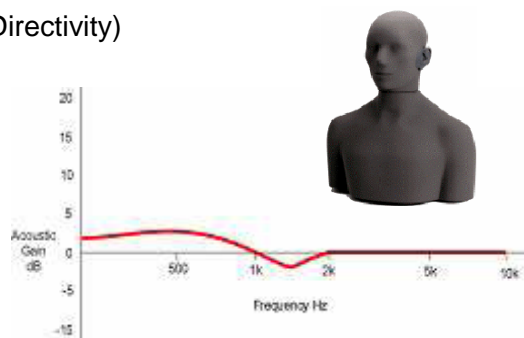


Cortex Manikin:

the perfect binaural recording

KEY BENEFITS

Fully compliant with the IEC959 (Torso, Head, Ears shapes, Microphones position, Directivity)
Precise and reproducible results,
Easy calibration of the microphones,
Two stand solutions: seat stand with rotating mechanism and floor stand,
Possibility to perform the acquisition with a PDA remote control



KEY FEATURES

Perfect, true directivity sound reproduction

By replicating human head and ears, the artificial head reproduces a spatial sound field with incredible fidelity. Thus differentiating between single sound sources and their localization is increasingly accurate.

Head and Torso Construction

"Plug in" ears are made of tear resistant silicone rubber; together with head and torso, moulded to anatomically precise contours, they yield a faithful acoustic directivity pattern.

Microphones accessible for replacement by means of rear panel removable with a single thumb

Acquisition Front-end

The output of the manikin can be connected to any acquisition front-end, but preferably to the **NetdB12** which is sound quality oriented: 12 channels, real-time equalization, audio digital outputs, 2 analog outputs, data storage on the disk, up to 4 synchronized manikins + RPMs.



“whistle,
rattle,
squeak,
rumble,
creak,
hammer, ...”



dB Sonic: Psychoacoustic software

Accurate and standardized psychoacoustics measurements (IEC, DIN EN, ANSI, ...),
Sound filtering and sound design capabilities,
Optimized playback from Cortex manikin measurements,
Correlation with Jury Tests.

TECHNICAL SPECIFICATIONS

Mechanical Specifications

Colour: Gray
Dimensions: 520 x 430 x 240 mm (W x H x D)
Weight: 14 lbs (7 kg)
Material: Polyurethane with Nextel coating
Ears: soft silicone
Directivity: In acc. with IEC 959 & DIN V 45608
Output: 2 analog outputs (Left & right ears)

Microphones specifications

Type: 1/2 " condenser
Polarisation voltage: 0 or +200 VDC
Heating voltage: +12 VDC
Freq. range free-field: 3,5 Hz to 16 kHz (± 3 dB)
Sensitivity: 50 mV/Pa
Max. SPL for THD < 3 % at 1 kHz: 146 dB
Inherent noise: 15 dBA

Fit to Standard

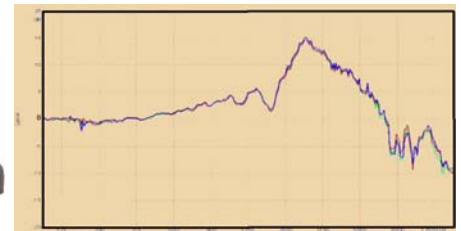
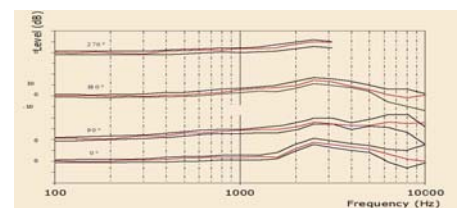
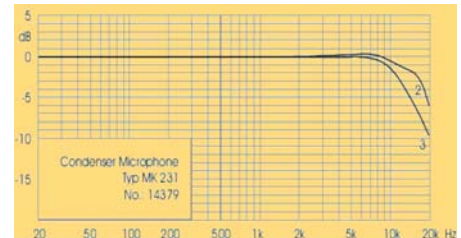
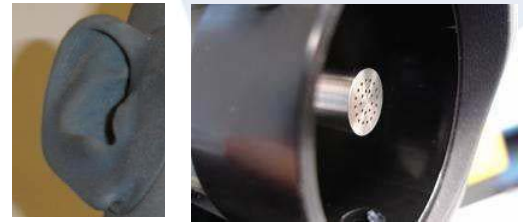
The directivity of the Cortex (red curves) fits to the IEC959 standard (black curves are min. and max level to be satisfied all along the frequency range).

Repetability

Production process fully controlled.
Cortex manikin is a completely repeatable metrological system as illustrated on figure at side showing 3 manikin responses for a front view incidence of the sound field.

Sound Quality software

dBSONIC BA: Basic Module & Frequency Analysis - Sound signal playback, SPL, Third-octave and FFT analysis - Tonalness (Prominence ratio and Tone-to Noise), Basic editing and filtering functions –
Project Management, import function for 01dB-METRAVIB, Head Acoustics and OROS sound files
dBSONIC PSY: Psychoacoustic Analysis - Calculation of Loudness, Sharpness, Roughness and Fluctuation Strength, Articulation Index, Speech Intelligibility Index
dBSONIC RPM: RPM analysis, Order analysis
dBSONIC DIF: Spectrogram difference
dBSONIC DOC: Documentation Module - The tool for comparing time histories and spectra - Multi scalar display and Multi spectra display - Report Wizard, Percentile calculation
dBSONIC ED: Signal edition, online and offline filtering capabilities, built up of equalization curves
dBSONIC FX: Advanced frequency analysis – Modulation analysis, wavelet analysis
dBSONIC PX (OPTION): Auditory spectrogram, contours (gestalt interpretation), sound re-synthesis
dBSONIC MAT: MATLABM tool for data edition



Ordering Information:

NDB1002000-4: NetdB 4 channels Recorder, AC/DC/IEPE inputs, headphones & SPDIF outputs, 100GB hard disk
SFA4074000: Wifi Remote control software for PDA: settings, calibration, start/stop, playback, equalization settings.
SOL3003000: PDA delivered with TFT VGA screen and Windows Mobile 2005.
NDB3301000: USB II – WiFi control key
COC3045000: Cortex MK2-B SST: Binaural artificial head with Torso/shoulder unit, with silicon "soft ears", directional pattern and dimensions in acc. with IEC 959 and DIN V 45608. Built in class1 condenser microphones MTG
CAL3009000: Calibrator CAL21, type 1, 94dB, 1000 Hz, PTB approved
COC3046000: Dynamic Headphones Sennheiser HD 580
COC3048000: FCA - Flight Case For Acoustic Head and Accessories
COC3050000: SST - Seat Stand for CORTEX MK2-B
Software package: dBSONIC BA, PSY, ED, DOC, FX, RPM, DIF, MAT.

01dB

01dB-Metравib

200, Chemin des Ormeaux
F-69578 Limonest Cedex
Tel. +33 (0)4 7252 4800
Fax +33 (0)4 7252 4747

environment@01db-metравib.com
www.01db.com

AREVA