



Supplier Quality Requirements Agreement

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1 Agreement

The supplier of goods including parts and services, upon acceptance of the Ophir Corporation Purchase Order, shall accept the conditions of this Agreement and the provisions contained herein. This Agreement dictates the Supplier Quality Requirements in compliance with the AS9100 standard mandating the inclusion of relevant interested party requirements including flow down of customer requirements.

2 General

The Supplier Quality Requirements Agreement outlined in this document, hereinafter referred to as SQRA, are applicable to all Ophir Corporation purchase orders for the production, overhaul, and modification of contract deliverables, as applicable. The SQRA pertains to Ophir Corporation’s acquisition of products from the Supplier and shall be used in compliment of the terms and conditions of Ophir Corporation’s issued purchase orders for products that Ophir Corporation may issue to the Supplier. Notwithstanding anything to the contrary, Ophir Corporation is under no obligation to purchase, and Supplier is under no obligation to provide, any Products from Supplier as a result of this Agreement.

3 Compliance

Ophir Corporation and its customers expect suppliers to deliver parts that are 100%



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compliant with Purchase Order requirements.

Supplier shall comply with terms of this Agreement. Supplier shall maintain compliance with the laws and government regulations that apply in the manufacturing, servicing, distribution and delivery of the Products. Such laws may include, but not limited to, regulations and directives, labor laws, environmental laws, Custom Trade Partnership Against Terrorism (CTPAT) and product safety laws. Supplier shall maintain compliance to all applicable industry standards and product listings for all products delivered to Ophir Corporation.

4 Quality System

- 4.1 *Quality Management System.* The Supplier shall document, implement, and maintain a mutually acceptable quality management system. The ISO systems are an example of an acceptable quality management system. Based on Ophir Corporation part classification, an AS9100 or AS9120 certification maybe required. Supplier should forward a valid copy of their Quality Management System certification to Ophir Corporation Quality. It is highly preferred that Suppliers registrar is ANAB accredited. Ophir Corporation must be notified of any changes to certification attributed to Supplier name change, ownership, facility relocation, or loss of certification in whole.
- 4.2 *Audit Rights.* At Ophir Corporations request, Supplier will allow Ophir Corporation to audit and inspect Supplier's quality management system, as well as all other records and documentation Supplier is required to maintain which are necessary to ensure products provided to Ophir Corporation meet or exceed Ophir Corporations or Ophir Corporation Customer requirements. The Supplier shall also permit Ophir Corporation access to all data relating to management of the Quality Management System such as internal audit results and their corrective actions, and results of management reviews. Ophir Corporation may also request periodic, joint quality assurance meetings at the Supplier's facility to update the status of Product quality and reliability.
- 4.3 *Corrective Actions -Risks and Opportunities.* Supplier shall have an established and implemented Corrective Action Program in compliance with ISO9001 requirements. The Supplier shall respond to all Supplier Corrective Action Requests (SCARs) within a thirty (30) calendar day period from the date of issue. Ophir Corporation shall supply a SCAR form which requires the Problem Statement, Root Cause Analysis identified, Action Plan created, and Effectiveness Check completed to ensure action plan was successful. Should the Supplier fail to correct the product quality problem within a time period that is acceptable to Ophir Corporation, Ophir Corporation may, at its

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discretion, terminate any unfulfilled Agreement(s) with respect to the affected product(s). The Supplier should also review Risks & Opportunities associated with the corrective action although not required in the Supplier's response. Ophir Corporation retains the right to conduct corrective action verification at the Supplier and/Suppliers sub-tier Supplier's facility to assess effectiveness of implemented corrective action.

- 4.4 *Sub-Tier Supplier Control and Flow Down Requirements.* Supplier shall have an established and implemented Supplier quality management program. Sub-tier Supplier shall have an acceptable quality management system equal to ISO9001. Supplier is responsible to ensure all items purchased from their Supplier conforms to Ophir Corporation specification. Supplier shall flow down all provisions of this Agreement to their Supplier.

5 Quality Record Retention

- 5.1 *Record Retention.* Manufacturing and purchasing records shall be retained for a period of not less than seven (7) years from completion of purchase order. The Supplier must impose this requirement on their sub-tier Suppliers. Records shall include, but not be limited to:

- Inspection records
- First Article Inspection Report
- Production records (Routers/travelers)
- Test Reports
- Periodic inspection and control of inspection media
- Records indicating control of Special Tooling and Special Test Equipment
- Test data records of all qualification and acceptance test performed
- Certification of personnel as required by specification and/or contract
- Purchased product: Certificates of Conformance/Certificates of Analysis
- Material Review Reports
- Verification and Validation records

Documents and records shall be maintained in either paper or electronic format. Electronic documents and records maintained electronically shall be backed up according to a validated method.

6 Change Notification

- 6.1 *Ophir Corporation Proposed Product Changes.* Ophir Corporation may propose

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changes to any of the Products by submitting such changes to Supplier. Ophir Corporation will identify those changes that it deems mandatory in order to make the Product suitable for Ophir Corporations intended use. Unless otherwise agreed to in writing by Ophir Corporation, Supplier will respond within ten (10) business days after receipt of such proposed or mandatory changes with the following information: (I) lead time required to implement the changes; (II) impact of changes on the Product, including, but not limited to, any parts, tooling, and/or testing; (III) impact of changes resulting in scrap material and work in progress; (IV) any non-recurring engineering charges to implement the changes; and (V) impact of changes on the lead time of the Product.

6.2 *Supplier Proposed Product Changes.* Changes proposed by Supplier, including material, processes, or software changes, which may affect form, fit, function, reliability, serviceability, performances, approved part quality plans, functional interchangeability, spare parts interchangeability or interface capability of a Product must be submitted in the form of a written change request for Ophir Corporation prior to written approval. This may include but is not limited to changes in:

- Manufacturing processes
- Test procedures
- Changes in sources of materials and/or parts
- Manufacturing locations
- Relocation or replacement of equipment affecting the process
- Sub-tier Supplier changes

Products affected by such changes will not be delivered to Ophir Corporation until change request is approved by Ophir Corporation. At a minimum, the Supplier's written change request must include the Ophir Corporation part number/item code or software revision, date of implementation, serial number of item that is changed, reason for the change with specific details of change. In addition, Supplier (at Ophir Corporations request) agrees to furnish at no charge Product samples for evaluation prior to approval by Ophir Corporation of such changes.

7 Nonconforming Material Control

7.1 *Nonconforming Material.* Nonconforming material must be identified, documented, and segregated pending disposition to prevent its unintended release or use, and evaluated to determine the actions necessary to contain its effect on other processes or

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products.

- 7.2 *Disposition Authority – Ophir Designed.* Suppliers of Ophir Corporation designed parts do not have MRB authority unless specifically authorized in writing. The Supplier's MRB shall not perform any disposition on any nonconformance to Ophir Corporation designed parts that affect form, fit, function, weight, interchangeability, maintainability, reliability, unique key characteristics or safety. The Suppliers disposition authority for Ophir Corporation designed parts is limited to rework to specification, return to Supplier, and scrap. The terms are defined as follows:
1. **Rework** – Restore material to specification compliance in accordance with required process(s) and addressed by governing process specification(s). Parts subject to subsequent processing not authorized by specification shall be submitted to Ophir Corporation Material Review Board for authorization.
 2. **Return to Supplier** – Return of subcontractor product found to be discrepant for subsequent rework or replacement.
 3. **Scrap** – Permanent removal from production and destruction of product found to be unfit for use. Scrapped product shall be identified, segregated, and controlled until destroyed.
- 7.3 *Disposition Authority – Supplier Designed.* Suppliers who supply Ophir Corporation with Supplier designed parts must notify Ophir Corporation in writing upon any change which may affect form, fit, function, reliability, serviceability, performances, functional interchangeability, spare parts interchangeability or interface capability of a product.
- 7.4 *Disclosures/Notifications.* The Supplier's system shall provide timely reporting of nonconformities that may affect already delivered product. Notifications shall be submitted on company letterhead and include a clear description of the discrepancy, and identification of all suspect parts. The notification shall include the part number, order number, item number, serial number(s), manufacturing date(s), quantities, and other relevant information. A root cause and corrective action plan should be initiated to address the non-conformity. To expedite the return of non-conforming hardware to Supplier for investigation, repair/replacement, Suppliers shall provide a Return Material Authorization (RMA) number along with the disclosure.

8 Part Control

- 8.1 *Purchasing Specifications.* Supplier shall meet the part requirements and specifications as indicated in the purchase order. Supplier is accountable to ensure

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delivered Products meet the requirements of the revisions and/or versions specified in the purchase order. Supplier shall not accept or implement any Ophir Corporation part/product concession (Us-As-IS) without documented prior written approval from Ophir Corporation. Certificates of Conformance (CofC) or Certificates of Analysis (CofA) must be on file at the Supplier's location and submitted to Ophir Corporation for each part as indicated on the purchase order. If Product is reworked or repaired, a new CofC/CofA must be issued.

Supplier shall ensure Ophir Corporation documentation is controlled and distributed with the current and correct revision level only to authorized employees on a need-to-know basis that manufacture the Product for Ophir Corporation. Such documentation is proprietary and confidential information of Ophir Corporation. Supplier shall ensure that all Ophir Corporation documentation is held in trust and confidence for the sole and exclusive benefit of Ophir Corporation, and not disclosed to any third parties except as provided below. Supplier is responsible for ensuring that no restrictive or proprietary marks are removed or modified from any Ophir Corporation documentation.

For all Products, Supplier is responsible for ensuring applicable Ophir Corporation documentation is provided to Supplier's sub-Suppliers and used by them solely for purposes of supplying Products to Ophir Corporation. Supplier shall ensure that their Supplier, as well as its subcontractors that use Ophir Corporation purchasing documentation, maintain such documentation in compliance with all accepted Engineering Change Notices/Engineering Change Orders issued by Ophir Corporation.

- 8.2 *Electrostatic Discharge.* If Electrostatic Discharge (ESD) sensitive Products are supplied to Ophir Corporation, Supplier must have an active ESD program and use appropriate ESD handling and packaging procedures. Examples of acceptable ESD programs are document in IEC 61340-5-1, protection of electronic devices from electrostatic phenomena, or ANSI/ESD S 20.20 and JEDEC's standard EIA JESD 625:2012 (or current) for the development of an Electrostatic Discharge Control Program. Supplier must maintain written records of the testing and training programs. Electrostatic packaging shall be in compliance with JEDEC's standard EIA-541:1988 (or current).
- 8.3 *Counterfeit Avoidance.* The Supplier shall have an implemented counterfeit avoidance process that meets the requirements of AS5553, Counterfeit Electronic Parts Avoidance, Detection, Mitigation, and Disposition. For raw materials, SAE standard AS6174, Counterfeit Materiel, Assuring Acquisition of Authentic and Conforming Materiel. Part authenticity must be verifiable, legitimate, new parts meeting the

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published specifications of the Original Component Manufacturer (OCM) or Original Equipment Manufacturer (OEM). Non-authentic parts include parts that are aged; damaged; improperly stored; used; refurbished; factory seconds; re-marked; illegally manufactured; counterfeit; or otherwise not verifiable as legitimate, new OCM parts.

The Supplier of electronic components either sold directly to Ophir Corporation or used in the manufacture of electronic assemblies shall be purchased from the Original Component Manufacturer (OCM), Original Equipment Manufacturer (OEM), or purchased through a franchised distributor or authorized Aftermarket Manufacturer (AM).

In the event a part is not directly available from the OCM, OEM, or AM or franchised distributor (electronics) or authorized distributor (non-electronics), purchase from independent distributors is allowed with evidence of supply chain traceability back to the OCM, OEM, or AM. The certification shall identify the name and location of all of the supply chain intermediaries from the original manufacturer to the final source of the Product delivered to Ophir Corporation.

In the event Ophir Corporation directs in its parts requirements and specification that some or all the Ophir Corporation components be purchased from third party vendors or distributors (sub-tier Suppliers), Supplier will purchase said components only from these directed sub-tier Suppliers. Supplier shall not substitute alternative sub-Suppliers without Ophir Corporation prior written approval per section 6.2.

Supplier shall qualify and monitor Ophir Corporation directed sub-tier Suppliers per Supplier's internal Purchasing Control procedures, including, but not limited to, Supplier qualification, Supplier performance monitoring, and corrective action.

- 8.4 *GIDEP*. AS9100 and AS9102 Suppliers must be a member of GIDEP, if eligible, and take appropriate actions on all suspect or defective material or suspect counterfeit parts/material reported by GIDEP alerts. Access to GIDEP can be viewed at www.gidep.org/gidep.htm
- 8.5 *First Article Inspection*. First Article Inspection (FAI) is required for all first run parts and shall be performed in accordance with the requirements of AS9102 (Aerospace First Article Inspection Requirements). Change in revision level, material changes, Supplier process changes, or Supplier equipment changes may constitute, at the discretion of Ophir Corporation Quality, a full FAI or a partial FAI. FAI's shall be

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performed prior to Product acceptance and shipment to Ophir Corporation.

The following optional fields are required on AS9102 FAI Report Form: 12, 21, 22, 23, and 24. All Conditionally Required (CR) fields on FAI Report Form 2 and 3 shall be completed. FAI reports with open fields are not allowed. The Supplier shall mark "N/A" in all open fields.

- 8.6 *Inspection Dimensions.* When an Ophir Corporation drawing or specification contains Critical Characteristic attributes (dimensions or notes) indicated as an inspection dimension, Supplier shall perform inspection of said attributes with each order of parts. Inspection shall follow ANSI ASQ Z1.4, Inspection level 1.0, C=0. Supplier shall provide inspection reports with each shipment.
- 8.7 *Key Characteristics.* A Process Variability Reduction/Statistical Process Control (VR/SPC) Program is required when Key Characteristics are identified compliant with AS9103. When customer requirements identify Key Characteristics per the contract, Supplier shall perform process validation of Critical Dimensions as indicated in section 8.8. Process validation shall be identified as a requirement on the Purchase Order.
- 8.8 *Process Validation.* Process Validation is used to ensure a manufacturing process is in control. Processes that cannot be continually monitored must be validated. At the discretion of the Ophir Corporation Quality Engineer, a validation run maybe required in conjunction with a First Article Inspection. Critical characteristics identified as inspection dimensions require a CPK of 1.33. Ophir Corporation Quality will identify the specific validation requirements based on order quantity.
- 8.9 *Part Marking & Traceability Requirements.* Supplier shall mark all deliverable Products as required by the purchase order or engineering drawing. Supplier shall apply a control identifier to all deliverable hardware. Hardware identification markings must be traceable to Supplier's build documentation. Electronic Circuit Board Supplier shall mark all deliverable board assemblies as required by the purchase order using a defined serial number as indicated by Ophir Corporation.
- 8.10 *Foreign Object Damage/ Debris (FOD).* Suppliers shall have an established and implemented Foreign Object Damage/ Debris Prevention program which meets the intent of the NAS412 standard. Supplier shall establish designated FOD areas and maintain good housekeeping to prevent the introduction of foreign objects or damage caused by foreign objects into any deliverable. Supplier shall ensure residue/debris generated during the manufacturing process is removed prior to delivery. This FOD

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Quality Assurance Provision (QAP) is implied with each Ophir Corporation Purchase Order.

8.11 *Special Process Requirements.* Suppliers performing Special Processes are required to be accredited by Nadcap. Ophir Corporation mandates Nadcap approval for the following process categories:

- Nondestructive Testing
- Heat Treating (except Supplier who only perform stress relief or hydrogen embrittlement relief)
- Material Testing Laboratories
- Chemical Processes (except in-process cleaning, application of paint to composite parts, and touch up of damaged coatings and paint)
- Non-conventional Machining & Surface Enhancements
- Welding
- Composites

When the processor requires the use of outside testing to an Ophir Corporation specification, a Nadcap/ A2LA accredited laboratory shall be used.

9 Calibration Suppliers

9.1 *Calibration Performance Verification.* Calibration Suppliers shall calibrate the equipment to verify it meets the manufacturer's pertinent published specifications. If there are any results that do not meet those specifications, such are deemed out-of-tolerance, and Supplier shall perform adjustment to ensure optimal readings. Supplier will perform calibration using a test uncertainty ratio (TUR) of 4:1 or greater than the unit under test (UUT). If the TUR is less than 4:1, the actual TUR will be stated on the calibration certificate. If an assigned value calibration is reported, the estimated measurement uncertainty will be provided with the calibration certification.

9.2 *Compliance to Quality Requirements.* Supplier warrants and certifies accreditation to ISO 17025 from a recognized registrar or equivalent certification issued from a national government standards agency. Supplier will perform calibration to the most current version of ANSI / NCSL Z540 standard.

9.3 *Reporting.* Supplier must report all calibration results as in-tolerance or out-of-tolerance. If equipment is found to be out-of-tolerance, Supplier shall provide the calibration data to Ophir Corporation as measured and/or observed. Ophir Corporation will not accept readings that do not specify whether equipment is in or out-of-tolerance

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(i.e. assigned values) without prior approval. Supplier shall provide the following written details for each specific calibration certificate:

- Description and identification of item being calibrated
- Identification of the calibration source (lab location)
- Date of calibration
- Recommended re-calibration date or interval unless specified by Ophir Corporation
- Statement of uncertainty
- A statement of traceability or basis of calibration
- Calibration procedure or test method
- Calibration results (In/Out of tolerance) and calibration action taken
- Unique identification of the certificate or report including pages
- Statement of TUR meeting 4:1 or greater if applicable
- A description of any usage limitations
- Name of individual who performed the calibration
- Signature and title of person accepting responsibility for quality review
- Certificate title
- Actual measurement standards used – model and serial number
- Measurement standard traceability number

10 Supplier of Age Sensitive Materials

10.1 *Time/Temperature Sensitive Materials.* Materials such as liquids, adhesives, pastes which are age sensitive shall have the date of manufacture, shelf life, and expiration date either physically labeled on the package or supplied on the CofA or CofC. Shelf life shall have a minimum of 90% of the life remaining unless given prior written approval by Ophir Corporation Quality. Any special storage or handling requirements must be submitted with each shipment. Liquids, adhesives, or pastes including elastomeric materials with no shelf life requirement must be marked as such.

11 Supplier of Software

11.1 *Software Developers.* Supplier shall establish and maintain a Software Quality Assurance (SQA) program meeting the requirements of IEEE Std 730, or equivalent. In addition, Suppliers who provide items with embedded software or software programs only must have a Software Quality Assurance evaluation performed by Ophir Corporation.

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END OF DOCUMENT

12 OWNERSHIP, REVISION HISTORY AND EFFECTIVE DATE

12.1 Document Owner

Supplier Quality Engineering

12.2 Revision History and Effective Date

Revision	ECO Number	Document Author	Effective Date
-	00098	Paul Mueller	26Sep2017

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