OMRON

Specifications

Electronic Specifications

Product		STC-HD853HDMI
Image Sensor		1/2.5" 8.51M Progressive CMOS (SONY)
Shutter Type		Rolling shutter
Active Picture Elements		3,840 (H) x 2,160 (V) (QFHD), 1,920 (H) x 1,080 (V) (Full HD)
Chip Size		8.365 (H) x 6.615 (V) mm
Cell Size		1.62 (H) x 1.62 (V) µm
Sensitivity		1,070 Lux (*1)
Sync. System		Internal
Video output		HDMI (RGB 8bit 4:4:4) 2160P59.94 / 2160P60 / 2160P50 / 2160P29.97 / 2160P30 / 2160P25, 1080P59.94 / 1080P60 / 1080P50 / 1080P119.88 /1080P120 / 1080P100 **(Default: Auto)** (*2)
Camera Functions		
	ALC	ALC mode (auto electronic shutter and AGC) is configurable via UART communication **(Default: ALC ON)**
	Shutter Speed	Auto shutter or Fixed shutter selectable via UART communication **(Default: Auto)**
		2160P59.94: 1/21737.3 seconds (46.0 µseconds) to 1/60.2 seconds (16.62 mseconds), 2160P60: 1/21737.3 seconds (46.0 µseconds) to 1/60.2 seconds (16.62 mseconds), 2160P50: 1/18218.6 seconds (54.9 µseconds) to 1/50.1 seconds (19.95 mseconds), 2160P29.97: 1/10959.9 seconds (91.2 µseconds) to 1/30.1 seconds (33.25 mseconds), 2160P30: 1/10959.9 seconds (91.2 µseconds) to 1/30.1 seconds (33.25 mseconds), 2160P25: 1/9173.1 seconds (109.0 µseconds) to 1/25.1 seconds (39.90 mseconds), 1080P59.94: 1/31266.9 seconds (32.0 µseconds) to 1/60.2 seconds (16.61 mseconds), 1080P60: 1/31266.9 seconds (32.0 µseconds) to 1/60.2 seconds (16.61 mseconds), 1080P50: 1/26383.3 seconds (37.9 µseconds) to 1/50.2 seconds (19.93 mseconds), 1080P119.88: 1/61071.4 seconds (16.4 µseconds) to 1/120.4 seconds (8.31 mseconds), 1080P120: 1/61071.4 seconds (16.4 µseconds) to 1/120.4 seconds (8.31 mseconds), 1080P100: 1/51724.1 seconds (19.3 µseconds) to 1/100.3 seconds (9.97 mseconds)
	Gain	AGC or Fixed gain selectable via the UART communication 0 to 27 dB
	Gamma	8 preset gamma can be selectable (Manual / 0.30 / 0.45 / 0.50 / 0.60 / 0.70 / 0.80 / 0.90 / 1.00) Gamma is selectable via UART communication **(Default: Manual)**
	White Balance	Auto white balance / manual white balance / push to set white balance White balance is selectable via the UART communication **(Default: Auto white balance)**
	Mirror Image	Normal image / horizontal flip / vertical flip / horizontal vertical flip (180 deg. rotation) **(Default: Normal image)**
	DSP Preset	Selectable 8 user preset modes can be selectable User preset mode is selectable via UART communication **(Default: Preset 0)**
	Line Generator	Both horizontal and vertical with all available colors (Line number: 2) Color, thickness and position for individual line are adjustable via UART communication **(Default: Disable)**
	Communication	+3.3V UART communication via Φ 3.5 mm stereo jack (Baud rate: 38,400 bps, 19,200 bps, 9,600 bps) **(Default: 38,400 bps)**
	Character Generator	Built-in character generation function via UART communication
	Defective Pixel Correction	Up to 512 points **(Default: ON)**
Power	Input voltage	+9 to +15 Vdc (Typical: +12 Vdc)
	Consumption	6.0 W

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Precautions

(*1) The sensitivity is measuring the luminance when white level achieved 100 % in below conditions.

Camera Setting		Environment	
Parameter	Setting	Parameter	Setting
Gain Up	0 dB	Light Source	Light Box (White)
AGC	Off	Color temperature	5,100K
White Balance	Optimum	Lens	
Electrical Shutter	1/30 seconds	F on Lens	F5.6
Black Level	Optimum	Target Luminance	IM-600 (Topcon)
Gamma	Factory Setting		

(*2) When selecting “Auto” at video output, video output format is selecting automatically based on connected monitor supported format.
e.g. If the monitor supports up to 2160P30, video output format of camera selects 2160P30 automatically.