

POWERBOX  
Mastering Power

A Cosel Group  
Company

Supplier handbook

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# Supplier handbook

## INTRODUCTION

The purpose of the POWERBOX supplier handbook is to provide a general overview of POWERBOX expectations of its suppliers as regards to developing an understanding of the related interactions and interfaces. As suppliers are responsible for providing quality products on time with optimal costs, this document is applicable for both contract manufacturers and suppliers that provide both design services and standard products. It is intended to provide guidance as how to build supplier operations that meet our company requirements.

The supplier handbook also clarifies requirements regarding POWERBOX environmental, sustainability and code of conduct requirements.

The supplier handbook complements, but does not overrule other signed agreements, project or product specific specification or requirements.

## CODE OF CONDUCT

### Scope of application

The principles in our Code of Conduct are based on the OECD's guideline for multinational companies.

POWERBOX code of conduct has been adopted to underscore the principles by which the company conducts its relations with employees, business partners and other stakeholders.

POWERBOX expect suppliers, partners, consultants and other business partners within its sphere of influence to adopt these principles. In assessment of potential and current suppliers, the principles described in this document shall be applied.

### Legal compliance

In every country in which it operates, the supplier shall abide by the laws and regulations of that country. In situations where the law does not give guidance, the organization applies its own standards based on its corporate values and culture. In cases of conflict between mandatory law and the principles contained in this code, the law shall prevail.

### Relations with business partners

The suppliers' dealings with its business partners should be characterized by fairness. The supplier shall not offer customers, potential customers, governments, agencies of governments, or any representatives of such entities, any rewards or benefits in violation of either applicable laws or reasonable and generally accepted business practices.

## Accounting and reporting

All financial transactions by the supplier must be reported in accordance with generally accepted accounting practices, and accounting records must show the nature of all transactions in a correct and non-misleading manner.

## SUSTAINABILITY

### Environmental Care

Suppliers shall strive to develop and implement environmental procedures that include measurement and monitoring to identify environmental risks and impacts and to ensure pollution prevention measures are in place. Suppliers shall reduce waste and emissions to air, soil, and water. Suppliers are expected proactively to continuously reduce the greenhouse gas (GHG) emissions connected to the products, services and activities performed. Suppliers should be able to show POWERBOX their active programs and actions to reduce their carbon footprint.

### Resource efficiency

POWERBOX products and processes should be designed in such a way that energy, water and raw materials are used efficiently and encourage the recirculation and aim to enhance the proportion of recycled content in raw materials. The suppliers' manufacturing facilities should be run with the same resource efficiency in mind.

### Precautionary principle

The supplier shall support the precautionary principle by avoiding materials and methods posing environmental and health risks when suitable alternatives are available.

### Prohibited and restricted materials

POWERBOX requires its suppliers and partners to comply with relevant laws and restrictions regarding prohibited and restricted materials. The supplier should be able to provide POWERBOX the information to declare compliance with regulations e.g., REACH, SCIP, RoHS, TSCA.

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## Responsible sourcing of minerals

Suppliers shall adopt a policy and exercise due diligence on the source and chain of custody of the tantalum, tin, tungsten, gold, mica and cobalt in the products they manufacture to reasonably ensure that they are sourced in a manner consistent with the Organization for Economic Cooperation and Development (OECD) Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas or an equivalent an recognized due diligence. Suppliers should be able to provide CMRT and EMRT to POWERBOX.

## Human rights

Within its sphere of influence, the supplier shall support and respect the protection of internationally proclaimed human rights and ensure that it is not complicit in human rights abuses. Suppliers are expected to conduct due diligence within their supply chain to ensure that appropriate human rights conditions are met.

## Non-discrimination

The supplier shall treat its employees and any other workers or associates in a manner that does not discriminate with regards to gender, race, religion, age, disability, sexual orientation, nationality, political opinion, union affiliation, social or ethnic origin. Workplace diversity at all levels is encouraged.

## Labor Rights

Suppliers shall respect the right of all workers to form and join trade unions of their own choosing, to bargain collectively. Suppliers shall not use any form of forced, compulsory or child labor.

## Work Environment

The necessary conditions for a safe and healthy work environment shall be provided for all employees. Risk assessments should be carried out to identify hazards at work. If identified as necessary personal protective equipment, PPE, should be supplied by the employer

## PROTECTION OF PROPRIETARY INFORMATION

The parties shall not disclose commercial, technical or other sensitive information to a third party unless otherwise has been agreed in writing.

## QUALITY SYSTEM REQUIREMENTS

Suppliers are responsible for development, documentation, implementation and maintenance of a quality system that complies with ISO9001 and ISO14001 as a minimum quality demand.

## PRODUCT QUALITY

### Product design

Suppliers / partners that provide product design services shall implement and maintain a process that secure proper verification and validation of products. POWERBOX shall have full access to the results from the verification and validation process.

### Audits

POWERBOX will carry out audits on regular basis. The supplier is required to act and respond to identified nonconformities and observations within the stipulated time frame.

### Access to production site

POWERBOX or Customer to POWERBOX shall be able to visit supplier's/ partner's production facilities. Such visit shall be announced in advanced and be agreed by the parts. POWERBOX will always have a representative during a visit requested by an end customer.

### Supplier performance measurement

Supplier performance will be measured on regular basis. Typical parameters are delivery precision, delivery accuracy, non-conformities identified during inbound inspection, end customer complaints and response times.

### Handling of customer owned production equipment

Production equipment owned by POWERBOX, or end customer shall be clearly marked regarding the ownership. The supplier is responsible for day-to-day maintenance and calibration if nothing else has not been agreed.

Equipment owned by POWERBOX shall only be used for manufacturing of POWERBOX products.

### Workmanship

All manufacturing shall be done in accordance with relevant IPC standards. POWERBOX minimum requirement is that the electronics manufacturing process comply with the IPC-A-610 Class 2 if nothing else has been agreed.

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## ESD

The supplier shall implement and maintain an ESD protection program that ensures that components, sub-assemblies and finished goods are fully ESD protected during the complete manufacturing process.

## Process statistics and yields

Suppliers that manufacture products that are designed by POWERBOX will be asked to provide statistical process data upon requests as part of the suppliers work with continuous improvement.

## Deviations permits

Deviations from agreed product or process specifications must be applied in writing. The request shall as a minimum include reason for the request, description of the deviation, potential impact on the product, delivery schedule and quality performance. Acceptance from POWERBOX shall be received in writing before manufacturing / delivery.

## Traceability

The supplier shall establish and maintain a system for traceability of changes in documentation, products and processes. The requirements in the product unique production quality plan for products designed by POWERBOX shall apply when applicable.

Batch controlled traceability on component level is preferred and might occur as a requirement in specific

## Retention of records

Quality records for the product delivered under the Purchase Order must be retained for a minimum of 10 years after final delivery unless another period has been agreed.

## Handling of non-conformance

POWERBOX requires its suppliers / partners to respond on reported non-conformities according to Table 1 below. Reporting shall be done in 8D format or in other well recognized format. The report shall as a minimum include a root cause analysis containment action, corrective action and a preventive action.

## Change control

Depending on the type of change the supplier is expected to request approval (before implementing), inform (before implementing) and maintain traceability on when the change was implemented. A guideline to when approval is requested is shown in the tables 2A and 2B below.

## Continuous improvements

Suppliers / partners to POWERBOX shall work efficiently with their own improvements and continuously strive towards higher efficiency and lower cost.

Table 1 - Handling of non-conformance

Type of non-conformance case	Definition	Lead time for the supplier to acknowledge having received the RMA	Targeted lead time to define if under warranty or not	Targeted lead time to present full report and to close the case	Report required	Appointed dedicated contact required at the supplier
Any	Products under warranty or when a root cause analysis is required.	3 working days	15 calendar days	30 calendar days	Yes	Yes

Table 2A - Partners that provides both design and products. Approval may be required for certain customers and products.

Type of change	No requirement	Inform	Request approval
Changed specifications		X	
Change component due to obsolescence	X		
Changed components related to root cause analyses and yield improvements.		X	
Changed manufacturing site		X	
Changed manufacturing process		X	
Changed sub suppliers for product unique parts		X	

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Table 2B - suppliers (CEM's) that manufacture products designed by POWERBOX

Type of change	No requirement	Inform	Request approval
Changed sub suppliers for product unique parts			X
Changed manufacturing site			X
Changed manufacturing process			X
Changed manufacturing equipment			X
Changed process material / chemicals			X
Changed organization		X	

We hereby confirm that we have received, read and understood the content of the POWERBOX Supplier Handbook.

We accept the provisions of POWERBOX Supplier Handbook and take the responsibility to ensure compliance and inform our concerned employees about the content as part of our regular standards and policies.

Name of supplier company: \_\_\_\_\_

Authorized signature: \_\_\_\_\_

Printed name: \_\_\_\_\_

Title: \_\_\_\_\_

Date and place: \_\_\_\_\_

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## **POWERBOX International AB**

Västberga Allé 36A  
12630 Hägersten  
Sweden

Phone: + 46 158 703 00 (main switchboard)  
Email: [info.se@prbx.com](mailto:info.se@prbx.com)

[www.prbx.com](http://www.prbx.com)