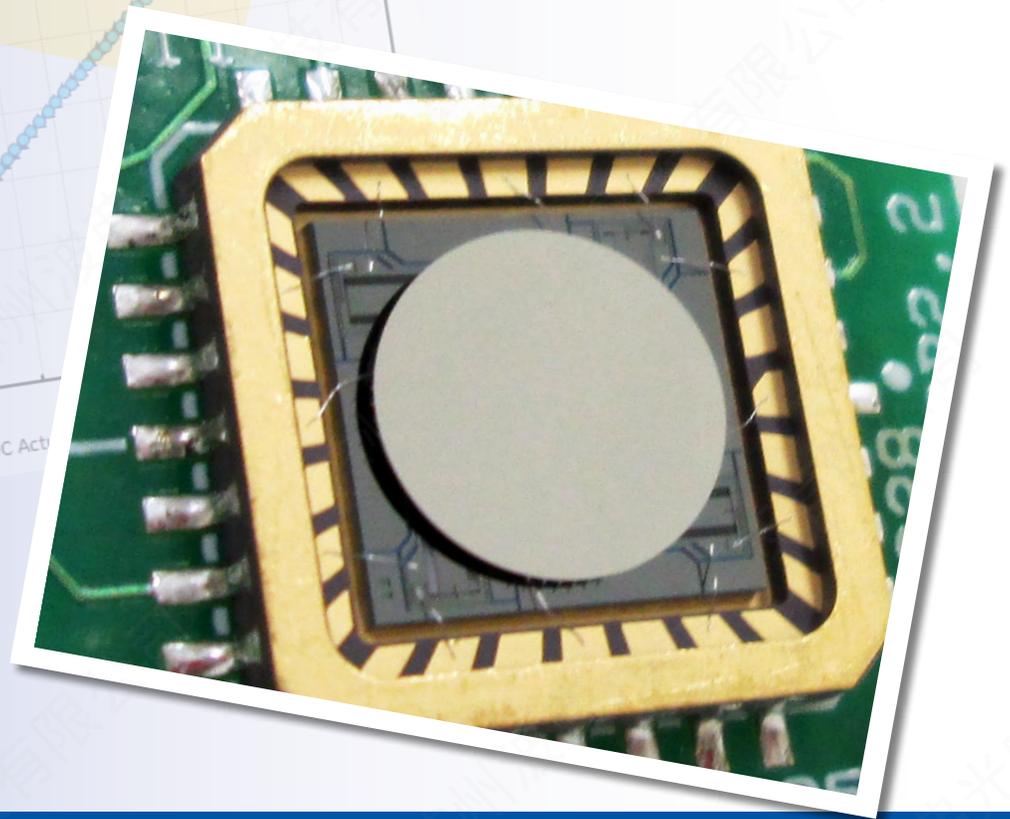
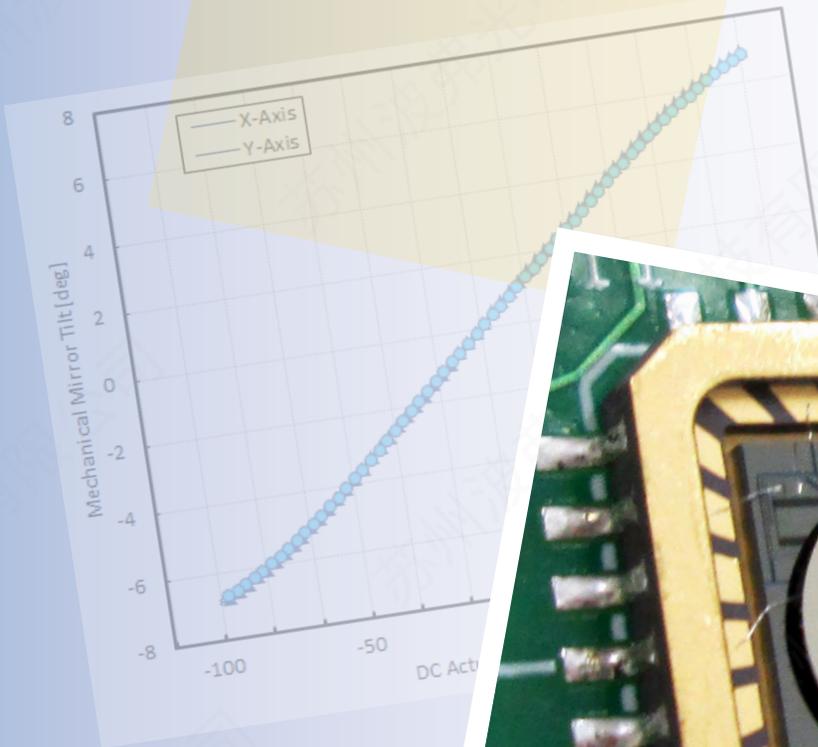


## Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet  
S7644



[www.MirrorcleTech.com](http://www.MirrorcleTech.com)

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# Device Parameters Summary

**Device ID :** S7644

**Actuator Type:** A3I8.2

**Actuator Mode :** Gimbal-less Dual-Axis Quasistatic

**Mirror Type and Size :** Integrated mirror of 800um diameter

**Mirror Coating :** Aluminum

**Maximum Mech. Angle - X Axis [degrees] :** 6.1093

**Maximum Mech. Angle - Y Axis [degrees] :** 6.1661

**Maximum Vdifference - X Axis [V] :** 98

**Maximum Vdifference - Y Axis [V] :** 97

**Driver Bias Voltage (Vbias) [V] :** 80

**Maximum Mech. Angle - Coupled Axes [degrees] :** 7.8375

**Resonant Frequency - X Axis [Hz] :** 3916

**Resonant Frequency - Y Axis [Hz] :** 3828

**Quality Factor - X Axis :** 53

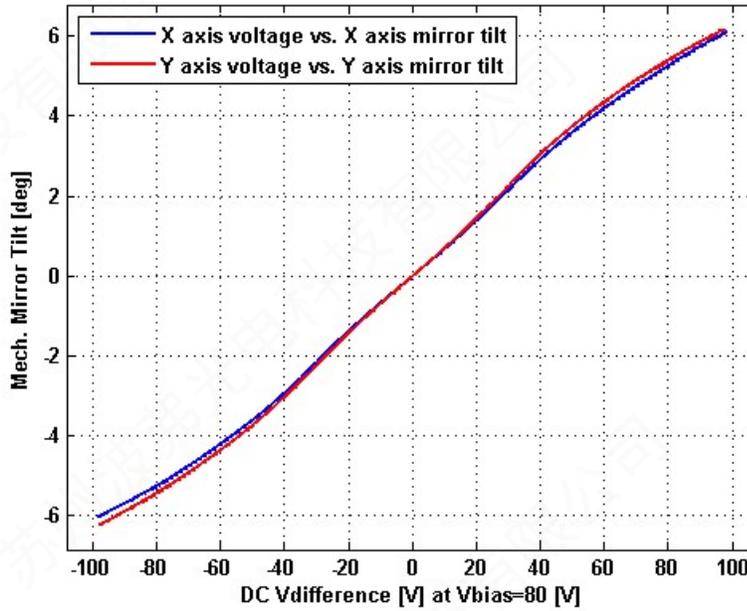
**Quality Factor - Y Axis :** 50

**Recommended LPF Cutoff Frequency (6th Order Bessel) [Hz] :** 1000

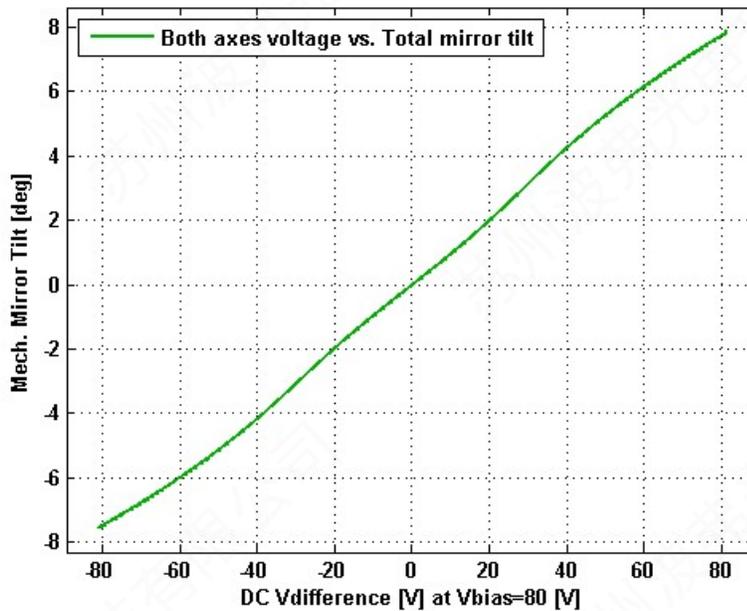
**Date and Time Report was Created:** 02-Feb-2018 at 12:30:26

# Static Response

## Voltage vs. Mech. Angle - Individual Axes

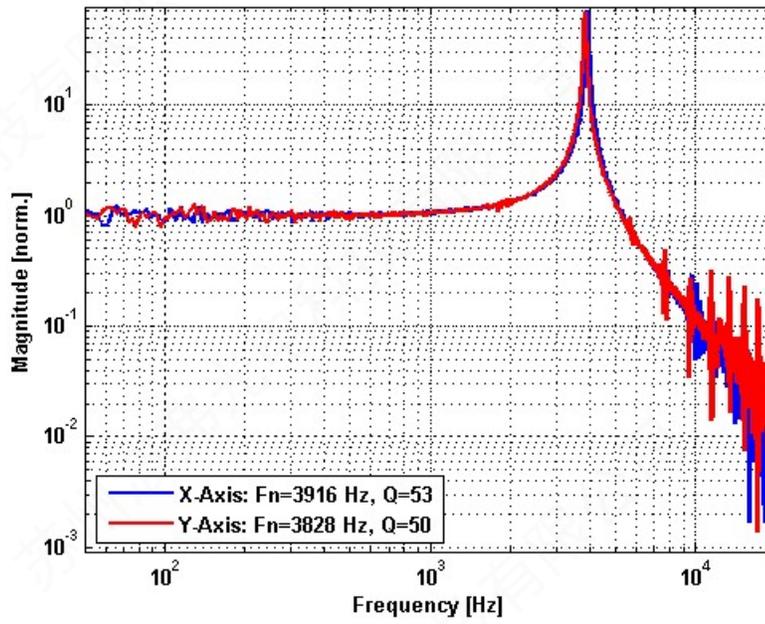


## Voltage vs. Mech. Angle - Coupled Axes

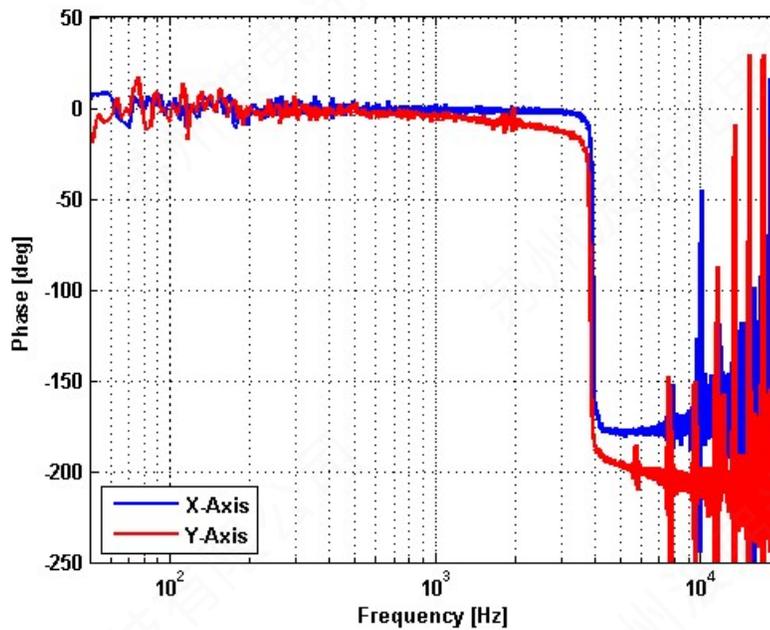


# Frequency Response

## Small Signal Frequency Response - Magnitude

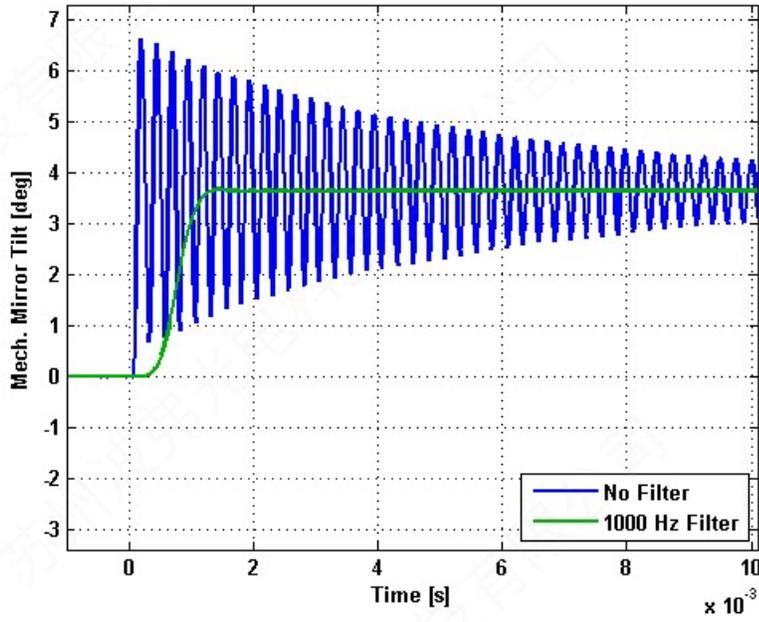


## Small Signal Frequency Response - Phase

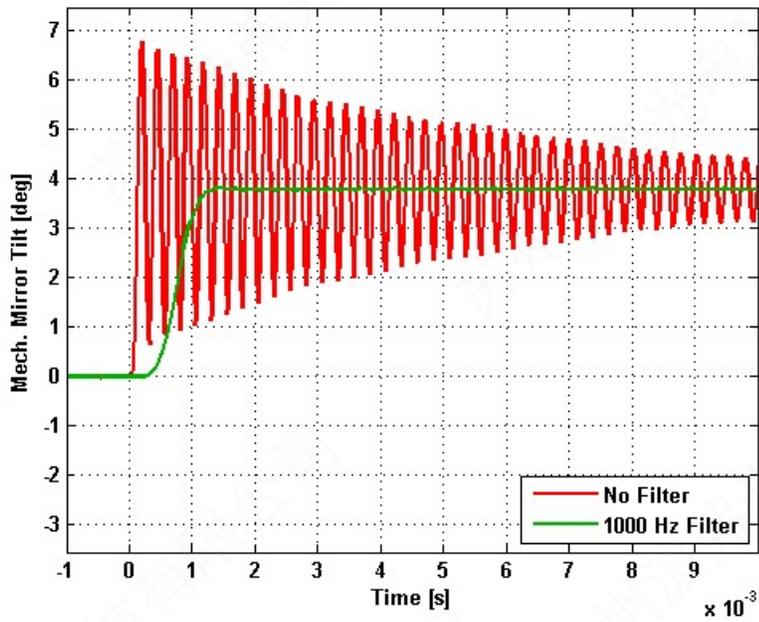


# Step Response

## X-Axis Step Response



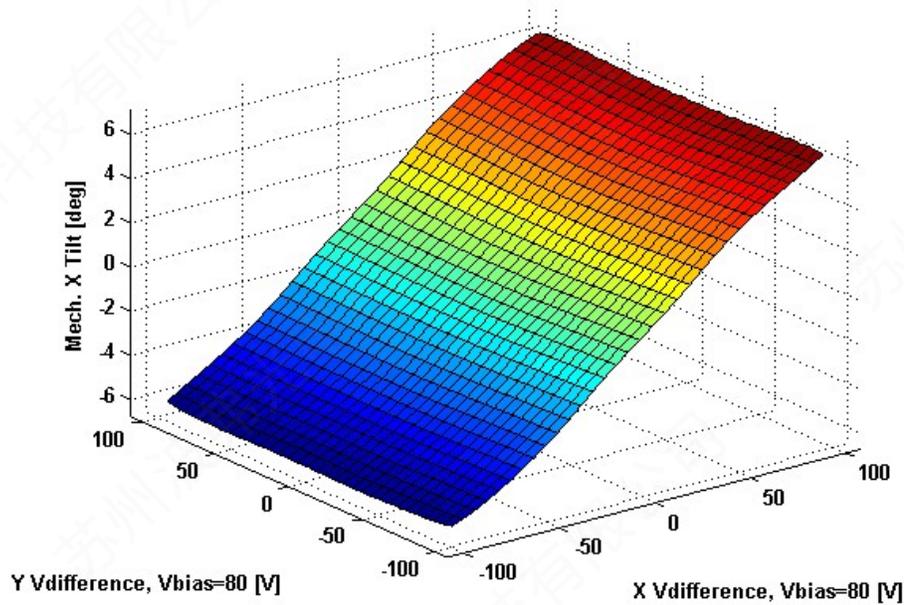
## Y-Axis Step Response



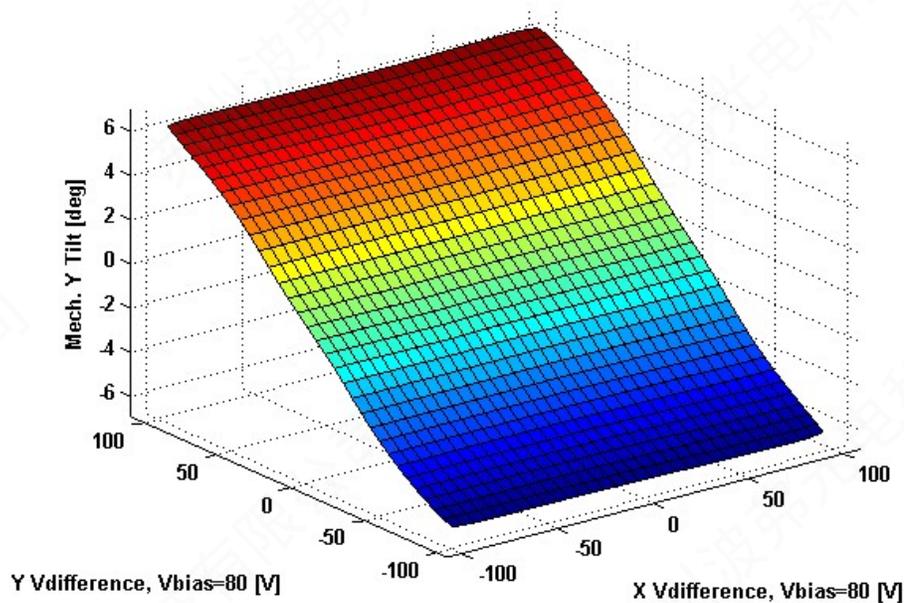
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# 2D Lookup Tables

## Voltage vs. X Mech. Angle - Lookup Table



## Voltage vs. Y Mech. Angle - Lookup Table



# Y vs. X Tilt - Addressable Mech. Angles

