

Call : [408-437-1931](tel:408-437-1931)

# FLEX CIRCUIT MANUFACTURING FOR INNOVATIVE PRODUCT DESIGN



## High Quality Solutions to Reduce Manufacturing Cost and Time

Flex and rigid flex circuits have become increasingly popular in the high-density electronics industry for their cost-saving three-dimensional configurations. The ability to build circuitry to fit the device instead of the other way around, offers significant advantages for complex aerospace, military, and medical device applications. Power Design Services works closely with clients on their new product development projects. Over the years, we have been instrumental in the development of many new and ground-breaking products such as, [Freedom Innovation's bionic knee](#) and [NASA's micro satellite TechEDSat-X](#). Here is a quick summary of the main benefits your business can gain from flex circuit manufacturing for innovative product design.

## 5 Key Advantages of Flex and Rigid Flex Circuits for New Product Development

- 1. Reduced packaging requirements:** Being thin and light-weight, flex circuit boards can easily bend or fold into the smallest areas, supporting unique placements and product shapes. Reduced packaging requirements can save as much as 60% of space and weight in the final product when compared to wire harness applications and rigid PCBs.
- 2. Greater reliability:** By simplifying the product design, flex circuits reduce wiring considerations for corners and layers of electronics, and the number of connections. This increases product reliability.
- 3. Anti-vibration benefits:** Lighter weight and greater flexibility allows flex PCBs to absorb vibration and shock for better noise reduction and impedance control.
- 4. Use in harsh environments:** Flex circuit materials (like polyimide) dissipate heat at a better rate, making them ideally suitable for use in applications that run in extreme temperatures. Greater resistance to oils, gases, acids, radiation, and UV exposure are added benefits.

5. **Reduced assembly cost and time:** Smaller area, reduced packaging size, and the number of parts used for interconnections, significantly lower your PCB assembly costs. Elimination of wire routing errors further reduces test time, errors and rework expenses.

A leader in flex and rigid flex circuit manufacturing in California, Power Design Services is equipped with the latest PCB assembly technology to deliver your [prototypes](#), [quick turns](#) and volume runs within the specified budget and time. Located a few minutes away from Mineta San Jose International Airport, our customers enjoy fast, efficient service with quotes in 4 hours and expedited 24-hour delivery for time-sensitive projects. We are known for a 50% faster build time compared to other players in the market. Pick-up and delivery service is available for our Silicon Valley clients.

Customers rely on our PCB layout reviews and manufacturing feasibility assessments to avoid the additional cost of rework. Our ISO-9000 and ITAR Certified services verify the quality and reliability of every circuit board before we ship your order.

**[Request a quote](#) for innovative product design and manufacturing services. Call 408-437-1931 and talk to our team of PCB experts in California to learn more.**

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## Power Design Services

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