



**DLA42**

**8 channel (4x 2.0) digital audio loudness control unit  
based on Linear Acoustic algorithms with Quad-Speed  
audio ADD-ON bus**

**A Synapse® product**

*Synapse*

Quad speed  
**ADD-ON**

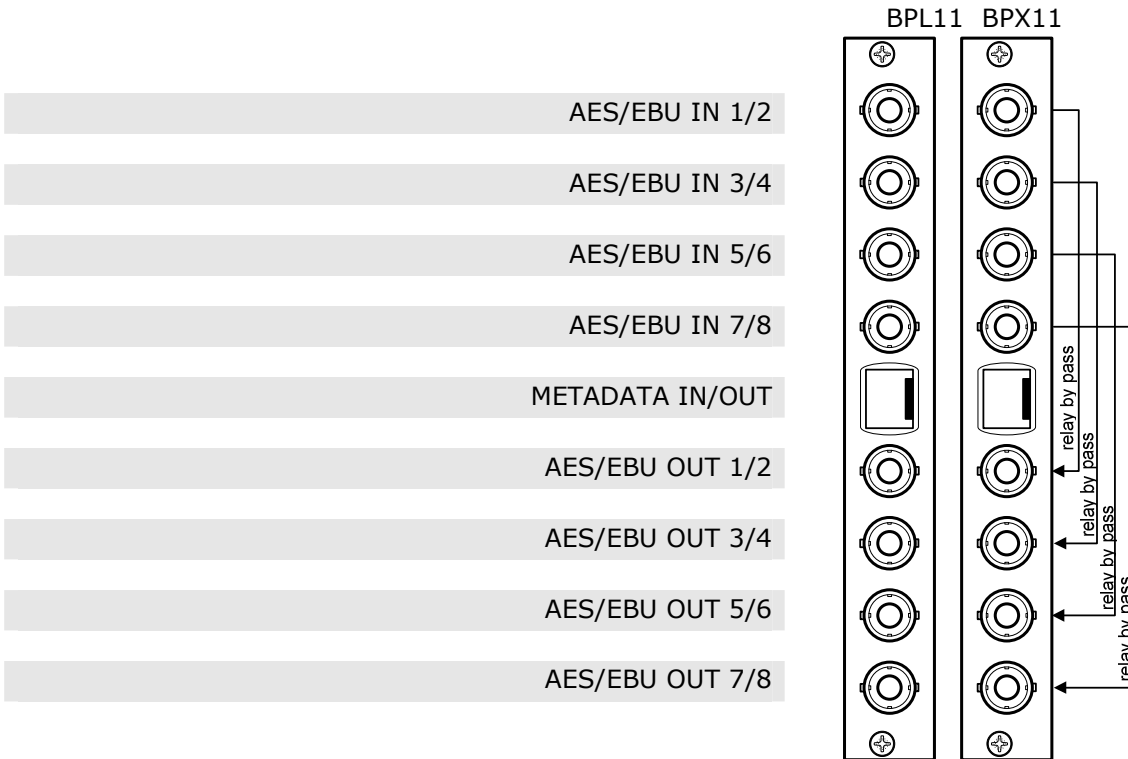
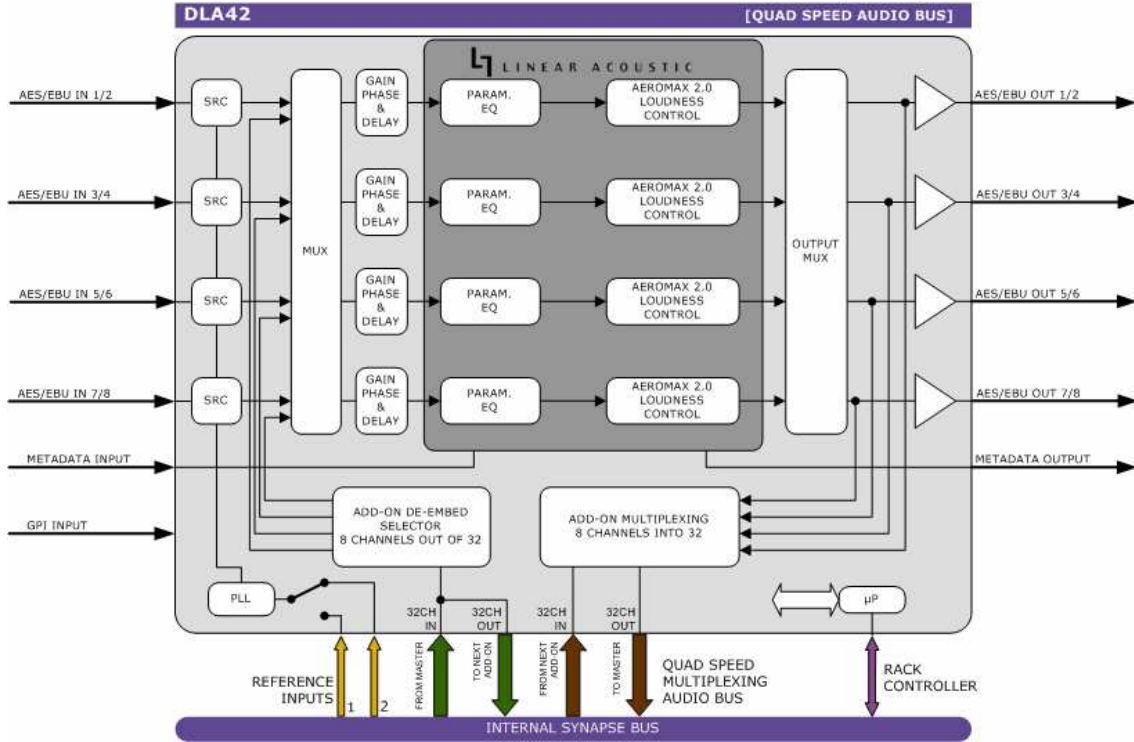
 **LINEAR ACOUSTIC**

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Block schematic & I/O panel



### Features

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Inconsistent DTV audio loudness, or the so-called “loud commercial problem” is the number one complaint of television viewers and it is driving them away. It is clear that with the transition to digital (HD), a simple and cost effective solution is needed right now!

The DLA42 is based on third generation audio and loudness management technology by Linear Acoustic. The DLA42 protects your viewers from loudness shifts and loss of surround sound in a simple, cost effective, modular and hot-swap manner next to over 250 other Synapse modules.

The DLA42 accepts 4 pairs of PCM audio to handle 4 stereo programs. The unit can apply multiband, multistage loudness control to all individual pairs. Loudness control is provided by the popular AEROMAX algorithm.

Loudness processing modes can be controlled the ACP protocol and Cortex or by GPI contact closures.

- Quad Speed audio bus for use with special Quad-Speed Master cards
- Selection/swapping of 8 local inputs or ADD-ON inputs.
- Input gain, phase and delay adjustments
- Parametric EQ for the 2.0 sources
- 2.0 loudness control of 4 stereo discrete channels
- Metadata manipulation of external source to preset levels (DialNorm)
- Locks to Black & Burst, AES input and Mastercard.
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

### Applications

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- Transmission or ingest loudness control
- Multi lingual loudness control

For more technical background information about the quad speed audio bus check our website. [www.axon.tv/support/downloads/whitepapers](http://www.axon.tv/support/downloads/whitepapers)

### Ordering information

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**Module:**

- **DLA42:** 8 channel (4x 2.0) digital audio loudness control -ON card

**Standard I/O:**

- **BPL11\_DLApp:** I/O panel for DLA41-42-43-44 with unbalanced AES/EBU in and out

**Relay bypass I/O:**

- **BPX11\_DLApp:** I/O panel for DLA41-42-43-44 with unbalanced AES/EBU in and out and bypass relay

**Specifications**

**AES Audio Input**

<b>Connector Standard</b>	BNC 75 Ohm AES-1992 for synchronous or asynchronous PCM/AES, SMPTE 276M for single ended synchronous or asynchronous PCM/AES
<b>Number of Inputs</b>	4
<b>Sampling Rate</b>	32 kHz to 192 kHz Synchronous 48 kHz in Master/ADD-On mode
<b>Resolution</b>	24 bits when AES inputs selected, 20 bits in Master/ADD-ON mode
<b>Minimum Input/Output Delay</b>	TBD
<b>Impedance</b>	75 Ohms
<b>Level</b>	0.2V to 1V nom

**AES Audio Output**

<b>Number of Outputs</b>	4
<b>Connector</b>	BNC,
<b>Resolution</b>	24 bits
<b>Sampling Rate</b>	48KHz synchronous
<b>Minimum Input/Output delay</b>	TBD
<b>Maximum Input/Output offset delay</b>	1300 ms

**Reference Input through RRC**

<b>Number of Inputs</b>	2 on SFR18, 2 on SFR08 and 1 on SFR04
<b>Bi-level</b>	PAL Black Burst ITU624-4/SMPTE318, Composite NTSC SMPTE 170M
<b>Word clock</b>	1Vp-p nominal, 75 Ohms terminated through loop AES11-2003 Annex B, not terminated on loop 48kHz

**Miscellaneous**

<b>Weight</b>	Approx. 250g
<b>Operating Temperature</b>	0 °C to +50 °C
<b>Dimensions</b>	137 x 296 x 20 mm (HxWxD)

**Electrical**

<b>Voltage</b>	+24V to +30V
<b>Power</b>	<10 Watts