

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2265
CALIBRATION DATE: 24-Oct-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33186392e-003
h = 6.43910172e-004
i = 2.36290352e-005
j = 2.24426517e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121196e-003
b = 6.01968041e-004
c = 1.66095897e-005
d = 2.24585503e-006
f0 = 2848.189

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2848.189	-1.5000	0.00003
1.0000	3011.828	1.0000	-0.00001
4.5000	3252.231	4.5000	-0.00004
8.0000	3506.166	8.0000	-0.00004
11.5000	3774.004	11.5000	0.00003
15.0000	4056.099	15.0001	0.00012
18.5000	4352.776	18.5000	-0.00003
22.0000	4664.396	21.9999	-0.00008
25.5000	4991.289	25.5000	0.00001
29.0000	5333.743	29.0000	0.00000
32.5000	5692.068	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

