

Unica 8T

8-Channel Amplifier Platform for Touring Applications



The touring version of Unica™ is a compact, 1RU amplifier platform developed for rental companies and live shows. This 8-channel version features a 10kW total power model, keeping true the power density of the Unica™ platform.

The output channels can deliver up to 2400W @ 2.7 Ω for the 10K8T model when asymmetrically loaded. The power supply allows worldwide operation (100-240VAC), and it is equipped with the latest generation of single-stage 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 pristine 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.

Studio-grade Galvanically Insulated Analog Inputs for each channel provide immunity to noise coupling, excellent common mode rejection ratio (>90dB up to 1KHz), and abuse tolerance on the analog inputs.

The front panel display allows quick access to the amplifier operating status, including headroom, input levels, and more information for local monitoring.

Custom Ruggedized Phoenix Connectors Housings, designed for heavy-duty applications, provide strain relief and quick locking/unlocking functionality (pat. pending).

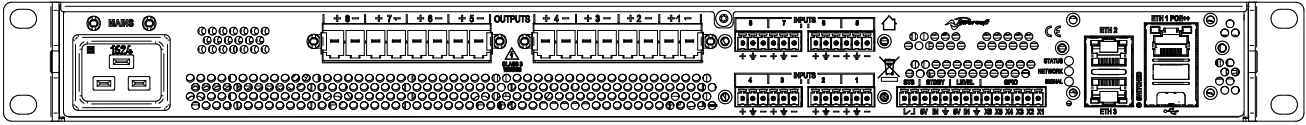
Lastly, Unica™ Series amplifiers natively support cloud connectivity for remote monitoring and control from any device anywhere in the world via the Powersoft Cloud.

- ▶ Large scale touring systems
- ▶ Arena & concert halls
- ▶ Stadiums & open-air venues
- ▶ Multi-zone venues & live clubs
- ▶ Mission critical applications
- ▶ Theaters, performance venues
- ▶ Houses of worship



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Specifications

Channel Handling		
Number of output channels	8 (bridgeable per ch. pair)	Phoenix PC 5/8-STF1-7,62 (with patent pending shells)
Number of input channels		
Analog	8	Phoenix MC 1,5/6-ST-3,81 (with patent pending shells)
Dante/AES67	8	3 x RJ45
Audio		
Default gain		32 dB
		10K8
Input sensitivity		3.9 V _{rms} 14 dBu
Output noise floor (Analog Input)		-72 dBV(A) typical
SNR (Analog Input)		116 dB(A)
Output noise floor (Dante™ Input)		-76 dBV(A) typical
SNR (Dante™ Input)		120 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/unbalanced, fully floating
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
DSP		
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		2.5 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 linear phase (FIR), Butterworth,
Crossover		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 <10 s
Startup time		<0.5 s (with PoE backup power)
Construction		
Dimensions		489 x 400 x 44.3 (WxDxH) mm 19.3 x 15.8 x 1.7 (WxDxH) in
Weight		8 Kg (17.6 lb)
IP Class		IP 20
Environmental		
Operating temperature range		0°C to +50°C (derating above 35°C)
Storage relative humidity range		10% to 85% humidity (non condensing)

Output Stage		10K8	
Commercial total rated power @ 2.7 Ω full load		10000	W
Maximum output power	per channel @ 16 Ω (symmetrical)*	750	W
	per channel @ 8 Ω (symmetrical)*	1000	W
	per channel @ 4 Ω (symmetrical)*	1200	W
	per channel @ 2.7 Ω (symmetrical)*	1250	W
	per channel @ 2 Ω (symmetrical)*	1250	W
	per bridged pair @ 8 Ω (symmetrical)*	2400	W
	per bridged pair @ 5.4 Ω (symmetrical)*	2500	W
	per channel @ 16 Ω (asymmetrical)**	750	W
	per channel @ 8 Ω (asymmetrical)**	1500	W
	per channel @ 4 Ω (asymmetrical)**	2900	W
per channel @ 2.7 Ω (asymmetrical)**	2400	W	
per channel @ 2 Ω (asymmetrical)**	2400	W	
Maximum unclipped output voltage		160	V _{peak}
Maximum output current		48	A _{peak}

*: Available by driving and loading all the channels symmetrically.
 **: Maximum power-sharing capacity per channel

Power & Thermal		10K8		
@ 120 V	Idle	Input Power	101.8	W
		Current Draw	1.06	A _{rms}
		Thermal Loss	347	BTU/h
	1/8 Max Power @ 4Ω	Input Power	1707	W
		Current Draw	14.57	A _{rms}
		Thermal Loss	1849	BTU/h
@ 230 V	Idle	Input Power	98	W
		Current Draw	0.75	A _{rms}
		Thermal Loss	334	BTU/h
	1/8 Max Power @ 4Ω	Input Power	1836	W
		Current Draw	8.25	A _{rms}
		Thermal Loss	2163	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		
Supply tolerance		+10%-10%		
Power system		TT/TN		
Overvoltage category		II		
Class of equipment		I		
AC Mains connector		IEC C20 inlet (20 A max) region-specific power cord provided		
Eco Mode consumption		35 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		ArmoniaPlus™, Powersoft Cloud		

Data subject to change without notice.

