

C1 PRO X18

LIGHTWEIGHT, USB POWERED, SELF SUFFICIENT
5.5~96MM MOTORIZED ZOOM LENS CAMERA KIT FOR DAY/
NIGHT OPERATION

DATASHEET



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Overview

Lightweight, USB powered, self sufficient 5.5~96mm motorized zoom lens camera kit for day/night operation. Kit is fully assembled and tested before shipping.

- Uses PCBA module used in [C1 PRO camera](#).
- Controller SCF4-L087 (featuring [SCF4-M](#) module)



Lens specifications

Optics

Image sensor	1/2.7" Effective image area > 6.8mm
Focal distance	5.85±5% ~ 93.6±5%mm
Aperture	f/1.8~f/3.9
Focus range	<ul style="list-style-type: none"> • WIDE: 0.2m - infinity • TELE: 1.0m - infinity
Field of view (D=6.71mm)	<ul style="list-style-type: none"> • WIDE: 62.6° • TELE: 4.05°
Distortion	<ul style="list-style-type: none"> • WIDE: -6.40% • TELE: 2.92%

Mechanics

Lens length (image surface-top lens barrel)	79.74mm (in glass)
Mechanical back focus	-0.92 (in glass t=0.5 BK7)
Lens zoom structure	The stepper motor is directly connected to the screw
Lens focusing structure	The stepper motor is directly connected to the screw
Lens size	<ul style="list-style-type: none"> • Length: 80.7mm • Width: 39.7mm • Height: 42.2mm • Front end diameter: 32.1mm

Motor specifications

Screw pitch	0.4mm
Spiral rotation direction	Right
Rated voltage	5.0 VDC
Coil resistance	55Ω ± 10%
Phase count	2
Step angle	18° / step

Max start frequency	800 PPS/min @ at 5.0 VDC
Max operating frequency	1200 PPS/min @ 5.0 VDC
Pull torque	2.8 gf-cm min (at 480 PPS @ 5.0 VDC)
Push torque	3.8 gf-cm min (at 480 PPS @ 5.0 VDC)
Operating temperature range	-20°C ~ +70°C

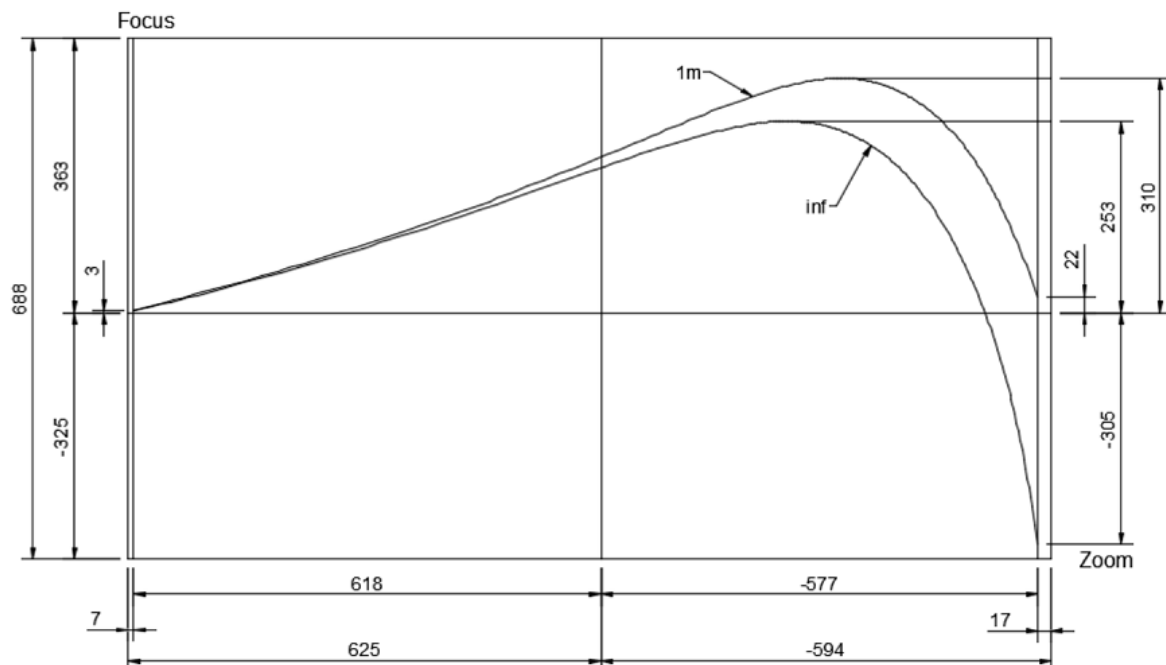
Position alignment sensor PI

Model number	RPI-222 / ROHM
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IR switch

Coil resistance	25 ± 5Ω
Operation voltage	4.5V
Current consumption	144~200mA
Switching time	200-500ms
Filters	<ul style="list-style-type: none"> • Clear glass • 420 ~600nm Tavg >95%

Zoom-Focus curve diagram

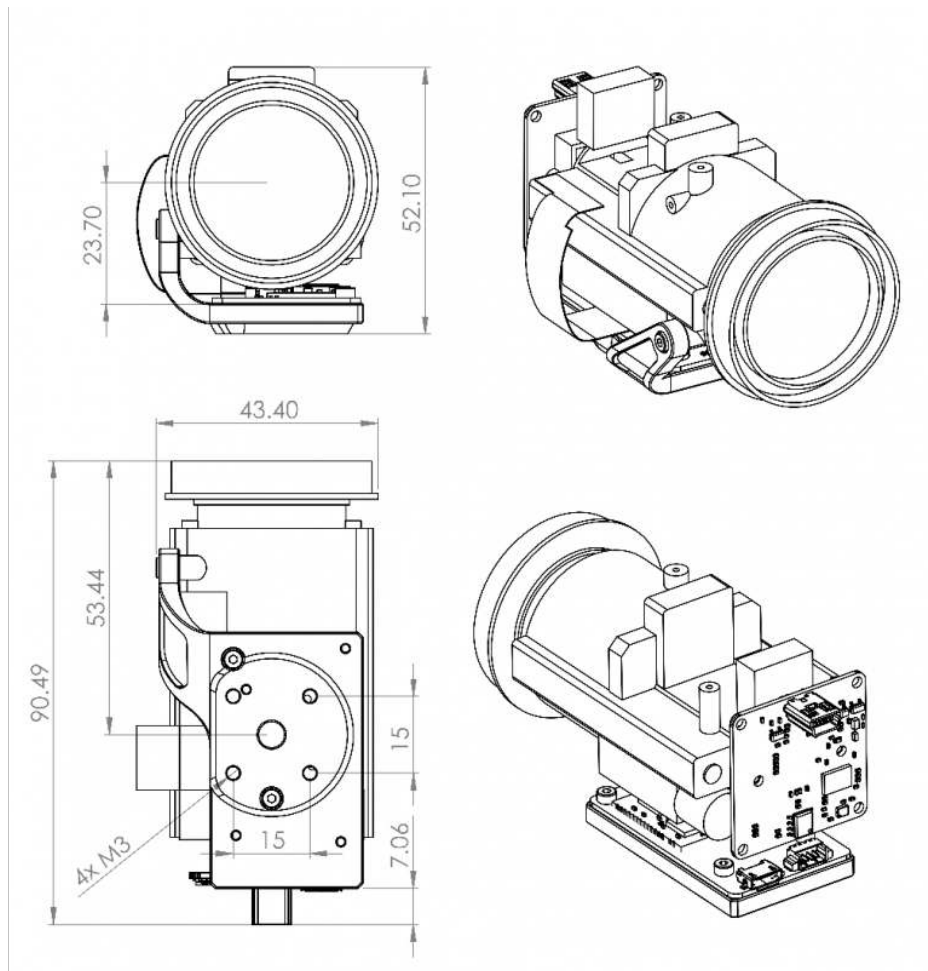


Dimensions

Camera dimensions

Length	90.5mm
Width	45mm
Height	52.1mm

Camera drawings



3D models

i 3D models can be downloaded from [GitHub](#)

Control software

SCF4-SDK comes with open-sourced command line and GUI sample programs for rapid controller evaluation. A simple control software example is provided for testing and demonstration. Software is given "as is" to help with getting started and testing.

More details and control explanation in [SCF4 documentation](#). Source code is maintained on [GitHub](#)

