



NXAMP_{MK2}

Powered TDControllers

nexo-sa.com

Thinking. Inside the box.

NEXO | A
Yamaha
Group
Company





NEXO and Yamaha collaborate to set new performance standards in power amplification

NEXO's expertise in DSP control for high-performance loudspeakers is unparalleled in the sound reinforcement industry. And Yamaha has an unrivalled heritage in developing highly efficient and reliable power amplification devices. So when the two collaborate to create a new range of powered controllers, the result is sure to be something special.



Joseph Carcopino

R&D Director, NEXO

A new version is always a challenge, especially when the original has been successful! But our Yamaha/NEXO mixed team of passionate engineers accepted this challenge, merging their know-how, culture, sensitivity, and finally delivering this NXAMPMK2 that, when coupled with our acclaimed NeMo software, offers one of the top powering and processing solution worldwide.



Ken Iwayama

Group Manager, PA Development Department, Yamaha

Our engineering team worked with NEXO R&D, implementing many new ideas to make this new generation of NXAMP deliver a significant improvement and upgrade on sound quality, power capability, efficiency, compactness, functionality, and reliability. We believe that the NXAMPMK2 superbly supports the NEXO sound, consistent with our passion for music.

Formidable control. Flawless

The perfect compact, light-weight power solution for NEXO systems

Available in 4 X 1300 Watts, 4 X 2500 Watts and 4 X 4500 Watts versions, the NXAMP_{MK2} combines advanced signal processing with four state-of-the-art Class D amplifiers to create a flexible, light-weight powering and control solution for NEXO loudspeaker systems.

Ideal for use in fixed installations and touring, these powered controllers are easy to set up and quick to deploy, with all essential parameters readily accessible via a large colour touch-screen on the front panel and a comprehensive range of control and networking facilities on the rear panel.

Most importantly, the new NXAMP_{MK2} achieves a whole new level of sound quality, partnering with NEXO speakers to deliver a whole new level of audience experience.



Power. Precision. Flexible networking.



NeMo

AES/EBU*



4.3" display



Tactile screen



Dual Ethernet Port

* Optional



4 X 4500 Watts



The Nexo NXAMP_{MK2} ultra-low distortion Class D amplifiers combine 24-bit/96KHz converters and 64-bit signal processing to deliver significant advances in sound quality over the already highly regarded previous generation of NXAMPs. Bass is solid and high-end definition is particularly impressive in a sonic performance that is both articulate and rich with detail. Even at low volumes, the sound is noticeably transparent and pure. The amplifiers integrate three new multi core DSPs providing a

future-proofed hardware platform, equipped to host new algorithms and run next-generation firmware updates for years to come.

With a mains voltage range of 100 to 240 Volts it means the amplifiers can be used anywhere in the world and run on all types of power generators. Robust power supplies use PFC (Power Factor Correction) technology to ensure maximum power conversion efficiency and that the



s from a 3U rack



current drawn is smoothed and free of spikes to limit the stress on the mains network at all times. A flexible audio input system encompasses four, high end analogue inputs using cascaded converters for low output noise. Digital inputs are also available through the rear panel expansion card slot offering optional Dante™ + AES/EBU with automatic analogue fallback. A native dual Ethernet card facilitates remote control and daisy-chaining of amplifiers, and seamless integration with Nexo's NeMo amplifier

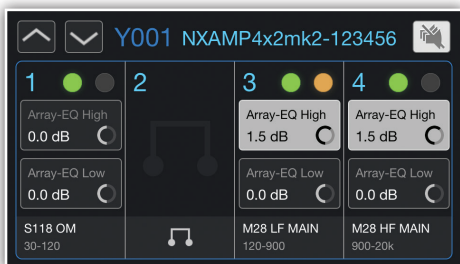
management software. In addition to the expansion card slot, other rear panel connectivity includes RS232 serial and GPIO ports along with Speakon outputs for each of the four channels. Occupying only 2U of rack space, the NXAMP4X1_{MK2} and NXAMP4X2_{MK2} weigh in at just 15.7kg and 16.1kg respectively, while the 3U NXAMP4X4_{MK2} weighs 25kg.



Fingertip control

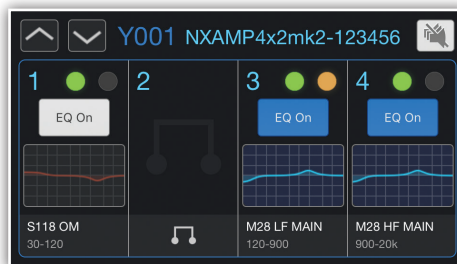
A large colour touchscreen makes set-up easy

With ease of use central to the NXAMP_{Mk2} design philosophy, a large colour 4.3" LCD touch-screen provides access to all main functions directly from the amplifier front panel.



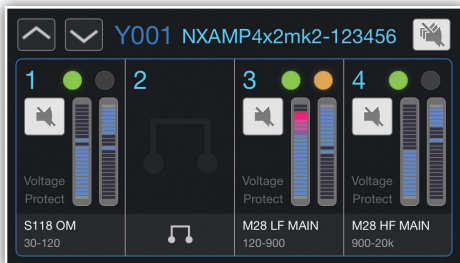
Array EQ

Two settings of Array-EQ allow for a better compensation of ground, stacking and line array effect, on Low and High frequencies.



User EQ

In addition to cabinet-related EQ and Array EQ, User EQ provides up to 8 bands per channel, editable on one or several channels at once.



Mute and Meters

NXAMP_{Mk2} has two layers of mute: per-channel and overmute. Voltage and Protection Meters give relevant information on System Headroom.



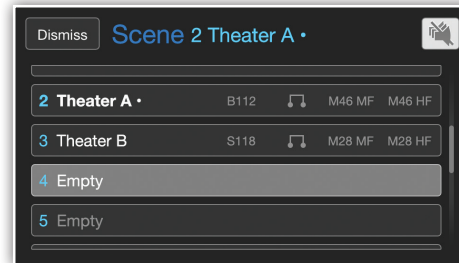
EQ Detail

User EQ is drawn in full screen for a better experience. The band type, frequency, gain, Q and on/off status can be easily edited.



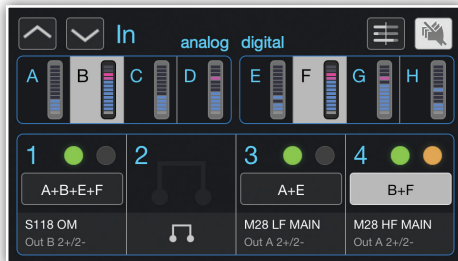
Inactive Screen

Displayed after a time interval of inactivity, this screen can be customised with a user image configured with NeMo.



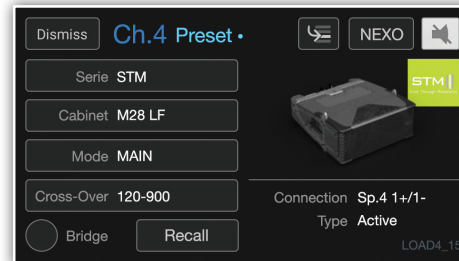
Scene

Parameters (volume, delay, gain, EQ, input patch, setup...) can be saved in one of the 32 scene slots, and can be copied and pasted.



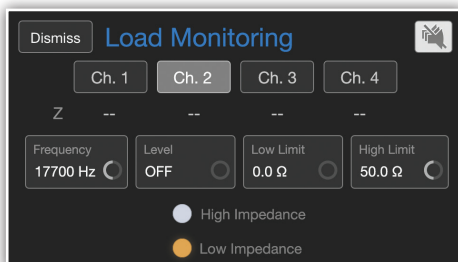
Inputs

The inputs view displays input levels and offers input alignment options. The input patch can be intuitively edited.



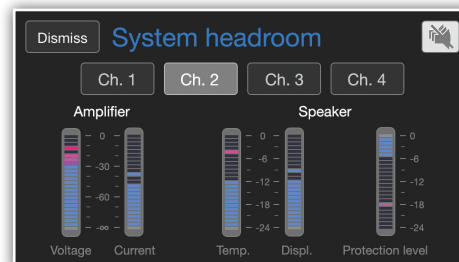
Setup

NEXO or Custom Setup can be edited on one or several channels. The cabinet name, its cross-over and output patch are always visible.



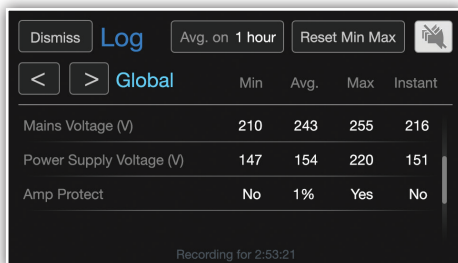
Load Monitoring

Load Monitoring can be enabled and configured on every channel, to ensure speakers are monitored in real time and ready to use.



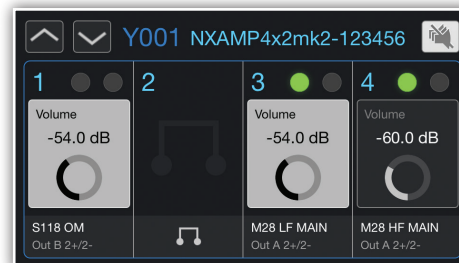
System Headroom

The System Headroom page gives real time information on amplifier levels and speaker temperature, displacement and protection levels.



Log

Many parameters and alerts are always recorded into the log, providing valuable information on the NXAMP_{mk2} usage.



Volume, Gain and Delay

Navigate through menus and edit volume, gain (-18 to +18 dB) and delay (up to 1 second) on one or several channels at once.

NeMo



Total system management control

For macOS and iOS

A large number of NXAMP_{MK2} amplifiers can be conveniently controlled via a wired or WiFi network from a Mac or iOS device using NEXO's system management software NeMo. Following the automatic 'discovery' of available amplifiers, sessions can be easily prepared by arranging devices on a map over a background image, and groups of devices and zones of channels can be created. Sessions can be prepared both online and offline.

NeMo enables editing of parameters of several devices or channels simultaneously, using groups and zones. A library of presets makes set-up quick and easy, and settings like Volume and Delay can be changed absolutely

or relatively. EQ can also be edited on several channels, enabling different layers of EQ, and parameters can be copied and pasted, and changes undone and redone, even online. A Quick Mute / Solo page makes it easy to check the system by soloing every channel and is perfect for checking settings and monitoring levels. Finally, a powerful Logging and Alerting system covers levels, protections, temperatures, currents, voltages and errors.

NeMo can be used via the optional extension cards, or via the included Remote Control card.

ProVisionaire

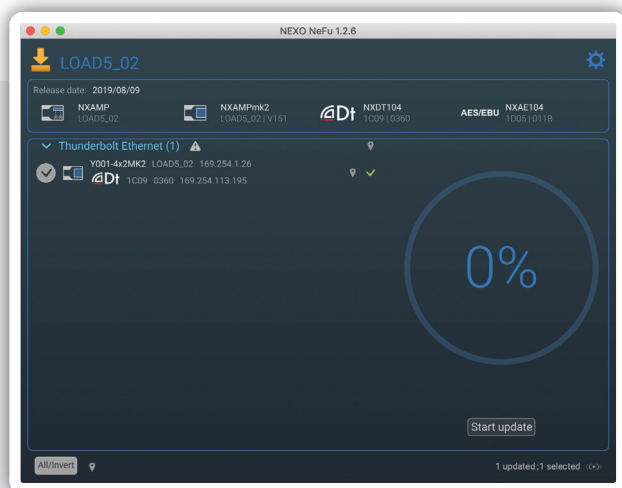


Customisable control panel software

Remote iOS control for Yamaha and NEXO installed sound systems

By simply dragging and dropping widgets such as faders and switches onto a screen, Yamaha's ProVisionaire software makes it possible to create an ideal original control panel dedicated to the applications and functions required for an installation project. No programming know-how or experience is necessary.

ProVisionaire can control a wide range of Yamaha PA equipment such as MTX/MRX series signal processors, CL/QL/TF series digital mixers and Rio series I/O boxes, alongside NXAMPMK2 powered TD controllers (ProVisionaire Control Version 3.0 or later) to provide a total Yamaha and NEXO control solution.

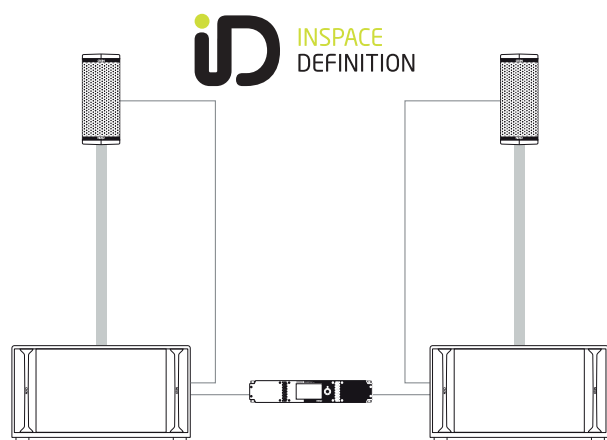


Firmware Updates

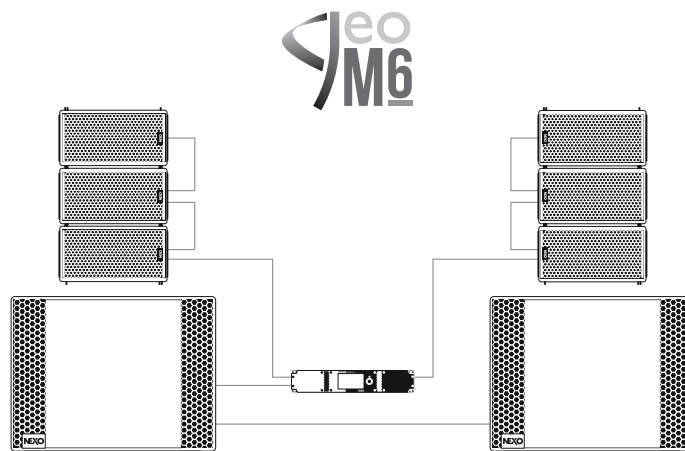
Firmware updates can be downloaded from the NEXO website and installed via the RJ45 port on the Remote Control card. Firmware update software can run on both Windows and Mac and can download both first generation and MK2 NXAMP firmware simultaneously, its multithread architecture allowing downloading to multiple amplifiers to save time. There's a dedicated Firmware Update screen in the user interface which also displays the current Firmware version.

Typical Systems

ID Series, PS8 and GEO M6 systems powered by a single NXAMP4X1MK2



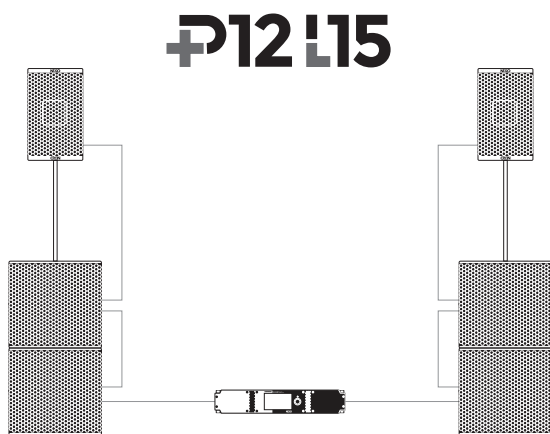
NXAMP4X1MK2 powering 1 X ID24
and 1 X IDS110 Sub per side



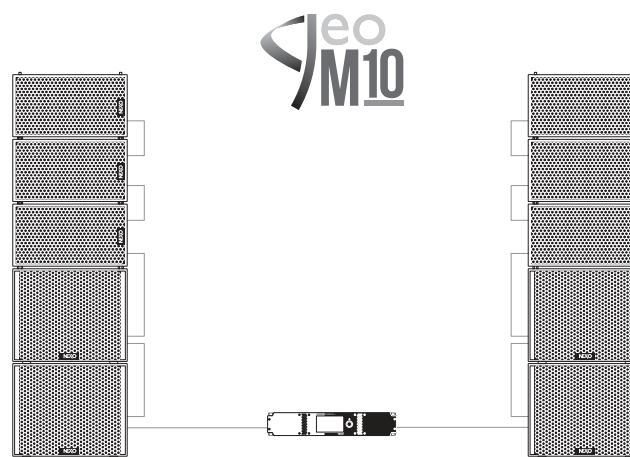
NXAMP4X1MK2 powering 3 X GEO M6 per side
and 2 X LS18 in mono bridge

Typical Systems

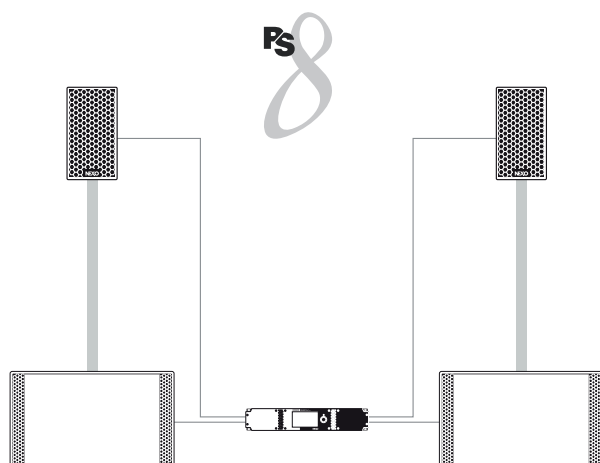
P12/L15 system and GEO M10 systems powered by a single NXAMP4X2MK2



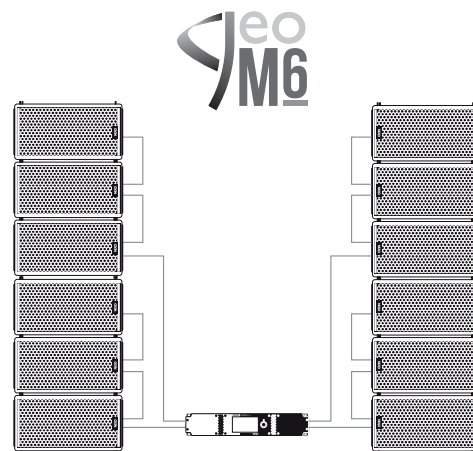
NXAMP4X2MK2 powering 1 X P12
and 2 X L15 per side



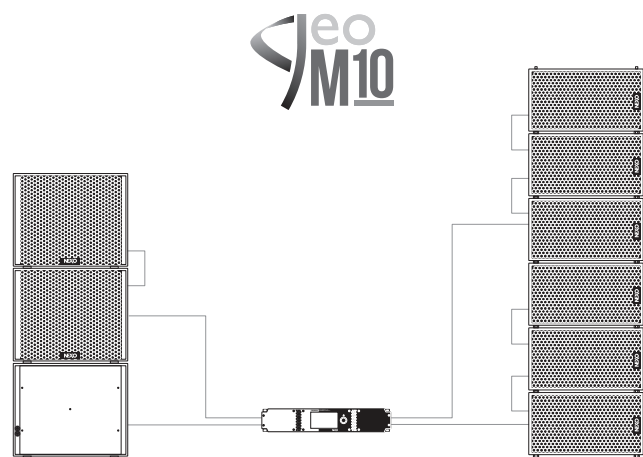
NXAMP4X2MK2 powering 3 X GEO M10
and 2 X MSUB15 per side



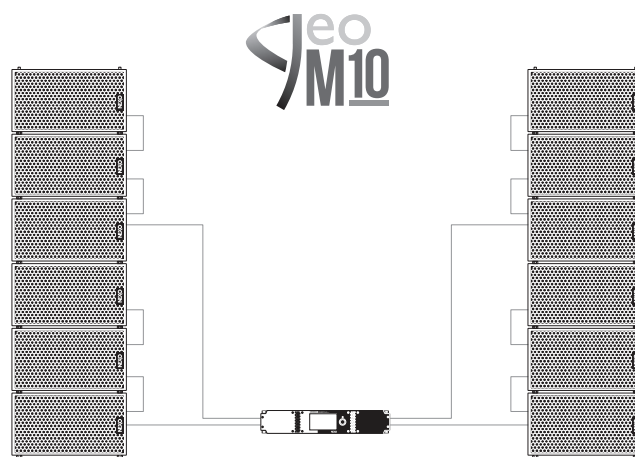
NXAMP4X1_{MK2} powering 1 X PS8
and 1 X LS400 Sub per side



NXAMP4X1_{MK2} powering 6 X GEO M6 per side



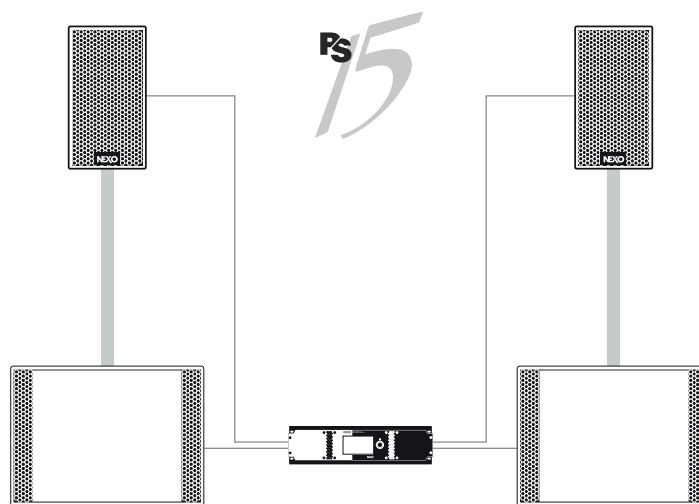
NXAMP4X2_{MK2} powering 3 X MSUB15 (one in cardio mode)
and 6 X GEO M10



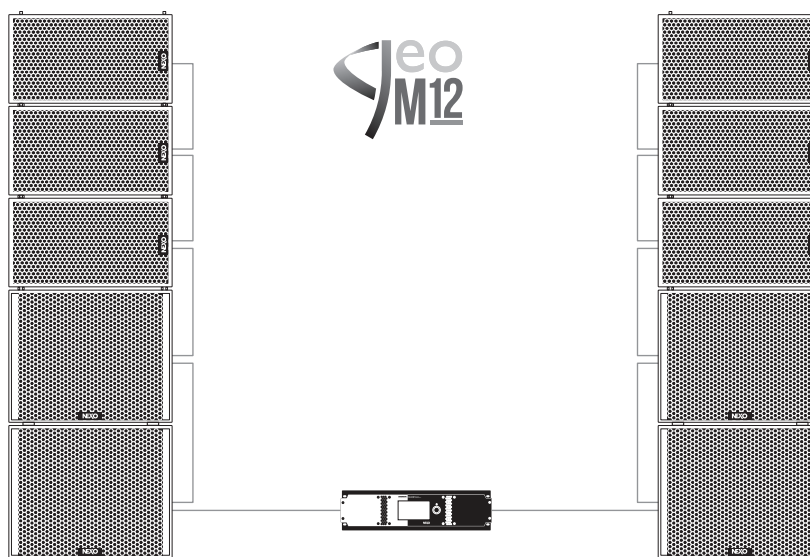
NXAMP4X2_{MK2} powering 6 X GEO M10 per side

Typical Systems

PS15 and GEO M12 systems powered by a single NXAMP4X4MK2



NXAMP4X4MK2 powering 2 X PS15 + 2 X LS18 per side

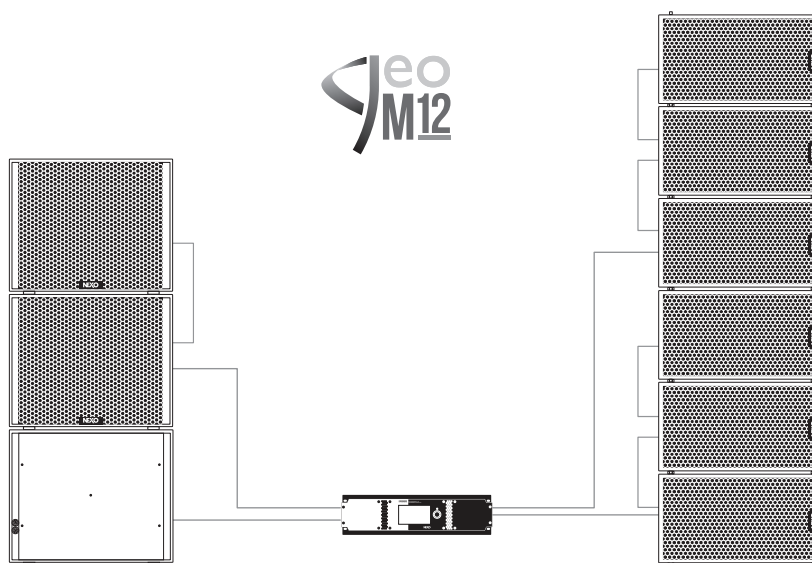


NXAMP4X4MK2 powering 3 X GEO M12 and 2 X MSUB18 per side

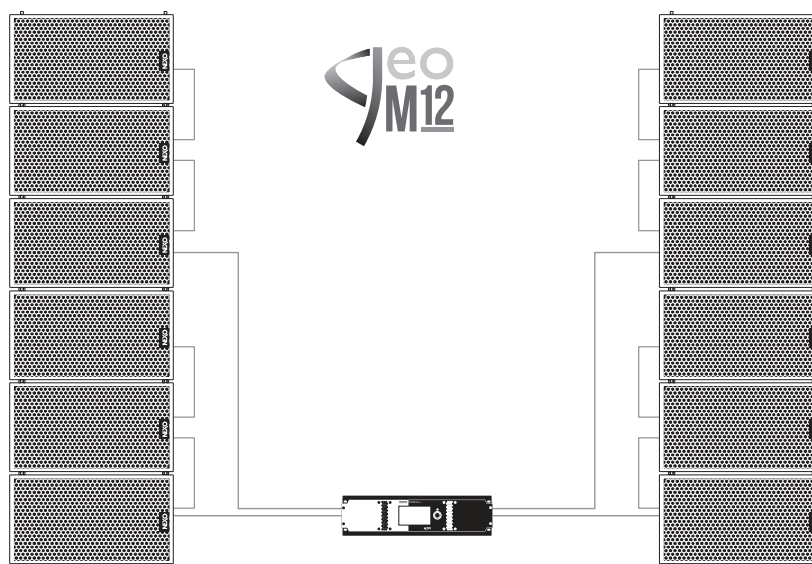


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NXAMP4X4_{MK2} powering 3 X MSUB18 (one in cardio mode) and 6 X GEO M12



NXAMP4X4_{MK2} powering 6 X GEO M12 per side



Specifications

POWER SPECIFICATIONS		NXAMP4x1MK2		NXAMP4x2MK2		NXAMP4x4MK2	
Number of amplifiers channels		4 x amplifiers channels, 2 by 2 bridgeable					
Max. output voltage (no load)		4 x 105 Volts		4 x 140 Volts		4 x 180 Volts	
Max. output power (4 channels mode/8 Ohms load per channel)		4 x 600 Watts		4 x 1200 Watts		4 x 1900 Watts	
Max. output power (4 channels mode/4 Ohms load per channel)		4 x 900 Watts		4 x 1900 Watts		4 x 3300 Watts	
Max. output power (4 channels mode/2 Ohms load per channel)		4 x 1300 Watts		4 x 2500 Watts		4 x 4500 Watts	
Max. output power (2 channels mode/8 Ohms load per channel)		2 x 1800 Watts		2 x 3800 Watts		2 x 6600 Watts	
Max. output power (2 channels mode/4 Ohms load per channel)		2 x 2600 Watts		2 x 5000 Watts		2 x 9000 Watts	
Power consumption (Standby)		10 Watts					
Power consumption (Idle)		200 Watts					
INPUT TO POWER OUT SPECIFICATIONS							
Frequency response		+/-1 dB from 20 Hz to 20 kHz					
Impedance / Input Sensitivity		20 K Ω / 13 dBu		20 K Ω / 16 dBu		20 K Ω / 18 dBu	
Dynamic Range / TDH + N		110 dB unweighted / Typical 0.1% on a flat set up					
Latency		550 us on a flat setup					
Audio AD and DA Converters		24 bits @ 96 KHz					
Processing		3 x multicore 64 bits processing DSPs					
BACK PANEL FEATURES							
Analogue audio inputs		4 x balanced analogue inputs on XLR3					
Power outputs		4 x Neutrik Speakon NL-4 outputs					
RS232 port		1 x DB-9 connector dedicated for DPU connection					
GPIO port		1 x DB-25 connector with 5 x inputs and 8 x outputs or for DMU connection					
Expansion slot		For networking and digital audio cards, 4 x digital audio inputs and remote control					
Mains sockets		2 x Neutrik Powercon NAC3 (2x 20A)					
USER INTERFACE AND CONTROLS							
Front panel buttons and knobs		Rotary Encoder with push and backlight, tactile screen					
Display		4.3 inches diagonal colour display, WQVGA, 480 x 272, LCD touch screen					
MAINS REQUIREMENTS							
Mains voltage		Universal Power Supply with Active PFC 100 - 240 Volts (50/60/Hz)					
Power consumption (Idle)		165 Watts		190 Watts		270 Watts	
Power consumption 1/8 max. / 2 Ohms		1050 Watts		1850 Watts		3300 Watts	
Power consumption 1/4 max. / 2 Ohms		1900 Watts		3500 Watts		6350 Watts	
DIMENSIONS AND CERTIFICATIONS							
Dimensions		2U 19" Rack		2U 19" Rack		3U 19" Rack	
Depth		502 mm (20")					
Weight		15.7 Kg (33.1 lbs)		16.1 Kg (35.3 lbs)		24.9 Kg (54.8 lbs)	
Electrical safety certification		cULus, CB (CE), CCC, PSE, KC					
EMC certification		EN55032 / EN55103-2 / FFC					
Green status		Compliant with ROHS directive					
EXTENSION CARD CERTIFICATION				NXAEDT			
Audio format				Dante™ + AES/EBU			
Remote control				Standard TCP/IP			
Number of input channels				4 x Dante / 2 x AES/EBU			
Resolution / Sample rate				24 bits / 44.1, 48, 88.2 or 96 KHz			
Audio Connectors				4 x RJ45 connectors / 2 x XLR			
Additional port				N/A			
Power supply				4W from NXAMP			
Dimensions & weight				120 x 160 x 40 mm (NXAMP slot) - 200 g			
EMC certification				CE, FCC, ICES			
Green Status				ROHS and REACH			

*NXDT104 can be used as well, except that it is not possible to upgrade the NXAMP_{MK2} firmware. Default NXRM104 card should be put back for firmware update. As part of a policy of continual improvement, NEXO reserves the right to change specifications without notice.

Accessories



DMU

The DMU enables easy monitoring of all activity on the NXAMPMK2's audio inputs, with signal and power supply coming from the amplifier's GPIO port. Front panel features include four analogue XLR inputs plus links, three RJ45 ports for digital audio networking and LED VU meters.



DPU

The DPU optimises the NXAMPMK2's channel by channel preset selection by automatically routing its outputs to any of six output connectors on the DPU front panel. Cabinet names and bridging status are displayed alongside each output, making it easy to wire the system.

Network Card



Dante™ AES/EBU

NXAEDT

Adds both AES/EBU and Dante™ inputs to NXAMPMK2 Powered Controllers. 4 channels of Dante™ inputs with Switched/Redundant mode and 44.1kHz to 96kHz digital audio support. 2 channels of AES/EBU inputs with buffered outputs and 44.1kHz to 96kHz digital audio support.



NXAMP_{MK2}

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