

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 4211
CALIBRATION DATE: 27-Mar-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.38723944e-003
h = 6.46897931e-004
i = 2.25523391e-005
j = 1.82472553e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121235e-003
b = 6.03000679e-004
c = 1.63833149e-005
d = 1.82624249e-006
f0 = 3101.832

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3101.832	-1.5000	-0.00000
1.0000	3279.728	1.0000	-0.00001
4.5000	3541.033	4.5000	0.00000
8.0000	3817.000	8.0000	0.00003
11.5000	4108.027	11.5000	0.00001
15.0000	4414.509	15.0000	0.00000
18.5000	4736.819	18.4999	-0.00009
22.0000	5075.353	22.0000	-0.00000
25.5000	5430.450	25.5000	0.00005
29.0000	5802.456	29.0001	0.00006
32.5000	6191.696	32.5000	-0.00005

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

