



A30 INTELLIGENT MICROPHONE CONTROLLER

Version:1.0

April, 2026

Data Sheet

RipaTech Pty Ltd

CONTENTS

| | |
|-------------------------------|---|
| Product Summary | 2 |
| Feature Highlights..... | 2 |
| Technical Specifications..... | 4 |
| Ordering Guide | 4 |

PRODUCT SUMMARY

Built on a new 32-bit DSP embedded network control architecture, this fully digital conference system host delivers high-fidelity audio processing and advanced meeting management. Fully compliant with IEC60065 international standards, it integrates discussion, voting, check-in, video tracking, service calling, and nameplate display into a single, scalable platform. Designed for modern boardrooms, legislative halls, and multi-venue conference centers.



Figure 1 A30 Intelligent Microphone Controller

FEATURE HIGHLIGHTS

System Architecture & Interface

- 32-bit DSP embedded network control architecture with full digital audio processing
- 4.5" TFT high-definition capacitive touchscreen for standalone system setup, debugging, and management (no PC required)
- 8 unit connection interfaces: 6 × 8-pin professional shielded cable ports + 2 × RJ45 ports
- Supports up to **140 units per host**; expandable to **65,535 units** via cascading
- Compatible with linear, breakout box, T-type, and hybrid connection topologies
- Optical fiber expansion interface for long-distance transmission without audio degradation; enables seamless merging of two remote meeting rooms

Conference Control & Modes

- ★ **Hybrid Operation**: Supports simultaneous wired and wireless conference use. Adding a wireless transceiver creates a combined wired + wireless ecosystem.
- ★ **Multiple Conference Modes**: Limited speaker, FIFO, LIFO, chairman-approved (speech request), voice-activated, timed speech, queued speech, and free discussion.
- Active speaker count adjustable from **1 to 20**; chairman & VIP units unlimited. Free discussion mode enables all units to speak simultaneously.
- Supports up to **150 chairman units**; chairman priority allows overriding or deactivating active delegate microphones.
- ★ **Identity Recognition**: Assign and manage unit permissions. Chairman, delegate, and VIP roles are fully interchangeable.

- Unique ID addressing with customizable numbering to prevent conflicts.

Check-in, Voting & Tracking

- Integrated check-in (button & late), voting, service requests, and nameplate display
- Late check-in supported with configurable voting rights for late delegates
- Real-time attendance display: expected, actual, and absent counts
- Named & anonymous check-in/voting modes; privacy settings configurable per session
- Voting results displayed as text, pie chart, or bar chart; all data exportable/printable
- Camera tracking via RS-485/RS-232; compatible with PELCO-D/P, SONY, SAMSUNG, and other protocols
- Seamless HD video matrix integration: auto-switches camera feed on mic activation with automatic screen freeze

Audio Processing & I/O

- 48 kHz audio sampling rate; frequency response: 20 Hz–20 kHz
- Unified audio sensitivity adjustment with 32 discrete levels
- 8-channel voice separation technology; supports 8 extension cables for independent group volume control
- Audio I/O: 1 × balanced + 2 × unbalanced inputs; 2 × balanced + 4 × unbalanced outputs (independent volume control per channel)
- Fire alarm trigger interface for automatic switching to alarm signals, background music, or auxiliary audio
- ★ **Dante Protocol**: Networked audio output for integration with Dante-compatible audio ecosystems
- Strong RF/EMI shielding: highly resistant to mobile phones, radio waves, Bluetooth, WiFi, and other wireless interference

Reliability & User Experience

- ★ **Dual-Host Hot Backup**: Automatic failover to backup host if primary unit fails
- ★ **Built-in RTC Clock & Calendar**: Displays date, day, and time; auto-syncs time to all connected units at startup
- Multi-language UI: Simplified Chinese, Traditional Chinese, English (additional languages available upon request)
- One-key factory reset to restore default settings and prevent parameter misconfiguration
- Supports service call functions: tea/water, paper, pen, attendant, etc.

TECHNICAL SPECIFICATIONS

| Parameter | Specification |
|--|--|
| Power Supply | AC 100–240 V, 50/60 Hz |
| Power Consumption | Static: 10 W / Maximum: 200 W |
| System Capacity | 140 units/host (standard); expandable to 65,535 units |
| Unit Interfaces | 6 × 8-pin professional shielded ports + 2 × RJ45 ports |
| Display | 4.5" capacitive TFT touchscreen |
| Menu Languages | Simplified Chinese, Traditional Chinese, English (custom available) |
| Frequency Response | 20 Hz – 20 kHz |
| Signal-to-Noise Ratio | > 96 dB |
| Dynamic Range | 106 dB |
| Total Harmonic Distortion (THD) | < 0.05% |
| Output Impedance | 200 Ω |
| Audio Inputs | RCA × 2 (+20 dB), XLR × 1 (+10 dB) |
| Audio Outputs | Balanced XLR × 1 (+10 dB), Main RCA × 2 (+20 dB), Aux RCA × 2 (+20 dB), 6.35 mm × 1 (+20 dB) |
| Video Control | RS-485 (Phoenix) / RS-232 |
| Voting & Check-in | Supported |
| Simultaneous Interpretation | Model-dependent (expandable to 8/16/32/64 channels) |
| Control Interface | RS-232 |
| Dual-Host Hot Backup | Supported |
| Color | Dark Gray |
| Dimensions (W × D × H) | 483 × 320 × 90 mm |
| Mounting | Compatible with standard 19-inch equipment rack |

ORDERING GUIDE

RipaTech product Model: RIPA A30 INTELLIGENT MICROPHONE CONTROLLER