





Industry Leaders in High-Speed Interconnect Transmission-Line Design and Manufacturing















Joy Signal Technology designs, manufactures, and delivers high performance, quality interconnects. We listen carefully to our customers, then align and integrate our comprehensive solution of products and services to fulfill their complete needs.

We take personal responsibility for meeting commitments to our customers. This interaction builds a business friendship and helps us anticipate their needs.

We are informal enough to be responsive and structured enough to have control. These business characteristics make Joy Signal Technology a challenging, dynamic and exciting company while providing a respectful environment for involved employees to gain personal and professional growth.



A view of a portion of our 21,000 square foot facility. Production is engineered to function in a free flowing pull line system, virtually eliminating excess work in process and providing immediate quality feedback.

We are heavily invested in state of the art cable termination equipment. Much of it is modified by our Engineers to accommodate our special processes.

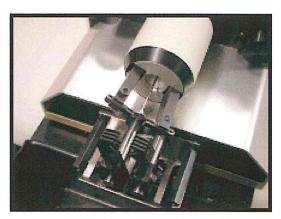
# A Brief Company History

Joy Signal Technology, LLC, was established in 1987 in Chico, California. In the beginning, Joy Signal Technology collaborated with larger electronic assembly manufacturers in producing cable assemblies. By 1988, we were independently developing our own products and markets. In 1992, we acquired our first molding machine and produced our first custom molded connector. Since then, we have continued to expand our customer base and product line, as well as focusing on the Automatic Test Equipment market. Growth has come rapidly since 1996. In 1999 we became a part of Meritec, a major name in the electronic interconnect market, which further increased both our customer base and product offerings. In February 2000, we moved to our current 21,000 square foot facility in Chico. Combined with Meritec, we have over 150,000 square feet available to meet your needs.





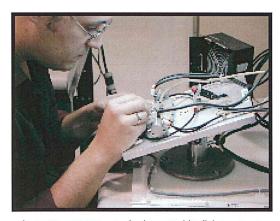




State of the art coax processing and laser preparation machines are standard on our manufacturing floor



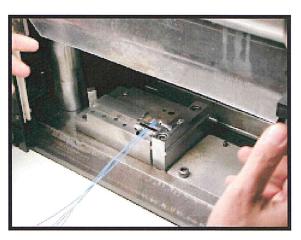
100% of our products are tested using a Time Domain Reflectometer to confirm the electrical integrity of the assembly



In many cases we design and build our own specialized process tooling



Precision semi-automatic welding equipment ensures consistent, high quality welds



Precision Injection Molding of connector bodies and overmolds using custom designed molding machines is one of our technical competencies







#### **Z-Trace**

Developed to enable performance to 3GHz on .100" pin fields. Designed for .025" square pins. Available from 2 to 64 position in 2 rows and also in a 4X35 carrier housing system

# Single Signal Interconnect - SSI

Low cost solution for signals up to 350MHz. Designed for .025" square pins. Available from 2 to 64 position utilizing our SSC Carrier housing system as well as a 4X35. Single and three row housings are also available

#### Coax PoLo

Up to 10GHz performance in a .100" diameter coaxial spring probe. Blocks are custom configured to customer specifications. Signal to ground spacing down to 2mm

#### HPM5 2mm Interconnect

Provides high density for coax, twinax, twisted pair, shielded twisted pair and hook up wire. 1X5 wafers are configurable up to blocks of 5X25. Custom backshells are available

#### **PCB** Terminations

Straight and right angle versions allow direct soldering of coax, winax or twisted pair directly to your PCB. A surface mount dog house enables efficient termination of miniature parallel pair

#### **RF** Connectors

SMA, SSMP, SMP, MMCX, 2.4mm, Super SMA are some of the high speed connectors we terminate to our proprietary high speed cables

# Cable Options

Highly flexible, miniature 50 ohm; high speed, low capacitance air core constructions; miniature twinax and shielded twisted pair are some of the cable options we provide

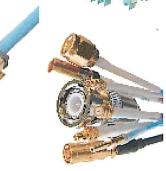
### **Custom Solutions**

From Interface subassemblies to complex harnesses, we offer build to spec and creative solutions for all of your interconnect challenges

















# High Density 180 pin ZIF Connector

Can be ganged together in "Cages"; 2 and 4 connector versions available Performance to 1GHz

External ZIF actuation allows pneumatic, or manual force mechanisms, Toggle switch actuation is available

Female board connector is compression mount, no soldering

Ribbon Coax or Utility cable, mass terminated



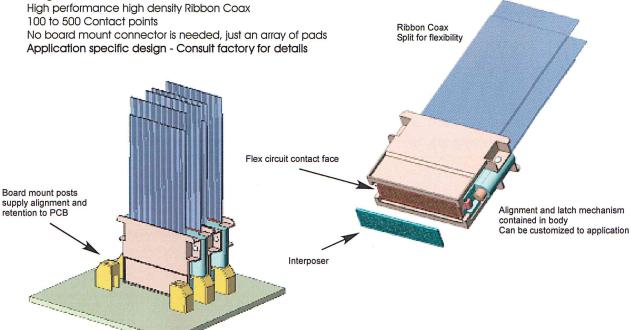


#### Flex Circuit Based ZIF connector

Compresses interposer to connect flex circuit to PCB

Contact points on 1mm X 1mm grid

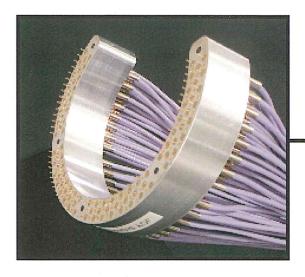
Spring actuated - Air deactivated - or simple mechanical capture using external hardware











This is a custom application of our Coax PoLo Spring Probe connector, used to interface a tester to a probe card.

The Coax Polo can be configured in almost any desired footprint as small as 2mm on an alternating signal-ground pattern.

We are capable of designing the block based on our customers inputs and providing a fully tested, turnkey assembly.



Our Chico, CA lab has test capability to 3GHz. Pictured are our high speed TDR and network analyser.

The Tektronix 11801 TDR is capable of measurements to 35ps.

Our Ohio facility is capable of test and characterization to 20GHz.



Our engineering software library includes SolidWorks and AutoCad LT.

These tools are used regularly by our Process, Product Design and Application Engineers.

With close to 100 years of collective engineering experience and expertise in the high speed transmission line industry, we are ready to assist you in your signal transmission application challenges.



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