Public Address System

PAGA Central System Controller

Model: KNTD-50PA

The system controller manages all system related functions of Public address and Voice Alarm system. It routes all audio connections between network-connected audio sources and destinations.   It supervises and plays back messages and tones, stored on its flash memory, either scheduled or manually started from a call station or PC. It manages the routing of background music streams, along with business calls and emergency calls, all based on priority level and zone occupancy. It collects all status information of connected system devices, manages the event logs and reports faults. The system controller is network- connected via CAT6 Cable and AC- powered from a power supply. UPS backup power supply recommended. The built- in web server allows for system configuration using a browser.

Function

❖　Capability to control a system with up to 50 IP devices, serving more than 50 zones.

❖　A+B dual redundant system controller option for highest system availability

❖　Internal storage capacity for messages and tones;

❖　Multi- messages can be played back simultaneously and independently;

❖　Internal real time clock for scheduled events and event time stamping;

❖　Support for Network Time Protocol (NTP) with automatic adjustment for time;

❖　Internal system event and fault event log;

❖　Built- in web server for configuration and file management using a browser.

❖ Secure interconnections using Advanced Encryption Standard (AES128) for audio data and Transport Layer Security (TLS) for control data.

Sound quality

•Audio- over- IP, audio sample rate is 8kHz with 24- bit sample size.

•Messages and tones are stored as high definition uncompressed mp3/wav- files.

Supervision

•Supervision of stored messages and tones.

•Supervision of data integrity of site specific data.

•Internal watchdog timers to detect and recover from processing errors.

•Faults or problems of all system devices are collected, reported and logged.

Fault tolerance

• Dual Network connector or backup.supporting RSTP.

• Monitor N+1 amplifier devices detection,

•Dual AC- inputs with polarity reversal protection (Option).

Front panel View

Rear panel view

Technical specifications

Operating voltage	(VDC)20 - 60 VDC

Power consumption	(W)6 W maximum
Number of channels	- Unlimited
Number of Ethernet ports	2
Ethernet type:	100BASE-TX;1000BASE-T
Protocols and interfaces:	SIP and SIP TRUNK
Sample rate	(kHz)8 kHz
Pre-Installed Operating System	Linux
Configuration	Web server
Encryption:	AES 128; TLS
Real time clock synchronization	NTP
Daylight saving time correction	Automatic
Message storage	(min)100 min
Number of events (storage)	5000
Protection	Watchdog; RSTP
Operating temperature	(°C)-5 - 50 °C
Color	Black
Case Material	Steel
Dimension (H x W x D)	440mm (L) x 280mm (W) x 44mm (H) Rack unit 19 in, 1U
Weight (kg)	5.80 kg

Family product recommended:

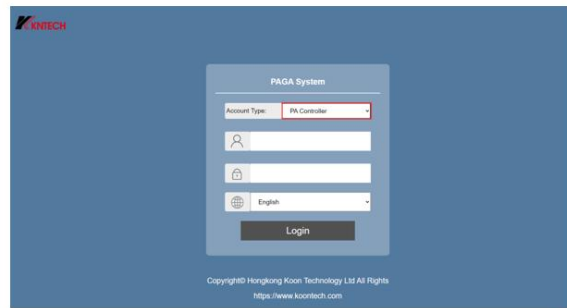KNDDT-A17 for system configuration and manage broadcast.

Its a PC with 17 inch touch screen display.

PA server operation page

Admin System Configuration and Management Interface

PA Console GUI

PAGA system Architects

N+1 Pattern

1. The power amplifier combination can be 1 main + 1 backup, 2 main + 1 backup, 3 main + 1 backup, 4 main + 1 backup, 5 main + 1 backup, up to 5 main + 1 backup; Flexible collocation;

2. When each IP main power amplifier is playing different audio sources, the backup power amplifier can replace any damaged main power amplifier at any time, whichever fails first. When the bad power amplifier returns to work, the spare power amplifier can replace another damaged power amplifier.

KNTECH

SIP Server KNTD- 50P A

Operator Console KNDDT-2-A11

KNUS-PA26
The Linkage Broadcaster

AC220V

Audio Cable

2 Cores

Cat 6

AC220V

Network switch

ZONE 1
IP amplifier IPMG640

ZONE 2

ZONE 3

ZONE 4

ZONE 5

IP Amplifier
IPAG-640

ZONE 6

ZONE 7

ZONE 8

ZONE 9

ZONE 10

I/O alarm module for Beacon
IPIOBOX-1 For Zone 3

I/O alarm module for Beacon
IPIOBOX-1 For Zone 4

ZONE 11
IP amplifier IPMG640

Standby IP Amplifier

Standby IP Amplifier
Model: IPMG-640P

Standby IP Amplifier

Standby IP Amplifier
Model: IPMG-640P

Beacon D8