

TC-7520 Instruction Manual

2 Channel 24Bit/96kHz Audio Digital-to-Analogue Converter

Overview

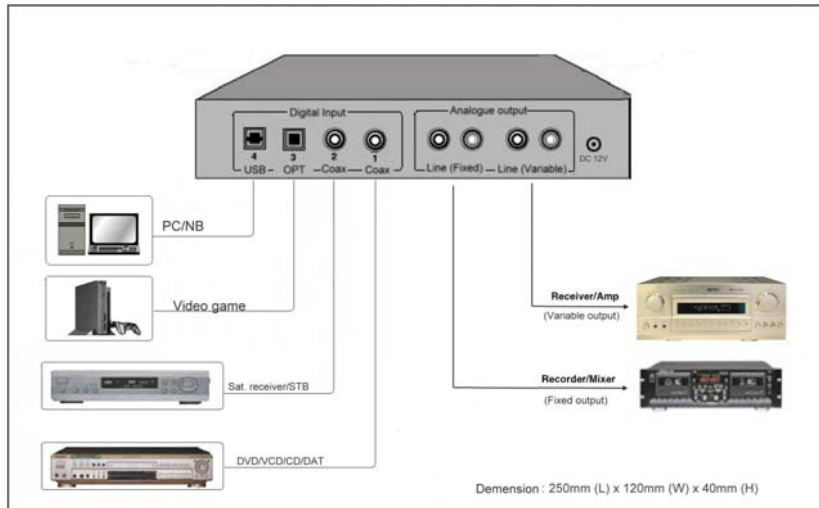
The TC-7520 is a reference-quality, 2-Channel 24-Bit/96-kHz digital-to-analogue audio converter featuring Advanced USB Audio technology, Two PLL clock systems, a Class-A LINE output stage, and a High-End headphone amplifier. The TC-7520 is designed for maximum transparency and critical playback in any audiophile applications.

Direct connection to Integrated Amplifiers

The TC-7520 Fixed Output is designed to connect to the CD input of an integrated or pre-amplifier, which is the most common method of connection.

Burn in

Many users report that the sound output develops in quality after a few tens of hours of use. The TC-7520 may be left powered on and playing a music stream with the volume turned down for a few days to form your own view.



Direct connection to Power Amplifiers

The TC-7520 Variable Output is designed to connect directly to a power amplifier or active speakers, which frequently results in a sizeable sound quality improvement.

A mute circuit eliminates pops when a digital signal is removed. Muting is also enabled upon loss of power, or when digital transmission errors occur.

Front Panel



Digital Inputs

There are four digital input connectors (2 x coaxial, 1 x optical and 1 x USB).

Input Status Display

The TC-7520 has 4 LED's on the front panel that indicate which digital input is selected.

Input Selector Switch

The input selector switches are located directly beneath the Input Status LEDs.

Stereo Headphone Socket

There is a stereo headphone socket that mutes the Variable RCA/PHONO output when a headphone plug is inserted

Headphone Amplifier

The TC-7520 headphone output is driven by a high-end headphone amplifier. It is designed to drive loads between 24 to 600 Ohms. The headphone amplifier includes a current limiting circuit that fully protects against damage from short circuit conditions.

Headphone Gain Range

Because of the variations in headphone sensitivity, the TC-7520 features a variable gain range for the headphone outputs. In order to avoid internal jumpers to reduce the gain, the Volume Control 0dB level has been calibrated as follows:

Headphone Impedance	Volume Control 0dB level
32 Ohms	12 o' clock
64 Ohms	2 o' clock
300 Ohms	4 o' clock
600 Ohms	5 o' clock

Volume Control

The front-panel Volume Control sets the output level of the headphone. It also controls the output level of the Variable RCA analogue output. The headphone socket mutes the Variable RCA analogue output when a headphone is inserted.

Rear Panel



Digital Inputs

Four digital inputs, selected from the front-panel toggle switch.

The TC-7520 will not decode AC3 or ADAT signals.

Input 1 - SPDIF

The coaxial input uses a RCA connector. The input impedance is 75 Ohms. Maximum word length is 24-bits. All sample rates between 28 and 96 KHz are

supported.

Input 2 – SPDIF

The coaxial input uses a RCA connector. The input impedance is 75 Ohms. Maximum word length is 24-bits. All sample rates between 28 and 96 KHz are supported.

Input 3 – Optical

The optical input is a TOSLINK connector. Maximum word length is 24-bits. All sample rates between 28 and 96 KHz are supported.

Input 4 – USB

The USB input accepts a 'B-type' male USB 1.1 or USB 2.0 connector. **Use a USB B-to-A cable to connect the TC-7520 directly to a computer's USB output.** The USB interface is compatible with both USB 1.1 and USB 2.0 ports.

The USB input supports 32, 44.1, and 48 kHz sample rates. Maximum word length is 16-bits. The USB interface does not require the installation of any custom drivers or changes to system settings for high quality audio playback.

The TC-7520 is designed to be compatible with the following operating systems:

Windows Vista

Windows XP

Windows 2000

MAC OS X

LINUX

When connecting to a USB port on a computer running the above operating systems, the computer will automatically recognize the presence of the TC-7520 USB device. Any audio played from the computer will then be routed to the TC-7520 USB output.

Analogue Outputs

The TC-7520 has two variable RCA outputs and two Fixed RCA outputs.

Variable Analogue Outputs

The Left and Right outputs are standard RCA/PHONO sockets. The Left and Right Variable outputs are controlled by the Volume Control on the front panel. In this condition the TC-7520 can be used as a preamp.

The output is muted when a headphone is plugged into the headphone socket. In this condition the TC-7520 can be used as a headphone amplifier.

Fixed Analogue Outputs

The Left and Right outputs use standard RCA/PHONO sockets. The RCA output level is fixed. In this condition the TC-7520 can be used as a standalone DAC.

Dual regulated external and internal power supply

The external power supply supports all international voltages and has generous margins for over and under voltage conditions.

AC-DC Power Supply

A country specific AC-DC power adapter is included with each TC-7520 converter shipped to most countries. Plug adapters for less well known configurations are otherwise available locally.

Virtual-DC Power Supply

The TC-7520 Virtual-DC input has a 12 to 15 Volts input voltage range, can operate from as little as 100mA, and withstand external DC power drop out conditions of up to 4 seconds..

The centre pin is the Positive power supply terminal.

Fuse Holder

The fuse holder is inside the case close to the DC power connector socket. The fuse rating is 2 Amps.

Safety Information

The factory supplied AC/DC adapter is suitable for 110 to 240 Volts operation.

Repairs

Do not service or repair this product unless properly qualified.

Fuses

For continued fire hazard protection always replace the internal fuse with the correct size and type.

Modifications

Do not substitute parts or make any modifications that may create safety hazards and void the warranty.

Notes on Warranty Repairs

An RN (Returns Number) is required when sending products back. Goods for repair must be shipped to Beresford ME prepaid and preferably in their original shipping carton with the RN clearly visible on the exterior of the packaging. A note should be included giving detailed reasons for the return.