

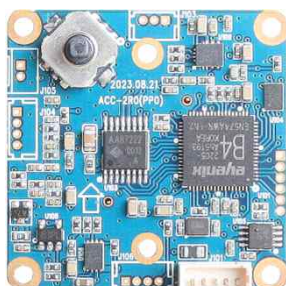
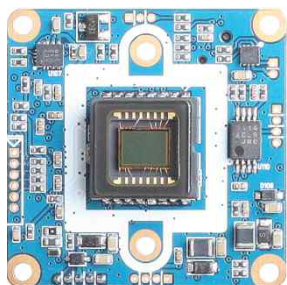
# ACC-2R0

## CCD CVBS VIDEO MODULE

PARANTEK

3D-DNR  
CAMERA

960H  
CAMERA

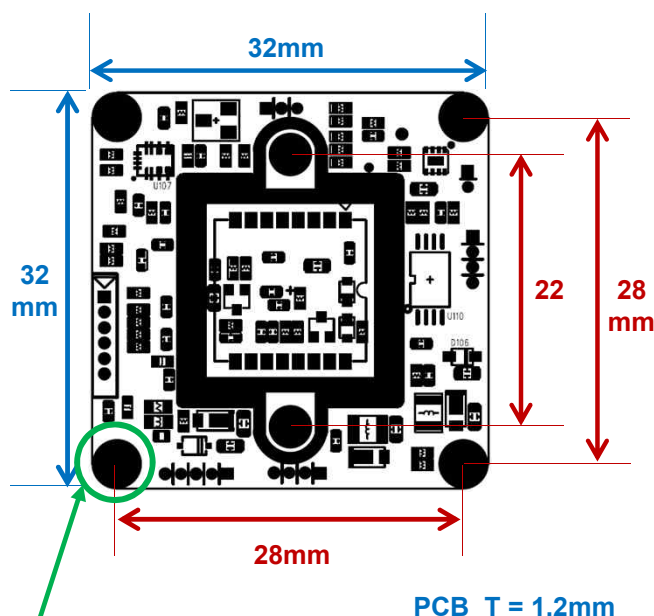


### Main Features

- 1/3" 960H Sharp CCD Sensor
- Approx. 520K/610K Pixels (700 TV Lines)
- Mountable Lens: Fixed, Pinhole, DC Auto & Manual VF, C/CS Lens
- Built-in OSD Switch
- TDN ICR Supported
- 3D-DNR / DSS (Sense-up)
- Serial Communication (UART TTL 3.3V)
- CCD Video Module (32x32mm 1-board)



### Dimension



Ø4.0(2.1mm hole x 4)  
PCB Coordinate  
(-14, 14), (14, -14), (14, 14), (-14, -14)

### Option

- OLPF
- Lens Holder
- Lens

### Specification

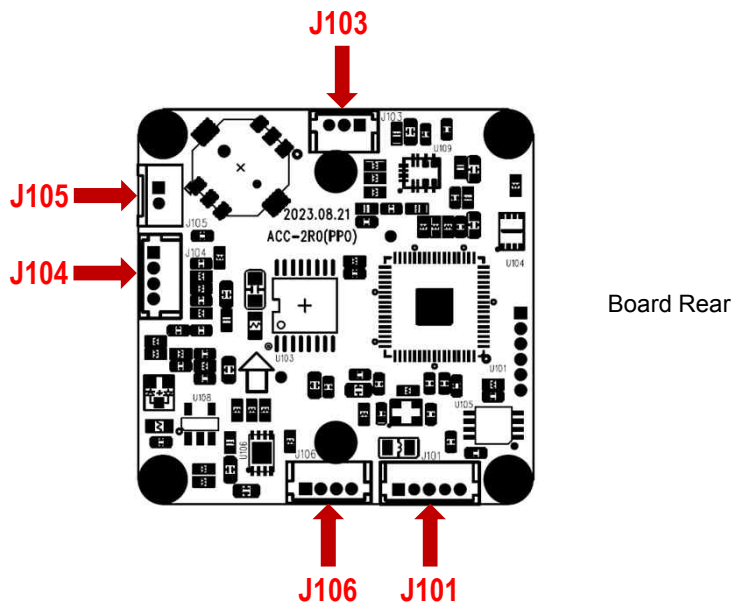
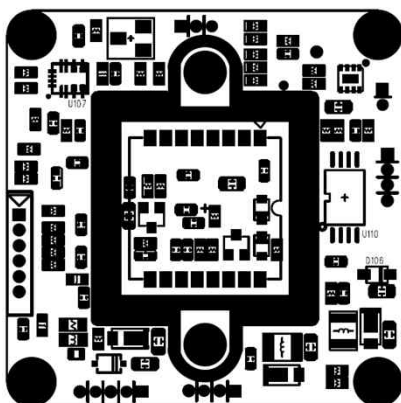
Model	ACC-2R0N	ACC-2R0P
Signal System	NTSC	PAL
Pickup Device	1/3"(D-6mm) 960H Sharp Color CCD	
Scanning System	2:1 Interface	
Sync. System	Internal	
Total Pixels	520K [1020(H)x508(V)]	610K [1020(H)x596(V)]
Active Pixels	480K [976(H)x494(V)]	570K [976(H)x582(V)]
Scanning Frequency	59.94Hz(VD)	50Hz(VD)
Min. Illumination	0.06Lux(F2.5 – 30IRE) 0.03(ICR on) 0.0001Lux(DSS on)	
Mechanical ICR	Yes (Option)	
H-Resolution	Max. 700TV Lines(H)	
S/N Ratio	50dB	
Lens	Fixed & DC IRIS Lens	
Lens (Mount)	Board, Pinhole, Manual VF(M12), DC Auto VF(D14), C/CS	
OSD	Via 5-direction OSD Tact-switch, AD OSD port, UART	
Camera Title	Off, On(Max. 8 Characters)	
Language	English, Chinese	
Exposure	DC, Manual	
White Balance	ATW, Push, Manual	
BLC	Off, BLC, HLC	
Day & Night Mode	Auto, Day, Night, External	
Gain Control	AGC (Off, 1~20)	
Electronic Shutter	1/60~1/120,000sec	1/50~1/120,000sec
DSS(Sens-up)	Off, On(Max. x512)	
Noise Reduction	3DNR (Off, Low, Middle, High)	
Mirror	Off, On(Mirror)	
Other Features	Motion Detection(4 Zones), Privacy Mask(8 Zones), D-WDR, Defog, Gamma, Neg. Image, Lens Shading etc.	
Microphone	N/A	
Power Source	DC 12V	
Power Consumption	Less than 1.2 Watts (100mA@DC12V)	
Operating Temp.	-10℃ ~ 55℃ (Humidity :0%RH ~ 90%RH)	
Size (mm)	32 x 32	
Weight	5 g (without OLPF)	

# ACC-2R0

## CCD CVBS VIDEO MODULE

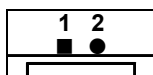
### Pin Connections

Board Front



Board Rear

### J105 – TDN ICR



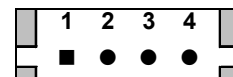
No.	Pin Item	No.	Pin Item
1	ICR (+)	2	ICR (-)

Wafer DIP type: 1.25mm pitch – 2 pin

Manufacturer: **Yeonho**

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

### J106 – LED



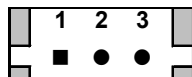
No.	Pin Item	No.	Pin Item
1	LED VCC (DC12V Out)	3	EXT_DN (DC3.3V In)
2	GND	4	LED_CTL (DC3.3V OUT)

Wafer DIP type: 1.25mm pitch – 4 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0410**

### J103 – UART



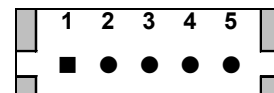
No.	Pin Item	No.	Pin Item
1	GND	3	RXD (IN) 3.3V TTL
2	TXD (OUT) 3.3V TTL		

Wafer DIP type: 1.25mm pitch – 3 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0310**

### J101 – Input/output



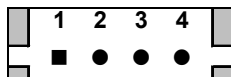
No.	Pin Item	No.	Pin Item
1	VIDEO (OUT)	4	GND
2	GND	5	AD PORT (IN)
3	DC12V (IN)		

Wafer DIP type: 1.25mm pitch – 3pin / 4pin / 5 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0310 / 0410 / 0510**

### J104 – DC IRIS



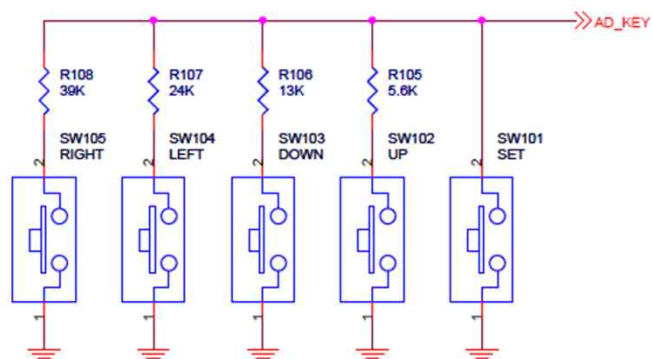
No.	Pin Item	No.	Pin Item
1	DAMP +	3	DRV +
2	DAMP -	4	DRV -

Wafer DIP type: 1.25mm pitch – 4 pin

Manufacturer: **Molex**

MFG Part Number: **53047-0410**

### Tact Switch



SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
EXPOSURE	ELC / ALC	LENS		ALC/ELC
		BRIGHTNESS		0~20
		SHUTTER		AUTO, 1/60(1/50), 1/100(1/120), 1/250, 1/500, 1/700, 1/1,000, 1/1,600 1/2,500, 1/5,000, 1/7,000, 1/10,000, 1/30,000, 1/60,000, 1/120,000
		FLK		OFF / ON
		AGC	OFF	
			ON	1~20 (15)
		SENS UP		OFF, X2, X3, X4, ~ X512
		RETURN		
DAY / NIGHT	AUTO	MODE		AUTO / DAY / NIGHT / EXTERN
		AGC THRS		0~20
		AGC MARGIN		0~20
		D/N DELAY		0 SEC ~ 15 SEC
		B/W BURST		OFF / ON
		SMART IR	SAT. LEVEL	0~20
	DAY	MODE		AUTO / DAY / NIGHT / EXTERN
	NIGHT	MODE		AUTO / DAY / NIGHT / EXTERN
		B/W BURST		OFF / ON
		SMART IR	SAT. LEVEL	0~20
	EXTERN	MODE		AUTO / DAY / NIGHT / EXTERN
		EXTERN S/W		HIGH / LOW
		D/N DELAY		0 SEC ~ 15 SEC
		B/W BURST		OFF / ON
		SMART IR	SAT. LEVEL	0~20
WHITE BAL.	ATW			
	PUSH			Press Enter(Set) Key
	MANUAL	RED		0~20
		BLUE		0~20
DISPLAY ADJ.	GAMMA			0.35 / 0.40 / 0.45 / 0.50 / 0.55 / 0.60 / 0.65 / 0.70
	CHROMA			0~20
	SHARPNESS			0~20
	SHADING			0~20
	RETURN			
IMAGE	BACKLIGHT	OFF		
		BLC	LEVEL	LOW / MIDDLE / HIGH
			DISPLAY	OFF / ON
			TOP	0~54 (12)
			BOTTOM	1~55 (43)
			LEFT	0~217 (50)
			RIGHT	1~218 (168)
			ENTER	RETURN, INITIAL
		HLC	LEVEL	LOW / MIDDLE / HIGH

SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
IMAGE	CONTRAST	OFF		
		D-WDR	MODE	OFF / D-WDR / DEFOG
			D-WDR	AUTO / MANUAL
			LEVEL	LOW / MIDDLE / HIGH
		DEFOG	MODE	OFF / D-WDR / DEFOG
			DEFOG	AUTO / MANUAL
			LEVEL	LOW / MIDDLE / HIGH
	POSI/NEGA			POSI / NEGA
	FREEZE			OFF / ON
	H-MIRROR			OFF / ON
	PRIVACY	OFF		
		ON	MASK LV	BLUE / RED / CYAN / MAGENTA / BLACK / GRAY-1 / GRAY-2 / GRAY-3 / GRAY-4 / WHITE / YELLOW / GREEN
			AREA NO.	1~8
			DISPLAY	OFF / ON
			TOP	0~61
			BOTTOM	1~62
			LEFT	0~238
			RIGHT	1~239
	RETURN			
DNR				LOW / MIDDLE / HIGH
MOTION	OFF			
	ON	SENSITIVITY		0~30
		AREA NO.		1~4
		AREA USE		OFF / ON
		TOP		0~54
		BOTTOM		1~55
		LEFT		0~217
		RIGHT		1~218
		ENTER		
SYSTEM	CAM TITLE	OFF		
		ON		0~9, A~Z, blank (8 Characters)
	CAM ID			0~255
	ID DISP.	OFF / ON		
	BAUDRATE			2400, 4800, 9600, 57600, 115200
	LANGUAGE			English / Chinese(Traditional) / Chinese(Simplified)
	SPECIAL	DEFECT DET.		
		FONT COLOR		1~8
		VERSION		
		IRIS OFFSET		
		RETURN		
	RETURN			
EXIT				SAVE / RESTORE / INITIAL