



Specification	KP-F510UB KP-FD510UB	KP-FM200UB KP-FMD200UB	KP-F31UB	KP-F21UB
Image device	2/3-inch CCD	1/1.8-inch CMOS	1/3-inch CCD	1/2-inch CCD
Total number of pixel	2456(H) × 2058(V)	1600(H) × 1200(V)	657(H) × 494(V)	
Pixel size	3.45 μm(H) × 3.45 μm(V) (Square pixel)	4.5 μm(H) × 4.5 μm(V) (Square pixel)	7.4 μm(H) × 7.4 μm(V) (Square pixel)	9.9 μm(H) × 9.9 μm(V) (Square pixel)
Color filter	RGB primary color mosaic filter		—	—
Scanning area	8.47 mm(H) × 7.10 mm(V)	7.2 mm(H) × 5.4 mm(V)	4.88 mm(H) × 3.66 mm(V)	6.52 mm(H) × 4.89 mm(V)
Scanning system	Progressive			
Sync system	Internal			
Lens mount	C mount (Flange focal distance = 17.526 mm)			

Video output

Interface	USB3.0 interface			
Image format	KP-F510UB / FM200UB : Mono 8/ 10/ 12 bit KP-FD510UB / FMD200UB : RGB 24/ 30/ 36 bit YUV(4:2:2) 24/ 30/ 36 bit, RAW 8/ 10/ 12 bit, Mono 8/ 10/ 12 bit		Mono 8/ 10/ 12 bit	
Image size	2456(H) × 2058(V)	1600(H) × 1200(V)	652(H) × 490(V)	
Frame rate	KP-F510UB : 18 fps KP-FD510UB : 18 fps (YUV)	53 fps	125 fps	

Specification	: 12 fps (RGB)		KP-F31UB	KP-F21UB
	KP-F510UB KP-FD510UB	KP-FM200UB KP-FMD200UB		
Sensitivity	KP-F510UB : 400 lx, F8, 3200K KP-FD510UB : 2000 lx, F5.6, 3200K	KP-FM200UB : 500 lx, F5.6, 3200K KP-FMD200UB : 2000 lx, F5.6, 3200K	550 lx, F4, 3200K	
S/N	50 dB	45 dB	50 dB	

Electric shutter

Mode	OFF/ Auto (AES)/ Manual (PRESET or VARIABLE), OFF is normal exposure (frame rate)			
PRESET	1/60, 1/100, 1/200, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/50000 second	1/25, 1/200, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/50000 second		
VARIABLE	10 ~ 1/100,000 second			

External trigger

Mode	Fixed shutter mode (Change in the 9 stage or variable Allowed)	Fixed shutter mode (Change in the 8 stage or variable Allowed)
Input	Via USB3.0 cable (software trigger), 6-pin connector (Hardware trigger)	

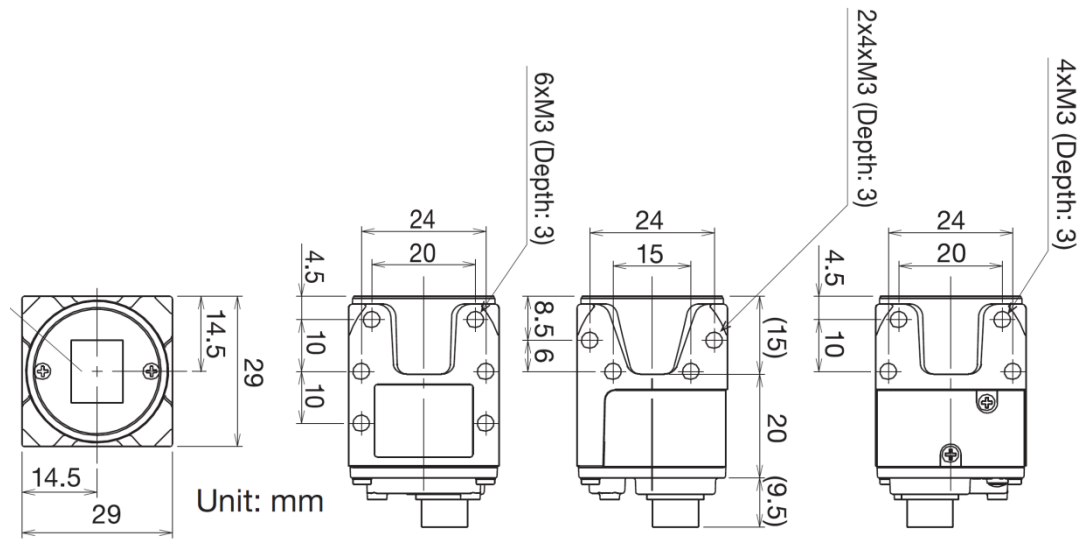
External sync signal

VD output	5 Vp-p ±0.3 V	
Strobe out	5 Vp-p ±0.3 V	

Partial scan®	Controllable uptake start position and capturing width by 1H interval	Adjustable uptake video area in units of one pixel	Controllable uptake start position and capturing width by 1H interval
Binning mode	OFF / ON		
ALC (Auto level control)	Adjustable for video level		
White balance (FD/ FMD model)	ATW/ MANUAL/ One-Push	—	—

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Color masking (FD/ FMD model)	OFF/ ON (6 color independent masking)		—	—
Gain	0 ~ 18 dB (Set in 1dB increments)			
Gamma	OFF ($\gamma=1$)/ LUT(0.45 ~ 1)			
Adjustable	Sharpness, Black level, Knee			
Power supply	DC 5 V \pm 5% (Via USB connector)			
Power consumption	Approx. 4.5 W (860mA)	Approx. 1.6 W (320mA)	Approx. 2.5 W (500mA)	
Ambient temperature				
Performance	0°C ~ +40°C/ 90%RH or less			
Operating	-10°C ~ +50°C/ 90%RH or less			
Storage	-20°C ~ +60°C/ 70%Rh or less (without dew condensation)			
Vibration endurance	98.6 m/s ² (15 ~ 200 ~ 15Hz, XYZ 10 minute)			
Shock endurance	490.3 m/s ² or less (vertical, horizontal, once each face)			
External dimensions	29 (W) × 29 (H) × 29(D) mm (not including lens and protrusions)	29 (W) × 29 (H) × 20(D) mm (not including lens and protrusions)		
Mass	Approx. 60 g (without lens)	Approx. 45 g (without lens)		

Dimensions



Company information



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