PULSE ELECTRONICS CORPORATION

MILITARY AEROSPACE BUSINESS UNIT

SUPPLIER QUALITY REQUIREMENTS

MANUAL

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1.0 PURPOSE

The Supplier Quality Requirements Manual shall communicate the Military Aerospace Business Unit of Pulse all of the requirements for quality, engineering and specifications expected of our suppliers as well as the requirement to flow-down these same requirements and processes to their sub-tier suppliers.

2.0 RESPONSIBILITY

Pulse success is based on the world class products and services that we provide to our customers. Each supplier to Pulse plays an integral role in helping set and exceeds the benchmark for world-class quality. The ability to consistently manufacture high quality products in today's market requires a documented quality system, which identifies, coordinates and controls all key activities necessary to produce a quality product. The system must be based on philosophy of continual improvement, emphasizing defect prevention and reduction of variation in the supply chain.

3.0 PULSE SUPPLIER MANAGEMENT OBJECTIVES

- Set clear and articulate expectations while improving relationships focusing on common objectives using clear measurement objectives
- Assess performance of suppliers against a clear definition of expectations
- Develop standard business conduct.
- Continue to delight our growing customer base.

4.0 PULSE SUPPLIERS SHALL

- Link their future investment plans and direction in accordance to market conditions and Pulse demands.
- Have an executed Pulse NDA in place (if applicable)
- Have executed Pulse terms and Conditions or Basic Procurement Agreement in place
- Maintain their ISO/AS9100 certification
- BE collaborative in terms of sharing information, inventory, risk, forecasting and development
- Focus on Cost, Quality, and Schedule
- Expect annual cost reduction goals (Productive Gains)
- Support Pulse annual Goal Deployment initiatives (i.e. Cost Reduction and Quality Improvement)
- Support Firm Purchase Orders, KanBan, and Re-Order Point/Min/Max order policies as required.Support EDI/Barcoding

- Shall not be debarred
- Shall support schedule agility and flexibility

5.0 EXPECTATIONS FROM ALL SUPPLIERS

Pulse shall maintain AS9100 (Quality Systems – Requirements for Aviation, Space and Defense Organizations and/or ISO 9001:2015 (Quality Management Systems Requirements). Suppliers that are not registered to the current version of ISO 9001 or AS9100 will not be awarded new business.

Copies of the registration certificate will be provided to Pulse upon supplier approval and all subsequent registrations.

The supplier shall review all documentation (drawings, schematics, gerbers, BOM, etc.) for accuracy and acceptance. Supplier shall not accept orders in which they cannot fully meet contract expectations. Suppliers shall forward to the Buyer all exceptions prior to manufacturing any product on such order (via SIN Process).

The supplier shall ensure that the appropriate quality control is maintained throughout the sub-contract life cycle, and that the principles of continuous quality improvement are applied to all relevant processes.

Flow down of requirements as identified in the requirements section of this document will pass through to all sub-tier suppliers.

Responsiveness to Pulse, as your customer, is very important to our business relationship. The time that it takes for goods and/or information delivered is a performance measurable and is key to maintaining a close long-term relationship.

Pulse reserves the right to evaluate the effectiveness of defined procedures via site audits of the supplier's working practices and associated quality records. Pulse reserves the right to perform Source Inspection at the Supplier Facility on Pulse raw material, subassemblies or parts (reasonable notice given from the Supplier to Pulse representative in order to perform FAI or Source Inspection.

Representatives of Pulse, its customers, Government, and/or regulatory agencies (if applicable) reserves the right to visit the supplier and its suppliers with the intent of performing surveillance activities including inspections, surveys, and audits with the intention of verifying conformance to:

1) Product requirements as invoked by Pulse purchase order and Pulse drawing.
2) General requirements as defined in this manual.

In addition, Pulse reserves the right to visit to resolve product quality issues.

Before an order is processed, the supplier shall notify Pulse when manufacturing operations are to be performed in support of a purchase order at another facility with a separate street and/or city address than originally identified in the purchase order or contract.

The Supplier and all sub-suppliers shall follow the requirements as defined in the Counterfeit Part section of this document, or have in place a documented equivalent policy which has been reviewed and approved by Pulse. When there is a documented equivalent policy approach used to support this requirement then a copy of the Counterfeit policy must be provided with the Purchase Order acceptance or as an Appendix document in the executed Terms and Conditions or Basic Procurement Agreement.

6.0 REQUIREMENTS

This section defines the quality assurance provisions, which shall be applied in fulfilling Pulse requirements as described in the Statement of Work (SOW), Specifications, Terms & Conditions (T&C's), and by the Purchase Order (PO) or Basic Procurement Agreement (BPA).

It is Pulse policy to deal exclusively with Suppliers who can demonstrate that they operate an effective Business Management System (BMS), which ensures that all products and services they supply will be compliant with the requirements of any relevant Purchase Order, SOW and/or BPA/Contract.

Pulse will collaborate with and support the supplier in order to ensure that acceptable products and services are consistently provided to its customers. In the selection processes, Pulse gives preference to those organizations that can demonstrate their commitment to understanding and meeting Pulse (customer's) requirements, by providing products and services that meet and/or exceed our expectations at a cost that provides Pulse a competitive advantage over its competitors.

6.1 QUALITY REVIEW

The supplier's top management shall regularly review their BMS in order to highlight adverse trends, take timely and effective corrective and preventive action, and provide Pulse with assurance, via appropriate Quality Reports, etc, that the fulfillment of the BPA/Contract, Specifications, SOW or Purchase Order clauses is progressing satisfactorily.

6.2 PURCHASING

Suppliers shall maintain controls over their sub-tier suppliers to ensure the integrity of the product or service they provide to Pulse. It is required that the Suppliers will flow down all Pulse requirements as outlined in this document to all sub-tier suppliers as applicable, via their purchasing documentation. This shall include BMS requirements, calibration and inspection, designated special process suppliers (such as NADCAP, detailed inspection plans (DIPS), or customer approved supplier lists), Counterfeit Part, Foreign Object Debris (FOD), electro static discharge (ESD) requirements in addition to the identification of key characteristics.

6.3 PROCESS CHANGE

The supplier shall not change any part of their manufacturing, test or integration processes without the prior written agreement with Pulse, including but not limited to, substantive changes to the Quality Management System (QMS), the processes, the facility and/or location where items are produced.

6.4 INSPECTION AND TEST RECORDS

The supplier shall identify and undertake inspection of deliverables during manufacturing, for conformance with workmanship standards, compliance with drawings, test specifications, manufacturing instructions, etc. and shall maintain a copy of the test record for each unit at their location available to Pulse upon request when stated in the purchase order and/or contract.

Pulse shall perform first article inspection (FAI) per AS9102 (Aerospace First Article Inspection Requirement) under the following conditions:

- A new supplier;
- A new part number;
- A variant change;
- Revision change as deemed required by Pulse;
- The same manufacturer but lapse between production runs;
- For verification of implementation to corrective and preventive actions;
- A new facility;
- Change in supplier ownership or management.

Pulse will provide the supplier a copy of the required FA forms from AS9102 which the supplier shall complete for each FAI. FAI acceptance by Pulse is required in advance of shipping product to Pulse. In some instances Pulse reserves the right to conduct FAI at the Pulse site, in such a case the product must ship with all AS9102 FAI forms completed and contained in the shipment.

All required FAI reports shall be submitted, at no charge, to Pulse.

6.5 CONTROL OF NON-CONFORMANCES

Items not in conformance with the requirements of the Purchase Order, Pulse drawings, specifications, and industry standards referenced therein, or that cannot be corrected through continuation of the original manufacturing process or by rework, shall not be submitted to Pulse without prior written approval from Pulse in the form of an Internal Nonconformance Report initially generated by the supplier. The report shall include supplier-recommended disposition(s) with sufficient technical justification.

The supplier shall have a process for recording and analysis for all non-conformances (workmanship defects, component failure, etc.) occurring during inspection, manufacturing and test of the product to be delivered.

The supplier shall immediately notify the Pulse Buyer of any potential non-conformances that may be at risk to Pulse. Nonconforming items returned from Pulse which are subsequently resubmitted by the supplier following material review board disposition activities shall bear a particular indication of such resubmission on the accompanying paperwork and shipping documents. Reference shall be made to the Pulse Non-Conformance Report (NCR) and evidence presented to demonstrate that the causes for rejection have been corrected.

The supplier shall define the process for segregation, control and disposition for non-conforming material, including all associated status identification and quarantine arrangements.

Pulse reserves the right to approve any disposition that is determined to be “Use As Is” or “Repair”. The Supplier must submit, and have accepted Pulse Internal Nonconformance Report for any items, prior to incurring cost associated with the proposed repair methodology.

Unless otherwise specified on the Purchase Order, SOW and/or BPA/Contract:

- Printed circuit boards (PCB's) shall meet the Class 3 workmanship requirements of IPC-A-600 (Acceptability of Printed Boards). Coupons must be captured for each run and analyses prior to commencing work on the CCA.
- Soldering workmanship shall be inaccordance with the Class 3 requirements of IPC/EIA J-STD-001 (Requirements for Soldered Electrical and Electronic Assemblies)
- Component leads, terminations, lugs, terminals, and wires shall be capable of meeting the solder ability requirements of IPC/EIA J-STD-002 (Solderability Tests for Component Leads, Terminations, Lugs, Terminals and Wires.
- Printed wiring boards shall be capable of meeting the solder ability requirements of IPC/EIA J-STD-003 (Solderability Tests for Printed Boards)
- All independent electronic component suppliers must be a member of the IDEA (Independent Distributors of Electronic Association) and/or ERAI (Electronic Resellers Association International)

All discrepancies found related to Pulse documentation, design, tooling, fixtures, software, firmware and special or manufacturing process shall only be resolved through the use of a Supplier Internal Nonconformance Form and submitted to Pulse Engineering and Procurement Representative.

6.6 DESIGN AND DOCUMENT CONTROL

Any documentation of property including test procedures, specifications, engineering drawings, bills of material, test fixtures, electronic files, software etc. that is supplied by Pulse to the supplier, to support the delivery of the product, is the property of Pulse.

Any changes that the supplier requires must be documented and submitted to Pulse for review and written approval prior to any changes taking place.

Suppliers should have a process in place to verify that they are working to the latest Pulse drawing revision.

The supplier shall not be governed by Pulse if they are referred to by designs or documents rather follow the applicable associate outsourcing documents provided by Pulse.

6.6A SPECIAL REQUIREMENT, CRITICAL ITEMS OR KEY CHARACTERISTICS

When the material design have critical or key characteristic requirement, Pulse will be identify the special requirements, critical items or key characteristics on Pulse material drawing, the supplier shall be determined the management requirement for Key characteristic, to ensure can compliance with Pulse drawing.

6.6B 6.6B Product safety

The supplier shall plan, implement, and control the processes needed to assure product safety during the entire product life cycle, as appropriate to the product.

6.7 MATERIAL TRACEABILITY

The supplier shall maintain internal traceability and be capable of tracing all parts supplied against the PO, SOW and/or Contract back to the date of manufacture to the raw material level, conditions of manufacture, operator, tooling and fixture. Supplier shall be able to provide such traceability within a reasonable time frame if requested by Pulse.

Traceability records shall be maintained and be available to Pulse for inspection upon request.

6.8 CONFIGURATION MANAGEMENT

The Supplier shall be responsible for controlling / tracking the actual configuration of the parts and/or assemblies through a documented engineering change process at their facility.

Supplier shall not make any form, fit or functional changes to Pulse configuration of parts and/or assemblies without approval from Pulse.

6.9 RECORD RETENTION

Quality records for the product delivered under the Purchase Order must be retained for a minimum of seven years after final delivery unless specified by the PO and customer requirements.

6.10 CERTIFICATION

A legible “Certificate of Conformance” (C of C, COC) statement shall be provided with each shipment submitted to Pulse unless otherwise stated. The C of C shall be in the supplier’s format and may either be a separate document or may be included within the packing list. The C of C shall state that the items were produced in conformance with requirements as specified in the Pulse purchase order.

As a minimum, the C of C shall note:

- The manufacturer's or franchised distributor's name, address and cage code;
- The Pulse purchase order number and line item;
- The Pulse part number(s) and revision(s) when applicable;
- Traceability information including serial numbers, lot codes, or date codes as appropriate and;
- Signature of the supplier's authorized representatThe C of C's will contain enough additional information as necessary to facilitate traceability to supporting supplier documentation, which shall be maintained on-file by the supplier and available for retrieval if necessary.

In addition to standard shipper (packing list), each delivery must contain documented results of inspections and/or functional tests performed by the Supplier (where required by PO, SOW and or Contract) to verify conformance to the Purchase Order.

The Supplier shall provide upon request, Acceptance Test Procedure data sheet(s) designed to demonstrate compliance with the product specification (as required in SOW, Contract and or Purchase Order).

6.11 CERTIFIED PHYSICAL AND CHEMICAL TEST REPORTS

All suppliers raw material shipments made by the manufacture or franchised distributor shall be accompanied by reports demonstrating compliance to any applicable specifications. Reports shall be from an accredited material laboratory. For example certified physical test reports for fasteners shall include compliance to SAE AMS-QQ-P-416: Plating Cadmium (Electrodeposited), for hydrogen embitterment relief tests.

Each shipment of material against a Pulse Purchase Order must be traceable to a batch or lot number and a Pulse Purchase Order number. The document must be stamped or signed by an authorized representative of the supplier's Quality team.

6.12 SPECIAL PROCESS CERTIFICATION

Any special processing performed on the material / parts associated with Pulse must be individually certified via material certification sheets, or test results, etc. These processes shall include but are not limited to Heat Treat, Plating, Paint, Welding, Brazing, NDT, etc.

6.13 CALIBRATION

External/ commercial/independent laboratory facilities used for inspection, test or calibration services by the supplier shall be accredited to ISO/IEC 17025 or national equivalent.

NOTE: Such evidence may be demonstrated by customer assessment, for example, or by customer approved second party assessment that the laboratory meets the intent of ISO/IEC 17025 (General requirements for the competence of testing and calibration laboratories) or national equivalent".

6.14 PACKAGING AND SHELF LIFE

The Supplier shall ensure that the supplied parts/materials are packaged using materials of a grade, size and weight which will provide physical protection from damage and contamination during handling and transport to the point of delivery. Absolutely not cardboard or foam peanuts are to be used for shipping. Returnable ESD containers are strongly recommended if applicable to the product be shipped.

- All static sensitive components and assemblies furnished to Pulse shall be packaged in such a manner as to preclude damage due to static discharge. ESD safe packaging material only.
- Printed Circuit boards shall be individually packaged in a static protective bag and container. All packages shall be identified with a suitable ESD label in an ESD container.
- Hazardous material shall be properly contained in accordance with health and safety (MSDS) requirements. The container(s) shall be marked as to the contents with appropriate warnings, precautions, instructions and storage conditions as required and shelf life.
- All materials with a shelf life shall be clearly marked with the expiration date on each package or container and the product shall have at least 95% of its useful life remaining when received at Pulse.
- All material with specific storage requirements such as (Storage in Freezer when not in use) must be clearly identified on the packaging slip, label and shipping container.

6.15 LABELS FOR PACKAGING

This section addresses the standard to be followed by all suppliers regarding the labeling of the outer and inner shipping containers of supplier packaging containing procured production goods.

It is preferred that all inner and outer packaging be labeled in accordance to the following section of MIL-STD-129P (current revision) Military Marking for Shipment and Storage.

Reference MIL-STD-129P

- Label placement per……...Section 4.1 Identification markings
- Bar code method and size
- of markings per……Sections 5.1.8 to 5.1.10.2 inclusive
- Label contents per……...Section 4.1.1. Exceptions are items a, b, g & j, if n/a

6.16 PULSE CUSTOMER OWNED EQUIPMENT

The Supplier shall have a procedure to handle Customer Owned Equipment (COE) items returned to its facility. The Supplier shall keep the Pulse product segregated from regular production if the manufacturing process allows for that.

All Pulse customer-owned equipment is tagged with a COE label and the supplier ensures that the label accompanies the product through the manufacturing process at the supplier's facility.

The Supplier shall return the Pulse COE items with the COE tag that accompanied the product when it was originally shipped from the respective Pulse site.

6.17 PULSE OWNED TOOLING

Tooling (fixtures, jigs, molds, etc.) and test equipment fabricated by the supplier at Pulse expense, or furnished by Pulse shall be considered the property of Pulse.

The supplier is responsible for insuing the appropriate protection and maintenance of all tooling during transport, storage, and use. Some amount of wear and tear is expected through usage. Pulse is responsible for the calibration of tooling furnished by Pulse. Arrangements shall be made between Pulse and the Supplier on how the calibration is to be performed. The Supplier is responsible for calibration and maintenance of the tooling that the supplier has procured on Pulse expense.

6.18 DOCUMENTATION REQUIRED FOR REWORKED OR REPAIRED DELIVERABLES

Raw materials, parts and assemblies returned to the supplier with a Pulse Non-conformance Report (NCR) shall result in the supplier producing and submitting to Pulse a Corrective Action report.

Note: The corrective action(s) resulting from the NCR's shall include as a minimum:

- Part number, Serial number (or other traceability number as applicable)
- Other possible affected items
- Reported description of the non-conformance,
- Evaluation summary,
- Repair report (parts replaced or repaired).
- Effectiveness of corrective action and date effective of any modification or design change,
- Root cause,
- Corrective action,
- Reference the NCR number.

All repaired or reworked parts or assemblies shall be shipped to Pulse with a C of C. A Failure Analysis Report shall be provided upon request from Pulse. All repairs need to be approved by Pulse prior to incurring any costs.

6.19 PULSE SUPPLIER CORRECTIVE ACTION REQUEST

When requested by Pulse, the supplier shall investigate nonconformities to determine the root cause(s) of failures, and take effective action(s) as appropriate to correct the items and prevent future failures. In the event a supplier is issued a Supplier Corrective Action Request (SCAR), the request must be completed accurately, with a full analysis of the failure and within the time frame indicated.

Criteria for receiving a SCAR can be but not limited to:

- Re-occurrences of NCR's with the same failure mode,
- FAI failure
- Field related failure

- Poor supplier performance (Quality and OTD)
- Systemic breakdown in the supplier process
- Initiation of Pulse Quality Alerts

Once the analysis is completed the corrective action document shall be sent to the Pulse Buyer prior to the due date listed on the SCAR.

A completed SCAR shall include, at a minimum, the following information: containment, root cause analysis and effective corrective action. All SCAR's must be in sufficient detail to prevent recurrence of the reported noncompliance. Pulse may at our discretion conduct an onsite audit for verification of corrective action implementation.

6.20 OBSOLESCENCE MANAGEMENT

Obsolescence as used in this section refers to a situation under which a component or sub-assembly becomes unavailable or its use has been made technically or commercially impracticable for implementation as a result of conditions arising in the commercial marketplace, including cessation of production, design changes, or other events which are outside the control of the Supplier or not otherwise caused by the Supplier's fault or negligence.

The supplier shall implement at a minimum a semi-annual review process for all components and/or sub-assemblies used for the production of products both past and present supplied to Pulse unless released in writing.

The review process shall:

- Identify all components and/or sub-assemblies which are listed in the Bills of Materials controlled by either Pulse and/or the Supplier that the Supplier has received a notice of product discontinuance.
- Identify all components and/or sub-assemblies which are listed in the Bills of Materials controlled by either Pulse and/or the Supplier for which the Supplier and or their agents have evidence of issues in the marketplace that the Supplier believes may present a high risk to the Supplier procuring in the future. (Declining usage, vendor predictions, etc.)
- The results of these bills of material reviews along with any relevant back-up documentation are to be supplied to the Pulse Buyer for all components/sub-assemblies identified in the bills of materials controlled by Pulse.

- For issues identified with components/sub-assemblies on a supplier controlled bill of material then the Supplier shall ensure that they can maintain the capability to manufacture and or repair in the future in accordance with the requirements specified in all Terms and Conditions agreements between the Supplier and Pulse.

In the event the Supplier receives a product discontinuance notice or a product change notice for a component and/or sub-assembly on a Pulse bill of material then the Supplier shall forward in writing the information to the Pulse Buyer within 7 working days. In these instances Pulse is responsible for resolving the issue via a change to the design (or bill of material) of exercising a last time buy, either directly, or indirectly through an agreement with the Supplier.

The Supplier shall flow down all requirements to monitor components and or sub assemblies, and be notified of all changes and or discontinuances that may impact the procurement in the future to all sub-suppliers.

In the event of issue with a component and or sub-assembly on a Supplier controlled bill of material which will result in the Supplier being forced to discontinue manufacture of the product then the Supplier shall:

- Provide written notification to Pulse. Notices must be provided at least 6 months in advance of the last order date. If less than 6 months notice is available, Pulse is to be provided with a last time buy (LTB) opportunity equal to 100% of the previous 12 months order quantities or the 12 month future forecast, whichever one is greater.
- This notice must include details of the cause, maximum quantity available, the last time buy order date and the delivery schedule options.
- For a component and or sub-assembly issue on a Supplier controlled bill of material the Supplier is responsible for any last time buy.
- If the supplier elects not to execute a last time buy in favor of selecting an alternate component, then any and all costs associated with qualification of the alternate are the responsibility of the supplier.

6.21 ELECTRO STATIC DISCHARGE (ESD) TRAINING

Suppliers with functions that involve handling, storage, packaging, preservation, or delivery of ESD-sensitive products shall implement a documented ESD control program.

6.22 FOREIGN OBJECT DEBRIS (FOD)

Supplier shall establish procedures and controls to promote and practice FOD Prevention. The procedures and controls are subject to review by Pulse.

6.23 COUNTERFEIT PARTS

A great percentage of Pulse end customers are in the aerospace, defense, military and space industry. Processing of counterfeit parts in this industry is simply unacceptable.

Therefore when procuring assemblies or sub-assemblies from contract manufacturers or sub-contractors then the clause referenced in **"Appendix B"** shall be flowed down to these suppliers. In addition all suppliers shall follow the following requirements.

- Only new and authentic materials are to be used in products delivered to Pulse.
- No counterfeit or suspect counterfeit parts **"Appendix C"** is to be contained within the delivered product. Parts shall be only purchased directly from the OCM/OEM, or through the OCM/OEM's Franchised Distributor.
- Documentation must be available that authenticates traceability to the applicable OCM/OEM. Original Certificates of Conformance (C of C's) for all purchases. Said documentation shall be requested and retained. Record retention requirements shall be in accordance with the Record Retention section (6.9) of this document.
- Any suspect or counterfeit parts identified shall be impounded and processed according to the Disposal of Counterfeit/Suspect Counterfeit Material section in this document.
- If a counterfeit or suspect counterfeit part issue were to be identified then the supplier shall follow the Counterfeit/Suspect Counterfeit Containment section of this document.
- If sub-contractors or contract manufacturers are used in the production of the product then the above requirements and the clause in **"Appendix B"** shall be flowed down as part of the procurement requirements.
- Independent Distributors (Brokers) shall not be used without written consent from Pulse. Consent will be obtained using the initiated internal corrective action for the process.

If it is necessary to procure items from a source other than the OCM/OEM or their franchised distributor then the following additional actions must be taken.

Procuring items from sources other than the OCM/OEM or their Franchised Distributors:

All suppliers and their sub-suppliers shall strictly adhere to the following Pulse process when parts cannot be procured from the OCM/OEM or their franchised distributors(s).

- An Independent Distributor may only be used to resolve obsolescence or scheduling issues. Prior approval from the end customer and Pulse must be obtained for an Independent Distributor as stated above.
- Only Pulse approved Electronic Independent Distributors shall be used. These independent distributors will be listed in the Pulse AVL which is reviewed and updated periodically.
- All electronic component part procurement shall be screened for counterfeit incident reports through ERAI (Electronic Resellers Association International) and all other product or material procurements shall be screened through the Government Industry Data Exchange Program (GIDEP) prior to releasing the order to an Independent Distributor. A copy of the ERAI/GIDEP report is to be submitted to Pulse using the supplier initiated nonconformance process prior to procurement. Results of the screen will be used by Pulse to determine the levels of risks associated with the specific purchase. Pulse as its sole discretion may reject, accept, or accept with test requirements. These test may include, but are not limited to the following:
  - Visual microscopy inspection under 10X minimum magnification
  - XRF / RoHS inspection
  - Resistance to Solvents testing
  - Heat solvent testing
  - Scrape testing
  - Solderability testing per IPC/EIA J-STD-002
  - X-ray inspection
  - De-lid, Dye Penetrate, Die verification

  If testing is required, a copy of the test results shall be forwarded to Pulse with a copy of the approved internal supplier nonconformance report for review prior to Pulse accepting the component for use.

- When procuring components from an Independent Distributor, the purchase order clause referenced in “Appendix A” shall be a requirement.
- When components are delivered from an Independent Distributor the original C of C’s from the OCM/OEM or Authorized Franchised Distributor of the OCM/OEM shall be required per the flow-down clause in Appendix A. When the OCM/OEM certification is not available, an authenticity report from the Independent Distributor may be substituted only with written permission of the Pulse Buyer. Record retention requirements shall be in accordance with the Record Retention section (6.9) of this document.

Counterfeit / Suspect Counterfeit Containment

Should there be a counterfeit or a suspect counterfeit part identified within the Pulse suppliers supply chain the supply chain shall:

- Report all identified suspect counterfeit parts to:
  - Electronic component parts reported to ERAI at a minimum.
  - All other product or material reported to GIDEP at a minimum.
- Impound all of the suspect and or counterfeit parts identified during the screening process and destroy the parts per the Disposal of Counterfeit/Suspect Material section of this document.

In the event that a supplier or their sub-suppliers are made aware that a counterfeit or a suspect counterfeit part has been delivered to them and:

Not incorporated into products, the supplier shall;

- Notify their supplier and Pulse within 5 working days of counterfeit identification.
- Report the incident to ERAI no more than 10 working days later
- Report confirmed experiences to GIDEP.
- Ensure all of the parts are destroyed per the Disposal of Counterfeit/Suspect Counterfeit section of this document.

Incorporated into products, the supplier shall;

- Notify the Buyer within one working day of counterfeit identification that Pulse product could be affected.
- Formally notify Pulse of potentially affected part number(s) and the serial number(s), one working day later.
- Revise the formal notification to include only the affected part number(s), serial number(s), ship dates and purchase order number(s) no more than 8 working days later.

- Report the incident to ERAI no more than 10 working days later.
- Report confirmed experiences to GIDEP.
- Ensure all of the parts are destroyed per the Disposal of Counterfeit/Suspect Counterfeit section of this document.

Disposal of Counterfeit/Suspect Counterfeit Material

All counterfeit or suspect counterfeit material is to be destroyed. Destruction must be complete to insure that reconstruction is impossible. A record of destruction shall be provided to Pulse.

The record shall contain as a minimum:

- Date of destruction,
- A clear identification of the material(s) being destroyed including, the part number and quantities destroyed.
- Certified proof of destruction.

6.24 ITAR (INTERNATIONAL TRAFFIC IN ARMS REGUALTIONS)

The supplier shall be responsible for ensuring compliance with the government requirements for ITAR/CGRP (Controlled Goods Registration Program) or local applicable export control laws.

6.25 ENVIRONMENTAL, HEALTH AND SAFETY

Where applicable suppliers shall adhere fully to all applicable governmental laws and regulations to protect the environment and ensure the health, safety and quality of life within their communities. In particular, suppliers shall adhere to laws and regulations that apply to the health and safety of their workers.

No abnormal or harmful radioactivity levels shall be permitted in any material. All materials used in product manufacture shall satisfy current government and safety constraints on restricted, toxic and hazardous materials.

6.26 REGULATORY COMPLIANCE

Where applicable, the supplier shall maintain compliance to industry standards and product listings such as UL, CSA, IEC etc, for all products delivered to Pulse

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Additionally, the supplier shall maintain compliance with any and all laws and government regulations that apply in the manufacturing and delivery of its products, including reporting, record keeping and production testing applicable to the manufacture of their components for all products delivered to Pulse.

Such laws may include, but are not limited to, United States and foreign laws, regulations, DFARs. FARs and directives, labor laws, environmental laws, Custom Trade Partnership Against Terrorism (CTPAT) regulations and product safety laws.

The Supplier shall provide Pulse all information necessary to enable Pulse to comply with the laws and regulations applicable to the Pulse products.

6.27 ETHICS

Pulse believes business must always be conducted in a fair, forthright, and honest manner.

All suppliers and their sub-suppliers must maintain the highest possible standards of conduct and conform to these guidelines in their roles as suppliers to Pulse.

All suppliers and their sub-suppliers shall operate in compliance with all Federal and Provincial laws, U.S. and Canadian export laws or the relevant countries export control laws, and the U.S. Foreign Corrupt Practices Act.

Failure to comply with these restrictions and regulations could result in the disqualification as a Pulse supplier and may result in possible criminal prosecution.

6.28 Training and Awareness

The supplier should be determine the training procedure, and conduct the Awareness training let them know their contribution to product or service conformity, product safety and importance of ethical behavior.

7.0 APPROVALS

Print Name: _____

Title: _____

_____ _____

Authorized Signatory of Pulse Electronics Corporation **Date**

Print Name: _____

Title: _____

_____ _____

Authorized Signatory of Seller (enter legal company name) **Date**

APPENDIX A
INDEPENDENT DISTRIBUTOR PURCHASE ORDER CLAUSE

Independent Distributor's procedure shall meet the requirements of the following:

- IDEA-STD-1010
  Acceptability of Electronic Components Distributed in the Open Market
- SAE AS5553
  Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition
- Have a Quality Management System certified to AS9120
  Quality Management Systems – Aerospace Requirements for Stocklist Distributors.

The original manufactures Certificate of Conformance (C of C) and all traceability documentation shall be included with each shipment of parts. It shall include the manufacturer's name, part number, date codes, lot codes, serializations and/or any other batch identifications. The Seller is to contact the Buyer in the event that the original OEM/OCM C of C and traceability documentation is not available. Inspections and tests required are as noted on the Purchase Order. All inspecting and testing shall be performed to the original manufacturer's specifications and parameters. Recorded evidence of all testing performed shall be included with each shipment.

If suspect/counterfeit parts are furnished under the purchase order and are found in any of the goods delivered hereunder, such items will be impounded by the Buyer. The Seller shall promptly replace such suspect/counterfeit parts with parts acceptable to the buyer and the Seller shall be liable for all costs relating to the removal and replacement of said parts as specified in the purchase order under requirements or Distributor's insurance policies.

All occurrences of Suspect Counterfeit and/or Counterfeit parts will be immediately reported to the Buyer.

APPENDIX B
PURCHASE ORDER CLAUSE FOR SUBCONTRACTORS AND CONTRACT MANUFACTURERS

Only new and authentic materials are to be used in products delivered to Pulse. No counterfeit or suspect counterfeit parts are to be contained within the delivered product. Parts shall be purchased directly from the OCMs/OEMs, or through the OCM/OEMs Franchised Distributor. Documentation must be available that authenticates traceability to the applicable OCM/OEM. Independent Distributors (Brokers) shall not be used without written consent from Pulse.

APPENDIX C
COUNTERFEIT AND SUSPECT COUNTERFEIT COMPONENT DEFINITIONS

SUSPECT PART - A part in which there is an indication that it may not conform to established government or industry specifications or national consensus standards, or one with documentation, appearance, performance, material, or other characteristics that may have been misrepresented by the supplier or manufacturer.

COUNTERFEIT PART – A suspect part that is a copy or substitute without legal right or authority, or one whose material, performance, or characteristics are misrepresented by the supplier.

Examples of counterfeit parts include but are not limited to:

a) Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.

b) Parts which have been used refurbished or reclaimed (Substandard Part) but are represented as new product.

c) Parts which have different package style or surface plating/finish than specified.

d) Parts which have not successfully completed the OCM's full production and test process, but are represented as completed.

e) Parts sold as up-screened but have not successfully completed up-screening.

f) Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function or grade.

g) Parts that have been modified pursuant to a specific purchase order requirement, such as refurbished, up-screened, or up-rated parts that are properly identified as such are not considered suspect or counterfeit

SUBSTANDARD PART - Reclaimed components and materials, including those that have been previously used and are now misrepresented as new.

8.0 INTERPRETATION:

Interpretation of this Policy/Procedure is the responsibility of the Quality Manager for the Military Aerospace Division of Pulse and is consistent with the policy/procedure intent and the overall understanding, interpretation and direction set by the General Manager of the Pulse Military Aerospace Division.

9.0 FORMS:

None