

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4211
CALIBRATION DATE: 18-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38716148e-003
h = 6.46749254e-004
i = 2.24522515e-005
j = 1.80231829e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121219e-003
b = 6.02992743e-004
c = 1.63593633e-005
d = 1.80383020e-006
f0 = 3101.805

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3101.805	-1.5000	0.00001
1.0000	3279.699	1.0000	-0.00003
4.5000	3541.006	4.5000	0.00001
8.0000	3816.971	8.0000	0.00003
11.5000	4107.996	11.5000	0.00001
15.0000	4414.476	15.0000	0.00001
18.5000	4736.783	18.4999	-0.00009
22.0000	5075.313	22.0000	-0.00002
25.5000	5430.408	25.5000	0.00003
29.0000	5802.417	29.0001	0.00008
32.5000	6191.655	32.4999	-0.00006

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

