

IFE/CPT Quality Codes – Released June 29, 2018

Q1 – IFE/CPT APPROVED QMS

The supplier shall provide and maintain a Quality Management System (QMS) acceptable to IFE/CPT. IFE/CPT's acceptance of supplier's quality system shall be formally documented. The supplier's QMS shall ensure all items delivered are in full compliance with the requirements of the purchase order. The supplier QMS may be subject to review by IFE/CPT at any time.

Q2 – ISO-9001 REGISTERED QMS

The supplier shall provide and maintain a Quality Management System that is registered to ISO 9001:2008 or later. The certification must be current.

The supplier, if not ISO 9001 registered, shall provide and maintain a Quality Management System that complies with ISO-9001 or an Industry Derivative. The system is subject to review at all times by IFE/CPT or its customers. Resulting records shall be made available for review by IFE/CPT at any time. All products delivered to the requirements of a purchase order are required to be designed and produced using the criteria of the supplier's standard quality system.

Q3 – INSPECTION

The supplier shall perform or have performed the inspections and tests required to substantiate that the supplies and services provided under this order conform to the drawing, specification and/or other applicable technical requirements. Where applicable, supplier shall establish and/or maintain a calibration system that is traceable to the National Institute of Standards and Technology for all measuring and test equipment used on this order. This system is subject to review at all times by IFE/CPT Quality Assurance.

Q4 – FINAL SOURCE INSPECTION

Source inspection is required on all items covered by this order at the supplier's facility prior to shipment. The supplier shall provide the necessary facilities, equipment and personnel qualified to demonstrate conformance to the order requirements to the IFE/CPT Quality Assurance representative for this inspection. The supplier shall provide tentative notice ten days in advance of inspection readiness and confirmation no less than forty-eight hours in advance thereof.

Q5 – IN-PROCESS SOURCE INSPECTION

In-process source inspection is required on all items covered by this order at the supplier's facility prior to shipment. In-process inspection shall verify acceptability of quality characteristics which cannot be readily inspected in completed items. In-process inspection points shall be as defined in the order and shall be mutually agreed upon by IFE/CPT Quality Assurance and the supplier prior to start of manufacturing. The supplier shall provide the necessary facilities, equipment and personnel qualified to demonstrate conformance to the order requirements to the IFE/CPT Quality Assurance representative for this inspection. The supplier shall provide tentative notice ten days in advance of inspection readiness and confirmation no less than forty-eight hours in advance thereof.

Q6 – FIRST ARTICLE INSPECTION

A complete verification inspection of one item of the first deliverable lot produced under this order is required. The supplier shall verify and document evidence of conformance (measurement data) of all physical, chemical and test requirements required by drawings and specifications. The supplier shall provide IFE/CPT with the First Article Report for inspection and approval. Format is required to comply with AS9102. The supplier shall obtain written acceptance of the First Article prior to shipments.

Q7 – RADIOGRAPHIC INSPECTION

The items on this order require radiographic inspection by a government or buyer-approved x-ray laboratory. Film will be read and interpreted by the laboratory and the findings reported on an appropriate form. The x-ray film and one copy of the x-ray report must accompany the material. The x-ray film must be identified with the buyer's order number and the report shall contain the signature and title of a responsible representative of the laboratory.

Q8 – FUNCTIONAL TEST REPORTS

Each shipment shall be accompanied by one legible copy of a test report showing actual data identifiable to those test parameters and serial numbers of items submitted. These reports shall contain the signature and title of a responsible representative of the supplier who performed the test indicating conformance to the specified requirements. The specifications must be listed, including the revision letter.

Q9 – CALIBRATION CERTIFICATION

The supplier shall maintain a calibration system that complies with MIL-STD-45662, ANSI-Z540 or ISO10012-1. Product shipped to IFE/CPT shall be accompanied by one legible copy of the supplier's certification of accuracy and calibration data (Calibration Certification). This certificate must contain the signature and title of a responsible representative of the supplier. All serialized unit(s) shall have their serial number(s) annotated on the certificate.

Q10 – AGE/ENVIRONMENT SENSITIVE MATERIAL (SHELF LIFE)

The supplier shall identify all materials and articles which have definite characteristics of quality degradation with age and/or environment. Identification shall include the date useful life was initiated and the date and/or the cycle at which the useful life will be expended. When environment is a factor in determining useful life, the identification shall include storage conditions required to achieve the stated useful life. Limited shelf life material containers shall be marked with the date of manufacture and the shelf life expiration date. The shelf life shall not exceed the requirements and a minimum of 75% of the shelf life shall remain at the time of shipment. Special storage requirements, if required, shall be provided with each shipment.

Q11 – MATERIAL CERTIFICATIONS

Each shipment of material shall be accompanied by one legible copy of chemical analysis and/or physical test reports verifying compliance to applicable buyer's specifications.

Q12 – SPECIAL PROCESS SAMPLES

The special processes called for in this order shall be applied to samples of material of the same type to be used in manufacturing of deliverable items. The supplier shall include the sample with each shipment and shall identify the sample to the order by part number and date of shipment. Each sample shall be approximately 1" wide by 3" long.

Q13 – ACCEPTANCE TEST PROCEDURE

The supplier shall submit to IFE/CPT one legible copy of the acceptance test procedure (ATP) to be used for determining acceptability of the articles to be delivered under this order at least ten days prior to shipment of the articles, as applicable. As a minimum, the ATP shall:

1. Be identified with a control number and revision status.
2. Exhibit approval by the supplier's quality function.
3. Address acceptance testing of all performance and mechanical characteristics of the IFE/CPT specification that are applicable to the level of testing required, i.e., qualification, first article and/or production.
4. Contain a clear and concise description of the test methods to be used in performing each test.
5. Contain a list of test equipment to be used, including the manufacturer's name and model number.
6. Contain block diagrams of test equipment set-ups identifying interconnection points and equipment used.
7. Contain data sheets which present specified information.

In the event of a required revision to the ATP during performance under this order, the supplier shall furnish one legible copy of the revision to IFE/CPT. The revision shall be identified as described above and shall exhibit evidence of approval by the supplier's quality function.

Q14 – MECHANICAL MEASUREMENTS REPORTS

Each part shall be accompanied by one legible copy of a report of actual variables mechanical measurements identifiable to all mechanical parameters listed on the drawing. These reports shall contain the signature and title of a responsible representative of the supplier who performed the measurements indicating conformance to the specified requirements. The drawing number must be listed, including the revision letter. In the event that measurements data are represented by sampling send data on those samples by the AQL selected. Place an identification tag or other temporary marking on all parts measured to assure positive data correlation upon receipt at IFE/CPT.

Q15 – STATEMENT OF CONFORMANCE / C of C

The supplier shall provide with each shipment one reproducible copy of a written statement which attests to the conformance of material to the applicable specification and the subcontract/purchase order requirements. The statement shall reference the order number, the part or specification number and revision, and shall contain the signature and title of the supplier's Quality Assurance representative. The statement of conformance/compliance shall be furnished with each lot of material shipped. This certification shall contain the following information as a minimum (not necessarily in the order given below).

1. IFE/CPT purchase order number
2. Part number ordered
3. Part Revision
4. Part Traceability information – must contain the manufacture or distributor, Lot /Date Code, and/ or Serial Number
5. Statement attesting to the supplier's compliance with the purchase order requirements which are contained in specific purchase order clauses
6. Signature of authorized representative of the company
7. The certification shall be dated

The supplier shall maintain records which will furnish validation of the information attested in the certification and which shall be made available for review upon request.

Q16 – EXCLUSION OF MERCURY

Supplies and/or products furnished under this order shall contain no elemental mercury (the element Hg) or mercury compounds known to be chemically or thermally unstable in the environment in which the supplies furnished are to operate. Mercury contamination of the supplies will be cause for rejection of the material.

Q17 – IN-PROCESS SOURCE INSPECTION

In-process source inspection is required on all items covered by this order at the supplier's facility during the duration of the order. It is intended that random source inspections will be conducted at periodic intervals. Generally these inspections will consist of a review of selected process controls procedures and documentation associated with the manufacture of the articles covered by this order. This supplier shall provide tentative notice ten days in advance of commencing manufacture and confirmation not less than forty-eight hours in advance thereof. At the time of confirmation, supplier shall supply the dates comprising of the start and the end of the manufacturing cycle.

Q18 – SUPPLIER'S LOT OR BATCH NUMBER IDENTIFICATION

All parts and/or material, and applicable documents, must be identified by a manufacturing lot or batch number by the supplier. Where identification of individual parts is not practical due to size or shape, the manufacturing lot or batch number shall be placed on the smallest unit package. A lot or batch number shall be defined as parts and/or material produced by one manufacturer in one unchanged process, in accordance with the same drawing and/or specification.

Q19 – FAILURE ANALYSIS /REPAIR REPORT

The supplier is required to submit a failure analysis/repair report for each item being returned for rework in accordance with IFE/CPT QP-1301 procedures. The report shall be documented on IFE/CPT generated document number QP-1301a "Defective Material Report".

Q20 – COMPONENT REQUIREMENT STATEMENT

Products furnished under this order shall be products which are listed on the Qualified Products List (QPL) applicable to the device ordered. The supplier shall make details of their inventory system and traceability documentation available to the authorized representative for inspection (acceptance) upon request.

Q21 – LOCATION OF MANUFACTURER

Only those products manufactured within the North American continent shall be supplied.

Q22 – ELECTROSTATIC DISCHARGE CONTROL AND PACKAGING

If this order is for a device that is Electrostatic Discharge Sensitive (ESDS), the Supplier shall maintain an Electrostatic Discharge Control program in accordance with the most recent version of MIL-STD-1686, ANSI S20.20. The program shall be subject to review by IFE/CPT. The item shall be packaged in materials that are non-charge generating on the inside surface next to the part as well as providing conductive shielding protection. The protective container shall be labeled with an industry recognized ESDS cautionary statement.

Q23 – VENDOR DATA SHEET

The supplier shall provide with each shipment a specification sheet or catalog page pertaining to the item submitted.

Q24 – Safety Data Sheet (SDS)

The supplier shall provide a copy of the Safety Data Sheet (SDS) with each delivery.

Q25 – MRB Authority

Any repair actions not sanctioned by the assembly's design documentation will require Buyer approval prior to work being performed.

Q26 – PROHIBITED MATERIALS

All tin plating, solder or tin finishes shall have a minimum of 3% lead content by weight. Parts shall also be free of Zinc, Cadmium and Mercury. Supplier shall provide a written/signed Certificate of Compliance (C of C) with each shipment that attests to meeting this requirement

Q27 – SINGLE DATE/LOT CODE

Supplier shall deliver parts from a Single Lot / Date code against this PO.

Q28 – TAPE AND REEL PACKAGING REQUIRED

Supplier shall provide surface mount parts on a Tape and Reel for the Pick and Place machine. The Reel should be constructed of high temperature anti-static material and the Carrier tape should be made of conductive polystyrene material or equivalent to protect devices from ESD damage. The Tape and Reel parts packaging shall be fully compliant to EIA-481.

Q29 – COUNTERFEIT PARTS REQUIREMENT

All parts and materials shall be procured only through OEMs/OCMs, or their franchised dealer or distributors.

The supplier shall verify the procurement source, authenticity of the parts, and associated certifying paperwork. Verification shall be in accordance with AS5553, DFARS 252.246-7007 Par. (a to e), DFARS 252.246.7008, and/or equivalent standard.

Appropriate incoming inspection test methods shall be used to detect potential Counterfeit Parts and materials. The supplier **shall not** use unapproved brokers (any company, person, or entity who is not an OEM/OCM or not an OEM/OCM authorized franchised dealer or distributor) for the purchase of components/materials/parts unless pre-approval (in writing) has been granted by IFE/CPT.

Q30 – Purchase Order Lot Control Marking

When applicable, this requirement is for all Metal Work where the drawing requires the Part Number to be marked. The Supplier shall also mark their cage code or the Supplier number (found under "Supplier" on the PO) and a lot number of Manufacturer's choice that will give lot traceability.

Q31 - DFARS 252.225-7001/7002

Buy American Act (DFARS 252.225-7001) and Qualified Countries (DFARS 252.225-7002) is imposed on this contract.

Q32 – Defense Priorities Allocations Systems

This is a rated order certified for National Defense Use, and you are required by law to follow the provisions of the Defense Priorities Allocations System (15 CFR 700).

Authorized vendor representative must accept or reject a rated order in writing or electronically within fifteen (15) working days after receipt of a “DO” rated order, and within ten (10) working days after receipt of a “DX” rated order. If the order is rejected, the representative must give reasons in writing (NOT electronically) for the rejection, directed to the listed Buyer on the subject order.

If a rated order has been accepted, and vendor/vendor’s representative subsequently finds that shipment or performance will be delayed, notification must be provided to IFE/CPT immediately, providing the reasons for the delay, and advising of a new shipment/performance date. If notification is given verbally, written or electronic confirmation must be provided within five (5) working days.

Q33 – Conflict Minerals

IFE/CPT has pronounced our concerns regarding the human rights brutalities occurring in the Democratic Republic of the Congo and the adjoining countries. Accordingly, we are continuously monitoring and working to develop key processes and controls that would help us declare our supply chain as being “DRC Conflict Free”.

In response to these concerns, a final rule regarding sourcing of related minerals under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act was approved by the U.S. Securities and Exchange Commission ("SEC") on August 22, 2012. The rule designates certain minerals and derivatives as "Conflict Minerals" regardless of where they are sourced, including metals like tin, tungsten, tantalum and gold. The rule also requires publicly-traded companies regulated by the SEC to report annually the presence of Conflict Minerals originating in the DRC or adjoining countries ("Covered Countries") in the products they manufacture or contract to manufacture, if such Conflict Minerals are necessary to the functionality or production of their product.

We are committed to sourcing components and materials in an ethical and responsible manner. In addition, we are committed to taking all the necessary steps to comply with the Conflict Minerals legislation as it stands today.

In order to be fully compliant with this directive, we require all of our suppliers to complete the CFSI’s Conflict Minerals Reporting Template (CMRT form Revision 4.20) in order to obtain information about the raw materials being supplied to either division. Obtaining accurate information from our suppliers about whether components contain any amount of tin, tantalum, tungsten or gold are our primary concern. If any of those substances are present as reported, they will be traced back to their source.

Failure to supply the information necessary to make an accurate assessment of our supply chain may preclude suppliers from future opportunities with IFE/CPT. This only applies to all PCB manufacturers and suppliers of plated product.

Q34 – Flow down of Requirements

The supplier’s quality system shall assure that all relevant purchase order requirement are flowed down to their sub-tier suppliers. These sub-tier suppliers will be responsible to further comply with the same requirements specified on the IFE/CPT purchase order.

Q35 – Quality Record Retention

The supplier shall retain any quality records as it pertains to IFE/CPT parts or processes. Records shall be maintained for a period of no less than (8) years or unless otherwise specified by an IFE/CPT quality representative. Quality records traceable to sub-tier suppliers shall also maintained and retained for the same (8) years. Any record shall be made available for review upon request.

Q36 – Rohs Compliance

In an effort to diversify our business into both the commercial, military and the European marketplace, we are required to comply with the numerous governmental regulations, which in certain instances, must be flowed down to our suppliers. This declaration mainly encompass' the implementation of the EU Rohs List of banned substances directive, WEEE (Waste from Electrical and Electronic Equipment), and the Defense Federal Acquisition Regulation (DFAR 252.225-7009) defining the special provisions for the use of domestic specialty metals.

IFE/CPT has made permanent design changes on product lines that contain lead, have a banned substance and/or are not in compliance with the aforementioned directives. These necessary changes, where applicable, incorporate the use of lead free solder, compliant materials and/or non-hazardous substances during each stage of the manufacturing process. Both companies incorporates these practices specifically in the areas of chassis plating/finishes and have implemented other application specific assembly procedures in order to integrate the use of lead free materials/substances in compliance with the ISO-14001 standards for environmental safety.

Therefore, the parts purchased or materials used process IFE/CPT products must be Rohs compliant

Q37– Non Rohs Compliance

This quality code allows for the purchase of and use of leaded parts/materials during the manufacture of IFE/CPT products. The use of lead-free parts or processes are not allowed. Any request for a deviation to this clause must be submitted (in writing) to an IFE/CPT quality representative for further review within one day of purchase order receipt. Action/work is not to commence until proper authorization is either denied or granted by an IFE/CPT quality representative.

Q38 – Restriction on Acquisition of Certain Articles containing Specialty Metals

When cited in any IFE/CPT terms and conditions or any purchase order requirements, the latest revision to DFARS 252.225-7009 shall apply to this procurement.

Q39 - Dissimilar Metals

Dissimilar metals defined in MIL-STD-889 Type I, shall not be used if it is possible to avoid them. If used, they shall be suitably protected against electrolytic action.

Q40 – Packaging

All purposed product must be packaged in accordance with IFE/CPT WI-1002 “HSPDD”

Q41 – International Traffic in Arms Regulations

This order contains technical data, export of which is restricted by the International Traffic in Arms Regulations (ITAR) or Export Administration Regulations (EAR). Disclosure to foreign persons without prior U.S. Government approval is prohibited. Violations of these export laws and regulations are subject to severe civil and criminal penalties.

Q42 – Products deemed to be Moisture Sensitive

Products deemed to be susceptible to excess humidity levels shall be packaged in accordance with the latest revision to the IPC/JEDEC J-STD-033 “Handling, Packing, Shipping, and Use of Moisture/Reflow Sensitive Surface Mount Devices” standard.