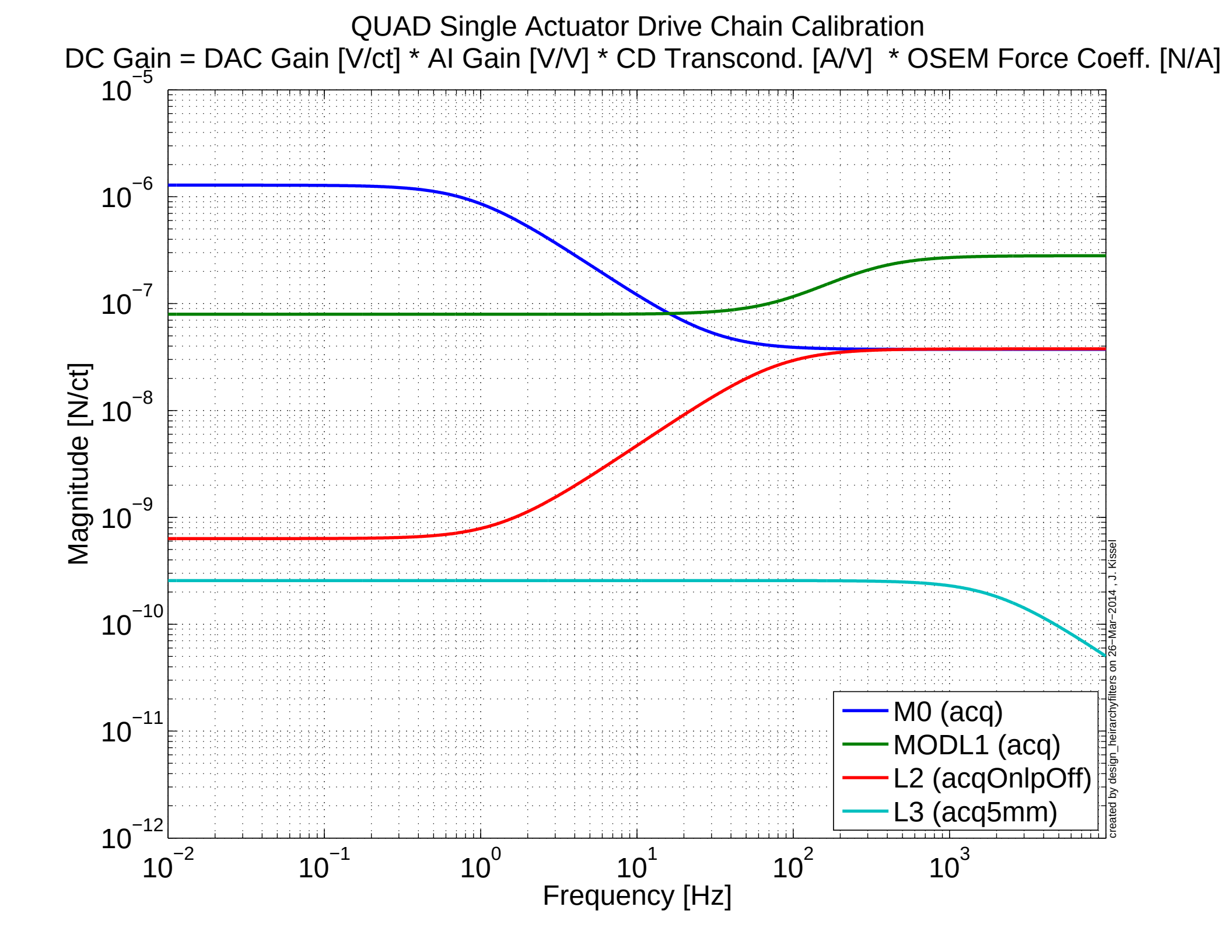
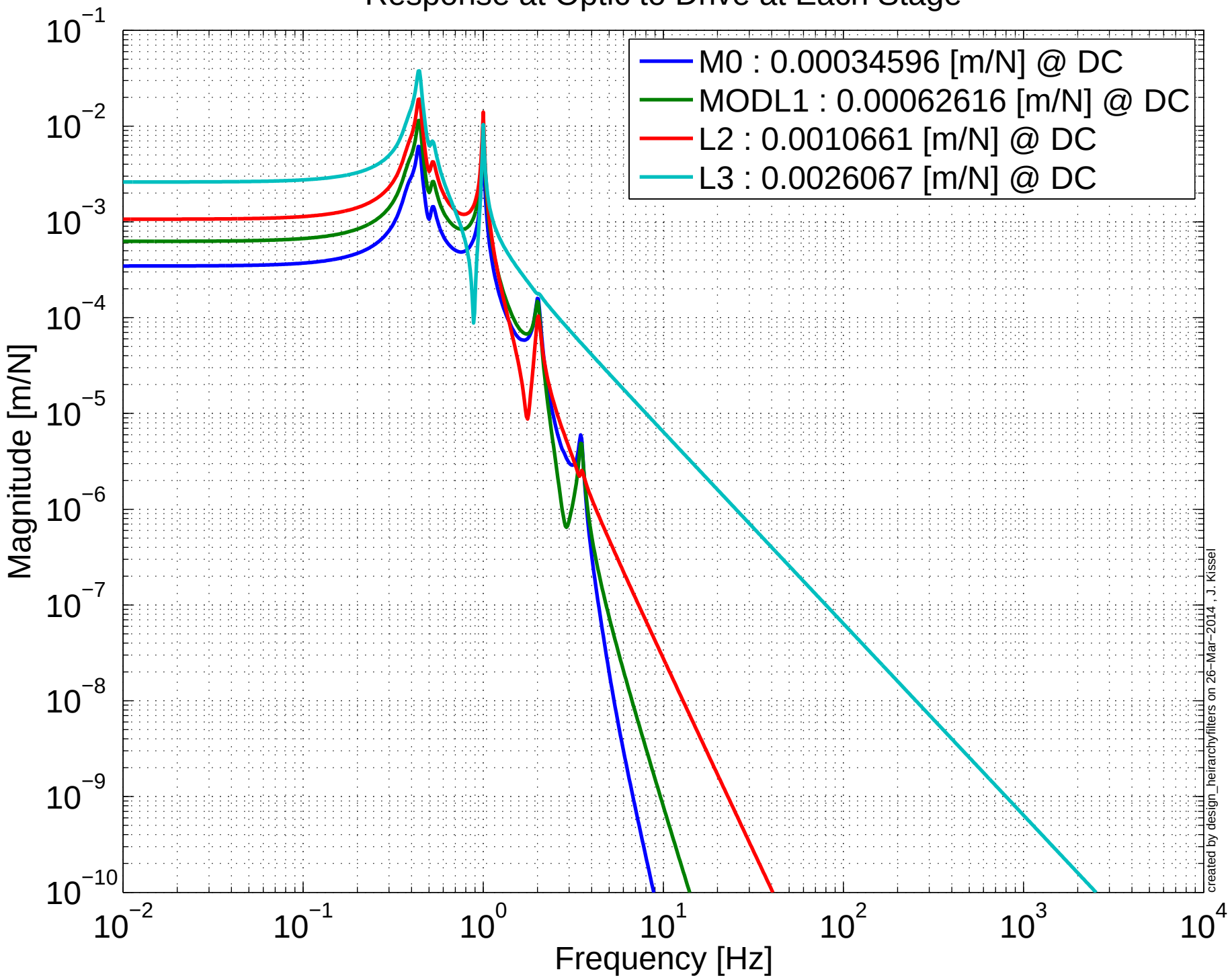
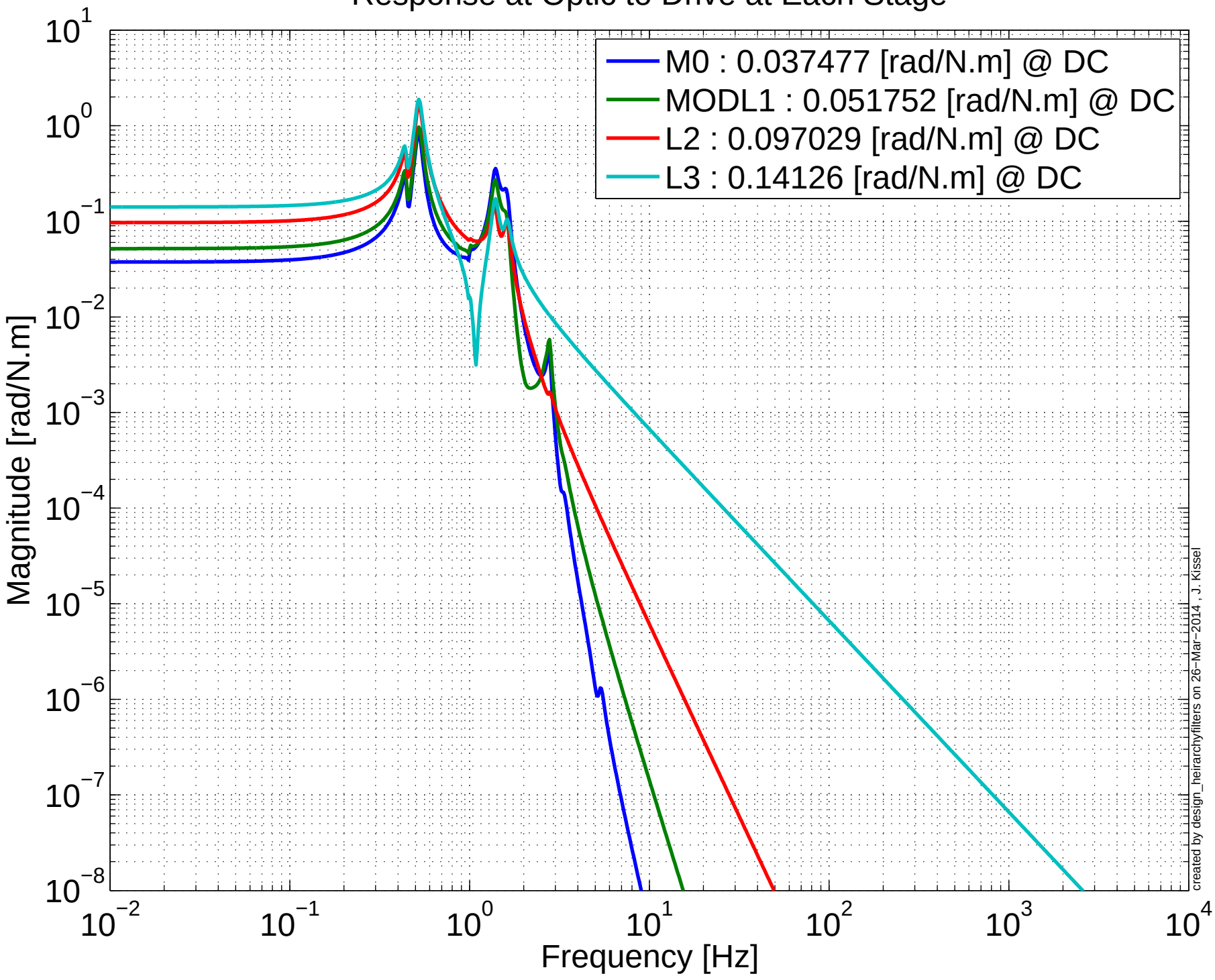
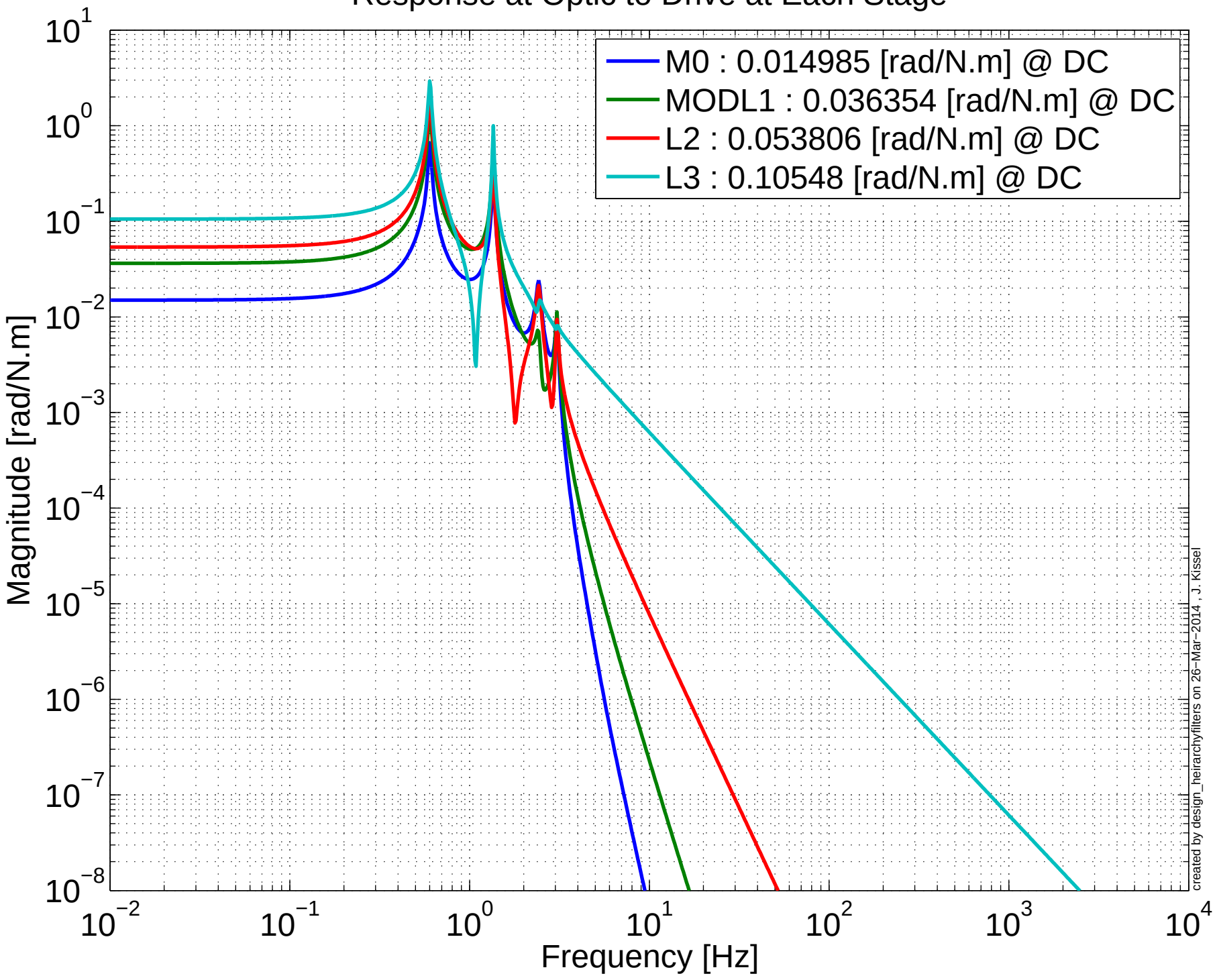
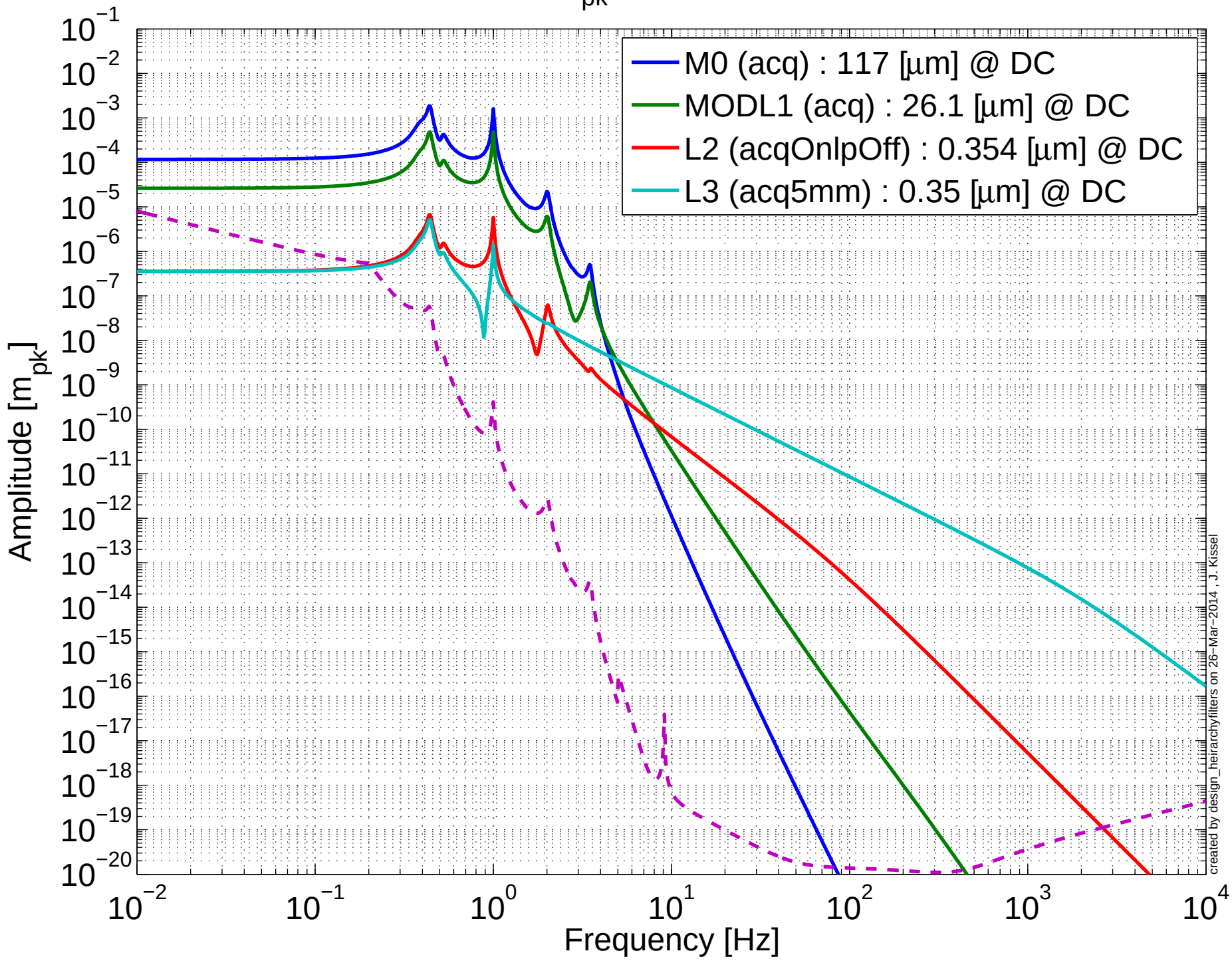
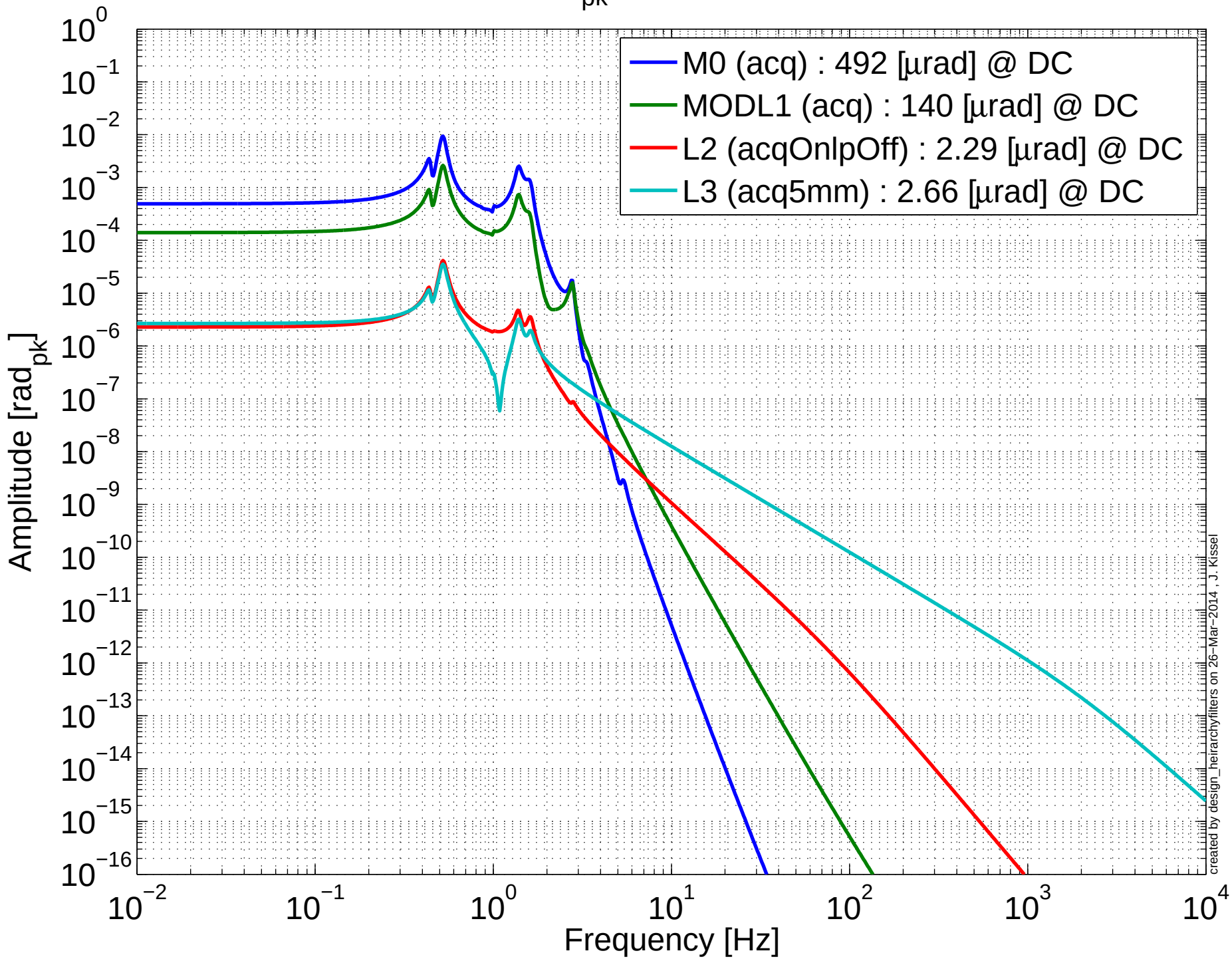

QUAD Single Actuator Drive Chain Calibration
DC Gain = DAC Gain [V/ct] * AI Gain [V/V] * CD Transcond. [A/V] * OSEM Force Coeff. [N/A]
Magnitude [N/ct]
Frequency [Hz]
M0 (acq)
MODL1 (acq)
L2 (acqOnlpOff)
L3 (acq5mm)
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel

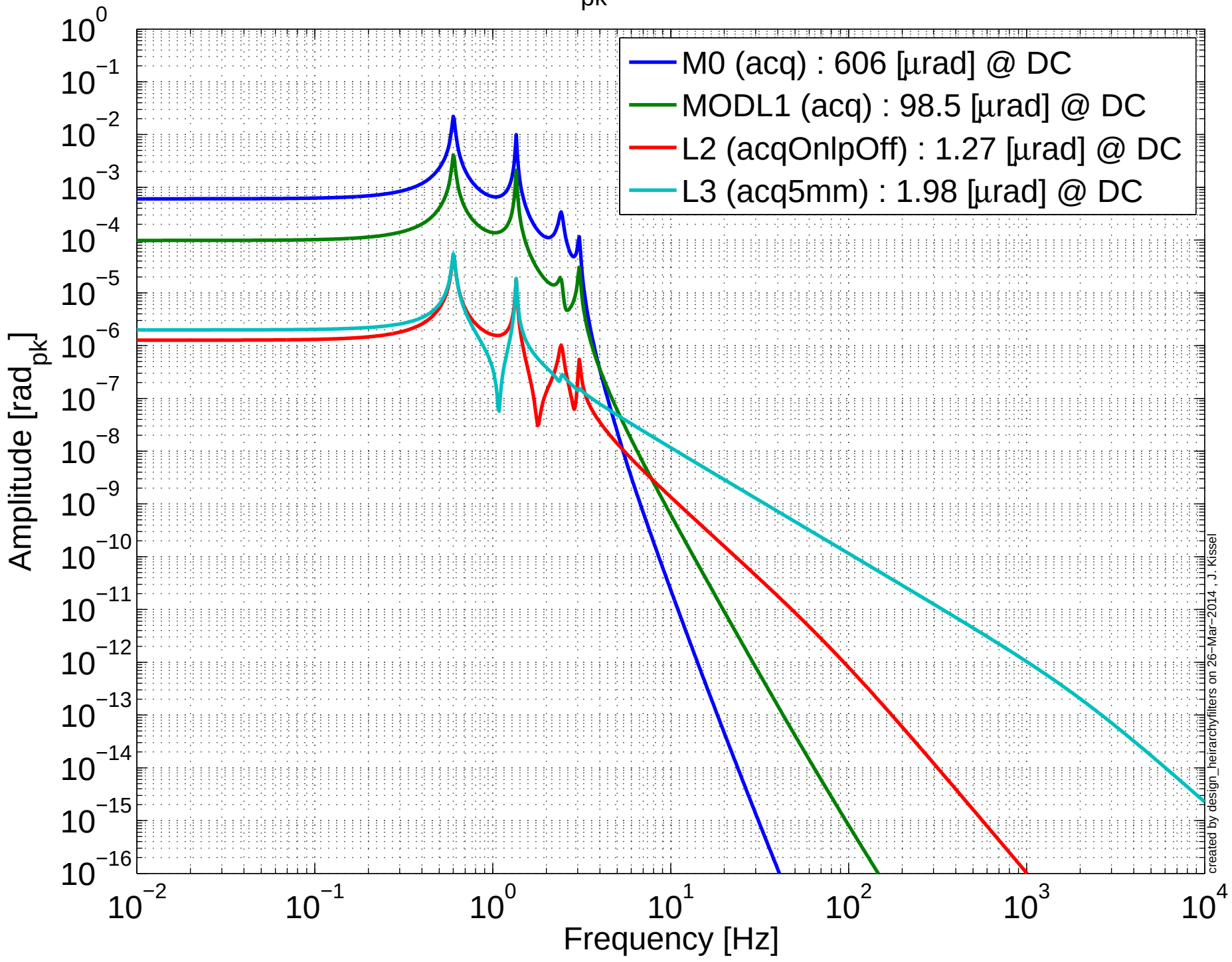

QUAD Transfer Function, L to L
Response at Optic to Drive at Each Stage
M0 : 0.00034596 [m/N] @ DC
MODL1 : 0.00062616 [m/N] @ DC
L2 : 0.0010661 [m/N] @ DC
L3 : 0.0026067 [m/N] @ DC
Magnitude [m/N]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel

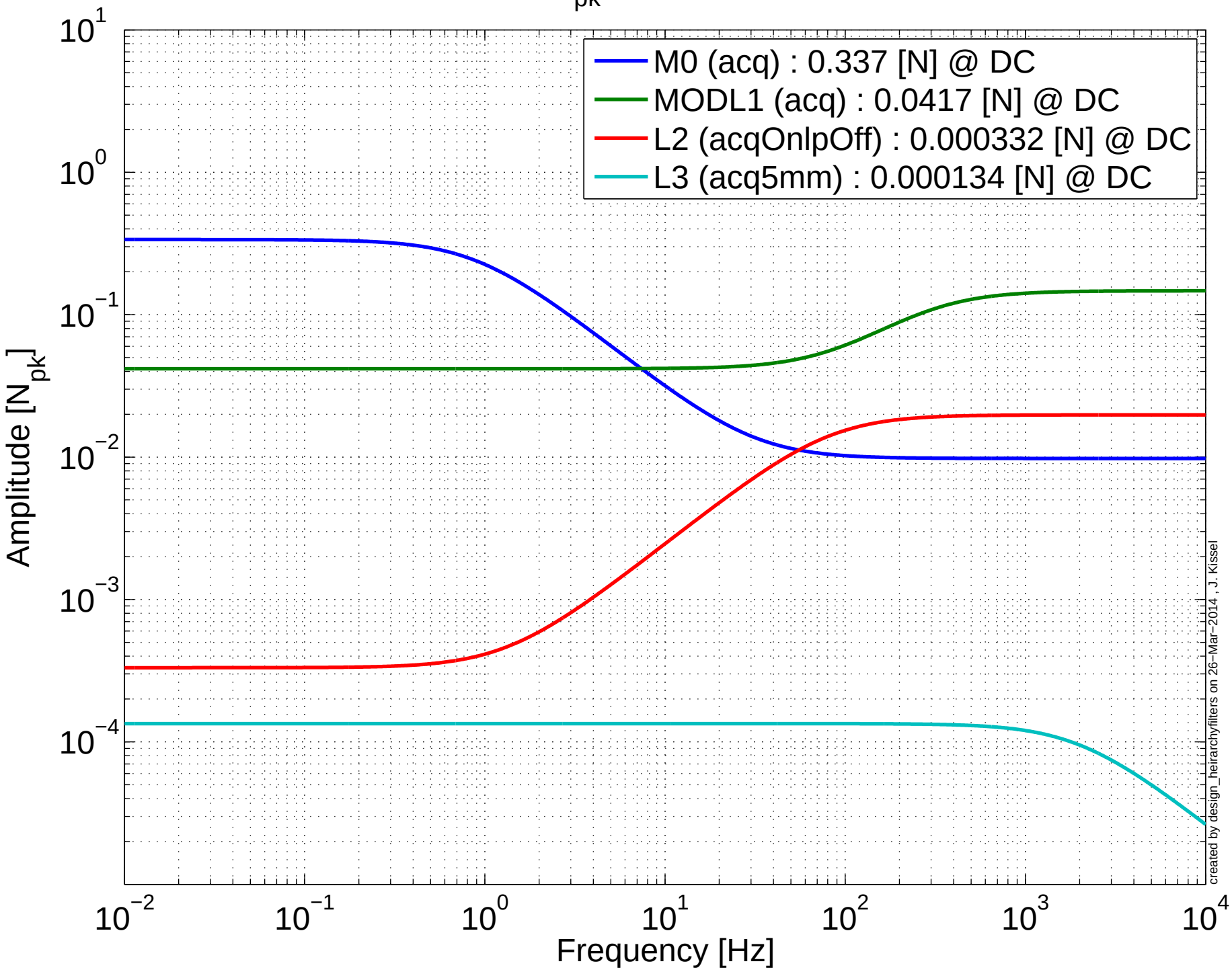

QUAD Transfer Function, P to P
Response at Optic to Drive at Each Stage
M0 : 0.037477 [rad/N.m] @ DC
MODL1 : 0.051752 [rad/N.m] @ DC
L2 : 0.097029 [rad/N.m] @ DC
L3 : 0.14126 [rad/N.m] @ DC
Magnitude [rad/N.m]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel

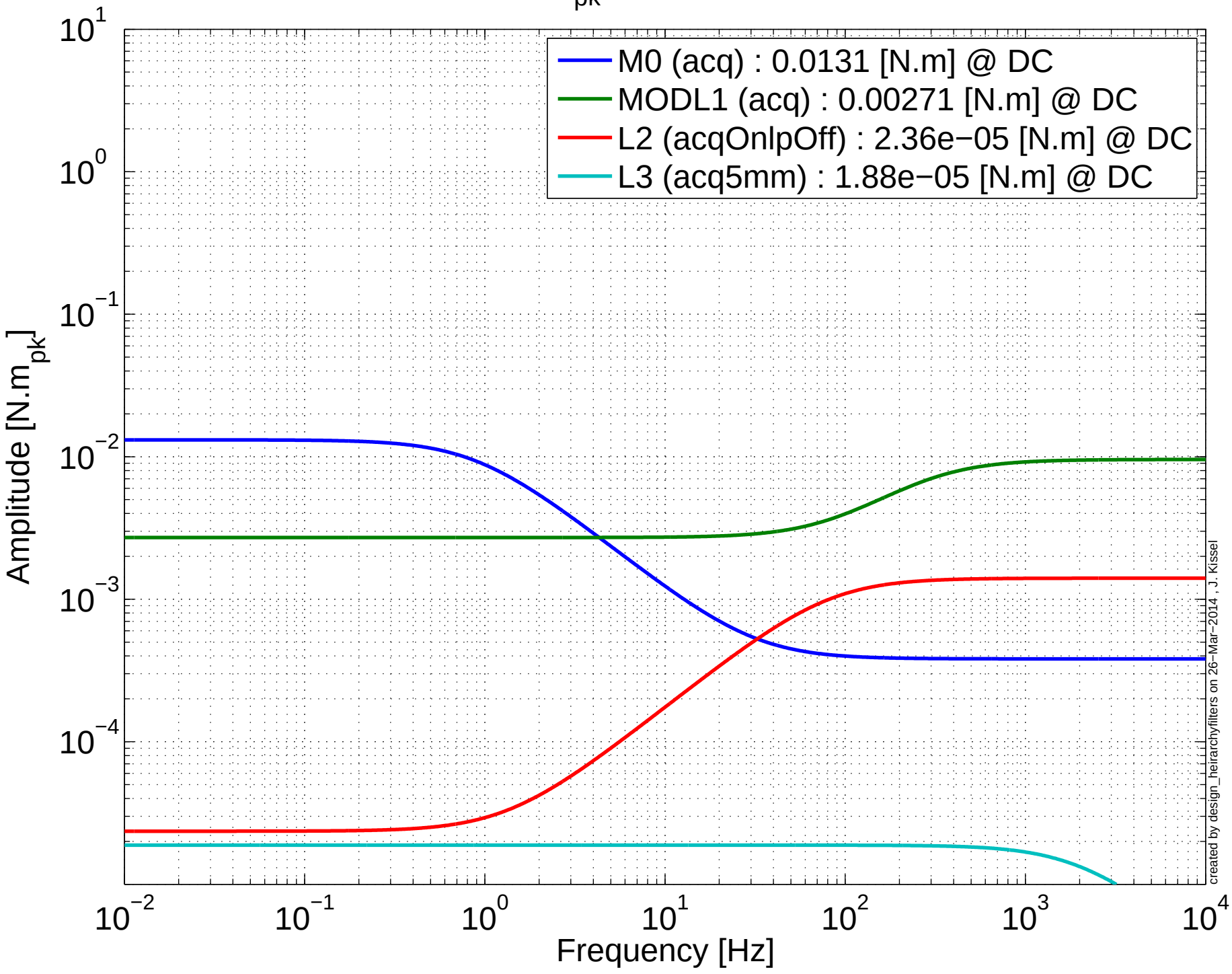

QUAD Transfer Function, Y to Y
Response at Optic to Drive at Each Stage
M0 : 0.014985 [rad/N.m] @ DC
MODL1 : 0.036354 [rad/N.m] @ DC
L2 : 0.053806 [rad/N.m] @ DC
L3 : 0.10548 [rad/N.m] @ DC
Magnitude [rad/N.m]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel

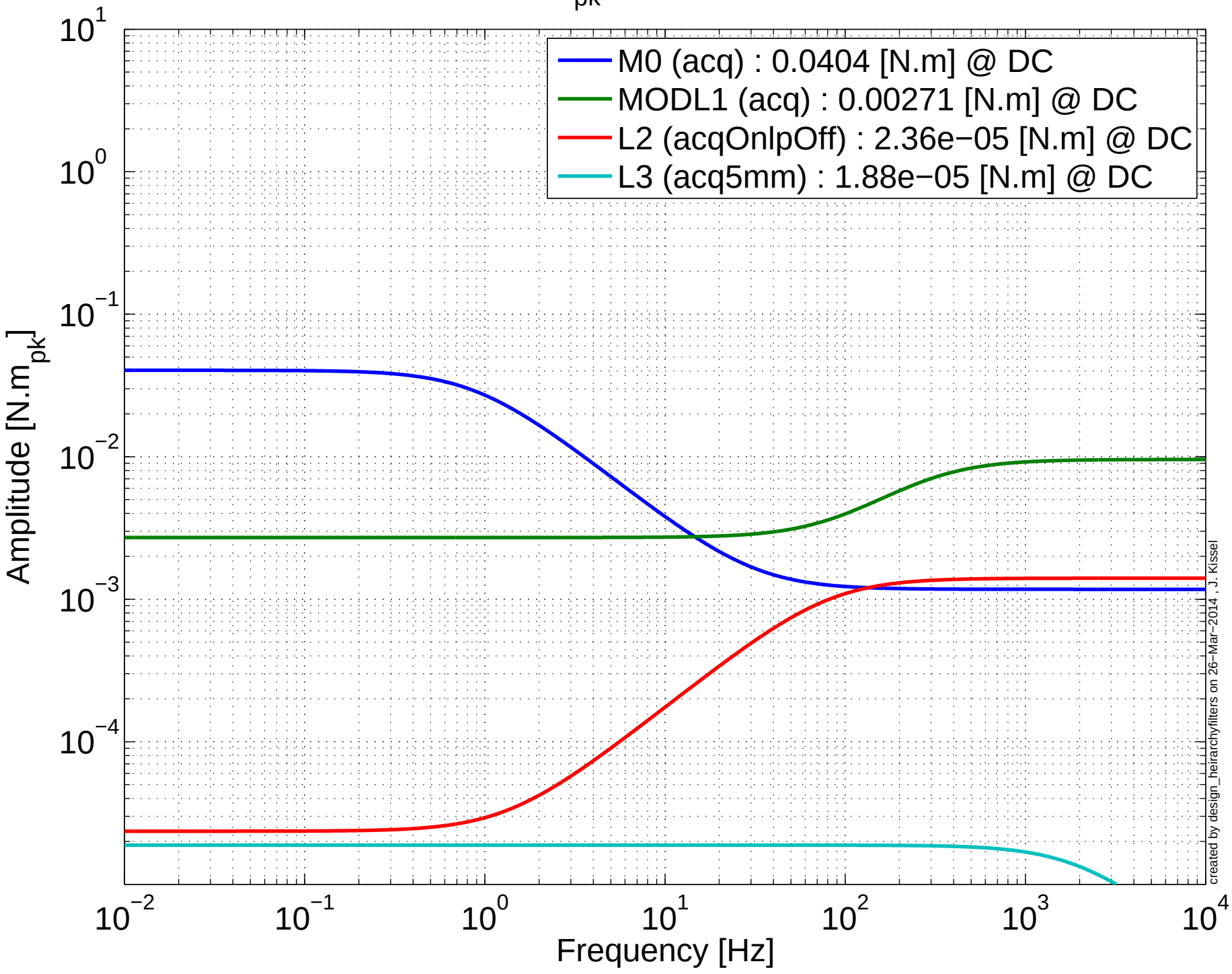

QUAD Maximum Drive at Optic, L to L
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 117 [µm] @ DC
MODL1 (acq) : 26.1 [µm] @ DC
L2 (acqOnlpOff) : 0.354 [µm] @ DC
L3 (acq5mm) : 0.35 [µm] @ DC
Amplitude [m_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel


QUAD Maximum Drive at Optic, P to P
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 492 [µrad] @ DC
MODL1 (acq) : 140 [µrad] @ DC
L2 (acqOnlpOff) : 2.29 [µrad] @ DC
L3 (acq5mm) : 2.66 [µrad] @ DC
Amplitude [rad_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel


QUAD Maximum Drive at Optic, Y to Y
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 606 [µrad] @ DC
MODL1 (acq) : 98.5 [µrad] @ DC
L2 (acqOnlpOff) : 1.27 [µrad] @ DC
L3 (acq5mm) : 1.98 [µrad] @ DC
Amplitude [rad_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel


QUAD Maximum Drive at Optic, L
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 0.337 [N] @ DC
MODL1 (acq) : 0.0417 [N] @ DC
L2 (acqOnlpOff) : 0.000332 [N] @ DC
L3 (acq5mm) : 0.000134 [N] @ DC
Amplitude [N_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel


QUAD Maximum Drive at Optic, P
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 0.0131 [N.m] @ DC
MODL1 (acq) : 0.00271 [N.m] @ DC
L2 (acqOnlpOff) : 2.36e−05 [N.m] @ DC
L3 (acq5mm) : 1.88e−05 [N.m] @ DC
Amplitude [N.m_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel


QUAD Maximum Drive at Optic, Y
Using +10 [V_pk] (or +131072 [cts]) Max
M0 (acq) : 0.0404 [N.m] @ DC
MODL1 (acq) : 0.00271 [N.m] @ DC
L2 (acqOnlpOff) : 2.36e−05 [N.m] @ DC
L3 (acq5mm) : 1.88e−05 [N.m] @ DC
Amplitude [N.m_pk]
Frequency [Hz]
created by design_heirarchyfilters on 26−Mar−2014 , J. Kissel