

**SONY**

# Professional Camcorder Family

XDCAM Handy camcorders

NXCAM

Accessory

# Full Line-up



PMW-300K1/K2



PXW-X200



PXW-X180/X160

| Camera Section                         |  |  |  |  |  |
|--|--|--|--|--|--|
| Imaging Device (Type)                  |  | 3-chip 1/2 type Exmor CMOS   |  | 3-chip 1/3 type Exmor CMOS   |  |
| Effective Picture Elements (Video)     |  | 1920 (H) x 1080 (V)  |  |  |  |
| Built-in Optical Filters               |  | Clear, 1/4, 1/16, 1/64   |  | Clear, 1/8, 1/64   |  |
| Slow & Quick Motion Function           |  | Yes  |  | Yes  |  |
| Super Slow Motion Function             |  | No   |  | No   |  |
| Gain                                   |  | -3, 0, 3, 6, 9, 12, 18 dB, AGC   |  | -3, 0, 3, 6, 9, 12, 15, 18 dB, AGC   |  |
| Gamma Curve                            |  | Selectable   |  |  |  |
| Minimum Illumination                   |  | 0.12 lx (typical) (1920 x 1080/59.94i mode, F1.9, +18 dB gain, with 64-frame accumulation, Gamma off, 100% video level)<br>0.02 lx (typical) (1920 x 1080/59.94i mode, F1.9, +18 dB gain, with 64-frame accumulation, Gamma on, 50% video level)                                   |  | 0.09 lx (typical, 1920 x 1080/59.94i)<br>0.07 lx (typical, 1920 x 1080/50i) (F1.9, +18 dB gain, with 64-frame accumulation, Gamma off, 100% video level)<br>0.02 lx (typical, 1920 x 1080/59.94i)<br>0.02 lx (typical, 1920 x 1080/50i) (F1.9, +18 dB gain, with 64-frame accumulation, Gamma on, 50% video level) |  |
| Lens                                   |  |  |  |  |  |
| Lens Mount                             |  | EX MOUNT   |  | Fixed  |  |
| Zoom Ratio                             |  | K1: 14x (optical), servo/manual<br>K2: 16x (optical), servo/manual   |  | 17x (optical), servo/manual<br>25x (optical), servo/manual   |  |
| Focal Length                           |  | K1: f = 5.8 - 81.2 mm equivalent to 31.4 - 439 mm on 35 mm lens<br>K2: f = 5.8 - 93 mm equivalent to 31.4 - 503 mm lens  |  | f = 5.6 - 95.2 mm equivalent to 29.3 - 499 mm lens<br>f = 3.7 - 92.5 mm equivalent to 26 - 650 mm on 35 mm lens  |  |
| Iris                                   |  | F1.9 - F16 and Close auto/manual selectable<br>F1.6 - F11 and C (close)  |  |  |  |
| Filter Diameter                        |  | K1: M77 mm K2: M82 mm  |  | M77 mm<br>M82 mm   |  |
| Input/Output                           |  |  |  |  |  |
| Audio Input                            |  | XLR-type 3-pin (female) (x2)   |  |  |  |
| HDMI Output                            |  | Type A (x1)  |  |  |  |
| SDI Output                             |  | BNC (x2), HD/SD selectable   |  | BNC (x1), 3G/HD/SD selectable<br>BNC (x1), 3G/HD/SD selectable   |  |
| Composite Output                       |  | BNC (x1)   |  | BNC (x1) (Switchable to Genlock In)  |  |
| GENLOCK-IN                             |  | BNC (x1)   |  | BNC (x1) (Switchable to Composite Output)  |  |
| Audio Output                           |  | Phono jack (CH-1,CH-2)   |  | A/V multi connector (x1)<br>Stereo mini jack ø3.5 mm (x1)  |  |
| TC In/Out                              |  | BNC (x1)   |  |  |  |
| Remote                                 |  | 8-pin  |  | 8-pin, round (x1)<br>Stereo mini mini jack ø2.5 mm (x1)  |  |
| MI Shoe                                |  | No   |  | Yes  |  |
| Headphone Output                       |  | Stereo mini jack (x1)  |  | Stereo mini jack (x1)  |  |
| iLink                                  |  | IEEE 1394, 4-pin (x1), HDV (HDV 1080i) input/output, DV input/output, S400   |  | IEEE 1394, 4-pin (x1), HDV (HDV 1080i) input/output, DV output, S400<br>No   |  |
| Wired LAN                              |  | No   |  |  |  |
| Monitoring / Built-in Microphone & LED |  |  |  |  |  |
| Viewfinder / LCD                       |  | 3.5 type color LCD: Approx. 1.56M dots, 16:9   |  | 3.5 type color LCD monitor: Approx. 1.56M dots, 16:9<br>0.45 type color LCD: 0.40M dots, 16:9<br>0.5 type color OLED: 2.36M dots<br>3.5 type color LCD monitor: 16:9, 1.56Mdots  |  |
| Built-in Microphone                    |  | Omni-directional stereo electret condenser microphone.   |  |  |  |
| Built-in LED Light                     |  | No   |  |  |  |
| Media                                  |  |  |  |  |  |
| Internal Memory/Type                   |  | ExpressCard/34 slot (x2)   |  | ExpressCard/34 slot (x2)<br>(for XAVC/MPEG2/AVCHD/DV)<br>SD/SDHC (x1) (for Proxy)* SD/SDHC (x1) (for Utility)  |  |
| General                                |  |  |  |  |  |
| Battery-type                           |  | BP-U   |  |  |  |
| Battery Operating Time                 |  | Approx. 216 min. with BP-U90 battery (while recording, with viewfinder, I/O Select Off)  |  | Approx. 270 min. with BP-U90 battery (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)<br>Approx. 240 min. with BP-U90 battery (While recording with LCD Off, EVF On when the external device connector is not used.)   |  |
| Wireless functions                     |  | No   |  | QoS Streaming/Streaming/FTP/Wi-Fi remote control and monitoring<br>X180: QoS Streaming/Streaming/FTP/Wi-Fi remote control and monitoring<br>X160: No   |  |
| NFC                                    |  | No   |  | Yes<br>X180 : Yes X160 : No  |  |
| GPS                                    |  | No   |  | Yes<br>X180 : Yes X160 : No  |  |
| Mass                                   |  | Approx 2.2 kg (Approx. 4 lb 14 oz) (body only)   |  | Approx. 2.4 kg (Approx. 5 lb 4.7 oz) (body only)<br>Approx.2.7 kg (Approx. 5lb 15.2 oz) (body only)  |  |
| Dimension (W × H × D)                  |  | K1: Approx. 275 × 239 × 384 mm (Approx. 10 7/8 × 9 1/2 × 15 1/8 inches) (with lens, lens hood, viewfinder. without protrusions)<br>K2: Approx. 279 × 239 × 424 mm (Approx. 11 × 9 1/2 × 16 3/4 inches) (with lens, lens mount adaptor, lens hood, viewfinder. without protrusions) |  | Approx. 168 × 161 × 331 mm (Approx. 6 5/8 × 6 3/8 × 13 1/8 inches) (without protrusions)<br>Approx. 191.5 × 201.5 × 412 mm (Approx. 7 5/8 × 8 × 16 1/4 inches) (without protrusions)   |  |



PXW-X70



PXW-Z100



HXR-NX3/1

| Camera Section                         |  |  |  |
|--|--|--|--|
| Imaging Device (Type)                  | 1.0 type Exmor R CMOS  | 1/2.3 type Exmor R CMOS  | 3 chip 1/2.8 type Exmor CMOS   |
| Effective Picture Elements (Video)     | Approx. 14.2M (16:9)   | Approx. 8.8M   | Approx. 2.07M  |
| Built-in Optical Filters               | Clear,1/4,1/16,1/64  |  |  |
| Slow & Quick Motion Function           | Yes  | Yes  | Yes  |
| Super Slow Motion Function             | No   |  |  |
| Gain                                   | -3, 0, 3, 6, 9, 12,15, 18, 21, 24, 27, 30, 33 dB, AGC  | 0, 3, 6, 9, 12,15, 18, 21, 24, 24 dB, AGC  | -6, -3, 0, 3, 6, 9, 12,15, 18, 21, 24, 27, 30 dB, AGC  |
| Gamma Curve                            | Selectable   | Selectable   | Selectable   |
| Minimum Illumination                   | [60i] 3 lux (1/60 Shutter Speed, iris/gain AUTO)<br>[50i] 3 lux (1/50 Shutter Speed, iris/gain AUTO)<br>[60i] 1.7 lux (1/30 Shutter Speed, iris/gain AUTO)<br>[50i] 1.7 lux (1/25 Shutter Speed, iris/gain AUTO) | [60p] 4 lux (1/30 Shutter Speed)<br>[50p] 3 lux (1/25 Shutter Speed)   | [60i] 1.2 lux (1/30 Shutter Speed, iris/gain Auto)<br>[50i] 1.0 lux (1/25 Shutter Speed, iris/gain Auto)<br>[60i] 0.4 lux (1/30 Shutter Speed, iris Auto, gain 30dB)<br>[50i] 0.3 lux (1/25 Shutter Speed, iris Auto, gain 30dB) |
| Lens                                   |  |  |  |
| Lens Mount                             | FIXED  |  |  |
| Zoom Ratio                             | 12x (optical), servo<br>[HD] 24x Clear image zoom,<br>[4K] 18x Clear image zoom (with CBKZ-X70FX)  | 20x (optical), servo/manual  |  |
| Focal Length                           | f=9.3 - 111.6 mm<br>equivalent to f=29.0 - 348.0 mm on 35 mm lens (16:9)   | f=4.1 - 82.0mm<br>equivalent to f=30.0 - 600mm on 35 mm lens (17:9)<br>equivalent to f=31.5 - 630mm on 35 mm lens (16:9) | f=4.1 - 82.0 mm<br>equivalent to f=28.8 - 576 mm on 35 mm lens (16:9)  |
| Iris                                   | F2.8 - F4.5 auto/manual selectable   | F1.6 - F11 auto/manual selectable  |  |
| Filter Diameter                        | M62 mm   | M72 mm   |  |
| Input/Output                           |  |  |  |
| Audio Input                            | XLR-type 3-pin (female) (x2)   |  |  |
| HDMI Output                            | Type A (x1)  |  |  |
| SDI Output                             | BNC (x1), 3G/HD/SD selectable  | BNC (x1), HD/SD selectable   |  |
| Composite Output                       | Integrated into Multi/Micro USB jack (x1),<br>Composite 1.0Vp-p, 75Ω   | Composite Video Out (RCA pin)  | BNC (x1)   |
| GENLOCK-IN                             | No   |  |  |
| Audio Output                           | Integrated into Multi/Micro USB jack   | RCA pin  |  |
| TC In/Out                              | No   | RCA pin  | No   |
| Remote                                 | Integrated into Multi/Micro USB jack   | Stereo mini mini jack (x1)   | Stereo mini mini jack ø2.5mm (x1)  |
| MI Shoe                                | Yes  | No   |  |
| Headphone Output                       | Stereo mini jack (x1)  |  |  |
| iLink                                  | No   |  |  |
| Wired LAN                              | No   |  |  |
| Monitoring / Built-in Microphone & LED |  |  |  |
| Viewfinder / LCD                       | 0.39 type OLED: Approx. 1.44M dots<br>3.5 type LCD monitor: Approx. 1.56M dots   | 0.45 type color LCD: Approx. 1.23M dots, 16:9<br>3.5 type LCD monitor  | 0.45 type color LCD: Approx. 1.23M dots, 16:9<br>3.5 type color LCD monitor: Approx. 0.92M dots, 16:9  |
| Built-in Microphone                    | Omni-directional stereo electret condenser microphone.   |  |  |
| Built-in LED Light                     | No   |  | Yes  |
| Media                                  |  |  |  |
| Internal Memory/Type                   | Memory Stick Pro Duo™ and SD/SDHC/SDXC compatible (x1), SD/SDHC/SDXC (x1)  | XQD (x2) (for XAVC), Memory Stick Duo™ and SD/SDHC/SDXC compatible (x1) (for AVCHD), SD/SDHC/SDXC (x1) (Utility SD Slot) | Memory Stick Duo™ and SD/SDHC/SDXC compatible (x1), SD/SDHC/SDXC (x1)  |
| General                                |  |  |  |
| Battery-type                           | InfoLITHIUM V  | InfoLITHIUM L  |  |
| Battery Operating Time                 | Approx. 120 min. with NP-FV70 battery<br>(while recording with LCD, XAVC 1080/60i, 50 Mbps)  | Approx. 165min. with NP-F970 battery<br>(while recording, EVF On)  | Approx. 410 min. with NP-F970 battery (video light Off)  |
| Wireless functions                     | Streaming/FTP/Wi-Fi remote control and monitoring  | Wi-Fi remote control   | FTP/Wi-Fi remote control and monitoring  |
| NFC                                    | Yes  | No   | Yes  |
| GPS                                    | No   | No   | No   |
| Mass                                   | Approx. 900 g (1 lb 15 oz) (body only)   | Approx 2.46 kg (Approx. 5 lb 6.75 oz)  | Approx. 2.21 kg (Approx. 4 lb 14 oz) (with lens hood)  |
| Dimension (W × H × D)                  | Approx. 120.7 × 103.5 × 274.3 mm<br>(Approx. 4 7/8 × 4 1/8 × 10 7/8 inches)<br>(With the accessories (lens hood, large eyecup),<br>excluding the grip belt and including the projecting parts)                   | Approx. 189 × 193 × 362 mm<br>(Approx. 7 7/16 × 7 19/32 × 14 1/4 inches)<br>(without protrusions)                        | Approx. 174.5 × 193 × 393 mm<br>(Approx. 6 7/8 × 7 5/8 × 15 1/2 inches)<br>(with lens hood, eye piece and protrusion)  |

# Full Line-up



HXR-NX100



HXR-MC2500

| Camera Section                         |   |  |
|--|---|--|
| Imaging Device (Type)                  | 1.0 type Exmor R CMOS   | 1/3.95 type Exmor R CMOS   |
| Effective Picture Elements (Video)     | Approx. 14.2 M (16:9)/Approx. 10.6 M (4:3)  | Approx. 6.14M (16:9)   |
| Built-in Optical Filters               | OFF: Clear, 1: 1/4ND, 2: 1/16ND, 3: 1/64ND  | No   |
| Slow & Quick Motion Function           | Yes   | No   |
| Super Slow Motion Function             | No  | No   |
| Gain                                   | -3, 0, 3, 6, 9, 12,15, 18, 21, 24, 27, 30, 33 dB, AGC   | 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 dB, AGC   |
| Gamma Curve                            | Selectable  | No   |
| Minimum Illumination                   | 1.7 lux (LOW LUX mode)  | [60i] 1.6 lux (MAN setting: SS 1/30sec, Iris F1.8, Gain 33dB)<br>[60i] 0.8 lux (MAN setting: SS 1/15sec, Iris F1.8, Gain 33dB)<br>[50i] 1.4 lux (MAN setting: SS 1/25sec, Iris F1.8, Gain 33dB)<br>[50i] 0.7 lux (MAN setting: SS 1/12sec, Iris F1.8, Gain 33dB) |
| Lens                                   |   |  |
| Lens Mount                             | FIXED   | FIXED  |
| Zoom Ratio                             | 12x (optical), 24x Clear image zoom, servo  | 12x (Optical), 24x Clear image zoom, 200x Digital zoom, servo/manual   |
| Focal Length                           | f = 9.3 - 111.6 mm<br>equivalent to f = 29.0 - 348.0 mm on 35 mm lens (16:9)  | f = 2.9-34.8 mm<br>equivalent to f = 26.8-321.6 mm on 35 mm lens (16:9)  |
| Iris                                   | F2.8 - F4.5 auto/manual selectable  | F1.8 - F3.4 auto/manual selectable   |
| Filter Diameter                        | M62 mm  | M37 mm   |
| Input/Output                           |   |  |
| Audio Input                            | XLR-type 3-pin (female) (×2)  | No   |
| HDMI Output                            | Type A (x1)   |  |
| SDI Output                             | No  |  |
| Composite Output                       | BNC (x1)  |  |
| GENLOCK-IN                             | No  |  |
| Audio Output                           | RCA pin   |  |
| TC In/Out                              | No  |  |
| Remote                                 | Stereo mini jack (x1)   |  |
| MI Shoe                                | Yes   |  |
| Headphone Output                       | Stereo mini jack (x1)   |  |
| iLink                                  | No  |  |
| Wired LAN                              | No  |  |
| Monitoring / Built-in Microphone & LED |   |  |
| Viewfinder / LCD                       | 0.24 type LCD: Approx. 1.56 M dots.<br>3.5 type LCD monitor: Approx. 1.56 M dots.   | 0.39 type OLED: Approx. 1.44M dots<br>3.0 type LCD monitor: Approx. 921K dots.   |
| Built-in Microphone                    | Omni-directional stereo electret condenser microphone.  |  |
| Built-in LED Light                     | Yes   |  |
| Media                                  |   |  |
| Internal Memory/Type                   | Memory Stick Pro Duo™ and SD/SDHC/SDXC compatible (x1),<br>SD/SDHC/SDXC (x1)  | Flash Memory 32GB<br>MemoryStick Pro Duo™ and SD/SDHC/SDXC compatible (x1)   |
| General                                |   |  |
| Battery-type                           | InfoLITHIUM L   |  |
| Battery Operating Time                 | Approx. 345 min. with NP-F770 battery<br>(while recording with LCD, AVCHD 1080/60i FX)  | Approx. 285 min with NP-F570 battery<br>(video light Off)  |
| Wireless functions                     | No  | Wi-Fi remote control   |
| NFC                                    | No  | Yes  |
| GPS                                    | No  | No   |
| Mass                                   | Approx. 1.90 kg (Approx. 4 lb 3 oz) (body)<br>Approx. 2.10 g (Approx. 4 lb 10 oz) (with lens hood, eyecup, NP-F770 battery)   | Approx 2.80 kg (Approx. 6 lb 2.8 oz) (body)  |
| Dimension (W × H × D)                  | Approx. 171.3 × 187.8 × 371.3 mm (Approx. 6 3/4 × 7 3/8 × 14 5/8 inches)<br>(With the accessories (lens hood, large eyecup),<br>excluding the grip belt and including the projecting parts) | Approx. 265.0 × 235.0 × 455.0 mm<br>(Approx. 10 1/2 × 9 3/8 × 18 inches) (body)  |



PXW-FS7/FS7K



PXW-FS5/FS5K



NEX-FS700R/RH



NEX-EA50M/H

| Camera Section                         |   |  |  |  |
|--|---|--|--|--|
| Imaging Device (Type)                  | Exmor Super35 CMOS  | Exmor Super35 CMOS   | Exmor Super35 CMOS   | Exmor APS HD CMOS  |
| Effective Picture Elements (Video)     | Approx. 8.3M (16:9)<br>Approx. 8.4M (17:9)  | Approx. 8.3M (16:9)<br>Approx. 8.4M (17:9)   | Approx. 8.3M (16:9)<br>Approx. 8.4M (17:9)   | Approx.13.6M (16:9)  |
| Built-in Optical Filters               | Clear, 1/4, 1/16, 1/64  | Clear, 1/4, 1/16, 1/64, Variable (1/4 to 1/128)  | Clear, 1/4, 1/16, 1/64   | No   |
| Slow & Quick Motion Function           | Yes   | Yes  | Yes  | No   |
| Super Slow Motion Function             | XAVC-I mode 1920x1080: 1 to 180 frames (59.94p, 29.97p, 23.98p), 1 to 150 frames (50p, 25p)                                       | [60i] Frame rate selectable<br>120, 240, 480, 960 fps<br>[50i] Frame rate selectable<br>100, 200, 400, 800 fps   | [60i] Frame rate selectable<br>120, 240, 480, 960 fps<br>[50i] Frame rate selectable<br>100, 200, 400, 800 fps   | No   |
| Gain                                   | -3, 0, 3, 6, 9, 12, 18 dB, AGC  | 0, 3, 6, 9, 12, 15, 18, 24, 27, 30 dB, AGC   | 0, 3, 6, 9, 12, 15, 18, 24, 27, 30 dB, AGC   | 0, 3, 6, 9, 12, 15, 18, 24, 27, 30 dB, AGC   |
| Gamma Curve                            | Selectable  |  |  |  |
| Minimum Illumination                   | 0.7 lx (+18 dB, 23.98p, Shutter OFF, ND Clear, F1.4)  | 0.16 lux [60i] (IRIS F1.4, GAIN Auto, Shutter Speed 1/24)<br>0.18 lux [50i] (IRIS F1.4, GAIN Auto, Shutter Speed 1/25)<br>1.28 lux [60i] (IRIS F4.0, GAIN Auto, Shutter Speed 1/24)<br>1.40 lux [50i] (IRIS F4.0, GAIN Auto, Shutter Speed 1/25) | [60i] 1.2 lx (w/ SELP18200 Lens, 1/24 shutter speed, Auto IRIS, Auto GAIN)<br>[50i] 1.5 lx (w/ SELP18200 Lens, 1/25 shutter speed, Auto IRIS, Auto GAIN) [50i] | [60i] 4 lx (w/ SELP18200Lens, 1/24 shutter speed, Auto IRIS, Auto GAIN)<br>[50i] 4 lx (w/ SELP18200Lens, 1/25 shutter speed, Auto IRIS, Auto GAIN) |
| Lens                                   |   |  |  |  |
| Lens Mount                             | E MOUNT   |  |  |  |
| Zoom Ratio                             |   |  |  |  |
| Focal Length                           |   |  |  |  |
| Iris                                   |   |  |  |  |
| Filter Diameter                        |   |  |  |  |
| Input/Output                           |   |  |  |  |
| Audio Input                            | XLR-type 3-pin (female) (x2)  |  |  |  |
| HDMI Output                            | Type A (x1)   |  |  |  |
| SDI Output                             | BNC (x2), switchable with 3G-SDI/HD-SDI   | BNC type (x1), SD/HD/3G (Level-B) selectable   | BNC (x1), 3G/HD/SD   |  |
| Composite Output                       | No  | Integrated into Multi/Micro USB jack (x1)  | RCA Pin (x1)   | RCA Pin (x1)   |
| GENLOCK-IN                             | Option  | No   |  |  |
| Audio Output                           | No  | Integrated into Multi/Micro USB jack (x1)  | RCA Pin (x2)   |  |
| TC In/Out                              | Option  | No   |  |  |
| Remote                                 | Stereo mini-mini jack (ø2.5 mm) (x1)  |  |  |  |
| MI Shoe                                | Yes   | Yes  | No   | No   |
| Headphone Output                       | Stereo mini jack (x1)   |  |  |  |
| iLink                                  | No  |  |  |  |
| Wired LAN                              | No  | LAN Terminal<br>100BASE-TX/10BASE-T  | No   |  |
| Monitoring / Built-in Microphone & LED |   |  |  |  |
| Viewfinder / LCD                       | 3.5 type LCD monitor, Approx. 1.56M dots  | 0.39 type OLED, Approx. 1.44M dots<br>3.5 type LCD monitor, Approx. 1.56M dots   | 3.5 type LCD monitor, Approx. 0.921M dots  |  |
| Built-in Microphone                    | Omni-directional electret condenser microphone  | Omni-directional stereo electret condenser microphone  | No   | Omni-directional stereo electret condenser microphone  |
| Built-in LED Light                     | No  |  |  |  |
| Media                                  |   |  |  |  |
| Internal Memory/Type                   | XQD card slot (x2), SD card slot (x1) for saving configuration data   | Memory Stick Pro Duo™ and SD/SDHC / SDXC compatible (x1), SD/SDHC/SDXC (x1)  | Memory Stick Pro Duo™ and SD/SDHC/SDXC compatible (x1), Flash Memory Unit (HXR-FMU128)   | Memory Stick Pro Duo™ and SD/SDHC/SDXC compatible (x1), Flash Memory Unit (HXR-FMU128)   |
| General                                |   |  |  |  |
| Battery-type                           | BP-U  | BP-U   | InfoLITHIUM L  |  |
| Battery Operating Time                 | Approx. 3 hrs with BP-U90 battery (while recording XAVC-I QFHD 59.94p, SELP28135G Lens, Viewfinder ON, not using external device) | Approx.280 min. [60i], Approx 285 min. [50i] with BP-U90 battery (While recording with LCD On, EVF Off when the external device connector is not used.)  | Approx. 160 minutes with NP-F970 [60i], Approx. 180minutes with NP-F970 [50i]  | Approx. 540 min with NP-F970 battery   |
| Wireless functions                     | Wi-Fi remote control  | Streaming/FTP/Wi-Fi remote control and monitoring  | No   | No   |
| NFC                                    | Yes   | Yes  | No   | No   |
| GPS                                    | Yes   | Yes (after Future Upgrade)   | No   | Yes  |
| Mass                                   | Approx 2.0 kg (Approx. 4 lb 6.5 oz) (body only)   | Approx. 830 g (Approx. 1lb 13.2 oz) (Body only)  | Approx. 1680 g (Approx. 3 lb 11 oz) (Body only)  | Approx. 1720 g (Approx. 3 lb 12.7 oz) (Body only)  |
| Dimension (W × H × D)                  | Approx. 156 × 239 × 247 mm (Approx. 6 1/4 x 9 1/2 x 9 3/4 inches) (body without protrusions)                                      | Approx. 111.3 × 128.7 × 172.4 mm (Approx. 4 1/2 × 5 1/8 × 6 7/8 inches) (Body only including the projecting parts)   | Approx. 145 x 178.5 x 253.5 mm (Approx.5 3/4 x 7 1/8 x 10 inches) (body only)  | Approx. 142.5 × 203 × 429.5 mm (including protrusions)   |

# Full Line-up



PMW-300K1/K2  
(Ver1.30 and above)



PXW-X200



PXW-X180/X160



PXW-X70



PXW-Z100



HXR-NX3/1

|                          |            |  |  |  |  |               |
|--------------------------|------------|--|--|--|--|---------------|
| NTSC / PAL<br>Switchable | Switchable |  |  |  |  | No Switchable |
|--------------------------|------------|--|--|--|--|---------------|

| Recording Format (Video)  |   |   |   |  |   |   |
|---------------------------|---|---|---|--|---|---|
| XAVC Intra<br>4096 x 2160 |   |   |   |  | 59.94p: 600Mbps, 50p: 500Mbps,<br>29.97p: 300Mbps, 25p: 250Mbps,<br>23.98p: 240Mbps                                       |   |
| XAVC Intra<br>3840 x 2160 |   |   |   |  | 59.94p: 600Mbps, 50p: 500Mbps,<br>29.97p: 300Mbps, 25p: 250Mbps,<br>23.98p: 240Mbps                                       |   |
| XAVC Intra<br>1920 x 1080 | 59.94i, 29.97p: 111Mbps, 50i, 25p: 112Mbps, 23.98p: 89Mbps          |   |   |  | 59.94p: 222Mbps max,<br>50p: 185Mbps max,<br>59.94i, 29.97p: 111Mbps max,<br>50i, 25p: 112Mbps max,<br>23.98p: 89Mbps max |   |
| XAVC Intra<br>1280 x 720  | 59.94p:111Mbps, 50p: 112Mbps  |   |   |  |   |   |
| XAVC-Long<br>3840 x 2160  |   |   |   | 29.97p, 25p, 23.98p: 60Mbps<br>with CBKZ-X70FX   | 59.94p, 50p: 150Mbps max, 29.97p,<br>25p, 23.98p: 100Mbps max   |   |
| XAVC-Long<br>1920 x 1080  | 59.94i, 50i: 50/35/<br>25Mbps,<br>29.97p, 25p, 23.98p:<br>50/35Mbps | 59.94i, 50i: 50/35/25Mbps,<br>59.94p, 50p, 29.97p, 25p, 23.98p: 50/35Mbps     |   | 59.94p, 50p, 59.94i, 50i,<br>29.97p, 25p, 23.98p:<br>50/35Mbps,<br>59.94i, 50i: 25Mbps | 59.94p, 50p, 59.94i, 50i, 29.97p,<br>25p, 23.98p: 50/35Mbps max,<br>59.94i, 50i: 25Mbps max                               |   |
| XAVC-Long<br>1280 x 720   | 59.94p, 50p:50Mbps  |   |   | 59.94p, 50p:50Mbps   |   |   |
| XAVC S<br>1920 x 1080     |   |   |   |  |   | 59.94p, 50p, 29.97p, 25p,<br>23.98p: 50Mbps<br>(Ver.2.0 is required)          |
| MPEG HD422<br>1920 x 1080 | 59.94i, 50i, 29.97p, 25p, 23.98p: 50Mbps                            |   |   |  | 59.94i, 50i, 29.97p, 25p, 23.98p:<br>50Mbps max   |   |
| MPEG HD422<br>1280 x 720  | 59.94p, 50p, 29.97p, 25p, 23.98p: 50Mbps                            |   |   |  | 59.94p, 50p, 29.97p, 25p,<br>23.98p: 50Mbps max   |   |
| MPEG HD420<br>1920 x 1080 | 59.94i, 50i, 29.97p, 25p, 23.98p: 35Mbps                            |   |   |  |   |   |
| MPEG HD420<br>1440 x 1080 | 59.94i, 50i, 23.98p: 35/25Mbps,<br>29.97p, 25p: 35Mbps              |   | 59.94i, 50i: 35Mbps   |  |   |   |
| MPEG HD420<br>1280 x 720  | 59.94p, 50p, 29.97p, 25p, 23.98p: 35Mbps                            |   | 59.94p, 50p: 35Mbps   |  |   |   |
| MPEG IMX50<br>720 X 486   | 59.94i, 29.97p: 50Mbps  |   |   |  |   |   |
| MPEG IMX50<br>720 x 576   | 50i, 25p: 50Mbps  |   |   |  |   |   |
| AVCHD<br>1920 x 1080      |   |   | 59.94p, 50p: 28Mbps,<br>59.94i, 50i, 29.97p, 25p,<br>23.98p: 24Mbps             | 59.94p, 50p: 28Mbps, 59.94i,<br>50i, 29.97p, 25p, 23.98p:<br>24/17Mbps                 |   | 59.94p, 50p: 28Mbps, 59.94i,<br>50i, 25p<br>29.97p, 23.98p: 24Mbps/<br>17Mbps |
| AVCHD<br>1440 x 1080      |   |   |   |  |   | 59.94i, 50i: 9Mbps/5Mbps  |
| AVCHD<br>1280 x 720       |   |   | 59.94p, 50p: 24Mbps   | 59.94p, 50p:<br>24Mbps/17Mbps/9Mbps  |   | 59.94p, 50p: 24Mbps/17Mbps/<br>9Mbps  |
| DVCAM<br>720 x 480        | 59.94i, 29.97p (NTSC): 25Mbps                                       |   | 59.94i (NTSC): 25Mbps   | 59.94i (NTSC): 25Mbps  |   | 59.94i (NTSC),<br>50i (PAL): 25Mbps   |
| DVCAM<br>720 x 576        | 50i, 25p (PAL): 25Mbps  |   | 50i (PAL): 25Mbps   | 50i (PAL): 25Mbps  |   |   |
| PROXY H.264               |   | 1280 x 720:9Mbps,<br>640 x 360:3Mbps<br>480 x 270:1Mbps,<br>480 x 270:500Kbps | (X180 only)<br>1280 x 720:9Mbps,<br>640 x 360:3Mbps,<br>480 x 270:1Mbps,500Kbps | 1280 x 720:9Mbps,<br>640 x 360:3Mbps<br>(ver 2.0 is needed)                            |   |   |
| MP4                       |   |   |   |  |   | 1280 x 720 29.97p (NTSC),<br>23.98p (NTSC),<br>25p (PAL): 3Mbps               |



HXR-NX100



HXR-MC2500



PXW-FS7/FS7K



PXW-FS5/FS5K



NEX-FS700R/RH



NEX-EA50M/H

|                          |               |            |
|--------------------------|---------------|------------|
| NTSC / PAL<br>Switchable | No Switchable | Switchable |
|--------------------------|---------------|------------|

| Recording Format (Video)  |  |  |   |  |   |                                       |
|---------------------------|--|--|---|--|---|---------------------------------------|
| XAVC Intra<br>4096 x 2160 |  |  | 59.94p: 600Mbps, 50p: 500Mbps,<br>29.97p: 300Mbps, 25p: 250Mbps,<br>23.98p: 240Mbps<br>(after Upgrade in Mar.2015)        |  |   |                                       |
| XAVC Intra<br>3840 x 2160 |  |  | 59.94p: 600Mbps, 50p: 500Mbps,<br>29.97p: 300Mbps, 25p: 250Mbps,<br>23.98p: 240Mbps                                       |  |   |                                       |
| XAVC Intra<br>1920 x 1080 |  |  | 59.94p: 222Mbps max,<br>50p: 185Mbps max,<br>59.94i, 29.97p: 111Mbps max,<br>50i, 25p: 112Mbps max,<br>23.98p: 89Mbps max |  |   |                                       |
| XAVC Intra<br>1280 x 720  |  |  |   |  |   |                                       |
| XAVC-Long<br>3840 x 2160  |  |  | 59.94p, 50p: 150Mbps max,<br>29.97p, 25p, 23.98p: 100Mbps<br>max  | 29.97p, 25p, 23.98p: 100Mbps,<br>60Mbps  |   |                                       |
| XAVC-Long<br>1920 x 1080  |  |  | 59.94p, 50p, 59.94i, 50i, 29.97p,<br>25p, 23.98p: 50/35Mbps max,<br>59.94i, 50i: 25Mbps max                               | 59.94p, 50p, 59.94i, 50i,<br>29.97p, 25p, 23.98p: 50Mbps,<br>35Mbps<br>59.94i, 50i: 25Mbps |   |                                       |
| XAVC-Long<br>1280 x 720   |  |  |   | 59.94p, 50p: 50Mbps  |   |                                       |
| XAVC S<br>1920 x 1080     | 59.94p, 50p, 29.97p, 25p,<br>23.98p: 50Mbps                            |  |   |  |   |                                       |
| MPEG HD422<br>1920 x 1080 |  |  | 59.94i, 50i, 29.97p, 25p, 23.98p:<br>50Mbps max   |  |   |                                       |
| MPEG HD422<br>1280 x 720  |  |  | 59.94p, 50p, 29.97p, 25p, 23.98p:<br>50Mbps max   |  |   |                                       |
| MPEG HD420<br>1920 x 1080 |  |  |   |  |   |                                       |
| MPEG HD420<br>1440 x 1080 |  |  |   |  |   |                                       |
| MPEG HD420<br>1280 x 720  |  |  |   |  |   |                                       |
| MPEG IMX50<br>720 x 486   |  |  |   |  |   |                                       |
| MPEG IMX50<br>720 x 576   |  |  |   |  |   |                                       |
| AVCHD<br>1920 x 1080      | 59.94p: 28 Mbps<br>50i/25p, 59.94i/29.97p/<br>23.98p: 24 Mbps, 17 Mbps | 59.94p: 28 Mbps<br>50i/25p, 59.94i/29.97p/<br>23.98p: 24 Mbps, 17 Mbps |   | 59.94p, 50p: 28Mbps<br>59.94i, 50i, 29.97p, 25p, 23.98p:<br>24Mbps, 17Mbps                 | 59.94p, 50p: 28Mbps,<br>59.94i, 50i, 29.97p, 25p, 23.98p: 24Mbps,<br>17Mbps |                                       |
| AVCHD<br>1440 x 1080      | 59.94i, 50i: 9Mbps, 5Mbps  |  |   |  | 59.94i, 50i: 9Mbps, 5Mbps   |                                       |
| AVCHD<br>1280 x 720       | 59.94p, 50p: 24Mbps, 17Mbps,<br>9Mbps                                  | 59.94p, 50p: 24Mbps, 17Mbps,<br>9Mbps                                  |   | 59.94p, 50p: 24Mbps, 17Mbps,<br>9Mbps  | 59.94p, 50p: 24Mbps, 17Mbps   |                                       |
| DVCAM<br>720 x 480        | 59.94i (NTSC): 25Mbps  | 59.94i (NTSC): 25Mbps  |   |  | 59.94i (NTSC):<br>9Mbps   | 59.94i (NTSC): 25Mbps,<br>9Mbps (ave) |
| DVCAM<br>720 x 576        | 50i (PAL): 25Mbps  | 50i (PAL): 25Mbps  |   |  | 50i (PAL): 9Mbps  | 50i (PAL): 25Mbps, 9Mbps<br>(ave)     |
| PROXY H.264               |  |  |   |  |   |                                       |
| MP4                       |  |  |   |  |   |                                       |



# PMW-300 K1/K2

## Solid-State Memory Camcorder

K1 supplied with 14x zoom lens / K2 supplied with 16x zoom lens

### High Picture Quality

Three 1/2 type Full HD Exmor CMOS sensors (1920 x 1080) to achieve high resolution, high sensitivity, low noise and a wide dynamic range

### Powerful Noise Suppression

The camcorder's advanced camera signal processing includes a powerful noise suppression feature. The signal processor detects the noise not only in vertical and horizontal directions in a frame picture but also detects noise components in a time axis, utilizing correlation characteristics between video frames. Using this feature, noise is effectively suppressed, creating cleaner images.

### Various Conveniences via a Wireless Adapter

The PMW-300 is designed to support wireless operation using an optional wireless adapter, the CBK-WA100. With this adapter, the user can stream out pictures to a remote location. After shooting, proxy files created on the CBK-WA100 can be immediately transmitted to a remote location. The adapter also provides remote control of the PMW-300 with mobile application software.

### Selectable Format and Bit Rates

The PMW-300 provides a wide variety of codec operation points. Users can record Full-HD video (1920 x 1080) at up to 50 Mbps using MPEG HD422 as well as MPEG HD™ at 35 Mbps / 25 Mbps, MPEG IMX at 50 Mbps, and DVCAM™ at 25 Mbps in MXF files. The PMW-300 also incorporates XAVC Intra at 100 Mbps and XAVC Long GOP at 50 Mbps / 35 Mbps / 25 Mbps data rate, enabling the creation of rich content with 10-bit quality.

### Comfortable and Stable Shooting

An improved extendable shoulder pad is included as standard, which means the operator can always find a comfortable shooting position, even for long-duration shooting. Also, the operator can keep a well-balanced camera position even when the unit is docked with long lenses.



### Variety of Interfaces

There are two lines of SDI output connection enabling, for example, one connection to an external recording device and one to the optional CBK-WA100. Also, for monitoring purposes the PMW-300 can be connected via HDMI to professional displays as well as domestic-use TVs with an HDMI connector. The i.LINK connector can be used for HDV when SP 1440 (FAT) mode is selected, and for DV when DVCAM (FAT) mode is selected, for both input and output signal flows. In addition, the USB connector is handy when connecting directly to a PC.



**XDCAM** HD

**Exmor**  
FULL HD 3CMOS

**XAVC**

**MPEG HD422**

**MPEG HD**

**MPEG IMX**

**DVCAM**

**SXS**





# PXW-X200

## Solid-State Memory Camcorder

### New 1/2 inch-type 3CMOS Image Sensors

The PXW-X200 incorporates three 1/2 inch-type Exmor Full HD (1920 x 1080) CMOS sensors to achieve high resolution, high sensitivity, low noise, and a wide dynamic range. With these image sensors, the PXW-X200 achieves a high sensitivity of F12 at 1080/59.94i and F13 at 1080/50i – essential levels for professionals shooting under challenging lighting conditions.

### New 1/2 inch-type 17x Zoom Lens

The PXW-X200 has a newly developed 17 times zoom lens. This compact body lens can zoom from 29.3 mm to 499 mm (35 mm equivalent), which is a powerful capability for event shooting and many other applications. The lens also has focus, zoom, and iris-independent manual control rings. Each function has a physical end stop and absolute marking which enable precise adjustment.



### Multi-format Recording

The PXW-X200 has an XAVC recording capability. It uses 4:2:2 10-bit sampling, efficiently compressing Full HD (1920 x 1080) resolution images using the MPEG-4 AVC/H.264 CODEC. In XAVC, the user can select intra-frame compression at a maximum of 112 Mbps or high-efficiency long GOP compression at 50/35/25 Mbps. In addition to XAVC intra/long GOP, the PXW-X200 records in MPEG-2 HD422 at 50 Mbps, MPEG-2 HD420 at 35/25 Mbps, MPEG IMX at 50 Mbps and DV at 25 Mbps. Depending on requirements, there is a flexible choice of CODEC. In XAVC long CODEC, 1080/59.94P or 50P can be selected as well as 1080/59.94i, 50i, etc. Four channels of 24-bit 48 kHz LPCM audio is recorded in XAVC and MPEG-2 HD422, while four channels of 16-bit 48 kHz LPCM is recorded in MPEG-2 HD420.

### Multi-interface (MI) Shoe

The PXW-X200 takes advantage of Sony's flexible Multi-Interface (MI) Shoe, which provides power, signal connections and coordinated on/off switching to compatible Sony accessories. This function is supported by version 1.2

### Timecode & Genlock

The PXW-X200 is equipped with timecode input/output (selectable) and genlock input interfaces.

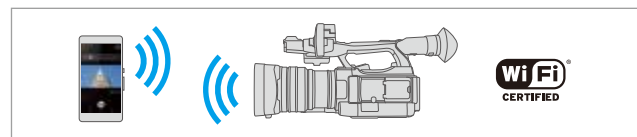
### 3.5 inch-type QHD (960x540) Color LCD Panel

### File Transfer and Streaming

Users can simply attach the supplied Wireless LAN module to activate the wireless function on the PXW-X200. And by connecting with separately sold internet routers, proxy or highresolution files can be transferred to a cloud server, and the editing process can be started while location shooting continues. The PXW-X200 also has a streaming capability<sup>\*1</sup>. By attaching a separately sold LTE USB module<sup>\*2</sup>, live video and audio can be streamed, watched, and recorded at a remote location. The QoS controlled streaming is supported by version 1.3.

<sup>\*1</sup> Version 1.2 is required to activate this function.

<sup>\*2</sup> This function works only with compatible modules.



### NFC

NFC allows close-range wireless communication between the PXW-X200 and an NFC-equipped smartphone or tablet device.

This application can be downloaded from the Google Play Store or App Store.

### Slow & Quick Motion

A Slow & Quick Motion function is available on the PXW-X200. The recording frame rate can be selected from 1 frame per second (fps) up to 60 fps both in 1080P and 720P format to create high-quality slow motion or quick motion images.<sup>\*3</sup>

<sup>\*3</sup> The selectable frame rate depends on the CODEC selected in the camera.

### SDI, HDMI, and i.LINK

The SDI interface allows the PXW-X200 to interface with other professional products. The SDI connector is 3G, HD, and SD switchable and it outputs 1080/59.94P, 50P, 59.94i, 50i, 720/59.94P, 50P, or SD signals. The PXW-X200 has a simple signal conversion function, and an 1080/59.94i (50i) signal can be output for monitoring while the camcorder is set to 1080/59.94P (50P). The PXW-X200 can also be connected via HDMI to HD displays to perform monitoring. The i.LINK connector can be used for HDV when SP 1440 (FAT) mode is selected and for DV when DV-CAM (FAT) mode is selected.



**XDCAM HD**

**Exmor**  
FULL HD 3CMOS

**XAVC**

**MPEG HD422**

**MPEG HD**

**MPEG IMX**

**DVCAM**

**SXS**



# PXW-X180/X160

## 1/3-type 3CMOS Solid-state Memory Camcorder

### 25x optical zoom G Lens with 26 mm wide angle

This new lens delivers uncompromised Sony G Lens quality and a 26 mm angle of view at the wide end of its 25x zoom range (35 mm equivalent: 26 mm to 650 mm). That's more than enough range for a wide variety of shooting situations. Independent manual zoom and focus rings with end-stop and iris control are provided, and a slide mechanism on the focus ring enables easy switching between auto and manual focusing.



### Innovative Sony image sensor, image processor, and lens achieve outstanding image quality

Sony's Exmor™ 3CMOS Sensor system provides independent 1/3-type CMOS image sensors for the red, blue, and green color channels, each with 2.07 effective megapixels (16:9). The result is high resolution and sensitivity that contribute to superior color reproduction. An advanced image processor that features sophisticated noise reduction and distortion compensation is instrumental in delivering superb detail and texture reproduction, with image quality settings rivaling highend broadcast camcorders.

### Compatible with XAVC and a range of other

recording formats In addition to XAVC Intra/Long GOP, the PXW-X180 and PXW-X160 can record in MPEG2, AVCHD, and DV format. The MXF file format is used for XAVC recording, efficiently compressing full HD (1920 x 1080) resolution using the MPEG-4 AVC/H.264 codec. Image sampling is 4:2:2 10-bit with Intra-frame compression at 112 Mbps, or high-efficiency Long-GOP compression at 50/35/25 Mbps.

### Support for SxS, XQD, and SD memory cards plus Memory Stick

### 3.5-type LCD panel and 0.5-type OLED viewfinder

### Multi-Interface Shoe

Compatible accessories attached to the Multi-Interface (MI) Shoe can be controlled from the PXW-X180 or PXW-X160.



### Variable ND filter

A new filter device that electronically controls density enables continuous adjustment from 1/4 ND to 1/128 ND via a simple dial operation. In conjunction with iris setting that controls depth of field and brightness, this advanced filter facilitates shooting techniques such as the use of slow shutter in daylight and other bright conditions. For operators who prefer the conventional ND selector interface, the PXW-X180 and PXW-X160 feature a dual ND filter control mechanism that provides both continuous electronic control and the standard four-position switch. By using Auto ND filter function\*, the PXW-180 and PXW-X160 can adjust the density of the ND filter automatically.

\* Firmware version 3.0 is required.



ND 1/4 Overexposed



ND 1/128 Optimum Exposure

### Wireless functions for file transmission, remote control and QoS streaming (PXW-X180 only)

The Content Browser Mobile\*1 application enables confirmation of the angle of the shot before shooting, monitor recording and operation of the camcorder by remote. The use of separately sold mobile routers and other mobile devices also allows transmission of files after shooting. In addition, lightweight proxy video files can be generated separately from the main line recording and recorded to SD cards for quick sharing of content over low-bandwidth mobile networks. By enabling the network client mode\*2 and connecting the camcorder to Connection Control Manager of the PWS-100RX1 network RX station (sold separately).

Sony developed unique Quality of Service (QoS) technology that dramatically improves the clarity that's possible on a single, affordable 3G/4G/LTE cellular channel or your own Wi-Fi network. You get better pictures, even given the limitations of real-world networks (Version 3.0 is required)

\*1 Firmware version 3.0 is required. The Content Browser Mobile can be downloaded from the Google Play Store or App Store.

\*2 Firmware version 3.0 is required

**XDCAM**

**Exmor™**  
3CMOS Sensors

**XAVC**

**MPEG HD422**

**AVCHD**  
Progressive

**G**

**WiFi**  
CERTIFIED



# PXW-X70

## 1.0-type CMOS Compact Solid-State Memory Camcorder

### 1.0-type Exmor® R CMOS Sensor with a Resolution of 20 Megapixels

The Exmor R CMOS sensor with 1.0-type picture elements delivers high resolution and minimal noise even when shooting in low-light conditions. The 20-megapixel sensor comfortably supports 4K resolution, and 4K recording requires purchase of the 4K Upgrade License (CBKZ-X70FX)

### 29-mm Wide-angle Carl Zeiss Vario-Sonnar T\* Lens with 12x Optical Zoom (Maximum 48x Zoom)

The wide-angle 29-mm ZEISS Vario-Sonnar T\* lens ensures stunning quality to the very corners of the image and offers 12x optical zooming that can be increased to 24x via Clear Image Zoom. Magnification can be further increased to 48x by Digital Extender, which takes full advantage of the 20-megapixel high-resolution image sensor. From wide-angle to telephoto shooting, this lens enables various professional-level applications. Moreover, seven shutter blades contribute to impressive background bokeh.

### Wi-Fi and Wireless Functions for Remote Control

**Streaming** This feature allows images to be streamed live from the PXW-X70 for viewing at a remote location. Data transfer rate, specified by two image quality menu settings (9Mbps and 3Mbps), can be selected to suit the network environment being used.

**FTP Transfer** This feature supports FTP file transfers on the PXW-X70, allowing content files recorded with the XAVC Proxy Recording feature and other content files shot in XAVC (4K/HD) and AVCHD formats to be sent over the Internet for remote storage on an FTP server.

**Wired LAN Connection** When wireless LAN is unavailable, this feature allows the PXW-X70 to be connected to the Internet over a wired connection via separately available USB adapter cable "VMC-UAM2" and Network adaptor kit "CBK-NA1R", allowing files to be streamed or transferred by FTP.

**XAVC Proxy Recording** Proxy recording supports the use of a low-bit-rate video file in place of an XAVC format, high-bit-rate file with the same timecode.

### Wide Variety of Recording Format Capabilities Including XAVC Long GOP (MXF)

The PXW-X70 provides multiple choices depending on the application required, including XAVC, AVCHD, and DV® filebased recording. When recording in XAVC, the PXW-X70 uses the MXF file format, efficiently compressing Full HD (1920 x 1080) resolution using the MPEG-4 AVC/H.264 CODEC. Image sampling is 4:2:2 10-bit with high-efficiency Long GOP compression at 50 Mbps, 35 Mbps, or 25 Mbps. Moreover, the ability to record in AVCHD format, which is widely used already, provides playback compatibility with wide range of consumer electronics equipment.

### 3.5-type LCD Panel and 0.39-type OLED Viewfinder

### Four Position (clear, 1/4, 1/16, 1/64) Switchable

### Compatibility with HDMI and 3G-SDI Output

### XLR Handle Unit

### Dual media slots

### Picture Profile Function

### Compatible Accessories Attached to the Multi-Interface (MI) Shoe

### 4K Upgrade License "CBKZ-X70FX"

CBKZ-X70FX is the Upgrade License which enables 4K recording on the PXW-X70. Firmware version 2.0 is required for use of the Upgrade License.



**XDCAM**

**Exmor R**  
CMOS Sensor

**XAVC**

**AVCHD**  
Progressive

**Wi-Fi**  
CERTIFIED

**Multi**  
Interface Shoe



# PXW-Z100

## 4K Handheld Memory Camcorder

### 4K (4096 x 2160) 60p shooting

The camcorder provides high sensitivity due to the backilluminated Exmor R CMOS sensor even in 4K shooting. With 8.8 million effective pixels, the 1/2.3 type sensor captures 4K images at 50fps or 60fps. The inbuilt high-performance G Lens offers maximum shooting flexibility, including a wide angle of 30mm in 4096 x 2160 mode or 31.5mm in 3840 x 2160 and 1920 x 1080 modes and 20x powerful optical zoom (equivalent to 35mm).

### XAVC format for recording 4K /HD 60p with 4:2:2 10-bit at 600Mbps

The PXW-Z100 uses the XAVC recording format, efficient MPEG-4 AVC/H.264 compression is used for HD (1920 x 1080), QFHD (3840 x 2160) and 4K (4096 x 2160) video. Image sampling is 4:2:2 10-bit, with an intra-frame system that compresses each frame individually at a maximum bit rate of 500Mbps or 600Mbps during 4K 50fps or 60fps recording respectively and 223Mbps during HD 50fps or 60fps recording. The XAVC format is ideal for those looking to implement a high-quality, secure and worry-free workflow.

### Support for XAVC LongGOP Mode and AVCHD Format

For extended recording, XAVC LongGOP (QFHD 4:2:0 8-bit / Full HD 4:2:2 10-bit) is supported from a firmware upgrade (V3.0). In addition, as a consumer friendly format, AVCHD (Full HD) is supported from a V4.0 firmware upgrade.

| PXW-Z100 and FDR-AX1 Comparison |   |                            |
|---------------------------------|---|----------------------------|
| Item                            | PXW-Z100                                | FDR-AX1                    |
| Recording Format                | XAVC, AVCHD                             | XAVC-S, AVCHD              |
| Resolution                      | 4096 x 2160, 3840 x 2160<br>1920 x 1080 | 3840 x 2160<br>1920 x 1080 |
| Output terminal                 | HDMI, SDI                               | HDMI                       |

### High-quality Audio

The PXW-Z100 is equipped with two XLR connectors, which are for professional microphones such as the ECM-680S/MS2/678/674/673/VG1 and wireless microphone systems such as the UWP-D11/D12.

### HDMI interface (HDMI 2.0) for 4K output and 3G HD-SDI interface for HD output

4K-compatible BRAVIA TV, an original Sony system enables display of 4K 60p/50p footage. Latest firmware provides compatibility with the latest HDMI standard (so called HDMI 2.0) and enable 4K 50p/60p output to a wider range of devices. Other features include a 3G HD-SDI interface that supports output to an SDI of up to HD 60p. It also supports HD output during 4K recording. \* Cannot output 4K (HDMI) and HD (3G HD-SDI) simultaneously.

### Paint function for more creative freedom

This enables adjustment of gamma curve, black level, skin detail, color and other parameters that determine image characteristics. Together with other settings, parameter settings can be recorded as a camera profile on a memory card. The recorded camera profile can then be used to set the same parameters in another PXW-Z100 to enable matching of quality and image tones when using a multicamera setup.

### Focus Assist Functions

Various functions are provided to help with precise control of focus. These include Color Peaking, One-push Auto Focus, Focus Magnifier, and the Auto Focus function.

### Timecode IN/OUT

### Remote control with WiFi



# HXR-NX3/1

## High Quality 3CMOS Handheld Camcorder

### Original Sony lens, sensor, and LSI technology

for impressive imagery The HXR-NX3/1 imaging advantage begins with a Sony G Lens that offers stunning image quality as well as a wide zoom range. Behind that lens is a 3CMOS Sensor system with three 1/2.8 type sensors providing a 2.07 million effective pixel count at the 16:9 aspect ratio. Red, blue, and green light are independently and accurately captured by separate image sensors, contributing to high resolution, high sensitivity, and wide dynamic range that translate to extraordinarily natural color reproduction. A highly developed LSI that includes advanced noise reduction and several distortion correction technologies handles image processing, allowing clear, low-noise recordings to be captured even in low light. Recorded images are remarkably lifelike in texture and detail.

### 40x Clear Image Zoom

expansive 28.8 mm (35mm fullframe format equivalent) angle of view at the wide end, with a 20x optical zoom range. Clear Image Zoom employs Super Resolution Technology to provide excellent image quality at a 40x range.



Wide angle (28.8 mm)



40x Clear Image Zoom (1152 mm)

### Slow & Quick Motion

Smooth slow or quick motion with full HD quality is available without any extra processing. 1/2.5x-slow motion can be easily achieved by setting the recording format to 23.98p and the frame rate to 60 fps. If you'd rather speed up the action the frame rate can be set to 1 fps for 60x-quick motion when recording at 60p.

### Built-in LED video light

illumination for a wide range of shooting situations and minimizing the need to carry external lighting equipment. Illumination is approximately 200 lux/1m (approx. 800 lux/0.5m) with a beam angle of 30° and a color temperature of approximately 5500K. An external microphone connected via the XLR connector may cast a shadow if used simultaneously with the built-in LED light.

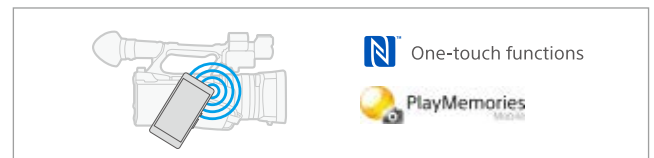
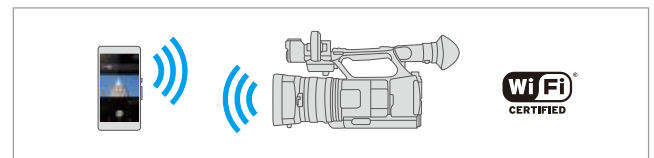


### XAVC S 50Mbps

Enjoy higher image quality of Full HD XAVC S 50Mbps by firmware update (v2.0).

### Wi-Fi file transfer and remote control

Wi-Fi operation cannot be guaranteed with all smartphones and tablet computers.



### Timecode and HDMI embedded timecode output

Dual media slots, "Simul" or "Relay" recording, and independent rec control

AVCHD 2.0 (1080 60p) and DV recording

**NXCAM**

**Exmor™**  
3CMOS Sensors

**AVCHD™**



**Wi-Fi**  
CERTIFIED

**MEMORY STICK™**





# HXR-NX100

## 1.0-type CMOS Compact Solid-State Memory Camcorder

### 1.0-type Exmor® R CMOS Sensor for stunning picture quality

Sony's unique 1.0-type Exmor R back-illuminated CMOS sensor which is approximately the same size as a Super 16mm film frame, delivers high resolution and fantastic low light performance, as well as offering more depth of field control as demanded by today's diverse shooting requirements. High sensitivity and fantastic resolution with 20 mega pixels\*<sup>1</sup> delivers striking detail and colours, with minimum illumination 1.7 lux\*<sup>2</sup>.

\*<sup>1</sup> 14.2 million effective pixels \*<sup>2</sup> LOW LUX mode



**1.0-type**  
13.2 × 8.8mm



**1/2.3-type**  
5.9 × 4.4mm



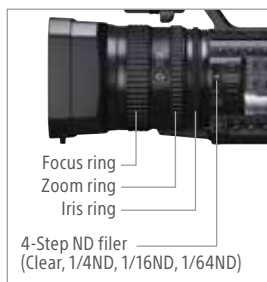
**1/3-type**  
8.8 × 6.6mm

### Maximum 48x zoom for wide range shooting

The Sony G lens offers a 12x Optical Zoom from 29mm angle of view at wide end, which can be increased to 24x with Clear Image Zoom while retaining full resolution thanks to By Pixel Super Resolution Technology. Zoom performance can be doubled at any point with a Digital Extender up to 48x.

### Three independent manual lens rings, built-in 4-step ND filter and other professional functions

3 Manual lens rings ensure intuitive control of zoom, focus and iris. The HXR-NX100 is equipped with 4 step conventional mechanical ND filter positions (Clear, 1/4ND, 1/16ND and 1/64ND) for better exposure and depth of field control in bright scene, 0.24 type 1550K dots EVF and 3.5 type 1550K dots LCD for easy monitoring.



### Dual media slots for recording flexibility

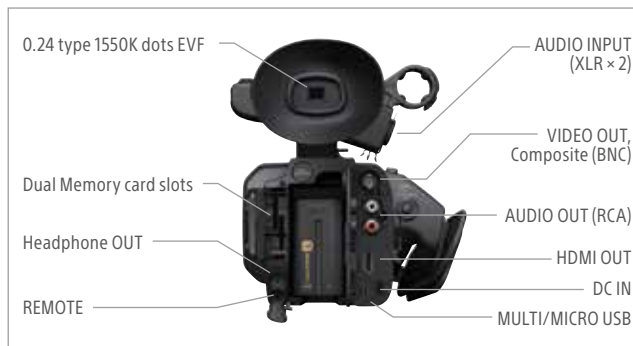
Two memory card slots enable various recording options such as backup, simultaneous, relay and independent recording. "SIMUL" mode permits simultaneous recording to two memory cards, while "RELAY" mode automatically switches recording from the first to the second memory card when the first is full. The user can also use buttons on the camcorder to independently start and stop recording on different memory cards.

### Wide choice of connections

The NX100 provides a wide variety of connectivity options including HDMI, Multi/Micro USB, XLR terminals, REMOTE, Composite (BNC) and Multi Interface (MI) Shoe, which allows for a wide range of accessories without the need for cables, such as the HVL-LBPC Video Light and the UWP-D wireless microphone series.

### Breadth of recording format capabilities

The NX100 provides multiple choices including AVCHD and DV which are suitable for conventional workflow, and newly implemented XAVC S 50Mbps, which realizes better image quality or professional needs.



**FXCAM**

**AVCHD**  
Progressive

**XAVC S**

**G**

**Exmor R**  
CMOS Sensor

**MEMORY STICK**

**SX**



# HXR-MC2500

## Solid-State Memory Camcorder

### Highly-sensitive Exmor™ R CMOS sensor and built-in LED light

The HXR-MC2500 is capable of shooting clearly even in low-light or indoor environments. Its highly-sensitive Exmor™ R CMOS sensor adopts a back-illuminated technology that enables the image sensor to utilize incidental light more efficiently (minimum illuminance of 0.8 lux\* [60i], 0.7 lux [50i]\*\*). The HXR-MC2500 is also equipped with a convenient built-in LED light for valuable extra illumination.

\* Manual setting mode: Shutter Speed - 1/15 sec, F1.8, Gain33dB

\*\* Manual setting mode: Shutter Speed - 1/12 sec, F1.8, Gain33dB



### Wi-Fi/NFC functions for seamless connection to smartphones

The HXR-MC2500 can connect to mobile devices such as smartphones or tablets via a Wi-Fi connection, enabling monitoring and remote control functions such as start/stop recording, zoom control, iris control and touch auto focus. Furthermore, it is also NFC-capable (Near Field Communications) to allow easy, one-touch wireless connections to compatible mobile devices.

High contrast 1.44 million dots OLED viewfinder and 0.92 million dots 3-inch wide LCD panel

### 32GB internal flash memory and low power consumption

A 32GB internal flash memory storage system on board of the HXR-MC2500 enables longer duration recording of more than 150 minutes. In addition, by using a combination of the internal flash memory and memory card in the MS/SD slot, recording functions such as "Relay" and "Simultaneous" for backup can be available. When Sony's L-Series InfoLithium batteries (such as the optional NP-F970) are used, the HXR-MC2500 is capable of continuous long recording of up to 14 hours.

### 26.8 mm Wide-Angle Lens

### Multi-Interface (MI) Shoe

Expands options to use accessories without cables, such as the UWP-D11 wireless micro phone receiver and XLR audio input by XLR adapter

### BNC Composite Terminal

### TC/UB Implementation



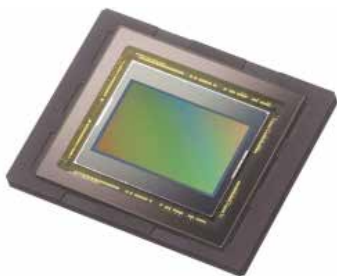


## PXW-FS7/FS7K

### Solid-State Memory Camcorder

#### High-sensitivity 4K Super35 "Exmor" CMOS Sensor

The FS7 is equipped with a Super 35 "Exmor" CMOS Sensor with approximately 11.6 million total pixels and 8.8 million effective pixels. The high image readout speed of the image sensor allows the FS7 to support 4K motion- picture shooting and Super Slow Motion. The sensor also realizes a high sensitivity of ISO20000 and a wide dynamic range of 14 stops. Thanks to its full-pixel readout capability without pixel binning and sophisticated camera processing, jaggies and moiré are minimized.



**Exmor**  
CMOS Sensor

#### Full HD recording with Super Slow Motion

The FS7 offers Continuous Recording at Full HD image quality and a frame rate of up to 180fps. This makes it possible to attain up to 7.5x Super Slow Motion when played back at 23.98fps. Furthermore, support for unlimited shooting at Super Slow Motion means no more mistimed shots leading to extra takes. It also lets you pick out footage at exactly the point that you want.

#### Internal recording in 4K\*1 resolution at 60fps\*2

The FS7 supports internal recording at 4Ki resolution as well as a wide range of frame rates (59.94p, 50p, 29.97p, 25p, and 23.98p).

\*1 Support for QFHD 3840 x 2160 resolution will be available by the date of launch. 4096 x 2160 resolution support will be provided by firmware update scheduled for early 2015.

\*2 59.94fps

#### Supports various formats

The FS7 supports two formats, XAVC and MPEG-2 HD 422, which can be selected to suit the application. Two XAVC compression systems (IntraFrame and Long GOP) are provided through an H.264/MPEG-4 AVC codec. IntraFrame supports recording with 4:2:2 10-bit sampling for 4K and Full HD, as well as a high bit rate of up to 600 Mbps\*3. In Long GOP, image quality and recording time are balanced to allow Full HD shooting with 4:2:2 10-bit sampling at 50, 35 or 25 Mbps, making this format suitable for longer duration shooting. Support is also provided for the MPEG2 HD 422 recording format which is mainly used at broadcast stations around the world. Supported formats and bit rates are indicated below.

\*3 During 4K 59.94 fps recording.

#### Support for S-Gamut3.Cine/S-Log3, S-Gamut3/S-Log3 and other log curves

The FS7 supports such log gamma curves as S-Gamut3.Cine/S-Log3 and S-Gamut3/S-Log3. Due to the fact that 18% gray is set at a bright level, S-Log3 is noted for delivering a wider dynamic range than the 1300% achieved by S-log2 incorporated in camera such as the NEX-FS700, a difference equal to 1.5 stops. The log gamma itself is close to Cineon log, so color correction is easier to perform and it is possible to achieve the look of film. In addition, compared to the color gamut of S-Gamut3.Cine, which is geared toward reproducing the wide color gamut of DCI-P3 color space used in digital cinema, the color gamut of S-Gamut3 is geared toward the reproduction of almost all actual colors, and is thereby suitable for archival purposes. In latest version, S-log2 which is popular among cinematographers and videographers is supported as well.

#### Two XQD media slots support simultaneous and relay recording

#### Built-in Multi-Interface (MI) Shoe

**XDCAM HD**

**Exmor**  
CMOS Sensor

**XAVC**

**MPEG HD422**

**XQD**



### Built-in ND filter unit

Clear, 1/4 (2eV), 1/16 (4eV), and 1/64 (6eV)



### Support for 4-channel Audio Input and Recording



### Flexible design supports a wide range of shooting styles

The FS7 is equipped with a shoulder pad for stable shoulder-style shooting. Users can also choose other supported shooting styles including handy style, chest style (using the curved rear part of the FS7), tripod shooting, etc. depending on conditions



### Extension Unit "XDCA-FS7" for shooting support

Extension Unit "XDCA-FS7" can be connected directly to the PXW-FS7 to enable the use of functions that support the operator's shooting style or workflow.



XDCA-FS7



VCT-FS7

### RAW output for external 4K/2K RAW recording

The FS7's FS RAW Interface can be connected to an HXR-IFR5 interface unit and RAW AXS-R5 recorder to enable external 4K/2K RAW recording. The interface also allows the use of compatible third-party external recorders. Full HD footage shot with the unit is time code-synchronized to allow offline editing of the content.

### Precise timecode synchronization provided by Genlock

### Timecode In/Out functions

### Support for Apple ProRes 422 recording

The FS7 now supports ProRes recording\* (ProRes 422 HQ and ProRes 422)\*\*, providing an easy-to-use environment for those accustomed to the ProRes workflow. \* ProRes recording requires attachment of the optional XDCA-FS7 extension unit and a compatible optional power supply (BP-FL75 V-mount battery, etc.) \*\* This function does not support simultaneous recording, S&Q recording, Picture Cache Rec or other special shooting functions. The corresponding frame rates are listed below.

## ProRes

| Format        | Resolution  | Wrap | Frame-Rate |
|---------------|-------------|------|------------|
| ProRes 422 HQ | 1920 × 1080 | MOV  | 59.94i     |
|               |             |      | 29.97p     |
|               |             |      | 23.98p     |
|               |             |      | 50i        |
|               |             |      | 25p        |
| ProRes 422    | 1920 × 1080 | MOV  | 59.94i     |
|               |             |      | 29.97p     |
|               |             |      | 23.98p     |
|               |             |      | 50i        |
|               |             |      | 25p        |



# PXW-FS5/FS5K

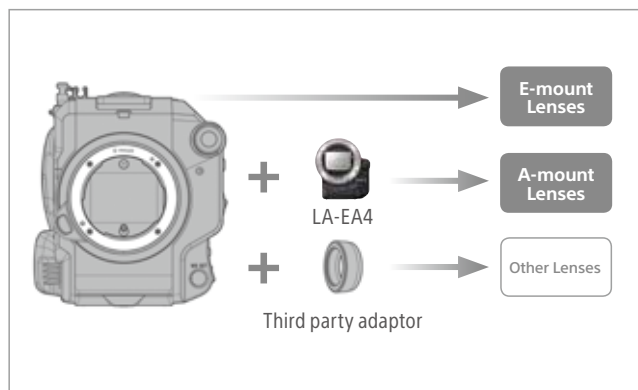
## Solid-State Memory Camcorder

### Grab and Shoot with handheld super 35

A handheld camera should be able to get you into tight places. To work in your lap. To move with the talent. To shoot high and low angles with equal agility. And a handheld camera should function beautifully against your chest comfortably steadied by your right hand with all the controls at your fingertips. Sony's extraordinary PXW-FS5 does all of this, and more.

### $\alpha$ mount flexibility

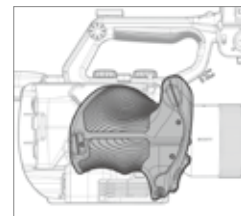
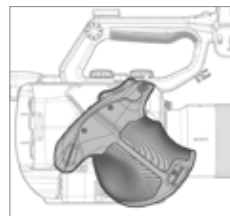
Sony's  $\alpha$  mount system offers unsurpassed compatibility with both Sony and third-party lenses. The FS5's E-Mount can take Cinema lenses and SLR lenses with a third party adaptor, as well as Sony's E-mount and A-mount lenses. So whether buying new lenses, or making use of lenses you've already purchased, the FS5 makes it easy.



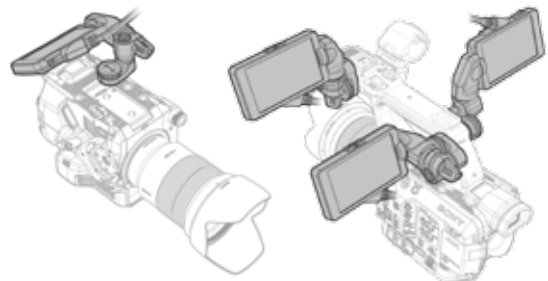
### Ultimate mobility

The FS5 is a radical re-imagining of the FS7 for unsurpassed on the go shooting in the most demanding of conditions. With a body-only weight less than half the FS7 at 0.83kg, you can shoot almost anywhere. Handheld operation is simply exceptional as the superbly balanced chassis is easily configured to shoot from high to low angles thanks to a flexible, rotatable grip and a LCD viewfinder that can be mounted in no less than nine locations.

0.8Kg



Rotatable Grip



Versatile monitoring

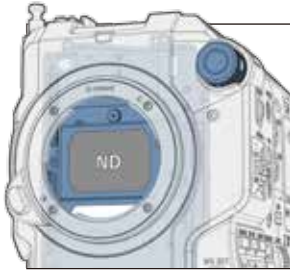
## 4K Super 35 Exmor® sensor

The FS5 is built around a "Exmor" CMOS Sensor that offers all the benefits of a large format sensor in combination with the exceptional image readout speeds required for 4K motion-picture shooting and Super Slow Motion.

## Built-in Electronic Variable ND Filters

The FS5 is the world's first Super 35mm camcorder\* with a built-in electronic variable Neutral Density (ND) filter, further expanding the depth of field capability of its large format sensor. Unlike conventional optical ND filters, the electronic ND filter on the FS5 can be controlled from 1/4ND to 1/128ND linearly. This makes the FS5 ideal for fast-moving shoots in changeable environments - there's no need to change filters as lighting conditions change and variable control makes it easy to keep depth of field under control.

# 1/128<sub>ND</sub>



Std. Gamma, ISO1000 F2, No ND Filter (Clear)



Std. Gamma, ISO1000 F2, 1/128ND

## Colour, contrast and the XAVC codec

When quality is everything, make the most of the FS5's Super 35 Exmor sensor and shoot 100Mbps 4K (3840 x 2160) using Sony's advanced XAVC (Long GOP) recording system. In the future, there will even be the option to record RAW externally (details to be announced). If you need a fast turnaround, switch to Full-HD (1920 x 1080)- recording at up to 60p XAVC 10bit 4:2:2 50Mbps. The FS5 has the flexibility to suit how you need to work, today and tomorrow.

# Full HD 10<sub>bit</sub>

## High Frame Rate (HFR) recording

The FS5 offers High Frame Rate (HFR) cache recording at Full HD 10bit 4:2:2 image quality and a frame rate of up to 240 fps. The 8-second cache recording means no more mistimed shots leading to extra takes. It also lets you pick out footage at exactly the point that you want. It is also possible to record 120 fps with up to 16-second cache recording. Higher frame rates of 480 fps and 960 fps are also possible

# 240<sub>fps</sub>





# NEX-FS700R/RH

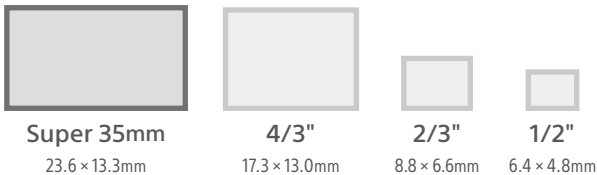
## Super Slow Motion NXCAM Camcorder

FS700R Body only / FS700RH supplied with lens (SEL18200)

### 4K Exmor Super35 CMOS Sensor

The NEX-FS700R is equipped with a high quality 11.6M pixel Exmor Super35 CMOS sensor. This has a total of 4352 x 2662 pixels, and provides a future capability of 4K-size (4096 x 2160) motion picture shooting. Based on Exmor technology, this sensor has very high-speed image readout characteristics, such as a 240 fps reading in full-HD quality (1920 x 1080). Additionally, it has over 11M pixels in total, and the Exmor Super35 CMOS sensor realizes high sensitivity and a high signal-to-noise ratio (S/N). This means that the NEX-FS700R can shoot in minimum illumination (as low as 0.28\*1 lux).

\*1: When using a fixed shutter speed of 1/30, auto gain, and an iris setting of F1.4. The SELP18200 lens supplied with the NEX-FS700RH enables shooting in illumination as low as 1.5 lux when using a fixed shutter speed of 1/30, auto gain, and auto iris.



### Full-HD 10x Super Slow Motion

Thanks to the high-speed image data reading characteristics of the new Exmor Super35 CMOS sensor, the NEX-FS700R can capture full-HD images (1920 x 1080) at 120 or 240 fps of burst recording in 60Hz shooting mode. Using playback at 24 fps, the camcorder can simply and beautifully realize a maximum quality of full-HD 10x super slow motion pictures. For very high-speed shooting, you can choose 480- and 960-fps recording at a reduced resolution, widening your creative options.

As this table shows, the recording time depends on the frame rate.

|                    |         |         |         |         |
|--------------------|---------|---------|---------|---------|
| Frame rate (60 Hz) | 120 fps | 240 fps | 480 fps | 960 fps |
| Recording time     | 16 sec  | 8 sec   | 9 sec   | 19 secs |
| Frame rate (50 Hz) | 100 fps | 200 fps | 400 fps | 800 fps |
| Recording time     | 19 sec  | 9 sec   | 12 sec  | 23 secs |

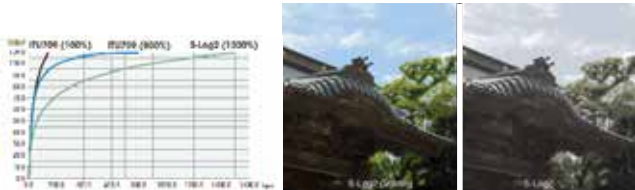
### Built-in ND Filters

### 3G HD-SDI and HDMI Output

### Picture Profile with S-Log2 Gamma Curve

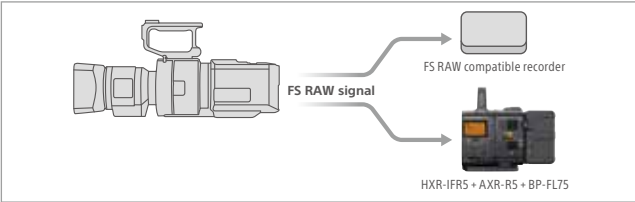
Picture Profile lets you make adjustments to the gamma curve, black level, color and other parameters that determine image characteristics. In the NEX-FS700R, S-Log2 has been added to the selection of gamma curves provided. S-Log2 is a gamma curve specifically designed to make the most of the sensitivity characteristics of the Exmor super 35 CMOS sensor. For more natural highlight rendition, S-Log2 extends dynamic range to 1300%. During shooting in S-Log2, although color grading is necessary, extremely wide latitude recording lets you capture highlights that would ordinarily be blown out. In addition, the FS700R matches the standard ITU709 gamma curve for low to mid-range luminance values, but extends dynamic range to ITU709 (800%) for high luminance values. This lets you maintain dynamic range for high luminance signals during shooting with minimal color grading.

\* Since S-Log2 is designed for 10-bit recording, contrast of dark areas may be insufficient when recording 8-bit AVCHD



### RAW Recording Option

Sony empowered the NEX-FS700R with a brilliant 4K image sensor featuring 4096 x 2160 resolution. 4K RAW delivers the sensor's full resolution and full exposure latitude. RAW recording preserves the integrity of the original camera signal for superlative image quality and amazing flexibility in post. Now you can unlock all that picture quality and record it on an optional 3rd party external RAW recorder with a single 3G-SDI connection. For those who use the AXS-R5 flagship RAW recorder, the interface unit HXR-IFR5 is needed.\*







# NEX-EA50M/H

## Large Format Sensor NXCAM Camcorder

EA50H Body only / EA50M supplied with lens (SELP18105G)

### Exmor™ APS HD CMOS sensor

The Exmor APS HD CMOS sensor produces high-quality, creative video images with low noise and high sensitivity in low-light conditions, and enables 1080 progressive and interlace recording with 60/50 Hz selection (50p/25p/50i or 60p/29.97p/23.98p/60i\*).

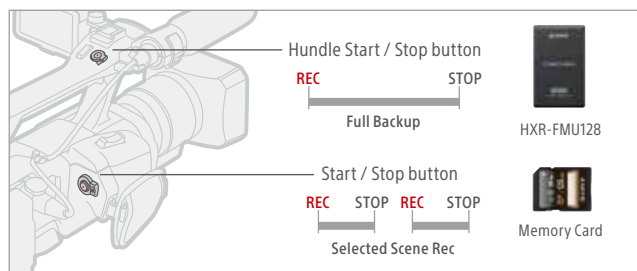
\* 60p/i means 59.94p/i. 29.97p and 23.98p mean 29.97p and 23.98p, respectively.

| APS-C   | 4/3"          | 2/3"          | 1/2"        |
|---|---------------|---------------|-------------|
| 23.5 × 15.6mm                                     | 17.3 × 13.0mm | 8.8 × 6.6mm   | 6.4 × 4.8mm |
| Total pixels                                      |               | Approx. 16.7M |             |
| Effective pixels in moving shooting (16:9)        |               | Approx. 13.6M |             |
| Effective pixels in still picture shooting (16:9) |               | Approx. 13.6M |             |
| Effective pixels in still picture shooting (3:2)  |               | Approx. 16.1M |             |

### Rec Button Set Function

Independent recording control can be set for simultaneous recording on a memory card and the optional HXR-FMU128 Flash Memory Unit by assigning recording media control to two separate START/STOP buttons on the NEX-EA50K. When simultaneously recording an AVCHD movie on both a memory card and flash memory unit\*, the user can start and stop recording on these media at different times, simply by operating the START/STOP buttons on the camcorder or on its handle. This is very useful, for example, when recording selected scenes to a media card while also achieving longduration backup recording to the flash memory unit.

\* HD mode only. Not available in DV mode or SD mode.



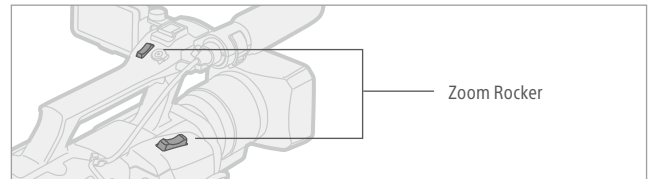
### Variable Shooting Styles

The unique design of the NEX-EA50K further adds to the camcorder's versatility. When the shoulder pad is extended, it enables you to balance the camcorder on your shoulder giving added stability for long-duration shooting. Alternatively, when the shoulder pad is returned to the original position, the camcorder becomes compact enough to use in various handheld styles, allowing you to capture a huge variety of shots.



### Digital Zoom Function

Using fixed focal length lenses, you can simulate a zoom effect by using the digital zoom function, ensuring you never miss a shot in fast-paced environments. Up to 2X electric zoom with 32-step variable speed can be conveniently controlled via a zoom rocker lever located on the camcorder grip and the camera handle, and also controlled by the RM-1BP remote commander (optional accessory).



### Power Zoom Lens



NXCAM

Exmor™  
APS HD CMOS

AVCHD  
Progressive

MPEG2 SD

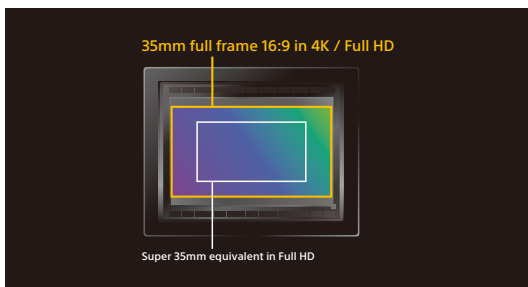
DV

MEMORY STICK™

SD™

GPS

Multi  
Interface Shoe



**Exmor**  
CMOS Sensor

**BIONZ X**

**4K**  
3840 x 2160

**XAVC S**

5-axis  
SteadyShot  
INSIDE

**XGA OLED**  
Tru-Finder

## $\alpha 7S II$

Ultra-high sensitivity up to ISO 409600 with wide dynamic range and internal 4K movie recording

- Ultra-high sensitivity up to ISO 409600\*<sup>1</sup> and wide dynamic range for stills and movies, thanks to the 35mm full-frame Exmor CMOS sensor with 12.2 megapixels\*<sup>2</sup>
- Internal 4K (QFHD: 3840 x 2160)\*<sup>3</sup> movie recording in full-frame format features full pixel readout\*<sup>4</sup> with no binning for higher image quality
- Professional video features include S-Gamut3.Cine/S-Log3 profile as well as XAVC S
- Full HD recording at 120fps and 4x/5x slow motion recording
- 5-axis optical image stabilization extends the expressive potential of still and movie images
- Fast Intelligent AF with enhanced speed and accuracy performs reliably in light as low as EV -4
- XGA OLED Tru-Finder™ with ZEISS® T\* Coating features viewfinder magnification of 0.78x\*<sup>5</sup>

\*<sup>1</sup> Standard ISO range: 100-102400 for stills and movies.

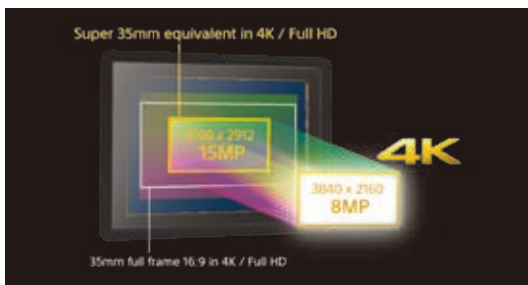
Expandable ISO range: 50-409600 for stills, 100-409600 for movies.

\*<sup>2</sup> Approximate effective megapixels.

\*<sup>3</sup> Internal recording and HDMI output, both at 4K resolution, are available in full-frame format.

\*<sup>4</sup> 1 in 29.97p (25p)/23.98p movie setting.

\*<sup>5</sup> The viewfinder magnification is approx. 0.78x (with 50mm lens at infinity, -1m<sup>-1</sup>).



**Exmor R**  
CMOS Sensor

**BIONZ X**

**4K**  
3840 x 2160

**XAVC S**

5-axis  
SteadyShot  
INSIDE

**XGA OLED**  
Tru-Finder

## $\alpha 7R II$

The world's first\*<sup>1</sup> back-illuminated 35mm full-frame Exmor R™ CMOS sensor with 42.4 megapixels\*<sup>2</sup>

- Exmor R CMOS sensor with 42.4 megapixels\*<sup>2</sup>
- BIONZ X™ image processing engine
- High sensitivity up to ISO 102400\*<sup>3</sup>
- Fast Hybrid AF upgraded to 399-point wide focal plane phase-detection AF coverage
- 5-axis optical image stabilization for stills and movies
- Higher-resolution 4K (QFHD: 3840 x 2160) movie recording features full pixel readout without pixel binning in Super 35mm format
- XGA OLED Tru-Finder with ZEISS® T\* Coating features viewfinder magnification of 0.78x\*<sup>4</sup>
- High-bit-rate XAVC S movie recording

\*<sup>1</sup> Among digital still cameras equipped with a 35mm full-frame image sensor.

As of June 2015 based on Sony research.

\*<sup>2</sup> Approximate effective megapixels.

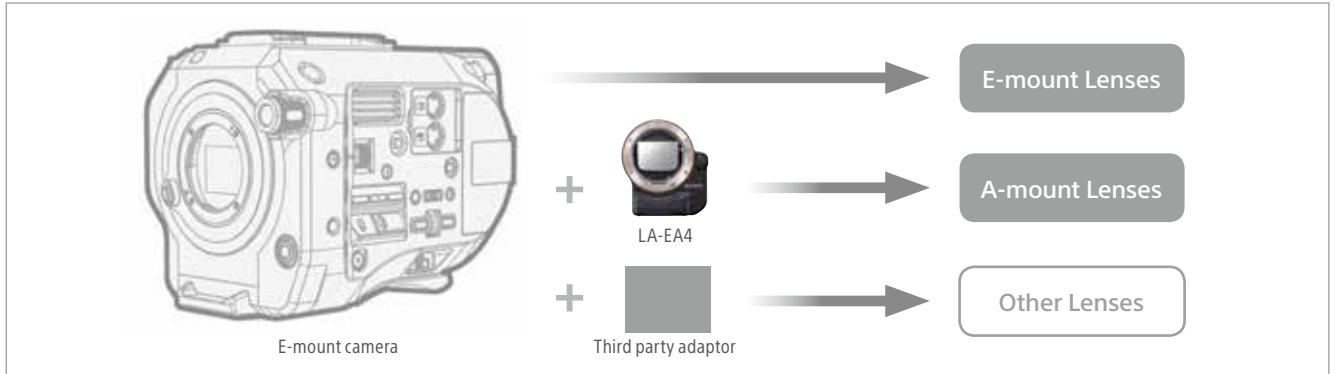
\*<sup>3</sup> ISO 100-25600 expandable to ISO 50-102400 for shooting still images.

\*<sup>4</sup> The viewfinder magnification is approx. 0.78x (with 50mm lens at infinity, -1m<sup>-1</sup>).

# α Mount System for a Wide Selection of Lenses

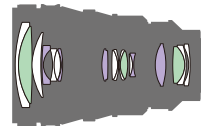
## E-Mount Interchangeable Lens System

Sony E-mount interchangeable lens system enables to attach not only Sony Lenses, but also an unrivalled choice of other-brand lenses using third-party adapters.



### E mount FE PZ 28-135mm F4 G OSS SELP28135G

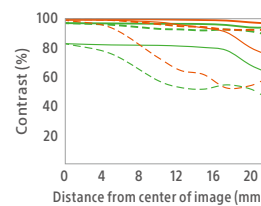
Full ED IF SSM PZ



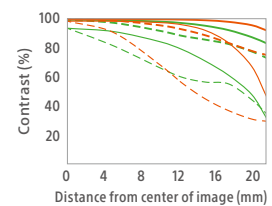
- Lens groups/elements: 12 / 18
- Minimum focus: 0.4 m (AF) / 0.95 m (MF)
- Filter diameter: 95 mm
- Size: 105 mm (diameter) x 162.5 mm (length)
- Weight: approx. 1190 g (without tripod mount)

● Aspherical lens ● ED glass

■ 28 mm focal length



■ 135 mm focal length



(R: radial target, T: tangential target)

This top-quality powered zoom lens for 35mm full-frame format cameras has been created to satisfy professional moviemaking requirements, including the high resolution 4K format. Focus breathing and zoom image shift have been reduced to an absolute minimum, while aspherical elements and advanced multi-coating technology effectively suppress aberration. Quiet operation is also a priority, so an SSM (Super Sonic

wave Motor) drive system has been employed for precise, quiet zooming. Independent control rings for zoom, focus, and aperture are provided for the first time in an α lens. Built-in Optical SteadyShot image stabilization adds to the extraordinary performance of this outstanding lens.

### E mount FE 70-200 F4 G OSS SEL70200G

Full ED Nano AR Coating FRL OSS



- Lens groups/elements: 15/21
- Minimum focus: 1.0 m (wide) - 1.5 m (Tele)
- Filter diameter: 72 mm
- Size: 80 mm (diameter) x 175 mm (length)
- Weight: approx. 840 g (without tripod mount)



● Advanced aspherical lens ● Aspherical lens  
● ED glass ● Super ED glass

### E mount Vario-Tessar T\* FE 16-35mm F4 ZA OSS SEL1635Z

Full ED IF



- Lens groups/elements: 10/12
- Minimum focus: 0.28 m
- Filter diameter: 72 mm
- Size: 78 mm (diameter) x 98.5 mm (length)
- Weight: approx. 518 g



● Advanced aspherical lens ● Aspherical lens ● ED glass

Full 35 mm full-frame format APS-C APS-C format Circular aperture ED (Extra-low Dispersion) glass / Super ED Aspherical lens / Advanced aspherical lens  
Nano AR Coating Nano AR Coating Internal focusing Rear focusing FRL Focus range limiter / Electronic Focus range limiter Focus hold button Auto clutch

# Accessories

## Battery and Charger BP-U Series



### Specifications

|                        | BP-U90   | BP-U60  | BP-U60T  | BP-U30  |
|------------------------|--|---|--|---|
| Maximum voltage        | 16.4 V DC  |   |  |   |
| Nominal voltage        | 14.4 V DC  |   |  |   |
| Nominal capacity       | 85 Wh  | 57 Wh   |  | 28 Wh   |
| Operating temperature  | -20°C to +45°C (-4°F to +113°F)                            |   |  |   |
| Dimensions (W x H x D) | 41.5 x 120.7 x 69.7 mm<br>(1 11/16 x 4 7/8 x 2 3/4 inches) | 41.5 x 82.5 x 69.7 mm<br>(1 11/16 x 3 1/4 x 2 3/4 inches) | 41.5 x 102.5 x 69.7 mm<br>(1 11/16 x 4 1/8 x 2 3/4 inches) | 41.5 x 45.1 x 69.7 mm<br>(1 11/16 x 1 13/16 x 2 3/4 inches) |
| Mass                   | 630 g (1 lb 6 oz)  | 420 g (15 oz)   | 450 g (16 oz)  | 220 g (8 oz)  |
| Supplied accessory     | Operating Instructions (1)                                 |   |  |   |



#### BC-U2

Two-channel Simultaneous Battery Charger

- Simultaneously charges two BP-U90/U60/U30 batteries
- Can charge one battery while supplying DC power to a camcorder



#### BC-U1

Battery Charger

- Charges one BP-U90/U60/U30 battery
- 12 V DC power output

### Specifications

|                               | BC-U2   | BC-U1  |
|-------------------------------|---|--|
| Power requirements            | 100 V AC to 240 V AC, 50/60 Hz  |  |
| Power consumption             | 85 Wh   | 38 Wh  |
| Operating temperature         | 0°C to 45°C (32°F to 113°F)   |  |
| Dimensions (W x H x D)        | 177 x 53.2 x 137 mm<br>(7 x 8 1/8 x 5 1/2 inches)                     | 128 x 45 x 98 mm<br>(5 1/8 x 1 13/16 x 3 7/8 inches) |
| Mass                          | 650 g (1 lb 7 oz)   | 330 g (12 oz)  |
| DC output                     | 12 V, 2.0 A   |  |
| Number of mountable batteries | 2   | 1  |
| Chargable battery             | BP-U90/BP-U60/U30   |  |
| Supplied accessories          | Operating Instructions (1), DC output cable (1), Warranty Booklet (1) |  |

### Approximate Charge Time

| Model name (capacity) | BC-U2     |           | BC-U1     |
|-----------------------|-----------|-----------|-----------|
|                       | 1 battery | 2 battery | 1 battery |
| BP-U90 (85 Wh)        | 190       | 190       | 220       |
| BP-U60 (57 Wh)        | 150       | 150       | 170       |
| BP-U30 (28 Wh)        | 130       | 130       | 130       |

unit: minutes



## Battery and Charger L / V / W-Series

### Batteries L-series



#### Specifications

|             | NP-F970  |
|-------------|----------|
| Voltage     | 7.2 V    |
| Capacity    | 6300 mAh |
| Performance | 45 Wh    |



AC-VQ1051D

AC Adapter / Charger compatible with L-series

- InfoLITHIUM™ batteries

### Batteries V-series



#### Specifications

|             | NP-FV50 | NP-FV70  | NP-FV100A |
|-------------|---------|----------|-----------|
| Voltage     | 6.8 V   | 6.8 V    | 7.4 V     |
| Capacity    | 980 mAh | 1960 mAh | 3410 mAh  |
| Performance | 6.6 Wh  | 13.0 Wh  | 25.0 Wh   |



AC-VQV10

AC Adapter / Charger compatible with V-series

- Quick and easy charging for InfoLITHIUM™ P/M/V series batteries

### Batteries W-series For $\alpha$ series



#### Specifications

|             | NP-FW50  |
|-------------|----------|
| Voltage     | 7.2 V    |
| Capacity    | 1020 mAh |
| Performance | 7.3 Wh   |



BC-TRW

Battery Charger compatible with W-series

- Quick and easy charging for InfoLITHIUM™ W series batteries

## Video Light



HVL-LBPC

Battery Video Light

## Wireless LAN



CBK-WA100

Wireless LAN Adapter



CBK-NA1

Network Adapter Kit



CBK-WA02

5GHz/2.4GHz Wireless LAN Adapter

## Carrying Case



LCS-G1BP

Soft Carrying Case

# Accessories

## Recording Media



**SBP-256D/128D/64D**  
SxS PRO+ Memory Card



**SBS-128/64/32G1B**  
SxS-1 Memory Card



**QD-G128A/64A/32A**  
XQD Memory Card



**SF-G1/64/32/16UZ**  
SDXC/SDHC Memory Card



**SF-G1/64/32UX2**  
SDXC/SDHC Memory Card



**MS-HX32B**  
Memory Stick PRO-HG Duo™



**QDA-EX1**  
XQD Express Card Adapter



**MEAD-SD02**  
SD Card Adapter  
for XDCAM



**SBAC-UT100**  
Thunder bolt2 and USB3.0  
Reader/Writer for SxS



**SBAC-US30**  
USB3.0 reader/writer  
for SxS



**MRW-E90**  
Card Reader for  
XQD and SD



**MRW-E80**  
Card reader for XQD



**QDA-SB1**  
USB adapter for XQD



### HXR-FMU128

128 GB flash memory recording unit

The HXR-FMU128 Flash Memory Unit is an optional solid-state memory recorder designed for NEX-FS700, NEX-FS100 and NEX-EA50 camcorders, and attaches directly to the right side of the camera with ease. Hybrid recording functionality is possible by being able to record on both the HXR-FMU128 and Memory card at the same time. The unit also offers long recording times of up to 10 hours at the highest HD quality (28Mbps) and 11 hours at 24 Mbps



## Audio



### UWP-D11



**UTX-B03** Bodypack Transmitter  
**URX-P03** Portable Receiver



### UWP-D12



**UTX-M03** Handheld Wireless  
Microphone  
**URX-P03** Portable Receiver



### UWP-D16



**UTX-P03** Plug-on Transmitter  
**UTX-B03** Bodypack Transmitter  
**URX-P03** Portable Receiver



**ECM-VG1**  
Shotgun Microphone



**ECM-MS2**  
Stereo Microphone



**SMAD-P3**  
MI SHOE ADAPTER



**ni** Multi  
Interface Shoe

### SMAD-P3 + URX-P03 with Camcorder

- No need audio cable
- Power supply from camera\*- On/Off control from camera\*

\*1 For details on cameras that support this unit, visit the Sony website.

## Software



### Catalyst Browse

Catalyst Browse is a free, simple viewing and logging tool exclusively for all Sony 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 colour space support for accurate viewing, basic colour correction and colour looks, copying from the device to a local hard drive, transcoding files to a variety of formats, and ingesting and exporting clip lists for the 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 first-pass 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 RAW media from beginning to end.



To find out more and download a free trial please see:  
<http://www.sonycreativesoftware.com/catalyst>

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