



TELEDYNE ELECTRONIC TECHNOLOGIES

Printed Circuit Technology

A Teledyne Technologies Company



STABIL Flex is a reliable, cost effective interconnect substrate addressing high density and superior performance needs for flex-to-install applications.

circuits. Traditional rigid-board, rigid-flex, and flexible printed circuit boards have been used for years in a variety of high performance military and commercial applications, however the technology was not cost effective for many commercial market needs. STABIL Flex takes advantage of defense-developed technologies and provides the commercial market with a reliable, cost effective interconnection substrate solution for high performance needs.

STABIL Flex offers enhanced features not previously found in other products. It combines the dimensional stability of rigid laminates with flexibility for less cost than a traditional flex circuit. The dimensional stability produces a solid platform on which to utilize fine pitch SMT, COB, or BGA technology, and the flexibility allows it to be used in applications where more confining hardboards are too constrained. Best of all, STABIL Flex uses a high

STABIL Flex™

Proven performance and dependability

What is STABIL Flex™?

performance epoxy resin adhesive system that represents the latest development in FR-4 technology. The UL 94V0 flammability rating of these laminate materials is consistent with the most stringent needs of many industrial requirements. STABIL Flex can meet the demanding challenges of high density circuitry in flex-to-install applications.

STABIL Flex circuits use a thin core, epoxy-glass based laminate material system with rolled annealed copper and flexible covercoats to give excellent in-plane dimensional stability, providing compatibility with a variety of conventional and advanced SMT devices and assembly processes. A choice of polyimide or flexible soldermask covercoats is available.

Teledyne is pleased to offer design, fabrication, and assembly services to provide the shortest time to market for our customers. Full testing to industry specifications is available to assure product reliability.

Let Teledyne provide your next flexible circuit design solution. ■

*An affordable
flexible printed
circuit is now
within your reach*

TYPICAL PRODUCT HIGHLIGHTS

- Superior performance through multiple thermal excursions
- Excellent chemical and thermal resistance
- 4/4 line/spacing typical (3 mil available)
- Tin/Lead or soft gold metal finish available
- Bend radius 6x material thickness
- Improved assembly compatibility for COB, BGA and flip chip

PHYSICAL DATA

- **FR-4 epoxy base material**
T_g = 170 degrees C (DSC)
Dielectric constant = 4.3
- **Covercoats**
Flex soldermask dielectric constant = 3.1
Polyimide film dielectric constant = 3.4
- Thickness range of 3 to 10 mils
- ½, 1, or 2 ounce copper available
- UL-94V0 rating
- CTE (x, y) = 17 ppm/degrees C

110 Lowell Road
Hudson, NH 03051
Tel: 603 889 6191
Fax: 603 882 4457
email: pctsales@teledyne.com



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Your technology specialist for flexible interconnection solutions