

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: 1652
CALIBRATION DATE: 22-Jun-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83676474e-003
h = 6.77193456e-004
i = 2.55223736e-005
j = 1.91138320e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121067e-003
b = 6.03628286e-004
c = 1.51508887e-005
d = 1.91282085e-006
f0 = 6131.935

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6131.935	-1.4999	0.00012
1.0000	6483.163	0.9999	-0.00011
4.5000	6998.916	4.4999	-0.00013
8.0000	7543.371	7.9999	-0.00008
11.5000	8117.303	11.5002	0.00016
15.0000	8721.395	15.0003	0.00030
18.5000	9356.268	18.4999	-0.00012
22.0000	10022.770	21.9998	-0.00019
25.5000	10721.545	25.5000	-0.00003
29.0000	11453.163	29.0000	0.00004
32.5000	12218.236	32.5000	0.00004

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

