APPLICATION SPECIFICATION

Swift Connector, Standard type Receptacle, 0.6mm Pitch (G991 Series)

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
A	EC No.: DATE: 2023/06/30	Swift Standard Connectors, Receptacle , 0.6mm Pitch	1 of 9

DOCUMENT NUMBER:	CREATED/REVISED	CHECKED BY	APPROVED BY
AS-7772-001	Joan Lu	Sondra Sang	Hank Hsu

APPLICATION SPECIFICATION

1.0 PURPOSE:

This specification covers the processing guidelines and the requirements for the application of **Swift STD** connector receptacle.

2.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS:

Product Drawing
PS-7772

3.0 SPECIMEN:

Product are illustrated in Figure 1.

Receptacle

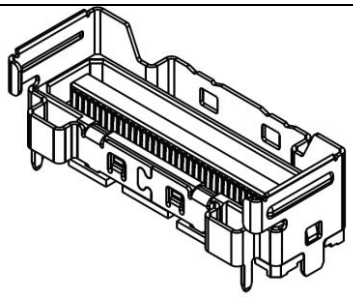
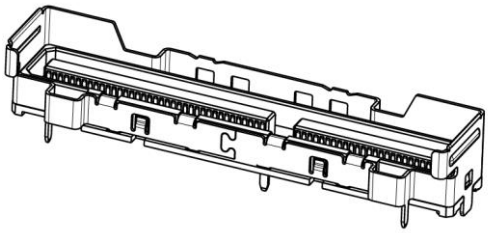
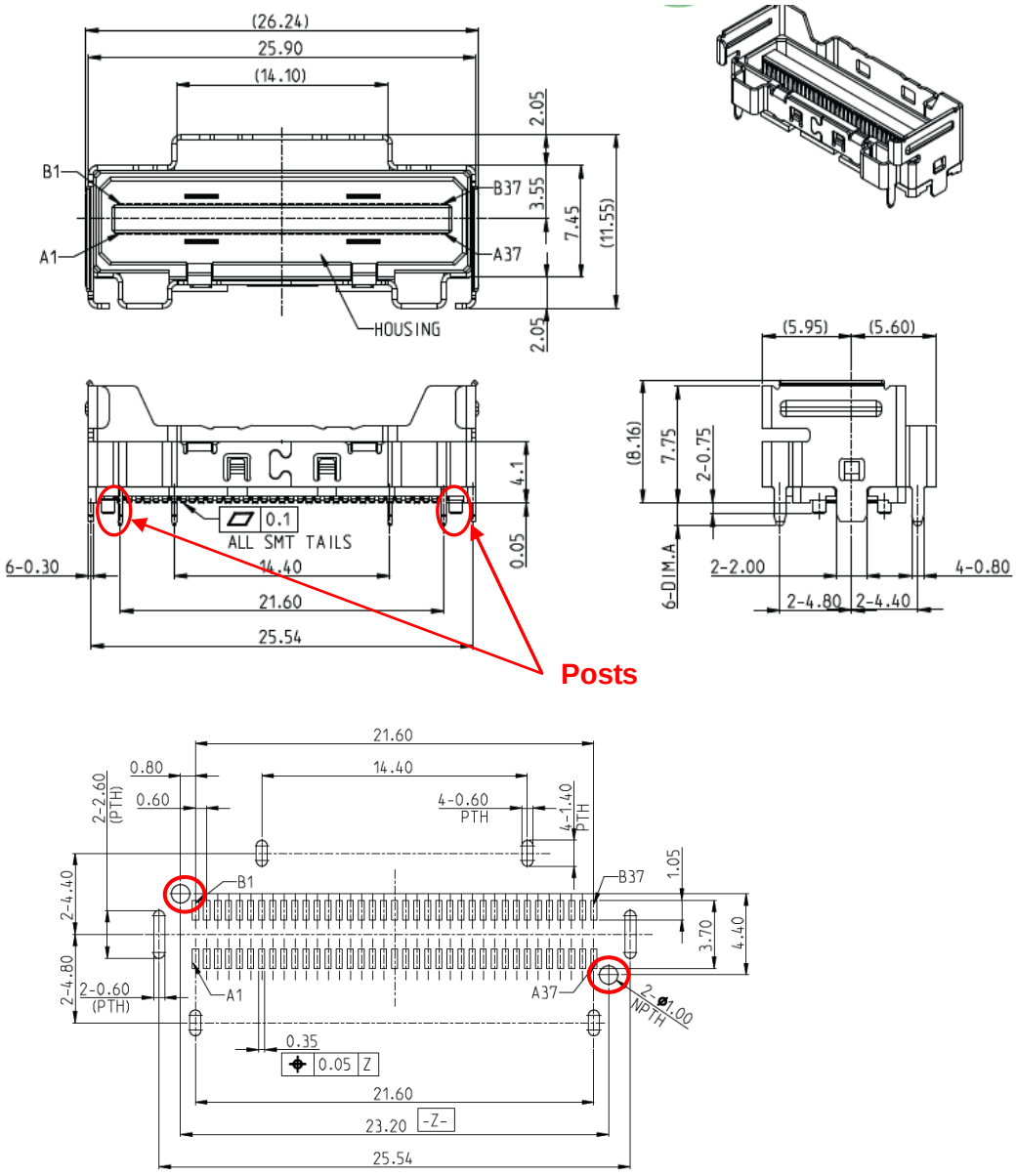
	74P	124P
VT		

Figure 1

APPLICATION SPECIFICATION

4. 0 APPLICATION PROCESS

4.1 CONNECTOR mounts on PCB, the both side posts have to fix the PC board holes (see Figure 2) , the posts provide true position and control connector is forward on the correct direction.



Swift STD 74P

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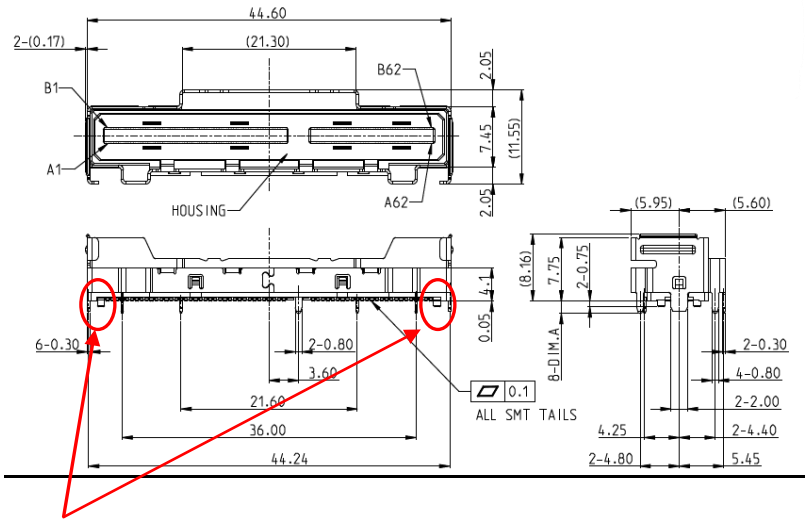
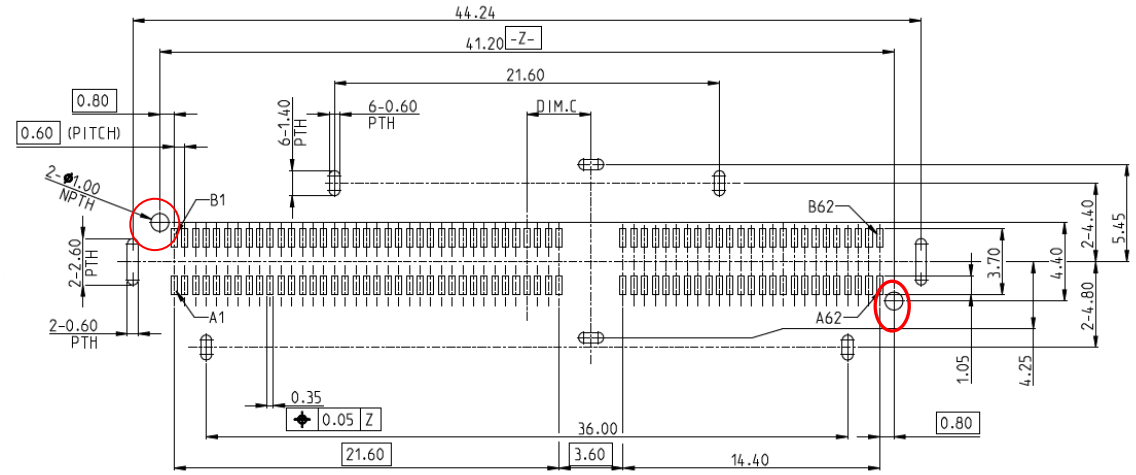


Posts



Swift STD 124P

Figure 2

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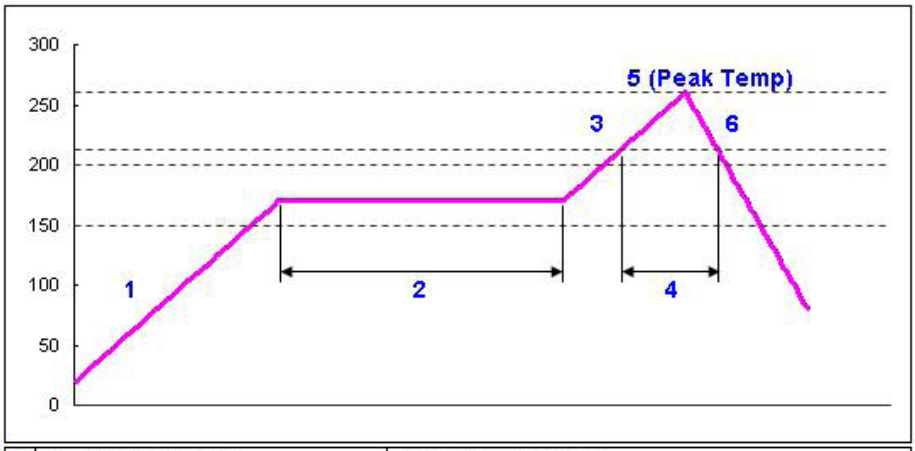
4.2 IR Reflow Profile

The aperture of the stencil is dependence on the circuit pad size and stencil thickness. For SMT tail commended the stencil thickness should not be less than 0.15 mm, but don't include shell DIP tail. The stencil aperture size of at least 90% of pad size should be used. When a thinner stencil is used, the apertures may have to be enlarged slightly to facilitate sufficient paste, in order to ensure a good joint.

The PCB containing the connector should be reflowed using a reflow profile which is in compliance with the customer's data sheet for the paste used or as per product specification for the series. For recommended reflow profile, please refer to respective product specification. (see Figure 3)

It is recommended that the soak time be long enough to allow temperature to stabilize over the whole area under the connector and the time above liquid be long enough for total reflow. This component is suitable for processing through the temperatures used in lead free processes but should not be subjected to temperatures in excess of 260℃



1	Average ramp rate	3°C per second max.
2	Pre-heat temp.(minimum)	150°C
	Pre-heat temp.(maximum)	200°C
	Pre-heat time	60 to 120 seconds
3	Ramp to peak	3°C per second max.
4	Time over liquidus(217°C)	60 to 150 seconds
5	Peak temp.	260 +0/-10°C
	Time within 5°C of peak	10 seconds max.
6	Ramp- cool down	6°C per second max.
	Time 25°C to peak	8 minutes max.

Figure 3

4.3 Rework and Repair

It is recommended that a commercially available hot air rework station be used for the repair of this product. Many of these repair stations are readily available and the selected manufacturer is based on a matter of choice. It is very important that the correct nozzle be used for this operation.

Dependent on the card thickness and stack up, in some circumstances, it may be desirable to pre-heat in an oven to 100℃ gradually and hold for 30 to 60 minutes to avoid thermal shock to the PCB. It is recommended to shield adjacent components especially component body and solder joints during the rework process to avoid overheating and melting of the joints.

For removal process, this connector should be removed manually. To avoid additional heat cycle, excessive solder should be removed from the site immediately after the connector lifted off, while the board is still hot. A hand held, solder vacuum tool or solder wicking braid can be used. Both methods should be performed by qualified operators only. This is because damage to the board or pads is the greatest concern. After the removal, this connector should now be discarded as it cannot be reused.

Before replacing with a new connector, the residual solder on the pads should be removed using either a vacuum scavenging system or by hand from a skilled operator. Then the solder pads should be cleaned with alcohol and brush to ensure a clean surface. It is recommended that the pads be pasted again using a 0.15mm stencil. Once the new connector has been placed on the PCB, it should be reflowed.

APPLICATION SPECIFICATION

5.0 Pin Assignment

Swift Standard 74P

74P SWIFT PIN ASSIGNMENT							
X8+20SIDEBAND SOLUTION PIN ASSIGNMENT				X12 SOLUTION PIN ASSIGNMENT			
PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION
B1	GND	A1	GND	B1	GND	A1	GND
B2	TX	A2	RX	B2	TX	A2	RX
B3	TX	A3	RX	B3	TX	A3	RX
B4	GND	A4	GND	B4	GND	A4	GND
B5	TX	A5	RX	B5	TX	A5	RX
B6	TX	A6	RX	B6	TX	A6	RX
B7	GND	A7	GND	B7	GND	A7	GND
B8	SIDEBAND	A8	SIDEBAND	B8	TX	A8	RX
B9	SIDEBAND	A9	SIDEBAND	B9	TX	A9	RX
B10	SIDEBAND	A10	SIDEBAND	B10	GND	A10	GND
B11	SIDEBAND	A11	SIDEBAND	B11	TX	A11	RX
B12	SIDEBAND	A12	SIDEBAND	B12	TX	A12	RX
B13	GND	A13	GND	B13	GND	A13	GND
B14	TX	A14	RX	B14	TX	A14	RX
B15	TX	A15	RX	B15	TX	A15	RX
B16	GND	A16	GND	B16	GND	A16	GND
B17	TX	A17	RX	B17	TX	A17	RX
B18	TX	A18	RX	B18	TX	A18	RX
B19	GND	A19	GND	B19	GND	A19	GND
B20	TX	A20	RX	B20	TX	A20	RX
B21	TX	A21	RX	B21	TX	A21	RX
B22	GND	A22	GND	B22	GND	A22	GND
B23	TX	A23	RX	B23	TX	A23	RX
B24	TX	A24	RX	B24	TX	A24	RX
B25	GND	A25	GND	B25	GND	A25	GND
B26	SIDEBAND	A26	SIDEBAND	B26	TX	A26	RX
B27	SIDEBAND	A27	SIDEBAND	B27	TX	A27	RX
B28	SIDEBAND	A28	SIDEBAND	B28	GND	A28	GND
B29	SIDEBAND	A29	SIDEBAND	B29	TX	A29	RX
B30	SIDEBAND	A30	SIDEBAND	B30	TX	A30	RX
B31	GND	A31	GND	B31	GND	A31	GND
B32	TX	A32	RX	B32	TX	A32	RX
B33	TX	A33	RX	B33	TX	A33	RX
B34	GND	A34	GND	B34	GND	A34	GND
B35	TX	A35	RX	B35	TX	A35	RX
B36	TX	A36	RX	B36	TX	A36	RX
B37	GND	A37	GND	B37	GND	A37	GND

APPLICATION SPECIFICATION

Swift Standard 124P

124P SWIFT PIN ASSIGNMENT

X16+20SIDEBAND SOLUTION PIN ASSIGNMENT				X20 SOLUTION PIN ASSIGNMENT				X16+20SIDEBAND SOLUTION PIN ASSIGNMENT				X20 SOLUTION PIN ASSIGNMENT			
PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION	PIN NUMBER	PIN DEFINITION
B1	GND	A1	GND	B1	GND	A1	GND	B38	GND	A38	GND	B38	GND	A38	GND
B2	TX	A2	RX	B2	TX	A2	RX	B39	TX	A39	RX	B39	TX	A39	RX
B3	TX	A3	RX	B3	TX	A3	RX	B40	TX	A40	RX	B40	TX	A40	RX
B4	GND	A4	GND	B4	GND	A4	GND	B41	GND	A41	GND	B41	GND	A41	GND
B5	TX	A5	RX	B5	TX	A5	RX	B42	TX	A42	RX	B42	TX	A42	RX
B6	TX	A6	RX	B6	TX	A6	RX	B43	TX	A43	RX	B43	TX	A43	RX
B7	GND	A7	GND	B7	GND	A7	GND	B44	GND	A44	GND	B44	GND	A44	GND
B8	SIDEBAND	A8	SIDEBAND	B8	TX	A8	RX	B45	TX	A45	RX	B45	TX	A45	RX
B9	SIDEBAND	A9	SIDEBAND	B9	TX	A9	RX	B46	TX	A46	RX	B46	TX	A46	RX
B10	SIDEBAND	A10	SIDEBAND	B10	GND	A10	GND	B47	GND	A47	GND	B47	GND	A47	GND
B11	SIDEBAND	A11	SIDEBAND	B11	TX	A11	RX	B48	TX	A48	RX	B48	TX	A48	RX
B12	SIDEBAND	A12	SIDEBAND	B12	TX	A12	RX	B49	TX	A49	RX	B49	TX	A49	RX
B13	GND	A13	GND	B13	GND	A13	GND	B50	GND	A50	GND	B50	GND	A50	GND
B14	TX	A14	RX	B14	TX	A14	RX	B51	TX	A51	RX	B51	TX	A51	RX
B15	TX	A15	RX	B15	TX	A15	RX	B52	TX	A52	RX	B52	TX	A52	RX
B16	GND	A16	GND	B16	GND	A16	GND	B53	GND	A53	GND	B53	GND	A53	GND
B17	TX	A17	RX	B17	TX	A17	RX	B54	TX	A54	RX	B54	TX	A54	RX
B18	TX	A18	RX	B18	TX	A18	RX	B55	TX	A55	RX	B55	TX	A55	RX
B19	GND	A19	GND	B19	GND	A19	GND	B56	GND	A56	GND	B56	GND	A56	GND
B20	TX	A20	RX	B20	TX	A20	RX	B57	TX	A57	RX	B57	TX	A57	RX
B21	TX	A21	RX	B21	TX	A21	RX	B58	TX	A58	RX	B58	TX	A58	RX
B22	GND	A22	GND	B22	GND	A22	GND	B59	GND	A59	GND	B59	GND	A59	GND
B23	TX	A23	RX	B23	TX	A23	RX	B60	TX	A60	RX	B60	TX	A60	RX
B24	TX	A24	RX	B24	TX	A24	RX	B61	TX	A61	RX	B61	TX	A61	RX
B25	GND	A25	GND	B25	GND	A25	GND	B62	GND	A62	GND	B62	GND	A62	GND
B26	SIDEBAND	A26	SIDEBAND	B26	TX	A26	RX								
B27	SIDEBAND	A27	SIDEBAND	B27	TX	A27	RX								
B28	SIDEBAND	A28	SIDEBAND	B28	GND	A28	GND								
B29	SIDEBAND	A29	SIDEBAND	B29	TX	A29	RX								
B30	SIDEBAND	A30	SIDEBAND	B30	TX	A30	RX								
B31	GND	A31	GND	B31	GND	A31	GND								
B32	TX	A32	RX	B32	TX	A32	RX								
B33	TX	A33	RX	B33	TX	A33	RX								
B34	GND	A34	GND	B34	GND	A34	GND								
B35	TX	A35	RX	B35	TX	A35	RX								
B36	TX	A36	RX	B36	TX	A36	RX								
B37	GND	A37	GND	B37	GND	A37	GND								