

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1364
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84748499e-003
h = 6.77316276e-004
i = 2.46682011e-005
j = 1.77326047e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121057e-003
b = 6.05065241e-004
c = 1.49734238e-005
d = 1.77466975e-006
f0 = 6218.801

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6218.801	-1.4999	0.00013
1.0000	6574.131	0.9999	-0.00007
4.5000	7095.774	4.4998	-0.00021
8.0000	7646.349	7.9999	-0.00008
11.5000	8226.578	11.5001	0.00011
15.0000	8837.210	15.0004	0.00044
18.5000	9478.781	18.5000	-0.00004
22.0000	10152.150	21.9997	-0.00032
25.5000	10858.053	25.4999	-0.00008
29.0000	11597.007	29.0001	0.00007
32.5000	12369.604	32.5001	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

