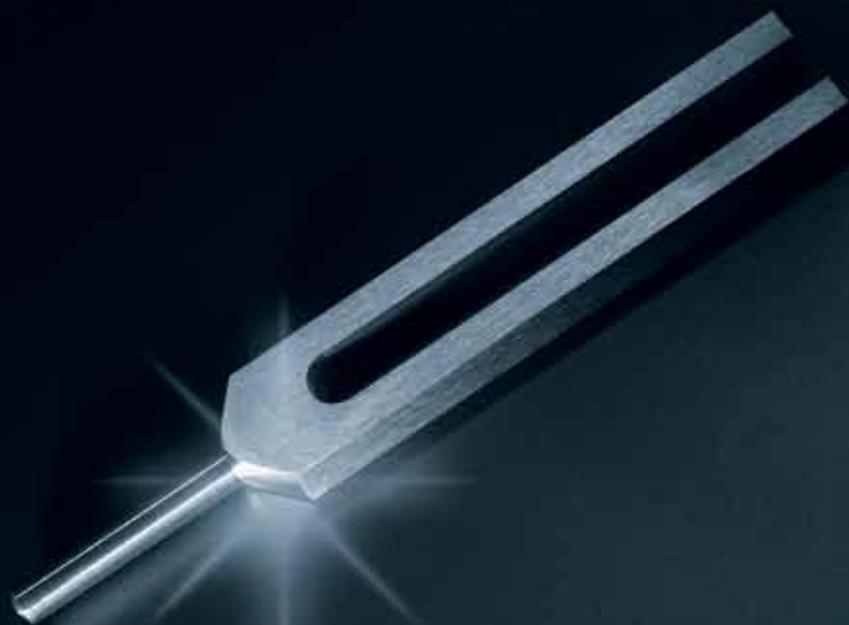


dbx-tv[®]



sound.
intelligence.
dbx-tv.

Total immersion

Great audio turns TV into an immersive experience

Today, television is the heart of home entertainment—with the potential for an enthralling, compelling experience that captivates everyone in the household. And, while today's TV pictures deliver on this potential, the sound is often sadly lacking. Without external amplifiers and speakers, the sound of today's TV sets falls far short of the picture.

dbx-tv[®], with 25 years of audio experience and over half a billion installations around the world, now offers a family of audio technologies that helps the sound live up to today's TV picture. dbx-tv's intelligent and affordable Digital-Signal-Processing (DSP) approach guarantees the best possible sound quality from any television set, large or small.

Total Sonics™: Delivering enthralling audio to TV sets

As TVs become thinner and bezels disappear, speaker size and placement are compromised. The sound suffers from limited maximum volume, shrinking stereo image, and crippled low frequencies. dbx-tv's Total Sonics suite combines several intelligent, innovative DSP audio enhancement technologies to address these challenges in a package that fits into most of today's TV SoC ICs. Total Sonics is an affordable, efficient technology for TV makers to better match audio quality to today's brilliant pictures. Total Sonics is an easy-to-configure software solution that requires no additional hardware.

Total Volume™: Controlling loudness in TV sets

Uncontrolled changes in volume levels are a top complaint of TV viewers everywhere. Commercials, program changes, and switching among sources all cause abrupt, annoying volume changes. The wide range of so-called solutions—from broadcast legislation to in-home processors—doesn't do the job. dbx-tv's Total Volume is the result of years of intensive R&D based on decades of compressor experience. A software-only solution, Total Volume is the intelligent solution: software-based, affordable, efficient, easy to implement, and requiring no additional hardware. It solves this annoying problem once and for all.





Total Sonics



dbx-tv Total Sonics guarantees the best possible sound quality from any TV, large or small

Total Sonics is software-only DSP technology that runs in relatively limited-capacity DSP, such as that available in many TV SoC ICs. Matched through Total Cal™ to an individual TV model, Total Sonics allows even tiny speakers to generate deeper bass than previously thought possible. Total Sonics corrects response and imaging anomalies caused by speaker size and placement, and the cosmetic constraints of cabinet design. You and your customers will be amazed at the detailed, immersive sound that results.

Deep bass. Crisp highs. Natural sound.

Total Sonics makes all this possible, on any TV, without any new hardware, using the audio DSP already in your sets. Get bigger, better sound out of your TVs at minimal cost with Total Sonics from dbx-tv.



Total Sonics' intelligent core technologies

dbx-tv dynamic equalization

- Customized frequency response correction with dynamic level-dependent bass boost
- Generates the maximum bass possible with any speaker without overload
- Addresses errors caused by speaker size, placement, cabinet design
- Delivers the sonic results you desire through tailored response targeting

dbx-tv image widening

- Dynamic psycho-acoustic filters
- Broadens and deepens acoustic image from two-speaker systems
- Corrects for poor speaker placement
- Won't over-enhance already processed material

dbx-tv dynamic range controller

- Sophisticated dynamics processor tailored to match the audio system
- Optimizes sound within limited dynamic range systems
- Eliminates speaker overload and amplifier clipping
- Ensures dialog intelligibility on all program material

dbx-tv Total Cal makes it fast and easy to achieve amazing sound

Total Cal first acquires a "fingerprint" of your system's performance. Then, our proprietary genetic algorithm automatically customizes Total Sonic's myriad parameters to match your TV design. Total Cal delivers great results in minutes.

What's more, Total Cal gives set-makers the freedom to choose sonic results that match your market. You can bias the result for highest volume without distortion, greatest bass, highest fidelity, most enveloping sound, etc.

dbx-tv Total Cal configuration environment

- PC-based acoustic measurement and configuration system
- Includes all required hardware and software
- Uses genetic algorithms to automatically tailor Total Sonics to achieve the desired sonic results
- Simplifies and shortens time required to configure your audio system



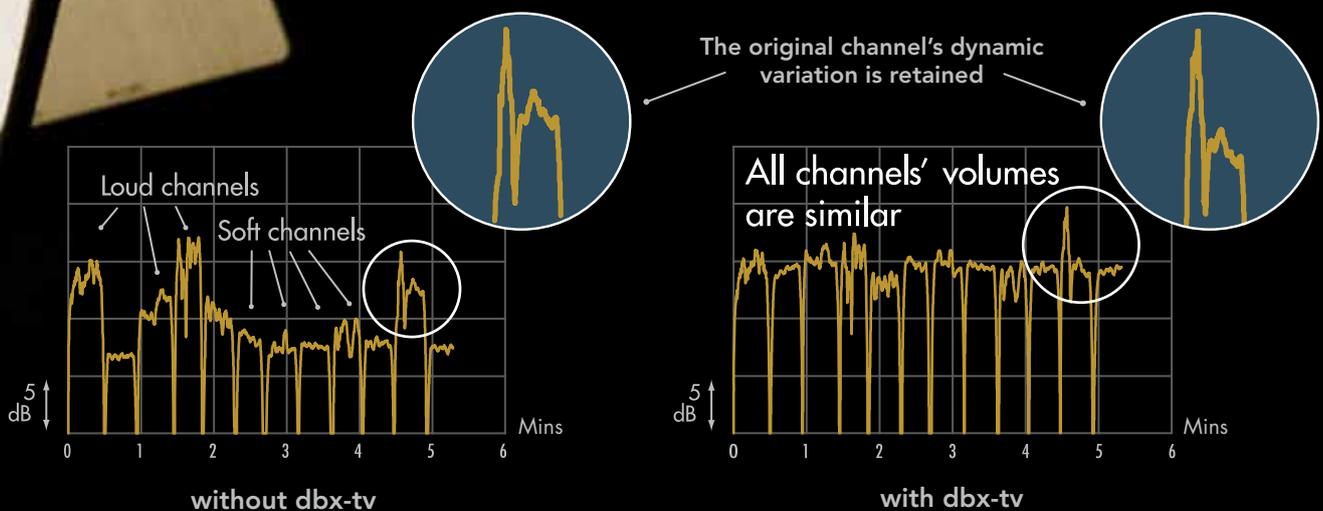
Total Volume

dbx-tv Total Volume solves all TV loudness problems

Total Volume eliminates the constant need to reach for the remote to adjust TV volume. By taming loudness spikes and clarifying inaudible dialog, Total Volume creates a more consistent and enjoyable listening experience from even the most difficult source material. Total Volume solves the problems caused by loud commercials, switching channels, varying input sources, and changes in surround processing or program dynamics.



TV channel loudness levels





Total Volume is intelligent and simple, yet versatile and effective

- Configurable to suit a wide variety of viewing conditions:
 - Normal mode** tames commercials and channel changes while largely preserving artistic dynamic intent
 - Night mode** allows quiet listening without losing dialog or disturbing sleeping children—even through explosive sound effects in action thrillers
 - Movie mode** provides maximum dynamic range and realism without overload
- Preserves dialog intelligibility even at low volume settings
- Controls loudness changes triggered by excessive surround sound processing

Total Volume's amazing performance is virtually free of artifacts

- Maintains the tonal balance, spatial presentation, and subjective dynamics of the original sound
- Virtually no pumping and breathing
- No effect on lip-sync

Total Volume is incredibly efficient and flexible

- Software only, requires no hardware changes
- Runs within DSP already available in most TV SoC ICs and many audio amplifiers
- Can be placed anywhere in the audio processing chain

Additional audio processing

In addition to dbx-tv's groundbreaking Total Sonics and Total Volume packages, we also offer traditional DSP (pure software) audio modules. We're your "one-stop shop" for all your TV sound processing needs.

Virtual Surround

By exploiting our unique psycho-acoustic filters, dbx-tv Virtual Surround transforms dull and lifeless TV sound into an enveloping sonic experience using only two speakers. It automatically senses already processed material and adjusts its processing accordingly. And, dbx-tv Virtual Surround won't sacrifice dialog intelligibility as it delivers a wider, deeper, and more detailed sound field.

Graphic EQ

Our 7-band Graphic EQ allows television viewers to easily adjust the sound to suit individual preferences for tonal balance. TV makers may choose fewer bands for low-DSP-power implementations.

Pre-set EQ

We also offer fixed pre-set EQ tailored to different program material such as sports, news, video games, music, movies, etc.

Bass/Treble Control

Familiar bass/treble tone controls provide simple means for viewers to make sonic adjustments.

Stereo Synthesis

Our stereo synthesis processing creates a broad sound stage from mono program material.

Volume Control

dbx-tv also offers an efficient and effective volume control. It can be customized to any desired volume taper.

Who is dbx-tv?

dbx-tv was first created in the early 1980s by the same cutting-edge audio engineers who developed the famous dbx audio compressors—which remain the gold standard in recording studios and live performances today. The Emmy®-award-winning dbx-tv audio broadcasting system was adopted as the standard for analog (BTSC) broadcasts in North and South America, and has been used in over half a billion TV receivers worldwide.

Today, dbx-tv now includes a broad range of digital-audio signal-processing technologies available exclusively under license from THAT Corporation. A growing number of TV IC makers support dbx-tv's worldwide decoder and audio enhancement technologies.

Total Sonics, Total Volume, and all other dbx-tv audio processing technologies are based on our 25-plus years of audio expertise. We give you a path to consolidate all your audio enhancement needs with one trusted intellectual property provider.

To learn more, please contact us at

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