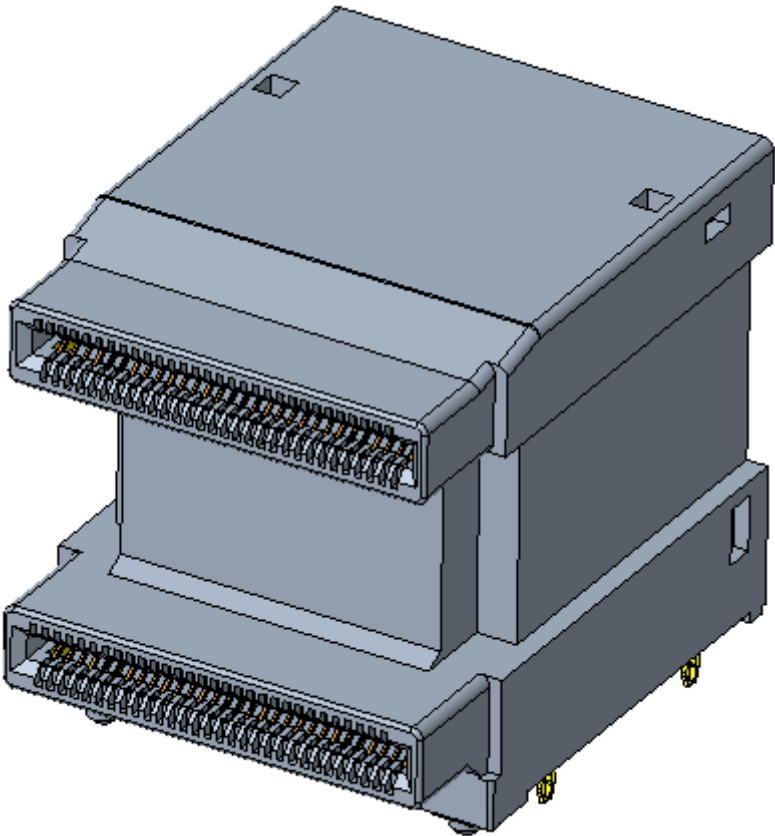


OSFP 2X1 SERIES Connector



repared by:
Bin Huang

Check by:
Kunlin Yao

Approved by:
Hongji Chen

Date:
2024/11/11

Date:
2024/11/11

Date:
2024/11/11



TYPE

**PRODUCT APPLICATION
SPECIFICATION**

SPEC. NO

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2 / 8**1 OBJECTIVE**

This specification provides information and requirements regarding customer application of the OSFP 2X1 SERIES. This specification is intended to provide general guidance for application process development. It is recognized that no single application process will work under all customer scenarios and that customers will develop their own application processes to meet their needs. However, if the application process differ greatly from the one recommended, Luxshare cannot guarantee results.

2 SCOPE

This specification provides information and requirements regarding customer installation and reworking process of the OSFP 2X1 SERIES Connector.

3 DRAWINGS AND APPLICABLE DOCUMENTS

- Luxshare Product Specification:
- Application Luxshare Customer Drawings;
- Luxshare Application Specification:

In the event of a conflict between this application specification and the drawing, the drawing will take precedence. Customers are advised to refer to the latest revision of Luxshare product drawings for appropriate details.

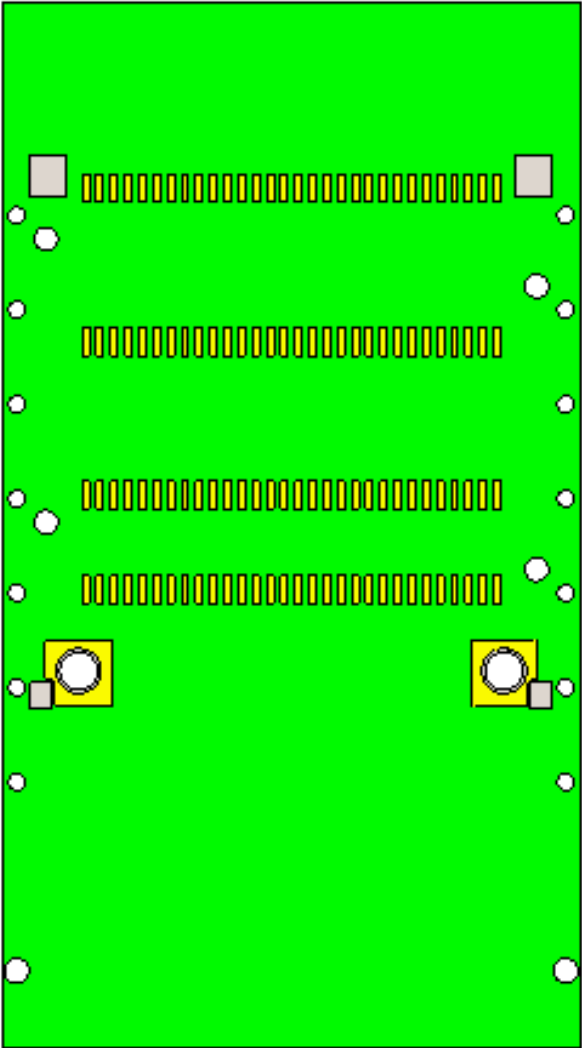
4 INSTALLATION PROCESS

This document is meant to be an application guide. If there is a conflict between the product drawings and specifications, the drawings take precedence.

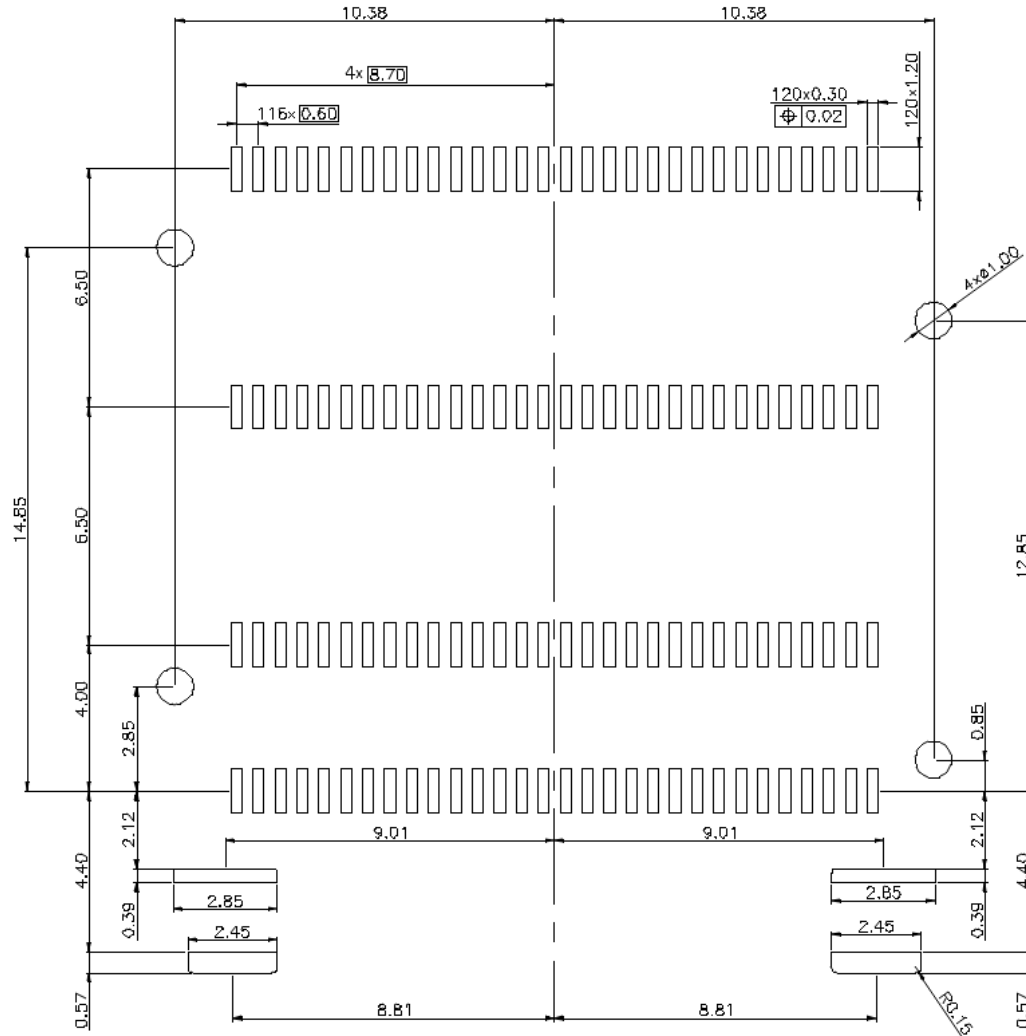
4.1 CONNECTOR SMT PROCESS

- 4.1.1 Brush solder paste: Apply an even layer of solder paste to the solder pad (terminals, PAD, etc.) of the connector to be soldered.

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0.15mm minimum of stencil thickness is recommended, 0.18mm of stencil thickness is better.



Notes.

1. All dimensions are in millimeters;
2. Recommend the thickness of stencil is 0.15mm minimum;
3. Tolerance: ± 0.01 .

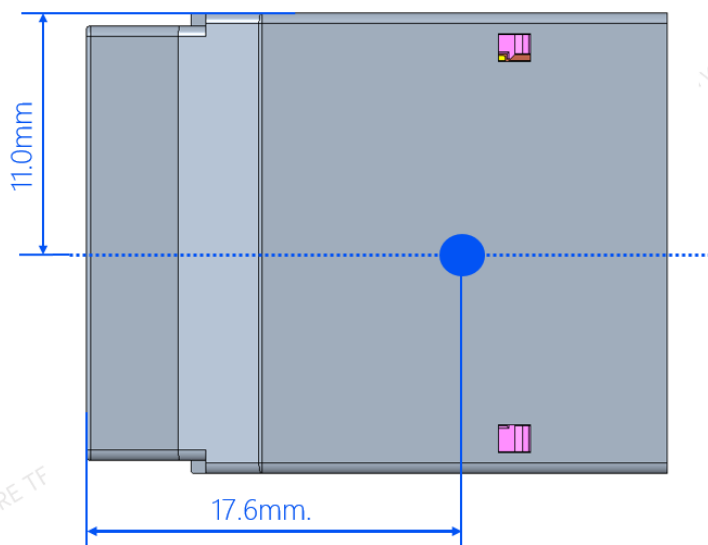
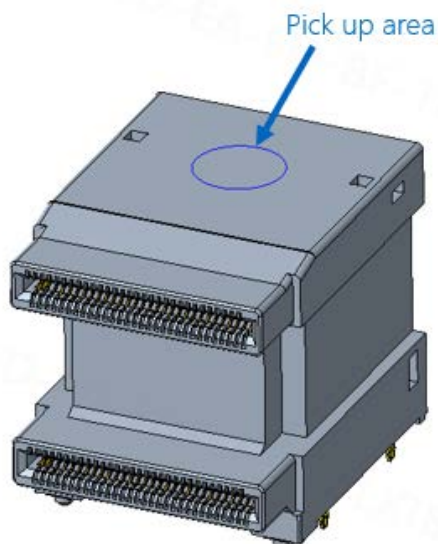
4.1.2 Solder volume

Minimum solder volume (V) (before curing) for each circuit pad is calculated by multiplying the pad length(L) by the pad width (W) by the stencil thickness (T): $1.2(L) \times 0.30(W) \times 0.18(T) = 0.0648 \text{ mm}^3$ (V).

Customer can adjust the solder volume for best solderability

Notes: Solder volume may vary depending on solder paste composition.

4.1.3 Pick and place: When the connector is absorbed into the pad, the suction nozzle shall be placed in the pick-up area on the top of the connector. 30 $\pm$ 5N of press force is recommended.



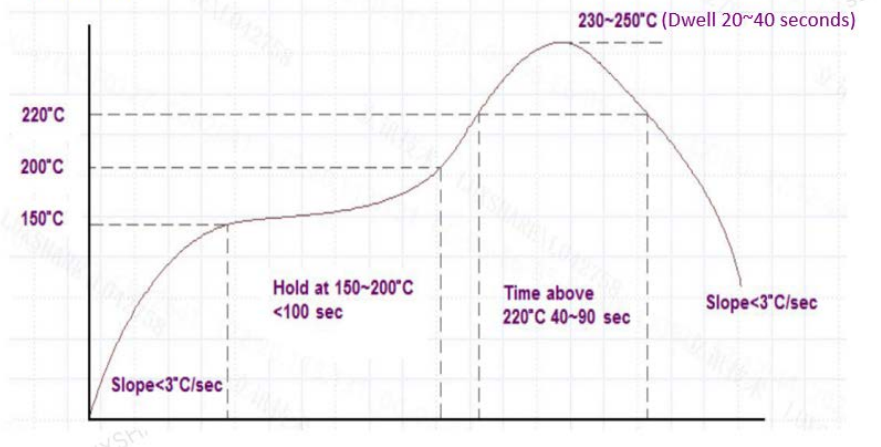
(Connector weight: 11.00 grams around)

4.1.4 IR Reflow

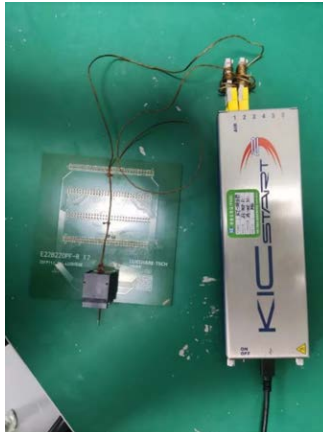
- a. Recommended reflow profile below.

焊接温度Profile

温度Profile参数定义



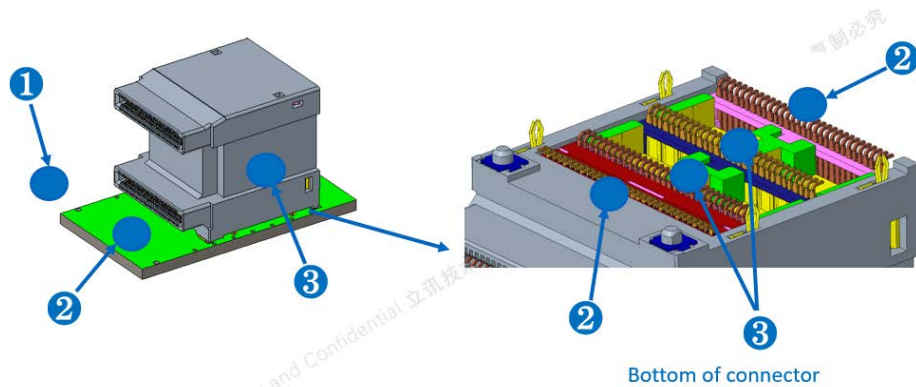
- b. Recommended to use reflow welding furnace above 8 temperature zone (nitrogen protection measures are recommended)
- c. Recommended thermocouple location. The point 2 and point 3 should meet the reflow profile.



Thermocouple



Reflow oven

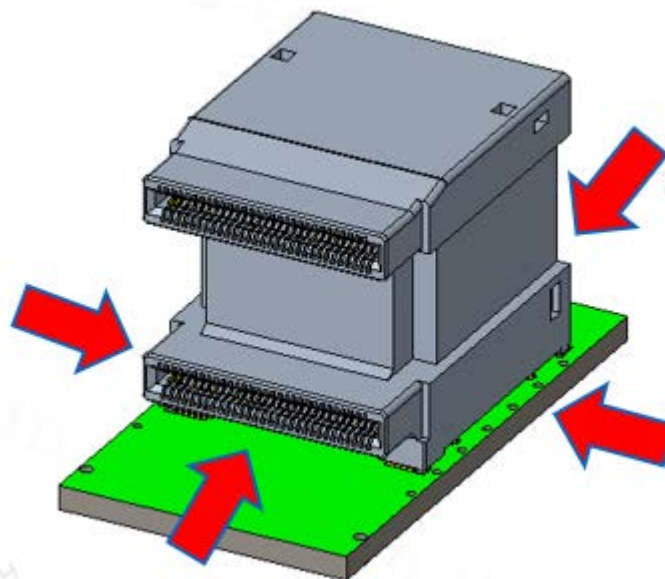


- d. The reflow process need to use nitrogen and oxygen concentration is within 3000PPM.

5 Rework Process

5.1 Connector unsoldering

- Heat connector solder to molten state, then remove the connector lightly.
- To minimize damage to PCB and components, if allows, heat the connector from underneath.



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REVISION RECORD

Rev	Page	Description	EC#	Date
X1	All	Release specification		2023/6/18
X2	3	Add spec of press force.		2024/7/31
X3	4,5	Add the thermocouple location figures.		2024/10/28
X4	4,5,6,7	Add dimensions of stencil and pick up area, Update the spec of press force.		2024/11/11
X5	5	Update the spec of press force		2025/5/24
X6	4	Update the thickness of the steel mesh		2026/2/26