Allied Vision

EXO USB3

exo541CU3



Generale

Modello	exo541CU3
Codice prodotto	F002079
Serie di prodotti	EXO USB3
Stato	Available

Sensore

Tipo di sensore	Area scan
Croma	Color
Spettro	Visible
Gamma spettrale	400 nm to 1000 nm
Risoluzione	4,504 × 4,504 (20.30 MP)
Modello sensore	Sony IMX541
Architettura sensore (Materiale)	cmos
Tipi di otturatore	Global shutter (GS)
Dimensione sensore	12.34 × 12.34 mm (17.45 mm, Type 1.1)
Dimensione pixel	2.74 µm × 2.74 µm

Formati pixel

Profondità bit sensore	8-bit, 12-bit
Formati pixel RGB	bayer8, bayer12packed

Prestazioni di imaging

Gamma dinamica	72 dB
SNR	39.2 dB

Tempi e guadagno

Frequenza fotogrammi max.	18.4 fps
Tempo di esposizione	15 µs to 60 s
Guadagno	0.0 dB to 48.0 dB

I/O e alimentazione

Linee non isolate	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,
Linee non isolate specifiche	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,
Linee otticamente isolate	1 x Optical isolated input, 0 x Optical isolated input,
Connettore I/O	12-pin Hirose HR10A-10P-12S
Alimentazione	10 to 25VDC
Consumo energetico	External: 4 W (typical)

Condizioni operative

Temperatura operativa	-10 °C to 65 °C (custodia)

Proprietà meccaniche

Dimensioni custodia (L x P x A in mm)	43 × 50 × 50
Vetro filtro/protezione	IR-Cut - 680nm
Classe IP	IP40
Attacco/i obiettivo	C-Mount
Peso	140 g

Memoria onboard e FPGA

Buffer immagine (RAM)	192 MByte
Memoria non volatile (Flash)	32 MByte

Interfacce

Interfaccia digitale	usb3.0
Connettore interfaccia	(Micro-B)
Standard Vision	USB3 Vision

Funzioni FW – Controllo immagine

Modalità di esposizione	manual, auto, external

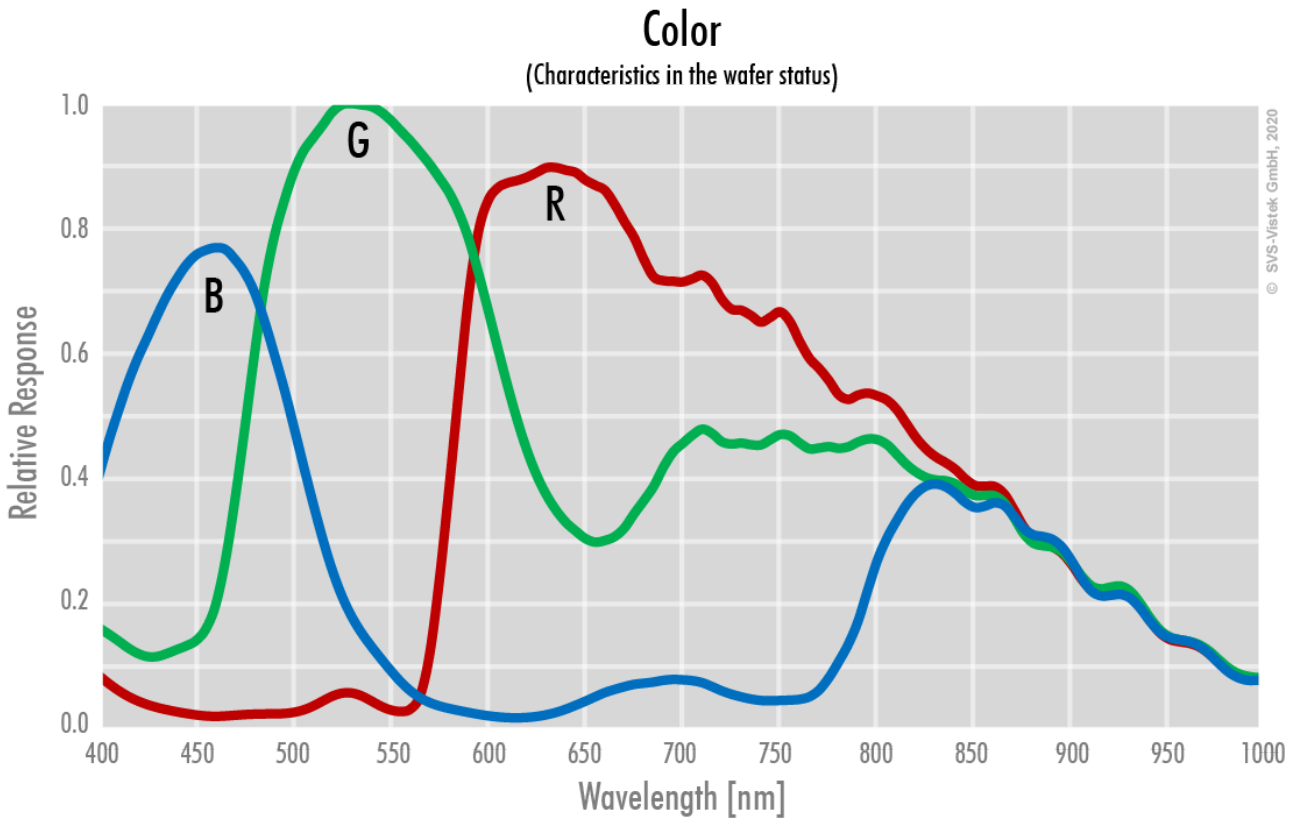
Funzioni FW – Controllo immagine

Modalità di guadagno	auto, manual
Modalità di bilanciamento del bianco	auto, manual
Funzioni di controllo immagine	roi, lut, mirror-image, dpc, shading-correction

Funzioni FW – Controllo fotocamera

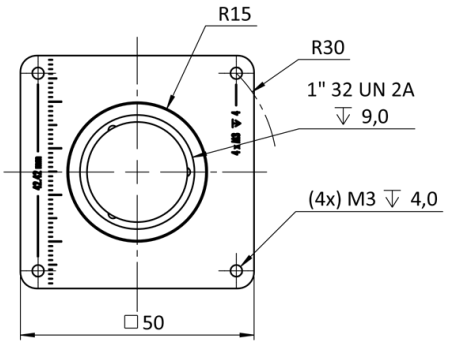
Modalità di trigger/sincronizzazione	internal, software, external
Funzioni di controllo della fotocamera	User Sets, PWM(4), Sequencer,

Efficienza quantica

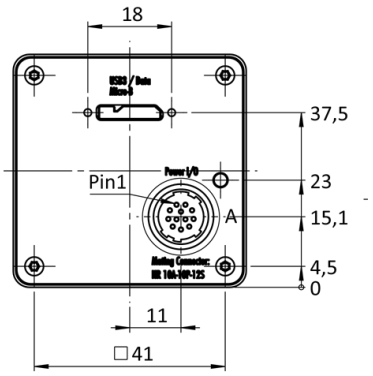


Disegno tecnico

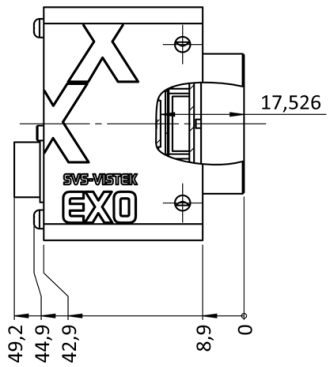
front



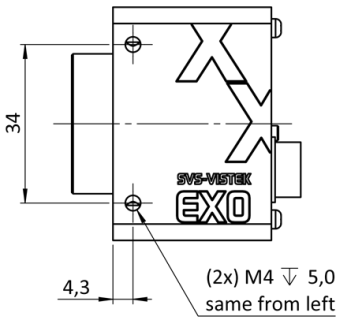
back



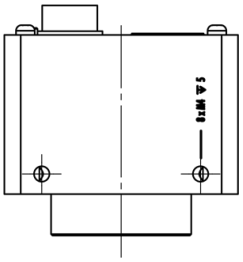
cross section



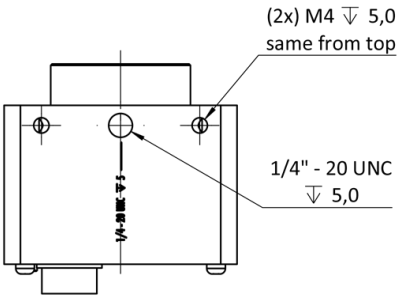
right side



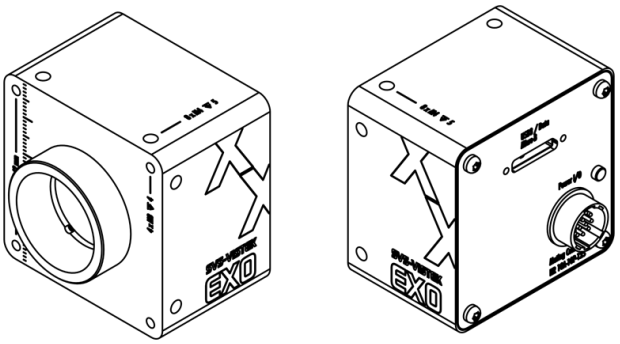
top



bottom

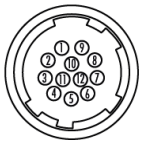


3D



Assegnazione pin I/O

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)