

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: 0521
CALIBRATION DATE: 01-Apr-11

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.24374522e-003$
 $h = 6.10885667e-004$
 $i = 7.76477288e-006$
 $j = -9.79392030e-007$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763798e-003$
 $b = 5.92776951e-004$
 $c = 1.06986138e-005$
 $d = -9.78712763e-007$
 $f_0 = 2690.725$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
0.9999	2690.725	0.9998	-0.00013
4.5000	2908.153	4.5002	0.00023
15.0000	3634.713	14.9999	-0.00010
18.4999	3902.836	18.4997	-0.00018
24.0000	4351.713	24.0002	0.00016
29.0000	4789.848	29.0002	0.00017
32.5000	5114.095	32.4999	-0.00014

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

