REINHARDT
System- und Messelectronic GmbH

Software package for graphical display of fault location in the in-circuit and function test and for processing Gerber Data as well as for building fixtures

ATSGERB II is a software for processing Gerber data created by CAD-systems which are used for the production of bareboards/PCBs. Worldwide, Gerber data are the most common format. The Gerber data are graphical commands via XY-coordinates and vectors and are used for control of photo plotters. Amongst others, ATSGERB II uses one of the most common Gerber data formats, i.e. the RS-274-X-format, Extended Gerber with aperture information (D-Codes).

ATSGERB II summarises the single vectors of the single layers in the original electrical connections so that the complete tracks are available again. ATSGERB II is a 32 bit-developement and therefore runs smoothly under WINDOWS10®/64bit.

This completely new development works with new algorithms which results in improved net computation, especially with inverted layers. A new catch function helps in e.g. positioning additional drillings/pads. The option of adding lines is especially advantageous in the creation of fixtures and the Undo-Function is most helpful, too. Via context menu you can activate one or several pads and e.g. change the D-Code or other test priorities. The live fade in of layers is another helpful feature.

Order: ATSGERB II
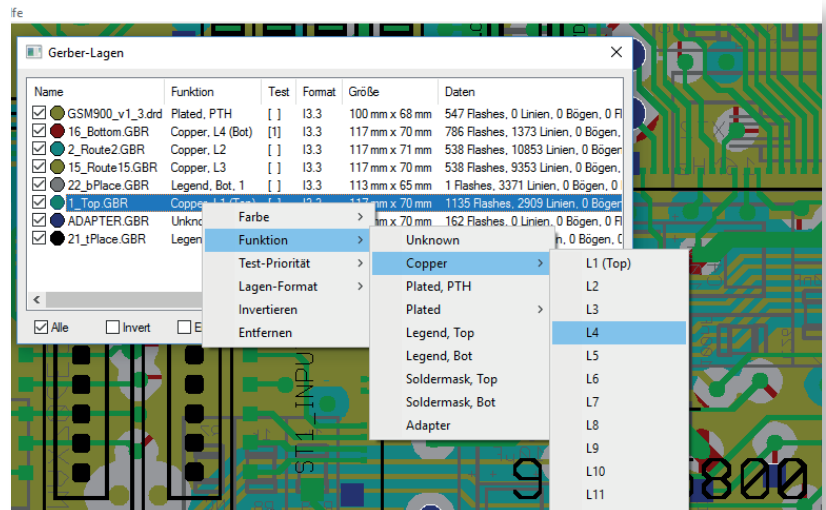
RUDC REINHARDT Universal File Converter for Fast Creation of In-circuit Test Programs

is a universal solution for extracting files from different CAD-systems and processing them for the REINHARDT test system software.

RUDC imports data (e.g. CLP) which are also used for pick-and-place machines. These are component reference (R14, C22), package type (SOT23), value (Value), centre point coordinates (X and Y), top or bottom and orientation (90, 180). The data which were generated with the REINHARDT-software for processing Gerber files are used in addition. After the bill of materials and the data for graphical display of fault location (computed Gerber data) are imported, the automated autolearn tools such as e.g. for pin contact test, shorts and isolation test and the APG in the component editor as well as the component statistics can be used. Conversion of the data is widely automatic and is easy to understand even for inexperienced users

Order: Universal Data Converter RUDC
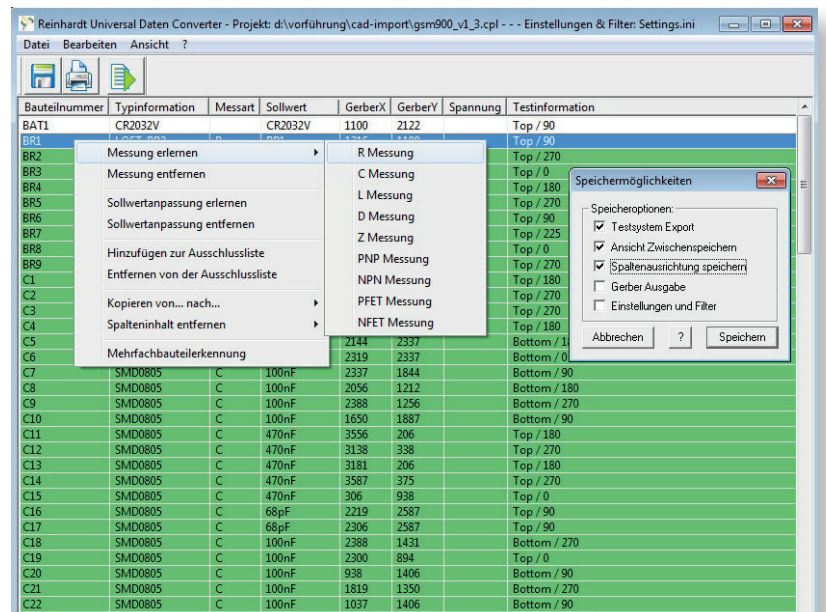
RST 40 REINHARDT Synchro-Test

With this software module remote programming, diagnose and control is available via network so that one or several test systems can be controlled or monitored from any place. This server-client operation (at the moment up to 4 clients) enables the parallel operation of up to 4 REINHARDT-test systems. With this module, even somebody who is not well versed in network programming can integrate the REINHARDT test systems in a network.
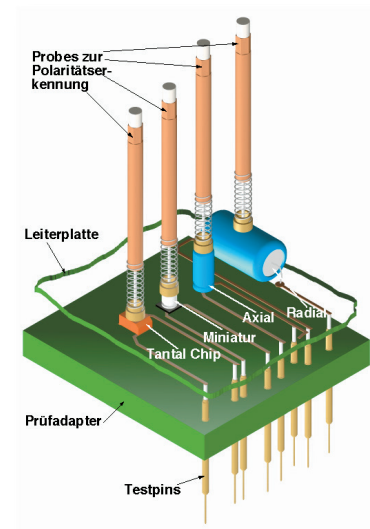Order: RST40
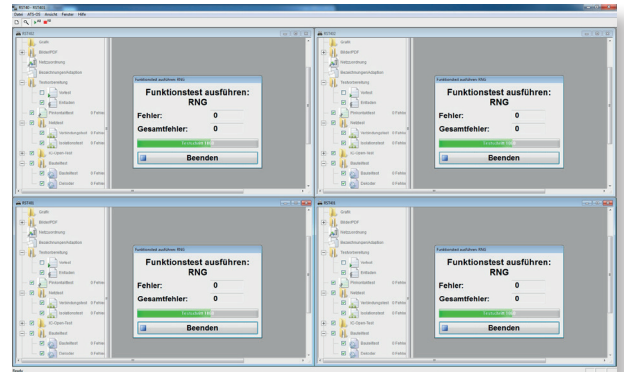
Software for Finding SMT IC Solder Defects and for Discerning Elcap-Polarity
Software for Finding Solder Defects on IC-Pins (BGAs too)

This software is used for finding SMD IC solder defects. Capacitive probes which are applied to ICs (in connection with a test fixture) are used for automatic evaluation. A selective amplifier board, 16 channels per board and a maximum 16 boards which are mounted into the fixture, amplify the measured signal selectively. The probes are applied to the IC from above. When all IC-inputs but the pin you what to measure have been set to ground, a signal of 8 kHz below the threshold voltage is applied to this pin and with the probe and the selective amplifier capacitance/coupling is measured. Programming is just by autolearn. The defective solder pin is automatically displayed on screen. With this method you can also test connectors for missing pins.
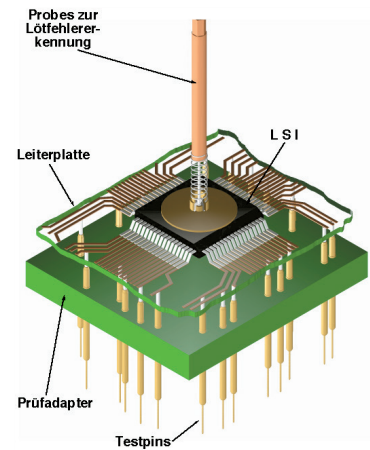
Software for Displaying Polarity Defects of Elcaps to the Component

With this software you can discern polarity of electrolytic or Tantal capacitors **(axial and radial)** when they are already assembled. Ground or a sine signal resp. are applied to the polarised capacitor. For measuring the coupling (= signal strength), a shielded probe is applied to the capacitor housing. With a selective amplifier board, the small signal is amplified. The amplitude of the signal is evaluated by applying the signal alternatingly. There is an obvious difference between a minus and a plus signal (The signal is obviously higher at minus-application than at plus-application).

This software can only be used together with the ATSGERB software and the following hardware: REINHARDT In-circuit test system, polarity board, IC-Open board (SMT solder defect test) and shielded probes.
Order: Software for Finding SMT IC Solder Defects and for Discerning Elcap-Polarity; this software only works together with ATSGERB software.

RDR-Software for Offline Repair of Assemblies

With an offline repair station software, the test system need not be used for repair so that there is higher throughput of devices under test. The RDR670 repair station software uses the statistical data of the PCBs. In the statistics data the number of repair runs is recorded and added so that the person who repairs soon notices how often this PCB has already been repaired. After every successful repair, the identification mark is deleted from the list of serial numbers so that it is no longer mentioned to the person who repairs. A PCB is successfully repaired if it goes through a successful test run on the test system. For the RDR670-software we recommend a commercially available PC. The software is networkable so that there is access to data on a central server.

Order: REP-Station WIN

Open Database Connectivity – ODBC-Interface

The ODBC-module helps to integrate the REINHARDT test systems in all common data base management systems. The ODBC-driver manager of the operating system supplies its own dialogue fields for selection of the data base connection and a connection text is generated. In the test run, this text is used for selecting the data base where the data are stored. Then the table is chosen which stores the data. For that you may use an existing table or generate a new one. When the table is selected, its fields are listed so that only the data sources must be assigned. If the name of a table which does not exist yet is entered, the required fields must be selected and connected to the data sources

Measured value and tolerances can be edited as text or floating point number. When edited as text, the number format complies with the country settings selected in the operating system. Then even results are edited which cannot be represented as a number, e. g. "Timeout". If you want to further evaluate the measured values later, it is often better to edit the data as floating point number as it is independent of the display and can be used more easily in computation or in matching.

Order: ODBC Software

Software for Offline Programming

In order to keep your test system free for testing, it is recommended to program on another computer (offline). We therefore offer a user's right for offline programming. Via network you can also enter changes in existing test procedures. For every programming station you need a single licence

Order: Software for Off-line Programming
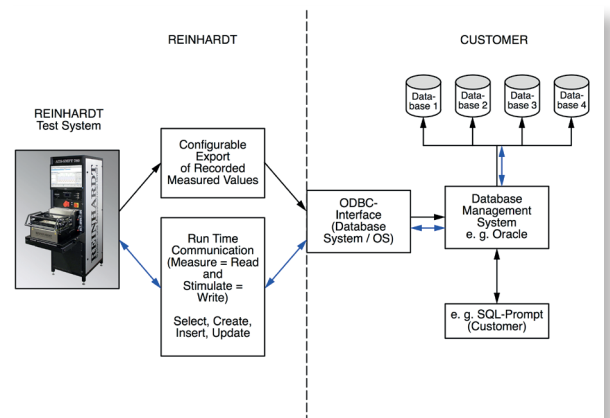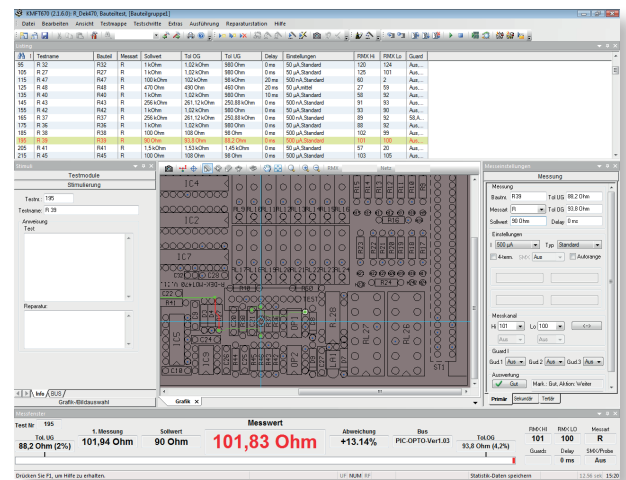
RBS100 REINHARDT Boundary Scan

The RBS 100 Boundary Scan-module includes hardware, programming and test software. The RBS 100-module requires the REINHARDT ATSGERB software for graphical display of fault location. Digital Boundary Scan can check connections between the resp. circuits. A short-circuit can also be found. Boundary Scan only requires two additional bus connections, the TCK (Test Clock) and the TMS (Test Mode Select) which are connected in parallel to any IC used in Boundary Scan. A digital signal pattern is applied to the IC-pin under test (Test Data Output TDO). The connected IC (ICs) is scanned via Boundary Scan, if the resp. signal pattern is applied (Test Data Input TDI).

In case certain points of the DUT cannot be addressed directly via Boundary Scan, you can do that via the very cost-effective bi-directional logic channels of REINHARDT-test systems (e. g. LOG 96 Logic Board).

The RBS 100 (REINHARDT Boundary Scan) module is completely integrated in the user-friendly software of the REINHARDT-test systems. As in other REINHARDT-solutions, only the Gerber files and the BSDL-data (Boundary Scan Description Language) of the ICs are required for creating a Boundary Scan test program. These data are used for graphical display of fault locations and the connections of the single ICs.

Order: RBS 100 Digital Boundary Scan Test and Editing Module
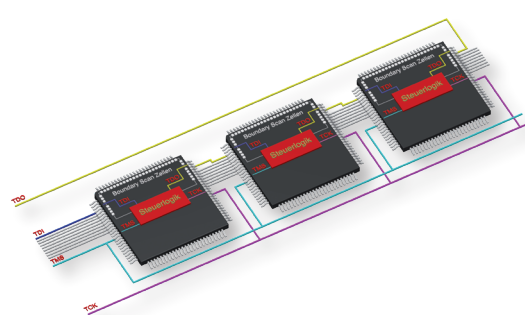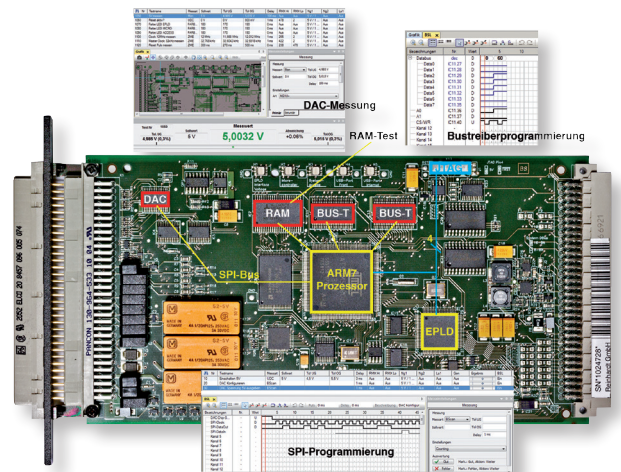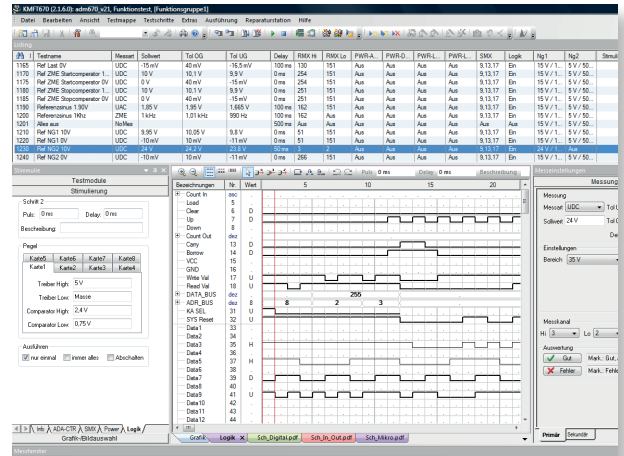
IE & OE – Specifications subject to change without notice! 3/2020