

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0997
CALIBRATION DATE: 31-Jul-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.88326585e-003
h = 6.81737670e-004
i = 2.80321068e-005
j = 2.30387512e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121273e-003
b = 6.00703170e-004
c = 1.50175622e-005
d = 2.30534843e-006
f0 = 6599.043

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6599.043	-1.5000	0.00007
1.0000	6978.946	0.9999	-0.00008
4.5000	7536.943	4.4999	-0.00009
7.9999	8126.175	7.9999	0.00002
11.4999	8747.481	11.5001	0.00018
15.0000	9401.582	15.0000	0.00003
18.5000	10089.263	18.4999	-0.00009
21.9999	10811.257	21.9997	-0.00016
25.5000	11568.373	25.5000	0.00002
28.9999	12361.144	29.0001	0.00019
32.5000	13190.191	32.4999	-0.00009

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

