

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: 1384
CALIBRATION DATE: 12-Jul-12

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.87028668e-003
h = 6.81011813e-004
i = 2.72812625e-005
j = 2.17884270e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121205e-003
b = 6.02146868e-004
c = 1.51206807e-005
d = 2.18031048e-006
f0 = 6453.244

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6453.244	-1.5000	0.00002
1.0000	6823.841	1.0000	-0.00002
4.5000	7368.089	4.5000	-0.00001
8.0000	7942.706	8.0000	-0.00002
11.5000	8548.489	11.5000	-0.00002
14.9999	9186.203	15.0000	0.00008
18.5000	9856.590	18.5000	-0.00001
22.0000	10560.365	22.0000	-0.00001
25.5000	11298.211	25.5000	-0.00001
29.0000	12070.783	29.0000	-0.00004
32.5000	12878.736	32.5000	0.00003

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

