
 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: "D" 05.04.2023	Page 1 of 21

DOCUMENT APPROVAL			
Originator:	Peter Shaybani	Quality Manager:	Apurva Mapara
Approval:	<i>Peter Shaybani</i>	Approval:	<i>apurva mapara</i>
Engineering Manager:	Barry Clarkson	Finance Manager:	Sophie Huang
Approval:	<i>BCC</i>	Approval:	<i>[Signature]</i>
Operations Manager:	Jim Windschitl	General Manager:	Matt Antoniou
Approval:	<i>Jim Windschitl</i>	Approval:	<i>Matthew Antoniou</i>

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 2 of 21

REVISION HISTORY			
Rev	Description	Date	Originator
A	Initial Release	July.20.2020	Peter Shaybani
B	Updated Vision, Mission and Core Business Value statements	Sep.20.2020	Peter Shaybani
C	Updated wording on Clause 5.31/Table A; Revised record retention time to “7” years, Clauses 5.31, 8.10, 8.16, 8.29, 8.33, 8.34	Feb.10.2021	Peter Shaybani
D	Added “GLOBAL” verbiage as required	May.04.2023	Peter Shaybani

TABLE OF CONTENTS

REVISION BLOCK2

TABLE OF CONTENTS3

1.0 PURPOSE6

2.0 SCOPE6

3.0 OBJECTIVE.....6

4.0 REFERENCE DOCUMENTS.....6

5.0 SUPPLIER MANAGEMENT SYSTEM.....7

6.0 COMMUNICATIONS10

7.0 UNACCEPTABLE PRACTICES11

8.0 SELLERS GENERAL OBLIGATIONS12

INTRODUCTION

ATS is a global Thermal Management Subsystem provider, specializing in the semiconductor fabrication industry and supporting diverse market segments:



Electronics/Industrial Manufacturing:
DEX Series, MX Series, SX Series
NX Series, M-Pak Series, HTX, ESL-60
EN Series,
Special Application Systems



Photovoltaic (PV):
HTX
Special Application Systems



Food/Beverage:
EN Series, HR Series,
Special Application Systems



Medical/Pharmaceutical /Laboratory:
EN Series, HR Series,
Special Application Systems




Laser/Photonics:
EN Series, HR Series,
SX Series
Special Application Systems



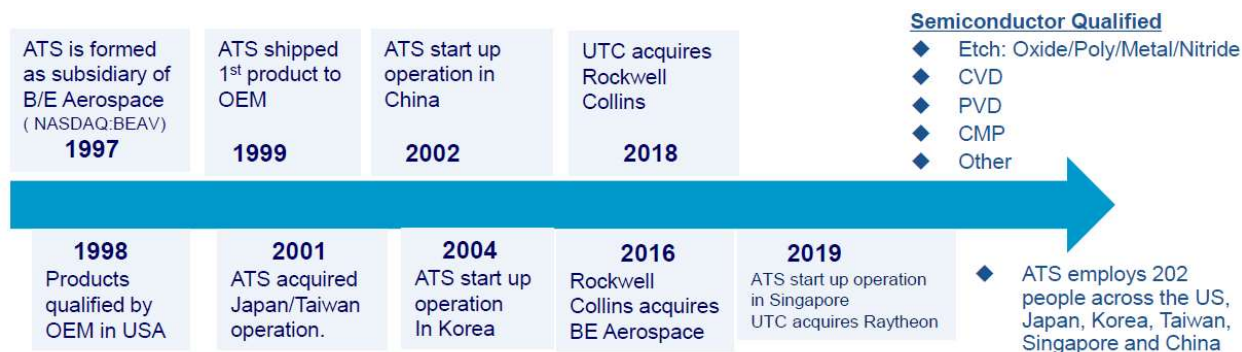
PRODUCTS & SERVICES

ATS range of products and support services include:

									
	DEX-20A	ESL-60T	NX-20A	MP-Series	TCX	MX-20	SX-21A	EN-Series Thermal Electric	HTX-10
#Channel	1	2	2	1-4	1-2	1	1	1	1
Temp Range (deg. C)	-20~+80	-10~+80	0~+80	-40~+155	-60~+80	-20~+80	+5~+80	+10~+60	+40~+200
Cooling Capacity	2.0kW @-10C	8.0kW @-10C(CH1) 3.5kW @+30C(CH2)	3.0kW(CH1) /6.0kW(CH2) @ +20C	5.5kW @-20C	3.5kW @-60C 7.5kW @-40C	2.0kW @-10C	4.5kW @+20C	1.8kW @+20C	4.0kW @+180C
Heater	Non	Non(CH1) 5.0kW(CH2)	3.8kW(CH1) 7.5kW(CH2)	3.0kW	3.0kW	1.5kW	2.0kW	2.5kW	3.0kW
Pump Capacity	5.3 gpm@58psi	8.0(CH1) /4.0(CH2) gpm@100psi	3.5(CH1) /7.0(CH2) gpm@80psi	3.5 gpm@80psi	VARIOUS	5.3 gpm@58psi	2.5 gpm@50psi	3.9 gpm@29psi	6.0 gpm@psi
Application	Etch	Etch	Etch	Etch Asher	VARIOUS	Etch	CMP	Gas Bottle Cabinet	Etch

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 5 of 21

COMPANY HISTORY



CORE BUSINESS VALUES


- Customer oriented
- Promotion of Innovation
- Achievements
- Diversity and teamwork
- Create an enjoyable workplace and challenges
- Ethical and humane global practices
- Environmental Considerations

VISION

Continue the innovative approaches, increase market share, create new processes and invent new systems in cooperation with our suppliers in support of our customers' success.

MISSION

To be a leading global company that contributes to the stakeholders' prosperity including customers, employees, suppliers, and stockholders, with our cutting-edge temperature control technology.

	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 6 of 21

1. PURPOSE

The purpose of this Manual is to establish Quality Assurance requirements for Purchase Orders issued by “Advanced Thermal Science Corporation (ATS), referred to as “BUYER (ATS)”, to all of its suppliers, referred to as “SELLER (Suppliers)”.

2. SCOPE

The Scope of this document defines the responsibilities of all ATS suppliers (Sellers) that their Products and Services are incorporated into Products and Services provided by ATS to its customers.

3. OBJECTIVE


The objective is for ATS, “BUYER”, to receive parts and services as stated on the Purchase Orders and the flown-down documents, with zero defects, 100% on-time, at competitive cost, and with dedicated customer service from its Suppliers, “SELLERS”.

4. REFERENCE DOCUMENTS:

4.1. Sellers are required to obtain all industry and quality related documents at their own cost, as applicable to their “Products/Services/Processes”, to meet ATS’s requirements as stated on Purchase Orders, referenced drawings and Specifications.

4.2. Definition of Terms:

GASL: Global Approved Supplier List	QMS: Quality Management System
CAR: Corrective Action Report	QPM: Quality Performance Matrix
CAPA: Corrective And Preventive Action	RCA: Root Cause Analysis
COTS: Catalog Off-The-Shelf (Parts)	SCM: Supply Chain Management
FAIR: First Article Inspection Report	SCAR: Supplier Corrective Action Report
FAR: Failure Analysis Report	GSQAM: Global Supplier Quality Assurance Manual
OTD: On Time Delivery	SOW: Statement Of Work
PPI: Pricing Performance Index	SQ: Supplier Quality
8D: Eight Disciplines	5W: Five Why

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 7 of 21

5. SUPPLIER MANAGEMENT SYSTEM

Supplier management process by ATS is conducted as follows:

5.1. NEW SUPPLIER APPROVAL:

New suppliers are selected based on satisfactory results of:

- 5.1.1. Initial assessments of introducing a potential new supplier per ATS Supply Chain Management (SCM) requirements,
- 5.1.2. Completion of required Forms/Surveys by potential supplier, per ATS Quality requirements,
- 5.1.3. When applicable, acceptance of Supplier’s required Certifications per ATS Quality requirements; Ex. ISO 17025 certification for Suppliers performing Calibration related functions,
- 5.1.4. On-Site audit(s), if recommended by ATS management.

5.2. SUPPLIER MAINTENANCE ON GASL:


To keep status as an approved supplier of ATS on the GASL, Suppliers are required to:

- 5.2.1. Respond to complete all Quality & Business survey documents per requested frequency and due dates determined by ATS,
- 5.2.2. Keep performance above an acceptance level as determined by ATS,
- 5.2.3. Customer service

NOTE: See more details on Clause 5.5, “Removal from GASL”.

5.3. SUPPLIER PERFORMANCE MEASUREMENT:

- 5.3.1. Performances of Approved Suppliers on “GASL” are monitored and measured per established Criteria & Weight referenced on the Scorecard table “A”:

	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: "D" 05.04.2023	Page 8 of 21

**SCORECARD: Criteria & Weight
TABLE "A"**

CRITERIA	QPM	OTD	SCAR	PPI
WEIGHT	40%	30%	20%	10%

CRITERIA -1

- QPM (Quality Performance Matrix): **40% Weight**
- Incoming inspection results; Production rejections; Field Failures
- Measured by percentage of acceptance

CRITERIA -2

- OTD (On time Delivery): **30% Weight**
- OTD to ATS; Incidents of any customer delays caused by supplier
- Measured by percentage of on-time delivery

CRITERIA -3

- SCAR (Supplier Corrective Action Reports): **20% Weight**
- Issued CAPA/8D against supplier
- Measured by accumulative percentage of quantity, responsiveness, and effectiveness

CRITERIA -4


- PPI (pricing Performance Index): **10% Weight**
- Year to year savings; Expedite Shipping Costs
- Measured by percentage of savings compared to the year before

5.4. SUPPLIER SCORECARD PROCESS:

5.4.1. CLASSIFICATION: Based on criteria established on Table "A", Suppliers' performances are evaluated:

Supplier Classification:

- 5.4.1.1. PLATINUM: 91% - 100%**
- 5.4.1.2. GOLD: 81% - 90%**
- 5.4.1.3. SILVER: 71% - 80%**
- 5.4.1.4. BRONZE: 61% - 70%**

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: "D" 05.04.2023	Page 9 of 21

5.4.1.5. RED: 60% & Below%

5.4.2. SCORECARD NOTIFICATION: The Scorecard, including both the overall and individual criteria, shall be reported to the approved Suppliers by ATS's Supply Chain Management (SCM) per established Process and Frequency referenced on Purchasing Responsibilities Procedure.

5.4.3. REQUEST FOR IMPROVEMENT: In support of the Scorecard postings, and pending suppliers' performance and subsequent classification results, a letter from ATS's Quality shall advise the required improvements, countermeasure, and Gap-Plans within a certain timetable, if Supplier(s) not meeting ATS's performance expectations.

5.5. SUPPLIER REMOVAL FROM "GASL"

ATS reserves the right to remove approved suppliers from its "GASL" as stated below:


5.5.1. NON-CONFORMANCE PERFORMANCE:

5.5.1.1. All approved suppliers of ATS are required to comply and support closure of non-conformance concerns as related to their processes, products, and services.

5.5.1.2. The non-conformance captures the whole spectrum of customer satisfaction as determined by ATS's Quality and Supply Chain Management teams, including:

- Issued rejections,
- Low scorecard performance,
- Failed audit,
- Poor quality,
- Late delivery,
- Excessive cost,
- Engineering & manufacturing capability issues,
- Capacity & Logistics concerns,
- Insufficient customer support,

5.5.1.3. When a non-conformance (rejection) is attributed to a Supplier, ATS Quality will determine the need for:

	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: “D” 05.04.2023
			Page 10 of 21

- Failure Analysis Report (FAR)
 - &/or
- Corrective And Preventive Action (CAPA) report

5.5.1.4. The preferred format for Suppliers submission of corrective action report (CAR) is 8D; however, all CAR forms based on Suppliers’ established Quality Management System (QMS) is acceptable if it meets the intents of an 8D report.

5.5.1.5. If a Supplier fails to satisfactorily address the nonconformance issues for meeting ATS’s expectations, it potentially may result in placing the Supplier on probation with possibility of disqualification and removal from Approved Supplier List (GASL).

5.5.2. PROBATION: Pending circumstances, and part of preliminary steps to disqualifications, ATS may place an approved supplier on Probation per defined plan, expected improvements, and applicable target dates, as determined by ATS Management team.

5.5.3. DISQUALIFICATION: ATS may choose to disqualify a supplier and remove it from the GASL based on unsatisfactory results of nonconformance performance and probation status.

5.5.4. REMOVAL PROCESS: Disqualified suppliers shall be notified by of their status by Supply Chain Management (SCM) team.


6. COMMUNICATIONS

6.1. CONTACTING ATS: Sellers main channel of communications for compliance and fulfilment of Purchase Order requirements shall be via ATS’s Buyer(s) who have placed Purchase Orders with Sellers; other ATS’ applicable teams, Quality, Engineering, etc., recommended be on copy, if deemed necessary.

6.2. CERTIFICATION UPDATES: Sellers shall notify ATS in writing of any status changes to their Quality Management System (QMS) certifications.

6.3. ORGANIZATION CHARTS: Sellers shall notify ATS in writing of changes in Ownership, Leadership, Executives & key ATS account positions.

6.4. ENGLISH LANGUAGE REQUIREMENTS: Seller shall have an English language translation of their Quality Manual, top-level Procedures, critical work

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 11 of 21

instructions, Quality System Data, Certificate of Conformance, documents related to verification and traceability of parts and services, impacting ATS's processes.

6.5. NOTIFICATION OF ESCAPE (NOE):

6.5.1. Sellers are required to have a documented process to immediately notify ATS upon "Discovery" of the "Escaped" nonconformity from their Quality Management System which has already been shipped to ATS.

6.5.2. The formal notification report and/or form must include details of product information, nature of nonconformity, manufacturing date-lot and part traceability information up to the point of Origin, containment plans and actions in all locations and En-route to ATS.

6.5.3. The formal notification must be signed by Quality and executive management teams.

6.6. REQUEST FOR DEVIATION APPROVAL: Deviation requests due to Sellers' inability to follow their own established processes to make part(s) &/or to meet ATS's product requirements, must be submitted to ATS prior to shipment and the non-conforming part(s) shall be held in Quarantine until a written formal response is received from ATS.


7. UNACCEPTABLE PRACTICES

7.1. PRODUCT/PROCESS CHANGES: Sellers shall not make design, product and process changes, substitutions or repairs, regardless of design being controlled by ATS or the Sellers, since no changes are allowed per ATS's customer requirements.

7.1.1. In the event of a need or desire to change, Seller must submit a formal change request to ATS at "**ATS_Supplier_Change@beaerospace.com**" with a minimum of 180 days advance notification period, prior to requested change implementation.

7.1.2. Change request to include:

- 7.1.2.1.** Manufacturer and ATS part number,
- 7.1.2.2.** Reason for requested change,
- 7.1.2.3.** Comparative validation data for old and new part/process,
- 7.1.2.4.** Confirmation of last date for ATS to order old design,
- 7.1.2.5.** Agreement by Seller to hold 180 days of inventory (based on previous 2 year's usage) from specified last date to order.

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 12 of 21

7.2. FACILITY & LOCATION CHANGES: Seller shall not make any changes in facility or location(s) impacting ATS related products, unless ATS has been formally informed 180 days in advance with an option for ATS to perform On-Site Audit and approve prior to Seller's use of new location(s) or changes to the facility(s).

7.3. WORK TRANSFER OUTSIDE OF USA: Seller shall not subcontract or relocate any ATS related work to outside of USA, and no awarded part contract may be moved, relocated, outsourced from the intended facility unless ATS has been formally informed 180 days in advance with an option for ATS to perform On-Site Audit and approve without prior written authorization by ATS.

7.3.1. Seller's declaration of intention shall include items listed on 7.3, plus subcontractor's name, address, telephone number, name of Quality Manager (or designee), part name(s) and part number(s) affected by the change.

7.4. EXCESS INVENTORY: Sellers shall not sell or transfer any excess inventory of ATS to a third party without prior notification and authorization. Seller is held responsible for strict control of ATS's inventory.

7.5. SUB-TIER SUPPLIER MANAGEMENT:

7.5.1. Seller shall not procure products and services from unapproved, suspect and debarred sources.


7.5.2. Seller shall have an established QMS with verifiable supplier management program to approve, maintain and control their Sub-Tiers' processes, products and services.

7.5.3. ATS may designate specific sources per PO, drawings & specifications, but sellers are expected to manage the designated sources per their QMS.

8. SELLERS GENERAL OBLIGATIONS

8.1. QUALITY MANAGEMENT SYSTEM: Sellers and their sub-tier sources are required to be certified or compliant to ISO 9001:2015 requirements, or as a minimum meet ATS's Quality Survey Audit.


8.2. INTERNAL AUDITS: Sellers are expected to conduct Internal Audits in accordance with ISO 9001 requirements, at least once a year.

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023 Page 13 of 21

- 8.3. MANAGEMENT REVIEWS:** Sellers are expected to conduct Management Reviews in accordance with ISO 9001 requirements, at least once a year.
- 8.4. INFORMATION SECURITY:** Sellers shall implement effective information security programs and policies to securely maintain customer, personal, and information relating to assets technologies, quality, products and services provided.
- 8.5. BUSINESS CONTINUITY & CONTINGENCY PLAN:** Sellers shall have a business continuity plan which would allow for the safeguarding, storage and recovery of engineering drawings, electronic media, and production tooling in the event of damage or loss, significant natural disasters, labor disruptions, and other major equipment or facilities issue that would risk product quality or delivery performance and shipment.
- 8.6. FLOW DOWN:** Sellers shall comply and flow down this document and all of ATS's Purchase Order requirements with its referenced documents to their sub-tier suppliers.

NOTE: All documents including drawings and specifications, whether issued by Buyer, Industry, Government or, Buyer's Customers are considered part of the Purchase Order requirements.

- 8.7. RIGHT OF ENTRY:** Sellers and their sub-tier suppliers shall allow representatives of ATS, its customers, and applicable regulatory agencies to conduct **On-Site audits** and verify the quality of work, records, and materials at the Seller and its sub-tier suppliers' location(s).
- 8.8. PURCHASE ORDER CONFIRMATION:** Sellers to confirm that the received Purchase Orders shall be to the current released documents per Purchase Order's issue date. Acceptance to ATS's P.O. is the confirmation of Sellers commitment to the stated P.O. requirements.
- 8.9. PURCHASE ORDER REVIEW:** Sellers and their Sub-Tier sources, must review the issued PO, drawings and specifications, including Hardware and Software, to confirm they are in full understanding and capable of meeting the entire requirements. If questions arise and clarification is needed, Sellers must contact ATS's supply chain manager/representative prior to submission of any quotes, acceptance of P.O. or producing any orders.

 <i>Advanced Thermal Sciences</i>	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 14 of 21

8.10. CONTRACT REVIEW: Sellers are expected to have an established Contract Review process meeting ATS's PO requirements. Records must be saved for a minimum of 7 years.

8.11. CATALOGUE MATERIALS: Sellers are accountable for all Off-The-Shelf and Catalogue items, including testing equipment, to meet ATS's Quality and Safety requirements.

8.12. REQUESTED SOURCES: Sellers shall use ATS's requested sources for any special processes called out or referenced on any specification, drawing, sub-level drawing or referenced technical data, and Sellers shall verify their compliance to all applicable technical and quality requirements for products/services provided to ATS.

8.13. WARRANTY: Sellers and their Sub-Tier sources are required to have a verifiable and established Warranty procedure with return Credit to ATS that includes Failure Analysis Report (FAR), Parts' Cost, ATS's processing costs and returned shipping cost.


8.14. Non-Conformance/CAPA Data Base: Sellers shall maintain a system to record all reported non-conformances as well as a system driven CAPA data base with verifiable objective evidence to confirm proper handling and closure of all internal, sup-tier and customer related nonconformities.

8.15. CONTROL OF NONCONFORMING PRODUCTS:

When Sellers are notified of the Nonconformance by ATS, they are required to immediately inspect, identify, segregate, repair or remake parts within their own facilities and recall their products En-Route to ATS.

- Sellers are accountable for return goods' charges, perform 100% inspection until relieved of such requirement by ATS, provide RMA#, Failure Analysis Report (FAR) &/or Corrective And Preventive Action (CAPA) reports.
- If nonconforming product(s) repaired &/or replaced by ATSC, Seller shall be charged for the material and labor costs.

8.16. INSPECTION PROCESS: Sellers and its Sub-Tier sources' Inspection procedures, processing and control of parts shall conform to all applicable specifications, standards, and drawings of ATS. Sellers' inspection records shall be available for review for minimum of 7 years.

	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 15 of 21

8.17. AUDITS: Inspections and Audits performed by ATS at any location shall not relieve Sellers and their Sub-Tiers of any issues associated with their products/services.

8.18. FIRST ARTICLE SUBMISSION:


- Sellers shall provide a First Article Inspection Report (FAIR) and samples, as specified by ATS on issued P.O. &/or Specifications, documenting the results of Seller's First Article Inspection and/or Test of the product and each sub-tier component including First Article Inspection results of all sub-tier builds and components.
- The seller shall perform a full FAI or partial FAI for affected characteristics, when there is a "CHANGE" in the design affecting fit, form, or function of the part; manufacturing source(s), process(s), inspection method(s), location of manufacture, tooling or materials, that may affect fit, form or function; numerical control program or translation to another media that may affect fit, form, or function; natural or man-made event, which may adversely affect the manufacturing process, and a lapse in production, as determined by ATS.

8.19. TRACEABILITY: Sellers shall establish and maintain documented information for identifying the product & services from point of conception, through receiving and during all stages of production and delivery.

8.20. CRITICAL TO QUALITY (CTQ):

- **CTQ:** ATS may choose to place additional control requirements besides what is stated on PO, DWG & Specs via CTQ designations to ensure proper processing and measuring of key and critical characteristics.
- **SPC/Cpk:** Process Control Techniques (PCT) and Statistical Process Controls (SPC) shall be utilized on normal production, where applicable, with the goal of achieving $Cpk \geq 1.67$ for both short and long-term SPC studies.
- **CONTROL PLAN:** Control plans describing the required actions at each phase of manufacturing process including receiving & inspection of material, Work-In-Process (WIP) & Shipping activities like labeling & packaging requirements for a part &/or family of parts.

8.21. WORKMANSHIP: ATS requires that all suppliers, contractors and service providers to establish and maintain adequate workmanship acceptability per

	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 16 of 21

quality & industry codes and standards, including Foreign Object Debris (FOD), to meet the issued P.O. requirements.

8.22. CONTAMINATION: Sellers are required to establish an effective program in place to reduce the risk of Foreign Object Debris (FOD) and product contamination at all stages and locations.

8.23. STOCK CONTROL:


- Sellers are required to establish a verifiable system for safe keeping of all inventory materials, raw & finished goods, and protection against potential damages to the proper use and integrity of items.
- Special accommodations must be provided, and regular verifications need to take place for environmental and shelf-life sensitive materials.
- Use of FIFO, KANBAN or other inventory management systems are expected be utilized for stock rotation optimization.

8.24. SOURCE INSPECTION: If Source Inspection by ATS is required, Seller shall notify ATS sufficiently in advance of the availability of product for source inspection so that it can be scheduled at Seller's facility prior to the Purchase Orders' specified delivery due date. Seller's measuring, testing or any other required equipment(s)/tool(s), facilities, and personnel shall be made available for use by ATS's representative when requested during source inspection.

8.25. OBSOLESCENCE / END OF LIFE PROGRAM:

- Sellers shall have an established End of Life (EOL) & Obsolescence process with a minimum "270" days advance written notice to "**ATS_Supplier_Change@beaerospace.com**" and hold inventory reserve of "365" days based on the previous 2 year's usage by ATS.
- Sellers are responsible for compliance of their Sub-Tier sources to ATS's End of Life (EOL) & Obsolescence program requirements.

8.26. COUNTERFIET PREVENTION: Sellers shall ensure use of only new and authentic materials to ATS, prevent delivery of counterfeit parts to ATS, and establish a documented process for handling Counterfeit occurrences and immediate notification to ATS, if such incident(s) is confirmed.

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023 Page 17 of 21

8.27. SERIALIZATION: When applicable and specified on ATS's P.O. &/or Spec, Sellers parts must be marked in a fashion that identifies supplier's name, date of manufacturing with a unique part serialization that shall be legible for the life of the product and not be altered, duplicated, or replaced without prior written authorization from ATS and traceable to Sellers internal processes.


8.28. SAFETY CERTIFICATIONS: Sellers shall provide evidence of product certification, when requested, for assuring public safety and protecting the safety of consumers as defined by:

- Underwriters Laboratories "UL" (USA) Certification and UL 61010-1 or UL 60950-1.
- European Conformity "CE" (EU/EEA) Declaration and/or Equipment Tag to EN 61010-1 or EN 60950-1.

8.29. CALIBRATION OF MEASUREMENT AND TEST EQUIPMENT:

- Sellers shall comply with the calibration system described by ISO 17025, or equivalent as applicable to their products & services.
- Inspection gages and test equipment must be controlled as part of the supplier's "Periodic Calibration" system prior to use in production.
- Periodic tool inspection cycle, based on use and location, shall be enough to ensure accurate measurements.
- Define the calibration process by including the details of equipment type, identification number, and locations of usage, frequency of checks, calibration methods, environmental conditions, acceptance criteria, record keeping and retention time.
- Sellers shall keep all inspections and calibration records available for evaluation (Audit) by ATS.

8.30. ATS OWNED TOOLS & EQUIPMENT: Sellers are responsible for Calibration, proper Maintenance, and accurate use of ATS owned tools & equipment held in their possession.


 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: "D" 05.04.2023	Page 18 of 21

8.31. SHELF-LIFE CONTROL OF NON-METALLIC PARTS:

- Prior to shipments to ATS, Sellers must indicate any applicable shelf life, manufacturing/cure date, or expiry date limitation on their certificate of conformance (C OF C), and on all containers and packages.
- As applicable to Seller's products, Seller shall systematically control time, temperature, environmentally sensitive and hazardous Materials within a defined acceptable range that will include any "special" storage or handling conditions, when required.
- Materials with limited shelf-life require Sellers show on each container and on the certificate, the cure or manufacturing date, expiration date or shelf life and lot's batch number.
- It is Seller's responsibility to assure that upon delivery of age sensitive materials to Buyer, the materials will have 75% of their remaining shelf life as a minimum, unless otherwise specified.

8.32. PACKAGING/ESD LABELING:

- Use of newspapers for packaging products is prohibited.
- Parts must be segregated and packaged in a manner that will prevent shipping or handling damage.
- Each part number should be boxed/bagged separately; packed per PO lines; packaged and shipped to P.O line item quantities; cannot combine same part numbers line items in bulk shipments.
- Customs regulations require every foreign product must be labeled, in English, with the country of origin clearly and visibly located on the product and written legibly and permanently.
- Package PC Boards in transport/shipping boxes with dividers. Boards are to be in separate divider slots. No Stacking acceptable and use of bubble pack shall be at the discretion of the supplier
- Package ESD Sensitive assemblies in a Shielded (Conductive) bag; Ref. ANSI /ESD S541


 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 19 of 21

- The use of pink poly ESD bags is prohibited for the primary ESD container. Pink poly can only be used only as a secondary material, to avoid possible contamination and/or corrosion. Amine/amide free material is required.
- The outside packaging containing ESD sensitive items shall have an ESD warning label. This same label shall be used to seal shielded bags. Electrostatic Discharge (ESD) sensitive materials, assemblies, parts, components, etc., shall have a sealed conductive primary container that is ESD compliant.
- ESD warning labels shall be visible at the point of access. Dust caps used in conjunction with ESD material shall be ESD compliant as defined in ANSI/ESD S20.20.

8.33. SHIPPING RECORDS:

Sellers shipping records shall include Packing Slip and the Certificate of Conformance (C of C), linked to the Purchase Order, in English language, accompanied by each shipment to include:

1. ATS's Purchase Order Number,
2. Part number and revision, Change Notices, packing slip/shipper number,
3. Certifications of Raw materials, and secondary/special processes (if applicable),
4. Manufacturing location and place of origin,
5. Statement to confirm all supplied products and services have been certified by suppliers' Quality Assurance management and comply with testing, specified raw materials / processes, and all the applicable requirements conform to drawings/specification of the ATS's purchase order.
6. Sellers shall furnish all certifications, test reports and samples issued by Seller or Seller's sub-tier sources with the initial delivery of product(s) on the Purchase Order.
7. If parts are subject to any special processes, Seller shall furnish appropriate certificates. Required standards or specifications shall be referenced as applicable.

 Advanced Thermal Sciences	GLOBAL Supplier Quality Assurance Manual (GSQAM)		Doc No: 4097134
			Revision: "D" 05.04.2023
			Page 20 of 21

8. All articles of foreign origin (or its container) imported into the U.S. shall be marked with its country of origin. Goods must be marked in English. (Section 304, Tariff Act of 1930, as amended / 19 U.S.C. 1304)


9. **PACKING SLIP REQUIREMENTS:**

- Packing Slip number
- ATS Purchase Order number
- ATS Part Number/Quantity Shipped/ REV
- Purchase Order line Number
- Tracking Number; not be required if supplier utilizes their own transport carrier
- Barcode serial number list (for serialized parts)
- Supplier Lot Numbers (If applicable)
- Country of Origin must be noted (Where goods are Manufactured)
- Scheduled B No. / HTS Code, for INTERNATIONAL shipments.
- ECCN classifications, for INTERNATIONAL shipments.
- Multiple Boxes with the same Packing slip must reference BOX 1 OF 2, BOX 2 OF 2, etc. (as applicable). Packing slips are required on outside of box #1 and inside each additional box.

10. **ROHS COMPLIANCE:** Sellers to provide a RoHS "C of C" with shipments of all parts being delivered to ATS and can be included as part of the standard C of C.

8.34. RECORDS RETENTION:

- Unless otherwise approved in writing by ATS, Seller shall retain all required records for a minimum of 7 years after delivery of parts to ATS.
- The ATS related documents and records included, and but not limited to, are Design, Procurement, Resources, Materials, Manufacturing, Testing, Processing, Inspection, Audits, Preservation of Products, packaging, Shipping Certificates, and records of Seller's sub-tier suppliers. Such records shall be subject to verification and be available to ATS for review upon request.
- If a Seller is no longer holding "Approved" status with ATS, all above mentioned documents and ATS provided equipment / HW (hardware) shall be submitted to ATS's Supply Chain upon termination of business relationship within Thirty (30) days or sooner, depending on urgency of the request.

	GLOBAL Supplier Quality Assurance Manual (GSQAM)	Doc No: 4097134	
		Revision: “D” 05.04.2023	Page 21 of 21

- Based on written mutual agreement, ATS can maintain the records for Seller, if Seller is unable to hold the records for the minimum requested retention time.