



DAS24

**4 channel (2 x AES/EBU) digital audio mixing
and shuffle module**

A Synapse® product

Synapse

**ADD-ON
Card**

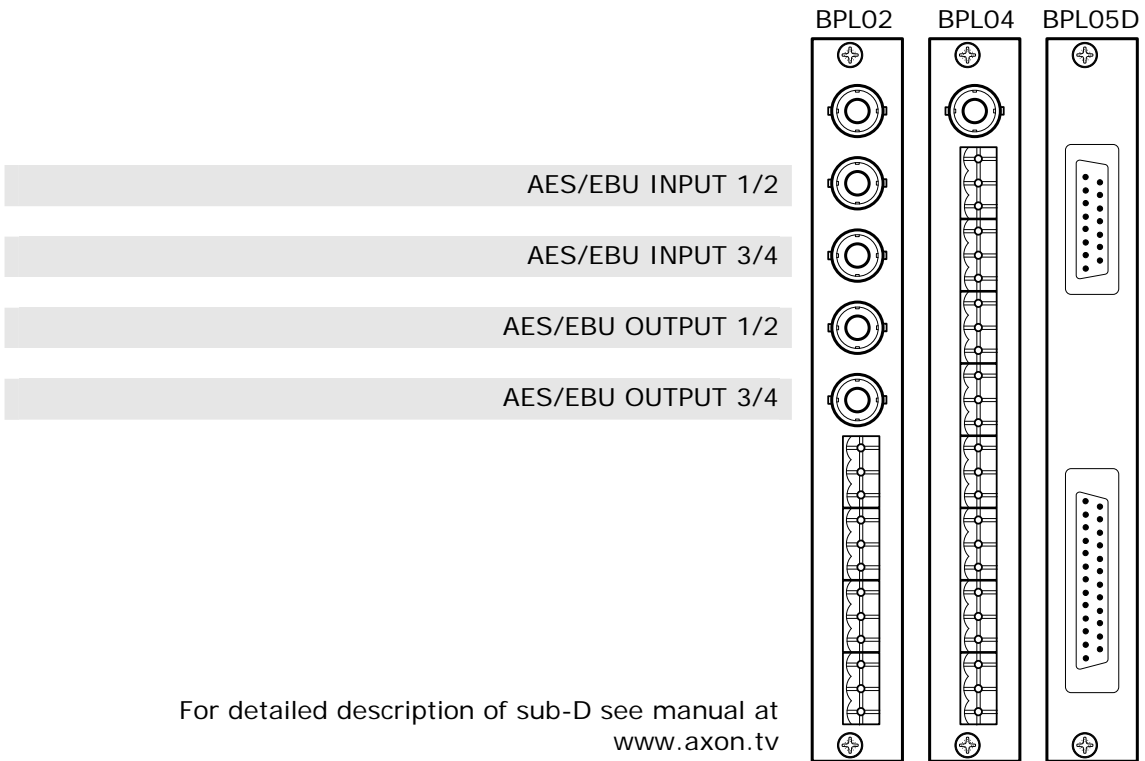
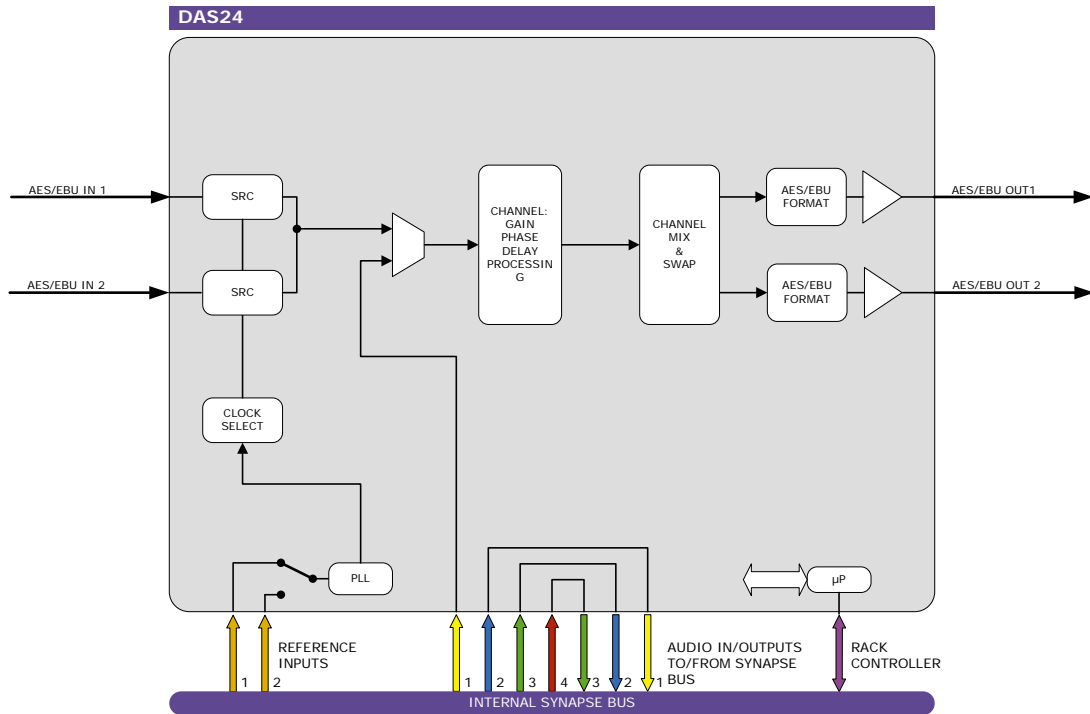
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Block schematic & I/O panel



Features

The DAS24 is 4 channel digital audio ADD-ON card. Its basic function is the routing and processing of de-embedded audio from a master card to external devices. The DAS24 can perform channel swapping, mixing, gain/phase control. The card has additional AES/EBU inputs with a Sample Rate Converter (SRC) and can therefore be used as an audio shuffler/mixer. The DAS24 has a delaying capability for each channel of up to 1300ms. In ADD-ON mode the card acts as a digital audio output board that is fed from a master card positioned one slot left of the ADD-ON card. The AES/EBU in and outputs are available on 75 Ohms BNC or 110 Ohms screw terminals. AES/EBU inputs with optional SRC (32 to 96kHz sampling)

- Sample clock can be derived from master card (ADD-ON mode)
- 96kHz and 48kHz sample clock locked to: B&B ref or wordclock ref.
- 96kHz and 48kHz sample clock in free running mode
- Available with 110 Ohms (phoenix) or 75 Ohms (BNC) AES/EBU in- and outputs
- Adjustable audio gain (in 0.25dB) and phase (0-180 deg)
- Can be used as a Synapse ADD-ON output card
- Full 4 channel shuffling and mixing
- Tracking audio delay on dedicated BNC input
- Offset delay up to 1300 ms
- Master fade function for dedicated Synapse applications
- Clip indication
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

Complementary card to:

- SFS12, HFS12
- SDB10, SDB20, HDB20
- SCV12, SAM10, HSU10, HSU20, 2HS10

Applications

- AES/EBU audio shuffling and mixing
- Synapse ADD-ON digital audio output

Ordering information

Module:

- **DAS24:** 4 channel (2 x AES/EBU) digital audio mixing and shuffle module

Standard I/O:

- **BPL02_DAS24:** I/O panel for DAS24 with unbalanced AES/EBU in and unbalanced AES/EBU out.
- **BPL04_DAS24:** I/O panel for DAS24 with balanced AES/EBU in and balanced AES/EBU out.
- **BPL05D_DAC24:** I/O panel for DAS24 with balanced AES/EBU in and balanced AES/EBU out on sub-D.

Specifications

AES Audio Input

Connector Standard	BNC, Screw terminal or female sub-D (balanced) AES-1992 for balanced synchronous or asynchronous PCM/AES, SMPTE 276M for single ended synchronous or asynchronous PCM/AES
Number of Inputs	2
Sampling Rate	32 kHz to 96 kHz Synchronous 48 kHz in Master/ADD-ON mode
Resolution	24 bits when AES inputs selected, 20 bits in Master/ADD-ON mode
Minimum Input/Output Delay	1 ms
Number of Inputs	2
Impedance	110 Ohms or 75 Ohms
Level	0.2V to 1V nom for BNC, 2V to 7V for balanced operation

AES Audio Output

Number of Outputs	2
Connector	BNC, Screw terminal or female sub-D (balanced)
Resolution	24 bits
Sampling Rate	48KHz synchronous
Minimum Input/Output Delay	2.5ms
Maximum Input/Output Delay	1300 ms

Miscellaneous

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

Electrical

Voltage	+24V to +30V
Power	<8 Watts