

<b>PCN Number:</b>	20180102000		<b>PCN Date:</b>	Feb. 12, 2018	
<b>Title:</b>	.3 720p S245 TRP DMD Process Change and DLPC34xx Controller Software/Firmware Change				
<b>Customer Contact:</b>	DLP-PCN-Team@list.ti.com		<b>Dept:</b>	DLP CQE	
<b>Proposed 1<sup>st</sup> Ship Date:</b>	May 12,2018		<b>Estimated Sample Availability:</b>	Feb. 12, 2018	
<b>Change Type:</b>					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input checked="" type="checkbox"/>	Assembly Materials	<input checked="" type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Software /Firmware	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
				<input type="checkbox"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
<p>Texas Instruments Incorporated is announcing the change of a proprietary material used in the DMD process as well as a part number change for all Pico TRP affected devices. TI plans to obsolete the existing part numbers for all Pico TRP affected devices. This will be communicated officially through an end-of-life PCN at a later date.</p> <ul style="list-style-type: none"> <li>The new process DMDs have mandatory software (SW) requirements.</li> <li>Detailed information can be found in the following Application Note on the extranet. <a href="#">Software Requirements for TI DLP® Pico™ TRP Digital Micromirror Devices</a></li> <li>Embedded SW is backward compatible with existing devices. TI encourages customers to transition to new SW immediately when it becomes available.</li> <li>Consult your application engineer for questions or if you need access to TI's mySecure Software site.</li> </ul>					
<b>Reason for Change:</b>					
This change is part of TI's proactive chemical use policy and continuity of supply.					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
None					
<b>Anticipated impact on Material Declaration</b>					
<input checked="" type="checkbox"/>	<b>No Impact to the Material Declaration</b>	<input type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the <a href="#">TI Eco-Info website</a> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.		
<b>Changes to product identification resulting from this PCN:</b>					
<b>Device</b>	<b>Orderable P/N</b>	<b>New Orderable P/N</b>	<b>SW Availability**</b>	<b>DMD Samples</b>	<b>DMD MP</b>
.3 720p S245	7212-313BK	7212-323BK	Available now	Available now	Available now
.3 720p S245	DLP3010FQK	DLP3010AFQK	Available now	Available now	Available now
<b>Controller</b>		<b>Original Software / Firmware</b>	<b>New Process Software</b>	<b>SW Availability**</b>	
DLPC34xx		Version 04.12.07	Version 05.3.0	Available now	

## Qualification Data

This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

### Product Applications:

See the DMD device sheet and Application Note "[Software Requirements for TI DLP® Pico™ TRP Digital Micromirror Devices](#)" for application details.

### .3 720p S245 TRP Device Part# (7212-323BK, DLP3010AFQK)

### Qualification Tests & Results:

The .3 720p S245 TRP Device Qualification has passed. The following life, environmental, and inspection tests were conducted as per the approved qualification plan and test requirements. Details are mentioned below.

Test	Conditions	Quantity	Results
<b>A. Life Test: *</b>			
High Temp Operating Life	95°C, 500hr or equivalent	40	Pass
Nominal Operating Life w/o Precondition	70°C, 670hr or equivalent	40	Pass
Preconditioning + Nominal Operating Life:			
(a) Precondition	UBH 110°C/85%RH, 500hr	40	Pass
(b) Nominal Operating Life	70°C, 670hr or equivalent		
Low Temp Operating Life	-10°C, 500hr or equivalent	40	Pass
Projector Life w/o Precondition	Ambient Temperature, 1000hr or equivalent	9	Pass
Preconditioning + Projector Life			
(a) Precondition	UBH 110°C/85%RH, 500hr	9	Pass
(b) Projector Life	Ambient Temperature, 500hr or equivalent		
<b>B. Environmental Tests: *</b>			
High Temp Storage Life	125°C, 500hr or equivalent	30	Pass
Temperature Cycling	0°C/+100°C 1000cycles	77	Pass
Unbiased HAST	UBH 110°C/85%RH, 500hr	27	Pass
ESD	RT, HBM per Data Sheet	9	Pass
Latch Up	RT, +/-100mA	9	Pass
Mechanical Stress Sequence			
(a) Electrical Test		32	Pass
(b) Mechanical Shock	1500g, 0.5ms, 6axis, 5 pulses		
(c) Vibration	20g, 20-2000Hz, All planes (x, y, z)		
(d) Acceleration	10Kg, Y1 plane only		
(e) Electrical Test			
Thermal Stress Sequence			
(a) Electrical Test		32	Pass
(b) Thermal Shock	0°C/+100°C, 15 cycles		
(c) Temp. Cycle	0°C/+100°C, 100 cycles		
(d) Moisture Resistance	10 days		
(a) Electrical Test			
<b>C. Inspection Tests:</b>			
Physical Dimensions		10	Pass
Internal Water Vapor		10	Pass
Window Pull		10	Pass
Bond Strength		9	Pass
<b>D. Others:</b>			
Image Quality		30	Pass
Optical Performance		30	Pass

\* Any conditions beyond the Recommended Operating Conditions listed in the Datasheet are run at accelerated test conditions.

For questions regarding this notice, emails can be sent to the regional contacts shown below or your local Field Sales Representative.

<b>Location</b>	<b>E-Mail</b>
USA	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>