



# QUALITY ASSURANCE AGREEMENT

## QUALITY ASSURANCE GUIDELINE FOR SUPPLIERS (QSL)

### 1 General Agreements

#### 1.1 Applicability, Subject of the Agreement

This agreement is an integral part of the supply agreement with Tesat-Spacecom.

In order to take into account special requirements, specific additions (individual agreements) to this agreement can be attached to the supply agreement.

#### 1.2 Quality Management System of the Supplier

Based on the requirements of the international standard ISO 9001 the supplier agrees to introduce and maintain a quality management system with the obligation to set a zero-defect target and to continuously improve his performance.

##### 1.2.1. Counterfeit Parts

For EEE parts counterfeit parts prevention according to ECSS-Q-ST-60 or AS5553 has to be applied.

For all other parts and materials adequate prevention actions have to be established.

#### 1.3 Quality Management System of Subcontractors

The supplier shall commit his subcontractors to establishing and maintaining a comparable quality management system which ensures the defect-free condition of his purchased parts and/or externally finished parts.

Tesat-Spacecom may demand documented proof from the supplier showing that the supplier has ensured the effectiveness of the quality management system utilized by his subcontractors.

In the event quality problems caused by raw material, components or parts should arise, the supplier shall enable Tesat-Spacecom to conduct an Audit at his subcontractors.

#### 1.4 Audit

The supplier shall authorize Tesat-Spacecom to determine through audits whether his quality assurance measures meet the requirements of Tesat-Spacecom. An audit can be conducted as a system, process or product audit, and will be announced in a timely fashion.

The supplier shall grant Tesat-Spacecom - and its customers, to the extent necessary - access to all plant areas, test departments, warehouses and ad-joining areas, as well as access to quality-relevant documents. Reasonable restrictions imposed by the supplier to safeguard business secrets will be accepted.

Tesat-Spacecom shall communicate the result of this audit to the supplier. If in the view of Tesat-Spacecom corrective measures are required, the supplier agrees to prepare a plan of action immediately, to implement it on schedule, and to notify Tesat-Spacecom of it.

Audits by other customers and certificates can be recognized

#### 1.5 Information and Documentation

If it becomes evident that agreements reached such as quality characteristics, timetables, delivered quantities cannot be met, the supplier shall notify Tesat-Spacecom to this effect immediately. The supplier shall also notify Tesat-Spacecom immediately of any deviations detected after delivery. In the interest of an expeditious solution, the supplier shall disclose all relevant data and facts.

The supplier agrees to inform Tesat-Spacecom on

- changes in the production method / materials (including subcontractors),
- changing of subcontractors,
- changes in test methods/equipment, as well as
- relocation of production sites
- relocation of production facilities at the location

and to furnish the corresponding necessary quality documentation. Moreover Tesat-Spacecom's approval shall be obtained, when contractually agreed.

All changes made on the product and in the process chain shall be documented by the supplier in a product history, and shall be submitted to Tesat-Spacecom upon request.

The supplier shall provide rules governing the handling of all documents and data in process instructions, and shall implement them effectively. Documents of outside origin, such as standards and customer drawings, shall be incorporated to an adequate extent.

Mandatory safekeeping of the documents with special archiving extends to 15 years. The supplier shall grant Tesat-Spacecom the right to inspect the records upon request.



## 2 Agreement on the Product History

### 2.1 Development, Planning

If the order placed with the supplier includes development tasks, the requirements shall be set forth in writing by the signing parties to the agreement, e.g. in the form of specifications. The supplier agrees to conduct project management as early as during the planning phase of products, processes and other cross functional tasks in the form of quality management plans, and to grant Tesat-Spacecom the right of inspection upon request.

In the course of reviewing the agreement, the supplier shall examine all technical documentation, such as specifications, drawings, parts lists, CAD data, for feasibility upon receipt; the supplier shall notify Tesat-Spacecom immediately of any defects and risks as well as improvement possibilities identified.

During the development phase the supplier shall apply suitable preventive methods of quality planning, such as a manufacturing ability analysis, reliability studies, FMEA, etc. The supplier shall take into account experiences (processes, process data, capability studies, etc.) from similar projects.

Characteristics with special archiving requirements shall be determined by Tesat-Spacecom and the supplier.

For prototypes and other sample parts, the supplier shall coordinate the manufacturing and test conditions with Tesat-Spacecom and shall document these. The goal is to build prototypes and sample parts under conditions approximating final production.

For all characteristics the supplier shall conduct process planning (work plans, test plans, equipment, tools, machinery, etc.). For function and process-critical characteristics the supplier shall examine the suitability of the manufacturing facilities according to statistical criteria and shall document the results. The product quality is monitored through regular audits.

Prior to starting production, the supplier shall submit initial samples of the ordered product built under final production conditions in agreed upon quantities and on schedule. Initial samples shall be supplied according to Tesat-Spacecom requirements.

### 2.2 Volume Production, Identification of Products, Traceability

In the case of process disruptions and quality deviations, the supplier shall analyze the root causes, shall initiate improvement measures and review their effectiveness.

If, in exceptional cases, the supplier is unable to supply products conforming to the specification, he must inform Tesat-Spacecom immediately after he has got knowledge of the situation and obtain special approval from Tesat-Spacecom prior to the delivery.

The supplier agrees to identify the products, parts and the packaging in accordance with agreements reached with Tesat-Spacecom. He must make sure that the identification of the packaged products will also remain legible during shipping and storage.

The supplier agrees to ensure the traceability of the products supplied by him. In the event of a failure the identification of affected defective parts / products / lots / batches, etc., must be ensured.

A lot or batch is a number of parts that are manufactured by the supplier

- to the same drawing number,
- using the identical raw material,
- on the same production line,
- using the same machines,
- applying the same processes

If Tesat-Spacecom makes production and test equipment available to the supplier in connection with the purchase of supplies, the supplier shall treat them like his own production and test equipment with respect to maintenance and care.

### 2.3 Delivery, Receiving Inspection

The supplier shall deliver the contract products in suitable shipping containers in order to prevent damage and quality impairments (e.g. contamination, corrosion, chemical reactions).

Certificates and conformance declarations will be delivered by the supplier together with the contractual product as required.

Tesat-Spacecom will conduct receiving inspection under consideration of statistical aspects. The goal is to reduce receiving inspection to the extent ever possible for parts that have met our quality standards.

### 2.4 Complaints, Measures

The delivered products are inspected in the normal course of business, and the supplier shall be notified immediately of any defects detected in the process. To this extent the supplier waives an objection to a delayed notification of defect.

Defective parts shall be returned to the supplier as agreed upon. He agrees to analyze each deviation and to notify Tesat-Spacecom promptly of the root cause of the deviation, initiated corrective and preventive measures, as well as their effectiveness.

If the supply of components not conforming to the specification should threaten to cause a production stoppage at Tesat-Spacecom or its customers, the supplier, in consultation with Tesat-Spacecom, must seek a remedy through suitable immediate measures for which the supplier is responsible (replacement supplies, sorting, rework, special shifts, rush shipment, etc.).



### 3 Quality Targets

Just as Tesat-Spacecom in dealing with its customers, the supplier dealing with Tesat-Spacecom is committed to deliver products free of defects.

If the zero-defect target is not attainable in the short term, Tesat-Spacecom, together with the supplier, shall set time-limited upper limits for defect rates as an interim target. If the supplier determines that the target set cannot be attained, he agrees to submit specific plans of measures to Tesat-Spacecom.

Being within agreed upon upper limits does not relieve the supplier from his obligation to process all complaints and to carry on with continuous improvements.

This does not affect the supplier's liability arising out of warranty and claims for damages due to defective supplies.

### 4 Confidentiality

Both parties agree to keep confidential information obtained from the other party, including the contents of this agreement, and to use it exclusively in the interest of the contract terms in effect between the parties. This does not apply to information with respect to which it can be demonstrated:

- that it was known to the public at the time it was disclosed by one party, or is made known to the public after that time through no fault of the other party,
- that it was known to the receiving party prior to the disclosure or is disclosed to the receiving party by third parties without the receiving party having been committed to confidentiality by the third party,
- that it was developed or is being developed by the receiving party independent of the disclosure.