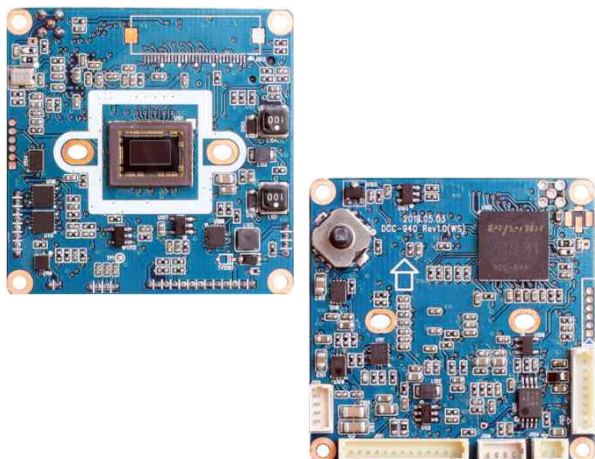


# ACC-940

## CMOS VIDEO MODULE

PARANTEK

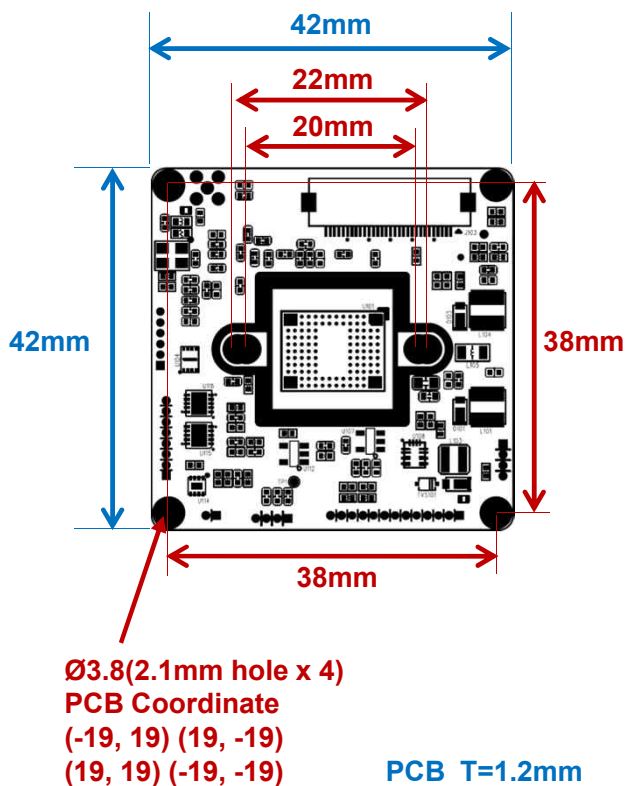


### Main Features

- 1/2.8" Sony 2.9μm Pixel Progressive Starvis Color CMOS Sensor
- Approx. 2.12 Mega Pixels (Max. 1080p)
- Mountable Lens: Fixed IRIS, DC Auto IRIS, Auto Focus VF Lens
- WDR / 3D-DNR / DSS (Sens-up) Supported
- Mechanical TDN ICR Available
- Pelco-D and Parantek Serial Protocol Supported (UART Control)
- AHD, TVI, CVI or CVBS Video Out can be selectable
- UTC Supported
- CMOS Video Module (42x42mm 1-board)



### Dimension



### Specification

Model	ACC-940
Signal System	AHD 2.0
Pickup Device	1/2.8"(D-6.46mm) 2.12M Sony CMOS Sensor
Scanning System	Progressive Scan (16:9 )
Sync. System	Internal
Total Pixels	2.16MP [1,945(H)x1,109(V)]
Active Pixels	2.12MP [1,937(H)x1,097(V)]
Min. Illumination	0.01Lux(F2.5 - 30IRE), 0.005Lux(ICR on), 0.0003Lux(DSS on)
Mechanical ICR	Available (Option)
Video Out	AHD, TVI, CVI or Analog CVBS AHD, TVI and CVI: 1080p@25/30 / Analog CVBS: D1
Lens	Option (Fixed & DC Auto IRIS & AF Stepping Motor Lens)
Lens (Mount)	Board/Pinhole Mount(M12), VF (Ø14) & C/CS Mount
OSD	Via OSD Switch, AD or GPIO OSD Port, Serial Communication & UTC
Camera Title	Off, On(Max. 8 Characters)
Language	English, Chinese(Simplified), Chinese(Traditional), Japanese, Korean
Exposure	DC, Manual
White Balance	AUTO, AUTOext, Preset, Manual
BLC	Off, HLC, BLC, WDR
Day & Night Mode	AUTO, COLOR, B/W, EXT. D&N
Gain Control	AGC (0~10)
Electronic Shutter	Auto, Manual, Flickerless
DSS(Sens-up)	X32
Noise Reduction	3DNR (Off, Low, Middle, High)
Mirror	Off, On(Mirror, Flip, Rotation)
Other Features	Motion Detection (4 Zones), Privacy Mask (16 Zones), ACE, D-Zoom, Defog, Gamma, Shading etc.
Communication	Pelco-D and Parantek Serial Protocol Supported <b>RS-232C TTL 3.3V (Default: 9600bps, ID1)</b>
Microphone	N/A
Power Source	DC 7~15V (±5%)
Power Consumption	Less than 3.6 Watts (300mA@DC12V)
Operating Temp.	-10℃ ~ 55℃ (Humidity :0%RH ~ 90%RH)
Size (mm)	<b>42x42 1-board</b>
Weight	9 g (without OLPF)

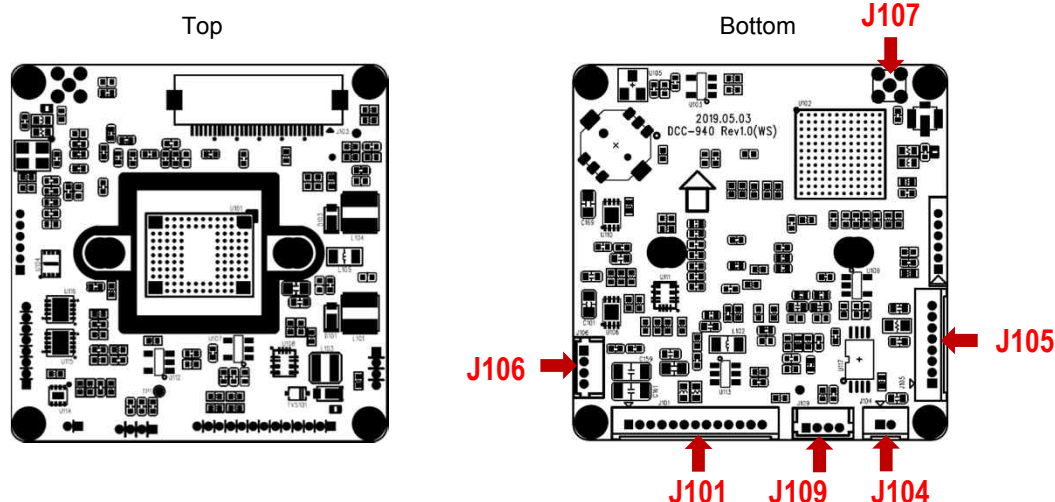
### Option

- Lens
- TDN ICR

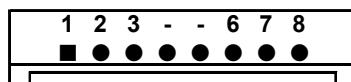
# ACC-940

## CMOS VIDEO MODULE

### Pin Connections



#### J105 – Motor Control



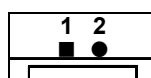
No.	Pin Item	No.	Pin Item
1	FOCUS A-	5	ZOOM B+
2	FOCUS A+	6	ZOOM B-
3	ZOOM A-	7	FOCUS B-
4	ZOOM A+	8	FOCUS B+

Wafer DIP type: 1.25mm pitch – 8 pin

Manufacturer: **Yeonho**

MFG Part Number: **12512WS-08B**

#### J104 – TDN ICR



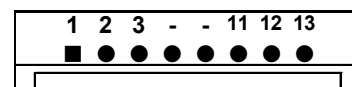
No.	Pin Item	No.	Pin Item
1	ICR (+)	2	ICR (-)

Wafer DIP type: 1.25mm pitch – 2 pin

Manufacturer: **Yeonho**

MFG Part Number: **12512WS-02B**

#### J101 – User Interface



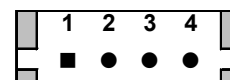
No.	Pin Item	No.	Pin Item
1	CVBS Out	8	Key RIGHT
2	GND	9	Key LEFT
3	DC12V In	10	TXD Out (3.3V TTL)
4	GND	11	RXD In (3.3V TTL)
5	Key DOWN	12	GND
6	Key UP	13	DC3.3V Out
7	Key SET (AD Key)		

Wafer DIP type: 1.25mm pitch – 13 pin

Manufacturer: **Yeonho**

MFG Part Number: **12512WS-13B**

#### J106 – LED



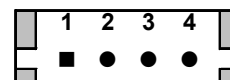
No.	Pin Item	No.	Pin Item
1	LED VCC	3	EXT_DN
2	GND	4	LED_CTL

Wafer DIP type: 1.25mm pitch – 4 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0410**

#### J109 – DC IRIS



No.	Pin Item	No.	Pin Item
1	DAMP +	3	DRV +
2	DAMP -	4	DRV -

Wafer DIP type: 1.25mm pitch – 4 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0410**

SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
LENS				MANUAL / DC
ZOOM/FOCUS	FOCUS MODE			<b>AUTO</b> / MANUAL
	D&N FILTER			<b>SYNC OFF</b> / SYNC ON
	ONEPUSH AF			Press ENTER Key
	LENS RESET			Press ENTER Key
EXPOSURE	BRIGHTNESS			0 ~ 20 <b>(10)</b>
	SHUTTER	AUTO	Lens Mode DC	INDOOR / <b>OUTDOOR</b> / DEBLUR
			Lens Mode Manual	<b>NORMAL</b> /DEBLUR
		MANUAL		NTSC : <b>1/30</b> ,60,120,250,500,1K,2K,4K,8K,15K,30K PAL : <b>1/25</b> ,50,100,200,400,800,1.6K,3.2K,6.4K,12.8K,25.6K
		FLICKER		
	SENS-UP			<b>OFF</b> / X2/ X4/ X8 / X16 / X32
	AGC			0 ~ 10 <b>(6)</b>
BACKLIGHT	OFF			
	HLC	LEVEL		0 ~ 20 <b>(10)</b>
		COLOR		<b>BLK</b> ,WHT,YEL,CYN,GRN,MAG,RED,BLU
	BLC	H-POS		0 ~ 20 <b>(6)</b>
		V-POS		0 ~ 20 <b>(5)</b>
		H-SIZE		0 ~ 20 <b>(7)</b>
		V-SIZE		0 ~ 20 <b>(7)</b>
	WDR	WEIGHT		LOW/ <b>MIDDLE</b> / HIGH
DAY&NIGHT	AUTO	D>N THRES		0(bright) ~ 20(dark) <b>(6)</b>
		N>D THRES		0(bright) ~ 20(dark) <b>(8)</b>
		DELAY		0 ~ 9sec, 10sec, 15sec <b>(0 Sec)</b>
		BURST		OFF/ <b>ON</b>
	COLOR			
	B&W	BURST		OFF/ <b>ON</b>
	EXT. D&N	SMART IR		<b>OFF</b> /ON
		SAT. LEVEL		0 ~ 20 <b>(10)</b>
		EXTERN SW		<b>HIGH</b> /LOW
		DELAY		0 ~ 9sec, 10sec, 15sec <b>(0sec)</b>
		BURST		OFF/ <b>ON</b>
WHITE BAL	AWB	AUTO		
		AUTOext		
		PRESET		Press ENTER key
		MANUAL	C-TEMP.	3000K/ <b>5000K</b> / 8000K
			R-GAIN	0 ~ 20 <b>(10)</b>
			B-GAIN	0 ~ 20 <b>(10)</b>
	COLOR GAIN			0 ~ 20 <b>(10)</b>
DNR				OFF/ LOW/ <b>MIDDLE</b> / HIGH
IMAGE	SHARPNESS			0 ~ 10 <b>(8)</b>
	GAMMA			0.45/ <b>0.55</b> / 0.65/ 0.75
	MIRROR			<b>OFF</b> /ON
	FLIP			<b>OFF</b> /ON
	D-ZOOM			1.0X~16.0X <b>(1.0X)</b>
	ACE			<b>OFF</b> /LOW/ MIDDLE/ HIGH

SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
IMAGE	DEFOG	OFF		
		ON	MODE LEVEL	AUTO/MANUAL LOW/ MIDDLE/ HIGH
	SHADING	OFF		
		ON	WEIGHT	0~100% (100%)
	PRIVACY	BOX	OFF/ON	
			ZONE NUM	0~15
			ZONE DISP	OFF/ON
			H-POS	0~60
			V-POS	0~34
			H-SIZE	0~60
			V-SIZE	0~34
			Y LEVEL	0~20
			CB LEVEL	0~20
			CR LEVEL	0~20
			TRANS	0~3
		POLYGON	OFF/ON	
			ZONE NUM	0~7
			ZONE DISP	OFF/ON
			POS0-X ~POS3-X	0~120
			POS0-Y~POS3-Y	0~68
			Y LEVEL	0~20
			CB LEVEL	0~20
			CR LEVEL	0~20
			TRANS	0~3
MOTION	OFF			
	ON	DET WINDOW	WINDOW USE	0~3
			WINDOW ZONE	OFF/ON
			DET H-POS	0~60
			DET V-POS	0~34
			DET H-SIZE	0~60
			DET V-SIZE	0~34
		SENSITIVITY		0~10 (5)
		MOTION OSD		OFF/ON
		TEXT ALARM		OFF/ON
		SIGNAL OUT		OFF/ON
SYSTEM	COMM	CAM ID		0 ~ 255 (1)
		BAUDRATE		2400,4800,9600,57600,115200
		CAM ID DISPLAY		OFF/ON
	OUTPUT	FRAME RATE		1080_30p(25p), 720_30p(25p), 720_60p(50p), 1080_60i(50i), 1080_60p(50p) * 1080_60p(50p) will be available only for BT.1120 mode.
		FREQ		50Hz(PAL) / 60Hz(NTSC)
		ANALOG MODE		OFF / CVBS / HD_T / HD_C / HD_A
		CVBS OUT MODE		CUT / FULL
	LANGUAGE			ENG/ CHINESE/ CHINESE(S)/ JAPANESE/ KOR
	CAM TITLE	OFF		
		RIGHT UP		0 ~ 9, A ~ Z, blank
		LEFT DOWN		0 ~ 9, A ~ Z, blank
FACTORY DEFAULT				Reset to factory setting
EXIT				Exit SETUP menu