

Abnormal Symptom using 1bit Pattern

Symptom

Condition 1) Gray Code (1bit)+ RGB Square (All white) + Phase Shift Pattern(8bit)

➤ OK

Condition 2) Mixed 1bit pattern configuration

➤ Momentary Tremor

(The frames that tremble momentarily vary depending on the configuration of the 1-bit pattern)

Condition 3) All same pattern (1bit)

Condition 4) All same pattern (1bit)

Common) All same conditions (Viewer, Beam FW, FPGA FW) except pattern group and light direction.

The beam projection area is larger than the camera capture area.

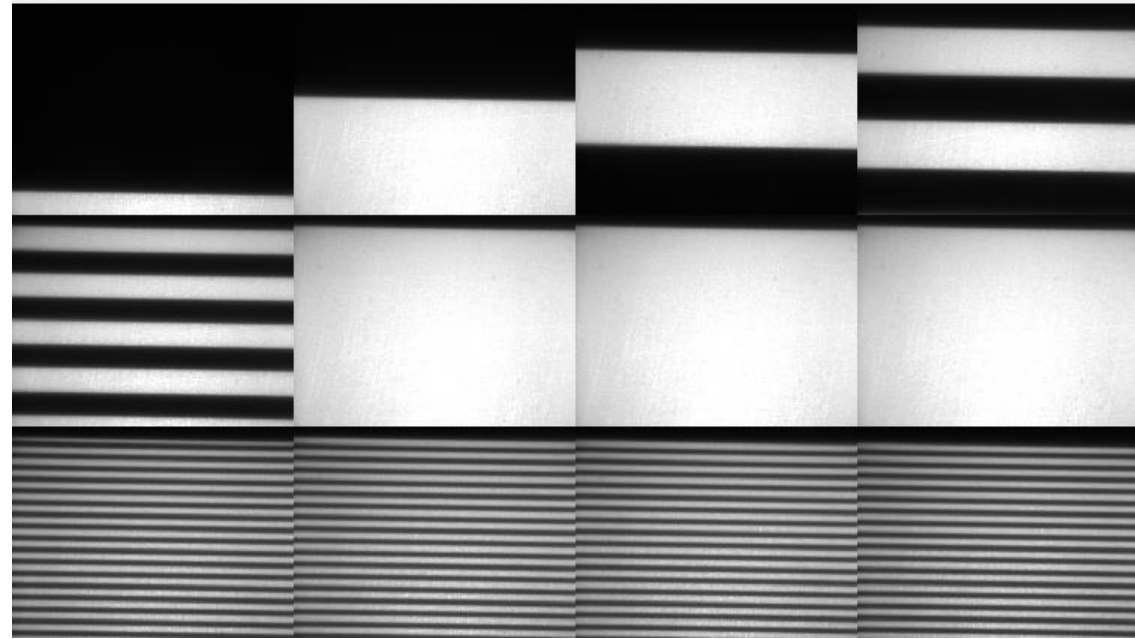
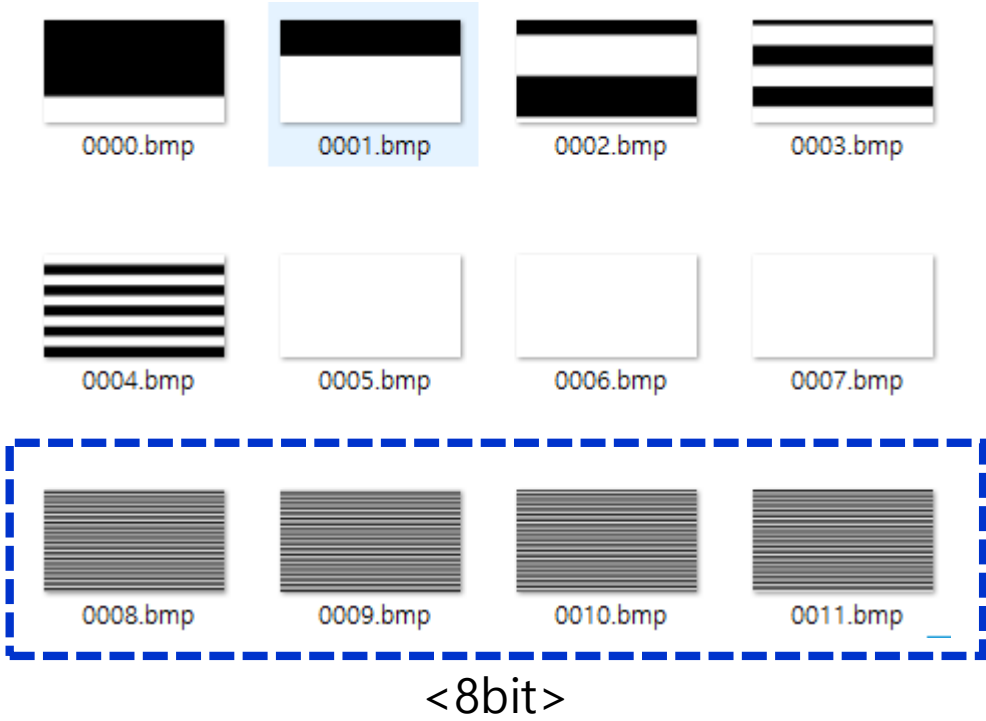
Frame Rate (Hz)	20.02002
Illumination	B
Bit Depth	8
Patterns Per Frame	3

<Beam FW Pattern & Bit from TI Program FW Setting >

	Pattern Original Direction	Beam light Direction	Result
Case1	Horizontal	Horizontal	OK
Case2	Horizontal	Horizontal	N.G Periodic Momentary from beam projection
Case3	Horizontal	Horizontal	N.G Continuous pattern deformation defect from beam projection
Case4	Horizontal	Horizontal	N.G Continuous pattern deformation defect from beam projection

Abnormal Symptom using 1bit Pattern

- Condition 1) Gray Code (1bit)+ RGB Square (All white) + Phase Shift Pattern(8bit)

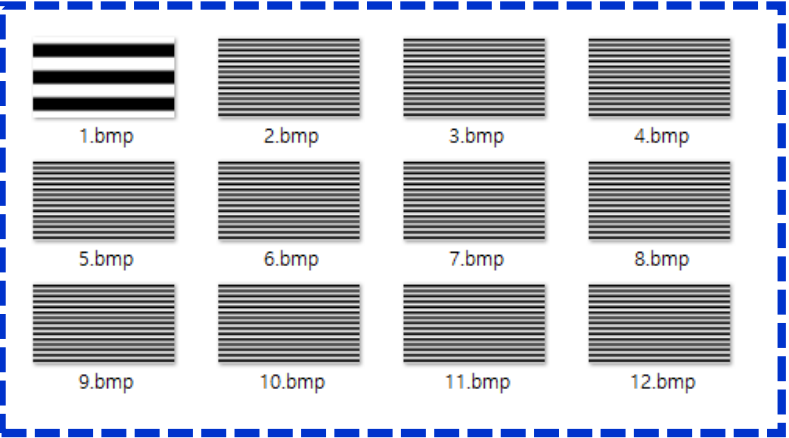


OK

- Pattern Original Image : Horizontal
- Beam Light Direction : Horizontal

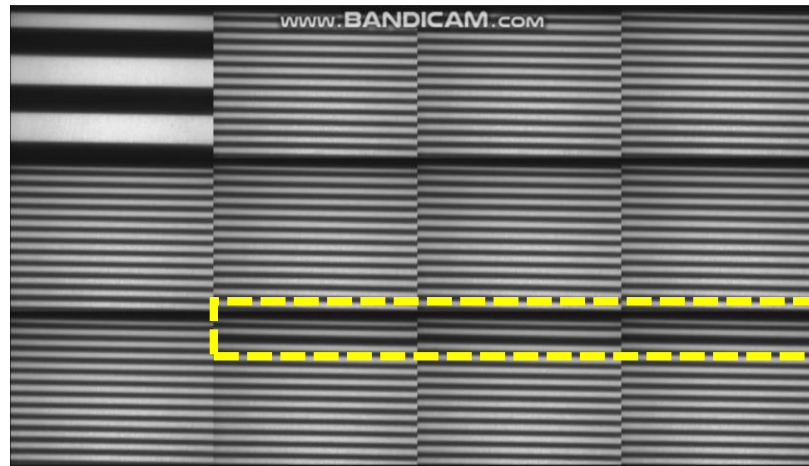
Abnormal Symptom using 1bit Pattern

Condition 2) Mixed 1bit pattern configuration



- Pattern Original Image : Horizontal
- Beam Light Direction : Horizontal

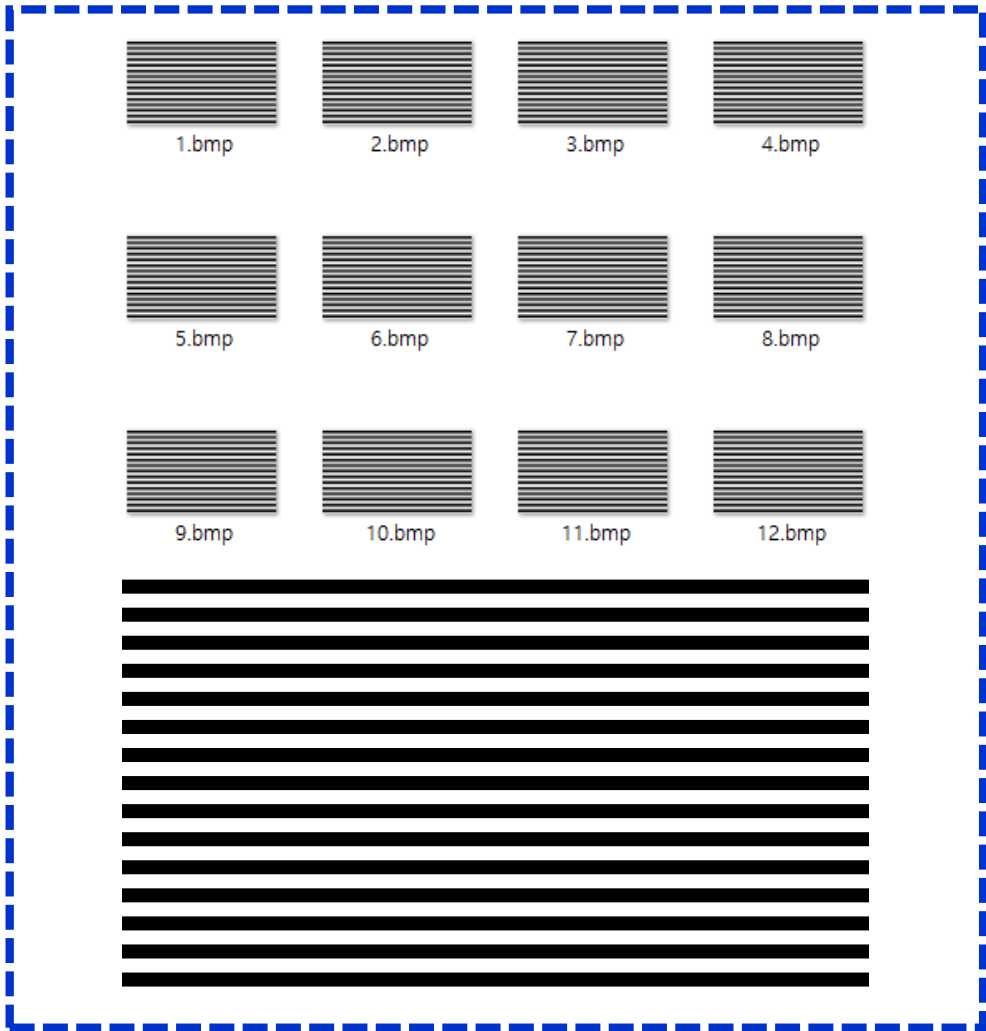
<1 , 2~12 Same Pattern , 1bit>



Momentary Tremor

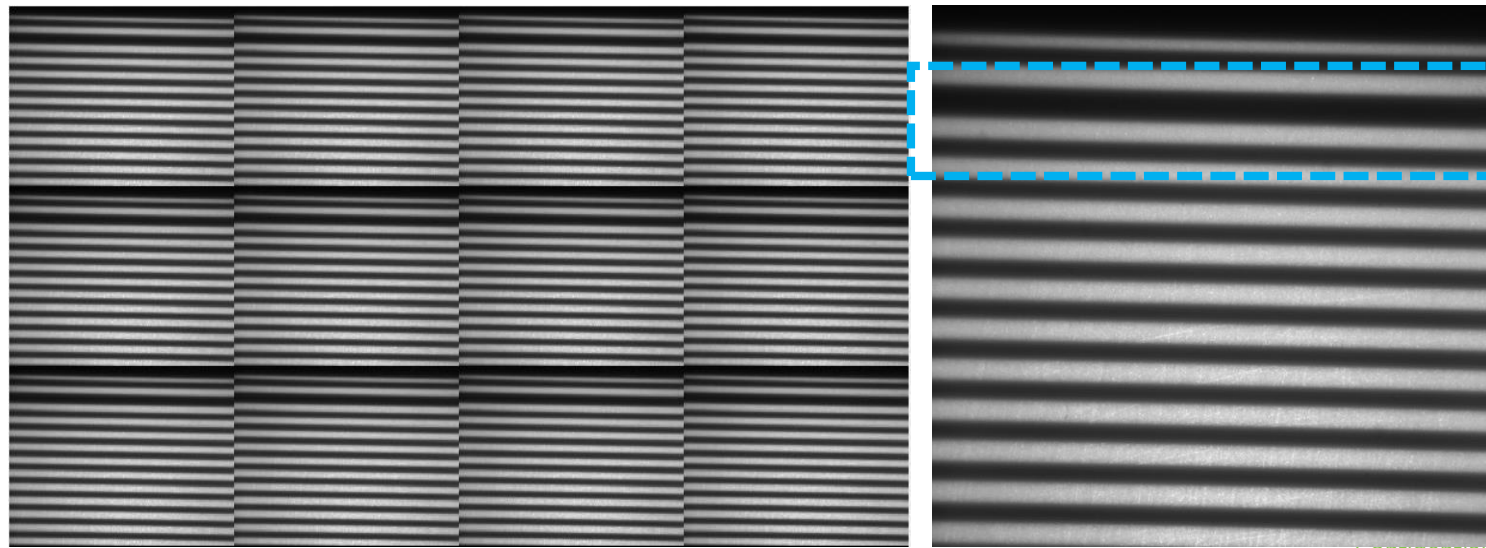
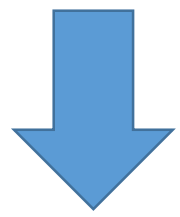
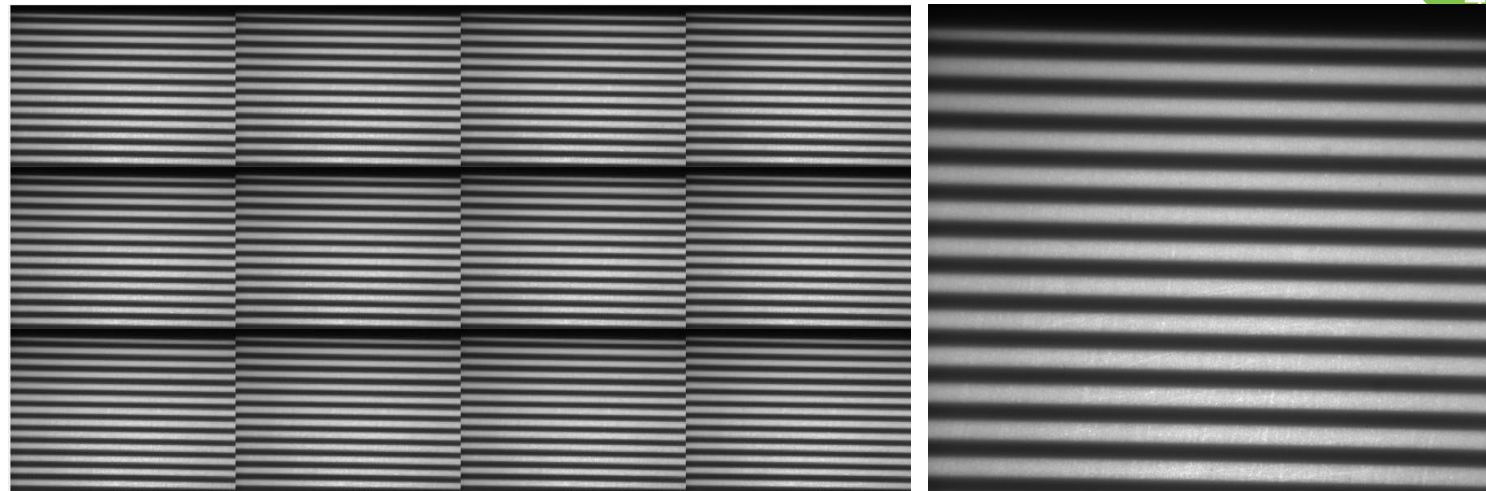
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Condition 3-A) All same pattern (1bit)



<All same pattern Original – 1bit>

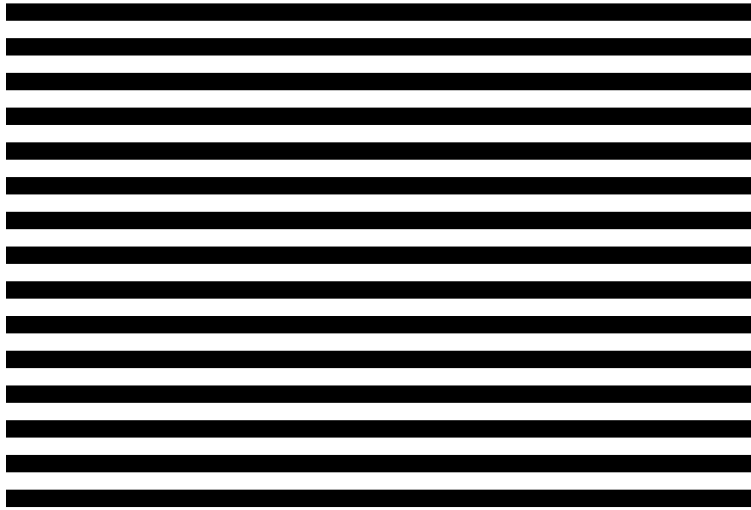
Please Refer to Case3 Video.



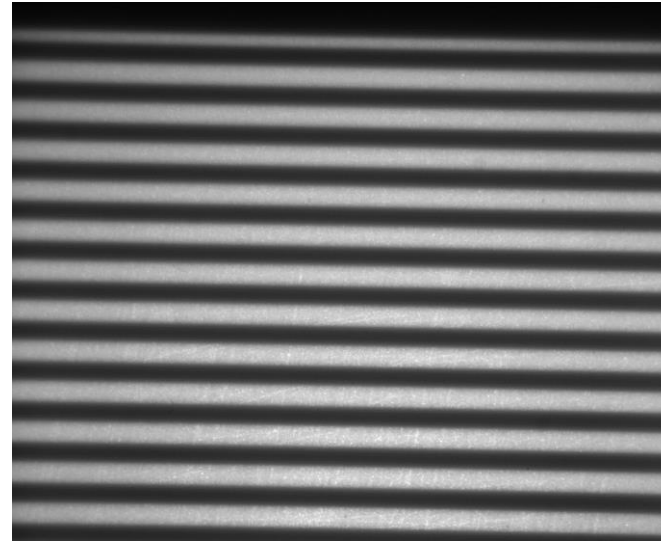
- Pattern Original Image : Horizontal
- Beam Light Direction : **Horizontal**

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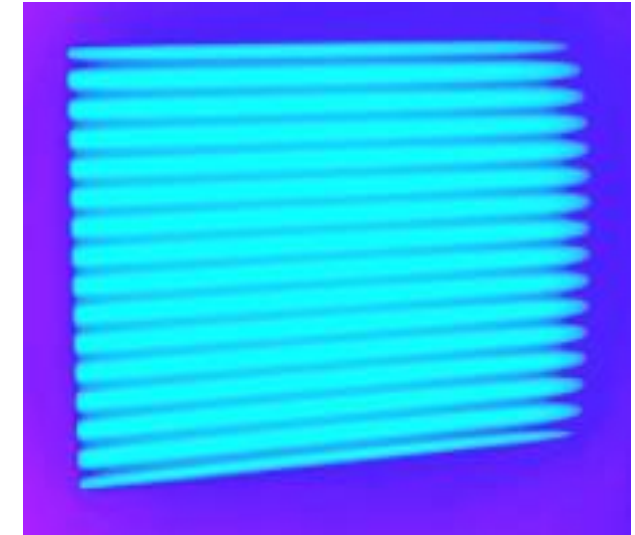
Condition 3-A) All same pattern (1bit)



<Pattern Original – All same Patter>

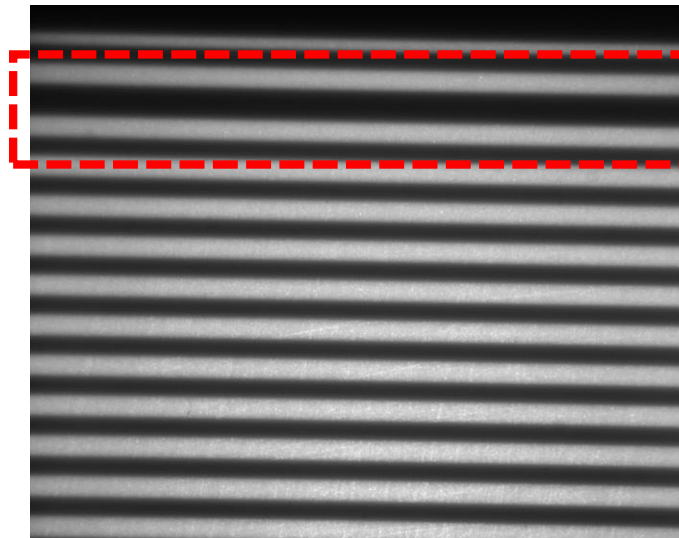


<Our camera- Normal>

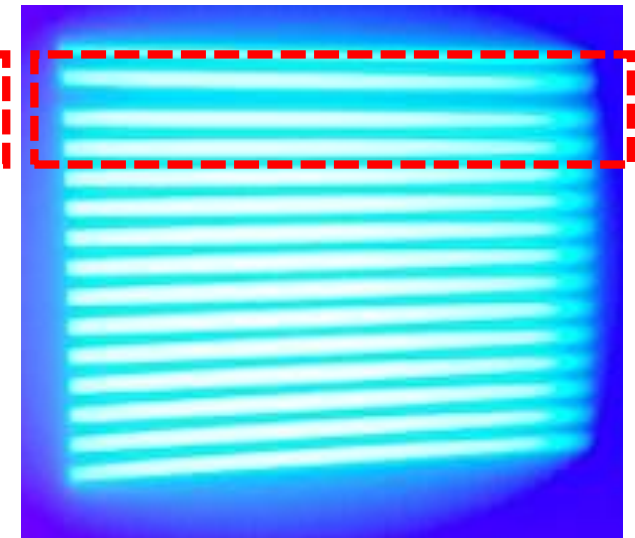


<Mobile Phone Camera-Normal>

- ✓ After a certain period, the beam projection survey configuration changes. The altered pattern shape is visible to the naked eye.
- ✓ I think that it's a camera error.



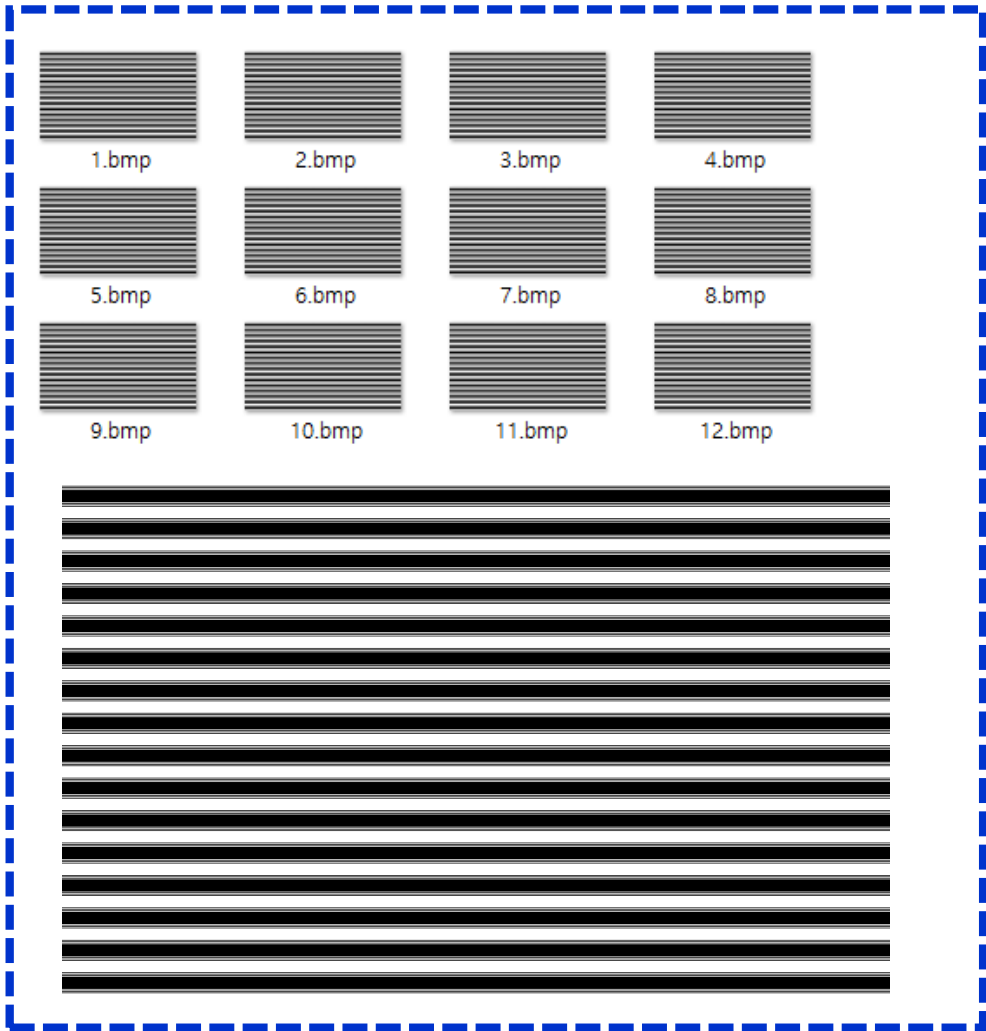
<Our camera - Abnormal>



<Mobile Phone Camera-Abnormal>

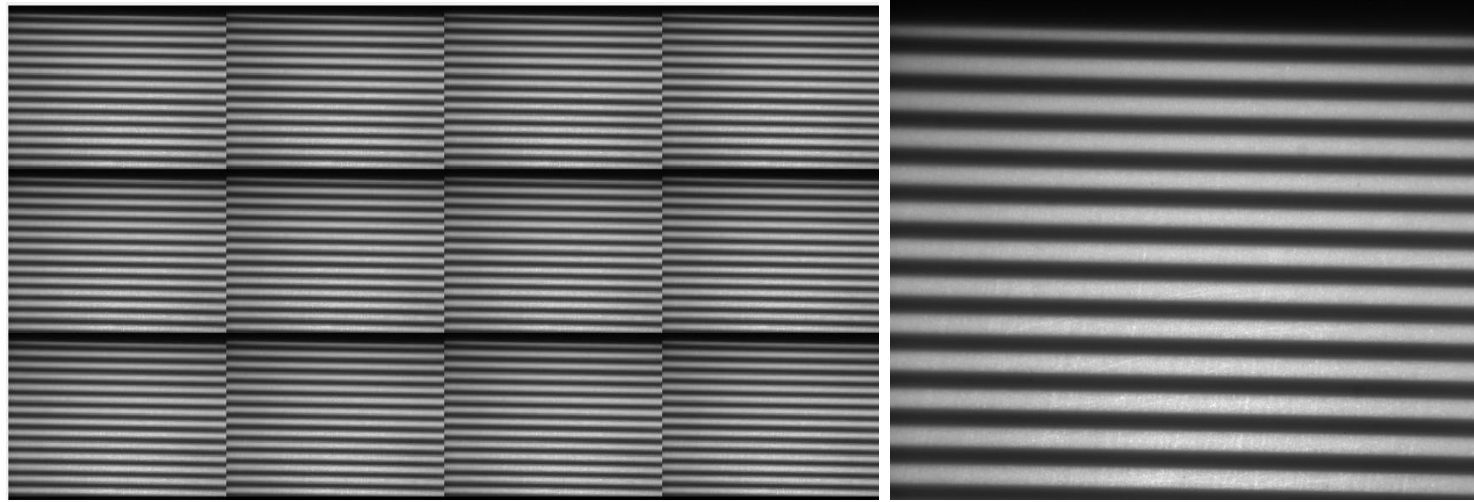
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Condition 4-A All same pattern (1bit)

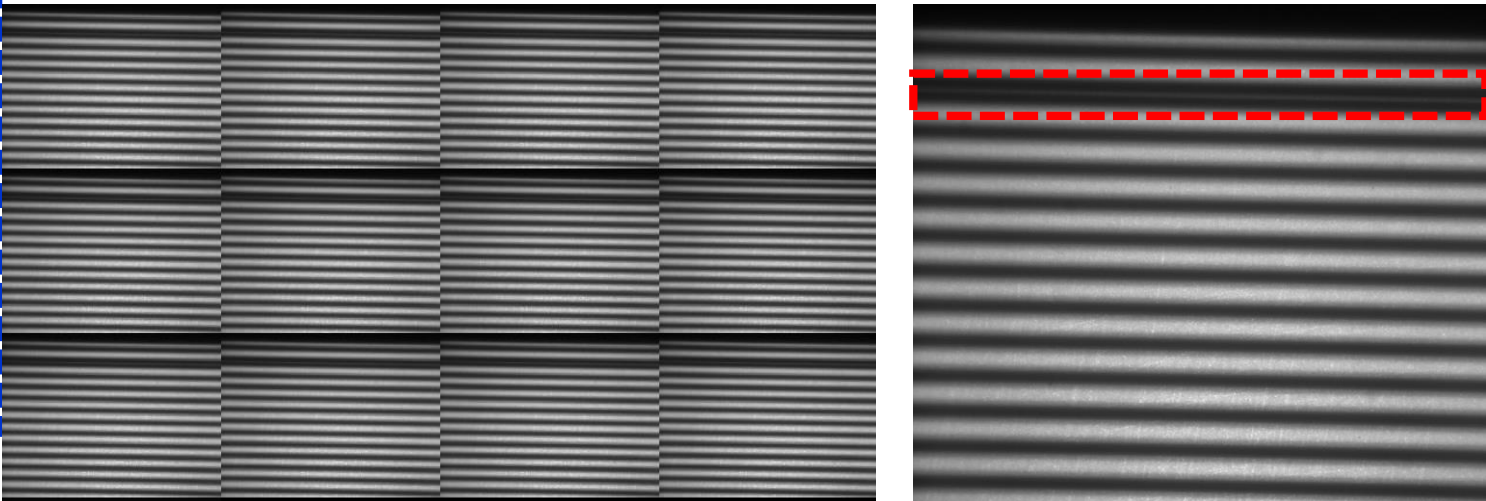


<All same pattern Original – 1bit>

Please Refer to Case3 Video.

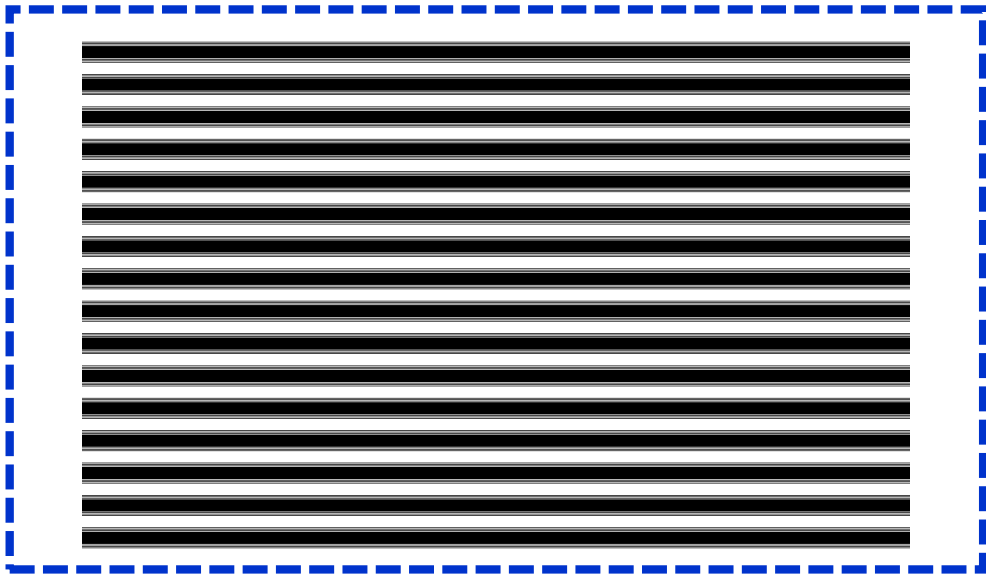


- Pattern Original Image : Horizontal
- Beam Light Direction : **Horizontal**

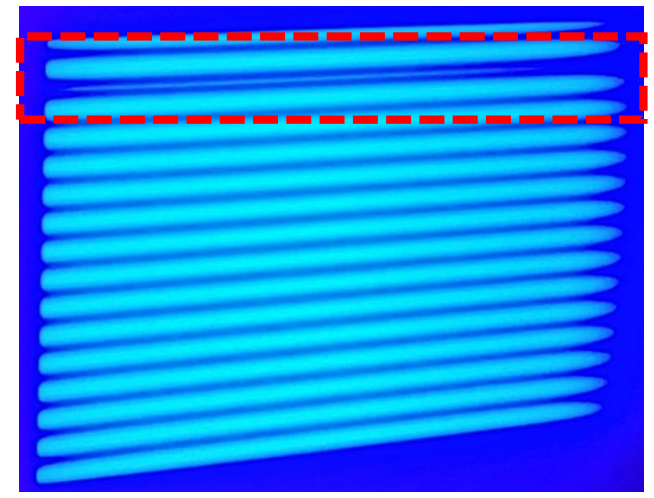
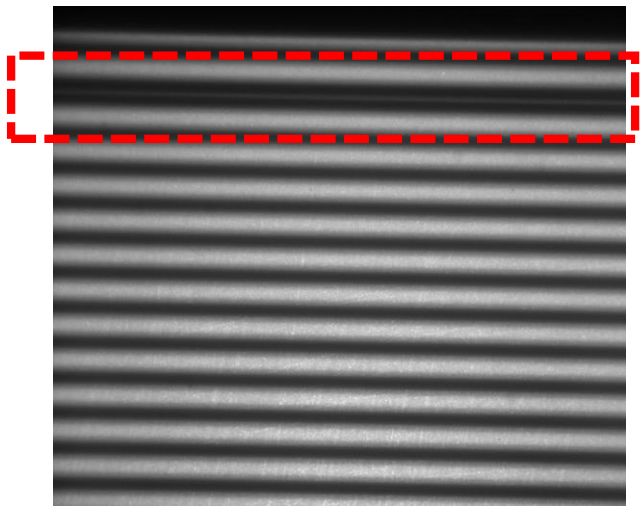
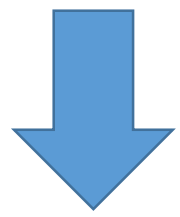
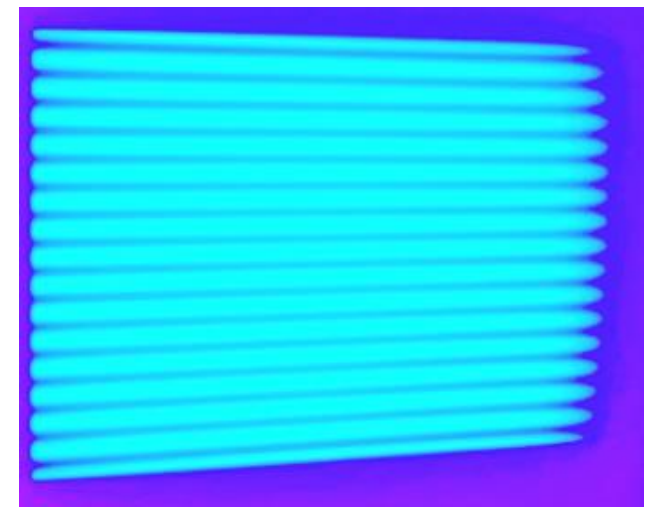
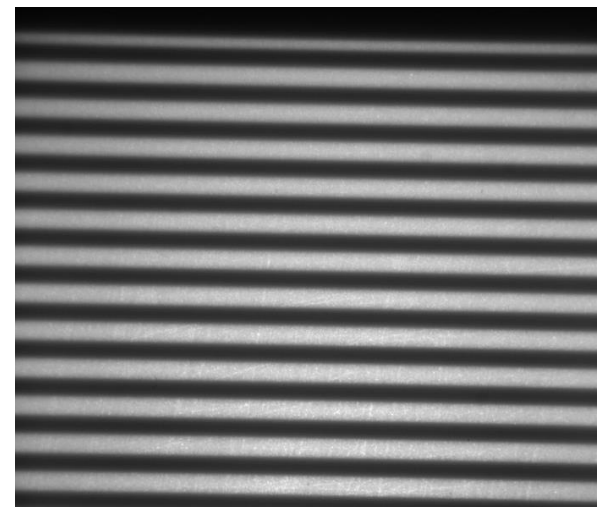


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Condition 4-A) All same pattern (1bit)



<All same pattern Original – 1bit>



Please Refer to Case4 Video.