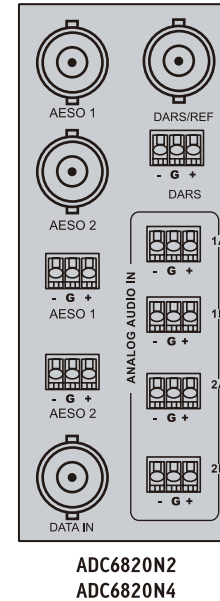
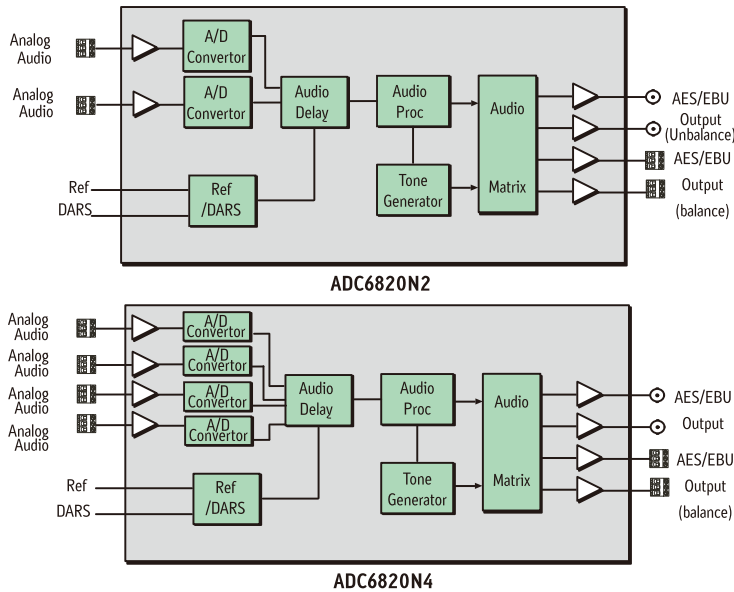


ADC6820N2/ADC6820N4

Audio Analog to Balanced/Unbalanced AES Converter

The ADC6820N2/ADC6820N4 is an audio A to D converter with audio delay. Both modules can provide two/four balanced audio inputs, two pairs of unbalanced and two pairs of balanced AES audio outputs. They can also provide one balanced or unbalanced DARS input, one Genlock input. The user can select either DARS or Genlock as a synchronized signal. Both modules can generate fixed-rate Tone signal and provide flexibility in audio sampling and delay setting.



Features

- One pair/two pairs of balanced analog audio inputs
- Two pairs of unbalanced AES and two pairs of balanced AES outputs
- Either DARS or Genlock can be selected as synchronized signal
- 16-bit, 20-bit, 24-bit sampling setting

- Generating two fixed-rate audio signal
- -96 ~ +12dB audio gain range adjustment
- Maximum 1980ms @ 32KHz manual delay
- Local or Remote control and monitoring

Specifications

Balanced Analog Audio Input

Number of Inputs: ADC6820N: 1 ADC6820N4: 2

Connector: 3 pin connector

Input Coupling: AC coupled

Impedance: >50KΩ

Maximum Input Level: +16dB to +28dB in 2 dB steps

Digital Audio Output

Number of Outputs: 2 AES 75 ohm BNC and 2 AES 110 ohm balanced

Standard: AES 3: 1992, AES3id: 1995 and SMPTE 276M

Impedance: 75 ohm /110 ohm

Channel Status: Professional

110 Ohm Output

Impedance: 110 ohm±20%

Level: 2 V to 7 V peak-to-peak

Common Mode: >30 dB below output signal

Rise and Fall Time: 5 to 30 ns

Jitter: 0.02 UI

75 Ohm Output

Return Loss: >30 dB up to 6 MHz

Output Level: 1.0 V +/- 0.1 V peak-to-peak

DC Offset: <10 mV

Rise and Fall Time: 30 to 44 ns

Jitter: 0.02 UI

External Reference Input

Connector Type: BNC (unbalanced)

3 pin connector (balanced)

Impedance: 75 ohm (unbalanced)

110 ohm (balanced)

Return loss: >30 dB up to 6 MHz (unbalanced)

AES Reference Sampling Rate: 32 kHz, 48 kHz, 96 kHz

Video Reference: 525,625 Black Burst

Performance

Quantization: 16 bits, 20 bits, 24 bits

Sampling Rate: 32 kHz, 48 kHz, 96kHz

Frequency Response: <±0.05 dB @-10 dBFS, 20Hz to 20 kHz

Linearity: <±0.3 dB up to -100 dBFS

Signal to Noise @ 0 dBFS: 100dB (no filter)
103 dB (A-weight)

THD+N: <0.003% @ (20 Hz to 20 kHz), -1 dBFS = +23 dBu

IMD: >90 dB (CCIF two tone test @ 0 dBFS = +18 dBu,
+24 dBu, +28 dBu, High-Z load

Crosstalk: >90 dB, 20 Hz to 20 kHz

Power Consumption

Power: 2.3W

Positive Rail: 350 mA

Negative Rail: 6 mA

*Specifications are subject to change without notice.

Ordering Information

ADC6820N2

2 Channels Audio Analog to Balanced/unbalanced AES Converter

ADC6820N4

4 Channels Audio Analog to Balanced/unbalanced AES Converter

ADC6820NS

2 Channels Audio Analog to Balanced/unbalanced AES Converter with audio tracking

ADC6820NS4

4 Channels Audio Analog to Balanced/unbalanced AES Converter with audio tracking