

ATTACHMENT II FORM 5124 QUALITY TERMS FOR PURCHASE ORDERS

The following terms apply as indicated by the Quality Term Number on the face of the Purchase Order. In the event any term cannot be met, notify Teledyne Brown Engineering's Buyer immediately.

SOURCE INSPECTION

1. Teledyne Brown Engineering, the Government, or any appropriate regulatory authority has the right of access to the supplier's plant and applicable records as may be necessary to determine compliance to contract requirements on all supplies or services included in this contract. The supplier is to flow down to sub-tier suppliers the applicable requirements in this purchase order, including key characteristics where required.
2. **NASA Government Source Inspection:** All work on this contract is subject to inspection and test by the Government at any time and place. The Government quality representative who has delegated NASA quality assurance functions on this contract shall be notified immediately upon receipt of this order. The Government representative shall also be notified forty-eight (48) hours in advance of the time items are ready for inspection or test.
3. **DOD Government Source Inspection:** NOTICE – Government inspection is required prior to shipment from your plant. Upon receipt of this contract, promptly notify the Government Representative who normally services your plant so that appropriate planning for Government inspection can be accomplished.
4. **DOD Source Inspection:** COPY – Upon receipt of this contract, promptly furnish a copy to the Government Representative who normally services your plant, or if none, to the nearest Army, Navy, Air Force, or Defense Logistics Agency inspection office. In the event the representative or office cannot be located, our purchasing agent should be notified immediately.
5. **Customer Right of Inspection:** Teledyne Brown Engineering's (TBE's) customer has the right to inspect any or all work included in this contract at the Supplier's facility.
6. **Customer Mandatory Source Inspection:** Source Inspection by TBE's customer is required on this contract.
7. **TBE's In-Process Source Inspection:** All work performed under this contract requires in-process TBE Source Inspection. Notify the TBE Buyer as work planning is defined and seventy-two (72) hours prior to product work initiated and seventy-two (72) hours prior to final inspection being performed for possible in-process and final source inspection requirements. Evaluation of personnel, equipment, methods, and items may be conducted to determine compliance to contract requirements.

8. **TBE Final Source Inspection:** All work performed under this contract requires TBE inspection and test verification at the Supplier's facility. Notify the TBE Buyer at least seventy-two (72) hours in advance of the item being ready for final source inspection.

CONTROL/CONFORMANCE

9. **General Compliance:** The Supplier shall provide a written and signed Certificate of Compliance to the effect that all materials, processes, and/or finished items supplied under this contract are as specified.
10. **Specific Compliance:** The Supplier shall specifically sign and certify that all parts, materials, processes and finished items supplied under this contract were inspected, tested, and found to comply with the requirements of this order. Inspection and test data shall be maintained and are subject to TBE's examination. All applicable drawings and/or specifications and their revisions shall be referenced.
11. **Statement of Quality:** The Supplier shall certify, in a Statement of Quality, that all required inspections and tests have been performed and found to comply with the requirements of this contract. The certification must be signed and the signer's position or title given. The certification must identify the serial number, lot number, date of manufacture, etc. of the delivered item, state the specification or drawing number and revision whether inspection records give attributes or variables data, and the location and date of the inspections and tests. Inspection and test data shall be maintained for seven (7) years (if not otherwise specified) and are subject to TBE's examination.
12. **U.S. GOVERNMENT Qualified Product/Qualified Manufacturer Lists (QPL/QML):** When the QPL/QML manufacturer is not listed on the currently published QPL/QML, the seller shall include with each shipment, a signed statement, that the items being procured on this purchase order were produced by a currently approved QPL/QML manufacturer, using processes which produced the product submitted for qualification. The name and QPL/QML number of the manufacturer shall appear on the statement. Qualification data shall be made available to TBE upon request.
13. **Inspection and Test Reports (Actual):** The Supplier shall submit signed inspection reports and actual results proving conformance to the applicable drawings and specifications for items shipped under this contract.
14. **Material Test Reports (Actual):** The Supplier shall submit a signed chemical and physical test report per the applicable specification for the material shipped under this contract with actual test results from samples of this specific material.
15. **Physical Test Reports (Actual):** The Supplier shall submit a signed physical test report per the applicable specification for the materials shipped under this contract with actual test results from samples of this specific material.
16. **Chemical Test Reports (Actual):** The Supplier shall submit a signed chemical test report per the applicable specification for the materials shipped under this contract with actual test results from samples of this specific material.

17. **Material Test Reports (Typical):** The Supplier shall submit a signed chemical and physical test report for all material shipped under this contract. The report may include typical results from samples representative of this material.
18. **Shelf Life Data:** Data shall be provided for items or materials which are susceptible to quality degradation with age. The Supplier shall provide a signed statement with the starting date, shelf life, expiration date and special storage requirements, if any, to maintain stated shelf life. All shelf life limited items shall have 75% or more of their shelf life remaining at the time of delivery to TBE. If the item has unlimited shelf life, the signed statement shall specify (unlimited).
19. **Inspection and Test Plan:** An Inspection and Test Plan for control of articles furnished in accordance with the Purchase Order shall be prepared specifically written to outline the product flow from receipt of materials through fabrication, assembly, and test operations. The Plan shall define the inspection points throughout the manufacturing sequence and describe the inspections. A general description of procedures and records used will be adequate. Two (2) copies of the Plan shall be forwarded to the Buyer before the work described begins unless otherwise specified.
20. **Quality Manual:** A copy of the Supplier's Quality Manual or equivalent shall be submitted for review before the work on this contract begins.
21. **Supplier Inspection Requirements:** The Supplier is responsible for performing or having performed all inspections and tests necessary to substantiate that the items furnished under this contract conform to contract requirements, including any applicable technical requirements for specified manufacturer's parts.
22. **Supplier Inspection of Supplies:** The Supplier shall provide and maintain an inspection system covering items under this contract and shall tender to TBE for acceptance only items that have been inspected in accordance with the inspection system and have been found by the Supplier to be in conformity with contract requirements. As part of this system, the Supplier shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to TBE during performance and for as long afterwards as required by contract. TBE may perform reviews and evaluations as reasonably necessary to ascertain compliance. These reviews and evaluations shall be conducted in a manner that will not unduly delay the work under this contract.
23. **Quality Program (ISO 9001):** The Supplier's Quality program shall be in accordance with Specification ANSI/ASQ Q9001; latest revision unless otherwise specified.
24. *Not Used.*
25. **Quality Program (AS9100):** The Supplier's Quality Program shall be in accordance with Specification SAE AS9100; latest revision unless otherwise specified.
26. **Calibration Services:** The Supplier's calibration program shall be in accordance with systems ANSI/ISO/IEC 17025, ISO 10012-1 or ANSI/NCSL Z540-1 of the latest revision unless otherwise specified. Items submitted to the Supplier for calibration on this contract shall be evaluated for acceptance before any repair or adjustments are made. Records of the as-received findings and the as-returned findings (post-adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. The report shall attest to the fact that measurement standard(s) used in the performance of this calibration are traceable to the National Standard, International Standard, or Intrinsic Standard.
27. **Calibration Certification:** A signed calibration certification is required with each item certifying it has been calibrated and that the Supplier's calibration program is in accordance with one of the following systems; ANS/ISO/IEC 17025, ISO 10012-1 or ANSI/NCSL Z540. The latest revision applies unless otherwise specified. The certification shall attest to the fact that the measurement standard(s) used in the performance of this calibration are traceable to a National Standard, International Standard, or Intrinsic Standard.
28. **Traceability Certification:** If the items are not marked with manufacturer's name or identification, lot code, date code, or serial number, or labels are not provided, a signed certification shall be submitted with each shipment identifying the manufacturer, his location and necessary data to provide traceability to these and like items' manufacturing records.
29. **Traceability:** All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection to the procurement records on its constituent parts and materials. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items. Records shall be retained for a period of time specified in applicable items specifications or seven (7) years if not otherwise specified in this contract.
30. **Record Retention:** Retain all records pertaining to materials or services provided under this contract for a period of five (5) years.
31. **Record Retention:** Retain all item records pertaining to materials or services provided under this contract for a period of ten (10) years.
32. **Radiographic Testing:** All microcircuits and semiconductor cavity devices shall undergo Radiographic Inspection in accordance with Method 2012 of MIL-STD-883 (microcircuits) or Method 2076 of MIL-STD-750 (semiconductors). All acceptable parts shall be marked with a blue dot of ink conforming to MIL-I-43553 or A-A-56032.
33. **Particle Impact Noise Detection (PIND) Testing:** All microcircuits and semiconductor cavity devices shall undergo Radiographic Inspection in accordance with Method 2020 of MIL-STD-883 (microcircuits) or Method 2052 of MIL-STD-750 (semiconductors). All acceptable parts shall be marked with a blue dot of ink conforming to MIL-I-43553 or A-A-56032.

34. **Not Used.**
35. **ESD-Sensitive Devices:** All electrical / electronic parts, assemblies or equipment provided under this requirement shall be treated in a manner that provides continuous protection from electrostatic damage. Suppliers shall identify items as ESD-Sensitive with proper markings on packaging and/or containers. (Ref. DOD-HDBK-263, MIL-STD-1686 and ANSI/ESD S20.20).
36. **Hazardous Material Data:** A Material Safety Data Sheet (MSDS) meeting OSHA regulations shall be provided with hazardous material when delivered to TBE. If material is not hazardous, a signed statement to that effect is acceptable. If you have provided a MSDS for this product to TBE in the 12 months prior to the date of this P.O. and no changes have occurred in the data, this requirement has been met.
- The hazardous material shall be labeled with:**
- Chemical name, common name, or trade name;
 - Appropriate hazard warnings including exposure health hazards and first aid and emergency procedures; and
 - Name, address, and phone number of the manufacturer or other responsible party.
37. **Certificate of Transportability:** The subject hazardous material shall be certified to be air transportable as delivered to TBE or shall state what additional actions are required to make it air transportable. The Department of Transportation classification number (UN xxx, NA xxx, etc.) shall be provided on the item's container or in supplied data that accompanies the item.
38. **Part Identification, Packaging, and Shipping:** All items and subpackages including raw material (plate, bar, extrusions, sheet, etc.) supplied under this contract shall be identified with complete nomenclature and part number as specified by the applicable drawing, specification, catalog, purchase order, etc. Materials shall be packaged, handled and transported adequately to maintain the reliability and achieve their damage-free delivery to TBE or other designated location. Containers shall be identified on the outside with the TBE Purchase Order Number.
39. **Workmanship:** All items must conform to workmanship requirements as specified on applicable drawings and specifications. If no revision is specified, the most current revision is applicable. If no workmanship is specified, the items shall be fabricated and finished to normal industry acceptance standards.
40. **Product Nonconformances:** Items that do not conform to the requirements of this contract shall not be shipped to TBE without prior written approval of TBE Quality Assurance. Request approval for shipment through the TBE Buyer. Failure to comply may result in return of the shipment at the Supplier's expense. Any material supplied under this Purchase Order or Subcontract which is returned by Teledyne Brown because of a nonconformance and is subsequently resubmitted by the Supplier to TBE shall be accompanied by a written description of the rework accomplished to correct the nonconformance and corrective action taken to prevent recurrence.
41. **Process Control:** The supplier shall obtain TBE approval of all special processes to be used in the performance of this contract. Special Processes include plating, welding, nondestructive examinations, finishes, soldering, chemical processes, etc. The Supplier shall maintain objective evidence of process qualification and control in accordance with applicable specifications. The procedure(s) and qualification/certification data shall be submitted to TBE for approval prior to the work being processed by the vendor. If any changes in the certifications, qualifications, and/or processes are made, resubmittal and reapproval is mandatory. A TBE survey of operations may be required before approval is given.
- Note:** If a subcontractor, in turn, uses a TBE approved supplier, qualification data does not have to be provided to TBE prior to starting work. Using a TBE approved supplier in no way guarantees satisfactory performance by the special process supplier nor does it relieve (you) the TBE subcontractor from your obligation to deliver conforming parts in accordance with contractual requirements of the TBE purchase order or subcontract.
42. **Configuration Control:** The Supplier agrees not to make any changes in items delivered under this contract at anytime in the future which would affect physical or functional interchangeability, reliability, or repair and maintenance operations unless the part identification is changed.
43. **First Item Inspection:** The supplier must provide a sample first item for dimensional and functional approval prior to making production item(s). The Supplier is required to perform 100% inspection/test and to record the actual data for the first item inspected on this contract. The records shall identify each characteristic, the allowable tolerance limits, and the actual value measured. This First Item Inspection Report must accompany the first part shipment.
44. **Calibration:** Test and Measuring equipment which is used for process control or inspection must be appropriately calibrated with traceability to the National Institute of Standards and Technology or Natural Standards. The Supplier may use a calibration system complying with MIL-STD-45662, ISO 10012-1, or ANSI/NCSL Z540-1 for compliance to this requirement.
45. **Raw Metals:** Raw metals (plate, bar extrusions, sheet, etc.) must be identified by the producing mill identifying alloy, condition (if applicable), and specification. If not mill marked, actual physical and chemical test data is required except for aluminum. On Aluminum, actual physical and typical chemical data is acceptable.
46. **Government Industry Data Exchange Program (GIDEP):** On subcontracts requiring GIDEP participation, the subcontractor shall participate in the appropriate interchange of GIDEP. This program is an invaluable tool in the government's war against inefficiency and is limited to participating activities. Data entered is retained by the program and provided on a privileged basis. Compliance with this clause shall not relieve the subcontractor from complying with any other provisions of this contract.

47. **Defense Contract Management Agency (DCMA)** inspection is not required at your facility. DCMA inspection will be performed at TBE Receiving Inspection.
48. **Part Segregation:** If items furnished on this order are not from a single homogeneous lot, they shall be segregated by homogeneous lots. A homogeneous lot is defined as all items having the same part number, date or lot code, and manufacturer.
49. **Mercury Free Contamination Certification:** Certification shall include the following statement: "Item(s) furnished under (PO#XXXXXX), have not been fabricated, nor have they come in contact with mercury, mercury vapor or mercury compounds, including test equipment, inspection equipment, handling, packaging material and/or any other associated material that may come in contact with the furnished item(s), materials or assemblies."
50. **Quality Program Provision (MSFC Test Area Contractors):** The Supplier's quality program shall be in accordance with applicable portions of the MSFC Quality Publication (MSFC-HDBK-1630, "Quality Program Provisions for MSFC Test Area Contractors". The latest revision applies unless otherwise specified.
51. **Manufacturer's Certification of Compliance:** The manufacturer of the item being supplied shall certify in a signed certificate of compliance that all parts, materials, processes and finished items supplied under this contract were inspected, tested and found to comply with requirements of this order. Inspection and test data shall be maintained and are subject to TBE's examination. All applicable drawings and/or specifications and their revisions shall be referenced.
52. **Quality Requirements (International Space Station):** The Supplier's inspection program shall be in accordance with specification SSP 41173. "Space Station Quality Assurance Requirements". The latest revision applies unless otherwise specified.
53. **Calibration and/or Repair Services:** Items submitted to the Supplier for calibration/repair on this contract shall be evaluated for acceptance before any repair or adjustments are made. For calibration service, a signed calibration certificate or report of calibration is required with each item certifying it has been calibrated to the appropriate manufacturer's specification utilizing measurements which are traceable to the National Institute of Standard and Technology (NIST), by comparison to natural physical constraints, or that self-calibration ration type measurements were utilized. Records of the as-received finding and the as-returned findings (post-adjustment or post-repair, as applicable), shall be clearly stated on the signed calibration certificate or report of calibration along with indication as to whether the individual findings were acceptable or unsatisfactory. Any limitation shall be noted on the calibration certificate or report of calibration.
54. **Calibration System:** The Supplier's calibration program shall be in accordance with ISO 10012-1. Acceptable alternatives are ISO 9001 paragraph 4.11, ANSI/NCSL Z540-1 1994, or ANSI/ISO/IEC 17025. Supplier may propose alternates for TBE's evaluation and acceptance.
55. **Calibration Services Z540-1:** The Supplier's calibration program shall be in accordance with ANSI/NCSL Z540-1, latest revision, unless otherwise specified. Items submitted to the supplier for calibration on this contract shall be evaluated for acceptance before any repair or adjustments are made. Records of the as-received findings and the as-returned findings (post adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. All test reports shall have a TAR or 4 to 1 (minimum) or shall state the uncertainties or achieved TAR. The reports shall attest to the fact that measurement standard(s) used in the performance of this calibration are traceable to a National Standard, International Standard, or Intrinsic Standard.
56. **Calibration Services 17025:** The Supplier's calibration program shall be in accordance with ANSI/ISO/IEC 17025, latest revision, unless otherwise specified. Items submitted to the supplier for calibration on this contract shall be evaluated for acceptance before any repair or adjustments are made. Records of the as-received findings and the as-returned findings (post adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. All test reports shall have a TAR or 4 to 1 (minimum) or shall state the uncertainties or achieved TAR. The reports shall attest to the fact that measurement standard(s) used in the performance of this calibration are traceable to a National Standard, International Standard, or Intrinsic Standard.
57. **Calibration Services ISO 10012:** The Supplier's calibration program shall be in accordance with ISO 10012 in conjunction with ISO 9000, both latest revisions, unless otherwise specified. Items submitted to the supplier for calibration on this contract shall be evaluated for acceptance before any repair or adjustments are made. Records of the as-received findings and the as-returned findings (post adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. All test reports shall have a TAR or 4 to 1 (minimum) or shall state the uncertainties or achieved TAR. The reports shall attest to the fact that measurement standard(s) used in the performance of this calibration are traceable to a National Standard, International Standard, or Intrinsic Standard.
58. **Calibration Services to an ASTM Calibration Standard:** The Supplier's calibration program shall be in accordance with applicable ASTM Calibration Standard, latest revision, unless otherwise specified. Items submitted to the supplier for calibration on this contract shall be evaluated for acceptance before any repair or adjustments are made. Records of the as-received findings and the as-returned findings (post adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. All test reports shall have a TAR or 4 to 1 (minimum) or shall state the uncertainties or achieved TAR. The reports shall attest to the fact that measurement standard(s) used in the performance of this calibration are traceable to a National Standard, International Standard, or Intrinsic Standard.

59. **Calibration NIST Traceable:** Items submitted to the Supplier for calibration/repair on this contract shall be evaluated for acceptance before any repair or adjustments are made. A signed calibration certificate or report of calibration is required with each item certifying it has been calibrated to the appropriate manufacturer's specifications utilizing measurements which are traceable to the national Institute of Standard and Technology (NIST). Records of the as-received findings and the as-returned findings (post adjustment or post-repair, if applicable) shall be clearly stated on the signed calibration report along with indication as to whether the individual findings were acceptable or unsatisfactory. All test reports shall have a TAR or 4 to 1 (minimum) or shall state the uncertainties or achieved TAR. Any limitation shall be noted on the calibration certificate or report of calibration. The NIST standard shall be listed along with that standard's calibration date and due date.

60. **Supply Chain Traceability (Assemblies and Subassemblies):** The seller shall maintain a method of item traceability that ensures tracking of the supply chain back to the manufacturer of all Electrical, Electronic, and Electromechanical (EEE) parts included in assemblies and subassemblies being delivered per this order. This traceability method shall clearly identify the name and location of all of the supply chain intermediaries from the manufacturer to the direct source of the product for the seller and shall include the manufacturer's batch identification for the item(s) such as date codes, lot codes, serializations or other batch identifications.

61. **Supply Chain Traceability (Parts):** The seller shall maintain a method of item traceability that ensures tracking of the supply chain back to the manufacturer of all Electrical, Electronic, and Electromechanical (EEE) parts being delivered per this order. This traceability method shall clearly identify the name and location of all of the supply chain intermediaries from the manufacturer to the direct source of the product for the seller and shall include the manufacturer's batch identification for the item(s) such as date codes, lot codes, serializations or other batch identifications.

62. **Guarantee of Product Source (s):** The seller shall ensure that only new and authentic materials are used in products delivered to TBE. The Seller may only purchase parts directly from Original Component Manufacturers (OCMs), OCM franchised distributors, or authorized aftermarket manufacturers. Use of product that was not provided by these sources is not authorized unless first approved in writing by TBE. The seller must present compelling support for its request (e.g., OCM documentation that authenticates traceability of the parts to the OCM), and include in its request all actions to ensure the parts thus procured are authentic/conforming parts.

63. **Certificate of Conformance and Traceability:** Applicable to all contracts for QPL or QML integrated circuits or hybrid semiconductor devices procured in accordance with MIL-PRF-38534 or MIL-PRF-38535 and semiconductor devices procured in accordance with MIL-PRF-19500. The parts supplied must be in strict conformance to the requirements set forth and/or referenced in the item description including applicable revisions and slash sheets. To ensure this conformance, the seller must provide a Certificate of Conformance and Traceability (CoC/T) with the information and documentation required by the applicable military specification. This documentation must

reference the contract number and include a certification signed by the approved QPL/QML manufacturer. In addition, if the material is not procured directly from the approved manufacturer, all additional documentation required by the specification must be provided to establish traceability from the QPL/QML manufacturer through delivery to TBE. This will be an unbroken chain of documentation (certifications, packing slips, etc.) tracing the movement of the parts back to the OCM and the certification that the parts have not been salvaged, reclaimed, otherwise used or previously rejected for any reason. The CoC/T is required to determine acceptability of the EEE parts. If the CoC/T is not provided, is incomplete or otherwise unacceptable, the supplies will be determined not to meet contract requirements and will be rejected.

64. **10CFR Part 21** applies to work covered by this Purchase Order. Required postings, notifications, flow downs, and record keeping must be made.