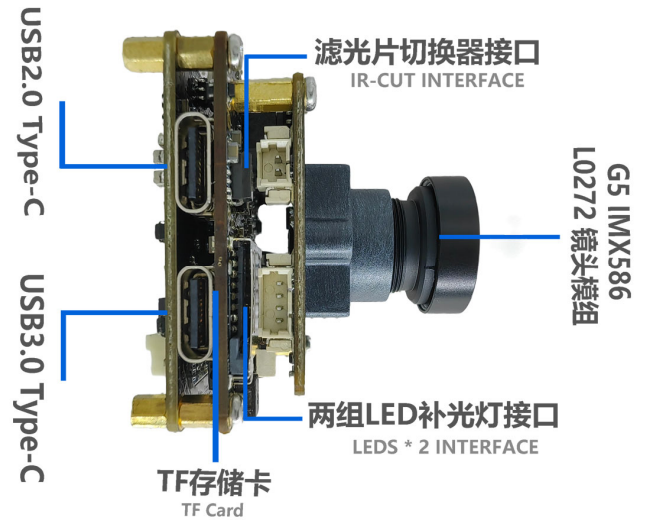
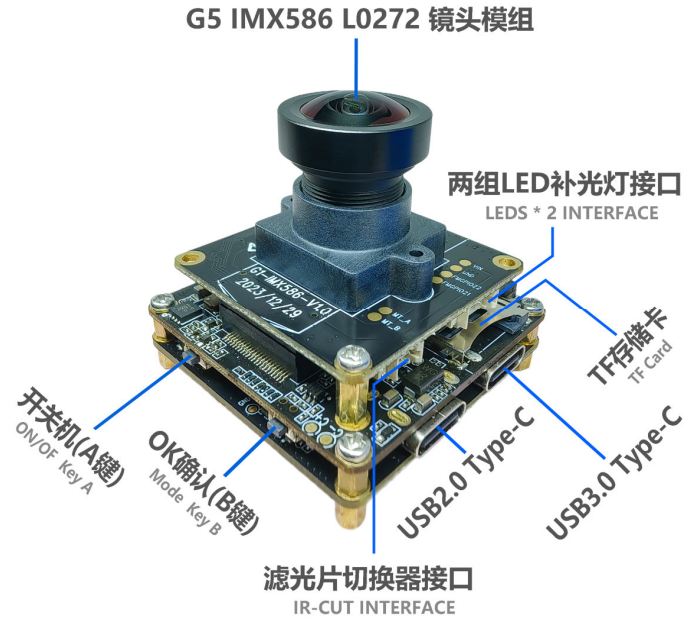


YDS-G5M7V2WF3 V2.0+YDS-CMFL0272-IMX586 V1.0 Ai Master Board + WiFi Board + 48MP Sony IMX586 Fixed Focus Camera Module Development Kit

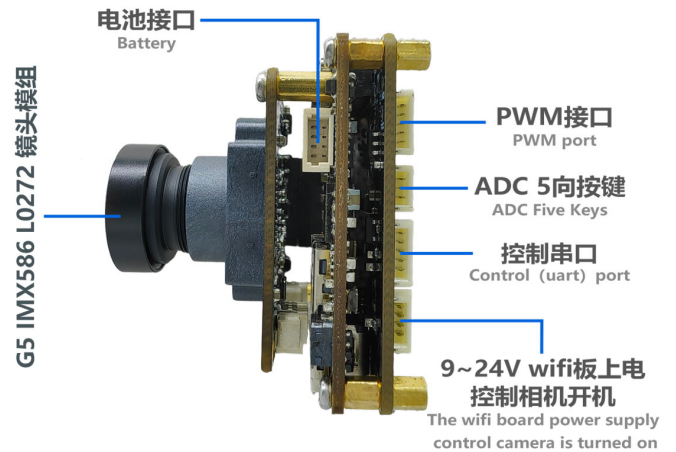
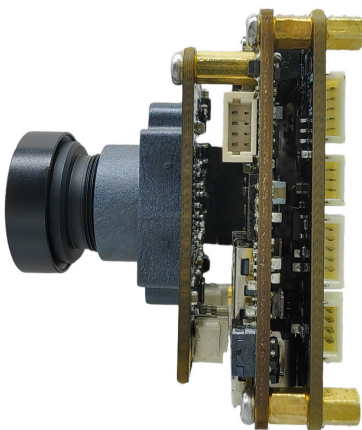
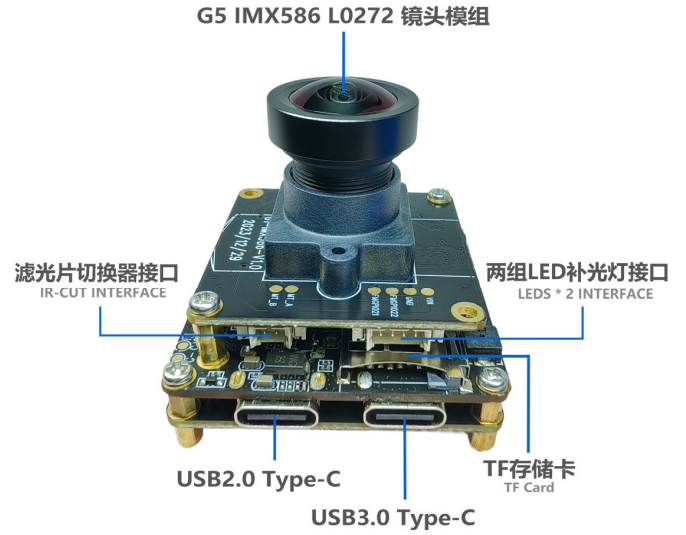
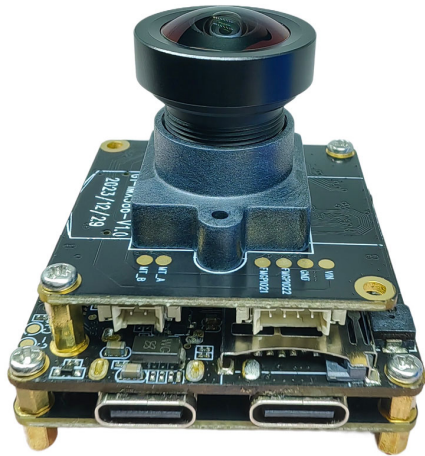




YDS CAMERA MODULE

your best camera partner

YDS-G5M7V2WF3 V2.0+YDS-CMFL0272-IMX586 V1.0 Ai Master Board + WiFi Board + 48MP Sony IMX586 Fixed Focus Camera Module Development Kit



www.YDSCAM.com sales@ydscom.com Phone (WeChat, QQ): (+86) 177 2732 6718

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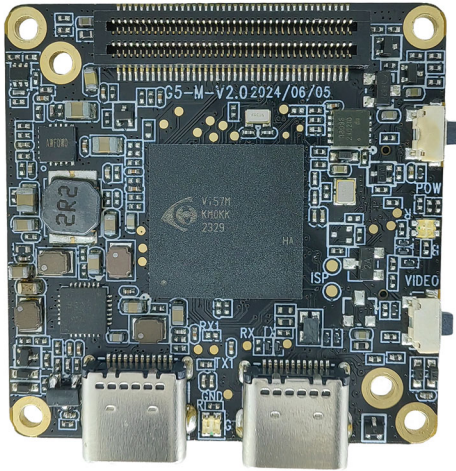


YDS-G5M7V2WF3 V2.0+YDS-CMFL0272-IMX586 V1.0 Ai Master Board + WiFi Board + 48MP Sony IMX586 Fixed Focus Camera Module Development Kit

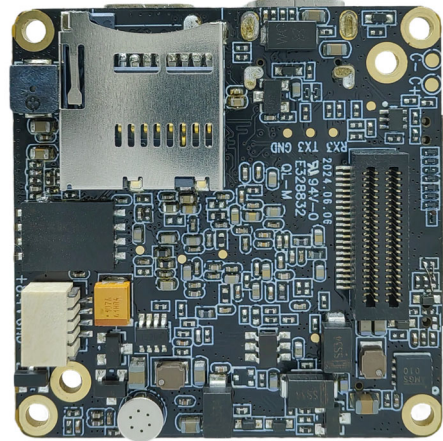


YDS-G5M7 V2.0

iCatch V57 Ai-Powered Image Processing SoC Master Board



Front View



Back View

Overview

Equipped with iCatch V57, built-in 2GB DDR3, supports up to 4K@30FPS, 1080P@120FPS H.264 encoded video. Onboard support for Type-C, TF memory card, video recording, 2 control buttons, buzzer, battery power supply, etc.

This master board extension also supports WiFi, display, CVBS, lens camera module, UART, I2C, SPI, PWM, MIC and other expansion interfaces. The board size is 38x38mm. Widely used in drones, mini DV, wearable devices, sports cameras, face recognition, USB cameras and other camera products.



YDS-G5M7 V2.0

iCatch V57 Ai-Powered Image Processing SoC Master Board

Hardware Specifications

Model No.	YDS-G5M7 V2.0
Main Control Chipset (DSP)	iCatch V57
Image Sensor Interface	MIPI
Battery Voltage	7.4V - 7.7V High Voltage Lithium Battery
Storage Type	External TF Card, Supports 8GB - 512GB Class 10 and Above, U3 is Recommended
Type-C Port	Type-C USB 5V Connection to Computer USB Mode Connection to PCCAM (Camera) Mode Type-C 2.0 Interface, Type-C 3.0 Interface
LED Indicator Type	Three Color Light (Red, Green, Blue)
2 Control Button Type	Power Button (A), OK Button (B)
Power Supply	Supports 3 Power Supply Methods At The Same Time (1) 5V USB to Type-C Port Power Supply (2) 9V-24V WiFi Board Power Supply (3) 6.8V-8.4V Battery Power Supply
Operating Temperature	-10°C to +60°C Without Housing
Storage Temperature	-20°C to +80°C
Humidity	20% to 80%
PCB Dimensions	38 x 38 mm
PCB Screw Hole Spacing	External (34mm x4), Internal (28mm x2)
PCB Screw Hole Diameter	2 mm
Optional Camera Configuration	(1) YDS-G5M7 V2.0 + Camera (2) YDS-G5M7 V2.0 + Camera + YDS-G1WF V6.3 WiFi Board
Supportive Image Sensors	48MP: IMX586 12MP: IMX577
Optional Extension Ports	WiFi, Camera Module, UART, I2C, SPI, IO etc.

YDS-G5M7 V2.0

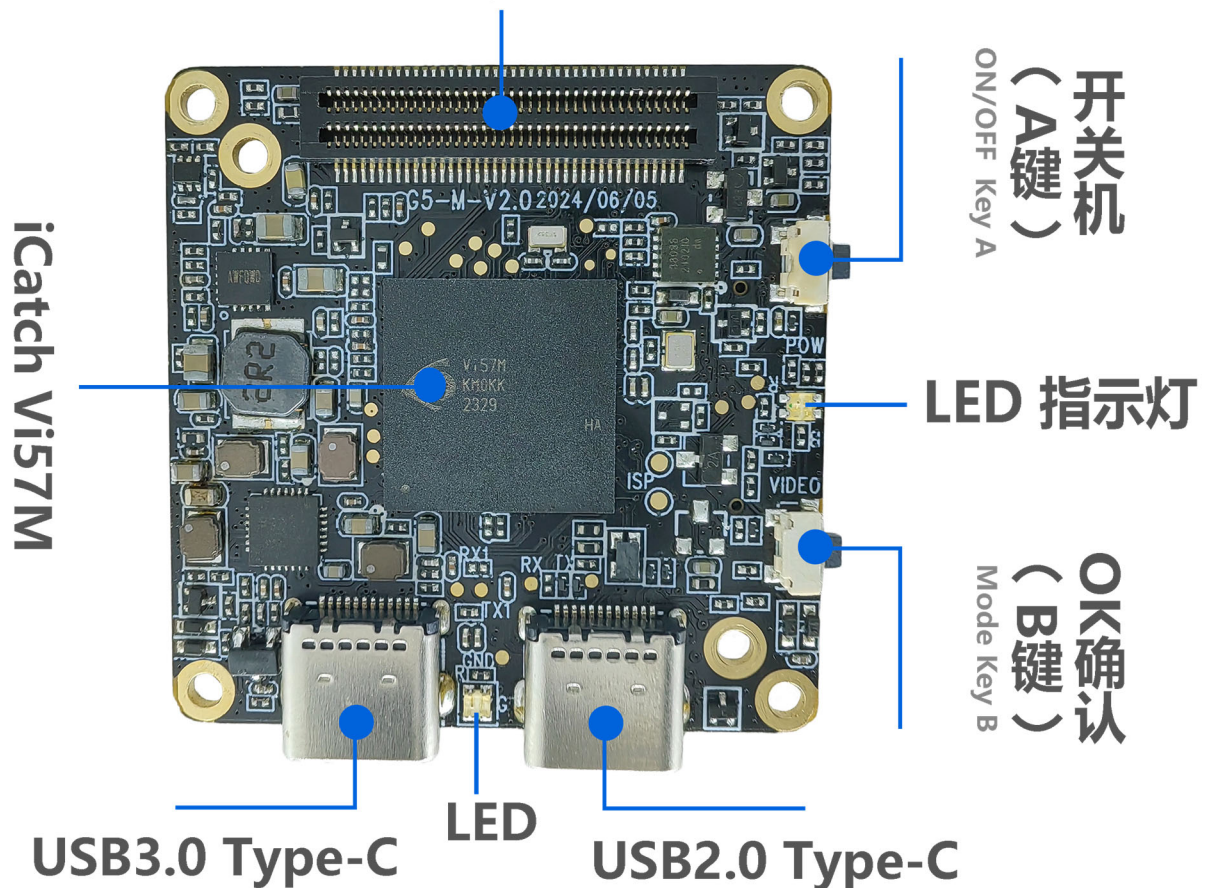
iCatch V57 Ai-Powered Image Processing SoC Master Board

Photo and Video Resolution

Video Resolution	4K@24/25/30/FPS 2.7K@24/25/30/48/50/60FPS 1080P@24/25/30/48/50/60/120FPS 720P@24/25/30/48/50/60/120/240FPS
Photo Resolution	48MP (8000x6000) 14MP (4592x3056) 12MP (4000x3000) 10MP (3648x2736) 8MP (3264x2448) 5MP (2592x1944) 3MP (2048x1536) 2MP (1920x1080)

Wifi、显示屏、uart、PWM等扩展接口

For Wifi, Display, uart, PWM Etc



ON/OFF Key A
(A键) 开关机

LED 指示灯

Mode Key B
(B键) 确认

iCatch Vi57M

USB3.0 Type-C

LED

USB2.0 Type-C

YDS-G5M7 V2.0

iCatch V57 Ai-Powered Image Processing SoC Master Board

USB Type-C Interface:

This interface supports USB standard 5V power input, which can power the master board and charge the battery (recommended 7.4V-7.7V battery). Connecting to a computer can directly read files in the TF card and use it as a USB flash drive. It can also be used as a PCCAM USB camera.

Connecting to the Computer USB Flash Drive Mode:

Insert the TF card, connect the other end of the USB to the computer, and automatically enter the USB flash drive mode after booting by default.

Connecting to the Computer PCCAM Mode:

Insert the TF card, connect the other end of the USB to the computer, and automatically enter the USB flash drive mode after booting. Short press the OK button (A) to switch to PCCAM camera mode. (Right-click the computer "Computer", click the left button in the pop-up prompt box to enter "Management", "Device Manager", and you can see the name of the camera identified in "Image Device" camera. Open the camera tool "amcap.exe" to see the current device preview screen).

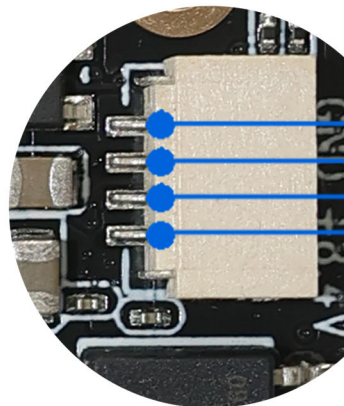
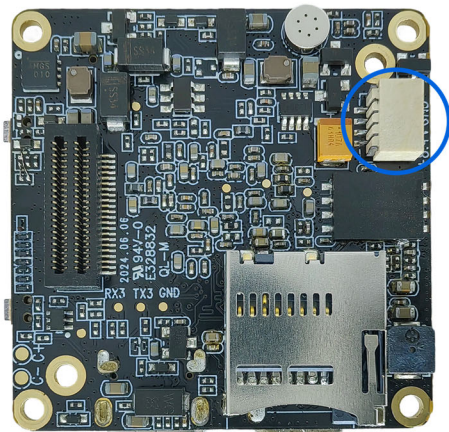
Type-C USB 2.0 and USB 3.0 Interfaces:

USB 2.0 Type-C interface: retains the camera control serial port UART3 and the camera debugging serial port UART1 (the serial port function can be used with the USB serial port debugging board).

USB 3.0 Type-C interface: connected to a computer with a USB 3.0 port, it can achieve high-speed data transmission function, greatly shortening the data transmission time.

Battery Power Supply:

6.6V (low power shutdown) to 8.8V, 7.4-7.7V high-voltage and high-density batteries are recommended.



BAT -
BAT +

Battery 7.7V-8.8V
电池供电

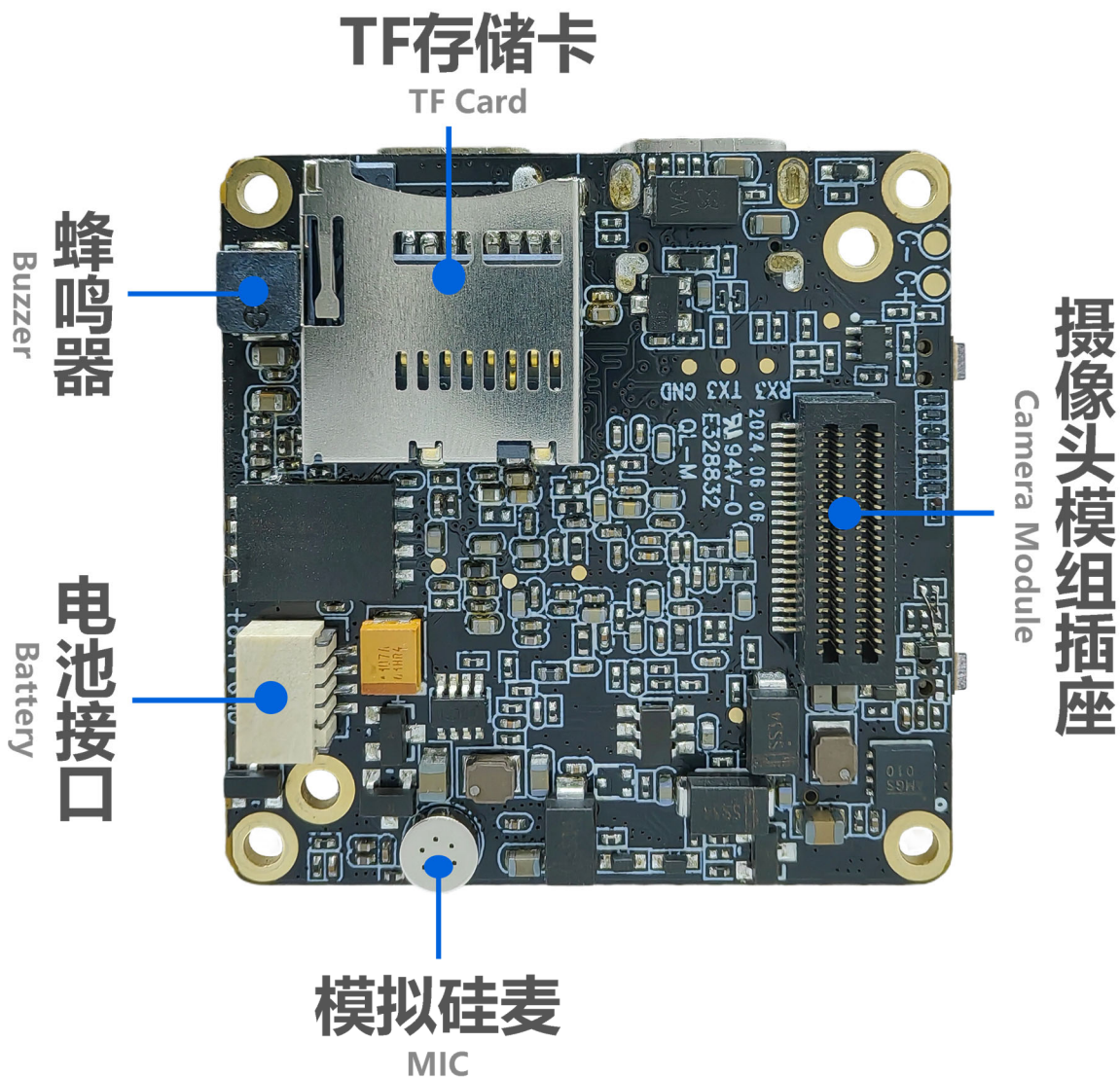
YDS-G5M7 V2.0

iCatch V57 Ai-Powered Image Processing SoC Master Board

Camera Module:

This interface can be used to expand multiple MIPI sensors, IR-CUT functions, LED filled light, UART2 serial port, battery power output, and other functions.

Some camera modules can be used with coaxial cable extended connection via the YDS-G1CA V1.0 adapter plate, which is convenient for users to assemble flexibly.



YDS-G5M7 V2.0

iCatch V57 Ai-Powered Image Processing SoC Master Board

LED Indicator Description:

Functions	Color	Power On	Video Mode	Video Recording	Photo Mode	Photo Snapshot
LED Indicator	Red	Always On	Always On	Flashing		
	Green				Always On	Flash Once
	Blue					

Special Note:

When the device is powered on without a TF card inserted, the function indicator light flashes yellow.

Buzzer Sound Description:

Operation Mode	Power On	Power Off	Switching Mode	Start Video Recording	Start Stop Recording	Photo Snapshot
Buzzer Sound	3 Beeps	5 Beeps	1 Beep	1 Beep	2 Beeps	1 Beep

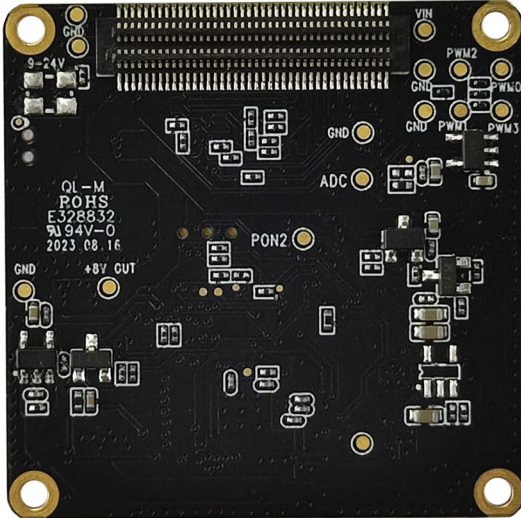
Special Note:

In each mode, when the device presses a button, you hear the buzzer "beep" sound.

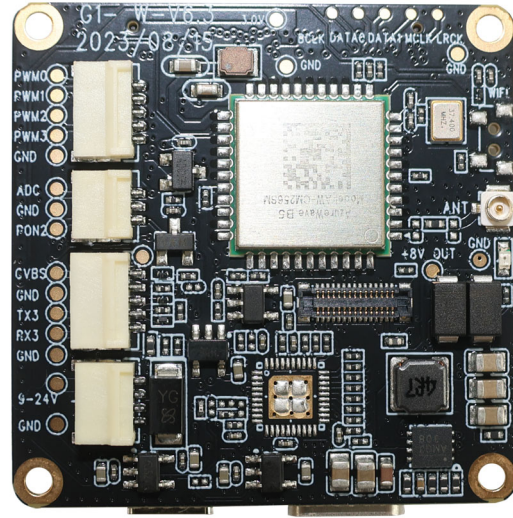
Button Instructions:

Button	Mode or Status	Functional Operation
Button A Power Mode	Power ON / OFF	Long Press 1 Second Power ON / OFF
	Standby	Short Press on Switch Mode Video Recording, Snapshot
Button B Confirmation OK Video Recording	Standby	In Video Standby Mode, Long Press 3 Seconds to Turn ON / OFF WiFi Mode. Default WiFi is OFF. In Video Recording Mode, Short Press to Start Recording In Snapshot Mode, Short Press to Start Taking Photo
	Shutdown	Press and Hold to Enter the USB Burning Mode
Reset Function	Standby or Working	Press Button A and B at the Same Time to Shutdown

YDS-G1WF V6.3 WiFi Expansion Board



Front View



Back View

Overview

WiFi expansion board is equipped with the AW CM256SM single-pass dual-band WiFi module, which supports the use of single-band 2.4GHz or 5GHz wireless WiFi functions. The board supports WiFi antenna, reserved WiFi button (Button C), serial port (UART3), etc.

PWM, ADC button, touch screen and other expansion interfaces included. The board PCB size is 38x38mm, and it must be used with our company's designated master board. This WiFi board can not work independently.



YDS-G1WF V6.3 WiFi Expansion Board

Specifications

Model No.	YDS-G1WF V6.3
WiFi Module	AW CM256SM
Power Supply	Supports 3 Power Supply Methods At The Same Time (1) 5V USB to Type-C Port Power Supply (2) 9V-24V WiFi Board Power Supply (3) 6.8V-8.4V Battery Power Supply (The 3-Axis Gimbal Version Does Not Support 5V USB)
WiFi Frequency Bands	2.4GHz or 5GHz (Dual Band Single Channel)
Wireless Network Standards	IEEE 802.11B/G/N/AC, WiFi Compliant
2.4GHz Frequency Range	2.400GHz - 2.472GHz (2.4GHz ISM Band)
2.4GHz Channels	2.4GHz: Channel 1 - Channel 13
2.4GHz Transmission Rate	2 - 3 Megabytes
2.4GHz Transmission Distance	50 Meters (No Disruption)
5GHz Frequency Range	5.150GHz - 5.825GHz (5GHz ISM Band)
5GHz Channels	5GHz: Channel 1 - Channel 13
5GHz Transmission Rate	6 - 8 Megabytes
5GHz Transmission Distance	30 Meters (No Disruption)
CVBS (TV-Out)	720 x 576
CVBS Standards	NTSC / PAL (TV-Out)
Serial Port / UART	RX3, TX3, GND
ADC Button	Up, Down, Left, Right, OK 5-Way ADC Buttons Power Button
Operating Temperature	-10°C to +60°C Without Housing
Storage Temperature	-20°C to +80°C
Humidity	20% to 80%
PCB Dimensions	38 x 38 mm
PCB Screw Hole Spacing	34 mm
PCB Screw Hole Diameter	2 mm
Extendable Functions	PWM, ADC Buttons, WiFi Board Power Supply UART3 Serial Port, Touch Screen, Other Interfaces

YDS-G1WF V6.3 WiFi Expansion Board

Hardware Interface Function Description

AW CM256SM single-pass dual-band WiFi module supports single-band 2.4GHz or 5GHz wireless WiFi function, and adopts the first generation IPEX universal copper standard antenna.

In the video mode standby state, long press the master board Button B, that is, long press the motherboard shooting button for 3S to turn on WiFi. The red light flashes when WiFi is turned on, and the red light is always on after the connection is successful.

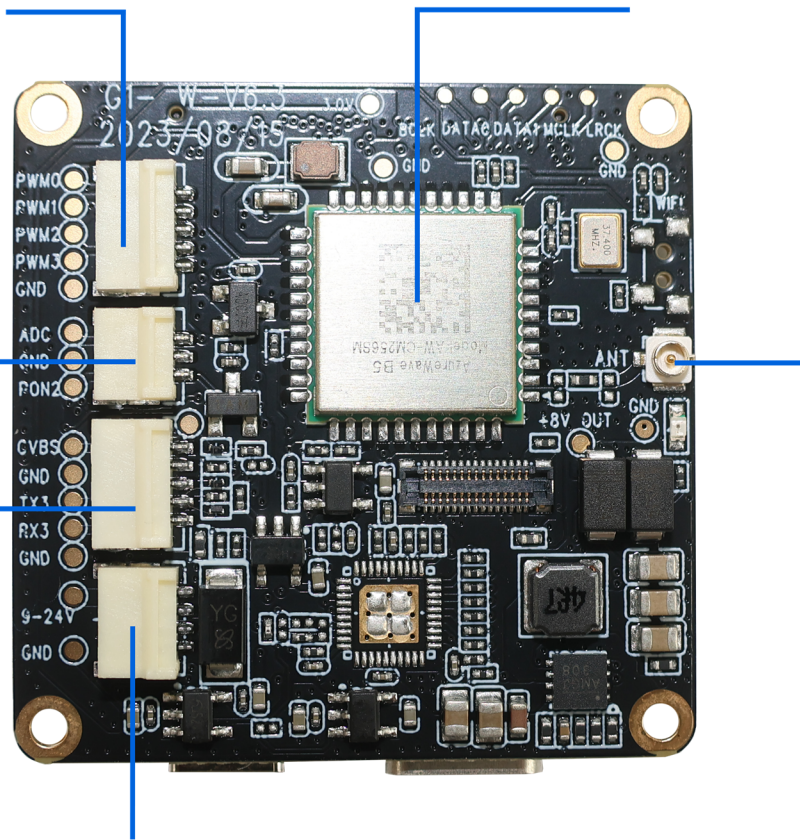
PWM接口
PWM port

无线WiFi模组
WiFi Module

**ADC
5向按键**
ADC Five Keys

控制串口
Control
(uart) port

WiFi天线
WiFi Antenna

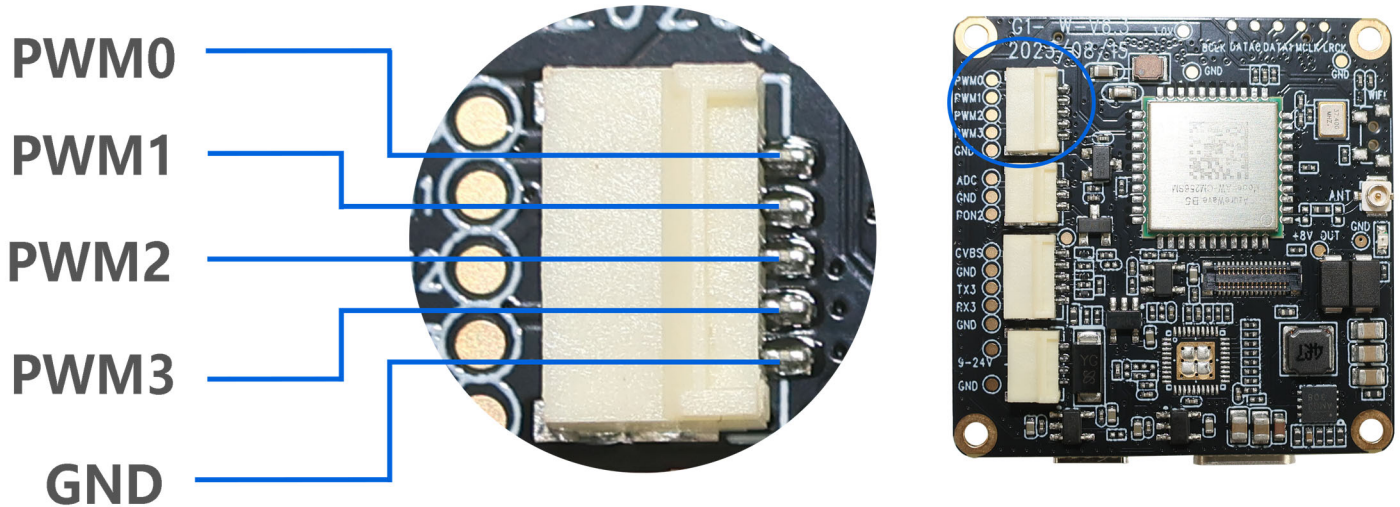


9~24Vwifi板上电控制相机开机

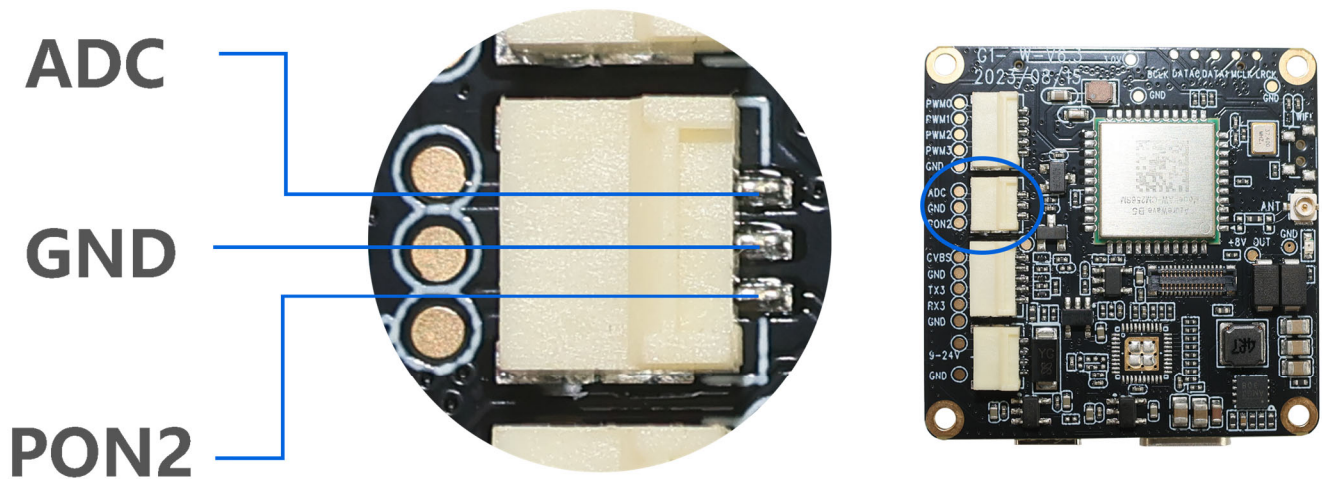
The wifi board power supply control camera is turned on

YDS-G1WF V6.3 WiFi Expansion Board

The PWM function interface, which can be used to control camera mode switching, photo taking, video recording and other functions.

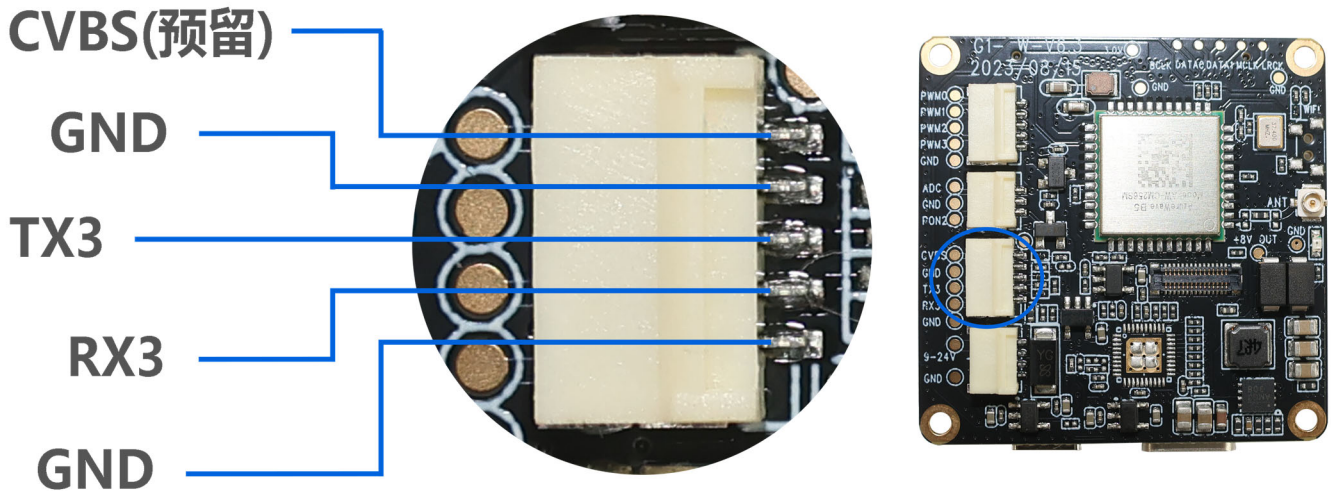


Supports one ADC button interface, which can be connected to five buttons: up, down, left, right, and OK, to control the camera's recording, taking pictures, turning on WiFi, etc. Supports external buttons to control the camera's power on and off.

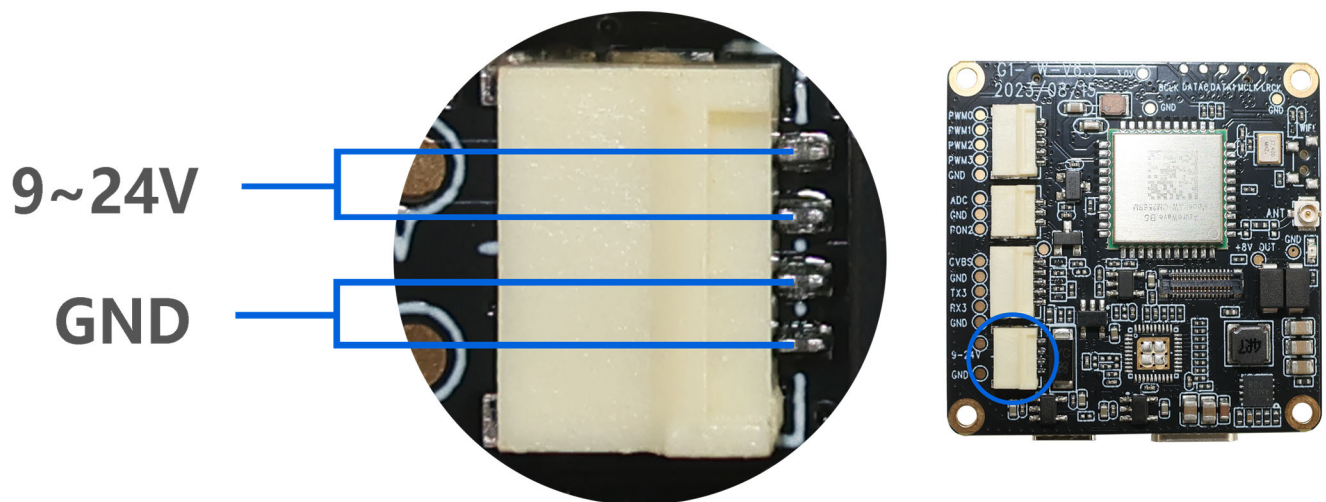


YDS-G1WF V6.3 WiFi Expansion Board

Supports one analog video CVBS (TV-OUT) signal output, with RX3 and TX3 reserved ports, and the camera can be set and controlled through this serial port.



The camera can be powered on automatically using 9V-24V power supply; the master board supports three-way simultaneous use, namely WiFi board power supply, motherboard battery power supply, and Type-C USB power supply. It can also be used with a single power supply.



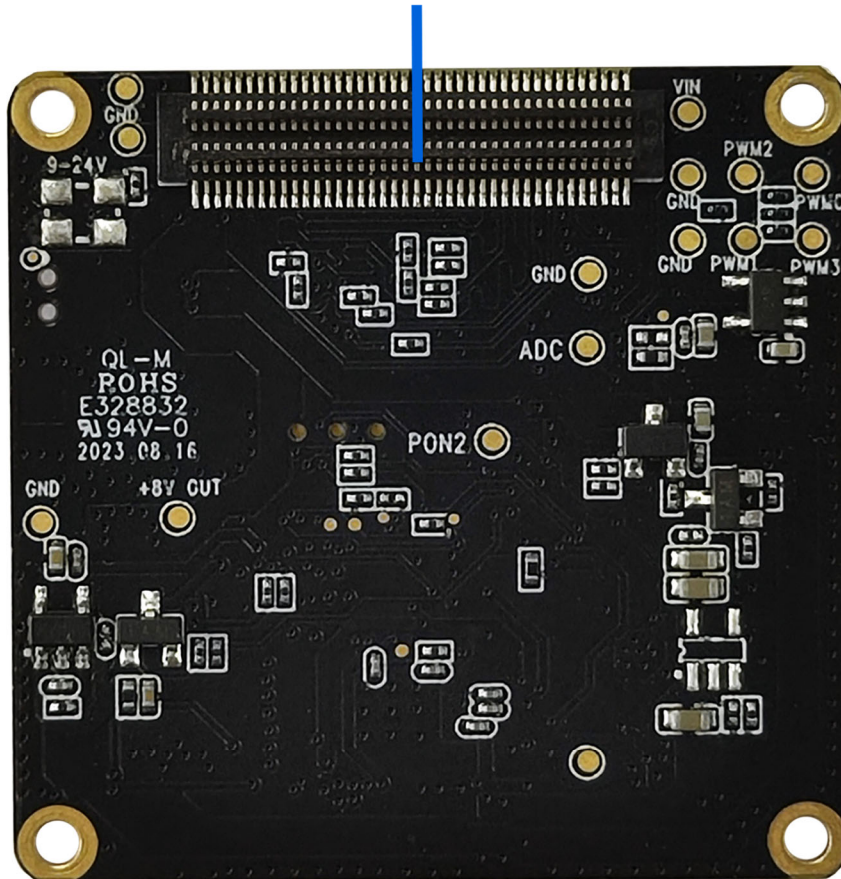
YDS-G1WF V6.3 WiFi Expansion Board

Special note:

The three-axis gimbal does not support 5V USB power supply alone. The battery power supply can support up to 12V; but this does not include the gimbal version, the stable power supply voltage of the battery for gimbal version is 8V.

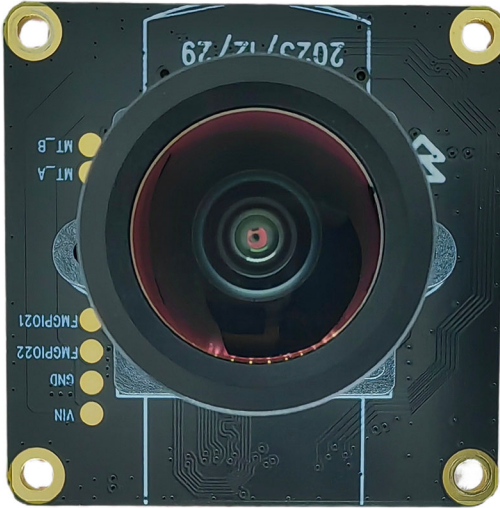
wifi板连接主板扩展板接口

wifi board connect to main board

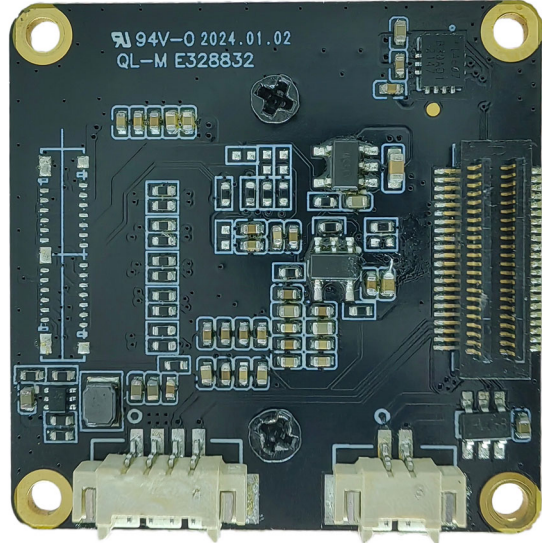


YDS-CMFL0272-IMX586 V1.0

48MP Sony IMX586 Fixed Focus Camera Module



Front View



Back View

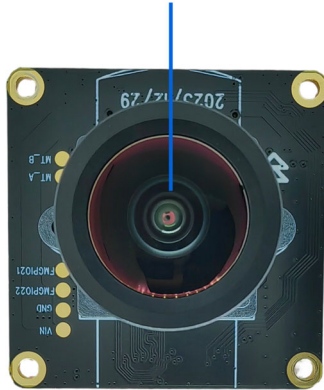
Overview

The YDS-CMFL0272-IMX586 V1.0 camera module uses the Sony IMX586 high-quality CMOS sensor, which has a diagonal of 8.0mm (Type 1/2.0) CMOS image sensor, 0.8x0.8um pixel, color square pixel display, 48 effective megapixels, and high-definition images.

When used with the master board, it can support 48MP pixel high-definition photography and up to 4K@30FPS video recording, with the characteristics of true color reproduction and excellent image quality. It is connected using a board-to-board socket. The board frame size is 32x32mm.

YDS-CMFL0272-IMX586 V1.0 48MP Sony IMX586 Fixed Focus Camera Module

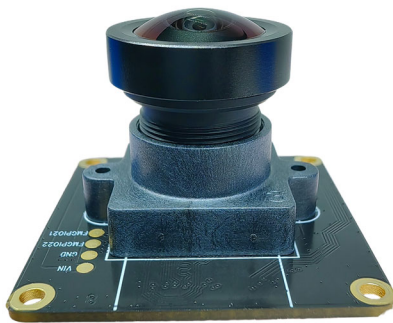
G5 IMX586 L0272 镜头模组



Top View



Side View



Bottom View



Isometric View



YDS-CMFL0272-IMX586 V1.0 48MP Sony IMX586 Fixed Focus Camera Module

Specifications

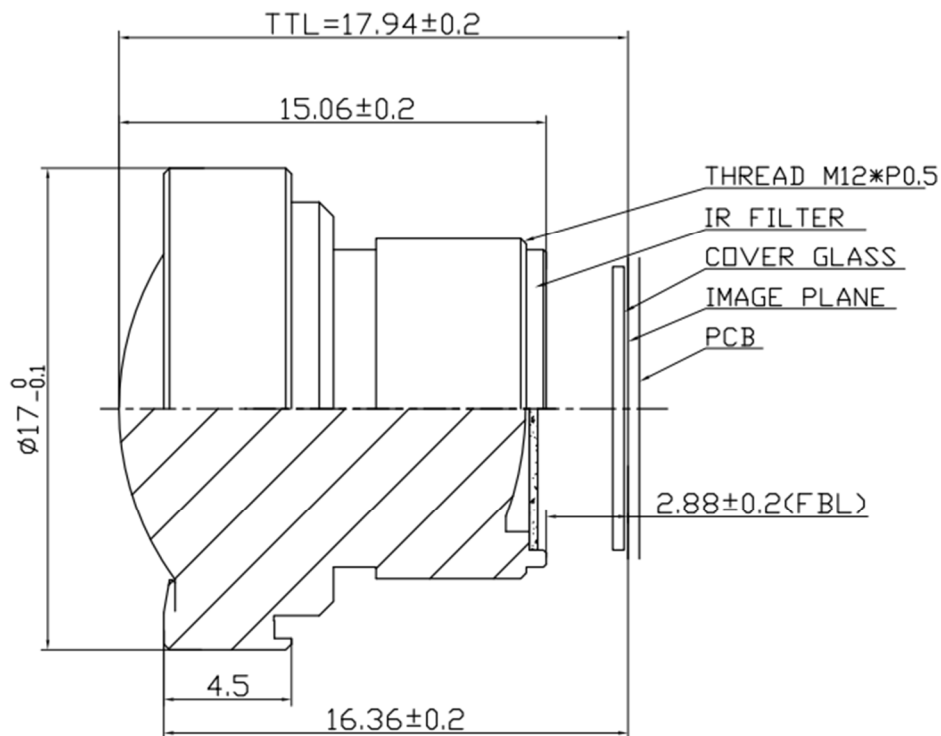
Model No.	YDS-CMFL0272-IMX586 V1.0
Image Sensor	IMX586
Image Sensor Type	CMOS
Effective Pixels	48 Megapixels
Sensor Size	1/2.0"
Pixel Size	0.8um x 0.8um
Video Frame Rate	4K@24/25/30/FPS 2.7K@24/25/30/48/50/60FPS 1080P@24/25/30/48/50/60/120FPS 720P@24/25/30/48/50/60/120/240FPS
Photo Resolution (with Master Board)	48MP (8000x6000) 14MP (4592x3056) 12MP (4000x3000) 10MP (3648x2736) 8MP (3264x2448) 5MP (2592x1944) 3MP (2048x1536) 2MP (1920x1080)
Operating Temperature	-10°C to +60°C
Storage Temperature	-20°C to +80°C
Humidity	20% to 80%
PCB Dimensions	32 x 32 mm
Module Size	32 x 32 x 28 mm
PCB Screw Hole Spacing	28 x 28 mm
PCB Screw Hole Diameter	2 mm
Lens Mount Screw Diameter	1.6 mm

YDS-CMFL0272-IMX586 V1.0 48MP Sony IMX586 Fixed Focus Camera Module

Lens Specifications

Lens Model No.	L0272
EFL (Focal Length)	2.7 mm
TTL (Total Length)	17.94 mm
F. No.	2.0
Diagonal View Angle (DFOV)	175° (DFOV) (y' = 8.812 mm)
Horizontal View Angle (HFOV)	152° (HFOV) (y' = 7.68 mm)
Vertical View Angle (VFOV)	88° (VFOV) (y' = 4.32 mm)
Distortion	<-93%
Relative Illumination	>40%
Lens Operating Temperature	-30°C to +75°C
Lens Storage Temperature	-40°C to +85°C

Lens Drawing

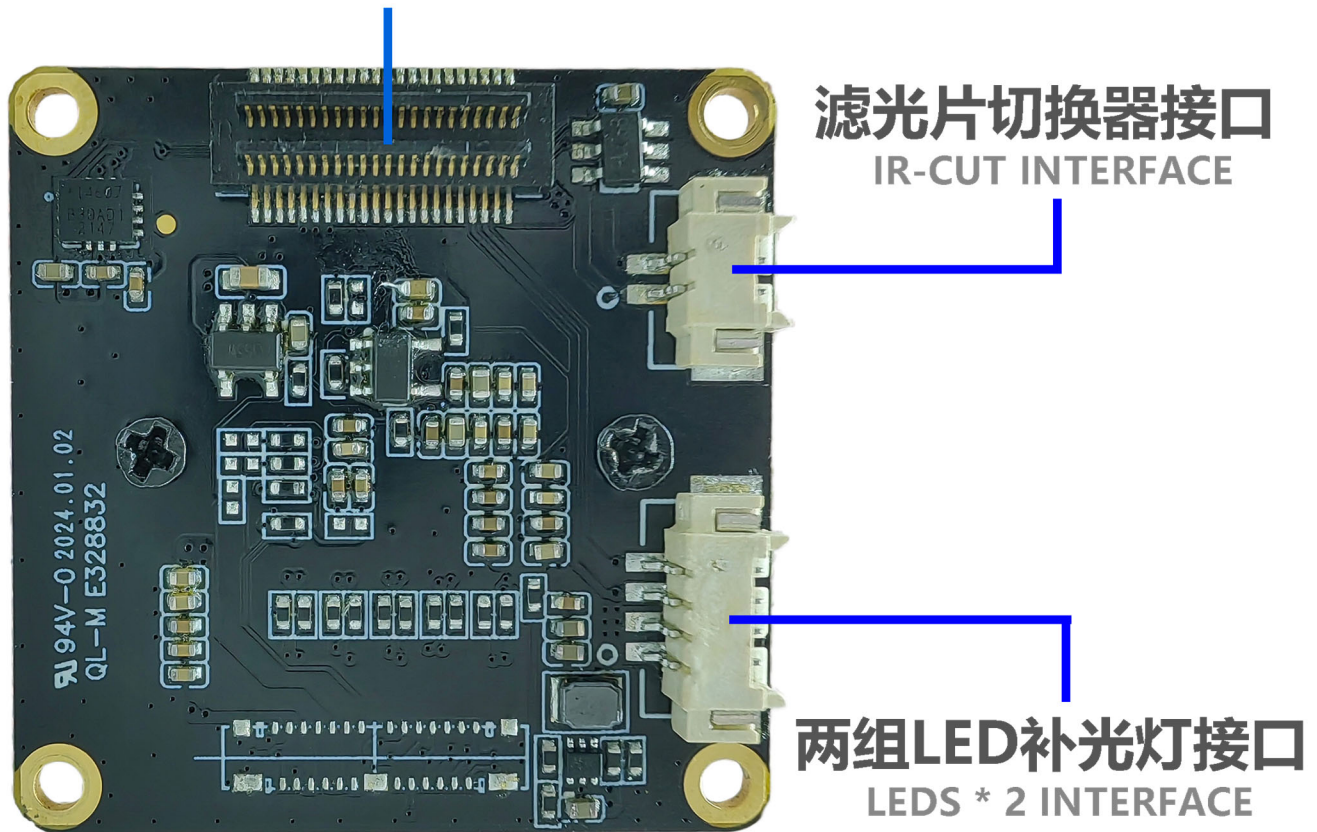


YDS-CMFL0272-IMX586 V1.0

48MP Sony IMX586 Fixed Focus Camera Module

通过板对板连接器连接G5主板

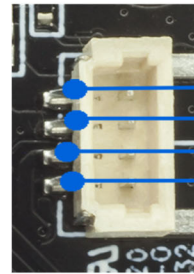
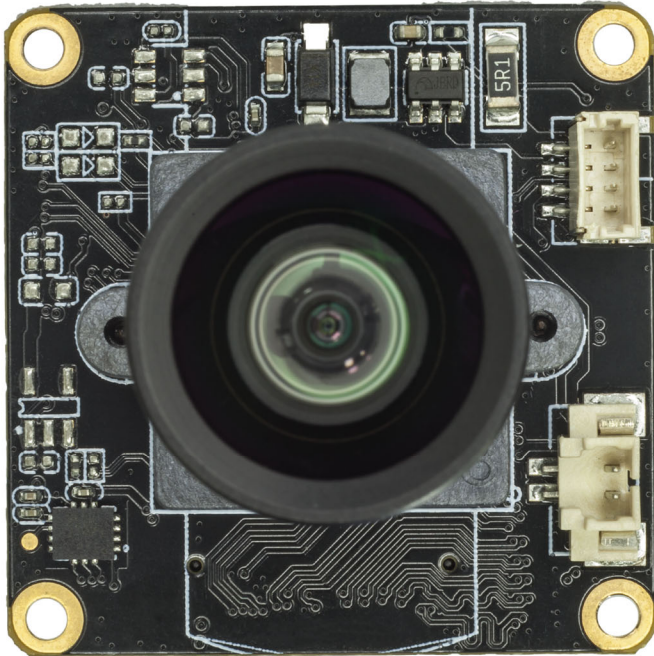
Connect Sensor



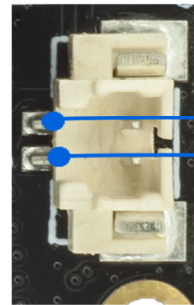
The IR-Cut filter switch interface is used by lenses with filters. Users need to match the lens that supports the IR-Cut switch structure in order to support this function.

The two sets of fill light interfaces support the expansion of infrared light and white light boards to provide fill light for the device. If you need the fill light function, you need to add the YDS-LEDP V2.0 White and Infrared Light LED Plate.

YDS-CMFL0272-IMX586 V1.0 48MP Sony IMX586 Fixed Focus Camera Module



LED B -
LED B +
LED A -
LED A +



IR-CUT -
IR-CUT +

The two groups of fill light interfaces support the expansion of infrared lights and white light boards to provide fill light for the device. Note: The IR-Cut filter switch interface is used by lenses with filters, but this camera module does not support this function.

Diagonal 8.000 mm (Type 1/2.0) 48Mega-Pixel CMOS Image Sensor with Square Pixel for Color Cameras

IMX586-AAJH5-C

General description and application

IMX586 is a diagonal 8.000 mm (Type 1/2.0) 48 Mega-pixel CMOS active pixel type stacked image sensor with a square pixel array. It adopts Sony's back-illuminated and stacked CMOS image sensor to achieve high speed image capturing by column parallel A/D converter circuits and high sensitivity and low noise image (comparing with conventional CMOS image sensor) through the backside illuminated imaging pixel structure. R, G, and B pigment primary color mosaic filter is employed. It operates with five power supply voltages: analog 2.9 V and 1.8V, digital 1.1 V, PLL-PHY 1.1V and 1.8 V for input/output interface and achieves low power consumption.

In addition, this product is designed for use in cellular phone and tablet PC. When using this for another application, Sony Semiconductor Solutions Corporation does not guarantee the quality and reliability of product. Therefore, don't use this for applications other than cellular phone and tablet PC. Consult your Sony Semiconductor Solutions Corporation sales representative if you have any questions.

Functions and Features

- ◆ Back-illuminated and stacked CMOS image sensor
- ◆ Quad Bayer Coding color filter arrangement
- ◆ Phase Detection Auto Focus (PDAF)
- ◆ High Frame Rate 30fps@Full resolution (QBC Re-mosaic) / 30fps@QBC-HDR / 120fps@2x2 Adjacent Pixel Binning (16:9) / 240fps@2x2 Adjacent Pixel Binning V2H2(16:9)
- ◆ High signal to noise ratio(SNR)
- ◆ Dual sensor synchronization operation
- ◆ Built-in 2D Dynamic Defect Pixel Correction
- ◆ Lens Shading Correction (LSC)
- ◆ Built-in temperature sensor
- ◆ Output video format of RAW10/8, COMP8
- ◆ QBC Re-mosaic function
- ◆ QBC HDR function
- ◆ Two PLLs for independent clock generation for pixel control and data output interface
- ◆ CSI-2 serial data output
 - MIPI D-PHY 2lane/4lane, Max. 2.5Gbps/lane, D-PHY spec. ver. 1.2 compliant
 - MIPI C-PHY 1/2/3trio, Max 2.5Gbps/Trio, C-PHY spec ver. 1.0 compliant
- ◆ 2-wire serial communication (Supports I²C "Fast mode" and "Fast-mode Plus")
- ◆ 28K bit of OTP ROM for users

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Application circuits shown, if any, are typical examples illustrating the operation of the devices. Sony Semiconductor Solutions Corporation cannot assume responsibility for any problems arising out of the use of these circuits.

Device Structure

◆ CMOS image sensor	
◆ Image size	: Diagonal 8.000 mm (Type 1/2.0)
◆ Total number of pixels	: 8032 (H) × 6248 (V) approx. 50.18 M pixels
◆ Number of effective pixels	: 8032 (H) × 6088 (V) approx. 48.89 M pixels
◆ Number of active pixels	: 8000 (H) × 6000 (V) approx. 48.00 M pixels
◆ Chip size	: 7.504 mm (H) × 5.659 mm (V)
◆ Unit cell size	: 0.80 μm (H) × 0.80 μm (V)
◆ Substrate material	: Silicon

Absolute Maximum Ratings

Item	Symbol	Ratings	Unit	notes
Supply voltage (analog1)	VANA1	-0.3 to +4.2	V	refer to VSS level
Supply voltage (analog2)	VANA2	-0.3 to +2.52	V	
Supply voltage (digital1, digital2(PLL-PHY))	VDIG1,2	-0.3 to +1.54	V	
Supply voltage (interface)	VIF	-0.3 to +2.52	V	
Input voltage (digital)	VI	-0.3 to +2.52	V	
Output voltage (digital)	VO	-0.3 to +2.52	V	
Guaranteed Operating temperature	TOPR	-20 to +70	°C	
Guaranteed storage temperature	TSTG	-30 to +80	°C	
Guaranteed performance temperature	TSPEC	-20 to +60	°C	

Recommended Operating Voltage

Item	Symbol	Ratings	Unit	notes
Supply voltage (analog1)	VANA1	2.9 ± 0.1	V	refer to VSS level
Supply voltage (analog2)	VANA2	1.8 ± 0.1	V	
Supply voltage (digital1, digital2(PLL-PHY))	VDIG1,2	1.1 ± 0.1	V	
Supply voltage (interface)	VIF	1.8 ± 0.1	V	

Cameras Applications



Automotive Driver Pilot



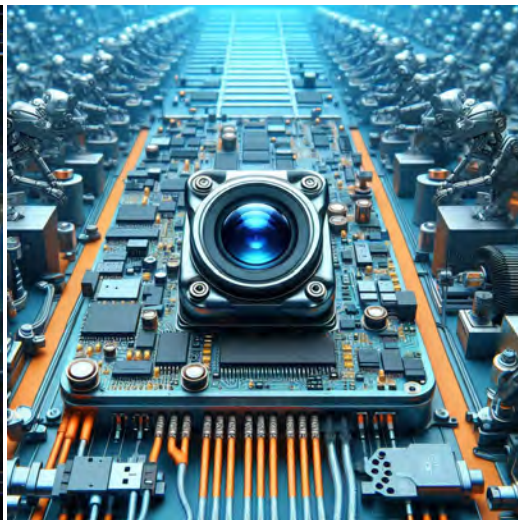
Live Streaming



Video Conference



Eye Tracker Biometric Detection



Machine Vision



Agricultural Monitor



Night Vision Security



Drone and Sports Eagle Eyes



Interactive Pet Camera



YDS CAMERA MODULE

your best camera partner

Camera Module Pinout Definition Reference Chart

OmniVision	Sony	Samsung	On-Semi	Aptina	Himax	GalaxyCore	PixArt	SmartSens	Sensors
Pin Signal		Description							
DGND	GND								ground for digital circuit
AGND									ground for analog circuit
PCLK	DCK								DVP PCLK output
XCLR	PWDN	XSHUTDOWN	STANDBY						power down active high with internal pull-down resistor
MCLK	XVCLK	XCLK	INCK						system input clock
RESET	RST								reset active low with internal pull-up resistor
NC	NULL								no connect
SDA	SIO_D	SIOD							SCCB data
SCL	SIO_C	SIOC							SCCB input clock
VSYNC	XVS	FSYNC							DVP VSYNC output
HREF	XHS								DVP HREF output
DOVDD									power for I/O circuit
AFVDD									power for VCM circuit
AVDD									power for analog circuit
DVDD									power for digital circuit
STROBE	FSTROBE								strobe output
FSIN									synchronize the VSYNC signal from the other sensor
SID									SCCB last bit ID input
ILPWM									mechanical shutter output indicator
FREX									frame exposure / mechanical shutter
GPIO									general purpose inputs
SLASEL									I2C slave address select
AFEN									CEN chip enable active high on VCM driver IC
MIPI Interface									
MDN0	DN0	MD0N	DATA_N	DMO1N					MIPI 1st data lane negative output
MDP0	DP0	MD0P	DATA_P	DMO1P					MIPI 1st data lane positive output
MDN1	DN1	MD1N	DATA2_N	DMO2N					MIPI 2nd data lane negative output
MDP1	DP1	MD1P	DATA2_P	DMO2P					MIPI 2nd data lane positive output
MDN2	DN2	MD2N	DATA3_N	DMO3N					MIPI 3rd data lane negative output
MDP2	DP2	MD2P	DATA3_P	DMO3P					MIPI 3rd data lane positive output
MDN3	DN3	MD3N	DATA4_N	DMO4N					MIPI 4th data lane negative output
MDP3	DP3	MD3P	DATA4_P	DMO4P					MIPI 4th data lane positive output
MCN	CLKN	CLK_N	DCKN						MIPI clock negative output
MCP	CLKP	MCP	CLK_P	DCKN					MIPI clock positive output
DVP Parallel Interface									
D0	DO0	Y0							DVP data output port 0
D1	DO1	Y1							DVP data output port 1
D2	DO2	Y2							DVP data output port 2
D3	DO3	Y3							DVP data output port 3
D4	DO4	Y4							DVP data output port 4
D5	DO5	Y5							DVP data output port 5
D6	DO6	Y6							DVP data output port 6
D7	DO7	Y7							DVP data output port 7
D8	DO8	Y8							DVP data output port 8
D9	DO9	Y9							DVP data output port 9
D10	DO10	Y10							DVP data output port 10
D11	DO11	Y11							DVP data output port 11

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Camera Reliability Test

Reliability Inspection Item		Testing Method	Acceptance Criteria	
Category	Item			
Environmental	Storage Temperature	High 60°C 96 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 96 Hours	Temperature Chamber	No Abnormal Situation
	Operation Temperature	High 60°C 24 Hours	Temperature Chamber	No Abnormal Situation
		Low -20°C 24 Hours	Temperature Chamber	No Abnormal Situation
	Humidity	60°C 80% 24 Hours	Temperature Chamber	No Abnormal Situation
	Thermal Shock	High 60°C 0.5 Hours Low -20°C 0.5 Hours Cycling in 24 Hours	Temperature Chamber	No Abnormal Situation
Physical	Drop Test (Free Falling)	Without Package 60cm	10 Times on Wood Floor	Electrically Functional
		With Package 60cm	10 Times on Wood Floor	Electrically Functional
	Vibration Test	50Hz X-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Y-Axis 2mm 30min	Vibration Table	Electrically Functional
		50Hz Z-Axis 2mm 30min	Vibration Table	Electrically Functional
	Cable Tensile Strength Test	Loading Weight 4 kg 60 Seconds Cycling in 24 Hours	Tensile Testing Machine	Electrically Functional
Electrical	ESD Test	Contact Discharge 2 KV	ESD Testing Machine	Electrically Functional
		Air Discharge 4 KV	ESD Testing Machine	Electrically Functional
	Aging Test	On/Off 30 Seconds Cycling in 24 Hours	Power Switch	Electrically Functional
	USB Connector	On/Off 250 Times	Plug and Unplug	Electrically Functional



Camera Inspection Standard

Inspection Item		Inspection Method	Standard of Inspection		
Category	Item				
Appearance	FPC/ PCB	Color	The Naked Eye	Major Difference is Not Allowed.	
		Be Torn/Chopped	The Naked Eye	Copper Crack Exposure is Not Allowed.	
		Marking	The Naked Eye	Clear, Recognizable (Within 30cm Distance)	
	Holder	Scratches	The Naked Eye	The Inside Crack Exposure is Not Allowed	
		Gap	The Naked Eye	Meet the Height Standard	
		Screw	The Naked Eye	Make Sure Screws Are Presented (If Any)	
		Damage	The Naked Eye	The Inside Crack Exposure is Not Allowed	
	Lens	Scratch	The Naked Eye	No Effect On Resolution Standard	
		Contamination	The Naked Eye	No Effect On Resolution Standard	
		Oil Film	The Naked Eye	No Effect On Resolution Standard	
		Cover Tape	The Naked Eye	No Issue On Appearance.	
	Function	Image	No Communication	Test Board	Not Allowed
			Bright Pixel	Black Board	Not Allowed In the Image Center
Dark Pixel			White board	Not Allowed In the Image Center	
Blurry			The Naked Eye	Not Allowed	
No Image			The Naked Eye	Not Allowed	
Vertical Line			The Naked Eye	Not Allowed	
Horizontal Line			The Naked Eye	Not Allowed	
Light Leakage			The Naked Eye	Not Allowed	
Blinking Image			The Naked Eye	Not Allowed	
Bruise			Inspection Jig	Not Allowed	
Resolution			Chart	Follows Outgoing Inspection Chart Standard	
Color			The Naked Eye	No Issue	
Noise			The Naked Eye	Not Allowed	
Corner Dark			The Naked Eye	Less Than 100px By 100px	
Color Resolution			The Naked Eye	No Issue	
Dimension	Height	The Naked Eye	Follows Approval Data Sheet		
	Width	The Naked Eye	Follows Approval Data Sheet		
	Length	The Naked Eye	Follows Approval Data Sheet		
	Overall	The Naked Eye	Follows Approval Data Sheet		

YDSCAM Package Solutions

YDS Camera Module



Complete with Lens Protection Film



Tray with Grid and Space

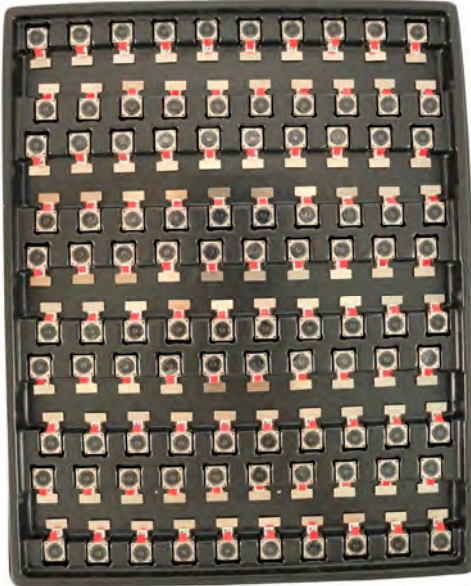


Place Cameras on the Tray

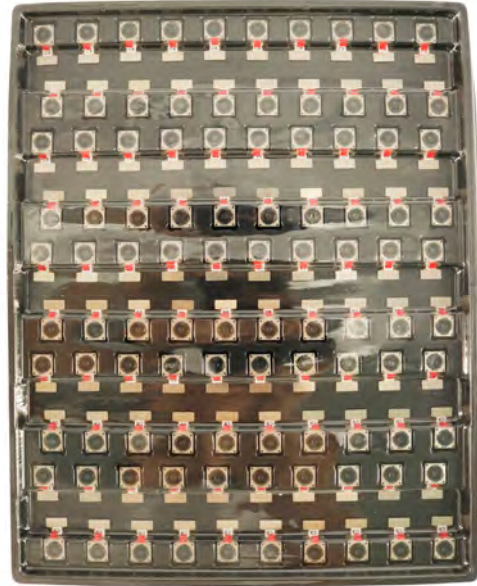


YDSCAM Package Solutions

Full Tray of Cameras



Cover Tray with Lid



Place Tray into Anti-Static Bag



Vacuum the Anti-Static Bag



YDSCAM Package Solutions

Sealed Vacuum Anti-Static Bag with Labels

1. Model and Description 2. Quantity 3. Manufacturing Date Code 4. Caution



YDSCAM Package Solutions

Place Foam Sheets Between Tray Bags



Foam Sheets are Larger Than Trays



Place Foam Sheets and Trays into Box



Foam Sheets are Tightly Fitting in Box



Seal the Carbon Box



Label the Carbon Shipping Box

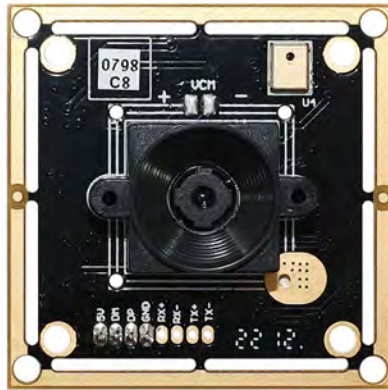




YDSCAM Package Solutions

USB Camera Module

Complete with Lens Protection Film



Place Camera Sample into Anti-Static Bag

Place USB Cameras into Tray



Seal the Tray with Anti-Static Bag

Label the Carbon Shipping Box



YDSCAM Package Solutions

Place Camera Sample into Anti-Static Bag



Place Connectors into Anti-Static Bag



Label the Sample Bags



Place Connectors into Reel



Place Samples into the Carbon Box



Place Connectors into the Carbon Box





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Company YDSCAM

YingDeShun Co. Ltd. (YDS) was established in 2017, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. YDS is occupying 20,000 square feet automated plants with 100 employees of annual throughput 30,000,000 units cameras.

YDS provides OEM, ODM design, contract manufacturing, and builds the camera products. You may provide the requirements to us, even with a hand draft, our sales and engineering work together to meet your needs. We consider ourselves your last-term partner in developing practical and innovative solutions.

Our team covers everything from initial concept development to mass produced product. YDS specializes in customized camera design, raw material, electronic engineering, firmware/software development, product testing, and packing design. Our experienced strategic supply systems offer a robust and dependable manufacturing capacity for orders of various sizes.



Limited Warranty

YDS provides the following limited warranty if you purchased the Product(s) directly from YDS company or from YDS's website www.YDSCAM.com. Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. YDS guarantees that the Product(s) will be free from defects in materials and workmanship under normal use for a period of one (1) year from the date you receive the product ("Warranty Period").

For all Product(s) that contain or develop material defects in materials or workmanship during the Warranty Period, YDS will, at its sole option, either: (i) repair the Product(s); (ii) replace the Product(s) with a new or refurbished Product(s) (replacement Product(s) being of identical model or functional equivalent); or (iii) provide you a refund of the price you paid for the Product(s).

This Limited Warranty of YDS is solely limited to repair and/or replacement on the terms set forth above. YDS is not reliable or responsible for any subsequent events.



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YDS Strength

Powerful Factory



Professional Service



Promised Delivery



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