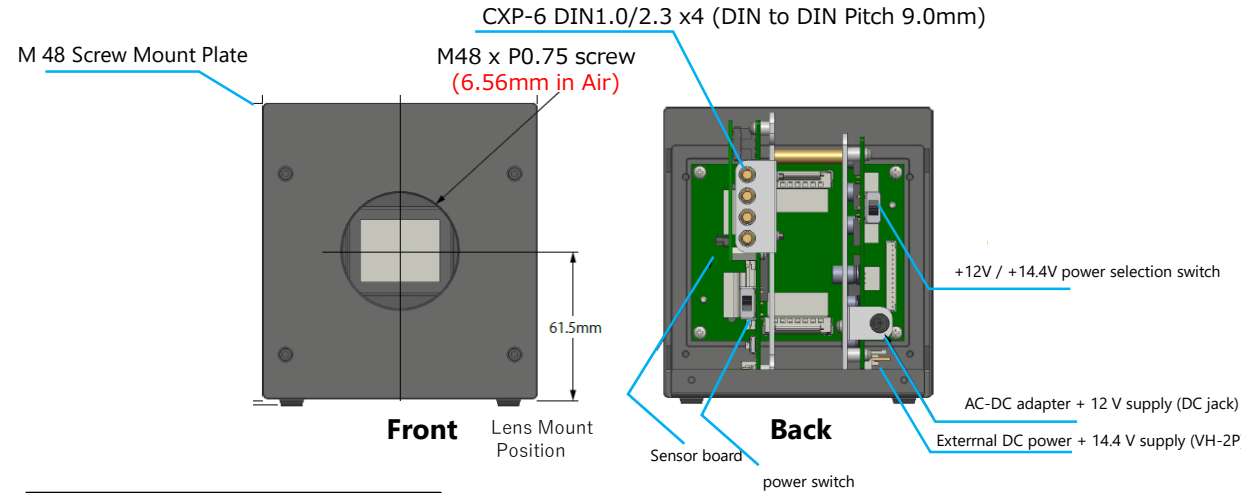# LI8020 Sensor evaluation kit

Features

□Equipped with APS-H 250M pix CMOS sensor
 Ultra-high resolution imaging with 250 million pixels
 (Frame rate up to 5.0 fps)

□CoaXPress Ready
 High-speed data transfer (4 x 6.25 Gbps); 3.0 m maximum cable length
(operation result) * It depends on the material of the cable.

□Shooting size changing function
 Vertical decimation function for decimating and outputting vertical pixels
 Improved shooting frame rate
 Partial extraction function for extracting and outputting one subject area
from all pixel areas
 Reduces image data that is not subject to image capture and improves
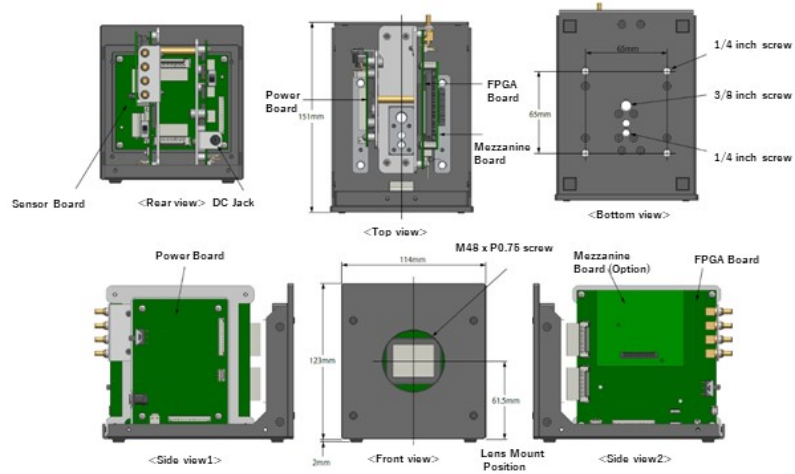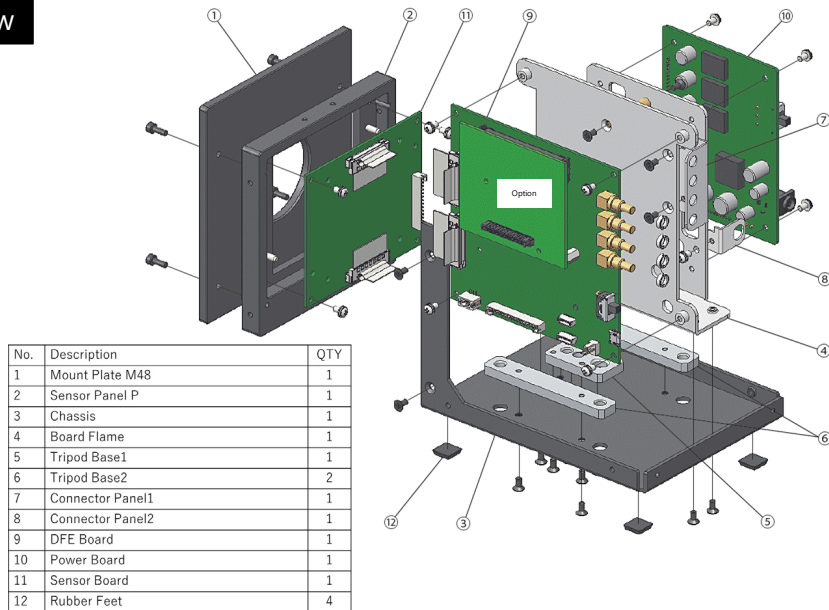frame rate (* Vertical only)

appearance and function

M 48 Screw Mount Plate

M48 x P0.75 screw
(6.56mm in Air)

CXP-6 DIN1.0/2.3 x4 (DIN to DIN Pitch 9.0mm)

61.5mm

Front Lens Mount Position

Back

Sensor board

power switch

+12V / +14.4V power selection switch

AC-DC adapter + 12 V supply (DC jack)

Exrrnal DC power + 14.4 V supply (VH-2P)

Specifications list (key words)

Camera I/F	compliance standard	CoaXPress Ver 1.1 GenICam SNFC 2.4
	Physical I/F	DIN1.0/2.3Connectorsx4 (9.0 mm pitch between DIN, according to IEC 61169 -29)
	Logic I/F	CXP-6 4Channel
	pixel bit	10bit/12bit (Sensor image is stored in msb.)
	CXP LED	None
	PoCXP support	None
レンズ I/F	lens mount	M 48 Screw Mount
	electronic control	No Aperture or Focus
イメージ センサ	horizontal total	19680
	horizontal OB pixels	96
	effective horizontal pixel	19568
	vertical aggregate	12720
	vertical PED pixels	64
	vertical OB pixels	48
	effective vertical pixels	12588
	color filter	Mono/ RGB (IR cut filter is not supported)
	Output bit precision	10bit/12bit
	frame rate	10bit output: 5.0fps, 12bit output: 3.1fps
	scanning system	rolling shutter

Canon Inc.

Sensor Board   <Rear view> DC Jack   Power Board / FPGA Board / Mezzanine Board   <Top view>   1/4 inch screw / 3/8 inch screw / 1/4 inch screw   <Bottom view>

Power Board   M48 x P0.75 screw   Mezzanine Board (Option)   FPGA Board   <Side view1>   <Front view>   Lens Mount Position   <Side view2>

No.	Description	QTY
1	Mount Plate M48	1
2	Sensor Panel P	1
3	Chassis	1
4	Board Flame	1
5	Tripod Base1	1
6	Tripod Base2	2
7	Connector Panel1	1
8	Connector Panel2	1
9	DFE Board	1
10	Power Board	1
11	Sensor Board	1
12	Rubber Feet	4

Specifications list (Key words and phrases)

General		
housing dimensions	About 114 mm (W)×151 mm (H)×125 mm (D) (Not including protrusions)	
chassis mass	About 830 g	
POWER	AC-DC adapter (EIAJ # 4) Supply: DC + 12 V External Supply (V-Mount Battery*): DC + 14.4V [min 12 V – max 16.8 V]	
Power consumption	Approx. 20 W * Reference value	
tripod mount	3/8 inch and 1/4 inch screws	
Cover	Options	

Specifications list (camera control function)

output image system	sensor gain	0dB, 6dB, and 12dB (-6dB for evaluation)
	line drive	All pixels [Default], 1/3, 1/5, 1/7, 1/9 * Start position is the first row of the aperture image area (Line # 48) *Aperture image region: a region obtained by adding a dummy region and an effective pixel region
	ROI (line cutting)	ROI Start Horizontal Position [96 ~ 19568] ROI End Horizontal Position [ROI Start Position ~ 19583] *The horizontal direction is set in units of 16 pixels (Minimum Cut Column: 16 columns). ROI Start Vertical Position [48 ~ 12660] ROI End Vertical Position [ROI Start Position ~ 12661] *The vertical direction is set in units of two pixels (Minimum logging line: 2 lines).
	frame rate	[10 bit operation] At full pixel output: 5.0 fps 8K: 24 fps , 4K: 30 fps, FHD: 60 fps (fixed frame rate) ROI (Frame rate according to the number of arbitrary pixels and the number of vertical pixels)
	Test Image	Color bar / Gray Scale / Cross Line / HRamp move / VRamp move / HRamp / Vramp
exposure control system	fast shutter	16 us to 200 ms1 HD increments（When all pixels are output)
	low-speed shutter	200 ms to 15 sec Step of 200 ms（When all pixels are output)
lens system	lens control	No electronic control

・Housing cover with FAN (LU5010P-001)

Housing cover with Fan