AIB-3000
16-Channel Cinema Audio Processor

DTS Surround with Enhanced Bass Management

The AIB-3000 is a standalone 16-channel cinema audio processor compatible with all major current and legacy DCI servers that support 5.1/7.1 audio formats and up to 16-channel Immersive Audio. It delivers a sensational surround sound experience in certified DTS Surround Cinema auditoriums by enabling precise sound system calibration and utilizing full-range surround speakers with enhanced bass management.

The AIB-3000 can also function as a digital-to-analog (DAC) converter, offering various auxiliary audio inputs, including a built-in booth monitor, microphone, and an interface for external audio media players. Additionally, it can remotely switch input sources via Ethernet. Furthermore, it supports HDMI with encoded audio formats such as AC3 with the HM-100 add-on.
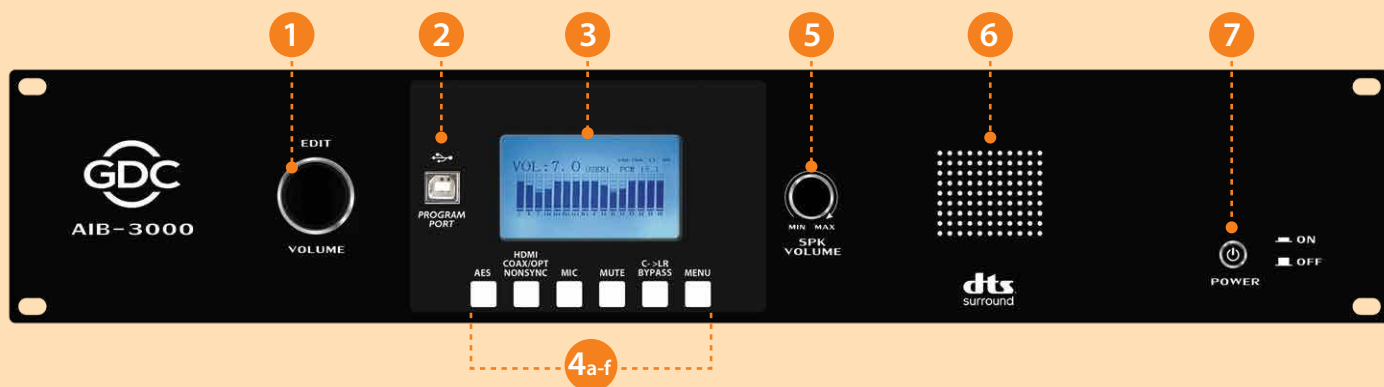
Highlights

1. User-friendly graphical user interface
2. Easy-to-use volume knob and built-in booth monitoring speaker
3. LCD display to show control interface
4. DTS Surround Cinema compliant room calibration
5. Surround bass management
6. Built-in crossover (three-way) enhances audio quality and reduces installation cost
7. Up to 16-channel audio processing capability and DAC converter
8. Hi/Vi-N outputs provide flexible connectivity
9. Non-sync and microphone inputs provide flexible audio integration and direct microphone connectivity
10. HM-100 Optional module provides HDMI/SPDIF interface and supports DTS/AC3 decoding
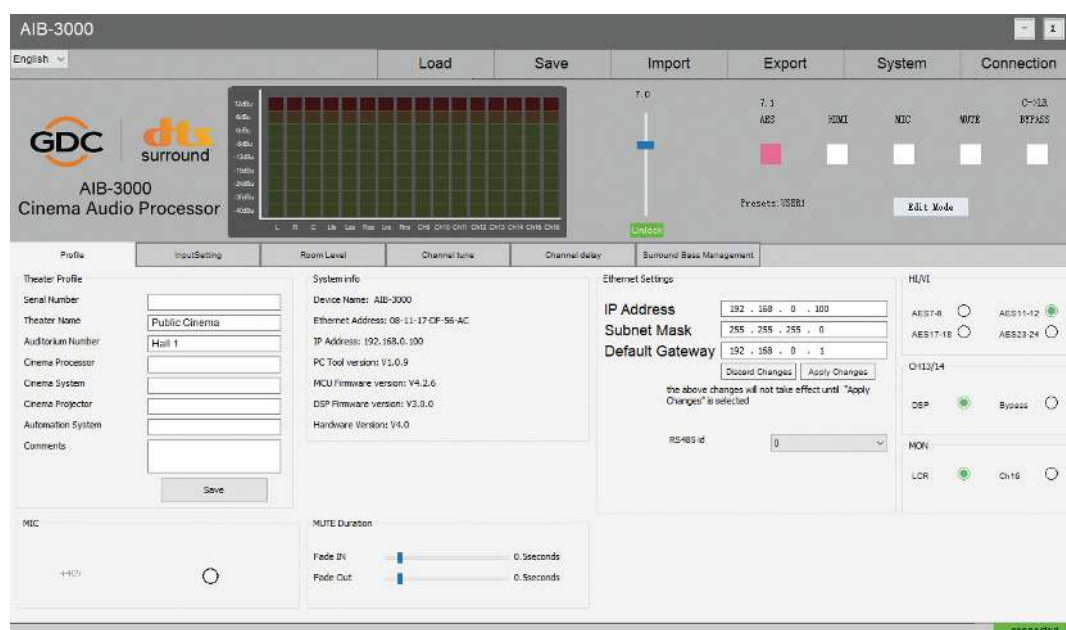
Powering your digital cinema experience

AIB-3000 Front Panel

1. Multi-purpose knob used for sound level control and configuration on the LCD display
2. USB port for PC connection and firmware upgrade
3. LCD display for audio levels and configuration
4. Buttons:
   - 4a. Switch to AES input
   - 4b. Switch to NON-SYNC/HDMI/OPT/COAX RCA analog input
   - 4c. Switch to MIC input
   - 4d. MUTE/UNMUTE audio output
   - 4e. C->LR BYPASS - mix center channel to left and right channels
   - 4f. MENU - enter configuration mode on LCD display
5. Volume knob for adjusting the booth monitor speaker level
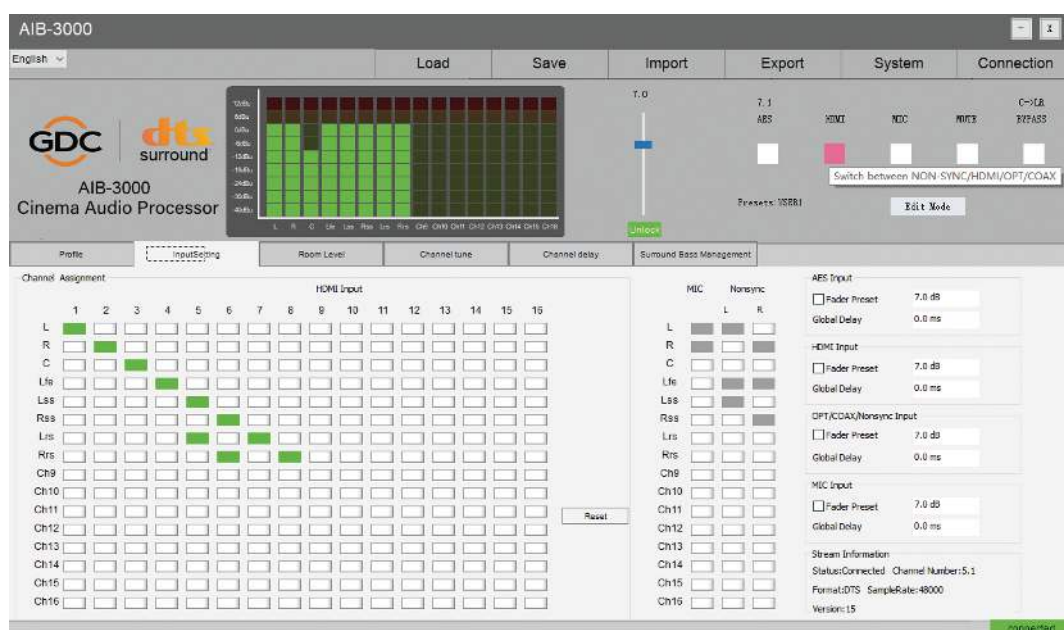6. Booth monitor speaker
7. Power switch

AIB-3000 Control Interface

Powering your digital cinema experience

AIB-3000 Back Panel

1. Power input [100-240VAC, 50-60Hz]
2. Backup power input [DC12V/4A]
3. Ethernet port [100Mbps]
4a. AES inputs [2xRJ45]
4b. Aux AES inputs [1xRJ45]
5. MIC-In input (XLR connector)
6. Non-sync input [RCA L-R connectors]
7a. Analog outputs for HI/VI-N [RCA L-R connectors]
7b. Analog outputs for external monitor [RCA connector]
7c. Redundant CH1-16 analog output [2x male HD-25 connectors]
8. Analog outputs for CH1-16 [16x 3-pos Phoenix terminals]
9. Bass management outputs [2x 3-Pos Phoenix terminals]
10. HM-100 option providing Coaxial In, Optical In, and HDMI In/Out
11. RS485 port [1xRJ45]

AIB-3000 Control Interface

Key Features of AIB-3000 Cinema Audio Processor

The AIB-3000 cinema audio processor achieves precise auditorium sound system calibration by supporting:

- State-of-the-art DTS Surround tuning practices
- High flexibility for speaker configuration with intuitive channel mixers
- Robust mixed GEQ/PEQ for sophisticated timbre tuning with simple interfaces
- Precise time manipulating modules for phase alignment between channels and speaker drivers
- Up to 3-way crossovers with selective filter types and cut-off slopes
- Customizable bass management for all surround channels
- Parametric EQ
- 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

Key Benefits of DTS Surround Cinema

With the AIB-3000 cinema audio processor, it is now possible to design a certified "DTS Surround Cinema" auditorium featuring a speaker layout that adheres to the DTS Surround Cinema guidelines, complete with full-range surround speakers and the DTS target curve. A certified DTS Surround Cinema auditorium requires on-site certification by an authorized technician.

Standard DCP Formats
Certified DTS Surround Cinema auditoriums can play standard 5.1/7.1 DCPs.

Every Movie Will Sound Its Best
- Optimized DTS target curve along with state-of-the-art tuning practices deliver stunning sound quality with the DTS Surround Cinema solution.
- Featuring an extended frequency range that significantly improves the overall presentation quality in surround sound theatre.

A Stepping Stone to DTS:X for IAB
A certified DTS Surround Cinema is a stepping stone to DTS:X for IAB theatre, enabling seamless upgrades while maintaining the existing speakers and their positions.

Strong Identity to Moviegoers
Marketing materials, including a theatre plaque, are provided to promote DTS Surround Cinema.
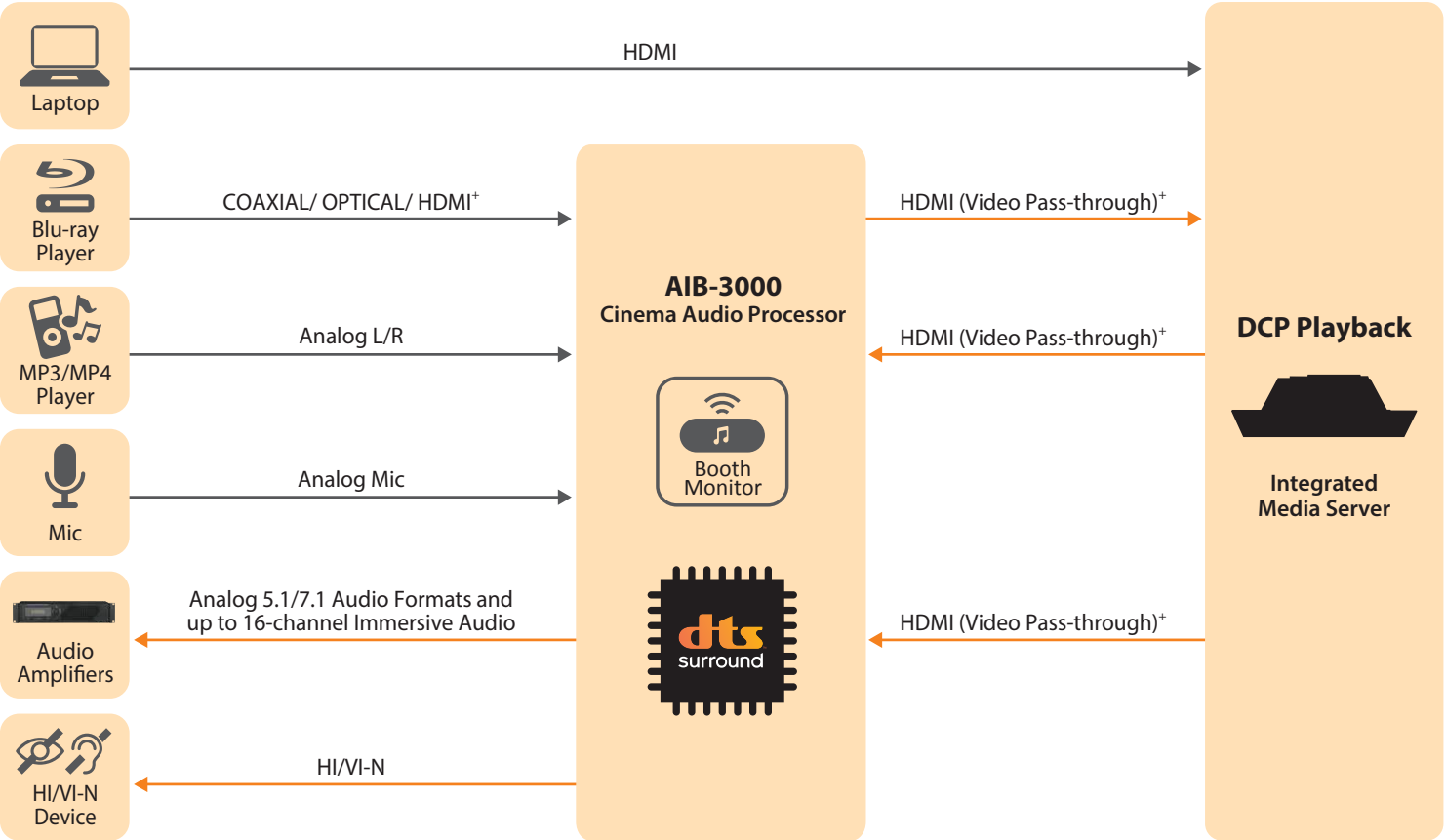
Specifications of AIB-3000

PERFORMANCE		
Balanced analog output	THD+N	<0.005%
	Frequency response	+/-0.5dB (20 Hz - 20K Hz)
	Dynamic range	>105dB

INPUT		
AES3 input	Connector	3 x RJ-45 balanced
	Impedance	110 Ohms
	Input level	0.5 - 10 Vpp
Non-sync input	Connector	2x RCA unbalanced
	Maximum input level	+8.2dBu
	Impedance	10K Ohms
Microphone input	Connector	Female XLR balanced or unbalanced
	Maximum gain	+32 dB
	Phantom supply	+48 V switchable
	Impedance	750 Ohms (balanced) or 375 Ohms (unbalanced)

OUTPUT		
Analog output CH1-16 & surround bass channel BM1-2	Connector	18x 3-pin Phoenix Balanced
	Frequency range	20 Hz - 20,000 Hz
	Impedance	100 Ohms (balanced) or 50 Ohms (unbalanced)
	Maximum output level	+13 dBu
Redundant analog output CH1-16	Connector	2x Male HD-25 balanced
	Frequency range	20 Hz - 20,000 Hz
	Impedance	100 Ohms (balanced) or 50 Ohms (unbalanced)
	Maximum output level	+13 dBu
Hi/Vi-N	Connector	2x RCA unbalanced
Monitoring output (L+C+R summed)	Connector	1x RCA unbalanced
Booth monitor speaker	Selectable source	LCR mix or a specific channel*

POWER	
Main power input	AC 100V-240V 50/60Hz
Backup power input	DC +12VDC, 4A
Maximum power	<50W

OPERATING CONDITIONS	
Standard operating temperature	0°C to 40°C (32°F to 104°F)
Non-operating temperature	-10°C to 60°C (14°F to 140°F)
Standard operating humidity	20% to 80% non-condensing
Non-operating humidity	20% to 80% non-condensing

GENERAL	
Dimensions (WxHxD)	483 x 88 x 300 mm (19" x 3.5" x 11.8")
Net weight	3.9 kg (8.6 lbs)
Shipping dimensions (WxHxD)	526 x 130 x 430 mm (20.7" x 5.1" x 16.9")
Shipping weight	4.8 kg (10.6 lbs)

* Note: In the 5.1/7.1 configuration, it is possible to choose a specific channel. In the 15.1 configuration, the channel is fixed to the LCR mix.

Specifications of HM-100 (Add-On)

Input	• HDMI 2.0 (PCM 7.1, DTS Digital Surround 5.1/ AC3 5.1)
	• COAXIAL (PCM 2.0, DTS Digital Surround 5.1/ AC3 5.1)
	• OPTICAL (PCM 2.0, DTS Digital Surround 5.1/ AC3 5.1)
Output	HDMI 2.0 Output (Video Pass-through) 4K/60Hz
Audio bitstream	• DTS Digital Surround 5.1
	• AC3 5.1
	• PCM 2.0
	• PCM 5.1/7.1 (HDMI only)
Sample rate	32KHz, 44.1KHz, 48KHz, 96KHz
Dimensions (WxDxH)	125x106x22mm (4.92" x 4.17" x 0.87")
Net weight	0.09 kg (0.20 lbs)
Shipping dimensions (WxHxD)	165x 40 x 142mm (6.50" x 1.57" x5.59")
Shipping weight	0.14 kg (0.31 lbs)

Schematic of AIB-3000 with External Audio Equipment*

Laptop — HDMI

Blu-ray Player — COAXIAL/ OPTICAL/ HDMI[+]

MP3/MP4 Player — Analog L/R

Mic — Analog Mic

Audio Amplifiers — Analog 5.1/7.1 Audio Formats and up to 16-channel Immersive Audio

HI/VI-N Device — HI/VI-N

AIB-3000
Cinema Audio Processor
Booth Monitor

DCP Playback
Integrated Media Server

HDMI (Video Pass-through)[+]

* The actual system configuration may vary depending on specific application requirements. Please contact GDC for further details.
[+] For AIB-3000 with HM-100 option providing HDMI and SPDIF inputs.

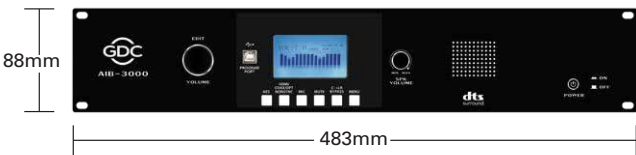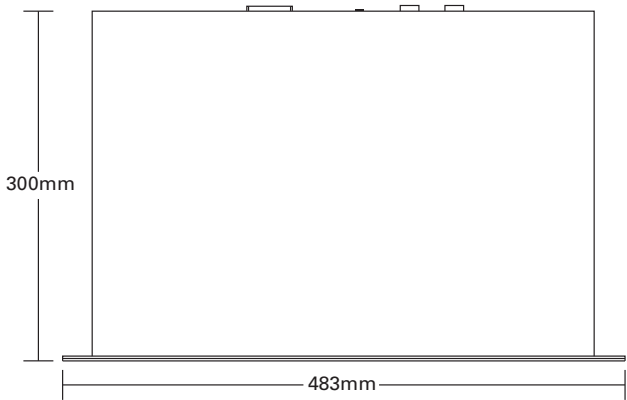*Powering your digital cinema experience*

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 of FR-2000

1 Larger screen for superior readability

2 Suitable for table or wall mount

3 Wi-Fi, and wired Ethernet connectivity

Dimensions of AIB-3000

300mm

483mm

88mm

483mm

Dimensions of HM-100

108.625mm

105.808mm

125mm

22mm

HM-100

Coaxial In   Optical In   HDMI Out   HDMI In

125mm