



ADC20

4 channel analog audio input ADD-ON card

A Synapse® product

Synapse

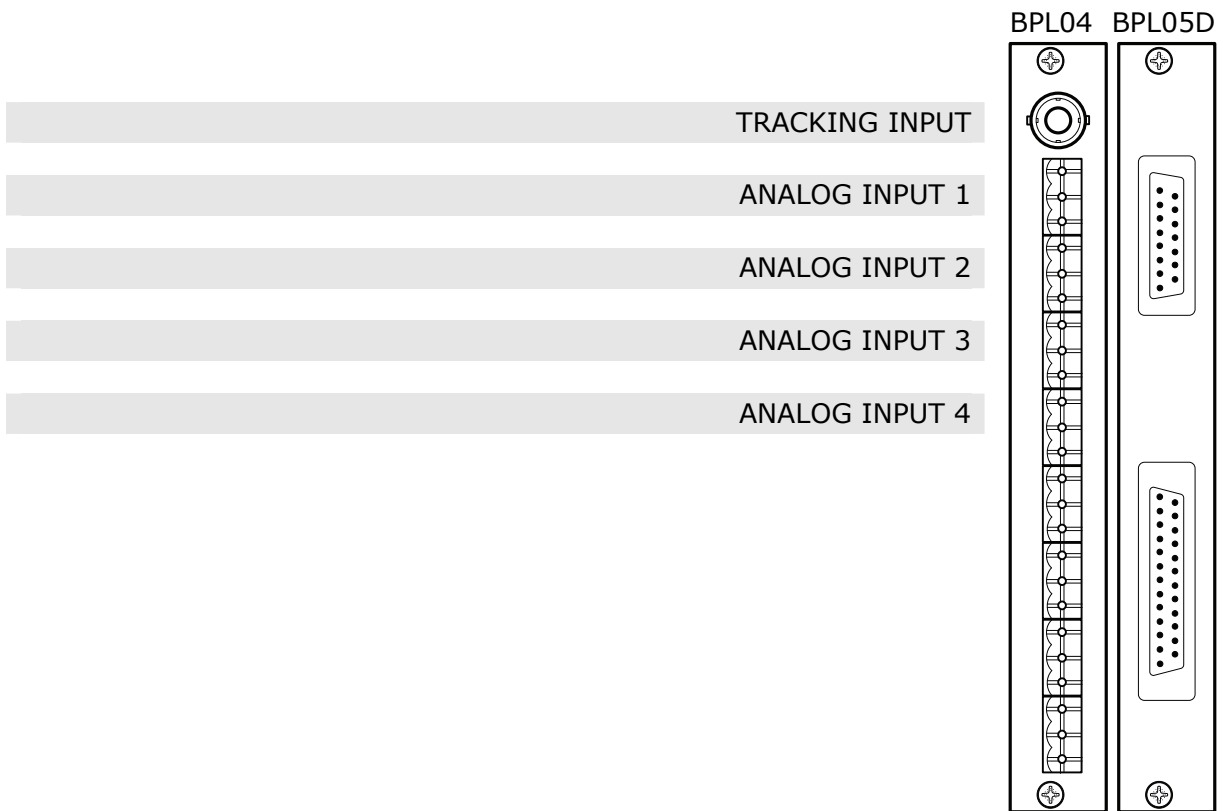
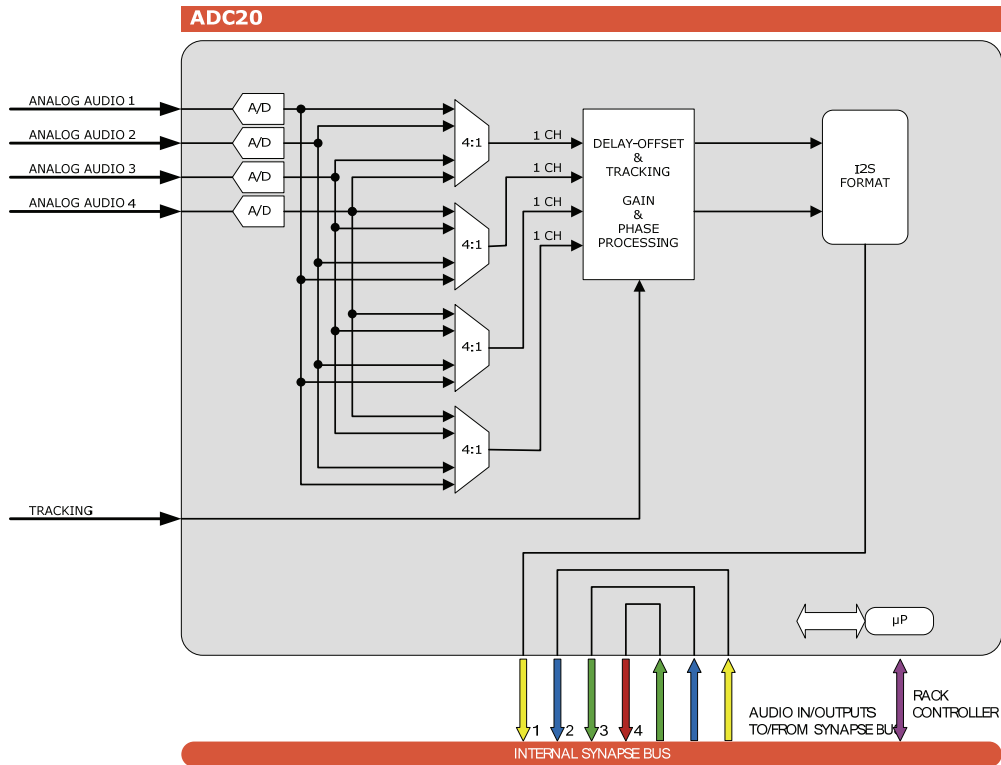
**ADD-ON
Card**

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Block schematic & I/O panel



Features

The ADC20 is an analog audio to digital audio converter with tracking delay and delay offset. The delay offset range is from 0 ms up to 5200 ms at 48 kHz. This card can only be used as an ADD-ON card. In this mode the card is set to embed audio signals and acts as an analog input board that feeds a master card positioned to the left, with embedding functionality. The SEB10, for example, can perform an embedding function with the ADC20 as its input card. The ADC20 converts the analog audio into AES/EBU signals and puts it on the Synapse bus. The signals can be embedded into the SDI data stream. Other cards with an embedding function are: ASV08, ASV12, ASV22, HFS11 and more. The compatible cards of this product can be recognized by a yellow arrow pointing towards the block schematic.

- 24-bit audio conversion
- 48k sampling locked to Master Card
- Tracking audio delay
- Adjustable audio delay offset up to 5200ms in 1ms increments
- Phoenix or sub-D input connectors
- Adjustable audio gain (in 0.25dB) and phase (0-180 deg)
- Input channel swapping
- Analog reference levels adjustable for 12, 15, 18 and 24dBu (software)
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

Complementary card to:

- SFS11, HFS11
- SEB10, SEB11, SEB20, HEB20
- ASV08, ASV12, ASV22, ASM10
- All embedding master cards

Applications

The ADC20 is a generic analog audio ADD-ON card for dedicated Synapse master cards that have an embedding function.

Ordering information

Module:

- **ADC20:** 4 channel analog audio input Synapse ADD-ON card

Standard I/O:

- **BPL04_ADC20:** I/O panel for ADC20 with analog audio input
- **BPL05D_ADC20:** I/O panel for ADC20 with analog audio in on sub-D

Specifications

Analog Audio Input

Type	Balanced analog audio
Number of Inputs	4
Connector	Removable terminal strip or 15 pins and 25 pins 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

Master card output

Number of Outputs	2
Connector	NA
Resolution	24 bits
Sampling Rate	48KHz synchronous to master video card
Minimum Input/Output Delay	2.5ms
Maximum Input/Output Delay	5400 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