

Ikelite Sony A6300 review

by Phil Rudin

Ikelite Underwater Systems is a USA based company which has expended its distribution network to cover most areas of the world during its over fifty years in business.

Ikelite has developed a large and loyal customer base built on a foundation of excellent customer support and product reliability.

During DEMA 2013 Ikelite debuted a new housing with a unique port system for the Canon EOS 100D/SL1 DSLR which I reviewed in issue #78 of UWPMAG.com.

At DEMA 2014 Ikelite debuted a new line of mirrorless camera housings featuring the same port system which I reviewed in issue #85 of UWPMAG.com using the Olympus E-M5 II housing.

In March 2016 Ikelite announced a housing for the new Sony A6300 camera which uses the mirrorless port system for Sony E-mount and FE-mount lenses and also offers a port adapter for the modular eight inch DSLR dome port. I had an opportunity to field test this new system on a recent trip to the Philippines and offer the following observations.

Sony A6300 Camera

The Sony Alpha A6300 mirrorless camera was announced in early February 2016 as the flagship camera in the mirrorless E-mount (APS-C) line which has evolved from Sony's NEX line of cameras.

The A6300 has been developed around a new high quality 24.2MP APS-C sized Exmor CMOS sensor and BIONZ X processing engine. The A6300 shoots 4K video in the Super 35mm format with full pixel readout and no pixel binning.

Improvements over the Sony A6000 include superior image quality, better ISO sensitivity from ISO 100-51200, advanced AF with 425 phase detection points, new dust and moisture sealed magnesium-alloy body plus much more. The A6300 has become one of the most highly reviewed and highly rated cameras in the APS-C sensor class.

The A6300 has the same focus peaking (showing a color for the in focus areas during manual focus) used in the Sony A7R II "pro" grade camera body and while many will never use manual focus it is nice to



know it is available if needed.

The most impressive features of this camera for me was the outstanding image quality, low light performance and the improvement in overall camera speed. I found that for underwater photographers the most

significant drawbacks with the A6300 are its rather slow 1/160th. flash sync speed in TTL, the rather poor battery life with the Sony 90mm macro lens and for videographers a continuing problem with manual white balance.

The Sony A6300 sells in the

US for an MSRP of \$998.00 for the body and \$1149.00 with the 16-50mm F/3.5-5.6 kit zoom lens. I consider the A6300 a value at this price point compared to many other APS-C high end mirrorless and DSLR cameras because of the outstanding image quality and feature set.

Ikelite A6300 Housing And Port System

The Ikelite Sony Alpha A6300 housing is a completely new design and very much like a smaller version of the Ikelite Sony A7R II housing I reviewed in UWPMAG.com issue #90. The A6300 housing features the same opaque gray ABS-PC polycarbonate material for the front section of the housing and a transparent DSLR style polycarbonate housing back.

The new color provides extra protection from the sun during long boat rides and allows better contrast when viewing the LCD screen. The new Sony A6300 housing much like the previous A6000 housing supports TTL for the complete line of Ikelite DS series TTL strobes using Ikelite electronic single or dual sync cords. Each housing has an integrated TTL encoding specific to the camera model tuned to Sony's exposure protocol. The TTL circuitry is sealed in a unit attached to the inside top of the A6300 housing with a sealed cable which attaches to the camera hot shoe. The TTL unit is powered by the Ikelite DS strobes and requires additional battery or maintenance. Exposure compensation in TTL mode is supported using the camera's built-in controls which can be accessed in several ways and assigned to different function buttons to suit the user's needs.

Strobes can also be fired in TTL using the two fiber optic ports on the front of the housing which



mimic the camera's on-board popup strobe. Fiber optic cables can be used with TTL strobes like the Inon S-TTL, Sea & Sea DS-TTL and more. The housing also includes a button to raise the on-board flash for people like me who forget to do so before entering the water. The older Nikonos SB strobes can also be used in Non-TTL mode with strobe to non-TTL Ikelite sync cords.

Every Ikelite A6300 housing is pressure tested to 60 meters (200 feet) and the ABS-PC construction provides corrosion resistance with a minimal amount of maintenance. The light gray color and clear back give a direct view of the main



Sofy Coral Fan With Diver, Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

O-ring seal and an excellent edge-to-edge view of the three inch 921,600 dot LCD screen. The A6300 housing has no pickup finder for the 1,440,000 pixel EVF which is of little use without an accessory add-on optical viewfinder which can't be installed in



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(Above) Dwarf Hawkfish, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso125, F/18, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

(Left) Hairy Squat Lobster, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso200, F/20, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

this housing. I found the A6300 LCD worked well and I did not miss the EVF during my test dives.

The control buttons on the housing back are large and well placed for a housing of this size. Button control symbols are laser engraved on the back of the housing so they won't peel off or fade. All of the cameras essential button controls can be reached and most are accessed in the same way as when the camera

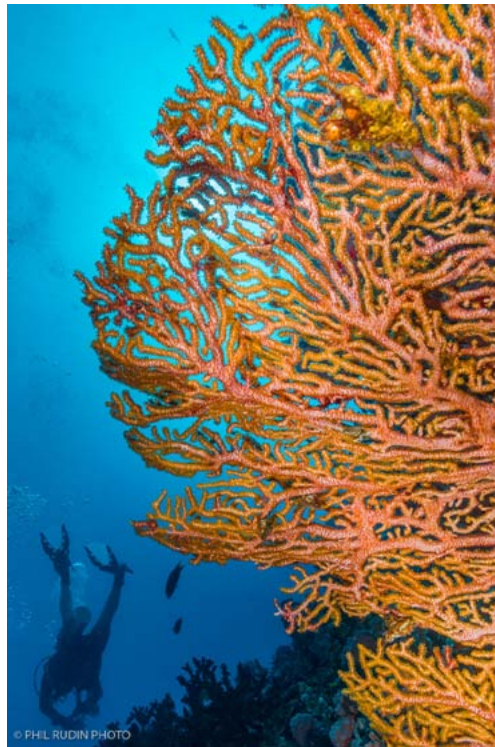
is being used above water even with gloves.

Since I am not a video shooter I reassigned a different function to the video button to prevent video recording which can occur if you accidentally bump the control button. It is quite easy to move the mode control dial to the movie mode and use the shutter button to activate video if an opportunity presents itself.

There is a shutter lever and a

(Right) Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso200, F/10, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

(Far Right) Nudibranch, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso100, F/20, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.



thumb lever for AF/MF & AEL which makes back control auto focusing quite easy and intuitive. If you prefer using the front shutter release level to auto focus that is the default setting for the A6300. Both focusing options worked equally well, however my preference is the back focus configuration which I used while shooting for this review and which I also use with my personal gear.

The housing also includes a lens release control which is located on the left side of the housing. This is a very useful control since several of the Ikelite supported lenses need to be mounted from the front of the housing while the port is removed. The camera is attached to the camera tray by a standard 1/4-20 screw, the tray allows access to the battery compartment and memory card slot without needing to be removed. When the tray slides into the rear of the housing both the lens release and rear thumb control lever

need to be raised to allow space for the camera.

Once the camera body is installed you can then slide the TTL sync cord into the hot shoe and secure it with a clockwise turn of the locking device. My suggestion is to keep the body cap on the camera and have the housing facing port side down at all times. The camera tray has no locking device and could slide out if tilted to far backwards. The back plate can then be secured to the housing using the two locking clamps which will hold the camera firmly in place.

A lens can then be mounted to

the front of the camera and the port is then mounted over the lens. Once you have installed the camera a few times this process becomes second nature. The housing has a zoom/focus wheel on the left side, some Ikelite dome ports also include zoom/focus control wheels.

Ikelite offers optional trays with one or two grips which can be used with removable ball heads for flex arms or O-ring ball heads for standard arm clamps.

The housing has two 1/4-20 mounting points on the bottom to attach the Ikelite tray and the tray has

a bottom tripod mounting point. Be aware that the assembled system is fairly light in salt water when using the eight inch dome and the macro port. I found no need for float arms or buoyancy floats to keep the system well balanced for use with one hand. I always keep the system slightly negative so that I can but it down if I want.

Ikelite offers a verity of ports to support both Sony E-mount and FE-mount full frame lenses. Supported lenses include the E-mount 16-50mm "kit" zoom, 18-55mm zoom, 16mm with the fisheye and ultra-wide

converters, 10-18mm zoom, 30mm macro Zeiss 50mm macro and Zeiss 12mm F/2.8 plus more. Sony FE (full frame) lenses include the 28mm with the fisheye and ultra wide converters, 24-70mm F/4 zoom and 90mm macro. Ikelite also supports the Canon 60mm and 100mm macro lenses using the FE to E-mount Metabones adapter. Keep in mind that the full frame lenses have a 1.5X crop factor on the APS-C sensor. Consult the ikelite.com web site for port charts as additional lenses are always being added as the system expands.

The A6300 housing tips the scales at 1430 g (3.1 pounds) without ports, the dimensions are 160 x 191 x 132 mm (6.3 x 7.5 x 5.2 in). The housing ships in the US with the waterproof bulkhead cap, lubricant and a manufactures one year warranty for an MSRP of \$975.00. Ikelite trays, arms, ports, gears, strobes, cords and more are sold separately.

Field Testing

I field tested the Ikelite A6300 housing system on a recent trip to Puerto Galera and Verde Island in the Philippines. My system included the housing, two Ikelite DS 51 strobes used with an Ikelite TTL dual sync cord, a ball arm strobe mounting system, Ikelite Gamma II light, eight inch modular port with port adapter 5516.80, Ikelite 5516.50 flat macro port and Ikelite 5516.70 port extension. The macro port was paired with the Sony FE 90mm F/2.8 G OSS macro lens and the eight inch dome port was used with the Zeiss Touit 12mm F/2.8 E-mount lens.

Both lenses are mounted to the camera from the front of the housing as I described above. I used different methods when mounting each port for best results. I found that mounting the dome port worked best when the port is face down on a flat surface.



Scorpion Fish, Verde Island Philippines, Ikelite/ Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

It is very easy to then lineup the housing over the port and push it firmly into place before screwing in the three retaining screws that hold the port adapter to the housing. The eight inch port is threaded and the port adapter screws into the port before it is mounted to the housing.

I strongly suggest that the O-rings and port threads both be lubricated regularly and disconnected every few dives if you don't want them to stick together. The mirrorless port adapter is only a few millimeters long so the eight inch port will sit close to the housing.

If you are using fiber optical sync cords with your strobes they should have the 90 degree mount and they should be installed before the dome port is mounted to allow clearance between the cords and back of the port. The port may rotate a bit causing the port shade to vignette. This can be avoided by centering the shade before you enter the water.



Dive Master Ramil, Verde Island Philippines, Ikelite/ Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso200, F/16, 1/160Th, A/V Light.

The Zeiss 12mm is a wonderful lens and with the eight inch port the configuration is near natural in salt water so I was able to handle the system with one hand. The Zeiss 12mm and the Zeiss FE 18 mm for the Sony full frame cameras have become my goto lenses for most wide angle when I want



the rectilinear perspective rather than fisheye. The size and weight of the Zeiss 12mm is impressive for such a high quality lens. The Zeiss 12mm F/2.8 is expensive at \$999.00 in the US so you may also want to consider the Sony E 10-18mm F/4 with the eight inch port for your wide angle needs.

Once I mount the Sony FE 90mm macro lens on the camera I carefully slide the macro port over the lens making sure I don't accidentally bump the manual focusing ring on the lens. The manual focus ring slides forward and back to switch between AF (forward) and manual (back) when shooting above water. This is a great feature for land photography but if the manual focus ring is bumped off the AF possession while installing the port, which by the way I have done several times the AF will not work.

The macro port installation process will then need to be repeated when the focus ring is reset. This is NOT an Ikelite issue it is a "pilot error" issue which has occurred using other manufactures housing when using the Sony 90mm macro lens.

The FE 90mm macro remains a bit of an enigma for me, with arguably the best or near best image quality of any macro lens made it still has drawbacks. The amount of battery power required to move all that outstanding optical glass is an issue



Sony clearly needs to address with improved battery life over its entire mirrorless camera line.

While I was able to do three tank dives using the Zeiss 12mm without need for a battery change I was lucky to exceed 170 images before the battery died while using the 90mm macro. The same short coming exists using the 90mm lens with the Sony A7R II which shares the same battery. The 90mm macro has three focus limiting possessions, full or infinity to 1:1, infinity to 0.5m and 0.5m to 1:1. These focus settings help to prevent the lens from "hunting" for focus depending on the distance to subject for which you are shooting.

I find the 0.5m to 1:1 setting to be the most useful underwater in most scenarios. Since most of us are using this lens for close focus, macro or super macro it makes sense to use this setting to reduce the "hunting". It takes a bit of getting use to because if you are to far from your subject the lens will not focus. The 0.5m to 1:1 setting forces you to remain in the distance range where this lens shines underwater.

I use Saga and Nauticam CMC closeup lenses which are designed for smaller sensor cameras when shooting super macro. The Sony FE 90mm macro retails for \$1098.00 in the US.



Other macro options for the A6300 include the Sony 30mm macro which works best for fish portraits and the Zeiss touit 50mm macro for smaller subjects. I have not used these lenses with the A6300 so you may want to look for other reviews before making an investment. Lenses like the E-mount 16-50mm kit lens can also be used for closeup and macro which can reach 0.9:1 at 46 mm with the Nauticam CMC-1 C/U lens. The Canon 100mm macro lens offerings with Metabones adapter seems a bit large for a compact system and may also use as much battery power as the Sony FE 90mm macro.

Since I am frequently ask about camera settings, I shot with the camera in manual mode at ISO 100-200 for most macro with the highest sync



Coral Fan With Diver, Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

speed which for A6300 is 1/160th using electrical sync or fiber optic cables, my F/stop range is from F/8 to F/16. For wide and fisheye lenses I shoot in manual mode at ISO 200-400 and 1/15th to 1/160th with an F/stop range from F/5.6 to F/16. These settings are a starting point and will change depending on the subject matter, water conditions, depth, time of day and more.

The Ikelite DS 51 TTL strobes work well with this housing reducing the overall size of the system while providing ample power. If you are looking for small travel strobes at an attractive price point the DS 51 should

be on your radar. The MSRP for the Ikelite DS 51 strobes is \$450.00 in the US.

The Ikelite A6300 housing is a great choice if you are looking for an interchangeable lens system that combines reasonable price, size and quality. Most A6300 users will be shooting with the kit lens to start and adding lenses and ports if they do not already own higher quality lenses.

Thanks to the Ikelite team for their assistance with the underwater equipment used for this review.

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