SONY

ILX-LR1



61MP

243g
Body only

SDK

Key features

- Ultra-lightweight body
- Compact size
- Full frame Exmor R™ CMOS Sensor
- Powerful BIONZ XR image processor
- Multiple connectivity:
  USB 3.2 / HDMI type D / Wi-Fi / Ethernet

- Sony Camera Remote SDK (Software Development Kit)

SDK Sony Camera Remote SDK Windows, Linux & MAC

Dimensions



Units: mm (inches)

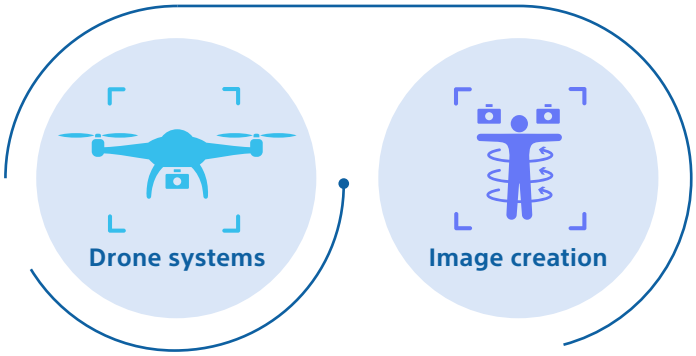
61 MP resolution

Unique form factor

Easy integration supported by Sony SDK

Sony presents a new interchangeable lens professional camera with approximately 61 megapixels and 35 mm full-frame image sensor. With it's extremely high resolution and ultra-lightweight within a compact body, it is designed for industrial applications such as **UAV (surveying and mapping), photogrammetry, surveillance and inspection**.

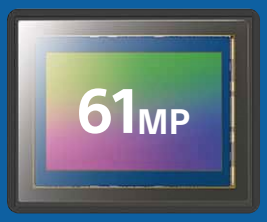
Key industrial applications



High resolution sensor for detailed images and efficient coverage

High resolution, low noise and wide dynamic range images enable to reveal fine details like small scratches and cracks on a still image or short video.

With its 3fps continuous shooting capabilities and a higher burst capture rate, it allows for quick completion of shooting from high altitudes in a short amount of time. Additionally, the ISO range of 100-32000 gives the camera the ability to operate in most daylight conditions.



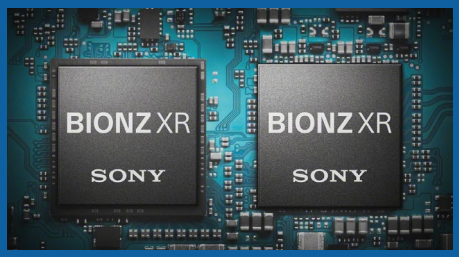
Exmor R CMOS Sensor

Exmor R™ CMOS sensor

Sony's new Back-illuminated image sensor provides a high resolution of 61 MP.

BIONZ XR image processing engine

The latest advanced BIONZ XR™ processing engine from Sony produces, in real-time, natural gradations and realistic colours for amazing images.



Lightweight and compact design

The camera is designed to be the smallest and lightest interchangeable lens camera with a 35mm full-frame image sensor in Sony's α camera history. It measures 100.0 x 74.0 x 42.5 mm and weighs 243g (body only).

Created for industrial applications, the ILX-LR1 doesn't have a conventional camera body with the removal of the LCD monitor, viewfinder, image stabiliser, grip, Multi Interface (MI) Shoe or battery-driver functionality.



Large choice of E-mount lenses

Compatibility with a wide range of E-mount lenses enables the selection of the most appropriate lens. A single picture taken from high altitude can replace several pictures from a lower resolution camera.

Example of recommended lenses for UAV applications

Lightweight and good image quality



FE 24mm F2.8 G
162g



FE 40mm F2.5 G
173g



FE 50mm F2.5 G
174g

Long distance subjects



FE 55mm F1.8 ZA
281g



FE 85mm F1.8
371g

Designed for easy integration with industrial applications

Drone systems



SURVEYING, MAPPING, INVESTIGATION

Long duration shooting

DC 10-18V power connection to external power supply devices and systems, for extended operation times without having to change batteries.

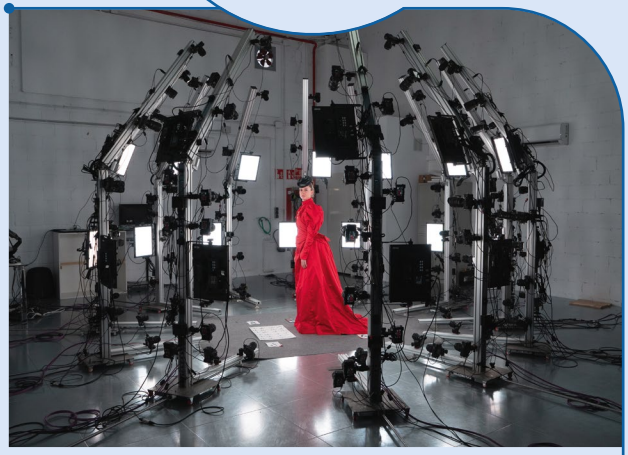
Control terminal

Low-latency signal available for remote applications requiring instant response, such as synchronisation with an external event, flash or, triggering multiple cameras.

Easy integration

The compact camera has screw holes for secure mounting, in any suitable location, on its six sides. The controls, connectors, micro-HDMI and USB-C ports are grouped together at the rear of the camera for easy installation.

Image creation



PHOTOGRAMMETRY, PRODUCT IMAGE, INSPECTION

Remote operability

Sony Camera Remote SDK gives remote users access to the camera's menus and other functions from their own software applications. By integrating an API into the system, it becomes possible to control the camera from a computer, allowing changes to camera settings, shutter release, live view monitoring, and more.

Multiple interfaces

High flexibility of transmission through USB C connection or long standard Ethernet cable. Terminals are also lockable (except for HDMI).

More applications to discover

ILX-LR1 - Specifications

General	
Camera type	Interchangeable lens digital camera
Lens mount	E-mount
Camera section	
Type	35mm full frame (35.7 x 23.8 mm), Exmor R CMOS sensor
Number of pixels (effective)*1	Still images: Approx. 61.0 megapixels max.
	Movies: Approx. 50.8 megapixels max.
Number of pixels (total)	Approx. 62.5 megapixels
Colour temperature range	2500 K - 9900 K
Recording system (still image)	
Recording format	JPEG (DCF Ver. 2.0, Exif Ver. 2.32, MPF Baseline compliant), HEIF (MPEG-A MIAF compliant), RAW (Sony ARW 4.0 format compliant)
Image size (pixels) [3:2]	35mm full frame L: 9504 x 6336 (60 M), M: 6240 x 4160 (26 M), S: 4752 x 3168 (15 M)
Image quality modes	RAW
	JPEG
	HEIF (4:2:0 / 4:2:2)
	RAW & JPEG
	RAW & HEIF
14bit RAW	Yes
Recording system (movie)	
Video compression	XAVC S: MPEG-4 AVC/H.264
	XAVC HS: MPEG-H HEVC/H.265
Audio recording format	LPCM 2ch (48 kHz 16 bit)*2
Movie recording format (XAVC HS 4K)	
3840 x 2160 (4:2:0, 10bit) (Approx.)	59.94P (150 Mbps / 75 Mbps / 45 Mbps) 50p (150 Mbps / 75 Mbps / 45 Mbps) 23.98P (100 Mbps / 50 Mbps / 30 Mbps)
3840 x 2160 (4:2:2, 10bit) (Approx.)	59.94p (200 Mbps / 100 Mbps), 50p (200 Mbps / 100 Mbps), 23.98p (100 Mbps / 50 Mbps)
Movie recording format (XAVC S 4K	
3840 x 2160 (4:2:0, 8bit) (Approx.)	59.94p (150 Mbps), 50p (150 Mbps), 29.97p (100 Mbps / 60 Mbps), 25p (100 Mbps / 60 Mbps), 23.98p (100 Mbps / 60 Mbps)
3840 x 2160 (4:2:2, 10bit) (Approx.)	59.94p (200 Mbps), 50p (200 Mbps), 29.97p (140 Mbps), 25p (140 Mbps), 23.98p (100 Mbps)
Movie recording format (XAVC S HD)	
1920 x 1080 (4:2:0, 8bit) (Approx.)	119.88p (100 Mbps / 60 Mbps), 100p (100 Mbps / 60 Mbps), 59.94p (50 Mbps / 25 Mbps), 50p (50 Mbps / 25 Mbps), 29.97p (50 Mbps / 16 Mbps), 25p (50 Mbps / 16 Mbps), 23.98p (50 Mbps)
1920 x 1080 (4:2:2, 10bit) (Approx.)	59.94p (50 Mbps), 50p (50 Mbps), 29.97p (50 Mbps), 25p (50 Mbps), 23.98p (50 Mbps)
Movie recording format (XAVC S-I 4K)	
3840 x 2160 (4:2:2, 10bit) (Approx.)	59.94p (600 Mbps), 50p (500 Mbps), 29.97p (300 Mbps), 25p (250 Mbps), 23.98p (240 Mbps)
Movie recording format (XAVC S-I HD)	
1920 x 1080 (4:2:2, 10bit) (Approx.)	59.94p (222 Mbps), 50p (185 Mbps), 29.97p (111 Mbps), 25p (93 Mbps), 23.98p (89 Mbps)
Movie function	
Proxy recording	Yes
TC/UB	Yes
RAW Output	Yes (HDMI)*3
Recording system	
Memory card slot	Slot for SD (UHS-I/II compliant) memory card
Focus system	
Type	Fast Hybrid AF (phase-detection AF / contrast-detection AF)
Focus point	Still images: Max. 693 points (phase-detection AF)
	Movies: Max. 693 points (phase-detection AF)
Sensitivity range	EV-4 to EV20 (ISO100 equivalent with F2.0 lens attached)
Exposure control	
Metering type	1200-zone evaluative metering
Metering sensitivity	EV-3 to EV20 (ISO100 equivalent with F2.0 lens attached)
Exposure compensation	+/- 5.0 EV (1/3 EV, 1/2 EV steps selectable)
ISO sensitivity	Still images: ISO 100 - 32000 (expandable to ISO 50 - 102400), AUTO (ISO 100 - 12800, selectable lower limit and upper limit)
	Movies: ISO 100 - 32000 equivalent, AUTO (ISO 100 - 12800, selectable lower limit and upper limit)
Anti-flicker Shoot.	Yes*4
Other features	
Soft Skin Effect	Yes
Creative Look	Yes
Custom function	Yes
Picture Profile	Yes
Time-lapse	Yes
Clear Image Zoom	
Still images	Approx. 2x
Movies	Approx. 1.5x (4K), Approx. 2x (HD)

Shutter	
Shutter type	Mechanical shutter / Electronic shutter
Shutter speed	Still images (Mechanical shutter): 1/4000 to 30 s, Bulb
	Still images (Electronic shutter): 1/8000 to 30 s
	Movies: 1/8000 to 1 s
Electronic Front Shutter Curtain	Yes
Image stabilisation	
Type	Not supported (image stabilisation supported on lens)
Mode	Still images: On / Off
	Movie: On / Off
Drive	
Continuous drive speed (approx., max.)*5	Mid: 3.0 fps
No. of frame recordable* (approx.)*5	JPEG Extra fine L: 48 frames
	JPEG Fine L: 320 frames
	JPEG Standard L: over 1000 frames
	RAW: 36 frames
	RAW & JPEG: 32 frames
	RAW (Lossless Compressed): 16 frames
	RAW (Lossless Compressed) & JPEG: 15 frames
	RAW (Uncompressed): 14 frames
	RAW (Uncompressed) & JPEG: 13 frames
Accessibility	
Functions	Screen Reader
	Focus Magnifier
	Focus Map (Movie)
	Subject Recognition in AF
	Custom function
	Enlarge Menu Screen
Interface	
USB Type-C® Terminal	Yes (SuperSpeed USB 5 Gbps (USB 3.2) compatible)
Wireless LAN (built-in)	Yes (Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac (2.4 GHz band/5 GHz band))*7*8
Bluetooth	Yes (Bluetooth Standard Ver. 4.2 (2.4 GHz band))
HDMI output	HDMI micro connector (Type-D)
	3840 x 2160 (59.94p / 50p / 29.97p / 25p / 23.98p) / 1920 x 1080 (59.94p / 50p / 23.98p) / 1920 x 1080 (59.94i / 50i), YCbCr 4:2:2 10bit / RGB 8bit*9*3
	3848 x 2168 (60p / 50p / 30p / 25p / 24p), Raw 16bit*3
Remote Control (Wireless)	Yes (Bluetooth remote control)
DC input	Yes (Power & Control terminal)
LAN terminal	(USB-LAN connection is available)*11
USB Streaming	
Video data format	MJPEG
	YUV420*12
Video resolution	3840 x 2160 (15p / 30p), 3840 x 2160 (12.5p / 25p) 1920 x 1080 (30p / 60p), 1920 x 1080 (25p / 50p) 1280 x 720 (30p), 1280 x 720 (25p)
Lens compensation	
Shading, Chromatic Aberration, Distortion, Breathing (Movie)	Yes
Power	
Power Requirements	DC 10 to 18 V
Power consumption	
Without display output	Still images: Approx. 3.8 W (with FE 28-70mm F3.5-5.6 OSS lens attached)
	Movies: Approx. 6.5 W (with FE 28-70mm F3.5-5.6 OSS lens attached)
Weight	
Body only (g / oz.)	Approx. 243 g / 8.6 oz
Dimensions	
Dimensions (W x H x D) (mm / inches)	Approx. 100.0 x 74.0 x 42.5 / Approx. 4 x 3 x 1 11/16
Operating Temperatur	
0 - 40 °C/ 32 - 104 °F	Yes
Supplied Accessory	
Supplied Accessories	Body cap
	Power & Control Cable

*1 Number of effective pixels varies depending on attached lenses and camera settings.
*2 There would be no sound due to no audio input on camera.
*3 HDMI RAW output requires configuration through the Camera Remote SDK application.
*4 Anti-flicker Shooting is not available when the [Shutter Type] setting is set to [Electronic Shutter].
*5 Varies according to shooting conditions or memory card used
*7 (Configuration method/Access method) WPS or manually /infrastructure mode. When connecting to smartphones, the camera can always work as a base without a wireless access point. (Security: WEP/WPA-PSK/WPA2-PSK/WPA3-SAE)
*8 Models sold in some countries/regions support IEEE 802.11b/g/n (2.4GHz) wireless LAN only.
*9 HDMI output automatically detect connected device resolution.
*10 Sony accessories for the Accessory Shoe can be attached.
*11 A commercially available USB-LAN conversion adapter is required.
*12 When [Resolution] is set to [HD(720p)], [MJPEG] is only available.

SONY

Digital Imaging Solutions
pro.sony/digital-imaging

Image Sensing Solutions Europe from Sony
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