

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: 1367
CALIBRATION DATE: 31-Jul-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86061953e-003
h = 6.76119168e-004
i = 2.71095269e-005
j = 2.17372945e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121298e-003
b = 5.97895804e-004
c = 1.49892820e-005
d = 2.17517719e-006
f0 = 6441.279

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	6441.279	-1.5000	0.00005
1.0000	6813.898	0.9999	-0.00008
4.5000	7361.389	4.5000	-0.00003
7.9999	7939.743	7.9999	0.00004
11.4999	8549.808	11.5000	0.00008
15.0000	9192.360	14.9999	-0.00006
18.5000	9868.195	18.5000	-0.00004
21.9999	10578.041	21.9999	0.00004
25.5000	11322.628	25.4999	-0.00006
28.9999	12102.644	29.0000	0.00005
32.5000	12918.750	32.5000	-0.00001

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

