

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: 4151
CALIBRATION DATE: 22-Feb-05

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.39925214e-003
h = 6.69819870e-004
i = 2.50767724e-005
j = 2.03084394e-006
f0 = 1000.0

ITS-68 COEFFICIENTS

a = 3.68120959e-003
b = 6.21649788e-004
c = 1.83175834e-005
d = 2.03258207e-006
f0 = 3047.406

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4998	3047.406	-1.4998	0.00000
1.0002	3216.811	1.0002	0.00004
4.5002	3465.186	4.5001	-0.00005
8.0002	3726.969	8.0001	-0.00008
11.5002	4002.505	11.5002	0.00000
15.0002	4292.132	15.0004	0.00024
18.5002	4596.108	18.5001	-0.00008
22.0002	4914.815	22.0001	-0.00014
25.5002	5248.552	25.5002	0.00002
29.0002	5597.574	29.0003	0.00005
32.5002	5962.161	32.5002	-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

