

Supplier Product / Process Change, Waiver, and Supplier Alert Notification Requirements

SQ03-0393

Purpose

The purpose of this specification is to formally establish requirements for communicating and managing process or product changes, Waivers, and Supplier Alerts that may potentially affect products or services being provided to Skyworks.

2. Scope

This procedure applies to Skyworks' external providers of Level 1 materials and Level 4 services that directly affect the form, fit, function, performance, and/or durability of the finished product.

3. Responsibility

It is the supplier's responsibility to follow this procedure's requirements and notify Skyworks in a timely manner.

It is Skyworks' responsibility to review and provide disposition for the Supplier Products / Process Change, Waiver, and Supplier Alert Notification.

4. Definitions

Terminology	Definition
Change	An alteration to a product or process.
Process	A combination of people, procedures, methods, machines, materials, measurement equipment, and/or environment for specific work activities to produce a given product or service.
PCN	Product/Process Change Notification - a document sent to Skyworks describing a proposed product or process change, the reasons for the change, and the projected impact of the change.
Supplier Waiver Request	Communication initiated by the supplier seeking approval to ship the product in spec, but with a known deviation that has been evaluated as not having an impact on product performance (i.e., something in the manufacturing process did not go as expected, or a non-spec parameter shows a difference). The deviation affects a limited quantity of products not yet shipped to Skyworks.
Supplier Alert Request	Communication received from a supplier that provides notification of a deviation affecting a product <u>already shipped</u> to Skyworks.
Fit	The external dimensions and associated tolerances of the product.
Form	The visual appearance includes the shape, color, marking, and surface finish of the product.
Function	The electrical, mechanical, thermal, and performance characteristics of the product.
Reliability	The ability of a product to perform a required function at or below a stated failure rate for a given period if time.
TRB	Technical Review Board
ССВ	Change Control Board
EOL	End of Life
SQE	Supplier Quality Engineer

5.1 Change Management System

The supplier shall have a formally documented change management system in place that reviews, verifies, and validates change proposals before implementation, as well as covers waiver requests and supplier alert notifications. This system shall include customer notification as outlined in section 5.5. Communication of a Proposed Change, Waiver, or Supplier Alert.

If a change is approved, the supplier shall ensure that all associated documents and records are updated to formally deploy the change within their organization including, but not limited to:

- Procedures, work instructions, drawings, and specifications.
- Process FMEAs, process flowcharts, and process control plans.
- Floor layouts.
- Measurement system analysis.
- SPC charts and capability studies.
- Preventive maintenance instructions.
- Training instructions and records.
- Approved supplier list.
- Environmental, health, and safety impacts.
- Qualification plans and reports.

5.2 Change Approval

The supplier shall not make any changes to their products or processes without prior written consent and approval from Skyworks.

- New / Additional Manufacturing or Assembly Location.
- New / Additional Manufacturing Equipment or Tooling.
- New / Additional / Changes in Equipment, Tools, or Testing Technology.
- New / Additional Test Facility.
- New / Additional / Changes in Testing, Measurement Process, or Equipment.
- Supplier / Sub Supplier Changes.
- Material / Components / Sub-components Changes.
- Product End of Life.
- Design Changes.
- Process Changes.
- · Changes in Data Sheet parameters or electrical specifications.
- Changes in Packaging / Shipping Including Tubes, Reels, Trays, etc.
- Appearance Changes.
- Marking Changes.
- Changes in process sequence (route), including temporarily off-loading a process to a different manufacturing location within the network, even if
 the process and equipment are identical.
- Change in Process Parameters beyond the defined process window (e.g., Shift on nominal target value or loosened tolerance) and wafer diameter
 conversions.
- Change in test or inspection method.
- Change in process input materials or change in the source of process input materials.
- · Change in equipment, including test or inspection equipment, tool hardware/firmware changes, and equipment relocations.
- Change in manufacturing location.
- Change resulting in the outsourcing of a process to a supplier even if the process and equipment are identical.

This also includes any other change that may affect product form, fit, function, or adversely affect reliability, quality, or safety (e.g., Layout changes, Wafer vendor changes, chemistry changes, new materials, etc.) or any changes that impact the agreed upon technical specification or contract.

Note: For EPI suppliers a PCN is required in case of changes in equipment parts or the supplier of such equipment parts.

5.3 Review Period

Skyworks will acknowledge the receipt of the PCN and provide initial feedback on the proposed change within 60 days; the approval/rejection timeline for the proposed change will depend on multiple factors and Skyworks will continue communication with the supplier through this process.

The supplier shall not deploy a change unless Skyworks has communicated its final approval.

5.4 Skyworks Notification Policy Communication and Flow Down

Requirements outlined in this specification shall be communicated to all affected personnel within the supplier's organization. Supplier shall also flow down these requirements to their suppliers and sub-suppliers.

5.5 Communication of a Proposed Change, Waiver, or Supplier Alert

Supplier shall utilize SQ04-0070 Skyworks Notification Form to request Skyworks review and approval of proposed change, waiver request, or supplier alert and should include the following information:

- Supplier Notification number.
- Suppliers' contact information such as name, address, telephone, e-mail, and fax number.
- Type of Notification.
- Title.
- Notification date.
- Proposed first ship date.
- Description and scope of notification.
- Products and Part Numbers affected.
- Parameters that may be affected.
- Method for identifying products impacted by change/waiver/alert.
- Anticipated (positive and negative) impact on form, fit, function, reliability, quality, or safety.
- Qualification or validation plan summary and results.
- Launch / Implementation plan (PCN Only).
- Recovery Plan (Waiver/Alert Only).
- Description of supporting documentation attached.
- Last date of manufacture of the unchanged product (PCN Only).
- Qualification samples availability date (PCN Only).
- Statement, if applicable, that device material declaration will be updated due to material change (PCN Only).

Skyworks Notification Form for PCN shall be forwarded to the Supplier Quality Engineer a minimum of 270 days before the proposed first ship date. Emergency PCNs (<270 days), will be reviewed on a case-by-case basis. Failure to comply with the above timeline may result in a penalty during the Supplier Development Review or the respective monthly score through a Supplier Corrective Action Request (SCAR).

If a submitted PCN does not have a direct effect on a Skyworks production-released product, Skyworks may elect not to act on the submission. The Supplier will receive feedback from the Supplier Quality Engineer.

Skyworks Notification Form for Waivers and Supplier Alerts shall be forwarded to the Supplier Quality Engineer as soon as the issue is detected.

5.6 Change Qualification

The supplier shall take all necessary steps to fully characterize and qualify the proposed change and provide quantitative evidence indicating that the change would have no detrimental effect on form, fit, function, reliability, quality, or safety. Skyworks may elect to conduct its own characterization and/or qualification activities to further corroborate the data.

All Launch, Implementation, or Recovery plans proposed by the Supplier in SQ04-0070, must have a completion date listed in the designated section of the form and require Skyworks' Approval before the proposed changes can take effect.

In cases of EOL notices, the existing supplier site must not close before the qualification of a second manufacturing site is completed or a last-time order is fulfilled.

5.7 PCN and Waiver Approval / Rejection

All supplier PCNs are reviewed by Skyworks Technical Review Board / Change Control Board as needed. Approval for production products requires TRB/CCB approval.

PCN approvals or rejections on mass-production devices are communicated to the supplier from Skyworks SQE in the last section of the SQ04-0070 form.

The supplier must receive written approval from Skyworks SQE before proceeding with the launch/implementation plan. Verbal approvals are not admissible.

The supplier quality engineer will save the Skyworks Notification Form approval/rejection evidence at the Supplier PCN located in the Supplier Management database.

Waiver Request will be evaluated by Skyworks subject matter experts based on the details provided, the decision to approve or reject the waiver will be communicated back to the supplier by the SQE.

Skyworks to Complete							
Final Disposition	☐ Approved	☐ Rejected	TRB/CCB Number				
Date			SQE Signature				

Suppliers will be responsible to measure the effectiveness of the change with the initial evaluation data.

For foundry or OSAT suppliers, Skyworks preproduction data, Skyworks Clean Launch, or min of 10 lots data post change must be evaluated. Data collected must be provided to SQE for review.

If the change is denied, the supplier will be expected to continue providing products or services using the current production-approved process and/or design.

Suppliers will be held accountable for changes made to their process without prior notification and approval that adversely impact the form, fit, function, reliability, quality, or safety of Skyworks' or our customer's products. The supplier will reimburse Skyworks for all additional costs, reasonably incurred including but not limited to scrap, rework, testing, repair, replacement, shipping, and/or labor costs.

5.8 Change Monitoring

Suppliers will be responsible for measuring the effectiveness of the change with the initial evaluation data. For foundry or OSAT suppliers, Skyworks preproduction data, Skyworks Clean Launch, or a minimum of 10 lots of data post-change must be evaluated. Data collected must be provided to the SQE for review. The information will be kept in the Supplier PCN Section located in the Supplier Management database.

6 Quality Records

As a result of following the steps described in this document, these records are generated:

Record	Identification	Storage	Protection	Retrieval Location (Link)	Minimum Retention Time	Disposition	Responsibility
SQ04-0070	Skyworks Notification	Supplier Management	As per IT Protocol	NA	7 Years	Archive	Supplier Quality
	Form	Database					

7 Associated Documents

Document Number	Document Title
SQ04-0070	Skyworks Notification Form
SQ02-0020	Supplier Quality Manual
SQ03-0267	Managing Supplier Change, Waiver, or Supplier Alert Request
SQ02-0001	Change Management

8 Reasons for Change

Number shall match Doc Header	When was the change promoted?	Who is promoting the change?	Describe the change made to this document	Explain what triggered the change	Identify positive or negative consequences to the organization	How do you plan to deploy this change and what will be the impact to associated documents?	What group will be responsible to execute this change?
Revision	Date	Initiator	Change Description	Change Purpose	Potential	Deployment	Impacted
					Consequences	Strategy	Function
5	09/04/2021	Jenny Phua	update section 8 to include	update section 8 to	better monitoring of	SQ&OE to	SQ&OE
			change monitoring as per of	include change	change	fanout to	
			CAR 1045	monitoring as per of CAR 1045		suppliers	
6	8/10/2021	Jenny Phua	Correct Typo and align spec	Correct Typo and	Correct Typo and align	SQ&OE to	SQ&OE
			revision	align spec revision	spec revision	fanout to	
						suppliers	
7	1/10/2022	Monica Morales	Major updates across sections 2, 3 4.2, 4.3, 5, 7 and 8 to align to best practices and IATF Requirements.	Best Practices and IATF Requirements	Better communication to suppliers for the type of notification they need to send to Skyworks	Approval of the procedure and posted in our website for supplier access	SQE
8	9/10/2024	Jenny Phua	Changed the minimum days and added detail on penalty for suppliers not following the process in Section 5.5. Details added in Section 5.6	Best Practices	Better communication with the supplier for Skyworks requirements	Approval of the procedure and posting in our website for supplier access	SQE
		Monica Morales	A new template was used. Added Section 3.0 Added a note in section 5.2. Added EOL as a PCN Notification				