



Mutine

CEC DA53

digital / analog converter



INTRODUCTION

The CEC DA53 is a state-of-the art upsampling D/A converter, including a USB 1.1 input for computers, portable devices and sound card. This allows musicians, field sound engineers and small production studios to monitor their digitaly produced soundtracks with the highest quality of reproduction at an affordable price. A high quality microphone preamplifier and a headphone amplifier are included, further extending the potential use of this DAC for internal telephony.

USB INPUT

The DA53 is an excellent choice for computers because additional soundcard and driver installation are not required. You can connect the DA53's analog outputs, which are converted from the digital signal fed from the computer through the USB input, to your audio system. The microphone and headphone sections are supported in the USB mode only. The quality of the microphone input sent to computer via USB allows the implementaion of direct-to-disc voice over or dual microphone instrumental recording sessions. Monitoring can be achieved on the headphone output fed by the computer through the USB input.

LEF (Load Effect Free) CIRCUIT

The DA53 features CEC's unique Load Effect Free (LEF) circuit to completely avoid all factors that result in deterioration of sound quality. Every amplifier should be a perfect voltage source in theory, while the current into the speaker is likely out of phase in relation to the voltage. The phase relation varies with the frequency. NFB amplifiers are sensitive to this matter, specifically to the dynamic changes. The LEF's current control stage is not linked to the signal voltage, and just checks the current requirement that depends on the speaker load without "knowing" about the phase relation to the voltage. This "phase independent operation" is an important reason for the obvious drive ability as well as sound quality. The DA53 also has an automatic bias adjust function for stable signal processing.

DIGITAL SECTION

The DA53 uses the latest Burr-Brown PCM1796 in dual-mono. The push-and-rotate knob on the front panel allows the selection of different settings. By pushing and rotating the rotary encoder switch at the right side of the front panel, you can select different settings for the digital filter: inputs, oversampling frequencies, frequency response and dithering.

DA53 supports up to 48kHz input sampling frequency via USB, up to 24bit/96kHz via TOS LINK and up to 24bit/192kHz via SP/DIF COAX and AES/EBU inputs. All the input signals are upsampled and converted in 24bit/195kHz. Upsampling to 195kHz instead of 192kHz, lowers the level of intermodulation.



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SPECIFICATIONS

DAC	Burr-Brown PCM1796 x 2 (for RCA and XLR outputs)
	Burr-Brown PCM2906 (headphone output)
ADC	Burr-Brown PCM2906 (Microphone input)
Frequency response	10Hz - 20kHz / ± 0.2 dB
S/N ratio	115 db
Power supply	AC 100-240 V / 50-60 Hz
Digital inputs	USB, optical, coaxial, AES/EBU (XLR)
Analog output (RCA)	1 unbalanced
Annalog output (XLR)	1 balanced
Available finish	Brushed aluminium
Accessories	AC power cord Owner's manual
Warranty (North America)	1 year
Weight	1.8 kg - 4 lbs.
Dimensions (w x h x d)	21.7 x 5.7 x 25.7 cm. 8.5 x 2.2 x 10.5 in

