N-RAK60

12-Channel Power Rack

- 1 Rack fits all
- Optimum performance flexibility
- Universal platform
- Dante (optional), AES3 and Analog inputs
- 6U Customized Rack

OVERVIEW

NEXT-proaudio has developed a unified rack solution N-RAK, designed for optimum performance flexibility and setup simplicity. The new rack was configured to interface seamlessly allowing multiple configurations for the entire NEXT-proaudio's product range. Consisting in a family of 4 different models, N-RAK 20, N-RAK40, N-RAK60, N-RAK80, all the N-Raks are equipped with Powersoft X8 and/or X4 amplifiers, featuring Dante™ audio networking functionality (optionally).

N-RAK was created as a universal platform developed to facilitate cross-rental between NEXT-proaudio's Users worldwide and to ensure compatibility with the cabling standard of the systems.

The N-RAK has Dante (optional), AES3 and Analog inputs for multiple connections, making the setup process greatly simplified and much more efficient than the former LA Rack. With the Powersoft amplifiers already built in and no assembly required, it's an easy-to-configure, all-in-one amplifier solution that eliminates the process of building amp racks. The N-RAK touring rack offers an advanced rack solution for all NEXT-proaudio' systems covering signal and power distribution in a plug-and-play touring package.

The N-RAK versatility extends to delivery as well, since its dimensions were projected to allow easy shipment on European trucks, sea containers and other transportation modes.

The fully equipped N-RAK module comprises a 6U Customized Rack with 2 Powersoft X8 (N-RAK80) or 1 Powersoft X8 and 1 Powersoft X4 (N-RAK60) or 1 Powersoft X8 (N-RAK40) or 1 Powersoft X4 (N-RAK20); 2U Audio Distribution Panel in the front; and 2U Power Distribution Panel in the back.

The N-RAK features Armonia software for conveniente, simplified and standard control. The complete digital audio signal management system based on ARM Cortex A-8 processor and TI C6000 DSP platform heralds new and

innovative level of signal processing, providing non-boolean routing and mixing, multi-stage equalization with raised-cosine, IIR and FIR filters, delay up to 4 s in input processing and 200 ms for time alignment, gain and polarity adjustment, crossover, peak limiters, TruePower™ limiters and Active DampingControl™.

TECHNICAL SPECIFICATIONS

General	
Number of Channels:	12
AC Main Power	
Single Channel Mode (2):	5200W
Single Channel Mode (4):	3000W
Single Channel Mode (8):	1600W
Bridge Mode (4):	10400W
Bridge Mode (8):	6000W
Max Output Voltage / Current:	175Vpeak / 130Apeak
Thermal	
Power Supply:	Universal, Single Phase, Bi-Phase or Three Phase acceptance, switching mode with PFC
Operating Voltage:	85V - 440V
Audio	
Operating Temperature Range:	0°-45°C - 32°-113°F
THD+N:	< 0.5% (typically < 0.01%)
IMD:	< 0.5% (typically < 0.01%)
Input Impedance:	20k balanced
Slew Rate:	> 50V/s
Damping Factor:	> 5000 @ 8, 20Hz - 500Hz
DSP	
Noise Floor:	-70dBV (20Hz - 20kHz, A weighted)
DSP Architecture:	ARM Cortex A-8 processor and TI C6000 DSP platform
AD Converter:	Dual 24bit 96kHz Tandem® architecture with 127dBA of dynamic range
DA Converter:	Dual 24bit 96kHz Tandem® architecture with 122dBA of dynamic range
Internal Precision:	40bit floating point
Firmware:	Network upgradable firmware
Input Equalizer:	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Output Equalizer:	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Crossover:	Linear phase (FIR), hybrid (FIR-IIR), Butterworth, Linkwitz-Riley, Bessel: 6dB/oct to 48dB/oct (IIR)
Delay:	up to 4s on input section; up to 200ms per output for time alignment
Limiters:	TruePower™, RMS voltage, RMS current, Peak limiter
Damping Control:	Active DampingControl™
Construction	
Dimensions (WxHxD):	600mm x 624mm x 800mm