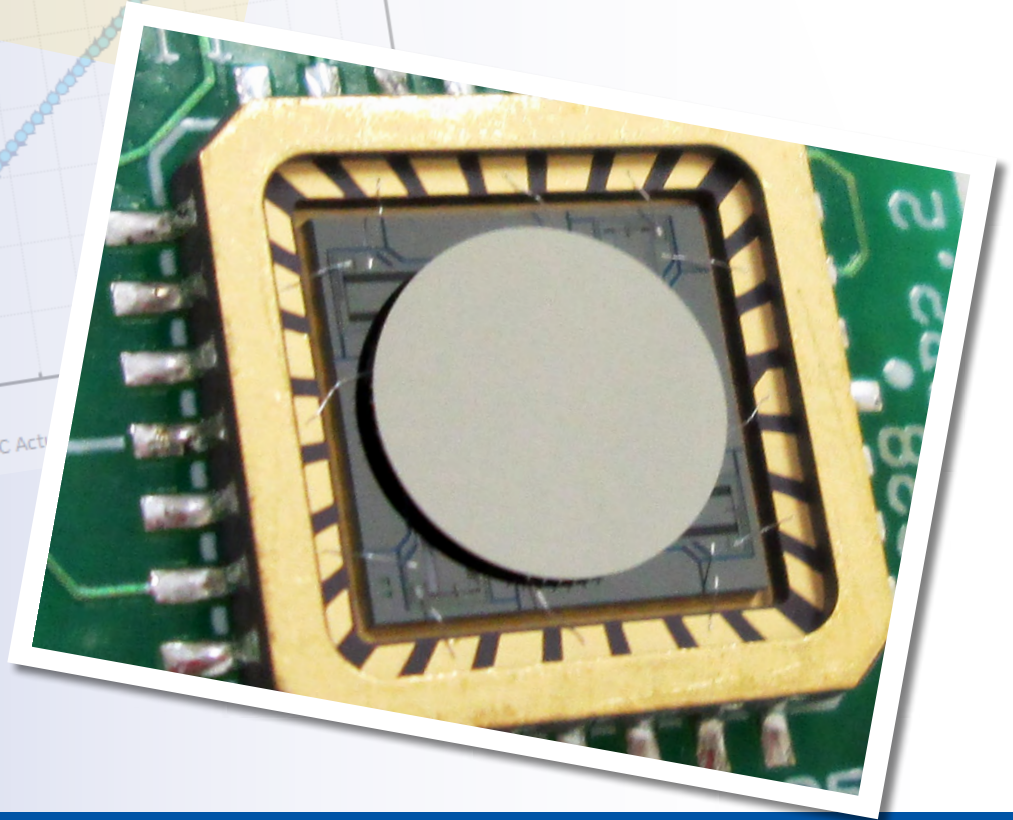
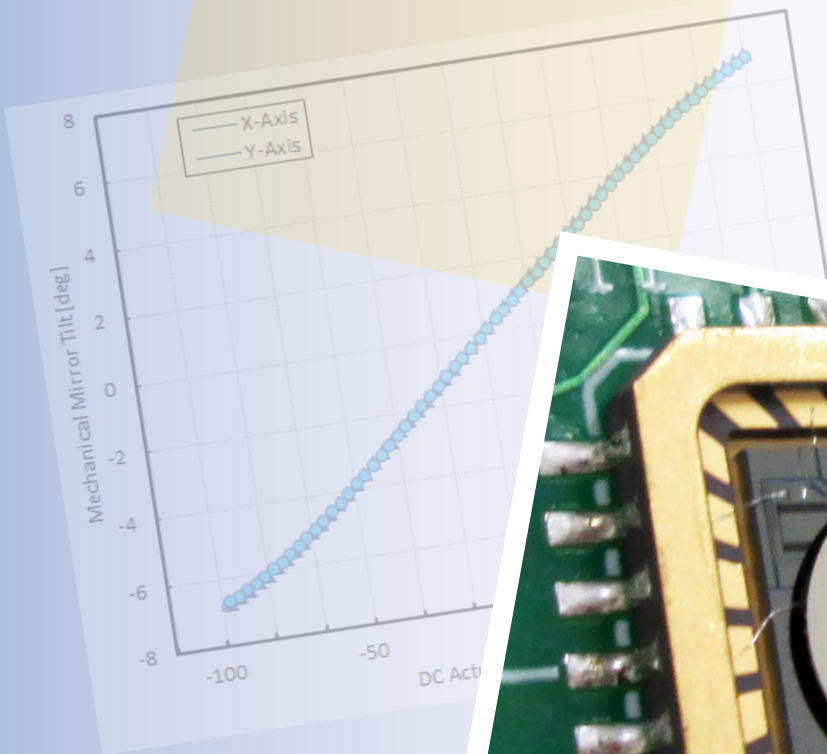


## Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet  
S4014



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# Device Parameters Summary

**Device ID** : S4014

**Actuator Type** : A1B2.4

**Mirror Type and Size** : Bonded mirror of 1200um diameter

**Mirror Coating** : Aluminum

**Maximum Angle - X Axis [degrees]** : 4.0815

**Maximum Angle - Y Axis [degrees]** : 4.0641

**Maximum Voltage - X Axis [V]** : 130

**Maximum Voltage - Y Axis [V]** : 130

**Bias Voltage [V]** : 70

**Maximum Angle - Coupled Axes [degrees]** : 4.8981

**Resonant Frequency - X Axis [Hz]** : 3982

**Resonant Frequency - Y Axis [Hz]** : 3984

**Quality Factor- X Axis** : 44

**Quality Factor - Y Axis** : 45

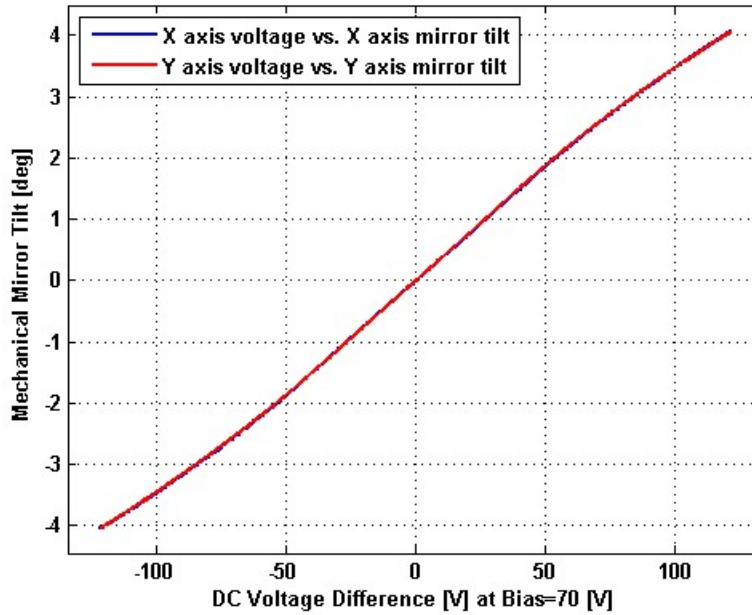
**Recommended LPF Cutoff Frequency (6th Order Bessel)** : 1000

**Date and Time Report was Created:** 21-Aug-2014 at 21:22:39

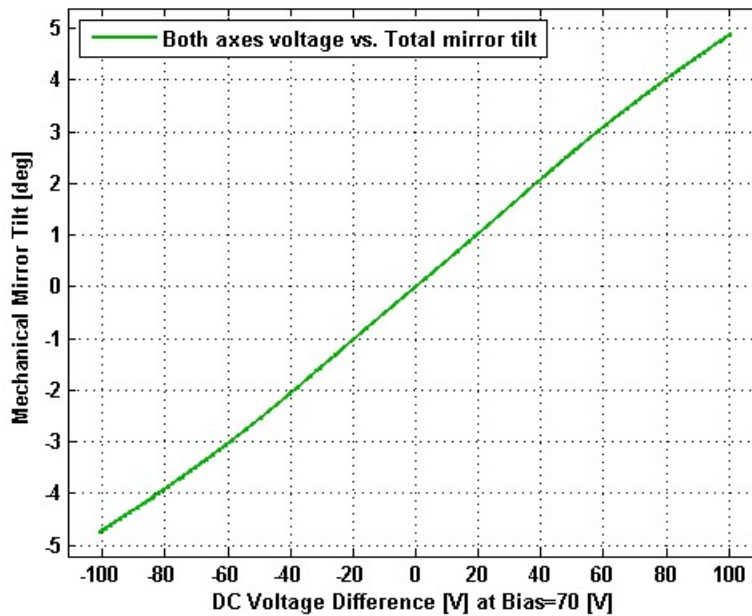
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# Static Response

## Voltage vs. Angle - Individual Axes

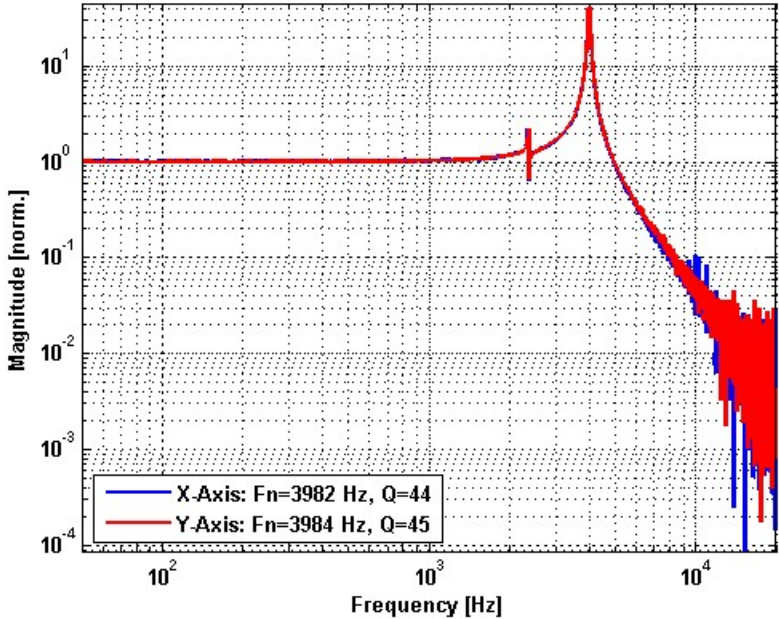


## Voltage vs. Angle - Coupled Axes

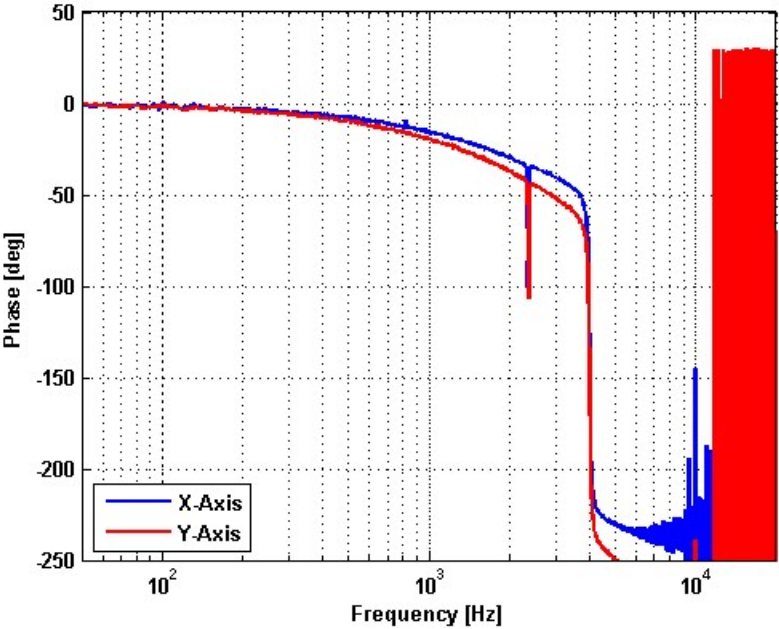


# Frequency Response

## Small Signal Frequency Response - Magnitude



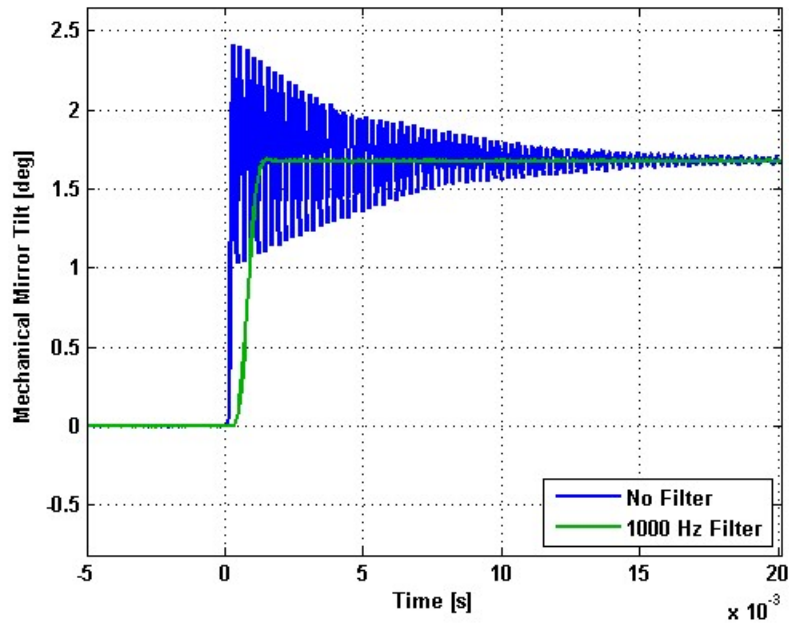
## Small Signal Frequency Response - Phase



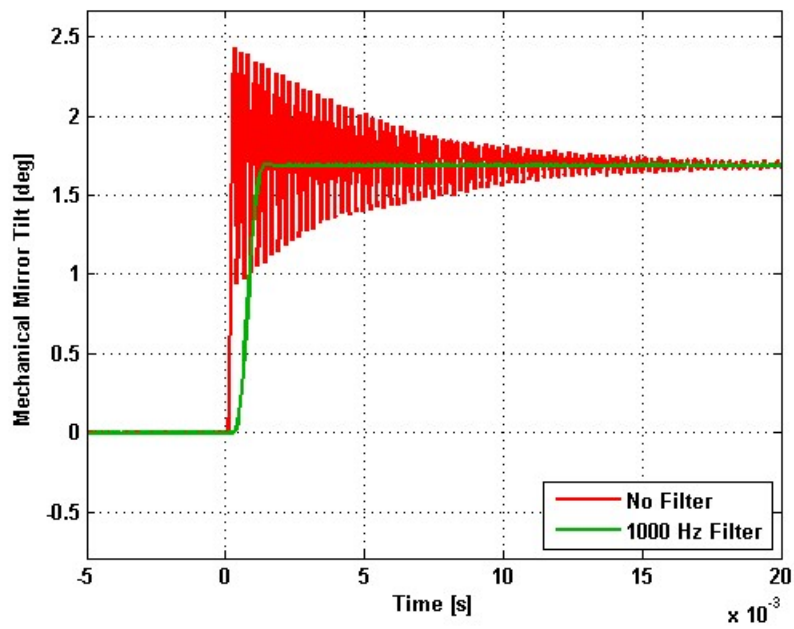
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# Step Response

## X-Axis Step Response



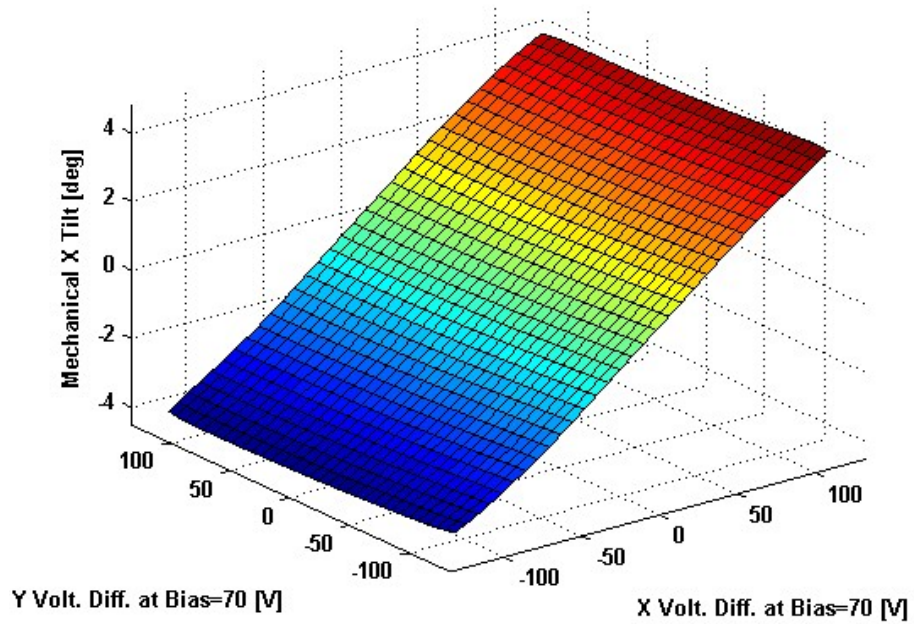
## Y-Axis Step Response



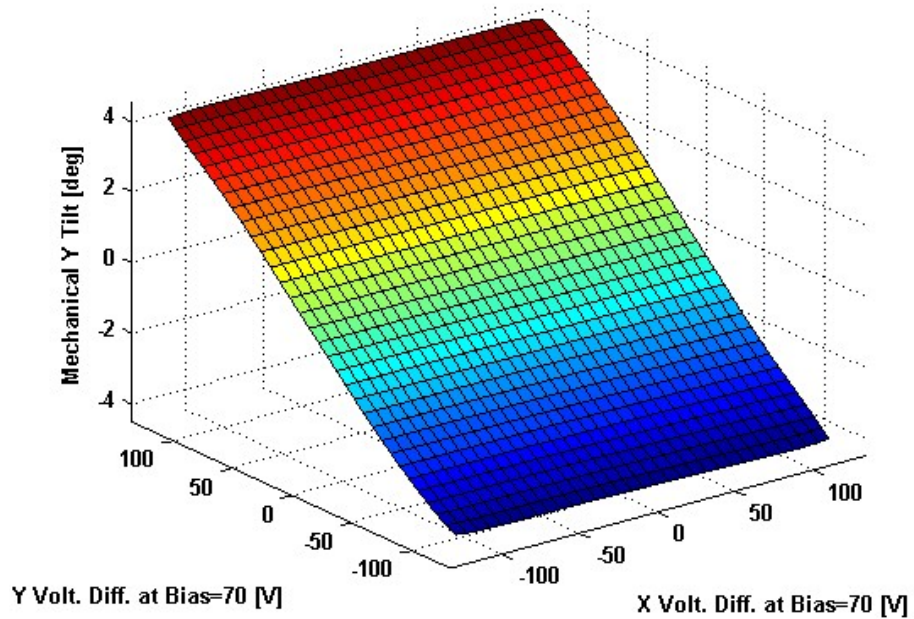
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# 2D Lookup Tables

## Voltage vs. X Angle - Lookup Table



## Voltage vs. Y Angle - Lookup Table



# Y Angle vs. X Angle - Addressable Angles

