



**Quality System Document**

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## TRM Microwave Quality Notes

**NOTE:** This document is distributed outside the normal TRM Microwave control system. Whenever this document is updated, ensure that it is also updated on the TRM website.

**NOTE:** This document is an integral part of the contract (purchase order), which calls out the specific Quality Notes. The revision in effect at the time the purchase order was placed applies.

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Q Note	Description
AA	Universal Quality Note
AA1	Quality Management System
AA2	Quality Flow Down to Sub-Tier Sellers
AA3	Product & Process Control, Traceability, and Record Retention
AA4	Documentation – Revision and Configuration Control
AA5	Manufacturer’s Part Numbers
AA6	No Changes without Approval
AA7	Nonconforming Material
AA8	Certificate of Conformance
AA9	Counterfeit Part Detection and Avoidance
AA10	Right of inspection
AA11	Material Substitution Prohibition
AA12	Conflict Minerals
AB	Special Process Control Requirements
AC	Prohibition of Pure Tin
AD	Foreign Object Elimination
AE	Electrostatic Discharge Control Program
AF	Department of Defense Priorities and Allocations (DPAS)
AG	RoHS
AH	REACH
AI	Removed
AJ	First Article Inspection (FAI)
AK	Berry Amendment
AL	OEM / OCM requirements
AM	Cadmium and Zinc prohibition
AN	Single Lot Requirement
AO	Export Control
AP	Restriction on Acquisition of Certain Articles Containing Specialty Metals
AQ	Titanium Restriction
AR	Prohibition of Hexavalent Chromium
AS	Restricted Solder Materials
AT	Mercury Restriction
AU	J-STD-001 solder workmanship
AV	Sapa Profiles Extruded Aluminum
AW	Buy America Act-Balance



### AA - Universal Quality Note

All portions of “AA” have continual flow down requirements. In accepting the purchase order from TRM Microwave, the Supplier agrees to meet the terms of AA and agrees to flow them to their sub-tier suppliers.

#### AA1. Quality Management System

Sellers quality management system shall be certified to a nationally recognized standard and be in compliance with the current revision of AS9100, ISO 9001 or have a TRM Microwave approved Quality Management System.

#### AA2. Quality Flow Down to Sub-Tier Sellers

The seller’s Quality System shall assure all relevant Purchase Order requirements are flowed down to their sub-tier suppliers. The seller’s sub-tier suppliers are responsible to comply with the same specifications and requirements specified on this Purchase Order.

#### AA3. Product & Process Control, Traceability, and Record Retention

Seller’s Product, Process Control and Quality Records shall be retained at the seller’s location. The records shall be adequate to provide traceability, including OEM name & lot number, and quality level of production processes. Records will contain date and/or lot codes associated with the purchase order. Quality records shall be provided upon request from TRM Microwave. Records may be destroyed after Seller receives written permission from TRM Microwave.

#### AA4. Documentation – Revision and Configuration Control

The seller shall assure the drawing revision matches the revision noted on this Purchase Order.

#### AA5. Manufacturer’s Part Numbers

If an item on this Purchase Order is controlled by a drawing that references a "Suggested Source of Supply" and/or "Manufacturer Part Number", this shall not to be construed as a guarantee that the suggested seller and/or manufacturer's part number meets the requirements of the drawing. It is the Sellers responsibility to assure that the "Suggested Source of Supply" and/or "Manufacturer Part Number" meets all drawings required on this Purchase Order.

#### AA6. No Changes without Approval

Except for first time purchases, items furnished under this Purchase Order shall be identical in form, fit and function to a product previously supplied. The seller shall notify TRM Microwave in writing of any proposed changes including changes in design, materials, parts, fabrication methods or processes, major plant rearrangement, or plant relocation and changes that will impact form, fit and/or function. Prior to fulfilling a TRM purchase order, TRM must approve any/all changes with written notification provided to the seller.



**AA7. Nonconforming Material**

The seller shall not ship nonconforming material without prior written approval from TRM Microwave. The seller will notify TRM Microwave of any nonconforming materials, the seller will obtain approval from TRM Microwave for nonconforming product disposition.

**AA8. Certificate of Conformance**

Material supplied on this purchase order shall conform to requirements stated therein, and shall be accompanied by a Certificate of Conformance, which must contain the following information:

1. Sellers name, address, and part number.
2. Country of origin.
3. TRM Microwave purchase order number, line item number.
4. Part number of item (as specified on the purchase order), revision, and quantity.
5. Serial number(s) if applicable.
6. Statement of conformance to all requirements.
7. Authorized agent's signature, title and date.
8. OEM name and lot number

The supplier or distributor shall provide a Certificate of Conformance with each shipment of items delivered to TRM. The certificate shall state that the product meets all of the requirements identified on the TRM Purchase Order.

**AA9. Counterfeit Part Detection and Avoidance**

Supplier shall practice and comply with the requirements of SAE AS5553 and DFAR 252.246-7007.

**AA10. Right of inspection**

TRM reserves the right to inspect and test product before, during and after delivery. Buyer may require Seller to repair, replace or reimburse the purchase price of rejected goods. When requested, Seller shall furnish information and assistance necessary for the safe and convenient inspection required by Buyer.

**AA11. Material Substitution Prohibition**

Unauthorized material substitutions are not permitted. Unauthorized material substitution includes any deviation from the engineering definition of a raw material. Engineering definition includes Buyer design drawing and applicable specifications, product specification, form, size, shape, chemistry, melt method, origin, temper/condition, product testing or surface finish.

**AA12. Conflict Minerals**

As a supply chain partner supporting our collective End Customer, support compliance to Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). Support includes awareness of the requirements, and participating in providing evidence when requested. A typical form of providing evidence is populating and submitting a "country of origin inquiry", such as the EICC/GeSI survey.



“Conflict Minerals” are described as tin, tantalum, tungsten or gold (also referred to as “3TG”) contained in products that are manufactured or contracted to be manufactured.

## **AB - Special Process Control Requirements**

### **AB1. Special Process Control Requirements**

A Special Manufacturing Process is a process where it is not possible to assure, by typical verification techniques, that product integrity is achieved by the process. The Seller shall certify that these processes such as but not limited to plating, painting, soldering, radiography, welding, heat-treating, cleaning, electroplating, anodizing, chemical films, etc. were performed in accordance with specification requirements. The certificate shall identify the products processed, the Procurement Agent’s Purchase Order number, and the applicable specifications (including revision letters or numbers) to which the processes conform and the date and the name of the agency that performed the process if other than the Seller.

## **AC - Prohibition of Pure Tin**

### **AC1. Prohibition of Pure Tin**

The uses of Pure Tin Plated finishes are strictly prohibited.  
Any Tin Plating or Tin Solder processes shall contain a minimum of 3 percent lead composition, unless specifically authorized in writing by TRM Microwave. These restrictions apply for all types and levels of procurements, with the supplier responsible for communicating these restrictions to subcontractors or sub-tier suppliers as required.

## **AD - Foreign Object Elimination**

### **AD1. Foreign Object**

The material supplied on this purchase order shall be manufactured in an environment that is free of foreign objects. Material supplied shall be free of foreign objects. The seller’s program shall utilize effective FOD prevention practices. The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generating potential of the manufacturing methods.

The seller's program shall include FOD preventive practices in packaging. There shall be no foreign objects received in packaging and packaging containers. Foreign objects can include staples used for closure of unit packaging, foam peanuts used for cushioning and Styrofoam (can break down and particles cling to parts) used for cushioning. In general, no packaging material shall be used that will leave any residue from the packaging material on the parts as a result of packaging or unpacking the product.

The written procedures or policies developed by the seller shall be subject to review upon request by the TRM Microwave.

## **AE - Electrostatic Discharge Control Program**

### **AE1. Electrostatic Discharge Control**

For electrical and electronic parts, assemblies, and equipment, susceptible to damage from Electrostatic Discharge (ESD), the seller is responsible to establish and implement an ESD Control Program compliant with the latest revision of MIL-STD-1686 and/or JESD625. The seller shall take the necessary precautions to ensure that static susceptible devices are adequately protected from ESD damage during manufacturing, test, inspection, packaging and shipping. Packaging shall be marked with an ESD cautionary note or symbol.

## **AF - Department of Defense Priorities and Allocations (DPAS)**

**AF1.** This is a Rated Order and is certified for National Defense use under the system regulation (DPAS). This notice has been added to communicate that the DPAS rating of this order must flow down throughout the entire procurement chain. See the specific rating on the purchase order. Reference 15 CFR 700. DPAS information can be found at <http://www.bis.doc.gov/dpas/default.htm>

## **AG – RoHS**

**AG1.** The material supplied on this purchase order shall be compliant with current RoHS requirements. The supplier shall provide a written statement of compliance with each shipment. RoHS information can be found at <http://www.bis.gov.uk/nmo/enforcement>.

## **AH – REACH**

**AH1.** The material supplied on this purchase order shall be compliant with current REACH requirements. The supplier shall provide a written statement of compliance with each shipment. REACH information can be found at [http://ec.europa.eu/environment/chemicals/reach/reach\\_intro.htm](http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm)

## **AI - Conflict Materials**

**AI1.** - Removed

## **AJ - First Article Inspection (FAI)**

**AJ1.** The seller shall perform a First Article Inspection on TRM Microwave controlled drawings and specifications unless otherwise specified by the Purchase Order. The First Article Inspection (FAI) report



shall conform to the requirements of Aerospace Standard AS9102, the revision of this standard at the time of the purchase order applies.

**AK - Berry Amendment**

**AK1.** The material supplied on this purchase order shall be compliant with current Berry Amendment requirements. The supplier shall provide a written statement of compliance with each shipment. Berry Amendment information can be found at [http://www.acq.osd.mil/dpap/cpic/ic/berry\\_amendment\\_faq.html](http://www.acq.osd.mil/dpap/cpic/ic/berry_amendment_faq.html). This Quality Note requires continual flow down, the Supplier agrees to meet the terms and agrees to flow them to their sub-tier suppliers.

**AL - OEM / OCM requirements**

**AL1.** Electronic (EEE) parts shall be procured only through Original Equipment Manufacturers (OEMs) / Original Component Manufacturers (OCMs) or their franchised distributors. This Quality Note requires continual flow down, the Supplier agrees to meet the terms and agrees to flow them to their sub-tier suppliers.

**AM - Cadmium and Zinc prohibition**

**AM1.** The use of cadmium or zinc is prohibited. All cadmium alloys or zinc alloys (e.g., brass) may be completely over plated with an approved metal when approved in advance in writing by TRM Microwave.

**AN - Single lot requirement**

**AN1.** Each individual item number provided against this purchase order must be from a single material lot.

**AO – Export Control**

**AO1.** Seller represents that it maintains an effective export/import compliance program in accordance with the ITAR and it is registered with the United States Office of Defense Trade Controls as required by the ITAR.

**AP - Restriction on Acquisition of Certain Articles Containing Specialty Metals**

**AP1.** Seller is required to meet the terms described in DFARS 252.225-7009. This DFARS clause incorporates domestic source requirements for certain specialty metals when the end customer will be the US Government. Compliance with the requirements of this clause, at both the prime and subcontractor levels at all tiers, is required.

### **AQ – Titanium Restriction**

AQ1. No products delivered under this purchase order shall contain rolled plate or forged bar titanium sourced from Western Titanium Inc. or Mach 2 Metals at any subtier level. The supplier is to flow down to subtier suppliers the applicable requirements in the purchasing documents, including key characteristics where specified.

Material shipped against this purchase order item shall not contain any marking with the Westinghouse name or logo. Should any specification forming a part of this purchase order item contain a requirement for such marking, the seller shall immediately contact the buyer for appropriate direction.

### **AR – Prohibition of Hexavalent Chromium**

Products supplied to TRM Microwave must meet the requirements of DFARS clause “252.223-7008 Prohibition of Hexavalent Chromium”. No products delivered under this purchase order shall contain hexavalent chromium in a concentration greater than 0.1 percent by weight in any homogenous material, or requires the removal or reapplication of hexavalent chromium materials during subsequent sustainment phases of the deliverable or construction material.

### **AS – Restricted solder materials**

Lead-free (Pb) alloy bulk solders shall be restricted except as used for die attach. Use of lead-free alloy bulk solder shall require written approval from TRM Microwave and compliance to GEIA-STD-0005-1. Certain tin-silver (Sn96/Ag4) and tin antimony (Sn95/Sb5) solders, which are standard, attach materials used in high-temperature soldering applications for joints and assembly shall be acceptable for those applications only.

Tin-lead-antimony solders containing not more than 95.0 percent tin shall be allowed only with the written approval of TRM Microwave. Any changes of bulk solder material, including a change of SnPb solder to SnAg solder, shall require written approval from TRM Microwave.

### **AT – Mercury restriction**

The equipment or supplies furnished under this Purchase Order shall contain no metallic mercury or mercury compounds and reasonable steps shall be taken to ensure that said equipment or supplies are not contaminated with mercury or mercury compounds. Should the Technical Data Package require mercury or mercury compounds, notify the buyer.





### **AU – J-STD-001 solder workmanship**

Solder Workmanship. Applicable products shall meet the soldering workmanship requirements contained in the latest issue of ANSI/J-STD-001 Class 3 or IPC-610 Class 3, unless otherwise specified on the PO/Subcontract or drawing/specification. In case of a conflict, ANSI/JSTD-001 Class 3 shall supersede.

### **AV – Sapa Profiles Extruded Aluminum**

Research procurement records, including those of all suppliers and subtier suppliers, and records of material supplied to TRM Microwave to determine if Sapa Profiles extrusions from an affected plant or work order was used in product supplied to TRM Microwave. Notify TRM Microwave of any potentially impacted product supplied to TRM Microwave. “Sapa Profiles, Inc.” was previously “Technical Dynamics Aluminum”.

Please refer to GIDEP Document Number AAN-U-15-208A dated 28 September 2015 for additional details.

### **AW - Buy America Act-Balance**

The buyers Prime Contract contains DFARS 252.225-7001, Buy America Act-Balance of Payments Program. The Supplier shall not deliver any Foreign end product or a component that contains more than 50% of material that was not mined, produced, or manufactured in the United States or a Qualifying Country listed in 252.225-7001, without prior written approval of the Buyer.