

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: 5171
CALIBRATION DATE: 21-May-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39237173e-003
h = 6.45388036e-004
i = 2.29582752e-005
j = 2.13441028e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121306e-003
b = 6.01401627e-004
c = 1.56636685e-005
d = 2.13591201e-006
f0 = 3137.684

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	3137.684	-1.5001	0.00004
1.0000	3318.117	0.9999	-0.00006
4.4999	3583.148	4.4999	0.00001
8.0000	3863.050	7.9999	-0.00005
11.4999	4158.212	11.5000	0.00006
15.0000	4469.028	15.0001	0.00006
18.5000	4795.849	18.5000	-0.00001
22.0000	5139.051	21.9999	-0.00006
25.5000	5498.994	25.5000	0.00002
29.0000	5875.985	29.0000	-0.00002
32.5000	6270.366	32.5000	0.00002

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

