# RF Lens Controller

USB-C controller allows serial control of focus, aperture and stabilization for **Canon RF** lenses with USB/UART and Wi-Fi control interface.

For illunis EMC Cameras

Standard M58 Mount

Canon RF lenses provides significant improvements in optical quality over the older EF lenses of the same class. RF lenses are also mostly smaller and lighter than the equivalent EF lenses. Some RF lenses have the ability to resolve down to a 1.5um pixel pitch.

The illunis RFLC lens controller for Canon RF lenses controls aperture, focus and image stabilization. The RFLC can operate as a stand alone device powered though USB-C, or as an embedded device using a UART. A wireless Wifi interface is also provided.

The RFLC can dynamically detect lens attachment and removal, as well as identify the lens name, focus, iris, serial number and zoom information. The RFLC is available as an OEM module for integration into any camera system requiring control of Canon RF Lenses.

## illunis RFLC Highlights:

- Official RF protocol, not reverse engineered.
- USB, UART and Wifi interface with embedded web page controls.
- Aperture detection and control in 1/256 F-Stop increments.
- Focus detection and control at lens internal encoder level.
- Image stabilization detection and activation.
- Internal EEPROM available to the user (1K).
- Save and restore lens control, aperture and focus positions.
- Human readable and machine compatible command sets.
- Machined CNC lens bayonet.
- Locking retention pin with set screw.
- Control ring can be set to control Focus or Aperture.
- Wireless remote control available.
- Sample Windows control application and SDK.

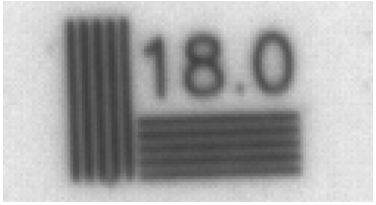
## illunis RFLC Specifications

| | |
|---|---|
| Compatibility | All Canon RF Lenses |
| Aperture | Range Read from lens, controllable in 1/256 F-stop increments. Move aperture absolute, F-Stop, incremental, 1/256 Stop, end points. |
| Focus | Range Read from lens, controllable in lens encoder increments. Move focus incremental, absolute, end points, steps, percent, cm. |
| Lens Commands | Status, SN ,Name, Info, 8 Aperture, 12 Focus, 1 Zoom, 5 EEPROM, Save and restore aperture and focus. |
| Power | USB or externally powered. |
| USB Compatibility | Type-C connector. Screw Locking |
| USB Driver | Built into Windows. |
| User USB Interface | Serial COM 115,200 baud (fixed). |
| OEM Interface | USB, UART. |
| Power Options | USB (5.0V VBUS).<br>UART : 5.0V. |
| Camera Interfaces | illunis EMC, M58, OEM. |
| Flange Focal Distance | 20mm. |
| User EEPROM | 1K Bytes. |
| Lens Mount | official CNC RF mount. |
| Custom Mounts | Available. Please Call. |
| Embedded Option | Bare board, custom design. |
| Field Programmable | Boot Loader installed. |
| Control Ring | Assignable to Focus or Aperture. |

## High Performance Lenses for EMC-103/250

RF 50mm F1.2
RF 85mm F1.2
RF 135mm F1.2
RF 400mm F2.8
RF 100-300 F2.8

RF 50mm F1.2 at F4 imaged with a 1.5m pixel at 1M.

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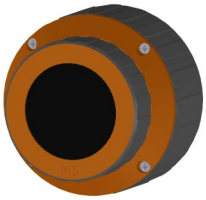
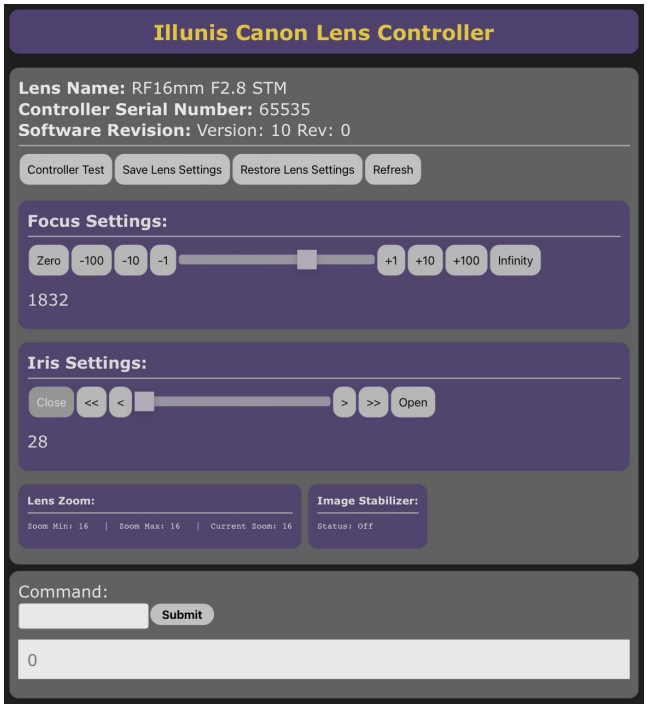
## Wireless and Web Page Control



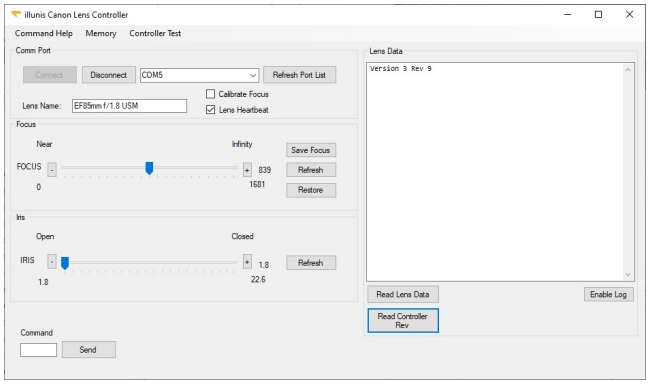
Wireless controller with 1.28” TFT LCD touchscreen and rotary encoder. Battery powered with USB-C charging.




Embedded wireless web page control of all features.

## Software

The RFLC comes with our free lens control software. Windows-10/11 64bit compatible; Python and C source available.




illunis specializes in custom applications and OEM designs.

A Canon EF Controller is available.



Product information subject to change without prior notice.