

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1369
CALIBRATION DATE: 10-Jan-14

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83123644e-003
h = 6.70611475e-004
i = 2.34492602e-005
j = 1.65161259e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121064e-003
b = 6.01947356e-004
c = 1.44814043e-005
d = 1.65296330e-006
f0 = 6143.556

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	6143.556	-1.4999	0.00012
1.0000	6496.448	0.9999	-0.00005
4.5000	7014.651	4.4998	-0.00016
8.0000	7561.736	7.9998	-0.00015
11.5000	8138.478	11.5000	0.00004
15.0000	8745.590	15.0002	0.00023
18.5000	9383.803	18.5005	0.00047
22.0000	10053.620	21.9998	-0.00021
25.5000	10755.943	25.4994	-0.00058
29.0000	11491.606	29.0002	0.00018
32.5000	12260.820	32.5001	0.00012

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

