Unica™

8-Channel Fixed Installation Amplifier Platform



























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

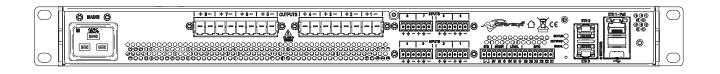
Lastly, Unica[™] Series amplifiers natively support cloud connectivity for remote monitoring and control from any device anywhere in the world via the Powersoft Cloud.

- ► 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



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Specifications

Channel Handling						
Number of output chann	iels	Z or Lo-Z ole per ch. pair)	Phoenix PC 5/8-STF1-7,62			
Number of input channe	Is					
Analog		8	Phoenix MC 1,5/6-ST-3,81			
Dante™/AES67	S67 8		3 x RJ45			
Audio						
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		<-80d	<-80dB typical, 20Hz to 1 kHz range <-60dB @20kHz typical			
Input impedance			20 kΩ balanced			
THD+N (from 0.1 W to Half Power)						
THD+N (from 0.1 W to Hal	f Power)		< 0.05%			
·	•		< 0.05%			
SMPTE IMD (from 0.1 W	•		< 0.01%			
·	•					
SMPTE IMD (from 0.1 W	•		< 0.01%			
SMPTE IMD (from 0.1 W Damping factor	to Half Power)	24 Bit Tanden	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters	to Half Power)	A) Dynamic Ran 24 Bit Tanden	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz tge - 0.00005 % THD+N n™ @ 48 kHz			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters	to Half Power) 130 dB(132 dB(A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran	< 0.01% >2500 20Hz to 500 Hz >n™ @ 48 kHz lge - 0.00005 % THD+N n™ @ 48 kHz lge - 0.00003 % THD+N			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency	to Half Power) 130 dB(132 dB(2.6	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran i ms analog Inpu	< 0.01% >2500 20Hz to 500 Hz >2500 20Hz to 500 Hz			
DSP AD converters DA converters Latency Onboard memory	to Half Power) 130 dB(132 dB(2.6 Store a	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran i ms analog Inpu nd recall up to !	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz Ige - 0.00005 % THD+N n™ @ 48 kHz Ige - 0.00003 % THD+N ut to amplifier Output 50 amplifier snapshot			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency	130 dB(132 dB(2.6 Store a 2 s (input Raisec	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran 5 ms analog Inpu nd recall up to ! c) + 100 ms (out I-cosine, custon eaking, hi/lo-sh	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.0003 % THD+N ut to amplifier Output 50 amplifier snapshot put) for time alignment n FIR, parametric IIR: lelving, all-pass,			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer	130 dB(, 132 dB(, 2.6 Store a 2 s (input Raisec p b	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran i ms analog Inpu nd recall up to ! :) + 100 ms (out I-cosine, custon eaking, hi/lo-sh and-pass, band- near phase (FIR	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot put) for time alignment n FIR, parametric IIR: nelving, all-pass, leving, all-pass, leving, butterworth,			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover	130 dB(132 dB(2.6 ea 2 s (input Raisec p b I Linkwitz-	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran 6 ms analog Inpu nd recall up to 9 c) + 100 ms (out 1-cosine, custon eaking, hi/lo-sh and-pass, bandinear phase (FIR Riley, Bessel: 6 c	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Output 50 amplifier IIR: nelving, all-pass, -stop, hi/lo-pass 3), Butterworth, 1B/coct to 48 dB/oct (IIR)			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters	130 dB(132 dB(2.6 ea 2 s (input Raisec p b I Linkwitz-	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran i ms analog Inpu nd recall up to ! :) + 100 ms (out I-cosine, custon eaking, hi/lo-sh and-pass, band- near phase (FiR Riley, Bessel: 6 c current, Peak li	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot cput) for time alignment n FIR, parametric IIR: nelving, all-pass, -stop, hi/lo-pass 3), Butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control	130 dB(A) Dynamic Ran 24 Bit Tanden and Dynamic Ran a ms analog Inpund recall up to solution and recall up to solution, custon eaking, hi/loss and-pass, band- near phase (Fils Riley, Bessel: 6 current, Peak li Active Dampi	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot cput) for time alignment n FIR, parametric IIR: nelving, all-pass, -stop, hi/lo-pass 3), Butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control Loudspeaker diagnostic	130 dB(. 132 dB(. 2.6 Store a 2 s (input Raisec p b I Linkwitz- RMS voltage, RMS	A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran 14 Bit Tanden A) Dynamic Ran i ms analog Inpund recall up to !	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot cput) for time alignment n FIR, parametric IIR: nelving, all-pass, -stop, hi/lo-pass N, Butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC ingControl™ gge impedance monitoring, e measurement			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control	130 dB(A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran A) Dynamic Ran II Tanden II	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot cput) for time alignment n FIR, parametric IIR: nelving, all-pass, -stop, hi/lo-pass N, Butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC ingControl™ gge impedance monitoring, e measurement			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control Loudspeaker diagnostic	130 dB(A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran I ms analog Inpu Ind recall up to ! I) + 100 ms (out I-cosine, custon eaking, hi/lo-sh And-pass, band- near phase (FIR Rilley, Bessel: 6 o current, Peak li Active Dampi onitoring, avera oad impedance <10.5 s (with POE	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot put) for time alignment n FIR, parametric IIR: nelving, all-pass, leving, all-pass, leving, all-pass ly, butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC ingControl™ age impedance monitoring, measurement 0 s backup power)			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control Loudspeaker diagnostic Startup time	130 dB(A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran ins analog Inpu nd recall up to s c) + 100 ms (out l-cosine, custon eaking, hi/loss, band- near phase (File Active Dampi onitoring, avera oad impedance <10 co.5 s (with PoE 489 x 400 x 449	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz Ige - 0.00005 % THD+N n™ @ 48 kHz Ige - 0.00003 % THD+N ut to amplifier Output 50 amplifier snapshot Iput) for time alignment In FIR, parametric IIR: Inelving, all-pass, -stop, hi/lo-pass N), Butterworth, Isb/oct to 48 dB/oct (IIR) Imiter, TruePower™, Dynamic EC IngControl™ Inge impedance monitoring, Inge			
SMPTE IMD (from 0.1 W Damping factor DSP AD converters DA converters Latency Onboard memory Delay Equalizer Crossover Limiters Damping control Loudspeaker diagnostic Startup time Construction	130 dB(A) Dynamic Ran 24 Bit Tanden A) Dynamic Ran ims analog Inpu nd recall up to ! C) + 100 ms (out l-cosine, custon eaking, hi/lo-sh and-pass, band-near phase (File Rilley, Bessel: 6 c current, Peak li Active Dampi onitoring, avera oad impedance <10.5 s (with POE 489 x 400 x 44 19.3 x 15.8 x	< 0.01% >2500 20Hz to 500 Hz n™ @ 48 kHz gge - 0.00005 % THD+N n™ @ 48 kHz gge - 0.00003 % THD+N ut to amplifier Output 50 amplifier Snapshot put) for time alignment n FIR, parametric IIR: nelving, all-pass, leving, all-pass, leving, all-pass ly, butterworth, dB/oct to 48 dB/oct (IIR) imiter, TruePower™, Dynamic EC ingControl™ age impedance monitoring, measurement 0 s backup power)			

 0°C to +50°C (derating above 35°C)

10% to 85% humidity (non condensing)

Ou	Output Stage		2K8	4K8	8K8	
Con	Commercial total rated power		2000	4000	8000	W
	per channel @ 100 V (symmetrical)*	125	250	500	800	W
	per channel @ 70 V (symmetrical)*	125	250	500	1000	W
	per channel @ 16Ω (symmetrical)*	125	250	500	650	W
	per channel @ 8 Ω (symmetrical)*	125	250	500	1000	W
wer	per channel @ 4 Ω (symmetrical)*	125	250	500	1000	W
od :	per channel @ 2 Ω (symmetrical)*	125	250	500	1000	W
tpu1	per bridged pair @ 8 Ω (symmetrical)*	250	500	1000	2000	W
no u	per bridged pair @ 4 Ω (symmetrical)*	250	500	1000	2000	W
mur	per channel @ 100 V (asymmetrical)**	250	500	1000	2000	W
Maximum output power	per channel @ 70 V (asymmetrical)**	250	500	1000	1500	W
2	per channel @ 16 Ω (asymmetrical)**	250	500	500	750	W
	per channel @ 8 Ω (asymmetrical)**	250	500	1000	1500	W
	per channel @ 4 Ω (asymmetrical)**	250	500	1000	2000	W
	per channel @ 2 Ω (asymmetrical)**	250	500	1000	1000	W
Max	Maximum unclipped output voltage		160	160	160	V_{peak}
Max	Maximum output current		30	40	48	A_{peak}

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

Power & Thermal		1K8	2K8	4K8	8K8		
		Input Power	65	65	65	65	W
	115 V Idle	Current Draw	0.707	0.707	0.707	0.707	A _{rms}
15 V		Thermal Loss	222	222	222	222	BTU/h
1.	© 1/8 Max Power @ 4Ω	Input Power	253	406	729	1380	W
		Current Draw	2.31	3.61	6.44	12	A_{rms}
		Thermal Loss	437	532	781	1297	BTU/h
	Idle	Input Power	73	73	73	73	W
_		Current Draw	0.605	0.605	0.605	0.605	A _{rms}
230 V		Thermal Loss	249	249	249	249	BTU/h
69	1/8	Input Power	251	412	724	1360	W
	Max Power	Current Draw	1.45	2.24	3.51	6.1	A _{rms}
	@ 4Ω	Thermal Loss	431	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					
	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		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™, Powersoft Cloud

Storage relative humidity range

Data subject to change without notice.



Environmental
Operating temperature range