

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 1384
CALIBRATION DATE: 16-Jun-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.87089260e-003
h = 6.81858730e-004
i = 2.76722227e-005
j = 2.23831719e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121363e-003
b = 6.02156208e-004
c = 1.51789808e-005
d = 2.23979808e-006
f0 = 6453.232

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6453.232	-1.5001	0.00000
0.9999	6823.830	0.9999	0.00000
4.4999	7368.076	4.4999	0.00000
7.9999	7942.696	7.9999	-0.00002
11.4999	8548.488	11.4999	-0.00001
14.9999	9186.223	14.9999	0.00004
18.4999	9856.615	18.4999	0.00000
21.9999	10560.400	21.9999	0.00001
25.4999	11298.246	25.4999	-0.00003
28.9999	12070.826	28.9999	-0.00001
32.4999	12878.758	32.4999	0.00002

Temperature ITS-90 = $1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature IPTS-68 = $1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

