DATA SHEET

X6-16OUT

CONVERTER UNIT

ANALOG – AES/EBU INTERFACE DEVICE

Product Features

- **16 channel analog-AES/EBU converter unit**
- **Full integration into Optocore network by DD32(E) or PTP32E**
- **16 XLR line outputs**
- **Level adjustment: 0 / -10 dB**
- **1 digital AES/EBU I/O and 1 digital AES/EBU split port**
- **Word clock IN / OUT and THRU**
- **Embedded internal word clock for stand-alone applications**
- **1 USB and 1 RS232 port for configuration and control**
- **Full remote access with OPTOCORE CONTROL software**
- **Upgradeable internal logic**
- **Comprehensive status control via LED banks on the front**

The X6-16OUT is part of the X6 series, the converter units to transform analog signals to AES/EBU and vice versa. It is equipped with 16 XLR line level outputs. The X6-16OUT can function in all kinds of applications where the D/A conversion is needed. In cooperation with Optocore's DD32(E) or PTP32E they are seamlessly integrated into the OPTOCORE® OPTICAL DIGITAL NETWORK SYSTEM. All parameters of the converters can be remote controlled and monitored with the same software application as all the other Optocore devices, the OPTOCORE CONTROL software.

The X6 units facilitate a high flexibility to provide the number of analog inputs and outputs required at different positions in temporary or permanent applications. The high quality of the preamps, A/D- and D/A converters make the X6 units ideal for the incorporation into audio systems even if no Optocore network is established. They provide a wide dynamic range with negligible distortion and extremely low noise.

The 16 XLR outputs of the X6-16OUT include the adjustment of the channel level in two steps: 0 dBFS and -10 dBFS. The signals are converted by premium D/A technology.

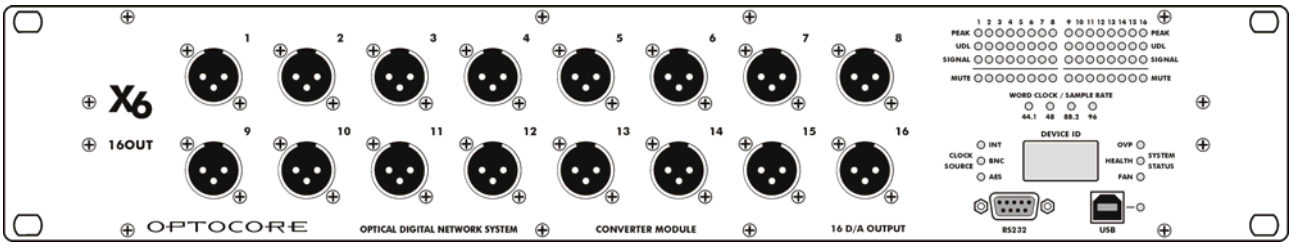
Two AES/EBU ports on the rear panel enable the split of the digital signals. One can be used as an I/O port to receive the 16 digital AES/EBU channels. The second one can function as a split port in order to transfer AES/EBU signals to other devices with AES/EBU interfaces.

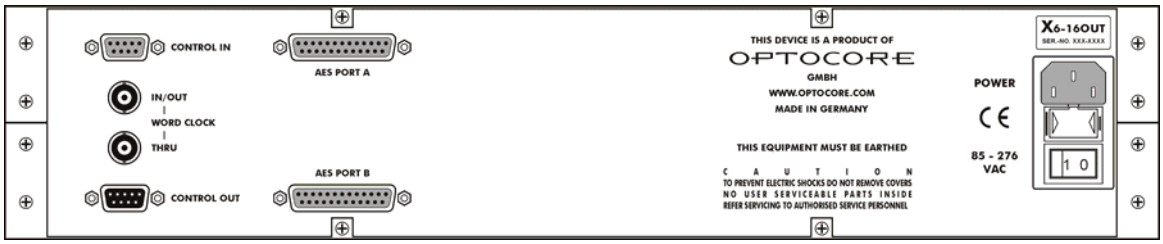
The Word Clock IN / OUT and THRU enable the synchronization of the units to an external source and are used to pass on the word clock from one unit to the next. For stand-alone applications the devices are equipped with an internal word clock.

Up to four X6-units can be connected to the four principle ports of one DD32(E) or PTP32E enabling the exchange of 32 AES/EBU signals (64 channels) and control data. The ports include two control data channels. Without the necessity of any external data cable the X6-units can be operated and controlled via the Optocore network with OPTOCORE CONTROL. For the control in stand-alone applications the USB or RS232 port on the front panel can be used.

The FPGA (field programmable gate array) based concept of the internal logic circuitry permits updating of the hardware by the use of the units remote ports, ensuring a continual state-of-the-art device.

Line Drawings





Technical Specifications

Analog Audio Outputs	DAC → Analog			
Line outputs				16
Gain / steps			0 dB, -10 dB	2 steps
Maximum output level	@ 0 dB Gain	18 dBu	@ -10 dB Gain	8 dBu
Frequency response (≤ -1 dB-drop)	@ 48 kHz	DC – 21 kHz	@ 96 kHz	DC – 42 kHz
Distortion THD+N			@ 0 dB Gain	≤ 0,004% ≡ -94 dB
Dynamics	@ 0 dB Gain	≥ 114 dB	@ -10 dB Gain	≥ 113 dB
Converter			24-bit @ 48 kHz	24-bit @ 96 kHz
Delay	DAC-channels	= 28 / F_S	@ 48 kHz: 0.59 ms	@ 96 kHz: 0.29 ms
Word clock	Hardware standard 75 Ω / BNC			
Data rate	Depending on used sample rate		Up to 96 kHz	
Impedance	Output / Thru		75 Ω	
	Input		1k / 75 Ω software switch	
Power supply				
Type	Switch-mode, universal input			
Mains voltage	100 ... 240 V, 400 V_{AC} tolerant, 20VA-idle, 25VA-peak			
Frequency	50 ... 60 Hz			
Remote Control				
RS232	Convention EIA / TIA-232		R x D, T x D / 57 600 Baud	
USB Port			Interface to PC	
Dimensions			2 RU / 19”	
W x H x D	483 x 88 x 221mm		19.2 x 3.5 x 8.7 inch	
Weight	2.5 kg		5.5 lbs	