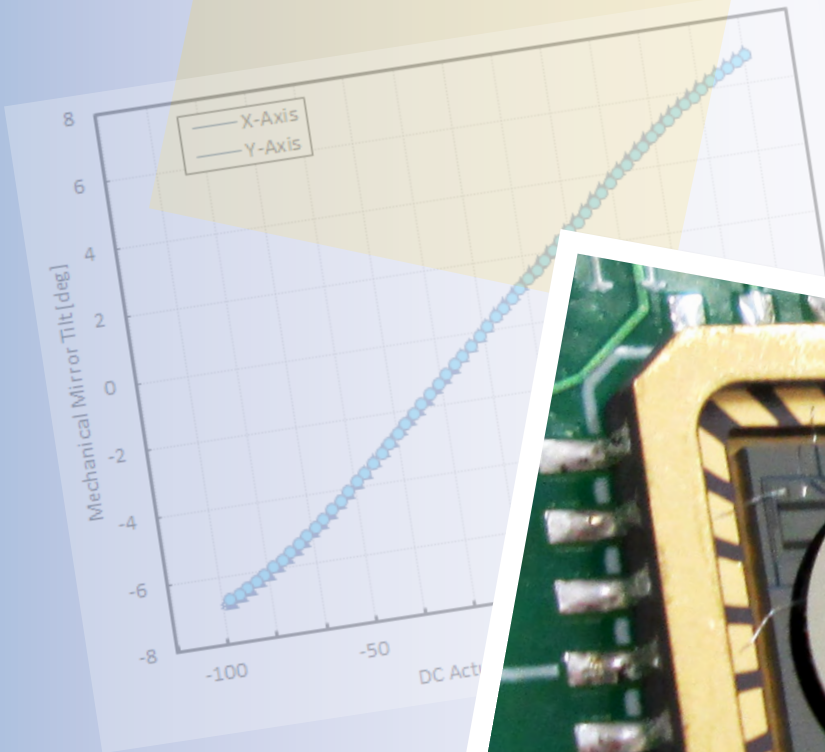




Gimbal-Less Two-Axis Scanning MEMS Micromirrors

Device Datasheet
S45890



Device Parameters Summary

Device ID : S45890

Actuator Type: A5L3.3(C2)

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] : 4.4305

Maximum Mech. Angle - Y Axis [degrees] : 4.4347

Maximum Vdifference - X Axis [V] : 180

Maximum Vdifference - Y Axis [V] : 181

Driver Bias Voltage (Vbias) [V] : 90

Maximum Mech. Angle - Coupled Axes [degrees] : 5.6138

Resonant Frequency - X Axis [Hz] : 886

Resonant Frequency - Y Axis [Hz] : 884

Quality Factor - X Axis : 90

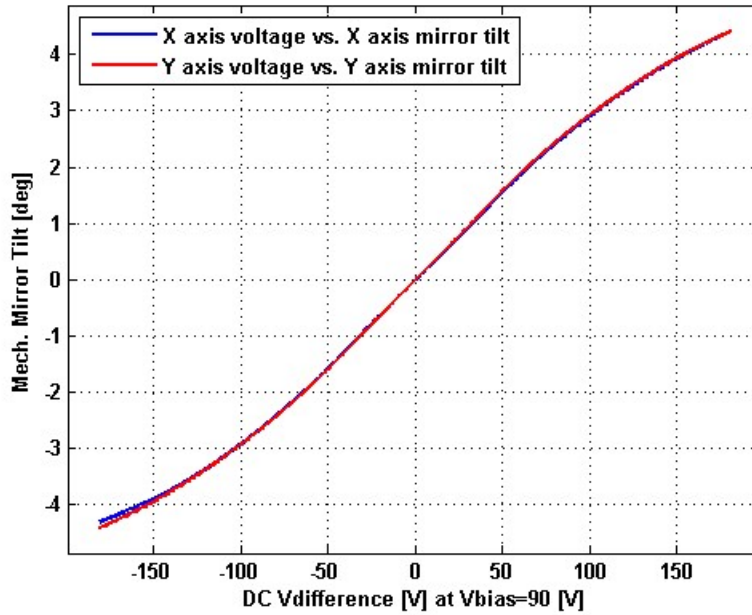
Quality Factor - Y Axis : 87

Recommended LPF Cutoff Frequency (6th Order Bessel) [Hz] : 320

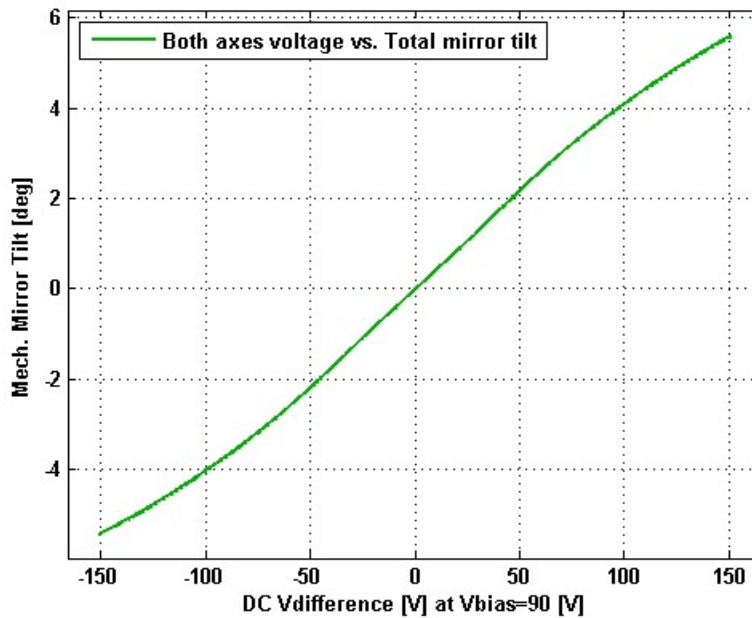
Date and Time Report was Created: 16-Aug-2019 at 10:49:53

Static Response

Voltage vs. Mech. Angle - Individual Axes

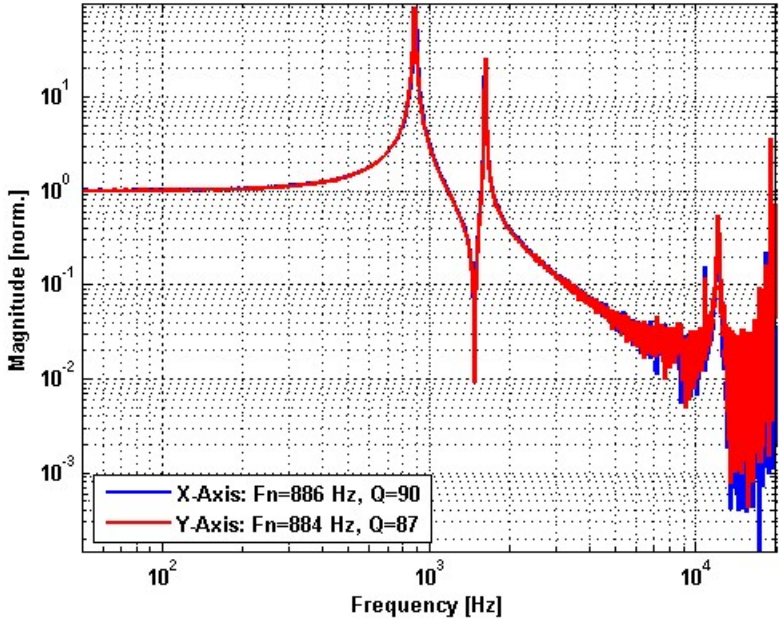


Voltage vs. Mech. Angle - Coupled Axes

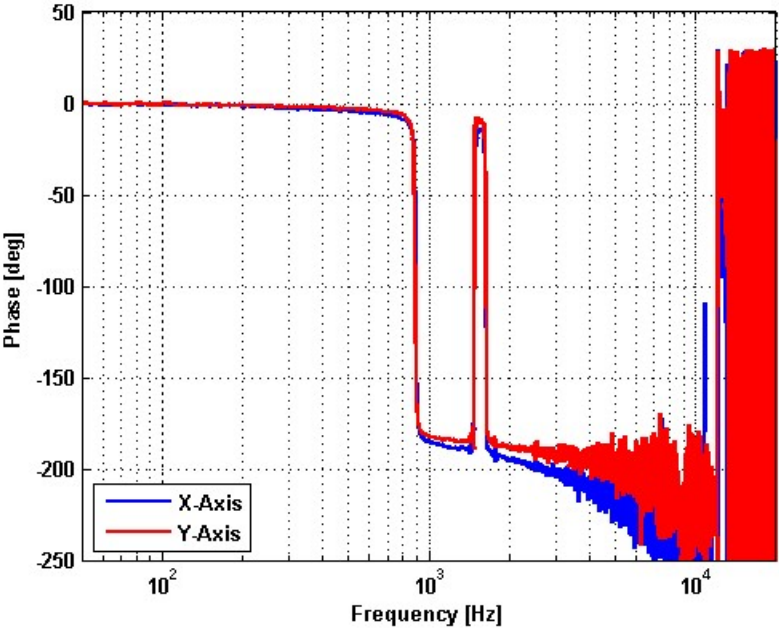


Frequency Response

Small Signal Frequency Response - Magnitude

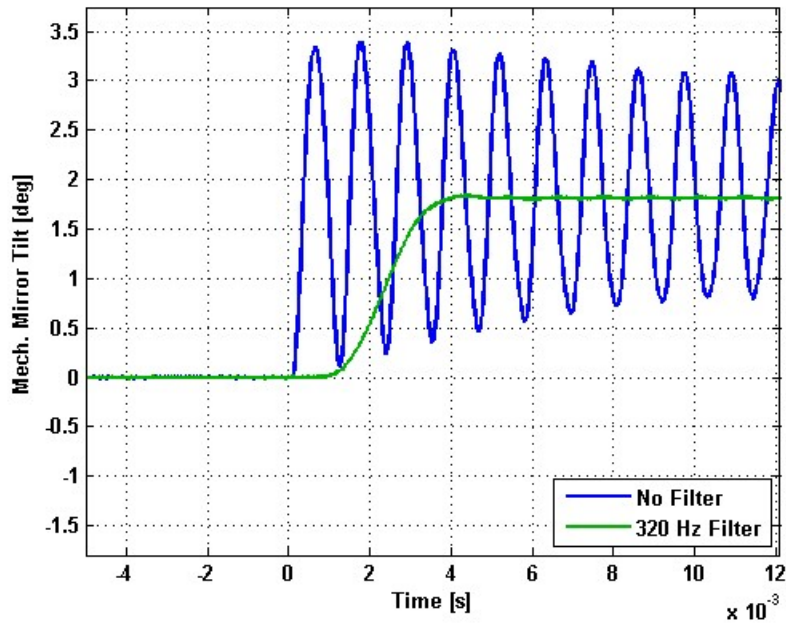


Small Signal Frequency Response - Phase

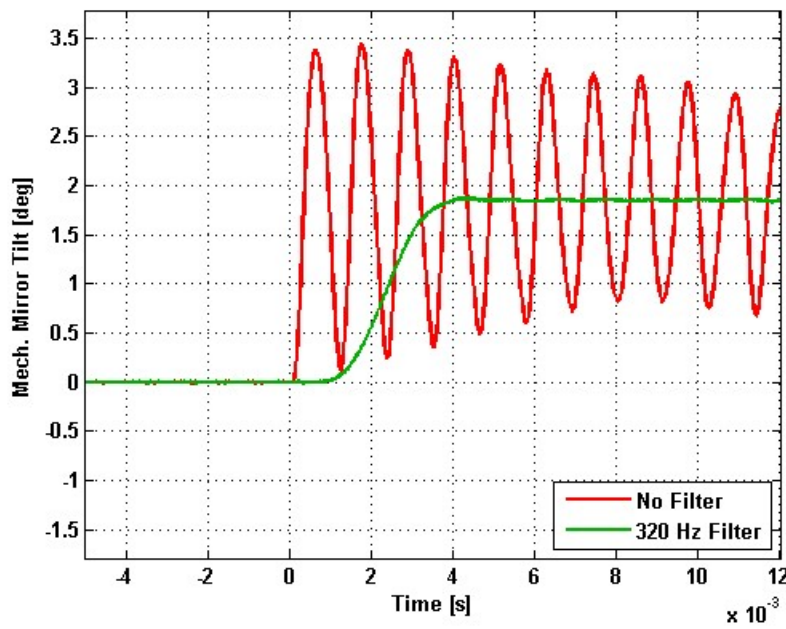


Step Response

X-Axis Step Response

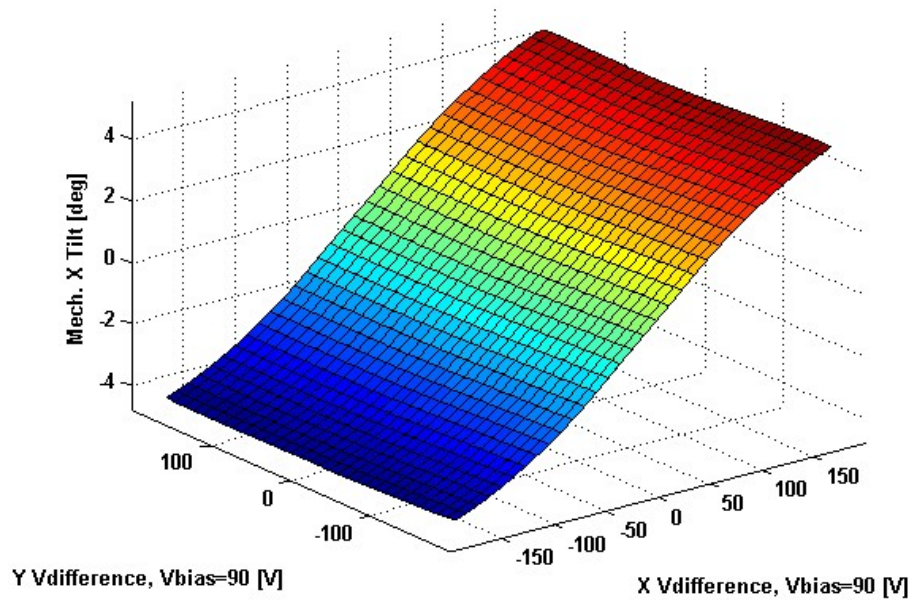


Y-Axis Step Response

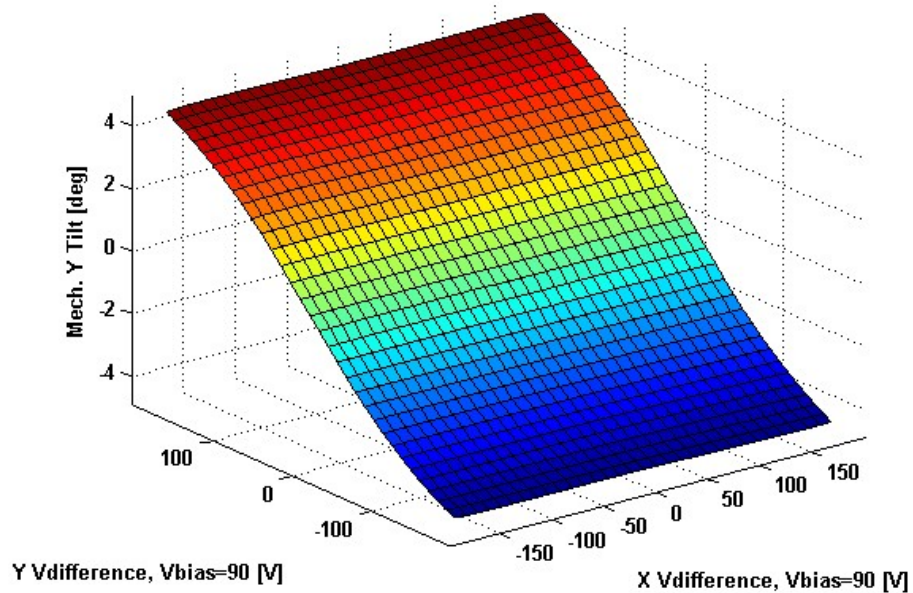


2D Lookup Tables

Voltage vs. X Mech. Angle - Lookup Table



Voltage vs. Y Mech. Angle - Lookup Table



Y vs. X Tilt - Addressable Mech. Angles

