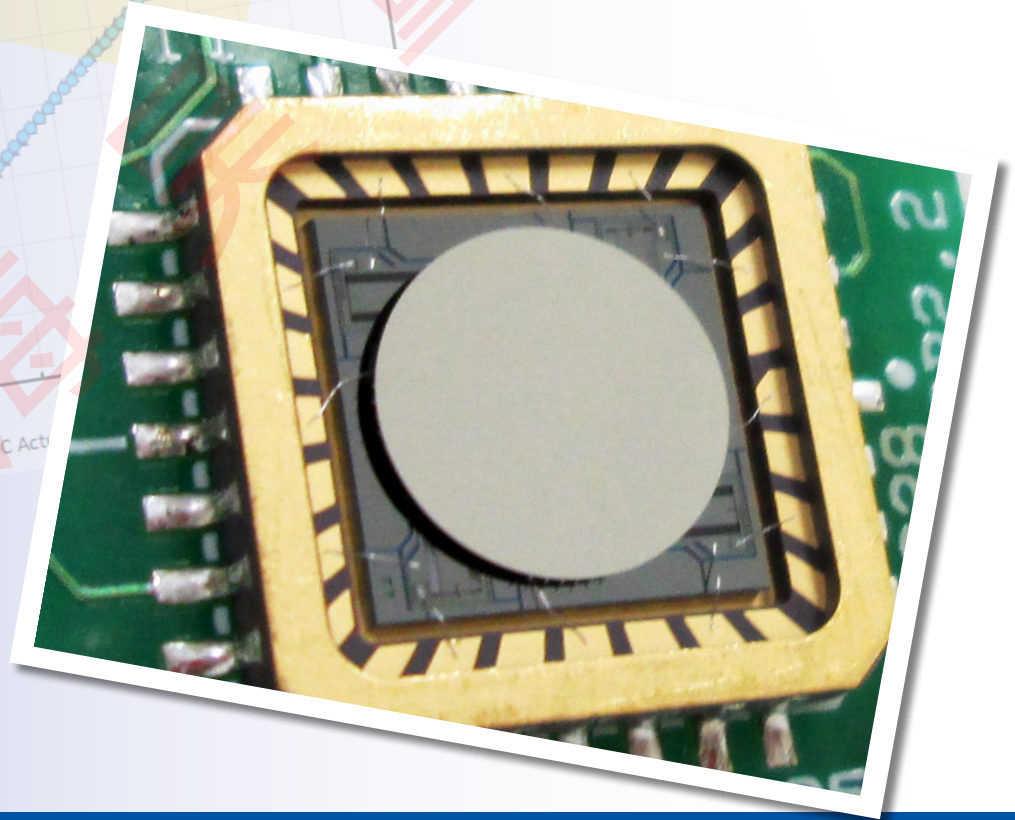
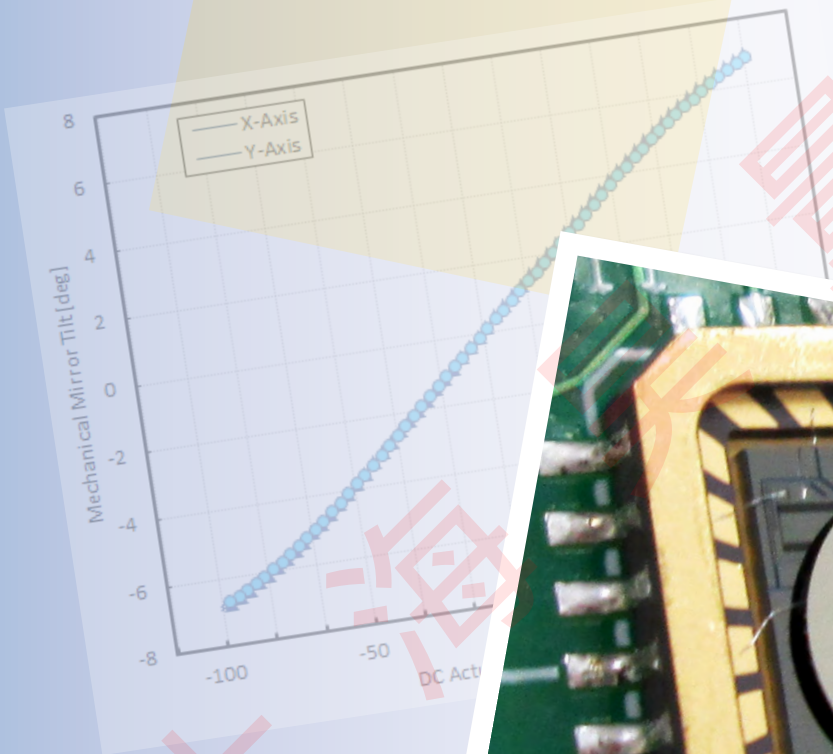


# Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet  
S4944



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# Device Parameters Summary

**Device ID** : S4944

**Actuator Name** : A7B1.1

**Actuator Type** : 4-Quadrant (Two-Axis, Bidirectional)

**Mirror Type and Size** : Bonded mirror of 2.4mm diameter

**Mirror Coating** : Gold

**Maximum Angle - X Axis [degrees]** : 7.3026

**Maximum Angle - Y Axis [degrees]** : 7.3957

**Maximum Voltage - X Axis [V]** : 149

**Maximum Voltage - Y Axis [V]** : 149

**Bias Voltage [V]** : 80

**Maximum Angle - Coupled Axes [degrees]** : 9.4311

**Resonant Frequency - X Axis [Hz]** : 598

**Resonant Frequency - Y Axis [Hz]** : 596

**Quality Factor- X Axis** : 37

**Quality Factor - Y Axis** : 37

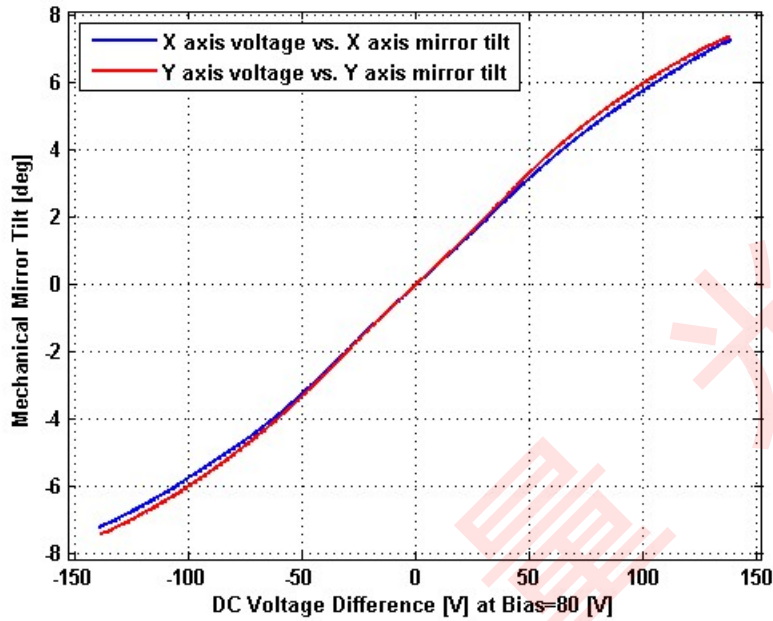
**Recommended LPF Cutoff Frequency (6th Order Bessel)** : 230

**Date and Time Report was Created:** 15-Sep-2015 at 12:33:18

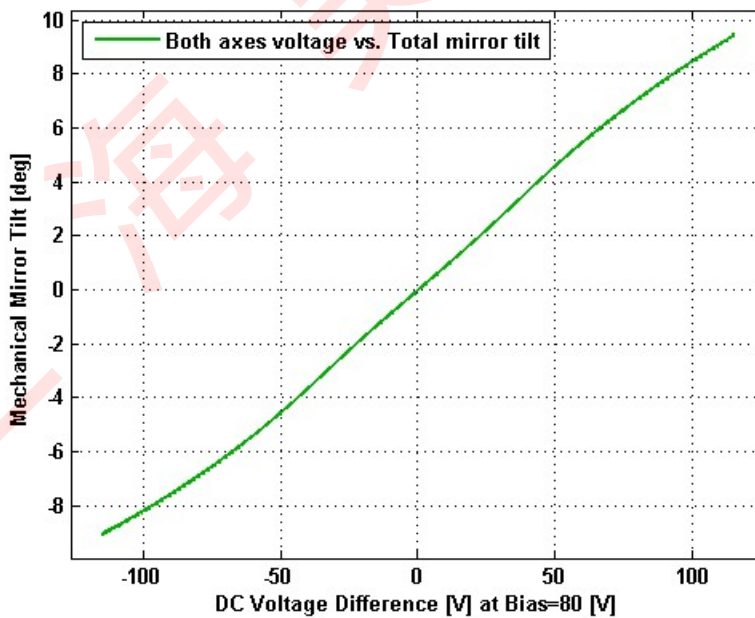
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# Static Response

## Voltage vs. Angle - Individual Axes

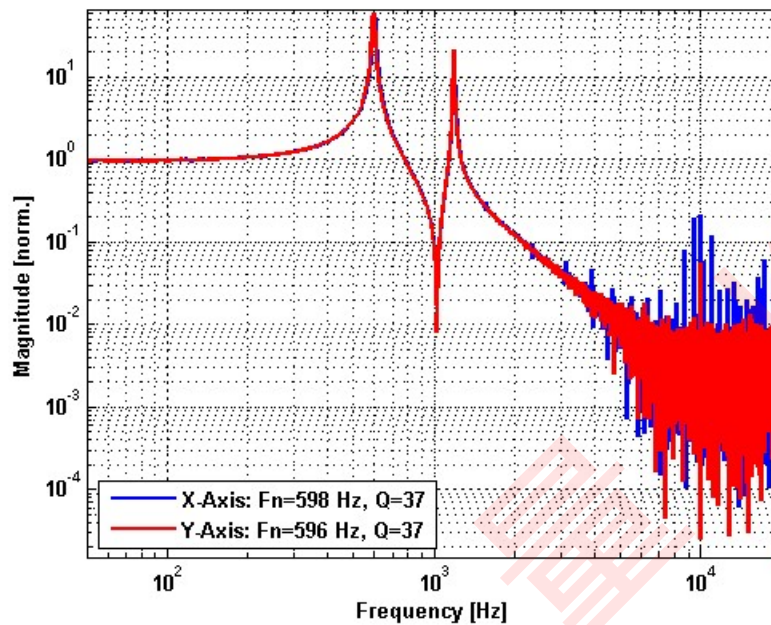


## Voltage vs. Angle - Coupled Axes

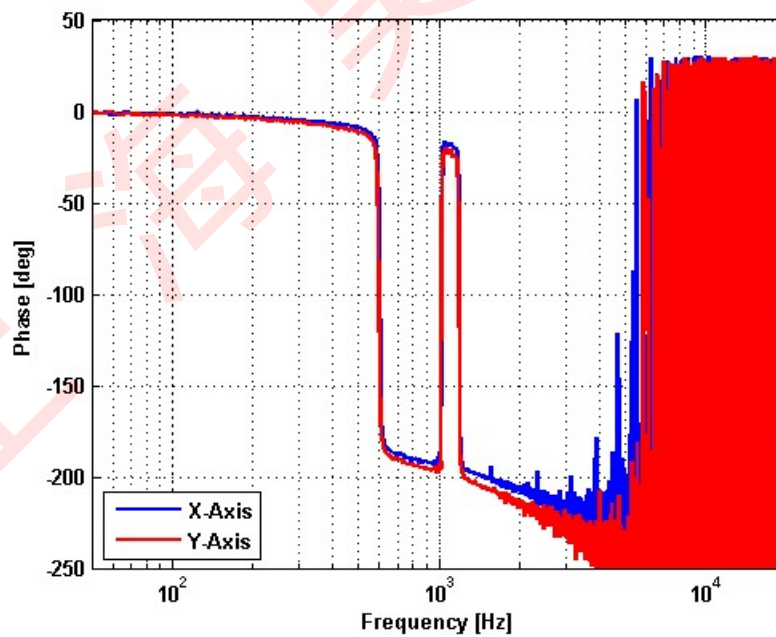


# Frequency Response

## Small Signal Frequency Response - Magnitude



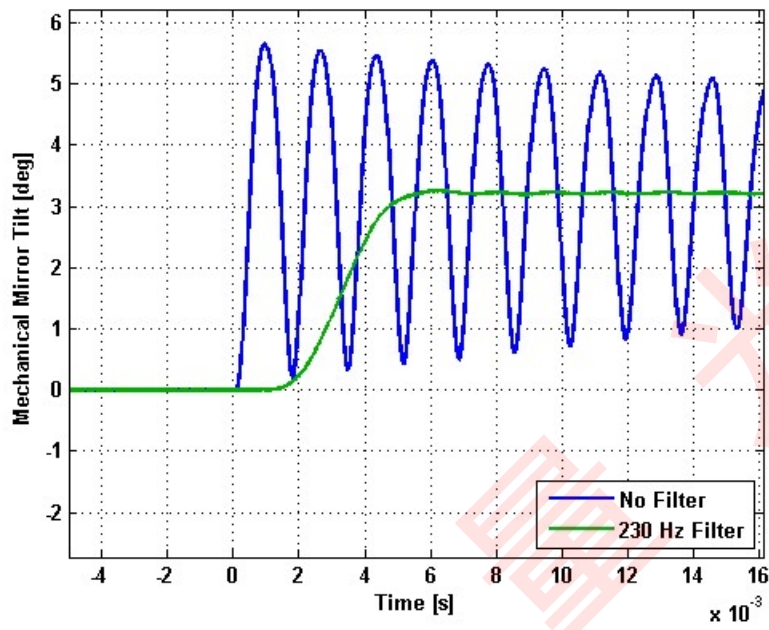
## Small Signal Frequency Response - Phase



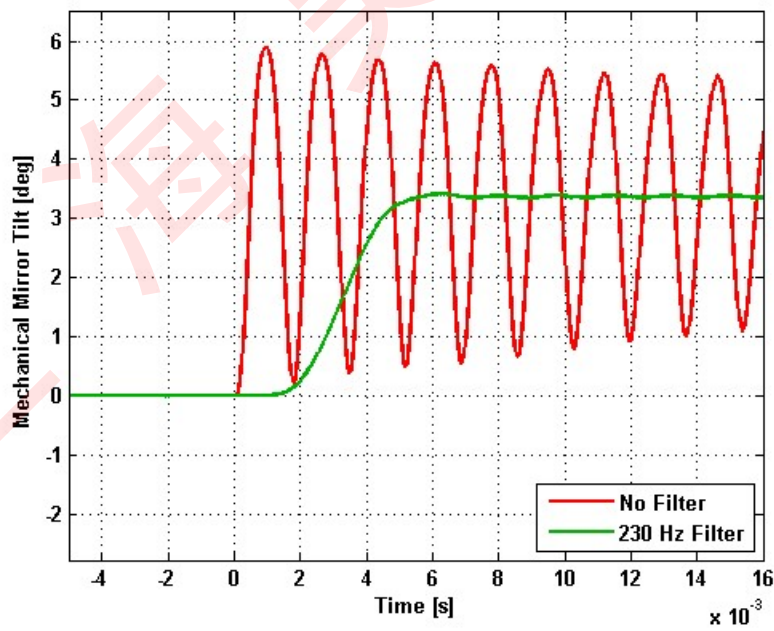
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# Step Response

## X-Axis Step Response



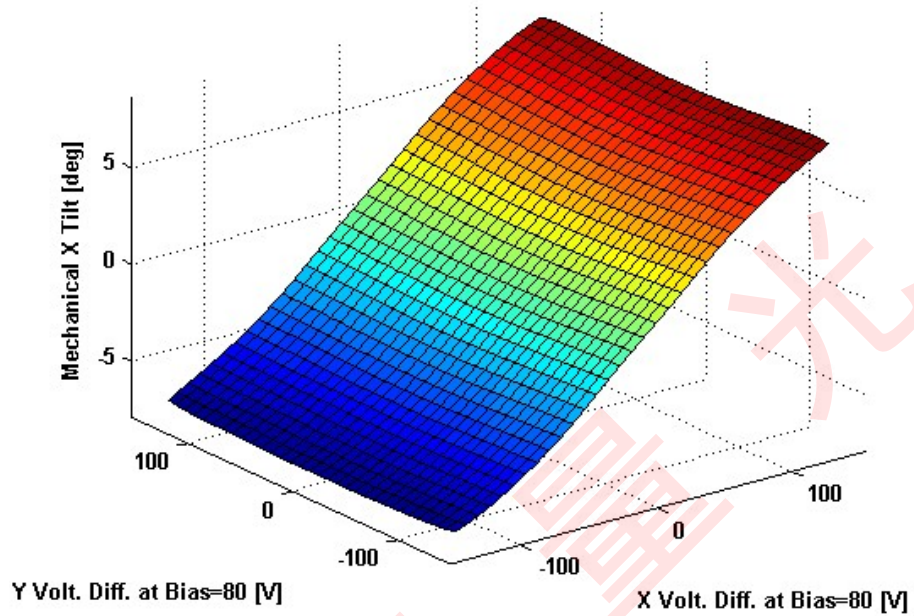
## Y-Axis Step Response



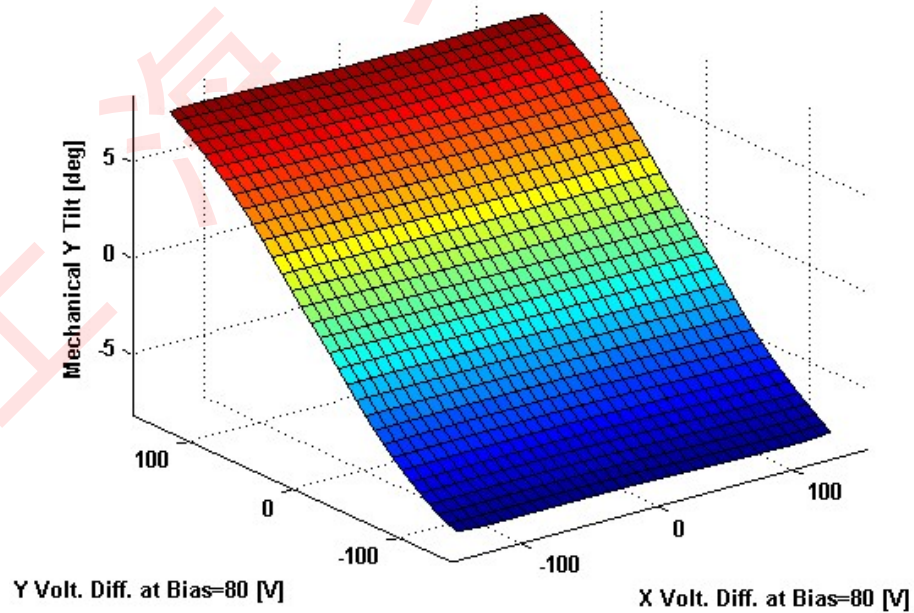
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# 2D Lookup Tables

## Voltage vs. X Angle - Lookup Table



## Voltage vs. Y Angle - Lookup Table



## Y Angle vs. X Angle - Addressable Angles

