Introduction

A strong and stable relationship between TAT and its providers is essential for our successes. We expect our providers support and commitment for quality and maintaining an effective quality management system to be used as the base for improvement to improve products, services and procedures.

TAT-Gedera is AS9100 certified for quality management in aerospace industry and requires its providers to implement the applicable requirements that are listed in the standard.

Definitions

The customer – TAT Technologies Limited;

The provider – manufacturer / supplier / agent of raw material or products / subcontractor or service provider purchased by the customer.

Non-conforming product – a product which does not conform to the requirements listed in the purchase order, contract, specification or drawing of the customer or the provider.

Applicable Documents

- AS 5553 Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
- AS 6174 Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel
- AS 9100 Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations
- AS 9102 Aerospace First Article Inspection Requirement
- AS 9103 Variation Management of Key Characteristics
- ISO 9001 Quality management systems — Requirements
- ISO 17025 General requirements for the competence of testing and calibration laboratories

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1. General Requirements

1.1 Quality management system

1.1.1 The provider must maintain a quality management system in compliance to AS9100 / ISO9001.

1.1.2 Special process subcontractors shall also be certified by the final customer of surveyed by the customer representative.

1.1.3 Provider of calibration services or laboratories shall comply to ISO 17025.

1.1.4 The provider must inform the customer of any significant change in its organization or the applicable manufacturing process.

1.2 Prevention of counterfeit parts

1.2.1 In an attempt to mitigate the risk of purchasing or suppling of counterfeit parts the supplier must comply with the following requirements.

1.2.2 The supplier must comply with AS5553, for electronic parts, or AS6174, for material, or any equivalent internal specification.

1.2.3 Purchasing of products or material must be performed from an original manufacturer or an approved distributer. In the case the parts or material cannot be purchased from the original manufacturer or distributer, the supplier attain approval from the customer in writing.

1.2.4 The supplier must maintain a system to assure traceability of the supply chain or components and products supplied from the manufacturer to the customer.

1.2.5 The supplier must attach to each order the documents proving the purchase traceability.

1.2.6 The purchase traceability will include all involved in the supply chain from the original manufacturer till the direct source from the products were purchased by the provider.

1.2.7 Components will only be purchased by original supplier.

1.3 Configuration control

1.3.1 Manufacturing parts will be in accordance the configuration noted in the customer PO.

1.3.2 No changes in material, parts, design or manufacturing process is allowed without prior written approval from the customer.

1.4 Shelf Life Material

1.4.1 Material that have passed their shelf life are not allowed to be used for items related the customer orders.

1.4.2 Each packaging and / or accompanying paperwork or raw material must mention the following: manufacturing date, shelf-life date and proper storage conditions.

1.4.3 The supplier must provide a material safety data sheet (MSDS).

1.5 Non-conforming products

1.5.1 Waiver

1.5.1.1 The supplier muse request in writing approval for any product which is non-conforming but wishes to provide in order to attain a waiver.

1.5.2 Providing of non-conforming products will be a supplied only of attained a waiver in written approved by QA, engineering and purchasing.

1.5.3 Waiver request must include the following details:

- Reference to applicable document / drawing including revision.
- Actual vs. required acceptance criteria product.
- Reason for waiver justification
- Preventive action to minimize the chance of the issue recurrence in the future.

1.5.4 **Notice of escape**

1.5.4.1 Provider will notify within 72 hours in writing of non-conforming or potential non-conforming for products supplied to the customer.

1.5.4.2 The supplier will perform preventive and corrective action and in include them in a report. Report will be sent to the customer's quality assurance department.

1.6 **Performance monitoring**

1.6.1 The customer maintains the right to monitor the performance of the provider including quality yield and on time delivery performance.

1.6.2 Providers of performance lower than 96% quality yield or 85% OTD will be labeled "high risk" provider and will be required to supply a performance improvement plan.

1.7 **Provider site audits**

1.7.1 The supplier is required to allow the customer or customer representatives to enter the facility and provide information relevant for the customer's orders.

1.7.2 The customer will coordinate such audits in advance.

1.8 **Identification**

1.8.1 Products will be marked as required in the drawing or applicable standards.

1.8.2 Mechanical items will be marked with date code, manufacturer identification, drawing and revision using rubber stamp or other method including year and week of manufacturing.

1.9 **Foreign Object Damage**

1.9.1 Prior to product packaging and during the process the product will be inspected to detect and prevent FOD.

1.9.2 If required by final customer, the parts will be packaged in accordance to customer specification.

1.10 **Employee proficiency**

1.10.1 **Employee qualification** – manufacturing and inspection operations must be performed by qualified employees in accordance to requirements in applicable standards.

1.10.2 **Vision test** – inspectors and other employees whose work requires proper eyesight, such as painters, coaters and welders, must perform vision test that include near vision and color test in a defined frequency, no less than every two years.

1.10.3 **Employee training** - the provider will perform training for all employees including new employees and periodical training for existing training to maintain employee proficiency.

1.10.4 **Employee awareness** – provider employees related to customer orders will be aware of the contribution to the product quality, product safety and ethical behavior.

1.11 **Traceability**

1.11.1 Unless mentioned otherwise, products and material will be marked with a batch / lot identification to include traceability for raw material.

1.11.2 Products and material will be provided from a single batch or separated completely between batches and included material certification for all batches.

1.12 **Records**

1.12.1 Provers will keep quality records for a minimum of 5 years unless mentioned in purchase orders or required by final customer.

1.12.2 Type of records and are required to keep as mentioned:

- COC – certificate of conformity
- Material certification that have been used for parts manufacturing. (COA or COT)
- Inspection reports and functional testing reports.
- Waiver authorization signed by the customer.
- Any other quality report as required in purchase order.

1.13 **Outsource requirements flow down**

1.13.1 Work ordered from a provider must be performed by the provider unless received prior written authorization of the customer's quality assurance manager to outsource the work.

1.13.2 If such and authorization is granted, it is the supplier reasonability to transfer all quality requirements the outsourced body.

1.14 **Inspection**

1.14.1 The suppliers must plan and perform all necessary inspections and tests required in assure complete compliance of products.

1.15 **Source inspection**

1.15.1.1 The customer remains the right to perform source inspection to the provider before product shipment.

1.15.1.2 The provider must coordinate with the customer that the product is ready for source inspection when required.

1.15.1.3 Source inspection does not elevate responsibility from the supplier to assure the quality of provided products.

1.16 **First Article Inspection**

1.16.1 First article inspection will be performed, when required, in accordance to AS9102.

1.16.2 The process will require a new FAI if any change to product configuration or after a 24-month gap between the last time the article was manufactured.

1.16.3 Significant changes to the process will require FAI and written authorization of the customer.

1.16.4 The customer QA director may waive this requirement to the supplier is deemed unnecessary. Such authorization will be provided in writing.

1.16.5 FAIR (first article inspection report) will include all necessary parameters, inspection methods and equipment, measurement results, inspection date, sampling plan if applicable, applicable standards and results vs those standards.

1.16.6 Once the FAIR is completed and signed by the customer, no change in the process or product must be performed unless received written authorization from the customer QA department.

1.17 **Packaging, shipment and transportation**

1.17.1 The supplier will plan and perform the necessary means to prevent damage to the product during manufacturing transportation, storage and shipment to the customer.

1.17.2 Parts will be packed in a way that will prevent wetness, corrosion or mechanical defects.

1.17.3 Parts will be packed in a way that enables a quick verification of quantity by the customer.

1.17.4 Packages will be labeled with identification of part description, supplier and quantity of parts.

1.17.5 Each shipment must be accompanied with the following documents:

- Inspection reports
- Invoice that include purchase order number
- Certificate that includes:
  - Catalog number of item and revision
  - Supplier name
  - Purchase order
  - Quantity of parts
  - Issue date

2. Non-special process

2.1 Machining

2.1.1 This section relates also to all hot press and kitting of components.

2.1.2 Articles designated for RAFAEL, IAI or ELBIT must be accompanied with COC indicating material has been purchased from an approved source.

2.1.3 Materials that have been defined as “critical” by the customer will be verified in a certified laboratory by responsibility of the supplier.

2.1.4 If key characteristics are applicable, those characteristics will be managed in accordance to AS9103 or equivalent internal procedure.

3. Special process

3.1.1 If required in purchase order, products will be supplied with accompanying test samples.

3.1.2 If required in purchase order, applicable drawing or specification, heat treatments will be conducted while providing a heat-cycle graph record.

3.1.3 Special process inspection reports will include all the requirements of applicable drawings and specification, including revision, as well as the inspection results and equipment used for inspection.

3.1.4 Special processes will be validated in accordance to applicable standards. Validation record will be displayed upon customer request.

4. Commercial off–the-Shelf items

4.1 Fasteners

4.1.1 Fasteners will be supplied will COC in accordance to purchase order requirements. The COC will include manufacture identification and quantity of items.

4.1.2 Fasteners will be supplied from one batch and one manufacturer, unless received written authorization from the customer. Each batch shall include a COC.

4.1.3 The COC will include reference to all applicable international standards. It is the supplier responsibility to verify the revision of the standards mentioned in the COC is no most current at the time of the purchase order.

4.2 Consumables

4.2.1 This section refers to all consumables including powders, brazing material, FPI material and chemicals.

4.2.2 Materials in this section must be accompanied with a certificate of analysis (COA) of the manufacturer. The COA will include the following details:

- Manufacturer company name
- Authorized personnel signature
- Lot identification
- Shelf life date, when applicable
- Standards in which the testing of material was performed
- Testing acceptance criteria
- Testing results

4.3 **Adhesives and paint**

4.3.1 Each package shall contain manufacturer date, recommended shelf life date and storage conditions, including temperature, humidity and other environmental conditions.

4.4 **Electronic components**

4.4.1 Electronic and electro-mechanical components will be packed in storage rulers or equivalent anti-static packaging. Packaging will be intact and original by the manufacturer.

4.4.2 Long legged components, such as capacitors or transistors, shall be packaged in protective packaging to prevent damage extended sections of the items.

4.4.3 If item has been repackaged, it must be identified and marked accordingly.

4.4.4 Manufacturer COC must be attached to each shipment.

5. Calibration and Testing laboratories

5.1 **Laboratory requirements**

5.1.1 Laboratories will maintain ISO 17025 certification for quality management.

5.2 **Calibration report requirements**

5.2.1 Calibration report will include the following:

- Laboratory identification
- Applicable standards for testing
- Equipment that was calibrated
- Equipment used for calibration
- Acceptance criteria
- Measurement results
- Date of calibration
- Calibration valid-until date, if applicable
- Authorized personnel signature

Revision changes history

Rev	Changes
New	Not applicable
A	New document structure. Added references to relevant international standards.