

### **QUALITY ASSURANCE PROVISIONS (QAPs)**

American Defense Interconnect (Cage Code 60118) and NewVac (Cage Code 63127) are hereafter referred to as "ADI/NewVac".

Note: All Purchase Orders (POs) include the following basic minimum Quality Assurance Provisions (QAPs) and as such are not listed as separate QAPs on the PO:

"By acceptance of this PO, the Supplier agrees to comply with all these basic minimum quality provisions":

- **A.** <u>PRODUCT IDENTIFICATION.</u> Supplier part number (and revision if applicable) and ADI/NewVac part number and revision must be shown on the invoice, packing slip, Certificate of Conformance (C of C) and box, container, bag or spool label.
- **B.** CERTIFICATE OF CONFORMANCE. Supplier shipments must be accompanied by a Certificate of Conformance that bears the name, title, signature, and date of an authorized Supplier Quality representative.
- **C.** <u>PACKAGING.</u> Supplier shall package material delivered under the PO in accordance with best commercial packaging. Supplier shall include the PO number on the carrier's (UPS, FedEx, etc.) shipping label.
- **D.** FOREIGN OBJECT DEBRIS (FOD) CONTROL. Supplier shall prevent, detect and remove foreign objects that could result in foreign object damage to the products supplied under this PO using AS9146 and NAS412 as a guideline. Supplier's practice shall be proportional to the sensitivity of the design of the product to Foreign Object Debris (FOD), and to the FOD generating potential of the manufacturing methods.
- **E.** RIGHT OF ACCESS. Supplier shall provide ADI/NewVac, its customers, and regulatory authorities' access to all facilities involved in fulfillment of the PO and to all applicable records when requested.
- **F.** <u>DESIGN CONTROL.</u> Supplier shall notify the Buyer of any changes in the product and/or process definition. For products which ADI/NewVac retains design approval authority, Supplier shall obtain written approval from ADI/NewVac prior to implementing any change.
- **G.** <u>COMMUNICATION.</u> All communication, technical guidance and instructions having contractual impact shall be accomplished directly between the Buyer and the Supplier's authorized representative. No contract or specification deviations shall be made without the written authorization of the Buyer.



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- **H-1.** COMPLIANCE WITH REQUIREMENTS. Supplier shall fully comply with all instructions specified on the PO. Lack of written approval shall not relieve Supplier of the responsibility to fully comply with all the requirements of PO. The Supplier shall not receive compensation in any form from ADI/NewVac for unauthorized activity.
- **H-2.** <u>COMPETENCY</u>. The Supplier shall ensure the competence of its personnel to assure that ADI/NewVac purchase order requirements have been and are being met.
- H. PRODUCT CHANGES. Items furnished under this PO shall be identical to product previously accepted by ADI/NewVac unless otherwise specified between the Buyer and Supplier. No changes shall be made in materials, processes, procedures, design interfaces or software which might affect the fit, form, function, safety, weight, maintainability, service life, reliability, replaceability, or interchangeability of the supplies delivered to ADI/NewVac without prior written approval from the Buyer.
- **J-1.** MANUFACTURING FACILITY. Supplier shall notify the Buyer of any change in ownership and prior to any major plant rearrangement, reorganization of management or key personnel, or plant relocation.
- **J-2. SUB-TIER MANUFACTURING FACILITY**, Supplier must obtain prior written approval from NEWVAC for use of a Sub-tier supplier and/or change of previously approved Sub-tier supplier in the manufacturing of any lower tier assemblies that are required to be supplied by Supplier in fulfilling any Purchase Order obligation to NEWVAC.
- K. <u>INSPECTION AND TEST RECORDS.</u> Supplier shall retain records of all inspections and tests performed for a minimum of seven (7) years after completion of the order or as specified. Quality records shall be made available for ADI/NewVac review upon request.
- L. QUALITY SYSTEM REQUIREMENTS. Supplier shall maintain a Quality Management System (QMS) acceptable to ADI/NewVac. Supplier's QMS shall be subject to audit, review and approval by ADI/NewVac upon reasonable notice to Supplier.
- **M-1.** <u>REQUIREMENTS FLOW DOWN.</u> Supplier shall flow down all relevant PO requirements to their sub-tier Suppliers. Supplier's sub-tier Suppliers shall comply with the same specifications and requirements specified on this PO.
- M-2. MOOG REQUIREMENTS FLOW DOWN of SQR-1: Where MOOG is the end user, Supplier shall flow down all relevant PO requirements to their sub-tier Suppliers as well as MOOG SQR-1. Supplier's sub-tier Suppliers shall comply with the same specifications and requirements specified on the NEWVAC-LLC PO.
- N. <u>COUNTERFEIT PARTS.</u> Supplier represents and warrants that only new and authentic materials are used in products delivered to ADI/NewVac and contain <u>NO COUNTERFEIT PARTS/COMPONENTS</u> <u>AND OR DOCUMENTATION</u>. Supplier shall only purchase authentic parts/components directly from the Original Equipment Manufacturer (OEM) or through the OEM's authorized distribution chain. If the Supplier is not the OEM or a franchised or authorized distributor, the Supplier confirms by acceptance of this PO that each product supplied to ADI/NewVac has been procured from the OEM or a franchised or authorized distributor of the OEM or United States government surplus with ADI/NewVac approval. It is the responsibility of the Supplier to ensure not only the validity of the products/components/materials it purchased for use in the final item sold to ADI/NewVac but also the documentation and certifications



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(e.g. raw material certifications) from its supply base. For electronic components, the Supplier must have procedures in place that are IAW SAE AS5553 "Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition." Supplier shall flow the requirements of this provision to its subcontractors and Suppliers at any tier for the performance of this PO. Supplier shall make OEM documentation available that authenticates the traceability of the components to the applicable OEM per QAP-02.

If these minimum conditions are not met, ADI/NewVac reserves the <u>right to withhold payment</u> until all provisions of the PO, including any specific QAPs as listed in the PO, are met.



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The QAPs listed below and on the following pages are assigned either to individual part numbers or to the entire PO for all items ordered. The ADI/NewVac PO will either list the QAP provision number under each line item / part number and or at the bottom of the PO.

### **QAP-01: DPAS RATING**

By acceptance of this PO, Supplier is accepting it as a priority rated order in support of the indicated U.S. government contract number with a priority rating as stated in the PO. By acceptance of this PO, Supplier agrees to comply with the provisions of the Defense Priorities and Allocation System (DPAS) regulation 15 CFR Part 700 except that POs with a "DO" priority rating must be accepted or rejected by the Supplier within 10 working days and POs with a "DX" priority rating must be accepted or rejected by the Supplier within 5 working days from receipt of the order.

### QAP-02: DISTRIBUTOR TRACEABILITY TO MANUFACTURER SOURCE

The distributor shall state on their packing slip and/or on their Certificate of Conformance the name of the original product manufacturer and the date code and/or lot number of the specific part(s) in each shipment. A copy of the manufacturers' certificate of conformance is also required with the shipment.

### **QAP-03: LOT NUMBER / DATE CODE IDENTIFICATION**

Supplier shall list the manufacturing lot number and/or date code of the product shipped on the packing slip and on the certificate of conformance and on the product box, container, or spool label as applicable.

<u>QAP-04: MATERIAL CERTIFICATION</u>
Supplier shall provide material certifications issued by the Supplier, the material manufacturer, or by the Supplier's sub-tier source(s) that actually provided the products or material delivered on this PO. The certification shall state the material call out, relevant specification, type, class, grade, lot number and/or date code. Certifications shall bear the name, title, signature, and date of the authorized Supplier Quality representative.

### **QAP-05: PLATING CERTIFICATION**

The Supplier shall provide plating certifications issued by the Supplier or Supplier's sub-tier source(s) that actually performed the plating of the product delivered on this PO. The certification shall state the plating specification, the type and class, with corresponding thicknesses and lot number. Certifications shall bear the name, title, signature, and date of the authorized Supplier Quality representative.

### **QAP-06: HEAT TREAT CERTIFICATION**

Supplier shall provide heat treat certifications and reports issued by the Supplier or Supplier's sub-tier source(s) that actually performed the heat treat process to the product delivered on this PO. The certification and reports shall state the specification to which heat treating was performed and the condition achieved. Certifications shall contain shall bear the name, title, signature and date of the authorized Supplier Quality representative.



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### **QAP-07: WELDING CERTIFICATION**

Supplier shall provide certification that all welding operators performing work on products delivered on this PO have been certified in accordance with AWS D17.1 section 4. Fusion welding must reference MIL-STD-2219 in accordance with the applicable specifications. Certifications shall bear the name, title, signature, and date of the authorized Supplier Quality representative.

### **QAP-08: IPC-A-610 COMPLIANCE**

Products delivered under this PO shall meet the acceptance criteria of IPC-A-610 for Class 3 products. When requested, the Supplier shall provide certification that products comply with IPC-A-610 Class 3. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

### QAP-09: IPC/WHMA-A-620 COMPLIANCE

Products delivered under this PO shall meet the acceptance criteria of IPC/WHMA-A-620 for Class 3 products. When requested, the Supplier shall provide certification that products comply with IPC/WHMA-A-620 Class 3. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

<u>QAP-10: ANSI/J-STD-001 COMPLIANCE</u>
Supplier shall establish and maintain qualified personnel, facilities and processes in accordance with ANSI/J-STD-001 for Class 3 products. When requested, Supplier shall provide certification that products comply with ANSI/J-STD-001 Class 3. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

### QAP-11: ELECTROSTATIC DISCHARGE (ESD) SENSITIVE DEVICES

Supplier shall establish and maintain qualified personnel, facilities and processes in accordance with the ANSI/ESD S20.20 or equivalent. ESD sensitive devices shall be packaged in re-sealable antistatic bags and shall be properly labeled, including labeling on all boxes, shipping containers and documentation.

### **QAP-12: MISCELLANEOUS PROCESS CERTIFICATION**

Supplier shall provide certifications and test reports by the Supplier or Supplier's sub-tier source that performs the special process on the product supplied on this PO. The certifications shall state the process specification, type, class, etc. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

### **QAP-13: CONTROL IDENTIFICATION**

Supplier shall include on the shipping documents (invoice, packing slip and C of C) the control identification for the material being supplied. The control identification is the date code, lot number, serial number or packing slip number. When multiple lots are included in one shipment, the Supplier shall separate and identify each lot and indicate each lot quantity. If serial numbers are required, ADI/NewVac will provide the required serial numbers in its PO or in an attached specification.



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### QAP-14: ADI/NewVac PROPERTY

All specifications, drawings, data/software, tools, materials and other items supplied by the ADI/NewVac to the Supplier shall be proprietary to ADI/NewVac and shall not be disclosed by the Supplier unless authorized by ADI/NewVac. The items shall remain the property of ADI/NewVac (or of the Government or other party where the Government or such other party has or acquires title thereto). ADI/NewVac shall have the right to enter Supplier's premises and remove them at any time without being guilty of trespass or liable to Supplier for damages. All such items shall be used only in the performance of this PO unless ADI/NewVac consents otherwise in writing, except that as to any such item which are owned by the Government of which the Government has the right to use, the Supplier may use such items in the performance of any direct contract between the Supplier and the Government on a non-interference basis after the Government has expressly authorized such use in writing with written notice of such authorization to ADI/NewVac. Supplier shall prominently mark (if not already marked) all such items as the property of ADI/NewVac or the Government as directed by ADI/NewVac. Supplier shall similarly list all such items on invoices and shall be responsible for them until returned to ADI/NewVac.

### **QAP-15: "O" RING SPECIAL PACKAGING**

O-Rings shall be packaged in five (5) or less units per package and the external container (as a minimum) must be identified with part number, revision and cure date.

### QAP-16: "O" RING / RUBBER GOODS DOCUMENTATION, PACKAGING / SHELF-LIFE REQUIREMENTS

Each shipment shall be accompanied by a packing slip and C of C showing the part or drawing number and revision, material specification and revision, date of manufacture, shelf-life expiration date and material batch identity / lot number. Items shall be packaged in a manner that will prevent moisture, foreign material, damage or contamination prior to use. Unit packaging shall comply with MIL-STD-2073-1E, Method 33. Any package with evidence of the container, bag, etc. being stapled shall result in the O-ring being scrapped at Supplier's expense.

Each unit package shall be marked per MIL-STD-129 and shall include the following information:

- 1. Part or drawing number
- 2. Material specification (if not the same as the part number)
- 3. Date of manufacture (DOM)
- Shelf-life expiration date
- 5. Material batch identity / lot number

When specified by the PO, Supplier shall provide three (3) additional O-rings with each delivery for inspection sampling purposes. Sample O-rings and the balance of the lot shall be packaged and labeled identically so that ADI/NewVac Quality Assurance inspection may select a random sample.

MIL-STD-413 requirements shall apply unless otherwise specified. O-rings shall meet the requirements of SAE ARP5316 except that a maximum storage life for all components shall be 10 years or 40 quarters. O-rings shall not be furnished to ADI/NewVac if more than 15% of the shelf life has expired. Failure to comply with any of the requirements of this provision may result in rejection of the material.



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### **QAP-17: LIMITED SHELF-LIFE MATERIALS**

Supplier shall provide with each shipment the required storage conditions and/or shelf-life expiration dates (as applicable) and the date of manufacture (DOM), date of expiration (DOE) and the lot number. This information shall be shown on the packing slip, the C of C and on the material container (jar, bottle, can, tube, etc.) Unless otherwise stated on the PO, a minimum of 75% of the shelf life shall be remaining at the time of receipt. Failure to comply with this provision may result in material rejection.

### **QAP-18: CHEMICAL AND PHYSICAL TEST REPORTS**

Supplier shall provide with the shipment one (1) legible copy of all test data required by the applicable specification for materials supplied, materials in parts or assemblies, or testing performed. Reports shall include positive identification to the specifications required by the PO or applicable drawing, the requirements and the results obtained. The report shall indicate acceptance by the Supplier's designated quality representative verifying compliance to the requirements.

Supplier shall mark all raw materials with a stamp, permanent marker, or identification tags. Actual marking shall consist of the PO number, line number and item nomenclature. Failure to comply with any of these requirements may result in rejection of the material.

The chemical and or physical test reports shall include the following information:

- 1. ADI/NewVac PO number, line number and item nomenclature.
- Material dimensions or quantity.
- 3. Signature of individual authorized to certify compliance.

### **QAP-19: TEST COUPONS**

Supplier shall provide test coupons with each shipment that are representative of each heat treat or plating lot and that are made from the same melt as the items supplied. Test coupons shall be permanently identified with the Supplier's name or trademark, lot number and alloy identification.

### **QAP-20: GOVERNMENT SOURCE INSPECTION**

Government inspection is required prior to shipment from your facility. Notify the Government representative who normally services your facility 10 days prior to the date material is ready for inspection. In the event the Government representative or office cannot be located, notify the ADI/NewVac Buyer immediately.

### QAP-21: SOURCE INSPECTION BY ADI/NewVac LLC

All items required by this PO are subject to ADI/NewVac inspection at the Supplier's facility prior to shipment. The Supplier shall provide no less than seventy-two (72) hours advance notice to ADI/NewVac Buyer to permit scheduling of the required inspection.

### QAP-22: PROOFING SPECIAL TEST EQUIPMENT AND/OR INSPECTION TOOLING

Acceptance and use of special test equipment and/or inspection tooling on this PO is contingent upon approval by ADI/NewVac Quality Assurance. The tooling must conform to tolerance limits of engineering drawings and specifications as stated.



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### QAP-23: FIRST ARTICLE INSPECTION/TEST REQUIREMENT

Supplier shall conduct a complete first article inspection and/or test (FAIT) in accordance with SAE AS9102 requirements on one part chosen from the first production lot of the initial PO. For parts that are produced in a multi-piece die or mold, the FAIT shall be performed on one piece per cavity. The FAIT does not need to be performed again unless one of the change notification events per AS9102 occurs or ADI/NewVac specifically requests a new FAIT because of quality concerns. The Supplier shall provide one (1) copy of First Article Inspection Report (FAIR) to ADI/NewVac with the Supplier's packing slip and C of C with the first delivery of parts on this PO. This requirement does not apply to those items returned to the Supplier for rework of nonconformances.

### **QAP-24: 100% PRODUCT INSPECTION**

100% inspection shall be performed on each product supplied under this PO for all product characteristics, including drawing notes. Records of inspection results showing actual values shall be maintained by the Supplier and one (1) copy of each record shall be included with the shipment. Each record shall be traceable to the individual product to which it applies by serial number or other unique identification. The records shall contain the ADI/NewVac PO number, part number and revision.

### **QAP-25: LOT SAMPLING**

100% inspection of all characteristics, including drawing notes, shall be performed on a sample of each part number from each lot supplied under this PO. Lot sampling shall be in accordance with ANSI/ASQ Z1.4-2003. A sampling plan that accepts on zero defects is required. Records of inspection results showing actual values shall be maintained by the Supplier and one (1) copy of each report shall be included with the shipment. The inspection reports shall contain the ADI/NewVac PO number, part number and revision and shall indicate the sample size. The samples shall be segregated from the balance of the lot and shall be identified as samples.

### **QAP-26: MATERIAL SAFETY DATA SHEETS**

All materials that are volatile, toxic or which emit fumes that are harmful to human health shall be properly contained in accordance with applicable health and safety requirements. The containers shall be plainly marked as to contents with appropriate warnings, precautions, instructions and storage conditions. Material Safety Data Sheets (MSDS) shall be provided with each shipment.

### **QAP-27: CALIBRATION SERVICES**

Supplier shall provide calibration services that are traceable to the National Institute of Standards. A certificate of calibration that conforms to either ISO/EIC 17025 or ANSI/NCSL Z540 (Supplier's option) shall be provided. Calibration shall be performed to the original equipment manufacturer's specification. When an out of tolerance indication is discovered, the information concerning the out of tolerance condition shall be provided.

### **QAP-28: SOLDER CERTIFICATION**

Supplier shall provide certification stating that solder compositions supplied under this PO conform to the requirements of ANSI/J-STD-006. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.



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### **QAP-29: FLUX CERTIFICATION**

Supplier shall provide certification stating that the rosin-based flux supplied under this PO conforms to the requirements of ANSI/J-STD-004. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

### **QAP-30: SOLDERABILITY CERTIFICATION**

Supplier shall provide certification that the material/product supplied under this PO meets the solderability requirements as specified in ANSI/J-STD-001. Certifications shall bear the name, title, signature and date of the authorized Supplier Quality representative.

### QAP-31: PRESERVATION OF SILVER-PLATED PARTS AND MATERIALS

All machine parts, wire, braiding, and/or components that are silver-plated entirely or in part shall be preserved in moisture-proof packaging to prevent contamination, corrosion and/or oxidation during transportation and storage; the use of silver-saver paper and heat-sealed polyethylene bags with desiccant is required. Continuous lengths of silver-plated wire and cable shall have ends sealed using heat shrinkable caps or an equivalent method for preventing unimpeded ingress of water (liquid and/or vapor.)

### QAP-32: COMMERCIAL PRINTED WIRING BOARD (PWB) REQUIREMENTS

The Supplier of the parts procured under this PO shall conform to IPC-6012 (Qualification and Performance Specification for Rigid Printed Boards). Class shall be specified on the master drawing. If no Class is identified, then Class 3 is to be used.

Material Requirements: PWBs shall be manufactured using laminate and prepreg from the same manufacturer. The entire PO quantity of PWBs shall be manufactured using laminate and prepreg from a single source (OEM).

SMD (surface mount device) and BGA (ball grid array) Pad Size Requirements: Applicable to SMD and BGA pad sizes less than 16 mils. Pad sizes shall be consistent within a received lot within +/- 1.0 mil. The Supplier shall implement and use SPC to monitor critical SMD and BGA pad size requirements. Real time process control charting must be implemented. Where Cpk values are < 1.33 a cause and corrective action shall be submitted. SPC data shall be included with the electrical test data package. All shipping boxes shall indicate the pad sizes of the PWBs for that shipment. The nominal pad size and the range for the PWBs in the container shall be clearly marked. PWBs do not need to be marked with pad size information. The Supplier shall be responsible for maintaining serialization information pertaining to shipments and pad sizes.



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Coupons/Micro-sections: If ADI/NewVac source inspection is performed per QAP-21 then micro-sections shall be maintained on file by the Supplier. If there is no source inspection, then the Supplier's micro-sections shall be shipped with the boards and shall be compliant to Table 4-3 (Acceptance Testing and Frequency) per IPC-6012. The micro-sections will be returned after evaluation by ADI/NewVac if requested by the Supplier.

<u>Table 4-3 Acceptance Testing and Frequency Inspection Data</u>: Table 4.3 (per IPC-6012) inspection data shall be submitted with all shipments.

<u>Solderability Test Certificate</u>: The Supplier shall furnish certification of acceptance of a solderability test conducted per IPC/EIA J-STD-003. The certification shall state:

- 1. Test method used.
- Number of samples tested, accepted, rejected.
- Date of solderability test.

Supplier shall also retain a copy of all test data on file for five (5) years after completion of this PO.

<u>Electrical Test Requirement</u>: Bare board testing shall be performed in accordance with IPC-9252. Continuity and isolation of each circuit path as defined by the Net List or Gerber data shall be verified for each MLB (multilayer board).

<u>Rework Restrictions</u>: No rework for Bow or Twist is allowed. PWBs shall meet Bow and Twist requirements as laminated. *PWBs shall be 100% verified for Bow and Twist*.

### QAP-33: MIL-P-55110 PRINTED WIRING BOARDS

Supplier shall be currently qualified to Mil-P-55110 for board type and material specified for this PO. Material supplied to this PO shall meet the requirements of Mil-P-55110. A minimum of one (1) quality conformance test coupon per panel shall be included with each shipment of boards. For traceability, each coupon shipped shall be identifiable with the corresponding production boards produced on the panel with the coupon.

### QAP-34: PRINTED WIRING BOARD (PWB) REQUIREMENTS - IPC CLASS 3

The materials, fabrication and test requirements for PWBs shall meet the IPC Class 3 Industry Standard requirements of the following specifications:

- 1. Design (IPC-2220 series)
- Qualification and Performance (IPC-6010 series)
- 3. Inspect/Test/Acceptability (IPC-A-600, IPC-TM-650, IPC-QL-653, IPC-MI-660)



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### **QAP-35: MICRO-SECTION COUPON**

1. Micro-section and coupon requirements:

With each delivery of boards or flex circuits except Type 1 (single sided) and Type 2 (double sided) the Supplier shall include the micro- sections used for product acceptance and coupon strips representing each panel for which product is delivered. Supplier will conform to all Military and Industry specifications referenced on the procurement documents associated with this procurement. The following standard IPC micro-sections for each panel will consist of (as a minimum):

- a. "A and B" micro-sections from opposite corners of the panel that have not been solder floated (as received).
- b. The following micro-sections are required in the "X" and "Y" direction from opposite corners of the panel:
  - 1) "A" micro-sections that have been solder floated. (Note: This is only required if the hole size is larger than the hole on the "B" micro-section. The larger hole will be used to detect post separation.)
  - 2) "B" micro-sections that have been solder floated.
- c. If Supplier uses the "A/B" micro-sections, then the following are required:
  - "A/B" micro-sections from opposite corners of the panel that have not been solder floated (as received).
  - 2) "A/B" micro-sections from opposite corners of the panel (one in the "X" and one in the "Y" direction) that have been solder floated. Coupon strips representing the micro-sections in paragraphs a. and b. above.
- d. If the board contains blind or buried vias, one set of micro-sections representing these features must be submitted.
- e. Any special coupon strips (impedance, peel strength, wire bond, etc.) that are specified on the master drawing. The coupon strips and micro-sections listed above will not be returned to the Supplier. The Supplier shall retain other acceptance micro-sections and additional coupon strips that are a part of the fabrication panel.
- 2. Documentation requirements:
  - a. Certificate of Conformance (C of C) stating conformance to the specifications.
  - A list of the panel numbers and corresponding boards shipped. Also, indicate which panels were scrapped at your facility.
  - c. A list of the panel numbers for which micro sections were submitted. Micro sections must be marked to indicate panel number.
  - d. Electrical test results to include impedance data if applicable.
  - e. Statement of results of "R" coupon testing by panel number if used to verify acceptable internal layer registration. Use of a "modified F" coupon is acceptable in some cases if it is used for the same purpose as the "R" coupon.
  - f. If the printed circuit board micro-section fails external annular ring, state that the boards themselves were checked for registration and pass, if the boards are to be delivered.



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3. Retention Requirements: The Supplier is responsible for maintaining a set of micro-sections and coupon strips which represent the product delivered. However, if only one set remains and, in order to satisfy the requirements of this QAP, that set is delivered to ADI/NewVac who then accepts the responsibility for the micro-sections and coupon strips and their retention as required by the applicable military specification.

### **QAP-36: COUNTRY OF ORIGIN MARKING**

All components and/or assemblies of foreign origin delivered under this PO shall be legibly marked indicating the name of the country of origin of the component and/or assembly. The identification marking shall be in the English language and shall be as permanent as the nature of the component and/or assembly will permit without causing damage or affecting the intended use or operation of the article. The identification marking shall be placed in a clearly visible location.

### **QAP-37: SPECIALTY METALS**

This PO is subject to the Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.225-7009, Restriction on Acquisition of Certain Articles Containing Specialty Metals. By acceptance of this order the Supplier agrees to provide a certificate of compliance to the DFARS requirement. Supplier shall list the "qualifying country" of origin (refer to DFARS clause 225.003) of specialty metals on the material certification provided per QAP-04. The Supplier shall flow down this requirement to all sub-tier Suppliers. DFARS clauses can be accessed at http://www.acq.osd.mil/dpap/dars/index.htm.

### **QAP-38: REMOVED**

### **QAP-39: SUPPLIER QUALIFICATION**

Supplier shall maintain strict controls to assure that, after the item(s) successfully pass the qualification, no changes will be made to any design, material, part, process, procedure, tooling or test equipment; nor shall they be altered, redesigned or replaced by another design, material, part, process, procedure, tooling or test equipment, without prior written approval from ADI/NewVac. The definition of "change" does not include the following: editorial or administrative changes such as spelling or typographical errors, clarification, personnel, maintenance, or equipment changes not affecting the qualified product. In addition, the items shall not be produced at a facility other than the Supplier's original facility which produced the acceptable items, without prior written approval of ADI/NewVac. Upon receipt of such notice, ADI/NewVac shall have the right to direct the Supplier to repeat all or part of the qualification at the Supplier's expense and to obtain from the Supplier all data necessary to prove the acceptability of the proposed change.

### QAP-40: ISO9001 COMPLIANCE

Supplier shall maintain a quality management system in accordance with the requirements of ISO9001. Supplier's compliance with ISO9001 and this QAP shall be demonstrated by submission to ADI/NewVac of the Supplier's valid registration certificate issued by an ANAB accredited certifying body.

### QAP-41: AS9100 COMPLIANCE

Supplier shall maintain a quality management system in accordance with the requirements of AS9100. Supplier's compliance with AS9100 and this QAP shall be demonstrated by submission to ADI/NewVac of the Supplier's valid registration certificate issued by an ANAB accredited certifying body.



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### **QAP-42: EXCLUSION OF MERCURY**

- (1) Supplies furnished under this PO shall contain no free mercury (metallic form) or mercury compounds (e.g. mercuric oxide and mercuric chloride) without written approval from ADI/NewVac. Seller shall perform a review to the extent necessary for a reasonable assurance that mercury is not being used in the supplies (e.g. review of drawing parts lists and material lists.)
- (2) Mercury bearing instrument and equipment (i.e. those instruments containing free mercury) shall not be used in the manufacture, fabrication, assembly, testing, cleaning or packaging, etc., of any supplies pertaining to this PO.
  - (a) The most probable causes of mercury contamination are direct connected manometers, mercury vacuum pumps, mercury seals, mercury-in-glass thermometers or handling free mercury in the immediate vicinity of supplies.
  - (b) The Supplier shall perform a review of their facilities to provide reasonable assurance that supplies are not in danger of mercury contamination (e.g. check of instruments, test equipment, cleaning agents, etc.)
  - (c) In case of doubt or question regarding mercury, contact ADI/NewVac for assistance.
  - (d) Accidents involving actual or suspected mercury contamination (during product realization or after delivery) of supplies identified on this PO, must be immediately communicated to ADI/NewVac. Suspected product shall be identified, segregated or positively recalled for proper disposition.
- (3) Supplier shall develop the same assurance and confidence of compliance with the mercury exclusion clause as it does with other specification requirements (e.g. toxic materials, flammable materials, fragile materials & radioactive materials.)
- (4) The Supplier shall flow down and require all their sub-tier Suppliers to comply with the mercury exclusion requirements invoked on this PO.
- (5) A Certificate of Compliance for mercury exclusion or other attesting documentation must be provided to ADI/NewVac at the time of finished product and/or supplies delivery.

### **QAP-43: UNIQUE IDENTIFICATION (UID)**

Supplier shall provide a VERIFICATION AND VALIDATION GRADING REPORT PER ISO/IEC 15415 for all Unique Identification Number (UID) products / Data Matrix symbols.

### **QAP-44: NADCAP CERTIFIED APPROVED SPECIAL PROCESSORS**

All special processes, any production or service process which generates products or services which cannot be measured, monitored, or verified prior to delivery and use such as heat treating, chemical processing, plating, etc., (but not limited to) shall only be performed by NADCAP certified processors. The Supplier is responsible to ensure that all Special Processes, performed either by the Supplier or their subcontractor, is accredited by NADCAP.



### QMS-E-8430 Rev. 2 ADDITIONAL QUALITY REQUIREMENTS INFORMATION

For External Suppliers

### **INTRODUCTION**

The Information in this document shall be used in conjunction with NEW VAC-LLC's Quality Assurance Provisions (QMS-E-8412-2-F1) and Terms and Conditions (MAT-E-003). This document has been developed to further assist our suppliers with understanding the quality requirements necessary to ensure a successful business relationship with NEW VAC-LLC. Communication and cooperation are crucial elements in achieving these high standards. NEW VAC-LLC expects suppliers to have the following basic business principles.

### The supplier shall:

- Ensure that materials and services are produced in conformance to the required standards, and
   NEW VAC will receive defect-free product, on time, at the agreed upon terms.
- Manage facilities, processes, quality systems and personnel to consistently and cost-effectively manufacture products and furnish services that meet the needs of NEW VAC and its customers.
- Be committed to continual process improvement by emphasizing reduction of part to part variation and the elimination of all waste.
- Conduct operations in conformance with, or exceeding, all applicable environmental laws and regulations of the jurisdictions in which the supplier does business.
- Ensure all products and materials supplied meet applicable product environmental compliance requirements.
- Embrace and comply with socially important values, principles and guidelines.

"Buyer" shall mean NEW VAC-LLC "Seller" shall mean the party with whom Buyer is contracting and to whom Buyer has issued a Purchase Order ("Order") to.

An Order constitutes Buyer's offer to Seller and is expressly made conditional on Seller's acceptance of Buyer's terms and conditions only. Any additional, different, or inconsistent terms proposed by Seller are specifically rejected, unless otherwise expressly agreed to in a writing signed by an authorized representative of Buyer. Seller shall have accepted this Order by issuance of its acknowledgment, commencement of performance or delivery hereunder, or Buyer's acceptance, payment or use of any goods, products, materials, components, articles, parts, services, or other property of Seller subject to an



NewVac (Cage Code 63127) and American Defense Interconnect (Cage Code 60118) An American Distributors, LLC Company

Order (collectively "Goods"). No revision to an Order shall be valid unless in writing and signed by an authorized representative of Buyer.

### Capacity:

Seller represents that the production capacity quoted to Buyer is based on a tooling and production plan capable of supplying goods to support Buyer's requirements.

### **Proprietary rights:**

Unless otherwise expressly agreed in writing all specifications, information, data, drawings, software, and other items which are supplied to Seller by Buyer, or obtained or developed by Seller in the performance of this Order or paid for by Buyer, shall be proprietary to Buyer, shall only be used for purposes of providing Goods to Buyer pursuant to this Order, and shall not be disclosed to any third party without Buyer's express written consent. All such items supplied by Buyer or obtained by Seller in the performance of this Order or paid for by Buyer shall be promptly provided to Buyer on request or upon completion of this Order.

### **Buyer's Property:**

All-drawings, tools, fixtures, materials, and other items supplied or paid for by Buyer shall be and remain the property of Buyer. All such items shall be used only in the performance of work under this Order unless Buyer consents otherwise in writing. Seller shall have the obligation to maintain all property furnished by Buyer to Seller and shall be responsible for all loss or damage to said property except for normal wear and

Seller warrants that all Goods furnished under this Order shall conform to all specifications and appropriate standards, will be new, and will be free from defects in material or workmanship. Seller warrants that all Goods furnished hereunder will be merchantable and will be safe and appropriate for the purpose for which Goods of that kind are normally used. If Seller knows or has reason to know the purpose for which Buyer intends to use the Goods, Seller warrants that such Goods will be fit for such purpose. Inspection, test, acceptance or use of Goods furnished hereunder shall not affect Seller's obligations under this warranty, and such warranty shall survive inspection, test, acceptance, and use. Seller's warranty shall run to Buyer, its successors, assigns and customers, and users of products sold by Buyer. Seller agrees to replace or correct defects of any Goods not conforming to the foregoing warranty promptly, without expense to Buyer, when notified of such nonconformity by Buyer, if Buyer elects to provide Seller with an opportunity to do so. In the event of failure of Seller to correct defects in or replace nonconforming Goods, Buyer, after reasonable notice to Seller, may make such corrections or replace such Goods and charge Seller for the costs incurred by Buyer in doing so. Seller shall be liable for and save Buyer harmless from any loss, damage, or expense whatsoever that Buyer may suffer from breach of these warranties.



### **Inspection and Acceptance:**

All Goods are subject to Buyer's inspection, testing and approval, both at Seller's facility and Buyer's point of destination. Buyer reserves the right to reject and refuse acceptance of any Goods which do not comply with all the terms of this Order. Acceptance, payment, use, or resale of Goods by Buyer shall not release Seller of any of Seller's obligations, representations, or warranties hereunder. Payment for any Goods shall not be deemed an acceptance hereof.

In the case of any defective or damaged Material, including but not limited to non-compliance with Seller's Quality System requirements, Seller agrees to initiate any required corrective action within a timely manner (no more than 15 days) from the date that Buyer request such action by performing proper root cause analysis and submitting an appropriate corrective action plan. Failure to respond to corrective actions may disqualify the Seller from being an approved supplier.

### **Conflict Minerals:**

Seller shall disclose if any Goods delivered, supplied, or manufactured under this Order contain "Conflict Minerals" from the Democratic Republic of Congo ("DRC"), or any adjoining country (together with the DRC, "Covered Countries"). The term "Conflict Minerals" shall have the meaning ascribed to it under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Act"), meaning wolframite, cassiterite, columbite-tantalite (coltan), gold and their derivative metals: tantalum, tin, and tungsten. To the extent required therein, Seller commits to complying with the Act. Seller shall maintain effective accounting procedures, internal controls, and audit procedures necessary to verify compliance with the Act.

### **Raw Material DFAR:**

All materials provided by Seller must meet FAR and DFAR regulations.

### **Quality System:**

External suppliers shall implement a quality system.

The external supplier is responsible for the identification and maintenance of quality system records relating to the purchase order. NEWVAC-LLC, its customers, and applicable regulatory authorities reserve the right to access these records. The records shall be maintained in a manner that prevent damage and allows them to be readily retrievable.

### **Monitoring of Your Performance:**

NEW VAC-LLC will monitor the Seller's performance as it relates to the Seller's material used, part quality and on-time delivery. You will be notified when your performance falls below acceptable norms.



### **Right of Access:**

NEW VAC-LLC, its customers and applicable regulatory authorities reserve the right to enter the external supplier to verify compliance to purchase order documentation. This may include in-process and final inspection, quality system audit and review of required documentation.

### **Inspection and Test Reports:**

The external supplier agrees to maintain objective evidence to assure conformance to the purchase order requirements. The objective evidence may include dimensional data sheet, certificates of conformity, test reports, statistical records, and process control.

### Certificates of Conformance

The Certification of Conformance shall include the following at minimum or unless otherwise specified:

- Part Number and Revision Level
- Specification Number and Revision
- Purchase Order Number
- Quantity
- Lot Number, when applicable
- Serial Number, when applicable
- Name, Title, Signature, and date of an authorizing Quality Assurance representative.

### Test Reports:

This includes the chemical and physical test reports or material certifications. If a machine shop purchases the stock material, the shop will request the chemical and physical test reports from the mill and supply this documentation with the finished product.

### Change of Process:

The external supplier shall notify NEW VAC-LLC if there has been a significant product or process change related to the items in the purchase order specification or the quality management system. The external supplier Quality Assurance Manager will contact the NEW VAC Quality Manager in writing of the change. The external supplier agrees to provide information pertaining to the product quality with the change. NEW VAC-LLC quality assurance will review and approve the change, as required.



### Foreign Objects:

The external supplier shall provide provisions for the prevention, detection, and removal of foreign objects.

### Awareness:

External supplier shall ensure that persons are aware of their contribution to product or service conformity, contribution to product safety and the importance of ethical behavior.

### Competency:

External supplier's personnel shall be competent to the extent for assuring NEW VAC purchase order requirements have been met.