





ASTEELFLASH
YOUR EMS PARTNER

SUPPLIER GENERIC REQUIREMENTS

QUALITY ASSURANCE REQUIREMENTS FOR SUPPLIERS, PROVIDERS AND
SUBCONTRACTORS

Version	Date	Writing	Object of evolution	Verification	Approval
1	23/04/2018	L. LE BERRE	Release of the document.	R. KAROUN	V. PRADIA
0.7	13/04/2018	L. LE BERRE	Add §5.1.2.4 : ESD Standards	E. GIRAULT	
0.6	12/04/2018	L. LE BERRE	Add §5.1.1.1 Statutory and regulatory requirements. (IATF16949 §8.4.2.2)	R. KAROUN	
0.5	09/04/2018	L. LE BERRE	Legal reading	A. DELAHAIE	
0.4	09/04/2018	L. LE BERRE	Modification § 4.1 : add mineral conflict ;§4.2.2 : Dangerous substance; §5.1.1.3 : Export control; §5.1.2.4 : precision on dangerous transportation	R. KAROUN	
0.3	13/02/2018	L. LE BERRE	Modification § 4.1	R. KAROUN	
0.2	06/12/2017	L. LE BERRE	Modification § 4.1 : Preventing Slavery / human trafficking and minor correction Addition §4.6 : Non-conformity management , §5.1.1.13 Calibration	R. KAROUN	
0.1	06/10/2017	L. LE BERRE	Creation	R. KAROUN	

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English Version



1. PURPOSE

This Manual defines the quality requirements applicable to all services and products provided by suppliers to ASTEELFLASH.

2. SCOPE



This Manual is applicable to all suppliers (delivering items, operations necessary to manufacture products delivered to customers and all providers) of ASTEELFLASH.

The supplier remains, whatever the level of subcontracting, responsible for the conformity of the delivered products/ services with the Manual.

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4. GENERAL REQUIREMENTS

4.1 SUSTAINABLE PROCUREMENT

The ASTEELFLASH group ensures the implementation of a responsible purchasing policy and collaborates with suppliers whose commercial and industrial practices respect the following principles:

- Respect legal requirements
- Contribute to a safe and healthy work environment
- Commit to diversity and respectful working conditions
- Provide a healthy and safe working environment and comply with all health and safety laws, regulations and practices
- Comply with all laws in force relating to the minimum working age and have no recourse in any circumstances to child labor
- Have no tolerance to slavery and human trafficking (1)
- Comply with all laws in force relating to remuneration, overtime and working hours and conditions.
- Guarantee confidentiality
- Avoid conflicts of interest
- Refuse any form of corruption or collusion
- Develop fair and transparent business practices

ASTEELFLASH is committed to complying with laws and regulations requiring the disclosure of the use of minerals from conflict areas and expects the same commitment from its suppliers. Upon request from ASTEELFLASH, suppliers shall specify whether their products contain tin, tantalum, tungsten, gold or any other material specified in the applicable rules of the Securities and Exchange Commission (SEC) as "material from conflict areas". The supplier shall also take the necessary measures and provide the additional data in the form required by ASTEELFLASH, as may be required.

Supplier shall ensure that its own suppliers and subcontractors share the principles stated here above.

(1) In accordance with section 54 of the Modern Slavery Act 2015 (UK Regulation)

4.2 RESPECT FOR HEALTH, SAFETY AND ENVIRONMENT

4.2.1 HSE Approach

As part of its Health, Safety and Environment (HSE) approach, ASTEELFLASH requires its suppliers to:



- Comply with the applicable regulations in terms of Health, Safety, Environment,
- Alert ASTEELFLASH on supplies that may affect the health and safety of staff,
- Alert ASTEELFLASH in case of potential environmental impact of the supplies, and advise ASTEELFLASH should supplier set up an HSE management system.
- have a plan to improve Health, Safety and the Environment by integrating the following criteria in its processes:
 - Research and proposal to customer of solution that reduces risks during interventions,
 - Research and proposal to customer of significant reduction of incoming packaging.

ASTEELFLASH can perform audits and/or assessments in the areas of Health, Safety and Security, Environment at the suppliers' facilities to ensure its suppliers' compliance with regulations and effectiveness of their HSE management system.

4.2.2 Dangerous substances regulations

Many countries have put in place regulations to regulate the production and use of chemicals in order to limit their negative effects on human health and the environment.

The supplier shall be aware of and comply with dangerous substances regulations (i.e. China REACH (CN), the Toxic Substances Control Act (TSCA) (USA), the REACH Regulation (EC No. 1907/2006) (EU)...). It shall advise ASTEELFLASH of all necessary information concerning the presence of hazardous substances in its supplies to ASTEELFLASH.

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4.3 QUALITY SYSTEM

When all or part of its supplies are intended for a specific sector of activity (military, space, aeronautics, automobile, medical, railway ...) the supplier shall have a system of quality assurance, certified by an accredited body, responding to requirements of the Quality System Model specific to this line of business.

Business	Aeronautic, Spatial, Defense	Automotive	Railway	Medical devices	Telecom
Certification	EN/AS/JS 9100 EN/AS/JS 9120	IATF 16949	IRIS ISO/TS 22163	ISO13485	TL9000

When its suppliers are not intended for a specific sector of activity, the supplier shall have a quality assurance system, certified by an accredited body, meeting the requirements of the ISO 9001 quality management system.

Failure to comply with the aforementioned certifications, the supplier is obliged, at the request of ASTEELFLASH, to comply with the arrangements made for quality assurance, in particular:

- The organizations it has set up for the quality, control and maintenance aspects,
- Any evolution of these organizations,
- How it guarantees the maintenance of skills and the qualification of its staff.

4.4 SUPPLIER AUDIT

ASTEELFLASH and its customers reserve the right to audit the supplier whether or not a quality problem has occurred. An audit date will be agreed in advance and the supplier will commit to the proper conduct of the audit. An audit report will be written and transmitted by ASTEELFLASH to the Supplier.

For products submitted to regulatory authorities (Ex: product for avionics, defense and space ...), the supplier must give the right of access to its sites concerned by the purchase order and its records for ASTEELFLASH, its customers and the regulatory authorities.

ASTEELFLASH will be able to perform audits or quality inspections in the supplier's premises (and if necessary in the premises of the supplier's subcontractors) in order to verify:

- the supplier's compliance with the requirements of the present Manual;
- the conditions under which the contract or purchase order is fulfilled;
- the conformity of the product to the specified requirements;
- the compliance of the processes with the specified requirements;
- the implementation of the requested corrective actions.

4.5 INDUSTRIAL CHANGE



Any significant industrial change must be communicated to ASTEELFLASH via an official document (Industrial changes include the following: ERP, process or equipment evolution, place of manufacture, organization, change of supplier, transfer...)

Depending on the case encountered, the supplier may submit a risk assessment file and/or a qualification plan at the request of ASTEELFLASH with the prior approval of ASTEELFLASH.

4.6 NON-CONFORMITY MANAGEMENT

The supplier shall implement a non-conformity management system that must include provision for:

- Identification of non-conforming
- Segregation of such material or parts from acceptable items

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- Documentation defining the nature of the defect and what remedial/corrective action has been authorized and undertaken.

Nonconforming material may not be delivered without prior written approval of ASTEELFLASH.

A supplier Corrective Action Request will be sent to the supplier. The initial response with containment action is required within 24 hours. A corrective action plan is expected to be completed within 15 days.

For material, all containment and/or replacement costs incurred by ASTEELFLASH will be charged back to the supplier. These costs may include, without limitation, the following:

- Administration cost;
- Any sorting cost required prior to receiving certified stock or supplier support for sorting ;
- Shipping cost to return product ;
- Possible VAT, duties or any custom related charges paid by ASTEELFLASH;
- Charge backs from our customers ;
- Scrap product and line down time;

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5. SPECIFIC REQUIREMENTS

5.1 MANUFACTURER, DISTRIBUTOR, SUB-CONTRACTING

5.1.1 Quality assurance requirements

5.1.1.1 Statutory and regulatory requirements.

The supplier shall identify of applicable statutory and regulatory requirements needs to consider the country of receipt, shipment, and delivery. If ASTEELFLASH or its customer define special controls for certain products, the supplier shall ensure they are implemented and maintained as defined, including its own suppliers.

5.1.1.2 Specifications related to product types

The supplier undertakes to respect the following specifications according to the services requested

- **CRP_09_PRO_009_B**: PCB Generic Requirements
- **CRP_09_PRO_009_C**: Mechanical Parts Generic Requirement
- **CRP_09_PRO_009_D**: Cable & Wire Generic Requirement

5.1.1.3 Configuration Management System

The supplier shall have a configuration management system describing the elements managed in configuration and the principles adopted for their evolution.

The supplier shall take into account the documents necessary to fulfill the order with the latest indexes that have been made available by ASTEELFLASH.

The supplier shall manage in configuration the following elements:

- Data provided by ASTEELFLASH: Definition file, industrial specifications, data contractual, etc.
- The different elements of the Manufacturing and Control Dossier, if applicable,
- All the complementary elements of the Industrial File, if applicable,
- Proofs and validation reports,
- Documents delivered or delivered to ASTEELFLASH

5.1.1.4 Export control

The supplier shall be aware of and comply with export control and final destination regulations. It shall inform ASTEELFLASH of any restrictions related to its supplies.

The supplier shall identify the materials subject to Export Control constraints, be aware of the situation of each like-unit at all times, protect such materials against loss, theft or unauthorized access.

5.1.1.5 Traceability

On ASTEELFLASH' request suppliers shall transmit direct and reverse traceability under 3 working days.

Direct traceability is used for finding the different constituent elements of the supplies:



SUPPLIES -> CONSTITUENT -> TRACED ELEMENT

Reverse traceability is used for finding all the constituents and supplies having used a traced element:

TRACED ELEMENT-> CONSTITUENT-> SUPPLIES

For all supplies produced under its responsibility, the supplier shall record the data required to produce the following for a consistent manufacturing batch, the monitoring documents tracing:

- the identification of the as-built configuration,
- the phases and/or operations performed in-house or subcontracted, or the certified operators who performed the operations,

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- any nonconformities and corrective actions implemented,
- any acceptance documentation and declarations of conformity,
- evidence of process qualification and product/supplier pairs,
- any waivers,
- any missing Material (not following the normal manufacturing process),
- any documents recording the checks carried out,
- the test software configuration,
- any process changes (soldering, baking, cleaning, etc.),
- the procurement sources and the date-code or batch number for each source .

This record shall be sent together with the supplies (Tracking sheet), if required under the order.

5.1.1.6 Batch Constitution

Each batch corresponds to a homogeneous production unit, i.e. manufactured under the same conditions of production and at the same time. Each production batch must be distinguished during delivery and must have its own documentation.

5.1.1.7 Competence, Training and Awareness

The supplier:

- identifies the key posts for the product's quality and which call for staff accreditation;
- provides evidence that operators are accredited and trained in ASTEELFLASH's products and in ASTEELFLASH's technical and industrial requirements;
- describes the decision criteria for such accreditation and its follow up;
- keeps appropriate records.

5.1.1.8 Process Qualification

The control of the production requires the control of the processes implemented internally as well as at ASTEELFLASH's suppliers level. Depending on their complexity and impact, these processes require appropriate levels of monitoring.

As such, it is the supplier's responsibility to provide, upon ASTEELFLASH's request, evidence of the qualification of the processes implemented or to present its qualification plan.

The supplier must identify the special processes ("Process where the results cannot be completely verified subsequently by a control or test on the product and the consequence of defects therein may only become apparent on the use of such product.") employed in the manufacture of the product.

These special processes must be qualified by the supplier before being used.

The significant process parameters must be identified, controlled and recorded.

These provisions apply equally to special processes that have been subcontracted.

The qualification dossier for the special processes must be available for consultation by ASTEELFLASH, upon request.



5.1.1.9 Special/ Key Characteristic

Special characteristics are identified on plans or specifications.

The supplier shall show throughout the project its ability to ensure compliance of these special characteristics. In particular, the supplier is asked to study the variability of the special characteristics by carrying out process performance studies.

For quantifiable characteristics, the process performance study is performed via a capability measurement that must meet the following requirements:

Cmk	Cpk
2	1,67

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If these requirements are not fulfilled or if the production volume does not allow the realization of capabilities, this means that the process cannot guarantee the conformity of the characteristic: a control of the characteristic adapted to the variability of the process shall then put into operation by the supplier (this can be up to 100% control). In case of critical characteristic, automatic control or poka-yoke is preferred. Operator control will necessarily be doubled.

5.1.1.10 Anti-counterfeiting policy

ASTEELFLASH endeavors to ensure that its products comply with the highest possible level of quality and reliability. Consequently, ASTEELFLASH will never use counterfeit components in its products. In this respect, the supplier must:

- establish a process aimed at detecting and reporting counterfeit components, or those suspected of being so, that may appear in its supply chain;
- know the origin of all components and materials and ensure their authenticity;
- respond to requests for information on the source of any component or material.

5.1.1.11 Foreign Object Detection (FOD) policy

The supplier must take steps aimed at avoiding the damage that may be caused by a foreign body or unwanted item.

The Supplier must put in place provisions for the prevention, detection and elimination of foreign objects during manufacturing, assembly, inspection, storage, maintenance, packaging and shipping operations.

5.1.1.12 Perishable or limited shelf-life product

Information must be provided on products or materials likely to degrade over time, during storage or transport. The supplier must state on the label on the packaging the date of original manufacture of the product, the shelf life and the expiration date. All products with a limited shelf life must have 80% or more of their service life remaining at the time of delivery.

5.1.1.13 Obsolescence

The supplier must take all steps to identify the materials, procedures or products which may become obsolete. The supplier must notify the ASTEELFLASH Procurement Department immediately of the obsolescence of a product forming part of the nomenclature of the product to be supplied as soon as it is aware thereof, together with the manufacturer's justification and if possible suggesting an equivalent reference product.

5.1.1.14 Prototype / Initial Sample / FAI

During project, the supplier will produce prototypes and initial samples. Prototypes can be used for design qualification and validation of feasibility, so they must at least be produced according to the product plan. Compliance with the other elements of the specifications will be agreed between ASTEELFLASH and the supplier.



The Initial Samples (IS) are used for the product-process qualification: as such, they must be produced according to the specifications as a whole. In particular, they must be produced with the series process.

Outside the project mode, any first production of a product after a change of index or a process change (line transfer, new tooling, etc.) must also lead to the production of initial samples.

The acceptance of these prototypes and initial samples will be pronounced by ASTEELFLASH after checking these parts and associated documents but also after checking the correct integration into the ASTEELFLASH process.

If no particular requirement (AS / EN / AS9102, PPAP ...) has been submitted to the supplier, the initial samples will be accompanied, at least:

- A material conformity declaration or a material analysis report (for the specific materials requested in the plan)
- The product / process monitoring plan applied to serial production
- The control report of the manufactured batch (dimensional report, test results ...)
- The component plan used by the supplier (if different from the plan provided by ASTEELFLASH)
- For hazardous substances and preparations (chemicals, plastics, etc.), an updated copy of the Safety Data Sheet must be provided with the sample.

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5.1.1.15 Calibration

Equipment calibrations shall be traceable to an appropriate national standard.

Outside Calibration / Testing Service suppliers are required to be ISO/IEC 17025 certified or national equivalent.

5.1.2 Supply Chain requirements

5.1.2.1 Purchasing Process

The supplier shall be responsible for the purchasing and procurement control required for the Supplies. The supplier shall comply with the selection of qualified manufacturers and/or vendors defined by ASTEELFLASH. If no supplier or vendor is imposed, the selection shall be the supplier's responsibility. The supplier shall keep ASTEELFLASH informed of any market tensions or any intermittent problems encountered by qualified manufacturers or vendors.

The supplier shall ask for the ASTEELFLASH explicit consent to purchase Materials from brokers - which are intermediate agencies whose primary activity is to find stocks of components outside the normal supply channels (original equipment manufacturers or authorized distributors)

The supplier shall identify any of its own suppliers which may be subject to performance monitoring and tracking. When deviations occur, corrective actions shall be implemented.

5.1.2.2 Purchasing Information

The supplier shall flow down to its own suppliers the requirements stated in this document, when they are applicable to them.

5.1.2.3 Verification of Purchased Product

The supplier is responsible for tailoring the materials receiving inspection according to the requirements for products and materials.

The receiving inspection shall be carried out on a 100% or sampling basis. When performed through sampling, the receiving inspection shall adhere to statistical rules laid down in the ISO 2859-1 standard or equivalent (ex: ANSI/ASQ Z1.4).



For AS/EN/JIS 9100 material / product, raw material measurements or analysis shall be carried out by sampling to check the test reports associated with material declaration of conformity.

5.1.2.4 Storage, handling and packaging

The supplier must ensure that the component/products are protected against any cause of damage whatsoever during all work commissioned from him.

The supplier must:

- Use appropriate handling equipment;
- Use appropriate packaging (The weight and volume of the packages allow handling and storage without the aid of special means if the unit mass is less than 15 kg) and pay particular attention to the cleanliness of the packaging in order not to supply items in poor condition ;
- Use specific means to conserve products requiring particular storage conditions (e.g.: temperature, humidity, etc.);
- Use dry pack for moisture sensitive electronic components according to IPC/JEDEC J-STD-033;
- The suppliers of products sensitive to electrostatic discharges must ensure that the product is protected during the process of manufacture, identification and packaging for delivery, according to IEC 61340-5-1, IEC 61340-5-2, IEC 61340-5-3 ;
- As far as possible, the supplier must dedicate storage areas to ASTEELFLASH's raw materials, components and products;

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- Use UN packing, certified labels, dangerous goods declaration and certified personnel for all goods defined as “dangerous” by the United Nation (such as lithium batteries, solder paste, top coat resin, solder flux, solvents, washing chemicals...)

5.1.2.5 Delivery

Each carton must be identified by a label with, at least, the following information:

- Article description according to the order description;
- Item Reference;
- Order number;
- Shipping date;
- Number of the delivery note;
- Quantity per carton;
- Lot number and / or date code.

Each pallet must be identified by a pallet sheet with, at least, the following information printed in clear:

- Item Reference;
- Item description following the order designation;
- Quantity parts of the pallet;
- Delivery note number;
- Shipping date;

The delivery must also be accompanied by the following documents:

- A delivery note reminding:
 - The order Number;
 - The delivered quantity;
 - The ASTEELFLASH part number;
 - The modification index/version;
 - The part designation;
 - Freight carrier’s name and contact details
- A certificate of conformity in accordance with ISO 17050-1; ISO 17050-2