Amplifier

DA50:4
Preliminary Data

High performances class D DSP amplifier
4 bridgeable channels
4 x 3,000 W in 4 Ω

Features
High audio quality
Performance and power efficiency
Protection circuits for reliability
Control software

Applications
High quality sound reproduction
High power amplification
Large scale APG systems

Specifications
High performance pure class D power supply
THD <0.05% at 1kHz
Cutting-edge DSP platform
Advanced monitoring functions

TCP-IP command with RJ45 port
AES inputs, optional Dante™ inputs

The DA50:4 is a 4 pure class D DSP power amplifier. Four bridgeable channels allow all sorts of configurations of cabling depending on speakers and impedance load.

The DA50:4 delivers high power and sonic quality thanks to a careful design of all its components.
This truly revolutionary amplifier platform provides a logical front panel user interface and powerful TCP-IP based remote control. Both provide access to all features allowing rapid system configuration with full performance monitoring and analytics.

The DA50:4 has a very high level of reliability thanks to its numerous protections against clipping and high voltages or current. Its functional parameters, mains voltage and current draw, are monitored and saved. The temperature is carefully controlled by variable-speed forced-air cooling.
The DA50:4 includes 4 amplified and processed channels in only two rack units, to ease transport and handling. The device can be configured via its front panel LCD screen, and via PC connection thanks to its RJ45 port.

Amplifier DA50:4

The DA50:4 is a 4-channel amplifier for high power applications. It uses the same DSP technology and the same controls than the DMS48 processor. Its characteristics are high dynamic and power capacities, combined with a sturdy and ergonomic design that perfectly meets the requirements of live events and shows, in fixed installation as well as in touring.
Thanks to its performance in terms of power, it naturally suits APG high power systems such as Matrix Array, Uniline, Uniline Compact and "TB" series subwoofers.
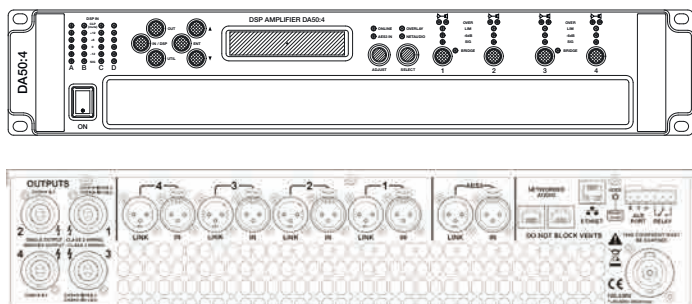Although the DA50:4 amplifier is optimized for a 4 to 8 Ω load, operation under 2 Ω load is possible, provided there is a sufficient headroom. The bridged mode allows high-voltage operation into 4 to 16 Ω loads.
The DA50:4 must be used according to APG-recommended combinations of speakers and processors.

APG

DA50:4
Technical Specifications

Control Software PWAPG

The PWAPG software allows a complete remote control of the DA50:4 via a computer PC, smartphone or tablet.

General

General	DA50:4				
Number of channels	4				
Output power		stereo mode		bridged mode	70V/100V
RMS output power / channel,	2 Ω/ch	4 Ω/ch	8 Ω/ch	4 Ω	operation, Hi-Z
all channels driven, continuous program	4x5000 W	4x3000 W	4x1500 W	2x10000 W	5000 W

AC mains power

Main power supply	3rd Generation Series Resonant
Nominal mains input voltage range	85V to 240V (automatically detected and configured)
Mains input frequency range	47Hz to 63Hz
Mains inrush current	12A at 115V and 6A at 230V (max for <10ms)

Audio

Frequency response	5 Hz – 20 kHz (@ 4Ω, ±0.5 dB)
S/N ratio	>106 dBA (20 Hz - 20 kHz, A weighted)
Crosstalk separation	> -85dBr @ 1kHz and > -75dBr @ 10kHz
THD (Total Harmonic Distorsion)	<0.05% typical, 1kHz signal, AES17 filter, @4Ω

DSP

Sample rate	96kHz
Resolution	40 bits (proprietary algorithms)
Physical inputs to DSP drive modules	4 x analog, 2 x AES & 4 x DanteTM inputs, can be routed to 4 DSP drive modules
Drive module input processing	Delay, gain, HPF, Phase, Mute
	EQ: 2 x low shelves, 6 x PEQ or bandpass, FIR shelving filters
Drive module output processing	Source, delay, gain, phase, mute, crossover filters, VX limiters
	EQ: low shelf, 8 x PEQ or bandpass, FIR shelving filters
Preset management	8 snapshots for device wide setup, 50 presets for loudspeaker settings
Overlays	12 additional independent overlays of EQ, delay and gain
Grouping	Flexible grouping of DSP drive modules
Monitoring	Supply current and voltage, thermal capacity, driver current and impedance
	Protection, power cycle, fan underspeed, mains brownout events

Front Panel

Indicators	High-contrast graphical screen, bright multicolor LED indicators
Controls	2 indented, velocity sensitive encoders, 10 illuminated push butons

Rear Panel

Audio signal input connectors	Analog: 4 x balanced Neutrik® XLR female, AES: 1 x Neutrik® XLR female
Audio signal link connectors	Analog : 4 x balanced Neutrik® XLR male, AES: 1x Neutrik® XLR male
Loudspeaker output connectors	4 x Neutrik® Speakon NL4
Mains input connector	Neutrik® 32A Powercon
Dante primary and secondary*	2 x shielded RJ45* (*Dante option only)
Network data port	1 x shielded RJ45
Relay output & contact closure inputs	Phoenix pluggable terminal block (supplied)

Construction

Dimensions	W 483 mm / 19", H 88 mm / 2U, D 357 mm / 14"
Weight	12.5 kg / 27.5 lbs