

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1366
CALIBRATION DATE: 17-Feb-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83509092e-003
h = 6.77350368e-004
i = 2.62094770e-005
j = 2.07519649e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121329e-003
b = 6.02942732e-004
c = 1.49536564e-005
d = 2.07663964e-006
f0 = 6125.039

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6125.039	-1.5001	0.00003
0.9999	6476.302	0.9999	-0.00002
4.4999	6992.090	4.4999	-0.00002
7.9999	7536.583	7.9999	-0.00001
11.4999	8110.526	11.4999	0.00000
14.9999	8714.647	15.0000	0.00006
18.4999	9349.622	18.4999	0.00002
21.9999	10016.140	21.9999	-0.00001
25.4999	10714.848	25.4999	-0.00003
28.9999	11446.367	28.9999	-0.00005
32.4999	12211.313	32.4999	0.00005

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

