



OPTODYNE, Inc.



LABORATORY ACCREDITATION BUREAU ACCREDITED

Cert# L-1085 Calibration

Report of Calibration

Report No.102708-1, October 27, 2008

SOUTHEAST CNC CALIBRATION
302 CHANEY STREET
WINGATE, NC 28174-0516

Calibrated:

LDDM SYSTEM:

Laser Head	Serial #:	0002002511
Processor Module	Serial #:	0002001955

Using standards of which the calibration is traceable to the National Institute of Standards and Technology, we have calibrated the LDDM Laser System. The laser system was calibrated by comparison with a Precision LDDM System which was calibrated by NIST to be accurate to within 0.5 ppm with automatic atmospheric pressure and air temperature compensation. The two systems were aligned along a common path with the same retroreflector on a travel carriage. The atmosphere pressure and air temperature compensation were turned on during the calibration. The ambient conditions were at 68 degrees F and 40% relative humidity. This calibration results only valid for the items calibrated as found. This report shall not be reproduced, except in full, without the expressed written approval of the laboratory.

The calibration system is in compliance with ISO/IEC 17025: 2005 Standard. The measurement uncertainty was estimated to be +/- 0.24 ppm.

The equipment was calibrated on is and based on the measured data in page 2 and 3 the accuracy of the laser system is less than 0.000003 inch over 40 inches, or 0.1 ppm, which is in tolerance.

NIST Test Number 821-274298-07

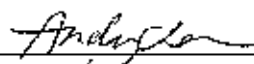
Date: December 29, 2006

Laser Head, Serial # 0610001738

Processor Module, Serial # 0610002532

IATCP, Serial # 061005

Date: October 27, 2008

By: 

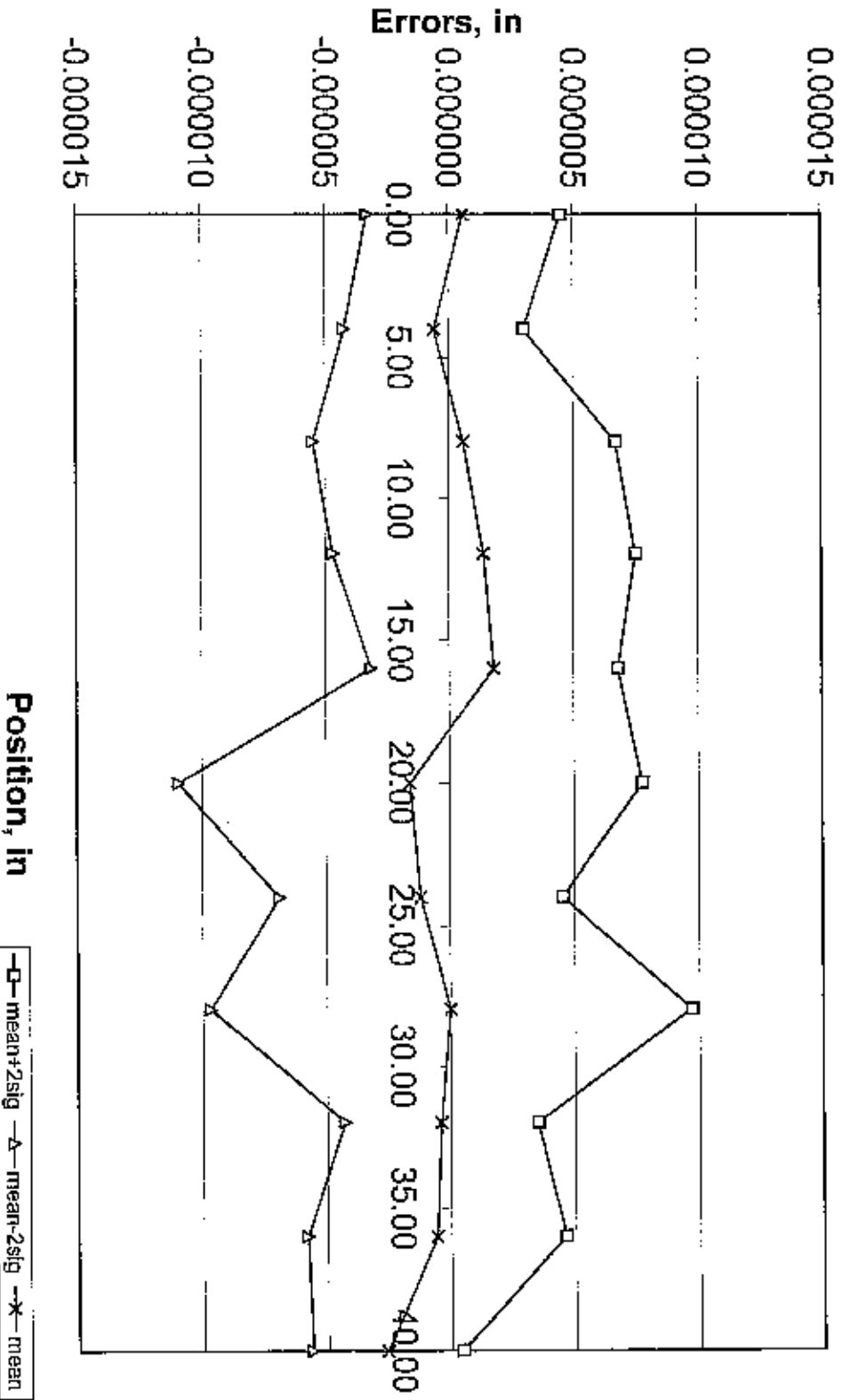
Andy Chan
Chief Test Engineer

Position	run #1	run #2	run #3	run #4	run #5
0	0.000000	0.000000	0.000000	0.000004	-0.000001
4	0.000002	-0.000001	-0.000001	0.000000	-0.000003
8	-0.000003	0.000003	0.000001	-0.000002	0.000004
12	0.000000	0.000006	0.000003	-0.000001	-0.000001
16	0.000002	0.000004	0.000004	-0.000002	0.000001
20	-0.000004	0.000005	0.000001	-0.000003	-0.000007
24	0.000003	-0.000001	-0.000002	-0.000001	-0.000005
28	-0.000001	0.000007	0.000002	-0.000002	-0.000006
32	-0.000001	0.000003	-0.000001	-0.000001	-0.000002
36	0.000001	0.000003	-0.000003	-0.000001	-0.000003
40	-0.000003	-0.000002	-0.000001	-0.000002	-0.000005

Position	2sigma	mean+2sig	mean-2sig	mean	abs mean
0	0.000004	0.000004	-0.000003	0.000001	0.000001
4	0.000004	0.000003	-0.000004	-0.000001	0.000001
8	0.000006	0.000007	-0.000005	0.000001	0.000001
12	0.000006	0.000007	-0.000005	0.000001	0.000001
16	0.000005	0.000007	-0.000003	0.000002	0.000002
20	0.000009	0.000008	-0.000011	-0.000002	0.000002
24	0.000006	0.000005	-0.000007	-0.000001	0.000001
28	0.000010	0.000010	-0.000010	0.000000	0.000000
32	0.000004	0.000003	-0.000004	0.000000	0.000000
36	0.000005	0.000005	-0.000006	-0.000001	0.000001
40	0.000003	0.000000	-0.000006	-0.000003	0.000003

Max 2sig. = 0.000010 inch MAX mean = 0.000003 inch
 Uncertainty= 0.24 ppm

Mean & +/- 2 sigma



Company : Southeast CNC Calibration
Serial No : 0002002511

Date : 10/27/08
File name : 102708-1.xls

Report No: 102708-1, 10/27/08

page 3 of 3