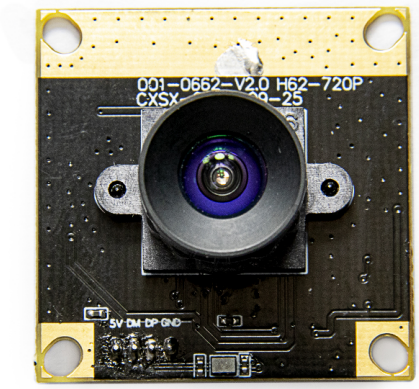
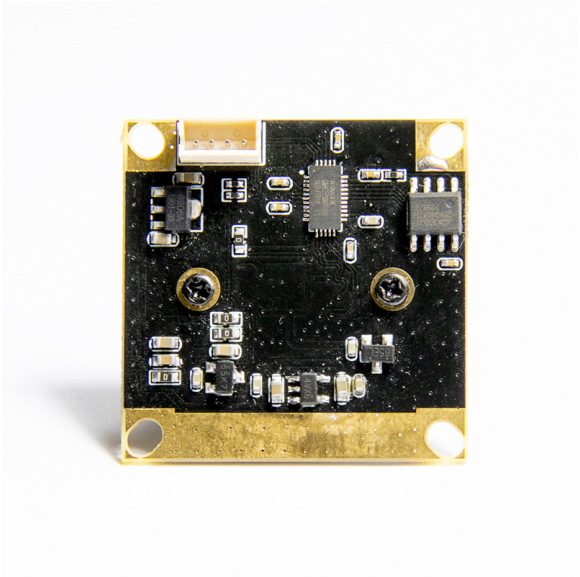
HAMPO-USB-0662-V1.0

720P JX-H62 M12 Fixed Focus USB 2.0 Camera Module





HAMPO-USB-0662-V1.0 is a HD 1MP USB camera module, based on the 1/4" JXH62 CMOS sensor, which has the high and stable image quality. It supports USB2.0 and OTG UVC. The cost-effective JXH62 sensor perform auto white balance, auto exposure control to achieve image and video YUY2 and MJPEG stable transmission and compression.

32mm*32mm micro PCB suitable for installation in concealed, narrow positions such as video doorbell, advertising machine, all-in-one and other products. Compatible with windows and Linux operating systems.

Key Features

- 1MP MAX resolution (1296 x 732) HD
- High speed USB 2.0 Plug and Play
- MJPG and YUV2 output format
- Compact size
- UVC compliant to Windows, Linux, OS with UVC driver
- High cost effective USB camera module

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720P JX-H62 M12 Fixed Focus USB 2.0 Camera Module

Camera Module No.	HAMPO-USB-0662-V1.0
Resolution	1MP
Image Sensor	JX-H62
Sensor Type	1/4"
Pixel Size	3.0 um x 3.0 um
EFL	3.00 mm
F.NO	2.50
Pixel	1296 x 732
View Angle	89°(DFOV) 76°(HFOV) 60°(VFOV)
Lens Dimensions	15.3 mm
Module Type	Fixed Focus
Lens Model	HAMPO-LENS-7021
Interface	USB 2.0
Output Format	MJPG / YUV2
Auto Control	Saturation, Contrast, Acutance White Balance, Exposure
Audio	/
Input Voltage	DC 5V
Working Current	Max 200mA
PCB Size	38mm x 38mm / 32mm x 32mm
System Compatibility	Windows XP (SP2, SP3), Vista, 7, 8, 10, 11 Android, Mac OS, Linux or OS with UVC Driver Raspberry Pi by USB Port
Software for USB Camera	AMCAP, Webcam Viewer, V4L2 Controls Contacam, VLC Player, MotionEye OS iSpy, ZoneMider, Yawcam
IR filter	650nm IR
Operating Temperature	-30°C to +85°C
USB Cable	USB-Cable-U015

Wide Compatibility with Windows, Android, Mac OS, Linux, or Raspberry Pi

HI-SPEED CERTIFIED USB 2.0 Windows ANDROID Mac OS Linux Raspberry Pi

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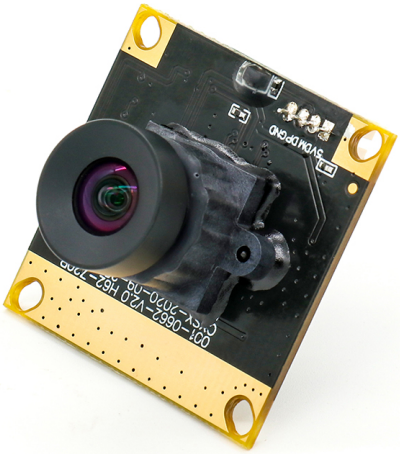
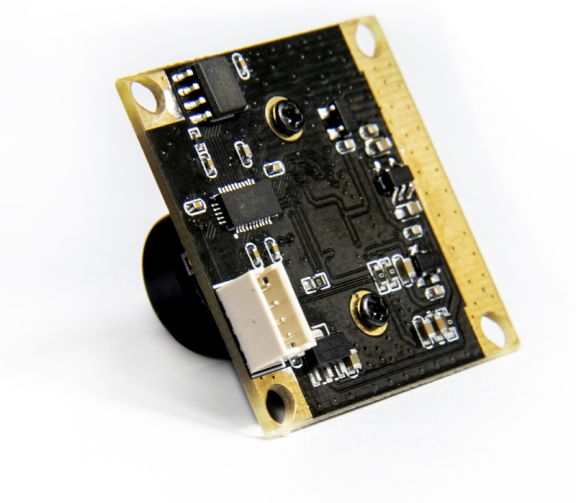
Top View



Side View



Bottom View

Mating Connector

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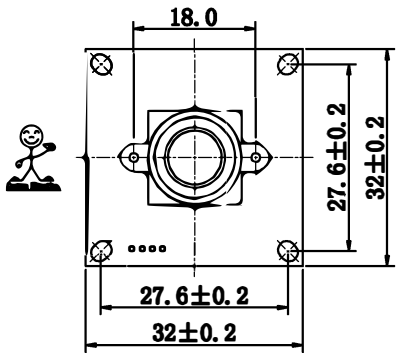
720P JX-H62 M12 Fixed Focus USB 2.0 Camera Module

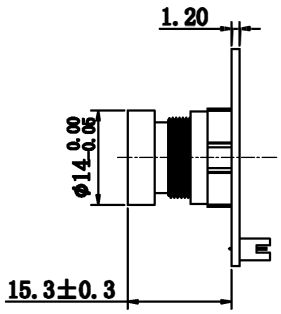
FORMAT	RESOLUTION	FRAME RATE
		USB 2.0
MJPG	640 x 480 (VGA)	**30 FPS**
	1024 x 768 (Super VGA)	**30 FPS**
	1280 x 720 (720P)	**30 FPS**
		30 FPS
YUY2	640 x 480 (VGA)	**30 FPS**
	1024 x 768 (Super VGA)	**10 FPS**
	1280x 720 (720P)	**10 FPS**

RoHS

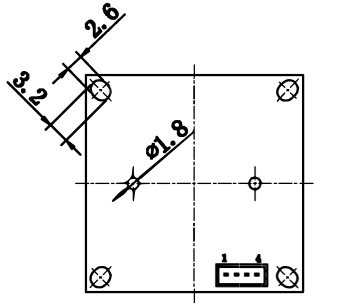
TOP VIEW



SIDE VIEW



BOTTOM VIEW



PH1.5,Top entry type, 4PIN

DGND	DP	DM	5V
PIN1	PIN2	PIN3	PIN4

Lens parameter:2G2P+IR

EFL:3.0mm

F.NO:2.5

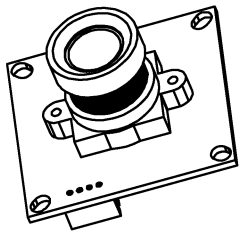
View Angle:D89° ,H76° ,V60°

Distortion:<0.9%

Chip Type:1/4"

Array Size:1MP

Thread Size:M12xP0.5



UNSPECIFIED TOL:		SIGNATURE	DATE				
.XXX ± 0.005	DWN. BY	MIKE	2022.05.31				
.XX ± 0.05	CHK. BY			PART NAME	USB Camera		
.X ± 0.1	APP. BY			DWG NO	2.03.0662.021		
∠ ± 0.5°	MATERIAL	/	SCALE	UNIT	SHEET	SIZE	PART NO.
	TREATMENT	/	1:1	mm	1/1	A4	/

General Description:

JX-H62 is an HD CMOS image sensor designed with a superior 3.0µm pixel with excellent low-light sensitivity and low dark current performance. It features a 30fps native high definition (HD) 720p video capability for camera applications in PC multimedia, security, and entertainment devices.

The JX-H62 consists of a 1296x732 active pixel sensor (APS) array with an on-chip 10-bit ADC, programmable gain control (PGA), and correlated double sampling (CDS) to significantly reduce fixed pattern noise (FPN). The sensor also has many standard programmable and automatic functions. It has both the industry compliant DVP parallel and MIPI CSI2 serial interfaces. The external host controller can access this device through a standard serial interface.

It is available in wafer-level packaged CSP.

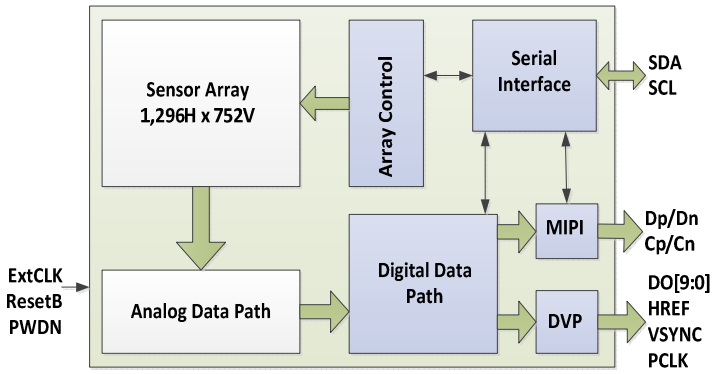
Features:

- Automatic functions:
  - AEC – Automatic Exposure Control
  - AGC – Automatic Gain Control
  - ABLC – Automatic Black Level Calibration
- Programmable controls:
  - Gain, exposure, frame rate and size
  - Image mirror and flip
  - Window panning and cropping
  - I2C slave ID
- Output formats:
  - DVP parallel interface
  - MIPI CSI2 1 Lane
- Data formats:
  - 10-bit RAW RGB
- Others
  - 50/60Hz flick noise cancellation
  - Register group write capability
  - Frame synchronization
  - Black sun spot cancellation

Key Specifications:

Optical format		1/4”
Active Pixels		1296H x 732V
Pixel size		3.0 x 3.0 µm
Color filter array		RGB Bayer pattern
Chief Ray Angle		17.5 degrees linear
Shutter type		Electronic rolling shutter
Maximum Frame Rate		30fps
Supply voltage	**Digital**	1.35 – 1.65V (1.5V nominal)
	Analog	2.6 – 3.0V (2.8V nominal)
	I/O	1.7 – 3.0V (1.8V nominal)
Power consumption	**Active**	42mA
	Standby	< 300 µA
Output Formats		10-bit RGB Raw Data
Sensitivity		TBD mV/lux-sec
Max SNR		TBD db
Dynamic Range		TBD db
Dark Current		<TBD mV/sec @ 45C
Operating junction temperature		-30 ˚C to 85 ˚C
Stable image junction temperature		TBD

Functional Block:



Component Order Information:

Part Number	Description
JX-H62-C1	CSP

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

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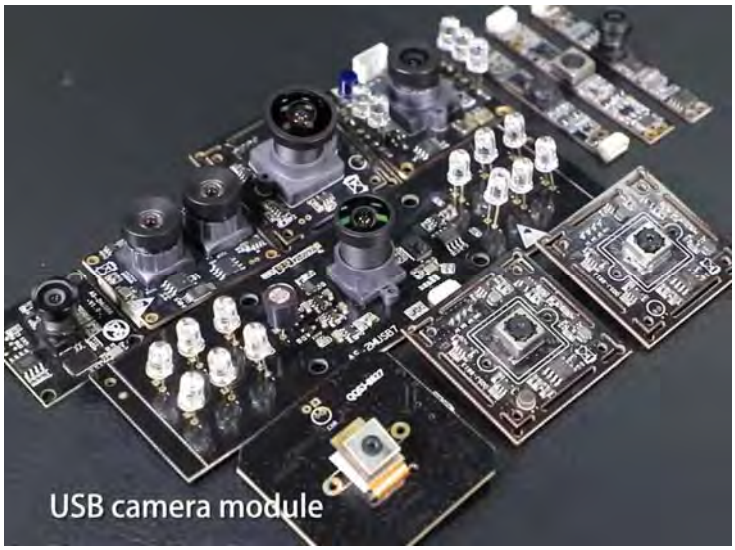
Company HAMPO

Dongguan Hampo Electronic Technology Co., Ltd. was established in 2015, a next-generation technology driven manufacturer specialized in research, design, and produce of audio and video products. Hampo is occupying 150,000 square feet automated plants with 500 employees of annual throughput 180,000,000 units cameras.

Hampo 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. Hampo 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

Hampo provides the following limited warranty if you purchased the Product(s) directly from Hampo company or from Hampo's website, www.hampotech.com. Product(s) purchased from other sellers or sources are not covered by this Limited Warranty. Hampo 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, Hampo 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 Hampo is solely limited to repair and/or replacement on the terms set forth above. Hampo is not reliable or responsible for any subsequential events.

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