

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: 1008
CALIBRATION DATE: 17-Feb-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80455854e-003
h = 6.74993167e-004
i = 2.72253812e-005
j = 2.23371006e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121354e-003
b = 5.99676894e-004
c = 1.53745736e-005
d = 2.23519916e-006
f0 = 5885.755

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5885.755	-1.5001	0.00001
0.9999	6225.208	0.9999	-0.00002
4.4999	6723.899	4.4999	0.00001
7.9999	7250.630	7.9999	-0.00001
11.4999	7806.159	11.4999	-0.00001
14.9999	8391.213	14.9999	0.00003
18.4999	9006.469	18.4999	-0.00001
21.9999	9652.628	21.9999	0.00001
25.4999	10330.323	25.4999	-0.00001
28.9999	11040.182	28.9999	-0.00002
32.4999	11782.813	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

