



# Emotion in Every Frame

The history of Digital motion picture camera technology started in 1999 when Sony released the first 24p digital motion picture production system. In 2006, Sony released the world's first 4K digital cinema projection system which influenced and increased demand for high-quality digital content in 4K resolution. Following, Sony introduced the F65, F55 and F5 motion picture camera systems, all of which have been used on a significant amount of productions, and supported by many users from the cinema industry worldwide.

Now, Sony proudly introduces the next generation motion picture camera system, forward thinking to large format production, the VENICE.

VENICE features a newly developed full-frame image sensor. This camera has been created based on significant feedback from film industry professionals.

Regardless of any changes in technology or economy, our mission remains the same: to satisfy the ever-increasing demands of creative minds. Sony is committed to further elevating image quality and improving the visual experience so that filmmaker and audience can feel emotion in every frame.

With this in mind, the CineAlta logo symbolizes 'infinity', which can also be thought of as 'unlimited creative possibility' and 'endless pursuit of perfecting technology'.







I fell in love with VENICE, and really enjoy using it! I'm very happy with the improvements Sony did from the F55! The VENICE helps speed things up on set - it's a really clever piece of equipment."

Adriano Goldman, ASC, ABC, BSC
Director of Photography
The Crown



VENICE makes amazing images from its incredible sensor, and is so versatile in its Rialto mode. This camera package is my 'go to' choice and is a great leap forwards in digital capture technology, opening up both on-set and post-production possibilities for me. What is there not to like?

Alan Stewart, BSC Director of Photography Tom & Jerry, Wrath of Man

What really impressed me about VENICE was the color. From this point of view, there is no reason to envy 35mm film. Filming in 35mm, you could never get what you can get with VENICE - for example, shooting at 2500 ISO with such low-level noise, blacks so deep yet so clean.

Alfonso Parra, ADFC, AEC Director of Photography El rey de la la montaña, Sin la tierra prometida



What I like most about VENICE is that I always get the colors I expect. I could nearly say that this camera matches what I see with my eyes. This is extremely reassuring. I always use it at the 2500 ASA setting and the blacks are noiseless.

**Benoît Delhomme, AFC**Director of Photography *Minamata* 





VENICE is a comprehensive tool, and its color range amazes me.

Caroline Champetier, AFC
Director of Photography
Annette



I enjoy a camera that can take light, no matter if hard or soft. Ideally, it captures light the way I see it. In that sense range of exposure is secondary for me, and it is more about immediacy and subtlety - like the sound of a musical instrument. VENICE resonated beautifully with what I wanted to achieve.

Florian Hoffmeister, BSC Director of Photography Official Secrets, Antlers

I find VENICE to be the best camera for a true representation of exterior daylight environments and the rendering of nuances in skin tone. I have to say the greens from trees and natural environments have never looked richer or truer to me.

**Jessica Lee Gagné**Director of Photography *Mrs. America, All Day and a Night* 



The Extension System and picture quality make VENICE a first choice for cinematographers to shoot in compact spaces.

**Max Wang**Director of Photography *My People My Homeland* 





Projects like 30 Coins or Veneciafrenia, with so many locations and uncontrollable light environments, demand very versatile tools. VENICE, with its great signal management in both high and low lights, and its outstanding sensitivity, was the best choice.

> Pablo Rosso, AEC Director of Photography 30 Coins, Veneciafrenia



VENICE is like another film stock to me. I feel like I'm at home.

Paul Cameron, ASC
Director of Photography
21 Bridges, Westworld, Reminiscence

VENICE is versatile to capture a large scale of tonality under extreme bright midsummer sun conditions. It provides me with a high sensitivity while keeping resolution and colour depth. But above all, the most essential point was for me to achieve the presence of the human face, to stay with our main characters in the moment. VENICE, with its large sensor and incredibly natural soft skin tones, was the right choice.

Christine A. Maier, BVK, AAC, ASBH Director of Photography Quo vadis, Aida?



VENICE gives you everything you want in terms of image quality, detail, and balance between the shadows and the highlights – and the confidence to know you could shoot in low light.

**Rob Hardy, BSC**Director of Photography
Devs, Annihilation, Ex Machina





With VENICE, I can capture naturalism in a scene more than ever before. Dual ISO allows me to push the limits of light and shadow. Color rendition is close to perfect, which lets me play with color mixing and keeps all skin tones looking natural and tangible.

Sandra Valde
Director of Photography
The L Word: Generation Q, Plan B



When you're shooting the interior of cars, every ounce matters, and every cubic inch of volume matters. We were often hanging VENICE off the side of the car, where the Extension System were crucial to the feeling of the shots.

**Todd Bell**Director of Photography
Horse Latitudes, Dramarama

The VENICE look is very, very neutral. What I see in terms of flesh tones is spot on with what I see with my eye. So if I know that it is clean and to my eye, it works. Then I can manipulate the look and make a decision as a creative to take it somewhere else.

## **Tommy Maddox-Upshaw, ASC**Director of Photography

Snowfall, Empire, Huge in France, On My Block



VENICE is a very adaptable cinema camera for all kinds of light conditions - including extremely low illumination environments. It captures the color and every detail precisely.

#### Zhao Xiao Ding, ASC, CNSC

Director of Photography
One Second, Only Cloud Knows





# Beautiful Image

# Reliable Partner for Creativity

VENICE is a cinema camera created by and for the cinematographer. VENICE is equipped with a newly developed full-frame image sensor meeting the needs of the film industry in pushing the boundaries of large format image capture with exceptional picture quality.



Satisfied with the current condition?
With the wide latitude and gamut recorded by
VENICE, freedom of expression is significantly
expanded in grading and based on
established workflow





# Simple and Intuitive

Usability and reliability of the camera is one of the major concerns for operators especially in tough or time-critical filming conditions. With a user-friendly design, clear and simple menu navigation, and with a highly durable and reliable construction, in using VENICE, you can simply concentrate on filming, not the camera.





















Behind the scenes photos by Jeff Berlin - Sony Artisan



# Joseph Kosinski

Writer, Director

Q: Tell us about "THE DIG".

Joe: Every director has a folder full of abandoned ideas or commercials you pitched on or short films you pitched that for whatever reason didn't go. My folder happens to be pretty deep. We first talked about how to showcase and test out VENICE and give us a variety of conditions to torture the camera. "THE DIG" seemed like a good one that it was nighttime, daytime, urban, desert, interiors, exteriors, driving shot and helicopter simulating film shoot.

**Q:** In general, what is important for you in terms of camera qualities?

Joe: I want a blank slate. I want flexibility to take an image any number of directions giving me basically what I saw in the day, that kind of neutral look, the look I created in the moment and able to push it around without breaking down. What we're seeing with VENICE, even though it's a prototype, the dynamic range is something you notice right off the bat. It's fantastic. I was immediately struck by an improvement of the skin tones, the way it rolls into the highlights and the neutrality. I would say the image is beautiful.

**Q:** Following the shoot, how was the grading in standard dynamic range.

Joe: A dark black car with a black interior shooting out midday desert pushing the envelope of what a camera can capture and yeah, seeing detail outside the windows, great shadow detail, the way the camera rolls into the highlights, like shots pointing directly into the sun. We have one of those in the spot. It was very clear from our

first look at the footage that this was another kind of leap forward. Cinematographer Claudio Miranda, ASC talked about as well the smoothness of how it renders skin tones looked very natural and falls in really nicely. You don't want to search for it or hunt for it. It should be there and VENICE had it there.

**Q:** VENICE is a full-frame camera, but the large imager mode couldn't be tested for "THE DIG" because of the prototype cameras, but what do you expect to have by using aspect ratios 2.66: 1 and 2.39: 1 falls into the creative process?

**Joe:** For this particular project, that ultra-wide aspect ratio really suited the landscapes and the shots we were

framing up. We shot it on set. We kind of protected for it but I thought we would end up hard matting the 2:39: 1 version. But after seeing it, I fell in love with that extra wide ratio suited to the desert landscapes and nature of this story. I did research myself to understand why 2:39: 1 exists and it was due to the fact that the soundtracks were included on the negative itself using up part of the width of the film. We don't put audio on the visual media anymore so why stay compromised in that way in terms of digital media? That is why I felt "let's use the full chip", because we can digitally, and maybe bring back this 2.66: 1 format which is what anamorphic was originally capable of. So, I love having full-frame option in the future and being able to shoot in that format.



# Claudio Miranda, ASC

Cinematographer

Q: Tell me about this project.

**Claudio:** I remember Joe always wanted to do a project on his own and I thought it would be good to present it to Sony and see actually if we can get this made for this new camera. Joe and I like testing the latest and greatest cameras that are coming out and we've done it in the past with the F65 and F35.

**Q:** You went to Japan and gave engineers very specific feedback?

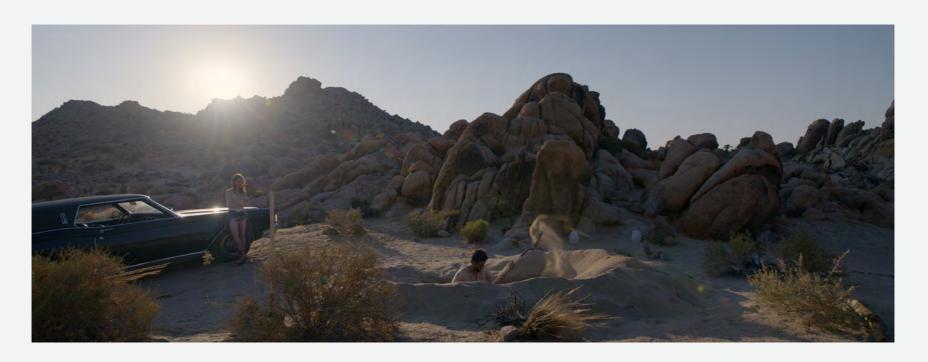
**Claudio:** It was important that we addressed the anamorphic issue. We had to use other camera brands when we wanted to take advantage of the full 4  $\times$  3 anamorphic and any other lenses. Now, the choices of lenses have opened up considerably. Also, with full-frame, 24  $\times$  36mm, it opens up the use of 65mm lenses

that were once limited to only film cameras. I just think that's incredible to get the depth of field, to be able to actually shoot with those lenses at night because of the high sensitivity of the new image sensor in VENICE. That's kind of a new opening for us as well that was not possible before.

**Q:** What else have you discussed with the VENICE engineers in Japan?

Claudio: I put a wish list of "can we get all the NDs inside the camera?" - Meaning I wanted all eight steps of ND, would this be even possible? If so it would be a first for any camera. When the engineers arrived with the prototype camera bodies I was really impressed, they did implemented all eight, with steps of 0.3, 0.6, 0.9, 1.2, 1.5, 1.8, 2.1 and 2.4, implemented internally to VENICE. The filters are really accurate steps and there's no loss or shift even at the heaviest ND we used during filming. It covers the whole gap. There's no need to carry ND filters anymore. This is a huge advantage for remote set ups, and for helicopter and drone work. We can even change the ND values remotely without having to be next to the camera.





**Q:** How did you like the quality of the pictures you're seeing?

Claudio: I was especially impressed with the color rendition. What I love about the color, it feels a little more cinema, it's a little bit softer feeling, also there's a lot more dynamic range than before. The highlight roll-off is really smooth. I was talking to Alex Carr (DIT) and it was he's finding at the very early stage, that VENICE has tremendous range in the highlights. In "THE DIG", we are filming in the rock quarries, and the sun goes down behind the rocks and there's still bright sky in the background. So I'm trying to hold that latitude and the detail that's down on the ground and it's holding all the detail in the shadows. Pretty amazing stop range. Smooth latitude feels like it's not as electronic, a little bit homier, a kind of organic response. Additionally, I really love how the camera responds to skin tones, really beautiful.

**Q:** What is your impression for the operator side and the assistant side design?

**Claudio:** There are actually two menu panels on this camera. One for the camera assistant side which has the full set of menu data and also one for the operator side which is a little smaller sized menu showing all the critical information the Cinematographer need to know. Everything's really much clearer to find and you can set color temperatures, NDs, shutter angles, and other often needed functions.

**Q:** What else impressed you about the VENICE?

**Claudio:** The Viewfinder (DVF-EL200), a lot quicker response, less delay. And I like the size. In "THE DIG", there was a point trying to get VENICE into the Shotover K1 helicopter housing. If you go with a bigger body, then choices of lenses on the other side are limited. So it is

really nice the VENICE body is small enough which makes my lens choices on the other end much more, which is super important to enough which makes my lens choices on the other end much more, which is super important to be able to have that available to me.

**Q:** How would you recommend VENICE to Cinematographers?

Claudio: Well, I think it's just great to have a camera that has all the NDs built in. You can go with a really small package and can be pretty lightweight. Also, you can choose any kind of lens you'd like to use. I think the color gamut is great. It has great dynamic range, smooth highlight handling, and beautiful skin tone rendition. It has a softer kind of overall tone curve I think that feels easy to work with and produces a wonderful image.

# Dan Ming

1st Assistant Camera (A Camera)

**Q:** How did you get involved with this film project "THE DIG"?

**Dan:** I'm Claudio's First AC and Claudio was asked to shoot this project, "THE DIG", to test these new cameras out. It's always fun being the first to use a new camera and also challenging to use something that no one's ever used before.

**Q:** How did VENICE perform and what are your impressions?

**Dan:** We took these bodies and set them up and just threw them in the heat and the dust and the dirt and just did what we would normally do with any camera for a shoot and

with these subjected them to even more punishment. We actually went out of our way to let the cameras sit in the sun a bit to see how hot they could run, and they didn't overheat at all. So the tolerance of VENICE is definitely markedly improved in terms of the environments it could work in.

**Q:** What were some of the features that appealed to you more?

**Dan:** The boot time of the camera is very impressive, from OFF to first picture within five seconds is very impressive. No other camera can do that. Five seconds you have a picture to work with. It sounds like a small feature but this alone will save a huge amount of time on set each day.

**Q:** Talk about the image performance you were seeing on set.

**Dan:** For "THE DIG" we elected to shoot Full Height 18mm anamorphic 4x3. So we used the top and the bottom of the frames and not a full Vista Vision width—as we know, the field of view of anamorphic lenses is twice the field of view as a spherical lens so it reduces your depth of field, but it gives you that look with the anamorphic flares that streak across. It's a more organic look than Spherical.





# **Bob Smathers**

1st Assistant Camera (B Camera)

**Q:** What were your impressions of VENICE?

**Bob:** The camera is a good size. It has a nice dovetail on the top with the handle that slides into that and there were several variations with that. The internal NDs are nice. Those worked flawlessly from 0.3 to 2.4 quick and easy. The user interface is clean, simple and nice.



# Alex Carr

Digital Imaging Technician

**Q:** What are your experiences with the workflow?

Alex: For the VENICE, the workflow is almost identical, as it uses Sony RAW. It uses the same media, the same AXS-R7 recorder as the previous Sony camera generation. But there is something new. There's now a Thunderbolt 2 card reader, (AXS-AR1) which is one of the fastest card readers of any camera right now. I back up all of my media to a solid state HDD array and I can copy one card at 1 GB per second, so it's very, very, very fast.

**Q:** What are your impressions of the imagery you were seeing coming from VENICE?

**Alex:** When working with VENICE, we have a huge color gamut. At the time of this writing we have only done preliminary tests, but so far the results are pretty amazing. VENICE uses the S-Log3 gamma setting and has a very wide dynamic range, and it allows us to push and pull the image in any direction the Director needs to achieve his vision of the story. So, even in some shots

where we don't always have the best lighting or don't always have the best the best circumstances, we can still push and pull and move around without getting too noisy or getting cornered into a particular look. So, it's one of the most flexible cameras I have worked with. This also helps us to match a cinema or a film look very easily. It's a very, very good match to cinematographers who are used to using film or who are looking for a film look.



**Alex:** While we were shooting in the desert, we had very high temperatures. The cameras were very hot, but they never really failed. When shooting in such dusty locations, it's good to have ND filters inside because then you're not switching filters and cleaning filters all the time and it can save a ton of time and headaches.

#### **Q:** Did you like the menu system?

**Alex:** The menu system of VENICE is very quick, very responsive, very clean to navigate, and it uses a lot of cinema terms instead of broadcast terms. This helps the creative minds within the film industry to understand the camera not from the perspective of engineering but the perspective of a cinematographer or a camera assistant. You can understand the camera just simply by pressing the menu and going through the first few steps, you see, oh, wow, this is very simple, it's very nice, and it's quick and easy.



# Mike Sowa

Sr. Colorist, Technicolor

Q: Tell me about your history.

**Mike:** I've been in the business 32 years. When I first became a colorist, I started off doing dailies overnight from film on a Rank Cintel with its color correction system. There were just three knobs with joysticks that came off of them, and that was it. Then Da Vinci came out and went to the Da Vinci Classic and then moved to Da Vinci 2K back in the days of high definition. I have been on four different systems throughout my career.

**Q:** The Director Joe Kosinski and Cinematographer Claudio Miranda, ASC were the first in the world to shoot with VENICE and you are the first in the world to grade the footage. What is your opinion seeing the imagery as you grade it?

**Mike:** There are certain cameras that require a lot of individual color work to get it to look like traditional film. Nowadays, the digital cameras capture so many colors, almost too much. Some of them have colors that don't make any visual sense to me. I live in a world of dynamic range and it's always the detail bottom end and top end of the signal. Images that Claudio gives me fall into a place where he has intended it to be. I have to stay within that. I can tell you he is incredibly happy with the amount of dynamic range and the ease in that he gets these images because it's all about lighting the sets and he loves to shoot dark also. There is a lot of nice beautiful soft black but it's still black. Sense of all the detail that he's expecting to see, I look at that and I think okay, this camera nailed it.



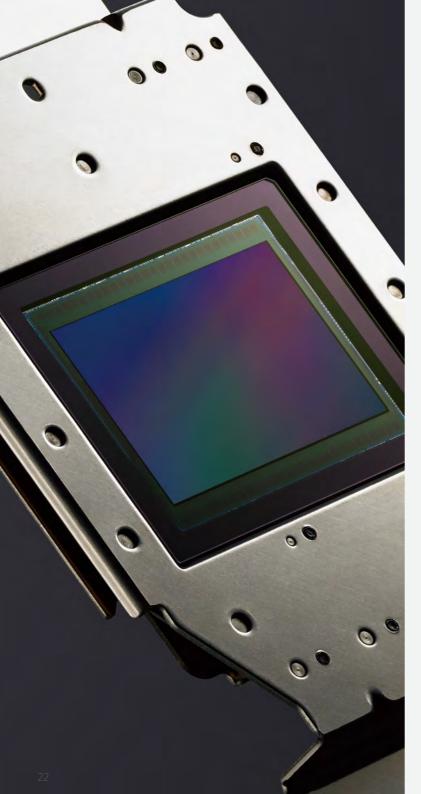
**Mike:** The detail between the bottom end and the high end is, with the combination of lenses that Claudio used, is so crisp and clean that you get that 3D feel. Claudio and Joe see things the same way mostly. I see things the same way they do now. Getting to that image was incredibly easy. No compromises. The lowlight detail and the highlight detail are all there in the camera and there is a nice range between the two so the skin tones fell into a really pretty place. He wanted overhead light but there's a real soft quality in the low-light flesh tones that I didn't have to push or pull to work on it at all. Trying to pull color out in this condition is very difficult with other cameras, and I was really happy with what I was getting in this camera without having to fight for it, and most importantly with no windowing needed. What you see on screen is what the camera did, not what I did.

Q: As of this writing, we haven't done the HDR grade yet, but in your experience with many HDR grades you have done, what do you think of how the "THE DIG" will perform in High Dynamic Range? Do you see any issues? Mike: No new issues. Typically, the issues are with the display itself. With HDR grading, if we do have an image that's slightly noisy in SDR, when you go to HDR, it's going to magnify a lot of the issues. Stuff that looks great is just going to look great. Often I have to go back in and massage a little bit. In most of those cases, it's a noise problem. The digital noise in digital cameras is a much finer size than film grain. It is pixel based, whereas film grain can be massive depending on the stock that was used and what and how it was exposed. If you try to bring that up, film grain can completely take over a face in film, whereas digital noise, the same level can be on the face. It's easier to treat digitally than with film grain if you have to do it.





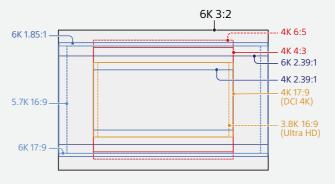
# Inside **VENICE**



### 36x24mm Full-Frame Sensor for Cinema

VENICE is equipped with a 36x24mm full-frame image sensor, designed specifically for the demands and performance of high end cinematography, and can capture images up to a maximum resolution of 6048 x 4032. By switching imager modes, VENICE can natively support Super35 24.3 x 18.0mm, 4096 x 3024 resolution (equivalent to 4-perforation motion picture film) and Super35 24.3 x 12.8mm, 4096 x 2160 resolution (equivalent to 3-perforation motion picture film). In other words, VENICE's new full-frame sensor can capture in almost any format, including full 18mm-height Super35 Anamorphic and spherical and full-frame 24mm-height Anamorphic and spherical. Almost any aspect ratio can be conjured up: 1.85:1, 2.39:1, 17:9, the list goes on in full-frame or Super35.

With VENICE, Sony is giving users the option to customize their camera by only enabling the features needed, according to their individual production requirements. Licenses are available to expand the camera's capabilities including 4K anamorphic and 6K full-frame.

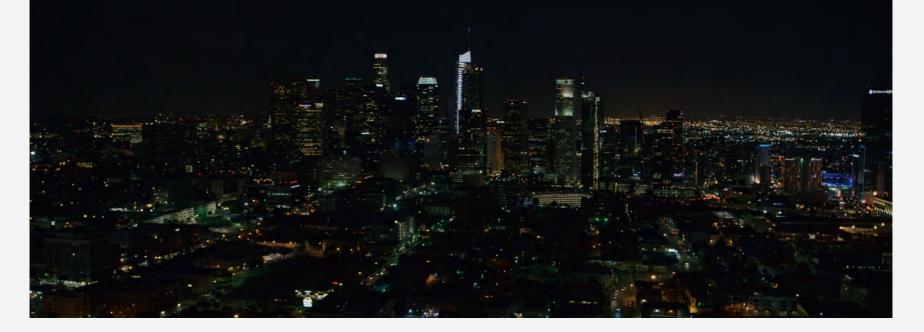


Software License	Imager mode	Resolution	W x H (mm)	Project Frame Rate	Select FPS	Select FPS w/HFR License	
License not Required*	3.8K 16:9	3840 x 2160	22.8 x 12.8	23, 24, 25, 29, 47, 50, 59	1 - 60	66, 72, 75, 88, 90, 96, 100, 110	
	3.8K 16:9 Surround View	3840 x 2160 (4268 x 2400)	22.8 x 12.8 (25.4 x 14.3)	23, 24, 25, 29, 47	1 - 48	-	
	4K 2.39:1	4096 x 1716	24.3 x 10.3	23, 24, 25, 29, 47, 50, 59	1 - 60	66, 72, 75, 88, 90, 96, 100, 110, 120	
	4K 17:9	4096 x 2160	24.3 x 12.8	23, 24, 25, 29, 47, 50, 59	1 - 60	66, 72, 75, 88, 90, 96, 100, 110,	
	4K 17:9 Surround View	4096 x 2160 (4552 x 2400)	24.3 x 12.8 (27.0 x 14.3)	23, 24, 25, 29, 47	1 - 48	-	
	4K 4:3	4096 x 3024	24.3 x 18.0	23, 24, 25, 29, 47, 50**, 59**	1 - 48	49-60, 66, 72, 75	
Anamorphic License	4K 4:3 Surround View	4096 x 3024 (4552 x 3360)	24.3 x 18.0 (27.0 x 20.0)	23, 24, 25, 29	1 - 30	-	
	4K 6:5	4096 x 3432	24.3 x 20.4	23, 24, 25, 29	1 - 30	31-60, 66, 72	
	5.7K 16:9	5674 x 3192	33.7 x 19.0	23, 24, 25, 29	1 - 30	31-60, 66, 72	
Full-Frame License*	6K 2.39:1	6048 x 2534	35.9 x 15.0	23, 24, 25, 29, 47***, 50***, 59***	1 - 30	31-60, 66, 72, 75, 88, 90	
	6K 17:9	6054 x 3192	36.0 x 19.0	23, 24, 25, 29, 47***, 50***, 59***	1 - 30	31-60, 66, 72	
	6K 1.85:1	6054 x 3272	36.0 x 19.4	23, 24, 25, 29, 47***, 50***, 59***	1 - 30	31-60, 66, 72	
	6K 3:2	6048 x 4032	35.9 x 24.0	23, 24, 25, 29**, 47***, 50***, 59***	1 - 25	26-60	

<sup>\*</sup> The Anamorphic license is required to enable ratio setting, other than Off(1.0x), for the de-squeeze function.

<sup>\*\*</sup> When a High Frame Rate (HFR) License is activated.

<sup>\*\*\*</sup> When a High Frame Rate (HFR) License is activated. And AXS recording is supported, but AXS playback is not supported on the unit.



### Creative Freedom

#### Full-Frame Full width 36 mm 6K

In full-frame, you can use the full 6048 pixel width of the sensor for widescreen spherical 2.39:1 or Large Format Scope. Full-Frame can be used creatively in a number of ways – for example, to allow for extra shallow depth of field or super-wide shooting.

#### Super35 full height 2.0x squeeze Anamorphic

For anamorphic shooting and production, Super35 full height 2x squeeze anamorphic is supported.

#### Super35 17:9 and 16:9

These popular imager sizes are natively supported by VENICE. Current Super35mm PL mount lenses can be used.

#### Surround View (Look Around)

While the camera records only the active area, the viewfinder and on-set monitors can display a 5% margin around it.

Surround View supports three imager modes: 3.8K 16:9, 4K 17:9 and 4K 4:3.

### High Frame Rate

The optional High Frame Rate license allows VENICE to shoot at speeds of up to 120fps at 4K and 90fps at 6K. In combination with anamorphic license, it also allows to shoot at speeds of up to and 75fps at 4K 4:3 and 72fps at 4K 6:5. (see all options on specification page)

### Phenomenal Latitude

VENICE has an exceptional 15+ stops of latitude, with low noise for extraordinary performance in delivering phenomenal images in conditions from searing sunlight to almost no light. VENICE's real-world performance also excels at High Dynamic Range imaging and allows unprecedented creative freedom in grading.

### More Colors for More Expression

VENICE can exceed BT.2020 color space. This means the color range is wider than DCI-P3 and can beautifully reproduce the true color of the scene in front of your lens. This also provides the broad palette in the grading suite using the established workflow of Sony's third generation LOG gamma encoding (S-Log3) and Ultra-wide Color space (S-Gamut3).

### Fast Shutter

Jello effect is something what we don't need when filming. VENICE has high speed readout sensor which minimizes the jello effect that are typical in the CMOS sensors.

### Dual Base ISO

In addition to Base ISO500, Base ISO2500 is selectable.

High Base ISO2500 excels in low-light High Dynamic Range capture, with an exposure latitude from 6 stops over to 9 stops under 18% Middle Gray, for a total of 15+ stops.



## PL Lens Mount

VENICE comes with the industry-standard PL lens mount. It is compatible with all Super35 and full-frame PL lenses, spherical and anamorphic. The lens mount includes contacts that support Cooke/i Technology. Lens information is recorded as metadata frame by frame.

## Lever Lock Type E-mount

E-mount offers unsurpassed compatibility with Sony lenses. E-mount (lever lock type) gives users the ability to change lenses by rotating the locking collar rather than the lens itself, which means that in most cases lens support rigs don't need to be removed, saves time during a production.



Cinematographer Jeff Berlin

## Depth of Field

As the sensor size gets larger, depth of field becomes shallower. VENICE's wide 36 mm full-frame sensor can capture images that have the equivalent of 1-2 stops shallower depth of field compared to Super35.



## 6K High Resolution

The stunning full 6K resolution of the camera can be recorded directly in X-OCN (16-bit eXtended tonal range Original Camera Negative) file format by the AXS-R7. Also, XAVC 4K can be captured onto SxS card while still sampling from the full 6K resolution of the sensor.



## Anamorphic Look

VENICE's support for anamorphic lenses combined with its ability to shoot 4:3 and 6:5 aspect ratio at a horizontal resolution of 4K allows the capture of breathtakingly beautiful images with stunning lens flare, bokeh and emotional impact.



Provided by Bertone Visuals and Pursuit Aviation

## High Sensitivity

Base ISO2500 is ideal whenever you're using slow lenses or shooting dimly lit environments, such as exterior night, or indoors where lighting may be limited. Combining High Base ISO2500 with the internal eight-step Optical ND filter system offers tremendous flexibility with the ability to emulate different ISO's while maintaining maximum latitude of +6 and -9 stops.



## Compact and Intuitive

VENICE has a surprisingly compact design which allows easier shooting in confined spaces or on drones. VENICE's control buttons reflect the requirements of camera operators, carefully positioned for intuitive operation. They even illuminate for easy use on dark sets. On-set monitoring operation is further enhanced by the addition of

an extra HD output alongside the standard 4K SDI. VENICE can be powered by both 12 V and 24 V power sources that can be connected at the rear. A wide range of accessories are supported, including standard Fischer connectors. For enhanced durability in tough conditions, the viewfinder uses a LEMO connector.

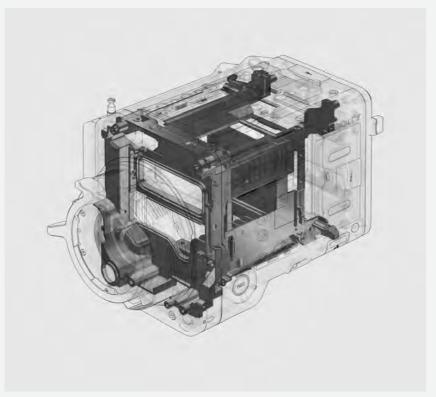


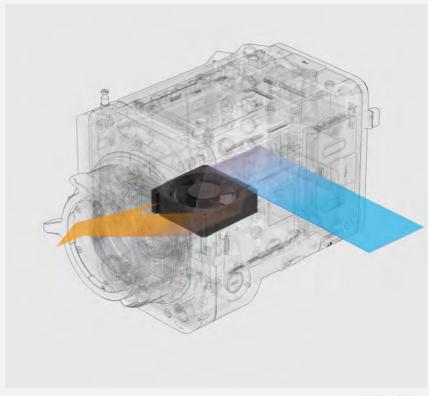
DC 24V Output (Fischer 3pin) Lens 12pin



E-mount (lever lock type)







Main Frame Air Ventilation

## Engineered to Survive

VENICE's chassis is engineered to be amazingly robust and has been rigorously tested in the harshest conditions as well as main frame structure enabled to design the body to be more durable.

Its ventilation system is completely isolated from all electronic components to prevent ingress of dust, sand and splash. The silent-running fan can be cleaned or even swapped out on set quickly and easily.



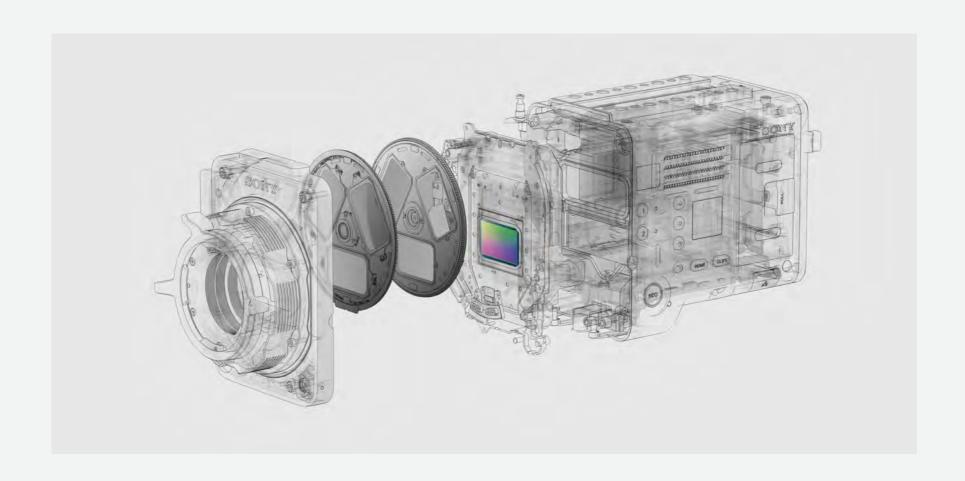




## Easily Configurable

VENICE has a fully modular design and even the sensor block is interchangeable. So, as sensor technology advances in the future, you have opportunities to upgrade without investing in a new camera.

In order to maintain ergonomic balance for operators, the top handle and viewfinder are easily adjustable. As the height of the camera from the bottom to the optical center of the lens mount is the same as the F55, base plates and other accessories used for the F55 can be used with Venice. The AXS-R7 recorder can be attached to VENICE with four screws rigidly.



## World's first 8-step Mechanical ND Filters\*

VENICE is the world's first camera of its class with a servo-controlled 8-step Mechanical ND filter mechanism built into the camera chassis. It offers a massive ND of 0.3 (1/2 = 1 stop) to 2.4 (1/256 = 8 stops) range that reduces time lost on set changing external

filters. The ND filters also greatly increase VENICE's flexibility when being controlled remotely on drones and cranes, or in an underwater housing.

\* Based on Sony market search.





Assistant Display

Operater Display

# Intuitive and Familiar On-Set Operation

VENICE has control displays on both sides of the camera, with the main control display on the camera outside for fast access to the camera settings by the camera assistant while shooting. The camera operator's OLED mini display allows intuitive control of commonly accessed features such as ND filter, shutter, FPS, White Balance and Exposure Index. The control interface is an all-new design based on extensive researches with camera operators.

### Camera Simulator

An interactive training tool for VENICE user interface

https://www.sony.net/Products/Cinematography/Venice/Camera\_simulator/







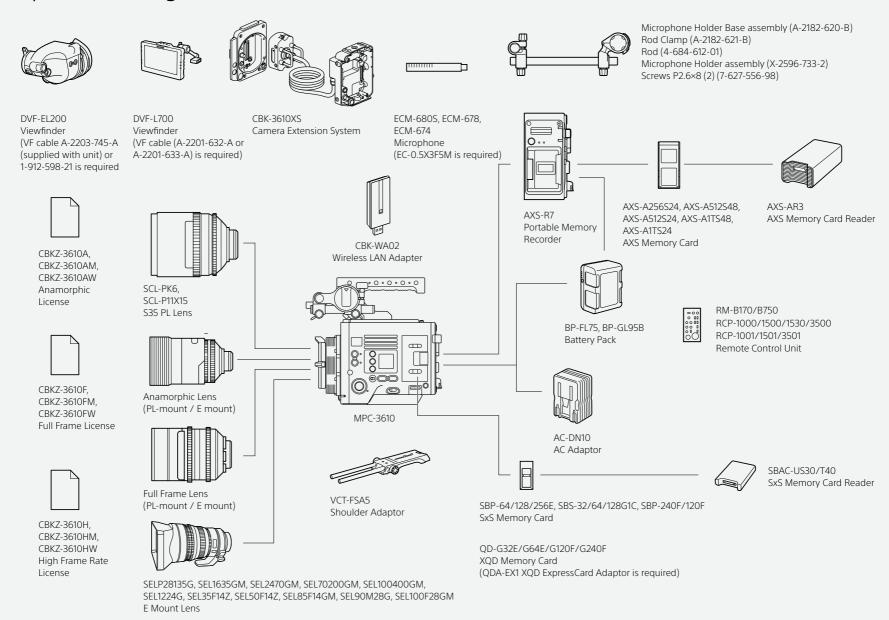


### Next Generation Viewfinder

The DVF-EL200 was specifically created as the perfect partner for VENICE due to its exceptional performance and additional control features. It has a 1920 x 1080 resolution OLED panel with exceptional high contrast, enabling precise, high resolution focusing and framing. Its all-new ergonomic design allows for tool-free attachment/

detachment and reconfiguring within seconds. A rotary encoder provides instant access to brightness, peaking and contrast. The industry-standard LEMO connector offers exceptional durability.

## System Configuration



## High Performance, Proven Recording Formats

VENICE offers complete production flexibility. Internally, VENICE can support XAVC, Apple ProRes or MPEG HD recording onto SxS memory card. Additionally, by using the AXS-R7 recorder, it can record 16-bit RAW or X-OCN (16-bit eXtended tonal range Original Camera Negative) onto AXS memory card.





#### XAVC

XAVC is the highest-performing implementation of H.264/AVC intra-frame coding. It supports 4K with superb efficiency and beautiful 10-bit pictures. Naturally, VENICE supports XAVC Class480, which is the highest bitrate and quality available.

#### **Apple ProRes**

Apple ProRes including ProRes 4444 and ProRes 422 proxy formats are popular in postproduction, and are supported by VENICE. This means there's no need for transcoding; you can simply handle these formats directly from the camera.

#### **RAW**

This ultimate 16-bit linear RAW format preserves all the information captured in 4K, with 16 times more tonal values than 12-bit RAW.





Thunderbolt™ Card Reader AXS-AR3

#### $\Delta XSM$

#### X-OCN – 16-bit eXtended tonal range Original Camera Negative

Full 4K and 6K resolution, with extraordinary color reproduction, nicely suits Sony's third generation color development, S-Gamut 3. In particular, 16-bit scene linear tonal gradation retains the camera's full dynamic range, with far greater capacity for visual expression than 10-bit or 12-bit digital formats.

16-bit X-OCN offers significant file size reduction, which make working with full resolution content from VENICE's 6K sensor far more practical in terms of file transfer times and storage requirements.

#### Recording Time AXS-A512S24/48 (512GB)

Imager mode	Project fps	RAW	X-OCN XT	X-OCN ST	X-OCN LT
	23/24	-	80 min	117 min	197 min
	25	-	77	112	190
4K 2.39:1	29	-	64	94	158
	50	-	38	56	95
	59	-	32	47	79
	23/24	66 min	64	94	158
	25	63	62	90	152
4K 17:9 / 3.8K 16:9	29	52	51	75	127
	50	31	31	45	76
	59	26	25	37	63
	23/24	-	46	67	114
	25	-	44	65	110
4K 4:3	29	-	37	54	91
	50	-	22*	32	55
	59	-	18*	27	46
	23/24	-	46	59	100
4K 6:5	25	-	39	57	96
	29	-	32	47	80
	23/24	-	37	54	92
	25	-	36	52	85
6K 2.39:1	29	-	30	43	74
	50	-	18*	26	44
	59	-	15*	21*	37
	23/24	-	29	43	73
	25	-	28	41	70
6K 17:9 / 5.7K 16:9	29	-	23*	34	59
	50	-	14*	20*	35
	59	-	-	17*	29
	23/24	-	29	42	72
	25	-	28	40	69
6K 1.85:1	29	-	23*	34	57
	50	-	14*	20*	34
	59	-	-	17*	28
	23/24	-	23*	34	58
	25	-	22*	33	56
6K 3:2	29	-	19*	27	47
	50	-	-	16*	28
	59	-	-	13*	23*

<sup>\*</sup> Only supported by the S48 memory

#### Recording Time SBP-120F (SxS PRO X 120GB)

				,			
FORMAT	23/24p	25p	29p	50p	59p	50i	59i
XAVC 4K Class300	55 min	52 min	44 min	27 min	22 min	-	-
XAVC 4K Class480	35	33	28	-	-	-	-
XAVC QFHD Class300	55	52	44	27	22	-	-
XAVC QFHD Class480	35	33	28	-	-	-	-
HD ProRes 4444	46	44	37	-	-	-	-
HD ProRes 422HQ	68	65	55	33	27	65 min	55 min
HD ProRes 422	101	97	81	49	41	97	81
HD ProRes Proxy	300	289	244	153	129	289	244
MPEG HD	229	227	226	-	-	227	226

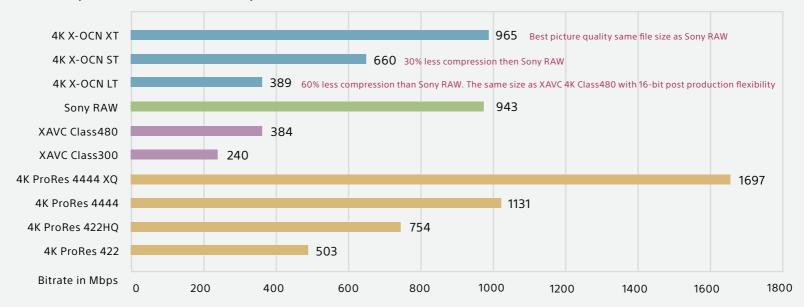
<sup>\*</sup> Thunderbolt and the Thunberbolt logo are trademarks of Intel Corporation ot its subsidiaries in the U.S. and/or other countries.

### 16-bit X-OCN XT Profile

X-OCN XT captures the highest quality imagery when using the AXS-R7 portable memory recorder. X-OCN XT is ideal for demanding visual effcts work and productions requiring the utmost image quality from VENICE. The new X-OCN XT profile maintains economical file sizes comparable to Sony's RAW file size, making the workflow

affordable and efficient. In comparing X-OCN with Sony's RAW format, X-OCN has superior reproduction in low light areas and high light areas. In VENICE's 4K 17:9 imager mode, users will have the flexibility to record three X-OCN profiles (XT, ST, LT) and Sony RAW.

#### Bitrate comparison at 4096 x 2160 24p



# Recording formats (Mbps) 23.98/24p

FORMAT	PROFILE	3.8K 16:9	4K 2.39:1	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		943	-	943	-	-	-	-	-	-	-
	X-OCN XT	965	770	965	1,343	1,525	2,091	1,665	2,091	2,143	2,631
X-OCN Using AXS-R7 recorder	X-OCN ST	660	527	660	919	1,044	1,431	1,140	1,431	1,467	1,800
	X-OCN LT	389	310	389	541	615	843	671	843	864	1,061
XAVC 4K SxS cards	Class480	-	384	384	384	384	-	384	384	384	384
AAVC 4K SXS Calus	Class300	-	240	240	240	240	-	240	240	240	240
XAVC QFHD SxS cards	Class480	384	-	-	-	-	384	-	-	-	-
XAVC QFHD 3X3 CdIus	Class300	240	-	-	-	-	240	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	50	50
	ProRes 422 HQ	176	176	176	176	176	176	176	176	176	176
HD ProRes SxS cards	ProRes 422	117	117	117	117	117	117	117	117	117	117
	ProRes 422 Proxy	36	36	36	36	36	36	36	36	36	36

# Recording formats (Mbps) 25p

FORMAT	PROFILE	3.8K 16:9	4K 2.39:1	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		983	-	983	-	-	-	-	-	-	-
	X-OCN XT	1,006	802	1,006	1,398	1,589	2,178	1,735	2,178	2,232	2,740
X-OCN Using AXS-R7 recorder	X-OCN ST	688	549	688	957	1,087	1,491	1,187	1,491	1,528	1,875
	X-OCN LT	406	323	406	564	641	878	699	878	900	1,105
XAVC 4K SxS cards	Class480	-	400	400	400	400	-	400	400	400	400
AAVC 4A 3X3 Calus	Class300	-	250	250	250	250	-	250	250	250	250
XAVC QFHD SxS cards	Class480	400	-	-	-	-	400	-	-	-	-
AAVC QFIID 3X3 Calus	Class300	250	-	-	-	-	250	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	50	50
	ProRes 422 HQ	184	184	184	184	184	184	184	184	184	184
HD ProRes SxS cards	ProRes 422	122	122	122	122	122	122	122	122	122	122
	ProRes 422 Proxy	38	38	38	38	38	38	38	38	38	38

Recordin g formats in bold require the higher speed cards AXS-A512S48 (512GB) or AXS-A1TS48 (1TB).

# Recording formats (Mbps) 29.97p

FORMAT	PROFILE	3.8K 16:9	4K 2.39:1	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		1,178	-	1,178	-	-	-	-	-	-	-
	X-OCN XT	1,207	802	1,207	1,678	1,907	2,613	2,082	2,613	2,678	3,288
X-OCN Using AXS-R7 recorder	X-OCN ST	825	549	825	1,148	1,305	1,789	1,425	1,789	1,833	2,250
	X-OCN LT	486	323	486	676	769	1,054	839	1,080	1,197	1,326
XAVC 4K SxS cards	Class480	-	400	480	480	480	-	480	480	480	480
AAVC 4K SXS Calus	Class300	-	250	300	300	300	-	300	300	300	300
VAVC OFFID CyC cords	Class480	480	-	-	-	-	480	-	-	-	-
XAVC QFHD SxS cards	Class300	300	-	-	-	-	300	-	-	-	-
MPEG HD SxS cards		50	50	50	50	50	50	50	50	50	50
	ProRes 422 HQ	220	184	220	220	220	220	220	220	220	220
HD ProRes SxS cards	ProRes 422	147	122	147	147	147	147	147	147	147	147
	ProRes 422 Proxy	45	38	45	45	45	45	45	45	45	45

# Recording formats (Mbps) 50p

FORMAT	PROFILE	3.8K 16:9	4K 2.39:1	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		1,966	-	1,966	-	-	-	-	-	-	-
	X-OCN XT	2,011	1603	2,011	2,796	-	4,356	3,469	4,356	4,464	-
X-OCN Using AXS-R7 recorder	X-OCN ST	1,376	1098	1,376	1,914	-	2,981	2,375	2,981	3,056	3,750
	X-OCN LT	811	646	811	1,127	-	1,756	1,398	1,756	1,800	2,209
XAVC 4K SxS cards	Class480	-	-	-	-	-	-	-	-	-	-
AAVC 4K SXS Calus	Class300	-	500	500	500	-	500	500	500	500	500
XAVC QFHD SxS cards	Class480	-	-	-	-	-	-	-	-	-	-
XAVC QFHD 3X3 CdIus	Class300	500	-	-	-	-	-	-	-	-	-
MPEG HD SxS cards	interlace	50	50	50	50	-	50	50	50	50	50
	ProRes 422 HQ	367	367	367	367	-	367	367	367	367	367
HD ProRes SxS cards	ProRes 422	245	245	245	245	-	245	245	245	245	245
	ProRes 422 Proxy	76	76	76	76	-	76	76	76	76	76

Recording formats in bold require the higher speed cards AXS-A512S48 (512GB) or AXS-A1TS48 (1TB).

# Recording formats (Mbps) 59p

FORMAT	PROFILE	3.8K 16:9	4K 2.39:1	4K 17:9	4K 4:3	4K 6:5	5.7K 16:9	6K 2.39:1	6K 17:9	6K 1.85:1	6K 3:2
RAW Using AXS-R7 recorder		2,357	-	2,357	-	-	-	-	-	-	-
	X-OCN XT	2,413	1,924	2,413	3,355	-	-	4,163	-	-	-
X-OCN Using AXS-R7 recorder	X-OCN ST	1,650	1,317	1,650	2,296	-	3,577	2,850	3,577	3,667	4,500
	X-OCN LT	972	776	972	1,353	-	2,108	1,678	2,108	2,160	2,651
VANC 1/4 C C	Class480	-	-	-	-	-	-	-	-	-	-
XAVC 4K SxS cards	Class300	-	600	600	600	-	600	600	600	600	600
XAVC QFHD SxS cards	Class480	-	-	-	-	-	-	-	-	-	-
XAVC QFID 3X3 Cdius	Class300	600	-	=	-	-	-	-	-	-	-
MPEG HD SxS cards	interlace	50	50	50	50	-	50	50	50	50	50
	ProRes 422 HQ	440	440	440	440	-	440	440	440	440	440
HD ProRes SxS cards	ProRes 422	293	293	293	293	-	293	293	293	293	293
	ProRes 422 Proxy	91	91	91	91	-	91	91	91	91	91

## Anamorphic de-squeeze options

IMAGER MODE	W X H (MM)	PROJECT FRAME RATE	SELECT FPS	SELECT FPS W/HFR LICENSE	OFF (x1.0)	x1.25	x1.3	x1.5	x1.65	x1.8	x2.0
3.8K 16:9	22.8 x 12.8	23, 24, 25, 29, 47, 50, 59	1 - 60	-	1	-	-	-	-	-	-
3.8K 16:9 Surround View	22.8 x 12.8 (25.4 x 14.3)	23, 24, 25, 29, 47	1 - 48	-	1	-	-	-	-	-	-
4K 2.39:1	24.3 x 10.3	23, 24, 25, 29, 47, 50, 59	1 - 60	66, 72, 75, 88, 90, 96, 100, 110, 120	1	-	-	-	-	-	-
4K 17:9	24.3 x 12.8	23, 24, 25, 29, 47, 50, 59	1 - 60	66, 72, 75, 88, 90, 96, 100, 110,	1	✓	✓	-	1	1	✓
4K 17:9 Surround View	24.3 x 12.8 (27.0 x 14.3)	23, 24, 25, 29, 47	1 - 48	-	1	1	1	-	1	1	✓
4K 4:3	24.3 x 18.0	23, 24, 25, 29, 47, 50*, 59*	1 - 48	49-60, 66, 72, 75	1	-	✓	-	1	1	✓
4K 4:3 Surround View	24.3 x 18.0 (27.0 x 20.0)	23, 24, 25, 29	1 - 30	-	1	-	1	-	1	1	1
4K 6:5	24.3 x 20.4	23, 24, 25, 29	1 - 30	-	1	-	-	-	-	-	✓
5.7K 16:9	33.7 x 19.0	23, 24, 25, 29	1 - 30	-	1	-	-	-	-	-	-
6K 2.39:1	35.9 x 15.0	23, 24, 25, 29, 47**, 50**, 59**	1 - 30	31-60, 66, 72, 75, 88, 90	1	-	-	-	-	-	-
6K 17:9	36.0 x 19.0	23, 24, 25, 29, 47**, 50**, 59**	1 - 30	31-60, 66, 72	1	✓	✓	-	1	1	✓
6K 1.85:1	36.0 x 19.4	23, 24, 25, 29, 47**, 50**, 59**	1 - 30	31-60, 66, 72	1	-	-	-	-	-	-
6K 3:2	35.9 x 24.0	23, 24, 25, 29**, 47**, 50**, 59**	1 - 25	26-60	1	✓	✓	1	1	1	✓

\* When a High Frame Rate (HFR) License is activated.
\*\* When a High Frame Rate (HFR) License is activated. And AXS recording is supported, but AXS playback is not supported on the unit.
All video outputs (Incl. VF) and SxS recording has to be de-squeezed if you choose x1.25 to x2.0.
Recorded materials in AXS Memory is not effected.

# Simultaneous Recording for faster workflow

A key benefit of VENICE is simultaneous recording. For example, a production could use RAW/X-OCN data recorded by AXS-R7 for online editing and also use XAVC, Apple ProRes or MPEG HD for offline editing without waiting for any file conversion. As VENICE can also record XAVC 4K and RAW / X-OCN simultaneously, another option would be to use XAVC 4K for quick turnaround mainstream production while using

simultaneously recording RAW / X-OCN as a future-proof archive suitable for the highest quality HDR applications. Even without using AXS-R7, VENICE itself can record XAVC 4K and Apple ProRes 422 Proxy or MPEG HD simultaneously. VENICE is designed to support both the highest quality imagery and high speed workflows.





SxS	AXS
MPEG HD*	
HD ProRes	RAW
XAVC 4K	I.A.W
XAVC QFHD	
MPEG HD*	
HD ProRes	X-OCN
XAVC 4K	A OCN
XAVC QFHD	

\*Fixed FPS only

SxS	Sub				
XAVC 4K	MPEG HD*				
AAVC 4K	HD ProRes Proxy				
VAVC OFUD	MPEG HD*				
XAVC QFHD	HD ProRes Proxy				

\*Fixed FPS only

# Powerful Tools for Color Management & On-Set Workflow

Catalyst Browse and the RAW Viewer are free software downloads for color grading and transcoding capabilities that work in close alignment with third-party color grading applications and also with non-linear editing systems.









#### Catalyst

Catalyst Browse is a media assistant that lets you browse files, see and edit media metadata, accurately view video, and apply color correction and looks. You can also copy material to a local hard drive or connected NAS, or upload to Sony's Media Cloud Services Ci, as well as transcode to a variety of formats.

#### **RAW Viewer**

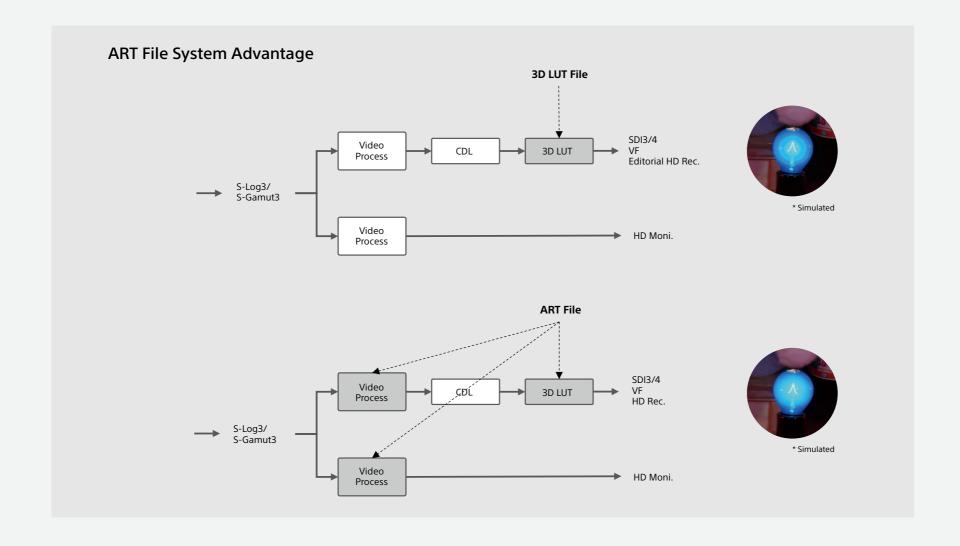
RAW Viewer is an application for checking the quality of materials captured by VENICE\* and also offers deep color controls. It has comprehensive color grading functions, the capability to output HD-SDI signals and support control panels from third-party vendors. RAW Viewer also offers exceptional developing performance when processing Sony RAW, and X-OCN files into image sequences for further editorial and grading work.

<sup>\*</sup> Excluding MPEG50

# Advanced Rendering Transform

VENICE support 3D LUT file import function to SDI3/4 and VF output. They are pretty well understood by most people and are generally used by sharing the LUT amongst the DIT and camera staff to load into the camera. In addition, VENICE propose new

Advanced Rendering transform (ART) monitoring. The ART file is generated from users' 3D LUT file by free application RAW Viewer and leads to a significant improvement in picture quality natively from the VENICE.



# Technicolor Look Collection

The new Technicolor Look Collection for VENICE allows any VENICE user to add the artistry and experience of Technicolor colorists to their productions, through free downloads of LUT (Look Up Table) files. These files can be used for on-set monitoring, as well as be applied in post-production.

Specifically, for on-set monitoring, the Technicolor Look Collection for VENICE includes Sony's new proprietary file format: .art file.



A total of 22 looks were custom created by esteemed colorists from Technicolor's impressive talents to leverage VENICE's color science.

# **VENICE Extension System**

Providing outstanding mobility and greater freedom to create exceptional imagery

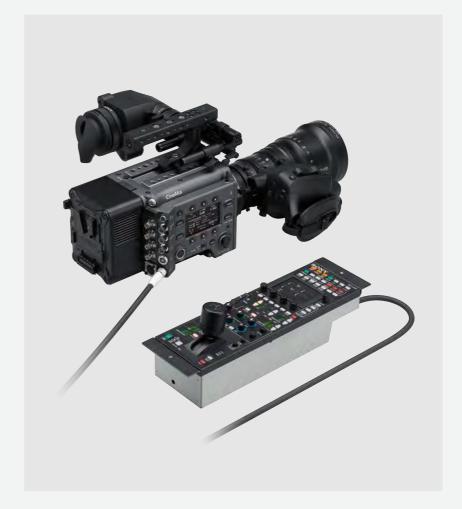


VENICE users can expect the same image quality and integrity when using the robust Extension System, which enables VENICE to become highly mobile and discreet for many mounting setups and filming scenarios including use with gimbals, handheld

stabilizers, underwater and helicopter housings, and 3D/VR rigs, as well as in tight and unconventional spaces, such as in vehicles, on cranes or Russian arms.







### 5.5 Meter Extension System

The VENICE Extension System (CBK-3610XS), which consists of a front panel cover, image sensor block case with a 2.7m (9-foot) cable and a 2.7m (9-foot) extension cable, is compatible with existing VENICE cameras with Version 3.0 firmware installed. The addition of the Extension System adds an HD-SDI output, a 12V or 24V output for powering accessories such as lens servo motors and monitoring. CBK-3610XS also comes with multiple mounting points on all surfaces to enable various rigs and accessories attachment.

#### Paint Control from RM/RCP Units

The unit supports control from an RM/RCP panel that can be used with broadcast camcorders and system cameras. When connected, ITU-R Rec. 2020 color space and HLG are selectable and adjustment of various paint parameters is supported.

### VENICE SPECIFICATION

### MPC-3610

General	
Dowar Dogwiroments	DC12 V (11~17.0 V)
Power Requirements	DC24 V (22~32.0 V)
Operating Temperature	0-40°C
Storage Temperature	-20°C~60°C
Mass	Approx. 3.9kg (8lb 9.6oz) (excluding handle, VF attachment, bottom cover)
Dimensions: H x W x L	158 x 147 x 235 mm (6 1/4 x 5 7/8 x 9 3/8 inch) (excluding protrusions)
Power Consumption	Approx. 60 W

Camera	
Imaging Device	35 mm full size, single-chip CMOS image sensor
Imaging Device Pixel Count	24.8M (total)
Imaging Device Size	36.2 x 24.1 mm 43.5 mm Diagonal
Built-In ND Filters	Clear, 0.3 (1/2), 0.6 (1/4), 0.9 (1/8), 1.2 (1/16), 1.5 (1/32), 1.8 (1/64) 2.1 (1/128), 2.4 (1/256)
ISO Sensitivity	ISO 500, ISO 2500 (Dual Base ISO)
Lens Mount	PL Mount
Lens Mount	E-mount (lever lock type, without supplied PL lens mount adaptor)
Latitude	15+ Stop
	4K 2.39:11-120FPS, 4K 17:91-110FPS, 3.8K 16:91-110FPS
Select FPS	4K 4:3 1-75FPS, 4K 6:5 1-72FPS
Select FFS	6K 2.39:11-90FPS, 6K 17:9/1.85:11-72FPS, 5.7K 16:91-72FPS
	6K 3:2 1-60FPS
White Balance	2000~15000Kelvin and Green/Magenta adjust, AWB
Gamma Curve	S-Log3

Recording	
Recording Format (Video)	XAVC 4K Class480: 23.98p, 24p, 25p, 29.97p
	XAVC 4K Class300: 23.98p, 24p, 25p, 29.97p, 50p, 59.94p
	XAVC QFHD Class480: 23.98p, 25p, 29.97p
	XAVC QFHD Class300: 23.98p, 25p, 29.97p, 50p, 59.94p

	MPEG HD422 (1920 x 1080): 23.98p, 25p, 29.97p, 50i, 59.94i
	HD ProRes 422HQ: 23.98p, 24p, 25p, 29.97p, 50p, 59.94p, 50i, 59.94i
Recording Format (Video)	HD ProRes 422: 23.98p, 24p, 25p, 29.97p, 50p, 59.94p, 50i, 59.94i
	HD ProRes 422 Proxy: 23.98p, 24p, 25p, 29.97p, 50p, 59.94p, 50i, 59.94i
	HD ProRes 4444: 23.98p,24p,25p,29.97p
	RAW SQ:
	4K 17:9 (4096 x 2160): 23.98p, 24p, 25p, 29.97p, 50p, 59.94p
	3.8K 16:9 (3840 x 2160): 23.98p, 24p, 25p, 29.97p, 50p, 59.94p
	X-OCN XT/ST/LT:
	6K 3:2 (6048 x 4032): 23.98p, 24p, 25p
	6K 2.39:1 (6048 x 2534): 23.98p, 24p, 25p, 29.97p
Recording Format	6K 1.85:1 (6054 x 3272): 23.98p, 24p, 25p, 29.97p
(RAW/X-OCN) Required AXS-R7	6K 17:9 (6054 x 3192): 23.98p, 24p, 25p, 29.97p
	5.7K 16:9 (5674 x 3192): 23.98p, 24p, 25p, 29.97p
	4K 6:5 (4096 x 3432): 23.98p, 24p, 25p, 29.97p
	4K 4:3 (4096 x 3024): 23.98p, 24p, 25p*, 29.97p*
	4K 17:9 (4096 x 2160): 23.98p, 24p, 25p, 29.97p, 50p, 59.94p
	4K 2.39:1: 23.98p,24p,25p,29.97p,50p,59.94p
	3.8K 16:9 (3840 x 2160): 23.98p, 24p, 25p, 29.97p, 50p, 59.94p
Recording Format (Audio)	LPCM 4ch, 24-bit 48-kHz

Inputs/Outputs			
DC Input	XLR-type 4pin (male)		
Battery DC Input	Square-shaped 5pin connector		
DC Output	12V: Hirose 4pin x 1		
	24V: Fischer 3pin x 2		
SDI Output	BNC x 4, (12G, 3G, 1.5G-SDI)		
HD MONI Output	BNC x 1 (1.5G-SDI)		
HDMI Output	Type A x 1		
VF	LEMO 26pin		
Audio Input	XLR-type 5pin (female) x 1 (LINE/ AES/EBU / MIC / MIC+48V selectable)		

Timecode Input BNC x 1 BNC x 1  AUX LEMO 5pin (female) x 1 (Timecode Output)  Remote 8pin x 1  Lens 12pin x 1  Lens Mount Hot Shoe 4pin x 2, conforming to Cooke/ i Intelligent Electronic Lens System  Network RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB USB host, type-A x 1  Headphone Output Stereo mini jack x 1  Speaker Output Monoral  ExpressCard/ 34 slot x 2  SD card slot x 1				
AUX  LEMO 5pin (female) x 1 (Timecode Output)  Remote  8pin x 1  Lens  12pin x 1  Lens Mount Hot Shoe  Apin x 2, conforming to Cooke/ i Intelligent Electronic Lens System  Network  RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB  USB host, type-A x 1  Headphone Output  Stereo mini jack x 1  Speaker Output  Monoral  ExpressCard/ 34 slot x 2	Timecode Input	BNC x 1		
Remote 8pin x 1  Lens 12pin x 1  Lens Mount Hot Shoe 4pin x 2, conforming to Cooke/ i Intelligent Electronic Lens System  Network RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB USB host, type-A x 1  Headphone Output Stereo mini jack x 1  Speaker Output Monoral  ExpressCard/ 34 slot x 2	Genlock Input	BNC x 1		
Lens 12pin x 1  Lens Mount Hot Shoe 4pin x 2, conforming to Cooke/ i Intelligent Electronic Lens System  Network RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB USB host, type-A x 1  Headphone Output Stereo mini jack x 1  Speaker Output Monoral  ExpressCard/ 34 slot x 2	AUX	LEMO 5pin (female) x 1 (Timecode Output)		
Lens Mount Hot Shoe  Apin x 2, conforming to Cooke/ i Intelligent Electronic Lens System  RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB  USB host, type-A x 1  Headphone Output  Stereo mini jack x 1  Speaker Output  Monoral  ExpressCard/ 34 slot x 2	Remote	8pin x 1		
Network  RJ-45 type x 1, 10BASE-T, 100BASE-TX  USB  USB host, type-A x 1  Headphone Output  Stereo mini jack x 1  Speaker Output  Monoral  ExpressCard/ 34 slot x 2	Lens	12pin x 1		
USB USB host, type-A x 1  Headphone Output Stereo mini jack x 1  Speaker Output Monoral  ExpressCard/ 34 slot x 2	Lens Mount Hot Shoe	4pin x 2, conforming to Cooke/ i Intelligent Electronic Lens System		
Headphone Output Stereo mini jack x 1  Speaker Output Monoral  ExpressCard/ 34 slot x 2	Network	RJ-45 type x 1, 10BASE-T, 100BASE-TX		
Speaker Output Monoral  ExpressCard / 34 slot x 2  Media Type	USB	USB host, type-A x 1		
ExpressCard/ 34 slot x 2  Media Type	Headphone Output	Stereo mini jack x 1		
Media Type	Speaker Output	Monoral		
	Media Type	ExpressCard/ 34 slot x 2		
		SD card slot x 1		

# CBK-3610XS

CBK-3610XS			
Power Consumption	Approx. 2.4 W (with 2.7 m extension) Approx. 3.9 W (with 5.5 m extension)		
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)		
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)		
Mass			
CBK-3610XS	Approx. 2.9 kg (6 lb 6.3 oz) (excluding supplied accessories)		
Imager Block to be Installed to CBK-3610XS	with PL Mount: Approx. 1.9 kg (4 lb 3.0 oz) with E Mount: Approx. 1.4 kg (3 lb 1.4 oz)		
Input/Output Connectors	24 V IN connector (Fischer 3-pin) (1) 24 V OUT connector (Fischer 3-pin) (1)		
	MONITOR IN connector (BNC type) (1) MONITOR OUT connector (BNC type) (1)		

# AXS-R7

AXS-R7 (operating with MPC-3610)			
Dimensions 106 x 135 x 67 mm (4 1/4 x 5 3/8 x 2 5/8 inch) (Width/ height/ depth)			
Mass	Approx. 840 g (1 lb. 13.6 oz.)		
Interface Connector	144 pin		
Battery DC Input	Square-shaped 5pin connector		

# DVF-EL200

DVF-EL200			
Dimensions	184 x 98 x 92 mm (7 ¼ x 3 7/8 x 3 5/6 inch) (Width/ height/ depth)		
Mass	Approx. 640 g (1 ib 6.6 oz)		
Brightness	200cd/m² (typical)		
Resolution	1920 x 1080		
Color Temperature	D65		
VF Connector	LEMO 26pin (female)		

# AXS-AR3

AXS-AR3			
Dimensions	100 x 71 x 193.5 mm (3 15/16 x 2 51/64 x 7 5/8 inch) (Width / height / depth)		
Mass Approx. 1.0 kg (2 ib 3.3 oz)			
Operating System	Mac OS 10.13 or higher / Windows 10 64bit (Version1809) or higher		
Supplied Accessories	Thunderbolt Cable (1)		
	AC Adaptor (1)		

# VENICE: Features Roadmap

	V1.0 FIRMWARE	V2.0 FIRMWARE (July 2018)	V3.0 FIRMWARE (February 2019)	V4.0 FIRMWARE (June 2019)	V5 FIRMWARE (January 2020)	V6 FIRMWARE (November 2020)
Imager Modes	4K 17:9 4K 16:9 4K 4:3 Anamorphic 6K 3:2 Full-Frame recording (without in-camera playback) When VENICE is set to 6K Full-Frame, SxS recording is not available	4K 6:5 Anamorphic 6K 1.85:1 6K 17:9 6K 3:2 (In-camera playback) When VENICE is set to 6K Full-Frame, SxS recording modes are supported	5.7K 16:9 6K 2.39:1	4K 2.39:1 for HFR	4K 2.39:1	-
Lens Mount Support	PL lens mount (with Cooke® /i™ technology)	E-Mount (lever lock type)	-	-	-	-
Recording Formats	16-bit RAW with AXS-R7 16-bit X-OCN with AXS-R7 XAVC® 4K/QFHD MPEG50	Apple ProRes	X-OCN XT 47.952 project frame rate (4K 4:3 and 4K 17:9)	HFR shooting in Select FPS 4K 2.39:1 Max. 120FPS 4K 17:9 Max. 110FPS 4K 4:3 Max. 72FPS 6K 3:2 Max. 60FPS	HFR Shooting in Select FPS 6K 2.39:1 Max. 90FPS 6K 17:9 Max. 72FPS 6K 1.85:1 Max. 72FPS Apple ProRes4444	HFR Shooting in Select FPS 5.7K 16:9 max. 72FPS 4K 6:5 max. 72FPS 3.8K 16:9 max. 110FPS
Simultaneous Recording Combinations	RAW/X-OCN & MPEG50 XAVC 4K/QFHD & MPEG50 *When camera is set to 4K mode	RAW or X-OCN & ProRes	XAVC 4K/QFHD & Apple ProRes (Proxy only) RAW/X-OCN & XAVC 4K/QFHD	-	-	-
Shooting Functions	Variable White Balance (100K increments) Tint color correction control Relay rec. (SxS)	Select FPS (Off Speed) Dual Base ISO mode (High Base ISO 2500 added)	Cache Rec. (AXS, SxS) AXS Relay rec	RM/RCP control (Incl. paint) Cooke/i3 and Zeiss Extended metadata in X-OCN/RAW and XAVC	Cooke /i2	Gyro information in metadata (X-OCN/XAVC) Support FUJINON Premista series ZEISS eXtended Data
Monitor Out Functions	OSD on Black MLUT on Playback Independent MLUT On/Off (one preset) Double speed VF Two OSDs and two Markers selection 4K-SDI output in RAW/X-OCN recording	Independent MLUT select (several presets) MLUT in Off-speed shooting User 3D LUTs (install user- generated 16 or 33cube files) Preset LUTs for S-Gamut3. cine/S-Log3 and S-Gamut3/S-Log3 with El applied	De-squeeze function (x1.25, x1.3, x1.5, x1.8) .cdl file import 6G/12G-SDI 4K SDI output during RAW&HD Video simul rec	Pure P HD-SDI output in 25p/29p	180 degree rotation De-squeeze function (x1.65)	3D LUT adaptation to VF New ART (Advanced Rendering Transform) file import SDI1-4 3G-SDI Level A/B switchable
Shooting Assist Functions	Digital Magnification in viewfinder Highlight Clip Indicator	Look Around (Surround View) High Resolution Magnification Auto White Balance High-Low Key False Color (use B button on DVF-EL200 viewfinder)	VENICE VF function control in EL200 SxS XDROOT Folder and Volume name changing to CamID+Reel# Configurable False Color on VF and HD Monitor False Color (SDI Monitor) 2:1 Frame Line preset	LINE+MASK Frame Line	User Frame Line updated Gyro sensor activated High Resolution Magnification on HD Monitor out Support Chinese language in Quick Menu	Second user frame line 9:16 and 1:1 preset frame line REC beep and alarm volume can be adjusted individually Maintain CamID+Reel# when loading ALL File Display Genlock and TC lock status on OSD De-squeeze on/off by USER button RCP Call function
Hardware	-	Inside Clips Button	12-pin lens remote	S700 Protocol	Additional S700 Protocol Assignable button ND Up/Down	-
Network Functions	-	Wired LAN control (basic functionality)	Wireless LAN control (CBK-WA02) Wired LAN control (full menu)	-	-	Warning information displayed on the Web Control screen

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