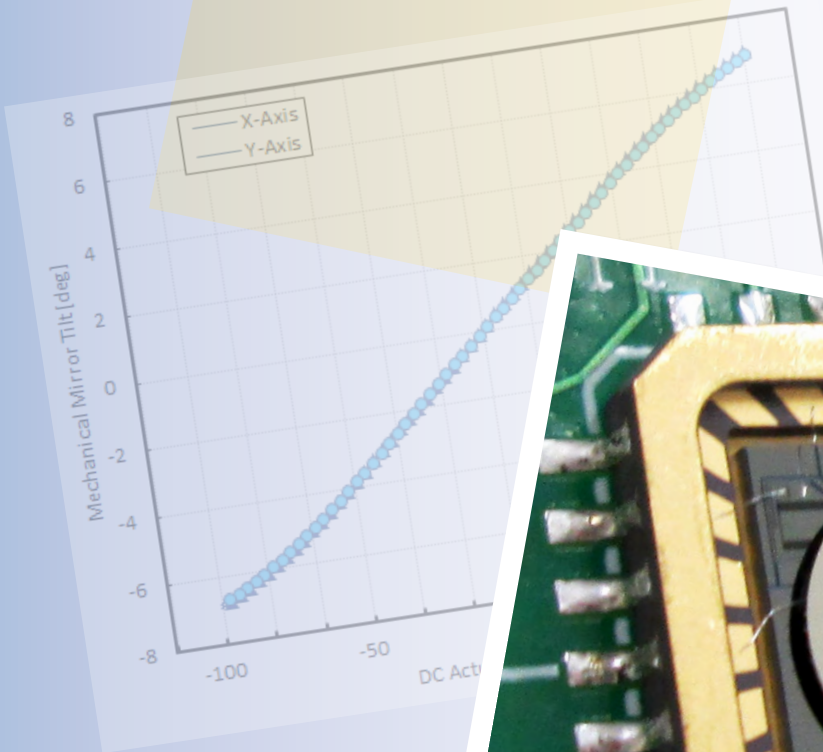




Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet
S30159



Device Parameters Summary

Device ID : S30159

Actuator Type: A7B1.1

Actuator Mode : Gimbal-less Dual-Axis Quasistatic

Mirror Type and Size : Bonded mirror of 3.0mm diameter

Mirror Coating : Aluminum

Maximum Mech. Angle - X Axis [degrees] : 7.1715

Maximum Mech. Angle - Y Axis [degrees] : 7.1827

Maximum Vdifference - X Axis [V] : 138

Maximum Vdifference - Y Axis [V] : 138

Driver Bias Voltage (Vbias) [V] : 80

Maximum Mech. Angle - Coupled Axes [degrees] : 9.2284

Resonant Frequency - X Axis [Hz] : 400

Resonant Frequency - Y Axis [Hz] : 405

Quality Factor - X Axis : 25

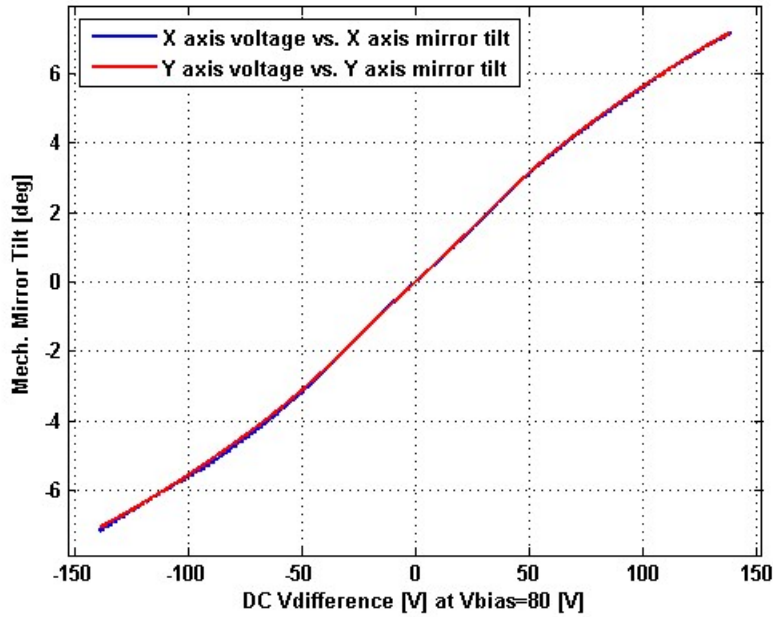
Quality Factor - Y Axis : 33

Recommended LPF Cutoff Frequency (6th Order Bessel) [Hz] : 160

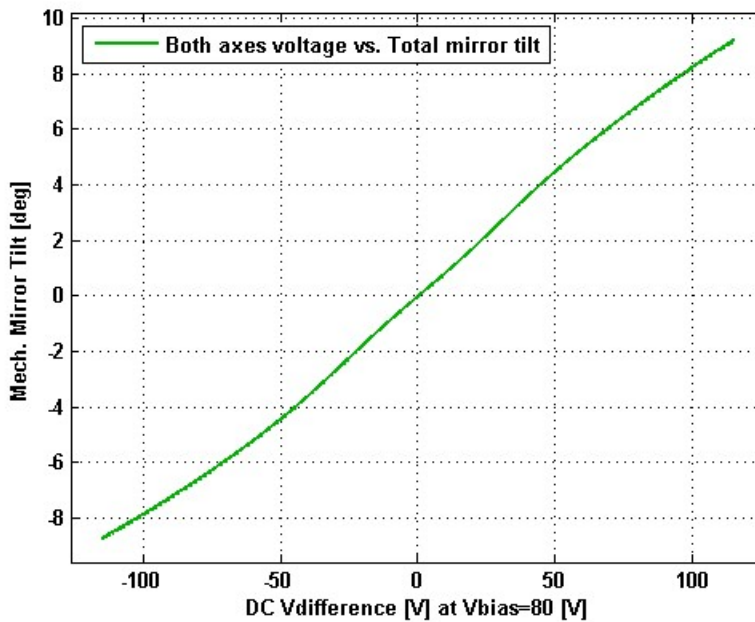
Date and Time Report was Created: 11-Jan-2018 at 12:38:33

Static Response

Voltage vs. Mech. Angle - Individual Axes

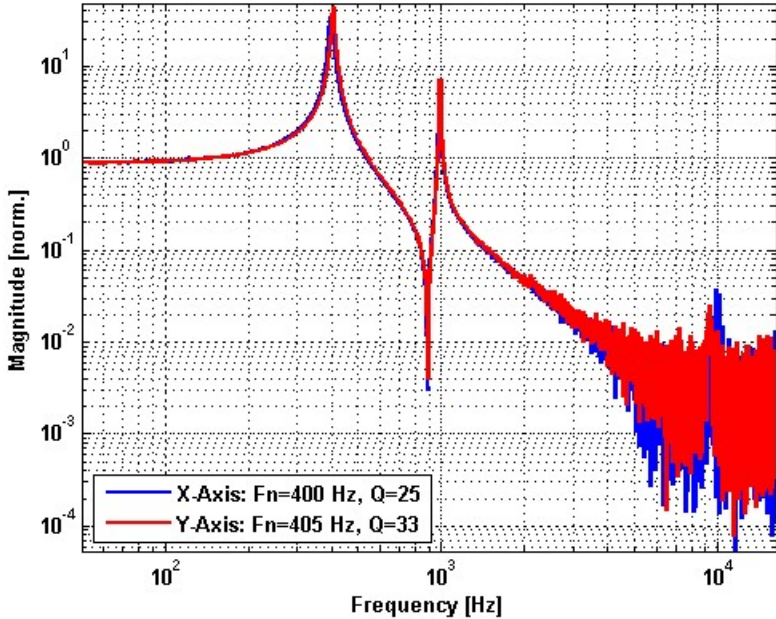


Voltage vs. Mech. Angle - Coupled Axes

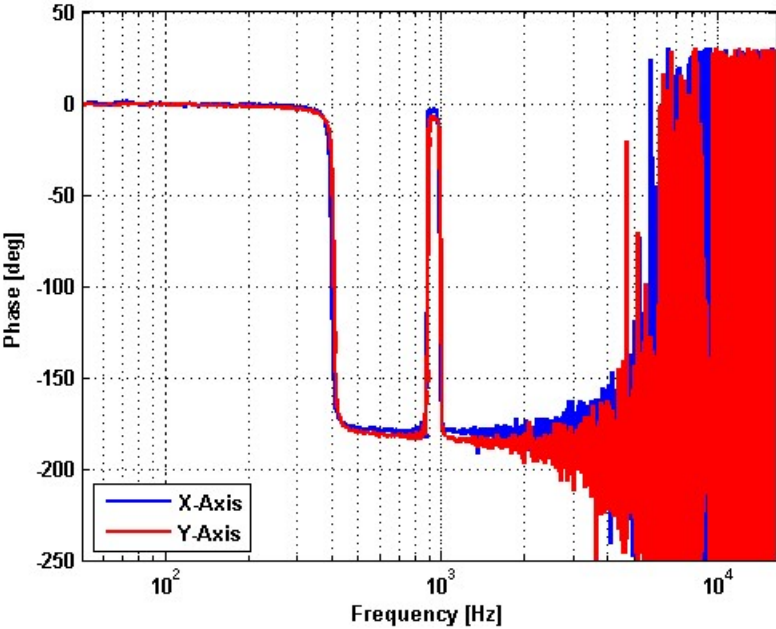


Frequency Response

Small Signal Frequency Response - Magnitude

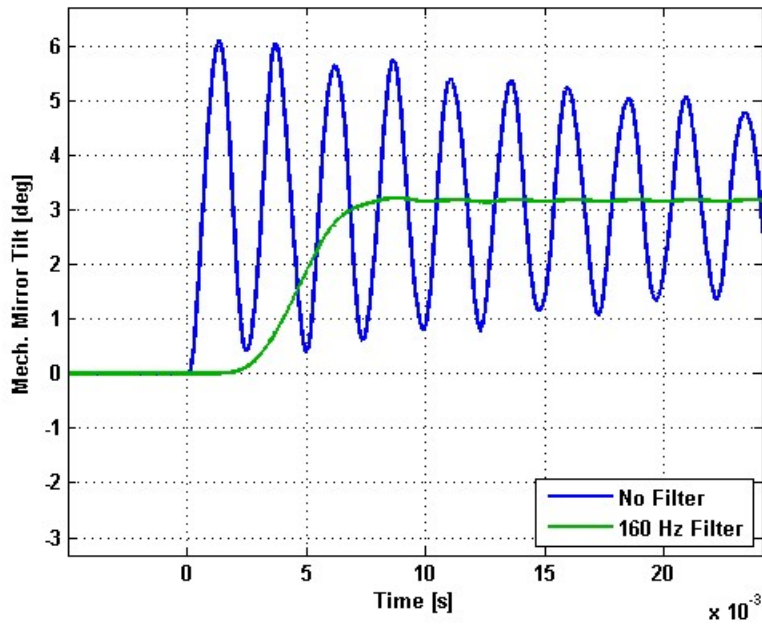


Small Signal Frequency Response - Phase

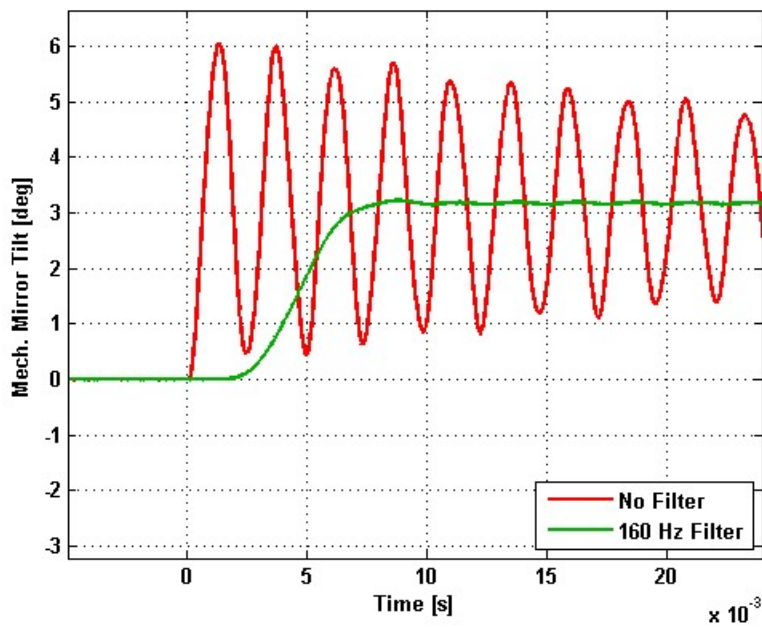


Step Response

X-Axis Step Response

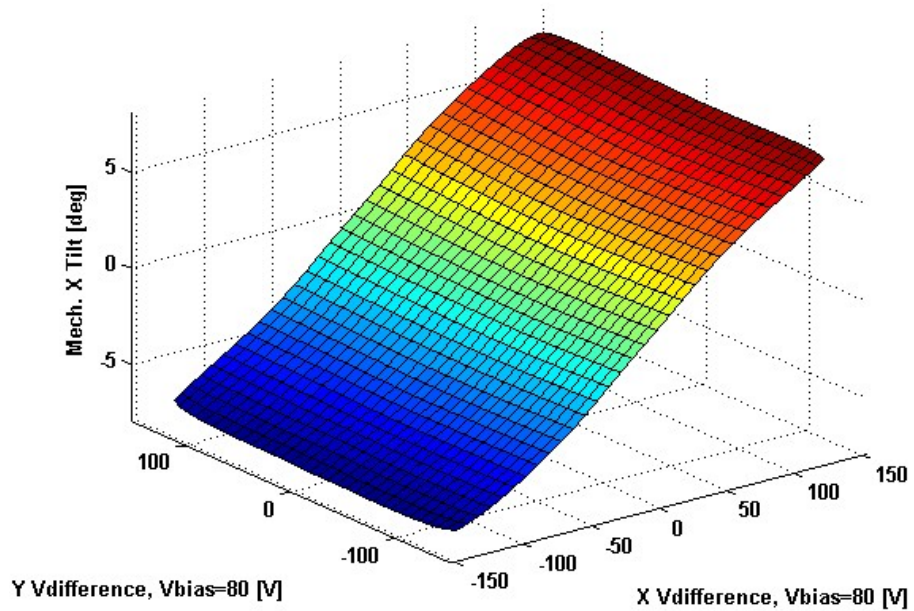


Y-Axis Step Response

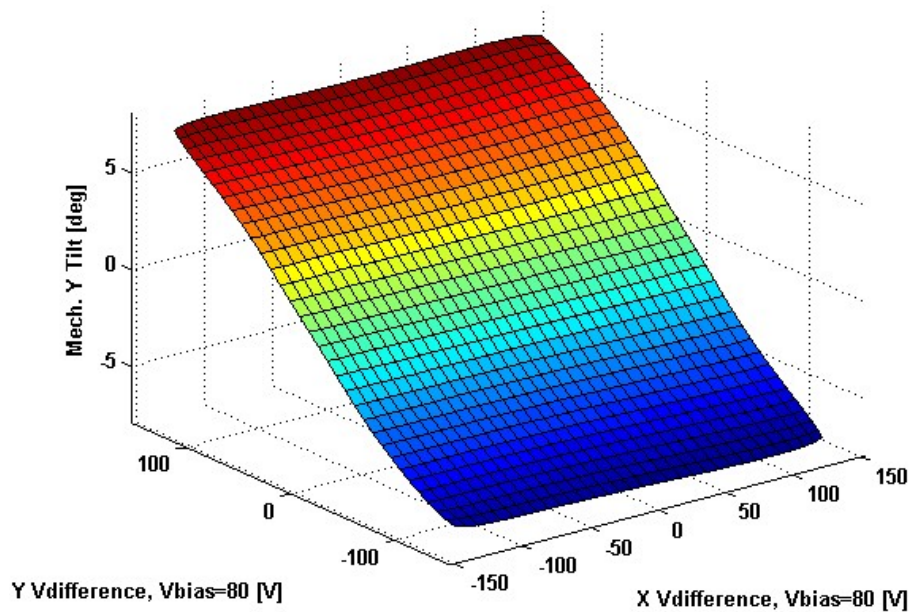


2D Lookup Tables

Voltage vs. X Mech. Angle - Lookup Table



Voltage vs. Y Mech. Angle - Lookup Table



Y vs. X Tilt - Addressable Mech. Angles

