

**APPLICABILITY**

The quality assurance requirements are applicable to the Organization Purchase Orders [PO's] when incorporated by reference to the applicable clause or clauses by code numbers in such PO's. Acceptance of the articles or material specified on this PO will be withheld pending receipt of all required data and documentation.

**SIGNIFICANCE**

The requirements and execution thereof shall be in addition to and not in derogation of other PO requirements.

**REFERENCED DOCUMENTS**

Unless specifically stated, all standards referenced herein shall be the issue in effect on the date of quotation for this PO, unless prior approval has been granted by OSI Optoelectronics.

**100 QUALITY REQUIREMENTS**

- 101A The seller shall maintain a quality system that is compliant to ISO9001. Records shall be maintained for a period of seven years and available for review if so requested.
- 101B The seller shall maintain a quality system that is compliant to AS9100. Records shall be maintained for a period of seven years or for an extended period specified on a respective purchase order. Records shall be available for review if so requested.
- 101C The seller shall maintain a quality system that is compliant to ISO13485. Records shall be maintained for a period of seven years and available for review if so requested
- 102 The supplier agrees to allow the access of their facility for the purpose of review/inspection by Customer, OSI Optoelectronics or government/regulatory personnel during the course of contract or PO.
- 103 The supplier shall maintain an inspection system applicable and adequate for the material or service being supplied.
- 104 The supplier shall control all test equipment used for acceptance of items deliverable under this PO, in accordance with any of the following standards. ANZI/NCSL Z540, ISO/IEC 17025, ISO 10012-1, FDA/CGMP/GLP, 10CFR50 Appendix B." The supplier's calibration system is subject to review and approval by the Quality Assurance Department at all times during the performance of this PO.
- 105 The supplier shall have and maintain a calibration system which effectively controls the accuracy of all measurement and test equipment used for acceptance of items deliverable under applicable PO. The supplier's calibration system is subject to review and approval by the purchaser's Quality Assurance department at all times during the performance of applicable P.O.
- 106 The Organization reserves the right to perform source inspection at the supplier's facilities or where designated in the PO prior to shipment. Inspection and test of the articles defined in the contract shall be performed by the supplier, and shall be subject to witness.
- 107 The Organization reserves the right to perform in-process inspection at the supplier's facilities. Supplier shall submit their inspection plan or traveler designating in-process source inspection points. Approval is required for in-process source inspection points prior to supplier commencing manufacturing or test operations. Supplier shall notify the cognizant buyer 48 hours prior to the time in-process inspection is required.
- 108 Inspection and acceptance of the first article manufactured against this PO is required prior to start of fabrication. The supplier shall submit a First Article Report demonstrating compliance with the requirements of the PO and referenced documents. This report shall be submitted with the first article for inspection and acceptance.
- 109 Government source inspection is required prior to shipment from supplier's plant. Upon receipt of this PO, promptly furnish a copy of the purchase order and notify the Government representative who normally services suppliers plant so that appropriate planning for government inspection can be accomplished. In the event the representative or office cannot be located notify the cognizant buyer immediately.

- 111 Prior to or during supplier performance, any deviations or proposed changes in design or services from the supplied drawings or specifications must be reported to our Buyer immediately. No deviation will be considered approved without written confirmation of that fact from the Buyer. Under no circumstances are repairs to be undertaken without prior written approval from the Buyer.
- 112 The Supplier shall maintain a system which meets all requirements of ANSI Z540-1 & ISO/IEC 17025. "General requirements for the competence of Testing and Calibration Laboratories" as applies to the testing and calibration of the Companies test and inspection equipment. The supplier's calibration system is subject to review and approval by the Quality Assurance Department at all times during the performance of this PO.
- 113 The Supplier shall ensure that applicable personnel are aware of their contribution to the product or service conformity, contribution to product safety and the importance of ethical behavior
- 114 The Supplier shall flow down to suppliers direct and sub-tier external suppliers, applicable customer requirements provided in the respective purchase order and/or applicable specification.

**200 TEST AND WORKMANSHIP**

- 201 Prior to shipment all materials shall be cleaned so as to be free of all foreign substances or residue from processing or handling.
- 202 The supplier shall notify the buyer of any proposed change in part number or nomenclature that differs from PO information prior to shipment.
- 204 Drawing Requirements – Drawings and specifications sufficient to inspect and/or test the articles being delivered shall accompany first shipment of this PO.
- 205 Functional Test Data – Functional test data referencing PO numbers, supplier's name and address, part number, part name, serial numbers, data and run time of units if applicable, including actual test data, must accompany each shipment.
- 206 Components shall be solderability tested per the requirements of J-STD-001.
- 207 The Seller shall comply with the requirements of the latest revision (and all cumulative change notices) of ANSI/IPC-A-610, "Acceptability of Electronic Assemblies."
- 208 The Seller shall comply with the requirements of the latest revision (and all cumulative change notices) of ANSI/J-STD-001, "Requirements for Soldered Electrical and Electronic Assemblies"

**300 CERTIFICATION, INSPECTION DATA AND TRACEABILITY**

- 301 The Seller shall submit a Certificate of Compliance with each shipment which states that the product supplied is in full compliance with the PO and/or applicable specification. The Purchase Order Number shall be referenced on all certification documents.
- 302 The Seller shall submit a manufacturers' inspection/test report that states the material type and shows the physical and chemical properties by reference to melt, cast, heat, etc., with each shipment. Non-metallic material shall only require a chemical properties inspection/test report.
- 303 Inspect Test Data – Inspection data referencing purchase order numbers, supplier's name and address, part number, part name, serial numbers and quality characteristic data must accompany each shipment. These reports shall be validated by an authorized representative of the supplier quality department and must relate to each shipment. If statistical sampling is used as the basis of exception, then the procedures shall be in accordance with industry accepted sampling plans.

- 304 The Buyer shall assign permanent, individual serial numbers to all items shipped under the Purchase Order or Sub-contract. If the Buyer elects to delegate this responsibility to the Seller, it will be stated in the Procurement Document. The manner of affixing the serial numbers will also be specified in the notes of a Buyer furnished drawing. Traceability of each serialized item to the raw materials employed in its fabrication will be maintained by the Seller. Material certifications, analyses, test bars, samples, etc. and all pertinent inspection data, and inspector identity and maintained to provide traceability for each parts and assembly serialized.
- 305 The seller shall assign a common lot control number to all items in a particular manufactured lot (defined for this purpose as a quantity that has been manufactured during an uninterrupted period of time, following a standard process and using the same equipment/facility). Traceability shall be the same as that specified in **NOTE 304**, but on a lot number rather than on an individual serial number basis.
- 306 The supplier shall inform the Buyer in writing of all proposed changes in design, materials, processes or fabrication methods involving parts furnished to this specification and shall obtain Buyer's written approval before effecting such changes on deliverables against this Purchase Order. Notification to the Buyer is required if the location of the manufacturing facility is to change (current work) or has been changed.
- 307 Material Data Safety Sheet, required with shipment.
- 400 MATERIAL IDENTIFICATION AND PACKAGING**
- 401 The supplier shall identify materials and articles having definite characteristics of quality degradation or drift with age and/or environment. This identification shall indicate the date and/or cycle that the critical life was initiated and the date and/or cycle at which the useful life will be expended. If environment is a factor in determining useful life, identification shall also include the storage temperature, humidity, etc., required to achieve the stated useful life. In no case shall material or articles be supplied with less than 70% of the useful life cycles remaining.
- 402 All materials which are volatile, toxic or emit fumes which are harmful to human health shall be properly contained in accordance with applicable health and safety requirements. The containers will be plainly marked as to contents with appropriate warnings, precautions, instructions and storage conditions.
- 403 All materials shall be identified by a part number, permanently and legibly affixed directly to the surface of each article. In the event this is not possible due to physical size or nature of material, an identification tag will be securely affixed to each article, or if articles are supplied in individual or multi-unit containers the container must reveal the appropriate identification.
- 404 Materials considered ESD sensitive per MIL-STD-1686A shall be packaged/shipped in accordance with Buyer requirements. In the absence of these requirements, packing shall meet or exceed MIL-B-81705D and Industry Standard EIA IS-5-A. Labeling, per MIL-STD-129, for intermediate and external packages is required. Alternate labeling symbol, JEDEC RS-471, may be used on packages/cartons.
- 405 The supplier shall incorporate good commercial practices for preservation and packaging of all articles applying to this PO and shall identify each package permanently and legibly with PO number, manufacturer's name, date shipped and packing sheet number.
- 407 N2 or desiccator storage required to maintain a dry (0 humidity) environment.
- 408 N2 packaging required. Parts to be packaged in glove box using N2 (0% humidity required within sealed package).
- 409 Medical device manufacture: the provisions of document GMP are in effect on Purchase Order, during all stages of manufacture.
- 410 The Seller shall insure that all printed wiring boards are preservation packaged per MIL-P-55110G Level B, sub-method IC-I of MIL-P-116 or as specified on the Purchase Order, drawing or specification.

- 411 If Seller uses special processes, customer approval is required. Special process certification: The seller shall furnish a certificate of compliance which states the product conforms to applicable specifications required by purchase order, drawing or specification with each shipment. When applicable, batch lot, heat number, x-ray, heat treat chart, etc., for the special processes performed shall accompany shipment
- 412 If the seller is supplying specialty metals as part of the order then contractor must follow the requirements of DFARS 252-225-7014 Preference for Domestic Specialty Metals. Specialty metals are defined as:
1. Steel:
    - a) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65%. Silicon, 0.60%: or copper, 0.60% or
    - b) Containing more than 0.25% if any of the following elements: aluminum; chromium, cobalt, molybdenum, nickel, titanium, tungsten, or vanadium.
  2. Metal Alloys:
    - Consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in excess of 10%.
    3. Titanium and Titanium alloys.
    4. Zirconium and zirconium base alloys.

**500 TRADE COMPLIANCE AND DATA REQUIREMENTS**

- 501 Supplier shall comply with all Export and Import Control Laws and Regulations of the United States Government of any country in which the parties conduct business pursuant to the PO, including but not limited to: the U.S. Department of Commerce Export Administration Regulations (EAR), the U.S. Department of State International Traffic in Arms Regulations (ITAR), the U.S. Customs and Border Protection (CBP), the Harmonized Tariff Schedule (HTS), and the Anti-Boycott Embargo, and Sanctions Regulations and Guidelines as set forth by the U.S. Department of Commerce and by the U.S. Department of the Treasury Office of Foreign Assets Control (OFAC)
- 502 Supplier shall control the disclosure of, and access to, Export-Controlled Items, Technology, Technical Data, Controlled Unclassified Information (CUI), Software, or Services (further known as "Data") related to the performance of this PO in compliance with all applicable "Trade Compliance Laws". Documentation supplied as part of this PO may constitute "Data" within the definitions of the EAR or the ITAR and may be subject to the Export Control Laws of the U.S. Government. Transfer of this "Data" by any means is prohibited to a foreign person, foreign entity or otherwise restricted entity or individual whether in the United States or abroad (including foreign persons employed by, associated with, or under contract to Supplier, Supplier's lower-tier subcontractors, or Supplier's non-U.S. subsidiaries), without providing advance notice to the company and obtaining the requisite export and import authorizations from the U.S. Government and other applicable Government. Upon completion of the Purchase Order, all manifestation of the "Data" shall be destroyed including copies and extracts thereof. Supplier is not expected to return or destroy the "Data" that exists as part of the Supplier's regularly generated electronic backup data or archive, the destruction of which is not reasonably practicable.

**600 KEY CHARACTERISTICS**

- 601 When key characteristics are designated on the procuring documentation, the Supplier shall provide certificate of compliance indicating full compliance to the Key Characteristics.

**700 PROHIBITED MATERIALS**

- 701 Supplier hereby represents and warrants that all products delivered by Supplier shall be in compliance with Directive 2011/65/EU of the European Parliament (may be amended or updated from time to time) on the restriction of the use of certain hazardous substances ("RoHS"). Supplier shall provide a statement certifying compliance with RoHS with each shipment.
- 702 Supplier hereby represents and warrants that all products delivered by Supplier shall be in compliance with Directive EC 1907/2006 of the European Parliament and (may be amended or updated from time to time) concerning the Registration, Evaluation, Authorization and Restriction of Chemicals ("REACH"). Supplier shall provide a statement certifying compliance with REACH with each shipment.

- 703 Pursuant to Section 1502 of the United States Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules and regulations of the SEC thereunder ("Dodd-Frank"), Supplier hereby represents and warrants that no Conflict Minerals, including columbite-tantalite (coltan), cassiterite, gold, wolframite, and their derivatives (which derivatives are currently limited to tantalum, tin, and tungsten) will be contained in or necessary to the functionality or production of any of the products or materials delivered by Supplier. Supplier or Manufacturer shall be able to provide Declaration or Certification of Compliance upon request.
- 704 Supplier hereby represents and warrants that all products delivered by Supplier shall be in compliance with Directive 2012/19/EC (may be amended or updated from time to time) concerning the Registration, Evaluation, Authorization and Recycling of electronic waste. ("WEEE"). Supplier shall provide a statement certifying compliance with WEEE with each shipment.
- 705 The Supplier/subcontractor must only supply parts which are traceable to the actual manufacturer. Supplier/subcontractor shall establish and maintain controls to prevent the use of counterfeit/noncertified materials. Independent distributors/broker shall not be used unless approved in advance and in writing by Buyer and QA Eng.