Allied Vision

EXO USB3

exo541CU3

一般

型號	exo541CU3
產品編號	F002079
產品系列	EXO USB3
狀態	Available

感測器

感測器類型	Area scan
色度	Color
光譜	Visible
光譜範圍	400 nm to 1000 nm
解析度	4,504 × 4,504 (20.30 MP)
感測器型號	Sony IMX541
感測器架構 (材料)	cmos
快門類型	Global shutter (GS)
感測器尺寸	12.34 × 12.34 mm (17.45 mm, Type 1.1)
像素大小	2.74 µm × 2.74 µm

像素格式

感測器位深	8-bit, 12-bit
RGB 像素格式	bayer8, bayer12packed

影像性能

動態範圍	72 dB
訊噪比	39.2 dB

Allied Vision

時序與增益

最大影格率	18.4 fps
曝光時間	15 µs to 60 s
增益	0.0 dB to 48.0 dB

I/O 與電源

非隔離線	0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output,
特定非隔離線	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,
光隔離線	1 x Optical isolated input, 0 x Optical isolated input,
I/O 連接器	12-pin Hirose HR10A-10P-12S
電源供應	10 to 25VDC
功耗	External: 4 W (typical)

操作條件

操作溫度 (機殼)	-10 °C to 65 °C

機械特性

機殼尺寸 (長 x 寬 x 高 mm)	43 × 50 × 50
濾光片/保護玻璃	IR-Cut - 680nm
防護等級	IP40
鏡頭接口	C-Mount
重量	140 g

板載記憶體與 FPGA

影像緩衝區 (RAM)	192 MByte
非揮發性記憶體 (Flash)	32 MByte

介面

數位介面	usb3.0
介面連接器	(Micro-B)
視覺標準	USB3 Vision

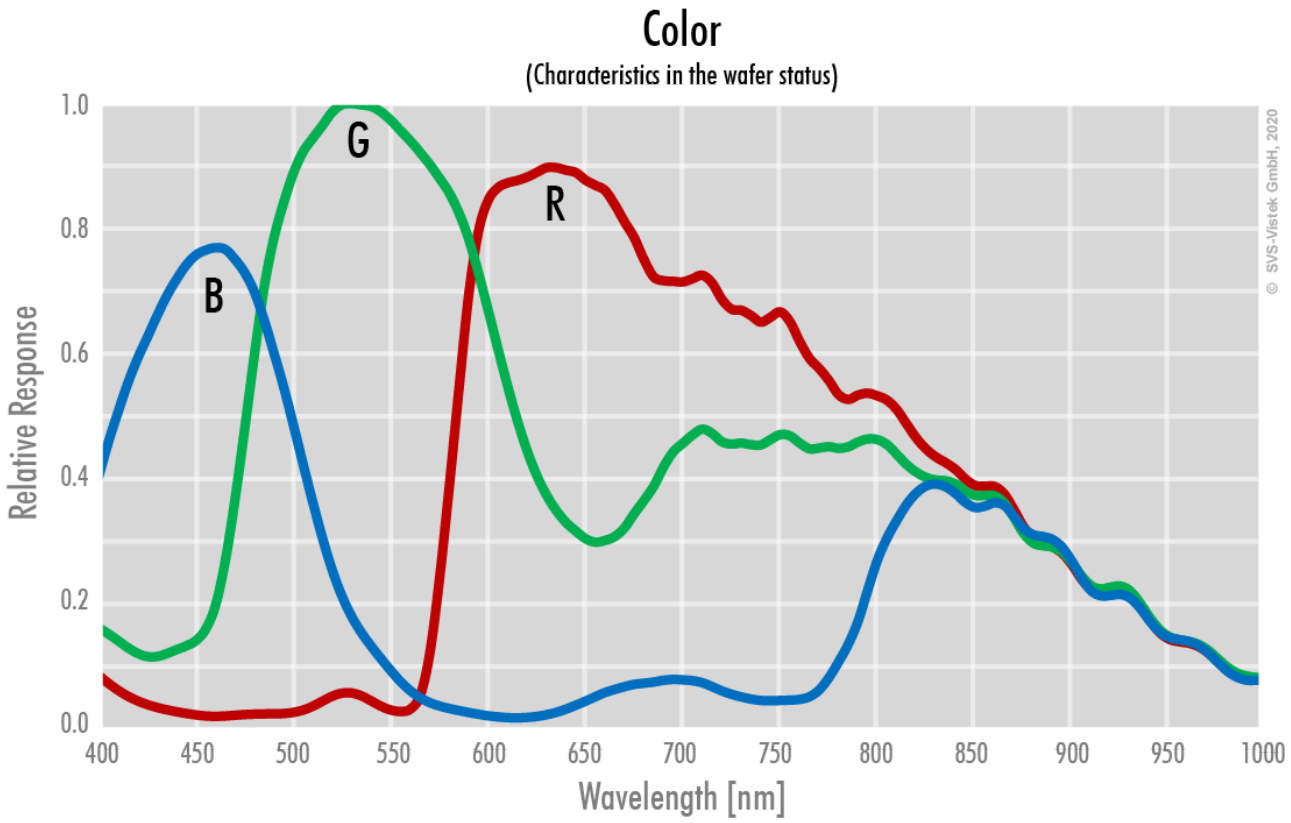
FW 功能 – 影像控制

曝光模式	manual, auto, external
增益模式	auto, manual
白平衡模式	auto, manual
影像控制功能	roi, lut, mirror-image, dpc, shading-correction

FW 功能 – 相機控制

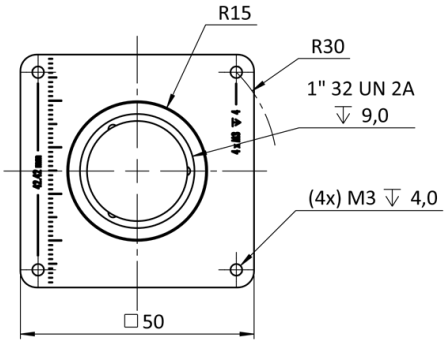
觸發模式/同步	internal, software, external
相機控制功能	User Sets, PWM(4), Sequencer,

量子效率

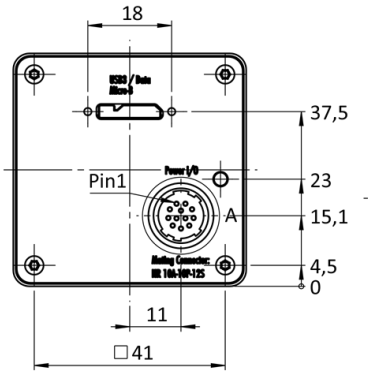

Color
(Characteristics in the wafer status)
Relative Response
1.0
0.8
0.6
0.4
0.2
0.0
400
450
500
550
600
650
700
750
800
850
900
950
1000
Wavelength [nm]
B
G
R
© SVS-Vistek GmbH, 2020

技術圖紙

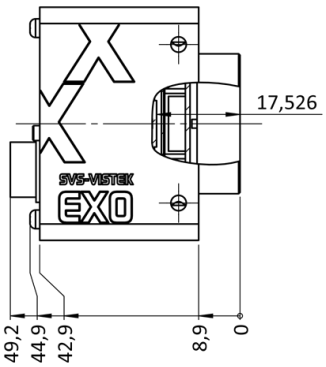
front



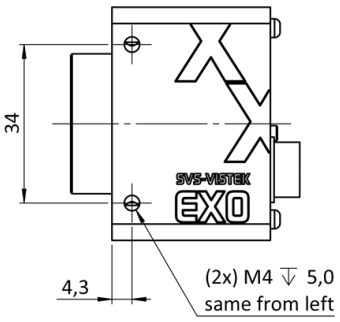
back



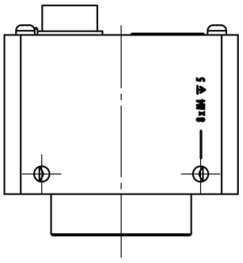
cross section



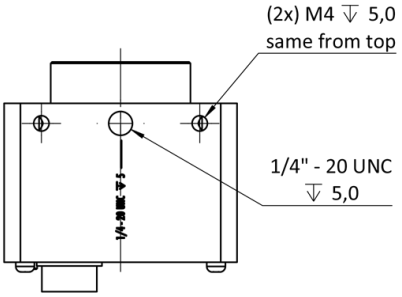
right side



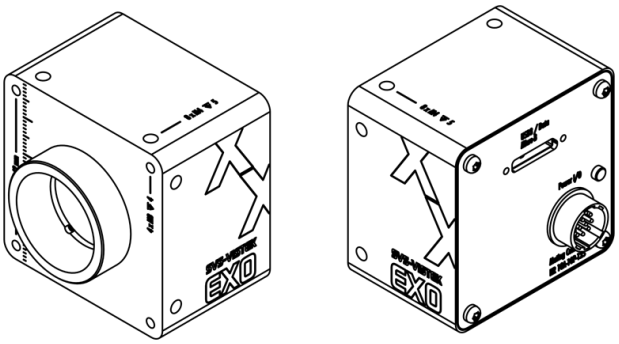
top



bottom

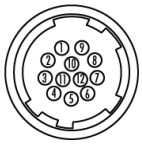


3D



I/O 引腳分配

Hirose 12 Pin



1	VIN –	(GND)	7	OUT 1	(open drain)
2	VIN +	(10 V to 25 V DC)	8	OUT 2	(open drain)
3	IN 4	(RXD RS232)	9	IN 3 +	(opto In +)
4	OUT 4	(TXD RS232)	10	IN 3 –	(opto In –)
5	IN 1	(0 - 24V)	11	OUT 3	(open drain)
6	IN 2	(0 - 24V)	12	OUT 0	(open drain)