NetdB™ Pro Series

Product Data

PRO-371: Modal Analysis Starter kit

Expandable Professional package

NetdB PRO-371 meets your requirements for modal analysis tests in a wide range of situations, featuring the exact set of relevant functions for an operational system:

- Fully functional dBFA Suite with Impact Testing and 3D coordinates driving menu
- Accept/Reject features for pre-checking on acquired data
- Force/Exponential window settings with graphical vision for easy adjustment by the user
- Extraction of Natural Frequencies (values), Damping, Residues, Mass, Stiffness, Mode shapes (vector) as SDOF, MSDOF & MDOF using Poly-reference algorithm
- Animation of mode shape and FRF Synthesis

PRO-371
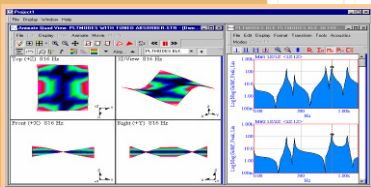## *Key Features...*

Data Acquisition and FRF calculation

- NetdB-DAQ12-4ch expandable to 6, 8, 12, up to 512 for Sound & Vibration, Tachometers, other signals (see separate NetdB-DAQ12 system data sheet)
- 51kHz sampling frequency, 24 bits, IEPE inputs, SPDIF & Headphones out
- Operated from internal Batteries or car 12VDC
- Transducers data base, Measurement set-up, Autorange, Trigger settings
- Excitation modes as:
  Impact or Deterministic, Burst, Random, Shaker excitation, MiMo
- Modal Analysis measurements as:
  FRF with estimators H1, H2, 1/H1, 1/H2, auto and cross-spectra Gxx, Gxy, Coherence, Time Recording
- Direct export of acquired Gxx, FRF, coherence, Time histories, etc.

Modal Analysis and Signal Processing

- Mode shapes, ODS, Transient Analysis, Time domain response for Non-Linear and Non-stationary time varying behavior
- HP, LP, Notch Filtering, Re-sampling, Spectra operation
- Single and Double derivatives and Integration (Displacement, Velocity, Acceleration)
- Complete set of function as Signal Editors, Analyzer, Filtering, and Playback, FFT Analysis, 1/n analysis with Digital Filters, Waterfall and sonogram

Software Options

- RPM recording and Order analysis
- Sound Imaging and Mapping
- Sound Quality and Sound Perception

AREVA

PRO-371 Technical Specifications

Features	PRO-371	Features	PRO-371
Signal input Input impedance: Input connection: Signal conditioning: Max voltage input: Channels Phase:	▸ 1 MOhms ▸ DC or AC (0,3 or 20 Hz); BNC connector ▸ IEPE (4.3 mA), Direct Input for voltage signals ▸ 10V RMS (15 V p-p), Overload protection ▸ < 0.5°	**Vibration Transducer - Accelerometer** Type: Frequency Response: Sensitivity: Measurement range: Weight:	▸ IEPE* ▸ 0.5Hz-15kHz ▸ 7 mV/g ▸ +/- 500g ▸ 6 gm
A/D Converter Resolution: Sampling: Anti-aliasing: Offset: Signal/Noise ratio: Amplifiers: **Dimensions** Dimensions: Weight:	▸ 24 bits sigma/delta ▸ 51.2 kHz max ▸ 140dB/octave ▸ Automatic ▸ > 105 dB ▸ -20 / 0 / +20dB ▸ 250 x 85 x 63 mm ▸ 4.5 kg	**Impact Hammer** Type: Sensitivity: Measurement range: Weight:	▸ IEPE* ▸ 11 mV/N ▸ +/- 440 N ▸ 160 gm
Power supply Connector: Voltage/current: Main adaptor: Power consumption: AC adaptor supplied: Car adaptor supplied: Battery: Battery life:	▸ Neutrik XLR ▸ 12V-14V max 5A ▸ External Main Adaptor 100/240VAC - 50-60 Hz ▸ 20W ▸ AC (90-250V, 50 or 60 Hz) ▸ DC 9-18V with jack ▸ Internal NiMH 4000mAH ▸ 1h45 full speed running 12 channels	* IEPE: Integrated PiezoElectric Electronic	

Features	Software dBFA Suite
dBFA: **Me'Scope:**	▸ Software including Recorder - Real Time Analyzer - Post-Processing modes: simultaneous signal recording and real-time multiprocessing and monitoring, post processing analysis (Average 1/n octave, 1/n octave vs. time, Average FFT, FFT vs. Time, FRF...), calculation on spectra and signals, white/pink/sine/sweep sine generator (if available on hardware), color spectrogram and waterfall, signal edition. Software option (included) for Impact measurements mode: Coordinates management, user defined windowing, Me'scope format export. Printed results and export of diagrams and numerical values in most common Windows forms. Customizable Report. ▸ Interactive animated display of Operating Deflection Shapes and Mode Shapes from time or frequency domain data. Single reference SDOF & MDOF modal parameter estimation, FRF synthesis, and more.
PC and operating system OS: PC Processor: RAM: Ports:	▸ MS Windows XP PRO™ ▸ PIII or more, 600 MHz or more ▸ 512 Mb or more ▸ Ethernet 100Mbits/s

Ordering Information:
NDB1002000-4: NetdB-DAQ12, restricted to 4 channels, AC/DC/IEPE inputs, headphones and SPDIF outputs, 100GB hard disk
SFA4050000: dBFA Software Suite: Recorder - Analyzer - Post-Processing
SFA4061000: dBFA Transient / Impact mode
COC2010000: ME'Scope VT-570 Visual Modal™
CAC3003000: PCB 086C02 (IEPE type) Modally Tuned® Impulse Hammer w/force sensor and tips, 0 to 440N, 11.2 mV/N
CPC3014000: 10m BNC-BNC cable (x3)
CAC3006000: IEPE accelerometer (A123TE, 7mV/g, 6grs, top connector) (x3)
CPC3009000: Cable (MP/BC/T18/50) 5m for accelerometer (Microdot-BNC) (x3)

NetdB™