

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: 0604
CALIBRATION DATE: 21-Apr-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.79991705e-003
h = 7.10981900e-004
i = 4.78180225e-005
j = 6.02515204e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121632e-003
b = 5.99740553e-004
c = 1.65559389e-005
d = 6.02724504e-006
f0 = 5646.536

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5646.536	-1.5003	-0.00020
0.9999	5972.251	1.0002	0.00026
4.4999	6450.705	4.5001	0.00017
8.0000	6956.009	7.9999	-0.00014
11.4999	7488.780	11.4997	-0.00018
15.0000	8049.595	14.9998	-0.00017
18.5000	8638.954	18.5001	0.00015
22.0000	9257.246	22.0003	0.00028
25.5000	9904.849	25.5001	0.00006
29.0000	10582.148	28.9997	-0.00034
32.5000	11289.673	32.5001	0.00012

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

