

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2490
CALIBRATION DATE: 20-Oct-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.32773131e-003
h = 6.32543873e-004
i = 2.08876656e-005
j = 1.64098883e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121053e-003
b = 5.94067256e-004
c = 1.57165312e-005
d = 1.64241218e-006
f0 = 2874.459

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	2874.459	-1.4999	0.00003
1.0001	3041.858	1.0001	-0.00003
4.5001	3287.983	4.5001	-0.00004
8.0000	3548.200	8.0000	0.00001
11.5000	3822.922	11.5000	0.00003
15.0000	4112.536	15.0000	0.00002
18.5001	4417.439	18.5001	-0.00000
22.0001	4737.995	22.0001	0.00001
25.5001	5074.568	25.5000	-0.00006
29.0001	5427.536	29.0001	0.00001
32.5001	5797.222	32.5001	0.00002

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

