

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS**WORK INSTRUCTION NO.: PQ1504****REV:AE****Department Manager:** Nancy Grams**Director of Quality:** Scott Tillotson

REV	ECO	DESCRIPTION OF CHANGE	EFFECTIVE DATE
J	16710	Converted to new Work Instruction Format; multiple changes to Variable Requirements, added Code 35.	12/1/99
K	18275	Re-format cover sheet and remove all reference to Cokato & New Hope as applicable.	09/30/02
L	18345	Modified paragraph E of General Requirements to clarify right of entry (ref: ISO9000/AS9100 audit)	10/3/02
M	21727	Added general codes Z and AA, removed reference to specific document revisions. Updated 3.2 Codes 1-5, 19, 20, 24-27 and 31.	07/25/06
N	24504	Added 3.1.AB 3.2.36, 3.2.37 & 3.2.38. Updated 3.2.31 & 3.2.31.6	08/18/09
P	24598	Updated 3.1 A, E, F, G O, P Q, R, S, U, X, Y and AA. Updated 3.2 codes 1-3, 5, 7, 9-10, 14-16, 19-20, 26, 28, 31-32 and 37-40	10/2/09
R	26032	Update codes 19,21,22,23, added 41	11/1/11
T	26163	Updated 3.1 Z for DFARS and added AD for counterfeit parts	6/13/12
U	26196	Update sect E	8/27/12
V	26339	Change variable PQ code 3	12/10/12
W	26371	Added AE	1/9/13
Y	27199	Counterfeit statement and specialty metals update	8/4/14
Z	27923	Revise variable code 31.	3/1/16
AA	28128	Changed company name from AbelConn LLC to AbelConn Electronics throughout the document; revised code G (CAR 2274)	8/15/16
AB	28879	CAR 2420; Major revision	8/27/18
AC	29028	Revision to PQ code AD	12/6/18
AD	29324	Update G from Records to Retained documented information throughout the document. Updated Dept. Manager. Made format corrections.	08/12/19
AE	29516	Update Code 2 for gold removal flow down. (CAR 2526)	01/20/2020

1.0 PURPOSE AND SCOPE

1.1 This document establishes the basic AbelConn Electronics Quality Requests for external providers necessary to insure that purchased products/services meet the desired quality levels.

2.0 APPLICABLE EQUIPMENT/DOCUMENTS

None

3.0 PROCEDURE**3.1 GENERAL REQUIREMENTS**

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS	
WORK INSTRUCTION NO.: PQ1504	REV:AE

- A. **APPLICABILITY:** These general requirements shall apply to AbelConn Electronics external providers whenever PQ1504 is invoked by Purchase Order.

IMPORTANT: Variable Requirements, Paragraph 3.2 of this document does not apply unless specifically invoked on the Purchase Order by Code Number. Other specifications apply when referenced on drawings or the Purchase Order; applicable revision status of such specifications shall be the revision in effect on date of Purchase Order, unless otherwise specified in the Purchase Order or related documents. However, applicable revision status of procured/deliverable items shall always be as specified in the Purchase Order or related documents.

In cases where other documents conflict with these requirements, the order of precedence is: purchase order, master drawing, specifications, and then this document.

- B. **TO OBTAIN SPECIFICATIONS:** When required, the external provider may obtain copies of pertinent specifications through the AbelConn Electronics Materials Department or the cognizant government agency, if a government specification.
- C. **EXTERNAL PROVIDER ASSISTANCE:** In the event that requirements are not completely clear, or where special assistance is needed, AbelConn Electronics will provide qualified personnel to consult with the external provider. Requests for assistance shall be made via the AbelConn Electronics Materials Department. If inquiries pertain to quality aspects of supplies or services being procured, AbelConn Electronics Quality Engineering may be contacted.
- D. **EXTERNAL PROVIDER'S QUALITY CONTROL SYSTEM:** The external provider's Quality Control System shall conform to the General Requirements of PQ1504 and other applicable specifications when invoked by Purchase Order.
1. Organization - Quality Control responsibility shall be clearly designated within the external provider's organization. Personnel having this responsibility shall have sufficient authority to assure that quality not be compromised.
 2. Procedures - The external provider's Quality Control system shall be implemented by written procedures which adequately provide for compliance with the requirements of the Purchase Order.
- E. **RIGHT OF ACCESS:** The external provider shall allow AbelConn Electronics, AbelConn Electronics' customer, appropriate regulatory agencies, and/or government representatives' access to the applicable areas of all facilities, at any level of the supply chain, involved in the purchase order and to all applicable retained documented information.
- F. **SUPERSEDED OR CANCELLED SPECIFICATIONS:** The current revision, at the time of order acceptance, of a flowed-down specification shall be used. If a specific revision is identified on the master drawing or specifications, the current revision, at the time of order acceptance, of a flowed-down specification shall be used. For flowed-down specifications that have been superseded, the external provider is to use the superseding document. In cases where a flowed-down specification has been cancelled without replacement, the cancelled specification shall still be used. If specific documents and/or revisions are required to be used, they will be noted on the purchase order.
- G. **RETAINED DOCUMENTED INFORMATION:** The external provider shall maintain adequate retained documented information of inspections, tests, and other Quality Control activities. Retained documented information shall provide objective evidence of the Quality Control operations performed, the results obtained and corrective actions taken. Such retained documented information

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS

WORK INSTRUCTION NO.: PQ1504

REV:AE

shall be available to AbelConn Electronics upon request. Retained documented information is subject to audit by AbelConn Electronics at any time. Where such retained documented information is traceable by serial or lot designation to material supplied by AbelConn Electronics, and shall be retained for a period of at least fifteen years.

- H. **FINAL ACCEPTANCE:** Inspection/test acceptance at the external provider facilities by AbelConn Electronics or the Government does not guarantee final acceptance. Final acceptance shall be at AbelConn Electronics unless otherwise specified on the Purchase Order.
- I. **CONFORMANCE RESPONSIBILITY:** Surveillance, inspection and/or test conducted by AbelConn Electronics or representatives of any customer or government agency at the external provider or AbelConn Electronics facility shall not relieve external provider of their responsibility in meeting the quality requirements of the Purchase Order.
- J. **SAMPLING:** AbelConn Electronics reserves the right to use ANSI/ASQ Z1.4 or equivalent sampling plans for the acceptance or rejection of supplies. If a lot is rejected by the sampling procedure, the entire lot may be returned to the external provider for screening at the external provider expense, or AbelConn Electronics may screen the rejected lot at the external provider's expense (if agreed to by the external provider).
- K. **CERTIFICATION REQUIREMENTS:** The external provider is responsible for compliance with all certification requirements referenced through the Purchase Order and for the maintenance of Quality Control retained documented information evidencing compliance with such requirements, regardless of whether work was performed by the external provider or his lower-tier external providers.
- L. **ABELCONN ELECTRONICS QUALITY ASSURANCE REPRESENTATIVE:** AbelConn Electronics may, at its discretion, provide resident or itinerant Quality personnel whose function shall be to survey external provider operations, assist the external provider in the resolution of quality problems, and witness at any stage (subject to proprietary considerations) the manufacture, processing, test, and inspection of items being manufactured for AbelConn Electronics. The scope of external provider operations, as well as the volume of AbelConn Electronics work being produced, will determine in part the need for surveillance and a resident or itinerant Quality assurance representative. Copies of applicable specifications and documents shall be made available to the AbelConn Electronics Quality Representative.
- M. **DRAWING AND CHANGE CONTROL:** The external provider's system shall assure that the latest applicable drawings, specifications, technical requirements, Purchase Order information and changes thereto will be available at the time and place of external provider's acceptance of material. All changes shall be processed in a manner that will assure incorporation on the affected supplies at specified affectivity points.
- N. **DESIGN:** When design is the external provider's responsibility but requires AbelConn Electronics approval, changes shall not be made without written authorization from AbelConn Electronics.
- O. **PROCUREMENT BY THE EXTERNAL PROVIDER:** The external provider shall maintain a system to assure that all externally provided processes, products, and services, including from sources defined by the customer, conform to drawing and specification requirements. The external provider shall ensure, when required, that customer-designated or approved external providers, including process sources (e.g., special processes) are used. The external provider shall identify and manage the risks associated with the external provision of processes, products and services, as well as the

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS	
WORK INSTRUCTION NO.: PQ1504	REV:AE

selection and use of external providers. Applicable Quality Control requirements shall be flowed down to external providers in every tier. The implementation of such controls shall be subject to surveillance by AbelConn Electronics.

- P. **SPECIAL PROCESSES:** The external provider shall establish a system to assure that thermal, chemical, metallurgical or other special processes, the control of which cannot be readily determined by inspection of the part, will be performed in accordance with specification requirements in adequate facilities, by competent personnel using proper procedures. Those processes to which Government specifications apply are subject to the applicable requirements regarding certifications or approval by Government agencies. When special processes are performed outside the external provider's facility, it shall be the external provider's responsibility to assure proper performance of all such processes through surveys, certification, testing, etc. These special processes include but are not limited to welding, x-ray, magnetic particle inspection, fluorescent penetrate inspection, heat-treating, plating, anodizing, etc.
- Q. **INSPECTION:** The external provider shall perform inspection and/or test on end items covered by the Purchase Order prior to submission to AbelConn Electronics or prior to delivery. Inspection/test of supplies which cannot be readily examined in the completed products must be performed at the appropriate in-process stages of manufacturing. Adequate retained documented information of inspection/tests must be maintained by the external provider.
- R. **MATERIAL REVIEW AUTHORITY:** The external provider shall not exercise Material Review authority without written approval by AbelConn Electronics Materials Department.
- S. **PRESENTATION AND PACKAGING:** (The following applies only when specific packaging and preservation instructions are not invoked in the Purchase Contract):
1. All material intended for AbelConn Electronics shall be protected against the usual hazards of corrosion, contamination, deterioration, or other spoilage at the external provider's facility and in-transit.
 2. All material intended for AbelConn Electronics shall be packed with suitable protection so as to prevent damage through handling, storage at the external provider's, in-transit and during storage at AbelConn Electronics before use.
 3. All electrostatic sensitive material must be protectively packaged to avoid damage due to electrostatic discharge. Each container and outer pack shall be labeled "Caution: Contents are Electrostatic Sensitive." Use of "pink poly" packaging material for electrostatic sensitive material is prohibited.
- T. **SERIALIZATION:** Serialization of product assemblies and subassemblies manufactured for AbelConn Electronics shall be applied only in accordance with specific instructions from AbelConn Electronics.
- U. **TOOL AND TEST EQUIPMENT CONTROL:** All tooling and test equipment fabricated by the external provider at AbelConn Electronics expense, or supplied by AbelConn Electronics for external provider use, shall be considered property of AbelConn Electronics and/or the procuring government agency. Such tooling and test equipment shall be inspected, calibrated and controlled.
- V. **MEASURING AND TEST EQUIPMENT CALIBRATION SYSTEM:** The external provider shall provide and maintain suitable gages, instruments and test equipment to measure and test all supplies for conformance to AbelConn Electronics requirements.

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS	
WORK INSTRUCTION NO.: PQ1504	REV:AE

- W. **CORRECTIVE ACTION:** The external provider's Quality Control system shall provide means for ready detection of discrepancies and for prompt and effective corrective action. Corrective action must be positive and specific, including firm affectivity points by serial number, part number, date or other agreed methods. Corrective actions records and retained information, such as pertinent data on defects and failures, shall be available.
1. The external provider is responsible for initiation of prompt replies to AbelConn Electronics and implementation of required corrective action.
 2. When AbelConn Electronics requires corrective action for Government source-inspected items, the external provider shall coordinate such action with the Government Source Inspector at his plant.
- X. **AGE CONTROL:** The external provider shall have an adequate system of age control for items where acceptability is limited by maximum age. The system must include a method of identifying the age of such items and provisions for the rotation of stock. Date of manufacture and/or expiration date for age-sensitive materials shall be provided to AbelConn Electronics with each shipment.
- Y. **PROHIBITED PRACTICES:** The following acts or practices are typical of those prohibited.
1. Unauthorized Repair - Repairs of parts damaged or found faulty in the fabrication process by welding, brazing, soldering or the use of adhesives, holes in castings, forgings or other materials by plugging or bushing, and unpopulated printed boards without authorization from AbelConn Electronics.
 2. Unauthorized Processing - Addition, revision or deletion of thermal, chemical or electrochemical processes in manufacturing when processes are subject to specification control by AbelConn Electronics.
 3. Disregard of Approvals - Change in any process or Quality Control procedure that is subject to specific approval by AbelConn Electronics without proper notification and preapprovals.
 4. Improper Material Submittal - Submission of material having known defects/problems to AbelConn Electronics without notification.
 5. Improper Material Resubmittal - Resubmission of material to AbelConn Electronics without material being clearly identified as resubmitted material.
- Z. **PREFERENCE FOR DOMESTIC SPECIALITY METALS:** As applicable the external provider shall supply materials in conformance with clauses: DFARS 252.225-7014, DFARS 252.225-7008, DFARS 252.225-7009, DFARS 252.225-7010. All clauses prohibit AbelConn Electronics and all of its external providers at every tier from incorporating specialty metals into military parts, components and/or end item deliverables unless the specialty metals have been smelted (the Deviation clause adds "or produced") in the United States, its outlying areas, or a qualifying country listed in DFARS 225.872-1. A Certificate of Conformance signed by an authorized representative is required with each shipment stating that all items supplied conform to the purchase order requirements. The data supporting the Certificate of Conformance must be on file and available for review by AbelConn Electronics, if requested.
- AA. **LEAD FREE:** The electronics industry has shifted towards implementation of lead free manufacturing due to an industry wide need to comply with the European Union's Restriction of Hazardous Substances (RoHS) and waste electrical and electronic equipment (WEEE) Directives.

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS

WORK INSTRUCTION NO.: PQ1504

REV:AE

This has increased the use of pure (>97%) tin and other lead free finishes on component terminations and the use of lead free solders on subassemblies. AbelConn Electronics' current position on this issue is as follows: 'Unless specifically approved by AbelConn Electronics, the usage of pure tin plating in all products and purchased/subcontracted parts is to be avoided. If there is no alternative finish available, AbelConn Electronics shall be notified immediately to that fact.' AbelConn Electronics considers any change from a tin-lead to lead free solder composition to be a major change due to the potential of such changes to impact the Service Life and Reliability of electronics products.

- AB. **ELECTRONIC/MECHANICAL COMPONENTS** (including PBs) and wires to be soldered shall meet the solderability requirements of J-STD-002 or equivalent and printed boards meet the requirements of J-STD-003 or equivalent.
- AC. **CHANGE NOTIFICATION:** The external provider is required to notify the buyer of any change of significance, such as:
1. Change to Facility/Processing Equipment. A facility change is a change in or to tools, test equipment, measuring or aligning fixtures, processing tanks or equipment, machinery, machine set-ups, other plant manufacturing equipment, etc., used to manufacture, inspect and/or test the item.
 2. Change to Procedures. A change in or to the methods, procedures, planning and/or sequencing used in or applicable to the manufacturing, processing, assembly, inspection and/or test of an item.
 3. Change in Location. Changing the location of the site where some, or all, of the work on items are performed. It may be as little as moving an assembly line, and it may or may not involve a change in facilities, procedures, personnel and/or processing sources.
 4. Change in Source or Processing. Such changes may be from an outside processing source to within the external provider's facility, from within the external provider's to an outside source, or from one outside processing source to another.
 5. Interruption of Production. A complete First Article Inspection and/or Test will be required prior to shipment of hardware if two or more years have elapsed since the last production item was produced.
 6. PB Material Changes. Any change to materials used to fabricate a printed board.
- AD. **COUNTERFEIT PARTS:** The external provider shall purchase material directly from OEMs or OCMs or from Authorized Distributors of OEMs or OCMs and shall obtain approval from the AbelConn Electronics Buyer if items required to satisfy this order cannot be procured from these sources. The external provider shall warrant that only new and authentic materials are used in goods or services delivered to AbelConn Electronics. The external provider warrants that the goods or services delivered or sold to AbelConn Electronics contain no counterfeit items. If parts supplied to AbelConn become the subject of a legal or counterfeit issue, the external provider shall disclose the source of those parts. External providers of electronic components shall comply with SAE AS5553, Counterfeit Electronics Parts; Avoidance, Detections, Mitigation and Disposition.
- AE. **MOISTURE SENSITIVITY:** The external provider must package and indicate the Moisture Sensitivity Level (MSL) per J-STD-033 on all items. All moisture sensitive devices must be vacuum sealed in a moisture barrier bag with the MSL classification on that bag.

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS

WORK INSTRUCTION NO.: PQ1504

REV:AE

- AF. **CONFORMANCE, PRODUCT SAFETY AND ETHICS AWARENESS:** For AS9100 programs: external provider shall ensure that personnel are made aware of their contribution to conformance of products or services, to product safety and the importance of ethical behavior. The External provider shall also ensure flow-down of these requirements to relevant sub tier external providers.
- AG. **CONFLICT MINERALS** – Publicly traded external providers shall cooperate with Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act to ensure that no Conflict Minerals (i.e. materials containing tantalum, tin, tungsten or gold) sourced from the Democratic Republic of the Congo or adjoining countries are used in the manufacture of the External provider’s product. External provider shall show due diligence in monitoring and/or controlling their supply stream, and ensure appropriate flow downs to sub tier external providers or subcontractors. External provider shall provide a report upon request on their status regarding Conflict Minerals.
- AH. **EXTERNAL PROVIDER PERFORMANCE REVIEWS** – Active and approved organizations that supply critical product, materials and services that directly influence the quality of AbelConn manufactured products are subject to periodic performance reviews. Organizations with less than adequate performance will be required to take immediate corrective and preventive action. A failure to adequately address AbelConn performance issues in a timely manner may result in disqualification and loss of business.
- AI. **HAZARDOUS MATERIALS** -- External provider shall mark all containers with appropriate precautions, warnings, instructions, and storage conditions. Safety Data Sheets (SDS, formerly Material Safety Data Sheets or MSDS) must accompany each shipment.
- AJ. **ITAR** -- The external provider shall adhere to the ITAR compliance requirements for performing work or service involving ITAR compliance. In accordance with ITAR 22 C.F.R. 120-130, International Traffic in Arms Regulation, all documents identified as ITAR controlled shall be identified, maintained in Document Control and segregated from non-ITAR documents. Documents identified as ITAR controlled shall be viewed only by a U.S. PERSON. A U.S. PERSON means an entity that is: a U.S. Citizen or a Legal Resident, or U.S. organization incorporated to do business in the United States.

3.2 VARIABLE REQUIREMENTS

THESE ADDITIONAL SPECIFIC REQUIREMENTS APPLY ONLY WHEN CALLED OUT ON THE PURCHASE ORDER BY SPECIFIC CODE NUMBER.

- Code 1 The Seller shall comply with the provisions of ISO9001 or AS9100.
- Code 2 For the parts processed on this Purchase Order, gold shall be removed: A. From at least 95% of the surfaces to be soldered of the through-hole component leads with $>2.54 \mu\text{m}$ (100 μin) gold thickness and all through-hole leads that will be hand soldered regardless of gold thickness. B. From 95% of all surfaces to be soldered of surface mount components regardless of gold thickness. C. From the surfaces to be soldered of solder terminals plated with $>2.54 \mu\text{m}$ (100 μin) gold thickness and from all solder cup terminals, regardless of gold thickness. A double tinning process or dynamic solder wave may be used for gold removal. Refer to J-Std-001 for further information.
- Code 3 The Seller shall comply with the provisions of "Calibration System Requirements" ANSI/ISO/IEC 17025

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS	
WORK INSTRUCTION NO.: PQ1504	REV:AE

- Code 4 One copy of Quality Conformance Inspection Data pertinent to the material lot must be supplied with each shipment.
- Code 5 Not used.
- Code 6 Certified, actual, quantitative chemical and/or detailed mechanical test reports for raw material shipped to AbelConn Electronics and/or used against this Purchase Order must accompany shipments and be included with the packing slip. Reports must validate compliance to current raw material procurement specifications as required.
- Code 7 The Seller must supply Certificates of Compliance for all special processes performed as a part of this Purchase Order. Sellers of material requiring special processes shall maintain a file of all documents and data, certification, reports, etc., for the special processes used. Documents and data shall be available for AbelConn Electronics and/or Government review.
- Code 8 Certified copies of quantitative test results, obtained from all electrical or mechanical tests of each device covered by this Purchase Order, must accompany each shipment.
- Code 9 Not used.
- Code 10 Not used.
- Code 11 During performance on this order, your Quality Control or Inspection system and manufacturing processes are subject to review, verification and analysis by authorized Government representatives. Government inspection or release of product prior to shipment is not required unless you are otherwise notified. You shall provide a copy of this order to your Government representative upon his request.
- Code 12 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 can be accomplished for Government inspection.
- Code 13 AbelConn Electronics Source Inspection may be required prior to shipment from your plant. Notify AbelConn Electronics Materials Department 72 hours in advance of need for inspection, so that AbelConn Electronics may exercise its Source Inspection option. If Source Inspection is required, the external provider shall make available to the AbelConn Electronics Quality Representative any necessary specifications, measuring or test equipment, documents, facilities and assistance.
- Code 14 Not used.
- Code 15 Not used.
- Code 16 Not used.
- Code 17 Articles must be individually or compartmentally packaged.
- Code 18 Articles must be individually packaged.
- Code 19 Parts/device certification is required and must be from the actual manufacturer. A certified statement that parts/devices conform to applicable specifications shall accompany shipment and be enclosed with the packing slip. The Certificate shall indicate the “Part/Device” country of origin.
- Code 20 Not used.

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS

WORK INSTRUCTION NO.: PQ1504

REV:AE

- Code 21 A Certificate of Conformance signed by an authorized representative is required with each shipment stating that all items supplied conform to the Purchase Order requirements. Data supporting the Certificate of Conformance need not be supplied with each shipment, but must be on file for review by AbelConn Electronics, if requested. The Certificate shall indicate the “Items” country of origin.
- Code 22 A Certificate of Conformance signed by an authorized representative is required with each shipment stating that all items supplied conform to the Purchase Order requirements. In addition, a Certificate of Chemical Analysis for the material supplied on each Purchase Order must accompany each shipment. The Certificate of Analysis must be traceable to the shipment through the external provider's retained documented information. The Certificate shall indicate the “Items” country of origin.
- Code 23 A Certificate of Conformance signed by an authorized representative is required with each shipment stating that all items supplied conform to the Purchase Order requirements. Inspection and/or test data supporting the certificate must be supplied with each shipment. In addition, a raw material certification stating the exact composition of the material used in the manufacture of the items provided on the Purchase Order, must accompany each shipment. The certificate must be traceable through the external provider's systems to the lot of material supplied on each Purchase Order. The Certificate shall indicate the “Items” country of origin.
- Code 24 external provider to provide AbelConn Electronics with two PWB test coupons per panel, MIL-PRF-55110 or customer design, whichever applies. Pinning hole diameters and spacing to be supplied by AbelConn Electronics.
- Code 25 external provider to provide AbelConn Electronics with one test coupon per panel, MIL-PRF-55110 or customer design, whichever applies. Pinning hole diameters and spacing to be supplied by AbelConn Electronics.
- Code 26 Not used.
- Code 27 external provider shall provide two MIL-STD-2119 assembly coupons per panel for MIL-A-28870 PTH integrity testing. Pinning hole diameters and spacing to be supplied by AbelConn Electronics.
- Code 28 external provider shall provide two PWB impedance coupons per panel, along with supporting impedance data.
- Code 29 All items supplied on this Purchase Order shall be manufactured per and compliant to the requirements of WS6536. A Certificate signed by a company official stating that the goods and services supplied against this Purchase Order conform to the requirements of WS6536 shall be provided with each shipment. Upon acceptance of this order, the external provider assumes responsibility for maintaining the required certified personnel as well as facilities, procedures, and materials in accordance with WS6536. Objective evidence supporting the above shall be retained at the external provider's facility for a minimum of seven (7) years upon completion of this contract. The objective evidence need not be supplied with each shipment unless requested by AbelConn Electronics. AbelConn Electronics reserves the right to audit the external provider's facility, retained documented information, and production process, including those of the external provider's subcontractors to determine continued compliance to WS6536.
- Code 30 All items supplied on this Purchase Order shall be manufactured per and compliant to the requirements of J-STD-001. A certificate signed by a company official stating that the goods

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS

WORK INSTRUCTION NO.: PQ1504

REV:AE

and services supplied against this Purchase Order conform to the requirements of J-STD-001 shall be provided with each shipment. Upon acceptance of this order, the external provider assumes responsibility for maintaining the required certified personnel as well as facilities, procedures and materials in accordance with J-STD-001. Objective evidence supporting the above shall be retained at the external provider's facility for a minimum of seven (7) years upon completion of this contract. The objective evidence need not be supplied with each shipment unless requested by AbelConn Electronics. AbelConn Electronics reserves the right to audit the external provider's facility, retained documented information, and production process, including continued compliance to J-STD-001.

Code 31 The Seller shall conduct a complete First Article Inspection per AS9102 on one part chosen from the first production lot of the initial Purchase Order. First Articles shall be supplied to AbelConn Electronics on forms that comply with the requirements outlined in AS9102. The part shall be representative of the production lot manufactured with production processes or processes representative of production processes. For parts that are the product of a die or mold, the First Article Inspection shall be performed on one piece per cavity. A complete CMM report shall accompany the FAI report to verify the dimensional requirements of the applicable part if it is a PWB, die, molded, or machined part.

First Article does not need to be performed again unless one of the Change Notification events listed in 3.1.AC, a revision change or AbelConn Electronics Quality Assurance specifically requests a new First Article report. The verification or acceptance of First Article Inspection and/or Test shall not constitute acceptance of subsequent items or relieve the seller of any obligation to performing in strict compliance with all provisions of this Purchase Order.

Code 32 Not used.

Code 33 Quality conformance coupons and controlled impedance coupons, if applicable, shall be submitted, inspected, and approved by AbelConn Electronics' customer prior to shipment of the product to AbelConn Electronics.

Code 34 One (1) thermally stressed micro section from each lot-date code shall be submitted with the shipment of PWBs.

Code 35 All materials to be supplied in conformance with MIL-PRF-31032. A Certificate of Conformance signed by an authorized representative is required with each shipment stating that all items supplied conform to the Purchase Order requirements. The data supporting the Certificate of Conformance must be on file and available for review by AbelConn Electronics, if requested.

Code 36 Same as Code 31, except a complete First Article Inspection and/or Test will be required prior to shipment of hardware if one or more years have elapsed since the last production item was produced.

Code 37 External provider shall provide one PWB impedance coupon per panel.

Code 38 The full complement of micro sections per requirements of IPC-6012 must accompany shipment.

Code 39 General Requirement (G) applies, except that retained documented information shall be retained indefinitely.

Code 40 Use of "pink poly" packaging material is prohibited. Use of "packaging peanuts" is prohibited.

TITLE: EXTERNAL PROVIDER QUALITY REQUIREMENTS	
WORK INSTRUCTION NO.: PQ1504	REV:AE

Code 41 Sources performing Controlled Special Processes shall be approved by Honeywell and listed on the web based Aerospace Unified APSL. The external provider shall periodically review the APSL to ensure sources are not expired and to independently verify the source's capability and quality specific to the external provider's product.