

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: 0658
CALIBRATION DATE: 17-Dec-10

SBE16 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

$g = 4.19162024e-003$
 $h = 5.95189447e-004$
 $i = 6.88928186e-006$
 $j = -1.06711403e-006$
 $f_0 = 1000.0$

IPTS-68 COEFFICIENTS

$a = 3.64763669e-003$
 $b = 5.79837489e-004$
 $c = 9.87587691e-006$
 $d = -1.06652529e-006$
 $f_0 = 2522.605$

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2522.605	0.9999	-0.00013
4.4999	2731.158	4.5001	0.00024
15.0000	3430.363	14.9998	-0.00020
18.4999	3689.195	18.4999	-0.00002
24.0000	4123.300	24.0001	0.00007
29.0000	4547.968	29.0002	0.00018
32.4999	4862.774	32.4998	-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

