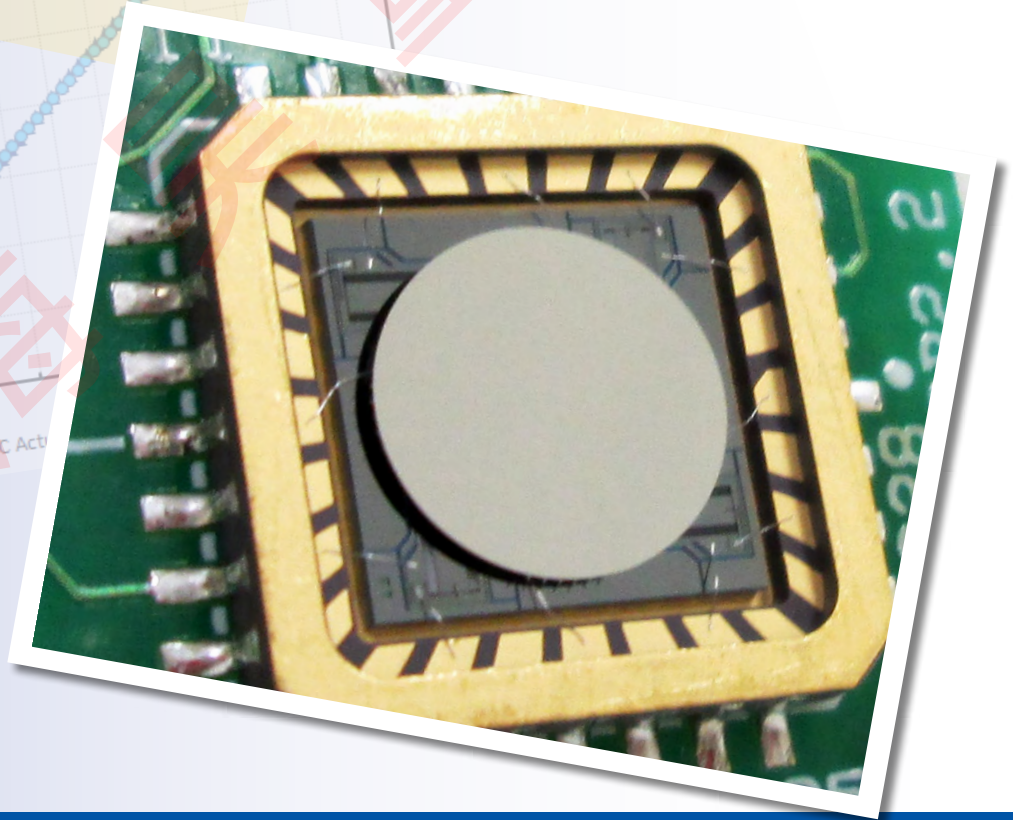
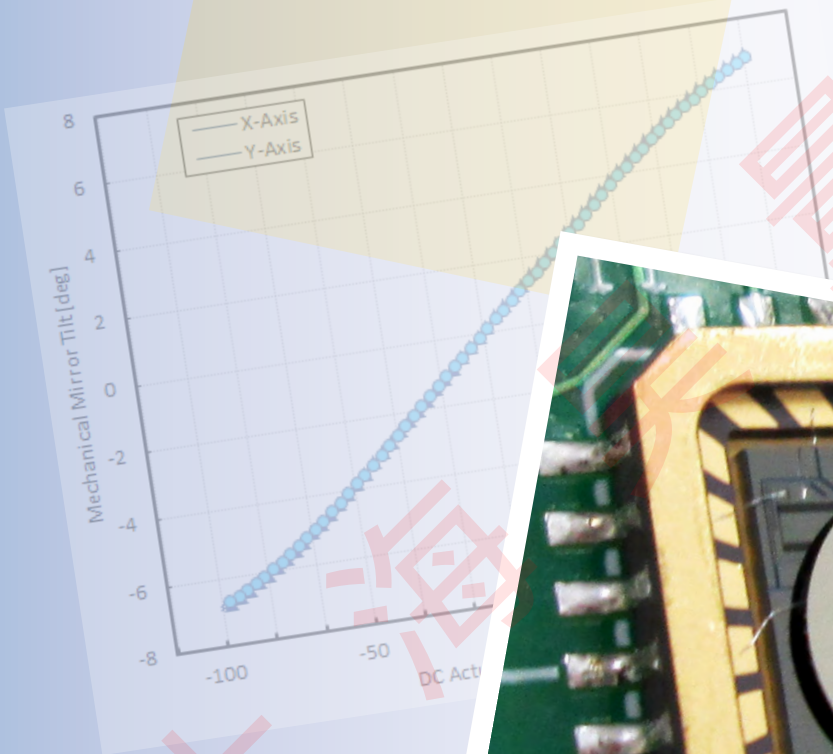


# Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet  
S4677



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# Device Parameters Summary

**Device ID :** S4677

**Actuator Name :** A7M8.1

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

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

**Mirror Coating :** Aluminum

**Maximum Angle - X Axis [degrees] :** 5.0353

**Maximum Angle - Y Axis [degrees] :** 5.0225

**Maximum Voltage - X Axis [V] :** 158

**Maximum Voltage - Y Axis [V] :** 158

**Bias Voltage [V] :** 80

**Maximum Angle - Coupled Axes [degrees] :** 6.3503

**Resonant Frequency - X Axis [Hz] :** 5964

**Resonant Frequency - Y Axis [Hz] :** 5969

**Quality Factor- X Axis :** 48

**Quality Factor - Y Axis :** 51

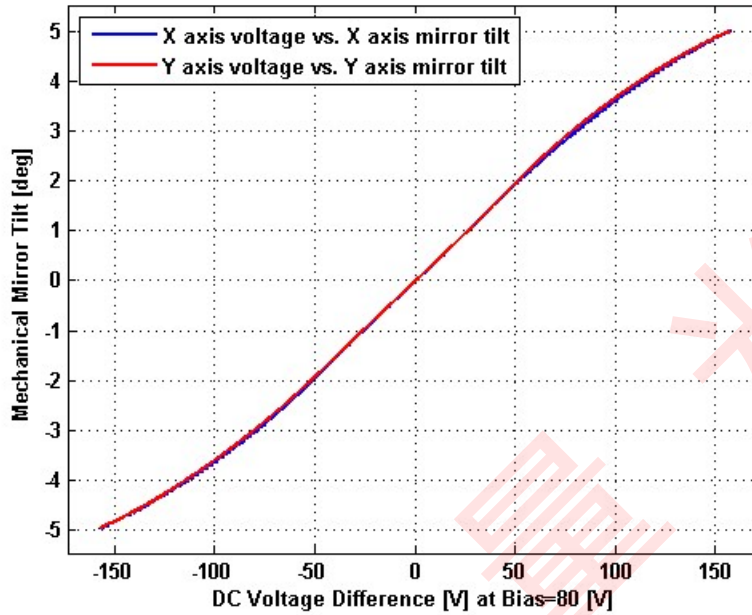
**Recommended LPF Cutoff Frequency (6th Order Bessel) :** 2400

**Date and Time Report was Created:** 03-Jun-2015 at 14:40:34

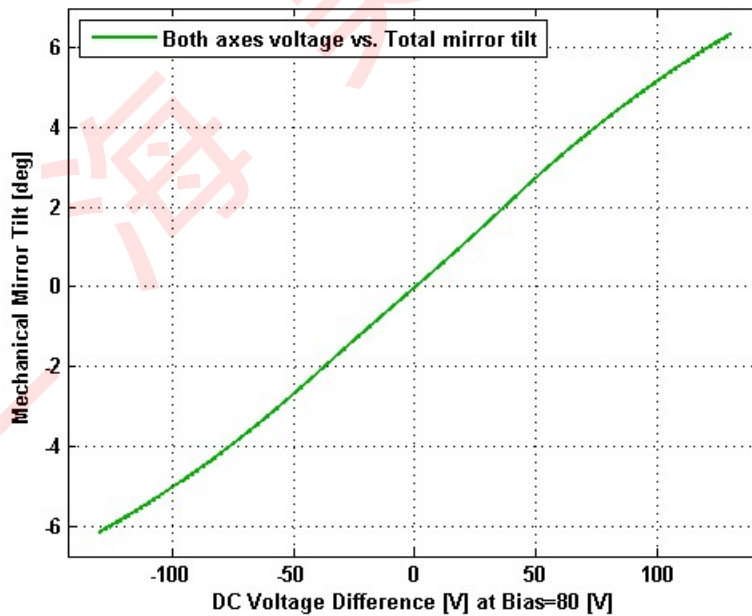
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# Static Response

## Voltage vs. Angle - Individual Axes

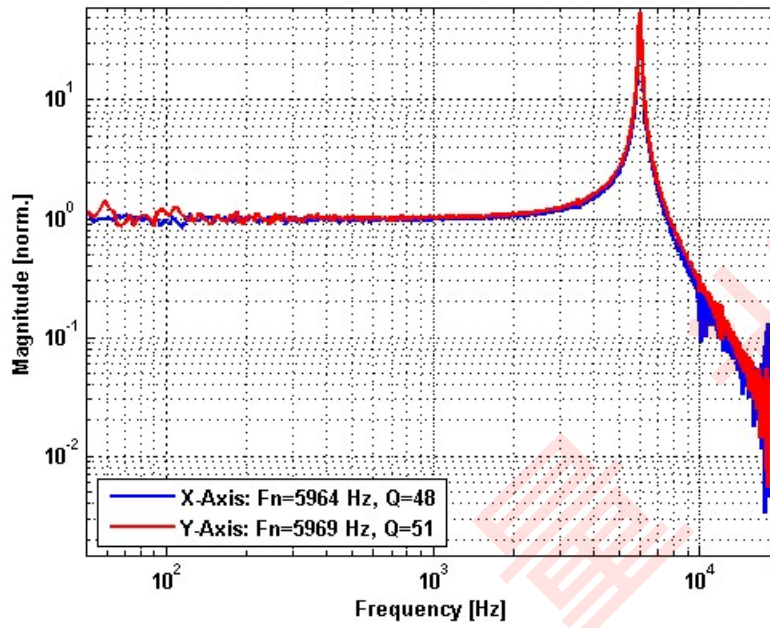


## Voltage vs. Angle - Coupled Axes

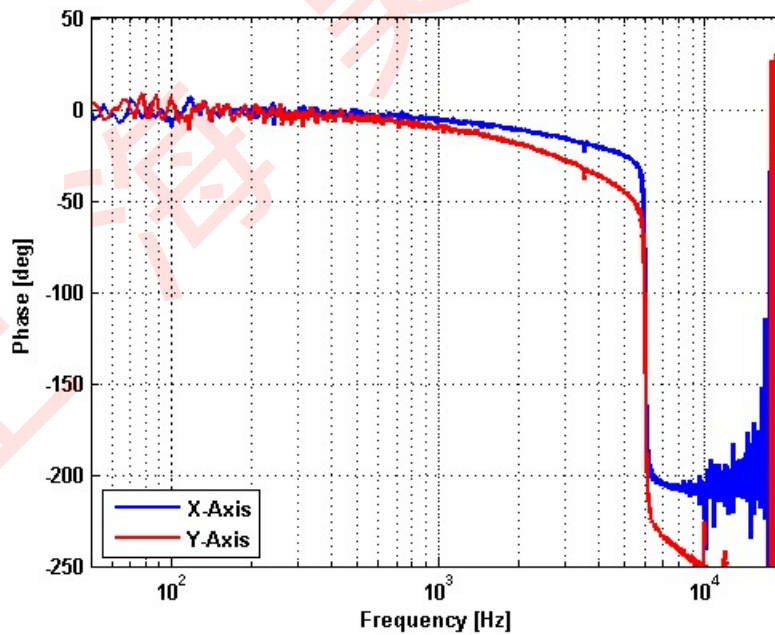


# Frequency Response

## Small Signal Frequency Response - Magnitude

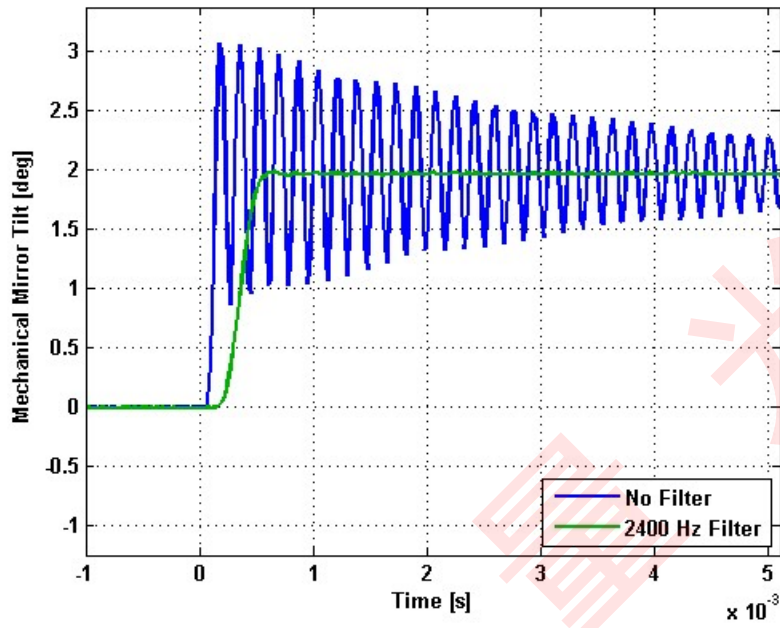


## Small Signal Frequency Response - Phase

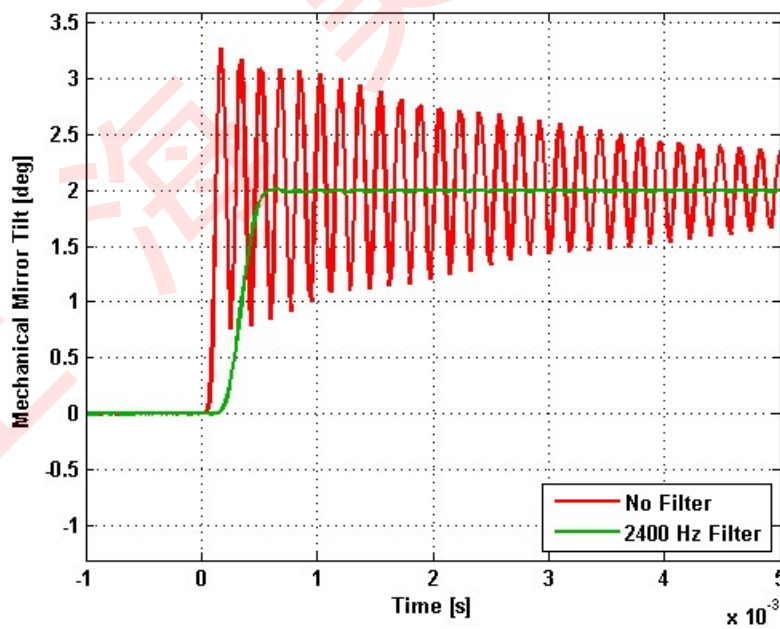


# Step Response

## X-Axis Step Response



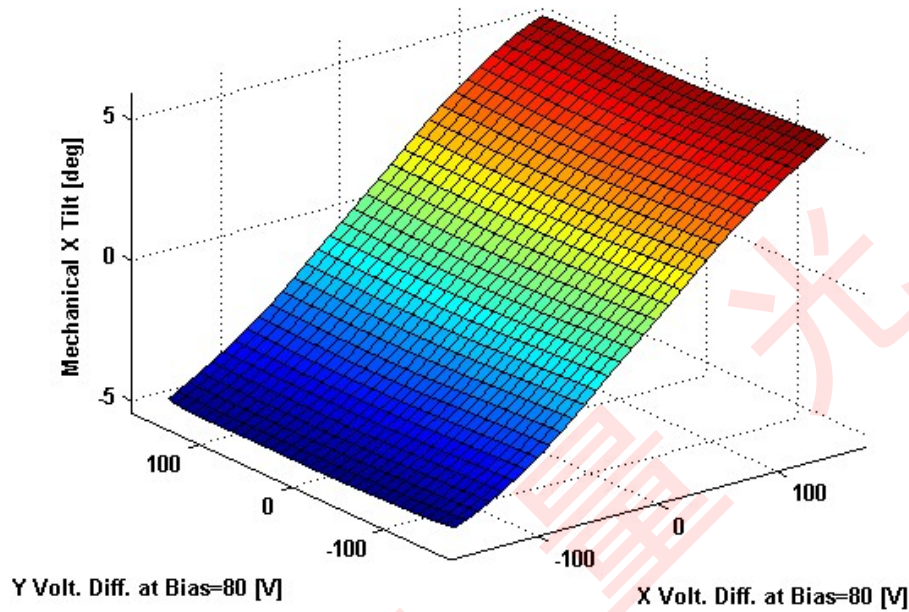
## Y-Axis Step Response



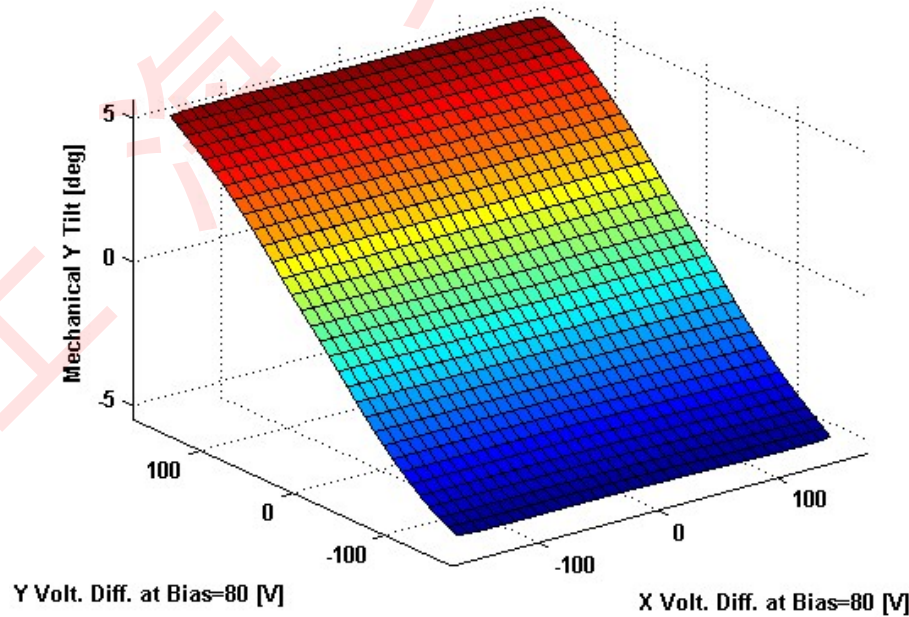
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# 2D Lookup Tables

## Voltage vs. X Angle - Lookup Table



## Voltage vs. Y Angle - Lookup Table



# Y Angle vs. X Angle - Addressable Angles

