

AUDIO ANALYSIS OF ANALOG & DIGITAL SIGNALS

Modern technology for professional audio measurements - and more! The **MCD AudioAnalyzer** is the ideal solution for the precise acquisition, analysis and evaluation of audio data in research, development and production. Thanks to its powerful analysis software, it offers comprehensive signal processing and high-precision measurement functions for digital and analog audio signals.

In addition to classic audio tests for loudspeakers, microphones and amplifiers, the **MCD AudioAnalyzer** can also be used for mechanical noise measurements, material analyses and acoustic tests in a wide range of industries. Whether audio quality control, acoustic research or noise testing, the **MCD AudioAnalyzer** delivers reliable, reproducible and certified measurement results. Benefit from over 40 years of experience in measurement technology and a solution that has been specially developed for demanding applications in industry, research and quality assurance. The **MCD AudioAnalyzer** grows with your requirements. Software updates and modular expansion options ensure that you are always up to date.



■ CONTROL AND CONFIGURATION

Easy, quick and flexible configuration via Remote Desktop, VNC and TeamViewer. Available as 19" rack or desktop version, as well as with integrated PC. Control and data transmission via USB 2.0 High Speed, galvanically isolated or Ethernet (depending on device variant).

■ FEATURES AND PROPERTIES

- Ethernet / Socket interface with API-DLL, SCPI commands, LabView VI, C# / .Net, Console / Telnet
- Installation in 1U housing e.g. as standalone hardware for all measurement tasks
- Supply via 100 - 240 V
- Input and output 2-channel analog balanced
- Input level up to 50 Vrms
- Output level up to 15 Vrms
- Input and output digital electrical and optical S/PDIF up to 192 kSps
- Input and output channels can be switched directly to the input and output channels of the MCD Audio Switches (with accessories)
- 2 XLR sockets and plugs each
- Sample rates 44.1 kHz / 48 kHz / 96 kHz / 192 kHz

■ CERTIFICATION

DAkkS certification for the highest possible measurement quality and accuracy.

■ CONNECTIONS

- 2x TOSLINK® compatible connection
- Analog in-/output
- 2x BNC socket
- AC socket C14
- External power supply 230V

■ HOUSING AND WEIGHT

- Dimensions (L x W x H): 350 mm x 205 mm x 46 mm
- Weight without accessories: 1 kg

■ ACCESSORIES

- MCD Input/Output Audio Switch for multiplexing and expanding analog input/output signals
- LED status display of active connections, connection of up to 16 devices
- Digital monitoring and control of all hardware components via associated toolmonitor

PRECISE ANALYSIS OF AUDIO SIGNALS IS ESSENTIAL FOR OPTIMIZATION OF SOUND QUALITY AND SIGNAL PROCESSING.

The MCD AudioAnalyzer enables:

- Precise frequency and phase response analysis for loudspeakers, microphones, amplifiers and sound systems
- Measurement of harmonic distortion (THD, SINAD, distortion factor) to evaluate audio quality
- Spectral analysis and signal modulation for demanding audio tests in development
- Signal analysis in time and frequency domain
- Powerful filters for special measurement methods

QUALITY ASSURANCE & PRODUCTION MONITORING

- Fast and automated in-line or end-of-line tests to detect deviations
- Comparative measurements with reference values for reproducible test results
- Analysis and control of measurement curves via window functions, envelope curves, etc.
- Direct integration into existing test benches and test systems

AudioAnalyzer (analog + digital),
standalone with integrated PC



AudioAnalyzer (analog + digital),
for test system integration



AudioAnalyzer (analog + digital),
Rack Version



SOPHISTICATED ANALYSIS SOFTWARE - PRECISE, FLEXIBLE, INTUITIVE

- Oscilloscope and FFT spectrum analysis for detailed signal analysis
- Real-time signal processing for high-precision test results
- Live visualization of signals and measured values for direct feedback
- Signal generation via powerful generators with variable signal shapes

AUTOMATION & INDIVIDUALIZATION

- Programmable script editor (C#) for the automation of measurements
- Integration into existing test systems via .Net SDK, WebAPI or Telnet
- Data import & export for documentation and further processing
- Remote control & remote access via USB, Ethernet, VNC, TeamViewer

ACOUSTIC TESTS & MECHANICAL NOISE ANALYSIS

- Measurement of switching, friction or transmission noises for quality control and maintenance
- Analysis of vibrations and material properties to identify wear or structural faults
- Resonance frequency tests to optimize acoustic damping properties

SERVICE, MAINTENANCE & FAULT ANALYSIS

- Live visualization and acoustic fault analysis for quick diagnosis
- Remote maintenance and remote access for checking systems from a distance
- Mobile application options for on-site inspections
- Preventive maintenance to minimize downtime and costs



MCD AUDIOANALYZER BENEFITS FOR COMPANIES



ACCURACY

The MCD AudioAnalyzer delivers high-precision measurements and covers a broad frequency spectrum to reliably support a wide range of applications.



EFFICIENCY

The MCD AudioAnalyzer ensures optimum performance in series production with fast test cycles and automated processes.



SIMPLICITY

With intuitive software and clear reports, the MCD AudioAnalyzer is easy to use and provides significant results.



FLEXIBILITY

The ability to adapt the software and hardware to specific requirements makes MCD's AudioAnalyzer an extremely versatile solution that can be used in a wide range of industries.



INTEGRATION

MCD's AudioAnalyzer can be effortlessly integrated into existing systems, minimizing investment in new hardware and software.



FUTURE-PROOF

The continuous development of the software ensures that MCD's AudioAnalyzer always remains at the cutting edge of technology and meets future requirements.

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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