

ERSA systems for safe and controlled IR Reflow

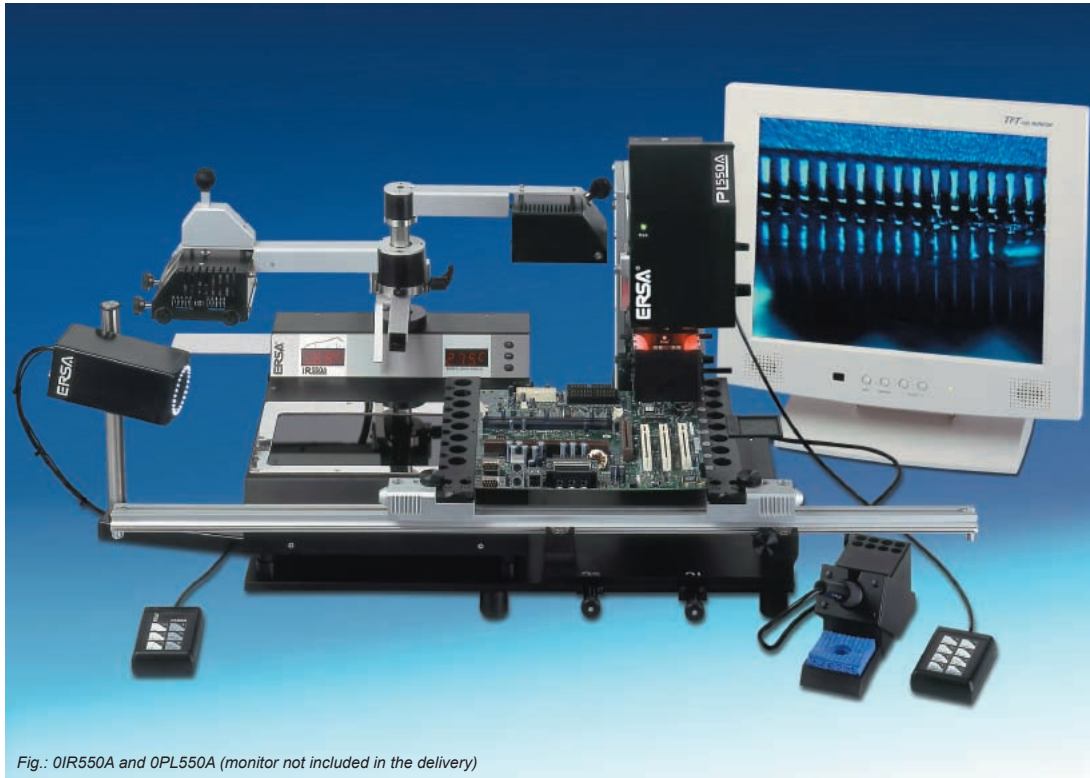


Fig.: 0IR550A and 0PL550A (monitor not included in the delivery)

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

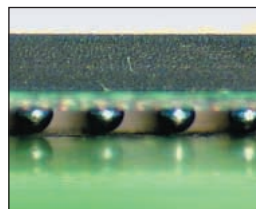
With thousands of systems already sold, the ERSA **IR 500 A** has become well established in industry. In the meantime, the ERSA Rework Family has grown!

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**.

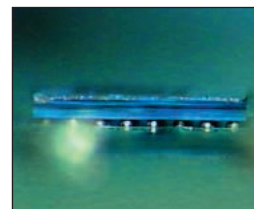
With the reflow process camera ERSA **RPC 550 A**, it is now possible to directly watch the formation of BGA soldering joints during reflow. The **RPC 550 A** consists of a 72 x motor zoom camera with integrated LED-ringlight. In combination with the IR-systems, ERSA offers the chance for safe and controlled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

- ERASCOPE
- 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

Features, technical description:

IR Rework System

Components	IR 500 A	IR 550 A
Emitters		
• Wavelength	dark IR technology, 2 - 8 µm	dark IR technology, 2 - 8 µm
• Heating power		
- Total	600 W	1600 W
- Top radiator	ceramics, 200 W	ceramic emitter, 4 x 200 W
- Bottom radiator	ceramics, 400 W	ceramics, 2 x 400 W
• Dimensions		
- Top radiator	20 x 20 mm to 60 x 60 mm	20 x 20 mm to 60 x 60 mm
- Bottom radiator	120 x 120 mm	125 x 250 mm
• Bottom radiator cover	stainless steel grid	heat-resistant glass pane
Temperature control		
• Control system	discontinuous emitter control	true "Closed Loop" control
• Profiles	analog	digital
	manual, 1 profile	automatic, 4 profiles
Temperature recording	by K-type thermocouple	non-contact infrared sensor
Accessories		
• Vacuum pipette	included	included
• Cooling fan	option	standard and option
• Documentation	single channel via MicroCon	two-channel and process data monitoring
• PC software	not included	included
• Soldering station	MicroCon 60 iA with Tech tool	Digital 2000 A with Tech tool

High Precision Placement System PL 550 A

- Placement system for high channel SMT components up to 40 x 40 mm
- Placement accuracy $\pm 10 \mu\text{m}$
- 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

Reflow Process Camera RPC 550 A

- 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 plate for the installation of IR rework systems with height adjustment
- High-precision PCB table
- Interface for monitor or PC with documentation software

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 ≥ 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)

IR 550 A:

0IR550A	Microprocessor controlled rework system (incl. ERSA IRSoft and soldering station; without X-Y PCB table)
0IR5500-01	X-Y PCB table (not applicable with PL or RPC 550 A)
0IR5500-02	K-type thermocouple and attachment kit (option)
0IR5500-13	Cooling fan for PCBs, \varnothing 120 mm (option)

IR 500 A:

0IR500AS	Rework system incl. digital soldering station
0IR5500-01	X-Y PCB table (not necessary in combination with PL or RPC 550 A)
0IR4500-06	Cooling fan for PCBs, \varnothing 80 mm (recommended option)
0PH100	PCB holder for mobile phones in combination with the X-Y PCB table (option)

PL 550 A:

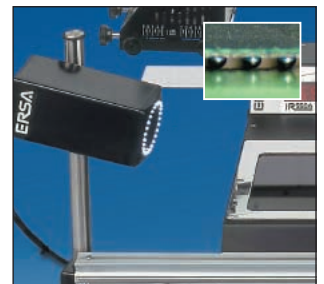
0PL550A	Precision placement system with reflow process camera
0PL550AU	Precision placement system, retrofitable with Reflow Process Camera (0VSRPC-UKIT)
0VSRPC-UKIT	Reflow Process Camera retrofit kit for precision placement system 0PL550AU
0PL500A-SPC	Split Optik Cassette (recommended option)
0VSD100	ERSA IDView software and Falcon Framegrabber (recommended option)
0PL500A-LP01	PCB support (option)

RPC 550 A:

0VSRPC550A	Reflow Process Camera (incl. cooling fan)
0VSD100	ERSA IDView software and Falcon Framegrabber (recommended option)
0PL500A-LP01	PCB support (option)



PL 550 A (detail)



RPC 550 A (detail)

Asia:
 ERSA Asia Pacific
 A division of Kurtz Far East Ltd.
 Suite 3505, 35/F
 China Resources Building
 26 Harbour Road
 Wan Chai
 Hong Kong
 Tel: (+852) 2331-2232
 Fax: (+852) 2758-7749
 e-mail: kurtz@kfe.com.hk
<http://www.ersa.com>

Part A, 2/F., 207 Tai Gu Road
 Wai Gao Qiao Free Trade Zone
 Pudong
 Shanghai 200131
 China
 Phone: (+86) 21 5868 0207-9
 Fax: (+86) 21 5868 0217
 e-mail: kurtz@kurtz.com.cn
<http://www.ersa.com>

USA:
 ERSA Inc.
 Pilgrim Road 1779
 Plymouth, WI 53073
 U.S.A.
 Tel: (+1) 800 363 3772
 Fax: (+1) 920 893 3322
 e-mail: info@ersainc.com
<http://www.ersa.com>

A **Kurtz** Company