



New 2004 Audio Toolbox “Trinity” Hardware Features Summary

Features are shown by model. ATB-3 is the monochrome display model, ATB-3C is the color model.

Feature	ATB ³	ATB ³ C
Improved Analog Specifications. Now flat +/- .02 dB 22Hz-22 kHz. THD < .005. Measure analog levels from -120dBu to +50dBu. Generate low-distortion test signals to +17dBu.	•	•
Dual Phantom-powered Microphone Inputs. True 48v phantom power available on both inputs for powering any standard XLR microphone. Designed by Grace Design exclusively for TerraSonde.	•	•
High-gain, Low Distortion Microphone Inputs. 53dB of gain available for microphone inputs. Low-distortion Grace Design preamplifier stages for critical measurements and audiophile-quality stereo recording. 32 dB pads available for handling high signal levels. Gain adjustable in 10dB increments. May also be used for precision balanced analog audio measurements via Neutrik combo connectors.	•	•
Integrated USB Audio Interface. Use the Toolbox as a USB microphone preamp while simultaneously running other Toolbox functions. Will drive most PC-based and Mac-based software applications. All data transfer is isochronous and sample-locked for accuracy. USB communication is fully bi-directional - test signals can be generated on computer and output to the high-fidelity balanced main analog outputs.	•	•
Independent Analog Monitor. Monitor the inputs through the high-quality headphone amplifier while simultaneously generating a test signal and sending it to the main outputs. Drives headphones to 32ohms. Monitor the input or output, in L mono, R mono, stereo or summed mono mode.	•	•
Powerful DSP. 2.5x faster Analog Devices DSP chip enables more computation-intensive analysis functions.	•	•
Flash Memory. More flash has been added to store more functions and save more memories, and RAM has been added to allow more advanced measurements. Storage increased to 120 onboard memories.	•	•
RAM memory. Ram has been added to allow advanced measurement functions such as the TerraTransfer source-independent dual FFT analyzer firmware.	•	•
RS232 Port. DB-9 serial port included to enable better PC communications.	•	•
New Metal Chassis. The ATB-3 is housed in a rugged, durable metal chassis with built-in standard 1/4-20 tripod mount and kickstand.	•	
New Larger LCD display. The ATB-3 monochrome has larger, bright blue backlit display with adjustable contrast.	•	
New lithium-ion Battery System. Small, light battery runs the Toolbox for up to 5 hours per battery. Uses standard camcorder battery and charger.	•	
SD Memory Card Slot. A Secure Digital memory card socket allows recording digital audio in real time, logging test data results and playback of digital audio waveforms including digital 5.1 test signals. Supports all standard SD cards, from 32mb to 512mb.		•
Color LCD Screen. PDA-style backlit transfective 320 x 240 LCD screen. High-resolution display viewable in all conditions from darkness to full daylight.		•
Integrated Real-time Clock. Real-time clocks keeps track of date and time even when power is off. Data results can be time/date stamped.		•
Digital Audio Output. S/PDIF and optical TOSLINK outputs for interfacing the Toolbox to digital audio equipment. TOSLINK output can be used with AC-3 receivers with optional Dolby Digital test signal SD card.		•
Faster audio codec. Fast audio codec allows recording at 96kHz, and running some audio tests up to 32kHz.		•
High-gain Audio Output. Generate output test signals to +26dBu.		•

Firmware and Software Packages

These programs can be unlocked at any time on the Toolbox.

Firmware Package	Components	Cost
SoundCore	FFT Analyzer (1/1, 1/3, 1/6, 1/12), Real Time Analyzer (1/1, 1/3), Sound Level Meter, LEQ, Sound Study Graph, Energy-Time Graph, Impedance Meter, Frequency Counter, Polarity Tester, RT60 Calculator, Level Meter, Signal Generator, Cable Tester	Included
TechBench	Amplitude Sweep, Impedance Sweep, Distortion Meter, Intermodulation Distortion Meter, Phase Meter, Crosstalk Measurement, Audio Oscilloscope	\$295
NoiseCurves	Noise Criterion (NC), Room Criterion (RC) , Preferred Noise Criterion (PNC), (f)STC/NIC measurements	\$95
Speech Intelligibility	%ALCONS, RASTI, STI-PA (includes test waveforms)	\$395
Time Delay Analysis	Time Delay Spectrometry Analysis (TDA), TDA Phase*, TDA Distortion*	\$795
TerraTransfer Function*	Transfer function shows system response using any test excitation signal, up to 250' away. Dual FFT display on ATB3c	\$295
Multi-Band RT60	Computes 7 octave band filtered RT60 measurements simultaneously	\$95
Time Code Tools*	Dual Reader, Generator, Jam Sync, Fault Detector, Frame Rate Display, Time Code Calculator	\$95
MIDI Tests*	MIDI Generator, MIDI Hex Display, MIDI Analyzer, MIDI Delay Analyzer	\$95
Studio Tools*	MasterCurve, ePitchPipe, KlikTrak, Tempo Meter	\$95
Audio Stethoscope	Filters incoming audio through weighting curves , octave or third octave filters	\$95

These programs run on a host PC and interface to the Toolbox.

Software Package	Features	Cost
ATB Interface	Extract memories from Toolbox for import into Excel.	Included
ATB Upgrader	Upgrades the firmware in a Toolbox.	Included
TerraLink	Real-time interface shows FFT, RTA, ETG, SPL on PC screen as function is running. memory management uses PC hard drive to extend Toolbox memory, print function. Mac version available.	\$295
TerraControl*	Control the ATB3 or ATB-3C from a PC to automate production testing. Create scripts to repeat groups of tests and to record results.	\$395

* Available Fall 2004