

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

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

SENSOR SERIAL NUMBER: 1609

CALIBRATION DATE: 03-Aug-04

SBE3 TEMPERATURE CALIBRATION DATA

ITS-90 TEMPRATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86575232e-003

h = 6.79619270e-004

i = 2.60555361e-005

j = 2.00003179e-006

f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68121106e-003

b = 6.03709377e-004

c = 1.49453741e-005

d = 2.00146644e-006

f0 = 6399.579

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6399.579	-1.4999	0.00009
1.0000	6766.094	1.0000	-0.00004
4.5000	7304.223	4.4998	-0.00017
8.0000	7872.272	7.9999	-0.00012
11.5000	8471.025	11.5001	0.00015
15.0000	9101.213	15.0005	0.00048
18.5000	9763.344	18.4997	-0.00027
22.0000	10458.472	21.9998	-0.00021
25.5000	11187.153	25.5000	-0.00000
29.0000	11949.980	29.0001	0.00008
32.5000	12747.561	32.5000	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 ITS-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

