

d:24

compact | versatile | powerful



The d:24 is a unique solution for any multi-channel application in the medium and high power range. Due to its out-standing performance measures and compact design, the d:24 sets new standards in science, industrial, professional and home install.

The 24 independent amplifier modules with 250W (at 4Ω) each guarantee for an easy and reliable setup of multi-channel audio systems while saving valuable rack space with its slim 3U.

If equipped with one of three digital input options (MADI, Dante or AES3) the d:24 can boast its incredibly high SNR and THD figures as required by world leading scientific institutes.

Features

- 250W per channel at 4Ω top notch class-D amplifier modules
- 6.5" resistive touch interface for metering, control and routing
- Remote control via a web interface and a RESTful API for integration in your automation system
- Controllable fan speeds for minimum noise or maximum cooling efficiency
- Digital inputs via MADI, Dante (AES67) or AES3 option boards with highest grade DACs (optional)
- Amplifiers equipped with Dante input module offer a matrix mixer feature to sum input signals
- DSP enabled delay, phase inversion, EQ, compression and limiting for each channel (optional)
- Panic Mute toggle for immediate hardware mute of all channels (optional)
- Compact size (3U, standard rack depth)
- Light weight (approx. 20 kg/44 lbs)

specifications

power

RMS output power (1 kHz sine, 15dBu)

	load	power	THD+N
single channel	4Ω	250W	<= 0.05%
	8Ω	125W	<= 0.04%
bridged	8Ω	495W	<= 0.04%
	16Ω	250W	<= 0.07%

ac mains

voltage	230VAC -5V; +20V 115VAC -5V; +10V
frequency	50/60Hz
connector	powerCON 32A by Neutrik
soft start	yes
ext. over-current release	20A (B20/C16)
typ. inrush current	<= 36A (<0.25ms)

idle losses

idle power	< 270W
standby	< 2.5W



performance

frequency response	-3dB @ 10Hz -2dB @ 50kHz
phase response	±25° (20Hz-20kHz)
voltage gain	17dB ±0.5dB
power bandwidth	10Hz - 55kHz
SNR	> 112dB
inter channel cross talk	< 64dB
typ. THD (10Hz-30kHz)	
15dBu	≤ 0.05%
0dBu	< 0.01%
-20dBu	0.03%

analog inputs

connectors	3x DB-25 (Tascam analog norm)
required level for 250W	15dBu
input impedance	95kΩ
max. input level	15dBu

digital input options

supported sample rates	44.1, 48, 88.2, 96kHz
MADI (AES10)	1x optical SC in/out (multimode) 1x BNC in/out 1x wordclock out
Dante	2x RJ45 (primary/secondary)
AES/EBU, S/PDIF (AES3)	2x DB-25 (Tascam analog norm) 16+8 ch. ASRC

output

connectors	24x 2-pin Euroblock
output impedance	< 100mΩ
min. load impedance	≥ 4Ω (single channel) ≥ 8Ω (bridged)
hi-Z per ch, unloaded	approx. 32V _{RMS}
DC output offset	< 10mV

protection

DC output error	yes, per channel *)
over-current protection	yes*)
over-voltage main protection	yes

further connectors & switches

ethernet	etherCON by Neutrik
panic mute connector	4-pin Euroblock (cascadable)
power on/off	momentary switch (configurable)

user interface

touch display	resistive, 6.5"
network control	web interface, HTTP API

dsp

available per channel:	
• gain	+/- 20dB
• delay	≤ 11.5 ms
• phase inversion	
• crossover filters	low cut, high cut (Linkwitz-Riley, Bessel or Butterworth; up to 4th order)
• parametric equalizer	5-Band (bell, cuts, shelves)
• compressor/limiter	incl. soft knee

cooling

type	active, front-to-rear
fans	5, temperature controlled (adjustable via presets)
environmental temp. range	10°C - 30°C
recommended clearance	1U above & below

fusing

internal fuses	4x SMPS, 1x analog PSU, (1x Digital Board)
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dimensions & weight

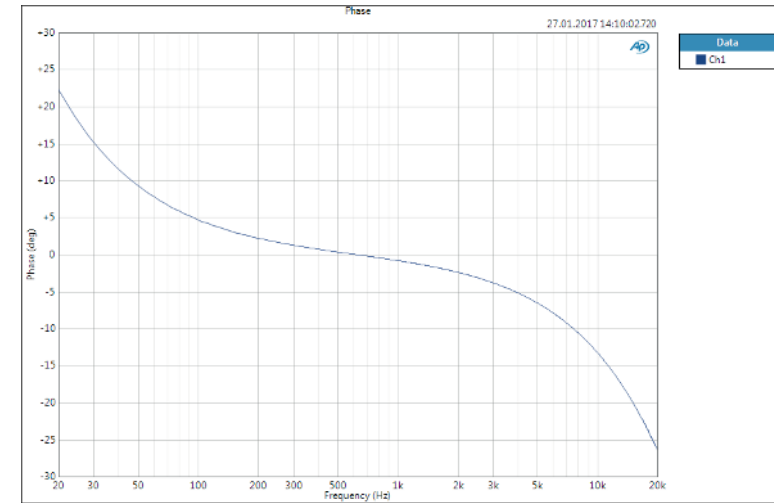
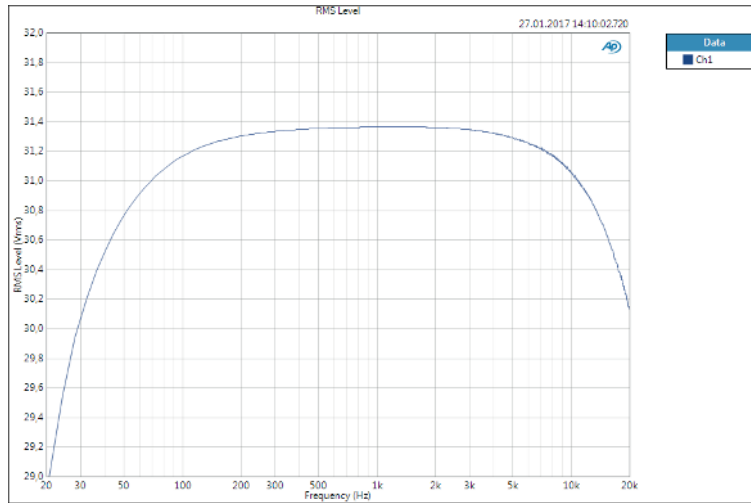
WxHxD	482,6mm (19") x 132,5mm (3U) x 517mm (20,4")
weight	approx. 20kg (44 lbs) - the weight depends on configuration

*) each channel affects a respective group of six output channels (1-6, 7-12, 13-18, 19-24)

exemplary measurement

input signal 20Hz - 20kHz stepped sine sequence
input level 15dBu
output load 4Ω

frequency response /
phase response



voltage gain /
THD ratio

