DIGITAL TD CONTROLLER

NXAMP4x2 MK2

Dismiss   Ch.3 EQ   On

+12
+6
0
-6   20   50   100   200   500   1k   2k   5k   10k 20k
-12
-18

③
②

1 400   2 3.10k   3 6.00k

+   Flat

NEXO

DIGITAL TD CONTROLLER

NXAMP4x1 MK2

Y001 NXAMP4x1mk2-123456

1 ●   2   3 ●   4 ●

Voltage Protect   Voltage Protect   Voltage Protect

S118 OM   M28 LF MAIN   M28 HF MAIN
Out B 2+/2-   Out A 2+/2-   Out A 2+/2-

NEXO

NXAMP MK2
Powered TDControllers

nexo-sa.com

NEXO

Formidable
Flexible netw

The perfect compact, l
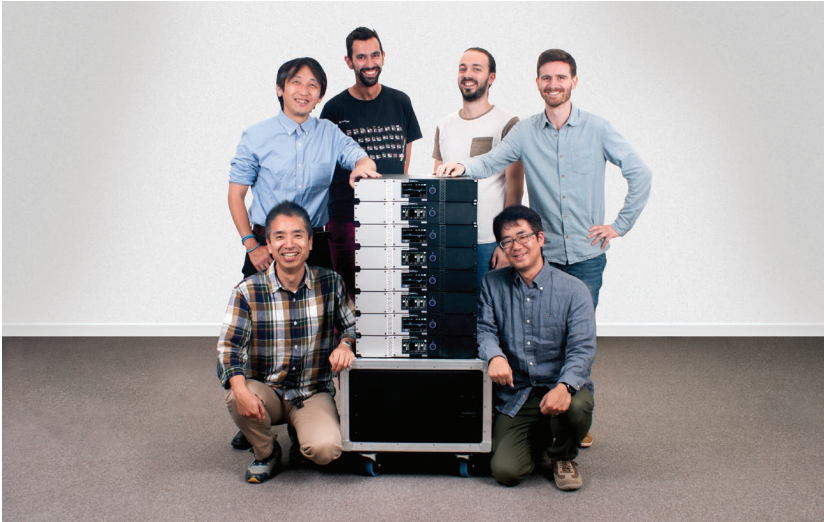
NEXO and Yamaha collaborate to set new performance standards in power amplification

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.

Available in 4 X 1300 Watts and 4 X 2500 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.

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 NXAMP_{MK2} 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 NXAMP_{MK2} superbly supports the NEXO sound, consistent with our passion for music.

Class D   **P|F|C**   **Ether* ES Sound**

power. Precision control.
working.

light-weight power solution for NEXO 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.
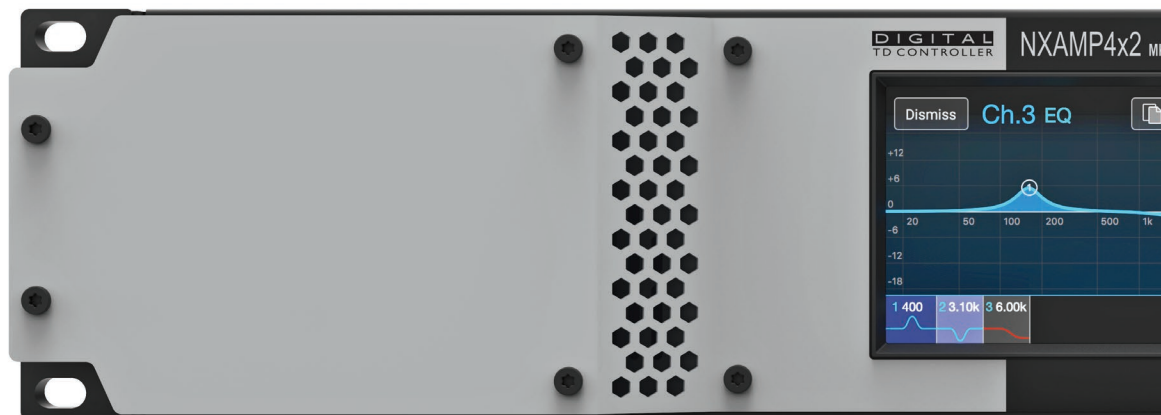
Dante™ *   **NeMo**   **AES/EBU** *

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

3

4 X 1300 / 2500 Wa

The Nexo NXAMP_MK2_ ultra-low distortion Class D amplifiers combine 32-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

/atts from a 2U rack

maximum 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. Four digital inputs are also available through the rear panel expansion card slot offering optional AES/EBU, EtherSound™, Dante™ or AES67 inputs, all with automatic analogue fall-back. 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.

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.
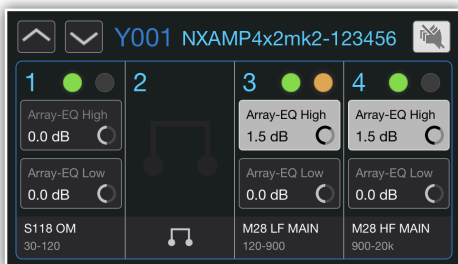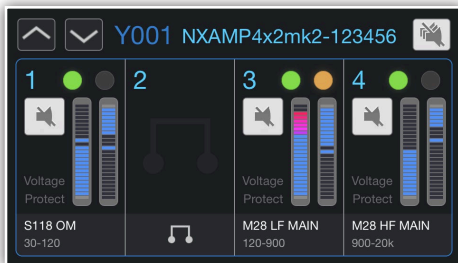

Array EQ
Two settings of Array-EQ allow for a better compensation of ground, stacking and line array effect, on Low and High frequencies.
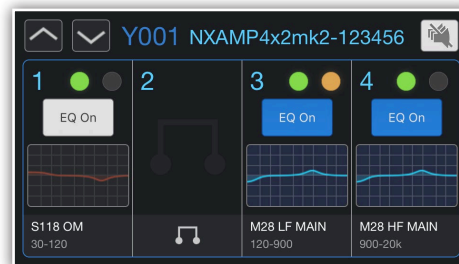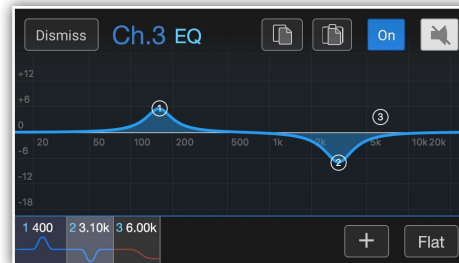

User EQ
In addition to cabinet-related EQ and Array EQ, User EQ provides up to 8 bands per channel, editable on one or several channels at once.

Mute and Meters
NXAMPMK2 has two layers of mute: per-channel and overmute. Voltage and Protection Meters give relevant information on System Headroom.
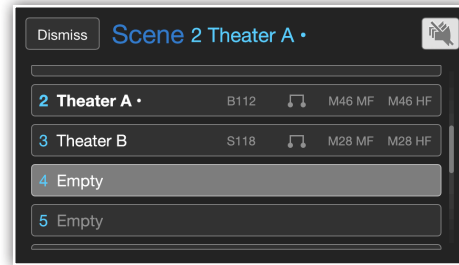

EQ Detail
User EQ is drawn in full screen for a better experience. The band type, frequency, gain, Q and on/off status can be easily edited.
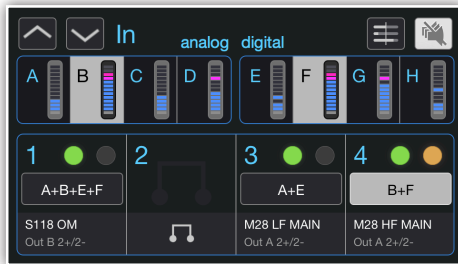
Y001 NXAMP4x2mk2-123456

S118 OM   M28 LF MAIN   M28 HF MAIN

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

In   analog digital

A B C D E F G H

1	2	3	4
A+B+E+F		A+E	B+F
S118 OM		M28 LF MAIN	M28 HF MAIN
Out B 2+/2-		Out A 2+/2-	Out A 2+/2-

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

Dismiss   Load Monitoring

| Ch. 1 | Ch. 2 | Ch. 3 | Ch. 4 |

Z   --   --   --   --

| Frequency | Level | Low Limit | High Limit |
| 17700 Hz | OFF | 0.0 Ω | 50.0 Ω |

● High Impedance
● Low Impedance

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

Dismiss   Log   Avg. on 1 hour   Reset Min Max

<   >   Global   Min   Avg.   Max   Instant

Mains Voltage (V)	210	243	255	216
Power Supply Voltage (V)	147	154	220	151
Amp Protect	No	1%	Yes	No

Recording for 2:53:21

Log
Many parameters and alerts are always recorded into the log, providing valuable information on the NXAMP$_{MK2}$ usage.

Dismiss   Scene 2 Theater A •

2	Theater A •	B112	M46 MF	M46 HF
3	Theater B	S118	M28 MF	M28 HF
4	Empty			
5	Empty			

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.

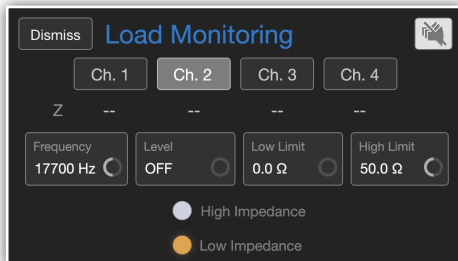Dismiss   Ch.4 Preset •   NEXO

| Serie STM |
| Cabinet M28 LF |
| Mode MAIN |
| Cross-Over 120-900 |

STM

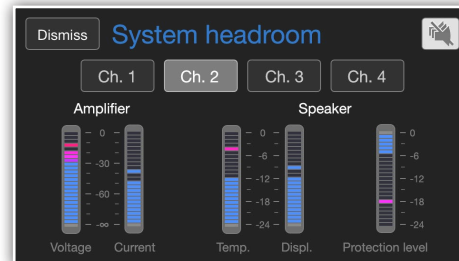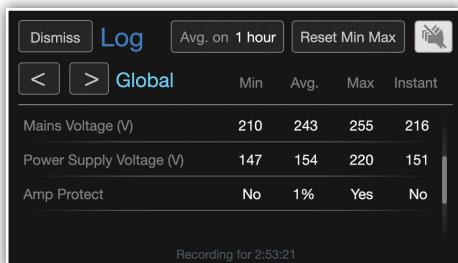Connection Sp.4 1+/1-
Type Active

Bridge   Recall   LOAD4_15

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.

Dismiss   System headroom

| Ch. 1 | Ch. 2 | Ch. 3 | Ch. 4 |

Amplifier   Speaker

0 -30 -60 -∞

0 -6 -12 -18 -24

0 -6 -12 -18 -24

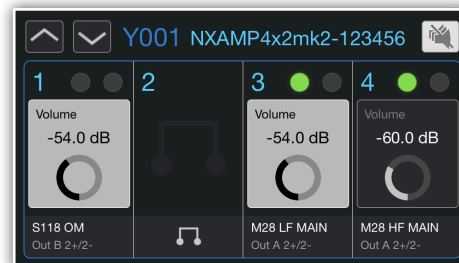Voltage Current   Temp. Displ.   Protection level

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

Y001 NXAMP4x2mk2-123456

1	2	3	4
Volume		Volume	Volume
-54.0 dB		-54.0 dB	-60.0 dB
S118 OM		M28 LF MAIN	M28 HF MAIN
Out B 2+/2-		Out A 2+/2-	Out A 2+/2-

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 devices

A large number of NXAMPMK2 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 network 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.

Network cards

Dante™ NXDT104MK2

The optional Dante card enables seamless integration of NXAMPMK2 into Dante audio networks. It receives 4 audio streams (24-bits / 48kHz) in the Dante or AES67 formats and allows remote control from any computer on a LAN using TCP/IP commands. Its unique 3-port design can be used as an integrated 3 port gigabit switch or as two Dante redundant ports plus an optional third port for additional remote control.

EtherSound NXES104

The optional EtherSound card extracts 4 audio streams (24-bits / 48kHz) from the 2 X 64 channels of an ES100 EtherSound stream and features In and Out ports for easy daisy-chaining without an external switch and a third port for remote control and ASIO streaming.

AES/EBU NXAE104

The optional AES/EBU card receives 4 audio channels (24-bits / 44.1 - 96kHz) in AES/EBU format and features 2 X AES/EBU stereo XLR inputs; one with an AES/EBU buffered output on XLR with fail-safe relay. 2 X switched RJ45 ports enable remote control and easy daisy chaining.
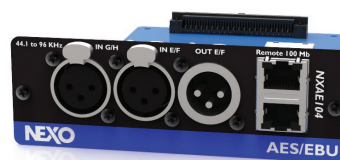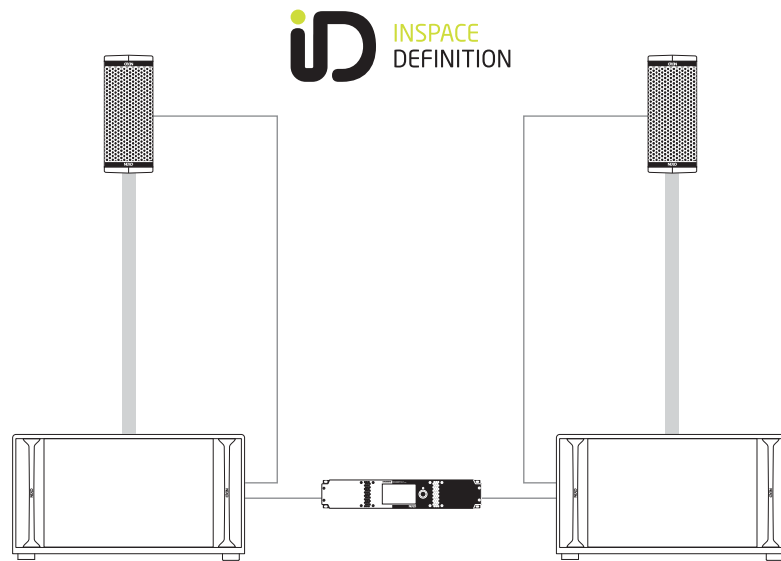
Remote Control NXRM104

Supplied as standard with the NXAMPMK2, the Remote Control card features 2 X RJ45 ports for remote control and easy daisy-chaining of amplifiers, while also facilitating firmware updates.
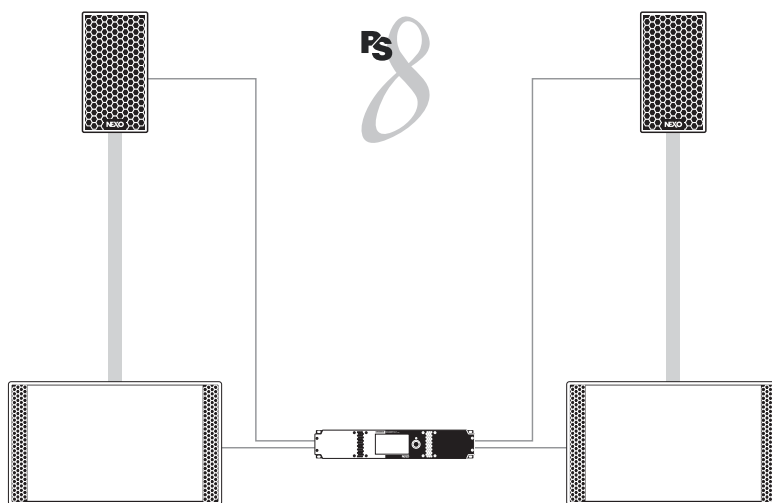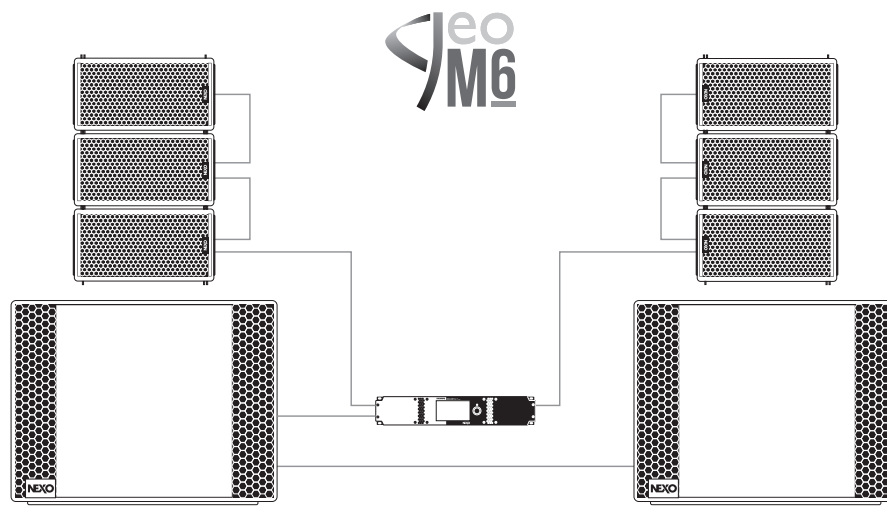
Typical Systems

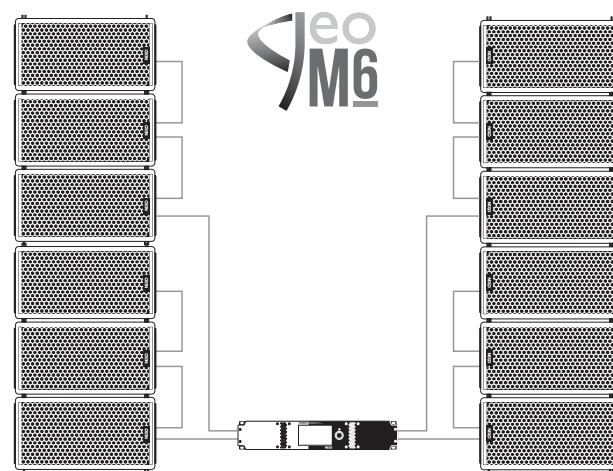ID Series, PS8 and GEOM6 systems powered by a single NXAMP4X1MK2

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

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

NXAMP4X1ₘₖ₂ powering 3 X GEOM6 per side and 2 X LS18 in mono bridge

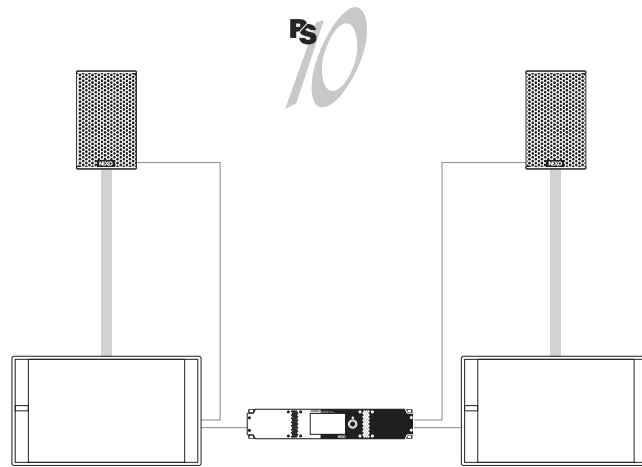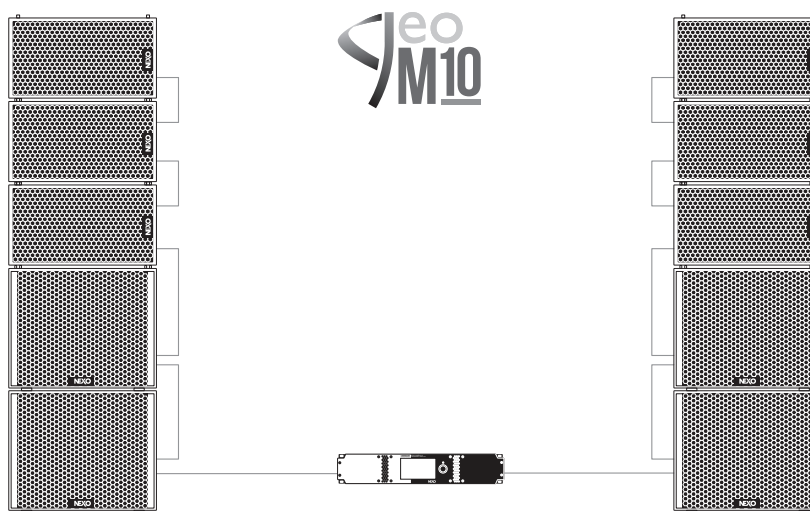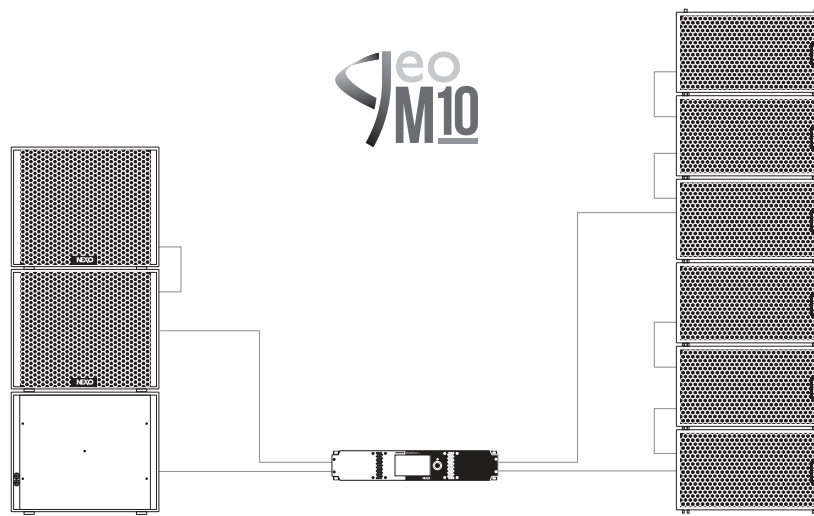NXAMP4X1ₘₖ₂ powering 6 X GEOM6 per side

Typical Systems

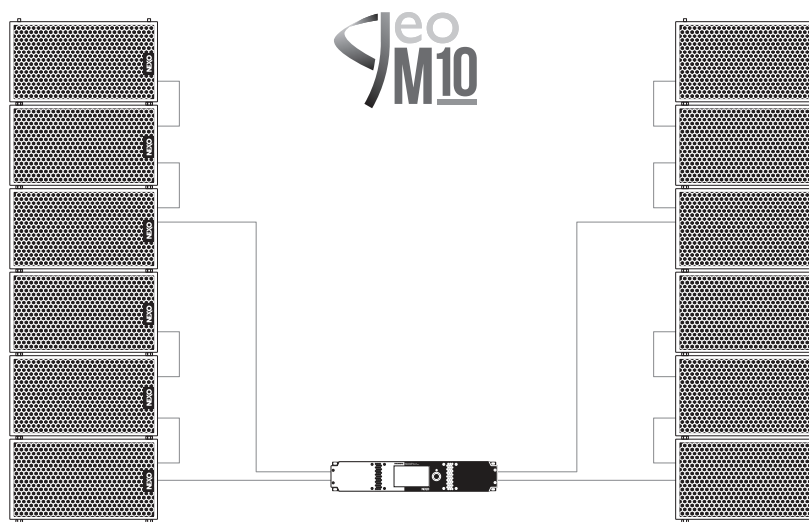PS10R2 system and GEO M10 systems powered by a single NXAMP4X2MK2

NXAMP4X2MK2 powering 1 X PS10R2 and 1 X LS600 Sub per side

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

12

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

NXAMP4X2MK2 powering 6 X GEO M10 per side

Specifications

POWER SPECIFICATIONS	NXAMP4x1MK2	NXAMP4x2MK2
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
Max. output power (4 channels mode/8 Ohms load per channel)	4 x 600 Watts	4 x 1200 Watts
Max. output power (4 channels mode/4 Ohms load per channel)	4 x 900 Watts	4 x 1900 Watts
Max. output power (4 channels mode/2 Ohms load per channel)	4 x 1300 Watts	4 x 2500 Watts
Max. output power (2 channels mode/8 Ohms load per channel)	2 x 1800 Watts	2 x 3800 Watts
Max. output power (2 channels mode/4 Ohms load per channel)	2 x 2600 Watts	2 x 5000 Watts
Power consumption (Standby)	10 Watts	
Power consumption (Idle)	200 Watts	

INPUT TO POWER OUT SPECIFICATIONS		
Frequency response	+/-1 dB from 10 Hz to 20 KHz	
Impedance / Input Sensitivity	20 K Ω / 13 dBu	20 K Ω / 16 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	32 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	1 x Neutrik Powercon NAC3 (1 x 20 A)

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

MAINS REQUIREMENTS		
Mains voltage	Universal Power Supply with Active PFC 100 - 240 Volts (50/60/Hz)	
Power consumption 1/4 max. 2 Ohms	1900 Watts	3500 Watts

DIMENSIONS AND CERTIFICATIONS		
Dimensions	2U 19" Rack	
Depth	502 mm (20")	
Weight	15.7 Kg (33.1 lbs)	16.1Kg (35.3 lbs)
Electrical safety certification	cULus, CB (CE), CCC, PSE, KC	
EMC certification	CE, FCC	
Green status	Compliant with ROHS directive	

EXTENSION CARDS CERTIFICATIONS	NXES104	NXDT104MK2(*)	NXAE104
Audio format	Ethersound™	Dante™	AES/EBU
Remote control	Ethersound™ based	IP based	IP based
Number of input channels	4	4	4
Resolution / Sample rate	24 bits / 48 KHz	24 bits / 48 KHz	24 bits / 44.1~96
Audio Connectors	2 x Ethercon™	2 x Ethercon™	3 x XLR
Additional port	1 x RJ45	1 x RJ45	2 x RJ45
Power supply	2 W from NXAMP	3W from NXAMP	2 W from NXAMP
Dimensions & weight	120 x 160 x 40 mm (NXAMP slot) - 200 g		
EMC certification	CE, FCC, ICES	CE, FCC	CE, FCC
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 NXAMP$_{MK2}$'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 NXAMP$_{MK2}$'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.

NAT-R4U

Fully assembled and ready to go, the NAT-R4U brings together in a 4U flightcase with an integrated sliding door:

1) x 1 NXAMP4X1$_{MK2}$ or x 1 NXAMP4X2$_{MK2}$ + DPU + DMU

2) x 2 NXAMP4X1$_{MK2}$ or x 2 NXAMP4X2$_{MK2}$

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