



Denver

## Purchase Order Quality Assurance Clauses

The Quality Assurance Clauses as specified herein, shall become an integral part of the Purchase Agreement when indicated by the clause codes on the purchase order. These clauses supplement the presently existing terms and conditions of the purchase agreement. The Supplier / Service Provider must establish and maintain documented procedures necessary for ensuring control and compliance to these Quality Assurance Clauses. The Supplier / Service Provider supplying material and/or service(s) are requested to review this document and establish and maintain, as required, documented procedures for ensuring the control and compliance to the specified clauses. Suppliers / Service Providers requesting exceptions to specified clauses must submit a request to the TTM Technologies (Denver) Purchasing Agent.

**QA100- Certificate of Compliance (C of C) required:**

A Certificate of Compliance stating that the material supplied meets or exceeds the specified industry standard is required. The C of C must include the specification number and the signature of an authorized Representative. All other materials require a Certificate of Analysis (C of A).

**QA101 -First Article required:**

The first piece is fully inspected for all dimensions, characteristics and notes listed on the drawing or specification. Each reading is recorded along with the associated requirement. First Article documentation is required to ship with this order.

**QA102- AS9102 Required:**

AS9102, Aerospace First Article Inspection Requirement shall accompany this order.

**QA103 - Traceability:**

Product supplied under this purchase order is traceable to the raw material used in its production.

**QA104- Temperature Control:**

The material supplied must be shipped and/or stored within the manufacturer's specified temperature range.

**QA105- AS9100 Quality Management System:**

The supplier shall maintain a Quality Management System in accordance with AS 9100.

**QA106- ISO 9001:**

The supplier shall maintain a Quality Management System in accordance with ISO 9001

**QA107- Nadcap Accreditation:**

The Supplier shall have Nadcap Accreditation

**QA108 - Calibration Service:**

The Calibration Service is in compliance with ANSI/NC SL Z540-1-1994.

**QA109- 'OX' Rated Order:**

This order is a rated order issued under the Defense Priorities and Allocations System regulation (15 CFR 700). Seller is required to follow all provisions of that regulation in filling this order and in obtaining items needed to fill this order. This is a "OX" rated order over \$5,000.00 (USD), per DPAS regulation 15 CFR 700, if seller rejects this order seller must notify buyer, in writing, within five working days.

**QA110- 'DO' Rated Order:**

This order is a rated order issued under the Defense Priorities and Allocations System regulation (15 CFR 700), seller is required to follow all the provisions of that regulation in filling this order and in obtaining items needed to fill this order. This is a "DO" rated order over \$5,000.00 (USD), per DPAS regulation 15 CFR 700, if seller rejects this order seller must notify buyer, in writing, within ten working days.

**QA111 - Special Process Approval:**

The supplier shall obtain TTM Technologies, Inc., Quality certification / approval of facilities, equipment, processes and operating personnel for all work on this order involving plating, chemical film, heat treat, welding, soldering, radiographic, penetrant, magnetic particle, painting, and ultrasonic special processes. The certification/approval is obtained prior to the start of work. Special process sources used by the supplier are subject to the same approval requirements as above and are obtained prior to the time of use by the supplier. All changes to an approved process shall require TTM Technologies, Inc. approval prior to implementation.

CERTIFICATES OF COMPLIANCE MUST INCLUDE THE SPECIAL PROCESS SPECIFICATION NUMBER AND REVISION AS CALLED OUT. MANUFACTURERS THAT UTILIZE AN APPROVED SPECIAL PROCESS SUPPLIER MUST PROVIDE, WITH SHIPMENT, A CERTIFICATE OF COMPLIANCE FROM THE SPECIAL PROCESS SUPPLIER.

**QA112- Source Inspection:**

This order requires that TTM Technologies, Inc., personnel perform inspection at the point of manufacturing. The seller is to notify TTM Technologies, Inc., buyer 5 days prior to shipping that the material will be ready for source inspection.

**QA113- Flow Down Requirements:**

The Supplier shall flow down requirements to your sub-tier suppliers as a part of this purchase. Flow down requirements are identified on the face of the purchase order or by reference on the face of the P.O.

**QA114- Test Specimens Required:**

The supplier shall submit test specimens (production method, number, storage conditions) for design approval, inspection, investigation or auditing. The test specimen requirements are identified on the face of the purchase order or by reference on the face of the purchase order.

**QA115- Requirements for design, test, examination, inspection and related instructions for acceptance are required:**

The requirements are identified on the face of the purchase order or by reference on the face of the Purchase Order.

**QA116- Record Retention:**

The Supplier and any subcontractor(s) shall maintain, on file for a minimum of twenty (20) years from date of Manufacture, Certifications, Test Data and Release Notes and any other quality records for all material shipped to TTM Technologies, Inc., Documents must be available within 24 hours of request.

**QA117- Shelf Life:**

Any materials with an expiration requirement will not be accepted with less than 90 days of shelf life remaining. Any exceptions to this requirement require written approval from the TTM Materials Manager.

**QA118- Base Materials:**

Base Materials is manufactured to the latest revisions of IPC-4101 or IPC-4103, and IPC-4562.

**QA119 – ISO/IEC 17025:**

The supplier shall maintain a Quality Management System in accordance with ISO/IEC 17025: “General Requirements for the Competence of Testing and Calibration Laboratories”

**QA120 – Right of Entry:**

The buyer may, during regular business hours and after reasonable notice access any of the sellers' premises, including but not limited to, sites where the good and services are created for the inspection of goods, financials etc. per TTM's Terms of Purchase.

**QA121 – Non-conforming Product Disposition Approval:**

The supplier shall obtain approval from the buyer for all non-conforming product dispositions. See TTM's Terms of Purchase

**QA122 – Notification of Non-conforming Product**

If any of the goods or services provided are found at any time prior to the expiration of the applicable warranty to be defective or otherwise not in conformity with the requirements of the purchase order the supplier shall immediately notify the buyer. See TTM's Terms of Purchase.