



**Revisions**

Rev	ECO Number
ER9	ECO21325

**D10133**  
**Quality Assurance Requirements for Purchase**  
**Agreements**  
  
**SpaceDev**


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CONTRACT NO. <b>N/A</b>	<b>APPROVAL SIGNATURES FILED ELECTRONICALLY.</b>		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: .X ±.03 .XX ±.01 XXX ±.005 .XXXX ±.002 X° ±1° BREAK EDGES .005/.020 FILLET RADIUS .005/.020 SURFACE ROUGHNESS - 64 RMS INTERPRET PER SPACEDEV DRM.			

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## 1.0 SCOPE

### 1.1 PROPRIETARY INFORMATION

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### 1.2 OVERVIEW

The following Quality Assurance provisions apply when specified by number on the Purchase Order. Suppliers shall impose specified requirements on lower-tier suppliers of parts, materials, and services


## 2.0 REFERENCE DOCUMENTS

### 2.1 UPPER TIER REQUIREMENTS


ISO-4030, Purchasing Procedure

### 2.2 REFERENCE REQUIREMENTS

D10978, Q Clause Assignment for Suppliers

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- Q1 Raw Material Test Reports - SUPPLIER ARCHIVES**– Vendor shall maintain on file, and assure availability for buyer’s review upon request, results of chemical and/or physical tests required to satisfy specification requirements for raw materials used in the manufacture of items delivered under this order.
- Q2 Raw Material Test Reports – SUBMITTED WITH ORDER** – Items delivered under this order shall be accompanied by a copy of the raw material chemical analysis and/or physical test reports as required by the specification or other provisions of this order. Reports shall be identifiable to each lot, batch, or heat treat lot of material. Test reports shall bear the signature of a responsible representative of the agency performing the tests and shall show evidence of conformance to specification requirements.
- Q2A Raw Material Test Reports (ACTUAL RESULT DATA REQUIRED)** – Items delivered under this order shall be accompanied by a copy of the raw material chemical analysis and/or physical test reports as required by the specification or other provisions of this order. Reports must contain actual numerical values of analysis or test results, rather than a range or PASS/FAIL attribute data. Reports shall be identifiable to each lot, batch, or heat treat lot of material. Test reports shall bear the signature of a responsible representative of the agency performing the tests and shall show evidence of conformance to specification requirements.
- Q3 Raw Material Test Specimens** – Items delivered under this order shall be accompanied by raw material test specimens. Specimens shall be submitted with the initial shipment from each lot or processing batch of items to be delivered under this order.
- Q4 Source Surveillance** – SpaceDev shall perform inspection/test of products and services at the suppliers’ facility prior to each shipment. SpaceDev reserves the right to conduct surveillance of work in-progress, inspection, and/or test at points selected by SpaceDev and to conduct final inspection and/or tests as necessary at source and destination to determine conformance to the purchase order. The supplier shall furnish reasonable access to contract, design, and specification data and the necessary equipment to perform such inspections and tests. When product is returned to the supplier, copies of any and all rejection documents shall be presented to SpaceDev’ source inspector at the time the items are presented for acceptance. SpaceDev reserves the right to waive source inspection at any time. However, such a waiver shall have no effect whatsoever on the supplier’s requirement to fully comply with the specifications and all of the terms and conditions of the contract/purchase order. Supplier shall contact the buyer’s representative noted on the face of this order prior to commencement of performance under this order to determine if source surveillance will be required and, if required, to schedule such surveillance.

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**Q5 First Article Inspection By Vendor** First article inspection (FAI) on the first deliverable item produced under this order shall be performed by the vendor prior to start of a manufacturing run. FAI shall also be performed on the first deliverable item produced subsequent to any of the following occurrences:

- Changes to manufacturing software, tooling or processes are implemented.
- Changes to manufacturing setups or location of facilities.
- Shutdown of normal manufacturing operations exceeding ninety days.
- Changes in engineering configuration.
- Requalification testing to be performed subsequent to initial qualification testing.

First article items submitted to SpaceDev shall be accompanied by the supplier's FAI report, which shall include a detailed inspection to verify the following:

- Manufacturing capabilities
- Proper use of material, parts, and process controls
- Compliance of deliverable items with specified requirements

**Q6 Deleted**


**Q7 Electrostatic Sensitive Devices** – Items delivered under this order are electrostatic sensitive. The vendor shall assure that items are handled, identified and packaged per MIL-STD-1686 to provide electrostatic protection.

**Q8 Age Control of Electronic Components** – Electronic components manufactured, as evidenced by date code, more than three years prior to placement of this order will not be accepted without written approval from SpaceDev for each affected component.

**Q9 Deleted**


**Q10 Certificate of Conformance** – The vendor shall provide with each shipment a Certificate of Conformance, signed by an authorized vendor's representative, stating that the items furnished to SpaceDev are in conformance with requirements of the contract, drawings, and specifications, and that supporting documentation is on file and will be made available to SpaceDev upon request. Certificate of Conformance shall include, as a minimum, SpaceDev purchase order number, part number and name, quantity, and lot or serial numbers if applicable. CoCs shall provide traceability to the material source and testing facility. All metallic material documents shall be traceable to the Mill Heat number.

**Q11 High-Energy Machining** – Vendor shall contact SpaceDev buyer for approval prior to using any type of high-energy machine work on items manufactured

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under this order. This includes Electrical Discharge Machining, Laser Machining, Elox Cutting, or any other electrical milling, cutting, or machining method.

- Q12 **Single Date/Lot Code** – Items delivered under this order shall be from a single date/lot code. Shipments of multiple date/lot codes must be authorized in advance by the buyer’s representative noted on the face of this order.
- Q13 Deleted
- Q14 **Time and Temperature Sensitive Material** – Material that degrades with age shall be marked to indicate the date when useful life expires as defined by the applicable specification, drawing, or purchase agreement. Time and temperature storage conditions must be included with each shipment. Other special storage requirements shall also be included.
- Q15 Deleted
- Q16 Deleted
- Q17 **Test Data** – One copy of the supplier’s test data, identifiable to the material or items supplied, must accompany shipment. The test report shall indicate SpaceDev purchase order number, the test performed, and the applicable specification.
- Q18 **Serialization** – The supplier shall identify each component, subassembly, or assembly by serial number in accordance with the purchase order, drawing, and/or specification requirements. Unless otherwise specified, the seller is responsible to assign serial numbers. The supplier’s serialization system shall preclude the possibility of duplication of serial numbers. The supplier’s quality control system shall provide for traceability of all serialized supplies to the source.
- Q19 **Serialized Matched Sets** – Parts shall be identified and maintained as matched sets at all times. Serial numbers shall provide traceability of parts in each set to the source.
- Q20 **Manufacturing Lot or Batch Number** – All parts, materials, and/or applicable documents shall be identified by a manufacturing lot or batch number by the supplier, which shall include the heat number, heat code, heat lot number, melt number, or date code. Documentation shall be maintained 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. Where marking of the parts is not practical, the smallest container packaged shall be marked with the above data. All applicable documents shall include the above required identification, as well as a reference to the SpaceDev purchase order number.
- Q21 **Source Controlled Drawing** – When design is the supplier’s responsibility, the supplier shall not implement any changes in design, materials, processes, or control without prior written approval from the SpaceDev buyer and without a

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change to the identification of the item. The supplier is also responsible for compliance by subcontractors.

- Q22 Equipment Calibration** - Calibration to be performed in accordance with ANSI/NCSL Z540-1-1994. All standards used shall be traceable to NIST. Items submitted for calibration on this order shall be evaluated for acceptability before any repair or adjustments are made. Records of the as-received findings and the as-retained findings shall be clearly stated on the calibration report, along with indication as to whether or not these individual findings were acceptable.
- Q23 Government Source Inspection** – Government inspection is required prior to shipment. Upon receipt of this purchase order, promptly notify and furnish a copy to the Government Inspection agency. If a Government representative does not service the supplier’s facility, contact the nearest Air Force, Army, or Navy Inspection Office. If the Government agency cannot be located, the SpaceDev buyer shall be notified immediately. Data and equipment required for Government inspection shall be made available at the supplier’s facility and shall be furnished to the Government representative upon request. Discrepancy reports shall also be furnished to the Government representative. A copy of the documentation bearing the Government source inspection verification shall accompany each shipment.
- Q24 Special Processes** – The supplier and any subtier supplier performing Special Processes (examples: welding, brazing, soldering, heat treating, coating, plating, non-destructive inspection, surface treatment such as passivation, conformal coat, chemical film, etc.) required on this order shall be approved by SpaceDev, or the supplier’s system for control of subtier special process suppliers shall have been approved by SpaceDev. Approval of special process suppliers does not relieve the supplier of the responsibility for exercising control measures necessary to ensure that work performed is in accordance with specification requirements.
- Q25 Inspection System Requirements** – The supplier’s inspection system shall conform to the requirements of MIL-I-45208 or ISO 9004:2000 and is subject to review and approval at all times by SpaceDev.
- Q26 Deleted
- Q27 Deleted
- Q28 Deleted
- Q29 Deleted
- Q30 Deleted
- Q31 P3001 Dimensional Inspection Requirements** – The supplier shall supply inspection records IAW SI Procedure P3001 Appendix A (Based on ASQC Z1.4 – 1993, Level II, Single Normal, AQL 4.0). Actual Inspection values shall be recorded for all dimensions, based on the quantity in the sample size, unless

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otherwise noted on the Purchase Order. The supplier is required to submit the inspection drawing, with balloon notes indicating inspected features, with the inspection report. The balloon numbering sequence shall match the inspection report line numbers. All process and material notes on the drawing must be recorded and identified as accepted on the inspection report. Sample(s) that are used for dimensional inspection shall be bagged and identified by serial # on the part identification label affixed to the bagging material.

Q32 Deleted

Q33 Deleted

Q34 **Passivation** – Passivation per AMS-QQ-P-35 or ASTM-A-967 is required. Evidence of passivation (Certificate of Compliance) is required to be delivered with this line item.


Q35 Deleted

Q36 Deleted

Q37 **Prohibited Materials** – All products supplied on this purchase order shall be free of platings, coatings, and claddings composed of pure tin, solders with greater than 97% tin, cadmium, selenium, brass, or zinc. The Seller shall certify that these prohibited materials were not used in the platings, coatings, or claddings used in the construction of products procured on this purchase order. Compliance to this restriction is subject to SpaceDev review at anytime during the performance of this order.

Q38 **GSFC Screened Hardware** – Fasteners shall meet the requirements of GSFC document 541-PG-8072.1.2A Table 2.

Q39 **Berry Amendment Compliance** – The items on this purchase order are required to be compliant with the Berry Amendment per DFARS 252.225-7014. This requirement must have the necessary documentation to ensure traceability to an approved source of raw material per the above reference DFARS clause. Any deviation to this clause must be approved by SpaceDev and it's customer before the order can be delivered.

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