

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0701
CALIBRATION DATE: 15-Dec-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.81948443e-003
h = 6.82427114e-004
i = 3.12599473e-005
j = 2.92602828e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121102e-003
b = 5.98781788e-004
c = 1.55726600e-005
d = 2.92762551e-006
f0 = 5990.573

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	5990.573	-1.4999	-0.00000
1.0001	6336.619	1.0001	0.00004
4.5001	6845.033	4.5001	-0.00001
8.0001	7382.102	8.0000	-0.00006
11.5001	7948.571	11.5000	-0.00006
15.0001	8545.164	15.0001	0.00001
18.5001	9172.563	18.5002	0.00014
22.0001	9831.390	22.0002	0.00014
25.5001	10522.240	25.5000	-0.00013
29.0001	11245.796	28.9999	-0.00022
32.5001	12002.686	32.5003	0.00016

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

