SR-1000

Standalone Integrated Media Block™

5.1/7.1 Surround Sound

dts surround.cinema
powered by GDC

dts **x** ™
DTS:X™ for IAB
powered by GDC

The SR-1000 offers built-in audio options to enrich your cinema with unmatched sound quality. It is not only perfect for specialty auditoriums, including Premium Large Format (PLF) auditoriums, but the SR-1000 equips your entire cinema with outstanding audio through standard 5.1/7.1 surround sound, sensational DTS Surround with enhanced bass management, or DTS:X for IAB object-based immersive audio.

SR-1000 offers four cost-effective built-in cinema audio processing options:
1. 5.1/7.1 cinema audio processor
2. DTS Surround audio processor
3. 15.1 cinema audio processor with DTS:X for IAB rendering
4. DTS:X for IAB rendering up to 32 channels

featuring

GDC dts **x** ™
DTS:X for IAB

dts **surround**

Field Upgradeable Built-in Cinema Audio Processor Options

The cinema audio processor license can be procured remotely from GDC Technology, unlocking the optional built-in cinema audio processor's features.

DTS Surround audio processor

A built-in DTS Surround audio processor option provides superior 5.1/7.1 surround sound reproduction for uncompromising quality of DTS Surround. With the bass management feature enabled, the DTS Surround audio processor precisely redirects low frequencies from the surround channels to dedicated left and right bass management subwoofers, compensating for the limitations of surround speakers in reproducing deep bass tones.

The embedded robust audio processing engine can achieve precise sound system calibration of the theatre via the user-friendly SR-1000 user interface supporting

- DTS Surround bass management with independent selection of Filter Type, Slope, Cut Off Frequency, Gain and Phase for the high and low bands of each surround channel as well as 3 band parametric EQ
- 8-channel audio limiter**
- State-of-the-art DTS Surround tuning practices
- 1/3-octave graphic EQ with independent bass and treble controls (non-LFE channels)
- Parametric EQ (choice of dedicated general LFE settings or SMPTE standard LFE settings for LFE channel)
- 2-way crossover with selectable filter type and configurable slope
- Fader (gain adjustment), global and individual channel delay
- Booth monitor output
- Built-in signal generator, mute with configurable fade-in/fade-out times, wide dynamic range
- Audio input level display, easy configuration backup and restore
- Channel routing & duplication

Audio limiter:
safeguard audio equipment and enhance audio quality
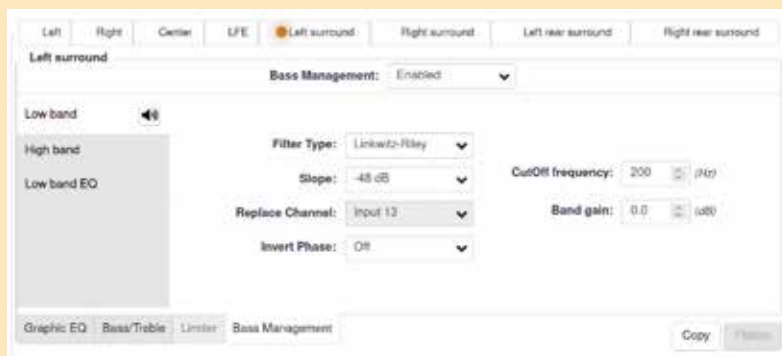
Bass management:
extend low frequency response of surround channels

15.1 cinema audio processor

A built-in 15.1 cinema audio processor is available to replace an external cinema processor for a DTS:X for IAB immersive audio installation.

** Applicable for active speakers or passive speakers with a built-in crossover.

featuring

GDC dts x™
DTS:X for IAB

dts surround

Powering your digital cinema experience

DTS Surround Cinema

DTS Surround Cinema engages you in a dynamic and detailed audio environment that enhances your moviegoing experience. Using advanced DTS target curves, full-range surrounds with bass management and state-of-the-art tuning practices, the system delivers clear dialogue, deep bass, and comprehensive sound coverage. With DTS Surround Cinema, every movie reflects the filmmaker's intent, with every sound detail — from subtle footsteps to thunderous explosions — vividly brought to life, intensifying every scene's emotional and sensory impact.

DTS Surround Cinema

Approx. **70%** of

Cinema Industry Professionals' Choice

A DTS Surround Cinema Auditorium

For an auditorium to achieve certification as a DTS Surround Cinema, the speaker layout must adhere to the DTS Surround Cinema guidelines. This layout encompasses full-range surrounds and meticulously follows the DTS target curve for optimal audio performance. Furthermore, the certification process for a DTS Surround Cinema entails a comprehensive on-site evaluation conducted by an authorized DTS technician to ensure adherence to the highest standards.

Key benefits

1 **Use standard 5.1/7.1 DCP format**
Theatres using the built-in DTS Surround audio processor and certified DTS Surround Cinemas can playback SMPTE and interop standard DCPs with 5.1/7.1 surround audio track.
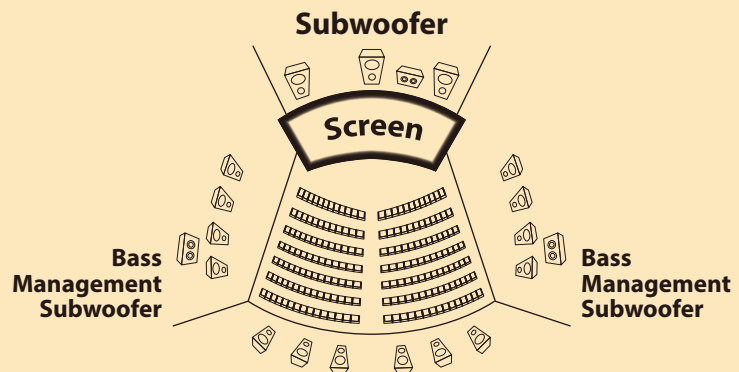
2 **Every movie will sound as intended**
Featuring an advanced DTS target curve, full-range surrounds with bass management and state-of-the-art tuning practice, DTS Surround delivers stunning sound quality to create more intense and engaging listening experience. You'll hear subtle details like footsteps creeping up on you, the rush of wind and the rich rumble of thunder.

3 **A stepping-stone to DTS:X for IAB**
Certified DTS Surround Cinemas feature the core components of DTS:X installations and are easily upgraded to DTS:X for IAB.

4 **Strong identity to moviegoers**
- Since 1993, the DTS brand has been synonymous with innovation and the highest-quality sound.
- Affordable DTS-approved premium audio with marketing collateral for in-theatre and online use.

dts surround cinema

powered by **GDC**

Subwoofer

Screen

Bass Management Subwoofer

Bass Management Subwoofer

DTS:X for IAB

GDC Technology and DTS, Inc., are working together to offer DTS:X, which supports IAB, an international immersive audio standard. Both DTS:X and IAB are object-based immersive sound formats that accurately convey the fluid movement of sound to create a richer entertainment soundscape by moving sound objects to and through specific locations within the soundscape — in front of, behind, above, and beside the audience, precisely where the mixer placed them.

GDC's integrated media block supports the DTS:X and IAB immersive audio formats. The latter represents a significant milestone in delivering a single interoperable audio format. IAB allows motion picture studios to efficiently distribute immersive audio content to DTS:X screens worldwide, exactly as the filmmakers intended. DTS:X for IAB is currently installed and operational worldwide, and it has partnered with leading technology providers for PLF screens, including both projection as well as LED screens.

GDC + **dts X**™ + **IAB** = **GDC dts X**™ *featuring* **DTS:X for IAB**

A DTS:X for IAB Immersive Sound Auditorium

The SR-1000 IMB offers three DTS:X for IAB immersive audio upgrade options, enabling the creation of an auditorium equipped with DTS:X for IAB technology.

1 Built-in 15.1 cinema audio processor, eliminating the need for an external processor

2 Powerful DTS:X for IAB decoder supporting up to 32 channels

3 AES67 standard based Audio over Ethernet (AoE)

Key benefits

1 Object-based audio precision:
The object-based audio technology handles multiple objects simultaneously ensuring pinpoint precision and smooth movement of sound around and above the audience.

2 Flexible speaker configurations:
Suitable for auditoriums of all sizes.

3 Cost effective retrofits:
Save up to 50% compared to other immersive sound systems.

4 Backward compatibility:
Compatible with existing 5.1 and 7.1 systems.

5 Strong identity to moviegoers:
- Since 1993, the DTS brand has been synonymous with innovation and the highest-quality sound.
- Benefit from marketing support, which includes premium trailers, digital and physical assets, and assistance in creating premium concepts for exhibitors.

GDC dts X™ *featuring* **DTS:X for IAB**
IMMERSIVE SOUND AUDITORIUM

GDC dts X™ *featuring* **DTS:X for IAB**   **dts surround**

Powering your digital cinema experience

# DTS:X for IAB: Flexible Speaker Configurations

DTS:X supporting IAB features a three-layer sound system^:

1 Base Layer: Covers all speakers in a typical 5.1 or 7.1 configuration.

2 Height Layer: A DTS:X auditorium requires the use of additional height speakers on the walls, the ceiling, or both, to enhance the sense of immersion and support specific overhead effects.

3 Supplemental Subwoofers: If the native response of the surround speakers rolls off above 40Hz, supplemental subwoofers, along with appropriate bass management processing, provide superior surround sound reproduction.

Front views showing screen wall speaker options
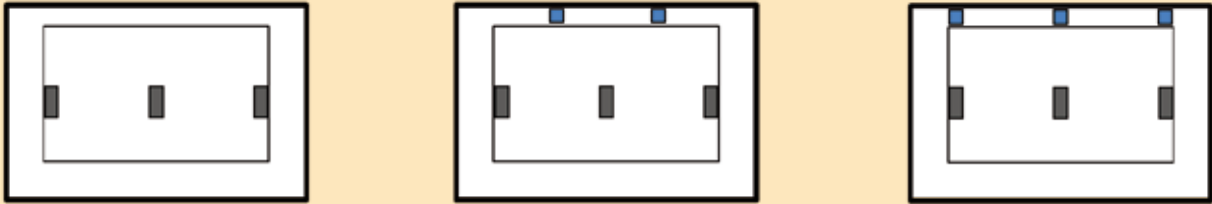
Side views showing sidewall speaker and surround subwoofer options for cinemas that do not use ceiling speakers^^
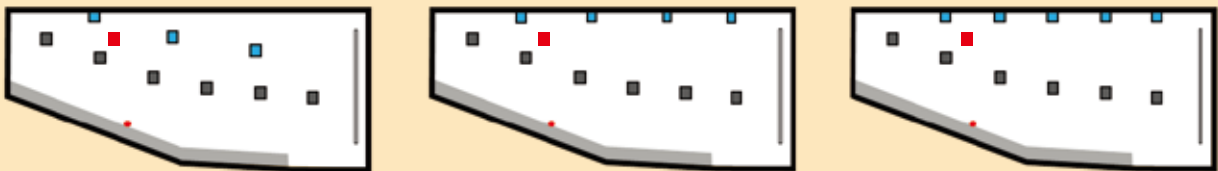
Side views showing sidewall speaker and surround subwoofer options for cinemas that include ceiling speakers
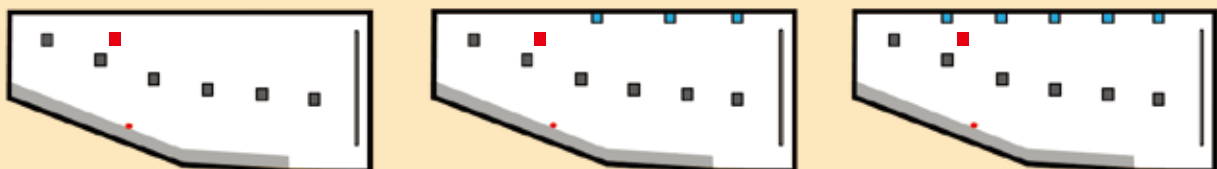
Ceiling speaker options
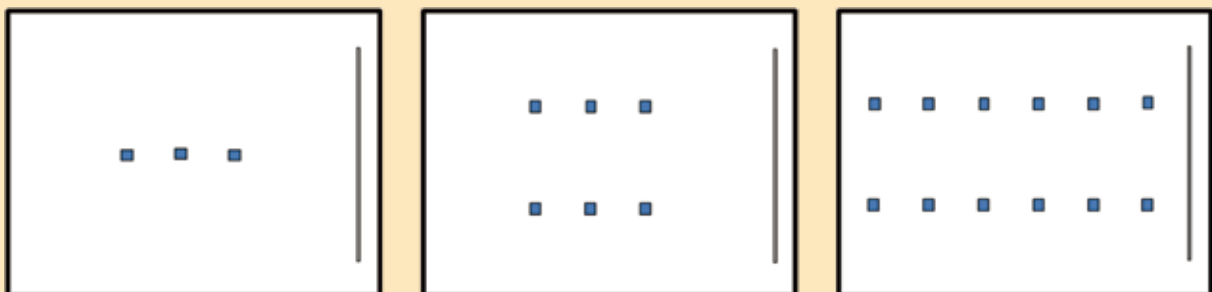
^ The configuration diagrams are for reference only. The final speaker configuration for a given auditorium will be decided during the design process based on auditorium dimensions.
^^ DTS strongly recommends the use of ceiling speakers, this option is used for special project and is subject to DTS approval.

Comprehensive Audio Solutions for the SR-1000 IMB

GDC presents a comprehensive range of optional audio converters specifically designed for the SR-1000 ensuring compatibility and smooth integration across multiple audio formats:

- **AIB Series:** The AIB-2000 and AIB-3000 are high-quality digital-to-analog converters (DAC) with 8-channel and 16-channel configurations, respectively. They offer auxiliary audio inputs such as analog amplifiers, microphones, and media players. Additionally, the AIB-3000 serves as a 16-channel audio processor compatible with all major DCI servers, featuring sensational DTS Surround with enhanced bass management.

- **DAC Series:** Digital-to-analog converters available in 8, 12, 16, 24, and 32-channel configurations, converting AES3 digital audio inputs to analog outputs.

- **AE-6703:** A 32x32-channel bidirectional converter designed to bridge the gap between AES3 and AES67 audio standards.

Fader Remote

Introducing the fader remotes FR-2000 and FR-1000, designed to seamlessly integrate with GDC IMB featuring built-in cinema audio processor. Both fader remotes have expandable audio control user interface to accommodate future needs.
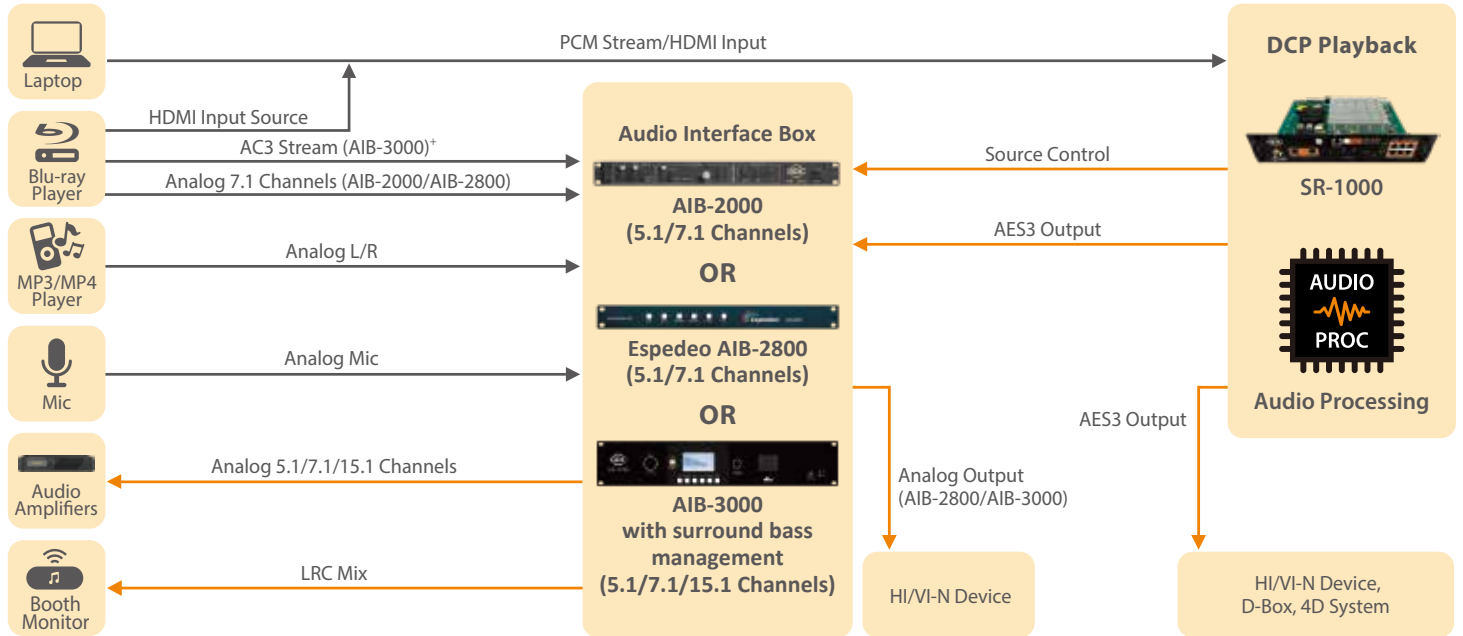
Key benefits

FR-2000

1 Larger screen for superior readability

2 Suitable for table or wall mount
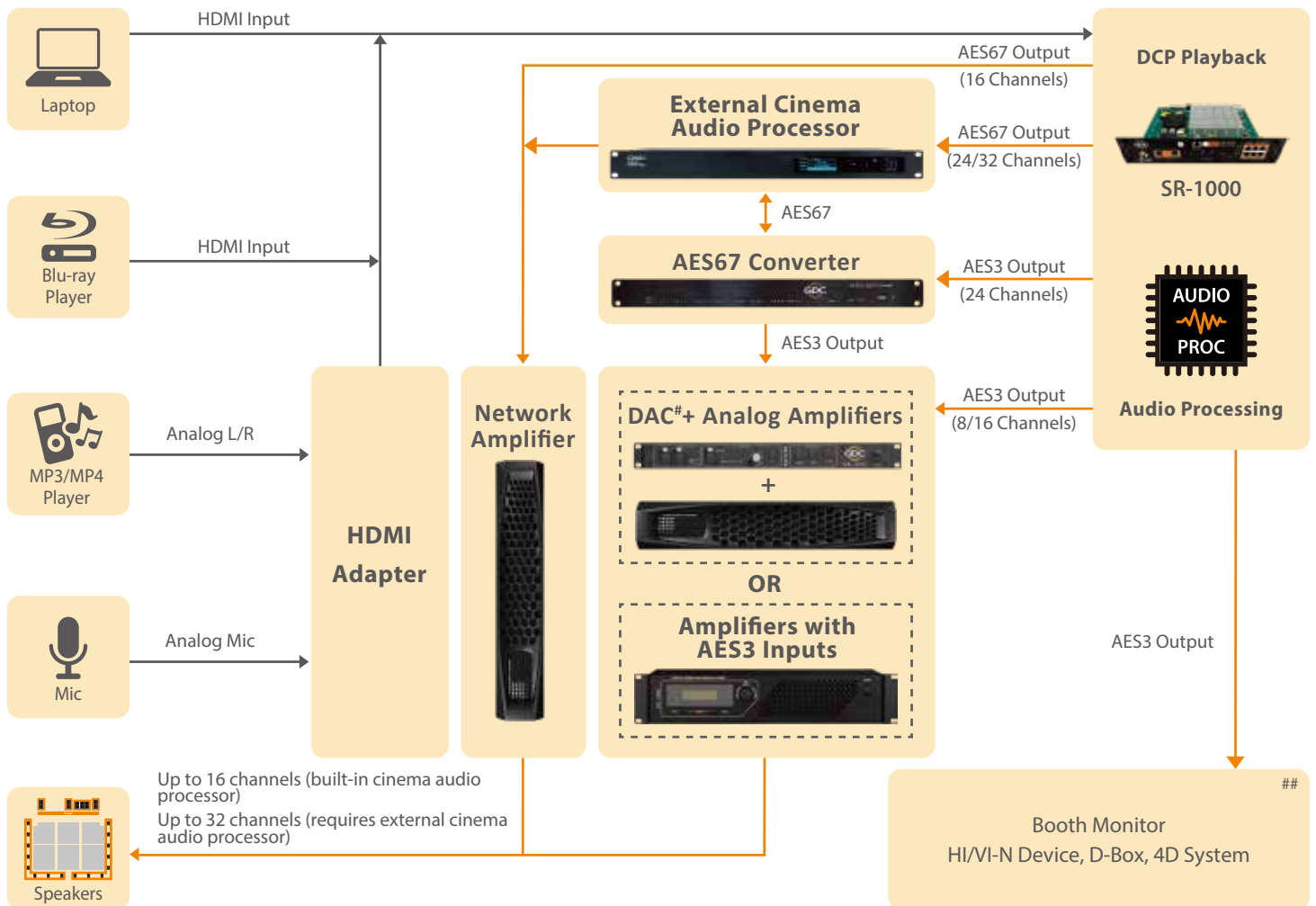
3 Wi-Fi, and wired Ethernet connectivity

FR-1000

1 Cost-effective

2 Compact, perfect for any booth setup

3 Wi-Fi connectivity

featuring

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DTS:X for IAB

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SR-1000 IMB and Optional Audio Interface Box to Interface with External Audio Equipment*

Laptop — PCM Stream/HDMI Input → **DCP Playback**

Blu-ray Player
- HDMI Input Source
- AC3 Stream (AIB-3000)⁺
- Analog 7.1 Channels (AIB-2000/AIB-2800)

MP3/MP4 Player — Analog L/R

Mic — Analog Mic

Audio Interface Box
- **AIB-2000 (5.1/7.1 Channels)**
- OR
- **Espedeo AIB-2800 (5.1/7.1 Channels)**
- OR
- **AIB-3000 with surround bass management (5.1/7.1/15.1 Channels)**

Audio Amplifiers ← Analog 5.1/7.1/15.1 Channels

Booth Monitor ← LRC Mix

Source Control
AES3 Output

SR-1000

Audio Processing

AES3 Output

Analog Output (AIB-2800/AIB-3000) → **HI/VI-N Device**

HI/VI-N Device, D-Box, 4D System

Solution for SR-1000 IMB with Digital or Analog Amplifiers*

Laptop — HDMI Input

Blu-ray Player — HDMI Input

MP3/MP4 Player — Analog L/R

Mic — Analog Mic

HDMI Adapter

Network Amplifier

External Cinema Audio Processor
- AES67 Output (16 Channels)
- AES67 Output (24/32 Channels)

AES67

AES67 Converter ← AES3 Output (24 Channels)

AES3 Output

DAC#+ Analog Amplifiers ← AES3 Output (8/16 Channels)

+

OR

Amplifiers with AES3 Inputs

DCP Playback

SR-1000

Audio Processing

AES3 Output

Speakers
- Up to 16 channels (built-in cinema audio processor)
- Up to 32 channels (requires external cinema audio processor)

Booth Monitor HI/VI-N Device, D-Box, 4D System ##

⁺For AIB-3000 with HM-100 option providing HDMI and SPDIF inputs
*The actual system configuration may vary depending on specific application requirements. The specifications of the audio interface boxes may vary. Please contact GDC for further details.
#Digital AES3 to Analog converter, up to 32 channels
##Depends on the specific system configuration