



SONY F55

BY PIETER DE VRIES ACS

The Sony PMW-F5 and PMW-F55 Cine Alta cameras are enjoying time in the sunshine. In joining the 4K bandwagon, Sony has come up with two special cameras.

Not just because of what they can do, but how comfortable they are to use on or off the shoulder. Ergonomics is seldom a top priority for camera manufacturers and it is often overlooked, usually at the expense of features and image quality.

The F5 and F55 are simple uncluttered boxes with a large clear LCD's displaying the camera status, to which you can attach your choice of viewfinder and handgrip.

Faces and skin tones look excellent and overall they produce well rounded and visually beautiful images. They also have been designed with the cinematographer in mind. With just a little tweaking they become suitable for hand-held documentary style cinematography.

Sony's real knockout feature though are the prices. A fully configured F55 is a fraction of competitor's prices and the specifications are superior, including a global shutter that eliminates the rolling shutter artifacts of most CMOS cameras.

I recently used an F55 and there are many likeable features

VIEWFINDER OPTIONS

Several choices are available. The DVF-EL100 – 0.7" OLED viewfinder with 1280x720 resolution, the DVF-L350 – 3.5" LCD with 960x540 resolution

and the DVF-L700 – 7" LCD with 1920x1080 resolution. The latter is really a viewfinder/monitor and can also be fed with an SDI input.



I used the EL100 and as the more expensive of the two eyepiece-type finders, you can expect its better image quality to win you over. A camera of this caliber requires a good viewfinder to match.

RECORDING OPTIONS – THERE ARE A FEW

The recording options may at first appear confusing, however there is a lot on offer with a clear aim to cater for all sectors of production. Everyone it seems is looked after.

The F55 offers four recording formats, including 4K recording facility built into the camera itself. I think this is a first.

4K resolution seems to be almost a prerequisite for cameras intent on satisfying episodic television, TVC, documentary, and in the case of the F55, digital cinema release cinematography. Both models cover all of these bases – the F55 can record 4K and an HD "proxy" simultaneously to the same internal card while the F5 records 4K to the dockable RAW

recorder and can also create an HD "proxy" internally.



The big standout is the global shutter used in the F55 – a feature that Sony calls "Frame Image Scan". It means that this model is serious about taking its seat in the darkened surrounds of digital cinema production.

THE NEW CODECS

Both the F5 and F55 have a new codec. The XAVC codec is capable of:

- intra-frame 4K at up to 600Mbps (60p) 422 10-bit recording
- intra-frame 2K at up to 200Mbps (60p) 422 10-bit recording
- intra-frame HD at up to 200Mbps (60p) 422 10-bit recording

The F5 ships with HD ready to go. The F55 with its global shutter, slips out of its plastic static resistant wrapper, set to record at 4K.

Both the F55 and F5 can record 16-bit 4K RAW to the optional dockable AXS-R5 RAW recorder using AXSM memory cards, while also capturing identically time-coded footage on the cameras' internal SxS memory cards. Although the recorder uses the more

expensive memory cards required to support high frame rate shooting, it is still a very handy option.

The internal SxS based footage can be captured in a gaggle of resolutions and industry-standard formats, ranging from MPEG2 HD422 8-bit footage at 50Mbps, 10-bit HDCAM-SR at 220 and 440Mbps, up to 10-bit XAVC 4K at 600Mbps. The camera itself can capture footage at up to 180fps for 2K/HD, or at up to 240fps in 2K RAW with the AXS-R5 recorder module docked neatly to the camera body. You barely notice it's there.

One big difference here is that the F55 does 4K internally. The 4K XAVC codec is H.264 based but as previously noted, there's also 16-bit 4K RAW using the AXS-R5 recorder.

HIGH FRAME RATES WITH NO STRINGS ATTACHED

The high frame rates are excellent at 4K recording. The F55 can churn out 4K RAW at 60fps and the dockable recorder will be enabled for up to 240fps in 2K mode later this year

GLOBAL SHUTTER VS ROLLING SHUTTER

The global shutter installed in the F55 arrived just in time. I was concerned that we'd all become used to seeing leaning buildings, tree trunks slanting strangely and those unkind half-frame camera flashes, the trademarks of the CMOS sensor used in the DSLR-for-video cameras.

The global shutter used in the F55 changes all that. I think it is the first CMOS that reads the entire sensor at the same time. You will lose a stop of sensitivity when compared to the rolling shutter used in the less expensive F5, a small price to pay for a camera that is already amazingly light sensitive with its native ISO of 1250.

Can we now finally rethink our shot list and re-introduce those tracking shots that pan past parallel lines of buildings? Without technical boundaries, things are just the way they used to be shooting on motion picture film. With a global shutter any skew or rolling shutter is not just reduced, it's eradicated entirely.

Good DPs can work with the F5's rolling shutter quite nicely and if you are moving the camera and seeing unwanted artifacts, then you may be

panning too quickly for progressive capture in the first place.

ISO

ISO numbers seem to be creeping towards values in the tens of thousands. I have to ask why bother even looking past 2500 ISO? I know we have cameras that offer you the equivalent of an expensive pair of night-vision goggles, but I am curious about image quality when the ISO is set around ISO 2000. I hope that this lower ISO setting is not being compromised to cater for the ISO 25000 capability.

ISO 2000 in combination with fast lenses mean that there are few low lighting situations that are out of reach and a small lighting kit could easily fill in the gaps.

WHERE HAVE ALL THE CABLES GONE, LONG TIME PASSING

The investment in multiple HDMI and BNC cables, V-Lock and cheese plates, external monitors, external recorders and assorted work-around contraptions is about to look sad. You will not need to own a Meccano set to transform the F55 and F5 into proper working video cameras.



In my experience these cameras are ready to roll right out of the box. I value the fact that the F55 balances on my shoulder almost perfectly. The AXS-R5 RAW recorder is helpful - it enhances balance by extending the back of the camera before the final battery in slotted into its V-Lock.

You will have to find your own handgrip. Sony chose to leave the choice of grip to the user. Thanks to the standard Arri rosette built into the optional Sony VCT-FSA5 base plate and shoulder pad, I was able to give the twenty eight year

old handgrip from my SR2 Super 16 camera a new lease on life.

MODULAR BLOCKS

I am indifferent to the build-your-own-camera era. The F5 and F55 are not a sensor-in-a-box that relies on your assortment of nuts, bolts and 15mm rods in various proprietary colours to make them useable. The form factor is streamlined, the battery and optional AXS-R5 RAW recorder are shaped to fit neatly behind and in line with the camera body - nothing seems out of place or work-around here. More like a Red-style modularity combined with the more logical control layout of the Alexa.



Modules are far more preferable to having loose cables, extension rods and brackets hanging off the camera body. You have this only when the camera doesn't do what you want internally.

There are detachable external ports including the XLR audio inputs, removable top handle and an interchangeable lens mount. Both models are delivered with a PL mount in place and it was a smart move to make the mount interchangeable.

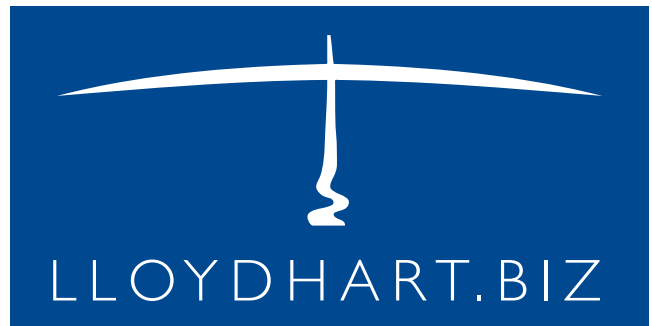
Feel free to use your collection of Canon glass and your Nikon lenses (if you have ever found a way to re-program your brain to allow you to focus in the reverse direction to almost every other lens maker)

Similar to the Alexa, the control panel is on the same side of the camera to the operator and is clear and easy to read. There is a lock button in case you bump a setting with your cheek and mistakenly change the shutter speed to 1/2500th/sec.

FIRMWARE

RED began the tactic of a requirement to install incremental firmware upgrades at the launch of their Red One camera and it seems to have worked. Sony copied from the competition and most of the well documented features will be delivered by December 2013.

This actually gives me faith in the longevity of a product line. Adding features via firmware upgrades gives the impression that the model will be improved over time and not replaced in a year or so with the new model. This is something that drives everyone nuts



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Sony have also released a new series of PL prime lenses available as kits of 3 or 6. All lenses are T2.0 with metal housing and focal lengths ranging from a wide angle to a telephoto-ish. The lens lineup now includes a 20mm and 25mm, a 35mm as well as a 50mm, 85mm and finally a 135mm. The optics seem to me to be excellent and built to be taken seriously.

I have an original set of Sony PL's and notwithstanding the non-metal housings they too are good value. Optically they are excellent however these new lenses

are a step up in build quality and seem to handle lens flare in a more pleasing way

CONCLUSION

There has never been a better time to be a cinematographer. The quality of the recorded image is now quite extraordinary and prices are a fraction of what they once were, giving a wider range of users access to high end production tools.

Sony have had their ear to the ground – they have listened to the feedback

from cinematographers, their likes, their dislikes and taking a few pointers from other camera manufactures along the way.

In picking a top-end camera there have never been so many choices. The 5's are a good choice for a variety of assignments. I would not hesitate to use the F5 on one of my future documentary shoots.

Now, where did I put that latest firmware update?



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