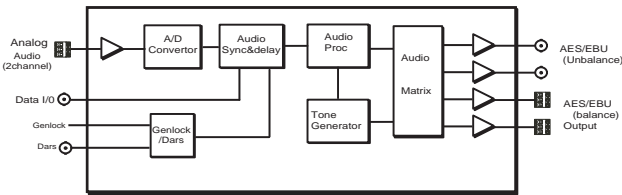


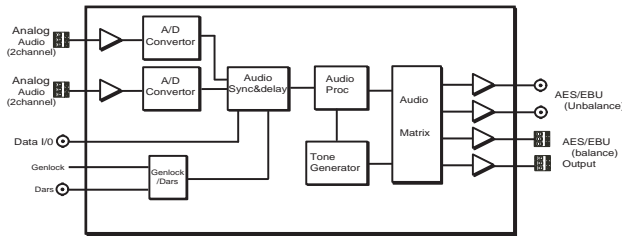
**Description:**

The ADC6820NS/ADC6820NS4 are an audio A to D converter with audio delay and synchronizer. The two modules can provide two/four balanced audio inputs, two unbalanced and two unbalanced AES outputs. Either DARS or Genlock can be selected as synchronized signal. In addition to manual delay, both ADC6820NS and ADC6820NS4 can receive synchronized signal from video board where the tracking delay is set.

**SNMP**



ADC6820NS

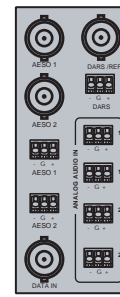


ADC6820NS4



**Features:**

- ▶ One pair/two pairs of analog balanced inputs
- ▶ Two pairs of unbalanced AES and two pairs of balanced AES outputs
- ▶ Selectable delay and synchronizing mode
- ▶ Either DARS or Genlock can be selected as synchronized signal
- ▶ Different audio sampling frequency rate and different size of sampling setting for option
- ▶ Generating two fixed-frequency audio signals
- ▶ -96 ~ +12dB audio gain range adjustment
- ▶ Maximum 1980ms @ 32KHz manual delay
- ▶ Local or remote control and monitoring
- ▶ Supporting audio tracking



ADC6820NS  
ADC6820NS4

**Specifications:** (Specifications are subject to change without notice)

**Balanced Analog Audio Input**

Number of inputs     ADC6820NS: 2  
                              ADC6820NS4: 4  
Connector             Audio connector  
Input coupling        AC coupled  
Impedance            High impedance  
Maximum input level   + 16 dB to +28 dB in 2 dB steps

**Digital Audio Output**

Number of outputs     2 AES 75 ohm BNC and 2 AES 110 ohm balanced  
Standard             AES3: 1992, AES3id: 1995 and SMPTE276M  
Impedance            75 ohm/110 ohm  
Status                Professional

**110 Ohm Output**

Impedance            110 ohm +/-20%  
Level                 2 V-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        1.0 V + 0.1 V peak-to-peak  
DC offset             <10 mV

**Ordering Information:**

ADC6820NS            2 Channels Audio Analog to Balanced/unbalanced AES Converter with Audio Synchronizer

Rise and fall time    30 to 44 ns  
Jitter                 0.02 UI

**External Reference Input**  
Connector type        BNC (unbalanced)  
                          Audio 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, 96 kHz  
Frequency response    <+/-0.05 dB @-10 dBFS, 20 Hz to 20 kHz  
Linearity             <+/-0.3 dB up to -100 dBFS  
Signal to noise @ dBFS   100 dB (no filter)  
THD + N               <0.003% @ (20 Hz to 20 kHz), -1 dBFS=+ 23 dBu  
                          High-Z load  
IMD                    >90 dB (CCIF two tone test @ d dBFS = + 18 dBu,  
                          +24 dBu, +28 dBu, High-Z load)

**Crosstalk**

>90 dB, 20 Hz to 20 kHz

**Power Consumption**

Power                 4.1 W  
Positive rail          550mA  
Negative rail          20mA

ADC6820NS4           4 Channels Audio Analog to Balanced/unbalanced AES Converter with Audio Synchronizer