

EASY & COMPACT TESTING

MCD SmartModuleS is a compact test system for almost all occasions - universally applicable, space-saving and cost-effective. It can be used at any workstation, can be converted at any time and does not require complex test set-ups. A universal all-rounder that offers individual testing with maximum performance.

A key driver in the development of **MCD SmartModuleS** was the changing market requirements, particularly in industries such as electronics, automotive, aerospace and telecommunications. Customers are increasingly looking for smaller, individual yet standardized high-performance solutions.

The resulting **MCD SmartModuleS** is a flexible alternative to conventional test systems, which are often quite large in size. It is particularly suitable for small series tests, incoming inspections for the development of test stations and the validation/preliminary testing of the latest sample version in a production environment (Inline, EOL, FCT).



■ COMPACT & FLEXIBLE DESIGN

The basic configuration includes an industrial-grade mini PC with power supply and UPS. It also comes with GBIT LAN, WLAN (optional), Bluetooth (optional), USB 3.0 and DP interfaces.

Built into a robust and compact aluminum housing, it fits into any test or laboratory workstation. This gives it a "self-sufficient" test environment and complete test sequences can be developed directly on the device.

■ ENDURANCE APPLICATION

Thanks to the medical technology approval of the power supply units, the SmartModuleS can be used as a desktop test station or as a laboratory device for 24/7 applications.

■ INTELLIGENT PLUG-IN MODULES

Interchangeable and expandable plug-in modules, each designed for a specific test task, allow you to react flexibly to changing test requirements. Test tasks that meet the relevant requirements can be integrated in a matter of seconds.

The SmartModuleS automatically recognizes the module exchange and thus enables the test tasks to be changed without any configuration effort (complete self-configuration).

■ COST-EFFICIENT ALTERNATIVE

The SmartModuleS offers an inexpensive alternative to a complete test rack. In the basic configuration, the system contains a main unit with IPC and power supply to ensure the basic functions. This eliminates the need for extensive construction and wiring effort to connect the components in the rack.

EXPANDABLE AT ANY TIME APPLICATION MODULES FOR SPECIFIC TESTING TASKS

01

PICO SCOPE 2204A MODULE

7 HP / 3 U

2 CH + 1 AWG, 10 MHz bandwidth

03

MAIN MODULE

14 HP / 3 U

Windows® 11, UPS, display ports, Wi-Fi option



02

HAPTIC LINEAR MODULE

14 HP / 3 U

Linear/axial motors, force measurement

04

GENERAL

19" housing with 42 HP

24V power supply, front USB ports

INTELLIGENT DETECTION OF MODULES

As standard functions are rarely sufficient and the requirements of each company vary with each new testing task, MCD provides a large number of different plug-in modules. These can be exchanged and expanded at any time. The change of a module is automatically recognized, which enables a quick **changeover to the new testing task** in no time at all.

FLEXIBLE TEST CONFIGURATIONS DUE TO INDIVIDUAL PLUG-IN MODULES

The test station requirements vary greatly depending on the application. This gave rise to the idea of **interchangeable plug-in modules** in order to be able to react flexibly to changing test requirements. The device control and test sequence creation are implemented via the supplied test software thereby ensuring a **seamless transition from development to production**.

MODULES IN DETAIL

- **Haptics module:**
Measurement of the force curves of switches or buttons as well as monitoring of the insertion force in joining processes or the contact pressure in grinding processes
- **MechIO module:**
Control of mechanical or pneumatic adapters for testing PCBs or electronic assemblies
- **AudioAnalyzer module:**
Analog and digital testing as well as calibration of sound systems
- **PicoScope module:**
2 channel oscilloscope with up to 100 MHz
- **USB Hub module:**
6 monitored and controllable USB interfaces, each individually switchable
- **Measurement multiplexing module:**
4 x 9:1 measurement matrix with parallel measurement with up to 100 kSPS at 18-bit resolution



MCD SMARTMODULES BENEFITS FOR COMPANIES



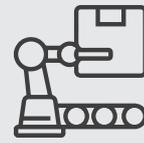
INCOMING GOODS INSPECTION

for the assessment of switches, assemblies or other components.



AUTOMATION

Industrial automation as an independent test station in rotary indexing tables or production lines.



ELECTRONIC PRODUCTION

MCD SmartModuleS serves as an independent test station in electronic production.



LABORATORY APPLICATION

Application in laboratories or in the field of environmental protection for recording and analyzing measured values.



MOBILE

Mobile application - quick change of workstation or even operation without mains connection with corresponding battery supply if required.



DEVELOPMENT VALIDATION

MCD SmartModuleS enables the realization of near-series tests of the latest DUTs with an almost identical test sequence as the later series parts.

MCD Elektronik GmbH is a leading global supplier of measurement and test systems that perform the most complex test sequences. MCD combines the areas of research and development, sales, production and service to create **customized test and measurement solutions**. These vary from FCT, BSCAN and EOLT systems to fully automated test lines for the production facilities of high-tech companies in various industries such as automotive, medical and aerospace.

MCD was founded in 1983 and supplies **complex test and automation technology** worldwide. The systems are used by well-known corporations as well as medium-sized companies for the **production and testing of electronic and mechatronic assemblies**.



Pictured: The headquarters of MCD Elektronik GmbH in Birkenfeld. This is the heart of the production of customized test systems - from conception to commissioning on site. Worldwide in over 60 countries.

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