



Quality Clauses – Flow Down of Requirements to Suppliers

- 1) Quality Management System: The Seller (herein referred to as Supplier) shall have a quality management system that, at minimum, meets the current ISO 9001 standard. It is preferable that Suppliers meet the requirements of AS9100.
- 2) Quality/Inspection System: The supplier shall maintain a quality / inspection system which is in conformance with the requirements of ISO9001 to include: Receiving, In-Process and Final Inspection including Inspection and Test Records shall be supplied to Fiber-Line LLC if requested on the FiberLine purchase order and upon completion and shipment of said order.
- 3) Calibration System: Supplier's calibration system shall meet the requirements of: ANSI-Z540 or equivalent. The system shall ensure the timely recall and calibration of all company measurement and test equipment used for product acceptance. Suitable records shall be maintained and be available for review.
- 4) Certificate of Conformance: a) The manufacturer and/or the distributor of its products shall provide a Certificate of Conformance (C of C) and/or Certificate of Analysis (C of A) with each shipment of product to IR. Copies shall be maintained by the Supplier as a quality record. Distributors shall include a copy of the manufacturers C of C along with the distributor's C of C with each shipment. In no case shall the manufacturer's certificate be altered or show signs of alteration. b) The C of C and/or C of A shall contain a certification statement attesting to the conformance of material and shall be signed and dated by an authorized representative of the Supplier. The C of C shall also contain: manufacturer's name; FiberLine part number; FiberLine revision level; Supplier/distributor's name and address; International Rectifier's name and address; quantity of parts in the shipment; date code and/or lot number (may be omitted for FiberLines contract manufacturing); and country of origin. c) As required, the C of C and/or C of A shall be accompanied with chemical and/or physical reports with "actual" or "typical" values for contractually required results of tests conducted, that verify conformance to a specification referenced on drawings and/or purchase orders and identify outside services performed, hardware, manufacturing, authenticity, etc.
- 5) Special Processes: Any processes for which resulting output(s) cannot be verified after the process without destructive testing and where deficiencies may only become apparent after the product is in use are considered to be special processes. In order to prevent output deficiencies, these special processes must be validated in order to prove that they can generate planned results. a) The Supplier shall identify any special processes and take the measures necessary to assure the process is capable of continually achieving the planned results. b) Process controls and or validations shall be established, including the following, where applicable: defined process instructions; defined criteria for process approval/qualification; defined criteria for equipment approval/qualification; defined method for process monitoring (including statistical process controls for key characteristics); defined criteria for the certification/qualification of personnel; defined and scheduled equipment maintenance/calibration; destructive physical analysis or testing; and maintenance of records providing evidence of initial validation/qualifications and ongoing control. c) Any special processes contracted out a subcontractor shall be communicated to and approved by FiberLine. A list of FiberLine approved suppliers can be supplied upon request.



6) Right of Entry: With appropriate notice, FiberLine, along with FiberLine's customer and regulatory authorities shall be afforded the right of entry to all of the Supplier's premises at any level of the supply chain and the right to verify that the contracted work, all applicable records and material conforms to specified requirements. This clause shall not apply to cases where Fiberline is procuring a Supplier's standard item.

7) Certification of Test Data: Certification of test data shall be traceable to the organization performing the testing, special processing and/or inspection requested via Fiberlines purchase order. All factual information shall be included to demonstrate conformance of specification and/or purchase order requirements.

8) Contract Review / Conversion of FiberLine Requirements: The supplier shall review the purchase order and product manufacturing, processing, and testing requirements prior to its initiation. Any inconsistencies noted with the purchase order, part or other document references by the purchase order shall be communicated to FiberLine or its acting delegation. Suppliers proceeding with work without written concurrence do so at their own risk. Product will not be accepted by FiberLine unless it is compliant to the purchase order and all referenced documentation. Upon acceptance of the contract Suppliers shall assure contractual requirements are adequately communicated and flowed down internally.

9) Quality Flow-Down to Sub-Tier Suppliers: The Supplier's quality system shall assure all relevant purchase order requirements are flowed down to their sub-tier suppliers. The Supplier's sub-tier suppliers are responsible to comply with the same specifications and requirements specified on the purchase order. This clause shall not apply in cases where FiberLine is procuring a Supplier's standard item. Quality Clauses – Flow Down of Requirements to Suppliers 3050 Campus Drive Hatfield PA 19440 Phone 215-997-9181 Fax 215-997-9589 Website [www.Fiber-Line.com](http://www.Fiber-Line.com)

10) Requirement for the Qualification of Personnel: The Supplier's quality system shall assure all applicable processes affecting the final quality of the product in the purchase order were rendered by qualified and trained personnel.

11) Change Approval: Except for first time purchases, items furnished under the purchase order to an Fiberline source control drawing shall be identical in form, fit and function to a product previously accepted by Fiberline. Any changes or deviations from the design shall be approved by Fiberline prior to shipment of the item. This clause shall not apply in cases where Fiberline is procuring a Supplier's standard item. In this case, the Supplier shall have a defined method or format (PCN) for notifying customers of product changes.

12) Component Substitution: No component substitution is allowed without FiberLines approval. Alternate or equivalent parts shall be approved by FiberLines Quality and Purchasing Departments and documented via purchase order amendment prior to shipment.

13) Notification of Obsolescence: The supplier shall notify FiberLine of any planned material or component obsolescence prior to the acceptance of any Purchase Order. In addition, the supplier shall notify FiberLine of any plans to obsolete material on any and all existing orders with sufficient notice to facilitate, when applicable, an option for last time buy.

14) Prohibited Materials: Unless otherwise specified, the use of pure Tin, Cadmium or Zinc is not allowed. 4% Pb (Lead) by weight minimum is required on any Tin/Lead Finish.



15) Age Sensitive Materials: In cases where materials are being provided with a limited life, the remaining shelf life shall be a minimum of 75% of the total shelf life, as defined in the source control drawing, for the material at the time of delivery. The following requirements apply: a) The material shall be labeled with the batch number, and the manufacturing date / expiration date. b) When applicable, any special handling or storage requirements shall be defined. c) An SDS sheet is to be provided with each shipment of product.

16) Traceability: The Supplier shall maintain a method of traceability that ensures tracking of the supply chain back to the manufacturer of all Items included in the product being supplied. This traceability method shall clearly identify the name and location of all supply chain intermediaries from the manufacturer to the direct source of each Item for the Supplier and shall include the manufacturer's batch identification for the Item such as but not limited to date codes, lot codes, serializations, or other batch identifications.

17) Corrective Action Request: When a quality problem exists, FiberLine may request corrective action from the Supplier. Such requests require timely responses and shall be recorded on the FiberLine form or equivalent. The Supplier is encouraged to use the 8D problem solving format. Failure to comply could result in disqualification and removal from the FiberLine Approved Supplier List.

18) Nonconforming Material: The Supplier shall maintain a documented system to ensure nonconforming products are immediately identified and segregated from conforming products and with held in a designated and controlled area for review and disposition. Any departures from drawings, specifications or other procurement requirements shall be submitted to FiberLine Purchasing for review and disposition. Any deviations from the design data shall be approved by a Fiberline prior to shipment.

19) FOD (Foreign Object Debris) Prevention: a) The Supplier shall establish the requirements for the prevention of contamination or foreign objects from becoming entrapped in the Supplier's product during manufacturing, assembly, testing or handling and is applicable to all design and manufacturing processes, training, material handling and parts protection, housekeeping, tool accountability, hardware accountability, lost items and physical entry into FOD critical areas. FOD prevention may include clean room disciplines, housekeeping disciplines such as a 6S program, proper storage and handling disciplines, FOD awareness training, tool accountability, performance metrics, control of food and drink in work areas, etc. b) Foreign Object Debris (FOD) is a substance, debris or article alien to a vehicle or system which would potentially cause damage. Foreign Object damage is any damage or incident attributed to a foreign object that may result in a degradation of the product's required safety and/or performance characteristics.

20) Source Inspection: If FiberLine inspection is required at the source of manufacture (source inspection) as noted on the FiberLine Purchase Order, the following activities shall take place: a) Upon completion of manufacturing of product the Supplier shall contact the Purchasing Agent to schedule source inspection. The Supplier shall allow 48 hours for coordination and other paperwork. b) The Suppliers shall make available any required drawings, specifications or other related documents as well as any tools, gages, or other inspection instruments necessary to establish conformance of the articles including personnel with the requisite skills to operate such devices. The Supplier shall provide reasonable assistance and facilities to FiberLine representatives engaged in the activities related to FiberLine procurement.



## Quality Procedures

## Non Aerospace Supplier Flow Down Requirements

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21) Record Retention: All records of test and inspection results, and administrative quality documentation required by contract or subordinate specifications (quality records) shall be retained by the Supplier for a period of a minimum of 3 years after the creation of the record unless a longer period is specified on the Fiberline purchase order. If the Supplier subcontracts the record creation (for example: the Supplier sending a part out for radiography), the Supplier shall impose the same record retention on their subcontractor. This clause shall not apply in cases where Fiberline is procuring a Supplier's standard item.

22) Rework Limitations: a) Production travelers or similar documentation such as the complete manufacturing history, including rework, shall be recorded. b) Rework qualification. Devices containing rework shall not be shipped to Fiberline unless previously qualified by FiberLine. Supplier shall notify FiberLine of rework and provide documentation and qualification. The purpose of such qualification is to ensure that the next stage assembly at Fiberline is not impacted and the performance of high reliability processes is not degraded. c) Qualification of rework. If any rework is to be qualified, and unless otherwise allowed by FiberLine, the manufacturer shall build a qualification lot of reworked devices in which certified rework processes are performed. Qualification of rework by this method shall require FiberLine approval of the test plan and submission of rework samples for evaluation.

26) Counterfeit Product Prevention: (Applicable to distributors) It is International Rectifier's policy to purchase Product(s) only directly from the Manufacturer or from their authorized distributors. Purchasing product(s) from brokers or Independent Distributors is prohibited. a) Definitions: Quality Clauses – Flow Down of Requirements to Suppliers 3050 Campus Drive Hatfield, PA 19440 Phone 215-997-9181 Fax 215-997-9589 Website [www.Fiberline.com](http://www.Fiberline.com). "Counterfeit Product" means product that is an unlawful or unauthorized reproduction, substitution, or alteration that has been knowingly mismarked, misidentified, or otherwise misrepresented to be authentic, unmodified product from the original Manufacturer, or provided by a source without the express written authority of the original Manufacturer or current design activity, including an unauthorized aftermarket Manufacturer. Included is used product represented as unused or falsely identified by grade, serial number, lot number, date code, or performance characteristics. ii. "Independent Distributors" are persons and businesses that are not part of the Manufacturer's authorized distribution chain. These also may be referred to as non-franchised distributors, unauthorized distributors or brokers. iii. "Suspect Counterfeit Product" means product for which credible evidence (including, but not limited to, visual inspection or testing) provides reasonable doubt that the product is authentic. b) Requirements i. The Supplier warrants they are authorized by the product Manufacturer(s) to distribute the product(s) provided to International Rectifier. ii. The Supplier shall include a copy of the Manufacturer's Certificate of Compliance and/or Certificate of Analysis along with the Supplier's Certificate of Compliance with each product shipment. iii. The Supplier warrants that product(s) supplied to Fiberline are new, unused, authentic, genuine and legitimate.

27) Disaster Recovery: FiberLine has a responsibility to our customers to maintain a continuity of operations and services that considers disaster recovery. Suppliers should develop a plan that will protect and restore vital business processes in the event of an unanticipated disruption. Sub-suppliers should also establish such plans in order to minimize disruptions.