

## ERSA systems for safe and controlled IR Reflow



Fig.: 0IR550A and 0PL550A (monitor not included in the delivery)

### Precision and control – to know, to see, to succeed!

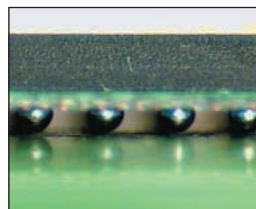
With thousands of systems already sold, the ERSA **IR 500 A** has become well established in industry. In the meantime, the ERSA Rework Family has grown!

The microprocessor controlled rework system **IR 550 A** is a further development of the **IR 500 A**. More powerful heating elements, microprocessor controlled temperature profiles and a non-contacting heat sensor are the outstanding features of this unit. The professional user is also offered reproducible soldering qualities and process documentation for single components with the PC compatible software **IRSoft**.

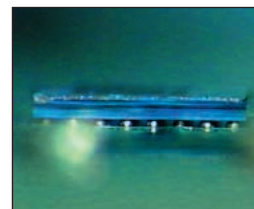
With the reflow process camera ERSA **RPC 550 A**, it is now possible to directly watch the formation of BGA soldering joints during reflow. The **RPC 550 A** consists of a 72 x motor zoom camera with integrated LED-ringlight. In combination with the IR-systems, ERSA offers the chance for safe and controlled BGA / SMT rework.

The **PL 550 A** is a high-precision placement system for a wide range of SMT-components with dimensions ranging from 1 x 1 mm (0.04 - 0.04") to 40 x 40 mm (1.6 x 1.6").

A high resolution PAL CCD-color camera allows precise and easiest component alignment, and the motorized



PBGA during reflow



CSP during reflow

72 x zoom together with two zoom presettings make the system handling even more comfortable. The motorized z-axis and the automatically switching "pick-n-place" mechanism ensure best functionality.

Additionally, the **PL 550 A** unit is equipped with a reflow process camera module. This module allows the visual process control during the soldering process - also with soldering joints hidden under the component.

The most important pre-requisites for successful SMT rework are the knowledge about soldering processes and the ability to see how the soldering joint forms.

Thus, the combinations of **IR 550 A** and **RPC 550 A** or **IR 550 A** and **PL 550 A** are the ultimate form of process control for BGA / SMT rework.

### ERSA product range

#### Soldering tools

##### NEW DIMENSION

- Soldering / desoldering stations
- SMD-Equipment
- Accessories

##### PROFI-LINE

- Hand soldering tools
- Battery-powered / gas soldering irons
- Solder baths
- Special tools

#### BGA/SMT-Rework

- IR Rework Center
- Placing systems
- Reflow process camera

#### CLEAN-AIR

#### Soldering systems

- Wave soldering machines
- Reflow soldering machines
- Selective soldering machines
- Process optimization software

#### Inspection systems

- ERSASCOPE
- ImageDoc Software

#### Other services

- Know-how seminars
- In-House trainings
- Test soldering
- Installation and maintenance assistance
- Process support

## ERSA systems for safe and controlled IR Reflow

### IR 550 A

#### Microprocessor controlled rework system

- Powerful dark IR radiators for even component warm-up (top: 60x60 mm; bottom: 135x260 mm)
- Patented aperture system at the top heater
- Temperature measurement directly at the component with non-contacting IR sensor or optional thermocouple (temperature calibration to solder melting point with Cal-function)
- Freely programmable temperature profiles
- Integrated soldering station to connect ERSA soldering and desoldering irons
- Direct cooling of the component at the soldering position
- Integrated vacuum pipette for easy desoldering
- Ergonomic operation
- Parameter setting via external keyboard
- PC software IRSOft for documentation of soldering processes and parameters

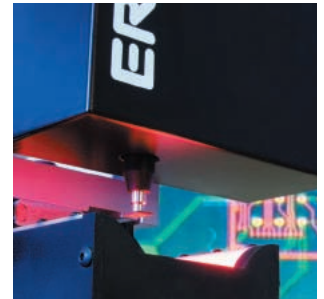


0IR550A

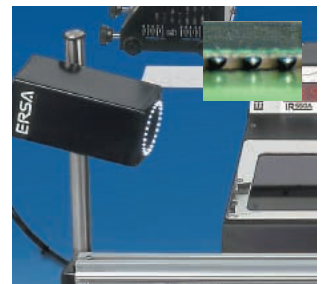
### RPC 550 A

#### Reflow process camera (for operation with IR rework systems)

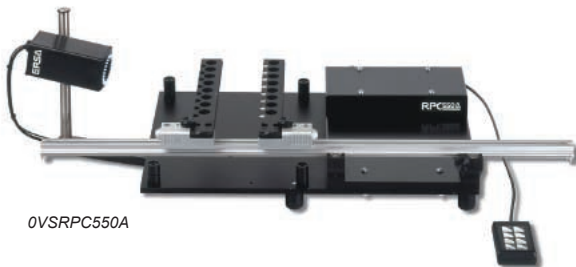
- Visual process control (monitoring of hidden soldering joints is also possible)
- Freely adjustable 72 x monitor zoom camera
- Integrated, dimmable LED ring light for optimum soldering joint illumination
- Two pre-set, selectable zooms
- Easy setting of zoom, focus and ring light via external keyboard
- Direct cooling of the component after soldering
- Solid base board for the installation of IR rework systems, with height adjustment
- High-precision PCB table
- Interface for monitor or PC with documentation software



PL 550 A (detail)



RPC 550 A (detail)

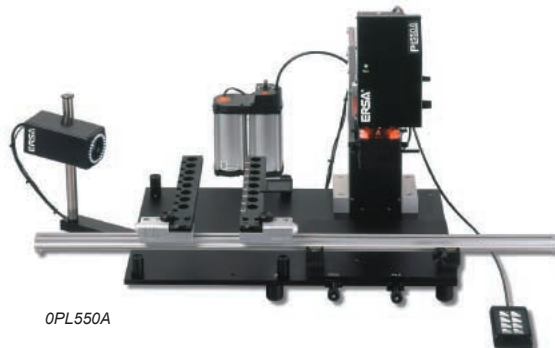


0VSRPC550A

### PL 550 A

#### High-precision placement system with RPC (for operation with IR rework systems)

- Placement system for high channel SMT components up to 40 x 40 mm
- Placement accuracy +/- 10 µm
- High-precision X-Y PCB table
- High-contrast, dimmable LED illumination of component pins and pads
- Automatically switching vacuum for safe component placement
- Integrated automatically switching reflow process camera with dimmable LED ring light (see RPC 550 A)
- Comfortable adjustment of zoom, focus, placement head and ring light via external keyboard



0PL550A

#### Monitor recommendation:

The ERSA PL and RPC systems are equipped with high-resolution PAL CCD cameras. The systems can only be used together with a PAL compatible or Multisync color monitor. Best visualisation will be reached with high-resolution tube monitors (horizontal resolution  $\geq$  470 TV lines). A b/w monitor is unsuitable for this application. It is possible to connect a PC frame grabber card.

**Order nos. (for 230 V executions)** (order nos. for 115 V executions on demand)

<b>0IR550A</b>	Mikroprocessor controlled rework system
<b>0VSRPC550A</b>	Reflow process camera
<b>0PL550A</b>	High-precision placement system with reflow process camera
<b>0PL550AU</b>	High-precision placement system, retrofittable with reflow process camera
<b>0IR4500-06</b>	Cooling fan for PCBs (external unit)
<b>0IR5500-01</b>	X-Y PCB table (for IR rework systems which are not operated with a reflow process camera or placement system)

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