

# 240205\_Live Beam Control(1)

## EVM Information

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### EVM Component Set

DMD :	<input type="text" value="DLP3010 (.3 720p)"/>	<input type="button" value="Show Datasheet on TI.com"/>
Controller :	<input type="text" value="DLPC3478"/>	<input type="button" value="Show Datasheet on TI.com"/>
PMIC/LED Driver :	<input type="text" value="DLPA2005"/>	<input type="button" value="Show Datasheet on TI.com"/>

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<h3>Version Information</h3>	<h3>Errors</h3>
EVM Software : <input type="text" value="9.0.0"/>	<input type="checkbox"/> System Error
EVM Firmware : <input type="text" value="9.0.1"/>	<input type="checkbox"/> Flash Error
GUI Software : <input type="text" value="3.2.0.6"/>	<input type="checkbox"/> DMD Error
	<input checked="" type="checkbox"/> Communication Error
	<input type="checkbox"/> Sequence Error
	<input type="checkbox"/> LED Error

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### System Temperature

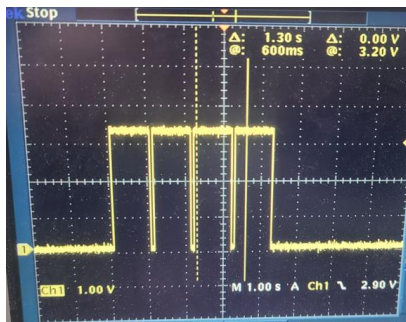
Ambient :	<input type="text" value="0° C"/>
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# 240205\_Live Beam Control(1)

- Check Point – TI GUI Tool Internal Mode Beam Pattern
  - ✓ 1Pattern set x 4 images , NG



<Pattern Sequence Original Image>



<Trigger Out 2>

1. Create pattern sets

Pattern Sets				
+	0	Pattern Set (1)	1-bit	Vertical Pattern
-				0 pattern(s)

2. Add 1D patterns

Pattern Set (1)				
+	0	0.bmp		
-	1	1.bmp		
	2	3.bmp		
	3	0008.bmp		

3. Define pattern set display order and configuration

+	-	Index	Pattern Set	Number of Patterns	Illumination	Pre-Exposure Dark Time (us)	Exposure Time (us)	Post-Exposure Dark Time (us)	Invert Pattern Bits	Pattern Set Entry Index
		0	Pattern Set (1)	4	B	2700	1000000	600	<input type="checkbox"/>	0

Pattern Orientation

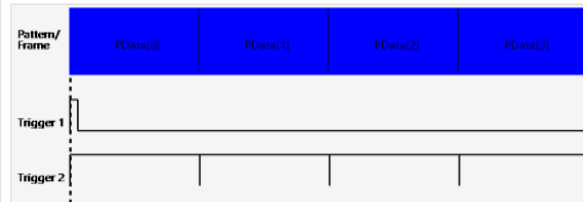
4. Program the Flash

Program and Load Pattern

Save Pattern to File

Load Pattern from File

5. Define Trigger Out and Review the timing diagram to verify the pattern configuration



Long Axis Flip

Short Axis Flip

Enable

Invert

Enable

Invert

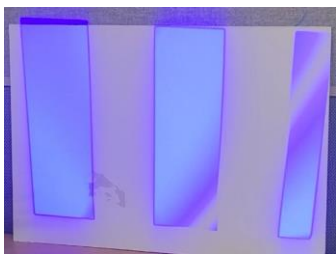
Delay (us) 0

Back

Next



<8>



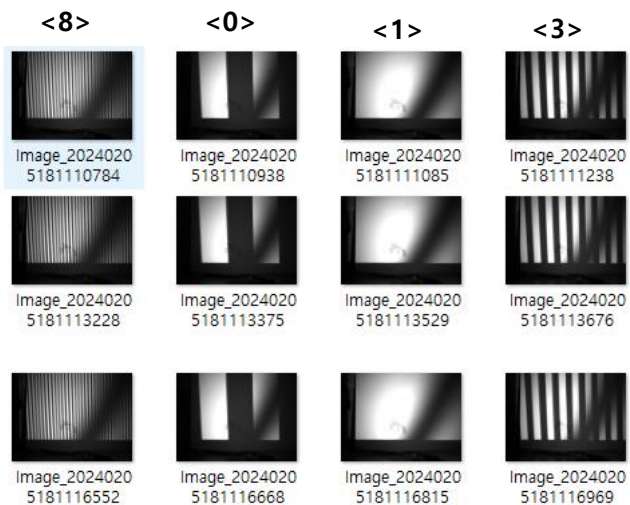
<0>



<1>

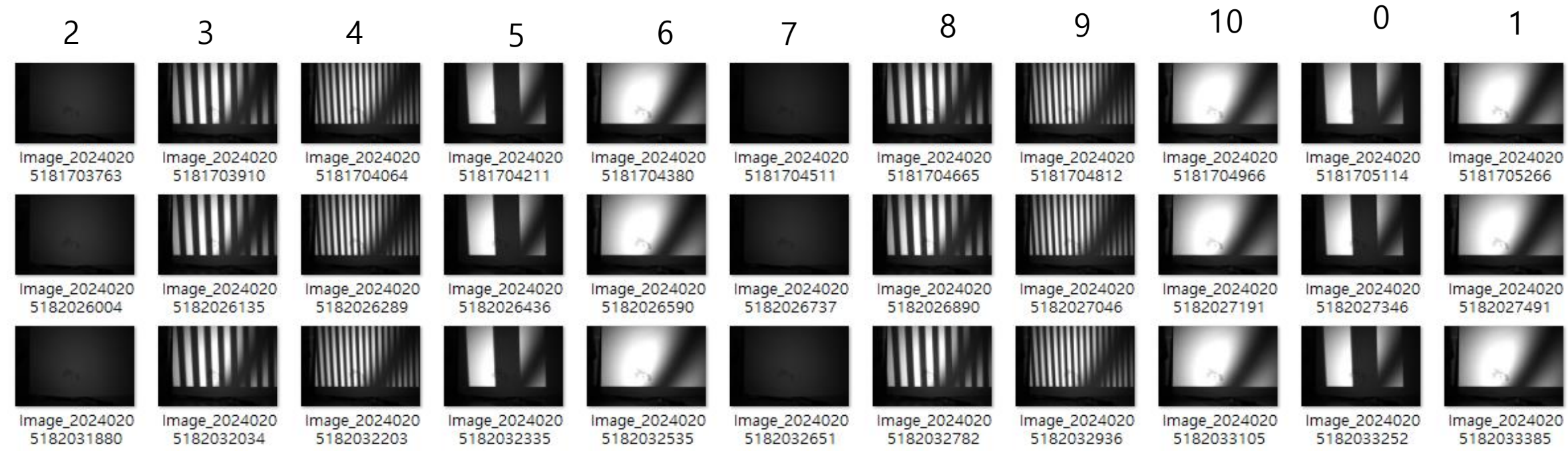


<3>



# 240205\_Live Beam Control(2)

- Check Point – TI GUI Tool Internal Mode Beam Pattern
  - ✓ 1Pattern set x 11 images , NG

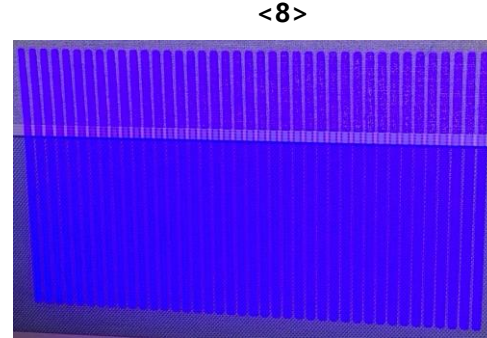
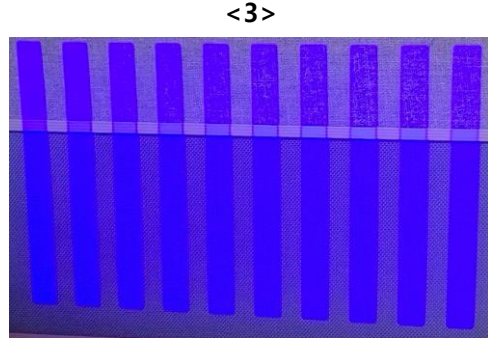
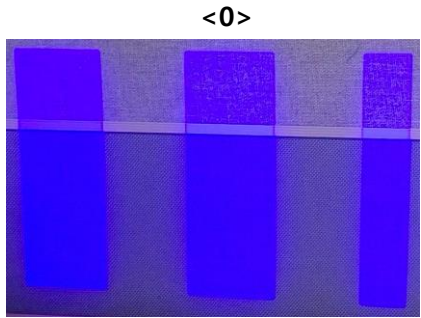


# 240206\_Live Beam Control (3)

- Check point – TI GUI Tool Internal Mode Beam Pattern
  - ✓ 1Pattern set x 1 Images , 4Pattern set
  - ✓ **Beam Pattern Sequence OK**



<Pattern Sequence Original Image>



### 3. Define pattern set display order and configuration

+	Index	Pattern Set	Number of Patterns	Illumination	Pre-Exposure Dark Time (us)	Exposure Time (us)	Post-Exposure Dark Time (us)	Invert Pattern Bits	Pattern Set Entry Index
X	0	Pattern Set (1)	1	B	2700	1000000	600	<input type="checkbox"/>	0
	1	Pattern Set (2)	1	B	2700	1000000	600	<input type="checkbox"/>	0
	2	Pattern Set (3)	1	B	2700	1000000			0

Pattern Orientation

+	0	Pattern Set (1)	1-bit	Vertical Pattern	1 pattern(s)
X	1	Pattern Set (2)	1-bit	Vertical Pattern	1 pattern(s)
	2	Pattern Set (3)	1-bit	Vertical Pattern	1 pattern(s)
	3	Pattern Set (4)	1-bit	Vertical Pattern	1 pattern(s)

# 240206\_Live Beam Control (3)

- Check point – TI GUI Tool Internal Mode Beam Pattern
  - ✓ 1Pattern set x 1 Images , 4Pattern set
  - ✓ **Beam Pattern Sequence OK**



<Pattern Sequence Original Image>

