
	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 1 of 10

Quality Requirements for PCB Suppliers

PCB 102/1


Release date: _____
Authorized copy: _____
Signature: _____

	Approver # 1	Check #1	Check #2	Check #3	Authorized by
Position:	Quality Assurance Manager	Supplier's Quality Leader	NA	NA	VP Supply chain and trade
Name:	Einat Shperling	Avihi Zango-Bar	NA	NA	Michael Digerman
Signature:			NA	NA	
Date:			NA	NA	

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 2 of 10

List of Changes

Released	Details	Date	Authorisation
A	New Regulation	April 17, 2014	
B	Update	December 15, 2015	
C	Update	February 04, 2018	
D	Update	January 01, 2020	
E	Update	November 02, 2020	
F	Update	August 16, 2021	
G	Add section of Fraudulent/counterfeit & Add reference to FOD program	April 19, 2023	Einat Shperling

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 3 of 10

1. Scope

- 1.1. This document specifies general quality requirements for PCB TECHNOLOGIES suppliers.
- 1.2. The requirements specified in this document are supplementary requirements to Purchase Order and/or Statement of Work.

2. Supplier's classification


	Suppliers of
Class 1	Laminate, Prepreg, Solder mask, adhesivless, bond ply and cover layer.
Class 2	Special Processes suppliers
Class 3	Manufactured parts
Class 4	Chemicals
Class 5	Distributors (of raw materials Chemicals)
Class 6	Manufacturing Tools

3. The supplier/distributor will supply

- 3.1. Delivery note, which contains:
 - PCB Technologies PO Number
 - Product description
 - Part Number (as written on PCB Technologies Purchase order)
 - Batch Number
 - Quantity
- 3.2. Original COC of the manufacturer

4. Test Certification

- 4.1. The COC/COT shall include the following information:
 - 4.1.1. Purchase order Number.
 - 4.1.2. The identification and revision status of specifications, drawings, process requirements, inspection/verification instructions, and other relevant technical data.
 - 4.1.3. Product/material details and conformity- IPC, ROHS, Conflict Minerals, REACH, UL, etc.
 - 4.1.4. Certificate of Conformance – COC.
 - 4.1.5. Test Reports (Class 1,2,3,4).
 - 4.1.6. Raw materials Certification (Class 3).
 - 4.1.7. Certificate of Analysis - COA (Class 1,2,3,4).

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 4 of 10

5. Supplier certification

- 5.1. All suppliers (Class 1,2,3,4) shall be certified to ISO-9001 or ASE AS9100.
 - 5.1.1. The supplier will take measures and controls to prevent counterfeit materials. AS6174 should be used as guidelines.
- 5.2. Distributors (Class 5) shall be AS9120 or ISO9001 certified.
- 5.3. Special processes suppliers (Class 2) shall be approved by the final customer and Nadcap (if required) for the applicable process and type.

6. PCB Quality Assurance will carry out periodical audits and inspections at the supplier's sites at a frequency to be determined at their discretion

7. No Secondary sources shall be used without prior written approval by PCB.

8. All suppliers shall meet all legal and regulatory requirements issued by the government and local authorities regarding environmental protection and shall be able to present applicable documentation upon request.

9. SHELF- LIFE CONTROLLED MATERIAL: Materials with limited shelf-life shall have at least 75% of their original shelf life when received at PCB.

10. Right of entry

- 10.1. PCB, their representatives, their customers and their customer's government/regulatory agencies shall have the right of entry into a supplier's facility or that of their subcontractors. The Right of entry will include access to quality system documentation, quality records as well as the ability to conduct audits, verify product and processes.
- 10.2. The supplier shall provide the representatives of PCB with all the aid required to carry out their inspection, including calibrated gages and fixtures in good working condition.

11. Approval of deviations


- 11.1. In any case of deviation in material, final product, and production process from the requirements of the procurement documents such as order, statement of work, drawings, etc. the supplier must contact PCB TECHNOLOGIES in order to receive their written approval.
The supplier is not authorized for any use as is or repair for any non-conformance without the written approval of PCB TECHNOLOGIES.

12. Storage conditions (for Distributor)

- 12.1. In case of the Distributor stores the products before delivering them to PCB TECHNOLOGIES, it's the distributor responsibility to ensure that the products are stored at the required temperature, humidity, and environmental conditions in accordance with the manufacturer's recommendation. Also, to provide to PCB TECHNOLOGIES, all recorders, and avidness according to the requirements.
- 12.2. It's the Distributor's responsibility to ensure that the products are transported to his facility at the required temperature, humidity, and environmental conditions in accordance with the manufacturer's recommendation.

13. Packaging and Foreign Object Damage (FOD)

- 13.1. The manufacturer must ensure that no foreign objects infiltrate production stages and product packaging.
- 13.2. The supplier shall maintain a FOD prevention program and shall be able to present documentation upon request.
- 13.3. Need to follow the FOD requirements per AS9146

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 5 of 10

14. Sample inspection

- 14.1. Sample inspection shall be performed according to final customer requirements and applicable specification requirements.
- 14.2. Unless otherwise specified (Class 1,2,3) Sample inspection for drawing characteristics shall be performed according to C=0 Sampling plan AQL=2.5% (Appendix A), Visual inspection shall be performed on 100% of the supplied products.

15. Lot rejection:

- 15.1. Any rejection identified by the supplier should be reported to PCB TECHNOLOGIES.

16. Records retention:

- 16.1. Records retention period shall be according to the final customer requirements.
- 16.2. Unless otherwise specified quality records shall be retained for 10 years.

17. Flow down requirement to sub-contractors:

- 17.1. Outsourcing of process/activities is not allowed without PCB TECHNOLOGIES prior written approval.
- 17.2. It is the supplier responsibility to flow down all applicable requirements determined by PCB TECHNOLOGIES and the final customer to the sub-contractors and suppliers.

18. Special requirements:

- 18.1. Special requirements, Critical Items and Key characteristics specified in the procurement documents such as purchase order, statement of work, drawings, special requirements appendix (SRA) etc. shall be controlled and managed as required by the applicable document.

19. Control of work transfers and production/process changes:

- 19.1. Temporary or permanent transfer of work related to the purchase order shall be subjected to the approval of PCB TECHNOLOGIES.
- 19.2. The control of work transfer shall be monitored and managed according to PCB TECHNOLOGIES requirements.

20. The supplier shall notify PCB TECHNOLOGIES of any change, the changes include but not limited to: product, manufacturing process, material, suppliers, sub contractors, manufacturing facility location and ownership. End of Life


- 20.1. The supplier shall notify PCB TECHNOLOGIES of cessation of material/product manufacturing 18 months prior to end of life.

21. Tractability

- 21.1. Materials and Products shall be supplied from the same manufacturing lot that is traceable to the Test certification.
- 21.2. The supplier must maintain a complete traceability system for all raw materials used for production

22. Process specification:

- 22.1. The supplier shall use the latest revision of the applicable specification published by the specification publisher.

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 6 of 10

23. Fraudulent/counterfeit

Fraudulent/counterfeit parts control plan should address the following major topics, as applicable (consult AS6174 for more information):

- 23.1. •Authentic and Conforming Materiel Availability
- 23.2. Personnel Training
- 23.3. Parts Availability
- 23.4. Purchasing
- 23.5. Purchasing Information
- 23.6. Verification of Purchased/Returned Part(s)
- 23.7. In-Process Investigation
- 23.8. Failure Analysis
- 23.9. Material Control
- 23.10. Reporting
- 23.11. Post Delivery Support


Any suspect of supplying counterfeit material must be reported within 24 hours to PCB-T within written notice

24. Test Certification:

- 24.1. The COC/COT shall include the following information:
 - 24.1.1. Purchase order Number.
 - 24.1.2. The identification and revision status of specifications, drawings, process requirements, inspection/verification instructions, and other relevant technical data.
 - 24.1.3. Product/material details and conformity- IPC, ROHS, Conflict Minerals, REACH, UL, etc.
 - 24.1.4. Certificate of Conformance – COC.
 - 24.1.5. Test Reports (Class 1,2,3,4).
 - 24.1.6. Raw materials Certification (Class 3).
 - 24.1.7. Certificate of Analysis - COA (Class 1,2,3,4).

25. The supplier/distributor will supply -

- 25.1. Delivery note, which contains:
 - PCB Technologies PO Number
 - Product description
 - Part Number (as written on PCB Technologies Purchase order)
 - Batch Number
 - Quantity
- 25.2. Original COC of the manufacturer

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 7 of 10

26. Additional Requirements for Class 1,3 Suppliers:

- 26.1. First item (FAI) and process changes :
- 26.1.1. First article inspection must be performed for each first production lot according to final customer specific requirements.
- 26.1.2. Unless otherwise specified FAI shall be performed according to AS 9102 requirements.
- 26.1.3. First Article Inspection items must be identified.
- 26.2. In case the supplier has an intention to make one or more of the changes described in paragraph 16.3 PCB Technologies must be notified in advance to allow examination of the need for renewed approval of First Article inspection (Full or partial).

27. Requirements for HEAT SINK Production/Process:

- 27.1. The HEAT SINK manufacturing will be performed according to the drawing and the statement of work attached to the purchase order.
- 27.2. The supplier must supply a plate that contains a minimum of 4 samples for each production lot (witness test samples).
Sample dimensions will be according to Picture No. 1 (see page 9). The witness test samples should be from the same material and with the same coating as the HEAT SINK.


28. Requirements for HEAT SINK coating process:

- 28.1. The HEAT SINK will be coated according to the drawing/specification and the statement of work attached to the purchase order.
- 28.2. If coupons (witness test samples) are supplied to the coating sub contractor with the heat sinks the same coating must be applied to the heat sinks and the coupons.

29. FAILURE INVESTIGATION

- 29.1. In case a failure has been detected in product a complete failure investigation must be performed (including root cause and corrective action), failure investigation shall include, but not limited to:
- 29.1.1. Audit findings.
- 29.1.2. Complaints.
- 29.1.3. Non-conformances.
- 29.1.4. CAPA.
- 29.1.5. Field Action.
- 29.1.6. Similar products and processes.
- 29.2. Failure investigation must be performed and documented using a **8D method**.
- 29.2.1. In case of a complaint the supplier should fill and send the first D1,D2,D3, paragraphs of the **8D report** to PCB's QA representative in **48 hours**.
Required to answer the following questions D3:

No.	Questions	Findings
1	Check stock item	
2	Check stock at supplier	
3	Check WIP at supplier	
4	Check boards in transit	
5	Check customer documentation versus production documentation	

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 8 of 10

- 29.2.2. In case the products will be returned to the supplier as a result of a failure the supplier must investigate, fill and send a complete D4, D5, D6 report to PCB's QA representative in **6 working** days since receiving the products.
- 29.2.3. In case PCB Technology will decide to send the supplier a complaint without returning the products the supplier must investigate, fill and send a full 8D report to PCB's suppliers QA representative in **5 working** days since receiving the complaint.

30. SUPPLIER CONFIRMATION:


I hereby approve that I have read, understands and accepts the general quality requirements depicted in this document and in the specific quality requirements.

Supplier signature

Company name

Full Name _____ Position _____

Date _____

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 9 of 10


Appendix A

Sampling Plan C=0 (SQUEGLIA 4TH Ed)

Lot Size	Sample size AQL 2.5% * **
2-8	5
9-15	5
16-25	5
26-50	5
51-90	7
91-150	11
151-280	13
281-500	16
501-1200	19
1201-3200	23
3201-10000	29
10001-35000	35

(*) one or more non-conforming characteristic shall cause for lot rejection (C=0)

(**) Following rejected lot the supplier shall use 100% inspection on 3 consecutive inspection lots.

	PCB -102/1		Work Regulation number
	Quality Requirements for PCB Suppliers		Regulation name
	19/04/2025		Validity date
	G	Edition	Page 10 of 10

Picture No. 1

Sample Dimensions:

