

FDR-X3000/W

4K Action Cam with Balanced Optical SteadyShot

See how Action Cam opens spectacular new vistas with mesmerizing, 4K high quality and steady action. Take POV action movies to a new level and capture your best moves with high-resolution 4K¹. Capture stable images² and video as never before with Balanced Optical SteadyShot. Shoot anywhere with Action Cam real-world rugged design³.



Key Features

Ultimate image stabilization²

The FDR-X3000 combines brilliant 4K¹ resolution with Balanced Optical SteadyShot™ image stabilization for advanced camera-shake compensation². Unlike digital image stabilization, Balanced Optical SteadyShot is significantly more effective at cutting the effects of camera shake internally, the camera's lens and sensor are joined and moved together controlling the entire optical path as one floating unit. This advanced stabilization system makes it easier to shoot beautifully clear, stable images while traveling, bike riding, and in other active situations.

Professional 4K1 quality with ZEISS® lens and Exmor R® CMOS sensor

Featuring a new ZEISS® Tessar lens with significantly less lens distortion than previous models®, the FDR-X3000 is also equipped with a back-illuminated Exmor R® CMOS sensor and an acclaimed BIONZ X® processor, ensuring that video quality remains consistently strong across all settings. With full pixel readout without pixel binning the FDR-X3000 produces exceptionally high resolution and accurate colors in both 4K and Full HD videos. The built-in stereo mic with wind noise reduction reduces the impact of wind interference.

Remote camera control and viewing⁴

Users can stream a live preview and control the Action Cam with the optional Live-View Remote (sold in a kit version: FDR-X3000R) or utilize Sony's PlayMemories Mobile™ application on a smart device⁴- available for both Android and iOS. Both have the ability to control several camera capabilities including shooting settings, start/stop recording, power on/off and more.

Tough body endures harsh conditions³

The FDR-X3000 body alone is splashproof and freezeproof³. With the supplied Waterproof Housing it's dustproof, shockproof and waterproof to 197ft / 60m. So whether you're hiking on a rainy day, skiing or snowboarding, making dirt biking movies, surfing the waves or exploring undersea, Action Cam provides real-world rugged design. With a universal tripod screw mount on the body of the Action Cam itself, and one on the Waterproof Housing, you can easily attach the camera directly to a tripod.

Underwater Housing as standard gear

Take the FDR-X3000 Action Cam diving to 197ff / 60m using the supplied Underwater Housing¹¹ (MPK-UWH1) - no need to buy optional gear. Equipped with a flat port in front of the lens and convenient camera buttons on the side - lets you easily control all functions through the housing. What's more, it shields this hardy compact camera from shocks, damp, rust, dust and sand. Enjoy carefree aquatic adventures and extend your exploration to tough terrain.

Selectable viewing angle and 3x zoom⁵

Capture epic ultra-wide -angle views with the ZEISS® Tessar lens or choose your own viewing angle from Wide, Medium or Narrow⁵. Changing the angle of view also helps correct for the barrel distortion - common in POV cameras. In addition, seamlessly adjust up to 3x smooth zoom4 mode, which enables you to change zooming while shooting. Either way, you'll always be capturing beautiful shots of the most challenging ski slopes, mountain trails, swirling rapids or pitted asphalt paths.

High quality 12MP up to 10 fps6

Catch fast-moving action with burst shooting. This allows you to take a maximum of ten high-quality shots of a trick or transition, making it the perfect feature for those who love to go back and analyze their style or select the critical moment. Burst mode settings: 10 fps/1 sec., 5 fps/2 sec., 2fps /5 sec.

8.3MP Interval record and 4K time-lapse video

Set the camera to capture stunning 8.3MP stills over regular intervals for an extended period of time. 8.3MP is optimized for 4K (3840x2160) and can be used to create beautiful 4K Time-lapse videos. Time-lapse Capture lets you produce time-lapse movies easily by using high-quality 4K still images shot at designated intervals. Then Action Cam Movie Creator (v. 5.1 for Windows, v.3.1 for Mac®) simply transforms these images into an impressive time-lapse movie. The Action Cam App (v. 2.0)12) can create Full HD time-lapse movies from these stills as well.

Catch all the motion in one shot

Capture an entire action sequence in a single frame with Motion Shot. This feature creates a composite image of a subject in motion, with variable settings for different burst speeds, which are 10fps, 5fps and 2fps.

High Quality stereo sound7 with wind noise reduction

Make a great movie even better with great audio. Built-in stereo microphone allows you to capture sounds of your adventure in two-track stereo, naturally⁷. Wind noise reduction reduces the impact of wind interference on overall audio quality. Clear sound with reduced noise enhances the most sophisticated movie work you can produce. There's also a convenient mic jack for times where an external microphone is needed.

Enhanced convenience

Built-in Wi-Fi®, Bluetooth®, NFC™, and GPS allow for instant connection, control and tracking pf your epic adventures. A new intuitive interface, 3x rec. lights and adjustable beep volume ensure easy operation and a built-in tripod socket means you can quickly attach your Action Cam to a tripod for rock-steady shots. The USB, HDMI® and microphone jack connections are now located on the back of the camera for enhanced ease of connection and accessory attachment.

Built-in GPS - display your Action Cam route

Built-in GPS tags your videos so that location tracking and speedometer can be added to the video file when Action Cam Movie Creator⁹ is used. This also allows GPS Data Overlay on Video to read your speed data and generate another video file that includes your route, speed information, etc.

Action Cam Movie Creator for easy creative editing9

Make your movies look even better with Action Cam Movie Creator⁹. Produce and edit videos quickly and easily thanks to a range of features such as 4K time-lapse movie and slo-mo video. You can also rotate your videos clockwise or anti-clockwise by 90° with Movie Rotation, or use Multi-View to combine up to four movie footage segments—captured simultaneously by different cameras—and make a split-screen composite.

Highlight Movie Maker

Highlight Movie Maker produces a short highlight movie clip° to share and enjoy instantly. Highlight Movie Maker selects the best scenes from your videos based on motion gyro and face detection technology. Discover how easily built-in Highlight Movie Maker works for in-camera auto-editing. Highlight Movie Maker also supports a wider range of scenes—not just sports performance but also daily situations and travel—automatically selecting highlight points of footage to create a highlight movie, complete with background music. You can share your work immediately using a smartphone.

No 'jaggies' with full pixel readout and no pixel binning

With full pixel readout without pixel binning the FDR-X3000 produces exceptionally high resolution and accurate colors in both 4K¹ and Full HD videos. This allows it to read and process data from all of the sensor's pixels, producing highly detailed video content with minimal noise and 'jaggies' in a variety of formats including the high data stream XAVC S™ codec, (100Mbps in 4K and 50Mbps in Full HD)¹.

Slow motion¹⁰

See every detail of fast-moving action in smooth slow motion¹⁰, thanks to 120fps high frame rate recording at Full HD resolution. Use your favorite video editing software or included Action Cam Movie Creator to show off your skills in super slow motion.

Don't miss a moment with Loop Recording

Don't worry about missing the perfect moment with loop recording. Use it to capture the decisive moment without worrying about running out of memory. Loop overwrite recording can be chosen with duration options of 5, 20, 60 or 120 minutes, or "unlimited" keeping the most recent recording and overwriting the earliest as needed. And once you've captured that perfect moment - stop recording and the last scene will be captured at the duration you set. Once files are saved they will not be deleted when Loop recording starts again.

Control up to 5 Action Cam via phone⁴ or LiveView™ Remote

Multi Camera control lets you use LiveView Remote or compatible smartphone with PlayMemories Mobile app⁴ to effortlessly control up to five cameras for exciting ground-up or head-down shots.

Advanced manual control

For the more advanced user, there is an expanded scope of manual controls and setting adjustments including white balance, and auto exposure shifting. This allows flexibility in movie expression and enables more pro-style movie shooting to meet diverse needs. Adjusting the brightness and hue levels of your video will allow you to match the video shot from other cameras easily, providing a solid baseline for professional-looking movies.

Time Code/User Bit for pro-style editing

Time Code and User Bit (TC/UB) are crucial data elements for advanced editing. The Time Code function records hours/minutes/seconds/frames on image data for precise advanced video editing. The User Bit function records date/time/scene number, etc. in eight-digit numbers, and is useful for editing movies using two or more cameras

Live Streaming¹¹ via Ustream[®]

Share the adventure as it happens via UStream^{®11}. Now your circle of friends and family can share the excitement in real time by simply logging in to UStream from anywhere.

4K1 (3840 x 2160) video recording with up to 240p HD / 120p Full HD

Capture the finest details and your most thrilling moments in true 4k1 (3840 x 2160) video. The FDR-X3000's 30p/24p recording ability captures incredibly high resolution, to produce vibrant and extremely realistic images. The Action Cam is capable of shooting in 10 different shooting modes to create a diverse amount of looks to include 240p in high definition and 120p slow motion in FHD. Users can also select 240p in VGA for super slow motion video. Additionally, pro quality XAVC S recording with high bit rate of 100Mbps in 4k and 60Mbps in HD enables the FDR-X3000 to capture quick action with smooth image motion.

All new Live-View Remote

The FDR-X3000 Action Cam is available in a kit (FDR-X3000R) with a compact Live-View Remote that is about 30% smaller than previous version. It acts as an extension of the camera and feature a more in-depth user interface and menu system, with a rich indication of camera settings that makes it easier to navigate menus and customize settings as needed. This allows you to see what the camera sees and control the camera when the camera isn't in front of you or you can't reach it. "Wi-Fi high power mode", extends the communication distance between the camera and Live-View Remote for more flexible shooting. The mountable design, allows the Live View Remote to be attached to various optional accessories such as Finger Grip (AKA-FGP1) or Handlebar Mount (VCT-HM2) using supplied mount adaptor, or worn as a wristband using supplied strap.

Action Cam App

The Intuitive Action Cam mobile app lets you "prove yourself" anytime anywhere—via easy video editing with time-lapse, slow motion/speed up, and wireless movie file transfer. Action Cam App supports Full HD time-lapse movie only.

Memory Stick Duo™ / SD slot

The memory card slot accepts Memory Stick Micro™ (M2™) and Micro SD / SDHC / SDXC Memory Card5 (class 4 or higher) memory cards. Choose the card best suited to your shooting requirements and compatibility with your PC. (Memory cards not supplied.)

Specifications

Camera Type	Digital 4K Video Camera Recorder
Imaging Sensor	
Imaging Sensor	1/2.5 type(7.20mm) back-illuminated "Exmor R"CMOS Sensor
Processor	BIONZ X image processor
Pixel Gross	Approx.8.57 Megapixels
Effective Picture Resolution	Movie: Approx.8.2 Megapixels(16:9) Still: Approx.8.2 Megapixels(16:9) * When "STEADYSHOT" is set to "OFF" * When "Angle setting" is set to "WIDE"
Color Filter System	RGB primary color filters
Imaging Sensor(details)	
Recording pixels (photo, 16:9)	Approx.12.0 Megapixels *When "Angle setting" is set to "WIDE".
Recording	
Media Type	MP4: Memory Stick Micro™ (Mark 2), Micro SD/SDHC/SDXC Memory Card(Class 4 or Higher), XAVC S(50Mbps): Micro SDHC/SDXC Memory Card(Class10 or Higher), XAVC S(60Mbps): Micro SDHC/SDXC Memory Card(Class10 or Higher), XAVC S (100Mbps): Micro SDHC/SDXC Memory Card(UHS-I U3 or Higher)
Still Image Mode	JPEG
Still Image Max Effective Resolution	Approx.8.2 Megapixels *When "Angle setting" is set to "WIDE".
Video Format	MP4: MPEG-4 AVC/H.264 XAVC S format: MPEG-4 AVC/H.264
Video Resolution	MP4 PS:1920x1080 60p/50p, HQ:1920x1080 30p/25p STD:1280x720 30p/25p HS120(HS100):1280x720 120p/100p HS240(HS200):800x480 240p/200p XAVC S 4K 30p/25p:3840x2160 30p/25p 24p:3840x2160 24p XAVC S HD 120p/100p:1920x1080 120p/100p 240p/200p:1280x720 240p/200p 60p/50p:1920x1080 60p/50p 30p/25p:1920x1080 30p/25p 24p:1920x1080 24p
Video Actual (Pixel)	Approx.8.2 MP *When "Angle setting" is set to "WIDE"
Video Signal	UHDTV, HDTV, NTSC color, EIA standards, PAL color, CCIR standards
Audio Format	MP4/MPEG-4 AAC-LC 2ch XAVC S/LPCM 2ch
Microphone/Speaker	Built-in Microphone, Monaural Speaker

Movie Recording Rate(Average Bit Rate/VBR)	MP4 PS:approx.28Mbps/ HQ:approx.16Mbps/ STD:approx.6Mbps/ HS120(HS100):approx.28Mbps/ HS240(HS200):approx.28Mbps/ XAVC S 4K 30p/24p:approx.60Mbps/approx.100Mbps 25p:approx.60Mbps/approx.100Mbps XAVC S HD 120p/240p:approx.60Mbps/approx.100Mbps 60p/30p/24p:approx.50Mbps 100p/20p:approx.50Mbps/approx.100Mbps 50p/25p:approx.50Mbps
Still Image File Format	DCF Ver.2.0 compatible, Exif Ver.2.3 compatible, MPF Baseline compatible
Still Image Size(Photo Mode)	Photo Mode Approx.12.0 Megapixels 16:9 (4624x2600) *When "Angle setting" is set to "WIDE". Approx.6.1 Megapixels 16:9 (3280x1848) Approx.3.0 Megapixels 16:9 (2304x1296) *When "Angle setting" is set to "MEDIUM". Time-lapse Capture Mode Approx.2.1 Megapixels 16:9 (1920x1080) Approx.8.3 Megapixels 16:9 (3840x2160) Motion Shot LE Photo Recording Mode Approx.2.1 Megapixels 16:9 (1920x1080)
Wind Noise Reduction	Yes (Off / On)
Audio Recording ON/OFF	Yes
Maximum Capacity of External Media	128GB (As of 12/2015)
Progressive Mode	Yes
Optics/Lens	
Lens Type	ZEISS Tessar
Lens Type Lens Stabilization	ZEISS Tessar Balanced Optical SteadyShot
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Lens Stabilization	Balanced Optical SteadyShot
Lens Stabilization Aperture	Balanced Optical SteadyShot F2.8
Lens Stabilization Aperture Digital Zoom	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow)
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent)	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Marrow)
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm)
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s)	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shiff Auto Auto / Underwater
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction White Balance Mode	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes Auto / Color Temp / Custom
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction White Balance Mode Minimum Illumination	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes Auto / Color Temp / Custom 6 lux (1/30 Shutter Speed)
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction White Balance Mode Minimum Illumination Backlight Compensation	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes Auto / Color Temp / Custom
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction White Balance Mode Minimum Illumination Backlight Compensation Drive System	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes Auto / Color Temp / Custom 6 lux (1/30 Shutter Speed) Yes (Auto)
Lens Stabilization Aperture Digital Zoom Focal Length (35mm equivalent) Minimum Focus Distance Focal Distance Steady Shot Mode:Active Exposure System Metering Modes Exposure Compensation Exposure Settings Scene Mode(s) Noise Reduction White Balance Mode Minimum Illumination Backlight Compensation	Balanced Optical SteadyShot F2.8 3x Movie: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Photo: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Time-lapse Capture Mode: f=17mm (Wide), f=23mm (Medium), f=32mm (Narrow) Approx. 19 3/4 i nch (50cm) f=2.6mm 17 mm Multi-segment AE Shift Auto Auto / Underwater Yes Auto / Color Temp / Custom 6 lux (1/30 Shutter Speed)

Shutter Speeds	Auto Control Range: 1/30 - 1/10,000 (30fps)
Convenience Features	
Media/Battery Indicator	Yes (recordable time) / Yes (remaining capacity)
Remote Control	Yes (REC S/S, and TC Reset only)
On Screen Main Indicators	Recording Mode Image stabilization GPS Tracking Status Shooting Mode Status
Fast Playback	About 5 times/10 times
Image Management File Repair	Yes (Auto)
Convenience Features(details)	
Quick Format (Initialize)	Memory Card
Date&Time, Area Setting	
Date & Time, Summer Time, Area Set	Yes
Display Panel	
Display Panel	Yes
Advanced Features	
Waterproof	Yes (In use with Underwater Housing (MPK-UWH1)
Dustproof	Yes (In use with Underwater Housing (MPK-UWH1)
Airplane Mode	Yes
Embedded GPS	Yes
Image Stabilization	Balanced Optical SteadyShot image stabilization w/ Active mode
Loop Recording	Yes
Shockproof	Yes (In use with Underwater Housing (MPK-UWH1)
Time Code	Yes (XAVC S only)
Wi-Fi	Yes (Built-in)
NFC	One-touch remote
Power Save	Yes
Interface	
Memory Card Slot	Memory Stick Micro and Micro SD/SDHC/SDXC compatible
NFC	Yes (NFC forum Type 3 Tag compatible)
Wi-Fi	Yes (IEEE 802.11b/g/n(2.4GHz band))
HD Output	HDMI Out (micro)(sold separately)
BRAVIA® Sync™	Yes
Microphone Input	Stereo Minijack
HDMI Terminal	Yes (HDMI micro) (output only)
Multi/Micro USB Terminal	Yes
STD Output	Composite Video Out (AV CABLE VMC-15MR2 (sold separately))
Power	
Power Consumption (in Operation)	Approx.2.0W
Power Requirements	3.6V (battery pack)
Battery Type	NP-BX1
Charge on camcorder (Charging time with supplied Battery)	Yes (approx. 4h 05 min)
USB Charging	
USB Charging	DC 5 V 500 mA/800 mA
USB Power Supply	
USB Power Supply	Yes (1.5A or more is recommended)
	Yes (1.5A or more is recommended) 1 3/16 x 1 7/8 x 3 3/8 inches (29.4 x 47.0 x 83.0 mm)

Weight (Approx.)	Main unit only: 3.2 oz (89 g)
Weight (Approx.) (Total)	4.1 oz (114 g) (NP-BX1 supplied battery)
Accessories	
Supplied Accessories	Rechargeable Battery Pack(NP-BX1) (1) micro USB Cable (1) Startup Guide (2) Underwater Housing (MPK-UWH1) (1) Attachment Buckle (1)

- 1.4K at 3,480 x 2,160 pixels. Requires micro SDXC/SDHC memory card UHS-I U3 or higher for XAVC \$ 4K 100 Mbps recording and micro SDXC/SDHC memory card Class 10 or higher for XAVC \$ 4K 60 Mpbs and XAVC \$ 1D 50 Mbps recording.

 2. Distortion in image quality or out-of-focus may occur when used in close proximity to vibrating motors and engines. Image deterioration can be reduced by using Action Carm with optional accessory Motor Vibration Absorber for X3000/AS300 (AKA-MVA). Learn More: http://support.d-imaging.sony.co.jp/www/cc_portal/features/imb/index.htm

 3. Carmera without housing is 1PM2 trade for spicially protect should protect should prote the control protection from dust and moisture is not quaranteed. As for shockproof performance, there is no quarantee that the carmcorder will not become scratched or dented.

 4. Requires Live View Remote or compatible Android^M or iOS smartphone or tablet with PlayMemories Mobile ver. 5.5 or later) with PlayMemories Mobile ver. 5.5 or later) with PlayMemories Mobile ver. 5.5 or later).

- or later.

 5. Medium and Narrow are not available for 4K and High-speed Rec. Zooming is digital.

 6. Burst mode settings: 10 fpg/1 sec., 5 fpg/2 sec., 2fps/5 sec.

 7. Recorded sound levels are lower when using supplied Underwater Housing.

 8. FDR/X1000/Y. MDR-AS200V

 9. Requires Action Cam Movie Creator venion 5.2 or later for Windows and venion 3.2 or later for Mac.

 10. Requires Ostrocessing for slow-motion movie.

 11. Requires USTREAM® account and Wi-FRQ connection

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