

SONY

Press Release

Handycam® with Built-in Projector from Sony Delivers Brighter, Smoother Pictures
Full HD camcorder line-up features brighter projectors, Improved SteadyShot® and Powerful new BIONZ X™ engine



Handycam® HDR-PJ820E

- **Improved SteadyShot™ now 13x more stable¹ for even smoother images**
- **Powerful new BIONZ X™ engine for fastest-ever processing and brilliant picture quality**
- **Three new projector models with external input to project content from your phone, camera or PC**
- **Enhanced features include brighter built-in projector with Keystone Adjustment, advanced sound features with My Voice Cancelling, Motion Shot Video and picture effect**
- **Wi-Fi and NFC for one-touch transfers and remote control from your smartphone**

Hong Kong, January 7, 2014 – Packed with powerful imaging technologies by Sony, Handycam® captures uncompromised Full HD video and detail-packed stills that other camcorders or smartphones just can't match. The new line-up stands out with features like Balanced Optical SteadyShot™ for super-stable images, updated projectors, simple wireless sharing and remote control from your smartphone.

¹ Balanced Optical SteadyShot™ now 13x more stable from wide to tele; Optical SteadyShot™ Intelligent Active mode now 13x more stable at wide angle.

Smart technology for better shooting

The high-resolution Exmor R™ CMOS image sensor inside all new Handycam® models brings those precious memories to life with exquisitely detailed Full HD video and still photos. Even faster and more powerful than before, the new-generation BIONZ X™ engine enhances picture detail and controls area-specific noise reduction for pristine footage and high-resolution stills. It also powers Balanced Optical SteadyShot™ that's now up to 13x more effective² at cutting the effects of camera shake, right across the zoom range from wide angle to telephoto.

Even more new features are enabled by the high-speed processing abilities of the evolved BIONZ X™ engine. The zoom ratio of latest models is dramatically improved. By Pixel Super Resolution technology now boosts detail on video footage captured at up to 60x magnification³ with Clear Image Zoom – a first for Handycam®. And with all that processing power on tap, Handycam® can now record movies in top-quality AVCHD Full HD, simultaneously with MP4 for easy smartphone transfers and web uploads with the camcorders' built-in NFC/Wi-Fi function.

See the difference with all your memories

The in-built projector on three new Handycam® models (HDR-PJ820E, HDR-PJ540E, HDR-PJ340) is better than ever before. Beam big, bright images onto any handy wall or white surface to create your own impromptu cinema. It's a great way to view the day's adventures with mini-movie screenings while you're travelling with no PC to hand. With a newly developed light output of 50 lumens, the Handycam® HDR-PJ820E projects clear pictures up to approx. 5m (200") maximum screen size.

As a fresh refinement, electronic keystone correction⁴ squares up skewed angles if the projector isn't pointing straight. And for extra flexibility, the projector now accepts external inputs too. Hook up your digital camera, notebook or smartphone to Handycam® and enjoy super-sized images, wherever you are.

The high-precision Xtra Fine LCD on the HDR-PJ820E features WhiteMagic™ display technology that uses additional white pixels to boost display brightness. You'll see the difference on sunny outdoor days when it's easier to see what's on the camcorder screen.

After shooting, Motion Shot Video creates a dramatic sequence of superimposed images to trace every split-second of the action. It's a powerful tool for analysing your golf swing, tennis serve and other sports.

² Balanced Optical SteadyShot™ now 13x more stable from wide to tele; Optical SteadyShot™ Intelligent Active mode now 13x more stable at wide angle. Balanced Optical Steadyshot™ only available in HDR-PJ820E and HDR-PJ540E.

³ 60x for HDR-PJ540E, HDR-PJ340E. 24x for HDR-PJ820E

⁴ HDR-PJ820E only.

Movies sound better than ever

Pristine pictures are complemented by sumptuous Handycam® sound that adds extra polish to your videos. My Voice Cancelling⁵ cleverly suppresses vocal frequencies from immediately behind the camera, without affecting volume of the subject's voice and other foreground sounds. Well-meant cheers are reduced to a whisper – letting your subject and their achievements speak for themselves.

Link wirelessly to your mobile at a touch

New to Handycam®, Wi-Fi and NFC allows wireless transfers of movie clips and photos from Handycam® to your smartphone or tablet at a single touch. Simply touching Handycam® via NFC with your mobile device also activates Smart Remote Control. Start and stop recording with your mobile via Wi-Fi – it's ideal for group scenes or solo performances when you don't want to run from the camcorder back into the scene once recording's started. Wi-Fi also allows wireless transfers of movies and stills for playback on your TV⁶. Setup's easy - just download the free [PlayMemories Mobile](#)TM app for your iOS or Android device.

Optional accessories for Handycam®

The ECM-GZ1M Gun Zoom Microphone offers super-directional pickup characteristics to pinpoint voices and other sounds far from the camera. The ECM-W1M Wireless Microphone uses Bluetooth® technology to allow long-distance recording at up to 100m from the camcorder. Interactive Communication mode allows two-way conversation between camera operator and subject. Also available, the ECM-AW4 Wireless Microphone can record at distances of up to 50m. The ECM-GZ1M, ECM-W1M and ECM-AW4 are compatible with all Handycam® and camera models featuring Sony's Multi Interface Shoe.

Compatible with the HDR-PJ540E, the VF-K46MP MC Protector safeguards the lens surface from dirt and scratches without impairing Balanced Optical SteadyShotTM operation. The PCK-LS30W Monitor Protect Sheet is compatible with Handycam® models with a 3.0-type screen, including the HDR-PJ820E and HDR-PJ540E.

The Handycam® Full HD camcorders HDR-PJ820E, HDR-PJ540E and HDR-PJ340E as well as accessories by Sony will be available from January 10, 2014 as follows:

Models	Prices (HK\$)
Handycam® HDR-PJ820E	\$8,980
Handycam® HDR-PJ540E	\$5,980
Handycam® HDR-PJ340E	\$3,980
Microphone ECM-GZ1M	\$ 570

⁵ HDR-PJ820E and HDR-PJ540E only.

⁶ DLNA renderer compatible TV and access point are required. Not compatible with XAVC S format.

Microphone ECM-W1M	\$ 1,390
Microphone ECM-AW4	\$ 1,390
MC Protector VF-K46MP	\$ 220
Monitor Protect Sheet PCK-LS30W	\$ 70

Sony Premium Services

Customers who purchase the Handycam® (except AX and FX series) are eligible to purchase optional Sony Premium Services which bring a host of benefits. These include the extension of the product warranty and a 20% discount on Sony Studio services. Additionally customers will get a 50% discount on value-added services which include: image retrieval service, delivery service, etc. Premium Services (Handycam®) include: an extension of the local warranty 1-year plan at HK\$390 and an extension of local warranty 2-year plan at HK\$700. For details of Premium Services, please visit <http://www.sony.com.hk/premiumservices/>.

For customer enquiries, please contact Sony hotline service at (852) 2345-2966.

About Hong Kong Marketing Company

Hong Kong Marketing Company (HKMC), a division of Sony Corporation of Hong Kong Limited, provides sales, marketing and after sales services for Sony's consumer electronics products as well as broadcast and professional products in Hong Kong and Macau. For more information on Sony's products and services, please visit our website at <http://www.sony.com.hk>.

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Product specifications of Sony Full HD Handycam® HDR-PJ820E, HDR-PJ540E & HDR-PJ340E:

Model		HDR-PJ820E	HDR-PJ540E	HDR-PJ340E
Image Sensor		1/3.95 type(4.6mm) back-illuminated Exmor R CMOS Sensor	1/5.8 type(3.1mm) back-illuminated Exmor R CMOS Sensor	
Processor		BIONZ X™ image processor		
Pixel for still image recording		24.5 megapixels	9.2 megapixels	
Gross pixels		Approx.6590K pixels	Approx.2510K pixels	
Effective Picture Resolution		Approx.6140K pixels(16:9) (Movie & Still)/ Approx.4600K pixels(4:3) (Still)	Approx.2290K pixels(16:9) (Movie & Still)/Approx.1710K pixels(4:3) (Still)	
Minimum Illumination		Standard:6 lux (1/50 Shutter Speed) Low Lux:3 lux (1/25 Shutter Speed)	Standard:6 lux (1/25 Shutter Speed) Low Lux:3 lux (1/25 Shutter Speed)	
Lens	Type	G™ Lens		
	Focal Length (Movie Mode) (35mm equivalent)	f=26.8-321.6mm(16:9) Steady Shot Mode:Active(16:9): f=27.8-661.2mm	f=26.8-804.0mm(16:9) Steady Shot Mode:Active(16:9): f=27.2-1633.5mm	f=26.8-804.0mm(16:9) Steady Shot Mode:Active(16:9): f=27.4-1646.5mm Steady shot mode:Intelligent active(16:9): f=28.8-1694.1mm
	Focal Length (Photo Mode) (35mm equivalent)	f=26.8-321.6mm(16:9), f=32.8-393.6mm(4:3)	f=26.8-804.0mm(16:9), f=32.8-984.0mm(4:3)	
Aperture		F1.8-F3.4	F1.8-F4.0	
Zoom		Optical Zoom 12x Digital Zoom 160x	Optical Zoom 30x Digital Zoom 350x	
Clear Image Zoom		24x	60x	
SteadyShot™		Balanced Optical SteadyShot™ image stabilization with		Optical SteadyShot™

		Active mode (Wide to Tele)		image stabilization w/ intelligent Active mode (Wide to Tele)
Internal Media		Flash Memory 64GB	Flash Memory 32GB	Flash Memory 16GB
Recording Media		Internal Flash Memory Memory Stick PRO Duo™ (Mark 2) Memory Stick PRO-HG Duo™ Memory Stick XC-HG Duo™ SD/SDHC/SDXC Memory Card(Class 4 or Higher)	Internal Flash Memory Memory Stick Micro (Mark 2) Micro SD/SDHC/SDXC Memory Card (Class 4 or Higher)	
Video Format		AVCHD™ format ver.2.0 compatible: MPEG4-AVC/H.264 MP4: MPEG-4 AVC/H.264		
Video Mode (Resolution)		HD:1920x1080/50p(PS), 25p(FX,FH),24p(FX,FH), 50i(FX,FH), 1440x1080/50i (HQ,LP) MP4: 1280x720 25p		HD:1920x1080/50p(PS) , 50i(FX,FH), 1440x1080/50i (HQ,LP) MP4: 1280x720 25p
Still Image size	Photo Mode	L:24.5 megapixels 16:9 (6592x3712),18.4 megapixels 4:3 (4960x3712) M:12.3 megapixels 16:9 (4672x2632), 9.2 megapixels 4:3 (3504x2632) S:2.1 megapixels 16:9 (1920x1080),0.3 megapixels 4:3 (640x480)	L:9.2megapixels 16:9(4032x2272), 6.9megapixels 4:3(3024x2272) S:2.1megapixels 16:9(1920x1080), 0.3megapixels 4:3(640x480)	L:9.2megapixels 16:9(4032x2272), 6.9megapixels 4:3(3024x2272) S:2.1megapixels 16:9(1920x1080), 0.3megapixels 4:3(640x480)
	Photo Capture from Movie	2.1 megapixels 16:9 (1920x1080)		
	Dual Record	24.5 megapixels 16:9(6592x3712) 12.3 megapixels 16:9(4672x2632) 2.1 megapixels 16:9(1920x1080)	L:9.2megapixels 16:9(4032x2272) S:2.1megapixels 16:9(1920x1080)	
Viewfinder		0.5cm(0.2 type)/Color 201,600dots equivalent Field of View: 100%	----	
LCD Monitor		7.5cm(3.0 type) Xtra Fine LCD™ display(921K)	7.5cm(3.0 type) Clear Photo LCD display (460K)	6.7cm(2.7 type) Clear Photo LCD display

	Wide(16:9)	Wide(16:9)	(230K) Wide(16:9)
Built-in Projector	854×480/ 10 type - 200 type Light output: Up to 50 lumen	640 x 360/ 10 type - 100 type Light output: Up to 25 lumen	640 x 360/ 10 type - 100 type Light output: Up to 13 lumen
Projector Input	Yes (HDMI micro)		
Microphone /Speaker	Built-in Zoom Microphone / Monoral Speaker		
Auto Wind Noise Reduction	Yes(Off/ON)		---
My Voice Canceling	Yes		---
Intelligent Auto	Portrait/Baby/Walk/Tripod/Backlight/Landscape/ Spotlight/Twilight/Macro/Low light/ Auto wind noise reduction		Portrait/Baby/Walk/Tripod/Backlight/Landscape / Spotlight/Twilight/Macro/ Low light
Direct Copy	Yes		
NFC	One-touch remote/ One-touch sharing		
WiFi	Send to Smartphone/ Control with Smartphone		
AF Mode	Auto/Manual(Touch Panel/Dial)	Auto/Manual(Touch Panel)	Auto/Manual
Scene Selection	Auto/Night Scene/Sunrise & Sunset/ Fireworks/Landscape/Portrait/Spotlight/Beach/Snow		
Built-in USB Cable	Yes(USB Charge Available)		
Dimensions (WxHxD) (including supplied battery)	Approx.67.5mm x 72.5mm x 134mm	Approx.61.5mm x 66.5mm x 121.0mm	Approx.61.0mm x 59.5mm x 119.0mm
Weight(Main unit only)	Approx.460g	Approx.325g	Approx.215g
Battery Type	InfoLITHIUM® with AccuPower™ Meter System (V Series)		
Interface	Memory Card Slot: Memory Stick PRO Duo and SD/SDHC/SDXC compatible SD Output: Composite Video Out(AV CABLE(sold separately)) USB port: TypeA(built-in)/USB2.0 Hi-speed (mass-storage/MTP)	Memory Card Slot: Memory Stick Micro and Micro SD/SDHC/SDXC compatible SD Output: Composite Video Out(AV CABLE(sold separately)) USB Port(s):	Memory Card Slot: Memory Stick Micro and Micro SD/SDHC/SDXC compatible SD Output: Composite Video Out(AV CABLE(sold separately))

	<p>Multi/Micro USB Terminal: Yes BRAVIA Sync PhotoTV HD Headphone Jack - Stereo Minijack Microphone Input - Stereo Minijack Remote Terminal: integrated into Multi/Micro USB Terminal HD Output: HDMI micro Projector Input: HDMI micro Accessory Shoe: Multi Interface Shoe</p>	<p>TypeA(built-in)/ USB2.0 Hi-speed (mass-storage/MTP) Multi/Micro USB Terminal BRAVIA Sync PhotoTV HD Headphone Jack - Stereo Minijack Microphone Input - Stereo Minijack Remote Terminal: integrated into Multi/Micro USB Terminal HD Output: HDMI micro Projector Input: HDMI micro Accessory Shoe: Multi Interface Shoe</p>	<p>USB Port(s): TypeA(built-in)/ USB2.0 Hi-speed (mass-storage/MTP) Multi/Micro USB Terminal BRAVIA Sync PhotoTV HD Remote Terminal: integrated into Multi/Micro USB Terminal HD Output: HDMI micro Projector Input: HDMI micro</p>
Supplied Accessories	<p>Rechargeable Battery Pack(NP-FV50) (1) AC Adaptor (1) "Operating Guide"(1) HDMI(micro) Cable (1) USB Connection Support Cable (1) Step Down Ring (1) Remote Commander(RMT-835 with Battery(CR2025)) (1)</p>	<p>Rechargeable Battery Pack(NP-FV50) (1) AC Adaptor (1) "Operating Guide"(1) HDMI(micro) Cable (1) USB Connection Support Cable (1)</p>	