71.98.0322

D-CERNO AE
D-CERNO Central Unit: Quick, Easy & Hybrid

Description

The D-Cerno AE is the rack-based central engine that enables the D-Cerno discussion system for small to medium-sized meetings. By using state-of-the-art audio processing technology, D-Cerno AE is optimized for its market segment and ready to address future audio processing requirements. With this hybrid-ready control unit, D-Cerno offers unparalleled flexibility and makes integration with external systems easy.

> D-Cerno occupies a unique position in the market since it combines an easy-to-setup system with a wide variety of interfaces. The central engine controls up to 50 delegate units directly or up to 250 units with additional network extenders. Integration can be done easily by using USB audio, AES67 and analog audio.

The delegate units are connected in daisy chain with a shielded CAT5E cable over the 4 bus connections (4 branches or 2 closed loops). With a loop, the redundancy mechanism guarantees that the system continues to function flawlessly if a cable should break or disconnect.

Stand-alone, the D-Cerno AE can control up to 50 delegate units but this can, by adding additional D-Cerno NEXT devices, be expanded to 250 delegate units. The D-Cerno NEXT can also be used to add additional redundancy capabilities excluding the possibility of a single-point failure.

With the D-Cerno AE, organizing a hybrid meeting is as easy as plugging-in a USB cable. This will automatically create a speaker/microphone audio device on your PC which can be selected in your prefered meeting platform. This is combined with the new hands-free microphone mode which makes it possible to meet and discuss without the need to push a button.

Integration with the D-Cerno AE is made easy with AES67 and the multi-channel USB connection which allows you to link your D-Cerno system with external devices such as a DSP or an external recording solution. With the integrated audio configurator, you can choose where the audio is routed from and to. Each individual speaker, microphone or headphone jack can be controlled or grouped together where necessary.

A simple interface gets you all controls right at your fingertips: a volume dial adjusts the volume, and a simple record button starts or stops the recording. And with an integrated web server, operators have full control over the microphone modes and recording settings through an easy web interface.

D-Cerno AE can be mounted in a 19" rack but can also be simply positioned on a table for an easy setup. With its fan-less design, this engine is the center piece for all small to medium-sized meeting rooms without any concern for fan noise, even during extended usage.

The D-Cerno AE is able to record on an internal storage but also provides the possibility to record on a flash drive plugged in one of the two USB-C connections.

Benefits

- » Plug-and-play approach
- » 19" rack-based design
- » Hybrid ready via direct USB interface
- » Hands-free mode: No need to push a button
- » Easy to integrate with AES-67 and USB
- » Ready to record*
- » Smart Audio & Control:
  - › Dynamic Mix minus
  - › Gain sharing
  - › API control
  - › Addressable headphone jacks
- » Camera control integration capabilities
  - › T-Cam or 3rd Party
- » Fan-less operation
- » Extended power management*
  - › Wake-On-Lan
  - › Auto Power-on
  - › ECO mode

Features

- » Dynamics control
- » Integrated web server
- » Integrated recording capabilities
  - › Internal storage
  - › External flash drive via USB-C
  - › On a PC via multi-channel USB connection
- » Hands-free mode (16 microphones)
  - › With speaker detection
- » DSP mode (8x8)
- » Fail-safe redundancy technology
- » For systems up to 250 units
- » System volume
- » Power button*
- » Recording button
- » Secure API
- » IEEE802.1X

Connectivity

- » 4 Bus connections (4 branches or 2 loops)
- » LAN connection (Control & AES-67)
- » 2x Lockable USB-C connections
  - › Flash drive interface
  - › Hybrid meeting Interface
  - › Multi-channel audio interface
- » 2x Balanced XLR inputs
- » 2x Balanced XLR outputs
- » 1x Front-facing 3.5mm input jack
  - › Line or Microphone level*
- » 1x Front-facing 3.5mm output jack
  - › Line or Headphone level*
- » 1x Power connection

Specifications

Mechanical	
Material and color	Aluminium, Black (RAL 9011)
Size (W x D x H)	48 x 17 x 4,5 cm
Size packed (W x D x H)	57 x 42 x 6,4 cm
Weight	3,36 kg
Weight packed	2,48 kg (without PSU)
Electrical	
Power supply external power adapter	External 100-240 VAC 50/60 Hz 2.5 A
Power supply central unit	48 VDC 4.4 A
Conference network (to power units)	4 ports in total • Max 50 units • 48 VDC • Limited max 2 A/ port • Expansion to max. 250 units with D-Cerno NEXT
Network - LAN	
Link speed	10/100 Mbps - 1 Gbps
Security	802.1X (MD5, TLS, PEAP-MSCHAPv2)
Power control*	WoL
Network - Conference	
Cable type	CAT 5E or better, shielded, SFTP, AWG 24, shielded RJ45 connector
Max. length between units	80 m
Max. length within loop	400 m

Interfaces - Analog Audio Output	Balanced outputs (back)	Unbalanced output (front)
Signal level*	N/A	Line / Headphone
Number of interfaces	2	1
Connection type	XLR	3.5 mm jack
Max. Output level	+10 dBV	0 dBV
Load impedance	> 600 Ω	> 16 Ω
SNR (in dB A Weighted)	> 95	> 90
THD @ -10 dBV	< 0.01%	< 0.01%
Interfaces - Analog Audio Input	**Balanced inputs (back)**	**Unbalanced input (front)**
Signal level*	N/A	Line / Microphone
Number of interfaces	2	1
Connection type	XLR	3.5 mm jack
Max. input level	+10 dBV	0 dBV
Input impedance	> 10 KΩ	> 16 Ω
SNR (in dB A Weighted)	> 95	> 90

Interfaces - USB	Port 1	Port 2
Working modes	Audio device 1x1 (UAC2, 16 bit, 32 kHz) or Mass storage host	Audio device 8x8 (UAC2, 16 bit, 32 kHz) or Mass storage host
Power delivery	5 V - 0.5 A	
Power Sink	5 V - Sense only	
USB Version	USB 2.0	
Connector	USB-C	

Interfaces - Configuration Switches (*)	Function
DIP 1	Disable auto start
DIP 2	Disable front panel
DIP 3	Wake on Lan
DIP 4	ECO mode

Audio Recording	
Storage - Internal	3 GB
Storage - External	USB flash drive (NTFS or FAT32)
Format	MP3, WAV
Quality	64, 128,196,256 kbps

Environmental	
Operating temperature	5 - 45°C

Regulatory	
Europe	CE

* Available in future updates

Compatible Browsers

» Google Chrome (version 124 or higher)
» Microsoft Edge (version 124 or higher)

Compatible Products

» **Discussion Units**
  › D-Cerno D-SL   71.98.0306
  › D-Cerno C-SL   71.98.0307
  › D-Cerno F-DM   71.98.0311
  › D-Cerno F-CM   71.98.0312
  › D-Cerno F-DD   71.98.0313
  › D-Cerno F-CD   71.98.0314

» **Spare Power Supply**
  › D-Cerno PS   71.98.0340

» **Network Extender**
  › D-Cerno NEXT   71.98.0323

» **D-Cerno Advanced License**   **71.98.0360**
  › Required for
    › Multi-channel USB
    › AES-67
    › DSP Mode
    › Custom audio routing
    › Operator mode with microphone control