



QA CLAUSES CODES

The following Quality Assurance clauses apply to each procurement, when incorporated as a requirement of the Advantech Purchase Order:

Code	Description
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- 1. Certificate of Conformance**
A Certificate of Conformance, that is a document certifying that the product meets the specified requirements, shall accompany the product.
- 2. Identification and Traceability**
The product shall be identified by Advantech's Part Number and Revision Number and traced by the serial or lot number, as appropriate, or by a date code.
- 3. Factory Test Data**
A copy of completed test data shall accompany all shipped products. The test data will include part number, serial (lot) number, required test limits and actual measured values.
- 4. Chemical / Physical Analysis**
The supplier shall furnish a copy of the chemical / physical analysis certificate of the shipped raw materials to prove the compliance of the physical and chemical properties with the specifications.
- 5. Test Procedures**
A copy of the qualification / acceptance test procedures shall be submitted to Advantech for approval prior to commencement of testing. The test procedures will include test data sheets, a list of test equipment and the calibration due dates.
- 6. Quality Plan**
The supplier shall prepare and submit a plan that defines quality assurance, inspection and test activities to be performed on this order. The plan will be submitted for Advantech review and approval prior to commencement of manufacturing. Changes to the approved plan must be submitted to Advantech for approval.

- 7. Quality System**
The supplier shall have a quality system compliant with the appropriate ISO standard requirements.
- 8. Supplier Control program**
Supplier shall maintain a certification system of his suppliers.
- 9. Source Inspection**
Advantech source inspection is required prior to shipment of product. Agreement on notification and eventual postponement shall be included.
- 10. ESD Control Program**
The supplier shall maintain a control program for ESD sensitive parts, to prevent failure and degradation caused by ESD, according to EIA-625 as a minimum.
- 11. Limited Shelf-Life Material**
The material shall be identified in an appropriate manner. The supplier shall provide one of the following:
- expiration date marking on each individual container;
- date of manufacture and guaranteed period of useable life.
The supplier shall not deliver limited shelf life material with less than 80% of shelf-life remaining at the time of receipt by Advantech.
- 12. First Article Inspection**
The supplier is requested to ship the first article to Advantech, before commencement of manufacturing of the remaining articles. The production may be continued after the notification by Advantech on first article acceptance.
- 13. Certificate of Calibration**
Calibration agencies, equipment vendors or suppliers of rented or leased equipment will certify that calibration was performed using traceable standards and appropriate calibration instructions.
- 14. List of Tests**
The supplier shall provide the lists of tests performed for each shipment. The list may be included in the Certificate of Compliance.
- 15. Advantech Reference Documents**
The parts shall be manufactured according to the Advantech documentation so as to be compliant with all provisions included. The bare PCBs, assembled PCBs, substrates, wire harnesses and SR cables will meet the requirements of the applicable IPC standards, latest revision, class 3, if not specified otherwise.

- 16. Silver Plated Parts**
The finished parts will meet Advantech SC980-101001-001. The antitarnish treatment will use trivalent chromium.
- 17. Clear Iridated / Yellow Iridated / Chromated Parts**
The finished parts will meet the requirements of MIL-DTL-81706B for Type II, Class 1A
- 18. Black Anodized Parts**
The finished parts will meet the requirements of MIL-A-8625F for Type II, Class 2
- 19. Copper Plated Parts**
The finished parts will meet the requirements of MIL-C-14450B for Class 1.
- 20. Nickel Plated Parts**
Electrodeposited
The finished parts will meet the requirements of QQ-N-290A for Class 1, Grade C
Electroless
The finished parts will meet the requirements of MIL-C-26074E for Class 4, Grade A.
- 21. Electrodeposited Zn**
The finished parts will meet the requirements of ASTM B 633, SC 2, Type III. The appearance of the coated surface shall be uniform, free of areas of powdery or loose coating, voids, scratches, flaws, etc. The basis metal should be subjected to polishing or buffing.
- 22. Welding**

The process and the workmanship shall be complaint with the applicable AWS standards..
- 23. Warranty**

The supplier shall not deliver materials with less than 92% of warranty period remaining at the time of receipt by Advantech.

24. Moisture Sensitive Component

The supplier must have processes in place to identify, store, handle and process the MSD components according to JSTD-020 and JSTD-033.

25. Control and Access

Advantech reserves the right to visit the supplier at any time, provided the supplier is notified minimum 24 h in advance. Advantech's representative(s) may be accompanied by its customer's representative(s). Advantech (as well as its customers) have the right to verify the progress of its orders to ensure that they are processed according to the requirements and will have access to all data and documents pertaining to its orders. Would any non-conforming products be identified on this occasion, Advantech reserves the right to reject the utilization or incorporation of the non-conforming parts, at the time of the visit or later. During the visit, Advantech and its customer's representative(s) will have access to adequate means of communication.

26. Counterfeit Components

The supplier shall not deliver counterfeit components or parts and assemblies that include counterfeit components. If the supplier fails to meet this requirement, his organization will incur the legal and financial consequences flowed down by Advantech, at any time during the life cycle of the product.

27. Prevention of Counterfeit Component Usage for Military Parts

Parts shall be purchased from OCMs/OEMs or through OCMs/OEMs authorized distributors. Independent Distributors (brokers) shall not be used without written consent from Advantech Wireless.

28. Component Soldering for Military Parts

Lead-free soldering shall not be used, unless otherwise specified in the PO. The parts intended for military application are identified with a Part Number that contains the letter "M" in the place of the second dash.

29. DPAS Rating

When the DPAS Rating is mentioned on Advantech's Purchase Order for a specific part, the same DPAS Rating shall be flowed down in supplier's Purchase Orders issued to build Advantech's specific part.

30. Foreign Object Detection and Prevention

The supplier must implement processes for *Foreign Object Detection and Prevention*.

31. Special Processes

The supplier must qualify its special processes according to the applicable standards. The personnel involved in special processes must have the required qualifications.

32. Process Change

The supplier must request Advantech's approval, before implementing any change that might affect the form, fit or function of the product delivered to Advantech.

33. Record Retention

The supplier must retain records pertaining to Advantech's products for a period of minimum 7 years.

34. RoHS Compliance

The materials and processes used to manufacture the purchased items shall be compliant with the latest EC RoHS Directive and the supplier shall provide documents to support the compliance.