



## **Six-Axis Force/Torque Transducer System Calibration Accuracy Report**

We appreciate your recent order for an F/T Six-Axis Force/Torque sensing system.

As part of our commitment to quality, each ATI force/torque transducer undergoes rigorous accuracy testing. This process, which involves applying and verifying a rich set of loading cases designed to cover the transducer's entire six-axis calibrated range, is designed to ensure that your transducer meets the measurement uncertainties listed on your system's 9105-CAL-CERT Certificate of Calibration.

Our transducers often exceed our quality standards for accuracy. Often, transducers perform exceptionally well in certain loading situations. This report summarizes the performance of your ATI F/T transducer in our factory tests. It can be thought of as a 'best-case scenario' snapshot of your transducer's performance under laboratory conditions, in a variety of loading situations. You can expect the accuracy of your transducer measurements to fall somewhere between its performance during testing and the measurement uncertainties listed on its calibration certificate.

The report is divided into three sections. The Full-Scale Loads section lists the transducer's rated range for each axis. The second section, Applied Loads, lists the loads applied during calibration and testing. The final section, Full-Scale Error, shows the sensor system's measurement error as a percentage of full scale for each axis in each loading case.

*For best accuracy, be sure to use your transducer's precision location features, and mount your transducer to a stiff surface.* If an ongoing guarantee of sensor accuracy is important to you, we recommend that your sensor be tested annually. Contact your ATI Industrial Automation distributor to schedule recalibrations.



**Calibration Accuracy Report**  
**Sensor System FT6805, Nano17 SI-50-0.5**  
**Force units: N; Torque units: N-mm**

Full-Scale Loads					
Fx	Fy	Fz	Tx	Ty	Tz
50	50	70	500	500	500

Applied Loads						
	Fx	Fy	Fz	Tx	Ty	Tz
1	0.000	9.452	0.000	-360.139	0.000	0.000
2	-9.452	0.000	0.000	0.000	-360.139	0.000
3	0.000	-9.452	0.000	360.139	0.000	0.000
4	9.452	0.000	0.000	0.000	360.139	0.000
5	0.000	40.034	0.000	67.113	0.000	0.000
6	-40.034	0.000	0.000	0.000	67.113	0.000
7	0.000	-40.034	0.000	-67.113	0.000	0.000
8	40.034	0.000	0.000	0.000	-67.113	0.000
9	0.000	11.121	0.000	67.791	0.000	-423.693
10	0.000	11.121	0.000	67.791	0.000	423.693
11	-11.121	0.000	0.000	0.000	67.791	-426.518
12	-11.121	0.000	0.000	0.000	67.791	426.504
13	0.000	-11.121	0.000	-67.791	0.000	-423.693
14	0.000	-11.121	0.000	-67.791	0.000	423.693
15	11.121	0.000	0.000	0.000	-67.791	-426.504
16	11.121	0.000	0.000	0.000	-67.791	426.518
17	0.000	0.000	13.345	-355.902	0.000	0.000
18	0.000	0.000	13.345	0.000	-355.902	0.000
19	0.000	0.000	13.345	355.902	0.000	0.000
20	0.000	0.000	13.345	0.000	355.902	0.000
21	0.000	0.000	53.379	0.000	0.000	0.000
22	0.000	0.000	-53.379	0.000	0.000	0.000
23	0.000	0.000	-13.345	355.902	0.000	0.000
24	0.000	0.000	-13.345	0.000	355.902	0.000
25	0.000	0.000	-13.345	-355.902	0.000	0.000
26	0.000	0.000	-13.345	0.000	-355.902	0.000

*Refer to page 1 for important information on regarding this report.*

Full-Scale Error						
	Fx	Fy	Fz	Tx	Ty	Tz
1	0.23%	0.14%	0.08%	0.20%	0.10%	-0.15%
2	-0.15%	0.17%	0.49%	-0.21%	-0.36%	0.05%
3	0.27%	0.05%	0.05%	-0.21%	-0.64%	0.11%
4	-0.02%	0.11%	0.73%	0.23%	-0.55%	-0.25%



5	0.30%	0.29%	0.10%	0.06%	-0.26%	0.79%
6	-0.17%	0.04%	0.21%	0.05%	-0.01%	0.68%
7	0.28%	-0.26%	0.13%	-0.08%	-0.16%	0.78%
8	0.30%	0.12%	0.13%	0.04%	-0.16%	0.97%
9	0.79%	-0.23%	0.02%	0.02%	-0.41%	-0.29%
10	0.41%	-0.45%	0.03%	-0.18%	-0.45%	0.25%
11	0.98%	0.05%	0.00%	-0.12%	-0.56%	0.56%
12	1.24%	0.50%	-0.02%	0.52%	-0.67%	-0.30%
13	0.45%	0.87%	-0.01%	0.53%	-0.33%	-0.40%
14	0.83%	0.63%	-0.01%	0.19%	-0.30%	0.17%
15	0.25%	0.11%	0.03%	0.07%	-0.28%	-0.15%
16	-0.02%	0.13%	0.04%	-0.03%	-0.14%	-0.44%
17	0.17%	-0.04%	-0.14%	-0.05%	-0.66%	0.03%
18	0.00%	0.04%	0.42%	0.34%	-0.43%	-0.05%
19	0.14%	0.12%	-0.18%	0.12%	-0.10%	-0.06%
20	-0.17%	0.04%	0.11%	-0.11%	-0.09%	0.03%
21	-0.04%	0.01%	0.23%	-0.01%	0.43%	-0.01%
22	-0.03%	0.03%	-0.08%	0.05%	0.21%	-0.03%
23	0.12%	0.13%	0.22%	0.21%	0.24%	-0.08%
24	-0.19%	0.05%	0.65%	0.01%	-0.37%	0.07%
25	0.13%	-0.10%	0.15%	-0.17%	-0.03%	0.12%
26	0.03%	0.02%	0.56%	0.06%	-0.30%	-0.06%

*Refer to page 1 for important information on regarding this report.*