

PE1005

Full HD CMOS Movie Camera Module

Abstract

PE1005 is a full HD(1920x1080/30p) CMOS camera module. Bright and sharp optical x10 zoom lens is equipped. In addition to color correction by light source estimation, and focus preset, it supports high sensitivity image capture. PE1005 can be applied for many applications such as DVC, CCTV and surveillance camera.



Feature

- High resolution high definition color camera
- Full HD(1920x1080/30p)
Supports 25 varieties of video output formats
- Optical x10 zoom and auto focus
- Low power consumption
800mW (in 1080 motion picture mode)
- Controls via I2C
- 2.1M pixels for still image capture
- Digital Image Stabilizer (movie)
- Auto white balance control
- Auto defected pixel correction
Effective for age deterioration
- Backlight compensation
Tune exposure against backlight
- Flicker reduction

Specifications

Image sensor	1/2.5 inch primary color CMOS 2.1M equivalent		
Number of pixels	Motion image	4:3	390K pixels
		16:9	2.07M pixels
	Still image	4:3	2.0M pixels
		16:9	2.07M pixels
Lens	1/3.6 inch f=4.5 – 45.0 mm F1.8 – 2.2		
Minimum Lux	6 Lux / 0.35 Lux (High sensitivity mode, Slow shutter)		
Image output format	16bit Digital YUV 4:2:2		
Power	2.8V, 4.0V		
Power consumption	800mW @motion image capture		
Body weight (including board)	57g		
Operating temperature	-10°C ~ 60°C		
Dimension	30,9mm(W) x 34.7mm(H) x 61.8mm(D)		

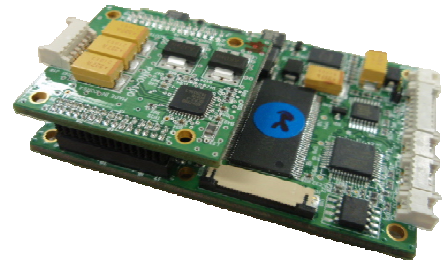
Function	Setup items
Image capture mode	Motion picture mode / Still picture mode
Still image drive mode	Single / Continuous / AEB
Correction features	Defect pixels / Digital Image Stabilizer (movie) / Back lighting
Flicker reduction	AUTO / OFF/ MANUAL (50Hz / 60Hz)
EV correction	From -2EV to +2EV (1/3 EV step)
Still image drive mode	AUTO / MANUAL (6steps)
Auto slow shutter	ON / OFF
Auto focus	Movie / Still
Zoom motion setup	Direction and speed / Zoom position report
AWB mode	AUTO / Day / Cloudy / Shade / FL (White / Natural / Day) / Light / Custom / MANUAL (by x,y)
Sharpness	High / Middle / Low
Noise reduction	High / Middle / Low / OFF

Specifications subject to change without prior notice.

PE1005

Signal Conversion Board (Option)

- Converts Digital YUV from PE1005 to various formats
- Combination of Mother(PMB-100) and Daughter Board
- 3 types of output interface are available in Daughter Board
- RS232C control protocol
- Provides with a flat cable for PE1005 connection
- DC12V operation
- Mother Board Dimension: 64mm(W)x45mm(D)
- Daughter Board Dimension: 34mm(W)x31mm(D)



PMB-100 + PANC-100 (Component output)

Part Number	Output Interface	Signal Format	Kit Contents
PANC-100 KIT	Component (YPbPr)	1080p30, 1080i60, 1080i50, 720p60, 720p30	PANC-100, PMB-100, flat cable
PHDM-100 KIT	HDMI	1080p30, 1080i60, 1080i50, 720p60, 720p30	PHDM-100, PMB-100, flat cable
PSDI-100 KIT	HD-SDI	1080p30, 1080i60, 1080i50, 720p60, 720p30	PSDI-100, PMB-100, flat cable

Specifications subject to change without prior notice.

Conversion Lens (Option)

- Suitable for PE1005 to change view angle / magnification
- 2 types of conversion lens are available
 - Wide Conversion
 - Tele Conversion
- Provides with attachment for PE1005



PWCL07-100 (Wide Conversion Lens)

Part Number	Conversion Type	Lens Specifications	Physical Dimension
PWCL07-100	Wide Conversion	View Angle: (H)66.1degree, (V)52.0degree Magnification: x 0.7 Lens Configuration: 4 elements in 4groups F value: F1.8 – F2.2 Focal Length: f=3.15~31.5mm	φ 53x42.2mm (including attachment)
PTCLxx-100*	Tele Conversion	Magnification: x 2.0	T.B.D.

* Under development

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