

RMS reduction by gain boost

Servo filter

0.2Hz BPF G=10

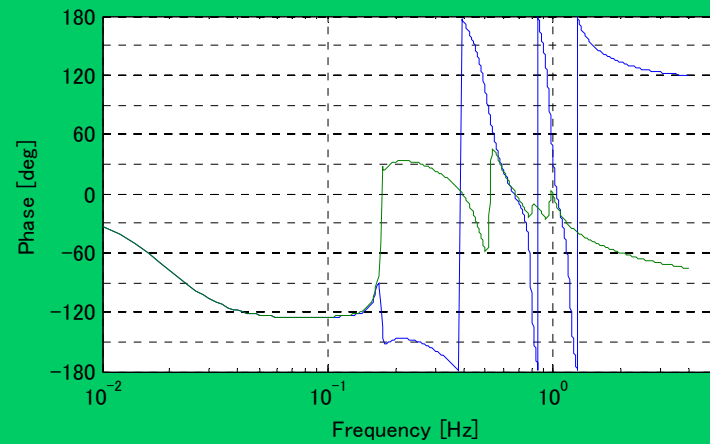
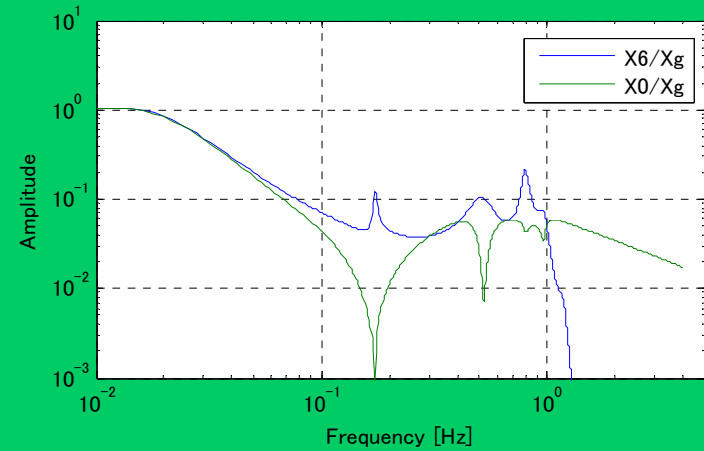
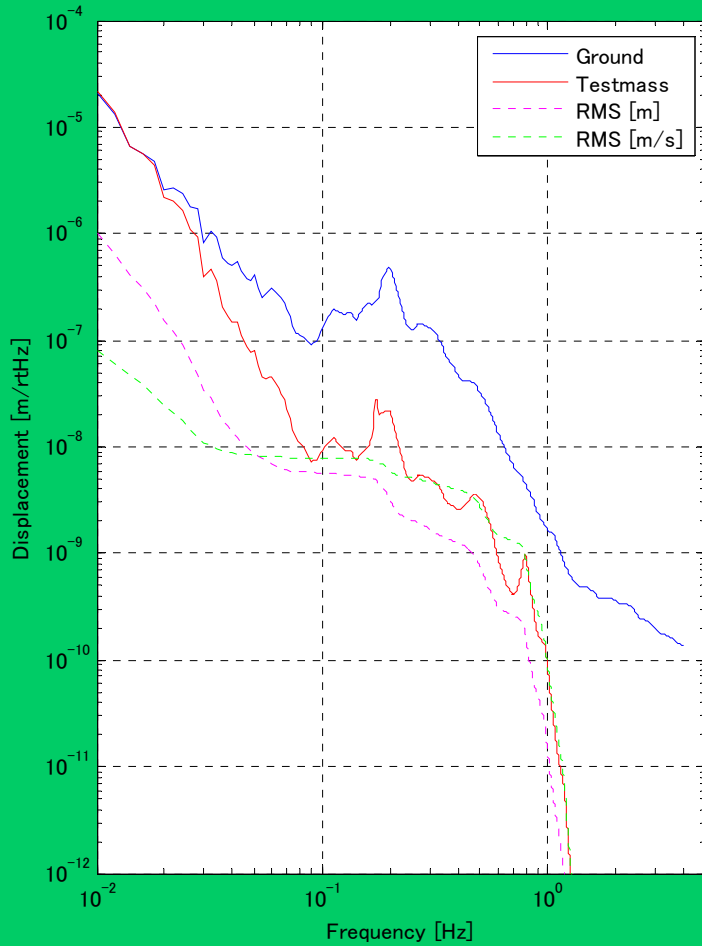
→ 0.1Hz BPF G=10 + 0.17Hz Boost Q=10

RMS at the large ground motion

Displacement (0.1-4Hz): 0.27 → 0.10 [μm]

Velocity (0.01-4Hz) : 0.34 → 0.12 [$\mu\text{m/s}$]

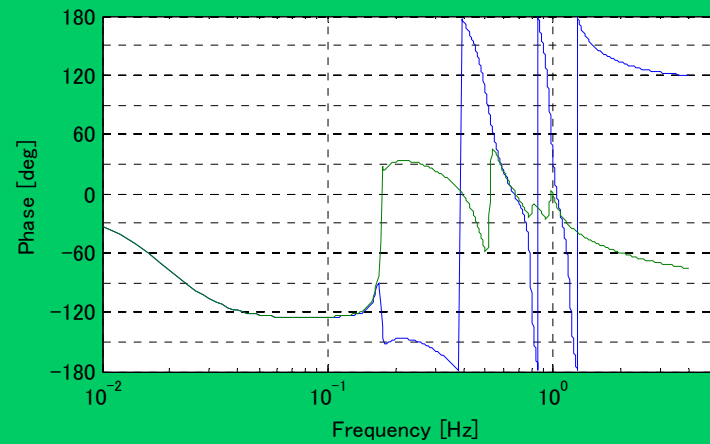
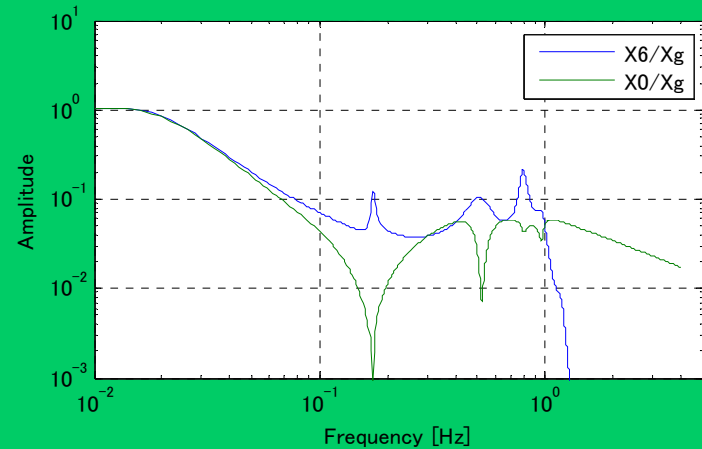
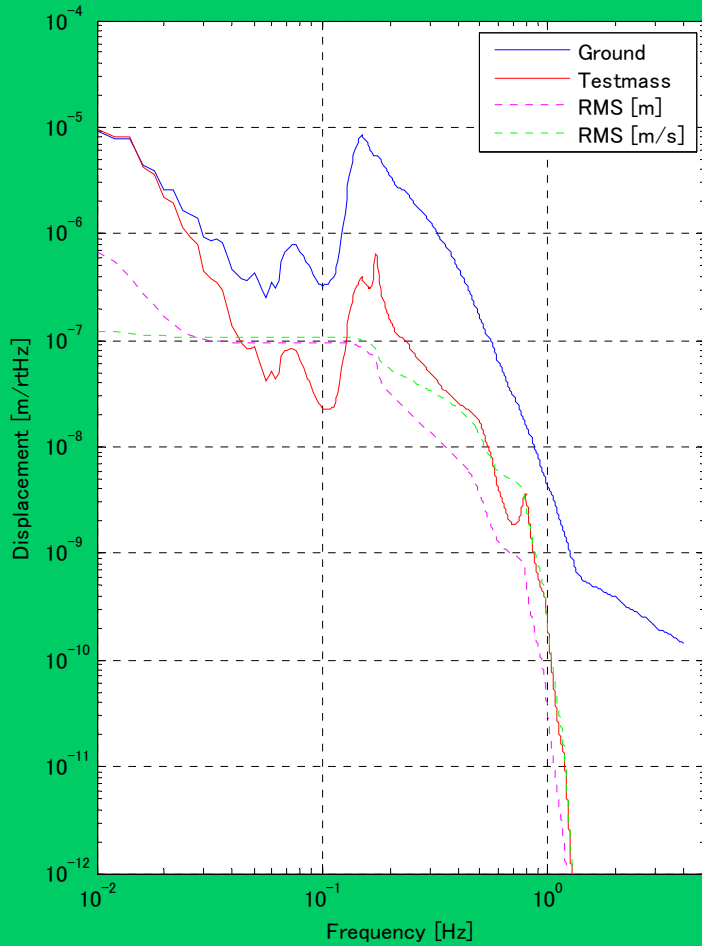
Result (1)



Micro-seismic: normal
Inertial damping: **0.17Hz boost**
Eddy-current damping: effective

Disp. [μm]	Vel. [$\mu\text{m/s}$]	
1.0	0.08	(0.01-4Hz)
0.006	0.008	(0.1-4Hz)

Result (2)



Micro-seismic: large
 Inertial damping: **0.17Hz boost**
 Eddy-current damping: effective

Disp. [μm]	Vel. [$\mu\text{m/s}$]	
0.7	0.12	(0.01-4Hz)
0.10	0.11	(0.1-4Hz)