WB501 Specification

Smart Building Intercom & 5-Inch AI Access Terminal Recognition Terminal



- 5-inch AI Smart Access Terminal for Residential & Commercial Video Intercom and Access Control;
- 20,000 face capacity and 20,000 card capacity;
- Multiple verification methods including: face, cards, QR codes, and PIN codes;
- One-tap remote door release;
- Full-duplex high-definition audio and video communication via CommLink App / Tuya Smart App;
- SIP video intercom supporting high-definition audio and video intercom;
- Real-time video streaming anytime through the app and cloud storage service for all access event recording and review.

Face Recognition

- Face recognition speed less than 1s with 99.99% accuracy rate;
- Liveness detection with effective protection against photos, videos and 3D masks;
- Adapts to facial changes and varying light conditions;
- Supports multi-factor authentication: face, password, QR code, IC/RFID card, remote unlock via mobile app.

Technical Specifications

Display & Hardware

Parameter	Specification
Screen Size	5.0-inch IPS LCD
Resolution	480 x 854 pixels

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Parameter	Specification
Touch Screen	Capacitive touch support
Processor	Dual-core AI processor
NPU	1.0T OPS
OS	Linux system
Memory	Built-in DDR3L 256MB
Storage	EMMC 8G or Nand 1/2Gb

Camera Specifications

Parameter	Specification
Camera Type	Dual-Lens Camera
Resolution	Dual 200W Pixels
Aperture	F2.2
Focus Distance	50-150cm
Fill Light	LED + Infrared dual fill light
Night Vision	Supported

Network & Connectivity

Parameter	Specification
Wired Network	Ethernet
Wireless Network	Wi-Fi (2.4GHz supported)
Cellular Network	4G module (optional)
Audio Output	2W/8Ω Speaker
Audio Input	Built-in microphone

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Recognition Performance

Parameter	Specification
Face Capacity	20,000
Attendance Records	200,000
Recognition Distance	0.5-1.5 meters
Recognition Speed	<1 second
Recognition Rate	⩾99.99%
Adaptation	Glasses, hats, makeup supported

Other Specifications

Parameter	Specification
Power Supply	DC12V 2A
Power Consumption	24W (MAX)
Protection Rating	IP65
Operating Temperature	-10°C ~ 60°C
Storage Temperature	-20°C ~ 70°C
Device size	183*87*26mm
Installation	Optional wall-mounted or column-mounted

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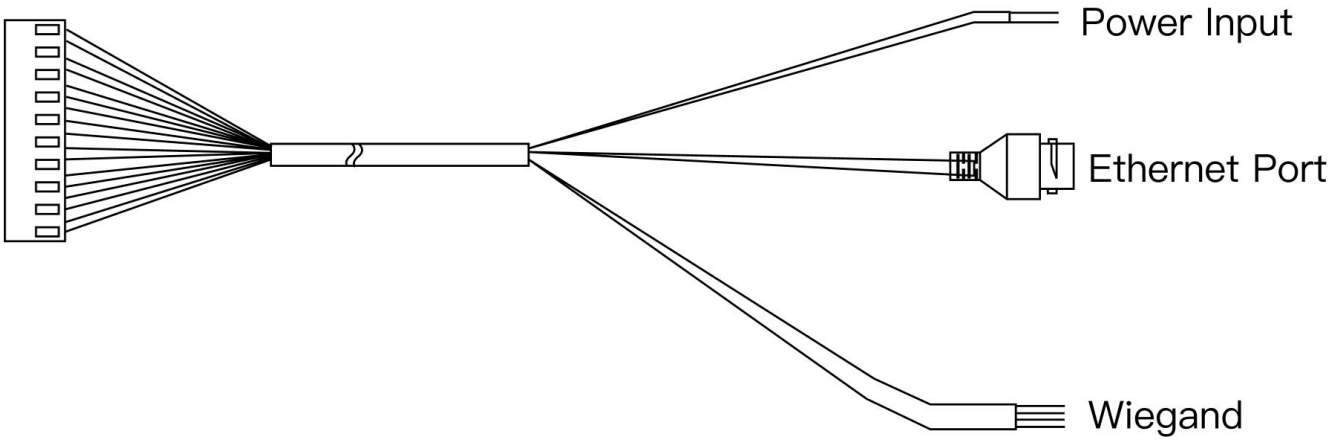
Dimension units: mm



Interfaces and Definitions



Note: Cable and interface definitions (interfaces may vary slightly between production batches)