

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: 5534
CALIBRATION DATE: 20-Sep-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35090636e-003
h = 6.31362408e-004
i = 2.00833456e-005
j = 1.47645099e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121363e-003
b = 5.92809004e-004
c = 1.52561322e-005
d = 1.47781320e-006
f0 = 2991.694

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2991.694	-1.5001	-0.00010
0.9999	3166.308	1.0000	0.00013
4.5000	3423.037	4.5000	0.00004
8.0000	3694.478	7.9999	-0.00005
11.5000	3981.070	11.5000	-0.00003
14.9999	4283.216	14.9999	0.00004
18.5000	4601.325	18.4999	-0.00009
22.0000	4935.801	21.9999	-0.00005
25.5000	5287.037	25.5001	0.00012
29.0000	5655.372	29.0001	0.00008
32.5000	6041.176	32.4999	-0.00009

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

