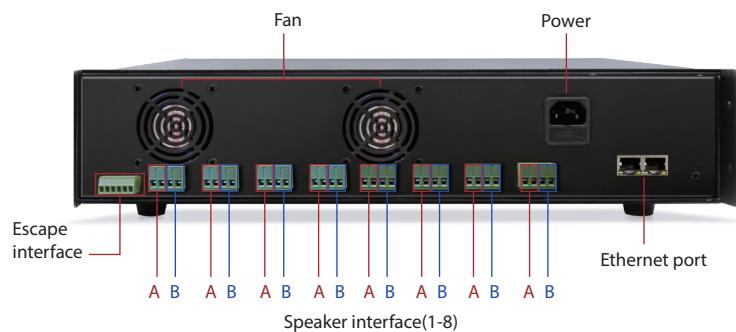
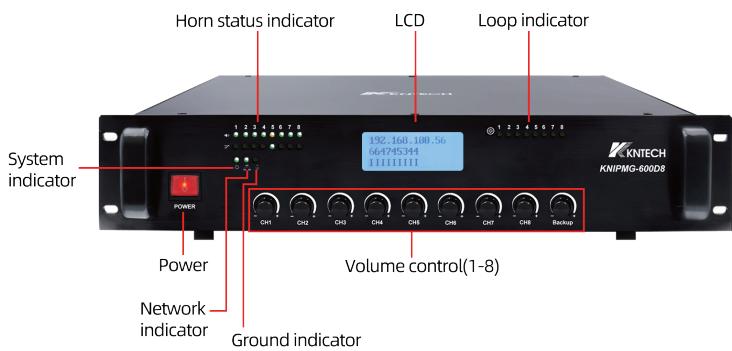


PA IP AMPLIFIER

Model: **KNIPMG-600D1 / KNIPMG-600D4 / KNIPMG-600D8**

The Unfailing Voice of Your Mission-Critical System



*All models in this series are rated at 600W

KNIPMG-600Dx, where "x" indicates the number of channels, x = 1 for 1-Channel; 4 for 4-Channel; 8 for 8-Channel

WHEN ABSOLUTE RELIABILITY IS THE ONLY ACCEPTABLE STANDARD.

In environments where every message can be critical — from coordinating daily operations in a bustling transit hub to directing a safe evacuation from a hospital wing — the power and clarity of your communication system are non-negotiable. You need more than just volume; you need intelligible, dependable, and instantaneous power that gives every announcement authority and every alert its due urgency.

Imagine an amplification backbone so robust and intelligent that it functions as the powerful, unwavering voice of your entire PA/VA system. A system that dynamically adapts to deliver pristine audio exactly where it's needed, while providing the certified assurance and operational resilience demanded by the world's most critical infrastructures.

This is the promise of the **KNTECH KNIPMG-600 Series IP Amplifier**. It is the muscle behind the message, engineered to ensure that every word is heard, every instruction is understood, and your duty of care is upheld without compromise.

■ Key Functional Features & Benefits: Engineered for Certainty

I. Dynamic Power & Pristine Fidelity: The Core of Intelligible Audio

 **Intelligent Power Delivery with Class-D Efficiency:** Experience the pinnacle of amplification technology. Our powerful 600W Class-D engine provides exceptional audio fidelity with significantly reduced power consumption and heat dissipation. This sustainable design not only lowers your total cost of ownership but also enhances operational lifespan, a critical factor for 24/7 deployments.

 **High-Fidelity, High-Impact Audio:** Cut through ambient noise with commanding clarity. With a distortion factor of less than 0.5% at rated power and a wide frequency response, our amplifiers ensure your messages are not just loud, but exceptionally clear and intelligible, preserving the integrity of every broadcast.

 **Versatile Output Architecture:** Your operations are unique, and your system should be too. Our amplifiers provide flexible power distribution with freely assignable output per channel, supporting 100V lines with direct drive capability. This ensures seamless integration whether you are retrofitting an existing speaker network or designing a new one.

II. Unbreachable Resilience: Designed for 24/7/365 Uptime

 **“Hot Spare” Redundancy for Uninterrupted Service:** Imagine a system that heals itself. With an (n+1) redundant channel architecture, a spare channel is on immediate standby to ensure automatic, instantaneous failover. This core feature eliminates single points of failure and guarantees that your critical communications are never compromised.

 **Dual Redundant Power & Network Paths:** We have engineered redundancy into every critical pathway. Dual 48Vdc power supply inputs and dual RJ45 network ports supporting A/B redundant speaker lines create a fault-tolerant foundation, ensuring your system remains operational even during power fluctuations or network challenges.

 **Certified for Life Safety:** Your commitment to safety is our priority. This system is designed and certified to meet the world's most rigorous standards for Voice Alarm systems, including EN 54-16 and ISO 7240-16. This is your independently verified assurance that the system will perform flawlessly when it matters most.

III. Proactive Intelligence: Total System Insight and Control

 **Comprehensive Self-Diagnostics & Monitoring:** Gain a complete window into your system's health. The amplifier continuously monitors for short circuits, temperature fluctuations, voltage failures, and speaker loop integrity using a 22kHz pilot tone. This proactive intelligence allows you to address potential issues before they become critical, dramatically reducing maintenance costs.

 **Intuitive Web-Based Management:** Sophisticated control has never been this simple. Our user-friendly, browser-accessible portal provides centralized control for remote configuration, status monitoring, and the scheduling of announcements with full time-synchronization capability.

 **Seamless System & Protocol Integration:** Built for the future, while respecting your current infrastructure. The amplifier supports a suite of modern network protocols (RTP, UDP, TCP/IP, FTP) and is compatible with standard Ethernet (CAT5/CAT6) and fibre optic infrastructures, ensuring a smooth and future-proof integration into your broader ecosystem.

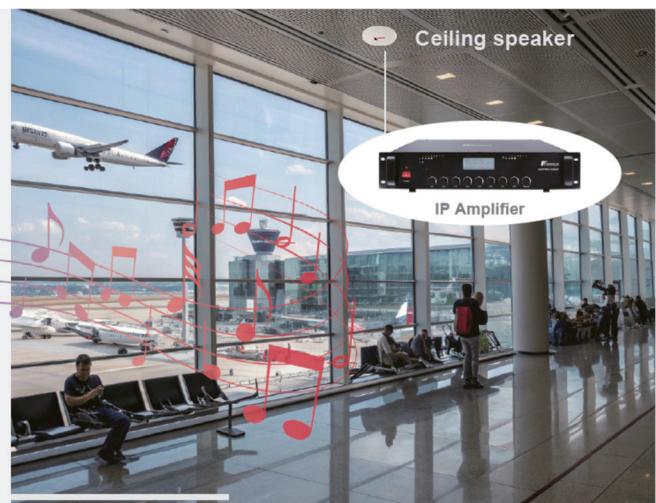
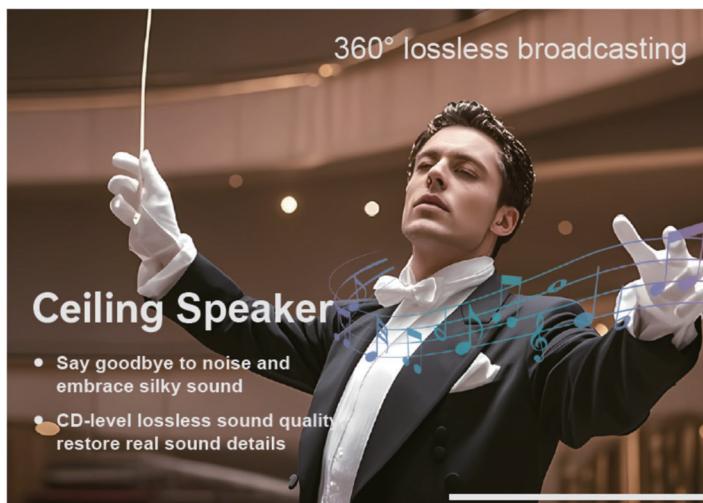
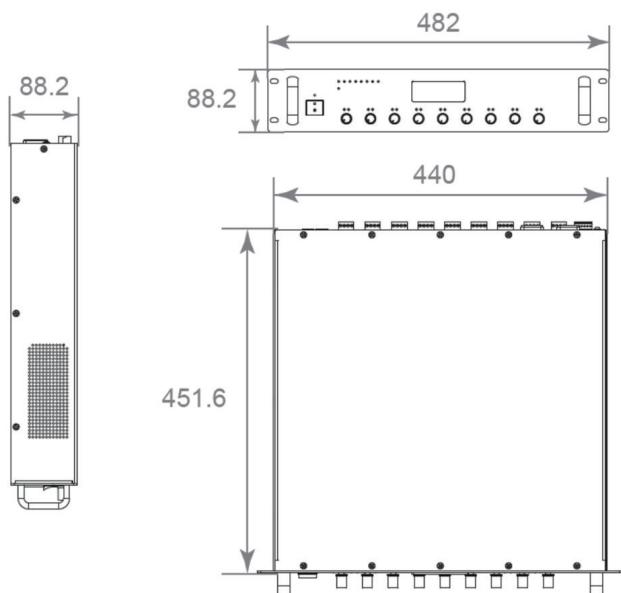
■ Specifications

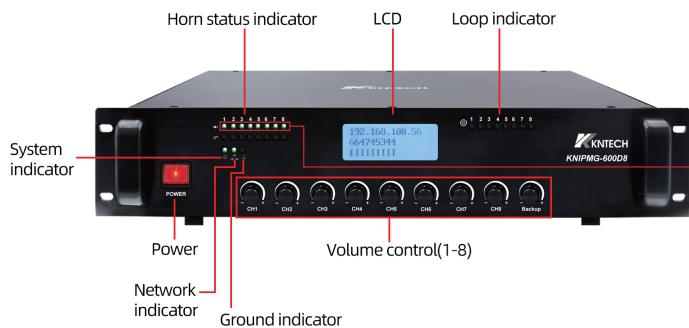
Parameter	Description
Model	<ul style="list-style-type: none"> ■ KNIPMG-600D1 (1-Channel, 600W) ■ KNIPMG-600D4 (4-Channel, 600W) ■ KNIPMG-600D8 (8-Channel, 600W)
Performance Specifications	
Rated Power	600W
Frequency Response	20~20kHz (+3dB), exceeding the PA system requirement of 50 to 15kHz(±3dB)
Signal to Noise Ratio (SNR)	> 90dB, exceeding the minimum requirement of 70dB < 0.5% at 1kHz, meeting the standard requirement of < 1%
Output Regulation	+1dB from no load to full load, with stability under no load conditions
Sampling Rate	48kHz
Output & Protection	
Amplifier Output	100V line output, transformer-isolated (galvanic isolation); 100V Balanced Floating Output.
Protection Circuit	Overheat, Overvoltage, Overcurrent, Short Circuit Protection, with automatic power sequencing, ≤1 ms recovery after fault clear
End-of-Line Detection Mode	Pilot-Tone 22kHz
Network & Integration	
Protocols	RTP, UDP, TCP/IP, FTP with support for scheduled announcement programming
Network Interface	RJ45*2 10 / 100 BASE-T
Audio Format	MP3 / WAV
Integration	Compatible with standard Ethernet infrastructure (CAT5 / CAT6) or fibre optic cabling for reliable digital signal transmission
Redundancy & Monitoring	
Power Supply	Redundancy Dual 48Vdc Power Supply with 24 x 7 round-the-clock operation capability
Redundancy Features	8 channel + 1 spare channel with capacity for automatic failover
Monitoring Capabilities	Visual and aural monitoring of output levels for each broadcast zone with LED status indicators
Physical & Environmental	
Operating Temperature / Humidity	-10°C ~ +50°C , < 95%
Index of Protection	IP30

Parameter	Description
Material / Colour	Black
Dimensions (H x W x D)	482 (W) x 88.2 (H) x 451.6 (D) mm
Mounting	2U Rack-mounted Design
Compliance	Certified compliance with EN 54-16 and ISO 7240-16 standard CE marked and RoHS compliant IEC 61082 IEC 60300 IEC 60068 IEC 60050 IEC 62368 IEC 60601-1 and IEC60601-1-2

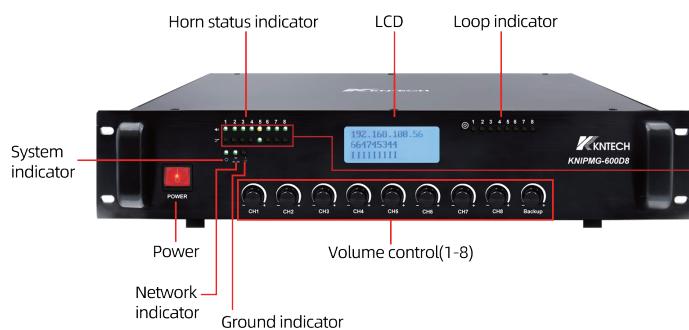
■ Dimension

Unit in mm





The top row of green lights indicates that all 8 channels are operating normally.



When one of the lights in the first row turns orange, it means that the corresponding channel has failed. The light directly below it will then illuminate, indicating that the backup channel is taking over the failed channel.

Your Partner in Building a Safer, More Connected Future

Choosing the right technology is about more than specifications; it is about choosing a partner you can trust. With over 40 years of global experience in equipment design and marketing, we understand the unique challenges and stringent requirements of large-scale public and private sector projects.

The **KNTECH KNIPMG-600 Series** is the culmination of this experience, engineered to provide not just a solution, but confidence. It is a commitment to quality, reliability, and the unwavering safety of the people you serve.

Take the first step towards a more secure and efficient communication ecosystem.

Contact us today to schedule a personalized demonstration and discover how the KNIPMG-600 Series can become the powerful, intelligent voice of your operations.

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