

MacroStop.com

by Michael Erlewine



CRT Nikkor-O

## CRT Nikon Nikkor-O 55mm f/1.2m=1:5

This is a remarkable lens and I'm going to remark on it for a bit. They turn up on Ebay fairly regularly for between \$600-\$1100 (2015).

The CRT or Oscilloscope Nikkor first appeared in the mid-1960s as an industrial lens designed for photographing oscilloscope displays and cathode-ray tubes, thus the nickname (CRT Nikkor). It was designed with a fixed focus and has no helicoid or focusing ring. It is very fast, with an aperture of f/1.2 wide-open. The maximum sharpness is said to be f/4.

The lens is not designed to be mounted on a standard Nikon DSLR, but rather uses the Leica M39 thread-mount. The M39-to-Nikon F-mount adapters can be readily found on Ebay. Many people prefer to use an M39-to-T2, and then a T2-to-Nikon-F-mount adapter to mount the lens on a DSLR. This works well for images and close-up work less than 1:1. For macro work above 1:1, use a 52mm reversing ring, but the 52mm thread is non-standard. There are two versions, with the only difference being that the second version is marked (red engraving) "M=1/5."

As mentioned there is no focusing ring, but there is an aperture ring with 12 blades. The scalloped aperture ring as stops: 1.2, 1.4, 2, 2.8, 4, 5.6, 8, and 11, all measured at infinity. The lens components were designed for handling particular phosphorus colors, I am told.

The CRT Nikkor can be used either on a DSLR and focus rail or attached to a bellows. The lens is made for 1:5, which means that even with the smallest adapter-extension, perhaps you can only reach something like 1:4.

If you are looking for an all-around solid lens, this is not it. As mentioned, this is a specialized lens, with all kinds of flaws. The contrast is average, and there is definitely lateral chromatic aberration a-plenty, and even some amount of longitudinal chromatic aberration. Since I usually only use APO lenses, why have one?

I love this lens because it forces me out-of-the-box despite myself. It is like a lens on an acid trip. The lens is very sharp when used correctly. As for myself, I tend to use it fairly wide open to record razor-thin depth-of-field, and I stack that depth of field (with many layers) to put the part of the image I want accented in high focus. Then, I let the rest of the image go wild with flare and bokeh. I happen to like that effect, but some don't.

Perhaps the reason I like it is that it combines that part in me that wants to be exact, even scientific, with another part of me that has glimpses that this life we live is very ephemeral, like a dream we are having. So the flaring, surprise colors, and crazy bokeh represent the dreamer (and meditator) in me – something like that. Call it the Zen in me.

In summary, with the CRT Nikkor, wide open (and fast), I can layer just the tip-of-the-top of some object, pushing that into focus. Then I contrast this with the rest of the image which is all bokeh -- out of focus.

I was first introduced to this lens by the writings of Bjørn Rørslett, and then my curiosity was peaked by the poster "Akira" on the Nikon Gear site, now called Fotozones.com.

There is probably more I could say, but I will let the images do the talking. Here is a sample of what I have done with this lens. I hope you enjoy them. However, the lens is so flexible that of course you would develop your own style.

I have a number of free e-books, videos, and many articles at MacroStop.com, and some 25 or so photography tutorials at YouTube at this link (scroll down for the photography):

<https://www.youtube.com/channel/UC3cL8v4fkupc9IRtugPkkWQ>

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