

DIGIMATCH 2X6™

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AES/EBU<>SPDIF INTERFACE + 2X6 DIGITAL AUDIO DA

DESCRIPTION

DigiMatch 2X6 is an AES/EBU-to-SPDIF bi-directional digital audio interface and distribution amplifier that has two distinct functions: (a) to convert between professional (balanced) AES/EBU and consumer (unbalanced) SPDIF digital audio signals, and (b) to distribute a digital audio signal(s) to multiple destinations. DigiMatch 2X6 has 2 inputs and 6 outputs. There are inputs for both AES/EBU and SPDIF signals, plus 3 AES/EBU outputs and 3 SPDIF outputs. Either or both inputs can feed either or both sets of outputs. Two front panel switches select the four possible modes of operation. DigiMatch circuitry automatically corrects input levels that are out of tolerance. All 6 DigiMatch outputs can be used simultaneously without interaction. The AES/EBU inputs and outputs are transformer isolated to prevent ground loops and minimize crosstalk. AES/EBU connections are via XLR connectors; SPDIF connections are via RCA connectors. DigiMatch is powered with an internal AC power supply.

INSTALLATION

AES/EBU inputs and outputs (XLR connectors) should be wired as follows: Pin 1=Gnd Pin 2=HI Pin 3=LO
SPDIF inputs and outputs (RCA connectors) should be wired conventionally.

Connect the AES/EBU input to the XLR **AES/EBU INPUT** jack. Connect the SPDIF input to the **SPDIF IN** RCA input jack. AES/EBU outputs connect to the XLR jacks labeled **OUTPUT 1, OUTPUT 2, and OUTPUT 3**.
SPDIF outputs connect to the RCA jacks labeled **1, 2, and 3**.

TERMINATION

Digital audio signals require termination. DigiMatch provides termination on both AES/EBU and SPDIF inputs. If termination is *not* desired, remove **JP1** (for SPDIF input) and/or **JP2** (for AES/EBU input). These jumpers are located within the unit on the DigiMatch PC board, adjacent to their respective input connectors.

OPERATING MODES

DigiMatch has four modes of operation, selected by setting the **OUTPUT SOURCE** switches that are recessed behind the front panel. Each switch selects which input signal is routed to each set of outputs, detailed below:

MODE	DESCRIPTION	Switch positions: AES/EBU SPDIF	
CONVERT	AES/EBU input feeds 3 SPDIF outputs; SPDIF input feeds 3 AES/EBU outputs	S	A
DA, AES/EBU INPUT	AES/EBU input feeds ALL 6 outputs (SPDIF input is not used)	A	A
DA, SPDIF INPUT	SPDIF input feeds ALL 6 outputs (AES/EBU input is not used)	S	S
DA, BOTH INPUTS	AES/EBU input feeds 3 AES/EBU outputs; SPDIF input feeds 3 SPDIF outputs	A	S

There are two **INPUT SIGNAL** LEDs that indicate the presence of AES/EBS and/or SPDIF input signals; they will light when an input signal(s) is present. Their brightness indicates the relative signal level (a "dim" LED is normal). DigiMatch 2X6 will automatically compensate for a wide range of input levels.

DigiMatch does *not* alter any data in the bitstream. All audio data, copy control flags, etc, are passed through to all outputs regardless of the mode selected. All outputs can be used simultaneously; each output can drive *one terminated load*. Unlike analog audio signals, multiple (terminated) digital loads *cannot* be connected in parallel using "Y-cords" or "signal splitters". If multiple loads must be driven from a single output, all loads *except the last one* must be non-terminated. Terminate *only* the last load in the series.

The AES/EBU outputs can drive long lines without signal degradation, provided the wiring used is suitable for wide-bandwidth digital signals.

TECHNICAL SPECIFICATIONS

Sample Rate	Any, 96 kHz or less
AES/EBU Input	XLR connector, 110 ohm termination
SPDIF Input	RCA connector, 75 ohm termination
AES/EBU Outputs	3 each, 110 ohm source impedance
SPDIF Outputs	3 each, 75 ohm source impedance
Throughput Delay	80 nanoseconds or less
Power Input	115/230 VAC, 50-60 Hz, 5 Watts
Approval	City of Los Angeles Elect. Test Lab
Specifications subject to change without notice. Rev. 4/03	

