Rework Catalogue 2010

SMT, BGA & THT Rework & Repair Solutions

ERSA
GLOBAL CONNECTIONS

Kurtz ELECTRONICS

Our Vision

Our competitive lead in technology optimizes quality, costs and delivery service in our customers' production process.

Our Mission

❰ We develop and produce high quality machines and systems for the production of electronics.

❰ We offer services and complete solutions designed to optimize our customers' production processes.

❰ We think globally and act locally.

❰ As a company with tradition, we strive for long-term relationships with our customers, partners and employees.

❰ Our core focus is to business areas where we can prove to be "Best in Class" as compared to third parties.

❰ We strive for above average economic success in order to guarantee the continuing development and innovative strength of our company.

SMD

Print & AOI

Handling Systems

Reflow

THT

Wave

Periphery Systems
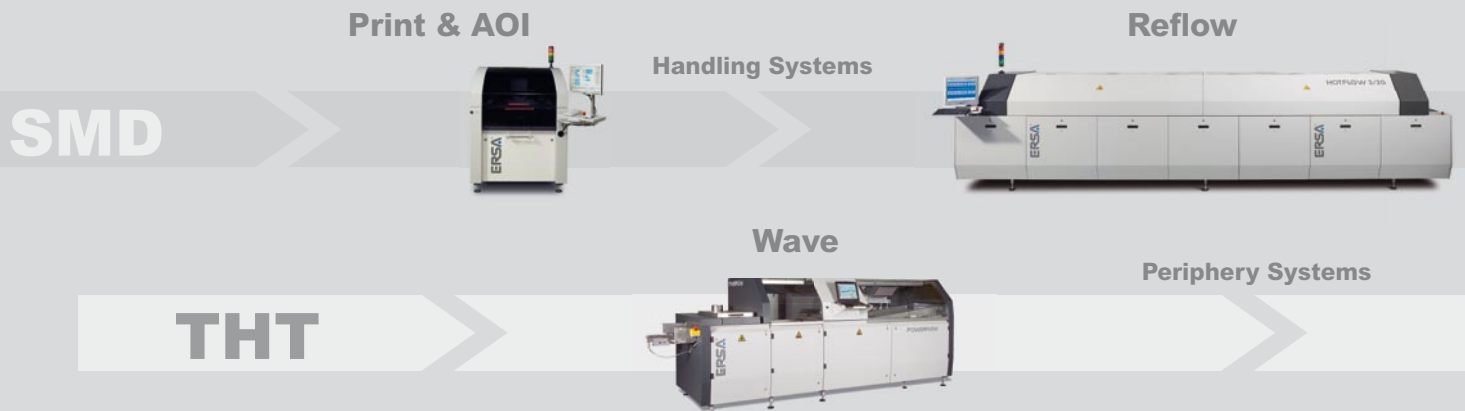
Over the past two decades, rework & repair of electronic assemblies has been one of the most exciting and challenging undertakings in the industry. The increasing complexity of the PCBs, as well as the advancements in packages has put additional demands on both rework specialists and their equipment. Applications oriented, innovative solutions are the key to success in this demanding field.

ERSA took on the rework challenge almost ten years ago as it introduced its first patented medium wavelength infra red rework system, the ERSA IR 500. Today, we are proud to boast one of the world's largest installed equip-ment bases of over 5,000 systems ranging from smaller bench top units to larger semi-automated machines. ERSA rework systems have proven themselves to be the undisputed leader in handling the largest variety of rework applications. From the smallest 0201 up to the largest SMT connector (120 mm), from SMT Flip Chips to THT Pin Grid Arrays, from BGA on flex circuit to stacked BGAs and from metal shields to plastic proces-sor sockets, the safe IR technology handles it all.

Now recognized as one of the market leaders in the rework field, ERSA is happy to present its most complete range of products in this new Rework Catalogue.
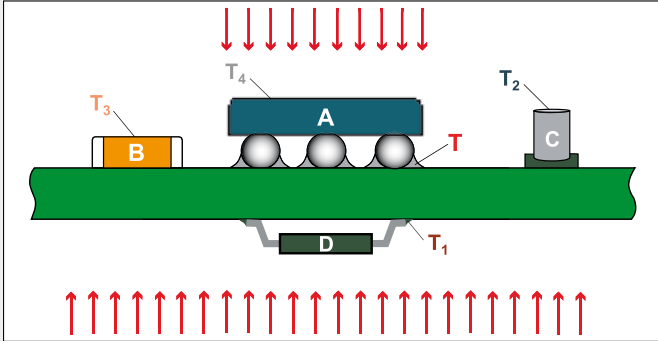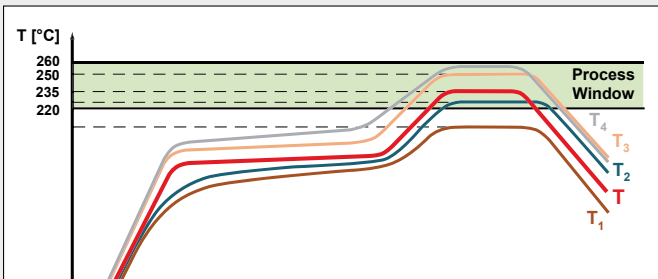
Selective

Inspection

Touch up

Rework

Multiple True Closed Loop

DynamicIR Heating Technology
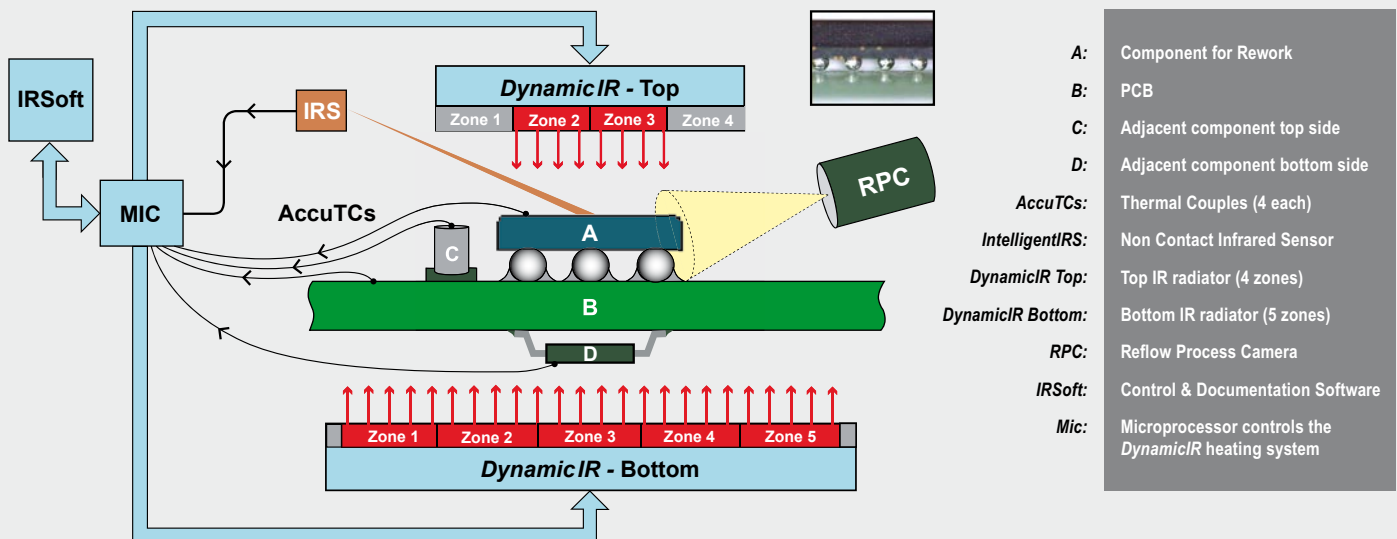

MTCL Control guarantees Process Safety!

ERSA's proven Multiple True Closed Loop Selective Rework technology uses the actual temperature of the component and/or PCB to drive the DynamicIR heating system. The non-contact IntelligentIRS infrared sensor offers a comfortable, in-process temperature measurement of the component to be heated and guarantees that it exactly follows the prescribed profile path. The power to the medium wavelength IR heaters is controlled based on the precise temperature gradient of the component required at each specific time point in the profile. Up to four additional AccuTC K-type thermocouples can monitor temperatures at four additional locations in order to prevent the system from undesired overheating of temperature sensitive components.
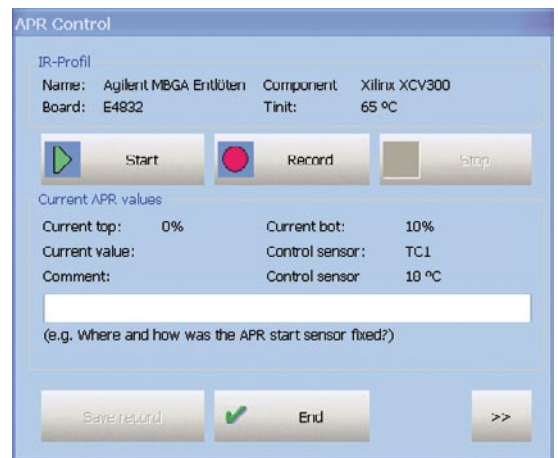
The DynamicIR heating technology offers a multiple zone, optimized reflow process with either 1,600 W or 4,600 W of total heating power. The RPC Reflow Process Camera offers enhanced safety by visualizing the rework process. Finally, the new IRSoft Control & Documentation Software provides a user-friendly, command & control interface.


A:	Component for Rework
B:	PCB
C:	Adjacent component top side
D:	Adjacent component bottom side
AccuTCs:	Thermal Couples (4 each)
IntelligentIRS:	Non Contact Infrared Sensor
DynamicIR Top:	Top IR radiator (4 zones)
DynamicIR Bottom:	Bottom IR radiator (5 zones)
RPC:	Reflow Process Camera
IRSoft:	Control & Documentation Software
Mic:	Microprocessor controls the *DynamicIR* heating system

User-friendly operating interface

APR – Auto Process Repetition

Ultimate Rework Process Stability
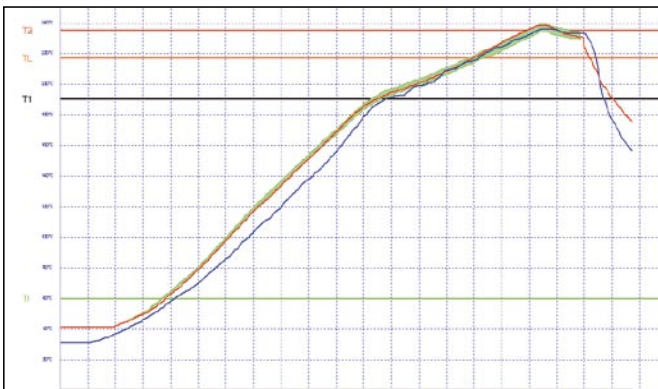
All PCBs follow the exact same temperature profile

Today's rework operators have many different challenges, sometimes high mix and other times high volumes. Quite often operators must perform completely different removals and replacements on a large mix of different boards. For these applications, ERSA's Multiple True Closed Loop Process offers the highest degree of safety available on the market. Other times, however, operators must perform the exact same operation on hundreds or thousands (high volumes) of boards and must guarantee safety and repeatability. For these applications, ERSA now introduces the ERSA APR – Auto Process Repetition for automated selective rework.

Similar to how our in-line selective soldering systems function, APR allows the operator to establish the perfect closed loop profile using the multiple sensors provided. The system records the exact power control of the top and bottom heaters and their zones over the entire time cycle of the process. After verifying the optimal profile, the boards for repeated high volume rework can be placed into the system one-by-one and each and every PCB will be subjected to the exact same selective reflow process. Speed, safety and ultimate process repeatability are the added value benefits of this important new rework function.

APR Features:

❚ Rework Process Stability for high repetition applications

❚ Multiple sensor, closed loop profiling

❚ Auto recording of all heating parameters

❚ Auto repetition of system heating control

❚ For use with the IR 650 & IR 550 systems

❚ APR Control via IRSoft

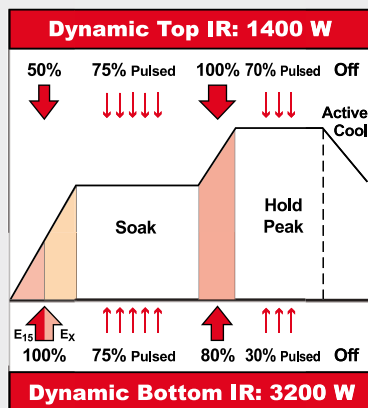# ERSA IR/PL 650

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)
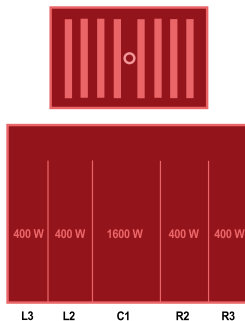
Recommended Accessories:

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.

Dynamic Top IR: 1400 W

50%	75% Pulsed	100%	70% Pulsed	Off

Active Cool

Soak | Hold Peak

E15 | Ex

100% | 75% Pulsed | 80% | 30% Pulsed | Off

Dynamic Bottom IR: 3200 W

ERSA IR 650

Selective BGA/SMT Reflow Technology for Rework

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

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.

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

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)
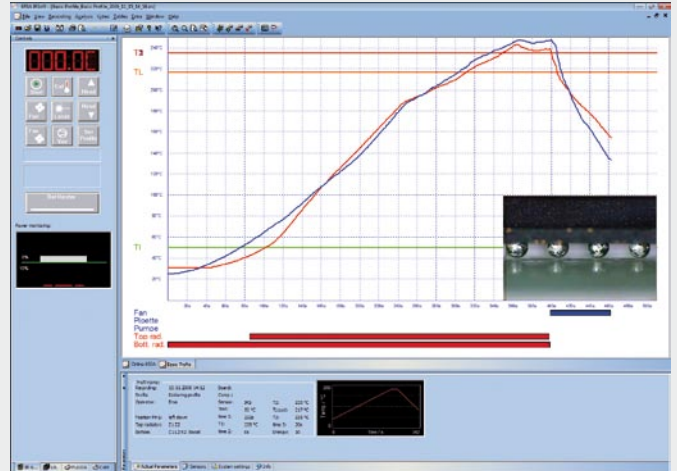
Live Video Pop-Up window during profile recording

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.
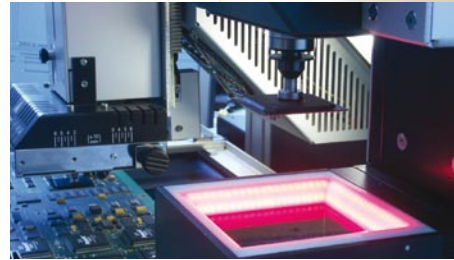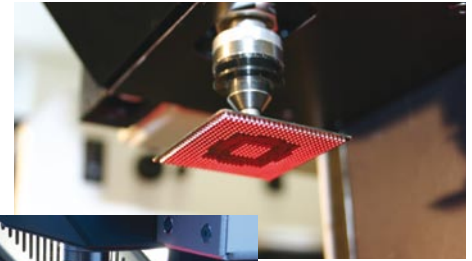
Real-time rework process visualization of BGA during reflow

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

"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)

ERSA IR/PL 550

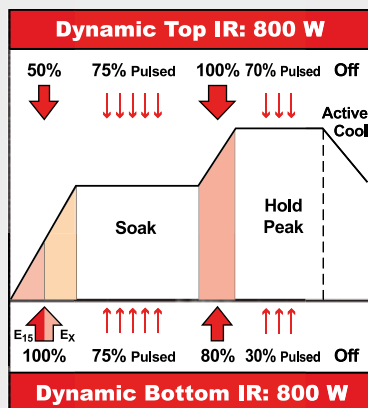## The Best Selling Rework System

The IR/PL 550 is one of the best selling and most wide-spread rework systems in the world and offers the best cost/performance ratio. This system is designed for small to medium size PCBs and has proven itself to be the "Workhorse" in our rework product line. The IR/PL 550 is a unit which offers the greatest flexibility for operators to best interact with their system in order to handle the most complex SMT and THT rework applications.

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

I.   **IR 550** Selective Reflow module
II. **RPC 550** Reflow Process Camera module
III. **PL 550** Precision Placement module
IV. **IRSoft** Software module (see pages 16 & 17)

Recommended Accessories:

It is recommended to purchase the Process Cooling Fan (p. 21) with the IR 550. When the IR 550 is not used in combination with the PL 550, it is highly recommended to purchase the the X-Y Table (p. 23) and the RPC 500 (p. 13). Additionally, it is helpful to purchase the Rework Starter Kit (p. 21). Special desoldering tools, such as the Chip Tool for small SMD removal and the X-Tool for TH desoldering can be connected to the solder station integrated into this system. For ordering details, please refer to the ERSA Tools catalogue. A complete listing of all rework accessories can be found on pages 20 - 23.
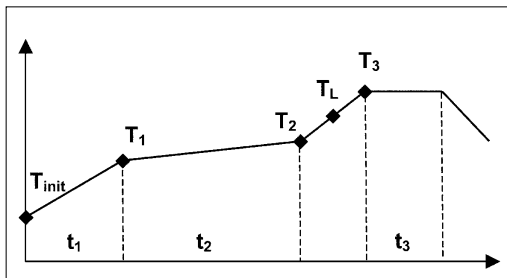
Dynamic Top IR: 800 W

50%   75% Pulsed   100% 70% Pulsed   Off

Active Cool

Soak   Hold Peak

E₁₅ Eₓ
100%   75% Pulsed   80% 30% Pulsed   Off

Dynamic Bottom IR: 800 W

SMT Vision Award:
Best New Rework Product,
APEX, USA, 2002

ERSA IR 550

The Best made even Better!

The IR 550 plus now affords greater profile flexibility with a flat peak

The IR 550 is the "Best Seller" in the ERSA rework line with thousands systems sold. This module uses DynamicIR heating technology for fully automatic dynamic control of the top (800 W / 60 mm x 60 mm) and bottom (800 W / 135 mm x 260 mm) IR heaters. Depending on board size, thermal mass of the substrate, and component size, the DynamicIR heaters (total of 1,600 W) guarantee that the required heat energy is delivered at the precise time and location in order to ensure that the component exactly follows the prescribed temperature profile. Combined with the enhanced capability to run a flat peak, this revolutionary technology affords the lowest temperature deltas across the component, and greatly reduces PCB warpage.

IR 550 Module Features:

▼ DynamicIR & Closed Loop selective reflow process

▼ 2 channel temperature recording:
  1 IRS sensor, 1 AccuTC thermocouples (K-type)

▼ Laser pointer for component ID & PCB positioning

▼ Manual reflow head with auto component lift-off

▼ Integrated axial top cooling fan

▼ Integrated digital soldering station with soldering iron

▼ Remote control via mouse or PC using IRSoft

Ordering information:

0IR550A   **Rework System IR 550 (without X-Y PCB table)**
              (incl. IRSoft, 1 x AccuTC and soldering station)

0IR5500-01 **X-Y PCB Table** *(p. 23) (not required with PL 550)*

For best soldering results, ERSA provides the IR 550 since 03/08 with a stainless steel grid as standard bottom radiator cover. Please order material number 0IR5500-33 if for your application a heat resistant glass cover is required (p. 21).

ERSA PL 550

The PL 550 includes the RPC 550 module. This system is both a proven precision placement system designed for the largest range of components and offers reflow process viewing. A pressure triggered component placement head drops off the component at the same contact pressure (1.5 N) as an in-line Pick & Place machine. This Auto Component drop-off guarantees safe and precise results. A high-resolution placement camera with motor zoom permits highly precise alignment of component connections to lands with up to 72 x enlargement. The excellent image quality is supported by a high-contrast, separately controlled 2 colour LED lighting system from two sides.

Recommended Accessories:

It is recommended to purchase the Split Optic Kit (p. 21) as well as additional placement nozzles (p. 20).

The RPC 550 module is a part of the PL 550 and uses a new high-power (up to 72 x enlargement) motor zoom camera, a controllable LED ring lighting system, and an extremely robust, movable stand. The reflow process can be viewed real time from multiple angles and high magnification on even the smallest of components.

PL 550 & RPC 550 Module Features:

- ◤ 2 each High-quality PAL CCD cameras (18 x optical + 4 x digital zoom)

- ◤ Manual component handling (from 1 x 1 mm to 40 x 40 mm in size)

- ◤ "Auto Component Drop-Off" at 1.5 N (up to +/- 0.010 mm accuracy)

- ◤ 40 x 40 mm beam split optic for large QFPs

- ◤ Motorized zoom and focus; one push auto focus

- ◤ Two side red / white LED illumination

- ◤ LED ring light; multiple angle, movable arm

Ordering information:

0PL550A	**Precision Placement System** with Reflow Process Camera
0PL550AU	**Precision Placement System** without Reflow Process Camera
0VSRPC-UKIT2	**Reflow Process Camera Upgrade** for 0PL550AU
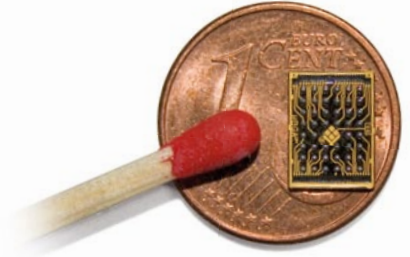
High magnification of Tessera CSP

ERSA Macro Zoom

# ERSA RPC 500

Stand Alone Reflow Process Camera

The new RPC 500 unit offers rework process viewing at the lowest cost possible. The 70 x optical magnification, Macro Zoom Lens delivers highest quality and high magnification images of the finest applications. Mounted on its bottom side, the 180° swivel arm carries the camera and provides maximum flexibility of process viewing angles. This unit can be used in combination with the IR 550, the HR 100, the IRHP 100 and any other hand tools.

RPC 500 with IR 550

RPC 500 with IRHR 100 A-HP

RPC 500 Module Features:

▼ High-quality CMOS USB 2.0 camera

▼ 70 x optical Macro Zoom Lens

▼ LED Dual Spot Lighting with flexible arms & variable intensity

▼ Free swivel arm, 180° stable stand

▼ For use with all bench top rework systems & tools
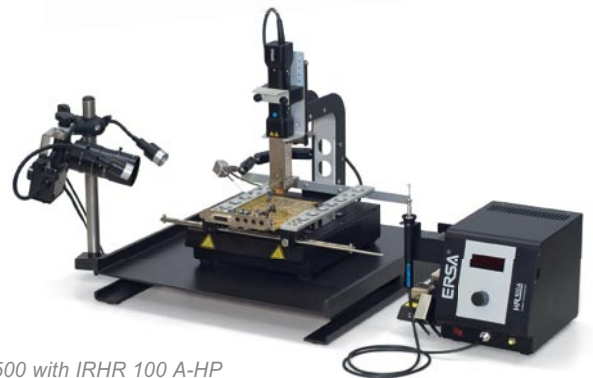
Ordering information:

0VSRPC500A-LE   **Stand alone Reflow Process Camera, complete**

ERSA HR 100 & IRHP 100

Revolutionary Hand Held & Benchtop Rework System

The new HR 100 uses ERSA's revolutionary and patented Hybrid Rework Technology for safe removal & replacement of small SMDs in a lead free environment! Safe, medium wave IR-radiation combined with a gentle hot air stream guarantees optimal energy transfer to the component.

The Hybrid Tool delivers smooth and homogeneous heat to lead free components sizing from 0201s to 20 x 20 mm SMDs and even larger. Exchangeable Hybrid Adaptors focus 200 W of safe hybrid heating power onto the component while protecting neighbouring areas from blowing away adjacent chips.

The user friendly operation allows for even non experienced operators to handle the HR 100 safely and quickly. Advanced operators using the HR/IRHP 100 complete system can not only set air volume and heating power levels, but they can also run & record profiles! ERSA's ergonomically designed Hybrid Tool handle contains a positioning laser which helps the operator to focus the heat precisely throughout the entire process.

Via the Mini-USB port, the HR 100 can be connected to ERSA's top of the line and well established rework software, ERSA IRSoft (see pages 16 & 17). The HR 100 has been designed to be used with the IRHP 100, an 800 W IR-heating plate. This complete set provides powerful and safe IR bottom side heating as well as a Z-axis tool stand for the Hybrid Tool and an X-Y PCB board holder. The K-Type thermocouple included monitors PCB temperature and even allows for a closed loop soldering process with ramp profiles.

The HR/IRHP 100 fulfils all needs of a modern Rework System providing highest flexibility at the lowest cost!

Hybrid Rework System HR 100

IR Heating Plate IRHP 100

Compact & easy to use

HR 100 Module Features:

▼ Hybrid Tool with 200 W heating element; positioning laser in the Hybrid Tool handle

▼ Three exchangeable Hybrid Adaptors (6 x 6 mm, 10 x 10 mm and 20 x 20 mm)

▼ Low Noise Rework Blower (below 40db)

▼ Integrated vacuum pump & VacPen; tool holder and K-Typ TC input socket; USB interface; LED-display; "Turn & Push" control

▼ 2 Channel Temp. Recording: TC & IRS; AccuTC and Flexpoint TC holder

IRHP 100 Module Features:

▼ Hybrid tool holder with Z-axis height adjust & lock

▼ X-Y PCB board holder (290 mm x 250 mm)

▼ 800 W IR-heating plate with glass cover: 125 mm x 125 mm high performance IR heating element

▼ Closed Loop Profiles with ERSA IRSoft Rework Documentation software; User Level Access

Recommended Accessories:

It is recommended to purchase the complete system (IRHR100 A-HP) with an optional Process Cooling Fan (p. 21). When using the HR 100 alone, it is recommended to purchase an AccuTC and Flexpoint TC holder for maximum rework safety. For a complete listing of all rework accessories, see pages 20 through 23.

Ordering information:

0IRHR100A-HP	**HR 100 & IRHP 100 as complete set**
0IRHR100A	**Hybrid Rework System HR 100** *with 200 W Hybrid Tool, three Hybrid Adaptors, Adaptor changer, VacPen and tool holder*
0IRHP100A	**IR Heating Plate IRHP 100 for HR 100** *800 W IR-heating plate with Hybrid tool holder, PCB holder, Flexpoint TC-holder with AccuTC thermocouple, USB cable and IRSoft software*
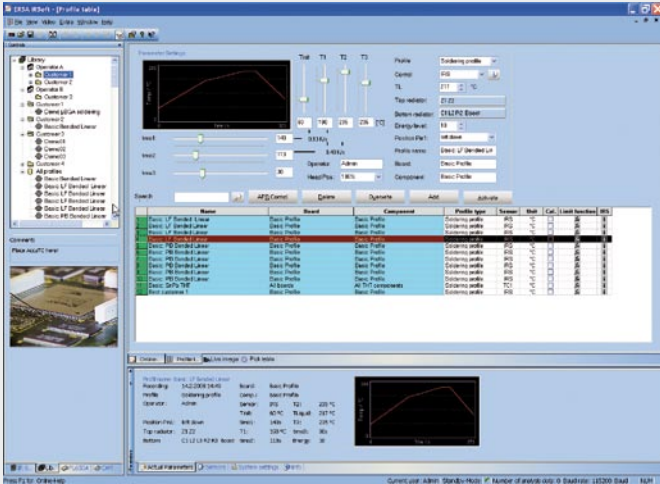
Rework temperature profile setting
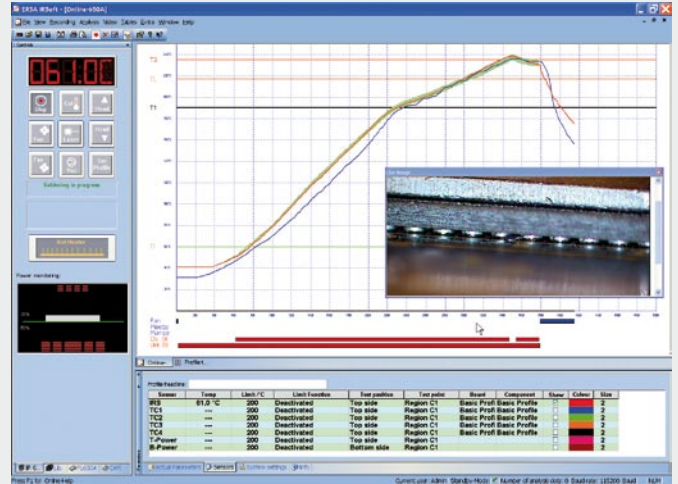
Live temperature recording with real time video process window

ERSA IRSoft 4

Unparalleled System Control & Process Documentation for Rework

With the launch of this new catalogue, ERSA has now rounded off its rework product platform from the hand held HR 100 all the way up to the flagship IR/PL 650. In keeping with our foremost goal of operator satisfaction, we are happy to present our latest update to our renowned software concept. The new IRSoft 4 is a universal, system control, process documentation and process visualization software platform designed for use with all ERSA rework systems, from the smallest to the largest. In this manner, ERSA ensures operators an easy move between systems with hardly any learning curve required.

User Friendly Software designed by Users!
Probably the greatest advantage of the IRSoft rework software platform is that is was literally co-designed by our customers in the field. Today, with 10 years of rework experience and over 5,000 systems installed,

we have continually added features and functions which were demanded by the market and have provided free updates to the existing user base. Fast and simple profiling, user level defined steps with access recognition & authorization and finally now the APR Automatic Process Repetition (see p. 5 of this catalogue) are all testimony to the continual advancement of this user oriented software platform.

The latest IRSoft offers new and clearly structured user administration options. A customized Log-In for beginner and advanced operators automatically opens only that rework system and those control options authorized for that specific individual. Additionally, the actual operating condition of all systems on-line is visualized in real time. All process steps are automatically recorded for process repeatability, documentation & traceability purposes.

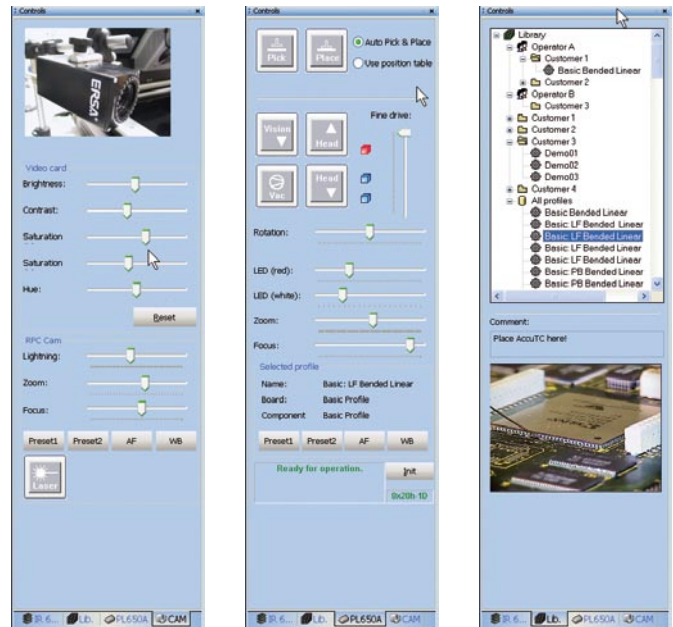# For Use with All Rework Systems

IR 650

IR 550

HR 100

Controls All Modules

RPC 650 Module

PL 650 Module

Customized Library

This universal software concept ensures that operators can easily operate the different ERSA systems without additional training requirements.

ERSA IRSoft Features:

� Control software for IR/PL 650, IR 550 and HR 100 (with IRHP 100)

▼ Easy to use interface with Online Help function

▼ Visualization of all rework process data with up to 5 channel temperature recording

▼ Live process video window for both the PL 650, PL 550 and all RPC modules

▼ Customized user admin rights and library for application & customer based profiles

▼ Complete Process Documentation and Analysis

▼ Operating systems – Windows 2000, XP and Vista

▼ All systems communicate over an ultra fast USB 2.0 cable included

The various functional modules contained in the ERSA rework systems can all be run with the IRSoft 4. In addition to the control of the reflow module with profile setting and temperature monitoring, the software runs the RPC and component placement modules. The explorer based, rework library databank can be customized by customer, application and or rework system.
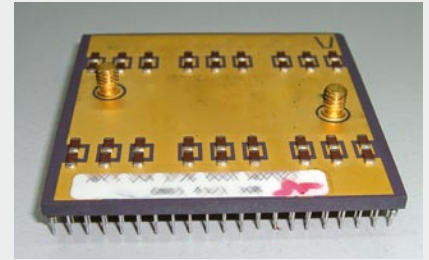

Rework process visualization with Live Image Window
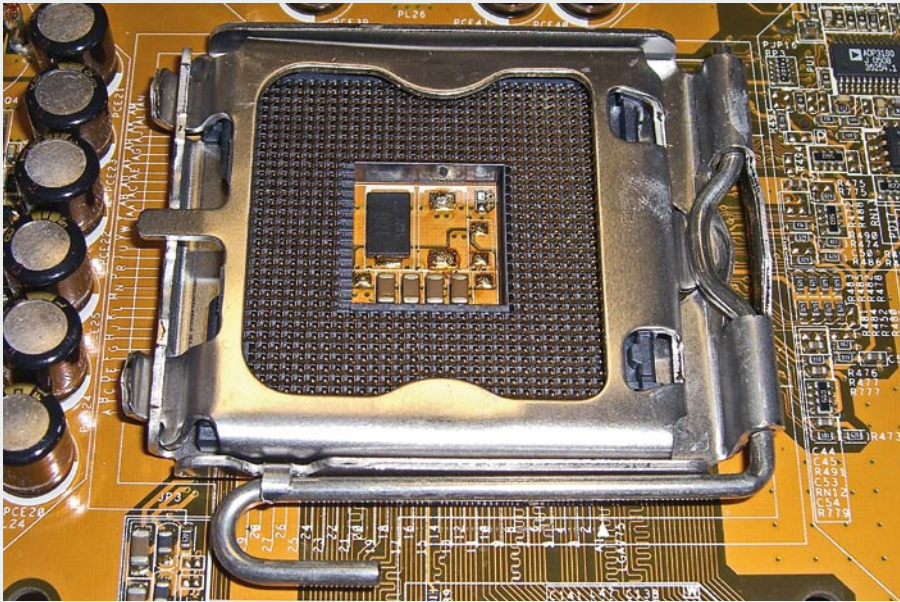
LGA 775 Processor Socket
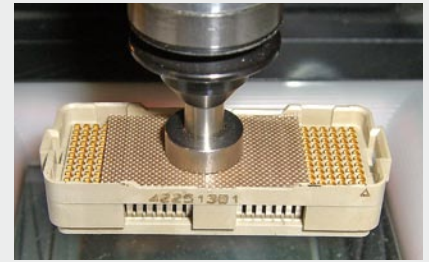
BGA Plastic Socket

Ultra Heavy Mass PGA

Difficult Applications – No Problem!

## ERSA Rework Systems Handle the Most Complex Rework Applications

ERSA IR 550 is IPC's recommended BGA reballing system (Source IPC 7711)

The purchasing decision for today's rework equipment goes to that company that can **GET THE JOB DONE!** Rework applications specialists at ERSA have proven the flexibility of our systems by handling applications where other units failed. Some of the most difficult of these applications include: stacked BGA packages (RAM, DIMM module), top & bottom side shadowed BGAs, mobile phone shield and BGA rework, rework on aluminium composite boards, BGA desoldering with heat sink glued on component, LGA775 THT-socket exchange, BGA on flex circuit, reworkable epoxies, and large plastic BGA processor sockets just to name a few. Please look closely at the application picture gallery contained on these two pages to fully understand the true versatility of the ERSA rework systems. Finally, do not hesitate to contact ERSA directly for special rework applications assistance and training material.
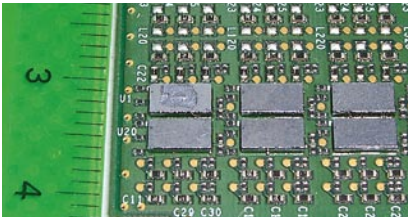
CSP, micro BGA   0201s, 0402s

Micro-FCBGA

Get the job done!

CGA with Heat Sink
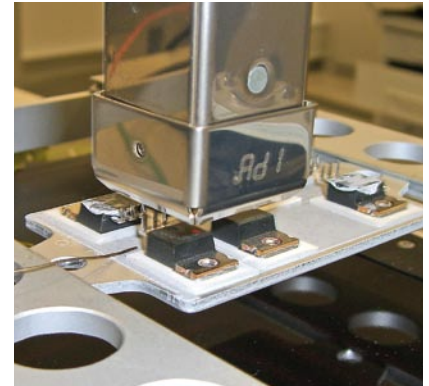
TO220 on Aluminium Carrier with HYBRID

Plastic SMD Connector

PBGA on Aluminium Carrier
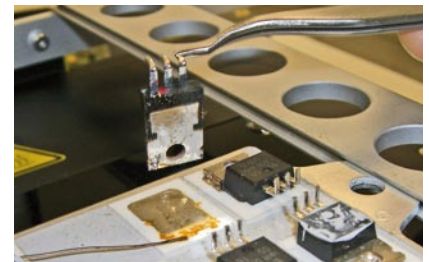
TO220 on Aluminium Carrier with HYBRID
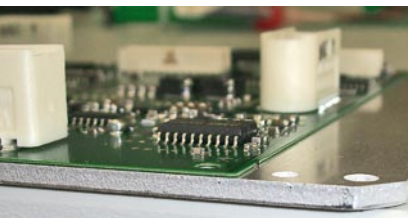
SOIC & Plastic SMT on Aluminium Carrier
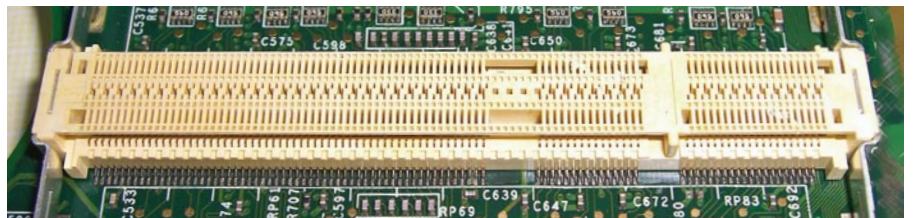
Large Plastic SMD Connector

Heavy mass aluminium carriers, metal plates & shields, ceramic substrates and even plastic components can be safely reworked with ERSA rework heating technology!

BGA Processor Socket

BGA GPU

As all rework operators know, the key to success comes down to two things: the right equipment and the right technique! ERSA provides all tools and accessories required to perform professional rework operations. On the following pages, the most frequently purchased and highly recommended accessories are listed. Our years of rework experience with several thousand customers have allowed us to compile the most frequently purchased and most usef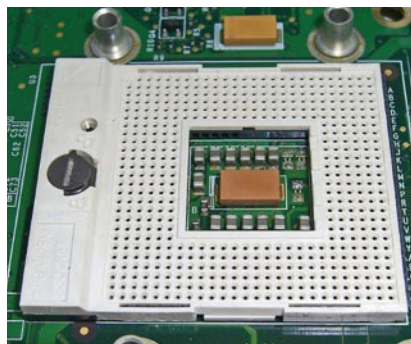ul accessories. In each of the accessory tables below, we have included a column marked as "Starter Kit" which is the recommended Rework Starter Kit. Please consult our General Hand Tools Catalogue for more items and do not hesitate to contact ERSA directly for custom tips and accessories or visit www.ersa.com.

Placement Nozzles & Suction Cups

Precise Placement & Removal of the Smallest & Largest SMDs

	Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
●	0PL6500-13	Nozzle 0.8 mm	pick & place of smallest components	outer diameter 0.8 mm					X	
●	0PL6500-14	Nozzle 1.2 mm	pick & place of very small components	outer diameter 1.2 mm					X	
●	0PL6500-15	Nozzle 3 mm	pick & place of small components	outer diameter 3.0 mm					X	
●	0PL6500-16	Nozzle 4 mm	pick & place of medium size components	outer diameter 4.0 mm					X	
●	0PL6500-17	Nozzle 10 mm	pick & place of large components	outer diameter 10 mm					X	
●	0PL6500-18	Nozzle 10 mm/rubber lined	pick & place of heavy components	outer diameter 10 mm, rubber lined					X	
●	0PL500A-S00.8	Nozzle 0.8 mm diameter	pick & place of smallest components	outer diameter 0.8 mm				X		
●	0PL500A-S01.2	Nozzle 1.2 mm diameter	pick & place of very small components	outer diameter 1.2 mm				X		
●	0PL500A-S003	Nozzle 3 mm diameter	pick & place of small components	outer diameter 3.0 mm				X		
●	0PL500A-S004	Nozzle 4 mm diameter	pick & place of medium size components	outer diameter 4.0 mm				X		
●	0PL500A-S010	Nozzle 10 mm diameter	pick & place of large components	outer diameter 10 mm				X		
●	0IR5500-40	MicroPickup Type 0510	lifting of smallest components, rigid	outer diameter 1 mm, inner diameter 0.5 mm, brass	X	X	X			
●	0IR5500-41	MicroPickup Type 1020	lifting of small components, rigid	outer diameter 2 mm, inner diameter 1 mm, brass	X	X	X			
●	0IR5500-44	Suction adaptor small	adaptor for suction cups	for cups 2 and 3.5 mm, brass	X	X	X			
●	0IR5500-45	Suction adaptor	adaptor for small suction cups	for cups 5 and 8 mm, stainless steel	X	X	X			
●	0IR4520-01	Silicone suction cup 8 mm	lifting of large components, flexible	outer diameter 8 mm, silicone	X	X	X			3
●	0IR4520-02	Silicone suction cup 5 mm	lifting of medium size components, flexible	outer diameter 5 mm, silicone	X	X	X			3
●	0IR4520-03	Silicone suction cup 2 mm	lifting of very small components, flexible	outer diameter 2 mm, silicone	X	X	X			
●	0IR4520-04	Viton® suction cup 8 mm	lifting of large components, flexible	outer diameter 8 mm, Viton®, long life	X	X	X			
●	0IR4520-05	Viton® suction cup 5 mm	lifting of medium size components, flexible	outer diameter 5 mm, Viton®, long life	X	X	X			
●	0IR4520-06	Viton® suction cup 3.5 mm	lifting of small components, flexible	outer diameter 3.5 mm, Viton®, long life	X	X	X			

Viton® is a registered trademark of Dupont Dow Elastomes
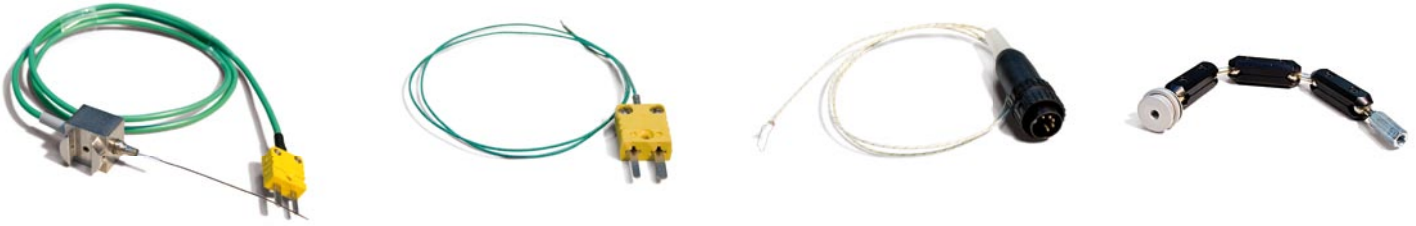
Temperature Sensors

Highly Accurate & Flexible Temperature Measurement

	Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
●	0IR6500-01	AccuTC sensor with fixture	thermocouple with metallic fixture	Ni-Cr-Ni sheathed thermocouple, diameter 0.5 mm	X	X	X			
	0IR6500-37	AccuTC sensor w/o fixture	thermocouple w/o metallic fixture	Ni-Cr-Ni sheathed thermocouple, diameter 0.5 mm	X	X	X			
●	0IR4510-02	Thermo couple wire K-type	temperature measurement	Ni-Cr-Ni wire, thermo-plug	X	X	X			
●	0DIG207	Thermo couple wire K-type	temperature measurement	Ni-Cr-Ni wire, thermo-plug, for solder station in IR 650/550		X	X			
●	0IR5500-35	TC holder Flexpoint	adjustable holder for AccuTC	length 210 mm	X	X	X	X		
	0IR5500-36	Extension for Flexpoint holder	extension	length 210 mm	X	X	X	X		

Additional Equipment

Process Cooling & More

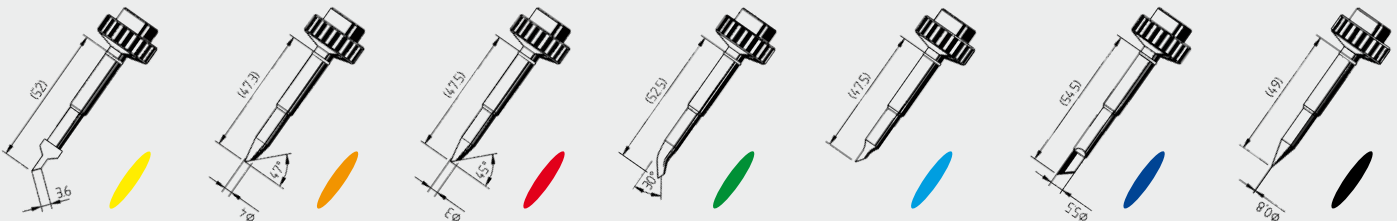|	Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
●	0IR5500-13	Cooling fan with deflector hood	cooling of PBCs after rework	air volume: 160 cbm/h	X	X				
	0IR5500-43	Deflector hood for Cooling fan	direct airflow to the side	aluminium	X	X				
●	0PL500A-SPC	Split Optic cassette	magnified view of component corners	for components with diagonal of 21 - 50 mm				X		
●	0PL6500-11	Split Optic for PL 650	magnified view of component corners	for components with diagonal of 15 - 55 mm					X	
	0PL6500-12	Centering station for PL 650	centering of components	to mount on PL 650					X	
●	0DTM050	Digital temperature measuring device	temperature measurement	for K-Typ thermocouples, battery driven	X	X	X			
●	0IR5500-33	ROBAX® glass plate for IR 550	glass plate cover for heating elements	ROBAX® glass plate		X				

Consumable Items

Flux, Solder Wick, Heat Shields & More

Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
010MM0250LF02	Solder wire; Sn96.5Ag3.0Cu0.5	Solder wire; Sn96.5Ag3.0Cu0.5	1 mm diameter, 250 grams		X	X			1
0WICK NC 2.2	No Clean Solder Wick	remove solder	width 2.2 mm, length 1.5 m		X	X			
0WICK NC 2.7	No Clean Solder Wick	remove solder	width 2.7 mm, length 1.5 m		X	X			1
4FMJF8001-PEN	Flux Pen, Interflux IF8001	flux & applicator	with fiberglass brush, refillable, 7 ml	X	X	X			
4FMJF6000-PEN	Flux Pen, Interflux IF6000	flux & applicator	with fiberglass brush, refillable, 7 ml	X	X	X			1
4FMJF8300-005	Flux Gel	flux for e.g. solderwell process	Dispensing cartridge & needle, 5 ml	X	X	X			1
0IR4500-40	Heat Shielding Tape	heat protection of adjacent components	width 25 mm, length 1 m, Aluminium	X	X	X			1
0IR4500-07	Capton Tape	heat resistant tape	width 25 mm, length 10 m	X	X	X			1
0IR6500-46	PTFE-Glass-Cloth-Tape	heat resistant tape to improve IRS reading on reflective surfaces	width 40 mm, length 5 m	X	X	X	X	X	
0TR01/SB	Tip-Reactivator	reactivate tips	chemical paste, 15 g can		X	X			1
0FR200	Flux Cleaner	remove flux and clean PCB	Spray can with brush, 200 ml	X	X	X			1

A complete list of solder wires and solder wick can be found in the ERSA soldering tools catalogue and the related price list (see www.ersa.com).
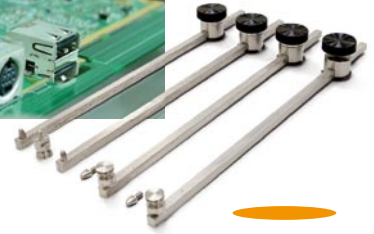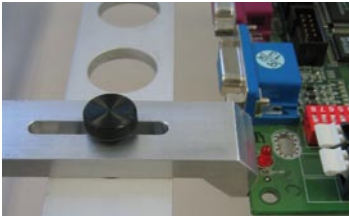
Solder Tips

Special Tips for Rework Applications

| Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
0612ZD/SB	Wick Tip	remove solder with wick	10.5 x 3.6 mm		X	X			1
0612WDLF/SB	Solder Tip, 4 mm, angle faced	remove solder	4 mm, 45°		X	X			1
0612ND/SB	Solder Tip, 3 mm angle faced	remove solder	3 mm, 45°		X	X			
0612HD/SB	Solder Tip, Solderwell	soldering QFP, solder well process, remove bridges	2.5 mm concave well		X	X			1
0612TW/SB	Solder Tip, Techwell	apply solder	3 mm, concave well		X	X			
0612MD/SB	Solder Tip, PLCC Blade	PLCC installation	1.5 mm		X	X			
0612UDLF/SB	Solder Tip, pencil point	fine SMD soldering	0.8 mm		X	X			1

A compete list of supplied soldering tips can be found in the ERSA soldering tools calalogue and the related price list (see www.ersa.com).

PCB Tables & Holders

Board Support Systems for Small, Large & Odd Shaped PCBs

Order Number	Name	Description	Technical Data	HR 100 A	IR 550 A	IR 650 A	PL 550 A	PL 650 A	Starter Kit
● 0IR5500-01	PCB X-Y table	Fixture for PCBs or PCB holders	recommended PCB size 280 x 390 mm	X	X				
● 0PL500A-LP01	Support for PCB holder	Support & fixture to prevent PCB warpage	4 pcs, length 250 mm each, stainless steel	X	X		X		
● 0PH360	PCB holder	Fixture and support of medium size PCBs	recommended PCB size 270 x 365 mm		X	X	X	X	
● 0PH100	PCB holder	Fixture of small PCBs	recommended PCB size 170 x 170 mm	X	X	X	X	X	
● 0IR6500-16	PCB holder	Fixture and support of large PCBs	recommended PCB size 460 x 560 mm			X		X	
● 0IR6500-17	PCB holder set	Fixture of odd shaped PCBs	4 pcs, 30 mm adjustable length per clamp, aluminium	X	X	X	X	X	
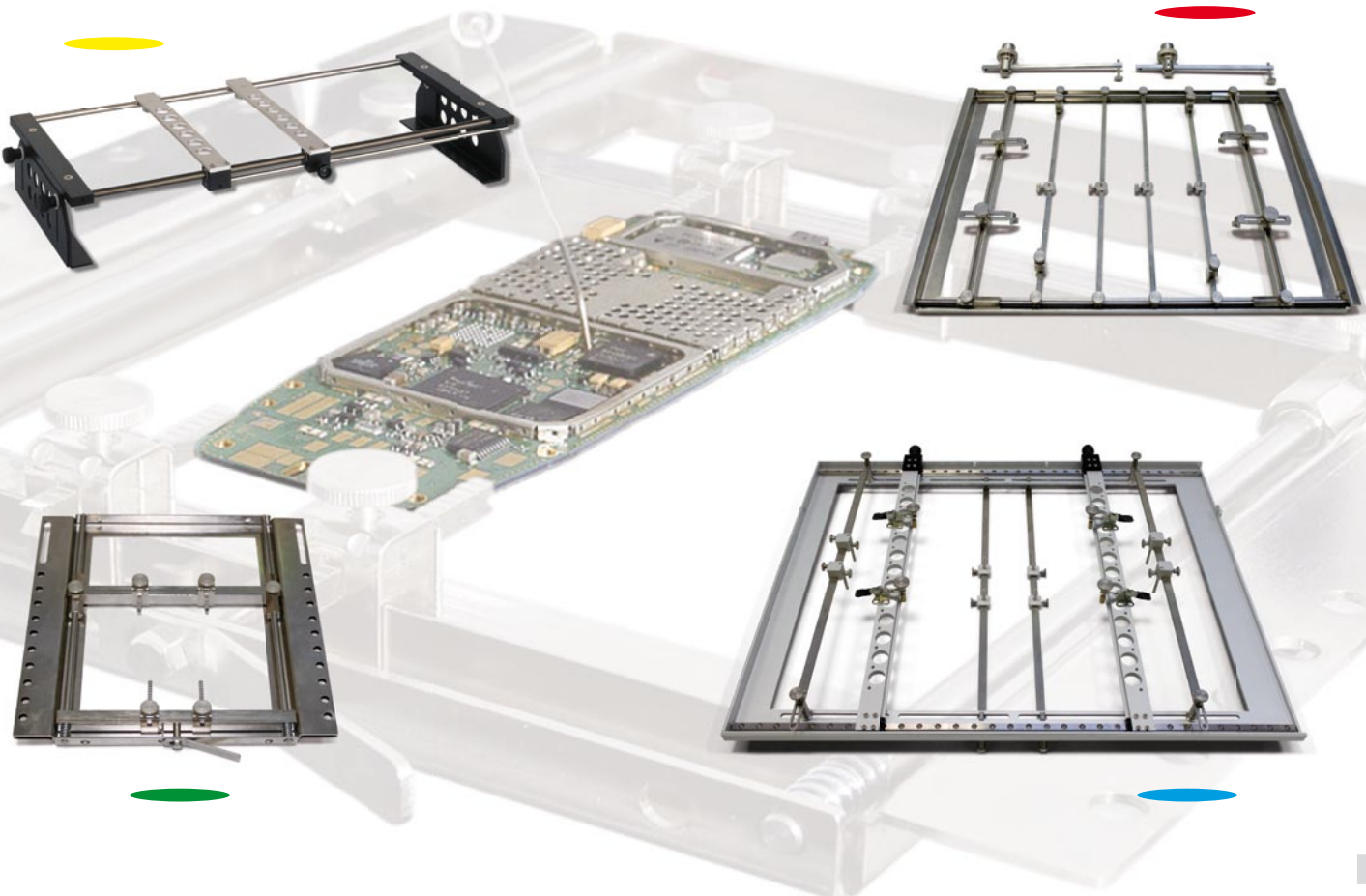
The World is Kurtz – Present in 135 countries

Production plants / subsidiaries
Local agents
Other presence
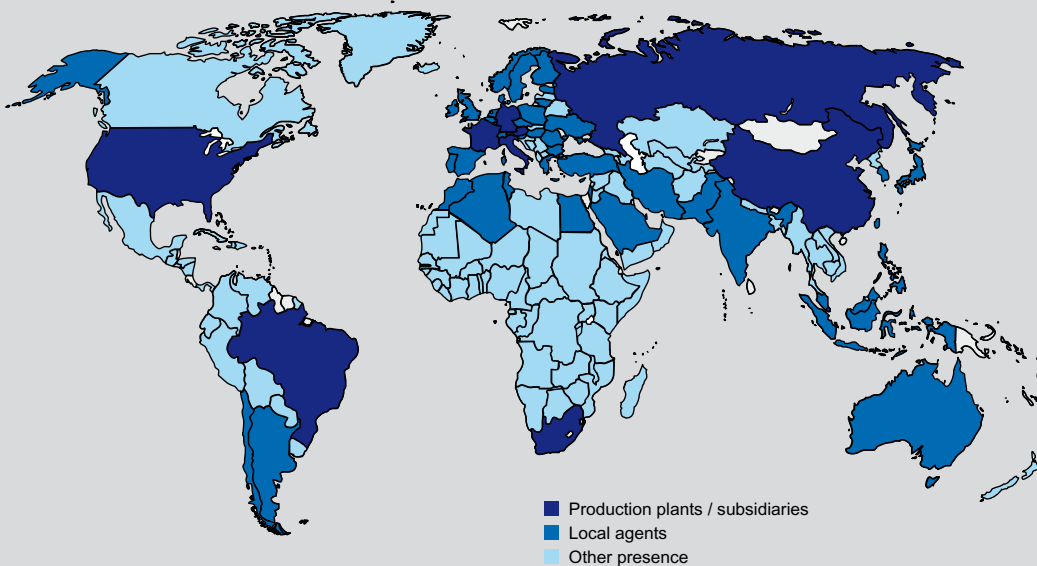
Kurtz, ELECTRONICS

ERSA Production Equipment & Services

for Manufacturing & Repair of Electronic Assemblies

- Screen Printing
- Reflow Soldering
- Selective Soldering
- Wave Soldering

- Rework & Repair
- Hand Soldering Tools
- Optical Inspection
- Value Added Services

Contact us for complete information:

www.ersa-i-tool.com • www.ersa-versaprint.com

www.ersa.com

Germany (HQ)

ERSA GmbH
Leonhard-Karl-Str. 24
97877 Wertheim / Germany
Tel.: +49 (0) 9342 / 800-0
info@ersa.de

France

ERSA France
a division of
KURTZ FRANCE S.A.R.L
8, rue des Moulissards
F-21240 TALANT, France
Tel.: +33 (0) 3 80 56 66 10
ersa.france@orange.fr

America

ERSA North America
a division of
KURTZ North America Inc.
1779, Pilgrim Road
Plymouth, WI 53073, USA
Tel.: 800-363-3772
ersainfo@kna.net

Hong Kong

ERSA Asia Pacific
a division of
KURTZ Far East Ltd.
Suite 3505, 35/F.,
China Resources Building
26 Harbour Rd, Wan Chai
Hong Kong
Tel.: +852 / 2331 2232
kurtz@kfe.com.hk

China

ERSA Shanghai
a division of
KURTZ Shanghai Ltd.
Room 601 Green Land
Business Mansion
No.1258,Yu Yuan Rd.
Shanghai 200050, China
Tel.: +86 (21) 3126 0818
kurtz@kurtz.com.cn

Korea

ERSA Korea
a branch of k•mc
1305 Ho, High-Tech City 2 Dong,
54-66 Mullae-dong 3 Ga,
Yeongdeungpu-Gu,
Seoul, 150-834, Korea
Tel.: +82-2-6309-7031
kmc@kmckr.co.kr