ONKYO
IMAGINATIVE SIGHT & SOUND

PA-MC5500 9-Channel Amplifier

BLACK

THX ULTRA2 WRAT WIDE RANGE AMP TECHNOLOGY

A Dedicated Power Amplifier with Finesse and Musicality at Heart

The 9-channel PA-MC5500 is Onkyo's top-of-the-line power amp, designed to partner a high-end pre-pro such as our recently released PR-SC5507 A/V controller. As an all-analog amplifier, the PA-MC5500 is built to deliver powerful, well-balanced amplification free from digital noise interference. The precise, high-power performance comes courtesy of components and design features that will impress even the most demanding audiophile. Onkyo's trusted WRAT amplifier philosophy ensures low negative feedback and high instantaneous current capability. Meanwhile, customized capacitors, large transistors, gold-plated terminals, and a massive toroidal transformer exemplify the unit's superb engineering standards. In recognition of this, the PA-MC5500 boasts THX® Ultra2™ certification: the ultimate guarantee of amplification quality.

- 280 W/Ch at 6 Ω, 1 kHz, 1 Channel Driven, JEITA
- WRAT (Wide Range Amplifier Technology)
- Push-Pull Amplification Design with Three-Stage Inverted Darlington Circuitry to Remove Distortion
- All Discrete Output Stage Circuitry
- Massive Toroidal Transformer
- Two Large, Customized, 22,000 µF Capacitors for Effective Power Supply
- Audio-Tuned Reference Capacitors for Each Channel
- Large, Custom-Designed Power Transistors to Drive High Currents
- Low-Impedance, Copper Bus Plates for Perfect Ground Potential
- High-Current, Low-Impedance Circuit Boards with Thick Copper Foil (70 µm)
- Flat, High-Rigidity, Anti-Resonant Chassis
- Gold-Plated XLR Inputs
- Machined Solid Brass RCA Inputs
- Gold-Plated, Color-Coded, Banana Plug-Compatible, Transparent Speaker Posts
- Multi-Zone Capability (up to Zone 3)*
- Bi-Amping Capability*
- 12 V Trigger Input
- Auto Power Down Function
- Aluminum Front Panell

**Depending on A/V Controller*

PA-MC5500 9-Channel Amplifier

WRAT (Wide Range Amplifier Technology)

The PA-MC5500 employs proprietary Onkyo technologies to ensure optimal audio performance.

***Benefit 1:** Uncommonly Low Negative-Feedback Design—Get cleaner sounds on program peaks*

Although negative feedback (NFB) is a cheap way to reduce noise at lower frequencies, there is a price to pay in terms of audio quality: NFB can severely inhibit an amplifier's ability both to respond to large signal gains (for example, in a fortissimo passage) and to produce sound at high frequencies. That's why the PA-MC5500 has a low-NFB design with audiophile-grade, close-tolerance components at critical points in the signal path. This design allows it to achieve a frequency response out to 100 kHz for high-resolution formats such as DVD-Audio and Super Audio CD, as well as for regular CDs, DVDs, and other music sources.

***Benefit 2:** Closed Ground-Loop Circuits—Enjoy greater maximum volume without distortion*

If an amplifier's ground potential (voltage) fluctuates during playback, noise is likely to result. In an open-loop circuit design, where all circuits are connected to the power supply via a single loop (as on many amplifiers), the noise is compounded. To avoid this, the PA-MC5500 employs a sophisticated closed-circuit design in which each circuit has a separate link to the power supply—this helps to cancel individual circuit noise and keep the ground potential free of distortion.

***Benefit 3:** HICC (High Instantaneous-Current Capability)—Experience audio with greater dynamics*

When an amplifier outputs an audio signal, the connected speakers accumulate energy, reflex, and send energy back to the amplifier. The amplifier must then immediately cancel the speakers' reflex energy and instantaneously send out the next signal. The same high current required to achieve this is also necessary to handle speaker impedance fluctuations, which can force an amplifier to provide four to six times its usual current load. The PA-MC5500's instantaneous current capability ensures that audio output is not affected by power limitations.

HICC (High Instantaneous-Current Capability)

In order to handle high levels of instantaneous current, the PA-MC5500 incorporates several key design features.

(1) Push-Pull Amplification Design with Three-Stage Inverted Darlington Circuitry

Found only in high-end amplifiers, this ultra-sensitive circuitry reduces distortion by maintaining voltage stability and enhancing transient response.

(2) Improved Board Design

The PA-MC5500 features an improved board design with short signal pathways to reduce electromagnetic interference. The board is also designed to optimize power delivery to the speaker drivers.

(3) Symmetrical Layout

The amplifier design also incorporates a symmetrical alignment of power devices for each channel. With channels built to be identical in terms of electrical, structural, heat-generating, weight, and electromagnetic characteristics, errors in stereophonic playback are minimized.

All-Analog Circuitry Unaffected by Digital Noise

A standard integrated A/V receiver has the dual task of both processing and amplifying audio signals, and is therefore susceptible to noise interference from digital circuitry. As a dedicated power amp with all-analog circuitry, the PA-MC5500 suffers no such interference. When partnered with a high-quality pre-pro, such as Onkyo's PR-SC5507, the PA-MC5500 offers all the benefits of pure analog amplification: a warm, musical, and full-bodied sound.

THX® Ultra2™ Certified

When a home theater component receives THX certification, it is your guarantee that it will accurately present movies the way they were mixed by the filmmaker in the studio. In the case of THX Ultra2 certification—the ultimate benchmark for home audio performance—a power amplifier must offer high-quality, high-output performance for multi-channel playback in large rooms. Among the strict criteria that THX uses for judging the quality of a power amplifier are measurements of continuous power output, distortion levels, and heat generation.

Audiophile Design and Components for High-Power Performance

Like any Onkyo amplifier, the PA-MC5500 is designed to deliver ample power to your speakers, regardless of fluctuations in impedance. What makes the PA-MC5500 our top power amp, though, is the extra attention to parts and construction. A massive toroidal transformer; two 22,000 µF capacitors; large, custom-designed transistors; circuit boards with 70 µm thick copper foil; and low-impedance copper bus plates all work in concert to enhance the power and fidelity of your audio sources. Housed in a highly rigid, anti-resonant steel-plate chassis, the PA-MC5500 also sports audiophile-grade connections: gold-plated XLR inputs; machine-tooled solid brass RCA inputs; and gold-plated, banana plug-compatible speaker posts. From input to output, signal purity is maintained at every stage.

Discrete Output Stage Circuitry to Inhibit Audio Interference

The current that drives loudspeakers is delivered by transistors in the output stage circuitry. Although adding more transistors to the output stage increases the output-current capability, these extra transistors put added strain on the power supply and generate more heat. When the output stage is required to deliver more power than it is capable of, the top and bottom parts of the waveform are flattened or "clipped". This clipping causes noticeable distortion, even if it occurs only infrequently. The PA-MC5500's circuit design keeps the transistors separate at the output stage, which means that audio signals are kept free of clipping. Also, with less heat generated, the longevity of the output stage circuitry is enhanced, ensuring that the component stands the test of time.

SPECIFICATIONS

AMPLIFIER SECTION

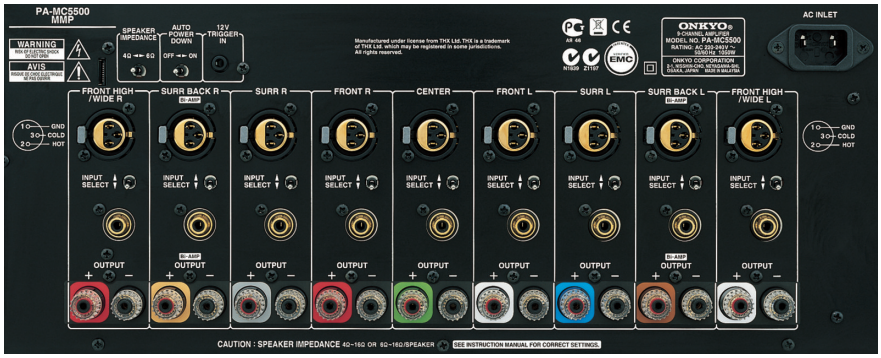
Power Output	
Front L/R	280 W/Ch (6 Ω, 1 kHz, 1 channel driven, JEITA)
Center	280 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
Surround L/R	280 W/Ch (6 Ω, 1 kHz, 1 channel driven, JEITA)
Surround Back L/R	280 W/Ch (6 Ω, 1 kHz, 1 channel driven, JEITA)
Front Wide L/R or Front High L/R	280 W/Ch (6 Ω, 1 kHz, 1 channel driven, JEITA)
Dynamic Power	400 W (3 Ω, Front) 300 W (4 Ω, Front) 180 W (8 Ω, Front)
THD (Total Harmonic Distortion)	0.05% (Rated power)
Damping Factor	60 (Front, 1 kHz, 8 Ω)
Input Sensitivity and Impedance	1 V/47 kΩ (Balanced) 2 V/22 kΩ (Unbalanced)
Frequency Response	5 Hz–100 kHz/+1 dB, -3 dB
Signal-to-Noise Ratio	110 dB (Unbalanced, IHF-A)
Speaker Impedance	4 Ω–16 Ω or 6 Ω–16 Ω

GENERAL

Power Supply	AC 220–240 V~, 50/60 Hz
Power Consumption	1,050 W
Dimensions (W x H x D)	435 x 198.5 x 458.5 mm
Weight	23.0 kg

■ CARTON

Dimensions (W x H x D)	594 x 337 x 576 mm
Weight	26.0 kg



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Onkyo Corporation 2-1 Nisshin-cho, Neyagawa-shi, Osaka 572-8540, JAPAN Tel: +81-72-831-8136 Fax: +81-72-833-5222 **http://www.onkyo.com/**
Onkyo China Limited Unit 1 & 12, 9/F, Ever Gain Plaza Tower 1, 88 Container Port Road, Kwai Chung, N.T., Hong Kong, SAR of CHINA Tel: +852-2429-3118 Fax: +852-2428-9039 **http://www.ch.onkyo.com/**
Onkyo U.S.A. Corporation 18 Park Way, Upper Saddle River, N.J. 07458, U.S.A. Tel: +1-201-785-2600/800-229-1687 Fax: +1-201-785-2650 **http://www.onkyousa.com/**
Onkyo Europe Electronics GmbH Liegnitzerstrasse 6, 82194 Grobenzell, GERMANY Tel: +49-8142-4401-0 Fax: +49-8142-4401-555 **http://www.eu.onkyo.com/**