

USB3.0 Miniature Industrial area scan cameras

KC-DSV501M



- Ultra-small size, 16g ultra-light weight
- Power consumption as low as 1.2W
- Suitable for semiconductor, PCB inspection and other industries

USB3.0 Industrial area scan cameras



Performance Features

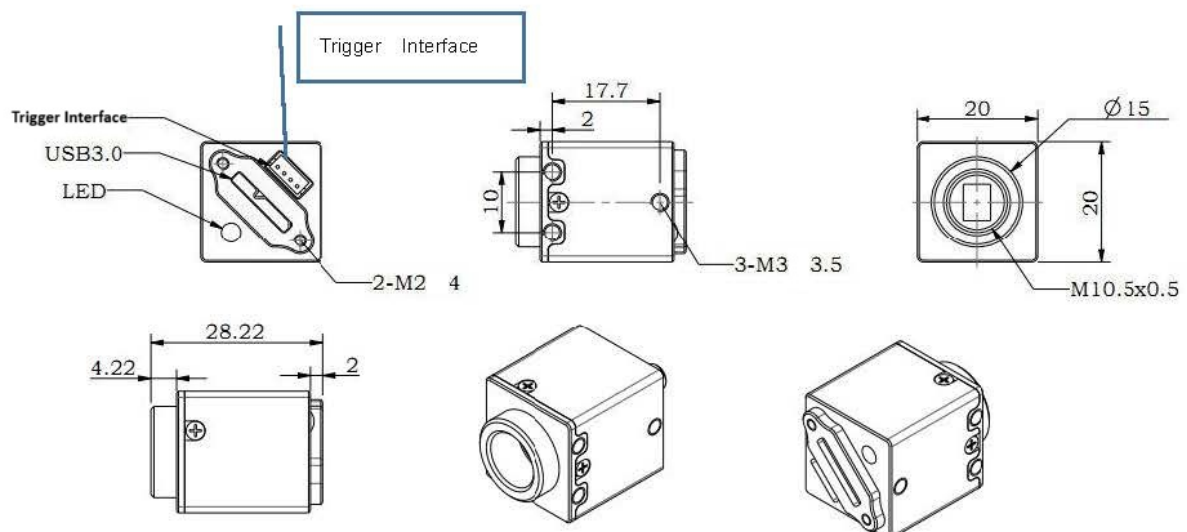
- USB3.0 SuperSpeed interface, 2568x1920 resolution, 60FPS
- Maximum speed up to 300MByte/s
- Ultra-small size: 20mmx20mmx22mm
- 16g ultra-light weight
- Low latency for image acquisition
- Power consumption as low as 1.2W
- more than 50% lower than the power consumption of peer cameras
- Dimension: 20mmx20mmx22mm

Technical parameters

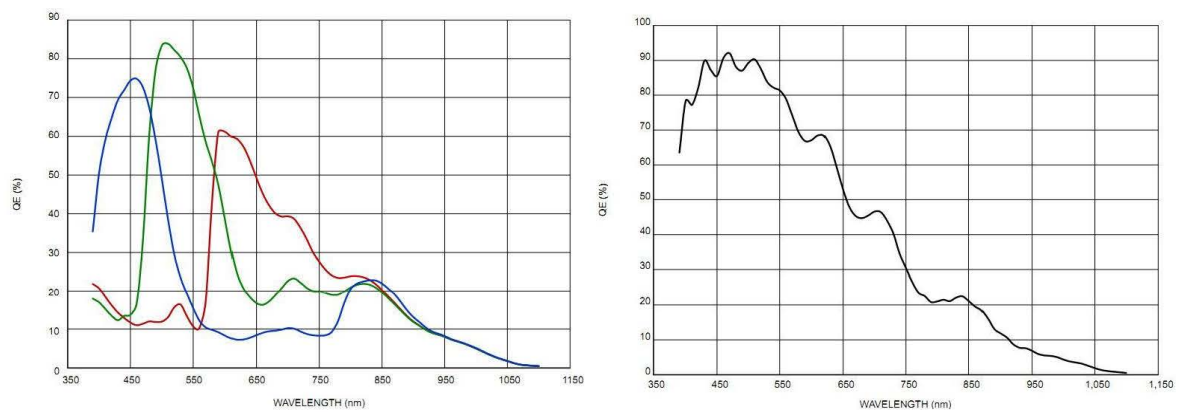
Product Model	KC-M3VT501-H	KC-M3VT501M-H
Pixel	5M Color	5M Mono
SENSOR Related	AR0521 1/2.5" CMOS 2.2umx2.2um	
Scan Mode	Progressive scanning	
ResolutionFrame Rate	Resolution	Frame Rate
	2568x1920	60FPS
	2568x960 (ROI)	116FPS
	2568x480 (ROI)	219FPS
	1284x960 (SKIP2)	116FPS
	1284x960 (BIN2)	116FPS
	2568x192 (TEST PATTERN)	60FPS
	Arbitrary size ROI (minimum ROI resolution of 96 x 96)	
HDR	74.3dB	
SNR	40dB	
Sensitivity	36ke-/Lux.S	18.8ke-/Lux.S
Exposure Time	8us-199ms998us	
Gain Range	1.0x-15x	
Bit Depth	8bit	
Spectral response	390nm ~ 650nm	380nm ~ 940nm
Image Format	RAW8, BMP24, MONO8	RAW8, BMP24, MONO8
Working mode	Continuous operation, software triggered, hardware triggered	
Exposure Mode	Manual exposure/auto exposure/area exposure	
Camera ID	Factory-written ID for cameras, and user-written ID for cameras	
Multi-Camera Support	4 units	
Programmable control	Exposure time, gain, stroboscopic, gamma, contrast, black level, sharpness, 2D noise reduction,	Exposure time, gain, stroboscopic, gamma, contrast, black level, sharpness, 2D noise

	3D noise reduction, saturation, white balance	reduction, 3D noise reduction
Support for software interface	GenICam, HALCON, LabView, OpenCV	
Support System	Windows XP 32Bit; Windows 7/8/8.1/10 (32/64Bit)	
Data Interface	USB3.0 5Gbps, MICRO	
External trigger interface	4 pin PH1.5mm 180° Wafer holder, TTL-5.0V level	
Power supply	USB 5V power supply, maximum power consumption less than 1.2W, standby less than 0.5W	
Operating Environment	Temperature: -10℃ ~ 50℃ ; Humidity: 10% - 60%RH	
Storage environment	Temperature: -30 ~ 70℃; Humidity: 10% ~ 90%RH (no condensation)	
Lens interface	M10.5 Interface	
Dimension	20mmx20mmx22mm (Excluding the length of the lens connector)	
Weight	16g	
Standard Accessories	3m USB 3.0 cable	

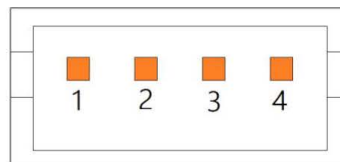
Dimensional drawing



Spectral response



Interface Definition



PIN	Definition	Status	Description
1	VDDIO	Power supply	IO level indication, output 5V voltage, large output current <20mA
2	TRIGGER	Input	Trigger input, TTL-5.0V compliant
3	FLASH	Output	Flash output, TTL-5.0V compliant
4	GND	Ground	Ground Line