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102/20 AES/EBU Output

Description, Features

The 102/20 AES/EBU Output module puts out data in AES/EBU or S/PDIF format. It converts the internal 102 Series data format to an AES/EBU or S/PDIF type format. The emphasis and sampling frequency information is fed forward to the output format.

Operation

Connect an AES/EBU or S/PDIF sink to the XLR connector on the frontpanel. A jumper on the printed circuit board allows to set the output format to be either AES/EBU (professional) or S/PDIF (consumer). Note that the electrical characteristics of the output are always of the AES/EBU type, only the Channel Status Data format changes with the setting of this jumper.

The electrical output characteristics are of the AES/EBU type, e.g. balanced output with 110 Ohm termination. To connect an S/PDIF input simply connect the ground to pin 1 and 3 of the XLR and the hot end to pin 2. Keep the S/PDIF cable as short as possible.

For an AES/EBU type connection DO NOT take ordinary microphone cable. Get that special "AES/EBU" cable with proper impedance and low capacity.

The "power" socket can be used to power our 102/OT1 Optical Transmitter for glass fiber connections.

Technical Data

Input Format: up to 24 bits internal format
Output Format: up to 24 bits, AES/EBU or S/PDIF format
Output Level: according to the AES/EBU specifications
Output Impedance: 110 Ohm
Sampling frequency: 32 kHz...55 kHz
Front panel elements:
- 1 XLR connector for data output
- 1 Coax connector for power supply to the 102/OT1 Optical Transmitter

Front panel width: 30 mm (1 1/5 inch)

Data sheet

102/58 20 Bit SDIF Output
102/58DS 20 Bit SDIF Output, Double Sampling

Description, Features

The 102/58 20 Bit SDIF Output module converts the internal 102 Series data format to unbalanced SDIF type format. The emphasis information is fed forward to the SDIF format outputs

Operation

Switch the interface to "active" ("on" - LED lit) by depressing the "on" switch.

Note: The depressing of the "on" switch on an SDIF input interface causes any SDIF output interface in the system to switch to inactive. This was made to prevent from feedback in certain applications. If you require to have the SDIF output interface "active" just depress the "on" switch of the SDIF output interface again.

Technical Data

Input Format: 20 bits internal format
Output Format: 20 bits, 2 channels serial, wordclock
Output Level: TTL (0..4Volts)
Sampling frequency: 32 kHz...100 kHz
Front panel elements:
- "on" - switch with LED
- 3 BNC connectors labeled "WCK", "CH1", "CH2" for data output

Powerup default: active
Front panel width: 30 mm (1 1/5 inch)

Data sheet

102/74 24 Bit SDIF Output
102/74DS 24 Bit SDIF Output, Double Sampling

Description, Features

The 102/74 24 Bit SDIF Output module converts the internal 102 Series data format to unbalanced SDIF type format. The emphasis information is fed forward to the SDIF format outputs.

Operation

Switch the interface to "active" ("on" - LED lit) by depressing the "on" switch.

Note: The depressing of the "on" switch on an SDIF input interface causes any SDIF output interface in the system to switch to inactive. This was made to prevent from feedback in certain applications. If you require to have the SDIF output interface "active" just depress the "on" switch of the SDIF output interface again.

Technical Data

Input Format: 24 bits internal format
Output Format: 24 bits, 2 channels serial, wordclock
Output Level: TTL (0..4Volts)
Sampling frequency: 32 kHz...100 kHz
Front panel elements:
- "on" - switch with LED
- 3 BNC connectors labeled "WCK", "CH1", "CH2" for data output

Powerup default: active
Front panel width: 30 mm (1 1/5 inch)

Data sheet

102/47 20 Bit D/A Converter

Description, Features

The /47 20 Bit converter is an Ultra Analog hybrid based D/A converter with 8 times oversampling.

Its features are as follows:

- stereo operation

- 20 bit D/A converter

- 8 times oversampling

- automatic deemphasis with frontpanel indicator

- 44.1 kHz, 48 kHz and varispeed operation

- Analog Reconstruction Filter 3rd order Butterworth (or Apogee on request)

- transformerless, short circuit proofed, balanced outputs

- output level independently variable from 0 to +24 dBu in 0.5 dB steps

- XLR output connectors with phase switch (pin 3 hot or pin 2 hot selectable)

- very low jitter phase locked loop for generating the sample clock

- output muting at power-up and at invalid sampling frequencies

- Very good SNR, THD+N, linearity, frequency response, crosstalk, phase response and IMD specifications.

Operation

The /47 can be put anywhere in the frame. It takes the data from the internal bus, converts it to analog and puts it out on the XLR connectors on the front of the module. The output level can be set individually for each channel by means of two rotary switches per channel. The settings of the two switches have to be added to get the final output level in dBu. The level set is achieved with 0dBFS digital input and no loading at the outputs.

The Emphasis LED lights whenever the emphasis flag is set and the D/A does deemphasize the program.

The Mute LED lights when the sampling frequency is invalid or a mute condition has been detected by the currently active input interface.