

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: 4551
CALIBRATION DATE: 26-Nov-13

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.33758759e-003
h = 6.35475114e-004
i = 2.12716003e-005
j = 1.92019944e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121309e-003
b = 5.96773892e-004
c = 1.51499051e-005
d = 1.92162369e-006
f0 = 2907.681

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	2907.681	-1.5001	0.00004
1.0000	3076.217	0.9999	-0.00006
4.5000	3323.892	4.5000	-0.00001
8.0000	3585.595	8.0000	0.00002
11.5000	3861.710	11.5000	0.00002
15.0000	4152.606	15.0000	-0.00004
18.5000	4458.671	18.5001	0.00011
22.0000	4780.207	21.9999	-0.00008
25.4999	5117.600	25.4999	-0.00001
28.9999	5471.165	28.9999	-0.00001
32.4999	5841.219	32.4999	0.00002

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

