DP564
Multichannel Audio Decoder

The Dolby DP564 is the multichannel audio reference decoder for DTV broadcast, postproduction, and DVD-authoring applications.

Critical monitoring of your signal is essential to ensure that the highest quality audio reaches your listeners at home. As our reference decoder, the Dolby® DP564 is the ideal monitoring tool for all quality-control applications. Using the DP564, you can decode and monitor programs with Dolby Digital, Dolby Digital Surround EX™, Dolby Pro Logic®, and Pro Logic II, as well as regular two-channel PCM soundtracks.

Control Flexibility

The DP564 provides easy selection and monitoring of Dolby Digital's unique downmixing capabilities, listening modes, and compression modes. This gives content producers and providers an accurate way to verify how material originally produced and transmitted in 5.1 will sound when played back through Dolby Pro Logic or Pro Logic II, two-channel stereo, or mono home systems. Built-in Dolby Headphone processing, with a dedicated volume control, allows monitoring surround sound over standard headphones. The DP564 provides a comprehensive set of functions such as test noise, speaker trims and delays, bass redirection, mutes, and solos for the configuration and control of multichannel monitoring environments.

Inputs and Outputs

There are three digital inputs (one a Toslink™ optical) and an Ethernet port for RTP streaming Dolby Digital audio. A linear timecode (LTC) output allows DVD facilities to check A/V sync between audio encoded in Dolby Digital and uncompressed video. Front- and rear-panel serial interfaces, along with the Ethernet port, facilitate software remote control (supplied) and software updates via a PC. A rear-panel GPI/O port also offers remote control from the Dolby Cat. No. 549 GPI/O controller or other external source.

The ideal companion encoder units are the Dolby DP569 for creating Dolby Digital material, and the Dolby DP563 for encoding into Dolby Pro Logic II and Dolby Pro Logic.

Dolby DP564 Multichannel Audio Decoder

DP564 Front Panel

Multifunction Display
For status indication and setup operations

Keypad
Access to all Dolby downmix, decode, listening, compression modes and user-assignable presets; input and monitoring selection

Volume Controls
Master and headphone levels
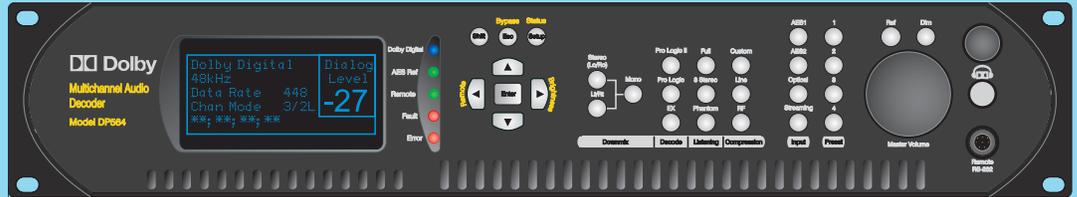
Headphone Output
6.35 mm (1/4-inch) standard stereo headphone jack, user-selectable: Dolby Headphone or stereo modes, +7 dBu maximum output into 50Ω nominal

RS-232 Serial Remote Port
8-pin female mini-DIN connector for remote control and software upgrades

DP564 Rear Panel

Digital Audio Inputs
Three total: two BNC female connectors, unbalanced, 75Ω, signal levels per AES-3ID-1995 (SMPTE 276M); one fiber-optic via Toslink connector

AES Reference Input
BNC female with loop-through, unbalanced, 75Ω, signal levels per AES3-ID-1995 (SMPTE 276M), external 75Ω termination required

Digital Audio Outputs
Four BNC female connectors, unbalanced, 75Ω, signal levels per AES-3ID-1995 (SMPTE 276M)

Analog Audio Outputs
0 dBFS = +24 dBu; balanced floating; eight
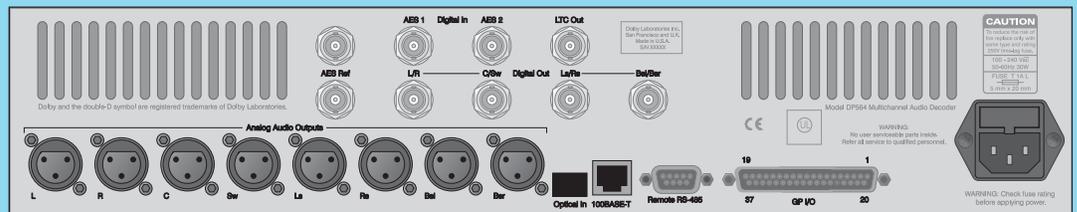
3-pin XLR male connectors, 24-bit DAC

Linear Timecode Output Port
One SMPTE 12M-1995, BNC female, unbalanced, nominal output signal 1 Vp–p, output impedance 50Ω

RS-485 Serial Remote Control Input/ Output Port
9-pin female D-connector for remote control and software upgrades

General Purpose Input/Output Port
37-pin female D-connector, TTL compatible, may be configured to be level or edge sensitive using either polarity; supports Dolby Cat. No. 549 GPI/O controller

Ethernet Port
RJ-45 female connector, 10/100 Base-T with auto-detection

Audio Coding Algorithms
Dolby Digital, Dolby Digital Surround EX, Dolby Pro Logic II, Dolby Pro Logic, and Dolby Headphone

Downmix Modes
Lt/Rt, Stereo, Mono

Listening Modes
Full, 3 Stereo, Phantom

Compression Modes
Line, RF, and Custom mode with adjustable parameters

Audio Input Sampling Rates
32, 44.1, 48, 88.2, and 96 kHz

Audio Output Sampling Rates
32, 44.1, and 48 kHz

Frequency Response
Digital outputs: 20 Hz to 20 kHz, ±0.01 dB
Analog outputs: 20 Hz to 20 kHz, ±0.5 dB

Distortion
<0.02%, 20 Hz to 10 kHz

Dynamic Range
>106 dB

Channel Trim Level Adjust
+6 to −20 dB in 0.125 dB steps

Crosstalk
<100 dB at 1 kHz

Test Noise
Auto: Sequences wideband or band-limited pink noise through enabled channels at 2-second intervals
Manual: Feeds continuous noise to selected channel when unit is in trim level mode

Power Requirements
90–264 VAC, 50–60 Hz, auto-sensing, 40 W maximum; designed to operate from a centrally switched power source

Dimensions and Weight
2-U rackmount: 88 × 483 × 376 mm (3.5 × 19 × 14.8 inches)
Net: 4 kg (8.5 lb)

Environmental Conditions
Operating: 0°C–50°C (32°F–122°F), natural convection cooling, 0%–98% relative humidity (noncondensing)
Nonoperating: −20°C to +70°C (−4°F to +158°F)

Regulatory Notices
North America: This unit complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules and Industry Canada ICES-003 Class A requirements. It is UL listed for the US and Canada.

Europe: This unit complies with the requirements of Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC and carries the CE marking accordingly.

Warranty
One-year limited parts and labor; see disclaimer. Specifications subject to change without notice.

Disclaimer of Warranties

Equipment manufactured by Dolby Laboratories is warranted against defects in materials and workmanship for a period of one year from the date of purchase. There are no other express or implied warranties and no warranty of merchantability or fitness for a particular purpose, or of noninfringement of third-party rights (including, but not limited to, copyright and patent rights).

Limitation of Liability

It is understood and agreed that Dolby Laboratories' liability whether in contract, in tort, under any warranty, in negligence, or otherwise shall not exceed the cost of repair or replacement of the defective components or accused infringing devices, and under no circumstances shall Dolby Laboratories be liable for incidental, special, direct, indirect, or consequential damages (including, but not limited to, damage to software or recorded audio or visual material), cost of defense, or loss of use, revenue, or profit, even if Dolby Laboratories or its agents have been advised, orally or in writing, of the possibility of such damages.