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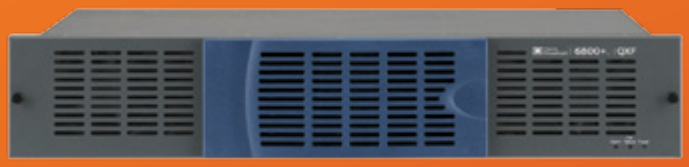
ADC6800+A4BCD

4-Channel Audio Analog-to-Digital Converter with Delay



The ADC6800+A4BCD is an analog-to-digital audio converter with delay that converts four channels of analog audio to two AES digital outputs in balanced and unbalanced formats.

Optimized for the 6800+™ core processing platform, the module is ideal for solving audio sampling delay and synchronization problems. It supports insertion of both a fixed and variable delay to ensure proper synchronization between video and audio.

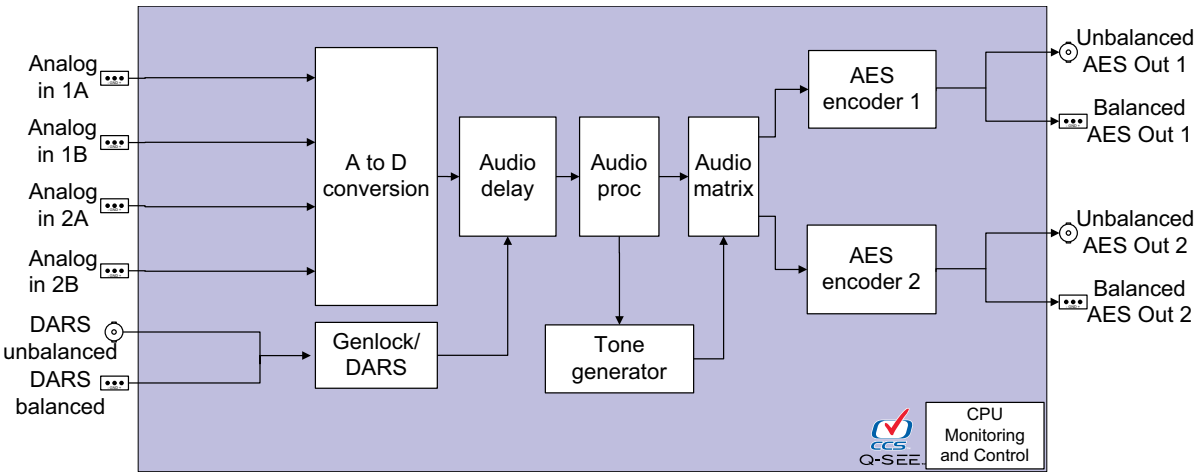
The ADC6800+A4BCD module can be controlled at the card edge, or controlled and monitored via the CCS Navigator™ software applications, HTTP web browser, NUCLEUS™ hardware control panels or third-party SNMP-based control applicaions.

Features

- Fixed delay operation of up to 1.3 sec @ 48 kHz
- 32/48/96 kHz sampling capability
- Selectable 16-, 20- and 24-bit analog-to-digital conversion
- Four balanced analog audio inputs, 600 ohms or high impedance (jumper selectable)
- Two AES outputs (both balanced and unbalanced formats simultaneously available)
- Internal audio processing amplifier
- Channel ID tone generators (750 Hz, 1.5 kHz, 3 kHz, and 6 kHz)
- Near clipping/no signal/tone indication
- Selectable delay adjustment for each input channel
- External DARS reference input (video reference can be drawn from the frame)
- Supports card-edge and remote control of module (via CCS Navigator, web browser and third-party SNMP-based control systems)

Images/Diagrams

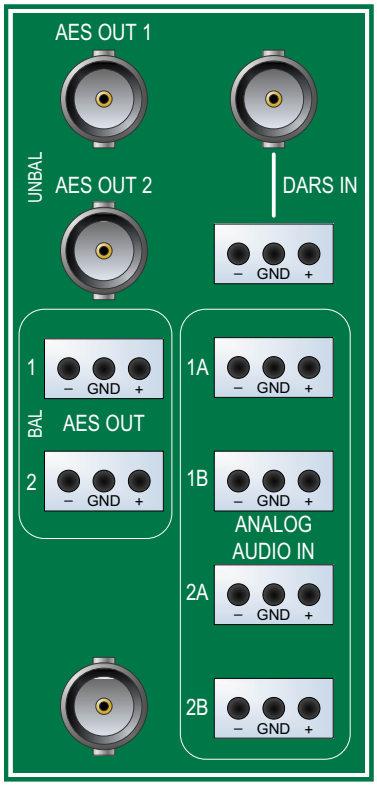
Block Diagram



ADC6800+A4BCD

Back Modules

Note: Data I/O not used on these cards



Specifications

Specifications and designs are subject to change without notice.

Balanced Analog Audio Input

Number	4
Connector	3-pin WECO connector
Input Coupling	AC Coupled
Impedance	600 ohms or high impedance, jumper selectable
Maximum Input Level	+15 to +28 dB in 2 dB steps

Digital Audio Output

Number	2 AES 75 ohms BNC and 2 AES 110 ohms balanced
Standard	AES3: 1992, AES3: 1995 and SMPTE 276M
Impedance	75 ohms/110 ohms

110 ohms Output

Impedance	110 ohms ±20%
Level	2 to 7 V pk-pk
Common Mode	>30 dB below output signal
Rise and Fall Time	5 to 30 ns
Jitter	0.01 UI

75 ohms Output

Return Loss	>30 dB up to 6 MHz
Output Level	1 V +0.1 V pk-pk
DC Offset	<10 mV
Rise and Fall Time	30 to 44 ns
Jitter	0.01 UI

External Reference Input

Connector Type	BNC (unbalanced) 3-pin WECO connector (balanced)
Impedance	75 ohms (unbalanced) 110 ohms (balanced)
Return Loss	>30 dB up to 6 MHz (unbalanced)
AES Reference Sampling Rate	32 kHz, 48 kHz, 96 kHz

Power Consumption . . . . . 5.4 W

Ordering Information

ADC6800+A4BCD	4-channel audio A-to-D converter with delay, includes front module and rear connector, for FR6802+ series frames

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