

NG-case

Information

Display

Light Control

Firmware

Debug

DLP® Pico Display and Light Control EVM

Firmware: latest (V7.0.1)

1 Connect the EVM to power

2 Turn on the projector

3 Connect the EVM to USB

Explore and learn!

EVM Information

EVM Component Set

DMD: DLP3010 (3 720p) Show Datasheet on TI.com

Controller: DLPC3478 Show Datasheet on TI.com

PMIC/LED Driver: DLPAA2005 Show Datasheet on TI.com

Version Information

EVM Software: 6.7.0

EVM Firmware: 7.0.1

GUI Software: 1.1.0.7

Temperature

Ambient: 26.5° C

Errors

System Error

Flash Error

DMD Error

☒ Communication Error

Sequence Error

LED Error

Get

EVM Status: Ready; Splash Screen

TEXAS INSTRUMENTS

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DLP® Pico Display and Light Control EVM

External Patterns

Internal Patterns

Splash Patterns

6. Program the flash to run the patterns

7. Define trigger in and pattern ready signal settings

Program Pattern Data

8. Display and control the patterns

Run Once

Run Continuously

Pattern Control

Oops! An Error Occurred

Something is broken

Please email us and let us know what you were doing when this error occurred. We will fix it as soon as possible. Sorry for any inconvenience caused.

A crash log is saved here:
C:\Users\91085\AppData\Roaming\Texas Instruments\DLP Pico Display and Light Control EVM\Crash Log\Crash_2019_01_13_29_34.log

What's Next

Email TI the crash log

Ignore the error and continue (not recommended)

Restart DLP Pico Display and Light Control EVM

Close DLP Pico Display and Light Control EVM

Program Fail !

EVM Status: Ready; Splash Screen

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Splash Patterns

1. Create pattern sets

Pattern Sets

0 Pattern Set (1)

8-bit

Horizontal Pattern

0 pattern(s)

2. Add 1D patterns

Pattern Set (1)

0 Sin302V_720.bmp

add Horizontal Pattern

Next

EVM Status: Ready; Splash Screen

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Splash Patterns

3. Define pattern set display order and configuration

4. Define Trigger Out Settings

5. Review the timing diagram to verify the pattern configuration

Index

Pattern Set

Number of Patterns

Illumination

Pre-Exposure Dark Time (us)

Exposure Time (us)

Post-Exposure Dark Time (us)

Invert Pattern

0 Pattern Set (1)

1

G

246

5000

440

☐

1 Pattern Set (1)

1

G

246

5000

440

☒

Chose Pattern Set(1)

Chose same Pattern Set(1)

Trigger Out 1

Enable

Invert

Delay (us) 0

Trigger Out 2

Enable

Invert

Delay (us) 0

Pattern/Frame

Trigger 2

Next

EVM Status: Ready; Splash Screen

TEXAS INSTRUMENTS

If this check is removed, result is same (fail to program)

Trial 1 (OK!)

DLP® Pico Display and Light Control EVM

External Patterns Internal Patterns Splash Patterns

1. Create pattern sets

Index	Pattern Set	8-bit	Horizontal Pattern	0 pattern(s)
0	Pattern Set (1)	8-bit	Horizontal Pattern	0 pattern(s)

2. Add 1D patterns

Pattern Set (1)

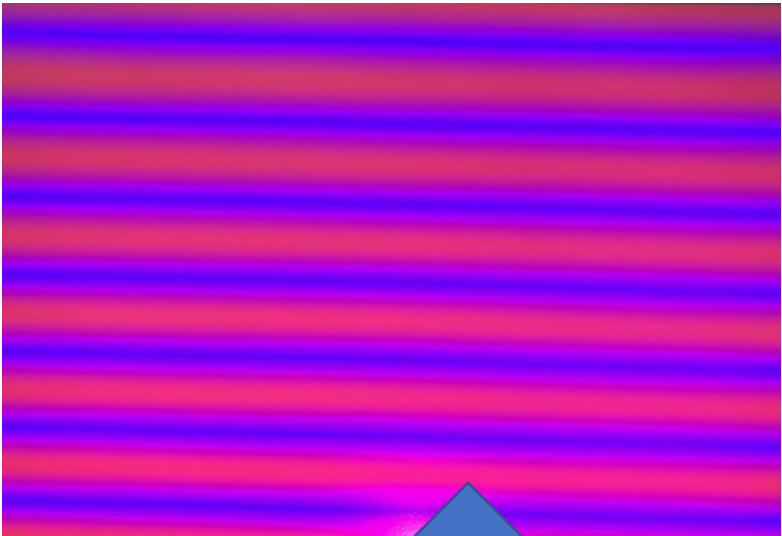
Index	Pattern
0	Sin102V_720.bmp

Next >

EVM Status: Ready; Splash Screen

TEXAS INSTRUMENTS

Program Success & Run



DLP® Pico Display and Light Control EVM

External Patterns Internal Patterns Splash Patterns

1. Create pattern sets

Index	Pattern Set	8-bit	Horizontal Pattern	1 pattern(s)
0	Pattern Set (1)	8-bit	Horizontal Pattern	1 pattern(s)
1	Pattern Set (2)	8-bit	Horizontal Pattern	1 pattern(s)

2. Add 1D patterns

Pattern Set (2)

Index	Pattern
0	Sin102V_720.bmp

Next >

EVM Status: Ready; Splash Screen

TEXAS INSTRUMENTS

DLP® Pico Display and Light Control EVM

External Patterns Internal Patterns Splash Patterns

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
0	Pattern Set (1)	1	R	246	5000	440	☐
1	Pattern Set (2)	1	B	246	5000	440	☒

4. Define Trigger Out Settings

Trigger Out 1

Enable ☐ Invert ☐ Delay (us) 0

Trigger Out 2

Enable ☒ Invert ☐ Delay (us) 0

5. Review the timing diagram to verify the pattern configuration

Pattern/Frame

Trigger

Next >

EVM Status: Ready; Internal Pattern Streaming

TEXAS INSTRUMENTS

Trial 2 (OK!)

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Search

External PatternsInternal PatternsSplash Patterns

1. Create pattern sets

Pattern Sets						
+	-	0	Pattern Set (1)	8-bit	Horizontal Pattern	0 pattern(s)

2. Add 1D patterns

Pattern Set (1)		
+	0	Sin102V_720.bmp



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EVM Status: Ready; Splash Screen

TEXAS INSTRUMENTS

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Search

External PatternsInternal PatternsSplash Patterns

1. Create pattern sets

Pattern Sets						
+	-	0	Pattern Set (1)	8-bit	Horizontal Pattern	1 pattern(s)
+	-	1	Pattern Set (2)	8-bit	Horizontal Pattern	1 pattern(s)

2. Add 1D patterns

Pattern Set (2)		
+	0	Sin17V_720.bmp



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EVM Status: Ready; Internal Pattern Streaming

TEXAS INSTRUMENTS

Program Success & Run

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DLP® Pico Display and Light Control EVM

Search

External PatternsInternal PatternsSplash Patterns

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
0	Pattern Set (1)	1	G	246	5000	440	☐
1	Pattern Set (2)	1	R	246	5000	440	☐

4. Define Trigger Out Settings

Trigger Out 1

Enable ☐

Invert ☐

Delay (us) 0

Trigger Out 2

Enable ☒

Invert ☐

Delay (us) 0

5. Review the timing diagram to verify the pattern configuration



Next >

EVM Status: Ready; Internal Pattern Streaming

TEXAS INSTRUMENTS

Chose Pattern Set(1)

Chose Pattern Set(2)

Trial 3 (OK!)

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Internal Patterns

Splash Patterns

1. Create pattern sets

Pattern Sets				
+	-	0	Pattern Set (1)	8-bit Horizontal Pattern 0 pattern(s)

2. Add 1D patterns

Pattern Set (1)				
+	-	0	Sm10SV_720.bmp	

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Internal Patterns

Splash Patterns

1. Create pattern sets

Pattern Sets				
+	-	0	Pattern Set (1)	8-bit Horizontal Pattern 1 pattern(s)
+	-	1	Pattern Set (2)	8-bit Horizontal Pattern 1 pattern(s)

2. Add 1D patterns

Pattern Set (2)				
+	-	0	Sm17V_720.bmp	

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External Patterns

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Splash Patterns

1. Create pattern sets

Pattern Sets				
+	-	0	Pattern Set (1)	8-bit Horizontal Pattern 1 pattern(s)
+	-	1	Pattern Set (2)	8-bit Horizontal Pattern 1 pattern(s)
+	-	2	Pattern Set (3)	8-bit Horizontal Pattern 1 pattern(s)

2. Add 1D patterns

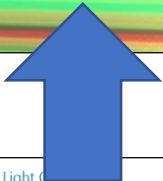
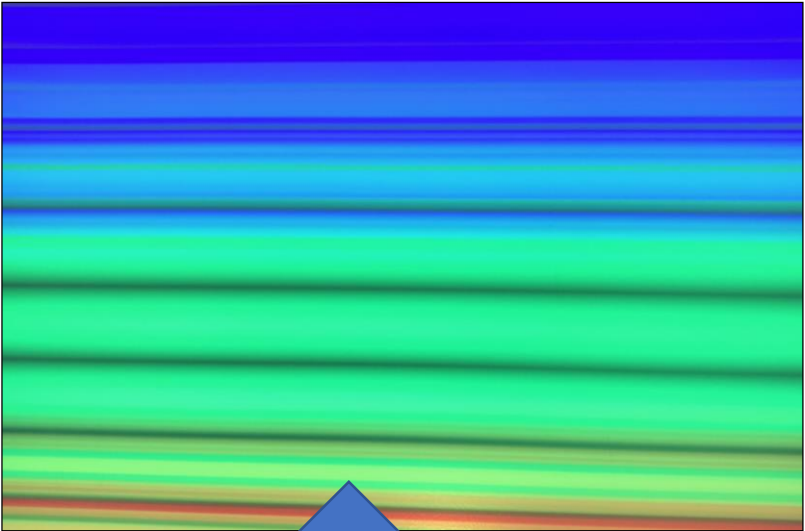
Pattern Set (3)				
+	-	0	Sm10SV_720.bmp	

This is Pattern Set(1)

This is Pattern Set(2)

Add New Pattern Set(3)

Program Success & Run



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External Patterns

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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
+	0	Pattern Set (1)	1	G	246	5000	440	
+	1	Pattern Set (2)	1	R	246	5000	440	
+	2	Pattern Set (3)	1	B	246	5000	440	

4. Define Trigger Out Settings

Trigger Out 1

Enable ☐

Invert ☐

Delay (us) 0

Trigger Out 2

Enable ☒

Invert ☐

Delay (us) 0

5. Review the timing diagram to verify the pattern configuration

Patterns/Frame

Trigger 2

Chose Pattern Set(1)

Chose Pattern Set(2)

Chose Pattern Set(3)