

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 1692
CALIBRATION DATE: 24-Apr-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.80194548e-003
h = 6.71992778e-004
i = 2.56189373e-005
j = 2.02476465e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121225e-003
b = 6.00460478e-004
c = 1.48910841e-005
d = 2.02618981e-006
f0 = 5874.225

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5874.225	-1.5000	0.00001
1.0000	6212.543	1.0000	-0.00001
4.5000	6709.456	4.5000	-0.00004
7.9999	7234.201	8.0000	0.00006
11.5000	7787.519	11.5000	0.00003
15.0000	8370.100	15.0000	0.00001
18.5000	8982.624	18.4999	-0.00014
22.0000	9625.837	22.0000	0.00002
25.5000	10300.305	25.5001	0.00007
29.0000	11006.643	29.0000	0.00002
32.5000	11745.457	32.5000	-0.00004

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

