



DIGITAL AUDIO FORMAT CONVERTER DFC-64

DIGITAL FORMAT CONVERTER

The DFC-64 provides 64 channels of format conversion from AES\EBU digital audio to MADI digital audio (Multi-channel AES\EBU) and vice versa. This allows E-Performance and E-Architecture systems to interface with a wide range of digitally enabled systems such as digital audio consoles, digital audio editing systems, RAM based effects playback systems, professional film surround sound decoders, etc. Sample rates to 192 kHz and up to 24 bit encoding is supported. All channels are transferred across a single cable, either coaxial (BNC) or optical network cable. In both cases, cable lengths of more than 100 meters can be achieved. The AES/EBU channels are provided as 32 AES/EBU inputs and outputs via D-sub connectors. The DFC-64 accepts 56 channels and 64 channels as well as 96k frame at its input, and can be set to generate those formats at its output.



SPECIFICATIONS

Digital Inputs

MADI In

- Coaxial via BNC, 75 Ohm according to AES10-1991
- High-sensitivity input stage (< 0.2 Vpp)
- Optical via FDDI duplex SC connector
- 62.5/125 and 50/125 compatible
- Accepts 56 channel mode, 64 channel mode, and 96k frame
- Single Wire: up to 64 channels 24 bit 48 kHz
- Double Wire / 96k frame: up to 32 channels 24 bit 96 kHz
- Quad Wire: up to 16 channels 24 bit 192 kHz
- Lock range: 28 kHz – 54 kHz
- Jitter when synced to input signal: < 1 ns
- Jitter suppression: > 30 dB (2.4 kHz)

Word Clock In

- BNC, not terminated (10 kOhm)
- Switch for internal termination 75 Ohm
- Automatic Double/Quad Speed detection and internal conversion to Single Speed

AES\EBU

- 32x transformer balanced ground free I/O in accordance with AES-3 1992
- SPDIF compatible (IEC-60958)
- Single Wire 32 x 2 channels 24 bit, up to 192kHz
- Lock Range 28 kHz -104 kHz, 162 kHz-204 kHz
- Lock range: 28 kHz – 54 kHz
- Jitter when synced to signal < 1 ns
- Jitter suppression: > 30 dB (2.4 kHz)

Digital Outputs

MADI Out

- Coaxial via BNC, 75 Ohm according to AES10-1991
- Output voltage 600 mVpp
- Cable length coaxial: up to 100 m
- Optical via FDDI duplex SC connector
- 62.5/125 and 50/125 compatible
- Cable length optical more than 500 m
- Generates 56 channel mode, 64 channel mode, and 96k frame
- Single Wire: up to 64 channels 24 bit 48 kHz
- Double Wire / 96k frame: up to 32 channels 24 bit 96 kHz
- Quad Wire: up to 16 channels 24 bit 192 kHz

Word Clock Out

- BNC
- Max. output voltage: 5 Vpp
- Output voltage @ 75 Ohm: 4.0 Vpp
- Impedance: 10 Ohm
- Frequency range: 27 kHz – 200 kHz

AES\EBU

- 32x transformer balanced ground free I/O in accordance with AES-3 1992
- Output Voltage 4.5 Vpp
- Format: Professional according to AES-3 1992 Amendment 4
- Single Wire 32 x 2 channels 24 bit, up to 192kHz

General

MIDI

- 16 channels MIDI
- 5-pin DIN jacks

Power

- Power supply: Internal switching PSU, 100 - 240 V AC, 20 Watt
- Typical power consumption 10w

Dimensions

- Dimensions including rack ears (WxHxD): 19" x 3.46" x 9.5" (483 x 88 x 242 mm)
- Weight: 2 kg (4.4 lbs)
- Temperature range: +5 deg - +50 deg Celsius + 41deg - + 122 deg Fahrenheit