



Blackmagic Design ATEM Microphone Converter

ProdCode: BMDATEMTVSTMC

Expand Microphone Inputs by Converting 4 Analogue XLR Inputs to MADI

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Features

- Expand Microphone Inputs by Converting 4 Analogue XLR Inputs to MADI
- 4 Analogue Inputs that are Mic/Line Selectable and have 48V Phantom Power
- Features Amazing Audio Quality with an Extremely Low Noise Floor
- Wide Dynamic Range and Very Low Distortion
- 8 Seperate ADCs on each Seperate Input That Work Together To Extend Dynamic Range
- HDMI Montioring Output With Scrolling Audio Waveform

ATEM Microphone Converter

Add extra microphones to your ATEM switcher

Now it's easy to expand the MADI input on ATEM switchers so you can add multiple microphones or external audio mixers. The ATEM Microphone Converter simply plugs into the ATEM Television Studio MADI port, so there's no complex setup required and additional units can even be daisy chained for more sources. Each converter has 4 analogue inputs that are mic/line selectable and have 48V phantom power. The design features amazing audio quality with an extremely low noise floor, a wide dynamic range and very low distortion. The design even uses 8 separate ADCs on each separate input that work together to extend dynamic range. There is also an HDMI monitoring output with scrolling audio waveforms.

High End Converter Style Design

The ATEM Microphone Converter features a familiar converter based design that has space for the analogue electronics required for high quality analogue to digital audio conversion (ADC). It features combined XLR/TRS input sockets allowing both XLR or jack cables to be connected. It also includes a MADI output with the converted audio, as well as a MADI input which allows multiple ATEM Microphone Converters to be daisy chained so more than 4 channels of audio can be embedded into a single MADI connection. There is also a 12V DC power connection plus USB and Ethernet for allowing remote admin and software updates. Switches allow control of mic/line audio input levels and to turn on phantom power.

Connects via MADI for Multi Channel Audio

MADI, or Multichannel Audio Digital Interface, is a multi channel audio link standardized as AES10 by the Audio Engineering Society (AES) and it defines the data format for an interface for multiple channels of digital audio. The ATEM Microphone Converter's MADI output embeds the 4 analogue inputs as MADI channels 1, 2, 3 and 4. ATEM Microphone Converter also includes a MADI input, which is used to loop multiple converters when you need more than 4 channels of audio on a single MADI link. This means if a second converter is connected to the input of another, the upstream converter will stack its 4 channels above the 4 channels on the downstream converter.

Innovative Analogue to Digital Conversion

Each analogue input channel has an ultra low noise, fixed gain preamplifier scaled to drive a high dynamic range audio ADC, which totally eliminates using an analogue microphone preamplifier in the design so the input does not suffer from preamp gain step clicks or "zipper noise". The ATEM Microphone Converter steps outside conventional audio industry design practice of using an individual audio ADC, as each input implements analogue to digital conversion using 8 high dynamic range audio ADCs that function collectively as one ultra high dynamic range audio ADC. This means each input channel's dynamic range is an incredible 131dB(A). Plus you get incredibly low distortion of only 0.002%.

Extremely Low -129dBV Noise Floor

A common problem with mic converters is the higher noise floor where electrical noise is generated in the preamplifiers. The ATEM Microphone Converter eliminates this problem by using a very different design where the input is converted directly using its ultra high dynamic range conversion so you pass RAW audio to the switcher where the switcher can then apply as much gain as required for the correct audio level. This means you don't get an injection of noise caused by an analogue gain stage, so you get an extremely low fixed noise floor of -129dBV regardless of digital gain applied. You can then apply digital gain control, which is done in minute ± 0.1 dB gain steps that are totally inaudible.

Digital Preamplifier Design for Stability

With the wide dynamic range input that eliminates the need for an analogue preamplifier, microphone levels are adjusted by a digital preamplifier gain stage that is extremely stable. Different microphone types and brands can vary widely in analogue audio levels, so this digital gain stage allows compensation for the specific brand of microphone you use. Best of all, the digital preamplifier is processed in the full internal 32 bit RAW audio bit depth, so you're adjusting with much greater precision than the MAD1 audio standard can support. This results in an extremely clean and noise free gain stage. Then the final levels can be finessed on the ATEM audio mixer as you work.

Features Precisely Matched Analog Inputs

The innovative design of the ATEM Microphone Converter also has other benefits, such as extremely precise matching between input audio channels. The multi ADC per input design technique means that each analogue audio input has very similar specifications and tolerances so all input channels are statistically more uniform. Plus the unique 8 ADC input design will maintain a stable and consistent flat noise floor that won't experience the negative effects of noise floor level modulation that traditional staggered ADC designs suffer from. This means you get similar

performance no matter what input you connect the microphone to, and even between multiple ATEM Microphone Converters.

Includes HDMI Monitoring with Scrolling Audio Waveforms

ATEM Microphone Converter also includes an HDMI video monitoring output so you can connect a simple TV or computer monitor for a full status display! It includes 4 scrolling waveforms over the last 60 seconds of time, which is both informative and fun to watch! There are also audio meters to show the level at the input connector. Each channel also includes a custom label set via the software utility. There are also indicators to show the switch settings for mic/line input selection and phantom power. Plus if you daisy chain converters the monitoring output will adapt and display more than 4 channels. You can even set a converter name that will be displayed on the monitoring.

In the box:

- ATEM Microphone Converter
- External 12V DC power supply with locking connector and international socket adapters for most countries
- Welcome wallet with QR code for software download

