

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4492
CALIBRATION DATE: 11-Mar-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33915675e-003
h = 6.33532938e-004
i = 2.03952959e-005
j = 1.73429072e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121482e-003
b = 5.95924015e-004
c = 1.48437164e-005
d = 1.73566452e-006
f0 = 2921.711

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	2921.711	-1.5002	0.00002
0.9999	3091.309	0.9999	-0.00002
4.4999	3340.547	4.4999	0.00001
7.9999	3603.913	7.9999	-0.00001
11.4999	3881.804	11.4999	0.00003
14.9999	4174.591	14.9999	0.00001
18.4999	4482.647	18.4999	-0.00001
21.9999	4806.334	21.9999	-0.00000
25.4999	5145.994	25.4999	-0.00002
28.9999	5501.970	28.9999	0.00003
32.4999	5874.571	32.4999	-0.00001

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

