

Rokinon/Samyang AF 14mm

F/2.8 FE & RF for Canon & Sony

By Phil Rudin

Since 1979 Samyang Optical Company LTD, a Korean based company has continued to push the boundaries for innovation and craftsmanship in the camera lens industry.

Rokinon is owned and operated by Elite Brands Inc. which is the sole provider of Rokinon, Xeen by Rokinon and Samyang branded products in North America, Central America and South America. Samyang/Rokinon lenses and accessories are distributed in over fifty countries world wide. Samyang has focused on manual focus fixed focal length camera lenses and the XEEN Cinema lens line for years.

This will be the first in a series of lens reviews using third party “budget” lenses for high resolution cameras. The lenses I will be testing cost anywhere from one-half to one-third the price of the camera manufactures lenses.

Quality full frame cameras like the Canon EOS R and Nikon Z 6 & Z7 were released less than fourteen months ago and already have dramatic price reductions with the EOS R discounted \$500.00 to \$1799.00, Z 6 & Z 7 now discounted \$547.00 to \$1696.00 and \$947.00 to \$2697.00 respectively. The Sony A7R III released just over two years ago is also discounted \$700.00 to \$2500.00 from original retail price on first being released.

These reductions make many full frame mirrorless cameras very competitive with APS-C and even M43 cameras. Like housings and

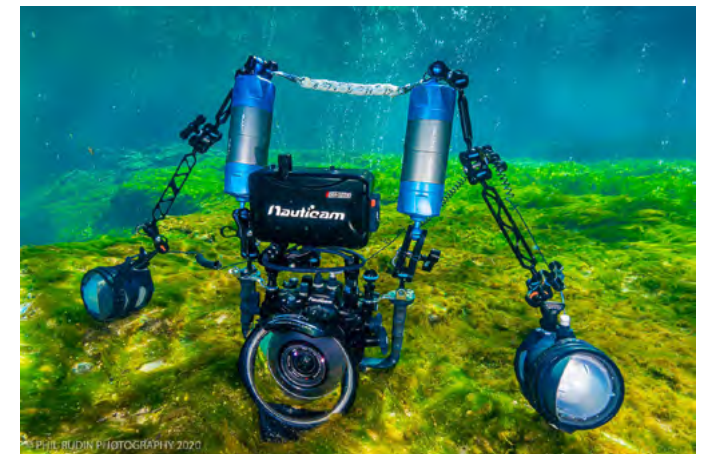
accessories in both the new and used market are also very competitive and often cheaper than those for full frame and APS-C DSLR's.

My first experience with a Rokinon lens was for a review of the Sony A7R II and Ikelite housing I did for the May/June 2016 issue #90 of uwpmag.com. I was using the Rokinon 12mm F/2.8 ED AS IF NCS Fisheye for Sony full frame cameras with an Ikelite focus gear using the Ikelite eight inch dome port.

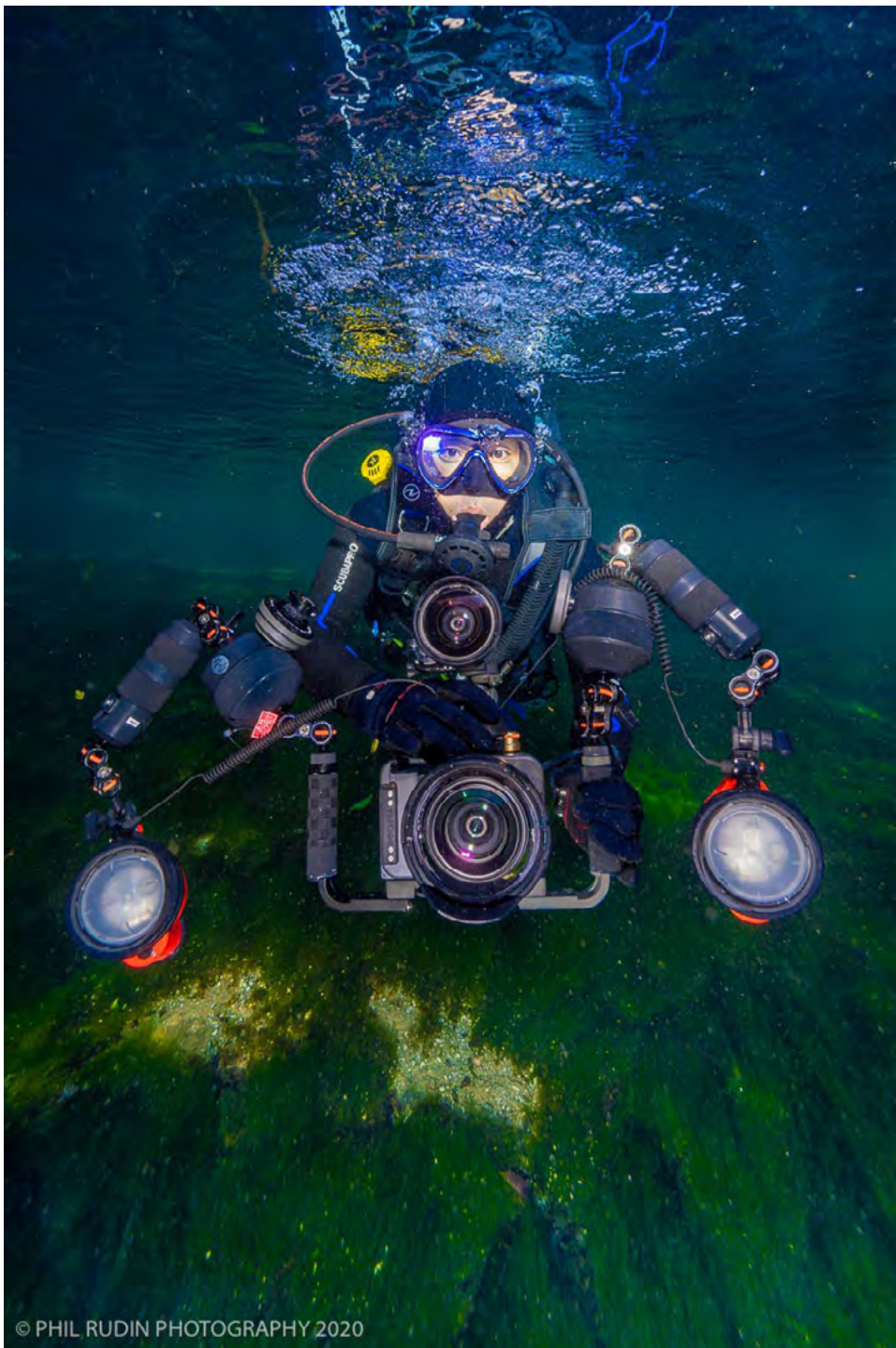
I shot with both front and rear curtain shutter with the aperture in the F/8 to F/16 range. The aperture setting needed to be preset prior to entering the water because I had no aperture control once the housing was closed. To achieve proper exposures I was using ISO values from 50 to 320 and shutter speeds from 1/15th sec to 1/250th sec.

The 180 degree fisheye angle of view produced excellent sharpness with the Sony A7R II's 42.4MP CMOS sensor, with great color rendering and the build quality was excellent for such an inexpensive lens. The only real downside to the fisheye lens was the plasticky feel, lack of quality weather-sealing and connectivity for EXIF data attached to the images in post.

Fast forward from 1979 to May 2016 and Samyang's announcement of their first ever auto focus lenses exclusively for Sony full frame mirrorless cameras. The first offerings were the Samyang 50mm F/1.4 AS IF UMC and the 14mm



Housing System waiting for testing, Ginnie Springs, Florida, Aquatica A7rIV Pro Housing, Sony A7R IV, Two Inon-Z330 strobes, Rokinon 14mm F/2.8 AF, with Aquatica 200mm Acrylic Dome Port, ISO320, F/14, 1/15th sec



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Takuya Torii (Inon Torii san) Ginnie Springs, Florida, Aquatica A7rIV Pro Housing, Sony A7R IV, Two Inon-Z330 strobes, Rokinon 14mm F/2.8 AF, with Aquatica 200mm Acrylic Dome Port, ISO320, F/10, 1/125th sec.

F/2.8 ED AS IF UMC.

Unlike the 12mm fisheye I tested in 2016, the 50mm F/1.4 and 14mm F/2.8 are designed for the flange distance of the Sony E mount full frame mirrorless cameras. The 12mm fisheye is a manual DSLR lens with an extension added to the rear of the lens replicating the distance from the rear of the lens to the sensor if a mirror box was included in the mirrorless camera body.

The Rokinon 14mm F/2.8 AF lens tested for this review is a super-wide prime lens with a 114 degree rectilinear angle of view on full frame and 21mm equivalent on Sony APS-C with a 91 degree AOV. The lens is designed with fourteen elements in ten groups including three aspherical elements to control spherical aberration for increased resolution edge to edge. The lens also has two extra-low dispersion glass elements to help reduce chromatic aberration, increase image sharpness and boost color fidelity. A multi-coating has also been applied to several of the elements to aid in the reduction of ghosting and flare.

The front element is rounded like

most lenses of this AOV and does not accept lens filters or color gels. Color gels can be mounted on the rear of the lens if desired.

The lens has seven rounded diaphragm blades and a fixed lens hood. The Rokinon 14mm F/2.8 AF ships with a pouch for storage, a rear lens cap and an excellent plastic lens cap that snaps over the lens hood and front element.

The lens is small and light for a 14mm F/2.8 at only 505g (1.11 Lb) and 86 x 97.5mm (3.39 x 3.84 inches) with the lens hood. The diameter of the lens allows it to be mounted from the rear of a Sony A7 series Nauticam housing with the 100 mm port opening.

Like the 14mm F/2.8 DSLR lenses from Canon, Nikon and others the minimum focus distance is 20 cm, the Sigma 14mm F/1.8 for Sony has a minimum focus distance of 27 cm.

The Rokinon 14mm F/2.8 is on sale in the US for \$499.00 which makes it a real bargain when compared to the Canon, Nikon and Sigma versions at \$2099.00, \$1892.00 and \$1599.00 respectively. Sony offers three wide angle zoom lenses the FE 12-24mm F/4 and FE 16-35 F/4 zooms which I have reviewed in past issues of uwpmag.com and the FE 16-35mm F/2.8 at \$1773.00, \$1348.00 and \$2198.00 respectively. Sony's widest prime lens is the excellent FE 24mm F/1.4 GM lens retails for \$1398.00.

The Rokinon AF 14mm F/2.8

is a no frills lens that offers no in-lens image stabilization, advanced weather-sealing, AF-Manual focus on/off switch or focus hold button on the lens barrel. For underwater photography I use the lens in AF-C auto focus mode. You can switch the Sony A7-series cameras to manual focus in the super menu very quickly but since no focus gear is available for the housings I tested with the lens this is a moot point.

For land photography the lens has a large and smooth manual focus ring which works very well for things like astro photography. I have manual focus set so that as soon as I turn the focus ring the area around the focus box is magnified about ten times in the viewfinder. Once I achieve critical focus and half press the shutter the image in the viewfinder returns to the full frame view. I also have focus peeking set to red which assists with achieving critical focus. This lens is quite robust but still has a bit of a plasticky feel. Mounted on the camera the lens seems smaller and lighter compared to lenses like the Sony FE 16-35 F/4, FE 12-24 F/4 and the Zeiss Batis 18mm F/2.8.

Be aware that Rokinin bundles a “lens station for Sony E” with several of the Sony FE full frame auto focus lenses they sell. The lens station has the Sony E mount and is used to update firmware for the Rokinin AF lenses. You first download the lens station software for Windows or Mac then chose the AF lens firmware you want to update using the provided mini USB cord. Updates can be made to the auto focus Sony FE 14mm F/2.8, Canon EF and 14mm F/2.8 Nikon F versions of this lens using the proper lens station. So far I have found firmware updates for all seven of the Rokinin auto focus lenses for Sony full frame cameras.

I have tested four of Rokinin’s Sony AF lenses



and they all arrived factory new needing firmware updates. This is a good thing for photographers because it allows new camera bodies to be added and lens quality can continually be tweaked for better results. The Rokinin lens station for Sony E sells for around \$60.00, when bundled with a lens the cost remains about the same.

Field testing the Rokinin 14mm F/2.8

Currently the Rokinin 14mm F/2.8 AF is not included on the A7-series or Sony A9-series port charts for Aquatica, Ikelite, Isotta, Meikon/Sea Frogs, Nauticam, Sea & Sea or Subal housing. As a result I was on my own to come up with a dome port and extension combination to support the Rokinin lens.

For the Aquatica A7rIV Pro housing I used the Aquatica 200mm (eight inch) acrylic dome port and the 28.5mm port extension. For even better corner sharpness I would recommend the Aquatica 230mm (9.25 inch) optical glass dome port. For the Nauticam housings for A9, A7 & A7R II, III & IV with an N100 to N120 35.5mm port adapter I



Rebreather Training, over Devil’s Eye Springs, Florida, Aquatica A7rIV Pro Housing, Sony A7R IV, Two Inon-Z330 strobes, Rokinin 14mm F/2.8 AF, with Aquatica 200mm Acrylic Dome Port, ISO500, F/13, 1/250th sec.

selected the Zen Underwater 230 mm optical glass dome port and a 20 mm port extension.

Since the purpose of this review is to offer less expensive options that offer excellent high



resolution image quality I would also suggest that the Nauticam N120 216mm (8.5 inch) acrylic dome port could also work well with the proper port extension. I have not yet tested this port to offer an extension suggestion. The Aquatica and Nauticam large acrylic dome ports are both about one-third the cost of the 230mm optical glass ports.

With the acrylic ports the dome has a tendency to turn port up putting extra strain on the right wrist while the 230mm optical glass port are much heavier but still have large air pockets. I have tested the 230mm glass ports with buoyancy arms and found that they provided too much

additional flotation compared to a pair of standard eight or ten inch arms. Weights can be added to the dome shade for both acrylic port to help offset the added port buoyancy. I prefer the optical glass ports for split images because they appear to shed water better and I see less ghosting and reflection in the images. For split images I try to shoot at F/16 to F/22 for maximum depth of field.

I tested the Rokinon lens with the Sony A7R IV camera in both the Aquatica A7rIV Pro housing and Nauticam NA-A7RIV housing with two Inon Z-330 strobes using manual power settings. The A7R IV camera was setup using AF-C with Lock-on

Paddle boarding over Devil's Ear Springs, Florida, Aquatica A7rIV Pro Housing, Sony A7R IV, Two Inon-Z330 strobes, Rokinon 14mm F/2.8 AF, with Aquatica 200mm Acrylic Dome Port, ISO500, F/13, 1/250th sec.

AF Expand Flexible Spot, with ISO sensitivity ranging from 100 to 640 and aperture settings from F/2.8 to F/18.

I first tested the lens in a swimming pool to see if my port and port extension selections were in a range where I would have sharp corners without vignetting. The 5.5 stops of image stabilization in camera allowed me to shoot at shutter speeds as slow as 1/15th of a second while maintaining excellent sharpness in the image with static subjects, anything much slower than 1/15th sec. is not very useful for most underwater work.

With the described auto focus settings the lens locked focus with excellent speed and accuracy even in low light inside the Ginnie Springs cavern. I was able to lock focus with a half press and drag the focus point around the frame for best composition without dropping the focus point. For humans the eye auto focus locked on even with divers wearing a black mask.

With lenses this wide strobe placement is critical to avoid

backscatter. Just like with fisheye lenses looking into the corners of the EVF or LCD while composing the image is very important. Items like your own fin tips, strobe cables, unwanted diver parts, sun flare and more can sneak into the corners of your image and ruin an otherwise excellent composition.

With a minimum focus distance of 20 cm the lens focuses to the port however the larger port can interfere with your ability to shoot CFWA without banging the shade on something. Shooting in portrait/vertical orientation may reduce this.

At the higher F/stop numbers I found corner sharpness with the Aquatica 200mm acrylic port and the Nauticam 230mm optical glass port to be sufficient for publication. Each has its own tradeoffs but the Rokinon lens works very well with both.

I had to reconfigure my travel kit to accommodate the additional weight and size of a 230mm optical glass dome port. I have opted to cushion the port with bubble wrap and stand it on its side in my ThinkTank Urban Disguise 60V2.0 shoulder bag rather than try to fit it into my ThinkTank Roller bag. With additional items besides the port added to my shoulder bag it exceeded the airline weight restrictions by a few kilos, a risk I am willing to accept since my shoulder bag is weighed far less often at the



Technical Diver, Devil's Ear Springs, Florida, Aquatica A7rIV Pro Housing, Sony A7R IV, Two Inon-Z330 strobes, Rokinon 14mm F/2.8 AF, with Aquatica 200mm Acrylic Dome Port, ISO500, F/13, 1/125th sec.

airport than my roller bag.

When the image files from the Rokinon lens are downloaded into LightRoom all of the EFIX data appears and lens profiles are accessible. In the LightRoom library the meta data always lists the lens as a Samyang 14mm while in the development module the lens profile appears as a Rokinon/Samyang 14mm.

The Rokinon/Samyang 14mm F/2.8 AF offers outstanding

performance for an under \$600.00 lens and I would highly recommend it as an entry lens for wide angle rectilinear underwater photography. I would expect the results to be quite similar from the Canon and Nikon versions of this lens.

I would like to thank aquatica, Nauticam.com and zenunderwater.com for assistance with equipment and support for this review.

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