

SONY

4K

Partner Solution

4K SMART CAMERA WITH OPTICAL ZOOM

This compact smart camera solution combines Sony's best-in-class 4K FCB-ER8550 with a powerful nVidia Jetson Xavier NX processor together in a compact housing. This unique combination of high performance components can be used for many artificial intelligence driven applications, such as License Plate Reading (LPR), vehicle identification, object classification, and many others depending upon the AI App installed. This H.264/H.265 IP camera is upgradeable to full ONVIF Profile S remote control support and is upgradeable to Power-Over-Ethernet (PoE) if desired and supports nVidia SDK to deliver low latency and high throughput for high-speed inference applications. The FCB-ER8550 camera offers 30x* telephoto zoom with image stabilization. Camera settings may be easily optimized for the end customers' desired application via a simple graphical user interface.



Capture Mode Current Release: 1080p60
Future Release(TBD): 4K30p

nVidia® Jetson Xavier™ AI Processor

30X Optical Zoom*

H.264 / H.265 Encoding

External Sych Input

Other Functions

- Auto Focus
- Image Stabilization
- Auto Day/Night
- Sony Image Processing
- Multistreaming
- Future Release (TBD): ONVIF Profile S Compatible

*Using Super Resolution Zoom Feature

	FCB-ER8530 (optional)	FCB-ER8550
Image Sensor (# of effective pixels)	1/2.5 type Exmor R CMOS Sensor (8510K pixels)	
Output Pixels (HxV)	3840 x 2160 (QFHD), 1920 x 1080 (FHD), 1280 x 720 (HD)	
Signal System	1080p/23.98, 1080p/25, 1080p/29.97, 1080p/60, 720p/25, 720p/29.97, 720p/50, 720p/59.94	
Camera Control	Full camera support (Zoom, Focus, ePTZ, IR Cut, etc.) with VISCA via Jetson Module. No external RS232 cable needed	
External Sync	No	Yes, via external connector
Jetson Module	nVidia Xavier NX (10W mode) / Nano Optional	
Camera Interface Board	Vidtek 550-4K3	
Jetson Carrier	Vidtek Carrier Board N100	
Interface	USB-C (Flash), 5V Fan Control Out, Micro HDMI, USB 3 Type B, GbE, BNC Gen Lock (FCB-ER8550)	
Power	12V DC /POE 802.3at	
Dimensions (W x H x D)	155 X 135 X 75 mm	

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Features

■ 4K

Delivers four times higher resolution than Full HD (1080p). Realize a high-definition (fine) image quality that allows users to see the details of images even when viewed on a large screen and realistically reproduces textures that could not be expressed with Full HD.

■ External Synchronization *FCB-ER8550 only

Enables creation of 3D Volumetric Capture systems using multiple cameras and an external synchronization source. Prevents screen distortion when the camera image switches by synchronizing the timing of image signals including those of multiple video cameras, as well as other devices including modulated LED lights.

■ Focus Modes

• Auto Focus Mode

The Auto Focus (AF) function automatically adjusts the focus position to maximise the high frequency content of the picture in a center measurement area, taking into consideration the high luminance and strong contrast components.

• Manual Focus Mode

Manual Focus has both a Standard Mode and a Variable Mode.

- Standard Mode focuses at a fixed rate of speed.
- Variable Mode has eight speed levels.

• One Push Trigger Mode

When a Trigger Command is sent, the lens moves to adjust the focus for the subject.

• Near Limit

Can be set in a range from 1000 (∞) to F000 (10 mm).

• Spot Focus

■ Super Resolution Zoom

Delivers excellent images while maintaining the resolution without reducing image quality when the image is expanded due to the Sony unique "Full pixel super-resolution imaging technology".

■ Noise Reduction (NR)

The NR function removes noise (both random and non-random) to provide clearer images.

■ Electronic Image Stabilizer

Switching on the Image Stabilizer function reduces image blurring caused by, for example, vibration, which allows you to obtain images without much blurring. A correction effect is possible for a vibration frequency of around 10 Hz.

■ Auto ICR (Auto Day/Night)

Auto ICR Mode automatically switches the settings needed for attaching or removing the IR Cut Filter. With a set level of darkness, the IR Cut Filter is automatically disabled (ICR On), and the infrared sensitivity is increased. With a set level of brightness, the IR Cut Filter is automatically enabled (ICR Off).

■ ONVIF (Open Network Video Interface Forum compliance) [Future Release]

Support for ONVIF simplifies integration with a wide range of VMS platforms and hardware, providing video streaming and camera control. ONVIF (Open Network Video Interface Forum) defines a common protocol for the exchange of information between network video devices, including automatic device discovery and video streaming.

Sony Deep Learning-based License Plate Recognition Software Library

Smart License Plate Recognition (Smart LPR) is a software library conveniently designed to work with any existing cameras and processors. It's the ideal cost-effective software choice for application developers who want to streamline their coordination efforts and contribute to building safer cities, leveraging advanced smart technologies.

- State-of-the-art deep learning technology
- Cost-effective AI solution
- 4K video resolution
- Real-time processing
- Hardware flexibility
- Added recognition for enhanced confidence

pro.sony/ue_US/products/license-plate-recognition

Exmor R

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