



Vezeték-nélküli eszközök költséghatékony tesztelése

RTX A/S introduces the RTX2300 Smart ATE (automated test equipment); a highly optimized automated test solution for manufacturing of wireless devices.

THE RTX2300 SMART ATE IS:

a highly competitive and cost/time efficient test solution for functional test

reducing the complexity and size of the ATE system by the combination of embedded measurement capabilities and add-on instrumentation modules

flexible and enables a swift physical reconfiguration - in a matter of seconds, it can be reconfigured to accommodate different products and test types

The solution is versatile and significantly reduces costs in the production test environment compared to traditional “rack and stack” systems for wireless test implementations. This new compact platform is intended for wireless device calibration and functional test including technologies like WiFi, Bluetooth™, DECT, GSM, etc. The design of the Smart ATE is based on the extensive experience RTX has gained through the development and deployment of automated test equipment systems over the past 15 years

The Smart ATE can be used for printed circuit board (PCB) as well as final product testing. It features a customization

area that enables interconnection between internal and external measurement functionality and the device under test (DUT); reducing both space requirements and complexity for the total test system.

The flexibility of the Smart ATE simplifies the customization of the test platform, and enables economical replication. A production test system can be implemented by using an RTX Smart ATE in combination with an RF communication tester and a PC for executing the test application.



RTX2300 SMART ATE

THE SMART ATE reduces the complexity, size, and cost of an ATE system through the inclusion of embedded instrumentation in the test unit; a digital voltmeter, audio generator, GPIO and signal multiplexer.

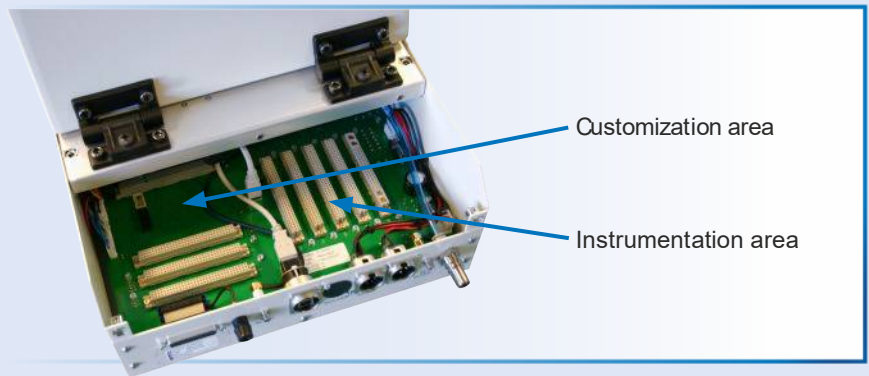
Optional add-on modules include a programmable power supply, frequency counter, which allows for the calibration and test of the baseband circuitry of the DUT, without the need for additional external equipment.

The RF-shielded compartment of the Smart ATE can be customized with a device-specific probe fixture, including a pneumatic capture unit to automatically hold the DUT in place during test.

THE SMART ATE can decrease overall product test time due to the support of multithreaded applications and design. This enables several units to be set up in parallel, enabling optimal use of RF, baseband, and acoustic test resource, and effectively reducing the handling time of the DUTs. In addition, the Smart ATE can streamline the manufacturing process, since, in a matter of seconds, it can be physically reconfigured to accommodate different products and test types.

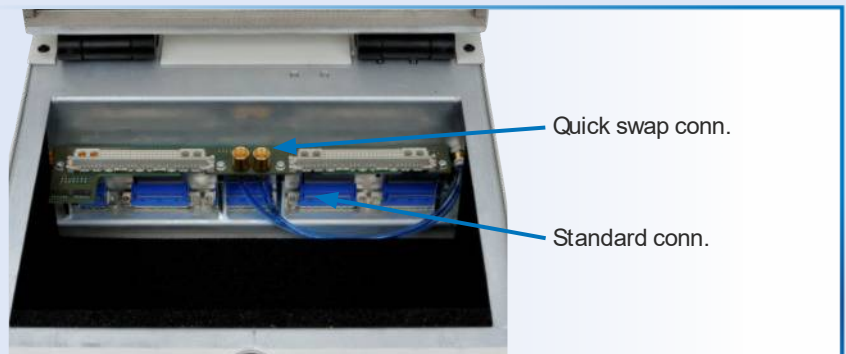
REAR PANEL AND CUSTOMIZATION AREA

The rear panel provides the connection to the external equipment, pneumatics and the Smart ATE power unit. The 25-pin Dsub provides the connection to additional external measurement equipment. Furthermore this is also the area for the add-on modules, e.g. frequency counter etc. RTX also offers to develop custom add-on modules within specific technologies e.g. Bluetooth tester etc.



FIXTURE BAY

The fixture bay is prepared with the interfaces to the Smart ATE functionalities and external RF equipment. The signal lines are filtered and can be accessed either at the standard connectors in the bottom part of the fixture bay or via the optional Quick Swap connectors.



SPECIFICATIONS

INSTRUMENTATION (BASIC UNIT)	
DVM	+/- 10V DC 16 bit resolution 8 channels +/- 5V AC p-p
Tone generator	50 Hz -14 KHz 1 output: 3,5V RMS 2 outputs: 1V RMS
Signal multiplexer	8 Channels
GPIO	16 GPO 8 GPI 2 DAC

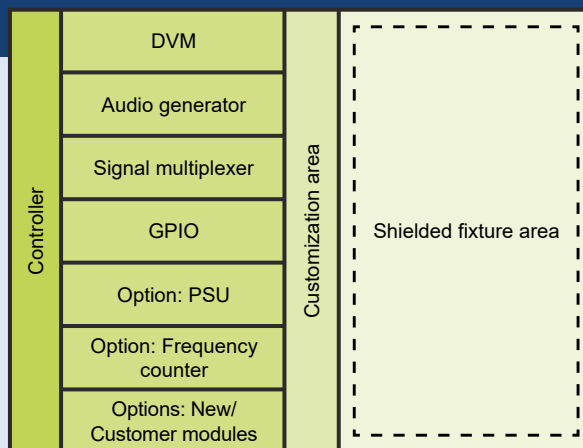
REAR-PANEL (BASIC UNIT)	
RTX2300 control interface	USB 2.0
Clock IN/OUT	10 MHz 50Ω Require Frequency counter module is installed
RF IN/OUT	50 Ω 10 MHz – 6.0 GHz
External equipment	25 pin D-sub
RTX2300 supply	+ 12 V
External DUT supply	2 source + 2 sense
Pneumatic	SMC KK4-series quick coupling

INSTRUMENTATION (OPTIONS)	
PSU w.sense	0-10V 2A / 10-15V 1A 10 mV step Current measurement 2A DC and peak Current limiter 0-2 A
Frequency counter	50 MHz 1ppm* *Internal reference. Imp. 50 Ohm / High
Frequency counter High stability	50 MHz 0,1ppm* *Internal reference. Imp. 50 Ohm / High

GENERAL DATA (BASIC UNIT)	
Isolation	60 dB (typically) < 6 GHz
Max DUT size	200*150 mm
Pneumatic	6 bar
Operating temperature range	+15°C to + 35°C
Storage temperature range	20°C to + 60°C
Operating humidity	Up to 95% relative humidity at 40°C (non-condensing)
Power supply	100 V to 250 V AC 50 Hz to 60 Hz
Power consumption	Typical: 5 – 10 W Maximum: 60 W
Dimensions (WxHxD)	300mm x 315mm x 516mm
Weight	8.0 kg (Basic unit)

RTX2300 – SMART ATE MAIN BLOCKS

THE RTX 2300 SMART ATE is a lot more than just a traditional shield box and does include a comprehensive package of highly-dedicated test and measurement equipment for efficient execution of test suites in the manufacturing environment.



ORDERING DETAILS

RTX NO. BASIC UNIT		DESCRIPTION	STD/OPT
95102300	RTX2300 basic unit	Basic RTX2300 unit with USB control interface, standard modules, fixture bay & shielded lid	Standard
RTX NO. FIXTURE KITS		DESCRIPTION	STD/OPT
95203202	Standard fixture kit w/ pneu. slide table 6 mm	Standard fixture kit with all base materials for making a test fixture incl. pneu. slide table with dia. 6 mm connection	Option
95203203	Standard fixture kit w/ pneu. slide table 8 mm	Standard fixture kit with all base materials for making a test fixture incl. pneu. slide table with dia. 8 mm connection	Option
95203204	Standard fixture kit w/ pneu. slide table 12mm	Standard fixture kit with all base materials for making a test fixture incl. pneu. slide table with dia. 12 mm connection	Option
95203205	Standard fixture kit w/o pneu. slide table	Standard fixture kit with all base materials for making a test fixture excl. pneu. slide table	Option
RTX NO. QUICK-SWAP KIT		DESCRIPTION	STD/OPT
95203206	Quick-swap kit (SC+CC) for test fixture	Quick-swap kit for "standard connector block" and "custom connector block" for test fixture	Option
95203201	Quick-swap kit (SC+CC) for test fixture bay	Quick-swap kit for "standard connector block" and "custom connector block" for test fixture bay	Option
60050856	RF cable	RF cable for QSK to fixture probing point	Option
RTX NO. ADD-ON MODULES		DESCRIPTION	STD/OPT
95203194	PSU module	Programmable PSU module with external sense for powering the DUT. Capable of supplying 0-10V 2A or 10-15V 1A	Option
95203193	Low-current PSU module	Low-current, programmable PSU module with external sense for powering the DUT. Capable of supplying 0-15V 1A	Option
95203195	Freq. counter module 50 MHz / 1 ppm	Frequency counter module for DUT freq. measurements. Capable of measuring freq. up to 50MHz. Incl. reference clock in/output	Option
95203196	High-stability freq. counter module 50 MHz / 0.1 ppm	High-stability frequency counter module for DUT freq. measurements. Capable of measuring frequency up to 50MHz. Includes reference clock in/output and high-stability reference oscillator.	Option
95203211	Bluetooth low energy RF tester module	Bluetooth low energy RF tester module for test of key parameters in Bluetooth low energy devices (4.0, 4.1, 4.2 & 5.0)	Option
95203198	RF Switch 4	RF switch with 4 channels	Option
95203199	RF Switch 8	RF switch with 8 channels	Option
RTX NO. DUT INTERFACE		DESCRIPTION	STD/OPT
95203207	SPI	SPI interface to DU	Option
95203208	I2C	I2C interface to DUT	Option
RTX NO. ACCESSORIES		DESCRIPTION	STD/OPT
95200848	RTX2300 Design lab tool	Design Lab Tool for establishing a swift ATE solution for R&D and ATE development	Option

RTX A/S

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