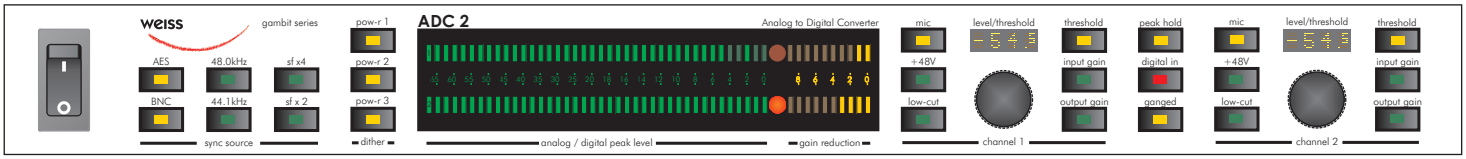
gambit series ADC2

24 Bit / 192 kHz A/D Converter



The Weiss Gambit Series ADC2

The **ADC2** is the successor of our renowned two channel ADC1-MK2 A/D Converter.

It uses state of the art A/D chips in our proven **"correlation technique"** configuration, which lowers converter imperfections.

The analog input stages are kept **balanced** from the input connectors throughout to the converter chips. A high quality **microphone preamplifier** is built in as a standard feature.

Supported sampling frequencies are **44.1, 48, 88.2, 96, 176.4 and 192 kHz**.

Output formats are AES/EBU in one or two wire technique, S/PDIF as well as **Firewire** (to be implemented) for a direct connection to computers.

Synchronization can be internal or external through AES/EBU or BNC (Wordclock).

The built in digital **peak limiter** allows for setting a generous headroom on the analog inputs and still get a full scale signal at the converter's output.

A large **bar graph** shows the level to the A/D input, the output level and the **gain reduction** in the aforementioned Limiter.

The output wordlength can be reduced from 24 to 16 bits with the built in **POW-R** dithering. It is even possible to have one output running at 24 bits and another one at 16 bits. This feature comes handy when a safety copy to e.g. a DAT has to be made.

The analog input sensitivity can be set in 1dB steps via a relais controlled **attenuator**. An additional gain control is implemented in the DSP chip in the digital domain.

Both channel 1 and channel 2 are **fully independent**, except for the sampling rate and for the dither settings.

The AES/EBU sync input can be used as a **digital audio input**. This allows to limit and / or dither digital audio signals. The peak hold feature can be used to monitor a transfer and check for overloads which may have occured.

"I have finally listened to your ADC2 in all sampling rates. I experienced what I expected. This is the best A/D Converter that I have ever heard."

Mats Hellberg, Sweden

"In my experience, a quality grand piano is one of the hardest instruments for audio equipment to reproduce with accuracy, dynamics, and that indefinable "musicality", The ADC2 does it."

Douglas Thompson, USA

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ADC2, 24Bit / 192kHz A/D Converter

Inputs:
- Balanced LINE and MIC inputs on separate connectors.
- MIC input with switchable phantom power.
- Input sensitivity is settable in each channel independently (or ganged) with two rotary encoders.
- Line Input sensitivity: -16dBu to +26 dBu for 0dBFS output.
- Mic Input sensitivity: -54dBu to +6dBu for 0dBFS output.
- Separate AES/EBU input on XLR for synchronization and/or audio input to the DSP, which allows for use of the ADC2 for redithering and limiting of digital Signals.

Outputs:
- AES/EBU on XLR in one or two wire technique, S/PDIF on RCA, Firewire.

Synchronization:
- Internal sync selectable 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz.
- External sync from Wordsync Input (BNC) or from AES/EBU input.
- Wordsync output on a BNC connector.

Metering:
- One bargraph per channel with peak hold.
- Two over LEDs
- Two numerical displays for input sensitivity

Miscellaneous:
- 19 inch rack mount frame, 1HU.
- Mains voltage 115 / 230 VAC, 50/60 Hz.

DSP Features:
- POW-R dithering to 16 bits, settable to three different algorithms according to the POW-R standard.
- SNR enhancement.
- Level bar graph meter.
- Digital peak limiter

Frontpanel Elements:
- Mains Switch.
- 2 rotary encoders for Level control.
- Several keys for various parameters with direct access. No menu structures used.
- Two bar graphs 0..-65dB.
- Two bar graphs for gain reduction.
- Two "over" LEDs.

Backpanel Elements:
- One BNC connector for sampling clock input with termination switch (on/off).
- One XLR connector for sampling clock input (AES/EBU) and at the same time for the digital input to the DSP. With termination switch (on/off).
- Four XLR connectors for analog inputs (2 LINE, 2 MIC).
- Two XLR connectors for AES output.
- One RCA connector for S/PDIF output.
- One Firewire connector.
- One switch for dither setting for main outputs.
- One switch for 1wire / 2 wire AES out mode setting.

Block Diagram: