NXAMP~MK2~

Powered TDControllers

Thinking. Inside the box.

Formidable power. Precision control. Flexible networking.

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.

NEXO   YAMAHA

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.

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 NXAMPMK2 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 NXAMPMK2 achieves a whole new level of sound quality, partnering with NEXO speakers to deliver a whole new level of audience experience.

Class D   P|F|C   Dante™*   NeMo   AES/EBU*

4.3" display   **Tactile screen**   **Dual Ethernet Port**
x2
*Optional

4 X 4500 Watts from a 3U rack

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 maxim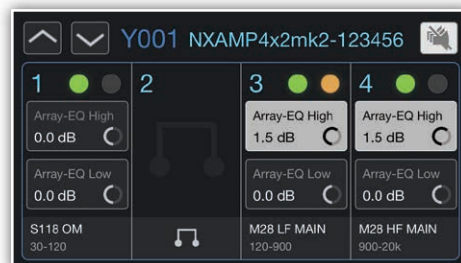um power conversion efficiency and that the current drawn is smoothed and free of spikes to limit the stress on the mains network at all times. A flexible audio input system encompasses four, high end analogue inputs using cascaded converters for low output noise. Digital inputs are also available through 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.

NEXO | A Yamaha Group Company

Fingertip control

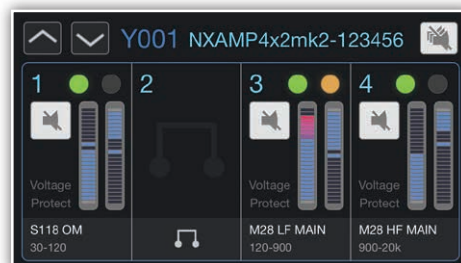## A large colour touchscreen makes set-up easy

With ease of use central to the NXAMPMK2 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.
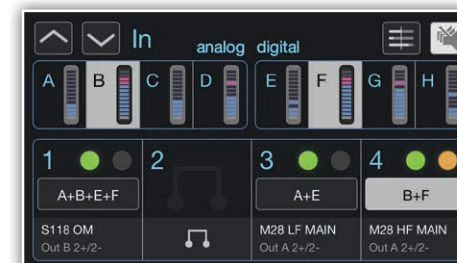
Mute and Meters
NXAMPMK2 has two layers of mute: per-channel and overmute. Voltage and Protection Meters give relevant information on System Headroom.

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.
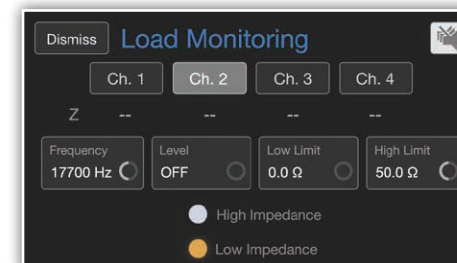
Inactive Screen
Displayed after a time interval of inactivity, this screen can be customised with a user image configured with NeMo.
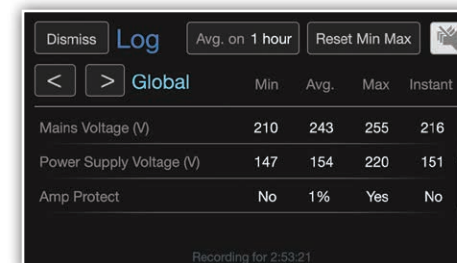
Inputs
The inputs view displays input levels and offers input alignment options. The input patch can be intuitively edited.
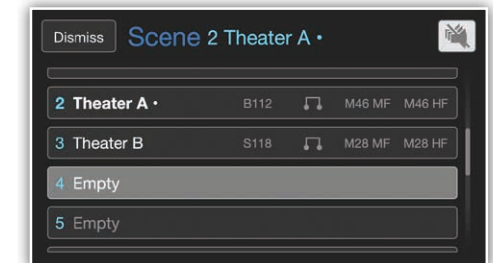
Load Monitoring
Load Monitoring can be enabled and configured on every channel, to ensure speakers are monitored in real time and ready to use.

Log
Many parameters and alerts are always recorded into the log, providing valuable information on the NXAMPMK2 usage.
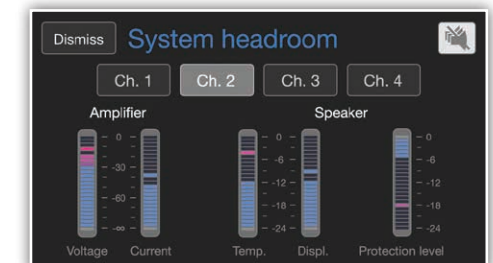
Scene
Parameters (volume, delay, gain, EQ, input patch, setup…) can be saved in one of the 32 scene slots, and can be copied and pasted.
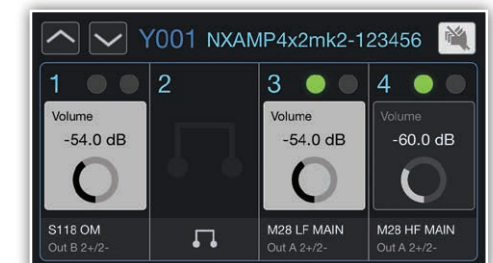
Setup
NEXO or Custom Setup can be edited on one or several channels. The cabinet name, its cross-over and output patch are always visible.

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

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.

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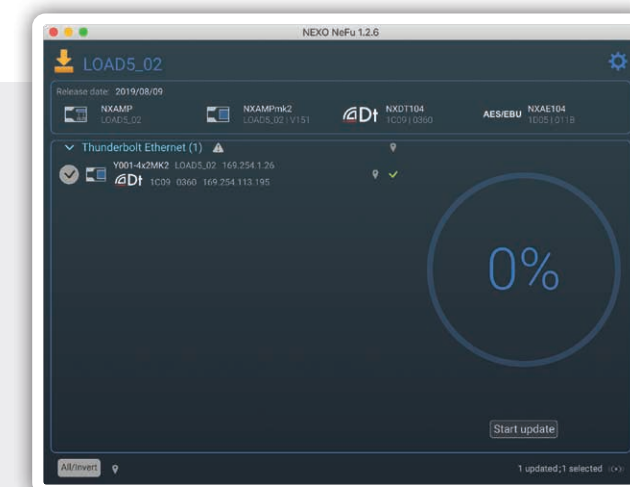
NeMo

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.

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.
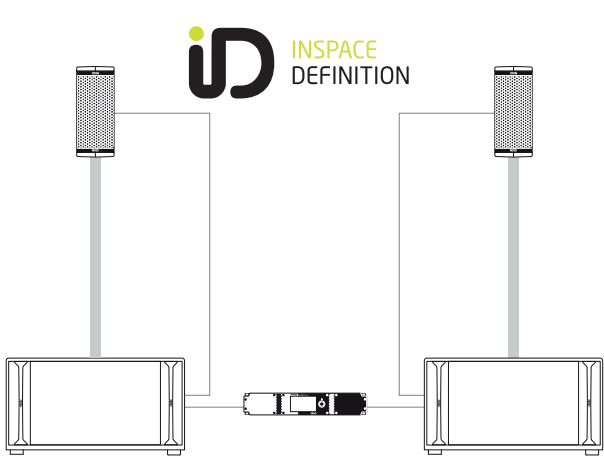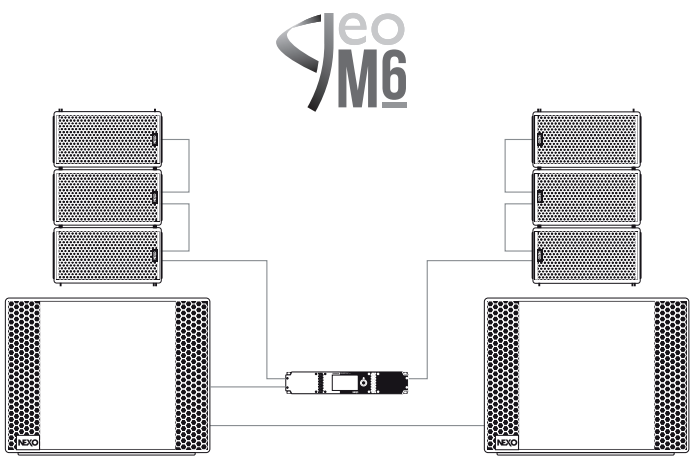
Firmware Updates

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.
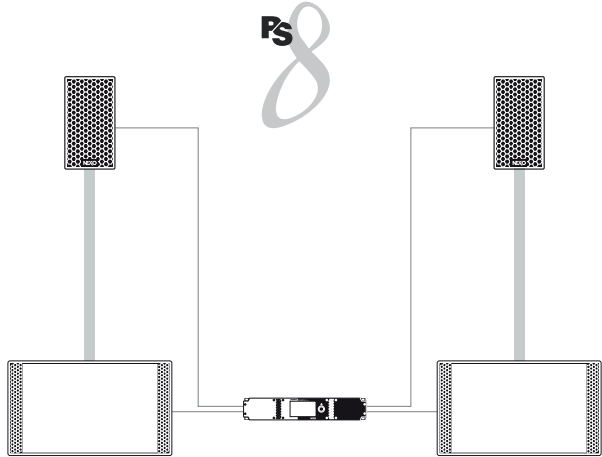
Typical Systems

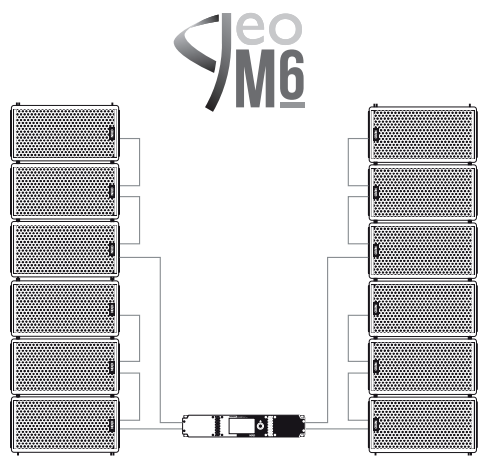ID Series, PS8 and GEO M6 systems powered by a single NXAMP4X1MK2

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

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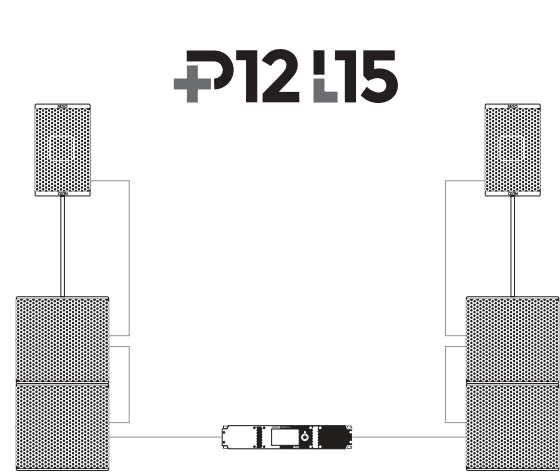and 2 X LS18 in mono bridge

NXAMP4X1MK2 powering 1 X PS8
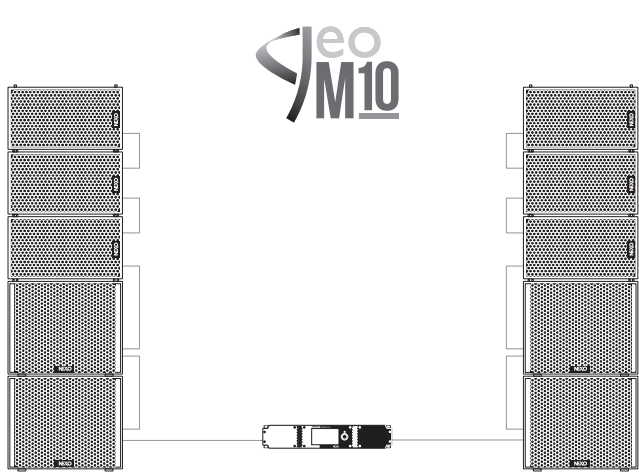and 1 X LS400 Sub per side

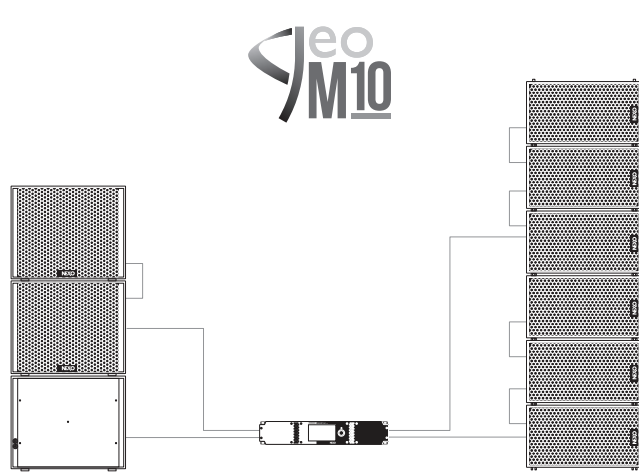NXAMP4X1MK2 powering 6 X GEO M6 per side

Typical Systems

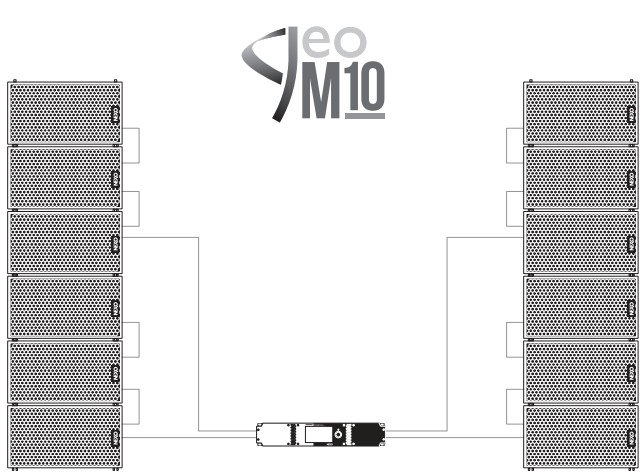P12/L15 system and GEO M10 systems powered by a single NXAMP4X2MK2

NXAMP4X2MK2 powering 1 X P12
and 2 X L15 per side

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

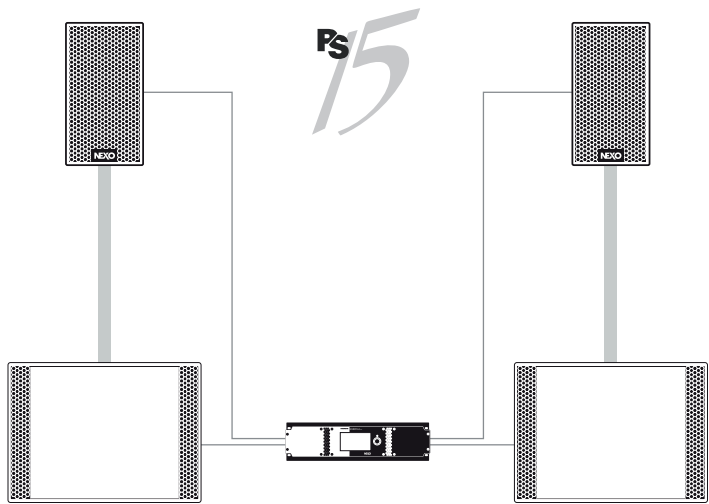NXAMP4X2MK2 powering 3 X MSUB15 (one in cardio mode)
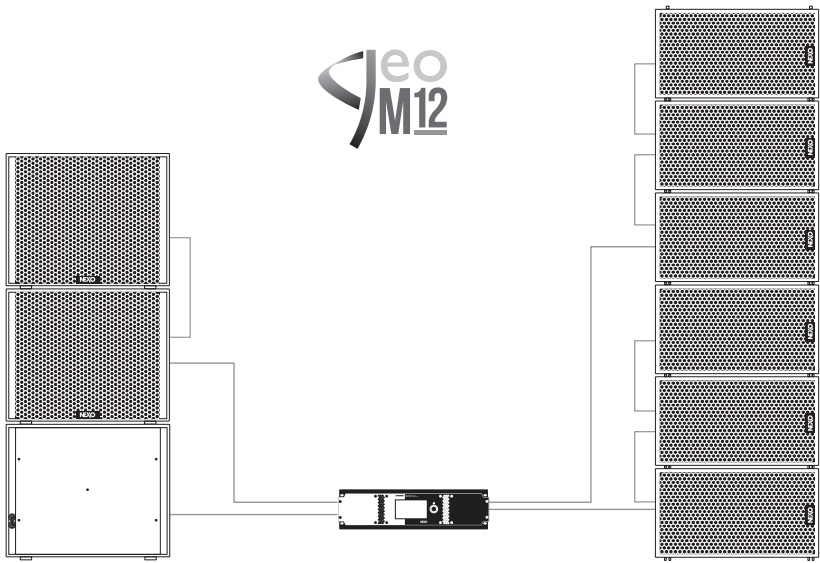and 6 X GEO M10

NXAMP4X2MK2 powering 6 X GEO M10 per side
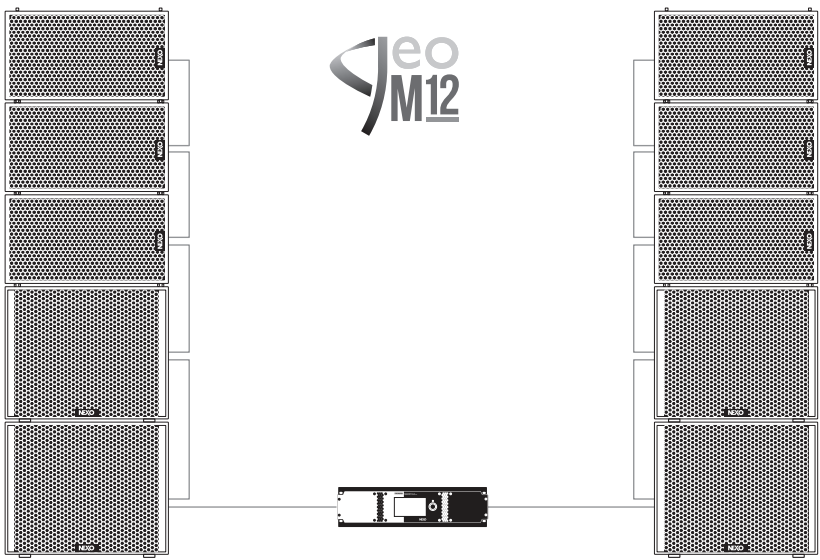
Typical Systems

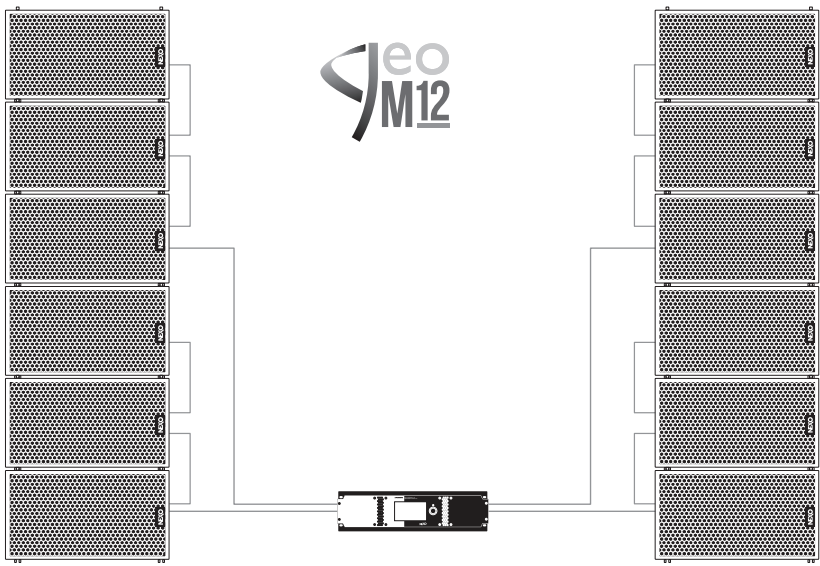PS15 and GEO M12 systems powered by a single NXAMP4X4MK2

NXAMP4X4MK2 powering 2 X PS15 + 2 X LS18 per side

NXAMP4X4MK2 powering 3 X MSUB18 (one in cardio mode) and 6 X GEO M12

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

NXAMP4X4MK2 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 NXAMPMK2 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 DanteTM 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}

NXAMP**MK2**

Powered TDControllers

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ISO 9001:2015
BUREAU VERITAS
Certification

BUREAU VERITAS
1828

WARRANTY
★★★
5 YEARS
★★
WARRANTY

Thinking. Inside the box.

NEXO

A
Yamaha
Group
Company