

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1366
CALIBRATION DATE: 27-Jan-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84041944e-003
h = 6.85094841e-004
i = 2.99420609e-005
j = 2.67220446e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121585e-003
b = 6.03040693e-004
c = 1.54403531e-005
d = 2.67375925e-006
f0 = 6125.003

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6125.003	-1.5003	-0.00016
0.9999	6476.263	1.0000	0.00008
4.4999	6992.046	4.5001	0.00021
7.9999	7536.534	8.0000	0.00013
11.4999	8110.472	11.4998	-0.00005
15.0000	8714.593	14.9997	-0.00026
18.4999	9349.565	18.4997	-0.00025
21.9999	10016.078	21.9998	-0.00012
25.4999	10714.788	25.5003	0.00038
28.9999	11446.119	29.0003	0.00042
32.4999	12210.530	32.4995	-0.00039

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

