

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2271
CALIBRATION DATE: 24-Oct-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33366749e-003
h = 6.41047311e-004
i = 2.31882013e-005
j = 2.16061240e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121237e-003
b = 5.99511340e-004
c = 1.63834736e-005
d = 2.16216780e-006
f0 = 2869.231

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2869.231	-1.5000	-0.00000
1.0000	3034.777	1.0000	0.00003
4.5000	3278.034	4.5000	-0.00003
8.0000	3535.060	8.0000	-0.00004
11.5000	3806.238	11.5000	0.00004
15.0000	4091.928	15.0001	0.00010
18.5000	4392.470	18.4999	-0.00007
22.0000	4708.244	21.9999	-0.00007
25.5000	5039.581	25.5000	0.00004
29.0000	5386.782	29.0000	0.00002
32.5000	5750.166	32.5000	-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

