

D2AUDIO® TXS25-2

Premium Digital Audio Solution for TV's, Docking Stations, & Zone Amplifiers

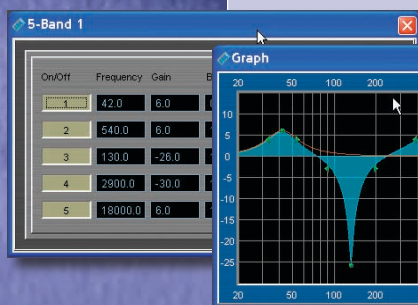
D2Audio's newest "micro-amp" reference design delivers incredible performance and sound quality

- Up to 25 watts per channel into 8Ω, 6Ω, or 4Ω
- <0.08% THD+N, 1kHz, 8Ω, 10W
- <0.5% THD+N, 20Hz-20kHz, 25W, (8Ω, 6Ω, or 4Ω)
- >100 dB SNR
- ± 0.5 dB Frequency Response, 20Hz to 20kHz, 8Ω
- Tiny package (1.5" x 3.0" x 1.0")
- Applications: LCD, PDP and Projection Televisions, Premium Digital Audio and Computer Docking Stations, Wireless Media Systems, Local Zone Amps for Distributed Audio, Near-Field Powered Speakers, Mini Hi-Fi Systems

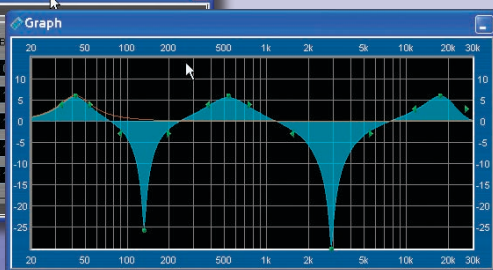


The D2Audio Advantage enables you to differentiate your product

- Industry-leading sound quality
- Category-leading performance
- Reduced development cost, lower design risk, & quick time to market
- Optimize your system audio performance with our custom digital audio processing capabilities
- Dynamic thermal management enables low heat generation - no heat sink requirement
- Designed for compliance with UL and CSA for reduced risk in product certification
- Post-processed digital audio outputs enable line-level, headphone and subwoofer outputs



Let D2Audio help you optimize your end-product for the best possible sound quality



Up to 8 Bands of Parametric Equalization are at the designers fingertips which enable the use of lower-cost drivers and enclosures and yet still enable the system to deliver exceptional sound quality.

Highly flexible crossovers enable high-pass filtered 2 channel output, multiple digital audio outputs in addition to a PWM line-level output perfect for Subwoofer Line out applications

Advanced, fully-programmable active Crossover with Butterworth, Bessel, and Linkwitz-Riley, all with adjustable filter slopes.

Unparalleled audio processing power, flexibility and simplicity for customizing the amplifier and optimizing speaker performance:

- D2Audio Canvas™ system designer GUI alleviates designer from generating any DSP filter coefficients
- Input Channel Processing: Input Selection, 4x5 Matrix Mixer, Tone Control
- Output Channel Processing: Crossover, 8-Band Parametric EQ, Time Delay, Loudness Contour, Compression, Master Volume Control (3 Sets), 9 Independent Channel Volume Controls
- 2-wire serial control interface with simple API
- "Preset Save" capability via optional integrated EEPROM allows your optimized configuration to be the power-on default.

Digital audio inputs eliminate the need for any digital-to-analog conversion for low distortion and low noise floor

I²S, Left-Justified and S/PDIF Pure Digital Path audio inputs from 32kHz to 192kHz (16-24 bit).

SoundSuite - Premium Audio Processing Features

Also available are firmware enhancements that enable:

- D2Audio® Wide**Sound**™
- D2Audio® Deep**Bass**™
- D2Audio® Audio**Align**™
- D2Audio® Digital**EQ**™
- D2Audio® Mono2**Stereo**™



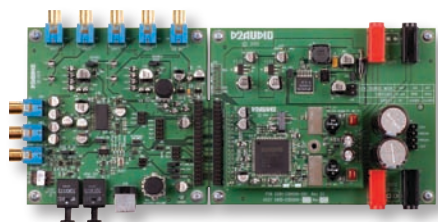
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Smaller footprint than a business card!

D2AUDIO

D2-PS-TXS25-2-130

BRINGING PREMIUM AUDIO TO A HIGH DEFINITION WORLD



Comprehensive evaluation platform enables quick design-in and customization

Master Volume, 8-Band Parametric EQ, Compression, 4x5 Matrix Mixing, Crossovers, Loudness Contour, 9 Channels of Independent Channel Attenuation are just some of the real-time, audio artifact-free control adjustments that are possible via D2Audio Canvas running on a Windows XP® PC. Out of the box, the TXS25 Evaluation Kit offers S/PDIF (IEC60958) via both Toslink and Coaxial Inputs, Analog Stereo Inputs, 5 Channels of Analog Outputs, Toslink Output and USB 1.1 Bi-Directional Control via the D2Audio Canvas GUI. Once you get everything just right, just save your custom sound (.CFG file) using the Reg Set GUI and you are ready to go!

Complete connections for easy design-in

Multiple I²S/Left-Justified and S/PDIF Digital Audio Inputs, Outputs, and 2-wire communication interface headers are already provided on the evaluation kit motherboard just waiting for you to take this module into your design. The main board is even capable of being broken away from the I/O board for quick prototyping. The "SCAMP III" header enables in-system firmware upgradeability!

Differentiate your product with high quality digital audio power today

The market for consumer products has become extremely competitive and is rapidly moving to all-digital amplification. Traditional audio solutions of less than 10W peak power with high THD+N and low SNR bring little value to your product. What can you do to differentiate and bring more value to your product? With D2Audio's premium audio solutions, like the TXS25-2, you can upgrade to REAL audio power with audiophile performance! Save system costs on speaker drivers and large enclosures by using the powerful embedded DSP signal processing. You now have the power to get competitive and make even the smallest speakers in your system come alive and make your product stand out in the reviews and on the show room floor!

SKU	Audio Inputs	Audio Outputs	Audio Processing	Pb-Free/ RoHS Compatible	Output Channels	
					Ch 1	Ch 2
D2-TXS002502-04061D	I ² S/LJ (2), S/PDIF	I ² S/LJ (2), S/PDIF, Line Level PWM Output	Baseline	No	25W, 8Ω	25W, 8Ω
D2-TXS0025R2-04061D	I ² S/LJ (2), S/PDIF	I ² S/LJ (2), S/PDIF, Line Level PWM Output	Baseline	Yes	25W, 8Ω	25W, 8Ω
D2-TXS0025R2-04185D	I ² S/LJ (2), S/PDIF	I ² S/LJ (2), S/PDIF, Line Level PWM Output	SoundSuite	Yes	25W, 8Ω	25W, 8Ω

Performance

- Up to 25 Watts into 8Ω, 6Ω, or 4Ω
- >100 dB SNR
- <0.06% THD+N, 1kHz, 8Ω, 10W
- ±0.5 dB Frequency Response 20Hz to 20kHz (8Ω)
- 90% Efficient

Audio Processing (Baseline)

- Input Channel
 - Input Selector
 - 4x5 Matrix Mixer
 - Tone Control
- Output Channel Processing
 - Programmable Crossover
 - 8-Band Parametric EQ
 - Adjustable Time Delay
 - 3 Independent Master Volume Controls for Channels 1 & 2, 3 & 4, and 5
 - Loudness Contour
 - Compression/Limiting
 - 9 Independent Channel Level Controls

Dimensions

- 1.93 x 3.2 x 0.86 in
- 49.02 x 81.28 x 21.8 mm

Standard Features

- Two I²S/Left-Justified Digital Audio Outputs (48kHz, 16-24 bit) enable connection to external DAC for Line-Level/Variable Level Analog Output, Headphone Analog Output, and/or Subwoofer Line/Variable Level Analog Output
- S/PDIF Transmitter enables digital audio record output capability (48kHz, 16-24 bit)
- 3rd Channel of PWM Output, when filtered enables a line-level mono/subwoofer output
- Active Crossovers (Butterworth, Bessel, Linkwitz-Riley, Custom)
- I²S/Left-Justified Digital Audio Input (32-96kHz, 16-24 bit)
- Advanced Sample Rate Conversion (SRC) on both inputs (I²S/Left-Justified and S/PDIF)

Standard Features (Continued)

- D2Audio Canvas™ Graphical User Interface (GUI) for System Designers
- Standard 2-wire serial interface
- Simple software control API
- Integrated automatic short-circuit, short-to-ground, and over-current fault protection

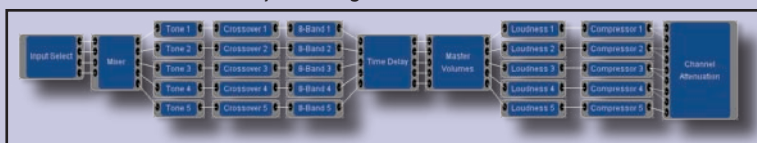
Optional Features Included in SoundSuite Firmware (v1.10 and later)

- D2Audio® Wide**Sound**™
- D2Audio® Deep**Bass**™
- D2Audio® Audio**Align**™
- D2Audio® Digital**EQ**™
- D2Audio® Mono**2Stereo**™

Weight

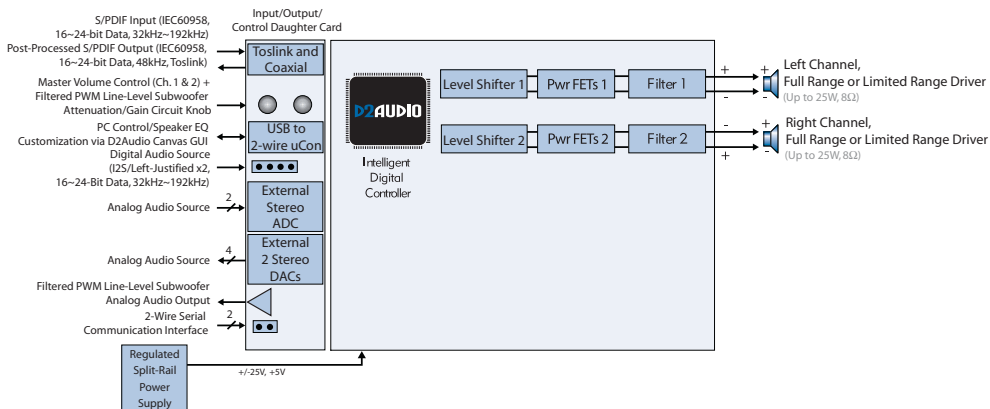
- 1.2 oz.
- 34.02 grams

TXS25-2 baseline audio processing chain as shown in D2Audio Canvas GUI



Note: D2A and D2Audio are registered trademarks of D2Audio Corporation. Windows and Windows XP are registered trademarks of Microsoft Corporation. Specifications, functionality, signal flow listed in this document are subject to change without notice.

Example: Connecting to the TXS25-2 Evaluation Kit



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