SUPPLEMENTAL PURCHASE ORDER CONDITIONS

Manual

This manual contains requirements that are applicable when invoked by Honeywell Aerospace Purchase Orders. Requirements include the mandatory use of this manual for Contract Review and Quality Planning activities.

Effective January 1, 2026

Revision R

Honeywell

Table of Contents

Revised SPOCs are indicated by an asterisk (*) New SPOCs are indicated by double asterisks (**)

SECTION 1.0 – GENERAL REQUIREMENTS 4
SECTION 2.0 – SPECIFICATIONS AND GENERAL INFORMATION 10
SECTION 3.0 – SPOC GROUPS: SPOC 001 - SPOC 009 DETAILS 10
SPOC 100 – NOTIFICATION, CONTAINMENT, & CORRECTIVE ACTION OF MATERIAL FOUND NONCONFORMING TO HONEYWELL PURCHASE ORDER REQUIREMENTS * 11
SPOC 2003 – EYE / VISION EXAMINATIONS 13
SPOC 110 – FIXED PROCESS REQUIREMENTS 13
SPOC 118 – QUALITY REQUIREMENTS FOR HONEYWELL PARTNERS WITH FEDERAL AVIATION ADMINISTRATION (FAA) APPROVED PRODUCTION CERTIFICATES 14
SPOC 124 – FIRST ARTICLE INSPECTION (FAI) REQUIREMENTS * 14
SPOC 127 – MANAGEMENT OF GOVERNMENT / CUSTOMER OR HONEYWELL OWNED PROPERTY AT SUPPLIERS 18
SPOC 128 – CHARACTERISTIC ACCOUNTABILITY 22
SPOC 129 – ACCEPTANCE TEST PROCEDURE (ATP) APPROVAL REQUIREMENTS 24
SPOC 130 – DELIVERABLE SOFTWARE QUALITY ASSURANCE 25
SPOC 140 – CERTIFICATION OF CONFORMANCE / SHIPPING DECLARATION DOCUMENT / PACKING SLIP REQUIREMENTS * 25
SPOC 142 – CONTROL OF ITEMS WITH LIMITED SHELF-LIFE 29
SPOC 149 – PRODUCT RELEASE PROCESS 30
SPOC 154 – KEY CHARACTERISTICS (KC) MANAGEMENT 30
SPOC 159 – REPAIR & OVERHAUL MAINTENANCE REQUIREMENTS 33
SPOC 162 – ELECTRONIC AND ELECTRICAL COMPONENTS WITH LEAD (PB) AND PB-FREE FINISHES 37
SPOC 163 – RESTRICTIONS FOR USE OF MERCURY AND/OR MERCURY CONTAINING COMPONENTS 37
SPOC 165 – APPROVED SOURCES FOR CONTROLLED PROCESSES * 38
SPOC 172 – DOCUMENT SUBMITTAL REQUIRED 40
SPOC 179 – GOVERNMENT AND CUSTOMER DIRECTED SOURCE INSPECTION 40
SPOC 180 – CRITICAL SAFETY ITEMS 41
SPOC 182 – MARKING LHTEC PROGRAM 42
SPOC 200 – PART MARKING REQUIREMENTS 42
SPOC 203 – DESIGN OF SPECIAL TOOLS AND GAGES 43
SPOC 228 – SHIPMENTS FOR COST-REIMBURSABLE GOVERNMENT CONTRACTS 44
SPOC 235 – DROP SHIPMENT OF A HONEYWELL PURCHASE ORDER TO ANOTHER HONEYWELL SUPPLIER 44
SPOC 236 – DROP SHIPMENT FROM A SUB-TIER SUPPLIER TO HONEYWELL PAH SITES 44
SPOC 237 – RETURN OF SCRAP 45
SPOC 238 – MILITARY-TYPE SPECIFIC-APPLICATION AND MULTI-APPLICATION RE-USABLE CONTAINERS 45
SPOC 239 – PACKAGING AND PACKAGE IDENTIFICATION 45
SPOC 241 – IDENTIFICATION OF SUBSTANTIATION TEST ITEMS 51
SPOC 246 – EXEMPTION OF SALES AND USE TAXES 51
SPOC 259 – FREIGHT TO BE PAID BY HONEYWELL 51
SPOC 260 – PRIORITY RATING 51
SPOC 267 – ELECTRONIC PART DEFINITION (SOLID MODEL) 51
SPOC 270 – FAA CONFORMITY (OR CIVIL AVIATION AUTHORITY OF THE COUNTRY) 52
SPOC 273 – NASA REQUIRED NOTIFICATION 53
SPOC 276 – NASA PRODUCT REQUIREMENTS 53
SPOC 277 – VERIFICATION OF HARDWARE 54
SPOC 325 – ELECTRONICS SOLDER REQUIREMENTS 54
SPOC 326 – ELECTRONICS MARKING REQUIREMENTS 54
SPOC 329 – HARDNESS CRITICAL ITEM 54
SPOC 335 – TAPE AND REELED COMPONENTS 54
SPOC 201 – MATERIAL SAMPLES REQUIRED 55
SPOC 354 – ELECTRO-STATIC DISCHARGE REQUIREMENT 55

Table of Contents

Revised SPOCs are indicated by an asterisk (*) New SPOCs are indicated by double asterisks (**)

SPOC 385 – PRINTED CIRCUIT BOARD (PCB) TESTING 55
SPOC 406 – COMMERCIAL ITEMS USED IN GOVERNMENT CONTRACTS 55
SPOC 407 – MILITARY CUSTOMER FIRST ARTICLE INSPECTION 55
SPOC 418 – FOREIGN OBJECT DAMAGE (FOD) CONTROL * 55
SPOC 419 – SUPPLIER COUNTERFEIT PARTS PREVENTION REQUIREMENTS 56
SPOC 420 – ADVANCED PRODUCT QUALITY PLANNING (APQP) 58
SPOC 500 – FAILURE ANALYSIS AND REPORTING PROCESS 59
SPOC 501 – SINGLE LOT REQUIREMENTS 59
SPOC 502 – SINGLE RAW MATERIAL LOT 59
SPOC 503 – DELEGATION OF INSPECTION AUTHORITY 60
SPOC 505 – LOT TRAVELER REQUIREMENT 60
SPOC 506 – LIST CONTROLLED ITEM 60
SPOC 507 – MANUFACTURING PLAN REQUIRED 60
SPOC 519 – SUPPLEMENTAL SUPPLIER COUNTERFEIT PARTS PREVENTION REQUIREMENTS 60
SPOC 527 – AIRWORTHINESS / SAFETY CRITICAL 63
SPOC 528 – HOMOGENEOUS MATERIAL REQUIREMENT 64
SPOC 529 – DELEGATION OF MRB AUTHORITY 64
SPOC 530 – STANDARD REPAIRS OF PRINTED BOARD ASSEMBLIES (PBA) 64
SPOC 531 – OUTSOURCING APPROVAL REQUIRED 64
SPOC 532 – COSMETIC PART – VISUAL INSPECTION REQUIREMENT 64
SPOC 534 – PAINT / PLATING THICKNESS TEST REQUIRED 65
SPOC 535 – TSO / PMA TAGS 65
SPOC 536 – AIRBUS REQUIREMENTS – LEGACY EQUIPMENT SUPPLIERS * 65
SPOC 537 – AIRBUS REQUIREMENT – LEGACY EQUIPMENT AND SYSTEMS SUPPLIERS 65
SPOC 538 – BOEING APPROVED SOURCE 65
SPOC 539 – REQUIRED SOURCES FOR JEWEL, MINIATURE, AND INSTRUMENT BEARINGS 65
SPOC 540 – TEARDOWN ANALYSIS INSPECTION 66
SPOC 541 – INSULATION, ISOLATION, DIELECTRIC TESTING 66
SPOC 542 – DIODES – METALLURGICAL BOND 66
SPOC 544 – CCA REQUIREMENTS 66
SPOC 547 – SUMMARY REPORT REQUIREMENT 66
SPOC 548 – AUTOMATED OPTICAL INSPECTION (AOI) 66
SPOC 549 – AXI (AUTOMATED X-RAY INSPECTION) OF PRINTED BOARD ASSEMBLIES (PBAS) 66
SPOC 550 – PARTICLE IMPACT NOISE DETECTION (PIND) SCREENING 67
SPOC 551 – PURCHASE AND FINISH PBA REQUIREMENT 67
SPOC 552 – AUTOMATIC INSERTION TUBES 67
SPOC 553 – DESTRUCTIVE PHYSICAL ANALYSIS (DPA) SAMPLES REQUIRED 67
SPOC 557 – X-RAY FILM REQUIRED 67
SPOC 558 – WORKMANSHIP STANDARD 68
SPOC 560 – IN CIRCUIT TESTING (ICT) AND FLYING PROBE (FP) REQUIREMENTS 68
SPOC 561 – WORKMANSHIP STANDARD 68
SPOC 562 – COMPONENT TRACEABILITY 68
SPOC 549 – CONCESSION PROCESS FOR NOTIFICATION OF NONCONFORMING MATERIAL TO HONEYWELL PURCHASE ORDER REQUIREMENTS 69
SPOC 564 – FUNCTIONAL TEST 69
SPOC 565 – AIRBUS REQUIREMENT - PRODUCTS, EQUIPMENT, AND SYSTEMS UNDER PURCHASE ORDER ** 69
SPOC 566 – 549AIRBUS REQUIREMENT - PRODUCTS, EQUIPMENT, AND SYSTEMS UNDER SPOC 001 ** 69
SPOC 13100 – COMPLIANCE WITH AS13100 AESQ QUALITY MANAGEMENT SYSTEM REQUIREMENTS FOR AERO ENGINE DESIGN AND PRODUCTION ORGANIZATIONS ** 70

Section 1.0 – General Requirements

1.1 – Preface

This manual contains requirements that are applicable when invoked by Honeywell Aerospace Purchase Orders. Requirements include the mandatory use of this manual for Contract Review and Quality Planning activities.

Contents of Sections 1–3 shall be reviewed and complied with in conjunction with the purchase order flow down. The SPOC Manual is controlled in Electronic format as presented on the Supplier Portal. Paper copies, and electronic copies downloaded and saved to a local hard drive are Uncontrolled. Suppliers shall visit the manual online to check for changes that may be identified in the electronic Unincorporated change page in the Honeywell Aerospace Supplier Portal (https://scc.honeywell.com/irj/portal) > HASP > Documents > Quality > SPOC > Current SPOC Manual & Unincorporated Changes. Numerical values behind the SPOC manual revision letter indicate the unincorporated change revision number (R.1, R.2, R.3) is shown in the manual. The change numbers are for revision control until the next SPOC Manual revision letter is released.

1.2 – Applicability

The Honeywell Purchase Order is the official binding contract in the order of precedence described in the Terms & Conditions of Purchase. Requirements are specified on the Purchase Order by group or specific SPOC number(s) and/or text. If conflicts between flow down documents and the Purchase Order are detected, the Supplier shall immediately notify the Honeywell Buyer.

Unauthorized modification to purchase orders, drawing requirements, specifications or technical data are not permitted. Changes may be authorized only by site quality leader or designee.

Verbal and/or email authorizations are not permitted.

SPOC Group 001, 002 and 009 Suppliers shall maintain documented information on the review of applicable SPOCs identifying how each is accounted for within the supplier's Quality Management System. This may be in the form of a compliance matrix of requirements, or it may be any supplier-generated document sufficient to identify processes supporting each SPOC requirement.

1.2.1 – Subcontracting Policy

Honeywell suppliers must flow down all applicable Purchase Order and Engineering requirements to their sub-tier suppliers, including approved Special Process providers. Justification for requirements deemed not applicable for flowdown shall be made available.

For Honeywell designed hardware, Supplier/subcontractor POs to special processing providers must include:

- Reference to the applicable Honeywell CAGE Code, or request for material.
- Applicable SPOC requirements.
- Honeywell part number and nomenclature of subject part.
- Special Processes to be performed and the applicable specification(s), revision letter(s) including the type, class, or methods and testing that are required by drawing or specification.
- Any special drawing instructions/notes, as applicable; such as approved Materials Engineering Supplier Agreement, inspection class, inspection grade and inspection acceptance requirements, MOT's, MBP's, or special handling requirements not otherwise stated, etc.
- Fixed/Frozen process requirements.

1.3 – Quality Requirements

The core quality requirement is for all features to fully comply to specifications for all parts produced and shipped. If the process is not capable of meeting 100% yield, it is Honeywell's expectation that all suppliers pursue measurable continuous quality and delivery improvements.

On an annual basis, Honeywell defines the minimum performance expectation measured in conventional ways like Parts Per Million (PPM) for quality and Percent On Time To Requirements (OTTR) on a supplier level as well as on a part number level.

When a supplier does not meet these minimum performance levels, Honeywell reserves the right to require the supplier to engage in an aggressive improvement project (i.e. IQP, APQP, Zero Defect Plan, or similar) acceptable to Honeywell and led by the supplier's leadership as well as Honeywell Stakeholders. These projects will be focused on improving the supplier's Business Operating Systems that will result in the sustainable achievement of Honeywell's minimum performance expectation.

Honeywell's minimum performance expectation is:

- Quality: 100 PPM or lower based on a three Month Moving Average (3 MMA)
- Delivery: 98% On-Time to Requirements (OTTR)

1.4 – Quality Alerts

Quality Alerts are issued as a means of notifying suppliers of potential problems, or clarifying policies, procedures, work instructions, or drawings. Alerts are issued for an interim period only. Open/active Supplier applicable Quality Alerts are located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > Quality Alerts.

1.5 – Audit Rights Reserved / Right of Entry

Honeywell, Honeywell Partnerships, Aircraft Manufacturers, customers and Regulatory Authorities reserve the right to perform audits and/or inspections at the Supplier's and/or supplier's subcontractor's facility on the manufactured and/or repaired parts. Supplier material, records, process and routing sheets, manufacturing, and test and inspection facilities are subject to review by Honeywell and/or Honeywell customers (Commercial, designated Government representatives, Regulatory authorities). When on-site verification of Contract / Purchase order conformance is required, the supplier shall provide the equipment, facilities, and personnel necessary for the Honeywell representatives to verify compliance.

1.6 – Changes in Process, Design, Quality System, Facilities, Management or Ownership

1.6.1 – Contractual Requirements

Suppliers shall comply with all contractual requirements, (including, but not necessarily limited to Long Term Contract and general purchase order provisions agreed between the parties), for notification and approval of changes in: design, material, manufacturing location, manufacturing equipment, production processes, and any other process related to the Goods in place as of the purchase order issuance date.

Additionally, suppliers moving their manufacturing location shall complete and submit the notification form located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Transitions > Supplier Reposition Notification Request.

1.6.2 – Additional Requirements *

In addition to the requirements imposed by Section 1.6.1, suppliers shall immediately (less than 3 days) notify the Honeywell Buyer, the Honeywell Quality Assurance Manager from procuring sites, and the assigned FQE of changes in quality leadership, scope, name, or address of Quality Management System registrations, or NADCAP / controlled processes certification status, including suspensions or disapprovals, significant cybersecurity breaches, supply of product substances due to changes in law or regulation. Suppliers shall also notify the above parties in the event of complete company closure with no transition plan managed by their corporate office.

1.6.3 – Supplier notifications shall contain the following supplier information as a minimum:

- Supplier ID/DUNS number, (if changing, provide old DUNs and new DUNs.)
- Old and new data (e.g. if address change, list the prior address and the new address)
- Name of supplier quality contact
- Phone number of supplier quality contact
- email address of supplier quality contact.

1.7 – Language Requirements

All quality records, data or correspondence to Honeywell Aerospace are required to be in the language of the Honeywell facility placing the purchase order, or in the English language, as agreed on between the supplier and the Honeywell facility. The Supplier shall maintain an English language translation of its Quality Manual. Upon request, all supplier data related to furnished product must be translated to English and made available. If the supplier does not perform this service, translation fees will be debited to the Supplier.

1.8 – Configuration Management

The Supplier shall ensure that the current configuration of all drawings, specifications, deliverable software and instructions required by the Contract / Purchase Order, as well as authorized changes, are used for manufacturing, inspecting, and testing. Current revision levels of Honeywell drawings may be located using the TeamCenter Portal Quick Search link from the applications menu at the Honeywell Aerospace Supplier Portal (HASP). For sites and orders not using the TeamCenter system, contact the Honeywell buyer to obtain the latest revisions. For specification revisions, refer to SPOC Section 2.0. To obtain copies of current Honeywell specifications and drawings the supplier should contact their Honeywell buyer.

1.9 – Notification of Design and Manufacturing Changes

Suppliers with design authority are required to notify Honeywell promptly, in writing, of any changes to fit, form or function, or safety of product and obtain approval prior to manufacture and delivery. Supplier shall submit proposed changes to the Buyer including but not limited to: process, material, design, software.

1.10 – Source of Supply *

When the source of supply is specified on a Honeywell drawing or specification invoked by purchase order in any manner (approved, may, suggested, recommended, trademarked, QPI, etc.), only those sources of supply shall be used. The use of any alternate sources not specifically listed on the drawing, or its associated specs/databases is prohibited unless otherwise specified by site-specific requirements flowed on the Purchase Order.

1.10.1 – Authorized Use of the Honeywell Approved Manufacturer's Parts List (AMPL) for Procurement

This section is only applicable for designs controlled by the following sites or vaults.

Site	CAGE Code(s)
Brno	663D
Cambridge ON1F	38101
Clearwater Commercial	65507
Coon Rapids	65507
Deer Valley	55939, 58960
Deer Valley Defense	07187
Deer Valley xPoway	1M8L7
Minneapolis	94580
Morristown	017N4, 55972 & 56776
Norcross	5VWN5, 31395
Olathe / Redmond Commercial	22373, 27914, 97896 & 99866
Ottawa	38473
Tempe	59364
Toronto (Mississauga)	07217
Torrance	70210
Tucson	64547
Urbana	72914
Yeovil	U1605

For designs controlled by the above specific sites or vaults, Honeywell Engineering approved manufacturers and manufacturer part numbers are available in the Honeywell webAMPL database. Access to the Honeywell webAMPL system is granted to contract manufacturers and distributors as needed. Buyers may also provide the Honeywell approved manufacturer information in webAMPL to all suppliers at the time of placement of purchase orders. If this information is missing or if further clarifications and access to webAMPL are required, suppliers shall contact their buyers for written authorization before using these components in Honeywell-designed hardware. The webAMPL database can be accessed through https://webampl.honeywell.com.

When approved sources of supply are listed on both Honeywell part drawings and webAMPL, supply sources that are listed in webAMPL shall also be considered approved.

The supplier shall access the webAMPL through the supplier portal to determine the approved manufacturer name and approved manufacturer part number (if provided) associated with the Honeywell part number to be procured.

The webAMPL is dynamic and updates are made frequently, so the webAMPL must be consulted prior to each procurement. As this tool contains data in many different Aerospace design vaults, the supplier must exercise care to use data from only the correct Aerospace vault. If the approved manufacturer part number is not available in AMPL, and supply sources are not listed on the drawing, contact the Honeywell buyer for instructions.

1.10.2 – Material Code Index (MCI)

The MCI provides detailed material and sundry descriptions, specification information, qualified materials, approved manufacturers, and part number/material code numbers assigned to specific items which are used in Honeywell products.

The MCI is applicable for designs controlled by the following Honeywell sites and CAGE codes:

Site	CAGE Code(s)
Albuquerque	07187
Clearwater Space & Defense	09128 & 0BFA5
Deer Valley	07187, 55939, 58960
Glendale	61962
Minneapolis & Coon Rapids	94580 & 65507
Olathe	22373, 99866
Phoenix Engines	99193
Redmond Commercial	97896
Redmond Defense	0YFP0
Tempe	59364
Toronto (Mississauga)	07217
Torrance	70210
Urbana	72914

Please observe any location-specific restrictions as to applicability of the database information.

The MCI database is contained within the Aero Spec Index (ASI) application located on the Honeywell Aerospace Supplier Portal > HASP > Applications > ASI.

When approved products are required but not identified in the material specification, drawing or parts list, Honeywell manufacturing sites, suppliers and distributors shall access the Honeywell MCI to determine the approved material manufacturer and product associated with the Honeywell part number/material code number.

When approved sources are listed on both specifications/drawings and the Honeywell MCI, sources listed in either specifications/drawings or MCI are acceptable.

1.10.3 – Urbana Code Book

The Urbana Code Book system shall no longer be used. Please refer to the AMPL for electrical components (see Section 1.10.1). All remaining materials have been moved from the Code Books to the Material Code Index (see Section 1.10.2).

1.11 – Quality Records *

1.11.1 – Access to Records

Honeywell reserves the right to access records from the PO holder, or its sub-tiers involved in the manufacture of Honeywell product. The Supplier shall make the records available within 48 hours, or 2 business days, of the request for access.

1.11.2 – Records Storage

Records shall be stored in an area which meets all local Fire and Life Safety Codes that prevents loss, damage, or deterioration. All data stored by electronic means shall be secure with back- up procedures and audited to verify the integrity of the data. Notification per Section 1.6.2 is required in writing when damage to documented information of the design and development output under their responsibility occurs or following termination of activity.

1.11.3 – Disposition of Records

The supplier shall contact the Honeywell Buyer for disposition of records upon termination of business activity.

1.11.4 – Corrections

Changes or corrections to records, regardless of the media, shall be made as follows: draw a single line through the old data, enter the correct data, date, and apply stamp, initials or signature of individual making the correction. No erasures, covering, or "white-out" allowed.

1.11.5 – Record Retention

Records of product/material manufacture, test, inspection (including radiographic film), calibration, and acceptance / certification, are considered quality records and shall be retained as follows:

Records in Support of	Minimum Retention Period [1, 3]
Radiographic Film, Digitized Film or Digital Radiographs	11 years
Non-traceable, non-serialized parts	11 years
Traceable parts as identified on the Honeywell drawing or purchase order	Indefinitely [2]
Serialized parts as identified on the Honeywell drawing or purchase order	Indefinitely [2]
Records required as authorizing evidence per counterfeit prevention requirements (see SPOC 419)	Indefinitely [2]
Critical parts as identified on the Honeywell drawing	Indefinitely [2]
Distributor standard off the shelf product	7 years

1 MINIMUM retention periods, beginning with the date the order was completed. In the case where a specification, contract or purchase order requires a greater retention period, the more stringent requirement will apply.

2 A long period of time specified in the law that cannot be determined in advance. **Indefinitely** does not mean that the records must be retained permanently. Records having a retention period of "Indefinitely" should be reviewed periodically to determine if they have surpassed their useful legal and business life. Destruction of records with Indefinite retention period must be authorized by Honeywell.

3 Requirements for retaining documented information other than that specified above shall be per applicable Quality Management System standard. (Ref: AS9100)

1.11.6 – Application and Control of Acceptance Authority Media (AAM)

Seller shall establish controls for the use of acceptance authority media to avoid misuse, duplication, maintain condition, under the defined role (e.g., stamps, electronic signatures, passwords) and comply with associated requirements in AS/IA/EN/JISQ 9100 and 14CFR Part 21.2.

1.12 – Prohibited Practices *

The following acts or practices are prohibited:

1. Unauthorized Repair - Repairs (by welding, brazing, soldering, or the use of adhesives) of parts damaged or found faulty in the fabrication process, repairing holes in castings, forgings or other materials by plugging or bushing without authorization from Buyer.
2. Unauthorized Processing - Addition, revision, or deletion of thermal, chemical, or electrochemical processes in manufacturing when processes are subject to specification control by Buyer.
3. Improper Material Submittal - Submission of material having known defects/problems to Buyer without notification.
4. Improper Material Re-submittal - Resubmission of material to Buyer without material being clearly identified as resubmitted material.
5. Unauthorized Material and Information Transfer – No supplier shall buy, sell, trade, or transfer Honeywell owned/supplied drawings, data, material, parts, devices, assemblies, or end equipment for purposes other than the performance of Honeywell business, without prior written approval.
6. Reclaimed Material – No supplier shall use reclaimed material without prior written approval from the Buyer.
7. No supplier shall use a 3D model for inspection or the creation of inspection tooling unless it is either:
   - Controlled by Honeywell and named explicitly on the part drawing
   - Verified by the Engineering and Quality functions of the supplier to match the drawing requirements. The supplier will present a document properly identifying the file name of the model and certifying that the model corresponds to the drawing requirements.

1.13 – General Quality System Requirements *

Suppliers and supplier sub-tiers providing product, are responsible for maintaining Quality Systems that are compliant to applicable Honeywell Quality System Requirements. Suppliers shall be third-party registered and receive periodic system audits, or be subject to periodic compliance audits by Honeywell. Suppliers assume the cost of systems audits. Providers shall give Honeywell access to data within OASIS and Nadcap databases.

Honeywell's preferred Quality Systems levels are as follows:

- **Manufacturing with Design Authority:** AS/EN/JISQ 9100; design must be included in scope of registration, and suppliers may not exclude design portions of the Standard.
- **Manufacturing without Design Authority / Special Processes: AS/EN/JISQ 9100**
- **Repair and Overhaul:** National Aviation Authority (NAA) Certification (local and/or international regulatory agency) and/or AS9100 or AS9110
- **Special Processors (non-manufacturing)**: AS9003 **or** satisfactory audit to Nadcap (AC7004)
- **Materials Laboratories and NDT Laboratories**: ISO 17025, **or** AS9003, **or** satisfactory audit to Nadcap (AC7004)
- **Distribution and Brokers**: AS/EN/JISQ 9120
- **Software Suppliers**: AS/EN/JISQ 9100 **and** AS9115
- **AS13100** AESQ Quality Management System Requirements for Aero Engine Design and Production Organizations *

Alternate Quality System standards which do not meet the above requirements must be approved by the Supplier Quality Manager (or designee) of the Honeywell site issuing the PO.

The supplier shall provide evidence of a certificate of registration from an organization accredited by a member of international accreditation forum (IAF) to the industry standard listed above, or successfully pass a compliance audit conducted by Honeywell or Honeywell's approved designee.

1.13.1 – Evaluation

Honeywell conducts periodic evaluations on external suppliers. Failure to maintain and provide proof of compliance to general quality system requirements may result in the launch of a Quality System compliance audit at the Supplier's expense.

1.13.2 – Human Factors **

Suppliers throughout the supply chain are encouraged to consider Human Factors in their operating systems to remove risks that may be generated by human error. Additionally, they should be aware of their contribution to products, service, safety, conformity and ethical behavior.

1.14 – Obsolescence

For component parts (COTS) or Honeywell designed parts or assemblies, the Supplier shall notify the Honeywell Buyer regarding part or material obsolescence / reformulation as soon as the information becomes available, with an expectation to provide notification at least twelve months prior to the last date an order will be accepted. A manufacturer notification letter regarding obsolescence is also required. Honeywell requires sub- tier/subcontract suppliers to manage obsolescence on the assemblies where they own the design.

For products where the Supplier has design responsibility, the Supplier shall develop and implement a Part Obsolescence Management Process. This Process shall include the following elements at a minimum:

- Annual assessment of Product Bill of Material(s) (BOMs) to identify any obsolescence that will potentially impact delivery of product to Honeywell.
- Proactive identification and detection of part, material, or manufacturing/test equipment obsolescence issues.
- Action Plan to resolve each obsolescence issue, including forecast analysis and product support decision(s) (i.e. Life Time Buy, redesign or product sunset).
- Life Time Buy inventory management plan to ensure long-term production ability.
- Advanced notification to the Honeywell buyer of any potential interruption in the ability to meet Honeywell forecasted demand due to an obsolescence issue.

1.15 – Honeywell-Consigned Material

The Supplier shall not return unused consigned material without authorization from the Honeywell Buyer.

1.15.1 – Nonconforming Consigned Material

If authorized for return, the material shall be labeled: "Return of Consigned Materials, Do Not Route to Stores" on the outside of the shipping container (BARCODE LABELS ARE NOT TO BE USED).

The Supplier shall provide part number, dash number, and the reason for return on the packing slip.

1.16 – Non-Contact 3D Inspection Systems

1.16.1 – Any Non-Contact 3D inspection method used to accept Honeywell product must be proven capable and accurate for the intended purpose.

The supplier shall obtain approval of such measurement methods in accordance with supplier procedure SI- 1.18-01. Requirements available on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents

Section 2.0 – Specifications and General Information

2.1 – General Requirements- Specifications

Suppliers are required to identify and work to Government, Industry, and Honeywell specification revisions as follows:.

- When a specification revision is listed on an engineering drawing, only that specification and revision shall be used.
- If an engineering drawing does not list a specification revision, suppliers must reference the current version in the Aerospace Specification Index (ASI) and follow that specification and revision. The ASI is available to authorized Honeywell suppliers located on the Honeywell Aero Supplier Portal > HASP > Applications > ASI
  - The applicable specification revision shall be the version in effect as of the Purchase Order date; however, any newly issued specification revisions must be implemented within 60 calendar days from the date of issuance. Parts on existing long-term contracts that are processed before the specification change are acceptable unless otherwise specified in the specification revision document.

2.2 – General Requirements- Alternate Materials

Material substitutions are not allowed without written Engineering approval, with exceptions provided in some site-specific alternate material substitution documents. Refer to the Aero Spec Index Must Read Instructions for further information.

Section 3.0 – SPOC Groups: SPOC 001 - SPOC 009 Details

3.1 – Group Requirements

SPOC Sections and individual SPOCs invoked as shown below shall be reviewed and complied with in conjunction with the purchase order flow down of specific Group SPOCs.

SPOC Group Number	Individual SPOCs Invoked by SPOC Group
SPOC 001 Manufacturer with Design Authority	Sections 1.0 & 2.0, 100, 106, 124, 127, 128, 129, 130, 140, 142, 149, 154, 162*, 165, 200, 239, 267, 354, 418, 419, 420, 519
SPOC 002 Manufacturer without Design Authority (may include Specification Control drawings that call out specific dimensions, processing methods, etc.)	Sections 1.0 & 2.0, 100, 106, 124, 127, 128, 129, 130, 140, 142, 149, 154, 162, 165, 200, 239, 267, 354, 418, 419, 420, 519
SPOC 003 Standard and/or Catalog Hardware	Sections 1.0 & 2.0, 100, 106, 140, 142, 200, 239, 267, 354, 418, 419, 519
SPOC 004 Industrial Programs	Sections 1.0 & 2.0, 100, 140, 267, 354, 418, 419, 519
SPOC 005 Shop Overload or Spot Operations	Sections 1.0 and 2.0, 100, 106, 127, 128, 140, 154, 159.1.1, 165, 200, 239, 267, 354, 418, 419, 519
SPOC 006 Repair & Overhaul	Sections 1.0 & 2.0, 100, 110, 127, 140, 142, 159, 239, 267, 354, 418, 419, 519
SPOC 007 Ground Support Equipment	Sections 1.0 & 2.0, 100, 127, 130, 140, 142, 179, 267, 354, 418, 419, 519
SPOC 008 * Honeywell Aerospace Intra-Site Transactions:	Process product/material in accordance with AP-1064 and AP-1517, Requirements for Transactions between Honeywell Aerospace Sites.
SPOC 009 Printed Board Assemblies	Sections 1.0 and 2.0, 100, 106, 124, 127, 128.4, 140, 142, 149, 154, 162, 165, 200, 239, 267, 354, 418, 419, 420, 519.548, 549, 560

Note: Individual SPOCs may contain multiple sections. It is the supplier's responsibility to determine which requirements apply and to request clarification from Honeywell if needed.

SPOC 100 – Notification, Containment, & Corrective Action of Material Found Nonconforming to Honeywell Purchase Order Requirements *

100.1 – Scope

Material that deviates from drawing, specification, or maintenance requirements shall be identified and controlled to prevent unauthorized use or delivery to Honeywell or other designated destinations. The disposition, handling, and mutilation of scrap shall be compliant with AS9100 and CFR 21.137. The Supplier shall provide prompt, (ordinarily within 24 hours), written notification on supplier letterhead to both the Honeywell Buyer, Field Quality Engineer, and site Supplier Quality Manager if nonconforming product or process escapes are identified after shipment to Honeywell has taken place.

100.2 – Material Review Authority

The Supplier shall not exercise Material Review authority without written approval by Honeywell's Quality Organization. This applies to Honeywell-designed material and/or designs controlled to Honeywell specifications or other OEM designed hardware. Honeywell reserves the right to reject the decision of the Supplier Material Review Board (MRB).

Action shall not be taken on any nonconformance which could affect safety of personnel; adversely affect performance, durability, interchangeability, or reliability; materially affect weight; or otherwise result in failure of the end article to perform its intended function. All doubtful cases shall be submitted to Honeywell Material Review Engineering on the appropriate form.

Honeywell reserves the right to reject the decision of the Supplier Material Review Board (MRB).

100.3 – Request for Material Review Action

The Supplier may request consideration for nonconforming material that cannot be reworked to fully conform to drawing specifications, aftermarket maintenance technical data, or purchase order requirements. Requests for Material Review Action shall be submitted using the online electronic eCATS system: https://www.ecats.honeywell.com

The supplier must comply with the requirements outlined in SPOC 100.3.1 prior to submitting the RMRA to the site.

Requests for Material Review Action shall be submitted on the appropriate nonconforming material document (e.g., Request for Material Review Action [RMRA], Quality Notifications [QN], eCATS RMRA or equivalent as applicable to the Honeywell site).

The forms and instructions are in the eCATS application located at https://www.ecats.honeywell.com, or by contacting the Honeywell buyer.

Nonconforming articles shall be retained by the Supplier until disposition of ACCEPT in eCATS by Honeywell site MRB.

Note: Honeywell reserves the right to subtract monies from the PO or debit the supplier, for Honeywell incurred costs related to supplier responsible RMRAs.

Suppliers shall not request RMRAs unless hardware is manufactured with open Purchase Order(s) in place. RMRAs shall not be requested to start fabrication of known or potential non-conforming product and are only applicable to the product on purchase orders(s) identified on the specific approved RMRA.

100.3.1 – Process Action Steps and Follow-up Process

Suppliers must perform these Process Action Steps prior to submittal of all RMRA's to Honeywell:

- Evaluate submitted (RMRA) dimensional discrepancies against the current DIP / QATP IAW SPOC 128.
- Revise the DIP / QATP to 100% inspection in conjunction with the dimensional discrepancies noted in the submitted (RMRA).
- Supply evidence of Root Cause and Corrective Action to prevent reoccurrence.
- Supplier Ongoing Follow-up Process:
- Continue to monitor manufacturing and inspection process on those dimensional discrepancies noted in any or all RMRA submittals.
- 100% inspection until the IRR has been re-established IAW SPOC 128 to applicable Honeywell site requirements.

100.4 – Material Discovered Nonconforming after Shipment *

The Supplier shall promptly notify Honeywell when nonconforming product has been shipped. The notification shall include part numbers, design activity, CAGE code or Current Design Activity (CDA) code, traceability (lot, serial, and manufacturer numbers), ship dates, quantities, and a description of the nonconformance. This applies to any nonconformance that departs from drawing, specifications, aftermarket maintenance technical data or purchase order requirements. **Additionally, the supplier shall create a Notice of Escape using eCATS and include the required NOE disclosure excel spreadsheet.**

The supplier shall promptly perform internal RCCA to assure full containment is in effect, and document all nonconformance causes and actions to prevent recurrence. Records of these actions shall be retained in accordance with Section 1.11 in this Manual and be available to Honeywell on demand.

For confirmed supplier disclosure escapes, a formal corrective action request will be made to the supplier using the Honeywell E-CATs system. All suppliers are required to have an active eCATS account.

Product found to be nonconforming, and shipped in partial shipments, requires that the Supplier repeat the source inspection on the unshipped product per SPOC 149 requirements. A new Partial Shipment Release Sheet shall be generated per SPOC 140 if the remaining product is then found acceptable.

100.5 – Containment of Nonconforming Material

When a nonconformance is discovered, or the Supplier is notified of a discrepancy, the Supplier must take immediate action to determine if the condition exists on any other work-in-process, in all inventory locations at the Supplier's facility, or in prior shipments. Containment action must be taken and documented prior to the next shipment of the part number involved.

Containment activities taken and/or planned shall be communicated to the Honeywell Aerospace site within 48 hours when formally requested through Quality Notification, RMRA (in eCATS), HASP or other documented notification/discovery of nonconforming shipment. The supplier shall perform internal RCCA when any nonconformance has been positively identified because of one or more of these actions.

Records of these actions shall be retained in accordance with Section 1.11 in this Manual and made available to Honeywell upon request. Honeywell may not decide to issue a corrective action request through our eCATS system. This does not preclude the supplier from documenting their corrective actions. It is highly recommended that for all Honeywell issues the suppliers' corrective actions include all the elements present in the eCATS format.

Product identified on a Partial Shipment Release Sheet as source inspection accepted shall be re-inspected prior to shipment.

The Supplier shall not wait for the discrepant hardware to be returned to begin an investigation.

100.6 – Corrective Action

The Supplier is responsible for prompt replies to Honeywell requests for containment and corrective action per AS13000 using eCATS, an electronic corrective action tracking system. All suppliers are responsible for registering for eCATS access located at https://www.ecats.honeywell.com.

100.7 – Request for Reversals

Rejects identified as supplier's responsibility are documented on the supplier scorecard available on the Supplier Portal. If the supplier's investigation of the reject concludes that the nonconformance should not be charged to the supplier's responsibility, then a request to reverse the responsibility must be submitted by the supplier in eCATS. Where Honeywell has issued a SCAR to the supplier, the request should be made part of the SCAR response and a separate Reversal CAR is not required. Reversal requests should be submitted within 30 days of notification of nonconformance. Any reject listing on a supplier's scorecard constitutes notification whether the part is returned. All eCATS reversal requests submitted shall provide detailed justification information. Instructions on how to submit a reversal request is located on the Honeywell Aero Supplier Portal in the SPOC-Supporting Documents area.

Requests for reversal submitted later than 90 days after nonconformance notification may not receive consideration from the Honeywell site.

100.8 – Return Purchase Orders for Replacement, Reworked or Repaired Parts

Any part being supplied to Honeywell on a return Purchase Order must conform to drawing, specifications, aftermarket maintenance technical data or Purchase Order or have Honeywell MRB disposition for any repairs. Under no circumstances shall used or overhauled parts be provided as replacements for OEM parts.

If parts cannot be economically reworked to meet full drawing compliance or if repair authorization is not granted, the parts shall be scrapped at the supplier's facility. Supplier shall contact the Honeywell Purchasing agent prior to scrapping these parts, and Honeywell reserves the right to witness the scrapping activity.

100.9 – Failure Reporting

Honeywell reserves the right to request failure analysis on nonconforming hardware submitted from the Supplier. Failure analysis reports may contain:

- A process map identifying key inputs and outputs of each affected manufacturing step.
- A product/process Failure Mode Effects Analysis (FMEA) tied to the process map identifying the failures or risks associated to the known nonconformance.
- A control plan developed from process map and FMEA identifying how the Supplier shall monitor those known nonconforming characteristics on future lots to prevent re-submittal of nonconforming product.

Note: Refer to SPOC 128 for information and benefits on implementing Control Plans.

100.9.1 – Failure Reporting Applicability

Upon request, the Supplier shall submit failure analysis, a short-term customer escape prevention plan, and a permanent corrective action plan, focusing on the root cause of the discrepancy. Reports shall be submitted within 30 calendar days of request unless otherwise specified.

Honeywell reserves the right to issue a Supplier Corrective Action Request (SCAR) requiring completion of a part number specific Honeywell APQP project. Reference SQG-5525 located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > Advanced Product Quality Planning (APQP)

Eye / Vision Examinations

1.1 Scope

Suppliers shall establish processes to control human factors such that visual inspections performed by the organization are effective. The use of online vision screening is recommended where in-person examination is not practical.

1.2 Requirements *

In addition to any testing required by the governing standard for the process, ensure personnel engaged in product verification and inspection activities (e.g., certified operators and/or final inspectors) are examined annually. Eyesight acuity requirements being a minimum of Curpax N5, Jaeger #2, or equivalent in at least one eye or when using both eyes together at a distance not less than 16 inches. These inspectors shall also be required to pass a one-time color vision perception test as required in the process involved.

Vison testing shall be performed by suitably trained and qualified personnel.

Correcting eyewear (e.g., glasses, contact lenses) used by personnel to pass the vision examination shall be worn when performing product verification/inspection activities.

Darkened lenses or those that darken on exposure to light are prohibited in product verification and inspection activities.

1.3 Record Requirements

Darkened lenses or those that darken on exposure to light are prohibited in product verification and inspection activities.

SPOC 110 – Fixed Process Requirements

110.1 – Scope

Parts under Fixed Process Control require written manufacturing process procedure approval prior to the production of parts. Any subsequent changes to the Fixed Process also require Honeywell approval (prior to implementation). Fixed Processes shall be performed only by approved supplier. Pre-production parts, shipped on development purchase orders, shall be uniquely identified and traceable. Specific fixed process requirements may be specified directly in a drawing note, within a specification on the drawing, in the Engineering Source Approval (ESA) tool, or in a drawing related document (e.g., Source Control Sheet). If clarification is needed, contact esa_support@honeywell.com.

110.2 – How to Obtain Approval for a Fixed Process or a Change to a Fixed Process (Applicable to all sites unless otherwise specified by the drawing or specification)

Step 1 Obtain the current Fixed Process Forms located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Technical > Engineering Specifications & Documents > Aero Forms (AF) or contact the site Honeywell Buyer. Electronic signatures are preferred. Site specific forms will no longer be accepted, they need to be Aerospace Forms (AF).

Step 2 Verify all Fixed Processes and sub-tiered Fixed Processes are performed by Suppliers with a Honeywell Aerospace vendor code and acceptable quality system.

Step 3 Send the completed Forms, with applicable substantiation documentation and articles, through the Engineering Source Approval (ESA) tool: https://esa.honeywell.com. Instructions can be found on the ESA tool login page.

110.3 – Site Specific Documents

For site specific fixed process requirements, refer to the Honeywell Aerospace Supplier Portal > HASP > Documents > Site Specific

SPOC 118 – Quality Requirements for Honeywell Partners with Federal Aviation Administration (FAA) Approved Production Certificates

1.4 Scope

Articles supplied under this order are furnished by a partner of Honeywell holding a FAA Production Certificate, as specified by Federal Aviation Regulations (FAR) Sub-Part G, paragraph 21.132. Inspection and acceptance is delegated to the partnering Supplier in accordance with Federal Aviation Regulation (FAR) 21.146.

1.5 Documentation Requirements

Certification is required with each shipment stating that the articles supplied were produced in accordance with a quality system approved by the FAA.

SPOC 124 – First Article Inspection (FAI) Requirements *

124.1 – Scope

The Supplier holding the Honeywell Purchase Order is responsible for assuring completion of the First Article Inspection Report (FAIR) per AS9102 and this SPOC for all Honeywell design characteristics generated by the supplier or their sub-tiers. In the event of any conflict between this SPOC, AS9102, and the current revision of the Supplier NI Instruction, the order of precedence shall be 1) the text of this SPOC, 2) instructions in the current revision of the Supplier NI Instruction (ref 124.2/124.6), 3) AS9102.

The FAI requirement applies to each bill of material or parts list item with a Honeywell part number that is invoked in the product design, including lower-level Honeywell detailed drawings identified on top level assembly drawing(s) and each cavity or tool serial number for products whose dimensions are controlled by the tool. FAIRs may be required on Customer or Supplier Drawings that are non-Honeywell designs or CAGE codes if specified on the Purchase Order.

Suppliers may offer an alternate FAI plan to meet the requirements of this SPOC. Use of form AF-0685 is required for proposing any alternate to this SPOC. Approval to operate under this alternate FAIR plan shall only be authorized in writing by Honeywell Site Quality management. An alternate plan approved in writing by an authorized site quality representative prior to the implementation of Form AF-0685 remains valid unless it has been formally revoked by the issuing site.

Form AF-0685 is located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > SPOC Forms.

Honeywell or Customer FAIR approval does not relieve the supplier of the responsibility and/or liability for full compliance with all contract requirements.

The following items are exempt from the requirements of this SPOC or Identify Honeywell Site Specific Requirements:

- Bar and sheet stock.
- Unaltered material consigned by or purchased from Honeywell Aerospace or its authorized distributors.
- Honeywell cage code parts that define a vendor item with no alterations/modifications to the vendor item. Honeywell specification controlled and 10 or 11-digit drawings should be evaluated to determine if they fall under this definition.

While parts that meet this definition do not require a detailed FAIR, they shall be documented on form 1 of the AS9102 for all assemblies and/or lower level FAIRs where they form part of the top level assembly part number.

- Commercial Off the Shelf (COTS) parts. A COTS part is any item purchased from a catalog available to the public and to which there is no further modification performed. See AS9102 3.6 (a-d inclusive).*
- Discrepant hardware either returned to the manufacturing supplier or sent to an alternate supplier and dispositioned rework or repair.
- Nonfunctional hardware (protective covers, shipping hardware, etc.), unless otherwise specified.
- Off the shelf sheet stock, unless post-milled processed.

124.2 – Net Inspect© First Article System Usage

The supplier shall input and maintain FAIR status in the Net-Inspect© First Article system. FAIR status shall be updated by the Supplier regardless of type (Full, Partial, or Conditionally approved FAIR).

If you are new to Net-Inspect©, you may apply for an account at https://www.net-inspect.com.

See Net-Inspect© Supplier Instruction for important information and guidance on how to populate the forms. The Supplier Instruction is available on the Net-Inspect© Dashboard Implementation Guide under Honeywell Aerospace.

124.3 – Periodic / Repeat FAIs

Honeywell reserves the right to exercise the requirement of additional and/or periodic/repeat FAI requirement on a part number basis to assure continued product conformity. Also, HON reserves the right to validate multiple production lots if needed to determine overall process capability. FAI requirements are governed by SPOC 124 (Event Tables).

124.4 – Additional Requirements

Parts defined as data sets shall use Electronic Part Definition (Solid Model) to substantiate the dimensional requirements in accordance with SPOC 267.

For United States-initiated Purchase Orders, when a first time FAIR is being conducted by a Supplier located outside of the United States, the Supplier shall notify the Honeywell Buyer to guarantee proper notification to the FAA prior to completion.

Table 1 – FAIR Event Table

Event Description	FAIR type due	On-line First Article System	Honeywell / Customer FAIR Review Required	Note
New base part number or first time supplied by source	FULL	ALL	YES	
New dash number(s) issued and manufactured, see note	FULL	ALL	YES	Consult FQE to request partial FAIR per AS9102 If Honeywell approved Full / Baseline FAIR on other dash number(s)
The engineering drawing for the part receives a revision letter change and part has a Honeywell approved FAIR	PARTIAL	ALL	YES	
Current FAIR conditionally accepted based on Deviation, RMRA, Case Record, MRB, or Manufacturing Revision authorizing rework or requirement modification	PARTIAL FAIR due on next lot manufactured or expiration of deviation / waiver	ALL	YES	
A change in process, material, tooling, or inspection method that can potentially affect form, fit, or function. Includes changes in Approved Sources for Controlled Processes since last approved Honeywell FAI; reference SPOC 165.	PARTIAL	ALL	YES	SPOC 110, SPOC 180 and/or Spec. may contain additional requirements
Change in SPOC 165 Special Process source since last Honeywell approved First Article.	PARTIAL	ALL	YES	SPOC 110, SPOC 180 and/or Spec. may contain additional requirements
A change in manufacturing source or location of manufacturing equipment, including tooling transferred from another Supplier or division of the same supplier	FULL	ALL	YES	Consult FQE to request partial FAIR per AS9102
Two-year (2) lapse in production	FULL	ALL	YES	Reference Table 1, Notes 1, 2, 3
Casting tool reaches Table 2 usage levels	FULL	ALL	YES	See SPOC 124.3

NOTES – Table 1:

1 The first-tier supplier holding the Honeywell Purchase Order shall have the responsibility of assuring hardware manufactured internally and/or procured from their suppliers are maintained and are in compliance with the Two-Year (2) lapse in production requirement in accordance with AS9102. Evidence of continued manufacturing may be requested by Honeywell either at the 1st tier Purchase Order Holders facility or at their sub-tier suppliers as applicable.

2 For Stock / Inventory hardware that was manufactured and placed in inventory/stock at a supplier BEFORE the two-year lapse in production (and which was covered by a Honeywell-approved FAIR at time of manufacture), a full FAIR with FQE approval will be required for the next lot manufactured.

3 Unless otherwise specified by the Honeywell procuring site Quality Department or by specific purchase order text, a two-year lapse in casting production will require the casting supplier to create a casting level partial FAIR. AS9102 forms 1 and 2 shall be fully completed forms with all supporting certifications attached—the same as if the supplier were executing a new FAIR. Form 3 needs to report only design characteristics that are not a direct product of the casting tool/pattern. Some examples are: dimensions which are straightened, added part marking, machining or targeting, gating removal, welding, or other features which were altered in the casting manufacturer's process. The partial casting FAIR Package shall be subject to approval by Honeywell FQE or authorized agent as defined elsewhere in SPOC 124.

Table 2 – Casting Tool Life Management

Part Type / Process / Pattern	**Frequency of FAIR** based on number of pieces produced by tool since date of last full FAIR
Solid Blades / Vanes / Investment	*50,000*
Cored Blades / Investment	*25,000*
Die Casting	*25,000*
Nozzle Segment / Investment	*10,000*
Small Structure / Investment (NO dim/dia. OVER 19.999 inches)	*10,000*
Wheels / Investment	*5,000*
360 Nozzles / Investment	*5,000*
Large Structure / Investment (ANY dim/dia. 20.000 inches or over)	*2,000*
Metal / Sand	*1,000*
P-Mold	*1,000*
Plastic / Sand Note: Tooling made from combined materials default to plastic frequency.	*800*
Wood / Sand	*350*

Additional Casting Requirements Frequency of FAIR is based on the number of production pieces since the last approved FAIR. The Supplier shall assure that all Event Table 1 conditions have been satisfied prior to usage of the Casting Tool Life Management Table below. Frequencies are, at a minimum, tracked by the Supplier/Manufacturer and do not relieve the Supplier of the responsibility/liability to meet the drawing and/or authorized deviation. The Supplier is required to establish and maintain written procedures to assure compliance with these frequencies.

124.5 – Approvals *

When a FAIR is required per Tables 1 or 2, a Honeywell Field Quality Engineer (or a Honeywell -delegated authorized agent) is required to review FAIRs prior to hardware release. First Article Planning is critical**.** The Supplier shall notify a Honeywell Field Quality Engineer (FQE) at least two (2) weeks prior to the anticipated completion of the FAIR for effective FAI scheduling. Casting or forging part numbers that require controlled sources due to fixed process requirements shall be reviewed at the casting or forging source. Casting and Forging purchasers shall flow down this requirement in Purchase Order text. Casting "stock on" dimensions required to be machined per the drawing may be dispositioned by documented agreement between the procuring organization and the producing organization when:

a. Not prohibited by site casting deviation disposition requirements AND
b. Positive (plus) stock exceeds the amount permitted by casting stock note on a combination casting/machining drawing. OR
c. The amount and location of machining stock on combination casting/machining drawings is not specified.

Agreement shall be included in casting FAIR. Except as stated above, Field Quality Engineers normally will not be dispatched to perform FAIR validations of sub- tier-supplied product, however, Honeywell reserves the right to perform on-site sub-tier FAI audits to confirm conformance with part requirements. Contact buyer as needed to determine assigned FQE.

Note: All Yeovil & Bournemouth FAIRs to be provided and maintained using the Net-Inspect© UK site - https://uk.net-inspect.com

124.6 – Documentation and Records

Unless otherwise specified by the procuring site, a Honeywell-stamped FAIR approval form (AF-0113 or equivalent) shall be retained by the Supplier with the FAI documentation. FAIR's submitted using the Net Inspect system meet this requirement. For FAIRs that do not require customer review, the supplier-approved AS9102 forms shall be retained. All documents used to support the review and approval of a FAIR are considered part of the FAIR package and shall be retained by the supplier per Quality Records defined in Section 1.

Retention of FAIR Records Exception: FAIR records may not be discarded if active shipments of the respective product are being made with ties/accountability back to that specific FAIR record. Retention of records using the Net Inspect system is an acceptable alternative.

Honeywell reserves the right to request the FAI package at any time. When requested, the Supplier shall ensure that FAI documentation is provided within the time frame listed below.

- USA, Canada, Mexico or UK – 2 business days
- Outside of USA, Canada, Mexico or UK – 5 business days

FAIRs shall be compliant with AS9102 and Online First Article (Net Inspect) Instructions.

124.7 – Last Article Inspection Report

In cases where a process or product is to be discontinued at a supplier, Honeywell may require a Last Article Inspection Report (LAIR) from the current supplier. This report is identical to a First Article Inspection Report (FAIR) and is provided by the supplier for one of their last production runs, or processing runs.

Honeywell's designated electronic FAIR system is used for reporting, and the LAIR must be approved on site by a FQE or designee just as would a typical AS9102 First Article. Full or partial LAIR depends upon whether part of a production process, part of a set of processing operations, or a complete product is being moved. LAIR requirement will be communicated to the supplier via Honeywell PO. The LAIR will be reported in the Honeywell electronic FAIR system as a normal full FAIR (there is no LAIR designation).

SPOC 127 – Management of Government / Customer or Honeywell Owned Property at Suppliers

127.1 – Scope and Title

The U.S. Government (referred to herein as "Customer") and other Customers shall retain title to all government / Customer furnished property, as applicable.

Title vests in the Customer for property acquired or fabricated by the Seller in accordance with the financing provisions or other specific requirements for passage of title in this Order. In the absence of financing provisions or other specific requirements for passage of title in the Order, title to all property purchased by Seller, for which Seller is entitled to be reimbursed as a direct item in a deliverable line item in this Order, shall pass to and vest in the Customer upon Seller's delivery of such property.

Title to all other property, the cost of which is reimbursable to Seller, shall pass to and vest in the Customer upon:

- Issuance of property for use in performance of this Order; or
- Commencement of, processing of, or the use of property in performance of this Order; or
- Reimbursement of the cost of the property by Buyer, whichever occurs first.

Title to Customer furnished property shall not be affected by its incorporation into or attachment to any property not owned by Customer.

Government/Customer acquired/furnished property is property furnished to a supplier for performance of a subcontract and may be provided to the supplier as follows

- Tooling, test equipment, equipment, or material supplied by Honeywell for use in the performance of this purchase order.
- Tooling, test equipment, or equipment, fabricated and retained by the Supplier and paid for by Honeywell in the performance of this purchase order. Supplier is responsible for such property in accordance with the General Terms and Conditions clause of this Order and the Government/Customer property clause.

The Supplier's Property Management System to manage, use, preserve, protect, repair and maintain such consigned property is subject to review and approval by Honeywell Government Property Compliance COE.

127.2 – U.S. Government Owned Contracts

U.S. Government owned property acquired or furnished is subject to the provisions of the Federal Acquisition Regulation (FAR) Government Property clause 52.245-1 or 52.245-1 Alt1.

127.3 – Lead or Kirksite Tooling

For Lead or Kirksite tooling or dies procured with government funds, the supplier shall:

- Charge only for the exclusive use of the tooling or dies unless modified by customer contract or Purchase Order.
- Obtain written approval from the Honeywell Buyer before the destruction or re-use of the Lead or Kirksite metal.

127.4 – Management of Government / Customer or Honeywell-owned property

The Supplier shall have a system, which includes written procedures for management of all Government and Customer owned property (tooling, test equipment, equipment and material). Procedures shall be in accordance with the clauses specified within the Purchase Order terms and conditions and this SPOC.

127.4.1 – Receiving and Identification

Each individual piece of tooling, test equipment and equipment acquired under this order shall be marked in a permanent manner with the appropriate identification number and ownership as provided by Honeywell Supplier COE Administrator. See marking instructions on the GP7-06 Supplier Asset Identification Tag(s) Validation or equivalent provided by the Honeywell Supplier COE Administrator. Unless otherwise directed by Honeywell, Supplier will make use of Honeywell's numbering system for all items of tooling, test equipment and equipment acquired hereunder.

Upon receipt or fabrication, of tooling, test equipment and equipment, complete and return the GP7-06 Supplier Asset Identification Tag(s) validation and photos of the tooling, test equipment or equipment that clearly displays the part number and the permanent mark or tag, to the Buyer.

127.4.2 – Records

The supplier shall maintain a record of all Government/Customer and Honeywell-owned property. The list shall include:

- Honeywell identification number (applies to tooling/gages, test equipment and equipment
- Description of tooling/gages, test equipment, equipment, and material
- Part Number
- Honeywell Purchase Order number, contract or equivalent code
- Part numbers used to manufacture
- Location
- Unit of measure (material)
- Quantity (if other than 1)
- Unit price
- Date of inventory certification

127.4.3 – Physical Inventory

Supplier is required to perform a physical inventory of Government/Customer or Honeywell-owned property acquired/furnished against this Purchase Order upon request from Honeywell Supplier COE Administrator. Supplier will be notified to commence the inventory and provided with a GP7-01 Survey, inventory list, and SPOC 127 training.

Supplier shall return the completed GP7-01 Survey, inventory list reconciliation, and acknowledgement of SPOC 127 training to the Honeywell Supplier COE Administrator by the assigned due date, unless otherwise specified.

127.4.4 – Maintenance

Calibration of tooling/gages, test equipment, and equipment will be coordinated with the providing Honeywell site to ensure calibration requirements are maintained as shown in ANSI Z540.1.

If not otherwise specified, all tooling, test equipment, and equipment used to determine acceptance of product will be subject to, as a minimum, an initial inspection and calibration, and re-calibration per the Honeywell recall schedule based on the manufacturers recommended interval.

Preventive Maintenance of tooling, test equipment, and equipment will be coordinated with the providing Honeywell site to ensure that it is maintained, protected, and preserved.

127.4.5 – Disposition

Retain all Government/Customer or Honeywell-owned property at Supplier's expense until disposition directions are received from either the Honeywell Supplier COE Administrator or the Government Plant Clearance Officer.

Upon disposal, notify the Honeywell Supplier COE and Buyer that disposal has been completed in accordance with directions.

Supplier is required to report immediately to the Honeywell Supplier COE Administrator and Buyer any loss (includes theft, damage, or destruction) of Government/Customer or Honeywell-owned property while in its possession.

- Loss of Government property includes but is not limited to— (1) Items that cannot be found after a reasonable search; (2) Theft; (3) Damage resulting in unexpected harm to property requiring repair to restore the item to usable condition; or (4) Destruction resulting from incidents that render the item useless for its intended purpose or beyond economical repair.
- Honeywell Form GP9-01 Loss Report w/ Instructions will be completed by the supplier when provided by Honeywell.

127.4.6 – Utilization

Use of Government acquired/furnished tooling, test equipment, or equipment, provided under this order on other orders is prohibited. Through the Buyer, the Supplier must request authorization from the owning program.

Authorization to use will only be granted if use of the property can be accomplished on a non-interference basis with orders received from the Buyer.

In those instances, where the Customer authorizes use on a non-Government order, rental charges will apply.

Authorization to use will never apply to material.

Segregate Government/Customer or Honeywell-owned tooling, test equipment, and equipment when not in use from Supplier-owned property.

No modifications or changes to any of the tooling, test equipment or equipment are permitted without prior Honeywell written approval.

Report to the Honeywell Supplier COE Administrator any acquired or furnished property that becomes excess to the needs of the owning purchase order.

127.4.7 – Movement

Contact the Honeywell Supplier COE Administrator before transferring tooling, test equipment, or equipment between supplier facilities (address location) or to another third-tier supplier. Permission is required from the Honeywell Buyer prior to any such move. When the property is transferred to another supplier or returned to Honeywell, Supplier is required to maintain records of the move for five years.

127.5 – Furnished Property Provided on an "As Is" Basis

Government/Customer Furnished property that is furnished on an 'as-is" basis and authorized for use on this Purchase Order is subject to the following:

Honeywell Buyer and the Government/Customer make no warranty as to the serviceability or suitability whatsoever with respect to the property authorized for use "as-is."

The Supplier may repair any Government/Customer or Honeywell property made available on an "as-is" basis. Such repair will be at the Supplier's expense except as otherwise provided in this clause. Such property may be modified at the Supplier's expense, but only with the written permission of Honeywell Buyer. Any repair or modification of such property furnished "as is" shall not affect the title of the Government/Customer or Honeywell property.

127.6 – Payment for Special Tooling, Special Test Equipment or Equipment

To obtain payment for fabricated tooling, test equipment, or equipment, the Supplier shall send the completed and signed GP7-06 Supplier Asset Identification Tag(s) Validation and photos to the Honeywell Buyer. Buyer will clear line item from Purchase Order which allows Supplier to be paid.

Upon payment, if the item is to be retained at the Supplier, a Consignment Purchase Order must be generated.

127.7 – Shipment to Honeywell

Supplier should contact the Honeywell Supplier COE Administrator through the Supplier Portal to determine proper address to return Honeywell or Customer owned gages. The shipment shall conform to SPOC 239.

Honeywell-Owned Property at Suppliers

Honeywell owned acquired/furnished property is property furnished to a supplier for performance of a subcontract and may be provided to the supplier as follows

- Tooling, test equipment, equipment, or material supplied by Honeywell for use in the performance of this purchase order.
- Tooling, test equipment or equipment, fabricated and retained by the Supplier and paid for by Honeywell in the performance of this purchase order. Supplier is responsible for such property in accordance with the General Terms and Conditions clause of this Order and the Government/Customer property clause.

The Supplier's Property Management System to manage, use, preserve, protect, repair and maintain such consigned property is subject to review and approval by Honeywell Capital Sourcing & Procurement.

The Supplier shall have a system, which includes written procedures for management of all Honeywell owned property (tooling, test equipment, equipment and material). Procedures shall be in accordance with the clauses specified within the Purchase Order terms and conditions and this SPOC.

Honeywell- owned tooling is to be marked as property of Honeywell with the Honeywell assigned tool number as indicated in the applicable purchase order. When tools and FAIR are complete and approved the Cert Package (with items 1 – 4 below) must be sent to the Capital Buyer:

1. Photographs of Tool Clearly Showing Honeywell Tool Number and Serial Number
2. A copy of the Net-Inspect© approved FAIR for the part number made by the tool
3. Copy of invoice referencing Honeywell tool numbers

Records

The supplier shall maintain a record of all Government/Customer and Honeywell owned property. The list shall include:

- Honeywell identification number (applies to tooling/gages, test equipment and equipment
- Description of tooling/gages, test equipment, equipment, and material
- Part Number
- Honeywell Purchase Order number, contract, or equivalent code
- Part numbers used to manufacture
- Location

Physical Inventory

Supplier is required to perform a physical inventory of Honeywell owned property on an annual basis. The inventory record list and the condition of each item shall be submitted to Honeywell Capital Sourcing & Procurement at AERO_Cap_ToolRequests@Honeywell.com

Maintenance

Suppliers in possession of Honeywell owned tooling must perform Frequency FAI as indicated in SPOC 124

Disposition

Retain all Honeywell owned tooling until disposition directions are received from assigned Honeywell Commodity Manager or Honeywell Capital Sourcing & Procurement.

Once the disposition is complete, notify Honeywell Commodity Manager and Honeywell Capital Sourcing and Procurement

Supplier is required to report immediately to the Honeywell Commodity Manager and Capital Sourcing and Procurement any loss (includes theft, damage, or destruction) of Honeywell owned property.

Supplier may request Honeywell owned tooling be reviewed for disposition by contacting Honeywell Capital Sourcing and Procurement at AERO_Cap_ToolRequests@Honeywell.com.

Honeywell-Owned Tooling Movement

Contact the Commodity Manager before transferring tooling, test equipment, or equipment between supplier facilities (address location) or to another supplier. Authorization is required from Honeywell prior to any such move. When the property is transferred to another supplier or returned to Honeywell, Supplier is required to maintain the records of the move for 5 years.

Honeywell-Owned Tooling Payment and Receipt

Honeywell owned tooling is to be marked as property of Honeywell with the Honeywell assigned tool number as indicated in the applicable purchase order. When tools and FAIR are complete and approved the Cert Package (with items below) must be sent to the Capital Buyer:

1. Photographs of Tool Clearly Showing Honeywell Tool Number and Serial Number
2. A copy of the Net-Inspect© approved FAIR for the part number made by the tool
3. Copy of invoice referencing Honeywell tool numbers

Shipment to Honeywell

Supplier should contact the Commodity Manager or Honeywell Capital Sourcing & Procurement at AERO_Cap_ToolRequests@Honeywell.com to determine proper address to return Honeywell owned tooling. Shipment shall confirm to SPOC 239.

Honeywell Capital Sourcing & Procurement

- Unit of measure (material)
- Quantity (if other than 1)
- Unit price
- Date of inventory certification

127.8 – Phoenix Engines Orders Only
Honeywell shall perform required recalibration of the following gages: Curvic Masters, Bevel Gear Masters, Thread Ring Gages, Spline Ring Gages, Serration Ring Gages, and Special Air Gages.

SPOC 128 – Characteristic Accountability

128.1 – Scope

Suppliers shall have a verifiable methodology for controlling and recording inspection of all design characteristics, as well as a method of validating received components from sub-tiers.

128.2 – Detailed Inspection Plans

A Detail Inspection Plan (DIP) documents the inspection plan for a part to ensure that all engineering drawing characteristics and notes are inspected and/or controlled by appropriate methods. DIPs shall be documented in a manner that meets the intent of the sample Honeywell DIP/FAIR form (located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > SPOC Forms) and include recording of variable results when required by engineering specification or Purchase Order flowdown.

A DIP may be used as a record, or may reference supporting records such as routings, receiving or in-process inspection sheets, final test/inspection reports, or statistical data if the DIP and/or supporting records are complete, accurate and reproducible. The DIP shall define the manufacturing operation at which the characteristic is inspected and the inspection method used, including the type of tooling/gauging instrumentation used.

Characteristics that are subject to change after in-process acceptance (e.g., growth, shrinkage, and/or distortion) must be re-inspected prior to final acceptance.

DIPs which contain characteristics which are “tool controlled” (castings, molded parts, etc.) may contain less than 100% of the Honeywell drawing characteristics provided the following conditions are met:

Some characteristics shall be selected as “control” dimensions. Control dimensions shall be of quantity and type such that inspection of these characteristics will give the supplier enough information (based on tool construction, assembly, process variation, and drawing tolerance) to assure that all other drawing characteristics are in conformance.

The supplier shall maintain a plan which clearly documents the control dimensions for all design characteristics. DIPs are not applicable to Standard, Commercial and Catalog hardware identified as Honeywell Vendor Items.

128.3 – Sampling of Characteristics

The supplier shall inspect all design characteristics per the Aerospace Common Sampling Plan located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > SPOC Supporting Documents > SPOC 128 - Aerospace Common Sampling Plan. Suppliers shall not implement any other alternate sampling plans unless provided by specification, MESA (Material Engineering Supplier Agreement), or with written approval obtained from the Quality Management or QA/PE Engineering of the Site issuing the PO.

Suppliers are required to submit Form AF-0685 and a data packet as outlined in SAE industry specification AS13002 - Requirements for the Determination and Control of Inspection Frequency. An alternate plan approved in writing by an authorized site quality representative prior to the implementation of Form AF-0685 remains valid unless it has been formally revoked by the issuing site. Form AF-0685 is located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > SPOC Forms.

The SAE specification can be obtained here http://standards.sae.org/AS13002/

128.4 – Circuit Card Assemblies (CCAs), Printed Wiring Board Assemblies

This DIP plan requirement will be in effect with any new delta or first time FAI's as they are accomplished.

The supplier shall conduct a complete review of the requirements of each CCA/PBA and make provisions for the special controls, processes, inspection and test equipment, fixtures, tooling and skills required for assuring all parts conform to the Purchase Order Flow Down, Drawings, and specifications.

The supplier shall formulate a Quality Assurance / Inspection / and Test Plan (QATP) for each Honeywell part number. This plan shall be made available for review and is subject to verification of conformance.

The QATP shall include: all planned inspection points, characteristics to be inspected, accept/reject criteria, inspection documentation requirements, and location of inspection records. Any procedures used in inspection/test may be subject to approval of buyer/FQE.

Detailed Inspection Plans for CCA's (Circuit Card Assemblies) / PBA's (Printed Wiring Board Assemblies) shall include the following:

1. A Receiving Inspection Component/Material Validation Plan (All received material must be validated to the Honeywell BOM definition).
2. A Master Traveler Manufacturing Plan must be created for each individual Part Number including all process steps. This traveler must be revision controlled to the Honeywell part drawing revision.
3. Each Process Step must have a process control plan, including equipment control, operator control, and a fully documented work instruction.
4. Each piece of processing equipment must have a calibration plan, maintenance plan, and a part processing control plan by CCA/PBA part number.
5. Special process steps such as conformal coat, bonding, and engineering change order incorporation (i.e., dead bugs, cuts and jumps, magnet wiring) must have process control plans unique to the requirements flowed down.
6. The Hand adds or the Final Assembly process must be fully defined with a work instruction.
7. Each CCA/PBA Master Traveler Manufacturing Plan must incorporate an AOI, AXI, and ICT / Flying Probe test plan that validates component placement, solder joint integrity, and basic component functionality limited by ICT approach capability and CCA/PBA design layout. This test plan should be aligned to the complexity of the CCA/PBA.
8. A final inspection process should be in place to verify that all drawing characteristics—such as max height requirement, lead length, and keep-out areas—are met, particularly those that affect form, fit, or function.

128.5 – Engines Product Orders Only (Phoenix, Greer, HCMO) *

Detailed Inspection Plans (DIP) for all airfoil castings and all wheel castings must be approved by Engines Engineering before use – including DIPs containing sampling based on tool-controlled features.

Suppliers should submit their proposed DIPs using form AF-0164 to Engines Engineering. DIPs must be submitted minimum 30 days prior to FAI date, as their approval is a pre-requisite for FAIR submittal and approval. Any changes to an approved DIP must be re-submitted to Engines Engineering for review and approval of the updated DIP prior to incorporation.

Engineering approval of existing DIPs in production is required at the next partial or full FAIR.

SPOC 129 – Acceptance Test Procedure (ATP) Approval Requirements

129.1 – Scope

Where required by Honeywell Engineering Drawing, Procurement Specification Control (PSC), ATP, or Test Requirements Document (TRD), the Supplier shall submit for approval the test Procedure, test characteristics and test set-up to comply with the test requirements.

Honeywell Engineering may, at their discretion, approve test documents and plans containing less information than required by this SPOC. In such cases, those documents shall take precedence over the requirements of this SPOC.

129.2 – Test Procedure

The Supplier provided Test Procedure shall cover:

- Supplier Acceptance Test Procedures (SATP)
- Qualification Test Procedures (QTP)
- Lot Acceptance Test Procedures (LATP)
- Functional Test Procedures (FTP)

The minimum information required includes:

- Nomenclature
- Honeywell and Supplier part number (including dash number), and the Supplier code assigned by Honeywell, Manufacturing Process Rev number, if applicable.
- Procurement Specification Control (PSC) number, if any, including revision letter.
  Note: An Engineering Statement of Work may be referenced for research and development articles
- Supplier Test Number, revision letter, and date.
- Equipment type, range, accuracy level, and frequency of calibration.
  - Special test equipment must reference the drawing number and revision letter.
  - If software is used to control an automated test stand, the software number and revision designator must be referenced.
  - One copy of the special test equipment drawing and software must be provided.
  - Commercial executive software for control of a computer need not be referenced or provided.
- Complete description of test performed (inclusive of all parameters and schematic of test set-up) in sufficient detail to permit a duplication of the test.
  - Out-of-tolerance is cause for rejection.
  - If the Test Procedure does not test the article while it is exposed to the full ambient temperature range of the PSC, the tolerance of each tested parameter must be reduced, at ambient, to help ensure the PSC requirements are met over the full temperature range (this normalized tolerance range does not substitute for any requirement to environmentally qualify or substantiate the specified part).
  - The Supplier shall determine the tolerance, which is subject to approval by Honeywell.
- Sampling Plan (if used) must include specific item or portion of test parameter sampled.
- Supplier Acceptance stamp, if any, to accept test results.
- When a Supplier receives a new or repeat Purchase Order for a product that does not have an approved Test Procedure, the Supplier must submit a copy for approval.

129.3 – Data Submittal

The Supplier shall submit a copy of the proposed test procedure to the Honeywell Buyer, who will forward to the appropriate Engineering or Quality group for review and approval. Test plans, data sheet format and contents are subject to Honeywell approval prior to manufacture and shipment of production parts. The document must be submitted 60 days prior to scheduled delivery of production or development articles. Shipments shall not be made until this approval has been obtained. Objective evidence of Honeywell approval shall be maintained by the Supplier.

129.4 – Change Control

Changes to a Honeywell approved Test Procedure require re-approval prior to implementation, and the changes may not be incorporated until receipt of written approval from Honeywell.

Test procedures that have been approved with comments may be corrected at the next required revision.

Note: Honeywell approval of the Supplier Test Procedures does not relieve the Supplier of the responsibility for determining that the product complies with the requirements of the Purchase Order, engineering drawings, and applicable specifications.

129.5 – Test Data Sheet Requirements

When required, Test Data Sheets shall be enclosed in a data sheet envelope and attached to each individual unit.

Each ATP data sheet shall include the following:

- Supplier name
- Date of testing
- Signature or stamp of individual performing the test
- Honeywell assigned supplier code
- Test procedure document number and revision letter
- Honeywell part number, including the dash number
- Minimum and maximum test limits
- The actual numerical test results
- Any serial number of the unit tested such that the result for each serial number is known.

The Supplier shall maintain documentation that demonstrates the adequacy of the testing procedure. The documents shall be stored at the Supplier facility.

SPOC 130 – Deliverable Software Quality Assurance

130.1 – General Requirements

Unless otherwise required by Honeywell engineering requirements or Purchase Order requirements, the following applies:

- Supplier and sub-tiers shall comply with the appropriate version of RTCA-DO-178, “Software Considerations in Airborne Systems and Equipment Certification”.
- Any software, including non-deliverable software, used to create or revise Deliverable Software shall be categorized as Deliverable Software.

SPOC 140 – Certification of Conformance / Shipping Declaration Document / Packing Slip Requirements *

140.1 – Scope

The Supplier is responsible for maintaining and supplying accurate and legible certification documentation as objective evidence of meeting drawing, specification, technical data, or purchase order requirements.

140.2 – Certification of Conformance / Shipping Declaration Document / Packing Slip Requirements *

A Certificate of Conformance (C of C) shall be provided with each shipment. The C of C can be a separate document, or it can be included as part of the shipping declaration/packing slip text.

The following tables list the C of C data/information requirements for each group SPOC. The “X” under the SPOC indicates that requirement applies, and shall be included on each C of C from the supplier holding a direct PO from Honeywell. Suppliers using xCarrier shall submit a Digital CofC in HASP prior to releasing product.

Country of Origin (COO) information may be included on Certificate of Conformance to meet COO requirements defined by General Purchase Order Terms & Conditions.

Other methods of reporting COO are specified in General Purchase Order Terms & Conditions.

Table I

Requirement	SPOC 001	SPOC 002	SPOC 003	SPOC 004	SPOC 005	SPOC 006	SPOC 007	SPOC 009
1 Supplier Name and Address	X	X	X	X	X	X	X	X
2 Statement that parts conform to requirements [1]	X	X	X	X	X	X	X	X
3 P.O. and line item number	X	X	X	X	X	X	X	X
4 Original Manufacturer's name and part number (when source of supply is a requirement)	X	X	X			X	X	X
5 Honeywell part number and as applicable, part revision and/or BOM revision level	X	X	X	X	X	X	X	X
6 Quantity shipped (listed quantities to be broken out by lot, and also totaled)	X	X	X	X	X	X	X	X
7 Date and identity (hand signature, stamp or electronic 'signature') with title of seller's authorized personnel signing the certificate	X	X	X	X	X	X	X	X
8 Evidence of Source Acceptance or Self-Release	X	X						X
9 Maintenance performed						X	X	
10 Supplier work order						X	X	
11 Technical data and revision						X	X	
12 When required by drawing or technical data: Lot /Batch/Compound numbers	X	X	X	X		X	X	X
Serial numbers	X	X	X	X	X	X	X	X
Date code [2]	X	X	X	X	X	X	X	X
Date of manufacture and/or cure date (month/year or quarter/year)	X	X	X	X	X	X	X	X
Shelf-life expiration date (MM/YY)	X	X	X	X	X	X	X	X
Environmental storage conditions	X	X	X	X	X	X	X	X
13 MRB (RMRA) number, as applicable	X	X	X	X	X			X
14 Honeywell shipper number (as applicable for consigned material)	X	X			X			
15 Date of shipment	X	X	X	X	X	X	X	X
16 For returned parts, the supplier shall indicate if parts are reworked or replacements on the COC	X	X	X	X	X	X	X	X

NOTES – Table I

1 Requirements of the statement of conformance include flow down from the purchase order. Exact verbiage may be determined by supplier.

2 Each inspection lot must be listed as a separate line item along with evidence of functional testing to the applicable specification as required. All required documentation shall be completely legible, and reproducible.

140.3 – Certification Package Requirements *

The following items, when applicable to the drawing, specifications, technical data or purchase order, shall be maintained and made available by the supplier unless otherwise specified on the purchase order to submit with shipment. The CofC shall be submitted Digitally in the HASP tool provided. Do not attach any other documents (ITAR/EAR). Consult SPOC 419 for additional documentation requirements for SPOC 419 products.

Table II

Requirement	SPOC 001	SPOC 002	SPOC 003	SPOC 004	SPOC 005	SPOC 006	SPOC 007	SPOC 009
1 Fixed process certification	X	X			X			
2 Device Test traveler and Assembly record cards	X	X						X
3 Regulatory Airworthiness Forms						X		
4 Material certifications [1]	X	X	X		X		X	X
5 Controlled process certification [1]	X	X			X	X	X	X
6 Test Reports and/or Functional Test Data sheets	X	X	X		X	X	X	X
7 FAIR Package	X	X			X			X
8 Log maintenance cards						X		
9 Discrepant material report 2						X		
10 Inspection results or report	X	X	X	X	X	X	X	X
11 Rework route tag or equivalent						X		
12 Teardown or findings report						X		
13 Manufacturer's Certificate of Conformance	X	X	X				X	X
14 RMRA (Request for Material Review Action, or similar vehicles such as Concession / Waiver / Production permit number, per the Honeywell site requirement)	X	X	X	X	X	X	X	X
15 When material is consigned by, or purchased from, Honeywell Aerospace or a licensed distributor of Honeywell Aerospace, the supplier shall retain a copy of the Procurement Shipping Order (PSO), Honeywell Shipper, or licensed distributor's Certificate of Conformance for the material and treat such items as customer supplied material.		X	X	X	X	X	X	X
16 Required hardness test result values [3]	X	X			X			X
17 Physical and Chemical Analysis certified by an independent laboratory if applicable [1]	X	X	X	X	X	X	X	

Notes – Table II

1 Certifications shall include name of process source, specifications and revision letters used. The actual physical and chemical process and heat numbers as applicable shall be indicated. Certifications of Conformance (C of C) must clearly state conformance to all specifications in their entirety, including type, class and grade and material hardness values exactly as described from the drawing or BOM note, embedded specifications that contain specific acceptance testing criteria, additional processing requirements, and/or any specific requirements that pertain to hardware approval or acceptance.

2 Airworthiness certification for TSO/PMA/AMS and/or material tests to be conducted by an independent laboratory.

3 Hardness shall be re-validated through a secondary test from a representative sample – one piece from each raw material heat lot (if no further heat treatment operations are performed) or for each subsequent heat treatment lot when a hardness value is specified on the engineering drawing, material specification, or heat treatment requirement that is contained in any Honeywell, Government, or Industry material specifications (AMS, ASTM, etc. The re-validation (second hardness verification) shall be performed prior to shipment to Honeywell and documented by the supplier by qualified personnel, impartial and independent of the original verification. A test coupon may be used for this testing.

4 Note: This is required to substantiate that raw material and /or final product has achieved the FINAL hardness or temper as specified on the engineering drawing or referenced specifications before delivery of the product to Honeywell. If no further heat treat is required per the engineering drawing or material specification, then the raw material specification hardness requirement must be re- verified.

5 Secondary Hardness verification is not applicable on Standard or Catalog Hardware; Carburized, Nitrided, Core or Case-hardened materials. This includes non- metallic materials such as Rubber, Elastomeric, Plastic, and Composite materials. Honeywell Vendor Item, Honeywell Specification Control, industry or commercially-available hardware (AN, MS, AS, etc.) and other non-Honeywell- designed lower level hardware or details are also exempt.

140.4 – Partial Shipment and Source Inspection for use on future purchase orders.*

In the event that the supplier has more assemblies completed than are currently due, the source inspector and supplier shall use the "source inspection bank" located in HASP. Prior to delivering 'banked' parts, Suppliers shall ensure that all PO requirements are identical to those used for source inspection of the 'banked' lot.

140.5 – Bulk Raw Materials

Unless otherwise specified, purchased bulk raw material (sheet, strip, plate, wire, rod, bar, tubing, solder, powder, paint, oil, fluids, etc.) shall be supplied to the latest procurement specification issue. Material certified to a previous specification issue and of the proper type, grade, or class called for by the engineering drawing or technical data, may be used until depleted, unless restricted by the superseding specification revision.

Certifications for material shall include specification number and revision letter applicable to each lot of material.

140.6 – Evidence of Source Approval

A Honeywell Source Acceptance Stamp (or facsimile) shall be placed on the shipping documentation (packing slip and/or C of C) for Purchase orders requiring SPOC 149. A Source Acceptance stamp is independent of the Certificate of Conformance signature requirements. The C of C required signature, and date should not be placed in the Source Acceptance Stamp area.

The individual performing the Source Inspection is responsible for providing the Stamp Impression and Date. This may be a Honeywell-approved Source Inspector, or it may be a Self-Release Approved Supplier representative, based on the applicable approval.

Example of Source Acceptance Stamp

Honeywell Source Accepted:

Stamp Impression:

Date: _____

A signature is acceptable in lieu of a stamp impression for an Approved Self-Release Supplier representative in organizations that do not issue internal employee acceptance stamps and control electronic approval within their Quality Management System.

Note: If applicable, Request for Material Review Authorization number (shall be referenced under the "Honeywell Source Accepted" stamp.

Note: If acceptance stamp is too large, it is permissible to write in the stamp number on the stamp Impression line.

140.7 – Certificates of Conformance for Kits

For materials supplied as a kit, a top-level certification of conformance, subject to the documentation requirements above, will be accepted for the entire lot or receipt of kit(s) as long as:

- Manufacturing and procurement traceability and configuration management for every component part in the kit is maintained
- Associated data such as procurement certificates of conformance, test data, first article inspection reports, etc. are maintained and available upon request.

140.8 – FAA Tags

In addition to the certifications required in Table 1, Suppliers holding an FAA production approval shall ship parts with 8130-3 tags reflecting newly manufactured certification and not returned to service or repaired status to all Honeywell OEM sites. This requirement applies to both new shipments and parts that may have been rejected or returned by Honeywell or from a Honeywell customer location. Suppliers shall contact buyers if there are any questions in issuing new 8130-3 tags as Honeywell OEM sites can only return parts to suppliers requiring Part 21 type rework and have not been used in revenue flights.

SPOC 142 – Control of Items with Limited Shelf-Life

142.1 – Scope

This SPOC defines remaining life requirements and the communication of date control information on items that require shelf life control per their product specification. Typical commodities that require shelf-life controls are:

- Uncured compounds (for example: paint, adhesives, curing agents, primers, film adhesive, varnishes, elastomeric molding compounds, pressure sensitive adhesives, Prepregs, sealants, inks etc.)

  Note: Items such as tapes and labels which have pressure sensitive adhesive (PSA) back are categorized under uncured compounds. This includes metal nameplates with PSA backing applied.
- Cured Elastomers (for example: O-rings, gaskets, plate seals, molded shapes etc.)
- Electronic Components
- Applied Bearing Lubricants, Grease
- Applied Bearing Preservatives

142.2 – System for Shelf Life and Storage Life Control

The supplier shall maintain a documented system for using, storing and controlling items with limited shelf or storage life. The system shall include a method of identifying and controlling such items to ensure expired items were not used in products shipped to Honeywell and that items shipped met remaining life requirements.

Shelf life shall apply per manufacturer expiry date or “use-by” date but not supersede applicable specs.

142.3 – Requirement

Item	**Percentage of Shelf Life required to be remaining upon receipt by Honeywell** (unless otherwise specified by Honeywell, Military, or Industry product specification or PO line item flowdown)	Data Requirements	Identification Requirements
Uncured Compounds	33% Minimum but not less than 6 months	See SPOC 140	Traceability of expiration date to unit container marking (i.e. via lot, batch, PO, or direct marking of expiration date).
Cured Elastomers-Uninstalled	33% minimum of life as defined by AS5316	See SPOC 140	Cure date and/or Storage Life expiration date on the part or container as defined by applicable specification or flowed by customer
Cured Elastomers-Installed	N/A	Supplier to retain evidence of Storage Life compliance	Assembly Date marking if required by assembly design requirements
Applied Bearing/ Assembly Preservative Fluid (Installed)	Unless otherwise required by specification, items lubricated with preservative compounds shall be inspected for corrosion prior to shipping if more than 5 years from the application date.	See SPOC 140	Lubricant application date on unit package in addition to marking required by specification
Lubricants/ Grease (Containers)	33% minimum of life as defined by material manufacturer but not less than 18 months	See SPOC 140	Traceability of expiration date to unit container marking (i.e. via lot, batch, PO, or direct marking of expiration date).
Installed Greases	N/A	Supplier to retain evidence of Storage Life compliance	Assembly Date marking if required by assembly design requirements
Applied Bearing Operating Lubricant Installed	Bearings that are lubricated for use shall be shipped to Honeywell less than 18 months from the lube application date	Expiration date (as required by applicable specification) on Certification	Traceability of expiration date to unit container marking (i.e. via Lot, batch, PO, or direct marking of expiration date)

SPOC 149 – Product Release Process

149.1 – Scope

Honeywell product may only be released for shipment from the supplier by either of these methods:

- After Source Inspection by the supplier's approved Self-Release (SR) supplier program and delegate.
- After Source Inspection by a Honeywell Approved Source Inspection Agent.
- Before Source Inspection to be performed at the Honeywell Procuring Site. Site Quality Manager signed Form AF-0384 (Site Authorized Risk Release) is required.

Self-Release authorization is awarded to those Honeywell Aerospace Suppliers that maintain or exceed program requirements and have proven ability to sustain highest quality standards. If unable to achieve Self-Release authority, source inspection services are required at the supplier's cost.

Honeywell or Customer Source Inspection approval does not relieve the supplier of the responsibility and/or liability for full compliance with all purchase order/contract requirements.

149.2 – Penalties / Fees

Failure to comply with Product Release requirements may result in a receiving inspection fee per shipment received (based on Honeywell incurred costs – minimum $500 U.S.), and may incur additional product rejection charges.

149.3 – Self-Release Requirements

The requirements for Self-Release program eligibility, and the responsibilities of the supplier when releasing product under the Self-Release program, are located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > Self Release > SI 149 > SI 149-01 Supplier Instruction and change form.

149.4 – Self-Release Change of Status

Approval for Self-Release is in effect once the status change reflects in the Honeywell Aerospace Supplier Portal > HASP > Quality > Self Release Audit Expiration Report.

Disapproval or revocation of Self-Release authority shall be in effect upon official written or electronic notification by Honeywell Aerospace. Once revocation occurs, all products require source inspection prior to shipment to Honeywell, including parts from finish stores that were accepted by the supplier SR Delegate prior to revocation.

149.5 – Source Inspection

Suppliers who are not approved to release product shall request source inspection services. The process for requesting source inspection is located on the the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > Self Release by Part Number > SI 149 > SI 149-02.

SPOC 154 – Key Characteristics (KC) Management

The Honeywell Purchase Order holder is responsible for review of, and compliance to, all Special Characteristic management requirements on all drawing levels of items sold to Honeywell including those generated by sub-tier suppliers.

154.1 – Identification of Special Characteristics

Key characteristics (KCs) and Critical characteristics (CCs) shall be those special characteristics identified as such by symbol or note on Honeywell engineering drawings and specifications.

Suppliers must ensure drawing rev changes are identified and incorporated on all levels of drawings prior to initiating new production/procurement.

154.2 – Requirements for Control of CCs

Where required by specification, producer is required to develop, adhere to, and retain an inspection plan to assure each feature designated CC conforms to specified requirements. The inspection plan shall be submitted to the owning Honeywell design activity for review, and approval shall be obtained prior to any shipment of parts.

Owning Honeywell design activity requires review and approval of any changes to the approved inspection plan.

154.3 – Requirements for Control of KCs

154.3.1 – Legacy Considerations for data collection, retention, and analysis of KC inspection results:

Characteristic Assigned as Key via:	Collect data, retain/submit data, as follows:
Drawing w/ legacy control spec	Follow legacy specification. Unless otherwise specified, use Net-Inspect© for any required Capability studies until required Cpk is established, then use SPOC 128 – 100% inspection or Sampling Plan Section 7 – Statistical Process Control method. Where conflict exists between SPOC 128 SPC capability requirements and the drawing-imposed capability requirements, the latter shall take precedence. A new capability study is required for process change, configuration change, or escape (Internal/Customer).
Drawing w/ HGS1021 callout	Follow HGS1021, use Net-Inspect© for Capability studies until acceptable Cpk is established, then use SPOC 128 100% inspection or Sampling Plan Section 7– Statistical Process Control method. Where conflict exists between SPOC 128 SPC capability requirements and HGS1021 imposed capability requirements, the latter shall take precedence. A new capability study is required for process change, configuration change, or escape (Internal/Customer).

154.3.2 – Production and Process Control of KCs

Production and process control of KCs shall be in accordance with the product tolerance. The engineering KC control requirements invoked by the engineering specifications (e.g. HGS1021 or Legacy KC Specifications) shall apply simultaneously.

154.3.3 – Supplier Alternate Methods and Approvals

Where permitted by specification, requests for supplier alternate methods and approvals shall be communicated in writing to the buyer for disposition by Engineering & Technology Production Support Engineer. Disposition shall be via design characteristic classification change, drawing note allowance incorporating the exception, or denial of the request in writing to the buyer and supplier. Where requests for such exceptions /approvals /agreements are permitted by specification, evidence of communication to the buyer shall constitute evidence of compliance until such exception is dispositioned and communicated back to the supplier provided that each piece is inspected, found acceptable to KC tolerance, and records of inspection results are maintained.

154.3.4 – Supplier Exception and Requirements

Suppliers taking exception to this SPOC in it's entirety shall ensure that a drawing change removing the requirement is received before accepting orders. Removal of this SPOC from a PO does not alleviate the supplier from meeting all product requirements.

154.4 – Disposition of Material

154.4.1 – Parts Exceeding Product Tolerance

In all cases, parts exceeding product tolerance shall require approval from Honeywell Material Review Board prior to delivery. Refer to SPOC 100 for Material Review Board requirements.

154.4.2 – Process Capability Levels

Process capability levels not meeting the requirements of the process control requirements specified on the drawing/spec shall not be cause for product rejection provided that each piece is inspected, found acceptable to tolerance, and records of inspection results are maintained.

154.5 – Process Control Documentation

154.5.1 – Supplier's Document Control System

Where required by specification, process planning and control documents such as MSAs, PFMEAs, Control plans, etc. shall be generated under the supplier's document control system and maintained as quality records. These records are subject to audit and shall be made available for review. Process control documentation is a quality record and shall be retained by the supplier per PO requirements for quality records.

154.6 – Establishment and Reporting of Process Capability

154.6.1 – Capability Studies

When capability studies are required by the controlling specification, the data shall be collected and analyzed in the order parts are produced.

154.7 – Capability Calculations

Capability calculations shall be made in Net-Inspect© as defined below:

1. Supplier measures each KC on each piece and records the actual value in Net-Inspect© (Data Collection and upload instructions are located on the the Honeywell Aerospace Supplier Portal > HASP > Quality >About Quality >Key Characteristics Management in Net-Inspect©).
2. Up to the first 20 measurements, supplier reviews the data in Net-Inspect©, assures compliance to the tolerance limits, and looks for variation from run to run. No capability calculations will be available in Net-Inspect© prior to the twentieth measurement.
3. After 20 measurements supplier reviews Cpk and Real Cpk to determine if they meet the capability requirement defined in the applicable process control specification.
4. Suppliers not meeting the required capability performance level for Real Cpk after the first 20 pieces shall implement a documented process capability improvement milestone plan when required by controlling specification. Improvement plans shall be maintained by the supplier and are subject to audit.
5. Further capability study data and improvement plan changes/updates as required by controlling specifications shall be uploaded into Net-Inspect© until specification-defined process capability requirements are achieved.

154.8 – Process Monitoring

154.8.1 – Control Plan

Once process capability requirements have been met, the supplier shall operate to a control plan meeting the requirements of the applicable process control spec and SPOC 128. Supplier shall maintain records of compliance to the control plan.

154.8.2 – Escapes of Key Characteristic

Escapes involving a Key Characteristic shall require revision of any applicable control plans and PFMEAs. In the absence of an assignable cause and corresponding error-proofing for the escape, process capability shall be re-established.

154.8.3 – Changes to Manufacturing or Inspection Processes

Any changes to the manufacturing or inspection processes shall trigger a review of the associated control plans and PFMEAs. Where such changes may affect process capability or where required by specification, a new process capability study shall be conducted to ensure capability requirements remain met.

SPOC 155 – Temporary Inspection Characteristic (TIC) and Process Capability Data Acquisition

155.1 – Quality Sytem Requirements

Temporary Inspection Characteristics (TICs) are features identified by Honeywell Engineering for which process capability data is required over a defined period.. These TICs are to be measured as specified in the TIC form. This SPOC will be applied on a characteristic basis and for a fixed timeframe or quantity and not imposed on all orders. Characteristics and duration are determined at the time of Specific Purchase Order Flowdown on individual orders and will be communicated with form AF-1027. Actions required by this SPOC are in addition to and not in lieu of SPOC 128 requirements.

Suppliers are required to electronically submit all data required by TIC form in Net-Inspect© for all TICs. Data Management and Transmittal instructions are located on the Honeywell Aerospace Supplier Portal > HASP > Quality > About Quality and see the instructions used for KC Management in Net-Inspect©.

SPOC 159 – Repair & Overhaul Maintenance Requirements

159.1 – Quality System Requirements

National Aviation Authority (NAA) Certification (local and/or international regulatory agency) and/or AS9100 or AS9110 compliance are required for suppliers and sub-tier suppliers performing maintenance. AC7004 Aerospace Quality System shall be accepted in lieu of SAE AS9100 for suppliers only conducting Special Process services accredited by Nadcap. Additional regulatory approvals may be requested and reflected on the Purchase Order (PO).

AS9100 and/or AS9110 certification shall be required for Honeywell Aftermarket suppliers that do not hold a National Aviation Authority (local and/or international regulatory agency) Repair Station certificate.

Suppliers performing Special Processes / Services:

- Suppliers holding a National Aviation Authority (NAA) Repair Station Certificate must have the appropriate ratings listed on the NAA Air Agency certificate Operations Specifications.
- Suppliers that do not hold a National Aviation Authority (NAA) appropriate ratings shall be identified on the Honeywell Approved Processor Supplier Listing (APSL).
- Suppliers that perform special process that do not hold regulatory or are not listed on the Honeywell APSL shall be assessed by the procuring site as defined in Honeywell Aerospace Procedures. Suppliers performing Special Processing / Services on Military material shall be assessed as defined in Honeywell Aerospace Procedures and approved by the procuring site.

For a current Honeywell-Approved Processing Source List (APSL) go to the Honeywell Aerospace Supplier Portal > HASP > Applications > APSL.

Suppliers shall have a qualification process for inspectors (i.e. training program providing familiarity with the methods, techniques, practices, and the use of various types of inspection equipment and visual inspection aids).

159.1.1 – Drug and Alcohol Testing Program

All safety sensitive functions (product maintenance and/or preventive maintenance) performed on Honeywell purchase orders shall be accomplished by personnel covered by a FAA compliant Drug and Alcohol Testing Program if performed within the territory of the United States. This is pursuant to 14 CFR Part 120 Drug and Alcohol Testing Program and 49 CFR Part 40 Procedures for Transportation

Workplace Drug and Alcohol Testing Programs affects maintenance (not manufacturing) carried out at certificated and non-certificated subcontractors at any tier.

Proof of registration (A449 or AAM810) and D&A program compliance shall be provided to Honeywell upon request, including subcontractors at any tier.

159.2 – Purchase Orders

The supplier must have written approval from the Honeywell buyer on all requested changes to the purchase order. This approval must be obtained prior to shipment.

If the serial number changes during the maintenance process and/or if it's not a maintainable (rotable) part (Repaired and/or Overhaul) under the exchange program (refer to SPOC 159.3.1.3, Commercial Non-Maintain Integrity Part (Repair and/or Overhaul) Exchanges), the supplier is not required to notify the buyer.

Note: Supplier must provide the exact part number as ordered on the PO and shall not exchange a like part number.

159.2.1 – Use of DER Repairs or Installation of PMA Parts in Honeywell Designed Parts

Usage of approved Designated Engineering Representative (DER) repairs on Honeywell products:

- Any approved DER repair held by the supplier that is intended to be used in the repair, overhaul, or installation of detail parts under a Honeywell purchase order shall be submitted for approval by Honeywell prior to use.

Installation of supplier Parts Manufacturer Approval (PMA) parts in Honeywell products:

- The use of non-Honeywell approved supplier FAA-PMA parts in repair or overhaul of products shall be approved by Honeywell prior to installation.

Note: All approvals for the above shall be referenced in the Honeywell purchase order.

159.2.2 – Document and Data Control

The supplier and sub-tier suppliers shall ensure that the current aftermarket technical data, specifications, and instructions required by the contract / purchase order, as well as authorized changes, are used for maintenance, inspecting, and testing.

Deviation from the current aftermarket technical data requires Honeywell approval.

159.2.3 – Vendor use of ARB (Airworthiness Review Board) repairs developed by Honeywell site

- Initial submittal – Vendor must submit DAF (Discrepancy Action Form) to Honeywell including complete description of discrepancy and photos (at least 2, 1 overall and 1 close-up) of area in question.
- Upon return of ARB engineering disposition to vendor – Ensure “Supplier ARB Repair Authorization Form”, is attached to the purchase order.
- Upon completion of repair – The certification (8130, EASA, CofC, etc.) must list the ARBA approval number in format “ARBA *XXXXXXXXX* dated *M/DD/YYYY” where XXXXXX= ARB authorization form number as provided, and the date listed as listed on the Supplier ARB Repair Authorization form.

159.3 – Procurement Requirements

159.3.1 – Part Exchange Program

159.3.1.1 – New Part Exchange Program

This program permits the receipt of new hardware in exchange for used hardware. The following rules apply:

The supplier shall have “Direct Shipment Authorization” (DSA) granted from Honeywell OEM. Follow the specific requirements as identified on the DSA letter, i.e.: DSA certification statement on the shipping documents, etc. Copy of the DSA letter will accompany the hardware.

The New Part Exchange code must be on the PO or have the Honeywell buyer approval by amending the PO prior to shipment. The receipt part number is required to be the same as the part number identified on the PO.

Supplier FAA – PMA product requires Honeywell approval.

The Honeywell rework tag that accompanied the original PO part will not be required to be shipped back with the exchange hardware.

159.3.1.2 – Commercial Non-Maintain Integrity Part (Repair and Overhaul) Exchanges

The exchange hardware can only be issued from assets provided by Honeywell or assets approved for use for Honeywell.

Exchanged part work/status shall match the work scope identified on the PO.

The appropriate cards shall be updated and accompanied with the certifying package if the part is Life limited/time controlled.

Shipper / Invoice:

- A statement identifying the hardware that is exchanged and/or replaced and,
- The Honeywell Purchase Order (PO) and/or Repair Order (RO) number.

Note: The Honeywell rework tag (or equivalent) that accompanied the original PO part will not be required to be returned on part exchanges.

Suppliers with National Aviation Authority for part ordered, the supplier shall also provide:

An FAA 8130-3 or equivalent form shall be issued from the NAA supplier identified on the PO.

- The FAA 8130-3 or equivalent forms shall be filled out in accordance with SPOC 159.5.1.

DER repairs are required to be approved by Honeywell prior to shipment. Compliance to any open Airworthiness Directives (as applicable).

Suppliers without National Aviation Authority for part ordered, the supplier shall also provide:

- Sub-tier's FAA 8130-3 or equivalent form, and C of C from the Production Approval Holder (PAH)

159.3.1.3 – Honeywell Inter-divisional Commercial Non-Maintain Integrity Part (Repair/Overhaul) Exchanges (Internal - Honeywell to Honeywell)

- Exchange part number shall match the part number identified on the PO.
- Exchanged part work/status shall match the work scope identified on the PO. Any DER repairs are required to be approval by procuring site prior to shipment. Compliance to any open Airworthiness Directives (as applicable).
- The appropriate cards need to be updated and accompanied with the FAA 8130-3 or equivalent form(s) if the part is Life limited/time controlled.
- Shipper / invoice: A statement the hardware is exchanged and/or replaced and, the Honeywell purchase order (PO) and/or repair order (RO) number.
- The Honeywell rework tag that accompanied the original PO part will not be required to be returned on any part exchanges.
- Non-serialized part exchanges shall have complete traceability, including identification of the supplier that conducted the maintenance and the maintenance record.

159.4 – Maintenance Requirements and Technical Data

159.4.1 – Spot Operation Requirements

When completing the maintenance in accordance with spot operations per the routing/traveler do not stamp off the routing/traveler.

Specify the operation performed per the routing / traveler on the Certificate of Conformance or FAA 8130- 3 or equivalent form.

159.4.2 – No Maintenance Performed

If the supplier cannot conduct the maintenance as requested on the purchase order, the supplier shall notify the Honeywell buyer. The buyer will provide the supplier with instruction stating to either return the hardware, or scrap the hardware at the supplier's facility. A nonconforming material reviewed document is not required.

Supplier shall state the reason for return on the shipping invoice.

If the hardware is beyond economical repair (BER), then the shipping document must state "BER".

159.4.3 – Inspection Requirements

100% inspection of each dimension which is affected by the repair / fixed processes is required.

159.4.4 – Rework Route Tag or Equivalent

The Rework Route Tag or equivalent is used to:

- Identify parts for traceability
- Document inspections activity
- Record required maintenance

When completing the maintenance, do not stamp off the Rework Tag or equivalent.

Note: The Rework Route Tag or equivalent must remain with the original part for which it was issued.

159.4.5 – Teardown and Findings Report or Equivalent

The Supplier shall furnish one (1) copy and maintain on file a completed Teardown and Findings Report (or equivalent) for functional components (e.g., fuel control, fuel nozzle, electronic computer, oil heater) and/or other products as requested by the purchase order.

159.4.6 – Test Data Sheet

As required by the technical data the supplier shall furnish one (1) copy and maintain on file a completed test data sheet for functional components (e.g., fuel control, fuel nozzle, electronic computer, oil heater) and/or other products.

Test data sheets shall reference the technical data or test instructions by report number and revision number.

If required by the technical data, any article that has been functionally tested and accepted shall be marked with the supplier's Functional Test (FT) stamp.

159.4.7 – Log / Maintenance Cards

The following are the types of Log/Maintenance Cards:

Life Limited Part Log is used to document the accumulated hours/cycles, service and or maintenance actions of specified hardware that has a maximum limit on hours and or cycles.

Ultimate Life Part Log Card (APU) is used to document the accumulated hours/cycles, service and or maintenance actions of specified hardware that has a maximum limit on hours and or cycles.

Component Maintenance/Modification Record Card is used to record maintenance actions, service bulletin compliance, etc., on specified components.

All Log/Maintenance cards shall be completed as defined and returned with the hardware.

159.4.8 – Nonconforming Material Identified During Maintenance

The supplier shall segregate and return to the Honeywell site initiating the purchase order, all scrap material identified or incurred within the maintenance of the part(s).

The supplier shall specify the reason for return on the packing list or equivalent.

159.5 – Shipping Certification Requirements

159.5.1 – FAA 8130-3 or Equivalent Forms Requirement:

FAA 8130-3 or Equivalent Forms (i.e. EASA Form One, UK-CAA Form 1, TCCA Form 1, CAAC Form AAC-038, etc.) are required when Supplier is NAA approved.

- If CAAC approved, then an AAC-038 is required with each shipment. FAA 8130-3 or equivalent forms required information:

In Block 5 and/or block 12, record the Honeywell purchase order (PO) or Honeywell Repair Order Number, or as required by the Honeywell site.

Maintenance release forms based on Bilateral agreements must be completed in accordance with the governing instructions (i.e. MAG, TA-M, etc..). Dual Releases issued for FAA, EASA, UK-CAA, etc. must ensure:

- Specific statement is entered in Block 12 affirming compliance to bilateral requirements.
- Block 14a titled “Other regulation specified in Block 12” must be checked.
- Teardown and/or Findings Report or equivalent (Reference 159.4.5).
- Test data sheets (Reference 159.4.6).
- Log/maintenance cards (Reference 159.4.7).

A replacement of the original certificate must be provided for the following.:

A) Hardware returned due to correcting a nonconformance.

B) Documentation returned due correcting a nonconformance.

Note: If the technical data does not allow the supplier to issue a FAA 8130-3 or equivalent form for the repair, then the supplier must provide an FAA 8130-3 or equivalent form for the inspection and additional certifications for the repair, as required.

159.5.2 – Certificate of Conformance

A Certificate of Conformance in accordance with SPOC 140 is required when:

- Supplier is not a holder of a National Aviation Authority-approved Air Agency Certificate.
- Products are used for military programs (reference the PO). Data is not regulatory and/or OEM approved.

159.5.3 – Packing Documentation Requirements

- Statement that parts/materials conform to the applicable technical data, specifications, and Purchase Order (PO).
- PO number
- PO part number
- Serial numbers (as applicable)
- Repair Order (RO) number identified on the PO
- Shipment quantity
- Other requirements as defined in the PO

SPOC 162 – Electronic and Electrical Components with Lead (Pb) and Pb-free Finishes

162.1 – Requirements for Honeywell-designed items

Acceptability of pure tin terminations is determined on a product-by-product basis in accordance with design requirements. Refinishing and/or re-balling of components is only acceptable when allowed by the drawing. Refinishing and/or re-balling that deviates from drawing requirements is considered a repair and shall be processed through MRB (Ref: SPOC 100 RMRA).

162.2 – Requirements for Supplier-designed items

Use of tin/lead (Sn/Pb) and Pb-free component termination finishes for Honeywell product shall be managed by Honeywell Engineering Specification HPS1006 (Component Termination Finishes and Tin Whisker Mitigation Requirements) unless otherwise specified by Honeywell.

- Note that there may be variation program-to-program.
- Note that HPS1006 is intended to assure compliance to the SAE GEIA-STD- 0005-1 requirements.

Manufacturers with design authority shall have a documented Pb-free control plan in compliance with SAE GEIA-STD-0005-1 available for review. The default control level for tin whisker mitigation per SAE GEIA- STD-0005-2 shall be level 2B unless otherwise specified by Honeywell.

BGA re-balling shall be done per a documented procedure that has been shown to produce acceptable and repeatable results. Reference IEC TS 62647-4.

Component re-finishing for tin whisker mitigation shall comply with SAE GEIA-STD-0006.

These requirements apply when evaluating component leads finishes which are not compliant with Honeywell parts list/ design documentation.

Use of tin-lead and lead-free component termination finishes for Honeywell product shall be managed through the use of Honeywell Engineering Specification HPS1006 (Aerospace Process Specification for the Implementation of Lead Free Finished Electronic Parts with Tin/Lead Solder) unless otherwise specified by the program. Note that HPS1006 is intended to assure compliance to the GEIA-STD-0005-1 requirements.

Other sources may be used but shall require prior approval from Honeywell.

SPOC 163 – Restrictions for use of Mercury and/or Mercury Containing Components

Products shall contain no metallic mercury and must be free from contamination by mercury. The Supplier shall not use mercury, mercury components, or mercury bearing instruments or equipment that cause the contamination during the manufacture, service, assembly, or test of materials.

163.1 – Statement that Order is Free of Mercury

The Supplier shall send a signed statement with the shipment that tells that the items are free of mercury and free from mercury contamination, the statement must include:

- Contract Number
- National Stock Number (NSN), as applicable
- Manufacturer's Code (CAGE) and Part Number or the Specification or Drawing Number • Date of shipment and the quantity shipped

This paragraph must be notated as below, or words that convey the same meaning:

> *"The undersigned certifies that the items shipped conform to the requirements of the Purchase Order. The items are free from mercury contamination. Mercury-bearing instruments and equipment which can cause mercury contamination were not used in the manufacture, service, assembly, or testing of the items supplied."*

The statement must contain the signature of a corporate or company officer.

163.2 – Inclusion of Mercury

If the inclusion of metallic mercury is required as a functional part of the items supplied, the supplier shall get written approval from Honeywell prior to delivery and shall supply a "Warning Plate" to show that metallic mercury is a functional part of the item. The label must identify the name and location of the part or component.

SPOC 165 – Approved Sources for Controlled Processes *

165.1 – Scope *

Controlled processes are those materials or processes defined in the Aerospace Specification Index (ASI) as CONTROLLED (refer to Section 2.1: General Requirements - Specifications). Suppliers shall ensure that all controlled processes are performed by sources approved for the applicable process listed on the Approved Processing Source List (APSL) available through the Honeywell Aerospace Supplier Portal > Applications > APSL, except as specified herein.

165.1.1 – Exception for Source Control Items *

Suppliers with design responsibility for hardware supplied to Honeywell may use their own approved special process sources provided the Honeywell supplier complies with the following:

- Design and Development shall be an element in their Quality Management System (Ref AS9100).
- Control of Externally Provided Processes, Products, and Services shall be an element in their Quality Management System (Ref AS9100).

165.1.2 – Exception for Industry Standard items

This SPOC does not apply to industry standard parts such as AN, NAS, MS etc.

165.1.3 – Exception for conversion coatings, except for magnesium alloys *

Touch-up/rework coating applied by brush or swab application does not require use of an APSL approved processing source or process control testing. This kind of application also includes but is not limited to marking of parts, coating removed for the purpose of facilitating assembly, and other local applications. All other requirements of the coating specification shall be met.

165.1.4 – Exception for conversion coating for magnesium alloys *

Touch-up/rework coating applied by brush or swab application does not require use of an APSL approved processing source or process control testing when touch up is applied for inadvertent damage, only. All other requirements of the coating specification shall be met. Consult Materials Engineering with design authority as needed.

165.1.5 – Exception for paint *

The application of paint or primer for part marking, wet installation of fasteners, overcoat of ink stamps or ID plates, or touch up of damaged coatings does not require use of an APSL approved processing source or process control testing. All other requirements of the material and application specifications shall be met. Consult Materials Engineering with design authority as needed.

165.2 – APSL Approval Maintenance Requirements *

165.2.1 – All APSL sources shall maintain Nadcap accreditation for Nadcap-applicable Controlled Special Processes

The source is responsible for ensuring that the details of the Nadcap accreditation, including the appropriate audit scope/checklist, are accurate and up to date per the requirements shown in the APSL. The supplier is responsible for the cost of Nadcap accreditation. Satellite sites shall be approved independently of a source's primary location and shall have a separate supplier ID/DUNS number (i.e. Honeywell OneSource ID).

165.2.2 – APSL sources shall comply with the requirements of the Source Certifying Agent (SCA) Program

As defined in supplier instruction SI-165-01 available at: Honeywell Aerospace Supplier Portal > Documents > Quality> SPOC > Supporting Documents.

165.2.3 – Approval of Sources to Controlled Special Processes is Location Specific

In the event of change in location where controlled special processes are performed, notification shall be made to Honeywell by the APSL source prior to the relocation and with substantial time (180 days) for hardware, system, and process re-qualification. Parts processed at a location that is not yet approved in the APSL are considered non-compliant hardware. In addition to the applicable contacts in Section 1.6.2, also notify by e-mail to APSLHelpline@honeywell.com the details provided in Section 1.6.3, plus additional details regarding moves/relocation of any special processes, new satellite sites, changes in company name, quality contact, etc.

165.3 – Electronics & Wiring Commodities *

Printed Boards (PB), Printed Board Assemblies (PBA) and Cable & Harness Assemblies (C&H) are controlled special process commodities of Printed Boards (PB), and shall be audited.

Commodity	Specification
Rigid Printed Boards (PB) {a.k.a. PWB}	HPS1011
Printed Board Assemblies (PBA) {a.k.a. CCA}	HPS1009
Flex / Rigid Flex PB	HPS1017
Cables & Harnesses (C&H)	HPS1008

165.3.1 – Exceptions / Clarifications

165.3.1.1 – Sub-tier suppliers that perform specific sub-processes used in the manufacturing of these three commodities (PBs, PBAs, and C&H) shall be managed and approved by the respective commodity suppliers as part of their overall quality management system. Honeywell reserves the right to audit and approve these sub-tier suppliers. Suppliers that perform special processes on parts not contained on the Bill of Materials (BOM) for a PB, PBA or C&H shall fall under standard APSL control per SPOC 165 requirements.

165.3.1.2 – Where the part in question is one of the Electronics & Wiring commodities listed above, the item is subject to APSL requirements. Example: For a Printed Board procured as a component of a PBA/CCA, the Printed Board is still subject to APSL requirements.

165.3.1.3 – Suppliers of special processes used in the fabrication of electrical components and other non-PBAs, and non C&H mechanical and electrical parts / commodities contained on the PB, PBA or C&H BOM are exempt from being listed on the APSL. Examples include but are not limited to wire connectors resistors capacitors inductors Transformers microchips brackets heat sinks board stiffeners thermal switches ejectors card guides wedge clamps.

165.3.1.4 – A separate APSL approval for ELECTRONICS CABLE AND HARNESS category is not required when cable or harness assemblies are terminated directly to the PBA by the PBA supplier (i.e. the cable or harness assembly is not a separate part number on the PBA BOM, but the individual components, such as wire, cable, terminal, etc., are part of the PBA BOM).

165.3.1.5 – Suppliers performing radiographic (X-ray, AXI, etc.) inspections on Electronics & Wiring commodities are not required to maintain APSL approvals for RADIOGRAPHIC INSPECTION Process.

165.3.1.6 – ELECTRONICS CONFORMAL COATING Category APSL approval is not required for suppliers who are APSL approved to PRINTED BOARD ASSEMBLY, CONFORMAL COATING Process.

165.3.1.7 – Sub-tier suppliers that perform conformal coating as part of PBA build shall be listed in the APSL and approved to the appropriate controlled specification for that process (e.g. HPS1007.

165.3.1.8 – Special all-PB sub-process suppliers, with the exception in SPOC 165.3.1.9, shall be managed and approved by the PB manufacturer as part of their overall quality management system.

- Sub-processes for PB manufacturing, such as final finish plating (ENIG, ENEPIG, HASL, electrolytic nickel plating, gold plating, etc.), via filling, and marking, are not by themselves considered special processes, and may be outsourced to non-APSL suppliers.

165.3.1.9 – Lamination, Electroless and Electrolytic Copper Plating sub-processes for PB manufacturing shall be performed by an APSL approved supplier for PB manufacturing.

- This only applies when the above processes are used for PB manufacturing itself, and do not apply for copper plating or lamination of components such as heat sinks that are to be integrated later with the PB.

165.3.2 – Electronic, Electromagnetic, and Electromechancial Part Destructive Physical Analysis (DPA)

The purpose of a DPA is to identify non-conforming or potentially non-reliable parts, delivered by a vendor, prior to usage, that may not show up during normal screening tests. Suppliers that perform a complete DPA or portion of a DPA, e.g.: hermeticity or internal vapor analysis / residual gas analysis (IVA/RGA) shall be listed in the APSL and approved to the appropriate controlled specification for that process. Standard lot, screening, and qualification testing performed by the vendor does not require APSL approval.

SPOC 172 – Document Submittal Required

172.1 – Requirement

The supplier shall create a data package and ship with each item. The data package shall be maintained per the records retention schedule and be available upon request.

The data package shall include Assembly record cards for each assembly, along with the device test traveler.

Government and Customer Directed Source Inspection

SPOC 179 – Government and Customer Directed Source Inspection

179.1 – Scope

This SPOC applies to any Purchase Orders (PO) with items reflecting a U.S. Government Prime Contract Number. Government Source Inspection is required for these items. The inspection will be accomplished at the Supplier's facility unless otherwise specified on the PO. The supplier shall make available all necessary specifications, documents, facilities and assistance. U.S. Government end-use material subject to SPOC 179 shall not ship without evidence of Government Source Inspection approval unless the prime DCMA office provides alternate instructions in writing.

This SPOC may also be applied to Honeywell Customer Source inspection; however, Honeywell customer's quality representatives do not have the authority to approve quantities reflecting a U.S. Government Prime Contract Number noted on the PO unless granted by the U.S. Government Contract.

179.2 – U.S. Government Notification Requirements

Upon receipt of the order containing quantities reflecting a U.S. Government Prime Contract Number, promptly notify the Government Source Inspection (GSI) Representative who normally services your facility and provide a copy of the order so that appropriate planning for Government Source Inspection can be accomplished. The GSI Representative shall be notified no more than 7 workdays before completion of the order.

If unsure of the DCMA Representative, contact the Honeywell Buyer immediately.

GSI may request the supplier to furnish all work instructions down to the lowest level(s), including all mandatory government inspection points, prior to the initiation of any work.

179.3 – Honeywell Customer Notification Requirements

Promptly notify the Customer Source Inspection Representative as directed on the PO or by the buyer. Careful attention should be given to planning source inspection to meet PO schedules. If unsure of the Customer Quality Assurance Representative (QAR), notify the Honeywell Buyer immediately.

179.4 – U.S. Government In-Process Inspection

The DCMA QAR will notify the supplier of where in the process source inspection is required and reserves the right to inspect product or process at any point along the manufacturing of the product. The supplier shall provide reasonable facilities and inspection equipment for in-process inspection and records where requested.

179.5 – Honeywell Customer In-Process Inspection

The PO will specify where, in the process, source inspection shall occur by an authorized *Customer QAR*. The supplier shall provide reasonable facilities and inspection equipment for in-process inspection and records where requested. Supplier shall notify Honeywell a minimum of 72 hours prior to inspection.

179.6 – Pre-Cap Source Inspection

Honeywell's pre-cap source inspection is required at the supplier's facility. Honeywell shall be notified ten days prior to the close or sealing of devices supplied against this order so that Pre-cap / Internal Visual inspection can be performed. Evidence of Honeywell's Quality representative's certification shall accompany shipment per SPOC 140.

179.7 – Evidence of Source Acceptance

Evidence of Source Inspection acceptance for a single shipment will be the authorized stamp or signature on the packing list.

If Government Source Inspection / Defense Contract Management Agency:

In addition to an authorized stamp, a letter of delegation (LOD) authority between DCMA offices is required, showing that the specific part number being shipped has been granted GSI delegation. The LOD authority must be linked to the part numbers and quantities that have been granted delegation. Where the total PO quantity is greater than the quantity pegged to the U.S. Government Prime Contract(s) Number, the LOD will be issued for the quantities associated with the Prime Contract(s) only.

GSI acceptance of a lot of parts, which is greater than the quantity of parts being shipped, is allowed only if the evidence of GSI acceptance can be traced to each part in subsequent shipments. This can only be done if parts and GSI accepted document are marked with serial or lot numbers as required by print or manufacturer's assigned traceable numbers.

Government and Commercial items shall be segregated prior to presenting to GSI for Inspection. The shippers for GSI and non-GSI quantities shall be kept separate for GSI acceptance.

If NASA Source Inspection:

The NASA quality representative shall be notified immediately upon receipt of this order. NASA or its designated representatives shall be notified 48 hours in advance of the time articles are ready for inspection or test.

Inspection (in-process, pre-cap, and/or final) is required prior to shipment from the supplier's facility.

SPOC 180 – Critical Safety Items

180.1 – Scope

The Supplier and product shall meet all requirements for Critical Safety Items (CSI) as detailed in the applicable specification invoked by the design documents (Ref; E1010, FI-1776, AW/PS and others). When the CSI / Flight Safety specification is designated as a controlled spec, the CSI manufacturer is required to be approved for the associated specification code and listed on the Honeywell Approved Processing Source List (APSL). Honeywell

Purchase Order (PO) holders are responsible for ensuring that they and their sub-tiers comply to this SPOC, including any Frozen Planning requirements.

180.2 – Frozen Planning Approvals

Frozen planning is required for all CSI Critical Characteristics. The Supplier shall review Engineering documentation for critical characteristics and their control requirements. Honeywell approval of frozen planning is required prior to filling this order. Any change to frozen planning after initial approval must be approved by Honeywell prior to delivery.

The supplier shall submit planning for critical characteristics using the steps identified in SPOC 110.

Note: AW/PS (Airworthiness Product Safety) parts for Honeywell Aerospace Electronics businesses as delineated by drawings, specs and purchase orders shall have their design / processes approved using form INF-3133.

Submittals shall be made to the Honeywell Buyer.

180.3 – Auditing of Critical Safety Item Controls

The supplier shall conduct self-audits as specified in the controlling specifications invoked by the design data. Results of these self-audits shall be provided to Honeywell as required by the specification.

180.4 – Requirements

Item	Requirement
Flight Safety Part Specification	E1010
Flight Safety Identification Symbol	Framed letter "S"
Frozen Item	Frozen Plan
Affected Engineering	Applies to drawings only
Execution of the order	Honeywell approval required prior to execution of P.O.
Honeywell Approval	Materials and Process Engineering
Inspection	100% Initially then sampling plan
MRB	Not Allowed

SPOC 182 – Marking LHTEC Program

182.1 – Requirements

The Supplier shall comply with drawing requirements for part numbers, serialization, and lot control marking.

All items that have been accepted by the Supplier's inspection system shall be identified with the supplier acceptance and test stamps, as outlined in the Honeywell product identification and traceability specifications MC9014 and LHG1013. The Supplier shall contact the Honeywell Buyer for current specification revisions.

This SPOC supersedes SPOC 140 traceability requirements when applied.

SPOC 200 – Part Marking Requirements

1.6 Scope

Honeywell prohibits the use of part marking or numbering that is false or misleading as described in 14 CFR Part 3.

1.7 Deleted - Refer to QA25-13 (Torrance)

Parts marked in accordance with SPOC 200.2 shall not be rejected.

1.8 Phoenix Engines Orders Only

All SPOC 001 and SPOC 002 hardware, **except AGT** 1500 program hardware (P/Ns with a 3-xxx-xxx-xx format), shall be accepted by the Supplier's inspection system and shall be identified with inspection acceptance stamps applied to the product per the B/P required marking method.

Stamp design, content, and usage requirements are defined in **MC9014** and **MC9015** specifications (as specified by the drawing).

While not currently required, presence of acceptance inspection stamps on AGT 1500 program hardware is permissible.

Interpret AGT1500 traceability requirements per MC9015.

Certain AGT1500 drawings have not yet been updated to reflect (1) the design activity change from Lycoming (CAGE 91547) to Honeywell (CAGE 99193), and (2) the current marking requirements. Such drawings will (a) have CAGE 91547 in the title block, (b) **not** have a CURRENT DESIGN ACTIVITY decal identifying CAGE 99193, and (c) **not** have a marking note that includes marking of "CDA-99193". For these drawings, in **addition** to the marking content requirements stated on the drawing or in its referenced marking specification, the following additional requirements apply:

(Note: do not mark the quotation marks)

1. Mark "CDA-99193" as a separate line following the item identification marking (i.e., following the marking which in general will appear as 91547 3-XXX-XXX-XX REV. X).
2. If the Honeywell Purchase Order (PO) identifies the part's Army Ordnance Number (an eight-digit number beginning with 12) which follows the acronym AON on the PO, it shall be marked on the line following CDA-99193 and be preceded by the US Army CAGE Code (19207), as shown in the following example:

As an example, a Supplier with CAGE Code 12345 should mark PN 3-160-121-04 (manufactured to drawing revision A and with a corresponding AON on the PO listed as 12286922), as follows:

- 91547 3-160-121-04, REV A CDA-99193
- 19207 12286922
- MFR1234

1.9 Deleted – Refer to QA25-13 (Tempe)

Parts marked in accordance with 200.4 shall not be rejected.

1.10 Deleted – Refer to QA25-13

Parts marked in accordance with 200.5 shall not be rejected.

1.11 Deleted – Refer to QA25-13 (South Bend)

Parts marked in accordance with 200.6 shall not be rejected.

SPOC 203 – Design of Special Tools and Gages

203.1 – Report of Loss, Damage, or Destruction, or Company Out-of-Business

203.1.1 – Gages – loss, damage, destruction

Notify Buyer promptly of the loss, damage or destruction of gages. Include:

- Ownership, Purchase Order number, contract number or equivalent code.
- A full description of the items, units, or assemblies lost, damaged, or destroyed. Include U.S. or other government property.
- Date and cause of loss, damage, or destruction, if known.
- Recommendations for disposition of the property. The cost of the repairs for damage – estimates if accurate costs are not available.
- The corrective action implemented to prevent more loss, damage, or destruction.
- Other related data.

203.1.2 – Tooling / Gages – company going out of business

If the company is going out of business, return all Honeywell-owned Tooling / Gages in the good condition.

203.2 – Identification

203.2.1 – Gages

Permanently identify the gage with the Honeywell prefix letter, number, suffix letter, and agency/code letters shown on the Purchase Order. Use an electric pencil, steel stamp, or permanently attach a tag, to put the data on the gage.

Use the gage number of the parent gage on all loose details of the gage. Permanently identify the primary (or base) fixture with the number of pieces (primary plus loose details).

203.2.2 – Tools

Paint a yellow dot on all government-owned special tools for identification or identify as described in the Purchase Order.

203.3 – Payment

203.3.1 – Tools

No payment is made if the identification mark or tag is missing.

203.3.2 – Tools & Gages

Supply a Certified Tool / Gage List, a photograph of each tool or gage, and an invoice to the Buyer.

The photograph must show the entire tool and the Honeywell tool identification. If the tool is small, include a card that shows the tool identification in the photograph of the tool.

No payment is made until Honeywell has accepted the tooling or gaging.

203.4 – Certified Tool / Gage List

The Certified Tool / Gage List contains all special tools or gages manufactured or acquired by the Supplier and Sub-Tier Suppliers.

The Certified Tool / Gage List must include:

- Tool / gage name
- Supplier tool / gage identification number
- Honeywell tool / gage identification number (if supplied)
- Contract or equivalent code
- Purchase Order number
- Total quantity
- Cost per unit (if applicable)
- Part numbers used to manufacture
- Weight
- Material content (wood, steel, aluminum, etc.)
- Supplier name
- Signature of the company's approved representative
- Date of certification
- Program name (if supplied)
- Honeywell Purchase Order site supplier code

203.5 – Design and Maintenance

Supplier shall establish maintenance instructions, including storage and preservation, and required interval.

SPOC 228 – Shipments for Cost-Reimbursable Government Contracts

The Supplier shall put this statement on the Bill of Lading:

"Transportation is for the (name of Government Agency). The transportation costs paid to the carrier by the Shipper or the Receiver are reimbursed by the US Government as stated in the Cost Reimbursable Contract Number _____.

The agency at (Agency address in the contract) can confirm this information."

SPOC 235 – Drop Shipment of a Honeywell Purchase Order to another Honeywell Supplier

235.1 – Scope

The following requirements apply to Honeywell suppliers when they are instructed to ship material to another Honeywell supplier.

235.2 – Prior to the Drop Shipment

The Supplier shall ensure that the hardware:

- Meets all Purchase Order requirements (e.g., SPOC, engineering drawing, Manufacturing Operations & Tooling [MOT] or maintenance technical data)

The Supplier cannot drop ship if the hardware:

- Is a sample
- Has not had a First Article Inspection Report (FAIR) completed (SPOC 124)
- Is a research part
- Requires a Chemical and Metallurgical Report (CMR)
- Has not been released in accordance with SPOC 149
- Is a Special Federal Aviation Regulation (SFAR) 36 repair

235.3 – Immediately upon Shipment of Hardware

The Supplier shall forward the following to the Honeywell Buyer:

- A shipping receipt with reference to the Honeywell-applicable site-assigned supplier code
- Copy of packing slip, including Honeywell Purchase Order number, release, and part number
- All required identifications for traceability (i.e., inspection certificates, physical/chemical test reports)
- A copy of the common carrier prepaid (third-party billing to Honeywell) freight bill
- Bill of lading

SPOC 236 – Drop Shipment from a Sub-Tier Supplier to Honeywell PAH Sites

236.1 – Scope

The following requirements apply to Honeywell suppliers if shipments are made from a sub-tier supplier directly to a Honeywell PAH site. Honeywell PAH sites are listed on the FAA Production Certificates issued to Honeywell.

236.2 – Prior to the Shipment

The Supplier is responsible:

- For flowing through applicable requirements to the sub-tier supplier
- For the hardware meeting all Purchase Order requirements (e.g., SPOC, engineering drawing, Manufacturing Operations & Tooling [MOT] or maintenance technical data)

The hardware cannot drop ship if:

- It is a sample
- A First Article Inspection Report (FAIR) has not been completed (SPOC 124)
- It is a research part
- It requires a Chemical and Metallurgical Report (CMR)
- The product has not been released in accordance with SPOC 149
- It is a Special Federal Aviation Regulation (SFAR) 36 repair

236.3 – Immediately upon Shipment of Hardware

The Supplier shall ensure that the sub-tier supplier forwards the following to the Honeywell Buyer:

- A shipping receipt with reference to the Honeywell-applicable site-assigned supplier code
- Copy of packing slip, including Honeywell Purchase Order number, release, and part number
- All required identifications for traceability (i.e., inspection certificates, physical/chemical test reports)
- A copy of the common carrier prepaid (third-party billing to Honeywell) freight bill
- Bill of lading

SPOC 237 – Return of Scrap

The Supplier shall segregate and return, at no cost to Honeywell, all scrap material incurred in producing parts to the Honeywell site initiating the Purchase Order. Note: This is only valid for Honeywell Free Issued Materials.

The Supplier shall specify the amount and alloy, or the specification, for the scrap material on the packing list.

Government-owned material determined to be scrap should not be disposed of without obtaining prior written approval from the government representative.

SPOC 238 – Military-Type Specific-Application and Multi-Application Re-usable Containers

238.1 – Scope

The Supplier shall either be an approved source, or procure Multi-Application Re-Usable Containers units from approved sources established by the Container Control Point shown in the table below:

Container Type	Container Control Point	Document Name (Supplier List)
Container part number prefix 13414 and 15450	NAVICP – Naval Inventory Control Point, PHS&T Engineering Programs Branch	NAVICP "Approved Sources Of Multi-Application Re-usable Containers"
MS27684 prefixed exterior metal drums and related items (MIL-D-6054)	DSCP – Defense Supply Center, Philadelphia	DSCP "Sample Sources For Military Standard Drums"
Specific part number for the application	Service-specific	Dedicated drawing

238.2 – Government Source Inspection

When required by contract or other document, shipments of containers require Government Source Inspection prior to release.

Non-conformances detected by the Supplier shall be referred to the Procurement Contract Office (PCO), who will coordinate with the Container Control Point, or Cognizant Field Activity (CFA), for determination of fitness for use.

SPOC 239 – Packaging and Package Identification

239.1 – General Requirements

239.1.0 – Phoenix Engines Orders Only

In addition to the requirements of SPOC 239, the supplier shall follow the Packaging and Shipping Requirements located on the Honeywell Aero Supplier Portal > HASP > Documents > Shipping. Both "3G10 Phoenix Supplier Packaging and Shipping Requirements", and "3G10-ATT1" are posted to this location. Click on / download the documents.

239.1.1 – Product Delivery

The Supplier must ensure that all items are packaged and preserved adequately to guarantee that the hardware is delivered to Honeywell undamaged and free of corrosion. Unless otherwise specified, all hardware shall be packaged and preserved in accordance with the drawing, applicable specifications, or purchase order requirements. If there is no drawing or specification requirement, hardware shall be packaged and identified in accordance with Aerospace Industry Standards (ATA Spec 300, ASTM-D- 3951-98 and MIL-STD-2073).

239.1.2 – Weight Limitations

Hand-handled containers, including bundles are not to exceed 50 pounds (22.7 KG) gross weight. Containers more than 50 pounds shall be put on skids or pallets to permit mechanical handling. Hand-handled containers may be skidded or palletized to consolidate a shipment, but containers must be properly identified, stacked, and secured to the pallet. Shipping skids/pallets or boxes shall not exceed 2,500 pounds (1,136 KG) gross weight and have appropriately placed pallet jack compatible fork truck slots or openings to allow mechanical handling.

239.1.3 – Prohibited Packaging

- Newspaper wadding, loose-fill dunnage, macerated (shredded) paper, peanut foam, eco- foam, shredded materials, discarded paper, and broken or recycled foam-in-place are not acceptable as packing (dunnage) materials in any container.
- Paper wraps, envelopes or bags as exterior packages or any packaging material in the form of egg boxes, egg crate trays or dividers. Padded mailers (jiffy bags and similar) with bubble cushioning or packaging material which contains Penta DBE or Octa DBE.
- Bags made from bubble wrap or grocery paper sacks shall not be used as unit packs.
- Wood containers constructed from OSB wafer board, particle board, very thin plywood or any other manufactured wood product which is fragile and will not tolerate handling, stacking and re-closing throughout the entire transportation system and subsequent supply chain handling and forwarding.
- Used containers unless specifically designed to be reusable and are in adequate shape. Polystyrene die cuts are prohibited except for small, light non-critical items.
- Parts that have contact preservation (oil), or have residual fluids or operating oils, shall not be packed/wrapped in paper bags, bubble wrap, sheet foam, or Kraft paper.
- Skin packs that have film-to-film attachments under the item, making part removal difficult, or subjecting the item to damage during opening. Multi-compartment skins packs or blister packs unless they can be positively re-closed after opening and provide continued part protection.
- Any type of container closure, or lack of a closure, which will result in safety issues, damaged parts or unserviceable packaging when opened.
- Any packaging material which may cause Foreign Object Damage (FOD) or part contamination, part obstruction or leave non-preservation residue.

239.1.4 – Inappropriate Closures

Staples are prohibited as a means of closure for exterior shipping containers. Staples are permitted in non-closure portions of box type containers, such as bottom closure, side stitching, etc. The portion of the container meant to be opened must remain staple-free. Staples and other penetrating forms of unit package closure also are prohibited for use on bags (polyethylene or paper), bubble wrap, sheet foam, Kraft paper or other intermediate or interior containers. These types of unit packages must be heat sealed (if applicable) or sealed by folding, taping, Zip-Lok, or zipper sealing, etc.

239.1.5 – Fluid-Soaked Packages

Fluid tight packaging shall be as required by hazardous material / dangerous goods regulations and as follows:

- Bagged and the heat-sealed closed in accordance with MIL-DTL-117. The bags shall be made from MIL-PRF-22191, Type I material also known as “bearing bag” material. This method is required for corrodible parts which have contact preservative.
- For non-corrodible items, residual fluids may be contained by bagging and sealing in heavy duty (6 mil or thicker) zip lock type polyethylene bag.
- If the item has internal fluids which may be released during transportation, the first bag shall be surrounded by appropriate absorbent packing and enclosed in a second fluid tight bag or package.

Note: The item must be cushioned & the first bag must be strong enough to avoid puncture during transportation, as contamination from the absorbent material may FOD the item.

239.1.6 – Package Design Characteristics

Exterior Shipping Container

The exterior shipping container shall be sufficiently strong and functional to ensure product delivery, packaging identification and subsequent distribution and must withstand superimposed stacking loads, both as presented to the carrier and as may be expected during shipment.

239.1.7 – Hazardous Materials and Dangerous Goods

The Supplier shall define, mark, label and prepare for hazardous goods, dangerous material and/or dangerous equipment for shipment in accordance with Department of Transportation HM181, CFR Title 49, “Dangerous Goods”, as classified by IATA, IMDG or ICAO.

Due to regulation requirements and potential liability issues, Honeywell may report violations of hazardous materials & dangerous goods regulations to the appropriate governmental agencies.

Note: Jet fuel is a hazardous substance. If an item is purged with 1010 oil, label the exterior shipping container “Purged with MIL-PRF-6081, Grade 1010 Oil”. If fuel-wetted items have significant cavities that cannot be flushed, even if purged, HAZ MAT shipment may be required.

239.1.8 – International Bug Ban on Containers with Solid Wood

Containers, dunnage, pallets & skids other than those containing non-manufactured coniferous lumber shall be used when possible. If containers with solid wood components must be used, they shall be certified and marked bug free in accordance with ISPM 15 and/or as indicated by http://www.aphis.usda.gov

239.2 – Package Identification Requirements

239.2.1 – Application

Bar code identification (labeling) is required on all exterior containers. Labels must be located to allow the markings to be easily read when stored on shelves or stacked, and to ensure marking will not be destroyed when the container is opened for inspection. When stencils are used, ink must be black waterproof.

Instead of using labels, it is permissible to print identification information directly on the container or packing slip if all other requirements are met.

239.2.2 – Bar Coding General

Bar code labels shall be printed directly on or be permanently affixed to the exterior shipping container. Additional internal packaging requirements may be specified by the Purchase Order, specification and/or drawing.

Bar codes shall be Code 39 symbology, also referred to as 3 of 9, and printed in medium density or code 128 symbology printed in high density.

Bar code height shall be 0.375 inches. The human readable text shall be in English. The characters shall be 0.110 to 0.125 in high and shall be left justified over the bar code information.

The margin, or quiet zone, is an area surrounding each bar code and shall be a minimum of 0.25 inches at the left and right end of each bar code to decrease bar code reading errors.

Label material / paper shall be white with black printing for maximum contrast. The label may be self- adhesive, either pressure-sensitive or dry gummed, or held in place on the package with a self-adhesive overlaminate.

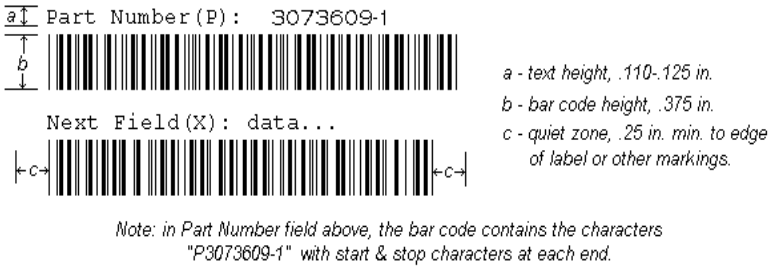


Figure 1 – Critical Label Spacing

Critical spacing dimensions for all fields on exterior container label

Readability:

- Bar Codes shall conform to AIM BC1.
- Check digits and confirmation characters (e.g. $, /, +, %) shall not be used.
- X dimension (width of narrow segment) shall be from .010 to .015 inches.
  - Ratio of average width of wide sections to average width of narrow sections shall be from 2.8:1 to 3.2:1.

- The inter-character gap should be the same as the X dimension.

- Reflectivity and contrast shall be measured at 660 nanometers.
- Bar codes shall meet one of the following contrast requirements:
  - Print contrast signal >= 75%, or
  - Minimum reflectance difference >= 37.5%
- Distinguish numeric zeros from the letter “O” by using “Ø”, “ ■ ” or similar character for human- readable data.

239.2.3 – Exterior Container Labels

A representative sample of an acceptable label is shown in Figure 2.

- Minimum label size shall be 3.937 inches (100 mm) high by 6.0 inches (152 mm) wide.
- Maximum label size shall be 5.0 inches (127 mm) high by 6.5 inches (165 mm) wide.

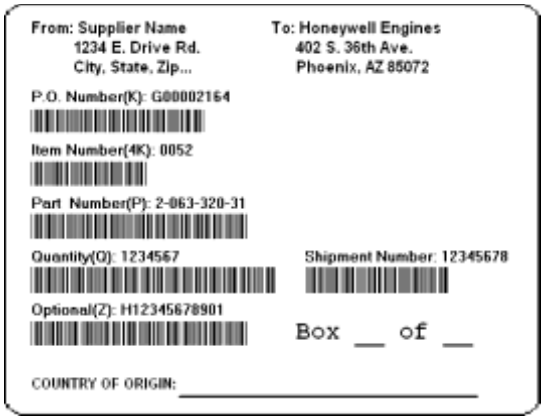


Figure 2 – Sample Exterior Container (Label not to scale)

“To” address to be .as indicated on the Purchase Order

Note: Some POs show a combination of Purchase Order number and line item number (example:G00002164-0052). In this example, the 0052 is not part of the purchase order number, but is the line-item number, which shall go on the second line of the label (Figure 2).

Note: Hand annotation of Box _ of _ numbers are acceptable and is required on boxes only. This field required for all boxes including Box 1 of 1.

The optional block is for additional supplier information that may be manually read by Honeywell but is not scannable by barcode readers.

239.2.4 – Detailed Field Requirements

- Data Area is space containing field title, human-readable data, and bar-coded data.
- Data Area dimensions are shown in (Height, Width) inches; these are minimum values.

Figure 2 Detailed Field Requirements	
Addresses	Data Area (.80, 6.00) for both “From:” and “To:” addresses.
PO Number	15 alphanumeric characters, left-justified (flush left) & null filled. (.60, 6.00)
Line Item Number	4 alphanumeric characters, right-justified with leading zeroes (.60, 6.00). For example, print “0023R” and not “23R”, and bar code “0023R”, not “23R”. Note: Exceptions to the 4-character length requirement: 1) For SAP POs, 5 alphanumeric characters are required, 2) Rework “W” P.O. item number may be followed by an ‘R’ making item number 5 alphanumeric characters in length.
P/N	25 alphanumeric characters, left-justified null filled. (.60, 6.00)
Quantity	7 numeric characters, left-justified null filled. (.60, 2.70)

Figure 2 Detailed Field Requirements	
Shipment Number	8 alphanumeric characters, left-justified null filled (.60, 3.30). If truncation of shipment number is required, only the last 5 right hand numbers shall be used.
Optional	12 alphanumeric characters, left-justified null filled. (.80, 2.70)
Boxes	No bar code. Readable text should be .20 to .25 inches high and may be hand-written (.80, 3.30). Legible written characters are acceptable.
Country of Origin	No bar code.

Note: "Null filled" refers to null, meaning "nothing". If a field is null filled, it's filled with nothing.

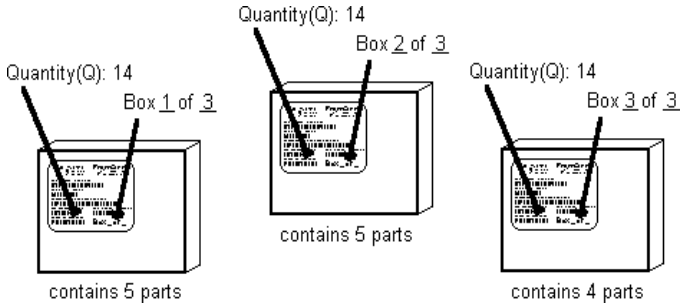


Figure 3 – Shipment of 14 Parts with Same P.O. Number, Item, Part Number, Split Across Three Boxes

Note the quantity shown on the Exterior Container for any order shall reflect the quantities that are in the entire order.

239.2.5 – Intermediate Package Marking

Intermediate packages, when used, shall be marked with the Part number, as specified on the PO, PO Number, Quantity and Unit of Measure (each, feet, etc.) and Supplier's Name (bar coding is optional). If product is shelf life sensitive, packaging is to be marked by the supplier with the expiration date.

239.2.6 – Hand Tags

When the packaging material prohibits the use of containers that allow the application of self-adhesive labels, a tag shall be securely fastened to the material. The Supplier shall ensure that the location and attachment of the tag, under normal conditions, will not cause damage or premature removal of the tag prior to reaching Honeywell.

239.2.7 – Additional Container Identification

When there are identical part numbers with multiple lot numbers, serial numbers, life tracking numbers and/or multiple orders within the same exterior shipping container, it shall be indicated on the exterior container, such as: multiple lot numbers in this container, multiple serial numbers in this container, multiple life tracking numbers and/or, multiple orders enclosed.

239.2.8 – Shipping Documents / Packing Slip

Shipping documents: including the C of C, and/or the packing list required by SPOC 140, shall be attached to the exterior of container #1 in a weather-proof envelope marked "Packing List Enclosed. Specific additive customer requirements will be specified via PO and linked to receiving inspection line items. The envelope may be placed in a Tyvek envelope and securely attached to the exterior of container #1 to prevent damage.

Identification and traceability (I&T) sheets, if provided, shall be placed inside the container or inside Box 1 of a multiple container shipment, at the top of the container (on top of the item shipped). ATP sheets shall be attached to each item or to the first wrap or bag of each item if direct item attachment is not practical.

239.2.9 – Separation of Multiple Part Numbers, Purchase Orders, Item Numbers and Addresses

Shipping containers that contain multiple part number or purchase order items shall be clearly identified on the outside of the container as containing such. Place a label for each internal container on the exterior of the consolidation container. Orders to separate addresses shall be packaged separately and routed accordingly.

239.2.10 – Airworthiness Certification, Labeling and Consolidation Box Marking

When the PO requires a FAA 8130-3 airworthiness certification or equivalent form (Form 1), the certification form(s) and container identification shall have a bright yellow airworthiness label with bold black printing, as shown in Figure 4, permanently attached to the shipping container.

Figure 4 – Airworthiness Label for Exterior Container

239.2.11 – Country of Origin and Marking (includes U.S.A.)

Country of origin marking is mandatory to comply with Customs Regulations or Honeywell requirements.

Packaging of articles must be legibly, conspicuously and permanently marked with the parts' country of origin. For a product to be called Made in USA, or claimed to be of US origin without qualifications or limits on the claim, the product must be "all or virtually all" made in the U.S. The term "United States," as referred to in the Enforcement Policy Statement includes the 50 states, the District of Columbia, the U.S. territories and possessions. "All or virtually all" means that all significant parts and processing that go into the product must be of U.S. origin. That is, the product should contain no – or negligible – foreign content.

U.S. suppliers should contact the Federal Trade Commission, Division of enforcement since the phrase "made in U.S.A." is under their jurisdiction. Guidance can be found at: http://www.business.ftc.gov/documents/bus03-complying-made-usa-standard. For the purpose of this SPOC, the designation "U.S.A." is not adequate country of origin marking.

It is the supplier's responsibility to ensure that marking on the product reflects the true country of origin of the product and that no illegal transshipment through a third country has occurred. The supplier must also ascertain that foreign suppliers are familiar with the country-of-origin rules.

239.3 – Electro-Static Discharge (ESD) Labeling and Packaging

Packaging and labeling shall comply with one of the following unless specified in Honeywell approved design document: (reference SPOC 354):

1) ANSI/ESD S20.20 and ANSI/ESD S541 or equivalent. Or
2) MIL-STD-1686 and MIL-STD-2073-1. Or
3) JESD625 and ANSI/ESD S541

239.4 – Refrigerated, Frozen, or Cryogenically Stored Items

For refrigerated, frozen or cryogenically stored product, the supplier shall display the type of storage necessary on the outside of the package. Packages must have adequate thermal insulation to ensure temperature requirements are maintained through reasonably anticipated transportation, in-transit delays, transfers and destination.

The supplier's container shall be marked with:

- Net contents
- Manufacturer's production lot number
- Date of manufacture and expiration date
- Date and time shipped
- Warning notes and safety precautions in accordance with federal and state safety and health regulations.

239.4.1 – Specific Frozen Packaging Requirements

Supplier shall package material in dry ice to maintain -40 degrees Fahrenheit during shipment, and must use a 24-hour delivery service for this shipment.

239.5 – Handling, Packaging, and Shipping of Moisture/Reflow Sensitive Surface Mount Devices (Electrical / Electronic Parts)

For protection of moisture-sensitive parts, handle, process, and package per the requirements of IPC/JEDEC J- STD-033 unless specified in design document.

SPOC 241 – Identification of Substantiation Test Items

The Supplier must clearly mark the packing list and each package with "SUBSTANTIATION TEST ITEM".

SPOC 246 – Exemption of Sales and Use Taxes

This order is exempt from Arizona and Phoenix Sales and Use taxes because the purchased items are equipment, machinery, or rentals to be used directly in manufacturing, processing, fabricating, or metallurgical operations.

SPOC 259 – Freight to be Paid by Honeywell

The Supplier shall assess all freight charges for which Honeywell is responsible when the freight is tendered to the carrier.

Honeywell participates in discount programs with national carriers; but discounts accrue only when Honeywell is the payer of the original bill. The Supplier that holds the Honeywell Purchase Order will be charged with any lost discounts.

SPOC 260 – Priority Rating

The Supplier shall follow all the provisions of the Defense Priorities and Allocations Systems (DPAS) regulation (15 CFR 700) for this rated order that is certified for national defense use.

See the Purchase Order for the appropriate priority rating (e.g., DO-A1, DX-A1, DO-A4).

SPOC 267 – Electronic Part Definition (Solid Model)

267.1 – Scope

Applicable when using Honeywell-supplied Electronic Part Definition (EPD) databases to manufacture and inspect hardware procured directly by Honeywell or indirectly through a sub-tier supplier. Refer to the applicable drawing/model interpretation specification(s) for instances when Honeywell shall supply an EPD database and whether the drawing or the EPD is the design authority dataset.

267.2 – Requirements

267.2.1 – Software Quality Assurance Plan (SQAP)

The supplier utilizing the Honeywell-supplied EPD databases for the manufacture and inspection of product shall maintain a comprehensive SQAP. Such Plan shall describe the tools and processes used by the supplier to open, store, secure, translate, validate, inspect and manage the Honeywell- supplied EPD databases. The Supplier shall furnish a copy of the SQAP to Honeywell when requested.

267.2.2 – Part Inspection Document (PID)

A PID shall be used that describes the methods for inspection and verification of compliance to the Honeywell-supplied EPD database. The Supplier shall maintain a copy of the PID and furnish a copy of the PID to Honeywell upon request.

Verification of product compliance to the Honeywell-supplied EPD database may be accomplished using any suitable method. For more details, refer to Honeywell Aero Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SI-267 – Electronic Part Definition.

Where EPD data constitutes the approved design data (per applicable drawing interpretation specification) and is replicated for reference on drawings, positive verification of dimensions between the Honeywell drawing and the Honeywell-supplied EPD database is required prior to utilizing drawing specifications for product acceptance.

Supplier-generated EPD or drawings are not valid for inspection unless they have been positively verified dimensionally against the approved design data.

In conjunction with standard layout / inspection practices, the following minimum requirements for part inspection should be utilized as a reference guideline.

The PID must contain enough data points to adequately describe the inspected feature:

Feature	Minimum Point Density or Equivalent
Continuous Surface > 10”	1 point per square inch
Continuous Surface < 10”	2 points per square inch
Non Standard Radii	3 points
Diameter	6 points
Aero shapes (Blades, Vanes, Nozzles)	Conventional inspection methods may be used
Core Wrap & Wall Thickness	Conventional inspection methods may be used
Standard Radii (i.e. fillets, corners, etc.) standard gauging may be used	

267.2.3 – Reduced Content Datasets

When a datum structure is defined, it shall be used for inspection. Best fit of all features simultaneously shall be employed if no datum structure is provided.

267.3 – Translation Process Requirements

Suppliers shall have a documented procedure that outlines their translation process.

The procedure shall include validation that data translation processes result in datasets which match and are traceable to the original dataset. See SAE ARP9005 for guidance. Acceptable validation methods of the data translation process are listed below. For more details, refer to Honeywell Aero Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SI-267 – Electronic Part Definition.

- By positively verifying dimensions against its original definition.
- By comparing basic geometric parameters, at a minimum volume and surface area, between the Honeywell-supplied EPD database and the Supplier-translated model.
- By generating a side-by-side geometric validation report that compares the Honeywell-supplied EPD database with the Supplier-translated model, showing no deviations.
- Other methods approved in writing by Honeywell Engineering.

267.4 – Product and Manufacturing Information (PMI)

Some Honeywell-supplied EPD databases may contain PMI saved as attributes within the file, specifically dimensions, tolerances, GD&T, notes and other annotations such as weld callouts and surface finishes, where the intention is to store the entire product definition within the EPD database. In such cases, if a 3D PDF drawing exists, it is a human-readable derivative (exact duplicate) of the solid model and may be used for inspection.

FAA Conformity (or Civil Aviation Authority of the Country)

SPOC 270 – FAA Conformity (or Civil Aviation Authority of the Country)

270.1 – Conformity Process for Non-Certified Parts

FAA conformity inspection is required for parts under this Purchase Order.

270.2 – Conformity Inspection Guidelines

The Suppler shall include all inspections necessary to show that the article conforms to the proposed type design data and shall document the inspections and make the documentation available as objective evidence. The documentation includes but is not limited to:

- Accomplishing physical inspections
- Witnessing the installation of critical assemblies
- Witnessing functional tests
- Verifying company conformity through documented evidence (i.e., material certifications, special process certifications, shop travelers, work orders).

270.3 – Conformity Plan Requirements

The Supplier shall provide a Conformity Plan that:

- Defines how the company conformity will be completed.
- Provides a schedule of when parts will be available.
- Identifies where the parts will be FAA conformed.
- Identifies who will perform the conformities. (FAA, FCAA, DAR).

The Conformity Plan shall be approved by the appropriate Honeywell FAA designee working or assigned to the specific conformity project.

SPOC 273 – NASA Required Notification

273.1 – Scope

NASA required notification in procurement documentation.

273.2 – Requirements

Purchase requests, Purchase Orders, contracts, and subcontracts covering the procurement of flight hardware items for use in manned spacecraft shall contain the two blocks of text shown below either printed, stamped, or added in boldface type. All Honeywell subcontractors and all their subcontractors, including their lowest tier subcontractors shall include these blocks in all of their procurement documentation:

"NOTE: For use in manned space flight. Materials, manufacturing, and workmanship of highest quality standards are essential to astronaut safety. If the supplier is able to supply the desired item with a quality which is higher than that of the items specified or proposed, the Supplier is requested to bring this fact to the immediate attention of the purchaser."

"For all International Space Station hardware, random and systematic errors in any article or material measurement shall not exceed 10 percent of the tolerance of the article or material being measured. Authorization for exceptions shall be requested from Honeywell Aerospace Equipment Systems. Random and systematic errors in any calibration measurement shall not exceed 25 percent of the tolerance of the parameter being measured. Authorization for exceptions shall be requested from Honeywell Aerospace Equipment Systems. Certification of conformance to these requirements shall be provided with each shipment of product. These requirements shall be flowed down to all Sub-Tier Suppliers."

SPOC 276 – NASA Product Requirements

276.1 – Scope

NASA product requirements for Manned Space Flight.

276.2 – Purchase Order Requirements

For Purchase Orders involving product for Manned Space Flight: materials, manufacturing, processes and workmanship of the highest quality standards are essential to Manned Space Flight safety. If the Supplier or its Sub-Tier Suppliers can provide a higher standard of quality than requested in this purchase order and associated SPOCs, the Supplier must bring this information to the attention of the buyer.

The Supplier and its Sub-Tier Suppliers must be approved by Honeywell.

Supplier's certifications (i.e., material, controlled process, etc.) including those of Supplier's Sub-Tier Suppliers, in support of this order shall provide an auditable trail back to the Honeywell Purchase Order.

Soldering operations for manned space flight applications must conform to NASA's soldering requirements specified in NHB 5300.4(3A-1) or replacement, unless otherwise noted in the specification control or source control drawing. Evidence of solder operation performance must appear on the packing slip and certificate of conformance for products shipped.

There will be no change in the design of the part, in the material and processes, in its construction or in the manufacturer's part number after the first acceptable unit has been received by Honeywell unless requested and/or approved by Honeywell in writing. Parts and materials which have been permanently installed in an assembly using soldering, alloying, or other fusing techniques, and are then removed from the assembly for any reason shall not be used again in any flight hardware without specific written approval from Honeywell.

SPOC 277 – Verification of Hardware

277.1 – Scope

Source Inspection of product by Honeywell or its customer at Supplier's facility is required.

277.2 – Requirement

The Supplier shall contact KBR Wyle (reference SI 149-02) or other designee as directed by the purchase order, 72 hours in advance of any inspection need. Self-Released suppliers do not carry authority to perform product release for this order. Source Waiver shall not be requested for this order. Suppliers who are Self-Release approved or Certified Supplier Quality Representatives per SPOC 149 are NOT authorized to conduct verifications per this SPOC.

The supplier shall make available to the buyer's Quality representative any necessary specifications, documents, facilities and assistance. Evidence of buyer's Quality representative's acceptance / certification shall accompany shipment.

SPOC 325 – Electronics Solder Requirements

Product covered under this Purchase Order is to be assembled and soldered per ANSI/J-STD-001 Revision (latest), Class 3, (Standard Requirements for Soldered Electrical & Electronic Assemblies), and acceptance criteria based on IPC-A-610 Revision (latest) and applicable Honeywell "M" specification, to the class as specified on the PO. Workmanship and testing also shall conform to the class of IPC-A-610 specified on the purchase order. Any exceptions or deviations must be delineated on the Honeywell drawing and / or Honeywell specification.

If solder testing is required per the drawing/specification, then the parts must meet the applicable soldering requirements of the specification listed below:

Product Type	Specification	Method
Semiconductors	MIL-STD-750	2026
Microelectronics	MIL-STD-883	2003
Rigid Printed Wiring Boards	MIL-P-55110	§ 3.7.4.5
Rigid Flex Printed Wiring Boards	MIL-P-50884	§ 3.4.6 // § 3.7.14
Flexible Printed	MIL-P-50884	§ 3.4.6 // § 3.7.14
All other parts	MIL-STD-202	208
When required by Purchase Order	MIL-STD-2000	§ 5.4.4

Components must be tested to requirements listed in above table within 18 months of the date Honeywell receives the components. The soldering test date (month & year) shall be noted on the Certificate of Conformance supplied with each shipment.

SPOC 326 – Electronics Marking Requirements

If marking permanency is required per the drawing/specification, then the parts must meet the applicable marking permanency (resistance to solvents) requirements of the respective specifications:

Product Type	Specification	Method
Semiconductors	MIL-STD-750	1022
Microelectronics	MIL-STD-883	2015
Rigid Printed Wiring Boards	MIL-P-55110	§ 3.5.4
Rigid Flex Printed Wiring Boards	MIL-P-50884	§ 3.4.4
Flexible Printed	MIL-P-50884	§ 3.4.4
All other parts	MIL-STD-202	215

SPOC 329 – Hardness Critical Item

The parts contain Critical Characteristics shown as Hardness Critical Item / Hardness Critical Process (HCI/HCP). No substitutions or deviations are permitted.

SPOC 335 – Tape and Reeled Components

Surface mount or axial lead components shall be tape and reeled in accordance with table below. For order quantities less than 1000; bulk, ammo or rail packaging is acceptable.

Number	Carrier Type	Standard	Requirement
1	Embossed Carrier Taping	EIA 481	Surface mount components shall be supplied on tape and reel in accordance with EIA 481.
2	Axial Lead Taping	EIA 296	Axial lead through hole components shall be supplied on tape and reel in accordance with EIA 296.
3	Radial Lead Taping	EIA 468	Radial lead through hole components shall be supplied on tape and reel in accordance with EIA 468.
4	JEDEC Trays	JEDEC CO-029, etc.	Integrated Circuits shall be supplied on JEDEC antistatic trays

SPOC 349 – Material Samples Required

1.12 Sample Requirements

The Supplier shall supply material samples for the items listed on this Purchase Order. The samples must be:

- Two (2) fully processed test bars **and**
- One (1) chemistry tab.

SPOC 354 – Electro-Static Discharge Requirement

For ESDS (Electrostatic Discharge Sensitive) items, the Supplier shall establish and maintain a written electrostatic discharge control program for the control of Electro-Static Discharge (ESD) during fabrication, handling, and packaging of electrical and electronic parts, assemblies, and equipment. The program shall be based on and meet the intent of ANSI/ESD S20.20 (or equivalent), or JESD625, or MIL-STD-1686.

SPOC 385 – Printed Circuit Board (PCB) Testing

The Supplier shall perform continuity and circuit short testing on all double-sided and multi-layer Printed Circuit Boards (PCBs) before shipping to Honeywell.

SPOC 406 – Commercial Items Used in Government Contracts

This part has been identified as dual usage having both Government and Commercial end use requirements.

Unless otherwise noted in the header text of the purchase award, the terms contained in Honeywell's "Supplemental Provisions – U.S. Govt Contracts (SPFFP), apply and are hereby incorporated by reference as if written in full. Honeywell's Terms and Conditions of Purchase, including SPGCI, are located in the Honeywell Aerospace Supplier Portal > HASP > Documents > Terms & Conditions.

SPOC 407 – Military Customer First Article Inspection

Verification of First Article by the Military customer (military quality assurance and/or Defense Contract Management Agency) is required. The Honeywell Quality Assurance Point of Contact will coordinate First Article inspection by the Military customer at the supplier.

If FAR 52.209-03 is required, coordinate with your Honeywell Quality Assurance point of contact or your Honeywell Buyer for the required First Article Testing (FAT) and Inspections. Requirements are documented in the Customer Purchase Order and DD1484 form.

SPOC 418 – Foreign Object Damage (FOD) Control *

The supplier shall ensure that **Foreign Objects** and subsequent **Foreign Object Damage** (FOD) is eliminated from all parts prior to shipment.

In addition to maintaining compliance with Honeywell site's cleanliness specifications, all suppliers must maintain a FOD free environment during machining, manufacturing, assembly, maintenance, inspection, storage, packaging and shipping.

- Potential FOD includes but is not limited to: burrs, chips, dirt, corrosion, residual abrasive material from grind, hone, deburr, polish, and/or surface improvement, and/or contamination resulting from the manufacturing, assembly, maintenance, processing, cleaning, storage, and subsequent packaging of parts.

- Suppliers must ensure all passageways—cast and/or machined—are clear of chips, core material, dirt, breakout of cast walls, etc.
- Suppliers must ensure all threads, blind holes, passageways—cast and/or machined—are clear of chips, core material, dirt, breakout of cast walls, and other FOD via inspection by competent individuals using a borescope, endoscope, flexible fiber scope, or similar equipment capable of detecting any FOD. It is highly recommended to use an appropriate power flush method to remove FOD.*
- Prior to closing inaccessible or obscured areas and compartments during assembly, supplier shall ensure the areas are free of FOD.
- Suppliers shall visually inspect all external surfaces of each part to ensure all parts are clean and FOD free prior to shipment.**
- Suppliers are required to maintain a FOD prevention program, which includes prevention and elimination of FOD from the manufacturing processes and work area.

Specific attention should be given, where applicable, to items such as:

- Housekeeping and cleanliness
- Food and beverage control
- Tool and small part accountability
- Loose objects
- Material handling and parts protection
- External cleaning following evidence of external contamination

Supplier shall ensure that the responsibility for the FOD prevention program is clearly defined, and appropriate personnel.

Suppliers are responsible for flow down of these requirements to their sub-tier suppliers to ensure FOD free products.

Suppliers FOD prevention program and controls shall comply with SAE AS9146 and are subject to periodic audits by Honeywell as deemed necessary to ensure program effectiveness and compliance. This includes, but not limited to, Failure Analysis Reports, Containment and Preventive Corrective Action Plans taken to preclude recurrence. These reports shall be made available and submitted upon request.

SPOC 419 – Supplier Counterfeit Parts Prevention Requirements

419.1 – Introduction

419.1.1 – Purpose

SPOC 419 is intended to prevent counterfeit Electrical, Electronic and Electromechanical (EEE) parts and Materiel (raw materials, hardware, fasteners, bearings, castings, epoxies, paints, etc.) (herein collectively referred to as Items) from entering Honeywell's supply chain and to:

- Specify the flow-down of counterfeit prevention requirements to suppliers at all levels who are providing Items to Honeywell.
- Maximize the procurement and use of authentic Items from documented authorized sources.
- Mitigate risks when Items are not available from documented authorized sources.
- Control Items identified as suspect or confirmed counterfeit anywhere within the Honeywell supply chain.
- Report suspected and confirmed counterfeit items, to other potential users and to Government investigative authorities as required by contract or by law.

Note: This SPOC is specific to counterfeit prevention and detection, and not fraudulence beyond counterfeiting.

419.1.2 – Applicability

The General Requirements of this SPOC as well as the requirements of Supplier Instruction SI-419-01 (and SI-419-02 for HAADE Sources (Honeywell Aerospace Authorized Distributor Exception) Sources), available in the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419.

Supporting Documents are applicable to all Items used in fulfillment of Honeywell orders. These requirements are applicable to all levels of the supply chain.

Additional custom counterfeit prevention requirements, when outlined in the purchase order, shall be fulfilled in accordance with SPOC 519.

419.1.3 – Terms and Definitions

Terms and definitions are in the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Supporting Documents > SPOC 419 - Terms and Definitions Document.

419.2 – General Requirements

419.2.1 – Counterfeit Parts Control Plan

Suppliers shall implement a Counterfeit Items Prevention Control Plan. The plan shall comply with the General Requirements listed in this SPOC and the Supplier / Part Category Specific requirements contained within in the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Supporting Documents > SI-419-01 (and SI-419-02 for HAADE Sources).

Suppliers shall perform periodic audits to verify compliance to the requirements of their Counterfeit Parts Control Plan. Plans and records of their audits and results shall be maintained and provided to Honeywell or regulatory agencies (DCMA, FAA, etc.) upon request.

419.2.2 – Authorizing Evidence

The Supplier shall verify Items are purchased from authorized sources via the methods contained in SI-419-01 and retain documented evidence of authorization.

419.2.3 – Mitigation Approaches

The Supplier shall assure procurement of Items, whenever possible, directly from Authorized Sources. Counterfeit Items Prevention Control Plans shall include processes for mitigating risks associated with procurement of Items from other than authorized sources. The Supplier shall use the process outlined in the Honeywell CAWS process defined herein for risk mitigation unless the Supplier has design authority over products delivered to Honeywell and has appropriate risk mitigation processes in alignment with SAE AS6171 included in their plan.

419.2.4 – Control of Notification of Items from an "At Risk" source

For deliveries to Honeywell, or other Suppliers of Honeywell, of products that are or contain "At Risk" Items, the Supplier shall notify the recipient, including details of the specific Item and risk mitigation results. This notice shall be provided prior to delivery. "At Risk" Items are those obtained from other than authorized sources or sources that refuse any requirement in this SPOC or comingle "at risk" Items with authorized source Items. This includes instances where the Supplier understands that they are not an authorized source themselves.

419.2.5 – Notification of Suspect Counterfeit or Counterfeit Items

Suppliers, upon identification or notification by sub-tier suppliers of suspect counterfeit or confirmed counterfeit Items purchased for or on behalf of Honeywell or that were delivered to Honeywell, shall:

1 Quarantine the suspect or confirmed counterfeit parts so that they shall not re-enter the supply chain or be used in production.

2 Provide notification to: Their customer within five (5) days in accordance with SPOC 100. Additionally, as required notify the Government Industry Data Exchange Program (GIDEP), industry supported reporting programs (e.g., ERAI), and/or to applicable Government investigative authorities and law enforcement agencies as appropriate and required by law.

419.2.6 – Indemnification

Supplier shall indemnify, defend, and hold Honeywell harmless from and against all loss or expense incurred by Honeywell because of the delivery by Supplier to or on behalf of Honeywell of suspect counterfeit or counterfeit Material, except for parts or assemblies acquired from Honeywell.

419.3 – Counterfeit Avoidance Workflow System (CAWS) *

The Supplier shall use the process outlined here, and in the CAWS (https://cpp.honeywell.com/) for mitigation of "At Risk" Items unless the Supplier has design authority over products delivered to Honeywell and has appropriate risk mitigation processes in alignment with SAE AS6171 included in their plan.

- **Honeywell Approved Test Laboratories** *

  Suppliers providing assembled products under Honeywell design authority shall use a Honeywell Approved Test Laboratory for CAWS lab work in association with risk mitigation. (The list of Honeywell Approved Test Laboratories is contained in the Counterfeit Avoidance Workflow System [CAWS]. When logged into CAWS, select "Approved Test Labs" from the main menu.).

- **Risk Analysis & Testing**

  Risk analysis shall be done in accordance with the CAWS documented workflow and the current version of Honeywell's Counterfeit Avoidance – (EEE or Materiel) Inspection and Testing Statement of Work. (Counterfeit Avoidance – [EEE or Materiel] Inspection and Testing Statement of Work is available in the Honeywell Aerospace Supplier Portal: HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Supporting Documents.

- **Delivery**

  Suppliers shall assure that Items accepted per CAWS in accordance with the Counterfeit Avoidance – (EEE or Materiel) Inspection and Testing Statement of Work be shipped directly to a Honeywell production facility from the Honeywell Approved Test Laboratory unless otherwise directed by Honeywell and not be shipped back to the Independent Distributor. (Note: A Honeywell production facility may be a Honeywell Supplier or sub-tier supplier when the Supplier is producing Items on behalf of Honeywell.) If Item is shipped back to the Independent Distributor after it is successfully tested, then the Item shall be retested to the latest revision of Counterfeit Avoidance – (EEE or Materiel) Inspection and Testing Statement of Work as of the date of the scheduled shipment of goods.

419.4 – Supporting Document Reference

SI-419-01 (available in the Honeywell Aerospace Supplier Portal under HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Supporting Documents) as invoked by this SPOC contains:

- **Requirements by Supplier and Part Type** (Includes industry standards and exceptions/additions thereto)
- **Authorizing Document Criteria** (includes identification of authorized sources)
- EEE and Materiel Statements of Work

SI-419-02 (available in the Honeywell Aerospace Supplier Portal under HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Supporting Documents) as invoked by this SPOC contains:

- Requirements for HAADE Sources

SPOC 420 – Advanced Product Quality Planning (APQP)

420.1 – Applicability

APQP is required to the extent specified below for any Honeywell part number (including dash number) being sold for the first time by a supplier (as determined by their SAP Vendor Code).

- Where a purchase order calls for an APQP level, the requirements of the APQP level listed on the PO shall apply.
- Where no APQP level appears on the PO, APQP Level 1 is applicable to all purchase orders made to requests for quotation issued after May 3, 2017.
- Where an APQP requirement is added to PO flow down via SPOC revision or PO note after the approval of a supplier's initial First Article Inspection, the added requirement shall not apply to that supplier.

Once APQP is required, the APQP requirement shall continue to apply during ongoing production. Legacy APQP in place prior to May 3, 2017 shall continue to be required.

Where a purchase order holder subcontracts some or all of the manufacture of an item, the PO holder's APQP Control Plan shall include controls sufficient to ensure product conformance of procured items.

420.2 – Requirements

Purchase order holder (supplier) shall comply with AS9145 REQUIREMENTS FOR ADVANCED PRODUCT QUALITY PLANNING AND PRODUCTION PART APPROVAL PROCESS and the requirements of this SPOC.

APQP/PPAP activity shall begin immediately upon receipt of a purchase order for a part number being made for the first time by the supplier. APQP requirements shall be completed in accordance with the schedules provided in applicable APQP program documents. Unless otherwise specified on the Purchase Order, all PPAP submissions shall require level 1 compliance.

420.3 – Process

Supplier shall comply with SQG-5525 which defines the generation, submittal, approval, and maintenance processes for each level of APQP/PPAP. SQG-5525 is located in the Honeywell Aerospace Supplier Portal > Documents > Quality > APQP. Supplier shall maintain records of compliance to APQP/PPAP requirements.

SPOC 500 – Failure Analysis and Reporting Process

This SPOC is intended for applications that require specific Honeywell approved test failure or anomaly analysis and reporting procedures

500.1 – Failure Reporting and Corrective Action

The supplier shall establish a formal, controlled failure reporting, analysis and corrective action process which is subject to Honeywell approval.

The supplier process shall include:

- Reporting of all failures which occur from any initial application of power at the lowest level of assembly through qualification/acceptance testing of deliverable hardware.
- Positive control of failed items, retrieval of failed/overstressed parts, failed item and part failure analysis, and documentation of all pertinent information relating to each failure.

Procedures and forms used in support of the supplier's failure reporting system are subject to approval by Honeywell.

The supplier failure review board shall include at least one member each from the supplier's engineering, reliability and quality assurance organizations.

500.2 – Failure Reporting and Corrective Action Notification

The supplier’s failure reporting system shall include the following elements:

- An agreed-upon method for notifying the designated Honeywell representative of all failure incidents, regardless of severity.
- Notification of the Honeywell Buyer in writing within 24 hours of each failure occurrence. The text shall indicate the failed item part number and serial number, date of failure, test being performed, test specification and paragraph, description of the failure including failed parameters with actual/should be data, and preliminary analysis and disposition.
- Submission of the failure report to the Buyer within five (5) working days of the occurrence of each failure. A copy of the initial failure report may be used for notification purposes.
- Adequate support of failure report status and formal closure actions.
- Submission of the completed (closure) failure report within 21 days of each failure, or prior to shipment of the affected assembly, whichever occurs first.
- Notification of the Buyer of all failure occurrences and shall, along with other Honeywell representatives, have the right to participate in all failure investigation activities.
- Failure Analysis Reports
  - Reports shall include all supporting data and analyses and shall be described in the supplier’s detailed procedures.
- Supplier failure review board members shall review (sign and date) all failure reports when all actions are complete, and reports are ready for submittal to Honeywell for approval and formal closure.

SPOC 501 – Single Lot Requirements

1.13 Scope

The entire quantity ordered shall be delivered from one lot date code, batch number, or heat number.

The supplier shall contact Honeywell if this cannot be accomplished to obtain written authorization prior to shipping multiple lot date codes.

SPOC 502 – Single Raw Material Lot

All parts for this purchase order item should be from the same raw material lot number. If a single lot cannot be used, the parts shall be produced from as few raw material lots as possible. The parts shall be segregated, packaged and identified by raw material lot to maintain raw material lot identification & traceability.

SPOC 503 – Delegation of Inspection Authority

Honeywell hereby delegates to the supplier the authority to perform in-process inspections and final acceptance inspection for the product described by part number in the purchase order or letter of delegation. The supplier shall maintain inspection records and make them available upon request. Supplier shall not delegate inspection authority to sub-tier suppliers. Suppliers with this delegation authority are subject to FAA / Honeywell-customer surveillance.

This is a special application SPOC and is not intended to be utilized in place of Self-Release / Source Inspection requirements as imposed in SPOC 149.

SPOC 505 – Lot Traveler Requirement

A copy of the Supplier's manufacturing process flow lot traveler showing sequential processing of parts shall be provided.

Travelers shall include operation description, including all inspection and test approval points, quality control approval, and sign off with date is required, and shall reflect the quantity of parts processed through each operation.

SPOC 506 – List Controlled Item

The revision listed on this purchase order is the Parts List (PL) document revision and is the controlling document for the item. The associated item drawing revision is the minimum drawing revision (MIN DWG REV) as listed on the Parts List document.

SPOC 507 – Manufacturing Plan Required

The Supplier shall develop a Manufacturing Plan that defines the manufacturing processes to be employed in the manufacture of the part/assembly. The Supplier is encouraged to maximize the use of current documentation techniques (e.g. Part Tracking Systems, Travelers, etc.). The Manufacturing Plan shall be provided to the Honeywell Buyer a minimum of 10 working days prior to the initial start of manufacturing. The Honeywell Buyer will process to the appropriate group for review / approval. Manufacturing shall not start until approval of the Manufacturing Plan, in writing, prior to the start of manufacturing.

The Manufacturing Plan shall include the following as a minimum:

1) Processing Sequence including a brief description of each main processing step.
2) Equipment to be used at each step (e.g. Mill).
3) Any subcontracted procurements including the identification of sub-tier suppliers (e.g. parts, processes, etc.).

Note: This SPOC is not in place of, or inclusive of, a Detailed Inspection Plan, which is covered in SPOC 128.

SPOC 519 – Supplemental Supplier Counterfeit Parts Prevention Requirements

519.1 – Scope

519.1.1 – Purpose

This SPOC 519 is intended to identify and define supplemental Counterfeit Part Prevention (CPP) requirements found in Honeywell purchase orders and provide additional information in how to respond to and comply with these CPP requirements.

519.1.2 – Applicability

This SPOC is applicable to all commodity (EEE and Materiel) and assembly purchase orders issued to Honeywell suppliers when one or more of the exact CPP clause(s) appearing in quotes (") below in the title line of SPOC 519.3.1 through SPOC 519.3.9 are included in the purchase order text.

When applicable, the requirements defined herein apply to all commodity and assembly (EEE and Materiel) purchase orders issued to Honeywell suppliers.

This SPOC applies in addition to SPOC 419.

519.2 – Definitions

Terms and definitions are located on the Honeywell Aerospace Supplier Portal > HASP > Documents > Quality > SPOC > Supporting Documents > SPOC 419 Terms and Definitions.

519.3 – Supplemental Requirements

The following are supplemental counterfeit part requirements found in Honeywell purchase orders and acceptable methods for meeting those requirements.

For each clause noted below that requires formal notification, testing, approval and/or waiver the Supplier shall provide notification via email to the designated Honeywell Authorized Representative outlined in the General Purchase Order Provisions listed on the PO.

In the event of any conflict between these supplemental CCP clause requirements or questions, please contact the responsible Honeywell buyer for resolution by Honeywell Contracts.

Reference Documents:

- Defense Federal Acquisition Regulation Supplement - DFARS 252.246-7007 (2014 Version)
- Defense Federal Acquisition Regulation Supplement - DFARS 252.246-7007 (2016 Version)
- Defense Federal Acquisition Regulation Supplement - DFARS 252.246-7008 [1]

[1] DFARS 252.246-7008 “Sources of Electronic Parts” published in 2016, with revision in 2018. The 2018 revision provided clarification regarding the Government’s authority in review, audit, and approval of contractor-approved suppliers; but no substantive changes to the requirements.

519.3.1 – "DFARS 252.246-7007 (2014 Version)"

- **Requirement**
  The 12-system criteria apply as defined in DFARS 252.246-7007 (2014 version) for a Counterfeit Electronic Part Detection and Avoidance System program.
- **Action Required**
  Meet the systems criteria requirements of DFARS 252.246-7007 (2014 version), including required notification to Honeywell of:
  a. Inability to meet any of the 12 system criteria requirements of DFARS 252.246-7007 (2014 version) – waiver approval and performance of any applicable testing is required.

519.3.2 – "DFARS 252.246-7007 (2016 Version)"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus the 12 system criteria as defined in DFARS 252.246-7007 (2016 version) for a Counterfeit Electronic Part Detection and Avoidance System program, which also includes requirements from DFARS 252.246-7008.
- **Actions Required**
  Meet the updated requirements of DFARS 252.246-7007 (2016 version), including specified requirements of DFARS 252.246- 7008 and required notification to Honeywell of:
  a. Inability / refusal to meet requirements of DFARS 252.246-7007 (2016 version) – notification required per SPOC 519.3 and SPOC 419 and perform any applicable required testing.
  b. Co-mingled inventory (used, refurbished and/or returned) - notification required per SPOC 519.3 and SSPOC 419 and perform any applicable required testing.
  c. Use of parts provided by non-authorized sources or sources that do not meet previous a & b above – notification required per SPOC 519.3 and SPOC 419 and perform any applicable required testing.

519.3.3 – "DFARS 252.246-7008"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus the DFARS 252.246-7008 sources of Electronic Parts, which includes requirements related to selection of suppliers, notification and traceability.
- **Actions Required**
  Meet the requirements of DFARS 252.246-7008, including required notification to Honeywell of:
  a. Inability/refusal to meet requirements of DFARS 252.246-7008 – notification required per SPOC 519.3 and SPOC 419 and perform any applicable required testing.

b. Co-mingled inventory (used, refurbished and/or returned) – notification required per SPOC 519.3 and SPOC 419 and perform any applicable required testing.

c. Use of parts provided by non-authorized sources or sources that do not meet previous a & b above – notification required per SPOC 519.3 and SPOC 419 and perform any applicable required testing.

519.3.4 – "Broker Prohibited"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus no broker provided parts are allowed under this purchase order/contract.
- **Action Required**
  If this requirement cannot be met, notify responsible Honeywell Purchasing or Contract Administrator prior to order acceptance to determine if waiver can be obtained.

519.3.5 – "Cust Approval Required"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus notify Honeywell Purchasing or Contract Administrator of tested broker-provided parts to be provided for the purchase order/contract and obtain Honeywell consent.
- **Action Required**
  Notify Honeywell Purchasing prior to order acceptance of requested approval. Do not proceed with delivery to Honeywell until Honeywell Purchasing or Contract Administrator confirms customer consent and Honeywell provides written/email consent to deliver.

519.3.6 – "Notify Only"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus notify Honeywell Purchasing or Contract Administrator of tested broker provided parts to be provided for the purchase order/contract.
- **Action Required**
  Proceed with order after notifying Honeywell Purchasing or Contract Administrator.

519.3.7 – "Notify on End Item"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus notify Honeywell Purchasing or Contract Administrator of tested broker provided parts to be provided for the purchase order/contract and specific serialized assemblies (or unique identifier) that have the tested broker-provided parts.
- **Action Required**
  Provide written/email notification to Honeywell of assemblies that include tested broker provided parts by SN/unique identifier.

519.3.8 – "Test Requirements"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus special customer-required test requirements for broker-provided parts must be completed and approved by Honeywell prior to shipping product to Honeywell.
- **Actions Required**
  a. Contact Honeywell to receive special test requirements.
  b. Receive Honeywell approval of completed testing prior to delivering product to Honeywell.
  c. Archive test results and Honeywell approval of test results.

519.3.9 – "Material CPP Applies"

- **Requirement**
  SPOC 519.1 through SPOC 519.3 apply plus the counterfeit parts avoidance and detection requirements apply to Materiel in addition to EEE parts.
- **Actions Required**
  a. The special instructions of SPOC 519.3.4 through SPOC 519.3.8 that are referenced on the body of the PO apply to Material in addition to EEE parts.

b. Special mention that CPP requirements apply to Materiel (non-electronic/electrical parts) is invoked through this clause.

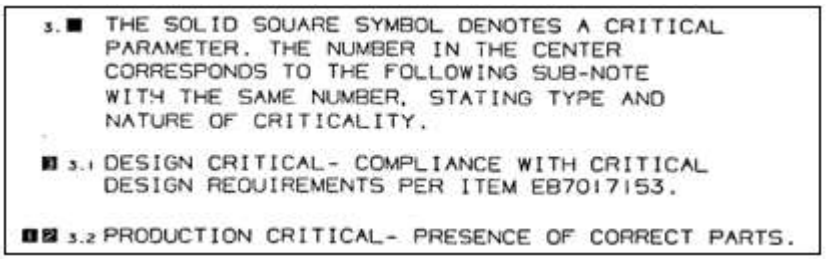
SPOC 527 – Airworthiness / Safety Critical

Procurement of Airworthiness / Product Safety Critical, or Flight Safety Critical items or materials: A copy of the quantitative data or AWPS certification/Data sheet shall be supplied with the material for each shipment.

AWPS is identified within the print notes as to being Design Critical or Production Critical.

A BLACK square symbol within the note identifies an AW/PS critical parameter. The number within the square refers to the corresponding drawing note and the note within the body of the drawing and/or Bill of Material (BOM) that defines/identifies the critical requirements.

EXAMPLE



Design Critical:

This is to prevent design changes after initial release, which might invalidate the inherent safety provisions.

- No action is necessary by a sub-tier supplier.

Production Critical:

If the analysis shows that the physical failure (due to a manufacturing defect) of any assembly or detail part (including batch considerations) could create a catastrophic condition, the item is classified as “PRODUCTION CRITICAL”. Associated with this classification are the specific safeguards that must be taken to preclude the possibility of catastrophic failure (by defect) of the part/assembly.

The supplier is responsible to:

- Have an internal procedure/process outlining AWPS steps to follow.
- Build Sheets which include operator instructions for assembly of product (such as Method Sheets, Operation Sheets, etc.) shall:
  1. Be clearly marked as AWPS
  2. Describe the specific AW/PS processing requirements for operator to accomplish.
     - AW/PS requirements shall be flow down to sub-tier suppliers where applicable.
  3. Document a 100% inspection, validating/recording every S/N, that the AWPS parameters are met.
- Every shipment is to be accompanied with:
  1. A standard C of C
  2. An AWPS certification
  3. An AWPS INSPECTION CERTIFICATION Data form. It shall note AWPS requirements, the S/N’s inspected, the inspection results (if quantitative) and stamp/signature of responsible party performing the validation.
- Any acceptance documentation for AW/PS Production Critical products shall be retained indefinitely as Quality Records. This includes but is not limited to Test Data sheets, AW/PS tags, X-rays, and certifications.

AWPS Certification Form Example:

Blank Form example is located on the Honeywell Aerospace Supplier Portal > Documents > Quality > SPOC > Supporting Documents (SPOC 527 AWPS sample Cert)

SPOC 528 – Homogeneous Material Requirement

All material supplied under this specification number shall be homogeneous. Homogeneous supplies are defined as material that is produced:

- To the same design as defined by the buyer and seller's documentation.
- From the same material as defined by the applicable material specification.

When alternate materials are allowed by the purchase order and associated documents, the supplier must certify to a specific alternate.

After material has been submitted to Honeywell, the supplier may not change alternates without prior written approval from Honeywell.

The supplier is not restricted to any source of supply of raw material if the material meets the applicable specifications; by the same manufacturing process as defined by the seller's manufacturing plan. Changes in manufacturing location or production discontinuities of one month or more violate this requirement.

All manufacturing process sheets shall have a revision date not later than the date of the initial shipment of supplies to Honeywell, and the process used to manufacture the initial product shipment and all shipments thereafter.

Departure from these requirements, including changes suggested by Honeywell, must be approved in writing by Honeywell's Quality Engineering department prior to such departure.

SPOC 529 – Delegation of MRB Authority

The supplier is hereby granted authority to perform Material Review Board (MRB) actions on material not in conformance. Results of the MRB action shall be submitted to the Buyer with each shipment of the affected material.

- *Revised / Added* Supplier shall furnish one copy of all Material Review reports to Buyer's Supplier Quality Engineering Department via Buyer's Purchasing Department. One copy of each Material Review action shall be included with the shipment of affected material. These reports shall list in detail the salvage methods utilized, if applicable.
- Final review authority over Supplier's Material Review decisions is retained by Honeywell.
- The Supplier shall not make substitution of Material Review members or delegate Material Review authority to subcontractors performing work on Buyer parts without advance written authorization from Buyer.
- Supplier Material Review action is not allowed when interchangeability, external configuration, function, service life, safety, reliability, or point of attachment to Buyer assemblies are affected.

SPOC 530 – Standard Repairs of Printed Board Assemblies (PBA)

Standard Repairs shall be performed in accordance with IPC-7711 and IPC-7721. The supplier shall provide a document with each PBA/CCA that has had a standard repair. This document will provide:

- Serial number or UCN
- Location of the repair (zone on pictorial view of drawing or termination points), and
- Type of repair performed (stating the paragraph number in the HPS1009).

SPOC 531 – Outsourcing Approval Required

The Supplier shall notify Honeywell, and request written approval prior to outsourcing a process, part, assembly or end item.

SPOC 532 – Cosmetic Part – Visual Inspection Requirement

Obvious blemishes (e.g., digs, pits, scratches, etc.) are not permitted. Parts should be packaged individually or in containers using dividers. Suppliers shall ensure that inspection practices include a thorough visual examination of product and shall refer to site specific workmanship specifications where available.

SPOC 534 – Paint / Plating Thickness Test Required

Painting or plating thickness tests shall be conducted on the item(s) on this order by the painting or plating supplier. Painting or plating thickness test data shall be provided with the shipment.

- If material code 94-G10-78 is used, resistance check per M-spec, M8258799, shall also be performed.
- If material code 94-G14-78 is used, resistance check per M-spec, M8251332, shall also be performed.

SPOC 535 – TSO / PMA Tags

If the supplier holds certification (TSO/PMA/TC), the supplier is responsible for assigning and maintaining serial number control. If Honeywell holds the certification (TSO/PMA/TC), the supplier shall assign serial numbers sequentially beginning with serial number 1001, or as otherwise directed in the Purchase Order.

For product with supplier held TSO/PMA, the supplier shall provide an FAA Form 8130-3 or equivalent Airworthiness Approval Tag with each product, or for large shipments a single FAA Form 8130-3 or equivalent covering the range of serial numbers shipped.

- If the Honeywell part number differs from the TSO/PMA/TC approved part number, the Honeywell part number shall be referenced on the 8130-3 or equivalent form (it is acceptable to use Remarks Section 13).
- For individual products, the original certification shall be attached to the exterior of each product container in a protective envelope or inside the box provided that a stamp/label on the box exterior indicates the enclosure.
- For products covered under a range certification, a copy of the certificate shall be attached to the exterior of each product container in a protective envelope or inside the box provided that a stamp/label on the box exterior indicates the enclosure.

Honeywell will specifically request suppliers to provide 8130-3 tags to each country to which the products are shipped if they are not shipped to domestic customers. In case of products that are to be shipped to any of EU customers and if those products require TSO certification and/or supplier holding TSO approvals for the products, such suppliers shall provide a FAA Form 8130-3 containing a reference to the FAA TSO.

Authorization number in remarks block. This is per EASA regulation 5.1.6b(2) which states that each new appliance exported to the EU with FAA Authorized Release Certificate shall have an FAA Form 8130-3 containing a reference to the FAA TSO Authorization number in the remark block.

SPOC 536 – Airbus Requirements – Legacy Equipment Suppliers *

Products or services provided under this purchase order shall comply with the requirements stated in Airbus' GRES E-0009 document (General Requirements for Equipment Suppliers). Buyer (or Buyer's representative) may assess Supplier's processes and/or product using the IPCA Industrial Process Control Assessment (or other) to validate compliance.

SPOC 537 – Airbus Requirement – Legacy Equipment and Systems Suppliers

Products or services provided under this purchase order must comply with the requirements stated in Airbus' GRESS AP1013 document (General Requirements for Equipment and System Suppliers). Buyer (or Buyer's representative) may assess Supplier's processes and/or product using the IPCA Industrial Process Control Assessment (or other) to validate compliance.

SPOC 538 – Boeing Approved Source

Supplier must comply with the latest revision of the D1-4426 Boeing Approved Process Sources requirement specification and be a Boeing approved source.

SPOC 539 – Required Sources for Jewel, Miniature, and Instrument Bearings

1.14 Requirements for Jewel Bearings

The supplier shall supply jewel bearings in accordance with FAR 52.208-1, "Required Source for Jewel Bearings"

1.15 Requirements for Miniature and Instrument Ball Bearings

The supplier shall supply ball bearings in accordance with FAR 52.208-7000 “Required Sources for Miniature and Instrument Ball Bearings”

SPOC 540 – Teardown Analysis Inspection

All lots supplied on this order are subject to part teardown analysis to an LTPD of ten (10), with a maximum accept number of one. Internal workmanship and bond strength will be examined to the criteria of MIL-STD-883, Method 2010, where the detail specification requires MIL-STD-883 processing or to the criteria of MIL-STD-750 for discrete transistors or diodes.

SPOC 541 – Insulation, Isolation, Dielectric Testing

Insulation, Isolation, Dielectric isolation (DITMCO) testing is required. Records of DITMCO testing shall be sent with the parts.

SPOC 542 – Diodes – Metallurgical Bond

MIL-S-19500 diodes with dash 1-part numbers shall be constructed using only a metallurgical bond between the die and the header.

SPOC 544 – CCA Requirements

For Purchased Circuit Card Assemblies, supplier shall comply with 001-06010-0000, Honeywell Standards and Processes for Circuit Card Assemblies and Bare Boards and 001-00072-0000, Honeywell Procurement Specification for Printed Circuits Boards.

SPOC 547 – Summary Report Requirement

Manufacturer shall supply summary reports listing all screening and Quality Conformance Inspection (QCI) tests performed on or covering the components supplied to this order, as specified in the applicable military specification and/or Source Control Drawing (SCD). For periodic tests covering but not performed on the lot shipped, the date of test and lot date code tested shall be shown. Tests involving Percent Defective Allowable (PDA) must show the number of components tested and the number passing, or the calculated PDA for that test. This data may be incorporated into the manufacturer's certificate of conformance.

SPOC 548 – Automated Optical Inspection (AOI)

1.16 AOI Requirements

- AOI is required on all PBAs with SMT. AOI is optional for PTH.
- The supplier shall establish AOI accept/reject criteria whenever AOI is used.
- The AOI process shall verify correct part presence, proper orientations, correct polarity placement, and solder presence. If solder presence will be verified at AXI it is not required to be verified at AOI.
- The supplier shall perform AXI to validate the solder attributes not verified by AOI. AXI is the preferred method for validating solder joint acceptability such as hidden solder joints (PTH, gull wing, J lead, BGAs and other difficult to observe soldered connections).
- Records of AOI operation by UCN and Part number shall be retained by the Seller and made available upon request by the Buyer.

SPOC 549 – AXI (Automated X-ray Inspection) of Printed Board Assemblies (PBAs)

The supplier shall perform AXI or X-ray inspection on all PBAs when any of the following conditions exist:

- The PBA contains blind solder joints, including but not limited to, ball grid arrays (BGA), column grid arrays (CGA), bottom termination components (BTC), or connectors where both sides of solder joint cannot be inspected.
- The PBA has open action items for AOI.
- The PBA has criteria not definable by AOI.
- Press-fit connections (pin presence in barrel).

AXI and X-ray solder inspection shall include solder ball formation in inspection site area, and registration, voids, solder shape/size, insufficient/excessive solder, solder balls/splashes, and solder bridges. Records of the AXI or X-ray by UCN and Part number shall be retained by the Seller and made available upon request by the Buyer.

SPOC 550 – Particle Impact Noise Detection (PIND) Screening

The supplier shall provide signed and dated PIND test results which shall include:

- Part number, lot number &/or date code
- Test specification, method and condition
- Quantity tested
- Number of failures at each pass
- Number of test passes completed
- PDA calculation, if applicable

PIND testing shall be performed by a Honeywell approved source.

SPOC 551 – Purchase and Finish PBA Requirement

This order requires that some components will not be placed on the PBA. Refer to drawing notes and parts list (referenced as select) for locations and quantities on the PBA ordered on this purchase order. These locations must be masked during the soldering and conformal coat operations in order to facilitate assembly and final functional testing. Please refer to individual PBA assembly drawings and associated parts list for identification. Components shall be loaded at buyer's facilities.

SPOC 552 – Automatic Insertion Tubes

Parts shall be supplied in tubes suitable for automatic insertion and with consistent component orientation. Multiple lot numbers/date codes shall not be mixed in the same tube.

SPOC 553 – Destructive Physical Analysis (DPA) Samples Required

The supplier shall perform In-house Destructive Physical Analysis (DPA) testing and shall furnish the Honeywell buyer with a list of all serial numbers.

The supplier shall:

- Ship to Honeywell the random sample (selected by Honeywell).
- Continue with the production lot in accordance with normal manufacturing procedures.
- Submit a signed certification with the shipment of the DPA test units stating that the submitted units are
- those that were randomly selected by Honeywell for DPA testing.

The certificate shall also identify the Honeywell part number, manufacturer, manufacturer part number, production lot, date code and serial numbers.

Upon successful completion of the DPA, the Honeywell buyer shall give formal written authorization to ship the production lot. In no event shall the supplier ship the production units prior to authorization from the buyer.

SPOC 557 – X-ray Film Required

Radiographic film, (uncut sheets), digitized film or digital radiograph, with penetrameters intact, is required.

The media and marking shall include:

- Device manufacturer
- Device type
- Production lot code or date code
- Radiographic film / digitized film / digital radiograph view number and date
- Device serial number or cross reference list, and
- X-ray/digitizer laboratory identification (if other than manufacturer).

SPOC 558 – Workmanship Standard

Specification 001-06001-0000 is a requirement of this order.

SPOC 560 – In Circuit Testing (ICT) and Flying Probe (FP) Requirements

The supplier shall perform circuit testing by either ICT or FP prior to shipment to Honeywell, and shall provide certified test coverage report that:

- Lists each reference designator tested by each method
- Submitted as part of the FAI report (and subsequent delta FAI reports)
- Maintained on file at the supplier facility.

The supplier shall maintain proper revision controls for all test procedures.

560.1 – In-Circuit Testing *

ICT testing shall be performed when required by the engineering documentation, specification or invoked by the purchase order.

560.2 – Flying Probe Testing *

If ICT is not required, flying probe testing shall be performed.

SPOC 561 – Workmanship Standard

Specification 3608102 is a requirement of this order.

SPOC 562 – Component Traceability

The Supplier of any component assembly shall be able to, upon request, provide a list of all material utilized in the creation of said assembly. Material requiring this work order to lot/date code level traceability includes electrical components, the active and passive parts and items in the schematic. It does not include non-critical parts such as hardware and other mechanical parts.

The list shall contain as applicable:

- Work order number
- CCA serial number range in the work order For each electrical component used in the work order:
- The component name
- Honeywell part number
- Reference designators where this Honeywell part number is used
- Quantity used per assembly
- Component OEM manufacturers used in the work order
- Manufacturer part numbers used in the work order
- Lot numbers and / or manufacturing dates used in the work order
- Also, required to be provided upon request, is the component distributor and procurement date of each component listed

The system must account for any/all components that require replacement past initial installation. The traceability must be maintained throughout the manufacturing process from work order launch to shipping to Honeywell.

In addition to the component traceability, the supplier shall, upon request, provide all necessary processing history for the assembly in question. This shall include process name, date and time, location, and operator ID of the personnel performing the function.

SPOC 563 – Concession Process for Notification of Nonconforming Material to Honeywell Purchase Order Requirements

1.17 Scope

This program is for Subcontractors **with** Design Authority.

Material that departs from drawings and/or specifications during manufacturing shall be identified and controlled to prevent unauthorized use or delivery to Airbus and/or Honeywell.

563.1 – Request for Material Review and Acceptance

The subcontractor may request consideration for nonconforming material that cannot be reworked to fully conform to drawing or purchase order requirements. The concession is required to be submitted in accordance with Airbus concession procedure **AP-2006** – **Accepting Nonconforming Items by Concession.** This applies to Class one discrepancies – fit, form, or function of a feature outside the limits of the Subcontractor's own design and MRB authority.

563.2 – Honeywell Failure Reporting *

Honeywell reserves the right to request failure analysis on nonconforming hardware from the subcontractor.

Any concession submitted to and dispositioned by Airbus will be reported to the Honeywell Buyer and cognizant site Quality representative.

1.17.1 Applicability

Upon request from Honeywell, the Subcontractor shall submit failure analysis and corrective action plans, focusing on the root cause of the discrepancy. Report shall be submitted within thirty (30) calendar days of the request unless otherwise specified. The Honeywell eCATS system is to be used by the Subcontractor unless otherwise directed.

563.3 – Containment and Corrective Action *

When a nonconformance is found, the Subcontractor must take immediate action to determine if the condition exists on any other inventory, either work-in-process, in Stores at the subcontractors facility, or in prior shipments. Containment action must be taken and documented prior to the next shipment and/or process. The customer shall be promptly notified of any product that has escaped the Subcontractor's quality system.

The Subcontractor will be responsible for issuing corrective action as applicable and/or as requested by Honeywell.

SPOC 564 – Functional Test

The supplier shall perform functional test prior to shipment to Honeywell and shall provide certified test coverage report and results in accordance with the Functional Test SOW in place for the purchased product.

SPOC 565 – Airbus Requirement - Products, Equipment, and Systems under Purchase Order **

565.1 – Products and Services

Products and Service provided under this purchase order must comply with the general flow down requirements as stated in chapters 1501, 1503, 1504 and 1505 of the Airbus Supplier Requirements (ASR) Issue D or later. The Buyer (Honeywell) may assess the Supplier's processes and/or product(s) to validate compliance.

565.2 – Equipment System Services

Equipment system services provided under this purchase order: must comply with the general flow down requirements as stated in chapters 1501, 1502, 1503, 1504 and 1505 of the Airbus supplier requirements (ASR) Issue D or latest. If aftermarket is under the control of the supplier per the contract, then chapter 1506 is applicable as well. The buyer (Honeywell) will assess the suppliers' processes to validate compliance on a periodic basis.

SPOC 566 – Airbus Requirement - Products, Equipment, and Systems under SPOC 001 **

566.1 – Products, Equipment, and Systems

Products, equipment and systems under SPOC 001 must comply with the notification of change as defined in Airbus directives ABD0100.2.9 or ABD0100.g 2.2.7 with all notification of changes to be submitted to Honeywell for assessment and approval using AF-1334. The Buyer (Honeywell) will assess the supplier's processes to validate compliance on a periodic basis.

SPOC 13100 – Compliance with AS13100 AESQ Quality Management System Requirements for Aero Engine Design and Production Organizations **

13100.1 – Requirements

AESQ Quality Management System Requirements for Aero Engine Design and Production Organizations is required. This is in addition to the SPOCs or SPOC Group(s) flowdown, as AS13100 is an individual SPOC element.

13100.2 – Compliance

Honeywell recognizes that there is no third party for certification / registration. Suppliers accepting Purchase orders that include AS13100 shall complete AF-1342 to certify compliance to AS13100.

13100.3 – Flowdown

Suppliers are required to Cascade all applicable SPOC requirements along with the requirements of AS13100 as provided for in Section 1.2.1 - Subcontracting Policy.

- AS13100, Section 8.5.1.4.1 - Handheld Spectrometry is excluded.
- Section 4.3 in Table 2 shall read Registration or Honeywell Approval.

All other SPOC groups and flow downs of cascading requirements apply.