TAMRON

Ultra-Compact Full-HD Camera Module
Industries' most compact and lightweight 10x optical zoom module
Model Name MP3010M-EV

Ultra-Compact 10x Zoom

Key Features

Full Upgrading Compatibility with the Models of the Previous Series
・ Module size is effectively identical with the previous models.
・ Mounting hole size and locations are identical with the previous models.
・ Equipped with an industry-leading compact 10x optical zoom lens.
・ Supports LVDS video output. (30-pin connector: pins are identical with the previous models)
・ Module supports camera control by VISCA

Improved Performance and Utility for a Wide Range of New Applications
・ High sensitivity due to implementation of a new Sony STARVIS™ image sensor.
  Required minimum illumination of 0.1 lx (1/30 sec, F/1.8, 50% Color, typical) is achieved.
・ A new day/night feature is added to enhance the nighttime operation in indoor/outdoor scenes.
・ Equipped with a state-of-the-art EIS (Compensating horizontal and vertical vibration, and rotation)
・ Equipped with a Multi-Interface to support various video outputs:
   - New HDMI Type D (Micro HDMI) connecter provides video output via HDMI
   - New UVC/USB control and video output (up to 1080/30p) in addition to the FULL-HD digital
     video and the LVDS SD (NTSC/PAL) analog video outputs equipped in the previous models

<SPECIFICATIONS>

Image sensor	Sony's CMOS image sensor with STARVIS™ technology *1
Signal system(HD)	1920x1080 or 1280x720 1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 720p/60, 720p/59.94, 720p/50, 720p/30, 720p/29.97, 720p/25
Signal system(SD)	NTSC/PAL
Minimum illumination	0.1 lx (1/30sec,F/1.8,50%,Color,Typical) 0.025 lx (1/30sec,F/1.8,50%,B&W,Typical)
S/N	More than 50dB
Gain	Auto/Manual
Shutter speed	1/1～1/10,000 sec
Sync system	Internal
Backlight compensation	ON/OFF
White balance	ATW1(Narrow), ATW2(Wide), INDOOR, OUTDOOR, One push, Manual
Lens	10x optical zoom f=3.3～33mm F/1.8～F/3.4
Digital zoom	Up to 16x

Focusing system	Auto, Manual, One push, AF sensitivity
Minimum object distance (wide to tele)	Visible light: 10mm(w)-800mm(t) 850nm: 10mm(w)-1200mm(t)
Horizontal viewing angle (wide to tele)	59.2° (wide)~6.7° (tele) *2
Day/Night	ON/OFF (ICR switching)
EIS	OFF/ON
Horizontal resolution	Center: 800TV lines (Typical)
Video output (HD)	LVDS: digital Y/Pb/Pr 4:2:2 HDMI*3: digital Y/Pb/Pr 4:2:2 USB: UVC (up to 1080/30p)
Video output (SD)	CVBS 1.0V(p-p,75Ω)
Camera control	VISCA*4
Power requirement	DC 8~12 ± 10%
Power consumption	Approx. 2.5W (Approx. 4.4W during zoom and focus operation)
Operating temperature	-5° ~ +60°C
Storage temperature	-40° ~ +60°C
Operating humidity	20% ~ 80% (no condensation)
Storage humidity	20% ~ 90% (no condensation)
Dimensions (W x H x D)	33 x 43 x 59mm
Weight	about 70g

*1 STARVIS is trademark of Sony Group corporation or its affiliates.
*2 Except when EIS is operated
*3 The Adopted Trademarks HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
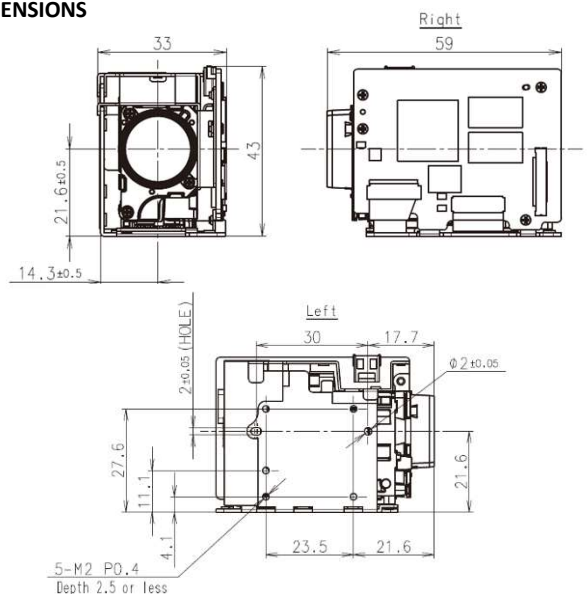*4 VISCA is trademark of Sony Group corporation or its affiliates.

PIN ASSIGNMENT

30pins micro coaxial connector for connection between camera and interface board

Pin No	Name	Level	Pin No	Name	Level
1	TXOUT3+		16	DC IN	8～12V DC
2	TXOUT3-		17	DC IN	8～12V DC
3	TXCLKOUT+		18	DC IN	8～12V DC
4	TXCLKOUT-		19	GND	
5	TXOUT2+		20	GND	
6	TXOUT2-		21	TXOUT7+	Single out mode: open
7	TXOUT1+		22	TXOUT7-	Single out mode: open
8	TXOUT1-		23	TXOUT6+	Single out mode: open
9	TXOUT0+		24	TXOUT6-	Single out mode: open
10	TXOUT0-		25	CVBS OUT	
11	GND		26	RESET	
12	TxD HOST 1	CMOS 3.3V	27	TXOUT5+	Single out mode: open
13	RxD HOST 1	CMOS 3.3V	28	TXOUT5-	Single out mode: open
14	DC IN	8～12V DC	29	TXOUT4+	Single out mode: open
15	DC IN	8～12V DC	30	TXOUT4-	Single out mode: open

DIMENSIONS

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