

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2327
CALIBRATION DATE: 29-Jan-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.35174382e-003
h = 6.42544404e-004
i = 2.30930987e-005
j = 2.21673671e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121205e-003
b = 6.00526995e-004
c = 1.59301461e-005
d = 2.21826778e-006
f0 = 2948.272

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	2948.272	-1.5000	0.00002
1.0000	3118.070	1.0000	-0.00001
4.5000	3367.525	4.5000	-0.00003
8.0000	3631.023	8.0000	-0.00003
11.5000	3908.946	11.5000	0.00003
15.0000	4201.653	15.0001	0.00006
18.5000	4509.495	18.5000	-0.00000
22.0000	4832.825	22.0000	-0.00003
25.5000	5171.976	25.5000	-0.00002
29.0000	5527.263	29.0000	0.00000
32.5000	5898.988	32.5000	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

