

PA CONTROLLER

Model: KNTD-50PA

The Heart of Your Mission-Critical Communication



WHEN EVERY SECOND COUNTS. COUNT ON UNCOMPROMISING CLARITY AND CONTROL.

In any large-scale facility, the ability to communicate with absolute certainty is the bedrock of safety, efficiency, and peace of mind. For leaders at the helm of the world's most vital infrastructures — from bustling transportation hubs and critical health-care environments to secure transit facilities — the need for a communications system that performs flawlessly under pressure is paramount.

Imagine a system so intelligent and reliable that it anticipates your needs, acting as the central nervous system for your entire operation. A system that ensures every announcement, every alert, and every piece of audio is delivered to the right people, at the right time, with pristine clarity.

This is the promise of the KNTech KNTD-50PA PA Central System Controller. It is more than just equipment, it is your partner in operational excellence and your guarantee of public safety.

■ Key Functional Features & Benefits: Architected for Assurance

I. Robust Architecture & Secure Operations

 **Dual Redundant Channel Design: Unfailing Operational Readiness.** Ensures absolute continuous operation through multiple fault-detection mechanisms and automatic failover capabilities. It delivers true 24x7, round-the-clock readiness, while built-in energy-saving features in standby mode intelligently lower your operational costs and support your organization's sustainability goals.

 **Comprehensive Event Management: Automated Precision and Simplified Compliance.** Imagine effortlessly managing complex schedules with perfect synchronization. The system provides automated scheduling and detailed activity logging, which is fundamental for reliable operation, simplified compliance auditing, and highly efficient system management.

II. Scalable Deployment & Intuitive Control

 **Extensive Zone Management: Command Your Environment with Precision.** Your environment is dynamic; your control should be too. Seamlessly manage up to 50 IP devices across 50+ independently configurable zones. This

empowers you to tailor your communications with unparalleled accuracy, ensuring your message is always relevant to the specific audience.



User-Friendly Interface: Sophistication Made Simple. Our intuitive, browser-accessible control platform empowers your team with straightforward configuration and content management from any authorized device. It features integrated monitoring panels for both visual and aural verification of output levels in each zone, giving operators immediate, undeniable confirmation that every broadcast is being delivered correctly.



Flexible System Expansion: A Future-Proof Investment That Grows with You. Seamlessly accommodate additional zones and devices without requiring a costly system overhaul. Furthermore, empower your on-site staff with built-in volume attenuators, allowing for discrete, local control in designated areas like function rooms, meeting rooms, and office spaces, enhancing user experience without needing central intervention.

III. Advanced Content & Scheduling Mastery



High-Definition Audio Storage: Your Library of Instant, Flawless Communication. Instantly deploy announcements and alerts with pristine playback quality. The system maintains a ready library of uncompressed audio files (MP3/WAV format), with a capacity of up to 100 minutes of message storage.



Precision Timing Control: Synchronized and Flawless Execution. A built-in real-time clock, synchronized via NTP or GPS, ensures precise message delivery and event coordination. It even features automatic daylight saving time correction, removing any margin for error.

IV. Superior Audio Performance & Data Protection



High-Definition Sound Quality: Cut Through the Noise with Absolute Clarity. Experience the power of 24-bit / 48kHz Audio-over-IP technology, ensuring sound pressure levels at least 10dB higher than background noise in all coverage areas. When a message is critical, it will be heard and understood.



Robust Data Protection: Safeguarding Your Communications. The KNTD-50PA supports both AES67 for audio and AES70 for control, with advanced encryption and authentication to prevent unauthorized access and protect the integrity of your network.

V. Comprehensive System Intelligence & Monitoring



Real-Time Supervision & Deep Analysis: Your Window into System Health. Maintain a complete understanding of your system's performance with continuous verification of messages and overall health, logging up to 5000 system events for incredibly thorough system analysis.



Customizable & Prioritized Alerts: Proactive Awareness, Total Control. Our configurable notification system gives you immediate awareness of potential issues before they escalate. Most importantly, its prioritization capabilities ensure that critical announcements will always override lower-priority audio sources, guaranteeing life-safety messages are delivered without fail.

■ Specifications

Parameter	Description
Model	KNTD-50PA
Performance Specifications	
Power Consumption	Max.350W
Number of Channels	Unlimited
Sample Rate	48 kHz with 24-bit audio processing for high-definition sound quality
Pre-Installed Operating System	100 min of uncompressed audio storage
Message Storage	≥ 60dB
Number of Events (storage)	5000
Network & Integration	
Number of Ethernet Ports	2
Network & Integration	
Ethernet Type	100BASE-TX/1000BASE-T
Protocols and Interfaces	Software-configurable Parametric Equalization and Limiting
Maximum Cable Distance	Supports SIP and SIP TRUNK with Audio over IP protocol compatible with AES67 for audio and AES70 for control
Configuration	Webserver
Encryption	■ AES128 for audio transmission ■ TLS for control data
Redundancy & Monitoring	
Redundancy	Support for Dual redundant architecture with automated failover capabilities
Integration	■ Front-panel LED indications and software monitoring ■ Real-time supervision of stored messages, tone data integrity and system health ■ Detailed Event Tracking
Real Time Clock Synchronization	NTP
Daylight Saving Time Correction	Automatic adjustment
Physical & Environmental	
Operating Temperature	-5 to +50°C
Colour	Black
Case Material	Durable steel
Dimension (H x W x D)	428*259.4*44.6mm
Mounting	Rack-mounted: 19in,1U
Weight	5.8kg
Compliance	BS5839-8 , BSEN 60849 , IEC 62368-1 / IEC 60950-1 or equivalent

System Architecture



