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AS9100 External provider Flow-down Requirements

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Approved by:

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The following External provider Quality Requirements are applicable to the external providers of DataED.

By accepting a purchase order, you agree to comply to the following requirements of A thru K. If our po states "This is a AS9100 order", you must also agree to meet the requirements of L thru X.

- A) **Purchase Order Requirements:** DataED uses Purchase Orders to communicate the processes, products, and services to be provided by external providers.
- Information concerning the identification and revision status of specifications, drawings, process requirements, inspection/verification instructions and other relevant technical data will be communicated to the external provider when they quote the job, on the purchase order and/or on the supplementary documents from DataED.
- [AS9100 8.4.3: a]
- B) **Approvals:** Any requirements for the approval of products and services; methods, processes, and equipment; and the release of products and services, beyond those listed below, are included on the Purchase Order.
- [AS9100 8.4.3: b]
- C) **Competence:** All personnel performing work on behalf of DataED shall be appropriately qualified via education, skills, experience, and training. Any specific required personnel qualifications must be approved by DataED (e.g. IPC training for soldering and inspection).
- [AS9100 8.4.3: c]
- D) **Interactions:** When DataED's external provider needs to communicate with DataED, they should contact the buyer which had reached out to the external provider via email or phone number which should be found in the signature of the DataED employees email. Alternatively, the external provider may call the main line: (603) 893-2047 and request the purchasing department.
- Discrepancies, omissions, and the need for clarifications or interpretations of any nature encountered by External providers in respect of furnished drawings or engineering data will be brought to the attention of DataED for resolution.
- Communication from DataED shall include these flow-down requirements as well as additional requirements stated on the purchase order. External provider performance may also be provided by DataED to the external provider including quality and on-time delivery performance. Changes in revision shall be communicated. Any changes made by the external provider must be approved by DataED prior to the delivery of product.
- [AS9100 8.4.3: d]
- E) **Monitoring of External provider Performance:** All purchased materials and services are subject to inspection for compliance to the purchase order and all applicable quality and Purchase Order requirements, including On-Time Delivery and Quality of products and services.
- [AS9100 8.4.3: e]
- F) **Verification / Validation:** The Purchase Order shall indicate if DataED, or its customers, intends to perform any verification or validation activities at the External providers' premises.
- [AS9100 8.4.3: f]
- G) **Substitutions:** No material or process substitutions, quantity variations or splits from the purchase order may be made without prior written authorization from DataED.
- H) **Infrastructure:** External providers are expected to have the resources necessary (personnel, property, facilities, equipment, and materials) to supply the products and/or services required to accommodate DataED's production schedule and PO requirements.
- I) **Limited Shelf Life:** If the supplied products are life-limited, the external provider is required to furnish either the expiration date or the material cure date.

- J) **Calibration:** All Inspection Measuring & Test Equipment used by the External provider during in-process and final inspection to make a compliance evaluation shall be calibrated and traceable to NIST, or an equivalent international body. Calibration providers to DataED shall ensure that calibration certificates include As Found / As Left data.
- K) **Labeling:** The external provider shall label the exterior of the container to ensure adequate identification needed to ensure the identity of the product being shipped. The external provider must ensure the handling and shipping methods for a proper and on-time delivery without damage to the product. The external provider shall ensure that any special labeling requirements shall also be listed in the appropriate shipping documents and on each package.

The following Requirements must be followed only if AS9100 is a requirement as stated on the Purchase Order supplied by DataED:

- L) **Technical Data Requirements:** The use of any technical data (including, but not limited to: specifications, drawings, process requirements, work instructions) will be provided by DataED.
[AS9100 8.4.3 a]
- M) **Design Control:** Any design activities performed on behalf of DataED or in the development of products, materials, components, or service purchase by DataED shall meet the requirements of AS9100.
[AS9100 8.4.3: g]
- N) **Critical Items/Key Characteristics:** When source documents, drawings, specifications, and/or Purchase Order requirements include special requirements, critical items, or key characteristic requirements the External provider shall ensure the integrity of these requirements and provide supporting data to DataED for approval.
[AS9100 8.4.3: h]
- O) **Test, Inspection and Verification:**
- **Test / Inspection Requirements:** All product or services to be provided to DataED. Items or services provided to DataED shall be appropriately verified by testing or inspection using calibrated inspection measuring and test equipment.
 - **First Article Inspection (FAI)** may be required as well as a number of additional documents such as: material certifications for raw materials, calibration records for gages used, process flow, traveler or routing sheets, control plans, inspection sheets, test records for special processes, appearance samples, functional test results as specified in print and/or specifications, Part Submission Warrants, capability studies, run at rate documentation and certificate of conformance (C of C) documentation. See the current AS9102 Aerospace Standard for a better understanding of other possible requirements.
 - A First Article Inspection report must show evidence of acceptance by the external provider's quality representative. A first article(s) shall be produced on production equipment and using processes which will be utilized on production runs.
 - When requested, a first article(s) may be performed on prototype articles to determine conformance status to available data.

- Additionally, the external provider shall perform subsequent first articles per the requirements of AS9102 (i.e. following every major tooling or design change, and subsequent to any evident quality degradation for a specified part or article).
 - Records of all first article activity will be documented as required in AS9100, treated as quality / acceptance records, and made available to DataED.
- If any tests are required the purchase order and/or supplementary documents would state that information to the external provider. DataED will evaluate the data in the test reports provided by the external provider to confirm product meets requirements. Certifications must include a statement of compliance with DataED's Purchase Order requirements, referenced specifications and drawings.

[AS9100 8.4.3: i]

- P) **Statistical Techniques:** Sampling or Statistical Process Control for acquiring and using data to validate product acceptance must be reviewed and approved by DataED.

[AS9100 8.4.3: j]

Q) **Expectations:**

- **Quality Management System:** External providers shall maintain an effective Quality Management System in accordance with the requirements of ISO 9001, AS9100 or equivalent that provides a means of ensuring that products conform to specified requirements. The external provider's Quality Management System must address the requirements contained in this document.
- **Customer Designation:** The Purchase Order shall indicate if DataED, or its customer, requires the External provider to use any designated or approved sub-tier external providers/sources.
- **Nonconforming Product/Output:** The external provider shall ensure that nonconforming product or output is identified and controlled to prevent unintended use or delivery. The external provider shall not ship nonconforming materials without prior authorization by DataED.
- **Counterfeit Prevention:** The external provider is responsible for developing and implementing an anti-counterfeit education and training program for their employees responsible for purchasing and receiving. It is the external provider's responsibility to prevent counterfeit or suspect counterfeit part use and the inclusion in products delivered to DataED. Electrical components shall always be OEM parts purchased via franchised distributors; no brokers shall be used without approval of DataED.
- **Notification of Changes:** The external provider must notify DataED and obtain DataED's approval prior to any changes to processes, products, or services that impact DataED's purchase requirements, including changes of manufacturing facility location or external providers.
- **Sub-tier Flow-down:** External providers of DataED are required to communicate in writing all relevant information related to the job to any external provider they use to produce DataED's products. External providers are fully responsible for the quality of their products/services including their sub-tier external providers. Both are responsible that the quality of their products/services meet all DataED's requirements, specifications and drawings as identified on the purchase order. Zero defects are expected from our external providers.

- **Test Specimens:** Test specimens for design approval, inspection/verification, investigation, or auditing shall be provided to DataED if requested in the Purchase Order.
- **Record Retention:** External providers and sub-tier external providers shall establish and maintain records to provide evidence of conformity to requirements. Records shall remain legible, readily identifiable, and retrievable. Product history records shall be maintained for a minimum of 7 years or as required by the purchase order.

[AS9100 8.4.3: k]

- R) **Right of Access:** DataED and its customers or any applicable regulatory authority shall have the right to access the external providers' facility to perform inspections or surveillance audits to verify the quality of work, records and to ensure compliance to the contract. When applicable, the external provider shall flow-down the access requirement to the external providers' sub-tier sources.

[AS9100 8.4.3: l]

- S) **Awareness:** External providers shall ensure personnel performing work for DataED are made aware of the following:

- their contribution to product or service conformity
- their contribution to product safety
- the importance of ethical behavior

[AS9100 8.4.3: m]

- T) **Contract Review:** The external provider must conduct a review of all the purchase order requirements to ensure their product or service conforms to those requirements.

- U) **Change Control:** The external provider must establish document and maintain a change process appropriate to the product. The External provider shall ensure that the drawings and specifications are the relevant revision status specified on the Purchase Order. The External provider shall comply with any special requirements requested DataED regarding the control of drawings and specifications.

- V) **Lot Traceability:** All external providers to DataED must have a lot identification system that distinguishes one lot from another when shipping finished product. Each lot of material should be clearly identified on the product (where applicable) and/or on the product packaging. All material lots should be traceable to raw or component material lots as identified by the external provider's external provider.

Each article delivered under a purchase order must be identified on the packing slip with manufacturing part number and DataED's internal part number.

- W) **Preservation and Foreign Object Elimination:** The external provider must preserve the product during internal processing and delivery to DataED, maintaining conformity requirements. The external provider must provide packaging that protects the component from mechanical and environmental damage during transport and storage including effects of temperature, vibration, and shock. This also includes cleaning, removal of foreign objects (FOD), special handling for sensitive products, appropriate labeling, shelf-life control, stock rotation and other special handling. Electrostatic sensitive product shall be packed in an ESD protective bag.

- X) **Special Processes:** Product subject to special processing (Welding, NDT, heat treatment, etc.) must be accompanied by certification documents that specify that process and the external provider's conformance to the requirements of that process.