

Figure 1

1. INTRODUCTION

SFP DWDM connector and cage assembly are used to interconnect SFP DWDM fiber optic transceivers to a host printed circuit (pc) board. The dust cover is used to prevent contaminants from entering the chassis when the transceiver is not installed. See Figure 1.

NOTE Dimensions in this instruction sheet are in millimeters. Figures are for reference only and are not drawn to scale.

In applications where heat dissipation is necessary, a heat sink can be used. Choose a heat sink that meets the need of the specific application. A sample of available heat sinks for the cage assembly are shown in Figure 2. These heat sinks are designed to be attached to the cage assembly using a clip.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION

The connector contains right-angle surface mount contacts and features a card entry slot that accepts the 1.0±0.1-mm thick integrated circuit card housed in the transceiver.

The cage assembly is a frame with a cavity and a port having compliant pin contacts for mechanical retention to the host pc board and electromagnetic interference (EMI) suppression pins to provide EMI suppression. The cage assembly features a hard stop

which controls the insertion depth of the transceiver and a transceiver locking latch which holds the transceiver in place. Along the front perimeter of the cage assembly are EMI suppression springs which impede any EMI emissions coming from the mated transceiver.

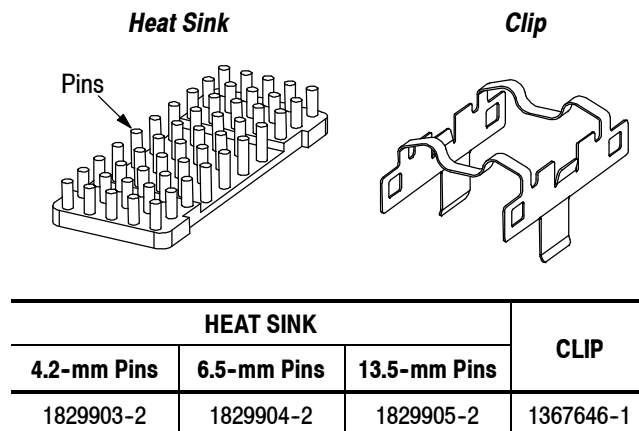


Figure 2

3. ASSEMBLY PROCEDURE

1. Install the connector onto the host pc board according to Application Specification 114-13178. Refer to Figure 3.



CAUTION The connector must be soldered to the board **BEFORE** seating the cage assembly; otherwise, the soldering process will cause damage to the cage assembly.

Seated Connector

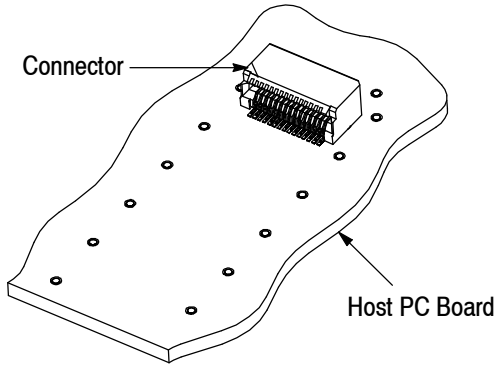


Figure 3

2. Design a pc board support fixture having a flat surface with holes or a channel wide and deep enough to receive any protruding components during seating of the cage assembly on the host pc board.



A pc board support fixture must be used to provide proper support for the host pc board and to prevent damage to the host pc board and its adjacent components.

3. Place the host pc board on the pc board support fixture.

4. Align the compliant pins of the cage assembly with the applicable holes in the host pc board. Using even pressure across the cage assembly, apply only that force necessary to seat the shoulders of the compliant pins onto the host pc board. Then remove the pc board support fixture.

5. Inspect the seated cage assembly according to Figure 4.

Seated Cage Assembly

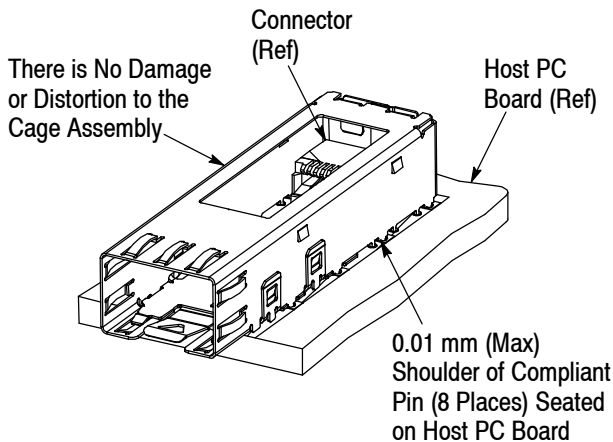


Figure 4

6. If applicable, secure the heat sink to the cage assembly as follows (refer to Figure 5):

a. Place the heat sink on the cage assembly so that the raised boss of the heat sink is centered in the cavity of the cage assembly and the perimeter of the heat sink is flush with the top of the frame of the cage assembly.

b. Position the cross bars of the clip between the groups of pins of the heat sink. Then seat the clip onto the heat sink.

c. Using the tip of a tool (such as a small screwdriver), push the rim of the clip until the corresponding locking windows latch onto the attachment latches of cage assembly. Make sure that all four locking windows have engaged the attachment latches.

Securing Heat Sink (Optional)

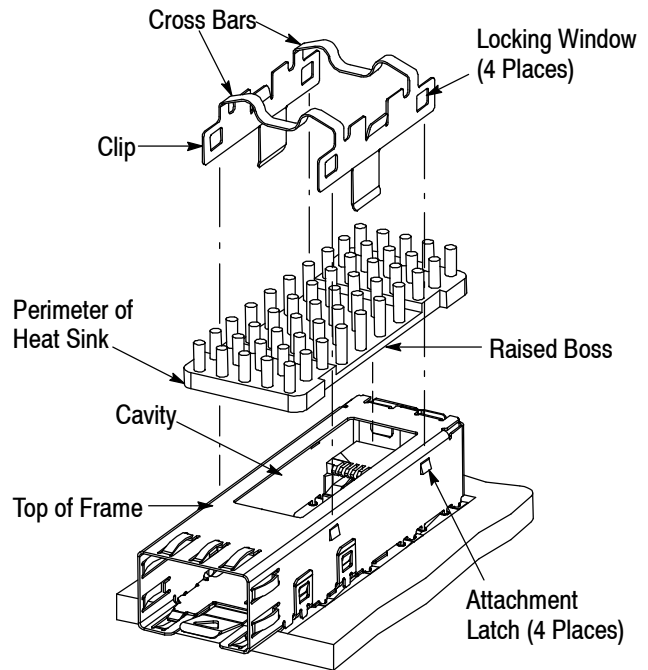


Figure 5

7. Design the bezel according to 114-13178.

8. Mount the cage assembly (with the host pc board) onto the bezel. Make sure that the opening of the cage assembly is centered over the cutout of the bezel. See Figure 6.

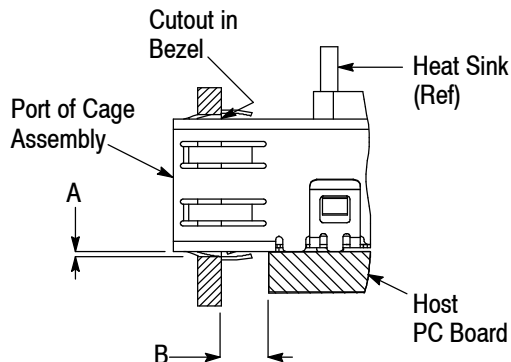


To avoid interference with the insertion and extraction of the transceiver, IT IS IMPORTANT that the bezel and pc board be positioned in relation to each other according to Figure 6.

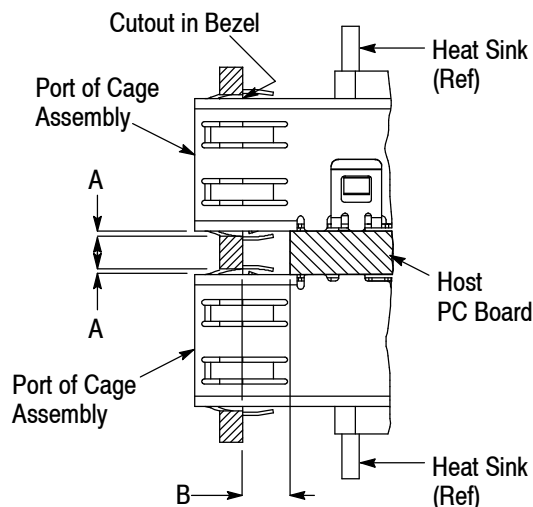
9. Install the transceiver. If the transceiver is not being installed, install the dust cover over the port of the cage assembly.

Cage Assembly Installed onto Bezel (Side View)

Mounting to One Side of Host PC Board



Mounting to Both Sides of Host PC Board



DIMENSION

A (Bottom of Bezel Cutout to Top of Host PC Board)	B (Distance Between Back of Bezel and Front of Host PC Board)
0.4±0.1 mm	2.9±0.9 mm

Figure 6

4. REMOVAL

4.1. Heat Sink

The cage assembly and host pc board must be removed from the bezel before removing the heat sink from the cage assembly. To remove the heat sink, proceed as follows:

1. Insert the tip of a tool (such as a small screwdriver) behind either release aperture of the clip, and rotate the tool until the corresponding locking windows are released from the attachment latches of the cage assembly. Repeat this step for the remaining release aperture. Refer to Figure 7.

Removal of Heat Sink

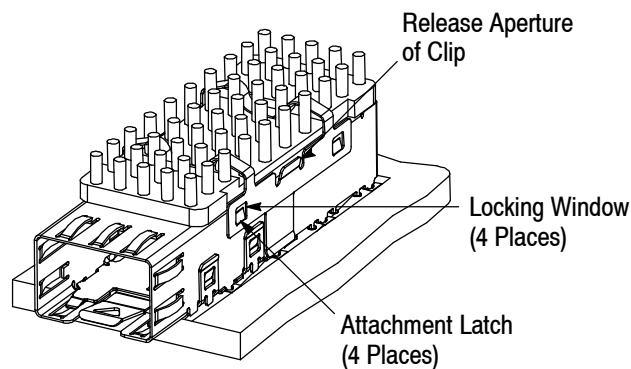


Figure 7

2. Lift the clip and heat sink from the cage assembly.

4.2. Cage Assembly

1. If used, remove the heat sink from the cage assembly according to Paragraph 4.1. (the heat sink must be removed before removing the cage assembly).
2. Insert a flat metal bar (or similar object) into the port of the cage assembly, but DO NOT allow the object to touch the connector; otherwise, damage to the contacts could occur.
3. Lift the cage assembly off of the host pc board.

CAUTION

DO NOT re-use the cage assembly after removal.



4.3. Connector

1. Remove the cage assembly according to Paragraph 4.2. (the cage assembly must be removed before removing the connector).
2. Use standard de-soldering methods to remove the connector from the host pc board.

CAUTION

DO NOT re-use the connector after removal.



5. REPLACEMENT AND REPAIR

The connector and cage assembly are not repairable. DO NOT use any defective or damaged products.

6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated document to corporate requirements.