查询C9047供应商

专业PCB打样工厂

CCD multichannel detector head C9047 series



WWW.07

Designed for back-thinned CCD area image sensors

C9047 series is an industrial camera with a high-speed, high resolution CCD (S9037-0902, S9037-1002) and usable in a wide range of applications including production line inspection and surveying. The CCD used in C9047 series is sensitive in the ultraviolet region (down to 130 nm *1) making C9047 series ideal for UV laser applications.

As soon as power is turned on, C9047 series enters standby mode ready to output image data in synchronization with an external trigger signal. All camera settings can be made through serial communication ports (RS-232C).

The CCD mounted in the camera is a back-thinned FFT-CCD (Full Frame Transfer CCD) that receives light from the backside and therefore has very high UV sensitivity.

The camera body is compact yet designed to radiate heat efficiently away from the internal circuit and sensor. The CCD focal plane is flush with the front panel of the camera body making optical design easier.

Features

- Digital output
- Real-time digital sensitivity correction
- High UV sensitivity: sensitive down to 130 nm DZSC
- Fast line rate S9037-0902: 16 kHz S9037-1002: 9 kHz
- External trigger operation
- Easy handling
- PC controllable (RS232C)
- Compact and lightweight

Applications

- Spectrophotometry
- High-speed UV imaging
- Bio-photon observation
- Semiconductor inspection

The table below shows CCD image sensors applicable for C9047 series. Since C9047 series does not include CCD image sensors, so select the desired sensor and order it separately.

Type No.	Type No. Number of total pixels		Active area [mm (H) × mm (V)]
S9037-0902	520×6	512 × 4	12.288×0.096
S9037-1002	1044 × 8	1024 × 4	24.576 imes 0.096

WWW.DZSC.COM *1: When the CCD sensor faceplate is removed.

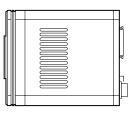


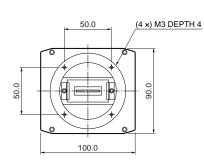


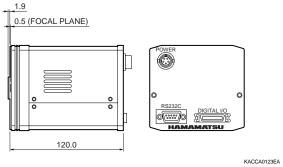
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Specifications	Parameter		00047	00047.04	
-	Parameter		C9047 C9047-01		
CCD structure			Back-thinned FFT-CCD		
Number of total pixels	xels	S9037-0902	520 (H) × 6 (V)		
		S9037-1002	1044 (H) × 8 (V)		
Effective number of pixels	ofnivels	S9037-0902	512 (H) × 4 (V)		
Ellective number		S9037-1002	1024 (H) × 4 (V)		
Pixel size			24 (H) × 24 (V) µm		
Effective active area		S9037-0902	12.288 (H) × 0.096 (V) mm		
		S9037-1002	24.576 (H) × 0.096 (V) mm		
Scanning rate			10 MHz		
Maximum line rate		S9037-0902	16 kHz		
		S9037-1002	9 kHz		
AD conversion resolution			12-bit		
Camera interface			RS-422	LVDS	
Spectral response range			200 to 1100 nm		
Full well capacity			600,000 e ⁻		
Conversion gain			145 e ⁻ /ADU (600,000 e ⁻ at 4095 ADC counts)		
Dark current			4,000 e ⁻ /pixel/s at +25 °C		
Readout noise			435 e ⁻ (3.0 ADU) at 10 MHz		
Supply voltage	Digital circuit		D. +5 V ± 0.25 V (600 mA Max.)		
	Analog circuit		A. +15 V ± 0.5 V (300 mA Max.)		
	Analog circuit		A15 V ± 0.5 V (300 mA Max.)		
Storage temperature			-20 °C to +70 °C		
Operating temperature			0 °C to +50 °C		
Operating humidity			70 % Max. (no condensation)		
Dimension			90 (H) × 100 (W) × 120 (D) mm		
Weight			Approx. 800 g		

Dimensional outline (unit: mm)







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Pin No.	Signal name	Pin No.	Signal name
1	/RESET+	19	/RESET-
2	/CNT+	20	/CNT-
3	LEN+	21	LEN-
4	NC	22	NC
5	DATA-TRIG+	23	DATA-TRIG-
6	GND	24	GND
7	D00+	25	D00-
8	D01+	26	D01-
9	D02+	27	D02-
10	D03+	28	D03-
11	D04+	29	D04-
12	D05+	30	D05-
13	D06+	31	D06-
14	D07+	32	D07-
15	D08+	33	D08-
16	D09+	34	D09-
17	D10+	35	D10-
18	D11+	36	D11-

■ Pin connection of "DIGITAL I/O" connector (3M 10236-5202JL, 36-pin female connector)

■ Pin connection of "RS-232C" connector (OMRON XM2C-0912-111, 9-pin D-sub male connector)

Pin No.	Signal name	Pin No.	Signal name
1	NC	6	NC
2	RX	7	RTS
3	ТХ	8	CTS
4	NC	9	NC
5	GND	-	-

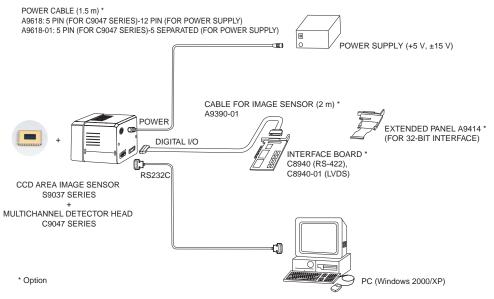
■ Pin connection of "POWER" connector (HIROSE RM12BRD-5S, 5-pin female connector)

Pin No.	Signal name	
1	D. +5 V	
2	D. GND	
3	A.+15 V	
4	A. GND	
5	A15 V	

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■ Connection example

Refer to the drawing below to set up the hardware used in conjunction with this camera.



KACCC0210EC



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