

PCN Number:	20130627000			PCN Date:	09/03/2013
Title:	DMD Passivation Change - Catalog				
Customer Contact:	Dlp-pcn-team@list.ti.com	Phone:	+1(214)567-4442	Dept:	DLP® Quality
Proposed 1st Ship Date:	10/03/2013				
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
PCN Details					
Description of Change:					
TI is changing the proprietary material used in the DMD Passivation process. Passivation is a special atmosphere/coating to cover the mirror surfaces to make the mirrors function properly.					
Reason for Change:					
This change is part of TI's proactive chemical use policy and product improvements.					
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):					
None					
Changes to product identification resulting from this PCN:					
Part number will be changed as follows: From: DLP5500AFYA To: DLP5500BFYA					
Product Affected:					
DLP5500AFYA					

Qualification Data:

Qualification:	<input type="checkbox"/> Plan	<input checked="" type="checkbox"/> Test Results
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Tests	Conditions	Read points	Sample Size	Results
A Life Test:				
1. Combo pattern (1/1 duty cycle)	95 °C	500 hours	24	Pass
2. Reliability Life (5/95 duty cycle)	75 °C	500 hours	24	Pass
3. Precondition Reliability Life			24	Pass
(a) Unbiased Humidity	110°C/85%RH	500 hours		
(b) Reliability Life (5/95 duty cycle)	75°C	500 hours		
4. Projector Life	All black	1000 hours	9	Pass
5. Precondition Projector Life			9	Pass
(a) Unbiased Humidity	110°C/85%RH	500 hours		
(b) Projector Life	All black	500 hours		
6. Stiction Life (50/50 duty cycle)	0 °C	500 hours	24	Pass

B Environmental Tests:

1. Storage Life	125°C	500 hours	30	Pass
2. Temperature Cycling	-55°C/125°C	1000 cycles	77	Pass
3. Mechanical Stress Sequence:			32	Pass
(a) Electrical test				
(b) Mechanical shock	1500 g, 0.5 ms, 6 axis, 5 pulses			
(c) Vibration	20g, 20-2000 Hz, All planes (X,Y,Z)			
(d) Acceleration	10 Kg, Y1 plane only			
(e) Electrical test				
4. Thermal Stress Sequence:			32	Pass
(a) Electrical test				
(b) Thermal Shock	-55°C/125°C	15 cycles		
(c) Temp. Cycle	-55°C/125°C	100 cycles		
(d) Moisture Resistance		10 days		
(e) Electrical test				
5. ESD, (bias/reset pins excluded)	HBM	2000V	9	Pass
6. Latch Up	25°C, +/-200mA		9	Pass
7. Unbiased Humidity	110°C/85%RH	500 hours	27	Pass

C Inspection Tests:

1. Physical Dimensions			10	Pass
2. Internal Water Vapor			10	Pass
3. Window Pull			10	Pass
4. Wire Bond Pull			10	Pass

D Others:

1. Image Quality			30	Pass
2. Optical Performance			30	Pass

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

Location	E-Mail
DLP PCN Team	DLP-PCN-team@list.ti.com
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com