

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: 2958
CALIBRATION DATE: 24-Feb-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39514149e-003
h = 6.73527817e-004
i = 3.04240753e-005
j = 2.87684962e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121004e-003
b = 6.16778365e-004
c = 2.08758119e-005
d = 2.87889072e-006
f0 = 3033.726

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	3033.726	-1.4998	0.00017
1.0000	3203.756	0.9998	-0.00018
4.5000	3453.370	4.4998	-0.00017
8.0000	3716.808	8.0000	0.00004
11.4999	3994.414	11.5001	0.00019
15.0000	4286.555	15.0001	0.00006
18.5000	4593.587	18.5000	0.00002
22.0000	4915.845	21.9999	-0.00008
25.5000	5253.672	25.4999	-0.00008
29.0000	5607.373	28.9999	-0.00007
32.5000	5977.268	32.5001	0.00010

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

