

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2574
CALIBRATION DATE: 26-Jan-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35462090e-003
h = 6.45231957e-004
i = 2.31245077e-005
j = 2.17175326e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121002e-003
b = 6.02985897e-004
c = 1.61069835e-005
d = 2.17329770e-006
f0 = 2948.599

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2948.599	-1.4998	0.00007
1.0001	3117.698	1.0000	-0.00005
4.5001	3366.070	4.5000	-0.00009
8.0001	3628.353	8.0001	-0.00004
11.5001	3904.919	11.5002	0.00008
15.0001	4196.119	15.0003	0.00016
18.5001	4502.282	18.5001	-0.00003
22.0002	4823.786	22.0001	-0.00012
25.5001	5160.942	25.5001	0.00001
29.0002	5514.062	29.0002	-0.00003
32.5001	5883.436	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

