



CI-T21H / CI-T21S

PTZ Tracking Camera 10X

Quick Installation Guide | English



Preface

This manual introduces the function installation and operation of the Camera.

Prior to installation and usage, please read the manual thoroughly.

1. Warning

- (1) This product can be only used in specified range in order to avoid any damage or danger;
- (2) Don't expose the camera to rain or moisture place
- (3) Don't remove the cover to reduce the risk of electric shock. Refer servicing to qualified personnel.
- (4) Never operate the camera under unqualified temperature , humidity and power supply;
- (5) Please use the soft cloth to clean the camera. Use neuter cleanser if bad smeared .Don't use the strong or cleanser avoiding scuffing.

2. Electric Safety

Installation and operation must accord with electric safety standard.

3. Caution to transport

Avoid stress,vibration and soakage in transport,storage and installation.

4. Polarity of power supply

This product uses DC 12V power supply.

5. Careful of installation

- (1) This series item must put on the smooth desk or platform,and it can not be installed slant ways.
- (2) Don't apply in corrosive liquid,gas or solid environment to avoid the cover which is made up of organic material.
- (3) This product has a heating device inside, please keep ventilated.
- (4) Never power on before installation is completed.

6. Don't disassemble discretionarily

We are not responsible for any unauthorized modification or dismantling.

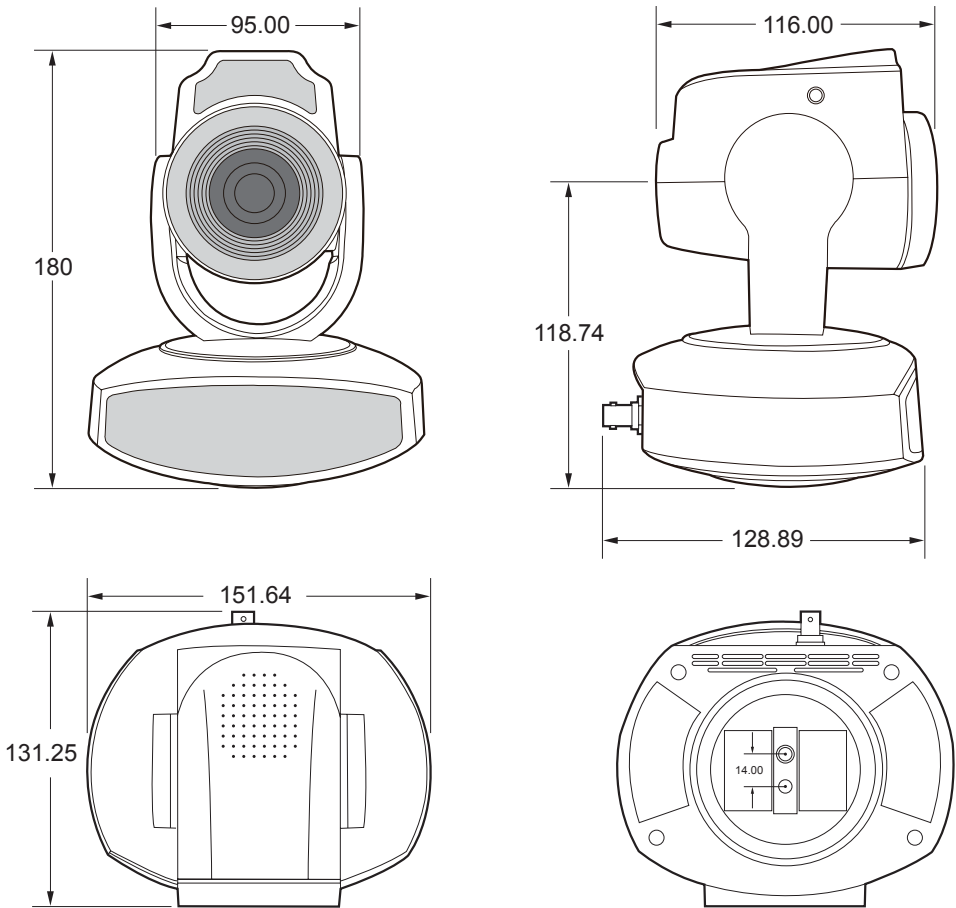
7. Attention

Electromagnetic filed under certain rate may affect camera image!

Product Overview

CI-T21 Auto-Tracking PTZ Camera is a professional-grade high quality PTZ camera that also can track a moving presenter automatically while shooting video. Combining a high-performance pan/tilt/zoom camera, compact design and excellent motion-sensitive tracking technology, CI-T21 is ideal for mid to large-size conference, huddle rooms, or lecture capture, bridging the feature and price gap between current webcam and professional PTZ cameras in the market.

1. Dimension



2. Accessory

No.	CI-T21H	CI-T21S
1	Power Adaptor	Power Adaptor
2	RS-232 Cable	RS-232 Cable
3	USB3.0 Cable	-
4	Remote Controller	Remote Controller
5	AM-600 (include USB Cable & QIG)	AM-600 (include USB Cable & QIG)
6	X type 2 in 1 Tracking Cable (RS-232 & Power)	X type 2 in 1 Tracking Cable (RS-232 & Power)
7	3.5mm phone jack to USB Cable (PC Config Tool setting cable)	3.5mm phone jack to USB Cable (PC Config Tool setting cable)
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3. Camera performance

The camera offers perfect functions, superior performance and versatile interfaces. The features include advanced ISP processing algorithms to provide vivid images with a strong sense of depth, high resolution and fantastic color rendition. It supports H.264/H.265 encoding which makes motion video fluent and clear even with less than ideal bandwidth conditions. By adopting high accuracy step driving motor mechanism, it works extremely quiet and moves smoothly and very quickly to designated position. Product works stable and reliable, and it is easy to use, installation and maintenance.

4. Technical specification

Camera Parameter	
Optical Zoom	10X, f=4.7~47mm
Sensor	1/2.8 inch high quality HD CMOS sensor
Effective Pixels	16: 9 2.07 megapixel
Video Format	HDMI/SDI video format 1080P60/50/30/25/59.94/29.97;1080I60/50/59.94; 720P60/50/30/25/59.94/29.97 U3 video format (1) U3:1920X1080P60/50/30/25;1280X720P60/50/30/25;960X540P30;640X360P30; 640X480P30;352X288P30;960X540P30; (2) U3 compatible with U2: 960X540P30; 640X360P30; 1280X720P10/15; 720X576P50; 720X480P60; 640X480P30; 352X288P30.
View Angle	6.43°(tele)--60.9°(wide)
Iris	F1.6--F3.0
Digital Zoom	5X
Minimum Illumination	0.5Lux (F1.8,AGC ON)
DNR	2D & 3D DNR
White Balance	Auto / Manual / One Push / 3000K / 3500K / 4000K / 4500K / 5000K / 5500K / 6000K / 6500K / 7000K
Exposure	Auto / Manual / Shutter Automatic Exposure / Aperture Automatic Exposure / Brightness priority
Focus	Auto / Manual / One Push
Aperture	Auto / Manual
Electronic Shutter	Auto / Manual
BLC	ON / OFF
WDR	OFF / Dynamic level adjustment
Video Adjustment	Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve
SNR	>55dB
Input/Output Interface	
Video Interfaces	CI-T21H Model RS232(INPUT), LAN, HDMI, USB3.0 CI-T21S Model RS232(INPUT), LAN, SDI, A-IN
Image Code Stream	Dual stream output
Image Output Multiple Code Source	Dual Code Source output(SDI/HDMI/USB3.0 LAN)

Video Compression Format	H.264, H.265
Audio Input Interface	Double track 3.5mm linear input;
Audio Output	SDI HDMI LAN output together with video
Audio Compression Format	AAC MP3 G.711A
HD IP Interface	100M IP port(100BASE-TX)
Network Protocol	RTSP/RTMP, ONVIF, GBT28181; Support IP Visca control protocol; Distance update, Distance restart, Distance reset
Control Interface	RS232
Control Protocol	VISCA/Pelco-D/Pelco-P; Baud Rate: 115200/9600/4800/2400 bps
Power Interface	HEC3800 outlet (DC12V)
Supply Adapter	AC110V-AC220V to DC12V/2A
Input Voltage	DC12V±10%
Input Current	2A (Max)
Consumption	24W (Max)

PTZ Parameter

Pan Rotation	±135°
Tilt Rotation	-30°~+30°
Pan Control Speed	0.1-60°/sec
Tilt Control Speed	0.1-30°/sec
Preset Speed	Pan: 60°/sec, Tilt: 30°/sec
Preset Number	255 presets (10 presets by remote controller)

Tracking Parameter

Tracking Distance*	2~10m
Battery life of AM-600**	Approximate continuous operating time: 4 hours

Other Parameter

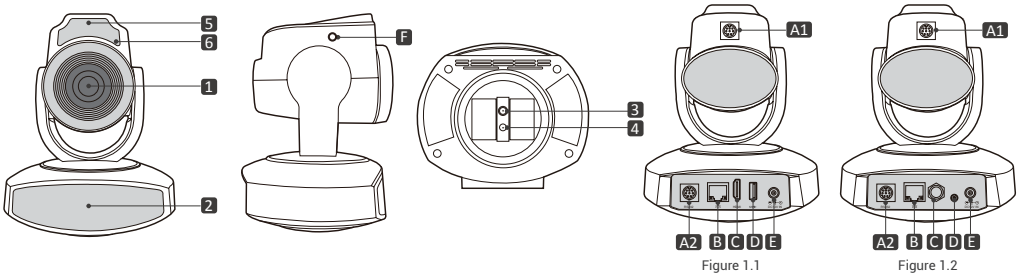
Store Temperature	-10°C ~ +60°C
Store Humidity	20% - 95%
Working Temperature	-10°C ~ +50°C
Working Humidity	20% - 80%
Dimension (L x W x H)	131 x 151 x 180 mm
Weight	1.1 kg
Using Environment	Indoor

* Without wall, human body or any large size barrier in between.

** Power saving function: The AM-600 will automatically power off, if it has been placed flat and static for more than 5 minutes.

Quick Installation Instructions

1. Camera interface and indicators description



No.	CI-T21H	CI-T21S
1	Camera Lens	Camera Lens
2	Remote Controller Receiver	Remote Controller Receiver
3	Tripod Screw Hole (¼ UNC 20, Depth 6.5mm)	Tripod Screw Hole (¼ UNC 20, Depth 6.5mm)
4	Locating Hole (Ø5.5, Depth 6.5mm)	Locating Hole (Ø5.5, Depth 6.5mm)
5	Auto-Tracking Receiver	Auto-Tracking Receiver
A1	RS232 Control Interface (Output)	RS232 Control Interface (Output)
A2	RS232 Control Interface (Input)	RS232 Control Interface (Input)
B	LAN Interface	LAN Interface
C	HDMI Interface	SDI Interface
D	USB3.0 Interface	Audio-IN Interface
E	DC12V Input Power Supply Socket	DC12V Input Power Supply Socket
F	3.5mm phone jack (for PC Config Tool)	3.5mm phone jack (for PC Config Tool)

No.	LED Color	Glow Rule	Operation
2	Red/Green dual-color light	Red light blinking	Power Adaptor plug to Socket
		Green light turns on	Power on
		Green light blinking	Receive remote control signal
6	Red/Green dual-color light	Green light flashes 1 sec	Power Adaptor plug to Socket
		Light goes off	Auto tracking ongoing
		Red light flashes	Auto tracking error
		Red/green lights flicker alternately	Firmware update or setting of tracking parameters via PC config tool

1.1 Power on initial configuration

- (1) Power on: Connect DC12V power supply adapter with power supply socket.
- (2) Initial configuration: Power on with power indicator light on and remote control receiver light blinking, camera head moves from bottom left to the bottom, and then goes to the HOME position (intermediate position of both horizontal and vertical),while the camera module stretches. When remote control receiver light stops blinking, the self-checking is finished.

Note:

1. The default address of the remote controller is the 1# address.
2. If you set preset 0, when Power on self-test is completed, the camera automatically moves to the preset 0 position.

1.2 Video output

(1) Video Output from LAN

- a. Network Cable Connection Port: Connect this product and your computer through network cable, the device LAN interface refer to No B in Figure 1.1.
- b. Webpage Login: Open your browser and enter 192.168.11.202 in the address bar (factory default); press Enter to enter into the login page; click on the "player is not installed, please download and install!" and follow the installation steps for installation. Then enter the user name admin and password admin (factory default); press Enter to enter into the preview page, users can carry out PTZ control, video recording, playback, configuration and other operations.
(Note: If you forget your user name, password, IP address, you can manually restore the default by the remote controller key combination * #)

(2) HDMI Video Output

- a. HDMI Video Cable Connection: CI-T21H refer to No.C in Figure 1.1.
- b. Connect the camera and the monitor via HDMI video cable; video output is available after camera self-test.

(3) SDI Video Output

- a. SDI video cable connection: CI-T21S refer to No.C in Figure 1.2.
- b. Connect the camera and the monitor via SDI video cable; video output is available after camera self-test.

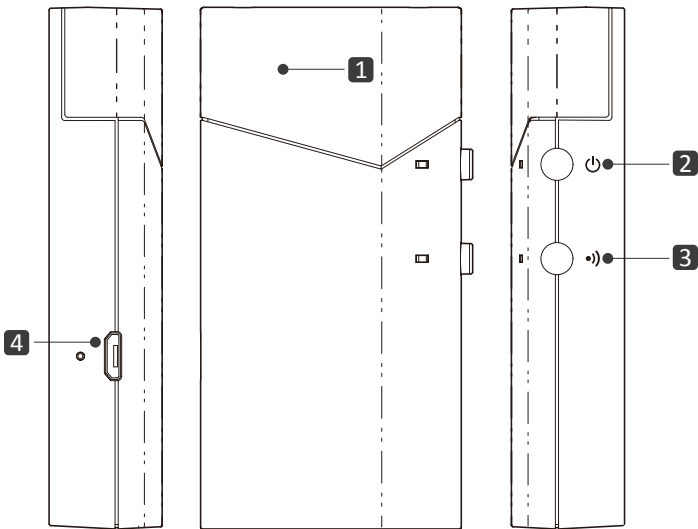
(4) USB3.0 video output

- a. USB3.0 video cable connection: CI-T21H refer to No.D in Figure 1.1.
- b. Connect the camera and the monitor via USB3.0 video cable, open video display software, select image device, and then video output will be available.

(5) USB3.0 compatible with USB2.0 output

- a. USB3.0 video cable connection: CI-T21H refer to No.D in Figure 1.1.
- b. Connect the camera and the monitor via USB3.0 video cable, open video display software, select image device, and then video output will be available.

2. AM-600 interface and indicators description



No.	Interface	Light Color	Glow Rule	Operation
1	Positioner	-	-	-
2	Power ON / OFF and Tracking pause	Red / Green dual-color light	Green light turns on	Power ON
			Red light is on	When auto tracking function is Suspended Note: When the tracking function is paused, the Tracking Camera will return to the full-view position.
			Red light flashes	When power is low
			Red light flashes 1 sec	Press the button to power off
3	Microphone pairing / mute	-	-	Workable with AREC Media Station
4	Power input (USB Micro-B port)	Green	Green light is on	During power charging
			Light goes off	When the charging is complete
			Green light flashes	Charging error

Connection and Settings

Step 1 Connection

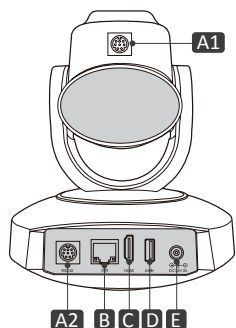


Figure 1.1

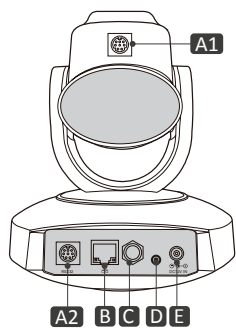
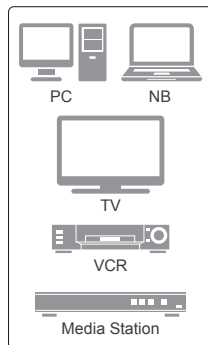
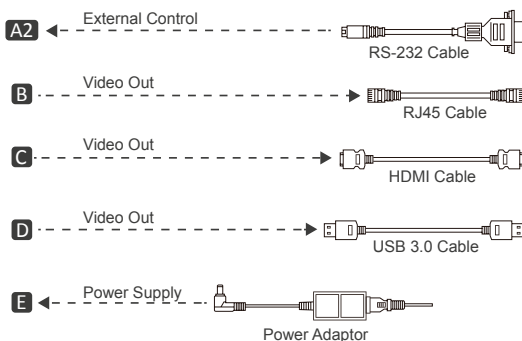
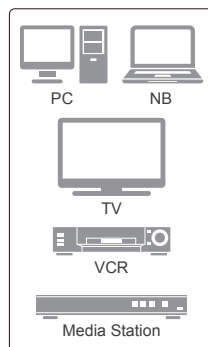
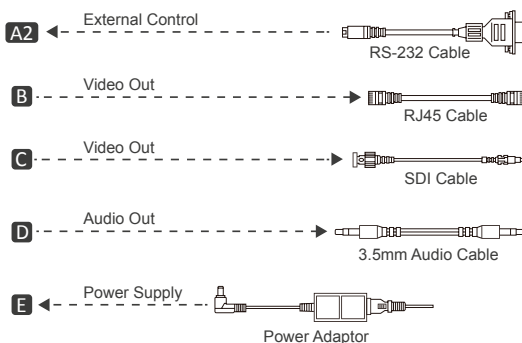
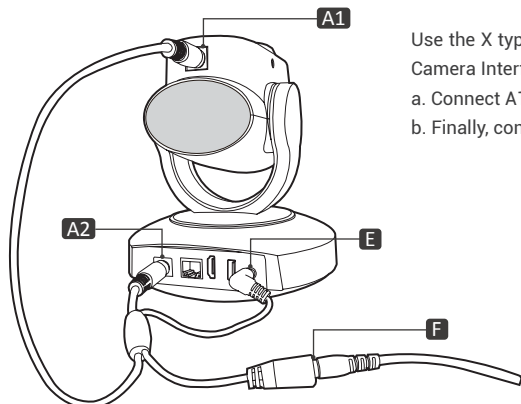


Figure 1.2



Step 2 Setup X type 2 in 1 tracking cable



Use the X type 2 in 1 tracking cable connected to Tracking Camera, refer Camera Interface Instruction

- Connect A1, A2, E in sequence
- Finally, connect the camera power adaptor to F

Step 3 Tracking Camera settings

CI-T21 Auto-Tracking use RS-232 control interface, the default parameter as below

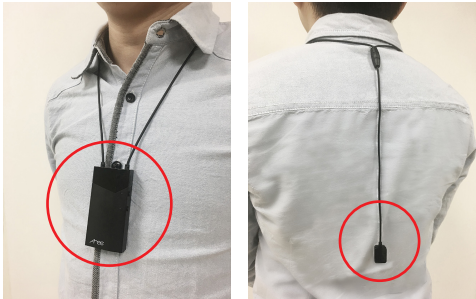
Item	Tracking parameters
Protocol	VISCA
VISCA Address	1
Baud rate	9600

Note: Remote controller can setup the RS-232 parameter

Step 4 Wear the positioner

Fix your AM-600 to the target person or object properly. For better tracking effect, wear a positioner with the smooth and transparent side facing out. Turn on AM-600 to start auto tracking.

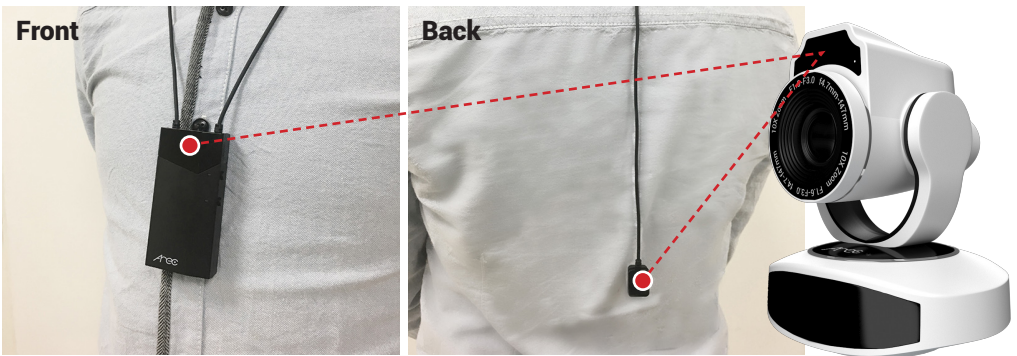
Note: Be sure to wait until the tracking camera is power on and reset to the initial position, before power on the AM-600.



Getting start

Accurate and Smooth Tracking Performance

In order to capture presenter's best performance, CI-T21 provides superior continued smooth movement even in situations where a presenter is writing on a whiteboard or close-up shots, just like a professional cameraman does.





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