About Test Results

Test results of the TIDA-00384 reference design are performed using the DLP® LightCrafter Display 3010 EVM which is the TI's implementation of the TIDA-00384 reference design. This EVM incorporates the DLP 0.3" 720p chipset comprising of the DLP3010 DMD, DLPC3438 controller and DLPA2005 PMIC/Led Driver. The EVM and reference design enable faster development cycles for applications requiring ultra-small form factor optical engine and ultra-low power projection display solution. The entire test data contained below was measured from one DLP LightCrafter Display 3010 EVM to provide an example from a typical unit. Please note that performance will vary across EVMs due to variations in manufacturing. The performance data is not guaranteed

If You Need Assistance

Refer to the DLP and MEMS TI E2E Community support forums: DLP LightCrafter Display 3010 Development Platform Forum

This test reports provides following test data:

1. Lumens measurement
2. Power Up and Power Down Sequence
3. Optical Engine Size
4. Optical Engine Throw Ratio

1 Lumens Measurement

This section provides the lumens measured for the EVM, which is the TI's implementation of this reference design.

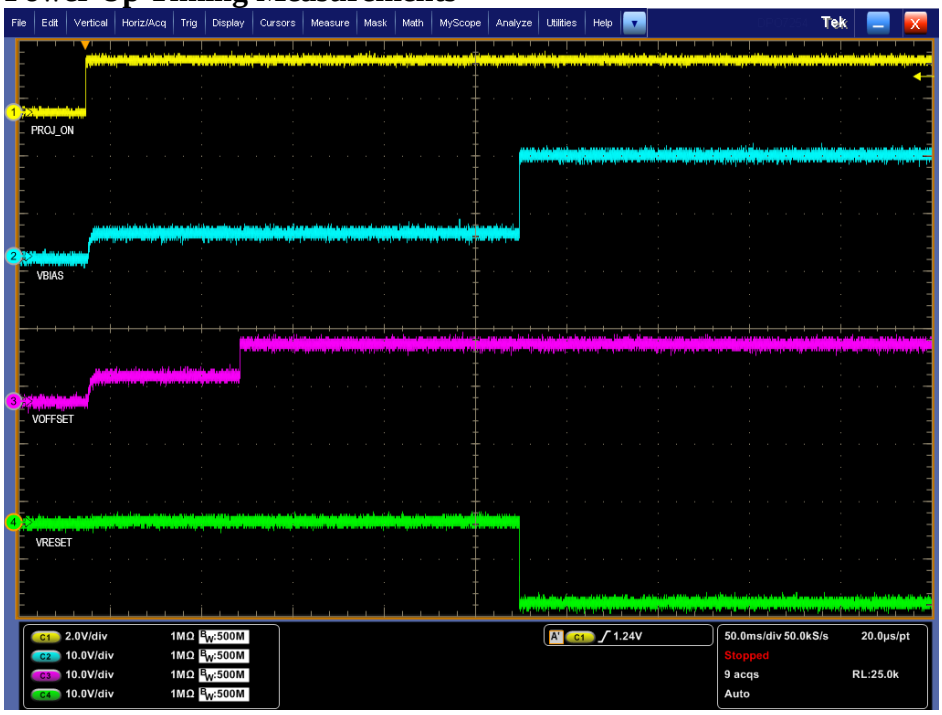
White Point: 6040K

White image 125 Lumen

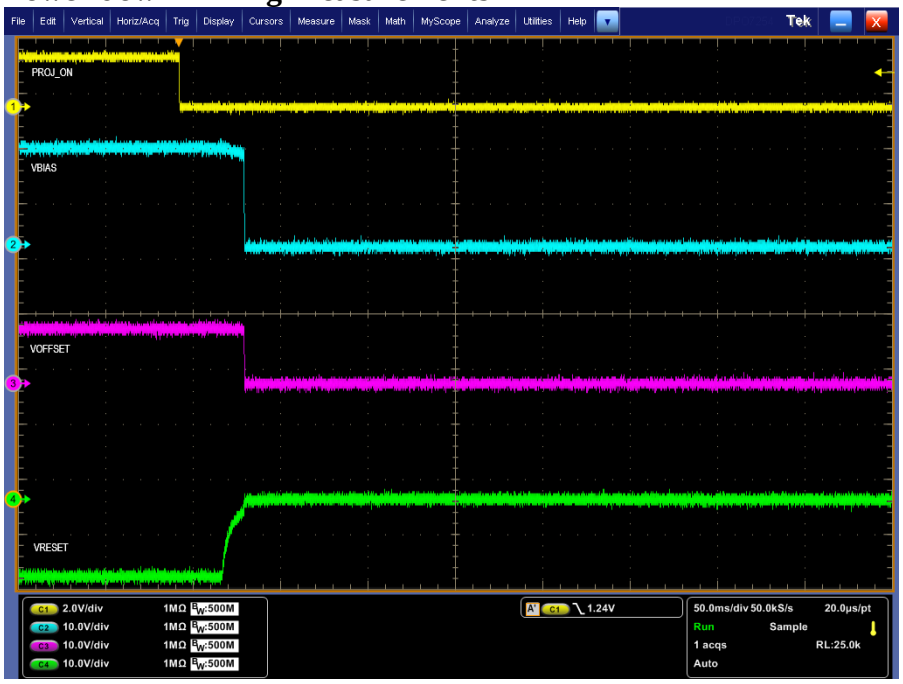
2. Power Up and Power Down Timing Measurements

Power Up and Power Down timing requirements are described in detail in the DLP3010 datasheet. Key signals measured are PROJ_ON and the power supplies to the DMD- VBIAS, VOFFSET and VRESET. For more details on the timing requirements please refer the DLP3010 device datasheet.

Power Up Timing Measurements

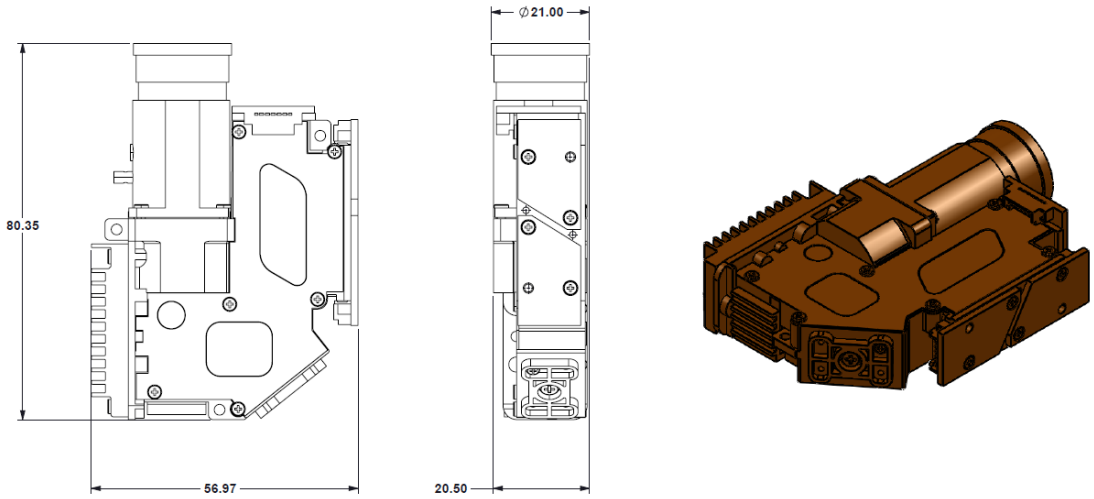


Power down Timing Measurements



3. Optical engine size

DLP3010 is a key component of the 0.3" 720p chipset and is designed to enable small factor optical platforms. Size of the optical engine used in this design is:



Total volume of the optical engine is: 94 cc

4. Throw Ratio

An optical engine's throw ratio is defined as the ratio of the distance measured from lens to screen and the width of the projected image.

Throw Ratio = Distance/Width

Throw ratio for the optical engine used in this ref design is 1.2

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