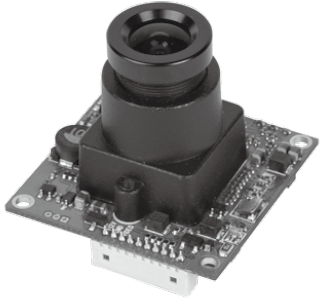


Ultra-High Resolution COLOR MODULE CAMERA

OPERATION MANUAL



Thank you for choosing our high quality camera.
Before attempting to connect operate this unit, please read and follow these instructions.

SPECIFICATION

| Signal Format | NTSC | PAL |
|--------------------------|---|--------------------------|
| Image Device | 1/3" 960H SONY EXview HAD CCD II | |
| Scanning System | 2 : 1 Interlace | |
| H.Resolution | 750TV Lines | |
| Scanning Frequency | 15.734KHz(H), 59.94Hz(V) | 15.625KHz(H), 50Hz(V) |
| Total Pixels | 1020(H) X 508(V) | 1020(H) X 596(V) |
| Effective Pixels | 976(H) X 494(V) | 976(H) X 582(V) |
| Electronic Shutter Speed | 1/60~1/100,000sec | 1/50~1/100,000sec |
| S/N Ratio | More than 50dB(AGC OFF) | |
| Gamma | r =0.45 | |
| Min. Illumination | 0.1Lux / F2.0 | |
| Sync System | Internal | |
| Video Output | 1.0 Vp-p Composite 75(Ω) unbalanced | |
| OSD | Built in | |
| BLC | OFF / BLC / HLC | |
| White Balance | ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH-LOCK | |
| 2DNR | OFF / ON(Level adjustable) | |

CAUTIONS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions;

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note -

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING -

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Caution -

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION

1. A regulated DC12V 300mA power supply is recommended for use with this camera for the best picture and the most stable operation. **An unregulated power supply can cause damage to the camera. When unregulated power supply is applied, product warranty will be out of subject.**
2. It is recommended that the camera is used with a monitor that has a CCTV quality 75 video impedance level. If your monitor is switched to high impedance then please adjust accordingly.
3. Do not attempt to disassemble the camera to gain access to the internal components. Refer servicing to your dealer.
4. Never face the camera towards the sun or any bright or reflective light, which may cause smear on the picture and possible damage to the CCD.
5. Do not remove the serial sticker for the warranty service.

CAUTIONS

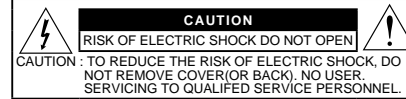
Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicate that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

This product should not be mixed with other commercial wastes purchased this product, or their local government office, for details of where and how they can take item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.
Household users should contact either the retailer where they for disposal.

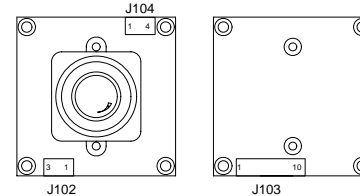


This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instruction in the literature accompanying the appliance.

CONNECTION



1) J102(DN_EXT)

| PIN NO. | NAME | I/O |
|---------|------------------|-----|
| 1 | +12V | O |
| 2 | GND | - |
| 3 | Day&Night SIGNAL | I |

2) J103(MAIN)

| PIN NO. | NAME | I/O |
|---------|----------|-----|
| 1 | Not used | - |
| 2 | K_DOWN | I |
| 3 | K_UP | I |
| 4 | K_ENTER | I |
| 5 | K_RIGHT | I |
| 6 | K_LEFT | I |
| 7 | GND | - |
| 8 | VIDEO | O |
| 9 | GND | - |
| 10 | +12V | I |

3) J104(DC IRIS)

| PIN NO. | NAME | I/O |
|---------|--------|-----|
| 1 | DAMP + | O |
| 2 | DAMP - | O |
| 3 | DRV + | O |
| 4 | GND | - |

FEATURES

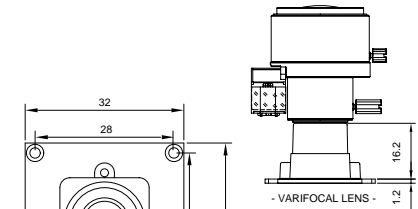
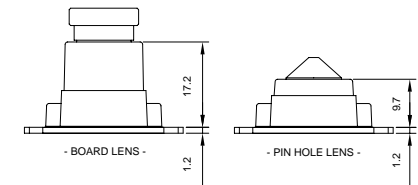
- 1/3" SONY EXview HAD CCD II
- High Resolution of 700TV Lines
- OSD (5-Port KEY)
- Multi Language
(ENGLISH / JAPANESE / GERMAN / FRENCH / RUSSIAN / PORTUGUESE / SPANISH / CHINESE)
- 2DNR
- Privacy Zone 4Zones
- Motion Detection 4Zones
- DC IRIS Control (Option)
- Only DC12V
- ATR(Adaptive Tone-curve Reproduction / Digital WDR)
The function provides gradation compensation to improve the contrast of subjects both low-luminance areas and high luminance areas exist in the same picture

IR Optimizer

If, when the night operation mode of the DAY/NIGHT function is established, the mode is used together with an external infrared LED light source, excessive front lighting may occur, resulting in overexposure.
The IR Optimizer function makes it possible to minimize this overexposure by optimizing the exposure control during Night operations.

DIMENSIONS

Unit(mm)



< TOP VIEW >

Specifications and designs are subject to change for improving the functionality of this product without notice.

OSD MENU STRUCTURE

| MAIN MENU | 1st Sub MENU | 2nd Sub MENU | 3rd Sub MENU | 4th Sub MENU |
|-------------|--------------|----------------|-----------------------------------|---|
| LENS | MANUAL | | | |
| | AUTO | TYPE | DC | |
| | | MODE | AUTO,OPEN,CLOSE | |
| | | SPEED | (000 - 255) | |
| | RETURN | | | |
| SHUTTER/AGC | AUTO | HIGH LUMINANCE | MODE | SHUT,AUTO IRIS, SHUT+AUTO IRIS |
| | | | BRIGHTNESS | (000 - 255) |
| | | LOW LUMINANCE | MODE | AGC,OFF |
| | | | BRIGHTNESS | x0.25,x0.50,x0.75,x1.00 |
| | | RETURN | | |
| | MANUAL | MODE | SHUT+AGC | |
| | | SHUTTER | | 1/50(PAL),1/100(NTSC) 1/60(NTSC),1/120(PAL) 1/250,1/500,1/1000 1/2000,1/4000,1/10000 |
| | | | AGC | 6,12,18,24,30,36,42,44,8 |
| | | | RETURN | |
| | | | | |
| WHITE BAL | ATW | SPEED | (000 - 255) | |
| | | DELAY CNT | (000 - 255) | |
| | | ATW FRAME | x0.50,x1.00,x1.50,x2.00 | |
| | | ENVIRONMENT | INDOOR,OUTDOOR | |
| | | RETURN | | |
| | PUSH | | | |
| | USER1 | B-GAIN | (000 - 255) | |
| | | R-GAIN | (000 - 255) | |
| | | RETURN | | |
| | USER2 | B-GAIN | (000 - 255) | |
| | | R-GAIN | (000 - 255) | |
| | | RETURN | | |
| | ANTI CR | | | |
| | MANUAL | LEVEL | NTSC:(30 - 115) PAL:(28 - 134) | |
| | | RETURN | | |
| | | | | |
| | PUSH LOCK | | | |
| BACK LIGHT | OFF,BLC,HLC | | | |
| | | | | |
| PIC ADJUST | MIRROR | OFF,ON | | |
| | BRIGHTNESS | (000 - 255) | | |
| | CONTRAST | (000 - 255) | | |
| | SHARPNESS | (000 - 255) | | |
| | HUE | (000 - 255) | | |
| | GAIN | (000 - 255) | | |
| | RETURN | | | |
| ATR | ON | LUMINANCE | LOW,MID,HIGH | |
| | | CONTRAST | LOW,MIDLOW,MID, MIDHIGH,HIGH | |
| | RETURN | | | |
| OFF | | | | |
| MOTION DET | ON | DETECT SENS | (000 - 127) | |
| | | BLOCK DISP | OFF,ON,ENABLE (CONTROLLER) | |
| | | MONITOR AREA | ON,OFF | |
| | | | 1/4, 2/4, 3/4, 4/4 | |
| | | AREA SEL | TOP | NTSC:(000 - 244) PAL:(000 - 288) |
| | | | BOTTOM | NTSC:(000 - 244) PAL:(000 - 288) |
| | | | LEFT | NTSC:(000 - 474) PAL:(000 - 468) |
| | | | RIGHT | NTSC:(000 - 474) PAL:(000 - 468) |
| | | RETURN | | |
| | | OFF | | |
| NEXT | | | | |
| EXIT | | | | |
| SAVE ALL | | | | |

***SHUT+IRIS:** Both the Shutter and the Mechanical Iris are automatically adjusted according to brightness.

***Auto Irs(Default):**

The Shutter stays at the manually selected value and only the Mechanical Iris adjusts brightness.

| MAIN MENU | 1st Sub MENU | 2nd Sub MENU | 3rd Sub MENU | 4th Sub MENU |
|-------------|---|--------------|-------------------------------------|-------------------------------------|
| PRIVACY | ON | AREA SEL | 1/4, 2/4, 3/4, 4/4 | |
| | | | TOP | NTSC:(000 - 244) PAL:(000 - 288) |
| | | | BOTTOM | NTSC:(000 - 244) PAL:(000 - 288) |
| | | | LEFT | NTSC:(000 - 474) PAL:(000 - 468) |
| | | RIGHT | NTSC:(000 - 474) PAL:(000 - 468) | |
| | | COLOR | (1 - 8) | |
| | | TRANSP | 0.00, 0.50, 0.75, 1.00 | |
| | | MOSAIC | OFF,ON | |
| | | RETURN | | |
| | | OFF | | |
| DAY/NIGHT | AUTO | BURST | OFF,ON | |
| | | DELAY CNT | 0 - 255 | |
| | | DAY -> NIGHT | 0 - 255 | |
| | | NIGHT -> DAY | 0 - 255 | |
| | RETURN | | | |
| | COLOR | | | |
| | BW | BURST | OFF,ON | |
| | | IR OPTIMIZER | OFF,ON | |
| | | MODE | AUTO, CENTER | |
| | | LEVEL | 0 - 31 | |
| RETURN | | | | |
| EXT1 | | | | |
| EXT2 | | | | |
| NR | NR MODE | OFF,Y,C,Y/C | | |
| | Y LEVEL | (000 - 015) | | |
| | C LEVEL | (000 - 015) | | |
| | RETURN | | | |
| CAMERA ID | ON | EDIT MODE | | |
| | OFF | RETURN | | |
| LANGUAGE | ENGLISH / 日本語 / DEUTSCH / FRANCAIS / Русский / PORTUGUÉS / ESPAÑOL / 中文 | | | |
| C A M E R A | | | | |
| RESET | | | | |
| BACK | | | | |
| EXIT | | | | |
| SAVE ALL | | | | |

***Important Note :**

- Any changes made to the camera settings must be saved prior to exiting the OSD menu.
Else all changes will be discarded.

- By changing the lens option in the OSD from MANUAL to AUTO will automatically change the SHUTTER/AGC setting from AUTO IRIS to SHUT+AUTO IRIS.(Default:AUTO IRIS)