



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.