



ERSA IR/PL 650

The Flagship Rework Machine

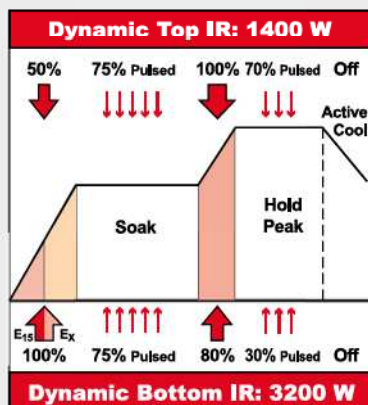
The IR/PL 650 is ERSA's flagship rework machine and affords the greatest heating power (4,600 W) for large and difficult PCBs. This machine was designed to offer the highest degree of automation in the ERSA rework line. The IR/PL 650 requires the least operator dependence and thus guarantees a stable and repeatable rework process for all applications.

The IR Rework system is broken down into four distinct operational modules:

- I. **IR 650** Selective Reflow module
- II. **RPC 650** Reflow Process Camera module
- III. **PL 650** Precision Placement module
- IV. **IRSoft** Software module (see pages 16 & 17)

Recommended Accessories:

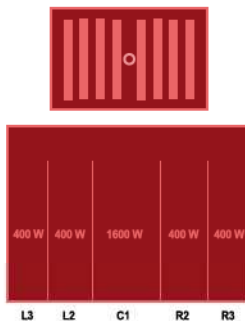
It is recommended to purchase: Split Optic Kit (p. 21) for placing large PQFPs, Component Centering Station (p. 21) for alignment of fine pitch components and the Rework Starter Kit (p. 20). Special desoldering tools, such as the Chip Tool for small SMD removal and the X-Tool for TH desoldering can be used with the solder station integrated into this system. For ordering details, please refer to the ERSA Soldering Tools catalogue or visit www.ersa.com. A complete listing of all rework accessories can be found on pages 20 through 23.





ERSA IR 650

Selective BGA/SMT Reflow Technology for Rework



The 4,600 W DynamicIR system has 4 top and 5 bottom heating zones

IR 650 Module Features:

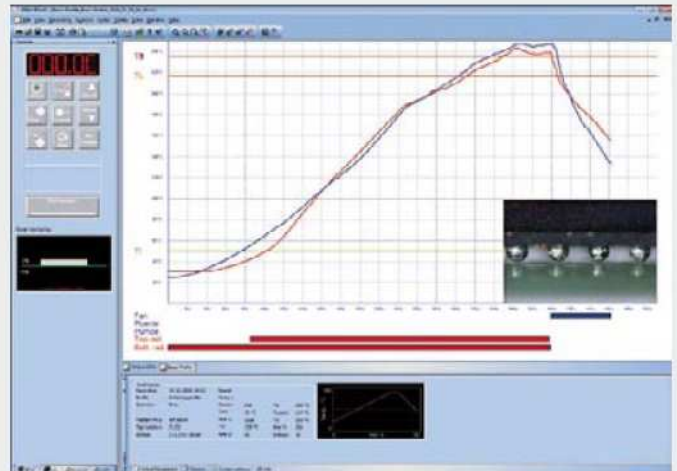
- ▼ DynamicIR & Multi True Closed Loop controlled selective reflow process with APR
- ▼ 5 channel temperature recording:
1 IRS sensor, 4 AccuTC thermocouples (K-type)
- ▼ Laser pointer for component ID & PCB positioning
- ▼ Motorized reflow head with component lift-off
- ▼ 9 programmable heating zones with 4,600 W
- ▼ Removable PCB fixing frame with top & bottom side center supports; max. PCB size 560 mm x 460 mm
- ▼ Integrated axial top & laminar bottom cooling fans
- ▼ Component handling vacuum pen
- ▼ Integrated digital soldering station with soldering iron
- ▼ PC ready via USB interface using IRSofT

The IR 650 Selective Reflow Module uses DynamicIR heating technology for fully automatic dynamic control of the top (1,400 W / 60 mm x 120 mm) and bottom (3,200 W / 350 mm x 450 mm) IR heaters. The total available power (4,600 W) to the selective reflow system is spread across 4 separately controllable heating zones on the top and 5 zones on the bottom. Depending on board size, the thermal mass of the substrate, and component size, the DynamicIR technology guarantees that the required heat energy is delivered at the precise time and location in order to ensure that the component and board exactly follow the prescribed temperature profile.

Now combined with the enhanced capability to run an extended or flat peak, this revolutionary technology affords the lowest temperature deltas across the component, the highest degree of process safety and greatly reduces PCB warpage.

Ordering information:

0IR650A IR Rework System IR 650 with RPC 650 Module
(incl. IRSofT, 2 pcs. AccuTC, 1 pc. Flexpoint TC holder, integrated cooling fans & soldering station)



Live Video Pop-Up window during profile recording

ERSA RPC 650 Module

Reflow Process Camera



RPC Camera with LED ring light

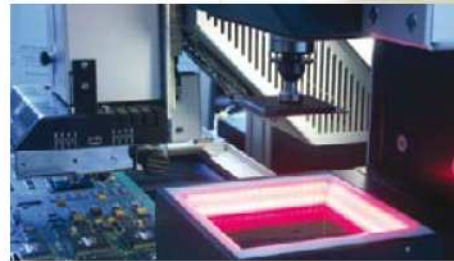
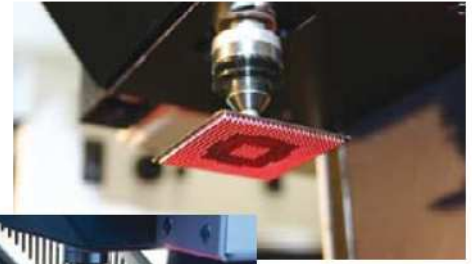
The RPC 650 Module is attached to the IR 650 module and uses a new high-power (up to 300x enlargement) motor zoom camera, a controllable LED ring lighting system, and an movable arm in order to visualize the rework process real time. The reflow process can be viewed from various angles and high magnification on even the smallest of components.

RPC 650 Module Features (as part of IR 650):

- ▼ CCD camera with 25 x optical and 12 x digital zoom
- ▼ Motorized zoom and focus
- ▼ LED ring light
- ▼ One Push Auto Focus and white balance
- ▼ Programmable camera presets
- ▼ Multiple angle, movable & fixable arm
- ▼ Remote control via mouse or PC using IRSoft

Real-time rework process visualization of BGA during reflow





"Auto Pick & Place" allows for rapid, precise and repeatable results!

ERSA PL 650

Precision Component Placement

The PL 650 Module is the second generation precision placement system designed for the largest range of components, increased automation, and guaranteed repeatability. A highly sophisticated and fully automated, pressure triggered component placement head drops off the component at the same contact pressure (2 – 3 N) as an in-line Pick & Place machine.

A high-resolution camera with motorized zoom permits highly precise alignment of component leads to lands with up to 300x enlargement. The excellent image quality is supported by a high-contrast, separately controlled 2 colour LED lighting system from four sides. The Auto Pick & Place mode guarantees repeatable and precise results.

PL 650 Module Features:

- ▼ CCD camera with 25 x optical and 12 x digital zoom
- ▼ Motorized head, prism cassette, zoom and focus
- ▼ Pressure triggered head with automatic drop off
- ▼ "Auto Pick" & "Auto Place" with +/- 0.010 mm accuracy
- ▼ Component handling from 1 x 1 mm to 60 x 60 mm
- ▼ 60 x 60 mm beam split optic for large QFPs (optional)
- ▼ Four side red / white LED illumination
- ▼ One push auto focus, white balance
- ▼ Programmable camera presets
- ▼ Remote control via PC using IRSoft

Ordering information:

0PL650A Motorized Precision Placement System PL 650
(PL 650 module attachable to IR 650 and controlled via IRSoft)