



ILAB America Inc.

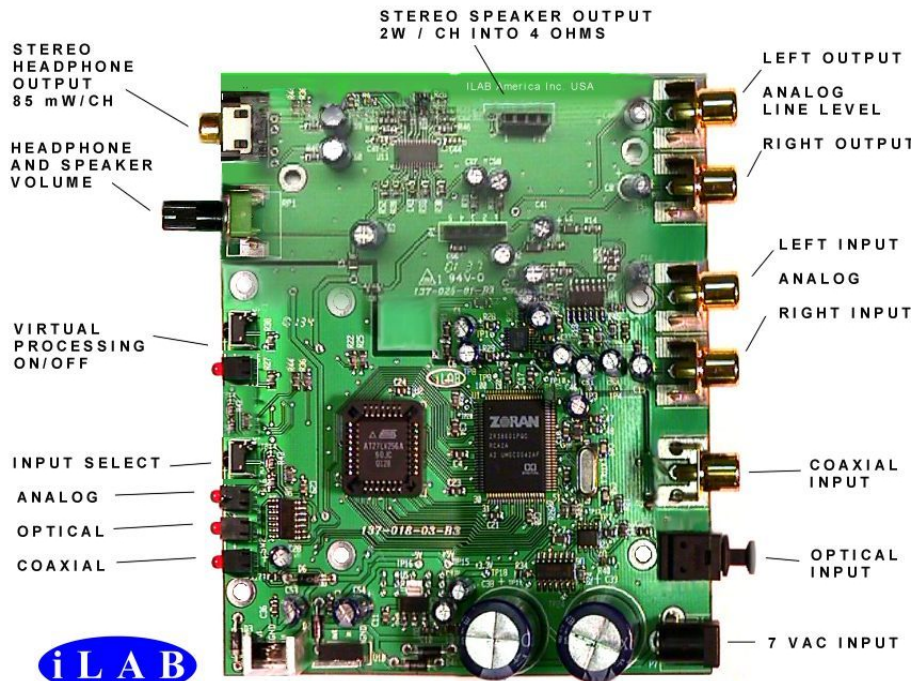
Preliminary Product Definition

DPNE-5

subassembly

OEM Series

Dolby Digital / Virtual Headphone processor



ILAB America Inc. DPNE-5 Dolby Digital/Virtual Headphone processor

Key Features

- 2 channel Dolby Digital 5.1 , Dolby Pro Logic, Virtual Surround decoding
- Stereo headphone amplifier with volume control (85mW per channel)
- Stereo speaker amplifier with volume control (2W per channel into 4 ohms)
- Stereo line level audio output
- Automatic audio input detection selects Dolby processing modes
- 20 bit audio in/out
- 3 audio inputs (1 optical , 1 coaxial , 1 stereo analog)

Processing Modes

- Dolby Modes*
- Dolby Digital
- Dolby D Pro Logic
- Dolby D Stereo
- Dolby Pro Logic
- Stereo
- Virtual

High Performance

The DPNE-5 is a high performance digital and analog audio processor. Incorporating the latest in advanced technology, it is ideal for wired and wireless headphone applications.

Quality and Reliability

Careful attention to design, high quality components, and our renowned quality production standards yield excellent value and reliability.

User Friendly

Nearly all controls are automatically set by the processor based upon the audio input. Simply connect the audio input , headphone/speakers and AC , and your DPNE-5 is ready to play. Select the desired audio input and virtual processing on or off. The volume control adjusts the level for both the headphone and speaker outputs. With the headphone unplugged, the DPNE-5 automatically switches to the speaker outputs.

DPNE-5 Specifications

Technical Specifications

Preamplifier/Processor

Audio Sampling Rates: 32, 44.1, 48 samples/second
Frequency Response: 20Hz - 20kHz +/-0.1dB
THD+N: Less than -89dB , 20Hz - 20kHz, Digital Inputs
THD+N: Less than -78dB , 20Hz - 20kHz, Analog Input
Signal to Noise Ratio : -94dBrA, Digital Inputs
Signal to Noise Ratio : -87dBrA, Analog Input
Noise Floor : -110dB
Dynamic Range: -94dBrA , Digital Inputs
Dynamic Range: -87dBrA , Analog Input
Crosstalk: -100dB @ 1kHz

Input Formats:

Dolby Digital (AC-3) in IEC 1937 format (formerly IEC 958 Annex B) as specified in ATSC A/52 Annex B
PCM in AES/EBU format.
MPEG1 and MPEG2
Analog Inputs
Un-balanced stereo RCA , 20 bit ADC , 2Vrms full scale

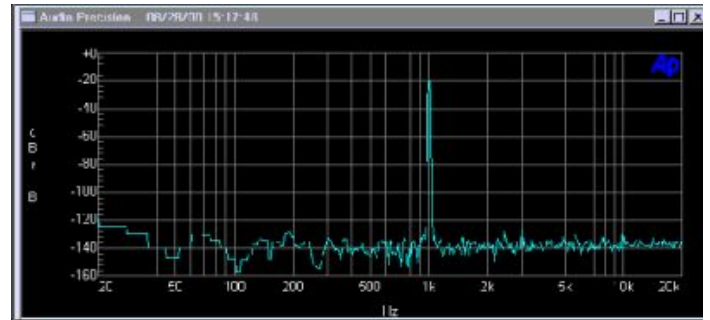
Analog Audio Outputs

20 bit DACs

PCB size: 4.30" x 5.50"



ISO9002



Technical Specifications

Speakers / Amplifier

Frequency Response:

Satellite Speakers: 2W RMS(8ohms), 20Hz - 20kHz +/- 1dB
Headphone: 85mW RMS, 20Hz - 20kHz +/- 1dB

Distortion:

Speaker: Less than 1% , 20Hz - 20kHz at rated power.
Headphone: Less than 1% , 20Hz - 20kHz at rated power.
Line Level Output: Less than 0.003% , 20Hz - 20kHz

Power Requirements

Processor: 7 VAC , external

Operating Conditions

5-45 degrees Celsius , natural convection cooling
0-90% relative humidity (non-condensing)