

Series Compare	Series	164A03	164B03
	Pixel Size	1.116 x 1.116	1.12 x 1.12
	Image Area	1.446 x 0.91	1.43 x 0.81

Series Information

	K Series	X Series	FX Series
Feature	ultra slim camera head	low temperature / tiny size	low temperature / tiny size Snapshot and freeze frame
Camera shape	round (front view)	T shape / rectangle (side view)	
Video format	MJPEG / YUV		
Interface	USB 2.0		
Frame rate	15~30 fps		

Specification

Resolution	1280 x 720 @15~30fps		
Image sensor	1/11" CMOS Color Camera Module		
Pixel size (μm)	1.12 x 1.12		
Image area (mm)	1.43 x 0.81		
Scan mode	progressive		
Storage temperature	-30 to 60 Degree C		
Working temperature	-10 to 45 Degree C		
Lens (specify which lens)	65° lens	1.32mm/F2.0/F3.5 (H= 69°; V= 42° ; D= 65°)	
	120° lens	0.878mm/F5.0 (H=95.1°;V=56.2°;D=120°)	
Power source	DC 5V (USB)		
Power current	NO LED / 160mA with LED 6pcs / 190mA		

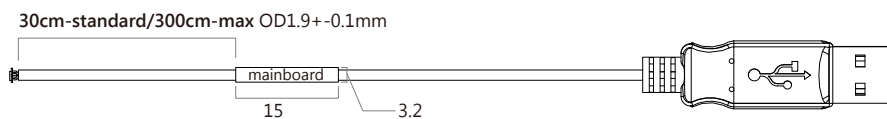
*Camera image setting on smartphone

K Series Information

unit: ±0.2mm

	No lens	65° lens	65° lens with LED	120° lens	120° lens with LED
B164B03 series front view (board type)					
T164B03 series front view (tube type)					

K Series



Item	Cable length	Cable OD
1	10~150 (cm)	0.35 +0.1(mm) enameled wire
2	10~200 (cm)	0.9 +0.1(mm)
3	10~200 (cm)	1.5 +0.1(mm)
4	10~200 (cm)	1.7 +0.1(mm)
5	10~400 (cm)	2.8 +0.1(mm)
6	10~1000 (cm)	3.5 +0.1(mm)
7	10~1500 (cm)	5.0 +0.1(mm)

KD-B164B03LH-120

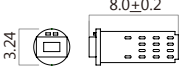
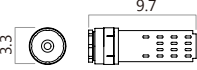
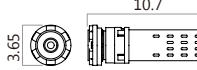
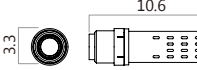
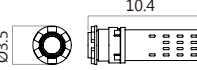
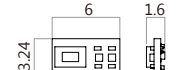
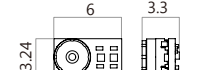
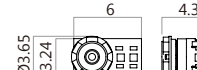
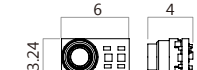
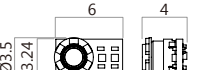
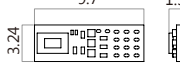
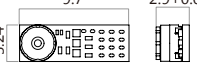
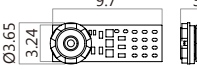
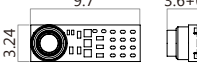
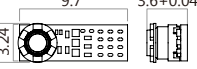
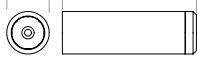
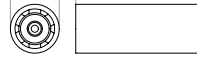
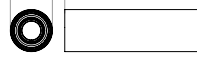
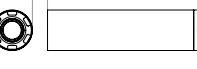
SERIES	CONNECTOR	TYPE	CAMERA TYPE	LED	LENS
K Ultra slim camera head	D USB 2.0 A type	B Board type	164B03 Color	LH High-intensity white LED	65 1.32mm/F2.0 (65°)
	M Micro USB 2.0 OTG B type	VB Board type + dimmer	164BM3 B/W	L9 IR 940nm LED	65 1.32mm/3.5 (65°)
	T USB 2.0 type C	T Tube type		L8 IR 850nm LED	120 0.878mm/F5.0 (120°)
		V Tube type + dimmer			

* IR 940nm or IR 850nm LED suggest to choose B/W camera type

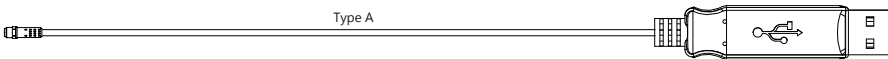
* Camera with LED light source suggest to use larger number of F-stop

X / FX Series Information

unit: ±0.2mm

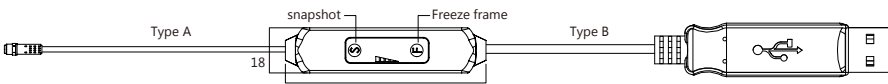
	No lens	65° lens	65° lens with LED	120° lens	120° lens with LED
B164B03 series front view (board type)					
BL164B03 series side view (board type)					
BL164B03S series side view (single board type)					
T164B03 series front view (tube type)					

X Series



Type A	Cable length	Cable OD
1	100~200 (cm)(TBD)	1.7 ±0.1(mm)
2	100~200 (cm)(TBD)	1.9 ±0.1(mm)
3	100~600 (cm)(TBD)	2.8 ±0.1(mm)

FX Series



Type B	Cable length	Cable OD
1	10~200 (cm)	1.7 +0.1(mm)
2	10~400 (cm)	2.8 +0.1(mm)
3	10~1000 (cm)	3.5 +0.1(mm)
4	10~1500 (cm)	5.0 +0.1(mm)

FXD-B164B03LH-120

SERIES	CONNECTOR	TYPE	CAMERA TYPE	LED	LENS
X Low temperature and tiny size	D USB 2.0 A type M Micro USB 2.0 OTG B type	Front view B Board type T Tube type V Tube type + dimmer	164B03 Color 164BM3 B/W	LH High-intensity white LED L9 IR 940nm LED L8 IR 850nm LED	65 1.32mm/F2.0 (65°) 65 1.32mm/3.5 (65°) 120 0.878mm/F5.0 (120°)
FX Low temperature and tiny size with snapshot and freeze frame	T USB 2.0 type C	Side view BL Board type TL Tube type VL Tube type + dimmer	Single board for side view only 164B03S Color 164BM3S B/W		

* IR 940nm or IR 850nm LED suggest to choose B/W camera type

* Camera with LED light source suggest to use larger number of F-stop