

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: 1367
CALIBRATION DATE: 10-Feb-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.86012267e-003
h = 6.75435037e-004
i = 2.68056577e-005
j = 2.12902666e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121131e-003
b = 5.97877711e-004
c = 1.49350604e-005
d = 2.13046369e-006
f0 = 6441.427

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6441.427	-1.4999	-0.00003
1.0001	6814.077	1.0001	0.00003
4.5001	7361.581	4.5001	0.00003
8.0002	7939.969	8.0002	-0.00001
11.5002	8550.041	11.5002	-0.00003
15.0001	9192.595	15.0001	-0.00002
18.5001	9868.439	18.5001	-0.00002
22.0001	10578.323	22.0002	0.00008
25.5001	11322.913	25.5001	0.00002
29.0002	12102.949	29.0001	-0.00007
32.5001	12919.074	32.5001	0.00003

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

