

sony.com/35mm

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Filmmaking with Sony's FS Series

PXW-FS7 and PXW-FS5 handheld 4K Super35 camcorders

Handheld. Long form. Just right.

With the FS Series, Sony set out to create the ideal handheld cameras. We scrutinized the way your thumb and fingers curl around the camera grip, the way your wrist supports the camera and the way the viewfinder meets your eye. These explorations led to digital motion picture cameras you can comfortably hold, hour after hour, without extra-cost rigs, cages or handles. Presenting Sony's PXW-FS7 and PXW-FS5.

Of course, these cameras also inherit Sony's legacy of expertise in image sensors, image processors, optics and recording. So you get the cinematic grace of Super 35 imaging, the extraordinary texture of 4K recording, and the arresting power of an honest 14 stops of exposure latitude.

We invite you explore the FS Series together with the hands-on stories of award-winning cinematographers. Witness their results. Consider their comments. And then imagine what these cameras can do for you.



PXW-FS5



PXW-FS7



PXW-FS7 handheld 4K Super35 camcorder

Professionals have greeted the Sony PXW-FS7 with surprise, appreciation and excitement. And for good reason. The camera reflects years of intense conversations we've had with experienced shooters. In response, we completely redesigned the grip, improved the viewfinder, optimized the balance and refined the ergonomics. And the FS7 reflects Sony's expertise in 4K and HD codecs, Super 35 sensors and memory recording. The result is the ideal camera for cinéma vérité documentaries—and the optimum tool for magazine shows, reality TV, unscripted TV and more.

- 4K Super 35 image sensor
- 2K Center Scan mode
- 14 stops of exposure latitude
- Built-in Neutral Density filter
- Sony's E-mount lens mount
- On-board 4K recording
- Up to 180 fps in Full HD
- Sony's XAVC®-L and XAVC-I codecs
- Vivid 4:2:2, 10-bit recording
- S-Log2 and S-Log3 encoding
- External RAW recording with XDCA-FS7, sold separately
- Apple Pro Res 422 HD with XDCA-FS7, sold separately
- Rotating Smart Grip with Assign buttons and Assign dial
- Telescoping Smart Grip arm
- Wireless streaming with CBK-WA100, sold separately
- Flexible LCD monitor positioning
- Robust inputs and outputs

"I recommend the FS7 to everyone who does this physically challenging observational documentary work."

—Kirsten Johnson,
Cinematographer



PXW-FS5 handheld 4K Super35 camcorder

Pick it up. Wrap your hand around the rotating Smart Grip. Line up a shot. You'll immediately understand why Sony created the PXW-FS5. It's the next step in Sony's handheld revolution. Small as it is, the camera delivers uncompromising performance with Sony's Super 35 sensor, 4K onboard recording and wireless streaming. The PXW-FS5. Just wait until you get your hands on it.

- 4K Super 35 image sensor
- 2K Center Scan mode
- 14 stops of exposure latitude
- Continuously variable Neutral Density filter
- Sony's E-mount lens mount
- On-board 4K recording (3840 x 2160)
- Up to 240 fps in Full HD burst mode
- Up to 960 fps in burst mode, center scan, reduced resolution
- Sony's XAVC-L codec
- Vivid 4:2:2, 10-bit recording
- Up to 220 minutes of HD on a 64 GB card
- S-Log2 and S-Log3 encoding
- Future external RAW recording, details to be announced
- Rotating Smart Grip with Assign buttons and Assign dial
- Smart phone content browsing and remote control
- Wireless streaming and file transfers
- OLED viewfinder; LCD monitor
- Robust inputs and outputs

"I found the FS5 is perfectly setup up for
the ultimate one man band."

— Rob Scribner,
Director, DP



The new age of handheld cinematography

Get comfortable Handheld without rigs or rigmarole

The ideal handheld camera helps you move with the action, performing as a natural extension of your body. It is comfortable in your hands and sculpted for your shoulder. The controls fall naturally under your thumb and fingers. The viewfinder effortlessly meets your eye – left or right. A great handheld camera performs beautifully in your lap, in your hand, on your shoulder, at high angles, low angles and every angle in between. And it does it all without the cost and bother of accessory rigs, cages and handles.

That's why Sony carefully sculpted the bodies of these FS Series cameras. We enabled you to move the LCD viewfinder to an incredible range of attachment points. We placed the rotating Smart Grip as close to possible to the camera's center of gravity. And we outfitted the chassis with multiple screw holes for the accessories you'll be using. And that's why so many professionals have called Sony's FS Series the best handling motion picture cameras since the classic Super 16 cameras of decades ago.



Master night and day Exposure latitude, sensitivity, integrity

If photography is painting with light, it pays to start with the largest possible palette. You'll want extreme sensitivity in order to see colors even in the darkness. You'll require incredible highlight handling that holds specular reflections, pyrotechnics and direct sun. And you'll demand powerful exposure latitude to accommodate the full range of scene brightness. Sony's Super35 Exmor® CMOS image sensor delivers all of this. And more.

It's no wonder. Sony is the world's number one manufacturer of camera image sensors.* And we put that expertise to work for the Super 35 optical format. You get an honest 14 stops of exposure latitude. Plus impressive low-light sensitivity (ISO 2000 for the FS7, ISO 3200 for the FS5). Plus a high-speed readout architecture that minimizes image skew even as it enables incredible High Frame Rate shooting. Any one of these attributes would be noteworthy. Finding all of them in a single camera is phenomenal.



* Sony is the world's No. 1 manufacturer of image sensors for digital cameras and video recorders (based on Sony research from April 2014 to March 2015 that shows Sony has a 50% market share).



Kirsten Johnson

“The FS7 felt almost like a part of my body, which is always a state I am trying to achieve!”

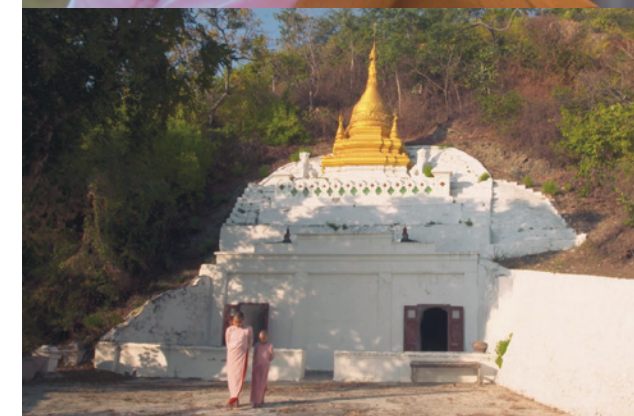
Kirsten Johnson is an award-winning cinematographer and director. Her most recent effort, 2014's *Citizenfour*, won an Academy Award® for Best Documentary Feature. She has also won awards from the Sundance Film Festival® and the Tribeca Film Festival®. She recently brought the FS7 to the jungles of Myanmar for an observational documentary about a Buddhist nunnery.

About the camera's ergonomics, Johnson comments, “The FS7 is the first camera I've held in years that I could cradle in my arms and feel comfortable. It felt almost like a part of my body, which is always a state I am trying to achieve!”

She was equally impressed by the pictures. “I had girls in the foreground in shadow when I caught a line of monks coming down the road in the white hot Myanmar sunlight. I had my doubts but through my lens I could see everything. It was breathtaking. Ravishing.”

“We were particularly interested in the way the nun's long periods of meditation might be a part of how the nuns approached everything they did. We felt that slow-motion might be a way to evoke their interior life. For example, a nun would rhythmically toss the rice up into the air and let it all shower down again. What a joy to film the rice flying through the air in slow-motion!”

“Overall, the FS7 is a superior camera at its level and I find myself recommending it to everyone who does this type of physically challenging observational documentary work.”



The cinematic point of view

4K Super35 image sensor with 2K Center Scan

When the lead actress appears with beautifully blurred candles flickering in the background, you're looking at cinematic storytelling, driven in large part by the Super 35 optical format. That's why Sony endowed the FS Series with Super35 image sensors and the ability to accept 35mm PL mount cinema lenses, via third-party adapters.

While narrative cinema relies on controlled depth of field, documentary and natural history can benefit from the more forgiving focus of the Super 16 optical format. That's why these cameras also incorporate a 2K Center Scan mode. While Super 35 is ideal when there's time for careful setups, 2K Center Scan is a smart choice for run-and-gun shooting. With Sony's FS Series, you get the optical tools to tell your story, your way.



A bigger canvas for your picture

4K on-board XAVC recording

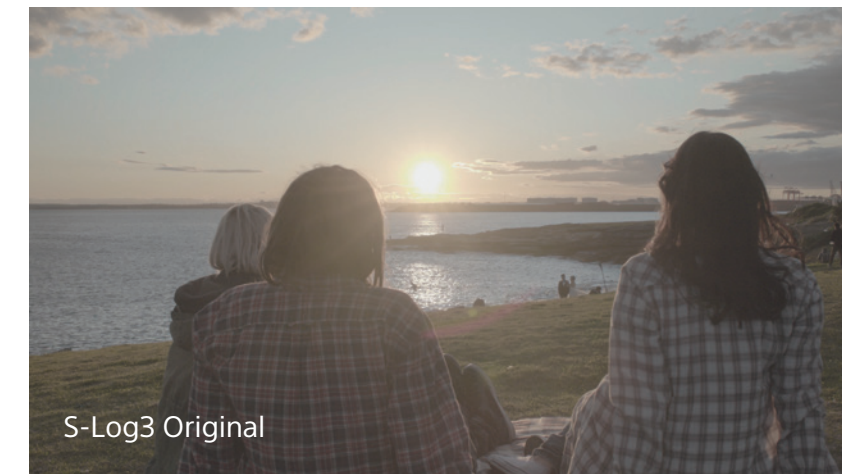
Whether you're framing a sweeping landscape, a tabletop or an intimate two-shot, you can use the bigger canvas of 4K to your advantage. Here is organic sharpness that enhances textures, reveals nuances, and brings your audiences that much closer to the action. In fact, the combination of 4K on-board recording and Sony's generously large 4K Super35 image sensor deliver the added "snap" of contrast in the fine details that conventional HD cameras just can't match. It's a benefit for every production, even those destined for distribution in HD.

The FS Series cameras take advantage of Sony's XAVC codec, which supports a full range of recording options in addition to 4K. You can enjoy the sumptuous grayscale of 10-bit recording, as opposed to the conventional 8 bits. There's the added detail of 4:2:2 color, compared to 4:2:0 formats. And thanks to highly advanced compression technology, the XAVC codec is also highly practical, capturing up to 220 minutes of Full HD onto a single 64 GB memory card.

Deliver to the fullest

S-Log2 and S-Log3 encoding

As the exposure latitude of modern cameras climbs, conventional HD recording systems are hard-pressed to keep pace. With the honest 14-stop exposure latitude of the PXW-FS7 and FS5, even when the sensor has captured everything beautifully, conventional recordings can potentially blow out highlights or crush shadow detail. That's why Sony developed S-Log, S-Log2 and now S-Log3. Sony's most refined logarithmic gamma mode yet, S-Log3 enables faster, easier color correction with more levels devoted to shadows and mid-tones for spectacular grayscale rendition. You'll spend less time "getting into the ballpark," leaving more time for creativity. As you'd expect, Sony supports S-Log2 and S-Log3 with optimized Look Up Tables (LUTs).



(Actual images)



Joshua Ryan Perez

“With XAVC-I and S-Log 2/3, we got the most out of our footage.”

Joshua Ryan Perez, DP and director, has shot for Univision, The Island Def Jam Music Group, Cash Money Records and Hennessy Cognac, as well as television segments for the BBC UK. He took the PXW-FS7 into New York art studios to create an online series for Kerbys Cups.

Perez put a priority on color reproduction. He explains, “We agreed to showcase vivid color — the color of the paint, the color of the drinks the painter was indulging in, the skin tones and the tattoos on her hands. This is where I was very happy I opted for the FS7. With XAVC-I 10-bit recording paired with S-Log 2/3 we had the information and detail to take this into a grading session and get the most out of our footage.”

“I used a mixture of natural and artificial lighting and the camera took in this dynamic of light flawlessly with no sensor issues or artifacting. The camera’s dynamic range really showed when shooting toward the windows and when creating glares. Retaining detail in the highlights and shadows is definitely a strong characteristic of the FS7.”

“From editing to coloring the piece, its XAVC-Intra codec worked seamlessly with Adobe Premier Pro CC. Cutting the piece was simple and roundtripping it to Da Vinci Resolve was no problem. The 10-bit from the codec and the robust, but manageable bit rate gave me more than enough information to push the footage far beyond the limits of what I would have been able to accomplish before.”



Control time itself

High Frame Rates, Slow & Quick Motion

From the delightful toss of the ingénue's hair to the searing impact of the decisive blow to the suspended droplets of water from a garden hose, nothing underscores a story point like Super Slow Motion. These effects can be yours with Sony's FS Series. Sony empowers you with High Frame Rates that were, until very recently, the sole province of esoteric, special-purpose cameras.

The PXW-FS7 can shoot a continuous 180 fps in Full HD, providing 7.5x Super Slow Motion when played at 24 fps. Sony's Slow & Quick Motion provides time lapse at frame rates from 1 to 180 fps, in 1 fps increments.

The PXW-FS5 goes even further with special burst mode recording of Full HD at up to 240 fps, for 10x Super Slow Motion playback. 480 fps is available at somewhat reduced resolution, while an amazing 960 fps uses Center Scan mode and reduced resolution. At 960 fps, you're practically freezing the action. Playback at 24 fps reveals 40x super slow motion. FS5 Slow & Quick Motion also provides a range of frame rates for beautiful time lapse photography.

PXW-FS7

180 fps HFR continuous

PXW-FS5

240 fps HFR burst

480 fps HFR burst,
reduced resolution

960 fps HFR burst,
reduced resolution
Center Scan





Rob Scribner

“I could shoot at up to 240 fps at 4:2:2 with no loss in quality.”

Shortly after the launch of Sony's FS5, award-winning cinematographer **Rob Scribner** brought one to Boise, Idaho to create a portrait of master glass blower Zion Warne. “When I pulled the FS5 out of the box,” Scribner says, “I could hardly believe its size. The core weighs in at less than two pounds! This let me move around faster, essential for capturing Zion at his craft. The camera's great handling with an incredible center-of-balance, too, became immediately apparent. Using it on a slider, I'm moving left and right, basically doing dolly moves. I'm panning, tilting, focusing all at the same time. It looks like I had a three-person crew.”

Scribner calls the FS5's XAVC-L codec, “a huge compression-saver.” He says, “Going for super slow motion in full HD, I found I could shoot at up to 240 fps in burst mode at 4:2:2 with no loss in quality. At 480 fps, I started to see some, but it was hardly noticeable to anyone but the most critical. 960 fps had considerable tradeoffs, but it's nice to have it if you really need it.”

“One of the big advantages of using XAVC-L and burst mode is the ability to use high-speed SD cards in-camera for the 100 Mbps 4K recording. Most of us in the business have a bunch of SD cards floating around at this point. Being able to repurpose them for the FS5 beats having to invest in new ones.”

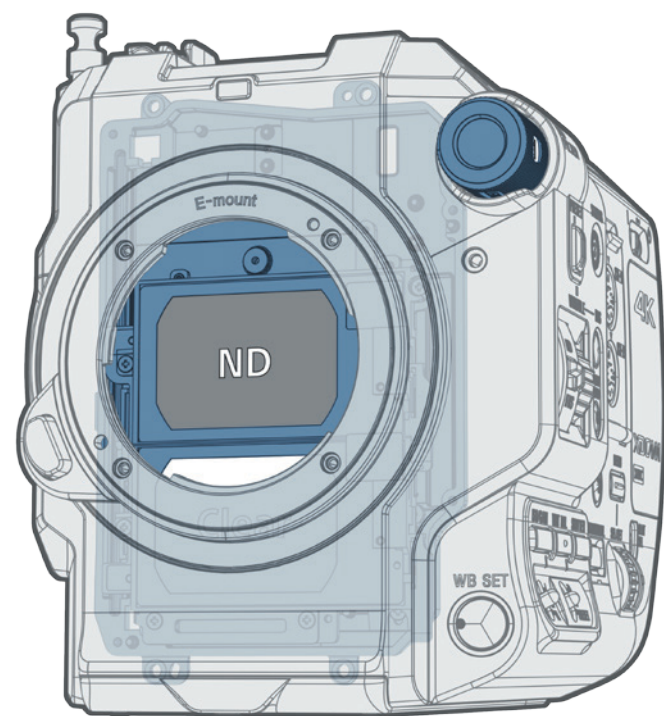
Scribner does have one regret about the FS5. “I wish I had one when I got started in the business.”



While the sun shines Built-in Neutral Density filters

You don't need a matte box to get the advantages of shallow depth of field even in exterior day shoots. The PXW-FS7 includes a built-in Neutral Density (ND) filter wheel that includes positions for Clear, 1/4 (2 Stops), 1/16 (4 Stops), and 1/64 (6 Stops).

The FS5 has all of that, and more. In addition to conventional, switchable ND filtering, the FS5 is the world's first Super 35 camcorder* with a built-in electronic variable Neutral Density (ND) filter. The electronic filter varies continuously from 1/4 ND to 1/128 ND. For fast-moving shoots, there's no need to stop and swap filters as lighting conditions change.



* According to Sony research, as of September 2015.



Take control

Sony's rotating Smart Grip

First, we consulted extensively with videographers and cinematographers, asking questions and noting the answers. Then we created prototype after prototype — refining the size, shape, angle and control locations. The result is rotating Sony's rotating Smart Grip: your customizable control center. The Smart Grip includes Zoom, Start/Stop and a range of Assign controls, including an Assign dial you can use to adjust Iris. So you can operate the camera without taking your hand off the grip or your eye off the viewfinder. The shape is comfortable hour after hour. And the angle of the grip can be adjusted at the press of a button.

On the PXW-FS7, another key to handheld comfort is the telescoping arm that holds the Smart Grip. Adjust the arm length by simply turning a knob. Another knob at the joint adjusts angle. So you can instantly adapt the arm to suit your physique and your shooting position. The FS7 telescoping arm mounts on an industry standard rosette that also accepts third party grips and arms, sold separately. The FS5 enables you to attach a rosette to use with Sony's FS7 telescoping arm or third-party accessories (rosette, arm and accessories all sold separately).



Smart Grip





Michelle McCabe

“For 19 shooting days, the FS7 was in my hand 10 hours a day!”

Michelle McCabe, director, DP and owner of Nun Creative, divides her time between fashion, corporate and commercial projects on one hand, and global issue documentaries on the other. She traveled 35,000 miles with Sony’s FS7 to South Africa, Thailand and the Philippines to document pediatric tuberculosis for the non-profit TB Alliance.

This was not your typical corporate shoot. McCabe explains, “For 19 shooting days, the FS7 was in my hand for 10 hours a day, and I had a callus on my thumb to prove it! It just fits your body so well. It moves with you. Having just the one lens and one camera made a very effective, small package to carry around. Personally, I don’t use the zoom movement. I use it as a giant prime lens, and I bounce between six focal lengths. To be able to go from 28 to 135 all in one lens is a huge advantage. That lens is so light. It’s beautiful.”

“The combination of dynamic range and 3840x2160 resolution was just gorgeous. Every night when I downloaded the footage I would marvel at the range and the beauty of these images.”

“A few times when I was shooting, it was dark out and the meter was saying ‘low light.’ My first instinct was ‘don’t shoot, kick up the ISO’ but I thought ‘forget it, I’m shooting anyway, at the base 2000.’ It looked beautiful. I was absolutely 4-5 stops under-exposed. I would bring it onto the computer, drop it into SpeedGrade and literally two little tweaks in, WOW. It held and it was gorgeous.”



Get everything the sensor sees

Outboard RAW recording options

The ultimate camera capture system would record every nuance of light and shadow from the image sensor, preserving every detail from every pixel for full exploitation in color correction. This is the concept behind RAW recording. You get maximum resolution with maximum tonal range, for a "fat negative" you can really manipulate.

To keep the FS Series cameras small, light and easily hand-holdable, Sony engineers designed RAW recording as an outboard function. The PXW-FS7 enables 12-bit linear RAW recording when used with the XDCA-FS7 extension unit, HXR-IFR5 interface unit and a RAW recorder, all sold separately. The system works with Sony's own AXS-R5 recorder or compatible third-party decks, such as the Convergent Design® Odyssey 7Q+, equipped with the Sony® FS RAW option. The XDCA-FS7 also supports Apple ProRes 422 HD recording at 1920 x 1080 for direct copy to Final Cut Pro® timelines. The PXW-FS5 will have the option to support RAW external recording in the future (details to be announced).



The PXW-FS7 shown with the XDCA-FS7 extension unit, HXR-IFR5 interface and AXS-R5 RAW recorder, all sold separately.

Next-generation memory

Superfast XQD™ media for PXW-FS7

4K XAVC I recording needs media that's fast, reliable and affordable. As specified by the CompactFlash Association, XQD™ memory cards score big in all three areas. Robust communications between the camera and the card's controller enable write speeds up to a sizzling 600 Mbps. Reliability comes from in-camera recovery. And you get very low cost per minute compared to CFast™ cards.



QD-G32A



QD-G64A



QD-G128A

Sony's G Series XQD memory cards include a USB 3.0 adapter.



QD-M32



QD-M64



QD-M128

To record onto Sony's M Series XQD memory cards, the PXW-FS7 requires free firmware upgrade V3.10. M Series cards do not include a USB 3.0 adapter.



A universe of optical options

Sony's versatile E-Mount system

Neophytes imagine that the essential photographic tool is the camera. Professionals know it's really the lens. That's why Sony designed the E-Mount system with a short flange-back distance, accommodating the widest possible range of lenses via third-party adapters, sold separately. This gives your projects maximum creative freedom.

Cinematographers swear by PL mount cine lenses from Angenieux, Cooke, Fujinon, Leica and Zeiss, praising their robust construction and cinema-specific operating style. Third-party PL mount adapters enable you to take advantage. Sony's native E-Mount lenses have zoom, iris and focus mechanisms with the low noise and high precision that moving pictures require. And then there are literally millions of SLR and DSLR lenses with a head-spinning range of focal lengths and types, including super-telephoto, fisheye, tilt-shift and bellows. Using third-party adaptors, Sony's E-Mount system empowers you to choose the lenses that fit your shooting style, your project or your individual shot.



LA-EA4 35 mm Full-Frame A-Mount Adapter fits Sony's full frame, APS-C and Super35 E-Mount cameras; accepts A-Mount lenses and provides phase detection AF.





Randy Wedick

“A refreshing change from the ‘shoebox with a lens mount’ mentality.”

Randy Wedick, DP and director is technical consultant at Band Pro Film and Digital. Wedick and Band Pro used the PXW-FS7 to document Napa’s distinguished Inglenook Winery, now owned by Eleanor and Francis Ford Coppola. Wedick had a tight schedule, with only two days of access to the winery. The result, *In Vino Veritas*, is available on Vimeo.com.

Wedick was immediately taken by the ergonomic design, “From the curves in the camera housing, to the adjustable grip, to the reconfigurable viewfinder, it marks a refreshing change and a move away from the ‘shoebox with a lens mount’ mentality.”

The FS7 also impressed in terms of sheer image quality. “While it lacks some of the ins and outs of its big brothers, the F5 & F55,” says Wedick, “it really is in the same family and the images attest to that. The Leica® Summicron®-C lenses make a real difference when you have a powerful sensor to render images on. We operated the camera in the Cine EI mode, using S-Log3. Whether we were in the dark wine caves, or filming directly into the sun, this allowed us to capture a rich image full of dynamic range. We shot in 4K XAVC-Intra 10-bit to XQD cards, and I was surprised to find there was still a lot of room to move in color correction.”



It's time to change your lens

E Mount lenses: made for moving pictures

An SLR lens might be great for still images, yet interfere with your storytelling in moving pictures. When you focus, SLR lenses can distract your audience with unwanted changes in magnification. When you zoom, SLR lenses can trip you up with unwanted changes in iris and shifts in image axis. Mechanical noise can also be an annoyance, whether from focus motors or iris actuators. Sony E Mount lenses are different: engineered from the ground up for both still and moving pictures. Built by Sony in our own lens factory, E Mount lenses embody a significant step forward in affordable motion picture production.



G Lenses embody Sony's premium technology, with a fine balance of superior resolution and bokeh.



G Master™ Lenses go even further, with an amazing 50 line pairs per millimeter resolution and 0.01 micrometer accuracy for superlative bokeh.



35mm full frame lenses cover the larger sensor of the $\alpha 7$ II, $\alpha 7R$ II, and $\alpha 7S$ II in addition to the Super 35 sensor of the FS Series.



APS-C lenses cover the Super 35/APS-C sensor size of the FS Series cameras in addition to mirrorless cameras like the $\alpha 6300$.



Constant Aperture maintains exposure at all zoom settings, eliminates unwanted zoom ramping.



Smooth Motion Optics represents a comprehensive commitment to motion pictures in focus, iris and zoom mechanisms.



Power Zoom opens up expressive moviemaking with smoother zooms than you could accomplish by hand.



Sony's Optical SteadyShot® image stabilization smooths out handheld images. Active Mode functions beautifully, even when you're moving.



Nano AR Coating minimizes internal reflections, maximize contrast.



Extra-Low Dispersion (ED) and **Super ED** glass helps provide pinpoint focus.



Aspherical, Advanced Aspherical and **Extreme Aspherical (XA)** elements minimize spherical aberration while reducing lens size and weight.



SEL-P28135G FE PZ 28-135mm F4 G OSS



SEL-70200GM FE 70-200 mm F2.8 GM OSS



SEL-50F18 E 50 mm F1.8 OSS



SEL-P18105G E PZ 18-105 mm F4 G OS



SEL-2470GM FE 24-70 mm F2.8 GM



SEL-35F18 E 35 mm F1.8 OSS



SEL-P18200 E PZ 18-200 mm F3.5-6.3 OSS



SEL-85F14GM FE 85 mm F1.4 GM



SEL-1018 E 10-18 mm F4 OSS





Spencer Chumbley

“I won’t have to buy another camera when I start shooting in 4K.”

Spencer Chumbley is a journalist and filmmaker based in Washington, D.C. His work has been featured in VICE News, Al Jazeera English/America, The Economist, and Time, among others. He also heads the documentary production company DISCOURSE. Spencer took his PXW-FS7 to Nepal for VICE News to document the 7.8 magnitude earthquake that devastated the region.

“When younger shooters – like me – move up, we tend to stay with the DSLR brand we learned to shoot on, which was Canon.” says Spencer. “But when my workflow needs started changing, I started looking at other options. I had to be able to deliver and broadcast new codecs and bitrates, and I was starting to do more shoulder-mounted work. Getting certain cameras on the shoulder takes a lot of work, and I didn’t want to use external recorders when filming.” His choice was Sony’s PXW-FS7.

“As a freelancer, I’ve always been very conscious of budget, so I wanted a camera that wasn’t going to get replaced or become obsolete in two years,” Spencer states. “With the FS7, I won’t have to buy another camera when I start shooting in 4K.”

“In Nepal we were everywhere – on top of mountains, in vans, on the street. I don’t think I put the camera on a tripod the entire time. The FS7’s ergonomics were helpful for operating in more of a run-and-gun situation. The backwards compatibility was also a lifesaver – I was able to deliver rushes and produce footage in a simple format that could easily be used by broadcasters.”



Key Features

	PXW-FS7	PXW-FS5
4K Super 35mm image sensor for superb resolution, high sensitivity and cinematic depth of field	Yes	Yes
2K Center Scan mode for extra telephoto reach (the equivalent of 2x focal length), easier focus in run-and-gun applications	Yes	Yes
14 stops of exposure latitude for powerful grayscale rendition without crushing shadows or blowing out highlights	Yes	Yes
Superb sensitivity (with S-Log3 encoding) to shoot well after sunset without tons of grip	ISO 2000	ISO 3200
Sony's Exmor® CMOS design makes for extremely fast readout, contributing to high frame rates with minimum image skew	Yes	Yes
Built in Neutral Density Filter to control depth of field even in bright sunlight	Yes	Mechanical + Electronic, continuously variable
Sony's E-mount system supports a range of affordable glass optimized for motion pictures	Yes	Yes
Accepts Sony's A-mount lenses via LA-EA4 adaptor, sold separately	Yes	Yes
Accepts SLR, DSLR and PL mount lenses via third-party adaptors, sold separately	Yes	Yes
On-board 4K recording with Sony's XAVC codec; ready for the expanding universe of 4K distribution platforms	3840 x 2160; 4096 x 2160 up to 60 fps	3840 x 2160 up to 30 fps
High Frame Rates to underscore the beauty and drama of everyday motion	Up to 180 fps Continuous Full HD	Up to 960 fps Burst reduced resolution
Slow & Quick Motion for incredible time lapse effects	1-180 fps in 1 fps steps	1, 2, 4, 8, 15, 30, 60 fps
Sony's XAVC codec supports a range of key advances, including 4K, High Frame Rate, 10-bit grayscale and 4:2:2 color sampling, all at affordable bitrates with long loads	XAVC-L; XAVC-I	XAVC-L
Vivid 4:2:2 color sampling surpasses the 4:2:0 color of many entry-level cameras	Yes	Yes
Beautiful, 10-bit imagery for smoother gradations than are possible with workhorse 8-bit formats	Yes	Yes
Long loads: Up to 220 minutes of Full HD on a single 64 GB memory card (at 25 Mbps)	Yes	Yes
S-Log2 and S-Log3 encoding to capture maximum grayscale	Yes	Yes
External RAW recording with compatible external recorder, sold separately	With XDCA-FS7 and HFR-IFR5, sold separately	Future; details to be announced

	PXW-FS7	PXW-FS5
Apple ProRes 422 HD recording at 1920 x 1080 for direct copy to Final Cut Pro® timelines	With XDCA-FS7, sold separately	—
Multi-camera shooting with Genlock and Time Code connections	With XDCA-FS7, sold separately	—
Built-in AVCHD® recording for compatibility with legacy systems	—	Yes
Rotating Smart Grip for maximum comfort in low-angle, high-angle and in-between shooting	Yes	Yes
Telescoping Smart Grip arm adjusts to your specific needs and applications	Yes	—
Smartphone content browsing with Sony's free app for Android® or iOS® tablets and phones	With CBK-WA-100, sold separately	Yes
Smartphone remote control with Sony's free app for Android or iOS tablets and phones	—	Yes
NFC (Near Field Communication) for fast connection to compatible wireless devices	—	Yes
Wireless streaming with your choice of de facto standard MPEG Transport Stream or Sony's Quality of Service	With CBK-WA-100, sold separately	Yes
Wireless proxy transfers of lightweight files for convenient laptop editing	With CBK-WA-100, sold separately	Yes
Wireless full-resolution file transfers with bit-for-bit accuracy	—	Yes
Modular design for easy integration: monitor, handle and Smart Grip all detach for gimbals, drones, car rigs, underwater housings	Yes	Yes
Flexible LCD monitor positioning accommodates a full range of shooting styles	Adjustable rod mount	9 attachment points
OLED viewfinder with 1,440K dots eliminates color breaking, adjusts for right-eye or left-eye viewing	—	Yes
Multi-Interface (MI) Shoe accommodates Sony's HVL-LBPC light or UPW-D Series wireless microphones	Yes	Yes
Dual XLR audio inputs	Yes	Yes
Uncompressed 3G-SDI output	Two	One
Uncompressed HDMI® output	Yes	Yes

Key Accessories

Software



Catalyst Browse
A free, simple viewing and logging tool exclusively for all of Sony's Pro formats

Catalyst Browse offers simple media management functions such as browsing a collection of files from a particular device, viewing in detail individual clips, viewing and editing metadata associated with the media, source color space support for accurate viewing, basic color correction and color looks, copying from the device to a local hard drive, transcoding files to a variety of formats, and ingesting and exporting clip lists for Sony Professional Discs.



Catalyst Prepare
The fast, simple, reliable path from camera to post

The ultimate preproduction assistant that allows you to easily and intuitively browse your camera, deck, or card reader, view clips, off-load the media for safe backup, view and edit metadata, batch copy, batch transcode to a wide variety of pro formats, precisely perform firstpass color correction, and more.



Catalyst Production Suite
Focused, fast production for 4K, RAW, and HD video

Catalyst Production Suite fuses powerful media preparation and fast, focused video editing to provide the backbone for video productions Catalyst Prepare paves your path from camera to post production, while Catalyst Edit provides a lean, focused video editing environment Both support 4K and Sony's RAW media from beginning to end.



CATALYST
PREPARE

CATALYST
EDIT

Lens Adapter



LA-EA4 35 mm Full-Frame A-Mount Adapter accepts A-Mount lenses and provides phase detection AF

Remote Control



RM-1BP Wired LANC Remote Control Operates Focus, Zoom Start-Stop record and Record/Review

Video Light



HVL-LBPC LED Video Light Achieves 2100 lux at 1 meter in booster mode; variable color temperature; works with MI Shoe

Batteries



BP-U30/U60/U60T/U90 Battery Packs

Battery Charger



BC-U1/U2 Battery Chargers

Mics & Wireless



ECM-VG1 Compact Shotgun Mic



ECM-MS2 Stereo Mic Mid-Side configuration for one-point stereo



UWP-D11/D12 Lav and Handheld Wireless Mic Systems; work with MI Shoe



CBK-WA100 Wireless Adapter Adds smartphone content browsing, wireless streaming and wireless proxy transfer to PXW-FS7 (These features are built into the FS5)

Supports & Adapters



VCT-FS7 Shoulder Pad With 15mm rods, adjustable shoulder pad and industry standard rosettes for PXW-FS7



SMAD-P3 Multi Interface Shoe (MI Shoe) adapter Connects UWP-D11/D12 without XLR cable

Media



QD-G32A/G64A/G128A XQD™ G Series memory cards for PXW-FS7, which come with a USB 3.0 Adapter.



QD-M32/M64/M128 XQD™ M Series memory cards for PXW-FS7. Requires FS7 free firmware upgrade V3.10. USB 3.0 adapter not included.



SF-32UX2/64UX2/G1UX2 SDXC™ memory cards (SD Class 10 / UHS Class 3 speed) for PXW-FS5