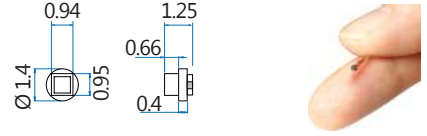
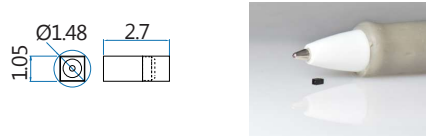
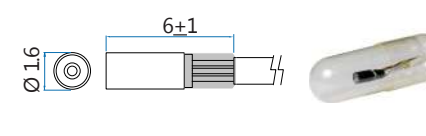
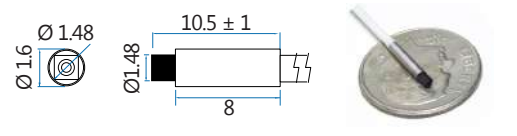
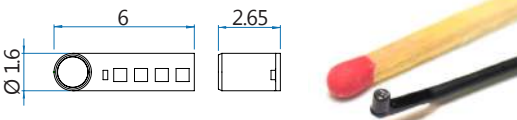
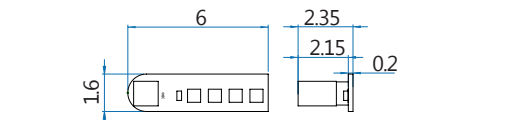
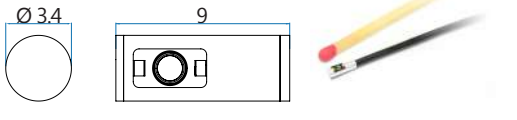
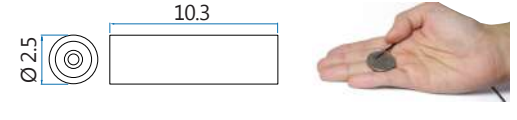


- High quality image, pixel is 400 × 400 @ 30fps.
- Ultra-compact size, diameter is 1.4 mm (PCB module).

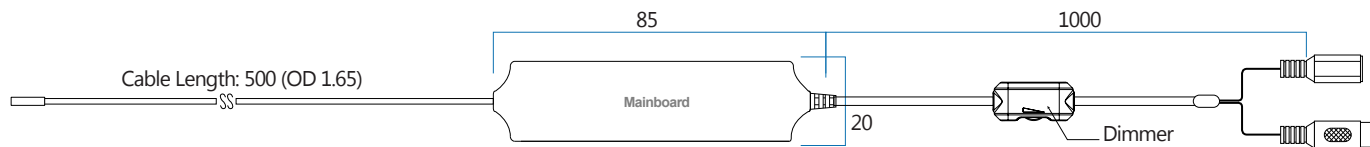
Unit: ± 0.5 mm

B1001 NO lens / Front View 	B1001-120 120° lens / Front View 	B1001-91 91° lens / Front View 	T1001-120 120° lens / Front View 
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BL1001-91 91° lens / Side View 	BL1001-120 120° lens / Side View 	VL1001LH-91 91° lens / High intensity LED / Side View 	VL1001LH-120 120° lens / High-intensity LED 
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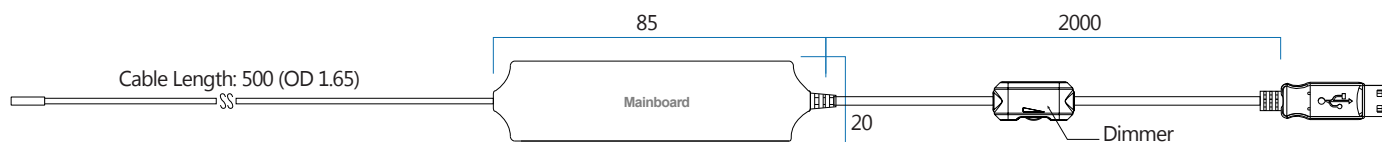
MO-V1001LH

CVBS signal / High-intensity LED / Dimmer



MD-V1001LH

CVBS signal / High-intensity LED / Dimmer



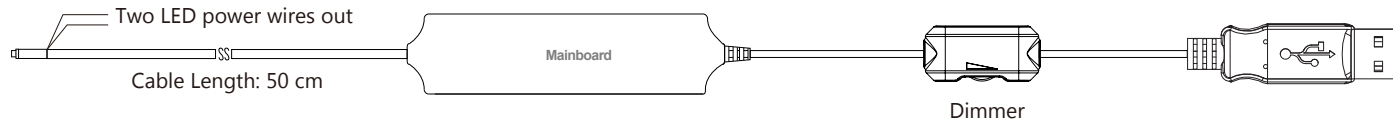
Specification

Unit: ± 0.5 mm

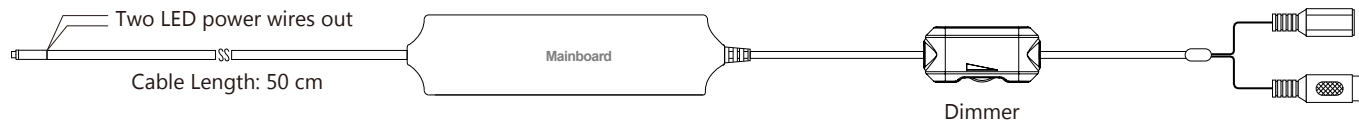
Model	MO-B1001	MO-V1001L	MO-BL1001	MO-VL1001	MO-V1001LH	MD-B1001	MD-V1001L	MD-BL1001	MD-VL1001LH	MD-V1001LH
Orientation	front view	front view	left side view	left side view	front view	front view	front view	left side view	left side view	front view
Camera type	Board type	Tube type	Board type	Tube type	Tube type	Board type	Tube type	Board type	Tube type	Tube type
LED / Dimmer	N/A	LED x 3 dimmer	N/A	LED x 2 dimmer	High-intensity LED x 4 dimmer	N/A	LED x 3 dimmer	N/A	LED x 2 dimmer	High-intensity LED x 4 dimmer
Interface	RCA Female / DC Jack					USB 2.0 (compliant with USB video class 1.1 standard)				
Output format	CVBS					YUV 、 MJPEG				
Operating system	CVBS device					Windows7, windows8, Linux, Android				
Power source	DC 5~12V					DC 5V (USB)				
Max. frame rate	400 × 400 @ 30fps									
Pixel size	1.75 μm x 1.75 μm									
Image sensor	1/18" Color CMOS Camera Module									
Image area	741 μm × 707 μm									
Scan mode	progressive									
Sensitivity	1000 mV/Lux-sec									
Dynamic range	67.1 dB @ 8 × gain									
Storage temperature	-30 to 60 Degree C									
Working temperature	-10 to 45 Degree C									
Power current	120 mA (w/o LED)									

MD-B1001LH-91X

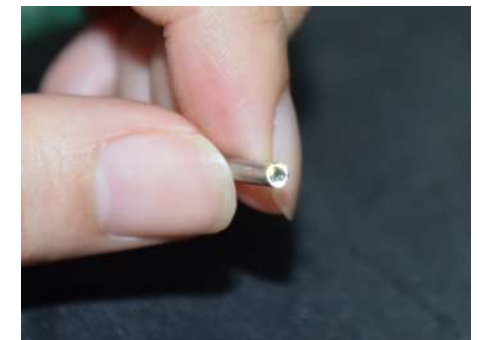
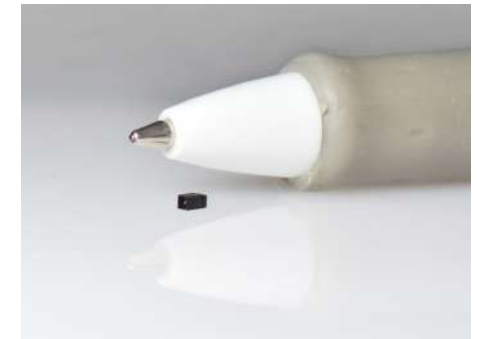
SERIES	CONNECTOR	CAMERA TYPE	DISPLAY	LED	LENS	CABLE (Sensor board to mainboard)				
M Miniature Size	UVC signal	Front View	1001 Color 7001 B/W	LH High-intensity White LED L White LED L8 IR 850nm LED L9 IR 940nm LED	90 0.505 mm / F 4.0 (90°) 91 0.5 mm / F 3.6 (91°) 120 0.418 mm / F5.0 (120°)	Cable Code	Cable O.D (mm)	MD-1001 (length-max)	MO-1001 (length-max)	Note
	D USB 2.0 Type A	B Board Type				A	Ø 1.2	50~180cm	50~140cm	LED unavailable
	M Micro USB OTG Type B	VB Board Type + Dimmer				D	Ø 0.65	50~180cm	50~180cm	Available to add LED
	T USB 2.0 Type C	T Tube Type				X	Ø 1.35	50~210cm	50~130cm	Available to add LED
	CVBS signal	Side View				E	Ø 1.6	50~400cm	50~400cm	Available to add LED
	O RCA female / DC plug	BL Board Type				B	Ø 1.65	50~150cm	50~130cm	Available to add LED
		VBL Board Type + Dimmer				N/A	Ø 1.85	50~190cm	50~160cm	Available to add LED
		VL Tube Type + Dimmer								



Model	LED	LED Power Wires	Dimmer Switch	Cable OD (mm)	Cable Length (max)	Signal
MD-B1001-D	N / A	●	●	Ø 0.65	50~180cm	UVC
MD-B1001-A	N / A	N / A	N / A	Ø 1.2	50~180cm	UVC
MD-B1001-X	N / A	●	●	Ø 1.35	50~210cm	UVC
MD-B1001-E	N / A	●	●	Ø 1.6	50~400cm	UVC
MD-B1001-B	N / A	●	●	Ø 1.65	50~150cm	UVC
MD-B1001	N / A	●	●	Ø 1.85	50~190cm	UVC



Model	LED	LED Power Wires	Dimmer Switch	Cable OD (mm)	Cable Length (max)	Signal
MD-B1001-D	N / A	●	●	Ø 0.65	50~180cm	CVBS
MD-B1001-A	N / A	N / A	N / A	Ø 1.2	50~140cm	CVBS
MD-B1001-X	N / A	●	●	Ø 1.35	50~130cm	CVBS
MD-B1001-E	N / A	●	●	Ø 1.6	50~400cm	CVBS
MD-B1001-B	N / A	●	●	Ø 1.65	50~130cm	CVBS
MD-B1001	N / A	●	●	Ø 1.85	50~160cm	CVBS



Tiny Lens / Cable OD Can Be Customized

Ø1.6mm lens with 91° wide angle was specially developed for the ultra mini Ø1.4mm PCB.
 Special cable made of unique material was also developed for better signal conduction.
 Maximum cable length can be as long as 140cm, cable OD can be customized as 1mm, 1.65mm, 1.85mm, depending on customers' requests.



Light Guide / 3 Pcs White LED

Excellent brightness from the 3 LED light maximally emit to the light guide.
 With dimmer switch to adjust brightness according to environment.



Analog Signal / Digital Signal Output

Two types of signals (analog / digital) for your choice.
 Driver free for any OS (Windows, MAC OS, Linux) as digital camera signal output version.



Module For Medical Application Ideas

Tiny dimension perfect for medical endoscopes, borescopes or other small diameter inspection devices. Compact size camera enable easy and smooth inspection process; instead of tedious inspection process caused by traditional larger size cameras.
 Using light light guild to converge LED light, enhance brightness.

Ultra Compact Size, and Excellent Image Quality

1/18" CMOS (OV6946) image camera with 400 × 400 pixel and size is 1.6mm only.
 Tiny dimension perfect for medical endoscopes, borescopes or other small diameter inspection devices.

