

SEA-BIRD ELECTRONICS, INC.

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

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

SENSOR SERIAL NUMBER: 2767
CALIBRATION DATE: 11-Aug-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.34179269e-003
h = 6.33867930e-004
i = 2.17486104e-005
j = 2.02253893e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121221e-003
b = 5.94172327e-004
c = 1.52342833e-005
d = 2.02397768e-006
f0 = 2938.874

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2938.874	-1.5000	0.00001
1.0000	3109.988	1.0000	-0.00001
4.5000	3361.534	4.5000	-0.00001
8.0000	3627.433	8.0000	0.00001
11.5001	3908.086	11.5001	-0.00002
15.0000	4203.868	15.0001	0.00006
18.5001	4515.166	18.5001	-0.00003
22.0001	4842.344	22.0001	0.00000
25.5001	5185.748	25.5001	-0.00000
29.0001	5545.722	29.0001	-0.00001
32.5001	5922.595	32.5001	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

