

Double USB3.0 Area Scan Camera

MV-2500UM30-DU

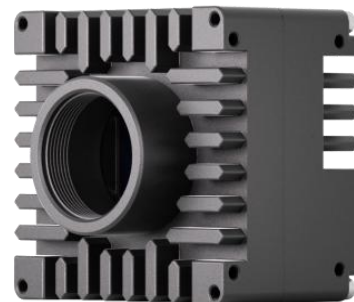


- Ultra-low power consumption, stable and reliable
- Dual cable data interface design, 10G communication bandwidth
- Built-in large capacity frame buffer to ensure reliable and real-time transmission

Double USB3.0 Area Scan Camera

Key Features

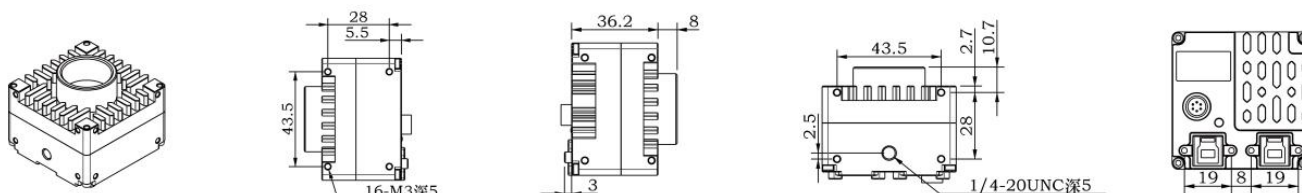
- 25MP (Mono) , 10G communication bandwidth
- High performance hardware image processor, support a variety of image processing, reduce the host CPU consumption
- Built-in large capacity frame buffer to ensure reliable and real-time transmission
- Ultra-low power fanless design, no dust and zero vibration
- Dimensions : 56mm×56mm×36.2mm



Specifications

Model :	MV-2500UM30-DU
Resolution	5120×5120
Sensor Optical Size	1.1"
Shutter	Global
Pixel Size	2.5um
Max Frame Rate	30FPS
Mono/Color	Mono
SNR	40db
Sensitivity	1.03x10 ⁷ e/(W/m)s
Bit depth	12bit
Trigger mode	Software trigger/Hardware trigger
DR	65db
Spectral response	390nm-1050nm
Exposure time	12us-6s 610ms120us
Gain	Gain : 1.0X-5.0X
Output image format	RAW, MONO
Power supply	USB5V power supply
Power dissipation	<5W
Transmission interface	2*USB3.0 interface
Dimension	56mmx56mmx36.2mm
Operating temperature	-10°C -50°C
Weight	<185g
Lens interface	C
IPProtection rating	IP30
Compatible	USB3.0 Vision, GenICam, HALCON, LabView, OpenCV
Certifications	CE, FCC, RoHS

Dimension (unit:mm)



Spectral response

The curve below displays the spectral response for spectrum of 300-1100nm.

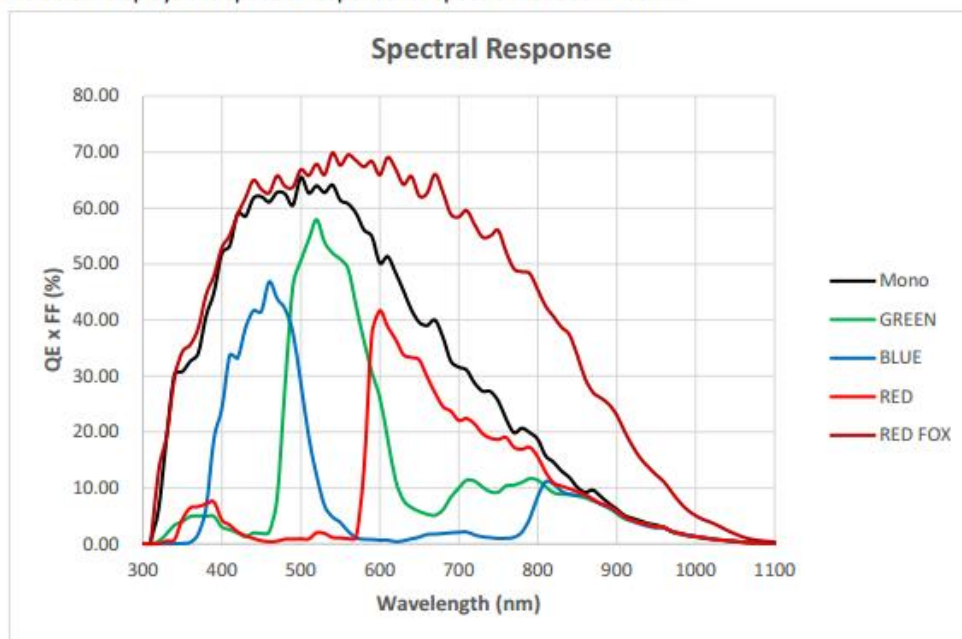


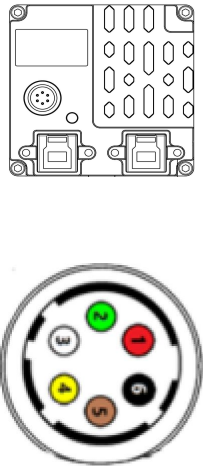
Figure 14 Spectral Sensitivity Characteristics

The table below shows more details about the QE measurement results

Table 12 Detailed QE measurement results

Wavelength (nm)	QE x FF (%) - Mono	QE x FF (%) - B	QE x FF (%) - G	QE x FF (%) - R	QE x FF (%) - RF
350	30.77	0.11	3.99	4.40	34.32
400	51.9	24.23	3.03	4.30	52.90
450	62.03	41.54	1.87	0.57	63.37
500	65.48	28.76	50.60	0.90	66.84
550	61.41	3.85	50.87	1.08	67.64
600	50.17	0.67	26.14	41.66	65.92
650	39.58	1.21	5.80	32.85	62.16
700	31.59	2.07	9.98	22.06	58.41
750	25.53	0.98	9.25	18.67	55.99
800	18.69	8.44	11.39	15.57	45.44
850	10.14	8.77	8.55	9.37	33.77
900	6.22	5.81	5.42	5.76	23.04
950	3.37	2.89	3.09	3.04	12.34
1000	1.29	1.31	1.30	1.34	5.06

Interface definition

Trigger diagram	Pin	Color	Definition	Signal source	State	Isolated/ non-isolated	Interface circuit	Input/output parameters
	1	Red	POWER_IN		Positive terminal of DC power supply			Empty, not connected
	2	Green	TRIG+	Line1+	Trigger input positive	Isolated input	Optocoupler	Low effectiveness: 0-1V High efficiency: 5-24V Have polarity
	4	Yellow	FLASH_OUT+	Line2+	Flash output positive	Isolated output	Optocoupler	Optical coupling current limit: 20mA Have polarity
	5	Brown	COM	Line1/2-	Trigger/flash light coupling common end (negative)	Isolated	Optocoupler	
	3	White	GPIO	Line3+	General purpose input/output ports	Non-isolated input/output	Transistor input/output	Input low validity: <3V Input high effective: >4V Output low level: 0.3V Output high level: 4.7V The output is the collector pull up, String 1K resistor.
	6	Black	GND	Line3-	GPIO/ Power supply. ground			
		Transparency	Shielded wire		Shield wire is connected to the camera housing			Remark: Shielded wire sleeve transparent heat shrink sleeve