

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: 1364
CALIBRATION DATE: 09-Feb-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.84814018e-003
h = 6.78119492e-004
i = 2.50411485e-005
j = 1.82984945e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68120993e-003
b = 6.05067932e-004
c = 1.50353207e-005
d = 1.83127003e-006
f0 = 6219.707

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	6219.707	-1.4998	0.00008
1.0001	6575.101	1.0001	-0.00004
4.5001	7096.835	4.5000	-0.00013
8.0001	7647.498	8.0001	-0.00004
11.5002	8227.830	11.5002	0.00004
15.0001	8838.542	15.0004	0.00029
18.5002	9480.270	18.5001	-0.00008
22.0002	10153.815	22.0001	-0.00012
25.5001	10859.803	25.5001	-0.00001
29.0002	11598.871	29.0001	-0.00005
32.5001	12371.609	32.5002	0.00007

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

