

OPTICAL GENIUS

The World's First Auto Thermal Focus
Compensation System IR Zoom Lens



Y33Z15R Series (15.2~500mm, F3.0)

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Near Infrared Telephoto Zoom Lens : Y33Z15R Series

Features

1. Reasonable Price & Quick Delivery !

- Y33Z15R series with such a long focal length as $f=500\text{mm}$ can be provided as almost same price as the price of focal length 300mm class IR zoom lens !
- Quick delivery after receipt order !

2. Near Infrared Design

- No focus shift in the range of visible wavelength to NIR wavelength up to 950nm as well as maintaining high contrast and sharp clear image !



In the daytime, Color Image



Night time mage with Y33Z15R

**High Contrast
&
Sharp Image !**



Night time Image with Non-IR lens

Out of Focus !

3. Long Range Telephoto & Faster Lens

As IR zoom lens with $f=500\text{mm}$, the design of fast lens with F3.0 is realized !

4. World First ! Auto Thermal Focus Compensation System ! (TCS) (The patent application filed in Japan and Overseas)

IR Lens uses low dispersion glass (LDG) which enables sharp & clear image from visible light to NIR light. However, in contrast, due to characteristic of high coefficient of thermal expansion of LDG, focus shifting in temperature change occur, which cannot be corrected by refocusing.

Y33Z15R Series integrates Temperature sensor & Microprocessor, and it enables to get right focus automatically against temperature changes -10°C to $+50^{\circ}\text{C}$.

Also, it is good to be used when preset is used, because of no need to reset preset position. When temperature changes.



Temperature 20°C



When Temperature changes
by $\pm 10^{\circ}\text{C}$...

Y33Z15R with TCS



**High Contrast & Sharp Image !
No need of refocusing**

Conventional IR lens without TCS



**Out of focus !
Need Refocusing**

5. Built-in Visible Cut Filter for Haze removal !

Built-in Visible Cut Filter enables to see the object which cannot be seen by human eyes !
Good for surveillance in such places as Mountains, Forest, River/Lake, Coast, Airport, etc.



Under visible light, nothing can be seen behind the buildings(1.2km).



With Infrared Light, big mountain (15km) appears behind the buildings.

→ Demo Video available on Youtube (Search "YamanoOptical")

6. Other Options are available !

Please feel free to contact us for customization or any requests on our products.

Compact NIR Zoom Lens Series !

Maintaining IR performance with high quality, it is made into compact size !
Easy to select housing !

Y10Z85R Series X10 IR Zoom Lens (f=8.5-85mm, F1.5)



f = 8.5 mm– 85mm
F1.5
Near Infrared
Compact Size
Auto Focus
Good for 24hrs surveillance !

Y18Z86R Series X18 IR Zoom Lens (f=8.6-154mm, F2.5)



f = 8.6 mm– 154mm
F2.5
Near Infrared
Compact Size
Auto Focus
Good for 24hrs surveillance !

Close-up NIR Zoom Lens !

Maintaining IR performance with high quality, close range shooting available !
Good for inspection with wide field of view in close distance.
For 1/4" image sensor camera.

Y10Z06R Series x9.5 IR Zoom Lens (f=6.0-57mm, F1.7)



f = 6.0 mm– 57mm
F1.7
MOD = 30cm – 65cm / 65cm – 100cm
(With close-up lens)
Near Infrared
Compact Size
Auto Focus

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Design, Development, Production, Sales, Distribution of
Lenses for Surveillance system, Machine vision system, Medical Equipment.



F θ Lens (ϕ 300mm, 27kg)



LCD Glass inspection lens (ϕ 150mm)



Lens for Medical Equipment
Hyper Eye Medical Equipment Systems (HEMS)
On the news at NHK, Nihon TV, and so on.
(Patent application filed in Japan and Overseas)

We are always working on improvement actions through ISO9001 and ISO14001.

