Panasonic

2017
Digital Video Camera

2017 Lineup and Feature Comparison

	Model	Dimensions (W x H x D) Weight (Approx.)	Continuous Recordable Time with Supplied Battery (Approx.)	Recording Format	AF	4K Cropping	EVF	Cinema Like Effect	HDR	Lens	Sensor	Engine	Wide Angle	Optical Zoom	Intelligent Zoom	Image Stabilizer	Level Shot	Sub Camera	Wireless Camera	Wi-Fi
4K Supreme	**WXF995M** Superior 4K Quality for Professional Use P14	68 x 78 x 163 mm 405 g (WXF995M)	1h 35min* (4K MP4) 1h 50min* (HG mode) *Sub Camera Off	4K ULTRA HD	4K High Precision AF	NEW 4K Cropping	EVF Electronic View Finder	Cinema Like Effect	HDR MOVIE	LEICA DICOMAR	BSI sensor 1/2.3-inch 18.91M	CRYSTAL ENGINE 4K	30.8 mm WIDE *4K	Optical 20x Zoom	Intelligent 25x Zoom *4K	5-Axis HYBRID O.I.S.+	Level Shot Function	TWIN CAMERA™	Wireless Multi Camera	Wi-Fi CERTIFIED
4K Supreme	**VX985M** Save Your Precious Moments in Everlasting 4K P15	65 x 73 x 139 mm 352 g (VX985M)	1h 30min (4K MP4) 1h 45min (HG mode)	4K ULTRA HD	4K High Precision AF	NEW 4K Cropping		Cinema Like Effect	HDR MOVIE	LEICA DICOMAR	BSI sensor 1/2.3-inch 18.91M	CRYSTAL ENGINE 4K	30.8 mm WIDE *4K	Optical 20x Zoom	Intelligent 25x Zoom *4K	5-Axis HYBRID O.I.S.+	Level Shot Function		Wireless Multi Camera	Wi-Fi CERTIFIED
High Sensitivity Full-HD	**V785** Stunning Images, Even in Dim Lighting P19	65 x 73 x 139 mm 351 g	1h 45min (HG mode)	FULL HD 1920x1080p				Slow Motion video	HDR MOVIE	Panasonic LENS	BSI sensor 1/2.3-inch 12.76M	CRYSTAL ENGINE	29.5 mm WIDE	Optical 20x Zoom	Intelligent 50x Zoom	5-Axis HYBRID O.I.S.+	Level Shot Function		Wireless TWIN CAMERA	Wi-Fi CERTIFIED
Compact Super Zoom Full-HD	**W585M** Catch Both the Family and a Selfie with Twin Camera P32	60 x 62 x 129 mm 266 g (W585M)	2h 30min* (HG mode) *Sub Camera Off	FULL HD 1920x1080p					HDR MOVIE	Panasonic LENS	BSI sensor 1/5.8-inch 2.51M	CRYSTAL ENGINE	28 mm WIDE	Optical 50x Zoom	Intelligent 90x Zoom	5-Axis HYBRID O.I.S.+	Level Shot Function	TWIN CAMERA™	Wireless Multi Camera	Wi-Fi CERTIFIED
Compact Super Zoom Full-HD	**V385** Dynamic, Stable, 90x Zooming P33	60 x 62 x 129 mm 252 g	2h 30min (HG mode)	FULL HD 1920x1080p						Panasonic LENS	BSI sensor 1/5.8-inch 2.51M	CRYSTAL ENGINE	28 mm WIDE	Optical 50x Zoom	Intelligent 90x Zoom	5-Axis HYBRID O.I.S.+	Level Shot Function		Wireless Multi Camera	Wi-Fi CERTIFIED
Compact Super Zoom Full-HD	**V180** Powerful 90x Zooming in a Compact Body P34	53 x 59 x 116 mm 211 g	2h 15min (HG mode)	FULL HD 1920x1080p						Panasonic LENS	BSI sensor 1/5.8-inch 2.51M	CRYSTAL ENGINE	28 mm WIDE	Optical 50x Zoom	Intelligent 90x Zoom	5-Axis HYBRID O.I.S.+	Level Shot Function			

4K Supreme

Will Your Pictures Satisfy You Even After 10 Years or More?

Yes!

Even when viewed with the advanced TV technologies of the future, today's incredible 4K image quality will be high enough to keep you completely satisfied.

Panasonic 4K
HC-WXF995

Get Great Instantaneous Photos!

When you shoot videos with 4K PHOTO, you can also extract wonderful instantaneous still images.

4K Cropping for Mistake-Free Full-HD

When shooting in 4K, your subjects easily stay framed, without blurring, because you can edit the images in the camera and save them in Full-HD.

Even 4K Images Stay in Focus

With Panasonic's 4K camcorder, auto focus has remarkable speed, precise tracking, and super stability.

Just Like Images in the Movies

Cinema Like Effect allows Dolly Zoom and other kinds of professional-like shooting techniques they use in cinema films.

4K Definition Keeps Memories
Crisp and Clear, Now and in the Future

4K

Full-HD

4K ULTRA HD

2,160	**4K**	
1,080	**Full-HD**	
480	**SD**	
	720	1,920	3,840
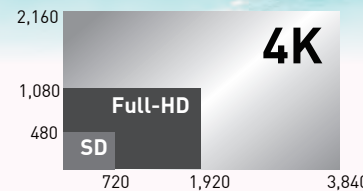
4K Video Recording

The WXF995 and VX985 record in 4K (3,840 x 2,160) format with four times the resolution of Full-HD. This delivers true-to-life images for a wide variety of shooting situations, in extremely high detail.

6

4K High-Precision AF – High-Speed, High-Precision AF Technology in 4K –

4K High Precision AF

An image sensor with 50-fps readout and a precise focus lens drive for 4K images enable superior focusing speed, stability and tracking performance. Complex 4K focusing is also automated for comfortable framing of stunning 4K shots.
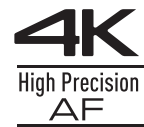
Speed
Even when a subject suddenly enters the frame, it is instantly focused.

Tracking Performance
The subject's movement is also tracked.

Stability
The subject stays in focus even when there are some obstacles passing through.
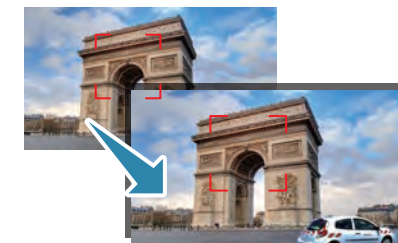
Note: The frame is not actually displayed during auto focus.

4K Photo Mode

4K PHOTO

4K also offers more options in extracting still images from your footage. 4K has four times the resolution of Full-HD Video and allows sharp, detailed prints of single frames up to the size of A3. Filming in 4K means you can easily grab those impressive moments in your video footage that are hard to capture with traditional photography.

Marking Cutout

Mark your favorite scenes when recording in 4K Photo mode for easy 4K Photo cutouts.

2,160 pixels

3,840 pixels

7
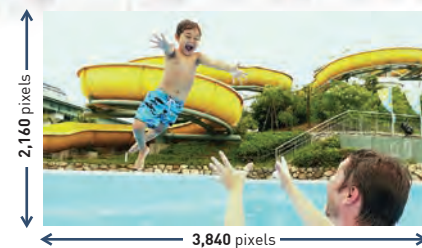
4K Images Offer Beautiful Editing Results

4K Cropping

4K Cropping

When zooming takes your subjects out of the frame, or causes hand-shake, 4K Cropping solves the problem. Cutouts with Full-HD quality from 4K images can be easily done using only the camera, entirely after shooting.

NEW ## Post Auto Tracking (Auto Tracking Crop)

Once you record your child at wide-angle in 4K, the child's face is automatically tracked. You can extract your child's Full-HD movie with no framing-out. You can also add the image stabilizing effect at the same time.

* Up to 20 minutes per file.
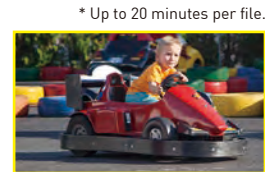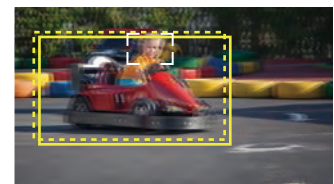
NEW ## Post Close-up (Fixed Crop)

When there is little movement and a part that you don't want is included, you can shoot at wide-angle in 4K and then easily crop the part you want later.

* Up to 1 hour per file.

Post Panning (Zooming Crop)

Panning

By changing cropping parts, you can create smooth and exact panning.

* Only two times can be set: Approximately 20 seconds and approximately 40 seconds.

NEW ## Post Manual Tracking (Manual Tracking Crop)

Just touch subjects that move unexpectedly, and track them intuitively with your finger to shift the angle of view.

* Up to 20 minutes per file.

Post Stabilizer (Stabilizing Crop)

You can compensate for blurring after shooting. Stable videos can be recorded by automatically adjusting the cropping position.

* Up to 1 hour per file.

Post Zooming (Zooming Crop)
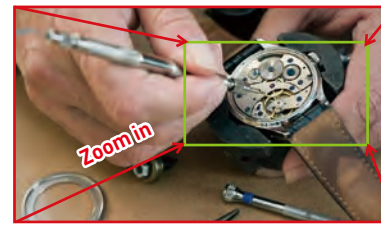
Zoom in

With Smooth Zoom, you get smooth zooming without any zoom blur. It's also easy to zoom in on an off-center subject without maneuvering the camera angle.

* Only two times can be set: Approximately 20 seconds and approximately 40 seconds.

Slow Quick Slow

Cinema Like Effect

Cinema Like Effect

* Available only with MP4 1080/28M format.

Slow & Quick Video*

While shooting in slow motion, you can lower the frame rate and change to quick motion video. By combining slow and quick motion for active scenes, you can achieve dramatic effects just like in a movie.

Slow & Quick Video

ENTER

Slow Zoom

Slow zooming, which is also often used in movies and difficult to do manually, is easily done. You can add tension to otherwise simple scenes, and express emotional shifts in subjects.

Dolly Zoom*

This technique zooms only the background while maintaining the subject's size to express feelings such as confusion, distress, or surprise. Your footage can be as thrilling as a suspenseful film.

Slow Motion Video*

Normal Recording 1920 x 1080 50fps   High Speed Recording 1920 x 1080 100fps   Normal Recording 1920 x 1080 50fps

1/4 Slow Motion for Selected Parts 200fps equivalent

Press Hold

Effective for scenes like these

Sports   Pet   Hobby

Records Full-HD (1920 x 1080) at 100 fps. And the Intelligent Frame Creation of the Crystal Engine interpolates to an equivalent of 200 fps, for smooth slow motion. Switches to slow motion while you touch the icon on the LCD screen during shooting.

Note: You can switch up to three times during one shooting.

24p Recording

The same 24p recording that's used in movies can be used in 4K and Full-HD videos, to achieve a movie-like mood.

Premium Picture Quality

Leica Dicomar Lens

This high-performance lens has passed the stringent inspection standards of Leica Camera AG for aspects such as resolution and contrast. In addition to rendering sharp, crisp images, it produces the distinctive nuances and subtle shading that Leica lenses are renowned for.

1/2.3-inch BSI Sensor

Increasing the readout speed has made it possible to handle large-volume 4K data. This suppresses the rolling shutter distortion that often occurs when shooting moving subjects.

Crystal Engine 4K

This high-speed LSI processes the massive volume of 4K data quickly and accurately. A new noise reduction system achieves clear images with minimal noise even in darkness.

20x Optical Zoom with 4-Drive Lens System

By driving each of four lens groups separately, the drive ranges are reduced, resulting in high image quality and high-powered zooming, with a compact camera body. This gives the WXF995 and VX985 their compact size even with a 20x optical zoom and 4K definition.

With 1 zoom lens group

With 4 moving lens groups

Professional Video Camera

WXF995/VX985

Functions for Both Enthusiasts and Pros

Tiltable Viewfinder

EVF Electronic View Finder

The Electronic View Finder of WXF995 helps when shooting in bright daylight conditions, and contributes to proper framing. The slide and tilt mechanism provides flexibility for various shooting postures. And the eyecup is detachable to comfortably fit either eye.

Slide and Tilt Mechanism

Slide

Tilt

Detachable Eyecup

Left

Right
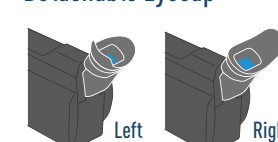
Note: The Viewfinder and LCD Monitor cannot be used simultaneously. Also, since the icons displayed in the Viewfinder cannot be operated, open the LCD Monitor for touch operation.

Multi Manual Dial

By pushing or rotating the manual dial, you can easily adjust allocated functions, like focusing and changing the iris.

Adjustable Items

- Focus
- White Balance Mode
- Shutter Speed
- Iris
- Sharpness
- Color Saturation
- White Balance Fine
- Exposure

Wind Shield Zoom Microphone

A special damping material is provided in the space between the mic and the mic net to suppress wind noise for clear recording always.

Windshield Zoom Microphone

High-Quality Audio Parts

Four 6mm-diameter, high-S/N mics and aluminum electrolytic capacitors reduce sound distortion and increase clarity.

Aluminum electrolytic capacitors for audio use

High-S/N mics

Sound Scene Select

Record sound "just as you hear it", by changing frequency characteristics according to the shooting scene.

WXF995M

64GB Built-in Memory

Superior 4K Quality for Professional Use

1 4K Video Recording and 4K Photo Mode
With LEICA Dicomar lens and lens hood - - - P6-7, 12

2 New 4K Cropping
For better archives in Full-HD - - - P8-9

3 Electronic Viewfinder and Cinema Like Effect
For professional results with creativity - - - P10-11, 13

4 Optical 20x Zoom
The 4-drive lens system makes the powerful zoom compact - - - P12

5 Twin Camera and Wireless Multi Camera
Picture-in-picture recording doubles the shooting fun - - - P26-29

Recording Format	Lens			Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	LEICA DICOMAR 30.8mm WIDE	*4K Intelligent 25x Zoom	*4K Optical 20x Zoom	BSI sensor 1/2.3-inch	CRYSTAL ENGINE 4K	Full Flat LCD 3.0-inch 7.5cm

4K High Precision AF · 4K Cropping · EVF Electronic View Finder · Cinema Like Effect · HDR MOVIE · 5-Axis HYBRID O.I.S.+ · Level Shot Function · iA+ · Creative Control · Windshield Zoom Microphone · WiFi CERTIFIED · TWIN CAMERA · Wireless Multi Camera

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VX985M

64GB Built-in Memory

Save Your Precious Moments in Everlasting 4K

1 4K Video Recording and 4K Photo Mode
With LEICA Dicomar lens and lens hood - - - P6-7, 12

2 New 4K Cropping
For better archives in Full-HD - - - P8-9

3 Cinema Like Effect
For creating cinema style videos - - - P10-11

4 Optical 20x Zoom
The 4-drive lens system makes the powerful zoom compact - - - P12

5 Wireless Multi Camera
Records multiple scenes with smartphones via Wi-Fi - - - P28-29

Recording Format	Lens			Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	LEICA DICOMAR 30.8mm WIDE	*4K Intelligent 25x Zoom	*4K Optical 20x Zoom	BSI sensor 1/2.3-inch	CRYSTAL ENGINE 4K	Full Flat LCD 3.0-inch 7.5cm

4K High Precision AF · 4K Cropping · Cinema Like Effect · HDR MOVIE · 5-Axis HYBRID O.I.S.+ · Level Shot Function · iA+ · Creative Control · Windshield Zoom Microphone · WiFi CERTIFIED · Wireless Multi Camera

Full-HD Beauty Meets High Sensitivity

Can You Get Beautiful Results in the Dark?

Yes!

The HC-V785 features a high-sensitivity sensor. This flagship Full-HD camcorder gives you brilliant images even in dim lighting.

Enjoy Premium Picture Quality

An advanced lens, sensor and engine produce bright images even in darkness or against backlighting.

Take Dramatic Slow-motion Videos

Smooth slow-motion videos turn everyday scenes into works of art.

Voices Are Fresh and Clear

The Windshield Microphone with high-quality audio parts effectively suppresses wind noise for high sound quality.

Use Manual Operation for Rich Expression

The Multi Manual Dial lets you manually set the focus and white balance.

High Sensitivity Sensor

The 1/2.3-inch Back Side Illumination Sensor has a large effective area and 34% larger pixels compared to a commonly used 1/5.8-inch sensor, suppressing noise when shooting in dimly lit places, such as indoor scenes or nightscapes. It achieves stunningly beautiful images even down to the tiniest details.

1/5.8-inch Sensor

1/2.3-inch High Sensitivity Sensor

1/5.8-inch
Total Pixels
2.51M

1/2.3-inch
Total Pixels
12.76M

34% Larger Pixels

Slow Motion Video
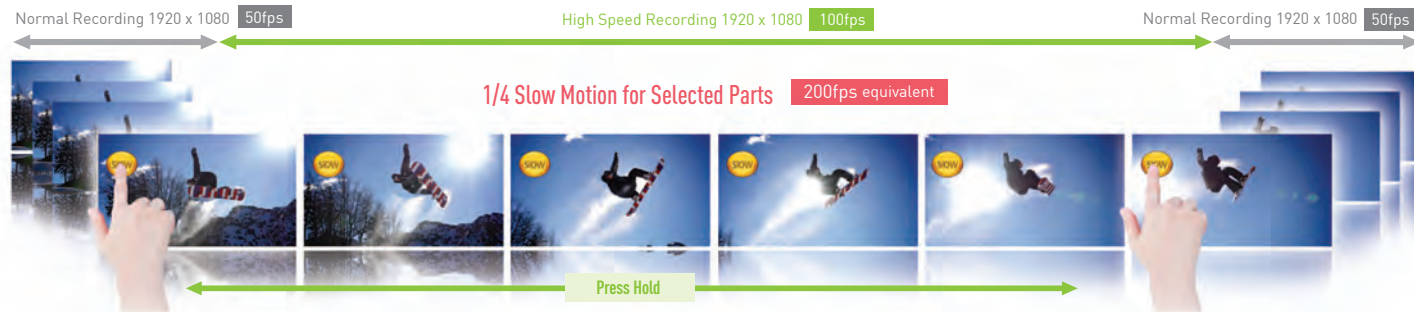
Normal Recording 1920 x 1080 50fps

High Speed Recording 1920 x 1080 100fps

Normal Recording 1920 x 1080 50fps

1/4 Slow Motion for Selected Parts 200fps equivalent

Press Hold

Records Full-HD (1920 x 1080) at 100 fps. And the Intelligent Frame Creation of the Crystal Engine interpolates to an equivalent of 200 fps, for smooth slow motion. Switches to slow motion while you touch the icon on the LCD screen during shooting.

Note: You can switch up to three times during one shooting.

V785 | Stunning Images, Even in Dim Lighting

FULL HD 1920×1080p

1 High Sensitivity 1/2.3-inch BSI Sensor
For bright, beautiful shots even in dim lighting - - - P18

2 5-Axis HYBRID O.I.S. with Auto O.I.S. Lock / Level Shot Function
For more stable images and less blurring - - - P22-23

3 Optical 20x Zoom
The 4-drive lens system makes the powerful zoom compact - - - P12

4 Slow Motion Video
Turns everyday scenes into works of art - - - P18

5 HDR (High Dynamic Range) Movie
Crisp, clear detail in both bright and dark areas - - - P24

Recording Format	Lens				Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	Panasonic LENS	29.5 mm WIDE	Intelligent 50x Zoom	Optical 20x Zoom	BSI sensor 1/2.3-inch	CRYSTAL ENGINE	Full Flat LCD 3.0-inch 7.5cm

Slow Motion video | HDR MOVIE | 5-Axis HYBRID O.I.S. | Level Shot Function | iA+ | Creative Control | Windshield Zoom Microphone | WiFi CERTIFIED | Wireless TWIN CAMERA

High-Power Zoom in Full-HD

90x

Can Your Smartphone Zoom Up Close without Blurring?

No!

The Panasonic camcorder lets you zoom up on distant subjects with Intelligent 90x Zoom and the 5-Axis HYBRID O.I.S. + while preserving the image resolution.

Panasonic FULL HD

HC-W585 WiFi

5-Axis HYBRID O.I.S. +

Less Blurring While Walking or Zooming

Five-Axis Correction and Auto O.I.S. Lock suppress blurring all the way from wide-angle to powerful zoom shots.

Compact and Lightweight

Ideally Designed for Video Shooting

In addition to being lightweight and compact, an ergonomically designed grip snugly fits the hand for comfortable, extended shooting.

TWIN CAMERA™

Dad Can Join in While Shooting!

The Twin Camera function lets you catch a shot of the family and a selfie with a rotatable sub camera.

Intelligent 90x Zoom
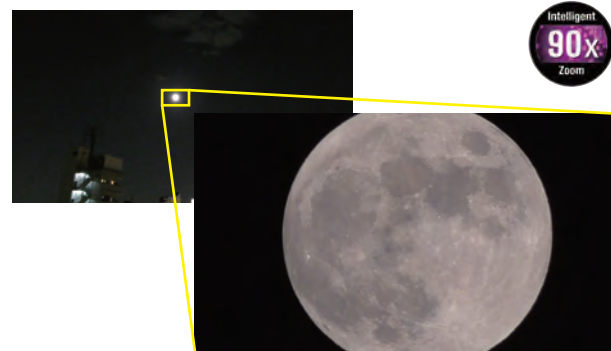
Even Captures Moon Craters!

Intelligent 90x zoom captures clearly distant objects that are too far away to shoot with conventional zoom functions.

Stable, Level Shooting and Less Blurring

5-Axis HYBRID O.I.S. +
Level Shot Function

5-Axis HYBRID O.I.S. +

HYBRID O.I.S. + uses five-axis correction to thoroughly suppress blurring all the way from wide-angle to powerful zoom shots. This lets you capture crisp, clear images, without blurring, in almost every shooting situation.

O.I.S. OFF
O.I.S. ON

NEW Auto O.I.S. Lock

The camera detects a scene that needs stronger stabilization (when zooming, for example), and automatically activates O.I.S. Lock. This increases the compensation area over previous models, and provides more stable images.

* When Manual O.I.S. Lock is selected, conventional operation with the button is also possible.

Level Shot Function

The Level Shot function automatically detects and corrects the tilting of captured images. The setting can be adjusted to one of three levels (OFF, Normal, Strong*) depending on the shooting conditions.

5-Axis Hand-Shake Detection

Roll rotation	Wrist movements	Arm movements
For shooting while walking	Across the entire shooting range	For zooming
Blurring in the roll direction from shooting while walking is suppressed to produce truly beautiful images.	Detected blurring caused by vertical or horizontal wrist movements is corrected using a lens in the optical system.	Areas of the sensor that are not used for zooming are electronically controlled to compensate for hand-shake.

Manual O.I.S. Lock
The button is pressed and held when necessary.

Auto O.I.S. Lock
O.I.S. Lock is automatically controlled by the camera.

Level Shot Function OFF:
Images are often tilted without realizing it.

Level Shot Function ON:
An acceleration sensor and a gyrosensor detect the tilt, and automatically level the scene.

Clear Shots with Excellent Detail in Both Bright and Dark Areas

HDR MOVIE

Long exposed movie

Short exposed movie

HDR

HDR (High Dynamic Range) Movie

By combining two images taken with different exposures, the HDR Movie function suppresses blown highlights and blocked shadows for crisper, clearer videos. Even in difficult shooting situations, such as backlighting, you can easily capture natural videos with excellent gradation. A dedicated HDR button enables quick mode changes when necessary.

Note: This function is not available with 4K mode nor with 24p format.

HDR OFF

HDR ON

HDR OFF

HDR ON

28mm Wide-Angle*

The 28mm wide-angle* fits more people and more of the background into the frame. This is especially handy when you want to take a group shot in a small room. It fits your subjects in even when you shoot from up close, and makes it possible to pick up even small sounds with the mic.

* 35mm camera equivalent

35mm Lens

28mm Wide-Angle

Intelligent 90x Zoom/Optical 50x Zoom

When using Intelligent 90x Zoom, Intelligent Resolution technology lets you shoot at high zoom rates while preserving the image resolution. You get sharp images of highly detailed objects – without the blurry edges.

1x

50x

90x

	WXF995	VX985	V785	W585	V385	V180
Wide-Angle	30.8mm*	30.8mm*	29.5mm	28mm	28mm	28mm
Intelligent Zoom	25x*	25x*	50x	90x	90x	90x
Optical Zoom	20x	20x	20x	50x	50x	50x

* 4K

Double Your Fun with the Twin Camera

Sub Camera
• Pan/Tilt and Retractable

Twin Camera Function*

The W585 includes a pan/tilt and retractable sub camera. Two cameras let you easily take shots from two different angles simultaneously. For example, you can catch a shot of the family at the side and a selfie, or both a tele and wide-angle shot from the front. Vertical ±20° rotation function for the sub camera has been included for greater shooting versatility.

Note: The WXF995 allows 2x zooming with the sub camera (except 4K mode).
* This function is not available with 24p format.

Tilting ±20°

Rotating 270°

TWIN CAMERA ™

Main Scene and Yourself

Tele and Wide

Main Scene and Person Aside

Narration Mode

This mode reduces surrounding sounds to give greater emphasis to the voice of the person shooting. When taking selfies with the Twin Camera, it captures clearer narrations.

Andrew receives the baton! Run Run!

Backup for Twin Camera*

A Picture in Picture image and a main camera image without a sub window are recorded simultaneously, so either image can be played separately later. This assures you of getting a good video even if the subject in the sub window should move out of the frame and spoil the Picture in Picture shot.

* AVCHD 1080/50i only
Note: This function is also available with Wireless Multi/Twin Camera function.

Picture in Picture

Main Camera Only

Wide Variation of Sub Windows

The sub camera images are recorded into sub windows, and their display positions can be changed by touch operation while shooting. The sub window size can be changed to three types, including a 1:1 type that is ideal for taking selfies. You can also select the frame color, apply a shadow effect, and use other sub window variations.

Note: There is no sub window frame when shooting in 4K.

Select from 3 sub window sizes

16:9 Large/Small size

1:1 for Selfie

Move by touch operation

Change sub window frame

4 Colors (Gray/Green/Pink/Orange)

No frame

Flat shadow

Capture Multiple Scenes Simultaneously – Connect Three Devices and Select the Input from Two –

Wireless
Multi Camera

Wireless Multi Camera

Using Wi-Fi, you can link to as many as three smartphones and simultaneously record up to two of them as sub windows. The two sub-window images can be interchanged, and their display positions can be switched. This lets you shoot from a variety of angles and view points, to capture a level of emotional impact that just isn't possible with a single camera.

- This function is not available with 4K mode nor with 24p format.
- This function uses Wi-Fi signals. The distance that Wi-Fi signals will reach is 5 to 10 meters (for a smartphone) or 1 to 5 meters (for a wearable camera) when there are no obstacles or other signals present. However, this should be considered only as a guideline because the distance may vary greatly depending on the devices being used and the environmental conditions.
- For Android devices, those with four or more CPU cores (Quad-Core CPU or higher) are recommended. For iOS devices, the newest models are recommended.

More than just the game

Capture the cheerleaders and audience too.

More than just your child

Also capture her friends too.

More than just the show
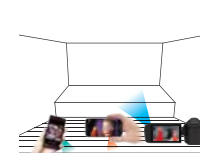
Capture both children.
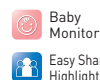
Baby Monitor

Easy Share with Highlight Photo Collage

Remote Shooting

Auto Transfer

Real Time Broadcasting

Wireless TV Playback

Remote View

Home Monitoring

Panasonic Image App

Panasonic provides a free, dedicated application software called "Panasonic Image App" for iOS/Android smartphones and tablets.

Download on the **App Store**

ANDROID APP ON **Google play**

Remote Shooting

The "Panasonic Image App" lets you use a smartphone or tablet as a live-view-remote controller and operate the camcorder from a distance.

Remote View

Videos and photos inside the camera can be viewed on a smartphone or tablet, and uploaded to an SNS site.

Highlight Playback and Easy Share

You can enjoy Highlight Playback with a smartphone or tablet right after shooting. Favorite scenes can be shared on SNS with simple drag and drop operation.

Highlight Photo Collage

Create a highlight photo collage with the best scenes picked out automatically from video.

Home Monitoring*

When you are away from home, you can monitor and record there with high-quality live video, and speak to your family or pets using your smartphone or tablet.

Detect movement   Internet   Watch with a smartphone

Hey Rocky!

Real Time Broadcasting*

You can live-stream events on USTREAM as they are being recorded in Full-HD resolution.

Note: Simultaneous Full-HD recording is not possible with the W585/V385.

Baby Monitor*

You can check on the baby with a smartphone or tablet in another room. The Push Notification function alerts the smartphone or tablet if a voice sensor detects the baby waking up and crying.

Auto Transfer (Wireless PC Copy)*

Images are transferred from your camcorder to a computer via the wireless access point at home.

Wireless TV Playback*

An access point at home can be used to transfer data wirelessly to the TV or a tablet in the living room, or other rooms in the house. You can play images on the large-screen display.

Note: AVCHD and MP4 720p only.

Access point at home   Smartphone   Tablet   TV

W585M

32GB Built-in Memory

Catch Both the Family and a Selfie with Twin Camera

FULL HD 1920×1080p

1 Intelligent 90x Zoom
For imaging power that's out of this world - - - P25

2 5-Axis HYBRID O.I.S. with Auto O.I.S. Lock / Level Shot Function
For more stable images and less blurring - - - P22-23

3 HDR (High Dynamic Range) Movie
Crisp, clear detail in both bright and dark areas - - - P24

4 Twin Camera and Wireless Multi Camera
Picture-in-picture recording doubles the shooting fun - - - P26-29

Recording Format	Lens				Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	Panasonic LENS	28mm WIDE	Intelligent 90x Zoom	Optical 50x Zoom	BSI sensor 1/5.8-inch	CRYSTAL ENGINE	Full Flat LCD 3.0-inch 7.5cm

HDR MOVIE   5-Axis HYBRID O.I.S.   Level Shot Function   iA+   Creative Control   Wi-Fi CERTIFIED   TWIN CAMERA™   Wireless Multi Camera

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V385

Dynamic, Stable, 90x Zooming

FULL HD 1920×1080p

1 Intelligent 90x Zoom
For imaging power that's out of this world - - - P25

2 5-Axis HYBRID O.I.S. with Auto O.I.S. Lock / Level Shot Function
For more stable images and less blurring - - - P22-23

3 Wi-Fi Function
Enables easy sharing via SNS- - - P30-31

4 Wireless Multi Camera
Records multiple scenes with smartphones via Wi-Fi - - - P28-29

Recording Format	Lens				Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	Panasonic LENS	28mm WIDE	Intelligent 90x Zoom	Optical 50x Zoom	BSI sensor 1/5.8-inch	CRYSTAL ENGINE	Full Flat LCD 3.0-inch 7.5cm

5-Axis HYBRID O.I.S.   Level Shot Function   iA+   Creative Control   Wi-Fi CERTIFIED   Wireless Multi Camera

V180

Powerful 90x Zooming in a Compact Body

FULL HD 1920×1080p

1 Intelligent 90x Zoom
For imaging power that's out of this world - - - P25

2 5-Axis HYBRID O.I.S. and Level Shot Function
For more stable images and less blurring - - - P22-23

3 28mm Wide-angle Shooting
Handy for group shots and landscapes - - - P25

Recording Format	Lens	Sensor	Engine	LCD Monitor
AVCHD Progressive iFrame MP4	Panasonic LENS 28mm WIDE Intelligent 90x Zoom Optical 50x Zoom	BSI sensor 1/5.8-inch	CRYSTAL ENGINE	2.7-inch 6.7cm

5-Axis HYBRID O.I.S. + | Level Shot Function | iA+ | Creative Control

Feature Comparison

	WXF995	VX985	V785	W585	V385	V180
4K Video Recording	●	●	—	—	—	—
Recording Format	1080/50p AVCHD iFrame MP4	1080/50p AVCHD iFrame MP4	1080/50p AVCHD iFrame MP4	1080/50p AVCHD iFrame MP4	1080/50p AVCHD iFrame MP4	1080/50p AVCHD iFrame MP4
Lens	Leica Dicomar	Leica Dicomar	Panasonic	Panasonic	Panasonic	Panasonic
BSI Sensor	1/2.3-inch	1/2.3-inch	1/2.3-inch	1/5.8-inch	1/5.8-inch	1/5.8-inch
Engine	Crystal Engine 4K	Crystal Engine 4K	Crystal Engine	Crystal Engine	Crystal Engine	Crystal Engine
Electronic Viewfinder	●	—	—	—	—	—
Total Pixels	18.91 megapixels	18.91 megapixels	12.76 megapixels	2.51 megapixels	2.51 megapixels	2.51 megapixels
LCD Monitor	3.0-inch, Full Flat	3.0-inch, Full Flat	3.0-inch, Full Flat	3.0-inch, Full Flat	3.0-inch, Full Flat	2.7-inch
Wi-Fi	●	●	●	●	●	—
Optical Zoom/Intelligent Zoom	20x/25x[*1]	20x/25x[*1]	20x/50x	50x/90x	50x/90x	50x/90x
Level Shot Function	●	●	●	●	●	●
5-Axis HYBRID O.I.S. +	●	●	●	●	●	●
O.I.S. Lock	Manual	Manual	Auto/Manual	Auto/Manual	Auto/Manual	Manual
Wide Angle[*2]	30.8mm[*1]	30.8mm[*1]	29.5mm	28mm	28mm	28mm
4K Cropping	●	●	—	—	—	—
Cinema Like Effect	●	●	Slow Motion Video	—	—	—
Twin Camera	●	—	—	●	—	—
Wireless Twin Camera	Multi	Multi	Twin	Multi	Multi	—
HDR Movie	●	●	●	●	—	—
Wind Shield Zoom Microphone	●	●	●	—	—	—
Night Mode (IR)	●	●	—	—	—	—
Multi Manual Dial	●	●	●	—	—	—
Stop Motion Animation Assist	●	●	●	●	●	—
iA (Intelligent Auto)	iA Plus	iA Plus	iA Plus	iA Plus	iA Plus	iA Plus
Creative Control	●	●	●	●	●	●
Audio	5.1ch/2ch	5.1ch/2ch	5.1ch/2ch	2ch	2ch	2ch
Still Image Recording Size	25.9 megapixels	25.9 megapixels	24 megapixels	10 megapixels	10 megapixels	10 megapixels

*1 4K *2 35mm camera equivalent

Creative and Handy Functions Give You Greater Shooting Enjoyment

Night Mode (IR) `WXF995` `VX985`

Night Mode lets you shoot in the dark (0 lux). You can capture nighttime images without waking the baby up.

Night Mode [IR] OFF

Night Mode [IR] ON

Baby Calendar `All Models`
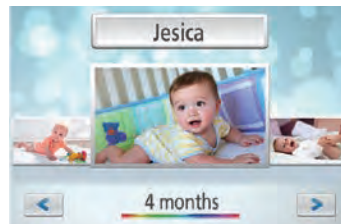
Simply set the baby's birth date and name to display thumbnail images of scenes arranged by month around that date. Easy to find the scenes you want.

Creative Control `All Models`

Four filter effects make it possible to shoot impressive video recordings that are matched to the shooting situation.

Miniature Effect

This effect defocuses peripheral areas while keeping the focus point sharp and clear making life-size subjects look like a diorama.

8mm Movie

You can record motion pictures with a faded retro effect.

Silent Movie

You can record motion pictures that are similar to black-and-white silent films by lowering the amount of peripheral light.

Time Lapse Recording

A scene that moves slowly for a long period of time is recorded frame by frame with an interval, as a short time motion picture.

50Mbps MP4
`WXF995` `VX985` `V785` `W585` `V385`

In addition to the AVCHD format, Full-HD (1,920 x 1,080) 50p videos can be recorded in the 50-Mbps MP4 format. The MP4 format is suitable for editing videos on a computer.

* Playback on a VIERA TV and Blu-ray disc player cannot be guaranteed for data recorded in MP4 50Mbps.

iA (Intelligent Auto) `All Models`

This powerful function senses the shooting conditions and automatically makes the settings and activates functions that deliver optimal results.

iA Plus– Easy to customize settings without releasing iA mode `All Models`

The iA Plus mode enables you to adjust exposure compensation and white balance by just pressing the button on the LCD.

Brightness Control

You can adjust the exposure compensation accurately and easily.

Color Control

You can adjust the white balance from warm red to cool blue.
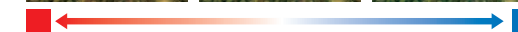
Stop Motion Animation Assist `WXF995` `VX985` `V785` `W585` `V385`

By moving the subject slightly and shooting still images, you can create a unique animated slideshow. Previously taken photos are displayed with an onion skin effect for easy layering.

Onion skin

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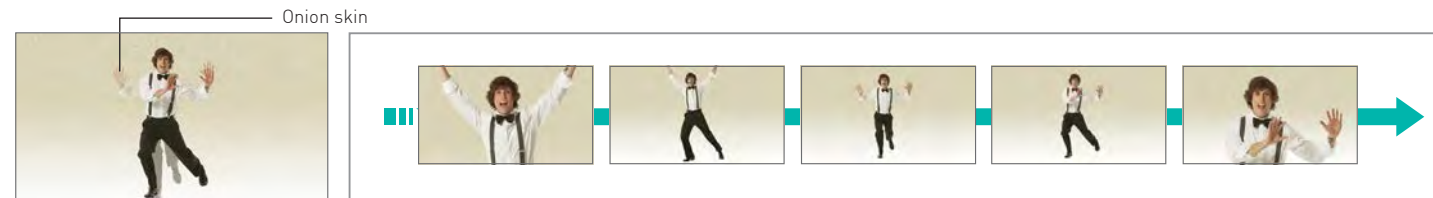
Level Gauge All Models

Level Gauge visibly assists you to shoot straight with horizontal and vertical gauges. It helps to correct even slight tilting.
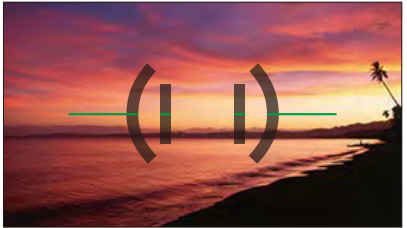
Zoom Mic All Models

The Zoom Mic function links the microphones to the lens action. When you zoom in on a subject, the microphones focus on the sound in that same direction.

Fresh lemonade!

Even distant sounds are crisp and clear.

Wind Noise Canceller
WXF995 VX985 V785 W585 V385

Automatically eliminates wind sounds picked up by the built-in mic to provide clear recordings of the subject's voice.

HD Writer*
All Models   WXF995 / VX985: AE 5.4, V785: AE 5.2
W585 / V385: LE 3.2, V180: LE 3.0

Downloadable HD Writer software makes it easy to play or edit videos on your PC and have more fun when the shooting's done.

* For Windows OS

• Weight and dimensions shown are approximate.
• Design, functions, and specifications are subject to change without notice.
• All monitor and TV pictures are simulated.
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Optional Accessories

LED Video light VW-LED1*1	Wide Conversion Lens VW-W4907H*1	Filter Kit VW-LF49N*1	Video Camera Mount RP-CMC10*1
		*ND Filter *MC Protector *Lens Cap Lens Diameter 49mm	
(for WXF995/VX985/V785)	(for WXF995/VX985/V785)	(for WXF995/VX985/V785)	(for W585/V385/V180)

Accessory Kit VW-ACT190*1	VW-ACT380*2	Microphone VW-VMS10*1
*Battery Pack VW-VBT190 *Battery Charger VW-BC10 *Carrying Case	*Battery Pack VW-VBT380 (High Capacity) *Battery Charger VW-BC10 *Carrying Case	
(for VX985/V785/W585/V385/V180)	(for all models)	(for WXF995/VX985/V785)

High Capacity Battery Pack VW-VBT190 7.0Wh / 1940mAh	VW-VBT380*1 14Wh / 3880mAh (High Capacity)	Battery Charger VW-BC10*2 for VBT190/VBT380
(for all models)	(for all models)	(for all models)

* 1 Not available in China. * 2 Not available in China and India.

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4K Ultra HD/HD Camcorder Specifications

			HC-WXF995M	HC-VX985M	HC-V785	HC-W585M	HC-V385	HC-V180
SENSOR SECTION								
SENSOR FOR MAIN CAMERA								
Image Sensor			1/2.3-inch BSI MOS Sensor	1/2.3-inch BSI MOS Sensor	1/2.3-inch BSI MOS Sensor	1/5.8-inch BSI MOS Sensor	1/5.8-inch BSI MOS Sensor	1/5.8-inch BSI MOS Sensor
Total Pixels			18.91 megapixels	18.91 megapixels	12.76 megapixels	2.51 megapixels	2.51 megapixels	2.51 megapixels
Effective Pixels	Motion Image		4K: 8.29 megapixels (16:9), Full-HD: 6.10 megapixels (16:9, Level Shot Function OFF or Normal)	4K: 8.29 megapixels (16:9), Full-HD: 6.10 megapixels (16:9, Level Function OFF or Normal)	6.03 megapixels (16:9, Level Shot Function OFF or Normal)	2.20 megapixels (16:9, O.I.S. Standard Mode, Level Shot Function OFF)	2.20 megapixels (16:9, O.I.S. Standard Mode, Level Shot Function OFF)	2.20 megapixels (16:9, O.I.S. Standard Mode, Level Shot Function OFF)
	Still Image		7.00 megapixels (3:2) 8.29 megapixels (16:9) 6.22 megapixels (4:3)	7.00 megapixels (3:2) 8.29 megapixels (16:9) 6.22 megapixels (4:3)	5.21 megapixels (3:2) 6.03 megapixels (16:9) 4.72 megapixels (4:3)	1.67 megapixels (3:2) 2.20 megapixels (16:9) 1.70 megapixels (4:3)	1.67 megapixels (3:2) 2.20 megapixels (16:9) 1.70 megapixels (4:3)	1.67 megapixels (3:2) 2.20 megapixels (16:9) 1.70 megapixels (4:3)
SENSOR FOR SUB CAMERA								
Image Sensor			1/4-inch MOS Sensor	—	—	1/5-inch MOS Sensor	—	—
Total Pixels			5.27 megapixels	—	—	2 megapixels	—	—
LENS SECTION								
LENS FOR MAIN CAMERA								
F Value			F1.8 (WIDE) / F3.6 (TELE)	F1.8 (WIDE) / F3.6 (TELE)	F1.8 (WIDE) / F3.6 (TELE)	F1.8 (WIDE) / F4.2 (TELE)	F1.8 (WIDE) / F4.2 (TELE)	F1.8 (WIDE) / F4.2 (TELE)
Optical Zoom			20x	20x	20x	50x	50x	50x
Focal Length			4.08 — 81.6 mm	4.08 — 81.6 mm	4.08 — 81.6 mm	2.06 — 103 mm	2.06 — 103 mm	2.06 — 103 mm
35 mm Film Camera Equivalent	Motion Image		4K: 30.8 — 626 mm (16:9, Level Shot Function OFF) Full-HD: 37 — 752 mm (16:9, Level Shot Function OFF or Normal)	4K: 30.8 — 626 mm (16:9, Level Shot Function OFF) Full-HD: 37 — 752 mm (16:9, Level Shot Function OFF or Normal)	29.5 — 612 mm (16:9, Level Shot Function OFF or Normal)	28.0 — 1740 mm (16:9, O.I.S. Standard Mode, Level Shot Function OFF)	28.0 — 1740 mm (16:9, O.I.S. Standard Mode, Level Shot Function OFF)	28.0 — 1740 mm (16:9, O.I.S. Standard Mode, Level Shot Function OFF)
	Still Image		34.5 — 690.3 mm (3:2) 30.8 — 626 mm (16:9) 37.6 — 752.8 mm (4:3)	34.5 — 690.3 mm (3:2) 30.8 — 626 mm (16:9) 37.6 — 752.8 mm (4:3)	33.5 — 669.9 mm (3:2) 29.5 — 612 mm (16:9) 36.2 — 724.6 mm (4:3)	33.6 — 1714 mm (3:2) 28.0 — 1740 mm (16:9) 34.0 — 1766 mm (4:3)	33.6 — 1714 mm (3:2) 28.0 — 1740 mm (16:9) 34.0 — 1766 mm (4:3)	33.6 — 1714 mm (3:2) 28.0 — 1740 mm (16:9) 34.0 — 1766 mm (4:3)
Filter Diameter			49 mm	49 mm	49 mm	—	—	—
Lens Brand			Leica Dicomar Lens	Leica Dicomar Lens	Panasonic Lens	Panasonic Lens	Panasonic Lens	Panasonic Lens
LENS FOR SUB CAMERA								
F Value			F2.2	—	—	F2.8	—	—
Focal Length			3.54 mm	—	—	2.48 mm	—	—
35 mm Film Camera Equivalent			37.2 mm (Motion Picture Recording Mode)	—	—	30.6 mm	—	—
CAMERA SECTION								
Standard Illumination			1400 lx	1400 lx	1400 lx	1400 lx	1400 lx	1400 lx
Minimum Illumination			2 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color)) 0 lx (Night Mode (IR))	2 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color)) 0 lx (Night Mode (IR))	2 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color))	4 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color))	4 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color))	4 lx (Scene Mode Low Light 1/25) 1 lx (Night Mode (Color))
Focus			Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
Zoom	Intelligent Zoom OFF		20x	20x	20x	62x (O.I.S. Standard Mode, Level Shot Function OFF)	62x (O.I.S. Standard Mode, Level Shot Function OFF)	62x (O.I.S. Standard Mode, Level Shot Function OFF)
	Intelligent Zoom ON		4K: 25x, Full-HD: 40x	4K: 25x, Full-HD: 40x	50x	90x (O.I.S. Standard Mode, Level Shot Function OFF)	90x (O.I.S. Standard Mode, Level Shot Function OFF)	90x (O.I.S. Standard Mode, Level Shot Function OFF)
	Digital Zoom		60x / 1500x (The maximum value of zoom magnification can be set in two patterns)	60x / 1500x (The maximum value of zoom magnification can be set in two patterns)	60x / 1500x (The maximum value of zoom magnification can be set in two patterns)	150x / 3000x (The maximum value of zoom magnification can be set in two patterns)	150x / 3000x (The maximum value of zoom magnification can be set in two patterns)	150x / 500x (The maximum value of zoom magnification can be set in two patterns)
White Balance			Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set	Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set	Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set	Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set	Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set	Auto / Indoor1 / Indoor2 / Sunny / Cloudy / White Set
Shutter Speed	Motion Image	Auto Slow Shutter ON	50p / 50i / 25p: 1/25 — 1/8000, 24p: 1/24 — 1/8000	50p / 50i / 25p: 1/25 — 1/8000, 24p: 1/24 — 1/8000	1/25 — 1/8000	1/25 — 1/8000	1/25 — 1/8000	1/25 — 1/8000
		Auto Slow Shutter OFF	50p / 50i / 25p: 1/50 — 1/8000, 24p: 1/48 — 1/8000	50p / 50i / 25p: 1/50 — 1/8000, 24p: 1/48 — 1/8000	1/50 — 1/8000	1/50 — 1/8000	1/50 — 1/8000	1/50 — 1/8000
	Still Image		1/2 — 1/2000	1/2 — 1/2000	1/2 — 1/2000	1/2 — 1/2000	1/2 — 1/2000	1/2 — 1/2000
Iris			Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
Image Stabilizer			HYBRID O.I.S.+ with Active Mode, O.I.S. Lock, Level Shot Function (Strong mode: 2K only)	HYBRID O.I.S.+ with Active Mode, O.I.S. Lock, Level Shot Function (Strong mode: 2K only)	HYBRID O.I.S.+ with Active Mode, Auto O.I.S. Lock, Level Shot Function	HYBRID O.I.S.+ with Active Mode, Auto O.I.S. Lock, Level Shot Function	HYBRID O.I.S.+ with Active Mode, Auto O.I.S. Lock, Level Shot Function	HYBRID O.I.S.+ with Active Mode, O.I.S. Lock, Level Shot Function
HDR Movie*			Yes	Yes	Yes	Yes	—	—
Creative Control*			Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec	Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec	Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec	Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec	Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec	Miniature Effect, Silent Movie, 8mm Movie, Time Lapse Rec

* Except 4K mode

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		HC-WXF995M	HC-VX985M	HC-V785	HC-W585/W585M	HC-V385	HC-V180
RECORDING SECTION							
Recording Media		Built-in Memory (64GB), SD/SDHC/SDXC Memory Card	Built-in Memory (64GB), SD/SDHC/SDXC Memory Card	SD/SDHC/SDXC Memory Card	Built-in Memory (32GB), SD/SDHC/SDXC Memory Card	SD/SDHC/SDXC Memory Card	SD/SDHC/SDXC Memory Card
Recording Format	AVCHD	AVCHD Progressive	AVCHD Progressive	AVCHD Progressive	AVCHD Progressive	AVCHD Progressive	AVCHD Progressive
	MP4, iFrame	MP4	MP4	MP4	MP4	MP4	MP4
Compression Method		MPEG-4 AVC/H.264	MPEG-4 AVC/H.264	MPEG-4 AVC/H.264	MPEG-4 AVC/H.264	MPEG-4 AVC/H.264	MPEG-4 AVC/H.264
Recording / Playback Mode	AVCHD 1920 x 1080	1080/50p (28Mbps / VBR), PH (24Mbps / VBR, 50i) HA (17Mbps / VBR, 50i), HG (13Mbps / VBR, 50i) HE (5Mbps / VBR, 50i)	1080/50p (28Mbps / VBR), PH (24Mbps / VBR, 50i) HA (17Mbps / VBR, 50i), HG (13Mbps / VBR, 50i) HE (5Mbps / VBR, 50i)	1080/50p (28Mbps / VBR), PH (24Mbps / VBR, 50i) HA (17Mbps / VBR, 50i), HG (13Mbps / VBR, 50i) HE (5Mbps / VBR, 50i)	1080/50p (28Mbps / VBR), PH (24Mbps / VBR, 50i) HA (17Mbps / VBR, 50i), HG (13Mbps / VBR, 50i) HE (5Mbps / VBR, 50i)	1080/50p (28Mbps / VBR) PH (24Mbps / VBR, 50i), HA (17Mbps / VBR, 50i) HG (13Mbps / VBR, 50i), HE (5Mbps / VBR, 50i)	1080/50p (28Mbps / VBR) PH (24Mbps / VBR, 50i), HA (17Mbps / VBR, 50i) HG (13Mbps / VBR, 50i), HE (5Mbps / VBR, 50i)
	MP4 3840 x 2160	2160p/25p (72M) (72Mbps / VBR), 2160p/24p(72M) (72Mbps / VBR)	2160p/25p (72M) (72Mbps / VBR), 2160p/24p(72M) (72Mbps / VBR)	—	—	—	—
	1920 x 1080	1080p/50p (50M) (50Mbps / VBR) 1080p/50p (28M) (28Mbps / VBR) 1080p/24p (50M) (50Mbps / VBR)	1080p/50p (50M) (50Mbps / VBR) 1080p/50p (28M) (28Mbps / VBR) 1080p/24p (50M) (50Mbps / VBR)	1080p/50p (50M) (50Mbps / VBR) 1080p/50p (28M) (28Mbps / VBR)	1080p/50p (50M) (50Mbps / VBR) 1080p/50p (28M) (28Mbps / VBR)	1080p/50p (50M) (50Mbps / VBR) 1080p/50p (28M) (28Mbps / VBR)	1080p/50p (28M) (28Mbps / VBR)
	1280 x 720	720p/25p (9M) (9Mbps / VBR)	720p/25p (9M) (9Mbps / VBR)	720p/25p (9M) (9Mbps / VBR)	720p/25p (9M) (9Mbps / VBR)	720p/25p (9M) (9Mbps / VBR)	720p/25p (9M) (9Mbps / VBR)
	iFrame	960 x 540/25p (28Mbps / VBR)	960 x 540/25p (28Mbps / VBR)	960 x 540/25p (28Mbps / VBR)	960 x 540/25p (28Mbps / VBR)	960 x 540/25p (28Mbps / VBR)	960 x 540/25p (28Mbps / VBR)
Thumbnail Display		20 Scenes/page, 9 Scenes/page, 1 Scene/page	20 Scenes/page, 9 Scenes/page, 1 Scene/page	20 Scenes/page, 9 Scenes/page, 1 Scene/page	20 Scenes/page, 9 Scenes/page, 1 Scene/page	20 Scenes/page, 9 Scenes/page, 1 Scene/page	20 Scenes/page, 9 Scenes/page, 1 Scene/page
Audio Recording System	AVCHD	Dolby Audio (5.1ch / 2ch)	Dolby Audio (5.1ch / 2ch)	Dolby Audio (5.1ch / 2ch)	Dolby Audio (2ch)	Dolby Audio (2ch)	Dolby Audio (2ch)
	MP4, iFrame	AAC (2ch)	AAC (2ch)	AAC (2ch)	AAC (2ch)	AAC (2ch)	AAC (2ch)
Microphone		5.1ch Surround, Zoom, Focus and Stereo Microphone	5.1ch Surround, Zoom, Focus and Stereo Microphone	5.1ch Surround, Zoom, Focus and Stereo Microphone	2ch Stereo, Zoom Microphone	2ch Stereo, Zoom Microphone	2ch Stereo, Zoom Microphone
Speaker		Dynamic Type	Dynamic Type	Dynamic Type	Dynamic Type	Dynamic Type	Dynamic Type
STILL IMAGE SECTION							
Recording Format		JPEG (DCF/Exif2.2)	JPEG (DCF/Exif2.2)	JPEG (DCF/Exif2.2)	JPEG (DCF/Exif2.2)	JPEG (DCF/Exif2.2)	JPEG (DCF/Exif2.2)
Recording Image Size	16:9	25.9 megapixels (6784 x 3816), 14 megapixels (4992 x 2808), 2.1 megapixels (1920 x 1080)	25.9 megapixels (6784 x 3816), 14 megapixels (4992 x 2808), 2.1 megapixels (1920 x 1080)	24 megapixels (6528 x 3672),12.6 megapixels (4736 x 2664), 2.1 megapixels (1920 x 1080)	10 megapixels (4224 x 2376) 2.1 megapixels (1920 x 1080)	10 megapixels (4224 x 2376) 2.1 megapixels (1920 x 1080)	10 megapixels (4224 x 2376) 2.1 megapixels (1920 x 1080)
	3:2	20 megapixels (5472 x 3648), 10.6 megapixels (3984 x 2656), 2.0 megapixels (1728 x 1152)	20 megapixels (5472 x 3648), 10.6 megapixels (3984 x 2656), 2.0 megapixels (1728 x 1152)	20 megapixels (5472 x 3648), 10.6 megapixels (3984 x 2656), 2.0 megapixels (1728 x 1152)	7.7 megapixels (3408 x 2272) 2.0 megapixels (1728 x 1152)	7.7 megapixels (3408 x 2272) 2.0 megapixels (1728 x 1152)	7.7 megapixels (3408 x 2272) 2.0 megapixels (1728 x 1152)
	4:3	20.4 megapixels (5216 x 3912), 10.9 megapixels (3808 x 2856), 0.3 megapixels (640 x 480)	20.4 megapixels (5216 x 3912), 10.9 megapixels (3808 x 2856), 0.3 megapixels (640 x 480)	18 megapixels (4896 x 3672), 8 megapixels (3264 x 2448), 0.3 megapixels (640 x 480)	7.4 megapixels (3136 x 2352) 0.3 megapixels (640 x 480)	7.4 megapixels (3136 x 2352) 0.3 megapixels (640 x 480)	7.4 megapixels (3136 x 2352) 0.3 megapixels (640 x 480)
Simultaneous Recording*[1]	2160p*[2]	20.4 megapixels (6016 x 3384), 8.3 megapixels (3840 x 2160)	20.4 megapixels (6016 x 3384), 8.3 megapixels (3840 x 2160)	—	—	—	—
	Other than 2160p	14.0 megapixels (4992 x 2808), 2.1 megapixels (1920 x 1080)	14.0 megapixels (4992 x 2808), 2.1 megapixels (1920 x 1080)	12.6 megapixels (4736 x 2664), 2.1 megapixels (1920 x 1080)	2.1 megapixels (1920 x 1080)	2.1 megapixels (1920 x 1080)	2.1 megapixels (1920 x 1080)
GENERAL SECTION							
Power Supply		3.6V (Battery) / 5.0V (AC Adaptor)	3.6V (Battery) / 5.0V (AC Adaptor)	3.6V (Battery) / 5.0V (AC Adaptor)	3.6V (Battery) / 5.0V (AC Adaptor)	3.6V (Battery) / 5.0V (AC Adaptor)	3.6V (Battery) / 5.0V (AC Adaptor)
Power Consumption		Max. 7.8W (Recording) / Max. 7.7W (Charging)	Max. 7.1W (Recording) / Max. 7.7W (Charging)	Max. 6.7W (Recording) / Max. 7.7W (Charging)	Max. 5.4W (Recording) / Max. 7.7W (Charging)	Max. 5.4W (Recording) / Max. 7.7W (Charging)	Max. 4.7W (Recording) / Max. 7.7W (Charging)
Dimensions (W x H x D)		Approx. 68 x 78 x 163 mm	Approx. 65 x 73 x 139 mm	Approx. 65 x 73 x 139 mm	Approx. 60 x 62 x 129 mm	Approx. 60 x 62 x 129 mm	Approx. 53 x 59 x 116 mm
Weight (without battery and SD card)		Approx. 405g	Approx. 352g	Approx. 351g	Approx. 266g	Approx. 252g	Approx. 211g
		3.0-inch Touch LCD (460,800 dots)	3.0-inch Touch LCD (460,800 dots)		3.0-inch Touch LCD (460,800 dots)		
LCD Monitor (Wide)		0.24-inch Wide EVF (1.555.200 dots equivalent)	—	3.0-inch Touch LCD (460,800 dots)	—	3.0-inch Touch LCD (460,800 dots)	2.7-inch Touch LCD (230,400 dots)
View Finder		Yes	Yes	—	—	—	—
Manual Dial		AV, HDMI (micro), Microphone (Stereo mini), Headphone (Stereo mini),	AV, HDMI (micro), Microphone (Stereo mini), Headphone (Stereo mini),	Yes	AV, HDMI (mini), USB (2.0 Hi-Speed), USB Charge	—	—
Interface		USB (2.0 Hi-Speed), USB Charge Yes	USB (2.0 Hi-Speed), USB Charge Yes	AV, HDMI (micro), Microphone (Stereo mini), Headphone (Stereo mini), USB (2.0 Hi-Speed), USB Charge	—	AV, HDMI (mini), USB (2.0 Hi-Speed), USB Charge	AV, HDMI (mini), USB (2.0 Hi-Speed), USB Charge
LED Video Light		Yes (Built-in, Cold)	Yes (Cold)	Yes	—	—	—
Accessory Shoe		Yes (Auto)	Yes (Auto)	Yes (Cold)	—	—	—
Lens Cover		AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh),	AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh),	Yes (Auto)	AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh), HDMI mini Cable,	Yes (Manual)	Yes (Manual)
Standard Accessory		HDMI micro Cable, Lens Hood, USB Cable, HD Writer AE5.4 (Download)	HDMI micro Cable, Shoe Adaptor, Lens Hood, USB Cable, HD Writer AE5.4 (Download)	AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh), HDMI micro Cable, Shoe Adaptor, USB Cable, HD Writer AE5.2 (Download)	USB Cable, HD Writer LE3.2 (Download)	AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh), HDMI mini Cable, USB Cable, HD Writer LE3.2 (Download)	AC Adaptor, DC Cable (USB Type), Rechargeable Battery Pack (1,940mAh), HDMI mini Cable, USB Cable, HD Writer LE3.0 (Download)
Wi-Fi							
Standard		IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	IEEE 802.11b/g/n	—
Frequency		2.4GHz band	2.4GHz band	2.4GHz band	2.4GHz band	2.4GHz band	—

*1 16:9 *2 Number of pixels recorded in a still image during REC PAUSE.