

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1367
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86082369e-003
h = 6.76464509e-004
i = 2.72671179e-005
j = 2.19939799e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121278e-003
b = 5.97924151e-004
c = 1.50040778e-005
d = 2.20085075e-006
f0 = 6440.654

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6440.654	-1.5000	-0.00003
1.0000	6813.236	1.0000	0.00005
4.5000	7360.631	4.5000	-0.00001
8.0000	7938.911	8.0000	0.00003
11.5000	8548.862	11.4999	-0.00005
15.0000	9191.332	15.0000	0.00002
18.5000	9867.041	18.5000	-0.00004
22.0000	10576.781	22.0000	0.00002
25.5000	11321.237	25.5000	0.00003
29.0000	12101.096	29.0000	0.00001
32.5000	12917.017	32.5000	-0.00002

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

