

CUSTOMER'S ACCEPTANCE SPECIFICATIONS

MODEL	SDI-42x42
ITEM	42X42 HD-SDI BOARD COLOR CAMERA



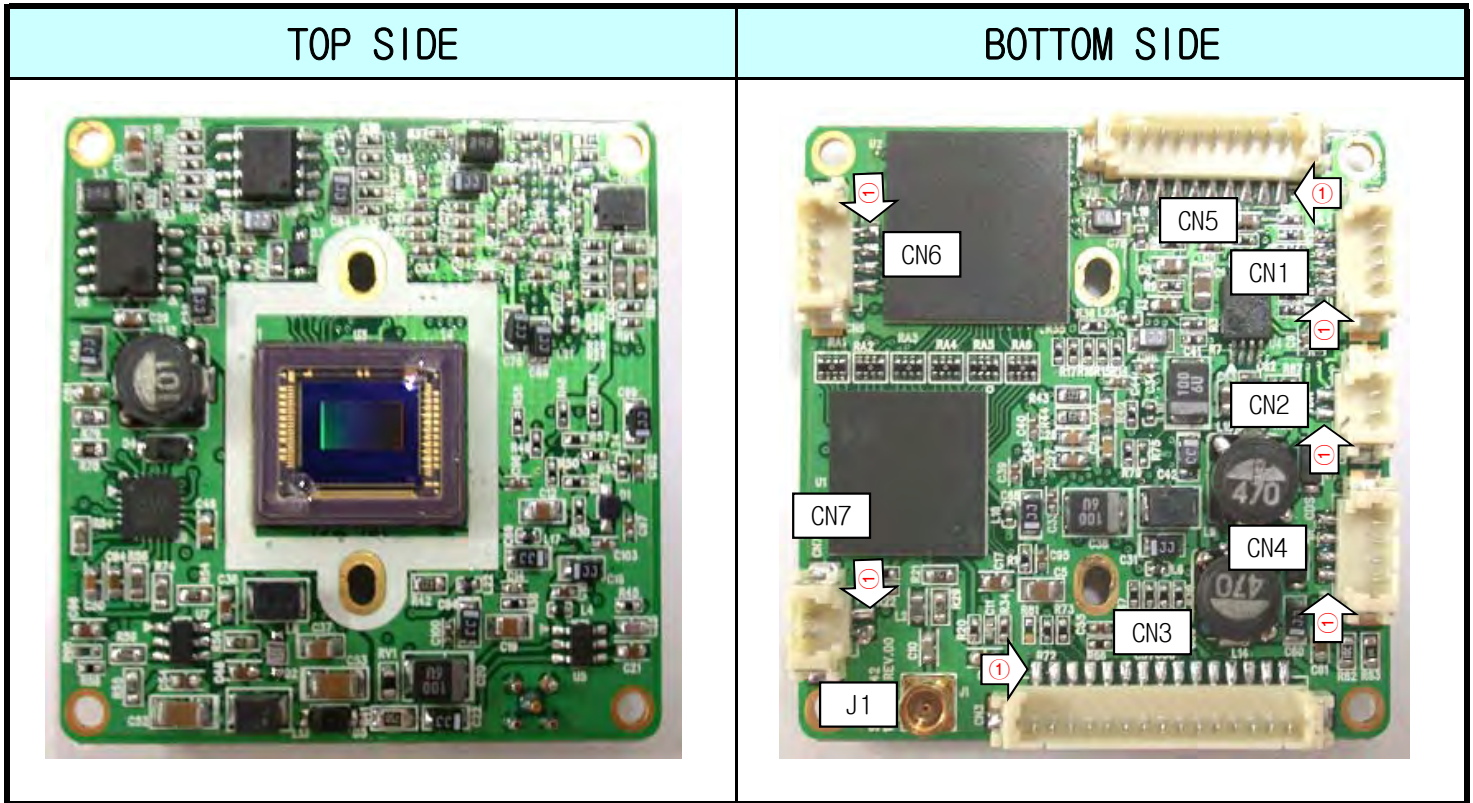
Drafting	Examination	Decision

Specifications

Item	SDI-42x42
Imaging Sensor	1/3" 2.1Megapixel COMS
Scanning System	Progressive Scan
Number of active pixels	1944(H) X 1092(V) = 2,122,848(pixel)
Total number of pixels	2010(H) X 1108(V) = 2,227,080(pixel)
S/N Ratio	More than 50dB
Video Output Mode	1080P(1920 X 1080) 25P/30P
Video Output Level	HD-SDI / 1.0 Vp-p (75Ω, Composite) NTSC/PAL(Selectable)
Min. Illumination	1.0Lux(Color) , 0.5Lux(BW) , 0.02Lux(Sens-up x60)
O.S.D	Built-in
Electronic Shutter Speed	Auto / Fik
	(NTSC : 1/30sec ~ 1/50,000sec) (PAL : 1/25sec ~ 1/50,000sec)
White Balance	AWB / AWC-SET / MANUAL / INDOOR / OUTDOOR
Backlight Compensation	BLC / HSBL / Off
ACCE(Adaptive Color&Contrast Enhancement)	Low / Middle / High / Off
AGC	Low / Middle / High
Adjust	SHARPNESS / MONITOR / LSC / NTSC/PAL
Language	English (Selectable)
Day & Night	Auto / B.W / Color / EXT (Selectable)
2D/3D-NR	2DNR / 3DNR / SMART NR
Digital Zoom / PIP	On / Off(x2 ~ x64)
Privacy Masking	On / Off (8 Zone Selectable)
Motion Detection	On / Off (3 Zone Selectable)
Defect	LIVE DPC / STATIC DPC
Sens - up(Frame Integration)	On / Off (Selectable limit ~ x60)
D - EFFECT	Freeze / Mirror / D-Zoom / NEG.IMAGE
Protocol (OPTION)	Pelco - D & Pelco - C
Communication	RS - 485[Baud Rate : 2400 ~ 57600]
Supplied Voltage	DC12 ±10%
Power Consumption	Max. 2.0W[170mA]
Dimension	42(W)X42(H)X1.2(t)mm
Weight	12g

Function Menu				
LENS	■ DC	■ VIDEO	■ MANUAL	
EXPOSURE	■ SHUTTER	■ AGC	■ SENS-UP	■ BRIGHTNESS
	■ ACCE	■ DEFOG	■ BACKLIGHT	
WHITE BAL	■ ATW	■ AWC→SET	■ MANUAL	
	■ INDOOR	■ OUTDOOR		
DAY & NIGHT	■ COLOR	■ AUTO	■ EXT	■ B/W
NR	■ 2DNR	■ 3DNR	■ SMART NR	
SPECIAL	■ CAM TITLE	■ D-EFFECT	■ MOTION	■ PRIVACY
	■ LANGUAGE	■ DEFECT	■ RS485	
ADJUST	■ SHARPNESS	■ MONITOR	■ OSD	■ LSC
	■ NTSC/PAL			
RESET	■ FACTORY			
EXIT				

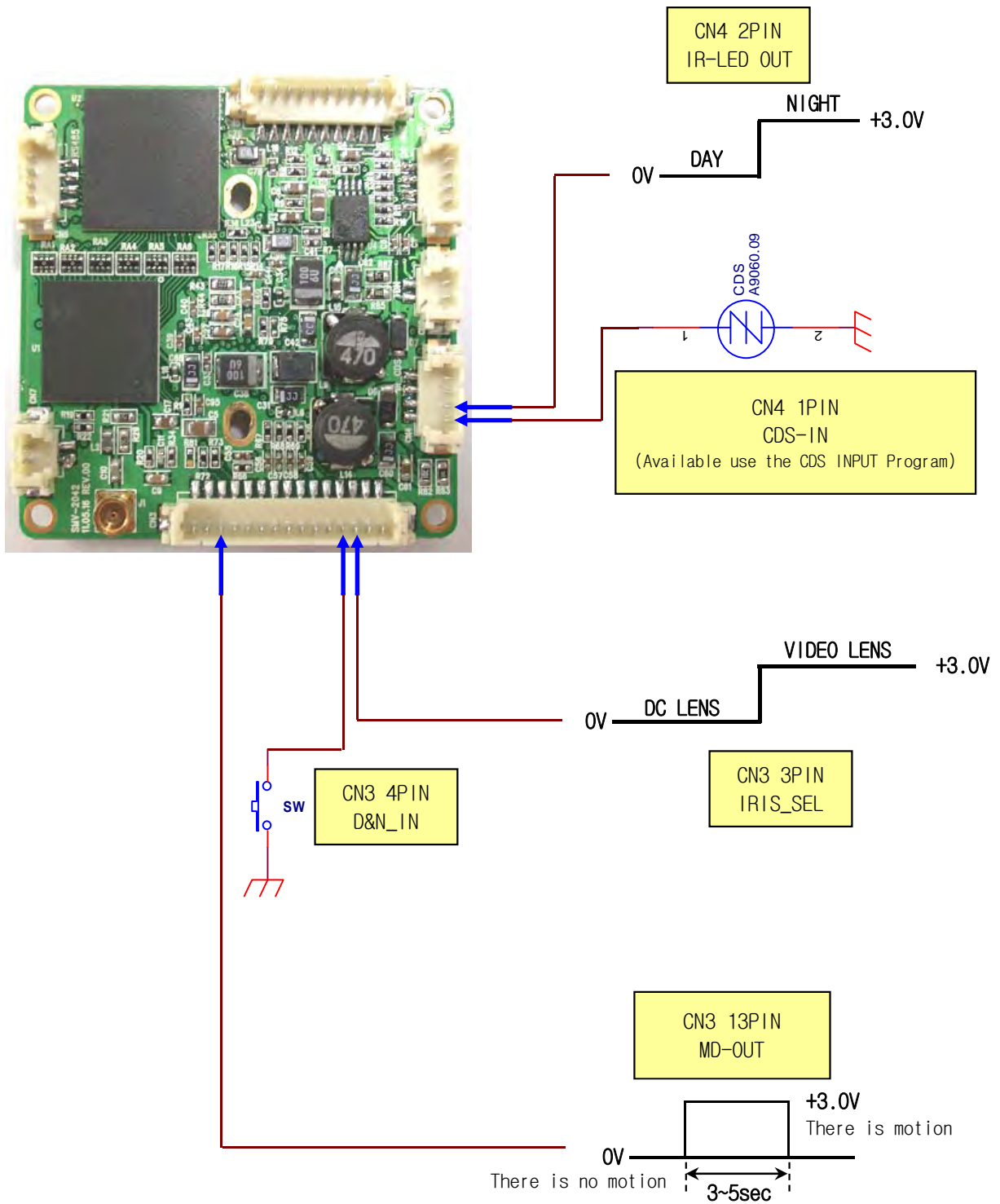
Input-Output Signal

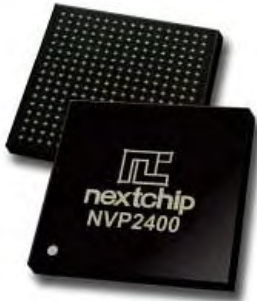


	CN3 (15 PIN) (12505WS-15)		CN5 (10 PIN) (12505WS-10)			CN4 (4 PIN) (12505WS-04)		CN1 (4 PIN) (12505WS-04)		CN2 (2 PIN) (12505WS-02)					
1	GND	-	SF-SEL	-	1	CDS-IN	IN	DMP+	MOTOR_OUT2						
2	+12V	IN	SF-DI	-	2	IRLED-OUT	OUT	DMP-	MOTOR_OUT1						
3	IRIS_SEL	OUT	SF-CLK	-	3	GND	-	DRV+							
4	D&N_IN (H:COLOR,L:B/W)	OUT	SF-DO	-	4	+12V	IN	DRV-							
5	NC		GND	-				<table border="1"> <thead> <tr> <th colspan="2">J1 (MMCX)</th> </tr> </thead> <tbody> <tr> <td colspan="2">HD-SDI OUT</td> </tr> </tbody> </table>				J1 (MMCX)		HD-SDI OUT	
J1 (MMCX)															
HD-SDI OUT															
6	GND	-	NC	-		CN6 (4 PIN) (12505WS-04)									
7	VBS-EXTRA	OUT	+3.3V	OUT	1	+3.3V	IN								
8	KEY-DOWN	IN	UT-TXD	-	2	UT-TXD	-								
9	KEY-UP	IN	UT-RXD	-	3	UT-RXD	-								
10	KEY-SET	IN	S-ETP	-	4	485-D	-								
11	KEY-RIGHT	IN													
12	KEY-LEFT	IN				CN7 (2 PIN) (12505WS-02)									
13	MD-OUT	OUT			1	+12V	IN								
14	IRIS SIGNAL	OUT			2	GND	-								
15	+5.0V	OUT													

- CONNECTOR WAFER : YEONHO Electronics
- HD-SDI CONNECTOR WAFER : MMCX Type

Application



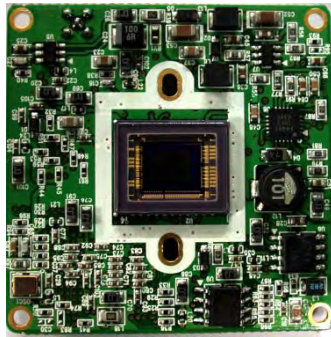


The NVP2400 is a cost-effective and high performance CMOS sensor ISP(Image Signal Processor) for IP network cameras, HD-SDI cameras and high-end analog CCTV applications. It includes fast 8-bits 8051 MCU to control ISP functions such as AE/AWB. It also contains SDRAM, kind of SiP for such functions as 3D-NR, D-zoom, FRC and OSD operations.

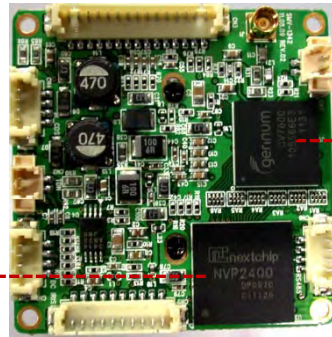
The NVP2400 can receive 12-bits parallel or sub-LVDS CMOS sensor input and provides BT.656, BT.1120, YC 16-bits and composite video as output. In particular, it can support high resolution analog CVBS output from the high sensitivity mega pixel CMOS sensor, which can cope with conventional high-end analog security camera application. It supports not only various IP camera interfaces but also HD-SDI interface standards.

The NVP2400's image signal processor including 3A (AE/AWB/AF) and enhancement functions ensures stable and high quality images, making it suitable for a security camera.

It also offers many useful security camera functions such as high resolution digital zoom, PIP, Electronic PTZ, FRC, flicker suppression, HLC/BLC, privacy zone masking, motion detection, IRIS control I/F and OSD.



FRONT



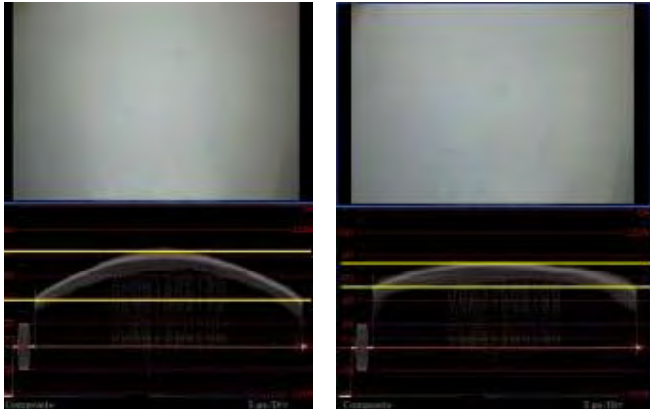
REAR

The GV7600 is a serial digital video transmitter for standard and high definition component video. With integrated cable driving technology, the GV7600 is capable of transmitting digital video at 270Mb/s, 1.485Gb/s and 2.97Gb/s over 75Ω coaxial cable. The device provides a complete transmit solution for the transmission of both interlaced and progressive component digital video, up to 1920 x 1080, in coaxial cable-based video systems. Using the GV7600 with the complete Avia transmitter reference design, it is possible to implement an all-digital, bi-directional multimedia interface over coax. This interface allows both DC power and a bi-directional, half-duplex, auxiliary data interface, up to 1Mb/s, to be carried over the same single, robust and cost effective coaxial cable as the high-speed serial digital video. The GV7600 includes a broad range of user-selectable processing features, such as Timing Reference Signal (TRS) insertion, illegal code word re-mapping, and ancillary data packet insertion. The content of ancillary data packets can be programmed via the host interface. Device configuration and status reporting is accomplished via the Genum Serial Peripheral Interface (GSPI). Alternatively, many processing features and operational modes can be configured directly through external pin settings. The device supports both 8-bit, 10-bit and 12-bit video data input, for RGB or YCbCr 4:4:4, and YCbCr 4:2:2 or 4:2:0. A configurable 20-bit wide parallel digital video input bus is provided, with associated pixel clock and timing signal inputs. The GV7600 supports direct interfacing of ITU-R BT.656 SD formats, and HD formats conforming to ITU-R BT.709 and BT.1120-6 for 1125-line formats, and SMPTE 296M for 750-line formats. The device may also be configured to accept CEA-861 timing. The GV7600 audio embedding function allows the carriage of up to 8 channels of serial digital audio within the ancillary data space of the video data stream. The input audio signal formats supported by the device include AES/EBU for professional applications, S/PDIF, and I2S. GV7600 Avia™ Transmitter Data Sheet 51686 - 7 March 2010 2 of 119 Proprietary & Confidential 16-bit, 20-bit and 24-bit audio formats are supported at 48kHz synchronous-to-video for SD video formats and 48kHz synchronous or asynchronous for HD formats. Additional audio processing features include: individual channel enabling, audio group selection, group replacement, channel swapping and audio channel status insertion. The GV7600 supports an Asynchronous Serial Interface (ASI), to carry compressed audio and video transport streams, conforming to IEC 13818-1, at 270Mb/s. Transport stream data is input to the device at a synchronous 27MHz clock rate. The device will automatically 8b/10b encode the data, prior to serialization. Packaged in a space saving 100-BGA, the GV7600 is ideal for designs where high-density component placement is required. Typically requiring only 400mW power, the device can be used as a high bandwidth alternative to analog composite or component video interfaces, providing a high quality, all-digital, long reach video transmit solution.



Main Feature

LSC(Lens Shading Correction)



Vignetting Image

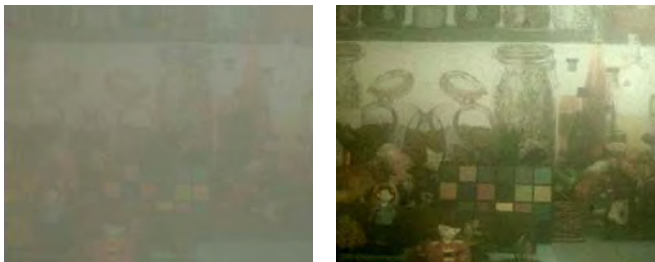
Lens Shading Correction Image

In general, the shorter the lens' focus, the bigger the difference in the incidence angle of the lights between the central and peripheral pixel. This results in the phenomenon where the image gets blurred on the periphery, which is called Lens Vignetting or Lens Shading. This Lens Shading Correction (LSC) corrects the phenomenon where the image gets darkened or blurred on the periphery.

NR (Noise Reduction)

Noise Reduction (NR) is used in order to obtain a high quality output image and enhance compression efficiency. NVP2400 offers Edge Preserving 2D NR and Motion Adaptive 3D NR

DEFOG



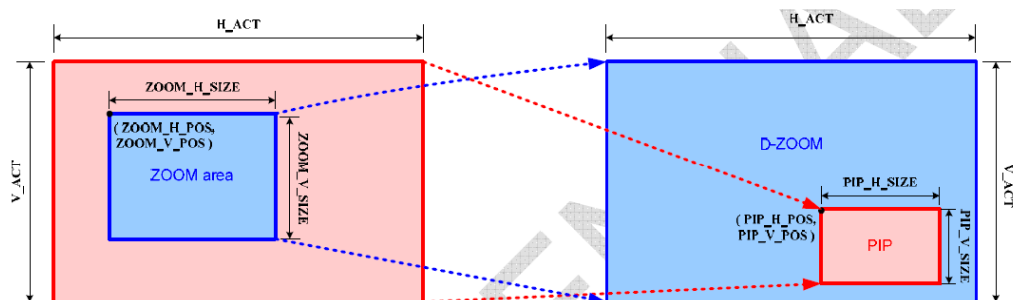
Original Image

DEFOG ON

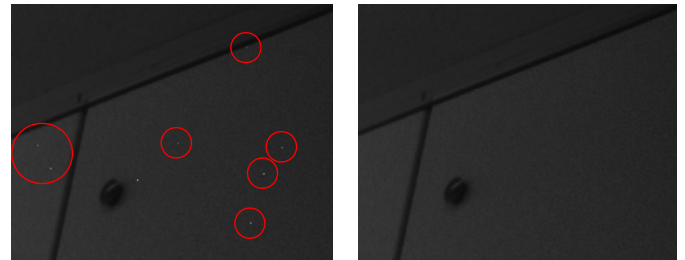
Images in extraordinary environment such as fog or rain or in a very strong luminous intensity have DR (dynamic range), lower than ordinary images. NVP2400 has a contrast-based defog function, which is used to overcome such shortcoming.

D-ZOOM & PIP

NVP2400 offers Digital Zoom and PIP function. Zoom can be from x2 to x64 and in the case of PIP, it can be from 1/9 to 1/16.



DPC(Dead Pixel Correction)

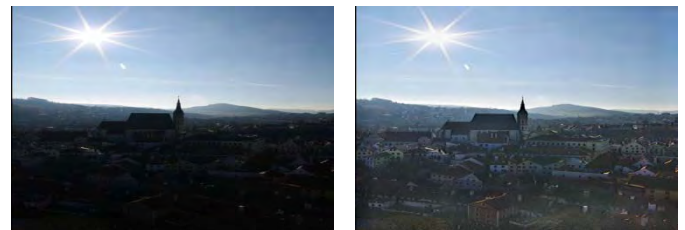


Dead Pixel

Dead Pixel Correction

Sensors could have defects for something wrong in the process of their storage or manufacturing process. Such defects are called dead pixels, which consist of two types: static dead pixel and dynamic dead pixel. The first can be found from the beginning while the second is found over time after using sensors for a certain period of time. Dynamic dead pixels may not be visible on the screen of ordinary illumination. However, they can be made visible by amplifying the analog / digital gain.

ACCE(Adaptive Contrast & Color Enhancement)



Original Image

ACCE ON

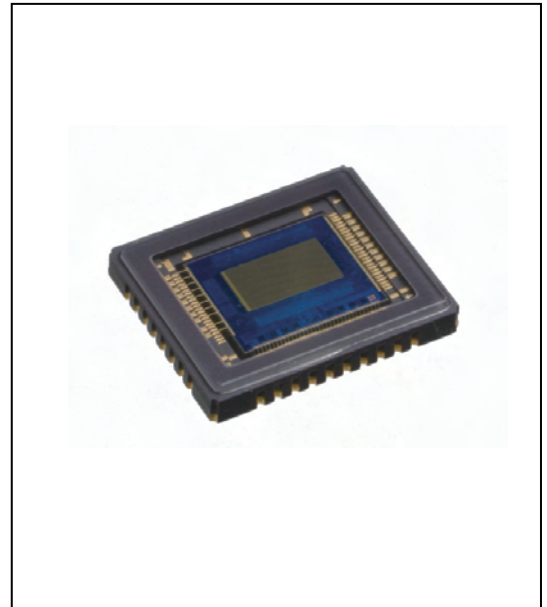
ACCE (Adaptive Contrast and Color Enhancement) block performs an image enhancement processing to enhance visibility of an image by changing the brightness values to the level that people can recognize the change. This function is offered based on the basic feature of the human eye sights, which are more sensitive to the changes in the areas with high brightness level than those with low brightness values. This processing technique is equivalent to the dynamic range reduction technique, which converts the HDR (High Dynamic Range) into the restricted LDR (Low Dynamic Range). This dynamic range reduction technique is one of the WDR (Wide Dynamic Range) technologies. Through this, the contrast ratio of the image can be effectively expressed and the edge information can be improved in order to enhance the overall visibility of the image.

High-sensitivity and high-picture quality in dark areas

Type-1/3 2.1M High-speed vMaicovicon®(MN34041PL)

■ Overview

MN34041PL is a type-1/3 2.1 mega pixels MOS type image sensor suitable for industry cameras, security cameras and network cameras. Panasonic's original pixel process technology and ultra-low noise circuit design achieved the high-sensitivity and high-quality moving shoot (60fps, A/D 12bit output). The pixel specification is most suitable for full HD format (1080p), high-definition pictures are provided. Moreover, adopting a RGB Bayer-pattern primary color on-chip filter realizes the excellent color reproduction



■ Feature

- High-sensitivity
- High-resolution
- Type-1/3 (Diagonal 6.0mm) 2.1 mega pixels
- 2.75 μ m \times 2.75 μ m square pixel size
- Supporting full HD (60fps, A/D 12bit) output and full scan 120fps (A/D 10bits) output
- New LGA ceramic package

■ Applications

- Industry cameras/Security cameras
- Network cameras/Others

■ Specifications

Items	Specifications	Unit
Optical size (Diagonal)	Type-1/3 (6.0mm)	—
Total number of pixels	2,010 (H) \times 1,108 (V) = 2,227,080	—
Number of effective pixels / Number of active pixels	1,944(H) \times 1,092 (V) = 2,122,848 (compliant with Full HD-1080p)	—
Unit cell size	2.75 (H) \times 2.75 (V)	μ m ²
Scan mode	Progressive scan	—
Color filter alignment	Primary colors RGB Bayer-pattern	—
Sensitivity (G)	1,580 (typ.)	[LSB]
Saturation power voltage	3,800 (typ.)	[LSB]

Feature 1

- 1/3" Progressive Scan Color CMOS Sensor
- DNR (2DNR/3DNR & SMART NR)
- ACCE (Adaptive Color&Contrast Enhancement)
- Digital Zoom / PIP
- ICR Mechanical Filter(OPTION)



Specification

Item	Specification
Imaging Sensor	1/3" 2.1Megapixel COMS
Scanning System	Progressive Scan
Number of active pixels	1944(H) X 1092(V) = 2,122,848(pixel)
Total number of pixels	2010(H) X 1108(V) = 2,227,080(pixel)
S/N Ratio	More than 50dB (AGC Off)
Video Output Mode	1080P(1920 X 1080) 25P/30P
Video Output Level	HD-SDI / 1.0 Vp-p (75Ω, Composite) NTSC/PAL(Selectable)
Lens	C / CS MOUNT
Min. Illumination	0.1Lux(Color) , 0.05Lux(BW) 0.01Lux(Sens-up x60)
O.S.D	Built-in
Electronic Shutter Speed	Auto / Fik 1/25,30sec ~ 1/50,000sec
White Balance	AWB / AWC-SET / MANUAL / INDOOR / OUTDOOR
Backlight Compensation	BLC / HSBLCL / Off
ACCE(Adaptive Color&Contrast Enhanc	Low / Middle / High / Off
AGC	Low / Middle / High
Adjust	SHARPNESS / MONITOR / LSC / NTSC/PAL
Language	English
Day & Night	Auto / B.W / Color / EXT (Selectable)
2D/3D-NR	2DNR / 3DNR / SMART NR
Digital Zoom / PIP	On / Off(x2 ~ x64)
Privacy Masking	On / Off (8 Zone Selectable)
Motion Detection	On / Off (3 Zone Selectable)
Defect	LIVE DPC / STATIC DPC
Defog	Low / Middle / High / Off
D - EFFECT	Freeze / Mirror / D-Zoom / NEG.IMAGE
Protocol	Pelco - D
Communication	RS - 485[Baud Rate : 2400 ~ 57600]
Supplied Voltage	DC12 ±10%
Power Consumption	Max. 2.0W[180mA]
Dimension(WxHxD)	65(W)*60(H)*119.6(D)mm

Set up and Function 2



- ① Function Set Up Button
 - SET Button : Displays the menu on the screen. Press the button to confirm status or after changing a selected item.
 - Up and Down Button : Used to move the cursor up or down in the menu screen to select a desired menu item.
 - Left and Right Button : Used to move the cursor left or right in the menu screen or to change the value of the selected item.
- ② Day & Night Input Port
 - You can switch to Day & Night mode by connecting an external signal to this port.
- ③ Motion Detection Output port
 - Motion Detection signals are output through this port
- ④ ⑤ Power Led And Power
 - When power is properly connected, this LED comes on. / Connect the power as specified for each model.
- ⑥ CVBS Out Put(Analog)
 - Connect this connector to a device such as a DVR or monitor with a VIDEO IN connector.
- ⑦ Auto Iris Lens Connector
 - Used to connect Auto Iris Lens Plug. You can change the Lens type (DC / Video) on OSD Menu
- ⑧ HD - SDI Out Put
 - Connect this connector to a device such as a DVR or monitor with a HD Video function.
- ⑨ RS-485 Control Port
 - You can control SETUP Menu through this port by using external controllers like a remote

RS-485 Interface

The camera can be controlled by using external controllers like a reomote controller.

1. To control by PC
 - Connect the RS-485 control port of the camera and the serial cable through an RS-485 converter EX) PC Serial Port (COM1)→Serial Cable→RS-485 Converter→Camera RS-485 Converter Port
2. To Control by DVR or System Controller
 - Connect the RS-485 cable(TRX+, TRX-) to the port of RS-485 control board that is connected with DVR or System controller

485 Control Board Connection Port	RS-485 Control Port
(+) CONNCTION TERMINAL (TRX+)	485 +
(-) CONNCTION TERMINAL (TRX-)	485 -

* RS-485 Communication establishment initial value

Item	Camera ID	BAUD RATE	UART MODE	PET PKT
Initial value	1	9600	8 - NONE - 1	Enable

Notes
 ○ To control the camera by constructing an additional controller, use Pelco-D protocol.

Function Menu Structure

Function Menu				
LENS	■ DC	■ VIDEO	■ MANUAL	
EXPOSURE	■ SHUTTER	■ AGC	■ SENS-UP	■ BRIGHTNESS
	■ ACCE	■ DEFOG	■ BACKLIGHT	
WHITE BAL	■ ATW	■ AWC→SET	■ MANUAL	
	■ INDOOR	■ OUTDOOR		
DAY & NIGHT	■ COLOR	■ AUTO	■ EXT	■ B/W
NR	■ 2DNR	■ 3DNR	■ SMART NR	
SPECIAL	■ CAM TITLE	■ D-EFFECT	■ MOTION	■ PRIVACY
	■ LANGUAGE	■ DEFECT	■ RS485	
ADJUST	■ SHARPNESS	■ MONITOR	■ OSD	■ LSC
	■ NTSC/PAL			
RESET	■ FACTORY			
EXIT				

How to use the camera

Notes
 ○ An item with the ↓ icon, you can move to sub menu pressing SET button
 ○ An item with the --- icon is unavailable due to function settings.

LENS

- Using this function, you can control screen brightness
- 1. When the SETUP menu screen is displayed, select 'LENS' by using the Up and Down buttons so that the arrow indicates 'LENS'.
- ▶ DC/VIDEO : Select Auto Iris Lens
- ▶ MANUAL : Select Manual Lens

EXPOSURE

- 1. When the SETUP menu screen is displayed, select 'LENS' by using the Up and Down buttons so that the arrow indicates 'LENS'.
 - ▶ SHUTTER : Auto / Manual
 - ※ Out Door : Auto
 - ※ In door :
- PAL : , 2.1M→1/25

4

- FLK : Select this when you experience picture flicker
- AUTO : Select this mode to control the shutter speed automatically. Shutter speed is automatically controlled depending on the brightness of the screen.
- ▶ AGC : You can adjust it Low, Middle and High level. The higher the gain level, the brighter the screen but the higher the noise.
- ▶ SENSE-UP : When it is night of dark, the camera automatically detects the light level and maintains a clear picture.

Notes
 This function Deactivates when the AGC "OFF", DAY&NIGHT "OFF"
 OFF : Deactivates the Sense-up function.
 AUTO : You can adjust brightness by increasing or decreasing the shutter speed -x2 - x60
 * Note that the higher the zoom level, the brighter the screen, but the more likely it is that an after-image will appear.
 * Although Noise, Spots, and Whitish symptoms may occur in SENS-UP operation when the zoom

- ▶ BRIGHTNESS : You can control the brightness by using the Left and Right button in Manual Lens mode.
- ▶ ACCE : If there are bright area and dark area on the screen at the same time, this function makes both areas to be in clear image OFF, LOW, MIDDLE, HIGH 4step



- ▶ DEFOG : Carry out defog function OFF, LOW, MIDDLE, HIGH 4Step
- ▶ BLC : This function allows you to get a clear pictures of objects even the objects in strong backlight.
 - BLC : Enables a user to directly select a desired area from a picture, and to view the area more clearly.
 - GAIN : LOW, MIDDLE, HIGH
 - AREA : Area Set(Size & Position)
 - DEFAULT : Factory reset
- ▶ SENSE-UP : When it is night of dark, the camera automatically detects the light level and maintains a clear picture.
 - SELECT : AREA1, AREA2, AREA3, AREA4
 - DISPLAY : SELECT AREA ON/OFF
 - LEVEL : Masking Level Set
 - MODE : DAY and NIGHT
 - BLACK MASK : Mask OFF
 - DEFAULT : Factory reset



※ AREA Set
 - Use Narrow Button to set Size and Position

WHITE BALANCE (White Bal.)

5

- When SETUP menu screen is displayed, select 'White Bal.' by using Up and Down buttons so that the arrow indicates White Bal.
 - ※ Select one of the following 6 modes, as appropriate for your purpose
 - ▶ AWB : Select this when the color temperature is between 2,400°K and 11,000°K.
 - ▶ MANUAL : Select this to fine-tune White Balance manually. Set White Balance first by using the ATW or AWC mode. After that switch to MANUAL mode.
Adjust the [BLUE] and [RED], according to the changing of color on the screen
 - ▶ OUTDOOR : Select this when the color temperature is around 5,100°K.
 - ▶ INDOOR : Select this when the color temperature is around 3,100°K.
 - ▶ AWC-> SET : To find the optimal setting for the current luminance environment in this mode, set the point the camera towards a sheet of white paper and press the SET button. If the environment changes, readjust it.



Notes

- White balance may not work properly under the following conditions.
In this case, select the AWC mode.
- ① When color temperature of environment surrounding the subject is out of the control range

DAY&NIGHT

- You can display pictures in Color or Black and White.
- When the SETUP menu screen is displayed, select 'DAY/NIGHT' by using the Up and Down buttons so that the arrow indicates 'DAY/NIGHT'
 - ▶ COLOR : The picture is always displayed in color.
 - ▶ AUTO : The mode is switched to color in a normal environment, but switches to B/W mode when ambient illumination is low. To set up the switching time or speed for auto mode, press the SET button
 - Delay : You can select the duration time about changing the day/night mode.
 - ▶ EXT : This mode allows you to apply a desired filter to external signals.(ICR Type - OPTION)
 - ▶ BW : The picture is always displayed in B/W.

NR

- This function reduces the background noise in a low luminance environment
- When the SETUP menu screen is displayed, select NR by using the Up and Down buttons so that the arrow indicates NR.
 - Select a desired mode using the Left and Right buttons.
 - ▶ OFF : Deactivates NR. Noise is not reduced.
 - ▶ ON : Activates NR so that noise is reduced.
 - Set the NR mode to 'ON' and press the SET button. Then you can adjust the Noise reduction level.

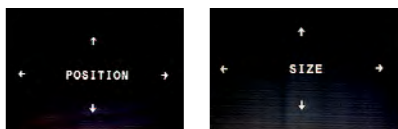
SPECIAL

6

- When the SETUP menu screen is displayed, select 'SPECIAL' by using Up and Down buttons so that the arrow indicates 'SPECIAL'
- Select a desired mode using the Up and Down buttons
 - ▶ CAM TITLE : If you enter a title, the title will be appear on the monitor.
 - ① If the SPECIAL menu screen is displayed, use the Up and Down buttons so that the arrow indicates 'CAM TITLE'
 - Notes
 - When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor screen even if you enter one.
 - ② Set it to 'On' by using Left and Right buttons.
 - ③ Use the 4 direction buttons to move to a desired letter and select the letter by pressing the SET button. Repeat this to enter multiple letters. You can enter up 15 letters.
 - Notes
 - If you entered wrong letter.....
If you move the cursor to CLR and press the SET button, all the letters are deleted. To edit a letter, change the cursor to the bottom left arrow and press the SET button. Move the cursor over the letter to be edited, move the cursor to the letter to be inserted and then press SET button.
 - ④ Enter a title, move the cursor to 'POS' and press the SET button. The entered title appears on the screen. Select the position to display the title on the screen by using the 4 direction buttons and press the SET button. When the position is determined, select 'END' and press the SET button to return to the SPECIAL menu.
- ▶ D-EFFECT
 - * Freeze : You can stop the image or reactivate it.
 - * MIRROR
 - Mirror : you can flip the image vertically on the screen.
 - V-Flip : you can flip the image vertically and horizontally both.
 - Rotate : you can flip the image horizontally on the screen.
 - * D-ZOOM
 - PIP : PIP DISPLAY ON/OFF
 - D-ZOOM :
x2.0 ~ x32.0
 - PAN&TILT : SET to change PIP Position
Press SET button 2 times to move the position
 - DEFAULT : Factory Reset
 - * NEG IMAGE : you can flip the color on screen.
- ▶ MOTION : If you connect an alarm device to this camera, you can monitor activity because a signal is generated by the camera whenever motion is detected. The motion detection signal is output through the MD OUT port.

* DISPLAY : SELECT AREA ON/OFF

Use Narrow Button to set Size and Position



7

- * Sensitivity : When sensitivity number is high, motion detection sensitivity is increased to recognize even small movement
- * DEFAULT : Factory Reset

- ▶ PRIVACY : Hide an area you want to hide on the screen.
 - * SELECT : AREA1~8
 - * DISPLAY : SELECT AREA ON/OFF, SET Size and Position
 - * COLOR : 0 ~ 15 Color Step
 - * DEFAULT : Factory Reset
- ▶ Language : You can select the menu language according to your requirement.
 - It can be changes 5sec. later.
 - Supplied Language : English
- ▶ Defect CMOS correction to compensate for defects that can occur at the low light conditions.
 - * LIVE DPC : Auto Defect
 - * LEVEL : Level of Auto Defect
 - * STATIC DPC : Manual Defect
 - * START : Start Defect
(Close the lens to shield the light, Select the START and press the SET button twice)
 - * LEVEL : Manual Defect Value
 - * SENS-UP : Defect Sens up Value
- ▶ RS485 : This function sets up the camera communication status when controlling the camera through an external device.
 - * You can control SETUP Menu through this port by using external controllers like a remote controller that RS-485 Communication is supported
- ▶ VERSION : Ver. of Camera

ADJUST

- When the SETUP menu screen is displayed, select ADJUST by using Up and Down buttons so that arrow indicates ADJUST.
- Select a mode by using Up and Down buttons.
 - ▶ Sharpness : As you increase this value, the picture outline becomes stronger and clearer
Adjust this value appropriately depending on the sharpness of the picture.
 - * RESOLUTION : RESOLUTION ON/OFF

▶ MONITOR

8

- * CRT : CRT Monitor
- * LCD : LCD Monitor
 - Set : GAMMA, BLACK LEVEL, BLUE GAIN, RED GAIN
- ▶ OSD
 - * TEXT COLOR : OSD Font & Color adjustable
8 step of Color
 - * OUTLINE : OSD Out Line
 - ▶ LSC : Lens shading compensation
 - ▶ NTSC/PAL : Select NTSC / PAL

RESET

- When the SETUP menu screen is displayed, select RESET by using Up and Down buttons so that arrow indicates RESET.
- Select a mode by using Up and Down buttons.
 - ▶ FACTORY : Resets the camera settings to the factory defaults.
Language and Communication status is not initialized

EXIT

Press the SET button in the Exit menu to save the current settings and exit the Main SETUP menu.

MEMO