TRAMATCH

Technical Specifications

Version 1.0 January 2003



ULTRAMATCH PRO SRC2496

ULTRAMATCH PRO

Ultra high-resolution 24-bit/96 kHz A/D-D/A, sample rate and format converter



- ▲ High-end 24-bit/96 kHz A/D and D/A converters for ultimate signal purity
- ▲ Converts any sample rate between 31 and 100 kHz into 32, 44.1, 48, 88.2 or 96 kHz sample rates
- ▲ Flexible format conversion between AES/EBU and S/PDIF (coaxial or optical)
- ▲ Ultra high-quality signal output with 16-, 20- or 24-bit resolution
- ▲ Universal sample rate synchronization via wordclock or digital input
- ▲ Allows parallel A/D and D/A conversion at identical sample rate
- ▲ Precise metering for input/output signal as well as powerful headphone monitoring
- ▲ Dithering automatically adapted for word length conversion
- ▲ Allows direct manipulation of emphasis and copy-protection bits
- ▲ High-precision quartz clock generator removes jitter and corrects off-tune, incorrect sample rates
- ▲ Extremely fast tracking supports varispeed applications
- Self-adjusting anti-aliasing filter with exceptionally steep edge
- ▲ Consumer devices (e.g. DAT recorders) can be synchronized with the studio clock
- ▲ All three outputs (XLR, RCA, optical) simultaneously operational (splitter)
- Inputs separately selectable (patchbay functionality)
- ▲ All digital inputs/outputs balanced and galvanically isolated
- All analog inputs/outputs servo-balanced
- Manufactured under ISO9000 certified management system

^{*} We want to point out that the copyright of third parties must not be infringed—despite the possibility of removing the copy protect bit with the help of the ULTRAMATCH PRO! This device was not developed to produce unauthorized copies!

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SPECIFICATIONS

Synchronization

Internal sampling rates 32, 44.1, 48, 88.2, 96 kHz

Synchronization via digital input

and wordclock accepts all sampling rates between 31 and 100 kHz,

automatic synchronization by PLL

Digital input 1

Type XLR, transformer-balanced

Input impedance 110 ohms

Nominal input level 0.2 V to 5 V, peak-to-peak

Digital input 2

Type RCA, transformer-balanced

Input impedance 75 ohms

Nominal input level 0.2 V to 5 V, peak-to-peak

Digital input 3

Toslink, optical fiber cable Type

Synchronization input

Type **BNC** Input impedance 50 kohms

Standard Wordclock (1 x FS) Nominal input level 2 V to 6 V peak-to-peak

Digital output 1

Туре XLR. transformer-balanced

Output impedance 110 ohms balanced Nominal output level 3.5 V peak-to-peak

Digital output 2

Type RCA, transformer-balanced

Output impedance 75 ohms

Nominal output level 0.5 V, peak-to-peak

Digital output 3

Toslink, optical fibre cable Type

Analog inputs

XLR, balanced Type Input impedance 20 kohms Converter 24-bit/96 kHz

> 128/64 times oversampling delta-sigma AKM A/D converter

-4 dBu to +22 dBu for 0 dBFS. Input level adjustable

S/N-Ratio >105 dB

Analog outputs

XLR, balanced Type Output impedance 160 ohms Converter 24 bit/96 kHz

> 128 times oversampling delta-sigma AKM D/A converter

Output level +16 dBu @ 0 dBFS

S/N Ratio >108 dB

Jitter suppression

Jitter permitted at input >40 ns Internal jitter at input <2 ns

Internal jitter with external Synchronization

<20 ns, 10 ns typ.

Channel Status information in output signal

Professional mode Professional, audio use, stereo,

no emphasis or 50/15 µs. Fs = 32, 44.1, 48, 88.2, 96 kHz

Consumer, audio use, 2-channel, Consumer mode

original material switchable, copy permit switchable, no emphasis or 50/15 µs. Fs = 32, 44.1, 48 kHz;(88.2, 96 kHz not defined)

Power supply

Mains voltage U.S.A./Canada 120 V ~, 60 Hz

U.K./Australia 240 V ~, 50 Hz Europe 230 V ~. 50 Hz

100 - 120 V ~, 200 - 240 V ~, General export model

50 - 60 Hz

Power consumption approx. 12 W

Fuse 100 - 120 V ~: T 200 mA H 200 - 240 V ~: T 100 mA H Mains connection Standard IEC receptacle

Dimensions/weight

Dimensions approx. 1 3/4" (44.5 mm) x 19"

(482.6 mm) x 7 1/2" (190.5 mm)

Weight approx. 2 kg Shipping weight approx. 3.2 kg

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