

Global Supplier Quality Manual



About Kimball Solutions

Kimball Solutions is a multifaceted manufacturing solutions provider of electronics and diversified contract manufacturing services to customers around the world. From our operations in the United States, China, Mexico, Poland, Romania, and Thailand, our teams are proud to provide manufacturing services for a variety of industries. Recognized for a reputation of excellence, we are committed to a high-performance culture that values personal and organizational commitment to quality, reliability, value, speed, and ethical behavior. Kimball Solutions is headquartered in Jasper, Indiana.

To learn more about Kimball Solutions, visit: www.kimballelectronics.com.

1. Background/Introduction

- 1.1. At Kimball we continue to make the customer the focus of everything we do and will continue to provide the highest industry quality through continuous improvement. Supplier development, high quality and reduced costs are some of our customers' primary concerns. By measuring our suppliers' performance in the three key areas of quality, delivery and service, we are able to help our customers remain competitive in the world market.
- 1.2. Kimball's goal is to develop a working relationship with our suppliers, mirroring the Vision and Guiding Principles on which Kimball's business philosophy is founded. The cornerstone to this relationship is aligning our expectations to ensure that our suppliers understand that they are a key part of our commitment to providing quality products that exceed our customers' expectations.

2. Purpose and Scope

- 2.1. The Global Supplier Quality Manual along with any Specific Requirements (defined in Section 3.4 below) (collectively, the "GSQM" or "Manual") specifies the mandatory requirements for the quality of all products and product-related services that Kimball including all of its affiliates and subsidiaries (collectively, "Kimball") purchase from Suppliers. "Purchases" include Kimball Purchase Orders, commercial supply agreement, or any other contract or document referencing this document. Kimball will communicate specific quality criteria, targets, and similar measurements in mutually agreed, product-specific quality plans and/or product specifications.
- 2.2. When we reference this Manual and/or quality requirements when purchasing from Suppliers, all of these requirements will comprise a complete quality agreement between Kimball and Supplier and supersede all prior or contemporaneous understandings, agreements, negotiations, representations and warranties, and communications, both written and oral. In the event of a conflict or inconsistency between this Manual and a Purchase Order, the Purchase Order shall prevail. This Manual prevails over any other quality terms and conditions, regardless of whether, when, or how such terms and conditions are presented. Neither Kimball's acknowledgment of a confirmation nor Supplier's fulfillment of an Order constitute acceptance of any of Supplier's quality terms or serve to modify or amend this Manual.
- 2.3. In addition to this Manual, Kimball may require Supplier to comply with additional qualification and approval processes specific to parts, industries, and/or customers. These processes may include PPAP, capacity verifications, manufacturing feasibility, safe launch, and design feasibility. Kimball will communicate these requirements in writing separately when applicable.

3. Manual Overview

- 3.1. This Manual applies to all Kimball Suppliers, including without limitation manufacturers, brokers, distributors, service providers, and contractors unless another agreement is in place. This Manual does not apply to services unrelated to the supply of products to Kimball, such as accounting, legal, customs brokage, or consulting services, unless Kimball specifically identifies in writing that this Manual applies. Kimball expects that Suppliers will comply with the latest revision of the GSQM. For the latest revision and revision verification, refer to Kimball's Supplier Documentation site at <https://www.kimballelectronics.com/documentation>.
- 3.2. Kimball revises this Manual regularly to meet the changing needs of our customers. We will make revisions of the GSQM available to all Kimball suppliers at the Supplier Documentation site as soon as we release new versions. Suppliers must communicate promptly with their Kimball contact(s) if they are unable to meet any added or amended clauses.
- 3.3. We will notify the Supplier's Authorized Representative or their designee via automatic notification when we release a new revision of this Manual. It is the Supplier's responsibility to maintain current

Authorized Representative contact information to receive notifications about changes to this Manual.

- 3.4. This Manual was developed using the fundamental guidelines established in applicable International Organization for Standardization (ISO) Standards, such as ISO 9001, IATF 16949 and ISO 13485, and other third-party and/or accepted industrial standards. Kimball expects that Suppliers will follow the latest revision of such standards applicable to them unless a version is specifically identified in Specific Requirements.
- 3.5. **Specific Requirements.** Kimball serves multiple market verticals and business segments and has unique Supplier quality requirements specific to these market verticals and business segments. This GSQM represents our core expectations and requirements of all Suppliers. Kimball will communicate any applicable additional customer-or project-specific requirements to Suppliers in writing, as well as more broadly applicable, additional quality requirements specific to market vertical and business segments and/or driven by customer requirements (collectively, “Specific Requirements”). Suppliers can find Specific Requirements at Kimball’s Supplier Documentation site (<https://www.kimballelectronics.com/documentation>.) and in Kimball’s Quality Clauses (<https://www.kimballelectronics.com/qc>).

4. General Quality Requirements

- 4.1. **Amendments, Deviations and Exceptions.** Any amendment, deviation, or exception to the requirements of this Manual shall be mutually agreed in writing between Kimball and Supplier.
- 4.2. **Official Language.** Kimball has multiple manufacturing locations worldwide. In order to maintain readily transferable documentation among different locations, the only official communication and document submission language between Kimball and its Suppliers is English.
- 4.3. **General Quality Goals.**
 - 4.3.1. Kimball expects all Suppliers to aspire to 0 defective PPM/0 defect occurrences and 100% on time delivery. Kimball’s specific DPPM or other alternative defect occurrence and on time delivery targets for specific verticals, segments, or customers, if any, will be communicated in Specific Requirements or the product or material specifications.
 - 4.3.2. Supplier should be knowledgeable in the use of advanced quality tools and procedures such as Lean Manufacturing and Six Sigma methodologies and shall implement continuous improvement initiatives that focus on improving processes, quality system, cost, capacity, and delivery.
 - 4.3.3. Supplier shall maintain facility cleanliness standards and working conditions conducive to manufacturing high quality products and continuous improvement.
 - 4.3.4. Supplier shall establish, rigorously follow, and objectively document compliance with appropriate preventive maintenance and cleaning schedules for the production, inspection, and testing areas producing products or other material for Kimball.
 - 4.3.5. Supplier shall provide timely Product Change Notices (PCNs) to Kimball who manufacture electronic components per J-STD-046. These notices ensure that Kimball and its customers can understand and plan for any necessary last time buy or design change activities.
 - 4.3.6. Supplier shall understand end customer expectations for change control and utilize the Supplier Manufacturing Change Request (SMCR) when applicable. No changes will be made to product or process without completion of the SMCR and Kimball/Customer approval.

- 4.4. **Authorized Representative Registration.** Suppliers are required to register the names of all key contacts for the supplied products and/or services, and to identify individual(s) for Kimball to contact with questions or concerns regarding products, services, quality, packaging and transportation or any other related quality assurance functions as they arise. Supplier is required to update key contacts including quality contacts when any changes occur, and to review contacts on record with Kimball at least once a year thereafter.
- 4.5. **Passthrough Requirements.** Suppliers shall ensure that they communicate all Kimball requirements in this Manual to their sub-suppliers and subcontractors. Suppliers must maintain appropriate controls to ensure that their sub-suppliers and subcontractors understand and comply with this Manual's requirements. Suppliers must report any observed deviations to Kimball.
- 4.6. **Applicability to Brokers and Distributors.** The requirements of this Manual apply equally to material or component brokers and distributors, whether franchised or independent, because even though they do not manufacture materials, they supply materials integral to a finished product. Brokers and distributors must drive their manufacturing source(s) to meet the requirements specified in this Manual and report any observed deviations to Kimball. Franchised distributors may only supply products to Kimball that the manufacturer has authorized the distributor to supply, unless Kimball provides prior written approval.
- 4.7. **Supplier Code of Conduct.**
- 4.7.1. Aligned with our [Guiding Principles](#), Kimball is committed to ethical practices in all aspects of our business. Kimball expects its suppliers to share this commitment by complying with and training its employees on the principles and values in our Supplier Code of Conduct. Fundamental to our Supplier Code of Conduct (available at Kimball's Supplier Documentation site at <https://www.kimballelectronics.com/documentation/>) is our Suppliers' compliance with our Sustainability Policy and the Responsible Business Alliance Code of Conduct ("RBA Code"). While our Code uses the RBA Code as its basis, our standards exceed those of the RBA Code.
- 4.7.2. Supplier shall comply with our Supplier Code of Conduct and all applicable laws and regulations. Supplier may demonstrate compliance with our Supplier Code of Conduct through compliance with Supplier's own codes of conduct or policies that Supplier maintains, provided that these codes of conduct or policies (1) meet or exceed the standards of Kimball's Supplier Code of Conduct and (2) apply to all of Supplier's business partners, subcontractors, and suppliers.
- 4.8. **Information Security Requirements.** Suppliers who are engaged in providing products or services to Kimball who will have access to Kimball data and/or Kimball Systems (as defined in our Information Security Guidelines) are expected to abide by cybersecurity requirements as applicable to the Supplier's business engagement with Kimball. Suppliers can access Kimball's Information Security Guidelines at Kimball's Supplier Documentation site at <https://www.kimballelectronics.com/documentation>. These requirements set forth a minimum baseline of information security measures that Kimball expects of its Suppliers.

5. Quality Standards and Management System Certification Requirements

- 5.1. Kimball recommends the use of the Six Sigma tool set, Lean practices, and 6S methods. Unless otherwise specified and approved in writing by Kimball or its customer, Supplier must have a Quality Management System (QMS) in operation aligned with either ISO 9001, ISO 13485, IATF 16949, or another applicable QMS, and accredited by a third-party certification body to the current version of that QMS standard.
- 5.2. Kimball expects Suppliers to aspire to have a documented and implemented environmental management system that spans their entire organization and is based on, and compliant with ISO 14001. Environmental system registration/certification is strongly encouraged. Regardless of certification, Supplier participation is essential for Kimball to fulfill the requirements of its own ISO 14001-certified systems.
- 5.3. Suppliers must meet all Kimball customer-specific QMS and QMS registration requirements as communicated in writing to Supplier by Kimball and/or its customer. These requirements may be flowed to Suppliers via Specific Requirements.
- 5.4. Suppliers not registered to the most current revision the applicable QMS registration requirement(s) but who are able to document compliance to Kimball's satisfaction will need to obtain a waiver from Kimball prior to supplying product to Kimball. Kimball may issue QMS registration waivers in its sole discretion after consultation with its customers and Supplier. Any waiver will cover a limited timeframe pursuant to a timing plan, and will typically not exceed one (1) calendar year. Upon expiration of the waiver, Suppliers must either have attained the applicable certification(s) or obtain a new waiver from Kimball.
- 5.5. Suppliers must notify their Kimball quality contacts at all Kimball manufacturing sites that they supply product to within five (5) business days of any Status Change to Supplier's QMS registration status. A "Status Change" is any action by Supplier or Supplier's third-party certification body that limits or alters the condition or duration of the Supplier's QMS accreditation, including without limitation conditions such as renewal, upgrade, suspension, probation, expiration, and termination.
- 5.6. Where a Status Change causes the Supplier to fail to meet the minimum requirements in this Section 5, Supplier must provide make themselves available for an audit by Kimball representatives of the Status Change and to verify Supplier's continued compliance with this Section 5.
- 5.7. Suppliers that fail to meet the standards and requirements may be requested to provide documented action plans requested by Kimball that demonstrate progress toward achievement of the requirements of this Section 4.8. Kimball may place Suppliers failing to show progress satisfactory to Kimball on Controlled Ship status, and ultimately, remove them from its approved vendor list.

6. Material Age Requirements.

- 6.1. In general, Kimball must receive all products within six (6) months of the manufacturing date materials, and, if such products have a shelf life, with at least 75% of the shelf life remaining. Such material shall be new (not used, remanufactured, refurbished, salvaged, reclaimed, etc.). Kimball reserves the right to reject material not meeting these requirements and will not pay restocking or other associated fees for such aged material.
- 6.2. If Supplier wishes to ship product not meeting the above requirements, a Kimball-approved Supplier Deviation Request (SDR) or other written approval to ship will be required. However, Kimball will not accept products with a manufacture date code older than four (4) years on the date of receipt, or older than two (2) years on the date of receipt for products with extended shelf-life risks, such as aluminum electrolytic capacitors, PCBs (printed circuit boards), PWBs (printed wire boards), oxygen

and or gas detection sensors, solder paste, flux, conformal coatings, and RTV. Issuance of a deviation or acceptance of materials not meeting the above requirements does not constitute a waiver of this requirement for future deliveries.

- 6.3. Notwithstanding Section 6.1, all products must comply with age requirements listed on Kimball purchase orders, applicable specifications, component material data sheets, Specific Requirements, and written Kimball authorizations, whether shorter or longer. Products that meet these more specific age requirements do not require an approved SDR.

7. Product Identification, Packaging, and Handling Requirements

7.1. General Requirements

- 7.1.1. Supplier shall mark, label, and package all products in accordance with the Specifications and other specific product requirements communicated in writing by Kimball from time to time, in undamaged packaging free of dirt, debris, foreign materials, and previous markings/labels.
- 7.1.2. Supplier's markings and labeling shall be designed to create awareness for logistics teams or any other party who handles the products about their proper handling until final destination.
- 7.1.3. Supplier's markings and labeling shall be both human and bar code readable at the lowest level of packaging, unless otherwise agreed in writing by Kimball. Kimball prefers QR code labeling and recommends the use of 2D barcoding standards (i.e., QR Code, Data Matrix, PDF417).
- 7.1.4. Kimball reserves the right to reject products whose packaging, marking, and labeling do not meet the requirements of this Section 7.

7.2. General Labeling Requirements.

- 7.2.1. Unless otherwise specified in writing by Kimball, Supplier must provide the following information (*italics* indicates information that must be barcoded):

7.2.1.1. On each shipment document:

- *Date Code*
- Kimball destination name and address
- *Kimball purchase order number*
- *Kimball part number*
- Kimball part description
- *Lot/Batch Code*
- Manufacturer name
- *Manufacturer part number*
- Engineering change/revision level
- *Quantity*
- Number of boxes (in the shipment)
- Storage Condition Requirements (ie. Temperature/Humidity if applicable)
- *Shipment identification number/delivery note number*

7.2.1.2. On each single box/reel's identification label:

- *Date code*
- *Lot/Batch code*
- *Manufacturer part number*
- Manufacturer name
- *Quantity*

7.2.2. Supplier must use the following data field identifiers in the human and bar code readable formats, each separated by field separators:

Data Field	Field Identifier
Kimball purchaser order number	K
Kimball part number	P
Manufacturer part number	1P
Manufacturer name	18V
Quantity	Q
Lot/Batch code	1T
Date code	9D
Shipment ID/Delivery note number	N

7.2.3. Supplier must clearly label all in-process parts; reworked parts; initial shipments of parts subject to approved SDRs or SMCRs; PPAP parts; EC parts, Controlled Shipment (CS) parts, and prototype/trial parts.

7.2.4. Kimball may require additional information on shipping documents and/or labels, including without limitation:

- Country of Origin
- RoHS, REACH, or other environmental regulation conformance level
- Battery information
- Harmonized Tariff Schedule (HTS) number
- Export Control Classification Number (ECCN)
- Component value
- Component tolerance
- Kimball tracking number
- Sorting and/or rework date

7.2.5. As directed by Kimball, Supplier shall include the shelf-life date for inventory control proposes.

7.3. **General Packaging Requirements.** Unless otherwise specified in writing by Kimball, Supplier shall ensure that:

7.3.1. All in-process parts, initial shipments of parts subject to approved SDRs or SMCRs, PPAP parts, EC parts, control ship parts, and prototype/trial parts are separated.

7.3.2. Each packed unit container does not exceed 50 lbs. / 22 kg. unless the packed weight of a single product exceeds this threshold. Overweight containers must be supplied on a skid or pallet.

- 7.3.3. All corrugated containers and palletized loads shall be stackable, unless product configuration and/or weight requirements do not permit stacking, in which case Supplier must have an approved SDR for the use of packaging that does not meet this requirement. If pallets cannot be stacked or are not allowed to be stacked, identify each pallet with a DO-NOT-STACK label on all four (4) sides of the pallet.
- 7.3.4. Each container or delivery medium contains one (1) part number and date/lot code. Supplier shall NOT mix lot/date codes on the container/delivery medium.
- 7.3.5. The products are appropriately packed to ensure their protection during transport. All Supplier-provided packaging shall meet applicable shipping laws, codes, and regulations, and must be qualified to applicable International Safe Transit Association (ISTA) test standards.
- 7.3.6. Packing slips are attached to the carton exterior in shipping envelopes.
- 7.3.7. Material supplied in industry standard packaging (tape/reel, tube, tray, bag, etc.) complies with the current revision of Electronic Components Industry Association (ECIA) standards specifications to ensure proper use in automatic component placement machines.
- 7.3.8. **Requirements for Moisture Sensitive Devices.** Suppliers of Moisture Sensitive Devices shall:
- 7.3.8.1. Maintain a sufficient control program at its facilities to meet the latest revision of the Handling, Packing, Shipping, and Use of Moisture/Reflow Sensitive Surface Mount Devices, IPC/JEDEC J-STD-033D standards. This requires packing and marking all moisture sensitive devices according to this standard. At a minimum, moisture sensitive components shall be sealed in a moisture barrier bag containing desiccant and a humidity indicator card, when appropriate. The bag shall be labeled indicating moisture sensitivity level, peak body temperature exposure, maximum exposure time before re-bake is required, and the date the bag was sealed.
- 7.3.8.2. Use the latest revision of IPC/JEDEC J-STD-020 to determine the sensitivity classification for non-hermetic solid-state surface mount devices
- 7.3.9. **Requirements for Electrostatic Discharge (ESD) Sensitive Products.** Suppliers of ESD products shall:
- 7.3.9.1. Maintain an adequate ESD control program that incorporates suitable measures, to ensure that components are not damaged due to ESD events prior to arrival at a Kimball facility, including protected areas, handling, and packaging requirements.
- 7.3.9.2. Use ESD packaging for all static-sensitive products per ANSI/ESD Association S20.20 or IEC 61340-5-1.
- 7.3.9.3. Identify all ESD products with an ESD warning label on each tray, tube, or reel within the shipment that identifies the sensitivity of the device.
- 7.3.9.4. Notify Kimball in writing of any product designated as Class 0 <250V (HBM) or that is susceptible to static charges <100V (HBM), per ESD Association STM5.1.

- 7.4. **Material Routing.** Suppliers delivering material to Kimball must comply with Kimball’s Routing Guide and Security Guidelines at Kimball’s Supplier Documentation site at <https://www.kimballelectronics.com/documentation>.
- 7.5. **Material Security.** Kimball expects all Suppliers to comply with supply chain security guidelines defined by the applicable exporting and importing countries, including without limitation C-TPAT as published by the United States and the AEO (Authorized Economic Operator) as published by the European Union, and to implement all required procedures and recommendations specified by Kimball in a timely manner to support compliance with such guidelines.

8. Designation and Control of Special Characteristics.

- 8.1. Kimball and/or its customers may designate significant, special, key, or critical characteristics (“Special Characteristics”) for certain products. Special Characteristics are marked on drawings by symbols like SC1, SC2, etc.
- 8.2. Supplier must meet the minimum requirements in the table below, unless otherwise specified on the applicable drawing or other Specific Requirements:

Characteristic Level	Description	Basic Requirement	Frequency of control	Method of control
SC1	With Safety and/or Regulatory Requirements Consideration: Product/process/ test requirements or process parameters which can affect compliance with government regulations or safe/product function.	Cpk/ Cmk > 2.0 (short run/component approval phase) Ppk > 1.67 (normal/standard production) SPC as appropriate Poka Yoke or 100% automatic inspection	Hourly, unless otherwise specified in the Control Plan	Variable data SPC charts with control limits
SC2	Customer Satisfaction / Dissatisfaction Consideration: Product/process/ test requirements which are important to customer satisfaction.	Cpk/ Cmk > 1.67 (short run/component approval phase) Ppk > 1.33 (normal/standard production) SPC as appropriate Poka Yoke or 100% automatic inspection	Audit basis as specified in the Control Plan	Variable data SPC charts with control limits

SC3	Product Performance Consideration: Features which have impact on performance or which being out of specification may result in difficulty during the assembly process.	Poka Yoke strongly recommended	Audit basis as specified in the Control Plan	Attribute data collection or Variable data SPC charts with control limits
Pass-Through Characteristic	Any characteristics that are important for form, fit or function for all processes and products.	Need to be controlled. Should be managed with extra care over and above that used with standard characteristics. Potential Failure Mode and Effects Analysis (PFMEA)	Audit basis as specified in the Control Plan.	Attribute data collection or Variable data SPC charts with control limits.

- 8.3. Supplier must document any concerns regarding manufacturing feasibility or its ability to meet any Special Characteristics in a Manufacturing Feasibility Statement.
- 8.4. The results of Special Characteristics controls shall be available at Kimball’s request, whether during the component approval phase, serial production, audits, or at other times.
- 8.5. All statistical data supporting compliance with Special Characteristics must be representative of the entire production population and reflect how Kimball will receive the products at its facilities. Where multiple product streams and/or cavities exist, the statistics used to describe the population must include all possible sources of product variability. Supplier may submit separate capability studies for each cavity to identify the capability of the individual cavities.
- 8.6. Special Characteristics that identify multiple features such as hole patterns, mounting bosses, and pin locations require a separate capability study for each unique condition. Supplier may request that Kimball approve limitations on the number of required samples in such situations.

9. Supplier Deviation Requests (SDR)

- 9.1. Supplier must document on a Supplier Deviation Request (SDR) form any product that it knows or suspects will not meet the standards in this Manual or in the applicable specifications. Kimball’s SDR form, including its submission instructions, is available at Kimball’s Supplier Documentation site (<https://www.kimballelectronics.com/documentation>)
- 9.2. Supplier must obtain written approval of the SDR by authorized Kimball personnel at each affected Kimball facility prior to shipment of such product to that facility. Approval of an SDR by one Kimball facility does not indicate approval by any other Kimball facility.

- 9.3. Suppliers should err on the side of caution. Suppliers with any question about whether an SDR is required should either submit an SDR or contact the appropriate Kimball quality personnel for guidance.
- 9.4. Each Kimball facility may communicate Specific Requirements, such as qualification testing, associated with the SDR. Supplier must meet all such Specific Requirements before Kimball will approve any SDR.
- 9.5. Supplier must clearly mark all material shipped under an SDR with the SDR number on the label and/or packing slip so that it is clearly visible.

10. Change Management

- 10.1. **General Requirements.** Suppliers shall **not** to implement changes to products (including process changes) supplied to Kimball without prior notice and approval from Kimball prior to implementation. For electronic products and associated processes, Supplier must submit a Product/Process Change Notification (PCN) pursuant to JEDEC's Customer Notification Standard for Product/Process Changes by Electronic Suppliers, J-STD-046. For non-electronic products, Supplier must submit an SMCR prior to implementation of change(s).
- 10.2. For avoidance of doubt, a PCN or SMCR is required for all major or minor changes that alter, change, or impact the design condition or form, fit, function, quality, or reliability of material or components, including without limitation:
 - Changes that require Kimball to alter its process flows or assembly processes involving the product;
 - Changes to carrier packaging, such as moving from tray to reel, or the orientation of components within the packaging;
 - Changes to RoHS or REACH compliance or other status under applicable laws;
 - Changes in product performance, reliability, safety, appearance, serviceability, dimensions, or tolerances (including changes when exposed to the manufacturing and application environment of the device)
 - Changes in machinery, manufacturing site, sub-suppliers, inspection/testing, or materials.
- 10.3. **End of Life/Discontinuance Requirements.** For end of life/discontinued components, a PCN is required to manage and mitigate the disruption caused by the end of life/discontinuation of a product and to ensure continuity of supply pursuant to JEDEC's Notification Standard for Product Discontinuance, J-STD-048.
- 10.4. **Notice Requirements for PCNs or SMCR.** Suppliers must submit all changes on a PCN or SMCR form to their Kimball contacts at each affected Kimball manufacturing site for review/approval no later than:
 - 10.4.1. **For End of Life/Discontinuance:** six (6) months prior to the last order date and twelve (12) months prior to the final shipment date, consistent with J-STD-048.
 - 10.4.2. **For all other PCNs:** no later than ninety (90) days prior to the proposed implementation of the change, consistent with J-STD-046.
- 10.5. Failure to comply with the minimum notice requirements may cause affected products to be placed in a HOLD status.
- 10.6. **SMCR Submission Expectations.**

10.6.1. Suppliers shall provide Kimball with a detailed description of the proposed change(s), including as needed, testing and/or dimensional data appropriate for the change being submitted. When Supplier cannot provide data/testing without first implementing the change, Supplier shall provide a detailed plan for providing the same along with the SMCR.

10.6.2. Suppliers must clearly identify any non-reversible changes on the SMCR as “Non-Reversible once implemented” within the description of the change.

10.6.3. Each SMCR shall include the following information at a minimum, supported by appropriate documentation:

- reasons for the change or product discontinuation;
- a list of complete part numbers affected by the change or product discontinuation;
- the last date Supplier will accept purchase orders for affected parts, including any last time buy purchase orders;
- last ship date for affected parts;
- for non-reversible changes and/or product discontinuations, a transition plan with timing, buffer stock planning/quantity (to ensure continuity of supply), and contingency plans;
- a list of parts Supplier is considering and/or recommends as alternate sources (if any);
- names and contact information for Supplier contacts that Kimball can contact for additional information about the change or product discontinuation;

10.6.4. Supplier shall promptly provide any additional information or Specific Requirements requested by Kimball as part of its approval process, including without limitation any qualification standards and testing. Kimball may provide provisional approvals, and/or condition full approval of a PCN or SMCR on such additional information or requirements.

10.6.5. **Change Approval Required.** All affected Kimball manufacturing sites must provide prior, written approval of any proposed change and any exception to the requirements of this Section. No changes or shipments of changed material are permitted without an approved PCN or SMCR.

10.7. **Costs of Unapproved Changes.** Pursuant to the applicable commercial agreement, Supplier may be held liable for the costs and expenses incurred by Kimball and its customers associated with unapproved changes, including without limitation rework, sort, replacement, line down time, express freight, validation, personnel support/labor costs, scrap, field actions, and recalls. Please refer to the applicable commercial agreement for specific liability information.

10.8. Submission and/or Kimball’s acceptance of a PCN or SMCR form does not signify Kimball’s acceptance of the “changed” material, nor does approval by one Kimball quality contact or one affected Kimball manufacturing site constitute approval by all quality contacts and all affected sites. Supplier remains responsible for shipping all products that Kimball purchases in accordance with the requirements of this Manual and the applicable Purchase Order(s).

10.9. All changes are subject to potential Component Approval documentation, i.e. PPAP, FAI, etc. requirements. Kimball will note all Component Approval documentation requirements on the approved copy of the PCN or SMCR document.

10.10. **Shipping Material Post-Change Approval.** After Kimball approves a PCN or SMCR, Supplier shall provide the Date Code and/or Lot Number of the initial production run and shipping tracking number prior to its first shipment of changed material after each PCN or SMCR approval. All shipments following and pursuant to an approved change must consist of 100% post-change material. Packing

documents for such post-change material shall include the approved PCN or SMCR number. After PCN or SMCR approval, Kimball will consider all pre-change material it receives to be Nonconforming Material. After receiving an approved PCN or SMCR, Supplier may only provide pre-change material with prior written approval by the Kimball quality contact at the Kimball manufacturing site(s) that has approved the PCN or SMCR.

11. Management of Kimball Tooling and Other Property

- 11.1. Supplier is responsible for the care and handling of tooling and other property provided by Kimball to Supplier when in Supplier's possession. Please refer to the applicable tooling or commercial agreement for specific information about Supplier responsibilities and liabilities for tooling or other property provided by Kimball.
- 11.2. Unless provided with markings or tagging, Supplier shall permanently mark or tag tooling items and other property provided by Kimball with the following information (to the extent applicable and reasonably feasible) to preserve ownership visibility:
 - Tool or tool order number
 - Description of the tool or property
 - Receiver or owner of the tool or property (Kimball or Kimball customer)
- 11.3. Supplier shall maintain a record at each location where it maintains tooling and other property provided by Kimball listing such tools and property, its owner, specific location at Supplier facility, and evidence of its permanent marking.
- 11.4. Supplier shall immediately notify Kimball, including all affected locations and Kimball purchasing contacts of any change in the status of Kimball-provided property or tooling, such as damage, abnormal conditions or wear and tear, changes to tool functionality, or any other issue that might affect quality or delivery of product. Supplier shall follow all specific requests from Kimball or its customers when reporting tooling condition and status.
- 11.5. Modifications to or scrapping of any Kimball-provided tooling or property or changes in the location of the same require submission of an SMCR and Kimball's prior written approval. See Section 10 for information on change management.

12. Record Retention Requirements

- 12.1. Suppliers shall retain all quality and product related records that support the manufacturing process for a minimum period of 5 years from the date of delivery to Kimball, except for Suppliers providing components for automotive programs, for which Supplier shall maintain records for a minimum period of the program's life plus fifteen (15) years. A "record" is defined as per ISO 9000 and ISO 20000 as a "document stating results achieved or providing evidence of activities performed." "Records" include without limitation inspection records, test results, material certifications, traceability records, PCNs, and SMCRs.
- 12.2. Kimball may communicate other record retention periods via commercial supply agreements, product specifications, Purchase Order documentation, or other written instructions. Should any conflict arise among different periods, Suppliers shall retain records for the longest stated or legally required retention period. Suppliers who are uncertain of the appropriate record retention period should contact Kimball for clarification/confirmation prior to disposal of any records.
- 12.3. Records shall be made available to Kimball, its customers, and/or regulatory agencies promptly upon request, and in no case longer than one (1) business day after the request.

- 12.4. Suppliers shall retain a sample of all returned materials/assemblies and related records for a minimum of two (2) years after receiving the return to enable analysis and investigation of problem areas, trends, and repeated quality concerns in the manufacturing process. When disposing of records, Suppliers shall follow the guidelines of ISO 27001 for secure data destruction and all applicable industry standards and legal requirements.

13. Traceability

- 13.1. Suppliers are required to have an effective material control system in place that, at a minimum, includes production lot identification (the lot code number assigned to each product run), date of manufacture (date code) on elementary pack (the smallest standard package size) that will allow tracing back of all materials and process steps (including to sub-tier suppliers).
- 13.2. Kimball may communicate other traceability requirements via commercial supply agreements, product specifications, Purchase Order documentation, Specific Requirements, or other written instructions. Supplier shall cooperate with Kimball's traceability process including without limitation in counterfeit product investigations.
- 13.3. All measurements and calibrations shall be traceable to standards established by the National Institute of Standards and Technology (NIST), an equivalent national standard, or any other primary designated calibration standard agreed to by Kimball.

14. Material Composition Disclosure

- 14.1. Suppliers must provide valid and complete documentation to meet the requirements of applicable laws (including for import/export compliance) as well as written specifications from Kimball and our customers. Certificates of Compliance, Conformance, Origin, and/or Analysis may not always meet such requirements. Compliance with legal requirements and Kimball specifications may also include, without limitation, test reports on shipped material and the timely completion of information requests in the format required by Kimball, its customers, or applicable laws, including submission to Kimball of a Conflict Minerals Reporting Template (CMRT); an Extended Minerals Reporting Template (EMRT); or a Slavery & Trafficking Risk Template (STRT).
- 14.2. **Full Material Declarations.** Suppliers shall submit a Full Material Declaration (FMD) for each item supplied. Preferred formats are: IPC-1752A Class D; IEC 62474; or equivalent XML-based schema.
- 14.2.1. Required data includes:
- Clear reference to applicable series or catalog MFRPN
 - Homogeneous material breakdown
 - Substance weights and CAS numbers
 - Regulatory flags (RoHS, REACH, TSCA, PFAS, etc.)
 - Total part weight
 - For substances and mixtures, a Safety Data Sheet which includes material composition details in Section 3 may be accepted

14.2.2. Supplier shall submit data pursuant to IPC-1752A Class D or equivalent in .xml, .xlsx, or .pdf file types only

14.3. **Kimball Restricted Chemicals List.** Suppliers must verify and disclose whether any substances from the Kimball Restricted Chemicals List (KRCL), maintained at Kimball's Supplier Documentation site at <https://www.kimballelectronics.com/documentation>, are present in their products above the permitted thresholds. The KRCL is intended to be a comprehensive list that includes substances of concern such as PFAS, rare earth minerals, flame retardant chemicals, as well as those subject to declaration or restriction under relevant regulations, including without limitation EU REACH SVHCs, EU POPs, U.S. TSCA, etc.

14.4. **Original Country of Manufacture.** To support trade compliance, preferential duty programs, and geopolitical risk assessments, Suppliers must declare the original country of manufacture for each product, subassembly, and component supplied to Kimball. Where multiple countries of origin exist for a single part number, Suppliers must provide a breakdown by lot or batch code. This declaration must be in a format accepted or approved by Kimball and:

- Align with applicable rules of origin, such as those established by U.S. Customs and Border Protection (CBP);
- Be consistent with applicable Harmonized Tariff Schedule (HTS) codes; and
- Include documentation supporting origin claims (e.g., commercial invoice, COO certificate)

14.5. **Automotive Substance Reporting Systems.** Suppliers providing components for automotive programs must submit material composition data for all materials and components using the OEM-specified substance reporting system, which may include IMDS or CADMS, depending on program, customer, and manufacturing location requirements. All automotive material data submissions must:

- Comply with IMDS Recommendation 001 and applicable OEM-specific guidelines when IMDS is used, or with CADMS system requirements and customer-defined reporting rules when CADMS is specified;
- Include all required basic substances, material weights, and regulatory classifications;
- Be fully traceable to the supplier's system ID, part number, and version history; and
- Meet Kimball material data acceptance criteria, including applicable IMDS or CADMS review standards implemented by Kimball or the applicable OEM-specific guidelines.

14.5.1. Suppliers are required to update IMDS or CADMS declarations and notify Kimball through the SMCR process prior to implementation of any material, substance, or formulation change.

14.5.2. Failure to provide accurate, complete, and approved material data in the required system may result in rejection of material data submissions, delayed program approval, or disqualification from automotive programs.

14.6. **Recycled Content.** Suppliers shall provide accurate, complete, and current documentation regarding the recycled material content of products supplied to Kimball. At a minimum, Suppliers must:

14.6.1. Report the percentage of recycled material contained in each supplied component or material.

- 14.6.2. Distinguish among:
- Post-consumer recycled (PCR) content
 - Post-industrial recycled (PIR) content
 - Biobased or renewable material content, if applicable
- 14.6.3. Identify and describe with sufficient detail the measurement basis used for the percentage calculation (weight-based, volume-based, etc.)
- 14.6.4. Provide supporting evidence to substantiate the declared recycled content, such as:
- Supplier declarations;
 - Third-party certified test reports;
 - Material composition analyses; or
 - Certification (if any) under recognized standards (e.g., ISO 14021 or equivalent).
- 14.6.5. Maintain traceability of recycled material data to the specific lot, batch, or manufacturing run, as applicable.
- 14.6.6. Update recycled material declarations when any of the following occur:
- A material change is made to the composition of the part;
 - A change in sourcing or manufacturing process occurs; or
 - Kimball issues a request for updated environmental data.
- 14.6.7. **Reporting Format.** Report recycled content information in one of the following electronic formats, as requested by Kimball:
- Kimball or industry-standard material composition declaration templates;
 - IPC-1752A or BOM-level declarations uploaded to an approved data system; or
 - Certificates of recycled content issued by a qualified auditing organization.

14.7. **Scope 1 & 2 GHG Emissions.**

- 14.7.1. Suppliers must report Scope 1 (direct) and Scope 2 (indirect energy-related) greenhouse gas emissions (GHG) annually as requested by Kimball. Reports must follow the GHG Protocol Corporate Standard, include emissions from manufacturing, heating, cooling, and purchased electricity, and include either a third-party verification (preferred) or follow a Kimball-approved internal process. Suppliers may satisfy this requirement through public sustainability/ESG reporting that complies with the foregoing.
- 14.7.2. Suppliers must provide the following details for each applicable material:
- Product Carbon Footprint (GWP100a) in kgCO₂ eq/part, calculated according to IPCC AR5 or AR6, excluding biogenic carbon;
 - System boundary: cradle to gate;
 - Background calculation standards: ISO 14040/14044/14067;
 - Certification of the PCF calculation or an external critical review report; and
 - Explanation of the data basis (e.g., self-measured primary data, external secondary market average data, or a mix).
- 14.7.3. Suppliers unable to provide verified data in accordance with this Section must submit a declaration of non-reporting with a documented action plan and timeline for future compliance.

15. Supplier Assessments and Audits

- 15.1. **Assessments.** When requested by Kimball, Supplier shall complete an assessment questionnaire and provide all information and documentation identified therein in a timely manner. Kimball conducts

such assessments as part of its quality system and risk assessment processes, including when awarding new business, assessing material or suppliers with high potential quality impacts, evaluating sustainability performance, assessing corrective actions, assessing continuous improvement and development activities, and as required by Kimball customers.

15.2. **Audits.**

15.2.1. Kimball may conduct both on-site and remote audits and inspections related to this Manual, and the manufacture, sale, and delivery of products to Kimball as it reasonably determines is appropriate, provided that such audit shall not disrupt Supplier's normal business operations. Notwithstanding any language or provision to the contrary, in no event shall Supplier be required to disclose confidential information unrelated to this Manual and the manufacture, sale, and delivery of products to Kimball. When feasible, Kimball will provide advance notice of such audits. "For Cause" audits require no advance notice.

15.2.2. Kimball may conduct audits or inspections itself, alone or accompanied by third parties, or select an independent third party to conduct the audit on its behalf. If Kimball selects an independent third party to conduct the audit or inspection, Supplier may require that the independent third party execute a confidentiality agreement reasonably acceptable to Supplier.

15.2.3. Supplier shall, and shall cause its affiliates, suppliers, employees, and agents, to cooperate fully in any audit or inspection conducted by or on behalf of Kimball at no additional charge to Kimball, unless such charges are expressly permitted by the applicable commercial supply agreement.

15.3. **Regulatory Authority or Certifying Body Audits.** Supplier, like Kimball, may be subject to announced and unannounced audits or inspections by regulatory authorities, such as the U.S. Food & Drug Administration (FDA), or certifying bodies that certify Kimball or its customers to applicable ISO or industry-specific standards. Supplier shall provide access to all applicable records and areas of facilities, at any level of the supply chain, that such regulatory authorities or certifying bodies are permitted to request. Kimball will provide Supplier with as much advance notification of these activities as practical under the circumstances.

15.4. Supplier shall immediately take all necessary or desirable corrective and preventive actions to resolve any issues discovered by any assessment or audit conducted by Kimball or on their behalf.

15.5. Kimball may communicate additional assessment and audit requirements specific to certain Kimball facilities, products, or customers from time to time.

16. **Nonconformances, Failure Analysis, and Corrective Actions**

16.1. A nonconformance is any disruption created by Supplier that impacts Kimball or its customer's processes. Non-exclusive examples of nonconformances include:

- A nonconformance related to the product specification (drawings, specifications, impacts on form, fit or and function, revision/change control, part marking, etc.);
- Products that contain or constitute counterfeit work or counterfeit material;
- A higher DPPM/quality level over committed target;

- Shipment of products requiring an SDR without written approval of the SDR by the affected Kimball facility;
 - Products that do not meet applicable material age requirements;
 - A failure to provide, or timely provide, documentation to support product deliveries, or product content and impact due diligence, such as assessment questionnaires; material data sheets; compliance information and environmental documentation; certificates of compliance, conformance, origin, and/or analysis; a CMRT; an EMRT; or an STRT;
 - An unsatisfactory response to a complaint (e.g., no timely response, no efficient containment action);
 - A quality-related delay or error in delivery which leads to disruptions at Kimball or its customers' operations.
- 16.2. Pursuant to the applicable commercial agreement, Supplier may be held liable for the costs and expenses incurred by Kimball and its customers associated with Supplier nonconformances. Please refer to the applicable commercial agreement for specific liability information.
- 16.3. Regardless of the terms of the applicable commercial agreement, Kimball expects Supplier to resolve all quality and commercial matters related to a nonconformance in no more than thirty (30) days after completing 8D activities (or other agreed upon actions).
- 16.4. Supplier shall immediately notify Kimball, including all affected locations and Kimball purchasing contacts, whenever it becomes aware of nonconformances, quality spills, and/or when suspected nonconforming product has been delivered or is in transit to Kimball. The notification must include a detailed description of the suspected or actual nonconformance condition as well as information concerning the number of parts, date codes, lot numbers and any unique identifiers that identify the potentially affected products.
- 16.5. Depending on controls applicable to the product, Specific Requirements, and applicable laws and regulations, from time to time, and only with Kimball's prior approval of an SDR, Kimball may accept nonconforming product.
- 16.6. **Failure Analysis Requirements.** Supplier shall have a documented failure analysis system that follows the standard 8 steps discipline (8D) or another format approved by Kimball. Suppliers that already have 8D formats within failure analysis systems can request to use these. Approval is at Kimball's discretion, as Kimball has different facilities with different requirements and that serve a diverse range of customers. Kimball can provide a suitable 8D template on request.
- 16.7. Supplier shall perform failure analysis on all returned material and when requested shall provide 8D results to Kimball within the timeframes below and provide regular status updates throughout. The table below this subsection is a guideline. Kimball in its sole discretion may communicate different response timeframes to Supplier, which may be shorter or longer depending on the priority of the issue, Kimball's requirements, and those of its customers. If Supplier requires additional information or clarifications to complete 8D activities or corrective actions, it must notify Kimball immediately. Failure to respond within the required timeframes will result in an immediate reduction of the Supplier's rating with Kimball and could lead to the removal of Supplier from Kimball's approved supplier list.

8D Discipline	Standard Priority Response (All Other Claims)	High Priority Response (Quality-Related Claims)
D1: Team Formation/D2: Problem Description	24 hours	24 hours
D3: Implement Containment Actions	24 hours	24 hours
D4: Define Root Causes	5 working days	3 working days
D5: Identify Permanent Corrective Action Date	30 working days	15 working days
D6: Implement Permanent Corrective Action	Per agreed plan	Per agreed plan
D7: Take Action to Prevent Reoccurrence	Per agreed plan	Per agreed plan
D8: Prevention of Repetition	Per agreed plan	Per agreed plan

16.8. Corrective Actions.

16.8.1. When Kimball’s DPPM, on-time delivery, quality, or other expectations are not met, Kimball may require Supplier to implement internal corrective actions or issue a Supplier Corrective Action Request (SCAR) to address the deficiencies.

16.8.2. Supplier shall maintain a complaint tracking system to manage all complaints and SCARs according to its documented failure analysis system and to facilitate progress management and reviews.

16.8.3. Supplier shall cooperate with Kimball’s reasonable requests to resolve No Fault Found (NFF) and No Trouble Found (NTF) situations by reconsideration of specifications, stack tolerances, test coverage/correlation, and similar reviews directed by Kimball.

16.8.4. Supplier is responsible for regularly updating Kimball from initial problem description through SCAR verification and closure. Failure to provide regular updates and to close the SCAR satisfactorily within the designated time period will affect Supplier’s rating and could lead to the removal of Supplier from Kimball’s approved supplier list.

16.8.5. Issues identified by Kimball as “observational” do not require a full or formal 8D process but do require Supplier review to determine if a corrective action is necessary and to notify Kimball with the results of the analysis and a description of any corrective action. Kimball may require corrective actions for repeated quality notifications.

16.8.6. In situations where the proposed corrective action will require a change to the manufacturing process or component design, an SMCR will be required. Each SMCR shall reference the applicable corrective action number within the “Reason for Change” section.

17. Supplier Performance Measurement; Supplier Score Cards

17.1. Kimball measures Supplier quality performance both globally and at each Kimball facility that receives product from Supplier based on objective and subjective criteria, which may include:

- Quality Nonconformances (PPM);
- Delivery/On Time Delivery (OTD);
- Quantity Delivered
- Service Score (timely resolution and responsiveness of service issues)

- 17.2. Unsatisfactory performance, score cards, and/or quality performance may result in probation, placement on Controlled Shipment (CS) status, or removal from Kimball’s approved vendor list, any of which may result in the potential loss of business with Kimball. In conjunction with such decision, Kimball will communicate to Supplier the performance issues that lead to the decision.
- 17.3. Suppliers who receive unsatisfactory performance ratings from Kimball must submit a written improvement plan to the relevant Kimball supplier quality engineering personnel within two (2) weeks after receiving the unsatisfactory rating. The plan shall provide a roadmap and specific commitments to dates when Supplier will restore an acceptable rating. Kimball and Supplier will meet to discuss and agree on a suitable improvement plan. Supplier’s failure to meet with Kimball or to agree to an improvement plan may result in Supplier’s removal from Kimball’s approved vendor list.
- 17.4. Kimball will not reinstate Supplier from Controlled Shipment (CS) status and/or to Kimball’s approved vendor list until Supplier successfully completes its improvement plan.

18. Controlled Shipment (CS) Status Requirements

- 18.1. If Kimball places Supplier on Controlled Shipment (CS) status, each applicable Kimball facility that Supplier serves will determine the control level for that facility based on the severity of the issues, the specific facility’s needs, and any Specific Requirements. Placement on CS status at any Kimball facility constitutes placement on CS status at all Kimball facilities served by Supplier.
- 18.2. Control levels are not progressive, and Kimball can place Supplier on any CS status at any time based on its evaluation of Supplier’s performance issues. The number and severity of CS levels may vary by facility.
- 18.3. Products under CS status must be 100% inspected against criteria/standards mutually agreed in the Supplier’s improvement plan. Kimball reserves the right, but does not have the obligation, to evaluate Supplier products in CS status during inbound inspection.
- 18.4. Supplier is responsible for all resources, whether at Supplier, Kimball, or third parties, required to support the improvement plan.
- 18.5. Supplier must continue to follow all packaging, marking, and labeling requirements in this Manual and any additional requirements per the agreed to inspection plan.
- 18.6. CS status will remain in place until all affected Kimball facilities authorize removal.
- 18.7. **Standard CS Levels.**

Resource	CS Level 1	CS Level 2
Material Control	100% controlled within Supplier’s facility	100% controlled within Supplier’s facility
Inspection	Supplier inspects	Kimball or Kimball-approved 3 rd party inspects
Inspection Location	Controlled location outside of Supplier’s normal production area.	Controlled location outside of Supplier’s normal production area.
Inspection Records	Inspection records must be maintained with findings reported to Kimball, per the agreed improvement plan.	Inspection records must be maintained with findings reported to Kimball, per the agreed improvement plan.

19. Counterfeit Part Mitigation

- 19.1. Supplier has an obligation to avoid, detect, mitigate, properly address and communicate to Kimball incidents of counterfeit work and counterfeit material and to follow the standards set forth in JEDEC JESD243, and, where applicable, as SAE AS5553 and/or AS6081 as well as the AS6171 list of counterfeit detection methods.
- 19.2. “Counterfeit work” means work that is or contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. Misrepresentation extends to the misuse or misapplication of trademarks, logos, or labels. The term also includes approved work that has reached a design life limit or that has been damaged beyond possible repair but is altered and misrepresented as acceptable. “Counterfeit material” means any component, part, and/or material that is made in imitation of the original device, forged, or copied, or contains in whole or in part any component, part, or material that is made in imitation of the original device, forged, or copied. Any product containing counterfeit material shall be deemed nonconforming pursuant to this Manual.
- 19.3. Supplier must report instances of actual or potential counterfeit work or material and take all appropriate legal actions necessary related to them and mitigate any potential impacts to Kimball or its customers. If Kimball notifies Supplier of actual or potential counterfeit work or material, Supplier shall act immediately to mitigate and contain the issue, and to develop and incorporate a remediation plan for any affected products for Kimball’s approval.
- 19.4. Pursuant to the applicable commercial agreement and/or applicable law, Supplier may be held liable for the costs and expenses incurred by Kimball and its customers associated with counterfeit work or counterfeit material. Please refer to the applicable commercial agreement for specific liability information.
- 19.5. Supplier acknowledges that Kimball will report incidents of counterfeit work or material, such as through reporting to the U.S. Government Industry Data Exchange Program (GIDEP). In addition, because falsification of information or documentation may constitute criminal conduct, Kimball may in its discretion retain any actual or suspected counterfeit work or material, and identify, segregate, and report information regarding the same to quality system certification bodies, regulatory agencies, law enforcement agencies, and other relevant investigative officials.
- 19.6. At Kimball’s request, Suppliers must demonstrate their ability to identify counterfeit work and material prior to shipment to Kimball.
- 19.7. Kimball may immediately remove from its approved vendor list any Supplier that supplies counterfeit work or material to Kimball or that does not conform to the requirements above. Suppliers removed for this reason may only be re-qualified, if at all, at Kimball’s sole discretion through a full qualification process and audit, with demonstrated evidence of corrective action, which may include, without limitation, counterfeit part mitigation certifications.

Kimball Approvals:	Revision History Summary:
Chief Legal & Administrator Officer	Rev-P / April 2026 = Rewrite
Global Quality Council	
Global Supplier Quality Council	