Advanced tracking, features and performance

HD100T

Intelligent Education Auto Tracking PTZ Camera

AUTO TRACKING

PANORAMA STREAM

FULL HD 1080p

Optimised for education

The UV100T is a fully-featured, high-performance camera designed for live lecture video in education environments. Featuring Auto Tracking Pan Tilt Zoom (PTZ), an integrated ultra-wide panoramic camera and Full HD output resolution, the HD100T is built to capture hybrid and online learning content.

The HD100T features a choice of 12X or 20X optical zoom lenses with a mechanical PTZ and intelligent subject tracking. Advanced tracking capability keeps the subject locked on and in focus.

Advanced digital image processing technologies and algorithms produce vivid image quality and screen brightness uniformity, with a strong sense of depth, high-definition, and accurate colour rendition.

The HD100T is two cameras in one. An integrated panoramic camera captures an ultra-wide view, available in a separate stream.

The HD100T delivers excellent tracking and image quality, reliable operation and ease of use with class-leading value for money.

Advanced intelligent tracking

The auto-tracking performance of lecture cameras is central to the student viewing experience. So while the HD100T delivers in every aspect of image quality, high-performance auto-tracking was the primary design focus of the HD100T. Intensive development has resulted in an extensive suite of highly sophisticated image-processing technologies. These include people detection, locking and tracking to ensure the target tracking is consistently accurate, smooth and fast.

Image detection is applied to every video image frame. Anti-interference algorithms ensure that once the target is locked, tracking is unhindered by interference from other moving objects. People are accurately distinguished from backgrounds, even in visually complex environments or where multiple moving targets are present. The resulting target loss rate is minimal.

Tracking also controls automatic Zoom control to maintain subject framing according to distance. Image brightness is adjusted for the tracked subject to deliver outstanding results, even in challenging lighting conditions. Tracking sensitivity can be adjusted to prevent unwanted tracking caused by minor movements or gestures. Furthermore, environmental adaptability ensures that tracking performance is not affected by room size, shape or seating arrangement.

The high-quality PTZ mechanism incorporates a step-drive motor that makes PTZ operation smooth and virtually silent.

Superb High-definition Video

Advanced lens, sensor, and image processing technologies deliver sharp and vibrant video.

12X or 20X precision optical zoom lenses are available to match specific camera locations, room sizes and framing requirements.

The 1/2.8-inch high-quality CMOS sensor produces inherently low-noise Full HD video. Sophisticated 2D/3D noise reduction technology further suppresses noise while ensuring image sharpness.

Advanced image processing controls the camera's exposure, autofocus, and white balance. Focus is accurate and stable without AF hunting, while image quality is optimised for ambient lighting conditions.

Output resolution is Full HD 1920 x 1080 pixels at up to 60 frames per second for single channel or 30 fps for dual channel streams. H.264 and H.265 video codecs are supported.

Integrated panoramic camera

The HD100T is two cameras in one. A dedicated panoramic camera captures an ultra-wide room view with video available in a separate output stream.

Connectivity options with PoE support

Two connectivity versions are available. The SDI Interface version includes SDI and LAN, while the HDMI U3 Interface version includes HDMI, U3 and LAN. PoE is supported.

Multiple Network Protocols

Support is provided for ONVIF, GB/T28181, RTSP and RTMP protocols. RTP multicast mode enables linking to streaming media servers such as Wowza and FMS.

Multiple Control Protocol

Support is provided for VISCA, PELCO-D, and PELCO-P protocols and automatic protocol identification.

Audio Input Interface

Supports 8000, 16000, 32000, 44100 or 48000Hz sampling frequency and AAC, MP3, and PCM audio coding.

Low-power Sleep Function

Supports low-power sleep and wake-up. Power consumption in sleep mode is less than 400mW.

Specifications

Model	HD100T 12X	HD100T 20X
Tracking Camera		
Optical zoom lens	12X 3.9-46.8mm f/1.8-2.4	20X 5.5-110mm f/1.6-3.5
Angle of view	6.3˚(tele) 72.5˚(wide)	3.3˚(tele) 54.7˚(wide)
Sensor	1/2.8 inch high quality HD CMOS sensor	
Effective pixels	2.07 megapixels	
Digital zoom	10X	
Minimum illumination	0.5Lux (F1.8, AGC ON)	
Digital noise reduction	2D & 3D DNR	
White balance	Auto /Manual/ One Push/ Specify colour temperature (3000K-7000K in 500K increments)	
Focus	Auto/Manual/One-push	
Aperture	Auto/Manual	
Electronic shutter	Auto/Manual	
Back light control	Yes - On/Off	
Wide dynamic range	Off/Dynamic range adjustment	
Video adjustment	Brightness, colour, saturation, contrast, sharpness, gamma curve	
Signal to noise ratio	>55dB	
Video output	1080P60/50/30/25/59.94/29.97, 1080I60/50/59.94, 720P60/50/30/25/59.94/29.97	
Pan Tilt		
Pan rotation	-170˚ - +170˚	
Tilt rotation	-30˚ - +90˚	
Pan control speed	0.1 - 100˚ per second	
Tilt control speed	0.1 - 45˚ per second	
Preset speed	Pan: 100˚ per second, Tilt: 45˚ per second	
Presets	Up to 255 total. Ten via remote control	
Panoramic Camera		
Lenses	4mm, 6mm	
Angle of view	4mm - 86.9˚ diagonal, 6mm - 67.0˚	
Sensor	1/2.8-inch high-quality HD CMOS sensor	
Effective pixels	2.07 megapixels	
Focus	Manual	

Input/Output Interface and Protocols	
Video interface	SDI Interface: SDI, LAN, Dual audio channel 3.5mm linear input, RS232(IN) HDMI U3 Interface: HDMI, U3, LAN, Dual audio channel 3.5mm linear input, RS232(IN)
Network interface	100M network interface (10/100BASE-TX) 5G WiFi(optional)
Network protocol	RTSP, RTMP, ONVIF, GB/T28181, Network VISCA Control Protocol, Support remote upgrade, reboot and reset.
Image code stream	Dual stream output
Video codec	H.265, H.264
Control signal interface	RS232 input
Control Protocol	VISCA/Pelco-D/Pelco-P, Baud Rate: 115200/38400/9600/4800/2400bps
Audio Input Interface	2-track 3.5mm linear input
Audio Compression Format	AAC, MP3, PCM
Network Protocol	RTSP, RTMP, ONVIF, GB/T28181, VISCA OVER IP, IP VISCA, RTMPS, SRT, Support remote upgrade, reboot and reset
Control Interface	RS232-IN, RS232-OUT, RS422 (compatible with RS485)
Control Protocol	VISCA/Pelco-D/Pelco-P, Baud Rate: 115200/38400/9600/4800/2400bps
Power Interface	HEC3800 outlet (DC12V)
Other	
Supply adapter	Input AC110V - AC220V to DC 12V/2.5A
Input Voltage	Output DC12V. PoE power supply optional
Input current	1.5A (max)
Power Consumption	Maximum: 18W (max)
Storage Temperature	-10˚C~+60˚C
Storage Humidity	20%~95%
Working Temperature	-10˚C~+50˚C
Working Humidity	20%~80%
Dimensions	253.9mm x 183.3mm x 159.3mm including feet and connectors
Weight	1.54kg
Supplied accessories	Power Supply, RS232 control cable, USB3.0 connection cable, Remote Controller, User Manual
Optional accessories	Ceiling / Wall Mount (additional cost)

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