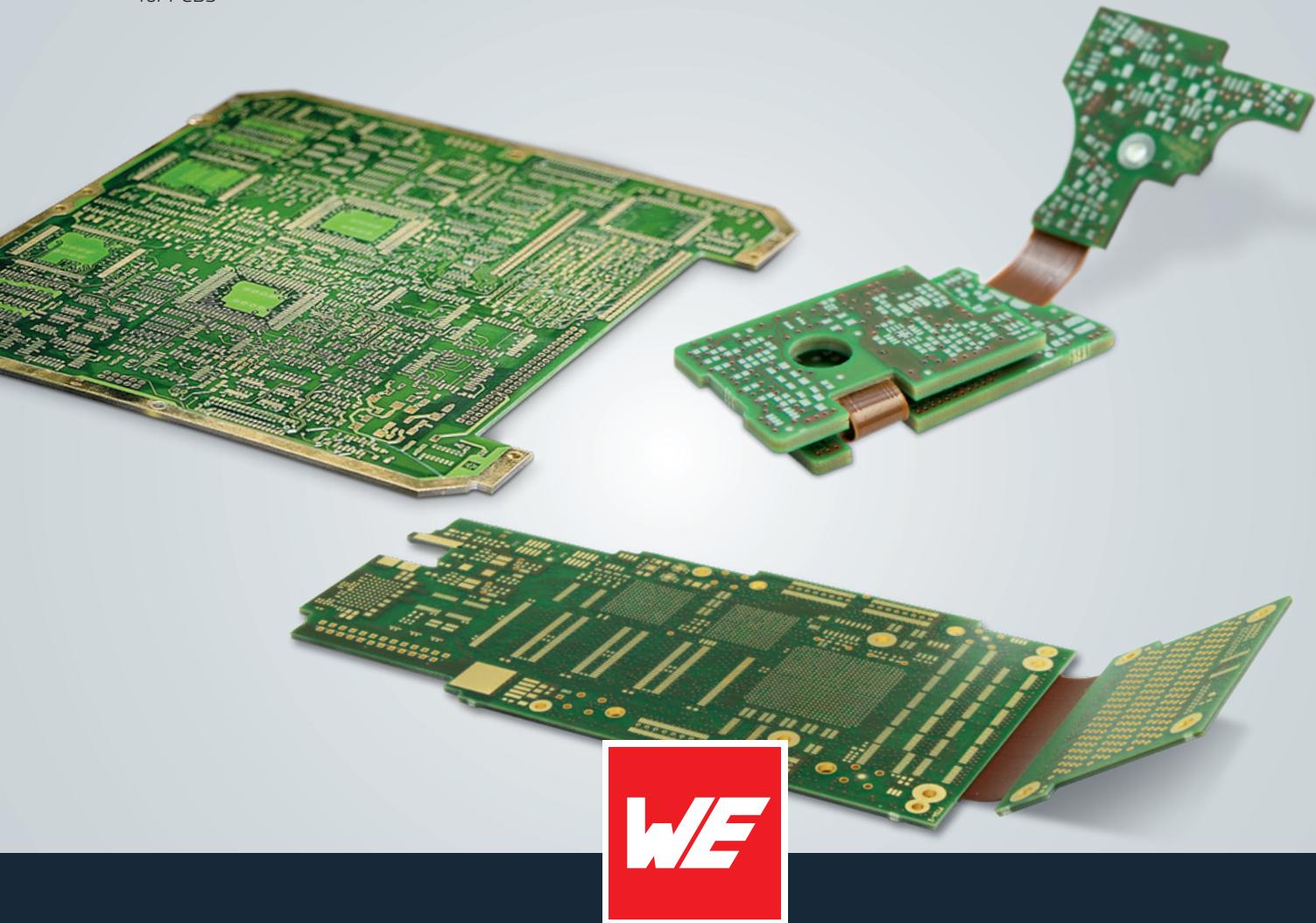


**TECHNICAL DELIVERY SPECIFICATION**

for PCBs



**TECHNICAL**  
**DELIVERY SPECIFICATION**  
**FOR PCBs**

EXCERPT PACKAGING AND SHIPPING

**WÜRTH ELEKTRONIK** MORE THAN YOU EXPECT

## 6 PACKAGING AND SHIPPING

Our packaging concept aims to ensure consistent quality for both our products and their packaging, delivering the promised quality to our customers. Packaging must withstand various static, dynamic, and climatic stresses throughout the transportation chain. Additionally, it must always meet the internal requirements for delivery, storage, transport, and handling. Therefore, we choose appropriate, secure packaging for all types of shipping that suits the product.

### 6.1 **PACKAGING UNITS (PU)**

- By default, 20 printed circuit boards (PCBs) are sealed per PU  
Deviations are possible depending on customer specifications, size, weight, and type
- Whenever possible, all PCBs are sealed in the same orientation
- Panels with defective PCBs (X-Outs) are packaged separately, i.e., in separate PUs
- Each PU contains only one date code
- Each PU contains only one item

### 6.2 **PRODUCT PACKAGING**

#### 6.2.1 **GERMAN PLANTS**

For product packaging, we use

- LD-PE film, shrinkable, antistatic, perforated, smooth, 0.08 mm
- Antistatic skin film, non-adhesive, 0.2 mm
- In special cases (e.g., for particularly thin or unstable PCBs), the sealed PU is reinforced with stabilizing material.

OPTION: For an additional charge and under separate agreement, we use:

- Moisture Barrier Bags: PUs are vacuum-sealed in aluminum-coated bags. The vacuum-sealed packaging includes desiccant bags and humidity indicators (Type: cobalt-free, size 2"x3", RH 5, 10, 60%, per IPC/JEDEC J-STD-033D).
- Packaging for PCBs with chemical silver surface: PCBs with a chemical silver finish are packaged with corrosion protection film. Further sealing in perforated shrink film is omitted. A handling recommendation for the chemical silver surface is included.

#### 6.2.2 **ASIA PRODUCTION**

STANDARD: For product packaging, we use

- LD-PE film
- Moisture Barrier Bags: PUs are vacuum-sealed in aluminum-coated bags. The vacuum-sealed packaging includes desiccant bags and humidity indicators.

### 6.3 **OUTER PACKAGING (PACKAGES)**

The outer packaging is chosen according to product characteristics (e.g., size). Various sizes of cardboard boxes are used.

## 6.4 LABELING

### 6.4.1 PACKAGING UNITS FOR GERMAN FACILITIES

Each packaging unit is labeled with a product label containing the following information:

- Recipient (as per the order)
- Customer part number
- Description
- Order number
- Quantity
- Date (Date Code)
- WE part number
- WE order number
- Surface type

The label also includes barcode information (Code 39), enabling easy scanning.

The outer packaging features a similar label indicating the total quantity contained.



### 6.4.2 PACKAGING UNITS FOR ASIA PRODUCTION

Each packaging unit is labeled with a product label containing the following information:

- Customer part number (text and barcode)
- Customer part version (text)
- Customer order number (text and barcode)
- WE part number (text and barcode)
- Date Code (text and barcode)
- Quantity (text and barcode)
- QR code

In addition to the plain text, the label also contains information that is applied as a barcode and can therefore be easily read using a scanner (Code 128). The Asia Production labels also have a QR code that combines all relevant data

Inner label:



The outer packaging includes a similar label with the total quantity and additional information such as:

- Customer part number with revision (text and barcode)
- WE order number (text and barcode)
- Date Code (text and barcode)
- Customer order number (text)
- Surface type (text)
- WE part number (text and barcode)
- Quantity (text and barcode)
- Box number (e.g., 1 of x)
- Weight in kg

Outer label:



### 6.4.3 OUTER PACKAGING (PACKAGES)

Each package is labeled as follows:

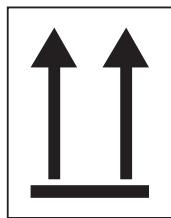
- **Shipping Label:** Carrier-specific
- **Product Label:** Packages are sequentially numbered and indicate the total quantity and number of packages (see 6.4).

#### Delivery Note Pouch

The delivery note pouch is visibly attached to one package. It is made of recycled material.

#### Package Markings

Packages are marked on at least two sides with the following symbols (except for book packaging):



This Side  
Up



Fragile



Protect from  
Moisture

### 6.4.4 ACCOMPANYING DOCUMENTS / SHIPPING ENCLOSURES

**Accompanying documents** include all documents provided with the shipment, such as:

- Delivery note (in the delivery note pouch, see 6.4.3 and sample delivery note on page 6)
- Customs documents (if applicable, handed to the carrier)
- Initial sample test report (if applicable, included)
- Inspection certificate or works certificate (if applicable, included in the delivery note pouch or internally)
- Invoice (Invoice (third country), see page 7)

**Shipping enclosures** include, for example:

- Solder samples
- Solder tests
- Cross-section samples
- Test coupons

## 6.4.5 SHIPPING

### **Shipping types:**

We distinguish between parcel shipping and freight shipping.

#### **■ Parcel Shipping**

A shipment may consist of multiple parcels. The maximum weight per parcel is 16 kg.

#### **■ Freight Shipping**

WE reserves the right to consolidate parcels into a freight shipment.

#### **■ Freight Transport Means**

All freight shipments are loaded onto Euro pallets (base dimension 800 x 1,200 mm) of grade C or higher.

Maximum pallet dimensions and weights:

- Loading height including Euro pallet: max. 1,600 mm
- Total weight including Euro pallet: max. 1,000 kg

To secure the load, stretch film is used, preventing items from slipping or falling during transport.

Bundling multiple orders and items per pallet is permitted.

#### **■ Pallet Exchange**

Würth Elektronik GmbH & Co.KG maintains a pallet account with its transport service provider. Pallet exchanges should occur directly between the service provider and the recipient. If not exchanged 1:1, the recipient must maintain a pallet account with the delivering freight company.

## Example delivery note

Würth Elektronik GmbH & Co. KG  
 Circuit Board Technology  
 Salzstraße 21 · 74676 Niedernhall · Germany  
 Phone +49 7940 946-0 · Fax +49 7940 946-550000  
 cbt@we-online.de · [www.we-online.com](http://www.we-online.com)



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Page 1 of 1

Max Mustermann GmbH  
 Leiterplattenstraße 1  
 12345 PCB STADT  
 GERMANY

### Delivery note

|                           |             |  |
|---------------------------|-------------|--|
| Date                      | Record No   | Customer ID                                      |
| 25.10.2023                | L3011836592 | 211830   |
| Your purchase order       | Musterbeleg |  |
| Your field sales contact  | Muster ADM  | Phone: +49 000000-000<br>muster.adm@we-online.de |
| Your indoor sales service | Muster IDM  | Phone: +49 000000-000<br>muster.idm@we-online.de |

| Pos.   | Your article number<br>Description | WE part number | Datecode | Batch no. | Quantity            |                    |
|--|------------------------------------|----------------|----------|-----------|---------------------|--------------------|
| 1  | Musterartikel<br>Musterartikel     | 364981         |          | 10        | pcs                 | total quantity: 10 |
| Country of product's origin is Federal Republic of Germany (European-Union)  |                                    |                |          |           |                     |                    |
| -  | carton size 2                      | 29             |          | 1         | pcs                 |                    |
| Terms of payment 30 days net<br>Terms of despatch DAP: Delivered At Place (ready for unloading at delivery address, incl. freight), packaging<br>Mode of transport Delivery<br>Carrier Agent |                                    |                |          |           |                     |                    |
|  |                                    |                |          |           | Weight in kg        |                    |
|  |                                    |                |          |           | Net weight: 1,000   |                    |
|  |                                    |                |          |           | Gross weight: 2,000 |                    |

Before processing the printed circuit board, drying must be carried out to reduce moisture in the board. We support the ZVEI recommendation "Drying of printed circuit boards before soldering". However, general drying parameters as well as instructions for further processing can only be understood as reference values. Therefore the recommendation must be verified by the processor.

Our supply is exclusively based on General Terms and Conditions, [www.we-online.com](http://www.we-online.com), business unit Circuit Board Technology. Please note that the outer packaging shall be disposed conforming to the law and meeting environmental standards; it must not be put to the green spot system.

Würth Elektronik GmbH & Co. KG Sitz Niedernhall, Registergericht Stuttgart HRA 590365  
 Komplementär Würth Elektronik Verwaltungs-GmbH, Sitz Künzelsau, Registergericht Stuttgart HRB 590794 · Geschäftsführer Thomas Beck, Andreas Gimmer, Daniel Klein, Jörg Murawski · Bankverbindungen Deutsche Bank AG Heilbronn, IBAN DE62 6207 0081 0120 2050 00, SWIFT/BIC DEUTDESS620  
 Volksbank Hohenlohe eG, IBAN DE94 6209 1800 0000 0270 06, SWIFT/BIC GENODES1VHL · USt-IdNr. DE146280107

## Example invoice

Würth Elektronik GmbH & Co. KG  
**Circuit Board Technology**  
 Salzstraße 21 · 74676 Niedernhall · Germany  
 Phone +49 7940 946-0 · Fax +49 7940 946-550000  
 cbt@we-online.de · [www.we-online.com](http://www.we-online.com)



**WÜRTH  
ELEKTRONIK**  
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Würth Elektronik GmbH & Co. KG • Salzstraße 21 • 74676 Niedernhall •

### Invoice

Max Mustermann GmbH  
 Leiterplattenstraße 1  
 12345 PCB STADT

|                            |  |             |
|----------------------------|--|-------------|
| Date                       | Record No  | Customer ID |
| 25.10.2023                 | R3016653405  | 211830      |
| Customer P.O. No           | Musterbeleg  |             |
| Value date                 | 25.10.2023   |             |
| other ID                   | DE 12345678  |             |
|                            |  |             |
| Your field service contact | Muster ADM<br>Phone: +49 000000-000<br>muster.adm@we-online.de |             |
| Your indoor sales service  | Muster IDM<br>Phone: +49 000000-000<br>muster.idm@we-online.de |             |

| Pos.   | Your part number<br>Description  | WE part number | Customs tariff number                            | Quantity    | Price in EUR | Amount in EUR |
|--|--|----------------|--|-------------|--------------|---------------|
|  | <b>Delivery note ID: L3011836592</b><br><b>Delivery date: 25.10.2023</b><br><b>Delivering time is equivalent to delivery date.</b> |                |  |             |              |               |
| 1  | Musterartikel  | 364981         | 8534 0011  | 10      pcs | 140,00       | 1.400,00      |
|  | Musterartikel<br>Country of product's origin is Federal Republic of Germany (European-Union)                                       |                | Bare printed circuit board with 4 or more layers |             |              |               |
|  |  | 29             |  | 1      pcs  |              |               |
|  | carton size 2  |                |  |             |              |               |
| Terms of payment      30 days net  |  |                |  |             |              |               |
| Terms of despatch      DAP: Delivered At Place (ready for unloading at delivery address, incl. freight), packaging included, Würth costs<br>Transport mode      Delivery |  |                |  |             |              |               |

|  |                     |          |
|--|---------------------|----------|
| Our supply is exclusively based on General Terms and Conditions, <a href="http://www.we-online.de">www.we-online.de</a> , business unit Circuit Board Technology.  | Net amount in EUR   | 1.400,00 |
| I, the undersigned, declare that the goods listed on this document originate in the European Community / Union (Germany) and satisfy the rules of origin governing preferential trade with EG, AL, DZ, BA, CAF, XC, CL, FO, IS, IL, JO, LB, LI, MA, MK, XL, MX, ME, NO, PS, CH, TR, RS, TN, KR, CAM, WPS, ESA, GE, MD, CAS, CO, PE, XK, UA, EC, CI, GH, SADC, CA, JP, SG, VN, GB. No cumulation applied. I undertake to make available to the customs authorities, if required, evidence in support of this declaration. Liability assumption statement: Created on behalf and by order of Würth Elektronik GmbH & Co KG, Circuit Board Technology, Judith Volkmann - responsible for customs matters. | V.A.T. 19% in EUR   | 266,00   |
|  | Total amount in EUR | 1.666,00 |

This is a computer generated document, no signature is required.

Würth Elektronik GmbH & Co. KG Sitz Niedernhall, Registergericht Stuttgart HRA 590365  
 Komplementär Würth Elektronik Verwaltungs-GmbH, Sitz Künzelsau, Registergericht Stuttgart HRB 590794 · Geschäftsführer Thomas Beck, Andreas Gimmer, Daniel Klein, Jörg Murawski · Bankverbindungen Deutsche Bank AG Heilbronn, IBAN DE62 6207 0081 0120 2050 00, SWIFT/BIC DEUTDESS620  
 Volksbank Hohenlohe eG, IBAN DE94 6209 1800 0000 0270 06, SWIFT/BIC GENODES1VHL · USt-IdNr. DE146280107

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Stand April 2025

**www.we-online.com**