

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1366
CALIBRATION DATE: 19-Sep-07

SBE3 TEMPERATURE CALIBRATION DATA
IPTS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83482435e-003
h = 6.77085228e-004
i = 2.60696324e-005
j = 2.05163699e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121249e-003
b = 6.02957503e-004
c = 1.49429729e-005
d = 2.05307574e-006
f0 = 6123.979

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6123.979	-1.5000	-0.00001
1.0000	6475.186	1.0000	0.00003
4.5000	6990.861	4.5000	-0.00003
8.0000	7535.246	8.0000	0.00001
11.5000	8109.061	11.5000	-0.00004
15.0000	8713.061	15.0000	0.00004
18.5000	9347.906	18.5000	0.00000
22.0000	10014.297	22.0000	0.00001
25.5000	10712.865	25.5000	-0.00002
29.0000	11444.250	29.0000	-0.00001
32.5000	12209.041	32.5000	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

