

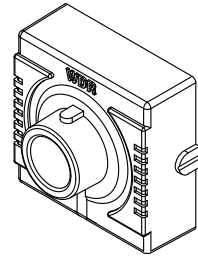
SPECIFICATIONS

TV System	NTSC		PAL
Sensor	Sony 1/3" 960H CCD II		
Total Pixels	(H)1020 x (V)508	(H)1020 x (V)596	
Effective Pixels	(H)976 x (V)494	(H)976 x (V)582	
Synchronization	H/V 15.734/59.94Hz	H/V 15.625/50Hz	
Scanning System	2:1 Interlace		
Horizontal Resolution	700 TV Lines		
Min. Illumination	Sens-Up Off	0.12 Lux(15IRE), 0.2Lux(30IRE), 0.4Lux(50IRE) F1.2	
	Sens-Up On	0.0002Lux(15IRE), 0.0005Lux(30IRE), 0.0008Lux(50IRE) F1.2	
Video Output	1.0Vp-p/75ohm Video 0.71Vp-p		
γ Correction	0.45, 0.55, 0.65, USER		
Monitor	CRT, LCD		
S/N	More than 52dB (AGC off)		
O.S.D	LENS, AGC, SENS-UP, BACK LIGHT(BLC, HLC, D-WDR),		
	3D-DNR, WHITE BALANCE, DAY & NIGHT		
	MIRROR, SHARPNESS, GAMMA, MONITOR, LSC, DEFOG		
	MOTION, PRIVACY (MASK1 ~MASK8), LANGUAGE		
	OSD COLOR, OSD TRANS, COMMUNICATION, DPC		
Electrical Shutter	1/60~1/100,000	1/50~1/100,000	
Privacy Masking	8 Windows(Polygonal, 8 Colors)		
Day & Night	AUTO, COLOR, BW, EXT, EXT2		
Motion Detection	ON / OFF		
Sens-Up(Low Shutter)	AUTO, OFF~x1024		
Language	11 Language		
White Balance	ATW / MANUAL / PUSH		
D-WDR	ON / OFF (WDR LEVEL)		
Mirror	ON / OFF		
3D-DNR	OFF, LOW, MID, HIGH, AUTO		
LSC	ON / OFF		
DEFOG	OFF, MANUAL, AUTO		
Smart IR	ON / OFF		
Lens	Board Lens	Pin-Hole Lens	
	3.6mm Board Lens	3.7mm Conical Pin-Hole Flat Lens	
Operating Temperature/Humidity	-20 ~60 / 30% ~80%		
Storage Temperature/Humidity	-30 ~60 / 20% ~90%		
Power(Max.)	DC 12V 120mA		
	[Recommended-Voltage : +/- 20%, Current: Adapter with rated power of 2 times(than real using current)]		

Design and specifications are subject to change without notice

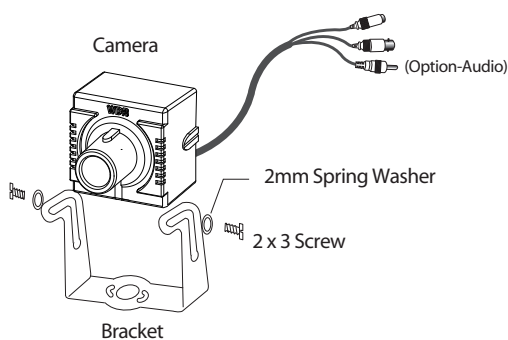
D-WDR/3D DNR MINIATURE CAMERA

700TVL D-WDR / 3D DNR MINIATURE CAMERA USER'S MANUAL

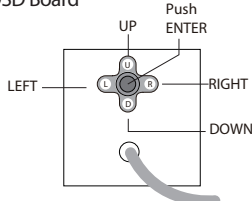


- Sony 1/3" 960H CCD II
- High Resolution 700TV Lines
- D-WDR (Wide Dynamic Range)
- 3D DNR (Digital Noise Reduction)
- Smart IR Function
- LSC(Lens Shading Compensation)
- DEFOG
- Day & Night
- Intelligbt Motion Detection
- Back Light Compensation
- PELCO-D / RS485(Optional)
- Privacy Mask (Polygonal, 8 Colors)
- O.S.D menu function

Name of each parts

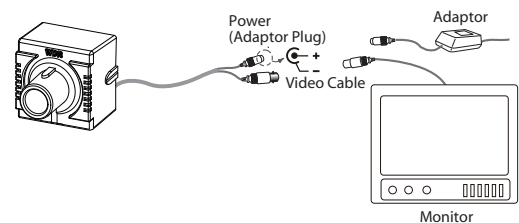


OSD Board

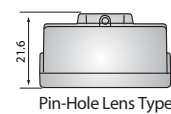


Connection

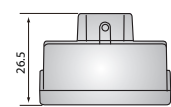
DC Power Connecting



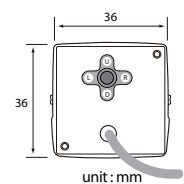
Dimensions



Pin-Hole Lens Type



Board Lens Type



unit: mm

Setup Menu Flow

EXPOSURE	LENS	DC, MANUAL
	AGC	OFF, LOW, MID, HIGH
	SENSE-UP	AUTO, OFF, X2, X4, X8, X16, X32, X64, X128, X256, X512, X1024
	BACK LIGHT	OFF
		BLC - BLC LEVEL<OFF, LOW, MID, HIGH>
		HLC
		D-WDR-SET LEVEL<0~20>
	3D-DNR	OFF, LOW, MID, HIGH, AUTO
	RETURN	
WHITE BALANCE	WB MODE	ATW, MANUAL, PUSH
	R-Y GAIN	
	B-Y GAIN	
	RETURN	
DAY&NIGHT	D&N MODE	AUTO, COLOR, B&W, EXT, EXT2
	BURST	ON, OFF
	C_SUP	<0 ~ 100>
	S_SUP	<0 ~ 100>
	SMART IR	ON, OFF
	RETURN	
IMAGE ADJUST	MIRROR	OFF, MIRROR
	SHARPNESS	<0~30>
	GAMMA	0.45, 0.55, 0.65, USER<0.2 ~ 1.0>
	LSC	OFF, ON <0 ~ 30>
	DEFOG	OFF, MANUAL, AUTO
	MONITOR	CRT, LCD
	RETURN	
MOTION	MOTION	OFF, ON
	AREA	AREA1 ~ AREA4
	SENSITIVITY	<1 ~ 30>
	DISPLAY	OFF, MESSAGE, TRACE
	HOLD TIME	<0~15>
	ALARM OUTPUT	OFF, ON
	RETURN	

PRIVACY	MASK1	OFF
		ON
		DOT SEL
		DOT XY
		MOVE XY
		COLOR SET<1~8>
	MASK8	OFF
		ON
		DOT SEL
		DOT XY
		MOVE XY
		COLOR SET<1~8>
	RETURN	
SPECIAL	LANGUAGE	11 Language
	OSD COLOR	COLOR1~COLOR8
	OSD TRANS	0~15
	TITLE	
	COMMUNICATION	OFF
		ON
		ID<0 ~ 255>
		BAUD RATE<2400, 4800, 9600>
		PROTOCOL<PELCO-D>
	DPC	OFF, AUTO
	FACTORY SET	NO, YES
	RETURN	
EXIT	SAVE&EXIT	
	EXIT	
	RETURN	

Special Features

1. D-WDR(Wide Dynamic Range)

D-WDR captures the images at all light levels by correcting GAMMA CURVE. If you use an ordinary camera in a scene with an intensive backlight, the object will be displayed dark on the monitor affected by the backlight. To solve this problem, you can use the D-WDR function to improve the dark part without saturation from bright part. You can adjust SET LEVEL to get clearer images.

EXPOSURE	LENS	DC ↵
	AGC	MID
	SENS-UP	AUTO
	▶ BACK LIGHT	D-WDR ↵
	3D-DNR	AUTO
	RETURN	
	▶ D-WDR	
	SET LEVEL	003 ■■■■■
	RETURN	

2. HLC

This function is to mask the bright color. You can select 4 mask areas and DAY&NIGHT and adjust HLC level.

EXPOSURE	LENS	DC ↵
	AGC	MID
	SENS-UP	AUTO
	▶ BACK LIGHT	HLC ↵
	3D-DNR	AUTO
	RETURN	
	▶ HBL	MANUAL ↵
	MODE	ALL DAY
	HLC LEVEL	003 ■■■■■
	MASK1	ON ↵
	MASK2	ON ↵
	MASK3	ON ↵
	MASK4	ON ↵
	RETURN	

3. 3D DNR(Digital Noise Reduction)

Select 3D DNR ON or OFF. 3D-DNR function reduce the background noise in a low luminance environment. Upgraded 3D filtering ensures even more clear image.

[DNR Level High : Picture image is more clear but Ghost is more increased.
DNR Level Low : Picture image is not clear but less Ghost.]

MAIN MENU	▶ EXPOSURE	
	WHITE BALANCE	
	DAY & NIGHT	
	IMAGE ADJUST	
	MOTION	
	PRIVACY	
	SPECIAL	
	EXIT	
	EXPOSURE	
	LENS	DC ↵
	AGC	MID
	SENS-UP	AUTO
	BACK LIGHT	D-WDR
	▶ 3D-DNR	AUTO ↵
	RETURN	

4. SMART MOTION

With learning capability, it memorizes the previous screen on the movement of the subject approximately in 3 to 5 seconds. When there is a change, the alarm function goes off.

MAIN MENU	EXPOSURE	
	WHITE BALANCE	
	DAY & NIGHT	
	IMAGE ADJUST	
	▶ MOTION	
	PRIVACY	
	SPECIAL	
	EXIT	
	MOTION	
	▶ MOTION	ON
	AREA ↵	
	SENSITIVITY	007 ■■■■■
	DISPLAY	TRACE
	HOLD TIME	003 ■■■■■
	ALARM OUTPUT	OFF
	RETURN	