PAVA9002

Network Control Terminal

Description

The PAVA9002 network control terminal supporting the EN54-16 system is used to connect the PAVA9500 amplifier host, PAVA9500E expansion amplifier, PAVA9425E expansion amplifier, PAVA9008 remote paging microphone (16 zones), and PAVA9009 fireman microphone through the network for LAN broadcasting.
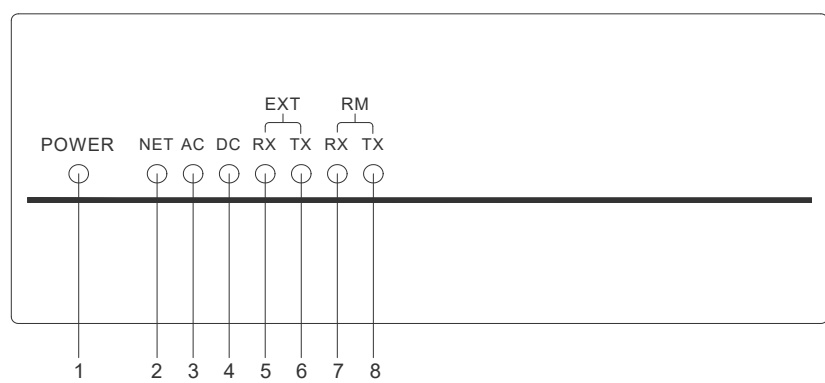
Features

● Adopt an aluminum alloy molded chassis and acrylic panel. Optional rack accessories (PAVA9002S) allow 1-4 terminals to be combined into a 1U height rack-mounted device.

● With a RJ45 network interface for LAN connection.

● With DIP switch settings for easy binding with other devices and mode selection.

● With 8 RJ45-CAN bus interfaces, arranged in four groups with two adjacent ports per group. Among them, EXT1 TX and EXT2 TX for host sending mode interfaces (including CAN data bus and two balanced outputs); EXT1 RX and EXT2 RX for expansion amplifier receiving mode interfaces (including CAN data bus and two balanced inputs); RM1 TX and RM2 TX for remote paging microphone sending mode interfaces (including CAN data bus and one balanced output); RM1 RX and RM2 RX for host microphone receiving mode interfaces (including CAN data bus and one balanced input). A single port supports cascading of up to 3 devices (300m stable transmission). When a single port is connected to one device, it can support a maximum transmission distance of 600m.

● Support remote paging microphone sending mode and unicast mode, can cross network segments, can be connected to a single device or 4 devices simultaneously, with the entire system accommodating up to 8 microphone devices when used with network terminals.

● Support expansion amplifier receiving mode, compatible with LAN and can cross network segments, with a single unit supporting the connection of 1-30 expansion amplifiers.

● Support host sending mode and multicast mode, only compatible with LAN, with a single-stage delay of 75ms from the host to the expansion amplifier (actual delay may be affected by the network environment). The system supports connecting 1-30 expansion amplifiers. The host sending and receiving modes can work simultaneously.

- Support host microphone receiving mode and unicast mode, compatible with LAN.
- Support main and backup power supply with automatic switching.
- Support device management via PC client with password login (reinstalling the software resets to the default password, so the software installation package needs to be properly managed). Allow modification of IP information (with one-click reset), device names (with one-click reset), and terminal program upgrades.

Specifications

Model		PAVA9002
Remote Paging Microphone - Network Control Terminal	Remote Paging Sending Mode Interface (sending audio signals to the host)	TX RM1-2 (TX RM green indicator light on the front panel is on)
	Input Sensitivity (RJ45 Interface)	±3000mV (±300mV)
	RM Bus Power Supply	DC48V (±5V)
Expansion Amplifier - Network Control Terminal	Expansion Amplifier Receiving Mode Interface (receiving audio signals from the host)	RX EXT1-2 (RX EXT green indicator light on the front panel is on)
	Input Sensitivity (RJ45 Interface)	±1500mV (±150mV)
Host - Network Control Terminal	Host Receiving Mode Interface (receiving audio signals from the remote paging microphone)	RX RM1-2 (RX RM green indicator light on the front panel is on)
	Input Frequency Response	100Hz～12kHz (±3dB)
	Sending Mode Interface (sending audio signals to the expansion amplifier)	TX EXT1-2 (TX EXT green indicator light on the front panel is on)
	Input Frequency Response	50Hz~16kHz (±3dB)
Distortion (Within Frequency Response)		<1%
S/N Ratio A-Weighted		≥76dB
Operating Voltage Range		DC21V-28V
Power Supply		Rated power supply DC24V/2.5A (±3V), backup power supply DC24V/2.5A
Host Sending Mode Interface Output Level (RJ45 Interface)		±1500mV (±150mV)
Host Sending Mode Microphone Interface Output Level (RJ45 Interface)		±3000mV (±300mV)
Adapter Operating Power		AC220V-240V 50/60Hz
Operating Temperature		-20℃~+50℃
Operating Humidity		20%~80% relative humidity, non-condensing
Package Dimensions		285*231*100mm
Machine Dimensions		165*115*55mm
Gross Weight		2.0kg
Net Weight		0.65kg

Front Panel

1. **Power Indicator**
2. **Network Status Indicator**

When it is normally yellow, it indicates network failure; when it is off, it indicates normal network.

3. **AC Power Status Indicator**

When it is normally yellow, it indicates mains power failure.

4. **DC Power Status Indicator**

When it is normally yellow, it indicates DC24C standby power failure.

5. **Expansion Amplifier Receiving Mode Green Indicator**
6. **Host Sending Mode Green Indicator**
7. **Host Microphone Receiving Mode Green Indicator**
8. **Remote Paging Microphone Sending Mode Green Indicator**

Rear Panel
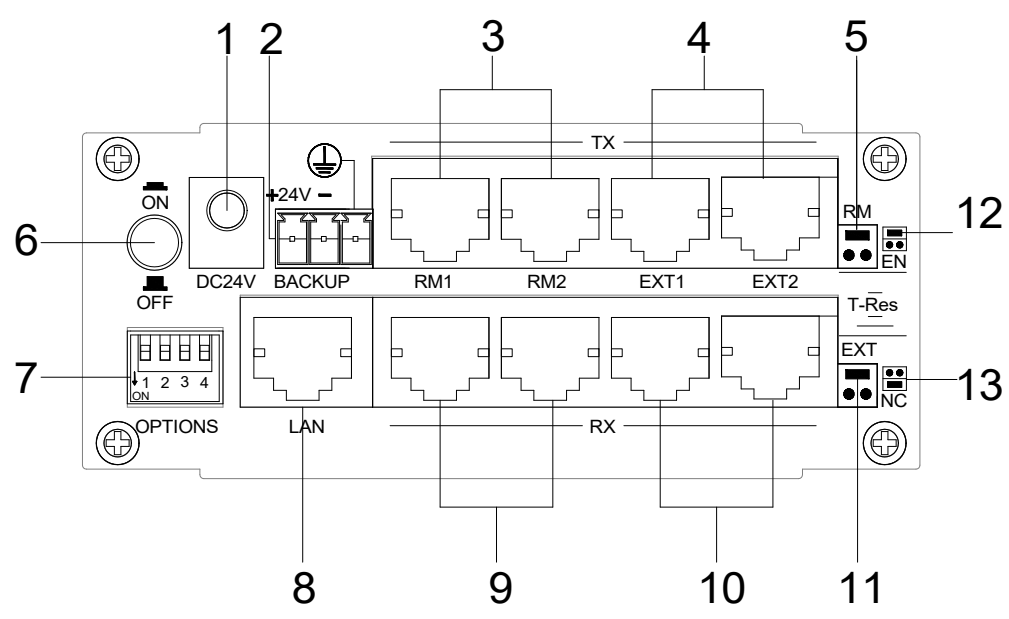
1. **DC24V Power Input Connector**
➢ External battery interface with capacity configurable based on actual usage requirements.
2. **DC24V Backup Power Output**
3. **RM1 TX and RM2 TX Remote Paging Microphone Sending Mode Interfaces (Including CAN Data Bus**

and One Balanced Output)

4. **EXT1 TX and EXT2 TX Host Sending Mode Interfaces (Including CAN Data Bus and Two Balanced Outputs)**
5. **Terminal Resistor Connected to the RM Interface**
6. **Power Switch**
➢ When the power is turned on, the power indicator on the front panel lights up blue.
7. **Interface Communication Protocol Switch (DIP Switch)**
➢ **Dial down DIP1:** The RX indicator light for EXT lights up, indicating that the unit is in expansion amplifier receiving mode **(i.e., expansion amplifier mode).**
  Connection method: Connect the EXT RX to the COM interface of the expansion amplifier.
➢ **Dial down DIP2:** The TX and SIG indicator lights for RM light up, indicating that the unit is in remote paging microphone sending mode **(i.e., remote paging microphone mode).**
  Connection method: Connect the RM TX interface to the bus input of the remote paging microphone.
  Note: The TX interfaces for RM1 and RM2 are DC+48V±5V powered interfaces. (Note: When not connecting an expansion keyboard, a maximum of 8 remote paging microphones can be supported.)
➢ **Dial down DIP1 and DIP2:** The EXT TX and RM RX indicators light up, indicating that the unit is in host sending mode **(i.e., host mode).**
  Connection method: Connect the EXT TX interface to the CAN interface of the host and the RM RX interface to the MIC interface of the host.
➢ **Dial down DIP3:** After powering on, if you dial the DIP switch down and then back up, all the indicator lights on the front panel will flash five times, followed by the NET indicator light lighting up for about 3 seconds before turning off.
➢ **Dial down DIP4:** When you dial the DIP switch down, and both AC and DC power sources are connected, the AC and DC indicator lights on the front panel will not light up, indicating that the power sources are connected. When the indicator lights are on, it indicates that the power sources are not connected. When you dial the DIP switch up, AC and DC power supply detection is disabled. (Note: The AC indicator light refers to the adapter power input, and the DC indicator light refers to the 3-pin Phoenix connector input.)
8. **RJ45 Network Interface (for LAN connection)**
➢ When connected to the network, both green and yellow indicator lights flash simultaneously.
➢ By connecting to a switch, you can use the PAVA9002 network control terminal software on a computer to view all online terminals, modify terminal IP addresses, subnet masks, gateways, and multicast groups (different groups must be set if multiple PAVA9000 systems are connected in the same LAN), and change the software login password (default login password is 123456).
9. **RM1 RX and RM2 RX Host Microphone Receiving Mode Interfaces (Including CAN Data Bus and One Balanced Input)**
10. **EXT1 RX and EXT2 RX Expansion Amplifier Receiving Mode Interface (Including CAN Data Bus and Two Balanced Inputs)**
11. **Terminal Resistor Pin Connected to the EXT Interface**
12. **Connected to the Terminal Resistor**
13. **Not Connected to the Terminal Resistor for Short Circuit**

Note: RM or EXT bus connections must use CAT5e or higher cables to ensure adequate transmission distance.