SEKAI

RCC-HD13EV/X.X
Ruggedized HD CMOS Camera
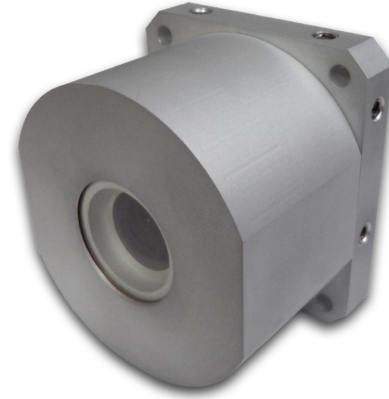
Features

- 1/3" Color CMOS Sensor
- 1280 x 720 HD Resolution
- 720p/60, 720p/59.94, 720p/50 selectable
- Vacuum Capable (10^{-6} Torr)
- Small and Light Weight
- Automatic Gain Control
- Backlight Compensation
- Pixel Defect Correction
- Environmentally Sealed Housing
- Optional Digital Zoom

General Description

The RCC-HD13EV/X.X camera is a very rugged and compact high definition color CMOS video camera (X.X =lens focal length, see below) capable of operating in a hard vacuum (10^{-6} Torr). The camera electronics are well protected inside an environmentally sealed aluminum housing, with a scratch resistant sapphire window. The housing provides complete EMI protection, and can "breathe" through a humidity filter, minimizing maintenance requirements during long term storage.

Environmental Specifications*

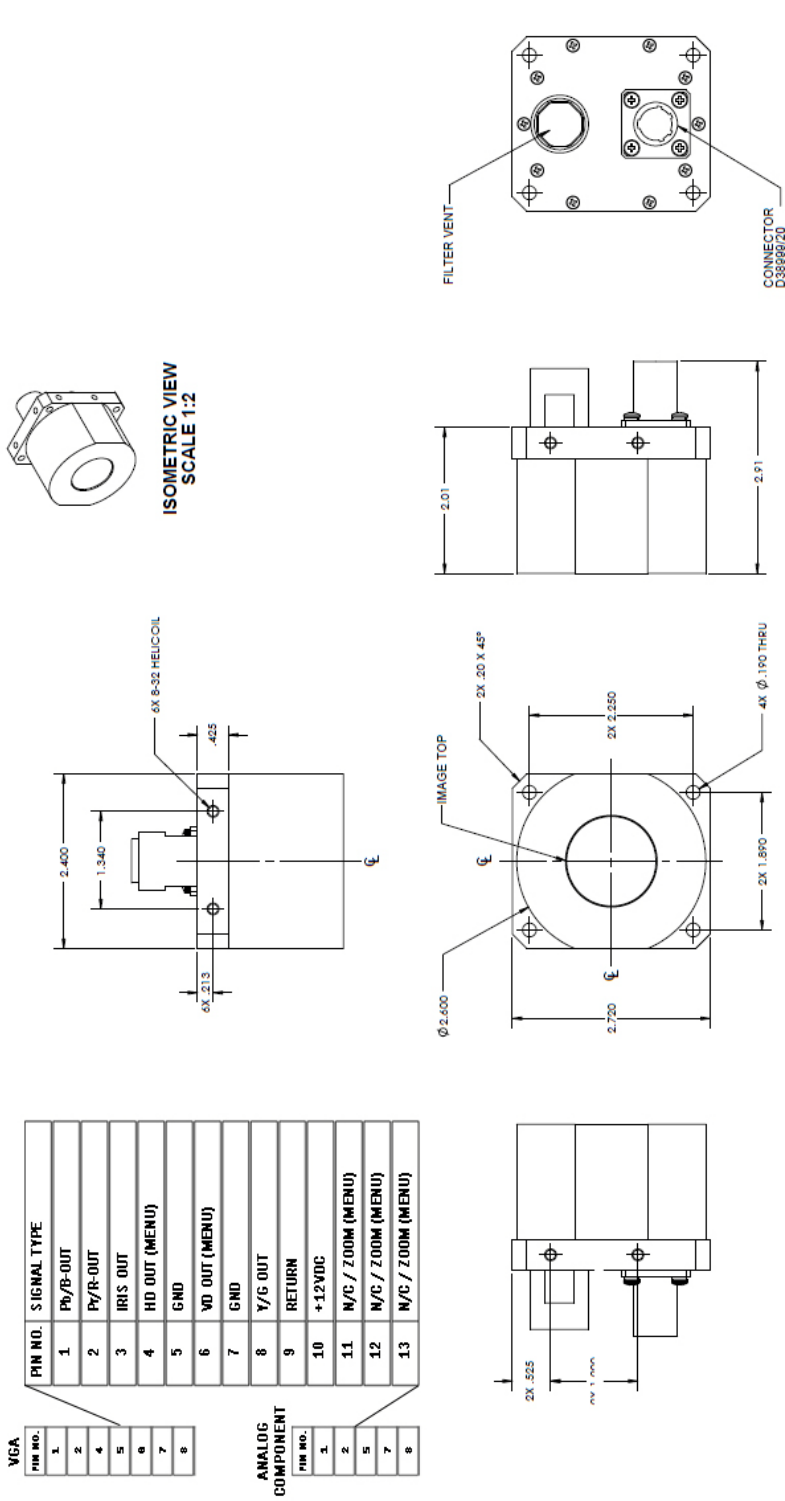|	
Storage Temperature	-46° to +71°
Operating Temperature	-40° to +60°
Altitude (Norm.Operational)*	Sea Level to 10^{-6} Torr
Altitude (Non-Operational)*	-15,000 ft. to 10^{-6} Torr
Explosive Atmosphere	Sea Level to 10^{-6} Torr
Storage Humidity	95% (50°C) to 85% (38°C)
Operating Humidity	5% to 100% relative humidity (condensing)
Vibration (Operational)	MIL-STD 810C, 514.2 (VIII), 70 hrs
Shock (Operational)	MIL-STD 810C, 516.2 (I), 30g, 3 dir
EMI	MIL-STD-461, Radiated RS02, RS03, 50V/m RE02

*Estimates based on similar products, which have been tested
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Specifications

Image Sensor	1/3" type Color CMOS
Effective Pixels	1329 (H) x 1049 (V)
Resolution	1280 x 720 (720p)
Sync. System	Internal
Video Output Signal	Analog Component 1Vp-p, 75Ω
Video Output Frequency	(Selectable)
	60fps: (H) 45 kHz, (V) 60 Hz
	59.94fps: (H) 44.95 kHz, 59.94 Hz
	50fps: (H) 37.50 kHz, (V) 50 Hz
Horizontal Resolution	600 TV Lines
Sensitivity	F4.0 2000 lx
Minimum Illumination	2.5 lx (AGC +36dB, 50 IRE)
Gain	AGC ON, OFF, MANUAL (+36dB Max)
Electronic Shutter	OFF(1/60), FL(1/100), AES(x128~1/10000), MANUAL
White Balance	ATW 1 (2200K/9000K), ATW 2 (3200K/5600K), INDOOR 1, INDOOR 2, OUTDOOR, MANUAL
Gamma	γ = 0.45 ~ 1.0 (adjustable)
Backlight Compensation	Center (3x3), USER (7x7 selectable)
Pixel Defect Correction	ON / OFF (Max. 63 corrections)
Edge Correction	SHARP / STD / SOFT
Power Requirements	DC +9V ~ +15V
Power Consumption	2.0 W (2.4 W Max) @ 12VDC
Weight	Approx. 396 g (14 oz)~
Dimensions	73.91 mm (H)
	60.96 mm (W)
	69.09 mm (D)

Optional Lenses (X.X)		
(all lenses fixed iris, f=2.8)	FL2.3mm	Hfov= 118°
	FL4.0mm	Hfov= 70°
	FL5.6mm	Hfov= 47°

Specifications are subject to change without notice.

04 January, 2012

FILTER VENT

CONNECTOR
D38999/20

Drawing is intended for preliminary information only, and should not be used for design / production. Please contact Sekai sales for the latest top level assembly / installation drawing.

ISOMETRIC VIEW
SCALE 1:2

2.01

2.91

6X 8-32 HELICOIL

.425

2.400

1.340

6X .213

IMAGE TOP

2X .20 X 45°

2X 2.250

4X Ø.190 THRU

2X 1.890

Ø2.600

2.720

2X .525

PIN NO.	SIGNAL TYPE
1	Pb/B-OUT
2	Pr/R-OUT
3	IRIS OUT
4	HD OUT (MENU)
5	GND
6	VD OUT (MENU)
7	GND
8	Y/G OUT
9	RETURN
10	+12VDC
11	N/C / ZOOM (MENU)
12	N/C / ZOOM (MENU)
13	N/C / ZOOM (MENU)

VGA
PIN NO.						
1	2	4	6	8	7	8

ANALOG COMPONENT
PIN NO.				
1	2	5	7	8