

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2548
CALIBRATION DATE: 20-Oct-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.27140424e-003
h = 6.18715842e-004
i = 1.96089594e-005
j = 1.52396923e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121046e-003
b = 5.84750045e-004
c = 1.51446713e-005
d = 1.52531499e-006
f0 = 2670.183

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2670.183	-1.4999	0.00004
1.0001	2828.233	1.0001	-0.00004
4.5001	3060.859	4.5000	-0.00005
8.0000	3307.104	8.0000	0.00004
11.5000	3567.378	11.5000	0.00005
15.0000	3842.078	15.0000	0.00001
18.5001	4131.609	18.5001	-0.00003
22.0001	4436.347	22.0001	0.00001
25.5001	4756.662	25.5001	-0.00003
29.0001	5092.934	29.0001	0.00001
32.5001	5445.506	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

