Canon’s XF and XA Series professional high-resolution camcorders deliver performance where it counts — in the field, in the studio, wherever and whenever you need maximum image quality and full creative control. With a unique combination of ultra-resolution zoom lenses, high-caliber CMOS image sensors, powerful DIGIC DV Image Processors and industry-standard compression codecs, these systems not only provide outstanding image quality but also the operability, flexibility, reliability and connectivity professionals demand. Videographers will find these tools capable of capturing creative, powerful, immersive video content. They are ready to go to work on a range of projects, from broadcast journalism to filmmaking.

“Many of our shooters use Canon digital SLR cameras and lenses, which provide unbelievable quality. We had three cameras shooting per shift around the clock for two months. The Canon XF305 delivered fantastic performance in the mine.”

Eric Lange / Co-Executive Producer for “Coal,” a reality TV series.

Left: Camera operator Dawson Childers using a Canon XF305 Professional HD Camcorder to shoot “Coal” on location in West Virginia.
Right: Camera operators use Canon XF305 Professional HD Camcorders to capture the action of sporting events for the St. John’s University athletic website. Photo credit: Camera operator Casey L. Warren using the Canon EOS 5D Mark II Digital SLR at Carnesecca Arena / St. John’s University in Queens, New York.
Genuine Canon HD Video Zoom Lens

The XF305 and XF300 HD Camcorders feature a stunning 18x HD L-Series video lens designed to capture images with superb clarity, and capable of delivering 1000 TV lines of resolution. A 35mm equivalent zoom range of 29.3-527.4mm, the lens provides a versatile zoom range that can be extended with optional Canon wide-angle or teleconverter lenses. Close-focusing capability is maintained throughout the entire zoom range, and a maximum aperture of f/1.8 enhances acquisition capability in low light conditions. The lens provides a manual focus that can be used at any time, even during AF operation.

1920 x 1080 Canon CMOS Image Sensors

Engineered and manufactured entirely by Canon, the CMOS image sensors employed in the XF Series andXA Series feature a 1920 x 1080 resolution to ensure Full HD video recording with wide dynamic range and low noise. Both the 1/3-inch sensor size of the XF Series and XA Series, and the 1/2.8-inch sensor size of the XA25 and XA20 enable a compact lens and body design for greater shooting versatility. The XF305 and XF300 use three CMOS image sensors for optimal color purity and accuracy.

Standardized MXF File Structure (XF Series only)

The XF Series camcorders use Material Exchange Format (MXF). MXF, an internationally standardized file format, is designed to make the exchange of audio and video materials among NLE (Non-Linear Editing) systems simple. The MXF format wraps video and audio with metadata in a single file, maintaining access to critical information throughout the production process.

TAKING HIGH DEFINITION MOTION CAPTURE WELL BEYOND THE ORDINARY.

DIGIC DV Image Processors

Designed specifically for Canon HD camcorders, DIGIC DV Image Processors provide brilliant clarity and superb processing power for advanced image stabilization technologies. The DIGIC DV III Image Processor helps ensure natural, life-like colors with excellent black reproduction. Tonal gradations and shadow detail are captured with remarkable accuracy. It further minimizes power consumption for longer battery Life, as well as enables Genuine Canon Face Detection, which is ideal for tracking a face in a crowd. The DIGIC DV 4 Image Processor builds upon these features, improving low-light shooting and ramping up processing power to allow simultaneous recording in MP4 and AVCHD – with both possible at 1080/60p.

MP4 and AVCHD Progressive Recording (XA25 and XA20)

The XA25 and XA20 can record in the MP4 codec, which enables direct video playback on iOS®-compatible devices, without additional image conversion, as well as direct upload to social networking sites. The XA25 and XA20 camcorders can also record in AVCHD codec. Support for 1080/60p recording in AVCHD and MP4 modes yields twice the amount of information as 60i recording, reducing diagonal noise. Using a maximum data rate of 35 Mbps for MP4 and 28 Mbps for AVCHD helps ensure blur-free, high-quality capture of fast-moving subjects.

Canon XF Codec

MPEG-2 Long-GOP

50 Mbps

High-Recording Capability 50 Mbps (ECHO)

Material Exchange Format

MPEG-2 Long-GOP 4:2:2

Twice the color resolution of 4:2:0

Color difference signals: B-Y(Pb) Color difference signals: R-Y(Pr)

4:2:0

Color difference signals: B-Y(Pb) Color difference signals: R-Y(Pr)

These illustrations represent a color image converted to RGB, after which brightness is converted to monochrome. Since B-Y and R-Y signals lack a brightness component and only indicate saturation, images produced from them look quite unnatural to the human eye. To avoid confusion, the illustrations are produced by compositing black and white, for convenience, conversion of saturation to brightness.

Color Difference Signals: B-Y (Pb) vs. R-Y (Pr)

High Definition Video

Conversion of saturation to brightness.

Conversion to monochrome and then, for convenience, conversion of saturation to brightness.
**SuperRange Optical Image Stabilizer**

The Canon SuperRange Optical Image Stabilizer (OIS) system employs sophisticated image analysis techniques to help ensure effective correction for camera shake and jitter. Standard mode controls the lens shift to provide constant compensation throughout the zoom range. Powered mode helps improve vibration suppression at telephoto focal lengths, where camera shake is magnified. Dynamic mode is specifically designed to stabilize the image when walking and shooting handheld. The XA25 and XA20 feature the new Five-Axis Dynamic SuperRange OIS System, which expands the benefits of Dynamic mode by reducing rolling and repercussive shake, including yaw and pitch. These features allow for sharp images to be obtained in a wide variety of shooting situations.

**8-Blade Iris**

Compared to typical 6-blade designs, the 8-blade iris allows for smoother, more pleasing out-of-focus areas ("bokeh"), such as backgrounds in scenes with shallow depth-of-field. This is a decided advantage when shooting for artistic effect. The additional blades also reduce diffraction of light passing through the iris, enabling the use of smaller apertures while maintaining image quality. The XA25 and XA20 feature a true 8-blade iris that is circular, which creates a true aperture opening, reducing "flaring" of point light sources common to non-circular designs.

**Enhanced Autofocus System**

The XF Series and XA Series include Canon’s advanced autofocus technology. All the professional camcorders offer: Instant AF, which uses both the TTL-Video Signal Detection System and the external sensor; and Normal AF, which uses only the TTL-Video Signal Detection System. Select models offer Medium AF, which provides smooth focusing in situations where a more gradual AF response is desired. The XF Series and XA Series feature Face Detection AF, which tracks focus on faces when present. Users can select the face to be tracked and Face Detection AF has the ability to track even if the subject face is in profile. If the chosen tracked face is not present in a shot, the subject in the center of the screen will automatically be brought into focus.

The XA905, XA900 and XA9 Series camcorders also feature Face Only AF, which automatically keeps the chosen tracked face in focus but, should that face leave the scene, it will reset focus to manual mode.

**Refined Ergonomics**

XF Series and XA Series camcorders are designed from the ground up to maximize shooting comfort and usability. The XF305 and XF300 camcorders feature redesigned layouts making their operation more intuitive than that of past camcorders. New users and users switching from other products will find the button layout, camcorder menu system and camcorder controls easy to master and easy to use out of the box. The well-balanced design allows the operator to comfortably control the camera and easily maintain a steady shot with minimal arm fatigue. Each camcorder of the XA Series weighs under two pounds, perfect for when speed and mobility are necessary and in situations where keeping a low profile is beneficial.

**Intelligent Lithium-Ion Batteries**

XF Series and XA Series camcorders are equipped with the intelligent lithium-ion batteries, which report remaining power and wear data to the camcorder, removing the guesswork from battery management. Batteries for the XF Series can be used interchangeably among XF300 and XF300 Series cameras. XF Series camcorders are also backwards compatible with older BP series batteries and chargers, a feature designed to protect investments in legacy Canon assets.

Camcorders are also backward compatible with older BP series batteries and chargers, a feature designed to protect investments in legacy Canon assets.

**XF Series and XA Series camcorders**

3.5-inch OLED Touch Panel and Tilt-type High Resolution EVF (XA25 and XA20 only)

The XA25 and XA20 feature a 3.5-inch, 1.23 million-dot, capacitive touch Organic Light-Emitting Diode (OLED) Panel with a self-light-emitting design that offers a number of user advantages compared to traditional LCD-type displays, including a high contrast ratio, a wide view angle, a high-speed response, slimmer dimensions and lighter weight.

And, unlike other OLED panels whose brightness can deteriorate over time, this display incorporates a self-compensation system that continuously compensates for brightness changes, and a special sensor that adjusts brightness to maintain the same illumination — both features particularly useful for professional users.

These camcorders also include a high-resolution, 0.24-inch color electronic viewfinder. A resolution of 156 million dots helps ensure critical focus adjustment, with peaking applied if necessary. A number of magnification and peaking settings available in standby and record modes let the operator further check and confirm focus parameters. For added comfort, the widescreen EVF can be tilted and turned upward approximately 45°.

**4.0-inch LCD Monitor, High Resolution EVF and Advanced Focusing Features (XF305 and XF300 only)**

The XF305 and XF300 feature a bright and sharp 4.0-inch, 1.23 million-dot LCD monitor with approximately 100% field of view coverage. The LCD flips both ways for viewing from the left or right side of the camera and has an extra 35 degrees of movement for increased operability, even in tight situations. The XF305 and XF300 also provide a 0.52-inch, 1,555 million-dot color electronic viewfinder (EVF). Two peaking modes and a magnification mode are available in standby and record mode. Standard AF is designed to help the camera operator to check and confirm critical focus. In addition, Canon’s Edge Focus Monitor Assist system displays a red and green waveform monitor at the bottom of the LCD monitor and three red focus check areas across the monitor. The green waveform shows overall focus while the red waveform shows the status of each focus check box. With this dynamic focus feedback, the user can quickly tune focus in a specific area, and move between focus points in a scene with a vastly greater level of accuracy and speed.

**Advanced Features**

The XF Series and XA Series of professional camcorders feature a number of functions designed specifically to help streamline complicated video shoots. Display Features such as color peaking, Kelvin color, zoom bar or a numeric display, waveform monitors that provide an objective and detailed analysis of overall image brightness and RGB components, letting users determine the correct exposure for a shot with enhanced precision. The XF305 and XF300 also feature a vectorscope, which analyzes image hue and saturation in real-time, making it possible to achieve accurate white balance and effect color balance changes on the fly.

**Customization**

With extensive custom settings, the XF Series lets users control and customize virtually every facet of a video shoot. A large range of image quality, control and display options help to ensure that operation is intuitive, speedy and comfortable, no matter the chosen style of shooting.

To help users achieve just the right look, Custom Picture Settings allow professional videographers to define Gamma, Knee, Color Matrix Adjustment, Saturation, Sharpness, Master Black, Skin Tone and much, much more.

To customize operation to match specific tastes and user preferences, many functions can be assigned to convenient control buttons. And all custom menus and settings can be saved onto removable media, thereby helping to significantly reduce the time it takes to match multiple cameras to a preset shooting style, or when moving between different cameras.

**Infrared Shooting Capability**

The XA905, XA900 and the camcorders of the XA Series feature an infrared shooting mode that enables imaging in a range from 0 to 100% ambient (visible) light in IR mode, the cutoff filter is removed from the optical path, allowing infrared light to pass through to the sensor. A green or white color option can provide pleasing HD infrared imagery even in darkness for surveillance, underwater scenes, law enforcement surveillance and wildlife operation. The XF305 and XF100 have a built-in infrared emitter with diffuser that enables the capture of dramatic imagery even in complete darkness. XA Series camcorders also feature an infrared emitter, but it is housed in a detachable handle that increases functionality and flexibility.
I found that they were both great choices. Neither the Canon XF305 nor the XF105 are heavy or cumbersome. They’re small, but not too small, and have HD lenses. Then there’s the fact that the XF305 and XF105 have HD-SDI output, genlock input, and SMPTE time code in/out, which are very handy, since we’re doing not only live game coverage but also studio productions such as the ‘Red Storm Report’ for a regional cable network.

Sean McCluskey | St. John’s Director of Multimedia Services

Extensive Connectivity

The XF Series is designed with numerous options to help ensure that the camcorders meet the requirements of professional workflows. They are equipped with a DC-in terminal, allowing connection to AC power and the hot swapping of batteries. XLR audio inputs for connection to professional audio devices, Hi-Speed USB, HDMI out, AV out, component video out, headphone jack, dedicated video 2 out and a remote control feature are also included. The XF Series can serve as the terminal for SDI or SMPTE time code (a Wed). The XA Series, similarly, has a DC-in terminal, Hi-Speed USB interface, HDMI out, AV out, headphone jack, and, with the handle attached, two XLR audio mic/line inputs with switchable 48V phantom power. The XA25 features a terminal for HD-SDI output, while the XA10 offers component video out.

HD-SDI Output (XF305, XF105 and XA25 only)

Three cameras – the XF305, XF105 and XA25 – feature a very useful HD-SDI/3G-SDI format output via a conventional BNC connector. Industry-standard Serial Digital Interfaces carry uncompressed, unencrypted video with optional embedded audio and time code data at nominal data rates of up to 1.485 Gbps. The BNC interface is in addition to shooting in Full HD 1080, where a variety of professional equipment, including non-linear editors, recorders, workstations, switchers and other digital cinema/TV hardware. SDI links provide greater image fidelity and resolution than standard HDV connections; transmitting BNC ports also help ensure that cables are more securely connected.

SDI connections can also be used for high-speed transfer of HD-SDI-formatted video to signal processors that can upload files using 3G and 4G cellphone links, as well as via satellite or microwave hops to professional broadcast and post-production facilities. While SDI ports can carry up to 16 channels of embedded digital audio, the XF305, XF105 and XA25 camcorders deliver two channels of digital audio. In addition, the XF305 and XF105 are equipped with terminals for HD-SDI output (see next section for more detail), genlock and SMPTE time code (a Wed). The XA Series, similarly, has a DC-in terminal, Hi-Speed USB interface, HDMI out, AV out, headphone jack, and, with the handle attached, two XLR audio mic/line inputs with switchable 48V phantom power. The XA25 features a terminal for HD-SDI output, while the XA10 offers component video out.

Built-in Wi-Fi® Technology (XA25 and XA10 only)

The XA25 and XA10 feature built-in Wi-Fi technology that allows remote control and full access to Wi-Fi-enabled camcorder features. The two camcorders can be paired to enable true stereoscopic 3D image recording.† Built-in features that aid optical alignment of the cameras, display relative position, and enable zoom distance calibration make the XF Series camcorders excellent choices for 3D production. The XF305 and XF105 also feature 3D-capable genlock for camcorder synchronization. The compact size of the XF Series can be a huge advantage, providing a more manageable alternative to large 3D rigs.

† Available with current firmware upgrade

Compact Flash Card Recording (XF Series only)

The XF Series camcorders record on readily available, nonproprietary and inexpensive CF cards. Besides their rugged, solid-state construction and the speed and ease with which files can be transferred to computers, CF cards represent significant cost savings. All XF Series camcorders have two hot-swappable CF card slots, providing options for relay recording, copying and backup.

SD Memory Card Recording (XA10 only)

The XA10 also offers SD Memory Card Recording (SD Memory Card Recording (XA Series only) and Internal Flash Drive (XA10 only)).

Recording Modes and Frame Rates

The XF Series is equipped to match the requirements of a wide variety of applications. They will capture MPEG-2 2:2:2 files at 50 Mbps (Constant Bit Rate), or 35 Mbps (Variable Bit Rate) for even longer shooting times, and 25 Mbps (Constant Bit Rate) for full compatibility with HD TV content. In addition to shooting in Full HD 1080i, full HD XA25 is available at speeds up to 60 frames per second for capturing events such as sports and fast action. For PAL-compatible shooting, an optional upgrade for PAL is available that is effective for PAL-compatible shooting.

For shoots where the action stops and starts, the XF Series and XA Series both offer a Pre-Record feature, which constantly buffers approximately three seconds of video into memory, helping to ensure that no important or unexpected action is missed. For stop-frame animation, these camcorders feature a Frame Record function, which captures a specified number of frames each time the camera is triggered.

For shots when the action starts and stops, the XF Series and XA Series both offer a Frame-Record feature, which constantly buffers approximately three seconds of video into memory, helping to ensure that no important or unexpected action is missed. For stop-frame animation, these camcorders feature a Frame Record function, which captures a specified number of frames each time the camera is triggered.
A Revolution in High Definition

With a host of features previously reserved for only the most advanced professional camcorders, the Canon XF305 and XF300 deliver Full HD 1920 x 1080 video simply and economically. Featuring MPEG-2 4:2:2 50 Mbps recording directly to cost-efficient Compact Flash cards, the XF305 and XF300 are designed to operate seamlessly within established industry workflows, quickly delivering outstanding image quality for any application. Whether shooting news, documentaries, weddings or events, on location or in the studio, the XF305 and XF300 raise the bar, offering outstanding reliability and intuitive operation that one can only expect from Canon.

- File-based recording: MPEG-2 4:2:2 50 Mbps codec (Canon XF Codec) to Compact Flash (CF) cards (dual slots)
- Genuine Canon 18x HD L-Series Lens
- 3 Canon native 1920 x 1080 CMOS Image Sensors
- Canon DIGIC DV III Image Processor
- SuperRange Optical Image Stabilization system with Dynamic and Powered modes
- Multiple recording bit rates, resolutions and variable frame rates
- Industry standard HD-SDI output, genlock and SMPTE time code terminals (XF305 only)
- Large 4.0-inch 1.23 million-dot LCD and High Resolution 1.55 million-dot EVF
- Fully customizable image, operation and display adjustments
- Onboard waveform monitor and vectorscope; 2 XLR terminals with independent audio level control

New Firmware Update Available

With current firmware upgrade, the XF305 and XF300 will provide added functionality:
- 3D Assist function, including manual OIS Lens Shift and Focal Length Guide
- Additional Scan Reverse modes to accommodate
- Switcheq 3D rigs
- Double-Slot Recording for real-time back-up of footage
- Video Recording On/Off for improved control over how the second card is used

XF305/XF300 Kit Contents

- XF305/XF300 Camcorder
- Lens Hood
- Eyecup
- Battery Pack BP-955
- Compact Power Adapter CA-930
- DC Cable DC-930
- Wireless Controller WL-D6000
- Shoulder Strap SS-1200
- Component Cable DTC-1500
- Canon XF Utilities Disc

High Definition Comes of Age

 Featuring MPEG-2 4:2:2 50 Mbps capture, a Canon CMOS sensor and direct recording to Compact Flash (CF) cards, the Canon XF105 and XF100 offer outstanding versatility and value for a variety of professional applications. With infrared recording and support for stereoscopic 3D production, these camcorders are ideal for the exploration of new creative outlets and emerging markets. The possibilities are limitless with the XF105 and XF100 - compact, lightweight, reliable "go to" camcorders that deliver exceptional performance and integrate seamlessly with established industry workflows.

- Compact, lightweight design for extreme portability and usability
- File-based recording: MPEG-2 4:2:2 50 Mbps codec (Canon XF Codec) to Compact Flash (CF) cards (dual slots)
- Genuine Canon 10x HD Video Lens
- Canon native 1920 x 1080 CMOS Image Sensor
- Canon DIGIC DV III Image Processor
- SuperRange Optical Image Stabilization system with Dynamic and Powered modes
- Supports 3D and Infrared recording
- Multiple recording bit rates, resolutions and variable frame rates
- Industry-standard HD-SDI output, genlock/SMPTE time code terminals (XF105 only)
- Large 3.5-inch 920,000-dot LCD monitor and EVF
- Fully customizable image, operation and display adjustments
- Onboard waveform monitor ensures accurate exposure during capture
- 2 built-in XLR terminals with independent audio level control

New Firmware Update Available

With current firmware upgrade, the XF305 and XF300 will provide added functionality:
- 3D Assist function, including manual OIS Lens Shift and Focal Length Guide
- Additional Scan Reverse modes to accommodate
- Switcheq 3D rigs
- Double-Slot Recording for real-time back-up of footage
- Video Recording On/Off for improved control over how the second card is used

XF105/XF100 Kit Contents

- XF105/XF100 Camcorder with Lens Cap
- Lens Hood
- Battery Pack BP-955
- Compact Power Adapter CA-930
- DC Cable DC-930
- Wireless Controller WL-E600
- Shoulder Strap SS-1200
- Microphone Holder SR
- Component Cable DET-100
- Canon XF Utilities Disc

Terminals of the XF105

HD-SDI output and genlock/SMPTE time code terminals (XF105 only)
The XA10 camcorder is a small and lightweight full-featured professional camcorder. It stays true to the new “X” concept of Canon camcorder engineering, first introduced with the XF Series models, providing professionals with uncompromising quality and functionality in an efficient, ergonomic design. The XA10 has been built from the ground up with professional applications in mind, incorporating the features that professionals demand while maximizing mobility. Its ultra-compact size and expansive feature set make it ideal for run-and-gun shooters, nature and wildlife videographers, journalists, bloggers and any video professional seeking to cover more and carry less.

- **AVCHD format** – up to 24 Mbps recording
- **Ultra-compact and lightweight**
- **Records Full HD video to a 64GB internal flash drive or directly to 2 SDXC-compatible memory card slots**
- **Genuine Canon 10x HD Video Lens**
- **Canon 1/3-inch native 1920 x 1080 CMOS Image Sensor**
- **Canon DIGIC DV III Image Processor**
- **Variable frame rates: 60i, PF30, PF24 and Native 24p**
- **SuperRange Optical Image Stabilization system with Dynamic and Powered modes**
- **Infrared shooting**
- **2 built-in XLR terminals with independent audio level control**
- **Full manual control**
- **3.5-inch 922,000-dot Touch Panel LCD monitor and EVF**
- **Detachable handle**

### XA10 Kit Contents
- XA10 Camcorder
- Lens Hood
- Battery Pack BP-808
- Wireless Controller WL-D89
- Compact Power Adapter CA-570
- IFC-300PCU USB Cable
- Compact Power Adapter CA-570
- USB Cable IFC-300PCU
- Stereo Video Cable STV-250N
- Component Cable CTC-100/S
- Pixela Transfer Utility Disc
- Music Disc
- 2 SDXC-compatible memory card slots

### XA25/XA20 Kit Contents
- XA25/XA20 Camcorder
- Lens Hood
- Battery Pack BP-820
- Microphone Holder/Handle Unit
- Wireless Controller WL-D89
- Compact Power Adapter CA-570
- IFC-300PCU USB Cable
- Mini-HDMI Cable HTC-100/S
- Stereo Video Cable STV-250N
- Bundled CD-ROMs:
  - Pixela Transfer Utility Disc
  - Music Disc

### VERSATILE POWERHOUSE PERFORMER
The XA25 and XA20 HD professional camcorders are the smallest and lightest units that Canon has ever offered. Based on the popular XA10 with new features designed to meet the demands of a growing pro-user market – including a choice of AVCHD or MP4 codecs, Canon Full HD CMOS Image Sensors with 1080P Full HD resolution, five-axis image stabilization, touch-sensitive OLED panels, multiple recording modes and built-in Wi-Fi® technology – these two camcorders provide uncompromising quality and features in an ergonomic and space-efficient package for ENG and EFP applications. Matched to a powerful Genuine Canon 20x zoom lens with a 26.8–576mm range, the XA25 and XA20 are highly versatile image-capturing systems.

- **Genuine Canon 20x HD Video Lens with 8-Blade Circular Aperture and Switchable Manual Zoom/Focus Ring**
- **1080/60p in MP4 (15 Mbps) and AVCHD Progressive (28 Mbps); Slow- and Fast-Motion recording; Native 24P recording**
- **HD SDI Output Terminal (XA25 only)**
- **Built-in Wi-Fi® technology**
- **New 2.91 Megapixel Full HD CMOS sensor and new DIGIC 4 Image Processor**
- **3.5-inch 123 million-dot OLED Touch Panel Display and 1.96 million-dot Tilt Electronic Viewfinder**
- **Two SDHC/SDXC compatible memory card slots; Relay Recording; Dual Recording; double slot recording**
- **SuperRange Optical Image Stabilization System featuring new Dynamic Image Stabilization; five-axis correction**
- **Detachable handle adds: 2 XLR inputs, IR light, accessory shoe (cold), external microphone holder, zoom control and tally lamp**
- **Infrared shooting**

### XA25/XA20 HD-SDI output terminal available

### ULTRAPORTABLE PRO HD PERFORMANCE
- **AXCHD format**
- **Ultra-compact and lightweight**
- **Records Full HD video to a 64GB internal flash drive or directly to 2 SDXC-compatible memory card slots**
- **Genuine Canon 10x HD Video Lens**
- **Canon 1/3-inch native 1920 x 1080 CMOS Image Sensor**
- **Canon DIGIC DV III Image Processor**
- **Variable frame rates: 60i, PF30, PF24 and Native 24p**
- **SuperRange Optical Image Stabilization system with Dynamic and Powered modes**
- **Infrared shooting**
- **2 built-in XLR terminals with independent audio level control**
- **Full manual control**
- **3.5-inch 922,000-dot Touch Panel LCD monitor and EVF**
- **Detachable handle**

### XA25/XA20 Kit Contents
- XA25/XA20 Camcorder
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<table>
<thead>
<tr>
<th>Specifications</th>
<th>XF305</th>
<th>XF300</th>
<th>XF105</th>
<th>XF100</th>
<th>XA25</th>
<th>XA20</th>
<th>XA10</th>
</tr>
</thead>
</table>

**Recording Media**
- CF card (2 slots) and SD card
- SDHC/SDXC memory card (2 slots)
- NTSC

**Image Sensor**
- 1/3-inch CMOS with High Speed Switchable Effective pixels: 1932 x 1080 pixels, approx. 2.0 Megapixels.
- 1/3-inch 2-Tone (Tone) CMOS, Effective pixels: 1280 x 720 pixels, approx. 0.8 Megapixels.
- 1/2.8-inch (HD6), Effective pixels: 1280 x 720 pixels, approx. 0.8 Megapixels.
- 1/2.4-inch (HD8), Effective pixels: 1280 x 720 pixels, approx. 0.8 Megapixels.

**Lens**
- 16mm Ultra Zoom 0.6:1 (7mm F1.4:2.8 (50mm equivalent 30:337mm)
- 16mm Ultra Zoom 0.6:1 (7mm F1.4:2.8 (50mm equivalent 30:337mm)
- 28mm Optical Zoom 0.6:1 (35mm equivalent 26.8:18.5mm with Dynamic IS), 23.8:16.8mm with Dynamic IS)
- 16x Optical Zoom 0.26:1 (25.5mm equivalent 39.2:25.5mm)

**Image Stabilizer**
- SuperQuad Optical Image Stabilizer (Lens Shift System) and electronic stabilization, 3 Modes (Standard, Dynamic, Power, Tripod, Standard, Off)

**AF System**
- TVU plus External Phase Difference Measuring Sensor, TTL-Video signal detection system 3 Modes: Instant AF, Normal AF, Face AF)
- TTL-video signal detection system autofocus, one electronic ring (Selection assigned from FOCUS, ZOOM and IRIS (ND)). 5 Modes: (Selection assigned from FOCUS, ZOOM and IRIS (ND)). Normal AF TTL-video signal detection system)

**Minimum Illumination**
- Full AF mode: 0.8 lux (shutter speed 1/60, gain +3 dB), Manual mode: 0.08 lux (shutter speed 1/60, gain +3 dB, 400)
- Full AF mode: 0.4 lux (shutter speed 1/60, gain +3 dB), Manual mode: 0.04 lux (shutter speed 1/60, gain +3 dB, 400)

**Zoom**
- Zooming possible using the zoom ring, view zoom, handle zoom, wireless controller and LANC
- Zooming is possible using the zoom ring, view zoom, handle zoom, viewfinder, eyecup and zoom controller (28.00 x 20.00 x 13.00)

**Audio Recording System**
- Recording system: Linear PCM, number of channels: 2 ch, sampling frequency: all 48 kHz, number of quantizing bits: 16 bits

**Recording Codec**
- 50 Mbps (CRR (6-27), 35 Mbps (VBR), 15 Mbps (VBR))
- 50 Mbps (CRR (6-27), 35 Mbps (VBR), 15 Mbps (VBR), 25 Mbps (CRR) (2000))

**Maximum Recording Time**
- 44 GB at 21 Mbps: 315 minutes
- 44 GB at 26 Mbps: 351 minutes
- 44 GB at 35 Mbps: 246 minutes

**Headphone**
- 2-Way aspect ratio
- 16:9 aspect ratio (WV)

**LCD Screen**
- 4.0-inch (10.1cm)
- Approx. 920,000 dots
- Rotating 3.5-inch WideScreen Capacitive Touch OLED Display (Approx. 1.23 million dots)

**Microphone**
- Stereo Microphone (Built-in Condenser), with low cut filter.
- Microphone sensitivity selectable, Normal: 0 dB, High: +6 dB

**Memory Card**
- 1/3-inch CMOS. Effective Pixels: 1280 x 720 pixels (Excluding lens hood, mic holder unit, handle unit, battery pack and memory card)

**Audio Terminals**
- 3.5mm external microphone terminal
- XLR (2 jacks) / 3.5mm external microphone terminal

**USB Connector**
- Mini B- USB 2.0 Hi-Speed
- Mini B-USB 2.0 Hi-Speed

**Headphone Terminal**
- 3.5mm stereo mini-jack
- 3.5mm stereo mini-jack (also serves as an AV mini-terminal)

**Genlock Terminal**
- Yes, BNC Connector (Input Only)
- Yes, BNC Connector (Shared with Tricolor Code Adjustment)

**Time Code Terminal**
- Yes, BNC Connector
- Yes (also serves as terminal)

**HD/SD-SDI Terminal**
- Yes (with embedded audio, HD, 4-2-2 (3G-PDH), 12-bit (422), 1-bit (420), 4-bit (YCC), 1-bit (RGB), 1-bit (Y/R-Y/B-Y), SDI Compound with SMPTE 295M, Embedded Audio, Compliant with SMPTE 294M, 1080i/59.94: Compliant with SMPTE 294M, 1080i/50: Compliant with SMPTE 294M, 720p: Compliant with SMPTE 294M, 1080i/60: Compliant with SMPTE 294M)

**Power Supply**
- 7.4V DC (Battery Pack), 8.4V DC (DC-IN)
- 7.4V DC (Battery Pack), 8.4V DC (DC-IN)

**Dimensions (W x H x D)**
- Approx. 4.0 x 1.9 x 3.2 inches (101 x 49 x 81.3mm excluding lens hood, eyepiece, grip, belt)
- Approx. 4.0 x 1.9 x 3.2 inches (101 x 49 x 81.3mm excluding lens hood, eyepiece, grip, belt)
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- Approx. 4.0 x 1.9 x 3.2 inches (101 x 49 x 81.3mm excluding lens hood, eyepiece, grip)

**Weight**
- Approx. 4.5 lbs. (2.01kg) (excluding lens hood, battery, and CF card (1))
- Approx. 4.5 lbs. (2.01kg) (excluding lens hood, battery, and CF card (1))
- Approx. 2.2 lbs. (1kg) (with grip strap)

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Errors and omissions excepted. Weight and dimensions are approximate. Specifications are subject to change without notice.
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