

MICRO MAXX SERIES

μMA04/POE



DATASHEET

Specifications

Table 1. AUDIO

Power Stage	Half-Bridge GaN amplifier (Gallium nitride)		
Output Power (EIAJ Test Standard 1kHz 1% THD)	4Ω	8Ω	8Ω Bridge-Mode
	120W	120W	240W
Max output Voltage	50 V _{peak}		100 V _{peak}
Max output Current Limited	10 A _{peak}		
Emergency Shutdown Current	15 A _{peak}		
DC Offset	<25mV		
Frequency response	10Hz-20kHz / 4-8Ω: +0.0 -1dB		
S/N typ	108dBA		
Analog Gain	Software Adjustable, 0dBFS on any Input Interface: 20V _p - 60V _p (default: 50V _p)		
THD+N @ 4Ω	1W	10W	
	< 0.05%	< 0.1%	
SMPTE IMD	< 0.1%		
CCIF IMD	< 0.1%		
Output impedance	typ 40 mΩ		
Crosstalk	channel enabled		channel disabled
	typ < 70dB	typ 90dB (distant channels)	typ < 120dB
Protection	Overtemperature, DC and Overcurrent		

Table 2. DSP

Architecture	ARM based 32/64-bit floating point
Inputs	1 x input matrix (4 inputs) per channel
	4-Ch AoIP (Dante / AES67 / etc) + sine, white- pink- brown-noise
Level Control	Mute, Volume, Phase
Filter per channel	32 x EQ / Highpass / Lowpass

Filter types	bell, notch, highshelf, lowshelf, allpass 1th / 2nd order
High- Lowpass types	6 - 48dB/Oct, Bessel, Butterworth, Linkwitz/Riley, Variable Q
FIR Filter	512 Tabs, ASCII file import
Fraction Delay	48000 Samples / 330m / 1000ms (resolution 0.001 units) per channel
CurrentLimiter	Threshold [Ap]
VoltageLimiter	2 x Threshold [Vp], Attack, Release
Powerlimiter	Threshold [W], Attack, Release
Speaker Monitoring	Live Impedance Analyzer: This method requires an active signal to be present at the output. It calculates impedance spectrum information by analyzing the current and voltage of the output signal. Pilot Tone Generator: This alternative uses a dedicated 20 kHz pilot tone to determine impedance. Crucially, this tone is transmitted continuously and operates independently, meaning no program signal is required at the output.

	Latency	
digital input	134 samples, (117 samples DSP + 17 samples DAC)	
Input	@ 44.1kHz	@ 48kHz
AoIP	3.04ms	2.8 ms

Table 3. CONNECTOR

Network	RJ45 (100Mbit/s Ethernet + PoE)
Speaker connector	Wuerth Elektronik 691343710004
	Phoenix Contact MSTB 2,5/ 4-ST - 1779851
	Phoenix Contact MSTB 2,5/ 4-STF - 1786857
	Note: All 5mm pitch "Euroblock" connectos can be used

Table 4. PoE Power Specification

Power supply	Isolated switch mode with constant current draw based on PoE-Class		
Grounding	Case and audio outputs are referenced to the Ethernet screen. Datalines and power are safely isolated as specified by IEEE 802.3		
Supported PSE Type	PoE	PoE+	PoE++

Available Power at the Device	12.95W	25.5W	71.3W
IEEE Standard	802.3af	802.3at	802.3bt
Maximum Cable Resistance	20 Ohm	12.5 Ohm	12.5 Ohm (4 Pairs used 6.25Ohm in total)
Recommend Cable	AWG23 - CAT5e to CAT7		
Continuous Audio Output (shared over all channels)	4W	14W	51W
Audio Output 10dB Crest Factor (shared over all channels)	40W	140W	480W

Table 5. Consumption

amps power off	3W
idle	8W
1/8 power @ 4 Ohm	70W

Table 6. THERMAL

Enviromental operating temperature	0 - 40°C	
Thermal dissipation	passive cooled	
amps power off	TBD	TBD
idle	TBD	TBD
1/8 power @ 4 Ohm	TBD	TBD

Table 7. USER INTERFACES

Hardware	Multicolor LED, Factory-reset button
Software	RESTful-API used by maxx_remote
Third Party Plugins	Q-SYS, Loxone

DIMENSIONS / WEIGHT

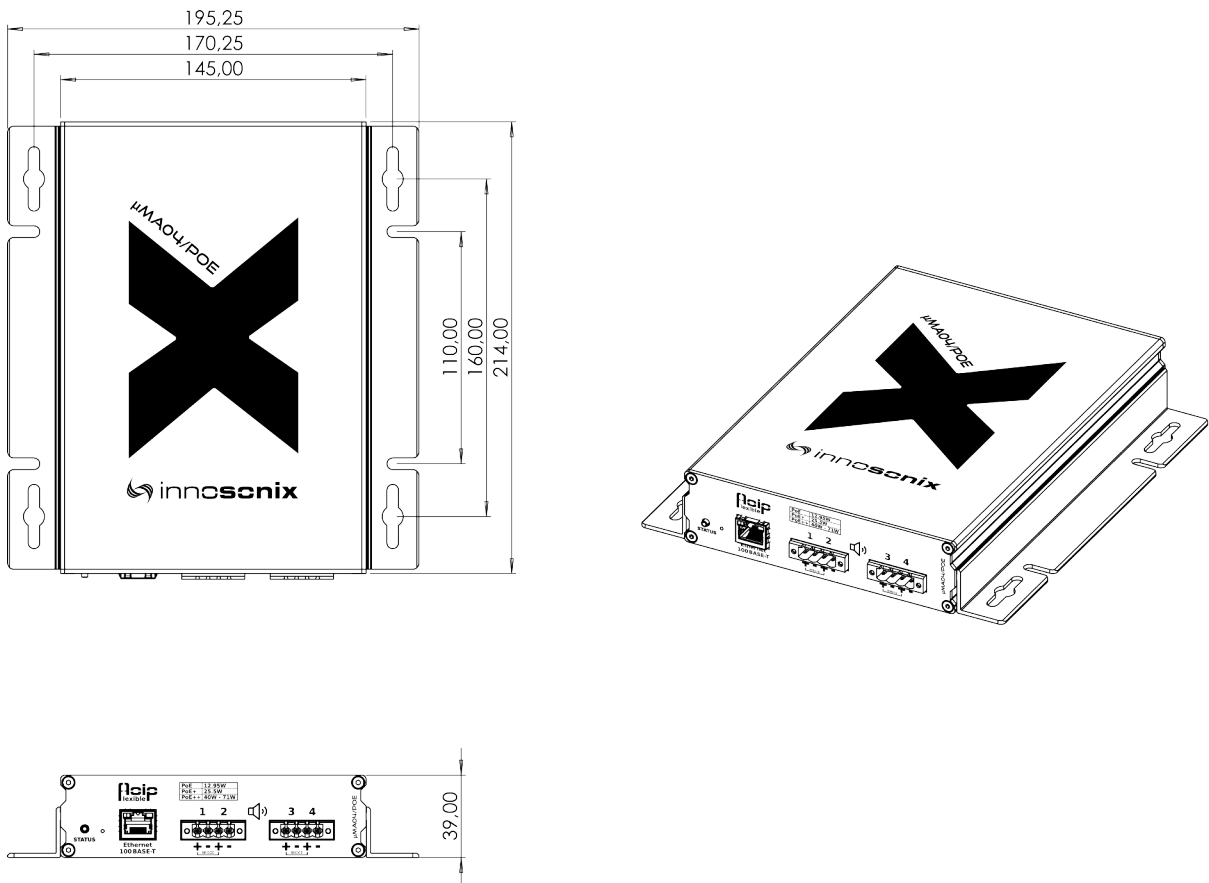


Figure 1. μ Maxx dimensions

Table 8. μ Maxx dimensions

Dimensions	W 195.25mm H 39.00mm, D 214mm
Weight	1.25 kg
Dimensions Boxed	30 x 26 x 6 cm
Weight Boxed	1.65 kg

