

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: 0653
CALIBRATION DATE: 01-Apr-11

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.18809930e-003$
 $h = 5.95086967e-004$
 $i = 4.67377864e-006$
 $j = -1.52014579e-006$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763895e-003$
 $b = 5.82823378e-004$
 $c = 8.87906659e-006$
 $d = -1.51969241e-006$
 $f_0 = 2501.193$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
0.9999	2501.193	0.9997	-0.00020
4.5000	2706.868	4.5004	0.00038
15.0000	3395.363	14.9996	-0.00039
18.4999	3649.932	18.4999	-0.00002
24.0000	4076.556	24.0004	0.00035
29.0000	4493.485	28.9999	-0.00005
32.5000	4802.421	32.4999	-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

