

***XF100 XF105***  
***XF300 XF305***

Set your own standard:  
Professional,  
file-based Full HD.  
**you can**



**Canon**



# Outstanding, professional HD recording

Canon introduces an amazingly compact range of handheld professional HD video cameras. Setting new benchmarks in image quality and versatility, these file-based camcorders are our first to employ an MPEG-2 Full HD (4:2:2) recording codec - extending broadcast capabilities to all professional filmmakers.

## OUR HERITAGE

Canon's HD Camcorder technology provides the ultimate in picture quality, thanks to precision engineering and knowledge built up through more than 50 years at the leading edge of professional imaging. With our unrivalled reputation in HD television broadcast lenses, Canon's optical know-how helps meet the demands of professional users everywhere.

The XF range incorporates four compact, ergonomic devices designed to meet the needs of a diversity of professional users.



**XF300**

**XF305**

### UNRIVALLED CAPABILITIES

These are the very first professional Canon camcorders to employ an MPEG-2, 4:2:2, 50Mbps recording codec. This enables outstanding imaging quality and delivers the data rate expected by many broadcasters for HD productions.

Support for industry standard MXF files, alternative recording modes, and compatibility with all major NLE software packages, ensures seamless integration with existing workflows.

### ERGONOMIC DESIGN

The XF range sets new standards in user-focused design. Each camcorder is perfectly balanced with the handgrip positioned close to the centre of gravity, ideal for shooting either handheld or setting up on tripod. Control layout and menu system have been completely redesigned to make the XF range easy to use whether you're a novice or an experienced professional.

### THE XF RANGE

The XF300 and XF305 are ideally suited to freelance camera operators, broadcast professionals, filmmakers, electronic news gatherers, and creative industry professionals who will appreciate an affordable, forward thinking solution to their film-making needs.

The XF100 and XF105 offer a similar level of high quality recording thanks to an identical codec, but greater portability due to their smaller size and reduced weight. For example, they're great for "fly on the wall" footage and travel documentaries.

# Exceptional image quality

Unique Canon technologies and know-how enable the XF range to deliver a new benchmark in imaging performance for handheld camcorders. Native 1920x1080 Full HD image capture and 4:2:2 colour sampling enables exceptional detail and outstanding colour resolution.

**MPEG-2 4:2:2 50Mbps MXF**

## MPEG-2 FULL HD (4:2:2) RECORDING CODEC

Offering a unique blend of broadcast image quality, workflow integration and versatility, these are the first Canon camcorders to utilise an MPEG-2, 4:2:2 recording codec. A 50Mbps data rate, the minimum requirement for many HD broadcast productions, guarantees high levels of image quality – whilst keeping file sizes manageable to reduce storage and archiving costs.

Canon have chosen to adopt the widely used, open-source Material eXchange Format (MXF) to ensure integration with existing workflows.

The MXF file is a wrapper for the MPEG-2 data stored inside, but has the advantage of being able to support metadata, as well as video and audio.

Taking advantage of limitations in the human visual system, 4:2:2 colour sampling provides twice the vertical colour resolution of 4:2:0 (used in HDV and other codecs). This enables better gradation, finer detail, and smoother diagonals as well as helping to remove the threat of jagged edges, fringing and unwanted artefacts during chroma keying.

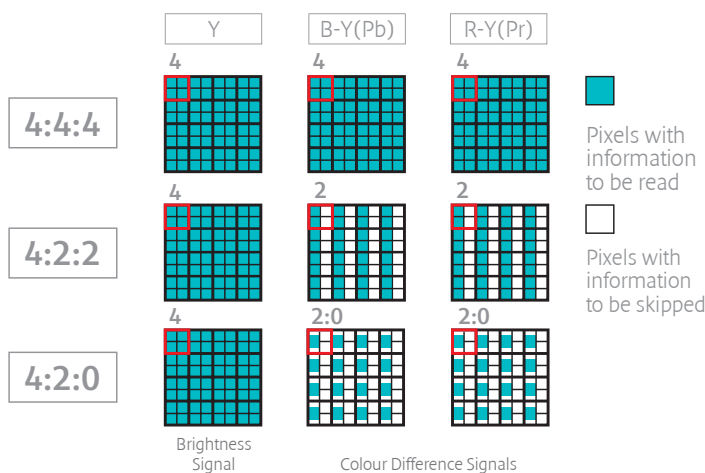
## COMPACTFLASH CARD RECORDING

The XF Range uses non-proprietary CompactFlash (CF) memory cards. CF cards are fast, robust, widely available and relatively inexpensive enabling up to 160 minutes of 50Mbps footage to be stored on a single 64GB CF card.

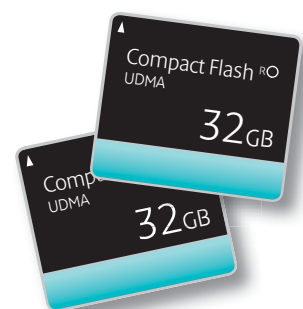
Each camcorder includes two cards slots for continuous filming without interruptions. Archiving video or ingesting for editing is effortless, simply connect a camcorder or CF Card reader to a computer to transfer your files.

XF100 and XF105 camcorders offer double slot recording – recording on two cards simultaneously – for added security.

UDMA certified CF cards with a write speed of at least 40MB/s are recommended for all recording modes. Please refer to [cpn.canon-europe.com](http://cpn.canon-europe.com) for the latest information on card compatibility.



4:2:2 colour sampling stores twice as much colour information as 4:2:0.





HD Video Lens

### CANON L-SERIES HD VIDEO LENS

Drawing on decades of lens innovation plus feedback from professional users, the XF300 and XF305 incorporate Canon's outstanding new L-Series HD Video lens. Delivering superb optical quality from the wide to tele ends of the zoom, its lightweight design makes it ideal for use in professional handheld devices. The zoom and focus rings have physical end stops when used in manual mode, for fast, repeatable operation. An independent iris ring allows control of aperture, while two rocker controls are available for manual zoom control.

Technology gleaned from Canon broadcast lenses – never seen before in a camcorder – helps minimise chromatic aberration. This High Index, Ultra-low Dispersion (Hi-UD) glass is placed at the front of the lens and combines with UD and UA elements to deliver exceptional levels of detail. The new L-series lens also incorporates glass ND filters for 1/4, 1/16 and 1/64 reductions in bright lighting conditions, and has a metal six-blade iris.

Offering superb optical capabilities but with a reduced zoom capacity, the XF100 and XF105 feature a fast, wide angle Canon HD Video Lens (F1.8, 30.4mm) with 10x optical zoom.

OPTICAL  
IMAGE  
STABILIZER

### IMAGE STABILISATION

Three Image Stabilisation modes are supported. Complementing Standard IS, a Dynamic IS is ideal for suppressing vibration while walking. The Powered IS function is used to steady images when shooting at full tele-photo, providing extremely strong shake correction for shots when the camcorder is stationary.



### AUTOFOCUS MODES

Canon's unique Instant AF focusing system uses dual sensors to achieve ultra fast and accurate autofocus.

Face Detection enables immediate focusing with the added ability to select a face manually in scenes with more than one person. Sophisticated face tracking maintains focus even when subjects turn their heads.

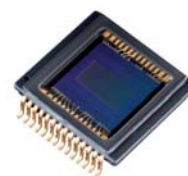
DIGIC  
III

### DIGIC DV III

Designed specifically for Canon HD camcorders, the next generation DIGIC DV III Image Processor ensures natural, lifelike colours with excellent black reproduction. Tonal gradations and shadow detail are captured with remarkable accuracy. The DIGIC DV III Image Processor enables Canon Face Detection, which is ideal for tracking a face in a crowd. Additionally, DIGIC DV III works to minimize power consumption, resulting in longer battery life.

### 3CMOS FULL HD CMOS

Newly developed for the XF range, Canon Full HD CMOS sensors provide native 1920x1080 image resolution with exceptional colour accuracy, a wide dynamic range and low noise. Slow and fast motion shooting is supported, and these sensors scan at twice normal speed, minimising the skew effect often associated with rolling shutters. The XF300 and XF305 incorporate 3 CMOS sensors for independent capture of RGB colour information. XF100 and XF105 include a single sensor with Bayer pattern filter.



# Compact yet extremely powerful

A host of innovative features and advanced recording capabilities are packed into these file-based devices. With a high resolution, user-friendly LCD and customisable external buttons, everything is designed with the user in mind.

## RECORDING VERSATILITY

The XF range incorporates a number of alternative shooting modes for seamless workflow integration. As well as the 50Mbps data rate, 35Mbps and 25Mbps 4:2:0 recording modes enable simple compatibility with other HD workflows and equipment (eg. HDV).

## CREATIVE OPTIONS

XF camcorders feature a range of Special Recording Modes to expand your creative vision.

### Relay recording

Continuous recording is possible thanks to the dual card slots.

### Pre-record

Continuously caches 3 seconds of content, appending it to the start of your video when recording begins. Never miss the crucial moment again.

### Interval recording

Interval recording – or time lapse – can be used for unmanned shooting, for example the observation of daily weather patterns. A choice of 25 different intervals can be selected.

Recording Bit Rate	Colour Sampling	Image Resolution (16:9)	Frame Rates
50Mbps; Constant Bit Rate (CBR)	4:2:2	1920x1080	50i/25p
		1280x720	50p/25p
35Mbps; Variable Bit Rate (VBR)	4:2:0	1920x1080	50i/25p
		1280x720	50p/25p
25Mbps; Constant Bit Rate (CBR)	4:2:0	1440x1080	50i/25p

## Slow and fast recording

Choose from a variety of frame rates – 12fps to 50fps – and immediately review footage on set at the correct speed.

## 3D Shooting Assist

XF105 and XF100 feature new 3D Shooting Assist functions – OIS Axis Shift and Focal Length Guide – to help you to precisely align two camcorders during stereoscopic 3D shooting.

## Infrared Shooting Mode

XF105 and XF100 also include a new Infrared (IR) Shooting Mode. New lens coating provide twice the IR sensitivity of previous Canon professional camcorders.

## EXTENSIVE CUSTOMISATION

### Custom Picture

Assume complete control over the look and feel of every shot. Custom Picture allows users to fine tune more than 90 image parameters, including Gamma, Knee, Colour Matrix, Saturation, Sharpness, Master Black, Skin Tone and more.

Up to six Custom Pictures can be saved in the camera, with three additional preset configurations provided.

#### C7 Video.C

For playing back video on consumer flat-panel display.

#### C8 Cine.V

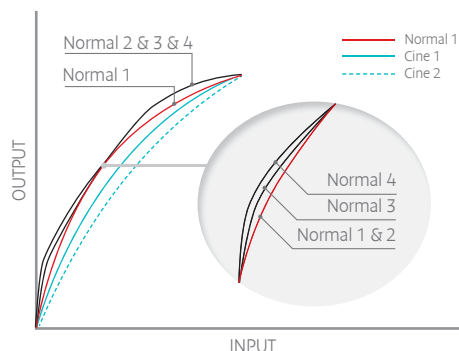
For achieving a film-like effect on TV monitor, such as when creating TV programs that require a film-like effect.

#### C9 Cine.F

For video that will be transferred to film.

## Gamma Curves

Six preset gamma curves are included in XF camcorders – an easy way to give footage the required 'look'.



			Recorded frame rate (fps)																									
			12	15	18	20	21	22	23	24	25	26	27	28	30	32	34	37	42	45	48	50						
50Mbps	1920x1080	25p	YES												NO													
	1280x720	50p/25p													YES													
35Mbps	1920x1080	25p	YES												NO													
	1280x720	50p/25p													YES													
25Mbps	1440x1080	25p	YES												NO													



## CUSTOM FUNCTIONS, DISPLAY AND BUTTONS

In addition to fine-tuning image set-up, XF camcorder operation is also highly customisable.

Custom Functions can be used to configure selected controls, for example iris ring direction, and Custom Display allows precise control of information shown on the LCD screen. One of 30+ functions can be assigned to 13 and 10 buttons respectively on the XF300- and XF100-series bodies.

## STORE CAMERA SETTINGS

All user-specific configurations (Custom Picture, Function, Display and Buttons) can be saved to SD memory card and transferred to other XF camcorders – ideal for matching a particular visual style or ensuring multiple cameras have the same set-up.\* Up to 20 Custom Picture configurations can be saved to one SD card.

## REFINED ERGONOMICS AND DESIGN

The XF305 and XF300 are designed from the ground up to maximise shooting comfort and usability. New users and users switching from other products will find the button layout, camera menu system and camera controls familiar 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 while minimising arm fatigue.

## EASY OPERATION

### High resolution LCD

Every XF camcorder features a high resolution LCD to help set up each shot. The XF300 / XF305 models utilise a 10.1cm screen with a superior resolution of 1.2M dots for unparalleled clarity. This foldout LCD panel is positioned towards the front of the camcorders, underneath the carry handle.

It can be swivelled to the left or right for maximum flexibility in all shooting scenarios. The panel is also rotatable and can be angled 35 degrees further forward – ideal when operators are unable to position themselves directly behind the camcorder.

The more compact XF100 and XF105 models incorporate a side-mounted 8.8cm LCD with 960k dot resolution.

## Waveform monitor

A built-in Waveform Monitor (WFM) provides an analysis of image brightness to help set up your shot. Alternatively an RGB Pareto chart can be used to display the relative brightness of red, green and blue components.

## Vectorscope

The built-in vectorscope aids hue and saturation balancing as well as offering an additional check for white balance configuration (XF300-series only).

## Edge Focus

The Edge Focus function uses the WFM for fine-tuning focus – the larger the peaks on the display, the more sharply edges are in focus.

## Image inversion

This enables captured images to be 'flipped' horizontally or vertically – ideal for creating filmic footage using 35mm lens adaptors.



\* Custom Picture files cannot be transferred between XF300-series and XF100-series camcorders.

**XF300-series** camcorders combine a broadcast-standard codec, Canon optical technology and intelligent shooting features for the very best HD image quality.



## XF300 XF305

### The quality standard

The perfect blend of image quality, connectivity, user customisation, straightforward workflow and wide-ranging editing features, mark the XF305 and XF300 out as the latest quality benchmark.

### Highly versatile

Portable and mobile, the XF305 and XF300 offer shoulder mounted production credentials in a hand-held device. The broad feature set and adaptability of these camcorders allows users to shoot in almost any situation and for any given purpose, from independent filmmaking to commercial broadcast.

### FEATURES

- Records MPEG-2 MXF files to CF Cards at up to 50Mbps (4:2:2 colour sampling)
- Comprehensive NLE support; Canon file management utility supplied
- 18x wide angle Canon L-series lens, with low dispersion and wide aperture (F1.6 max)
- 3 x 1/3 type Full HD (1920 x 1080) Canon CMOS sensors
- 10.1 cm LCD (1.23M dots) with focus assist and waveform monitor; 1.3 cm (1.55M dots) EVF (100% view)
- Variable frame rate recording (12-50 fps)
- DIGIC DV III image processor
- HD-SDI, SDI and TimeCode output, Genlock input (XF305 only)
- Independent audio control with XLR inputs
- Extensive customisation: 30 functions assignable to 13 buttons
- Canon Professional Services video support



**1 CANON L-SERIES VIDEO LENS**

A newly-developed L-series Video Lens incorporates glass never seen before in a professional camcorder providing outstanding image resolution.

**2 CONTROL RINGS**

Three separate rings on the lens barrel offer independent operation of Focus, Zoom and Iris. End stops on the Focus and Zoom rings offer precise, predictable manual control. Glass ND filters for 1/4, 1/16 and 1/64 reductions in bright lighting conditions are included.

**3 SHOOTING CONTROLS**

An extensive array of dedicated manual controls are at your fingertips, from Focus Assist tools to white balance, gain and lens set-up.

**4 CANON FULL HD 3CMOS SYSTEM**

Using new Canon Full HD CMOS sensors, a 3CMOS array provides exceptional colour performance, low noise and high dynamic range.

**5 INTELLIGENT BATTERY**

The intelligent battery features a 'fuel gauge' display that indicates remaining charge – even when the battery is not in the camcorder.

**6 ELECTRONIC VIEWFINDER**

Offering 100% coverage, a 1.3 cm (0.52") 1.55M dot resolution EVF allows operators to monitor picture quality accurately.

**7 LCD SCREEN**

The 1.2M dot resolution 10.1 cm (4") LCD screen can be positioned either side of the camera – for maximum flexibility during shooting and review.

**8 PROFESSIONAL AUDIO**

Two XLR inputs and a built-in microphone can be used in any combination to capture 16-bit linear PCM audio. Manual level controls are located at the rear of the camera.



**XF305**  
 includes additional  
 studio connectivity:

- 1 HD/SD-SDI output
- 2 Time code input/output
- 3 Genlock input



The **XF100 series** offers outstanding image quality in a compact, versatile package, thanks to a broadcast-standard codec.



## XF100 XF105

### Lightweight and compact

Delivering the incredible capabilities of Canon's XF300 series, the XF100 and XF105 are designed for professionals seeking broadcast quality production from a lightweight, versatile palm-sized video camera.

### Small but powerful

XF100 and XF105 are the first compact video cameras to feature a 50Mbps, 4:2:2 MPEG-2 codec. Packed with shooting features and customisation options, they are designed for seamless integration into all sorts of projects and workflows from education to broadcast.

### FEATURES

- Records MPEG-2 MXF files to two CF cards at up to 50Mbps (4:2:2 colour, simultaneous recording possible)
- Lightweight palm-sized design; pro audio functions include handle-mounted XLR inputs
- 10x zoom Canon HD Video Lens (30.4mm, f1.8), with control ring and 8-blade iris
- 1/3 type Full HD Canon CMOS sensor
- HD-SDI, Timecode, Genlock terminals and 3D Assist Functions
- 8.8cm (3.5"), 920k dot LCD with waveform monitor; 0.6cm (0.24"), 260k dot EVF
- Variable frame rate recording
- Infrared shooting mode, with built-in IR lamp
- Extensive customisation: 34 functions assignable to 10 buttons
- Canon Professional Services video support
- Canon XF Utility and NLE plug-ins supplied



High performance in a more compact body

**1 CANON HD VIDEO LENS**

A fast, 30.4 mm wide angle F1.8 lens with a 10 x optical zoom delivers outstanding quality images. A 1.5x/3x/6x digital teleconverter is also available.

**2 LENS RING CONTROL**

A single lens ring offers precise control. Focus, zoom or iris can be selected via a 3-way switch.

**3 SHOOTING CONTROLS**

Key shooting functions such as gain and shutter speed are easily accessed, despite the small size of these camcorders.

**4 CANON FULL HD CMOS**

The single 1/3-type 2.07MP sensor is an adaptation of the high performance sensors used in the XF300-series. Featuring a Bayer pattern filter, it provides superb colour reproduction, high sensitivity and wide dynamic range.

**5 INTELLIGENT BATTERY**

The intelligent battery features a 'fuel gauge' display that indicates remaining charge - even when the battery is not in the camcorder.

**6 ELECTRONIC VIEWFINDER**

Offering 100% coverage, a 0.6 cm (0.24") 0.26 M dot resolution EVF allows operators to monitor picture quality accurately.

**7 LCD SCREEN**

The 960k dot resolution, 8.8cm LCD screen is mounted on the side of the camcorder and can be rotated to face the subject.

**8 PROFESSIONAL AUDIO**

Two XLR inputs, a mic jack or built-in microphone can be used to capture 16-bit linear PCM audio. Manual controls are conveniently located on the top handle.

**9 INFRARED SHOOTING MODE**

A manual switch activates infrared mode. Green or white light options can be selected, according to the style required.

**10 3D SHOOTING ASSIST**

3D Shooting Assist modes are accessed and configured using the LCD screen and joystick interface.



**XF105**

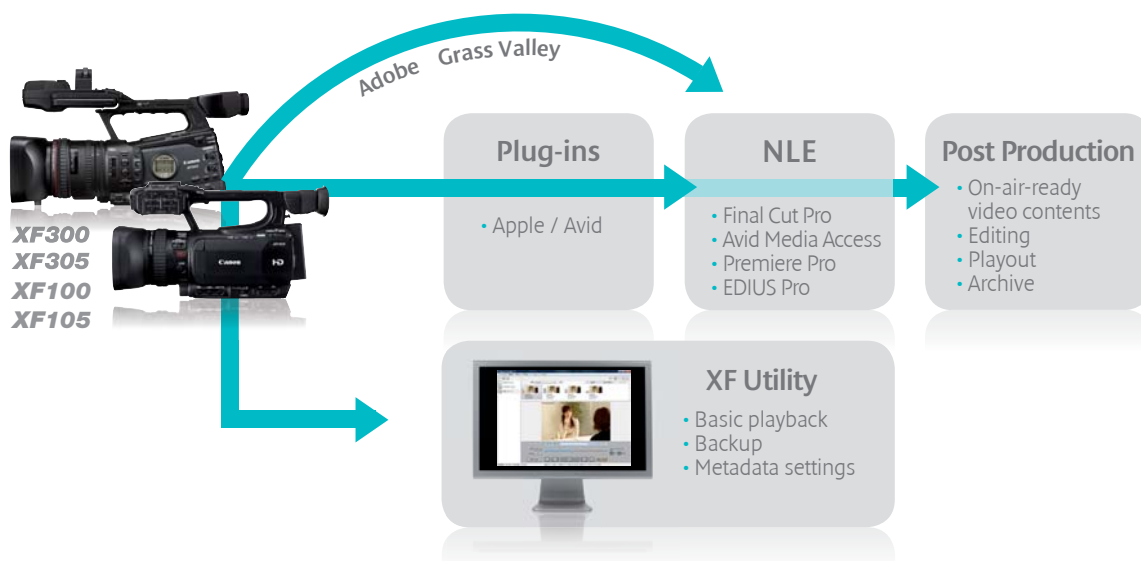
includes additional studio connectivity:

- 1 HD/SD-SDI output
- 2 Time code/Genlock terminal (switchable)



# Seamless software integration

All XF camcorders are supplied with Canon's XF Utility software for simple clip management, and plug-ins for Apple Final Cut Pro and Avid Media Access. With industry standard MXF files, CompactFlash and a variety of shooting modes, the XF range is designed for seamless integration with major file-based workflows.



## XF UTILITY

This easy to use software is designed to allow management of recorded clips where full-blown NLE software isn't required. Both Mac and Windows versions are supplied.

## Key features

- Back-up CF card contents (entire card)
- Transfer selected clips from CF card to computer
- Playback clips in Full HD resolution
- Edit selected metadata fields
- Add 'shot marks'
- Copy clips back to CF card

## NLE SOFTWARE COMPATIBILITY

Canon MPEG-2 MXF files are supported by major NLE software manufacturers, including Apple, Avid, Adobe and Grass Valley.

Plug-ins for Adobe and Grass Valley software are not supplied, but Canon MXF files are supported by these vendors.

The following table details compatibility of Canon MXF files with major NLE software.

For the latest information on software compatibility visit [cpn.canon-europe.com](http://cpn.canon-europe.com)

## XF Utility System Requirements

	PC	MAC
<b>OS</b>	Windows XP SP2, SP3 (32-bit only); Windows Vista SP1, SP2 (32-bit or 64-bit); Windows 7 (32-bit or 64-bit)	Mac OS X 10.4; Mac OS X 10.5 Leopard; Mac OS X 10.6 Snow Leopard;
<b>CPU</b>	Intel Core series equivalent; Intel Core 2 Duo 2.66 GHz or higher recommended; SSE2 compatible processor required	Intel processor; Intel Core 2 Duo 2.66 GHz or higher recommended; Not compatible with PowerPC processors
<b>RAM</b>	1GB or more; (2GB or more required for 64-bit Windows 7)	1GB or more
<b>Hard Disk Space</b>	80 MB or more	
<b>Display</b>	1024 x 768; 16-bit colour (High Colour) or better	1024 x 768; 332,000 colours or better
<b>Languages</b>	User interface: Japanese/English Installer: Japanese / English / French / German / Italian / Spanish / Russian / Chinese (simplified)	

## NLE Compatibility table

NLE Name	Version
<b>Final Cut Pro (Mac)</b>	6.0.3 or later
	7.0 or later
<b>Avid Media Access-compatible applications (Windows and Mac)</b>	Avid Media Composer 4.0.5 or later
	NewsCutter 8.0.5 or later
<b>Premiere Pro (Windows)</b> Premiere Pro (Mac)	CS5
	CS5
<b>EDIUS Pro</b>	5.5

**CANON PROFESSIONAL SERVICES VIDEO**

For complete peace of mind, the XF range is provided with our outstanding CPS Video support package.

**Benefits:**

- 6 day repair turnaround
- Loan camcorder provided by Canon for repairs exceeding 6 business days
- Priority email support
- Priority phone support

For more information on Canon Professional Services and to apply for CPS Video membership please visit [www.canon-europe.com/cps](http://www.canon-europe.com/cps)

# Accessories



**Battery Pack  
BP-975**



**Wide Converter  
WD-H58W**



**Tele Converter  
TL-H58**



**Video Light  
VL-10Li II**

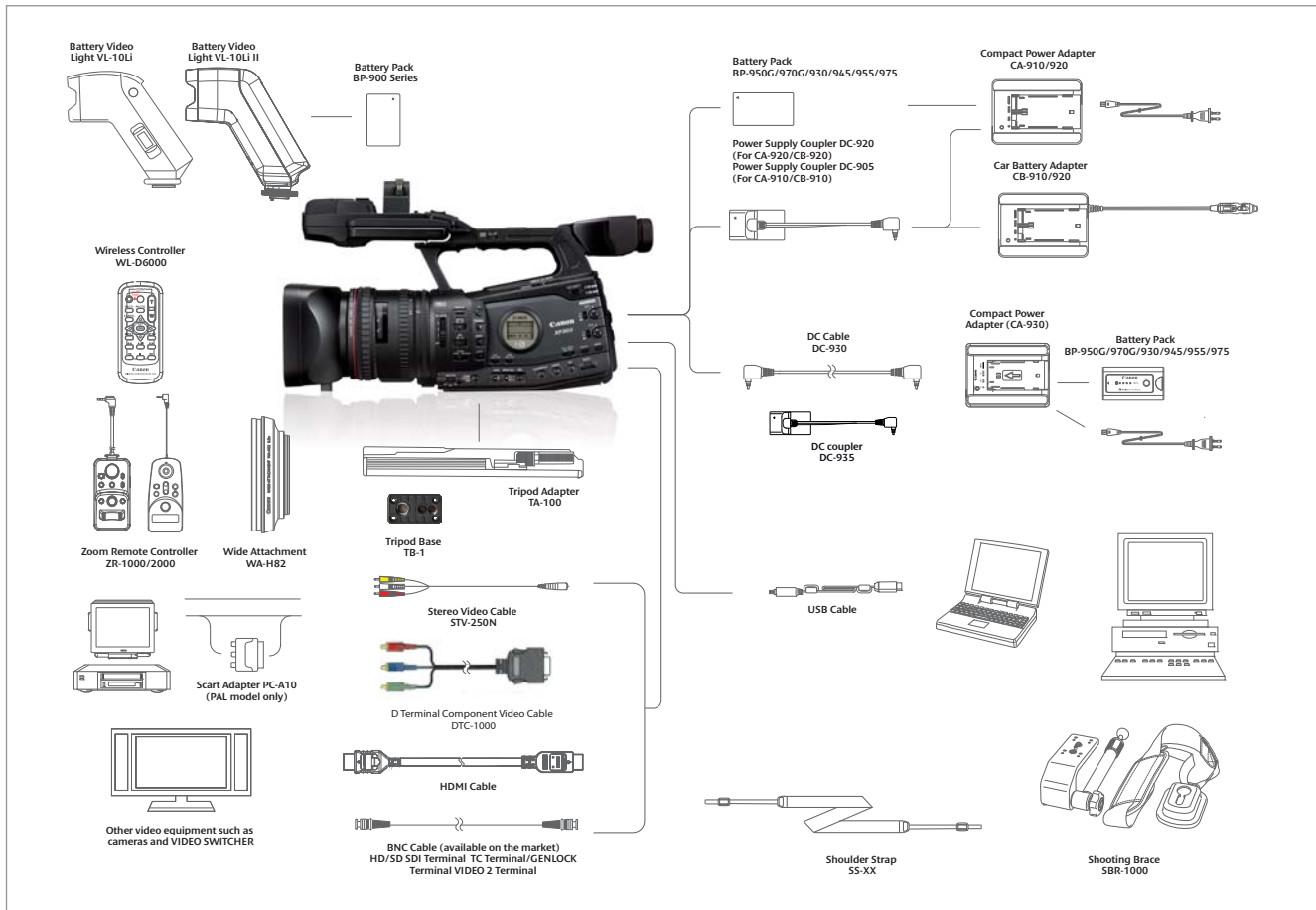


**Zoom Remote Control  
ZR-2000**

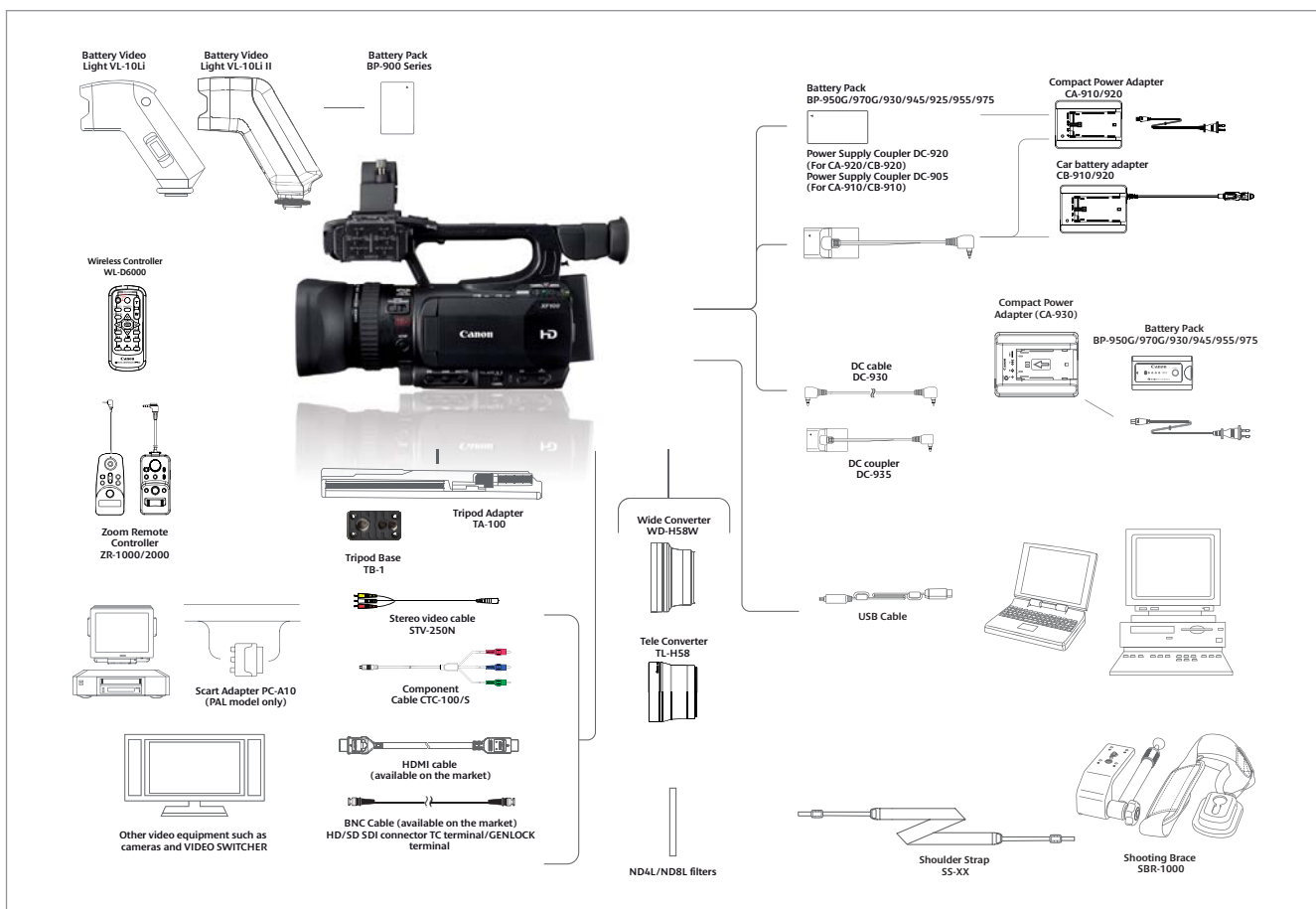
	XF305 / XF300	XF105 / XF100
<b>BATTERY PACK</b>		
BP-930 / 945 / 950G / 970G	✓	✓
BP-925	✓	✓
BP-955	✓	✓
BP-975	✓	✓
<b>BATTERY CHARGER</b>		
CA-920	✓	✓
CA-930	✓	✓
<b>DC COUPLERS</b>		
DC-920	✓	✓
DC-930	✓	✓
DC-935	✓	✓
<b>DUAL BATTERY CHARGER</b>		
CH-910	✓	✓
<b>CAR BATTERY CHARGER</b>		
CB-920	✓	✓
<b>WIDE ANGLE CONVERTER</b>		
WA-H82	✓	
WD-H58W		✓
<b>FILTER SET</b>		
EOS 58mm filters		✓
<b>TELE CONVERTER</b>		
TL-H58		✓
<b>VIDEO LIGHT</b>		
VL-10Li (requires BP-9XX series battery)	✓	✓
VL-10Li II (requires BP-9XX series battery)	✓	✓
<b>REMOTE ZOOM CONTROLLER</b>		
ZR-2000	✓	✓
ZR-1000	✓	✓
<b>CABLES</b>		
DTC-1000	✓	
CTC-100		✓
CTC-100/S		✓
STV-250N	✓	✓
<b>TRIPOD ADAPTOR</b>		
TA-100	✓	✓
TB-1	✓	✓
<b>SHOOTING BRACE</b>		
SBR-1000	✓	✓

# System Chart

## XF305 XF300



## XF105 XF100



# Specifications

## XF305 XF300 XF105 XF100

IMAGE SENSOR		
Sensor	1/3 type 3CMOS	1/3 type CMOS
System	RGB Prism	Bayer pattern filter
Total pixels per sensor	2.37 megapixels	2.37 megapixels
Effective pixels per sensor	2.07 megapixels	2.07 megapixels
Minimum illumination	Full Auto (21dB gain), 50i/25p: 3.8 lux / 3.3 lux Manual mode (33dB gain), 50i/25p: 0.06 lux / 0.05 lux	
Horizontal Resolution	1000 TV lines or more (1920 x 1080i mode)	900 TV lines or more (1920 x 1080i mode)

LENS		
Zoom ratio	18x	10x
Focal length	4.1 - 73.8mm (35mm equivalent: 29.3 - 527.4mm)	4.25 - 42.5mm (35mm equivalent: 30.4 - 304mm)
Minimum focus distance	1m; 20mm (MACRO)	60cm (throughout zoom range); 20mm (MACRO)
ND filter	3 glass filters: 1/4, 1/16, 1/64	Built-in gradation filter (Auto or Off)
Zoom control	Ring, Rocker or Handle	Ring, Rocker or Handle; Selectable Shockless Zoom mode
Zoom speed	Zoom Rocker: Variable speed/Fixed speed (Fast/Normal/Slow, 16 speed level settings available in each mode); Handle zoom: Fixed speed (Fast/Normal/Slow, 16 speed level settings available in each mode)	Zoom Rocker: Variable speed/Fixed speed (Fast/Normal/Slow, 16 speed level settings available in each mode); Handle zoom: Fixed speed (Fast/Normal/Slow, 16 speed level settings available in each mode)
Focus control	Manual ring or automatic (Instant AF, TV AF or Face Detection AF)	Ring control or automatic (Instant AF, Medium AF, TV AF, Face Detection AF, Face Only AF)
Iris control	Manual ring; Full Auto; Push Auto Iris	Ring control; Custom dial control; Full Auto
Aperture range	f1.6 - f22	f1.8 - f22
Filter diameter	82mm	58mm
Lens elements/groups	17/14	12/10
Image stabilization system	Optical lens shift system (angle & vector movement detection); 3 modes: Dynamic, Standard, Powered	Optical lens shift system (angle & vector movement detection); 3 modes: Dynamic, Standard, Powered
Digital zoom	1.5X	1.5x; 3x; 6x

IMAGE PROCESSOR		
Type	DIGIC DV III	DIGIC DV III

RECORDING		
Video storage media	Type 1 Compact Flash memory cards (2 card slots)	Type 1 Compact Flash memory cards (2 card slots); Double slot (simultaneous) recording possible.
Type	UDMA4, 30MB/s or faster (40MB/s or faster for Fast/Slow recording)	UDMA4, 30MB/s or faster (40MB/s or faster for Fast/Slow recording)
Recording time	32GB CF card: Up to 80mins (1080/50i @ 50 Mbps)	32GB CF card: Up to 80mins (1080/50i @ 50 Mbps)
Recording file format	Material eXchange Format (MXF)	Material eXchange Format (MXF)
Recording format	MPEG-2 Long GOP 50Mbps CBR (4:2:2) MPEG-2 422@HL; 35Mbps VBR (4:2:0) MPEG-2 MP@HL; 25Mbps CBR (4:2:0) MPEG-2 MP@H14	MPEG-2 Long GOP 50Mbps CBR (4:2:2) MPEG-2 422@HL; 35Mbps VBR (4:2:0) MPEG-2 MP@HL; 25Mbps CBR (4:2:0) MPEG-2 MP@H14
Recording frame rate	50Mbps: 1920 x 1080/50i, 25p; 1280 x 720/50p, 25p; 35Mbps: 1920 x 1080/50i, 25p; 1280 x 720/50p, 25p; 25Mbps: 1440 x 1080/50i, 25p	50Mbps: 1920 x 1080/50i, 25p; 1280 x 720/50p, 25p; 35Mbps: 1920 x 1080/50i, 25p; 1280 x 720/50p, 25p; 25Mbps: 1440 x 1080/50i, 25p
Slow/Fast motion	YES. 720p: 12, 15, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 37, 42, 45, 48, 50fps 1080p: 12, 15, 18, 20, 21, 22, 23, 24, 25fps	YES. 720p: 12, 15, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 37, 42, 45, 48, 50fps 1080p: 12, 15, 18, 20, 21, 22, 23, 24, 25fps
Interval Record	YES, 2, 6 or 12 frames, 25 time intervals	YES, 2, 6 or 12 frames, 25 time intervals
Frame Record	YES, 2, 6 or 12 frames	YES, 2, 6 or 12 frames
Pre Record (cache record)	YES (3 seconds)	YES (3 seconds)
Scan Reverse	YES. Up/down, left/right image inversion	YES. Up/down, left/right, up/down/left/right image inversion
Photo storage media	SD/SDHC memory card	SD/SDHC memory card
Still quality	During video recording: 1920 x 1080; During playback: 1920x1080, 1280 x 720	During video recording: 1920 x 1080; During playback: 1920x1080, 1280 x 720

LCD		
Size	10.1 cm (4")	8.8cm (3.5")
Dots	1.23 million	920000
Image quality adjustments	Brightness, contrast, colour, sharpness, backlight, black & white Adjustable Left/right switchable	Brightness, contrast, colour, sharpness, backlight, black & white Yes (270 degree rotation about horizontal axis)
Waveform Monitor	Waveform Monitor and Vectorscope	Waveform Monitor
Focus Assist	Peaking; Magnifying; Edge Monitor (using waveform display)	Peaking; Magnifying; Edge Monitor (using waveform display)
Peaking	Peaking 1, Peaking 2 (Colour, Gain, Frequency customisable for each)	Peaking 1, Peaking 2 (Colour, Gain, Frequency customisable for each)
Zebra	Level 1; Level 2; Both Output via HD-SDI (XF305) or HDMI	Level 1; Level 2; Both Output via HD-SDI (XF105) or HDMI
Markers	On/Off (Aspect ratio, Aspect marker, Select area, Safe area, Grid, Horizontal, Centre)	On/Off (Aspect ratio, Safe area, Grid, Horizontal, Centre)

## XF305 XF300 XF105 XF100

EVF		
Size	1.3cm (0.52")	0.61cm (0.24")
Size	260000	260000
Dots	1.55 million	1.55 million
Image quality adjustments	Brightness, contrast, colour, sharpness, backlight, black & white Adjustable	Brightness, contrast, colour, backlight, black & white Adjustable
Correction lens	+ 2.0 to -5.5 diopters	+ 2.0 to -5.5 diopter

INPUTS/OUTPUTS		
Audio in	XLR inputs with 48V phantom power x 2	XLR inputs with 48V phantom power (x2); 3.5mm mic input jack
Headphone output	3.5mm stereo jack	3.5mm stereo jack
Video monitor output	YES (BNC, composite Standard Definition video, output only)	NO
HDMI	YES (Type A, output only)	YES (Type A, output only)
IEEE 1394 (Firewire)	NO	NO
USB	YES (Mini-B, USB 2.0 Hi-Speed, output only)	YES (Mini-B, USB 2.0 Hi-Speed, output only)
HD/SD-SDI output	YES (BNC, output only, embedded audio and time code, XF305 only)	YES (BNC, output only, embedded audio and time code, XF105 only)
Time code	YES (BNC, switchable input/output, XF305 only)	YES (BNC, switchable input/output, same terminal used for Genlock, XF105 only)
Genlock	YES (BNC, input only, XF305 only)	YES (BNC, input only, same terminal used for time code, XF105 only)
Component out	YES (D connector, output only)	YES (output only)
AV terminal	3.5mm mini jack (output only for video and audio)	3.5mm mini jack (output only for video and audio)
DC input	YES	YES
Remote Control Terminal	2.5mm mini jack	2.5mm mini jack
Colour Bars	Type 1/Type 2 (EBU/SMPTE)	Type 1/Type 2 (EBU/SMPTE)

MISC		
Tally lamp	YES (x2)	YES (x2)
Accessory shoe	YES (cold shoe)	YES (cold shoe)
Custom key	YES (13 assignable buttons; select from 30 functions)	YES (10 assignable buttons; select from 34 functions)
Custom Dial		YES (Iris, teleconverter, headphone volume, Face AF, IR Lamp control)

EXPOSURE		
Exposure metering	Standard (centre weighted), Spotlight, Backlight	Standard (centre weighted), Spotlight, Backlight
Exposure range	50 - 100,000 lux	50 - 100,000 lux
Exposure compensation	-2 to +2 EV (13 steps)	-2 to +2 EV (13 steps)
Auto Exposure mode	Full Auto	Full Auto
Push Auto Iris	Yes	No
Auto Gain Control setting	Full Auto / AGC On / Manual	Full Auto / AGC On / Manual
Auto Gain Control limit	3dB; 6dB; 9dB; 12dB; 15dB; 18dB; (OFF/21 dB)	3dB; 6dB; 9dB; 12dB; 15dB; 18dB; 21dB (OFF/24dB)
Gain setting	Assignable L, M, H switch positions (-6dB / -3dB / 0dB / 3dB / 6dB / 12dB / 18dB / 21dB / 33dB / TUNE (0.5 dB increments from 0 to 21 dB))	Assignable L, M, H settings (-6dB / -3dB / 0dB / 3dB / 6dB / 12dB / 18dB / 24dB / 33dB / TUNE (0.5 dB increments from 0 to 24 dB))

SHUTTER SPEED		
Control Modes	3 position switch: OFF (Full Auto) / ON / SEL (Auto; Speed; Angle; Clear Scan (CS); Slow Shutter (SLS))	Full Auto / Manual joystick control (Auto; Speed; Angle; Clear Scan (CS); Slow Shutter (SLS); IR Slow Shutter)
Shutter speed	1/18 to 1/2000 depending on frame rate	1/18 to 1/2000 depending on frame rate
Shutter Angle	11.25° to 360° depending on frame rate	11.25° to 360° depending on frame rate
Slow Shutter (SLS)	1/3, 1/6, 1/12, 1/25	1/3, 1/6, 1/12, 1/25 (depending on frame rate)
Clear Scan	50i/p: 50 to 251.15Hz; 25p: 25 to 251.15Hz	50i/p: 50 to 251.15Hz; 25p: 25 to 251.15Hz

WHITE BALANCE		
Auto	YES	YES
Pre-set	A, B, Pre-set (Daylight, Tungsten), Colour Temperature	A, B, Pre-set (Daylight, Tungsten), Colour Temperature

AUDIO		
Recording	16-bit 2ch (48 kHz) linear PCM	16-bit 2ch (48 kHz) linear PCM
Control	Independent limiters and auto/manual settings	Audio limiter, Auto/manual settings via control dials on handle
Microphone attenuation	YES	YES
Microphone level meter	YES	YES

BATTERY		
Backup power supply	Lithium coin battery (built-in)	Lithium coin battery (built-in)
Power Consumption	9.1 W2 (XF305) / 7.3 W3 (XF300)	
Continuous Recording	Time Supplied BP-955: Approx. 260 mins' (XF305)/295 mins' (XF300) Optional BP-975: Approx. 405 mins' (XF305)/450 mins' (XF300)	

MISCELLANEOUS		
Dimensions	Approx 180 x 192 x 394 mm	Approx 139 x 191 x 268mm (including lens hood and microphone holder)
Weight (camera only)	Approx 2700g	
Operating Temperature range	-5°C to +45°C, 60% relative humidity	-5°C to +45°C, 60% relative humidity

- 50Mbps CBR mode, HD-SDI off, using EVF.
- 50Mbps CBR mode, using EVF.

All data is based on Canon's standard testing methods. Specifications are subject to change without notice. ™ and ©: All company and/or product names are trademarks and/or registered trademarks of their respective manufacturers in their markets and/or countries.

# Professional Camcorder range

**Canon**

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English Edition 0147W156  
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