

NXA SERIES

**NXA4-80, NXA4-200, NXA 4-400,
NXA 4-700, NXA6-80, NXA6-200**

POWERED DIGITAL AUDIO MANAGERS



NXA is the name of a new series of “all-in-one” digital audio devices: a multichannel self-powered digital manager that stays halfway between the former NZA networkable amplifiers and a digital matrix. In some projects a remotely managed digital amplifier is necessary, but not enough to fulfill with the full list of requirements (sources mixing, input priority (talkover), FAULT monitoring, end user remote control, etc.). Adding a digital matrix to the list can take it out of budget. This is where the NXA series fits perfectly: an amplifier-processor digital hybrid device, a complete audio solution with various remote control options and a long list of smart features.

Key features

6 available models:

- NXA4-80: 4 x 80 W RMS @ 4 Ω
- NXA4-200: 4 x 200 W RMS @ 4 Ω
- NXA4-400: 4 x 420 W RMS @ 4 Ω
- NXA4-700: 4 x 700 W RMS @ 4 Ω / 4 x 1200 W RMS @ 2 Ω
- NXA6-80: 6 x 80 W RMS @ 4 Ω
- NXA6-200: 6 x 200 W RMS @ 4 Ω
- 4/6 analogue inputs
- 4/6 powered output channels (can work in SINGLE, PARALLEL or BRIDGE modes)
- 4/6 GPI REMOTE control ports (compatible with 0-10VDC analogue control devices, like the WPmVOL and WPmVOL-SR wall panels). A REMOTE port can control one or several inputs volume, one or several outputs volume or a preset recall
- Class D amplifiers (eco friendly)
- Auto stand-by function (eco friendly)
- 100% silent, thanks to its fanless convection cooling system
- First-class digital audio codecs, providing excellent signal to noise ratio figures
- Ethernet interface, compatible with EclerNet Manager platform and UCP remote control system (webserver-webclient system)
- TP-NET third-party remote control, via Ethernet and RS-232 interfaces (compatible with CRESTRON®, AMX®, RTI®, VITY®, etc.)

Technical Characteristics

	NXA4-80	NXA6-80	NXA4-200	NXA6-200	NXA4-400	NXA4-700
POWER 20Hz-20kHz 1% THD						
1 Channel @ 2Ω (RMS)						1220 W
1 Channel @ 4Ω (RMS)	85 W	84 W	202 W	218 W	426 W	730 W
1 Channel @ 8Ω (RMS)	51 W	49 W	121 W	126 W	230 W	406 W
All Channels @ 4Ω (RMS)	66 W	65 W	168 W	163 W	330 W	530 W
All Channels @ 8Ω (RMS)	43 W	42 W	107 W	105 W	205 W	327 W
1 Bridge channel @ 8Ω (RMS)	160 W	158 W	383 W	399 W	760 W	1180 W
1 Bridge channel @ 4Ω (RMS)						2070 W
Overall Voltage Gain	+26 / +32 dB					
Frequency response [-1dB, -3dB]	10Hz - 25kHz					
THD + Noise @ 1kHz Full power	<0.05%		<0.08%			
Noise Floor (FFT) 20Hz - 20KHz	<100dB (110dB typ.)					
Damping factor 1kHz @ 8Ω	>150	>140	>400	>350	>600	>200
Channel Crosstalk @ 1kHz	>75dB					
Input connectors	Terminal block (Symmetrical)					
Input CMRR/ref. Max. PWR	>50dB					

Power Consumption

	NXA4-80	NXA6-80	NXA4-200	NXA6-200	NXA4-400	NXA4-700
Signal present indicator	Lit at -40dBV					
Output connectors	Terminal block					
Anticlip limiter	Soft / Mid / Hard					
Volume remote control	[0-10VDC] [0.1A max.] 0V = no attenuation / +10V = full attenuation					
Remote control connectors	Terminal block					
Mains	Depending on your country. See characteristics in the back of the unit.					
Power consumption						
(pink noise, 1/8 power @ 4ohm)	107 VA	144 VA	225 VA	312 VA	431VA	729VA
(pink noise, 1/3 power @ 4ohm)	208 VA	291 VA	489 VA	685 VA	948VA	160VA
Stand-by mains consumption	<3W					
Panel Dimensions	482.6x88mm					
Depth (Handle excluded)	373mm	373mm	373mm	373mm	373mm	423mm
Weight	9.2kg	10.2kg	12.6kg	14.1kg	16.0kg	19.0kg

NXA SERIES

NXA4-80, NXA4-200, NXA 4-400,
NXA 4-700, NXA6-80, NXA6-200,

POWERED DIGITAL AUDIO MANAGERS

Key features (continued)

- Front panel POWER and/or LEVEL knobs can be disabled to avoid unwanted manipulation
- Front panel knobs can control one or several inputs volume, or one or several outputs volume
- Device's programmable health self-test mode function, with FAULT RELAY (it allows to detect a device's failure and then activate an external redundancy system)
- Integrated anti-clip system
- 2 units rack height
- Integrated DSP processor. Main features:
 - Each channel has an inputs' mixer that allows to get a customized and independent (per channel) mix of all the available input signals
 - VOLUME, MUTE, SOLO, PHASE INVERSION, MAX. VOL limit and MIN.VOL limit controls, per channel
 - LP and HP Crossover filters, up to 4th order, per channel
 - 8 parametric EQ filters bank, per channel
 - Compressor, with THRESHOLD, COMP. RATIO, ATTACK, RELEASE, KNEE and MAKE-UP GAIN parameters, per channel
 - Delay, up 1.000 milliseconds, per channel
 - DUCKER function: one input can be configured as the highest priority signal, being able to override the audio contents in the desired channels in the unit, when it overpasses the detection threshold. This function is especially useful in evacuation / emergency systems, where a message must be automatically detected and played instead of the program audio
 - 5 preset memories available

Applications

- Live sound (WiFi management is possible from a PC)
- Centralized, distributed or hybrid fixed installation
- Integration in installation global control systems
- Big Public Address zoned systems
- Installations requiring remote supervision, diagnostic and adjustment via Internet



WpMScreen
digital controller, compatible
with all the EclerNet products

NXA SERIES

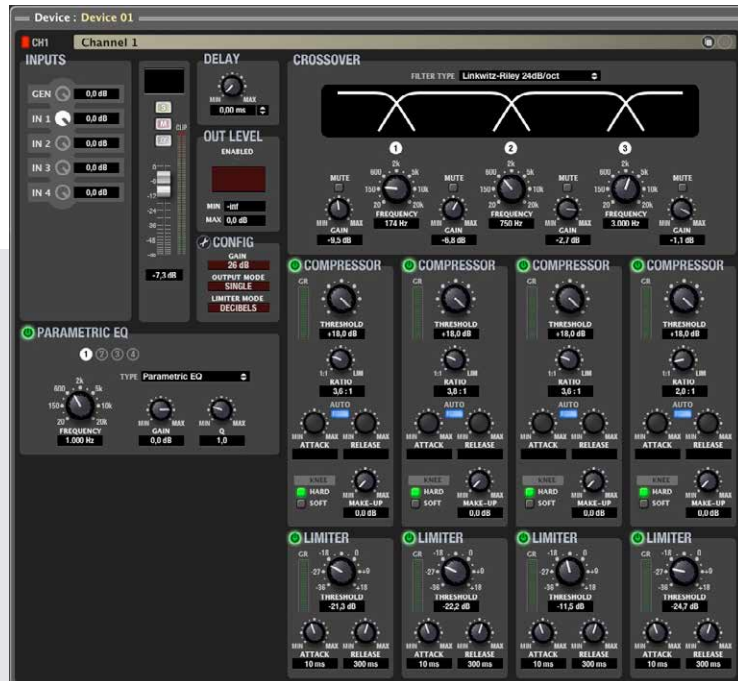
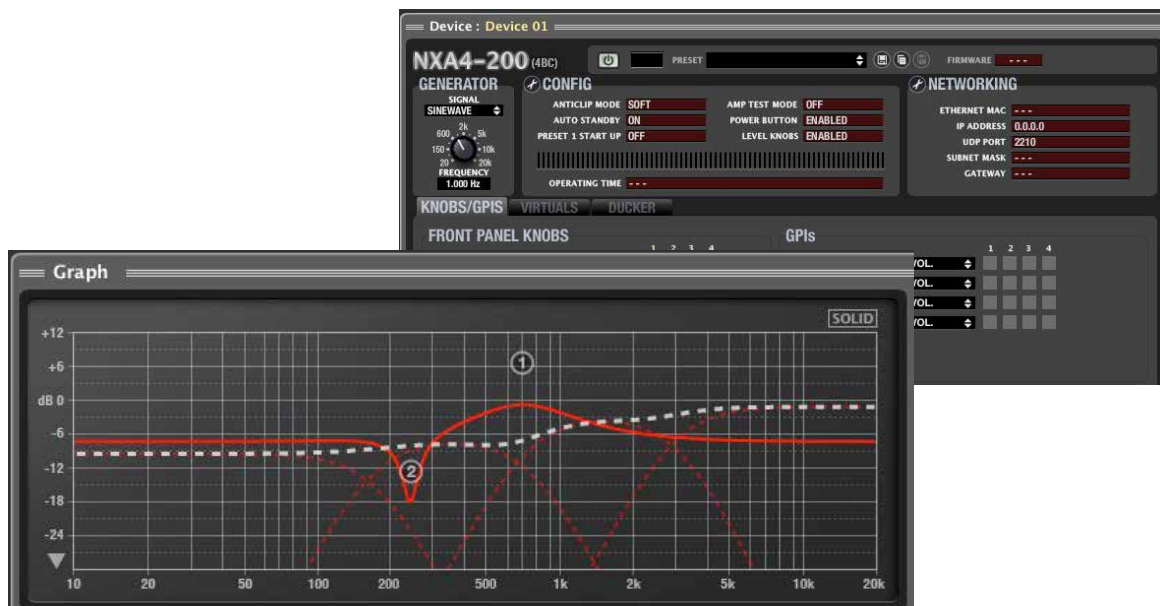
DIGITAL		
Processing:	A/D & D/A	24 bit, 48kHz, 115dB AKM Codec
	DSP	32/64 bits
	Latency	2ms
	Analog Input headroom:	+18 dBV = +21dBu
	Digital Input attenuator:	Stepless from -∞ to +0dB
	Input Impedance:	Balanced, 22kΩ
	Maximum Delay:	1s (343.4m) for each channel
Compressor / Limiter:	Delay resolution:	20.8µs (6mm)
	Threshold	from -36dBV to +18dBV
	Ratio	>50dB
	Attack time	Auto or from 0.1ms to 500ms.
	Release time	Auto or from 1ms to 5s.
Output peak voltage limiter:	Peak voltage upon model (auto settings)	From 10Vpk to 70Vpk

NXA SERIES

High & Low pass Crossover filters	Butterworth in 6/12/18/24dB/oct. Bessel in 12/18/24dB/oct Linkwitz-Riley in 12/24dB/oct.
Parametric Eq. types (8 max. per output)	Bypass / On-Off all channels Param. Eq. 20Hz-20kHz; -60/+12dB; Q from =.3 to 200 Low & High Shelf 6/12 dB/oct Low & High Pass 6/12 dB/oct. All-Pass 1/2 order
Built In signal generator	Sine (20Hz to 20kHz) Polarity(10/20Hz to 10/20kHz) White Pink
Signal Mute	Yes
Signal Polarity Invert	Yes
Connectivity:	Ethernet Base-Tx 10/100Mb, Auto X-Over, Cat5 RS232 57600(fixed)-8-N-1-N

NXA SERIES

SOFTWARE	
EclerNet Software	Realtime full GUI of all functions and controls thru Ethernet with interactive graphical display Grouping mode channels or devices Automated report generation Remote power on with programmable delay Up to 256 devices on same net Autodiscovery devices feature Routing capability through NAT gateways Real time metering at input/output (DSP) Device "Finder" feature Save & Recall setup and preset functions Firmware update capability thru Ethernet Password protection
Default Network configuration	IP: 192.168.0.100 Mask: 255.255.255.0 Gate: 192.168.0.1 UDP Port: 2210
Operating System:	XP @Prof. (SP3); Vista@ (SP1); W7@ (SP1).
Minimum EclerNet System Requirements:	Pentium IV @ 2GHz 500MB RAM 100MB HDD free space 1024x768 pixels & 16bits colour display 10/100/1000 Ethernet Network card



NXA 4BC (4 band compressor/limiter) is a dedicated software and firmware version for the NXA series, tailored for applications where a strict SPL (Sound Pressure Level) limit must be guaranteed.

This is a requirement which is more and more frequent today, sometimes due to official regulations in certain territories, and some others just due to environmental or neighbourhood needs, and in both cases with the goal of assuring that a certain maximum audio volume is never being surpassed.

This NXA skin allows installers adjust SPL limits along the whole audio frequency spectrum, being able to split the compressor / limiter function into 4 different and independent frequency bands, each one with its dedicated setup.

Once adjusted, the NXA4BC can be locked and protected, becoming an audio “black box” that performs all the sound processing required in a venue, as well as the power amplification and the customized user control interface options, finally adding the required limiting function to become a real tamper-proof system.

Main characteristics

- Compatible with any NXA hardware unit model (4 or 6 channels)
- Each output channel includes 4 independent frequency bands processing, including a dedicated compressor and limiter (just for channels 1 to 4 in the 6-channel models: channels 5 and 6 may get their processing from any of the 1 to 4 ones)
- Common features to the standard NXA series:
 - Programmable front knobs and REMOTE ports functions
 - DUCKER module (priority message, etc.)
 - Matrix mix, main VOL & MUTE, POLARITY and SOLO controls, per channel
 - Ethernet & RS-232 interfaces
- Compatible with EclerNet manager and TP-NET protocol /for third-party external control systems)
- UCP remote control ready, compatible with WPmSCREEN and third-party clients
- Self-integrity check system

NOTE

NXA 4BC software version requires a paid license for each standard NXA hardware unit that may get the upgrade. Please, contact your Ecler distributor for more information