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16:9 Format 2160P Color Camera

STC-HD853HDMI

Product Specifications

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1 Introduction

This document describes the specification of the following cameras:

[HDMI Output]
STC-HD853HDMI (C mount Cased type)

1.1 Features

- 2160P CMOS Sensor
- HDMI Output
- OSCD(On Screen Character Display) through Remoter Controller(Optional)
- Configurable many parameters through Control Software
- Eight configurable DSP can be saved
- Pixel Blemish Correction

1.2 Peripheral Equipment

Sentech provide as follow peripheral equipment as option.

- ① +12V DC Power Supply: UN310-1210
- ② Remote Controller: RC-HD133
- ③ Communication Tool(PC can communicate through USB port): JIG-USB-HD
- ④ Control Software: KPACtrl



Figure 1: Peripheral Equipment

Note1: The camera generates high temperature due to the high speed processing. The heat cannot radiate without our designed case. If the camera uses without case, the malfunction and ignition could be happened. **Do not remove the PCB boards from case. Do not use the camera without case.**

Note2: The video output is selecting automatically based on the supported best performance (resolution and speed) video format of receiving device. For example, the monitor supports up to 2160P30, the video output is selecting 2160P30 automatically.

2 Specifications

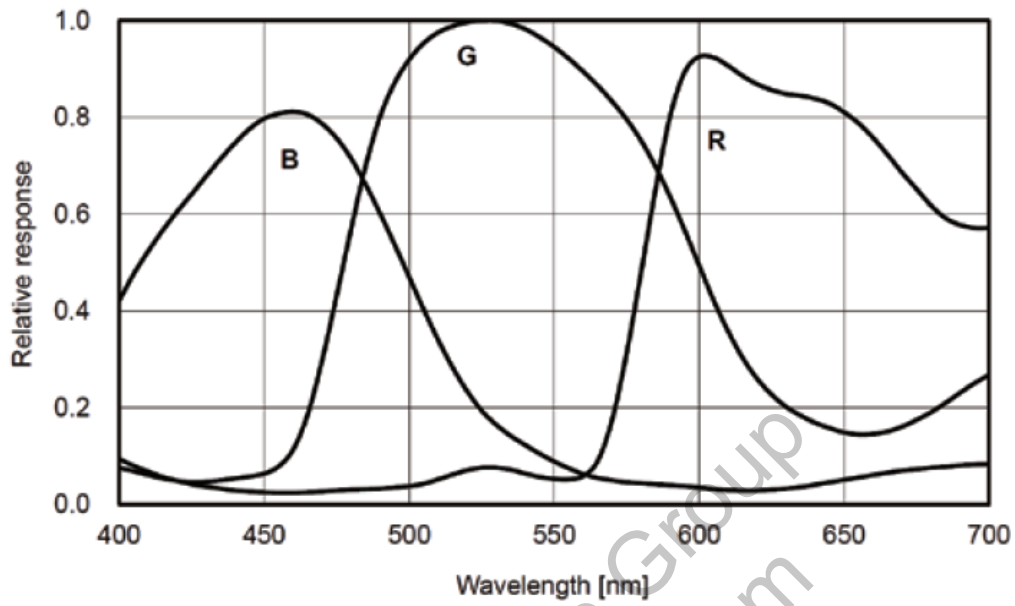
2.1 Electronic specifications / Mechanical specifications / Environmental specifications

Product		STC-HD853HDMI	
Electronic specifications	Imager	1/2.5" 8.51Mega pixel, Progressive, Back-illuminated CMOS (SONY: IMX274), Rolling Shutter	
	Active picture elements	3,840 (H) x 2,160 (V) (QFHD), 1,920 (H) x 1,080 (V) (Full HD)	
	Cell size	1.62 (H) x 1.62 (V) μ m	
	Sync. System	Internal	
	Video output	HDMI (RGB 8bit 4:4:4) 2160P / 59.94 / 60 / 50 / 29.97 / 30 / 25, 1080P / 59.94 / 60 / 50 / 119.88 / 120 / 100	
	Camera functions		
	ALC	Can be configured via the UART communication with auto electronic shutter and AGC	
	Shutter speed	Adjustable shutter speed via the UART communication (AEE) (Default: Auto) 2160P60: 1/21,737.1 sec to 1/60 sec, 2160P59.94: 1/21,737.1 sec to 1/59.94 sec, 2160P50: 1/18,218.6 sec to 1/50 sec, 2160P30: 1/10,959.9 sec to 1/30 sec, 2160P29.97: 1/10,959.9 to 1/29.94 sec, 2160P25: 1/9,173.1 sec to 1/25 sec, 1080P60: 1/31,266.9 sec to 1/60 sec, 1080P59.94: 1/31,266.9 to 1/59.94 sec, 1080P50: 1/26,383.3 sec to 1/50 sec, 1080P120: 1/61,071.4 sec to 1/120 sec, 1080P119.88 1/61,071.4 to 1/119.88 sec, 1080P100: 1/51,724.1 sec to 1/100 sec	
	Gain	AGC or Fixed gain selectable via the UART communication 0 to 27 dB	
	Gamma	Selectable gamma (one preset is manual, 8 preset gamma), Selectable via the UART communication (Default: manual)	
	White balance	Auto white balance / manual white balance / push to set white balance Selectable via the UART (Default: Auto white balance)	
	Mirror image	Normal image / horizontal flip / vertical flip / horizontal vertical flip(180 degree rotation) Default: Normal image	
	DSP preset	8 user preset mode, Selectable via the UART communication (Default: Preset 0)	
	Line generator	4 horizontal and 4 vertical lines, color, thickness and position are adjustable individual line via the UART communication (Default: Disable)	
	Communication	+3.3V UART communication via 3.5 Φ stereo jack (Baud rate: 38,400bps, 19,200bps, 9,600bps)	
	Character generator	Built-in character generation function via the UART communication	
	Pixel blemish collection	Support (Up to 512 points)	
Power	Input voltage	+9 to +15 Vdc (Typical: +12 Vdc)	
	Consumption	TBD W	
Mechanical specifications	Dimensions	65 (W) x 65 (H) x 50.7 (D) mm (Excluding the connector)	
	Optical filter	IR cut filter	
	Material	Aluminum (AC)	
	Lens mount	C *1	
	Interface connector	Video output	HDMI connector
		Power input	+9 to +15 Vdc (Typical: +12 Vdc)
		External control	3.5 Φ stereo jack with SW board (Remote controller can be connected)
Communication		3.5 Φ stereo jack	
Weight	TBD g		
Environmental	Operational temperature	TBD	
	Storage temperature	TBD	
	Vibration	65 (W) x 65 (H) x 50.7 (D) mm (Excluding the connector)	
	Shock	Acceleration 38G, half amplitude 6ms, XYZ 3 directions 3times each	
	Standard compliancy	TBD	
	RoHS	RoHS compliance	

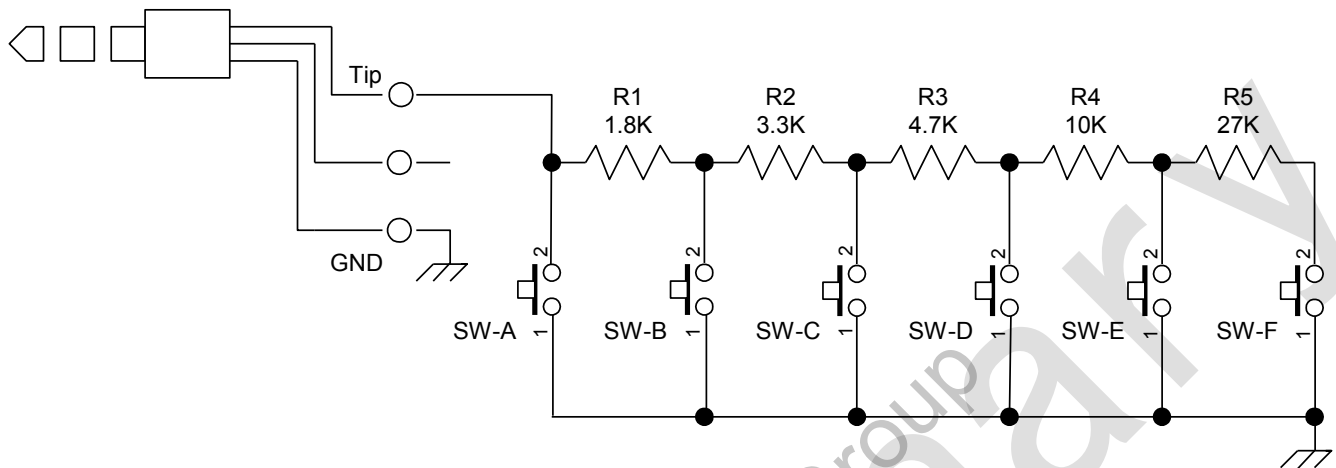
Bold: Initial Value

*1: The appropriate lens have to be used (Recommendation: lens resolution around 2.5 μ m, 2.2 μ m) to obtain 2160P resolution.

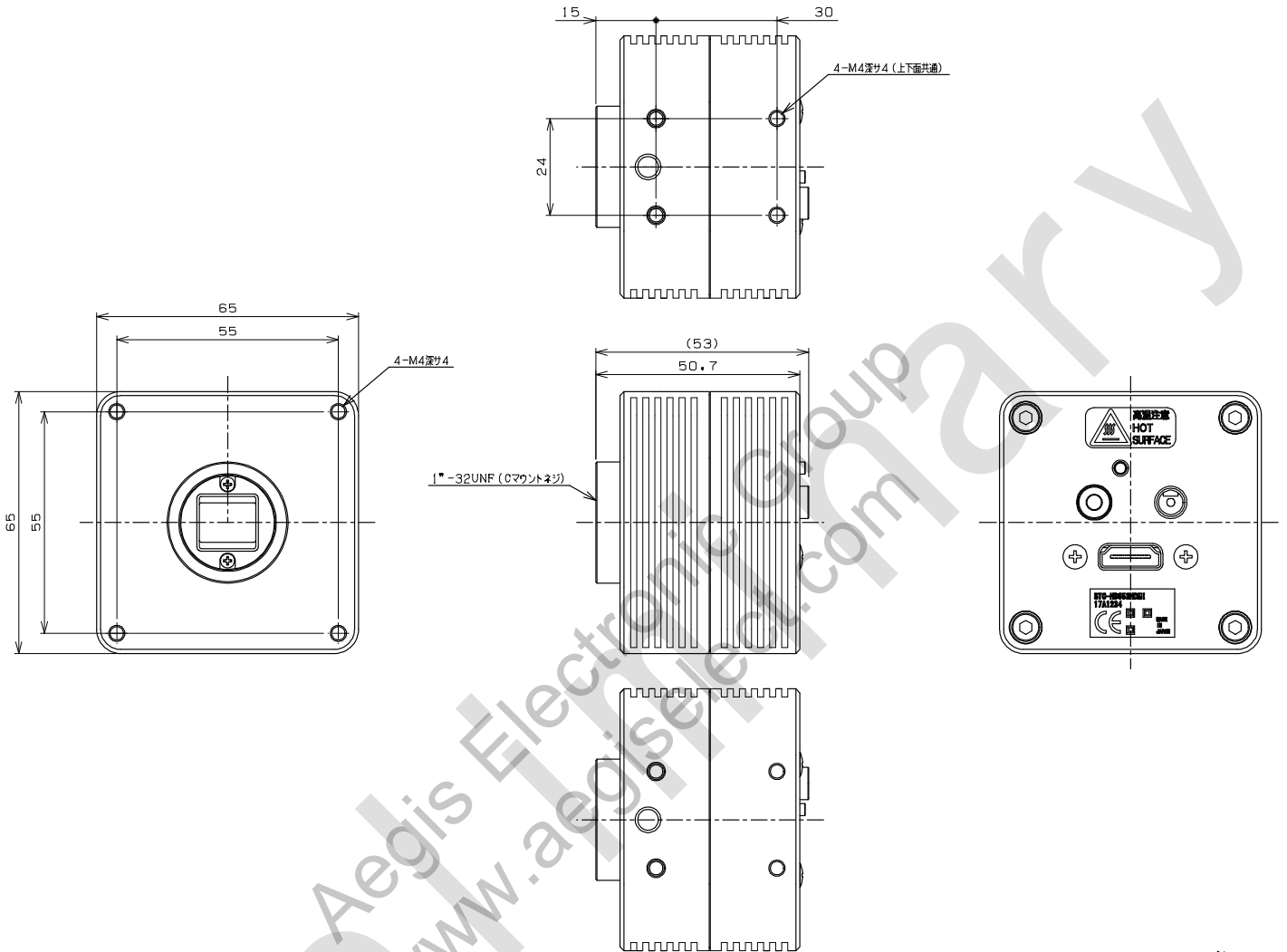
2.1.1 Spectral Sensitivity Characteristics



2.2 External Control Specification

Circuit Diagram of SW Board to connect 3.5 ϕ Stereo Pin Jack

3 Dimensions



unit : mm

4 Revisions

Rev	Date	Changes	Note
ES00	2017/09/12	New Document:	

Note.

All specifications are subject to change without prior notice.

PROHIBITARY

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