

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 5001
CALIBRATION DATE: 25-Jun-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.41626317e-003
h = 6.50113771e-004
i = 2.29975091e-005
j = 1.93023051e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121336e-003
b = 6.04222187e-004
c = 1.62232115e-005
d = 1.93175230e-006
f0 = 3237.021

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3237.021	-1.5001	0.00002
1.0000	3422.284	1.0000	-0.00004
4.5000	3694.353	4.5000	-0.00002
7.9999	3981.620	8.0000	0.00007
11.5000	4284.497	11.5000	-0.00001
15.0000	4603.380	15.0000	-0.00001
18.5000	4938.655	18.5000	-0.00003
22.0000	5290.705	22.0000	0.00002
25.5000	5659.881	25.5000	0.00000
29.0000	6046.540	29.0000	0.00001
32.5000	6451.014	32.5000	-0.00001

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

