



Introducing **MIRACO SOUTH**

Miraco Inc. is an innovative design and engineering company in the interconnection systems industry.

From our inception in 1987, we have been dedicated to developing innovative high-density interconnect solutions for all electronic industries. Miraco is built on a core of professionals who have over a century of combined experience and more than 30 patents in the field of Flexible Printed Circuits (FPC), Flat Flexible Cable (FFC), Wire Harness, and connector technology. We continue to maintain an aggressive focus on developing new products and processes to meet tomorrow's electronic packaging challenges.

Our goal is simple: "Provide a quality, cost-effective solution—on time." Easier said than done; we are sure you've heard it many times before. However, it has been our unrelenting drive to fulfill this goal that has facilitated our success. We achieve this aim through unparalleled customer service and our unique interconnection solution approach—we design, source, and finish flat flexible interconnection systems. We do not manufacture the base cable or circuit. This gives us a wide range of advantages that we pass on to you.



Your value-added service facility

Service Overview

Miraco is a complete solutions provider of custom interconnect solutions for the electronics industry. Miraco is committed to providing comprehensive engineering and global sourcing, while maintaining high quality, cost effective solutions.

With this commitment in mind, Miraco South was opened in early 2012 in Tijuana, Mexico, as a value-added, low-cost service center. This new 12,000 square foot manufacturing facility allows Miraco to transition to high volume production requirements while:

- Managing COST
- Increasing CAPACITY
- Improving LEAD TIMES

all while maintaining high industry quality standards.

Miraco South is a mirror image of the Manchester, NH facility. It provides dual language capability and serves as a back up to Miraco North, with all processes and tooling duplicated. This ensures against catastrophic failure at either site. The site is fully certified to ISO standards and has a complete staff of technicians which have been trained and certified to IPC standards.

Miraco continues to maintain an aggressive research and development program. Design and prototyping continues to take place at Miraco North, as does extensive and comprehensive product testing and reporting that is considered the best in the industry.



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ISO 9001:2008 CERTIFIED

IPC MEMBER
ASSOCIATION CONNECTING
ELECTRONICS INDUSTRIES®



Capabilities

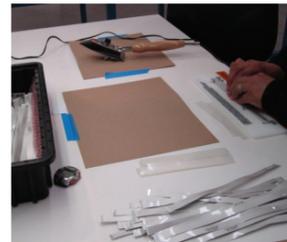
Our products and services are specifically designed to empower our customers to produce a product with superior performance and quality, as well as lower design, assembly, and system installation costs.

Miraco South's suite of service capabilities include:



Hand Soldering

All employees are trained and certified to IPC standards. This allows quick-turn lead times for prototypes and low volume production.



Folding, Wrapping and Forming

Miraco's ability to design and build molds, manufacturing fixtures, and inspection gauges in-house, allows us to provide quick-turn prototypes, preproduction qualification samples, or full production parts in a shorter lead time. Built by the engineering team at Miraco, this guarantees the duplication of the manufacturing process for the life of the product.



Overmolding

Miraco offers a low pressure, low temperature injection molding process allowing Miraco to overmold Flat Flexible Cable (FFC) and Flexible Printed Circuit (FPC) cables and wire harnesses that are manufactured with low temperature insulation materials, such as polyester. This process is used to provide connector strain relief, water tight sealing, drain wire strain relief, wear guards, etc.



Electrical Testing

Miraco provides electrical test services ranging from simple HIPOT and Continuity Testing (Opens/Shorts) to full functional testing. We have the ability to design and build the test fixtures in-house, which gets you to market quicker.



Shielding

Miraco offers a variety of shielding options for EMI protection or Controlled Impedance requirements. This includes Sprayed on Silver Epoxy (360 degree wrap), wrapped Copper or Aluminum tapes, or etched copper and silver epoxy shields applied during the flex cable manufacturing process. These can be insulated with a variety of material choices including thermally laminated polyester and polyimide, or sprayed on conformal coating.



Die Cutting, Punching, and Outlining

Specialized tools are designed in-house and typically used for removing Flexible Printed Circuits (FPC) from their manufacturing panel. Tools can range from low cost Steel Rule Dies to more expensive CLASS A Hard Tooling (male/female dies). Miraco also offers Quick Laser Outline service for prototypes, low volume manufacturing, and cables having a critical outline tolerance.



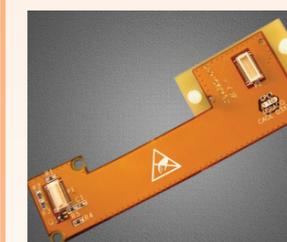
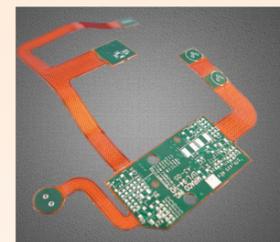
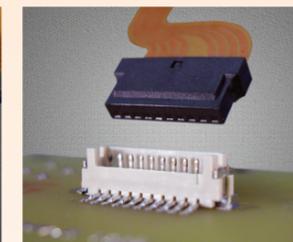
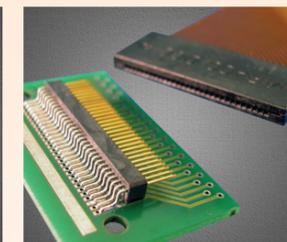
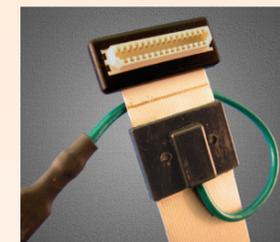
Marking, Labeling, and Pad Printing

Miraco offers a variety of options for applying identification and traceability information on cables (i.e. p/ns, Date Codes, Lot Codes, etc.). This includes Labels, Pad printing, and Silk-screening.

Miraco services a wide variety of industries, focusing mainly on:

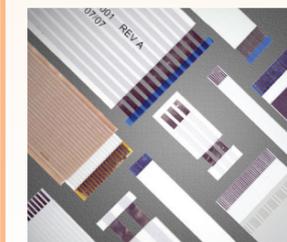
Medical

In an industry where lives are literally on the line, failure is not an option. Miraco's interconnect systems help CT Scanners, medical monitors, IV pumps, defibrillators, LED equipment, and oral surgeon and dental equipment function reliably.



Military & Aerospace Systems

Miraco plays a vital role in creating a safer world. We've manufactured and tested high-reliability products and systems in support of commercial and military aviation, defense operations, and communications. We are relied on for designing and deploying robotics, avionics, and launching control solutions that protect our service men and women, allowing them to complete their important work.



Commercial Systems

Security Scanners, Hand Held Portable Data Collection Devices, GPS Systems, Industrial Test Equipment as well as Classified Security Systems are just some of the sectors where Miraco's interconnect solutions are found.