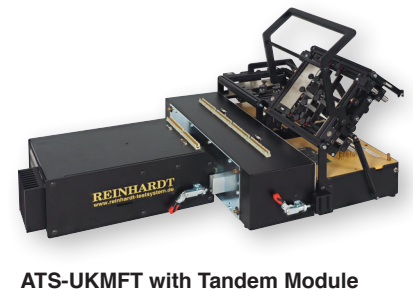# REINHARDT
System- und Messelectronic GmbH
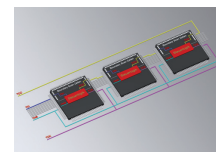
➤ **In-circuit test systems**
➤ **Function test systems**
➤ **Boundary Scan test**
➤ **Multi-function test**
➤ **Fixture production system**
➤ **Test fixtures**
➤ **Environment sensors**

ATS-MFT 770

ATS-UKMFT with Tandem Module

ATS-UKMFT 616 Multi-Function Tester WIN®-software, <u>32</u> in-circuit-function test channels, expand. to <u>224</u> channels, incl. 5 fixed voltages and 2 prog. twin-PSUs, sine-square wave generator, 32 stimulus channels, 32 logic channels, measuring unit, statistics evaluation software, automatic program generators, autolearn, without computer and fixture.

ATS-UKMFT 727 Multi-Function Tester WIN®-software, <u>128</u> in-circuit-function test channels, expand. to <u>608</u> channels, incl. 5 fixed voltages and 4 prog. PSUs, sine-square wave generator, 32 stimulus channels, 32 logic channels, measuring unit, statistics evaluation software, automatic program generators, autolearn, with fixture, without computer
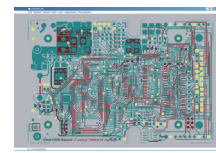
RBS100 REINHARDT Boundary Scan Test and Edit Module for REINHARDT-test systems detects interrupts and short circuits between Boundary Scan-components and via REINHARDT-logic channels also at open outputs, JTAG-programmer incl.; requires ATSGERB for graphical display of fault location

ATS-MFT770M-1/B Multi-Function Tester WIN®-software, 6 progr. PSUs, <u>96</u> in-circuit-function test channels, exp. to <u>1,440/4,320</u> channels, 96 logic channels, USB, SPI, I2C, RS232/422/485, PWM, sine-square wave generator, stimulus matrix, measuring unit, statistics, APG, autolearn for in-circuit- and function software. Desk/cabinet/fixture optional
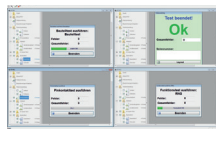
ATS-SMFT 780 Multi Function Tester, Cabinet <u>480</u> in-circuit-function test channels, expandable to <u>2,400/3,840</u> channels, incl. 6 prog. PSUs, sine-and square wave generator, stimulus matrix, power matrix, high voltage matrix, 32 logic channels, transient recorder, measuring unit, USB, SPI, I2C, RS232/422/485, PWM, CAD-import, APG, autolearn, fixture

ATSGERBII Software – on-screen display of the fault location on the test item such as pin contact and net faults, short-circuits, component faults and graphic information (e.g. Bitmap), software for calculating the Gerber files, creating the fixture drilling files for building the fixture and of graphic information

POMO 80 Power Module with 1 DC-source max. 80 V, 14 A, 2 loads max. 100 V, 30 A, 1 mA, total power up to 1,000 W, RS232-interface, ramp and curve functions can be edited, true values can be re-read, various expansions with changing number of DC-sources or loads

RST40 REINHARDT Synchro Test Software package (single licence for 4 clients – client-server operation) for network-based remote control, control and parallel operation of up to 4 REINHARDT-test systems (more are optional)
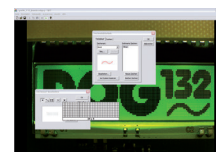
RDR Off-line Repair Station for repair, with precise graphical display of faults, use of the statistics data by module identification, fault location and repair station software under WINDOWS, without PC and without monitor

System Diagnose In-circuit-Function Test Hard- and software for testing the system range automatically. In case of fault the defective module can be isolated; instructions for adjusting the various stimulus and measuring parameters; incl. calibration certificate approved to ISO 9000
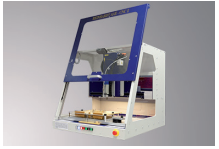
RUDC10 Universal Data Converter (CAD-interface) for REINHARDT-Windows-test systems for import of components data and coordinates of R, L, C, ZD, D, NPN, PNP, PFET, NFET, for fast creation of an in-circuit test program incl. graphical display of fault location, requires ATSGERB-software

ODT Optical Display Test – System for automatic evaluation of displays, gas discharge displays, dot-matrix, seven segment, LED, OLED, LCD, incl. software for evaluating displays WINDOWS®, auto-adjustment, 0.4 s per evaluation, high-resolution USB-camera, lens incl., (no PC)
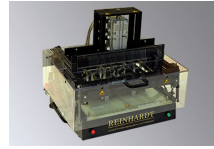
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Fixture Production System for building REINHARDT-test fixtures semi-automatically, incl. XYZ-table, drilling machine hard- and software for controlling the table, drills, 3 magazines hold 3 types of contact pins (550 contact pins 100 mil, 75 contact pins 75 mil) with receptacles, protective cover, without ATSGERB-software and without PC

Manual Fixture Type 42A, 4 linear guidings, hinged upper part, exchange plate (CEM1), working area 360 x 230 mm, overall dimensions of the plate 380 x 297 x 8 mm, upper exchangeable retention box incl. 15 retention pins, shift 27 mm, double-sided contacting, dual stage, also for double-sided loaded PCBs, up to 1,000 spring contact pins

Pneumatic Fixture Type 40A, 4 linear guidings, with voltage supply, dual stage retention (in-circuit- and function test), with exchange plate (FR4), working area 360 x 230 mm, overall dimensions of the plate 380 x 297 x 8 mm, exchangeable retention box incl. 15 retention pins, shift 27 mm, double-sided contacting, up to 1,000 spring contact pins

Manual Test Fixture Type 42C 4 linear guidings, 2 x 18VG-interface, exchange plate (CEM1), working area 360 x 230 mm, overall dimensions of the plate 380 x 297 x 8 mm, exchange retention box, 15 retention pins 10 x 45 mm, shift 26 mm, double-sided contacting, up to 1,000 spring contact pins

Manual Test Fixture Type 82C 4 linear guidings, 2 x 18VG-interface, exchange plate (FR4), working area 480 x 320 mm, overall dimensions of the plate 500 x 400 x 8 mm, exchange retention box, 18 retention pins 10 x 45 mm, shift 26 mm, double-sided contacting, up to 1,000 spring contact pins
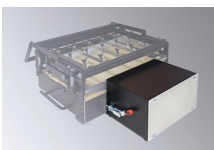
Manual Test Fixture Type 82B 4 linear guidings, 1 x 18VG-interface, exchange plate (FR4), working area 480 x 320 mm, overall dimensions of the plate 500 x 400 x 8 mm, exchange retention box, 18 retention pins 10 x 45 mm, shift 26 mm, double-sided contacting, up to 1,000 spring contact pins

Manual Fixture Type 147 working area 360 x 230 mm, with lower exchange plate (CEM1), overall dimensions of the plate 380 x 297 x 8 mm, incl. four 96way connectors, exchange retention box, 15 retention pins, double-sided contacting, also for double-sided loaded PCBs, up to 800 spring contact pins

Dockingbox ADA 127/147, one side interface with 8 female connectors, 96-way, opposite side blank pane for user-specific connectors incl. 2 mounted grips for push rod for easy docking to fixture type or type 147
Dimensions: Basic rack about 165 mm deep, about 230 mm wide (without grips for push rod) and about 145 mm high

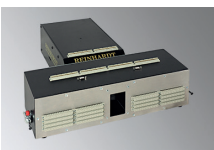**Manual Test Fixture Type 127** working area 191.5 x 172 mm, with lower exchange plate (CEM1), overall dimensions of the plate 217.6 x 230 x 8 mm, incl. two 96way connectors, exchange retention box, 12 retention pins, double-sided contacting, also for double-sided loaded PCBs, up to 500 spring contact pins

Dockingbox ADA 127, one side interface with 8 female connectors, 96-way, opposite side blank pane for user-specific connectors incl. 2 mounted grips for push rod for easy docking to fixture type 127
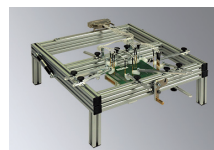Dimensions: Basic rack about 165 mm deep, about 230 mm wide (without grips for push rod) and about 145 mm high

Tandem Module – twin fixture box for mutual contacting and higher throughput, e. g. for contacting 2 fixtures Type 127 on one REINHARDT-test system. A connection kit for 2 fixtures Type 127 is included.
About 165 mm deep, about 600 mm wide

Fixture Type UJ 20 for universal guiding and contacting of the device under test. The basic unit comes with several contacting jibs, 85 mm and 120 mm long, which are equipped with contact pins 100 mil, with guiding edges, guiding brinks and guiding pins. One guiding edge is fixed.
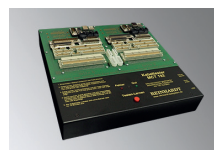
SteuerMod-Inline USB integration of the ATS in inline system/production line, rail housing; ATS can be controlled and evaluated externally.
Function inputs: Start, Stop; Result: OK, Fail, Busy, ReadyStartStop, inline control USB Start/Stop box, four-fold lamp control, 8 in-, 8 outputs, USB-connection cable

Test Fixture Wire Finder TFWF 96 for individual fixture wiring, in case you have to duplicate a fixturing or want to use already existing test point designations for the RMX-measuring matrix channels. Programmable for RMX 32, RMX 32/64 and RMX 96 as well as an A/C rotation, incl. power supply 230 VAC

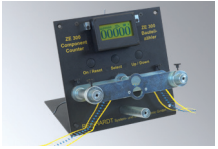**MCT 192 Cable and Wiring Tester** 192 connections, connector contact board for testing cables, wirings, backplanes, stand-alone-operation, search probe, USB-interface and USB interface cable for connecting a PC, USB-plug-in supply, incl. software
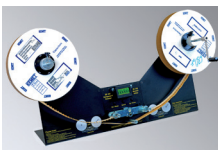
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ZE 300 Component Counter for radial, axial and SMD-bandoliered components, incl. NC-rechargeable battery and charger. Independent of mains supply, microprocessor controlled, preset number of pieces and separation mark, adjustable display. Tape width of SMT-components can be set from 8 mm to 60 mm; optional RS232-interface

MWS 3 measures temperature, relative humidity, barometric pressure, wind speed, gust speed and wind direction, voltsage supply 6–30 VDC, with RS232-data output (optional RS422, RS485, USB, TCP/IP, WLAN etc.), PC-software for display, control and evaluation, without power supply and cabling

Combi-Sensor DFT-RE 55Y measures temperature, humidity, barometric pressure and precipitation, 200 cm² collecting area, 5 free analog inputs, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

ZE300_UV Reel Winder incl. ZE 300, heavy metal construction for secure foothold, mechanical, counts components on reels and winds radial, axial and SMT-components on reels for insertion machines with a diameter of up to 680 mm and 90 mm tape width, manual

Combi-Sensor Wind WTF 55VY measures temperature, humidity, wind speed, gust speed and wind direction, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Wind Speed Sensor WGS 55Y measures wind speed, average wind and gust speed, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation, without power supply and cabling

MWS 10 Microprocessor Weather Station, measures temperature, windchill, humidity, dewpoint, air pressure, wind direction, wind speed, global radiation, precipitation; 5 free analog inputs, RS232-data output, switching output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Combi-Sensor Wind WDS 55VY measures temperature, wind speed, gust speed and wind direction, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Precipitation Sensor RMS 55Y measures precipitation with a self-emptying bucket, 200 cm² collecting area, 5 free analog inputs, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation, without power supply and cabling, heating optional
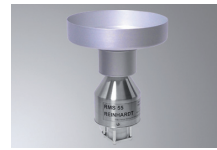
MWS 88-2Y Microprocessor Weather Station, measures temperature, humidity, barometric pressure, wind diection, wind speed, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Combi-Sensor Wind WGWR 55Y measures wind speed, gust speed and wind direction, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Global Radiation Sensor GSS 55Y measures solar energy (305 nm to 2800 nm) with a pyranometer, 0 to 1300 W/m², 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation, without power supply and cabling

MWS 55Y Weather Station measures temperature, humidity, barometric pressure, wind direction, wind speed, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Combi-Sensor DFT 55VY measures temperature, humidity and barometric pressure, 5 free analog inputs and 1 free TTL-input, RS232-data output (optional: RS422, USB, TCP/IP, PoE, WLAN etc.), 32 GB data logger, PC-software for display, control and evaluation

Mobility Package for REINHARDT-Weather Stations MWS 5, MWS 55, MWS 8, MWS 88 or sensors. Watertight plastics transport box, for holding the weather station or sensor incl. connection cable, outer dimensions: 660 mm wide, 490 mm deep, 230 mm high – comes empty, but weather station tripod is included.

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GSS Analog Global Radiation Sensor measures global radiation (305 to 2,800 nm) from 0 to 1500 W/m². 76 mm long with glass hemisphere and housing, 25 mm diameter; cable connection with 3 wires (ground, supply voltage from 5V or 8–20 VDC and output signal from 0–4 V).

Combi-Sensor DFT 485 measures temperature, relative humidity, dewpoint and barometric pressure, head diameter about 60 mm, 86 mm high, power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485) incl. software for display, control and evaluation; without power supply and cabling

Switching outputs for control tasks in sensors of the 55 series outputs can be configured dependent on the sensor/s (1x switching contact, 1 x 5 VDC) for control tasks. The measured values of up to three sensors of the 55 series can be linked logically.

WGS 485 Wind Speed Sensor measures wind speed 0–200 km/h, resolution 0,05 km/h, average wind, gust speed. 115 mm high, diameter anemometer 120 mm. Power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485), without software, power supply and cabling.

GSS 485 Global Radiation Sensor measures global radiation (305 to 2,800 nm) from 0 to 1,500 W/m². 73 mm high with glass hemisphere and housing, 25 mm diameter; power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485), without software, power supply and cabling

UWDS Digital Monitor Display Software for numerical display of the current weather data provided by MWS-weather stations and REINHARDT-climate and environmental sensors, parameters can be configured. For use in banks, lounges, reception areas etc. Without monitor and PC

Miniature Combi-Sensor WGWR 485 measures wind speed, gust speed and wind direction, power supply 6–30 VDC, with RS232-data output (optional USB, TCP/IP, WLAN, GSM) incl. software for display, control and evaluation; without power supply and cabling

HKS 485 Global Radiation Sensor measures light intensity from 0 to 220,000 Lux. 73 mm high with glass hemisphere and housing, 25 mm diameter; power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485), without software, power supply and cabling

DMMK Small Digital-Meteo Multi Display for MWS-weather stations, dimensions without foot about 30 x 20 x 2.8 cm, with up to 12 simultaneous digital LED-displays (red, 7 segment), 4 positions, height of characters 13.2 mm, RS232-interface, optional TCP/IP and WLAN, incl. AC-plug-in supply, for indoor use
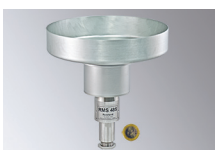
RDR 485 Precipitation Radar Sensor measures/records precipitation activity and intensity, 95 mm high. Power supply 8–30 VDC, with RS232-data output (optional RS422 or RS485); without software, power supply and cabling

UVIS 485 Ultraviolet Sensor for direct measurement of the UV-index from 0–12 (UV radiation intensity relevant to sunburn), erythemal action spectrum. 65 mm high, diameter 25 mm. Power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485), without software, power supply and cabling

DKA1 Digital Meteo Display for MWS-weather stations, dimensions 6 x 14.5 x 5.5 cm, with 9 alternating digital LED-displays (red, 7 segment). A blinking parameter is the measured value. 4 positions, character height 13.2 mm, without plug-in supply (can be supplied straight from the weather station), for indoor use

RMS 485 Precipitation Sensor measures precipitation with a self-emptying bucket and a collector vessel with 200 cm², 170 mm high; Power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485); without software, power supply and cabling

WKS 485 Sensor for Detection of Cloudiness ascertains independent. of sun or moon if there is a cloud layer. From the measured values the height of cloud base can be found. 63 mm high, diameter 25 mm. Power supply 6–30 VDC, with RS232-data output (optional RS422 or RS485), without software, power supply and cabling

Some units are shown with options that are not standard equipment and will be charged. You will find detailed information on our homepage under http://www.reinhardt-testsystem.de All prices are valid in Germany and the European Union and are without taxes, transport and packing.

IE & OE – Specifications subject to change without prior notice.

10/2023