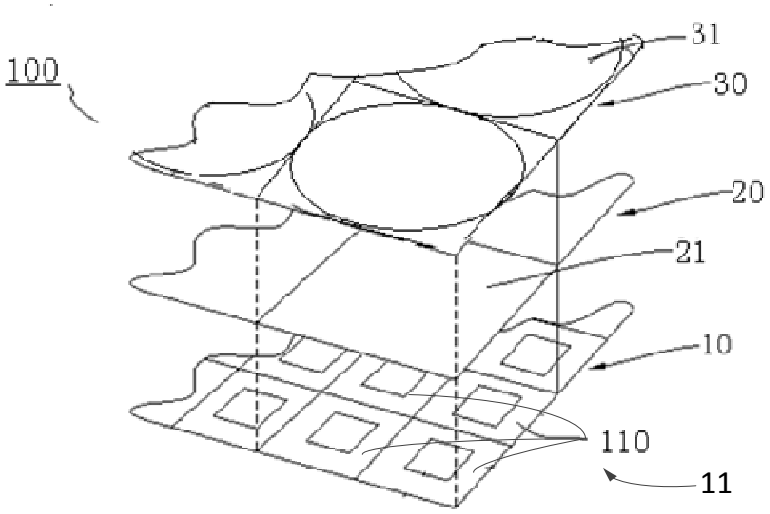

Fig. 1

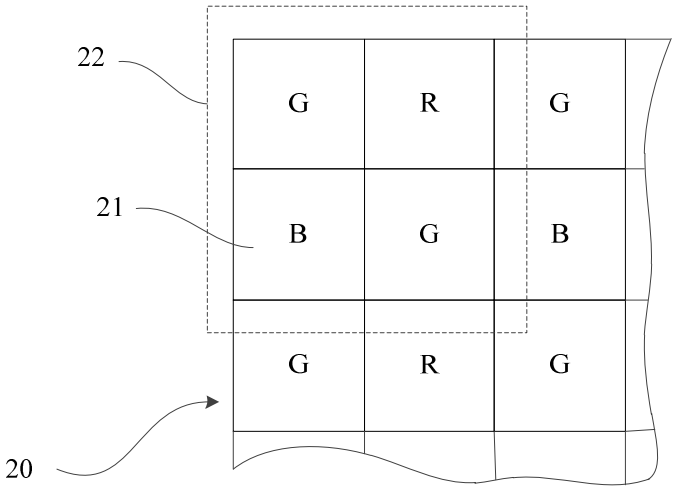

Fig. 2

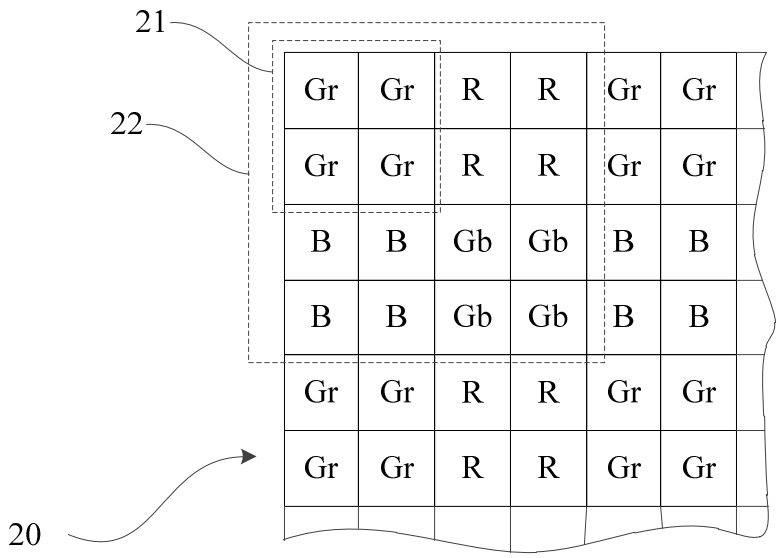
21
22
20
Gr Gr R R Gr Gr
Gr Gr R R Gr Gr
B B Gb Gb B B
B B Gb Gb B B
Gr Gr R R Gr Gr
Gr Gr R R Gr Gr

Fig. 3

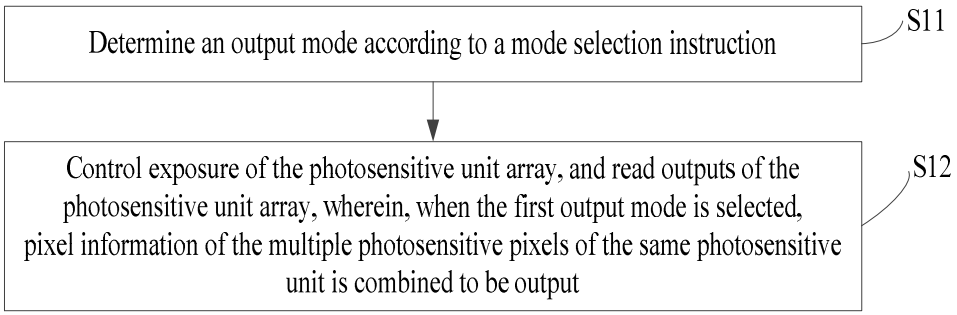
Determine an output mode according to a mode selection instruction
S11
Control exposure of the photosensitive unit array, and read outputs of the photosensitive unit array, wherein, when the first output mode is selected, pixel information of the multiple photosensitive pixels of the same photosensitive unit is combined to be output
S12

Fig. 4

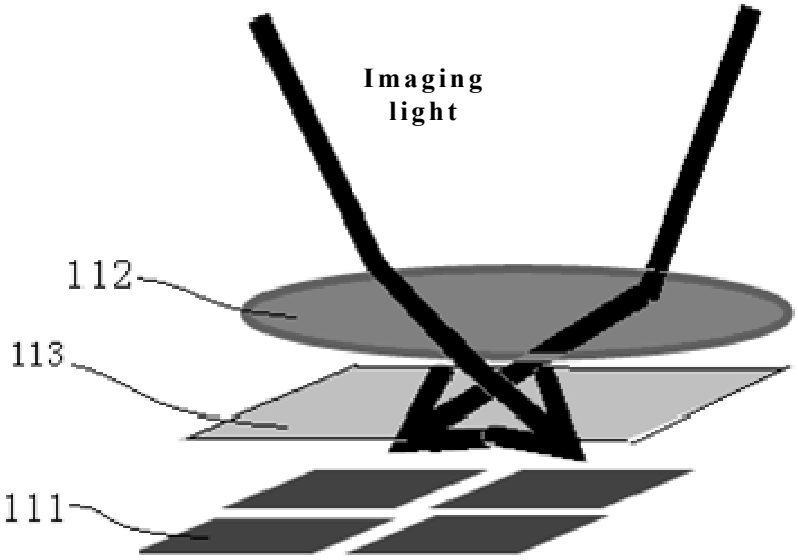

Fig. 5

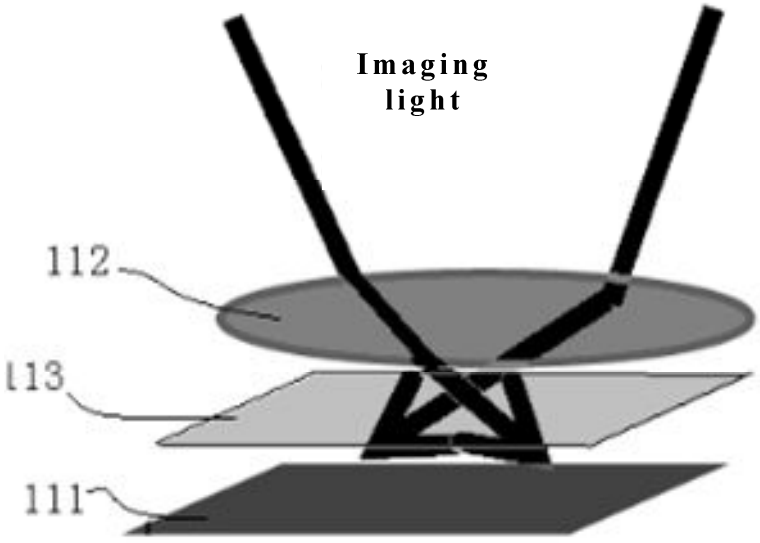

Fig. 6

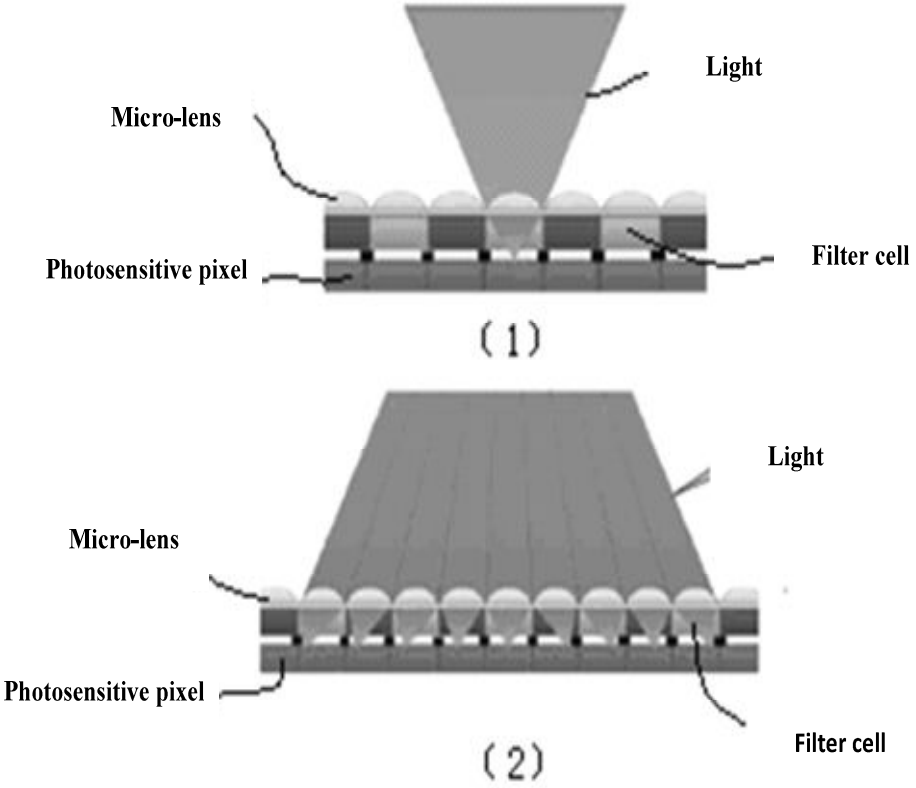
Light
Micro-lens
Photosensitive pixel
Filter cell
(1)
Light
Micro-lens
Photosensitive pixel
Filter cell
(2)

Fig. 7

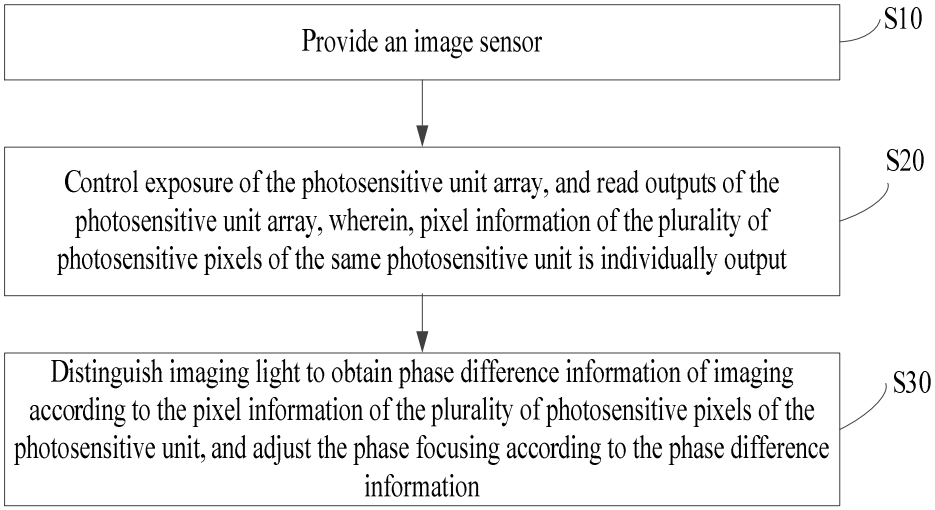
Provide an image sensor
S10
Control exposure of the photosensitive unit array, and read outputs of the photosensitive unit array, wherein, pixel information of the plurality of photosensitive pixels of the same photosensitive unit is individually output
S20
Distinguish imaging light to obtain phase difference information of imaging according to the pixel information of the plurality of photosensitive pixels of the photosensitive unit, and adjust the phase focusing according to the phase difference information
S30

Fig. 8

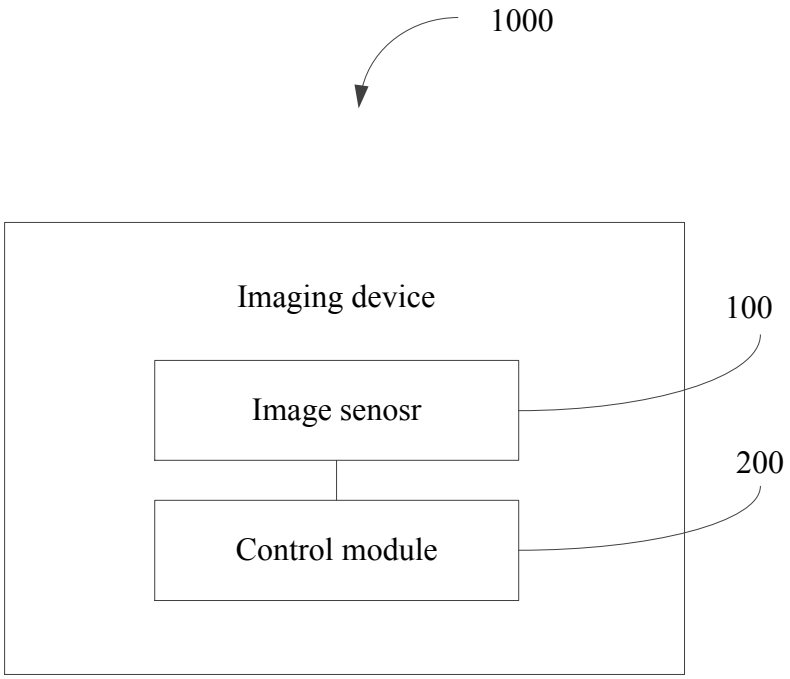
1000
Imaging device
100
Image senosr
200
Control module

Fig. 9

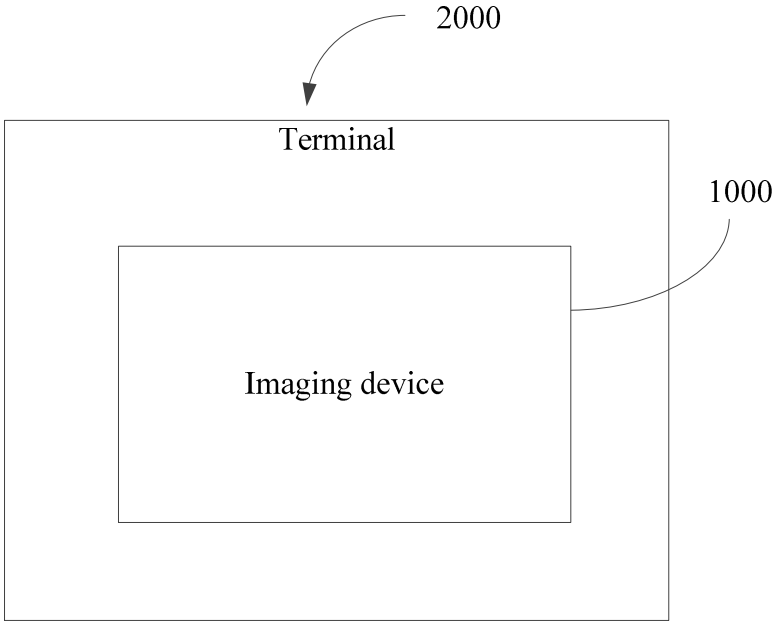
2000
Terminal
1000
Imaging device

Fig. 10

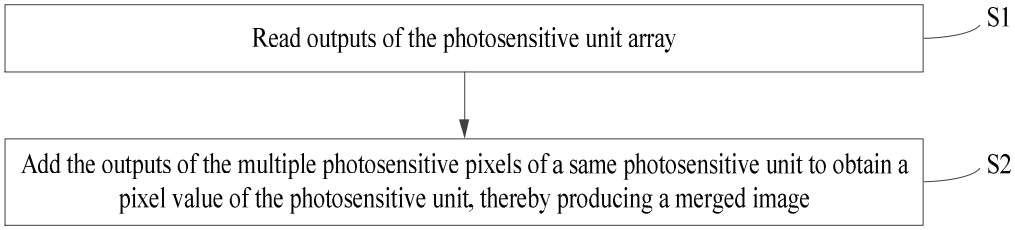
Read outputs of the photosensitive unit array
S1
Add the outputs of the multiple photosensitive pixels of a same photosensitive unit to obtain a pixel value of the photosensitive unit, thereby producing a merged image
S2

Fig. 11

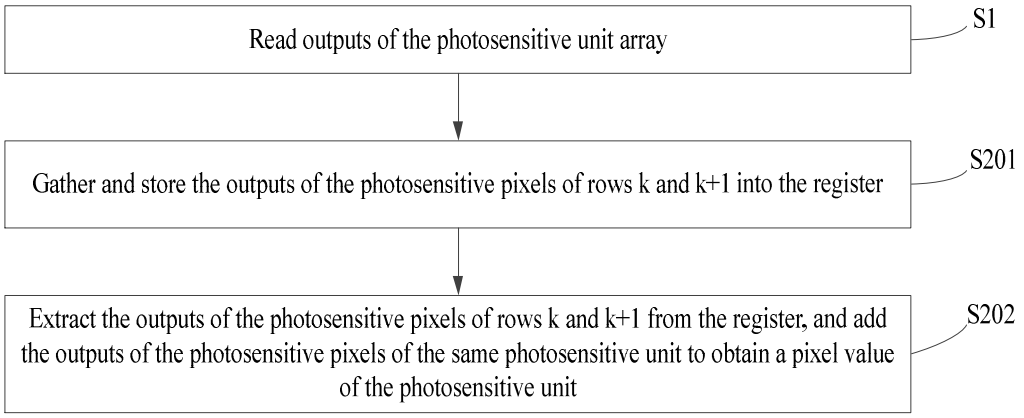
Read outputs of the photosensitive unit array
S1
Gather and store the outputs of the photosensitive pixels of rows k and k+1 into the register
S201
Extract the outputs of the photosensitive pixels of rows k and k+1 from the register, and add the outputs of the photosensitive pixels of the same photosensitive unit to obtain a pixel value of the photosensitive unit
S202

Fig. 12

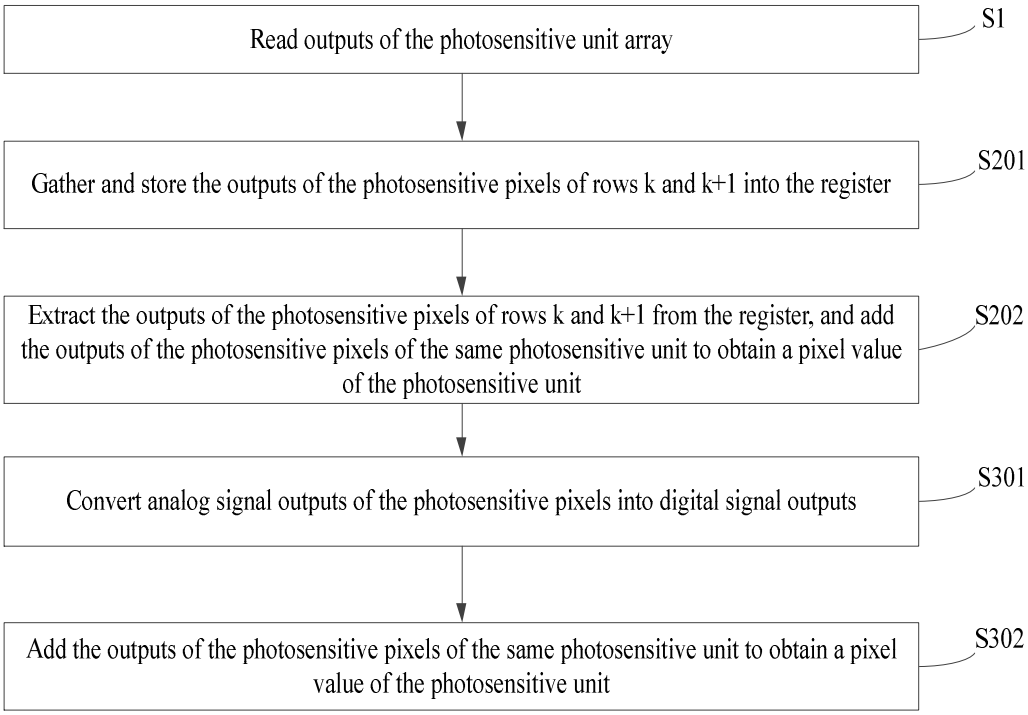
Read outputs of the photosensitive unit array
S1
Gather and store the outputs of the photosensitive pixels of rows k and k+1 into the register
S201
Extract the outputs of the photosensitive pixels of rows k and k+1 from the register, and add the outputs of the photosensitive pixels of the same photosensitive unit to obtain a pixel value of the photosensitive unit
S202
Convert analog signal outputs of the photosensitive pixels into digital signal outputs
S301
Add the outputs of the photosensitive pixels of the same photosensitive unit to obtain a pixel value of the photosensitive unit
S302

Fig. 13