

## QUALITY ASSURANCE PROCUREMENT PROVISIONS

The following provisions with their terms and conditions shall become an integral part of the purchase order to the extent specified in the purchase order and shall become a supplement to the presently existing terms and conditions of the purchase order. All specifications and standards referenced in this document are the latest issue in effect at the time of Purchase Order placement, unless otherwise stated. These provisions apply to all ViaSat facilities and divisions as appropriate.

### 1. MARKING PERMANENCY AND LEGIBILITY

Marking permanency and legibility for CCAs and electronic assemblies shall be in accordance with ANSI/IPC-A-610. WEEE and RoHS marking permanency must be in accordance with ViaSat, Inc. PR000450 and/or CENELEC EN50419:2005

### 2. GOVERNMENT REVIEW OF PERFORMANCE

During performance on this contract, the government reserves the right to inspect at source of supplies or services. Government inspection shall not constitute acceptance nor shall it in any way replace ViaSat inspection. The purpose of this inspection is to assist the government representatives at ViaSat to determine the conformance of supplies or services with contract requirements. Government inspection or release of product prior to shipment is not required unless Supplier is otherwise notified.

### 3. VIASAT FIELD INSPECTION

ViaSat reserves the right to visit the plant of the seller or his source to survey facilities, systems, and/or product to determine satisfactory conformance to the applicable specifications. ViaSat Quality Assurance representative(s) may elect to conduct inspection either on a random basis or to the extent of 100% inspection. Seller will be notified if ViaSat inspection is to be conducted on specific shipments. No shipments are to be held for ViaSat inspection unless notification is received prior to, or at the time of, material being ready for shipment.

### 4. IDENTIFICATION

The manufacturer shall be responsible for legibly and permanently identifying each part in the method prescribed by the detail document. If detailed document is not provided, this identification shall include at a minimum Supplier marking, Supplier address, part identification and Country of Origin. If this information can not be marked on the part due to part size or shape of the part then identification shall be on the part packaging.

### 5. CERTIFICATE OF COMPLIANCE

Certification is required with each shipment of this item. The certificate must contain an original, not reproduced, signature of a duly authorized Quality Assurance representative of the seller and will read substantially as follows: "Materials and processes, including special processes, used to produce the item(s), components, parts, described on the Purchase Order conform to all Purchase Order requirements, referenced specifications or special requirements." When QAPP 12.A is invoked, the Supplier shall provide Certificate of Compliance that contains the name, specification number, type, and class, of the material or process specified in the appropriate specification/drawing. It must include serial numbers, lot codes and date codes, as applicable. It must also list all Special Processes used in the manufacture of delivered items, as defined in QAPP # 49.

If Source Inspection per QAPP 15 or 15.A is invoked on this order, the Certificate of Compliance must be completed and presented to the Source Inspector at the Supplier's facility at the conclusion of the Source Inspection. The Source Inspector shall review the Certificate of Compliance and indicate acceptance on the Certificate (stamp or signature.).

### 6. MATERIAL DECLARATIONS

When requested for RoHS and WEEE compliance Material Declarations are required and shall be per IPC-1752 guidelines using IPC-1752-2 Format level 6, which includes Process Information. This must be provided within 5 business days of the request. Other methods of disclosure may be accepted with prior approval from ViaSat, Inc. Design Engineering and Compliance Management.

### 7. GOVERNMENT SOURCE INSPECTION

- (a) Government inspection is required prior to shipment from the Supplier's plant. Upon receipt of this order, the Supplier shall promptly notify the government QA representative who normally services the Supplier's plant so appropriate planning for government inspection can be accomplished.
- (b) On receipt of this order, promptly furnish a copy to the Government representative who normally services your plant or, if none, to the nearest Army, Navy, Air Force, or Defense Supply Agency Inspection office. In the event the representative or office cannot be located, our purchasing agent should be notified immediately.

### 8. WORKMANSHIP STANDARD

The materials and workmanship shall conform to the requirements specified in the appropriate specification/drawing.

Note: The exception to this requirement is limited to drawings and specifications that reference Scientific-Atlanta workmanship document requirements (these documents are no longer valid within ViaSat Satellite Networks).

If not specifically identified in the specification or drawing, all electrical assembly workmanship requirements shall be to that specified within IPC-A-610 Class 2.

### 9. SUPPLIER RESUBMISSION OF REJECTED MATERIAL

Supplier shall notify ViaSat of shipment of material from lot(s) previously rejected by ViaSat, and such lots shall be clearly identified as "resubmitted" items on the Supplier's shipping document.

## 10. RAW MATERIAL REPORTS

With the shipment, the seller shall forward reports of mechanical properties and chemical composition to show evidence of conformance to all applicable specifications for all raw material used in fabrication of the ordered material.

With shipment of chemical orders, the seller shall forward reports of chemical composition to show evidence of conformance to applicable specifications for all raw material used in the ordered material. This report shall comply with the requirements of the Material Safety Data Sheet (MSDS), and shall be retained as a record by the Supplier in accordance with methods defined in QAPP 44..

## 11. TRACEABILITY OF RAW MATERIAL

For all material used on this purchase order, the seller must provide a certificate that reads substantially as follows: "Raw materials used in this Purchase Order conform to all applicable Purchase Order requirements and are traceable to test reports at the point of manufacture. Originals or true copies of such reports are available for review by ViaSat."

## 12. FIRST ARTICLE INSPECTION

First article inspection shall be performed and a first article inspection report (FAIR) shall be submitted on the first part manufactured. In addition, first article inspection shall be performed on current production runs affected by significant design changes. Originals or true copies of such reports are available for review by ViaSat.

### 12A. AS9102 FIRST ARTICLE INSPECTION

The following applies to ViaSat AS9102 First Article Inspection (**Ref. PR000565, FAIR Forms and Guidelines**). First article inspection (FAI) shall be performed and a first article inspection report (FAIR) shall be submitted by the seller in accordance with the requirements of AS9102. When documenting the FAI, the seller may use the forms contained within AS9102 or their equivalent, as long as the forms contains all the information required by AS9102. The seller shall provide Certificate of Compliance that contains the name, specification number, type, and class, of the material or process specified in the appropriate specification/drawing as stated in QAPP #5.

## 13. PRODUCT FLOW PLAN

The Supplier shall prepare and submit to ViaSat a product flow plan. Unless otherwise specified, the product flow plan together with copies of the (1) Supplier Inspection Procedure and (2) Acceptance Test Procedure used for the final acceptance of the product shall be submitted prior to the initial shipment of material to ViaSat.

## 14. PACKING

Unless otherwise specified on the drawing, the specification, and/or the purchase order, the following requirements are mandatory:

- (a) Prior to packaging, material shall be clean (free from foreign matter). Critical functioning or close tolerance surfaces shall be cleaned to insure removal of corrosion, soil, grease, residues and fingerprints, perspiration or other acid and alkali residues.
- (b) Material not inherently resistant to corrosion shall be inhibited with a suitable medium.
- (c) Material shall be packaged to the extent necessary to provide protection from the hazards of transport, contamination and physical damage encountered in general handling, shelf storage, and issue.
- (d) Applicable ESD packaging shall be used for all items sensitive to electrostatic discharge.
- (e) All packaging material shall be of non-ozone depleting materials; ref. Volume 40 of the Code Of Federal Regulations, Part 82, Clean Air Act, Title VI.

### 14.A RoHS COMPLIANT PACKAGING

- (a) All packaging and print material for RoHS products must be RoHS compliant and must be marked according to China RoHS requirements Standards
- (b) Packaging material must be recyclable or reusable
- (c) Packaging shall meet the requirements of EU Directive 94/62/EEC.
- (d) Upon request from ViaSat Inc. the packaging supplier shall provide Packaging Material Declaration with information requirements specified in PR000634.

## 15. VIASAT SOURCE INSPECTION

The following applies to ViaSat Source Inspection (**Ref. PR000551, Request for Source Inspection**). ViaSat reserves the right to perform source inspections at the Suppliers facility. The inspections, if deemed required, are to be scheduled through the Quality Assurance and Purchasing organizations. The Supplier is responsible for providing the representative with suitable working area, tools as necessary and identified by the representative, and access to Supplier support personnel in respect to the product and processes associated with the product to be source inspected.

The Supplier shall inform ViaSat as to the readiness of the product to be source inspected a minimum of 48 hours in advance of material / product availability.

### 15A. PWA SOURCE INSPECTION.

The following specifically applies to Source Inspection of Printed Wiring Assemblies, PWA's (**Ref. PR000551, Request for Source Inspection**). ViaSat requires a 48-hour written request for Source Inspection prior to Supplier shipments of PWA's. The Source Inspection request must contain three Sections: (1) a cover letter specifying the quantity, part number, and Revision of the PWA's that are ready for Source Inspection, (2) an Excel-like spread sheet listing all and only Serial Numbers (S/N's) of the CCA's ready for Source Inspection, and (3) a copy of the signed Statement of Work (SOW), if applicable. Part shortages must be summarized in Section (1) of the Source Request and detailed in Section (2) next to the appropriate S/N's. If there are no part shortages, this must be indicated in the cover letter of Section (1).

The Source Inspection request for PWA's applies to all PWA's to be shipped to ViaSat. This includes, but is not limited to: (a) all new PWA's, (b) all PWA's that were previously rejected and returned to the Supplier either during Source Inspection at the Suppliers facility or at Receiving/Inspection at ViaSat's facility, and (c) all PWA's being returned to ViaSat following either warranty or non-warranty repairs. Material previously rejected by ViaSat must be identified as "resubmitted" per QAPP# 9.

## 16. VIASAT IN-PROCESS INSPECTION

In addition to the requirements of ViaSat source inspection (QAPP #15), all items covered by this purchase order are subject to in-process inspection by a ViaSat Source Inspector. This inspection may include surveillance of the products or the seller's systems, procedures, or facilities. Inspection of the hardware will be prior to the application of epoxy materials, hermetic sealing, or any other permanent closure. The seller shall provide scheduling for in-process source inspection coverage. Evidence of in-process inspection will accompany each shipment.

## 17. WIRE

Each spool of wire on this order must be legibly and permanently identified with: (1) purchase order number, (2) gauge, and (3) where applicable, the ViaSat part number.

## 18. TOOLING

The seller is responsible for the protection, calibration, maintenance, and care (other than normal wear) of all tooling and equipment owned by ViaSat. Said tooling or equipment shall be subject to surveillance inspection upon notice and shall be returned in an acceptable condition upon demand or notice.

## 19. SECURITY CLEARANCE

The seller must supply satisfactory evidence of government clearance by the Department of Defense for access to classified information furnished on this order. The personnel having access to this material must have the necessary security clearance.

## 20. RECEIPT OF CLASSIFIED MATERIAL

By signing and returning the "Record of Receipt" the Supplier acknowledges the receipt of classified material and the obligation to handle such material in accordance with Department of Defense Industrial Security Manual, Chapter 5, Section 4, paragraph 5-407.

## 21. INTEGRATED CIRCUITS

All flatpacks and dual in-line devices must be mounted in appropriate carriers with pin 1 of the device oriented consistently.

## 22. SUPPLIER FAILURE ANALYSIS REQUIRED

As requested by ViaSat on specific identified occurrences, the Supplier shall provide a complete failure analysis describing the actual cause of failure including the component failure mechanism. Include corrective action and date code or serial number effectivity to preclude recurrence of this failure mode.

## 23. AGE CONTROL-ELECTRONIC PARTS

The Supplier shall deliver to ViaSat only those parts manufactured less than two years prior to date of shipment. This shall be evidenced by date code marking on each individual part, as required by the procurement specification or drawing.

Waivers to this requirement shall be submitted to ViaSat Purchasing in writing for approval prior to use within ViaSat product.

## 24. SUPPLIER'S QUALITY MANAGEMENT SYSTEM

- (a) The materials and services processed by the Supplier for this order must be controlled by a documented quality management system that conforms to ISO 9001 or AS9100, as appropriate, or:
- (b) The materials and services processed by the Supplier for this order must be controlled by a documented quality management system that conforms to MIL-I-45208, or:
- (c) The materials and services processed by the Supplier for this order must be controlled by a documented quality management system acceptable to ViaSat.

## 25. CALIBRATION SYSTEM

Measuring and testing equipment used in the performance of this order shall be calibrated in accordance with ANSI/NCSL Z540-1 or ISO 10012.1.

## 26. SUPPLIER INSPECTION INSTRUCTION SUBMITTAL

The Supplier shall prepare and submit a complete inspection instruction with the initial shipment of parts. The instruction shall include the following:

- (a) The inspection instruction shall delineate which inspection/test parameters and characteristics are being inspected on this part.
- (b) The inspection instruction shall specifically state how inspection/tests are being performed. The instruction shall be clear, concise, and complete regarding (1) inspection/test methods, (2) test equipment requirements in set-up for each inspection/test, and (3) a step-by-step procedure for conducting the inspection/test.

## 27. RoHS PRODUCT TESTING

ViaSat, Inc. reserves the right to **have any advertised RoHS compliant** product tested for RoHS compliance. If product is determined to be **noncompliant it is the responsibility** of the supplier to replace or correct all noncompliant material.

## 28. MICROELECTRONIC INSPECTION REQUIREMENTS

All microelectronic devices shall meet the requirements of MIL-STD-883 Method 5004, 5008, or 5010, for screening and Method 5005, 5008 or 5010, Groups A and B class B, for quality conformance testing, as applicable to the device type. Frequency of testing and sample selection shall be in accordance with MIL-M-38510. Screening and Groups A and B data must be furnished with each shipment. Failure to include the specified data will result in automatic rejection of materials.

### NOTE:

In lieu of a separate report, screening inspection data may consist of a copy of the traveler of the lot shipped with appropriate QA approvals.

## 29. MICROELECTRONIC DATA REQUIREMENTS

All microelectronic devices shall meet the requirements of MIL-STD-883 Method 5005 or 5008, Groups C and D, class B, for quality conformance testing as applicable to the device type. Frequency of testing and sample selection shall be in accordance with MIL-M-38510. Group C and D data must be furnished with each shipment. Failure to include the specified data will result in automatic rejection of materials.

Where RoHS compliant components are subject to Tin Whisker risk (100% pure tin finish or high tin alloys) on component leads the vendor shall provide a data indicating the risk level and results of elevated temperature and humidity testing to ensure the risk is minimized in Class 2 products as the classes are defined in PR000414.

## 30. CUSTOMER SOURCE INSPECTION

ViaSat and ViaSat's customer have the right of entry to subcontractor facilities in order to determine and verify the quality of work and material. This right extends to the plant of any subtier Supplier for materials intended for incorporation into the contracted product(s). Such investigations at subtier facilities will be performed jointly by ViaSat, the ViaSat customer, and the subcontractor (as applicable).

## 31. MACHINED PARTS

The materials on this purchase order shall conform to the requirements of 070-QA-044.

## 32. CASTINGS

The materials on this purchase order shall conform to the requirements of 070-QA-044.

NOTE: On partial shipments, the Supplier shall furnish x-rays and a lab report representing the entire ordered lot on the first partial shipment against this order. All subsequent shipments shall reference by heat number the original foundry lot.

## 33. SHEET METAL FABRICATION

The materials on this purchase order must conform to all requirements of 070-QA-044.

## 34. SERIAL NUMBER

The Supplier shall identify each individual unit/item supplied to ViaSat with a serial number. These serial numbers shall be sequential and shall not be repeated within a specific part number.

## 35. TEST/INSPECTION DATA

- (a) Inspection measurements and/or electrical test results of items on this purchase order shall be taken and included with each purchase order shipment. Actual data to be recorded shall be specified in the detail specification/drawing. The Supplier shall assure that products failing to meet performance requirements are not shipped to ViaSat. As a minimum, test data shall include:
- (1) Part number and revision.
  - (2) ViaSat purchase order number.
  - (3) Supplier's acceptance test procedure number (as applicable) and revision date.
  - (4) Characteristic measured with measurement data.
  - (5) Date of test completion.
  - (6) Evidence of test acceptance by Supplier's Quality Assurance.
- (b) Supplier shall document and submit actual inspection results using Supplier documentation. Test/Inspection data shall be maintained in accordance with QAPP 44.

## 36. SHELF LIFE/HAZARDOUS MATERIAL

Materials with a limited life shall be supplied with an accompanying effective date of manufacture or date of expiration and must, at time of receipt at ViaSat, have at least 75% of their shelf life still remaining. The seller shall provide Safety/Hazard Data Sheets with the first shipment of material requiring such special handling.

### 36.A. RoHS MAXIMUM CONCENTRATION VALUES (MCVS)

When EU and China RoHS is a requirement, all toxic or hazardous material shall be identified if the RoHS Maximum Concentration Values (MCV) are exceeded. The useful life of the product life shall be identified in years using the China Marking requirement document: Orange or Red Arrowed circle with the useful life years in the center of the circle.

## 37. MATERIAL REVIEW

Nonconforming material supplied under this contract must be processed in accordance with a documented system for the control, material review and disposition of nonconforming material. If, after shipment of product by Supplier to ViaSat, the Supplier identifies any actual or potential nonconformity of product supplied to ViaSat or to the processes used in the manufacture of product supplied to ViaSat, the Supplier shall notify ViaSat in writing of any such nonconformity, what product or process was affected, and what corrective action was taken by Supplier to prevent recurrence.

## 38. ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) MATERIAL

- (a) The Supplier supplying ESDS material on this purchase order shall meet the requirements of MIL-STD-1686 Electrostatic Discharge Control Program, or:
- (b) ESD packaging material purchased on this order shall be covered by appropriate government electrostatic-free material specifications or have physical properties equivalent to such specifications and meet the electrostatic decay rate of MIL-B-81705, or
- (c) ESD Material shall be in compliance with the current version of the ANSI/ESD S20.20 standard.

### 39. SELLER'S DESIGN AND PROCESS CONTROL

When design or process control is the seller's responsibility, the seller shall not, without prior approval of ViaSat, make any change in process, materials or design details that would affect: (a) part number identification, (b) physical or functional interchangeability, (c) repair and overhaul procedures and (d) RoHS compliance. Copies of the revised drawings shall be forwarded to ViaSat. ViaSat shall approve the change prior to implementation.

### 40. DESIGN AND PROCESS CHANGE NOTIFICATION

When the seller is manufacturing to ViaSat's design, no departure from the process, drawing and/or specification shall be made unless specifically authorized by the purchase contract. In the event the Seller intends to make any process change or move manufacturing, processing or testing functions to a subcontractor or a new subcontractor, the Seller will submit a transition plan and new subcontractor details to ViaSat for concurrence. ViaSat reserves the right to approve both the subcontractor and the transition plan.

### 41. MATERIAL REVIEW BOARD RESTRICTIONS

The Supplier may *rework* nonconforming material (additional processing of material in order to make the material compliant with material / product specification and/or drawing) processed for this purchase order. However, the Supplier shall not *repair* or use as-is nonconforming material without prior written authorization from ViaSat. These conditions apply only to material purchased by the Supplier; they do not apply to material consigned to the Supplier by ViaSat. Consigned materials are addressed by direct interactions between ViaSat and the Supplier.

#### Definitions:

- Rework* The act of processing nonconforming articles, through the use of original or alternate equivalent processing, in a manner that *assures conformance* of the article with applicable drawings or specifications. Example: Removal of solder bridges.
- Repair* The act of restoring the *functional capability* of a nonconforming article in a manner that *allows compliance* of the article with applicable drawings or specifications. Example: Addition of a jumper wire.

The Supplier may submit, in writing, a request for waiver or deviation of specification requirements through ViaSat Purchasing and Quality organizations when nonconforming material is believed to meet the intent of the design requirements but may have been repaired via a means other than that permitted within the specification or drawing.

### 42. CORRECTIVE ACTION

Supplier shall respond in writing to a request for corrective action made by the buyer. Corrective action shall be extended to all lower tier Suppliers. All articles rejected by the buyer and subsequently resubmitted by the Supplier to the buyer shall bear adequate identification of such resubmission either on the articles themselves or on the Supplier's shipping document. Reference shall be made to the buyer's rejection document and evidence given that the causes for rejection have been corrected.

### 43. DIRECT SHIPMENT TO THE GOVERNMENT

This purchase order requires the Supplier to ship directly to a government agency. Instructions for preservation, packing, and shipping are attached to the PO package. The Supplier must immediately notify ViaSat if there are any questions or if any assistance is needed for this requirement. If QAPP #7 also is invoked, the Supplier shall notify ViaSat 48 hours in advance of the scheduled time of Government Source Inspection (GSI) so that ViaSat can, at its option, arrange for concurrent witness.

### 44. SUPPLIER MANAGEMENT OF VIASAT PRODUCT DATA RECORDS

Supplier records shall be correctly indexed, legible and stored in a manner permitting easy access, retrieval and protection. Records shall be maintained in a manner that prevents damage or deterioration during the retention period. Retention period for product data for ViaSat products is a minimum of seven (7) years or as defined by contract. Suppliers shall have a documented system for records management and retention in accordance with their internal Quality Management System as well as any customer contractual flowdown requirements. This shall include, but not be limited to, the following:

- Records management and retention requirements definition in QMS
- Procedures, processes and systems used for records management and retention.
- Supplier retention period for records retention.
- Process followed when customer records retention periods exceed Supplier's internal QMS retention requirements.
- Method of records retention (i.e., hard or soft-copy, stored on-site or off-site)
- Records management and retention for manufacturing builds and for RMA field returns and repairs shall be clearly defined in the Supplier QMS documentation.

### 45. VIASAT ELECTRICAL TEST WITNESS

Supplier to provide sufficient advanced notification to ViaSat to permit scheduling of ViaSat witness of electrical test.

### 46. BGA ACCEPTANCE CRITERIA

Every circuit card assembly containing BGA's and similar components shall be soldered according to J-STD-001 or other ViaSat approved equivalent. BGA or micro BGA sites shall be X-rayed perpendicular to and at a 45-degree angle to the CCA. X-ray photographs, which indicate the presence of voids in any solder ball or questionable joints of any kind, shall be re-taken at greater magnification and evaluated by the Supplier. Voids whose cross sectional area is greater than 25% of the solder pad must be evaluated by ViaSat Engineering and Quality Assurance. Prior to any BGA device re-work being performed, Supplier is to inform the ViaSat Purchasing Agent immediately of any suspect parts. ViaSat Engineering and Quality Assurance will determine if rework of the BGA is required. Unless otherwise specified in the SOW, every BGA or micro BGA site shall be X-rayed based on the following statistical sampling:

CCA Lot Size (X)	Number of CCA Samples
$X \leq 10$	2 (first of the lot and last of the lot)
$10 < X \leq 50$	4 (first and last of lot and 2 others of the lot)
$X > 50$	10% of lot size (first and last of lot and others as required)

The use of X-Ray Laminography with an equal or tighter sampling plan supersedes the X-Ray requirements of this QAPP.

The supplier shall retain all X-Ray and Laminography photos and data records which shall be provided to ViaSat upon request. The data shall be retrievable by the PWA part number, PWA serial number and component reference designator, and shall be stored in accordance with QAPP 44.

#### **46. A LEADED (NON-ROHS) BGA ACCEPTANCE CRITERIA**

**This QAPP is not applicable for lead-free (RoHS) designs. Contact ViaSat Purchasing or Quality for clarification if it has been specified on an RoHS design.**

This assembly requires the use of leaded (non-RoHS) BGA components. The supplier shall test each BGA component via X-ray fluorescence (XRF) or other ViaSat approved method to confirm the presence of lead in the solder balls. The testing shall be performed on one part from each package (tape & reel, tray, etc.) upon receipt and upon the first part used on each SMT lot prior to the build. The supplier shall document compliance to this QAPP in a manner that is auditable and retrievable upon request for the period stated in QAPP 44.

#### **47. TRACEABILITY OF COMPONENTS (ELECTRICAL, ELECTRONICS & MECHANICAL)**

All components used on this purchase order shall be traceable to the original manufacturer's lot or date codes and supporting approval documentation (e.g., purchase orders & certificates of conformance). This also applies to test data and reports, as specified in the applicable purchase order, contract or specification. The Seller must be able to trace these components to all delivered items.

#### **47A. SEGREGATION OF ROHS AND NON-ROHS MATERIAL**

The supplier at all times shall maintain a process or system to ensure that RoHS compliant parts and Non-RoHS compliant parts are segregated and properly identified as to the compliance status. The supplier shall maintain appropriate controls with vendor parts to ensure that received component parts are not mixed on reels or other packaging methods. The component purchasing process shall ensure that lead finish, part compliance, solderability and component temperature rating is controlled and not compromised.

#### **48. PRINTED WIRING BOARD (PWB) VENDOR SELECTION**

The Supplier is responsible for furnishing the bare PWB to satisfy product requirements on this purchase order. The Supplier shall use a PWB vendor who is on their approved sources list as prescribed in Supplier's approved Quality System. In the event Supplier's PWB source is not on ViaSat's Approved Supplier List (ASL), then prior to placement of Supplier's purchase order to the PWB vendor, Supplier shall:

- (a) Provide ViaSat written notice of intent to use a different PWB vendor than one listed on ViaSat's approved list 10-14 days after receipt of the ViaSat purchase order (i.e. after Supplier runs MRP and they are obtaining quotes for PWBs). PWB vendor's manufacturing facility shall be located within the U.S. unless otherwise acknowledged by ViaSat in writing.
- (b) Provide ViaSat with Supplier's current PWB vendor quality evaluation, and
- (c) Provide ViaSat with not less than 6 months of Supplier's PWB vendor incoming quality data, i.e. first pass yield and defects (if any) summary.
- (d) Provide any other reject Quality data associated with PWB vendor that was discovered at any points during processing and builds after Receiving Inspection.

ViaSat shall assess Supplier's recommended PWB vendor and the Quality data provided and shall provide a written response to Supplier within 5 business days with ViaSat's decision to:

- (1) Approve proposed PWB vendor for use based upon review of data provided, or
- (2) Conduct a Quality survey and audit at PWB vendor's manufacturing facility to further assess PWB vendor's Quality system and determine whether this vendor can be approved for the build of ViaSat's product on order. This survey may be a joint effort between ViaSat and Supplier.
- (3) Reject use of selected PWB vendor for build of ViaSat's product on order, with supporting rationale for such a decision.

#### **49. SPECIAL PROCESSING**

Special processing is defined as the manufacturing step or process where the end item or result cannot be physically or visually inspected post processing. Any special processing step(s) must be identified on the Certificate of Compliance. ViaSat and ViaSat's customer have the right of entry to the subcontractor facilities in order to assess the special process(s) being used to manufacture the end item and to verify the quality of work and material.

Special processes being performed are subject to:

- (a) The requirements being clearly specified for any special process operation, including associated equipment and.
- (b) The special process(s) being qualified prior to use.
- (c) The Supplier controlling all applicable aspects of special processes, as defined by the process specifications, including special process changes.
- (d) The Supplier defining the significant operations and parameters in the process to be controlled during production.
- (e) Records being maintained for qualified processes, equipment and personnel, as appropriate, in accordance with QAPP 44.

#### **50. PWB FAB DATA**

The PWB fabrication Supplier shall provide the following PWB quality process verification items for each lot shipped per the purchase order. The quality process verification items for each lot are:

- (a) Cross Section Report including data / results and pictures. (Cross section puck is not to be sent).
- (b) Quantity (1) Solder Sample PWB, as a minimum.
- (c) 100% Net List testing data results certification, if performed.

#### **51. REQUIREMENTS FOR FABRICATION OF CABLE AND WIRE HARNESS ASSEMBLIES**

Acceptability requirements for cable and wire harness assemblies provided on this order shall be per IPC/WHMA-A-620, Requirements and Acceptance for Cable and Wire Harness Assemblies. A certification program to this specification will be available in April 2003. After August 2003, Suppliers shall certify operators/inspectors to this specification (exceptions shall be approved in writing by ViaSat.)

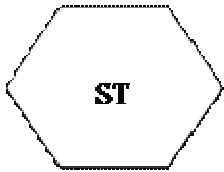
All cable/wire harness acceptance tests shall be performed using the appropriate mating connector or appropriate mating pins. No probing of pins is allowed (i.e. use of non-mating connectors/pins).

All mechanical crimp connections shall be verified as satisfactory by a crimp pull test, industry-accepted "go/no go" gauging of crimp tool, or, crimp barrel measurements. Crimp pull tests shall be conducted on crimp samples only, and not be performed on deliverable hardware. Supplier shall keep records of these tests as part of their product records and maintain as defined in QAPP 44. These records may be reviewed by ViaSat upon request.

If a COC is required (QAPP #5), the Supplier shall make a statement on the COC that all hardware has been fabricated and meets the requirements of QAPP #51.

## 52. KEY PERFORMANCE CHARACTERISTIC

When a "Key Performance Characteristic" is identified on the drawing/specification by the symbol ST (Statistical Tolerance - see symbol below), the supplier must provide tabular measurement data to ViaSat via soft copy format in a MS Excel spreadsheet. Sample size for these measurement data must be taken on at least 30 items chosen randomly throughout the lot. If the lot size is < 30 items, then 100% measurement data is required. The supplier shall calculate Cpk for this measurement data and verify the Cpk index is  $\geq 1$ . ViaSat shall require the supplier to only provide material to ViaSat with a Cpk  $\geq 1.0$  for all flagged Key Performance Characteristics. Tabular measurement data is to be recorded on ViaSat Cpk-calculating Excel spreadsheet form PR000665 available in Agile. A softcopy of the data shall be sent to ViaSat's Quality Organization. If a Key Performance Characteristic is < 1.0, the supplier shall notify ViaSat's Quality Organization and request approval via a formal deviation before the material can be shipped to ViaSat.



## 53. WARRANTY EXPIRATION DATES AND SERIAL NUMBERS

For each item provided on the Purchase Order, the Seller shall provide on the Shipping Document (Shipper) the following information:

- (a) Warranty expiration date
- (b) Serial number

## 54. USE OF BROKERS FOR PURCHASE OF COMPONENTS

No components shall be purchased through or from Brokers without written approval from the ViaSat Supply Chain Group Purchasing Representative unless otherwise specified in this Purchase Order.

## 55. REPAIR/SERVICE REPORTING

Repair Supplier to provide, electronically, a Service and Repair report which shall include the following information:

- (a) Item being repaired ViaSat part number and revision.
- (b) Item serial number
- (c) ViaSat RMA number/Supplier RMA number
- (d) Failure symptom observed
- (e) If applicable, item sub-assembly part number and serial number
- (f) Item or reference designator affected by repair
- (g) Action taken - replaced, repaired, scrapped, adjusted, use as is, no problem found
- (h) Date of repair and/or test activity
- (i) Repair / test technician

Test data shall be provided to ViaSat and shall be retained by supplier per product agreements with ViaSat Inc. A hardcopy of the final test report shall ship with the product, unless other arrangements are made with ViaSat purchasing.

The time to completion goal may vary by product line or customer need, but the typical ViaSat goal is to ship the product back to ViaSat or ViaSat customer's in less than 30 days from time of product receipt by the repair/service facility. The data and metrics shall be monitored by ViaSat to determine the level of performance by the Supplier's repair/service facility.

## 56. COMMERCIAL AVIATION REPAIRS – DRUG & ALCOHOL PREVENTION PROGRAM

All Repair of Materials on this order are considered Safety Sensitive. All personnel performing "hands on" work on this material must be included in an FAA Registered Drug & Alcohol Abuse Prevention Program in accordance with 14 CFR Part 121, Appendices I and J.

## 57. FOREIGN OBJECT DEBRIS (FOD) / FOREIGN OBJECT ELIMINATION (FOE)

All suppliers involved in the manufacturing and material handling of ViaSat products, whether Engineering builds, New Product Introduction builds (i.e., prototypes), Pre-Production builds or Production builds shall have a FOD/FOE program in place that meets the requirements of ViaSat Process Document PR001020 available on ViaSat's website: <http://www.viasat.com/company/about/supplier-information>. This shall be clearly identified by supplier process documentation and training records.