

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: 4491
CALIBRATION DATE: 21-Apr-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.42636200e-003
h = 6.46171566e-004
i = 2.24560648e-005
j = 1.91714279e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121116e-003
b = 6.00768336e-004
c = 1.55934275e-005
d = 1.91860778e-006
f0 = 3313.345

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3313.345	-1.4999	-0.00001
1.0002	3504.099	1.0003	0.00005
4.5002	3784.283	4.5001	-0.00007
8.0001	4080.218	8.0001	0.00001
11.5001	4392.322	11.5001	0.00000
15.0001	4721.012	15.0001	0.00003
18.5001	5066.683	18.5001	0.00001
22.0002	5429.739	22.0002	-0.00002
25.5002	5810.541	25.5002	-0.00001
29.0002	6209.458	29.0002	0.00000
32.5002	6626.837	32.5002	0.00000

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

