

## **Commercialization of CMOS image sensor "Exmor RS" the world's first stacked**

Also expanded with high quality imaging compact module, such as smart phones and tablets to  
- Sony will evolve, World of Digital Imaging

Sony Corporation (hereafter Sony) CMOS image sensor "Exmor RS" newly developed recruitment and  $\times 1$ , the world's first structure "stacked" own commercialized (Exmore are es), shipments sequentially from October I will start. We will expand the three models imaging module that adopts towards such as smartphones and tablets to achieve and compact, high-performance high image quality further, the image of each sensor CMOS image sensor "Exmor RS" stacked 3 and the model,

Sony has been actively promoting the future, the expansion of the product mix and technological development of CMOS image sensor "Exmor RS" stacked core technology to evolve products, digital imaging, spread the enjoyment of photography easier to use, which is a device Go.

Three models of "Exmor RS" commercialized, raised the sensitivity without adding pixels (white) W to pixel (red / green / blue) RGB traditional, compromising image quality by and signal processing technology to its own devices this The capabilities and "RGBW Coding" You can shoot, set the exposure conditions of the two in the same screen at the time of shooting cleanly at night or a dark room, by appropriate signal processing to the image obtained there, it is a wide dynamic range to generate an image, the features can be vivid in color backlight "(High Dynamic Range) Movie HDR", "IMX134 of 8.08 million pixels" IMX135 "Type Availability of 13.13 million pixel 1/3.06, valid for 1/4 is ISX014 "" of 8.08 million effective pixels 1/4 type with built-in camera and signal processing, ". Adoption of "stacked structure", in addition to the high image quality and high performance These were both downsizing.

In addition, each image sensor, auto focus to commercialize imaging module "IU135F3-Z" "IU134F9-Z", "IUS014F-Z" a compact unit with a lens with auto-focus mechanism. Imaging module of these three models, high resolution has been achieved by adopting a newly designed lens, which is optimized for the industry's smallest unit pixel  $\times 1$  1.12 $\mu$ m. "IU135F3-Z" is the auto focus imaging module that employs a high-resolution lens bright F2.2. "IU134F9-Z" is thin and miniaturization has been achieved (W: 4.2mm  $\times$  4 8.5x D:: 8.5x H). "IUS014F-Z" is an all-in-one imaging module type with a camera signal processing functions on the image sensor, with built-in auto-focus and image quality adjustment.

Future, actively promote the development of CMOS image sensor "Exmor RS" stacked, towards such as smart spaces embedded imaging module is limited by the increase in the size of the display screen, Sony is taking advantage of the features of the structure "stacked" aim was, the commercialization of imaging modules to achieve high performance and miniaturization, higher image quality, while expanding the product mix, we will continue to respond more to the needs of our customers.

By the mobile device market demand, such as smartphones and tablets is growing rapidly, to strengthen the  $\times 2$  supply system of CMOS image sensors stacked to achieve both miniaturization and high functionality, Sony is leading the CMOS image sensor consolidate the position, I will continue to lead the industry in the future.

### **CMOS image sensor "Exmor RS" stacked Key Features**

Commercialization of "Exmor RS" which adopted the newly developed structure "stacked" the world's first own  $\times 1$  1)

Both functional and compact, high-image quality enhancement by adopting the layered structure 2).

- On-chip ("IMX135", "IMX134") features "HDR Movie" function and "RGBW Coding"

- Built-in camera signal processing function, automatic control, image quality adjustment, a plurality of image output format support (eg YUV) is ("ISX014") can be