

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: 5237
CALIBRATION DATE: 23-Mar-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.41021329e-003
h = 6.79974086e-004
i = 2.85776376e-005
j = 2.21802153e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121205e-003
b = 6.24447221e-004
c = 2.11538747e-005
d = 2.22001411e-006
f0 = 3065.673

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3065.673	-1.5000	0.00002
1.0000	3235.344	1.0000	-0.00002
4.5000	3484.198	4.5000	-0.00001
8.0000	3746.579	8.0000	-0.00001
11.5000	4022.852	11.5000	0.00001
15.0000	4313.373	15.0001	0.00006
18.5000	4618.469	18.5000	-0.00004
22.0000	4938.502	22.0000	-0.00000
25.5001	5273.786	25.5001	-0.00005
29.0000	5624.629	29.0001	0.00005
32.5000	5991.333	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

