworks will follow SQ03-0639 Managing Customer Specific Requirements process.

Note: Due to the size of Skyworks products (i.e., very small device dimensions), first-off/last-off part validation is not feasible/applicable. Skyworks instead uses extensive Automated Optical Inspections (AOI), and parametric and probe testing to test each of our devices and meet stringent manufacturing quality requirements. For similar reasons, First and Last off component retention or Master Samples is not feasible/applicable.

8.5.1.2 *Standardize Work – Operator Instructions and Visual Standards*

References: SQ02-0001 Change Management, SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0003 Skyworks Document Control General Requirements and Practices

Skyworks ensures that standardized work documents are:

a) Communicated to and understood by the employees who are responsible for performing the work;

b) Legible;

c) Presented in the language(s) understood by the personnel responsible to follow them;

d) Accessible for use at designated work area(s);

The standardized work documents also include rules for operator safety (e.g. Process Control Instructions, Manufacturing related work instructions).

8.5.1.3 *Verification of Job Set-Ups*

References: SQ02-0001 Change Management, SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0003 Skyworks Document Control General Requirements and Practices

Skyworks has the responsibility to:

a) Verify job set-ups when performed, such as an initial run of a job, material changeover, or job change that requires a new set-up;

b) Maintain documented information for set-up personnel; (e.g., job-set up instructions are incorporated to manufacturing process documentation such as but not limited to work instructions, checklists, etc.)

c) Use statistical methods of verification, where applicable; (e.g., SPC has been made available when applicable to verify job set-ups)

d) Perform first-off/last-off part validation, as applicable; where appropriate, first-off parts should be retained for comparison with last-off parts; where appropriate, last-off parts should be retained for comparison with first-off parts in subsequent runs;

e) Retain records of process and product approval following set-up and first-off/last-off part validations.

Note: Due to the size of Skyworks products (i.e., very small device dimensions), first-off/last-off part validation is not feasible/applicable. Skyworks instead uses extensive Automated Optical Inspections (AOI), and parametric and probe testing to test each of our devices and meet stringent manufacturing quality requirements. For similar reasons, First and Last off component retention or Master Samples is not feasible/applicable.

8.5.1.4 *Verification After Shutdown*

References: SQ02-0001 Change Management, SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; *SQ03-0534 Business Continuity Management System; WB-W0223 Shutdown / Start Up Procedures; NPF-0653 Short and Long term lot hold procedures for Fab Shutdowns; JP-0017 Site Business Continuity Management System; MXP-0092 Procedure for Shut Down of Operations and Equipment*

Skyworks has defined and implemented the necessary actions to ensure product compliance with requirements after a planned or unplanned production shutdown period.

8.5.1.5 *Total Productive Maintenance*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks has developed, implemented, and maintains a documented total productive maintenance system.

Skyworks TPM system includes the following:

a) Identification of process equipment necessary to produce conforming product at the required volume;

b) Availability of replacement parts for the equipment identified in a);

c) Provision of resources for machine, equipment and facility maintenance;

d) Packaging and preservation of equipment, tooling and gauging;;

e) Applicable customer-specific requirements;

f) Documented maintenance objectives, for example: OEE (Overall Equipment Effectiveness); MTBF (Mean Time Between Failures); MTTR (Mean Time to Repair); and Preventive Maintenance compliance metrics.. Performance to the maintenance objectives shall form an input to Management Review (see section 9.3);

g) Regular review of maintenance plan and objectives and a documented action plan to address corrective actions where objectives are not achieved;

h) Use of Preventive Maintenance methods;

i) Use of Predictive Maintenance methods, as applicable;

j) Periodic overhaul.

8.5.1.6 *Management of Production Tooling and Manufacturing, Test, Inspections Tooling and Equipment*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0135 Customer and Supplier Property Handling Protocol

Skyworks has provided resources for tool and gage design, fabrication, and verification activities for production and service materials and for bulk materials, as applicable.

Skyworks has established and implemented a system for production tooling management, whether owned by the organization or the customer, including:

a) Maintenance and repair facilities and personnel;

b) Storage and recovery;

c) Set-up;

d) Tool-change programs for perishable tools;

e) Tool design modification documentation, including engineering change level of the product;

f) Tool modification and revision to documentation,

g) Tool identification, such as serial or asset number, the status, such as production, repair or disposal; ownership; and location.

Skyworks also considers and verifies that customer-owned tools, manufacturing equipment, and test/inspection equipment are permanently marked in a visible location so that the ownership and application of each item can be determined. Ref SQ03-0135

8.5.1.7 *Production Scheduling*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel;

Skyworks has ensured that production is scheduled in order to meet customer orders/demands such as Just in Time (JIT) and is supported by an information system that permits access to production information at key stages of the process and is order driven.

Skyworks includes relevant planning information during production scheduling, e.g., customer orders, supplier on-time delivery performance, capacity, shared loading (multi-part station), lead time, inventory level, preventive maintenance, and calibration.

8.5.2 Identification and Traceability

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks uses suitable means to identify outputs when it is necessary to ensure the conformity of products and services.

Skyworks identifies the status of outputs with respect to monitoring and measurement requirements throughout production and service provision.

Skyworks controls the unique identification of the outputs when traceability is a requirement and retains the documented information necessary to enable traceability.

8.5.2.1 *Identification and Traceability - Supplemental*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0639 Management of Customer Specific Requirements

Skyworks recognizes the criticality to be able to traceability to support identification of clear start and stop points for product received by the customer or in the field that may contain quality and/or safety-related nonconformities. Therefore, Skyworks has implemented an identification and traceability processes as described below:

Skyworks conducts an analysis of internal, customer, and regulatory traceability requirements for all automotive products, including developing and documenting traceability plans, based on the levels of risk or failure severity for employees, customers, and consumers. These plans define the appropriate traceability systems, processes, and methods by product, process, and manufacturing location that:

a) Enable Skyworks to identify nonconforming and/or suspect product;

b) Enable Skyworks to segregate nonconforming and/or suspect material;

c) Ensure the ability to meet the customer and/or regulatory response time requirements;

d) Ensure documented information is retained in the format (electronic, hard copy, archive) that enables the organization to meet the response time requirements;

e) Ensure serialized identification of individual products, if specified by the customer or regulatory standards;

f) Ensure the identification and traceability requirements are extended to externally provided products with safety/regulatory characteristics.

Note: Currently Skyworks does not offer automotive products that are considered to have a product safety identified characteristic

8.5.3 Property Belonging to Customer or External Providers

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0135 Customer and Supplier Property Handling Protocol

Skyworks exercises care with property belonging to customers or external providers while it is under the organization's control or being used by the organization.

Skyworks identifies, verifies, protects, and safeguards customers' or external providers' property provided for use or incorporation into the products and services.

When the property of a customer or external provider is lost, damaged, or otherwise found to be unsuitable for use, the Skyworks report this to the customer or external provider and retains documented information on what has occurred.

Note: A customer's or external providers property can include materials, components, tools and equipment, premises, intellectual property, and personal data. Ref SQ03-0135

8.5.4 Preservation

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks preserves the outputs during production and service provision, to the extent necessary to ensure conformity to requirements.

8.5.4.1 *Preservation - Supplemental*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0639 Managing Customer Specific Requirements

Skyworks preservation requirements include identification, handling, contamination control, packaging, storage, transmission or transportation, and protection.

Preservation is applied to materials and components from external and/or internal providers from receipt through processing, including shipment until delivery to/acceptance by the customer.

In order to detect deterioration, Skyworks assess at appropriate planned intervals the condition of product in stock, the place/type of storage container, and the storage environment.

Skyworks uses an inventory management system to optimize inventory turns over time and ensure stock rotation, such as "first-in-first-out" (FIFO).

Skyworks ensures that obsolete product is controlled in a manner similar to that of nonconforming product.

Skyworks will comply with preservation, packaging shipping, and labeling requirements as provided by their customers. Ref. SQ03-0639

8.5.5 Post-Delivery Activities

References: SQ02-0018 Customer Management

Skyworks meets requirements for post-delivery activities associated with the products and services.

In determining the extent of post-delivery activities that are required, Skyworks considers:

a) Statutory and regulatory requirements;
b) The potential undesired consequences associated with its products and services;
c) The nature, use and intended lifetime of its products and services;
d) Customer requirements;
e) Customer feedback,

Note: Post-delivery activities include actions under warranty provisions. Aspects such as maintenance services, and supplementary services such as recycling or final disposal are not applicable to Skyworks products.

8.5.5.1 *Feedback of Information from Service*

References: SQ02-0018 Customer Management

Skyworks has ensured that a process for communication of information on service concerns to manufacturing, material handling, logistics, engineering, and design activities is established, implemented, and maintained.

Note 1: The intent of the addition of "Service Concerns" to this sub-clause is to ensure that the Skyworks personnel is aware of nonconforming product(s) and material(s) that may be identified at the customer location or in the field.

Note 2: "Service Concerns" includes the result of field failure test analysis (see section 10.2.6) where applicable.

8.5.5.2 *Service Agreement with Customer*

References: SQ02-0018 Customer Management

When there is a service agreement with the customer, Skyworks takes responsibility to:

a) Verify that relevant service centers comply with applicable requirements;

b) Verify the effectiveness of any special purpose tools or measurement equipment;

c) Ensure that all service personnel are trained in applicable requirements.

Note: Service Center to Skyworks is equivalent to Skyworks locations where CQE or Field Customer QA resources have been identified. Global process has been established across the organization to support customer concerns. Other type o services are not applicable to Skyworks product.

8.5.6 Control of Changes

References: SQ02-0001 Change Management

Skyworks reviews and controls changes for production, to the extent necessary to ensure continuing conformity with requirements.

Skyworks retains documented information describing the results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review.

8.5.6.1 *Control of Changes – Supplemental*

References: SQ02-0001 Change Management; SQ03-0259 Managing Customer Quality Expectation Data; SQ03-0639 Managing Customer Specific Requirements

Skyworks has a documented process to control and react to changes that impact product realization. The effects of any change, including those changes caused by the organization, the customer, or any supplier, are assessed.

Skyworks recognizes the responsibility to:

a) Define verification and validation activities to ensure compliance with customer requirements;

b) Validate changes before implementation;

c) Document the evidence of related risk analysis;

d) Retain records of verification and validation.

Changes, including those made at suppliers, require a production trial run for verification of changes (such as changes in part design, manufacturing location, or manufacturing process) to validate the impact of any changes on the manufacturing processes.

If required by the customer, Skyworks will:

e) Notify the customer of any planned product realization changes after the most recent product approval;

f) Obtain documented approval, prior to implementation of the change;

g) Complete additional verification or identification requirements, such as production trial run and new product validation.

8.5.6.1.1. *Temporary Change of Process Control*

References: SQ02-0001 Change Management

Skyworks has identified, documented, and maintains a list of the process controls, including inspection, measuring, test, and error-proofing devices, in its enterprise management system, and/or applicable control plans, and/or process control instructions

The list of process controls includes the primary process controls and the approved back-up or alternate methods if back-up or alternate methods exist.

Skyworks has documented the process that manages the use of alternate control methods. Skyworks includes in this process, based on risk analysis, (such as FMEA), severity, and the internal approvals to be obtained prior to production implementation of the alternative control method.

Before shipping product that was inspected or tested using the alternate method, if required, Skyworks willl obtain approval from the customer(s). The organization maintains and periodically reviews a list of approved alternate process control methods that are referenced in the control plan.

Standardized work instructions are available for each alternate process control method. Skyworks reviews the operation of alternate process controls on a daily basis, at a minimum, to verify implementation of standard work with the goal to return to the standard process as defined by the control plan as soon as possible. Example methods include, but are not limited the following:

a) Daily quality focused audits (e.g., layered process audits, as applicable);

b) Daily leadership meetings.

Restart verification is documented for a defined period based on Severity and confirmation that all features of the error-proofing device or process are effectively reinstated.

Skyworks has implemented traceability of all product produced while any alternative process control devices or processes are being used.

8.6 Release of Products

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0174 Waiver Policy

Skyworks has implemented planned arrangements, at appropriate stages, to verify that the product requirements have been met.

The release of products to the customer does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by the customer.

Skyworks retains documented information on the release of products and services. The documented information includes:

a) Evidence of conformity with the acceptance criteria;

b) Traceability to the person(s) authorizing the release.

8.6.1 *Release of Products - Supplemental*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks ensure that the planned arrangements to verify that the product and service requirements have been met encompass the control plan and are documented as specified in the control plan

Skyworks ensures that the planned arrangements for initial release of products approval.

Skyworks ensures that product approval is accomplished after changes following initial release, according to section 8.5.6.

8.6.2 *Layout Inspection and Functional Testing*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0639 Managing Customer Specific Requirements; SQ03-0139 Production Part Approval Process

A layout inspection and a functional verification to applicable customer engineering material and performance standards is performed for each product as specified in the control plans. Results will be available for customer review.

Note 1: Layout inspection is the complete measurement of all product dimensions shown on the design record(s)

Note 2: The frequency of layout inspection is determined by the customer.

8.6.3 *Appearance Items*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Currently Skyworks doesn't manufacture any products that are considered to be "Appearance Items" for automotive applications

8.6.4 *Verification and Acceptance of Conformity of Externally Provided Products*

References: SQ02-0054 Supplier Management

Skyworks has a process to ensure the quality of externally provided processes, products, and services utilizing one or more of the following methods:

a) Receipt and evaluation of statistical data provided by the supplier to the organization;

b) Receiving inspection and/or testing, such as sampling based on performance;

c) Second-party or third –party assessments or audits of supplier sites when coupled with records of acceptable delivered product conformance to requirements;

d) Part evaluation by a designated laboratory;

e) Another method agreed with the customer.

8.6.5 *Statutory and Regulatory Conformity*

References: SQ02-0054 Supplier Management, SQ02-0020 Supplier Quality Manual

Prior to release of externally provided products into its production flow, Skyworks confirms and is able to provide evidence that externally provided processes, products, and services conform to the latest applicable statutory, regulatory, and other requirements in the countries where they are manufactured and in the customer-identified countries of destination, if provided.

8.6.6 *Acceptance Criteria*

References: SQ02-0054 Supplier Management, SQ02-0020 Supplier Quality Manual

Acceptance criteria has been defined by Skyworks and, where appropriate or required, approved by the customer. For attribute data sampling, the acceptance level is zero defects, see section 9.1.1.1

8.7 Control of Nonconforming Outputs

8.7.1 Nonconforming Outputs

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks ensures that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

Skyworks has taken appropriate action based on the nature of the nonconformity and its effect on the conformity of products. This also applies to nonconforming products detected after delivery of products.

Skyworks deals with nonconforming outputs in one or more of the following ways:

a) Correction;

b) Segregation, containment, return or suspension of provision of products and services;

c) Informing the customer;

d) Obtaining authorization for acceptance under concession.

Conformity to the requirements is verified when nonconforming outputs are corrected.

8.7.1.1 *Customer Authorization for Concession*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks will obtain a customer concession or deviation permit prior to further processing whenever the product or manufacturing process is different from that which is currently approved.

Skyworks obtains customer authorization prior to further processing for "use as is". Repairs are not conducted on Skyworks nonconforming product. Rework can only be conducted at certain stages of the manufacturing process.

Sub-components are not reused in Skyworks' manufacturing process.

Skyworks maintains a record of the expiration date or quantity authorized under concession. Skyworks also ensures compliance with the original or superseding specifications and requirements when the authorization expires. Material shipped under concession is properly identified on each shipping container (this applies equally to purchased product). Skyworks will approve any requests from suppliers before submission to the customer.

8.7.1.2 *Control of Nonconforming Product – Customer Specified Process*

References: SQ03-0639 Managing Customer Specific Requirements

Skyworks will comply with applicable customer-specified controls for nonconforming product(s).

8.7.1.3 *Control of Suspect Product*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks ensures that product with unidentified or suspect status is classified and controlled as nonconforming product. Skyworks ensures that all appropriate manufacturing personnel receive training for containment of suspect and non-conforming product.

8.7.1.4 *Control of Reworked Product*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks utilizes a risk analysis (such as FMEA) methodology to assess risks in the rework process prior to a decision to rework the product. If required by the customer, Skyworks will obtain approval from the customer prior to commencing rework of the product.

Skyworks has a documented process for rework confirmation in accordance with the control plan or other relevant documented information to verify compliance to original specifications.

Instructions for disassembly are not applicable to Skyworks product. Instructions for rework, including re-inspection and traceability requirements, are accessible to and utilized by the appropriate personnel.

Skyworks retains documented information on the disposition of reworked product including: quantity, disposition, disposition date, and applicable traceability information.

8.7.1.5 *Control of Repaired Product*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks product is not susceptible to repairs, as such, repairs will not be conducted on Skyworks Products

8.7.1.6 *Customer Notification*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks will immediately notify the customer(s) in the event that nonconforming product has been shipped. Initial communication will be followed with detailed documentation of the event.

8.7.1.7 *Nonconforming Product Disposition*

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks has a documented process for disposition of nonconforming product not subject to rework or repair. For product not meeting requirements, Skyworks verifies the product to be scrapped is rendered unusable prior to disposal.

Skyworks will not divert nonconforming product for other use without prior customer approval.

8.7.2 Nonconforming Product Records

References: SQ03-0685 Skyworks Corporate Workflow for Quality Excursion, Quality Alert, Quality Escalation Protocols and Communication

Skyworks retains documented information that:

a) Describes the nonconformity;

b) Describes the actions taken;

c) Describes any concessions obtained;

d) Identifies the authority describing the action in respect of the nonconformity

9 Performance Evaluation

9.1 Monitoring, Measurement, Analysis and Evaluation

9.1.1 General

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks has determined:

a) What needs to be monitored and measured;

b) The methods for monitoring, measurement, analysis and evaluation needed to ensure valid results;

c) When the monitoring and measuring shall be performed;

d) When the results from monitoring and measurement shall be analyzed and evaluated.

Skyworks evaluates the performance and the effectiveness of the Quality Management System.

Skyworks retains documented information as evidence of the results.

9.1.1.1 *Monitoring and Measurement of Manufacturing Processes*

References: SQ02-0060 New Technology Introduction; SQ02-0001 Change Management; SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0703 Management of Special Characteristics; SQ03-0639 Managing Customer Specific Requirements; SQ03-0139 Production Part Approval Process

Skyworks performs process studies on all new manufacturing processes to verify process capability and to provide additional input for process control, including those for special characteristics.

Skyworks maintains manufacturing process capability or performance results as specified by the customer's part approval process requirements. Skyworks verifies that the process flow diagram, PFMEA, and control plan are implemented, including adherence to the following:

a) Measurement techniques;

b) Sampling plans,

c) Acceptance criteria;

d) Records of actual measurement values and/or test results for variable data;

e) Reaction plans and escalation process when acceptance criteria are not met.

Significant process events, such as tool change or machine repair, are recorded and retained as documented information.

Skyworks follows a reaction plan indicated on the control plan and evaluates for impact on compliance to specifications for characteristics that are either not statistically capable or are unstable. These reaction plans include containment of product and 100 percent inspection, as appropriate. A corrective action plan is to be developed and implemented by the by Skyworks indicating specific actions, timing, and assigned responsibilities to ensure that the process becomes stable and statistically capable. The plans are reviewed with and approved by the customer, when required.

Skyworks maintains records of effective dates of process changes.

9.1.1.2 *Identification of Statistical Tools*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ03-0517 Diversified Analog Solutions Product Realization Process (DAS PRP)

Skyworks has determined the appropriate use of statistical tools. Skyworks verifies that appropriate statistical tools are included as part of the advanced product quality planning (i.e., PRP) process and included in the design risk analysis (such as DFMEA) (where applicable), the process risk analysis (Such as PFMEA) and the control plan.

9.1.1.3 *Application of Statistical Concepts*

References: SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Statistical concepts, such as variation, controls (stability), process capability, and the consequences of over-adjustment, are understood and used by employees involved in the collection, analysis, and management of statistical data.

9.1.2 Customer Satisfaction

References: SQ02-0018 Customer Management

Skyworks monitors customers' perceptions of the degree to which their needs and expectations have been fulfilled. Skyworks has determined methods for obtaining, monitoring and reviewing this information.

9.1.2.1 *Customer Satisfaction - Supplemental*

References: SQ02-0018 Customer Management

Customer satisfaction related to Skyworks performance is monitored through continual evaluation of internal and external performance indicators to ensure compliance to the product and process specifications and other customer requirements.

Performance indicators are based on objective evidence and include but not be limited the following:

a) Delivered part quality performance;

b) Customer disruptions;

c) Field returns, recalls, and warranty (where applicable);

d) Delivery schedule performance (including incidents of premium freight);

e) Customer notifications related to quality or delivery issues, including special status.

Skyworks monitors the performance of manufacturing processes to demonstrate compliance with customer requirements for product quality and process efficiency. The monitoring includes the review of customer performance data including online customer portals and customer scorecards, where provided.

9.1.3 Analysis and Evaluation

References: SQ02-0018 Customer Management; SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel

Skyworks analyzes and evaluates appropriate data and information arising from monitoring and measurement.

The results of analysis are used to evaluate:

a) Conformity of products and services;

b) The degree of customer satisfaction;

c) The performance and effectiveness of the Quality Management System;

d) If planning has been implemented effectively;

e) The effectiveness of actions taken to address risks and opportunities;

f) The performance of external providers;

g) The need for improvements to the Quality Management System.

9.1.3.1 *Prioritization*

References: SQ02-0018 Customer Management

Trends in quality and operational performance are compared with progress toward objectives that lead to action to support prioritization of actions for improving customer satisfaction.

9.2 Internal Audit

9.2.1 Conducting Internal Audits

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management

Skyworks conducts internal audits at planned intervals to provide information on whether the Quality Management System:

a) Conforms to:

1) The organization's own requirements for its Quality Management System;

2) The requirements of this International Standard

b) Is effectively implemented and maintained.

9.2.2 Internal Audits Requirements

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management

Skyworks:

a) Plans, establishes, implements and maintains an audit program(s) including the frequency, methods, responsibilities, planning requirements and reporting, which takes into consideration the importance of the processes concerned, changes affecting the organization, and the results of previous audits;

b) Defines the audit criteria and scope for each audit;

c) Selects auditors to conduct audits to ensure objectivity and the impartiality of the audit process;

d) Ensures that the results of the audits are reported to relevant management;

e) Takes appropriate correction and corrective actions without undue delay;

f) Retains documented information as evidence of the implementation of the audit program and the audit results.

9.2.2.1 *Internal Audit Program*

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management; SQ03-0691 Management Process

Skyworks has a documented internal audit process. This process includes the development and implementation of an internal audit program that covers the entire Quality Management System including Quality Management System audits, manufacturing process audits and product audits.

The audit program is prioritized based upon risk, internal and external performance trends, and the criticality of the process(es).

Currently Skyworks doesn't have automotive products requiring software development. In the event this position changes, Skyworks will recognize its responsibility for software development, and it will include software development capability assessments in their internal audit program.

The frequency of audits is reviewed and, where appropriate, adjusted based on occurrence of process changes, internal and external nonconformities, and/or customer complaints. The effectiveness of the audit program is reviewed as part of management review.

9.2.2.2 *Quality Management System Audit*

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management; SQ03-0691 Management Process; SQ04-0275 QMS Scope; SQ03-0639 Managing Customer Specific Requirements

Skyworks audits all Quality Management System processes over a three-year audit cycle according to an annual audit program, using the process approach to verify compliance with both ISO9001:2015 and IATF16949:2016. Integrated with these audits, Skyworks samples customer-specific Quality Management System requirements for effective implementation.

The complete audit cycle remains three years in length. The quality management system audit frequency for individual processes, audited within the three-year audit cycle, is based upon internal and external performance and risk. Skyworks maintains a justification for the assigned audit frequency of their processes. All processes are required to be sampled throughout the three-year audit cycle and audited to all applicable requirements in the IATF 16949 standard, including ISO 9001 base requirements, and any customer-specific requirements.

9.2.2.3 *Manufacturing Process Audit*

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management; SQ04-0275 QMS Scope; SQ03-0639 Managing Customer Specific Requirements

Skyworks audits all manufacturing processes over each three-year calendar period to determine their effectiveness and efficiency using customer-specific required approaches for process audits. Where not defined by the customer, the Skyworks determines the approach to be used.

Within each individual audit plan, each manufacturing process is audited on all shifts where it occurs, including the appropriate sampling of the shift handover.

The manufacturing process audit includes an audit of the effective implementation of the process risk analysis (such as PFMEA), control plan, and associated documents.

9.2.2.4 *Product Audit*

References: SQ02-0012 Quality Systems Compliance; SQ03-0059 Audit Program Management; SQ03-0639 Managing Customer Specific Requirements

Skyworks conducts product audits using customer-specific required approaches at appropriate stages of production and delivery to verify conformity to specified requirements. Where not defined by the customer, Skyworks defines the approach to be used.

9.3 Management Review

9.3.1 General

References: SQ03-0691 Management Process

Skyworks reviews its Quality Management System, at planned intervals (i.e., typically quarterly), to ensure its continuing suitability, adequacy, effectiveness, and alignment with strategic direction of the organization.

9.3.1.1 *Management Review - Supplemental*

References: SQ03-0691 Management Process

Management reviews are conducted at least annually. The frequency of management review(s) is increased based on risk to compliance with customer requirements resulting from internal or external changes impacting the Quality Management System and performance-related issues.

9.3.2 Management Review Inputs

References: SQ03-0691 Management Process

The Management Review are planned and carried out taking into consideration:

a) The status of actions from previous Management Reviews;

b) Changes in external and internal issues that are relevant to the Quality Management System;

c) Information on the performance and effectiveness of the Quality Management System, including trends in:

   1) Customer satisfaction and feedback from relevant interested parties;

   2) The extent to which quality objectives have been met;

   3) Process performance and conformity of products and services;

   4) Nonconformities and corrective actions;

   5) Monitoring and measurement results;

   6) Audit results;

   7) The performance of external providers;

d) The adequacy of resources;

e) The effectiveness of the actions taken to address risks and opportunities (see section 6.1)

f) Opportunities for improvement.

9.3.2.1 *Management Review Inputs - Supplemental*

References: SQ03-0691 Management Process

Input to Management Review include:

a) Cost of Poor Quality (cost of internal and external nonconformance);

b) Measures of process effectiveness;

c) Measures of process efficiency for product realization processes, as applicable;

d) Product conformance;

e) Assessments of manufacturing feasibility made for changes to existing operations and for new facilities or new product (see 7.1.3.1);

f) Customer satisfaction (see section 9.1.2)

g) Review of performance against maintenance objectives;

h) Warranty performance (where applicable);

i) Review of customer scorecards (where applicable);

j) Identification of potential field failures identified through risk analysis (such as FMEA);

k) Actual field failures and their impact on safety or the environment.

l) summary results of measurements at specified stages during the design and development of products and processes, as applicable.

9.3.3 Management Review Outputs

References: SQ03-0691 Management Process

The outputs of the management review include decision and actions related to:

a) Opportunities for improvement;

b) Any need for changes to the Quality Management System;

c) Resources needs.

Skyworks retains documented information as evidence of the results of Management Reviews.

9.3.3.1 *Management Review Outputs - Supplemental*

References: SQ03-0691 Management Process

Top management has the commitment to document and implement an action plan when customer performance targets are not met.

10 Improvement

10.1 General

Skyworks determines and selects the opportunities for improvement and implement any necessary actions to meet customer requirements and enhance customer satisfaction.

These include:

a) Improving products and services to meet requirements as well as to address future needs and expectations;

b) Correcting, preventing or reducing undesired effects;

c) Improving the performance and effectiveness of the Quality Management System.

Note: Examples of improvement can include correction, corrective action, continual improvement, breakthrough change, innovation and re-organization.

10.2 Nonconformity and Corrective Action

10.2.1 Nonconformity Requirements

References: SQ02-0018 Customer management; SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ02-0001 Change Management; SQ02-0012 Quality Systems Compliance; SQ03-0258 Corrective / Preventive Action Request Processing

When a nonconformity occurs, including any arising from complaints, Skyworks:

a) React to the nonconformity and, as applicable:

1) Takes action to control and correct it;

2) Deals with the consequences;

b) Evaluates the need for action to eliminate the causes(s) of the nonconformity, in order that it does not recur or occur elsewhere by:

1) Reviewing and analyzing the nonconformity;

2) Determining the cause of the nonconformity;

3) Determining if similar nonconformities exist, or could potentially occur;

c) Implements any action needed;

d) Reviews the effectiveness of any corrective actions taken;

e) Updates risks and opportunities determined during planning, if necessary;

f) Makes changes to the Quality Management System, if necessary.

Corrective actions are appropriate to the effects of the nonconformities encountered.

10.2.2 Nonconformity Records

References: SQ02-0018 Customer management; SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ02-0001 Change Management; SQ02-0012 Quality Systems Compliance; SQ03-0258 Corrective / Preventive Action Request Processing

Skyworks retains documented information as evidence of:

a) The nature of the nonconformities and any subsequent actions taken;

b) The results of any corrective action.

10.2.3 *Problem Solving*

References: SQ02-0018 Customer management; SQ02-0043 Wafer Fabrication, SQ02-0044 Assembly, SQ02-0045 Test, Tape and Reel; SQ02-0001 Change Management; SQ02-0012 Quality Systems Compliance; SQ03-0258 Corrective / Preventive Action Request Processing; SQ03-0698 Skyworks Problem Solving Process; SQ03-0639 Managing Customer Specific Requirements

Skyworks has a documented process(es) for problem solving, which prevent(s) recurrence, including:

a) Defined approaches for various types and scale of problems (e.g., new product development, current manufacturing issues, field failures, audit findings);

b) Containment, interim actions, and related activities necessary for control of nonconforming outputs (per section 8.7);

c) Root Cause Analysis, methodology used, analysis and results;

d) Implementation of systemic corrective actions, including consideration of the impact on similar processes and products;

e) Verification of the effectiveness of implemented corrective actions;

f) Reviewing and, where necessary, updating the appropriate documented information (e,g., PFMEA, Control Plan).

Where the customer has specific prescribed processes, tools, or systems for problem solving, the organization shall use those processes, tools, or systems, unless otherwise approved by the customer.

10.2.4 *Error Proofing*

References: SQ03-0676 Skyworks Error Proofing Methodology

Skyworks has a documented process to determine the use of appropriate error-proofing methodologies. Details of the method used are documented in the process risk analysis (such as PFMEA) and test frequencies are documented in the control plan.

The process includes the testing of error-proofing devices for failure or simulated failure. Records are maintained. Challenge parts, when used, shall be identified, controlled, verified, and calibrated where feasible. Error-proofing device failures have a reaction plan.

10.2.5 *Warranty Management System*

References: SQ02-0018 Customer Management; SQ03-0639 Managing Customer Specific Requirements

When Skyworks is required to provide warranty for their product(s), we implement a warranty management process. This process includes a method for warranty part analysis, including NTF (No Trouble Found). When specified by the customer, Skyworks commits to implement the required warranty management process.

10.2.6 *Customer Complaints and Field Failures Test Analysis*

References: SQ02-0018 Customer Management; SQ03-0639 Managing Customer Specific Requirements

Skyworks performs analysis on customer complaints and field failures, including any returned parts, and initiates problem solving and corrective action to prevent recurrence.

Where required by the customer, this shall include analysis of the interaction of embedded software of the organization's product within the system of the final customer's product.

Skyworks communicates the results of testing/analysis to the customer and also within the organization.

Note: Currently Skyworks does not require embedded software to be used in automotive parts.

10.3 Continual Improvement

Skyworks continually improves the suitability, adequacy, and effectiveness of the Quality Management System.

Skyworks considers the results of analysis and evaluation, and the outputs from management review, to determine if there are needs or opportunities that shall be addressed as part of continual improvement.

10.3.1 Continual Improvement - Supplemental

References: SQ03-0531 Continuous Improvement

Skyworks has a documented process for continual improvement. This process includes the following:

a) Identification of the methodology used, objectives, measurement, effectiveness and documented information;

b) A manufacturing process improvement action plan with emphasis on the reduction of process variation and waste;

c) Risk analysis (such as FMEA).

Note: Continual improvement is implemented once manufacturing processes are statistically capable and stable or when product characteristics are predictable and meet customer requirements.

Revisions

Rev	Name	Change	Date
1	Abdul Popalzai	Initial Release	01/17/03
2	Abdul Popalzai	Modified section 2.0 Skyworks Quality Policy and updated Referenced Documents under sections 7.2.3, 7.3.7, 7.4.2, 7.5.3, 8.5.4	03/03/03
3	Abdul Popalzai	Expanded the sub clauses under Table of Contents. Updated References: SQ02-0010 title (Competency and Training) and SQ02-0008 document number. Removed reference to SQ02-0007. Changed management review minimum interval terminology from biannual to twice a year under section 5.6.1	04/12/03
4	Abdul Popalzai	Included section 8.6 Interaction Between the Processes of the Quality Management System	05/01/03
5	Abdul Popalzai	Modified the Introduction section to include the following: Mexicali, design centers and current BU grouping, Quality Policy snapshot, reference to “applicable” Level 2 “quality” documents, statement that VP of Quality is the backup electronic approver for the President & CEO. Added SQ02-0031 under section 6.2. Included SQ02-0015 & SQ02-0017 in the 8.6 flow chart. Replaced most of the “should” with more affirmative “is” and are”.	12/01/03
6	Abdul Popalzai	Removed reference to SQ02-0031 Competency and Training for Indirect Labor, an obsolete document. Added notation to Skyworks Quality Policy such that sites whose primary language is something other than English may translate the Quality Policy accordingly.	06/07/04
7	Abdul Popalzai	Updated Introduction and 3.0 Organizational Chart: changed WD to LP (Linear Products). Reworded sections 7.3.6, 7.3.7, and 7.4.1.1 to reflect current practices. Deleted 7.5.1.1.	06/17/05
8	Abdul Popalzai	Deleted reference to SQ02-0017 (obsolete) under section 7.4.1.1.	07/22/05
9	Abdul Popalzai	Updated section 3.0 Organizational Chart to reflect major entities under Business Units: Mobile Platforms and Linear Products	01/20/06
10	Abdul Popalzai	Updated the formatting on pages 15-17, 20-22, and 25 to hide the tracking of the changes.	02/16/06
11	Daniel Le Saux	Complete rewrite to incorporate ISO/TS 16949 requirements.	11/28/06
12	Daniel Le Saux	Modified **1.2 Scope** to define responsibilities and ownership of processes at different locations. Modified **5.4.1 Quality and business objectives** to indicate that quality objectives are established at relevant functions within the organization. Modified **5.5.2.1 Customer representative** to add that the customer quality managers, manufacturing quality managers and quality system managers promote the awareness of customer requirements throughout the organization. Changes language in **5.6.1 Management review general** to clearly specify that management reviews take place at planned intervals and that these reviews assess improvement opportunities, identify required changes to the management system, quality objectives or the quality policy. Rewrote **6.2.2 Competency, awareness and training** to clearly address requirements outlined in the standard. Modified **7.2.2 Review of requirements related to the product** to clearly state	01/22/07

		that reviews are always performed and that changes are handled in a the same manner as the original review. Added requirements for product approval, relevant procedures, standards, special processes or equipment, qualification of personnel and quality management system requirements in **7.4.2 Purchasing information**. Added pre-launch control plans to **7.3.3.1 Product design output** and **7.5.1.1 Control plans**.	
13	Daniel Le Saux	Amended section **1.2.2 ISO 9001 management system** and **1.2.3 ISO/TS 16949 management system** to include certification scope descriptions. Added missing sections **7.5.1.7 Feedback of information from service** and **7.5.1.8 Service agreement with customers**. Changed title of **SQ04-0102** to **Quality Management System Processes - ISO 9001 ISO/TS 16949 Element / Function / Standard Operating Procedure Matrix**. Added reference to **SQ04-0104 Skyworks Quality Management System Processes – Sequence and Interactions**. Updated section **7.4.1.2 Supplier quality management system development** to incorporate IAOB sanctioned interpretation.	03/06/07
14	Fernanda Barraza	Updated **quality policy** for continuing suitability. Modified section **1.2.2 ISO 9001 management system** and **1.2.3 ISO/TS 16949 management system** to redefine the scope of ISO 9001 and ISO/TS 16949 management system in order to include the core processes of the organization as described in SQ04-0104 - Skyworks Quality Management System Processes - Sequence and Interactions of Processes	09/28/07
15	Daniel Le Saux / Fernanda Barraza	Updated **1.2.3 ISO/TS 16949 management system scope** to include customer quality in Irvine. Also added Trans-Tech and Mexicali locations. Updated section **2 associated documents**.	03/25/08
16	Daniel Le Saux	Remove Trans Tech from scope (i.e. Trans Tech will manage their own Quality manual). Complete rewrite of **1.2 Scope** due to business unit restructuring. Added requirement to include the regular reporting and evaluation of the cost of poor quality (e.g. cost of scrap) in section **5.6.1 General**.	02/18/09
17	Daniel Le Saux	Removed reference to ISO 9001 and ISO/TS 16949 release dates (i.e. 2000 and 2002 respectively). Added External Manufacturing as a core business process. Extensive rewrite of **1.2 Scope**. Complete rewrite of section **6.2.2 Competency awareness and training**. Added reference to **SQ02-0047 External Manufacturing** in section **2.0 Associated Documents**. Added section **4.1.1 Outsourced processes**.	07/06/09
18	Daniel Le Saux	Modified section 1.2 Scope to outline the scopes of the five separate certificates. Also added RF/ Microwave Ceramics to Mexicali ISO 9001 scope.	03/04/10
19	Daniel Le Saux / Fernanda Lares	Updated cover page and added justification for exclusions under section **1.2 Scope.** Added references to AIAG MSA and FMEA manuals as well as customer specific requirements in section **2.0 Associated Documents**. Simplified section **1.2 Scope** to clearly differentiate ISO 9001 and ISO/TS 16949 certification schemes and added supplier quality and FA/Reliability to Singapore location.	04/11/11

20	Fernanda Lares / Dan LeSaux / Robert Nye	Added Management core business process to Andover scope under section **1.2 Scope.** Updated section **1.2 Scope** to include ISO/TS 16949 core business process interactions to FA/Reliability in Newbury Park. Added Business Planning and Human Resources core business process to Cedar Rapids and Ottawa in section **1.2 Scope**	10/31/11
21	Robert Nye / Daniel LeSaux	Updated section **1.2 Scope** core business process matrix as follows: – added Santa Clara site – added Business Planning to Greensboro – added Customer Quality to Ottawa – added External Manufacturing to Singapore – removed Customer Quality from Honk Kong – added Chupei and Santa Rosa Added "necessary for the planning and operation of the quality management system" to section **4.2.3.1 Documents of external origin**. Updated organizational chart in **5.1 Management commitment**. Added "statutory" to section **4.2.4.1 Record retention** and **section 7.4.1.1 Statutory and regulatory conformity**. Added "information services" to section **6.3 Infrastructure**. Replaced product quality with "conformance to product requirements" in section **5.5.1 Responsibility and authority**, **5.5.1.1 Responsibility for quality**, **6.2.2.2 Training**, **6.2.2.3 Training on-the-job**, **6.4.1 Personnel safety to achieve conformance to product requirements**, **7.4.3.1 Incoming conformity to requirements**, **7.4.3.2 Supplier monitoring** and **7.5.1.2 Work instructions**. Changed "devices" to "equipment" and replaced third bullet with "identification in order to determine the calibration status to be determined" in section **7.6 Control of monitoring and measurement equipment**. Replaced last bullet in section **8.5.3 Preventive action** with "application of controls to ensure that preventive action is taken and that it is effective".	07/03/12
22	Robert Nye / Daniel LeSaux	Updated section **1.2 Scope** core business process matrix as follows: – Removed Santa Rosa site Removed text regarding annual second party surveillance audits (of suppliers) from section **7.4.1.2 Supplier Quality Management System Development**, since this is already addressed in SQ03-0138, section 5.2.1.3 *Specially Designated Suppliers*. Updated the Organizational Structure in section 5.1.	07/09/13
23	Daniel LeSaux Fernanda Lares Mostafa Gorgzadeh Robert Nye Graciela Buenrostro	Updated section **1.2 Scope** core business process matrix to reflect Supply Chain (shipping/receiving) as a core function at Ottawa. Removed Management as applicable core business process at Andover. Changed External Manufacturing scope from ISO 9001 to TS16949 at Singapore. Added Human Resources to Singapore TS16949 scope. Removed Sales and Marketing from Santa Clara ISO9001 scope. Added Statutory and Regulatory Compliance as a core business process of the organization. Update Mexicali Scope to include Design and Development interaction associated to prototype development	05/30/14

		Added section **1.2.1 Automotive linkages and interfaces with remote sites** per MX-CAR-3174. Updated section **8.2.3 Monitoring and Measurement** to indicate that correction/corrective action is to be taken when key metrics targets are not achieved. Also added language stating that when despite missing a target a decision is made to take no action, this decision needs to be recorded. Updated section **1.1 Purpose** to include statutory and regulatory requirements and added reference to SQ02-0048 Statutory and Regulatory Requirements. Added SQ02-0048 Statutory and Regulatory Requirements to section **2.0 Reference Documents.** Added references to internal procedures and work instructions to section **4.1.1 Outsourced Processes**, **5.2 Management**, **7.4.3.2 Supplier Monitoring**, **7.5.5.1 Storage and Inventory**, **7.6.3.1 Internal Laboratories** Verbiage was updated in sections **7.5.1.1 Control Plans** and **8.5 Improvement**, Updated Senior Management Organizational Structure in section **5.1 Management Commitment** Simplified Table **1.2.1** to indicate applicability of core business processes to automotive scope Incorporated Wafer and Package Technology Development as a core business process of the organization in section **1.2 Scope, 2 Associated documents** and **7.3 Design and Development**	6/16/2014
24	Fernanda Lares	Updated Senior Management Organizational Structure in section **5.1 Management Commitment** and **Approvers** of this manual Modified Section **1.2 Scope** to reflect latest management system Revised **1.2.1 Linkages and interfaces with remote sites** in order to show current automotive business.	3/2/2015
25	Fernanda Lares	Updated **Skyworks Quality Policy** to reflect version used in badges and posters by our communications department. Modified section **1.2 Scope** to reflect latest changes of the organization. Cover page was updated to reflect latest Skyworks branding.	3/2/2016 3/3/2016
26	Fernanda Lares	Quality Manual template was changed from a traditional attachment to website version. Updated Quality Manual content to reflect changes to QMS triggered by ISO9001:2015 updates.	1/23/2017
27	Daniel LeSaux	Added navigation buttons to access translated versions of the Quality Systems Manual in Japanese, Simplified Chinese, Korean and Spanish. Added additional approvers accordingly.	03/19/2018
28	Daniel LeSaux	Modified Skyworks has adopted a single Quality Management System to Skyworks has adopted a Quality Management System. Deleted the word single since we have different systems at some sites. In Quality Management System Scope, deleted ISO/TS 16949. Changed within the context of SQ03-0544 Business Risks and Opportunities Database to within the context of SQ03-0544	

		Business Risks and Opportunities. Deleted the word database since the interested parties and needs and expectations are now included in each individual SOP and not in a database. In Quality Policy and Objectives, deleted the At Skyworks to match new Quality Policy statement that removes any reference to the company name to avoid unauthorized access to the company premises if the Quality policy badge is lost along with the electronic card access. In Sequence and Interaction Flowchart, changed Audit SQ02-0012 to SQ02-0012 Quality Systems Compliance to allow document control, corrective and preventive action and continuous improvement to be included. Modified PDF version.	

Revision	Date	Initiator	Change Description	Change Purpose	Potential Consequences	Deployment Strategy	Impacted Function
28	01/31/2020	Grace de la Merced	- Changed title description of **SQ04-0275** from Skyworks Quality System Audit Program Scope to Wafer Fabrication Quality Systems Program Audit Scope. - Added **SQ04-0333** Filters Quality Systems Program Audit Scope and **SQ04-0334** Assembly Quality Systems Program Audit Scope as references.	Approved change of the QMS scope from current approach documented in SQ04-0275 Rev 10 to a Core Manufacturing Center approach. Reference: RN-0010 - Alignment of QMS Scope to Core Manufacturing Centers	Alignment between QMS Core Manufacturing Centers is communicated through references in the Quality Management System Scope	Approval of the Quality Manual> Quality Management System Scope with links to associated documents	Core business process owners
29	04/08/2020 06/04/2020	Fernanda Lares Daniel LeSaux	Added instructions to remember to update pdf version in web page, to update text and flowchart if required in other languages. Updated all international pages with correct content and revision. Modified PDF link with correct revision	Address WB-CAR-2563	Improve visibility over PDF attached version of SOP in website	With the updated content of this document future document authors will be able to see the instructions to followed	Document Author or personnel conducting changes to this SOP
30	02/15/2021	Fernanda Lares	Removed Management from the list of Core Business Processes within the organization Updated list of associated documents and instructions as a reminder to maintain this section.	Management is a function embedded within Skyworks core business processes and it does not exist on its own.	Potential consequences to this change were identified in QS-20-1027-TRB-1102	Through document approval. Quality System Personnel across the organization was made aware of this change through the TRB process	Quality Systems Organization
31	04/22/2022	Fernanda Lares	Modified Quality Policy Format based on corporate communications update Replaced Skylink hyperlink to route users to new Skylink SharePoint Cloud site	Quality Policy was aligned to new corporate color palette Intranet transition to SharePoint Cloud	Potential consequences to this change were identified in QS-22-0412-TRB-0126	Through document approval. Quality System Personnel across the organization was made aware of this change through the TRB process	Quality Systems Organization
32	12/06/2023	Fernanda Lares	Complete rewrite to: 1) Align Quality System Manual to IATF 16949:2016 Automotive Quality Management System Requirements 2) Integrate AIS and MSS into the scope of Skyworks QMS program	Drive IATF 16949:2016 compliance in the organization Incorporate Skyworks Acquisitions into the scope of its QMS	Align Skyworks QMS to automotive market expectations Centralize Skyworks' Quality certification program into Quality Systems Responsibilities	Through document Approval. Note: A web version of this manual will be translated in applicable languages as needed	All core business processes