

Client: Campbell Scientific
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 Logan, UT 84321-1784
 USA

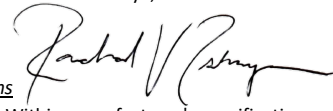
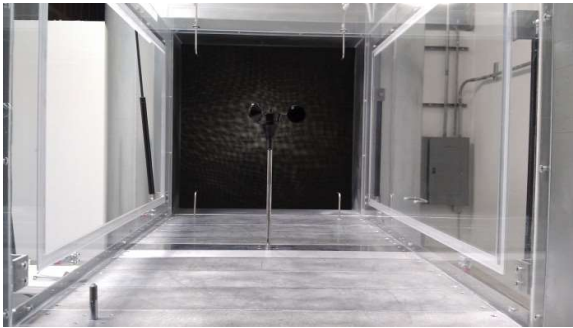
Calibration Date: December 21, 2016
Test Number: 201612211051
Approved By: Rachael V. Ishaya, President

Instrument Under Test (IUT)

Manufacturer: Comptus, Inc.
 Model No: A75-101
 Serial No: **6A0002**

Power: 12 VDC
 Output: Analog pulse waveform

IUT Conditions
 Incoming: Within manufacturer's specifications
 Outgoing: Calibrated

Standards: IEC 61400-12-1, ISO 17713-1, ASTM D5096-02
Procedures: BWL-TM-001

Calibration Equipment

- Aero-Subsonic Wind Tunnel (ASWT1)
- Test section size 0.762 m x 0.762 m x 1.524 m
- Pitot-static tube system for reference speed measurement
- United Sensor Corporation Pitot-static tubes PAE-8-M-W
- MKS Baratron 120AD differential pressure transducer*
- Setra 270 Barometer*
- Vaisala HMT130 Temperature and Humidity Sensor*
- National Instruments cDAQ-9174 with NI 9205 module*
- * NIST traceable with ISO/IEC 17025 accredited calibrations

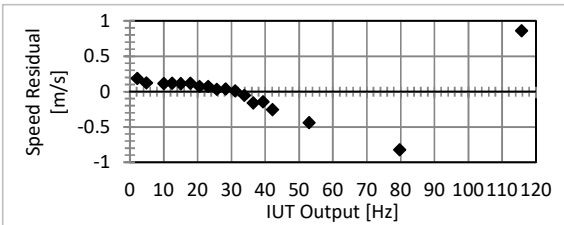
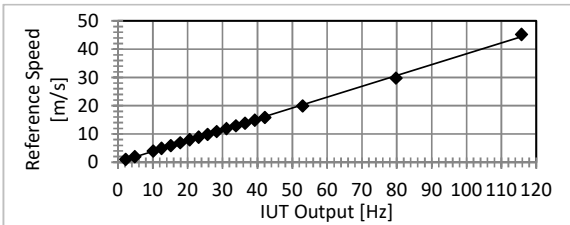
Test Data and Linear Regression Results

Test Order	Amb Press [Pa]	RH [%]	Temp [deg C]	Density [kg/m ³]	dP [Pa]	Ref Speed [m/s]	IUT Output [Hz]	Residual [m/s]	Uncertainty [m/s]**
18	101836	38.2	19.4	1.209	0.661	1.046	2.166	0.186	0.365
1	101849	37.9	19.1	1.210	2.424	2.001	4.819	0.124	0.243
2	101839	38.3	19.0	1.211	9.693	4.001	10.056	0.115	0.226
17	101820	37.5	19.5	1.208	14.772	4.945	12.499	0.122	0.240
3	101824	38.7	18.7	1.212	21.286	5.927	15.087	0.111	0.220
16	101802	36.9	19.7	1.207	29.450	6.984	17.818	0.121	0.240
4	101802	39.6	18.4	1.213	38.720	7.990	20.566	0.073	0.147
15	101780	36.2	20.1	1.206	48.435	8.963	23.099	0.075	0.152
5	101779	40.4	18.1	1.214	59.478	9.900	25.643	0.035	0.083
14	101755	35.9	20.3	1.204	71.959	10.932	28.327	0.038	0.089
6	101747	40.9	18.1	1.214	86.777	11.959	31.077	0.010	0.057
13	101723	35.9	20.5	1.203	100.841	12.947	33.818	-0.054	0.121
7	101713	41.1	18.2	1.213	116.412	13.856	36.460	-0.157	0.315
12	101687	36.1	20.5	1.203	134.404	14.949	39.277	-0.145	0.292
8	101671	40.8	18.5	1.211	153.334	15.914	42.080	-0.255	0.505
11	101573	36.3	20.4	1.202	238.064	19.904	52.958	-0.438	0.863
9	101257	39.4	19.2	1.203	533.575	29.786	79.715	-0.819	1.611
10	100495	37.3	20.0	1.191	1220.965	45.284	115.744	0.859	1.696

** Uncertainties are based on 95% confidence level & include error propagations from the reference speed & calibration linearity.

Slope [m/s per Hz] = **0.384**
 Offset [m/s] = **0.03**

R = 0.99953 Standard Error [m/s] = 0.339
 Standard error of slope [m/s per Hz] = 0.0030
 Standard error of offset [m/s] = 0.126
 Combined reference speed correction factor = 1.000
 Average Test Uncertainty Ratio (TUR) = 11 : 1



This calibration report shall not be reproduced except in full and without written approval of Bryza Wind Lab. This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to the joint ISO-ILAC-IAF Communiqué dated 18 June 2005).

