

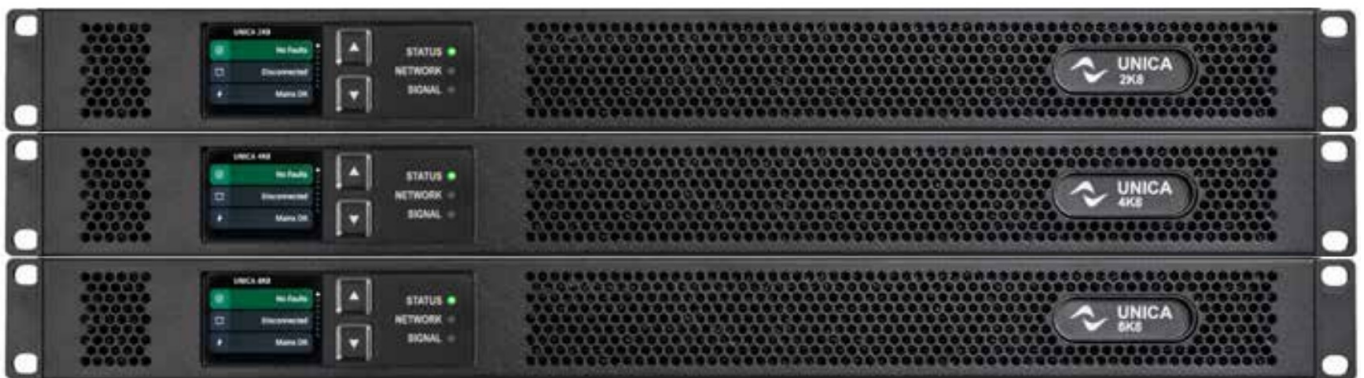


## UNICA 8-Channel Cloud Based Amplifier Platform Instructions

[Home](#) » [UNICA](#) » UNICA 8-Channel Cloud Based Amplifier Platform Instructions 

# Unica™

8-Channel Cloud Based Amplifier Platform



### Contents

- [1 8-Channel Cloud Based Amplifier Platform](#)
- [2 Specifications](#)
- [3 Documents / Resources](#)
  - [3.1 References](#)
- [4 Related Posts](#)

The Unica™ Series is a compact, 1RU amplifier platform developed primarily for installed applications. The 8-channel version includes 2kW, 4kW, and 8kW total power models, making Unica™ one of the most powerdense solutions available.

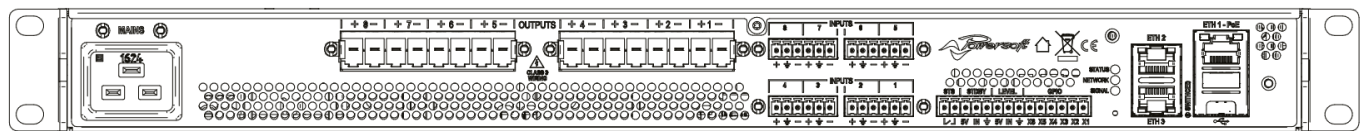
The output channels can drive Lo-Z and 70/100V lines seamlessly, delivering up to twice the rated power when asymmetrically loaded, resulting in 2000W @4Ω for the 8kW model. The power supply allows worldwide operation (100-240VAC), and it is equipped with the latest generation of singlestage power factor correction (PFC). The proprietary Smart Rails Management (SRM) allows the supply rails to adapt in real time to the required output voltage to maximize efficiency and reduce idle losses.

Unica™ platform features Powersoft's next-generation DSP for state-of-the-art processing and audio performance. The three 1Gb Ethernet ports, along with the native Dante™ and AES67 support allow for different network topologies including daisy-chain and Dante™ redundant.

The front panel display allows quick access to the amplifier operating status information for local monitoring. The PoE (Power over Ethernet) input allows for short recovery time in case of mains loss, as well as testing and monitoring loudspeakers 24/7 without the need for mains power.

Lastly, Unica™ Series amplifiers natively support cloud connectivity for remote monitoring and control from any device anywhere in the world via Universo™, the Powersoft cloud platform interface.

- Medium to large-scale venues
- Main systems, central or distributed, subwoofers, hi-Z/lo-Z
- Mission critical applications
- Theatres, performance venues
- Houses of worship
- Convention centres
- Business centres
- Cruise ships



Specifications

Channel Handling		
Number of output channels	8 Hi-Z or Lo-Z (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62
Number of input channels		
Analog	8	Phoenix MC 1,5/6-ST-3,81
Dante™ /AES67	8	3 x RJ45

<b>Audio</b>	
Default gain	32 dB
Input sensitivity	2.84 Vrms / 11.3 dBu
Output noise floor (Analog Input)	-72 dBV(A) typical
SNR (Analog Input)	112 dB(A)
Output noise floor (Dante™ /AES67 Input)	-76 dBV(A) typical
SNR (Dante™ /AES67 Input)	116 dB(A)
Max input level	>+24 dBu
Frequency Response	20 Hz – 20 kHz +0.0 dB/-1.0 dB, @ 8 Ω
Crosstalk	<-80dB typical, 20Hz to 1 kHz range <-60dB @20kHz typical
Input impedance	20 kΩ balanced
THD+N (from 0.1 W to Half Power)	< 0.05%
SMPTE IMD (from 0.1 W to Half Power)	< 0.01%
Damping factor	>2500 20Hz to 500 Hz

<b>DSP</b>	
AD converters	24 Bit Tandem™ @ 48 kHz 130 dB(A) Dynamic Range – 0.00005 % THD+N
DA converters	24 Bit Tandem™ @ 48 kHz 132 dB(A) Dynamic Range – 0.00003 % THD+N
Latency	2.6 ms analog Input to amplifier Output
Onboard memory	Store and recall up to 50 amplifier snapshot
Delay	2 s (input) + 100 ms (output) for time alignment
Equalizer	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass
Crossover	linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)
Limiters	RMS voltage, RMS current, Peak limiter, TruePower™, Dynamic EQ
Damping control	Active DampingControl™
Loudspeaker diagnostic	Pilot tone monitoring, average impedance monitoring, load impedance measurement
Startup time	<10 s <0.5 s (with PoE backup power)

<b>Construction</b>	
Dimensions	489 x 400 x 44.3 (WxDxH) mm 19.3 x 15.8 x 1.7 (WxDxH) in
Weight	7.9 Kg (17.4 lb)

<b>Output Stage</b>		<b>2K8</b>	<b>4K8</b>	<b>8K8</b>	
Commercial total rated power		2000	4000	8000	W
Maximum output power	per channel @ 100 V (symmetrical)*	250	500	800	W
	per channel @ 70 V (symmetrical)*	250	500	1000	W
	per channel @ 16 $\Omega$ (symmetrical)*	250	500	650	W
	per channel @ 8 $\Omega$ (symmetrical)*	250	500	1000	W
	per channel @ 4 $\Omega$ (symmetrical)*	250	500	1000	W
	per channel @ 2 $\Omega$ (symmetrical)*	250	500	1000	W
	per bridged pair @ 8 $\Omega$ (symmetrical)*	500	1000	2000	W
	per bridged pair @ 4 $\Omega$ (symmetrical)*	500	1000	2000	W
	per channel @ 100 V (asymmetrical)**	500	1000	2000	W
	per channel @ 70 V (asymmetrical)**	500	1000	1500	W
	per channel @ 16 $\Omega$ (asymmetrical)**	500	500	750	W

	per channel @ 8 $\Omega$ (asymmetrical)**	500	1000	1500	W
	per channel @ 4 $\Omega$ (asymmetrical)**	500	1000	2000	W
	per channel @ 2 $\Omega$ (asymmetrical)**	500	1000	1000	W
Maximum unclipped output voltage		160			V <sub>peak</sub>
Maximum output current		30	40	48	A <sub>peak</sub>

\*: Available by driving and loading all the channels symmetrically.

\*\* : Maximum power-sharing capacity per channel

	Power & Thermal		2K8	4K8	8K8	
AS TT @ AM @ I		Power	65	65	65	W
	Idle	Current Draw	0.707	0.707	0.707	Arms
		Thermal Loss	222	222	222	BTU/h
	1/8 Power @ 40 Idle	Power	406	729	1380	W
		Current Draw	4.	6.	12	A rms
		Thermal Loss	S32	781	1297	BTU/h
		Power	73	73	73	W
		Current Draw	0.605	0.605	0.605	
		Thermal Loss	249	249	249	BTU/h
	1/8 Power @ 40	Power	412	724	1360	W
		Current Draw	2.	4.	6.	Arms
		Thermal Loss	553	764	1228	BTU/h
	Power supply		Universal regulated	switch	mode with PFC	and SRM
	Nominal voltage		100-240 VAC @ 50-60 Hz (400 VAC surge)			
	Operating Voltage		80-265 VAC @ 50-60 Hz			
	AC Mains connector		IEC C20 inlet (20 A max) region-specific power cord provided			
	Eco Mode consumption		43 W			
	Standby consumption		20 W Typical, CPU fully functional			
	PoE Input		Class 4 or higher			

## Networking

Network	3 x Gigabit Ethernet ports RJ45 connectors
Network modes	Switched Mode, Split-Redundant Mode
Remote interface	ArmoníaPlus™, Universo™

[POWERSOFT.COM](http://POWERSOFT.COM)

## Documents / Resources



[UNICA 8-Channel Cloud Based Amplifier Platform](#) [pdf] Instructions  
8-Channel Cloud Based Amplifier Platform, Cloud Based Amplifier Platform, 8-Channel Amplifier Platform, Amplifier Platform, Amplifier

## References

- [Powersoft - Driving Human Audio Experience](#)