

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: 1366
CALIBRATION DATE: 09-Feb-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83431828e-003
h = 6.76283728e-004
i = 2.57156131e-005
j = 1.99878031e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121095e-003
b = 6.02913425e-004
c = 1.48753045e-005
d = 2.00020617e-006
f0 = 6124.994

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6124.994	-1.4999	0.00000
1.0001	6476.277	1.0001	0.00000
4.5001	6992.075	4.5001	-0.00001
8.0001	7536.578	8.0001	0.00002
11.5002	8110.528	11.5002	-0.00005
15.0001	8714.639	15.0001	0.00004
18.5002	9349.629	18.5002	-0.00003
22.0002	10016.173	22.0002	0.00005
25.5001	10714.874	25.5001	0.00002
29.0002	11446.417	29.0001	-0.00009
32.5001	12211.386	32.5001	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

