



MAXX-SERIES

DIGITAL POWER AMPLIFIERS

MA 16 / LP²

MA24/LP²

MA32/LP²

AUDIO

Output Power (EIAJ Test Standard 1kHz 1% THD)	4Ω	8Ω	8Ω Bridge-Mode
	50W	30W	100W
Max output Voltage	24 V _{peak}		
Max output Current	10 A _{peak}		
DC Offset	<25mV		
Frequency response	10Hz-20kHz / 4-8Ω: +0.0 -1.5dB		
S/N typ	108dBA		
Analog Gain	Software Adjustable, 0dBFS on any Input Interface ⇒ 20V _p - 60V _p (default: 32V _p)		
THD+N @ 4Ω	1W	10W	
	< 0.05%	< 0.1%	
SMPTE IMD	< 0.1%		
CCIF IMD	< 0.1%		
Output impedance	typ 60 mΩ		
Crosstalk	channel enabled		channel disabled
	typ < 70dB	typ 90dB (distant channels)	typ < 120dB
Latency @48kHz	1.1ms		
Protection	Overtemperature, DC and Overcurrent		

DSP

Architecture	FPGA based 32-bit fixed point
Inputs	16 x input matrix
	sine, white- pink- brown-noise
	Mute, Volume, Phase
Filter per channel	32 x EQ / Highpass / Lowpass
Filter types	bell, notch, highshelf, lowshelf
High- Lowpass types	6 - 48dB/Oct, Bessel, Butterworth, Linkwitz/Riley, Variable Q
FIR Filter	2048 Tabs, ASCII file import
Delay	48000 Samples / 330m / 1000ms per channel

CurrentLimiter	Threshold [Ap]
VoltageLimiter	2 x Threshold [Vp], Attack, Release
Powerlimiter	Threshold [W], Attack, Release
Speakerdetection	20kHz Pilot Tone generating with Volume, Threshold, Debounce

CONNECTOR

Control input connectors	RJ45 (100Mbit/s Ethernet)
Audio signal input connectors	RJ45 (DANTE), BNC 75R (MADI Coax, AES3id), SC Optic (MADI Fibre)
Speaker connector	Wuerth Elektronik 691352710002 Phoenix Contact MSTB 2,5/ 2-ST - 1754449 Phoenix Contact MSTB 2.5/16-ST-5,08 - 1757158
AC mains	C13

AC MAINS POWER

Power supply	Universal, regulated switch mode with PFC (Power Factor Correction)
Operating Voltage	90 - 264VAC 50/60Hz
AC Current typ.	4.85A
Inrush Current	60A max.
Suggested circuit breaker	B16
Earth Leakage Current	<0.75mA / 240V

32 CH Version		
Power Factor	@230V	@110V
amps power off	0.46	0.85
idle	0.64	0.95
1/8 power @ 4 Ohm	0.96	0.98
Consumption / current draw	@230V	@110V
amps power off	29W, 0.13A	29W, 0.26A

idle	56W, 0.24A	57W, 0.54A
1/8 power @ 4 Ohm	322W, 1.4A	332W, 3.0A

24 CH Version		
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Power Factor	@230V	@110V
amps power off	0.44	0.83
idle	0.58	0.93
1/8 power @ 4 Ohm	0.94	0.99
Consumption / current draw	@230V	@110V
amps power off	26W, 0.11A	26W, 0.24A
idle	46W, 0.20A	38W, 0.35A
1/8 power @ 4 Ohm	241W, 1.05A	247W, 2.25A

16 CH Version		
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Power Factor	@230V	@110V
amps power off	0.41	0.81
idle	0.52	0.90
1/8 power @ 4 Ohm	0.89	0.99
Consumption / current draw	@230V	@110V
amps power off	23W, 0.10A	24W, 0.22A
idle	36W, 0.16A	38W, 0.35A
1/8 power @ 4 Ohm	152W, 0.66A	164W, 1.49.A

THERMAL

Enviromental operating temperature	0 - 40°C	
Thermal dissipation	Fan, variable speed, temperature controlled front to rear airflow / passiv cooled	
32 CH Version		
	@230V	@110V
amps power off	24 kcal/h	24 kcal/h
idle	49 kcal/h	50 kcal/h
1/8 power @ 4 Ohm	276 kcal/h	285 kcal/h
24 CH Version		
	@230V	@110V
amps power off	22 kcal/h	22 kcal/h
idle	40 kcal/h	40 kcal/h
1/8 power @ 4 Ohm	207 kcal/h	212 kcal/h
16 CH Version		
	@230V	@110V
amps power off	19 kcal/h	19 kcal/h
idle	30 kcal/h	32 kcal/h
1/8 power @ 4 Ohm	130 kcal/h	141 kcal/h

USER INTERFACES

Hardware	Multicolor LED, LCD Display with 6 navigation Keys
Software	Webpage, RESTful-API

DIMENSIONS / WEIGHT

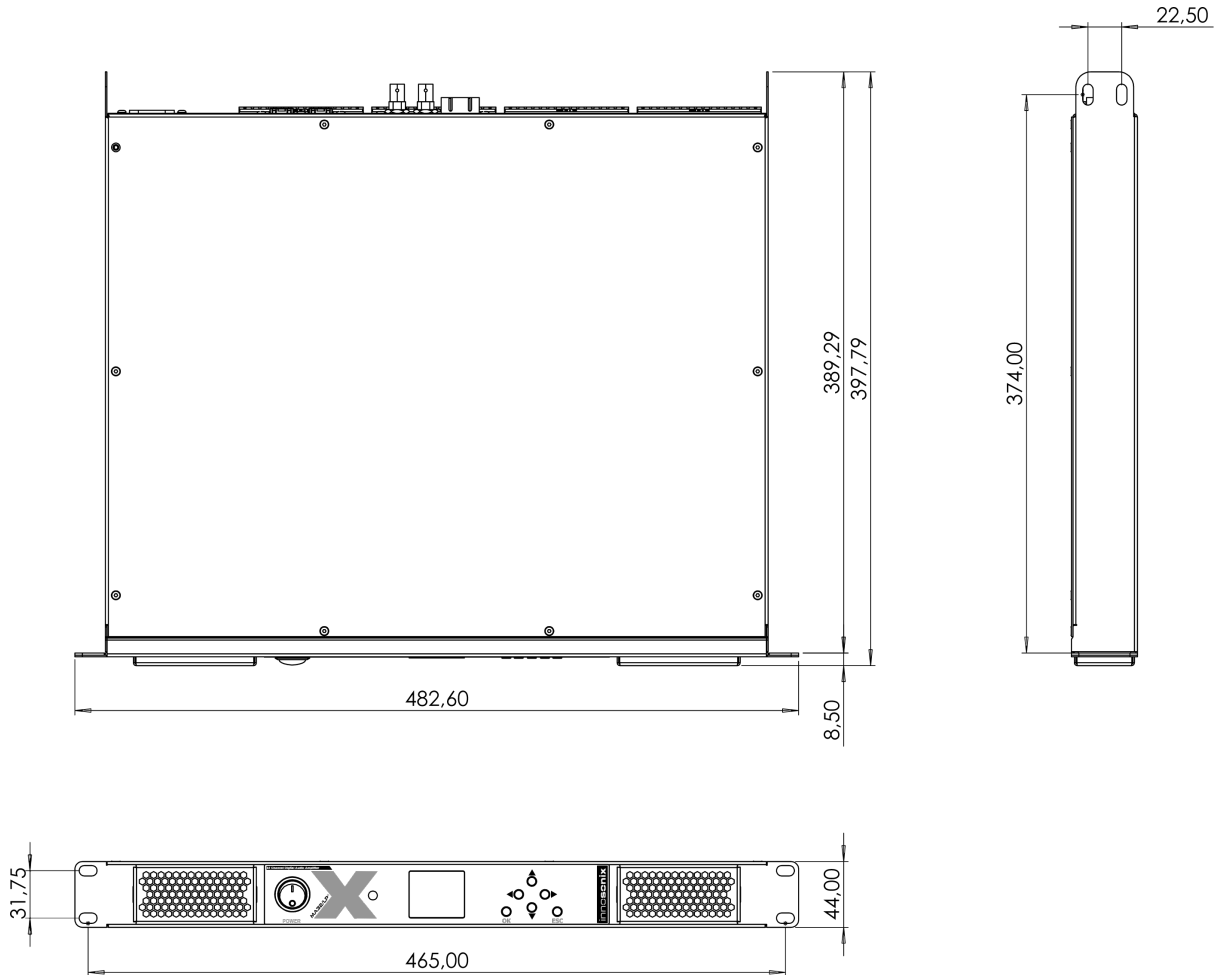


Figure 1. MAXX/LP² dimensions

Dimensions	W 482.60mm (19") H 44.00mm (1 RU), D 397.97mm		
	32CH	24CH	16CH
Weight	6.0 kg	5.7 kg	5.4 kg



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