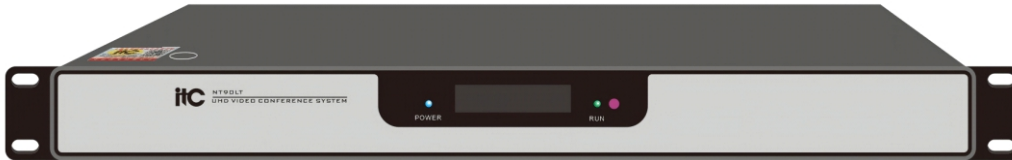




AI Smart video terminal

NT90LT (Specification B510-4)



Description

The brand-new 4K multi-interface split-type high-definition video conference terminal supports H.265 4K60 codec technology, achieving ultra-high-definition effects with ultra-low bandwidth, and is suitable for various medium and large-scale conference venues.

Features

- * It adopts a split structure, with built-in hardware audio and video processing unit, and adopts a dual operating system design of domestic embedded Linux and Android 12 , supporting switching between domestic embedded Linux system and Android system .
- * It supports ITU-T H.323 and IETF SIP standard protocols, with good compatibility; it supports H.239 and BFCP dual-stream protocols, with the main and auxiliary streams reaching up to 4K60; at the same time, the main and auxiliary screens can output signals with a maximum resolution of 4K60. (To achieve 4K60 resolution, a board with AI functionality is required.)
- * Call bandwidth supports 64Kbps-8Mbps; supports CIF, 4CIF, 720P, 1080P, and 4K video resolutions.
- * Supports high-definition video signal input of 1280×720@60fps/50fps/30fps/25fps, 1920×1080@60fps/50fps/30fps/25fps, and 3840×2160@60fps/50fps/30fps.
- * Supports high-definition video signal output of 1024×768@60fps, 1280×720@60fps, 1920×1080@60fps/30fps, and 3840×2160@60fps/30fps.
- * It supports H.261, H.263, H.263+, H.264, H.264 HP, and H.265 video codec protocols, and G.711, G.722, G.722.1, G.722.1C, and OPUS audio codec protocols, with audio quality up to 48kHz.(To achieve 4K60 resolution, a board with AI functionality is required.)
- * It has a built-in MCU module that supports 4-party meetings and can be smoothly expanded to 16 parties. It also supports mainstream auxiliary stream meetings via the built-in MCU and allows users to join meetings via PC or mobile devices.
- * It supports control of the terminal via 2.4G remote control, web, touch, mouse and keyboard, and supports remote control air mouse control mode.
- * It supports opening and closing remote videos at will, and allows dragging and dropping the video window in the screen layout.
- * The terminal adopts a B/S management architecture, which can be remotely managed by logging in via a web browser. It supports switching between Chinese and English. In addition, the terminal's web page supports real-time playback of meeting screen and audio.
- * It has a viewing content setting function, which allows users to actively choose to view multiple screens of different resolutions or any single screen in the meeting.
- * The terminal UI allows users to enable/disable the web interface and change the web password. It also features a whitelist function, allowing only devices with IP addresses on the whitelist to log in to the terminal backend and view the web page. Other IP addresses are considered unauthorized users and are denied access to the terminal backend.
- * It supports setting up full-screen or composite display of auxiliary streams during meetings; and supports combining three main streams into one stream and transmitting it to the remote end, with selectable screen layout .
- * The auxiliary stream interface supports plug-and-play functionality, automatically sending content once the auxiliary stream is connected; it also supports one-click sending or ending of the auxiliary stream and switching of the screen layout via remote control.
- * It supports single-screen dual display, dual-screen dual display , and triple-screen triple display applications, enabling multi-screen layouts and supporting various common layout types such as picture-in-picture.
- * Supports PTZ control of remote meeting venues.



- *It supports switching between main and auxiliary video signal sources, as well as switching between audio input and output during meetings.
- *It features a USB interface, supporting the connection of USB storage devices; it supports meeting recording, allowing direct recording of video and audio during meetings; and it supports program upgrades and data packet capture via USB storage devices.
- *It supports video polling, allowing users to select the polling window, polling interval, and participants; it also supports voice activation, allowing users to set a voice activation window, which automatically switches to the room with the loudest speaker.
- *It supports wireless streaming functionality. Computers only need to install one software and connect to the terminal via the network to achieve wireless streaming sharing, without the need for external hardware devices.
- *It supports joining meetings without registration; simply enter the meeting number to join, and you can choose to join in interactive or live meeting mode.
- *It supports third-party systems to call the terminal via API to adjust the camera, set banners, switch screen layouts, and control the speaking rights of each meeting room.
- *It features 9 audio inputs (5 HDMI, 2 RCA, 1 XLR, 1 RJ45), 7 audio outputs (3 HDMI, 4 RCA), 7 high-definition video inputs (5 HDMI, 1 SDI, 1 DVI), and 6 high-definition video outputs (5 HDMI, 1 DVI), supporting 4K 60fps.
- *Supports IP network packet loss repair mechanism; with 30% network packet loss, the audio is clear and continuous, and the video is clear and free of pixelation; with 80% network packet loss, the audio is clear and smooth, and can be accurately understood.
- *With superior network adaptability, it automatically adjusts the resolution based on network packet loss to ensure smooth meetings.
- *It supports intelligent 3A processing , including automatic echo cancellation, noise suppression, automatic gain control, lip-sync, and other audio processing functions.
- *It supports meeting room mute and mute functions, and the meeting room sound output volume is adjustable.
- *Supports voice priority and QoS policy mode.
- *It supports IPv4 and IPv6 protocols, supports NAT traversal, and has the ability to bypass routers and firewalls, ensuring system security.
- *Under the H.323 protocol, it supports H.235 signaling encryption; under the SIP protocol, it supports TLS and SRTP encryption; the media stream supports AES128/256, SM3, and SM4 national cryptographic algorithms to ensure conference security.
- *It features good management and maintainability, supports local audio and video loop diagnostics; one-click local audio and video testing; supports network ping testing on the user interface; and supports call record querying.
- *It supports viewing media information for audio, mainstream video, and auxiliary video streams, including information such as protocol, format, bitrate, transmitted and received data, transmitted and received packets, packet loss rate, number of lost packets, latency, send and receive addresses, and whether it is encrypted.
- *Supports device fan switch management, allowing configuration of whether or not the device's fan is enabled.
- *The terminal has built-in data conferencing functions such as electronic whiteboard, electronic voting, and file sharing to meet the application needs of remote training, teaching and other scenarios.
- *It features a banner function, allowing you to add banners to the video screen and set whether to enable the banner, as well as the banner's font type, size, font color, background color , banner coordinates, and banner content.
- *It features auxiliary stream annotation functionality, allowing real-time annotation on the auxiliary stream screen when sending and receiving it; it allows setting three different pen thicknesses, five pen colors, and annotation graphics such as circles, squares, arrows, and lines; when sending the auxiliary stream, it allows setting whether to grant annotation permissions to meeting members for joint annotation.
- *It features a web-interactive electronic whiteboard function, allowing users to control the whiteboard from a terminal via the web. It supports three different pen thicknesses, ten pen colors, and annotation graphics such as circles, squares, arrows, and lines; it also allows setting solid color or image backgrounds; when operating the whiteboard via the web, the terminal's output screen synchronously displays the whiteboard content; it can also be set to push the whiteboard to other participating terminals, allowing them to view the same whiteboard content. The electronic whiteboard supports pagination, supporting up to 5 pages.
- *It has a local name setting function, and you can set whether to enable the local name , as well as the name font size, font color, background color, and display position .
- *It features AI real-time speech-to-text functionality, eliminating the need for an additional integrated speech-to-text system. The terminal can transcribe audio from meetings into subtitles in real time and output them to the display. It can display both real-time meeting subtitles and translated subtitles simultaneously , or display them separately . It supports transcription in both Chinese and English and allows users to set the background color, font color, and font size of the subtitles .
- *It features AI simultaneous interpretation capabilities, allowing the terminal to translate and play audio transmitted from a remote location without requiring additional equipment. It supports Chinese-English translation and offers selectable playback speed and tone.
- *It supports extended motion compensation, which can improve the quality of low-frame-rate video received during a meeting, thus enhancing video smoothness.(Requires video enhancement software)
- *It supports extended image enhancement features, which can enhance low-resolution video received in a meeting to a higher resolution, improving image clarity while saving bandwidth.(Requires video enhancement software)
- *On Android devices, the app store offers downloads of mainstream video conferencing software such as Tencent Meeting Rooms, DingTalk, ZOOM, and Microsoft Teams.
- *On the Android system, you can view spreadsheets, documents, and other data on the device.



*In the Android system, it is supported to set software to start automatically on boot, so that the set software can be opened automatically after booting up.

*It has a packet loss alarm function, and a prompt box will pop up when a packet loss is received.

*By pairing with a specific camera, it supports infrared pass-through function, allowing the infrared remote control to transmit infrared signals to the terminal through the camera, thereby achieving the purpose of remote control of the terminal by the infrared remote control.

*Supports video loopback function in the event of a power outage.

Specification

Framework agreement	Compliant with ITU H.323 and IETF SIP protocols
Network port	2× RJ45 (10/100 /1000M LAN), 1 × Wi-Fi (built-in), 1 × 5G SIM (expandable)
USB interface	Two USB 3.0 ports and one Type-C port are included, which can be used to connect expansion devices or perform online upgrades.
Serial port	1× RS-232 /RS-485
Video protocol	Supports H.261, H.263, H.263+, H.264, H.264 HP, and H.265 video standard protocols
Dual stream protoco	Supports H.239 and BFCP dual-stream protocols
Display method	Supports 4 :3 and 16 : 9 game ratios.
Heat dissipation method	Built-in cooling fan
Environmental requirements temperature	0°C ~ 35°C (operating condition) -40°C ~ 55°C (non-operating condition)
Relative humidity	10% ~ 80% (working status) 0% ~ 95% (non-working status) (non-condensing)
Equipment dimensions (W×D×H)	440mm × 241.5mm × 47mm (including feet)
Weight	4kg
Power supply	DC12V/5A