CORE M10K-4C
Professional 4-channel class-D matrixamplifier with build in 4 in/4 out DSP & AES/EBU

The CORE M10K-4C is a 4-channel matrixamplifier for professional PA-applications. It delivers a maximum output power of 4x 2500W @ 4 Ohm.

The input section contents four seperate analoginputs, and two AES/EBU- inputs. Within the integrated DSP, all the inputs can be routed to the outputs, in free configuration.

The integrated DSP-engine provides all standards for digital audio-processing. IIR-filter, FIR-filter, dynamic EQs, X-Over, peak-limiter, true RMS-compressors, input-mux and much more.

The operation and configuration is very easy and clearly designed. This can be done directly on the amplifier, through the built-in TFT-touchscreen, or through the free available remotesoftware CoreControl for Windows®- PC and Mac OS®. The connection to the remotesoftware is established via ethernet. Based on that, the amplifier can be integrated in a conventional IP-network. Through an autoconfig function in the control software, you are able to set the IP-adresses automatically in the amplifiere(s), without setting them manually at the device. On the other hand, the IPs can also be set manually in the remotesoftware or directly at the device.

Specifications

General

Cannels	4 in/4 out (4x analog, 2x AES/EBU inputs)
Max. power per channel @ 2 Ω	4x 1700 W
Max. power per channel @4 Ω	4x 2500 W
Max. power per channel @8 Ω	4x 1350 W
Max. power per channel @ 16 Ω	4x 675 W
RMS-power* per channel @ 2 Ω	4x 750 W
RMS-power* per channel @ 4 Ω	4x 1000 W
RMS-power* per channel @ 8 Ω	4x 750 W
RMS-power* per channel @ 16 Ω	4x 375 W
Max. power BTL @ 4 Ω	2x 3500 W
Max. power BTL @ 8 Ω	2x 4000 W
RMS-power* BTL @ 4 Ω	2x 1700 W
RMS-power* BTL @ 8 Ω	2x 1500 W

Depending on frequency 1.5-5 Sek

Audio

Frequency range	20 Hz - 20 kHz
Max. input level	+16 dBu
Input impedance	35 kΩ
Latency	2.2 ms
Voltage gain @ 1 kHz (unity gain setting)	32 dB - ch1-4
S/N ratio (A-weighted)	112 dB(A) - analog in
THD+N @ 1kHz	<0.1% @ 1 W - max. power @ 4Ω (Typical <0.05%)
Dynamic range ADC / DAC	118 dB(A) @ in-out
Headroom	~6 dB
Total system efficiency	>76%
Damping factor	>10000 @ 100 Hz

Frontpanel

UI	TFT-touchscreen
Control	via UI / 4 buttons / encoderwheel
Status LEDs	4x Mute

Backpanel

Analog audio-connectors	4x XLR analog input + 4x XLR analog link
Digital audio-connectors	2x XLR AES/EBU input + 2x XLR AES/EBU link
AC mains connector	1x powerCON® 32A input
Remote connector	2x RJ45 ethernet, chain-linking LAN
Audio-outputs	4x speakON® NL4

DSP

Channels	4 In/4 Out (4x analog, 2x AES/EBU inputs - routeable)
Processing	96 KHz / 40 bit floating point, highresolution SRCs
ADC / DAC	ΔΣ / 96 kHz / 24 bit
Input-EQs	10x IIR / 1x FIR (1024 taps)
Output-EQs	10x IIR / 1x FIR (512 taps) / 1x Dyn EQ
EQ-types	full parametrical: bell, notch, bandpass, shelving, HPF, LPF, Q up to 100
Crossover	each output
Crossover- types	BW / BW8 / LR / BS / BS8 / HM4 6 dB/oct up to 48 dB/oct
Limiters/compressors	peak limiter / true RMS compressor
Delay	up to 500 ms - in / out
Phase inverting	in / out
Monitoring / UI	full configurable via PC, Mac real-time monitoring
Remoteaccess	ethernet / TCP/IP
Presets- & speakerlibary in device	99 system / 99 speaker
Access	user / administrator

AC Mains

Power supply	AC 100V - 240V, widerange PFC
Voltage	90 V - 264 V / 50 Hz - 60 Hz

Mechanical

Dimensions	2 RU x 450 mm
Weight	11.4 kg

Delivery contents: Amplifier, powerCON®- mainscord, remotesoftware CoreControl, manual