

WARRANTY

OKINA USA products are covered under warranty for three (3) year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

1. Camera sticker is removed

If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

2. Camera is modified in any way

If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

3. Video or power cable is cut

The video cable and the power cable should not be tampered with. Cutting or modifying of the cables will result in termination of the warranty.



CAUTION

1. Never point the camera toward the sun

Do not expose the lens directly to the sun or to strong light as this may damage the pick-up device.

2. Handle this camera with care

Avoid any shock or bumping of the camera. Improper handling could damage the camera.

3. Requires a proper operating environment

This camera is designed for outdoor or indoor use. The allowable temperature range for operation of this camera is between -4°F ~ 144°F / -20°C ~ 60°C and the allowable humidity is 80%RH maximum or less.

4. Clean the front face to the pick-up device

It is recommended that the pick-up device surface be cleaned before lens installation or whenever the lens is changed. Cleaning should be done by using a chamois, a very fine soft cloth, lens tissue, or cotton tipped applicator and ethanol to carefully remove any fingerprint or dust.

5. Check the power source voltage

The power source voltage should be within the specified range. (Camera must meet the specifications). Camera must be connected to a surge protector at all times.

6. Objects and liquid entry

Never push objects of any kind into this camera as this may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the video product.

7. Servicing

Do not attempt to service this video product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.

8. Damage requiring service

Unplug this video product from the wall outlet and refer service to qualified servicing personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the video product.
- If the video product has been dropped or the cabinet has been damaged.
- When the video product exhibits a distinct change in performance.

OKINA USA

HD21T-K10

HD21T-K4

Operational Manual



International Patent Registered:
PCT/KR2011/007613 & 7656 & 8080

HD SDI 1080P Optical Zoom & Auto Focus Box Camera



Auto ZF Camera – Made in Korea

Auto ZF Lens – Made in Korea



Please read the Operational Manual
before attempting to use this product.

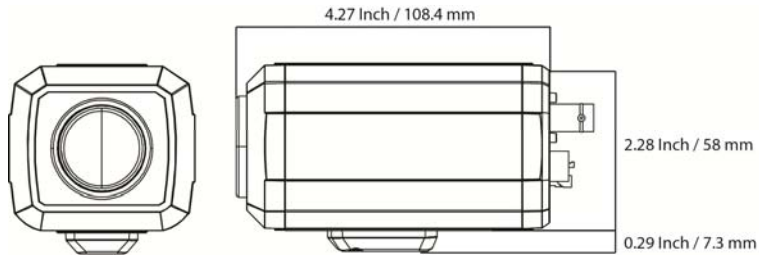
4x/10x Various Auto DC IRIS Twin stepping Motorized
Varifocal Lens with Dual Filter change mechanism F1.4

FEATURES

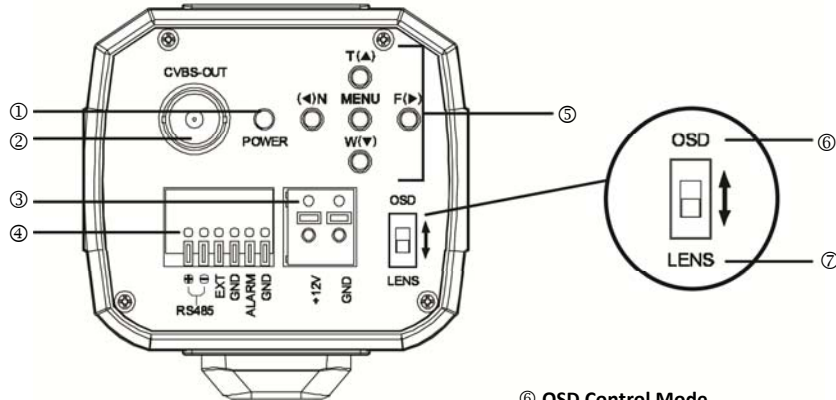
- SDI 1080p - **1920 x 1080**
- 1/3" Panasonic CMOS
- **HD21T-K10: Auto IRIS Twin Stepping Motorized Lens - 10X Zoom - 5~50mm**
- **HD21T-K 4: Auto IRIS Twin Stepping Motorized Lens - 4X Zoom - 2.8~12mm**
- **0.03 Lux @ F1.4**
- Mechanical IR Cut Filter – ICR
- OSD, and RS485
- 12V DC - 550mA ★

★ Due to the Twin Motorized AF Lens, we recommend to use 12V DC 1A / 1000mA for each camera.

DIMENSIONS (Unit: Inch / mm)



PARTS AND FUNCTIONS



- ① **Power Light**
- ② **BNC-Fe Video Connector**
- ③ **12V DC Power Connector**
+ 12V DC
- GND
- ④ **RS-485 Connector**
PELCO **D** 9600bps connection
- ⑤ **Five Direction Joystick Key Control for OSD/LENS Mode**

⑥ OSD Control Mode

Label Name	Function
MENU	OSD Menu & Enter Button (Press 3 second)
▲	Up
▼	Down
◀	Left
▶	Right

⑦ LENS (AF) Control Mode – Zoom & Focus

Label Name	Function
MENU	Quick Auto Focus Button (Press 1 second)
▲	Zoom-In (Tele)
▼	Zoom-Out (Wide)
◀	Focus-In (Near)
▶	Focus-Out (Far)

PACKAGE CONTENTS

- One (1) HD21T-K10 / HD21T-K4 Camera
- One (1) Power Cord
- One (1) Operational Manual



* For any returns, please include all components listed above with original packaging in **Resalable Condition**. Absolutely No Returns will be accepted if any component is missing / damaged or if any cable is cut or tampered with.

HDC-1_HDC-2
R062013-V28

HARDWIRE R485 WITH PTZ KEYBOARD SETUP

Default protocol is Pelco-D and default baud rate is 9600 for RS485 communication between camera and PTZ controller.

It is highly recommended that you run an additional cable for your RS485 communication from your camera.

**Some models may have RS485 setting in menu. Please leave RS485 baud rate setting at 38400.*

SPECIFICATIONS

Model	HD21T-K10	HD21T-K4	
Image Sensor Format	1/3" PANASONIC 2.2 MEGAPXIEL WDR (Wide Dynamic Range) CMOS - ACCE Technology		
Total Pixels	Max.1920 x 1080 (1080P FULL HD)		
Horizontal Resolution	2.1Megapixel (1920 x 1080)		
Synchronizing system	Internal/Line Lock (Selectable by OSD)		
Scanning system	PROGRESSIVE SCAN - NON-Interlaced		
Video output	BT.656/BT.1120/YC16bits/Max.1920 x 1080@30p/1920 x 1080@60i/1280 x 720@60p/CVBS 1.0Vp-p Composite.		
S/N ratio	More than 58dB (AGC Off / F1.0)		
Min. Illumination (IR LED Off)	0.03Lux/F1.4 - True Day & Night Function(Selectable by OSD)		
BLC (Back Light Compensation)	WDR / Wide Range BLC, Automatic (Selectable On/Off by OSD)		
Shutter Speed	NTSC : 1/60~1/120,000 sec PAL : 1/50~1/120,000 sec		
White Balance	1800°K ~12,500°K Auto Tracing / Auto White Balance (Selectable by OSD)		
Gain Control	4dB~35dB Auto (ON/Off) / SMEAR Effect : 0.005%		
MTTF	80,000 hours or more		
SENS-UP	AUTO / FIXED / OFF (Selectable Limit : 2x ~ 256x)		
3D-DNR (Digital Noise Reduction)	OFF / ON (1~32 level Adjustable / Max. 128x - 2D + 3D DNR)		
Lens	ZOOM Lens Spec.	5 - 50mm 2 Motorized AF Lens	2.8 - 12mm 2 Motorized AF Lens
	ZOOM Magnification	Optical 10X + Digital 10X : Total 100X	Optical 4X + Digital 10X : 40X
	Angle Of View	64.2° ~ 6.9°	124.2° ~ 31.8°
	Day & Night Performance	AUTO (True Day & Night with Dual IR Filter Change) / OFF / B&W / EXT (Dwell Time Adjustable)	
	AUTO IRIS & Dual Filter Change	Motorized AUTOMATIC ELECTRONIC IRIS Control (AUTO DC IRIS) / Dual IR Filter change Mechanism	
Power source	DC12V		
Operating current (w/regulated power input)	240mA / 12V DC (Regular Power Tolerance : 8V ~ 24V)		
Operation Temperature	-20°C ~ 60°C (-4°F ~ 144°F)		
Storage Humidity	RH 80% or less		
Output Terminal	SDI BNC Female for Video, Terminal Block for Power		
Dimension	4.27"(L) x 2.28"(W) x 2.28"(H) 108.4mm(L) x 58mm(W) x 58mm(H)		
Weight	0.35 lbs / 159g		

* Specifications are subject to change without notice.

HDC-1_HDC-2
R062013-V28