

1. Standard Land Pattern Dimensions

Land Pattern + Solder Resist
 Land Pattern
 Solder Resist (in mm)

Series	Standard Land Pattern Dimensions
DXP18	<p>● Reflow Soldering</p>
DXP2A DXW21	<p>● Reflow Soldering</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>DXP2A</p> </div> <div style="text-align: center;"> <p>DXW21</p> </div> </div> <p>* 1 : If the pattern is made with wider than 1.2mm (DXW21) it may result in components turning around, because melting speed is different. In the worst case, short circuit between lines may occur.</p> <p>* 2 : If the pattern is made with less than 0.4mm, in the worst case, short circuit between lines may occur due to spread of soldering paste or mount placing accuracy.</p> <p>* 3 : If the pattern is made with wider than 0.8mm (DXW21), the bending strength will be reduced.</p> <p>Do not use gild pattern; excess soldering heat may dissolve metal of a copper wire.</p>

2. Solder Paste Printing and Adhesive Application

When reflow soldering the Micro Chip Transformer, the printing must be conducted in accordance with the following cream solder printing conditions. If too much solder is applied, the chip will be prone to damage by mechanical and thermal stress from the PCB

and may crack. In contrast, if too little solder is applied, there is the potential that the termination strength will be insufficient, creating the potential for detachment. Standard land dimensions should be used for resist and copper foil patterns.

(in mm)

Series	Solder Paste Printing
DXP18	<p>● Coat the solder paste a thickness: 100-150μm</p>
DXP2A	<p>● Coat the solder paste a thickness: 100-150μm</p>
DXW21	<p>● Coat the solder paste a thickness: 100-150μm</p>

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3. Standard Soldering Conditions

(1) Soldering Methods

Use reflow soldering methods only.

Use standard soldering conditions when soldering Micro Chip Transformer.

In cases where several different parts are soldered, each having different soldering conditions, use those conditions requiring the least heat and minimum time.

Solder: Use Sn-3.0Ag-0.5Cu solder. Use of Sn-Zn based solder will deteriorate performance of products.
If using DXP series with Sn-Zn based solder, please contact Murata in advance.

Flux:

- Use Rosin-based flux.

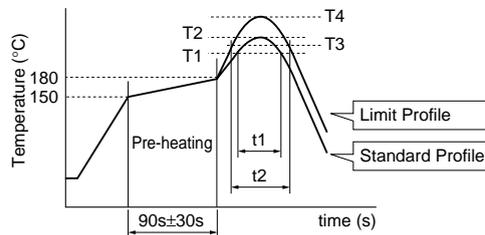
In case of DXW series, use Rosin-based flux with converting chlorine content 0.06 to 0.1wt%.

In case of using RA type solder, products should be cleaned completely no residual flux.

- Do not use strong acidic flux (with chlorine content exceeding 0.20wt%)
- Do not use water-soluble flux.

(2) Soldering profile

- Reflow Soldering profile (Sn-3.0Ag-0.5Cu)



Series	Standard Profile				Limit Profile			
	Heating		Peak temperature (T2)	Cycle of reflow	Heating		Peak temperature (T4)	Cycle of reflow
	Temp. (T1)	Time. (t1)			Temp. (T3)	Time. (t2)		
DXP, DXW	220°C min.	30 to 60s	245±3°C	2 times max.	230°C min.	60s max.	260°C/10s	2 times max.

(3) Reworking with Solder Iron

The following conditions must be strictly followed when using a soldering iron.

Pre-heating : 150°C 60s min.

Soldering iron power output : 30W max.

Temperature of soldering iron tip / Soldering time :

280°C max./10s max. or

350°C max./3s max.

For additional methods of reworking with a soldering iron, please contact Murata engineering.

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4. Cleaning

Following conditions should be observed when cleaning Micro Chip Transformer.

(1) Cleaning Temperature : 60°C max. (40°C max. for alcohol type cleaner)

(2) Ultrasonic

Output : 20W/liter max.

Duration : 5 minutes max.

Frequency : 28 to 40kHz

(3) Cleaning agent

The following list of cleaning agents have been tested on the individual components. Evaluation of final assembly should be completed prior to production.

Do not clean DXW21 series. In case of cleaning, please contact Murata engineering.

(a) Alcohol cleaning agent

Isopropyl alcohol (IPA)

(b) Aqueous cleaning agent

Pine Alpha ST-100S

(4) Ensure that flux residue is completely removed.

Component should be thoroughly dried after aqueous agent has been removed with deionized water.

For additional cleaning methods, please contact Murata engineering.