

BC Systems, Inc.

Quality Assurance Department

Q.A. Provisions

(Clauses are incorporated in and part of the Contract or Purchase Order.)

1. Quality Assurance Management: The supplier shall maintain an effective quality program in accordance with the applicable clause indicated below for all material and services supplied under the Purchase Order. The seller's calibration system shall conform to ISO-10012-1, ANSI/NCSL Z540-3 or equivalent. MRB authority is not granted for this Purchase Order. BC Systems reserves the right to perform surveys and audits necessary to assure conformance to the Quality Assurance requirements of the latest P.O. issued in effect unless otherwise noted. BC Systems also reserves the right to request Corrective Action for Quality System or material noncompliance.

1.1 Quality Assurance Program in accordance with ISO-9001 is required

1.2 Quality Program in accordance with AS9100 is required

1.3 Commercial Quality Inspection System acceptable to BC Systems Inc. Quality Assurance is required

2. Suppliers Compliance to ANSI/ASQC/ISO9001. Seller shall have a quality program that complies with Quality Control document ANSI/ASQC/ISO9001. At BC Systems Inc. request, the seller is subject to periodic audit/assessment of their quality program to ensure compliance to ANSI/ASQC/ISO9001 registration and in the event the seller changes registrars, loses registration status, or is put on notice of losing 3rd party registration status, the seller shall notify BC Systems within three (3) days of receiving such notice from-their registrar. (Note: QA Clause 1 is also invoked in conjunction with this clause.

A. Suppliers Compliance to SAE-AS9100. Seller shall have a quality program that complies with Quality Control document SAE-AS9100. At BC Systems Inc. request, the seller is subject to periodic audit/assessment of their quality program to ensure compliance to SAE-AS9100 registration and in the event the seller changes registrars, loses registration status, or is put on notice of losing 3rd party registration status, the seller shall notify BC Systems within three (3) days of receiving such notice from-their registrar. (Note: QA Clause 1 is also invoked in conjunction with this clause.

B. Suppliers shall be compliant with the awareness requirement as defined in paragraph 7.3 of AS9100 revision D.

C. Suppliers shall have their delivery and quality performance monitored. All suppliers are required to maintain a rating of minimum 98% quality acceptance and a minimum 96% on time delivery

3. CERTIFICATION OF CALIBRATION: All products or services provided shall be in accordance with ISO 10012-1, ANSI/NCSL Z540-3 traceable to NIST. Traceable certifications are required with delivery.

4. EVIDENCE OF COMPLIANCE: The shipment of parts or materials against this Purchase Order will constitute a Certification by the supplier to the effect that:

- All manufacturing processes and workmanship are in compliance with drawing(s) and/or that specification(s) applicable to this order.
- Documentary evidence of the product quality in the form of records and/or date essential in determining the above (A) has been retained for a minimum of 10 yrs. and shall be available for BC Systems, Inc. and (If Required) the Government representative for review.
- BC Systems shall be notified of any processes, product or services which are non-compliant to the requirement of this purchase order.
- Supplier shall notify BC Systems and obtain approval for any changes to products and processes (including processes which are outsourced), services, or changes of their external providers or location of manufacture.

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- All requirements identified within the Purchase Order and Quality Assurance Provisions shall be flowed down to the suppliers external providers.

5. QUALITY ASSURANCE WORKMANSHIP STANDARDS: BC Systems, Inc. workmanship standards apply to this order any variation to this order or other documentation specification must be approved by BC Systems, Inc. prior to delivery of material.

6. CERTIFIED WELDERS: All welding must bear evidence of welders name and welding symbol.

7 QUALITY ASSURANCE PLAN: Supplier shall prepare Quality program plan for review and approval which assures that delivered will be of the highest quality attainable consistent with the functions for which they have been designed.

8. TEST DATA READINGS AND/OR INSPECTION MEASUREMENT: of items on this order must be taken and documented as indicated below. Particular emphasis shall be given those characteristics, which cannot be inspected upon receipt at BC Systems, Inc. The above records shall be adequate to ascertain the quality level of required articles and of production processes used in manufacture of parts on this order. All inspection records shall be retained for a period no less than 10 yrs. and must be available to BC Systems upon request.

A. Inspection Measurements

B. Retain at Supplier

C. Test Data

D. Submit with shipment per Item 12

E. First Article Inspection (FAI) is required prior to the delivery of this product in accordance with the provided drawing. First Article Inspection shall be performed on the first assembly produced and shall be performed as defined by SAE AS9102. The FAI report shall be delivered with the product to BC systems for review for product acceptance. (Clause 24 is invoked in conjunction with this clause).

9. CONFIGURATION CONTROL: The Supplier shall deliver parts to the configuration specification on the order. In the event a change of design is contemplated that differs from items approved upon this order, the Supplier shall notify BC Systems, Inc. Purchasing Department to obtain concurrence.

10. CERTIFICATE OF COMPLIANCE: Shipments made against this order require a 'C of C' from the Suppliers quality control activity attesting that all specification, drawing and Purchase Order requirements have been met. That any material supplied to BC Systems, Inc., is used on this order that raw material, physical and chemical test reports are on file and available to BC Systems, Inc. review that processes such as Welding, X-Ray magnetic particle inspection penetrate inspection heat treating, plating, anodizing, etc. satisfy applicable specifications including certification of personnel.

11. SUPPLIER SOURCE INSPECTION: BC Systems, Inc. Quality Assurance reserves the right to perform source inspection. The Supplier shall give at least ten (10) working days notice as to the time and place of inspection and of acceptance testing. Final acceptance of deliverable items shall be at BC Systems, Inc. or as otherwise designated. Acceptance tests shall be performed by the Subcontractors or 100% of production, unless otherwise directed.

A. SUPPLIER PRE-CAP INSPECTION: BC Systems, Inc. Quality Assurance reserves the right to perform Pre-Cap inspection at points in the manufacturing process determined by BC Systems. Quality Clause 11 is invoked with this clause.

B. INSPECTION OF WORK IN PROCESS AT SUPPLIERS FACILITY: BC Systems, Inc. Quality Assurance reserves the right to perform inspection of work in process at contractor's facility at points to be determined by BC Systems Quality Assurance. Quality Clause 11 is invoked with this clause.

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12. GOVERNMENT SOURCE INSPECTION: Government Inspection is required prior to shipment from your plant (upon receipt of this order, promptly notify the government representative who normally services your plant so that appropriate planning for government inspection can be accomplished) in the event the representative or office cannot be located, the Purchasing Agent should be notified immediately.

All work on this order is subject to inspection and test by the government at all times (including the period of performance and places), and, in any event prior to shipment. The government representative who normally services your plant should be notified ten (10) days in advance of the time articles or processes are ready for inspection or test. The government reserves the right to inspect any or all of the work included in this order at the suppliers plant.

13. CHEMICAL AND PHYSICAL PLANT TEST REPORTS: Chemical and physical plant reports attesting to properties of the material supplied on this order must accompany each lot, heat no., batch no., melt no., etc. applicable to the material, shall be on the reports. All items with limited life or shelf life expiration must bear a minimum 80% life upon receipt. Supplier must furnish Date of Manufacture as in Item 14.

14. DATE OF MANUFACTURE: The supplier shall identify the Date of Manufacture of each item on this order by rubber stamp impression, attached tag or other suitable equivalent.

15. ACCESS CLAUSE: During performance of this order your Quality Control and/or Inspection System and Manufacturing processes are subject to the right of access by authorized BC Systems personnel, their customer, and regulatory authorities to the applicable areas of facilities and to applicable documented information, at any level of the supply chain Government inspection or release of product prior to shipment is not required unless you are otherwise notified. If applicable you shall provide a copy of this order to your Government Representative upon his request.

16. Packaging/Handling: The supplier shall handle and package all product identified as ESD per the latest revision of MIL-STD-1686 and ANSI/ESD S20.20. The supplier shall assure product is protected against corrosion, oxidation, deterioration, ESD damage and physical damage during shipment to BC System.

ESD protective packaging which complies with MIL-PRF-81705 type1, shall be used for all electronic components. The ESD material provided shall be procured from a source listed on QPL-81705. PWBs shall be packed in accordance with IPC-1601. All other commodities such as sheet metal, shall be packaged using non static generating material.

17. MERCURY EXCLUSION CLAUSE: Shipments made against this order must include a Certificate from the Supplier stating that all materials used in their product does not contain metallic mercury, or mercury compounds, nor were they contaminated during the manufacturing and inspection process.

18. Suppliers performance will be measured for Quality of the product or services they provide, and on time delivery. The quality score shall be based on the following criteria. Failure comply will result in formal notification and may result in removal from the ASL.

	Quality	Delivery	
Gold	100%	100%	Excellent
Silver	>=99%	>=98%	Acceptable Preferred
Bronze	>=98%	>=96%	Satisfactory
Yellow	>=96%	>=90%	Needs Improvement
Red	<96%	<90%	Unsatisfactory

19. "Specialty metals" as defined under DFAR 252.225.7009 clause (Restriction on Acquisition of Certain Articles Containing Specialty Metals) shall be of domestic origin or supplied by DFAR qualified countries, unless specifically authorized by the Purchase Order. Compliance to this requirement shall be documented in the suppliers certificate of conformance along with objective evidence from the raw material supplier. No unauthorized raw material substitutions are allowed.

This shall include:

- Any deviation from the specification requirements for form, size, shape, chemistry, melt method, origin, Temper/condition, product testing or surface finish.
- No conversion of raw material (e.g. heat treat to change the temper or condition) is allowed unless permitted by contracted specification.
- Raw material must not be re-certified with respect to thickness, diameter, width, cross-sectional area or product form. Machining or cutting of thicker product or other product forms shall not be supplied in lieu of specified product unless authorized by BC Systems. Raw material certifications shall reflect the form and size of the raw material as originally manufactured by the raw material producer.
- Raw material certifications shall reflect the full traceability of the material from melt to final product, including all thermal and chemical processes.
- The full chain of ownership of the raw material must be identified, from melt source to current supplier. The supplier shall not deliver product, or components unless Specialty Metals contained in the product or components are melted or produced in the United States, its outlying areas, or a qualifying country (some exceptions apply). (Refer to 225.7003-2 (a)(1)(ii) Restrictions on acquisition of specialty metals.)

This shall apply to all applications listed below:

- Aircraft
- Missile or space systems
- Ships
- Tank or automotive items
- Weapon systems
- Ammunition

20. A Certificate must accompany all dip brazed assemblies delivered under this Purchase Order. The Certificate must indicate BC SYSTEM's, Inc. P.O. number, BC Systems', Inc. part number, serial number (if applicable) or date codes (if applicable) and that the part or assemblies meet the following cleanliness requirement:

EACH ASSEMBLY SHALL EXHIBIT CLEANLINESS TO THE EXTENT THAT FLUX RESIDUE (CHLORIDE, FLUORIDE, ETC) WILL NOT EXCEED FIVE (5) PPM WHEN MEASURED OVER THE ENTIRE BRAZED ASSEMBLY, OR IN ANY SPECIFIC AREA.

21. COUNTERFEIT PARTS PREVENTION

A. Definitions for purposes of this Purchase Order:

1. "Counterfeit Parts" shall mean a part, component, module or assembly whose origin, material, source of manufacture, performance or characteristics are misrepresented. This term includes, but is not limited to, (A) parts that have been (re)marked to disguise them or falsely represent the identity of the manufacturer, (B) defective parts and/or surplus material scrapped by the original manufacturer and (C) previously used parts pulled or reclaimed and provided as "new".
2. As used herein, "authentic" shall mean (A) genuine; (B) from the legitimate source claimed or implied by the marking and design of the product offered; and (C) manufactured by, or at the behest and to the standards of, the manufacturer that has lawfully applied its name and trademark for that model/version of the material.
3. "Independent Distributor" shall mean a person, business, or firm that is neither authorized nor franchised by an Original Component Manufacturer ("OCM") to sell or distribute the OCM's products but which purports to sell, broker and/or distribute such OCM products. Independent Distributors are also referred to as unfranchised distributors, unauthorized distributors and/or brokers.

B. The Supplier represents and warrants that only new and authentic materials are used in products required to be delivered to BC SYSTEMS and that the Work delivered contains no Counterfeit Parts. No other material, part or component other than a new and authentic part is to be used unless approved in advance in writing by BC SYSTEMS. To further mitigate the possibility of the inadvertent use of Counterfeit Parts, SUPPLIER shall only purchase authentic parts/components directly from the Original Equipment Manufacturers ("OEMs/OCMs") or through the OEM's/OCM's authorized distribution chain. SUPPLIER must make available to BC SYSTEMS, at BC SYSTEMS' request, OEM/OCM documentation that authenticates traceability of the components to that applicable OEM/OCM. Purchase of parts/components from Independent Distributors is not authorized unless first approved in writing by BC SYSTEMS Procurement Representative. SUPPLIER must present complete and compelling support for its request and include in its request all actions to ensure the parts/components thus procured are legitimate parts. BC SYSTEMS' approval of SUPPLIER request(s) does not relieve SUPPLIER's responsibility to comply with all PURCHASE ORDER requirements, including the representations and warranties in this paragraph.

C. SUPPLIER shall maintain a documented system (policy, procedure or other documented approach) that provides for prior notification and BC SYSTEMS' approval before parts/components are procured from sources other than OEMs/OCMs or through the OEM's/OCM's authorized distribution chain. SUPPLIER shall provide copies of such documentation for its system for BC SYSTEMS' inspection upon BC SYSTEMS' request.

D. If the SUPPLIER is providing electronic components/devices only, the following certification applies:

Certification of Origin of Product:

Acceptance of this Purchase Order constitutes confirmation by the SUPPLIER that it is either the Original Equipment Manufacturer (OEM), Original Component Manufacturer (OCM), or a franchised or authorized distributor of the OEM/OCM for the product herein procured. SUPPLIER further warrants that OEM/OCM acquisition documentation that authenticates traceability of the components to that applicable OEM is available upon request. If the SUPPLIER is not the OEM/OCM or a franchised or authorized distributor, the SUPPLIER confirms by acceptance of the PURCHASE ORDER that each product supplied to BC SYSTEMS has been procured from the OEM/OCM or a franchised or authorized distributor of the OEM/OCM. The SUPPLIER further warrants that OEM/OCM acquisition traceability documentation is accurate and available to BC SYSTEMS upon BC SYSTEMS' request.

E. SUPPLIER shall flow the requirements of this paragraph to its sub-contractors and suppliers at any tier for the performance of this PURCHASE ORDER.

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22 CHANGE CONTROL (Ref. Mil-Std-480/973): Is applicable to all material supplied under this Purchase Order. Any changes in design, manufacture, materials, performance, processes, Quality Assurance procedures, manufacturing location, test or service incorporated after initial BC Systems approval must be submitted to BC Systems Purchasing for approval.

23 SPECIAL PROCESSES: Special Processes as delineated below require the use of only NADCAP certified suppliers. A copy of the supplier's active certificate shall be included with each shipment. Any deviation to this policy shall require the written authorization by the Quality Assurance Manager or Quality Director.

- Thermal Processes

- Welding and Brazing

- Finishes and Coating

- Fabrication

- Metallic Raw Materials - Non USA & Titanium Ingot (All)

- Composites

- Support Testing

24 SAE AS9100 FIRST ARTICLE INSPECTION AND REPORT: Supplier shall perform a First Article Inspection (FAI) and provide the Report (FAIR) per SAE AS9102 requirements for any of the following:

- A new part representative of the initial production run

- A change in the design affecting form, fit or function

- A lapse in production for two years or as specified by BC Systems

- A change of location point of manufacture

- Changes that can affect the form, fit and function of the part including changes in manufacturing source, process, tooling or materials

- BC Systems contract requirement

- As deemed necessary by BC Systems based upon quality history

25 NONSTANDARD PARTS APPROVAL (Mil-STD-965): Supplier must apply to BC Systems Quality Assurance department for approval for the use of nonstandard materials in accordance with Mil-Std-965.

26 IPC-A-610: Workmanship shall be in accordance with the latest revision of IPC-A-610 Class 3.

27 J-STD-001: Workmanship and processes shall be in accordance with the latest revision of J-STD-001 Class 3.

28 SAFEGUARDING DEFENSE INFORMATION: The Supplier shall implement a process which is compliant with DFAR clause 252.204-7012 "Safeguarding Covered Defense Information and Cyber Incident Reporting" The Supplier must provide adequate security to safeguard DOD unclassified controlled technical information resident on or transmitting through their or unclassified information systems from unauthorized access and disclosure. Suppliers shall report to BC Systems cyber incidents that affect the protected

information. Controlled technical information is defined as technical data or computer software (as defined in DFAR 252.227-7013) with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination.

29 Printed Circuit Boards (EFF DATE: 9-18-2020) The articles specified on the face of this purchase order are printed wiring boards that are to be manufactured to IDS, Military, or IPC specification(s). The following requirements are in addition to those specified:

- Military specification(s): for double-sided and multilayer printed wiring boards, a minimum of two (2) quality conformance micro sectioned test coupons for each production panel utilized on this order shall be maintained by the manufacturer. They shall be available for review for a minimum of 3 years after delivery, for each lot of printed wiring boards shipped against this purchase order.
- IPC specification(s): for double-sided and multilayer printed wiring boards, micro sectioned coupon acceptance testing and frequency shall be performed as specified for Equipment Class 3. Test coupons for each production panel utilized on this order shall be maintained by the manufacturer and available for review for a minimum of 3 years after delivery, for each lot of printed wiring boards shipped against this purchase order.
- All printed wiring boards, unless otherwise specified, shall be packaged in accordance with contract requirements and unit packaged to prevent contamination from humidity.
- Visual examination for applicable attributes, to all Classes of IPC-6012 and IPC-6013 Series Qualification and Performance Specifications, shall be conducted at 3 diopters (approx. 1.75X) Minimum. For feature sizes less than or equal to 0.254 mm [0.010 in] in size, in their smallest dimension, visual examination shall be conducted at 10X Minimum. If the acceptable condition of a suspected defect is not apparent, it should be verified at progressively higher magnifications (up to 40X) to confirm that it is a defect. Dimensional requirements such as spacing or conductor width measurements may require other magnifications and devices with reticles or scales in the instrument, which allow accurate measurements of the specified dimensions. Contract or specification may require other magnifications.
- Visual examination of micro via structures for applicable dimensional or workmanship attributes shall be conducted at 30X minimum.
- The supplier shall provide a Material Report, with each delivery, for the raw material supplied or used in the parts supplied. The Material Report shall be from the original raw material supplier and include original supplier, lot number, material specification, tests conducted, composition breakdown by percentage and any other relevant information needed to identify / trace the raw material. This includes raw structural materials and all peripheral materials Acceptable examples include, but are not limited to: composition breakdown and supplier of the Prepreg, Laminate, Duroid, Cover lay Material, Bond ply, Foil, Tear Stop, Solder mask, Marking Ink, Hole Plug/Fill Material, Strain Relief Material, Adhesives, etc. certs / composition analysis, dimension / description. The supplier shall maintain the original certification / material reports and any secondary independent test laboratory certification(s) (if any additional process was done to the material altering it from its original state). Supplier records shall be retained for a minimum of 10 years after completion of the purchase order or subcontract. These requirements shall be flowed down to any sub-tier suppliers.