

SCHWEIZER Quality Standard (AA-SE-QM-008)

(This is valid provided that no other explicitly agreed specification/agreement is in place)

1.	Management System
	<ul style="list-style-type: none"> a. Quality Management System: certified according IATF 16949 b. Business Language is based on the location of production and the location of order. If location of production and location of order is the same, business language will be the national language (Order and production in Germany -> business language will be German, Order and production in China -> business language will be Chinese). If location of production and the location of order are not in the same country the business language will be English (Order in Germany, production in China -> business language will be English). Documentation in foreign language will be charged according to expenditure. c. Product-related requalification's are being executed once per year regarding technology families. For these requalification's test panels and PCB are being used that are technologically comparable. d. If requested, PPAP/PPF is done following submission level 2. Statistical proofs only when drawings related to articles are being shown. The application of evaluations of test panel process capabilities is admissible. One PCB is being measured. e. Quality features are only reported when they are shown on the customer's product-related drawing. Quality features from cross references and general references to standards are not part of the obligation to produce proof. Requirements beyond this are being charged according to expenditure. f. Documentation (FMEA, Control Plan, Flow Charts) is being done related to technology, based on product families. Documentation related to articles are being charged according to expenditure. g. Audits of our customers are possible upon agreement. Audits of our customers at our suppliers are subject to our supplier's approval. h. Change management: Customer information in case of changes are done according to our " Guideline for Customer Notifications of Product and /or Process Changes (PCN) of Electronic Components specified for Automotive Applications Revision 4.0 December 2019 issued by ZVEI e.V. (the German electrical and electronic manufacturers' association). i. Contract verification constitutes a test for producibility of PCBs in the context of our processes. A complete test of the correctness of the order specification is not part of the contract verification and remains the responsibility of the ordering party. j. Specifications are only valid upon our explicit agreement. This is also valid for online accessible specifications and standards (for example in a portal)
2.	Technical Specifications
	<ul style="list-style-type: none"> a. If no IPC-6012 class is defined we want to achieve the quality criteria of IPC-6012 class 2 and related IPC-A-600 class 2. The valid IPC-6012 and IPC-A-600 which is valid at the time of setting up the PCB at Schweizer. Proofs for IPC are being charged according to expenditure. Unless specified differently in the offer, tests accompanying a series are being executed according to SCHWEIZER's control plan, valid at the time of manufacturing. During the annual requalification, the usual Q-features of the PCB industry are being verified. A IPC-2221 valid design is necessary to implement IPC related requirements. b. Test on IPC Coupons will be only done according to agreement and will be charged according to expenditure. c. Regarding manufacturing tolerances, the SCHWEIZER PCB standard (LPS) applies. Upon request, we will gladly provide you with further technical details regarding LPS. d. Storage condition according to IPC/JEDEC J-STD 020 class 2a do apply. Further storage conditions must be agreed upon separately. e. Processing conditions: as the PCB's layout specified by the customer has a strong influence, the processing conditions must be adapted to the PCB by the buyer. The maximum temperature in the PCB during processing must not exceed 260 °C. f. In case of drilling diameters < 0,3 mm, the drilling might be closed by solder resist for technical reasons. The same applies in case of hot air levelling of the surface. This occurs due the layout reasons and does not constitute a defect. g. Changes in customer-related technical specifications are only valid for articles to be newly set-up. h. Chemical tin layer thickness is 0.8 µm, measured by X-ray fluorescence at a density of 6.15 g/cm³; max. soldering temperature on the PCB: 260 °C, 10 sec. Article related adaptations of soldering profiles to the PCB fall to the processing party. If other chemical tin layer thickness is based on solder profile necessary, the chemical tin thickness must be ordered to fit the solder profile. i. Article related adaptations of the soldering profiles to the PCB fall to the user – independent of generally agreed soldering profiles. Based on the impact of the layout solder profile according J-STD-002, J-STD-003 or similar standards can only be rated as a guideline and need to be adjusted to fit the related PCB respectively layout. j. Repair works are being executed according to IPC 7721.

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	<ul style="list-style-type: none"> k. Processing conditions heavy copper PCB (copper thickness > 200 µm, Inlay technology, IMS technology, embedding technology, and so on): For soldering it must be considered that based on the technology, the used soldered profile have a major impact on the generation of delamination's. The used solder profile must be setup for the related article. Based on the impact of the layout, the used solder technology and equipment it is not possible to provide a general solder profile. The solder profile must be defined and setup by the user. Complains based defects which are caused or based on none correct solder profile or expired shelf life or floor life can not be accepted (see 2 f, i, j) l. Micro- / Cross- section heavy copper PCB (copper thickness > 200 µm, Inlay technology, IMS technology, embedding technology, and so on): Based on the technology it can happen the Micro- / Cross- section can create cracks. It is not possible to avoid it in Micro- / Cross- section and will not be rated as a quality issue. m. Multiple laminated PCB and heavy copper PCB (copper thickness > 200 µm, Inlay technology, IMS technology, embedding technology, and so on): For evaluation it is important that these type of PCB have already seen an heat treatment process while manufacturing.
3.	Complaint Management
	<ul style="list-style-type: none"> a. Complaints are being responded to within 10 working days. Should a response not be feasible within this period of time, an interim report will be sent. b. Corrective actions that affect the know-how of the company are not being portrayed. c. To ensure a fast complain management please send the complain to mailto:QC_3 Complaint_Management@schweizer.ag