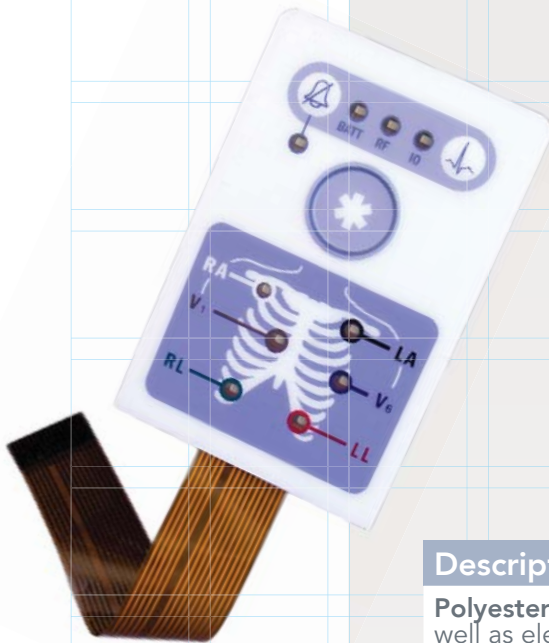


Flex Circuits

Make your electronic interconnection both simpler and more reliable with tight tolerance, fine-line circuits



Flex circuits offer OEM customers several options because they have: 1) trace routing, current carrying capabilities, and SMT component populating options of a FR4 printed circuit board, and 2) the flexibility of a membrane switch.

Flex circuits can be developed using polyester or polyimide (Kapton) as the base material, depending on your interface requirements. From simple single layer copper flex on polyester to complex double sided or multilayer on polyimide, Esterline Interface Technologies rapidly provides customers with application specific solutions.

Looking for a flex circuit that is both ridged and flexible? Rigid-Flex circuits can be produced to reduce interconnects and to incorporate tails directly into the circuit.

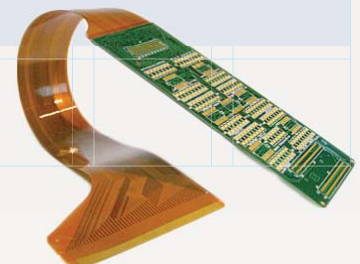
Description

Polyester Base Single Sided Flex Circuits offer tight trace routing capabilities, as well as electrical resistance values lower than traditional membrane switches since they utilize copper conductors much like a printed circuit board.

Polyimide Base Single-Sided Flex Circuits offer tight trace routing capabilities, lower electrical resistance, and the component mounting attributes of a rigid printed circuit board, as well as the flexibility of a membrane switch.

Polyimide Based Double-Sided and Multi-Sided Flex Circuits offer the complex trace routing capability and component mounting functionality of a double-sided or multi-sided rigid printed circuit board, along with the flexibility of a membrane switch.

Flex Circuit Versatility ranges from simple custom interconnects to the complex current carrying element of the OEM input device, due to their trace routing capabilities and malleable nature.



SPECIFICATIONS

FLEX CIRCUITS

Single Side Flex
 Double Side Flex
 SMD Components
 UL E156389 and E200944

TRACE WIDTH

Standard line width	0.25 mm, minimum 0.10 mm
Standard trace pitch	0.50 mm, minimum 0.20 mm
Minimum space between circuits	0.10 mm

PLATING

Tin - lead
 Nickel
 Gold

COMPONENT ASSEMBLY

Connector crimping
 Soldering of components

BASE MATERIAL

Polyimide: standard thickness	1 mil 2 mil and ½ mil available
Polyester: standard thickness	3 mil 1 mil, 2 mil and 5 mil available
Conductor: laminated ED copper or RA copper	1 oz (1.4 mil/0.35 mm) ½ oz and 2 oz available
Coverlay: polyimide, polyester or solder mask thickness	½ mil, 1 mil, 3 mil or 5 mil

Esterline Interface Technologies is a global group of companies specializing in the design and manufacture of innovative touch, sensing, and control human interface systems for leading original equipment manufacturers. We define the user experience for specialized medical equipment, advanced military and security solutions, industrial equipment, high tech gaming applications, and custom designed input components.

Esterline Interface Technologies consists of Advanced Input Systems, Memtron Input Components, LRE Medical, and Esterline Input Devices (Shanghai).



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