



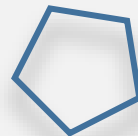
# 理解 *ISP PIPELINE*



食鱼者



202106



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*01*

且听我BB一下



# 自述



食鱼者



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202106



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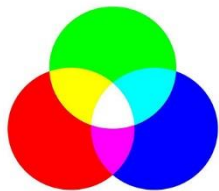
02

## BAYER格式简介





# BAYER简介



色光三原色

组合

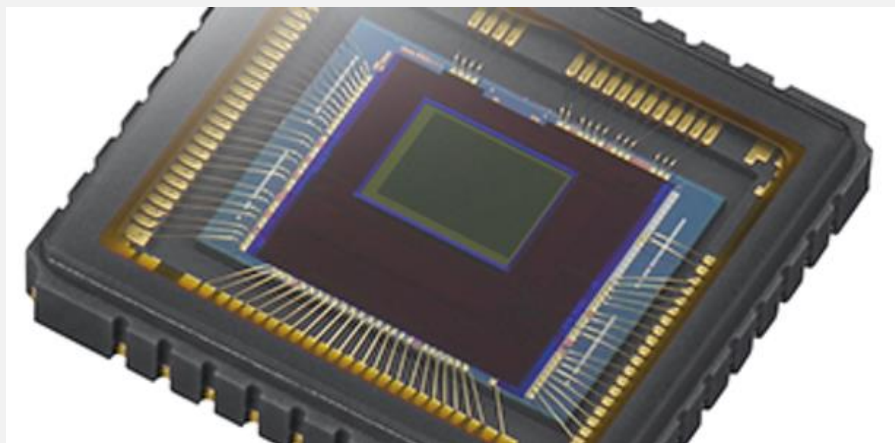


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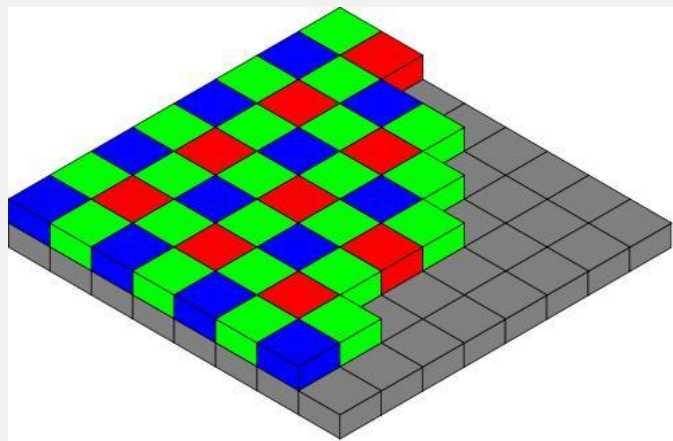
Blue				
Green				
	123	94	83	2
Red				
	123	94	83	4
123	94	83	2	92
34	44	187	92	4
34	76	232	124	4
67	83	194	202	



# BAYER简介



CMOS SENSOR



BAYER 数据



**03**

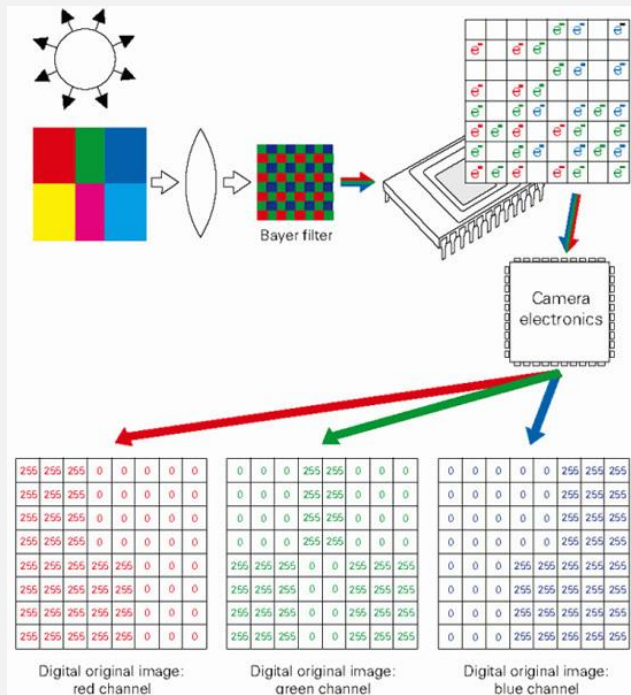
## *ISP PIPELINE*







# ISP PIPELINE



lens



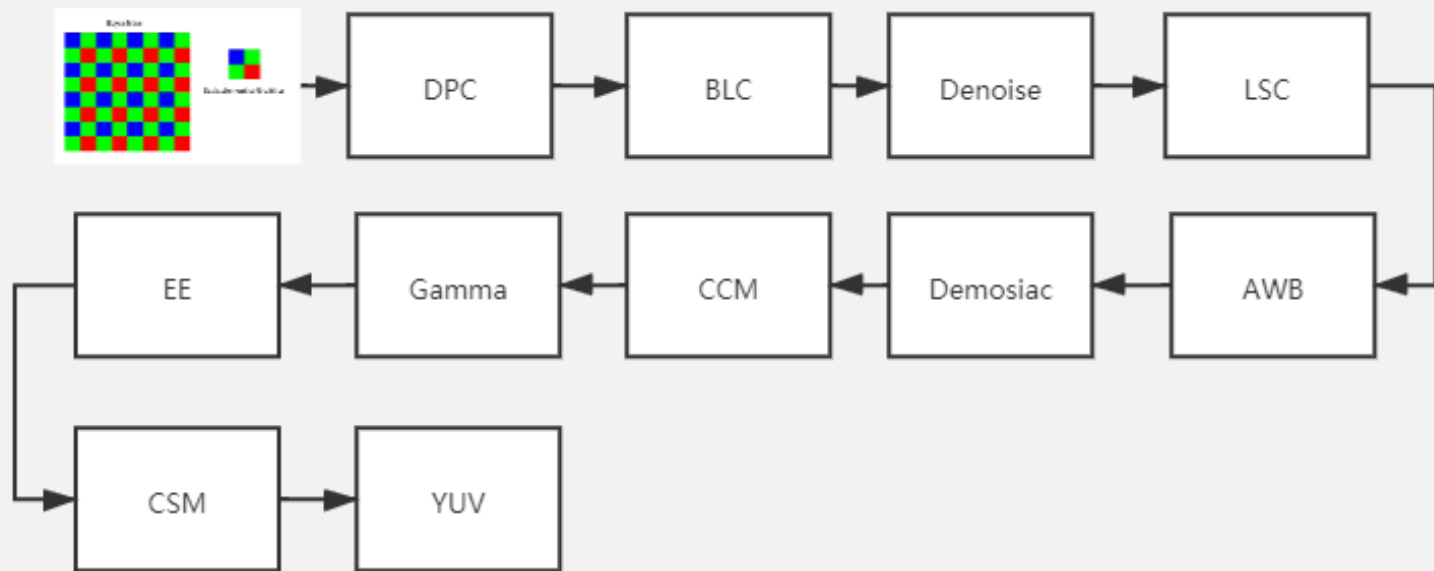
sensor



ISP / DSP

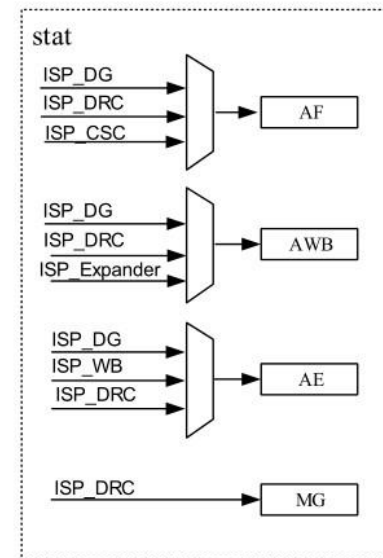
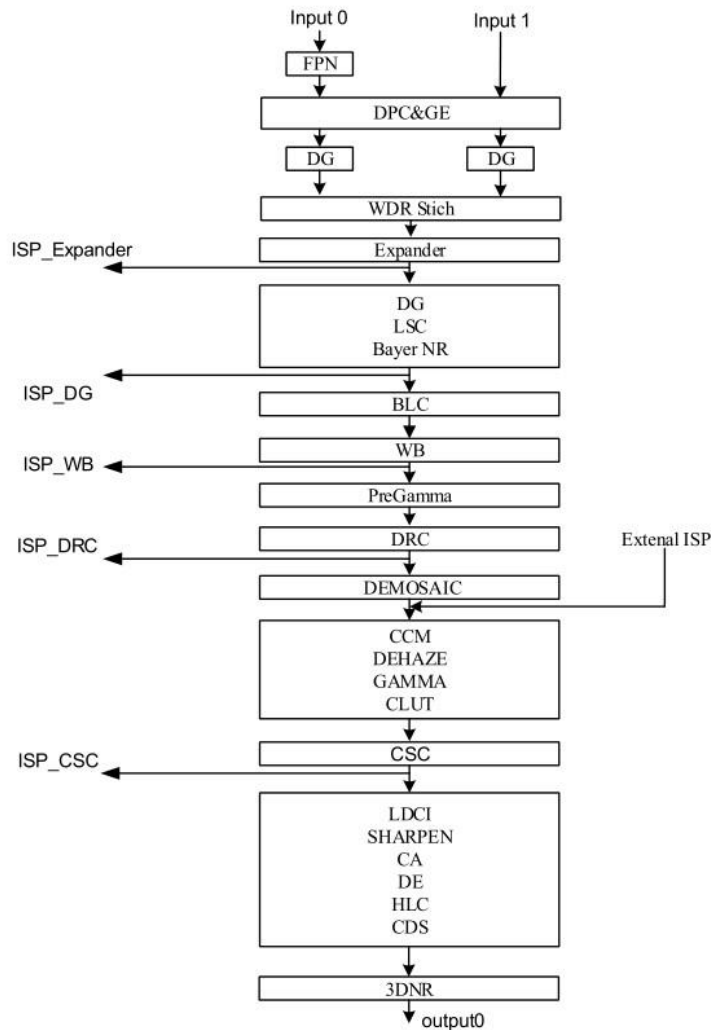


# ISP PIPELINE





# ISP PIPELINE



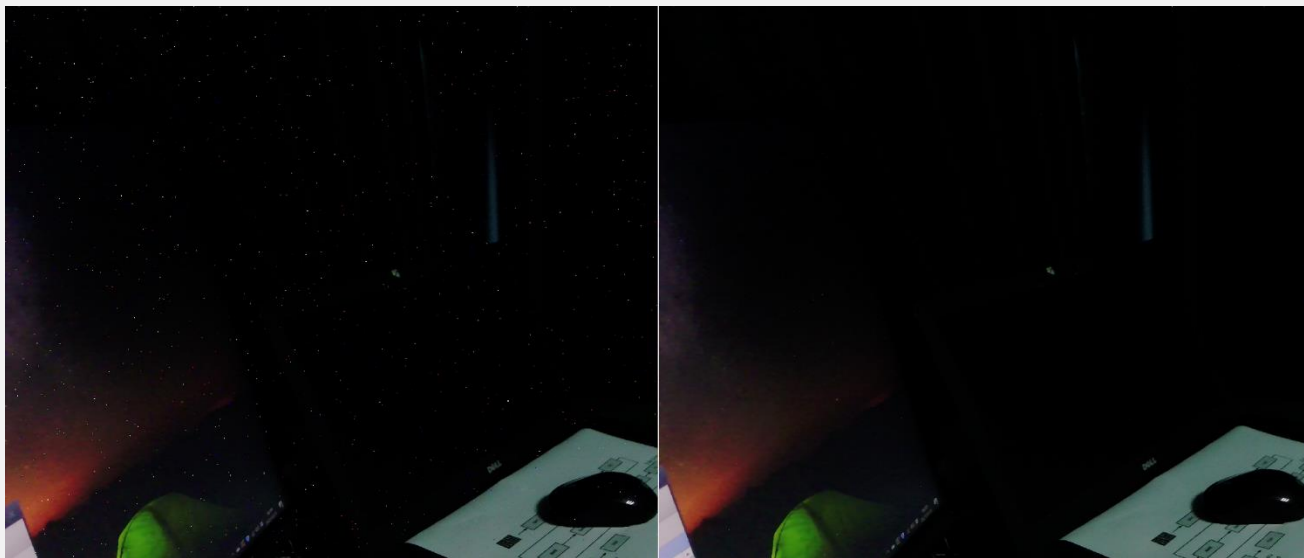
**ISPBE**



# ISP PIPELINE

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## DPC – Defect Pixel Correction





## ISP PIPELINE

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### BLC – Black Level Correction





# ISP PIPELINE

## Denoise/NR

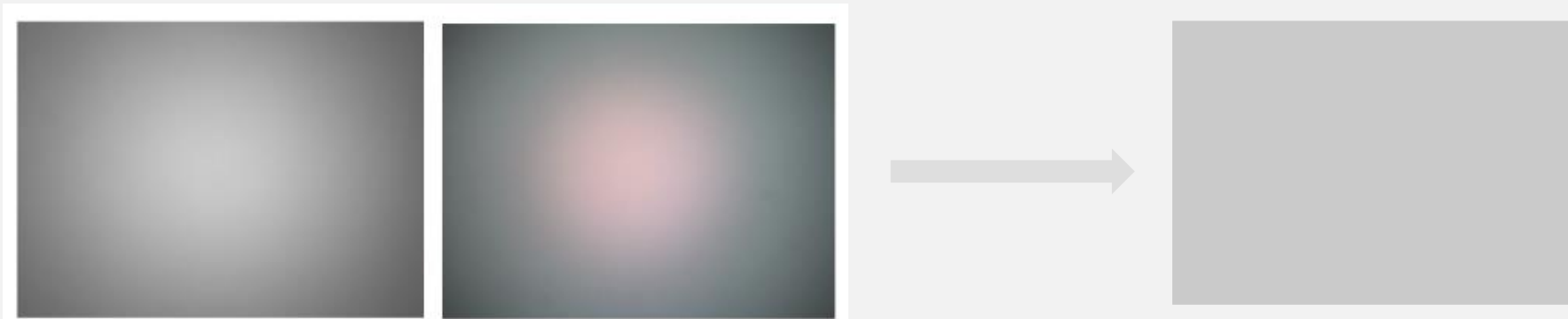




## ISP PIPELINE

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### LSC – Lens Shading Correction





# ISP PIPELINE

## AWB - Auto White Balance



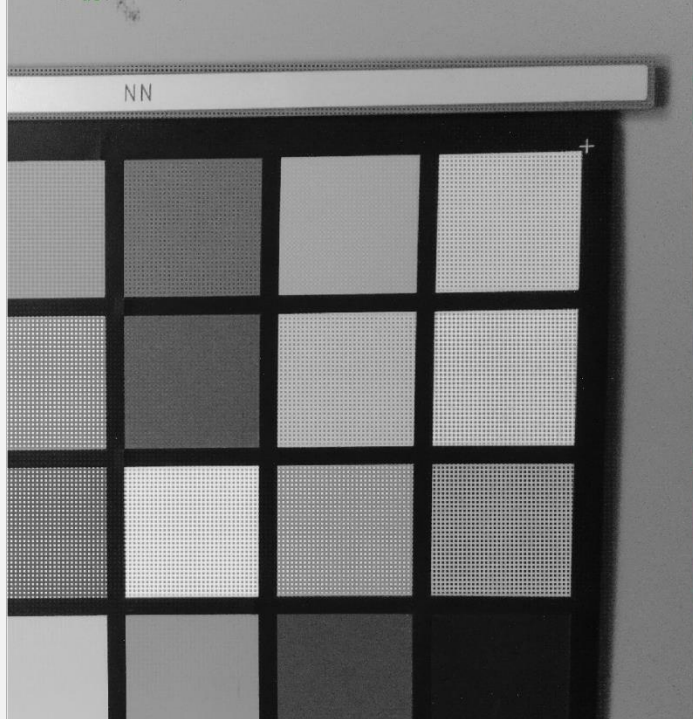




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Demos i ac

demo01ac\_off.jpg , 9940x2160 , 1.85MB



demo01ac\_on.jpg , 9940x2160 , 896KB





# ISP PIPELINE

## CCM - Color Correction Matrix





# ISP PIPELINE

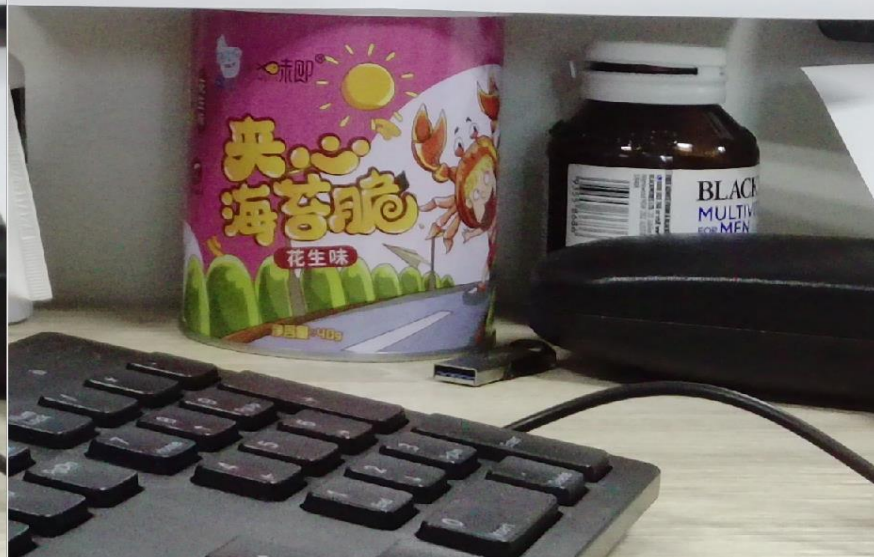
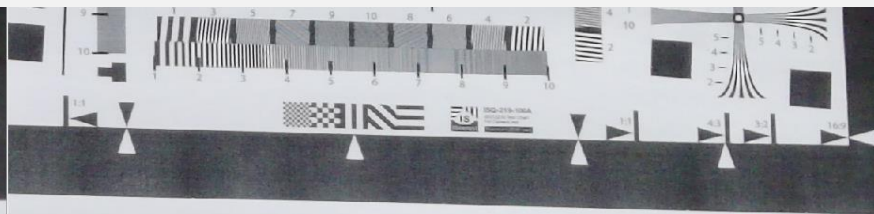
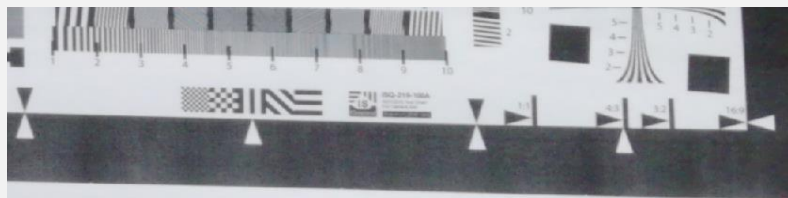
## Gamma





# ISP PIPELINE

## EE - Edge Enhance



***See You !***