PRELIMINARY

New from YAMAHA

PC9500N/PC4800N

Power Amplifiers

PC9500N Front Panel

PC9500N Rear Panel

Yamaha's famed PC Power Amplifier Series is back with two new high output power amplifiers, the 925 watt per channel PC9500N and 475 watt per channel PC4800N. With features like excellent linear power characteristics, well thought out designs, and Yamaha's next generation EEEngine technology, these direct descendants of the legendary PC5002M deliver the quality, performance, reliability, and sound demanded by today's professionals.

Their specs tell you a lot but your ears will tell you more. Extensive testing and a rethinking of the physical design results in greater "musicality" through greater audio depth and detail. The PC9500N and PC4800N also offer versatile connectivity that provides flexible setup or installation.

Main Features

- High power output with excellent sonic quality
- Excellent linear power with low distortion
- Next generation EEEngine technology delivers superior power efficiency and exceptionally low power consumption compared to other manufacturers
- Dual heat sinks and dual variable-speed fans for efficient cooling and increased reliability
- Optional networking compatibility that offers monitoring and control of the amplifier is available
- Versatile input/output connectivity with XLR, Euro-Block, and Speakon connectors
- 31-step detented level controls for precision calibration
- 10-point LED meters for precision monitoring
- Security cover to prevent tampering
- AC power plug lock keeps power cable securely in place
- 2U size and the amplifier's efficient cooling characteristics allow for compact installation
- Excellent cost performance delivers more power for the money

World Class Audio Quality Delivered with Exceptional Reliability

A great deal of time and effort has gone into getting everything right on the PC9500N and PC4800N Amplifiers. Before designs were finalized, they have gone through extensive testing in the lab, on the road, and before the ears of some very critical professionals. The feedback we've obtained from every step along the way has led to improvements in the amplifier's design and reliability. Improvements that you may not notice when looking at the specs, you will when you hear the final sound.

Excellent Linear Power Characteristics

The PC9500N and PC4800N deliver high power output with excellent linear power characteristics and very low distortion. What our ears tell us is their sound is very clear and precise without a loss of musical detail at high volume levels. Their low-end response is fast and vocals sound rich and full of warmth.

Thought Out Designs

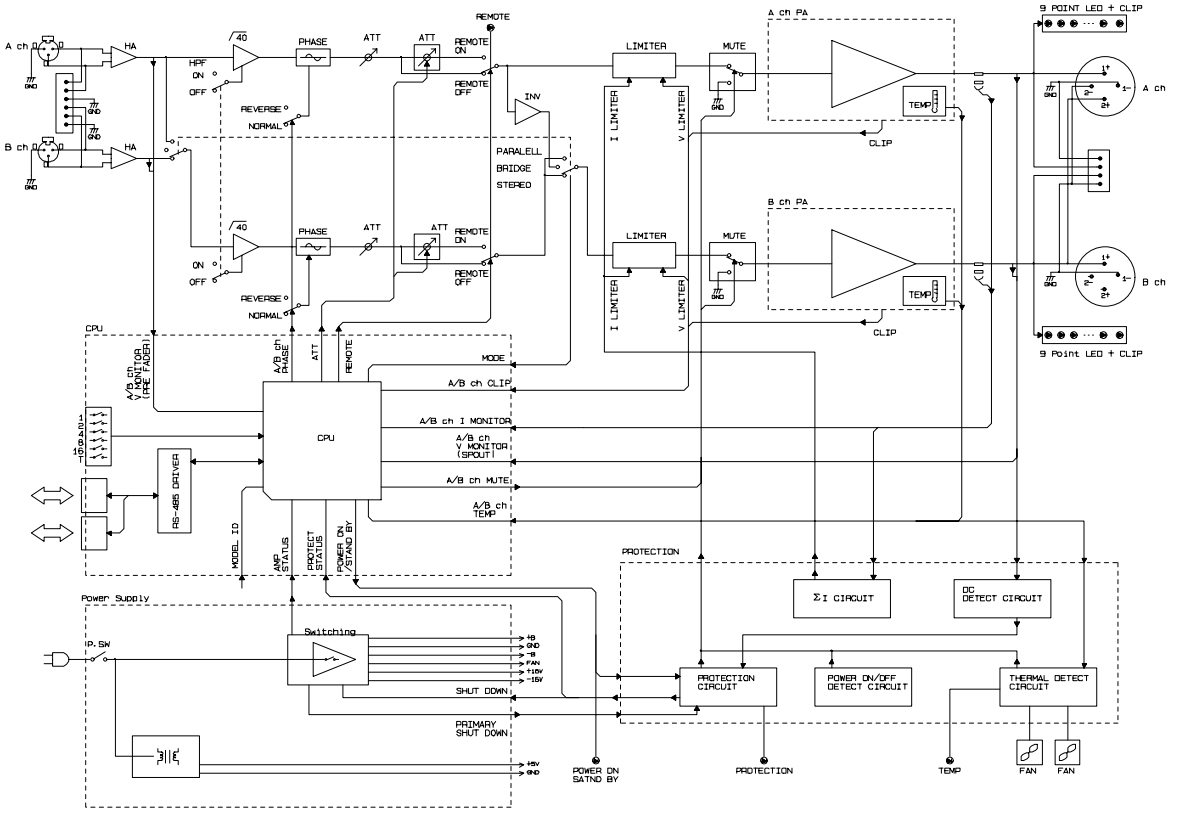
Particular attention given to the physical design and layout of the power amplifier's internal components delivers greater audio quality. Take as an example, the placement of the heat sinks. Their location in the new PC Series allows them to absorb vibration in the circuit board created by the power transistors. The result is greater clarity in the sound and faster response.

Dual Transformers

The PC9500N is equipped with two separate transformers for greater separation of the Right and Left channels.

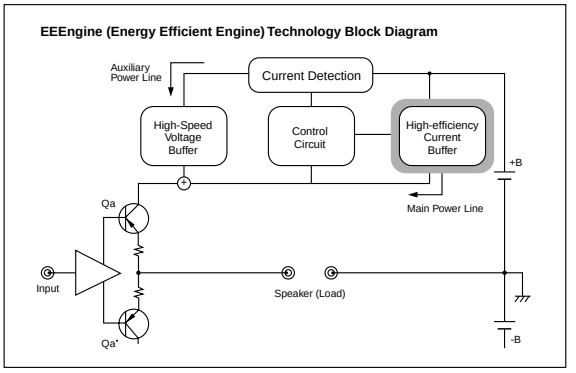
** CobraNet™ is a registered trademark of Peak Audio.*

Block Diagrams



Excellent Energy Efficiency with Next Generation EEEngine Technology

The PC9500N and PC4800N offer greater power efficiency and lower heat production through the utilization of Yamaha's proprietary next generation EEEngine Technology. The addition of a MOSFET to the EEEngine's current buffer boosts the PC Series' energy efficiency to an amazing 40%. By comparison, an average power amplifier would deliver an energy efficiency of only 20%.



Efficient Cooling

In addition to the two heat sinks positioned on either side of the power amplifier, two variable-speed cooling fans provide airflow over the heat sinks and the circuit board to ensure stable and reliable operation of the power amplifier.

Compact Design

The PC Series Power Amplifiers are built into compact 2U chassis. Their compact size, along with their low heat producing characteristics, allow for more compact installation.

Networking Capabilities

An RJ45 connector on the rear panel of the power amplifier lets you connect the power amplifier to an ACU16-C Amp Control Unit. The ACU16-C is capable of monitoring up to 32 PC-N series amplifiers using a PC running special software supplied with the ACU16-C. It allows monitoring of amplifier conditions, control of amplifier power on/standby, remote control of the attenuators, etc. Used in conjunction with an optional NHB32-C Network Hub/Bridge allows creation of a CobraNet™ audio network.

Specifications

			PC9500N		PC4800N	
Output Power			**120V (US) / 240V (A)**	**230V (EU)**	**120V (US) / 240V (A)**	**230V (EU)**
	1kHz	8Ω/STEREO	1000W+1000W	1050W+1050W	550W+550W	500W+500W
	THD+N=1%	4Ω/STEREO	1600W+1600W	1650W+1650W	850W+850W	800W+800W
		8Ω/BRIDGE	3200W	3300W	1700W	1600W
	20-20kHz	8Ω/STEREO	925W+925W	950W+950W	475W+475W	450W+450W
	THD+N=0.1%	4Ω/STEREO	1400W+1400W	1500W+1500W	725W+725W	700W+700W
		8Ω/BRIDGE	2800W	3000W	1450W	1400W
	1kHz	2Ω/STEREO	2300W+2300W		1200W+1200W	
	20mS nonclip	4Ω/BRIDGE	4600W		2400W	
Power Bandwidth		half power	10Hz-40kHz (THD+N=0.5%)			
THD+N	20Hz-20kHz, half power		0.1%			
Intermodulation Distortion	60Hz: 7kHz, 4:1, half power		0.1%			
Frequency Response			0dB, +0.5dB, –1dB f=20Hz-50kHz			
Channel Separation	half power Att. max Input 600Ω shunt	RL=8Ω	≥70dB 1kHz			
Residual Noise Att. min	20Hz-20kHz	(DIN AUDIO)	≤–70dB			
S/N Ratio	20Hz-20kHz	(DIN AUDIO)	106dB		103dB	
Damping Factor			≥800 RL=8Ω 1kHz			
Sensitivity @8Ω Att. max			+9dB		+6dB	
Voltage Gain Att. max			32dB			
Maximum Input Voltage			+22dB			
Input Impedance			30kΩ (balance) 15kΩ (unbalance)			
Controls		Front Panel	POWER switch (push on/push off) attenuator (31position) × 2			
		Rear Panel	MODE switch (STEREO/BRIDGE/PARALLEL) HPF switch (ON/OFF fc=40Hz) DIP switch (6P) × 1			
Connectors		Input Output Network Power	XLR-3-31 type/ch Euro-block type terminal blocks (balance)/ch SPEAKON/ch, 5way biding post × 1 RJ45 × 2 AC inlet × 1			
Indicators		POWER/STAND-BY PROTECTION TEMP REMOTE	× 1 (Green/Red) × 1 (Red) × 1 (Red) heatsink temp ≥85°C × 1 (Green)			
Level Meters			10 points LED meter/ch			
Load Protection			POWER switch on/off mute DC-fault power supply shutdown			
Amplifier Protection			Thermal (heatsink temp≥90°C) VI limitter (RL≤1Ω)			
Limitter Circuit			Comp. : THD≥0.5%			
Cooling			Dual Variable-speed fan			
Power Requirements	US & Canada model (120V–US) Europe model (230V–EU) Australia model (240V–A)		120V 60Hz 230V 50Hz/60Hz 240V 50Hz/60Hz			
Idle Power Consumption			55W		40W	
1/8 Power Consumption (4Ω)		120V 230V/240V	800W 1100W		500W 500W	
Maximum Power Consumption (4Ω)			4500W		2500W	
Dimensions (W × H × D)			480 × 88 × 410 mm (18-7/8" × 3-7/6" × 16-1/8")			
Weight			13 kg (28.7 lbs)		12.5 Kg (27.6 lbs)	

*0dB=0.775V *half power=1/2 output power

● The design & specifications presented in this release are preliminary, and may be changed without notice.

YAMAHA Web Site

http://www.yamaha.co.jp/english/
http://www.yamaha.co.jp/product/proaudio/homeenglish/

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