

## Electronic Test Fixtures

- ✓ **Improve Quality and Consistency**
- ✓ **Increase Testing Productivity**
- ✓ **Reduce Warranty Costs**



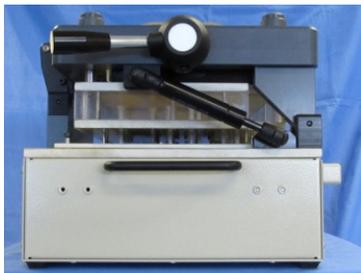
Improve the quality of your electronic products through In-circuit Electrical Testing (ICT). At even moderate production volumes, a Microlynx test jig will quickly pay for itself and start saving you money by reducing the test time and reducing waste and warranty costs.

### Features and Benefits

Microlynx test fixtures are loaded with features designed to simplify the test process and ensure years of trouble-free operation.

#### ✓ High Quality Clam Shell Fixture

Microlynx test fixtures are made using premium materials, including heavy duty steel housing, machined mechanism parts, and thick, stable pin and pusher plates.



#### ✓ Positive Interlock

Dual interlock ensures the fixture is closed before the pins are engaged. The fixture cannot be accidentally opened while the pins are engaged.

#### ✓ Cam Mechanism Engages Test Pins Vertically

Basic hinged fixtures generate uneven forces on the PCB under test when the fixture is opened and closed. The cam mechanism on Microlynx fixtures pushes the pins straight down, providing even pressure and reducing the chance of damage to the PCB under test.

#### ✓ Top and Bottom Pin Plates Provide Maximum Test Flexibility

Pins on the bottom are standard but some applications require pins on the top or even on both sides. We can accommodate virtually any test configuration, with tight alignment tolerances between the sides.

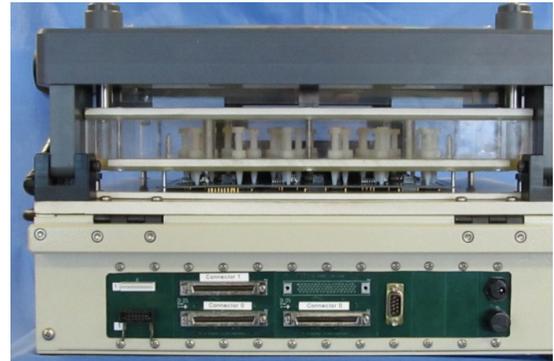
#### ✓ Stripper Plate Protects Pins and Users

All our fixtures are equipped with “stripper plates” that provide protection for both the pins and the operator. When the fixture is open, the spring-loaded stripper plate rises so that its top surface is above the tip of the pins.

#### ✓ Optional Pin Alignment Plate

A Microlynx exclusive, the alignment plate sits between the pin plate and the interface card and helps prevent of the pins from missing their target pads.

#### ✓ Modular Back Plane Provides Flexibility, Ease of Use, and Protection



Microlynx’ unique Modular Back Plane provides an easily accessible area for all interconnections between the test fixture and the rest of your test equipment. You do not need to access the inside of the fixture to change cables.

We offer a large variety of standard interfaces, including power, 68-pin National Instruments, 2x7- and 2x10-pin headers, USB, DB-9, and RF.

### What Can a Microlynx Fixture Do For You?

- ✓ Basic to 100% coverage of all operating parameters
- ✓ Program logic devices, processors, and non-volatile memory; and assign serial numbers
- ✓ Perform parametric testing of components
- ✓ Measure voltages and currents and calibrate variable parameters

### A Complete Test Strategy Partner

Microlynx Systems Ltd. is one of Western Canada’s leading electronics design services companies. With over twenty-five years in business, we have the expertise and capabilities required to create leading edge and easy-to-use electronics test fixtures. Microlynx can:

- ✓ Help you determine how to best program, calibrate, and test your product.
- ✓ Do the mechanical design, interface electronics, and software work for the fixture.

You can rely on Microlynx to develop and implement a test strategy that meets your needs.

## Microlynx Test Fixture Services

### Test Fixture Mechanical Design

Send us your panel Gerber files and we will handle all of the mechanical design aspects. We use the same Gerber information for each of the plates in the fixture, and all drilling and routing operations are done using numerically controlled equipment, ensuring that everything aligns perfectly.

### Interface Electronics Hardware Design

If you have already defined a test strategy we can design the electronics interface to implement it.

- ✓ Interfaces for RF, digital I/O, precision analog I/O, microprocessor and logic device programming
- ✓ Schematic and Printed Circuit Board Layout
- ✓ Firmware and Software Programming

### Software

Microlynx can implement powerful test strategies using LabVIEW and C++, alone or in combination. The software can control the test hardware and external test equipment as well as record and store all measurements in a variety of data base formats. We can also incorporate bar-code readers and printers to help with the management of the parts.

### Interfaces

Microlynx test fixtures can interface with your products using a wide variety of methods. Some interfaces we have used include the following:

#### “Pogo” Pins



Spring-loaded “pogo pins” are the industry-standard interface for in-circuit test fixtures. Microlynx uses high quality precision pins that are rated to over a million cycles. Tips are field replaceable in the event of wear or damage.

A minimum test point spacing of 0.050” (1.25 mm) is readily achievable. Different types of tips are available to contact a range of targets, including surface mount test pads, small through-hole test points, and even some component pads

### High Density Low Insertion Force Connectors

When a very large number of connections are required, it can make sense to use high density connectors instead of or in addition to “pogo” pins.

### RF and Wireless

As a leading designer of wireless and RF products, Microlynx is uniquely qualified to add RF capability to your test fixture. Applications include basic link performance verification as well as accurate level measurement and RF power calibration.

### Infrared

If your product has infrared functionality, such as IrDA transceivers, Microlynx can implement the fixture design to support actual verification of infrared operating capability.

### Processor Programming

Save time and money and increase flexibility by using your Microlynx test fixture to program your logic devices, including microprocessors, DSPs, CPLDs and FPGAs.

### Repairs and Manual Adjustments

Accidents do happen, both at the design stage and in production. Whether you need to move or add a pin due to design changes or need repairs for your fixture, Microlynx can help you.

## Specifications

Each Microlynx test fixture is designed to meet your specific requirements. The specifications below should be considered a guideline for what is easily achievable. If you need something unique or more stringent, we will rise to the challenge!

|                               |  |
|-------------------------------|--|
| Fixture size (W x D x H)      | Approx. 16” x 13” x 11”<br>(40 x 33 x 28 cm) |
| Fixture weight (typical)      | 45 lb (20 kg)                                |
| Maximum panel size (typical)  | 12” x 10” (30 x 25 cm)                       |
| Panel component height (max.) | 0.75” (18 mm)                                |
| Test pad size (min.)          | 0.043” (1.1 mm)                              |
| Test point spacing (min.)     | 0.050” (1.25 mm)                             |
| Operating life                | 500,000 cycles                               |
| Warranty                      | 1 year, materials and workmanship            |