RoHS-Compliant Small Form Factor 1x2 Press-Fit SFP Cage with Light pipes

PL-KP2-21-000-11

Key Features

- **Compatible with all MSA-compliant SFP transceivers**
- **Staggered pins allow for PCB layouts in single and double-sided applications**
- **Enhanced EMI performance at datarates above 4Gbps**
- **RoHS-compliant and lead-free**

Applications

- Switch and hub devices
- Mass storage systems interconnect
- Host adapter cards
- Enterprise switch interconnects

The unique lead-free and RoHS-Compliant, 1x2 pluggable press-fit cage with light pipes represents one of JDSU's complementary products to the Small Form Factor Pluggable (SFP) transceivers. Its patented design enables enhanced EMI performance using improved shielding between the cage and bezel. Optimized for use with all transceiver products complying with the SFP multisource agreement (MSA), the cage design allows for low-cost implementation using standard manufacturing processes. Its hardened spring-tempered material, plus excellent material memory characteristics, provides for consistent transceiver mate/de-mate performance and enables port flexibility over the life of the system.
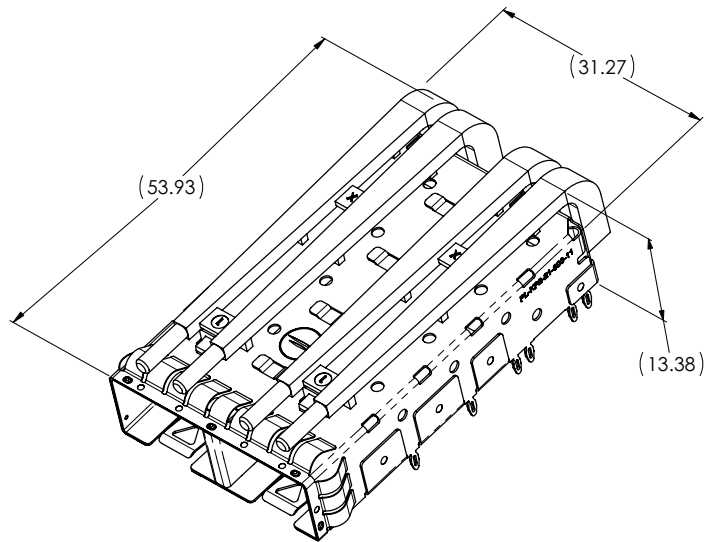
Highlights

- Industry's most robust and sturdy cage design optimized for all SFP applications, including Fibre Channel, Gigabit Ethernet, and SONET
- Enhanced EMI performance for 4G applications due to improved mechanical shielding
- Supports all industry SFP transceivers, allows for board layouts and hole sizes for single and double sided applications
- Extensive compatibility testing with industry-wide MSA-based modules for interoperability in multiple vendor implementations
- Backward compatible design offers superior mechanical stability, simplifying implementation to customer PCBs
- Tested for common applications and standard industry processes to allow seamless integration into manufacturing without additional equipment or requirements
- Excellent material memory characteristics provide for high cage retention to PCB, reducing field failures due to cage pull up

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Features

- RoHS-compliant and lead-free
- Superior EMI performance at 4Gbps
- Press-fit attachment
- 1x2 design enables high density applications
- Proven SFP transceiver cage
- Supports multiple system configurations
- Belly-to-belly or dual sided boards
- Robust manufacturing process
- Sturdy construction
- Hardened spring tempered alloy
- Simple assembly
- Utilizes common manufacturing equipment and processes
- 360 degree EMI contact fingers
- Low emission design
- FCC Class B compliant

The PL-KP2-21-000-11 1x2 press-fit cage accommodates all MSA-compliant SFP transceivers, and is ideally suited for application on printed circuit board (PCB) with a minimum thickness of 2.26mm (0.089 inches) for belly-to-belly applications. The excellent material memory characteristics provide high cage retention to the PCB, resulting in fewer field failures.

Section 1   Functional Description

The press-fit cage is designed based on the Small Form Factor Pluggable (SFP) Transceiver Multisource Agreement (MSA). The PL-KP2-21-000-11 may be used with the single-sided PCB layout, the double-sided PCB layout (called belly-to-belly), and the double-sided offset PCB layout. All press-fit pins should be connected to chassis ground.

A double-sided PCB layout allows for one cage on the topside of the card and one on the bottom side that is directly under the topside cage (called belly-to-belly). The pins are staggered to avoid interference upon installation. The PCB must be a minimum of 2.26mm (0.089 inches) thick for Belly-to-Belly Applications.

A double-sided offset PCB layout allows for cages on both sides of the PCB, but staggered to allow more room for finger access between the units (offset belly-to-belly). The pins are staggered to avoid intereference upon installation. The PCB must be a minimum of 2.26mm (0.089 inches) thick for Offset Belly to Belly applications.
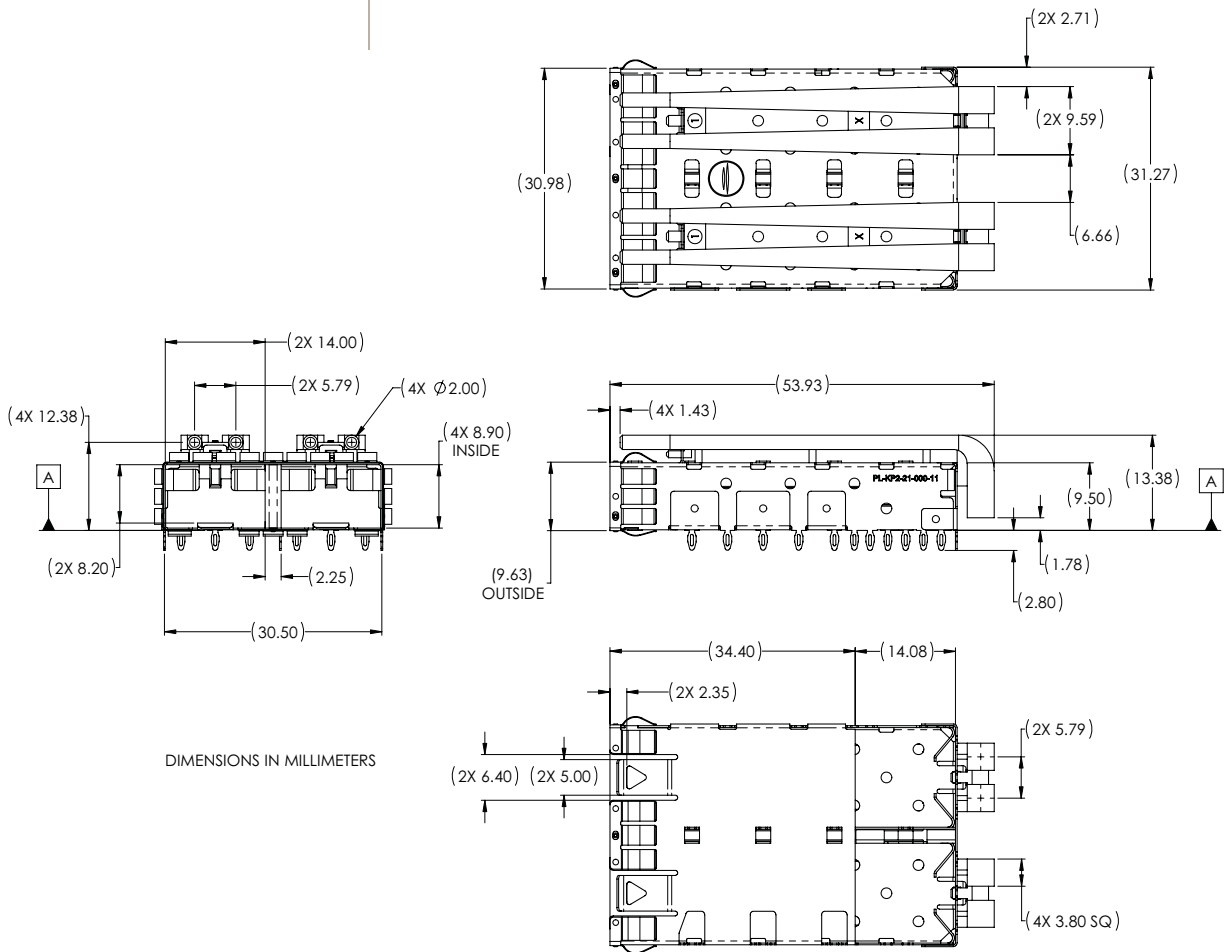
DIMENSIONS IN MILLIMETERS

Figure 1   1x2 press-fit cage mechanical drawing (PL-KP2-21-000-11)

Section 2   Installation Guide

For best installation, a JDSU 66003473 press-fit tool should be used to install the cage.

Care should be taken not to twist or tilt the cage during the installation process. Excessive force will result in damage to the unit. A press machine similar to the MEP-6T/12T manufactured by Automated Services Group, West Palm Beach, FL is recommended for cage installation.

Cage removal is very easy. Simply insert a flat metal bar or similar object into the cage assembly and lift it up off the PCB. Actual insertion and removal force may vary depending on plating material and finished hole size. Cages should not be re-installed once they are removed from a board.

Section 3   Recommended OEM PCB Layouts

NOTES:

△1 DATUM B TO BE ESTABLISHED BY CUSTOMER

△2 NOTED PADS AND VIAS ARE PLATED AND TIED TO CHASSIS GROUND. DIMENSIONS APPLY AFTER PLATING.

△3 NOTED THRU HOLES ARE UNPLATED.
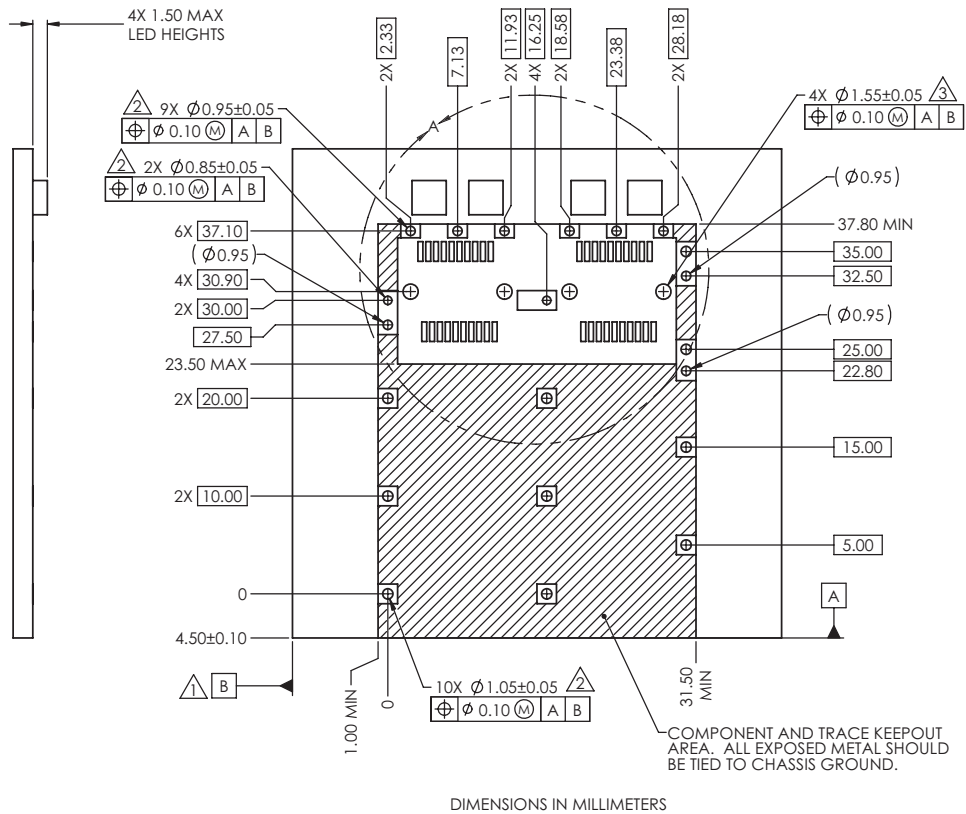
△4 ELECTRICAL PAD LAYOUT PER SFP MSA.

DIMENSIONS IN MILLIMETERS

Figure 2   Single sided board layout

Figure 3   Single sided detail layout

DIMENSIONS IN MILLIMETERS

Figure 4   Front panel opening

DIMENSIONS IN MILLIMETERS

Section 4   Package and Handling Instructions

The PL-KP2-21-000-11 is packaged in card board boxes. Each layer consists of 25 cages in plastic trays. There are 14 layers of trays for a total of 350 cages per box.

Flammability

The PL-KP2-21-000-11 press-fit cage is made from Alloy C77000 nickel-silver sheet metal with a nickel-plated BeCu EMI collar welded on. The polycarbonate light pipes are UL 94 V-2 rated.

RoHS Compliance

Compliant per the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Order Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: PL-KP2-21-000-11

Part Number	Description
PL-KP2-21-000-11	1x2 (1 row x 2 wide) EMI-Enhanced Press-Fit SFP Cage with light pipes

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