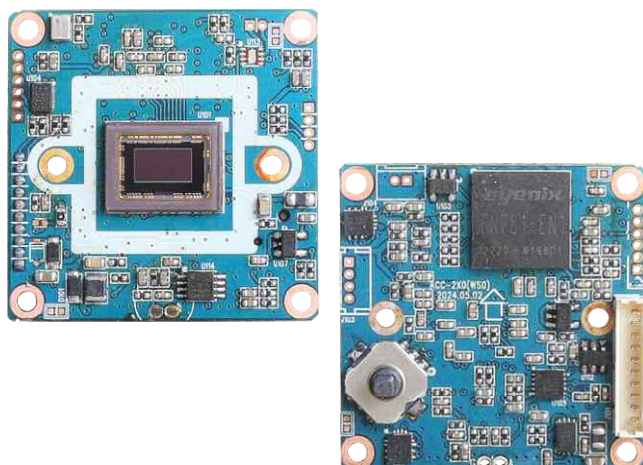


# ACC-2X0

## CMOS VIDEO MODULE

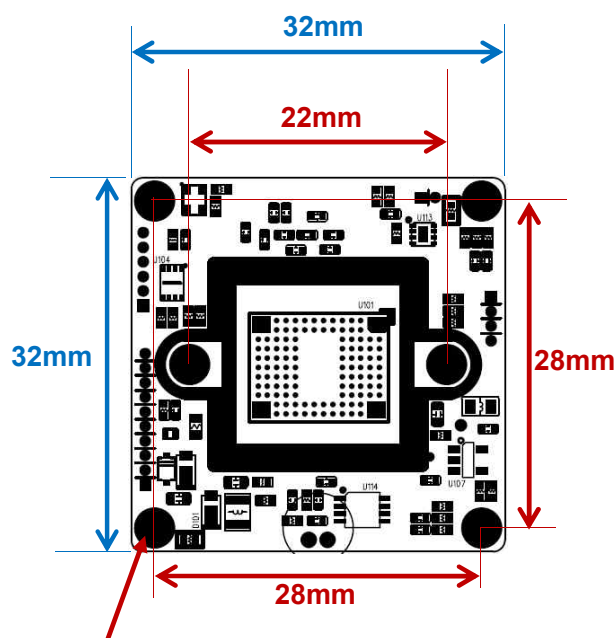


### Main Features

- 1/2.8" Sony 2.9μm Pixel Progressive Starvis Color CMOS Sensor
- Approx. 2.12 Mega Pixels (Max. 1080p)
- Mountable Lens: Fixed IRIS
- WDR / 3D-DNR / DSS (Sens-up) Supported
- Mechanical TDN ICR Available
- Pelco-D and Parantek Serial Protocol Supported (UART Control)
- Audio Supported (Option)
- AHD, TVI, CVI or CVBS Video Out can be selectable
- UTC Supported
- CMOS Video Module (32x32mm 1-board)



### Dimension



Ø3.5(2.1mm hole x 4)

PCB Coordinate

(-14, 14) (14, -14)

(14, 14) (-14, -14)

PCB fixing Hold pads can be grounded or isolated depending on the user request

PCB T=1.2mm

### Option

- Lens
- TDN ICR

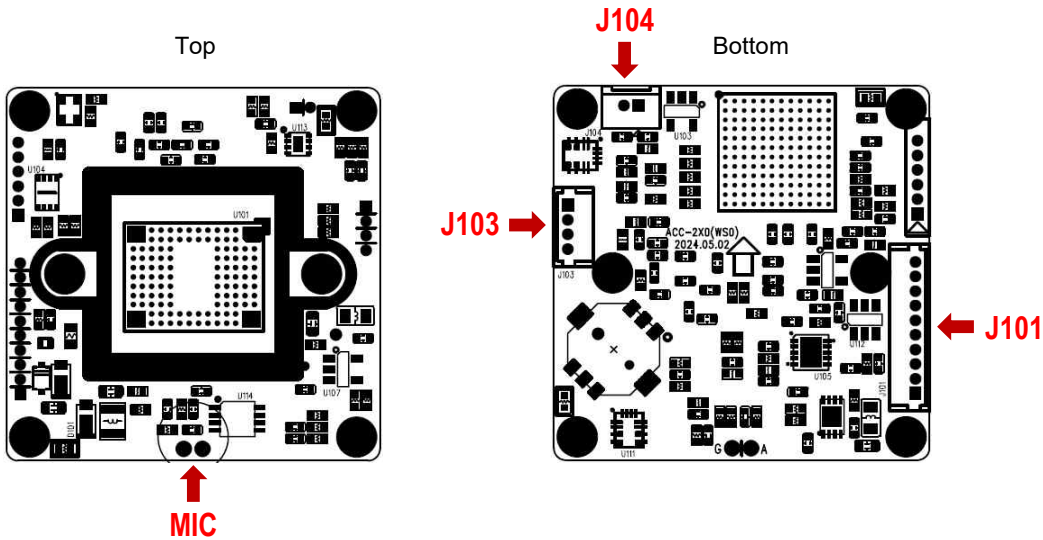
### Specification

Model	ACC-2X0
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 IRIS Lens)
Lens (Mount)	Board/Pinhole Mount(M12) & 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	AE, 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	Option
Power Source	DC 7~15V (±3%)
Power Consumption	Less than 1.5 Watts (120mA@DC12V)
Operating Temp.	-10°C ~55°C (Humidity :0%RH ~ 90%RH)
Size (mm)	<b>32x32 1-board</b>
Weight	5 g (without OLPF)

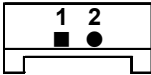
# ACC-2X0

## CMOS VIDEO MODULE

### Pin Connections



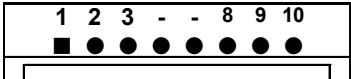
### J104 – TDN ICR



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**

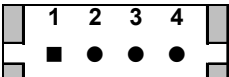
### J101 – User Interface



No.	Pin Item	No.	Pin Item
1	Video Out	6	GND
2	GND	7	Key SET (AD Key)
3	DC12V In	8	GND
4	GND	9	TXD Out (3.3V TTL)
5	Audio Out	10	RXD In (3.3V TTL)

Wafer DIP type: 1.25mm pitch – 10 pin  
Manufacturer: **Molex**  
MFG Part Number: **53047-1010**

### J103 – 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**

### MIC - Audio



No.	Pin Item	No.	Pin Item
1	MIC IN	2	GND

SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
EXPOSURE	BRIGHTNESS			0 ~ 20
	SHUTTER	AUTO		NORMAL/DEBLUR
		MANUAL		NTSC : 1/30,60,120,250,500,1K,2K,4K,8K,15K,30K PAL : 1/25,50,100,200,400,800,1.6K,3.2K,6.4K,12.8K,25.6K
		FLICKER		
	SENS-UP			OFF/ X2/ X4/ X8 / X16 / X32
	AGC			0 ~ 10
BACKLIGHT	OFF			
	HLC	LEVEL		0 ~ 20
		COLOR		BLK,WHT,YEL,CYN,GRN,MAG,RED,BLU
	BLC	H-POS		0 ~ 19
		V-POS		0 ~ 18
		H-SIZE		0 ~ 19
		V-SIZE		0 ~ 18
	WDR	WDR MODE		FRAME/ LINE
		ROI MODE	OFF/ON	
			WINDOW ZONE	0 ~ 3
			WINDOW USE	OFF/ ON
			DET H-POS	0 ~ 240
			DET V-POS	0 ~ 135
			DET H-SIZE	0 ~ 240
			DET V-SIZE	0 ~ 135
		WEIGHT		LOW/ MIDDLE/ HIGH
DAY&NIGHT	AUTO	D>N THRES		1(bright) ~ 20(dark)
		N>D THRES		0(bright) ~ 19(dark)
		DELAY		0 ~ 15sec
		BURST		OFF/ON
		SMART IR	OFF/ON	
		SAT. LEVEL		(SMART IR: OFF) Not Used (SMART IR: ON) 0 ~ 20
	COLOR			
	B&W	BURST		OFF/ON
		SMART IR		OFF/ON
		SAT. LEVEL		(SMART IR: OFF) Not Used (SMART IR: ON) 0 ~ 20
	EXT.D&N	EXTERN SW		HIGH/ LOW
		DELAY		0 ~ 15sec
		BURST		OFF/ON
		SMART IR		OFF/ON
		SAT. LEVEL		(SMART IR: OFF) Not Used (SMART IR: ON) 0 ~ 20
WHITE BAL	AWB	AUTO		
		AUTOext		
		PRESET		Press ENTER key
		MANUAL	C-TEMP.	3000K/ 5000K/ 8000K
			R-GAIN	0 ~ 20
			B-GAIN	0 ~ 20
	COLOR GAIN			0 ~ 20
DNR				OFF/ LOW/ MIDDLE/ HIGH

SETUP MENU	SUB MENU 1	SUB MENU 2	SUB MENU 3	VALUE
IMAGE	SHARPNESS			0 ~ 10
	GAMMA			0.45/ 0.55/ 0.65/ 0.75
	MIRROR			OFF/ON
	FLIP			OFF/ON
	FREEZE			OFF/ON
	D-ZOOM			1.0X ~ 16.0X
	ACE			OFF/LOW/ MIDDLE/ HIGH
	DEFOG	OFF		
		ON	MODE	AUTO/ MANUAL
			LEVEL	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
		MOTION OSD		OFF/ON
SYSTEM	COMM	CAM ID		0 ~ 255 (1)
		BAUDRATE		2400,4800,9600,57600,115200
		CAM ID DISPLAY		OFF/ON
	OUTPUT	FRAME RATE		1080P_30(25), 720P_30(25)
		FREQ		50Hz(PAL) / 60Hz(NTSC)
		ANALOG MODE		CVBS, HD_T, HD_C, HD_A
		CVBS OUT MODE		CENTER CUT, FULL
		CONFIRM		YES
	LANGUAGE			ENGLISH, CHINESE, CHINESE(S), JAPANESE, KOREAN
	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