24/96 AD-DA Converter   Model 2053

spl

The SPL converter module 2053 is exclusively offered as optional equipment for the SPL Channel One and SPL Kultube (8/2003).

In contrast to common digital outputs, the 2053 comprises separate A/D *and* D/A converter stages. Using both converter stages offers two essential advantages:
• High-quality monitoring in 24 Bit/96 kHz quality and simultaneous A/D conversion
• Analog processing of a digital signal

The converter supports wordwidths up to 24 Bits and sample rates of up to 96 kHz.

The D/A converter processes up to 24 Bits automatically, as well as sample rates from 32 Bit to 96 kHz and is equipped with high-quality, balanced XLR outputs (+12 dBu).

The A/D converter supports 16 and 24 Bit formats. Dithering is employed for the reduction from 24 Bit to 16 Bit „missing" lower 8 Bit is not cut off, but rather „included" in the 16 Bit format. This ensures that quietest passages are preserved.

Internal Synchronization

The converter module allows to choose 5 different clock sources via the AD MODE switch. The internal sample rates (96 kHz/48 kHz and 88.2 kHz/44.1 kHz) are quartz-generated.

External Synchronization

For synchronization with external sources, AES-data or Word-Clock signals can be used as sync sources. Alternatively the A/D converter can be synchronized to the data adjacent to the D/A converter.

Specifications A/D Converter

Wordwidth	24 Bit
Reduced Wordwidth	16 Bit
Dither	triangular
Internal sample rates	44.1/48/88.2/96 kHz
External sample rates	32-96 kHz
Sync sources	AES11 or word clock
THD+N @-1dBFs, 1kHz	←-101 dB
Dynamic range (A)	110 dB

Specifications D/A Converter

Wordwidth	24 Bit
Sample rates	32-96 kHz
THD+N (@-1dBFs, 1kHz)	←-90 dB
Dynamic range	105 dB (A, Q 96kHz)

Monitoring in 24Bit/96kHz

A high standard of monitoring is necessary for judging the recording quality.
The A/D converter stage is equipped with high-quality components and ensures excellent tonal results. We recommend using the SPL converter for high-quality monitoring.

Analog processing of a digital signal

Together with the converter module, Channel One and Kultube can entirely be inserted into a digital chain for high-quality analog processings.