Perfect images in any light

Low Light, WDR, Day & Night
2.5X Varifocal lens built-in Color Camera

SOC-4120A SSNR
SAMSUNG SUPER NOISE REDUCTION

Built-in SSNR chip
Originally Developed by Samsung Techwin

SAMSUNG TECHWIN SAMSUNG

Extreme Sensitivity, SSNR
Crisp & Clear Images in any situations
Good-looking Design & Powerful Multi-functions

The SOC-4120A series are high resolution color cameras equipped with 1/3-inch double scan CCD and Super Vision IIplus DSP which delivers a powerful dynamic range. These cameras produce crisper images, even in severe lighting conditions of large contrasts between lightness and darkness. Also the units permit high quality pictures to be captured in low minimum 0.003 Lux at F1.2 condition. With SSNR, it reduces random and fixed noise under low illumination and produces higher S/N ratio and no ghost effect. Additionally there is no need for a lens because of the built-in 2.5X auto iris vari-focal lens. It is convenient and lessens the time of installation of the camera. And its compact and good-looking design matchs modern interior places.

All models feature day & night, motion detection, wide white balance, privacy zone masking, powerful electronic shutter control, OSD, RS-232C remote control, 500TV lines of horizontal resolution, and dual voltage.

Crisp & Clear Images
24-Hour Surveillance

SSNR
SAMSUNG SUPER NOISE REDUCTION

• Improved Sensitivity to Extreme

• No Ghost Effect

• High Resolution : 500TVL

Min. 0.003 Lux

DNR

SSNR

• Super Vision IIPLUS / WDR (Wide Dynamic Range)
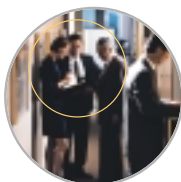
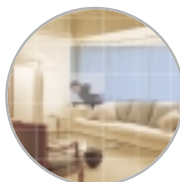• Day & Night Switching

Normal

BLC

WDR (SVIIPLUS)

Day

Night

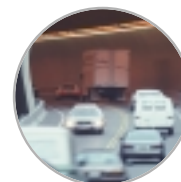## Powerful Multi-functions

• 2.5X Vari-focal Lens

• Motion Detection

• Privacy Image Masking

• Automatic White Balance

Outstanding Picture Quality with SSNR
Improved Sensitivity without Ghost Effect

The SOC-4120A provides a clear and crisp image of 500TV lines. With Samsung SSNR, the SOC-4120A reduces random and fixed noise under low illumination and produces a higher Signal to Noise ratio and no Ghost Effect. Moreover, the camera's recorded image is smaller than that of normal cameras. This increases the recording capacity of a DVR under low illumination. The camera has the effect of reducing a DVR's recorded file size by 70 percent when using a MPEG format DVR and 40 percent when using a JPEG format DVR.

Samsung SV II PLUS

AE

SENS UP   SSNR ON   GAIN   LUX
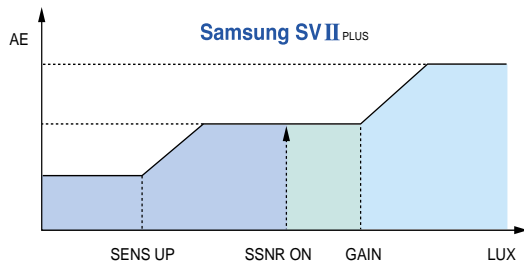
DNR

SSNR

Built-in Auto Iris 2.5X Vari-focal Lens

The SOC-4120A is equipped with 2.5X Vari-focal lens which has focal length from 3.8 to 9.5mm. It is easy to control the image by adjusting zoom and focus. Owing to the built-in lens, there is no need to purchase and fit a separate lens.
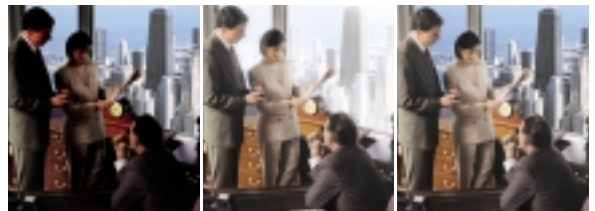
2.5X

Powerful Wide Dynamic Range (WDR)

The aim of backlight compensation technology is to allow the camera to find the best picture conditions in any environment and automatically give the necessary light level compensation, so that users can always obtain a clear picture, the finest detail and perfect light contrast. Most cameras only sense 20% of the picture at the centre of the screen, on an area preset by the manufacturer, which often gives a clear image in this portion of the screen but can cause the bright background to "white out".
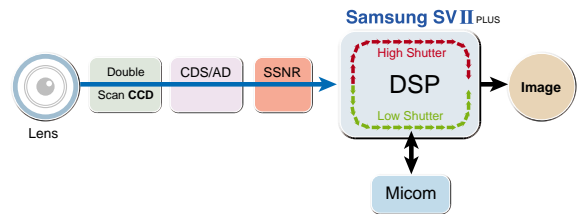
Samsung Techwin's SVII PLUS WDR technology helps to get detailed information form the dark part without saturation from the bright part. There is no limitation of zone area with the perfect backlight compensation and the color image is crisper than any other BLC functions. It combines two fields which are high shutter speed exposure in bright areas and low shutter speed exposure in dark areas into one composite image.

Normal   BLC   WDR (SVII PLUS)

Samsung SV II PLUS

Lens | Double Scan **CCD** | CDS/AD | SSNR | High Shutter / DSP / Low Shutter | **Image**

Micom

24-Hour Surveillance with Day & Night function
High Sensitivity Minimum 0.003 Lux

The SOC-4120A is a high sensitive camera which require minimum illumination of 0.003 Lux. It enables users to see subjects in near complete darkness in color mode. Lighting conditions are no longer a consideration when installing a surveillance system. In low light, the unit converts the image from color to monochrome gradually.
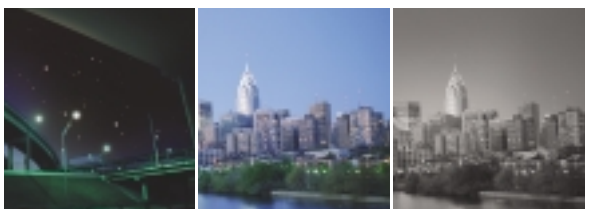
Day   Night

Motion Detection

The unit transmits an alarm signal when it detects motion on the screen. If the camera is connected with an external alarm, the operator can be alerted by an audible alarm. This feature is useful when the user has to monitor several screens simultaneously. Up to 48 zones can be assigned with individually adjustable sensitivity, using OSD menu.
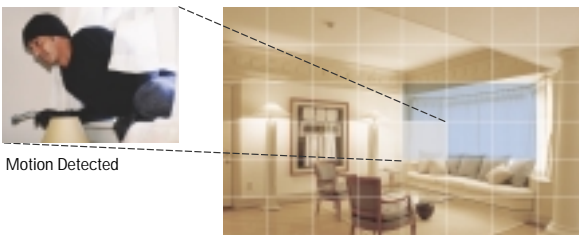

Motion Detected

- MD1 : Detecting the motion by outline or difference of a color tone (Useful for daytime, bright area)
- MD2 : Detecting the motion by the variation of brightness (Useful for nighttime, dark area)

Powerful Automatic White Balance

Automatic white balance technology is a useful function of adjusting of color temperature in indoors and outdoors.
The color of the conventional camera is inclined to blue or red. Generally the color temperature of indoor ranges approximately from 2,500K to 4,000K with red.

On the other hand, the color temperature in outdoor ranges from 7,000K to 10,000K with blue. But Samsung Techwin's automatic white balance technology makes a true color image without tending to red or blue color.

With the powerful automatic white balance, user can select the white balance according to the circumstance.
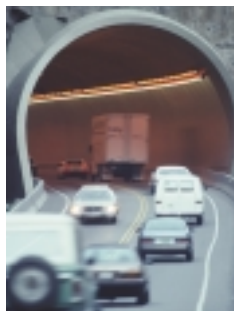
ATW
(Auto Tracking White balance) :
At the situation of luminance level or color temperature is changed frequently

- W-ATW   :   Color Temperature 2,400 ~ 12,000 ° K (Fluorescent Lamp, Outdoor)
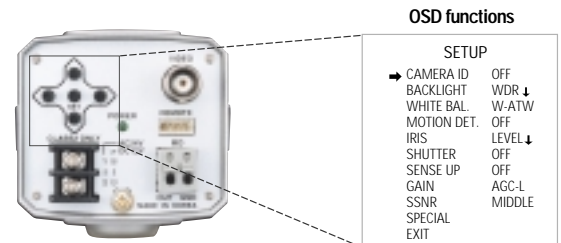- S-ATW   :   Color Temperature 1,800 ~ 6,000 ° K (Sodium lamp, Inside the tunnel)

Privacy Image Masking with Free Position

To comply with privacy requirements up to 4 zones can be electronically masked, each with individual size and position.

Convenient OSD functions

ALL functions can be controlled easily by pressing the button of the OSD menu key on the side of the camera.

OSD functions


```
          SETUP
➡ CAMERA ID      OFF
  BACKLIGHT      WDR ↓
  WHITE BAL.     W-ATW
  MOTION DET.    OFF
  IRIS           LEVEL ↓
  SHUTTER        OFF
  SENSE UP       OFF
  GAIN           AGC-L
  SSNR           MIDDLE
  SPECIAL
  EXIT
```

Dual Power (24VAC / 12VDC)

The units accept either 24VAC or 12VDC power sources and will automatically switch to the appropriate mode upon receiving power.

RS-232C

RS-232C function enables the OSD menu at a remote place.

SAMSUNG

SOC-4120A
www.samsungcctv.com

Actual Size

Main Features

- 1/3" 410,000 Pixels, Double Scan Color CCD
- WDR Function (SVIIplus) : Wide dynamic range
- Clear & Crisp Image with SSNR
- High Resolution : 500TV Lines
- Min. Illumination
  0.3 Lux at F1.3 (AGC ON) / Min. 0.003 Lux at F1.3 (Sens-up Mode)
- Built-in Motion Detector
- Privacy Image Masking with Free Position
- OSD (On Screen Display)
- RS-232C Remote Control
- Signal to noise ratio of 50dB
- Dual Voltage 24VAC / 12VDC

Specifications

Mode	SOC-4120AN	SOC-4120AP
Power Source	12VDC / 24VAC compatible	
Power Consumption	280mA (DC) / 3.8W (AC)	
Image Sensor	1/3" Vertical double density interline CCD	
Total Pixels	811(H) x 508(V), 1/3" CCD	795(H) x 596(V), 1/3" CCD
Effective Pixels	768(H) x 494(V), 1/3" CCD	752(H) x 582(V), 1/3" CCD
Scanning System	2:1 Interlace 525 Lines / 60 Fields / 30 Frames	2:1 Interlace 625 Lines / 50 Fields / 25 Frames
Synchronization	Internal / Line Lock	
Video Output	1.0V[p-p] NTSC Composite, 75Ω / BNC connector	1.0V[p-p] PAL Composite, 75Ω / BNC connector
Resolution	500TV Lines	
Wide Dynamic Range	Built-in (46dB)	
Gain Control	AGC-L, AGC-H, OFF Selectable	
Electronic Shutter Speed	1/60 ~ 1/200,000 sec (AUTO / MANUAL)	1/50 ~ 1/200,000 sec (AUTO / MANUAL)
Sens-Up	Built-in (selectable limit ~ X128)	
Iris Mode	DC Drive	
White Balance	W-ATW / S-ATW / AWC / MANUAL	
Min. Illumination	0.3 Lux (F1.3, Wide) / 0.003 Lux (F1.3, Wide, Sens-up)	
S/N (Y signal)	48dB (AGC Off)	
RS-232C	Built-in	
Motion Detection	MD1 / MD2 / OFF (Built-in Alarm Output Connector)	
O.S.D	Built-in	
SSNR	Built-in (Low / Middle / High)	
Privacy Function	ON / OFF (4 Programmable Zone)	
Lens Mount	2.5X Vari-focal, f=3.8~9.5	
Maximum Aperture Ratio	1 : 1.3	
Operating Temperature	-10°C ~ +50°C (14°F ~ 122°F)	
Operating Humidity	20% ~ 60% RH	
Dimension (mm)	63(W) x 58(H) x 157(D)	
Weight (W/O Lens)	350g	

Dimension

63

58

157

Rear Pannel

SOC-4120AN/P

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