

KT-ReACT Real-Time Automated Case Test Module

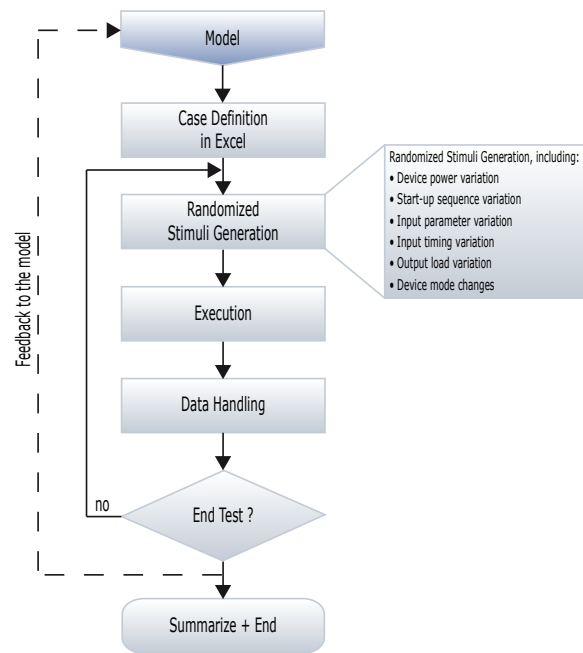


The KT Real-Time Automated Case Test Module is an application package, allowing use case test scenarios under realtime conditions.

It is supported on the KT-7500 FINN semiconductor tester family and all other KT test systems based on the modular instrumentation platform PXI/ABex.

Highlights:

- An application package for "Platform Specific Use Case Tests"
- Use cases defined in a model are the base data for the test plan generation
- Randomized parameter in a pre-defined range are the stimuli for the unit under test
- Similar to a HIL (Hardware-In-the-Loop) tester with the possibility to use randomized data for the stimuli instead of fixed data
- Configurable to the requirements of the unit/system under test



Details:

The KT-ReACT module allows use case tests for semiconductor manufacturers and end users for model based test applications. Test cases can be defined in spreadsheets and the system generates random stimuli signals, including variations of device power, start-up sequences, input parameters, input timing, output load and device modes.

The complete test execution, data handling, result management, report generation is organized in an automated test environment, based on NI TestStand. All time critical processes are executed under realtime conditions on dedicated FPGA hardware and/or on a realtime-controller, depending on application requirements.

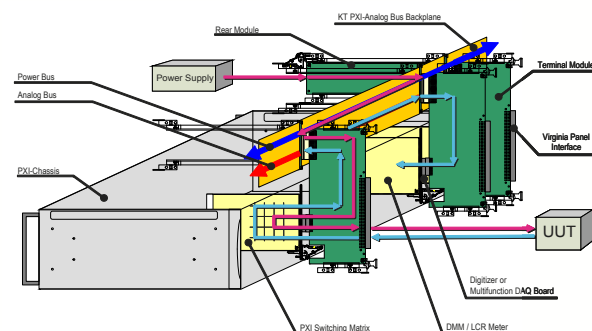
Test results can be used to perform automated parameter changes in the model and run the test again with modified models.

PXI System Extension ABex:

All major test system families of Konrad Technologies are based on the open system extension ABex. This system adds an additional backplane to standard PXI chassis with an analog bus (30 lines), a power bus (20 lines) and several other system control features.

The instruments are connected via terminal modules to the backplane and allow software controlled signal routing across the entire system and customized hardware extensions. Terminal modules are available for many PXI standard instruments from NI and other vendors.

The system offers a field-proven and reliable mass interconnect solution and industry standard DUT adaptation.

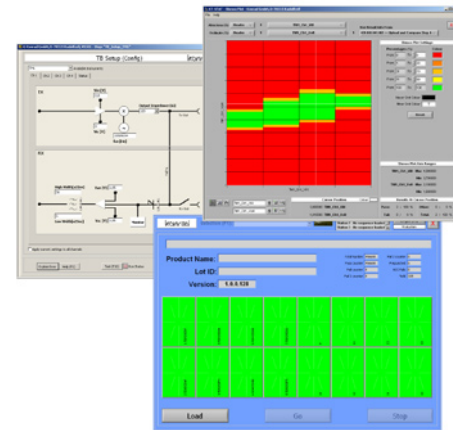


The KT7500 FINN is a flexible, configurable test platform and offers solutions for various test requirements. To meet the concerns of increasing shorter life spans of devices and to match the fast requirements changes, the KT-7500 is based on standard PXI technology with a wide range of standard- and application specific modules.

The KT-7500 has a very small footprint and can be completely integrated in a manipulator to dock directly on probes or device handlers. Even as table top system the required space is not much more than used for a signal analyzer.

The fully asynchronous tester can be used for testing medium pincount Digital Devices, Analog Devices, medium pincount Mixed Signal Devices as well as Smartcards, MEMS and other Sensors.

In a configuration with our dedicated RF Terminal Modules, the KT-7500 FINN is a high parallel protocol tester for RF-ID devices. These protocol tests can be executed within a few milliseconds for up to 64 devices in parallel without overhead.



FPGA Instruments

KT-TM-7830 I²C, SPI Module

The KT-TM-7830C module is a flexible module carrier for signal conditioning and custom circuits which is used in combination with the R-series FPGA boards from National Instruments.

It offers four slots for placing SmartModules with custom electronic circuits, including SPI, I²C and 1-Wire.

Each SmartModule offers 14 I/O channels, 2 analog in channels and 2 analog out channels which are connected 1:1 with the FPGA board behind. On the front connector 15 channels are connected via cut-off relays per SmartModule.

KT-TM-401 Dyn. Digital I/O Module

The KT-TM-401 is a versatile instrument for dynamic digital I/O applications. It offers galvanical isolation, 64 inputs and 64 outputs at programmable I/O levels between 0...28V in mV resolution steps.

The module operates in combination with the FlexRIO boards from NI. Realtime performance is ensured by custom firmware in the FPGA of the FlexRIO board.

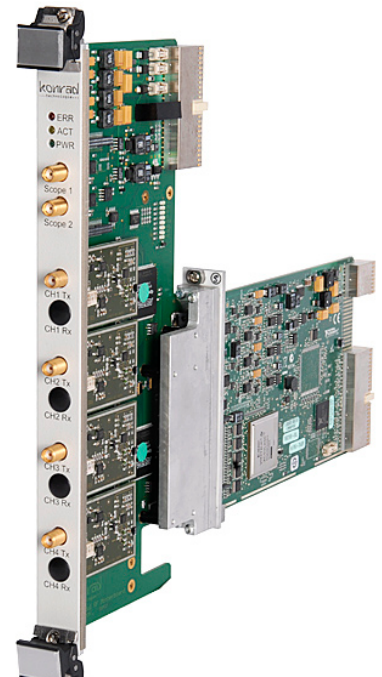
Applications include parallel test of DUTs, Pin electronic for Non-Return-to-Zero (NRZ) curves, serial and parallel communication, fast level I/O test applications with realtime responses and digital Hardware in the Loop (HIL).

KT-TM-411/412 LF/HF/UHF Modules

The instruments KT-TM-411/412 are LF/HF and UHF modules and operate in combination with PXI-FPGA boards.

Both instruments are used for protocol-aware test applications in DC...30MHz frequency range using the KT-7200 FINN system. The modules offer 4 independent transmit and receive channels per slot and can be used independently from each other.

Applications include test of RFID tags and readers, smartcards, e-passports, keyless entry, tire pressure sensors and many others. Using this modules, cost effective and scalable applications can be achieved, by adding as many modules as needed in the system.



Automotive +++ Avionics +++ Semiconductors +++ Telecommunication +++ Medical +++ Industrial