

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1008
CALIBRATION DATE: 04-Mar-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80132756e-003
h = 6.56266211e-004
i = 2.40121930e-005
j = 1.83984468e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121171e-003
b = 5.87565452e-004
c = 1.40474370e-005
d = 1.84115652e-006
f0 = 6110.816

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6110.816	-1.5000	-0.00006
1.0001	6470.718	1.0002	0.00006
4.5001	7000.061	4.5002	0.00007
8.0002	7559.950	8.0002	-0.00002
11.5002	8151.239	11.5001	-0.00006
15.0001	8774.770	15.0001	-0.00002
18.5001	9431.379	18.5001	-0.00001
22.0001	10121.850	22.0001	0.00003
25.5001	10846.936	25.5001	0.00003
29.0001	11607.384	29.0001	0.00002
32.5001	12403.895	32.5001	-0.00003

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

