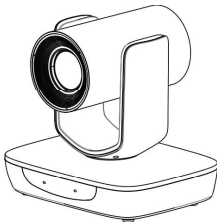


Klick U2

USB PTZ Video Conferencing Camera

User Manual



EXPERIENCE NEXT

SYMBOLS INSTRUCTION

Symbol	Instructions
Explanation	To represent the supplement and explanation of the text.
Note	To remind the user of some important operations or to prevent the potential injury and property damage.
 Warning	To indicate a potential risk that, if not avoided, may result in injury accidents, equipment damage or business interruption.
 Dangerous	To indicate a high potential risk that, if not avoided, may result in a significant risk of death or injury.

List Of Parts & Accessories

When you open the box, check all accessories according to the packing list.



Camera (1)



Power Adapter (1)



Remote Controller (1)



HDMI Cable (1)



USB Cable (1)

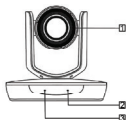


RS-232 Control Cable (1)

Main Parts & Interfaces

Camera

Front View

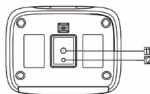


1 Camera Module

2 Power Indicator

3 Communication Indicator

Bottom View



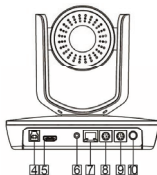
11 Mounting Hole

1/4"inch screw thread for fixing camera.

12 Locating Hole

To define installation direction of camera.

Rear View



4 USB3.0

5 HDMI

6 Audio

7 RJ45

8 RS232-IN

9 RS232-OUT

10 Power (DC12V)

Remote Controller

1. Home

Press **HOME** button, camera moves to initial position.

2. Camera Selection Button

Used to switch among 4 cameras, press 1-4 number buttons to control cameras with 1-4 addresses respectively. For example, press button 1 to control the camera with address 1.

3. Focus

Press "AUTO" button to switch to Auto Focus, press "MANU" button to switch to Manual Focus mode.

button to Focus Near

button to Focus Far

button to Auto Focus once every time it is pressed, then switch back to Manual Focus mode.

4. Iris

Press button to reset iris (image brightness) value to default. button to Iris Open (brighter image)

button to Iris Close (darker image).

5. Menu

Press **MENU** button to enter / exit menu.

6. Data

Reserved.

7. Number Keys

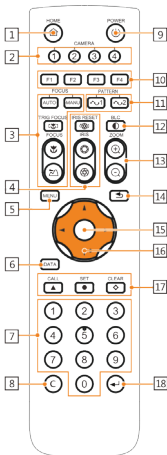
Used to input numbers, for example, preset number.

8. Cancel

To cancel numbers input

9. Power

After the camera has been connected to power source, in none-menu status, press this button to turn on / off the camera.



11. Pattern

Reserved.

12. BLC

Used to open / close back light compensation.

13. Zoom

Used to adjust zooming times.

button to zoom in

button to zoom out.

14. Back

Press button to go back to previous menu.

15. OK

In None-menu status: press this button to switch among pan / tilt control speeds.

In Menu status: get into relative menu option after it has been selected.

16. Direction / Menu Operation

In None-menu status, press these four buttons to pan left/right and tilt up/down.

In Menu status: button to select among menu options, button to change option / value.

17. Preset Setting

button to call a preset.

Input number key(s), and then press this button to call a preset.

button to set a preset.

Move the camera to a specific position, adjust focus value and etc, and then press this button to set a preset.

button to clear a preset.

Input number key(s), and then press this button to clear a preset.

18. Enter

After inputting numbers, press this button to confirm.

10. Reserved Buttons (F1, F2)

Reserved.

INSTALLATION

The camera has 2 installation types: desktop, wall mount installations.

Note

- Before installing, make sure there is enough space to install the camera and its parts;
- Make sure the installed place is strong and safe enough to hold the camera and relative parts, it is suggested that the installed place can withstand 4 times the weight of the camera and its relative parts.

Desktop Mount Installation

Put the camera on a flat surface. In case the camera has to be placed on an inclined surface, make sure the angle of inclination is less than 15 degrees to ensure proper pan / tilt operation.



Note

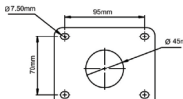
- Take effective measures to avoid camera from dropping.
- Do not grab the camera head when carrying.
- Do not rotate the camera head with hand. It may cause malfunction to the camera.

Wall Mount Installation

(Wall Bracket Supplied Separately)



1. According to diameter and position of the 4 installation holes (As shown below) on the bracket, drill 4 holes on the wall and fix the bracket onto the wall by using 4 screws which needs to be prepared by the users.

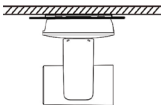


2. Use inch screws to fix the camera on the bracket, fix the limit screw according to actual requirement, and make sure the camera is tightly fixed onto the bracket before your hands leave the camera.

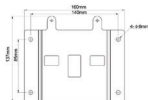


Ceiling Mount Installation

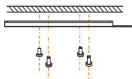
(Wall Bracket Supplied Separately)



1. According to diameter and position of the 4 installation hole (as shown below), drill 4 holes on the ceiling or cement roof correspondingly.



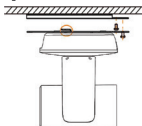
2. Fix the mounting plate onto the ceiling or cement roof with 4 screws according to your own needs.



3. Use 1 screws to fix the camera on the ceiling mount plate.



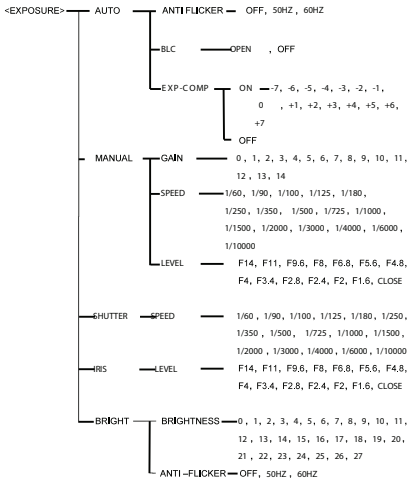
4. Push forward camera's bottom slide according to the mounting plate's bottom slide until they reach their limit. Fix the ceiling mount plate and camera's bottom plate with cross recessed pan head tapping screw.



MENU & SETTING

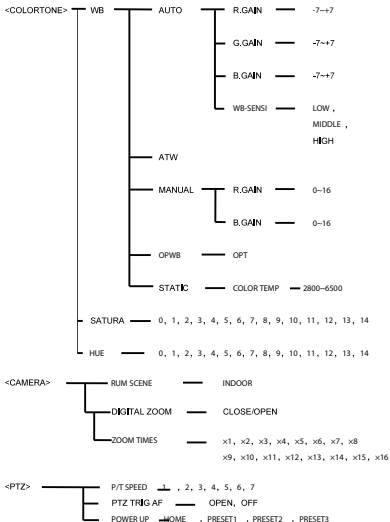
Menu Configuration

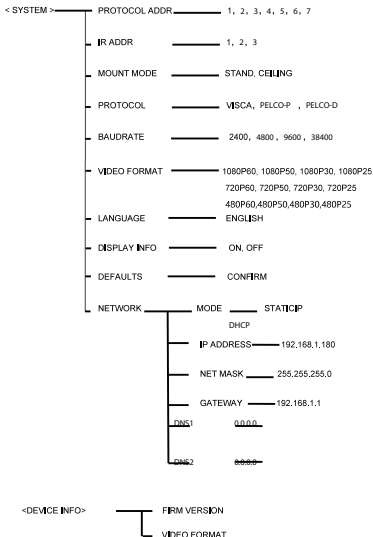
<IMAGE>	SHARPNESS	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
	BRIGHTNESS	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	CONTRAST	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	GAMMA	0, 1, 2, 3, 4
	2DNR	0, 1, 2, 3, 4, 5, 6, 7
	3DNR	0, 1, 2, 3, 4, 5, 6, 7
	DRC	0, 1, 2, 3, 4, 5
	MIRROR	ON, OFF
	FLIP	ON, OFF



Notes

The reference shutter speed parameters from the exposure is based on the 30/60fps for the camera.





MENU EXPLANATION

1. Press **MENU** button to enter / exit menu.

2. Press **▲** or **▼** button to select among menu options, when the font is enlarged, it indicates the menu has been selected, press **ENTER** button to enter and operate the menu.

3. Press **◀** or **▶** to change the menu options.

Type	Options	Functional description
IMAGE	SHARPNESS	Used to adjust the sharpness of image and acutance of image edge. The sharpness is increased and the contrast of details in the image plane is higher, making it look clearer. If the sharpness value is too high, it may cause the image distortion.
	BRIGHTNESS	Used to adjust the brightness of the image.
	CONTRAST	Refers to the ratio between the lightest and darkest areas of the image. The image with the higher ratio providing richer color and crisper lineation. The lower ratio makes the image gray.
	2DNR	When the camera shows color image, it is advised to disable the digital noise reduction function; otherwise, the image acutance will be affected.
	3DNR	By comparing several adjacent frames of images, the noise wave is automatically filtered out, so that the image noise is significantly reduced, the image is more thorough, the picture is more pure and delicate. The higher the level of noise reduction is, the more delicate the picture quality will be, the smaller the shaking feeling is. The lower the level of noise reduction is, the more blurred the picture quality will be, the greater the feeling of jitter is.
	DRC	It refers to the adaptability of the camera to strong light, specifically to the range of brightness (contrast) and color temperature (contrast).
	MIRROR	The camera image flips 180° horizontally.

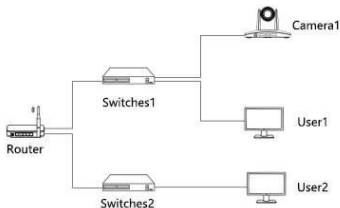
	FLIP	The camera image flips 180° vertically.
EXPOSURE	AUTO	Gain, Shutter Speed and Iris value are adjusted automatically according to working environment.
	MANUAL	Manually adjust Gain, Shutter Speed and Iris.
	SHUTTER	Gain and Iris value are adjusted automatically according to working environment; shutter speed value is adjustable manually.
	IRIS	Gain and shutter speed value are adjusted automatically according to working environment; Iris value is adjustable manually.
	BRIGHT	Manually adjust the video brightness.
COLORTONE	WB	Switch the white balance mode.
	SATURA	Refer to the purity and brightness of the image color. The higher the saturation is, the brighter the color effect is. Vice versa, the lower the saturation is, the more the effect tends to be black and white.
	HUE	Used to adjust the overall tendency of the color of an image, causing the color to rotate.
CAMERA	RUN SCENE	Used to set the scene suitable for the best camera shooting effect.
	DIGITAL ZOOM	When it is on, after camera reaches its maximum optical zoom, camera starts digital zoom. The camera will keep receiving zoom in command.
PTZ	P/T SPEED	Set the camera control speed level. The higher the level is, the faster the speed will be.
	PTZ TRIG AF	Focus automatically when the camera PTZ is controlled.
	POWER UP	Initial position of the camera after power-on.
SYSTEM	PROTOCOL ADDR	Set the control protocol address of the camera.
	IR ADDR	Set the IR remote address of the camera.
	MOUNT MODE	Support Stand or Ceiling mounted .

DEVICE INFO	PROTOCOL	Set the current control protocol of the camera.
	VIDEO FORMAT	View and set the video format of the camera.
	LANGUAGE	View and set the language of the camera.
	DISPLAY INFO	Turn on/off display of zooming times.
	DEFAULTS	Used to restore all menu parameter settings to factory default settings.
	NETWORK	View and set the current network of the camera.
	FIRM VERSION	Displays the firmware version of the current camera.
	VIDEO FORMAT	View the video format of the current camera.

NETWORK CONNECTION

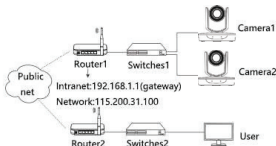
Connect camera to network through an Ethernet cable, power on the camera.

LAN CONNECTION



As shown in the above diagram, user1 and user 2 are in the same router, which means in the same LAN. Connecting the camera to the same LAN where the PC is, and referring to the below CameraCMS software instructions, then all the cameras can be found and connected by searching for the online device list.

WAN CONNECTION



As shown in the above diagram, user and the camera are in different routers, which means in a WAN. In this case, the CameraCMS software cannot automatically search for the camera as it does on a LAN. However, if the following three conditions are satisfied, the CameraCMS software can still search for the camera through the following network configurations:

Condition1: Set camera's IP address as static IP address

Set camera's IP address in LAN : Connect user PC to the LAN (Router 1) where the camera is connected according to LAN connection instructions, use application software CameraCMS to search and find the camera, then add it to manage; then set camera's IP address in the same network segment as the router 1. Camera's gateway is usually set at Router 1's LAN IP address, for example, 192.168.1.1, then camera's IP address can be set as for example 192.168.1.179 or 192.168.1.180 as long as they are in the same network segment.

Condition2: Router of the LAN where camera is connected supports Port Mapping

Router Port Mapping : User's PC logs into router configuration menu, gets into "Port Mapping" (router management authorization may be required); refer to below picture, do not tick "do not apply this rule", in the first frame of "External port", fill in any number from 1~65535, such as 10200 (try to select port greater than 10000 to avoid port conflict); fill in the IP of camera 1 in the internal IP, such as 192.168.1.179, and fill in the internal port 3478 of the camera in the first box of the

internal port (all cameras are fixed to this value). "Protocol" and "Image line" can be selected by default. Descriptions such as "port mapping of camera 1" can be filled in the description.

Port mapping		Help
List of rules		
Not applied	☐ Do not apply this rule If you disable this rule, the following configuration will only be saved but will not be applied.	
External port	 You can input an external port or an external port segment to be mapped to an open port or port segment of an internal host. If you leave it blank, the external port or port segment is identical to the internal port or port segment. The range is between 1 and 65535.	
Internal IP	 The IP address of the internal host that provides external service. For example: 192.168.0.50	
Internal port	 The open port or port segment of the internal host that provides external services. The range is between 1 and 65535.	
Protocol	TCP The protocol used for port mapping can be TCP, UDP or both.	
Mapping line	Any The line used for port mapping can be single WAN or multi WAN.	
Note	 You can write a short note to describe this mapping rule. For example: The WEB server for Marketing Department.	

Port mapping function
 Port mapping function maps the service port of the intranet server to the external IP address and port of the router. In an extranet network, users can use the services offered by the intranet server through the external IP address and port of the router.

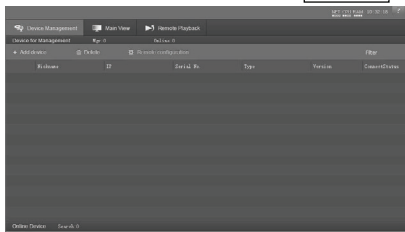
Notice:
 Port mapping will not work if "Block extranet requests" on the Advanced defense page is checked.

Condition3: Router of the LAN where camera is connected has fixed public IP address

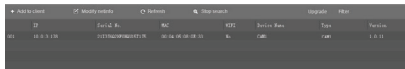
Access from external network: For example, if the external IP address of router 1 is 115.200.31.100, the WAN user under router 2 can access camera 1 through IP address 115.200.31.100 and port 10200 through steps 1 and 2 above. That is to say, in WAN, camera 1 is mapped to (IP 115.200.31.100 + port 10200). Camera 2 can use another external port such as 10320, so camera 2 is mapped to (IP 115.200.31.100 + port 10320). In the "Managed Device" of the client software CameraCMS, click the button "+Add", enter the IP address 115.200.31.100 and port 10200 and other information, then the camera 1 can be accessed and controlled.

CLIENT SOFTWARE INSTRUCTION

Install and open the Camera CMS software on the PC, enter the interface of **Device Management**.



If the camera and PC are in the same LAN, click **Start Search**, then searching starts and all online devices will be listed, as the picture shown below:



To upgrade multiple cameras in batch, first select multiple devices in the list and Select the upgrade file in the camera program file path, click **Upgrade**.



To modify the device IP address, input the IP address, mask, gateway in the **Modify Network** column.

Modify Network Parameter

Ethernet

Device information:

CameraName:

Mac:

SN:

Network information:

ConnType:

IP:

Mask:

GateWay:

DNS1:

DNS2:

To control and preview a camera, first choose the device, modify its IP address as the IP address of the same LAN, then click **Add to Client** as the picture shown below.

+ Add to client		15 Modify network	Network	Stop search	Upgrade Filter		
IP	Device Name	MAC	VID	Device Name	Type	Version	
001	10.0.3.178	21F3J6Q2#FONQU1ST1J5	00 04 00 00 00 00	00	CAM	CAM	1.0.11

Add the camera in the WAN according to the WAN Connection instructions.

Configuration

Choose the camera in the device list, click **Remote Configuration** in the column to upgrade or Configure the camera.

Streaming

The screenshot shows a 'Remote Configuration' window with a 'Streaming' tab selected. The window contains various settings for video and audio streaming, each with a dropdown menu or input field. The settings are as follows:

Stream type	Main stream	Channel	STEREO
Resolution	1080P	Encode type	AAC
Video rate type	CBR	Sample rate	48KHz
Max rate(Kbps)	4000	Audio rate	48Kbps
Frame rate	30	Input pin	LineIn
Key frame interval	30	Volume	40
Video coding type	H264		
Encode Level	High		

There are 'Save' buttons at the bottom left and bottom right of the configuration window.

- **Stream type:** set the parameters of main stream and sub stream. Different devices support different streams;
- **Resolution:** set among 1080P(1920*1080), HD720P(1280*720), 640*360, choose resolutions based on actual requirements and capability of device. The higher the resolution is, the better network requirements will be needed;
- **Video rate type:** Support CBR or VBR;
- **Frame rate:** represent the number of frames per second of the video;
- **Key frame Interval:** configure the number of frames between the two key frames. The larger the key frame interval is, the smaller the fluctuation of the byte will be, but the image quality is relatively poor. Vice versa, the larger the fluctuation of the byte will be, the higher the image quality will be.

Default values are recommended;

- Video coding type: choose H.264 or H.265;
- Encode Level: choose from Base Profile, Main Profile, and High Profile;
- Channels: support STEREO;
- Encode type: only support AAC, set sampling rate and Audio rate at the same time;
- Sample rate: 48KHz;
- Audio rate: choose from 48Kbps, 64Kbps, 96Kbps, 128Kbps;
- Input pin: choose the type of audio input;
- Volume: pull the volume bar to set the volume, the volume ranges from 0 to 100.

Network

Remote Configuration

Streaming Network Rtmp Protocol Upgrade UP/PW UP/PM

Connect with: **DHCP** rtmp port: **254**

IP address: **10.0.3.243** app port: **8000**

Mask: **255.255.255.0**

Gateway: **10.0.3.1**

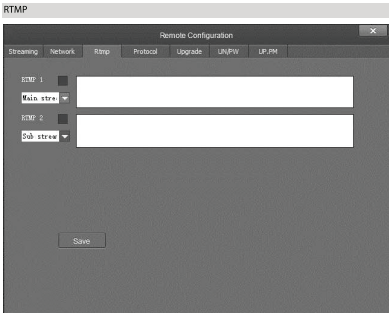
DNS 1: **192.168.3.3**

DNS 2: **116.116.114.114**

Save

- Connect with: please choose from Static IP or dynamic IP address;
- IP Address: input the IP address not used for the camera;

- Mask: same as those used by other PC's on the network;
- Gateway: input gateway IP address;
- DNS 1: server-prior, same as other PC's on the LAN;
- DNS 2: It will be used in case DNS1 server is not working;
- Port: streaming port (RTSP) and application port (SDK connection) can be configured. The range of stream ports is 3479~7999 and 554, default is 554. The range of application ports is 3479~7999, default is 5000;
- Click the **Save** button after setting is completed;



In RTMP1 and RTMP2, main stream and sub stream can be chosen to stream.

Support common RTMP servers, such as red5, nginx, crtmpserver, fms, wowza.

Transparent Transmission

The screenshot shows a 'Remote Configuration' window with a dark grey background. At the top, there is a title bar with a close button (X). Below the title bar is a horizontal menu with several tabs: 'Streaming', 'Network', 'Rtmp', 'Protocol', 'Upgrade', 'UN/PW', and 'UP/PM'. The 'Protocol' tab is currently selected. The main area of the window contains several configuration options, each with a label and a corresponding input field or dropdown menu. The options are: 'Enable' with a dropdown menu showing 'Disable'; 'Protocol' with a dropdown menu showing 'TCP'; 'Camera as' with a dropdown menu showing 'Server'; 'IP' with a text input field containing '0.0.0.0'; and 'Port' with a text input field containing '1259'. Below these fields is a 'Save' button.

Label	Value
Enable	Disable
Protocol	TCP
Camera as	Server
IP	0.0.0.0
Port	1259

Save

■ **Enable / Disable:** enable / disable transparent transmission;

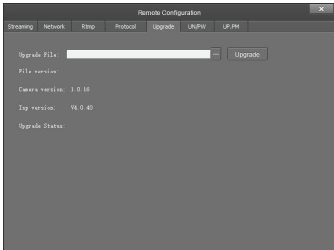
■ **Protocol:** choose TCP or UDP protocols;

■ **Camera as:** choose Client or Server;

■ **IP:** when the camera is set as client, the IP address of the transmitted camera is needed. When the camera is set as server, the IP address can be left as black;

Port: choose from 1~65535 as transparent transmission port.

Upgrade

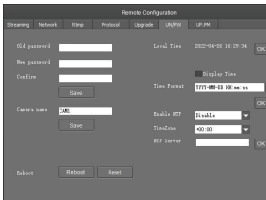


■ Camera Update

Click **Upgrade** menu to enter the main interface, as the picture shown above.

Click  to search and load the updating firmware, then click **Upgrade** to start upgrading. Do not power off the camera during upgrading. After upgrading is completed, camera will reboot.

Setting



■ Password setting: when a password is required, the camera can be accessed only after a correct password is input;

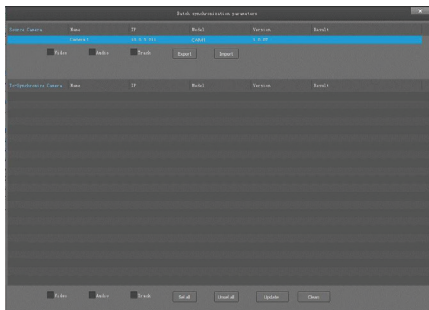
■ Maintenance: Reboot or Recovery;

■ Device name: set the camera name, click **Save**

■ Time setting:

- Synchronize local time;
- Show time or not on the CMS video and set the time format;
- NTP Server setting.

Sync parameters

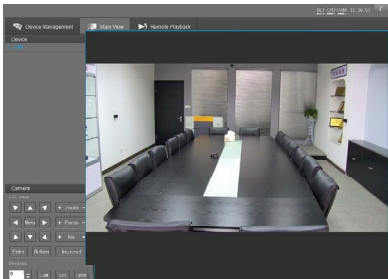


Select the camera to be synchronized of the same model which are currently managed and unselected, and then click any option or multiple options among the video, audio and track. After clicking the Update, the current camera to be synchronized will be synchronized with the Source camera parameters.

- Import, Export: only operate on the source camera, the camera parameters can be exported to the file, or the parameters be imported into the camera from the file.
- Update: only operate on the camera to be synchronized.

Preview

Click **Main View** to get into camera control and preview part as below.



This interface includes three main parts: Device List, Device Control, Video Preview.

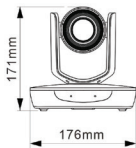
- Device: It displays all online cameras added to **Device Management**.

Device	
1	CAM1

- Device Control: get control of the selected camera (camera name in blue).

SIZE DIMENSIONS

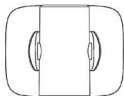
Front



Rear



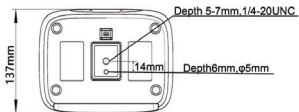
Top



Side



Bottom



Maintenance

Camera Maintenance

- If the camera is not used for a long time, please disconnect the power after use.
- Use soft cloth or cotton paper to remove dust from the camera housing.
- When cleaning the camera lens, please use dry soft cloth to wipe, if dirt is serious, use neutral cleaner gently. Do not use strong or corrosive detergent, lest the lens scratch, affect the image effect.

Avoid Using

- The camera should avoid shooting particularly bright objects, such as sunlight, lights, etc.
- The camera should not work under unstable lighting conditions, otherwise the image will flash.
- Do not use around facilities that can transmit high-power radio waves, such as television station or radio-transmitting station.

Please do not attempt to repair the device, or there is a risk of electric shock.

If there is a problem that needs to repair, please contact your dealer For Installation, Service and Support: Email support@atnetindia.net

Service and Support:
support@atnetindia.net
1800-425-5847

Manufactured in India by



A&T Video Networks Private Limited ®