

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2492
CALIBRATION DATE: 31-Jul-09

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39951405e-003
h = 6.60104932e-004
i = 2.50499087e-005
j = 2.29675849e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121272e-003
b = 6.12379125e-004
c = 1.72806208e-005
d = 2.29843195e-006
f0 = 3101.020

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3101.020	-1.5000	0.00007
0.9999	3276.069	0.9999	-0.00004
4.4999	3532.955	4.4998	-0.00008
7.9999	3803.960	7.9998	-0.00009
11.4998	4089.451	11.4998	0.00005
14.9999	4389.792	15.0000	0.00015
18.4999	4705.287	18.5000	0.00008
21.9999	5036.292	21.9999	0.00003
25.4999	5383.101	25.4997	-0.00022
28.9999	5746.079	28.9998	-0.00008
32.4999	6125.487	32.5000	0.00013

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

