

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2633
CALIBRATION DATE: 04-Aug-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36659027e-003
h = 6.48228815e-004
i = 2.40638941e-005
j = 2.33642356e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121266e-003
b = 6.04006039e-004
c = 1.64007508e-005
d = 2.33801333e-006
f0 = 2995.910

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2995.910	-1.5000	-0.00003
1.0000	3167.440	1.0000	0.00002
4.5000	3419.352	4.5000	0.00002
8.0000	3685.348	8.0000	0.00003
11.5000	3965.797	11.5000	-0.00001
15.0001	4261.067	15.0000	-0.00012
18.5001	4571.518	18.5001	0.00001
22.0000	4897.467	22.0001	0.00013
25.5001	5239.241	25.5001	-0.00003
29.0001	5597.166	29.0001	-0.00003
32.5001	5971.536	32.5001	0.00000

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

