T730PRO-S

All-in-One USB Video Bar



Executive Summary

The T730PRO-S is an integrated, all-in-one video conferencing bar designed for small-to-medium-sized enterprise meeting environments. The device combines a high-resolution 4K camera with a 20-megapixel sensor, an 8-element beamforming microphone array, and a full-range speaker into a single unit to simplify installation and reduce cable clutter.

Key capabilities include a 120° wide field of view, AI-powered intelligent camera functions such as auto-framing and speaker tracking, and advanced audio processing via an "Audio 3A Algorithm" for noise and echo cancellation. The system supports a microphone pickup range of up to 8 meters and can be expanded with up to three additional PoE-capable microphones. Connectivity is versatile, featuring USB 3.0, HDMI, and built-in Wi-Fi for wireless "Bring Your Own Meeting" (BYOM) functionality via Miracast screen projection. The T730PRO-S aims to enhance remote collaboration by delivering high-fidelity audio-visual performance and intelligent automation, minimizing the need for manual intervention during meetings.

I. Core Product Concept and Application

The T730PRO-S is engineered as a unified video bar that integrates core conferencing peripherals into a single bar chassis. Its primary purpose is to streamline the setup for enterprise meetings and enhance remote collaboration through high-quality video and audio.

- **Integrated Components:** The device includes a 4K Ultra High-Definition (UHD) camera, an 8-directional beamforming microphone array, and a full-range, high-fidelity speaker.
- **Target Environment:** It is specifically designed for small-to-medium-sized enterprise meeting spaces.
- **Primary Goal:** To simplify hardware deployment, reduce cabling, and improve the efficiency and clarity of remote communication through advanced video and audio processing.

II. Visual System and Camera Specifications

The T730PRO-S is equipped with a high-performance camera system designed to provide an " Ultra-deep Visual Experience" with sharp, clear imaging suitable for professional conference settings.

- **AI-Powered Intelligent Camera:** The system incorporates built-in AI algorithms for face and human shape recognition. This enables intelligent functions that automate camera control:
    - **Auto-Framing:** Automatically adjusts the view to include all participants.
    - **Speaker Tracking:** Focuses the camera on the active speaker without requiring manual intervention.
- **Camera Technical Specifications:**

Feature	Specification
Sensor	1/2.8 inch, CMOS
Effective Pixels	20 Megapixels
Signal System	4K@30fps, 1080P@30fps, 720P@30fps, etc.
Field of View (FOV)	120° (Diagonal), 110° (Horizontal), 75° (Vertical)
Zoom	5x Digital Zoom
Pan/Tilt/Zoom (PTZ)	Electronic PTZ (ePTZ) with mechanical tilt from -10° to +10°
Noise Reduction	2D & 3D Digital Noise Reduction
Signal-to-Noise Ratio (SNR)	>55dB
Backlight Compensation	Supported

III. Audio System and Performance

The audio system is a critical component, featuring a sophisticated microphone array and speaker system complemented by AI-driven processing to ensure clarity.

- **Microphone Array:** An 8-element MEMS beamforming microphone array with a low-distortion lateral sound cavity structure is used for high-fidelity audio capture.
    - **Voice Pickup Range:** Up to 8 meters.
- **Expansion Capability:** The system supports the connection of up to 3 expansion microphones via a dedicated RJ45 port using the DECT protocol. This port also provides Power over Ethernet (PoE, 802.3at), allowing for a clutter-free setup.
- **Full-Frequency Speaker:** The integrated speaker is described as "professionally tuned" to deliver rich, balanced sound reproduction with clear treble and rich bass.
- **AI-Powered Audio 3A Algorithm:** The device utilizes a deep learning algorithm for advanced audio processing to ensure clear, full-duplex communication.
    - **AEC:** Acoustic Echo Cancellation
    - **AGC:** Automatic Gain Control
    - **ANS:** Automatic Noise Suppression
- **Audio Sampling Rates:**
    - **Microphone:** 48KHz
    - **Speaker:** 8KHz

IV. Connectivity and Integration

The T730PRO-S offers a comprehensive suite of modern physical and wireless interfaces to support various deployment scenarios, including Bring Your Own Meeting (BYOM).

- **Wireless & Wired BYOM:** The device is equipped with a built-in Miracast network, enabling users to join meetings and share content wirelessly from computers, laptops, smartphones, and tablets. This feature supports one-click screen projection and allows for reverse control of a computer from the main conference screen.
- **Physical Interfaces:**

Port Type	Quantity & Description
USB 3.0	1x Type-C (female), 1x Type-A (female, for expansion MIC and firmware upgrade)
HDMI	1x HDMI 2.0 Out, 1x HDMI 2.0 In (plus 1 optional HDMI 2.0 In)
Network (LAN)	1x RJ45 (10/100/1000M adaptive Ethernet)
Network (MIC)	1x RJ45 (Connect to expansion mic, POE 802.3at)
Power	1x DC Power connector (DC 12V)
Wi-Fi	Built-in, requires external USB expansion
Remote Controller	Supported

- **USB Communication Protocols:**

Protocol	Specification
Connection Type	USB 3.0 (backward compatible with USB 2.0)
Video Protocol	UVC 1.1
Video Compression	H.265 / H.264
Audio Protocol	UAC 1.0 (48K sampling rate)
PTZ Control	UVC PTZ Support (for EPTZ)

V. Physical and Environmental Specifications

The device is designed for standard office environments with flexible installation options.

Specification	Value
Power Supply	DC 12V / 5A (Max)
Dimensions (L×W×H)	700mm × 135mm × 110mm (bracket excluded)
Net Weight	2.5kg
Working Temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Installation Methods	Display placement, wall-mounting, TV mounting
Quality Warranty	One year