Supplemental Information for "Variations in properties of atomic force microscope cantilevers fashioned from the same wafer"

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The supplemental information provides both a summary and the individual values for the mechanical properties and physical dimensions determined by the thermal method and optical microscopy of 101 V-shaped cantilevers derived from the same wafer as received from the manufacturer. The calculated *Re* and (*Re*) values.

Table S1. Summary of mechanical properties and physical dimensions determined by the thermal method and optical microscopy of 101 V-shaped cantilevers derived from the same wafer as received from the manufacturer as well as calculated *Re* and (*Re*).

	Defl. Sens. *S* (nm/V)	Q	Res. Freq. *f* (kHz)	Spring Const. *K* (N/m)	Length *L* (m)	Base Width *b* (m)	Leg Width *d* (m)	End Angle (°)	*Re*	
Min.	60.35	23.20	16.43	0.048	191.2	201.1	22.3	52.2	3.49	0.95
Max.	113.06	33.20	20.05	0.110	194.9	205.1	25.9	55.3	4.85	2.13
Ave.	80.82	30.28	18.38	0.068	193.3	202.8	23.3	53.7	3.98	1.36
StdDev	10.23	1.56	0.59	0.008	0.6	0.75	0.60	0.71	0.22	0.18
StdDev (%)	12.66	5.15	3.18	12.48	0.32	0.37	2.59	1.32	5.47	12.88

Table S2. Properties of individual specimens summarized in Table S1.

ID	Name	Defl. Sens. *S* (nm/V)	Q	Res. Freq. *f* (kHz)	Spring Const. *K* (N/m)	Length *L* (m)	Base Width *b* (m)	Leg Width *d* (m)	End Angle (°)	*Re*	
12	A12	97.8	28.9	17.17	0.048	193.5	203.5	25.5	53.3	4.45	0.95
36	E06	89.0	28.4	17.28	0.050	194.0	201.8	24.6	54.5	4.17	1.09
10	A10	99.8	30.1	17.09	0.051	193.2	203.5	23.1	55.1	3.63	1.20
83	K13	113.1	30.7	19.01	0.052	193.8	201.9	23.1	53.4	4.05	0.97
77	K07	100.2	30.8	18.63	0.053	193.5	203.3	23.4	53.2	4.06	1.01
25	C10	87.7	31.3	18.24	0.054	193.2	202.9	23.0	52.9	3.85	1.08
18	C03	74.1	28.5	16.96	0.055	192.0	202.3	23.6	53.5	3.77	1.35

43	E13	97.4	30.5	18.57	0.055	193.7	203.3	22.7	55.3	3.81	1.13
19	C04	70.1	28.9	16.94	0.056	192.9	202.4	23.4	54.9	3.70	1.37
54	G14	74.7	29.1	17.06	0.056	194.9	204.3	23.6	53.1	3.79	1.31
100	M15	77.3	24.3	17.24	0.058	193.1	202.7	22.5	53.9	3.49	1.76
86	M01	72.9	28.3	17.13	0.058	192.6	203.4	23.6	53.5	3.81	1.40
11	A11	85.6	31.2	17.66	0.060	193.7	202.2	25.9	54.6	4.72	1.01
38	E08	94.6	30.3	18.89	0.060	192.9	201.3	22.7	54.6	3.88	1.19
61	I06	97.6	31.0	18.23	0.061	193.0	203.2	23.1	54.1	3.89	1.22
84	K14	95.3	30.5	18.58	0.061	194.1	202.7	23.1	54.4	3.96	1.19
41	E11	74.1	29.0	16.43	0.061	192.9	202.2	23.4	53.7	3.59	1.59
60	I05	82.0	23.2	17.61	0.062	193.1	203.1	23.0	54.0	3.72	1.80
16	C01	81.3	29.8	18.51	0.062	194.0	203.4	22.9	53.4	3.87	1.28
50	G05	89.0	29.7	18.55	0.062	194.3	202.1	22.5	54.6	3.74	1.33
72	K02	84.0	30.6	18.75	0.063	193.3	203.4	23.4	53.9	4.08	1.19
17	C02	74.0	31.1	18.95	0.063	194.0	201.7	23.1	54.1	4.03	1.18
42	E12	85.2	32.2	18.16	0.064	193.0	202.7	22.3	54.6	3.60	1.34
69	I14	105.3	32.2	18.09	0.064	193.5	203.4	23.4	53.8	3.94	1.24
7	A07	82.2	29.0	18.44	0.064	194.3	202.2	23.7	53.7	4.13	1.28
53	G13	69.1	30.7	18.24	0.064	192.3	203.9	23.6	53.8	4.05	1.26
56	I01	99.7	31.3	18.61	0.064	194.6	203.2	23.6	53.1	4.14	1.18
26	C11	77.1	29.9	18.45	0.065	193.2	201.6	22.6	53.1	3.76	1.38
40	E10	77.8	31.1	18.20	0.065	192.9	202.5	23.1	53.1	3.87	1.31
99	M14	71.3	30.2	18.64	0.065	192.8	201.9	22.9	53.6	3.89	1.31
5	A05	90.8	32.0	17.76	0.065	193.8	203.0	23.7	54.0	3.98	1.27
15	A15	70.3	31.1	17.57	0.065	193.4	202.2	23.1	54.6	3.74	1.41
39	E09	90.4	30.8	18.18	0.066	192.5	202.9	23.0	53.6	3.83	1.36
20	C05	72.1	29.9	18.42	0.066	192.9	202.7	23.0	53.5	3.88	1.37
30	C15	77.5	28.9	18.69	0.066	193.5	203.4	23.0	55.0	3.94	1.37
27	C12	85.4	29.2	19.04	0.066	192.2	202.4	22.4	54.7	3.81	1.39
74	K04	91.8	31.8	18.61	0.066	194.3	204.2	23.1	53.8	3.97	1.24
58	I03	85.9	29.9	18.28	0.066	193.1	205.1	23.6	53.1	4.06	1.32
23	C08	73.0	31.9	18.14	0.066	192.9	202.7	23.4	54.8	3.96	1.28
81	K11	98.5	31.3	18.16	0.066	192.2	201.6	23.0	54.2	3.83	1.36
62	I07	82.1	30.6	18.52	0.067	193.3	203.2	23.2	53.5	3.99	1.31
29	C14	80.9	28.4	18.37	0.067	193.7	201.3	23.0	52.6	3.87	1.46
76	K06	83.2	30.2	18.37	0.067	193.3	202.8	23.1	52.7	3.92	1.36
93	M08	71.3	30.3	18.62	0.067	193.5	203.3	23.1	53.9	3.97	1.32
13	A13	72.9	30.5	18.94	0.067	193.5	202.5	24.3	54.1	4.46	1.15
46	G01	87.9	29.9	18.89	0.067	194.2	203.6	23.2	54.3	4.05	1.29
35	E05	89.4	29.5	18.92	0.067	193.4	201.8	22.7	54.3	3.89	1.37
28	C13	78.3	31.5	18.59	0.067	193.4	203.3	23.0	54.3	3.92	1.30
90	M05	74.6	30.2	18.65	0.067	192.5	201.7	23.2	53.1	4.02	1.32
98	M13	65.4	30.2	18.26	0.067	191.2	202.2	23.4	53.5	3.98	1.37
87	M02	70.1	32.3	18.42	0.067	193.6	203.3	22.6	54.7	3.76	1.33
3	A03	75.0	31.2	17.46	0.067	193.5	203.4	24.2	54.9	4.08	1.34
71	K01	89.8	32.5	18.38	0.068	193.3	202.6	23.9	52.4	4.17	1.20
31	E01	67.3	30.6	18.29	0.068	192.9	202.6	23.5	52.2	4.03	1.34
24	C09	66.8	30.5	18.20	0.068	192.9	202.3	22.5	54.6	3.67	1.48
91	M06	72.9	30.9	18.90	0.068	192.3	201.7	22.9	52.8	3.95	1.32

9	A09	79.7	30.8	18.18	0.068	193.2	202.4	22.7	54.0	3.73	1.45
21	C06	69.2	30.5	18.42	0.068	193.0	201.8	23.1	53.1	3.92	1.38
49	G04	85.5	29.5	18.57	0.068	193.2	203.0	23.6	52.7	4.12	1.34
94	M09	70.9	30.0	18.66	0.069	193.3	203.2	23.2	53.5	4.02	1.35
14	A14	75.1	29.9	18.84	0.069	193.5	202.4	23.4	53.2	4.11	1.31
73	K03	91.5	27.3	19.01	0.069	194.1	202.2	24.2	53.0	4.44	1.32
88	M03	72.0	30.4	18.73	0.069	193.3	202.0	22.9	54.0	3.91	1.37
80	K10	88.9	30.4	18.60	0.069	193.5	202.5	22.9	54.0	3.88	1.39
82	K12	77.3	30.4	18.23	0.070	192.2	202.8	22.5	54.1	3.69	1.52
79	K09	86.8	30.7	18.87	0.070	193.5	202.3	23.1	52.8	4.02	1.33
37	E07	83.4	29.6	18.62	0.070	193.7	201.6	23.4	54.1	4.06	1.38
78	K08	70.1	31.9	18.29	0.070	194.0	202.7	23.4	53.1	3.98	1.33
4	A04	80.4	29.6	18.62	0.070	193.2	203.4	23.7	54.6	4.17	1.36
48	G03	81.7	30.6	18.69	0.070	193.5	203.2	22.9	52.7	3.91	1.39
8	A08	91.0	31.5	18.78	0.070	193.2	201.8	23.2	53.0	4.03	1.31
47	G02	82.9	30.2	17.57	0.071	194.7	203.2	23.6	52.2	3.90	1.50
52	G12	66.3	29.8	18.51	0.071	193.1	203.4	23.7	52.8	4.16	1.37
96	M11	66.7	30.0	18.42	0.071	193.1	202.6	23.2	53.1	3.97	1.44
67	I12	79.1	31.4	18.14	0.071	193.6	203.7	23.6	53.8	4.03	1.37
2	A02	82.0	29.2	18.99	0.072	193.2	203.4	23.4	53.6	4.14	1.39
6	A06	76.2	30.6	19.01	0.072	193.2	202.4	23.8	54.0	4.29	1.28
55	G15	65.4	30.2	18.23	0.072	193.8	203.4	23.9	52.7	4.14	1.40
59	I04	88.7	30.3	18.54	0.072	193.1	204.5	23.9	52.4	4.20	1.36
33	E03	75.6	31.1	18.23	0.072	193.5	203.0	23.2	53.9	3.91	1.44
44	E14	84.9	30.1	18.54	0.072	193.4	201.8	22.7	53.7	3.81	1.51
45	E15	79.4	29.8	18.57	0.073	193.8	201.1	22.5	54.7	3.75	1.55
1	A01	71.6	29.3	18.62	0.074	192.5	203.4	23.0	53.3	3.93	1.53
22	C07	70.8	30.1	18.79	0.074	193.2	202.9	23.0	53.1	3.96	1.46
92	M07	67.5	30.7	18.07	0.074	194.3	202.5	23.2	54.2	3.89	1.52
95	M10	76.0	31.3	18.90	0.074	192.6	202.7	22.9	53.2	3.95	1.42
63	I08	86.8	30.6	18.83	0.075	194.1	202.1	24.1	53.0	4.36	1.31
51	G11	65.1	31.7	18.47	0.076	194.0	204.0	25.7	52.8	4.85	1.19
65	I10	88.2	30.5	19.04	0.078	193.3	202.5	23.2	53.4	4.10	1.45
68	I13	73.5	32.0	18.87	0.078	192.0	203.9	23.7	53.8	4.24	1.36
70	I15	88.7	30.3	19.06	0.078	194.1	203.1	23.6	53.1	4.24	1.41
64	I09	89.3	30.3	19.06	0.078	193.3	203.2	23.1	53.4	4.06	1.48
57	I02	91.6	29.7	19.09	0.078	193.8	202.9	23.4	53.6	4.16	1.47
66	I11	77.8	30.1	18.96	0.079	193.1	202.6	23.1	53.8	4.04	1.51
85	K15	86.5	32.7	18.75	0.079	194.6	203.7	23.4	54.0	4.08	1.38
34	E04	78.9	33.2	18.19	0.079	193.0	202.4	23.0	52.2	3.84	1.51
89	M04	72.0	23.8	20.05	0.079	193.3	202.9	22.8	53.1	4.14	1.77
75	K05	80.5	32.8	18.58	0.081	193.1	204.2	23.4	53.4	4.05	1.45
32	E02	63.8	31.4	18.67	0.082	192.9	202.2	23.0	54.0	3.94	1.58
97	M12	60.4	32.3	17.34	0.089	193.0	202.5	22.8	53.5	3.58	1.97
101	X1*	80.8	30.6	18.61	0.110	193.3	202.7	23.3	53.7	4.03	2.13

(*) Specimen X1 got broken before its dimensions could be measured. As it is from the same wafer, the physical dimensions are assumed to be the mean of the 100 specimens.