

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2490
CALIBRATION DATE: 01-Oct-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.32785775e-003
h = 6.32824956e-004
i = 2.10976001e-005
j = 1.69221695e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121517e-003
b = 5.94076418e-004
c = 1.57642159e-005
d = 1.69365041e-006
f0 = 2874.453

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5002	2874.453	-1.5002	-0.00001
0.9998	3041.856	0.9998	0.00002
4.4998	3287.981	4.4998	0.00001
7.9998	3548.202	7.9998	-0.00001
11.4998	3822.926	11.4998	0.00000
14.9998	4112.543	14.9998	-0.00002
18.4998	4417.446	18.4998	0.00002
21.9998	4738.003	21.9998	0.00001
25.4998	5074.580	25.4998	-0.00002
28.9998	5427.539	28.9998	0.00000
32.4998	5797.216	32.4998	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

