Typical Applications

- Consumer Appliances
- Computers
- Cell phones
- Televisions
- Satellites
- Radars
- Rotary Aircraft
- Navigation Systems
- Automotive Systems

Features

- Higher circuit density
- Flexibility
- Reduces wiring errors
- Improved impedance control and reliability
- Replaces wire harnesses and allows more compact packaging (saves space and weight)
- Reduces assembly cost
- Can be used for high temperature applications / thermal management
- Improved thermal resistance
- Consistent thickness
- Dynamic flexing
- Stronger signal quality
- More aesthetically appealing
- Increased functional capacity

Market Sectors

- Military
- Commercial
- Aeronautical
- Automotive
- Medical
- Telecom
- Industrial Controls

Moog is a leader in printed circuit board prototype manufacturing. We offer solutions to each customer’s specialty requirements.

Flexible circuit boards have been an important factor in the world’s technological advancements for many years. Most recently, flex has evolved into an interconnection device that is used in the majority of electronic products available today.

Flexible circuit boards provide mechanical support, as well as electrical connections. The flexibility and durability of the material allows for dynamic flexing without risking the integrity of the traces.

Flexible circuit boards reduce cost and labor assembly by eliminating connectors and solder joints installation.

Simplifying the overall design with flexible circuits reduces the risk of wiring errors. Flex ranges extensively in complexity and can be used for virtually any product.
Moog offers flex and rigid flex product for prototype orders, as well as mid to high volume production quantities. Our capabilities include:

**Specifications Referenced (Flex)**
- IPC-6013, Class 2 and 3
- MIL-P-50884 certified

**Current Technologies**
- Single sided flex with single and double barred cover-layer openings
- Double sided flex circuits with or without stiffeners
- Multi-layer flex circuits with or without stiffeners
- Rigid flex circuits

**Materials Available**
- Dupont® LF series
  - IPC class 2 and 3
  - Modified acrylic adhesive and Kapton® film RA or ED copper
  - No UL flame rating
- Dupont® AP series
  - IPC class 2 and 3
  - Adhesiveless and Kapton® film
  - RA or ED copper
  - UL94 V-0 flame rating

**Manufacturing Capabilities**
- Flex - up to 3 oz. internal and external weight
- Rigid Flex - up to 3 oz. internal copper weight and 6 oz. external copper weight
- .005 inch / .005 inch trace / space
- .003 inch / .003 inch review
- .006 smallest plated through hole
- Plasma desmear
- Technician level employees throughout the plant
- Polar instruments, impedance calculators and equipment
- Laser ablation, skiving and routing technology through the use of our Excellon Cobra V1000 UV / CO2 Laser

**Manufacturing Lead Times for Flex Product**
- Standard delivery of 20 days or less
- Expediting delivery as quick as 5 to 10 days