



## **SUPPLIER QUALITY**

## **ASSURANCE REQUIREMENTS**

## **MANUAL**

**Ontic Engineering and Manufacturing, Inc.**

20400 Plummer Street

Chatsworth, CA 91311

U.S.A.

## Overview

---

### Introduction

Ontic Engineering and Manufacturing, Inc. (herein referred to as Ontic or the company) is responsible for assuring the quality of the products we deliver to our customers. The Quality Assurance system at Ontic is based on the international standard, AS9100, AS9110, which requires that we establish procedures for selecting suppliers and for the periodic review and assessment of the effectiveness of the control of purchased materials. It is therefore of extreme importance that we use suppliers who can consistently deliver high quality products and services.

This manual contains the contractual Quality Assurance Requirements that appear on the Ontic Purchase Orders. The “General” Quality Assurance Requirements in Section 1 apply to all purchase orders. The specific Quality Assurance Requirements in Section 2 apply when referenced by code on the applicable purchase order. Questions and comments regarding these requirements should be directed to the cognizant purchasing representative at Ontic.

<i>Signature on File – Dalayna Franco</i>	<i>04/29/2019</i>
Quality	
<i>Signature on File – Kristina Ellis</i>	<i>05/06/2019</i>
Supply Chain	

---

*Continued on next page*

**Overview, Continued**

**Change Record**

Revision/Issue	Reason for Change	Date
D	Complete rewrite	Feb 11, 2004
D Issue1	Added SQAR 22 hardness requirement for rubber products	Jul 19, 2005
	Imposed AS9102 FAI by contract	
D Issue 2	Clarified wording, deleted clauses 10 & 11, added clauses 23, 24 & 25	Jan 18, 2007
D Issue 3	Added item 23, D in section 2 to comply with current solder standards: IPGA-610 & J-STD-001. And remove "Ontic Licensor" from section 2, paragraph 1	Jan 25, 2008
D Issue 4	Added "NDT is to be performed 100%..." to No. 17, Section 2	Apr 06, 2009
D Issue 5	Revise 2 <sup>nd</sup> paragraph, clause 19, Section "Each package of rubber components..."	Aug 31, 2009
D Issue 6	Sec 1 item D update FAIR to two years; Sec 2 item 9 c update to "Ontic P/N".	Jan 27 2011
Issue 7	Reformatted	Aug 08 2012
Issue 8	Section 1 B. Added FAA facility access note for part 145 repairs.	Oct 18, 2012
Issue 9	Added #26 in section 2 addressing DQR Program	Mar 18, 2013
Issue 10	Remove repeated and conflicting phrases from within the document, pages 8, 10,11,12,14 and 18.	June 17, 2013
Issue 11	Addition of a clause to General Requirements, Section 1, S. Supplier Change Notification.	July 24, 2013
Issue 12	Revision to SQAR Manual Section 1, clause R, and added clause 27 to Section 2, to reflect direct reference to NAS-412 and AS6174	Oct 28, 2013
Issue 13	Added description of Tooling Verification	Dec 02,2013
Issue 14	Added a note to Section 1, paragraph I, requesting from supplier that all documentation shipped to Ontic from existing stock/inventory shall have sufficient evidence of traceability for previous Lot and/or batch information.	Feb 06,2014

*Continued on next page*

**Overview**, Continued

**Change Record**,  
continued

Revision/Issue	Reason for Change	Date
Issue 15	Added Conflict Minerals EICC template as annual requirement to Section O, and AS9110 to the Introduction, Section 1 paragraph S, Section 2 paragraph 2	May 21, 2014
Issue 16	Added to General Requirements, Section 1, Section T Supplier Self Reporting	April 21, 2016
Issue 17	Added note to Section 1 A to include customer flow downs, added clarification to Section 2, clause 1 on NADCAP and Non-NADCAP suppliers, and removed Ontic specific statement from Section 2, 20. Added Section 2 Clause 28	Sep 14, 2016
Issue 18	Moved section 2 clause 27 into section 1 clause U and clarified clause L.	March 6, 2017
Issue 19	Added reference to DFARS, Added GE requirement, addressed supplier products and sub-tier control of non-deliverable software	May 4, 2017
Issue 20	Update Section 2, paragraph 1 from Purchasing to Quality for approval	October 17, 2017
Issue 21	Update to address AS9110 8.4.3 m	June 19, 2018
Issue 22	Update to include certificate requirements per ANSI-Z540.1	April 17, 2019

*Continued on next page*

## Table of Contents

---

Overview .....	2
Introduction .....	2
Change Record .....	3
Section 1, General Requirements .....	8
General.....	8
A. Sub-Tier Control.....	8
B. Facility Access .....	8
C. Reworked/ Replaced Material .....	8
D. Production First Article Report.....	9
E. Supplier Non-conformance Approval Requests (SNAR) .....	9
F. Non-Conforming Materials Corrective Action (Rejection Notice) .....	10
G. Repair.....	10
H. Corrosion Protection .....	10
I. Certification Traceability, General .....	10
J. Records Retention .....	11
K. Drawings Specifications and Quality Requirements.....	11
L. Packing, Handling and Marking.....	12
M. Shelf-Life Material .....	12
N. Mercury Free .....	12
O. Domestic Material .....	13
P. Inspection Sampling – In Accordance With Ontic Requirements.....	13
Q. Calibration System.....	13
R. Foreign Object Prevention, Detection and Removal .....	13
S. Supplier Change Notification .....	14
T. Supplier Self Reporting.....	14
U. Counterfeit/ .....	15
Unapproved Parts/Material Prevention .....	15
U. Counterfeit/ .....	17
V. Material Validation .....	17



W. Non-deliverable Software Control ..... 18

Y. Awareness ..... 18

Z. Calibration Provider ..... 18

Section 2, Specific Requirements..... 19

1. Process Approvals ..... 19

2. Quality Assurance System Requirements ..... 19

3. Source Surveillance by Ontic..... 20

4. Source Inspection by Government Agency or Ontic Customer ..... 20

5. Metallurgical First Article ..... 20

6. First Article Requirement..... 20

7. Cast Test Bars ..... 20

8. Forging Test Bars..... 21

9. Certificate of Conformance..... 21

10. Deleted..... 22

11. Deleted..... 22

12. Physical and Chemical Test Reports ..... 22

13. Functional Test Certifications ..... 22

14. Statistical Process Control..... 22

15. Process Certification ..... 23

16. Frozen Process ..... 23

17. Non-Destructive Test Reports..... 24

18. Heat Treat Report ..... 24

19. Rubber Components/Raw Material & Assembly Cure Date..... 25

20. Raw Material Certification ..... 25

21. Mill Heat Control/Mill Certification ..... 25

22. Synthetic Rubber Components Hardness Readings ..... 25

23. Electrical Component & Assembly Requirements ..... 26

24. Welding/ Brazing Requirements ..... 27

25. FAA Repair Station Requirements/Drug Screening Program Requirements..... 27

26. Designated Quality Representative ..... 27

27. Counterfeit Parts/Material Prevention..... 28



28. Direct Shipment Authorization ..... 28

---

*Continued on next page*

## Section 1, General Requirements

---

**General** The general quality requirements herein are applicable to all Ontic purchase orders. Purchase Order Specific or unique Quality Requirements imposed are described in detail in Section 2.

---

**A. Sub-Tier Control** The supplier shall be responsible for flow down of all the requirements and provisions of the Ontic purchase order applicable to the supplier's sub-contractors. Additionally, the supplier shall comply with special processor requirements when imposed.

**Note:** This includes Ontic's customer flow downs as called out on the Purchase Order.

---

**B. Facility Access** During the performance of this purchase order, your Quality Assurance or Inspection and Manufacturing process are subject to review, verification and analysis by Ontic and/or Government/Customer representative. This requirement is applicable to the supplier's facilities where Ontic products and services are processed as well as the Supplier's sub-tiers.

If the work described in this purchase order is an FAA Part 145 related transaction, the following terms and conditions apply: By accepting this repair order your facility agrees to grant the FAA access at any time to examine the inspection system, records, and procedures to determine compliance with your Quality System or U.S. Code of Federal Regulations if applicable. Any required coordination during FAA inspections will be the responsibility of the Accountable Manager from ONTIC Engineering and Manufacturing, Inc.

---

**C. Reworked/ Replaced Material** When returning previously rejected material to Ontic, the supplier shall reference the rejection notice number on the shipping document, and shall state if the items have been replaced or reworked.

---

*Continued on next page*



## Section 1, General Requirements, continued

---

### **D. Production First Article Report**

Compliance to requirements must be demonstrated by submitting a first article inspection report with the first lot shipment of product and with the first lot shipment of each subsequent revision. Catalog parts are excluded; for catalog parts such as MS, NAS etc, a Certificate of Conformance to all purchase order requirements is required. First article inspection reports must include serial numbers (when applicable), all dimensions, notes, tolerance ranges, actual measurements, and where physical testing is required the results of the tests. First article parts must be identified as "First Article" by tagging, special packaging, or other suitable means of identification. Ontic requires Suppliers use the AS9102 format for First Article reporting.

Additional first article inspection shall be performed when:

- Either new manufacturing processes or new methods are used that could affect compliance to drawing requirements
- New, reworked or transferred tooling is used
- In the event of a drawing revision.
- The previous first article date exceeds two years. Unless there is no lapse in production for two years or as specified.
- The name or location of the supplier has changed

**Note:** Sending a part in for Tooling Verification Only on castings is acceptable prior to submission of complete First Article. When submitting for Tooling Verification, certifications are not required.

---

### **E. Supplier Non- conformance Approval Requests (SNAR)**

Requests for any departures from drawings, specifications, or other purchase order requirements must be recorded and submitted on a "SUPPLIER NON-CONFORMANCE APPROVAL REQUEST (SNAR)" for consideration by Ontic. Material shipped on an approved SNAR must be accompanied by a signed Ontic approved copy of the SNAR.

**Note:** All SNAR's must be submitted for approval prior to shipment of parts.

---

*Continued on next page*

## Section 1, General Requirements, Continued

---

**F. Non-Conforming Materials Corrective Action (Rejection Notice)**

Upon notification from the buyer that material furnished by the supplier is found discrepant upon receipt at Ontic, the supplier shall promptly notify the buyer, in writing, of adequate and acceptable corrective action taken to eliminate the cause of the discrepancy. The Suppliers response shall include; (a) Root Cause of Defect, (b) Corrective Action Taken, (c) Action to Prevent Recurrence, and (d) Effectivity Point of such Corrective Action. If Government Source Inspection is a requirement on the purchase order, the supplier shall notify the cognizant Government Representative, so that he/she may participate in the investigation and corrective action if they so desire.

---

**G. Repair**

Under no circumstances shall a Supplier or a Supplier's Sub-tier perform any repair procedures/operations without specific written authorization and an approved repair procedure from Ontic.

---

**H. Corrosion Protection**

Material subject to corrosion shall be packaged and or coated with an acceptable preservative to prevent corrosion while in transit and storage (contact your purchasing representative or Manufacturing Engineering at Ontic for appropriate preservatives).

---

**I. Certification Traceability, General**

All certifications shall be traceable to the material submitted and shall contain the signature and title of the authorized representative of the seller. Serial numbers shall be listed if the components are serialized. Computer generated facsimile signatures will be accepted.

**Note:** All documentation received from a supplier annotating parts shipped from existing stock/inventory shall be accompanied by sufficient evidence, such as previous traceable lot and/or batch information.

---

*Continued on next page*

**Section 1, General Requirements, Continued**

---

**J. Records Retention**

The Supplier shall maintain adequate records of all First Articles, In-process, Final Inspections, Tests, CSI/CAI part data history. Inspection records shall indicate the nature and number of observations made the number and type of deficiencies found, the quantities approved and rejected, and the nature of corrective action taken, as appropriate. The First Article Inspection reports shall be in accordance with paragraph D of Section 1 of this document. Additional clause specific detail is found within the applicable clause.

This information and all supporting documentation such as raw material certifications, special processing records and certifications, manufacturing records, i.e., route sheets and travelers, shall be retained by the Supplier in accordance with the terms of the purchase order. When the Purchase Order is complete, such records shall be maintained and available to the buyer on request for a period of not less than ten (10) years from the closing of the purchase order unless stated otherwise on the purchase order.

Records shall remain legible, readily identifiable, and retrievable.

---

**K. Drawings Specifications and Quality Requirements**

The Suppliers Quality System shall assure that the latest applicable drawings, specifications, and quality requirements are compatible with current purchase order agreements and are available and in use by the Supplier's manufacturing and inspection areas. Military Standards and Specifications utilized shall be to the latest revision in effect on the date of the purchase order, unless otherwise specified

---

*Continued on next page*

**Section 1, General Requirements, Continued**

---

**L. Packing, Handling and Marking**

In performance of the contract, the Supplier shall assure that all articles are packaged in a manner and with materials necessary to prevent deterioration, corrosion, or damage. Requirements for packaging shall consider conditions affecting the article while at the supplier's plant, transportation to destination and the expected or specified conditions at the destination. The Supplier shall provide sufficient packaging for articles sensitive to handling damage. Electrostatic sensitive components shall be handled in accordance with the latest DOD-STD-1686 and EIA-625, "Electrostatic Discharge Control Program for the protection of electrical and electronic parts, assemblies and equipment". During fabrication and processing, special carts, boxes, containers and transportation vehicles shall be used as necessary to prevent damage due to handling. When packaging of small parts the use of staples is prohibited.

Marking shall be applied as specified by the engineering drawing or specification; if the engineering drawing or specification does not define marking method, marking shall be applied as instructed by specific purchase order notation. In the absence of drawing or PO imposed marking requirements, marking per MIL-STD-130 latest revision shall apply. Part(s) shall be marked with Cage Code MFR 45934 unless otherwise specified on the purchase order.

---

**M. Shelf-Life Material**

Unless otherwise specified on Purchase Order, all shelf-life materials shall be delivered to Ontic with a minimum of 75% shelf life remaining. The date of manufacture and expiration dates are required to be on the certification and the packaging.

---

**N. Mercury Free**

The use of mercury bearing instruments or equipment is prohibited during the fabrication assembly, testing or any phase of manufacture of any material furnished to Ontic.

---

*Continued on next page*

**Section 1, General Requirements**, continued

---

**O. Domestic Material**

Unless otherwise specified, all raw materials incorporated into the delivered item must be manufactured in the United States or shall otherwise be DFARs compliant. Qualifying countries as defined by Government DFARs shall be considered domestic. Ontic must approve exceptions to this requirement, prior to performance of the contract. In addition, a Conflict Minerals Assessment (EICC Template) will be required annually unless changes occur within the annual period, in which the supplier shall notify Ontic.

---

**P. Inspection Sampling – In Accordance With Ontic Requirements**

Unless otherwise specified in the Purchase Order and SQARs, the Supplier may use sampling procedures when tests are destructive or when quality history, inherent characteristics, statistically controlled processes or operation repeatability due to numerically controlled machines justify less than 100% inspection.

Sampling plans shall be in accordance ANSI Z1.4, with the exception that lot acceptance will always be: “accept on zero, reject on one”. Sampling plans other than ANSI Z1.4 must be approved in writing by Ontic for usage on Ontic products. Ontic will not approve any sampling plan which permits lot acceptance with defectives in the population sample.

---

**Q. Calibration System**

Supplier shall maintain a calibration system in compliance with Mil-STD-45662, ANSI/NCSL Z540-1, or ISO10012-1 latest revision.

---

**R. Foreign Object Prevention, Detection and Removal**

The supplier shall maintain a FOD (Foreign Object Damage/Debris) control program per the requirements of NAS-412. The FOD control program shall assure work is accomplished in a manner preventing foreign objects or material from entering and remaining in deliverable items. Maintenance of the work area and control of tools, parts, and material shall preclude the risk of FOD incidents. The supplier shall document and investigate all FOD incidents assuring elimination of the root cause. The Company shall have the right to perform inspection and/or audits as a method of verification that the supplier’s FOD control program is functional, documented, and effective. The supplier shall identify a FOD control person responsible for implementing FOD prevention awareness and training.

Prior to closing inaccessible or obscured areas or compartments during assembly the supplier shall inspect for foreign objects/materials. Tooling, jigs, fixtures, test equipment, and handling devices shall be maintained in a state of cleanliness and repair to prevent FOD. Supplier shall provide a statement of certification that deliverable products are free of any foreign materials that could cause damage to the product or to the components/systems of which the product is a part or to which the product is attached.

---

*Continued on next page*

## Section 1, General Requirements, Continued

---

### S. Supplier Change Notification

The supplier shall notify Ontic of all organizational and Manufacturing operational changes.

Those changes may include, but not limited to the following changes:

- Manufacturing Location
  - Organizational Leadership
  - Sub-Tier Suppliers (to include special processors)
  - AS9100, AS9110 / ISO9000 or NADCAP certification status
  - Manufacturing Capability
  - Ontic-owned tooling status(serviceability)
  - Product/process (related to Ontic destined product)
  - Configuration Management and Control
- 

### T. Supplier Self Reporting

Seller shall maintain a self-reporting process in compliance with CFR21.137.c

Seller shall notify the Supplier Quality Engineer and Buyer if seller becomes aware or suspects that is has furnished products, articles, or services that have been released from the seller and subsequently found not to conform to the Production Approval Holder's (PAH) requirements. The notification shall include the following:

- a. Ontic P.O. Number
  - b. Quantity shipped
  - c. Ontic Part Number
  - d. Drawing Revision
  - e. Serial Number
  - f. Lot number, if not serialized
  - g. Description of the nonconformance
- 

*Continued on next page*

## Section 1, General Requirements, Continued

---

### **U. Counterfeit/ Unapproved Parts/Material Prevention**

To ensure counterfeit work / unapproved parts are not delivered to the Buyer, the seller shall establish a counterfeit parts & material prevention plan in accordance with AS5553 (Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition, Ref. elements of Section 4 and AS6174 Counterfeit Material: Assuring Acquisition of Authentic and Conforming Material, Ref. Section 3 and Unapproved Parts per AS9110 8.1.5).

The purpose of the plan is to develop a robust process to prevent the introduction of counterfeit-unapproved parts/materials into Ontic's supply stream. Ontic suppliers providing electrical/electronic assemblies, equipment or systems shall ensure that only new and authentic materials are used in products delivered to Ontic. Ontic suppliers may only purchase component 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 Ontic. Ontic suppliers providing electrical/electronic assemblies equipment or systems shall maintain a method of item traceability that ensures tracking of the supply chain back to the OCM of all parts included in assemblies and subassemblies being delivered to Ontic. In accordance with AS5553 and DFARS 252.246-7007, Ontic suppliers providing electrical/electronic components shall establish and implement test and inspection activities necessary to assure the authenticity of purchased product, including at the minimum: Traceability and documentation verification and visual examination of components. Any tests and or inspections shall be performed by persons that have been trained and qualified concerning types and means of electronic parts counterfeiting and how to conduct effective product authentication.

If traceability is not obtainable, written notice shall be provided to the Supplier Quality Engineer and Buyer prior to delivery with records of evidentiary tests and inspections performed and conformance of the product to specified acceptance criteria that ensures verification activities taken to assure authenticity. Written notice is not required for raw material and standard hardware purchased from independent distributors or brokers, but products must be able to provide commodity level traceability to the Original Manufacturer.





## Section 1, General Requirements, Continued

---

### **U. Counterfeit/ Unapproved Parts/Material Prevention, continued**

Seller shall notify Supplier Quality Engineer and Buyer if seller becomes aware or suspects that it has furnished counterfeit work. Seller shall provide to Supplier Quality Engineer and Buyer, upon request, the supply chain traceability to an OEM or authorized distributor that identifies the name and location of all the supply chain intermediaries from the part manufacturer to the direct source of the product for the seller.

Seller eligible for utilization of the Government-Industry Data Exchange program (GIDEP) shall utilize that process to alert the industry of encountered counterfeit parts.

The seller shall plan, implement, and control a process that identifies and prevents the use of unapproved and suspected unapproved parts. This plan will include:

- Training in the awareness and identification of suspected unapproved parts
- Procurement requirements for assuring traceability of parts and components to an authorized source
- Inspection processes to detect suspected unapproved parts
- Monitoring of suspected unapproved parts reporting from external sources

Quarantine and reporting of suspected unapproved parts in accordance with applicable requirements from Ontic

---

### **V. Material Validation**

When seller provided test reports are utilized to verify externally provided products, the seller shall implement a process to evaluate the data in the test reports to confirm that the product meets requirements. When Ontic has identified raw material as a significant operational risk, the seller shall implement a process to validate the accuracy of test reports.

---

*Continued on next page*

**Section 1, General Requirements, Continued**

---

**W. Non-deliverable Software Control**

The seller must have a process to control non-deliverable software, such as CNC programs.

---

**Y. Awareness**

The seller must ensure that persons are aware of:

- Their contribution to product or service conformity
  - Their contribution to product safety
  - The importance of ethical behavior
- 

**Z. Calibration Provider**

Calibration Provider to provide records of each item of equipment and all reference materials significant to the calibrations/verifications performed per requirements in ANSI/NCSL Z540-1; including page 2 of the certificate with the calibration result values.

---

*Continued on next page*

## Section 2, Specific Requirements

---

### 1. Process Approvals

The following shall apply unless otherwise specified on the Purchase Order/Drawing.

Special processes such as welding, heat treating, plating, coating, non-destructive testing, etc. must be performed by one of the following sub-tier suppliers:

- NADCAP approved suppliers
- Ontic approved suppliers
- Ontic Customer approved suppliers

The current approval status of Non-NADCAP approved sub-tiers must be confirmed with Ontic prior to performing the process. Contact your Ontic buyer to determine current approval status.

Sub-contract processing of product, that the suppliers were contracted to perform is prohibited by Ontic. Suppliers shall perform all processes, with the exception of those mentioned above. All deviations to this requirement require the written approval of Ontic Quality department.

---

### 2. Quality Assurance System Requirements

Supplier shall maintain a Quality Program in compliance with ISO9001 or AS9100/AS9110 requirements based on processes performed by the supplier. Ontic Quality will detail specific element compliance based on Engineering and Quality requirements imposed for awarded product

Existing Ontic Suppliers maintaining Mil-Q-9858 or Mil-I- 45208 Quality Systems with additional capabilities can continue to provide product while transitioning to ISO/AS based Quality Management Systems.

Supplier shall comply with "Standard Inspection Requirements" FAR 52.246 latest Rev.

**2a.** Supplier must have third party registered Quality Management System to the latest revision of either ISO 9001 or AS9100/AS9110 when SQAR 2a is imposed.

---

*Continued on next page*

## Section 2, Specific Requirements, Continued

- 
- 3. Source Surveillance by Ontic** When this SQAR is imposed, the Ontic Quality Representative shall perform evaluation/ acceptance of product at the supplier’s facility. This will include surveillance of the products and supplier’s systems, procedures, and facilities. The supplier shall furnish, at no cost, the necessary facilities and equipment, supply data, and perform tests/inspections as required by applicable drawings, specifications, or Ontic directed Inspection Instructions under surveillance of Ontic Supplier Quality Representative. The supplier is to notify Ontic Buyer, requesting source surveillance at a minimum of 48 hours in advance of desired inspection date.
- 
- 4. Source Inspection by Government Agency or Ontic Customer** **Mandatory GSI** - Government inspection is required prior to shipment from your plant. Promptly notify the Government Representative who normally services your plant so that appropriate planning for Government Inspection can be accomplished. On receipt of this order, promptly furnish a copy of this P.O. to the Government Representative who normally services your plant. In the event the representative or office cannot be located contact the cognizant Ontic buyer immediately.
- 
- 5. Metallurgical First Article** The supplier shall furnish evidence that all material qualification tests and inspections have been performed and results meet the applicable material specifications and drawings. Samples of physical properties test such as grain flow, case depth, EDM recast layer, intergranular attack, etc. shall be included in the shipment when applicable.
- 
- 6. First Article Requirement** Compliance to requirements shall be verified by performance of a first article inspection. First article inspection reports shall include S/N when applicable, all drawing dimensions, notes, and tolerance range along with actual measurement results, and where physical testing is required, the results of the tests. First Article parts shall be identified as "First Article" by tagging, separately packaging them, or other suitable means. The first article shall be in accordance with Section 1, paragraph D.
- 
- 7. Cast Test Bars** The supplier shall furnish two test bars representative of each heat treat lot, poured from the same melt as the castings supplied. Test bars shall be permanently identified with the supplier’s name or trademark, melt, heat treat lot number, and alloy type. The supplier shall retain the test bars for a period of not less than ten (10) years, and must be made available to Ontic upon request. Test bars stored at the supplier’s facility shall not be destroyed, during storage period, without prior written approval from Ontic purchasing.
- 

*Continued on next page*

## Section 2, Specific Requirements, continued

---

### 8. Forging Test Bars

**A)** The supplier shall furnish with each shipment of forging: two test bars produced from the same heat of material as the forging supplied. Test bars must have the same percentage of reduction as parts supplied, and shall be permanently identified with the supplier's name or trademark, material heat number, heat treat lot number and alloy identification.

**B)** The supplier shall comply with (A) above except that the test bars shall be retained by the forging facility for a minimum of 10 years and be made available to Ontic upon request. Test bars stored at the supplier's facility shall not be destroyed during the storage period without prior written approval from Ontic purchasing.

---

### 9. Certificate of Conformance

A legible and reproducible copy of a Certificate of Conformance must accompany each shipment. The certificate must include the following:

- a. Supplier Name and Address
  - b. Ontic P.O. Number and quantity shipped
  - c. Ontic Part Number
  - d. Drawing Revision
  - e. Serial Number, if applicable
  - f. Manufacturing Plan Revision (when applicable)
  - g. Operation Number (when applicable)
  - h. Signature and title of authorized representative
  - i. Processes performed, required by blue print note, specification or purchase order, to include:
    - j. Process
    - k. Specification
    - l. Process Certification Number and Ontic Approved Supplier(s) used for processing (when applicable)
    - m. Sub-Assembly Part Number(s) with latest revision (when applicable)
    - n. Sub-Assembly Process, Specification, Certification Number and Ontic Approved Supplier used (when applicable)
    - o. Lot number, if not serialized
    - p. Indication that products were manufactured from materials on which the seller has records of material conformance
- 

*Continued on next page*

## Section 2, Specific Requirements, continued

---

**9. Certificate of Conformance,**  
continued

The certificate of conformance must contain a statement that all inspection and tests have been performed as required by drawing, specification and/or purchase order. The certificate must list each special process that appears on the drawing such as: heat treat, non-destructive examination, and plating or coating, etc. Perishable products controlled by batch number or cure date and products controlled by heat number will have applicable controlling number on the individual certificate. Blanket statements of conformance are unacceptable, as are statements of belief rather than fact.

---

**10. Deleted**

---

**11. Deleted**

---

**12. Physical and Chemical Test Reports**

Each shipment must be accompanied by a physical/chemical test report as required by the applicable material specification. The report must contain the signature and title of the authorized representative of the facility performing the tests and shall assure specification conformance.

---

**13. Functional Test Certifications**

Each shipment must be accompanied by a legible and reproducible copy of the actual tests results required for the products in the shipment. This certificate must contain the signature of the authorized representative and assure conformance to specified requirements.

---

**14. Statistical Process Control**

When imposed on the purchase order, supplier will submit (1) copy of required Statistical Process Control charts to verify control improvement and analysis of processes (i.e.; X Bar R charts, histograms, etc.). Capability analysis may be imposed by Purchase Order to demonstrate supplier's process performance.

---

*Continued on next page*

## Section 2, Specific Requirements, continued

---

### **15. Process Certification**

Each shipment must be accompanied by legible and reproducible copy of a certificate containing the signature of an authorized representative for all processes used, such as heat treating, welding, surface preparation and treatment, etc. The certificate shall include the process used, the specification and revision to which it conforms (including any superseding specifications with revision), results of any testing and the name of the sub-tier that performed them if other than the supplier. When parts are serialized, serial number must appear on the certification.

---

### **16. Frozen Process**

When this SQAR is imposed by purchase order, any process utilized in the production of the supplier's, Ontic approved, First Article that Ontic identifies as critical must be adhered to. This includes all specified equipment, tooling, process steps and sequencing involved in the production of the completed article including any outside processing. The First article production piece will be submitted with the critical process description and any associated method sheets, this will be the mandated process for continued production of the products.

Any changes to any aspect of the manufacturing processes designated as critical must be submitted to Ontic and approved prior to implementation of those changes in the frozen critical process. Failure to adhere to this requirement will subject the product to material rejection. Ontic will work expeditiously to support the supplier's request for change in processes identified as critical and will provide such approval in writing noting the nature of the changes and affectivity date or S/N.

---

*Continued on next page*

## Section 2, Specific Requirements, Continued

---

### **17. Non-Destructive Test Reports**

A Non-Destructive Test is to be performed 100% unless otherwise specified on the Purchase Order/Drawing. A legible and reproducible copy of actual non-destructive test results identifiable with acceptance requirements and material submitted shall accompany each shipment. These reports must contain the signature and title of the authorized representative of the agency performing the inspection and must assure conformance to specified requirements.

Fluorescent Penetrant - Magnetic Particle, Radiographic and other non-destructive evaluation processes as referenced on drawings and/or specifications shall be performed by an approved Ontic source in accordance with applicable standards.

Parts that have been accepted using FPI or Magnetic particle inspection shall be marked per the applicable non-destructive test specification. Unless otherwise specified, radiographic inspection of castings shall be performed after all heat-treat operations. Radiographic techniques shall be submitted to Ontic for prior approval if required by Purchase Order.

---

### **18. Heat Treat Report**

Each shipment shall be accompanied by a legible and reproducible copy of the detailed heat treatment cycle used. Details to include: Drawing requirement, specification, date, time, temperature, and quench method as applicable. Inspection reports must accompany the heat treat report. The report must contain the signature and title of the authorized representative of the agency performing the tests and inspections.

---

*Continued on next page*



## Section 2, Specific Requirements, Continued

---

**19. Rubber Components/Raw Material & Assembly Cure Date**

Rubber products used in assemblies shall meet the age requirements of MIL-STD-1523, MIL-HDBK-695D, or SAE-AS1933, as applicable. In addition, all assemblies shall be marked with the cure date of the oldest rubber part in the assembly, as well as the date of assembly. Marking may be accomplished by decal, rubber stamp, or bag and tag.

Each package of rubber components shall be marked with Ontic part number and revision, quantity and shelf life/expiration date. Date of cure for "O" rings shipped to Ontic shall be within 8 quarters and shall not be less than 1/2 the shelf life from date of manufacture (cure date). If no packaging requirements are stated on the purchase order, then bulk packaging is acceptable.

---

**20. Raw Material Certification**

Each shipment shall be accompanied with legible copies of the material certification as furnished by the raw material supplier or an independent test laboratory. Material certifications must agree in all respects with the raw material requirements of their applicable specifications. Unless otherwise specified, all certifications shall state the latest revision of the Specification that the material is being certified to as a minimum.

---

**21. Mill Heat Control/Mill Certification**

All items supplied in this shipment must have:

- Assigned serial numbers and must be consecutive within a mill heat.
  - All items covered by this Purchase Order must be from the same mill heat.
  - Actual mills certification required.
- 

**22. Synthetic Rubber Components Hardness Readings**

When required by drawing notes and/or purchase order requirements, certifications with the noted readings for Durometer or other applicable hardness reading pertaining to rubber/synthetic rubber products shall be provided for each lot of parts submitted to Ontic. Each lot shall be identified and packaged separately.

---

*Continued on next page*

## Section 2, Specific Requirements, Continued

---

### **23. Electrical Component & Assembly Requirements**

All electronic assembly and soldering shall conform to the criteria established in IPC-A-610, J-STD-001, current revisions, or any other criteria established in the process standard(s)/specification(s) stated on the Ontic Purchase Order and/or on the engineering drawing.

Technicians performing work on and inspectors engaged in final acceptance of electrical/electronic products for purchase by Ontic shall be Certified Application Specialists per IPC-A-610, J-STD-001, current revisions, or certified per any other process standard(s)/specification(s) stated on the Ontic Purchase order and/or on the engineering drawing, as applicable.

Tin/Lead Solder only shall be used in assembly processes associated with product supplied to Ontic. All constituent electrical/electronic components (to include printed circuit boards) assembled to product supplied to Ontic shall be installed using Tin/Lead solder on the connections even if the component terminations are Lead Free.

In accordance with AS5553 (Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition), Ontic suppliers providing electrical/electronic assemblies, equipment or systems shall ensure that only new and authentic materials are used in products delivered to Ontic. Ontic suppliers may only purchase component 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 Ontic.

---

*Continued on next page*

## Section 2, Specific Requirements, continued

---

**23. Electrical  
Component &  
Assembly  
Requirements,  
continued**

Ontic suppliers providing electrical/electronic assemblies shall maintain a method of item traceability that ensures tracking of the supply chain back to the OCM of all electrical, electronic and electromechanical parts included in assemblies and subassemblies being delivered to Ontic.

In accordance with AS5553, Ontic suppliers providing electrical/electronic components shall establish and implement test and inspection activities necessary to assure the authenticity of purchased product, including at the minimum: Traceability and documentation verification and visual examination of components. Any tests and inspections shall be performed by persons that have been trained and qualified concerning types and means of electronic parts counterfeiting and how to conduct effective product authentication.

---

**24. Welding/  
Brazing  
Requirements**

All welding/brazing shall conform to the criteria established in the specification or workmanship standard noted on the applicable engineering drawing or Ontic Purchase Order. Certification to the imposed specification shall be provided with each order supplied.

---

**25. FAA Repair  
Station  
Requirements/  
Drug Screening  
Program  
Requirements**

When this clause is imposed, the supplier shall be an FAA certified repair station with current, accepted drug and alcohol screening program. The supplier shall assure they are approved for the work to be accomplished under their operations specifications. The supplier shall provide an 8130-3 release to service tag for all work performed, or an acceptable statement of airworthiness.

The sub-contractor will report product malfunctions, defects and unairworthy conditions, where known.

---

**26. Designated  
Quality  
Representative**

This clause is invoked when the supplier has an authorized Designated Quality Representative (DQR) within their company and is authorized to process this product in accordance with Ontic procedures.

---

*Continued on next page*

## Section 2, Specific Requirements, Continued

---

**27. Counterfeit Parts/Material Prevention** Moved to Section 1 item U.

---

**28. Direct Shipment Authorization**

This clause is invoked when the supplier is authorized to ship directly to Ontic Chatsworth's customer(s) on Ontic's behalf. In addition to meeting the requirements imposed by SQAR 26, the supplier shall:

- Maintain certification to AS9100
- Direct ship the article
- Meet any special customer requirements that are accepted by the Ontic Chatsworth
- Maintain evidence of DSA granted by Ontic Chatsworth
- Maintain evidence of direct shipments made on behalf of Ontic Chatsworth
- Provide with the shipment a signed direct ship declaration
- Provide with the shipment a signed/stamped statement of conformance certifying that the article conforms to approved data
- Provide with the shipment traceability to the customer purchase request
- Provide Ontic with a copy of the Certificate of Conformance stamped by the supplier's DQR
- Provide the Ontic buyer with a copy of the Airway Bill when the product is shipped
- Submit a SNAR for approval of any non-conformances prior to shipment of parts

Shipments that require a First Article Inspection are not authorized for Direct Shipment. Any related records shall be retained per Section 1J and be made available upon request.

---