

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: 5146
CALIBRATION DATE: 02-Sep-11

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.36711041e-003
h = 6.40537127e-004
i = 2.23249521e-005
j = 2.10679847e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121128e-003
b = 5.98932256e-004
c = 1.53413618e-005
d = 2.10826642e-006
f0 = 3031.993

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.4999	3031.993	-1.4999	-0.00002
1.0000	3207.084	1.0001	0.00007
4.5001	3464.327	4.5000	-0.00006
8.0000	3736.067	8.0000	-0.00001
11.5001	4022.706	11.5001	-0.00001
15.0000	4324.601	15.0001	0.00006
18.5001	4642.137	18.5001	0.00001
22.0001	4975.652	22.0001	-0.00003
25.5001	5325.501	25.5001	-0.00002
29.0001	5692.010	29.0001	0.00001
32.5001	6075.488	32.5001	0.00001

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

