

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 18-Jan-08

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35176952e-003
h = 6.42611619e-004
i = 2.31309946e-005
j = 2.22225537e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121381e-003
b = 6.00532223e-004
c = 1.59502721e-005
d = 2.22378780e-006
f0 = 2948.216

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2948.216	-1.5001	-0.00001
0.9999	3118.012	0.9999	-0.00001
4.4999	3367.466	4.4999	0.00003
7.9999	3630.958	7.9999	0.00000
11.4999	3908.874	11.4999	0.00002
14.9999	4201.575	14.9999	-0.00000
18.5000	4509.422	18.4999	-0.00010
21.9999	4832.756	21.9999	0.00001
25.4999	5171.912	25.4999	0.00005
28.9999	5527.202	29.0000	0.00007
32.4999	5898.918	32.4998	-0.00006

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

