

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2224
CALIBRATION DATE: 06-Nov-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36230378e-003
h = 6.42532111e-004
i = 2.30801340e-005
j = 2.15012930e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121091e-003
b = 5.99739457e-004
c = 1.60187479e-005
d = 2.15165589e-006
f0 = 3001.049

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3001.049	-1.4999	0.00000
1.0001	3174.124	1.0001	0.00000
4.5001	3428.421	4.5001	-0.00002
8.0001	3697.076	8.0001	0.00002
11.5001	3980.470	11.5001	-0.00001
15.0001	4278.992	15.0001	0.00002
18.5001	4593.000	18.5001	-0.00002
22.0001	4922.862	22.0001	0.00000
25.5001	5268.915	25.5001	0.00001
29.0001	5631.488	29.0001	-0.00002
32.5001	6010.907	32.5001	0.00001

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

