

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2902
CALIBRATION DATE: 16-Jan-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34458072e-003
h = 6.44560750e-004
i = 2.27929831e-005
j = 2.10660467e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121303e-003
b = 6.03314252e-004
c = 1.60876900e-005
d = 2.10813874e-006
f0 = 2901.912

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2901.912	-1.5001	0.00005
0.9999	3068.241	0.9998	-0.00007
4.4999	3312.538	4.4999	-0.00003
7.9999	3570.502	7.9999	0.00003
11.4999	3842.493	11.4999	0.00003
14.9999	4128.868	14.9999	0.00002
18.4999	4429.972	18.4999	0.00001
21.9999	4746.132	21.9998	-0.00007
25.4999	5077.689	25.4999	0.00001
28.9999	5424.931	28.9999	0.00002
32.4999	5788.157	32.4999	0.00000

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

