ASSOCIATION CONNECTING
ELECTRONICS INDUSTRIES®

IPC-2223B

Sectional Design Standard for Flexible Printed Boards

Developed by the Flexible Circuits Design Subcommittee (D-11) of the Flexible Circuits Committee (D-10) of IPC

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Users of this publication are encouraged to participate in the development of future revisions.

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Sectional Design Standard for Flexible Printed Boards

1 SCOPE

This standard establishes the specific requirements for the design of flexible printed circuit applications and its forms of component mounting and interconnecting structures. The flexible materials used in the structures are comprised of insulating films, reinforced and/or non-reinforced, dielectric in combination with metallic materials. These interconnecting boards may contain single, double, multilayer, or multiple conductive layers and can be comprised wholly of flex or a combination of both flex and rigid.

1.1 Purpose The requirements contained herein are intended to establish specific design details that **shall** be used in conjunction with IPC-2221 and may also be used in conjunction with IPC-2222 for the rigid sections of rigid-flex circuits.

1.2 Classification of Products Classification type and use of products **shall** be in accordance with IPC-2221 and as stated in 1.2.1 and 1.2.2.

1.2.1 Printed Board Type This standard provides design information for different flexible and rigid-flex printed board (PB) types. PB types are classified as:

Type 1 Single-sided flexible PB containing one conductive layer, with or without stiffener (see Figure 1-1 and Figure 1-2)

Type 2 Double-sided flexible PB containing two conductive layers with plated-through holes (PTHs), with or without stiffeners (see Figure 1-3 and Figure 1-4)

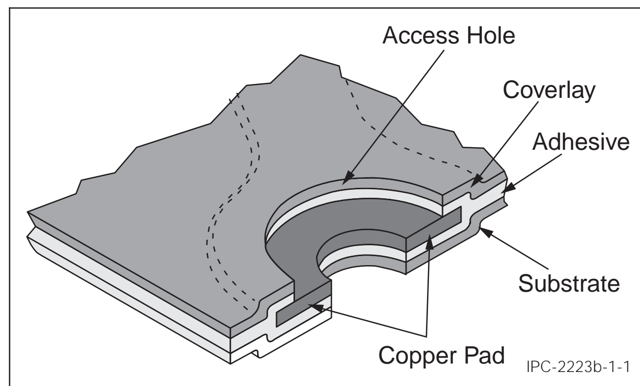

Figure 1-1 Type 1 Single-sided Flexible PB - Adhesive Substrate Construction

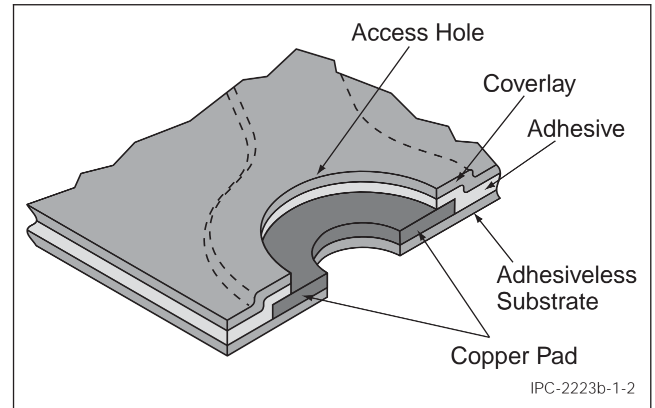

Figure 1-2 Type 1 Single Sided Flexible PB - Adhesiveless Substrate Construction

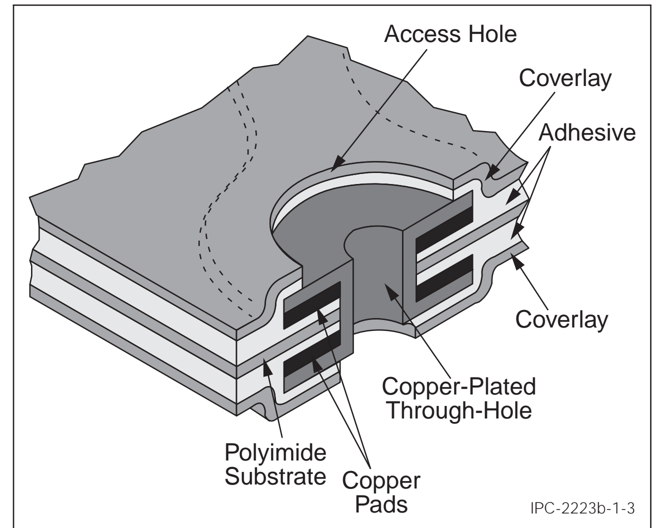

Figure 1-3 Type 2 Double-sided Flexible PB - Adhesive Substrate Construction

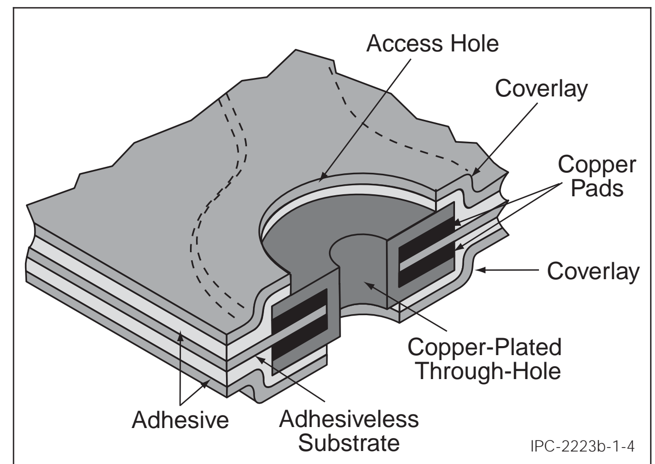

Figure 1-4 Type 2 Double-sided Flexible PB - Adhesiveless Substrate Construction