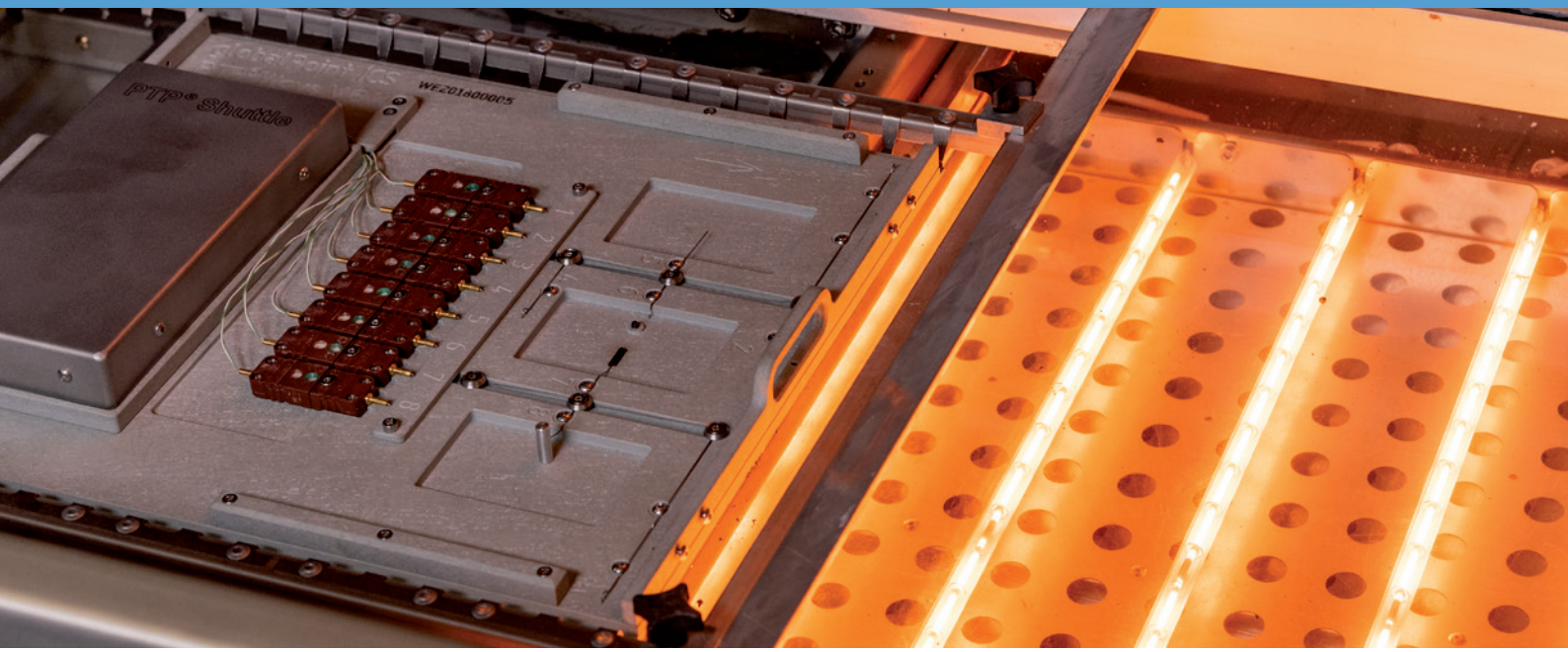
PTP® – Professional Temperature Profiler

Reflow, Vacuum, Vapour Phase, Wave, Selective Measuring Systems



kurtz ersa

globalPoint added value

- 20 years of know-how in thermal processes
- Expert knowledge from a single source
- High-grade measuring electronics
- 100 % reproducible measurement
- Unique intelligent software
- Physically correct profile prediction

globalPoint ICS
Guarantees safe thermal processes

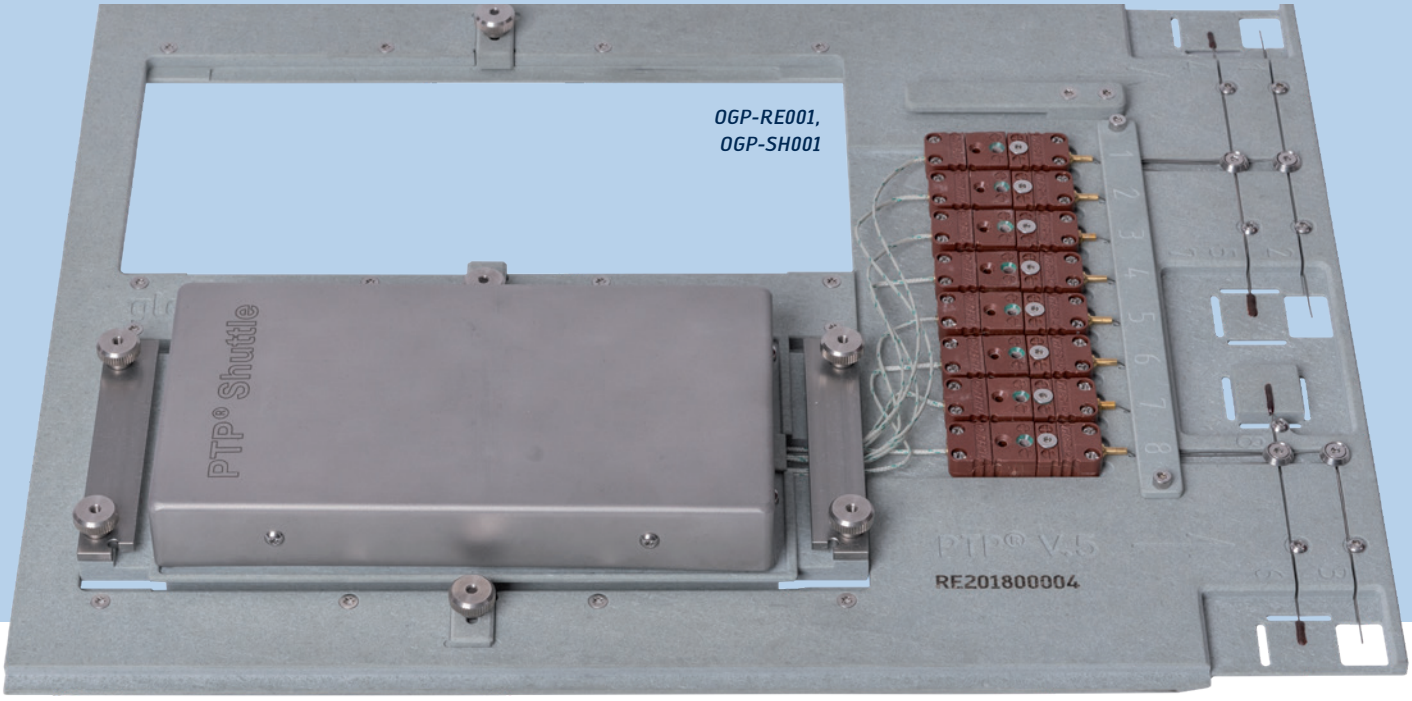
globalPoint ICS has been one of the leading international suppliers of measuring technology for all soldering processes for more than 20 years. We are setting global benchmarks with precise, innovative and reliable systems as well as intelligent, user-friendly software.

Our range covers measuring technology for reflow systems, vacuum/vapour phase soldering systems, wave soldering systems and selective soldering systems as well as the matching measuring boards.

The PTP® Professional Temperature Profiler products are based on current research results, cutting-edge technologies and the best materials.

Reflow-Convection Measuring System

PTP® measuring system for process recording, analysis and optimisation



Measuring board Reflow V5:

- Recording of the cross profiles and gradients over the entire transport length and width
- Measuring of thermal zone separation as well as atmospheric temperature
- Recording of the complete energy input of the system as a basis for evaluating the process capability of a flat module and comparison of the different soldering systems

The **measuring board Reflow V5** and **measuring electronics PTP®** make an ideal and versatile instrument for process recording, analysis and optimisation available. The **measuring board Reflow V5** has eight thermocouples of the highest accuracy class. These are placed permanently stable on specially designed measuring fields. The measuring board Reflow V5 is used to check the system parameters as well as their optimisation in the soldering system.

The **PTP® Shuttle** has been designed for the **measuring board Reflow V5** and provides thermal protection for the PTP® electronics. The extenders included allow the transport widths to be adapted accordingly. The **PTP® electronics** have been designed as a real-time Bluetooth connection between the transmitter module TX and receiver module RX and has an optimum design for the soft soldering processes reflow-convection, wave and selective soldering. Exclusive use of standard interfaces makes maximum flexibility possible. A built-in Li-ion battery guarantees at least four hours of continued use and requires 30 minutes to be recharged on average. The integrated battery charge display and monitoring of the electronics internal temperature guarantees maximum safety and interruption-free operation.

The **PTP® software** provides outstanding solutions for parameter calculation, process evaluation, profile comparison and documentation. In addition, it ensures a physically correct profile optimisation following only one measurement.

Reflow-Convection Measuring System
Technical data & order information

Technical highlights

- Intelligent Bluetooth connection makes data transmission and display possible in real time
- 8 measuring channels with 24 bit resolution
- Measuring interval from 100 ms; measuring time up to 200 min
- Internal temperature monitoring and triple integrated thermal protection
- Electronics: RoHS-compliant with standard USB interface and miniature thermal connector
- Freely editable protocols with profile, gradient and module diagrams
- Automatic profile evaluation with 6 parameters
- Precise profile prediction after only one measurement!
- 3D profile display
- Free software updates
- High-precision interpolating 7-point calibration
- Modern power management with lithium-ion battery and charge state display in real time via radio signal as well as internal temperature display

Temperature measurement

Measuring range:	-150 to 1,350 °C
Measuring accuracy:	±0,5 °C
Resolution:	0,1 °C
Measuring interval:	0,1 s to 2 s
Measuring range:	8 channels for Ni/CrN

Dimensions PTP® electronic transmitter

Width:	86 mm
Length:	86 mm
Height:	23 mm

Dimensions measuring board

Length:	390 mm
Width:	300 mm
Height:	14 mm

Dimensions thermal protection box

Length:	211 mm
Width:	101 mm
Height:	30 to 33 mm

Receptacle for thermal protection box

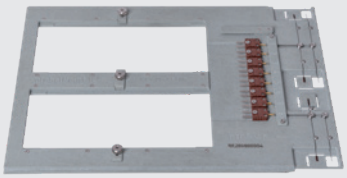
Length:	224 mm
Width:	101 mm
Width adjustable up to:	310 mm
Height above pin chain:	25 mm

Further services

- Customer-specific measuring boards
- Customer-specific software features

Order data

OGP-RE001



1x measuring board Reflow V5 with 8 thermocouples Ni/CrNi

OGP-ME001

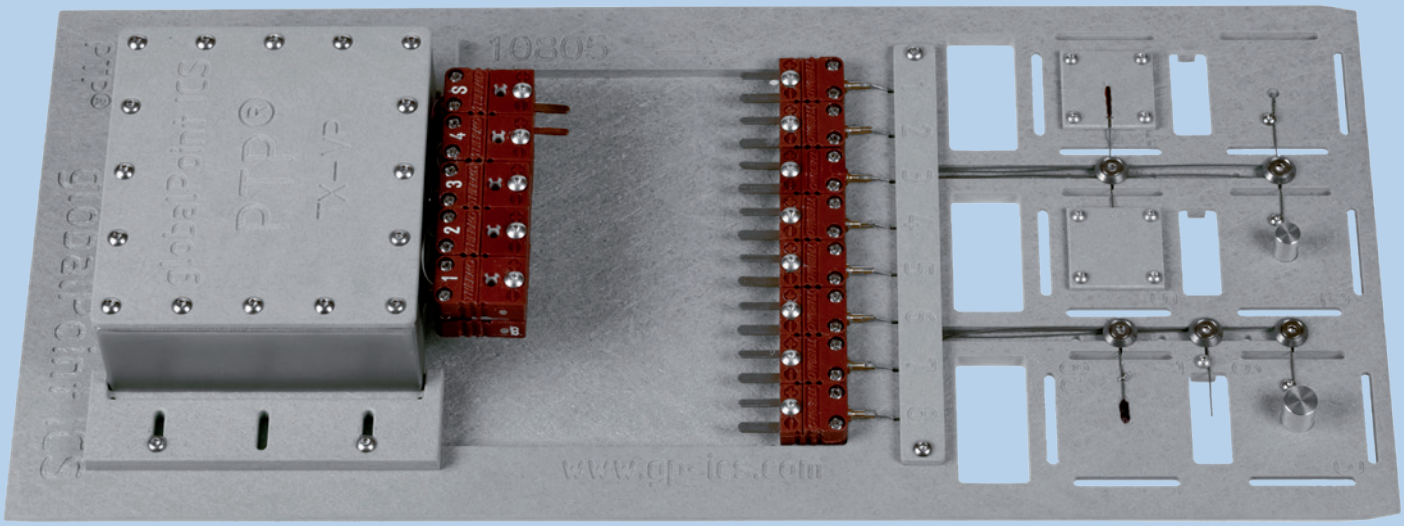
1x PTP® electronics + software
1x calibration PTP® electronics (incl. certificate with DKD reference)
1x aluminium case with insert for electronics and Shuttle

OGP-SH001

1x PTP® shuttle, E-carrier and thermal protection

Reflow Vapour Phase/Vacuum Measuring System

PTP® measuring system for process recording, analysis and optimisation



OGP-ME002,
OGP-VP001

The measuring board VAPOURPHASE VP:

- Recording of gradients over different thermal masses
- Measuring of temperatures of upper and underside especially for multilayer PCBs
- Measurement of the atmospheric temperature
- Measurement of the liquidus temperature of solder pastes.
- Recording of the temperature curve on BGA components (top andball side)
- Evaluation of the thermal behaviour under high component load

The measuring board VAPOURPHASE VP and the measuring electronics PTP® make an ideal and versatile instrument for process recording, analysis and optimisation available.

The **measuring board VAPOURPHASE VP** is equipped with 8 thermocouples of the highest accuracy class. These are placed permanently stable on specially designed measuring fields. The measuring board is used to check the system parameters and their optimisation in the soldering system.

The **PTP® electronics VP** are designed as a real-time Bluetooth connection between the transmitter module TX and receiver module RX, and has an optimum design for the vapour phase/vacuum process. Exclusive use of standard interfaces makes maximum flexibility and minimum thermal load on the process possible thanks to very low mass of the measuring electronics. The integrated battery charge display and monitoring of the electronics internal temperature are the basis for maximum safety and interruption-free operation.

The **PTP® software** provides outstanding solutions for parameter calculation, process evaluation, profile comparison and documentation. In addition, it guarantees a physically correct profile optimisation following only one measurement.

Reflow Vapour Phase/Vacuum Measuring System
Technical data & order information

Technical highlights

- Intelligent Bluetooth connection makes data transmission and display possible in real time
- 8 measuring channels 0.1 °C resolution (24 bit ADC) and 0.5 °C accuracy
- Measuring interval from 100 ms; measuring time up to 200 min
- Continual control and display of internal temperature
- Electronics: RoHS-compliant with standard USB interface and miniature thermal connector
- Freely editable protocols with profile, gradient and module diagrams
- Automatic profile evaluation with 6 parameters
- Suitable for use in vacuum processes
- 3D profile display
- Display of continuous gradient curve
- Free software updates via the website
- High-precision interpolating 7-point calibration
- Modern power management with lithium-ion battery and charge state display via radio signal

Temperature measurement

Measuring range:	-150 to 1,350 °C
Measuring accuracy:	±0,5 °C
Resolution:	0,1 °C
Measuring interval:	0,1 s to 2 s
Measuring channels:	8 channels for Ni/CrN

Dimensions PTP® electronic VP transmitter

Width:	100 mm
Length:	90 mm
Height:	40 mm

Dimensions measuring board

Length:	390 mm
Width:	175 mm
Height:	14 mm

Further services

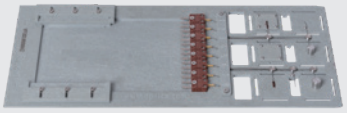
- Customer-specific measuring boards
- Customer-specific software features

Ambient conditions measuring board

- Ambient temperature from 280 to 300 °C
- Max. ambient temperature for 20 s is 350 °C
- Max. height with electronics 43 mm
- Guaranteed radio contact even in vacuum systems
- Free field range > 300 m

Order data

0GP-VP001



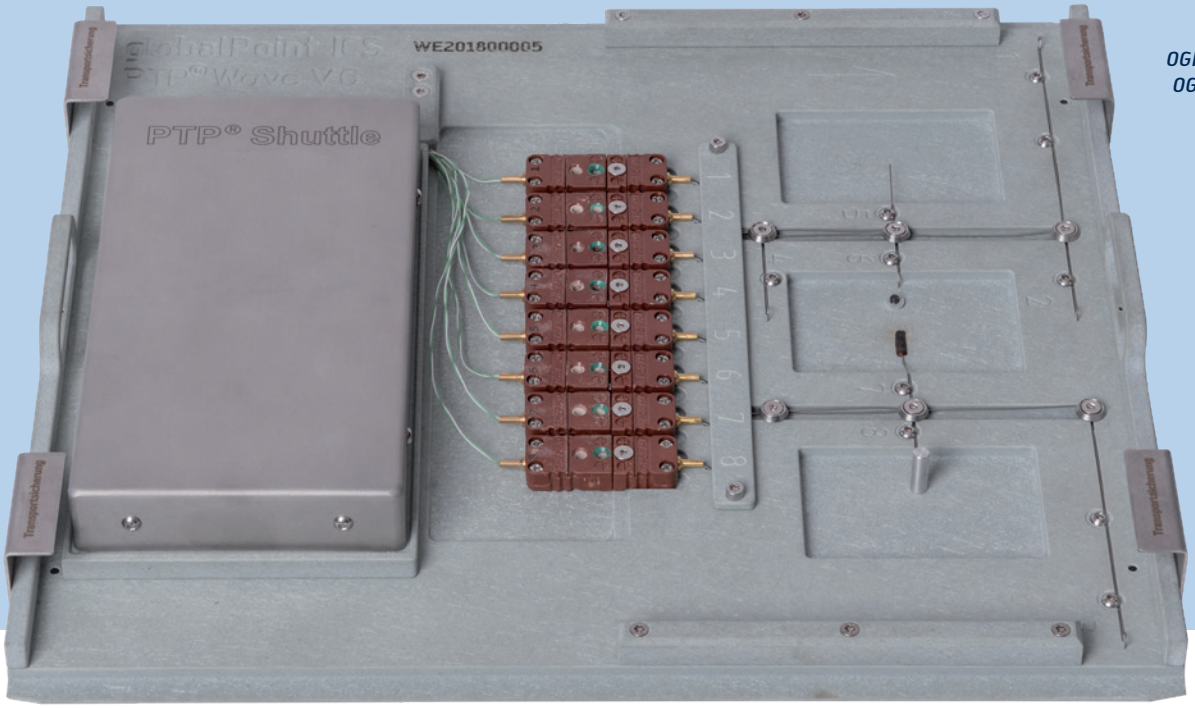
1x measuring board VAPOURPHASE VP with 8 thermocouples Ni/CrNi

0GP-ME002

1x PTP® electronics VP + software
1x calibration PTP® electronics (incl. certificate with DKD reference)
1x aluminium case with insert for electronics and Shuttle

Wave Measuring System

PTP® measuring system for process recording, analysis and optimisation



OGP-ME001,
OGP-WE001

The measuring board Wave V6

- Recording of the cross profiles over the entire transport length and width
- Measurement of the pre-heating temperature of the PCB top/bottom
- Measurement of the atmospheric temperature
- Measurement of dwell times left, centre and right
- Measurement of the transport speed
- Recording of the energy input in a measuring dummy as a basis for evaluating the risk to sensitive components (electrolyte condensers,
- High-temperature antenna onboard

The measuring board Wave V6 and measuring electronics PTP® make an ideal and versatile instrument for process recording, analysis and optimisation available.

The **measuring board Wave V6** has eight thermocouples of the highest accuracy class. These are placed permanently stable on specially designed measuring fields. The measuring board is used to check the system parameters and their optimisation in the soldering system.

The **PTP® measuring system** is designed as a real-time Bluetooth connection between the transmitter module TX and receiver module RX, and has an optimum design for the wave and selective processes. Exclusive use of standard interfaces makes maximum flexibility possible. A built-in Li-ion battery guarantees at least four hours of continued use and requires 30 minutes to be recharged on average. The integrated battery charge display and monitoring of the electronics internal temperature guarantees maximum safety and interruption-free operation.

The **PTP® software** provides outstanding solutions for parameter calculation, process evaluation, profile comparison and documentation. In addition, it guarantees a physically correct profile optimisation in compliance with the process.

Wave Measuring System
Technical data & order information

Technical highlights

- Intelligent Bluetooth connection makes data transmission and display possible in real time
- 8 measuring channels with 24 bit resolution
- Measuring interval from 100 ms; measuring time up to 200 min
- Internal temperature monitoring and triple integrated thermal protection
- Electronics: RoHS-compliant with standard USB interface and miniature thermal connector
- Freely editable protocols with profile, gradient and module diagrams
- Automatic profile evaluation with 6 parameters
- Precise profile prediction after only one measurement!
- 3D profile display
- Display of continuous gradient curve
- Free software updates via the website
- High-precision interpolating 7-point calibration
- Modern power management with lithium-ion battery and charge state display via radio signal as well as internal temperature display

Temperature measurement

Measuring range:	-150 to 1,350 °C
Measuring accuracy:	±0,5 °C
Resolution:	0,1 °C
Measuring interval:	0,1 s to 2 s
Measuring channels:	8 channels for Ni/CrN

Dimensions PTP® electronic transmitter

Width:	86 mm
Length:	86 mm
Height:	23 mm

Dimensions measuring board

Length:	330 mm
Width:	300 mm
Height:	14 mm

Further services

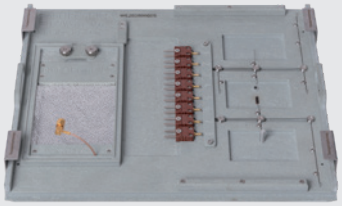
- Customer-specific measuring boards
- Customer-specific software features

Ambient conditions

- Ambient temperature from 280 to 300 °C
- Max. ambient temperature for 20 s is 350 °C
- Max. height with Shuttle 25 mm
- Range with measuring insert in wave soldering systems at least 10 m
- Free field range > 300 m

Order data

0GP-WE001

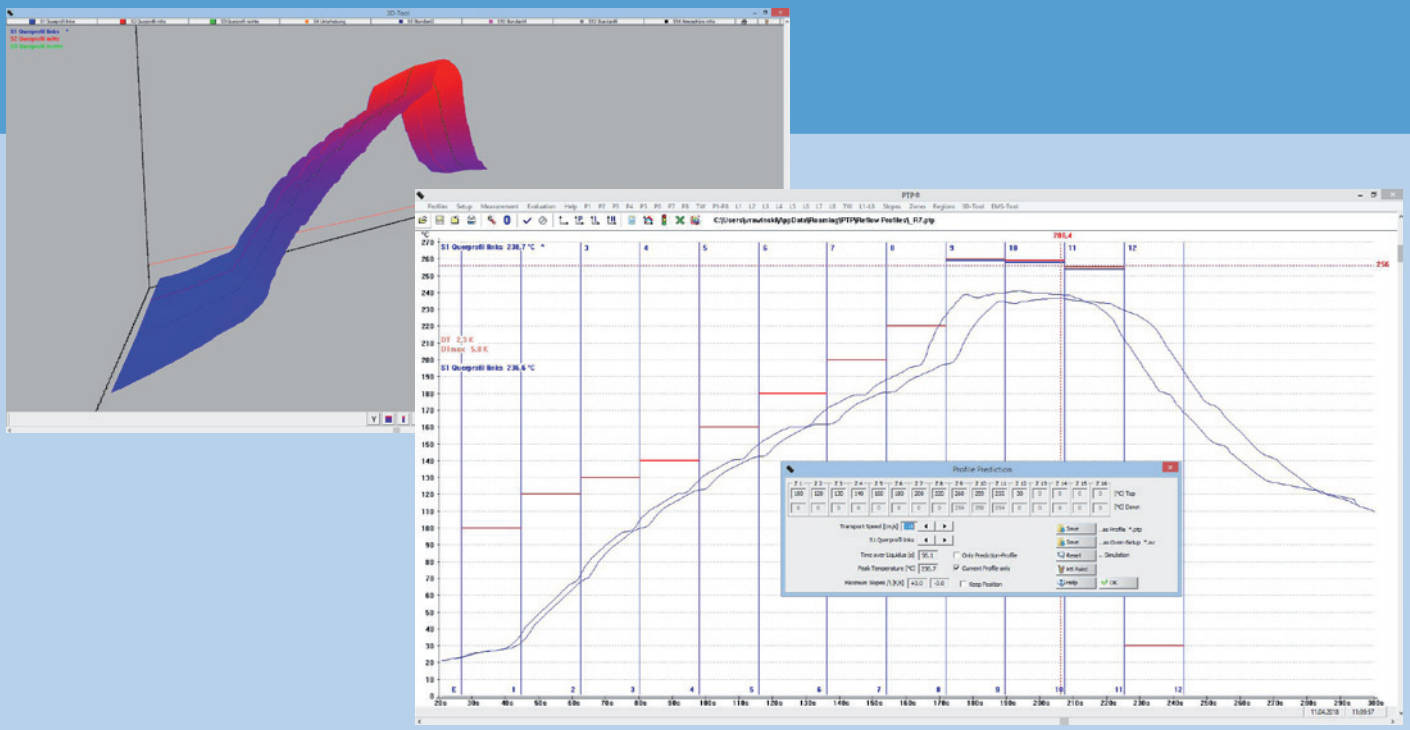


1x measuring board WAVE V6
with 8 thermocouples Ni/CrNi

0GP-ME001

1x PTP® electronics + software
1x calibration PTP® electronics
(incl. certificate with DKD reference)
1x aluminium case with insert for electronics and Shuttle

PTP® software



PTP® software:

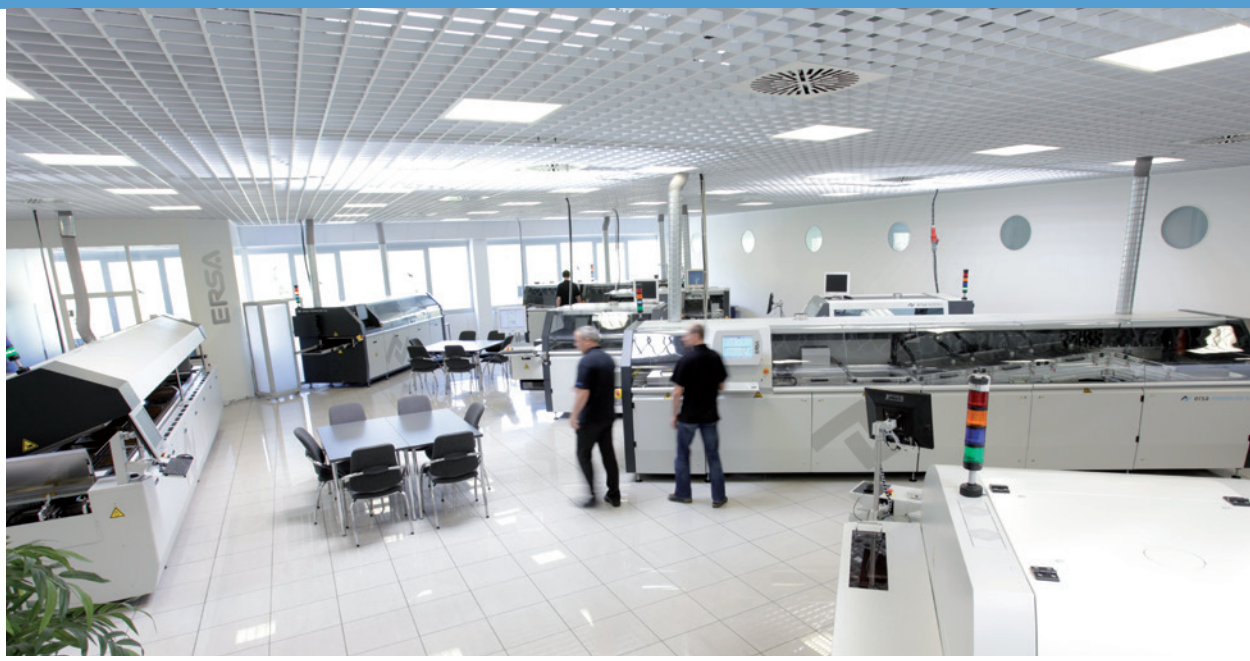
- makes operation easier
- New interface
- Profile prediction
- Adaptations for the new Profiler XT generation (extended measuring range, battery status, up to 20 channels) with tried-and-trusted Bluetooth real-time data transmission
- New measuring board tool MBT.EXE for managing customer-specific or PTP® measuring boards
- Download of the current upgrade software PTP® (Windows® Vista/7 or higher)

Technical highlights

- Freely editable protocols with profile, gradient and module diagrams
- Automatic profile evaluation with 6 parameters
- Precise profile prediction after only one measurement!
- 3D profile display
- Display of continuous gradient curve
- Free software updates from the website
- High-precision interpolating 7-point calibration
- Data export to MS Excel
- Wizard for automatic profile comparison
- Calculation of the module stress factor
- Comparative superposition of 2 measurements (18 profiles can be shown)
- Real-time 8-channel radio data transmission plus internal temperature and battery charge 0 – 100 %.

The **PTP® software** provides outstanding solutions for parameter calculation, process evaluation, profile comparison and documentation. In addition, it guarantees a physically correct profile optimisation following only one measurement.

Ersa Application and Technology Support
Global Sales & Service network



Customer-specific applications, training courses and hands-on training in the Ersa application and demo centers

Around the world, our customers and business partners have access to spacious demonstration, application and training centers outfitted with the most modern equipment. There are eight Ersa Service Centers of this kind in total, all of them boasting the complete soldering systems product portfolio, as well as the Ersa "Tools Rework and Inspection" business line. Regardless of the Ersa Service Center you choose: Our experienced application engineers are glad to welcome you in all of them, ready to demonstrate the Ersa hardware and test it for specific purposes. The chance to really prove our mettle comes for Ersa when, in cooperation with you, we are allowed to optimize your subassembly under exactly defined conditions!

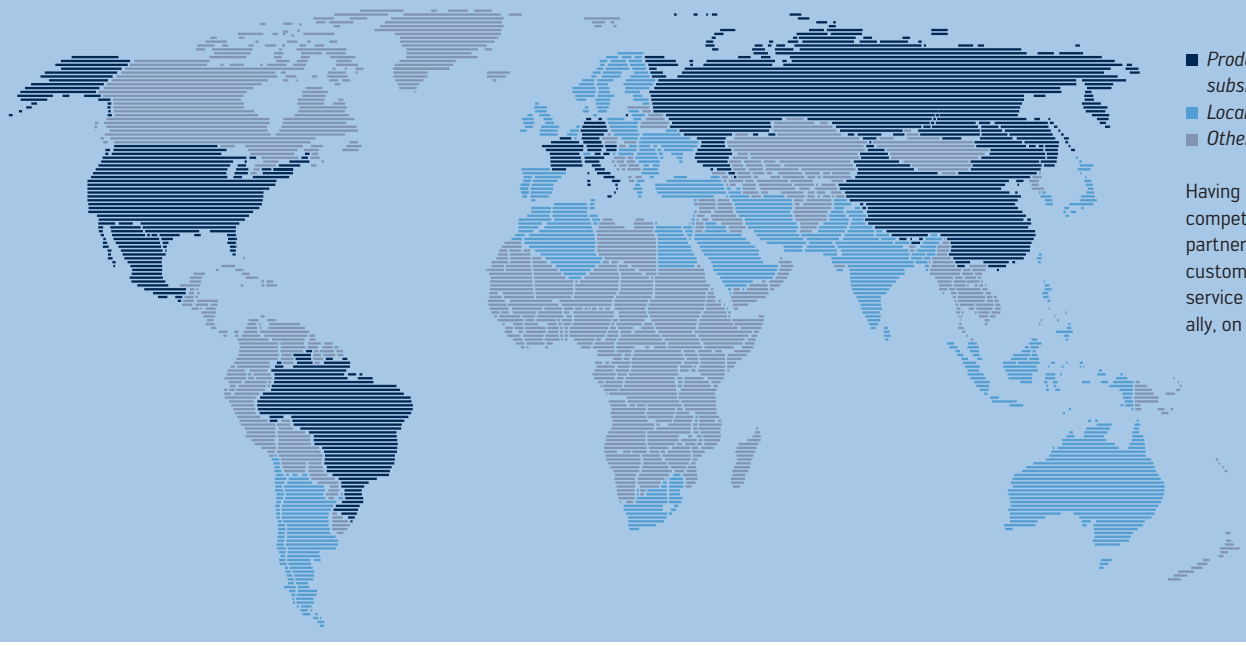
Additional modern training and conference facilities in the immediate vicinity permit an intensive exchange of experience and transfer of knowhow. Both facilities, the demo centers and the conference rooms are used for the Ersa Know-How Seminars or Technology Days, tailored specifically to customer requirements.

The Ersa Service Team is already looking forward to welcoming you to our application center – whether for testing, training, Technology Days or for the Know-How Seminar. You will find an Ersa Service Center within striking distance!

Application and demo centers

- Wertheim, Germany
- Plymouth, USA
- Tlajomulco de Zuniga, Mexico
- Mexiko City, Mexico
- Peking, China
- Shanghai, China
- Shenzhen, China
- Pulau Pinang, Malaysia

The Kurtz Ersa Corporation
Worldwide present.



- *Production plants/ subsidiaries*
- *Local agents*
- *Other presence*

Having our own subsidiaries and competent sales and service partners, we can assure our customers that we provide our service quickly and professionally, on a worldwide basis.

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