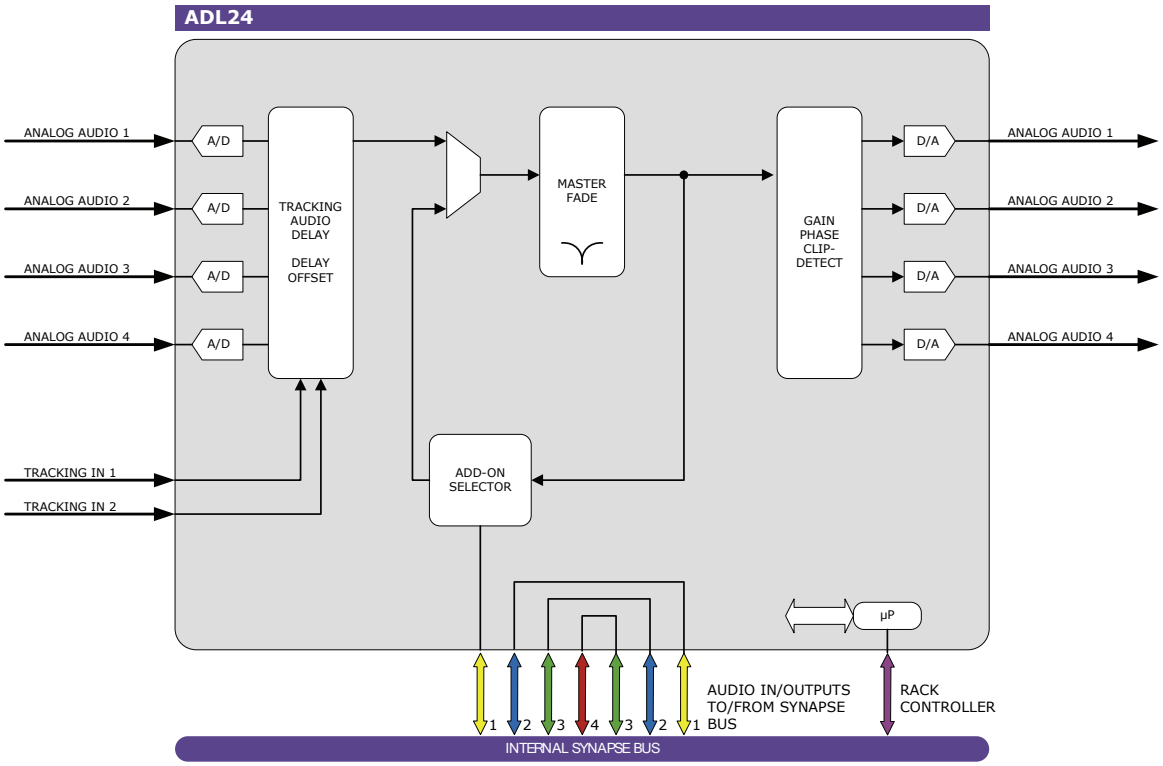
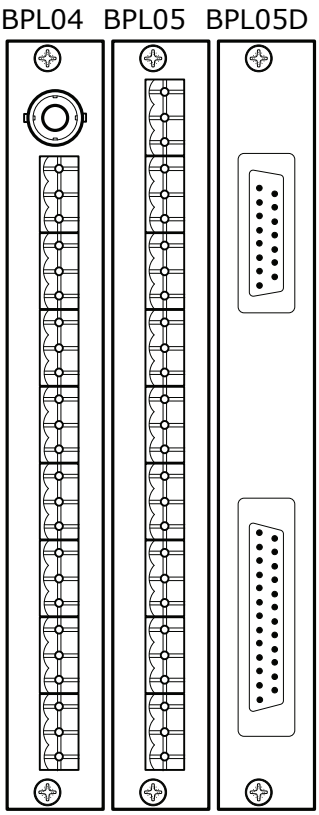
ADL24

Analog audio tracking delay with offset

A Synapse® product

Block schematic & I/O panel





TRACKING INPUT	
ANALOG AUDIO INPUT 1	
ANALOG AUDIO INPUT 2	
ANALOG AUDIO INPUT 3	
ANALOG AUDIO INPUT 4	
ANALOG AUDIO OUTPUT 1	
ANALOG AUDIO OUTPUT 2	
ANALOG AUDIO OUTPUT 3	
ANALOG AUDIO OUTPUT 4	

For detailed sub-D connections see the manual

Features

The ADL24 is an audio delay card, its main application is to delay analog audio signals. The card has a tracking audio delay and a delay offset ranging from 0 ms up to 5200 ms at 48 kHz. This card can also be used as an ADD-ON card. In ADD-ON mode the card acts as an analog input or output board that feeds a master card positioned to the left with embedder or de-embedder functionality. For example the SDB20 can perform a de-embedder function with the ADL24 as its output card.

The audio data that enters the synapse bus from a master card is identical to the analog audio on the local outputs. If the ADL24 is used with an SEB20 master card, the ADL24 performs as an analog input. The ADL24 converts the analog audio digital audio signals and put these on the Synapse bus. The signals can be embedded into the SDI data stream.

- 24 bit audio conversion
- 48, 96 and 192 kHz internal sampling for up to 90kHz analog audio bandwidth
- Sample clock can be derived from Master card (ADD-ON mode).
- Analog reference levels adjustable for +12, +15, +18 and +24dBu
- Adjustable audio gain (in 0.25dB) and phase (0-180 deg)
- Can be used as a Synapse ADD-ON card for embedding or de-embedding
- Adjustable audio delay offset up to 5200ms in 1ms increments
- Tracking audio delay
- Master fade function for dedicated Synapse applications
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

Complementary

- All embedding and de-embedding master cards

Applications

- Analog audio tracking delay functions
- Generic analog audio ADD-ON card for dedicated Synapse master cards that have an embedding function. Both in and output options
- Offset delay for compensation of large screen venue displays

Ordering information

Module:

- **ADL24:** Analog audio tracking delay with offset

Standard I/O:

- **BPL04_ADL24:** I/O panel for ADC24 with balanced analog audio in and balanced analog audio out
- **BPL05_ADL24:** I/O panel for ADC24 with balanced analog audio in and balanced analog audio out and tracking on Phoenix
- **BPL05D_ADL24:** I/O panel for ADC24 with balanced analog audio in and balanced analog audio out and tracking on sub-D

Specifications

Analog Audio Input

Type	Balanced analog audio
Number of Inputs	4
Connector	Removable terminal strip or female sub-D
Impedance	10k Ohms nominal (differential)
Sampling Rate	48KHz
Signal Level	0dB FS => 12dBu, 15dBu, 18dBu or 24dBu
Level Control Range	+12dB to -60dB 0.25dB increments
Frequency Response	< ±0.1dB, 20Hz to 20kHz (broadcast quality)
Dynamic Range	100dB @-60 dBFS
THD+N	< 0.002% (>96dB) @ 1kHz, -1dB FS < 0.002% (> 96dB) @ 20Hz to 20kHz, -1dB FS
CMRR	> 60dB at 1kHz

Internal processing

Resolution	24 bits
Sampling Rate	48, 96 or 192KHz synchronous 48k in Mastermode
Minimum Input/Output Delay	4ms
Maximum Input/Output Delay	5200 ms

Analog Audio Output

Type	Balanced analog audio
Number of Outputs	4
Connector	removable terminal strips or female sub-D
Impedance	50 Ohms balanced
Signal Level	0dBFS => 12dBu, 15dBu, 18dBu or 24dBu
Frequency Response	< ±0.05dB (20Hz to 20kHz)
Gain Mismatch	< 0.25 dB @997Hz, -20dBFS Multi channel
THD+N	< 92dB @ 1kHz, -1dBFS
Crosstalk	< -100dB (20Hz to 20kHz)
DC Offset	< ±30mV
Dynamic range	> 97dB @-60dBFS

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	<10 Watts