

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2534
CALIBRATION DATE: 13-Dec-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34818148e-003
h = 6.42236921e-004
i = 2.25303923e-005
j = 2.00267179e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121008e-003
b = 6.00878905e-004
c = 1.60980341e-005
d = 2.00418864e-006
f0 = 2930.580

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2930.580	-1.4998	0.00007
1.0000	3099.250	1.0000	-0.00001
4.5001	3347.060	4.4999	-0.00017
8.0001	3608.840	8.0001	-0.00004
11.5001	3884.960	11.5002	0.00013
15.0001	4175.780	15.0003	0.00019
18.5001	4481.640	18.5000	-0.00006
22.0002	4802.940	22.0001	-0.00014
25.5001	5140.000	25.5001	0.00004
29.0002	5493.130	29.0001	-0.00008
32.5001	5862.660	32.5002	0.00007

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

